

AV RECEIVER RX-V795a/RDS HTR-5170

SERVICE MANUAL

IMPORTANT NOTICE

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

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

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

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

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

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

■ CONTENTS

TO SERVICE PERSONNEL	1	TUNER ADJUSTMENTS	22~25
REMOTE CONTROL PANELS	1	DISPLAY DATA	26
FRONT PANELS	2	IC DATA	27~37
REAR PANELS	3~4	PRINTED CIRCUIT BOARD	38~61
SPECIFICATIONS	5~6	PIN CONNECTION DIAGRAM	62
INTERNAL VIEW	7	BLOCK DIAGRAM	63~64
DISASSEMBLY PROCEDURES	7	SCHEMATIC DIAGRAM	65~73
SELF DIAGNOSIS FUNCTION	8~19	PARTS LIST	74~92
FACTORY PRESET	20	REMOTE CONTROL TRANSMITTER	93
AMP ADJUSTMENTS	21		

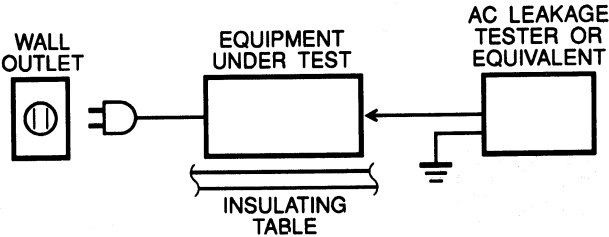


このサービスマニュアルは、エコマーク認定の再生紙を使用しています。
This Service Manual uses recycled paper.



■ TO SERVICE PERSONNEL

1. Critical Components information.
Components having special characteristics are marked  and must be replaced with parts having specifications equal to those originally installed.
2. Leakage Current Measurement (For 120V Model only).
When service has been completed, it is imperative that you verify that all exposed conductive surfaces are properly insulated from supply circuits.
- Meter impedance should be equivalent to 1500 ohm shunted by 0.15 μ F.
 - Leakage current must not exceed 0.5mA.
 - Be sure to test for leakage with the AC plug in both polarities.



"CAUTION"



- "F821 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,REPLACE ONLY WITH SAME TYPE 2.5A,250V FUSE (G model)"
- "F822 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,REPLACE ONLY WITH SAME TYPE 4.0A,250V FUSE (A, B, G, L models)"
- "F823 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,REPLACE ONLY WITH SAME TYPE 8.0A,125V FUSE (U, C, R, T models)"
- "F851 : FOR CONTINUED PROTECTION AGAINST RISK OF FIRE,REPLACE ONLY WITH SAME TYPE 4.0A,250V FUSE (R, T models)"

WARNING: CHEMICAL CONTENT NOTICE!

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

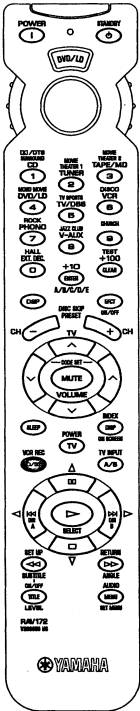
DO NOT PLACE SOLDER, ELECTRICAL/ELECTRONIC OR PLASTIC COMPONENTS IN YOUR MOUTH FOR ANY REASON WHATSOEVER!

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

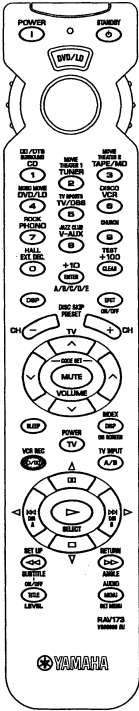
If you come in contact with solder or components located inside the enclosure of this product, wash your hands before handling food.

■ REMOTE CONTROL PANELS

▼U, C, R, T and L models

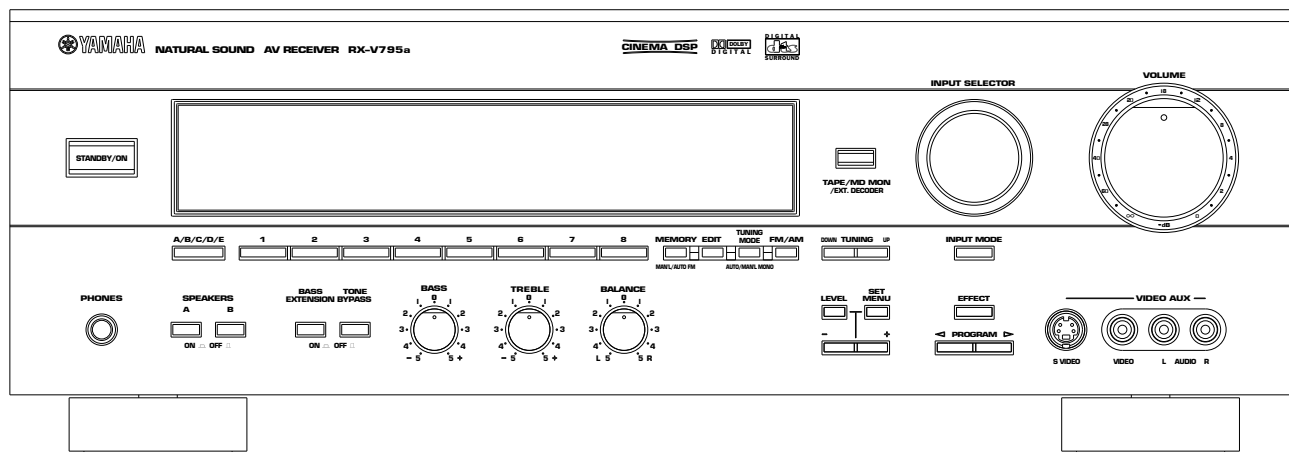


▼A, B and G models

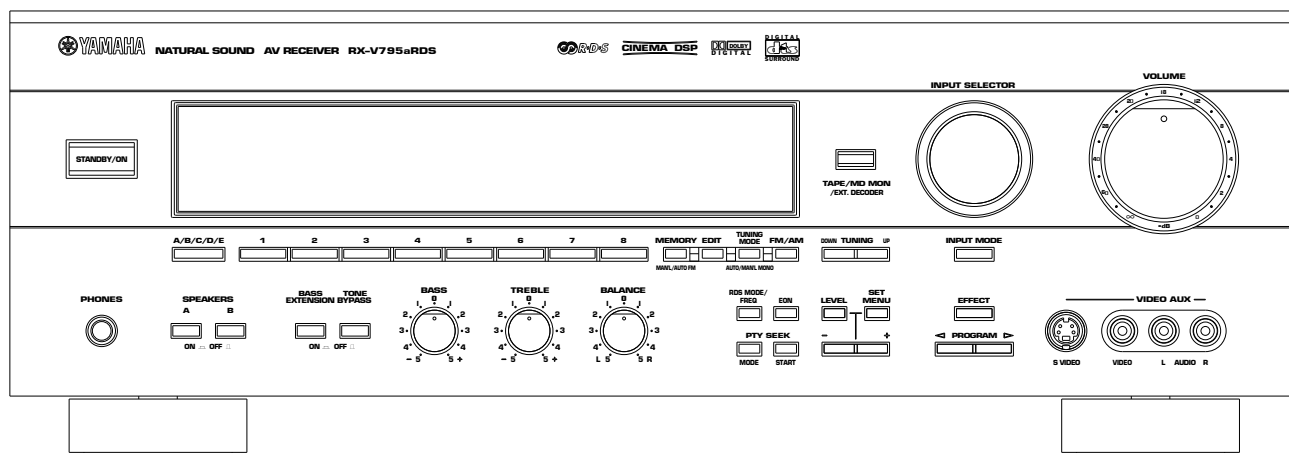


FRONT PANELS

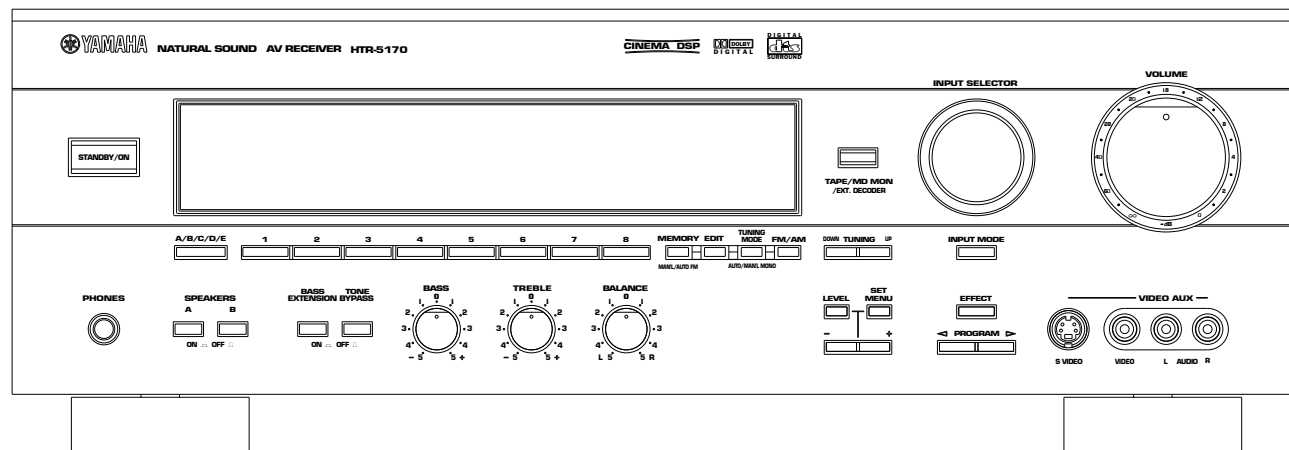
▼RX-V795a



▼RX-V795aRDS B, G models

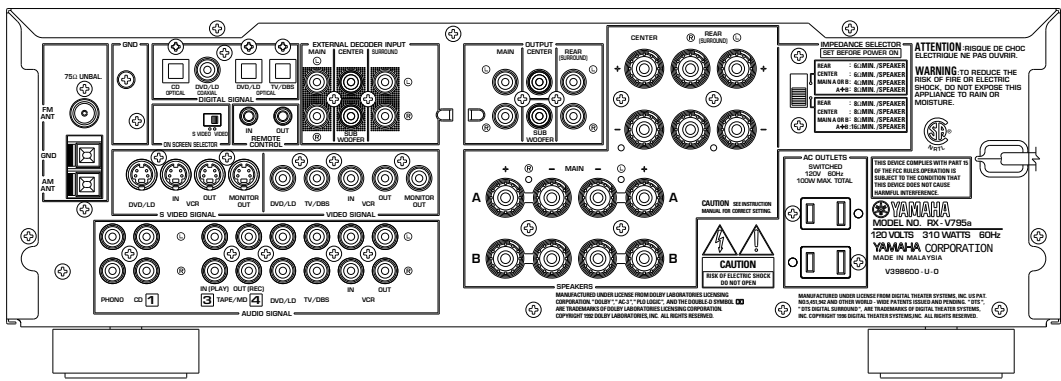


▼HTR-5170

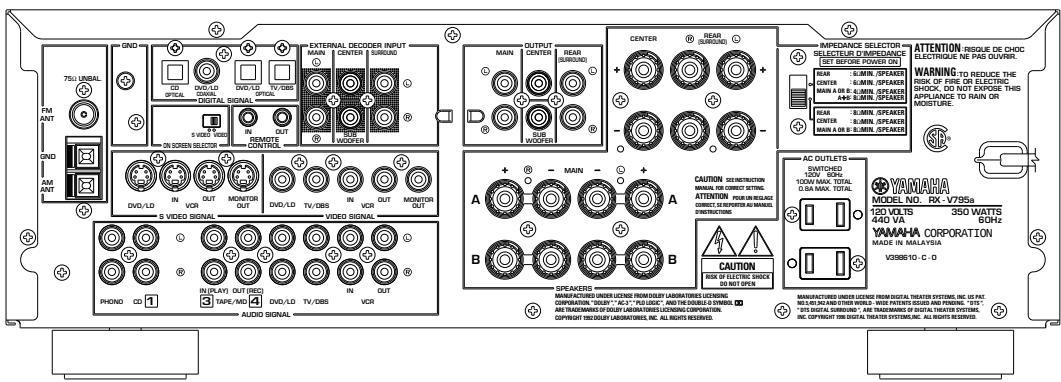


REAR PANELS

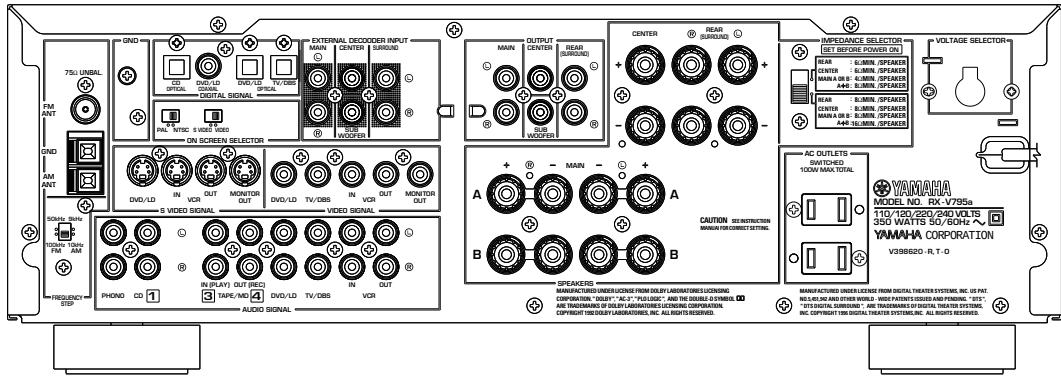
▼RX-V795a/HTR-5170 U model



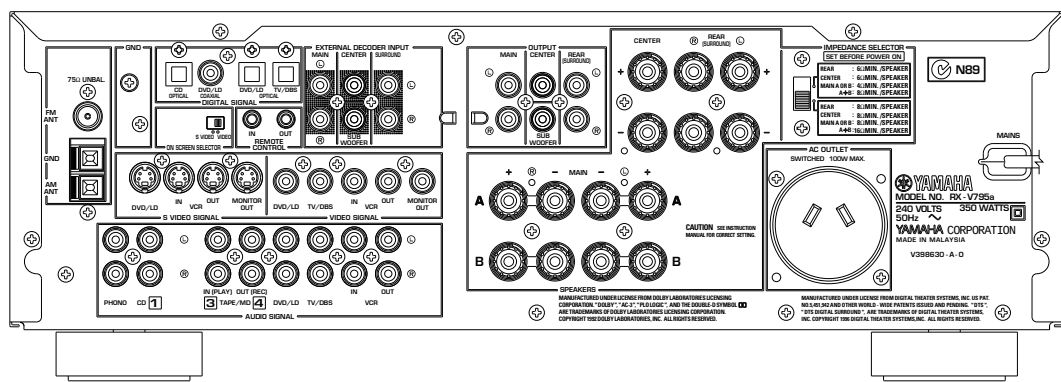
▼RX-V795a/HTR-5170 C model



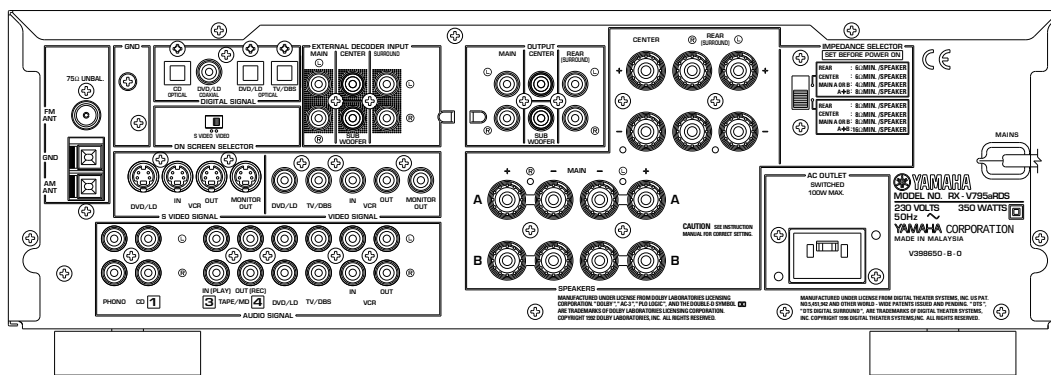
▼RX-V795a/HTR-5170 R, T models



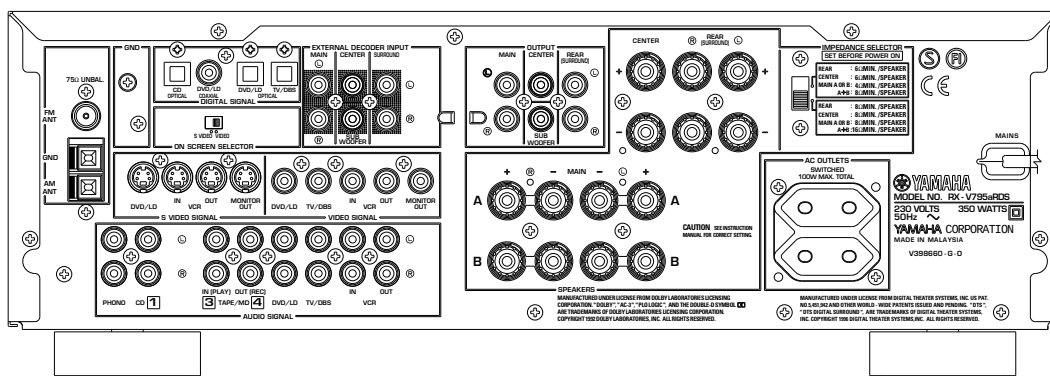
▼RX-V795a/HTR-5170 A model



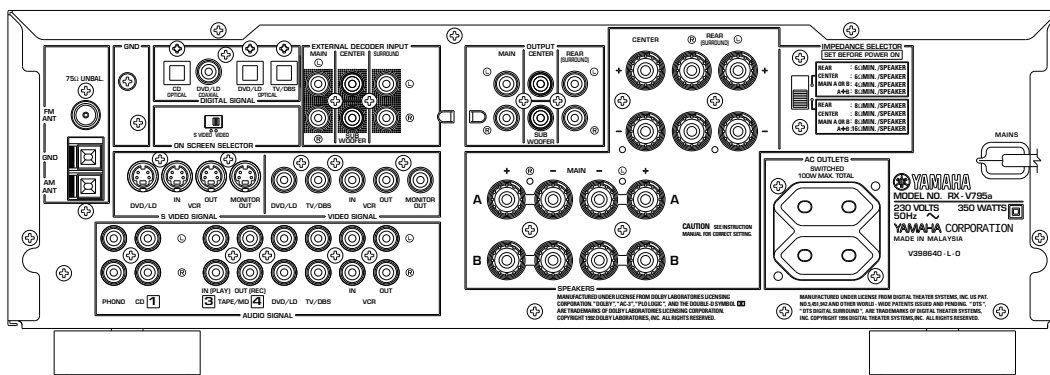
▼RX-V795aRDS B model



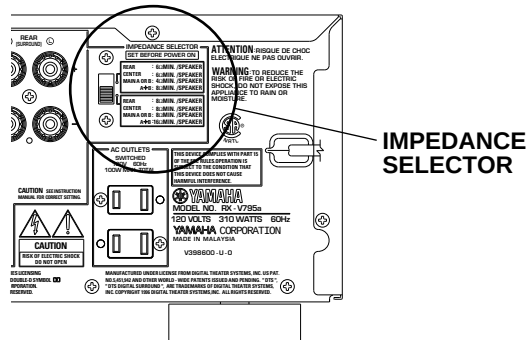
▼RX-V795aRDS G model



▼RX-V795a L model

**WARNING**

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



■ SPECIFICATIONS

■ AUDIO SECTION

Minimum RMS Output Power per Channel

RX-V795a

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

HTR-5170

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

Maximum Power per Channel (R,T models only)

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

Dynamic Power per Channel (IHF)

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

Dynamic Headroom (U, C, models only)

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

DIN Standard Output Power Per Channel

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

IEC Power (L model only)

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

Power Band Width

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

Damping Factor

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

Input Sensitivity/Impedance

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

Maximum Input Signal Level

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

Output Level/Impedance

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

Headphone Jack Rated Output/Impedance

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

Frequency Response (20Hz to 20kHz)

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

RIAA Equalization Deviation (20Hz to 20kHz)

PHONO MM	0±0.5dB
----------	---------

Total Harmonic Distortion (20Hz to 20kHz)

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

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

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

Residual Noise (IHF-A-Network)

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

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

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

60dB or more/45dB or more

Tone Control Characteristics

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

Turnover Frequency	3.5kHz
--------------------	--------

Filter Characteristics

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

Bass Extension (MAIN L/R)

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

Gain Tracking Error (0dB to -60dB)

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

Tuner Output Level/Impedance

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

■ FM SECTION

Tuning Range

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

50dB Quieting Sensitivity (IHF, 75 Ω)

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

Usable Sensitivity (75 Ω)

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

Alternate Channel Selectivity (±400kHz)

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

Selectivity (two signals, 40kHz Dev.)

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

Signal-to-Noise Ratio

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

Harmonic Distortion

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

Stereo Separation

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

Frequency Response

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

■ AM SECTION

Tuning Range

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

Usable Sensitivity

	300μV/m
--	---------

Signal-to-Noise Ratio

	52dB
--	------

VIDEO SECTION

Video Signal Type

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

Video Signal Level 1Vp-p/75Ω

S-Video Signal Level

Y	1Vp-p/75Ω
C	0.286Vp-p/75Ω

Maximum Input Level 1.5Vp-p or more

Signal-to-Noise Ratio 50dB or more

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

GENERAL

Power Supply

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

Power Consumption

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

Maximum Power Consumption (R model only) 690W

AC Outlets

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

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

Weight 13.0kg (28 lbs 11oz)

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

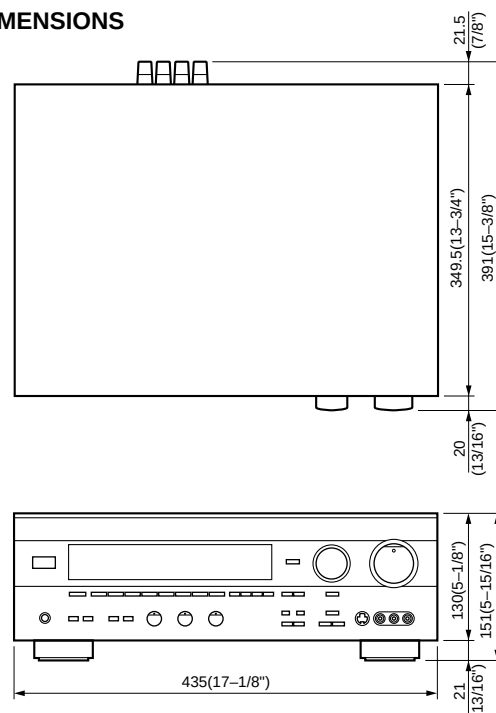
* Specifications are subject to change without notice.

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

Manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby", "AC-3", "Pro Logic", and the double-D symbol  are trademarks of Dolby Laboratories Licensing Corporation. Copyright 1992 Dolby Laboratories, Inc. All rights reserved.

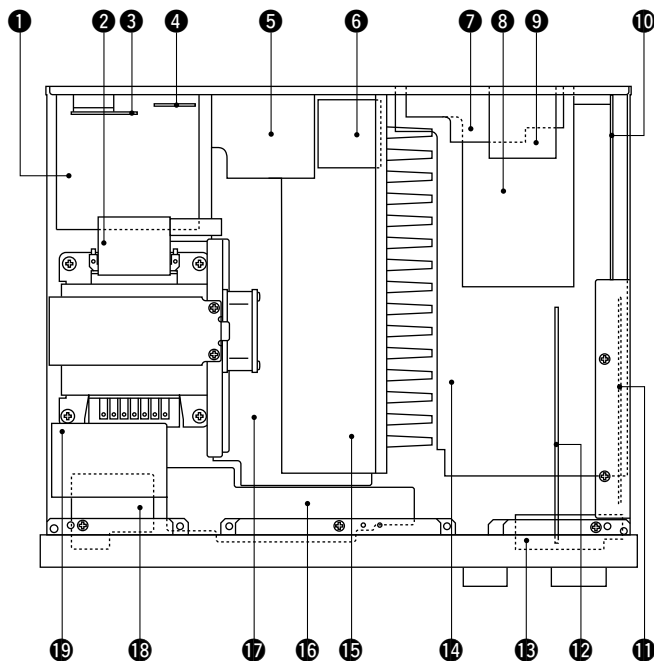
Manufactured under license from Digital Theater Systems, Inc. US Pat. No. 5,451,942 and other world-wide patents issued and pending. "DTS", "DTS Digital Surround", are trademarks of Digital Theater Systems, Inc. Copyright 1996 Digital Theater Systems, inc. All rights reserved.

DIMENSIONS



Units : mm (inch)

INTERNAL VIEW



- ① P. C. B. INPUT (3)
- ② P. C. B. MAIN (6)
- ③ P. C. B. INPUT (4) (R, T models)
- ④ P. C. B. MAIN (5)
- ⑤ P. C. B. VIDEO (2)
- ⑥ P. C. B. MAIN (7)
- ⑦ P. C. B. OPERATION (4)
- ⑧ P. C. B. VIDEO (1)
- ⑨ P. C. B. OPERATION (5)
- ⑩ P. C. B. TUNER
- ⑪ P. C. B. DSP
- ⑫ P. C. B. OPERATION (2)
- ⑬ P. C. B. OPERATION (6)
- ⑭ P. C. B. INPUT(1)
- ⑮ P. C. B. MAIN(2)
- ⑯ P. C. B. OPERATION (3)
- ⑰ P. C. B. MAIN (1)
- ⑱ P. C. B. MAIN (4)
- ⑲ P. C. B. MAIN (3)

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

1. Removal of Top Cover

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

2. Removal of Bottom Cover

- a. Remove 6 screws (③) in Fig. 1.

3. Removal of Front Panel

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

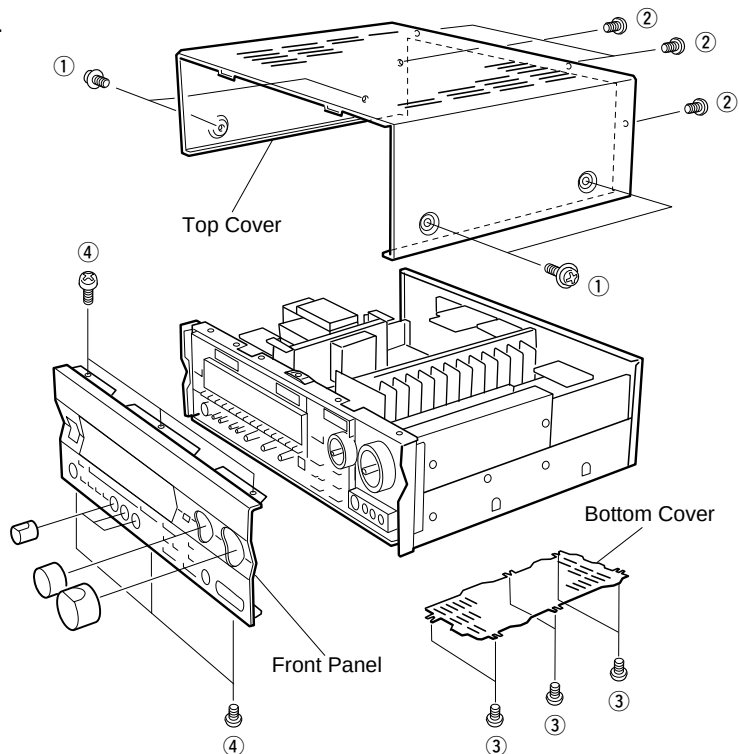


Fig. 1

■ SELF DIAGNOSIS FUNCTION

1. PURPOSE AND OPERATION

The RX-V795a/RDS/HTR-5170 has a Self Diagnosis Function to locate a faulty part, if any, by inspecting and taking measurements.

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

No.	MAIN MENU	SUB MENU	REMOTE CODE
1	ANALOG THROUGH	1. MAIN BYPASS 2. DSP 0dB	7A-88 : DSP/1 ---
2	DSP THROUGH	1. YSS918-SRAM 2. YSS918 3. DSP FULL BIT	7A-89 : DSP/2 --- ---
3	AC-3/DTS THROUGH	1. STATUS (BINARY FORM)	---
4	PRO LOGIC	1. CENTER LARGE 2. EFFECT OFF	7A-8A : DSP/3 ---
5	SPEAKERS SET	1. MAIN : SMALL 0dB 2. MAIN : LARGE 0dB 3. MAIN : LARGE -10dB 4. LFE/BASS : MAIN CENTER : NONE 5. LFE/BASS : MAIN 6. LFE/BASS : SWFR 7. CENTER : NONE 8. CENTER : SMALL REAR : SMALL 9. FRONT MIX	7A-8B : DSP/4 7A-8C : DSP/5 7A-8D : DSP/6 7A-8E : DSP/7 7A-8F : DSP/8 7A-90 : DSP/9 7A-91 : DSP/11 --- 7A-85 : DSP/15
6	EFFECT OFF /DISPLAY CHECK	1. EFFECT OFF 2. VFD DISP OFF 3. VFD DISP ALL 4. VFD DIMMER 5. CHECKED PATTERN	7A-56 : DSP or .../16 --- --- --- ---
7	MANUAL TEST	1. ALL 2. MAIN L 3. CENTER 4. MAIN R 5. REAR R 6. REAR L 7. LFE	--- --- --- --- --- --- ---
8	FACTORY PRESET	1. INHIBIT(Inhibit Memory Init) 2. RESERVED (Init. Memory)	--- ---
9	AD DATA CHECK	1. AD CHECK : 000 2. KEY0, KEY1 3. KEY2, REC OUT 4. TUNING SIGNAL HEAT SINK TEMP. 5. DC PROTECTION PS PROTECTION	--- --- --- --- ---
10	STATUS	1./2. DSP CPU STATUS (1)/(2) 3./4. CHANNEL STATUS (1)/(2) 5./6. SUB CPU VERSION (1)/(2) 7./8. SUB CPU CHECK SUM (1)/(2) 9./10. BSI0 (1)/(2) 11./12. BSI1 (1)/(2) 13./14. BSI2 (1)/(2) 15./16. BSI3 (1)/(2) 17./18. BSI4 (1)/(2) 19./20. BSI5 (1)/(2)	--- --- --- --- --- --- --- --- --- ---
11	VERSION CHECK /CPU CHECK SUM /EXIT	1. MAIN MC CHECK SUM 2. DSP MC CHECK SUM 3. MAIN M.C. VERSION 4. SUB M.C. VERSION 5. PORT INFORMATION 6. EXIT	--- --- --- --- --- ---

2. BEGINNING AND CANCELLATION

(1) STARTING UP THE FUNCTION AND THE DISPLAY

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

A. How to start test mode

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

Using the keys on the main unit:

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

B. Settings for start-up of diagnostic program

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

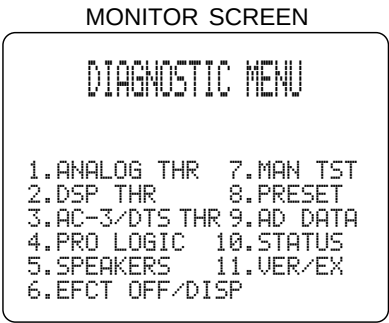
1. EFFECT LEVEL :

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

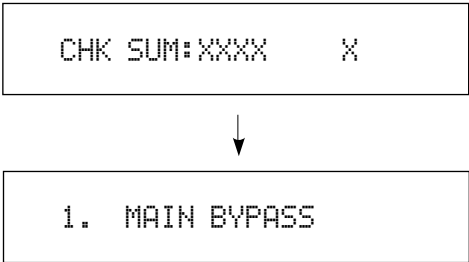
- 2. MUTING : OFF
- 3. INPUT (VIDEO) : DVD/LD (DVD/LD)
- 4. CENTER SPEAKER : LARGE
- 5. REAR SPEAKER : LARGE
- 6. MAIN SPEAKER : LARGE
- 7. LFE/BASS OUT : SWFR

C. Start-up display

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



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



● FL display at start-up of diagnostic program

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

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

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

● History of protection function

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

CHK SUM:XXXX X

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

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

I PROTECTION

Appears when the current protection function is operating.

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

PS PRT : XX%

Appears when the power protection function is operating.

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

DC PRT : XX%

Appears when the power amp DC protection function is operating.

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

TMP PRT : XX%

Appears when the heat sink thermal protection function is operating.

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

* For the voltages of Power and DC protection functions, see diagnosis menu No.9, which will be described later.

(2) EXITING METHOD

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

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

3. OPERATION AND DISPLAY WHEN STARTING DIAGNOSIS FUNCTION

(1) Selection of diagnostic menu

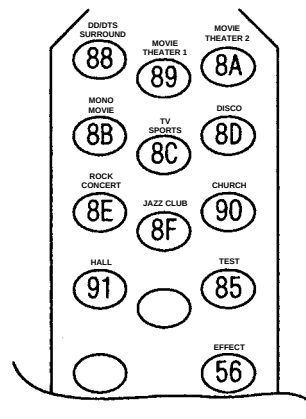
The diagnostic menu and the sub-menu can be selected by using the front panel keys of the main unit or the remote control unit.

● Selection by using the front panel keys

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

● Selection by using the remote control unit

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



(2) Display during Menu Operation

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

(3) Other functions available while diagnosis function is active

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

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

(4) Diagnosis default status

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

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

4. CONTENTS OF DIAGNOSIS FUNCTION

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

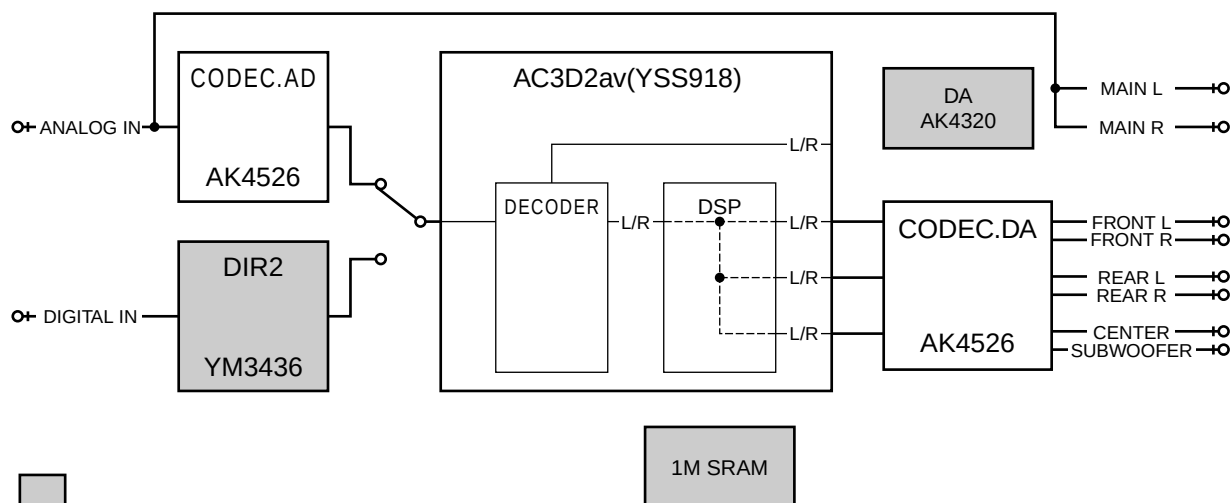
(1) ANALOG THROUGH

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

1. MAIN BYPASS

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

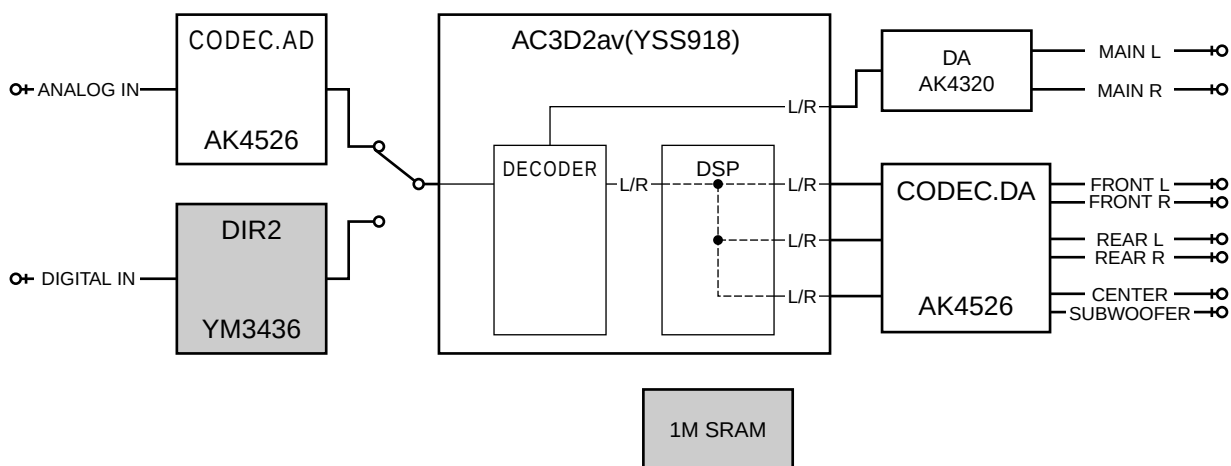
For C/LFE, FL/FR and RL/RR, the MAIN L/R signals via the DSP are output without being processed (through).
(Remote control code 7A-88 : DSP/1)



This shows that the device is not operating.

1. DSP 0dB

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

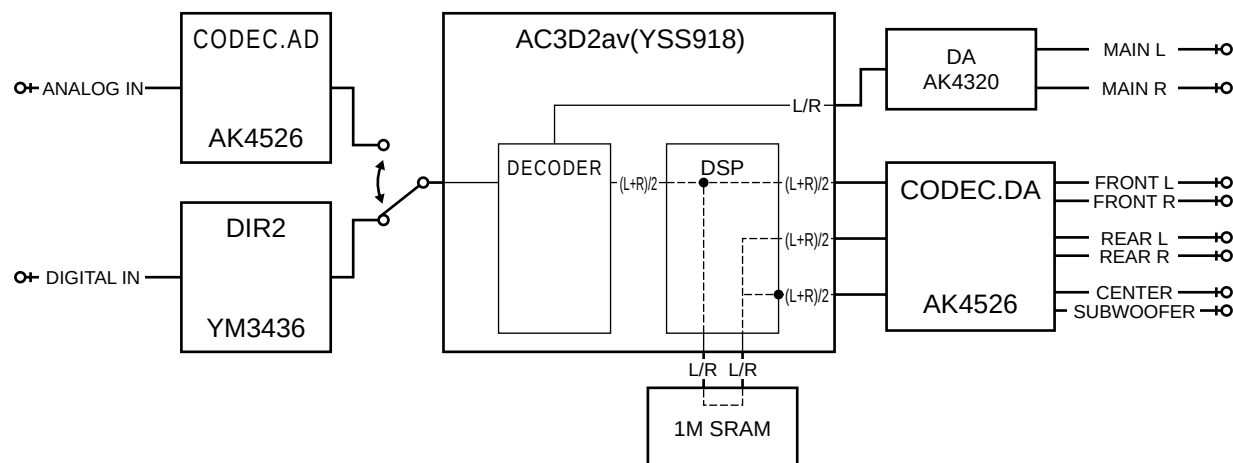


(2) DSP THROUGH

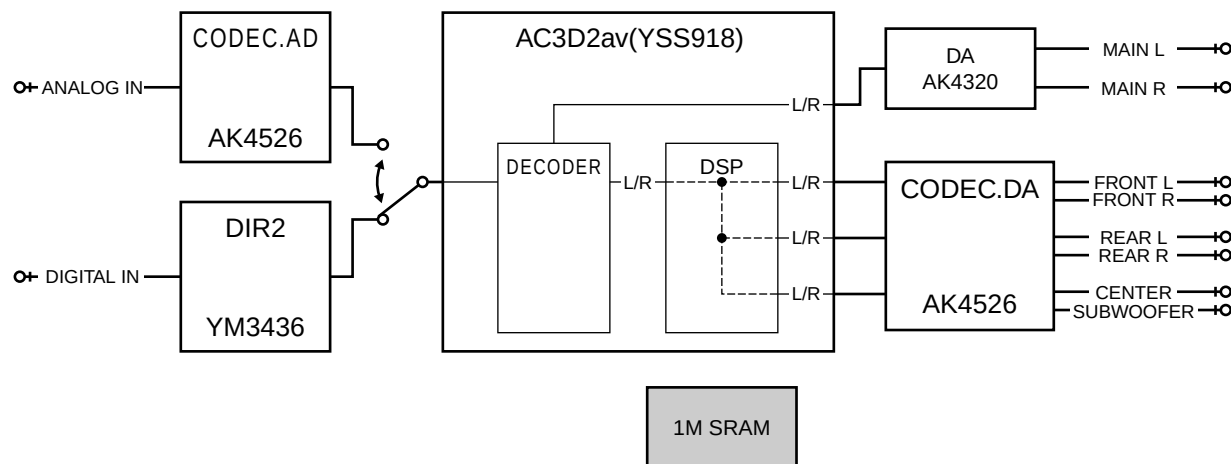
The input is automatically discriminated by signal detection and switched with priorities AC3>DTS>PCM AUDIO>analog. There are the following three submenus.

2. YSS918-SRAM

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

**2. YSS918**

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

**2. DSP FULL BIT**

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

The head margin is abolished, and DSP outputs digital full-bit signals.

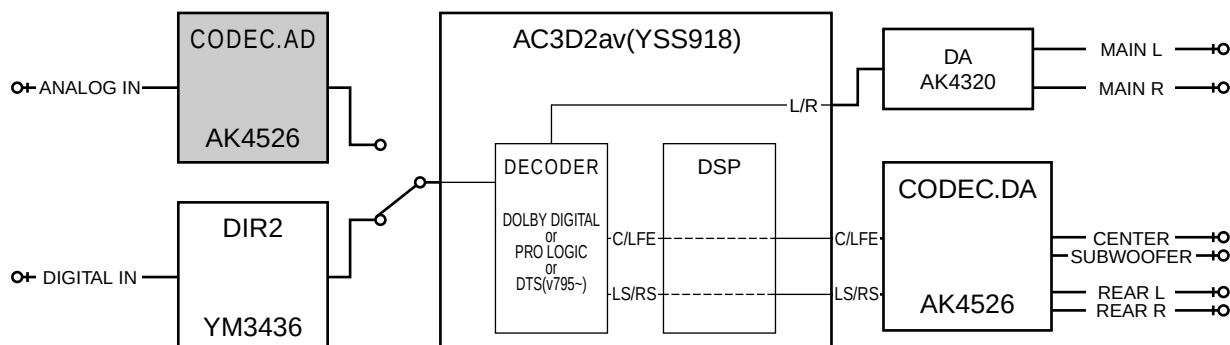
Same as the above menu, except that the digital data is output to DA with full bits.

(3) AC3/DTS THROUGH

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

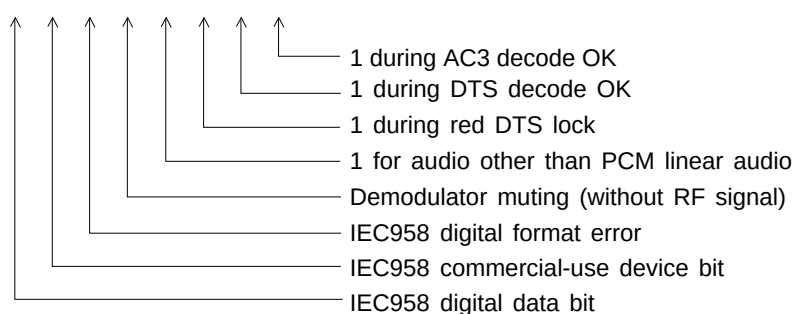
3. ST:10001001

AC3 decoded signals are output to each channel via AC3D2av.



