

# HITACHI

## SERVICE MANUAL

### PAL/SECAM/NTSC

YS

No. 0070C-E

C3390FS/FSP - 041/051/433/

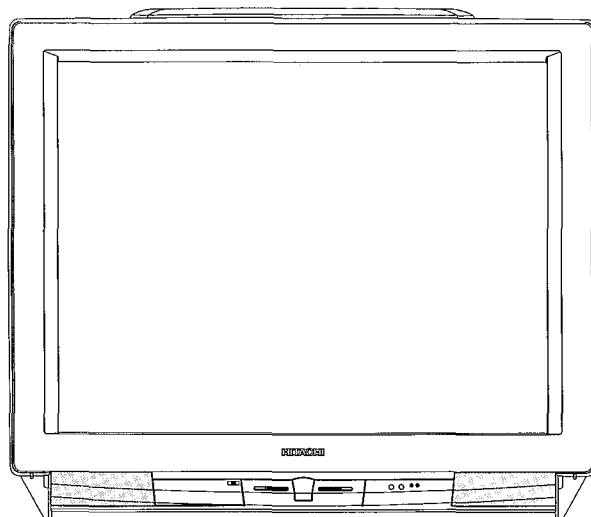
C3399FS/FSP 191/192/981/

751/081S/PX-981

### S6 Chassis



HITA-02948



**注 意:** 开始检修电视机机芯以前, 检修人员必须阅读这本检修手册中“有关安全上的预防事项”及“制品安全上的注意”两节。

**CAUTION:** Before servicing this chassis, it is important that the service technician reads the “Safety Precaution” and “Product Safety Notices” in this Service Manual.

### 目 录

有关安全上的预防事项 .....	4
有关制品安全上的注意事项 .....	4
技术参数 .....	6
各种调整控制机件 .....	7
遥控发射器 .....	8
电路说明 .....	9-17
调整说明 .....	18-21
电路图 .....	22-34
印刷电路图 .....	32, 35-37
替换零件表 .....	38-57

### CONTENTS

SAFETY PRECAUTIONS .....	2
PRODUCT SAFETY NOTICE .....	2
SPECIFICATIONS .....	6
CONTROLS .....	7
REMOTE CONTROL UNIT .....	8
CIRCUIT DESCRIPTION .....	9-17
ADJUSTMENT INSTRUCTIONS .....	18-21
BASIC CIRCUIT DIAGRAM .....	22-34
PRINTED WIRING BOARD .....	32, 35-37
REPLACEMENT PARTS LIST .....	38-57

**SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT.**

## COLOR TELEVISION

February 1998

Hitachi Consumer Products (S)

## TECHNICAL CAUTIONS

### SAFETY PRECAUTIONS

**WARNING:** Since the chassis of this receiver is connected to one side of the Mains Supply during operation, service should not be attempted by anyone unfamiliar with the precautions necessary when working on this type of equipment. The following precautions should be observed.

1. Do not install, remove, or handle the picture tube in any manner unless shatter-proof goggles are worn. People not so equipped should be kept away while picture tubes are handled. Keep picture tube away from the body while handling.
2. When replacing chassis in the cabinet, all the protective devices are put back in place, such as; barriers, non-metallic knobs, adjustment and compartment cover or shields, isolation resistors-capacitors, etc.
3. When service is required, observe the original lead dress. Extra care should be taken to assure correct lead dress in the high voltage circuitry area.
4. Always use the manufacturer's replacement component. Especially critical components as indicated on the circuit diagram should not be replaced by other makes. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
5. Before returning a serviced receiver to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the instrument by the manufacturer has become defective, or inadvertently defeated during servicing. Therefore, the following checks are recommended for the continued protection of the customers and service technicians.

### INSULATION

Insulation resistance between the mains poles and any accessible metal parts should not be less than  $7M\Omega$  at 500V DC. Also, no flashover or breakdown should occur during the dielectric strength test, to apply 4KV AC for one minute between the mains poles and any accessible metal parts.

### X-RADIATION

**TUBES:** The primary source of X radiation in this receiver is the picture tube. The tube utilized in this chassis is specially constructed to limit X radiation.

For continued X radiation protection, the replacement tube must be the same type as the original, HITACHI approved type.

