

# Service Manual

AV Control Stereo Receiver

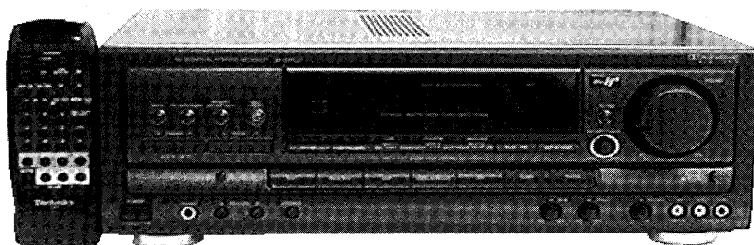


Receiver

SA-EX600

Colour

(K) ..... Black Type



Area

| Suffix for Model No. | Area   | Colour |
|----------------------|--------|--------|
| (P)                  | U.S.A. | (K)    |
| (PC)                 | Canada |        |

\* Manufactured under license from Dolby Laboratories Licensing Corporation. Additionally licensed under one or more of the following patents: U.S. numbers 3,632,886, 3,746,792 and 3,959,590; Canadian numbers 1,004,603 and 1,037,877.

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## Specifications

### FM Tuner Section

|                                      |                            |
|--------------------------------------|----------------------------|
| Frequency range                      | 87.9 — 107.9MHz            |
| Sensitivity                          | 11.2dBf (2μV, IHF '58)     |
| 50dB quieting Sensitivity            |                            |
| MONO                                 | 18.3dBf (4.5μV, IHF '58)   |
| STEREO                               | 38.3dBf (45μV, IHF '58)    |
| Total harmonic distortion            |                            |
| MONO                                 | 0.2%                       |
| STEREO                               | 0.3%                       |
| S/N                                  |                            |
| MONO                                 | 75dB                       |
| STEREO                               | 70dB                       |
| Frequency response                   | 20Hz — 15 kHz (+1dB, -2dB) |
| Alternate channel selectivity        | 65dB                       |
| Capture ratio                        | 1dB                        |
| Image rejection at 98MHz             | 44dB                       |
| IF rejection at 98MHz                | 80dB                       |
| Spurious response rejection at 98MHz | 75dB                       |
| AM suppression                       | 50dB                       |
| Stereo separation                    |                            |
| 1 kHz                                | 40dB                       |
| 10kHz                                | 30dB                       |
| Carrier leak                         |                            |
| 19kHz                                | -35dB                      |
| 38kHz                                | -50dB                      |
| Antenna terminal(s)                  | 75Ω (unbalanced)           |

### AM Tuner Section

|                            |               |
|----------------------------|---------------|
| Frequency range            | 530 — 1710kHz |
| Sensitivity                | 20μV, 330μV/m |
| Selectivity                | 55dB          |
| Image rejection at 1000kHz | 40 dB         |
| IF rejection at 1000kHz    | 60dB          |

### Video Section

|                                          |            |
|------------------------------------------|------------|
| Output voltage at 1 V input (unbalanced) | 1±0.1 Vp-p |
| Maximum input voltage                    | 1.5 Vp-p   |
| Input/output impedance                   | 75 Ω       |

### Amplifier Section

|                                                                                     |                             |
|-------------------------------------------------------------------------------------|-----------------------------|
| Rated minimum sine wave RMS power output                                            |                             |
| 20 Hz–20 kHz both channels driven                                                   |                             |
| 0.05% total harmonic distortion                                                     | 120W per channel (8Ω)       |
| 1 kHz continuous power output, both channels driven 0.05% total harmonic distortion | 125W per channel (8Ω)       |
| Total harmonic distortion                                                           |                             |
| Rated power at 20 Hz – 20kHz                                                        | 0.05% (8Ω)                  |
| Half power at 1 kHz                                                                 | 0.03% (8Ω)                  |
| Power output at the Dolby Pro Logic operation                                       |                             |
| 0.9% at 1 kHz,                                                                      |                             |
| Front                                                                               | 2X100 W (8Ω)                |
| Center                                                                              | 100 W (8Ω)                  |
| Surround                                                                            | 100 W (8Ω)                  |
| Sub-Woofer                                                                          | 100 W (8Ω)                  |
| Low frequency damping factor                                                        | 30 (8Ω)                     |
| Load impedance                                                                      |                             |
| A or B                                                                              | 4-8Ω                        |
| A and B                                                                             | 8Ω                          |
| Center                                                                              | 8Ω                          |
| Surround                                                                            | 4-8Ω                        |
| Sub-Woofer                                                                          | 8Ω                          |
| Dynamic headroom                                                                    | 2dB (8Ω)                    |
| SMPTE intermodulation distortion                                                    | 0.3% (8Ω)                   |
| Frequency response                                                                  |                             |
| PHONO                                                                               | RIAA standard curve ± 0.8dB |
| CD, TAPE, VCR 1, TV/VCR 2                                                           | 7Hz – 70kHz, ± 3dB          |
| Input sensitivity                                                                   |                             |
| PHONO                                                                               | 0.4mV (3mV, IHF '66)        |
| CD, TAPE, VCR 1, TV/VCR 2                                                           | 27mV (200mV, IHF '66)       |
| S/N (IHF A)                                                                         |                             |
| PHONO                                                                               | 70dB (80dB, IHF '66)        |
| CD, TAPE, VCR 1, TV/VCR 2                                                           | 75dB (85dB, IHF '66)        |
| Input impedance                                                                     |                             |
| PHONO                                                                               | 47kΩ                        |
| CD, TAPE, VCR 1, TV/VCR 2                                                           | 22kΩ                        |
| Tone controls                                                                       |                             |
| BASS                                                                                | 50Hz, +10 to -10dB          |
| TREBLE                                                                              | 20kHz, +10 to -10dB         |
| Loudness control (volume at -30dB)                                                  | 50Hz, +9dB                  |
| Sub-Woofer frequency response                                                       | 7Hz, -100Hz                 |

# Technics®

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**⚠ WARNING**

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

**■ General**

**Power consumption** 265W, 335VA (In standby condition : 2W)  
**Power supply** AC 120V, 60Hz  
**Dimensions (W x H x D)** 430 x 158 x 358 mm  
 (16<sup>15</sup>/<sub>16</sub>" x 6<sup>7</sup>/<sub>32</sub>" x 14<sup>3</sup>/<sub>32</sub>" )  
**Weight** 10.3 kg (22.7 lb.)

**Notes :**

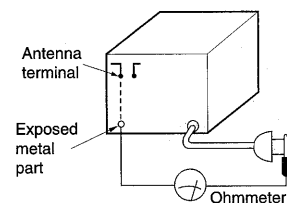
- Specifications are subject to change without notice. Weight and dimensions are approximate.
- Total harmonic distortion is measured by the digital spectrum analyzer.

**■ Contents**

|                                                   | PAGE    |                                                 | PAGE    |
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**■ Safety Precaution** ( This "Safety Precaution" is applied only in U.S.A.)

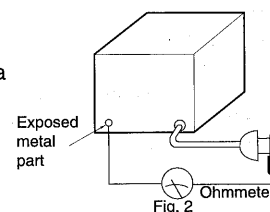
- Before servicing, unplug the power cord to prevent an electric shock .
- When replacing parts ,use only manufacturer's recommended components for safety .
- Check the condition of the power cord .Replace if wear or damage is evident .
- After servicing ,be sure to restore the lead dress, insulation barriers ,insulation papers ,shields ,etc .
- Before returning the serviced equipment to the customer, be sure to make the following insulation resistance test to prevent the customer from being exposed to a shock hazard .



Resistance = 3MΩ - 5.2MΩ

**■ INSULATION RESISTANCE TEST**

- Unplug the power cord and short the two prongs of the plug with a jumper wire .
- Turn on the power switch .
- Measure the resistance value with ohmmeter between the jumper AC plug and each exposed metal cabinet part ,such as screwheads, antenna ,control shafts ,handle brackets , etc . Equipment with antenna terminals should read between 3MΩ and 5.2MΩ to all exposed parts\* .(Fig. 1 ) Equipment without antenna terminals should read approximately infinity to all exposed parts . (Fig. 2 )  
 \*Note :Some exposed parts may be isolated from the chassis by design. These will read infinity .
- If the measurement is outside the specified limits ,there is a possibility of a shock hazard .The equipment should be repaired and rechecked before it is returned to the customer .



Resistance = Approx ∞

**■ Before Repair and Adjustment**

Disconnect AC power, discharge 4 Power Supply Capacitors C703, C704, C705 and C706 through a 10Ω , 5W resistor to ground. DO NOT SHORT-CIRCUIT DIRECTLY (with a screwdriver blade, for instance), as this may destroy solid state devices. After repairs are completed, restore power gradually using a variac, to avoid overcurrent.

Current consumption at AC 120 V, 60Hz in NO SIGNAL mode should be 500 ~ 1000 mA.

**■ Protection Circuitry**

The protection circuitry may have operated if either of the following conditions are noticed:

- No sound is heard when the power is turned on.
- Sound stops during a performance.

The function of this circuitry is to prevent circuitry damage if, for example, the positive and negative speaker connection wires are "shorted", or if speaker systems with an impedance less than the indicated rated impedance of the amplifier are used.

If this occurs, follow the procedure outlines below:

- Turn off the power.
- Determine the cause of the problem and correct it.
- Turn on the power once again after one minute.

**Note:**

When the protection circuitry functions, the unit will not operate unless the power is first turned off and then on again.

## ■ Operation Checks and Main Component Replacement Procedures

**"ATTENTION SERVICER"** Some chassis components may have sharp edges. Be careful when disassembling and servicing.

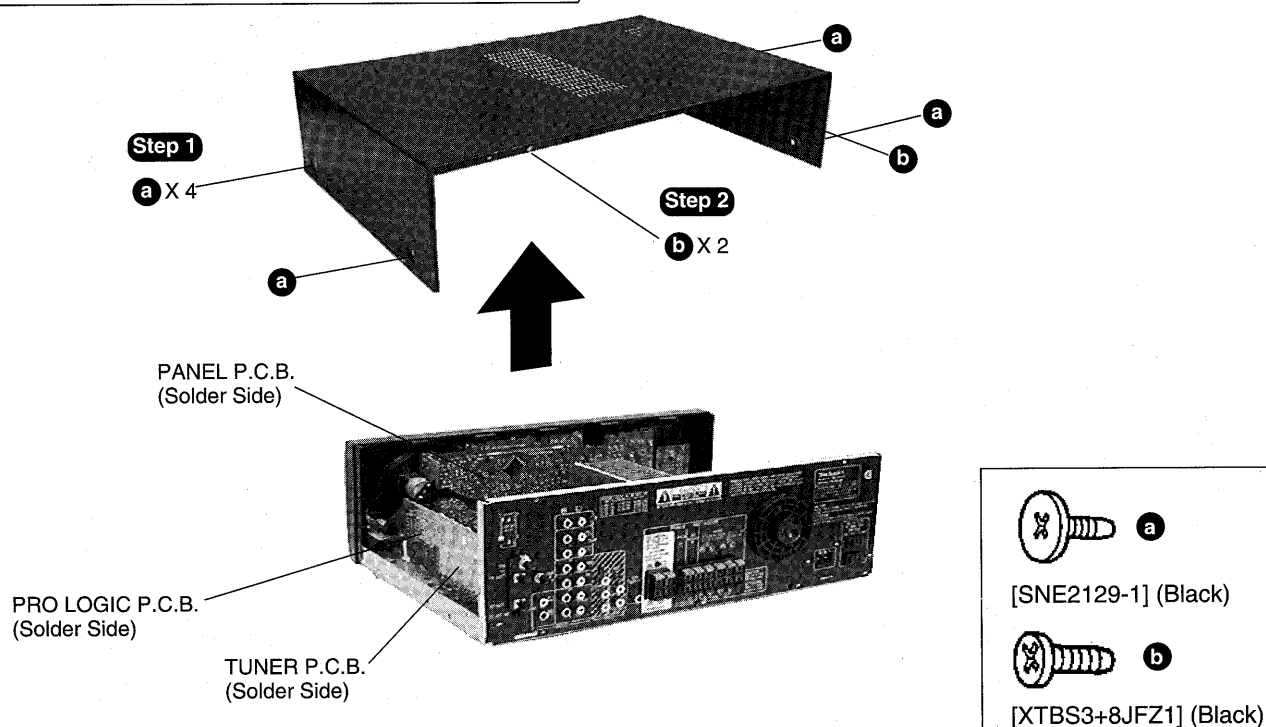
1. This section describes procedures for checking the operation of the major printed circuit boards and replacing the main components.
2. For reassembly after operation checks or replacement, reverse the respective procedures.  
Special reassembly procedures are described only when required.
3. Select items from the following index when checks or replacement are required.

### • Contents

|                                                 | page  |
|-------------------------------------------------|-------|
| • Checking Procedure For Each Major P.C.B. .... | 3 ~ 5 |
| • Main Component Replacement Procedures .....   | 5 ~ 7 |

## ■ Checking Procedure For Each Major P.C.B.

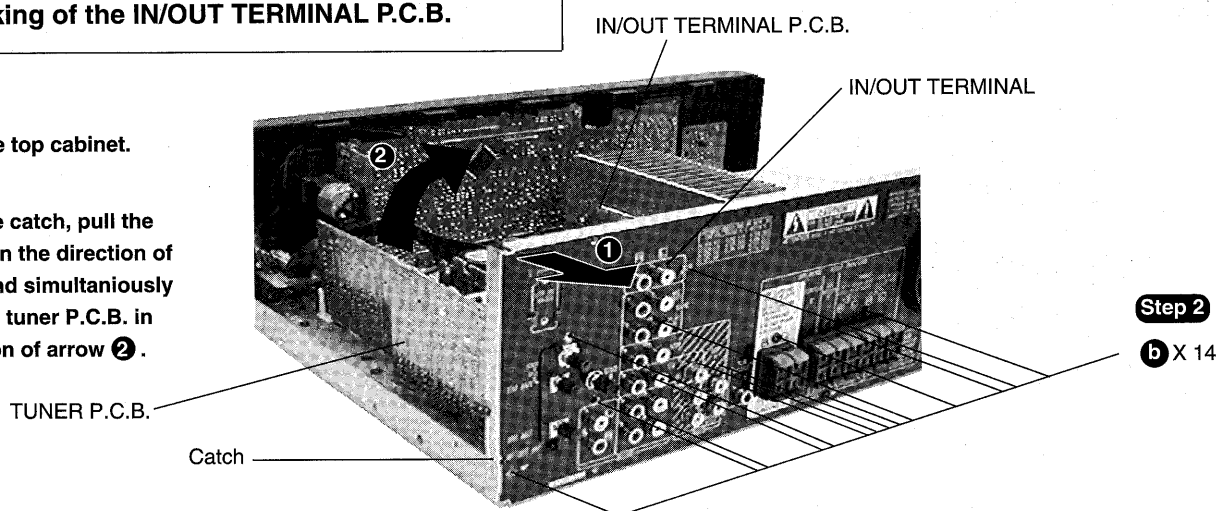
### 1. Checking of the Panel P.C.B., Pro Logic P.C.B. and Tuner P.C.B.



### 2. Checking of the IN/OUT TERMINAL P.C.B.

**Step 1**  
Remove the top cabinet.

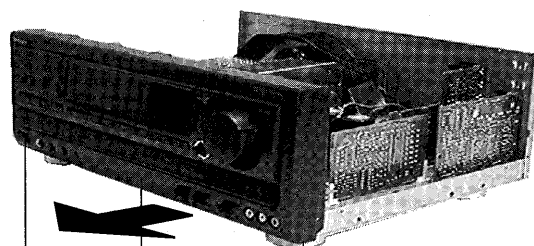
**Step 3**  
Release the catch, pull the rear panel in the direction of arrow ① and simultaneously remove the tuner P.C.B. in the direction of arrow ②.



**To Remove Front Panel, Panel P.C.B., Power Switch P.C.B. and Headphone Jack P.C.B.**

**Step 1**

Remove the top cabinet.



**b** X 3

**Step 2**

**b**

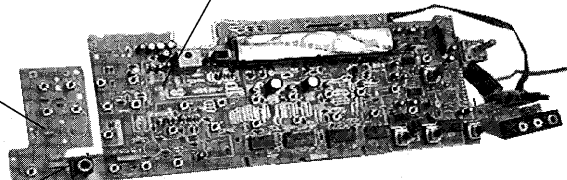
**Step 3**

Remove the front panel in the direction of arrow.

**b**

Power Switch P.C.B.

Headphone Jack P.C.B.



**Step 4**

Remove the Sub-Woofer lever knob, Volume Knob and Nut.

**Step 6**

**c** X 19

**Step 5**

Pull out 3 knobs.

Panel P.C.B.

**Step 8**

Pull out the Headphone Jack P.C.B.



[XTBS26+10J]



[RHD26016]

**3. Checking of the MAIN P.C.B.**

**Step 1**

Remove the top cabinet.

**Step 2**

Remove the front panel.

**Step 7**

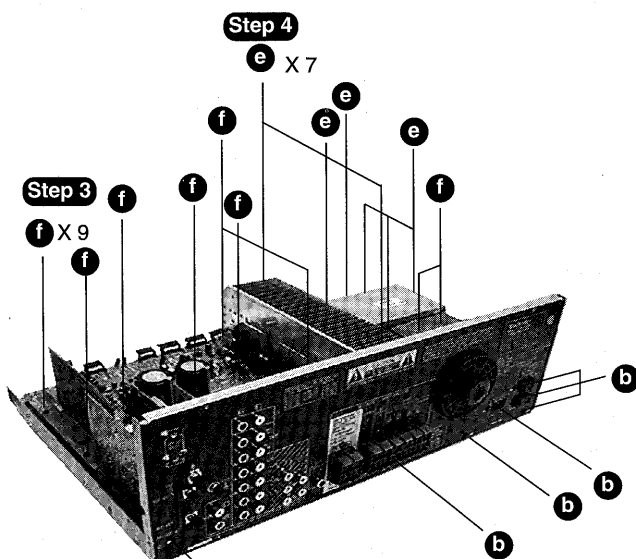
Lift the rear panel in the direction of arrow ② and remove the bottom chassis in the direction of arrow ③.

**Step 4**

**e** X 7

**Step 3**

**f** X 9

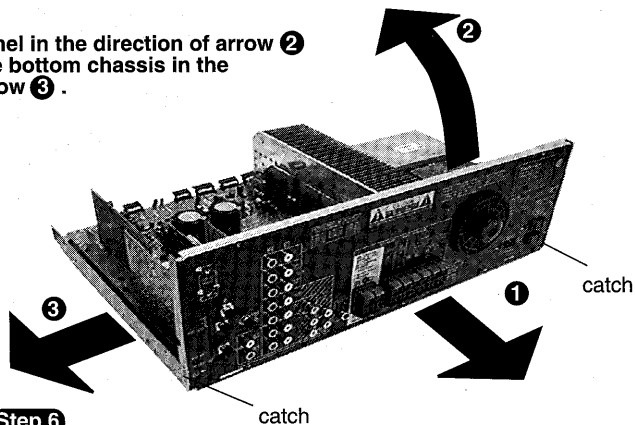


**Step 5**

**b** X 7

**Step 6**

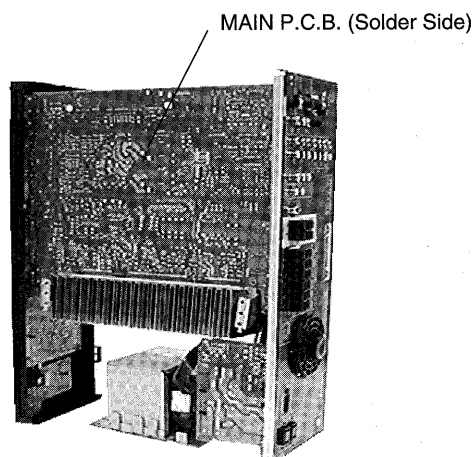
Release 2 catches and pull the rear panel in the direction of arrow ① for about 10mm. (Note : All P.C.B. and a transformer are attach to the rear panel)



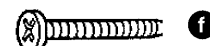
**Step 8**

Connect the front panel to the main P.C.B. as shown.

• Check the Main P.C.B. as shown • on the right.



[XTB3+8FFZ] (Black)



[XTB3+20JFZ] (Black)

## ■ Main Component Replacement Procedures

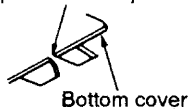
### 1. Replacement of the Power IC and Regulator Transistor

**Step 1**

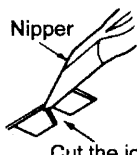
Remove the top cabinet.

**Step 2** Cut the joints as shown below. (6 joints)

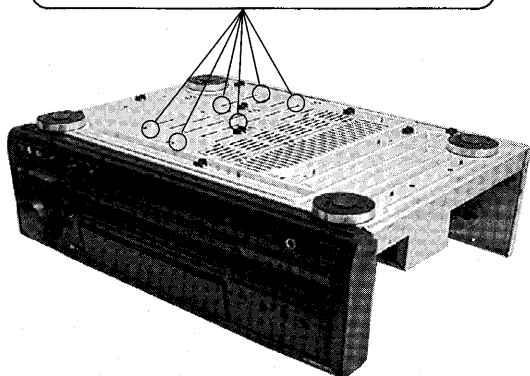
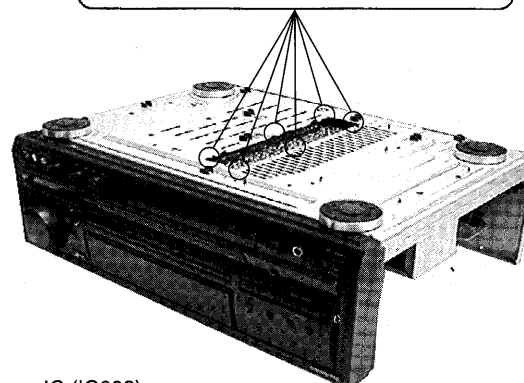
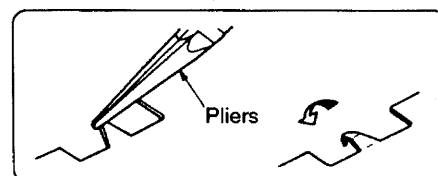
Locate the nipper to the thin portion of the joint.



Bottom cover



Cut the joint.

**Step 3** Fold the joints. (6 joints)

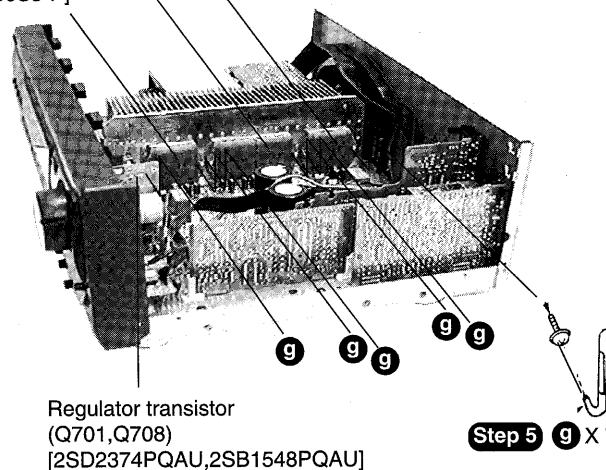
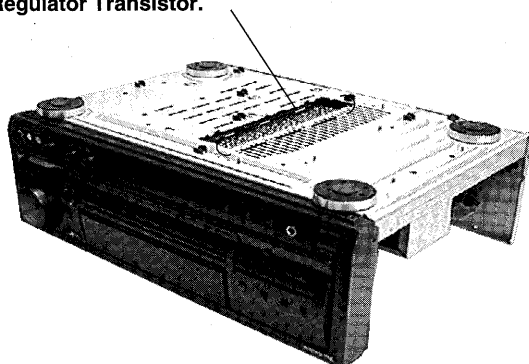
Power IC (IC603)  
[RSN33M5-P]

Power IC (IC602)  
[RSN36S5-P]

Power IC (IC601)  
[RSN36S5-P]

**Step 4**

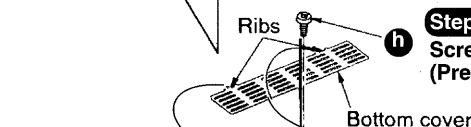
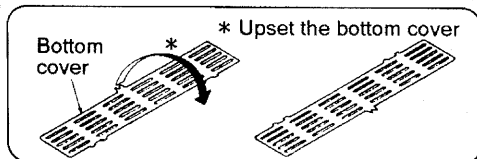
Desolder the terminals of Power IC and Regulator Transistor.



**Step 5** g X 7

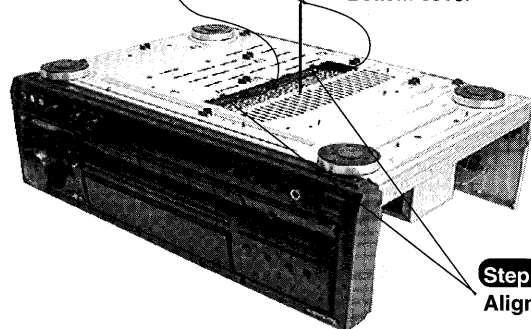
## Installation of the bottom cover after replacement

### Step 1



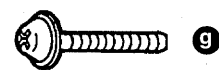
### Step 3

Screw (XTB3+8J)  
(Prepare this screw to fix the bottom cover.)



### Step 2

Align the ribs of bottom cover with lugs.



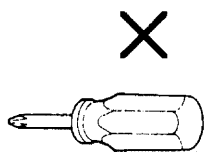
[XTW3+15T]



[XTB3+8J] (Black)

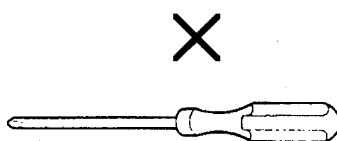
## CAUTION

1. After replacing the power IC or regulator transistor, apply a sufficient quantity of compound grease (RFKX0002/SZZ0L15) between the heat sink and the power IC or regulator transistor (Radiation of power IC).
  2. Tighten enough the screws (g) after replacing the power IC and regulator transistor. Otherwise, the heat radiation works little.
  3. When installing or removing the power IC or transistor holder, be sure to use an offset screwdriver.
- A long straight screwdriver cannot be used for removing or mounting the screws since its long grip interferes with the neighbouring P.C.B. (See Fig.1)
  - A short straight screwdriver may be used for removal, but cannot be used for mounting because the limited space in the unit will not allow sufficient tightening torque. (See Fig.2)



A short straight screwdriver

Fig.2



A short straight screwdriver

Fig.1

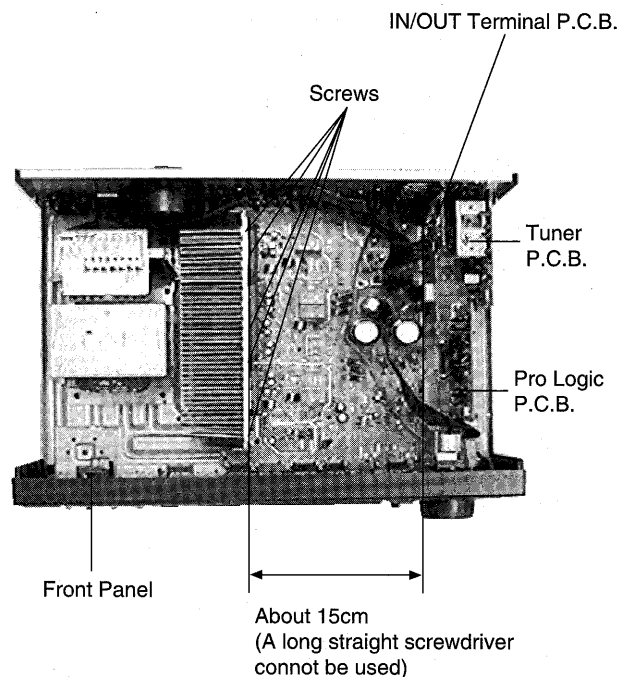
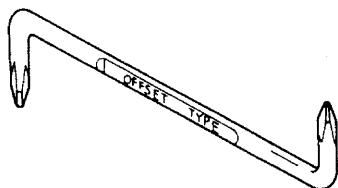


Fig.1

- Insufficient tightening will cause poor heat dissipation from the power IC and regulator transistor and, in the worst case, may lead to their thermal breakdown.

## —OFFSET SCREWDRIVER—

- The PROTO offset screwdriver No.34- $\frac{1}{4}$  is recommended for use in the application above.



| No.              |       |                   |
|------------------|-------|-------------------|
| 34 $\frac{1}{4}$ | 1 & 2 | 4 $\frac{3}{4}$ " |

- The address of PROTO International Sales is as follows.



## International Sales

International Sales Office  
Stanley-Proto Industrial Tools  
14117 Industrial Park Blvd.  
Covington, GA 30209 U.S.A.  
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P.O.Box 10  
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Nunawading 3131  
Victoria, Australia  
Fax: 61-3-894-1173  
Phone: 61-3-878-9244

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Phone: 65-862-0883

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DE C.V.  
Apartado Postal 675  
72030 Puebla, Pue, Mexico  
Fax: 52-22-494-4880  
Phone: 52-22-495-300

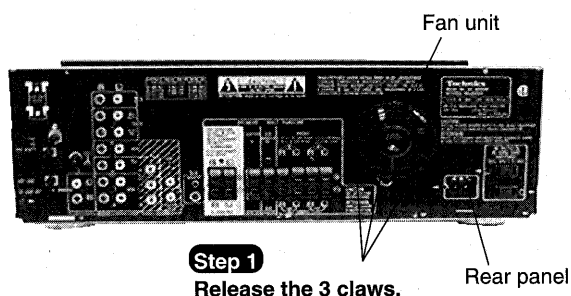
South & Central America,  
Puerto Rico, The Caribbean  
Stanley Inter-America  
2101 N.W. 84th Ave.  
Miami, Florida 33122  
Fax: 305-594-4261  
Phone: 305-591-3828

Europe  
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Woodside, Sheffield  
539PD  
England  
Fax: 44-742-739-038  
Phone: 44-742-768-888

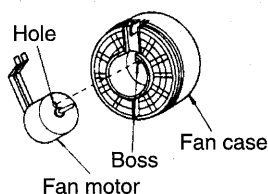
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1100 Corporate Drive  
Burlington, Ontario  
Canada, L7L 5R6  
Fax: 416-335-0075  
Phone: 416-335-0075

Middel East, Mediterranean  
& Africa  
Stanley-MEMA  
Cory House The Ring  
Bracknell Berkshire  
RG 12 1A2  
England  
Fax: 44-344-485-526  
Phone: 44-344-51813

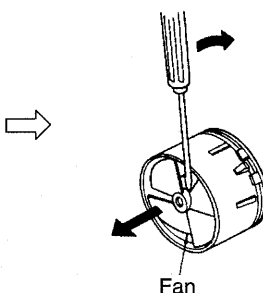
## 2. Replacement of the fan motor

**NOTE**

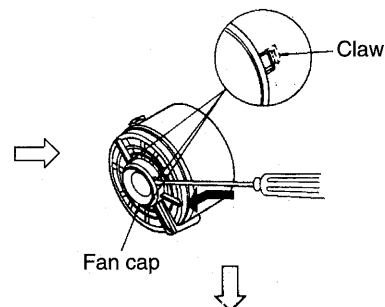
When replacing the fan motor, align the boss of the fan case with the hole of the fan motor.

**Step 2**

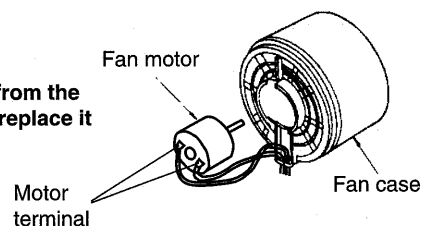
Put a screwdriver at the root of the fan and remove it.