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

1 0 0 0 1 0 0 1

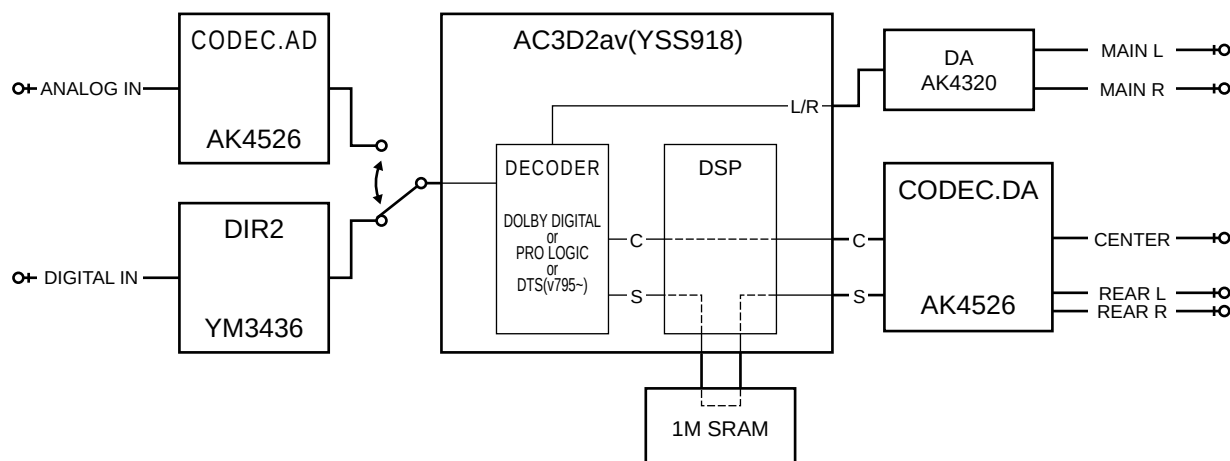
**(4) PRO LOGIC**

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

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

4. PRO CNTR:LRG

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

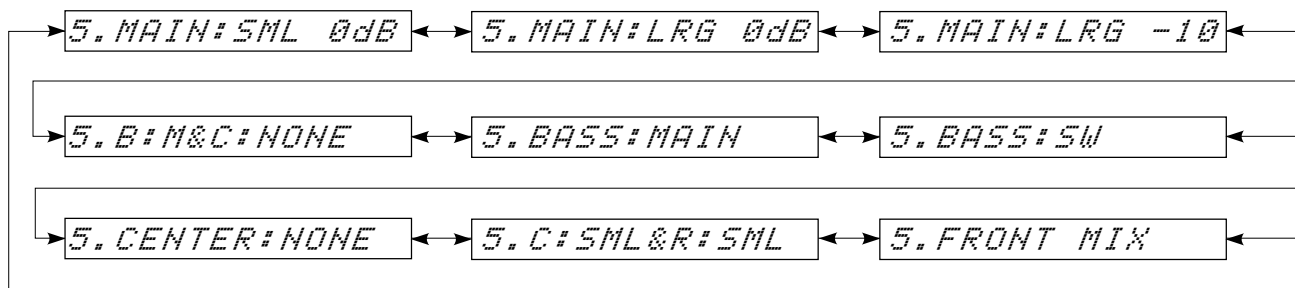
**4. PRO EFFECT:OFF**

MAIN L/R are bypassed and output.

(5) SPEAKERS SET

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

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



The analog switches in each submenu are set as follows:

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

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

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

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

M: MAIN

C: CENTER

R: REAR

SWFR: SUBWOOFER

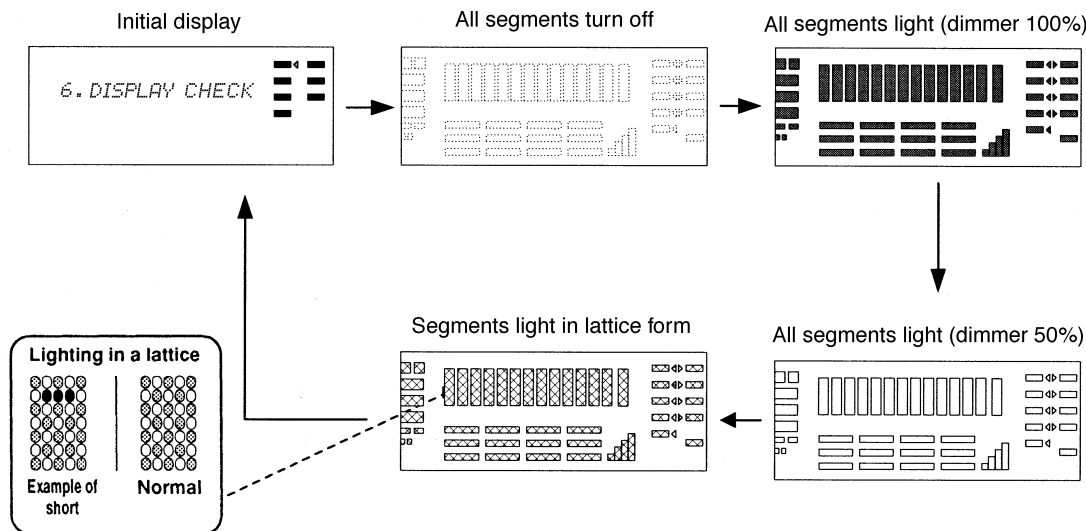
B: BASS

Output: The signal before MASTER VOLUME is indicated.

(6) DISPLAY CHECK

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

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

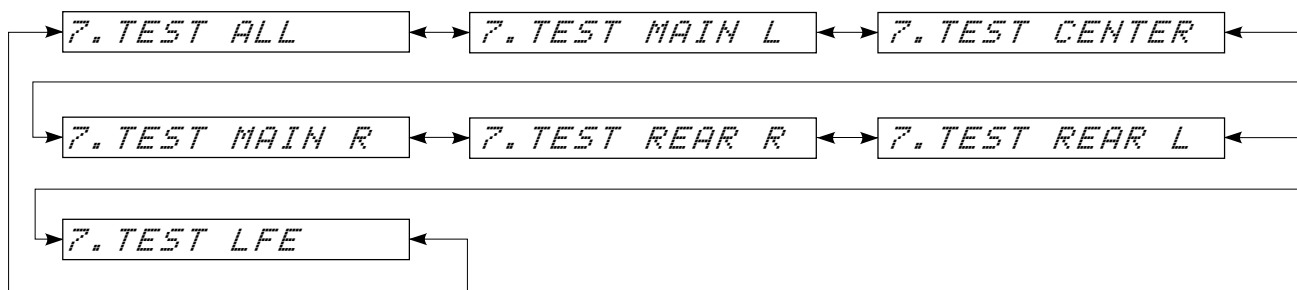


All segments are turned on and off to detect defects in the FL driver (IC102) and FL display segments. Then the FL driver operation is checked by the dimmer control.

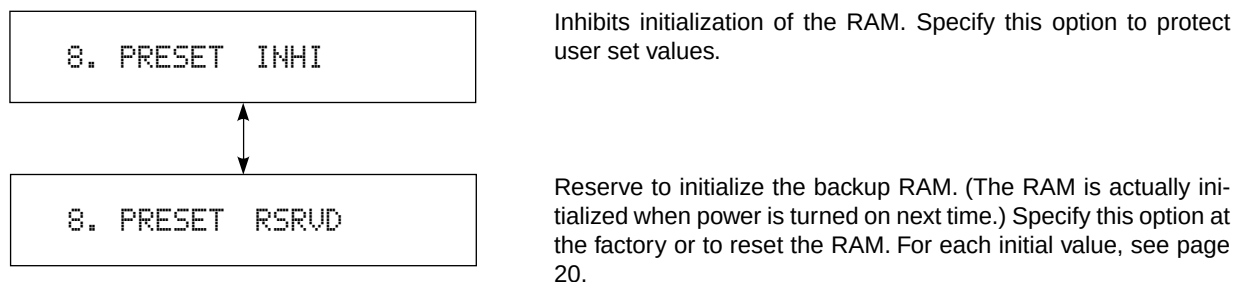
Finally, all segments are turned on and off alternately (in lattice form), to check for a short-circuit between adjacent segments.

(7) MANUAL TEST

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

**(8) FACTORY PRESET**

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

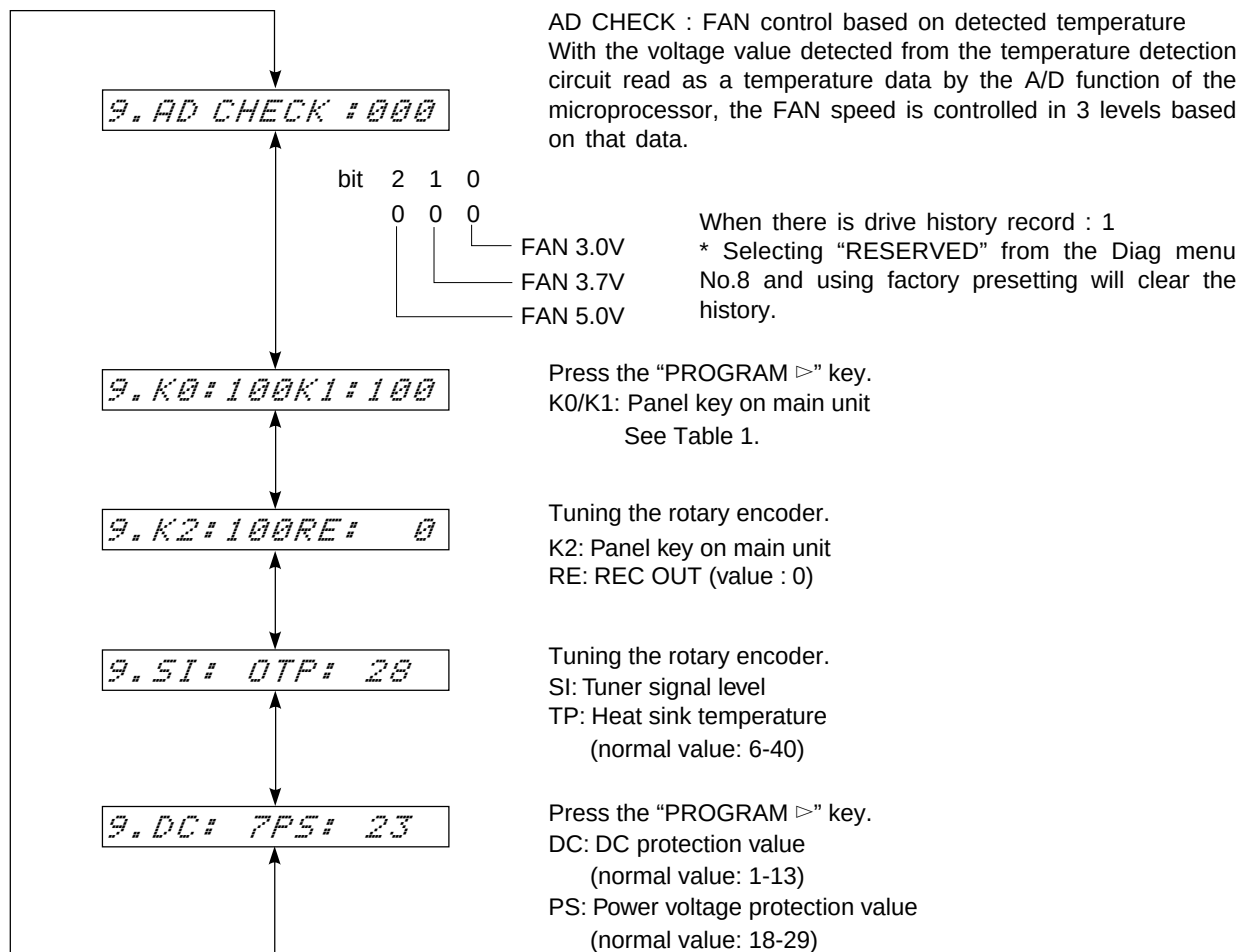


CAUTION : Before setting to the PRESET RESERVED, write down the existing preset memory content of the Tuner in a table as shown below. (This is because setting to the PRESET RESERVED will cause the user memory content to be erased.)

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

(9) AD DATA CHECK

The A/D conversion values of the main CPU which detects key scan, protection, etc. are displayed in % (100%: 5V). All signal processing before this menu is executed will be held.
The keys on the main unit cannot be operated to detect the values of all keys in the K0/K1 and K2/RE pages. Turning the rotary encoder (input selector on the main unit) will switch the submenu.



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

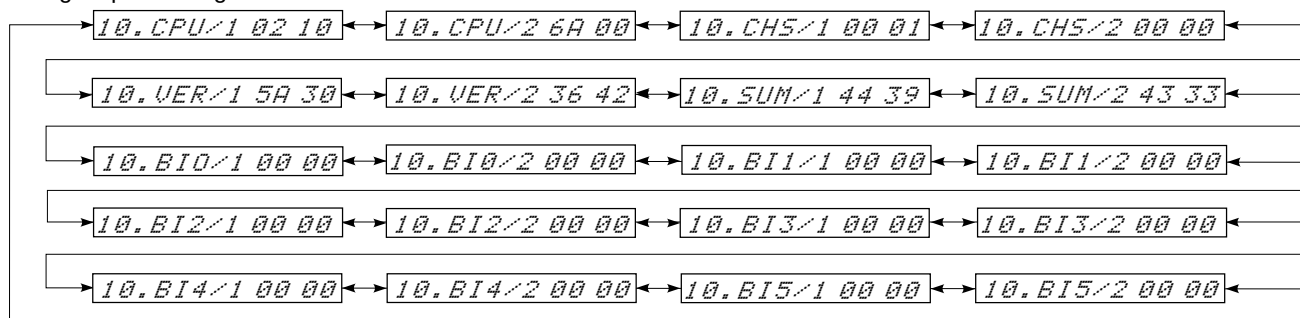
AD Value	50	60	70	80	90
K0	MEMORY	EON	RDS MODE/FREQ	PTY START	PTY MODE
K1	5	6	7	8	×
K2	+	-	SET MENU	LEVEL	×

Caution

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

(10) STATUS FROM DSP MICOM

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

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

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

10.CPU/1 00 00

High Byte ———
Low Byte ———

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

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

<Low Byte>

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

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

[Note]

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

[CPU/2] <High Byte>

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

<Low Byte> Always "00"

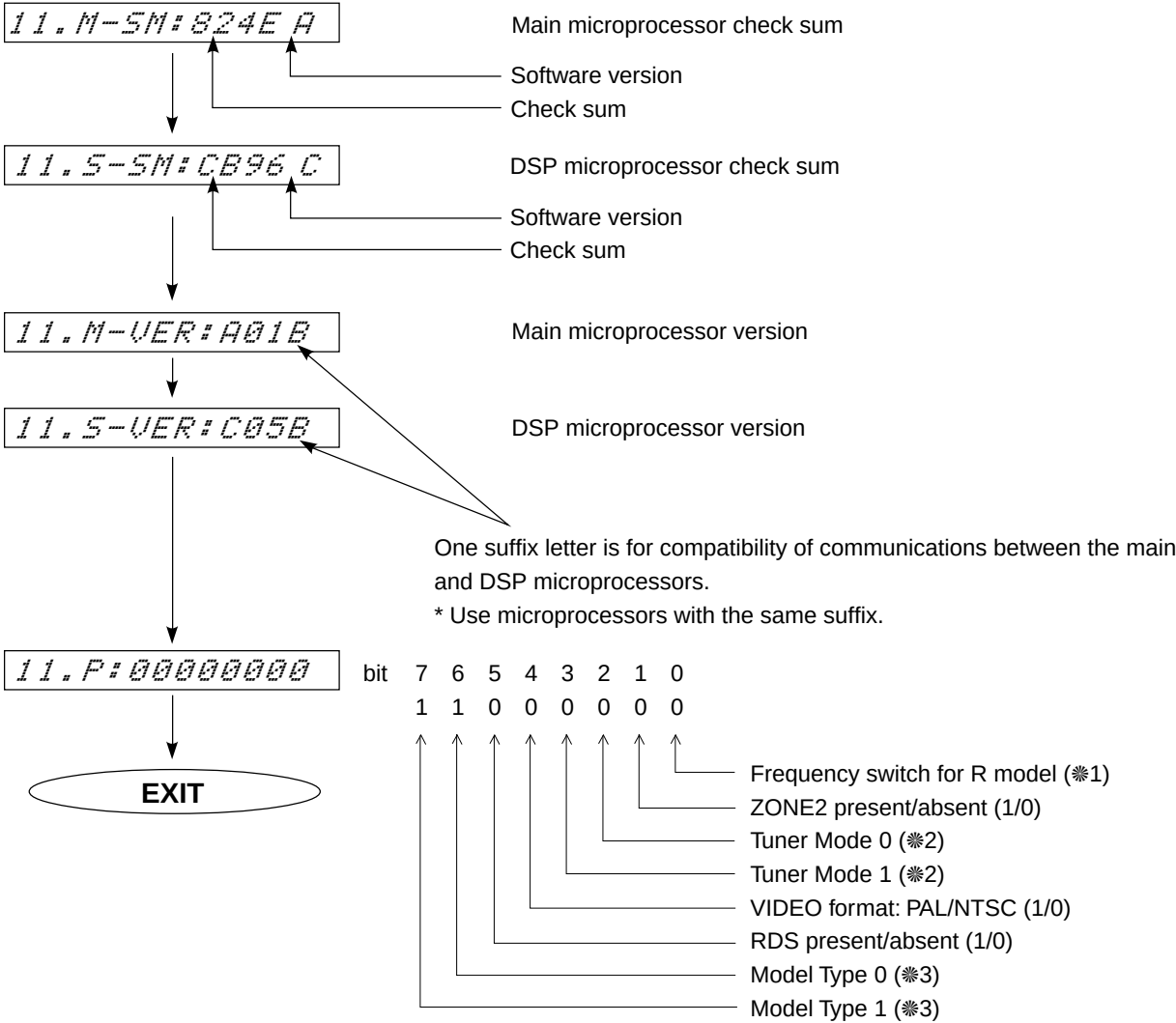
[CHS/1/2] IEC958 channel status bits 00-31 available from DIR2

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

[VER/1/2] 4-byte ASCII code of sub CPU version data**[SUM1/2] Displays the check sum of sub microprocessor program area with ASCII 4 bytes in a hexadecimal number.****[BI0/1/2] Displays the bit stream information contained in Dolby Digital (AC-3)/DTS signal from the first byte.****[BI1-5/1/2] Displays the bit stream information contained in Dolby Digital (AC-3) signal from the fifth byte.**

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

The check sum, version and port setting of main CPU/DSP CPU are displayed.
 The signal is EFFECT OFF.
 Operating the submenu will finish self-diagnosis, and ordinary operation mode will be restored.
 The suffix letter ("A" in the following) of version indication is for compatibility of communications between the main and DSP microprocessors.
 Combining microprocessors with different suffixes will make normal operation impossible.



※1

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

※2

Tuner Mode 1	0	*0	0	*1	1	*2	1	*3
Tuner Mode 0	0		1		0		1	

*0 AM: 531–1611kHz/9kHz FM: 76.0–90.0MHz/100kHz (J model)
 *1 AM: 530–1710kHz/10kHz FM: 87.5–107.9MHz/200kHz (U, C models)
 *2 AM: 531–1611kHz/9kHz FM: 87.5–108.0MHz/50kHz (A, L models)
 *3 R model: Tuner Frequency is selected by Port 51 and Model Type.

※3

Model Type 1	1	V795a
Model Type 0	1	

■ FACTORY PRESET

All of the system settings are initially set from the factory as follows.

● INPUT (VIDEO) DVD/LD (DVD/LD)

● EFFECT LEVEL

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

● DSP PROGRAM

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

● SET MENU

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

● PRESET STATIONS

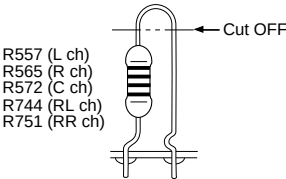
STATION		FM FACTORY PRESET DATA (MHz)			STATION		AM FACTORY PRESET DATA (kHz)	
PAGE	NO.	U, C	R, L, G, A, B	J	PAGE	NO.	U, C, R	R, L, G, A, B, J
A/C/E	1	87.5	87.50	76.0	B/D	1	630	630
	2	90.1	90.10	83.0		2	1080	1080
	3	95.1	95.10	84.0		3	1440	1440
	4	98.1	98.10	86.0		4	530	531
	5	107.9	108.00	90.0		5	1710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

AMP ADJUSTMENTS

Confirmation of Idling Current

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

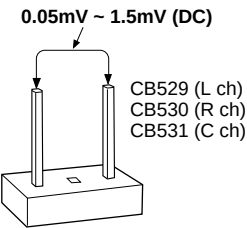
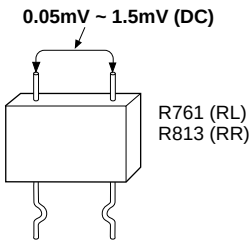
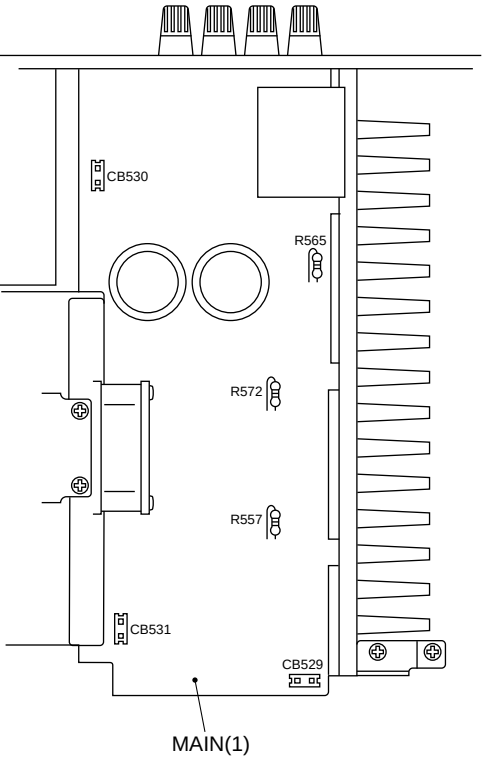
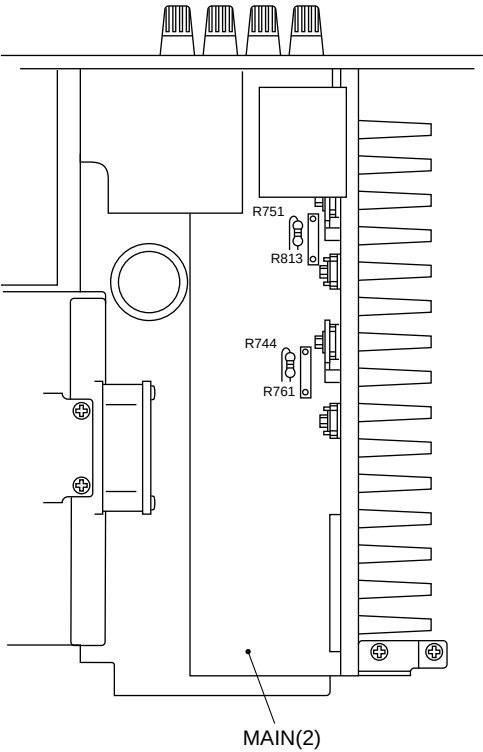
Item	Test Point	Rating (DC)	Note
MAIN L	CB529	0.05mV~1.5mV	If the measured voltage exceeds 1.6mV, cut the lead wire of R557(L ch), R565(R ch), R572(C ch), R744(RL ch) or R751(RR ch) and then check again if each measured value satisfies the rating.
MAIN R	CB530		
CENTER	CB531		
REAR L	R761		
REAR R	R813		



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

Note)

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

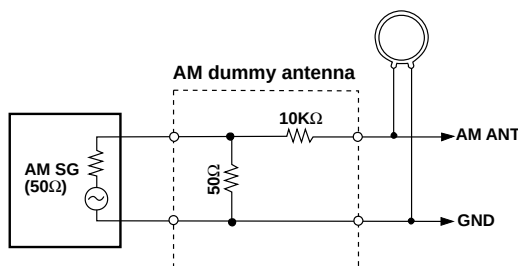
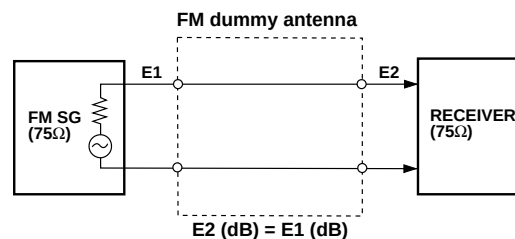
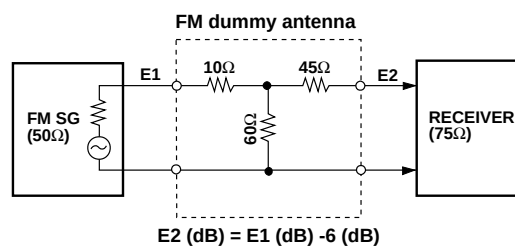


TUNER ADJUSTMENTS

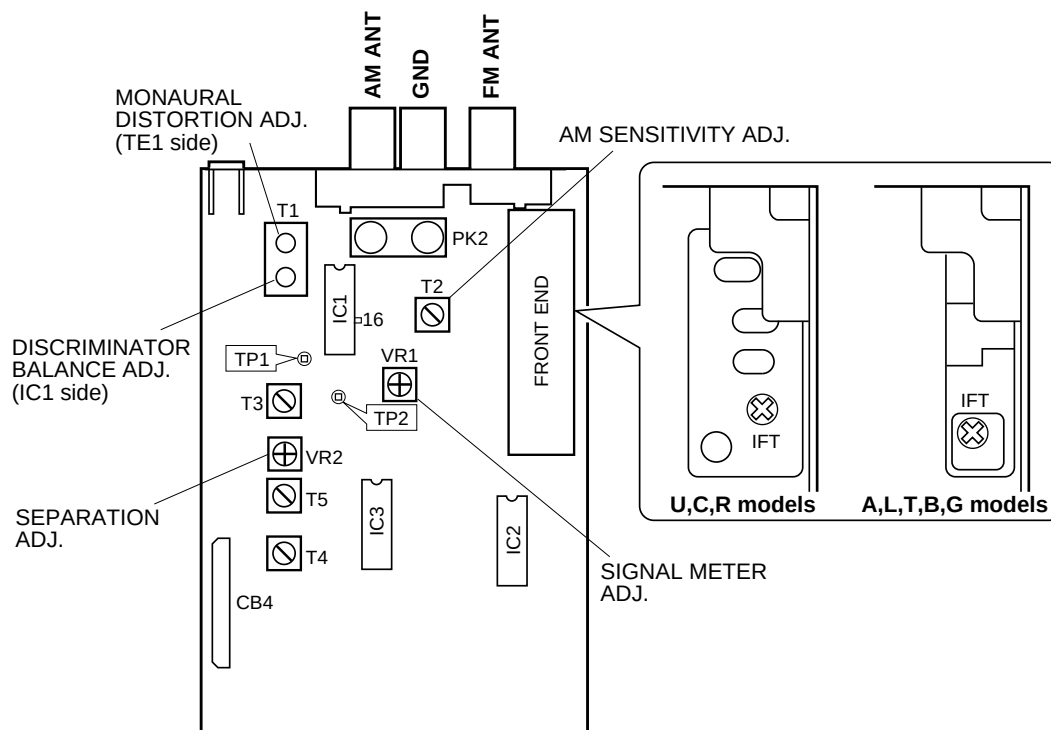
Measuring Instruments

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

Dummy antenna



Test point



FM Adjustment

● Before Adjustment

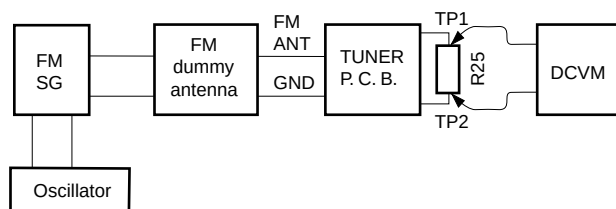
- 1) For dB, $1\mu V=0dB\mu$
Example : $60dB\mu=1mV$
- 2) 100% modulation means that the frequency deviation is $\pm 75kHz$.

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

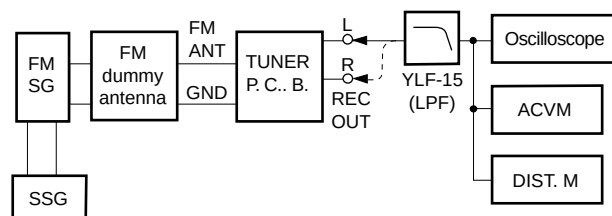
INPUT SELECTOR TUNER
TUNING MODE AUTO

● Connection diagram (Measuring instruments)

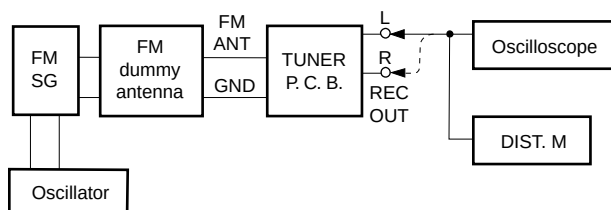
1) Discriminator balance adjustment



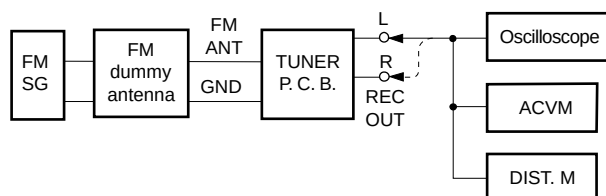
3) Stereo distortion adjustment/separation adjustment



2) Monaural distortion adjustment



4) Sensitivity Verification



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

* : Execution of FACTORY PRESET (Refer to page 16.) will facilitate setting reception frequency for adjustment.

** Must be 98.1MHz $\pm$ 5kHz

See page 22 for TP locations & adjustment points.

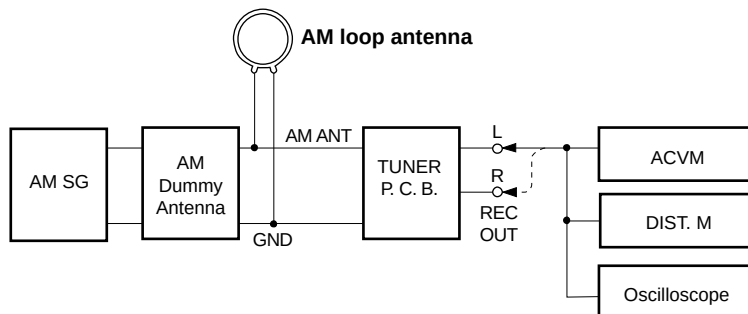
Step	Adjustment item	Signal (ANT IN)	Reception frequency	Adjusted point	Test point	Rating
6	Adjustment of front end IFT	FM ANT (75Ω) 98.1MHz 70dBμ MONO 1kHz, 100% modulation	98.1MHz * (A-4)	Front end IFT	Pin 16 of IC1	Adjust so that the DC voltage is maximum. CAUTION : Over-adjustment of the IFT core will reduce the sensitivity. Maximum ±90°
7	Verification of monaural distortion	FM ANT (75Ω) 98.1MHz 70dBμ MONO 1kHz, 100% modulation	98.1MHz * (A-4)		REC OUT L, R	0.1%
8	Verification of stereo distortion	FM ANT (75Ω) 98.1MHz 70dBμ Stereo L or R 1kHz, 100% modulation	98.1MHz * (A-4) * Tuning mode should be AUTO.		REC OUT L, R	0.2% • STEREO indicator should light.
9	Verification of sensitivity	FM ANT (75Ω) 88.1MHz 98.1MHz 106.1MHz MONO 1kHz Modulation off	88.1MHz * (A-6) 98.1MHz * (A-4) 106.1MHz * (A-7)		ANT (75Ω)	1) Set the tuning mode to MAN'L MONO. (Muting OFF) 2) S/N should be 30dB at each frequency of 88.1MHz, 98.1MHz, and 106.1MHz. 3) Check to ensure that the voltage at the ANT terminal is 5μV or less. (A, L, B, G only : 7μV or less)
10	Adjustment of Separation	FM ANT (75Ω) 98.1MHz 70dBμ Stereo L or R 1kHz, 100% modulation	98.1MHz * (A-4)	VR2	REC OUT L, R	With SSG output at L or R, the signal leakage level at the other channel should be minimized. 48dB or more
11	Adjustment of Signal meter	FM ANT (75Ω) 98.1MHz 45dBμ MONO 1kHz 30% modulation	98.1MHz * (A-4)	VR1		Adjust so that all segments light.
		-10dBμ or less				Check to ensure that all segments are OFF.
12	Verification of auto tuning	FM ANT (75Ω) 98.1MHz 26dBμ Stereo L or R 1kHz, 30% modulation	98.1MHz * (A-4)			• Automatic reception should be available when the tuning key is moved UP and DOWN. • The stereo indicator should light. • Audio muting should be applied during tuning.

* : Execution of FACTORY PRESET (Refer to page 16.) will facilitate setting reception frequency for adjustment.

AM Adjustment (This should be done after FM adjustment.)

● Connection Diagram (Measuring instruments)

1) Adjustment of sensitivity



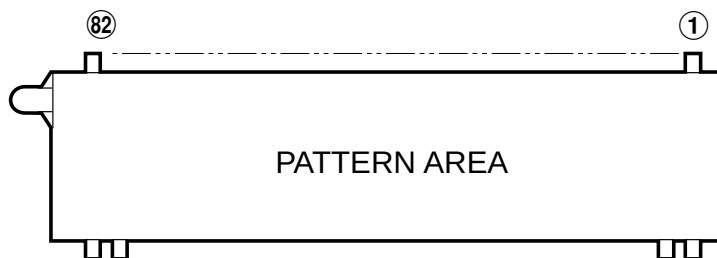
See page 22 for TP locations & adjustment points.

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

* : Execution of FACTORY PRESET (Refer to page 16.) will facilitate setting reception frequency for adjustment.

■ DISPLAY DATA (V2573800)

● V101 : 16-BT-60GK



● PIN CONNECTION

Pin No.	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
Connection	F2	F2	NP	NP	NC	NC	P37	P36	P35	P34	P33	IC	NP	Fd	Fd	NP	IC	P32	P31

Pin No.	63	62	61	60	59	58	57	56	55	54	53	52	51	50	49	48	47	46	45
Connection	P30	P29	P28	P27	P26	P25	P24	P23	P22	P21	P20	P19	P18	P17	P16	P15	P14	P13	P12

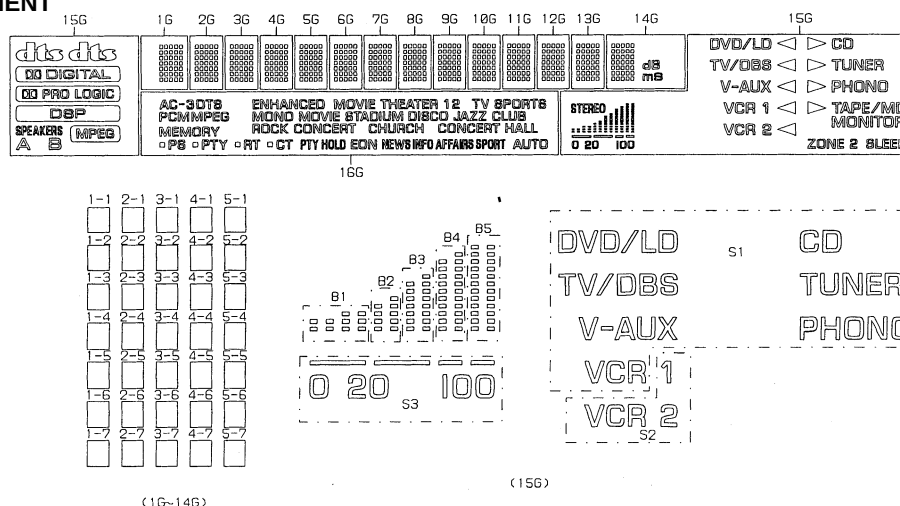
Pin No.	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26
Connection	P11	P10	P9	P8	P7	P6	P5	P4	P3	P2	P1	16G	15G	14G	13G	12G	11G	10G	9G

Pin No.	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7
Connection	8G	7G	6G	5G	4G	3G	2G	1G	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Pin No.	6	5	4	3	2	1
Connection	NC	NC	NP	NP	F1	F1

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

● GRID ASSIGNMENT



● ANODE CONNECTION

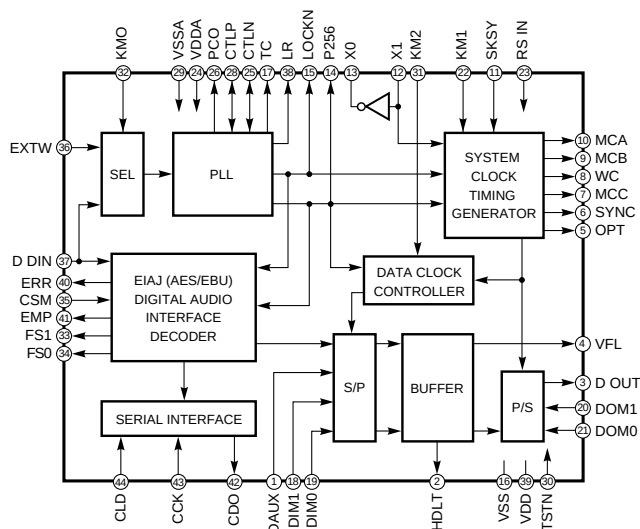
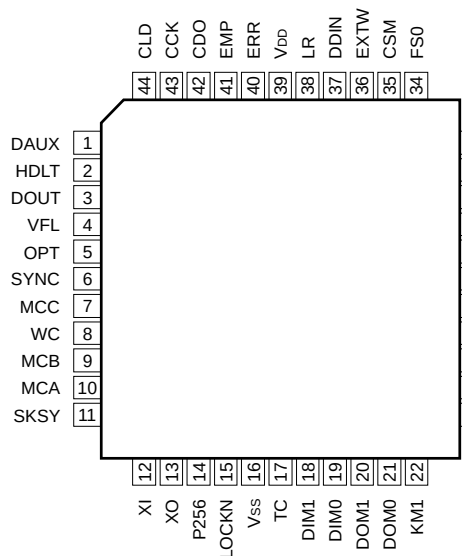
	16G	15G	14G	13G~1G
P1	AC-3	dts (LEFT)	1-1	1-1
P2	DTS	dts (RIGHT)	2-1	2-1
P3	PCM	DD DIGITAL	3-1	3-1
P4	MPEG	DD PRO LOGIC	4-1	4-1
P5	ENHANCED	DSP	5-1	5-1
P6	MOVIE THEATER	MPEG	1-2	1-2
P7	1	SPEAKERS	2-2	2-2
P8	2	A	3-2	3-2
P9	TV SPORTS	B	4-2	4-2
P10	MONO MOVIE	(TAPE/MD)	5-2	5-2
P11	STADIUM	(PHONO)	1-3	1-3
P12	DISCO	(TUNER)	2-3	2-3
P13	JAZZ CLUB	(CD)	3-3	3-3
P14	ROCK CONCERT	(DVD/LD)	4-3	4-3
P15	CHURCH	(TV/DBS)	5-3	5-3
P16	CONCERT HALL	(V-AUX)	1-4	1-4
P17	-	(VCR1)	2-4	2-4
P18	-	(VCR2)	3-4	3-4
P19	-	S1	4-4	4-4

	16G	15G	14G	13G~1G
P20	MEMORY	S2	5-4	5-4
P21	(PS)	TAPE/MD	1-5	1-5
P22	PS	MONITOR	2-5	2-5
P23	(PTY)	ZONE 2	3-5	3-5
P24	PTY	SLEEP	4-5	4-5
P25	(RT)	-	5-5	5-5
P26	RT	-	1-6	1-6
P27	(CT)	-	2-6	2-6
P28	CT	-	3-6	3-6
P29	PTY HOLD	STEREO	4-6	4-6
P30	EON	B1	5-6	5-6
P31	NEWS	B2	1-7	1-7
P32	INFO	B3	2-7	2-7
P33	AFFAIRS	B4	3-7	3-7
P34	SPORT	B5	4-7	4-7
P35	AUTO	S3	5-7	5-7
P36	-	-	dB	-
P37	-	-	MS	-

■ IC DATA

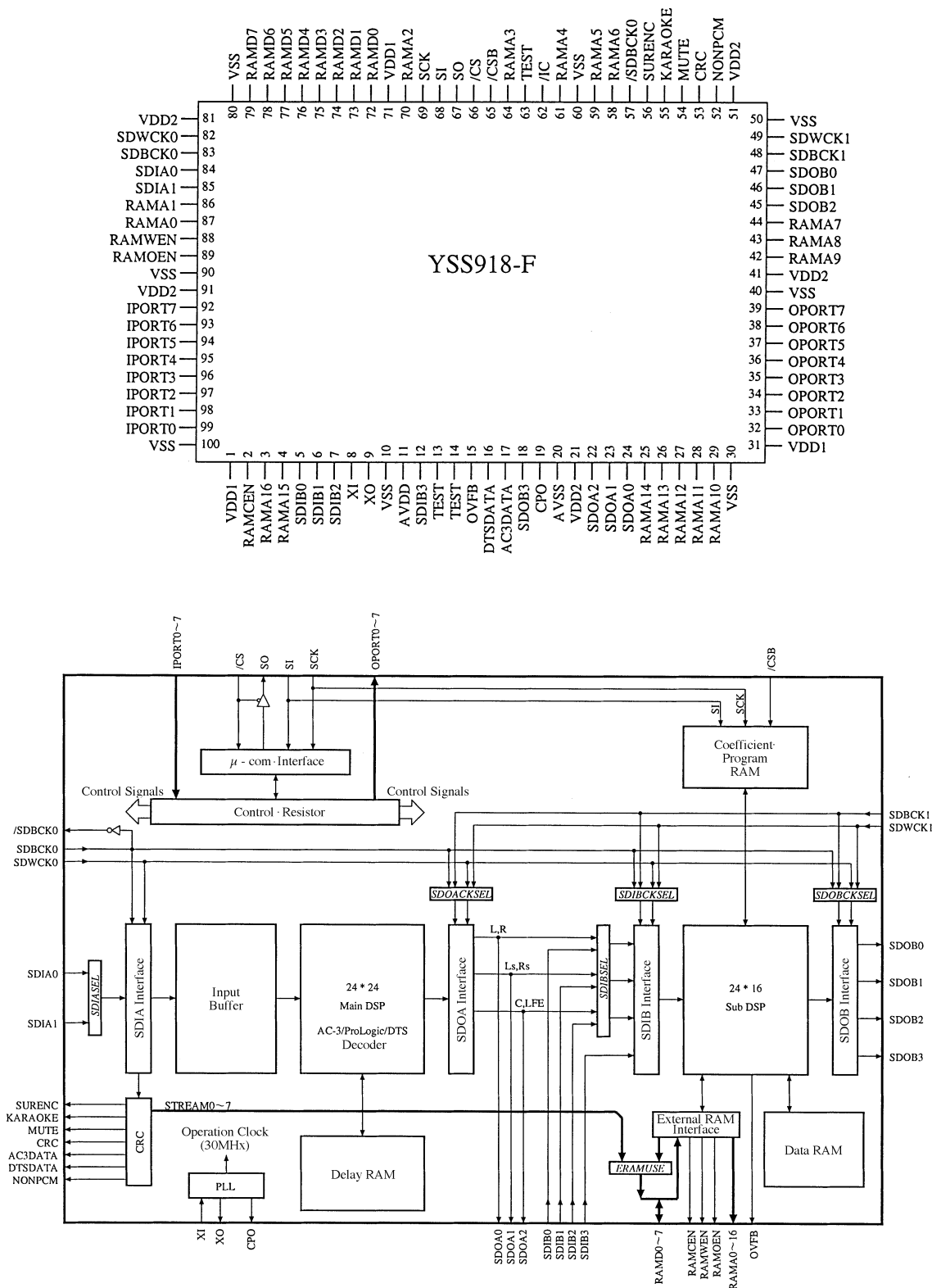
IC3 : YM3436DK

DIR (Digital Format Interface Receiver)