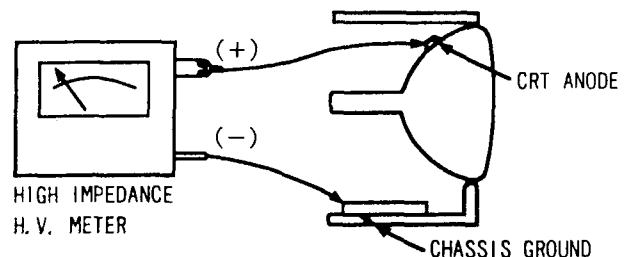
### High Voltage

This receiver is provided with a hold down circuit for clearly indicating that voltage has increased in excess of a predetermined value. Comply with all notes described in this Service Manual regarding this hold down circuit when servicing, so that this hold down circuit is operated correctly.

### Serviceman Warning

With minimum Black Level and Picture, the operating high voltage in this receiver is lower than 32.0kV. In case any component having influence on the high voltage is replaced, confirm that high voltage with minimum Brightness and contrast is lower than 33.5kV. To measure H V use a high impedance H V meter. Connect (-) to chassis earth and (+) to the CRT anode button. (See the following connection diagram)

**NOTE:** Turn the power switch off without fail before the connection to the Anode button is made.



### PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in HITACHI television receiver have special safety related characteristics. These characteristics are often not evident from visual inspection nor can be protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual. Electrical components having such features are identified by marking with a  $\Delta$  mark in the schematics and on the replacement parts list in this Service Manual. The use of a substitute replacement component which does not have the same safety characteristics as the HITACHI recommended replacement one shown in the parts list in this Service Manual, may create electrical shock, fire, X radiation, or other hazards. Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current HITACHI Service Manual. A subscription to, or additional copies of, HITACHI Service Manual may be obtained at a nominal charge from your HITACHI sales offices.

## TECHNICAL CAUTIONS

### High voltage limiter circuit operation check

1. Connect the high voltage voltmeter between the CPT anode (anode cap) and GND (CPT grounding lead).
2. Receive the broadcast signal and set the brightness and contrast VRs to max. Set the beam current to  $1.7\text{mA} \pm 10\%$ .

(After cut-off adjustment)

3. Set the AC input voltage to  $220 \pm 3\text{V}$ .
4. Check that the constant high voltage is  $29.5 \pm 1.5\text{kV}$  at this time.
5. Turn the switch of the set to off and connect the jig shown in Fig.3 at both ends of R956 as shown in Fig.1.

6. With the brightness and contrast VRs left as set in item.2 and with the AC input voltage stabilized at 220V, turn the picture disappears with a high voltage of 35.0kV or less.
7. Turn the switch of the set to off immediately after the check is completed.
8. Remove the adjust jigs and high voltage voltmeter.

**NOTE:** When connecting/disconnecting the high voltage voltmeter to/from the anode cap, be sure to turn the switch of the set off and do it after the residual high voltage is discharged to the chassis because the high voltage may remain at the anode cap.