**Step 3**

Remove the fan cap.

**Step 4**

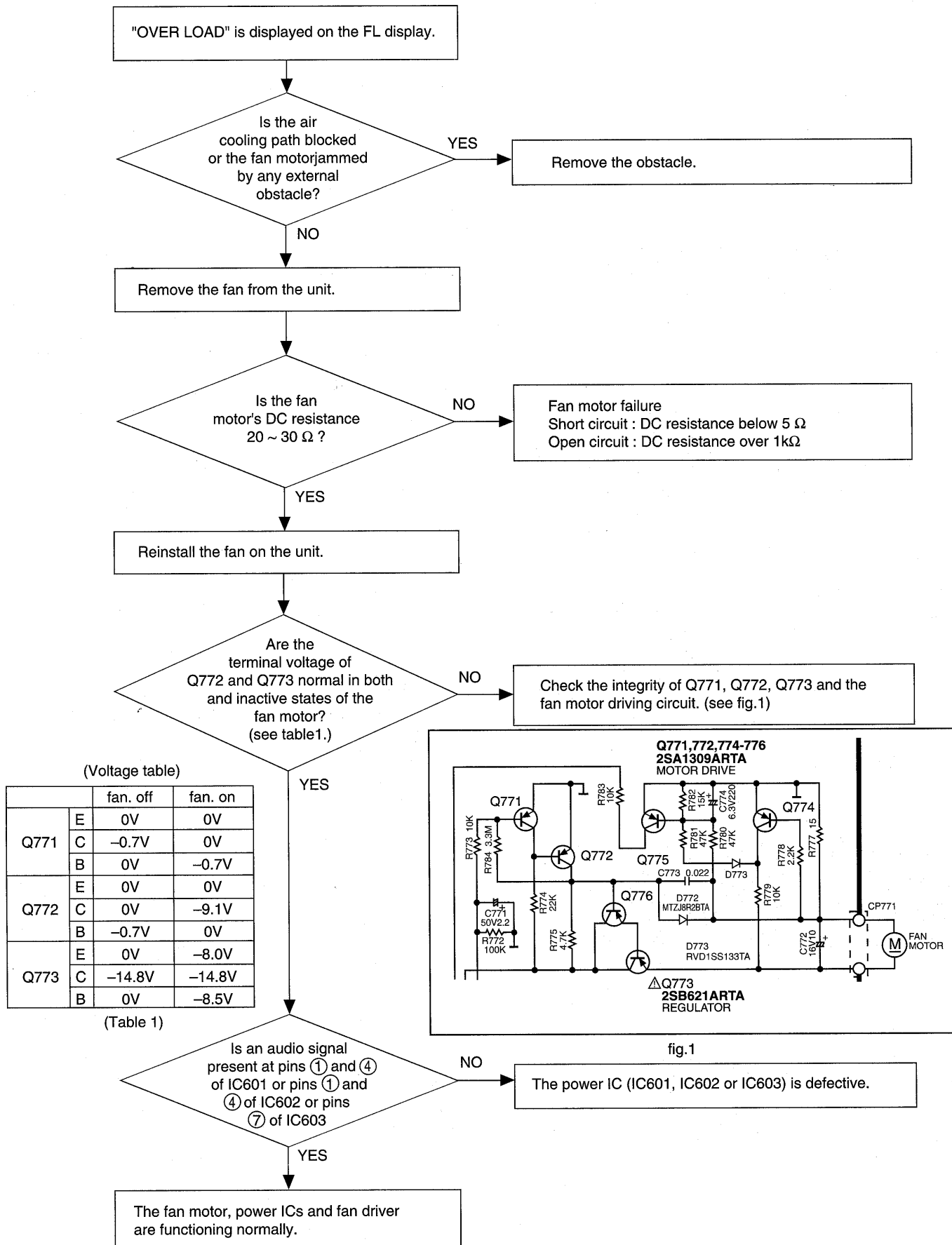
Desolder the wires from the motor terminal and replace it with a new one.



## Fan Motor Troubleshooting

The Model SA-EX600 employ fan motor error sensing electronics.

If the cooling fan is not operating and "OVER LOAD" is displayed on the FL display, check the fan motor and its driving circuit.

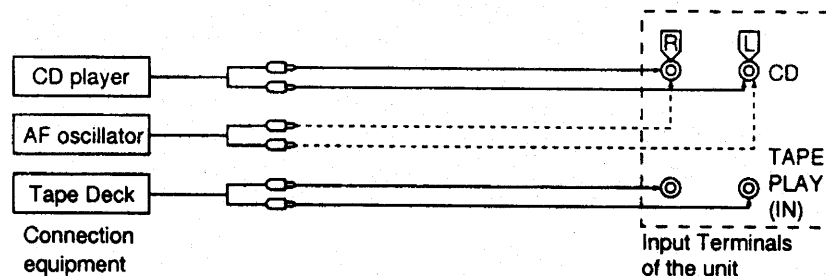


## Troubleshooting

This unit has test points on each circuit board block for use in troubleshooting.

### CONNECTION

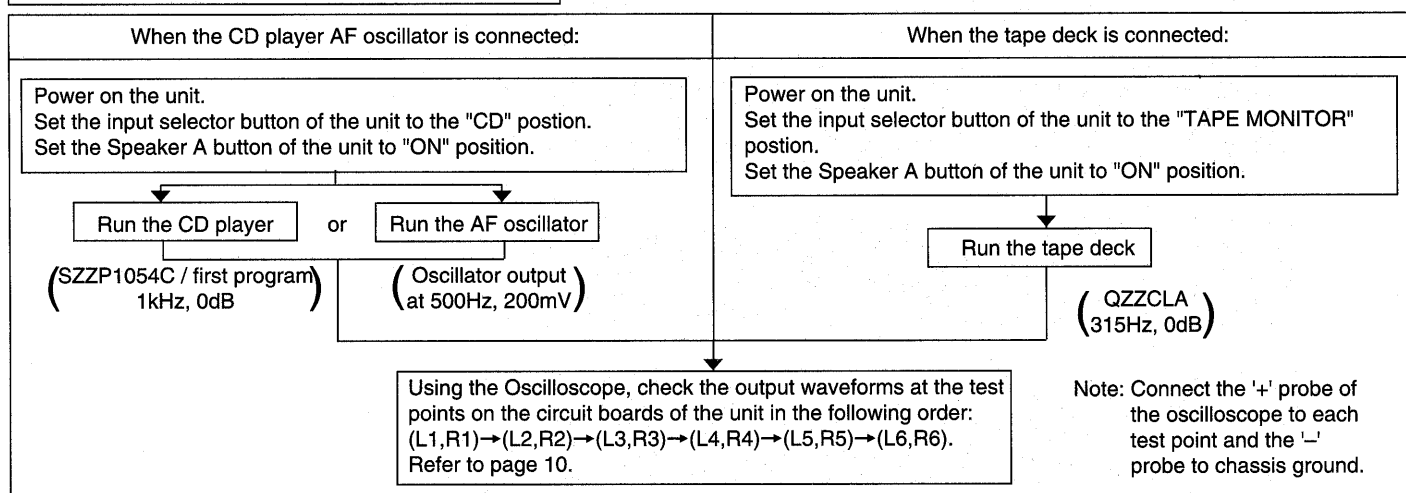
Connect either a CD player, tape deck or AF oscillator to the input terminals of the unit.



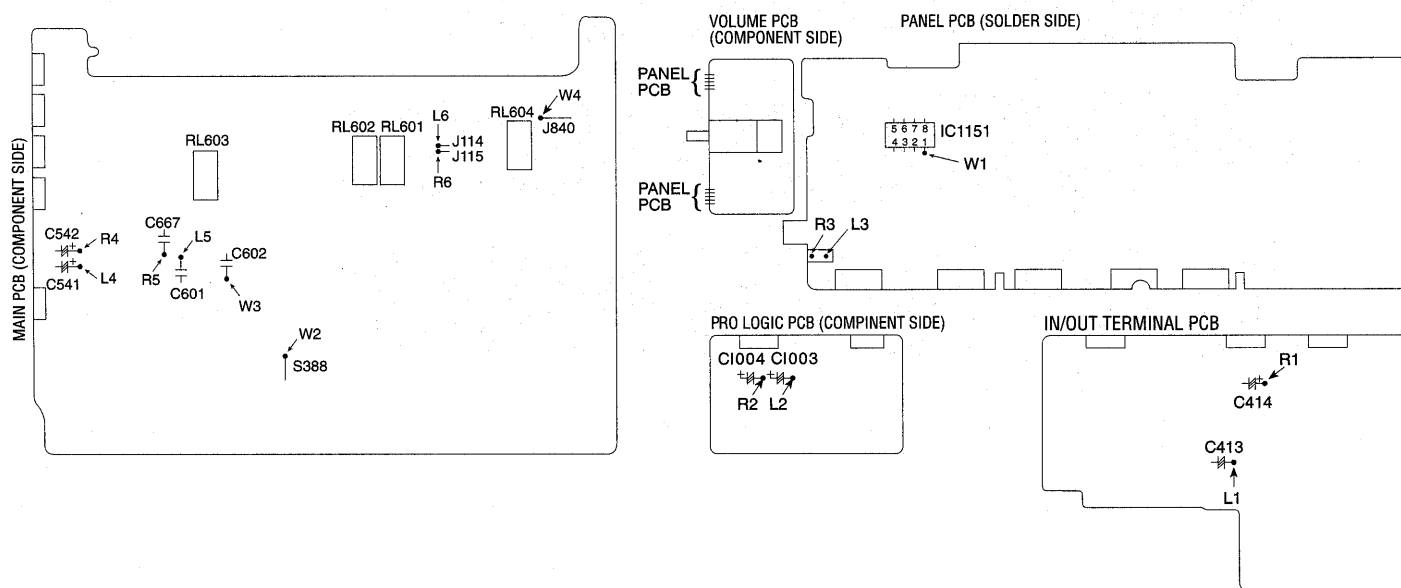
### REQUIRED ITEMS

1. Testing with a CD player ——— Test disc (SZZP1054C / first program, 1kHz, 0dB)
2. Testing with a tape deck ——— Test tape (QZZCLA / 315Hz, 0dB)
3. Testing with a AF oscillator ——— Set the output at 500Hz, 200mV
4. Oscilloscope (min. 10MHz) ----- To measure the output waveform at the test points.

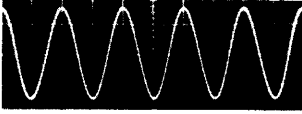
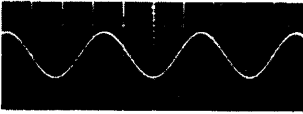
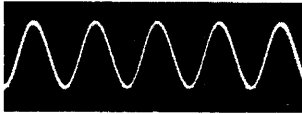
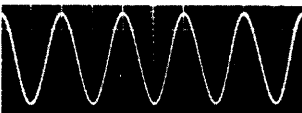
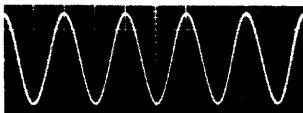
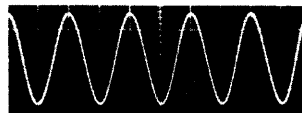
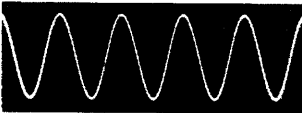
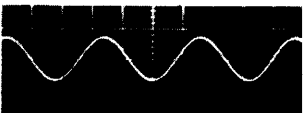
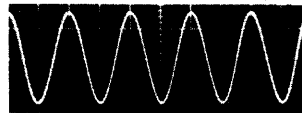
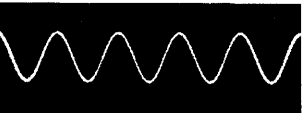
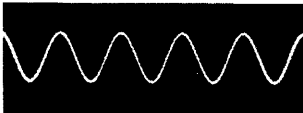
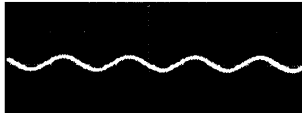
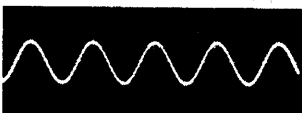
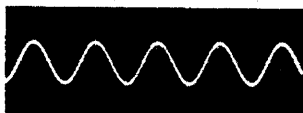
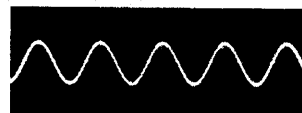
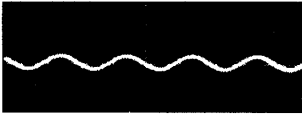
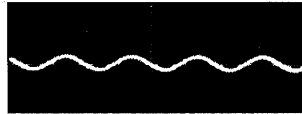
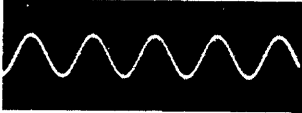
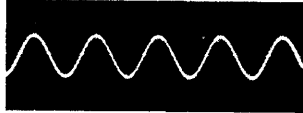
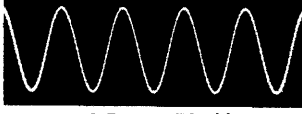
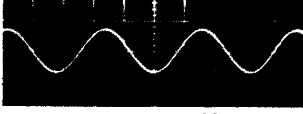
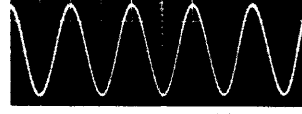
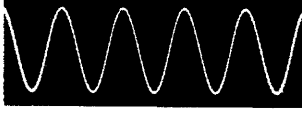
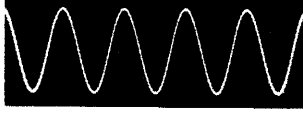
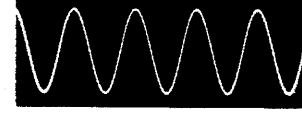
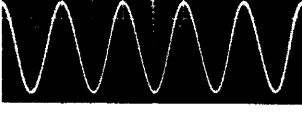
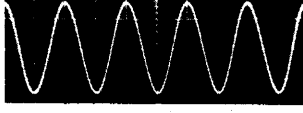
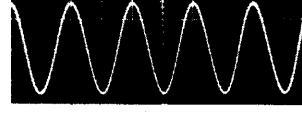
### TEST PROCEDURE FOR AMPLIFIER CIRCUIT



### TEST POINTS POSITIONS OF AMPLIFIER CIRCUIT



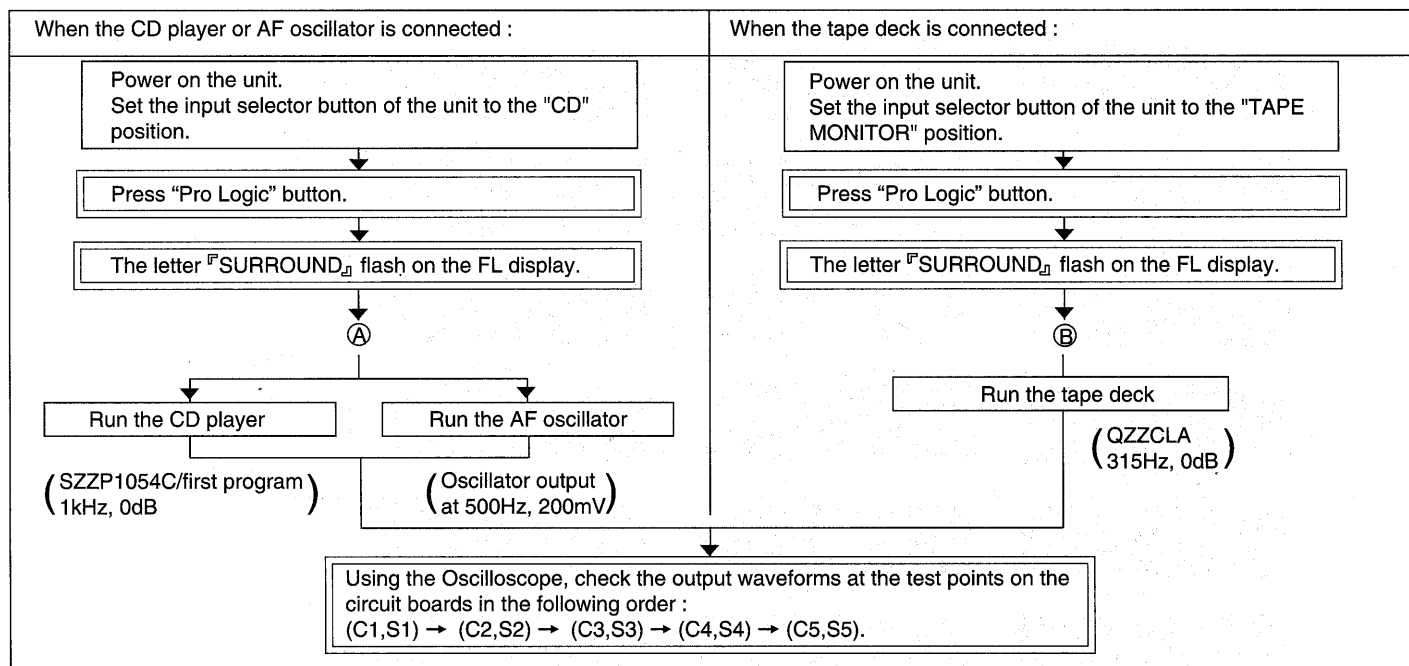
## NORMAL WAVEFORMS OF AMPLIFIER CIRCUIT AND LIKELY FAULTY BLOCKS

| TP    | CD player                                                                                            | Tape deck                                                                                         | AF oscillator                                                                                      | Likely faulty block if the normal waveform shown at the left is not present. |
|-------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| L1/R1 | <br>0.5msec 0.2V    | <br>1msec 50mV   | <br>1msec 20mV   | Input selector block IC401 & area                                            |
| W1    | <br>0.5msec 0.1V    | <br>1msec 20mV   | <br>1msec 20mV   | Sub-Woofer amplifier & area                                                  |
| L2/R2 | <br>0.5msec 0.2V    | <br>1msec 50mV   | <br>1msec 20mV   | Dolby pro logic block IC1001 and IC1002 & area                               |
| W2    | <br>1msec 25V       | <br>1msec 25mV   | <br>1msec 25mV   | Sub-Woofer lever block VR1150 & area                                         |
| L3/R3 | <br>0.5msec 5mV    | <br>2msec 50mV  | <br>1msec 25mV  | Master volume block VR501 & area                                             |
| W3    | <br>1msec 25mV    | <br>2msec 25mV | <br>1msec 25mV | Power limiter block Q575, Q576 & area                                        |
| L4/R4 | <br>0.5msec 5mV   | <br>2msec 25mV | <br>1msec 25mV | Tone control block IC511 & area                                              |
| W4    | <br>0.5msec 50mV  | <br>1msec 5mV  | <br>1msec 25mV | Main amplifier block IC601 & area                                            |
| L5/R5 | <br>0.5msec 10mV  | <br>1msec 50mV | <br>1msec 25mV | Power limiter block Q581 to Q584 & area                                      |
| L6/R6 | <br>0.5msec 0.2mV | <br>2msec 50mV | <br>1msec 50V  | Main amplifier block IC601, 16603 & area                                     |

Measurement conditions. Sub-Woofer Control (VR1150) Volume control (VR501), Treble control (VR512) and Bass control (VR511) positions :    
 \*Volume control position (VR501) for these test : 

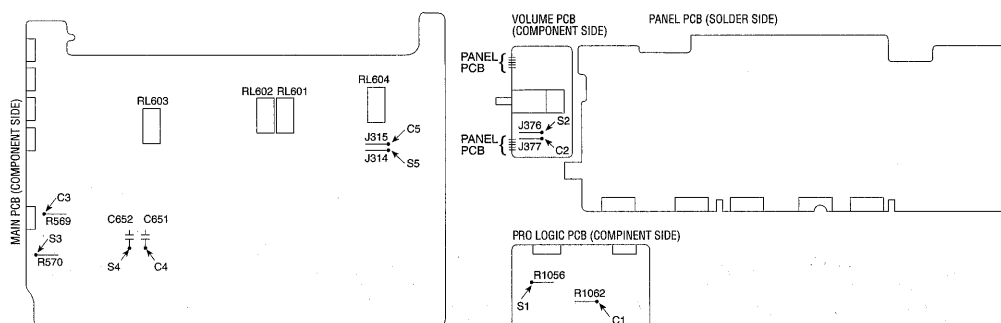
## CHECKING PROCEDURE FOR SURROUND CIRCUIT

Outputting surround signal normally requires that opposite phase signals be applied to both the left and right channels. However, this unit incorporates a service mode, allowing the surround circuit to be tested using in-phase signals.



• To exit the service mode, power off the unit.

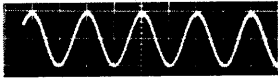
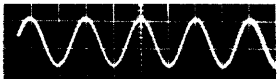
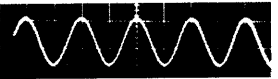
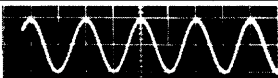
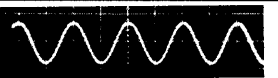
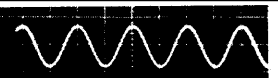
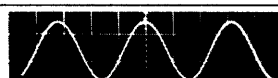
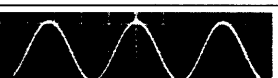
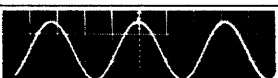
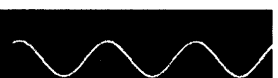
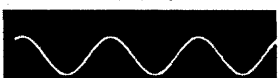
## TEST POINTS POSITIONS OF SOURROUND CIRCUIT



## NORMAL WAVEFORMS OF AMPLIFIER CIRCUIT AND LIKELY FAULTY BLOCKS

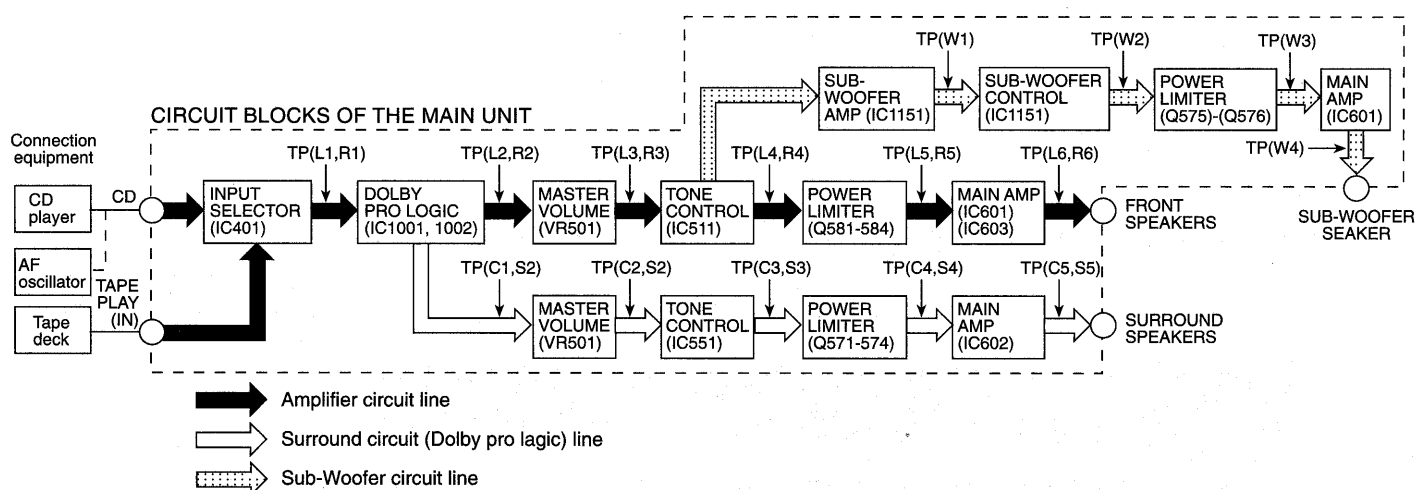
| TP | CD player | Tape deck | AF oscillator | Likely faulty block if the normal waveform shown at the left is not present. |
|----|-----------|-----------|---------------|------------------------------------------------------------------------------|
| C1 |           |           |               | Dolby pro logic block IC1001 and IC1002 & area                               |
| S1 |           |           |               |                                                                              |
| C2 |           |           |               | Master volume block VR501 & area                                             |
| S2 |           |           |               |                                                                              |

## NORMAL WAVEFORMS OF AMPLIFIER CIRCUIT AND LIKELY FAULTY BLOCKS

| TP | CD player                                                                                          | Tape deck                                                                                       | AF oscillator                                                                                    | Likely faulty block if the normal waveform shown at the left is not present. |
|----|----------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| C3 | <br>0.5msec 10mV  | <br>2msec 50V  | <br>1msec 50V  | Power limiter block<br>Q571 to Q574 & area                                   |
| S3 | <br>2msec 25mV    | <br>5msec 25mV | <br>4msec 25mV |                                                                              |
| C4 | <br>0.5msec 5V    | <br>2msec 25V  | <br>1msec 10V  | Power limiter block<br>Q571 to Q574 & area                                   |
| S4 | <br>2msec 25mV    | <br>5msec 25mV | <br>5msec 25mV |                                                                              |
| C5 | <br>0.5msec 0.2mV | <br>2msec 20mV | <br>1msec 20mV | Main amplifier block IC602 & area                                            |
| S5 | <br>1msec 25mV    | <br>2msec 25mV | <br>2msec 25mV |                                                                              |

Measurement conditions. Sub-Woofer Control (VR1511), Volume control (VR501), Tremble control (VR512) and Bass control (VR511) positions :   
 \*Volume control position (VR501) for these test : 

## CIRCUIT BLOCKS



## OVERLOAD DETECTION FUNCTION

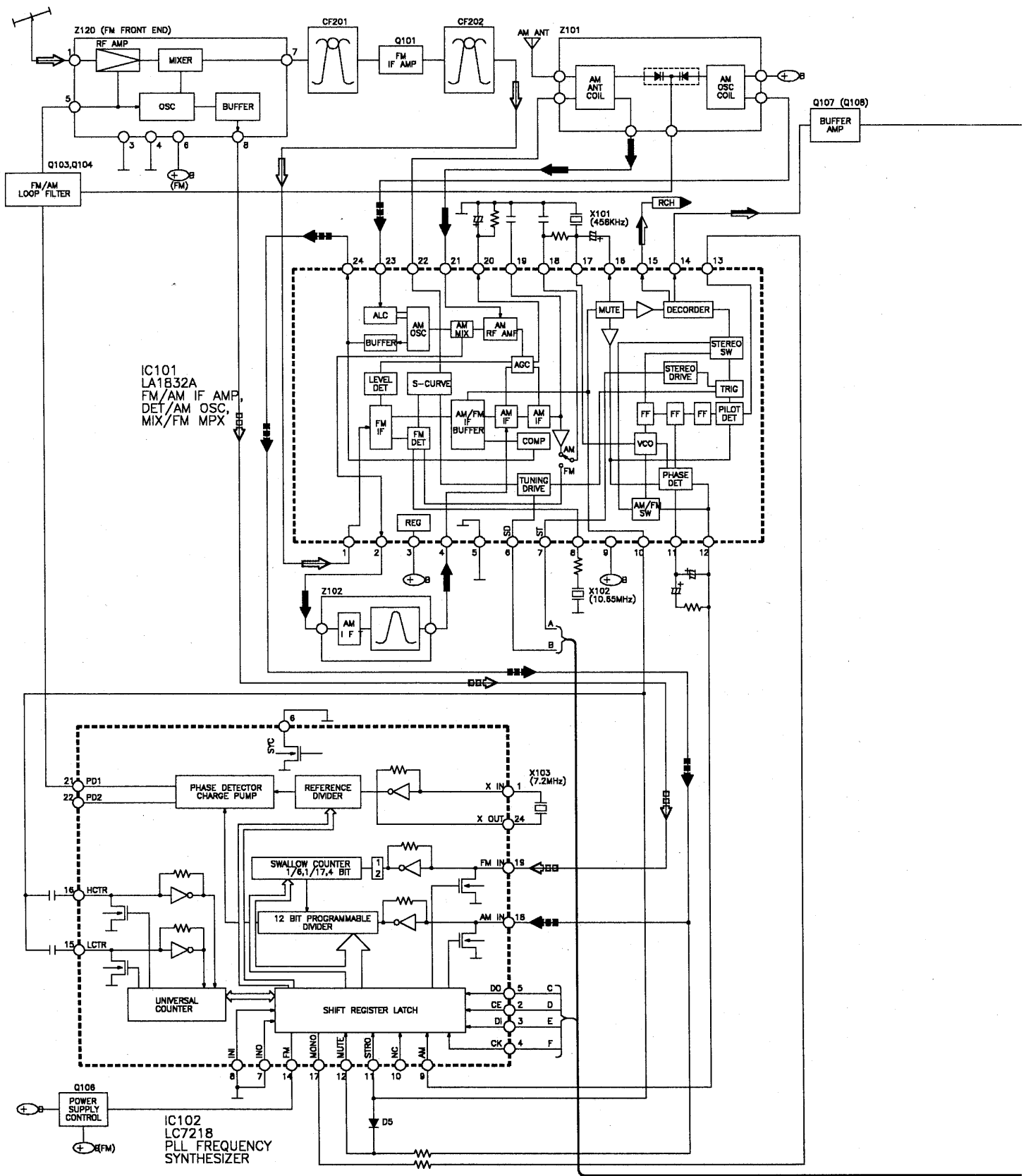
The HIC protection circuit functions if any cord at a speaker terminal is short-circuited or if the unit overheats because of improper operation. At the same time, "OVERLOAD" scrolls across the FL display.

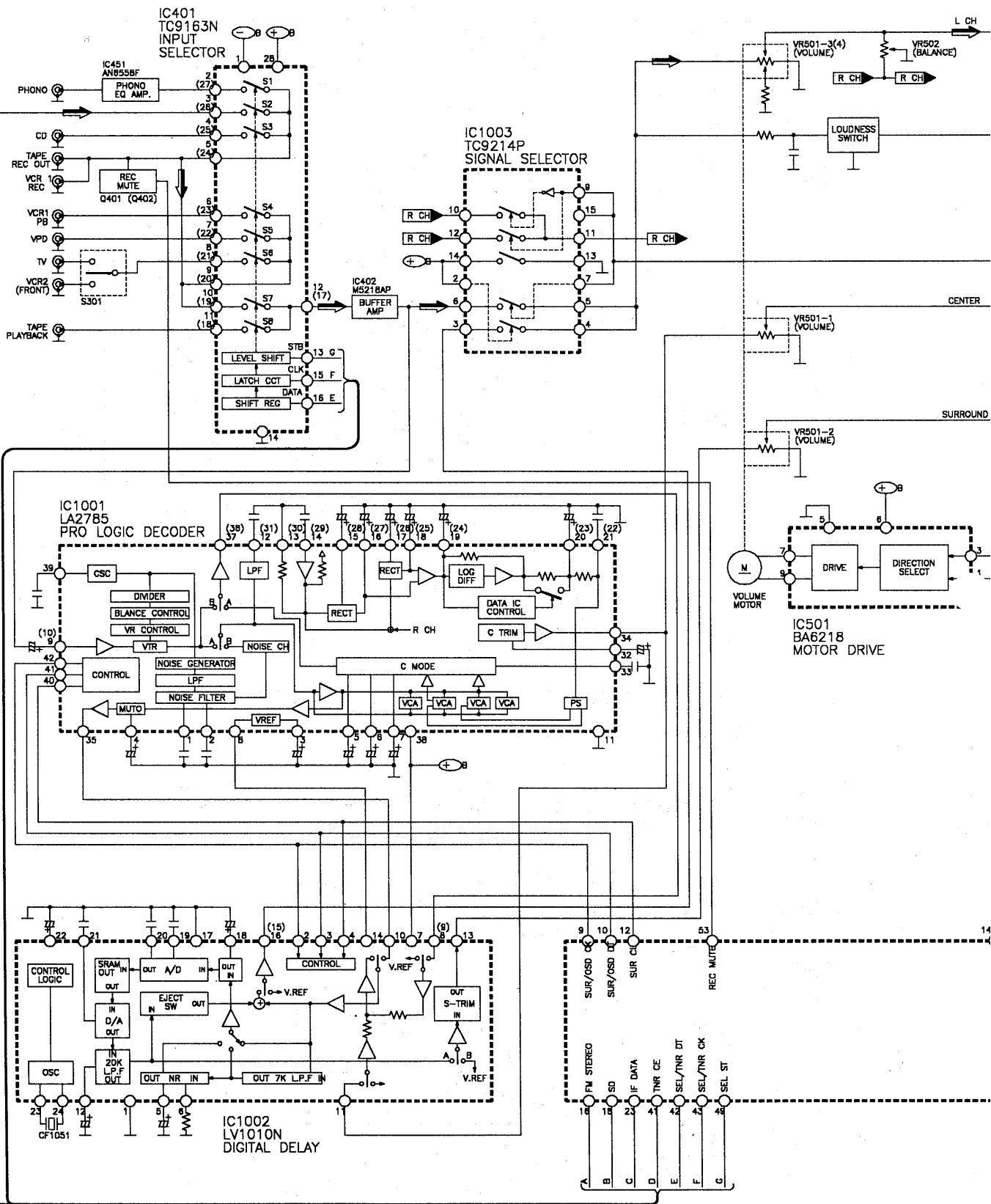
In this state, all keys remain in operative; if any key is pressed, "SWITCH OFF POWER" scrolls across the FL display.