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

Digital Pro-Logic Decoder



RX-V795a/RDS/HTR-5170

IC4 : YSS918-F

Digital Pro-Logic Decoder

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

IC4 : YSS918-F
Digital Pro-Logic Decoder

No.	Name	I/O	Function
52	NONPCM	O	non-PCM data detect terminal
53	CRC	O	AC-3 CRC error detect terminal
54	MUTE	O	Auto mute detect terminal
55	KARAOKE	O	AC-3 karaoke data detect terminal
56	SURENC	O	AC-3 2/0 mode dolby surround encode input detect terminal
57	/SDBCK0	O	SDBCK0 inverted clock output terminal
58	RAMA6	O	Address terminal 6 for external SRAM
59	RAMA5	O	Address terminal 5 for external SRAM
60	VSS		Ground terminal (for inner circuit)
61	RAMA4	O	Address terminal 4 for external SRAM
62	/IC	Ics	Initial clear terminal
63	TEST		Test terminal (normally unconnected)
64	RAMA3	O	Address terminal 3 for external SRAM
65	/CSB	Itsp	Chip select input terminal for Sub DSP
66	/CS	Its	Microprocessor interface chip select input terminal
67	SO	O*	Microprocessor interface data output terminal
68	SI	Its	Data input terminal for microprocessor interface and Sub DSP
69	SCK	Its	Clock input terminal for microprocessor interface and Sub DSP
70	RAMA2	O	Address terminal 2 for external SRAM
71	VDD1		+5V terminal (for terminal section)
72	RAMD0	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM0 output)
73	RAMD1	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM1 output)
74	RAMD2	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM2 output)
75	RAMD3	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM3 output)
76	RAMD4	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM4 output)
77	RAMD5	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM5 output)
78	RAMD6	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM6 output)
79	RAMD7	Itp/O	Data terminal for external SRAM(external SRAM non-used : STERAM7 output)
80	VSS		Ground terminal (for terminal section)
81	VDD2		+3.3V terminal (for inner circuit)
82	SDWCK0	It	Word clock input terminal for SDIA/SDOA/SDIB/SDOB signal
83	SDBCK0	It	Bit clock input terminal for SDIA/SDOA/SDIB/SDOB signal
84	SDIA0	It	AC-3/DTS bit stream (or PCM) data input terminal to main DSP
85	SDIA1	It	AC-3/DTS bit stream (or PCM) data input terminal to main DSP
86	RAMA1	O	Address terminal 1 for external SRAM
87	RAMA0	O	Address terminal 0 for external SRAM
88	RAMWEN	O	Write enable terminal for external SRAM
89	RAMOEN	O	Output enable terminal for external SRAM
90	VSS		Ground terminal
91	VDD2		+3.3V terminal (for inner circuit)
92	IPOINT7	Itp	General purpose input terminal
93	IPOINT6	Itp	General purpose input terminal
94	IPOINT5	Itp	General purpose input terminal
95	IPOINT4	Itp	General purpose input terminal
96	IPOINT3	Itp	General purpose input terminal
97	IPOINT2	Itp	General purpose input terminal
98	IPOINT1	Itp	General purpose input terminal
99	IPOINT0	Itp	General purpose input terminal
100	VSS		Ground terminal

Ic : CMOS level input terminal

Is : Schmidt trigger input terminal

O : Digital output terminal

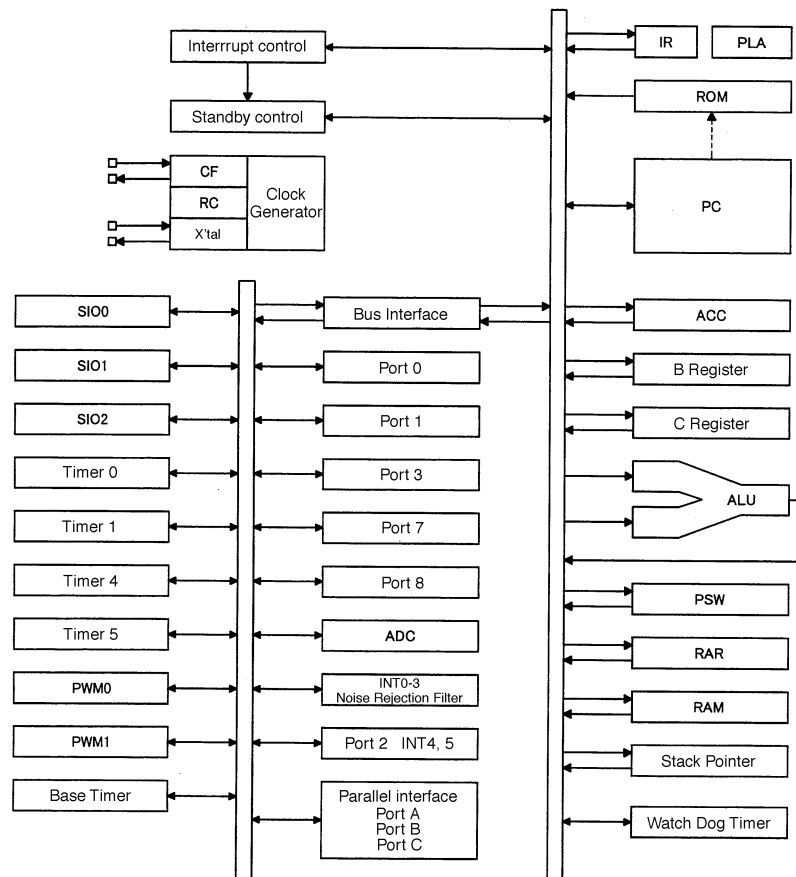
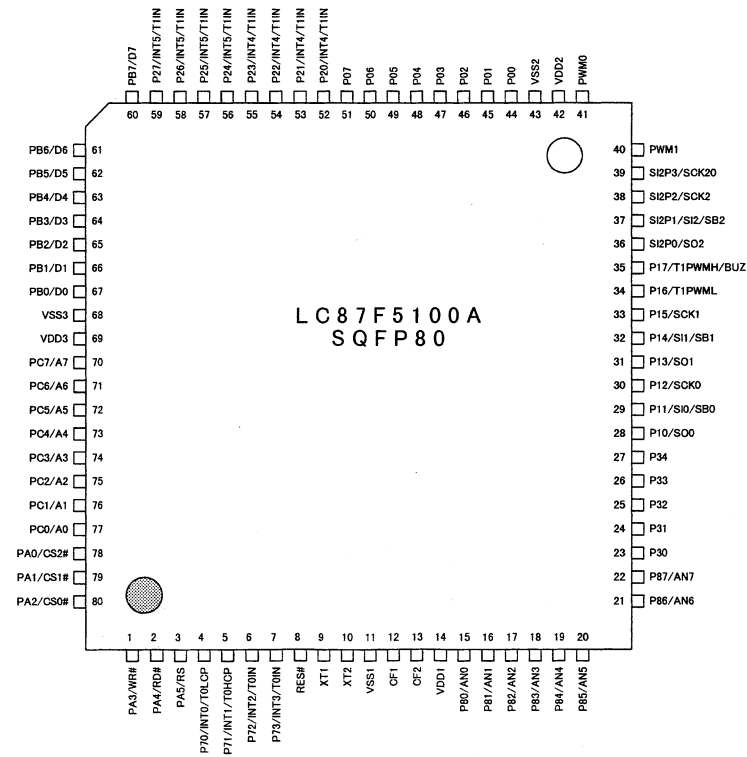
A : Analog terminal

It : TTL level input terminal

Ip : Built-in pull up resistance

O*: 3-state digital output terminal

IC14 : LC87F5164A
Sub μ -Com



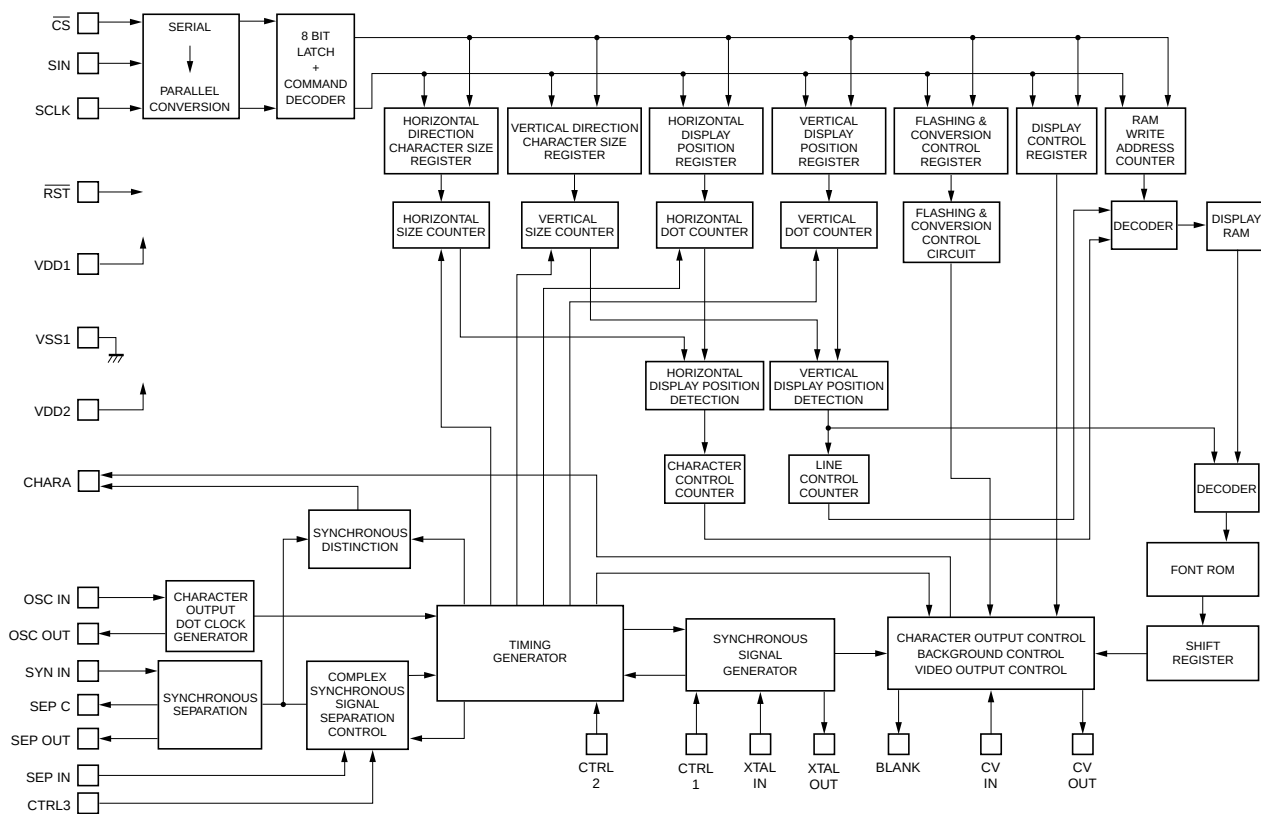
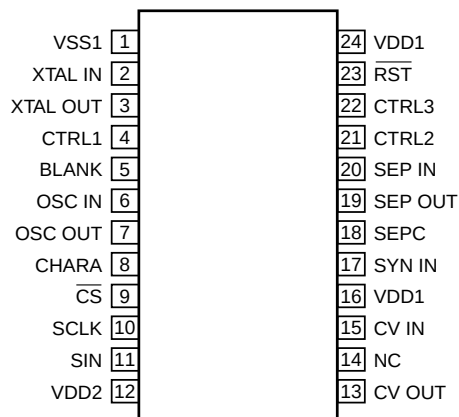
IC14 : LC87F5164A

Sub μ -Com

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

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

IC406 : LC74781-9626
Superimpose



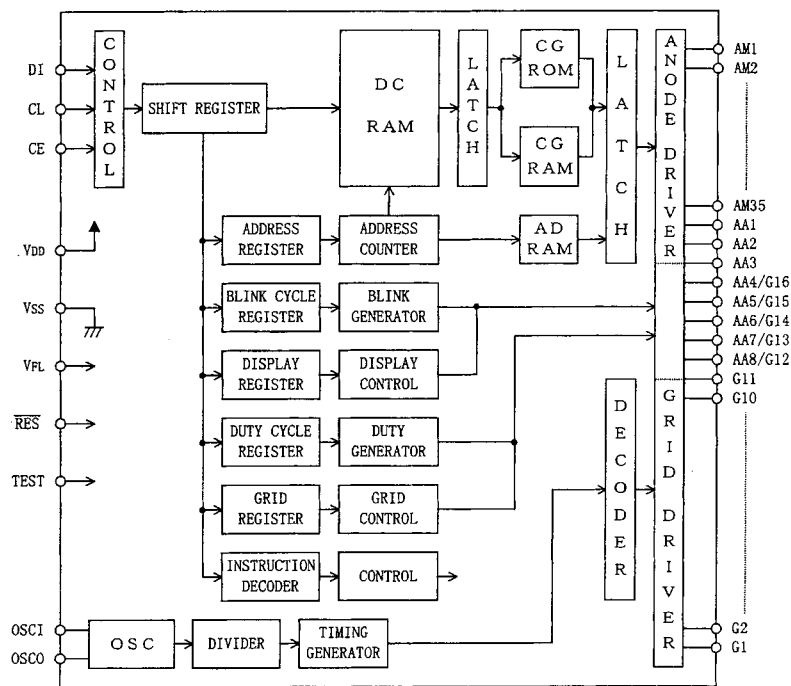
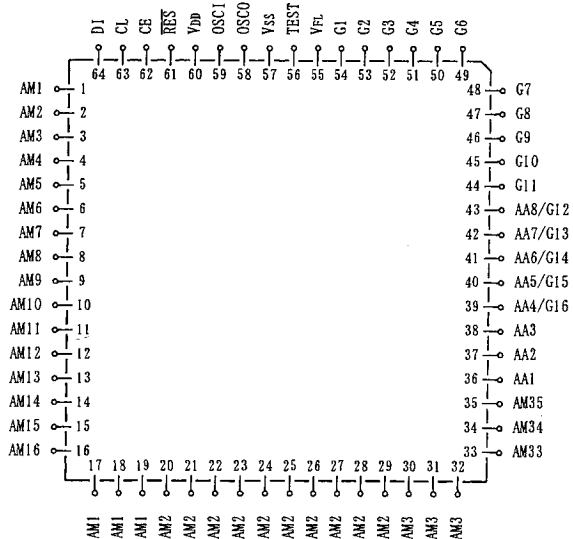
IC406 : LC74781-9626

Superimpose

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

IC102 : LC75712E

Display Driver

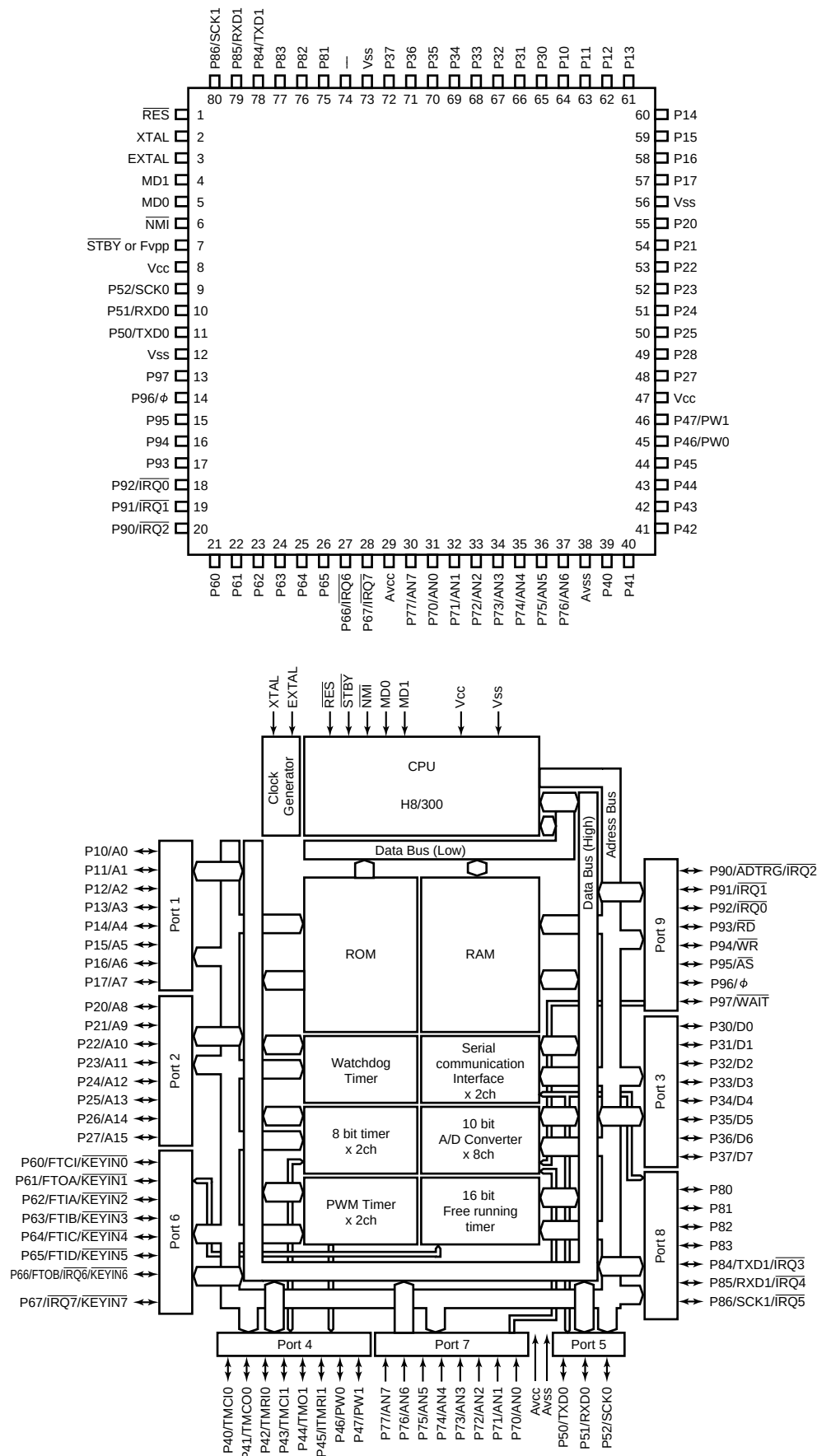


No.	Name	Function
1	AM1	Anode outputs Pull-down resistors are built in.
2	AM2	
3	AM3	
4	AM4	
5	AM5	
6	AM6	
7	AM7	
8	AM8	
9	AM9	
10	AM10	
11	AM11	
12	AM12	
13	AM13	
14	AM14	
15	AM15	
16	AM16	
17	AM17	
18	AM18	
19	AM19	
20	AM20	
21	AM21	
22	AM22	
23	AM23	
24	AM24	
25	AM25	
26	AM26	
27	AM27	
28	AM28	
29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

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

IC21 : HD6433397A97F

Main Micro Processor



RX-V795a/RDS/HTR-5170

IC21 : HD6433397A97F

Main Micro Processor

No.	Name	Function	I/O	Detail of Function
1	/RES	/RES		CPU Reset
2	XTAL	XTAL		8MHz
3	EXTAL	EXTAL		8MHz
4	MD1	MD1		Mode Set 1 Normal:+5M Flush Write:+12V
5	MD0	MD0		Mode Set 0 Normal:+5M Flush Write:+5M
6	/NMI	Vcc		Vcc
7	/STBY or Fvpp	/STBY or Fvpp		Stand-by or Fvpp Normal:+5M Flush Write:+12V
8	Vcc	Vcc		Vcc
9	P52/SCK0	SCKN	O	SCK for Non Audio
10	P51/RXD0	RDTR/FSW	I	RXD for Non Audio (RDS) / Frequency Switch
11	P50/TXD0	SDTN	O	SDT for Non Audio
12	Vss	GND		GND
13	P97	CER	O	CE for Non Audio (RDS)
14	P96/ ϕ	/ST	I	Tuner Stereo
15	P95	CES	O	CE for Non Audio (OSD)
16	P94	CEF1	O	CE for Non Audio (FL1)
17	P93	CEF0	O	CE for Non Audio (FL0)
18	P92//IRQ0	PDT	I	Power Detect (Low Level Detect)
19	P91//IRQ1	REM	I	Remote (Low Edge Detect)
20	P90//IRQ2	VSY	I	Video Vartial Sync (Low Edge Detect)
21	P60	SCKP	O	SCK for Tuner PLL
22	P61	SDTP	O	SDT for Tuner PLL
23	P62	RDTP	I	RDT for Tuner PLL
24	P63	CEP	O	CE for Tuner PLL
25	P64	/TMT	O	Tuner Mute
26	P65	/FLR	O	FL Reset
27	P66//IRQ6	—		—
28	P67//IRQ7	PSW	I	Power Switch
29	Avcc	Avcc		Avcc
30	P77/AN7	MTR	I	Tuner Meter
31	P70/AN0	KEY0	I	Key State 0
32	P71/AN1	KEY1	I	Key State 1
33	P72/AN2	KEY2	I	Key State 2
34	P73/AN3	REC	I	Recout Selector
35	P74/AN4	PRV	I	V Protection
36	P75/AN5	PRD	I	DC Protection
37	P76/AN6	THM	I	Thermal Detect
38	Avss	GND		GND
39	P40	VIND	O	Volume Indicator
40	P41	VUP	O	Volume Up

No.	Name	Function	I/O	Detail of Function
41	P42	VDN	O	Volume Down
42	P43	IPA	I	Input Selector A
43	P44	IPB	I	Input Selector B
44	P45	PRI	I	I Protection
45	P46/PW0	FAN	O	Fan Control
46	P47/PW1	/FMT	O	Full Mute
47	Vcc	Vcc		Vcc
48	P27	/MLY	O	Main Level Att.
49	P28	SPA	O	Speaker Relay A
50	P25	SPB	O	Speaker Relay B
51	P24	SPE	O	Speaker Relay Ext
52	P23	CEL	O	CE Sanyo for Audio
53	P22	CET	O	CE Toshiba for Audio
54	P21	SDTA	O	SDT for Audio
55	P20	SCKA	O	SCK for Audio
56	Vss	GND		GND
57	P17	/R2MT	O	Room 2 Mute
58	P16	I/E	O	Video Internal/External
59	P15	VRC	O	Video Recout Select C
60	P14	VRB	O	Video Recout Select B
61	P13	VRA	O	Video Recout Select A
62	P12	VIC	O	Video Input Select C
63	P11	VIB	O	Video Input Select B
64	P10	VIA	O	Video Input Select A
65	P30	PRY	O	Power Relay
66	P31	Z2DET	I	Zone 2 Detect
67	P32	TUN0	I	Tuner Mode 0
68	P33	TUN1	I	Tuner Mode 1
69	P34	VID	I	Video Format
70	P35	RDS	I	RDS Exist or Not
71	P36	TYP0	I	Model Type 0
72	P37	TYP1	I	Model Type 1
73	Vss	GND		GND
74	—	—		—
75	P81	/SBR	O	Sub CPU Reset
76	P82	TRO	I	CPU I/F Transfer Request
77	P83	WCIF	I	CPU I/F Word Clock
78	P84/TXD1	MTS/TXD1	O	Normal:CPU I/F Main to Sub Flush Write:TXD1
79	P85/RXD1	STM/RXD1	I	Normal:CPU I/F Sub to Main Flush Write:RXD1
80	P86/SCK1	CKIF	O	CPU I/F Clock

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

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

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

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

(Note 3) Pin 69 Video Format

0	NTSC
1	PAL

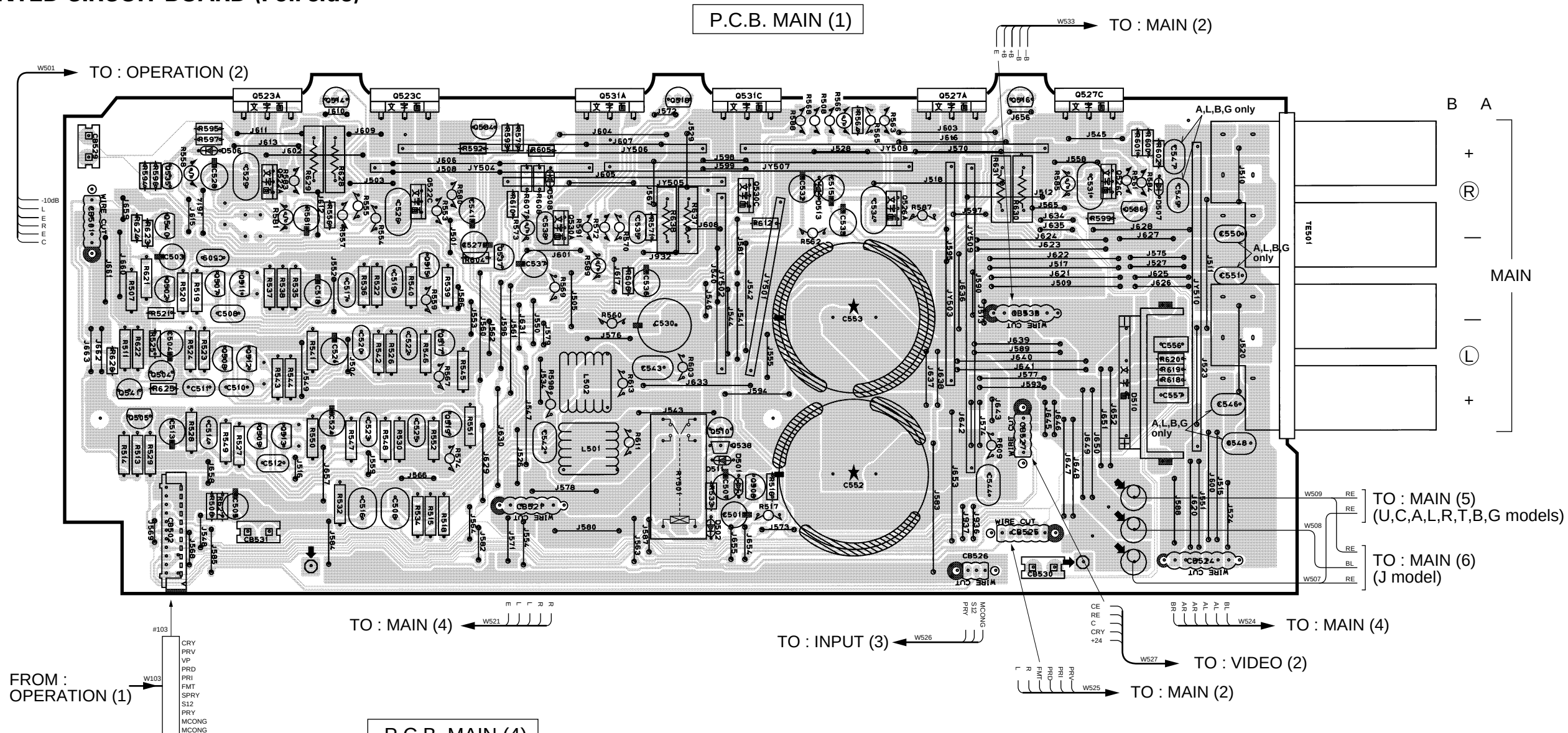
(Note 4) Pin 70 RDS Exist or Not

0	Not Exist
1	Exist

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

Model Type 1	Model Type 0	Model Name
0	0	RX-V2095
0	1	DSP-A2
1	0	RX-V995
1	1	RX-V795a

■ PRINTED CIRCUIT BOARD (Foil side)



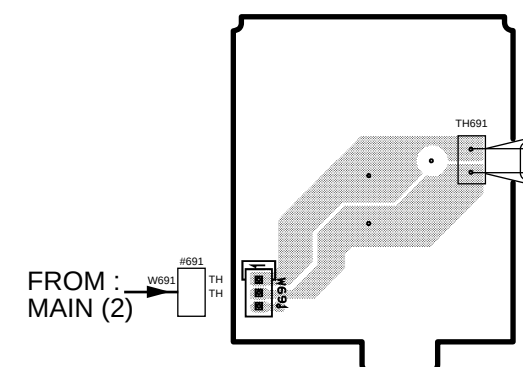
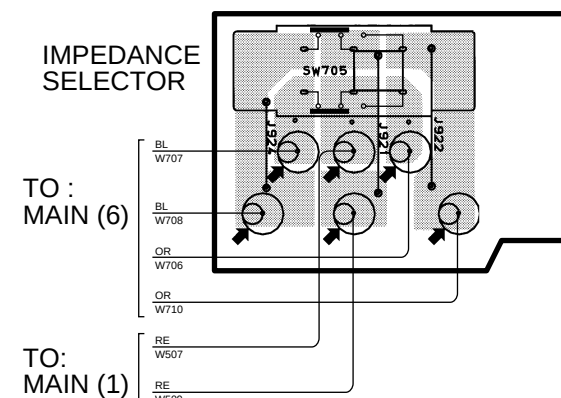
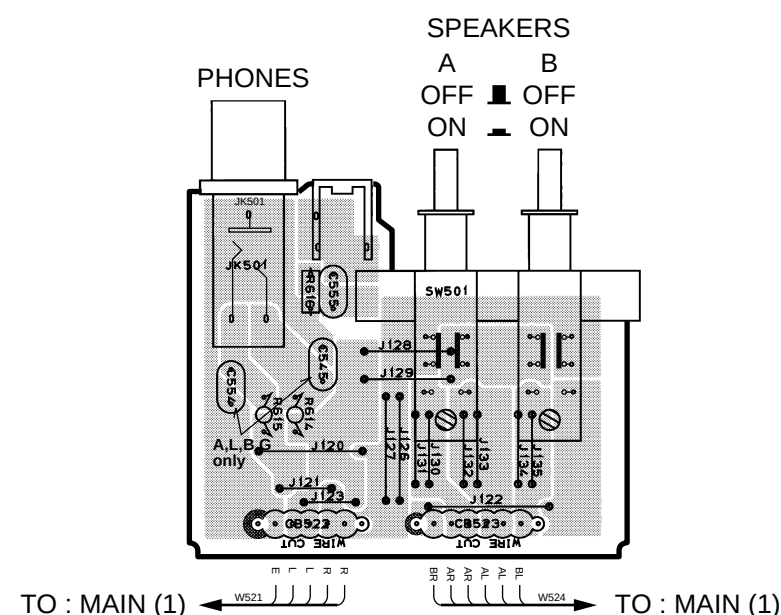
P.C.B. MAIN (4)

P.C.B. MAIN (5)

P.C.B. MAIN (7)

●Semiconductor Location

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



1

2

3

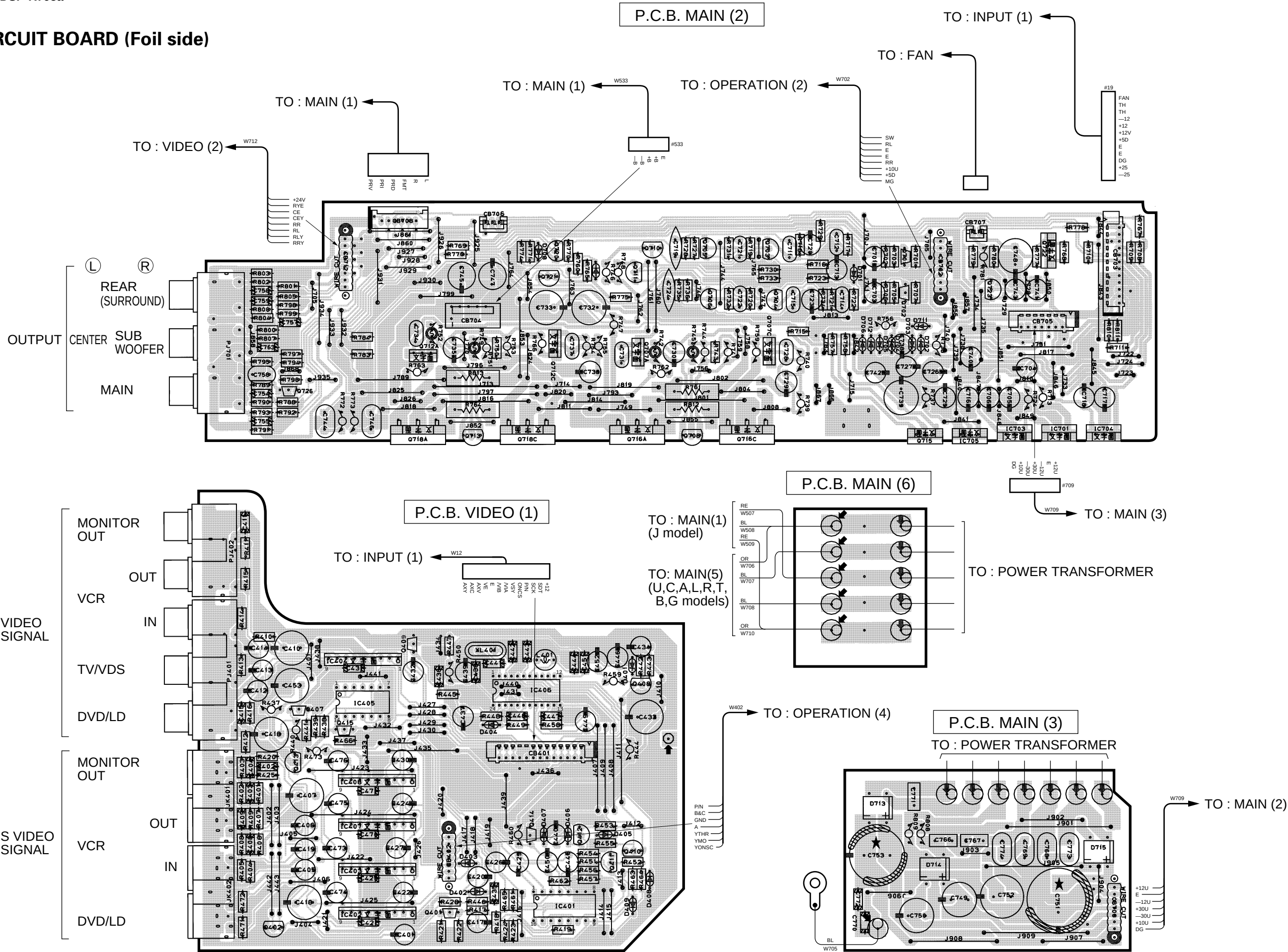


PRINTED CIRCUIT BOARD (Foil side)

Semiconductor Location

Ref No.	Location
Q401	D6
Q402	C6
Q407	C4
Q408	E4
Q409	D4
Q410	E5
Q411	E5
Q412	E5
Q413	C5
Q414	D5
Q415	C5
Q701	F2
Q702	F2
Q703	F2
Q704	F2
Q705	E2
Q706	E2
Q707A	E3
Q707C	F3
Q708	E3
Q710	E2
Q711	E2
Q712A	D3
Q712C	D3
Q713	D3
Q715	F3
Q716A	E3
Q716C	E3
Q718A	D3
Q718C	D3
Q720	D2
Q721	D2
Q722	G2
Q723	G2
Q726	C3

Ref No.	Location
IC401	D6
IC402	C6
IC403	C5
IC404	C4
IC405	C4
IC406	D4
IC407	C5
IC408	C5
IC701	G3
IC703	G3
IC704	G3
IC705	G3

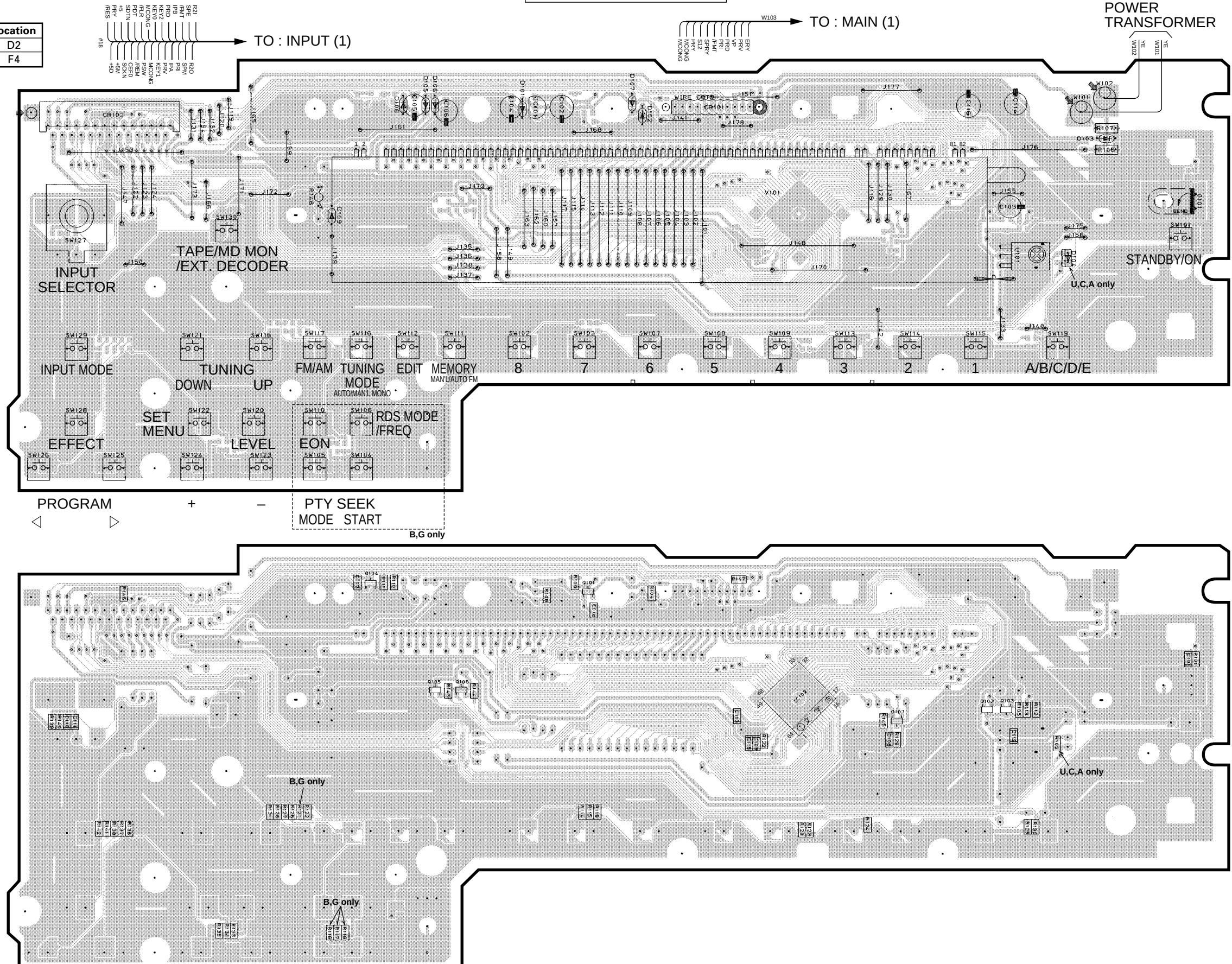


■ PRINTED CIRCUIT BOARD (Foil side)

P.C.B. OPERATION (1)

