

# AV RECEIVER

# RX-V795/R-V1105

# RX-V795RDS

## SERVICE MANUAL

### IMPORTANT NOTICE

This manual has been provided for the use of authorized YAMAHA Retailers and their service personnel. It has been assumed that basic service procedures inherent to the industry, and more specifically YAMAHA Products, are already known and understood by the users, and have therefore not been restated.

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

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

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

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

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

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100655



**YAMAHA**

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3.0K-95.257 Printed in Japan '98.12

## ■ TO SERVICE PERSONNEL

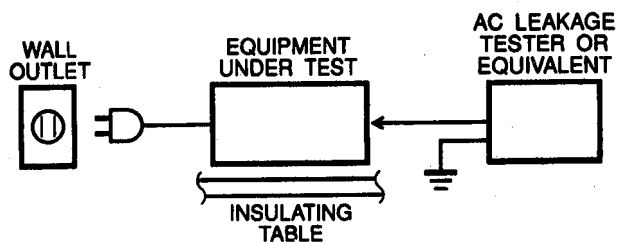
### 1. Critical Components information.

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

### 2. Leakage Current Measurement (For 120V Model only).

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

- Meter impedance should be equivalent to 1500 ohm shunted by 0.15  $\mu$ F.
- Leakage current must not exceed 0.5mA.
- Be sure to test for leakage with the AC plug in both polarities.



### "CAUTION"



"F821 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 2.5A, 250V FUSE (G model)"

"F822 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 4.0A, 250V FUSE (A, L, B, G models)"

"F823 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 8.0A, 125V FUSE (U, C, R, T models)"

"F851 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE 4.0A, 250V FUSE (R, T models)"

## WARNING: CHEMICAL CONTENT NOTICE!

The solder used in the production of this product contains LEAD. In addition, other electrical/electronic and/or plastic (Where applicable) components may also contain traces of chemicals found by the California Health and Welfare Agency (and possibly other entities) to cause cancer and/or birth defects or other reproductive harm.

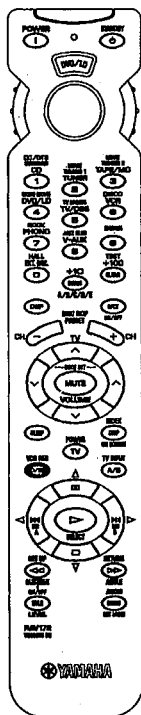
DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

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

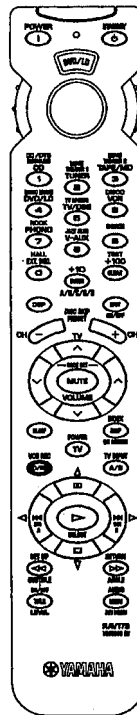
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

## ■ REMOTE CONTROL PANELS

### ▼U, C, R, T and L models

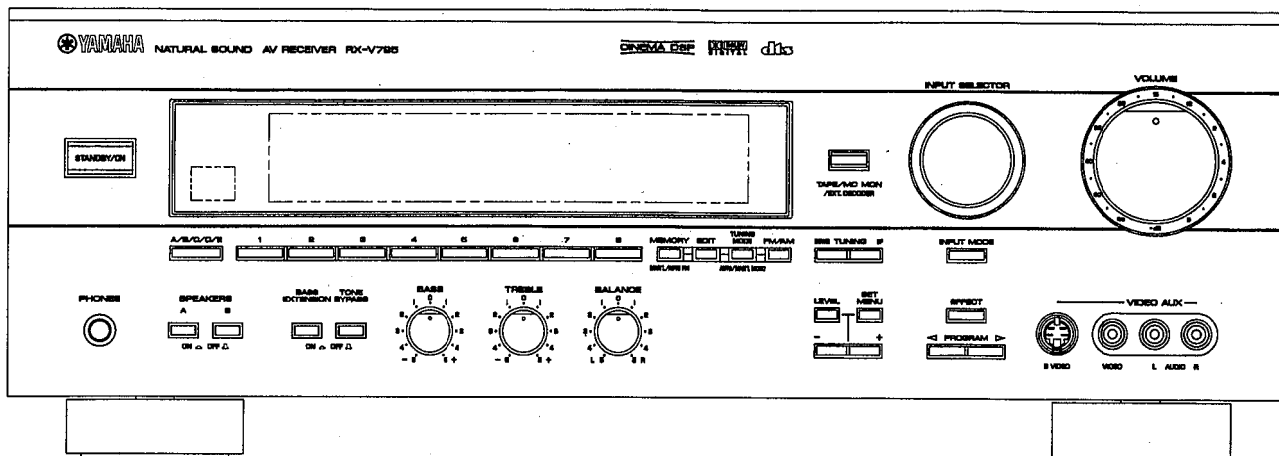


### ▼A, B and G models

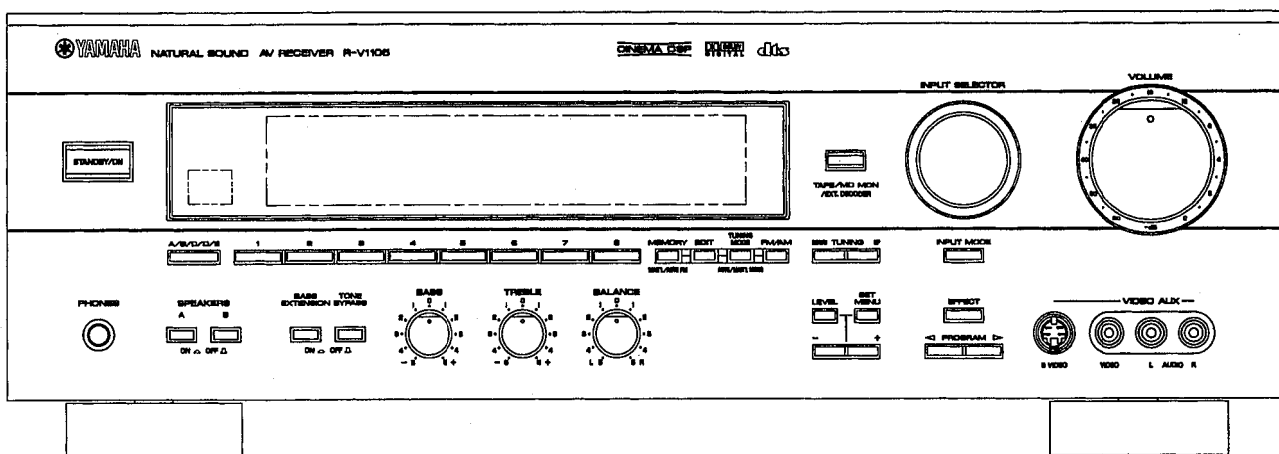


## FRONT PANELS

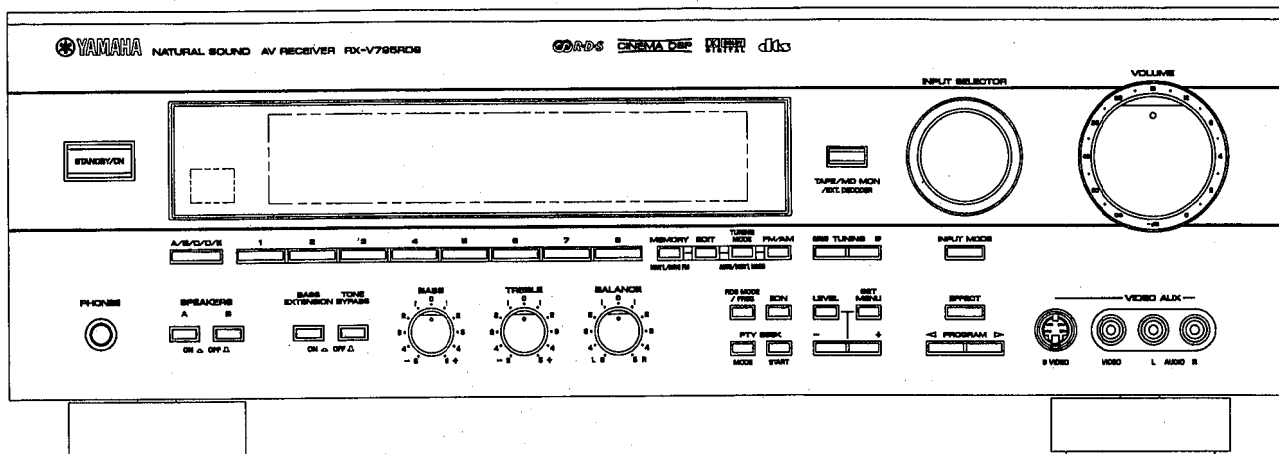
### ▼RX-V795



### ▼R-V1105 U, C, A, T models

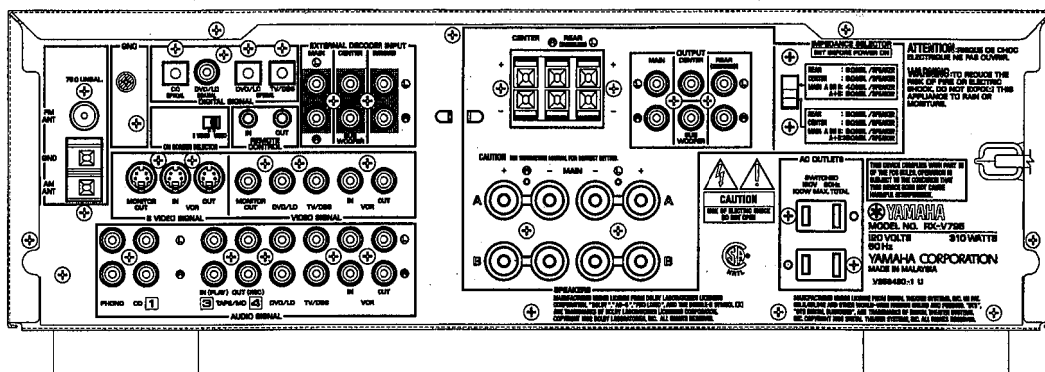


### ▼RX-V795RDS B, G models

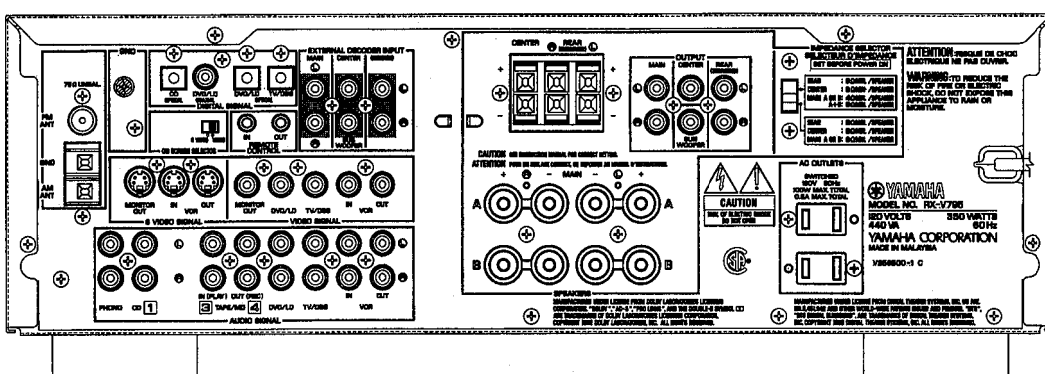


## REAR PANELS

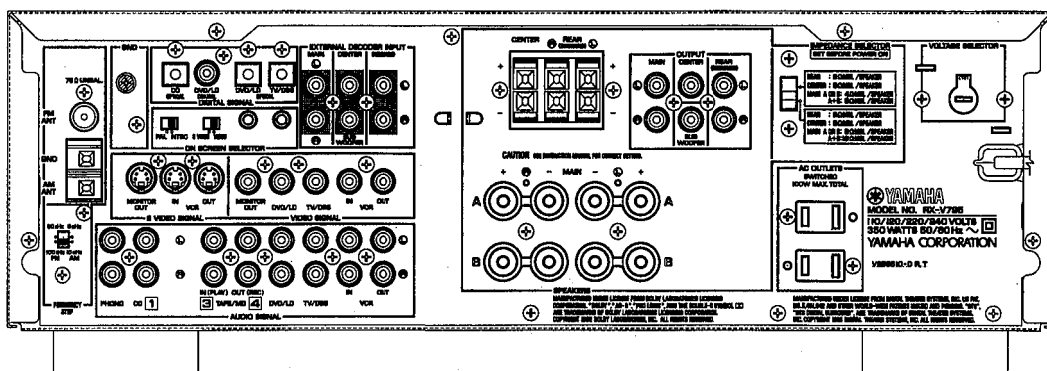
### ▼RX-V795/R-V1105 U model



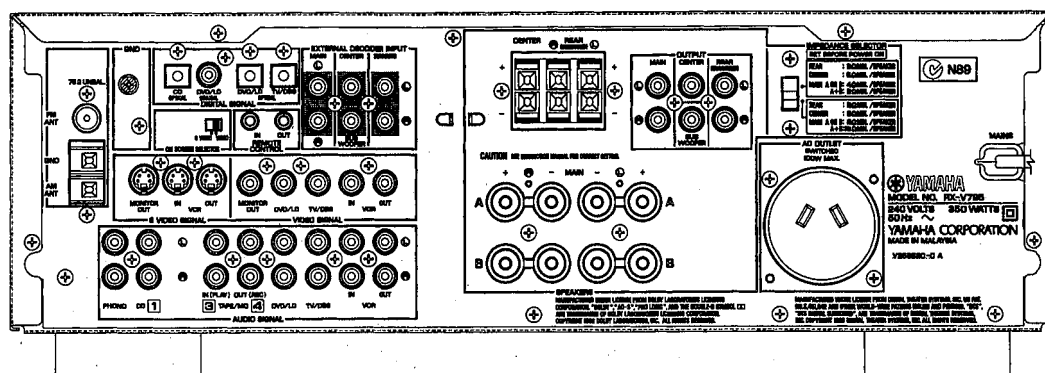
### ▼RX-V795/R-V1105 C model



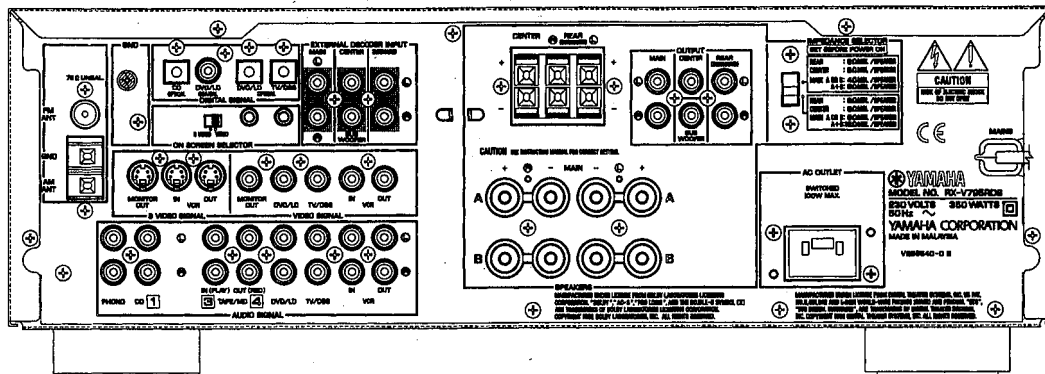
### ▼RX-V795/R-V1105 R,T models



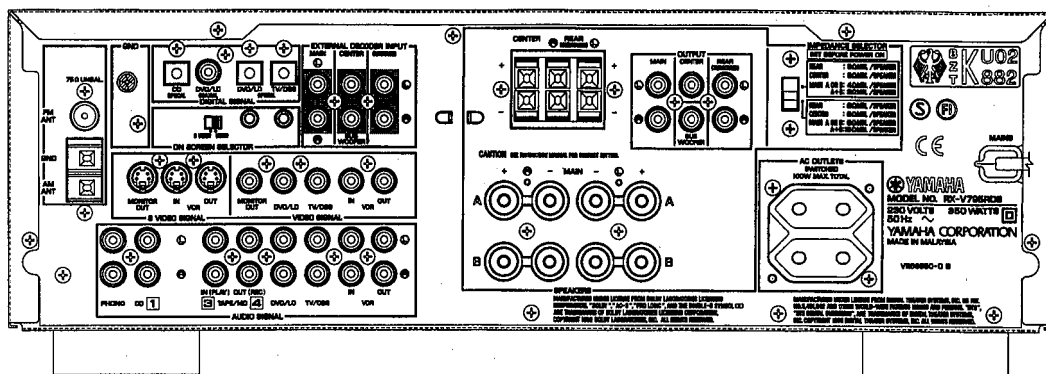
### ▼RX-V795/R-V1105 A model



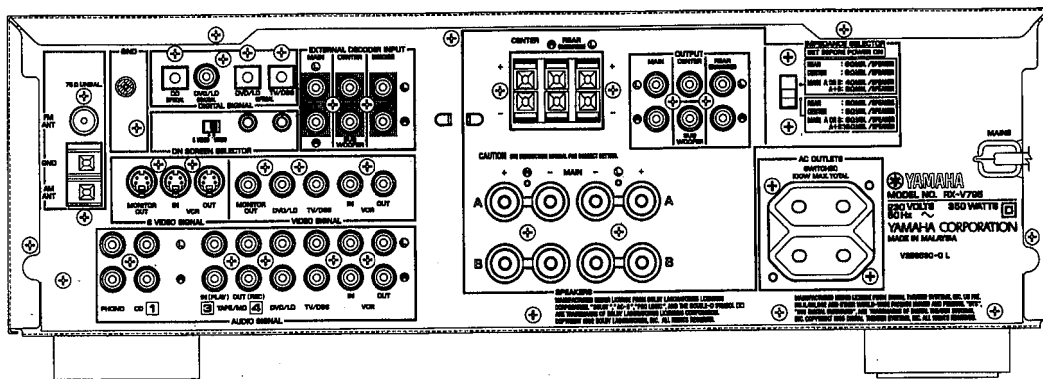
## ▼RX-V795RDS B model



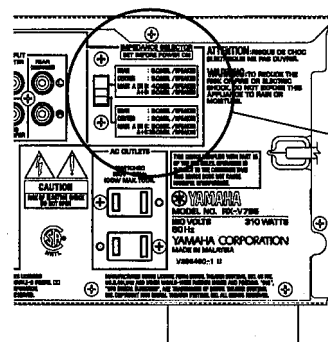
## ▼RX-V795RDS G model



## ▼RX-V795 L model

**WARNING**

Do not change the **IMPEDANCE SELECTOR** switch setting while the power to this unit is on, otherwise this unit may be damaged.



**IMPEDANCE  
SELECTOR**

## SPECIFICATIONS

### AUDIO SECTION

#### Minimum RMS Output Power per Channel

##### RX-V795

|                                      |         |
|--------------------------------------|---------|
| MAIN, 20Hz to 20kHz, 0.04% THD, 8Ω   | 85W+85W |
| CENTER, 20Hz to 20kHz, 0.04% THD, 8Ω | 85W     |
| REAR, 20Hz to 20kHz, 0.04% THD, 8Ω   | 85W+85W |

##### R-V1105

|                             |           |
|-----------------------------|-----------|
| MAIN, 1kHz, 0.07% THD, 8Ω   | 100W+100W |
| CENTER, 1kHz, 0.07% THD, 8Ω | 100W      |
| REAR, 1kHz, 0.07% THD, 8Ω   | 100W+100W |

#### Maximum Power per Channel (R,T models only)

|                                   |           |
|-----------------------------------|-----------|
| MAIN L/R, 1kHz, EIAJ, 10% THD, 8Ω | 125W+125W |
| CENTER, 1kHz, EIAJ, 10% THD, 8Ω   | 125W      |
| REAR L/R, 1kHz, EIAJ, 10% THD, 8Ω | 125W+125W |

#### Dynamic Power per Channel (IHF)

|                    |                  |
|--------------------|------------------|
| MAIN L/R, 8/6/4/2Ω | 115/140/170/200W |
|--------------------|------------------|

#### Dynamic Headroom (U, C, models only)

|              |        |
|--------------|--------|
| MAIN L/R, 8Ω | 1.31dB |
|--------------|--------|

#### DIN Standard Output Power Per Channel

|                              |      |
|------------------------------|------|
| B, G, L Models               |      |
| MAIN L/R, 1kHz, 0.7% THD, 4Ω | 130W |

#### IEC Power (L model only)

|                               |     |
|-------------------------------|-----|
| MAIN L/R, 1kHz, 0.04% THD, 8Ω | 95W |
|-------------------------------|-----|

#### Power Band Width

|                             |               |
|-----------------------------|---------------|
| MAIN L/R, 0.09% THD, 40W/8Ω | 10Hz to 50kHz |
|-----------------------------|---------------|

#### Damping Factor

|                                    |            |
|------------------------------------|------------|
| MAIN L/R, 20Hz to 20kHz, (SP.A) 8Ω | 80 or more |
|------------------------------------|------------|

#### Input Sensitivity/Impedance

|          |            |
|----------|------------|
| PHONO MM | 2.5mV/47kΩ |
| CD, etc  | 150mV/47kΩ |

#### Maximum Input Signal Level

|                                     |               |
|-------------------------------------|---------------|
| PHONO MM, 1kHz, 0.04% THD           | 110mV or more |
| CD, etc, 1kHz, 0.5% THD (Effect on) | 2.2V or more  |

#### Output Level/Impedance

|                              |             |
|------------------------------|-------------|
| REC OUT                      | 150mV/1.0kΩ |
| PRE OUT                      | 2.6V/1.1kΩ  |
| SUB WOOFER (MAIN SP : SMALL) | 4.0V/1.2kΩ  |

#### Headphone Jack Rated Output/Impedance

|                 |            |
|-----------------|------------|
| 1kHz, 150mV, 8Ω | 0.55V/390Ω |
|-----------------|------------|

#### Frequency Response (20Hz to 20kHz)

|               |         |
|---------------|---------|
| CD, etc, MAIN | 0±0.5dB |
|---------------|---------|

#### RIAA Equalization Deviation (20Hz to 20kHz)

|          |         |
|----------|---------|
| PHONO MM | 0±0.5dB |
|----------|---------|

#### Total Harmonic Distortion (20Hz to 20kHz)

|                                 |                |
|---------------------------------|----------------|
| PHONO MM to REC OUT (1V)        | 0.02% or less  |
| CD, etc to MAIN SP OUT (40W/8Ω) | 0.025% or less |

#### Signal-to-Noise Ratio (IHF-A-Network)

|                                             |              |
|---------------------------------------------|--------------|
| PHONO MM, Input Shorted (5mV) REC OUT       |              |
| U, C, R, T models                           | 86dB or more |
| B, G, A, L models                           | 82dB or more |
| CD, etc, Input Shorted, SP OUT (Effect off) | 96dB or more |

#### Residual Noise (IHF-A-Network)

|                  |               |
|------------------|---------------|
| MAIN L/R, SP OUT | 170μV or less |
|------------------|---------------|

#### Channel Separation (Vol. -30dB, Effect off)

|                                          |                           |
|------------------------------------------|---------------------------|
| PHONO MM, Input Shorted, 1kHz/10kHz      |                           |
|                                          | 60dB or more/55dB or more |
| CD, etc, Input 5.1kΩ Shorted, 1kHz/10kHz |                           |
|                                          | 60dB or more/45dB or more |

#### Tone Control Characteristics

|                    |               |
|--------------------|---------------|
| BASS : Boost/cut   | ±10dB (50Hz)  |
| Turnover Frequency | 350Hz         |
| TREBLE : Boost/cut | ±10dB (20kHz) |
| Turnover Frequency | 3.5kHz        |

### Filter Characteristics

|                              |                      |
|------------------------------|----------------------|
| MAIN, REAR SP SMALL : H.P.F. | fc = 90Hz, 12dB/oct. |
| SUB WOOFER : L.P.F.          | fc = 90Hz, 18dB/oct. |

### Bass Extension (MAIN L/R)

|  |             |
|--|-------------|
|  | +6dB (50Hz) |
|--|-------------|

### Gain Tracking Error (0dB to -60dB)

|  |             |
|--|-------------|
|  | 3dB or less |
|--|-------------|

### Tuner Output Level/Impedance

|                              |       |
|------------------------------|-------|
| FM (100% mod.)               |       |
| 1kHz U, C, R, T models       | 550mV |
| 40kHz Dev. A, B, G, L models | 550mV |
| AM (30% mod. 1kHz)           | 150mV |

### FM SECTION

#### Tuning Range

|                   |                                  |
|-------------------|----------------------------------|
| U, C models       | 87.5 to 107.9MHz                 |
| A, B, G, L models | 87.50 to 108.00MHz               |
| R, T models       | 87.5 to 108.0/87.50 to 108.00MHz |

#### 50dB Quieting Sensitivity (IHF, 75 Ω)

|                   |                 |
|-------------------|-----------------|
| U, C, R, T models |                 |
| Mono              | 1.6μV (15.3dBf) |
| Stereo            | 23μV (38.5dBf)  |

#### Usable Sensitivity (75 Ω)

|                        |       |
|------------------------|-------|
| A, B, G, L models      |       |
| DIN, MONO (S/N 26dB)   | 0.9μV |
| DIN, STEREO (S/N 46dB) | 28μV  |

#### Alternate Channel Selectivity

|                   |      |
|-------------------|------|
| U, C, R, T models | 75dB |
|-------------------|------|

#### Selectivity (two signals, 40kHz Dev.)

|                   |      |
|-------------------|------|
| A, B, G, L models | 55dB |
|-------------------|------|

#### Signal-to-Noise Ratio

|                                        |         |
|----------------------------------------|---------|
| Mono/Stereo (IHF)                      |         |
| U, C, R, T models                      | 81/75dB |
| Mono/Stereo (DIN-weighted, 40kHz Dev.) |         |
| A, B, G, L models                      | 75/69dB |

#### Harmonic Distortion

|                    |          |
|--------------------|----------|
| Mono/Stereo (1kHz) | 0.1/0.2% |
|--------------------|----------|

#### Stereo Separation

|      |      |
|------|------|
| 1kHz | 48dB |
|------|------|

#### Frequency Response

|               |         |
|---------------|---------|
| 20Hz to 15kHz | 0±1.0dB |
|---------------|---------|

### AM SECTION

#### Tuning Range

|                   |                              |
|-------------------|------------------------------|
| U, C models       | 530 to 1,710kHz              |
| A, B, G, L models | 531 to 1,611kHz              |
| R, T models       | 530 to 1,710/531 to 1,611kHz |

#### Usable Sensitivity

|  |         |
|--|---------|
|  | 300μV/m |
|--|---------|

#### Signal-to-Noise Ratio

|  |      |
|--|------|
|  | 52dB |
|--|------|

## VIDEO SECTION

### Video Signal Type

|                   |          |
|-------------------|----------|
| U, C models       | NTSC     |
| A, B, G, L models | PAL      |
| R, T models       | NTSC/PAL |

Video Signal Level ..... 1Vp-p/75Ω

### S-Video Signal Level

|   |               |
|---|---------------|
| Y | 1Vp-p/75Ω     |
| C | 0.286Vp-p/75Ω |

Maximum Input Level ..... 1.5Vp-p or more

Signal-to-Noise Ratio ..... 50dB or more

Monitor Output Frequency Response ..... 5Hz~10MHz, -3dB

## GENERAL

### Power Supply

|                |                              |
|----------------|------------------------------|
| U, C models    | AC 120V, 60Hz                |
| A model        | AC 240V, 50Hz                |
| B, G, L models | AC 230V, 50Hz                |
| R, T models    | AC 110/120/220/240V, 50/60Hz |

### Power Consumption

|                         |            |
|-------------------------|------------|
| U model                 | 310W       |
| C model                 | 350W/440VA |
| A, B, G, L, R, T models | 350W       |

Maximum Power Consumption (R model only) ..... 690W

### AC Outlets

|                                       |                  |
|---------------------------------------|------------------|
| U, C, G, L, R, T models, Switched x 2 | 100W max (Total) |
| B, A model, Switched x 1              | 100W max         |

Dimensions (W x H x D) ..... 435 x 151 x 391mm  
(17-1/8" x 5-15/16" x 15-3/8")

Weight ..... 13.0kg (28 lbs 11oz)

### Accessories

|                            |     |
|----------------------------|-----|
| AM loop antenna            | x 1 |
| Indoor FM antenna          | x 1 |
| Remote Control Transmitter | x 1 |
| Battery (size "AA", "R06") | x 2 |

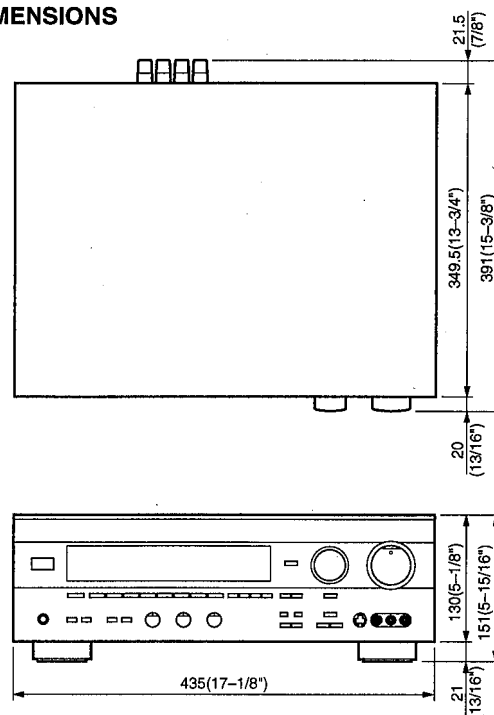
\* Specifications subject to change without notice.

|   |                  |
|---|------------------|
| U | USA model        |
| C | Canadian model   |
| A | Australian model |
| B | British model    |
| G | European model   |
| L | Singapore model  |
| R | General model    |
| T | China model      |

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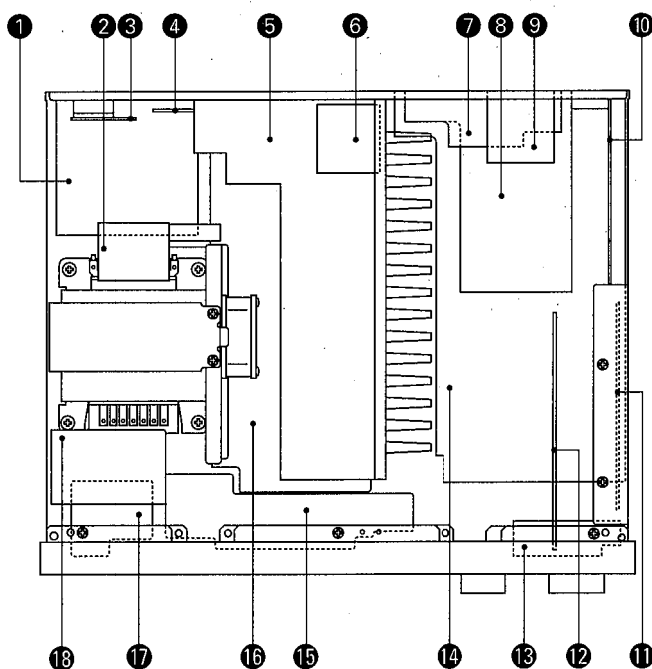
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## DIMENSIONS



Units : mm (inch)

## ■ INTERNAL VIEW



- ① P. C. B. INPUT (3)
- ② P. C. B. MAIN (6)
- ③ P. C. B. INPUT (4) (R, T models)
- ④ P. C. B. MAIN (5)
- ⑤ P. C. B. MAIN (2)
- ⑥ P. C. B. MAIN (7)
- ⑦ P. C. B. OPERATION (4)
- ⑧ P. C. B. INPUT (2)
- ⑨ P. C. B. OPERATION (5)
- ⑩ P. C. B. TUNER
- ⑪ P. C. B. DSP
- ⑫ P. C. B. OPERATION (2)
- ⑬ P. C. B. OPERATION (6)
- ⑭ P. C. B. INPUT (1)
- ⑮ P. C. B. OPERATION (3)
- ⑯ P. C. B. MAIN (1)
- ⑰ P. C. B. MAIN (4)
- ⑱ P. C. B. MAIN (3)

## ■ DISASSEMBLY PROCEDURES (Remove parts in disassembly order as numbered.)

### 1. Removal of Top Cover

- a. Remove 4 screws (①), and 4 screws (②) in Fig. 1.

### 2. Removal of Bottom Cover

- a. Remove 6 screws (③) in Fig. 1.

### 3. Removal of Front Panel

- a. Remove 5 knobs.
- b. Remove 6 screws (④) in Fig. 1.

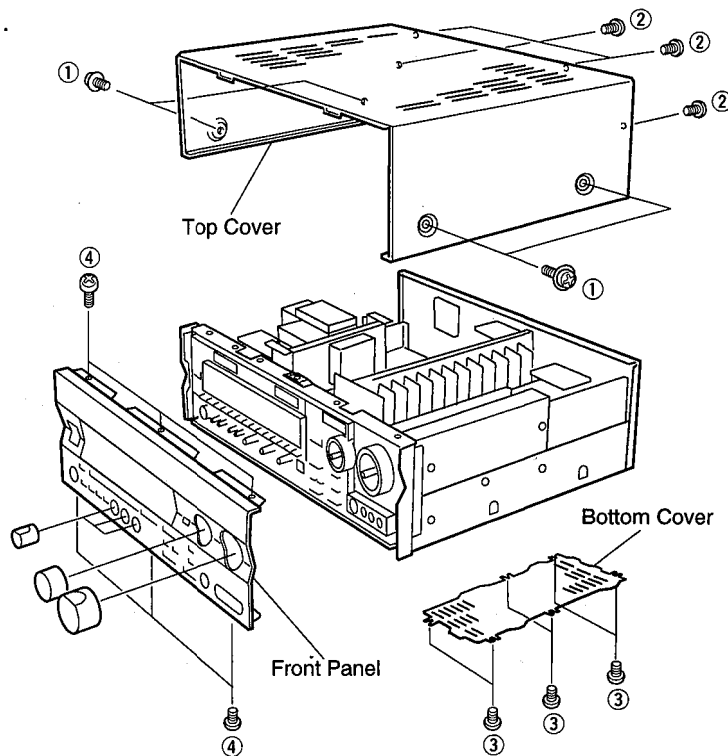


Fig. 1

## ■ SELF DIAGNOSIS FUNCTION

### 1. PURPOSE AND OPERATION

The RX-V795/R-V1105/RX-V795RDS has a Self Diagnosis Function to locate a faulty part, if any, by inspecting and taking measurements.

There are 11 main items in the diagnostic menu and some of them have sub-menu items as listed below.

| No. | MAIN MENU                                | SUB MENU                                                                                                                                                                                                                                                                        | REMOTE CODE                                                                                                                                            |
|-----|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1   | ANALOG THROUGH                           | 1. MAIN BYPASS<br>2. DSP 0dB                                                                                                                                                                                                                                                    | 7A-88 : DSP/1<br>----                                                                                                                                  |
| 2   | DSP THROUGH                              | 1. YSS918-SRAM<br>2. YSS918<br>3. DSP FULL BIT                                                                                                                                                                                                                                  | 7A-89 : DSP/2<br>----<br>----                                                                                                                          |
| 3   | AC-3/DTS THROUGH                         | 1. STATUS (BINARY FORM)                                                                                                                                                                                                                                                         | ----                                                                                                                                                   |
| 4   | PRO LOGIC                                | 1. CENTER LARGE<br>2. EFFECT OFF                                                                                                                                                                                                                                                | 7A-8A : DSP/3<br>----                                                                                                                                  |
| 5   | SPEAKERS SET                             | 1. MAIN : SMALL 0dB<br>2. MAIN : LARGE 0dB<br>3. MAIN : LARGE -10dB<br>4. LFE/BASS : MAIN<br>CENTER : NONE<br>5. LFE/BASS : MAIN<br>6. LFE/BASS : SWFR<br>7. CENTER : NONE<br>8. CENTER : SMALL<br>REAR : SMALL<br>9. FRONT MIX                                                 | 7A-8B : DSP/4<br>7A-8C : DSP/5<br>7A-8D : DSP/6<br>7A-8E : DSP/7<br><br>7A-8F : DSP/8<br>7A-90 : DSP/9<br>7A-91 : DSP/11<br>----<br><br>7A-85 : DSP/15 |
| 6   | EFFECT OFF<br>/DISPLAY CHECK             | 1. EFFECT OFF<br>2. VFD DISP OFF<br>3. VFD DISP ALL<br>4. VFD DIMMER<br>5. CHECKED PATTERN                                                                                                                                                                                      | 7A-56 : DSP or .../16<br>----<br>----<br>----<br>----                                                                                                  |
| 7   | MANUAL TEST                              | 1. ALL<br>2. MAIN L<br>3. CENTER<br>4. MAIN R<br>5. REAR R<br>6. REAR L<br>7. LFE                                                                                                                                                                                               | ----<br>----<br>----<br>----<br>----<br>----<br>----                                                                                                   |
| 8   | FACTORY PRESET                           | 1. INHIBIT(Inhibit Memory Init)<br>2. RESERVED (Init. Memory)                                                                                                                                                                                                                   | ----<br>----                                                                                                                                           |
| 9   | AD DATA CHECK                            | 1. ----<br>2. KEY0, KEY1<br>3. KEY2, REC OUT<br>4. TUNING SIGNAL<br>HEAT SINK TEMP.<br>5. DC PROTECTION<br>PS PROTECTION                                                                                                                                                        | ----<br>----<br>----<br>----<br>----<br>----                                                                                                           |
| 10  | STATUS                                   | 1./2. DSP CPU STATUS (1)/(2)<br>3./4. CHANNEL STATUS (1)/(2)<br>5./6. SUB CPU VERSION (1)/(2)<br>7./8. SUB CPU CHECK SUM (1)/(2)<br>9./10. BSI0 (1)/(2)<br>11./12. BSI1 (1)/(2)<br>13./14. BSI2 (1)/(2)<br>15./16. BSI3 (1)/(2)<br>17./18. BSI4 (1)/(2)<br>19./20. BSI5 (1)/(2) | ----<br>----<br>----<br>----<br>----<br>----<br>----<br>----<br>----<br>----                                                                           |
| 11  | VERSION CHECK<br>/CPU CHECK SUM<br>/EXIT | 1. MAIN MC CHECK SUM<br>2. DSP MC CHECK SUM<br>3. MAIN M.C. VERSION<br>4. SUB M.C. VERSION<br>5. PORT INFORMATION<br>6. EXIT                                                                                                                                                    | ----<br>----<br>----<br>----<br>----<br>----                                                                                                           |

## 2. BEGINNING AND CANCELLATION

### (1) STARTING UP THE FUNCTION AND THE DISPLAY

There are two ways to start up. One is by using the front panel keys, another is by using the remote control transmitter. After starting up, the menu No. 1 is worked.

#### A. How to start test mode

There is a method of starting the self-diagnosis function.

Using the keys on the main unit:

Hold down the "INPUT MODE" and "FM/AM" keys simultaneously, and press the "STANDBY/ON" key; submenu No. 1 of diagnosis main menu No. 1 will start.

#### B. Settings for start-up of diagnostic program

The settings used when starting the diagnostic program are as follows.

##### 1. EFFECT LEVEL :

| CHANNEL    | CENTER | R SUR. | L SUR. | SWFR |
|------------|--------|--------|--------|------|
| LEVEL (dB) | 0      | 0      | 0      | 0    |

##### 2. MUTING : OFF

##### 3. INPUT (VIDEO) : DVD/LD (DVD/LD)

##### 4. CENTER SPEAKER : LARGE

##### 5. REAR SPEAKER : LARGE

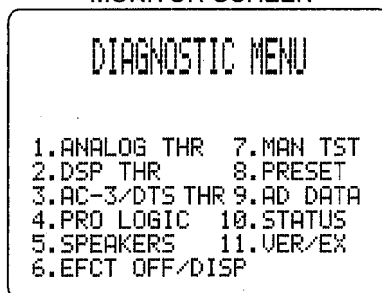
##### 6. MAIN SPEAKER : LARGE

##### 7. LFE/BASS OUT : SWFR

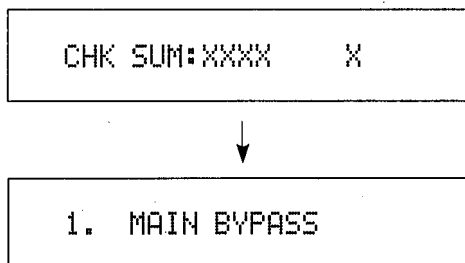
#### C. Start-up display

The diagnostic menu list appears on the monitor screen and the information of the protection function appears on the front panel display of the main unit.

##### MONITOR SCREEN



On the FL display of the main unit, an opening message (or the history of the protection) appears for 2 seconds before the diagnostic menu No.1 MAIN BYPASS.



### ● FL display at start-up of diagnostic program

When the diagnostic program has started, the history (\*2) of the protection function (\*1) is displayed. If the protection function has been activated in the past, the type and voltage value are displayed. After a few seconds the diagnosis function menu will appear.

(\*1) If some faulty condition is detected in the excess current, the power source or the DC, the power will be turned off automatically.

(\*2) The protection records will be cleared when "PRESET RSRVD" is selected in diagnosis menu No. 8 and FACTORY PRESET is engaged.

### ● History of protection function

Each case of the history of the protection function is displayed as shown below.

CHK SUM:XXXX X

Main microprocessor check sum (4-digit, hexadecimal) and version (one letter) display

\* Used when checking on-board writing to main microprocessor.

I PROTECTION

Appears when the current protection function is operating.

When power is turned on in an abnormal status, the power relay will come on, protection will operate immediately, and power will turn off.

PS PRT : XX%

Appears when the power protection function is operating.

For the % value, the voltage at that point is shown by 5V/100%. When power is turned on in an abnormal status, power will turn off after half a second.

DC PRT : XX%

Appears when the power amp DC protection function is operating.

For the % value, the voltage at that point is shown by 5V/100%. When power is turned on in an abnormal status, power will turn off after two seconds.

TMP PRT : XX%

Appears when the heat sink thermal protection function is operating.

For the % value, the voltage at that point is shown by 5V/100%. When power is turned on in an abnormal status, power will turn off after one second.

## (2) EXITING METHOD

The diagnosis function can be exited by any of the following procedures. Take care with the setting of backup memory initialization menu (diagnosis No. 8) when exited the diagnosis function:

1. Select diagnosis menu No. 11/submenu No. 6 "EXIT".
2. Press the "STANDBY/ON" key on the main unit or "STANDBY" key on the remote control to turn power off.

### 3. OPERATION AND DISPLAY WHEN STARTING DIAGNOSIS FUNCTION

#### (1) Selection of diagnostic menu

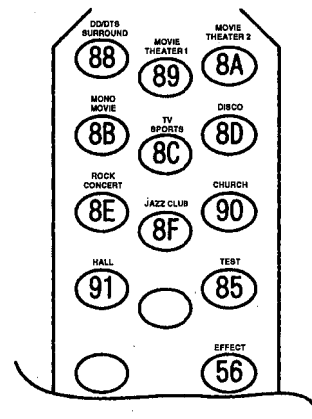
The diagnostic menu and the sub-menu can be selected by using the front panel keys of the main unit or the remote control unit.

##### ● Selection by using the front panel keys

The main menu can be changed cyclically by using the "TUNING UP/DOWN" keys; and the submenu, by using the "PROGRAM +/-" keys. The "+" or "UP" key will increase the main or submenu number.

##### ● Selection by using the remote control unit

The remote control codes in the menu list (on page 8) correspond to the DSP program, test and effect keys. See the figure on the right.



#### (2) Display during Menu Operation

During diagnosis function, the diagnostic menu will appear on the superimposed screen, except for main menu No. 6. As a rule, the main menu No. and submenu No. will appear in the FL display.

#### (3) Other functions available while diagnosis function is active

Listed below are the other functions available while the diagnosis function is active.

- Selecting input source (Tape monitor/Ext. decoder)
- Adjusting effect level (Center, Rear, Sub-woofer)
- Adjusting master volume
- Muting on/ off
- Tuning power off

#### (4) Diagnosis default status

When not otherwise specified, default settings and values in each menu are as follows:

All "SPEAKERS" : LARGE  
 ALL electronic VRs : 0dB  
 D-RANGE : MAX  
 LFE LEVEL : 0dB  
 CENTER DELAY : 0ms

## 4. CONTENTS OF DIAGNOSIS FUNCTION

This section describes the contents of the self diagnosis function in detail.

### (1) ANALOG THROUGH

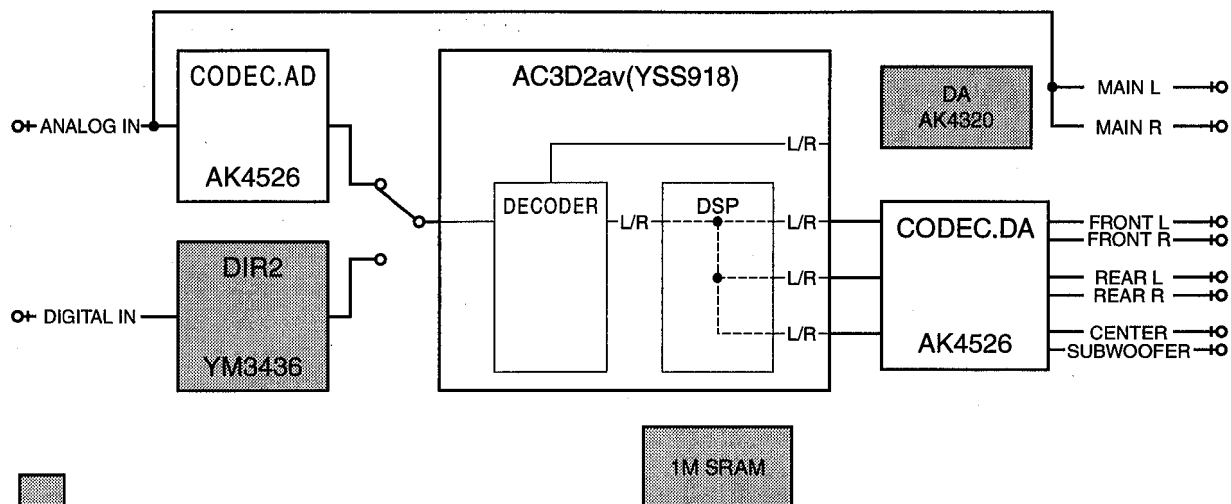
The input is fixed to analog (A/D). There are two submenus.

#### 1. MAIN BYPASS

The MAIN L/R signals bypass the analog circuits to be output.

For C/LFE, FL/FR and RL/RR, the MAIN L/R signals via the DSP are output without being processed (through).

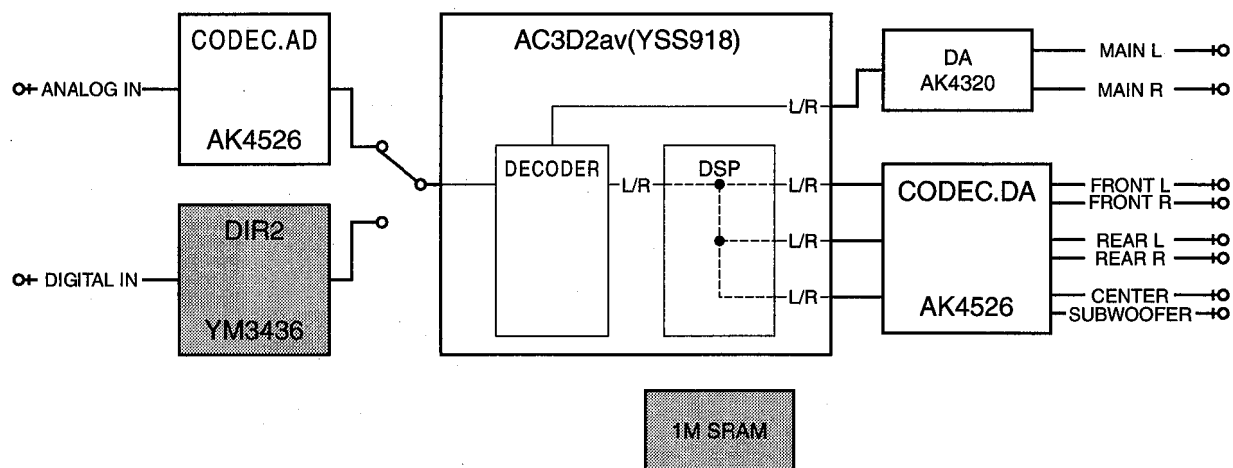
(Remote control code 7A-88 : DSP/1)



This shows that the device is not operating.

#### 2. DSP 0dB

MAIN L/R, C/LFE, FL/FR and RL/RR pass through the DSP without being processed.

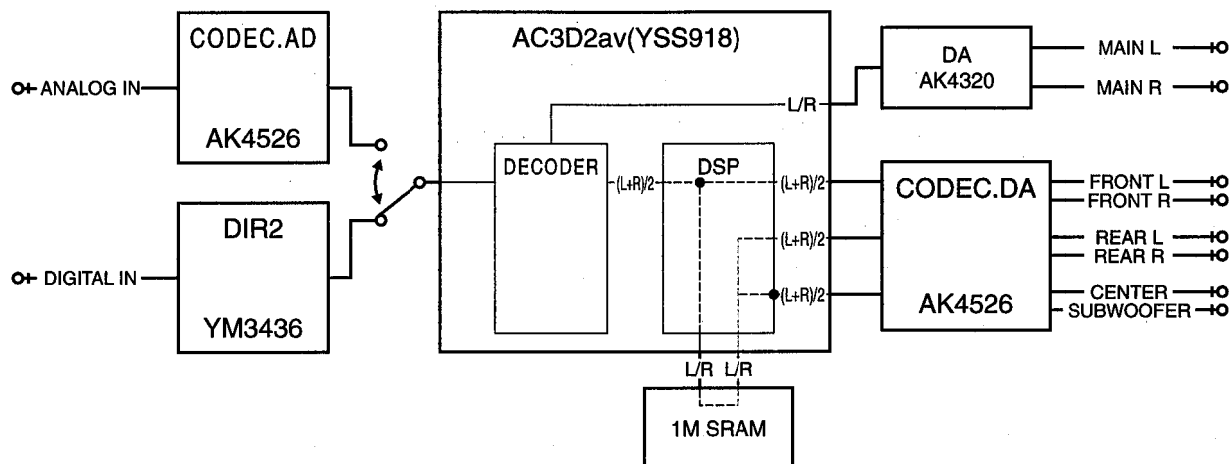


**(2) DSP THROUGH**

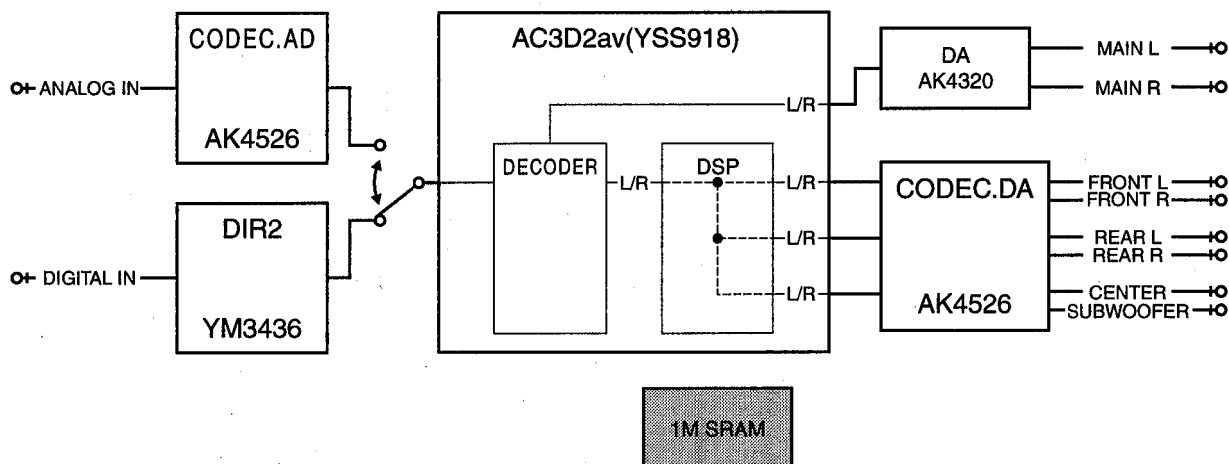
The input is automatically discriminated by signal detection and switched with priorities AC3>DTS>PCM AUDIO>analog. There are the following three submenus.

**1. YSS918-SRAM**

MAIN L/R are input to the DSP via AC3D2av, pass through SRAM, and are then output to all channels without being processed. (Remote control code 7A-89 : DSP/2)

**2. YSS918**

MAIN L/R are input to the DSP via AC3D2av, and then output to all channels without being processed.

**3. DSP FULL BIT**

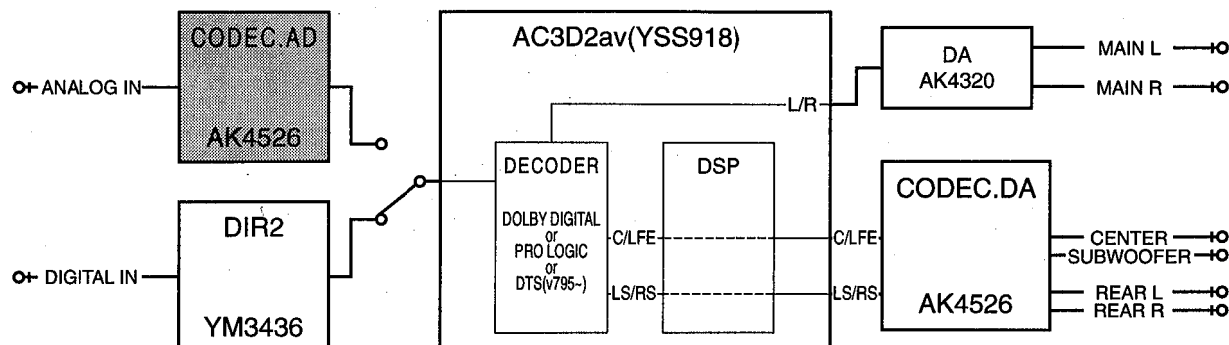
MAIN L/R are input to the DSP via AC3D2av, and then output to all channels without being processed. The head margin is abolished, and DSP outputs digital full-bit signals. Same as the above menu, except that the digital data is output to DA with full bits.