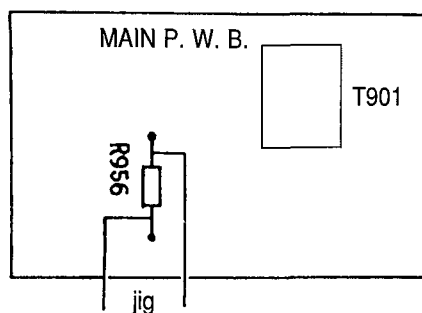


Fig. 1

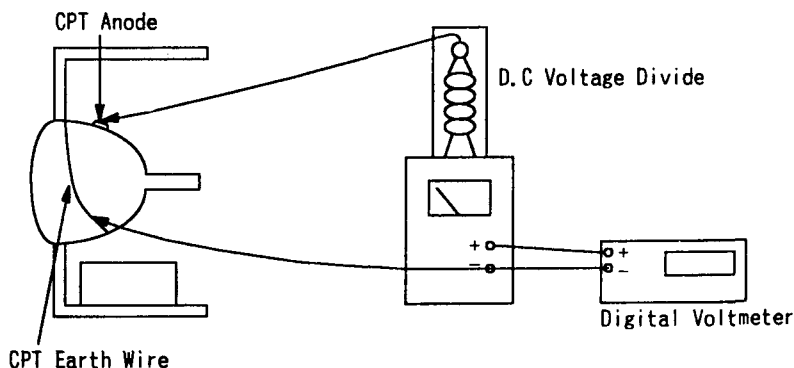


Fig. 2

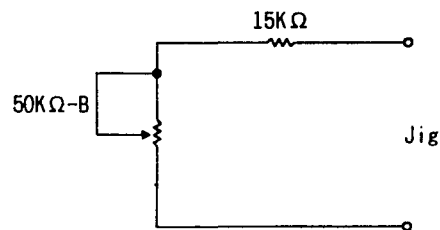


Fig. 3

## 有关安全上的预防事项

**警告：**因为在动作期间，这电视机的底盘与电源的一端互相连接，所以对检修这类型号的机器所必须的预防措施为下熟悉的人，不应该企图修机器。要检修必须遵守下列预防事项。

1. 要装入，取出或外理显象管时，必须带上防碎玻璃做的护目镜。外理显象管时，不带这护目镜的人不可接近。显象管应放在离开人体的地方。
2. 将底盘装入机箱里面时，所有的保护装置，如隔板，非金属的调整钮，小室盖子或小室屏蔽，隔离用电阻，电容器等，也应该装回去。
3. 开始检修之前，应该注意原来的引线包层。尤其是在高压电路部分需要特别小心，必须认清正确的引线包层。
4. 要检修，请一定要使用制造厂所指定的替换用机件。尤其在电路上注明几个特别重要的机件，要替换这些机件绝不可使用其他厂家的制品。当电路发生短路时，凡是有过热痕迹的机件都需要全部交换。
5. 将修好的电视机送回顾客以前，检修人员应该彻底检验机器以保证它完全安全，绝没有电击的危险，并确实检查机器内部的各种保护装置，以保证这些部分没有因检修而失灵。

由于上面理由，检修人员最好实行以下各项检查，以保证顾客和自己的安全。

### 绝缘

电源电极与任何可触及的金属部分之间的绝缘电阻不可小于7兆欧姆（加上直流500伏电压时）。而且，在电源电极与任何可触及的金属部分之间加上4千伏的交流电压（1分钟）而试验其绝缘强度时，不可发生闪络或绝缘击穿等现象。

### X射线

**显象管：**这部电视机所产生的X射线，其主要的来源是显象管。所以这部电视机所使用的显象管有特别的构造设计，使X射线尽量减少。为了能继续防止X射线起见，要交换显象管时，请一定要使用相同型号的日立显象管。

### 高压

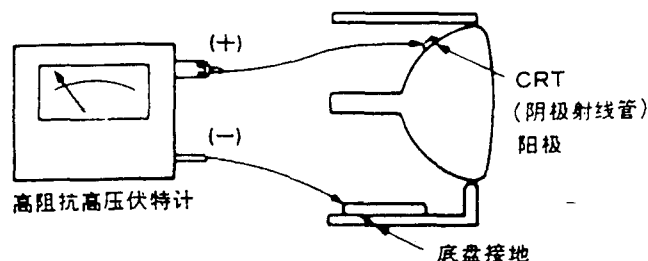
这电视机装有一个高压限制电路，可清楚地表示电压升高已超过额定值。进行维修服务时，请根据本维修说明书有关此高压限制电路的所有注解说明去做，则高压限制电路便可以正确地操作。

### 维修人员须注意

这电视机在最小黑色电平和图象电流时的高电压是在32.0kV以下的。若更换了会影响高压的部件时，一定请确认在最小亮度和对比度状况下的高电压是否低于33.5kV。

请使用高阻抗高压伏特计，令其（-）连接底盘接地线，令（+）连接CRT（阴极射线管）阳极电钮，去测量高电压（H.V.）。（参考下面的连接图）。

**注：**当要连接到阳极电钮以前，一定要先把电源开关关掉。



## 有关制品安全上的注意事项

日立电视机所使用的许多机件具有有关安全的特别性能。这种特别性能在表面上往往看不出来，而且即使使用额定电压或功率更大的其他替换用机件，也不一定可得到这些日立机件所保证的保护性能。在这本检修手册里面有指定