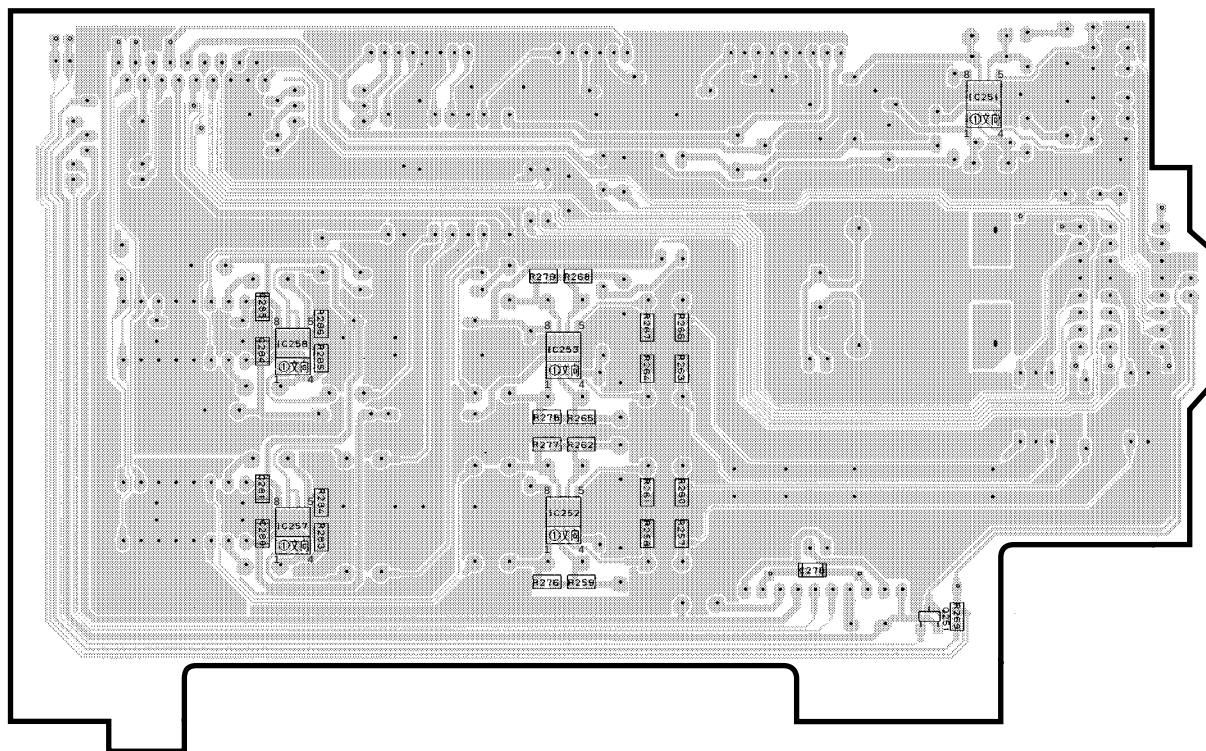
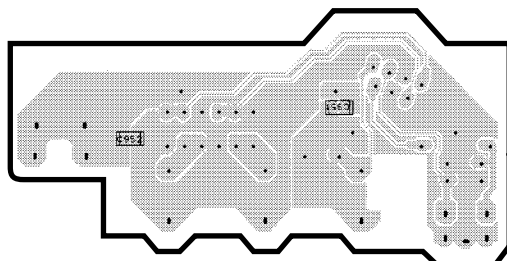
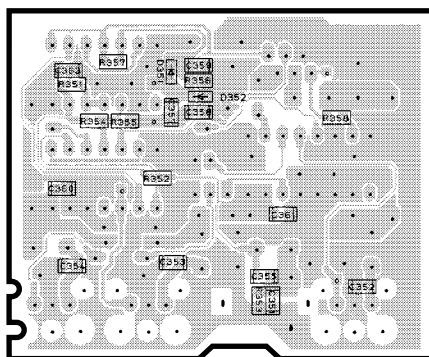
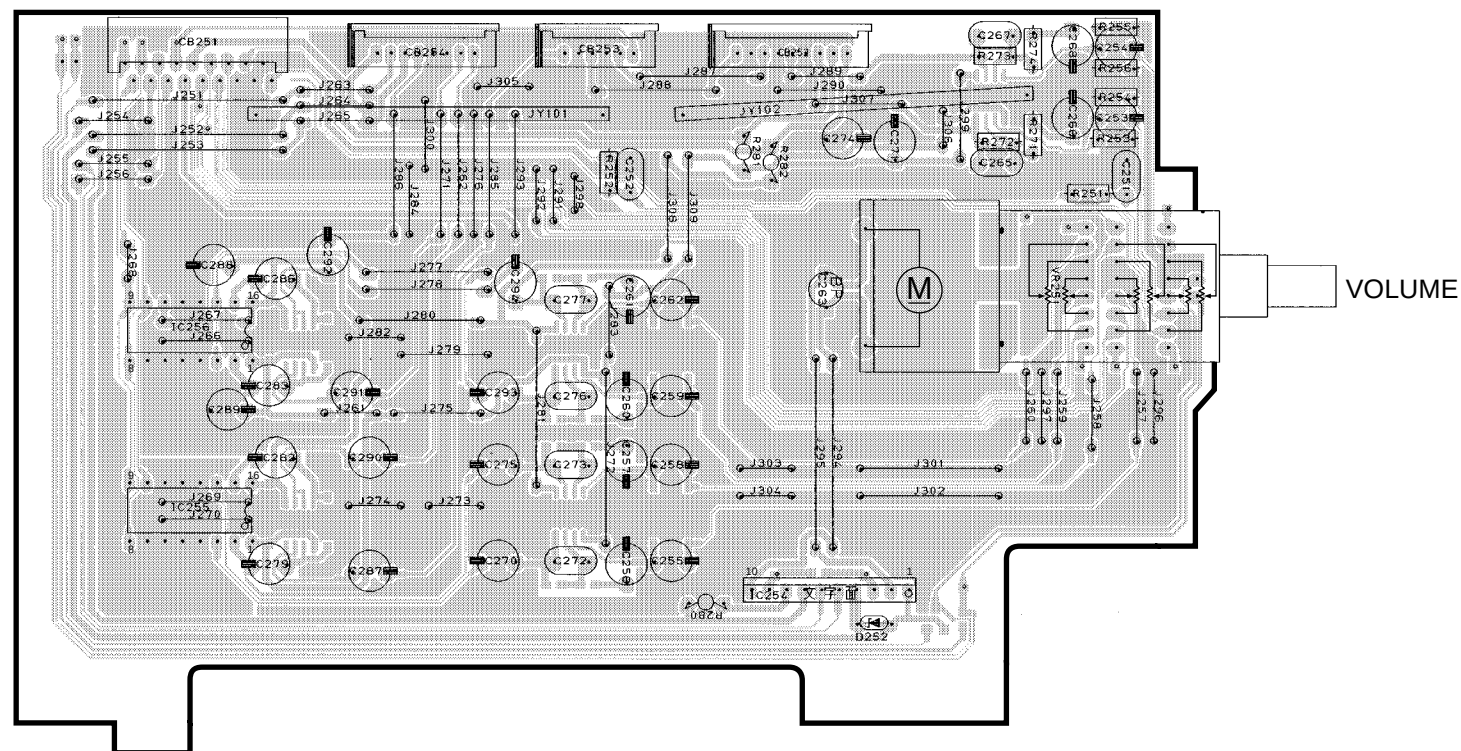
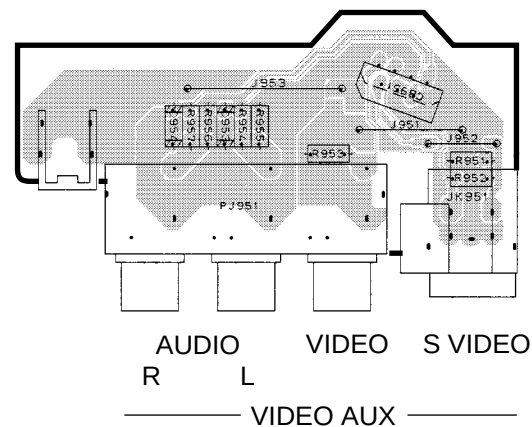
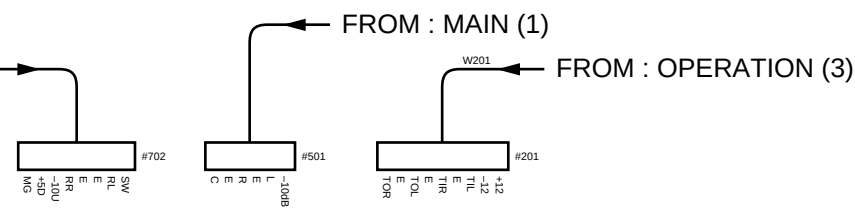
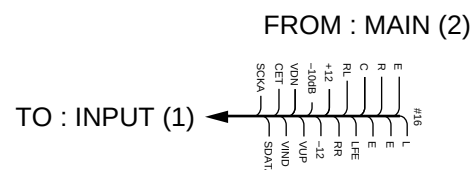
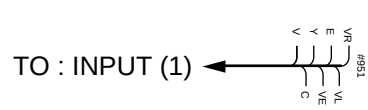
● Semiconductor Location

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



P.C.B. OPERATION (2)

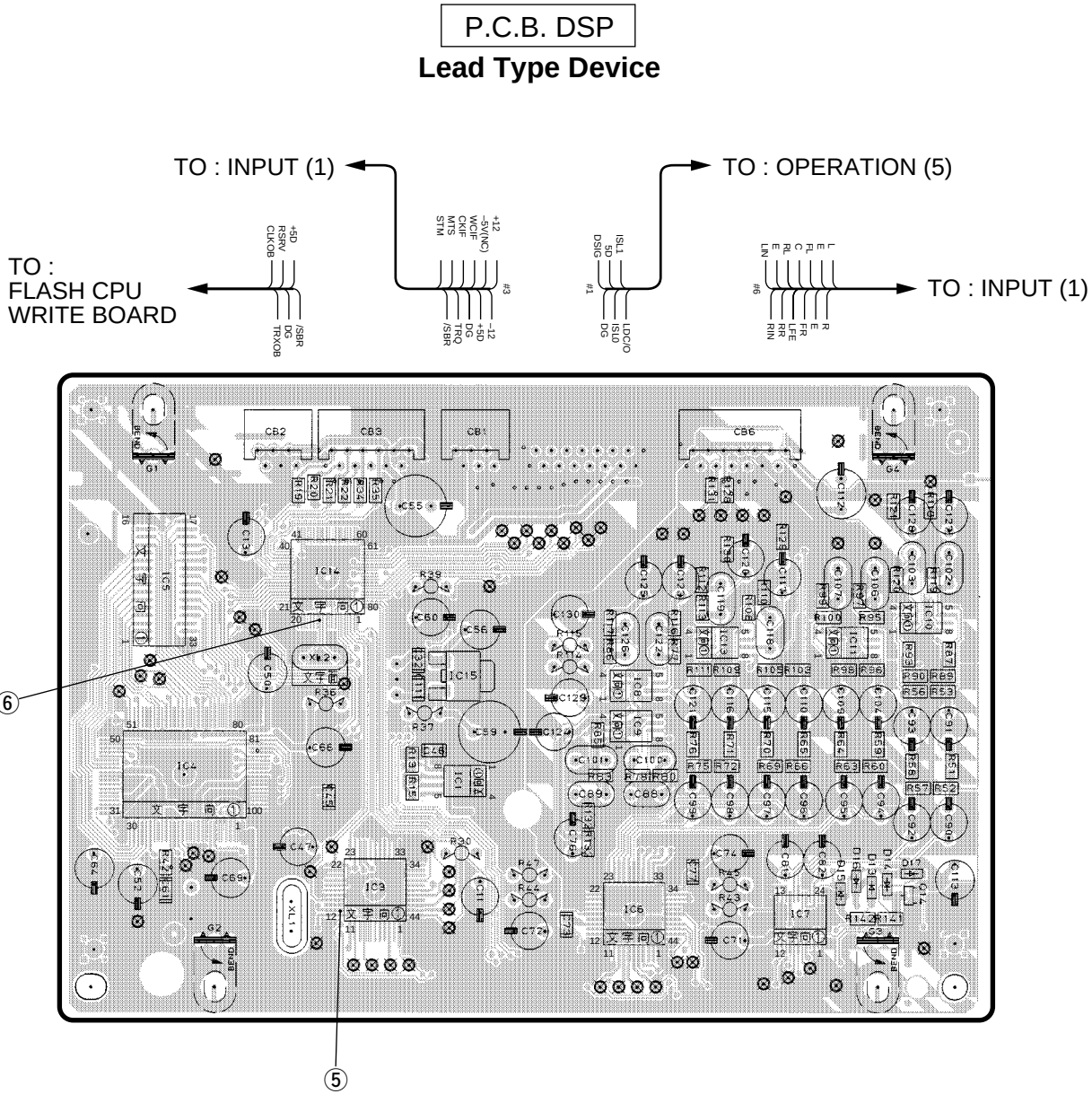
P.C.B. OPERATION (6)



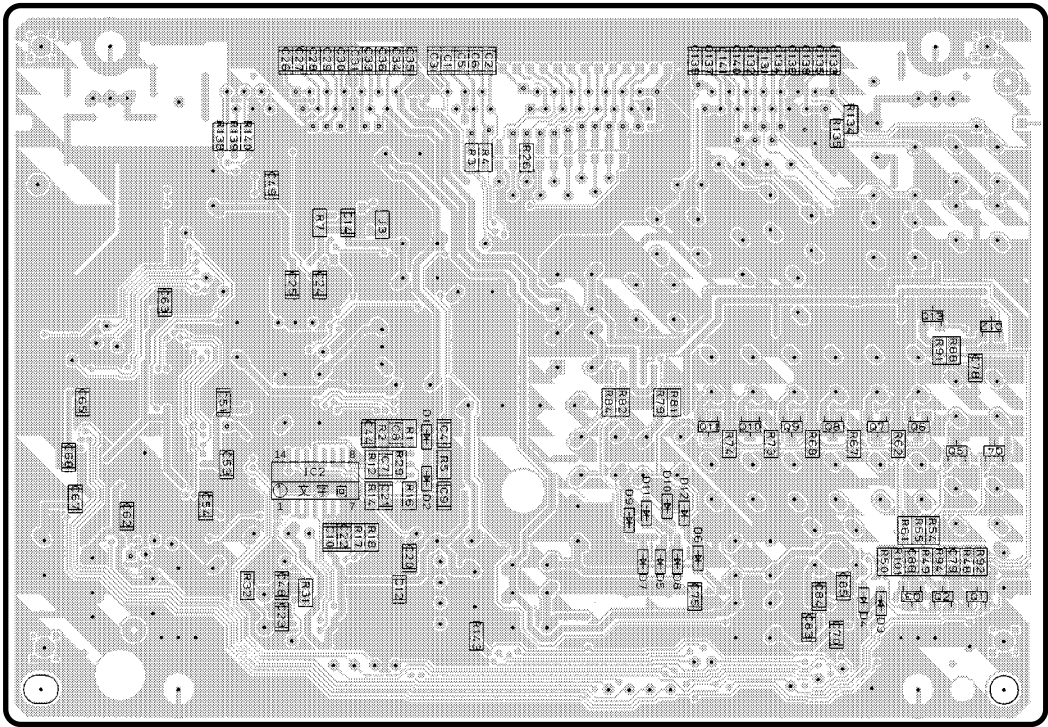
Ref No.	Location
Q251	G5

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

PRINTED CIRCUIT BOARD (Foil side)



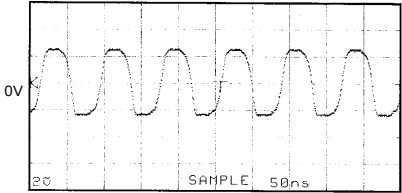
P.C.B. DSP
Surface Mount Device



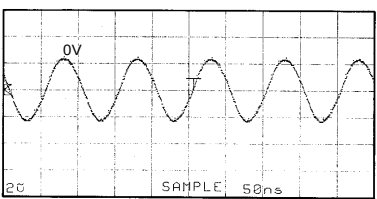
Semiconductor Location

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

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



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



PRINTED CIRCUIT BOARD (Foil side)

Semiconductor Location

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

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

P.C.B. TUNER/SMD

Lead Type & SMD

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

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

P.C.B. Ass'y List

	MARKETS	Lead Type	Lead & SMD
DSP-R795a	J	V2518500	V2519200
RX-V795a/HTR-5170	U,C	V2518600	V2519300
RX-V795a/HTR-5170	R,T	V2518700	V2519400
RX-V795a/HTR-5170	A,L	V2518800	V2519500

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

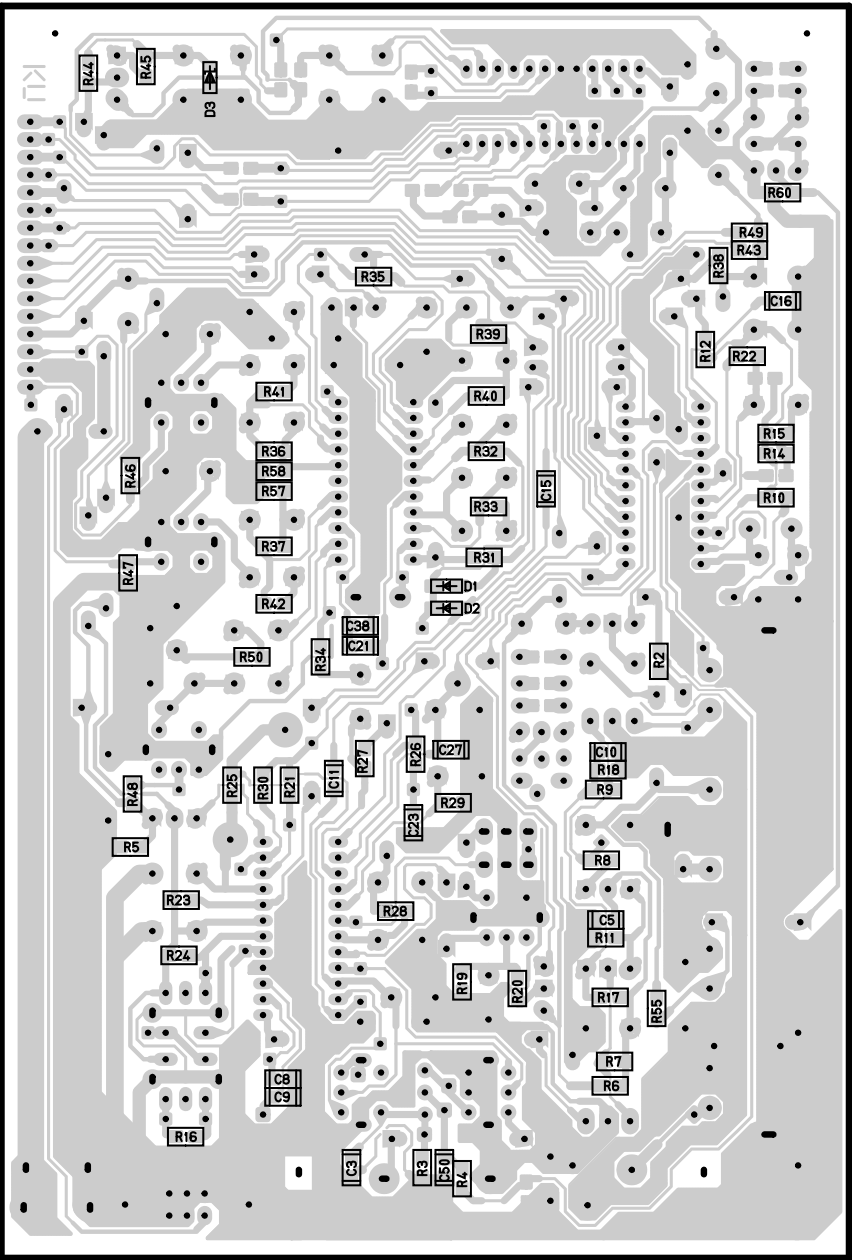
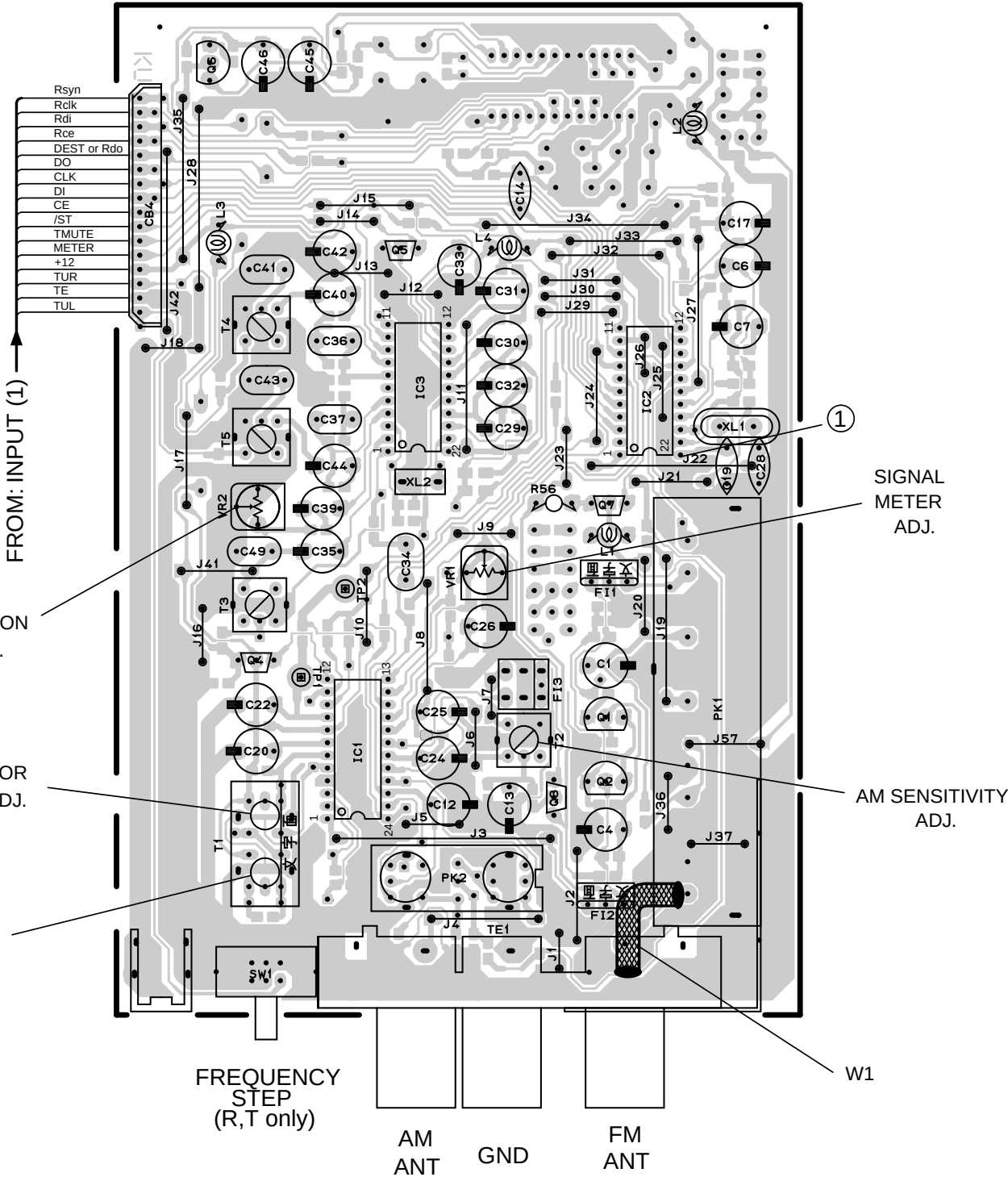
P.C.B. TUNER/SMD

Lead Type & SMD

CIRCUIT CHANGES BY MARKET.

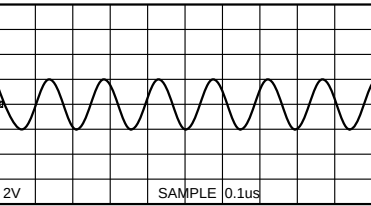
	J	U,C	R,T	A,B,G,L
R48	×	×	×	○
T3	×	×	×	○
J41	○	○	○	×
SW1	×	×	○	×
J42	×	×	○	×
R55	×	×	×	○
R57	×	×	×	○
R58	×	×	×	○
R60	×	×	×	○

○:USED
×:NOT USED



Point ① (Pin22 of IC2)

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



PRINTED CIRCUIT BOARD (Foil side)

Semiconductor Location

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

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

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

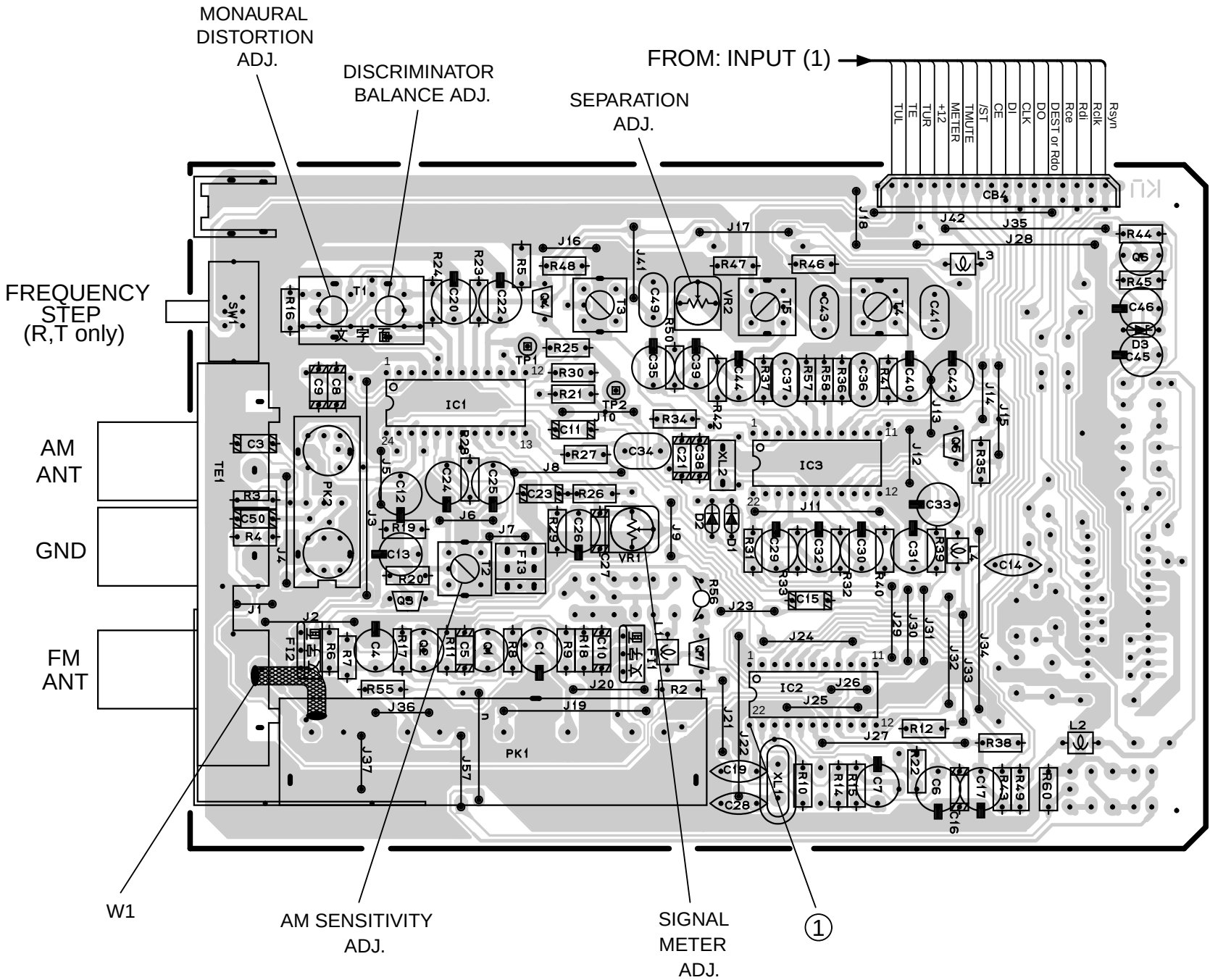
P.C.B. Ass'y List

	MARKETS	Lead Type	Lead & SMD
DSP-R795a	J	V2518500	V2519200
RX-V795a/HTR-5170	U,C	V2518600	V2519300
RX-V795a/HTR-5170	R,T	V2518700	V2519400
RX-V795a/HTR-5170	A,L	V2518800	V2519500

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

P.C.B. TUNER

Lead Type

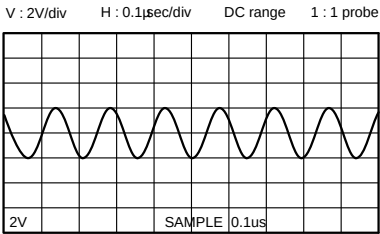


CIRCUIT CHANGES BY MARKET.

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

○:USED
X:NOT USED

Point ① (Pin22 of IC2)

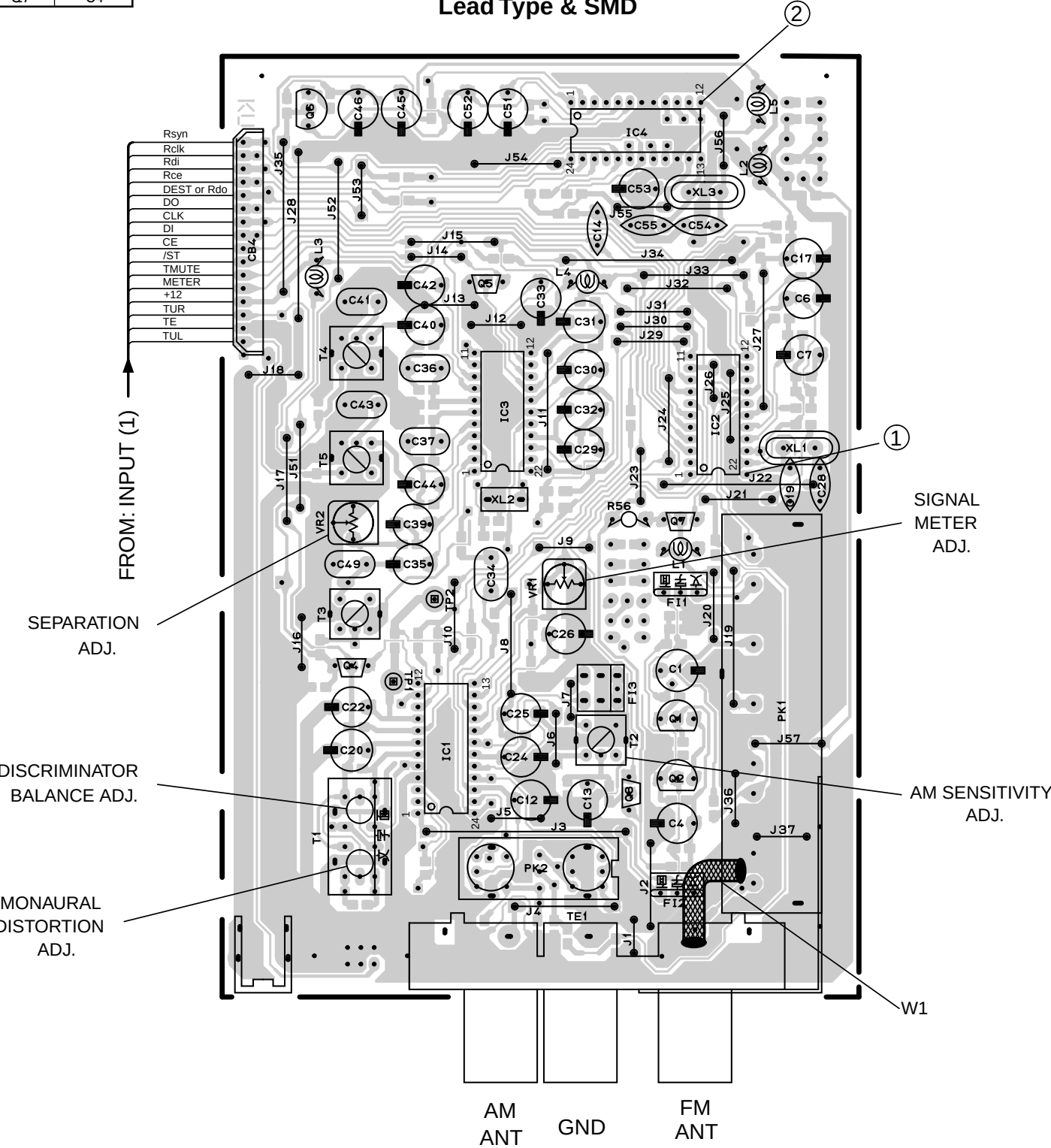


PRINTED CIRCUIT BOARD (Foil side)

Semiconductor Location

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

B,G models only
P.C.B. TUNER/SMD
Lead Type & SMD



SIGNAL
METER
ADJ.

AM SENSITIVITY
ADJ.

W1

AM ANT
GND
FM ANT

E-59

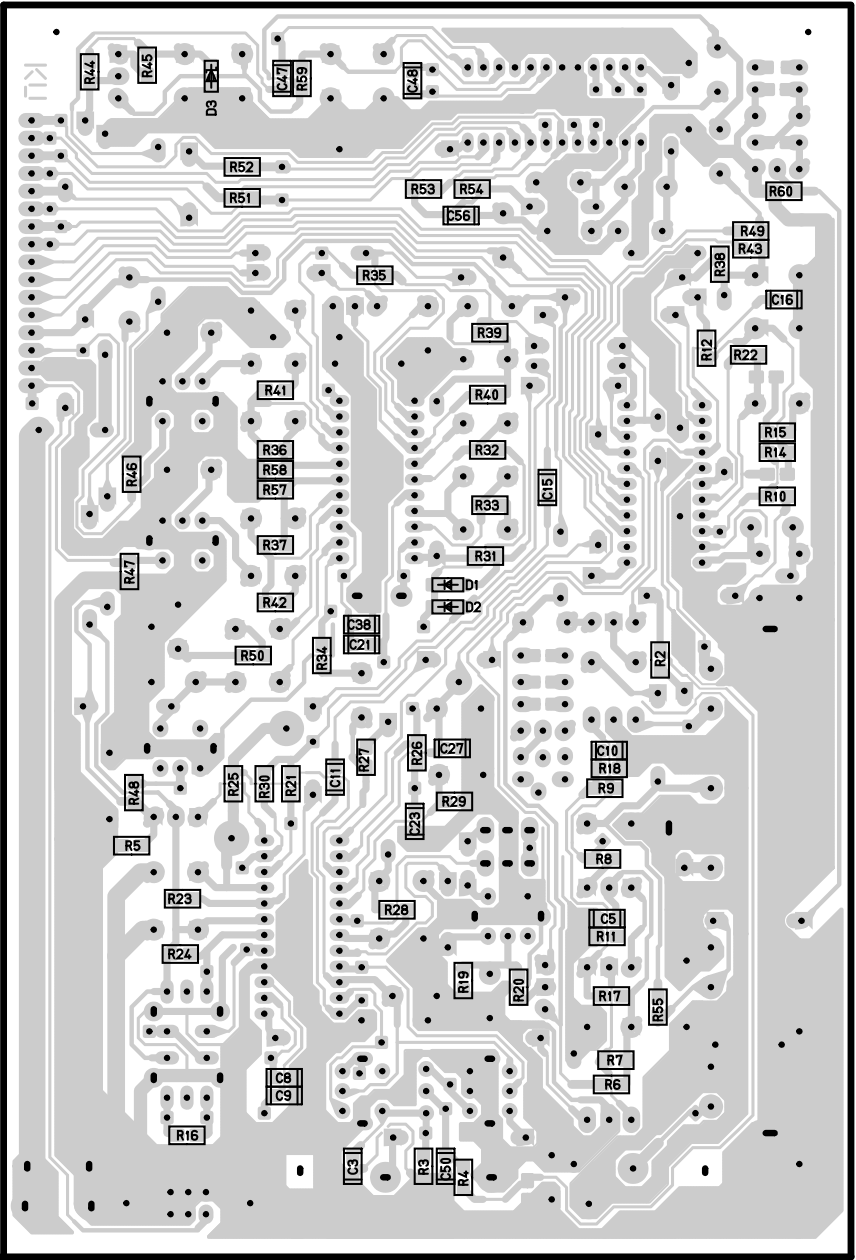
There are two types of the Tuner P.C.B. Assembly in this model: One is a lead type device and the other is a lead type device & surface mount device (SMD). These two P.C.B. assemblies are compatible.

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

P.C.B. Ass'y List

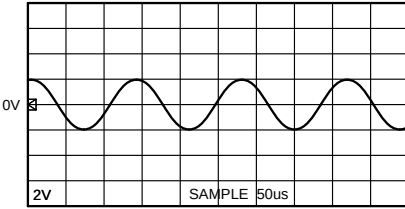
	MARKETS	Lead Type	Lead & SMD
RX-V795aRDS	B,G	V2518900	V2519600

B,G models only
P.C.B. TUNER/SMD
Lead Type & SMD



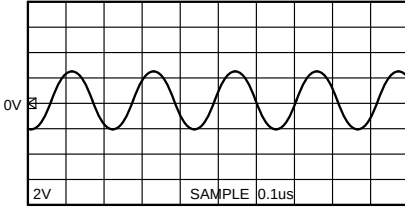
Point ① (Pin22 of IC2)

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



Point ② (Pin12 of IC4)

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



PRINTED CIRCUIT BOARD (Foil side)

Semiconductor Location

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

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

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

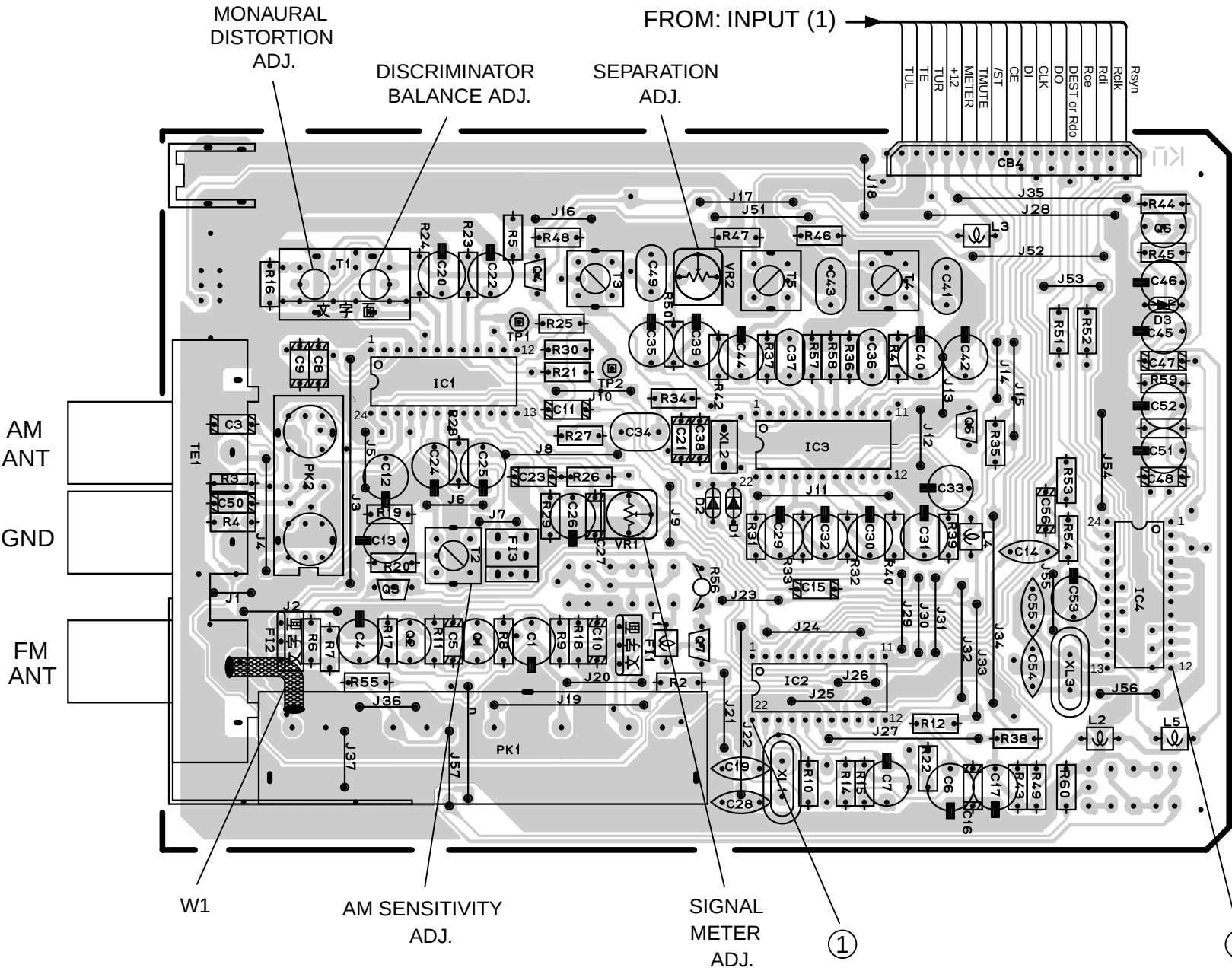
P.C.B. Ass'y List

	MARKETS	Lead Type	Lead & SMD
RX-V795aRDS	B,G	V2518900	V2519600

B,G models only

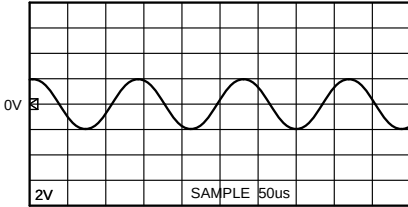
P.C.B. TUNER

Lead Type



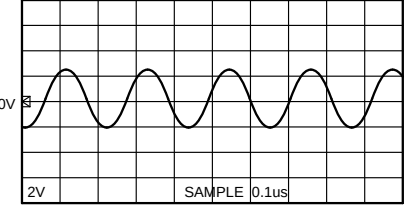
Point ① (Pin22 of IC2)

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



Point ② (Pin12 of IC4)

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



PIN CONNECTION DIAGRAM

ICs

NJM78L05A	NJM7812FA NJM7805FA	NJM79M12FA	μPC29M33T-E1	NJM2068L-D	μPC4570HA
LA7956	LB1641	HD74HC00P TC74HCU04AP μPD4066BC	HD74HC153P TC4053BP TC9299P	LA3401 LC72131	LA1266 LC74781-9626
LC72720N	LC78211 LC78212 LC78213	NJM2904M-T1 μPC4570G2 NJM2068MD M5220FP	HD74HC02FPEL	AK4320-VM	M5M51288BKJ-20L
AK4526 YM3436DK	LC75710NE LC75712E	HD6433397A97F	LC87F5164A	YSS918F	

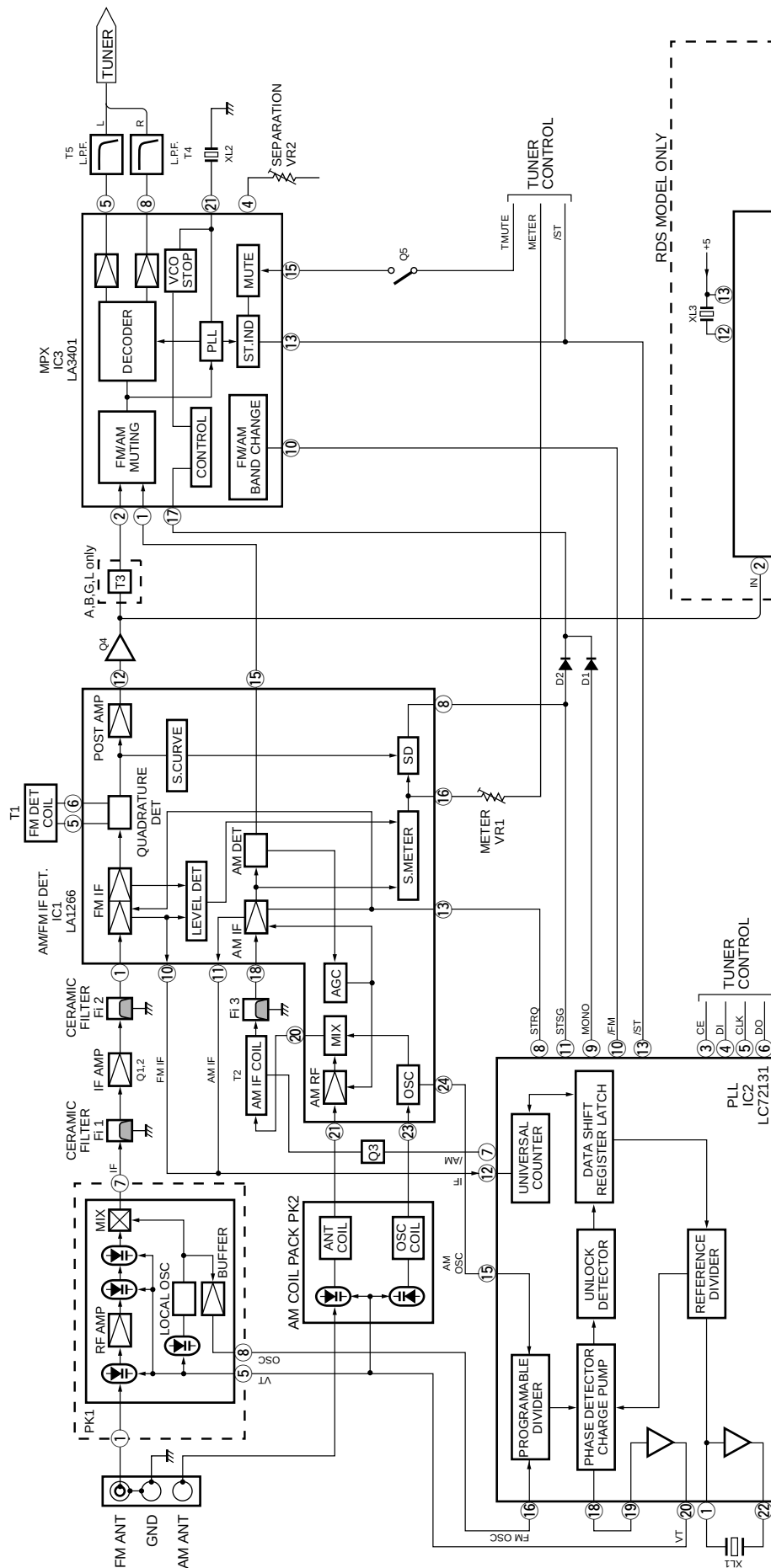
Diodes

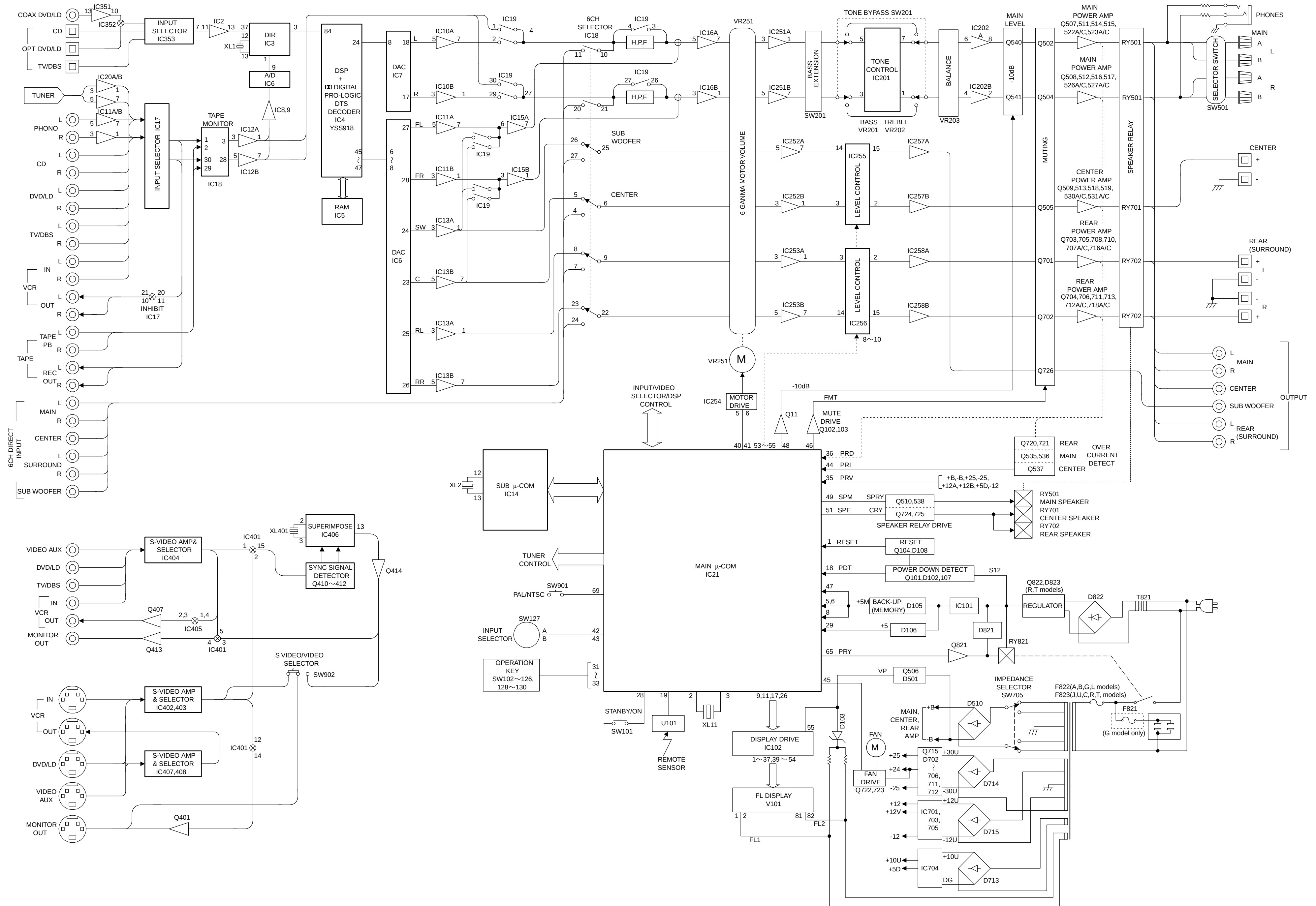
1SS133 1SS270A H2S5B2TD H2S6B2TD H2S6C2TD H2S7B2TD H2S9A2TD H2S12B2TD H2S12C2TD H2S242TD H2S302TD MTZJ5.6B	D5SB20	SIM-22ST
1SS355	S1NB20	

Transistors

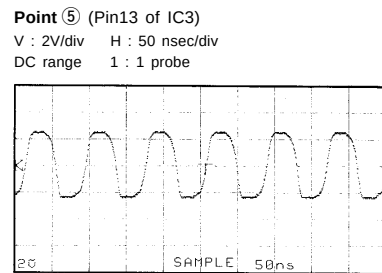
2SA933S (Q, R) 2SC1740S (R, S) 2SD1915F(S, T) DTA144ES DTC144ES	2SA893A (D, E) 2SA970(GR, BL) 2SA1015 (Y) 2SC535 (A, B, C) 2SC1815 (Y) 2SC1890A (D, E) 2SC2229(O, Y) 2SC2240(GR, BL)	2SA1037(Q, R, S) 2SC2412K(Q, R, S) 2SC3326 (A, B) DTA144EK DTC144EKA	
2SA1358 (O, Y)	2SA1492 (O, P, Y)	2SC4495 2SD2396(J, K)	2SB941(P, Q)

Pin diagram of the RDS DECODER IC4 (LC72720N). The chip is shown with pins 1 through 23. Pins 18 through 23 are labeled RCVN, RDO, RCLK, RDI, and RCE respectively. Pins 12 and 13 are labeled +5 and +13 respectively. The chip is labeled RDS DECODER IC4 LC72720N.