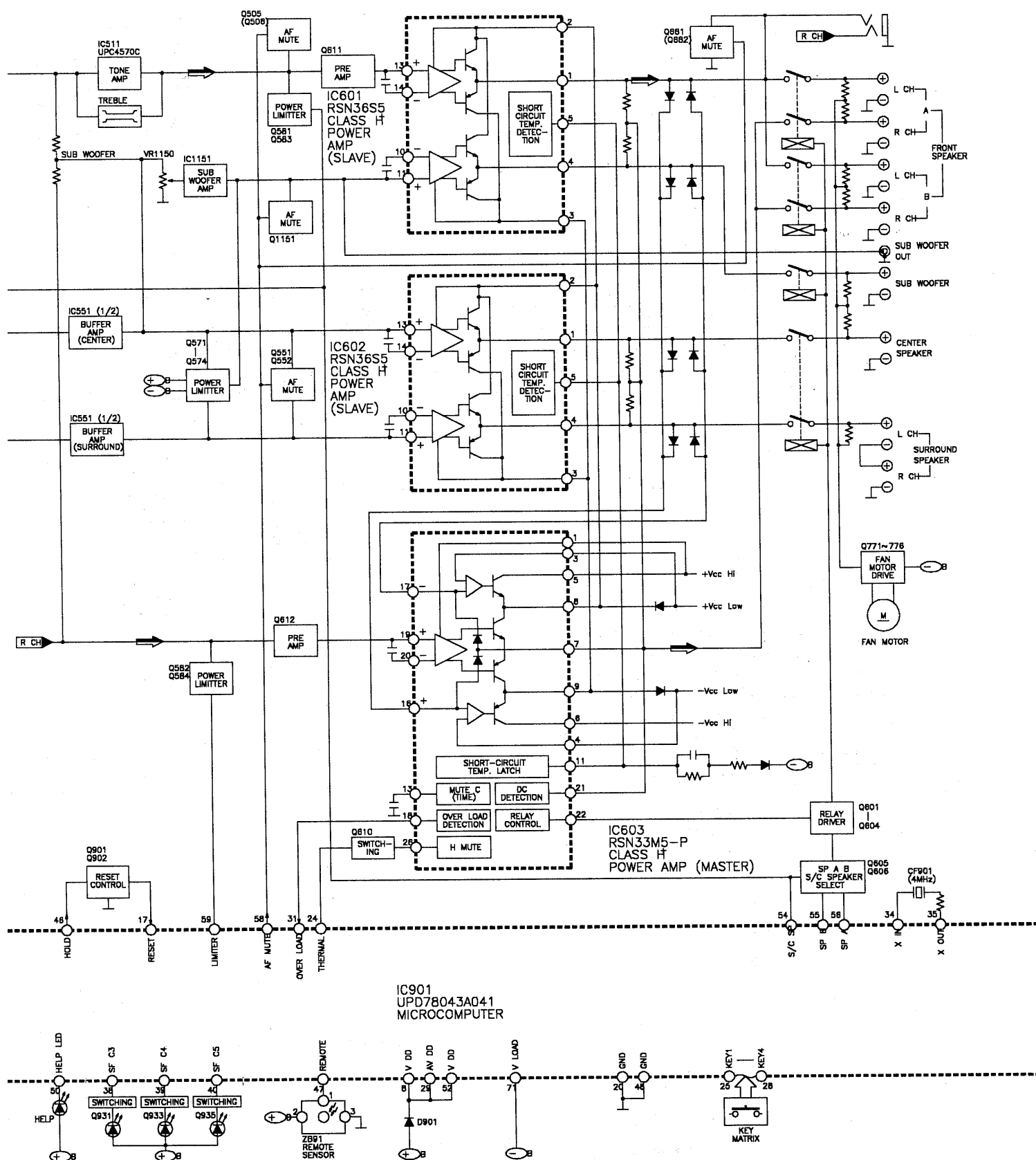
If an overload occurs, immediately power off the unit and check the speaker connection, venting holes and cooling fans. After fixing any faults, power on the unit again and check for proper operation.

If no defects are found, or if the unit remains overload after it is power on again, check the circuit for faults.

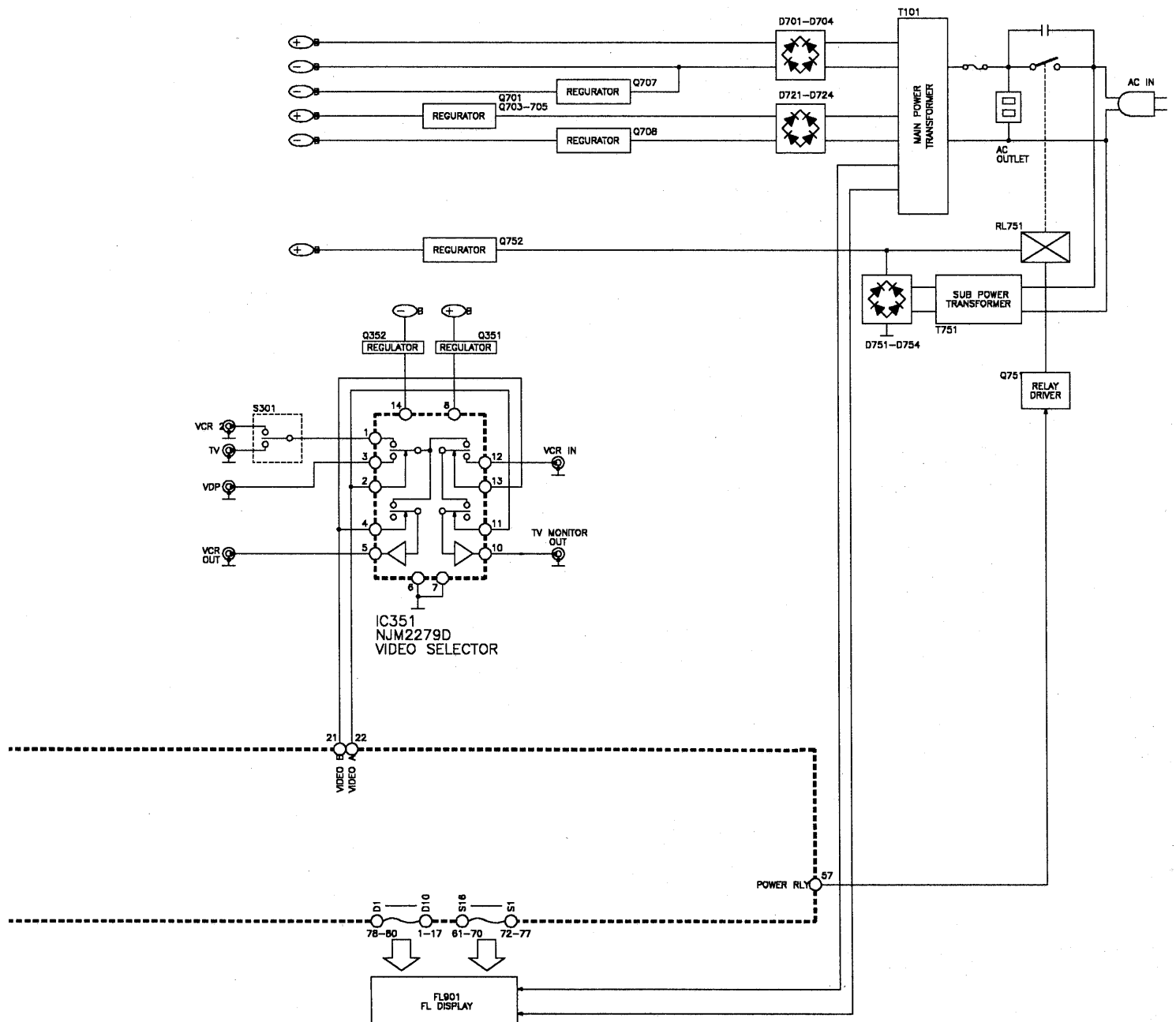
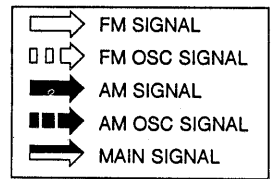
# BLOCK DIAGRAM







NOTES:



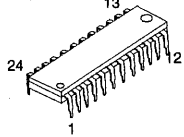
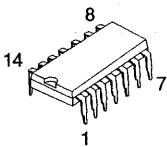
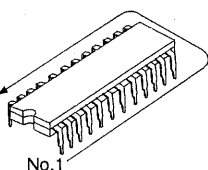
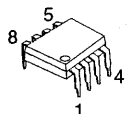
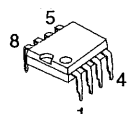
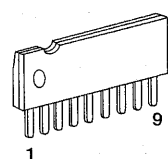
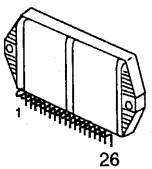
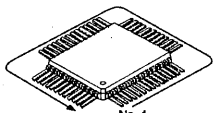
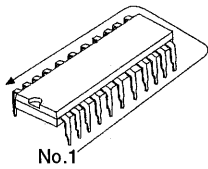
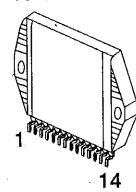
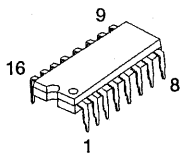
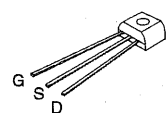
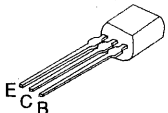
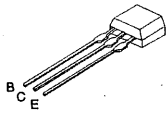
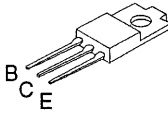
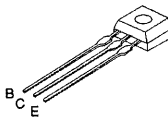
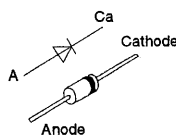
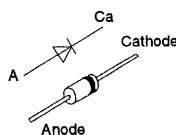
## ■ Terminal Functions Of ICs

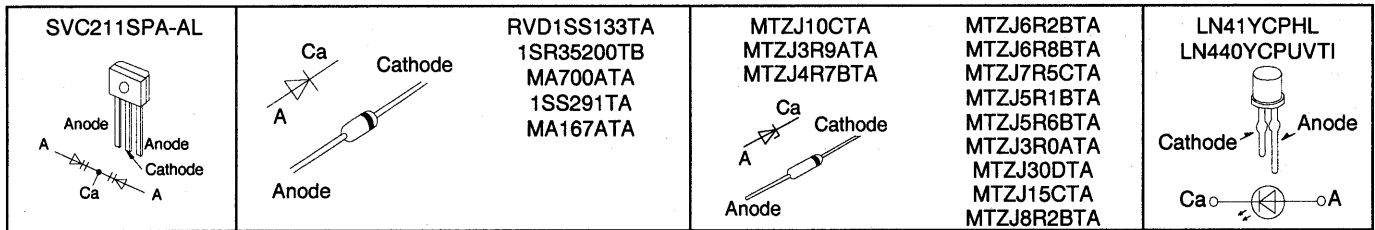
### • IC901 (UPD78043A041) System Microprocessor

| Pin No. | Mark       | I/O | Function                                |
|---------|------------|-----|-----------------------------------------|
| 1~7     | D4~D10     | O   | Digit signal of FL display              |
| 8       | VDD        | I   | Power supply terminal                   |
| 9       | SUR/OSD_CK | O   | Serial clock signal                     |
| 10      | SUR/OSD_DT | O   | Serial data signal                      |
| 11      | VIDEO_DET  | —   | Not used                                |
| 12      | SUR_CE     | O   | Chip enable signal                      |
| 13      | VOL_UP     | O   | Rotate control terminal of volume motor |
| 14      | VOL_DWN    | O   |                                         |
| 15      | LOUDNESS   | —   | Not used                                |
| 16      | FM_STEREO  | I   | Stereo signal detect terminal           |
| 17      | RESET      | I   | Reset detect terminal                   |
| 18      | SD         | I   | Received signal detect terminal         |
| 19      | OSD_ST     | —   | Not used                                |
| 20      | GND        | —   | GND terminal                            |
| 21      | VIDEO_B    | O   | Video selector control terminal         |
| 22      | VIDEO_A    | O   |                                         |
| 23      | IF_DATA    | I   | Serial data signal                      |
| 24      | THERMAL    | O   | Mute control terminal                   |
| 25~28   | KEY1~KEY4  | I   | Key matrix detect terminal              |
| 29      | AVDD       | I   | Power supply terminal                   |
| 30      | AVREF      | I   | Power supply terminal                   |
| 31      | OVERLOAD   | I   | Over load detect terminal               |
| 32      | XT2        | —   | Not used                                |
| 33      | GND        | —   | GND terminal                            |
| 34      | XIN        | I   | Crystal oscillator terminal             |
| 35      | XOUT       | O   | (4MHz)                                  |

| Pin No. | Mark        | I/O | Function                                     |
|---------|-------------|-----|----------------------------------------------|
| 36~40   | SFC1~SFC5   | —   | Not used                                     |
| 41      | TNR_CE      | O   | Chip enable signal                           |
| 42      | SEL/TNR_DT  | O   | Serial data signal                           |
| 43      | SEL/TNR_CK  | O   | Serial clock signal                          |
| 44      | TV/CR2      | —   | Not used                                     |
| 45      | ADAPTOR     | —   | Not used                                     |
| 46      | HOLD        | I   | Hold signal input terminal                   |
| 47      | REMOTE      | I   | Remote control terminal                      |
| 48      | GND         | —   | GND terminal                                 |
| 49      | SEL_ST      | O   | Level shift control terminal                 |
| 50      | HELP_LED    | O   | LED drive signal(HELP)                       |
| 51      | STANDBY_LED | —   | Not used                                     |
| 52      | VDD         | I   | Power supply terminal                        |
| 53      | REC_MUTE    | —   | Not used                                     |
| 54      | S/C_SP      | O   | Surround and speaker select control terminal |
| 55      | SP_B        | —   | Not used                                     |
| 56      | SP_A        | O   | Speaker select control terminal              |
| 57      | POWER_RLY   | O   | Relay control terminal                       |
| 58      | AF_MUTE     | O   | Muting control terminal                      |
| 59      | LIMITTER    | —   | Not used                                     |
| 60      | INIT_IN     | —   | Not used, connect to resistor                |
| 61~70   | S16~S7      | O   | Segment signal of FL display                 |
| 71      | VLOAD       | I   | Power supply terminal                        |
| 72~77   | S6~S1       | O   | Segment signal of FL display                 |
| 78~80   | D1~D3       | O   | Digit signal of FL display                   |

## ■ Terminal Guide of ICs, Transistors and Diodes

|                                                                                                                                                |                                                                                                                                                  |                                                                                                                   |                                                                                                                  |                                                                                                                                                                                                     |                                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| LA1832A<br>LC7218<br>LV1010N<br>                            | NJM2279D<br>                                                  | TC9163N 28Pin<br>              | M5218AP<br>                   | AN6558-F<br>UPC4570C<br>                                                                                       | BA6218<br>                   |
| RSN3305-P<br>                                               | UPD78043A041<br>80 Pin<br>                                    | LA2785<br>                     | RSN3655-P<br>                 | TC9214P<br>                                                                                                    | 2SK544F-AC<br>2SJ40CDTA<br>  |
| 2SC3940AQSTA<br>2SB621ARTA<br>2SD592ARTA<br>2SD592AQSTA<br> | RVTDTTC144YST<br>2SA933SSTA<br>2SK38ICTA<br>RVTDTTC114EST<br> | 2SB1548PQAU<br>2SD2374PQAU<br> | 2SC2785FETA<br>2SC2786MTA<br> | 2SC2787FL1TA<br>2SC2787LTA<br>2SA1309ARTA<br>2SC3311ARTA<br>2SD1915FTA<br>UN411FTA<br>UN421FTA<br>UN4119TA<br> | 1N5402BM21<br>SB360L6508<br> |



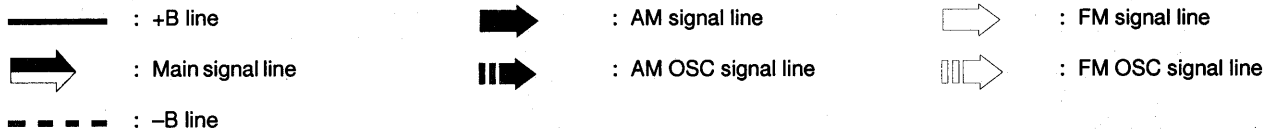
## Schematic Diagram

(All schematic diagrams may be modified at any time with the development of new technology)

### Note :

- |        |   |                           |                     |   |                                    |
|--------|---|---------------------------|---------------------|---|------------------------------------|
| • S946 | : | Power switch              | • S970              | : | Simulated switch                   |
| • S947 | : | Phono select switch       | • S972              | : | Theater switch                     |
| • S948 | : | Muting switch             | • S974              | : | Live switch                        |
| • S950 | : | FM Auto/ Mono switch      | • S975              | : | VDP switch                         |
| • S951 | : | Band select switch        | • S976              | : | Delay time switch                  |
| • S952 | : | Tuning decrease switch    | • S980              | : | Speakers A switch                  |
| • S953 | : | Tuning increase switch    | • S981              | : | Speakers B switch                  |
| • S954 | : | Memory manual/auto switch | • S982              | : | Loudness switch                    |
| • S955 | : | Sleep switch              | • S983              | : | Dolby Pro Logic/SFC off on switch  |
| • S956 | : | Preset decrease switch    | • S984              | : | Dolby Pro Logic mode select switch |
| • S957 | : | Preset increase switch    | • S985              | : | Center mode select switch          |
| • S958 | : | Help switch               | • VR501-1 ~ VR501-4 | : | Volume control                     |
| • S960 | : | Tuner select switch       | • VR502             | : | Balance control                    |
| • S961 | : | CD select switch          | • VR511-1 ~ VR511-2 | : | Bass control                       |
| • S962 | : | Tape select switch        | • VR512-1 ~ VR512-2 | : | Treble control                     |
| • S963 | : | TV/VCR2 select switch     | • VR1150            | : | Sub-Woofer control                 |
| • S964 | : | VCR1 select switch        |                     |   |                                    |

### Signal line



• The voltage value and waveforms are the reference voltage of this unit measured by DC electronic voltmeter (high impedance) and oscilloscope on the basis of chassis.

Accordingly, there may arise some error in voltage values and waveforms depending upon the internal impedance of the tester or the measuring unit.

( ) ..... AM

< > ..... FM

### Importance safety notice:

Components identified by  mark have special characteristics important for safety. Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

### Caution !

- IC, LSI and VLSI are sensitive to static electricity.
- Secondary trouble can be prevented by taking care during repair.
- Cover the parts boxes made of plastics with aluminium foil.
- Ground the soldering iron.
- Do not touch the pins of IC, LSI or VLSI with fingers directly.
- Put a conductive mat on the work table.

**CAUTION : FOR CONTINUED PROTECTION AGAINST FIRE HAZARD, REPLACE ONLY WITH SAME TYPE F1, F3 & F4 8A 125V FUSE.**



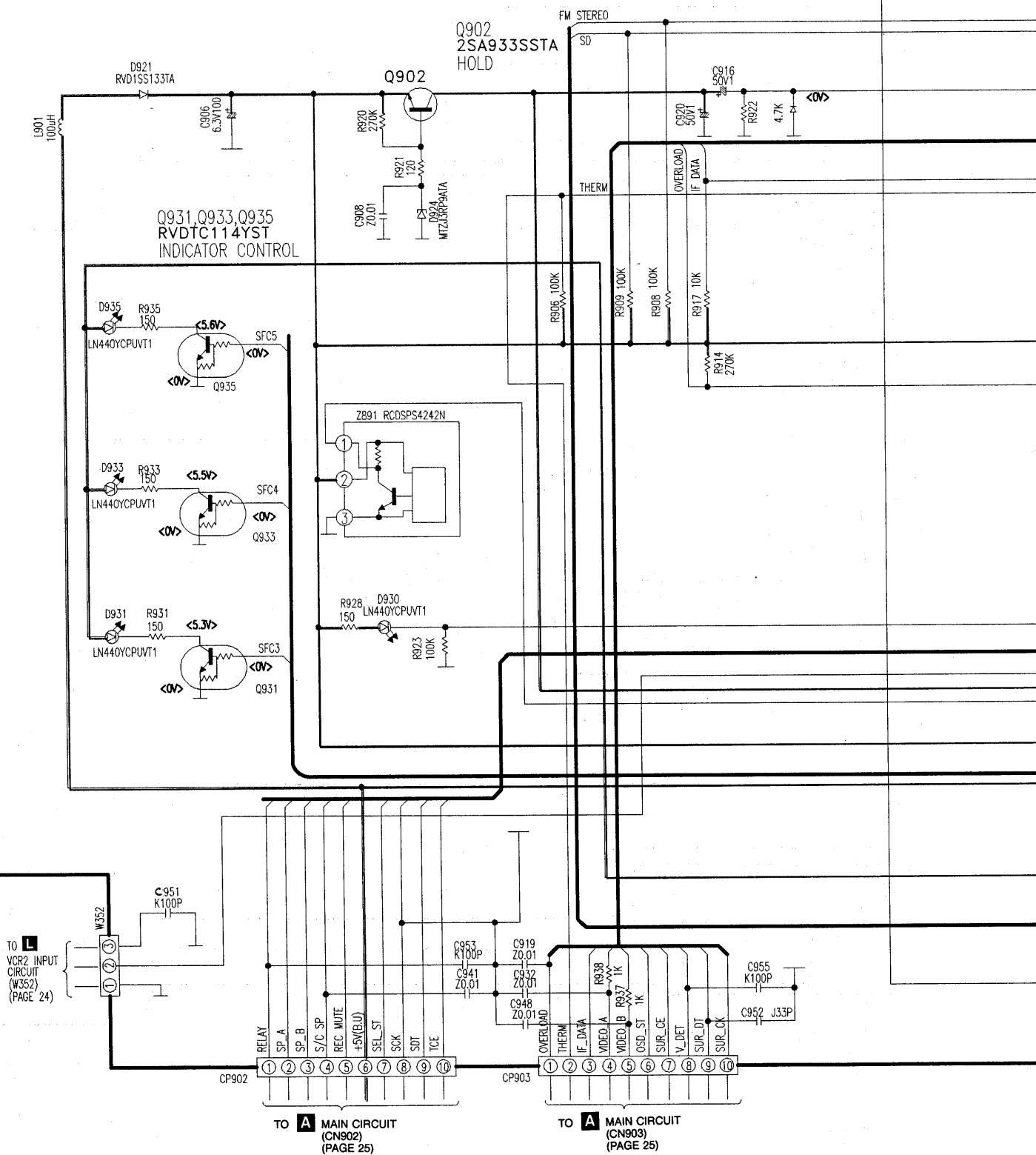
RISK OF FIRE-REPLACE FUSE AS MARKED.

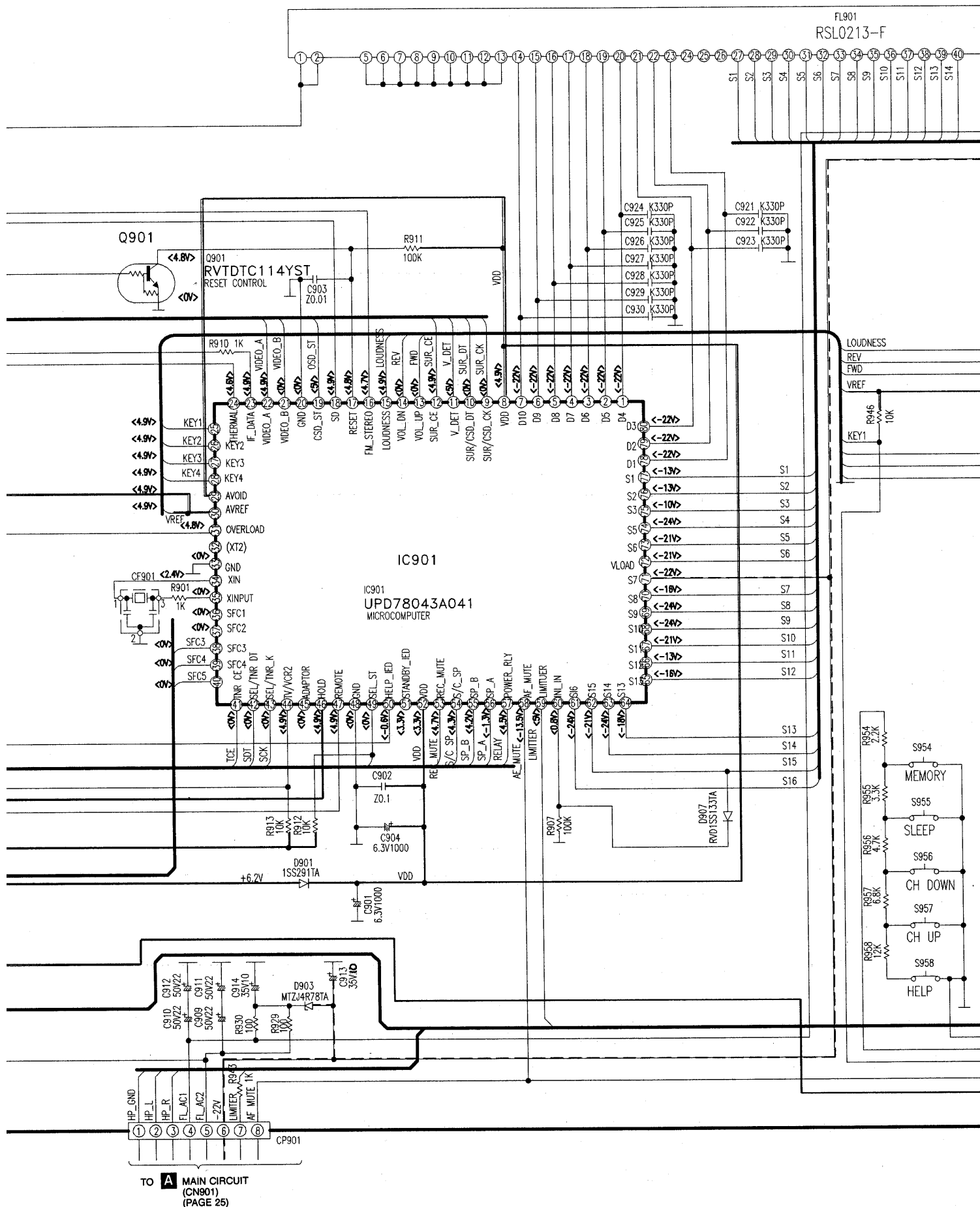
### FUSE CAUTION

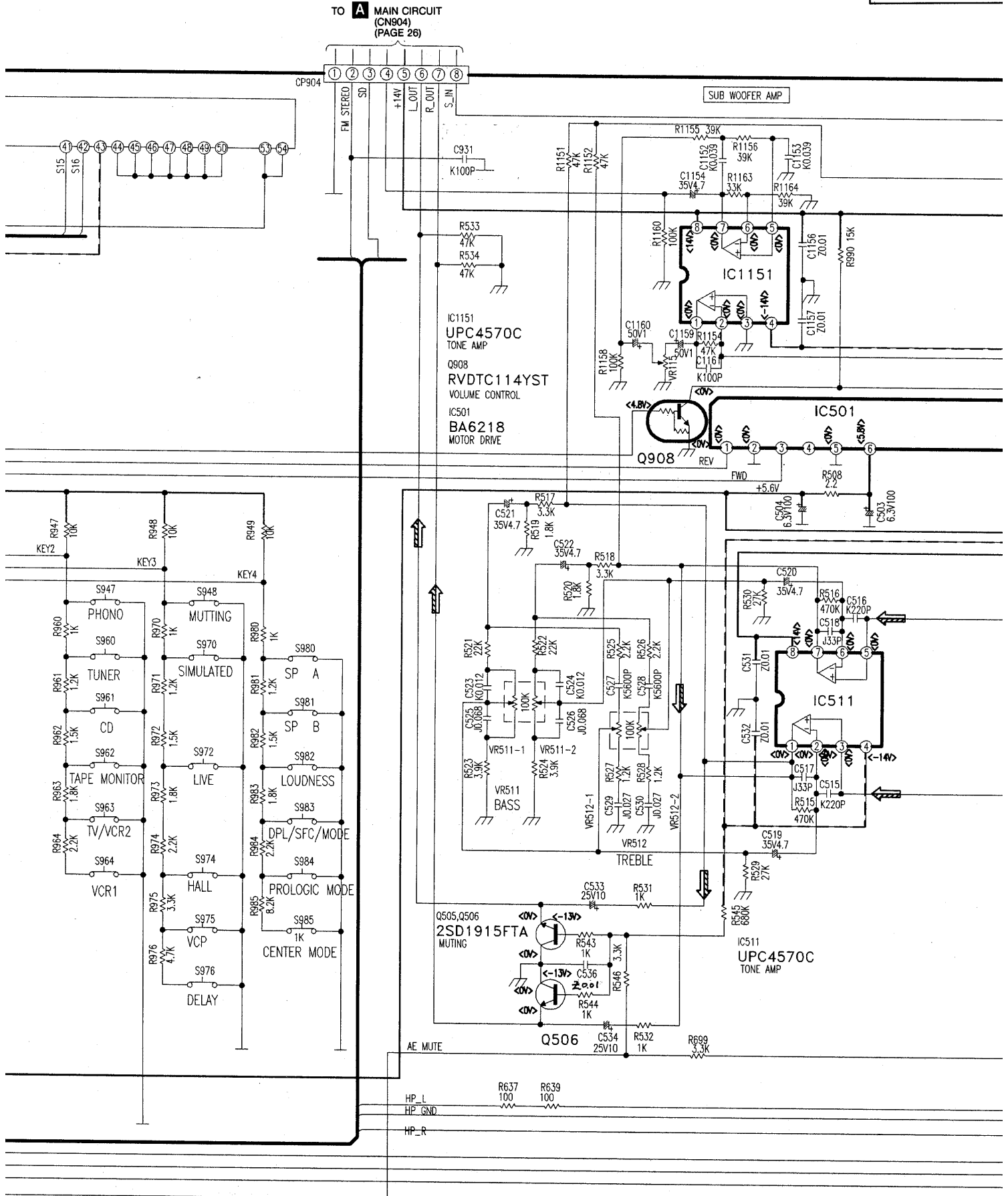
 These symbols located near the fuse indicates that the fuse used is a fast operating type. For continued protection against fire hazard, replace with the same type fuse. For fuse rating, refer to the marking adjacent to the symbol.