**(3) AC3/DTS THROUGH**

The input is digital signal only. Dolby Digital (AC-3) or DTS decoding operation is executed, according to the input source.

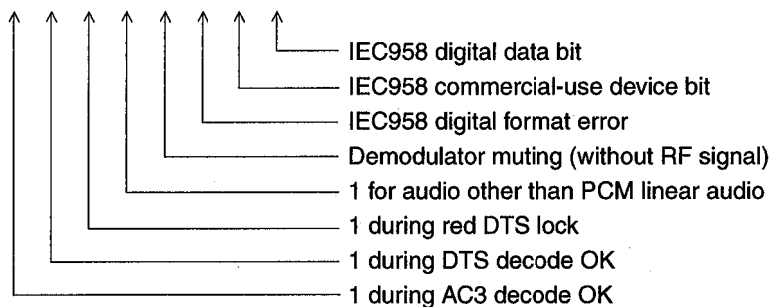
**1. ST:10001001**

AC3 decoded signals are output to each channel via AC3D2av.



Ac3 Status Info. : Bit 7 6 5 4 3 2 1 0

1 0 0 0 1 0 0 1

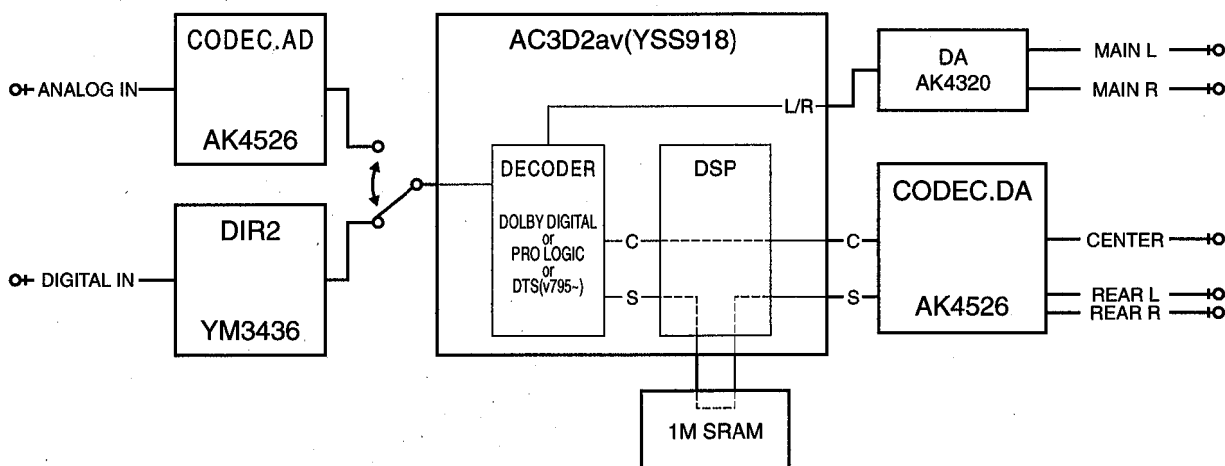
**(4) PRO LOGIC**

The input is automatically discriminated by PCM>analog. DTS is prohibited.

The submenu is switched between PRO LOGIC (AUTO BALANCE OFF) and EFFECT OFF.

**1. PRO CNTR:LRG**

The input is automatically detected whether it is RF, PCM or analog. With analog, PCM audio or Dolby Digital (AC-3) 2/0 input, the L, R, C and S signals are prologic decoded and output. With Dolby Digital (AC-3) other than 2/0, PRO LOGIC does not operate, and Dolby Digital (AC-3) playback is executed. (Remote control code 7A-8A : DSP/3)

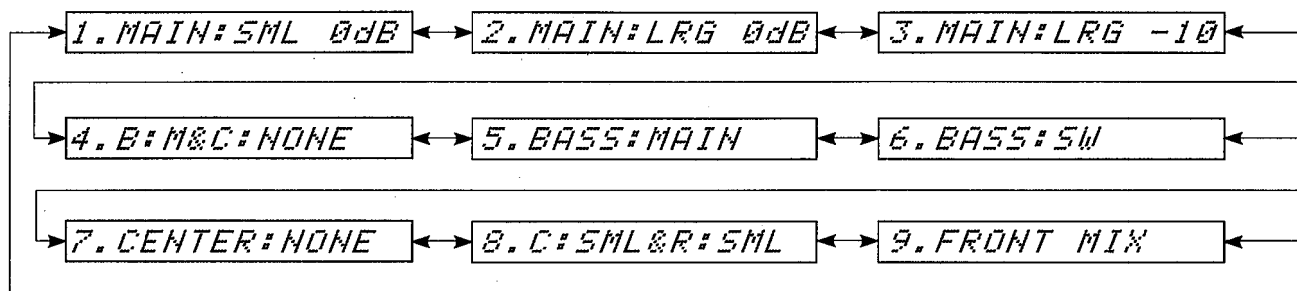
**2. PRO EFFECT:OFF**

MAIN L/R are bypassed and output.

**(5) SPEAKERS SET**

The input is automatically discriminated by AC3>DTS>PCM>analog. The L/R signals are output to the channels specified by the submenu without being processed (through).

There are the following 9 submenu items: The signal from the DSP block is normally in the effect off status for menu items 1-4. For other menu items, the same signal as in 2. DSP THROUGH: YSS918 menu is output.



The analog switches in each submenu are set as follows:

|   | SUB MENU      | REMOTE CODE | CENTER SP | REAR SP | MAIN SP | MAIN LVL | LFE/BASS | OUTPUT        |
|---|---------------|-------------|-----------|---------|---------|----------|----------|---------------|
| 1 | MAIN:SML 0dB  | 7A-8B       | LARGE     | LARGE   | SMALL   | 0dB      | SWFR     | MAIN L/R      |
| 2 | MAIN:LRG 0dB  | 7A-8C       | LARGE     | LARGE   | LARGE   | 0dB      | SWFR     | MAIN L/R      |
| 3 | MAIN:LRG -10  | 7A-8D       | LARGE     | LARGE   | LARGE   | -10dB    | SWFR     | MAIN L/R      |
| 4 | B:M&C:NONE    | 7A-8E       | NONE      | LARGE   | LARGE   | 0dB      | MAIN     | MAIN L/R      |
| 5 | BASS:MAIN     | 7A-8F       | LARGE     | LARGE   | LARGE   | 0dB      | MAIN     | LFE -> L/R    |
| 6 | LFE/BASS:SWFR | 7A-90       | LARGE     | LARGE   | LARGE   | 0dB      | SWFR     | LFE -> SWFR   |
| 7 | CENTER:NONE   | 7A-91       | NONE      | LARGE   | LARGE   | 0dB      | SWFR     | CENTER -> L/R |
| 8 | C:SML&R:SML   | —           | SMALL     | SMALL   | LARGE   | 0dB      | SWFR     | CENTER/REAR   |
| 9 | FRONT MIX     | 7A-85       | LARGE     | LARGE   | LARGE   | 0dB      | SWFR     | FRONT -> L/R  |

**LARGE:** Mode in which speakers with high bass-sound playback capability (large unit) are used. Full frequency band widths is output.

**SMALL:** Mode in which speakers with low bass-sound playback capability (small unit) are used. Frequencies below 90 Hz are mixed with the channel specified by LFE/BASS.

**NONE:** Mode in which center speaker is not used. The center audio signal is reduced by 3dB and mixed into MAIN L/R.

**M:** MAIN

**C:** CENTER

**R:** REAR

**SWFR:** SUBWOOFER

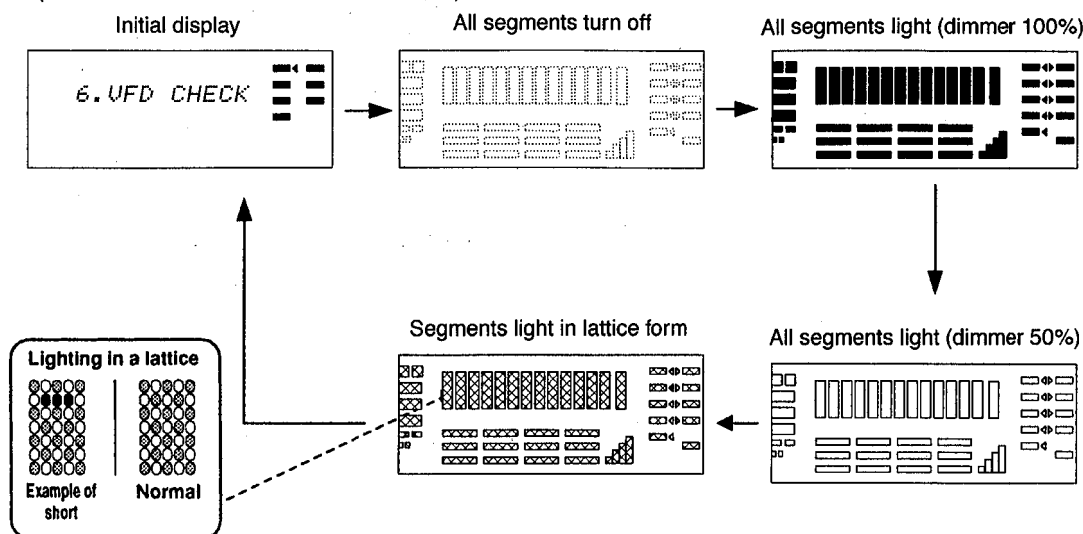
**B:** BASS

**Output:** The signal before MASTER VOLUME is indicated.

**(6) DISPLAY CHECK**

Check program for FL display. The display status will change as follows with submenu operation. The signal is processed with EFFECT OFF.

For switching between internal and external sync commanded by the microprocessor, the forced external sync is selected. (Remote control code 7A-56 : DSP/16)

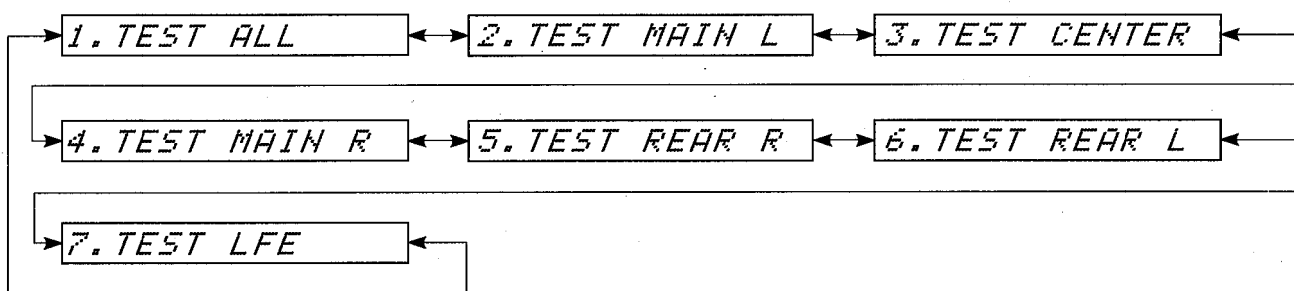


All segments are turned on and off to detect defects in the FL driver (IC102) and FL display segments. Then the FL driver operation is checked by the dimmer control.

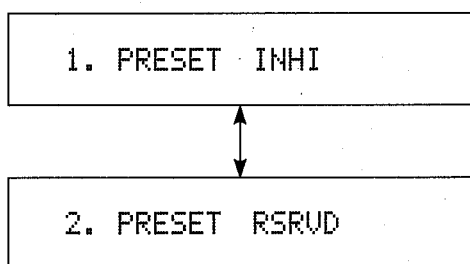
Finally, all segments are turned on and off alternately (in lattice form), to check for a short-circuit between adjacent segments.

**(7) MANUAL TEST**

The noise generator built into the DSP outputs test noise from the channel specified by the submenu.

**(8) FACTORY PRESET**

The initialization of the backup RAM, which contains DSP sound field parameters, set menu contents, etc. is reserved or inhibited. The signal is processed with EFFECT OFF.



Inhibits initialization of the RAM. Specify this option to protect user set values.

Reserve to initialize the backup RAM. (The RAM is actually initialized when power is turned on next time.) Specify this option at the factory or to reset the RAM. For each initial value, see page 20.

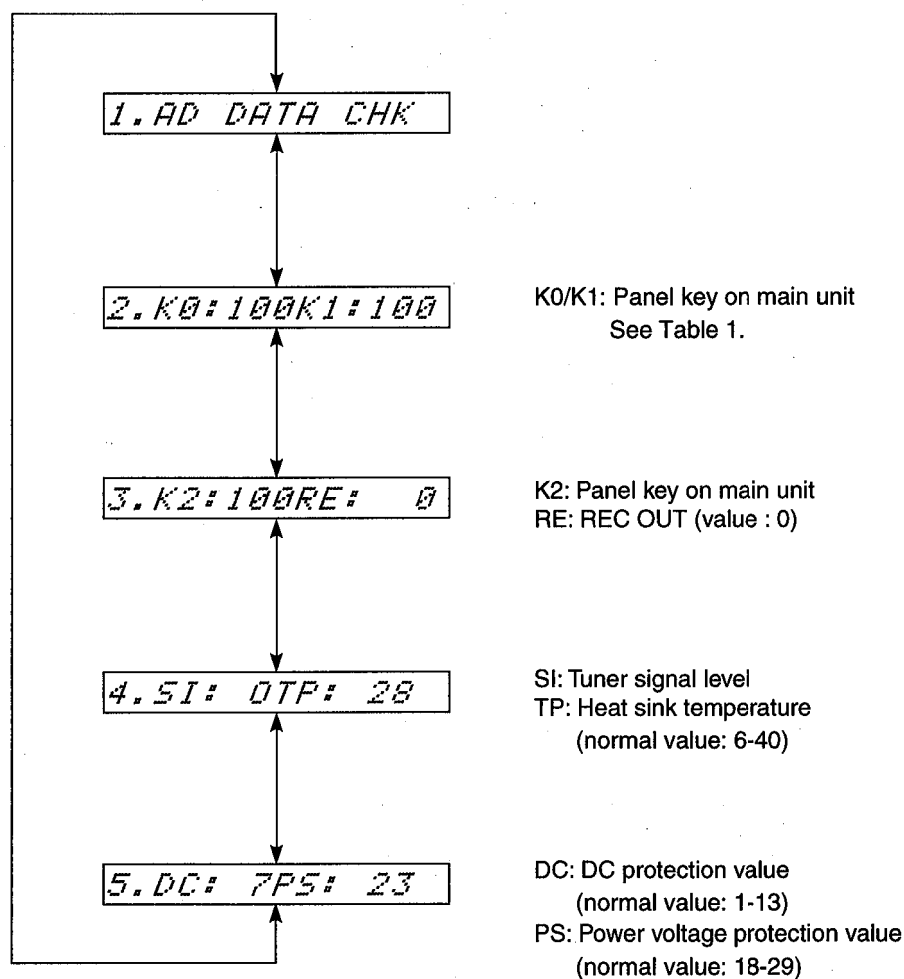
**CAUTION :** Before setting to the PRESET RESERVED, write down the existing preset memory content of the Tuner in a table as shown below. (This is because setting to the PRESET RESERVED will cause the user memory content to be erased.)

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

**(9) AD DATA CHECK**

The A/D conversion values of the main CPU which detects key scan, protection, etc. are displayed in % (100%: 5V). All signal processing before this menu is executed will be held.

The keys on the main unit cannot be operated to detect the values of all keys in the K0/K1 and K2/RE pages. Turning the rotary encoder (input selector on the main unit) will switch the submenu.



| AD Value | 0            | 10          | 20     | 30          | 40     |
|----------|--------------|-------------|--------|-------------|--------|
| K0       | TUNING UP    | TUNING DOWN | FM/AM  | TUNING MODE | EDIT   |
| K1       | A/B/C/D/E    | 1           | 2      | 3           | 4      |
| K2       | EXT. DECODER | INPUT MODE  | EFFECT | PROG >      | PROG < |

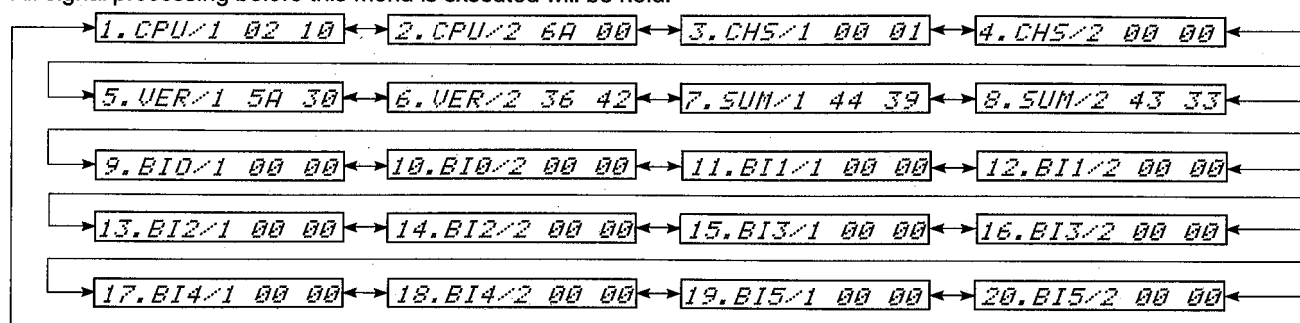
| AD Value | 50     | 60  | 70            | 80        | 90       |
|----------|--------|-----|---------------|-----------|----------|
| K0       | MEMORY | EON | RDS MODE/FREQ | PTY START | PTY MODE |
| K1       | 5      | 6   | 7             | 8         | X        |
| K2       | +      | -   | SET MENU      | LEVEL     | X        |

**Caution**

1. If K0/K1/K2 are more than  $\pm 4\%$  from the reference values, normal operation will not be executed.
2. If TP is 5% or less, the protection function will operate and power will turn off. If it is 40% or more, it is possible that there is an abnormality in the thermal detection system.
3. If DC and PS are outside the normal values, the protection function will operate and power will turn off.

**(10) STATUS FROM DSP MICOM**

The status data from the DSP microprocessor is sequentially displayed in a hexadecimal number.  
All signal processing before this menu is executed will be held.

**[CPU/1] <High Byte>**

|      |                         |      |                               |
|------|-------------------------|------|-------------------------------|
| bit7 | MUTE Request            | bit3 | acmod 0000B:1+1 0001B:1/0     |
| bit6 | fs 000B:analog 001B:32k | bit2 | 0010B:2/0 0011B:3/0           |
| bit5 | 010B:44.1k 011B:48kHz   | bit1 | 0100B:2/1 0101B:3/1           |
| bit4 | others: not defined     | bit0 | 0110B:2/2 0111B:3/2 1000B:7.1 |

1. CPU/1 00 00

High Byte ———  
Low Byte ———

Indicate 0 0  
bit 7 6 5 4 3 2 1 0

acmod: If it is 1000B or more with DTS 7.1 signal, the DSP block will be muted.

**<Low Byte>**

|      |                                               |      |                                             |
|------|-----------------------------------------------|------|---------------------------------------------|
| bit7 | AC3 DECODE OK                                 | bit3 | DEM MUTE (without RF signal)                |
| bit6 | DTS DECODE OK                                 | bit2 | IEC958 digital format error                 |
| bit5 | Red DTS record (flashes ad lights)            | bit1 | IEC958 commercial-use device bit            |
| bit4 | 1 in audio models other than PCM linear audio | bit0 | IEC958 digital data bit (DAT, CD-ROM, etc.) |

| Indicate | bit |   |   |   |
|----------|-----|---|---|---|
|          | 3   | 2 | 1 | 0 |
| 0        | 0   | 0 | 0 | 0 |
| 1        | 0   | 0 | 0 | 1 |
| 2        | 0   | 0 | 1 | 0 |
| 3        | 0   | 0 | 1 | 1 |
| 4        | 0   | 1 | 0 | 0 |
| 5        | 0   | 1 | 0 | 1 |
| 6        | 0   | 1 | 1 | 0 |
| 7        | 0   | 1 | 1 | 1 |
| 8        | 1   | 0 | 0 | 0 |
| 9        | 1   | 0 | 0 | 1 |
| A        | 1   | 0 | 1 | 0 |
| B        | 1   | 0 | 1 | 1 |
| C        | 1   | 1 | 0 | 0 |
| D        | 1   | 1 | 0 | 1 |
| E        | 1   | 1 | 1 | 0 |
| F        | 1   | 1 | 1 | 1 |

**[Note]**

IEC958: Standard to identify the PCM bit stream signal. Digital format error refers to a digital signal with the sampling frequency undefined (neither 44.1k, 32k nor 48k). Since the operation of each device cannot be assured at fs outside specifications, the sub-microprocessor handles this status as the forced analog mode (ignored even if decoding is OK from the detection terminal level), and selects the signal from the analog input terminal. Since the sub-microprocessor transmits 000B (analog) for STATUS#0 bits 4-6 to the main microprocessor, the main microprocessor visually operates in the same way as with digital unlocking.

**[CPU/2] <High Byte>**

|      |             |      |                                       |
|------|-------------|------|---------------------------------------|
| bit7 | AC3 KARAOKE | bit3 | On-board write mode                   |
| bit6 | DIR2 LOCKN  | bit2 | The number of digital inputs is 2 "0" |
| bit5 | DIR2 ERR    | bit1 | DSP is AC3D2 (DTS present) "1"        |
| bit4 | AC3D MUTE   | bit0 | RF DEM present                        |

<Low Byte> Always "00"

[CHS/1/2] IEC958 channel status bits 00-31 available from DIR2

<CHS/1 Hi-byte> bits 00-07  
<CHS/1 Lo-byte> bits 08-15  
<CHS/1 Hi-byte> bits 16-23  
<CHS/1 Lo-byte> bits 24-31

[VER/1/2] 4-byte ASCII code of sub CPU version data

[SUM/1/2] Displays the check sum of sub microprocessor program area with ASCII 4 bytes in a hexadecimal number.

[BIO/1/2] Displays the bit stream information contained in Dolby Digital (AC-3)/DTS signal from the first byte.

[BI1-5/1/2] Displays the bit stream information contained in Dolby Digital (AC-3) signal from the fifth byte.

**(11) CPU VERSION/CHECK SUM/PORT INFO/EXIT DIAG**

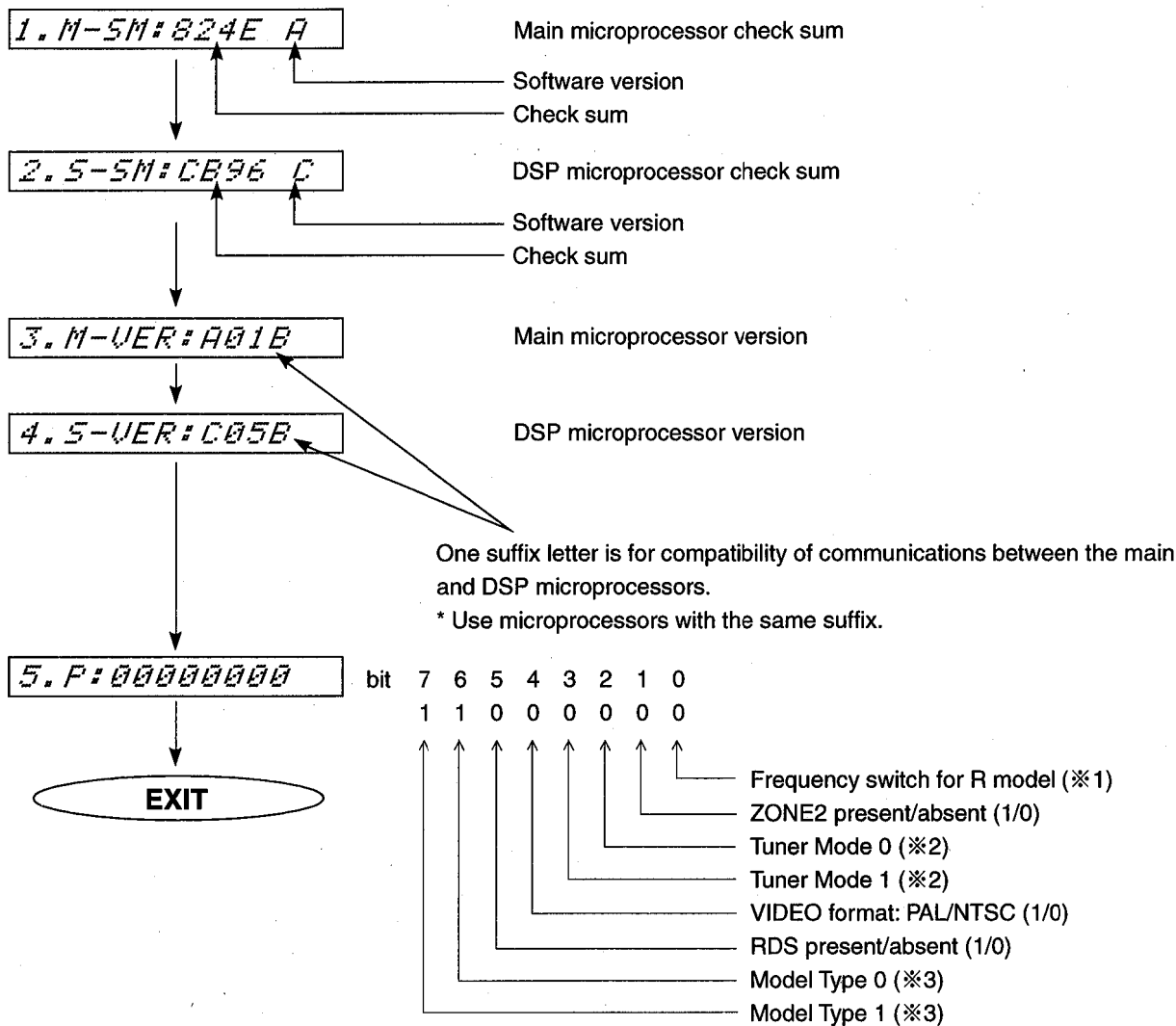
The check sum, version and port setting of main CPU/DSP CPU are displayed.

The signal is EFFECT OFF.

Operating the submenu will finish self-diagnosis, and ordinary operation mode will be restored.

The suffix letter ("A" in the following) of version indication is for compatibility of communications between the main and DSP microprocessors.

Combining microprocessors with different suffixes will make normal operation impossible.



※1

| Port 51 | AM                | FM                  |
|---------|-------------------|---------------------|
| Low(0)  | 530-1710kHz/10kHz | 87.5-108MHz/100kHz  |
| Hi(1)   | 531-1611kHz/9kHz  | 87.5-108.0MHz/50kHz |

※2

|              |   |    |   |    |   |    |   |    |
|--------------|---|----|---|----|---|----|---|----|
| Tuner Mode 1 | 0 | *0 | 0 | *1 | 1 | *2 | 1 | *3 |
| Tuner Mode 0 | 0 |    | 1 |    | 0 |    | 1 |    |

\*0 AM: 531-1611kHz/9kHz FM: 76.0-90.0MHz/100kHz (J model)

\*1 AM: 530-1710kHz/10kHz FM: 87.5-107.9MHz/200kHz (U, C models)

\*2 AM: 531-1611kHz/9kHz FM: 87.5-108.0MHz/50kHz (A, L models)

\*3 R model: Tuner Frequency is selected by Port 51 and Model Type.

※3

|              |   |      |
|--------------|---|------|
| Model Type 1 | 1 | V795 |
| Model Type 0 | 1 |      |

## ■ FACTORY PRESET

All the setting of the system are initialized on shipping. The settings are as follows.

### ● INPUT (VIDEO) DVD/LD (DVD/LD)

### ● EFFECT LEVEL

| EFFECT CHANNEL | PRESET VALUE |
|----------------|--------------|
| CENTER         | 0dB          |
| RIGHT SURROUND | 0dB          |
| LEFT SURROUND  | 0dB          |
| SUB WOOFER     | 0dB          |

### ● DSP PROGRAM

| INPUT        | DSP PROGRAM                          |
|--------------|--------------------------------------|
| PHONO        | CONCERT HALL                         |
| CD           | ROCK CONCERT                         |
| TUNER        | DISCO                                |
| TAPE MONITOR | JAZZ CLUB                            |
| DVD/LD       | MOVIE THEATER 1 70mm/DGTL/DTS Sci-Fi |
| TV/DBS       | TV/SPORTS                            |
| VCR          | ENHANCED                             |
| VIDEO AUX    | PRO LOGIC                            |

### ● SET MENU

| No. | SET MENU                     | PRESET VALUE |
|-----|------------------------------|--------------|
| 1.  | CENTER SPERKER               | LRG          |
| 2.  | REAR SPERKER                 | LARGE        |
| 3.  | MAIN SPERKER                 | LARGE        |
| 4.  | LFE/BASS OUT                 | SW           |
| 5.  | MAIN LEVEL                   | Normal       |
| 6.  | DOLBY DGTL SET LFE LEVEL     | 0 dB         |
| 7.  | DOLBY DGTL SET DYNAMIC RANGE | MAX          |
| 8.  | DTS SET LFE LEVEL            | 0 dB         |
| 9.  | CENTER DELAY                 | 0 ms         |
| 10. | PARAMETER INI                | —            |
| 11. | MEMORY GUARD                 | OFF          |
| 12. | TV/DBS INPUT                 | AUTO         |
| 13. | DIMMER                       | 0            |

### ● PRESET STATIONS

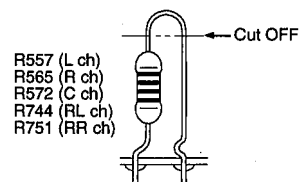
| STATION |     | FM FACTORY PRESET DATA (MHz) |               |      | STATION |     | AM FACTORY PRESET DATA (kHz) |                  |
|---------|-----|------------------------------|---------------|------|---------|-----|------------------------------|------------------|
| PAGE    | NO. | U, C                         | R, L, G, A, B | J    | PAGE    | NO. | U, C, R                      | R, L, G, A, B, J |
| A/C/E   | 1   | 87.5                         | 87.50         | 76.0 | B/D     | 1   | 630                          | 630              |
|         | 2   | 90.1                         | 90.10         | 83.0 |         | 2   | 1080                         | 1080             |
|         | 3   | 95.1                         | 95.10         | 84.0 |         | 3   | 1440                         | 1440             |
|         | 4   | 98.1                         | 98.10         | 86.0 |         | 4   | 530                          | 531              |
|         | 5   | 107.9                        | 108.00        | 90.0 |         | 5   | 1710                         | 1611             |
|         | 6   | 88.1                         | 88.10         | 78.0 |         | 6   | 900                          | 900              |
|         | 7   | 106.1                        | 106.10        | 88.0 |         | 7   | 1350                         | 1350             |
|         | 8   | 107.9                        | 108.00        | 82.1 |         | 8   | 1400                         | 1404             |

## ■ AMP ADJUSTMENTS

### ● Confirmation of Idling Current

- 1) No signal applied.
- 2) Non-loaded condition.
- 3) Aging is not necessary.

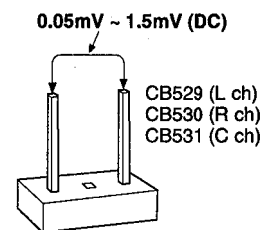
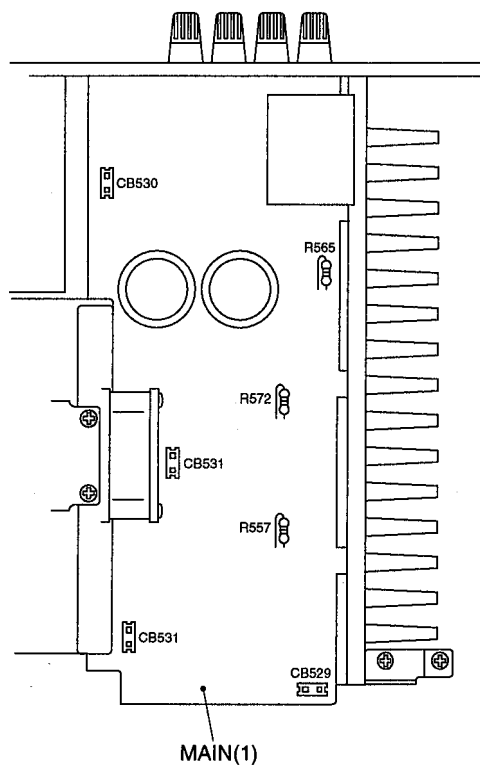
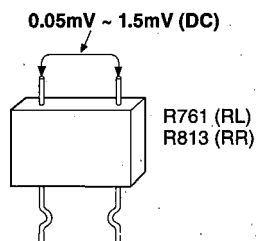
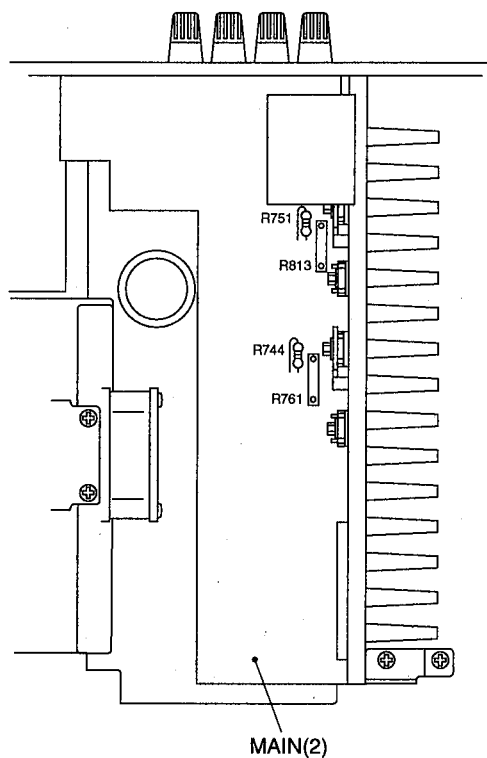
| Item   | Test Point | Rating (DC)  | Note                                                                                                                                                                                         |
|--------|------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MAIN L | CB529      | 0.05mV~1.5mV | If the measured voltage exceeds 1.6mV, cut the lead wire of R557(L ch), R565(R ch), R572(C ch), R744(RL ch) or R751(RR ch) and then check again if each measured value satisfies the rating. |
| MAIN R | CB530      |              |                                                                                                                                                                                              |
| CENTER | CB531      |              |                                                                                                                                                                                              |
| REAR L | R761       |              |                                                                                                                                                                                              |
| REAR R | R813       |              |                                                                                                                                                                                              |



\* Confirm that the voltage at the test points is 7.5mV ~ 12mV after 60 minutes.

#### Note)

- If R557(L ch), R565(R ch), R572(C ch), R744(RL ch) or R751(RR ch) have already been cut off and idling current does not flow, reconnect R557(820Ω), R565(820Ω), R572(820Ω), R744(820Ω) or R751(820Ω).
- Q514, Q516, Q518, Q707 and Q710 are transistors for temperature correction. Apply silicone grease to the contact surface with the heat sink.

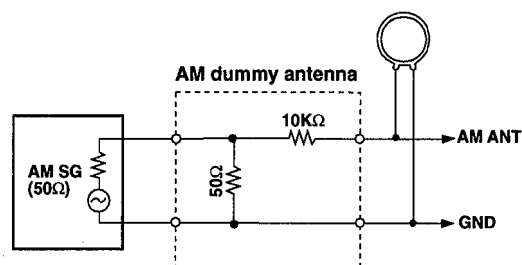
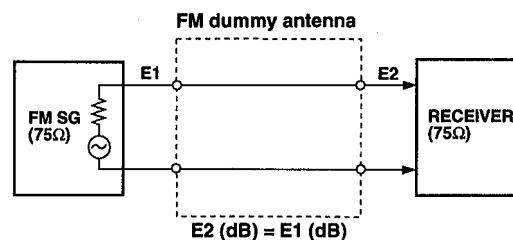
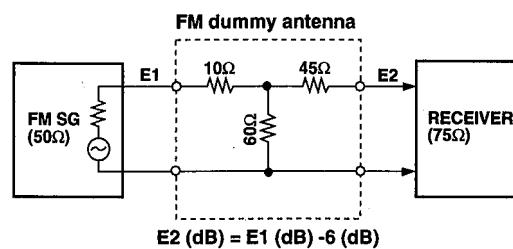


## ■ TUNER ADJUSTMENTS

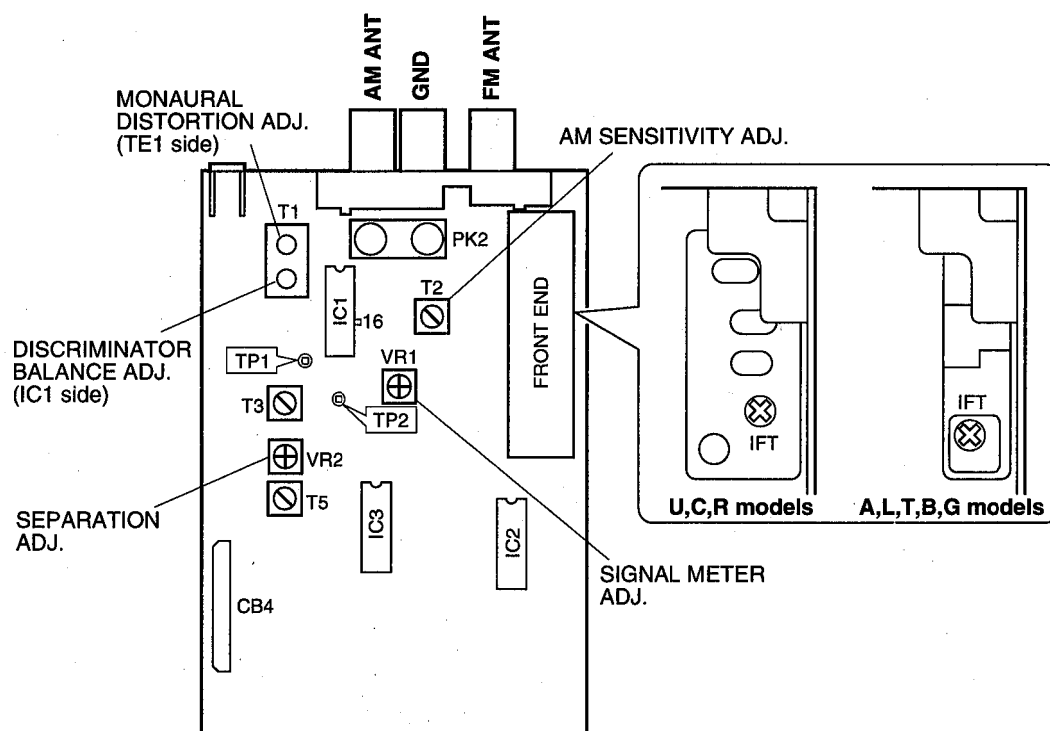
### ● Measuring Instruments

FM signal generator (FM SG)  
 Stereo signal generator (SSG)  
 AM signal generator (AM SG)  
 Distortion meter (DIST. M)  
 AC voltmeter (ACVM)  
 DC voltmeter (DCVM)  
 Oscilloscope  
 Low pass filter (YLF-15,  $f_c=15\text{kHz}$ )  
 Oscillator

### ● Dummy antenna



### ● Test point



## FM Adjustment

### ● Before Adjustment

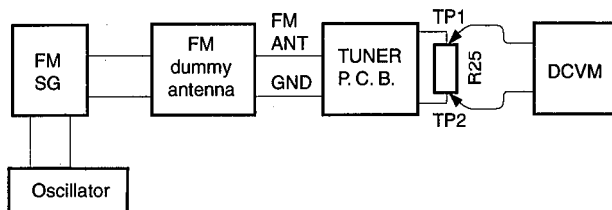
- 1) For dB,  $1\mu V = 0\text{dB}\mu$   
**Example :**  $60\text{dB}\mu = 1\text{mV}$
- 2) 100% modulation means that the frequency deviation is  $\pm 75\text{kHz}$ .

- 3) Install the Matching Transformer and connect FM SG.
- 4) Set each switch to the following position unless otherwise specified.

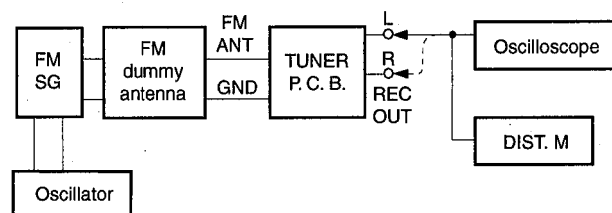
INPUT SELECTOR ..... TUNER  
 TUNING MODE ..... AUTO

### ● Connection diagram (Measuring instruments)

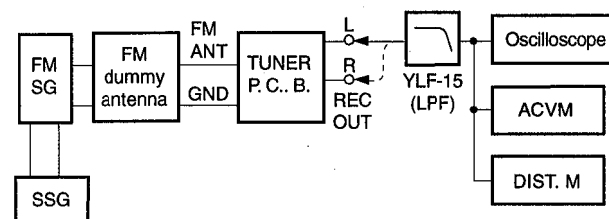
#### 1) Discriminator balance adjustment



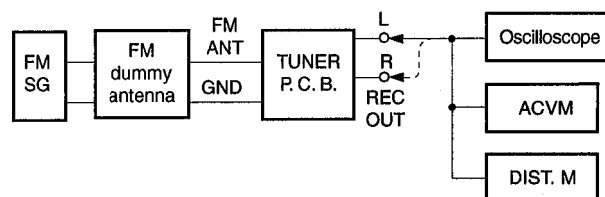
#### 2) Monaural distortion adjustment



#### 3) Stereo distortion adjustment/separation adjustment



#### 4) Sensitivity Verification



| Step | Adjustment item                           | Signal (ANT IN)                                                      | Reception frequency | Adjustment point      | Test point                                | Rating                                     |
|------|-------------------------------------------|----------------------------------------------------------------------|---------------------|-----------------------|-------------------------------------------|--------------------------------------------|
| 1    | Rough adjustment of discriminator balance | FM ANT (75Ω)<br>98.1MHz **<br>70dBμ<br>MONO 100Hz<br>100% modulation | 98.1MHz<br>* (A-4)  | T1<br>(IC1 side core) | Both ends of R25<br>(Between TP1 and TP2) | DC 0V±100mV                                |
| 2    | Rough adjustment of monaural distortion   | Same as Step 1.                                                      | 98.1MHz<br>* (A-4)  | T1<br>(TE1 side core) | REC OUT L, R                              | Minimize the distortion.                   |
| 3    | Fine adjustment of discriminator balance  | Same as Step 1.                                                      | 98.1MHz<br>* (A-4)  | T1<br>(IC1 side core) | Both ends of R25<br>(Between TP1 and TP2) | DC 0V±50mV                                 |
| 4    | Fine adjustment of monaural distortion    | Same as Step 1.                                                      | 98.1MHz<br>* (A-4)  | T1<br>(TE1 side core) | REC OUT L, R                              | Minimize the distortion (to 43dB or less). |
| 5    | Verification of discriminator balance     | Same as Step 1.                                                      | 98.1MHz<br>* (A-4)  | T1<br>(IC1 side core) | Both ends of R25<br>(Between TP1 and TP2) | DC 0V±50mV                                 |

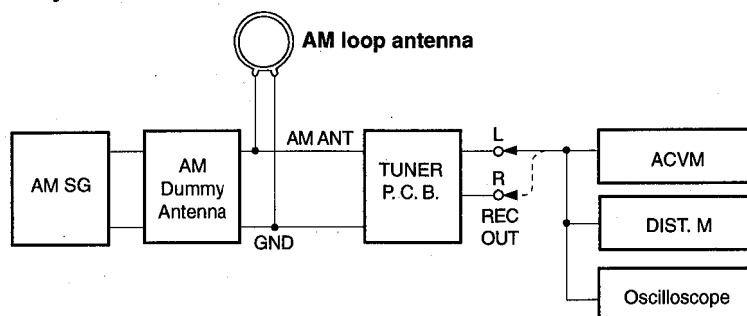
\* : Execution of FACTORY PRESET (Refer to page 20.) will facilitate setting reception frequency for adjustment.

\*\* Must be 98.1MHz ± 5kHz

See page 22 for TP locations & adjustment points.

| Step | Adjustment item                     | Signal (ANT IN)                                                               | Reception frequency                                             | Adjusted point | Test point    | Rating                                                                                                                                                                                                                                        |
|------|-------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------|----------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 6    | Adjustment of front end IFT         | FM ANT (75Ω)<br>98.1MHz<br>70dBμ<br>MONO<br>1kHz,<br>100% modulation          | 98.1MHz<br>* (A-4)                                              | Front end IFT  | Pin 16 of IC1 | Adjust so that the DC voltage is maximum.<br><b>CAUTION :</b> Over-adjustment of the IFT core will reduce the sensitivity.<br>Maximum ±90°                                                                                                    |
| 7    | Verification of monaural distortion | FM ANT (75Ω)<br>98.1MHz<br>70dBμ<br>MONO 1kHz,<br>100% modulation             | 98.1MHz<br>* (A-4)                                              |                | REC OUT L, R  | 43dB or less                                                                                                                                                                                                                                  |
| 8    | Verification of stereo distortion   | FM ANT (75Ω)<br>98.1MHz<br>70dBμ<br>Stereo L or R<br>1kHz,<br>100% modulation | 98.1MHz<br>* (A-4)<br>* Tuning mode should be AUTO.             |                | REC OUT L, R  | 37dB or less<br>• STEREO indicator should light.                                                                                                                                                                                              |
| 9    | Verification of sensitivity         | FM ANT (75Ω)<br>88.1MHz<br>98.1MHz<br>106.1MHz<br>MONO 1kHz<br>Modulation off | 88.1MHz<br>* (A-6)<br>98.1MHz<br>* (A-4)<br>106.1MHz<br>* (A-7) |                | ANT (75Ω)     | 1) Set the tuning mode to MAN'L MONO. (Muting OFF)<br>2) S/N should be 30dB at each frequency of 88.1MHz, 98.1MHz, and 106.1MHz.<br>3) Check to ensure that the voltage at the ANT terminal is 5dBμ or less. (A, L, B, G only : 7dBμ or less) |
| 10   | Adjustment of Separation            | FM ANT (75Ω)<br>98.1MHz<br>70dBμ<br>Stereo L or R<br>1kHz,<br>100% modulation | 98.1MHz<br>* (A-4)                                              | VR2            | REC OUT L, R  | With SSG output at L or R, the signal leakage level at the other channel should be minimized.<br>35dB or more                                                                                                                                 |
| 11   | Adjustment of Signal meter          | FM ANT (75Ω)<br>98.1MHz<br>45dBμ<br>MONO 1kHz<br>30% modulation               | 98.1MHz<br>* (A-4)                                              | VR1            |               | Adjust so that all segments light.                                                                                                                                                                                                            |
|      |                                     | -10dBμ or less                                                                |                                                                 |                |               | Check to ensure that all segments are OFF.                                                                                                                                                                                                    |
| 12   | Verification of auto tuning         | FM ANT (75Ω)<br>98.1MHz<br>26dBμ<br>Stereo L or R<br>1kHz,<br>30% modulation  | 98.1MHz<br>* (A-4)                                              |                |               | • Automatic reception should be available when the tuning key is moved UP and DOWN.<br>• The stereo indicator should light.<br>• Audio muting should be applied during tuning.                                                                |

\* : Execution of FACTORY PRESET (Refer to page 20.) will facilitate setting reception frequency for adjustment.

**AM Adjustment (This should be done after FM adjustment.)**
**● Connection Diagram (Measuring instruments)**
**1) Adjustment of sensitivity**


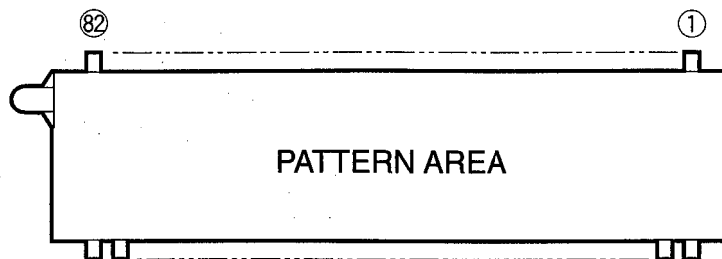
See page 22 for TP locations & adjustment points.

| Step | Adjustment item              | Signal (ANT IN)                                              | Reception frequency                                           | Adjustment point | Test point | Rating                                                                                                             |
|------|------------------------------|--------------------------------------------------------------|---------------------------------------------------------------|------------------|------------|--------------------------------------------------------------------------------------------------------------------|
| 1    | Adjustment of sensitivity    | AM ANT<br>630kHz<br>50dBμ<br>1kHz<br>30% modulation          | 630kHz<br>* (B-1)                                             | T2               | REC OUT    | Audio output should be maximized.<br>Repeat steps 1 and 2.                                                         |
| 2    | Verification of sensitivity  | AM ANT<br>630kHz<br>1080kHz<br>1440kHz<br>30% modulation     | 630kHz<br>* (B-1)<br>1080kHz<br>* (B-2)<br>1440kHz<br>* (B-3) |                  | REC OUT    | Check to ensure that the voltage at the ANT terminal is 54dBμ or less.                                             |
| 3    | Verification of signal meter | AM ANT<br>1080kHz<br>90dBμ<br>MONO<br>1kHz<br>30% modulation | 1080kHz<br>* (B-2)                                            |                  |            | All S-meters should light.                                                                                         |
|      |                              | -10dBμ or less                                               |                                                               |                  |            | All S-meters should turn off.                                                                                      |
| 4    | Verification of auto tuning  | AM ANT<br>60dBμ                                              |                                                               |                  |            | Auto reception should be available when the tuning key is moved UP and DOWN.<br>Voice must be muted during search. |

\* : Execution of FACTORY PRESET (Refer to page 20.) will facilitate setting reception frequency for adjustment.