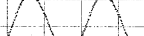




BLOCK DIAGRAM



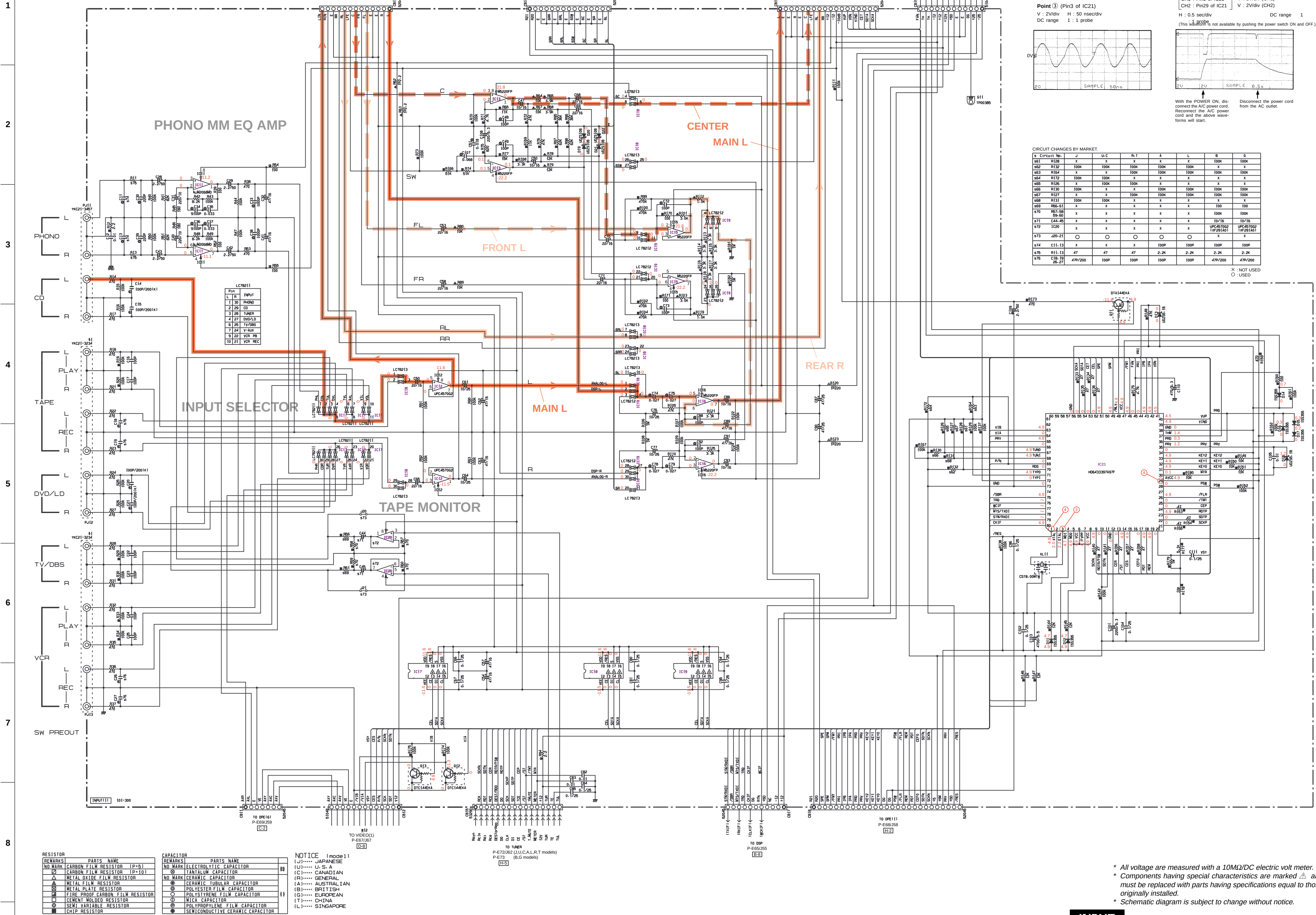
Point ⑥ (Pin13 of IC14)
V : 2V/div H : 50 nsec/div
DC range 1 : 1 probe



20 SAMPLE 50ns

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

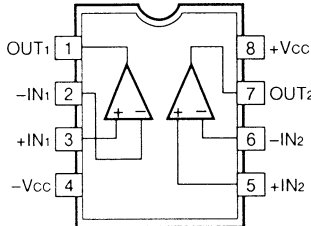
■ SCHEMATIC DIAGRAM (INPUT)



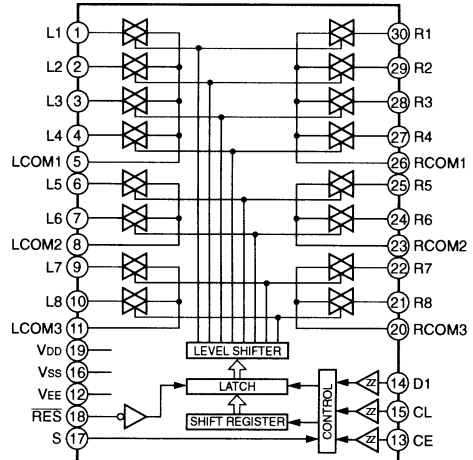
* All voltage are measured with a 10MΩ/DC electric volt meter.
 * Components having special characteristics are marked △ and must be replaced with parts having specifications equal to those originally installed.
 * Schematic diagram is subject to change without notice.

■ SCHEMATIC DIAGRAM (INPUT & VIDEO)

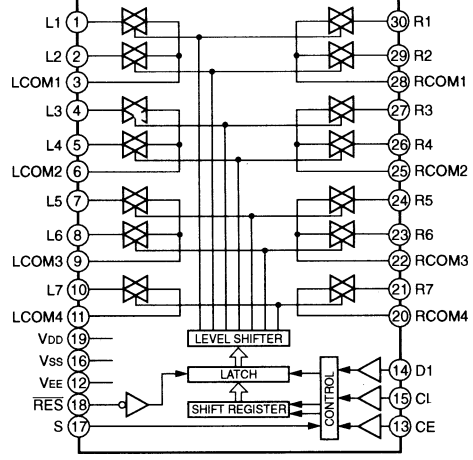
IC11 : NJM2068MD
IC12, 20 : μ PC4570G2
IC13, 15, 16 : M5220FP
Dual OP Amp



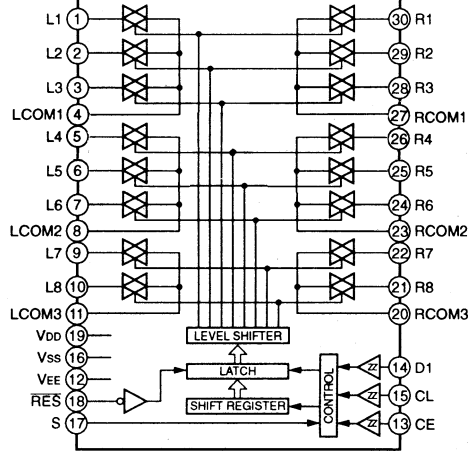
IC17 : LC78211
Analog Function Switch



IC18 : LC78213
Analog Function Switch



IC19 : LC78212
Analog Function Switch



Other ICs
● IC21 : HD6433397A97F → See page E-36/J-30
● IC406 : LC74781-9626 → See page E-35/J-29

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

Interchangeable Parts at Manufacture-Stage

Mark	Reference Parts Number	Parts Name
k1	D402-409-709-710	HSS104 1SS133 1SS176
k2	IC401	TC4053BP UPD4053BC
k3	0401-407-724	2SC1740S(R/S) 2SC2603(E/F) 2SC3311A(G/R/S)
k4	0414	2SA333S(R/S) 2SA111S(E/F) 2SA1309A(G/R/S)
k5	0402	2SD1915F(S/T) 2SC2878A(B)
k11	0821	HSS104 1SS133 1SS176
k12	0821	2SC1740S(R/S) 2SC2603(E/F) 2SC3311A(G/R/S)

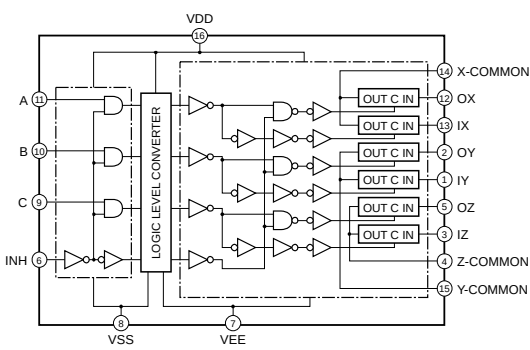
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊙	POLYESTER FILM CAPACITOR
⊙	POLYSTYRENE FILM CAPACITOR
⊙	MICA CAPACITOR
⊙	POLYPROPYLENE FILM CAPACITOR
⊙	SEMICONDUCTIVE CERAMIC CAPACITOR
⊙	POLYPHENYLENE SULFIDE FILM CAPACITOR

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

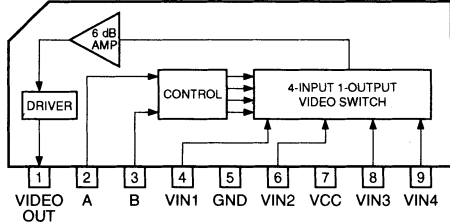
Circuit No.	U-C	R-T	A	L	B	G
1 0822	x	x	D23961/J/K	x	x	x
2 J821	0	0	x	0	0	0
3 C821	x	x	1000P	x	x	x
4 0823	x	x	H251282	x	x	x
5 R822-823	x	x	5.6K	x	x	x
6 C826-828	x	x	100P/30	x	x	x
7 R824	x	x	1/20P-2M	x	x	x
8 T821	K2542	K083	X1331	K084	K084	K084
	K2507	K0485	X1341	K0485	K0485	K0485
9 TE821	YU64310	YU64310	YU64310	Y191500	YU64340	YU64340
10 J822	0	0	0	0	0	0
11 C8227-828	YP20650	YP20650	x	x	x	x
12 F823	BA125V	BA125V	x	x	x	x
13 C822-825	x	x	x	x	x	YP20650
14 F821	x	x	x	x	x	T2-0AL250V
15 C824-826	x	x	x	YP20650	YP20650	YP20650
16 F822	x	x	x	14-0AL250V	14-0AL250V	14-0AL250V
17 C823	330/25	470/25	330/25	330/25	330/25	330/25
18						
19 S8851	x	x	Y495180	x	x	x
20 C8851-882	x	x	YP20650	x	x	x
21 F881	x	x	14-0AL250V	x	x	x
22 W883	x	x	M03240	x	x	x
23 W882	x	x	M01240	x	x	x
24 W881	x	x	M04240	x	x	x
25 W886	x	x	M03240	x	x	x
26 W885	x	x	M02240	x	x	x
27 W884	x	x	M05240	x	x	x
28 RY821	V271230	Y269530	V271230	V271230	V271230	V271230
	V007340	Y269540	V007340	V007340	V007340	V007340
	Y26540	Y26540	Y26540	Y26540	Y26540	Y26540
31 C760-762	x	x	x	0.01 μ A95410	0.01 μ A95410	0.01 μ A95410
32 C764-765	x	x	x	0.02 μ A95422	0.02 μ A95422	0.02 μ A95422
33 C776-779	x	x	x	0.012 μ A95412	0.012 μ A95412	0.012 μ A95412
34 TE701	Y260500	Y260500	Y260500	Y260510	Y260510	Y260510
35 XL401	Y194980	Y194980	Y194980	Y194990	Y194990	Y194990

x : NOT USED
o : USED

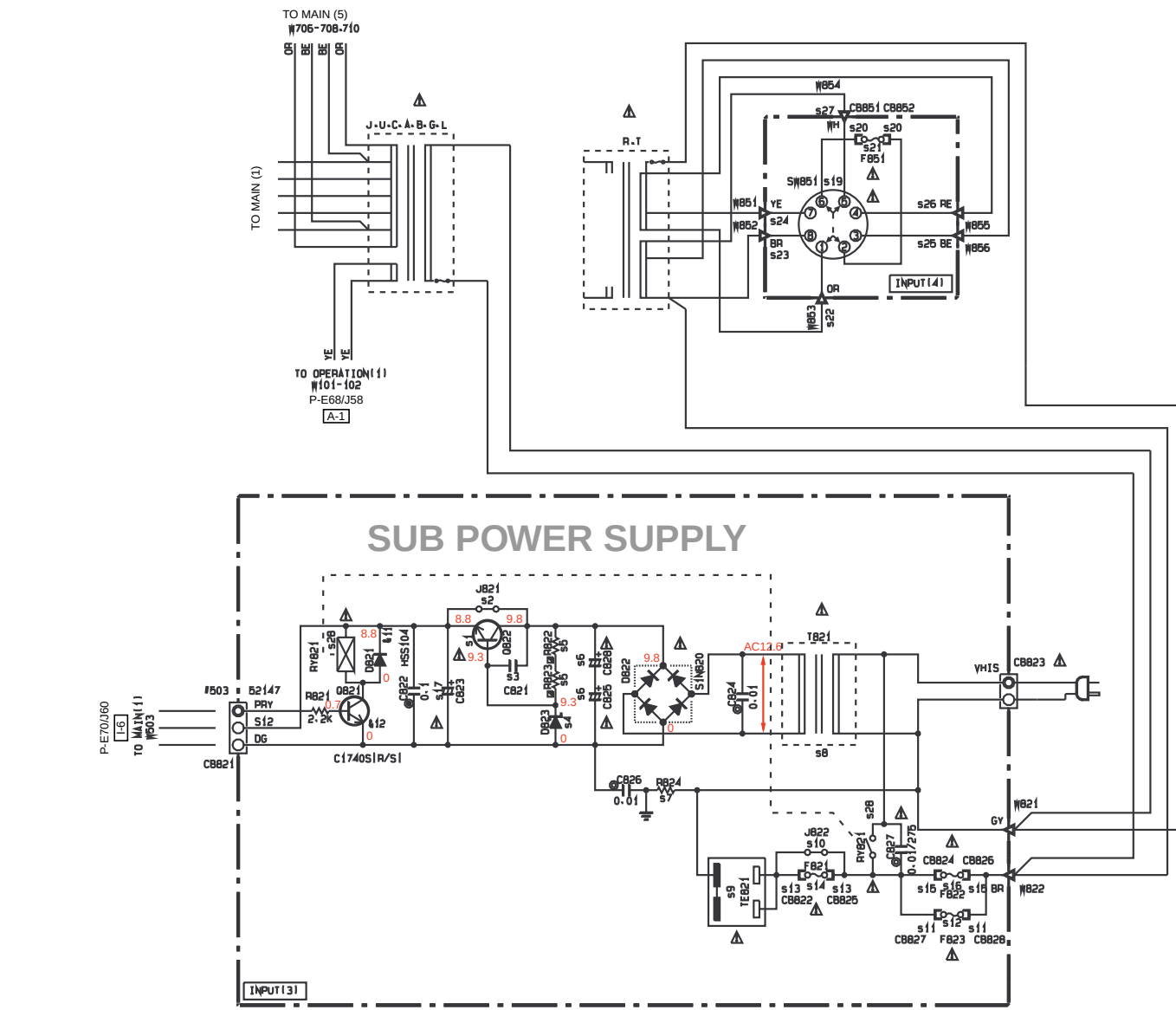
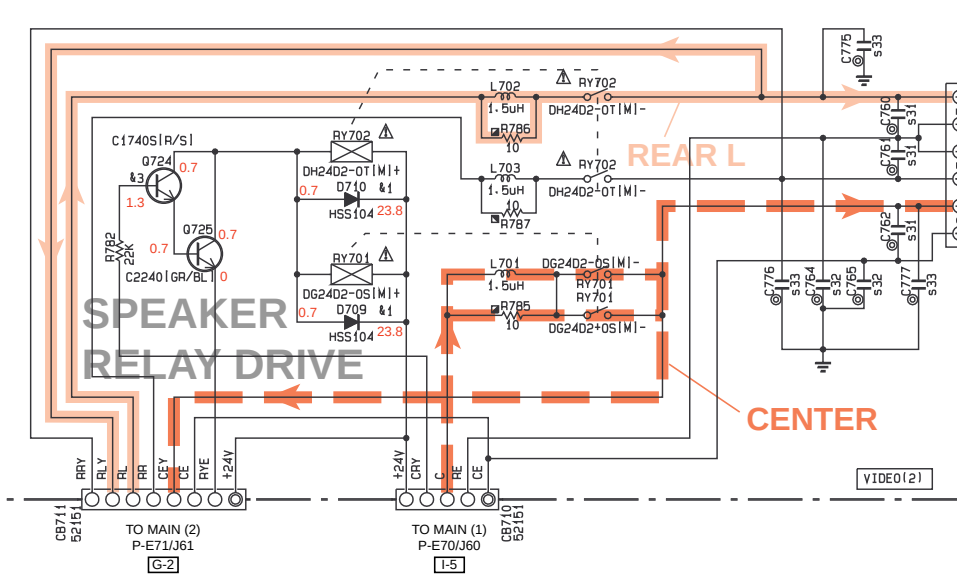
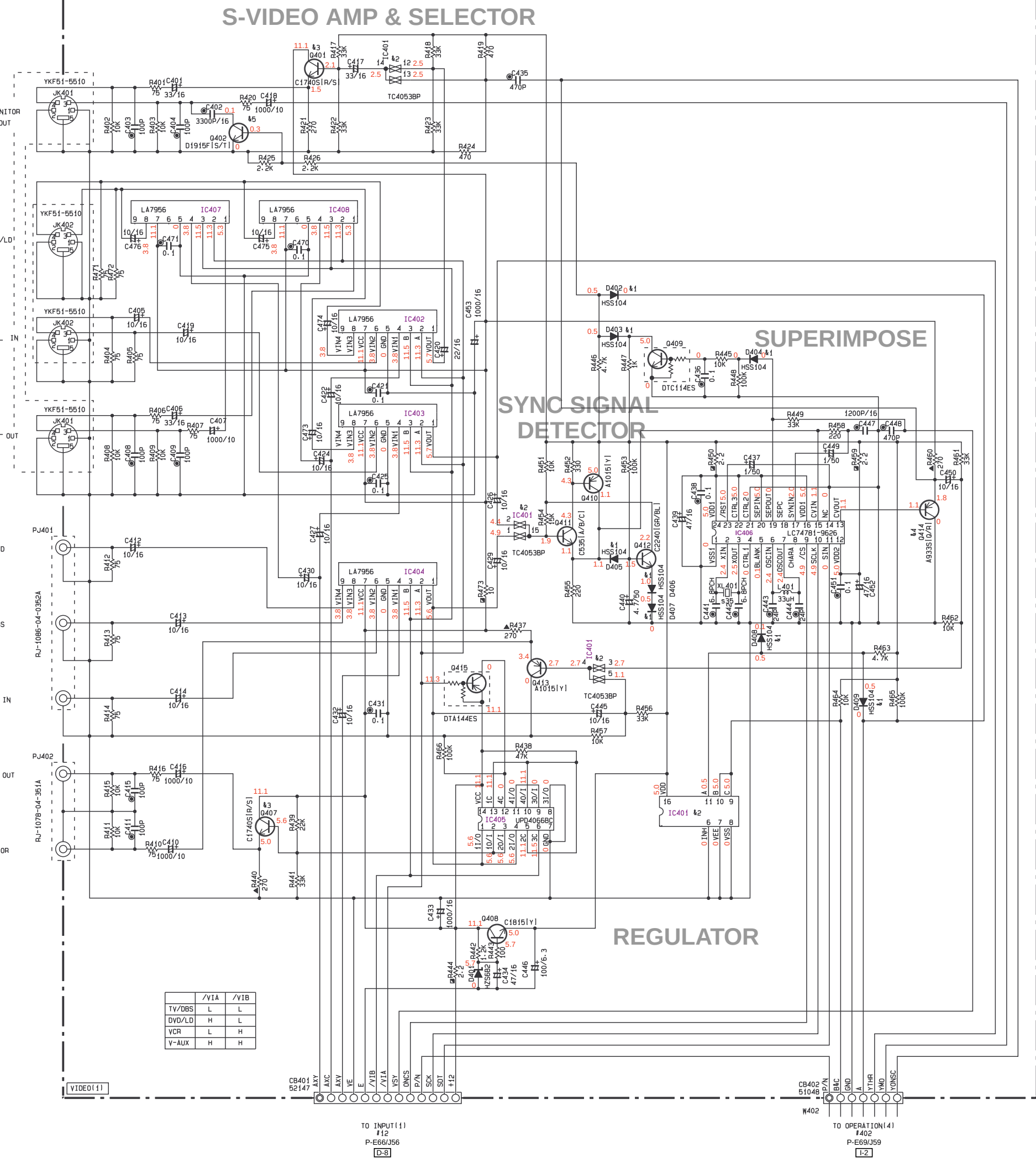
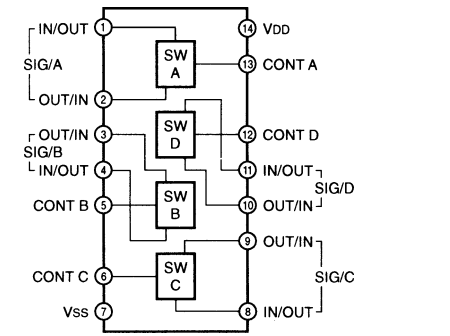
IC401 : TC4053BP
Triple 2-Channel Analog Multiplexers/
Demultiplexers



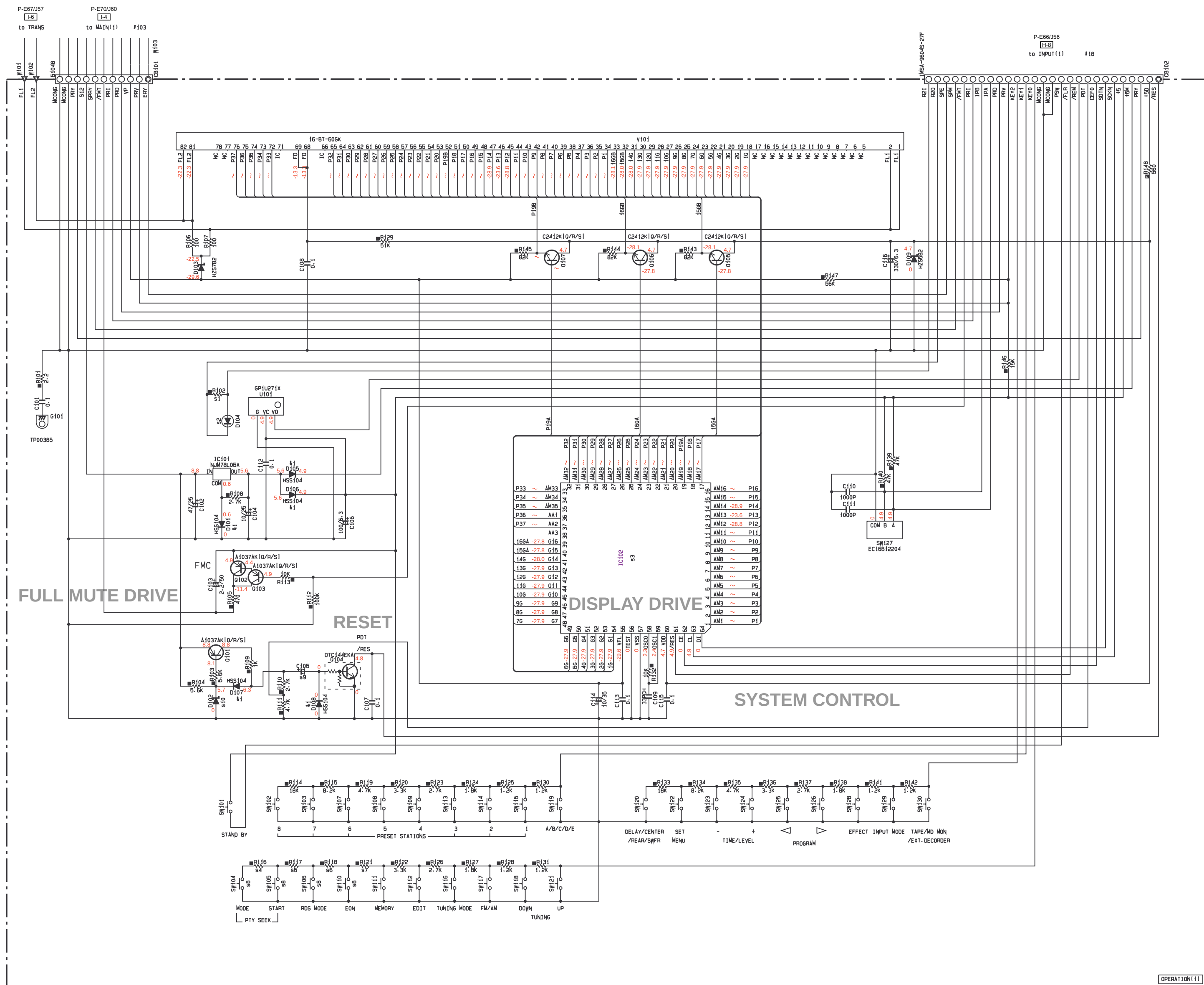
IC402-404, 407, 408 : LA7956
Video Switch



IC405 : μ PD4066BC
Quad Analog Switch/Multiplexer

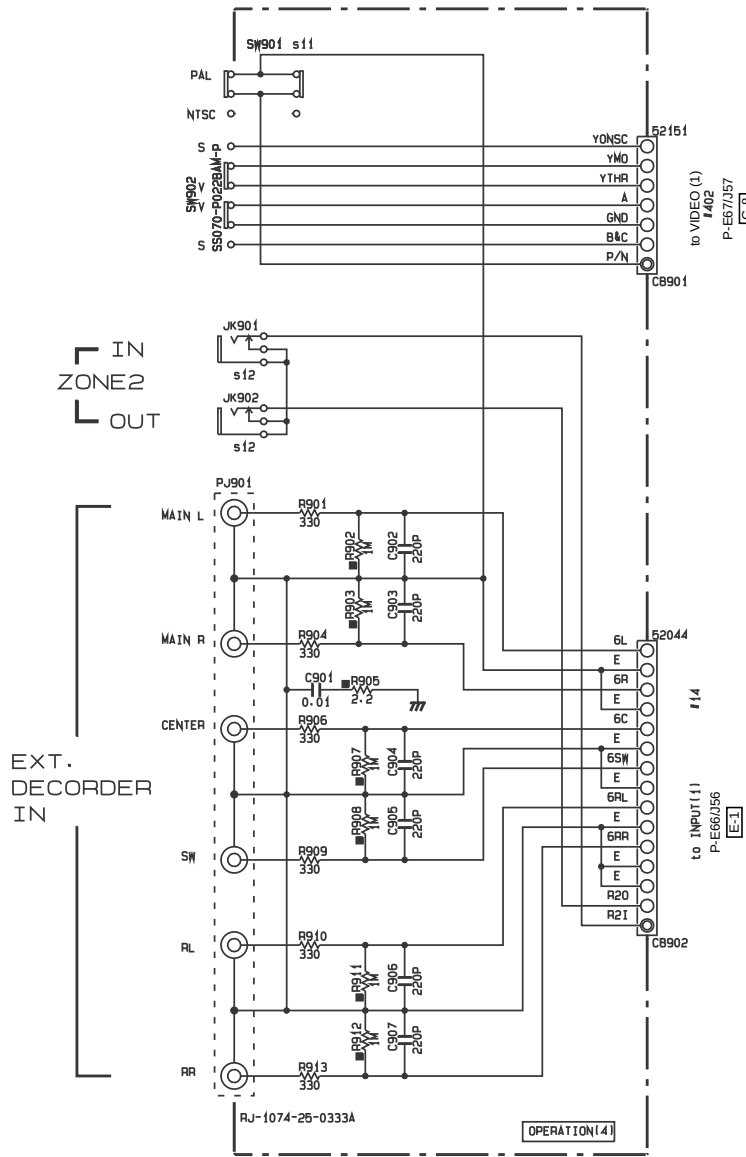
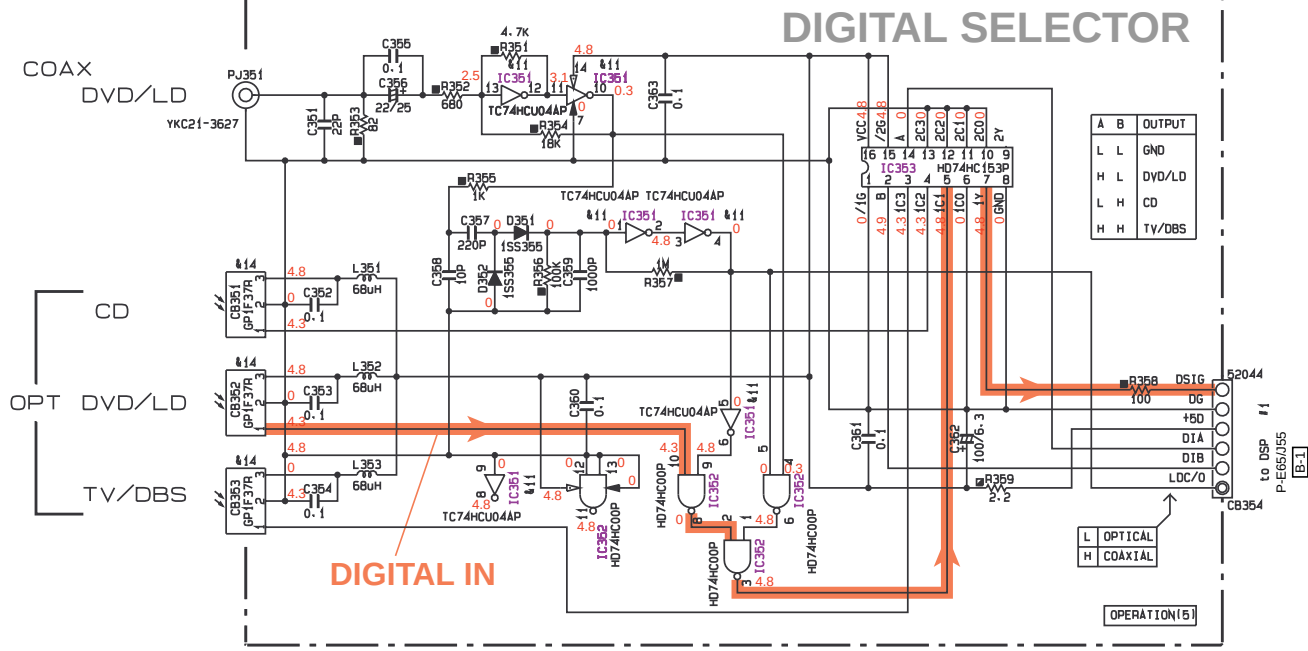
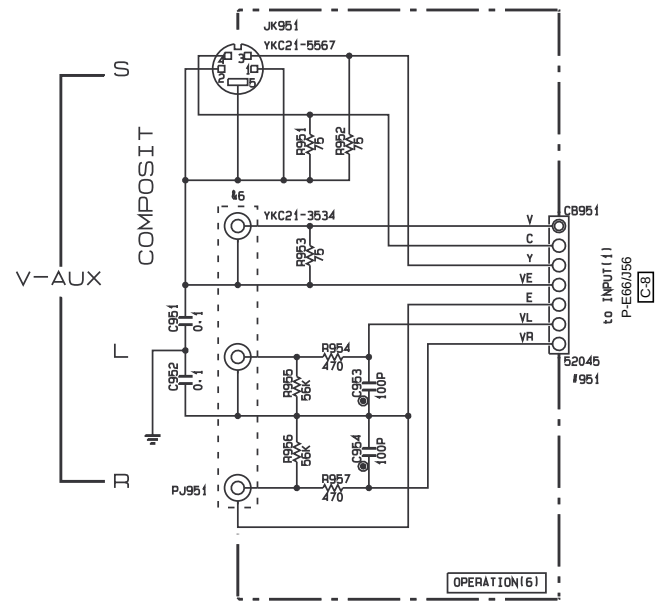


* All voltage are measured with a 10M Ω /DC electric volt meter.
* Components having special characteristics are marked Δ and must be replaced with parts having specifications equal to those originally installed.
* Schematic diagram is subject to change without notice.

[illegible]

E-68/J-58

■ SCHEMATIC DIAGRAM (OPERATION)

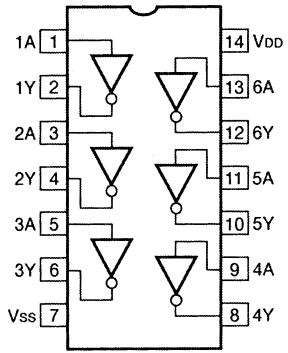


CAPACITOR	
REMARKS	PARTS NAME
NO MARK	ELECTROLYTIC CAPACITOR
⊗	TANTALUM CAPACITOR
NO MARK	CERAMIC CAPACITOR
⊙	CERAMIC TUBULAR CAPACITOR
⊖	POLYESTER FILM CAPACITOR
○	POLYSTYRENE FILM CAPACITOR
◇	MICA CAPACITOR
⦿	POLYPROPYLENE FILM CAPACITOR
●	SEMICONDUCTIVE CERAMIC CAPACITOR

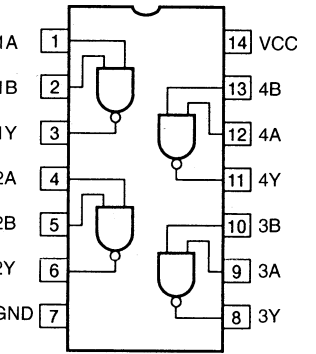
RESISTOR	
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
□	CARBON FILM RESISTOR (P=10)
△	METAL OXIDE FILM RESISTOR
▴	METAL FILM RESISTOR
▢	METAL PLATE RESISTOR
▤	FIRE PROOF CARBON FILM RESISTOR
■	CEMENT MOLDED RESISTOR
◊	SEMI VARIABLE RESISTOR
■	CHIP RESISTOR

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

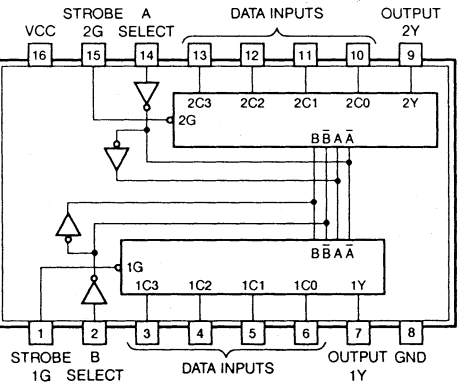
IC351 : TC74HC04AP
Hex Inverters



IC352 : HD74HC00P
Quadruple 2-input Positive NAND Gates



IC353 : HD74HC153P
Dual 4 to 1 Data Selectors

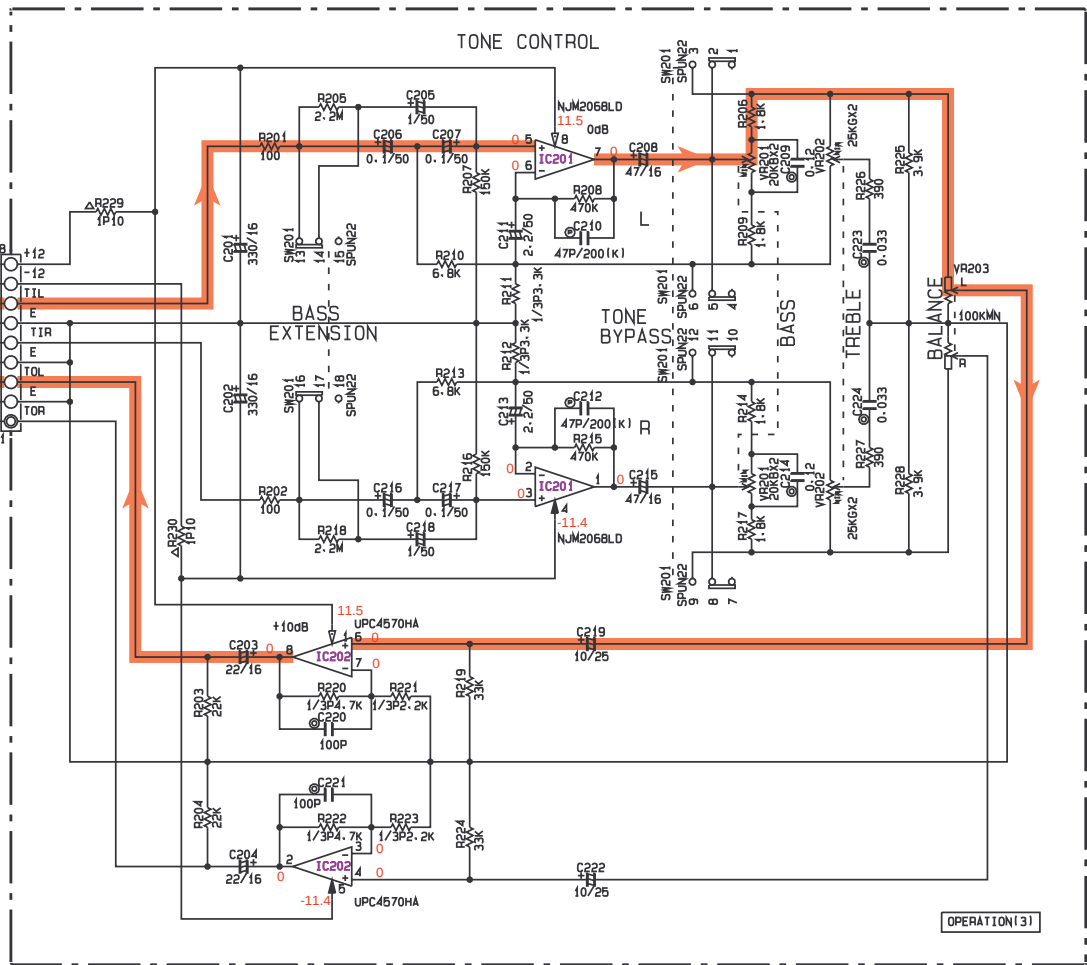
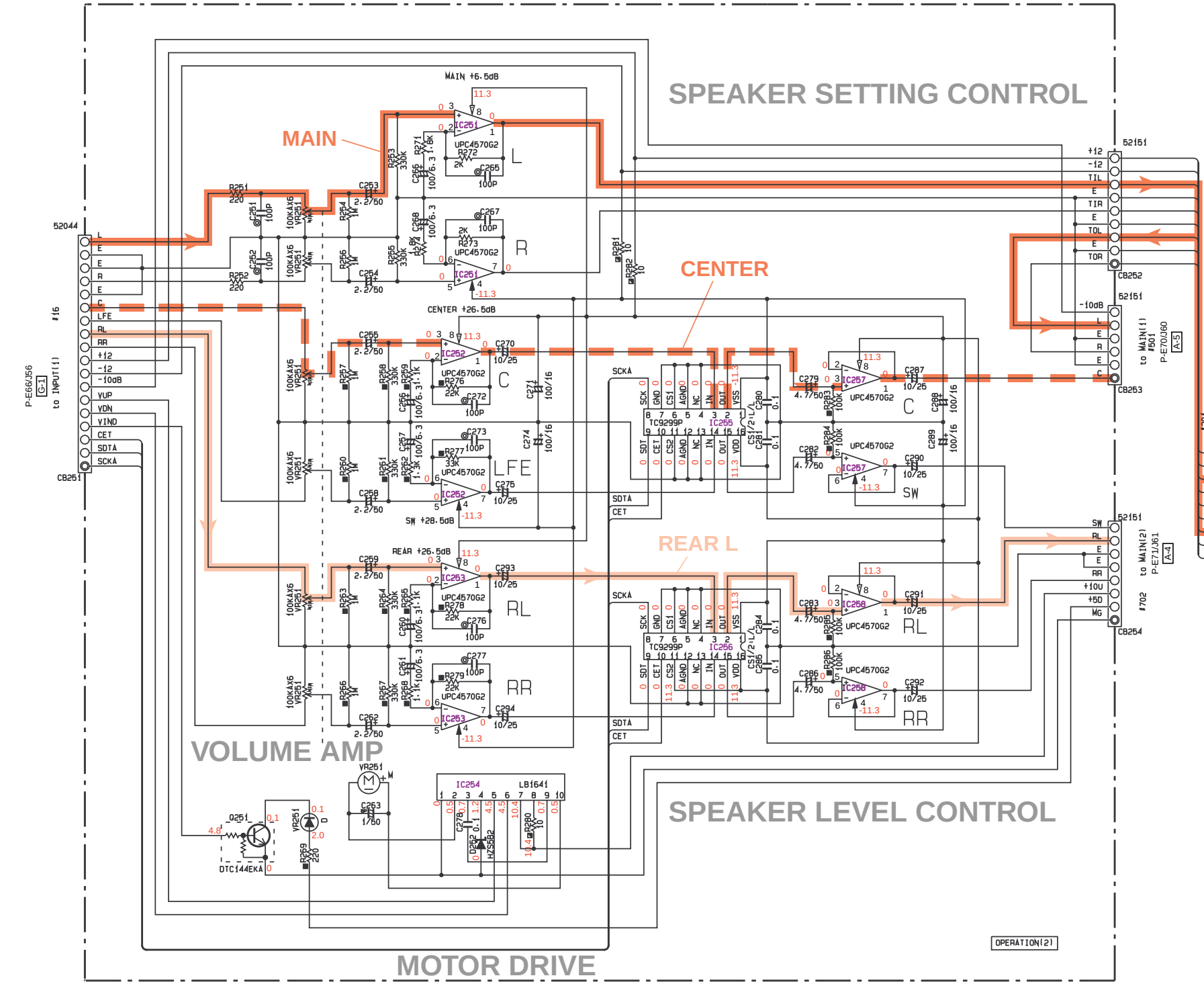