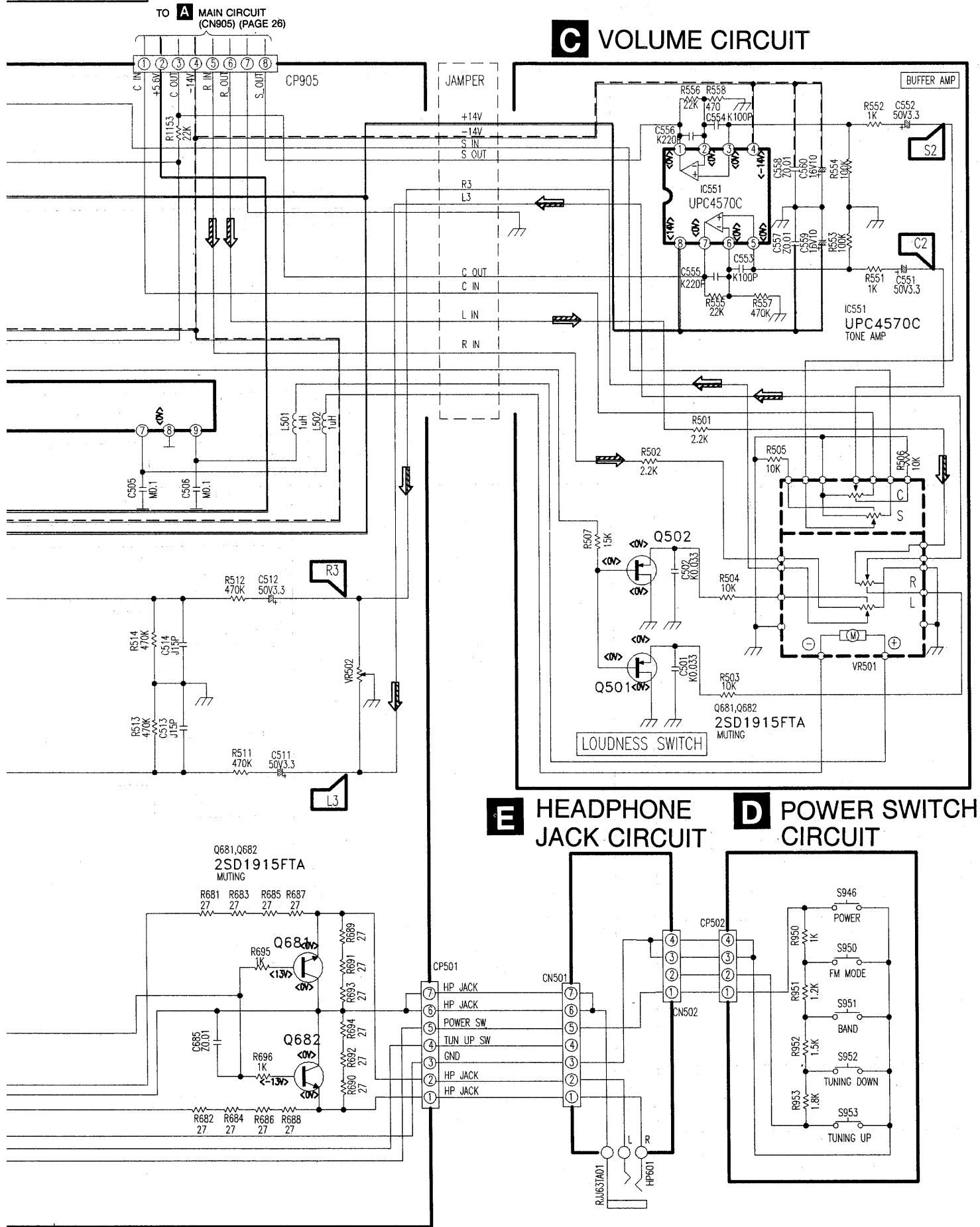
 Ce symbole indique que le fusible utilisé est à rapide. Pour une protection permanente, n'utiliser que des fusibles de même type. Ce dernier est indiqué là où le présent symbole est apposé.

## B PANEL CIRCUIT

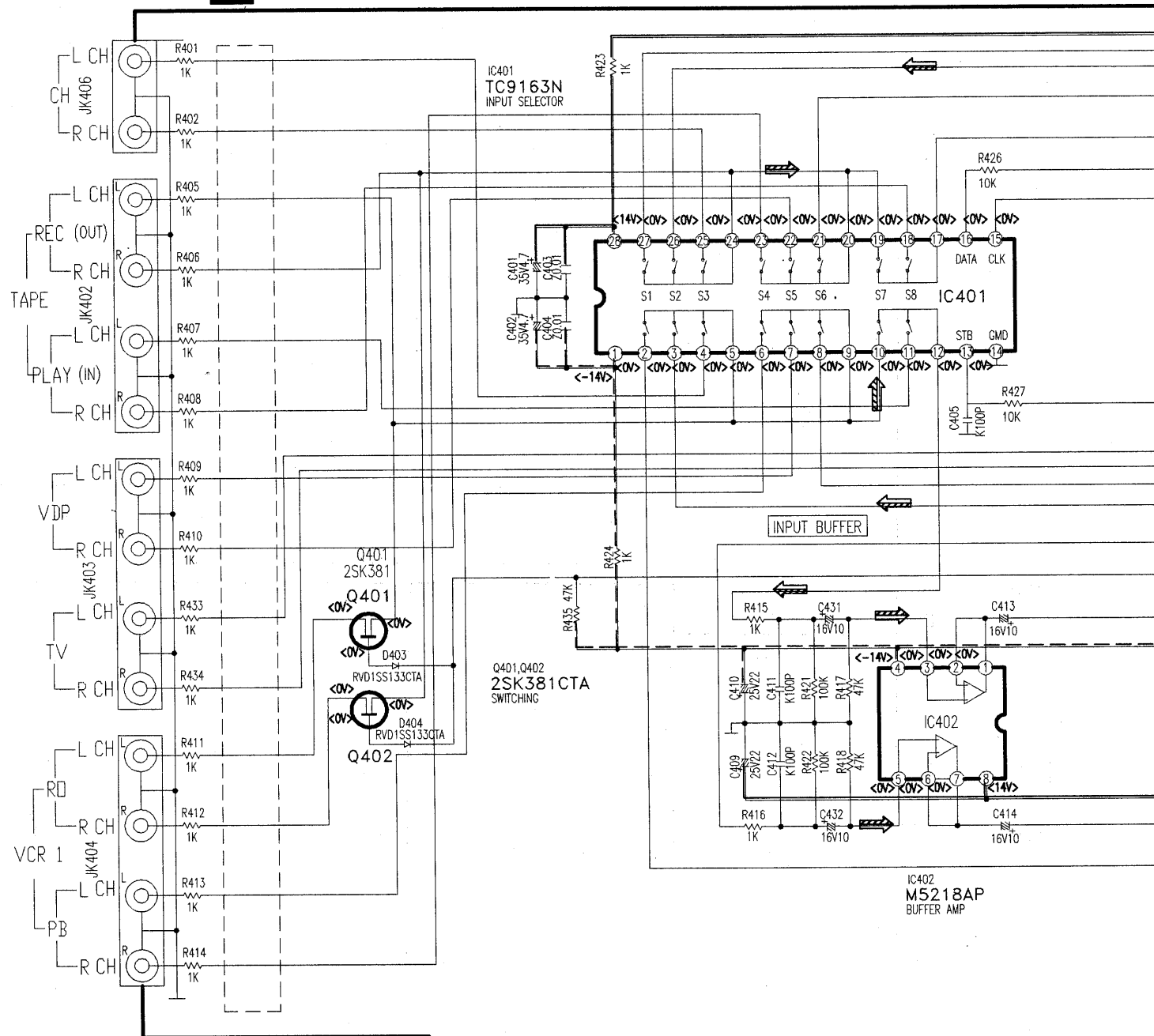








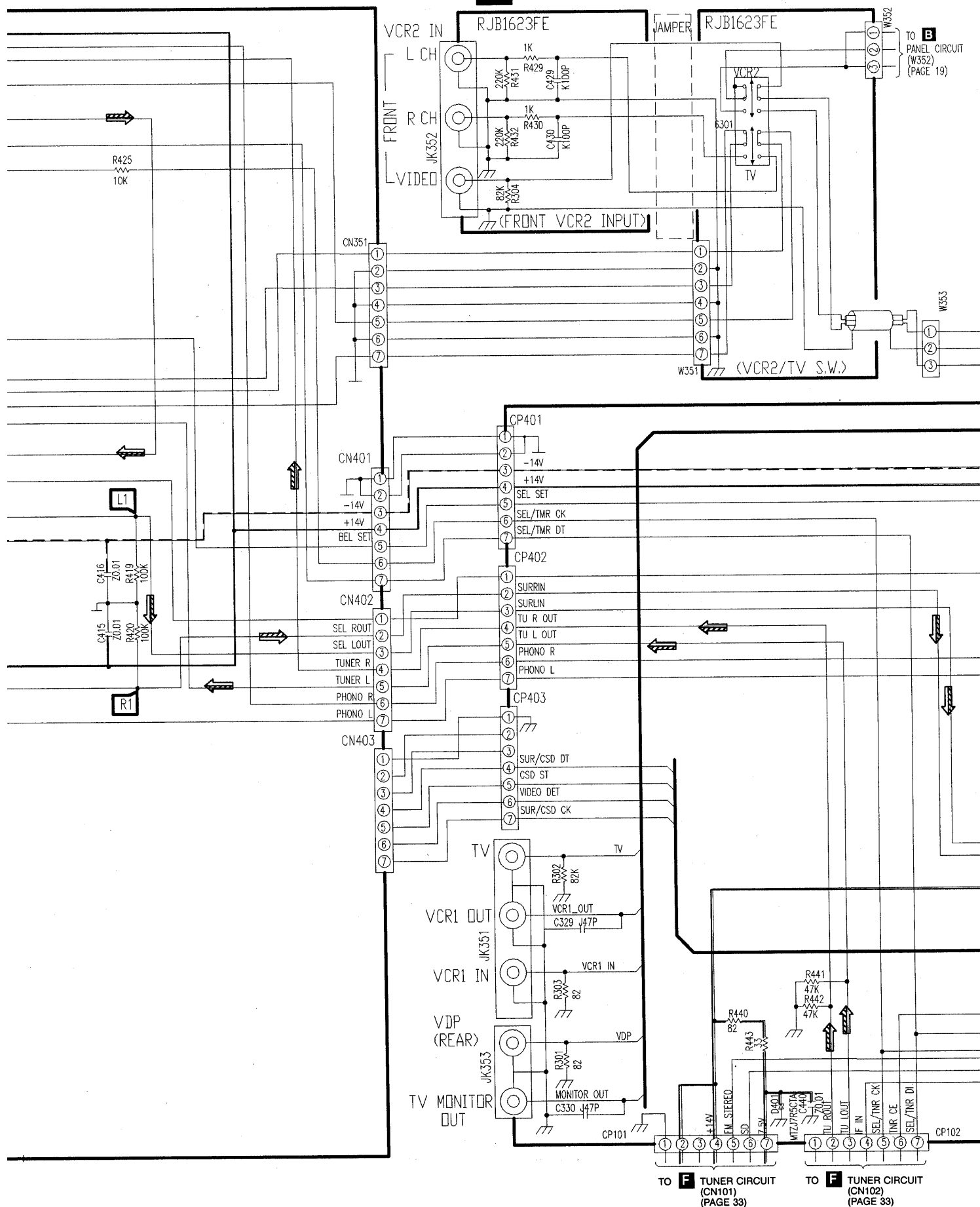
# IN/OUT TERMINAL CIRCUIT



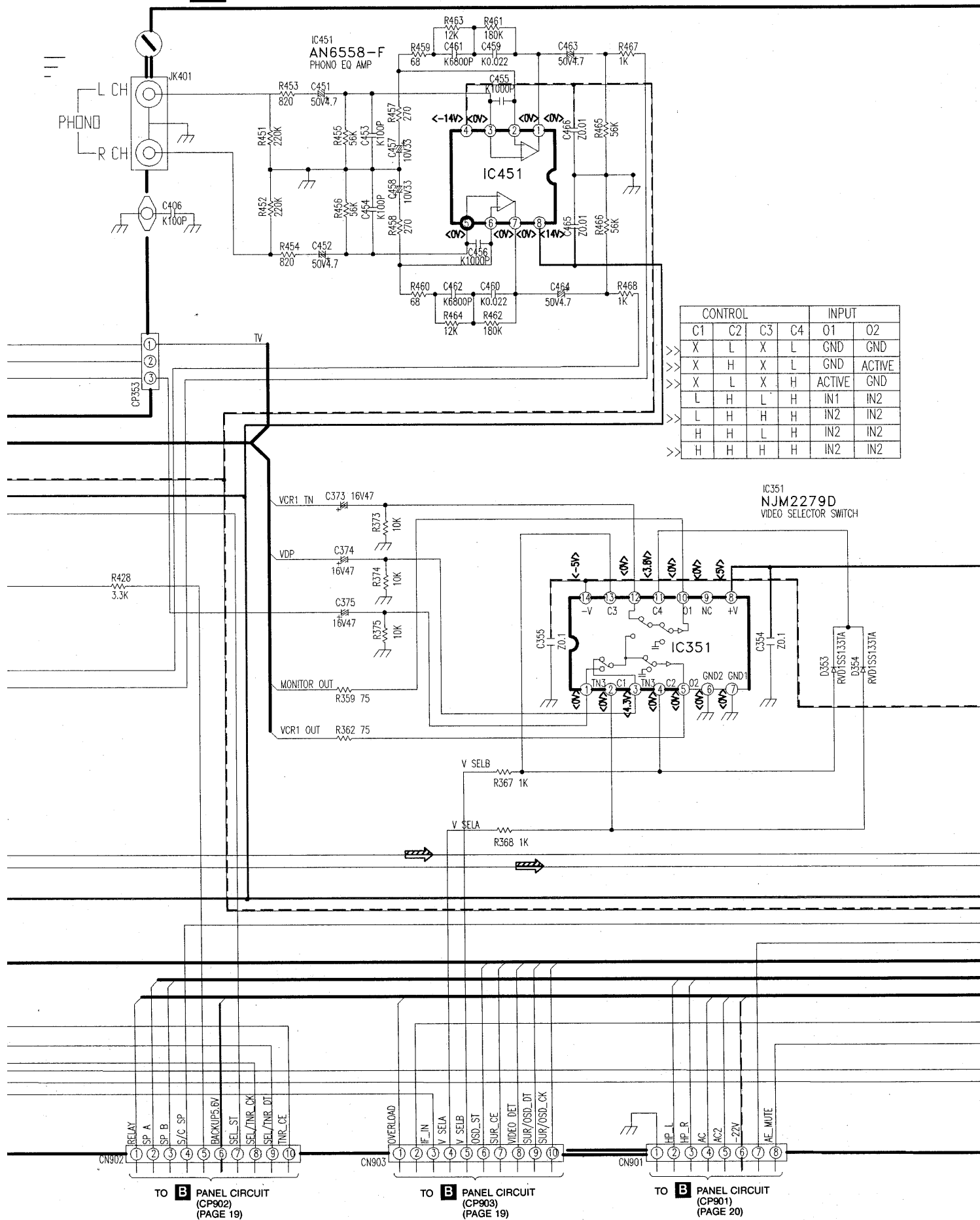
| INPUT SELECTOR | NJU7312AL SV |    |    |    |    |    |    |    |
|----------------|--------------|----|----|----|----|----|----|----|
|                | S1           | S2 | S3 | S4 | S5 | S6 | S7 | S8 |
| PHONO          | ON           |    |    |    | ON |    | ON |    |
| TUNER          |              | ON |    |    | ON |    | ON |    |
| C D            |              |    | ON |    | ON |    | ON |    |
| VCR2           |              |    |    |    | ON |    | ON |    |
| VCR1           |              |    |    | ON |    |    | ON |    |
| TAPE MONITOR   | •            | •  | •  | •  | •  | •  | •  | ON |

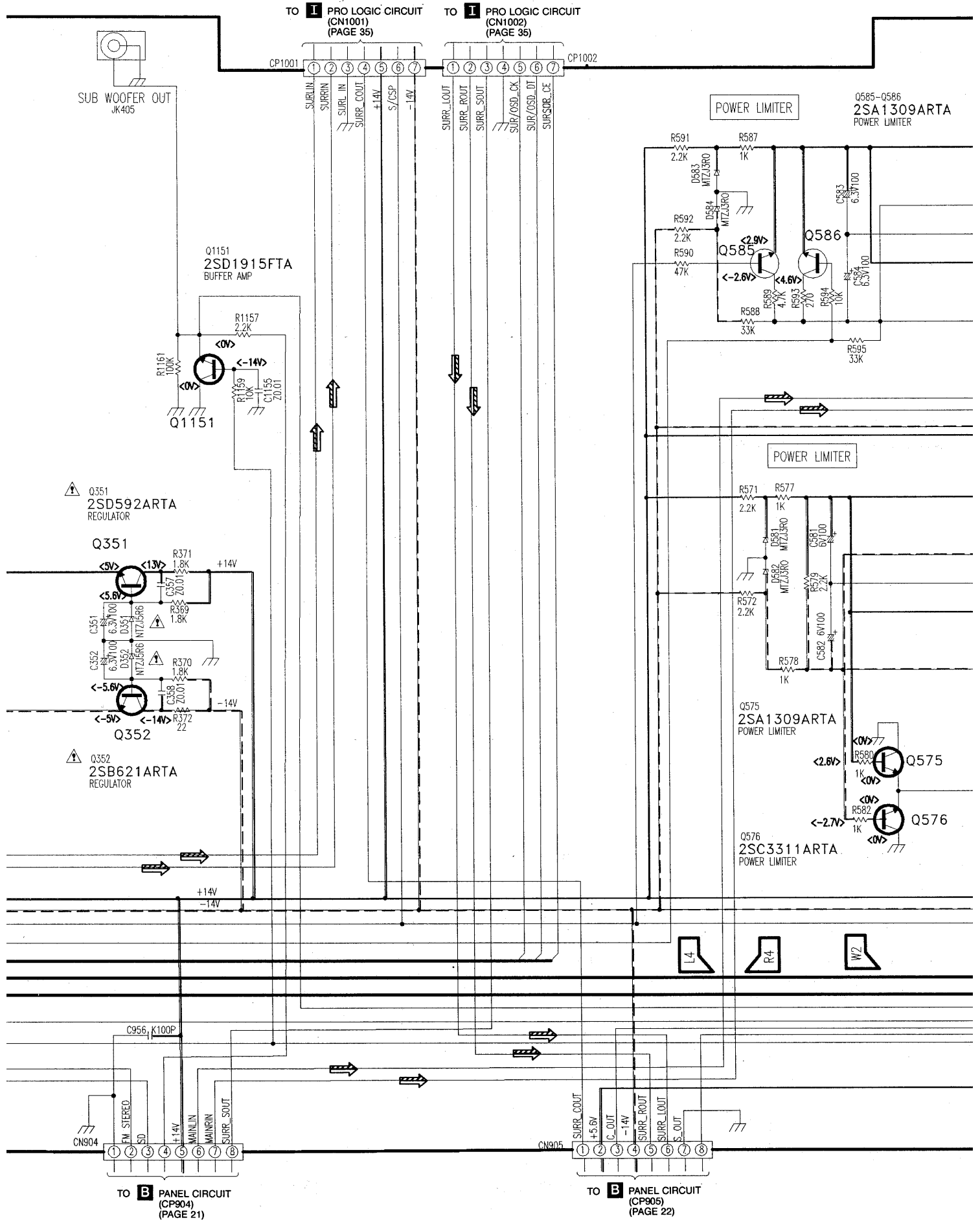
BLANK - OFF  
• - NOT CHANGE

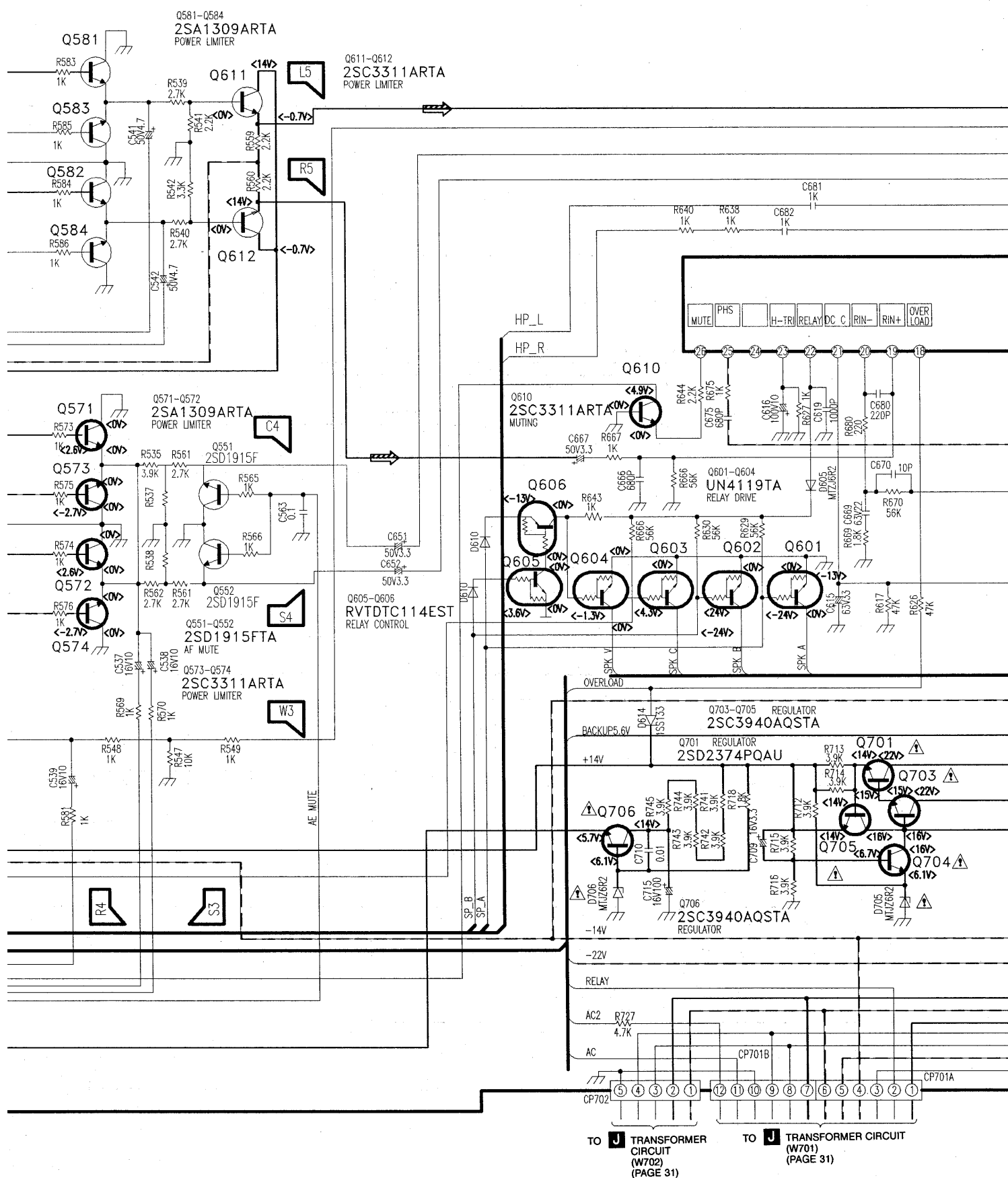
## L VCR2 INPUT CIRCUIT

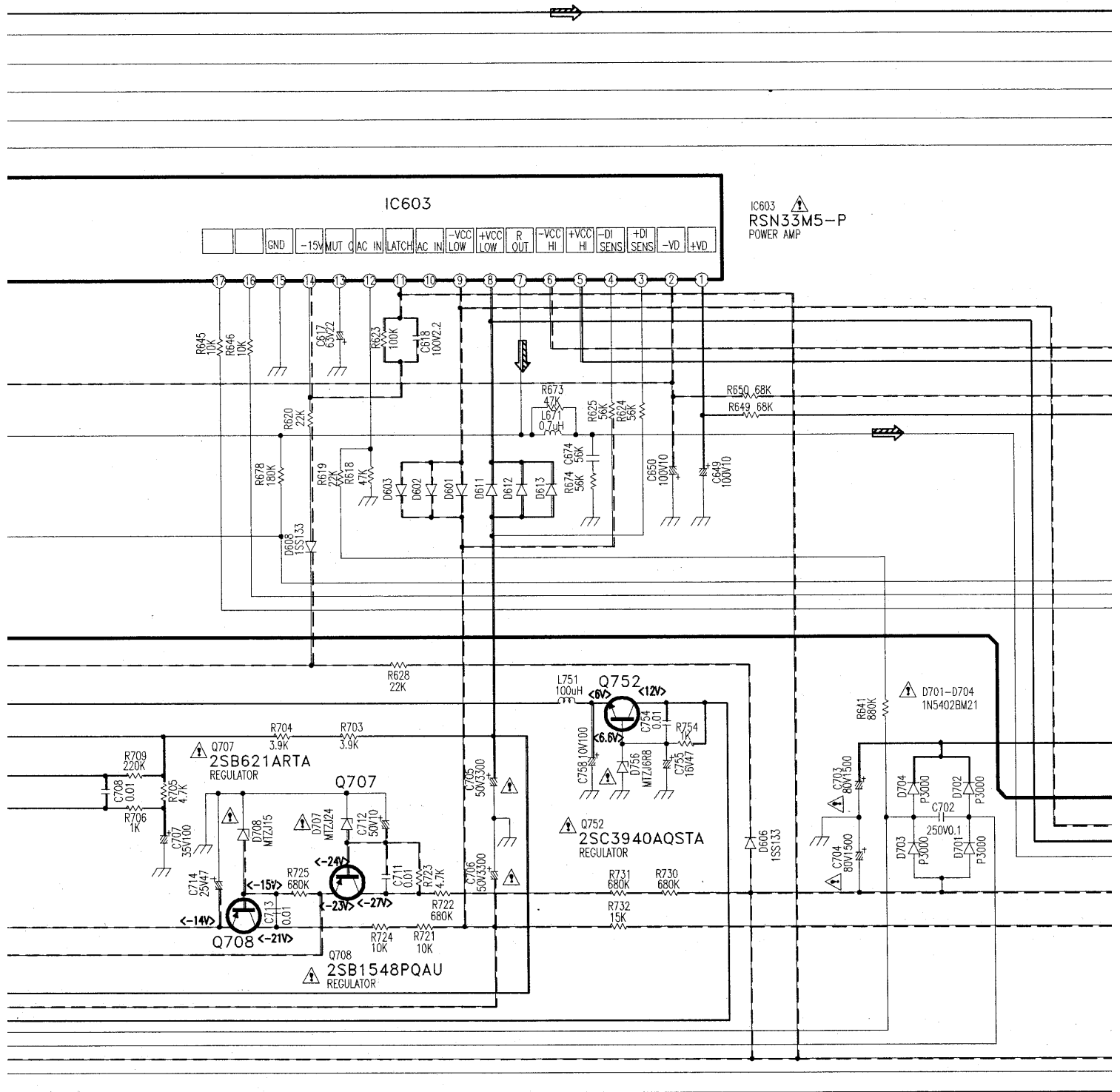


# A MAIN CIRCUIT

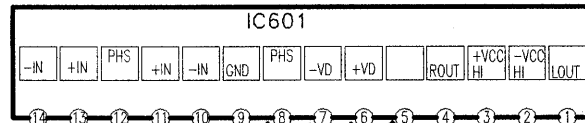




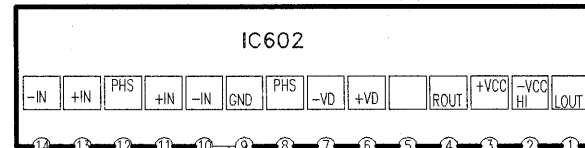
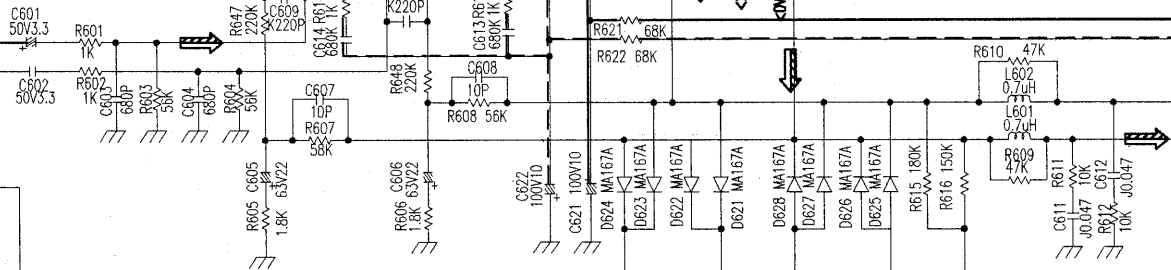