这些具有特别安全特性的替换用机件。在这本检修手册的简图和替换用机件表上附带△记号的机件，就表示具备这种特别的安全特性。

如果不使用这本检修手册机件表上HITACHI所推荐的替换用机件而使用没有同样安全特性的其他替换用机件的话，就可能会发生电击，失火，X射线等事故。

HITACHI对制品安全不断努力改进，经常发出新的技术指令。如需要新的技术情报就请参看最新的HITACHI检修手册。可向HITACHI销售公司预订或订阅“日立检修手册”，只收取极少费用。

### 技术上须注意事项

#### 高压限压器电路操作检查

1. 把高压伏特计连接在CPT阳极（阳极罩）和GND（CPT的接地线）之间。
2. 试接收一个电台的广播信号，且把亮度和对比度的VRs（可变电阻器）调到最大。把射束电流调为  $1.7\text{mA} \pm 10\%$ （切断调整之后）

3. 把AC电的输入电压调为  $220 \pm 3\text{V}$ 。
4. 此时，检查恒定高压是否呈  $29.5 \pm 1.5\text{kV}$ 。
5. 把设定开关关掉，然后把图3所示的夹具接在图1所示的R956的两端。
6. 以第2项所设定的亮度和对比度VRs，AC电流输入电压并保持稳定的220V状况下调节  $50\text{k}\Omega$  可变电阻器以使影像消失掉，高压不可超过  $35.0\text{kV}$ 。
7. 检查完毕后，请立即关掉设定开关。
8. 卸下调整夹具和高压伏特计。

注：当把高压伏特计连接到阳极罩拆下时，必须先关掉设定开关，并且等残留高压电流都往底盘放电完毕之后，才进行接拆工作。因为阳极罩上在关掉设定开关后，还可能残留有高压电流。

MAIN印刷电路板

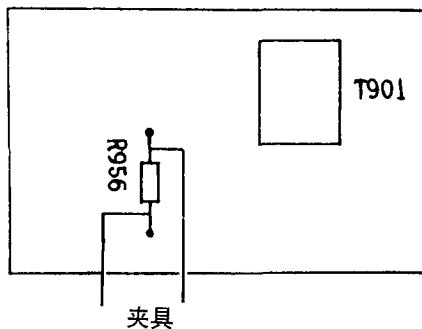


图 1

CPT（控制电源变压器）阳极

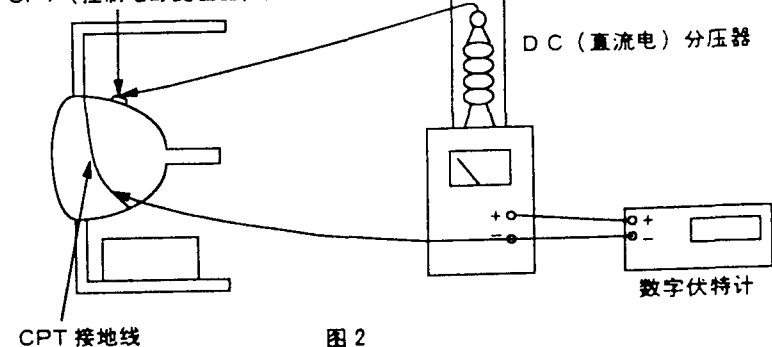


图 2

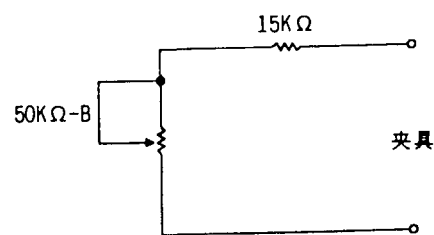


图 3

SPECIFICATIONS

Reception system	625-LINES B.G/I/D K/H PAL B.G/D.K/K1 SECAM NTSC50 525-LINES M/NTSC NTSC3.58-5.5/6.0/6.5 NTSC4.43-5.5/6.0/6.5 PAL 60	Antenna input	75 Ω COAXIAL IEC TYPE
		Colour picture tube	A80LJF30X
		Speaker (cm)	∅10 (x1), 6 x 12 (x2)
		Sound output	10W (x2) + 20W
( Channel coverage ) ( Frequency range ) 44MHz-863MHz	CCIR : E2~12, E21~69, S01~3, S1~41 Australia : AU0~12, AU28~69 OIRT : R1~12, R21~69 JAPAN : J1~12, J13~62 U.S.A. : US2~13, J~W, US14~69 Hong Kong, U.K. : UK21~69 China : C1~12, C13~57, Z1~38	Power supply	041 : AC 200V-240V 50Hz/60Hz 981, 192 : AC 110V-240V 50Hz/60Hz 081S, 051, 433 : AC 110V-240V 50Hz/60Hz 751 : AC 240V 50Hz 191 : AC 127V 50Hz/60Hz
			Power consumption
		Weight (kg)	50kg
		Dimensions W x H x D (mm)	780 x 683 x 572

\* Specifications are subject to change without notice to improve performance.