INPUTS		OUTPUT	
SELECT	STROBE	G	Y
B A	H	G	L
X X	X	L	C0
L H	L	L	C1
H L	L	L	C2
H H	L	L	C3

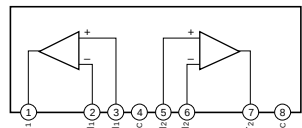
Interchangeable Parts at Manufacture-Stage		
Mark	Reference Parts Number	Parts Name
411	IC351	TC74HC04AP SN74HC04AN MC74HC04AN
412		
413		
414	CB351-353	GP1F37R TOR178A
415		

CIRCUIT CHANGES BY MARKET.			
MODEL No.	DSP-R795a/RX-V795a/RDSM/HTR-5170M	B-G	
411	IC351	X	Y560260
412	JK901-JK902	X	VJ72680
413			
414			
415			

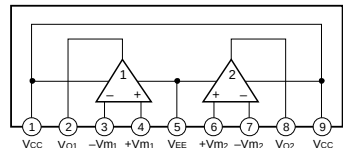
X : NOT USED



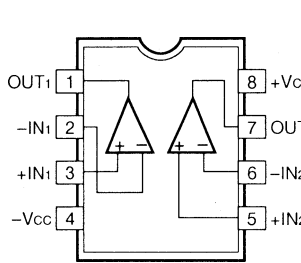
IC201 : NJM2068LD
Dual OP Amp



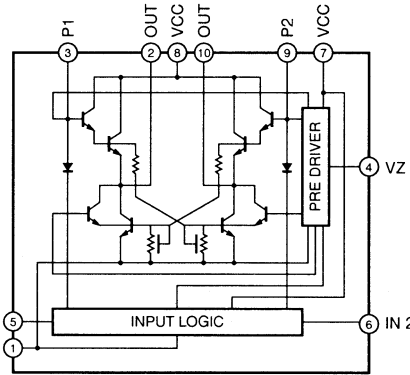
IC202 : μPC4570HA
Dual OP-Amp



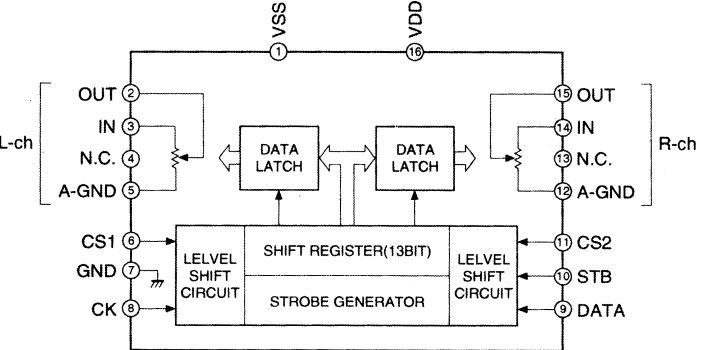
IC251-253, 257, 258 : μPC4570G2
Dual OP-Amp



IC254 : LB1641
Motor Driver



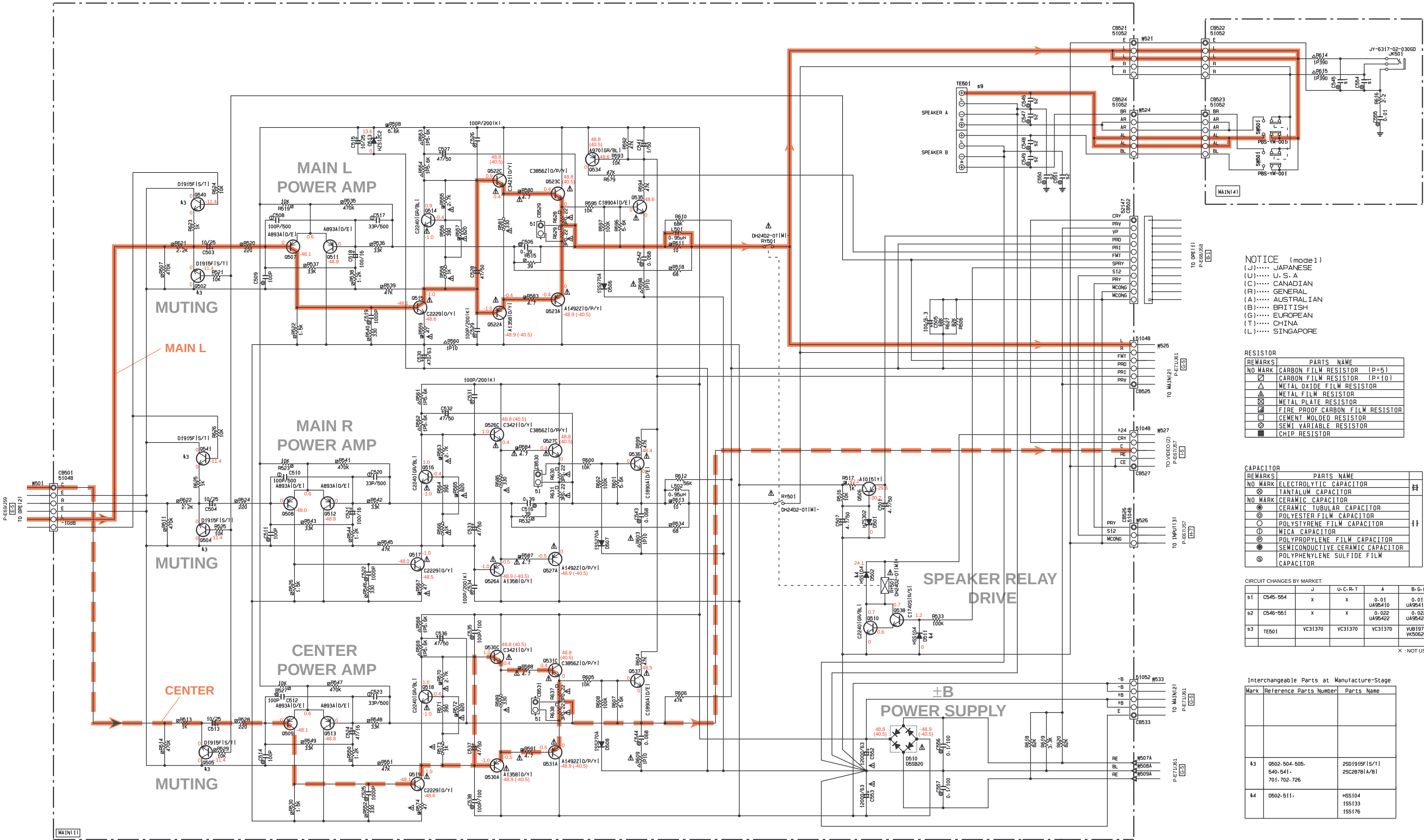
IC255, 256 : TC9299P
Electric Controlled Volume



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

■ SCHEMATIC DIAGRAM (MAIN)

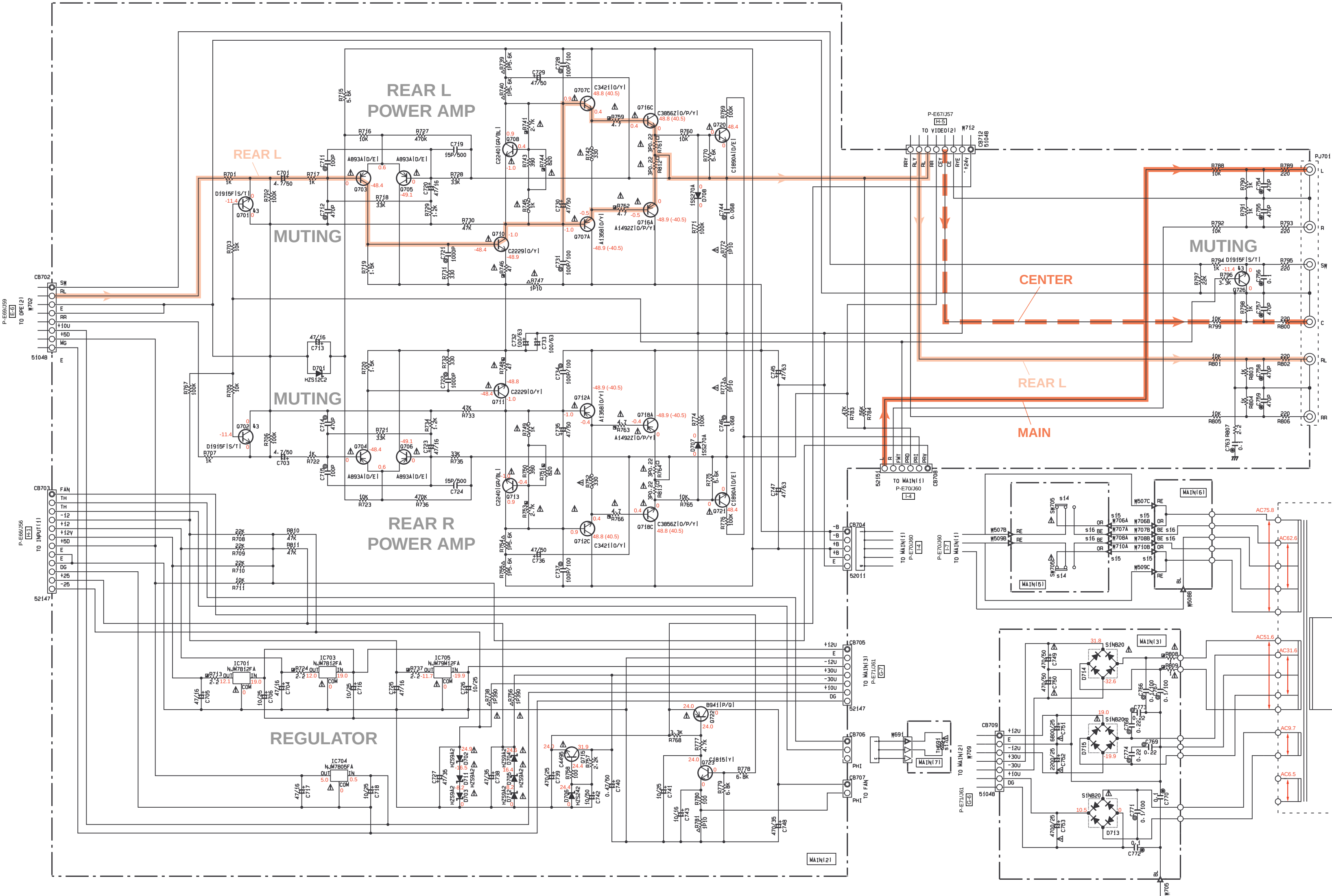
Each voltage given here represents that in the top side of IMPEDANCE SELECTOR, but the one in the parentheses () is that in the bottom side.



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

■ SCHEMATIC DIAGRAM (MAIN)

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



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

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

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

CIRCUIT CHANGES BY MARKET:

	J	U-C-R-T	A	L-B-G
s11	TH691	YH64220	YH64230	YH64230
s12				
s13				
s14	SN705	x	SL138-022-AMC1 VZ38110	SL138-022-AMC1 VZ38110
s15	W706-710	x	MH23016	MH23016
s16	W707-708	x	MH26016	MH26016
s20				
s21				
s22				
s23				

X : NOT USED

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

						P
--	--	--	--	--	--	---

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

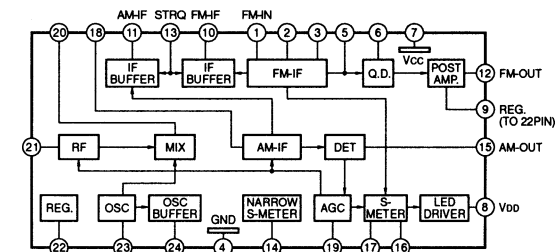
RESISTOR	
REMARKS	PARTS NAME
NO MARK	CARBON FILM RESISTOR (P=5)
	CARBON FILM RESISTOR (P=10)
	METAL OXIDE FILM RESISTOR
	METAL FILM RESISTOR
	METAL PLATE RESISTOR
	FIRE PROOF CARBON FILM RESISTOR
	CEMENT MOLDED RESISTOR
	SEMI VARIABLE RESISTOR
	CHIP RESISTOR

Mark	Reference Parts Number	Parts Name
k1	D1.2	HSS104
		1SS133
		1SS176

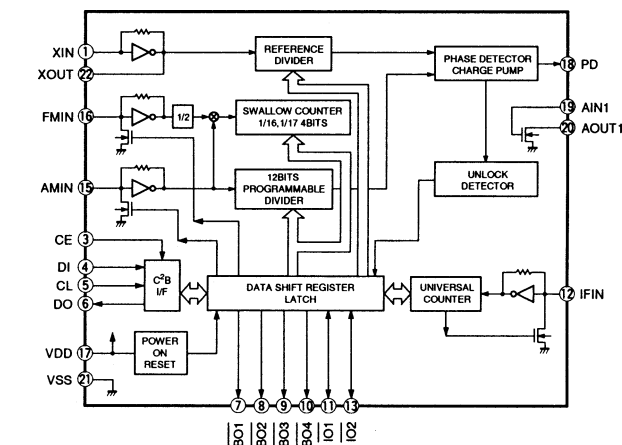
A		J V251850	U-C V251860	R-T V251870	A-B-G-L V251880
1	PK1	V290900	V290910	V290910	V271670
2	R48				4. 7K
3	T3				XYA2 V148680
4	J41	○	○	○	
5	C49	2200P UA95322	2200P UA95322	2200P UA95322	120P UA95212
6	R50	22K	22K	22K	1K
7	C36-37	680P UA95268	1000P UA95310	1000P UA95310	270P UA95227
8	R36-37	75K	75K	75K	180K
9	SW1				
10	J42			VS60260	
11				○	
12	R55-57-58				270K
13	R60				180K
14	R34	10K	10K	10K	27K

X : NOT USED
 O : USED

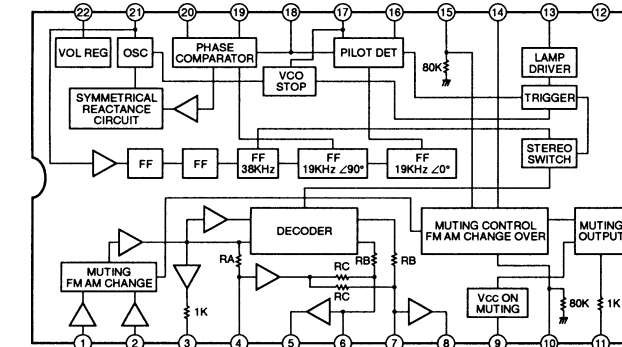
AM/FM IF



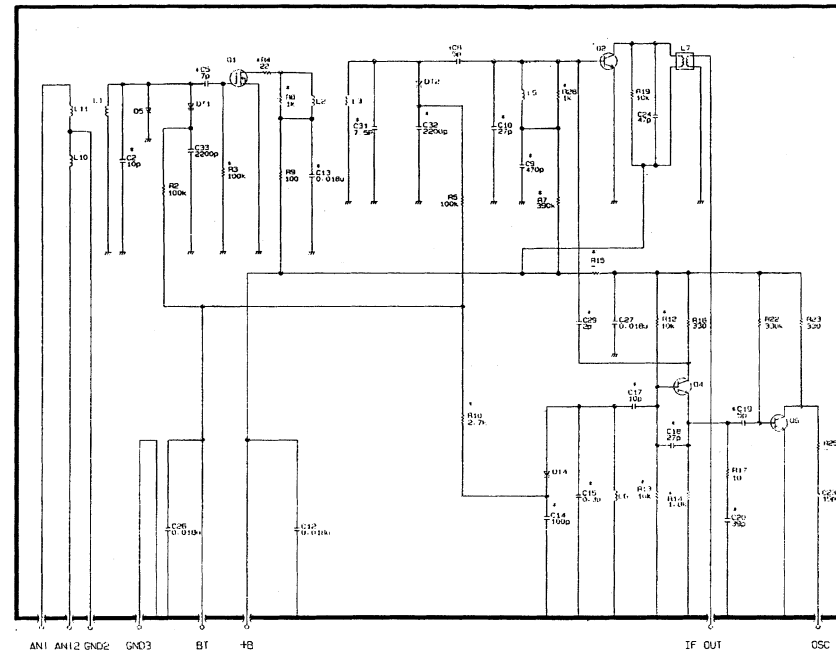
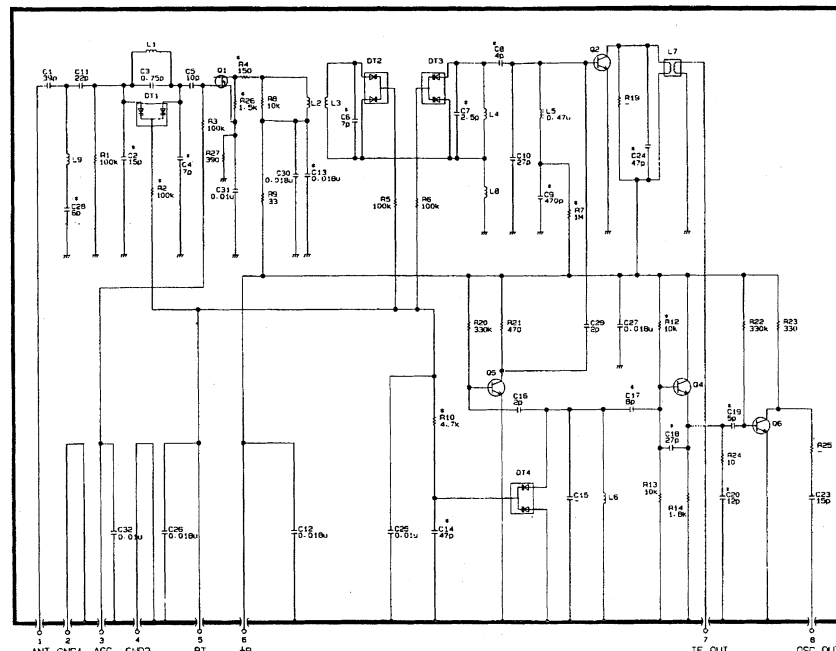
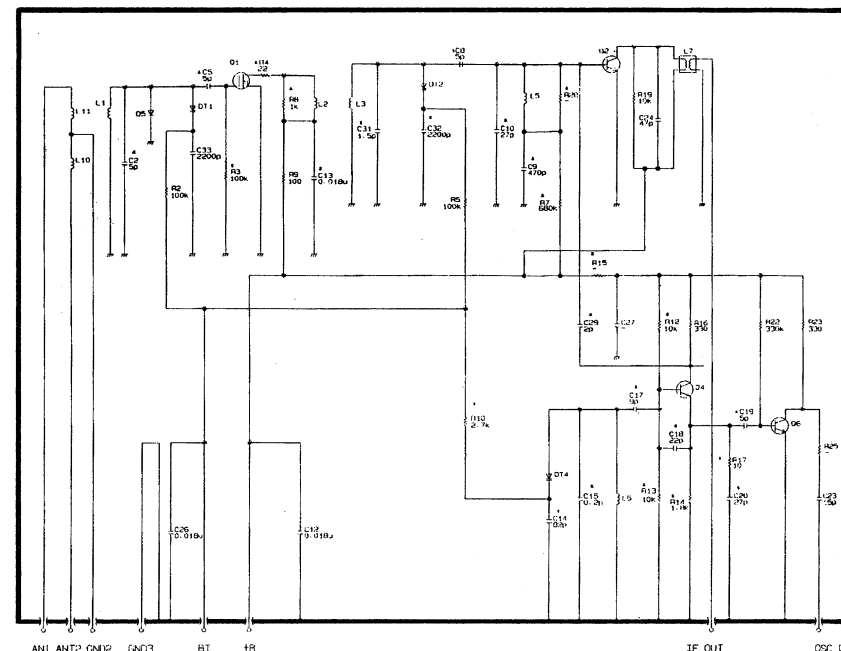
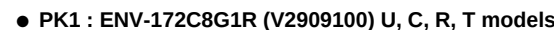
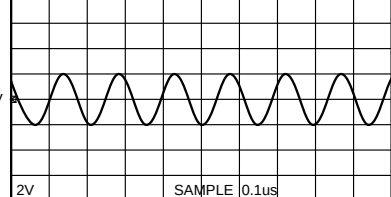
PLL Controller



MPX



V : 2V/div H : 0.1 μ sec/div DC range 1 : 1 probe



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

■ SCHEMATIC DIAGRAM (TUNER)

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

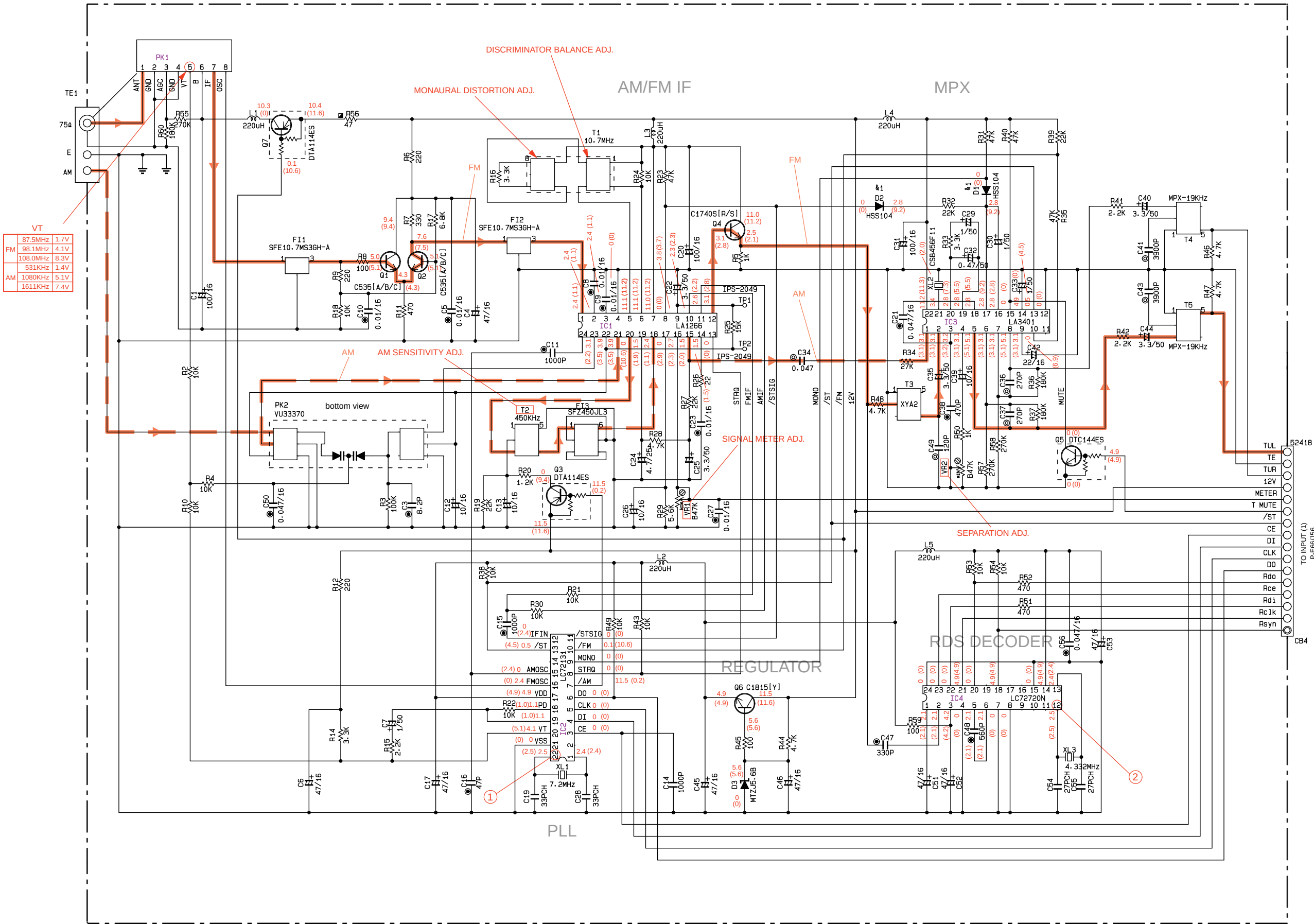
CAPACITOR		
REMARKS	PARTS NAME	
NO MARK	ELECTROLYTIC CAPACITOR	ZZ
NO MARK	TANTALUM CAPACITOR	
NO MARK	CERAMIC CAPACITOR	
⊗	CERAMIC TUBULAR CAPACITOR	
⊙	POLYSTYRENE FILM CAPACITOR	11
⊖	POLYSTYRENE FILM CAPACITOR	
Ⓢ	MICA CAPACITOR	
Ⓢ	POLYPROPYLENE FILM CAPACITOR	
●	SEMICONDUCTIVE CERAMIC CAPACITOR	

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

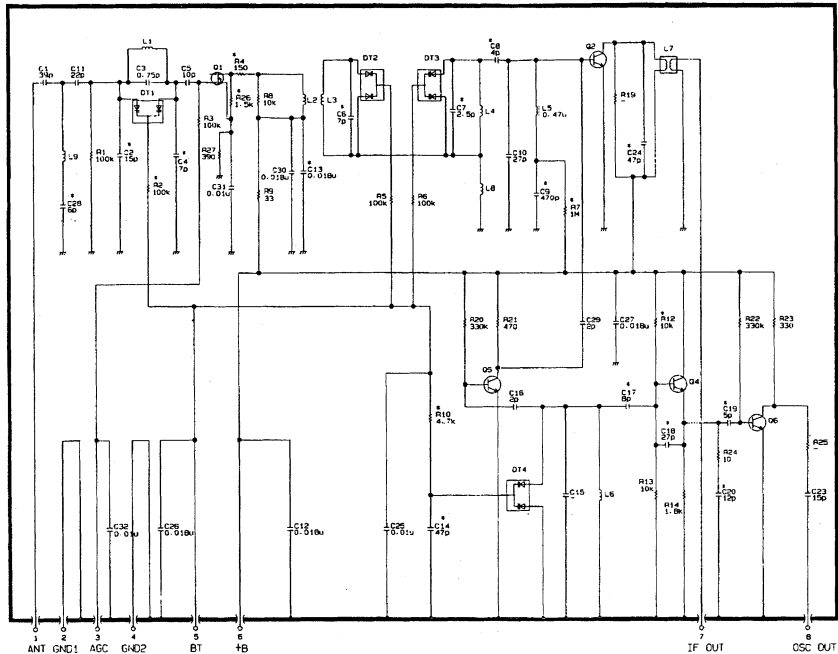
NOTICE (model)

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

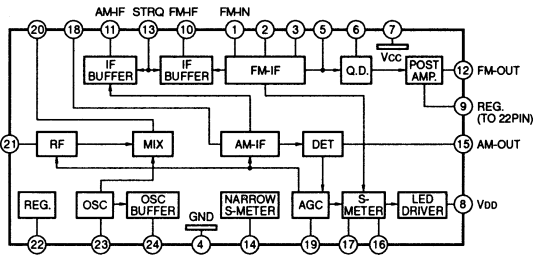
Interchangeable Parts at Manufacture-Stage		
Mark	Reference Parts Number	Parts Name
k1	D1-2	HSS104 ISS133 ISS176



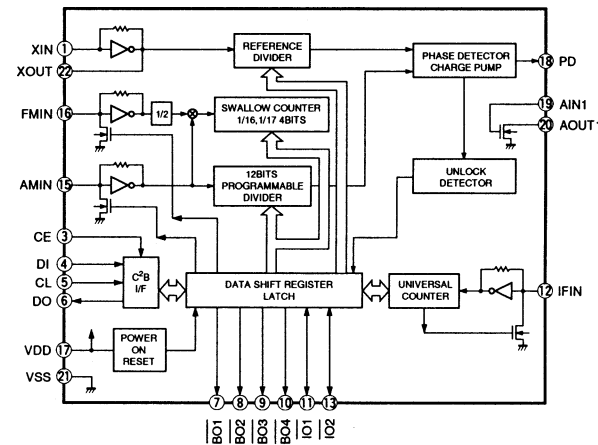
● PK1 : ENV-172A4G1 (V2716700)



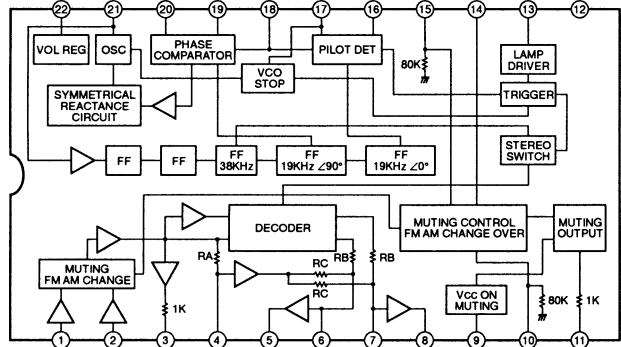
IC1 : LA1266
AM/FM IF



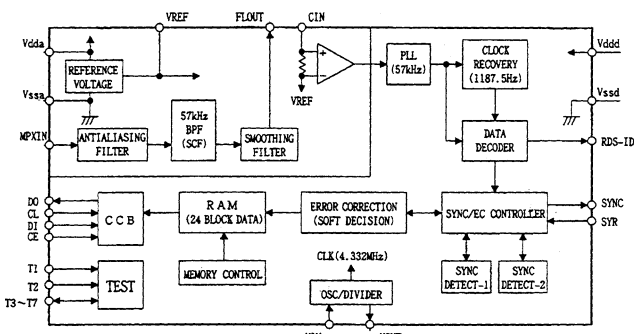
IC2 : LC72131
PLL Controller



IC3 : LA3401
MPX

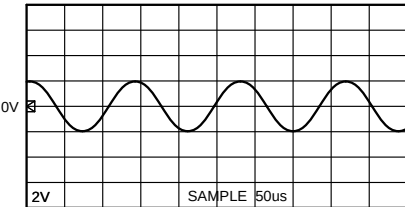


IC4 : LC72720N
RDS Decoder & Controller



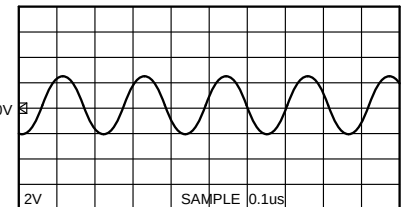
Point ① (Pin22 of IC2)

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



Point ② (Pin12 of IC4)

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



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

PARTS LIST

■ ELECTRICAL PARTS

■ WARNING

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

- Carbon resistors (1/6W or 1/4W) are not included in the ELECTRICAL PARTS List. For the part Nos. of the carbon resistors refer to page 94.
- Chip resistors are listed on page 87.

ABBREVIATIONS IN THIS LIST ARE AS FOLLOWS :

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

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

P.C.B. DSP

Schm Ref.	PART NO.	Description	
	V3005800	P.C.B.	DSP
CB1	VQ044200	CN.BS.PIN	6P
CB3	VQ044500	CN.BS.PIN	11P
CB6	VQ044600	CN.BS.PIN	13P
C1	UB245100	C.CE.M.CHP	0.1uF 25V
C2	UB052100	C.CE.M.CHP	100pF 50V
C3	UB052100	C.CE.M.CHP	100pF 50V
C4	UB245100	C.CE.M.CHP	0.1uF 25V
C5	UB052100	C.CE.M.CHP	100pF 50V
C6	UB052100	C.CE.M.CHP	100pF 50V
C7	UB245100	C.CE.M.CHP	0.1uF 25V
C8	VJ900700	C.CE.M.CHP	33pF 50V
C9	UB013100	C.CE.M.CHP	1000pF 50V
C10	UB245100	C.CE.M.CHP	0.1uF 25V
C11	UR818100	C.EL	100uF 6.3V
C12	UB245100	C.CE.M.CHP	0.1uF 25V
C13	UR818100	C.EL	100uF 6.3V
C14	UB245100	C.CE.M.CHP	0.1uF 25V
C20	VJ900700	C.CE.M.CHP	33pF 50V
C21	UB245100	C.CE.M.CHP	0.1uF 25V
C22	UB013470	C.CE.M.CHP	4700pF 50V
C23	VJ900900	C.CE.M.CHP	39pF 50V
C24	UB245100	C.CE.M.CHP	0.1uF 25V
C25	UB245100	C.CE.M.CHP	0.1uF 25V
C26	UB052100	C.CE.M.CHP	100pF 50V
C27	UB052100	C.CE.M.CHP	100pF 50V
C28	UB052100	C.CE.M.CHP	100pF 50V
C29	UB052100	C.CE.M.CHP	100pF 50V
C30	UB052100	C.CE.M.CHP	100pF 50V
C31	UB052100	C.CE.M.CHP	100pF 50V
C32	UB245100	C.CE.M.CHP	0.1uF 25V
C33	UB245100	C.CE.M.CHP	0.1uF 25V
C34	UB245100	C.CE.M.CHP	0.1uF 25V
C35	UB245100	C.CE.M.CHP	0.1uF 25V
C36	UB245100	C.CE.M.CHP	0.1uF 25V
C44	UB245100	C.CE.M.CHP	0.1uF 25V
C45	UB245100	C.CE.M.CHP	0.1uF 25V
C46	UB245100	C.CE.M.CHP	0.1uF 25V
C47	UR818100	C.EL	100uF 6.3V
C48	VJ900700	C.CE.M.CHP	33pF 50V
C49	UB245100	C.CE.M.CHP	0.1uF 25V
C50	UR818330	C.EL	330uF 6.3V
C51	UB245100	C.CE.M.CHP	0.1uF 25V
C52	UR818330	C.EL	330uF 6.3V
C53	UB245100	C.CE.M.CHP	0.1uF 25V
C54	UB245100	C.CE.M.CHP	0.1uF 25V
C55	UR829100	C.EL	1000uF 10V
C56	UR818330	C.EL	330uF 6.3V
C59	UR829100	C.EL	1000uF 10V
C60	UR818100	C.EL	100uF 6.3V
C61	UB012470	C.CE.M.CHP	470pF 50V
C62	UB245100	C.CE.M.CHP	0.1uF 25V
C63	UB245100	C.CE.M.CHP	0.1uF 25V

✱ New Parts

Schm Ref.	PART NO.	Description	
C64	UR818330	C.EL	330uF 6.3V
C65	UB245100	C.CE.M.CHP	0.1uF 25V
C66	UR818330	C.EL	330uF 6.3V
C67	UB245100	C.CE.M.CHP	0.1uF 25V
C68	UB245100	C.CE.M.CHP	0.1uF 25V
C69	UR818330	C.EL	330uF 6.3V
C70	UB245100	C.CE.M.CHP	0.1uF 25V
C71	UR818100	C.EL	100uF 6.3V
C72	UR818100	C.EL	100uF 6.3V
C73	UB245100	C.CE.M.CHP	0.1uF 25V
C74	UR847100	C.EL	10uF 25V
C75	UB245100	C.CE.M.CHP	0.1uF 25V
C76	UR818100	C.EL	100uF 6.3V
C77	UB245100	C.CE.M.CHP	0.1uF 25V
C78	UB245100	C.CE.M.CHP	0.1uF 25V
C79	UB245100	C.CE.M.CHP	0.1uF 25V
C81	UR837470	C.EL	47uF 16V
C82	UR818100	C.EL	100uF 6.3V
C83	UB245100	C.CE.M.CHP	0.1uF 25V
C84	UB245100	C.CE.M.CHP	0.1uF 25V
C85	UB245100	C.CE.M.CHP	0.1uF 25V
C86	UB245100	C.CE.M.CHP	0.1uF 25V
C88	UA953150	C.MYLAR	1500pF 50V
C89	UA953150	C.MYLAR	1500pF 50V
C90	UR847100	C.EL	10uF 25V
C91	UR847100	C.EL	10uF 25V
C92	UR847100	C.EL	10uF 25V
C93	UR847100	C.EL	10uF 25V
C94	UR847100	C.EL	10uF 25V
C95	UR847100	C.EL	10uF 25V
C96	UR847100	C.EL	10uF 25V
C97	UR847100	C.EL	10uF 25V
C98	UR847100	C.EL	10uF 25V
C99	UR847100	C.EL	10uF 25V
C100	UA952100	C.MYLAR	100pF 50V
C101	UA952100	C.MYLAR	100pF 50V
C102	UA952100	C.MYLAR	100pF 50V
C103	UA952100	C.MYLAR	100pF 50V
C104	UR847100	C.EL	10uF 25V
C106	UA952100	C.MYLAR	100pF 50V
C107	UA952100	C.MYLAR	100pF 50V
C109	UR847100	C.EL	10uF 25V
C110	UR847100	C.EL	10uF 25V
C111	UB245100	C.CE.M.CHP	0.1uF 25V
C112	UR818470	C.EL	470uF 6.3V
C113	UR828220	C.EL	220uF 10V
C115	UR847100	C.EL	10uF 25V
C116	UR847100	C.EL	10uF 25V
C117	UR847100	C.EL	10uF 25V
C118	UA952100	C.MYLAR	100pF 50V
C119	UA952100	C.MYLAR	100pF 50V
C120	UR847100	C.EL	10uF 25V
C121	UR847100	C.EL	10uF 25V

✱ New Parts

P.C.B. DSP & VIDEO

Schm Ref.	PART NO.	Description		
C122	UA952100	C.MYLAR	100pF	50V
C123	UR837220	C.EL	22uF	25V
C124	UR847100	C.EL	10uF	25V
C125	UR837220	C.EL	22uF	25V
C126	UA952100	C.MYLAR	100pF	50V
C127	UR847100	C.EL	10uF	25V
C128	UR847100	C.EL	10uF	25V
C129	UR837470	C.EL	47uF	16V
C130	UR837470	C.EL	47uF	16V
C131	UB052100	C.CE.M.CHP	100pF	50V
C132	UB052100	C.CE.M.CHP	100pF	50V
C133	UB052100	C.CE.M.CHP	100pF	50V
C134	UB052100	C.CE.M.CHP	100pF	50V
C135	UB052100	C.CE.M.CHP	100pF	50V
C136	UB052100	C.CE.M.CHP	100pF	50V
C137	UB052100	C.CE.M.CHP	100pF	50V
C138	UB245100	C.CE.M.CHP	0.1uF	25V
C139	UB052100	C.CE.M.CHP	100pF	50V
C140	UB052100	C.CE.M.CHP	100pF	50V
C141	UB052100	C.CE.M.CHP	100pF	50V
D1	VT332900	DIODE	1SS355	
D2	VT332900	DIODE	1SS355	
D3	VT332900	DIODE	1SS355	
D4	VT332900	DIODE	1SS355	
D5	VT332900	DIODE	1SS355	
D6	VT332900	DIODE	1SS355	
D7	VT332900	DIODE	1SS355	
D8	VT332900	DIODE	1SS355	
D9	VT332900	DIODE	1SS355	
D10	VT332900	DIODE	1SS355	
D11	VT332900	DIODE	1SS355	
D12	VT332900	DIODE	1SS355	
D13	VT332900	DIODE	1SS355	
D14	VT332900	DIODE	1SS355	
D15	VT332900	DIODE	1SS355	
D16	VT332900	DIODE	1SS355	
D17	VT332900	DIODE	1SS355	
G1	VR463400	TERM.GND	D3.5	TP00385
G2	VR463400	TERM.GND	D3.5	TP00385
G3	VR463400	TERM.GND	D3.5	TP00385
G4	VR463400	TERM.GND	D3.5	TP00385
IC1	XR038A00	IC	NJM2904M OP AMP	
IC2	XL091A00	IC	HD74HC02FPEL NOR	
IC3	XG948E00	IC	YM3436DK	
IC4	XV304B00	IC	YSS918D-F	
IC5	XV457A00	IC	M5M51288BKJ-20LTEL	
IC6	XV951A00	IC	AK4526A-VQ	
IC7	XR361A00	IC	AK4320-VM-E1	
IC8	XF291A00	IC	uPC4570G2	
IC9	XF291A00	IC	uPC4570G2	
IC10	XF291A00	IC	uPC4570G2	
IC11	XF291A00	IC	uPC4570G2	
IC13	XF291A00	IC	uPC4570G2	