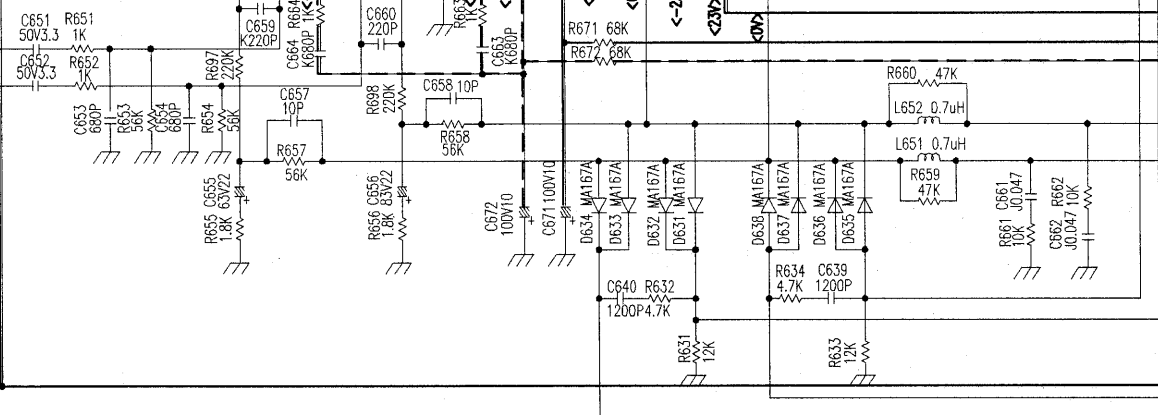
POWER AMP

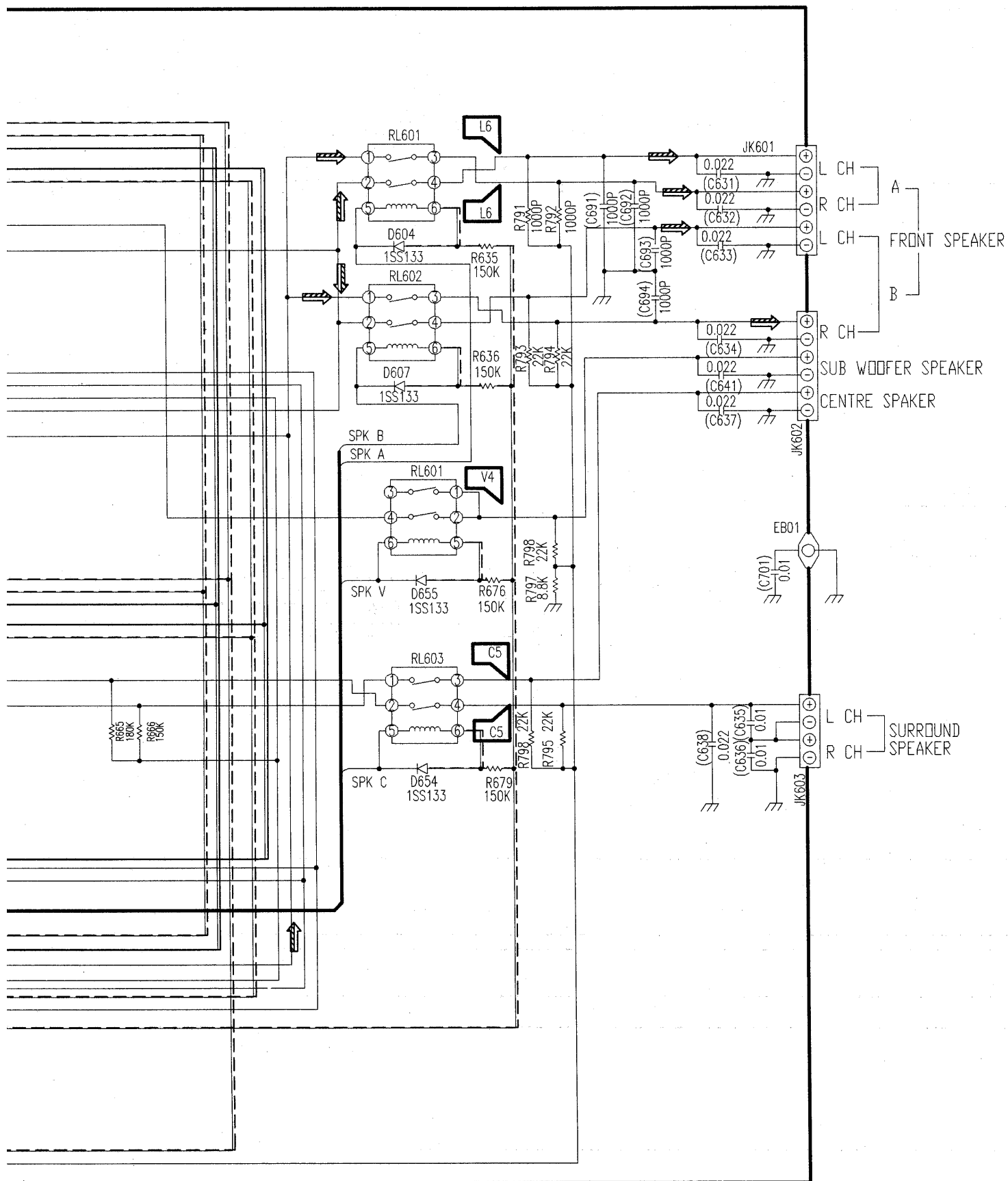


IC601  
RSN36S5-P  
POWER AMP



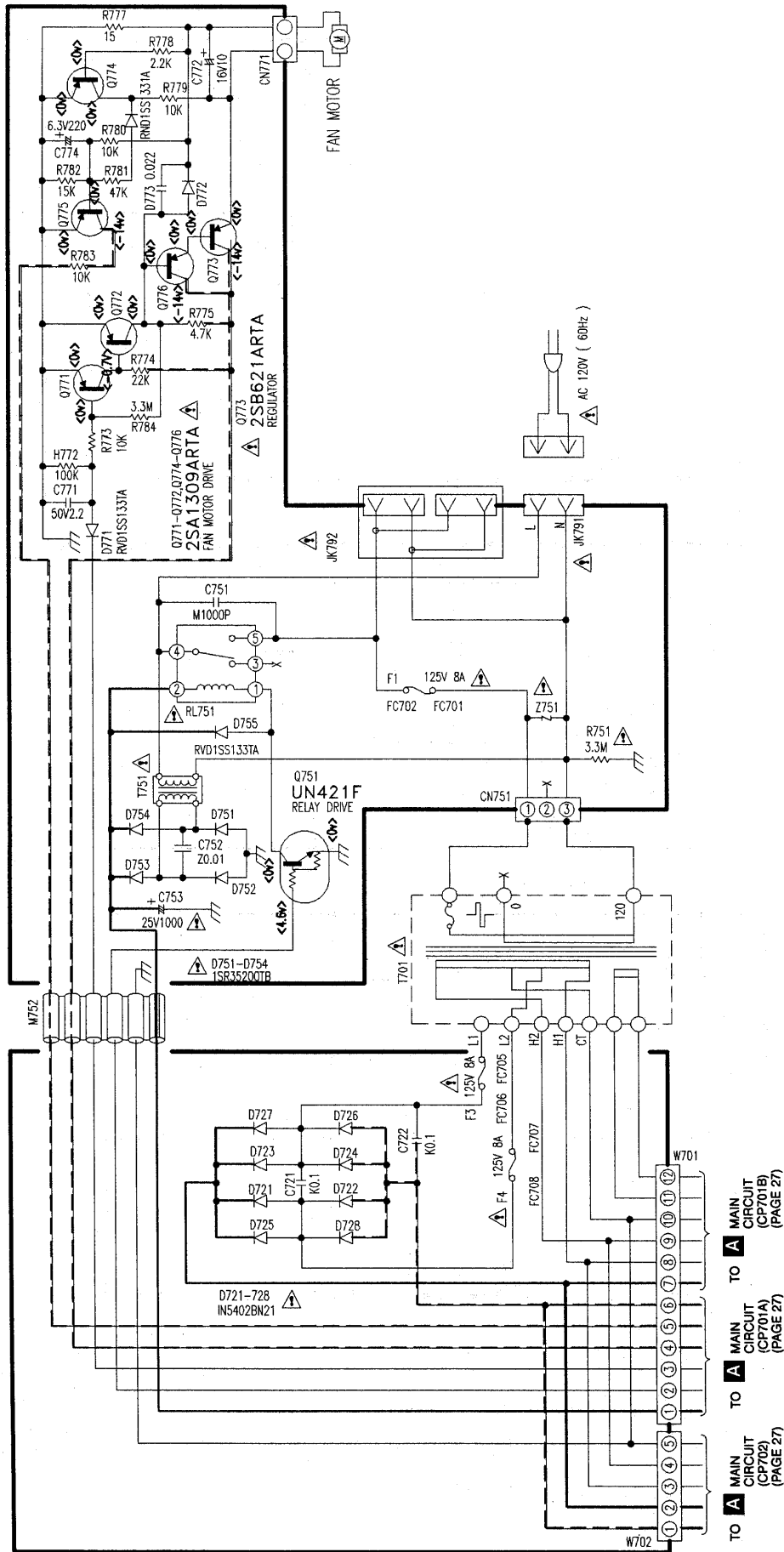
IC602  
RSN36S5-P  
POWER AMP



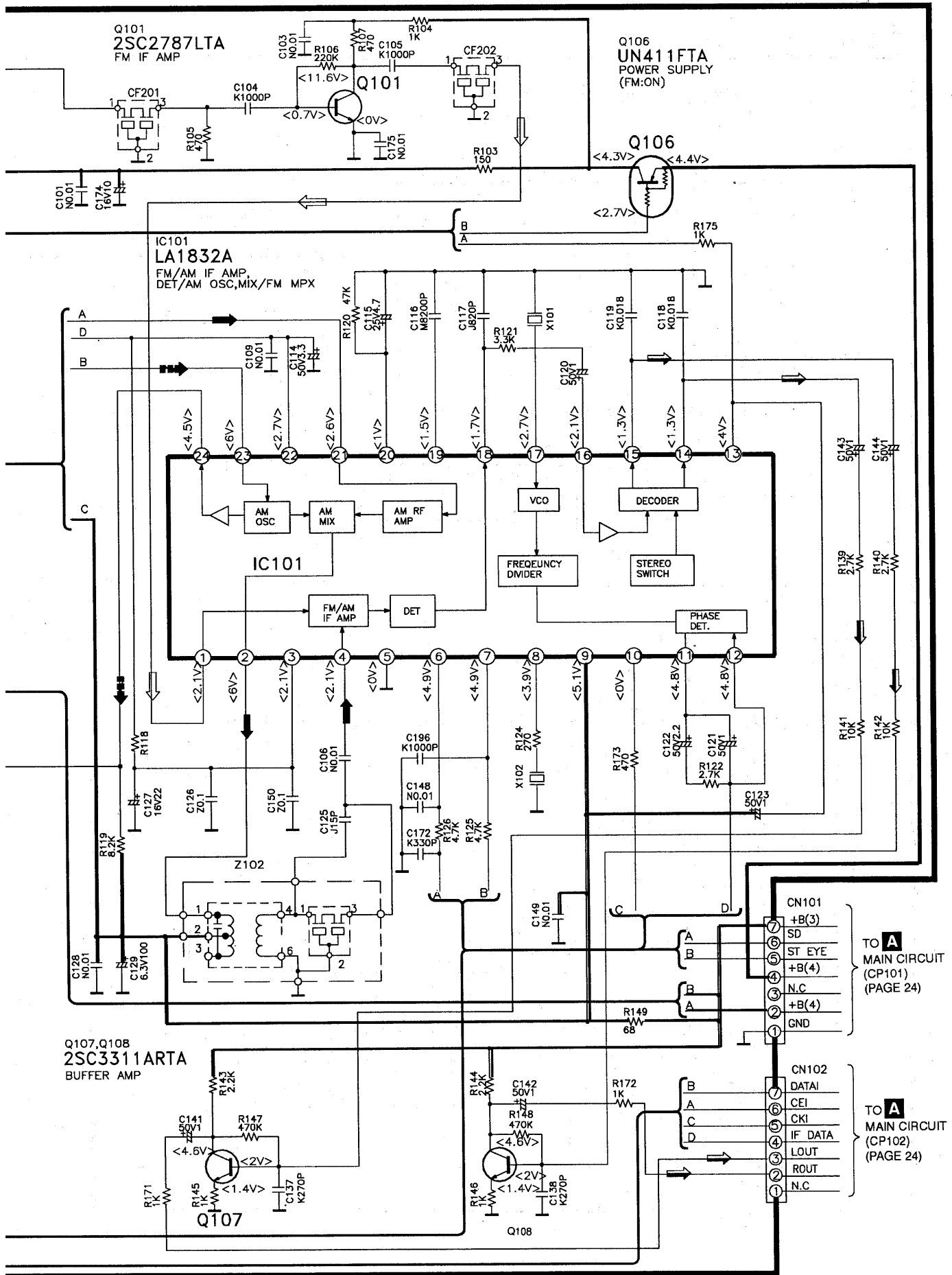


**K** POWER CIRCUIT

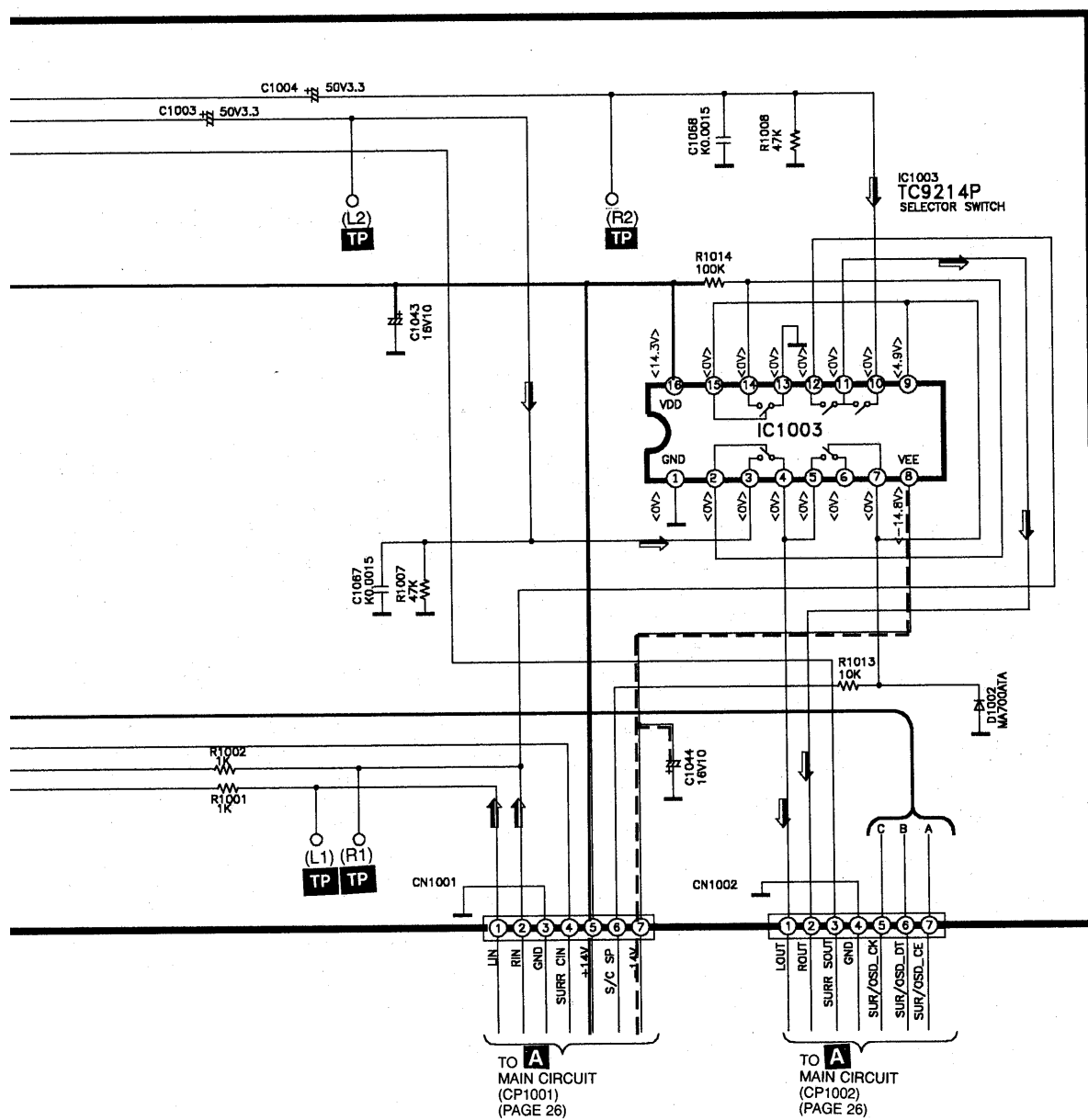
**J** TRANSFORMER CIRCUIT







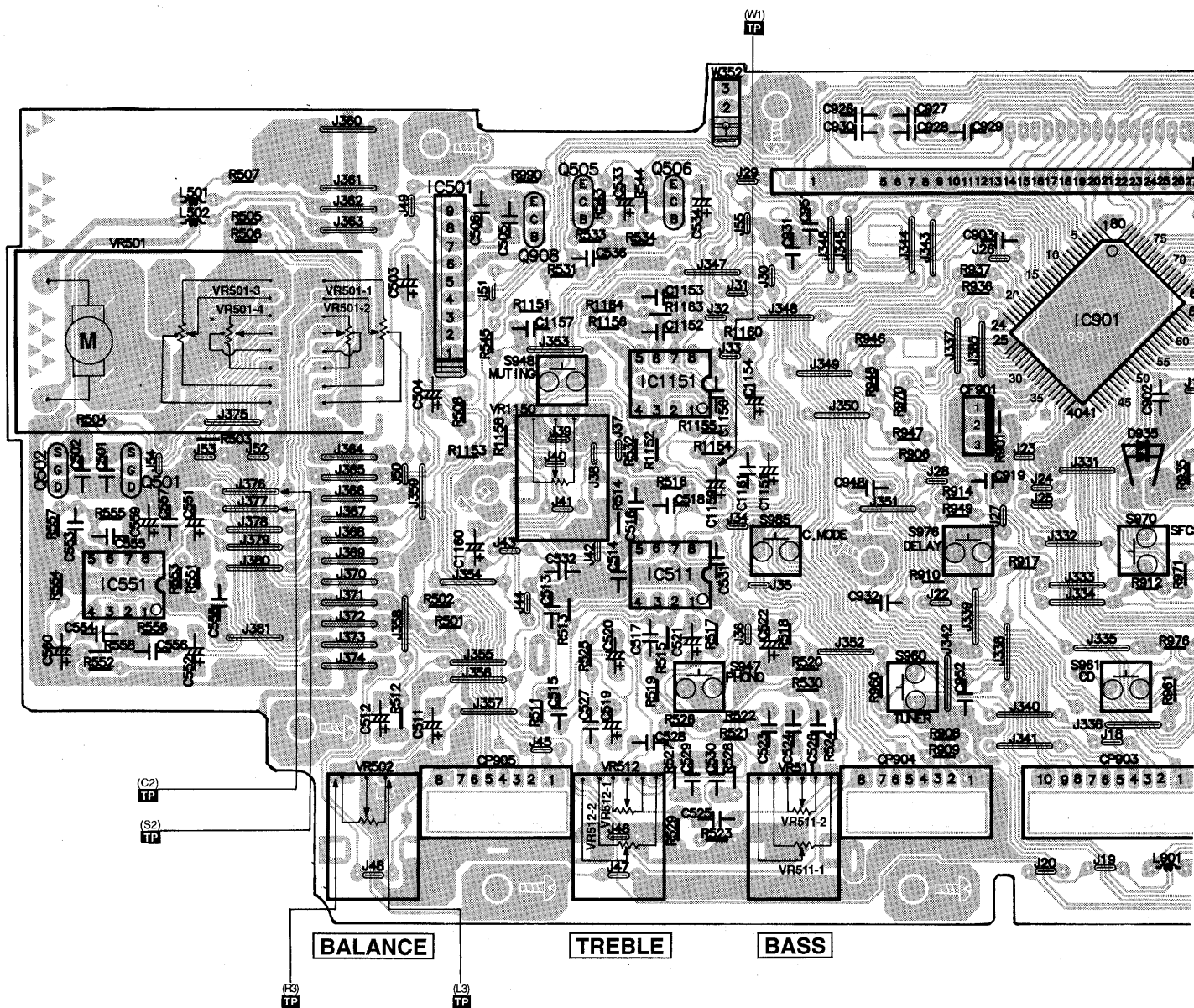




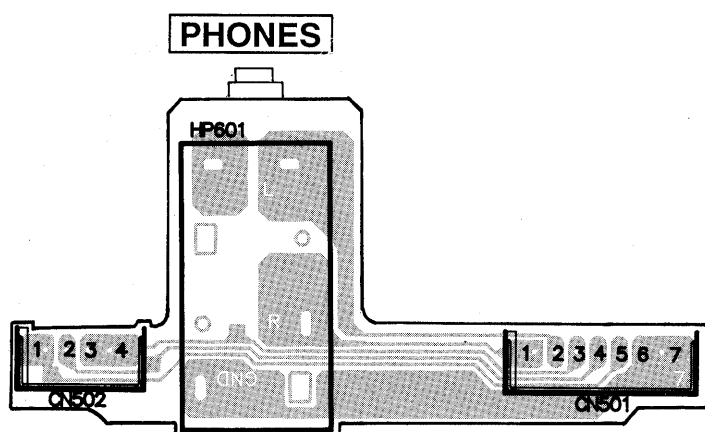
## ■ Printed Circuit Board

**C VOLUME P.C.B. (REP 2325A-S)**

**B** PANEL P.C.B. (REP2325A-S)

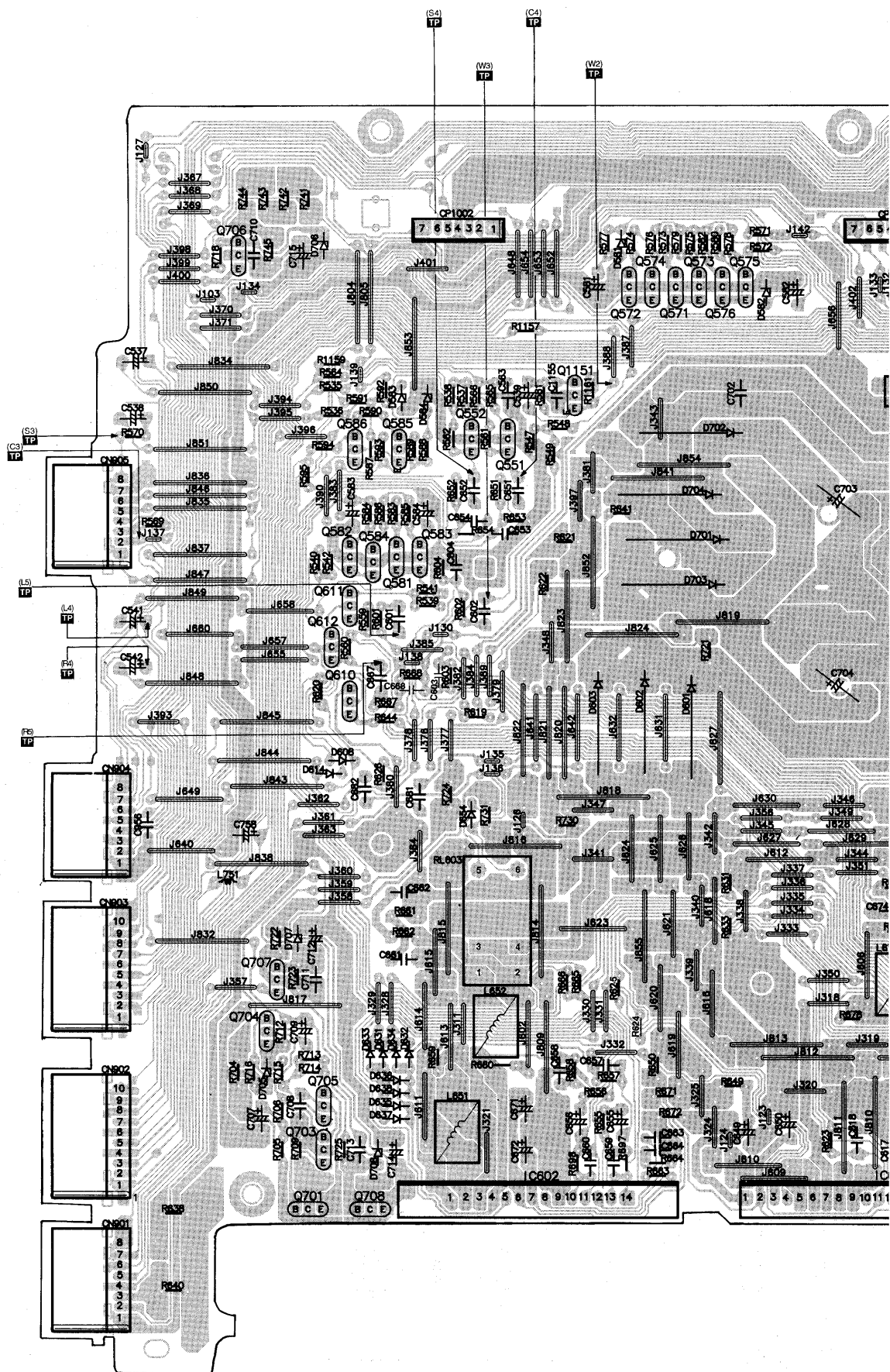


## **E HEADPHONE JACK P.C.B. (REP 2325A-S)**



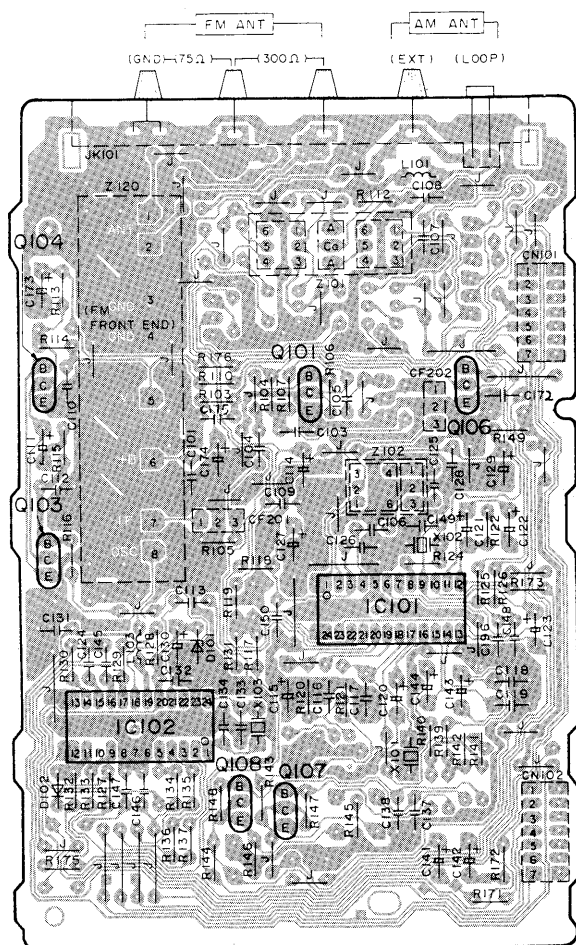
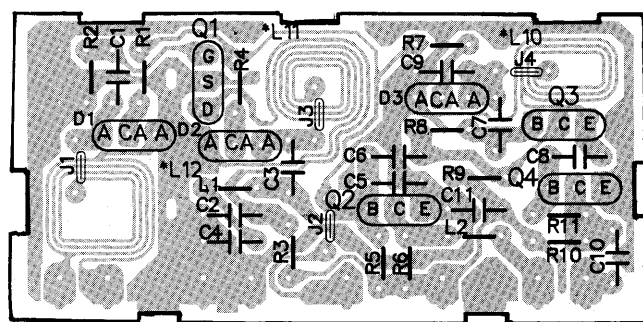


## **A** MAIN P.C.B. (REP 2322A-M)

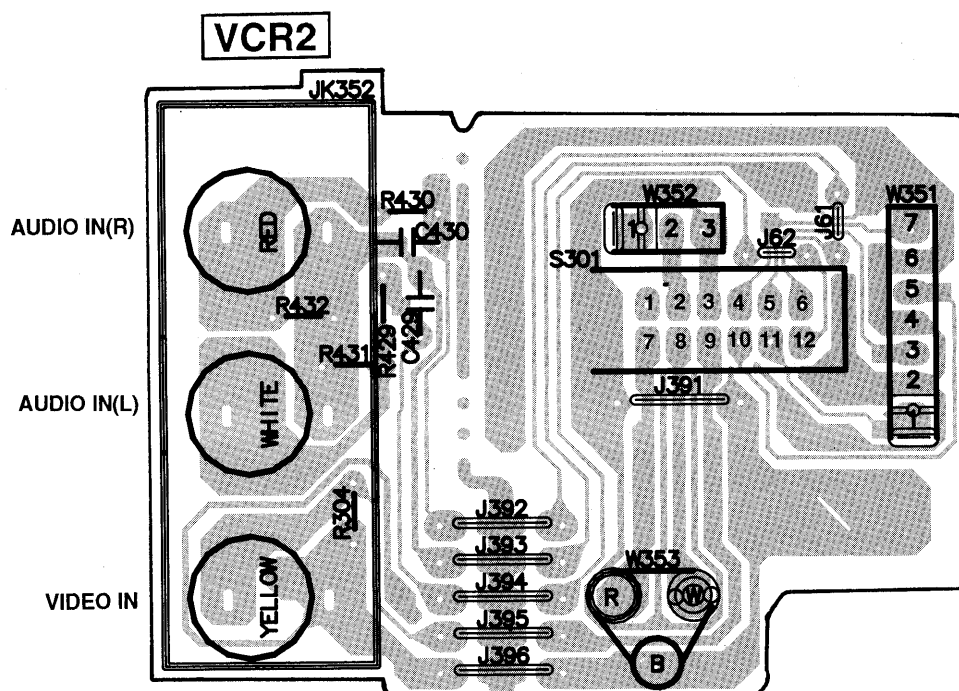




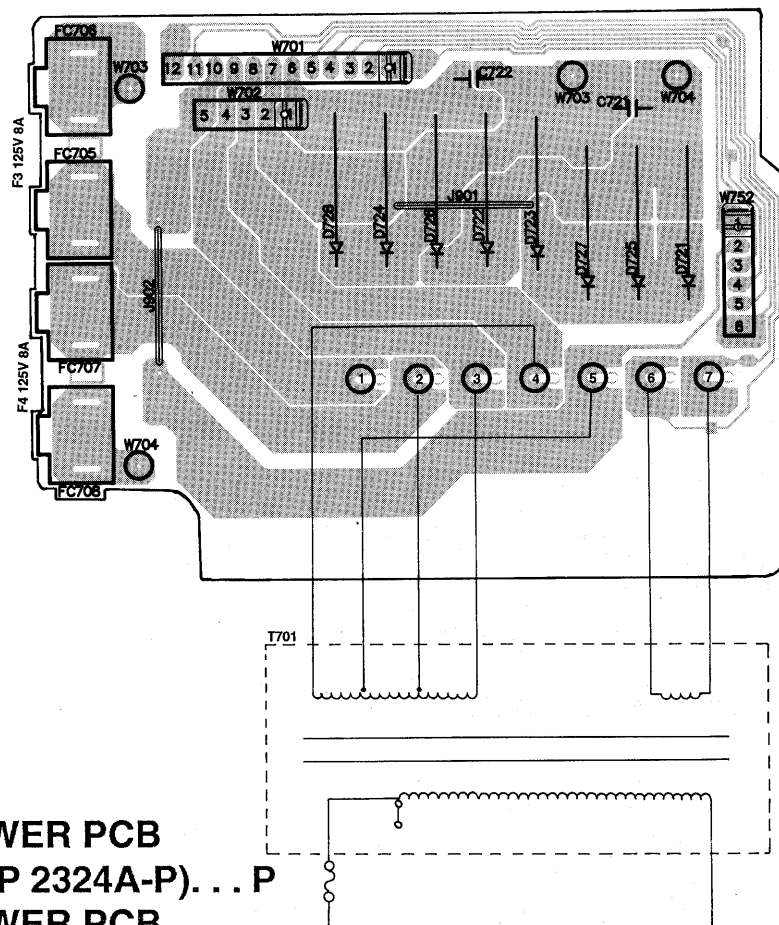
## F TUNER P.C.B. (REP 2254A-T)

**G TUNER PACK P.C.B. (REP 1999B)**

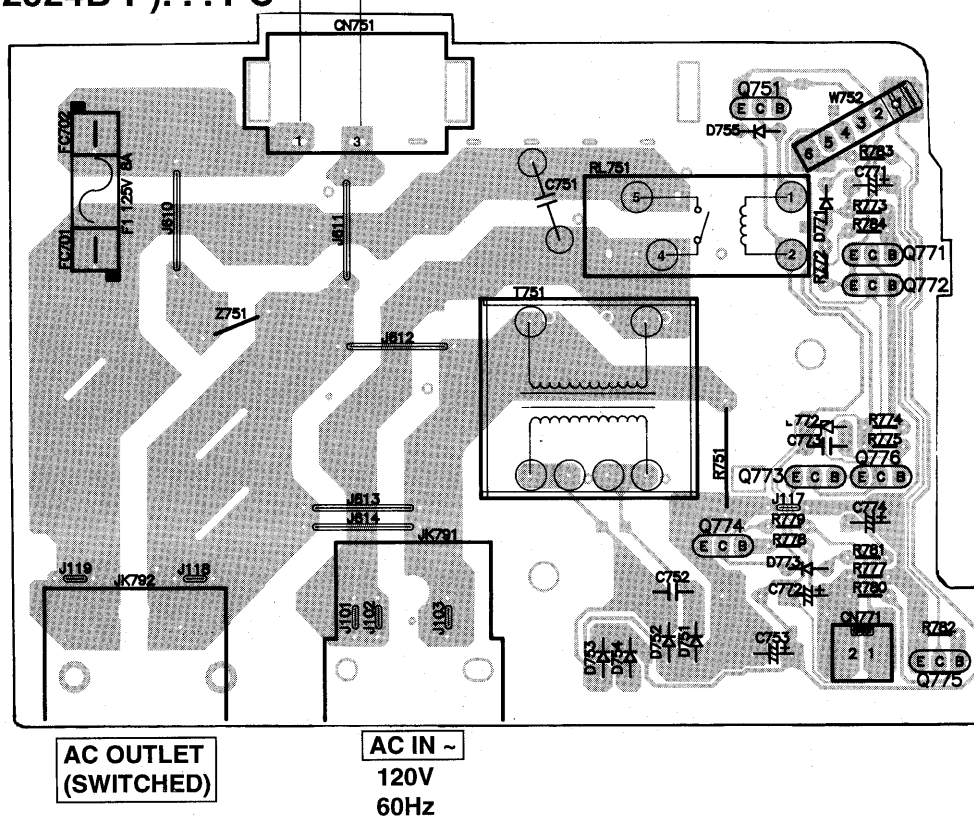
## L VCR2 INPUT P.C.B. (REP 2325A-S)