## ■ DISPLAY DATA (V2573800)

● V101 : 16-BT-60GK

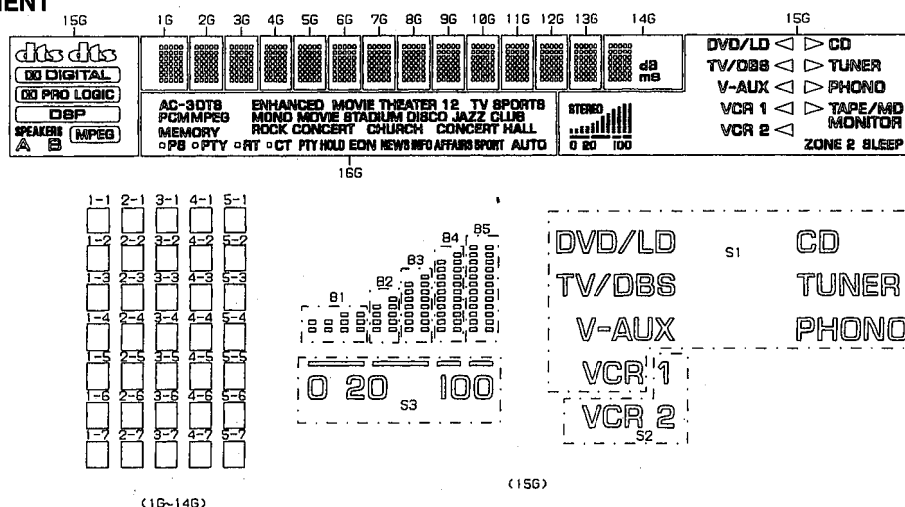


## ● PIN CONNECTION

|            |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Pin No.    | 82  | 81  | 80  | 79  | 78  | 77  | 76  | 75  | 74  | 73  | 72  | 71  | 70  | 69  | 68  | 67  | 66  | 65  | 64  |
| Connection | F2  | F2  | NP  | NP  | NC  | NC  | P37 | P36 | P35 | P34 | P33 | IC  | NP  | Fd  | Fd  | NP  | IC  | P32 | P31 |
| Pin No.    | 63  | 62  | 61  | 60  | 59  | 58  | 57  | 56  | 55  | 54  | 53  | 52  | 51  | 50  | 49  | 48  | 47  | 46  | 45  |
| Connection | P30 | P29 | P28 | P27 | P26 | P25 | P24 | P23 | P22 | P21 | P20 | P19 | P18 | P17 | P16 | P15 | P14 | P13 | P12 |
| Pin No.    | 44  | 43  | 42  | 41  | 40  | 39  | 38  | 37  | 36  | 35  | 34  | 33  | 32  | 31  | 30  | 29  | 28  | 27  | 26  |
| Connection | P11 | P10 | P9  | P8  | P7  | P6  | P5  | P4  | P3  | P2  | P1  | 16G | 15G | 14G | 13G | 12G | 11G | 10G | 9G  |
| Pin No.    | 25  | 24  | 23  | 22  | 21  | 20  | 19  | 18  | 17  | 16  | 15  | 14  | 13  | 12  | 11  | 10  | 9   | 8   | 7   |
| Connection | 8G  | 7G  | 6G  | 5G  | 4G  | 3G  | 2G  | 1G  | NC  | NC  | NC  | NC  | NC  | NC  | NC  | NC  | NC  | NC  | NC  |
| Pin No.    | 6   | 5   | 4   | 3   | 2   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |
| Connection | NC  | NC  | NP  | NP  | F1  | F1  |     |     |     |     |     |     |     |     |     |     |     |     |     |

Note 1) F1, F2 ..... Filament      3) NC ..... No Connection      5) 1G~16G ..... Grid  
2) NP ..... No Pin      4) P1~P37 ..... Datum Line      6) IC ..... Internal connection

## ● GRID ASSIGNMENT



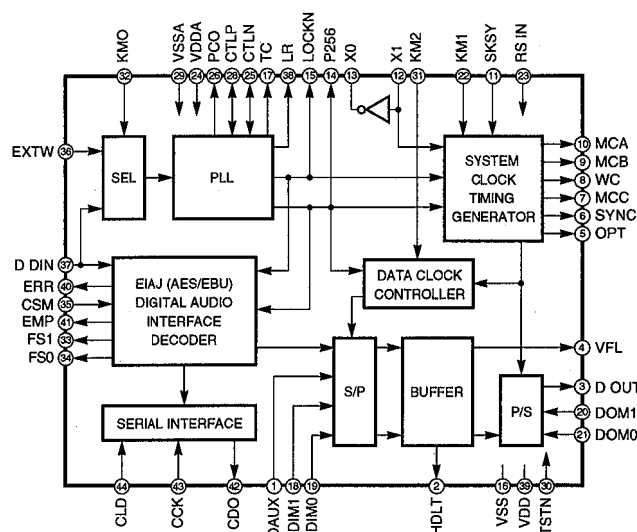
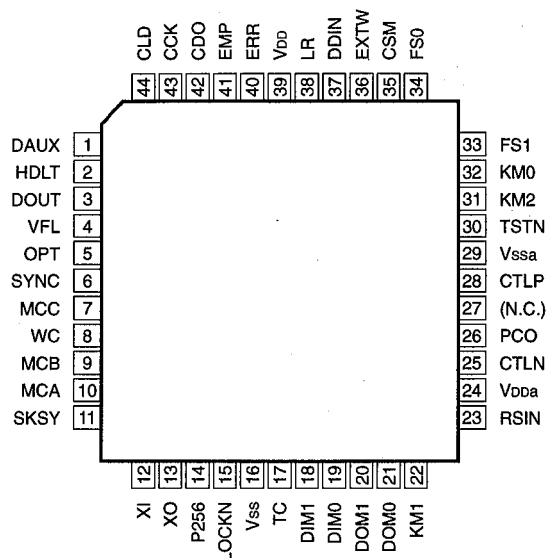
### ● ANODE CONNECTION

|     | 16G           | 15G                                           | 14G | 13G~16 |     | 16G                            | 15G     | 14G | 13G~16 |
|-----|---------------|-----------------------------------------------|-----|--------|-----|--------------------------------|---------|-----|--------|
| P1  | AC-3          | dB (LEFT)                                     | 1-1 | 1-1    | P20 | MEMORY                         | S2      | 5-4 | 5-4    |
| P2  | DTS           | dB3 (RIGHT)                                   | 2-1 | 2-1    | P21 | <input type="checkbox"/> (PS)  | TAPE/MD | 1-5 | 1-5    |
| P3  | PCM           | <input checked="" type="checkbox"/> DIGITAL   | 3-1 | 3-1    | P22 | PS                             | MONITOR | 2-5 | 2-5    |
| P4  | MPEG          | <input checked="" type="checkbox"/> PRO LOGIC | 4-1 | 4-1    | P23 | <input type="checkbox"/> (PTY) | ZONE 2  | 3-5 | 3-5    |
| P5  | ENHANCED      | DBP                                           | 5-1 | 5-1    | P24 | PTY                            | SLEEP   | 4-5 | 4-5    |
| P6  | MOVIE THEATER | MPEG                                          | 1-2 | 1-2    | P25 | <input type="checkbox"/> (RT)  | -       | 5-5 | 5-5    |
| P7  | 1             | SPEAKERS                                      | 2-2 | 2-2    | P26 | RT                             | -       | 1-6 | 1-6    |
| P8  | 2             | A                                             | 3-2 | 3-2    | P27 | <input type="checkbox"/> (CT)  | -       | 2-6 | 2-6    |
| P9  | TV SPORTS     | B                                             | 4-2 | 4-2    | P28 | CT                             | -       | 3-6 | 3-6    |
| P10 | MONO MOVIE    | <input type="checkbox"/> (TAPE/MD)            | 5-2 | 5-2    | P29 | PTY HOLD                       | STEREO  | 4-6 | 4-6    |
| P11 | STADIUM       | <input type="checkbox"/> (PHONE)              | 1-3 | 1-3    | P30 | EON                            | B1      | 5-6 | 5-6    |
| P12 | DISCO         | <input type="checkbox"/> (TUNER)              | 2-3 | 2-3    | P31 | NEWS                           | B2      | 1-7 | 1-7    |
| P13 | JAZZ CLUB     | <input type="checkbox"/> (CD)                 | 3-3 | 3-3    | P32 | INFO                           | B3      | 2-7 | 2-7    |
| P14 | ROCK CONCERT  | <input type="checkbox"/> (DVD/LD)             | 4-3 | 4-3    | P33 | AFFAIRS                        | B4      | 3-7 | 3-7    |
| P15 | CHURCH        | <input type="checkbox"/> (TV/DBS)             | 5-3 | 5-3    | P34 | SPORT                          | B5      | 4-7 | 4-7    |
| P16 | CONCERT HALL  | <input type="checkbox"/> (V-AUX)              | 1-4 | 1-4    | P35 | AUTO                           | S3      | 5-7 | 5-7    |
| P17 | -             | <input type="checkbox"/> (VCR1)               | 2-4 | 2-4    | P36 | -                              | -       | dB  | -      |
| P18 | -             | <input type="checkbox"/> (VCR2)               | 3-4 | 3-4    | P37 | -                              | -       | ms  | -      |
| P19 | -             | S1                                            | 4-4 | 4-4    |     |                                |         |     |        |

## IC DATA

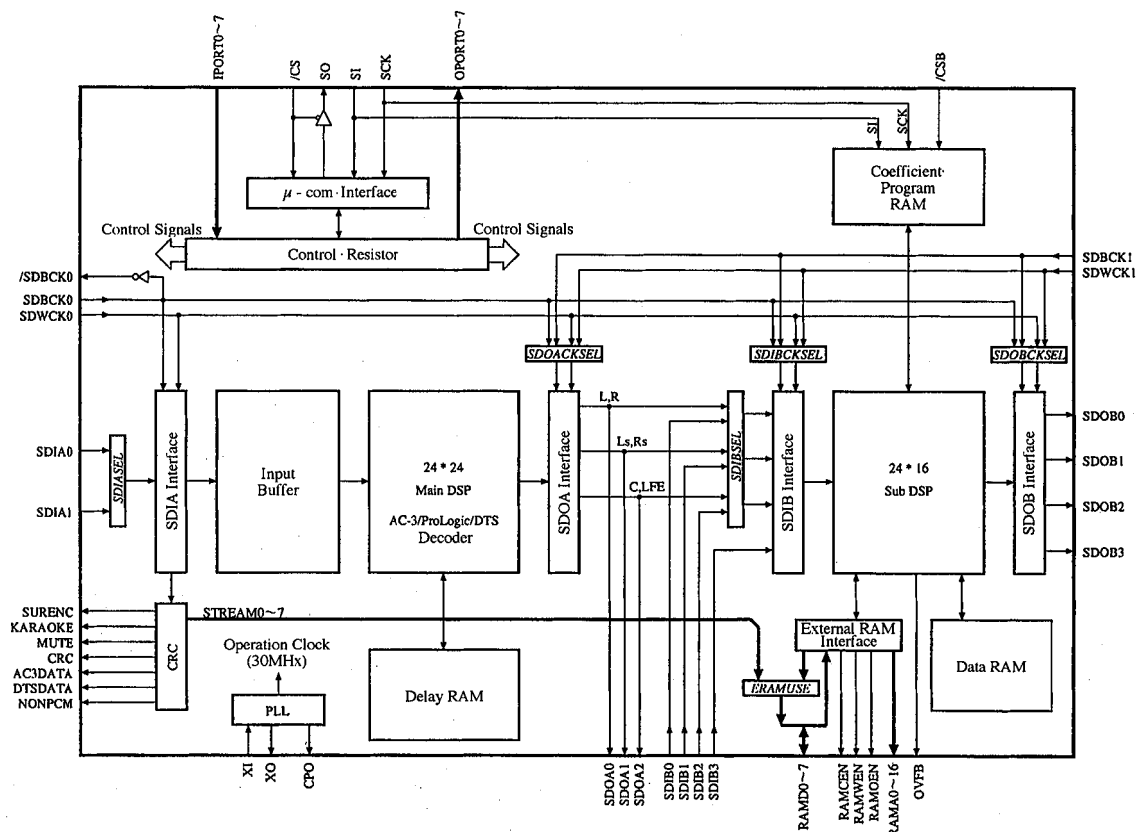
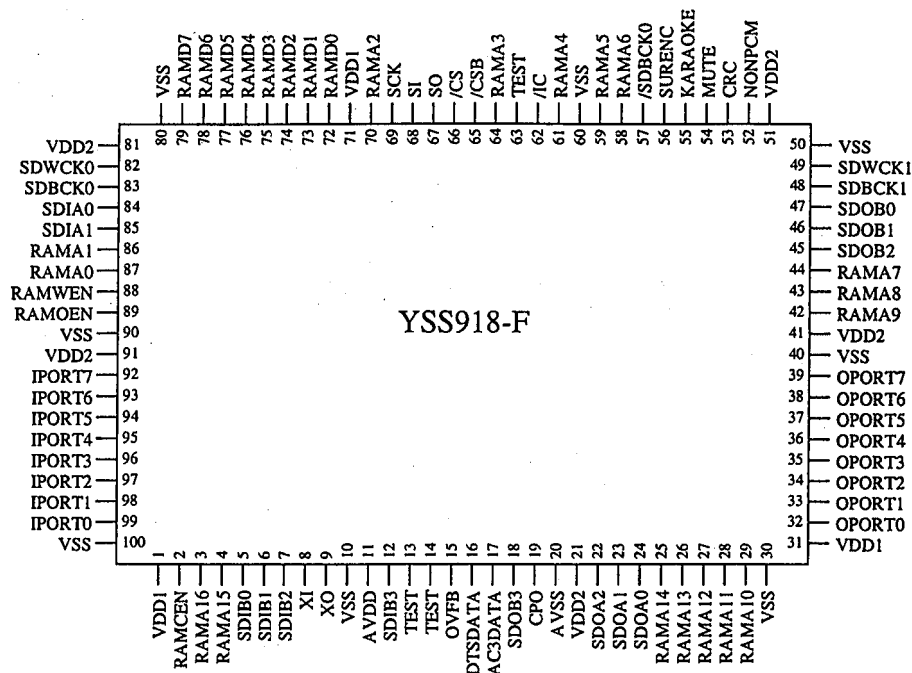
IC3 : YM3436DK

DIR ( Digital Format Interface Receiver )



| Pin No. | Pin Name | I/O | Function                                              | Pin No. | Pin Name | I/O | Function                                           |
|---------|----------|-----|-------------------------------------------------------|---------|----------|-----|----------------------------------------------------|
| 1       | DAUX     | I   | Auxiliary input for audio data                        | 26      | PCO      | O   | PLL phase comparison output                        |
| 2       | HDLT     | O   | Asynchronous buffer operation flag                    | 27      | (NC)     |     |                                                    |
| 3       | DOUT     | O   | Audio data output                                     | 28      | CTLP     | I   | VCO control input P                                |
| 4       | VFL      | O   | Parity flag output                                    | 29      | Vssa     |     | VCO section power (GND)                            |
| 5       | OPT      | O   | Fs x 1 Synchronous output signal for DAC              | 30      | TSTN     | I   | Test terminal. Open for normal use                 |
| 6       | SYNC     | O   | Fs x 1 Synchronous output signal for DSP              | 31      | KM2      | I   | Clock mode switching input 2                       |
| 7       | MCC      | O   | Fs x 64Bit clock output                               | 32      | KM0      | I   | Clock mode switching input 0                       |
| 8       | WC       | O   | Fs x 1Word clock output                               | 33      | FS1      | O   | Channel status sampling frequency display output 1 |
| 9       | MCB      | O   | Fs x 128Bit clock output                              | 34      | FS0      | O   | Channel status sampling frequency display output 0 |
| 10      | MCA      | O   | Fs x 256Bit clock output                              | 35      | CSM      | I   | Channel status output method selection             |
| 11      | SKSY     | I   | Clock synchronization control input                   | 36      | EXTW     | I   | External synchronous auxiliary input word clock    |
| 12      | XI       | I   | Crystal oscillator connection or external clock input | 37      | DDIN     | I   | EIAJ (AES/EBU) data input                          |
| 13      | XO       | O   | Crystal oscillator connection                         | 38      | LR       | O   | PLL word clock output                              |
| 14      | P256     | O   | VCO oscillator clock connection                       | 39      | VDD      |     | Logic section power (+5V)                          |
| 15      | LOCKN    | O   | PLL lock flag                                         | 40      | ERR      | O   | Data error flag output                             |
| 16      | Vss      |     | Logic section power (GND)                             | 41      | EMP      | O   | Channel status emphasis control code output        |
| 17      | TC       | O   | PLL time constant switching output                    | 42      | CDO      | O   | 3-wire type microcomputer interface data output    |
| 18      | DIM1     | I   | Data input mode selection                             | 43      | CCK      | I   | 3-wire type microcomputer interface clock output   |
| 19      | DIM0     | I   | Data input mode selection                             | 44      | CLD      | I   | 3-wire type microcomputer interface load input     |
| 20      | DOM1     | I   | Data output mode selection                            |         |          |     |                                                    |
| 21      | DOM0     | I   | Data output mode selection                            |         |          |     |                                                    |
| 22      | KM1      | I   | Clock mode switching input 1                          |         |          |     |                                                    |
| 23      | RSTN     | I   | System reset input                                    |         |          |     |                                                    |
| 24      | VDDA     |     | VCO section power (+5V)                               |         |          |     |                                                    |
| 25      | CTLN     | I   | VCO control input N                                   |         |          |     |                                                    |

IC4 : YSS918-F  
Digital Pro-Logic Decoder



## IC4 : YSS918-F

## Digital Pro-Logic Decoder

| No. | Name    | I/O | Function                                                                |
|-----|---------|-----|-------------------------------------------------------------------------|
| 1   | VDD1    |     | +5V terminal (for terminal section)                                     |
| 2   | RAMCEN  | O   | Chip enable terminal for external SRAM                                  |
| 3   | RAMA16  | O   | Address terminal 16 for external SRAM                                   |
| 4   | RAMA15  | O   | Address terminal 15 for external SRAM                                   |
| 5   | SDIB0   | Itp | PCM input terminal 0 to Sub DSP                                         |
| 6   | SDIB1   | Itp | PCM input terminal 1 to Sub DSP                                         |
| 7   | SDIB2   | Itp | PCM input terminal 2 to Sub DSP                                         |
| 8   | XI      | Ic  | Crystal oscillator connecting terminal (12.288MHz)                      |
| 9   | XO      | O   | Crystal oscillator connecting terminal                                  |
| 10  | VSS     |     | Ground terminal (for terminal section)                                  |
| 11  | AVDD    |     | +3.3V terminal (for PLL circuit)                                        |
| 12  | SDIB3   | Itp | PCM input terminal 3 to Sub DSP                                         |
| 13  | TEST    |     | Test terminal (normally unconnected)                                    |
| 14  | TEST    |     | Test terminal (normally unconnected)                                    |
| 15  | OVFB    | O   | Sub DSP overflow detect terminal                                        |
| 16  | DTSDATA | O   | DTS data detect terminal                                                |
| 17  | AC3DATA | O   | AC-3 data detect terminal                                               |
| 18  | SDOB3   | O   | PCM output terminal for Sub DSP                                         |
| 19  | CPO     | A   | PLL output terminal, connected to external analog filter                |
| 20  | AVSS    |     | Ground terminal (for PLL circuit)                                       |
| 21  | VDD2    |     | +3.3V terminal (for inner circuit)                                      |
| 22  | SDOA2   | O   | PCM output terminal (AC-3/DTS : C/LFE output, Pro Logic : C/S output)   |
| 23  | SDOA1   | O   | PCM output terminal (AC-3/DTS : LS/RS output, Pro Logic : Lt/Rt output) |
| 24  | SDOA0   | O   | PCM output terminal (AC-3/DTS/Pro Logic : L/R output)                   |
| 25  | RAMA14  | O   | Address terminal 14 for external SRAM                                   |
| 26  | RAMA13  | O   | Address terminal 13 for external SRAM                                   |
| 27  | RAMA12  | O   | Address terminal 12 for external SRAM                                   |
| 28  | RAMA11  | O   | Address terminal 11 for external SRAM                                   |
| 29  | RAMA10  | O   | Address terminal 10 for external SRAM                                   |
| 30  | VSS     |     | Ground terminal (for inner circuit)                                     |
| 31  | VDD1    |     | +5V terminal (for terminal section)                                     |
| 32  | OPORT0  | O   | General purpose output terminal                                         |
| 33  | OPORT1  | O   | General purpose output terminal                                         |
| 34  | OPORT2  | O   | General purpose output terminal                                         |
| 35  | OPORT3  | O   | General purpose output terminal                                         |
| 36  | OPORT4  | O   | General purpose output terminal                                         |
| 37  | OPORT5  | O   | General purpose output terminal                                         |
| 38  | OPORT6  | O   | General purpose output terminal                                         |
| 39  | OPORT7  | O   | General purpose output terminal                                         |
| 40  | VSS     |     | Ground terminal (for inner circuit)                                     |
| 41  | VDD2    |     | +3.3V terminal (for inner circuit)                                      |
| 42  | RAMA9   | O   | Address terminal 9 for external SRAM                                    |
| 43  | RAMA8   | O   | Address terminal 8 for external SRAM                                    |
| 44  | RAMA7   | O   | Address terminal 7 for external SRAM                                    |
| 45  | SDOB2   | O   | PCM output terminal for Sub DSP                                         |
| 46  | SDOB1   | O   | PCM output terminal for Sub DSP                                         |
| 47  | SDOB0   | O   | PCM output terminal for Sub DSP                                         |
| 48  | SDBCK1  | Itp | Bit clock input terminal for SDOA/SDIB/SDOB signal                      |
| 49  | SDWCK1  | Itp | Word clock input terminal for SDOA/SDIB/SDOB signal                     |
| 50  | VSS     |     | Ground terminal (for terminal section)                                  |
| 51  | VDD2    |     | +3.3V terminal (for inner circuit)                                      |

**IC4 : YSS918-F**  
**Digital Pro-Logic Decoder**

| No. | Name    | I/O   | Function                                                                 |
|-----|---------|-------|--------------------------------------------------------------------------|
| 52  | NONPCM  | O     | non-PCM data detect terminal                                             |
| 53  | CRC     | O     | AC-3 CRC error detect terminal                                           |
| 54  | MUTE    | O     | Auto mute detect terminal                                                |
| 55  | KARAOKE | O     | AC-3 karaoke data detect terminal                                        |
| 56  | SURENC  | O     | AC-3 2/0 mode dolby surround encode input detect terminal                |
| 57  | /SDBCK0 | O     | SDBCK0 inverted clock output terminal                                    |
| 58  | RAMA6   | O     | Address terminal 6 for external SRAM                                     |
| 59  | RAMA5   | O     | Address terminal 5 for external SRAM                                     |
| 60  | VSS     |       | Ground terminal (for inner circuit)                                      |
| 61  | RAMA4   | O     | Address terminal 4 for external SRAM                                     |
| 62  | /IC     | Ics   | Initial clear terminal                                                   |
| 63  | TEST    |       | Test terminal (normally unconnected)                                     |
| 64  | RAMA3   | O     | Address terminal 3 for external SRAM                                     |
| 65  | /CSB    | Itp   | Chip select input terminal for Sub DSP                                   |
| 66  | /CS     | Itp   | Microprocessor interface chip select input terminal                      |
| 67  | SO      | O*    | Microprocessor interface data output terminal                            |
| 68  | SI      | Itp   | Data input terminal for microprocessor interface and Sub DSP             |
| 69  | SCK     | Itp   | Clock input terminal for microprocessor interface and Sub DSP            |
| 70  | RAMA2   | O     | Address terminal 2 for external SRAM                                     |
| 71  | VDD1    |       | +5V terminal (for terminal section)                                      |
| 72  | RAMD0   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM0 output) |
| 73  | RAMD1   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM1 output) |
| 74  | RAMD2   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM2 output) |
| 75  | RAMD3   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM3 output) |
| 76  | RAMD4   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM4 output) |
| 77  | RAMD5   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM5 output) |
| 78  | RAMD6   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM6 output) |
| 79  | RAMD7   | Itp/O | Data terminal for external SRAM(external SRAM non-used : STERAM7 output) |
| 80  | VSS     |       | Ground terminal (for terminal section)                                   |
| 81  | VDD2    |       | +3.3V terminal (for inner circuit)                                       |
| 82  | SDWCK0  | It    | Word clock input terminal for SDIA/SDOA/SDIB/SDOB signal                 |
| 83  | SDBCK0  | It    | Bit clock input terminal for SDIA/SDOA/SDIB/SDOB signal                  |
| 84  | SDIA0   | It    | AC-3/DTS bit stream (or PCM) data input terminal to main DSP             |
| 85  | SDIA1   | It    | AC-3/DTS bit stream (or PCM) data input terminal to main DSP             |
| 86  | RAMA1   | O     | Address terminal 1 for external SRAM                                     |
| 87  | RAMA0   | O     | Address terminal 0 for external SRAM                                     |
| 88  | RAMWEN  | O     | Write enable terminal for external SRAM                                  |
| 89  | RAMOEN  | O     | Output enable terminal for external SRAM                                 |
| 90  | VSS     |       | Ground terminal                                                          |
| 91  | VDD2    |       | +3.3V terminal (for inner circuit)                                       |
| 92  | IPORT7  | Itp   | General purpose input terminal                                           |
| 93  | IPORT6  | Itp   | General purpose input terminal                                           |
| 94  | IPORT5  | Itp   | General purpose input terminal                                           |
| 95  | IPORT4  | Itp   | General purpose input terminal                                           |
| 96  | IPORT3  | Itp   | General purpose input terminal                                           |
| 97  | IPORT2  | Itp   | General purpose input terminal                                           |
| 98  | IPORT1  | Itp   | General purpose input terminal                                           |
| 99  | IPORT0  | Itp   | General purpose input terminal                                           |
| 100 | VSS     |       | Ground terminal                                                          |

Ic : CMOS level input terminal

It : TTL level input terminal

Is : Schmidt trigger input terminal

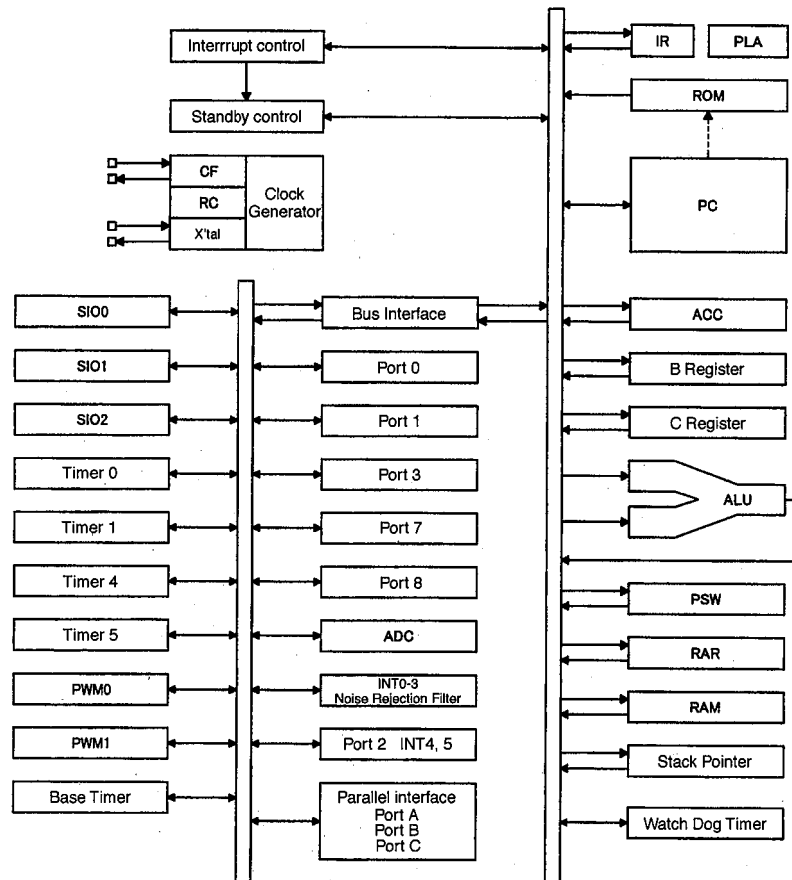
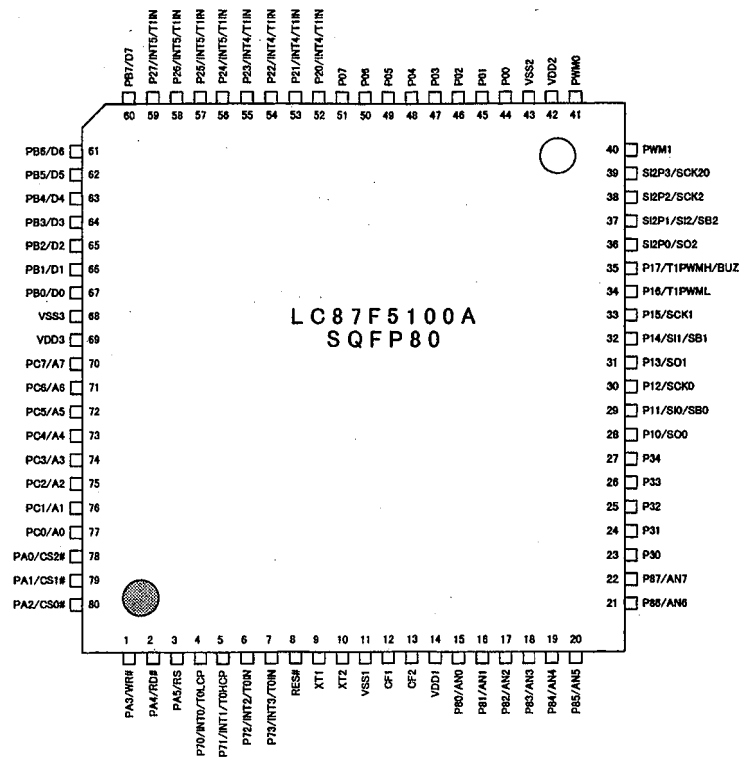
Ip : Built-in pull up resistance

O : Digital output terminal

O\*: 3-state digital output terminal

A : Analog terminal

IC14 : LC87F5164A  
Sub  $\mu$ -Com



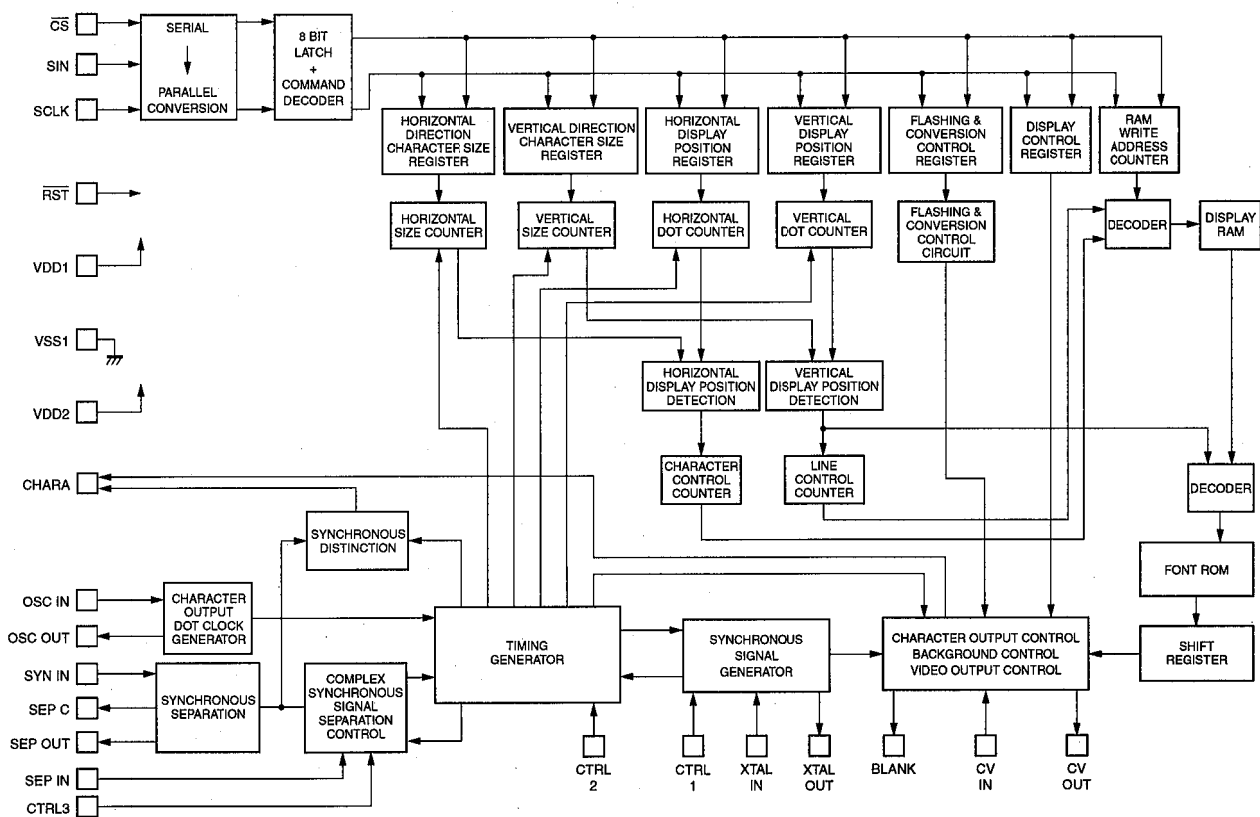
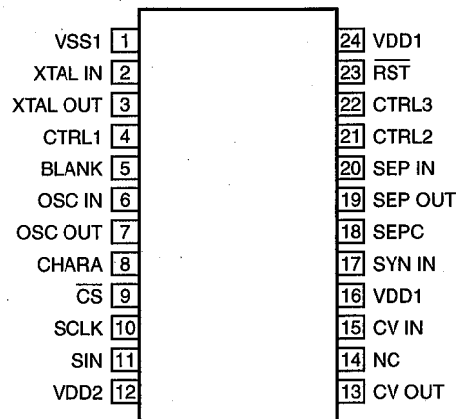
## IC14 : LC87F5164A

Sub  $\mu$ -Com

| No. | Name                        | I/O | Function                                                                                              |
|-----|-----------------------------|-----|-------------------------------------------------------------------------------------------------------|
| 1   | PA3/ $\overline{\text{WR}}$ | I/O | Parallel interface output $\overline{\text{WR}}$                                                      |
| 2   | PA4/ $\overline{\text{RD}}$ | I/O | Parallel interface output $\overline{\text{RD}}$                                                      |
| 3   | PA5/ $\overline{\text{RS}}$ | I/O | Parallel interface output $\overline{\text{RS}}$                                                      |
| 4   | P70/INT0/T0LCP              | I/O | INT0 input/HOLD release input/<br>Timer0L capture input/Output for<br>watchdog timer                  |
| 5   | P71/INT1/T0HCP              | I/O | INT1 input/HOLD release input/<br>Timer0H capture input                                               |
| 6   | P72/INT2/T0IN               | I/O | INT2 input/HOLD release input/Timer0<br>event input/Timer0L capture input                             |
| 7   | P73/INT3/T0IN               | I/O | INT3 input (noise rejection filter at-<br>tached input)/Timer 0 event input/<br>Timer0H capture input |
| 8   | $\overline{\text{RES}}$     | I   | Reset terminal                                                                                        |
| 9   | XT1                         | I   | Input for 32.768kHz crystal oscillator                                                                |
| 10  | XT2                         | I/O | Output for 32.768kHz crystal oscillator                                                               |
| 11  | VSS1                        |     | Negative power supply                                                                                 |
| 12  | CF1                         | I   | Input terminal for ceramic oscillator                                                                 |
| 13  | CF2                         | O   | Output terminal for ceramic oscillator                                                                |
| 14  | VDD1                        |     | Positive power supply                                                                                 |
| 15  | P80/AN0                     | I/O | AD Input port                                                                                         |
| 16  | P81/AN1                     |     |                                                                                                       |
| 17  | P82/AN2                     |     |                                                                                                       |
| 18  | P83/AN3                     |     |                                                                                                       |
| 19  | P84/AN4                     |     |                                                                                                       |
| 20  | P85/AN5                     |     |                                                                                                       |
| 21  | P86/AN6                     |     |                                                                                                       |
| 22  | P87/AN7                     |     |                                                                                                       |
| 23  | P30                         | I/O | 5-bits Input/Output port                                                                              |
| 24  | P31                         |     |                                                                                                       |
| 25  | P32                         |     |                                                                                                       |
| 26  | P33                         |     |                                                                                                       |
| 27  | P34                         |     |                                                                                                       |
| 28  | P10/S00                     | I/O | SI00 data output                                                                                      |
| 29  | P11/SI0/SB0                 | I/O | SI00 data input/bus input/output                                                                      |
| 30  | P12/SCK0                    | I/O | SI00 clock input/output                                                                               |
| 31  | P13/SO1                     | I/O | SI01 data output                                                                                      |
| 32  | P14/SI1/SB1                 | I/O | SI01 data input/bus input/output                                                                      |
| 33  | P15/SCK1                    | I/O | SI01 clock input/output                                                                               |
| 34  | P16/T1PWML                  | I/O | Timer 1PWML output                                                                                    |
| 35  | P17/T1PWMH/BUZ              | I/O | Timer 1 PWMH output/Buzzer output                                                                     |
| 36  | SI2P0/S02                   | I/O | SI02 data output                                                                                      |
| 37  | SI2P1/SI2/SB2               | I/O | SI02 data output/bus input/output                                                                     |

| No. | Name                         | I/O | Function                                                                                                   |
|-----|------------------------------|-----|------------------------------------------------------------------------------------------------------------|
| 38  | SI2P2/SCK2                   | I/O | SI02 clock input/output                                                                                    |
| 39  | SI2P3/SCK20                  | I/O | SI02 clock output                                                                                          |
| 40  | PWM1                         | O   | PWM1 output port                                                                                           |
| 41  | PWM0                         | O   | PWM0 output port                                                                                           |
| 42  | VDD2                         |     | Positive power supply                                                                                      |
| 43  | VSS2                         |     | Negative power supply                                                                                      |
| 44  | P00                          | I/O | 8-bits Input/Output port                                                                                   |
| 45  | P01                          |     |                                                                                                            |
| 46  | P02                          |     |                                                                                                            |
| 47  | P03                          |     |                                                                                                            |
| 48  | P04                          |     |                                                                                                            |
| 49  | P05                          |     |                                                                                                            |
| 50  | P06                          |     |                                                                                                            |
| 51  | P07                          |     |                                                                                                            |
| 52  | P20/INT4/T1IN                | I/O | INT4 input/HOLD release input/<br>Timer 1 event input/Timer 0L<br>capture input /Timer 0H capture<br>input |
| 53  | P21/INT4/T1IN                |     |                                                                                                            |
| 54  | P22/INT4/T1IN                |     |                                                                                                            |
| 55  | P23/INT4/T1IN                | I/O | INT5 input/HOLD release input/<br>Timer 1 event input/Timer 0L<br>capture input /Timer 0H capture<br>input |
| 56  | P24/INT5/T1IN                |     |                                                                                                            |
| 57  | P25/INT5/T1IN                |     |                                                                                                            |
| 58  | P26/INT5/T1IN                |     |                                                                                                            |
| 59  | P27/INT5/T1IN                |     |                                                                                                            |
| 60  | PB7/D7                       | I/O | Parallel interface data input/out-<br>put; address output                                                  |
| 61  | PB6/D6                       |     |                                                                                                            |
| 62  | PB5/D5                       |     |                                                                                                            |
| 63  | PB4/D4                       |     |                                                                                                            |
| 64  | PB3/D3                       |     |                                                                                                            |
| 65  | PB2/D2                       |     |                                                                                                            |
| 66  | PB1/D1                       |     |                                                                                                            |
| 67  | PB0/D0                       |     |                                                                                                            |
| 68  | VSS3                         |     | Negative power supply                                                                                      |
| 69  | VDD3                         |     | Positive power supply                                                                                      |
| 70  | PC7/A7                       | I/O | Parallel interface address output                                                                          |
| 71  | PC6/A6                       |     |                                                                                                            |
| 72  | PC5/A5                       |     |                                                                                                            |
| 73  | PC4/A4                       |     |                                                                                                            |
| 74  | PC3/A3                       |     |                                                                                                            |
| 75  | PC2/A2                       |     |                                                                                                            |
| 76  | PC1/A1                       |     |                                                                                                            |
| 77  | PC0/A0                       |     |                                                                                                            |
| 78  | PA0/ $\overline{\text{CS2}}$ | I/O | Parallel interface output $\overline{\text{CS2}}$                                                          |
| 79  | PA1/ $\overline{\text{CS1}}$ | I/O | Parallel interface output $\overline{\text{CS1}}$                                                          |
| 80  | PA2/ $\overline{\text{CS0}}$ | I/O | Parallel interface output $\overline{\text{CS0}}$                                                          |

# IC406 : LC74781-9626 Superimpose



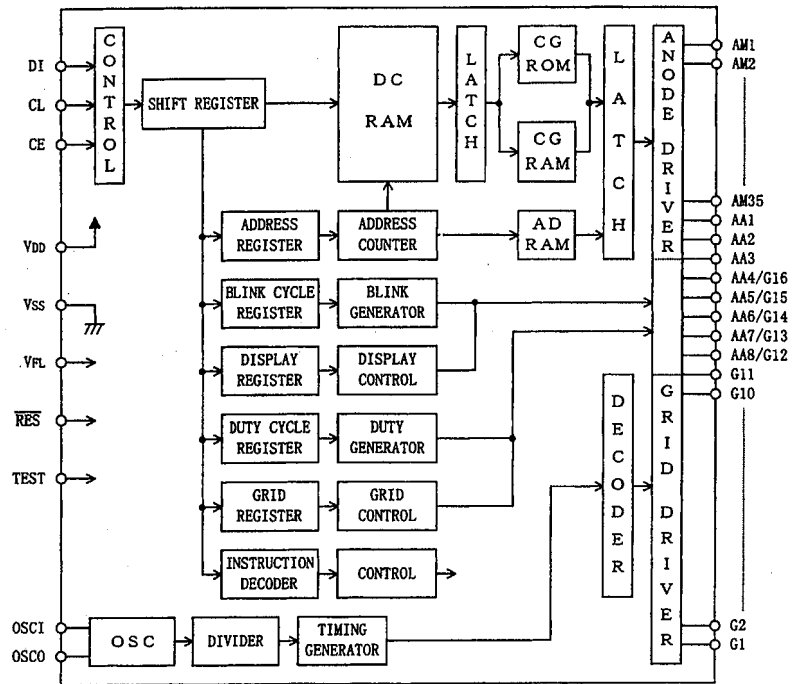
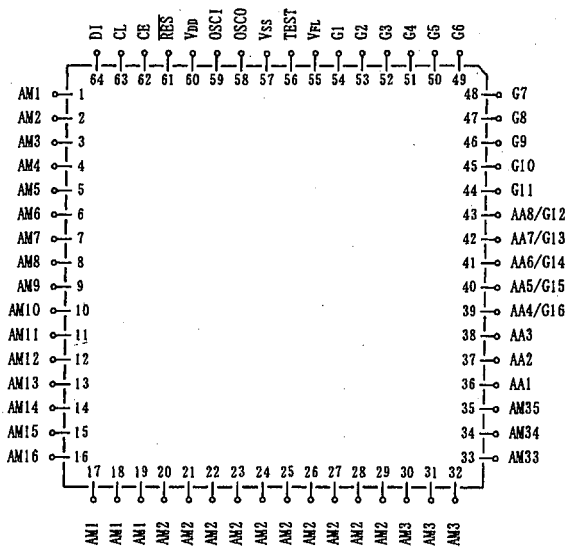
## IC406 : LC74781-9626

## Superimpose

| Pin No. | Symbol   | Terminal name                                        | Function                                                                                                                                                                                                                                                                                                                                                                                       |
|---------|----------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1       | VSS1     | Ground terminal                                      | Connection to GND (Digital system ground terminal)                                                                                                                                                                                                                                                                                                                                             |
| 2       | XTAL IN  | Crystal oscillation terminal                         | Terminal to connect the crystal of the crystal oscillator for internal synchronous signal generation and a capacitor or to input an external clock. (2fsc or 4fsc)                                                                                                                                                                                                                             |
| 3       | XTAL OUT |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                |
| 4       | CTRL1    | Crystal oscillation input switching terminal         | Switching terminal between the mode to input a clock externally and the mode for crystal oscillation. [L] = Crystal oscillation, [H] = External clock input                                                                                                                                                                                                                                    |
| 5       | BLANK    | Blank output terminal                                | Terminal to output the blank signal (character and bordering OR signal) (MOD0 : complex synchronous signal output at [H]). When resetting (RST terminal = [L]), a crystal oscillation clock is output (but not when resetting by the command).                                                                                                                                                 |
| 6       | OSC IN   | LC oscillation terminal                              | Terminal to connect the coil of the oscillator for character output dot clock generation and a capacitor.                                                                                                                                                                                                                                                                                      |
| 7       | OSC OUT  |                                                      |                                                                                                                                                                                                                                                                                                                                                                                                |
| 8       | CHARA    | Character output terminal                            | Terminal to output a character signal (MOD0 : It becomes an output terminal to judge the external synchronous signal at [H] and outputs the result after judging existence of the external synchronous signal. When a synchronous signal exists, [H] is output.) When resetting (RST terminal = [L]), a dot clock (LC oscillation) is output (but it is not output when reset by the command.) |
| 9       | /CS      | Enable input terminal                                | Serial data input enable input terminal. The serial data input becomes enable at [L]. A pull-up resistor is built in (hysteresis input).                                                                                                                                                                                                                                                       |
| 10      | SCLK     | Clock input terminal                                 | Input terminal of clock for serial data input. A pull-up resistor is built in (hysteresis input).                                                                                                                                                                                                                                                                                              |
| 11      | SIN      | Data input terminal                                  | Serial data input terminal. A pull-up resistor is built in (hysteresis input).                                                                                                                                                                                                                                                                                                                 |
| 12      | VDD2     | Power supply terminal                                | Power supply terminal for complex image signal level adjustment (Power supply for analog system)                                                                                                                                                                                                                                                                                               |
| 13      | CV OUT   | Video signal output terminal                         | Output terminal for complex image signal.                                                                                                                                                                                                                                                                                                                                                      |
| 14      | NC       |                                                      | Connected to GND or unconnected.                                                                                                                                                                                                                                                                                                                                                               |
| 15      | CV IN    | Video signal input terminal                          | Input terminal for complex image signal.                                                                                                                                                                                                                                                                                                                                                       |
| 16      | VDD1     | Power supply terminal                                | Power supply terminal (+5V : power supply for digital system)                                                                                                                                                                                                                                                                                                                                  |
| 17      | SYN IN   | Synchronous separation circuit input terminal        | Video signal input terminal of the built-in synchronous separation circuit (When the built-in synchronous separation circuit is not used, it becomes a horizontal synchronous signal input or a complex synchronous signal input.)                                                                                                                                                             |
| 18      | SEP C    | Synchronous separation circuit bias voltage terminal | Terminal to monitor built-in synchronous separation circuit bias voltage.                                                                                                                                                                                                                                                                                                                      |
| 19      | SEP OUT  | Complex synchronous signal output terminal           | Terminal to output a complex synchronous signal of built-in synchronous separation circuit ([H] when internally synchronized at MOD1 : [H], [L] output when externally synchronized) (When the built-in synchronous separation circuit is not used, SYNIN input signal is output.)                                                                                                             |
| 20      | SEP IN   | Vertical synchronous signal input terminal           | Terminal to input a vertical synchronous signal by integrating the output signal of SEPOUT terminal. Connect the integration circuit between SEPOUT terminals. Fix it to VDD1 when not used.                                                                                                                                                                                                   |
| 21      | CTRL2    | NTSC/PAL-M switching input terminal                  | Pin setting has a priority over switching of NTSC/PAL/PAL-M/PAL-N method. The NTSC method is selected after [L]= reset. NTSC/PAL/PAL-M/PAL-N method setting by a command is effective. [H] = PAL-M method.                                                                                                                                                                                     |
| 22      | CTRL3    | SEPIN input control terminal                         | Terminal to control whether or not to input VSYNC signal into SEPIN input terminal. [L] = VSYNC inputted, [H] = VSYNC not inputted.                                                                                                                                                                                                                                                            |
| 23      | /RST     | Reset input terminal                                 | System reset input terminal. A pull-up resistor is built in (hysteresis input).                                                                                                                                                                                                                                                                                                                |
| 24      | VDD1     | Power supply terminal (+5V)                          | Power supply terminal (+5V : power supply for digital system)                                                                                                                                                                                                                                                                                                                                  |

**IC102 : LC75712E**

## Display Driver



| No. | Name | Function                                           |
|-----|------|----------------------------------------------------|
| 1   | AM1  | Anode outputs<br>Pull-down resistors are built in. |
| 2   | AM2  |                                                    |
| 3   | AM3  |                                                    |
| 4   | AM4  |                                                    |
| 5   | AM5  |                                                    |
| 6   | AM6  |                                                    |
| 7   | AM7  |                                                    |
| 8   | AM8  |                                                    |
| 9   | AM9  |                                                    |
| 10  | AM10 |                                                    |
| 11  | AM11 |                                                    |
| 12  | AM12 |                                                    |
| 13  | AM13 |                                                    |
| 14  | AM14 |                                                    |
| 15  | AM15 |                                                    |
| 16  | AM16 |                                                    |
| 17  | AM17 |                                                    |
| 18  | AM18 |                                                    |
| 19  | AM19 |                                                    |
| 20  | AM20 |                                                    |
| 21  | AM21 |                                                    |
| 22  | AM22 |                                                    |
| 23  | AM23 |                                                    |
| 24  | AM24 |                                                    |
| 25  | AM25 |                                                    |
| 26  | AM26 |                                                    |
| 27  | AM27 |                                                    |
| 28  | AM28 |                                                    |
| 29  | AM29 |                                                    |
| 30  | AM30 |                                                    |
| 31  | AM31 |                                                    |
| 32  | AM32 |                                                    |

| No. | Name    | Function                                                |
|-----|---------|---------------------------------------------------------|
| 33  | AM33    | Anode outputs<br>Pull-down resistors are built in.      |
| 34  | AM34    |                                                         |
| 35  | AM35    |                                                         |
| 36  | AA1     |                                                         |
| 37  | AA2     |                                                         |
| 38  | AA3     | Anode/grid outputs<br>Pull-down resistors are built in. |
| 39  | AA4/G16 |                                                         |
| 40  | AA5/G15 |                                                         |
| 41  | AA6/G14 |                                                         |
| 42  | AA7/G13 |                                                         |
| 43  | AA8/G12 | Grid output pin<br>Pull-down resistors are built in.    |
| 44  | G11     |                                                         |
| 45  | G10     |                                                         |
| 46  | G9      |                                                         |
| 47  | G8      |                                                         |
| 48  | G7      |                                                         |
| 49  | G6      |                                                         |
| 50  | G5      |                                                         |
| 51  | G4      |                                                         |
| 52  | G3      |                                                         |
| 53  | G2      |                                                         |
| 54  | G1      |                                                         |
| 55  | VFL     | Driver block Power supply                               |
| 56  | TEST    | LSI test pin                                            |
| 57  | VSS     | Logic block Power supply : GND                          |
| 58  | OSC     | External oscillator RC circuit connection               |
| 59  | OSCI    |                                                         |
| 60  | VDD     | Logic block Power supply : +5V                          |
| 61  | RES     | System reset input pin                                  |
| 62  | CE      | Chip enable                                             |
| 63  | CL      | Sync clock                                              |
| 64  | DI      | Transfer data                                           |

## IC21 : HD64F3337YF16

## Main Micro Processor

| No. | Name          | Function      | I/O | Detail of Function                           |
|-----|---------------|---------------|-----|----------------------------------------------|
| 1   | /RES          | /RES          |     | CPU Reset                                    |
| 2   | XTAL          | XTAL          |     | 8MHz                                         |
| 3   | EXTAL         | EXTAL         |     | 8MHz                                         |
| 4   | MD1           | MD1           |     | Mode Set 1 Normal:+5M Flush Write:+12V       |
| 5   | MD0           | MD0           |     | Mode Set 0 Normal:+5M Flush Write:+5M        |
| 6   | /NMI          | Vcc           |     | Vcc                                          |
| 7   | /STBY or Fvpp | /STBY or Fvpp |     | Stand-by or Fvpp Normal:+5M Flush Write:+12V |
| 8   | Vcc           | Vcc           |     | Vcc                                          |
| 9   | P52/SCK0      | SCKN          | O   | SCK for Non Audio                            |
| 10  | P51/RXD0      | RDTR/FSW      | I   | RXD for Non Audio (RDS) / Frequency Switch   |
| 11  | P50/TXD0      | SDTN          | O   | SDT for Non Audio                            |
| 12  | Vss           | GND           |     | GND                                          |
| 13  | P97           | CER           | O   | CE for Non Audio (RDS)                       |
| 14  | P98/ $\phi$   | /ST           | I   | Tuner Stereo                                 |
| 15  | P95           | CES           | O   | CE for Non Audio (OSD)                       |
| 16  | P94           | CEF1          | O   | CE for Non Audio (FL1)                       |
| 17  | P93           | CEF0          | O   | CE for Non Audio (FL0)                       |
| 18  | P92//IRQ0     | PDT           | I   | Power Detect (Low Level Detect)              |
| 19  | P91//IRQ1     | REM           | I   | Remote (Low Edge Detect)                     |
| 20  | P90//IRQ2     | VSY           | I   | Video Vartial Sync (Low Edge Detect)         |
| 21  | P60           | SCKP          | O   | SCK for Tuner PLL                            |
| 22  | P61           | SDTP          | O   | SDT for Tuner PLL                            |
| 23  | P62           | RDTP          | I   | RDT for Tuner PLL                            |
| 24  | P63           | CEP           | O   | CE for Tuner PLL                             |
| 25  | P64           | /TMT          | O   | Tuner Mute                                   |
| 26  | P65           | /FLR          | O   | FL Reset                                     |
| 27  | P66//IRQ6     | —             |     | —                                            |
| 28  | P67//IRQ7     | PSW           | I   | Power Switch                                 |
| 29  | Avcc          | Avcc          |     | Avcc                                         |
| 30  | P77/AN7       | MTR           | I   | Tuner Meter                                  |
| 31  | P70/AN0       | KEY0          | I   | Key State 0                                  |
| 32  | P71/AN1       | KEY1          | I   | Key State 1                                  |
| 33  | P72/AN2       | KEY2          | I   | Key State 2                                  |
| 34  | P73/AN3       | REC           | I   | Recout Selector                              |
| 35  | P74/AN4       | PRV           | I   | V Protection                                 |
| 36  | P75/AN5       | PRD           | I   | DC Protection                                |
| 37  | P76/AN6       | THM           | I   | Thermal Detect                               |
| 38  | Avss          | GND           |     | GND                                          |
| 39  | P40           | VIND          | O   | Volume Indicator                             |
| 40  | P41           | VUP           | O   | Volume Up                                    |
| 41  | P42           | VDN           | O   | Volume Down                                  |
| 42  | P43           | IPA           | I   | Input Selector A                             |
| 43  | P44           | IPB           | I   | Input Selector B                             |
| 44  | P45           | PRI           | I   | I Protection                                 |
| 45  | P46/PW0       | FAN           | O   | Fan Control                                  |
| 46  | P47/PW1       | /FMT          | O   | Full Mute                                    |
| 47  | Vcc           | Vcc           |     | Vcc                                          |
| 48  | P27           | /MLY          | O   | Main Level Att.                              |
| 49  | P28           | SPA           | O   | Speaker Relay A                              |
| 50  | P25           | SPB           | O   | Speaker Relay B                              |
| 51  | P24           | SPE           | O   | Speaker Relay Ext                            |
| 52  | P23           | CEL           | O   | CE Sanyo for Audio                           |
| 53  | P22           | CET           | O   | CE Toshiba for Audio                         |

## IC21 : HD64F3337YF16

## Main Micro Processor

| No. | Name     | Function | I/O | Detail of Function                          |
|-----|----------|----------|-----|---------------------------------------------|
| 54  | P21      | SDTA     | O   | SDT for Audio                               |
| 55  | P20      | SCKA     | O   | SCK for Audio                               |
| 56  | Vss      | GND      |     | GND                                         |
| 57  | P17      | /R2MT    | O   | Room 2 Mute                                 |
| 58  | P16      | I/E      | O   | Video Internal/External                     |
| 59  | P15      | VRC      | O   | Video Recout Select C                       |
| 60  | P14      | VRB      | O   | Video Recout Select B                       |
| 61  | P13      | VRA      | O   | Video Recout Select A                       |
| 62  | P12      | VIC      | O   | Video Input Select C                        |
| 63  | P11      | VIB      | O   | Video Input Select B                        |
| 64  | P10      | VIA      | O   | Video Input Select A                        |
| 65  | P30      | PRY      | O   | Power Relay                                 |
| 66  | P31      | Z2DET    | I   | Zone 2 Detect                               |
| 67  | P32      | TUN0     | I   | Tuner Mode 0                                |
| 68  | P33      | TUN1     | I   | Tuner Mode 1                                |
| 69  | P34      | VID      | I   | Video Format                                |
| 70  | P35      | RDS      | I   | RDS Exist or Not                            |
| 71  | P36      | TYP0     | I   | Model Type 0                                |
| 72  | P37      | TYP1     | I   | Model Type 1                                |
| 73  | Vss      | GND      |     | GND                                         |
| 74  | —        | —        |     | —                                           |
| 75  | P81      | /SBR     | O   | Sub CPU Reset                               |
| 76  | P82      | TRO      | I   | CPU I/F Transfer Request                    |
| 77  | P83      | WCIF     | I   | CPU I/F Word Clock                          |
| 78  | P84/TXD1 | MTS/TXD1 | O   | Normal:CPU I/F Main to Sub Flush Write:TXD1 |
| 79  | P85/RXD1 | STM/RXD1 | I   | Normal:CPU I/F Sub to Main Flush Write:RXD1 |
| 80  | P86/SCK1 | CKIF     | O   | CPU I/F Clock                               |