* New Parts

Schm Ref.	PART NO.	Description	
IC14	XV260E00	IC	LC875164A-5K20 CPU
IC15	XU965A00	IC	uPC29M33T-E1 3.3V
Q1	VV655300	TR.DGT	DTA144EKA
Q2	VV655300	TR.DGT	DTA144EKA
Q3	VV655300	TR.DGT	DTA144EKA
Q4	VD303700	TR	2SC3326 A,B
Q5	VD303700	TR	2SC3326 A,B
Q6	VD303700	TR	2SC3326 A,B
Q7	VD303700	TR	2SC3326 A,B
Q8	VD303700	TR	2SC3326 A,B
Q9	VD303700	TR	2SC3326 A,B
Q10	VD303700	TR	2SC3326 A,B
Q11	VD303700	TR	2SC3326 A,B
Q12	VD303700	TR	2SC3326 A,B
Q13	VD303700	TR	2SC3326 A,B
Q14	VV655700	TR.DGT	DTC144EKA
R30	HV753220	R.CAR.FP	2.2Ω 1/4W
R36	HV753220	R.CAR.FP	2.2Ω 1/4W
R37	HV753220	R.CAR.FP	2.2Ω 1/4W
R39	HV753100	R.CAR.FP	1Ω 1/4W
R43	HV754100	R.CAR.FP	10Ω 1/4W
R44	HV754100	R.CAR.FP	10Ω 1/4W
R45	HV753100	R.CAR.FP	1Ω 1/4W
R47	HV753100	R.CAR.FP	1Ω 1/4W
R114	HV753220	R.CAR.FP	2.2Ω 1/4W
R115	HV753220	R.CAR.FP	2.2Ω 1/4W
XL1	Vi552000	RSNR.CRYS	12.288MHz
XL2	VQ791000	RSNR.CE	10MHz
*	V4120000	P.C.B.	VIDEO(UCRT)
	V4120100	P.C.B.	VIDEO(A)
	V4120200	P.C.B.	VIDEO(BGL)
*	CB401	VK025700	CN.BS.PIN 13P
	CB402	Vi878500	CN.BS.PIN 7P
	CB710	VK026400	CN.BS.PIN 5P
*	CB711	VK026700	CN.BS.PIN 8P
C401	UR837330	C.EL	33uF 16V
C402	VG279600	C.CE.TUBLR	3300pF 16V
C403	VF466800	C.CE.TUBLR	100pF 50V
C404	VF466800	C.CE.TUBLR	100pF 50V
C405	UR837100	C.EL	10uF 16V
C406	UR837330	C.EL	33uF 16V
C407	UR829100	C.EL	1000uF 10V
C408	VF466800	C.CE.TUBLR	100pF 50V
C409	VF466800	C.CE.TUBLR	100pF 50V
C410	UR829100	C.EL	1000uF 10V
C411	VF466800	C.CE.TUBLR	100pF 50V
C412	UR837100	C.EL	10uF 16V
C413	UR837100	C.EL	10uF 16V
C414	UR837100	C.EL	10uF 16V
C415	VF466800	C.CE.TUBLR	100pF 50V

* New Parts

P.C.B. VIDEO

Schm Ref.	PART NO.	Description
C416	UR829100	C.EL 1000uF 10V
C417	UR837330	C.EL 33uF 16V
C418	UR829100	C.EL 1000uF 10V
C419	UR837100	C.EL 10uF 16V
C420	UR837220	C.EL 22uF 25V
C421	VJ599100	C.CE.TUBLR 0.1uF 50V
C422	UR837100	C.EL 10uF 16V
C424	UR837100	C.EL 10uF 16V
C425	VJ599100	C.CE.TUBLR 0.1uF 50V
C426	UR837100	C.EL 10uF 16V
C427	UR837100	C.EL 10uF 16V
C429	UR837100	C.EL 10uF 16V
C430	UR837100	C.EL 10uF 16V
C431	VJ599100	C.CE.TUBLR 0.1uF 50V
C432	UR837100	C.EL 10uF 16V
C433	UR839100	C.EL 1000uF 16V
C434	UR837470	C.EL 47uF 16V
C435	VF466900	C.CE.TUBLR 470pF 50V
C436	VJ599100	C.CE.TUBLR 0.1uF 50V
C437	UR866100	C.EL 1uF 50V
C438	VJ599100	C.CE.TUBLR 0.1uF 50V
C439	UR837470	C.EL 47uF 16V
C440	UR866470	C.EL 4.7uF 50V
C441	VG273100	C.CE.TUBLR 6.8pF 50V
C442	VG273100	C.CE.TUBLR 6.8pF 50V
C443	VG276700	C.CE.TUBLR 24pF 50V
C444	VG276700	C.CE.TUBLR 24pF 50V
C445	UR837100	C.EL 10uF 16V
C446	UR818100	C.EL 100uF 6.3V
C447	VG279100	C.CE.TUBLR 1200pF 16V
C448	VF466900	C.CE.TUBLR 470pF 50V
C449	UR866100	C.EL 1uF 50V
C450	UR837100	C.EL 10uF 16V
C451	VJ599100	C.CE.TUBLR 0.1uF 50V
C452	UR837470	C.EL 47uF 16V
C453	UR839100	C.EL 1000uF 16V
C470	VJ599100	C.CE.TUBLR 0.1uF 50V
C471	VJ599100	C.CE.TUBLR 0.1uF 50V
C473	UR837100	C.EL 10uF 16V
C474	UR837100	C.EL 10uF 16V
C475	UR837100	C.EL 10uF 16V
C476	UR837100	C.EL 10uF 16V
C760	UA954100	C.MYLAR 0.01uF 50V(ABGL)
C761	UA954100	C.MYLAR 0.01uF 50V(ABGL)
C762	UA954100	C.MYLAR 0.01uF 50V(ABGL)
C764	UA954220	C.MYLAR 0.022uF 50V(ABGL)
C765	UA954220	C.MYLAR 0.022uF 50V(ABGL)
C775	UA954120	C.MYLAR 0.012uF 50V(ABGL)
C776	UA954120	C.MYLAR 0.012uF 50V(ABGL)
C777	UA954120	C.MYLAR 0.012uF 50V(ABGL)
D401	VM974400	DIODE.ZENR HZS6B2TD 6.0V
D402	VD631600	DIODE 1SS133,176,HSS104
D403	VD631600	DIODE 1SS133,176,HSS104

* New Parts



Schm Ref.	PART NO.	Description
D404	VD631600	DIODE 1SS133,176,HSS104
D405	VD631600	DIODE 1SS133,176,HSS104
D406	VD631600	DIODE 1SS133,176,HSS104
D407	VD631600	DIODE 1SS133,176,HSS104
D408	VD631600	DIODE 1SS133,176,HSS104
D409	VD631600	DIODE 1SS133,176,HSS104
D709	VD631600	DIODE 1SS133,176,HSS104
D710	VD631600	DIODE 1SS133,176,HSS104
IC401	iG055100	IC TC4053BP
IC402	XH436A00	IC LA7956
IC403	XH436A00	IC LA7956
IC404	XH436A00	IC LA7956
IC405	iG037400	IC uPD4066BC
IC406	XS502A00	IC LC74781-9626
IC407	XH436A00	IC LA7956
IC408	XH436A00	IC LA7956
JK401	VP113600	CN.DIN 2P
JK402	VP113600	CN.DIN 2P
L401	VG668700	COIL 33uH
L701	VP575600	COIL 1.5uH
L702	VP575600	COIL 1.5uH
L703	VP575600	COIL 1.5uH
PJ401	VV852500	JACK.PIN 3P
PJ402	VV325000	JACK.PIN 2P
Q401	iC174020	TR 2SC1740S R,S
Q402	VK432900	TR 2SD1915F S,T
Q407	iC174020	TR 2SC1740S R,S
Q408	iC181510	TR 2SC1815 Y
Q409	VD678700	TR.DGT DTC114ES
Q410	iA101510	TR 2SA1015 Y
Q411	iC053540	TR 2SC535 A,B,C
Q412	iC224030	TR 2SC2240 GR,BL
Q413	iA101510	TR 2SA1015 Y
Q414	iA093320	TR 2SA933S Q,R
Q415	VG721700	TR.DGT DTA144ES
Q724	iC174020	TR 2SC1740S R,S
Q725	iC224030	TR 2SC2240 GR,BL
R437	VY716000	R.MTL.OXD 270Ω 1W
R440	VY716000	R.MTL.OXD 270Ω 1W
R444	HV753220	R.CAR.FP 2.2Ω 1/4W
R450	HV753220	R.CAR.FP 2.2Ω 1/4W
R459	HV753220	R.CAR.FP 2.2Ω 1/4W
R460	VY716000	R.MTL.OXD 270Ω 1W
R473	HV754100	R.CAR.FP 10Ω 1/4W
R785	HV754100	R.CAR.FP 10Ω 1/4W
R786	HV754100	R.CAR.FP 10Ω 1/4W
R787	HV754100	R.CAR.FP 10Ω 1/4W
RY701	VU566700	RELAY DG24D2-OS/M
RY702	VK438300	RELAY DH24D2-OT/M2
TE701	V2505000	TERM.SP 6P(UCRTA)
TE701	V2505100	TERM.SP 6P(BGL)
XL401	VV949800	RSNR.CRYS 14.31818MHz(UCRT)
XL401	VV949900	RSNR.CRYS 17.734475MHz(ABGL)

* New Parts

P.C.B. VIDEO & OPERATION

Schm Ref.	PART NO.	Description	
XL401	VV949900 V3750200	RSNR.CRYS PIN	17.734475MHz L=70
	V3013900	P.C.B.	OPERATION(L)
	V3014000	P.C.B.	OPERATION(UCA)
	V3014100	P.C.B.	OPERATION(RT)
	V3014300	P.C.B.	OPERATION(BG)
CB101	Vi878900	CN.BS.PIN	11P
CB102	VU282700	CN	27P
CB201	Vi878700	CN.BS.PIN	9P
CB251	VQ044800	CN.BS.PIN	18P
CB252	VK026800	CN.BS.PIN	9P
CB253	VK026500	CN.BS.PIN	6P
CB254	VK026700	CN.BS.PIN	8P
CB351	V2508700	CN.PHOT.SN	1P GP1F37R
CB352	V2508700	CN.PHOT.SN	1P GP1F37R
CB353	V2508700	CN.PHOT.SN	1P GP1F37R
CB354	VQ044200	CN.BS.PIN	6P
CB901	VK026600	CN.BS.PIN	7P
CB902	VM929900	CN.BS.PIN	15P
CB951	VQ047100	CN.BS.PIN	7P
C101	UB045100	C.CE.M.CHP	0.1uF 50V
C102	UR847470	C.EL	47uF 25V
C103	UR866220	C.EL	2.2uF 50V
C104	UR847100	C.EL	10uF 25V
C105	UR866100	C.EL	1uF 50V(LUCABG)
C105	UR866220	C.EL	2.2uF 50V(RT)
C106	UR818100	C.EL	100uF 6.3V
C107	UB045100	C.CE.M.CHP	0.1uF 50V
C108	UB045100	C.CE.M.CHP	0.1uF 50V
C109	VJ900700	C.CE.M.CHP	33pF 50V
C110	UB013100	C.CE.M.CHP	1000pF 50V
C111	UB013100	C.CE.M.CHP	1000pF 50V
C112	UB045100	C.CE.M.CHP	0.1uF 50V
C113	UB045100	C.CE.M.CHP	0.1uF 50V
C114	UR857100	C.EL	10uF 35V
C115	UB045100	C.CE.M.CHP	0.1uF 50V
C116	UR818330	C.EL	330uF 6.3V
C201	VG287800	C.EL	330uF 16V
C202	VG287800	C.EL	330uF 16V
C203	UR837220	C.EL	22uF 25V
C204	UR837220	C.EL	22uF 25V
C205	UR866100	C.EL	1uF 50V
C206	UR865100	C.EL	0.1uF 50V
C207	UR865100	C.EL	0.1uF 50V
C208	UR837470	C.EL	47uF 16V
C209	UA655120	C.MYLAR	0.12uF 50V
C210	VK533800	C.PP	47pF 200V
C211	UR866220	C.EL	2.2uF 50V
C212	VK533800	C.PP	47pF 200V
C213	UR866220	C.EL	2.2uF 50V

✱ New Parts

Schm Ref.	PART NO.	Description	
C214	UA655120	C.MYLAR	0.12uF 50V
C215	UR837470	C.EL	47uF 16V
C216	UR865100	C.EL	0.1uF 50V
C217	UR865100	C.EL	0.1uF 50V
C218	UR866100	C.EL	1uF 50V
C219	UR847100	C.EL	10uF 25V
C220	VQ645600	C.MYLAR	100pF 50V
C221	VQ645600	C.MYLAR	100pF 50V
C222	UR847100	C.EL	10uF 25V
C223	UA954330	C.MYLAR	0.033uF 50V
C224	UA954330	C.MYLAR	0.033uF 50V
C251	UA952100	C.MYLAR	100pF 50V
C252	UA952100	C.MYLAR	100pF 50V
C253	UR866220	C.EL	2.2uF 50V
C254	UR866220	C.EL	2.2uF 50V
C255	UR866220	C.EL	2.2uF 50V
C256	UR818100	C.EL	100uF 6.3V
C257	UR818100	C.EL	100uF 6.3V
C258	UR866220	C.EL	2.2uF 50V
C259	UR866220	C.EL	2.2uF 50V
C260	UR818100	C.EL	100uF 6.3V
C261	UR818100	C.EL	100uF 6.3V
C262	UR866220	C.EL	2.2uF 50V
C263	UN866100	C.EL	1uF 50V
C265	UA952100	C.MYLAR	100pF 50V
C266	UR818100	C.EL	100uF 6.3V
C267	UA952100	C.MYLAR	100pF 50V
C268	UR818100	C.EL	100uF 6.3V
C270	UR847100	C.EL	10uF 25V
C271	VG287600	C.EL	100uF 25V
C272	UA952100	C.MYLAR	100pF 50V
C273	UA952100	C.MYLAR	100pF 50V
C274	VG287600	C.EL	100uF 25V
C275	UR847100	C.EL	10uF 25V
C276	UA952100	C.MYLAR	100pF 50V
C277	UA952100	C.MYLAR	100pF 50V
C278	UB045100	C.CE.M.CHP	0.1uF 50V
C279	UR866470	C.EL	4.7uF 50V
C280	UB045100	C.CE.M.CHP	0.1uF 50V
C281	UB045100	C.CE.M.CHP	0.1uF 50V
C282	UR866470	C.EL	4.7uF 50V
C283	UR866470	C.EL	4.7uF 50V
C284	UB045100	C.CE.M.CHP	0.1uF 50V
C285	UB045100	C.CE.M.CHP	0.1uF 50V
C286	UR866470	C.EL	4.7uF 50V
C287	UR847100	C.EL	10uF 25V
C288	UR838100	C.EL	100uF 16V
C289	UR838100	C.EL	100uF 16V
C290	UR847100	C.EL	10uF 25V
C291	UR847100	C.EL	10uF 25V
C292	UR847100	C.EL	10uF 25V
C293	UR847100	C.EL	10uF 25V
C294	UR847100	C.EL	10uF 25V

✱ New Parts

P.C.B. OPERATION

Schm Ref.	PART NO.	Description
C351	UB051220	C.CE.M.CHP 22pF 50V
C352	UB045100	C.CE.M.CHP 0.1uF 50V
C353	UB045100	C.CE.M.CHP 0.1uF 50V
C354	UB045100	C.CE.M.CHP 0.1uF 50V
C355	UB045100	C.CE.M.CHP 0.1uF 50V
C356	UR847220	C.EL 22uF 25V
C357	UB012220	C.CE.M.CHP 220pF 50V
C358	UB051100	C.CE.M.CHP 10pF 50V
C359	UB013100	C.CE.M.CHP 1000pF 50V
C360	UB045100	C.CE.M.CHP 0.1uF 50V
C361	UB045100	C.CE.M.CHP 0.1uF 50V
C362	UR818100	C.EL 100uF 6.3V
C363	UB045100	C.CE.M.CHP 0.1uF 50V
C901	UB044100	C.CE.M.CHP 0.01uF 50V
C902	UB012220	C.CE.M.CHP 220pF 50V
C903	UB012220	C.CE.M.CHP 220pF 50V
C904	UB012220	C.CE.M.CHP 220pF 50V
C905	UB012220	C.CE.M.CHP 220pF 50V
C906	UB012220	C.CE.M.CHP 220pF 50V
C907	UB012220	C.CE.M.CHP 220pF 50V
C951	UB045100	C.CE.M.CHP 0.1uF 50V
C952	UB045100	C.CE.M.CHP 0.1uF 50V
C953	VF466800	C.CE.TUBLR 100pF 50V
C954	VF466800	C.CE.TUBLR 100pF 50V
D101	VD631600	DIODE 1SS133,176,HSS104
D102	VM974400	DIODE.ZENR HZS6B2TD(UCABGL)
D102	VM974500	DIODE.ZENR HZS6C2TD 6.0V(RT)
D103	VM974700	DIODE.ZENR HZS7B2TD 7.0V
D104	VV625100	LED(re) SIM-22ST(UCA)
D105	VD631600	DIODE 1SS133,176,HSS104
D106	VD631600	DIODE 1SS133,176,HSS104
D107	VD631600	DIODE 1SS133,176,HSS104
D108	VD631600	DIODE 1SS133,176,HSS104
D109	VM974100	DIODE.ZENR HZS5B2TD 5.0V
D252	VM974100	DIODE.ZENR HZS5B2TD 5.0V
D351	VT332900	DIODE 1SS355
D352	VT332900	DIODE 1SS355
G101	VR463400	TERM.GND D3.5 TP00385
IC101	XJ757A00	IC NJM78L05A-T3
IC102	XR188A00	IC LC75710NE(LUCART)
IC102	XV160A00	IC LC75712E FLD(BG)
IC201	XM356A00	IC NJM2068LD
IC202	XB247A00	IC uPC4570HA
IC251	XF291A00	IC uPC4570G2
IC252	XF291A00	IC uPC4570G2
IC253	XF291A00	IC uPC4570G2
IC254	XF494A00	IC LB1641
IC255	XR040A00	IC TC9299P
IC256	XR040A00	IC TC9299P
IC257	XF291A00	IC uPC4570G2
IC258	XF291A00	IC uPC4570G2
IC351	iG142200	IC TC74HCU04AP
IC352	iR000010	IC HD74HC00P 2IN NAND

✱ New Parts

Schm Ref.	PART NO.	Description
IC353	XT208A00	IC HD74HC153P MPX
JK901	VJ726800	JACK.MNI (UCA)
JK902	VJ726800	JACK.MNI (UCA)
JK951	V2589500	CN 1P
L351	GE901970	COIL 68uH
L352	GE901970	COIL 68uH
L353	GE901970	COIL 68uH
PJ351	VY667700	JACK.PIN 1P
PJ901	V2874800	JACK.PIN 6P
PJ951	VR406000	JACK.PIN 3P
Q101	VV556500	TR 2SA1037K Q,R,S
Q102	VV556500	TR 2SA1037K Q,R,S
Q103	VV556500	TR 2SA1037K Q,R,S
Q104	VV655700	TR.DGT DTC144EKA
Q105	VV556400	TR 2SC2412K Q,R,S
Q106	VV556400	TR 2SC2412K Q,R,S
Q107	VV556400	TR 2SC2412K Q,R,S
Q251	VV655700	TR.DGT DTC144EKA
R148	HV755560	R.CAR.FP 560Ω 1/4W
R229	VP939800	R.MTL.OXD 10Ω 1W
R230	VP939800	R.MTL.OXD 10Ω 1W
R280	HV754100	R.CAR.FP 10Ω 1/4W
R281	HV754100	R.CAR.FP 10Ω 1/4W
R282	HV754100	R.CAR.FP 10Ω 1/4W
R359	HV753220	R.CAR.FP 2.2Ω 1/4W
SW101	VG392900	SW.TACT SKHVAA
SW102	VG392900	SW.TACT SKHVAA
SW103	VG392900	SW.TACT SKHVAA
SW104	VG392900	SW.TACT SKHVAA(BG)
SW105	VG392900	SW.TACT SKHVAA(BG)
SW106	VG392900	SW.TACT SKHVAA(BG)
SW107	VG392900	SW.TACT SKHVAA
SW108	VG392900	SW.TACT SKHVAA
SW109	VG392900	SW.TACT SKHVAA
SW110	VG392900	SW.TACT SKHVAA(BG)
SW111	VG392900	SW.TACT SKHVAA
SW112	VG392900	SW.TACT SKHVAA
SW113	VG392900	SW.TACT SKHVAA
SW114	VG392900	SW.TACT SKHVAA
SW115	VG392900	SW.TACT SKHVAA
SW116	VG392900	SW.TACT SKHVAA
SW117	VG392900	SW.TACT SKHVAA
SW118	VG392900	SW.TACT SKHVAA
SW119	VG392900	SW.TACT SKHVAA
SW120	VG392900	SW.TACT SKHVAA
SW121	VG392900	SW.TACT SKHVAA
SW122	VG392900	SW.TACT SKHVAA
SW123	VG392900	SW.TACT SKHVAA
SW124	VG392900	SW.TACT SKHVAA
SW125	VG392900	SW.TACT SKHVAA
SW126	VG392900	SW.TACT SKHVAA
SW127	VT140300	SW.RT.ENC EC16B12204
SW128	VG392900	SW.TACT SKHVAA

✱ New Parts

P.C.B. OPERATION & INPUT

Schm Ref.	PART NO.	Description	
SW129	VG392900	SW.TACT	SKHVAA
SW130	VG392900	SW.TACT	SKHVAA
SW201	VV885000	SW.PUSH	SPUN22 2
SW901	VS602600	SW.SLIDE	SS070-P022 A(RT)
SW902	VS602600	SW.SLIDE	SS070-P022 A
U101	VU591000	L.DTCT	GP1U271X
V101	V2573800	FL.DSPLY	16-BT-60GK
VR201	VP741800	VR	B20KΩ
VR202	VP741900	VR	G25KΩ
VR203	VP742000	VR	MN100KΩ
VR251	V2556700	VR.MTR	A100KΩ
	VJ828000	PIN	IMSA-6024-03E
	VS588900	SHEET	
	V3422300	SPACER	FL-WIDE
	VY760000	SPACER.LED	(UCA)
	BB071360	SCR.TERM	8.3x13
※	V4221600	P.C.B.	INPUT(UC)
※	V4221700	P.C.B.	INPUT(RT)
※	V4221800	P.C.B.	INPUT(A)
※	V4221900	P.C.B.	INPUT(B)
※	V4222000	P.C.B.	INPUT(G)
※	V4222100	P.C.B.	INPUT(L)
CB11	VQ047100	CN.BS.PIN	7P
CB12	Vi879100	CN.BS.PIN	13P
CB13	VM923600	CN.BS.PIN	13P
CB14	VM859600	CN.BS.PIN	15P
CB15	VQ963700	CN.BS.PIN	16P
CB16	VP573800	CN.BS.PIN	18P
CB17	VM859500	CN.BS.PIN	11P
CB18	VQ047800	CN.BS.PIN	27P
CB19	Vi879000	CN.BS.PIN	12P
CB821	VK024700	CN.BS.PIN	3P
CB822	VP206500	HOLDER.FUS	EYF-52BC(G)
CB823	VG879900	CN.BS.PIN	2P
CB824	VP206500	HOLDER.FUS	EYF-52BC(ABGL)
CB825	VP206500	HOLDER.FUS	EYF-52BC(G)
CB826	VP206500	HOLDER.FUS	EYF-52BC(ABGL)
CB827	VP206500	HOLDER.FUS	EYF-52BC(UCRT)
CB828	VP206500	HOLDER.FUS	EYF-52BC(UCRT)
CB851	VP206500	HOLDER.FUS	EYF-52BC(RT)
CB852	VP206500	HOLDER.FUS	EYF-52BC(RT)
C11	UA952100	C.MYLAR	100pF 50V(ABGL)
C12	UB044100	C.CE.M.CHP	0.01uF 50V
C13	UA952100	C.MYLAR	100pF 50V(ABGL)
C14	VK533900	C.PP	100pF 200V
C15	VK533900	C.PP	100pF 200V
C16	UB052100	C.CE.M.CHP	100pF 50V
C17	UB052100	C.CE.M.CHP	100pF 50V
C18	UA952100	C.MYLAR	100pF 50V(UCRTAL)
C18	VK533800	C.PP	47pF 200V(BG)

※ New Parts

Schm Ref.	PART NO.	Description		
C19	UA952100	C.MYLAR	100pF	50V(UCRTAL)
C19	VK533800	C.PP	47pF	200V(BG)
C20	VK533900	C.PP	100pF	200V
C21	VK533900	C.PP	100pF	200V
C22	UB052100	C.CE.M.CHP	100pF	50V
C23	UB052100	C.CE.M.CHP	100pF	50V
C24	UB052100	C.CE.M.CHP	100pF	50V
C25	UB052100	C.CE.M.CHP	100pF	50V
C26	UA952100	C.MYLAR	100pF	50V(UCRTAL)
C26	VK533800	C.PP	47pF	200V(BG)
C27	UA952100	C.MYLAR	100pF	50V(UCRTAL)
C27	VK533800	C.PP	47pF	200V(BG)
C28	UR866220	C.EL	2.2uF	50V
C29	UR866220	C.EL	2.2uF	50V
C30	UA952220	C.MYLAR	220pF	50V
C31	UR828220	C.EL	220uF	10V
C32	UR837470	C.EL	47uF	16V
C33	UA953100	C.MYLAR	1000pF	50V
C34	UA653910	C.MYLAR	9100pF	50V
C35	UA954330	C.MYLAR	0.033uF	50V
C36	UA653910	C.MYLAR	9100pF	50V
C37	UA954330	C.MYLAR	0.033uF	50V
C38	UA953100	C.MYLAR	1000pF	50V
C39	UA952220	C.MYLAR	220pF	50V
C40	UR828220	C.EL	220uF	10V
C41	UR837470	C.EL	47uF	16V
C42	UR866220	C.EL	2.2uF	50V
C43	UR866220	C.EL	2.2uF	50V
C44	UR837100	C.EL	10uF	16V(BG)
C45	UR837100	C.EL	10uF	16V(BG)
C47	UR837100	C.EL	10uF	16V
C48	UA952100	C.MYLAR	100pF	50V
C49	UA952100	C.MYLAR	100pF	50V
C50	UR837100	C.EL	10uF	16V
C51	UA954180	C.MYLAR	0.018uF	50V
C53	UR837220	C.EL	22uF	25V
C54	VQ083000	C.EL	47uF	16V
C57	VQ083000	C.EL	47uF	16V
C58	UR837220	C.EL	22uF	25V
C60	UR837220	C.EL	22uF	25V
C61	UR847100	C.EL	10uF	25V
C62	VG287500	C.EL	47uF	50V
C63	VG287500	C.EL	47uF	50V
C64	UR847100	C.EL	10uF	25V
C65	UR837220	C.EL	22uF	25V
C66	UB245100	C.CE.M.CHP	0.1uF	25V
C67	UB245100	C.CE.M.CHP	0.1uF	25V
C68	UR837220	C.EL	22uF	25V
C69	UR837220	C.EL	22uF	25V
C70	UR837220	C.EL	22uF	25V
C71	UR837220	C.EL	22uF	25V
C72	UA952100	C.MYLAR	100pF	50V
C73	UA952100	C.MYLAR	100pF	50V

※ New Parts

P.C.B. INPUT & MAIN

Schm Ref.	PART NO.	Description
C74	UA954270	C.MYLAR 0.027uF 50V
C75	UA954270	C.MYLAR 0.027uF 50V
C76	UR847100	C.EL 10uF 25V
C77	UR847100	C.EL 10uF 25V
C78	UA954270	C.MYLAR 0.027uF 50V
C79	UA954270	C.MYLAR 0.027uF 50V
C80	UB245100	C.CE.M.CHP 0.1uF 25V
C81	UB245100	C.CE.M.CHP 0.1uF 25V
C82	UB044100	C.CE.M.CHP 0.01uF 50V
C83	UB044100	C.CE.M.CHP 0.01uF 50V
C84	UB245100	C.CE.M.CHP 0.1uF 25V
C85	UB245100	C.CE.M.CHP 0.1uF 25V
C86	UR837100	C.EL 10uF 16V
C87	VG288800	C.EL 47uF 50V
C88	UA952100	C.MYLAR 100pF 50V
C89	UR837470	C.EL 47uF 16V
C90	VG288800	C.EL 47uF 50V
C91	UR837470	C.EL 47uF 16V
C92	UA952100	C.MYLAR 100pF 50V
C93	UR837100	C.EL 10uF 16V
C94	UB245100	C.CE.M.CHP 0.1uF 25V
C95	UB245100	C.CE.M.CHP 0.1uF 25V
C96	UB245100	C.CE.M.CHP 0.1uF 25V
C101	UR819220	C.EL 2200uF 6.3V
C102	UB245100	C.CE.M.CHP 0.1uF 25V
C103	VT180400	C.EL 4700uF 5.5V
C104	UB245100	C.CE.M.CHP 0.1uF 25V
C105	UB044100	C.CE.M.CHP 0.01uF 50V
C107	UA954680	C.MYLAR 0.068uF 50V
C108	UR818220	C.EL 220uF 6.3V
C109	UN866220	C.EL 2.2uF 50V
C110	UR818470	C.EL 470uF 6.3V
C111	UB245100	C.CE.M.CHP 0.1uF 25V
C821	UA953100	C.MYLAR 1000pF 50V(RT)
C822	VJ599100	C.CE.TUBLR 0.1uF 50V
C823	UR848330	C.EL 330uF 25V(RTABGL)
C823	UR848470	C.EL 470uF 25V(UC)
C824	UA954100	C.MYLAR 0.01uF 50V
C825	UR858100	C.EL 100uF 35V(RT)
C826	Vi716700	C.MYLAR 0.01uF 50V
C827	VS741700	C.CE.SAFTY 0.01uF 275V
C828	UR858100	C.EL 100uF 35V(RT)
D11	VT332900	DIODE 1SS355
D12	VT332900	DIODE 1SS355
D13	VU171900	DIODE.ZENR UDZ5.1B 5.1V
D14	VT332900	DIODE 1SS355
D15	VT332900	DIODE 1SS355
D16	VT332900	DIODE 1SS355
D17	VT332900	DIODE 1SS355
D18	VU171900	DIODE.ZENR UDZ5.1B 5.1V
D19	VU172600	DIODE.ZENR UDZS10B 10V
D20	VU172600	DIODE.ZENR UDZS10B 10V
D21	VU172600	DIODE.ZENR UDZS10B 10V

* New Parts

Schm Ref.	PART NO.	Description
D22	VU172600	DIODE.ZENR UDZS10B 10V
D821	VD631600	DIODE 1SS133,176,HSS104
D822	VR253700	DIODE.BRG S1NB20 1.0A 200V
D823	VM975600	DIODE.ZENR HZS12B2TD12V(RT)
F822	KB000790	FUSE T4.0A 250V(ABGL)
F823	VS823300	FUSE T8.0A 125V(UCRT)
F851	KB000790	FUSE T4.0A 250V(RT)
G11	VR463400	TERM.GND D3.5 TP00385
HS1	V2984900	HEAT.SINK PUH16-25(RT)
IC11	XJ553A00	IC NJM2068MD
IC12	XF291A00	IC uPC4570G2
IC13	XV039A00	IC M5220FP OP AMP
IC15	XV039A00	IC M5220FP OP AMP
IC16	XV039A00	IC M5220FP OP AMP
IC17	XP894A00	IC LC78211
IC18	XP896A00	IC LC78213
IC19	XP895A00	IC LC78212
IC20	XF291A00	IC uPC4570G2(BG)
IC21	XV288C00	IC HD6433397XXX CPU
PJ11	VQ260900	JACK.PIN 4P
PJ12	VU857800	JACK.PIN 6P
PJ13	VU857800	JACK.PIN 6P
Q11	VV655300	TR.DGT DTA144EKA
Q12	VV655700	TR.DGT DTC144EKA
Q13	VV655700	TR.DGT DTC144EKA
Q821	iC174020	TR 2SC1740S R,S
Q822	VR510800	TR 2SD2396 J,K(RT)
R55	HV755100	R.CAR.FP 100Ω 1/4W
R62	VP939600	R.MTL.FLM 2.2Ω 1W
R63	VP939600	R.MTL.FLM 2.2Ω 1W
R120	VP940600	R.MTL.OXD 220Ω 1W
R123	VP940600	R.MTL.OXD 220Ω 1W
R822	HV756560	R.CAR.FP 5.6KΩ 1/4W(RT)
R823	HV756560	R.CAR.FP 5.6KΩ 1/4W(RT)
RY821	V2695300	RELAY DC DG12D1-O/M-(UC)
RY821	V2712300	RELAY DC SDT-S(RTABGL)
SW851	VA961800	VOLT.SELCT ESE-37247-F(RT)
T821	XC083A00	TRANS.PWR (UC)
T821	XC084A00	TRANS.PWR (ABGL)
T821	XT331A00	TRANS.PWR (RT)
TE821	VT915000	OUTLET.AC 2P(A)
TE821	VU543100	OUTLET.AC 2P(UCRT)
TE821	VU543300	OUTLET.AC 1P(B)
TE821	VU543400	OUTLET.AC 2P(GL)
XL11	VJ802400	RSNR.CE 8MHz
	VJ828000	PIN IMSA-6024-03E
	VR264300	PLATE.GND
	EP600140	SCR.BND.HD 3x10 MFZN2-BL(RT)
* * *	V4108400	P.C.B. MAIN(UCRT)
* * *	V4108500	P.C.B. MAIN(A)

* New Parts

P.C.B. MAIN

Schm Ref.	PART NO.	Description	
✱	V4108600	P.C.B.	MAIN(BGL)
CB501	Vi878400	CN.BS.PIN	6P
CB502	VK025500	CN.BS.PIN	11P
CB521	VQ584700	CN.BS.PIN	5P
CB522	VQ584700	CN.BS.PIN	5P
CB523	VQ584800	CN.BS.PIN	6P
CB524	VQ584800	CN.BS.PIN	6P
CB525	Vi878400	CN.BS.PIN	6P
CB526	Vi878100	CN.BS.PIN	3P
CB527	Vi878300	CN.BS.PIN	5P
CB529	LA002110	TERM.WRAP	2P
CB530	LA002110	TERM.WRAP	2P
CB531	LA002110	TERM.WRAP	2P
CB533	VQ584700	CN.BS.PIN	5P
CB702	Vi878600	CN.BS.PIN	8P
CB703	VK025600	CN.BS.PIN	12P
CB704	VQ585500	CN.JUMPER	5P
CB705	VK025100	CN.BS.PIN	7P
CB706	VB389900	CN.BS.PIN	3P
CB707	VB389800	CN.BS.PIN	2P
CB708	VK026500	CN.BS.PIN	6P
CB709	Vi878500	CN.BS.PIN	7P
CB712	Vi878600	CN.BS.PIN	8P
C501	UR866470	C.EL	4.7uF 50V
C503	UR847100	C.EL	10uF 25V
C504	UR847100	C.EL	10uF 25V
C505	UR818100	C.EL	100uF 6.3V
C506	VK399200	C.MYLAR.ML	0.39uF 50V
C507	UR866470	C.EL	4.7uF 50V
C508	FU452100	C.MICA	100pF 500V
C509	VQ645600	C.MYLAR	100pF 50V
C510	FU452100	C.MICA	100pF 500V
C511	VQ645600	C.MYLAR	100pF 50V
C512	UA952100	C.MYLAR	100pF 50V
C513	UR847100	C.EL	10uF 25V
C514	UA952100	C.MYLAR	100pF 50V
C515	UR847100	C.EL	10uF 25V
C516	VK399200	C.MYLAR.ML	0.39uF 50V
C517	FU451330	C.MICA	33pF 500V
C518	UR838100	C.EL	100uF 16V
C519	UA953100	C.MYLAR	1000pF 50V
C520	FU451330	C.MICA	33pF 500V
C521	UR838100	C.EL	100uF 16V
C522	UA953100	C.MYLAR	1000pF 50V
C523	FU451330	C.MICA	33pF 500V
C524	UR837470	C.EL	47uF 16V
C525	UA953100	C.MYLAR	1000pF 50V
C526	VK533900	C.PP	100pF 200V
C527	UR867470	C.EL	47uF 50V
C528	UR867470	C.EL	47uF 50V
C529	VK533900	C.PP	100pF 200V
C530	VK347900	C.EL	470uF 63V
C531	VK533900	C.PP	100pF 200V

✱ New Parts

Schm Ref.	PART NO.	Description	
C532	UR867470	C.EL	47uF 50V
C533	UR867470	C.EL	47uF 50V
C534	VK533900	C.PP	100pF 200V
C535	VR325000	C.MYLAR	100pF 100V
C536	UR867470	C.EL	47uF 50V
C537	UR867470	C.EL	47uF 50V
C538	VR325000	C.MYLAR	100pF 100V
C541	UR866100	C.EL	1uF 50V
C542	UA954680	C.MYLAR	0.068uF 50V
C543	UA954680	C.MYLAR	0.068uF 50V
C544	UA954680	C.MYLAR	0.068uF 50V
C545	UA954100	C.MYLAR	0.01uF 50V(ABGL)
C546	UA954220	C.MYLAR	0.022uF 50V(ABGL)
C547	UA954220	C.MYLAR	0.022uF 50V(ABGL)
C548	UA954220	C.MYLAR	0.022uF 50V(ABGL)
C549	UA954220	C.MYLAR	0.022uF 50V(ABGL)
C550	UA954220	C.MYLAR	0.022uF 50V(ABGL)
C551	UA954220	C.MYLAR	0.022uF 50V(ABGL)
C552	V2922200	C.EL	12000uF 63V
C553	V2922200	C.EL	12000uF 63V
C554	UA954100	C.MYLAR	0.01uF 50V(ABGL)
C555	UA954100	C.MYLAR	0.01uF 50V
C556	VS745400	C.POL.MTL	0.1uF 100V
C557	VS745400	C.POL.MTL	0.1uF 100V
C701	UR866470	C.EL	4.7uF 50V
C703	UR866470	C.EL	4.7uF 50V
C704	UR837470	C.EL	47uF 16V
C705	UR837470	C.EL	47uF 16V
C706	UR847100	C.EL	10uF 25V
C711	UA952100	C.MYLAR	100pF 50V
C712	UA952470	C.MYLAR	470pF 50V
C713	UR837470	C.EL	47uF 16V
C714	UA952470	C.MYLAR	470pF 50V
C715	UA952100	C.MYLAR	100pF 50V
C716	UR847100	C.EL	10uF 25V
C717	UR837470	C.EL	47uF 16V
C718	UR847100	C.EL	10uF 25V
C719	VR516400	C.CE	15pF 500V
C720	UR837470	C.EL	47uF 16V
C721	UA953100	C.MYLAR	1000pF 50V
C722	UA953100	C.MYLAR	1000pF 50V
C723	UR837470	C.EL	47uF 16V
C724	VR516400	C.CE	15pF 500V
C725	UR837470	C.EL	47uF 16V
C726	UR847100	C.EL	10uF 25V
C727	UR857470	C.EL	47uF 35V
C728	VR325000	C.MYLAR	100pF 100V
C729	UR867470	C.EL	47uF 50V
C730	UR867470	C.EL	47uF 50V
C731	VR325000	C.MYLAR	100pF 100V
C732	UR878100	C.EL	100uF 63V
C733	UR878100	C.EL	100uF 63V
C734	VR325000	C.MYLAR	100pF 100V

✱ New Parts

P.C.B. MAIN

☀ New Parts

✱ New Parts

P.C.B. MAIN & TUNER

Schm Ref.	PART NO.	Description
△	Q712	iP011600 TR.PAIR 2SA1358/C3421 O,Y
△	Q713	iC224030 TR 2SC2240 GR,BL
△	Q715	VN996900 TR 2SC4495
△	Q716	VY760300 TR.PAIR 2SA1492/C3856 OPY
△	Q718	VY760300 TR.PAIR 2SA1492/C3856 OPY
△	Q720	VP883100 TR 2SC1890A D,E
△	Q721	VP883100 TR 2SC1890A D,E
△	Q722	VC141900 TR 2SB941 P,Q
	Q723	iC1815I0 TR 2SC1815 Y
	Q726	VK432900 TR 2SD1915F S,T
	R508	HV756560 R.CAR.FP 5.6KΩ 1/4W
	R517	HV756100 R.CAR.FP 1KΩ 1/4W
	R553	VP941600 R.MTL.OXD 5.6KΩ 1W
	R554	VP941600 R.MTL.OXD 5.6KΩ 1W
△	R555	HV756270 R.CAR.FP 2.7KΩ 1/4W
△	R557	HV755820 R.CAR.FP 820Ω 1/4W
△	R558	VK189000 R.FUS 1KΩ 1/4W
△	R559	HV754470 R.CAR.FP 47Ω 1/4W
	R560	VP939800 R.MTL.OXD 10Ω 1W
	R561	VP941600 R.MTL.OXD 5.6KΩ 1W
	R562	VP941600 R.MTL.OXD 5.6KΩ 1W
△	R563	HV756270 R.CAR.FP 2.7KΩ 1/4W
△	R565	HV755820 R.CAR.FP 820Ω 1/4W
△	R566	VK189000 R.FUS 1KΩ 1/4W
△	R567	HV754470 R.CAR.FP 47Ω 1/4W
	R568	VP941600 R.MTL.OXD 5.6KΩ 1W
	R569	VP941600 R.MTL.OXD 5.6KΩ 1W
△	R570	HV756270 R.CAR.FP 2.7KΩ 1/4W
△	R572	HV755820 R.CAR.FP 820Ω 1/4W
△	R573	VK189000 R.FUS 1KΩ 1/4W
△	R574	HV754470 R.CAR.FP 47Ω 1/4W
△	R580	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R581	VK188400 R.FUS 330Ω 1/4W
	R583	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R584	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R585	VK188400 R.FUS 330Ω 1/4W
△	R587	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R588	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R589	VK188400 R.FUS 330Ω 1/4W
△	R591	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R598	VP939800 R.MTL.OXD 10Ω 1W
△	R603	VP939800 R.MTL.OXD 10Ω 1W
△	R609	VP939800 R.MTL.OXD 10Ω 1W
	R611	HV754100 R.CAR.FP 10Ω 1/4W
	R613	HV754100 R.CAR.FP 10Ω 1/4W
	R614	VP944500 R.MTL.OXD 390Ω 1W
	R615	VP944500 R.MTL.OXD 390Ω 1W
△	R628	V3872900 R.WW 0.22Ω 3W
△	R629	V3872900 R.WW 0.22Ω 3W
△	R630	V3872900 R.WW 0.22Ω 3W
△	R631	V3872900 R.WW 0.22Ω 3W
△	R637	V3872900 R.WW 0.22Ω 3W
△	R638	V3872900 R.WW 0.22Ω 3W