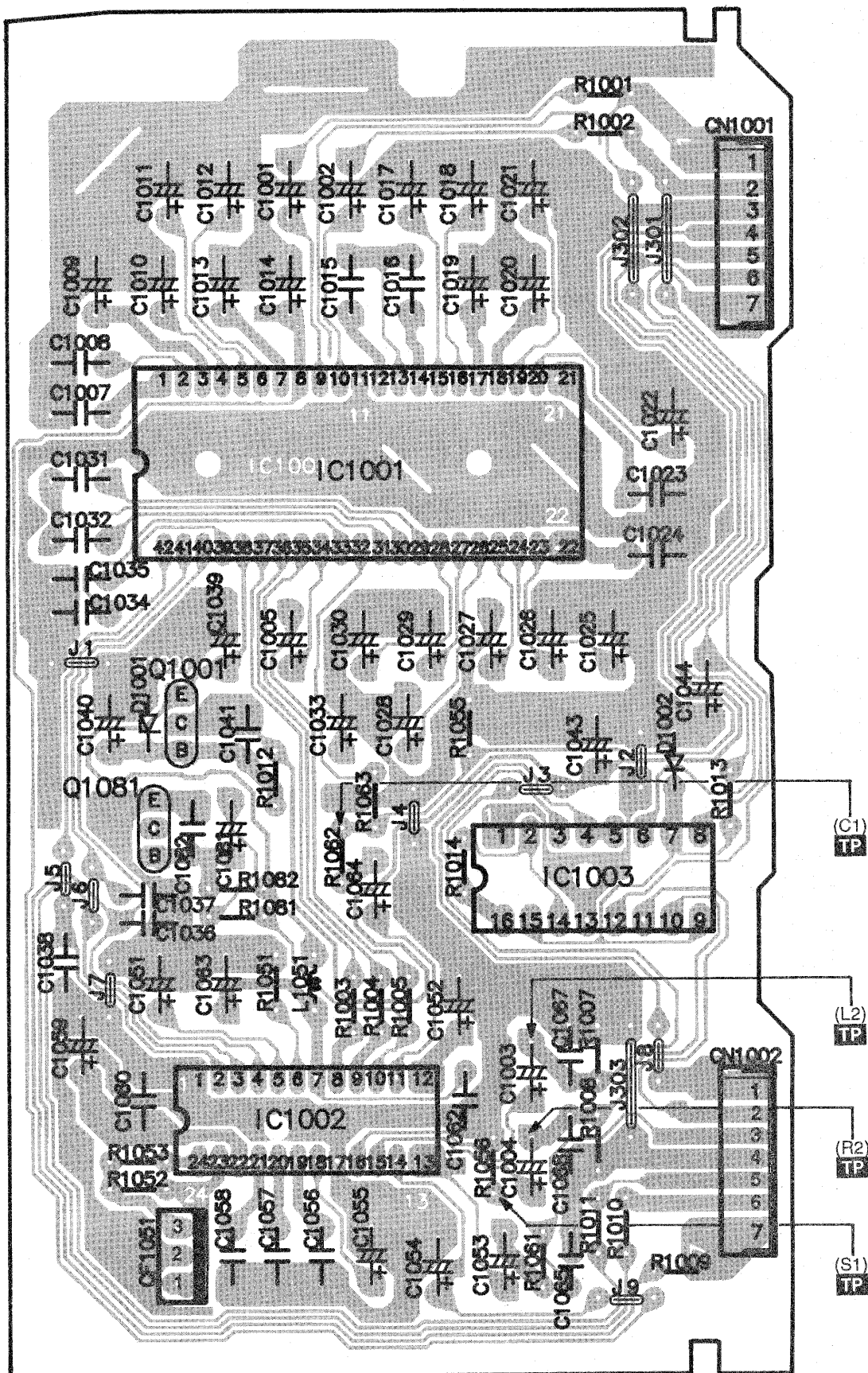
**J** TRANSFORMER PCB (REP 2324A-P)... P  
TRANSFORMER PCB (REP 2324B-P)... PC



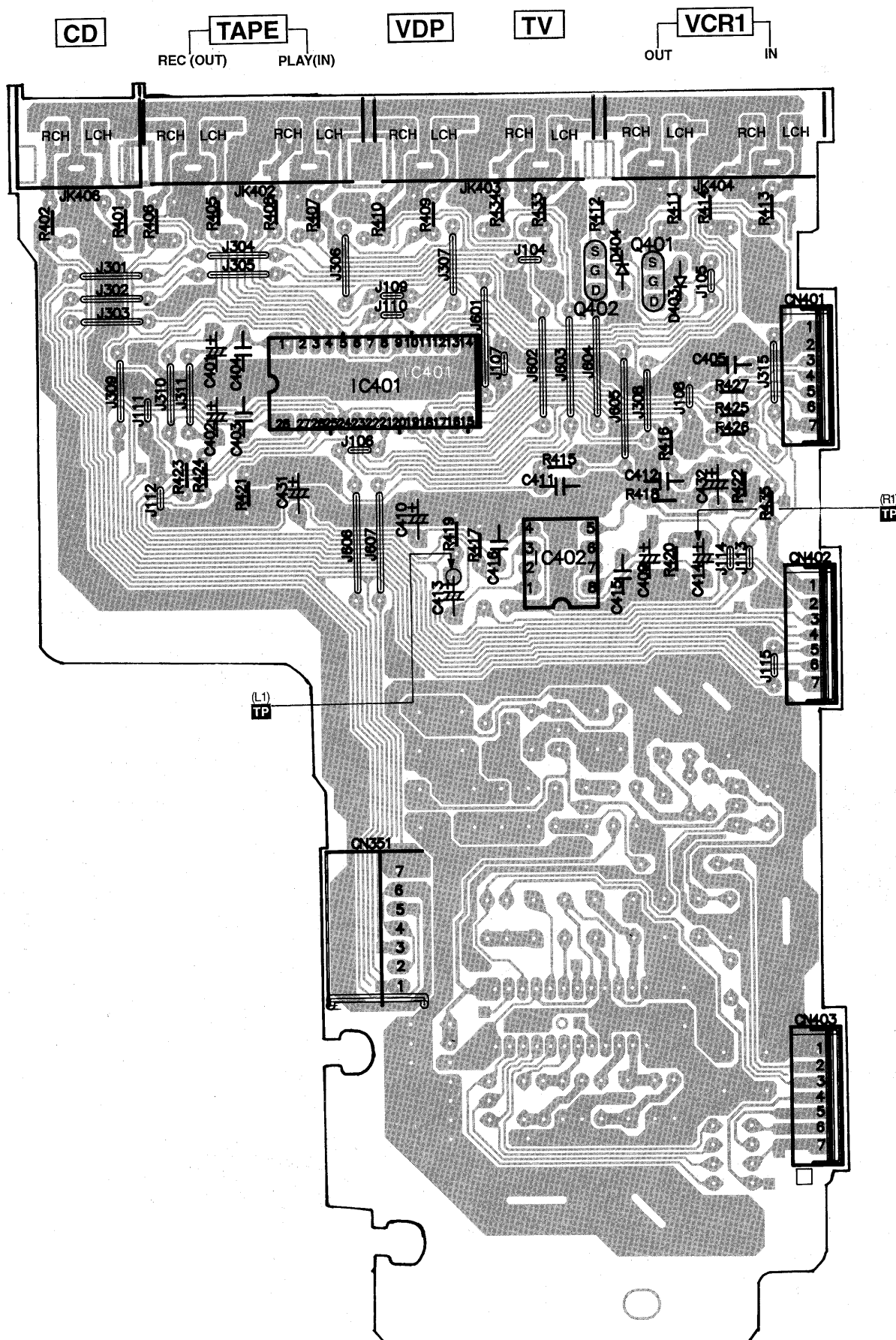
**K** POWER PCB  
(REP 2324A-P)... P  
POWER PCB  
(REP 2324B-P)... PC



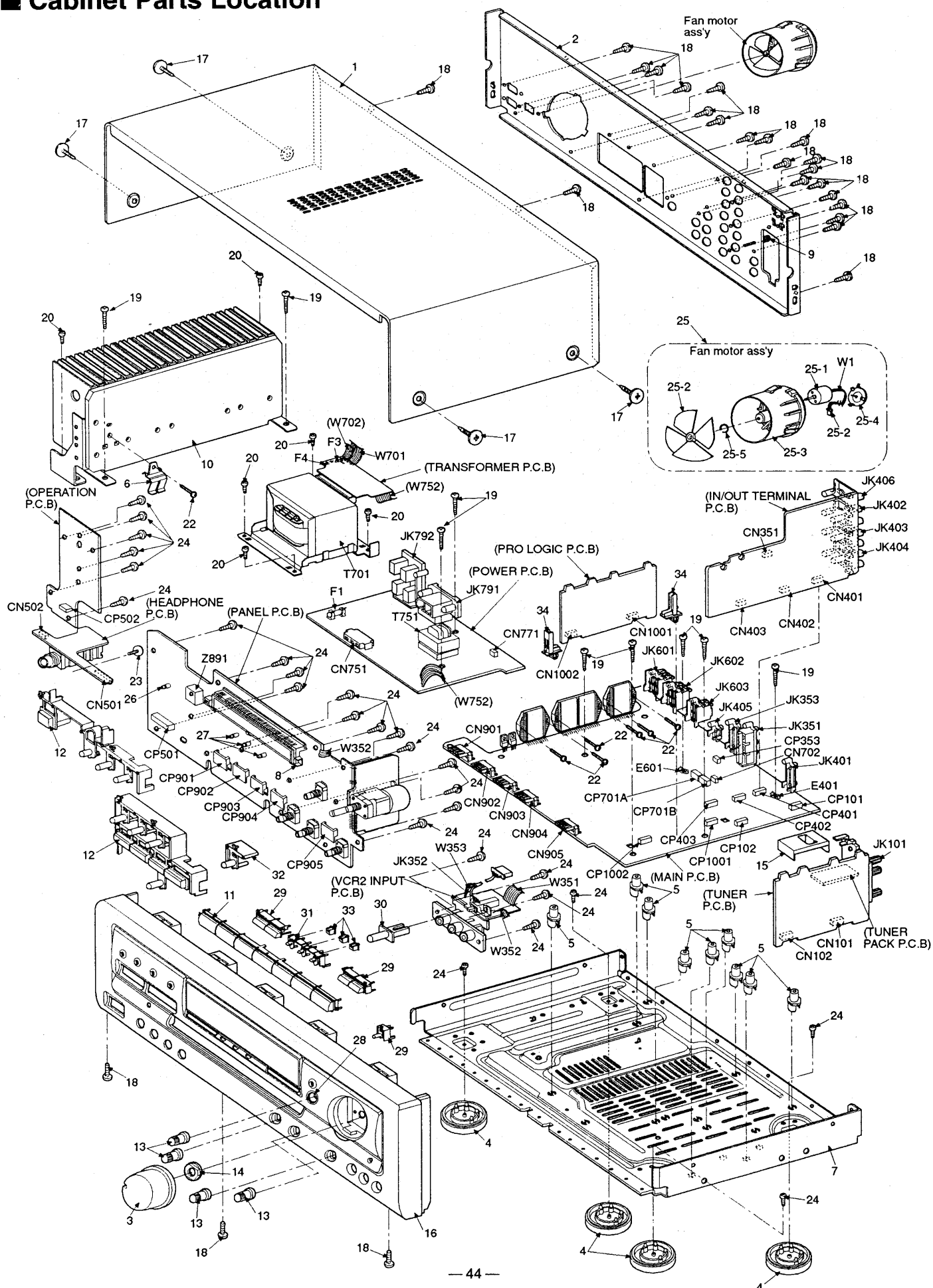
## I PRO LOGIC P.C.B. (REP 2241A-T)



**H IN/OUT TERMINAL PCB (REP 2324A-P)... P**  
**IN/OUT TERMINAL PCB (REP 2324B-P)... PC**



## ■ Cabinet Parts Location



## ■ Replacement Parts List

### Notes: \* Important safety notice :

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\* The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indication can be used for all areas.

\* [M] in Remarks column indicates parts that are supplied by MESA.

\* [MAV] in Remarks column indicates parts that are supplied by MAV.

\* Remote Control Unit : Supply period for three years from terminal of production.

\* The "(SF)" mark denotes the standard part.

| Ref No | Part No.    | Part Name & Description | Remarks   | Ref No | Part No.     | Part Name & Description | Remarks                                                                                    | Ref No | Part No.     | Part Name & Description | Remarks                                                                               |
|--------|-------------|-------------------------|-----------|--------|--------------|-------------------------|--------------------------------------------------------------------------------------------|--------|--------------|-------------------------|---------------------------------------------------------------------------------------|
|        |             | CABINET AND CHASSIS     |           | 32     | RGU1398-Q    | HELP BUTTON             | [MAV]                                                                                      | Q402   | 2SK381CTA    | TRANSISTOR              |                                                                                       |
|        |             |                         |           | 33     | RMV0113      | LED COVER               | [MAV]                                                                                      | Q501   | 2SJ40CDTA    | TRANSISTOR              |                                                                                       |
|        |             |                         |           | 34     | RMN0203      | PCB SUPPORT             |                                                                                            | Q502   | 2SJ40CDTA    | TRANSISTOR              |                                                                                       |
| 1      | RKM0325A-K  | CABINET                 | [MAV]     |        |              | INTEGRATED CIRCUITS     |                                                                                            | Q505   | 2SD1915FTA   | TRANSISTOR              |                                                                                       |
| 2      | RGR0239A-C  | BACK PANEL              | [MAV](P)  |        |              |                         |                                                                                            | Q506   | 2SD1915FTA   | TRANSISTOR              |                                                                                       |
| 2      | RGR0239A-D  | BACK PANEL              | [MAV](PC) |        |              |                         |                                                                                            | Q551   | 2SD1915FTA   | TRANSISTOR              |                                                                                       |
| 3      | RGW0243A-K  | VOLUME KNOB             | [MAV]     | IC101  | LA1832A      | IC,IF/MPX               |                                                                                            | Q552   | 2SD1915FTA   | TRANSISTOR              |                                                                                       |
| 4      | RKA0079-A   | FOOT                    | [MAV]     | IC102  | LC7218       | IC,PLL                  |                                                                                            | Q571   | 2SA1309ARTA  | TRANSISTOR              |                                                                                       |
| 5      | RKQ0089     | PCB HOLDER              |           | IC351  | NJM2279D     | IC, VIDEO SELECTORS     |                                                                                            | Q572   | 2SA1309ARTA  | TRANSISTOR              |                                                                                       |
| 6      | RMC0158-S   | TR FIXTURE              | [M]       | IC401  | TC9163N      | IC,SELECTOR             |                                                                                            | Q573   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 7      | RMK0320     | BOTTOM CHASSIS          | [MAV]     | IC402  | M5218AP      | IC,BUFFER AMP           |                                                                                            | Q574   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 8      | RMN0372     | FL HOLDER               | [MAV]     | IC451  | AN6558-F     | IC,PHONO EQ AMP         | [M]                                                                                        | Q575   | 2SA1309ARTA  | TRANSISTOR              |                                                                                       |
| 9      | SNE2123     | EARTH TERMINAL          |           | IC501  | BA6218       | IC,MOTOR DRIVER         |                                                                                            | Q576   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 10     | RXX0171     | HEAT SINK UNIT          | [MAV]     | IC511  | UPC4570C     | IC,TONE CONTROL         |                                                                                            | Q581   | 2SA1309ARTA  | TRANSISTOR              |                                                                                       |
| 11     | RGU1389-K   | SELECTOR BUTTON         | [MAV]     | IC551  | UPC4570C     | IC, TONE CONTROL IC     |                                                                                            | Q582   | 2SA1309ARTA  | TRANSISTOR              |                                                                                       |
| 12     | RGU1350C-K  | MODE BUTTON             | [MAV]     | IC601  | RSN36S5-P    | IC,HIC                  | [MAV]  | Q583   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 13     | RGW0244-K   | BASS TREBLE KNOB        | [MAV]     | IC602  | RSN36S5-P    | IC, SLAVE HIC           | [MAV]  | Q584   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 14     | RHN90001    | M9 NUT                  |           | IC603  | RSN33M5-P    | IC, MASTER HIC          | [MAV]  | Q585   | 2SA1309ARTA  | TRANSISTOR              |                                                                                       |
| 15     | RSC0027     | TUNER PACK              |           | IC901  | UPD78043A041 | IC,MICRO COMPUTER       | [MAV]                                                                                      | Q586   | 2SA1309ARTA  | TRANSISTOR              |                                                                                       |
| 16     | RFGKEX600PK | FRONT PANEL ASS'Y       |           | IC1001 | LA2785       | IC, PRO LOGIC DECODE    |                                                                                            | Q601   | UN4119TA     | TRANSISTOR              |                                                                                       |
| 17     | SNE2129-1   | SCREW (CABINET)         |           | IC1002 | LV1010N      | IC, DIGITAL DELAY IC    |                                                                                            | Q602   | UN4119TA     | TRANSISTOR              |                                                                                       |
| 18     | XTBS3+8JFZ1 | SCREW (MAIN PCB)        |           | IC1003 | TC9214P      | IC, SELECTOR SWITCH     |                                                                                            | Q603   | UN4119TA     | TRANSISTOR              |                                                                                       |
| 19     | XTB3+20JFZ  | SCREW (TRNFM/H SINK)    |           | IC1151 | UPC4570C     | IC, TONE CONTROL IC     |                                                                                            | Q604   | UN4119TA     | TRANSISTOR              |                                                                                       |
| 20     | XTB3+8FFZ   | SCREW (REAR PANEL)      |           |        |              |                         |                                                                                            | Q605   | RVTDT114EST  | TRANSISTOR              |                                                                                       |
| 22     | XTW3+15T    | SCREW (HEAT SINK)       |           |        |              | TRANSISTORS             |                                                                                            | Q606   | RVTDTA114EST | TRANSISTOR              |                                                                                       |
| 23     | RHD26016    | SCREW (PANEL)           |           |        |              |                         |                                                                                            | Q610   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 24     | XTBS26+10J  | SCREW                   |           | Q1     | 2SK544F-AC   | TRANSISTOR              |                                                                                            | Q611   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 25     | RYQ0173-K   | FAN UNIT                | [MAV]     | Q2     | 2SC2786MTA   | TRANSISTOR              |                                                                                            | Q612   | 2SC3311ARTA  | TRANSISTOR              |                                                                                       |
| 25-1   | MDN-4RB4MRC | MOTOR                   |           | Q3     | 2SC2787FL1TA | TRANSISTOR              |                                                                                            | Q681   | 2SD1915FTA   | TRANSISTOR              |                                                                                       |
| 25-2   | SHE232      | 64MM FAN                |           | Q4     | 2SC2787FL1TA | TRANSISTOR              |                                                                                            | Q682   | 2SD1915FTA   | TRANSISTOR              |                                                                                       |
| 25-3   | SHE233-1    | FAN CASE                |           | Q101   | 2SC2787LTA   | TRANSISTOR              |                                                                                            | Q701   | 2SD2374PQAU  | TRANSISTOR              |  |
| 25-4   | SHE234      | FAN CASE COVER          |           | Q103   | 2SC2785FETA  | TRANSISTOR              |                                                                                            | Q703   | 2SC3311ARTA  | TRANSISTOR              |  |
| 25-5   | SUS271      | MOTOR SPRING            |           | Q104   | 2SC2785FETA  | TRANSISTOR              |                                                                                            | Q704   | 2SC3311ARTA  | TRANSISTOR              |  |
| 26     | RMN0313     | LED SUPPORT             |           | Q106   | UN411FTA     | TRANSISTOR              |                                                                                            | Q705   | 2SC3311ARTA  | TRANSISTOR              |  |
| 27     | RMN0385     | LED SUPPORT             | [MAV]     | Q107   | 2SC3311ARTA  | TRANSISTOR              |                                                                                            | Q706   | 2SC3940AQSTA | TRANSISTOR              |  |
| 28     | RGK0806-N   | VOLUMERING              | [MAV]     | Q108   | 2SC3311ARTA  | TRANSISTOR              |                                                                                            | Q707   | 2SB621ARTA   | TRANSISTOR              |  |
| 29     | RGU1352E-K  | DOLBY BUTTON            | [MAV]     | Q351   | 2SD592AQSTA  | TRANSISTOR              | [MAV]  | Q708   | 2SB1548PQAU  | TRANSISTOR              |  |
| 30     | RGU1390-K   | VCR2 BUTTON             | [MAV]     | Q352   | 2SB621ARTA   | TRANSISTOR              |        | Q751   | UN421FTA     | TRANSISTOR              |                                                                                       |
| 31     | RGU1397-Q   | SFC BUTTON              | [MAV]     | Q401   | 2SK381CTA    | TRANSISTOR              |                                                                                            | Q752   | 2SC3940AQSTA | TRANSISTOR              |  |

| Ref No | Part No.      | Part Name & Description | Remarks | Ref No | Part No.    | Part Name & Description | Remarks | Ref No | Part No.     | Part Name & Description   | Remarks |
|--------|---------------|-------------------------|---------|--------|-------------|-------------------------|---------|--------|--------------|---------------------------|---------|
| Q771   | 2SA1309ARTA   | TRANSISTOR              | ⚠       | D621   | MA167ATA    | DIODE                   |         | D924   | MTZJ3R9ATA   | DIODE                     |         |
| Q772   | 2SA1309ARTA   | TRANSISTOR              | ⚠       | D622   | MA167ATA    | DIODE                   |         | D930   | LN41YCPHL    | DIODE                     |         |
| Q773   | 2SB621ARTA    | TRANSISTOR              | ⚠       | D623   | MA167ATA    | DIODE                   |         | D931   | LN440YCPUVT1 | DIODE                     | [MAV]   |
| Q774   | 2SA1309ARTA   | TRANSISTOR              | ⚠       | D624   | MA167ATA    | DIODE                   |         | D933   | LN440YCPUVT1 | DIODE                     | [MAV]   |
| Q775   | 2SA1309ARTA   | TRANSISTOR              | ⚠       | D625   | MA167ATA    | DIODE                   |         | D935   | LN440YCPUVT1 | DIODE                     | [MAV]   |
| Q776   | 2SA1309ARTA   | TRANSISTOR              | ⚠       | D626   | MA167ATA    | DIODE                   |         | D1001  | MTZJ10CTA    | DIODE                     |         |
| Q901   | RVTDTTC114YST | TRANSISTOR              |         | D627   | MA167ATA    | DIODE                   |         | D1002  | MA700ATA     | DIODE                     |         |
| Q902   | 2SA933SSTA    | TRANSISTOR              |         | D628   | MA167ATA    | DIODE                   |         |        |              |                           |         |
| Q908   | RVTDTTC114YST | TRANSISTOR              |         | D631   | MA167ATA    | DIODE                   |         |        |              | <b>VARIABLE RESISTORS</b> |         |
| Q931   | RVTDTTC114YST | TRANSISTOR              |         | D632   | MA167ATA    | DIODE                   |         |        |              |                           |         |
| Q933   | RVTDTTC114YST | TRANSISTOR              |         | D633   | MA167ATA    | DIODE                   |         | VR501  | EUWMR0026B15 | VR, VOLUME                |         |
| Q935   | RVTDTTC114YST | TRANSISTOR              |         | D634   | MA167ATA    | DIODE                   |         | VR502  | EVJ02QF01G15 | VR, BALANCE               |         |
| Q1001  | 2SC3940AQSTA  | TRANSISTOR              |         | D635   | MA167ATA    | DIODE                   |         | VR511  | EVJYA1F01C15 | VR, BASS                  |         |
| Q1081  | 2SA1309ARTA   | TRANSISTOR              |         | D636   | MA167ATA    | DIODE                   |         | VR512  | EVJYA1F01C15 | VR, TREBLE                |         |
| Q1151  | 2SD1915FTA    | TRANSISTOR              |         | D637   | MA167ATA    | DIODE                   |         | VR1150 | EVJ06LF06A15 | VR, VAR. RESISTOR         | [MAV]   |
|        |               |                         |         | D638   | MA167ATA    | DIODE                   |         |        |              |                           |         |
|        |               | <b>DIODES</b>           |         | D654   | RVD1SS133TA | DIODE                   |         |        |              | <b>SWITCHES</b>           |         |
|        |               |                         |         | D655   | RVD1SS133TA | DIODE                   |         |        |              |                           |         |
| D1     | SVC211SPA-AL  | DIODE                   |         | D701   | 1N5402BM21  | DIODE                   | ⚠       | S301   | RSP2D009-J   | SW, SWITCH                |         |
| D2     | SVC211SPA-AL  | DIODE                   |         | D702   | 1N5402BM21  | DIODE                   | ⚠       | S946   | EVQ21405R    | SW, POWER                 |         |
| D3     | SVC211SPA-AL  | DIODE                   |         | D703   | 1N5402BM21  | DIODE                   | ⚠       | S947   | EVQ21405R    | SW, PHONO                 |         |
| D101   | MTZJ5R1BTA    | DIODE                   |         | D704   | 1N5402BM21  | DIODE                   | ⚠       | S948   | EVQ21405R    | SW, MUTING                |         |
| D102   | RVD1SS133TA   | DIODE                   |         | D705   | MTZJ6R2BTA  | DIODE                   | ⚠       | S950   | EVQ21405R    | SW, FMAUTO/MONO           |         |
| D351   | MTZJ5R6BTA    | DIODE                   | ⚠       | D706   | MTZJ6R2BTA  | DIODE                   | ⚠       | S951   | EVQ21405R    | SW, BAND                  |         |
| D352   | MTZJ5R6BTA    | DIODE                   | ⚠       | D707   | MTZJ30DTA   | DIODE                   | ⚠       | S952   | EVQ21405R    | SW, TUNING (-)            |         |
| D353   | RVD1SS133TA   | DIODE                   |         | D708   | MTZJ15CTA   | DIODE                   | ⚠       | S953   | EVQ21405R    | SW, TUNING (+)            |         |
| D354   | RVD1SS133TA   | DIODE                   |         | D721   | 1N5402BM21  | DIODE                   | ⚠       | S954   | EVQ21405R    | SW, MEMORY                |         |
| D401   | MTZJ7R5CTA    | DIODE                   |         | D722   | 1N5402BM21  | DIODE                   | ⚠       | S955   | EVQ21405R    | SW, SLEEP                 |         |
| D403   | RVD1SS133TA   | DIODE                   |         | D723   | 1N5402BM21  | DIODE                   | ⚠       | S956   | EVQ21405R    | SW, PRESET (-)            |         |
| D404   | RVD1SS133TA   | DIODE                   |         | D724   | 1N5402BM21  | DIODE                   | ⚠       | S957   | EVQ21405R    | SW, PRESET (+)            |         |
| D581   | MTZJ3R0ATA    | DIODE                   | [MAV]   | D725   | 1N5402BM21  | DIODE                   | ⚠       | S958   | EVQ21405R    | SW, TACT SWITCH           |         |
| D582   | MTZJ3R0ATA    | DIODE                   | [MAV]   | D726   | 1N5402BM21  | DIODE                   | ⚠       | S960   | EVQ21405R    | SW, TUNER                 |         |
| D583   | MTZJ3R0ATA    | DIODE                   | [MAV]   | D727   | 1N5402BM21  | DIODE                   | ⚠       | S961   | EVQ21405R    | SW, CD                    |         |
| D584   | MTZJ3R0ATA    | DIODE                   | [MAV]   | D728   | 1N5402BM21  | DIODE                   | ⚠       | S962   | EVQ21405R    | SW, TAPE                  |         |
| D601   | SB360L6508    | DIODE                   |         | D751   | 1SR35200TB  | DIODE                   | ⚠       | S963   | EVQ21405R    | SW, TV/VCR2               |         |
| D602   | SB360L6508    | DIODE                   |         | D752   | 1SR35200TB  | DIODE                   | ⚠       | S964   | EVQ21405R    | SW, VCR                   |         |
| D603   | SB360L6508    | DIODE                   |         | D753   | 1SR35200TB  | DIODE                   | ⚠       | S970   | EVQ21405R    | SW, SIMULATED             |         |
| D604   | RVD1SS133TA   | DIODE                   |         | D754   | 1SR35200TB  | DIODE                   | ⚠       | S972   | EVQ21405R    | SW, LIVE                  |         |
| D605   | MTZJ6R2BTA    | DIODE                   |         | D755   | RVD1SS133TA | DIODE                   |         | S974   | EVQ21405R    | SW, HALL                  |         |
| D606   | RVD1SS133TA   | DIODE                   |         | D756   | MTZJ6R8BTA  | DIODE                   | ⚠       | S975   | EVQ21405R    | SW, VCP                   |         |
| D607   | RVD1SS133TA   | DIODE                   |         | D771   | RVD1SS133TA | DIODE                   |         | S976   | EVQ21405R    | SW, DELAY                 |         |
| D608   | RVD1SS133TA   | DIODE                   |         | D772   | MTZJ8R2BTA  | DIODE                   | [M]     | S980   | EVQ21405R    | SW, SPEAKER A             |         |
| D609   | RVD1SS133TA   | DIODE                   |         | D773   | RVD1SS133TA | DIODE                   |         | S981   | EVQ21405R    | SW, SPEAKER B             |         |
| D610   | RVD1SS133TA   | DIODE                   |         | D901   | 1SS291TA    | DIODE                   |         | S982   | EVQ21405R    | SW, LOUDNESS              |         |
| D611   | SB360L6508    | DIODE                   |         | D903   | MTZJ4R7BTA  | DIODE                   |         | S983   | EVQ21405R    | SW, DPL/SFC/MODE          |         |
| D612   | SB360L6508    | DIODE                   |         | D907   | MA167ATA    | DIODE                   |         | S984   | EVQ21405R    | SW, PROLOGIC MODE         |         |
| D613   | SB360L6508    | DIODE                   |         | D921   | RVD1SS133TA | DIODE                   |         | S985   | EVQ21405R    | SW, CENTER MODE           |         |
| D614   | RVD1SS133TA   | DIODE                   |         | D923   | RVD1SS133TA | DIODE                   |         |        |              |                           |         |