## (Note 1) Pin 10 Frequency Switch (R only)

|   |                               |                                  |
|---|-------------------------------|----------------------------------|
| 0 | AM : 530-1710kHz (10kHz step) | FM : 87.5-108.0MHz (100kHz step) |
| 1 | AM : 531-1611kHz (9kHz step)  | FM : 87.5-108.0MHz (50kHz step)  |

## (Note 2) Pin 67, 68 Tuner Mode 0 and 1

| Tuner Mode 1 | Tuner Mode 0 | Tuner Frequency                                          |                                  |      |      |
|--------------|--------------|----------------------------------------------------------|----------------------------------|------|------|
| 0            | 0            | AM : 531-1611kHz (9kHz step)                             | FM : 76.0-90.0MHz (100kHz step)  | J    |      |
| 0            | 1            | AM : 530-1710kHz (10kHz step)                            | FM : 87.5-107.9MHz (200kHz step) | U, C |      |
| 1            | 0            | AM : 531-1611kHz (9kHz step)                             | FM : 87.5-108.0MHz (50kHz step)  | A, L |      |
| 1            | 1            | Tuner Frequency is selected by Frequency Switch (Pin 10) |                                  |      | R, T |

## (Note 3) Pin 69 Video Format

|   |      |
|---|------|
| 0 | NTSC |
| 1 | PAL  |

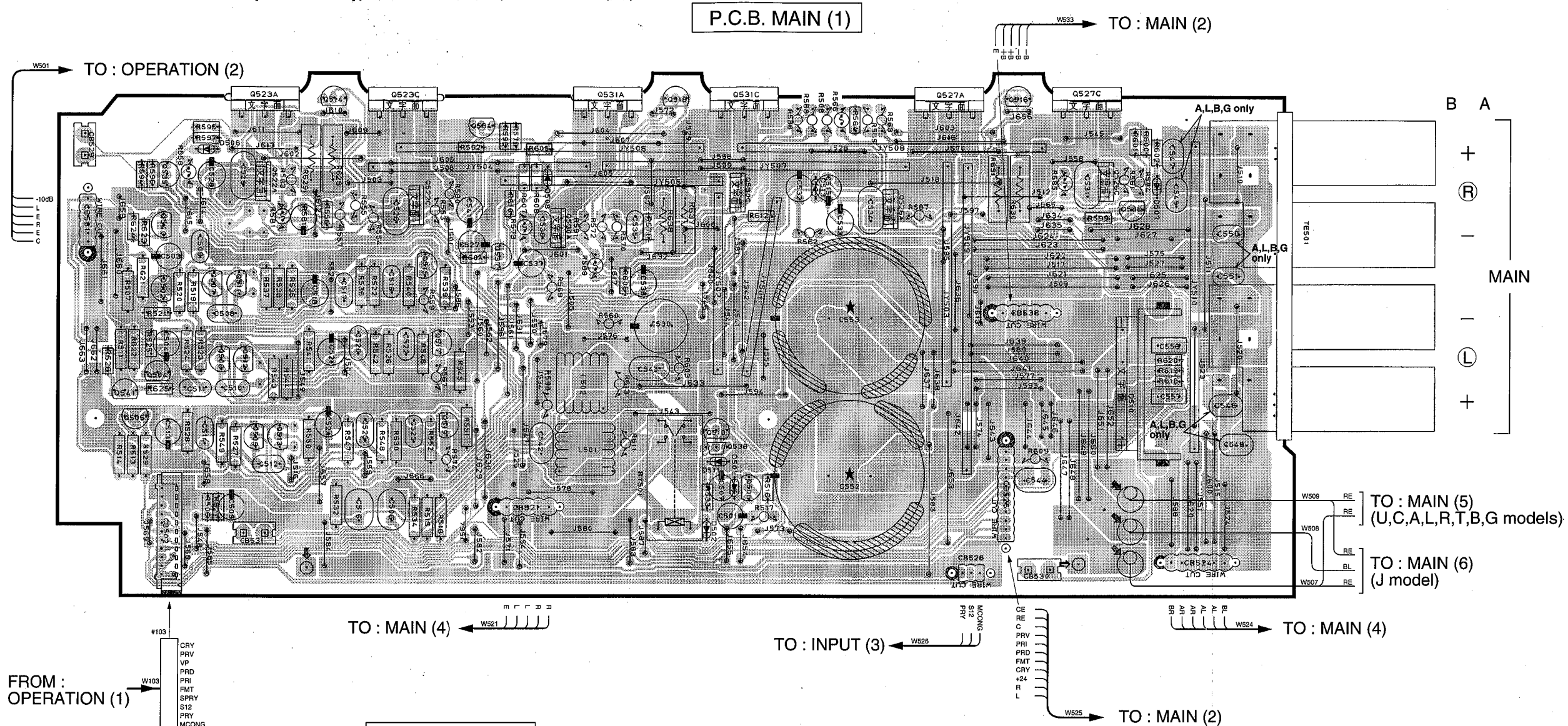
## (Note 4) Pin 70 RDS Exist or Not

|   |           |
|---|-----------|
| 0 | Not Exist |
| 1 | Exist     |

## (Note 5) Pin 71, 72 Model Type 0 and 1

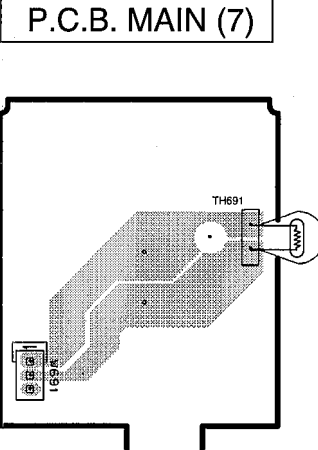
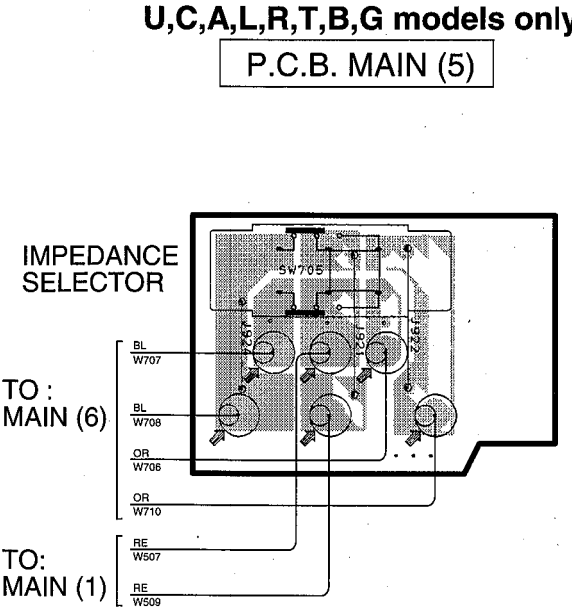
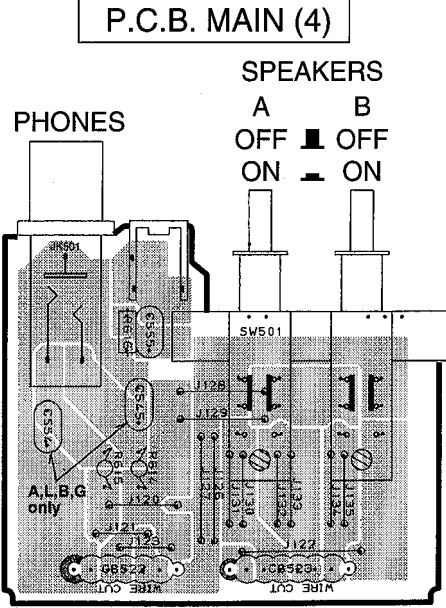
| Model Type 1 | Model Type 0 | Model Name |
|--------------|--------------|------------|
| 0            | 0            | RX-V2095   |
| 0            | 1            | DSP-A2     |
| 1            | 0            | RX-V995    |
| 1            | 1            | RX-V795    |

PRINTED CIRCUIT BOARD (Foil side)/シート図 (パターン側)



● Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q502    | B2       | Q523A   | B1       |
| Q504    | B3       | Q523C   | C1       |
| Q505    | B3       | Q526A   | E2       |
| Q506    | D3       | Q526C   | F2       |
| Q507    | B2       | Q527A   | E1       |
| Q508    | B2       | Q527C   | F1       |
| Q509    | B3       | Q530A   | C2       |
| Q510    | D3       | Q530C   | D2       |
| Q511    | B2       | Q531A   | D1       |
| Q512    | B2       | Q531C   | D1       |
| Q513    | B3       | Q534    | C1       |
| Q514    | B1       | Q535    | B2       |
| Q515    | C2       | Q536    | F2       |
| Q516    | E1       | Q537    | C2       |
| Q517    | C2       | Q538    | D3       |
| Q518    | D1       | Q540    | B2       |
| Q519    | C3       | Q541    | B3       |
| Q522A   | B2       |         |          |
| Q522C   | C2       |         |          |



## 2

## 3

4

# PRINTED CIRCUIT BOARD (Foil side) / シート図 (パターン側)

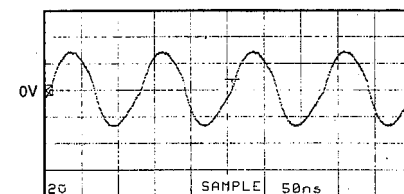
P.C.B. INPUT (1)

## ● Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q11     | F4       | IC11    | C4       |
| Q12     | F3       | IC12    | C4       |
| Q13     | F3       | IC13    | D4       |
|         |          | IC15    | E3       |
|         |          | IC16    | E3       |
|         |          | IC20    | D4       |
|         |          | IC21    | F3       |

### Point ③ (Pin3 of IC21)

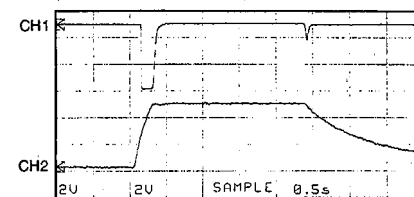
V : 2V/div H : 50 nsec/div  
DC range 1 : 1 probe



### Point ④

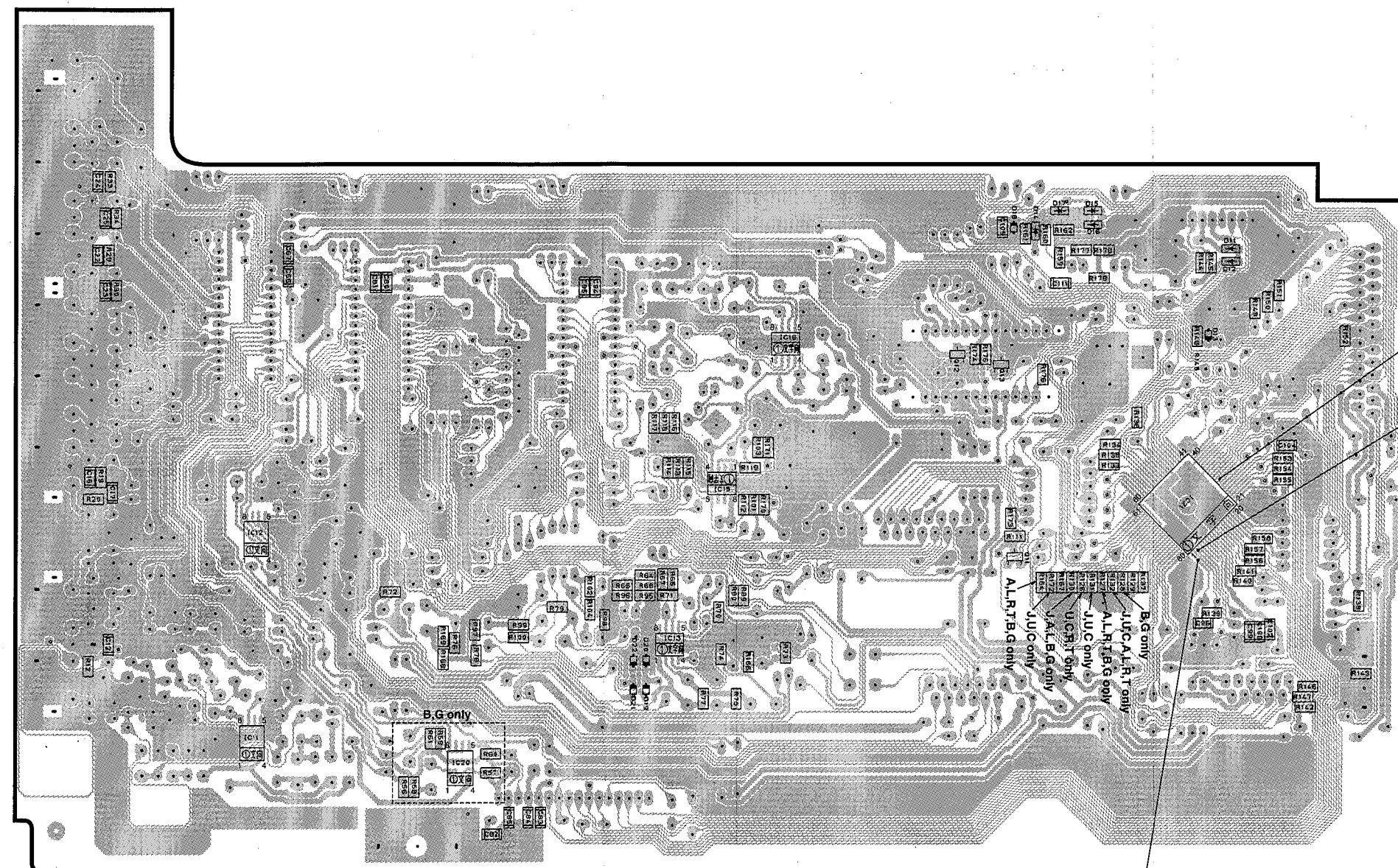
CH1 : Pin1 of IC21 V : 2V/div (CH1)  
CH2 : Pin29 of IC21 V : 2V/div (CH2)

H : 0.5 sec/div DC range 1 : 1 probe  
(This waveform is not available by pushing the power switch ON and OFF.)



With the POWER ON, disconnect the A/C power cord. Reconnect the A/C power cord and the above waveforms will start.

Disconnect the power cord from the AC outlet.

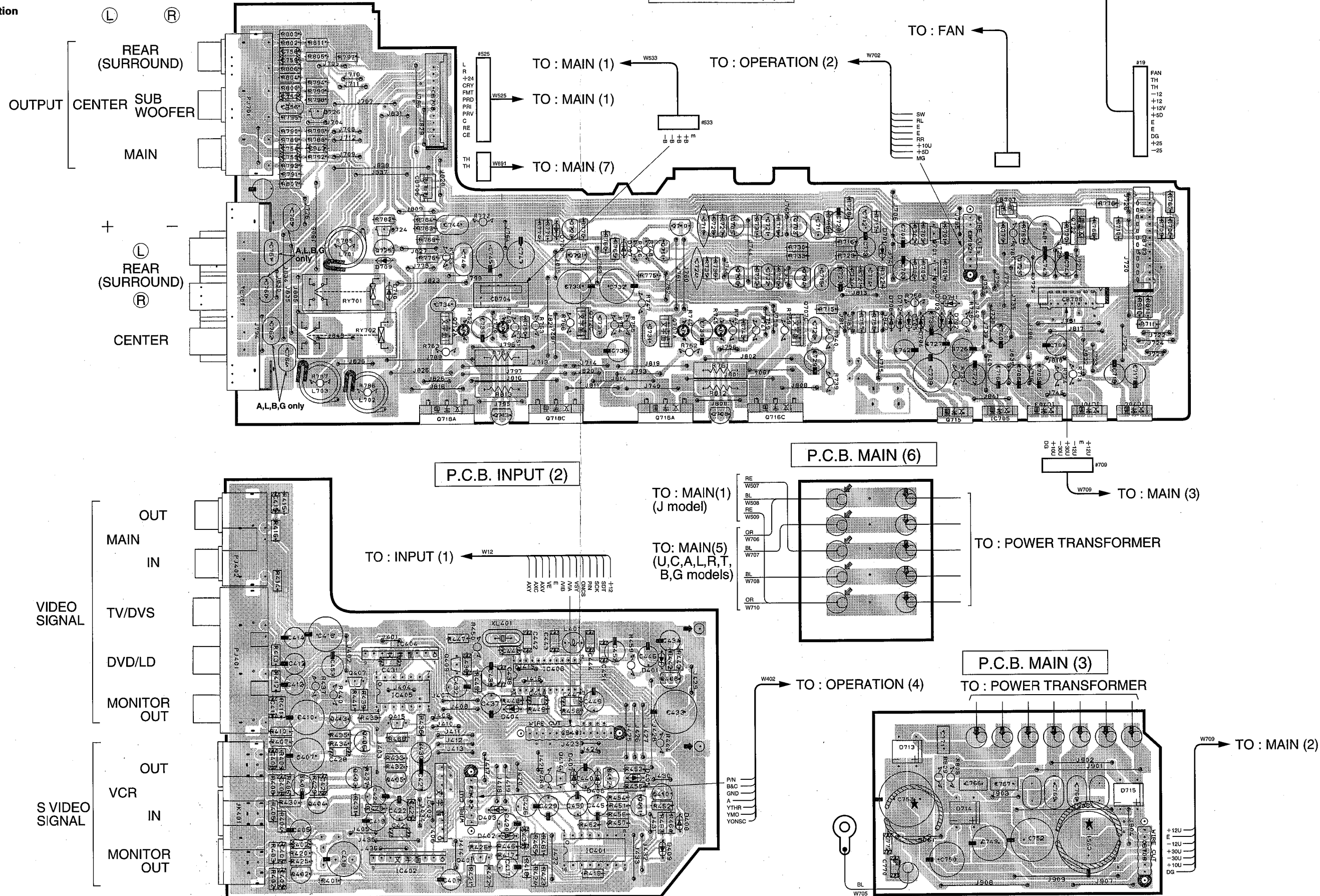


# **PRINTED CIRCUIT BOARD (Foil side) / シート図 (パターン側)**

## **Semiconductor Location**

| Ref No. | Location |
|---------|----------|
| Q401    | D6       |
| Q402    | C6       |
| Q403    | C5       |
| Q404    | C5       |
| Q405    | C5       |
| Q406    | C5       |
| Q407    | C5       |
| Q408    | E5       |
| Q409    | D5       |
| Q410    | E5       |
| Q411    | E5       |
| Q412    | E5       |
| Q413    | C5       |
| Q414    | D5       |
| Q415    | C5       |
| Q701    | F2       |
| Q702    | F3       |
| Q703    | F2       |
| Q704    | F3       |
| Q705    | E2       |
| Q706    | E2       |
| Q707A   | E3       |
| Q707C   | F3       |
| Q708    | E3       |
| Q710    | E2       |
| Q711    | E2       |
| Q712A   | D3       |
| Q712C   | D3       |
| Q713    | D3       |
| Q715    | E3       |
| Q716A   | E3       |
| Q716C   | E3       |
| Q718A   | D3       |
| Q718C   | D3       |
| Q720    | D2       |
| Q721    | D2       |
| Q722    | G2       |
| Q723    | G2       |
| Q724    | C2       |
| Q725    | C2       |
| Q726    | C2       |

| Ref No. | Location |
|---------|----------|
| IC401   | E6       |
| IC402   | D6       |
| IC403   | D5       |
| IC404   | C4       |
| IC405   | C5       |
| IC406   | D5       |
| IC701   | G3       |
| IC703   | G3       |
| IC704   | G3       |
| IC705   | G3       |

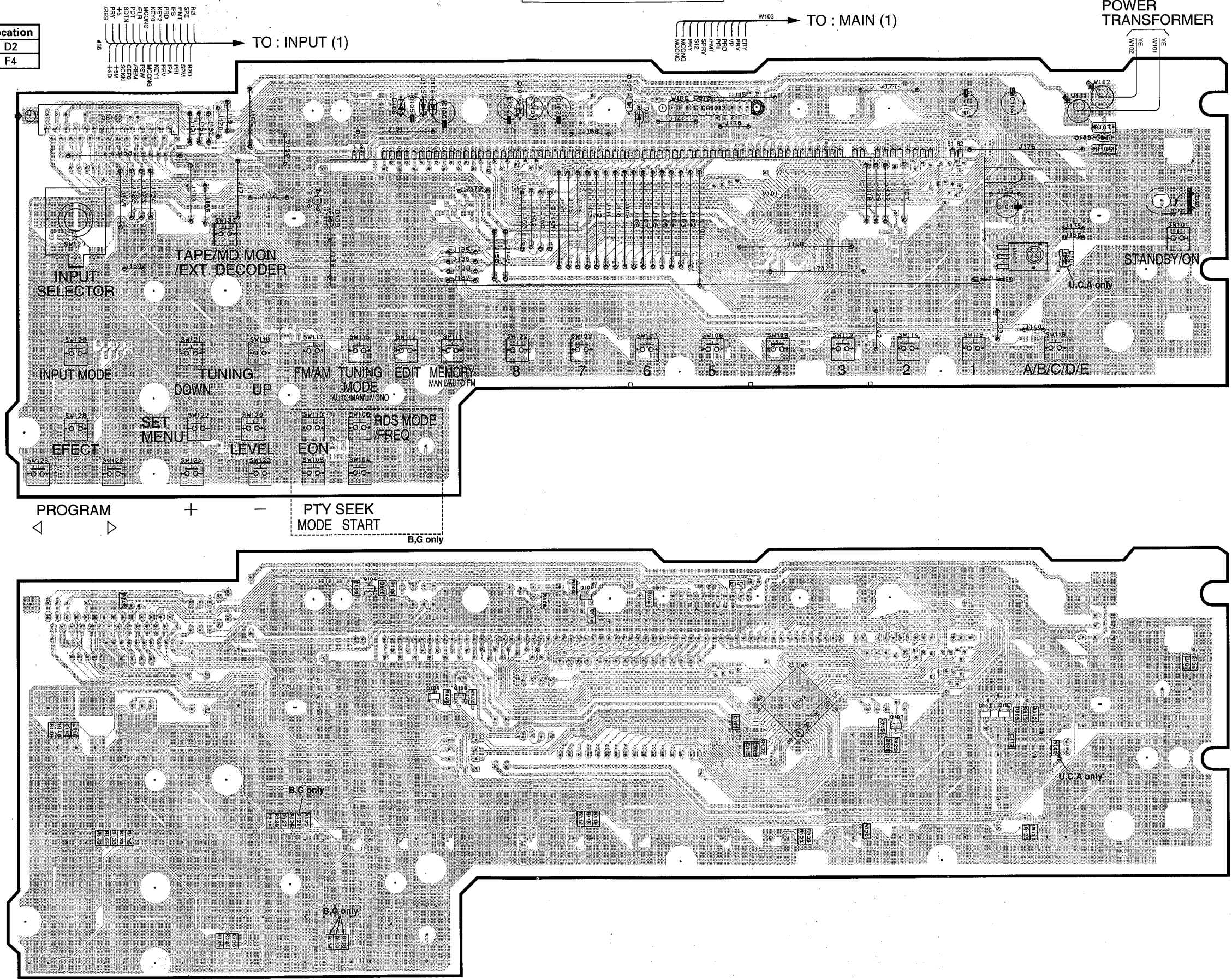


PRINTED CIRCUIT BOARD (Foil side)/シート図 (パターン側)

P.C.B. OPERATION (1)

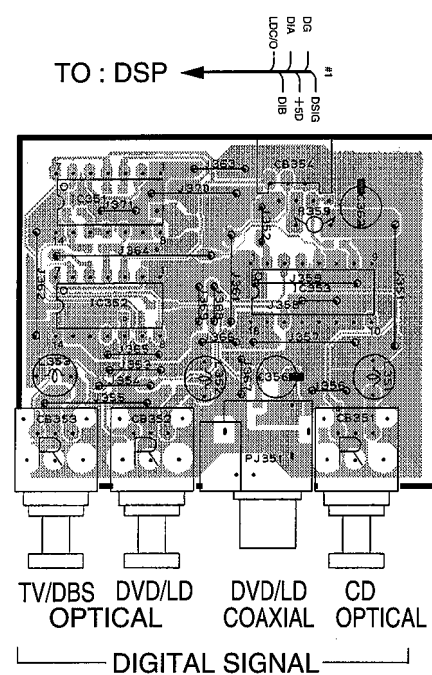
Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q101    | D4       | IC101   | D2       |
| Q102    | F4       | IC102   | F4       |
| Q103    | G4       |         |          |
| Q104    | C4       |         |          |
| Q105    | D4       |         |          |
| Q106    | D4       |         |          |
| Q107    | F5       |         |          |

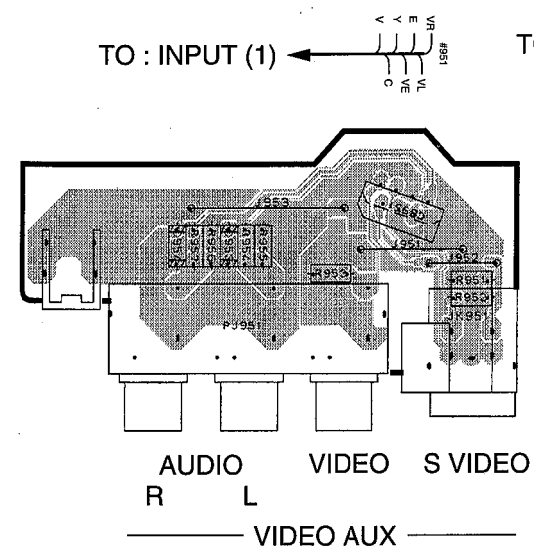


# PRINTED CIRCUIT BOARD (Foil side)/シート図 (パターン側)

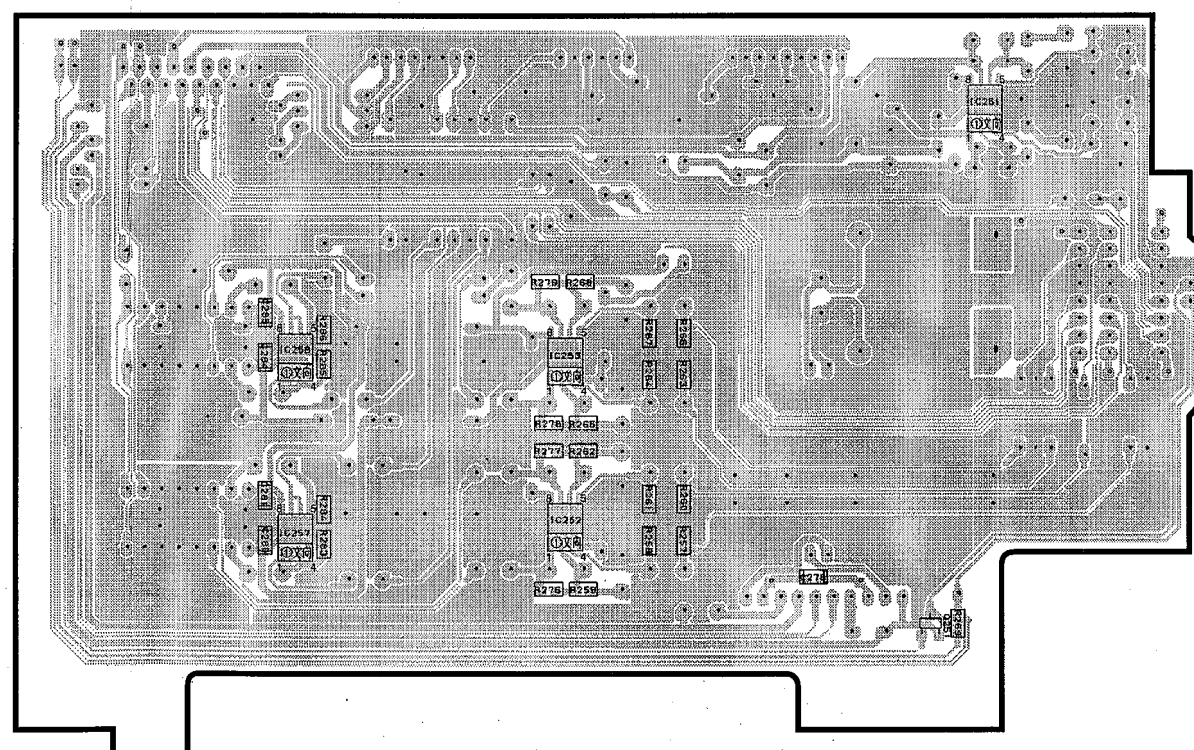
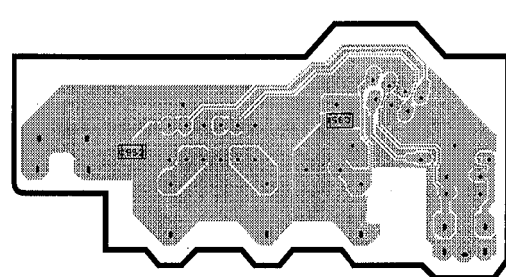
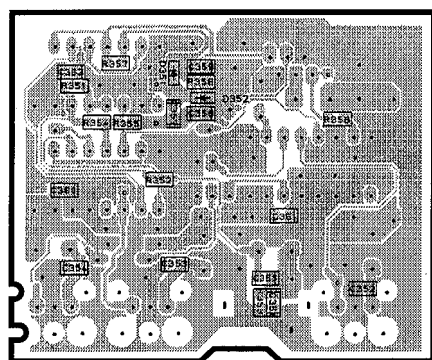
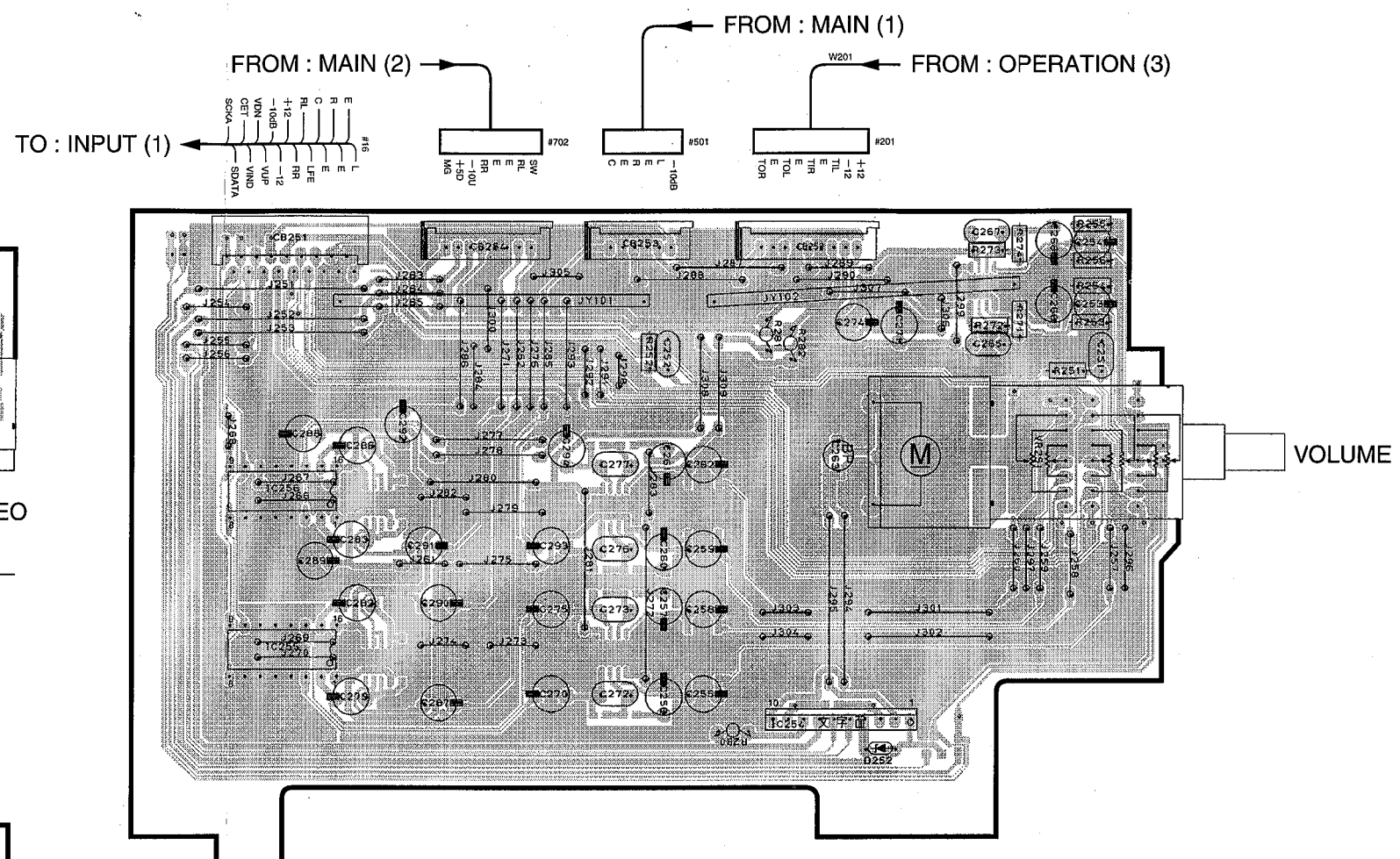
P.C.B. OPERATION (5)



P.C.B. OPERATION (6)



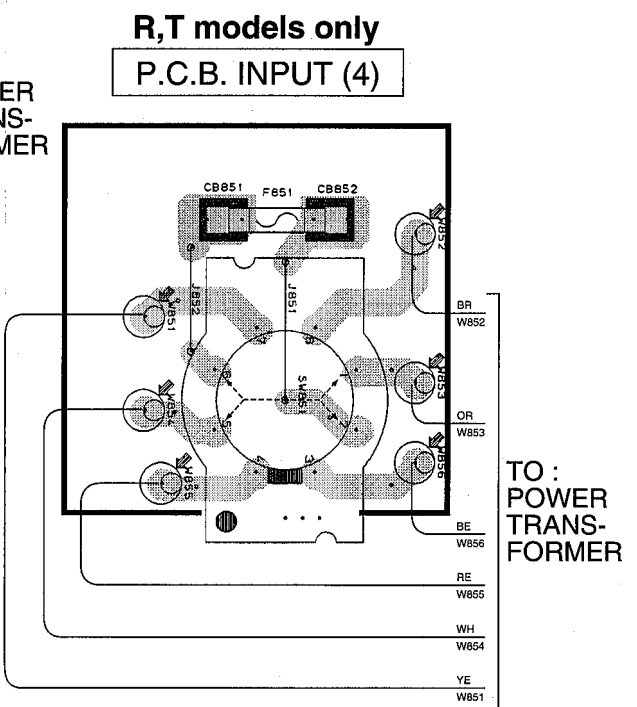
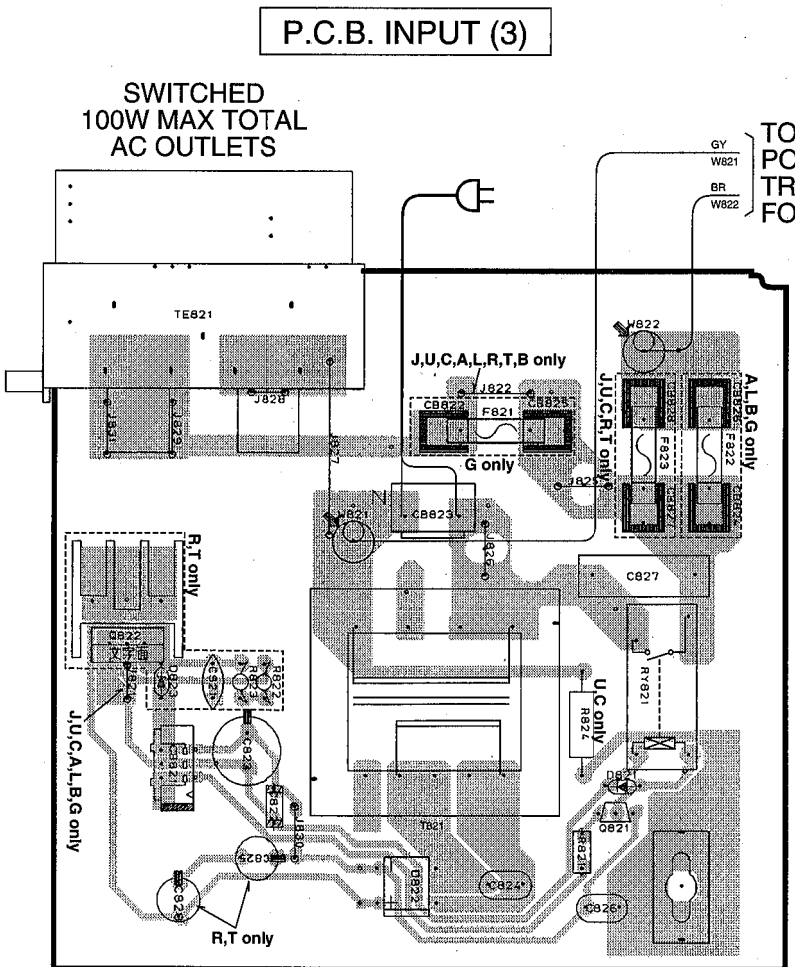
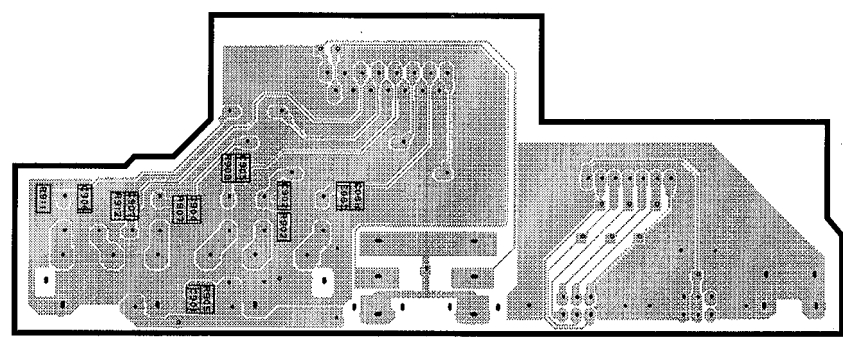
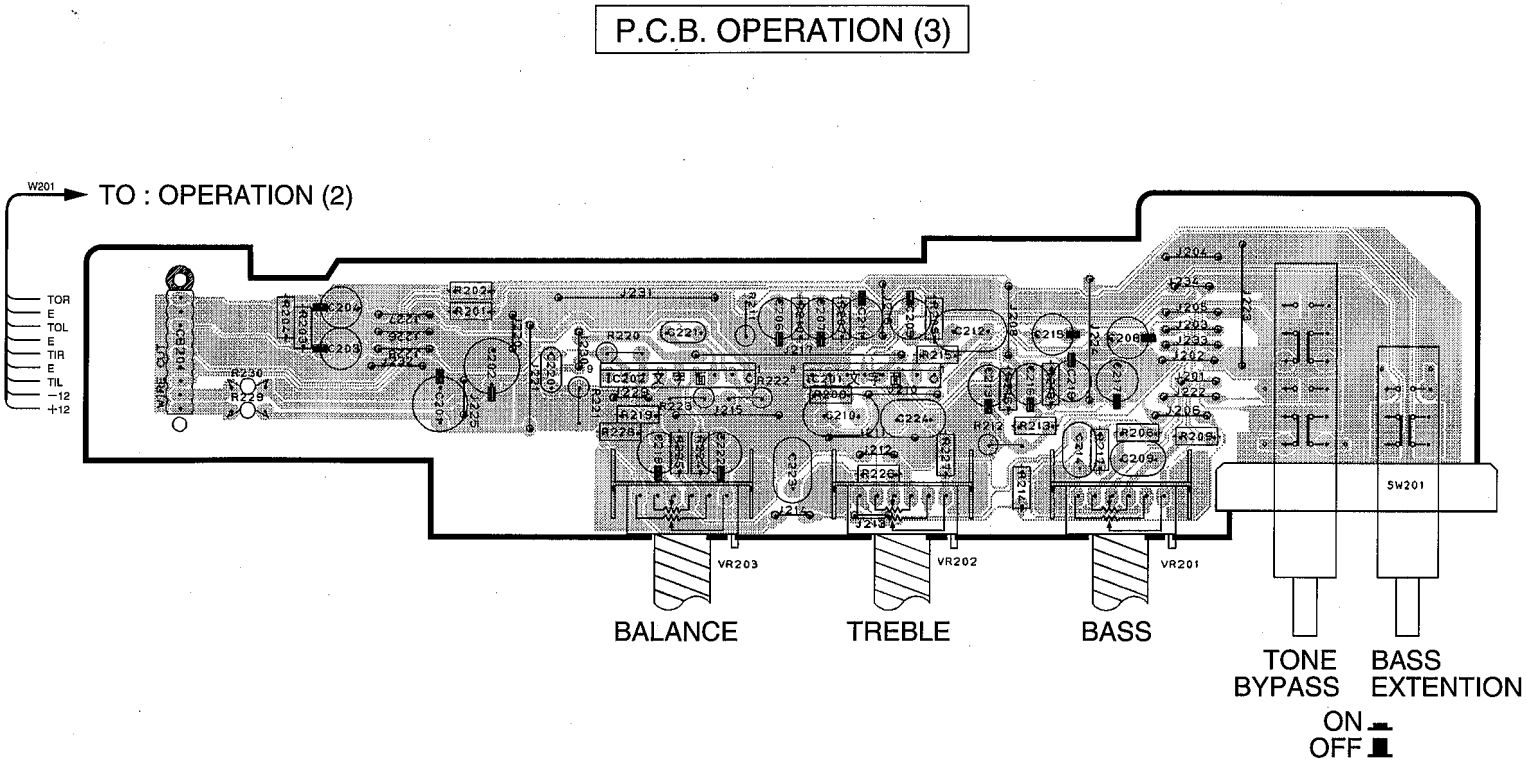
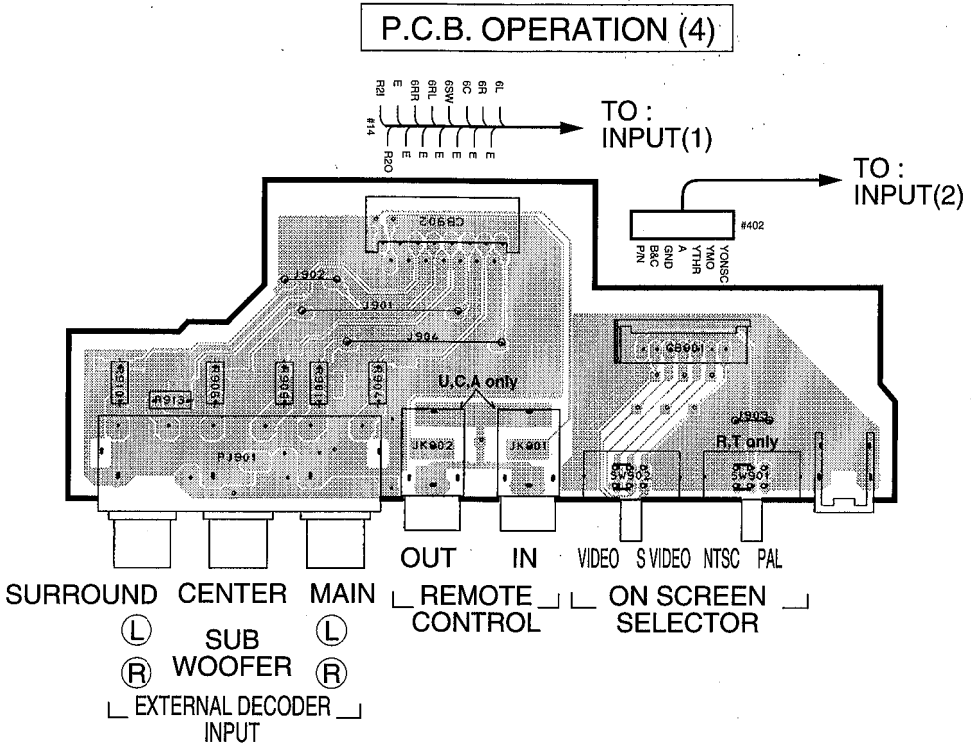
P.C.B. OPERATION (2)



## Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q251    | G5       | IC251   | G4       |
|         |          | IC252   | F5       |
|         |          | IC253   | F5       |
|         |          | IC254   | F3       |
|         |          | IC255   | E3       |
|         |          | IC256   | E3       |
|         |          | IC257   | E5       |
|         |          | IC258   | E5       |
|         |          | IC351   | A2       |
|         |          | IC352   | A2       |
|         |          | IC353   | B2       |

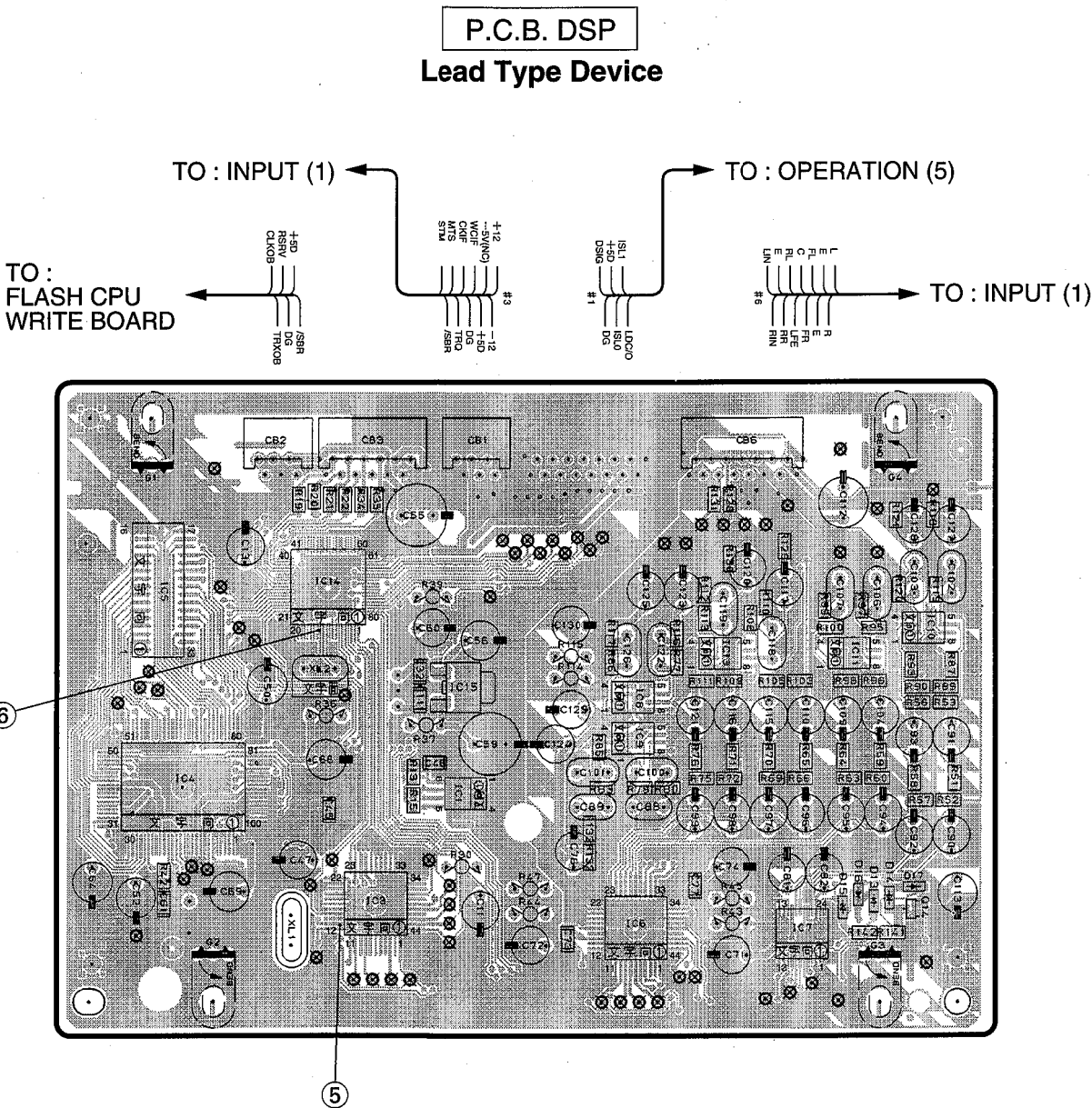
PRINTED CIRCUIT BOARD (Foil side) / シート図 (パターン側)



● Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q821    | F5       | IC201   | F2       |
| Q822    | D5       | IC202   | E2       |

PRINTED CIRCUIT BOARD (Foil side)/シート図 (パターン側)



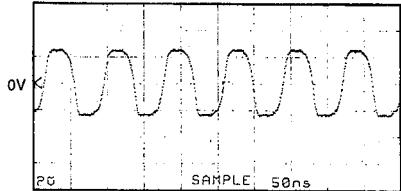
P.C.B. DSP

Surface Mount Device

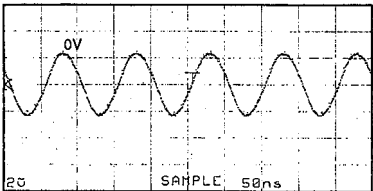
Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q1      | G4       | IC1     | C4       |
| Q2      | G4       | IC2     | E4       |
| Q3      | G4       | IC3     | B4       |
| Q4      | G4       | IC4     | B3       |
| Q5      | G4       | IC5     | B3       |
| Q6      | G3       | IC6     | C4       |
| Q7      | G3       | IC7     | D4       |
| Q8      | G3       | IC8     | C3       |
| Q9      | G3       | IC9     | C3       |
| Q10     | G3       | IC10    | D3       |
| Q11     | G3       | IC11    | D3       |
| Q12     | G3       | IC13    | C3       |
| Q13     | G3       | IC14    | B3       |
| Q14     | D4       | IC15    | C3       |

Point ⑤ (Pin13 of IC3)  
V : 2V/div H : 50 nsec/div  
DC range 1 : 1 probe



Point ⑥ (Pin13 of IC14)  
V : 2V/div H : 50 nsec/div  
DC range 1 : 1 probe



# **PRINTED CIRCUIT BOARD (Foil side) / シート図 (パターン側)**

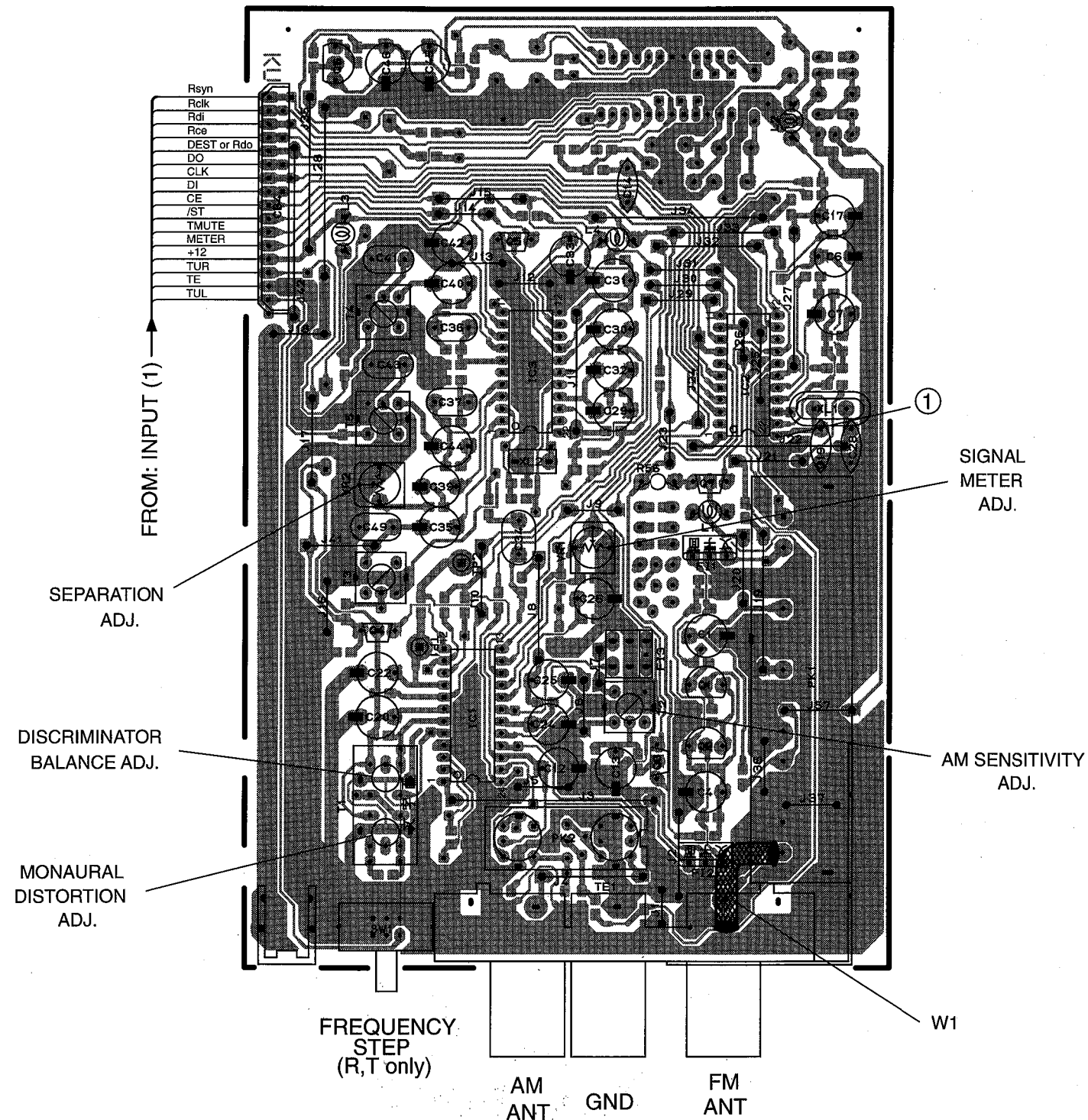
## **Semiconductor Location**

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q1      | C4       | IC1     | B4       |
| Q2      | C4       | IC2     | C3       |
| Q3      | C5       | IC3     | C3       |
| Q4      | B4       |         |          |
| Q5      | B3       |         |          |
| Q6      | B2       |         |          |
| Q7      | C4       |         |          |

J,U,C,A,L,R,T models only

P.C.B. TUNER/SMD

Lead Type & SMD



There are two types of the Tuner P.C.B. Assembly in this model: One is a lead type device and the other is a lead type device & surface mount device (SMD). These two P.C.B. assemblies are compatible.