* New Parts

Schm Ref.	PART NO.	Description
R713	HV753220	R.CAR.FP 2.2Ω 1/4W
R724	HV753220	R.CAR.FP 2.2Ω 1/4W
R737	HV753220	R.CAR.FP 2.2Ω 1/4W
△	R738	VP944500 R.MTL.OXD 390Ω 1W
R739	VP941600	R.MTL.OXD 5.6KΩ 1W
R740	VP941600	R.MTL.OXD 5.6KΩ 1W
△	R741	HV756270 R.CAR.FP 2.7KΩ 1/4W
△	R742	VK188400 R.FUS 330Ω 1/4W
△	R744	HV755820 R.CAR.FP 820Ω 1/4W
△	R745	VK189000 R.FUS 1KΩ 1/4W
△	R746	HV754470 R.CAR.FP 47Ω 1/4W
△	R747	VP939800 R.MTL.OXD 10Ω 1W
△	R748	HV754470 R.CAR.FP 47Ω 1/4W
△	R749	VK189000 R.FUS 1KΩ 1/4W
△	R751	HV755820 R.CAR.FP 820Ω 1/4W
△	R752	VK188400 R.FUS 330Ω 1/4W
△	R753	HV756270 R.CAR.FP 2.7KΩ 1/4W
	R754	VP941600 R.MTL.OXD 5.6KΩ 1W
	R755	VP941600 R.MTL.OXD 5.6KΩ 1W
△	R756	VP944500 R.MTL.OXD 390Ω 1W
△	R759	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R761	VZ123100 R.MTL.PLAT 0.22Ω 3W
△	R762	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R763	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R764	VZ123100 R.MTL.PLAT 0.22Ω 3W
△	R766	HV753470 R.CAR.FP 4.7Ω 1/4W
△	R772	VP939800 R.MTL.OXD 10Ω 1W
△	R773	VP939800 R.MTL.OXD 10Ω 1W
	R781	VP939800 R.MTL.OXD 10Ω 1W
△	R808	HV753100 R.CAR.FP 1Ω 1/4W
△	R809	HV753100 R.CAR.FP 1Ω 1/4W
△	R812	VZ123100 R.MTL.PLAT 0.22Ω 3W
△	R813	VZ123100 R.MTL.PLAT 0.22Ω 3W
△	RY501	VK438300 RELAY DH24D2-OT/M2
	SW501	VV523900 SW.PUSH PBS-YM-001
△	SW705	VZ361100 SW.SLIDE SL13B022AMC1(UCRT)
	TE501	VC313700 TERM.SP 8P(UCRTA)
	TE501	VK506200 TERM.SP 8P(BGL)
		VJ828000 PIN IMSA-6024-03E
		BB071360 SCR.TERM 8.3x13
		EP600140 SCR.BND.HD 3x10 MFZN2-BL
	V2518600	P.C.B. TUNER/TU-01(UC)
	V2518700	P.C.B. TUNER/TU-01(RT)
	V2518800	P.C.B. TUNER/TU-01(ABGL)
	V2518900	P.C.B. TUNER/TU-01RDS(BG)
CB4	VQ961900	CN 16P
C1	VG287600	C.EL 100uF 25V
C3	VG275800	C.CE.TUBLR 8.2pF 50V
C4	UR837470	C.EL 47uF 16V
C5	VF467300	C.CE.TUBLR 0.01uF 16V

* New Parts

P.C.B. TUNER & TUNER/SMD

Schm Ref.	PART NO.	Description
C6	UR837470	C.EL 47uF 16V
C7	UM416100	C.EL 1uF 50V
C8	VF467300	C.CE.TUBLR 0.01uF 16V
C9	VF467300	C.CE.TUBLR 0.01uF 16V
C10	VF467300	C.CE.TUBLR 0.01uF 16V
C11	VF467000	C.CE.TUBLR 1000pF 50V
C12	UM397100	C.EL 10uF 16V
C13	UM397100	C.EL 10uF 16V
C14	FG652100	C.CE 100pF 50V
C15	VF467000	C.CE.TUBLR 1000pF 50V
C16	VF466700	C.CE.TUBLR 47pF 50V
C17	UR837470	C.EL 47uF 16V
C19	V4006100	C.CE 10pF 50V
C20	VG287600	C.EL 100uF 25V
C21	VJ599000	C.CE.TUBLR 0.047uF 16V
C22	VG290700	C.EL 3.3uF 50V
C23	VF467300	C.CE.TUBLR 0.01uF 16V
C24	UM406470	C.EL 4.7uF 50V
C25	UM416330	C.EL 3.3uF 50V
C26	UM397100	C.EL 10uF 16V
C27	VF467300	C.CE.TUBLR 0.01uF 16V
C28	VA760600	C.CE 10pF 50V
C29	UM416100	C.EL 1uF 50V
C30	UM416100	C.EL 1uF 50V
C31	VG287600	C.EL 100uF 25V
C32	UM415470	C.EL 0.47uF 50V
C33	UM416100	C.EL 1uF 50V
C34	UA954470	C.MYLAR 0.047uF 50V
C35	VG290700	C.EL 3.3uF 50V
C36	UA952270	C.MYLAR 270pF 50V(ABGL)
C36	UA953100	C.MYLAR 1000pF 50V(UCRT)
C37	UA952270	C.MYLAR 270pF 50V(ABGL)
C37	UA953100	C.MYLAR 1000pF 50V(UCRT)
C38	VF466900	C.CE.TUBLR 470pF 50V
C39	VG287200	C.EL 10uF 50V
C40	VG290700	C.EL 3.3uF 50V
C41	UA953390	C.MYLAR 3900pF 50V
C42	UM397220	C.EL 22uF 25V
C43	UA953390	C.MYLAR 3900pF 50V
C44	VG290700	C.EL 3.3uF 50V
C45	UR837470	C.EL 47uF 16V
C46	UR837470	C.EL 47uF 16V
C47	VG278600	C.CE.TUBLR 330pF 50V
C48	VG278800	C.CE.TUBLR 560pF 50V
C49	UA952120	C.MYLAR 120pF 50V(ABGL)
C49	UA953220	C.MYLAR 2200pF 50V(UCRT)
C50	VJ599000	C.CE.TUBLR 0.047uF 16V
C51	UR837470	C.EL 47uF 16V
C52	UR837470	C.EL 47uF 16V
C53	UR837470	C.EL 47uF 16V
C54	VA761100	C.CE 27pF 50V
C55	VA761100	C.CE 27pF 50V
C56	VJ599000	C.CE.TUBLR 0.047uF 16V

* New Parts

Schm Ref.	PART NO.	Description
C57	VG278600	C.CE.TUBLR 330pF 50V
D1	VD631600	DIODE 1SS133,176,HSS104
D2	VD631600	DIODE 1SS133,176,HSS104
D3	VG437700	DIODE.ZENR MTZJ5.6B 5.6V
Fi1	GG000560	FLTR.CE SFE10.7MS3GHY-A
Fi2	GG000560	FLTR.CE SFE10.7MS3GHY-A
Fi3	VC219000	FLTR.CE SFZ450JL3
IC1	XB760A00	IC LA1266
IC2	XQ944A00	IC LC72131
IC3	iG158100	IC LA3401
IC4	XU664A00	IC LC72720N
L1	Vi546100	COIL 220uH
L2	Vi546100	COIL 220uH
L3	Vi546100	COIL 220uH
L4	Vi546100	COIL 220uH
L5	Vi546100	COIL 220uH
PK1	V2716700	TUNER.PK ENV-172A4G1(ABGL)
PK1	V2909100	TUNER.PK ENV-172C8G1R(UCRT)
PK2	VU333700	COIL.RF.AM 940536051A
Q1	iC053540	TR 2SC535 A,B,C
Q2	iC053540	TR 2SC535 A,B,C
Q3	VD678500	TR.DGT DTA114ES
Q4	iC174020	TR 2SC1740S R,S
Q5	VG722000	TR.DGT DTC144ES
Q6	iC181510	TR 2SC1815 Y
Q7	VD678500	TR.DGT DTA114ES
R56	HV754470	R.CAR.FP 47Ω 1/4W
SW1	VS602600	SW.SLIDE SS070-P022 A(RT)
T1	VC218600	COIL.DT.FM 10.7MHz
T2	VR895700	COIL.IF 450KHz
T3	VT486800	COIL XYA2
T4	VQ138200	FLTR.LC 19KHz
T5	VQ138200	FLTR.LC 19KHz
TE1	VU477800	TERM.ANT AJ-2038-040
TP1	VT969000	PIN.TEST IRS-2049
TP2	VT969000	PIN.TEST IRS-2049
VR1	VJ694000	VR.TRIM B47KΩ
VR2	VJ694000	VR.TRIM B47KΩ
XL1	VY734600	RSNR.CRYS 7.2MHz
XL2	GG000750	RSNR.CE 18.95KHz
XL3	V3930900	RSNR.CRYS 4.332MHz HC-49U
	BB071360	SCR.TERM 8.3x13
	VR282500	PLATE ANT.
* * * *	V2519300	P.C.B.CHP TUNER/TU-01(UC)
	V2519400	P.C.B.CHP TUNER/TU-01(RT)
	V2519500	P.C.B.CHP TUNER/TU-01(ABGL)
	V2519600	P.C.B.CHP TUNER/TU-01RDS(BG)
C1	VG287600	C.EL 100uF 25V
C3	UB050800	C.CE.M.CHP 8pF 50V
C4	UR837470	C.EL 47uF 16V

* New Parts

P.C.B. TUNER/SMD

Schm Ref.	PART NO.	Description
C5	UB044100	C.CE.M.CHP 0.01uF 50V
C6	UR837470	C.EL 47uF 16V
C7	UM416100	C.EL 1uF 50V
C8	UB044100	C.CE.M.CHP 0.01uF 50V
C9	UB044100	C.CE.M.CHP 0.01uF 50V
C10	UB044100	C.CE.M.CHP 0.01uF 50V
C11	UB013100	C.CE.M.CHP 1000pF 50V
C12	UM397100	C.EL 10uF 16V
C13	UM397100	C.EL 10uF 16V
C14	FG652100	C.CE 100pF 50V
C15	UB013100	C.CE.M.CHP 1000pF 50V
C16	UB051470	C.CE.M.CHP 47pF 50V
C17	UR837470	C.EL 47uF 16V
C19	V4006100	C.CE 10pF 50V
C20	VG287600	C.EL 100uF 25V
C21	UB044470	C.CE.M.CHP 0.047uF 50V
C22	VG290700	C.EL 3.3uF 50V
C23	UB044100	C.CE.M.CHP 0.01uF 50V
C24	UM406470	C.EL 4.7uF 50V
C25	UM416330	C.EL 3.3uF 50V
C26	UM397100	C.EL 10uF 16V
C27	UB044100	C.CE.M.CHP 0.01uF 50V
C28	VA760600	C.CE 10pF 50V
C29	UM416100	C.EL 1uF 50V
C30	UM416100	C.EL 1uF 50V
C31	VG287600	C.EL 100uF 25V
C32	UM415470	C.EL 0.47uF 50V
C33	UM416100	C.EL 1uF 50V
C34	UA954470	C.MYLAR 0.047uF 50V
C35	VG290700	C.EL 3.3uF 50V
C36	UA952270	C.MYLAR 270pF 50V(ABGL)
C36	UA953100	C.MYLAR 1000pF 50V(UCRT)
C37	UA952270	C.MYLAR 270pF 50V(ABGL)
C37	UA953100	C.MYLAR 1000pF 50V(UCRT)
C38	UB012470	C.CE.M.CHP 470pF 50V
C39	VG287200	C.EL 10uF 50V
C40	VG290700	C.EL 3.3uF 50V
C41	UA953390	C.MYLAR 3900pF 50V
C42	UM397220	C.EL 22uF 25V
C43	UA953390	C.MYLAR 3900pF 50V
C44	VG290700	C.EL 3.3uF 50V
C45	UR837470	C.EL 47uF 16V
C46	UR837470	C.EL 47uF 16V
C47	UB012330	C.CE.M.CHP 330pF 50V
C48	UB012560	C.CE.M.CHP 560pF 50V
C49	UA952120	C.MYLAR 120pF 50V(ABGL)
C49	UA953220	C.MYLAR 2200pF 50V(UCRT)
C50	UB044470	C.CE.M.CHP 0.047uF 50V
C51	UR837470	C.EL 47uF 16V
C52	UR837470	C.EL 47uF 16V
C53	UR837470	C.EL 47uF 16V
C54	VA761100	C.CE 27pF 50V
C55	VA761100	C.CE 27pF 50V

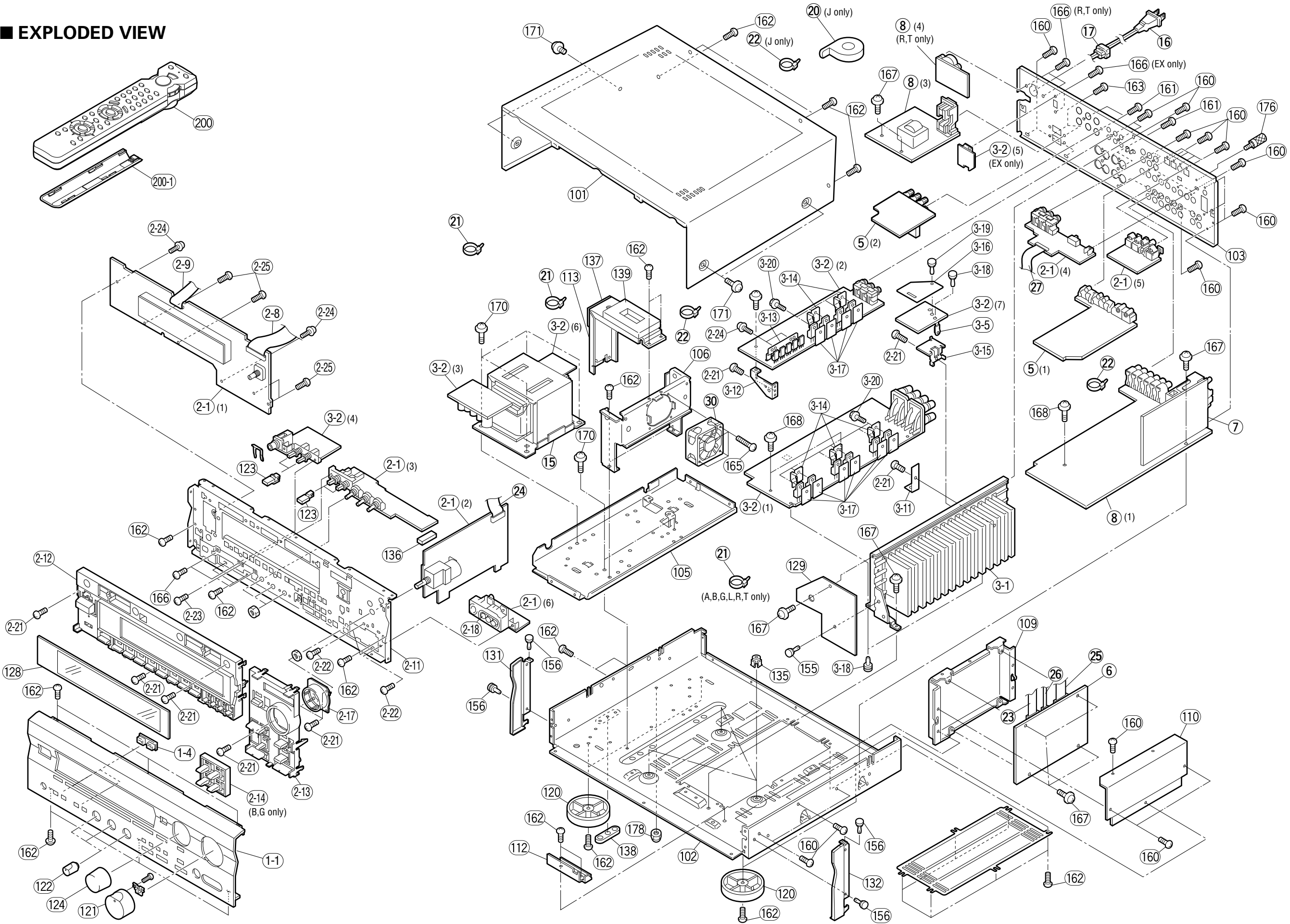
Schm Ref.	PART NO.	Description
C56	UB044470	C.CE.M.CHP 0.047uF50V
C57	UB012330	C.CE.M.CHP 330pF 50V
CB4	VQ961900	CN 16P
D1	VT332900	DIODE 1SS355
D2	VT332900	DIODE 1SS355
D3	VU172000	DIODE.ZENR UDZS5.6BTE-17 5.6V
Fi1	GG000560	FLTR.CE SFE10.7MS3GHY-A
Fi2	GG000560	FLTR.CE SFE10.7MS3GHY-A
Fi3	VC219000	FLTR.CE SFZ450JL3
IC1	XB760A00	IC LA1266
IC2	XQ944A00	IC LC72131
IC3	iG158100	IC LA3401
IC4	XU664A00	IC LC72720N(BG)
L1	VU889500	COIL 220uH
L2	VU889500	COIL 220uH
L3	VU889500	COIL 220uH
L4	VU889500	COIL 220uH
L5	VU889500	COIL 220uH
PK1	V2716700	TUNER.PK ENV-172A4G1(ABGL)
PK1	V2909100	TUNER.PK ENV-172C8G1R(UCRT)
PK2	VU333700	COIL.RF.AM 940536051A
Q1	iC053540	TR 2SC535 A,B,C
Q2	iC053540	TR 2SC535 A,B,C
Q3	VD678500	TR.DGT DTA114ES
Q4	iC174020	TR 2SC1740S R,S
Q5	VG722000	TR.DGT DTC144ES
Q6	iC181510	TR 2SC1815 Y
Q7	VD678500	TR.DGT DTA114ES
R56	HV754470	R.CAR.FP 47Ω 1/4W
SW1	VS602600	SW.SLIDE SS070-P022 A(RT)
T1	VC218600	COIL.DT.FM 10.7MHz
T2	VR895700	COIL.IF 450KHz
T3	VT486800	COIL XYA2(ABGL)
T4	VQ138200	FLTR.LC 19KHz
T5	VQ138200	FLTR.LC 19KHz
TE1	VU477800	TERM.ANT AJ-2038-040
TP1	VT969000	PIN.TEST IRS-2049
TP2	VT969000	PIN.TEST IRS-2049
VR1	VJ694000	VR.TRIM B47KΩ
VR2	VJ694000	VR.TRIM B47KΩ
XL1	VY734600	RSNR.CRYS 7.2MHz
XL2	GG000750	RSNR.CE 18.95KHz
XL3	V3930900	RSNR.CRYS 4.332MHz
	BB071360	SCR.TERM 8.3x13
	VR282500	PLATE ANT.

■ Chip Resistor

Schm Ref.	PART NO.	Description
	RD250000	R.CAR.CHP 0Ω 1/10W
	RD253220	R.CAR.CHP 2.2Ω 1/10W
	RD254470	R.CAR.CHP 47Ω 1/10W
	RD254820	R.CAR.CHP 82Ω 1/10W
	RD255100	R.CAR.CHP 100Ω 1/10W
	RD255220	R.CAR.CHP 220Ω 1/10W
	RD255330	R.CAR.CHP 330Ω 1/10W
	RD255470	R.CAR.CHP 470Ω 1/10W
	RD255680	R.CAR.CHP 680Ω 1/10W
	RD255820	R.CAR.CHP 820Ω 1/10W
	RD256100	R.CAR.CHP 1KΩ 1/10W
	RD256110	R.CAR.CHP 1.1KΩ 1/10W
	RD256120	R.CAR.CHP 1.2KΩ 1/10W
	RD256130	R.CAR.CHP 1.3KΩ 1/10W
	RD256150	R.CAR.CHP 1.5KΩ 1/10W
	RD256180	R.CAR.CHP 1.8KΩ 1/10W
	RD256220	R.CAR.CHP 2.2KΩ 1/10W
	RD256270	R.CAR.CHP 2.7KΩ 1/10W
	RD256330	R.CAR.CHP 3.3KΩ 1/10W
	RD256470	R.CAR.CHP 4.7KΩ 1/10W
	RD256510	R.CAR.CHP 5.1KΩ 1/10W
	RD256560	R.CAR.CHP 5.6KΩ 1/10W
	RD256680	R.CAR.CHP 6.8KΩ 1/10W
	RD256820	R.CAR.CHP 8.2KΩ 1/10W
	RD257100	R.CAR.CHP 10KΩ 1/10W
	RD257110	R.CAR.CHP 11KΩ 1/10W
	RD257120	R.CAR.CHP 12KΩ 1/10W
	RD257150	R.CAR.CHP 15KΩ 1/10W
	RD257180	R.CAR.CHP 18KΩ 1/10W
	RD257220	R.CAR.CHP 22KΩ 1/10W
	RD257330	R.CAR.CHP 33KΩ 1/10W
	RD257360	R.CAR.CHP 36KΩ 1/10W
	RD257470	R.CAR.CHP 47KΩ 1/10W
	RD257510	R.CAR.CHP 51KΩ 1/10W
	RD257560	R.CAR.CHP 56KΩ 1/10W
	RD257620	R.CAR.CHP 62KΩ 1/10W
	RD257820	R.CAR.CHP 82KΩ 1/10W
	RD258100	R.CAR.CHP 100KΩ 1/10W
	RD258330	R.CAR.CHP 330KΩ 1/10W
	RD258470	R.CAR.CHP 470KΩ 1/10W
	RD259100	R.CAR.CHP 1MΩ 1/10W
	RD556100	R.CAR.CHP 1KΩ 1/10W
	RD556300	R.CAR.CHP 3KΩ 1/10W
	RD556330	R.CAR.CHP 3.3KΩ 1/10W
	RD556390	R.CAR.CHP 3.9KΩ 1/10W
	RD557100	R.CAR.CHP 10KΩ 1/10W
	RD557120	R.CAR.CHP 12KΩ 1/10W

✱ New Parts

EXPLODED VIEW



MECHANICAL PARTS

Ref. No.	PART NO.	Description	Remarks	Markets
✿ 1- 1	V3827200	FRONT PANEL	RX-V795aBL	
✿ 1- 1	V3827300	FRONT PANEL	RX-V795aGD	
✿ 1- 1	V3827400	FRONT PANEL	RX-V795aRDS BL	
✿ 1- 1	V3827500	FRONT PANEL	RX-V795aRDS TI	
✿ 1- 1	V3827600	FRONT PANEL	HTR-5170GP	
1- 4	V2468600	ESCUTCHOEN	3/8	
2- 1	V3013900	P.C.B. ASS'Y	OPERATION	(L)
2- 1	V3014000	P.C.B. ASS'Y	OPERATION	(UCA)
2- 1	V3014100	P.C.B. ASS'Y	OPERATION	(RT)
2- 1	V3014300	P.C.B. ASS'Y	OPERATION	(BG)
2- 8	MF227160	S FLEXIBLE FLAT CABLE	27P 160mm	
2- 9	MF207200	S FLEXIBLE FLAT CABLE	7P 200mm	
2-11	V2460700	SUB CHASSIS		
2-12	V2465500	BUTTON CASE	BL	
2-12	V2465600	BUTTON CASE	TI	
2-12	V2465700	BUTTON CASE	GD	
2-12	V2633800	BUTTON CASE	GP	
2-13	V2465800	BUTTON INPUT	BL	
2-13	V2465900	BUTTON INPUT	TI	
2-13	V2466000	BUTTON INPUT	GD	
2-14	V2467000	BUTTON, RDS	BL	
2-14	V2467100	BUTTON, RDS	TI	
2-17	V2467900	ESCUTCHEON, VOL	BL	
2-17	V2468000	ESCUTCHEON, VOL	TI	
2-17	V2468100	ESCUTCHEON, VOL	GD	
2-17	V2468200	ESCUTCHEON, VOL	GP	
2-18	V2468300	ESCUTCHEON, PJ	BL	
2-18	V2468400	ESCUTCHEON, PJ	TI	
2-18	V2468500	ESCUTCHEON, PJ	GD	
2-21	EP600830	BIND HEAD B-TITE SCREW	3x8 FCRM3-BL	
2-22	VN413300	BIND HEAD BONDING B-T. SCREW	3x8 MFZN2-BL	
2-23	EG330030	BIND HEAD SCREW	3x6 FCRM3-BL	
2-24	VT669300	PW HEAD B-TITE SCREW	3x8-8 MFC2	
2-25	EP630220	BIND HEAD P-TITE SCREW	3x8 ZMC2-BL	
3- 1	V2564700	HEAT SINK		
✿ 3- 2	V4108400	P.C.B. ASS'Y	MAIN	(UCRT)
✿ 3- 2	V4108500	P.C.B. ASS'Y	MAIN	(A)
✿ 3- 2	V4108600	P.C.B. ASS'Y	MAIN	(BGL)
⚠ 3- 5	VM842300	THERMISTOR	PTH9M04 BF/80_C	
3-11	VV518700	SUPPORT, HEAT SINK	L	
3-12	V2564600	FRAME	PCB	
3-13	V2461000	SUPPORT, TR		
3-14	V2564500	SUPPORT, TR		
3-15	V2195400	SUPPORT, PS		
3-16	V3122200	SHEET	PS795	
3-17	VV849300	SHEET	19x24	
3-18	VQ368500	PUSH RIVET	P3545-B	
3-19	VQ368600	PUSH RIVET	P3555-B	
3-20	VK173200	SCREW, TRANSISTOR	3x15 SP FCM3	
✿ 5	V4120000	P.C.B. ASS'Y	VIDEO	(UCRT)
✿ 5	V4120100	P.C.B. ASS'Y	VIDEO	(A)
✿ 5	V4120200	P.C.B. ASS'Y	VIDEO	(BGL)
6	V3005800	P.C.B. ASS'Y	DSP	

✿ New Parts

RX-V795a/RDS/HTR-5170

Ref. No.	PART NO.	Description	Remarks	Markets
7	V2518600	P.C.B. ASS'Y	TUNER/TU-01	(UC)
7	V2518700	P.C.B. ASS'Y	TUNER/TU-01	(RT)
7	V2518800	P.C.B. ASS'Y	TUNER/TU-01	(AL)
7	V2518900	P.C.B. ASS'Y	TUNER/TU-01RDS	(BG)
✿ 8	V4221600	P.C.B. ASS'Y	INPUT	(UC)
✿ 8	V4221700	P.C.B. ASS'Y	INPUT	(RT)
✿ 8	V4221800	P.C.B. ASS'Y	INPUT	(A)
✿ 8	V4221900	P.C.B. ASS'Y	INPUT	(B)
✿ 8	V4222000	P.C.B. ASS'Y	INPUT	(G)
✿ 8	V4222100	P.C.B. ASS'Y	INPUT	(L)
⚠ 15	XV461A00	POWER TRANSFORMER		(U)
⚠ 15	XV462A00	POWER TRANSFORMER		(C)
⚠ 15	XV463A00	POWER TRANSFORMER		(RT)
⚠ 15	XV464A00	POWER TRANSFORMER		(A)
⚠ 15	XV465A00	POWER TRANSFORMER		(BGL)
⚠ 16	V2296800	POWER CORD ASS'Y		(A)
⚠ 16	V2363800	POWER CORD ASS'Y		(UC)
⚠ 16	VN363700	POWER CORD ASS'Y		(GL)
⚠ 16	VV437300	POWER CORD ASS'Y		(B)
⚠ 16	VZ542500	POWER CORD ASS'Y		(RT)
17	V2438700	CORD STOPPER	10P1	
21	VU590000	BINDING TIE	CBTD001B	
22	VZ625600	BINDING TIE	SE140 L=140	
23	MF211140	S FLEXIBLE FLAT CABLE	11P 140mm	
24	MF118140	FLEXIBLE FLAT CABLE	18P 140mm	
25	MF113140	FLEXIBLE FLAT CABLE	13P 140mm	
26	MF106250	FLEXIBLE FLAT CABLE	6P 250mm	
27	MF215200	S FLEXIBLE FLAT CABLE	15P 200mm	
30	VV272500	DC FAN MOTOR	2410ML-05W-B20-L00	
101	VV121300	TOP COVER	BL	
101	VV121500	TOP COVER	TI	
101	VZ884500	TOP COVER	GD	
102	VY758300	CHASSIS		
✿ 103	V3986000	REAR PANEL	RX-V795a	(U)
✿ 103	V3986100	REAR PANEL	RX-V795a	(C)
✿ 103	V3986200	REAR PANEL	RX-V795a	(T)
✿ 103	V3986300	REAR PANEL	RX-V795a	(A)
✿ 103	V3986400	REAR PANEL	RX-V795a	(L)
✿ 103	V3986500	REAR PANEL	RX-V795aRDS	(B)
✿ 103	V3986600	REAR PANEL	RX-V795aRDS	(G)
✿ 103	V3986700	REAR PANEL	HTR-5170	(U)
✿ 103	V3986800	REAR PANEL	HTR-5170	(C)
✿ 103	V3986900	REAR PANEL	HTR-5170	(T)
✿ 103	V3987000	REAR PANEL	HTR-5170	(A)
105	VV123100	FRAME, TRANS		
106	VZ332900	FRAME, FAN		
109	V2461100	SHIELD CASE		
110	VZ332800	SHIELD CASE COVER		
112	VZ333000	SUPPORT, PCB		
113	VZ333100	SUPPORT, TRANS.		
120	V0042500	LEG	D60xH21	GD
120	VS025000	LEG	D60xH21	RX-V795a BL/TI
120	VV544300	LEG	D60xH21	HTR-5170

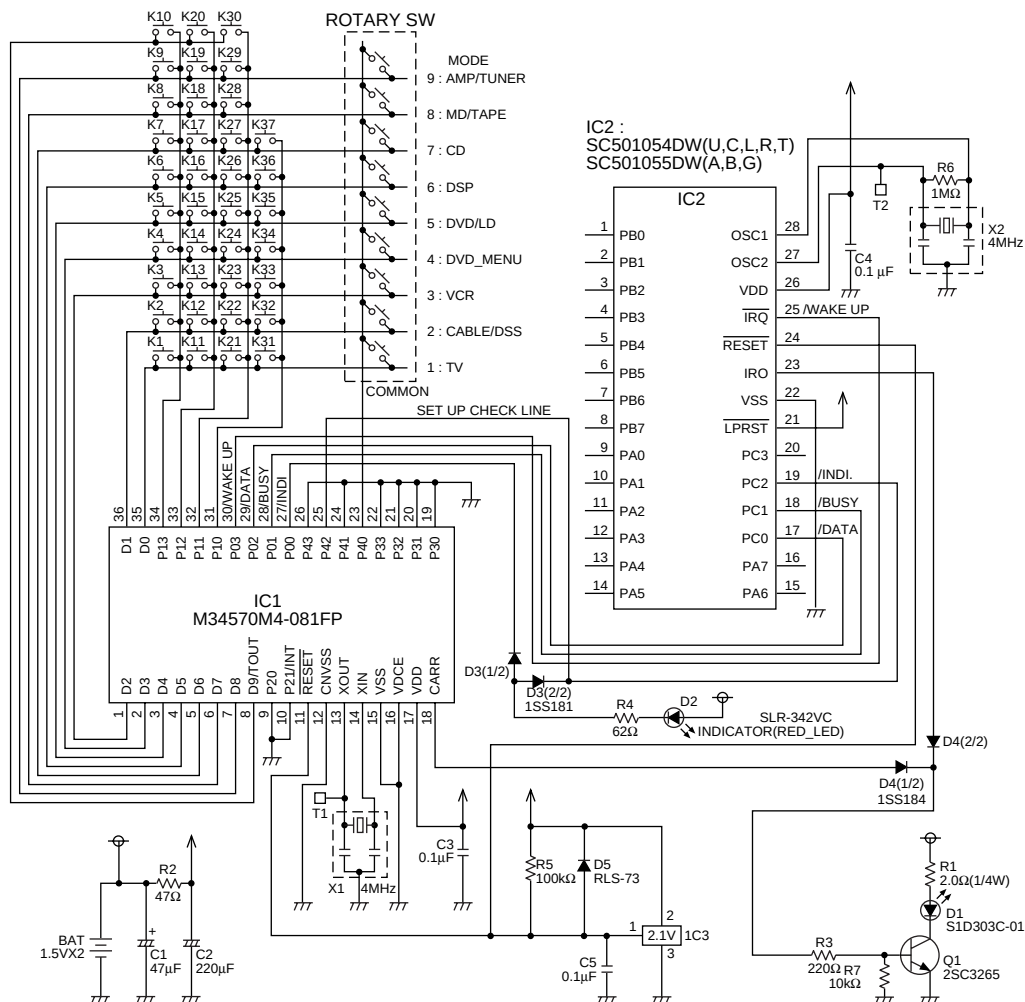
✿ New Parts

Ref. No.	PART NO.	Description	Remarks	Markets
121	V2566600	KNOB, LED	BL	
121	V2566700	KNOB, LED	TI	
121	V2566800	KNOB, LED	GD	
122	V0016700	KNOB	GD	
122	VV311000	KNOB	BL	
122	VV311400	KNOB	TI	
123	V2467300	BUTTON	BL	
123	V2467400	BUTTON	TI	
123	V2467500	BUTTON	GD	
124	V2467600	KNOB, ENC	BL	
124	V2467700	KNOB, ENC	TI	
124	V2467800	KNOB, ENC	GD	
128	V2469400	SHEET, WINDOW		
129	VZ531600	SHHET		
131	V2468800	PLATE SIDE L	BL	
131	V2468900	PLATE SIDE L	TI	
131	V2469000	PLATE SIDE L	GD	
132	V2469100	PLATE SIDE R	BL	
132	V2469200	PLATE SIDE R	TI	
132	V2469300	PLATE SIDE R	GD	
135	VR264400	SPACER		
136	VZ092400	DAMPER		
137	V3422200	DAMPER		
138	V2064200	DAMPER		
139	VP922800	DAMPER		
155	VQ368500	PUSH RIVET		
156	VQ368600	PUSH RIVET		
160	VN413300	BIND HEAD BONDING B-T. SCREW		
161	VY731200	BONDING HEAD TAPPING SCREW		
162	EP600830	BIND HEAD B-TITE SCREW		
163	EP600250	BIND HEAD B-TITE SCREW		
165	VV220300	BIND HEAD B-TITE SCREW		
166	EG330030	BIND HEAD SCREW		
167	VT669300	PW HEAD B-TITE SCREW		
168	VT669400	PW HEAD B-TITE SCREW		
170	21991500	PW HEAD S-TITE SCREW		
171	21991500	PW HEAD S-TITE SCREW		
171	VD069600	PW HEAD S-TITE SCREW		
171	VH313200	BW HEAD S-TITE SCREW		
176	AA627310	GROUND TERMINAL		
178	03700480	HEXAGONAL CAP NUT		
		ACCESSORIES		
200	V2686500	REMOTE CONTROL TRANSMITTER		(UCRLT)
200	V2686600	REMOTE CONTROL TRANSMITTER		(ABG)
200-1	XX702560	LID		
	VQ147100	ANTENNA, FM		
	VR248500	ANTENNA, AM LOOP		
	VE364900	ANTENNA ADAPTER		
	VT948000	ANTENNA ADAPTER		
		BATTERY, MANGANESE		

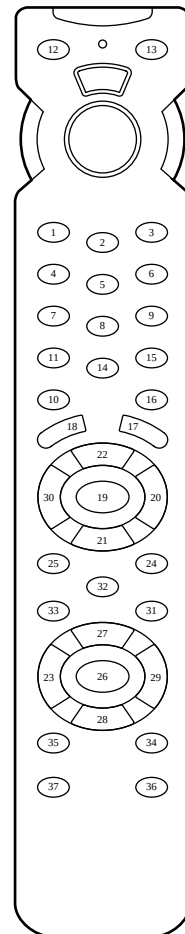
* New Parts

REMOTE CONTROL TRANSMITTER

SCHEMATIC DIAGRAM



Key arrangement

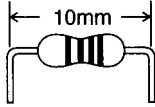
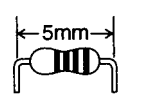


List of the fixed code

Key No.	Key NAME	MODE ID #	TV	Cable/DBS	VCR	DVD Menu	DVD/LD	DSP	CD	Tape/MD	AMP/Tuner
1	1		0037	2455	3072	----	4545(DVD)	----	6187	8524(Tape)	----
2	2		CH1	CH1	CH1	7C-94	7A-15	7A-88		7A-15	
3	3		CH2	CH2	CH2	7C-95	7A-16	7A-89		7A-16	
4	4		CH3	CH3	CH3	7C-96	7A-18	7A-8A		7A-18	
5	5		CH4	CH4	CH4	7C-97	7A-17	7A-8B		7A-17	
6	6		CH5	CH5	CH5	7C-98	7A-54	7A-8C		7A-54	
7	7		CH6	CH6	CH6	7C-99	7A-0F	7A-8D		7A-0F	
8	8		CH7	CH7	CH7	7C-9A	7A-14	7A-8E		7A-14	
9	9		CH8	CH8	CH8	7C-9B	7A-55	7A-8F		7A-55	
10	10		CH9	CH9	CH9	7C-9C	7A-13	7A-90		7A-13	
11	DSP		Shift of only Ten key in DSP Mode					----	Shift of only Ten key in DSP Mode		
12	0		CH0	CH0	CH0	7C-93	7A-87	7A-91		7A-87	
13	POWER		7A-1D	Power	Power	7A-1D				7A-1D	
14	STANDBY				7A-1E					7A-1E	
15	ENTER		CH Select	CH Select	CH Select	7C-9D	----	7A-12	----	----	7A-12
16	CLEAR		----	+100	----	7C-9F	----	7A-85	----	----	7A-85
17	EFFECT		Surround		7A-56					7A-56	
18	CH+		CH+	CH+	CH+	7C-8B		7A-10	7A-4F	----	7A-10
19	CH-		CH-	CH-	CH-	7C-8A		7A-11	7A-50	----	7A-11
20	MUTE		Mute		7A-1C					7A-1C	
21	VOL+				7A-1A					7A-1A	
22	TV VOL-				TV VOL-					TV VOL-	
23	TV VOL+				TV VOL+					TV VOL+	
24	SKIP-		----	Left	----	7C-B5	7C-B9	7A-53	7A-0B	7A-07	7A-53
25	DISPLAY		Display	Display	Display	7C-9E	7C-A6	7A-C2	79-0B	----	7A-C2
26	SLEEP		Sleep		7A-57					7A-57	
27	PLAY		VCR Play	Menu Select	Play	7C-B8	7C-82	----	7A-08	7A-00	----
28	PAUSE		VCR Pause	Up	Pause	7C-B4	7C-83	7A-98	7A-09	----	7A-98
29	STOP		VCR Stop	Down	Stop	7C-B3	7C-85	7A-99	7A-09	7A-03	7A-99
30	SKIP+		----	Right	----	7C-B6	7C-BA	7A-52	7A-0A	7A-40	7A-52
31	VOL-				7A-1B					7A-1B	
32	TV INPUT				TV Input			----	TV Input	7A-06	----
33	REC POWER				TV Power					TV Power	
34	REC		VCR REC	----	REC	----	----	----	----	7A-04	----
35	FF		VCR FF	Recall	FF	7C-B7	7C-AE	7A-58	7A-0C	7A-02	7A-58
36	REW		VCR REW	----	REW	7C-AC	7C-AB	7A-59	7A-0D	7A-01	7A-59
37	MENU		----	Menu	----	7C-B2	7C-AD	7A-9C	----	----	7A-9C
38	TITLE		----	----	----	7C-B1	7C-AA	7A-86	----	----	7A-86

----- : No Code

Parts List for Carbon Resistors

Value	1/4W Type Part No.	1/6W Type Part No.	Value	1/4W Type Part No.	1/6W Type Part No.
1.0 Ω	HJ35 3100	HF85 3100	10 k Ω	HF45 7100	HF45 7100
1.8 Ω	HJ35 3180	*	11 k Ω	HF45 7110	HF45 7110
2.2 Ω	HJ35 3220	HF85 3220	12 k Ω	HJ35 7120	HF85 7120
3.3 Ω	HJ35 3330	HF85 3330	13 k Ω	HF45 7130	HF45 7130
4.7 Ω	HJ35 3470	HF85 3470	15 k Ω	HF45 7150	HF45 7150
5.6 Ω	HJ35 3560	HF85 3560	18 k Ω	HF45 7180	HF45 7180
10 Ω	HF45 4100	HF45 4100	22 k Ω	HF45 7220	HF45 7220
15 Ω	HJ35 4150	HF85 4150	24 k Ω	HF45 7240	HF45 7240
22 Ω	HF45 4220	HF45 4220	27 k Ω	HJ35 7270	HF85 7270
27 Ω	HJ35 4270	HF85 4270	30 k Ω	HF45 7300	HF45 7300
33 Ω	HF45 4330	HF45 4330	33 k Ω	HF45 7330	HF45 7330
39 Ω	HJ35 4390	HF85 4390	36 k Ω	HF45 7360	HF45 7360
47 Ω	HF45 4470	HF45 4470	39 k Ω	HF45 7390	HF45 7390
56 Ω	HF45 4560	HF45 4560	47 k Ω	HF45 7470	HF45 7470
68 Ω	HF45 4680	HF45 4680	51 k Ω	HF45 7510	HF45 7510
75 Ω	HF45 4750	HF45 4750	56 k Ω	HF45 7560	HF45 7560
82 Ω	HF45 4820	HF45 4820	62 k Ω	HF45 7620	HF45 7620
91 Ω	HF45 4910	HF45 4910	68 k Ω	HF45 7680	HF45 7680
100 Ω	HF45 5100	HF45 5100	82 k Ω	HF45 7820	HF45 7820
110 Ω	HJ35 5110	HF85 5110	91 k Ω	HF45 7910	HF45 7910
120 Ω	HF45 5120	HF45 5120	100 k Ω	HF45 8100	HF45 8100
150 Ω	HF45 5150	HF45 5150	110 k Ω	HF45 8110	HF45 8110
160 Ω	HJ35 5160	*	120 k Ω	HF45 8120	HF45 8120
180 Ω	HF45 5180	HF45 5180	150 k Ω	HF45 8150	HF45 8150
200 Ω	HF45 5200	HF45 5200	180 k Ω	HF45 8180	HF45 8180
220 Ω	HF45 5220	HF45 5220	220 k Ω	HJ35 8220	HF85 8220
270 Ω	HF45 5270	HF45 5270	270 k Ω	HF45 8270	HF45 8270
330 Ω	HF45 5330	HF45 5330	300 k Ω	HF45 8300	HF45 8300
390 Ω	HF45 5390	HF45 5390	330 k Ω	HF45 8330	HF45 8330
430 Ω	HF45 5430	HF45 5430	390 k Ω	HJ35 8390	HF85 8390
470 Ω	HF45 5470	HF45 5470	470 k Ω	HF45 8470	HF45 8470
510 Ω	HF45 5510	HF45 5510	560 k Ω	HJ35 8560	HF85 8560
560 Ω	HF45 5560	HF45 5560	680 k Ω	HJ35 8680	HF85 8680
680 Ω	HF45 5680	HF45 5680	820 k Ω	HJ35 8820	HF85 8820
820 Ω	HF45 5820	HF45 5820	1.0 M Ω	HF45 9100	HF45 9100
910 Ω	HF45 5910	HF45 5910	1.2 M Ω	HJ35 9120	*
1.0 k Ω	HF45 6100	HF45 6100	1.5 M Ω	HJ35 9150	HF85 9150
1.2 k Ω	HF45 6120	HF45 6120	1.8 M Ω	HJ35 9180	HF85 9180
1.5 k Ω	HF45 6150	HF45 6150	2.2 M Ω	HJ35 9220	HF85 9220
1.8 k Ω	HF45 6180	HF45 6180	3.3 M Ω	HJ35 9330	HF85 9330
2.0 k Ω	HJ35 6200	HF85 6200	3.9 M Ω	HJ35 9390	*
2.2 k Ω	HF45 6220	HF45 6220	4.7 M Ω	HJ35 9470	HF85 9470
2.4 k Ω	HJ35 6240	HF85 6240			
2.7 k Ω	HF45 6270	HF45 6270			
3.0 k Ω	HF45 6300	HF45 6300		1/4W Type HJ35 ○○○○  10mm 1/6W Type HF45 ○○○○ HF85 ○○○○  5mm	
3.3 k Ω	HF45 6330	HF45 6330			
3.6 k Ω	HJ35 6360	HF85 6360			
3.9 k Ω	HF45 6390	HF45 6390			
4.7 k Ω	HF45 6470	HF45 6470			
5.1 k Ω	HF45 6510	HF45 6510			
5.6 k Ω	HF45 6560	HF45 6560			
6.8 k Ω	HF45 6680	HF45 6680			
8.2 k Ω	HF45 6820	HF45 6820			
9.1 k Ω	HF45 6910	HF45 6910			

* : Not available

1992

RX-V795a/RDS HTR-5170