| Ref No | Part No.     | Part Name & Description    | Remarks | Ref No | Part No.     | Part Name & Description  | Remarks | Ref No | Part No.     | Part Name & Description | Remarks |
|--------|--------------|----------------------------|---------|--------|--------------|--------------------------|---------|--------|--------------|-------------------------|---------|
|        |              | <b>CONNECTORS</b>          |         | L652   | RLQYR73M     | CHOKE COIL               |         |        |              | <b>JACKS</b>            |         |
|        |              |                            |         | L671   | RLQYR73M     | CHOKE COIL               |         |        |              |                         |         |
| CN101  | RJU057W007   | CONNECTOR (7 P)            |         | L751   | RLQB101KTA-Y | CHOKE COIL               |         | HP601  | RJJ63TA01    | HP JACK                 |         |
| CN102  | RJU057W007   | CONNECTOR (7 P)            |         | L901   | RLQB101KTA-Y | CHOKE COIL               |         | JK101  | RJH4405      | JK, ANT TERMINAL        |         |
| CN351  | RJS7T6ZA     | CONNECTOR (7 P)            |         | L1051  | RLQB101KTA-Y | CHOKE COIL               |         | JK351  | RJH2304N     | JK, VCR1/TV TERMINAL    |         |
| CN401  | RJU100W07    | CONNECTOR (7 P)            | [MAV]   | T701   | RTP1Q5C008-V | POWER TRANSFORMER        | [MAV] ⚠ | JK352  | SJFK5-1      | JK, VCR IN              |         |
| CN402  | RJU100W07    | CONNECTOR (7 P)            | [MAV]   | T751   | RTP1H5C001-V | POWER TRANSFORMER        | ⚠       | JK353  | SJF3068-NJ   | JK, VDP/TV TERMINAL     |         |
| CN403  | RJU100W07    | CONNECTOR (7 P)            | [MAV]   |        |              |                          |         | JK401  | SJF3068-7N   | JK, PHONE               |         |
| CN501  | RJU100W07    | CONNECTOR (7 P)            | [MAV]   |        |              | <b>COMP. COMBINATION</b> |         | JK402  | SJF3069N     | JK, TAPE                |         |
| CN502  | RJU100W04    | CONNECTOR (4 P)            | [MAV]   |        |              |                          |         | JK403  | SJF3069N     | JK, VDP/TV              |         |
| CN702  | RJS1A6605    | CONNECTOR (5 P)            |         | Z101   | RLA2Z002M-T  | AM ANT. COIL             |         | JK404  | SJF3069N     | JK, VCR1                |         |
| CN751  | SJS305-1     | CONNECTOR (3 P)            |         | Z102   | RLJ2Z006M-T  | AM IFT                   |         | JK405  | SJFD7        | JK, FM MULTI OUT        |         |
| CN771  | SJT3213      | CONNECTOR (2 P)            |         | Z751   | ERZV10V511CS | ZNR                      | ⚠       | JK406  | SJF3068-7N   | JK, CD TERMINAL         |         |
| CN901  | RJU003K008M1 | CONNECTOR (8 P)            |         | Z891   | RCDSPS4242N  | REMOTE SENSOR            |         | JK601  | RJH5601      | JK, SP TERMINAL         |         |
| CN902  | RJU003K010M1 | CONNECTOR (10P)            |         |        |              |                          |         | JK602  | RJH5601      | JK, SP TERMINAL         |         |
| CN903  | RJU003K010M1 | CONNECTOR (10P)            |         |        |              | <b>CERAMIC FILTERS</b>   |         | JK603  | RJR0054      | JK, SP TERMINAL         |         |
| CN904  | RJU003K008M1 | CONNECTOR (8 P)            |         |        |              |                          |         | JK791  | SJSD16-1     | JK, AC INLET            | ⚠       |
| CN905  | RJU003K008M1 | CONNECTOR (8 P)            |         | CF201  | RLFFETMGD01L | CERAMIC FILTER           |         | JK792  | RJS2A0102-1S | JK, AC OUTLET           | ⚠       |
| CN1001 | RJU100W07    | CONNECTOR (7 P)            | [MAV]   | CF202  | RLFFETMGD01L | CERAMIC FILTER           |         |        |              |                         |         |
| CN1002 | RJU100W07    | CONNECTOR (7 P)            | [MAV]   | CF901  | RVBCST4R00MT | CERAMIC OSC              |         |        |              | <b>RELAYS</b>           |         |
| CP101  | RJT057W007-1 | CONNECTOR (7 P)            |         | CF1051 | EF0EC8004T4  | CERAMIC OSCILLATOR       |         |        |              |                         |         |
| CP102  | RJT057W007-1 | CONNECTOR (7 P)            |         |        |              |                          |         | RL601  | RSY0013M-0   | 24V RELAY               |         |
| CP353  | RJP3G4YA     | CONNECTOR (3P)             |         |        |              | <b>OSCILLATORS</b>       |         | RL602  | RSY0013M-0   | 24V RELAY               |         |
| CP401  | RJT100W07    | CONNECTOR (7 P)            | [MAV]   |        |              |                          |         | RL603  | RSY0013M-0   | 24V RELAY               |         |
| CP402  | RJT100W07    | CONNECTOR (7 P)            | [MAV]   | X101   | RSXZ456KM07M | CERAMIC OSCILLATOR       |         | RL604  | RSY0013M-0   | 24V RELAY               |         |
| CP403  | RJT100W07    | CONNECTOR (7 P)            | [MAV]   | X102   | RLFDGTD01I   | FM RESONATOR             |         | RL751  | RSY0019M-0   | 12V TV-5 RELAY          | (P) ⚠   |
| CP501  | RJT100W07    | CONNECTOR (7 P)            | [MAV]   | X103   | SVQ49U722T-S | CRYSTAL OSCILLATOR       |         | RL751  | RSY0021-0    | 12V TV-8 RELAY          | (PC) ⚠  |
| CP502  | RJT100W04    | CONNECTOR (4 P)            | [MAV]   |        |              |                          |         |        |              |                         |         |
| CP701A | RJP6G4YA     | CONNECTOR (6P)             |         |        |              | <b>DISPLAY TUBE</b>      |         |        |              | <b>EARTH TERMINAL</b>   |         |
| CP901  | RJT003K008M1 | CONNECTOR (8 P)            |         | FL901  | RSL0213-F    | FL DISPLAY               | [MAV]   | E401   | SNE1004-2    | EARTH TERMINAL          |         |
| CP902  | RJT003K010M1 | CONNECTOR (10P)            |         |        |              |                          |         | E601   | SNE1004-2    | EARTH TERMINAL          |         |
| CP903  | RJT003K010M1 | CONNECTOR (10P)            |         |        |              |                          |         |        |              |                         |         |
| CP904  | RJT003K008M1 | CONNECTOR (8 P)            |         |        |              | <b>FUSES</b>             |         |        |              |                         |         |
| CP905  | RJT003K008M1 | CONNECTOR (8 P)            |         |        |              |                          |         |        |              | <b>WIRES</b>            |         |
| CP1001 | RJT100W07    | CONNECTOR (7 P)            | [MAV]   | F1     | XBA1C80NBAL  | FUSE                     | [MAV] ⚠ |        |              |                         |         |
| CP1002 | RJT100W07    | CONNECTOR (7 P)            | [MAV]   | F3     | XBA1C80NBAL  | FUSE                     | [MAV] ⚠ | W1     | REX0811      | WIRE, FAN               | [MAV]   |
|        |              |                            |         | F4     | XBA1C80NBAL  | FUSE                     | [MAV] ⚠ | W353   | REX0800      | SHIELD WIRE             | [MAV]   |
|        |              | <b>COILS, TRANSFORMERS</b> |         |        |              |                          |         |        |              |                         |         |
|        |              |                            |         |        |              | <b>FUSE HOLDERS</b>      |         |        |              |                         |         |
| L1     | RLQZP1R2KT-Y | INDUCTOR                   |         |        |              |                          |         |        |              |                         |         |
| L2     | RLQZPR47KT-Y | INDUCTOR                   |         | FC701  | RJR0169T     | FUSE HOLDER              | [M]     |        |              |                         |         |
| L101   | ELESN1R5MA   | CHOKE COIL                 |         | FC702  | RJR0169T     | FUSE HOLDER              | [M]     |        |              |                         |         |
| L103   | ELEXTR47MA9  | CHOKE COIL                 |         | FC705  | SJT388       | FUSE HOLDER              |         |        |              |                         |         |
| L501   | RLQZP1R0KT-Y | AXIAL COIL                 |         | FC706  | SJT388       | FUSE HOLDER              |         |        |              |                         |         |
| L502   | RLQZP1R0KT-Y | AXIAL COIL                 |         | FC707  | SJT388       | FUSE HOLDER              |         |        |              |                         |         |
| L601   | RLQYR73M     | CHOKE COIL                 |         | FC708  | SJT388       | FUSE HOLDER              |         |        |              |                         |         |
| L602   | RLQYR73M     | CHOKE COIL                 |         |        |              |                          |         |        |              |                         |         |
| L651   | RLQYR73M     | CHOKE COIL                 |         |        |              |                          |         |        |              |                         |         |

## Resistors & Capacitors

Notes : \* Important safety notice:

Components identified by  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\* Capacitor values are in microfarad (μF) unless specified otherwise, P=Pico-farads (pF) F=Farads (F)

\* Resistors values are in ohms, unless specified otherwise, 1k=1,000(OHM), 1M=1,000k(OHM)

| Ref No | Part No.         | Values & Remarks | Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks |
|--------|------------------|------------------|--------|--------------|------------------|--------|--------------|------------------|--------|--------------|------------------|
|        | <b>RESISTORS</b> |                  |        |              |                  |        |              |                  |        |              |                  |
| R1     | ERDS2TJ104T      | 100K 1/4W        | R135   | ERDS2TJ102T  | 1K 1/4W          | R411   | ERDS2TJ102T  | 1K 1/4W          | R464   | ERDS2TJ123T  | 12K 1/4W         |
| R2     | ERDS2TJ104T      | 100K 1/4W        | R136   | ERDS2TJ102T  | 1K 1/4W          | R412   | ERDS2TJ102T  | 1K 1/4W          | R465   | ERDS2TJ563T  | 56K 1/4W         |
| R3     | ERDS2TJ221T      | 220 1/4W         | R137   | ERDS2TJ102T  | 1K 1/4W          | R413   | ERDS2TJ102T  | 1K 1/4W          | R466   | ERDS2TJ563T  | 56K 1/4W         |
| R4     | ERDS2TJ104T      | 100K 1/4W        | R139   | ERDS2TJ272T  | 2.7K 1/4W        | R414   | ERDS2TJ102T  | 1K 1/4W          | R467   | ERDS2TJ102T  | 1K 1/4W          |
| R5     | ERDS2TJ564T      | 560K 1/4W        | R140   | ERDS2TJ272T  | 2.7K 1/4W        | R415   | ERDS2TJ102T  | 1K 1/4W          | R468   | ERDS2TJ102T  | 1K 1/4W          |
| R6     | ERDS2TJ391T      | 390 1/4W         | R141   | ERDS2TJ103T  | 10K 1/4W         | R416   | ERDS2TJ102T  | 1K 1/4W          | R501   | ERDS2TJ222T  | 2.2K 1/4W        |
| R7     | ERDS2TJ272T      | 2.7K 1/4W        | R142   | ERDS2TJ103T  | 10K 1/4W         | R417   | ERDS2TJ473T  | 47K 1/4W         | R502   | ERDS2TJ222T  | 2.2K 1/4W        |
| R8     | ERDS2TJ684T      | 680K 1/4W        | R143   | ERDS2TJ222T  | 2.2K 1/4W        | R418   | ERDS2TJ473T  | 47K 1/4W         | R503   | ERDS2TJ103T  | 10K 1/4W         |
| R9     | ERDS2TJ391T      | 390 1/4W         | R144   | ERDS2TJ222T  | 2.2K 1/4W        | R419   | ERDS2TJ104T  | 100K 1/4W        | R504   | ERDS2TJ103T  | 10K 1/4W         |
| R10    | ERDS2TJ391T      | 390 1/4W         | R145   | ERDS2TJ102T  | 1K 1/4W          | R420   | ERDS2TJ104T  | 100K 1/4W        | R505   | ERDS2TJ103T  | 10K 1/4W         |
| R11    | ERDS2TJ684T      | 680K 1/4W        | R146   | ERDS2TJ102T  | 1K 1/4W          | R421   | ERDS2TJ104T  | 100K 1/4W        | R506   | ERDS2TJ103T  | 10K 1/4W         |
| R103   | ERDS2TJ151T      | 150 1/4W         | R147   | ERDS2TJ474T  | 470K 1/4W        | R422   | ERDS2TJ104T  | 100K 1/4W        | R507   | ERDS2TJ153T  | 15K 1/4W         |
| R104   | ERDS2TJ102T      | 1K 1/4W          | R148   | ERDS2TJ474T  | 470K 1/4W        | R423   | ERDS2TJ102T  | 1K 1/4W          | R508   | ERDS1FVJ2R2T | 2.2 1/2W         |
| R105   | ERDS2TJ471T      | 470 1/4W         | R149   | ERDS2TJ680T  | 68 1/4W          | R424   | ERDS2TJ102T  | 1K 1/4W          | R511   | ERDS2TJ471T  | 470 1/4W         |
| R106   | ERDS2TJ224T      | 220K 1/4W        | R171   | ERDS2TJ102T  | 1K 1/4W          | R425   | ERDS2TJ103T  | 10K 1/4W         | R512   | ERDS2TJ471T  | 470 1/4W         |
| R107   | ERDS2TJ471T      | 470 1/4W         | R172   | ERDS2TJ102T  | 1K 1/4W          | R426   | ERDS2TJ103T  | 10K 1/4W         | R513   | ERDS2TJ474T  | 470K 1/4W        |
| R110   | ERDS2TJ102T      | 1K 1/4W          | R173   | ERDS2TJ471T  | 470 1/4W         | R427   | ERDS2TJ103T  | 10K 1/4W         | R514   | ERDS2TJ474T  | 470K 1/4W        |
| R112   | ERDS2TJ104T      | 100K 1/4W        | R175   | ERDS2TJ102T  | 1K 1/4W          | R428   | ERDS2TJ332T  | 3.3K 1/4W        | R515   | ERDS2TJ474T  | 470K 1/4W        |
| R113   | ERDS2TJ103T      | 10K 1/4W         | R176   | ERDS2TJ391T  | 390 1/4W         | R429   | ERDS2TJ102T  | 1K 1/4W          | R516   | ERDS2TJ474T  | 470K 1/4W        |
| R114   | ERDS2TJ562T      | 5.6K 1/4W        | R301   | ERDS2TJ820T  | 82 1/4W          | R430   | ERDS2TJ102T  | 1K 1/4W          | R517   | ERDS2TJ332T  | 3.3K 1/4W        |
| R115   | ERDS2TJ561T      | 560 1/4W         | R302   | ERDS2TJ820T  | 82 1/4W          | R431   | ERDS2TJ224T  | 220K 1/4W        | R518   | ERDS2TJ332T  | 3.3K 1/4W        |
| R116   | ERDS2TJ102T      | 1K 1/4W          | R303   | ERDS2TJ820T  | 82 1/4W          | R432   | ERDS2TJ224T  | 220K 1/4W        | R519   | ERDS2TJ182T  | 1.8K 1/4W        |
| R117   | ERDS2TJ104T      | 100K 1/4W        | R304   | ERDS2TJ820T  | 82 1/4W          | R433   | ERDS2TJ102T  | 1K 1/4W          | R520   | ERDS2TJ182T  | 1.8K 1/4W        |
| R118   | ERDS2TJ562T      | 5.6K 1/4W        | R359   | ERDS2TJ750T  | 75 1/4W          | R434   | ERDS2TJ102T  | 1K 1/4W          | R521   | ERDS2TJ223T  | 22K 1/4W         |
| R119   | ERDS2TJ822T      | 8.2K 1/4W        | R362   | ERDS2TJ750T  | 75 1/4W          | R435   | ERDS2TJ473T  | 47K 1/4W         | R522   | ERDS2TJ223T  | 22K 1/4W         |
| R120   | ERDS2TJ473T      | 47K 1/4W         | R367   | ERDS2TJ102T  | 1K 1/4W          | R440   | ERDS1FVJ820T | 82 1/2W          | R523   | ERDS2TJ392T  | 3.9K 1/4W        |
| R121   | ERDS2TJ332T      | 3.3K 1/4W        | R368   | ERDS2TJ102T  | 1K 1/4W          | R441   | ERDS2TJ473T  | 47K 1/4W         | R524   | ERDS2TJ392T  | 3.9K 1/4W        |
| R122   | ERDS2TJ272T      | 2.7K 1/4W        | R369   | ERDS2TJ182T  | 1.8K 1/4W        | R442   | ERDS2TJ473T  | 47K 1/4W         | R525   | ERDS2TJ222T  | 2.2K 1/4W        |
| R124   | ERDS2TJ271T      | 270 1/4W         | R370   | ERDS2TJ182T  | 1.8K 1/4W        | R443   | ERDS2TJ330T  | 33 1/4W          | R526   | ERDS2TJ222T  | 2.2K 1/4W        |
| R125   | ERDS2TJ472T      | 4.7K 1/4W        | R371   | ERD2FCVG220T | 22 1/4W          | R451   | ERDS2TJ224T  | 220K 1/4W        | R527   | ERDS2TJ122T  | 1.2K 1/4W        |
| R126   | ERDS2TJ472T      | 4.7K 1/4W        | R372   | ERD2FCVG220T | 22 1/4W          | R452   | ERDS2TJ224T  | 220K 1/4W        | R528   | ERDS2TJ122T  | 1.2K 1/4W        |
| R127   | ERDS2TJ103T      | 10K 1/4W         | R373   | ERDS2TJ103T  | 10K 1/4W         | R453   | ERDS2TJ821T  | 820 1/4W         | R529   | ERDS2TJ273T  | 27K 1/4W         |
| R128   | ERDS2TJ820T      | 82 1/4W          | R374   | ERDS2TJ103T  | 10K 1/4W         | R454   | ERDS2TJ821T  | 820 1/4W         | R530   | ERDS2TJ273T  | 27K 1/4W         |
| R129   | ERDS2TJ473T      | 47K 1/4W         | R375   | ERDS2TJ103T  | 10K 1/4W         | R455   | ERDS2TJ563T  | 56K 1/4W         | R531   | ERDS2TJ102T  | 1K 1/4W          |
| R130   | ERDS2TJ102T      | 1K 1/4W          | R401   | ERDS2TJ102T  | 1K 1/4W          | R456   | ERDS2TJ563T  | 56K 1/4W         | R532   | ERDS2TJ102T  | 1K 1/4W          |
| R131   | ERDS2TJ102T      | 1K 1/4W          | R402   | ERDS2TJ102T  | 1K 1/4W          | R457   | ERDS2TJ271T  | 270 1/4W         | R533   | ERDS2TJ473T  | 47K 1/4W         |
| R132   | ERDS2TJ103T      | 10K 1/4W         | R405   | ERDS2TJ102T  | 1K 1/4W          | R458   | ERDS2TJ271T  | 270 1/4W         | R534   | ERDS2TJ473T  | 47K 1/4W         |
| R133   | ERDS2TJ102T      | 1K 1/4W          | R406   | ERDS2TJ102T  | 1K 1/4W          | R459   | ERDS2TJ680T  | 68 1/4W          | R535   | ERDS2TJ392T  | 3.9K 1/4W        |
| R134   | ERDS2TJ102T      | 1K 1/4W          | R407   | ERDS2TJ102T  | 1K 1/4W          | R460   | ERDS2TJ680T  | 68 1/4W          | R536   | ERDS2TJ392T  | 3.9K 1/4W        |
|        |                  |                  | R408   | ERDS2TJ102T  | 1K 1/4W          | R461   | ERDS2TJ184T  | 180K 1/4W        | R537   | ERDS2TJ103T  | 10K 1/4W         |
|        |                  |                  | R409   | ERDS2TJ102T  | 1K 1/4W          | R462   | ERDS2TJ184T  | 180K 1/4W        | R538   | ERDS2TJ103T  | 10K 1/4W         |
|        |                  |                  | R410   | ERDS2TJ102T  | 1K 1/4W          | R463   | ERDS2TJ123T  | 12K 1/4W         | R539   | ERDS2TJ272T  | 2.7K 1/4W        |

| Ref No | Part No.    | Values & Remarks | Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks |
|--------|-------------|------------------|--------|--------------|------------------|--------|--------------|------------------|--------|--------------|------------------|
| R540   | ERDS2TJ272T | 2.7K 1/4W        | R592   | ERDS2TJ222T  | 2.2K 1/4W        | R645   | ERD2FCVG220T | 22 1/4W          | R694   | ERDS2TJ270T  | 27 1/4W          |
| R541   | ERDS2TJ332T | 3.3K 1/4W        | R593   | ERDS2TJ271T  | 270 1/4W         | R646   | ERD2FCVG220T | 22 1/4W          | R695   | ERDS2TJ102T  | 1K 1/4W          |
| R542   | ERDS2TJ332T | 3.3K 1/4W        | R594   | ERDS2TJ103T  | 10K 1/4W         | R647   | ERDS2TJ221T  | 220 1/4W         | R696   | ERDS2TJ102T  | 1K 1/4W          |
| R543   | ERDS2TJ102T | 1K 1/4W          | R595   | ERDS2TJ333T  | 33K 1/4W         | R648   | ERDS2TJ221T  | 220 1/4W         | R697   | ERDS2TJ221T  | 220 1/4W         |
| R544   | ERDS2TJ102T | 1K 1/4W          | R601   | ERDS2TJ102T  | 1K 1/4W          | R649   | ERD25FVJ680T | 68 1/4W          | R698   | ERDS2TJ221T  | 220 1/4W         |
| R545   | ERDS2TJ684T | 680K 1/4W        | R602   | ERDS2TJ102T  | 1K 1/4W          | R650   | ERD25FVJ680T | 68 1/4W          | R699   | ERDS2TJ332T  | 3.3K 1/4W        |
| R546   | ERDS2TJ332T | 3.3K 1/4W        | R603   | ERDS2TJ563T  | 56K 1/4W         | R651   | ERDS2TJ102T  | 1K 1/4W          | R703   | ERDS1FVJ3R9T | 3.9 1/2W         |
| R547   | ERDS2TJ103T | 10K 1/4W         | R604   | ERDS2TJ563T  | 56K 1/4W         | R652   | ERDS2TJ102T  | 1K 1/4W          | R704   | ERDS1FVJ3R9T | 3.9 1/2W         |
| R548   | ERDS2TJ392T | 3.9K 1/4W        | R605   | ERDS2TJ182T  | 1.8K 1/4W        | R653   | ERDS2TJ563T  | 56K 1/4W         | R705   | ERDS2TJ472T  | 4.7K 1/4W        |
| R549   | ERDS2TJ222T | 2.2K 1/4W        | R606   | ERDS2TJ182T  | 1.8K 1/4W        | R654   | ERDS2TJ563T  | 56K 1/4W         | R706   | ERDS2TJ102T  | 1K 1/4W          |
| R551   | ERDS2TJ102T | 1K 1/4W          | R607   | ERDS2TJ563T  | 56K 1/4W         | R655   | ERDS2TJ182T  | 1.8K 1/4W        | R709   | ERD25FVJ221T | 220 1/4W         |
| R552   | ERDS2TJ102T | 1K 1/4W          | R608   | ERDS2TJ563T  | 56K 1/4W         | R656   | ERDS2TJ182T  | 1.8K 1/4W        | R712   | ERDS2TJ472T  | 4.7K 1/4W        |
| R553   | ERDS2TJ104T | 100K 1/4W        | R609   | ERDS2TJ470T  | 47 1/4W          | R657   | ERDS2TJ563T  | 56K 1/4W         | R713   | ERDS2TJ1R5T  | 1.5 1/4W         |
| R554   | ERDS2TJ104T | 100K 1/4W        | R610   | ERDS2TJ470T  | 47 1/4W          | R658   | ERDS2TJ563T  | 56K 1/4W         | R714   | ERDS2TJ1R5T  | 1.5 1/4W         |
| R555   | ERDS2TJ223T | 22K 1/4W         | R611   | ERDS1FVJ100T | 10 1/2W          | R659   | ERDS2TJ470T  | 47 1/4W          | R715   | ERDS2TJ752T  | 7.5K 1/4W        |
| R556   | ERDS2TJ223T | 22K 1/4W         | R612   | ERDS1FVJ100T | 10 1/2W          | R660   | ERDS2TJ470T  | 47 1/4W          | R716   | ERDS2TJ682T  | 6.8K 1/4W        |
| R557   | ERDS2TJ471T | 470 1/4W         | R613   | ERDS2TJ102T  | 1K 1/4W          | R661   | ERDS1FVJ100T | 10 1/2W          | R718   | ERDS2TJ182T  | 1.8K 1/4W        |
| R558   | ERDS2TJ471T | 470 1/4W         | R614   | ERDS2TJ102T  | 1K 1/4W          | R662   | ERDS1FVJ100T | 10 1/2W          | R721   | ERDS1FVJ100T | 10 1/2W          |
| R559   | ERDS2TJ222T | 2.2K 1/4W        | R615   | ERDS2TJ184T  | 180K 1/4W        | R663   | ERDS2TJ102T  | 1K 1/4W          | R722   | ERDS1FVJ331T | 330 1/2W         |
| R560   | ERDS2TJ222T | 2.2K 1/4W        | R616   | ERDS2TJ154T  | 150K 1/4W        | R664   | ERDS2TJ102T  | 1K 1/4W          | R723   | ERDS2TJ472T  | 4.7K 1/4W        |
| R561   | ERDS2TJ272T | 2.7K 1/4W        | R617   | ERDS2TJ473T  | 47K 1/4W         | R665   | ERDS2TJ184T  | 180K 1/4W        | R724   | ERDS1FVJ100T | 10 1/2W          |
| R562   | ERDS2TJ272T | 2.7K 1/4W        | R618   | ERDS2TJ473T  | 47K 1/4W         | R666   | ERDS2TJ154T  | 150K 1/4W        | R725   | ERDS2TJ122T  | 1.2K 1/4W        |
| R564   | ERDS2TJ332T | 3.3K 1/4W        | R619   | ERDS2TJ223T  | 22K 1/4W         | R667   | ERDS2TJ102T  | 1K 1/4W          | R727   | ERDS1FVJ4R7T | 4.7 1/2W         |
| R565   | ERDS2TJ102T | 1K 1/4W          | R620   | ERD25FVJ220T | 22 1/4W          | R668   | ERDS2TJ563T  | 56K 1/4W         | R730   | ERDS1FVJ681T | 680 1/2W         |
| R566   | ERDS2TJ102T | 1K 1/4W          | R621   | ERD25FVJ680T | 68 1/4W          | R669   | ERDS2TJ182T  | 1.8K 1/4W        | R731   | ERDS1FVJ331T | 330 1/2W         |
| R569   | ERDS2TJ102T | 1K 1/4W          | R622   | ERD25FVJ680T | 68 1/4W          | R670   | ERDS2TJ563T  | 56K 1/4W         | R732   | ERDS1FVJ150T | 15 1/2W          |
| R570   | ERDS2TJ102T | 1K 1/4W          | R623   | ERDS2TJ104T  | 100K 1/4W        | R671   | ERD25FVJ680T | 68 1/4W          | R741   | ERDS1FVJ3R9T | 3.9 1/2W         |
| R571   | ERDS2TJ222T | 2.2K 1/4W        | R624   | ERDS2TJ563T  | 56K 1/4W         | R672   | ERD25FVJ680T | 68 1/4W          | R742   | ERDS1FVJ3R9T | 3.9 1/2W         |
| R572   | ERDS2TJ222T | 2.2K 1/4W        | R625   | ERDS2TJ563T  | 56K 1/4W         | R673   | ERDS2TJ470T  | 47 1/4W          | R743   | ERDS1FVJ3R9T | 3.9 1/2W         |
| R573   | ERDS2TJ102T | 1K 1/4W          | R626   | ERDS2TJ473T  | 47K 1/4W         | R674   | ERDS1FVJ100T | 10 1/2W          | R744   | ERDS1FVJ3R9T | 3.9 1/2W         |
| R574   | ERDS2TJ102T | 1K 1/4W          | R627   | ERDS2TJ824T  | 820K 1/4W        | R675   | ERDS2TJ102T  | 1K 1/4W          | R745   | ERDS1FVJ3R9T | 3.9 1/2W         |
| R575   | ERDS2TJ102T | 1K 1/4W          | R628   | ERDS2TJ223T  | 22K 1/4W         | R676   | ERD25FVJ151T | 150 1/4W         | R751   | ERC12ZGK335D | 3.3M 1/2W        |
| R576   | ERDS2TJ102T | 1K 1/4W          | R629   | ERDS2TJ682T  | 6.8K 1/4W        | R678   | ERDS2TJ184T  | 180K 1/4W        | R754   | ERDS2TJ102T  | 1K 1/4W          |
| R577   | ERDS2TJ102T | 1K 1/4W          | R630   | ERDS2TJ682T  | 6.8K 1/4W        | R679   | ERD25FVJ151T | 150 1/4W         | R772   | ERDS2TJ104T  | 100K 1/4W        |
| R578   | ERDS2TJ102T | 1K 1/4W          | R631   | ERDS2TJ123T  | 12K 1/4W         | R680   | ERDS2TJ221T  | 220 1/4W         | R773   | ERDS2TJ103T  | 10K 1/4W         |
| R579   | ERDS2TJ223T | 22K 1/4W         | R632   | ERDS2TJ472T  | 4.7K 1/4W        | R681   | ERDS2TJ270T  | 27 1/4W          | R774   | ERDS2TJ223T  | 22K 1/4W         |
| R580   | ERDS2TJ102T | 1K 1/4W          | R633   | ERDS2TJ123T  | 12K 1/4W         | R682   | ERDS2TJ270T  | 27 1/4W          | R775   | ERDS2TJ472T  | 4.7K 1/4W        |
| R581   | ERDS2TJ102T | 1K 1/4W          | R634   | ERDS2TJ472T  | 4.7K 1/4W        | R683   | ERDS2TJ270T  | 27 1/4W          | R777   | ERDS2TJ150T  | 15 1/4W          |
| R582   | ERDS2TJ102T | 1K 1/4W          | R635   | ERD25FVJ151T | 150 1/4W         | R684   | ERDS2TJ270T  | 27 1/4W          | R778   | ERDS2TJ222T  | 2.2K 1/4W        |
| R583   | ERDS2TJ102T | 1K 1/4W          | R636   | ERD25FVJ151T | 150 1/4W         | R685   | ERDS2TJ270T  | 27 1/4W          | R779   | ERDS2TJ103T  | 10K 1/4W         |
| R584   | ERDS2TJ102T | 1K 1/4W          | R637   | ERG1SJ101E   | 100 1W           | R686   | ERDS2TJ270T  | 27 1/4W          | R780   | ERDS2TJ473T  | 47K 1/4W         |
| R585   | ERDS2TJ102T | 1K 1/4W          | R638   | ERG1SJ101E   | 100 1W           | R687   | ERDS2TJ270T  | 27 1/4W          | R781   | ERDS2TJ473T  | 47K 1/4W         |
| R586   | ERDS2TJ102T | 1K 1/4W          | R639   | ERG1SJ101E   | 100 1W           | R688   | ERDS2TJ270T  | 27 1/4W          | R782   | ERDS2TJ153T  | 15K 1/4W         |
| R587   | ERDS2TJ102T | 1K 1/4W          | R640   | ERG1SJ101E   | 100 1W           | R689   | ERDS2TJ270T  | 27 1/4W          | R783   | ERDS2TJ103T  | 10K 1/4W         |
| R588   | ERDS2TJ102T | 1K 1/4W          | R641   | ERDS2TJ684T  | 680K 1/4W        | R690   | ERDS2TJ270T  | 27 1/4W          | R784   | ERDS2TJ335T  | 3.3M 1/4W        |
| R589   | ERDS2TJ472T | 4.7K 1/4W        | R642   | ERDS2TJ682T  | 6.8K 1/4W        | R691   | ERDS2TJ270T  | 27 1/4W          | R791   | ERDS2TJ223T  | 22K 1/4W         |
| R590   | ERDS2TJ473T | 47K 1/4W         | R643   | ERDS2TJ682T  | 6.8K 1/4W        | R692   | ERDS2TJ270T  | 27 1/4W          | R792   | ERDS2TJ223T  | 22K 1/4W         |
| R591   | ERDS2TJ222T | 2.2K 1/4W        | R644   | ERDS2TJ222T  | 2.2K 1/4W        | R693   | ERDS2TJ270T  | 27 1/4W          | R793   | ERDS2TJ223T  | 22K 1/4W         |