このモデルは部品構成上P.C.B. Ass'y TUNERが、Lead Type DeviceとLead Type Device & Surface Mount Device(SMD)の2種類あります。両方のP.C.B. Ass'yには、互換性があります。

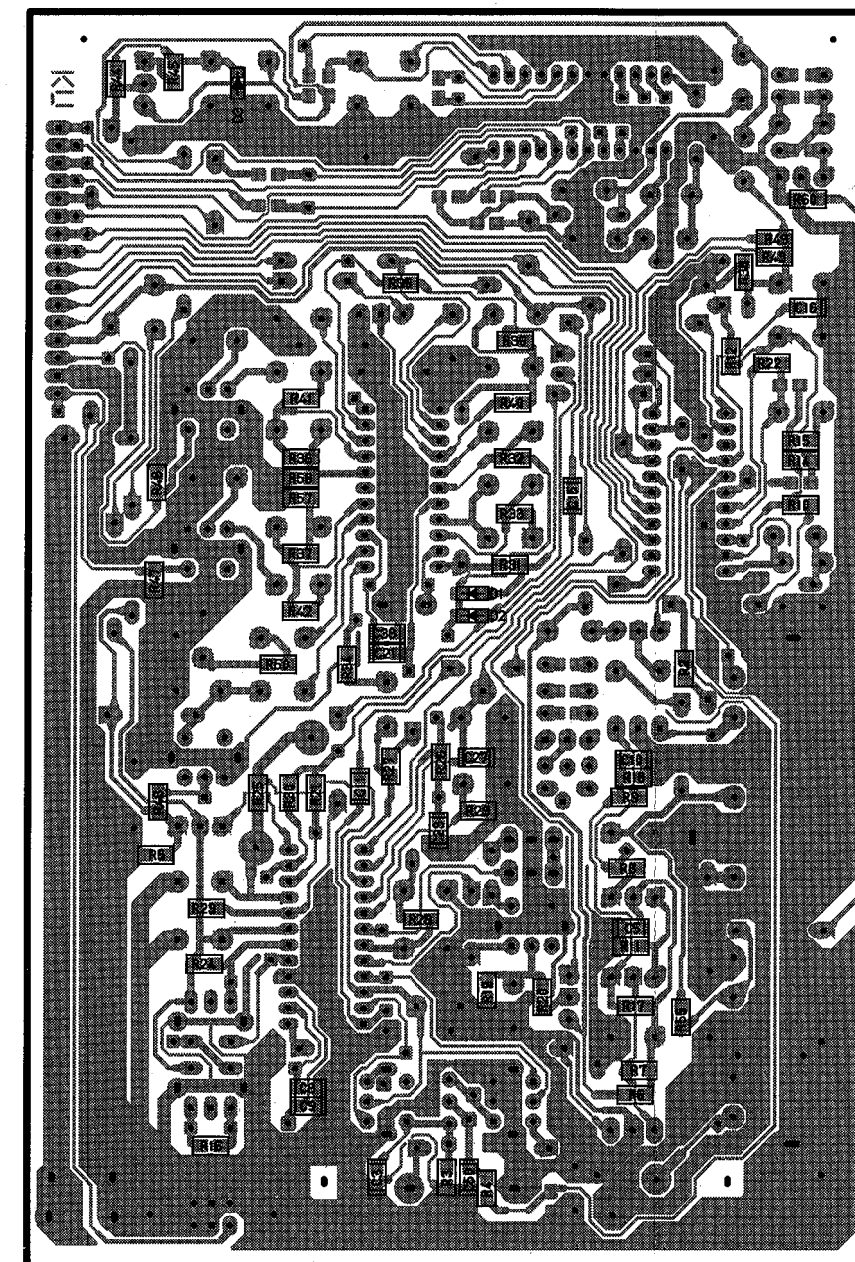
## **P.C.B. Ass'y List**

|                 | MARKETS | Lead Type | Lead & SMD |
|-----------------|---------|-----------|------------|
| DSP-R795        | J       | V2518500  | V2519200   |
| RX-V795/R-V1105 | U,C     | V2518600  | V2519300   |
| RX-V795/R-V1105 | R,T     | V2518700  | V2519400   |
| RX-V795/R-V1105 | A,L     | V2518800  | V2519500   |

J,U,C,A,L,R,T models only

P.C.B. TUNER/SMD

Lead Type & SMD



## **CIRCUIT CHANGES BY MARKET.**

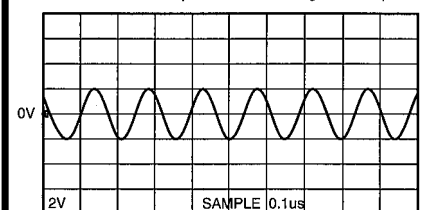
|     | J | U,C | R,T | A,B,G,L |
|-----|---|-----|-----|---------|
| R48 | × | ×   | ×   | ○       |
| T3  | × | ×   | ×   | ○       |
| J41 | ○ | ○   | ○   | ×       |
| SW1 | × | ×   | ○   | ×       |
| J42 | × | ×   | ○   | ×       |
| R55 | × | ×   | ×   | ○       |
| R57 | × | ×   | ×   | ○       |
| R58 | × | ×   | ×   | ○       |
| R60 | × | ×   | ×   | ○       |

○:USED

×:NOT USED

Point ① (Pin22 of IC2)

V: 2V/div H: 0.1μsec/div DC range 1:1 probe



PRINTED CIRCUIT BOARD (Foil side) / シート図 (パターン側)

Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q1      | C4       | IC1     | C3       |
| Q2      | C4       | IC2     | D5       |
| Q3      | C4       | IC3     | D4       |
| Q4      | C3       |         |          |
| Q5      | E4       |         |          |
| Q6      | F3       |         |          |
| Q7      | D4       |         |          |

There are two types of the Tuner P.C.B. Assembly in this model: One is a lead type device and the other is a lead type device & surface mount device (SMD). These two P.C.B. assemblies are compatible.

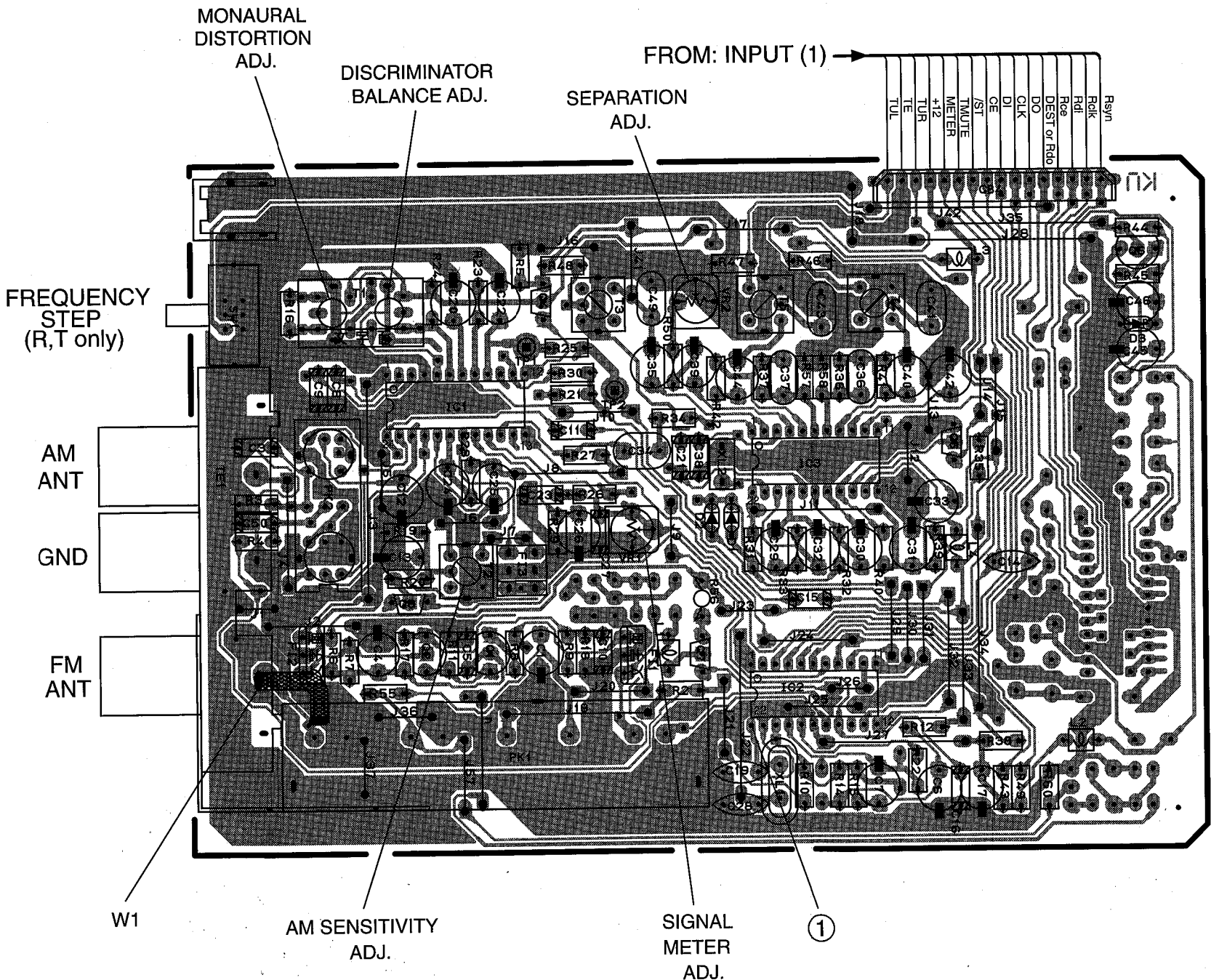
このモデルは部品構成上P.C.B. Ass'y TUNERが、Lead Type DeviceとLead Type Device & Surface Mount Device(SMD)の2種類あります。両方のP.C.B. Ass'yには、互換性があります。

P.C.B. Ass'y List

|                 | MARKETS | Lead Type | Lead & SMD |
|-----------------|---------|-----------|------------|
| DSP-R795        | J       | V2518500  | V2519200   |
| RX-V795/R-V1105 | U,C     | V2518600  | V2519300   |
| RX-V795/R-V1105 | R,T     | V2518700  | V2519400   |
| RX-V795/R-V1105 | A,L     | V2518800  | V2519500   |

J,U,C,A,L,R,T models only

P.C.B. TUNER  
Lead Type



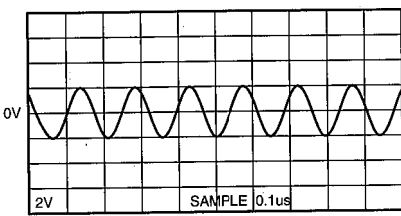
CIRCUIT CHANGES BY MARKET.

|     | J | U,C | R,T | A,B,G,L |
|-----|---|-----|-----|---------|
| R48 | × | ×   | ×   | ○       |
| T3  | × | ×   | ×   | ○       |
| J41 | ○ | ○   | ○   | ×       |
| SW1 | × | ×   | ○   | ×       |
| J42 | × | ×   | ○   | ×       |
| R55 | × | ×   | ×   | ○       |
| R57 | × | ×   | ×   | ○       |
| R58 | × | ×   | ×   | ○       |
| R60 | × | ×   | ×   | ○       |

○:USED  
×:NOT USED

Point ① (Pin22 of IC2)

V: 2V/div H: 0.1μsec/div DC range 1:1 probe



# **PRINTED CIRCUIT BOARD (Foil side) / シート図 (パターン側)**

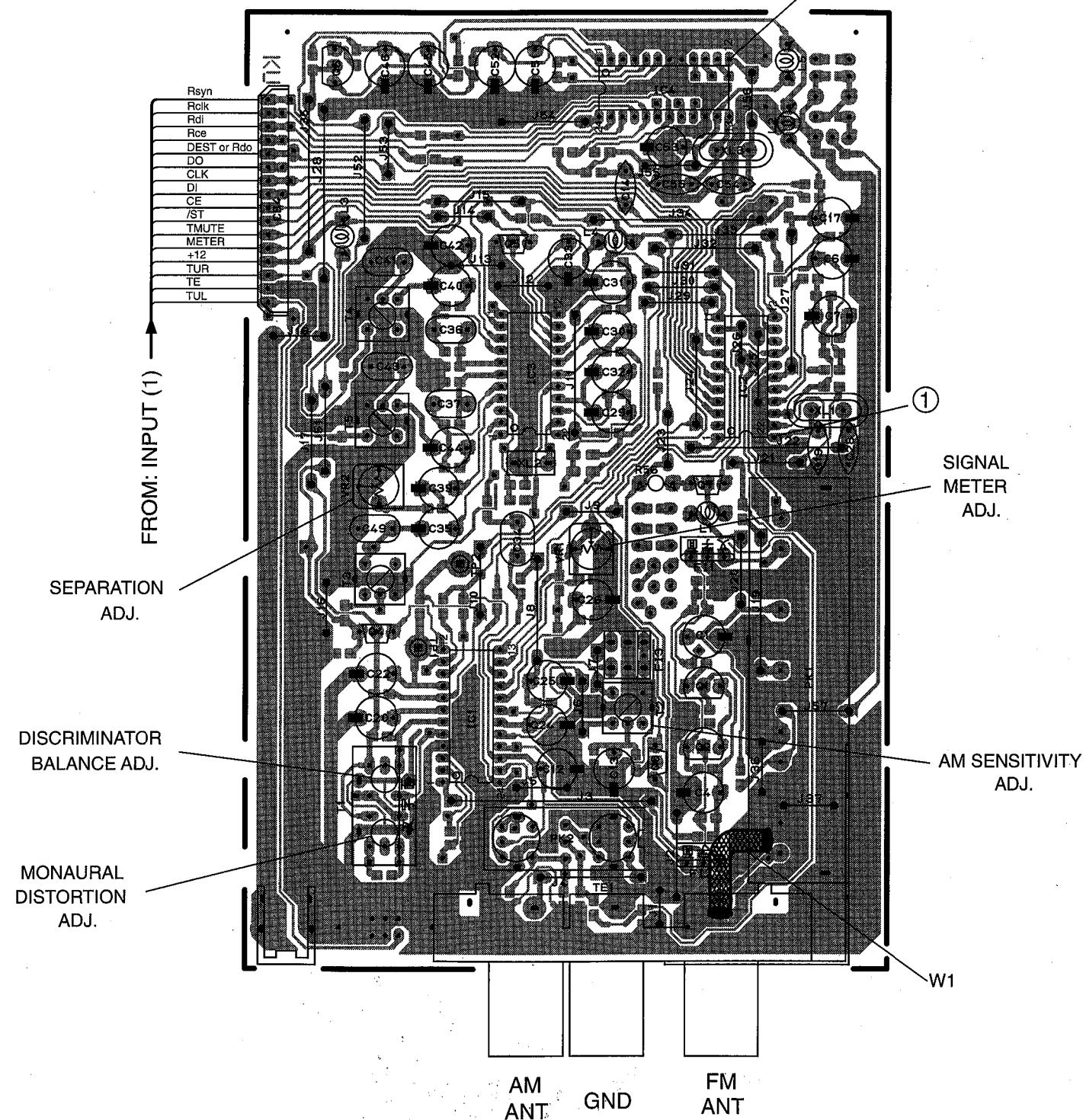
## **Semiconductor Location**

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q1      | C4       | IC1     | B4       |
| Q2      | C4       | IC2     | C3       |
| Q3      | C5       | IC3     | C3       |
| Q4      | B4       | IC4     | C2       |
| Q5      | B3       |         |          |
| Q6      | B2       |         |          |
| Q7      | C4       |         |          |

B,G models only

P.C.B. TUNER/SMD

Lead Type & SMD



There are two types of the Tuner P.C.B. Assembly in this model: One is a lead type device and the other is a lead type device & surface mount device (SMD). These two P.C.B. assemblies are compatible.

このモデルは部品構成上P.C.B. Ass'y TUNERが、Lead Type DeviceとLead Type Device & Surface Mount Device(SMD)の2種類あります。両方のP.C.B. Ass'yには、互換性があります。

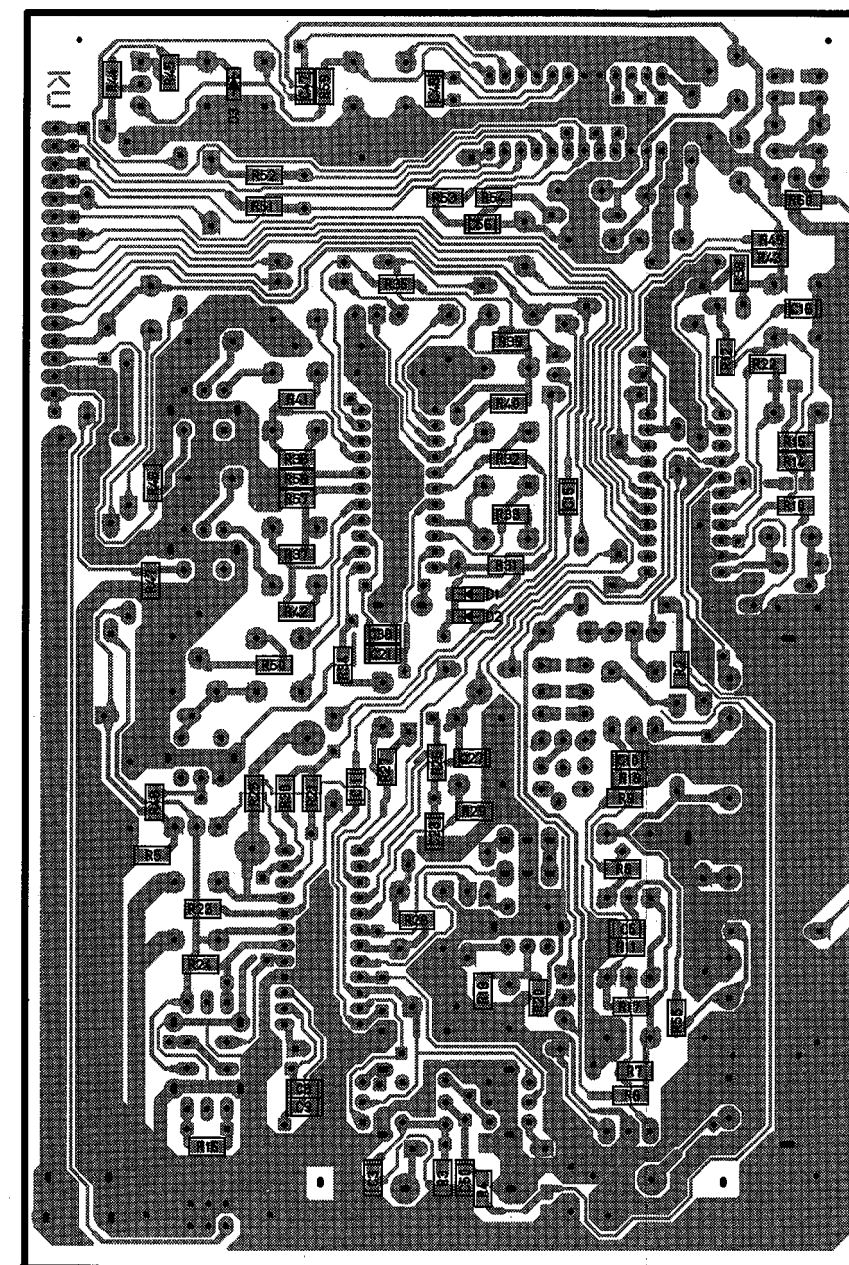
## **P.C.B. Ass'y List**

|            | MARKETS | Lead Type | Lead & SMD |
|------------|---------|-----------|------------|
| RX-V795RDS | B,G     | V2518900  | V2519600   |

B,G models only

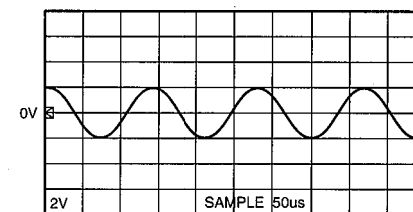
P.C.B. TUNER/SMD

Lead Type & SMD



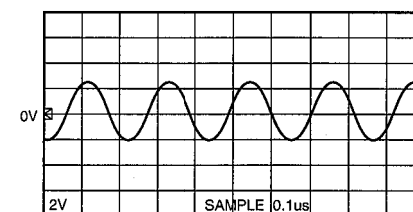
Point ① (Pin22 of IC2)

V: 2V/div H: 50nsec/div DC range 1:1 probe



Point ② (Pin12 of IC4)

V: 2V/div H: 0.1μsec/div DC range 1:1 probe



PRINTED CIRCUIT BOARD (Foil side) / シート図 (パターン側)

Semiconductor Location

| Ref No. | Location | Ref No. | Location |
|---------|----------|---------|----------|
| Q1      | C4       | IC1     | C3       |
| Q2      | C4       | IC2     | D5       |
| Q3      | C4       | IC3     | D4       |
| Q4      | C3       | IC4     | F4       |
| Q5      | E4       |         |          |
| Q6      | F3       |         |          |
| Q7      | D4       |         |          |

There are two types of the Tuner P.C.B. Assembly in this model: One is a lead type device and the other is a lead type device & surface mount device (SMD). These two P.C.B. assemblies are compatible.

このモデルは部品構成上P.C.B. Ass'y TUNERが、Lead Type DeviceとLead Type Device & Surface Mount Device(SMD)の2種類あります。両方のP.C.B. Ass'yには、互換性があります。

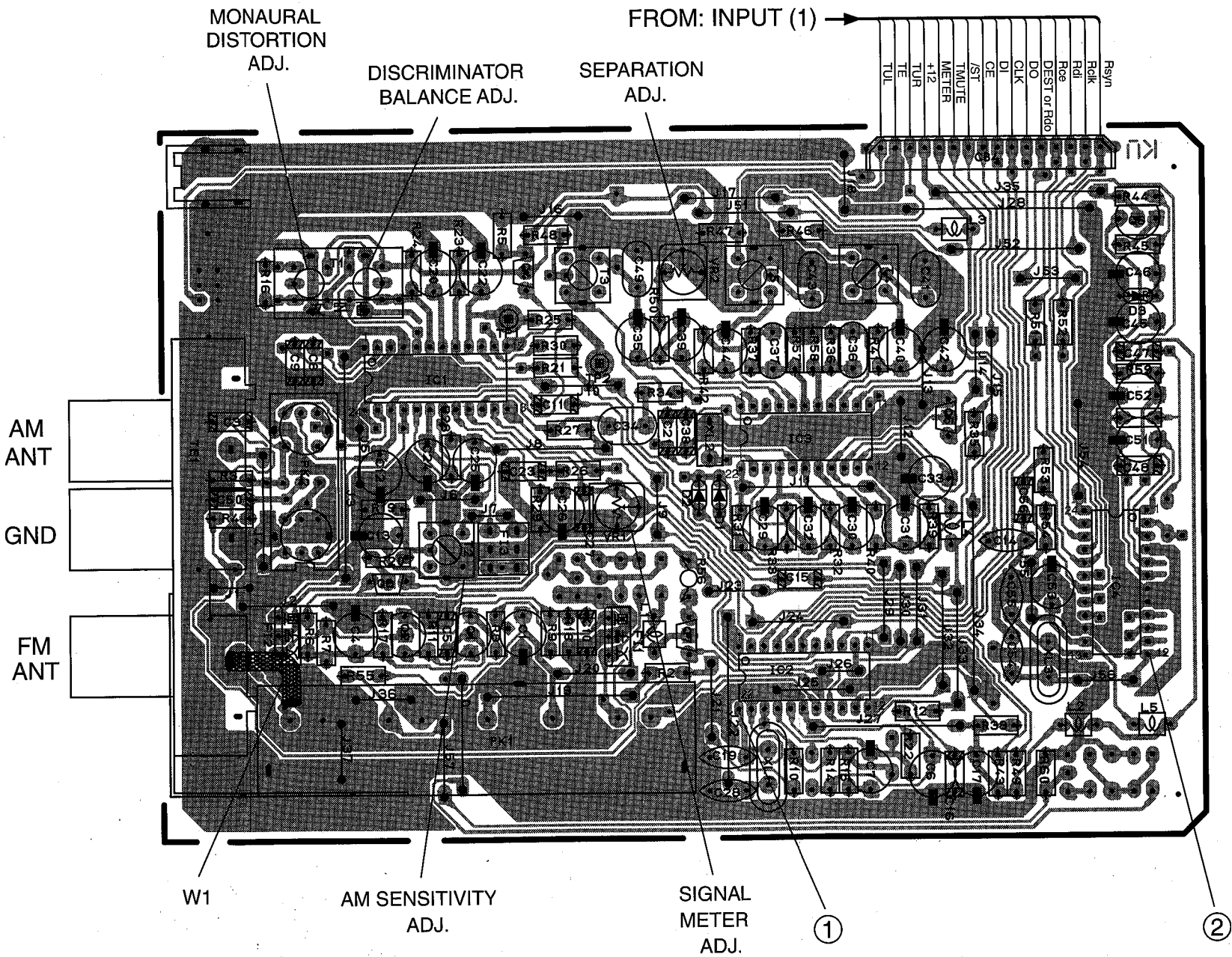
P.C.B. Ass'y List

|            | MARKETS | Lead Type | Lead & SMD |
|------------|---------|-----------|------------|
| RX-V795RDS | B,G     | V2518900  | V2519600   |

B,G models only

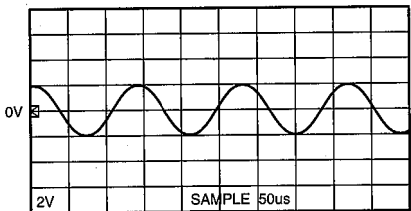
P.C.B. TUNER

Lead Type



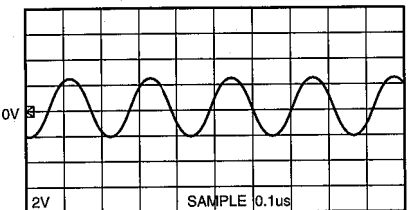
Point ① (Pin22 of IC2)

V : 2V/div H : 50nsec/div DC range 1 : 1 probe



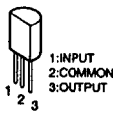
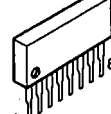
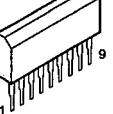
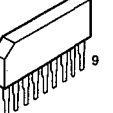
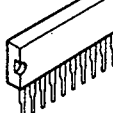
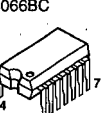
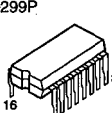
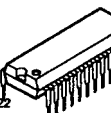
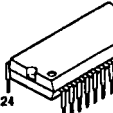
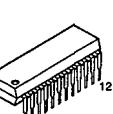
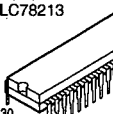
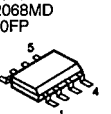
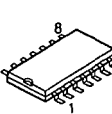
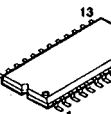
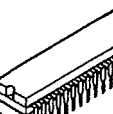
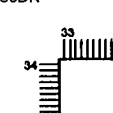
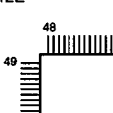
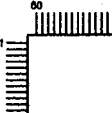
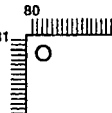
Point ② (Pin12 of IC4)

V : 2V/div H : 0.1μsec/div DC range 1 : 1 probe

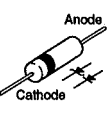
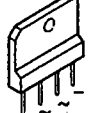
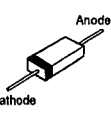
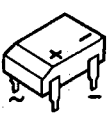


# **PIN CONNECTION DIAGRAM / 半導体外形図**

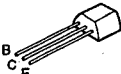
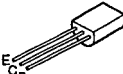
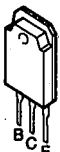
## **● ICs**

|                                                                                                                        |                                                                                                                                         |                                                                                                                                                                   |                                                                                                                                              |                                                                                                                        |                                                                                                                             |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>NJM78L05A</b><br>                  | <b>NJM7812FA</b><br><b>NJM7805FA</b><br>               | <b>NJM79M12FA</b><br>                                                            | <b>μPC29M33T-E1</b><br>                                     | <b>NJM2068L-D</b><br>               | <b>μPC4570HA</b><br>                     |
| <b>LA7956</b><br>                     | <b>LB1641</b><br>                                      | <b>HD74HC00P</b><br><b>TC74HCU04AP</b><br><b>μPD4066BC</b><br>                   | <b>HD14053BP</b><br><b>HD74HC153P</b><br><b>TC9299P</b><br> | <b>LA3401</b><br><b>LC72131</b><br> | <b>LA1266</b><br><b>LC74781-9626</b><br> |
| <b>LC72720N</b><br>                   | <b>LC78211</b><br><b>LC78212</b><br><b>LC78213</b><br> | <b>NJM2904M-T1</b><br><b>μPC4570G2</b><br><b>NJM2068MD</b><br><b>M5220FP</b><br> | <b>HD74HC02FPEL</b><br>                                     | <b>AK4320-VM</b><br>                | <b>M5M51288BKJ-20L</b><br>               |
| <b>AK4526</b><br><b>YM3436DK</b><br> | <b>LC75710NE</b><br><b>LC75712E</b><br>               | <b>LC87F5164A</b><br>                                                           | <b>YSS918F</b><br>                                       |                                                                                                                        |                                                                                                                             |

## **● Diodes**

|                                                                                                                                                                                                                                                                                 |                                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| <b>1SS133</b><br><b>1SS270A</b><br><b>HZS5B2TD</b><br><b>HZS6B2TD</b><br><b>HZS7B2TD</b><br><b>HZS9A2TD</b><br><b>HZS12C2TD</b><br><b>HZS242TD</b><br><b>HZS302TD</b><br><b>MTZJ5.6B</b><br> | <b>D5SB20</b><br> |
| <b>1SS355</b><br>                                                                                                                                                                            | <b>S1NB20</b><br> |

## **● Transistors**

|                                                                                                                                                                                           |                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                  |                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| <div>2SA933S (Q, R)<br/>2SC1740S (R, S)<br/>2SD1915F(S, T)<br/>DTA144ES<br/>DTC144ES</div> <div></div> | <div>2SA893A (D, E)<br/>2SA970(GR,BL)<br/>2SA1015 (Y)<br/>2SC535 (A, B, C)<br/>2SC1815 (Y)<br/>2SC1890A (D, E)<br/>2SC2229(O, Y)<br/>2SC2240(GR, BL)<br/>2SC2878 (A, B)</div> <div></div> | <div>2SA1037(Q, R, S)<br/>2SC2412K(Q, R, S)<br/>2SC3326 (A, B)<br/>DTA144EK<br/>DTC144EKA</div> <div></div> |                                                                                                                         |
| <div>2SA1358 (O, Y)</div> <div></div>                                                                  | <div>2SA1492 (O, P, Y)</div> <div></div>                                                                                                                                                  | <div>2SC4495</div> <div></div>                                                                                | <div>2SB941(P,Q)</div> <div></div> |

## 1



## ■BLOCK DIAGRAM/ブロックダイアグラム

1

2

3

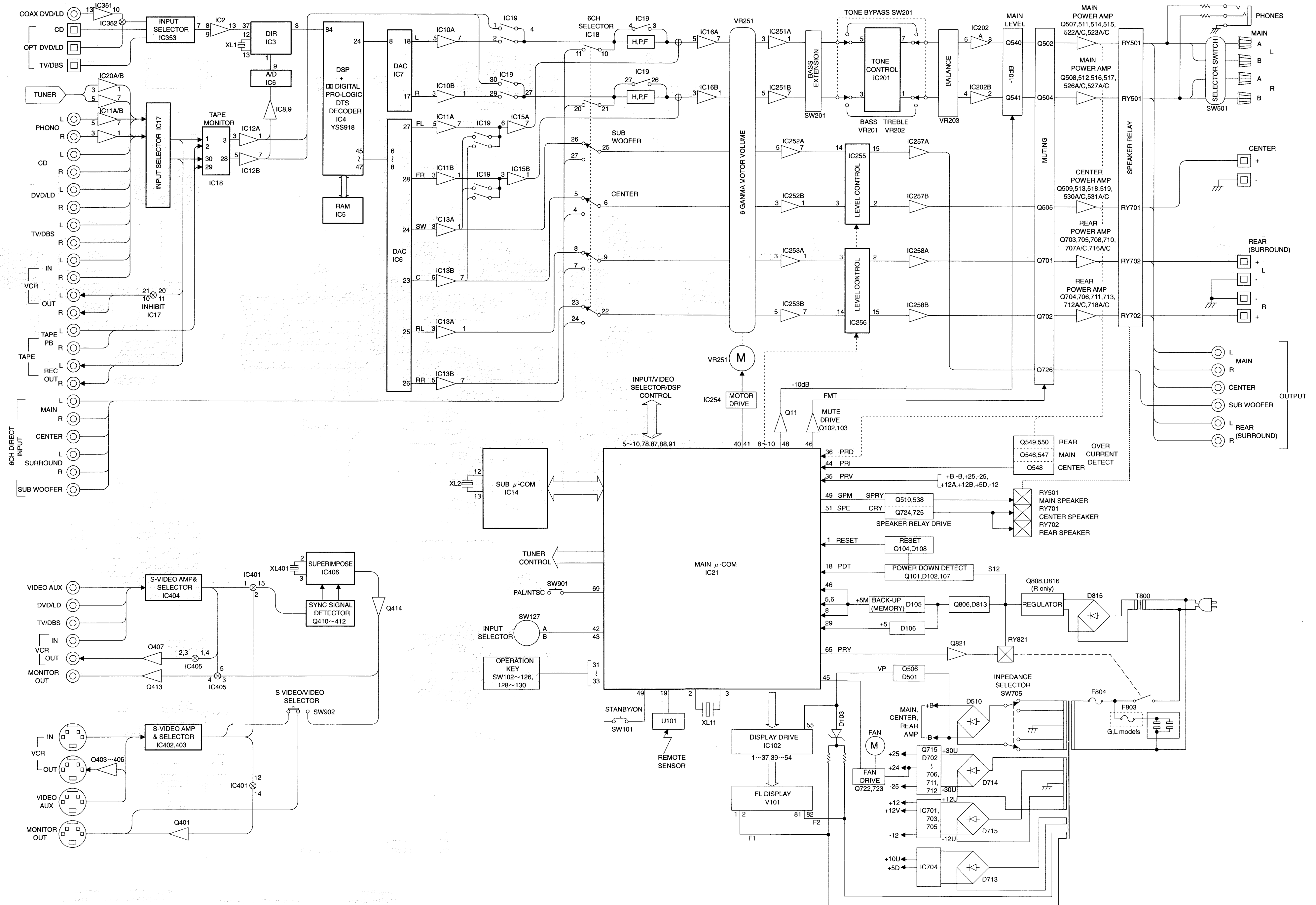
4

5

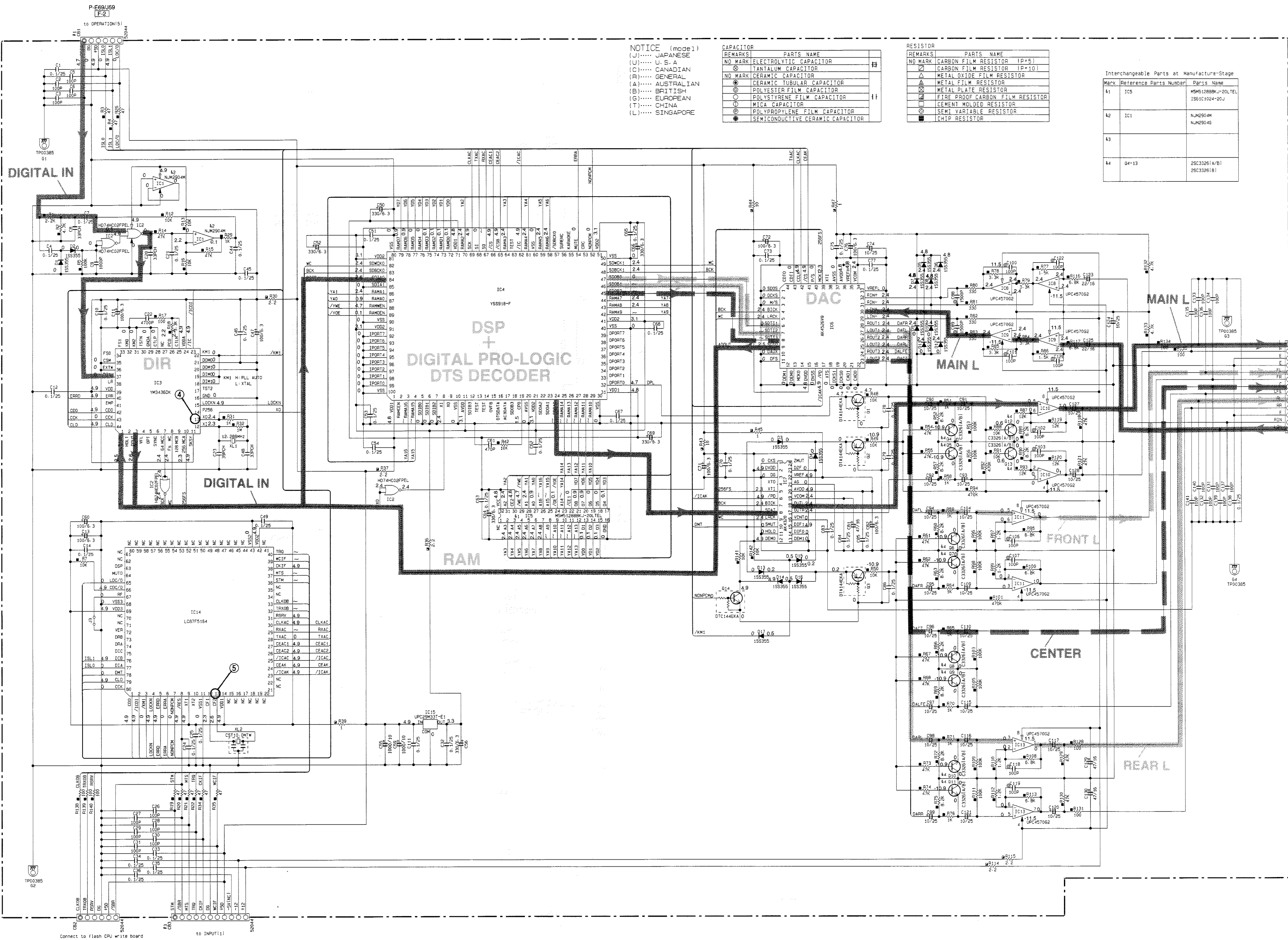
6

7

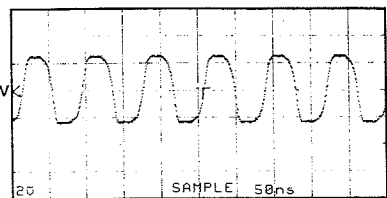
8



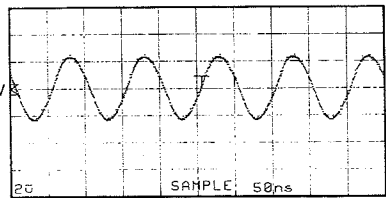
SCHEMATIC DIAGRAM (DSP)／総回路図



Point ⑤ (Pin13 of IC3)  
V: 2V/div H: 50 nsec/div  
DC range 1:1 probe

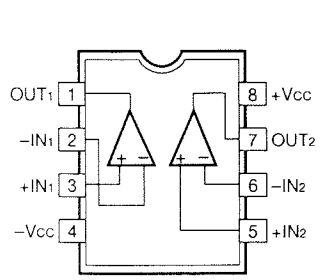


Point ⑥ (Pin13 of IC14)  
V: 2V/div H: 50 nsec/div  
DC range 1:1 probe

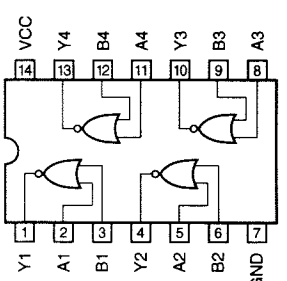


Other ICs  
● IC3 : YM3436DK → See page E-27/J-23  
● IC4 : YSS918-F → See page E-28/J-24  
● IC14 : LC87F5164 → See page E-31/J-27

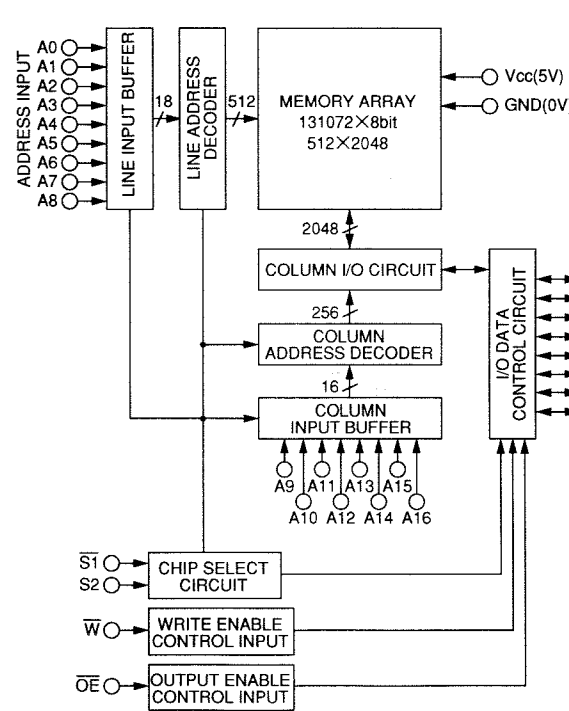
IC1 : NJM2904M  
IC8~11, 13 :  $\mu$ PC4570G2  
Dual OP Amp



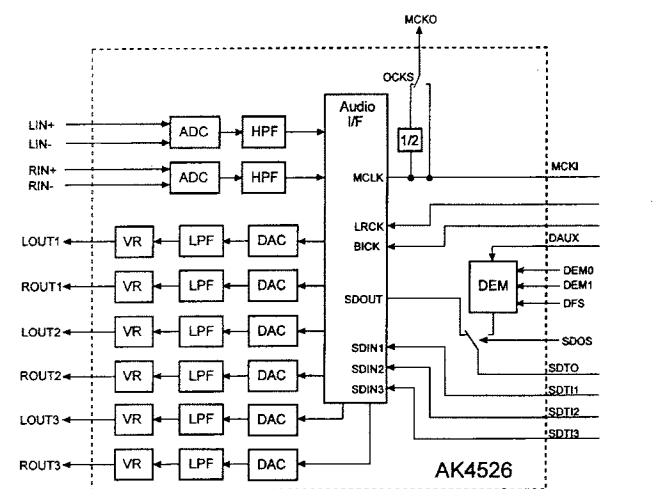
IC2 : HD74HC02FPEL  
Quad 2 Input NOR



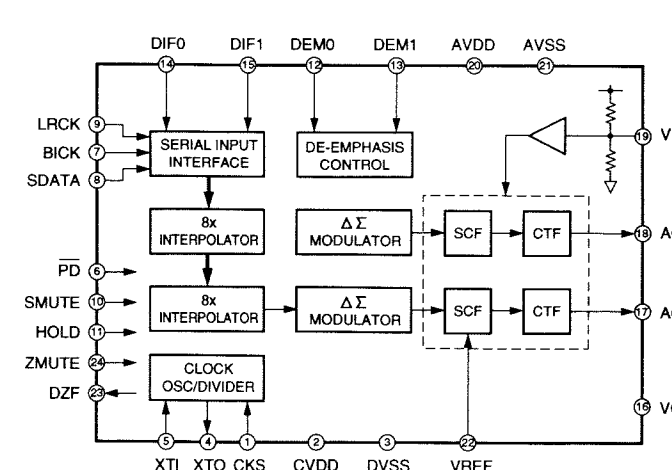
IC5 : M5M5128BKJ-20L  
RAM



IC6 : AK4526  
A/D



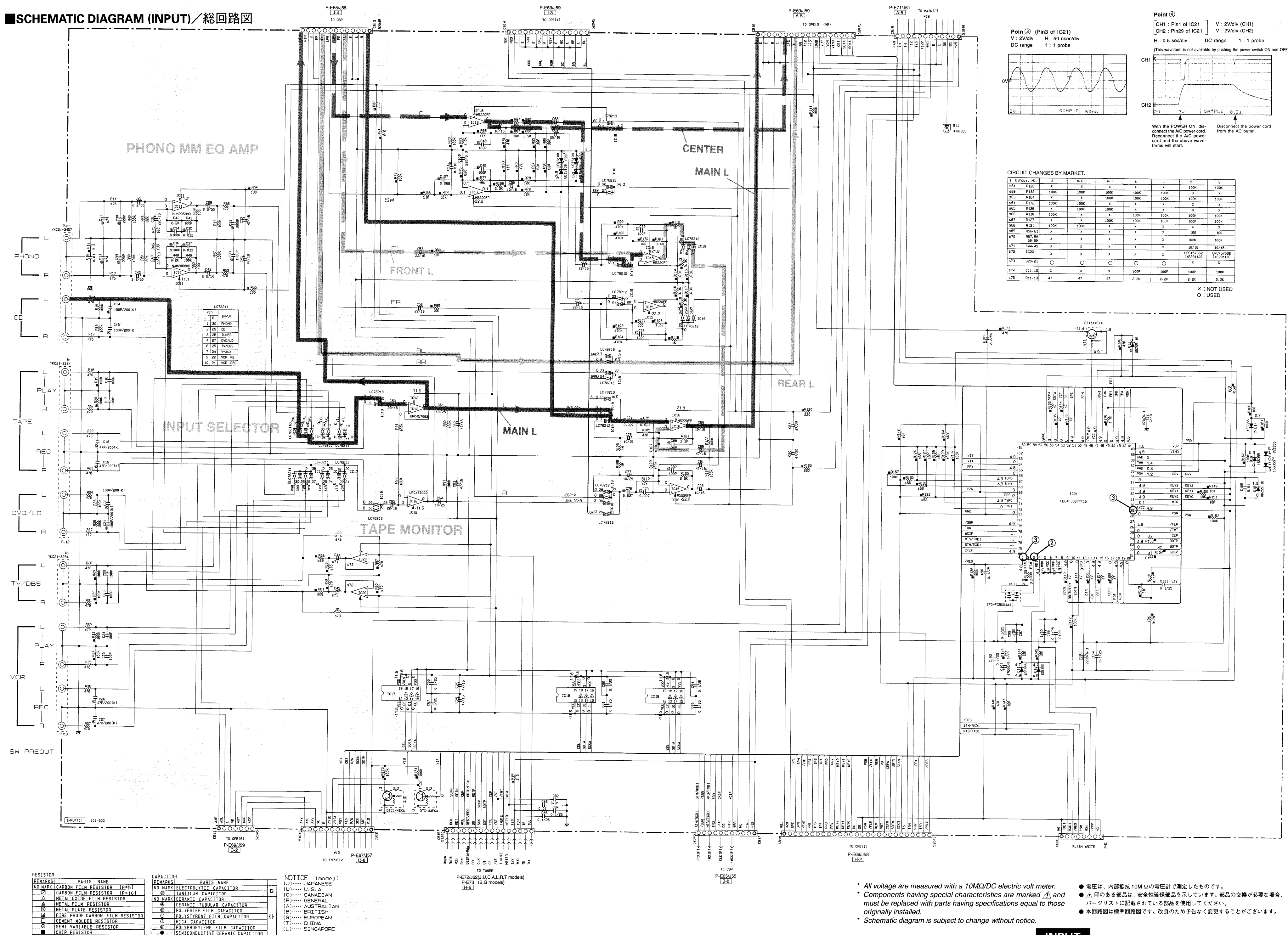
IC7 : AK4320  
1 bit D/A Converter



\* All voltage are measured with a 10M $\Omega$ /DC electric volt meter.  
\* Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.

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

### ■ SCHEMATIC DIAGRAM (INPUT) / 総回路図



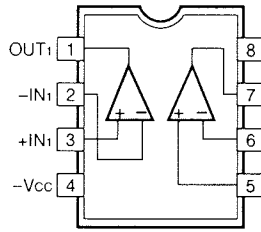
- \* All voltage are measured with a 10M $\Omega$ /DC electric volt meter.
- \* Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- \* Schematic diagram is subject to change without notice.