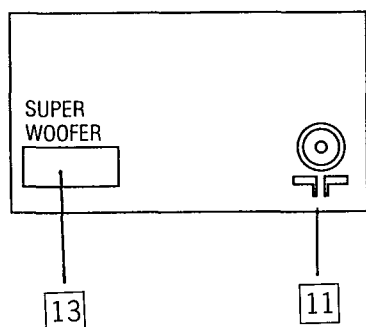
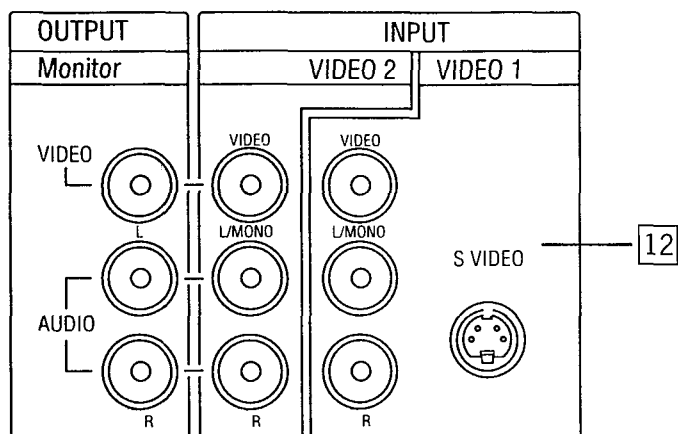
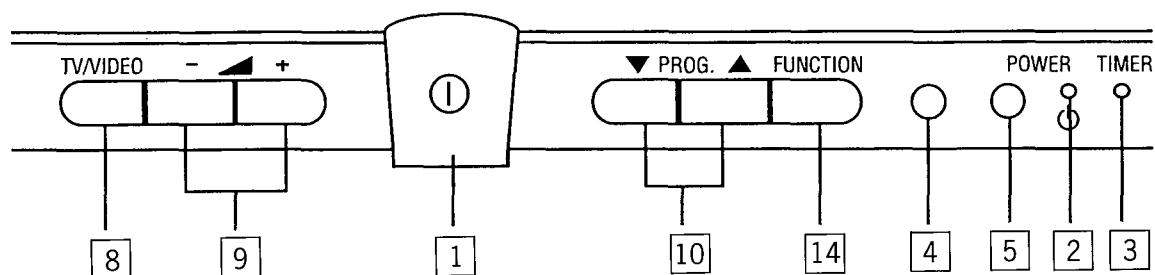
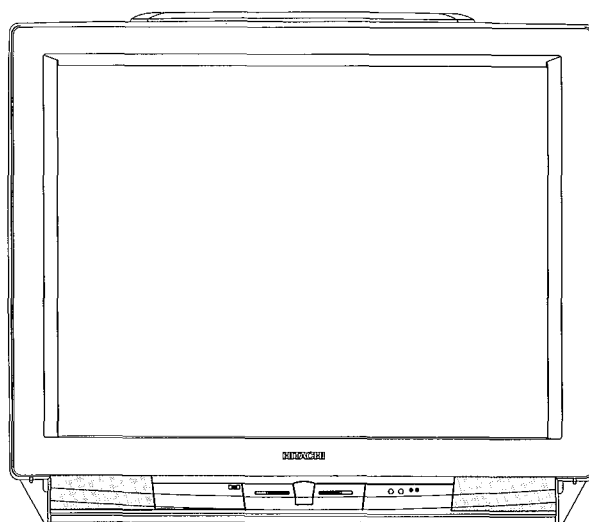
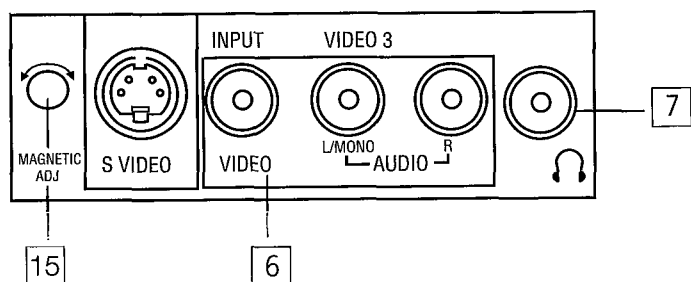
技术参数