| Ref No | Part No.    | Values & Remarks | Ref No | Part No.    | Values & Remarks | Ref No | Part No.          | Values & Remarks | Ref No | Part No.     | Values & Remarks |
|--------|-------------|------------------|--------|-------------|------------------|--------|-------------------|------------------|--------|--------------|------------------|
| R794   | ERDS2TJ223T | 22K 1/4W         | R971   | ERDS2TJ122T | 1.2K 1/4W        | R1164  | ERDS2TJ393T       | 39K 1/4W         | C137   | ECBT1H271KB5 | 270P 50V         |
| R795   | ERDS2TJ222T | 2.2K 1/4W        | R972   | ERDS2TJ152T | 1.5K 1/4W        |        |                   |                  | C138   | ECBT1H271KB5 | 270P 50V         |
| R796   | ERDS2TJ223T | 22K 1/4W         | R973   | ERDS2TJ182T | 1.8K 1/4W        |        | <b>CAPACITORS</b> |                  | C141   | ECEA1HKA010B | 1 50V            |
| R797   | ERDS2TJ682T | 6.8K 1/4W        | R974   | ERDS2TJ222T | 2.2K 1/4W        |        |                   |                  | C142   | ECEA1HKA010B | 1 50V            |
| R798   | ERDS2TJ223T | 22K 1/4W         | R975   | ERDS2TJ332T | 3.3K 1/4W        | C1     | ECBT1H5R6KC5      | 5.6P 50V         | C143   | ECEA1HKA010B | 1 50V            |
| R901   | ERDS2TJ102T | 1K 1/4W          | R976   | ERDS2TJ472T | 4.7K 1/4W        | C2     | RCBS1H102KBY      | 1000P 50V        | C144   | ECEA1HKA010B | 1 50V            |
| R906   | ERDS2TJ104T | 100K 1/4W        | R980   | ERDS2TJ102T | 1K 1/4W          | C3     | ECBT1H2R2KC5      | 2.2P 50V         | C145   | ECBT1H220JC5 | 22P 50V          |
| R907   | ERDS2TJ104T | 100K 1/4W        | R981   | ERDS2TJ122T | 1.2K 1/4W        | C4     | ECBT1H181KB5      | 180P 50V         | C146   | ECBT1H331KB5 | 330P 50V         |
| R908   | ERDS2TJ104T | 100K 1/4W        | R982   | ERDS2TJ152T | 1.5K 1/4W        | C5     | ECBT1H5R6KC5      | 5.6P 50V         | C147   | ECBT1H102KB5 | 1000P 50V        |
| R909   | ERDS2TJ104T | 100K 1/4W        | R983   | ERDS2TJ182T | 1.8K 1/4W        | C6     | ECBT1H3R3KC5      | 3.3P 50V         | C148   | ECBT1C103NS5 | 0.01 16V         |
| R910   | ERDS2TJ102T | 1K 1/4W          | R984   | ERDS2TJ222T | 2.2K 1/4W        | C7     | ECBT1H4R7KC5      | 4.7P 50V         | C149   | ECBT1C103NS5 | 0.01 16V         |
| R911   | ERDS2TJ104T | 100K 1/4W        | R985   | ERDS2TJ822T | 8.2K 1/4W        | C8     | ECBT1H3R3KC5      | 3.3P 50V         | C150   | ECBT1H104ZF5 | 0.1 50V          |
| R912   | ERDS2TJ103T | 10K 1/4W         | R990   | ERDS2TJ153T | 15K 1/4W         | C9     | ECBT1H2R2KC5      | 2.2P 50V         | C172   | ECBT1H331KB5 | 330P 50V         |
| R913   | ERDS2TJ103T | 10K 1/4W         | R1001  | ERDS2TJ102T | 1K 1/4W          | C10    | ECBT1H180JC5      | 18P 50V          | C173   | ECEA1CKA220B | 22 16V           |
| R914   | ERDS2TJ274T | 270K 1/4W        | R1002  | ERDS2TJ102T | 1K 1/4W          | C11    | RCBS1H102KBY      | 1000P 50V        | C174   | ECEA1CKA100B | 10 16V           |
| R917   | ERDS2TJ103T | 10K 1/4W         | R1003  | ERDS2TJ102T | 1K 1/4W          | C101   | ECBT1C103NS5      | 0.01 16V         | C175   | ECBT1C103NS5 | 0.01 16V         |
| R920   | ERDS2TJ271T | 270 1/4W         | R1004  | ERDS2TJ102T | 1K 1/4W          | C103   | ECBT1C103NS5      | 0.01 16V         | C196   | ECBT1H102KB5 | 1000P 50V        |
| R921   | ERDS2TJ121T | 120 1/4W         | R1005  | ERDS2TJ203T | 20K 1/4W         | C104   | ECBT1H102KB5      | 1000P 50V        | C329   | ECBT1H470J5  | 47P 50V          |
| R922   | ERDS2TJ472T | 4.7K 1/4W        | R1007  | ERDS2TJ473T | 47K 1/4W         | C105   | ECBT1H102KB5      | 1000P 50V        | C330   | ECBT1H470J5  | 47P 50V          |
| R923   | ERDS2TJ104T | 100K 1/4W        | R1008  | ERDS2TJ473T | 47K 1/4W         | C106   | ECBT1C103NS5      | 0.01 16V         | C351   | ECEA0JKA101B | 100 6.3V         |
| R928   | ERDS2TJ151T | 150 1/4W         | R1009  | ERDS2TJ332T | 3.3K 1/4W        | C107   | ECBT1H473ZF5      | 0.047 50V        | C352   | ECEA0JKA101B | 100 6.3V         |
| R929   | ERDS2TJ101T | 100 1/4W         | R1010  | ERDS2TJ332T | 3.3K 1/4W        | C108   | ECBT1H8R2KC5      | 8.2P 50V         | C354   | ECBT1H104ZF5 | 0.1 50V          |
| R930   | ERDS2TJ101T | 100 1/4W         | R1011  | ERDS2TJ332T | 3.3K 1/4W        | C109   | ECBT1C103NS5      | 0.01 16V         | C355   | ECBT1H104ZF5 | 0.1 50V          |
| R931   | ERDS2TJ151T | 150 1/4W         | R1012  | ERDS2TJ102T | 1K 1/4W          | C110   | ECBT1C103NS5      | 0.01 16V         | C357   | ECBT1E103ZF5 | 0.01 25V         |
| R933   | ERDS2TJ151T | 150 1/4W         | R1013  | ERDS2TJ103T | 10K 1/4W         | C111   | ECEA1EKA4R7B      | 4.7 25V          | C358   | ECBT1E103ZF5 | 0.01 25V         |
| R935   | ERDS2TJ151T | 150 1/4W         | R1014  | ERDS2TJ104T | 100K 1/4W        | C112   | ECBT1C103NS5      | 0.01 16V         | C373   | ECEA1CKA470B | 47 16V           |
| R936   | ERDS2TJ102T | 1K 1/4W          | R1051  | ERDS2TJ393T | 39K 1/4W         | C113   | ECBT1H102KB5      | 1000P 50V        | C374   | ECEA1CKA470B | 47 16V           |
| R937   | ERDS2TJ102T | 1K 1/4W          | R1052  | ERDS2TJ105T | 1M 1/4W          | C114   | ECEA1HKA3R3B      | 3.3 50V          | C375   | ECEA1CKA470B | 47 16V           |
| R943   | ERDS2TJ102T | 1K 1/4W          | R1053  | ERDS2TJ102T | 1K 1/4W          | C115   | ECEA1EKA4R7B      | 4.7 25V          | C401   | ECEA1VKA4R7B | 4.7 35V          |
| R946   | ERDS2TJ103T | 10K 1/4W         | R1055  | ERDS2TJ224T | 220K 1/4W        | C116   | ECBT1C822MS5      | 8200P 16V        | C402   | ECEA1VKA4R7B | 4.7 35V          |
| R947   | ERDS2TJ103T | 10K 1/4W         | R1056  | ERDS2TJ153T | 15K 1/4W         | C117   | ECQB1H821JF3      | 820P 50V         | C403   | ECBT1E103ZF5 | 0.01 25V         |
| R948   | ERDS2TJ103T | 10K 1/4W         | R1061  | ERDS2TJ222T | 2.2K 1/4W        | C118   | ECFR1E183KR       | 0.018 25V        | C404   | ECBT1E103ZF5 | 0.01 25V         |
| R949   | ERDS2TJ103T | 10K 1/4W         | R1062  | ERDS2TJ273T | 27K 1/4W         | C119   | ECFR1E183KR       | 0.018 25V        | C405   | ECBT1H101KB5 | 100P 50V         |
| R950   | ERDS2TJ102T | 1K 1/4W          | R1063  | ERDS2TJ332T | 3.3K 1/4W        | C120   | ECEA1HKA010B      | 1 50V            | C406   | ECBT1H101KB5 | 100P 50V         |
| R951   | ERDS2TJ122T | 1.2K 1/4W        | R1081  | ERDS2TJ104T | 100K 1/4W        | C121   | ECEA1HKA010B      | 1 50V            | C409   | ECEA1EU220B  | 22 25V           |
| R952   | ERDS2TJ152T | 1.5K 1/4W        | R1082  | ERDS2TJ474T | 470K 1/4W        | C122   | ECEA1HKA2R2B      | 2.2 50V          | C410   | ECEA1EU220B  | 22 25V           |
| R953   | ERDS2TJ182T | 1.8K 1/4W        | R1151  | ERDS2TJ473T | 47K 1/4W         | C123   | ECEA1HKA010B      | 1 50V            | C411   | ECBT1H101KB5 | 100P 50V         |
| R954   | ERDS2TJ222T | 2.2K 1/4W        | R1152  | ERDS2TJ473T | 47K 1/4W         | C124   | ECBT1H102KB5      | 1000P 50V        | C412   | ECBT1H101KB5 | 100P 50V         |
| R955   | ERDS2TJ332T | 3.3K 1/4W        | R1153  | ERDS2TJ223T | 22K 1/4W         | C125   | ECBT1H150JC5      | 15P 50V          | C413   | ECEA1CU100B  | 10 16V           |
| R956   | ERDS2TJ472T | 4.7K 1/4W        | R1154  | ERDS2TJ473T | 47K 1/4W         | C126   | ECBT1H104ZF5      | 0.1 50V          | C414   | ECEA1CU100B  | 10 16V           |
| R957   | ERDS2TJ682T | 6.8K 1/4W        | R1155  | ERDS2TJ393T | 39K 1/4W         | C127   | ECEA1CKA220B      | 22 16V           | C415   | ECBT1E103ZF5 | 0.01 25V         |
| R958   | ERDS2TJ123T | 12K 1/4W         | R1156  | ERDS2TJ393T | 39K 1/4W         | C128   | ECBT1C103NS5      | 0.01 16V         | C416   | ECBT1E103ZF5 | 0.01 25V         |
| R960   | ERDS2TJ102T | 1K 1/4W          | R1157  | ERDS2TJ222T | 2.2K 1/4W        | C129   | ECEA0JKA101B      | 100 6.3V         | C429   | ECBT1H101KB5 | 100P 50V         |
| R961   | ERDS2TJ122T | 1.2K 1/4W        | R1158  | ERDS2TJ104T | 100K 1/4W        | C130   | ECEA0JKA101B      | 100 6.3V         | C430   | ECBT1H101KB5 | 100P 50V         |
| R962   | ERDS2TJ152T | 1.5K 1/4W        | R1159  | ERDS2TJ103T | 10K 1/4W         | C131   | ECBT1C103NS5      | 0.01 16V         | C431   | ECEA1CU100B  | 10 16V           |
| R963   | ERDS2TJ182T | 1.8K 1/4W        | R1160  | ERDS2TJ104T | 100K 1/4W        | C132   | ECBT1H102KB5      | 1000P 50V        | C432   | ECEA1CU100B  | 10 16V           |
| R964   | ERDS2TJ222T | 2.2K 1/4W        | R1161  | ERDS2TJ104T | 100K 1/4W        | C133   | ECBT1H150JC5      | 15P 50V          | C440   | ECBT1E103ZF5 | 0.01 25V         |
| R970   | ERDS2TJ102T | 1K 1/4W          | R1163  | ERDS2TJ333T | 33K 1/4W         | C134   | ECBT1H180JC5      | 18P 50V          | C451   | ECEA1HU4R7B  | 4.7 50V          |

| Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks | Ref No | Part No.                                                                                         | Values & Remarks                                                                               | Ref No | Part No.     | Values & Remarks |
|--------|--------------|------------------|--------|--------------|------------------|--------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|--------|--------------|------------------|
| C452   | ECEA1HU4R7B  | 4.7 50V          | C539   | ECEA1CU100B  | 10 16V           | C656   | ECEA1JU330                                                                                       | 33 63V                                                                                         | C901   | ECEA0JU102B  | 1000 6.3V        |
| C453   | ECBT1H101KB5 | 100P 50V         | C541   | ECEA1HU470B  | 47 50V           | C657   | ECCR1H100K5                                                                                      | 10P 50V                                                                                        | C902   | ECBT1H104ZF5 | 0.1 50V          |
| C454   | ECBT1H101KB5 | 100P 50V         | C542   | ECEA1HU470B  | 47 50V           | C658   | ECCR1H100K5                                                                                      | 10P 50V                                                                                        | C903   | ECBT1E103ZF5 | 0.01 25V         |
| C455   | ECBT1H102KB5 | 1000P 50V        | C551   | ECEA1HKA3R3B | 3.3 50V          | C659   | ECBT1H221KB5                                                                                     | 220P 50V                                                                                       | C904   | ECEA0JU102B  | 1000 6.3V        |
| C456   | ECBT1H102KB5 | 1000P 50V        | C552   | ECEA1HKA3R3B | 3.3 50V          | C660   | ECBT1H221KB5                                                                                     | 220P 50V                                                                                       | C906   | ECEA0JKA101B | 100 6.3V         |
| C457   | ECEA1AKA330B | 33 10V           | C553   | ECBT1H101KB5 | 100P 50V         | C661   | ECQV1H473JZ3                                                                                     | 0.047 50V                                                                                      | C908   | ECBT1E103ZF5 | 0.01 25V         |
| C458   | ECEA1AKA330B | 33 10V           | C554   | ECBT1H101KB5 | 100P 50V         | C662   | ECQV1H473JZ3                                                                                     | 0.047 50V                                                                                      | C909   | ECEA1HKA220B | 22 50V           |
| C459   | ECFR1E223KR  | 0.022 25V        | C555   | ECBT1H221KB5 | 220P 50V         | C663   | ECBT1H681KB5                                                                                     | 680P 50V                                                                                       | C910   | ECEA1HKA220B | 22 50V           |
| C460   | ECFR1E223KR  | 0.022 25V        | C556   | ECBT1H221KB5 | 220P 50V         | C664   | ECBT1H681KB5                                                                                     | 680P 50V                                                                                       | C911   | ECEA1HKA220B | 22 50V           |
| C461   | ECFR1E682KR  | 6800P 25V        | C557   | ECBT1E103ZF5 | 0.01 25V         | C667   | ECEA1HN3R3SB                                                                                     | 3.3 50V                                                                                        | C912   | ECEA1HKA220B | 22 50V           |
| C462   | ECFR1E682KR  | 6800P 25V        | C558   | ECBT1E103ZF5 | 0.01 25V         | C668   | ECBT1H681KB5                                                                                     | 680P 50V                                                                                       | C913   | ECEA1VKA100B | 10 35V           |
| C463   | ECEA1HU4R7B  | 4.7 50V          | C559   | ECEA1CKA100B | 10 16V           | C669   | ECEA1JU330                                                                                       | 33 63V                                                                                         | C914   | ECEA1VKA100B | 10 35V           |
| C464   | ECEA1HU4R7B  | 4.7 50V          | C560   | ECEA1CKA100B | 10 16V           | C670   | ECCR1H100K5                                                                                      | 10P 50V                                                                                        | C916   | ECEA1HKA010B | 1 50V            |
| C465   | ECBT1E103ZF5 | 0.01 25V         | C563   | ECBT1H104ZF5 | 0.1 50V          | C671   | ECEA2AU100B                                                                                      | 10 100V                                                                                        | C919   | ECBT1E103ZF5 | 0.01 25V         |
| C466   | ECBT1E103ZF5 | 0.01 25V         | C581   | ECEA0JKA101B | 100 6.3V         | C672   | ECEA2AU100B                                                                                      | 10 100V                                                                                        | C920   | ECEA1HKA010B | 1 50V            |
| C501   | ECFR1E333KR  | 0.033 25V        | C582   | ECEA0JKA101B | 100 6.3V         | C674   | ECQV1H473JZ3                                                                                     | 0.047 50V                                                                                      | C921   | ECBT1H331KB5 | 330P 50V         |
| C502   | ECFR1E333KR  | 0.033 25V        | C583   | ECEA0JKA101B | 100 6.3V         | C675   | ECBT1H681KB5                                                                                     | 680P 50V                                                                                       | C922   | ECBT1H331KB5 | 330P 50V         |
| C503   | ECEA0JKA101B | 100 6.3V         | C584   | ECEA0JKA101B | 100 6.3V         | C680   | ECBT1H221KB5                                                                                     | 220P 50V                                                                                       | C923   | ECBT1H331KB5 | 330P 50V         |
| C504   | ECEA0JKA101B | 100 6.3V         | C601   | ECEA1HN3R3SB | 3.3 50V          | C681   | ECEA1HN100SB                                                                                     | 10 50V                                                                                         | C924   | ECBT1H331KB5 | 330P 50V         |
| C505   | ECFR1C104MR  | 0.1 16V          | C602   | ECEA1HN3R3SB | 3.3 50V          | C682   | ECEA1HN100SB                                                                                     | 10 50V                                                                                         | C925   | ECBT1H331KB5 | 330P 50V         |
| C506   | ECFR1C104MR  | 0.1 16V          | C603   | ECBT1H681KB5 | 680P 50V         | C685   | ECBT1E103ZF5                                                                                     | 0.01 25V                                                                                       | C926   | ECBT1H331KB5 | 330P 50V         |
| C511   | ECEA1HKA3R3B | 3.3 50V          | C604   | ECBT1H681KB5 | 680P 50V         | C701   | ECBT1E103ZF5                                                                                     | 0.01 25V                                                                                       | C927   | ECBT1H331KB5 | 330P 50V         |
| C512   | ECEA1HKA3R3B | 3.3 50V          | C605   | ECEA1JU330   | 33 63V           | C702   | ECQE2104KF3                                                                                      | 4K 250V                                                                                        | C928   | ECBT1H331KB5 | 330P 50V         |
| C513   | ECBT1H150J5  | 15P 50V          | C606   | ECEA1JU330   | 33 63V           | C703   | ECES1KV752UX  | 7500 100V [MAV]                                                                                | C929   | ECBT1H331KB5 | 330P 50V         |
| C514   | ECBT1H150J5  | 15P 50V          | C607   | ECCR1H100K5  | 10P 50V          | C704   | ECES1KV752UX  | 7500 100V [MAV]                                                                                | C930   | ECBT1H331KB5 | 330P 50V         |
| C515   | ECBT1H221KB5 | 220P 50V         | C608   | ECCR1H100K5  | 10P 50V          | C705   | ECEA1HM332EV                                                                                     | 3300 50V  | C931   | ECBT1H101KB5 | 100P 50V         |
| C516   | ECBT1H221KB5 | 220P 50V         | C609   | ECBT1H221KB5 | 220P 50V         | C706   | ECEA1HM332EV                                                                                     | 3300 50V  | C932   | ECBT1E103ZF5 | 0.01 25V         |
| C517   | ECBT1H330J5  | 33P 50V          | C610   | ECBT1H221KB5 | 220P 50V         | C707   | ECA1VM101B                                                                                       | 100 35V                                                                                        | C934   | ECBT1H101KB5 | 100P 50V         |
| C518   | ECBT1H330J5  | 33P 50V          | C611   | ECQV1H473JZ3 | 0.047 50V        | C708   | ECKR1H103ZF5                                                                                     | 0.01 50V                                                                                       | C941   | ECBT1E103ZF5 | 0.01 25V         |
| C519   | ECEA1VKA4R7B | 4.7 35V          | C612   | ECQV1H473JZ3 | 0.047 50V        | C709   | ECEA1CU330B                                                                                      | 33 16V                                                                                         | C948   | ECBT1E103ZF5 | 0.01 25V         |
| C520   | ECEA1VKA4R7B | 4.7 35V          | C613   | ECBT1H681KB5 | 680P 50V         | C710   | ECBT1E103ZF5                                                                                     | 0.01 25V                                                                                       | C951   | ECBT1H101KB5 | 100P 50V         |
| C521   | ECEA1VKA4R7B | 4.7 35V          | C614   | ECBT1H681KB5 | 680P 50V         | C711   | ECKR1H103ZF5                                                                                     | 0.01 50V                                                                                       | C952   | ECBT1H330J5  | 33P 50V          |
| C522   | ECEA1VKA4R7B | 4.7 35V          | C615   | ECEA1JU330   | 33 63V           | C712   | ECEA1HU100B                                                                                      | 10 50V                                                                                         | C953   | ECBT1H101KB5 | 100P 50V         |
| C523   | ECFR1E123KR  | 0.012 25V        | C616   | ECEA2AU100B  | 10 100V          | C713   | ECKR1H103ZF5                                                                                     | 0.01 50V                                                                                       | C955   | ECBT1H101KB5 | 100P 50V         |
| C524   | ECFR1E123KR  | 0.012 25V        | C617   | ECEA1JU220B  | 22 63V           | C714   | ECEA1EU470B                                                                                      | 47 25V                                                                                         | C956   | ECBT1H101KB5 | 100P 50V         |
| C525   | ECQV1H683JZ3 | 0.068 50V        | C618   | ECEA2AN2R2SB | 2.2 100V         | C715   | ECEA1CU101B                                                                                      | 100 16V                                                                                        | C1001  | ECEA1HKA010B | 1 50V            |
| C526   | ECQV1H683JZ3 | 0.068 50V        | C619   | ECBT1H102KB5 | 1000P 50V        | C721   | ECQE2104KF3                                                                                      | 0.1 250V                                                                                       | C1002  | ECEA1HKA010B | 1 50V            |
| C527   | ECBT1C562KR5 | 5600P 16V        | C621   | ECEA2AU100B  | 10 100V          | C722   | ECQE2104KF3                                                                                      | 0.1 250V                                                                                       | C1003  | ECEA1HKA3R3B | 3.3 50V          |
| C528   | ECBT1C562KR5 | 5600P 16V        | C622   | ECEA2AU100B  | 10 100V          | C751   | ECKWNS102MBM                                                                                     | 1000P 400V                                                                                     | C1004  | ECEA1HKA3R3B | 3.3 50V          |
| C529   | ECQB1H273JF3 | 0.027 50V        | C639   | ECKR1H122KB5 | 1200P 50V        | C752   | ECKR1H103ZF5                                                                                     | 0.01 50V                                                                                       | C1005  | ECEA1HKA010B | 1 50V            |
| C530   | ECQB1H273JF3 | 0.027 50V        | C640   | ECKR1H122KB5 | 1200P 50V        | C753   | ECA1EM102B                                                                                       | 1000 25V  | C1007  | ECFR1E223KR  | 0.022 25V        |
| C531   | ECBT1E103ZF5 | 0.01 25V         | C649   | ECEA2AU100B  | 10 100V          | C754   | ECBT1E103ZF5                                                                                     | 0.01 25V                                                                                       | C1008  | ECFR1E473KR  | 0.047 25V        |
| C532   | ECBT1E103ZF5 | 0.01 25V         | C650   | ECEA2AU100B  | 10 100V          | C755   | ECEA1CKA470B                                                                                     | 47 16V                                                                                         | C1009  | ECEA0JU221B  | 220 6.3V         |
| C533   | ECEA1EKA100B | 10 25V           | C651   | ECEA1HN3R3SB | 3.3 50V          | C758   | ECEA1AU101B                                                                                      | 100 10V                                                                                        | C1010  | ECEA1CKA100B | 10 16V           |
| C534   | ECEA1EKA100B | 10 25V           | C652   | ECEA1HN3R3SB | 3.3 50V          | C771   | ECEA1HKA2R2B                                                                                     | 2.2 50V                                                                                        | C1011  | ECEA1CKA100B | 10 16V           |
| C536   | ECBT1E103ZF5 | 0.01 25V         | C653   | ECBT1H681KB5 | 680P 50V         | C772   | ECEA1CU100B                                                                                      | 10 16V                                                                                         | C1012  | ECEA1CKA100B | 10 16V           |
| C537   | ECEA1CU100B  | 10 16V           | C654   | ECBT1H681KB5 | 680P 50V         | C773   | ECBT1E223ZF5                                                                                     | 0.022 25V                                                                                      | C1013  | ECEA1CKA100B | 10 16V           |
| C538   | ECEA1CU100B  | 10 16V           | C655   | ECEA1JU330   | 33 63V           | C774   | ECEA0JU221B                                                                                      | 220 6.3V                                                                                       | C1014  | ECEA0JU221B  | 220 6.3V         |

| Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks | Ref No | Part No.     | Values & Remarks |
|--------|--------------|------------------|--------|--------------|------------------|--------|--------------|------------------|--------|--------------|------------------|
| C1015  | ECQV1H104JZ3 | 0.1 50V          | C1030  | ECEA1HKAR47B | 0.47 50V         | C1052  | ECEA1HKA010B | 1 50V            | C1081  | ECEA1HKA010B | 1 50V            |
| C1016  | ECQV1H104JZ3 | 0.1 50V          | C1031  | ECQV1H104JZ3 | 0.1 50V          | C1053  | ECEA1HKA3R3B | 3.3 50V          | C1082  | ECBT1E223ZF5 | 0.022 25V        |
| C1017  | ECEA1HKAR47B | 0.47 50V         | C1032  | ECQV1H104JZ3 | 0.1 50V          | C1054  | ECEA0JU221B  | 220 6.3V         | C1151  | ECEA1HKA010B | 1 50V            |
| C1018  | ECEA1HKA4R7B | 4.7 50V          | C1033  | ECEA0JKA470B | 47 6.3V          | C1055  | ECEA1HKA010B | 1 50V            | C1152  | ECFR1C393KR  | 0.039 16V        |
| C1019  | ECEA1HKAR47B | 0.47 50V         | C1034  | ECQV1H474JZ3 | 0.47 50V         | C1056  | ECFR1E563KR  | 0.056 25V        | C1153  | ECFR1C393KR  | 0.039 16V        |
| C1020  | ECEA1HKA4R7B | 4.7 50V          | C1035  | ECBT1H681KB5 | 680P 50V         | C1057  | ECFR1E152KR  | 1500P 25V        | C1154  | ECEA1VKA4R7B | 4.7 35V          |
| C1021  | ECEA1HKAR15B | 0.15 50V         | C1036  | ECBT1H101KB5 | 100P 50V         | C1058  | ECFR1E563KR  | 0.056 25V        | C1155  | ECBT1E103ZF5 | 0.01 25V         |
| C1022  | ECEA1HKA3R3B | 3.3 50V          | C1037  | ECBT1H101KB5 | 100P 50V         | C1059  | ECEA1CKA101B | 100 16V          | C1156  | ECBT1E103ZF5 | 0.01 25V         |
| C1023  | ECQV1H154JZ3 | 0.15 50V         | C1038  | ECBT1H101KB5 | 100P 50V         | C1060  | ECBT1E223ZF5 | 0.022 25V        | C1157  | ECBT1E103ZF5 | 0.01 25V         |
| C1024  | ECQV1H154JZ3 | 0.15 50V         | C1039  | ECEA1CU101B  | 100 16V          | C1062  | ECBT1E223ZF5 | 0.022 25V        | C1159  | ECEA1HKA010B | 1 50V            |
| C1025  | ECEA1HKA3R3B | 3.3 50V          | C1040  | ECEA1CKA100B | 10 16V           | C1063  | ECEA1CKA101B | 100 16V          | C1160  | ECEA1HKA010B | 1 50V            |
| C1026  | ECEA1HKAR15B | 0.15 50V         | C1041  | ECBT1E103ZF5 | 0.01 25V         | C1064  | ECEA1HKA010B | 1 50V            | C1161  | ECBT1H101KB5 | 100P 50V         |
| C1027  | ECEA1HKA4R7B | 4.7 50V          | C1043  | ECEA1CKA100B | 10 16V           | C1065  | ECBT1H681KB5 | 680P 50V         |        |              |                  |
| C1028  | ECEA1HKAR47B | 0.47 50V         | C1044  | ECEA1CKA100B | 10 16V           | C1067  | ECBT1C152KR5 | 1500P 16V        |        |              |                  |
| C1029  | ECEA1HKA4R7B | 4.7 50V          | C1051  | ECEA1HKA2R2B | 2.2 50V          | C1068  | ECBT1C152KR5 | 1500P 16V        |        |              |                  |

## ■ Packaging

### Notes: \* Important safety notice :

Components identified by  $\Delta$  mark have special characteristics important for safety.

Furthermore, special parts which have purposes of fire-retardant (resistors), high-quality sound (capacitors), low-noise (resistors), etc. are used. When replacing any of components, be sure to use only manufacturer's specified parts shown in the parts list.

\* The parenthesized in the Remarks columns specify the areas. (Refer to the cover page for area.)

Parts without these indication can be used for all areas.

\* [M] in Remarks column indicates parts that are supplied by MESA.

\* [MAV] in Remarks column indicates parts that are supplied by MAV.

\* Remote Control Unit : Supply period for three years from terminal of production.

\* The "(SF)" mark denotes the standard part.

| Ref No | Part No. | Part Name & Description  | Remarks | Ref No | Part No.     | Part Name & Description | Remarks | Ref No | Part No.     | Part Name & Description | Remarks       |
|--------|----------|--------------------------|---------|--------|--------------|-------------------------|---------|--------|--------------|-------------------------|---------------|
|        |          |                          |         | P4     | RPFX0005     | MIRAMAT SHEET           | [M]     | A2     | RSA0010      | AM LOOP ANT             |               |
|        |          | <b>PACKING MATERIALS</b> |         |        |              | <b>ACCESSORIES</b>      |         | A3     | SJA172       | AC CORD                 | (SF) $\Delta$ |
| P1     | SPSD152  | ACCESSORY BOX            |         |        |              |                         |         | A4     | SSA272       | FM ANT                  | [M]           |
| P2     | RPG2916  | PACKING CASE             | [MAV]   | A1     | EUR643853    | REMOTE CONTROL          |         | A5     | RFKSEX600PK  | INSTRUMNL ASS'Y         | [MAV](P)      |
| P3     | RPN0966  | POLY FOAM                | [MAV]   | A1-1   | UR64EC1371S4 | BATTY COVER             | [MAV]   | A5     | RFKSEX600PCK | INSTRUMNL ASS'Y         | [MAV](PC)     |

P1 (SPSD152) : ACCESSORY BOX

|                          |                      |
|--------------------------|----------------------|
| A1 (EUR643853)           | : REMOTE CONTROL     |
| A2 (RSA0010)             | : AM LOOP ANT        |
| A3 (SJA172)              | : AC CORD            |
| A4 (SSA272)              | : FM ANT             |
| A5 (RFKSEX600PK ... P)   | : INSTRUCTION MANUAL |
| A5 (RFKSEX600PCK ... PC) |                      |

P3 (RPN0966) —

- \*P3 (A)
- \*P3 (B)
- \*P3 (C)
- \*P3 (D)