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

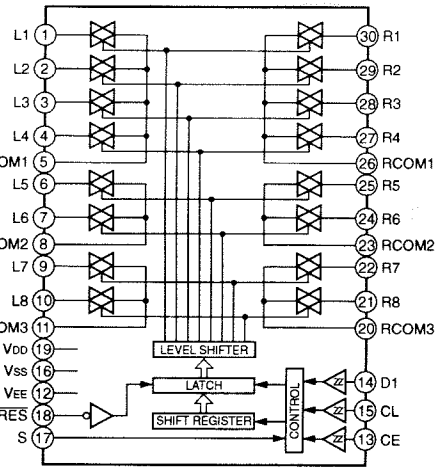
## INPUT

SCHEMATIC DIAGRAM (INPUT)/総回路図

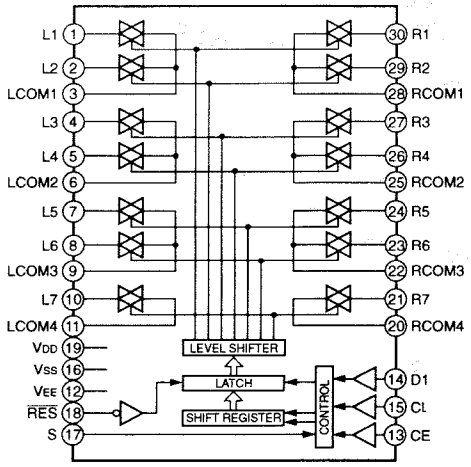
IC11 : NJM2068MD  
IC12 :  $\mu$ PC4570G2  
IC13, 15, 16 : M5220FP  
Dual OP Amp



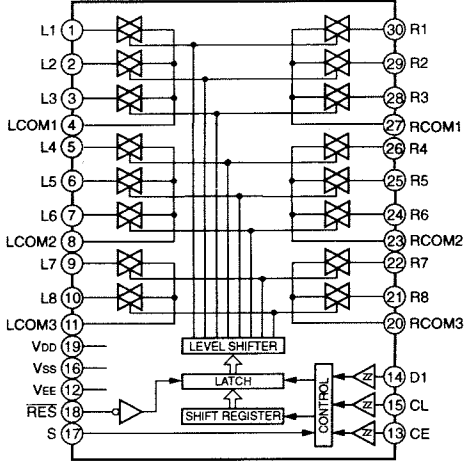
IC17 : LC78211  
Analog Function Switch



IC18 : LC78213  
Analog Function Switch



IC19 : LC78212  
Analog Function Switch



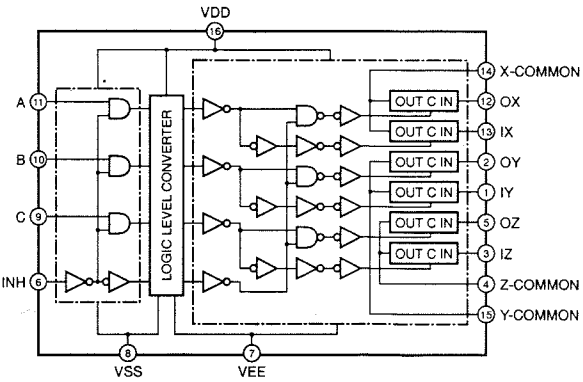
| REMARKS | PARTS NAME                      |
|---------|---------------------------------|
| NO MARK | CARBON FILM RESISTOR (P=5)      |
| △       | CARBON FILM RESISTOR (P=10)     |
| □       | METAL OXIDE FILM RESISTOR       |
| ⊗       | METAL FILM RESISTOR             |
| ⊙       | METAL PLATE RESISTOR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

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

NOTICE (mode1)  
(J)..... JAPANESE  
(U)..... U.S.A.  
(C)..... CANADIAN  
(R)..... GENERAL  
(A)..... AUSTRALIAN  
(B)..... BRITISH  
(G)..... EUROPEAN  
(T)..... CHINA  
(L)..... SINGAPORE

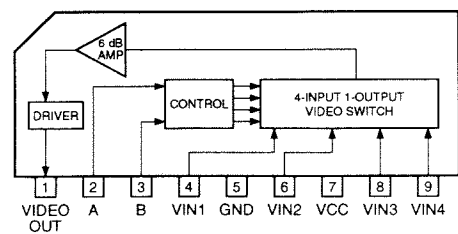
| Mark | Reference Parts Number | Parts Name                                          |
|------|------------------------|-----------------------------------------------------|
| 41   | D402-409-B21           | HSS104<br>1SS133<br>1SS176                          |
| 44   |                        |                                                     |
| 46   |                        |                                                     |
| 47   |                        |                                                     |
| 48   | IC401                  | HD14053BP<br>T44053BP<br>UP44053BP                  |
| 49   | Q401-407-B21           | 2SC1740S(R/S)<br>2SC26031E(A/S)<br>2SC3314(A/Q/R/S) |
| 50   | Q414                   | 2SA4933S(O/R)<br>2SA11551E(F/P)<br>2SA1305A(A/R/S)  |
| 51   | Q402                   | 2SC2878(A/B)<br>2SD1915F(S/T)                       |

IC401 : HD14053BP  
Triple 2-Channel Multiplexer/  
Demultiplexer

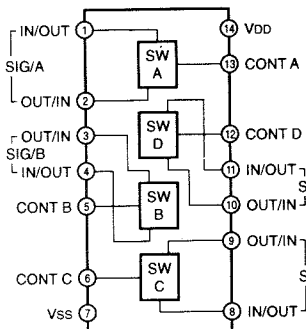


| INHIBIT (Pin 6) | C (Pin 9) | B (Pin 10) | A (Pin 11) | 0X (Pin 12), 0Y (Pin 2), 0Z (Pin 5)<br>1X (Pin 13), 1Y (Pin 1), 1Z (Pin 3) |
|-----------------|-----------|------------|------------|----------------------------------------------------------------------------|
| L               | L         | L          | L          | 0X, 0Y, 0Z                                                                 |
| L               | L         | L          | H          | 1X, 0Y, 0Z                                                                 |
| L               | L         | H          | L          | 0X, 1Y, 0Z                                                                 |
| L               | L         | H          | H          | 1X, 1Y, 0Z                                                                 |
| L               | H         | L          | L          | 0X, 0Y, 1Z                                                                 |
| L               | H         | L          | H          | 1X, 0Y, 1Z                                                                 |
| L               | H         | H          | L          | 0X, 1Y, 1Z                                                                 |
| L               | H         | H          | H          | 1X, 1Y, 1Z                                                                 |
| H               | *         | *          | *          | NOTE                                                                       |

IC402~404 : LA7956  
Video Switch



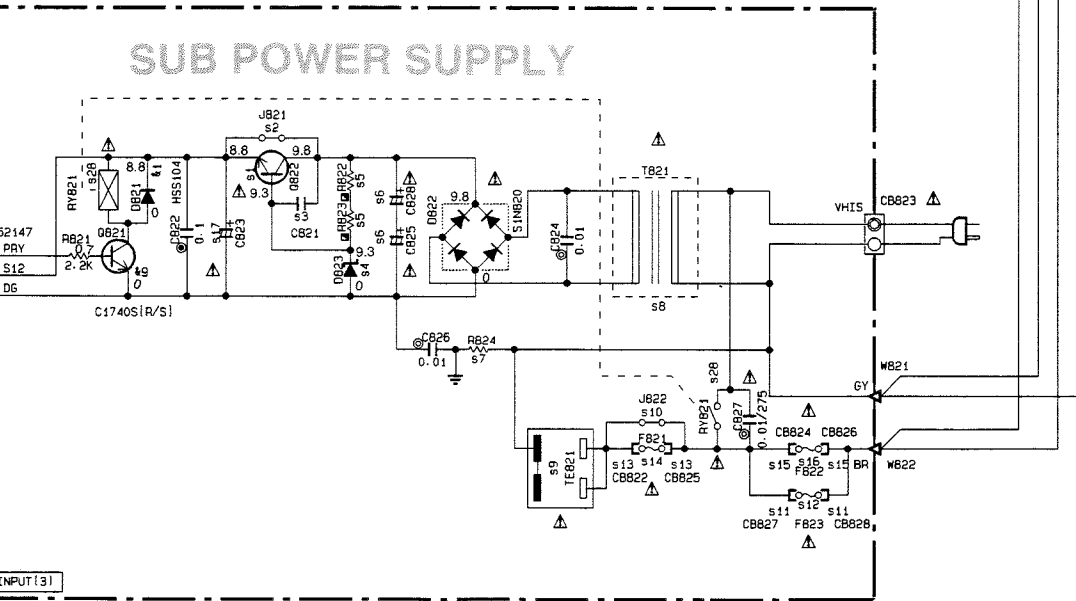
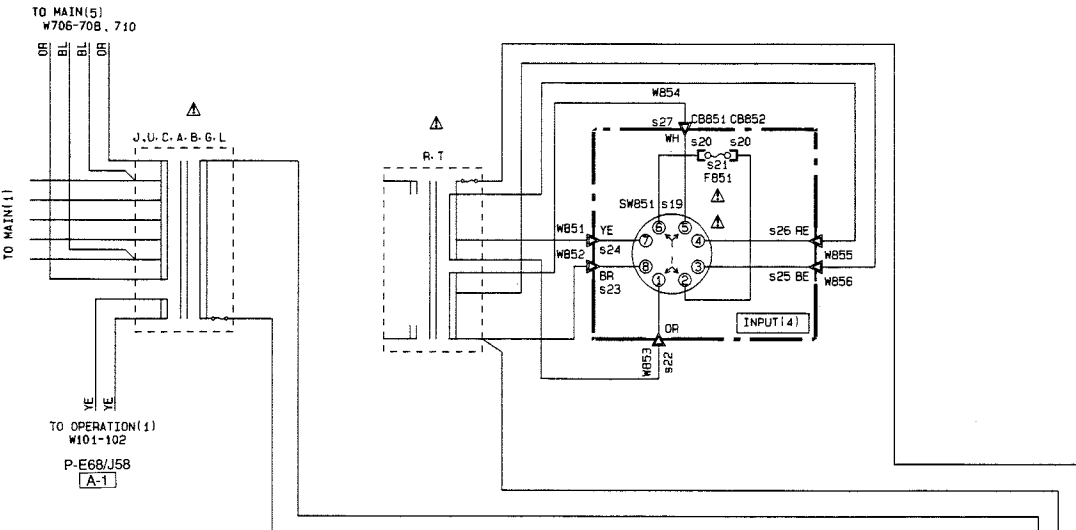
IC405 :  $\mu$ PD4066BC  
Quad Analog Switch/Multiplexer



CIRCUIT CHANGES BY MARKET.

| S  | Circuit No. | J                             | U-C                           | R-T                           | A                             | L                             | B                             | G                             |
|----|-------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|
| 1  | JB22        | X                             | X                             | D2396(J/K)                    | X                             | X                             | X                             | X                             |
| 2  | JB21        | 0                             | 0                             | X                             | 0                             | 0                             | 0                             | 0                             |
| 3  | CB21        | X                             | X                             | 1000P                         | X                             | X                             | X                             | X                             |
| 4  | DB23        | X                             | X                             | HSS12B2                       | X                             | X                             | X                             | X                             |
| 5  | RB22-823    | X                             | X                             | 5.6K                          | X                             | X                             | X                             | X                             |
| 6  | CB25-828    | X                             | X                             | 100/35                        | X                             | X                             | X                             | X                             |
| 7  | RB24        | X                             | X                             | 1/8P2-2W                      | X                             | X                             | X                             | X                             |
| 8  | TB21        | X                             | X                             | X                             | X                             | X                             | X                             | X                             |
| 9  | TEB21       | VU54310                       | VU54310                       | VU54310                       | VT91500                       | VU54340                       | VU54330                       | VU54340                       |
| 10 | JB22        | 0                             | 0                             | 0                             | 0                             | 0                             | 0                             | 0                             |
| 11 | CB27-828    | VP20650                       | VP20650                       | VP20650                       | X                             | X                             | X                             | X                             |
| 12 | FB23        | BA125V                        | BA125V                        | BA125V                        | X                             | X                             | X                             | X                             |
| 13 | CB22-825    | X                             | X                             | X                             | X                             | X                             | X                             | X                             |
| 14 | FB21        | X                             | X                             | X                             | X                             | X                             | X                             | X                             |
| 15 | CB24-826    | X                             | X                             | X                             | VP20650                       | VP20650                       | VP20650                       | VP20650                       |
| 16 | FB22        | X                             | X                             | X                             | T4-0AL250V                    | T4-0AL250V                    | T4-0AL250V                    | T4-0AL250V                    |
| 17 | CB23        | 330/25                        | 470/25                        | 330/25                        | 330/25                        | 330/25                        | 330/25                        | 330/25                        |
| 18 |             |                               |                               |                               |                               |                               |                               |                               |
| 19 | SWB51       | X                             | X                             | VA96180                       | X                             | X                             | X                             | X                             |
| 20 | CB851-852   | X                             | X                             | VP20650                       | X                             | X                             | X                             | X                             |
| 21 | FB51        | X                             | X                             | T4-0AL250V                    | X                             | X                             | X                             | X                             |
| 22 | WB53        | X                             | X                             | MM03240                       | X                             | X                             | X                             | X                             |
| 23 | WB52        | X                             | X                             | MM01240                       | X                             | X                             | X                             | X                             |
| 24 | WB51        | X                             | X                             | MM04240                       | X                             | X                             | X                             | X                             |
| 25 | WB56        | X                             | X                             | MM06240                       | X                             | X                             | X                             | X                             |
| 26 | WB55        | X                             | X                             | MM02240                       | X                             | X                             | X                             | X                             |
| 27 | WB54        | X                             | X                             | MM05240                       | X                             | X                             | X                             | X                             |
| 28 | FB23        | V271230<br>V007340<br>V285040 | V269530<br>V007340<br>V285040 | V271230<br>V007340<br>V285040 | V271230<br>V007340<br>V285040 | V271230<br>V007340<br>V285040 | V271230<br>V007340<br>V285040 | V271230<br>V007340<br>V285040 |
| 56 | XL401       | VY94980                       | VY94980                       | VY94980                       | VY94990                       | VY94990                       | VY94990                       | VY94990                       |

X : NOT USED  
O : USED



Other ICs  
● IC21 : HD64F3337YE16 → See page E-36/J-30  
● IC406 : LC74781-9626 → See page E-35/J-29

\* All voltage are measured with a 10M $\Omega$ /DC electric volt meter.  
\* Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.

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

1

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2

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3

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4

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5

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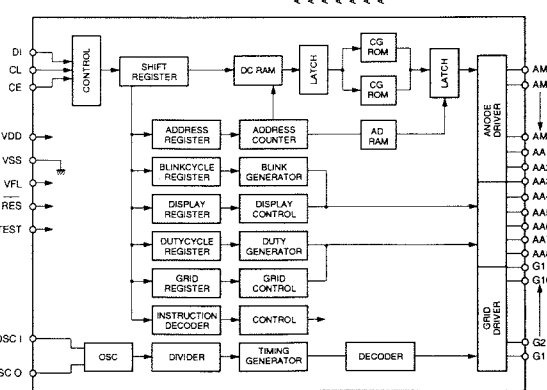
6

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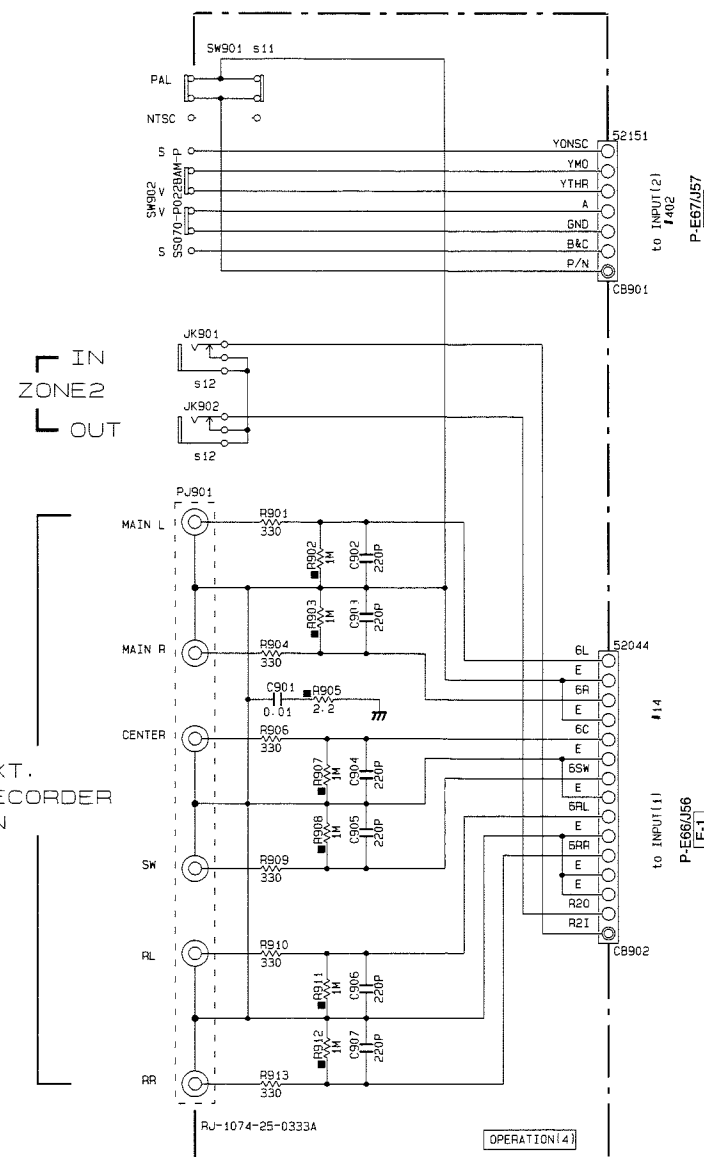
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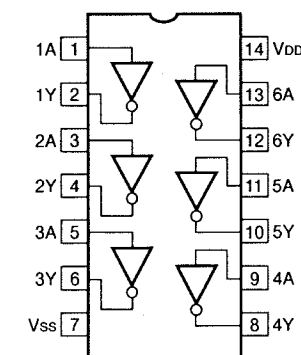
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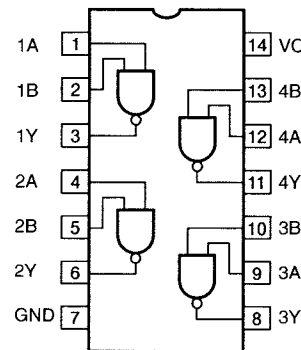
**E-68/J-58**



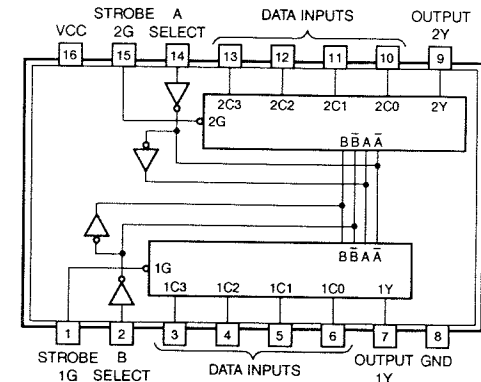
| RESISTOR                            |                                 |
|-------------------------------------|---------------------------------|
| REMARKS                             | PARTS NAME                      |
| NO MARK                             | CARBON FILM RESISTOR (P=5)      |
| <input checked="" type="checkbox"/> | CARBON FILM RESISTOR (P=10)     |
| <input type="checkbox"/>            | METAL OXIDE FILM RESISTOR       |
| <input type="checkbox"/>            | METAL FILM RESISTOR             |
| <input checked="" type="checkbox"/> | METAL PLATE RESISTOR            |
| <input checked="" type="checkbox"/> | FIRE PROOF CARBON FILM RESISTOR |
| <input type="checkbox"/>            | CEMENT MOLDED RESISTOR          |
| <input checked="" type="checkbox"/> | SEMI VARIABLE RESISTOR          |
| <input type="checkbox"/>            | CHIP RESISTOR                   |



**IC352 : HD74HC00P**  
**Quadruple 2-input Positive NAND Gates**



**IC353 : HD74HC153P**  
**Dual 4 to 1 Data Selectors**



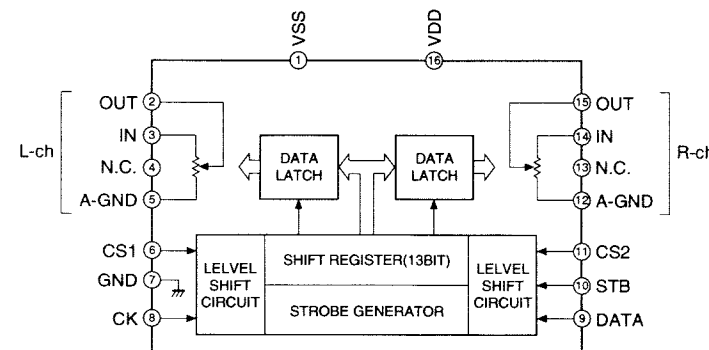
| INPUTS |   | STROBE | OUTPUT |
|--------|---|--------|--------|
| SELECT |   |        |        |
| B      | A | G      | Y      |
| X      | X | H      | L      |
| L      | L | L      | C0     |
| L      | H | L      | C1     |
| H      | L | L      | C2     |
| H      | H | L      | C3     |

| Interchangeable Parts at Manufacture-Stage |                        |                                      |
|--------------------------------------------|------------------------|--------------------------------------|
| Mark                                       | Reference Parts Number | Parts Name                           |
| 411                                        | 10351                  | TC74HC04AP<br>SN74HC04N<br>MC74HC04N |
| 412                                        |                        |                                      |
| 413                                        |                        |                                      |
| 414                                        | CB351-353              | GP3F37R<br>TORX178A                  |
| 415                                        |                        |                                      |
|                                            |                        |                                      |
|                                            |                        |                                      |
|                                            |                        |                                      |

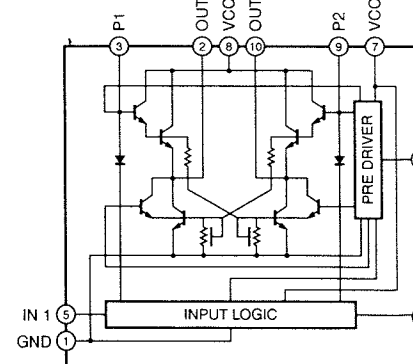
| CIRCUIT CHANGES BY MARKET. |                                             |         |         |     |
|----------------------------|---------------------------------------------|---------|---------|-----|
| MODEL NO.                  | RX-V795ML/DSP-R795ML/R-VX795RDSML/R-V1105ML |         |         |     |
| Circuit No.                | J-L                                         | U.C.A   | R-T     | B-G |
| 9 SW901                    | X                                           | X       | V560260 | X   |
| 12 JK901-JK902             | X                                           | VJ72690 | X       | X   |
| 13                         |                                             |         |         |     |
| 14                         |                                             |         |         |     |
| 15                         |                                             |         |         |     |

X ; NOT USED

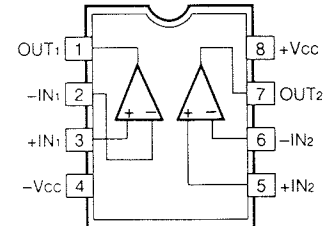
IC255, 256 : TC9299P  
Electric Controlled Volume



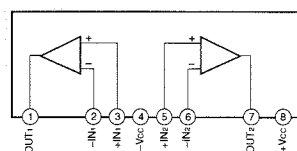
IC254 : LB1641  
Motor Driver



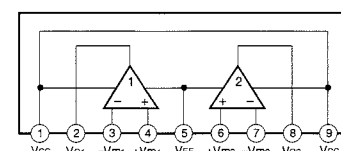
IC251~253, 257, 258 :  $\mu$ PC4570G2  
Dual OP-Amp



IC201 : NJM2068LD  
Dual OP Amp



IC202 :  $\mu$ PC4570HA  
Dual OP-Amp



- \* All voltage are measured with a 10M $\Omega$ /DC electric volt meter.
- \* Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- \* Schematic diagram is subject to change without notice.

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

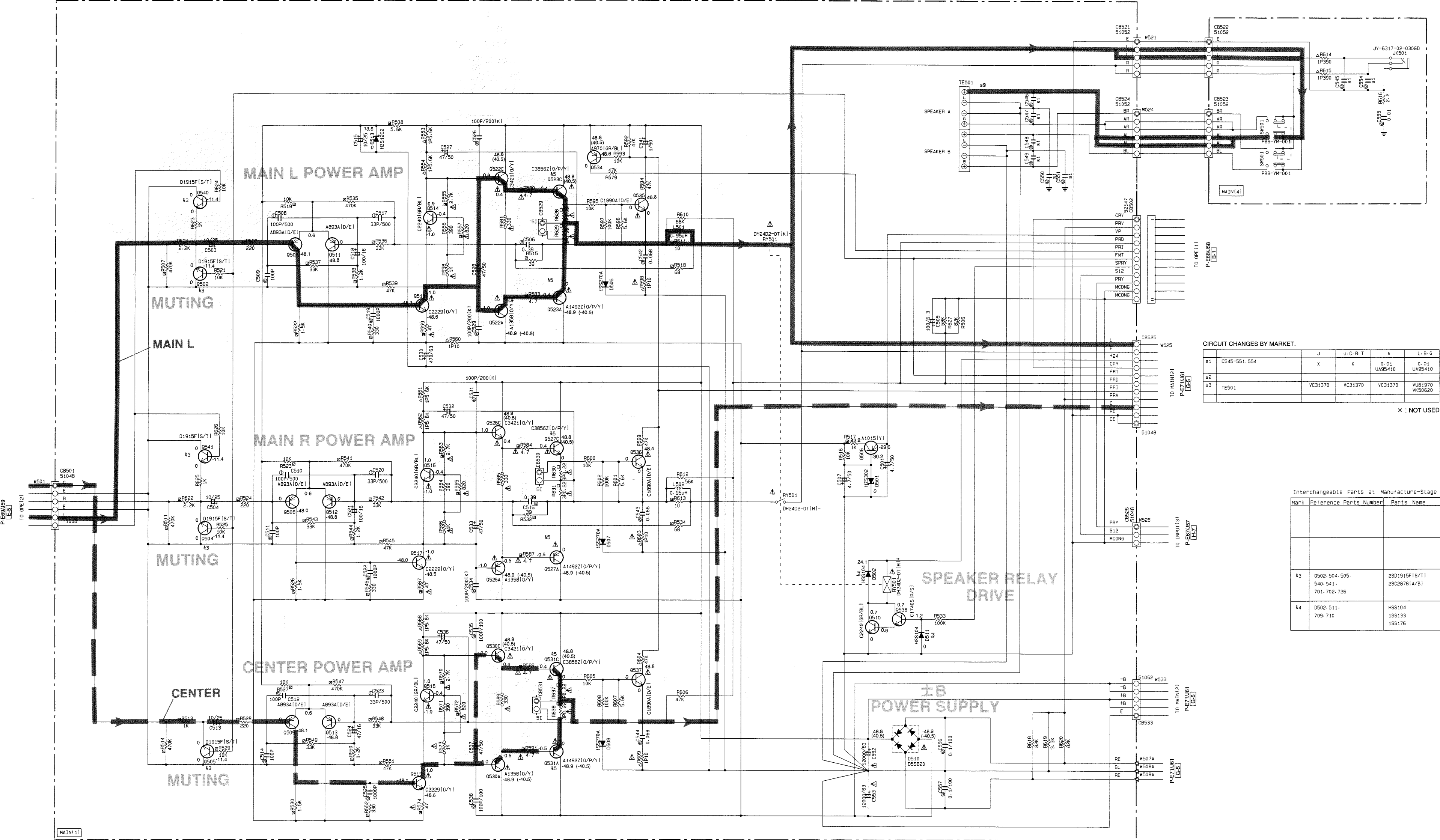
SCHEMATIC DIAGRAM (MAIN)／総回路図

Each voltage given here represents that in the top side of IMPEDANCE SELECTOR, but the one in the parentheses ( ) is that in the bottom side.

| 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 (model)  
(J)..... JAPANESE  
(U)..... U.S.A.  
(C)..... CANADIAN  
(R)..... GENERAL  
(A)..... AUSTRALIAN  
(B)..... BRITISH  
(G)..... EUROPEAN  
(T)..... CHINA  
(L)..... SINGAPORE



CIRCUIT CHANGES BY MARKET.

|    | J            | U.C.R.T. | A       | L-B-G                         |
|----|--------------|----------|---------|-------------------------------|
| R1 | C545-551 554 | X        | X       | 0.01<br>UA95410               |
| S2 |              |          |         | 0.01<br>UA95410               |
| S3 | TE501        | VC31370  | VC31370 | VC31370<br>VU61970<br>VU50620 |

x : NOT USED

Interchangeable Parts at Manufacture-Stage

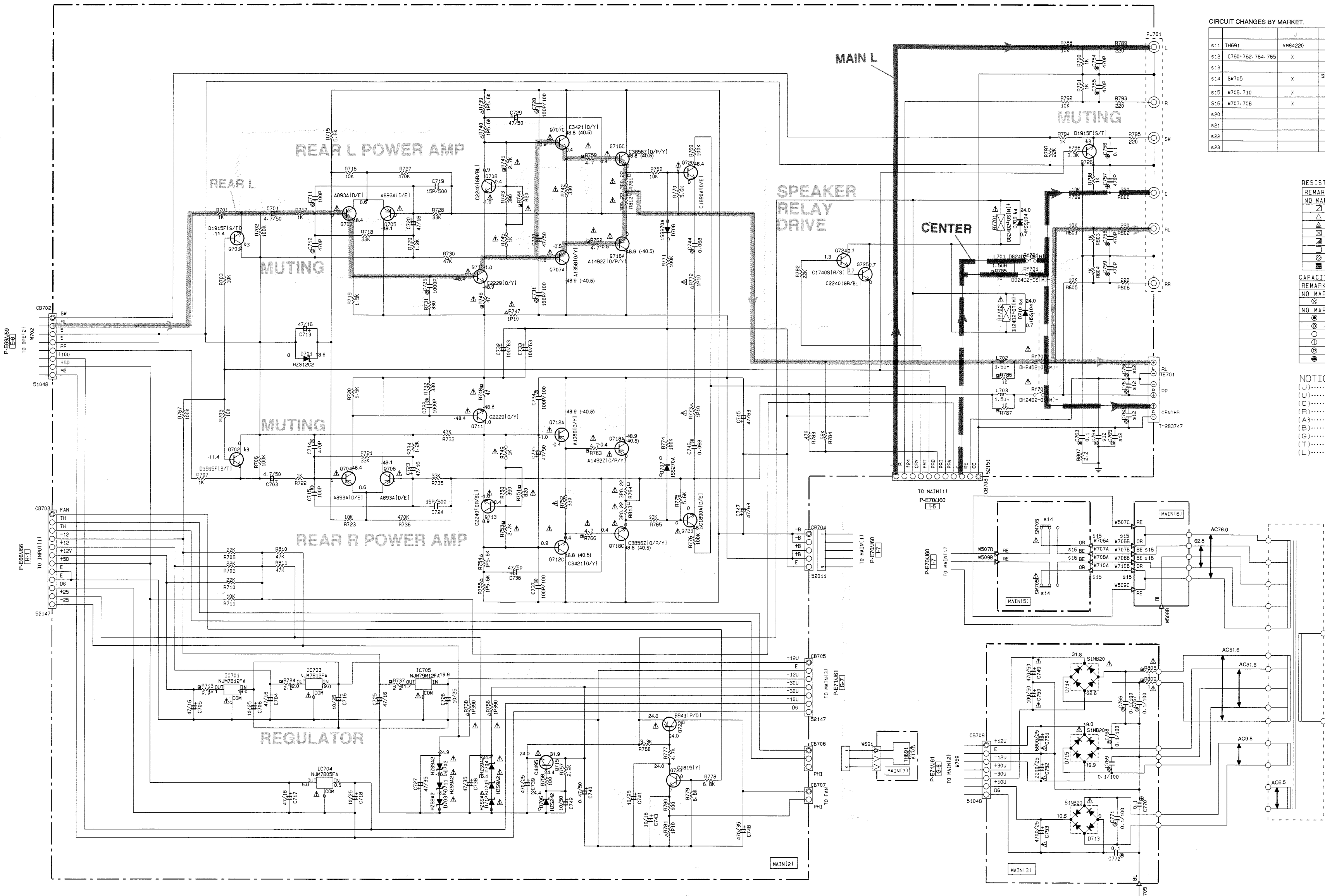
| Mark | Reference Parts Number                   | Parts Name                   |
|------|------------------------------------------|------------------------------|
|      |                                          |                              |
| k3   | 0502-504-505,<br>540-541-<br>701-702-726 | 2SD1915F(S/T)<br>2SC28761A/B |
| k4   | 0502-511-<br>709-710                     | HSS104<br>1SS193<br>1SS176   |

- All voltage are measured with a 10MΩ/DC electric volt meter.
- Components having special characteristics are marked  $\Delta$  and must be replaced with parts having specifications equal to those originally installed.
- Schematic diagram is subject to change without notice.

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

SCHEMATIC DIAGRAM (MAIN)／総回路図

Each voltage given here represents that in the top side of IMPEDANCE SELECTOR, but the one in the parentheses ( ) is that in the bottom side.



| CIRCUIT CHANGES BY MARKET. |                  |         |                        |                        |
|----------------------------|------------------|---------|------------------------|------------------------|
|                            | J                | U.C.R.T | A                      | L.B.G                  |
| S11                        | TH691            | VM84220 | VM84230                | VM84230                |
| S12                        | C760-762-764-765 | X       | X                      | 0-01                   |
| S13                        |                  |         |                        |                        |
| S14                        | SW705            | X       | SL138-022-AMC1 V236110 | SL138-022-AMC1 V236110 |
| S15                        | W706-710         | X       | MH23015                | MH23015                |
| S16                        | W707-708         | X       | MH26016                | MH26016                |
| S20                        |                  |         |                        |                        |
| S21                        |                  |         |                        |                        |
| S22                        |                  |         |                        |                        |
| S23                        |                  |         |                        |                        |

X : NOT USED

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

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

NOTICE (model)  
(J)..... JAPANESE  
(U)..... U.S.A  
(C)..... CANADIAN  
(R)..... GENERAL  
(A)..... AUSTRALIAN  
(B)..... BRITISH  
(G)..... EUROPEAN  
(T)..... CHINA  
(L)..... SINGAPORE

- All voltage are measured with a 10MΩ/DC electric volt meter.
- Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
- Schematic diagram is subject to change without notice.

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

SCHEMATIC DIAGRAM (TUNER)／総回路図

Each voltage given here represents that in the FM (98.1MHz, STEREO) reception mode but the one in the parentheses ( ) is that in the AM (1080kHz, MAN'L) reception mode.

| REMARKS | CAPACITOR                        | 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 |            |

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

NOTICE (model)  
(J)..... JAPANESE  
(U)..... U.S.A  
(C)..... CANADIAN  
(R)..... GENERAL  
(A)..... AUSTRALIAN  
(B)..... BRITISH  
(G)..... EUROPEAN  
(T)..... CHINA  
(L)..... SINGAPORE

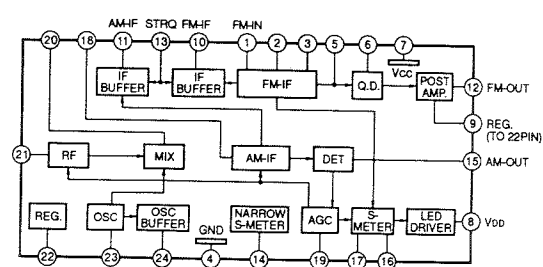
| Mark | Reference Parts Number | Parts Name                 |
|------|------------------------|----------------------------|
| k1   | 01.2                   | HSS104<br>1SS133<br>1SS176 |

CIRCUIT CHANGES BY MARKET.

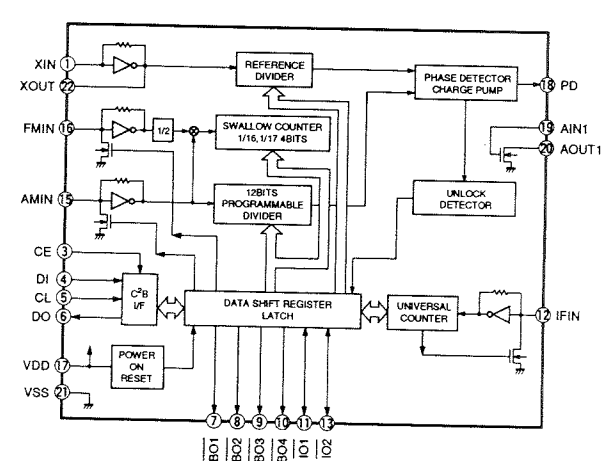
| s  | J<br>V261850 | U.C<br>V261860   | R.T<br>V261870   | A.B.G.L<br>V261880 |
|----|--------------|------------------|------------------|--------------------|
| 1  | PK1          | V290900          | V290910          | V271670            |
| 2  | R48          |                  |                  | 4.7K               |
| 3  | T3           |                  |                  | XYA2<br>VT48B80    |
| 4  | J41          | ○                | ○                |                    |
| 5  | C49          | 2200P<br>UA95322 | 2200P<br>UA95322 | 120P<br>UA95212    |
| 6  | R50          | 22K              | 22K              | 1K                 |
| 7  | C36-37       | 680P<br>UA95268  | 1000P<br>UA95310 | 270P<br>UA95227    |
| 8  | R36-37       | 75K              | 75K              | 180K               |
| 9  | SM1          |                  |                  | VS60260            |
| 10 | J42          |                  |                  |                    |
| 11 |              |                  |                  |                    |
| 12 | R55-57,58    |                  |                  | 270K               |
| 13 | R60          |                  |                  | 180K               |
| 14 | R34          | 10K              | 10K              | 27K                |

X : NOT USED  
○ : USED

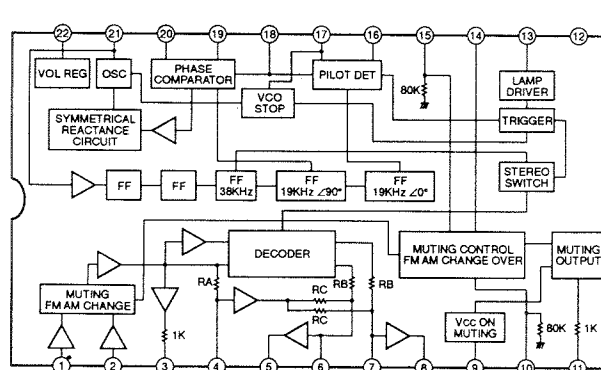
IC1 : LA1266  
AM/FM IF



IC2 : LC72131  
PLL Controller

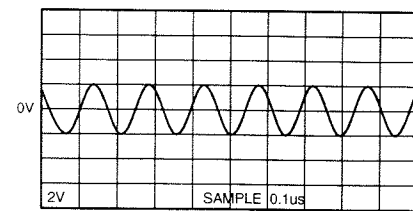


IC3 : LA6401  
MPX

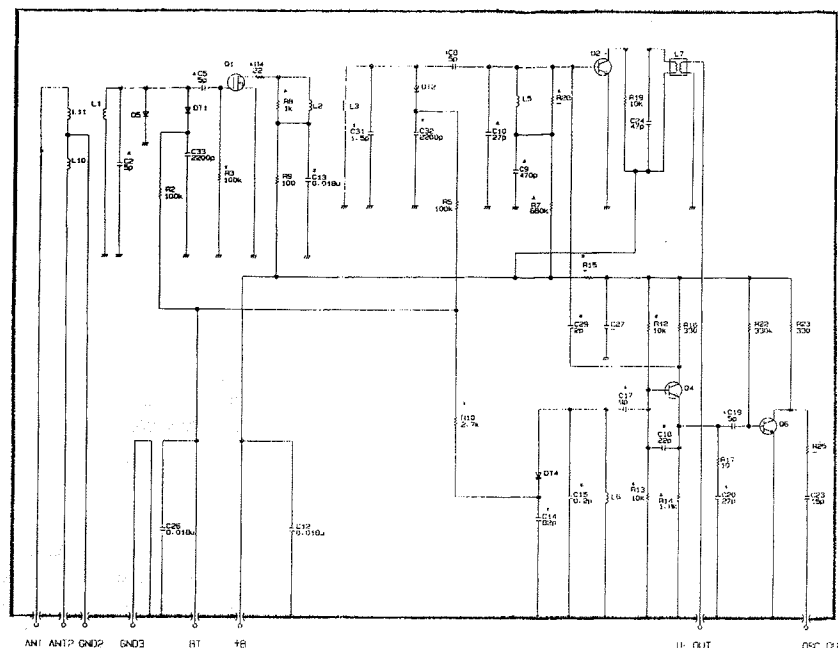


Point ① (Pin22 of IC2)

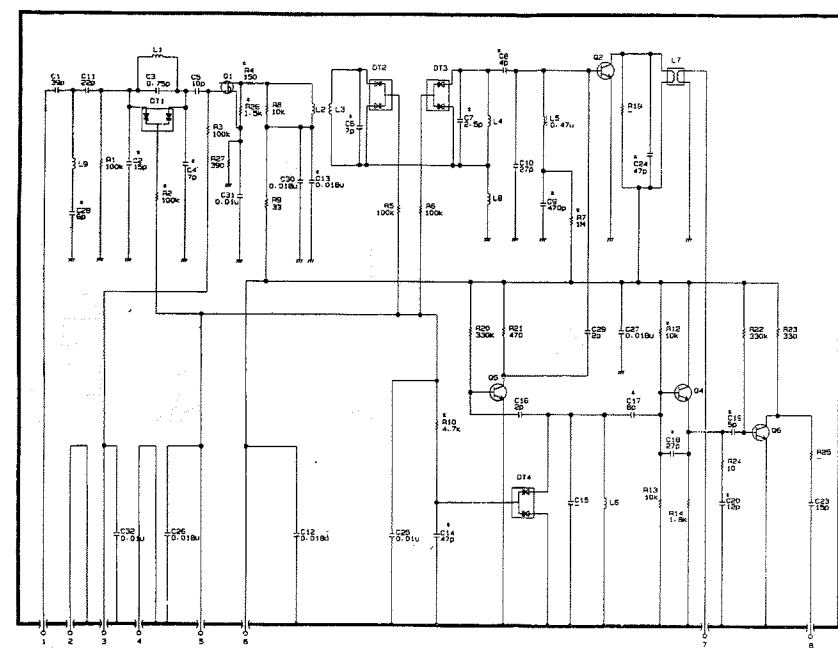
V : 2V/div H : 0.1μsec/div DC range 1 : 1 probe



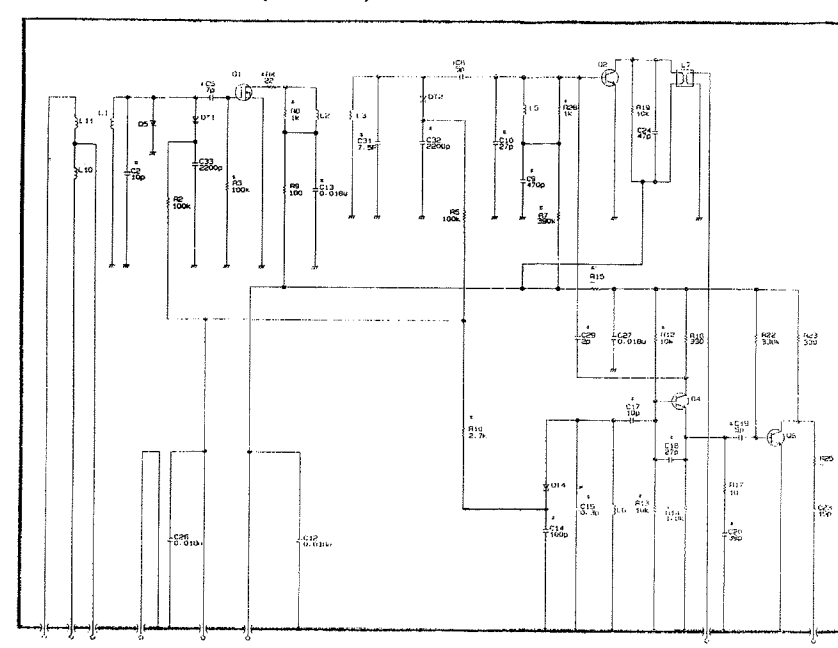
PK1 : ENV-172C8G1R (V2909100) U, C, R, T models



PK1 : ENV-172A4G1 (V2716700) A, L models



PK1 : ENV-142C2G1R (V2909000) J model



\* All voltage are measured with a 10MΩ/DC electric volt meter.  
\* Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.

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

SCHEMATIC DIAGRAM (TUNER)／総回路図

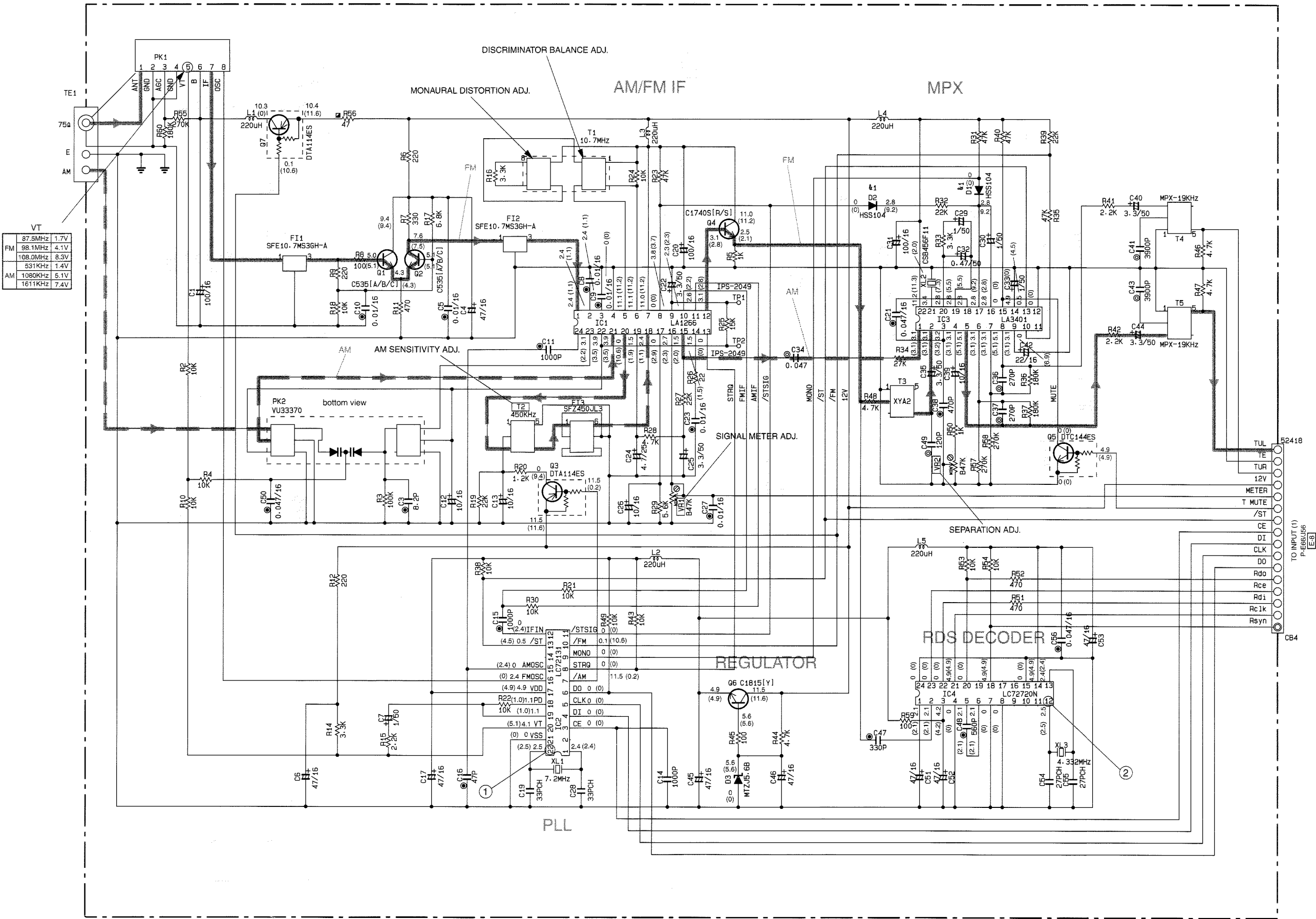
Each voltage given here represents that in the FM (98.1MHz, STEREO) reception mode but the one in the parentheses ( ) is that in the AM (1080kHz, MAN'L) reception mode.

| 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 |

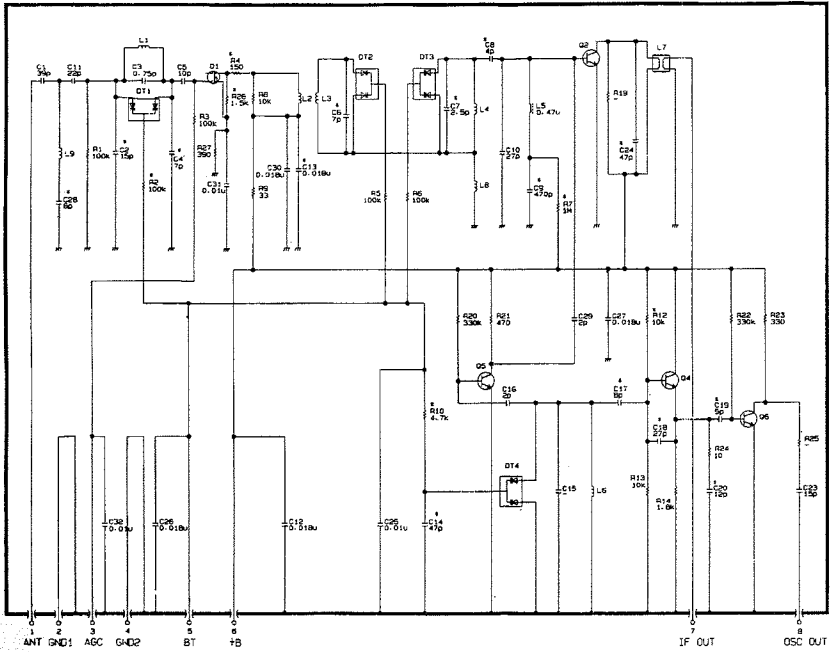
| RESISTOR |                                 |
|----------|---------------------------------|
| REMARKS  | PARTS NAME                      |
| NO MARK  | CARBON FILM RESISTOR (P=5)      |
| △        | CARBON FILM RESISTOR (P=10)     |
| □        | METAL OXIDE FILM RESISTOR       |
| ▲        | METAL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

NOTICE (model)  
(J)..... JAPANESE  
(U)..... U.S.A  
(C)..... CANADIAN  
(R)..... GENERAL  
(A)..... AUSTRALIAN  
(B)..... BRITISH  
(G)..... EUROPEAN  
(T)..... CHINA  
(L)..... SINGAPORE

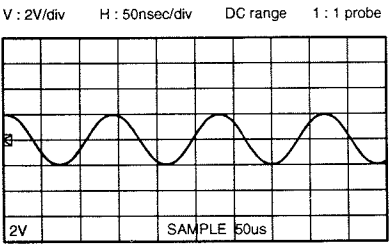
| Interchangeable Parts at Manufacture-Stage |                        |            |
|--------------------------------------------|------------------------|------------|
| Mark                                       | Reference Parts Number | Parts Name |
| 41                                         | D1.2                   | HSS104     |
|                                            |                        | 1SS133     |
|                                            |                        | 1SS176     |



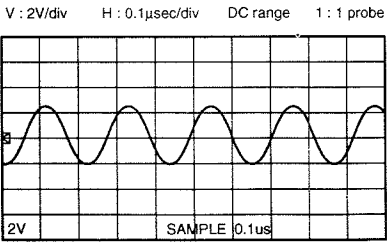
● PK1 : ENV-172A4G1 (V2716700)



Point ① (Pin22 of IC2)



Point ② (Pin12 of IC4)



\* All voltage are measured with a 10MΩ/DC electric volt meter.  
\* Components having special characteristics are marked and must be replaced with parts having specifications equal to those originally installed.  
\* Schematic diagram is subject to change without notice.

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

# PARTS LIST

## ■ ELECTRICAL PARTS

### ■ WARNING

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

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the part Nos. of the carbon resistors refer to page 87.
- Chip resistors are listed on page 86.