接收方式	625条 B.G/I/D.K/H PAL B.G/D.K/K1 SECAM NTSC50 525条 M/NTSC NTSC3.58-5.5/6.0/6.5 NTSC4.43-5.5/6.0/6.5 PAL 60	无线输入	75欧姆同轴IEC型
		显象管	A80LJF30X
		扬声器 (cm)	∅10 (x1), 6 x 12 (x2)
		扬音输出 (最大)	10W (x2) + 20W
频道范围 频道范围 44兆赫 ~ 863兆赫	CCIR : E2 ~ 12, E21 ~ 69, S01 ~ 3 S1 ~ 41 澳洲 : AU0 ~ 12, AU8 ~ 69 OIRT : R1 ~ 12, R21 ~ 69 日本 : J1 ~ 12, J13 ~ 62 美国 : US2 ~ 13, J ~ W, US14 ~ 69 香港, 英国 : UK21 ~ 69 中国 : C1 ~ 12, C13 ~ 57, Z1 ~ 38	电力消耗	041 : AC 200V-240V 50Hz/60Hz 981, 192 : AC 110V-240V 50Hz/60Hz 081S, 051, 433 : AC 110V-240V 50Hz/60Hz 751 : AC 240V 50Hz 191 : AC 127V 50Hz/60Hz
			电源
		重量 (公斤)	50kg
		外型尺寸 (mm) (宽 x 高 x 深)	780 x 683 x 572

\* 上述各项参数有变更或改良时, 恕不另行通知。

## CONTROL (各种调整控制机件)

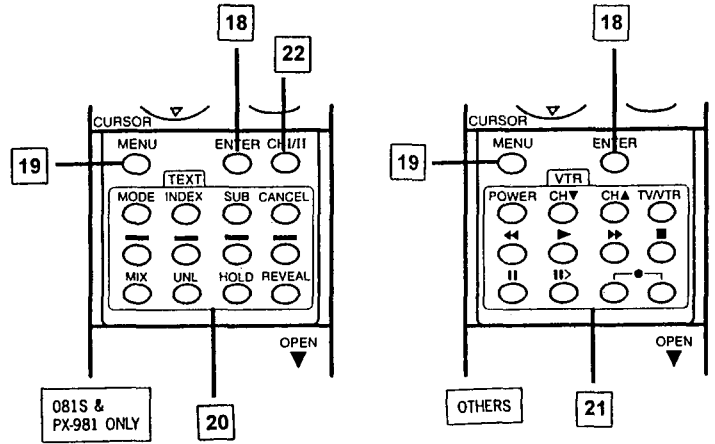
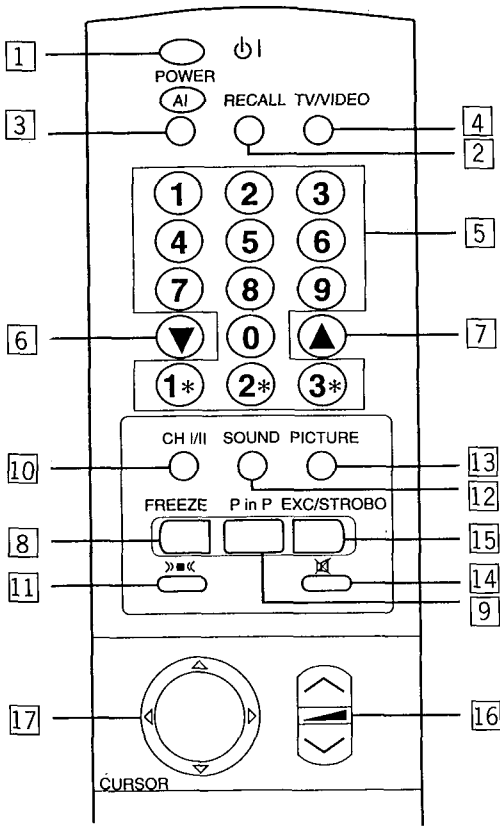
### Front Panel 电视机的前面板