### 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.WW       | : WIRE WOUND RESISTOR          |
| C.TRIM     | : TRIMMER CAP                  | SCR.BND.HD | : BIND HEAD B-TITE SCREW       |
| CN         | : CONNECTOR                    | SCR.BW.HD  | : BW HEAD TAPPING SCREW        |
| CN.BS.PIN  | : CONNECTOR, BASE PIN          | SCR.CUP    | : CUP TITE SCREW               |
| CN.CANNON  | : CONNECTOR, CANNON            | SCR.TERM   | : SCREW TERMINAL               |
| CN.DIN     | : CONNECTOR, DIN               | SCR.TR     | : SCREW, TRANSISTOR            |
| CN.FLAT    | : CONNECTOR, FLAT CABLE        | SUPRT.PCB  | : SUPPORT, P.C.B.              |
| CN.POST    | : CONNECTOR, BASE POST         | SURG.PRTCT | : SURGE PROTECTOR              |
| COIL.MX.AM | : COIL, AM MIX                 | SW.TACT    | : TACT SWITCH                  |
| COIL.AT.FM | : COIL, FM ANTENNA             | SW.LEAF    | : LEAF SWITCH                  |
| COIL.DT.FM | : COIL, FM DETECT              | SW.LEVER   | : LEVER SWITCH                 |
| COIL.MX.FM | : COIL, FM MIX                 | SW.MICRO   | : MICRO SWITCH                 |
| COIL.OUTPT | : OUTPUT COIL                  | SW.PUSH    | : PUSH SWITCH                  |
| DIOD.ARRAY | : DIODE ARRAY                  | SW.RT.ENC  | : ROTARY ENCODER               |
| DIODE.BRG  | : DIODE BRIDGE                 | SW.RT.MTR  | : ROTARY SWITCH WITH MOTOR     |
| DIODE.CHP  | : CHIP DIODE                   | SW.RT      | : ROTARY SWITCH                |
| DIODE.VAR  | : VARACTOR DIODE               | SW.SLIDE   | : SLIDE SWITCH                 |
| DIOD.Z.CHP | : CHIP ZENER DIODE             | TERM.SP    | : SPEAKER TERMINAL             |
| DIODE.ZENR | : ZENER DIODE                  | TERM.WRAP  | : WRAPPING TERMINAL            |
| DSCR.CE    | : CERAMIC DISCRIMINATOR        | THRMST.CHP | : CHIP THERMISTOR              |
| FER.BEAD   | : FERRITE BEADS                | TR.CHP     | : CHIP TRANSISTOR              |
| FER.CORE   | : FERRITE CORE                 | TR.DGT     | : DIGITAL TRANSISTOR           |
| FET.CHP    | : CHIP FET                     | TR.DGT.CHP | : CHIP DIGITAL TRANSISTOR      |
| FL.DSPLY   | : FLUORESCENT DISPLAY          | TRANS      | : TRANSFORMER                  |
| FLTR.CE    | : CERAMIC FILTER               | TRANS.PULS | : PULSE TRANSFORMER            |
| FLTR.COMB  | : COMB FILTER MODULE           | TRANS.PWR  | : POWER TRANSFORMER ASS'y      |
| FLTR.LC.RF | : LC FILTER, EMI               | TUNER.AM   | : TUNER PACK, AM               |
| GND.MTL    | : GROUND PLATE                 | TUNER.FM   | : TUNER PACK, FM               |
| GND.TERM   | : GROUND TERMINAL              | TUNER.PK   | : FRONT-END TUNER PACK         |
| HOLDER.FUS | : FUSE HOLDER                  | VR         | : ROTARY POTENTIOMETER         |
| IC.PRTCT   | : IC PROTECTOR                 | VR.MTR     | : POTENTIOMETER WITH MOTOR     |
| JUMPER.CN  | : JUMPER CONNECTOR             | VR.SW      | : POTENTIOMETER WITH ROTARY SW |
| JUMPER.TST | : JUMPER, TEST POINT           | VR.SLIDE   | : SLIDE POTENTIOMETER          |
| L.DTCT     | : LIGHT DETECTING MODULE       | VR.TRIM    | : TRIMMER POTENTIOMETER        |

**Note)** Those parts marked with “#” are not included in the P.C.B. ass'y.

## P.C.B. DSP

| Schm Ref. | PART NO. | Description |            |
|-----------|----------|-------------|------------|
| *         | V3005800 | P.C.B.      | DSP        |
| CB1       | VQ044200 | CN.BS.PIN   | 6P         |
| CB2       | VQ044200 | CN.BS.PIN   | 6P         |
| CB3       | VQ044500 | CN.BS.PIN   | 11P        |
| CB6       | VQ044600 | CN.BS.PIN   | 13P        |
| C1        | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C2        | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C3        | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C4        | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C5        | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C6        | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C7        | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C8        | VJ900700 | C.CE.M.CHP  | 33pF 50V   |
| C9        | UB013100 | C.CE.M.CHP  | 1000pF 50V |
| C10       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C11       | UR818100 | C.EL        | 100uF 6.3V |
| C12       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C13       | UR818100 | C.EL        | 100uF 6.3V |
| C14       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C20       | VJ900700 | C.CE.M.CHP  | 33pF 50V   |
| C21       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C22       | UB013470 | C.CE.M.CHP  | 4700pF 50V |
| C23       | VJ900900 | C.CE.M.CHP  | 39pF 50V   |
| C24       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C25       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C26       | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C27       | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C28       | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C29       | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C30       | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C31       | UB052100 | C.CE.M.CHP  | 100pF 50V  |
| C32       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C33       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C34       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C35       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C36       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C44       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C45       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C46       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C47       | UR818100 | C.EL        | 100uF 6.3V |
| C48       | VJ900700 | C.CE.M.CHP  | 33pF 50V   |
| C49       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C50       | UR818330 | C.EL        | 330uF 6.3V |
| C51       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C52       | UR818330 | C.EL        | 330uF 6.3V |
| C53       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C54       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C55       | UR829100 | C.EL        | 1000uF 10V |
| C56       | UR818330 | C.EL        | 330uF 6.3V |
| C59       | UR829100 | C.EL        | 1000uF 10V |
| C60       | UR818100 | C.EL        | 100uF 6.3V |
| C61       | UB012470 | C.CE.M.CHP  | 470pF 50V  |
| C62       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |

\* New Parts

| Schm Ref. | PART NO. | Description |            |
|-----------|----------|-------------|------------|
| C63       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C64       | UR818330 | C.EL        | 330uF 6.3V |
| C65       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C66       | UR818330 | C.EL        | 330uF 6.3V |
| C67       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C68       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C69       | UR818330 | C.EL        | 330uF 6.3V |
| C70       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C71       | UR818100 | C.EL        | 100uF 6.3V |
| C72       | UR818100 | C.EL        | 100uF 6.3V |
| C73       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C74       | UR847100 | C.EL        | 10uF 25V   |
| C75       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C76       | UR818100 | C.EL        | 100uF 6.3V |
| C77       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C78       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C79       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C81       | UR837470 | C.EL        | 47uF 16V   |
| C82       | UR818100 | C.EL        | 100uF 6.3V |
| C83       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C84       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C85       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C86       | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C88       | UA953150 | C.MYLAR     | 1500pF 50V |
| C89       | UA953150 | C.MYLAR     | 1500pF 50V |
| C90       | UR847100 | C.EL        | 10uF 25V   |
| C91       | UR847100 | C.EL        | 10uF 25V   |
| C92       | UR847100 | C.EL        | 10uF 25V   |
| C93       | UR847100 | C.EL        | 10uF 25V   |
| C94       | UR847100 | C.EL        | 10uF 25V   |
| C95       | UR847100 | C.EL        | 10uF 25V   |
| C96       | UR847100 | C.EL        | 10uF 25V   |
| C97       | UR847100 | C.EL        | 10uF 25V   |
| C98       | UR847100 | C.EL        | 10uF 25V   |
| C99       | UR847100 | C.EL        | 10uF 25V   |
| C100      | UA952100 | C.MYLAR     | 100pF 50V  |
| C101      | UA952100 | C.MYLAR     | 100pF 50V  |
| C102      | UA952100 | C.MYLAR     | 100pF 50V  |
| C103      | UA952100 | C.MYLAR     | 100pF 50V  |
| C104      | UR847100 | C.EL        | 10uF 25V   |
| C106      | UA952100 | C.MYLAR     | 100pF 50V  |
| C107      | UA952100 | C.MYLAR     | 100pF 50V  |
| C109      | UR847100 | C.EL        | 10uF 25V   |
| C110      | UR847100 | C.EL        | 10uF 25V   |
| C111      | UB245100 | C.CE.M.CHP  | 0.1uF 25V  |
| C112      | UR818470 | C.EL        | 470uF 6.3V |
| C113      | UR828220 | C.EL        | 220uF 10V  |
| C115      | UR847100 | C.EL        | 10uF 25V   |
| C116      | UR847100 | C.EL        | 10uF 25V   |
| C117      | UR847100 | C.EL        | 10uF 25V   |
| C118      | UA952100 | C.MYLAR     | 100pF 50V  |
| C119      | UA952100 | C.MYLAR     | 100pF 50V  |
| C120      | UR847100 | C.EL        | 10uF 25V   |

\* New Parts

|                        |
|------------------------|
| P.C.B. DSP & OPERATION |
|------------------------|

| Schm Ref. | PART NO. | Description |                   |         |
|-----------|----------|-------------|-------------------|---------|
| C121      | UR847100 | C.EL        | 10uF              | 25V     |
| C122      | UA952100 | C.MYLAR     | 100pF             | 50V     |
| C123      | UR837220 | C.EL        | 22uF              | 25V     |
| C124      | UR847100 | C.EL        | 10uF              | 25V     |
| C125      | UR837220 | C.EL        | 22uF              | 25V     |
| C126      | UA952100 | C.MYLAR     | 100pF             | 50V     |
| C127      | UR847100 | C.EL        | 10uF              | 25V     |
| C128      | UR847100 | C.EL        | 10uF              | 25V     |
| C129      | UR837470 | C.EL        | 47uF              | 16V     |
| C130      | UR837470 | C.EL        | 47uF              | 16V     |
| C131      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C132      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C133      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C134      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C135      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C136      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C137      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C138      | UB245100 | C.CE.M.CHP  | 0.1uF             | 25V     |
| C139      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C140      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| C141      | UB052100 | C.CE.M.CHP  | 100pF             | 50V     |
| D1        | VT332900 | DIODE       | 1SS355            |         |
| D2        | VT332900 | DIODE       | 1SS355            |         |
| D3        | VT332900 | DIODE       | 1SS355            |         |
| D4        | VT332900 | DIODE       | 1SS355            |         |
| D5        | VT332900 | DIODE       | 1SS355            |         |
| D6        | VT332900 | DIODE       | 1SS355            |         |
| D7        | VT332900 | DIODE       | 1SS355            |         |
| D8        | VT332900 | DIODE       | 1SS355            |         |
| D9        | VT332900 | DIODE       | 1SS355            |         |
| D10       | VT332900 | DIODE       | 1SS355            |         |
| D11       | VT332900 | DIODE       | 1SS355            |         |
| D12       | VT332900 | DIODE       | 1SS355            |         |
| D13       | VT332900 | DIODE       | 1SS355            |         |
| D14       | VT332900 | DIODE       | 1SS355            |         |
| D15       | VT332900 | DIODE       | 1SS355            |         |
| D16       | VT332900 | DIODE       | 1SS355            |         |
| D17       | VT332900 | DIODE       | 1SS355            |         |
| G1        | VR463400 | TERM.GND    | D3.5              | TP00385 |
| G2        | VR463400 | TERM.GND    | D3.5              | TP00385 |
| G3        | VR463400 | TERM.GND    | D3.5              | TP00385 |
| G4        | VR463400 | TERM.GND    | D3.5              | TP00385 |
| IC1       | XR038A00 | IC          | NJM2904M OP AMP   |         |
| IC2       | XL091A00 | IC          | HD74HC02FPEL NOR  |         |
| IC3       | XG948E00 | IC          | YM3436DK          |         |
| * IC4     | XV304A00 | IC          | YSS918-F          |         |
| IC5       | XV457A00 | IC          | M5M51288BKJ-20TEL |         |
| IC6       | XU722A00 | IC          | AK4526            |         |
| IC7       | XR361A00 | IC          | AK4320-VM-E1      |         |
| IC8       | XF291A00 | IC          | uPC4570G2         |         |
| IC9       | XF291A00 | IC          | uPC4570G2         |         |
| IC10      | XF291A00 | IC          | uPC4570G2         |         |
| IC11      | XF291A00 | IC          | uPC4570G2         |         |

\* New Parts

| Schm Ref. | PART NO. | Description |                   |      |
|-----------|----------|-------------|-------------------|------|
| IC13      | XF291A00 | IC          | uPC4570G2         |      |
| * IC14    | XU929A00 | IC          | LC87F5164 CPU     |      |
| IC15      | XU965A00 | IC          | uPC29M33T-E1 3.3V |      |
| Q1        | VV655300 | TR.DGT      | DTA144EKA         |      |
| Q2        | VV655300 | TR.DGT      | DTA144EKA         |      |
| Q3        | VV655300 | TR.DGT      | DTA144EKA         |      |
| Q4        | VD303700 | TR          | 2SC3326 A,B       |      |
| Q5        | VD303700 | TR          | 2SC3326 A,B       |      |
| Q6        | VD303700 | TR          | 2SC3326 A,B       |      |
| Q7        | VD303700 | TR          | 2SC3326 A,B       |      |
| Q8        | VD303700 | TR          | 2SC3326 A,B       |      |
| Q9        | VD303700 | TR          | 2SC3326 A,B       |      |
| Q10       | VD303700 | TR          | 2SC3326 A,B       |      |
| Q11       | VD303700 | TR          | 2SC3326 A,B       |      |
| Q12       | VD303700 | TR          | 2SC3326 A,B       |      |
| Q13       | VD303700 | TR          | 2SC3326 A,B       |      |
| Q14       | VV655700 | TR.DGT      | DTC144EKA         |      |
| R30       | HV753220 | R.CAR.FP    | 2.2Ω              | 1/4W |
| R36       | HV753220 | R.CAR.FP    | 2.2Ω              | 1/4W |
| R37       | HV753220 | R.CAR.FP    | 2.2Ω              | 1/4W |
| R39       | HV753100 | R.CAR.FP    | 1Ω                | 1/4W |
| R43       | HV754100 | R.CAR.FP    | 10Ω               | 1/4W |
| R44       | HV754100 | R.CAR.FP    | 10Ω               | 1/4W |
| R45       | HV753100 | R.CAR.FP    | 1Ω                | 1/4W |
| R47       | HV753100 | R.CAR.FP    | 1Ω                | 1/4W |
| R114      | HV753220 | R.CAR.FP    | 2.2Ω              | 1/4W |
| R115      | HV753220 | R.CAR.FP    | 2.2Ω              | 1/4W |
| XL1       | Vi552000 | RSNR.CRYS   | 12.288MHz         |      |
| XL2       | VQ791000 | RSNR.CE     | 10MHz             |      |
| *         | V3013900 | P.C.B.      | OPERATION(L)      |      |
| *         | V3014000 | P.C.B.      | OPERATION(UCA)    |      |
| *         | V3014100 | P.C.B.      | OPERATION(RT)     |      |
| *         | V3014300 | P.C.B.      | OPERATION(BG)     |      |
| CB101     | Vi878900 | CN.BS.PIN   | 11P               |      |
| CB102     | VU282700 | CN          | 27P               |      |
| CB201     | Vi878700 | CN.BS.PIN   | 9P                |      |
| CB251     | VQ044800 | CN.BS.PIN   | 18P               |      |
| CB252     | VK026800 | CN.BS.PIN   | 9P                |      |
| CB253     | VK026500 | CN.BS.PIN   | 6P                |      |
| CB254     | VK026700 | CN.BS.PIN   | 8P                |      |
| CB351     | V2508700 | CN.PHOT.SN  | 1P GP1F37R        |      |
| CB352     | V2508700 | CN.PHOT.SN  | 1P GP1F37R        |      |
| CB353     | V2508700 | CN.PHOT.SN  | 1P GP1F37R        |      |
| CB354     | VQ044200 | CN.BS.PIN   | 6P                |      |
| CB901     | VK026600 | CN.BS.PIN   | 7P                |      |
| * CB902   | VM929900 | CN.BS.PIN   | 15P               |      |
| * CB951   | VQ047100 | CN.BS.PIN   | 7P                |      |
| C101      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C102      | UR847470 | C.EL        | 47uF              | 25V  |
| C103      | UR866220 | C.EL        | 2.2uF             | 50V  |

\* New Parts

## P.C.B. OPERATION

| Schm Ref. | PART NO. | Description |         |             |
|-----------|----------|-------------|---------|-------------|
| C104      | UR847100 | C.EL        | 10uF    | 25V         |
| C105      | UR866100 | C.EL        | 1uF     | 50V(LUCABG) |
| C105      | UR866220 | C.EL        | 2.2uF   | 50V(RT)     |
| C106      | UR818100 | C.EL        | 100uF   | 6.3V        |
| C107      | UB045100 | C.CE.M.CHP  | 0.1uF   | 50V         |
| C108      | UB045100 | C.CE.M.CHP  | 0.1uF   | 50V         |
| C109      | VJ900700 | C.CE.M.CHP  | 33pF    | 50V         |
| C110      | UB013100 | C.CE.M.CHP  | 1000pF  | 50V         |
| C111      | UB013100 | C.CE.M.CHP  | 1000pF  | 50V         |
| C112      | UB045100 | C.CE.M.CHP  | 0.1uF   | 50V         |
| C113      | UB045100 | C.CE.M.CHP  | 0.1uF   | 50V         |
| C114      | UR857100 | C.EL        | 10uF    | 35V         |
| C115      | UB045100 | C.CE.M.CHP  | 0.1uF   | 50V         |
| C116      | UR818330 | C.EL        | 330uF   | 6.3V        |
| C201      | VG287800 | C.EL        | 330uF   | 16V         |
| C202      | VG287800 | C.EL        | 330uF   | 16V         |
| C203      | UR837220 | C.EL        | 22uF    | 25V         |
| C204      | UR837220 | C.EL        | 22uF    | 25V         |
| C205      | UR866100 | C.EL        | 1uF     | 50V         |
| C206      | UR865100 | C.EL        | 0.1uF   | 50V         |
| C207      | UR865100 | C.EL        | 0.1uF   | 50V         |
| C208      | UR837470 | C.EL        | 47uF    | 16V         |
| C209      | UA655120 | C.MYLAR     | 0.12uF  | 50V         |
| C210      | VK533800 | C.PP        | 47pF    | 200V        |
| C211      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C212      | VK533800 | C.PP        | 47pF    | 200V        |
| C213      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C214      | UA655120 | C.MYLAR     | 0.12uF  | 50V         |
| C215      | UR837470 | C.EL        | 47uF    | 16V         |
| C216      | UR865100 | C.EL        | 0.1uF   | 50V         |
| C217      | UR865100 | C.EL        | 0.1uF   | 50V         |
| C218      | UR866100 | C.EL        | 1uF     | 50V         |
| C219      | UR847100 | C.EL        | 10uF    | 25V         |
| C220      | VQ645600 | C.MYLAR     | 100pF   | 50V         |
| C221      | VQ645600 | C.MYLAR     | 100pF   | 50V         |
| C222      | UR847100 | C.EL        | 10uF    | 25V         |
| C223      | UA954330 | C.MYLAR     | 0.033uF | 50V         |
| C224      | UA954330 | C.MYLAR     | 0.033uF | 50V         |
| C251      | UA952100 | C.MYLAR     | 100pF   | 50V         |
| C252      | UA952100 | C.MYLAR     | 100pF   | 50V         |
| C253      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C254      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C255      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C256      | UR818100 | C.EL        | 100uF   | 6.3V        |
| C257      | UR818100 | C.EL        | 100uF   | 6.3V        |
| C258      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C259      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C260      | UR818100 | C.EL        | 100uF   | 6.3V        |
| C261      | UR818100 | C.EL        | 100uF   | 6.3V        |
| C262      | UR866220 | C.EL        | 2.2uF   | 50V         |
| C263      | UN866100 | C.EL        | 1uF     | 50V         |
| C265      | UA952100 | C.MYLAR     | 100pF   | 50V         |
| C266      | UR818100 | C.EL        | 100uF   | 6.3V        |

\* New Parts

| Schm Ref. | PART NO. | Description |                   |      |
|-----------|----------|-------------|-------------------|------|
| C267      | UA952100 | C.MYLAR     | 100pF             | 50V  |
| C268      | UR818100 | C.EL        | 100uF             | 6.3V |
| C270      | UR847100 | C.EL        | 10uF              | 25V  |
| C271      | VG287600 | C.EL        | 100uF             | 25V  |
| C272      | UA952100 | C.MYLAR     | 100pF             | 50V  |
| C273      | UA952100 | C.MYLAR     | 100pF             | 50V  |
| C274      | VG287600 | C.EL        | 100uF             | 25V  |
| C275      | UR847100 | C.EL        | 10uF              | 25V  |
| C276      | UA952100 | C.MYLAR     | 100pF             | 50V  |
| C277      | UA952100 | C.MYLAR     | 100pF             | 50V  |
| C278      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C279      | UR866470 | C.EL        | 4.7uF             | 50V  |
| C280      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C281      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C282      | UR866470 | C.EL        | 4.7uF             | 50V  |
| C283      | UR866470 | C.EL        | 4.7uF             | 50V  |
| C284      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C285      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C286      | UR866470 | C.EL        | 4.7uF             | 50V  |
| C287      | UR847100 | C.EL        | 10uF              | 25V  |
| C288      | UR838100 | C.EL        | 100uF             | 16V  |
| C289      | UR838100 | C.EL        | 100uF             | 16V  |
| C290      | UR847100 | C.EL        | 10uF              | 25V  |
| C291      | UR847100 | C.EL        | 10uF              | 25V  |
| C292      | UR847100 | C.EL        | 10uF              | 25V  |
| C293      | UR847100 | C.EL        | 10uF              | 25V  |
| C294      | UR847100 | C.EL        | 10uF              | 25V  |
| C351      | UB051220 | C.CE.M.CHP  | 22pF              | 50V  |
| C352      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C353      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C354      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C355      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C356      | UR847220 | C.EL        | 22uF              | 25V  |
| C357      | UB012220 | C.CE.M.CHP  | 220pF             | 50V  |
| C358      | UB051100 | C.CE.M.CHP  | 10pF              | 50V  |
| C359      | UB013100 | C.CE.M.CHP  | 1000pF            | 50V  |
| C360      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C361      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C362      | UR818100 | C.EL        | 100uF             | 6.3V |
| C363      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C901      | UB044100 | C.CE.M.CHP  | 0.01uF            | 50V  |
| C902      | UB012220 | C.CE.M.CHP  | 220pF             | 50V  |
| C903      | UB012220 | C.CE.M.CHP  | 220pF             | 50V  |
| C904      | UB012220 | C.CE.M.CHP  | 220pF             | 50V  |
| C905      | UB012220 | C.CE.M.CHP  | 220pF             | 50V  |
| C906      | UB012220 | C.CE.M.CHP  | 220pF             | 50V  |
| C907      | UB012220 | C.CE.M.CHP  | 220pF             | 50V  |
| C951      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C952      | UB045100 | C.CE.M.CHP  | 0.1uF             | 50V  |
| C953      | VF466800 | C.CE.TUBLR  | 100pF             | 50V  |
| C954      | VF466800 | C.CE.TUBLR  | 100pF             | 50V  |
| D101      | VD631600 | DIODE       | 1SS133,176,HSS104 |      |
| D102      | VM974400 | DIODE.ZENR  | HZS6B2TD(LUCABG)  |      |

\* New Parts

|                          |
|--------------------------|
| P.C.B. OPERATION & INPUT |
|--------------------------|

| Schm Ref. | PART NO. | Description |                    |
|-----------|----------|-------------|--------------------|
| D102      | VM974500 | DIODE.ZENR  | HZS6C2TD 6.0V(RT)  |
| D103      | VM974700 | DIODE.ZENR  | HZS7B2TD 7.0V      |
| D104      | VV625100 | LED(re)     | SIM-22ST(UCA)      |
| D105      | VD631600 | DIODE       | 1SS133,176,HSS104  |
| D106      | VD631600 | DIODE       | 1SS133,176,HSS104  |
| D107      | VD631600 | DIODE       | 1SS133,176,HSS104  |
| D108      | VD631600 | DIODE       | 1SS133,176,HSS104  |
| D109      | VM974100 | DIODE.ZENR  | HZS5B2TD 5.0V      |
| D252      | VM974100 | DIODE.ZENR  | HZS5B2TD 5.0V      |
| D351      | VT332900 | DIODE       | 1SS355             |
| D352      | VT332900 | DIODE       | 1SS355             |
| G101      | VR463400 | TERM.GND    | D3.5 TP00385       |
| IC101     | XJ757A00 | IC          | NJM78L05A-T3       |
| IC102     | XR188A00 | IC          | LC75710NE(LUCART)  |
| IC102     | XV160A00 | IC          | LC75712E FLD(BG)   |
| IC201     | XM356A00 | IC          | NJM2068LD          |
| IC202     | XB247A00 | IC          | uPC4570HA          |
| IC251     | XF291A00 | IC          | uPC4570G2          |
| IC252     | XF291A00 | IC          | uPC4570G2          |
| IC253     | XF291A00 | IC          | uPC4570G2          |
| IC254     | XF494A00 | IC          | LB1641             |
| IC255     | XR040A00 | IC          | TC9299P            |
| IC256     | XR040A00 | IC          | TC9299P            |
| IC257     | XF291A00 | IC          | uPC4570G2          |
| IC258     | XF291A00 | IC          | uPC4570G2          |
| IC351     | iG142200 | IC          | TC74HCU04AP        |
| IC352     | iR000010 | IC          | HD74HC00P 2IN NAND |
| IC353     | XT208A00 | IC          | HD74HC153P MPX     |
| JK901     | VJ726800 | JACK.MNI    | (UCA)              |
| JK902     | VJ726800 | JACK.MNI    | (UCA)              |
| * JK951   | V2589500 | CN          | 1P                 |
| L351      | GE901970 | COIL        | 68uH               |
| L352      | GE901970 | COIL        | 68uH               |
| L353      | GE901970 | COIL        | 68uH               |
| PJ351     | VY667700 | JACK.PIN    | 1P                 |
| PJ901     | V2874800 | JACK.PIN    | 6P                 |
| PJ951     | VR406000 | JACK.PIN    | 3P                 |
| * Q101    | VV556500 | TR          | 2SA1037K Q,R,S     |
| * Q102    | VV556500 | TR          | 2SA1037K Q,R,S     |
| * Q103    | VV556500 | TR          | 2SA1037K Q,R,S     |
| Q104      | VV655700 | TR.DGT      | DTC144EKA          |
| * Q105    | VV556400 | TR          | 2SC2412K Q,R,S     |
| * Q106    | VV556400 | TR          | 2SC2412K Q,R,S     |
| * Q107    | VV556400 | TR          | 2SC2412K Q,R,S     |
| Q251      | VV655700 | TR.DGT      | DTC144EKA          |
| R148      | HV755560 | R.CAR.FP    | 560Ω 1/4W          |
| R229      | VP939800 | R.MTL.OXD   | 10Ω 1W             |
| R230      | VP939800 | R.MTL.OXD   | 10Ω 1W             |
| R280      | HV754100 | R.CAR.FP    | 10Ω 1/4W           |
| R281      | HV754100 | R.CAR.FP    | 10Ω 1/4W           |
| R282      | HV754100 | R.CAR.FP    | 10Ω 1/4W           |
| R359      | HV753220 | R.CAR.FP    | 2.2Ω 1/4W          |
| SW101     | VG392900 | SW.TACT     | SKHVAA             |

\* New Parts

| Schm Ref. | PART NO. | Description |                  |
|-----------|----------|-------------|------------------|
| SW102     | VG392900 | SW.TACT     | SKHVAA           |
| SW103     | VG392900 | SW.TACT     | SKHVAA           |
| SW104     | VG392900 | SW.TACT     | SKHVAA(BG)       |
| SW105     | VG392900 | SW.TACT     | SKHVAA(BG)       |
| SW106     | VG392900 | SW.TACT     | SKHVAA(BG)       |
| SW107     | VG392900 | SW.TACT     | SKHVAA           |
| SW108     | VG392900 | SW.TACT     | SKHVAA           |
| SW109     | VG392900 | SW.TACT     | SKHVAA           |
| SW110     | VG392900 | SW.TACT     | SKHVAA(BG)       |
| SW111     | VG392900 | SW.TACT     | SKHVAA           |
| SW112     | VG392900 | SW.TACT     | SKHVAA           |
| SW113     | VG392900 | SW.TACT     | SKHVAA           |
| SW114     | VG392900 | SW.TACT     | SKHVAA           |
| SW115     | VG392900 | SW.TACT     | SKHVAA           |
| SW116     | VG392900 | SW.TACT     | SKHVAA           |
| SW117     | VG392900 | SW.TACT     | SKHVAA           |
| SW118     | VG392900 | SW.TACT     | SKHVAA           |
| SW119     | VG392900 | SW.TACT     | SKHVAA           |
| SW120     | VG392900 | SW.TACT     | SKHVAA           |
| SW121     | VG392900 | SW.TACT     | SKHVAA           |
| SW122     | VG392900 | SW.TACT     | SKHVAA           |
| SW123     | VG392900 | SW.TACT     | SKHVAA           |
| SW124     | VG392900 | SW.TACT     | SKHVAA           |
| SW125     | VG392900 | SW.TACT     | SKHVAA           |
| SW126     | VG392900 | SW.TACT     | SKHVAA           |
| SW127     | VT140300 | SW.RT.ENC   | EC16B12204       |
| SW128     | VG392900 | SW.TACT     | SKHVAA           |
| SW129     | VG392900 | SW.TACT     | SKHVAA           |
| SW130     | VG392900 | SW.TACT     | SKHVAA           |
| SW201     | VV885000 | SW.PUSH     | SPUN22 2         |
| SW901     | VS602600 | SW.SLIDE    | SS070-P022 A(RT) |
| SW902     | VS602600 | SW.SLIDE    | SS070-P022 A     |
| U101      | VU591000 | L.DTCT      | GP1U271X         |
| * V101    | V2573800 | FL.DSPLY    | 16-BT-60GK       |
| VR201     | VP741800 | VR          | B20KΩ            |
| VR202     | VP741900 | VR          | G25KΩ            |
| VR203     | VP742000 | VR          | MN100KΩ          |
| * VR251   | V2556700 | VR.MTR      | A100KΩ           |
|           | VJ828000 | PIN         | IMSA-6024-03E    |
|           | VS588900 | SHEET       |                  |
|           | VV499900 | SPACER      | FL-T7.5          |
|           | VY760000 | SPACER      | (UCA)            |
|           | BB071360 | SCR.TERM    | 8.3x13           |
| *         | V3013300 | P.C.B.      | INPUT(UC)        |
| *         | V3013400 | P.C.B.      | INPUT(RT)        |
| *         | V3013500 | P.C.B.      | INPUT(A)         |
| *         | V3013600 | P.C.B.      | INPUT(B)         |
| *         | V3013700 | P.C.B.      | INPUT(G)         |
| *         | V3013800 | P.C.B.      | INPUT(L)         |
| * CB11    | VQ047100 | CN.BS.PIN   | 7P               |

\* New Parts

## P.C.B. INPUT

| Schm Ref. | PART NO. | Description               |
|-----------|----------|---------------------------|
| * CB12    | Vi879100 | CN.BS.PIN 13P             |
| CB13      | VM923600 | CN.BS.PIN 13P             |
| * CB14    | VM859600 | CN.BS.PIN 15P             |
| CB15      | VQ963700 | CN.BS.PIN 16P             |
| CB16      | VP573800 | CN.BS.PIN 18P             |
| CB17      | VM859500 | CN.BS.PIN 11P             |
| CB18      | VQ047800 | CN.BS.PIN 27P             |
| CB19      | Vi879000 | CN.BS.PIN 12P             |
| CB20      | VB390400 | CN.BS.PIN 8P              |
| CB401     | Vi879100 | CN.BS.PIN 13P             |
| CB402     | Vi878500 | CN.BS.PIN 7P              |
| CB821     | VK024700 | CN.BS.PIN 3P              |
| CB822     | VP206500 | HOLDER.FUS EYF-52BC(G)    |
| CB823     | VG879900 | CN.BS.PIN 2P              |
| CB824     | VP206500 | HOLDER.FUS EYF-52BC(ABGL) |
| CB825     | VP206500 | HOLDER.FUS EYF-52BC(G)    |
| CB826     | VP206500 | HOLDER.FUS EYF-52BC(ABGL) |
| CB827     | VP206500 | HOLDER.FUS EYF-52BC(UCRT) |
| CB828     | VP206500 | HOLDER.FUS EYF-52BC(UCRT) |
| CB851     | VP206500 | HOLDER.FUS EYF-52BC(RT)   |
| CB852     | VP206500 | HOLDER.FUS EYF-52BC(RT)   |
| C11       | UA952100 | C.MYLAR 100pF 50V(ABGL)   |
| C12       | UB044100 | C.CE.M.CHP 0.01uF 50V     |
| C13       | UA952100 | C.MYLAR 100pF 50V(ABGL)   |
| C14       | VK533900 | C.PP 100pF 200V           |
| C15       | VK533900 | C.PP 100pF 200V           |
| C16       | UB052100 | C.CE.M.CHP 100pF 50V      |
| C17       | UB052100 | C.CE.M.CHP 100pF 50V      |
| C18       | VK533800 | C.PP 47pF 200V            |
| C19       | VK533800 | C.PP 47pF 200V            |
| C20       | VK533900 | C.PP 100pF 200V           |
| C21       | VK533900 | C.PP 100pF 200V           |
| C22       | UB052100 | C.CE.M.CHP 100pF 50V      |
| C23       | UB052100 | C.CE.M.CHP 100pF 50V      |
| C24       | UB052100 | C.CE.M.CHP 100pF 50V      |
| C25       | UB052100 | C.CE.M.CHP 100pF 50V      |
| C26       | VK533800 | C.PP 47pF 200V            |
| C27       | VK533800 | C.PP 47pF 200V            |
| C28       | UR866220 | C.EL 2.2uF 50V            |
| C29       | UR866220 | C.EL 2.2uF 50V            |
| C30       | UA952220 | C.MYLAR 220pF 50V         |
| C31       | UR828220 | C.EL 220uF 10V            |
| C32       | UR837470 | C.EL 47uF 16V             |
| C33       | UA953100 | C.MYLAR 1000pF 50V        |
| C34       | UA653910 | C.MYLAR 9100pF 50V        |
| C35       | UA954330 | C.MYLAR 0.033uF 50V       |
| C36       | UA653910 | C.MYLAR 9100pF 50V        |
| C37       | UA954330 | C.MYLAR 0.033uF 50V       |
| C38       | UA953100 | C.MYLAR 1000pF 50V        |
| C39       | UA952220 | C.MYLAR 220pF 50V         |
| C40       | UR828220 | C.EL 220uF 10V            |
| C41       | UR837470 | C.EL 47uF 16V             |
| C42       | UR866220 | C.EL 2.2uF 50V            |

\* New Parts

| Schm Ref. | PART NO. | Description           |
|-----------|----------|-----------------------|
| C43       | UR866220 | C.EL 2.2uF 50V        |
| C44       | UR837100 | C.EL 10uF 16V(BG)     |
| C45       | UR837100 | C.EL 10uF 16V(BG)     |
| C47       | UR837100 | C.EL 10uF 16V         |
| C48       | UA952100 | C.MYLAR 100pF 50V     |
| C49       | UA952100 | C.MYLAR 100pF 50V     |
| C50       | UR837100 | C.EL 10uF 16V         |
| C51       | UA954180 | C.MYLAR 0.018uF 50V   |
| C53       | UR837220 | C.EL 22uF 25V         |
| * C54     | VQ083000 | C.EL 47uF 16V         |
| * C57     | VQ083000 | C.EL 47uF 16V         |
| C58       | UR837220 | C.EL 22uF 25V         |
| C60       | UR837220 | C.EL 22uF 25V         |
| C61       | UR847100 | C.EL 10uF 25V         |
| C62       | VG287500 | C.EL 47uF 50V         |
| C63       | VG287500 | C.EL 47uF 50V         |
| C64       | UR847100 | C.EL 10uF 25V         |
| C65       | UR837220 | C.EL 22uF 25V         |
| C66       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C67       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C68       | UR837220 | C.EL 22uF 25V         |
| C69       | UR837220 | C.EL 22uF 25V         |
| C70       | UR837220 | C.EL 22uF 25V         |
| C71       | UR837220 | C.EL 22uF 25V         |
| C72       | UA952100 | C.MYLAR 100pF 50V     |
| C73       | UA952100 | C.MYLAR 100pF 50V     |
| C74       | UA954270 | C.MYLAR 0.027uF 50V   |
| C75       | UA954270 | C.MYLAR 0.027uF 50V   |
| C76       | UR847100 | C.EL 10uF 25V         |
| C77       | UR847100 | C.EL 10uF 25V         |
| C78       | UA954270 | C.MYLAR 0.027uF 50V   |
| C79       | UA954270 | C.MYLAR 0.027uF 50V   |
| C80       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C81       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C82       | UB044100 | C.CE.M.CHP 0.01uF 50V |
| C83       | UB044100 | C.CE.M.CHP 0.01uF 50V |
| C84       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C85       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C86       | UR837100 | C.EL 10uF 16V         |
| * C87     | VG288800 | C.EL 47uF 50V         |
| C88       | UA952100 | C.MYLAR 100pF 50V     |
| C89       | UR837470 | C.EL 47uF 16V         |
| * C90     | VG288800 | C.EL 47uF 50V         |
| C91       | UR837470 | C.EL 47uF 16V         |
| C92       | UA952100 | C.MYLAR 100pF 50V     |
| C93       | UR837100 | C.EL 10uF 16V         |
| C94       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C95       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C96       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C97       | UR866100 | C.EL 1uF 50V          |
| C98       | UR866100 | C.EL 1uF 50V          |
| C99       | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C100      | UB245100 | C.CE.M.CHP 0.1uF 25V  |

\* New Parts

## P.C.B. INPUT

| Schm Ref. | PART NO. | Description           |
|-----------|----------|-----------------------|
| * C101    | UR819220 | C.EL 2200uF 6.3V      |
| C102      | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| * C103    | VT180400 | C.EL 4700uF 5.5V      |
| C104      | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C105      | UB044100 | C.CE.M.CHP 0.01uF 50V |
| C107      | UA954680 | C.MYLAR 0.068uF 50V   |
| * C108    | UR818220 | C.EL 220uF 6.3V       |
| C109      | UN866220 | C.EL 2.2uF 50V        |
| C110      | UR818470 | C.EL 470uF 6.3V       |
| C111      | UB245100 | C.CE.M.CHP 0.1uF 25V  |
| C401      | UR837330 | C.EL 33uF 16V         |
| C402      | VG279600 | C.CE.TUBLR 3300pF 16V |
| C403      | VF466800 | C.CE.TUBLR 100pF 50V  |
| C404      | VF466800 | C.CE.TUBLR 100pF 50V  |
| C405      | UR837100 | C.EL 10uF 16V         |
| C406      | UR837330 | C.EL 33uF 16V         |
| C407      | UR829100 | C.EL 1000uF 10V       |
| C408      | VF466800 | C.CE.TUBLR 100pF 50V  |
| C409      | VF466800 | C.CE.TUBLR 100pF 50V  |
| C410      | UR829100 | C.EL 1000uF 10V       |
| C411      | VF466800 | C.CE.TUBLR 100pF 50V  |
| C412      | UR837100 | C.EL 10uF 16V         |
| C413      | UR837100 | C.EL 10uF 16V         |
| C414      | UR837100 | C.EL 10uF 16V         |
| C415      | VF466800 | C.CE.TUBLR 100pF 50V  |
| C416      | UR829100 | C.EL 1000uF 10V       |
| C417      | UR837330 | C.EL 33uF 16V         |
| C418      | UR829100 | C.EL 1000uF 10V       |
| C419      | UR837100 | C.EL 10uF 16V         |
| C420      | UR837220 | C.EL 22uF 25V         |
| C421      | VJ599100 | C.CE.TUBLR 0.1uF 50V  |
| C422      | UR837100 | C.EL 10uF 16V         |
| C423      | VG276600 | C.CE.TUBLR 22pF 50V   |
| C424      | UR837100 | C.EL 10uF 16V         |
| C425      | VJ599100 | C.CE.TUBLR 0.1uF 50V  |
| C426      | UR837100 | C.EL 10uF 16V         |
| C427      | UR837100 | C.EL 10uF 16V         |
| C428      | VG276600 | C.CE.TUBLR 22pF 50V   |
| C429      | UR837100 | C.EL 10uF 16V         |
| C430      | UR837100 | C.EL 10uF 16V         |
| C431      | VJ599100 | C.CE.TUBLR 0.1uF 50V  |
| C432      | UR837100 | C.EL 10uF 16V         |
| C433      | UR739220 | C.EL 2200uF 16V       |
| C434      | UR837470 | C.EL 47uF 16V         |
| C435      | VF466900 | C.CE.TUBLR 470pF 50V  |
| C436      | VJ599100 | C.CE.TUBLR 0.1uF 50V  |
| C437      | UR866100 | C.EL 1uF 50V          |
| C438      | VJ599100 | C.CE.TUBLR 0.1uF 50V  |
| C439      | UR837470 | C.EL 47uF 16V         |
| C440      | UR866470 | C.EL 4.7uF 50V        |
| C441      | VG273100 | C.CE.TUBLR 6.8pF 50V  |
| C442      | VG273100 | C.CE.TUBLR 6.8pF 50V  |
| C443      | VG276700 | C.CE.TUBLR 24pF 50V   |

\* New Parts

| Schm Ref. | PART NO. | Description                  |
|-----------|----------|------------------------------|
| C444      | VG276700 | C.CE.TUBLR 24pF 50V          |
| C445      | UR837100 | C.EL 10uF 16V                |
| C446      | UR818100 | C.EL 100uF 6.3V              |
| C447      | VG279100 | C.CE.TUBLR 1200pF 16V        |
| C448      | VF466900 | C.CE.TUBLR 470pF 50V         |
| C449      | UR866100 | C.EL 1uF 50V                 |
| C450      | UR837100 | C.EL 10uF 16V                |
| C451      | VJ599100 | C.CE.TUBLR 0.1uF 50V         |
| C452      | UR837470 | C.EL 47uF 16V                |
| C453      | UR838100 | C.EL 100uF 16V               |
| C821      | UA953100 | C.MYLAR 1000pF 50V(RT)       |
| C822      | VJ599100 | C.CE.TUBLR 0.1uF 50V         |
| C823      | UR848330 | C.EL 330uF 25V(RTABGL)       |
| C823      | UR848470 | C.EL 470uF 25V(UC)           |
| C824      | UA954100 | C.MYLAR 0.01uF 50V           |
| C825      | UR858100 | C.EL 100uF 35V(RT)           |
| C826      | VI716700 | C.MYLAR 0.01uF 50V           |
| C827      | VS741700 | C.CE.SAFTY 0.01uF 275V       |
| C828      | UR858100 | C.EL 100uF 35V(RT)           |
| D11       | VT332900 | DIODE 1SS355                 |
| D12       | VT332900 | DIODE 1SS355                 |
| D13       | VU171900 | DIODE.ZENR UDZ5.1B 5.1V      |
| D14       | VT332900 | DIODE 1SS355                 |
| D15       | VT332900 | DIODE 1SS355                 |
| D16       | VT332900 | DIODE 1SS355                 |
| D17       | VT332900 | DIODE 1SS355                 |
| D18       | VU171900 | DIODE.ZENR UDZ5.1B 5.1V      |
| D19       | VU172600 | DIODE.ZENR UDZS10B 10V       |
| D20       | VU172600 | DIODE.ZENR UDZS10B 10V       |
| D21       | VU172600 | DIODE.ZENR UDZS10B 10V       |
| D22       | VU172600 | DIODE.ZENR UDZS10B 10V       |
| D401      | VM974400 | DIODE.ZENR HZS6B2TD 6.0V     |
| D402      | VD631600 | DIODE 1SS133,176,HSS104      |
| D403      | VD631600 | DIODE 1SS133,176,HSS104      |
| D404      | VD631600 | DIODE 1SS133,176,HSS104      |
| D405      | VD631600 | DIODE 1SS133,176,HSS104      |
| D406      | VD631600 | DIODE 1SS133,176,HSS104      |
| D407      | VD631600 | DIODE 1SS133,176,HSS104      |
| D408      | VD631600 | DIODE 1SS133,176,HSS104      |
| D409      | VD631600 | DIODE 1SS133,176,HSS104      |
| D821      | VD631600 | DIODE 1SS133,176,HSS104      |
| D822      | VR253700 | DIODE.BRG S1NB20 1.0A 200V   |
| D823      | VM975600 | DIODE.ZENR HZS12B2TD 12V(RT) |
| F821      | VT942900 | FUSE TH2.5A 250V(G)          |
| F822      | KB000790 | FUSE T4.0A 250V(ABGL)        |
| F823      | VS823300 | FUSE T8.0A 125V(UCRT)        |
| F851      | KB000790 | FUSE T4.0A 250V(RT)          |
| G11       | VR463400 | TERM.GND D3.5 TP00385        |
| * HS1     | V2984900 | HEAT.SINK PUH16-25(RT)       |
| IC11      | XJ553A00 | IC NJM2068MD                 |
| IC12      | XF291A00 | IC uPC4570G2                 |
| * IC13    | XV039A00 | IC M5220FP OP AMP            |
| * IC15    | XV039A00 | IC M5220FP OP AMP            |

\* New Parts

## P.C.B. INPUT &amp; MAIN

| Schm Ref. | PART NO. | Description |                   |
|-----------|----------|-------------|-------------------|
| * IC16    | XV039A00 | IC          | M5220FP OP AMP    |
| IC17      | XP894A00 | IC          | LC78211           |
| IC18      | XP896A00 | IC          | LC78213           |
| IC19      | XP895A00 | IC          | LC78212           |
| IC20      | XF291A00 | IC          | uPC4570G2(BG)     |
| * IC21    | XV287A00 | IC          | HD64F3337YF16 CPU |
| IC401     | iG055100 | IC          | TC4053BP          |
| IC402     | XH436A00 | IC          | LA7956            |
| IC403     | XH436A00 | IC          | LA7956            |
| IC404     | XH436A00 | IC          | LA7956            |
| IC405     | iG037400 | IC          | uPD4066BC         |
| IC406     | XS502A00 | IC          | LC74781-9626      |
| JK401     | VN938100 | CN.DIN      | 3P S              |
| L401      | VG668700 | COIL        | 33uH              |
| PJ11      | VQ260900 | JACK.PIN    | 4P                |
| PJ12      | VU857800 | JACK.PIN    | 6P                |
| PJ13      | VU857800 | JACK.PIN    | 6P                |
| PJ401     | VV852500 | JACK.PIN    | 3P                |
| PJ402     | VV325000 | JACK.PIN    | 2P                |
| Q11       | VV655300 | TR.DGT      | DTA144EKA         |
| Q12       | VV655700 | TR.DGT      | DTC144EKA         |
| Q13       | VV655700 | TR.DGT      | DTC144EKA         |
| Q401      | iC174020 | TR          | 2SC1740S R,S      |
| Q402      | iC287820 | TR          | 2SC2878 A,B       |
| Q403      | iA101510 | TR          | 2SA1015 Y         |
| Q404      | iC181510 | TR          | 2SC1815 Y         |
| Q405      | iA101510 | TR          | 2SA1015 Y         |
| Q406      | iC181510 | TR          | 2SC1815 Y         |
| Q407      | iC174020 | TR          | 2SC1740S R,S      |
| Q408      | iC181510 | TR          | 2SC1815 Y         |
| Q409      | VD678700 | TR.DGT      | DTC114ES          |
| Q410      | iA101510 | TR          | 2SA1015 Y         |
| Q411      | iC053540 | TR          | 2SC535 A,B,C      |
| Q412      | iC224030 | TR          | 2SC2240 GR,BL     |
| Q413      | iA101510 | TR          | 2SA1015 Y         |
| Q414      | iA093320 | TR          | 2SA933S Q,R       |
| Q415      | VG721700 | TR.DGT      | DTA144ES          |
| Q821      | iC174020 | TR          | 2SC1740S R,S      |
| Q822      | VR510800 | TR          | 2SD2396 J,K(RT)   |
| R54       | HV755100 | R.CAR.FP    | 100Ω 1/4W         |
| R55       | HV755100 | R.CAR.FP    | 100Ω 1/4W         |
| R62       | VP939600 | R.MTL.FLM   | 2.2Ω 1W           |
| R63       | VP939600 | R.MTL.FLM   | 2.2Ω 1W           |
| R94       | HV753220 | R.CAR.FP    | 2.2Ω 1/4W         |
| R120      | VP940600 | R.MTL.OXD   | 220Ω 1W           |
| R123      | VP940600 | R.MTL.OXD   | 220Ω 1W           |
| R437      | VY716000 | R.MTL.OXD   | 270Ω 1W           |
| R440      | VY716000 | R.MTL.OXD   | 270Ω 1W           |
| R444      | HV753220 | R.CAR.FP    | 2.2Ω 1/4W         |
| R450      | HV753220 | R.CAR.FP    | 2.2Ω 1/4W         |
| R459      | HV753220 | R.CAR.FP    | 2.2Ω 1/4W         |
| R460      | VY716000 | R.MTL.OXD   | 270Ω 1W           |
| R822      | HV756560 | R.CAR.FP    | 5.6KΩ 1/4W(RT)    |

\* New Parts

| Schm Ref. | PART NO. | Description |                     |
|-----------|----------|-------------|---------------------|
| * R823    | HV756560 | R.CAR.FP    | 5.6KΩ 1/4W(RT)      |
| △ RY821   | V2695300 | RELAY       | DC DG12D1-O/M-II(U) |
| △ RY821   | V2712300 | RELAY       | DC SDT-S-112LMR     |
| △ RY821   | V2712300 | RELAY       | (RTABGL)            |
| △ SW851   | VA961800 | VOLT.SELCT  | ESE-37247-F(RT)     |
| △ T821    | XC083A00 | TRANS.PWR   | (UC)                |
| △ T821    | XC084A00 | TRANS.PWR   | (ABGL)              |
| △ T821    | XT331A00 | TRANS.PWR   | (RT)                |
| △ TE821   | VT915000 | OUTLET.AC   | 2P(A)               |
| △ TE821   | VU543100 | OUTLET.AC   | 2P(UCRT)            |
| △ TE821   | VU543300 | OUTLET.AC   | 1P(B)               |
| △ TE821   | VU543400 | OUTLET.AC   | 2P(GL)              |
| XL11      | VE222400 | RSNR.CE     | 8MHz                |
| XL401     | VV949800 | RSNR.CRYS   | 14.31818MHz(UCRT)   |
| XL401     | VV949900 | RSNR.CRYS   | 17.734475MHz(ABGL)  |
|           | VJ828000 | PIN         | IMSA-6024-03E       |
|           | VR264300 | PLATE.GND   |                     |
|           | EP600140 | SCR.BND.HD  | 3x10 MFZN2-BL(RT)   |
| * *       | V3014500 | P.C.B.      | MAIN(UCRT)          |
| * *       | V3014600 | P.C.B.      | MAIN(A)             |
| * *       | V3014700 | P.C.B.      | MAIN(BGL)           |
| CB501     | Vi878400 | CN.BS.PIN   | 6P                  |
| CB502     | VK025500 | CN.BS.PIN   | 11P                 |
| CB521     | VQ584700 | CN.BS.PIN   | 5P                  |
| CB522     | VQ584700 | CN.BS.PIN   | 5P                  |
| CB523     | VQ584800 | CN.BS.PIN   | 6P                  |
| CB524     | VQ584800 | CN.BS.PIN   | 6P                  |
| CB525     | Vi878900 | CN.BS.PIN   | 11P                 |
| CB526     | Vi878100 | CN.BS.PIN   | 3P                  |
| CB529     | LA002110 | TERM.WRAP   | 2P                  |
| CB530     | LA002110 | TERM.WRAP   | 2P                  |
| CB531     | LA002110 | TERM.WRAP   | 2P                  |
| CB533     | VQ584700 | CN.BS.PIN   | 5P                  |
| CB702     | Vi878600 | CN.BS.PIN   | 8P                  |
| CB703     | VK025600 | CN.BS.PIN   | 12P                 |
| * CB704   | VQ585500 | CN.JUMPER   | 5P                  |
| CB705     | VK025100 | CN.BS.PIN   | 7P                  |
| CB706     | VB389900 | CN.BS.PIN   | 3P                  |
| CB707     | VB389800 | CN.BS.PIN   | 2P                  |
| CB708     | VK027000 | CN.BS.PIN   | 11P                 |
| CB709     | Vi878500 | CN.BS.PIN   | 7P                  |
| C501      | UR866470 | C.EL        | 4.7uF 50V           |
| C503      | UR847100 | C.EL        | 10uF 25V            |
| C504      | UR847100 | C.EL        | 10uF 25V            |
| C505      | UR818100 | C.EL        | 100uF 6.3V          |
| C506      | VK399200 | C.MYLAR.ML  | 0.39uF 50V          |
| C507      | UR866470 | C.EL        | 4.7uF 50V           |
| C508      | FU452100 | C.MICA      | 100pF 500V          |
| C509      | VQ645600 | C.MYLAR     | 100pF 50V           |

\* New Parts

## P.C.B. MAIN

| Schm Ref. | PART NO. | Description |         |           |
|-----------|----------|-------------|---------|-----------|
| C510      | FU452100 | C.MICA      | 100pF   | 500V      |
| C511      | VQ645600 | C.MYLAR     | 100pF   | 50V       |
| C512      | UA952100 | C.MYLAR     | 100pF   | 50V       |
| C513      | UR847100 | C.EL        | 10uF    | 25V       |
| C514      | UA952100 | C.MYLAR     | 100pF   | 50V       |
| C515      | UR847100 | C.EL        | 10uF    | 25V       |
| C516      | VK399200 | C.MYLAR.ML  | 0.39uF  | 50V       |
| C517      | FU451330 | C.MICA      | 33pF    | 500V      |
| C518      | UR838100 | C.EL        | 100uF   | 16V       |
| C519      | UA953100 | C.MYLAR     | 1000pF  | 50V       |
| C520      | FU451330 | C.MICA      | 33pF    | 500V      |
| C521      | UR838100 | C.EL        | 100uF   | 16V       |
| C522      | UA953100 | C.MYLAR     | 1000pF  | 50V       |
| C523      | FU451330 | C.MICA      | 33pF    | 500V      |
| C524      | UR837470 | C.EL        | 47uF    | 16V       |
| C525      | UA953100 | C.MYLAR     | 1000pF  | 50V       |
| C526      | VK533900 | C.PP        | 100pF   | 200V      |
| C527      | UR867470 | C.EL        | 47uF    | 50V       |
| C528      | UR867470 | C.EL        | 47uF    | 50V       |
| C529      | VK533900 | C.PP        | 100pF   | 200V      |
| C530      | VK347900 | C.EL        | 470uF   | 63V       |
| C531      | VK533900 | C.PP        | 100pF   | 200V      |
| C532      | UR867470 | C.EL        | 47uF    | 50V       |
| C533      | UR867470 | C.EL        | 47uF    | 50V       |
| C534      | VK533900 | C.PP        | 100pF   | 200V      |
| C535      | VR325000 | C.MYLAR     | 100pF   | 100V      |
| C536      | UR867470 | C.EL        | 47uF    | 50V       |
| C537      | UR867470 | C.EL        | 47uF    | 50V       |
| C538      | VR325000 | C.MYLAR     | 100pF   | 100V      |
| C541      | UR866100 | C.EL        | 1uF     | 50V       |
| C542      | UA954680 | C.MYLAR     | 0.068uF | 50V       |
| C543      | UA954680 | C.MYLAR     | 0.068uF | 50V       |
| C544      | UA954680 | C.MYLAR     | 0.068uF | 50V       |
| C545      | UA954100 | C.MYLAR     | 0.01uF  | 50V(ABGL) |
| C546      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |
| C547      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |
| C548      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |
| C549      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |
| C550      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |
| C551      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |
| △ * C552  | V2922200 | C.EL        | 12000uF | 63V       |
| △ * C553  | V2922200 | C.EL        | 12000uF | 63V       |
| C554      | UA954100 | C.MYLAR     | 0.01uF  | 50V(ABGL) |
| C555      | UA954100 | C.MYLAR     | 0.01uF  | 50V       |
| C556      | VS745400 | C.POL.MTL   | 0.1uF   | 100V      |
| C557      | VS745400 | C.POL.MTL   | 0.1uF   | 100V      |
| C701      | UR866470 | C.EL        | 4.7uF   | 50V       |
| C703      | UR866470 | C.EL        | 4.7uF   | 50V       |
| C704      | UR837470 | C.EL        | 47uF    | 16V       |
| C705      | UR837470 | C.EL        | 47uF    | 16V       |
| C706      | UR847100 | C.EL        | 10uF    | 25V       |
| C711      | UA952100 | C.MYLAR     | 100pF   | 50V       |
| C712      | UA952470 | C.MYLAR     | 470pF   | 50V       |

\* New Parts

| Schm Ref. | PART NO. | Description |         |           |
|-----------|----------|-------------|---------|-----------|
| C713      | UR837470 | C.EL        | 47uF    | 16V       |
| C714      | UA952470 | C.MYLAR     | 470pF   | 50V       |
| C715      | UA952100 | C.MYLAR     | 100pF   | 50V       |
| C716      | UR847100 | C.EL        | 10uF    | 25V       |
| C717      | UR837470 | C.EL        | 47uF    | 16V       |
| C718      | UR847100 | C.EL        | 10uF    | 25V       |
| C719      | VR516400 | C.CE        | 15pF    | 500V      |
| C720      | UR837470 | C.EL        | 47uF    | 16V       |
| C721      | UA953100 | C.MYLAR     | 1000pF  | 50V       |
| C722      | UA953100 | C.MYLAR     | 1000pF  | 50V       |
| C723      | UR837470 | C.EL        | 47uF    | 16V       |
| C724      | VR516400 | C.CE        | 15pF    | 500V      |
| C725      | UR837470 | C.EL        | 47uF    | 16V       |
| C726      | UR847100 | C.EL        | 10uF    | 25V       |
| C727      | UR857470 | C.EL        | 47uF    | 35V       |
| C728      | VR325000 | C.MYLAR     | 100pF   | 100V      |
| C729      | UR867470 | C.EL        | 47uF    | 50V       |
| C730      | UR867470 | C.EL        | 47uF    | 50V       |
| C731      | VR325000 | C.MYLAR     | 100pF   | 100V      |
| C732      | UR878100 | C.EL        | 100uF   | 63V       |
| C733      | UR878100 | C.EL        | 100uF   | 63V       |
| C734      | VR325000 | C.MYLAR     | 100pF   | 100V      |
| C735      | UR867470 | C.EL        | 47uF    | 50V       |
| C736      | UR867470 | C.EL        | 47uF    | 50V       |
| C737      | VR325000 | C.MYLAR     | 100pF   | 100V      |
| C738      | UR857470 | C.EL        | 47uF    | 35V       |
| C739      | UR848470 | C.EL        | 470uF   | 25V       |
| C740      | UR865470 | C.EL        | 0.47uF  | 50V       |
| C741      | UR847100 | C.EL        | 10uF    | 25V       |
| C742      | UR867100 | C.EL        | 10uF    | 50V       |
| C743      | UR837100 | C.EL        | 10uF    | 16V       |
| C744      | UA954680 | C.MYLAR     | 0.068uF | 50V       |
| C745      | UR877470 | C.EL        | 47uF    | 63V       |
| C746      | UA954680 | C.MYLAR     | 0.068uF | 50V       |
| C747      | UR877470 | C.EL        | 47uF    | 63V       |
| C748      | UR858470 | C.EL        | 470uF   | 35V       |
| C749      | UR768470 | C.EL        | 470uF   | 50V       |
| △ * C750  | UR768470 | C.EL        | 470uF   | 50V       |
| △ * C751  | UR749680 | C.EL        | 6800uF  | 25V       |
| △ * C752  | UR749220 | C.EL        | 2200uF  | 25V       |
| △ C753    | UR749470 | C.EL        | 4700uF  | 25V       |
| C754      | VF466900 | C.CE.TUBLR  | 470pF   | 50V       |
| C755      | VF466900 | C.CE.TUBLR  | 470pF   | 50V       |
| C756      | UA655100 | C.MYLAR     | 0.1uF   | 50V       |
| C757      | VF466900 | C.CE.TUBLR  | 470pF   | 50V       |
| C758      | VF466900 | C.CE.TUBLR  | 470pF   | 50V       |
| C759      | VF466900 | C.CE.TUBLR  | 470pF   | 50V       |
| C760      | UA954100 | C.MYLAR     | 0.01uF  | 50V(ABGL) |
| C761      | UA954100 | C.MYLAR     | 0.01uF  | 50V(ABGL) |
| C762      | UA954100 | C.MYLAR     | 0.01uF  | 50V(ABGL) |
| C763      | VJ599100 | C.CE.TUBLR  | 0.1uF   | 50V       |
| C764      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |
| C765      | UA954220 | C.MYLAR     | 0.022uF | 50V(ABGL) |

\* New Parts

## P.C.B. MAIN

| Schm Ref. | PART NO. | Description                 |
|-----------|----------|-----------------------------|
| C766      | VS745400 | C.POL.MTL 0.1uF 100V(UCRT)  |
| C767      | VS745400 | C.POL.MTL 0.1uF 100V(UCRT)  |
| * C768    | VE326400 | C.MYLAR.ML 0.22uF 50V(UCRT) |
| * C769    | VE326400 | C.MYLAR.ML 0.22uF 50V       |
| C770      | VJ599100 | C.CE.TUBLR 0.1uF 50V        |
| C771      | VS745400 | C.POL.MTL 0.1uF 100V        |
| C772      | VJ599100 | C.CE.TUBLR 0.1uF 50V        |
| * C773    | VE326400 | C.MYLAR.ML 0.22uF 50V       |
| * C774    | VE326400 | C.MYLAR.ML 0.22uF 50V       |
| * C775    | UA954120 | C.MYLAR 0.012uF 50V(ABGL)   |
| * C776    | UA954120 | C.MYLAR 0.012uF 50V(ABGL)   |
| * C777    | UA954120 | C.MYLAR 0.012uF 50V(ABGL)   |
| D501      | VM976500 | DIODE.ZENR HZS302TD 30V     |
| D502      | VD631600 | DIODE 1SS133,176,HSS104     |
| D506      | VN008700 | DIODE 1SS270A               |
| D507      | VN008700 | DIODE 1SS270A               |
| D508      | VN008700 | DIODE 1SS270A               |
| △ D510    | VN011400 | DIODE.BRG D5SB20 5A 200V    |
| D511      | VD631600 | DIODE 1SS133,176,HSS104     |
| D513      | VM975700 | DIODE.ZENR HZS12C2TD 12V    |
| D701      | VM975700 | DIODE.ZENR HZS12C2TD 12V    |
| △ D702    | VM974900 | DIODE.ZENR HZS9A2TD 9.0V    |
| △ D703    | VM974900 | DIODE.ZENR HZS9A2TD 9.0V    |
| △ D704    | VM974900 | DIODE.ZENR HZS9A2TD 9.0V    |
| △ D705    | VM974900 | DIODE.ZENR HZS9A2TD 9.0V    |
| D706      | VM976300 | DIODE.ZENR HZS242TD 24V     |
| D707      | VN008700 | DIODE 1SS270A               |
| D708      | VN008700 | DIODE 1SS270A               |
| D709      | VD631600 | DIODE 1SS133,176,HSS104     |
| D710      | VD631600 | DIODE 1SS133,176,HSS104     |
| △ D711    | VM974900 | DIODE.ZENR HZS9A2TD 9.0V    |
| △ D712    | VM974900 | DIODE.ZENR HZS9A2TD 9.0V    |
| △ D713    | VR253700 | DIODE.BRG S1NB20 1.0A 200V  |
| △ D714    | VR253700 | DIODE.BRG S1NB20 1.0A 200V  |
| △ D715    | VR253700 | DIODE.BRG S1NB20 1.0A 200V  |
| HS501     | VS606000 | HEAT.SINK DPS35-45          |
| △ IC701   | XJ608A00 | IC NJM7812FA                |
| △ IC703   | XJ608A00 | IC NJM7812FA                |
| △ IC704   | XJ607A00 | IC NJM7805FA 5V             |
| △ IC705   | XD343A00 | IC NJM79M12FA               |
| JK501     | V2700900 | JACK.PHONE JY-6317-03-030GD |
| L501      | VU038200 | COIL 0.95uH                 |
| L502      | VU038200 | COIL 0.95uH                 |
| L701      | VP575600 | COIL 1.5uH                  |
| L702      | VP575600 | COIL 1.5uH                  |
| L703      | VP575600 | COIL 1.5uH                  |
| PJ701     | VR245000 | JACK.PIN 6P                 |
| Q502      | VK432900 | TR 2SD1915F S,T             |
| Q504      | VK432900 | TR 2SD1915F S,T             |
| Q505      | VK432900 | TR 2SD1915F S,T             |
| Q506      | iA1015I0 | TR 2SA1015 Y                |
| Q507      | VP883000 | TR 2SA893A D,E              |
| Q508      | VP883000 | TR 2SA893A D,E              |

\* New Parts

| Schm Ref. | PART NO. | Description               |
|-----------|----------|---------------------------|
| Q509      | VP883000 | TR 2SA893A D,E            |
| Q510      | iC224030 | TR 2SC2240 GR,BL          |
| Q511      | VP883000 | TR 2SA893A D,E            |
| Q512      | VP883000 | TR 2SA893A D,E            |
| Q513      | VP883000 | TR 2SA893A D,E            |
| △ Q514    | iC224030 | TR 2SC2240 GR,BL          |
| △ Q515    | VR325600 | TR 2SC2229 O,Y            |
| △ Q516    | iC224030 | TR 2SC2240 GR,BL          |
| △ Q517    | VR325600 | TR 2SC2229 O,Y            |
| △ Q518    | iC224030 | TR 2SC2240 GR,BL          |
| △ Q519    | VR325600 | TR 2SC2229 O,Y            |
| △ Q522    | iP011600 | TR.PAIR 2SA1358/C3421 O,Y |
| △ Q523    | VP760300 | TR.PAIR 2SA1492/C3856 OPY |
| △ Q526    | iP011600 | TR.PAIR 2SA1358/C3421 O,Y |
| △ Q527    | VY760300 | TR.PAIR 2SA1492/C3856 OPY |
| △ Q530    | iP011600 | TR.PAIR 2SA1358/C3421 O,Y |
| △ Q531    | VY760300 | TR.PAIR 2SA1492/C3856 OPY |
| Q534      | iA097030 | TR 2SA970 GR,BL           |
| △ Q535    | VP883100 | TR 2SC1890A D,E           |
| △ Q536    | VP883100 | TR 2SC1890A D,E           |
| △ Q537    | VP883100 | TR 2SC1890A D,E           |
| Q538      | iC174020 | TR 2SC1740S R,S           |
| Q540      | VK432900 | TR 2SD1915F S,T           |
| Q541      | VK432900 | TR 2SD1915F S,T           |
| Q701      | VK432900 | TR 2SD1915F S,T           |
| Q702      | VK432900 | TR 2SD1915F S,T           |
| △ Q703    | VP883000 | TR 2SA893A D,E            |
| △ Q704    | VP883000 | TR 2SA893A D,E            |
| △ Q705    | VP883000 | TR 2SA893A D,E            |
| △ Q706    | VP883000 | TR 2SA893A D,E            |
| △ Q707    | iP011600 | TR.PAIR 2SA1358/C3421 O,Y |
| △ Q708    | iC224030 | TR 2SC2240 GR,BL          |
| △ Q710    | VR325600 | TR 2SC2229 O,Y            |
| △ Q711    | VR325600 | TR 2SC2229 O,Y            |
| △ Q712    | iP011600 | TR.PAIR 2SA1358/C3421 O,Y |
| Q713      | iC224030 | TR 2SC2240 GR,BL          |
| △ Q715    | VN996900 | TR 2SC4495                |
| △ Q716    | VY760300 | TR.PAIR 2SA1492/C3856 OPY |
| △ Q718    | VY760300 | TR.PAIR 2SA1492/C3856 OPY |
| △ Q720    | VP883100 | TR 2SC1890A D,E           |
| △ Q721    | VP883100 | TR 2SC1890A D,E           |
| △ Q722    | VC141900 | TR 2SB941 P,Q             |
| Q723      | iC1815I0 | TR 2SC1815 Y              |
| Q724      | iC174020 | TR 2SC1740S R,S           |
| Q725      | iC224030 | TR 2SC2240 GR,BL          |
| Q726      | VK432900 | TR 2SD1915F S,T           |
| R508      | HV756560 | R.CAR.FP 5.6KΩ 1/4W       |
| R517      | HV756100 | R.CAR.FP 1KΩ 1/4W         |
| R553      | VP941600 | R.MTL.OXD 5.6KΩ 1W        |
| R554      | VP941600 | R.MTL.OXD 5.6KΩ 1W        |
| R555      | HV756270 | R.CAR.FP 2.7KΩ 1/4W       |
| R557      | HV755820 | R.CAR.FP 820Ω 1/4W        |
| R558      | VK189000 | R.FUS 1KΩ 1/4W            |

\* New Parts

## P.C.B. MAIN &amp; TUNER

| Schm Ref. | PART NO. | Description         |
|-----------|----------|---------------------|
| △ R559    | HV754470 | R.CAR.FP 47Ω 1/4W   |
| R560      | VP939800 | R.MTL.OXD 10Ω 1W    |
| R561      | VP941600 | R.MTL.OXD 5.6KΩ 1W  |
| △ R562    | VP941600 | R.MTL.OXD 5.6KΩ 1W  |
| △ R563    | HV756270 | R.CAR.FP 2.7KΩ 1/4W |
| △ R565    | HV755820 | R.CAR.FP 820Ω 1/4W  |
| △ R566    | VK189000 | R.FUS 1KΩ 1/4W      |
| △ R567    | HV754470 | R.CAR.FP 47Ω 1/4W   |
| R568      | VP941600 | R.MTL.OXD 5.6KΩ 1W  |
| R569      | VP941600 | R.MTL.OXD 5.6KΩ 1W  |
| △ R570    | HV756270 | R.CAR.FP 2.7KΩ 1/4W |
| △ R572    | HV755820 | R.CAR.FP 820Ω 1/4W  |
| △ R573    | VK189000 | R.FUS 1KΩ 1/4W      |
| △ R574    | HV754470 | R.CAR.FP 47Ω 1/4W   |
| △ R580    | HV753470 | R.CAR.FP 4.7Ω 1/4W  |
| △ R581    | VK188400 | R.FUS 330Ω 1/4W     |
| R583      | HV753470 | R.CAR.FP 4.7Ω 1/4W  |
| △ R584    | HV753470 | R.CAR.FP 4.7Ω 1/4W  |
| △ R585    | VK188400 | R.FUS 330Ω 1/4W     |
| △ R587    | HV753470 | R.CAR.FP 4.7Ω 1/4W  |
| R588      | HV753470 | R.CAR.FP 4.7Ω 1/4W  |
| △ R589    | VK188400 | R.FUS 330Ω 1/4W     |
| △ R591    | HV753470 | R.CAR.FP 4.7Ω 1/4W  |
| △ R598    | VP939800 | R.MTL.OXD 10Ω 1W    |
| △ R603    | VP939800 | R.MTL.OXD 10Ω 1W    |
| △ R609    | VP939800 | R.MTL.OXD 10Ω 1W    |
| R611      | HV754100 | R.CAR.FP 10Ω 1/4W   |
| R613      | HV754100 | R.CAR.FP 10Ω 1/4W   |
| R614      | VP944500 | R.MTL.OXD 390Ω 1W   |
| R615      | VP944500 | R.MTL.OXD 390Ω 1W   |
| △ R628    | VY689500 | R.WW 0.22Ω 3W       |
| △ R629    | VY689500 | R.WW 0.22Ω 3W       |
| △ R630    | VY689500 | R.WW 0.22Ω 3W       |
| △ R631    | VY689500 | R.WW 0.22Ω 3W       |
| △ R637    | VY689500 | R.WW 0.22Ω 3W       |
| △ R638    | VY689500 | R.WW 0.22Ω 3W       |
| R713      | HV753220 | R.CAR.FP 2.2Ω 1/4W  |
| R724      | HV753220 | R.CAR.FP 2.2Ω 1/4W  |
| R737      | HV753220 | R.CAR.FP 2.2Ω 1/4W  |
| △ R738    | VP944500 | R.MTL.OXD 390Ω 1W   |
| R739      | VP941600 | R.MTL.OXD 5.6KΩ 1W  |
| R740      | VP941600 | R.MTL.OXD 5.6KΩ 1W  |
| △ R741    | HV756270 | R.CAR.FP 2.7KΩ 1/4W |
| △ R742    | VK188400 | R.FUS 330Ω 1/4W     |
| △ R744    | HV755820 | R.CAR.FP 820Ω 1/4W  |
| △ R745    | VK189000 | R.FUS 1KΩ 1/4W      |
| △ R746    | HV754470 | R.CAR.FP 47Ω 1/4W   |
| △ R747    | VP939800 | R.MTL.OXD 10Ω 1W    |
| △ R748    | HV754470 | R.CAR.FP 47Ω 1/4W   |
| R749      | VK189000 | R.FUS 1KΩ 1/4W      |
| △ R751    | HV755820 | R.CAR.FP 820Ω 1/4W  |
| △ R752    | VK188400 | R.FUS 330Ω 1/4W     |
| △ R753    | HV756270 | R.CAR.FP 2.7KΩ 1/4W |

\* New Parts

| Schm Ref. | PART NO. | Description                 |
|-----------|----------|-----------------------------|
| R754      | VP941600 | R.MTL.OXD 5.6KΩ 1W          |
| R755      | VP941600 | R.MTL.OXD 5.6KΩ 1W          |
| △ R756    | VP944500 | R.MTL.OXD 390Ω 1W           |
| △ R759    | HV753470 | R.CAR.FP 4.7Ω 1/4W          |
| △ * R761  | VZ123100 | R.MTL.PLAT 0.22Ω 3W         |
| △ R762    | HV753470 | R.CAR.FP 4.7Ω 1/4W          |
| △ R763    | HV753470 | R.CAR.FP 4.7Ω 1/4W          |
| △ * R764  | VZ123100 | R.MTL.PLAT 0.22Ω 3W         |
| △ R766    | HV753470 | R.CAR.FP 4.7Ω 1/4W          |
| △ R772    | VP939800 | R.MTL.OXD 10Ω 1W            |
| △ R773    | VP939800 | R.MTL.OXD 10Ω 1W            |
| R781      | VP939800 | R.MTL.OXD 10Ω 1W            |
| R785      | HV754100 | R.CAR.FP 10Ω 1/4W           |
| R786      | HV754100 | R.CAR.FP 10Ω 1/4W           |
| R787      | HV754100 | R.CAR.FP 10Ω 1/4W           |
| △ R808    | HV753100 | R.CAR.FP 1Ω 1/4W            |
| △ R809    | HV753100 | R.CAR.FP 1Ω 1/4W            |
| △ * R812  | VZ123100 | R.MTL.PLAT 0.22Ω 3W         |
| △ * R813  | VZ123100 | R.MTL.PLAT 0.22Ω 3W         |
| △ RY501   | VK438300 | RELAY DH24D2-OT/M2          |
| △ RY701   | VU566700 | RELAY DG24D2-OS/M           |
| △ RY702   | VK438300 | RELAY DH24D2-OT/M2          |
| △ SW501   | VV523900 | SW.PUSH PBS-YM-001          |
| △ SW705   | VZ361100 | SW.SLIDE SL13B-022-AMC1     |
| TE501     | VC313700 | TERM.SP 8P(UCRTA)           |
| TE501     | VU819700 | TERM.SP 8P(BGL)             |
| TE701     | V2984800 | TERM.SP 6P                  |
|           | VJ828000 | PIN IMSA-6024-03E           |
|           | BB071360 | SCR.TERM 8.3x13             |
|           | EP600140 | SCR.BND.HD 3x10 MFZN2-BL    |
| * * * *   | V2518600 | P.C.B. TUNER/TU-01(UC)      |
|           | V2518700 | P.C.B. TUNER/TU-01(RT)      |
|           | V2518800 | P.C.B. TUNER/TU-01(AL)      |
|           | V2518900 | P.C.B. TUNER/TU-01(RDS)(BG) |
| CB4       | VQ961900 | CN 16P                      |
| C1        | VG287600 | C.EL 100uF 25V              |
| C3        | VG275800 | C.CE.TUBLR 8.2pF 50V        |
| C4        | UR837470 | C.EL 47uF 16V               |
| C5        | VF467300 | C.CE.TUBLR 0.01uF 16V       |
| C6        | UR837470 | C.EL 47uF 16V               |
| C7        | UM416100 | C.EL 1uF 50V                |
| C8        | VF467300 | C.CE.TUBLR 0.01uF 16V       |
| C9        | VF467300 | C.CE.TUBLR 0.01uF 16V       |
| C10       | VF467300 | C.CE.TUBLR 0.01uF 16V       |
| C11       | VF467000 | C.CE.TUBLR 1000pF 50V       |
| C12       | UM397100 | C.EL 10uF 16V               |
| C13       | UM397100 | C.EL 10uF 16V               |
| C14       | FG613100 | C.CE 1000pF 50V             |
| C15       | VF467000 | C.CE.TUBLR 1000pF 50V       |
| C16       | VF466700 | C.CE.TUBLR 47pF 50V         |

\* New Parts

|              |
|--------------|
| P.C.B. TUNER |
|--------------|

| Schm Ref. | PART NO. | Description              |
|-----------|----------|--------------------------|
| C17       | UR837470 | C.EL 47uF 16V            |
| C19       | VA761200 | C.CE 33pF 50V            |
| C20       | VG287600 | C.EL 100uF 25V           |
| C21       | VJ599000 | C.CE.TUBLR 0.047uF 16V   |
| C22       | VG290700 | C.EL 3.3uF 50V           |
| C23       | VF467300 | C.CE.TUBLR 0.01uF 16V    |
| C24       | UM406470 | C.EL 4.7uF 50V           |
| C25       | UM416330 | C.EL 3.3uF 50V           |
| C26       | UM397100 | C.EL 10uF 16V            |
| C27       | VF467300 | C.CE.TUBLR 0.01uF 16V    |
| C28       | VA761200 | C.CE 33pF 50V            |
| C29       | UM416100 | C.EL 1uF 50V             |
| C30       | UM416100 | C.EL 1uF 50V             |
| C31       | VG287600 | C.EL 100uF 25V           |
| C32       | UM415470 | C.EL 0.47uF 50V          |
| C33       | UM416100 | C.EL 1uF 50V             |
| C34       | UA954470 | C.MYLAR 0.047uF 50V      |
| C35       | VG290700 | C.EL 3.3uF 50V           |
| C36       | UA952270 | C.MYLAR 270pF 50V(ABGL)  |
| C36       | UA953100 | C.MYLAR 1000pF 50V(UCRT) |
| C37       | UA952270 | C.MYLAR 270pF 50V(ABGL)  |
| C37       | UA953100 | C.MYLAR 1000pF 50V(UCRT) |
| C38       | VF466900 | C.CE.TUBLR 470pF 50V     |
| C39       | VG287200 | C.EL 10uF 50V            |
| * C40     | VE020000 | C.EL 3.3uF 50V           |
| * C41     | VL884100 | C.PP 3900pF 100V         |
| C42       | UM397220 | C.EL 22uF 25V            |
| * C43     | VL884100 | C.PP 3900pF 100V         |
| C44       | VG290700 | C.EL 3.3uF 50V           |
| C45       | UR837470 | C.EL 47uF 16V            |
| C46       | UR837470 | C.EL 47uF 16V            |
| C47       | VG278600 | C.CE.TUBLR 330pF 50V     |
| C48       | VG278800 | C.CE.TUBLR 560pF 50V     |
| C49       | UA952120 | C.MYLAR 120pF 50V(ABGL)  |
| C49       | UA953220 | C.MYLAR 2200pF 50V(UCRT) |
| C50       | VJ599000 | C.CE.TUBLR 0.047uF 16V   |
| C51       | UR837470 | C.EL 47uF 16V            |
| C52       | UR837470 | C.EL 47uF 16V            |
| C53       | UR837470 | C.EL 47uF 16V            |
| C54       | VA761100 | C.CE 27pF 50V            |
| C55       | VA761100 | C.CE 27pF 50V            |
| C56       | VJ599000 | C.CE.TUBLR 0.047uF 16V   |
| D1        | VD631600 | DIODE 1SS133,176,HSS104  |
| D2        | VD631600 | DIODE 1SS133,176,HSS104  |
| D3        | VG437700 | DIODE.ZENR MTZJ5.6B 5.6V |
| Fi1       | GG000560 | FLTR.CE SFE10.7MS3GHY-A  |
| Fi2       | GG000560 | FLTR.CE SFE10.7MS3GHY-A  |
| Fi3       | VC219000 | FLTR.CE SFZ450JL3        |
| IC1       | XB760A00 | IC LA1266                |
| IC2       | XQ944A00 | IC LC72131               |
| IC3       | iG158100 | IC LA3401                |
| * IC4     | XU664A00 | IC LC72720N              |
| L1        | Vi546100 | COIL 220uH               |

\* New Parts

| Schm Ref. | PART NO. | Description                 |
|-----------|----------|-----------------------------|
| L2        | Vi546100 | COIL 220uH                  |
| L3        | Vi546100 | COIL 220uH                  |
| L4        | Vi546100 | COIL 220uH                  |
| L5        | Vi546100 | COIL 220uH                  |
| * PK1     | V2716700 | TUNER.PK ENV-172A4G1(ABGL)  |
| * PK1     | V2909100 | TUNER.PK ENV-172C8G1R(UCRT) |
| PK2       | VU333700 | COIL.RF.AM 940536051A       |
| Q1        | iC053540 | TR 2SC535 A,B,C             |
| Q2        | iC053540 | TR 2SC535 A,B,C             |
| Q3        | VD678500 | TR.DGT DTA114ES             |
| Q4        | iC174020 | TR 2SC1740S R,S             |
| Q5        | VG722000 | TR.DGT DTC144ES             |
| Q6        | iC181510 | TR 2SC1815 Y                |
| Q7        | VD678500 | TR.DGT DTA114ES             |
| R56       | HV754470 | R.CAR.FP 47Ω 1/4W           |
| SW1       | VS602600 | SW.SLIDE SS070-P022 A(RT)   |
| T1        | VC218600 | COIL.DT.FM 10.7MHz          |
| T2        | VR895700 | COIL.IF 450KHz              |
| T3        | VT486800 | COIL XYA2(ABGL)             |
| T3        | VT486800 | COIL XYA2                   |
| T4        | VQ138200 | FLTR.LC 19KHz               |
| T5        | VQ138200 | FLTR.LC 19KHz               |
| TE1       | VU477800 | TERM.ANT AJ-2038-040        |
| TP1       | VT969000 | PIN.TEST IRS-2049           |
| TP2       | VT969000 | PIN.TEST IRS-2049           |
| VR1       | VJ694000 | VR.TRIM B47KΩ               |
| VR2       | VJ694000 | VR.TRIM B47KΩ               |
| XL1       | QU003800 | RSNR.CRYS 7.2MHz            |
| XL2       | GG000750 | RSNR.CE 18.95KHz            |
| XL3       | VY704900 | RSNR.CRYS 4.332MHz          |
|           | BB071360 | SCR.TERM 8.3x13             |
|           | VR282500 | PLATE ANT.                  |

\* New Parts

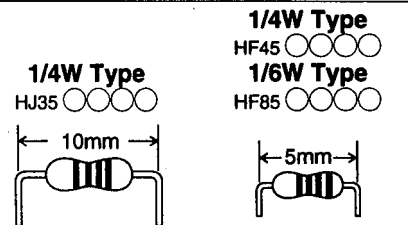
## ■ Chip Resistor

| Schm Ref. | PART NO. | Description           |
|-----------|----------|-----------------------|
|           | RD250000 | R.CAR.CHP 0Ω 1/10W    |
|           | RD253220 | R.CAR.CHP 2.2Ω 1/10W  |
|           | RD254470 | R.CAR.CHP 47Ω 1/10W   |
|           | RD254820 | R.CAR.CHP 82Ω 1/10W   |
|           | RD255100 | R.CAR.CHP 100Ω 1/10W  |
|           | RD255220 | R.CAR.CHP 220Ω 1/10W  |
|           | RD255330 | R.CAR.CHP 330Ω 1/10W  |
|           | RD255470 | R.CAR.CHP 470Ω 1/10W  |
|           | RD255680 | R.CAR.CHP 680Ω 1/10W  |
|           | RD255820 | R.CAR.CHP 820Ω 1/10W  |
|           | RD256100 | R.CAR.CHP 1KΩ 1/10W   |
|           | RD256110 | R.CAR.CHP 1.1KΩ 1/10W |
|           | RD256120 | R.CAR.CHP 1.2KΩ 1/10W |
|           | RD256130 | R.CAR.CHP 1.3KΩ 1/10W |
|           | RD256150 | R.CAR.CHP 1.5KΩ 1/10W |
|           | RD256180 | R.CAR.CHP 1.8KΩ 1/10W |
|           | RD256220 | R.CAR.CHP 2.2KΩ 1/10W |
|           | RD256270 | R.CAR.CHP 2.7KΩ 1/10W |
|           | RD256300 | R.CAR.CHP 3KΩ 1/10W   |
|           | RD256330 | R.CAR.CHP 3.3KΩ 1/10W |
|           | RD256390 | R.CAR.CHP 3.9KΩ 1/10W |
|           | RD256470 | R.CAR.CHP 4.7KΩ 1/10W |
|           | RD256510 | R.CAR.CHP 5.1KΩ 1/10W |
|           | RD256560 | R.CAR.CHP 5.6KΩ 1/10W |
|           | RD256680 | R.CAR.CHP 6.8KΩ 1/10W |
|           | RD256820 | R.CAR.CHP 8.2KΩ 1/10W |
|           | RD257100 | R.CAR.CHP 10KΩ 1/10W  |
|           | RD257110 | R.CAR.CHP 11KΩ 1/10W  |
|           | RD257120 | R.CAR.CHP 12KΩ 1/10W  |
|           | RD257150 | R.CAR.CHP 15KΩ 1/10W  |
|           | RD257180 | R.CAR.CHP 18KΩ 1/10W  |
|           | RD257220 | R.CAR.CHP 22KΩ 1/10W  |
|           | RD257330 | R.CAR.CHP 33KΩ 1/10W  |
|           | RD257360 | R.CAR.CHP 36KΩ 1/10W  |
|           | RD257470 | R.CAR.CHP 47KΩ 1/10W  |
|           | RD257510 | R.CAR.CHP 51KΩ 1/10W  |
|           | RD257560 | R.CAR.CHP 56KΩ 1/10W  |
|           | RD257620 | R.CAR.CHP 62KΩ 1/10W  |
|           | RD257820 | R.CAR.CHP 82KΩ 1/10W  |
|           | RD258100 | R.CAR.CHP 100KΩ 1/10W |
|           | RD258330 | R.CAR.CHP 330KΩ 1/10W |
|           | RD258470 | R.CAR.CHP 470KΩ 1/10W |
|           | RD259100 | R.CAR.CHP 1MΩ 1/10W   |

\* New Parts

## Parts List for Carbon Resistors

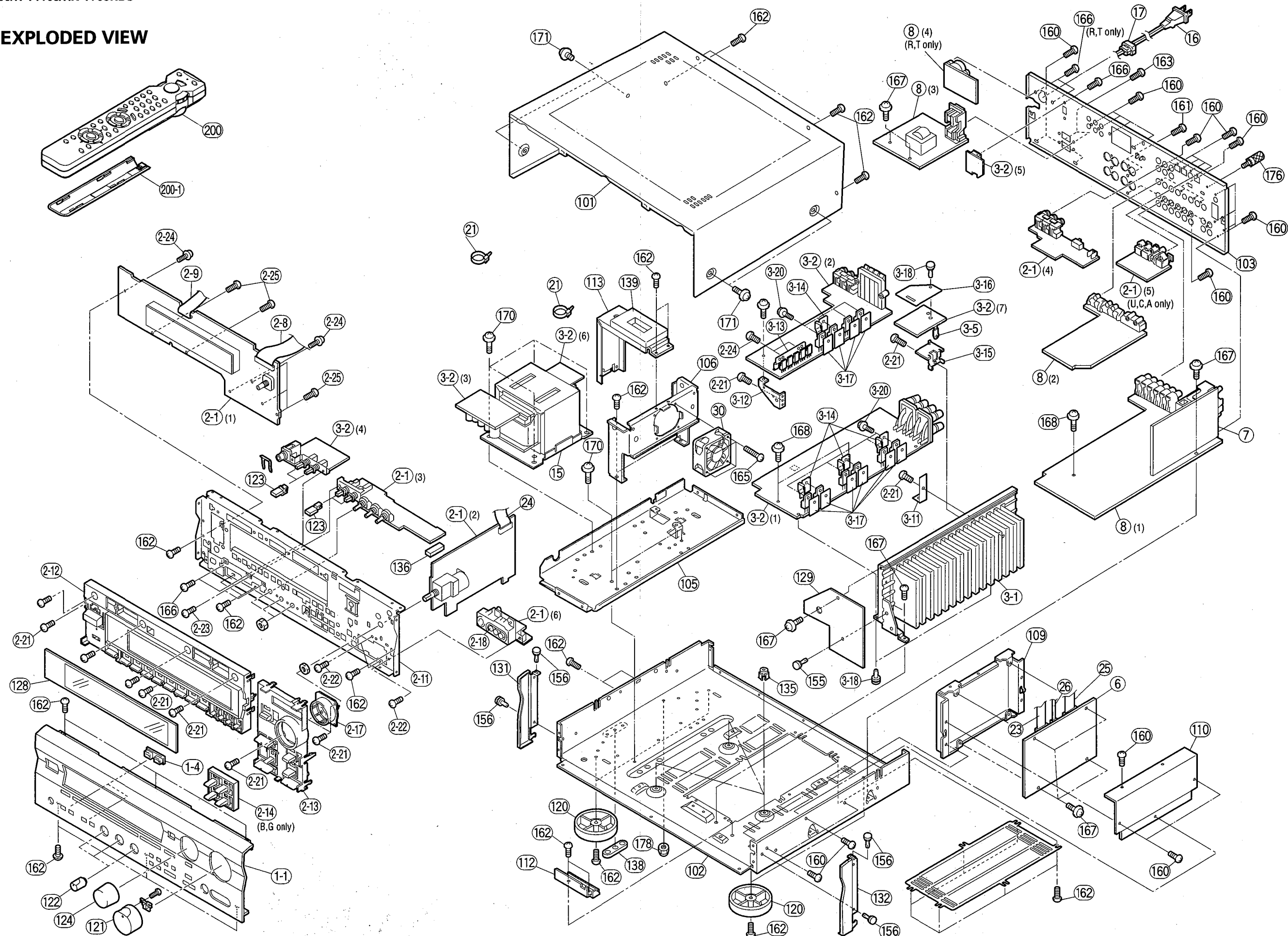
| Value  | 1/4W Type Part No. | 1/6W Type Part No. | Value  | 1/4W Type Part No. | 1/6W Type Part No. |
|--------|--------------------|--------------------|--------|--------------------|--------------------|
| 1.0 Ω  | HJ35 3100          | HF85 3100          | 10 kΩ  | HF45 7100          | HF45 7100          |
| 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 4390          | 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

1992

■ EXPLODED VIEW



# MECHANICAL PARTS

| Ref. No. | PART NO. | Description                  | Remarks          | Markets  |
|----------|----------|------------------------------|------------------|----------|
| * 1-1    | V2464800 | FRONT PANEL                  | RX-V795 BL       | (UCRALT) |
| * 1-1    | V2464900 | FRONT PANEL                  | RX-V795 GD       | (T)      |
| * 1-1    | V2465000 | FRONT PANEL                  | RX-V795RDS BL    | (BG)     |
| * 1-1    | V2465100 | FRONT PANEL                  | RX-V795RDS TI    | (G)      |
| * 1-1    | V2465300 | FRONT PANEL                  | R-V1105 BL       |          |
| 1-4      | V2468600 | ESCUTCHOEN                   |                  |          |
| * 2-1    | V3013900 | P.C.B. ASS'Y                 | 3/8 OPERATION    | (L)      |
| * 2-1    | V3014000 | P.C.B. ASS'Y                 | OPERATION        | (UCA)    |
| * 2-1    | V3014100 | P.C.B. ASS'Y                 | OPERATION        | (RT)     |
| * 2-1    | V3014300 | P.C.B. ASS'Y                 | OPERATION        | (BG)     |
| * 2-8    | MF227160 | S FLEXIBLE FLAT CABLE        | 27P 160mm        |          |
| * 2-9    | MF207200 | S FLEXIBLE FLAT CABLE        | 7P 200mm         |          |
| 2-11     | V2460700 | SUB CHASSIS                  |                  |          |
| 2-12     | V2465500 | BUTTON CASE                  | RX-V795/RDS BL   |          |
| 2-12     | V2465600 | BUTTON CASE                  | TI               |          |
| 2-12     | V2465700 | BUTTON CASE                  | GD               |          |
| * 2-12   | V2633800 | BUTTON CASE                  | R-V1105          |          |
| * 2-13   | V2465800 | BUTTON INPUT                 | BL               |          |
| * 2-13   | V2465900 | BUTTON INPUT                 | TI               |          |
| * 2-13   | V2466000 | BUTTON INPUT                 | GD               |          |
| * 2-14   | V2467000 | BUTTON, RDS                  | RX-V795RDS BL    |          |
| * 2-14   | V2467100 | BUTTON, RDS                  | RX-V795RDS TI    |          |
| 2-17     | V2467900 | ESCUTCHEON, VOL              | BL               |          |
| 2-17     | V2468000 | ESCUTCHEON, VOL              | TI               |          |
| 2-17     | V2468100 | ESCUTCHEON, VOL              | GD/R-V1105       | (T)      |
| * 2-17   | V2468200 | ESCUTCHEON, VOL              | R-V1105          | (UCA)    |
| 2-18     | V2468300 | ESCUTCHEON, PJ               | BL               |          |
| 2-18     | V2468400 | ESCUTCHEON, PJ               | TI               |          |
| 2-18     | V2468500 | ESCUTCHEON, PJ               | GD               |          |
| 2-21     | EP600830 | BIND HEAD B-TITE SCREW       | 3x8 FCRM3-BL     |          |
| 2-22     | VN413300 | BIND HEAD BONDING B-T. SCREW | 3x8 MFZN2-BL     |          |
| 2-23     | EG330030 | BIND HEAD SCREW              | 3x6 FCRM3-BL     |          |
| 2-24     | VT669300 | PW HEAD B-TITE SCREW         | 3x8-8 MFC2       |          |
| 2-25     | EP630220 | BIND HEAD P-TITE SCREW       | 3x8 ZMC2-BL      |          |
| * 3-1    | V2564700 | HEAT SINK                    |                  |          |
| * 3-2    | V3014500 | P.C.B. ASS'Y                 | MAIN             | (UCRT)   |
| * 3-2    | V3014600 | P.C.B. ASS'Y                 | MAIN             | (A)      |
| * 3-2    | V3014700 | P.C.B. ASS'Y                 | MAIN             | (BGL)    |
| △ 3-5    | VM842300 | THERMISTOR                   | PTH9M04 BF/80f1C |          |
| 3-11     | VV518700 | SUPPORT, HEAT SINK           | L                |          |
| * 3-12   | V2564600 | FRAME                        | PCB              |          |
| 3-13     | V2461000 | SUPPORT, TR                  |                  |          |
| * 3-14   | V2564500 | SUPPORT, TR                  |                  |          |
| * 3-15   | V2195400 | SUPPORT, PS                  |                  |          |
| * 3-16   | V3122200 | SHEET                        | PS795            |          |
| 3-17     | VV849300 | SHEET                        | 19x24            |          |
| 3-18     | VQ368500 | PUSH RIVET                   | P3545-B          |          |
| 3-19     | VQ368600 | PUSH RIVET                   | P3555-B          |          |
| 3-20     | VK173200 | SCREW, TRANSISTOR            | 3x15 SP FCM3     |          |
| * 6      | V3005800 | P.C.B. ASS'Y                 | DSP              |          |
| * 7      | V2518600 | P.C.B. ASS'Y                 | TUNER/TU-01      | (UC)     |
| * 7      | V2518700 | P.C.B. ASS'Y                 | TUNER/TU-01      | (RT)     |
| * 7      | V2518800 | P.C.B. ASS'Y                 | TUNER/TU-01      | (AL)     |

\* New Parts

| Ref. No. | PART NO. | Description           | Remarks            | Markets        |
|----------|----------|-----------------------|--------------------|----------------|
| * 7      | V2518900 | P.C.B. ASS'Y          | TUNER/TU-01RDS     | (BG)           |
| * 8      | V3013300 | P.C.B. ASS'Y          | INPUT              | (UC)           |
| * 8      | V3013400 | P.C.B. ASS'Y          | INPUT              | (RT)           |
| * 8      | V3013500 | P.C.B. ASS'Y          | INPUT              | (A)            |
| * 8      | V3013600 | P.C.B. ASS'Y          | INPUT              | (B)            |
| * 8      | V3013700 | P.C.B. ASS'Y          | INPUT              | (G)            |
| * 8      | V3013800 | P.C.B. ASS'Y          | INPUT              | (L)            |
| △ * 15   | XV461A00 | POWER TRANSFORMER     |                    | (U)            |
| △ * 15   | XV462A00 | POWER TRANSFORMER     |                    | (C)            |
| △ * 15   | XV463A00 | POWER TRANSFORMER     |                    | (T)            |
| △ * 15   | XV464A00 | POWER TRANSFORMER     |                    | (A)            |
| △ * 15   | XV465A00 | POWER TRANSFORMER     |                    | (BGL)          |
| △ 16     | V2296800 | POWER CORD ASS'Y      |                    | (A)            |
| △ * 16   | V2363800 | POWER CORD ASS'Y      |                    | (UC)           |
| △ 16     | VN363700 | POWER CORD ASS'Y      |                    | (GL)           |
| △ 16     | VV437300 | POWER CORD ASS'Y      |                    | (B)            |
| △ 16     | VZ542500 | POWER CORD ASS'Y      |                    | (RT)           |
| 17       | V2438700 | CORD STOPPER          | #10P1              |                |
| 21       | VU590000 | BINDING TIE           | CBTD001B           |                |
| 22       | VZ625600 | BINDING TIE           | SE140 L=140        |                |
| * 23     | MF211140 | S FLEXIBLE FLAT CABLE | 11P 140mm          |                |
| * 24     | MF118140 | FLEXIBLE FLAT CABLE   | 18P 140mm          |                |
| * 25     | MF113140 | FLEXIBLE FLAT CABLE   | 13P 140mm          |                |
| 26       | MF106250 | FLEXIBLE FLAT CABLE   | 6P 250mm           |                |
| * 27     | MF215200 | S FLEXIBLE FLAT CABLE | 15P 200mm          |                |
| 30       | VV272500 | DC FAN MOTOR          | 2410ML-05W-B20-L00 |                |
| 101      | VV121300 | TOP COVER             | BL                 |                |
| 101      | VV121500 | TOP COVER             | TI                 |                |
| 101      | VZ884500 | TOP COVER             | GD                 |                |
| 102      | VY758300 | CHASSIS               |                    |                |
| * 103    | V2564900 | REAR PANEL            | RX-V795            | (U)            |
| * 103    | V2565000 | REAR PANEL            | RX-V795            | (C)            |
| * 103    | V2565100 | REAR PANEL            | RX-V795            | (RT)           |
| * 103    | V2565200 | REAR PANEL            | RX-V795            | (A)            |
| * 103    | V2565300 | REAR PANEL            | RX-V795            | (L)            |
| * 103    | V2565400 | REAR PANEL            | RX-V795RDS         | (B)            |
| * 103    | V2565500 | REAR PANEL            | RX-V795RDS         | (G)            |
| * 103    | V2565700 | REAR PANEL            | R-V1105            | (U)            |
| * 103    | V2565800 | REAR PANEL            | R-V1105            | (C)            |
| * 103    | V2565900 | REAR PANEL            | R-V1105            | (T)            |
| * 103    | V2566000 | REAR PANEL            | R-V1105            | (A)            |
| 105      | VV123100 | FRAME, TRANS          |                    |                |
| 106      | VZ332900 | FRAME, FAN            |                    |                |
| 109      | V2461100 | SHIELD CASE           |                    |                |
| 110      | VZ332800 | SHIELD CASE COVER     |                    |                |
| 112      | VZ333000 | SUPPORT, PCB          |                    |                |
| 113      | VZ333100 | SUPPORT, TRANS.       |                    |                |
| 120      | V0042500 | LEG                   | D60xH21            | GD/R-V1105 (T) |
| 120      | VS025000 | LEG                   | D60xH21            | RX-V795 BL/TI  |
| 120      | VV544300 | LEG                   | D60xH21            | R-V1105 (UCA)  |
| * 121    | V2566600 | KNOB, LED             | D40                | BL             |
| * 121    | V2566700 | KNOB, LED             | D40                | TI             |
| * 121    | V2566800 | KNOB, LED             | D40                | GD             |

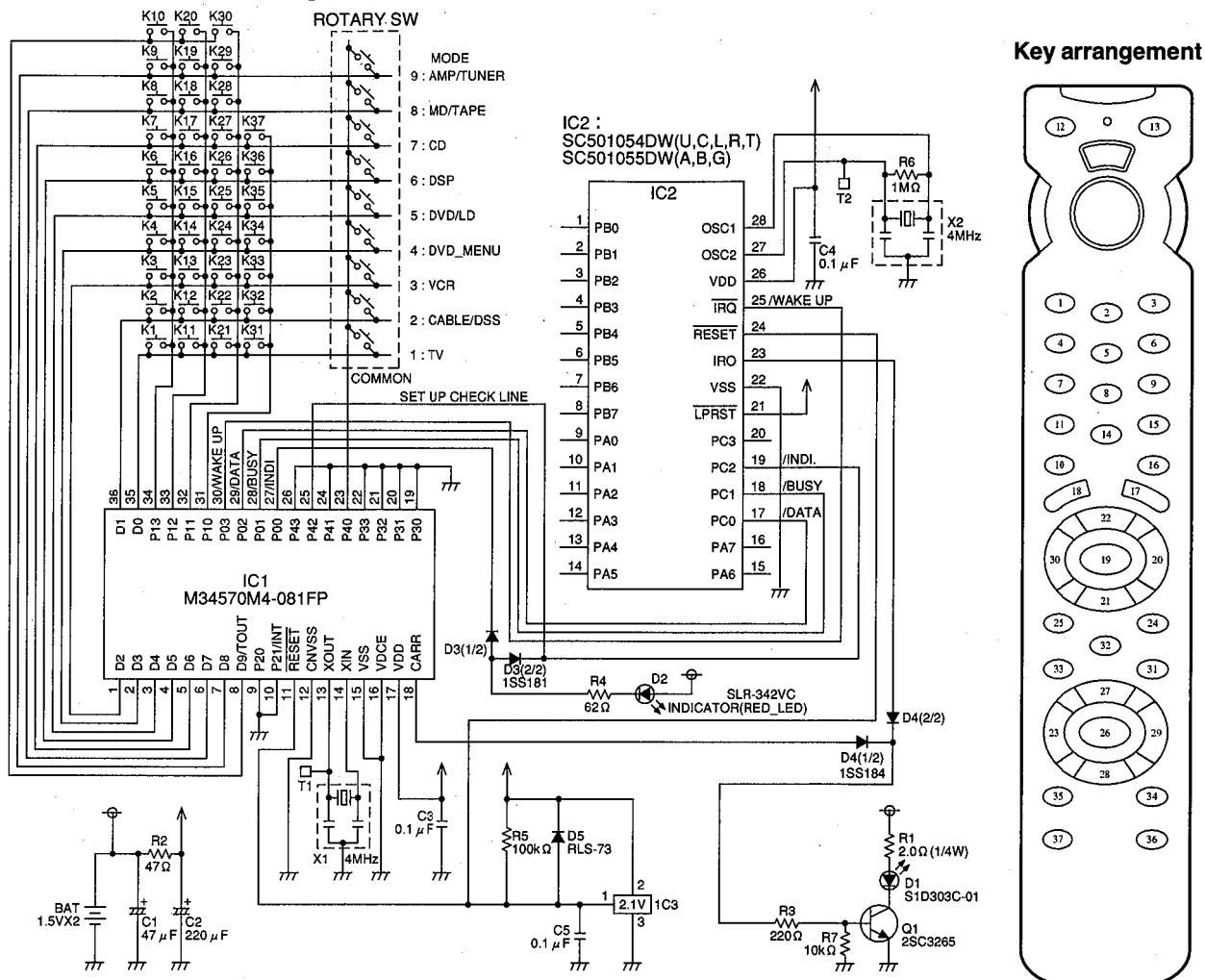
\* New Parts

| Ref. No. | PART NO. | Description                  | Remarks         | Markets |
|----------|----------|------------------------------|-----------------|---------|
| 122      | V0016700 | KNOB                         | D14             | GD      |
| 122      | VV311000 | KNOB                         | D14             | BL      |
| 122      | VV311400 | KNOB                         | D14             | TI      |
| 123      | V2467300 | BUTTON, 3/8                  |                 | BL      |
| 123      | V2467400 | BUTTON, 3/8                  |                 | TI      |
| 123      | V2467500 | BUTTON, 3/8                  |                 | GD      |
| 124      | V2467600 | KNOB, ENC                    | D30             | BL      |
| 124      | V2467700 | KNOB, ENC                    | D30             | TI      |
| 124      | V2467800 | KNOB, ENC                    | D30             | GD      |
| 128      | V2469400 | SHEET, WINDOW                |                 |         |
| 129      | VZ531600 | SHHET                        |                 |         |
| 131      | V2468800 | PLATE SIDE L                 | 130             | BL      |
| 131      | V2468900 | PLATE SIDE L                 | 130             | TI      |
| 131      | V2469000 | PLATE SIDE L                 | 130             | GD      |
| 132      | V2469100 | PLATE SIDE R                 | 130             | BL      |
| 132      | V2469200 | PLATE SIDE R                 | 130             | TI      |
| 132      | V2469300 | PLATE SIDE R                 | 130             | GD      |
| 135      | VR264400 | SPACER                       | H8              |         |
| 136      | VZ092400 | DAMPER                       | 6x5x10          |         |
| * 137    | V3422200 | DAMPER                       |                 |         |
| 138      | V2064200 | DAMPER                       |                 |         |
| 139      | VP922800 | DAMPER                       | 10x50x80        |         |
| 155      | VQ368500 | PUSH RIVET                   | P3545-B         |         |
| 156      | VQ368600 | PUSH RIVET                   | P3555-B         |         |
| 160      | VN413300 | BIND HEAD BONDING B-T. SCREW | 3x8 MFZN2-BL    |         |
| 161      | VY731200 | BONDING HEAD TAPPING SCREW   | 3x10 MFNI33     |         |
| 162      | EP600830 | BIND HEAD B-TITE SCREW       | 3x8 FCRM3-BL    |         |
| 163      | EP600250 | BIND HEAD B-TITE SCREW       | 3x8 ZMC2-Y      |         |
| 165      | VV220300 | BIND HEAD B-TITE SCREW       | 3x30 MFZN2-BL   |         |
| 166      | EG330030 | BIND HEAD SCREW              | 3x6 FCRM3-BL    |         |
| 167      | VT669300 | PW HEAD B-TITE SCREW         | 3x8-8 MFC2      |         |
| 168      | VT669400 | PW HEAD B-TITE SCREW         | 3x15-8 MFC2     |         |
| 170      | 21991500 | PW HEAD S-TITE SCREW         | 4x8-10 FCRM3-BL |         |
| 171      | 21991500 | PW HEAD S-TITE SCREW         | 4x8-10 FCRM3-BL | BL      |
| 171      | VD069600 | PW HEAD S-TITE SCREW         | 4x8-10 MFNI-33  | GD      |
| 171      | VH313200 | BW HEAD S-TITE SCREW         | 4x8-10 FNM3-BL  | TI      |
| 176      | AA627310 | GROUND TERMINAL              |                 |         |
| 178      | 03700480 | HEXAGONAL CAP NUT            | 4.0 MFNI33      |         |
|          |          | ACCESSORIES                  |                 |         |
| * 200    | V2686500 | REMOTE CONTROL TRANSMITTER   | RRC4000-7003R   | (UCRLT) |
| * 200    | V2686600 | REMOTE CONTROL TRANSMITTER   | RRC4000-7004R   | (ABG)   |
| 200-1    | XX702560 | LID                          |                 |         |
|          | VQ147100 | ANTENNA, FM                  | 1P 1.4m         |         |
|          | VR248500 | ANTENNA, AM LOOP             | 1P 1.0m         |         |
|          | VE364900 | ANTENNA ADAPTER              | PAL 75-300Ω     |         |
|          | VT948000 | ANTENNA ADAPTER              |                 |         |
|          |          | BATTERY, MANGANESE           | SUM-3,AA,R06    |         |

\* New Parts

# REMOTE CONTROL TRANSMITTER

## ■ SCHEMATIC DIAGRAM



List of the fixed code

| Key No. | Key NAME | MODE ID # | TV                                | Cable/DBS   | VCR       | DVD Menu | DVD/LD | DSP   | CD                                | Tape/MD    | AMP/Tuner |
|---------|----------|-----------|-----------------------------------|-------------|-----------|----------|--------|-------|-----------------------------------|------------|-----------|
| 1       | 1        |           | CH1                               | CH1         | CH1       | 7C-94    | 7A-15  | 7A-88 | 6187                              | 8524(Tape) | 7A-15     |
| 2       | 2        |           | CH2                               | CH2         | CH2       | 7C-95    | 7A-16  | 7A-89 |                                   |            | 7A-16     |
| 3       | 3        |           | CH3                               | CH3         | CH3       | 7C-96    | 7A-18  | 7A-8A |                                   |            | 7A-18     |
| 4       | 4        |           | CH4                               | CH4         | CH4       | 7C-97    | 7A-17  | 7A-8B |                                   |            | 7A-17     |
| 5       | 5        |           | CH5                               | CH5         | CH5       | 7C-98    | 7A-54  | 7A-8C |                                   |            | 7A-54     |
| 6       | 6        |           | CH6                               | CH6         | CH6       | 7C-99    | 7A-0F  | 7A-8D |                                   |            | 7A-0F     |
| 7       | 7        |           | CH7                               | CH7         | CH7       | 7C-9A    | 7A-14  | 7A-8E |                                   |            | 7A-14     |
| 8       | 8        |           | CH8                               | CH8         | CH8       | 7C-9B    | 7A-55  | 7A-8F |                                   |            | 7A-55     |
| 9       | 9        |           | CH9                               | CH9         | CH9       | 7C-9C    | 7A-13  | 7A-90 |                                   |            | 7A-13     |
| 10      | DSP      |           | Shift of only Ten key in DSP Mode |             |           |          |        |       | Shift of only Ten key in DSP Mode |            |           |
| 11      | 0        |           | CH0                               | CH0         | CH0       | 7C-93    | 7A-87  | 7A-91 |                                   | 7A-87      |           |
| 12      | POWER    |           | 7A-1D                             | Power       | 7A-1E     | 7A-1D    |        |       | 7A-1D                             |            |           |
| 13      | STANDBY  |           |                                   |             |           |          |        |       | 7A-1E                             |            |           |
| 14      | ENTER    |           | CH Select                         | CH Select   | CH Select | 7C-9D    |        | 7A-12 |                                   |            | 7A-12     |
| 15      | CLEAR    |           |                                   | +100        |           | 7C-9F    |        | 7A-85 |                                   |            | 7A-85     |
| 16      | EFFECT   |           | Surround                          |             |           | 7A-56    |        |       |                                   | 7A-56      |           |
| 17      | CH+      |           | CH+                               | CH+         | CH+       | 7C-8B    |        | 7A-10 | 7A-4F                             |            | 7A-10     |
| 18      | CH-      |           | CH-                               | CH-         | CH-       | 7C-8A    |        | 7A-11 | 7A-50                             |            | 7A-11     |
| 19      | MUTE     |           | Mute                              |             |           | 7A-1C    |        |       |                                   | 7A-1C      |           |
| 20      | VOL+     |           |                                   |             |           | 7A-1A    |        |       |                                   | 7A-1A      |           |
| 21      | TV VOL-  |           |                                   |             |           | TV VOL-  |        |       |                                   | TV VOL-    |           |
| 22      | TV VOL+  |           |                                   |             |           | TV VOL+  |        |       |                                   | TV VOL+    |           |
| 23      | SKIP-    |           | Left                              |             |           | 7C-B5    | 7C-B9  | 7A-53 | 7A-0B                             | 7A-07      | 7A-53     |
| 24      | DISPLAY  |           | Display                           | Display     | Display   | 7C-9E    | 7C-A6  | 7A-C2 | 79-0B                             |            | 7A-C2     |
| 25      | SLEEP    |           | Sleep                             |             |           | 7A-57    |        |       |                                   | 7A-57      |           |
| 26      | PLAY     |           | VCR Play                          | Menu Select | Play      | 7C-B8    | 7C-82  |       | 7A-08                             | 7A-00      |           |
| 27      | PAUSE    |           | VCR Pause                         | Up          | Pause     | 7C-B4    | 7C-83  | 7A-98 | 7A-09                             |            | 7A-98     |
| 28      | STOP     |           | VCR Stop                          | Down        | Stop      | 7C-B3    | 7C-85  | 7A-99 | 7A-09                             | 7A-03      | 7A-99     |
| 29      | SKIP+    |           |                                   | Right       |           | 7C-B6    | 7C-BA  | 7A-52 | 7A-0A                             | 7A-40      | 7A-52     |
| 30      | VOL-     |           |                                   |             |           | 7A-1B    |        |       |                                   | 7A-1B      |           |
| 31      | TV INPUT |           |                                   | TV Input    |           |          |        |       | TV Input                          | 7A-06      |           |
| 32      | TV POWER |           |                                   | TV Power    |           |          |        |       |                                   | TV Power   |           |
| 33      | REC      |           | VCR REC                           |             | REC       |          |        |       |                                   | 7A-04      |           |
| 34      | FF       |           | VCR FF                            | Recall      | FF        | 7C-B7    | 7C-AE  | 7A-58 | 7A-0C                             | 7A-02      | 7A-58     |
| 35      | REW      |           | VCR REW                           |             | REW       | 7C-AC    | 7C-AB  | 7A-59 | 7A-0D                             | 7A-01      | 7A-59     |
| 36      | MENU     |           |                                   | Menu        |           | 7C-B2    | 7C-AD  | 7A-9C |                                   |            | 7A-9C     |
| 37      | TITLE    |           |                                   |             |           | 7C-B1    | 7C-AA  | 7A-86 |                                   |            | 7A-86     |

-----: No Code