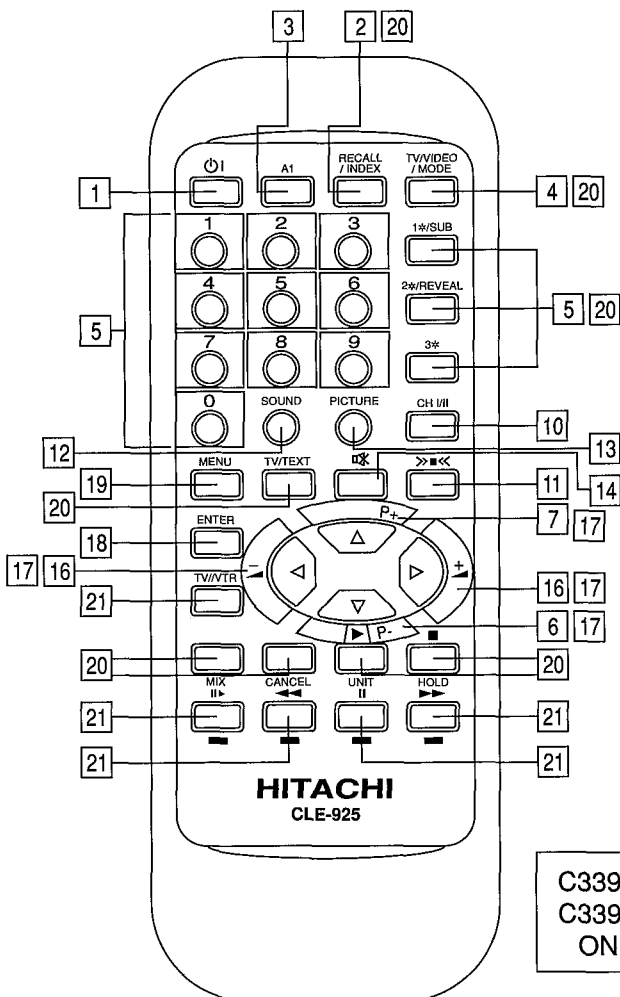
### Rear Panel 电视机的后面板

1	POWER ON/OFF SWITCH 电源开关
2	POWER STANDBY INDICATOR 电源/等待指示灯
3	TIMER INDICATOR 定时指示灯
4	AI RECEIVER 电脑控制接收部
5	REMOTE CONTROL RECEIVER 遥控接收部
6	INPUT 3 INPUT TERMINAL INPUT 3 输入端子
7	HEADPHONE JACK 耳机插座
8	INPUT SELECT 输入选择
9	VOLUME UP/DOWN 音量升/降
10	PROGRAMME UP/DOWN 节目升/降
11	ARIAL TERMINAL 天线端子
12	AV IN/OUT TERMINALS AV 输入/输出端子
13	SUPER WOOFER TERMINAL 超重低音端子
14	FUNCTION 功能键
15	MAGNETIC ADJUST 地磁场调节钮

REMOTE CONTROL UNIT  
(遥控发射器上之控制机件)



C3390FSP  
C3399FSP  
ONLY



C3390FS  
C3399FS  
ONLY

1	POWER ON/OFF SWITCH 电源开关
2	RECALL 召回
3	AI 电脑控制
4	INPUT SELECTION 输入选择
5	PROGRAMME SELECTOR 节目选择
6	PROGRAMME DOWN 节目降
7	PROGRAMME UP 节目升
8	FREEZE 固定画面
9	P in P 画中画
10	CH I/CH II or T/TEXT CH I/CH II 或 T/TEXT
11	SPATIALIZER 环绕声
12	SOUND 声音
13	PICTURE 图像
14	MUTE 静音
15	EXCHANGE/STROBO 交换/频闪
16	VOLUME UP/DOWN 音量升/降
17	CURSOR 光标
18	ENTER 决定
19	MENU 菜单
20	TELETEXT OPERATING KEYS (For other models) 图文电视 (适用于其他型号)
21	VTR OPERATING KEYS (For other models) 录象机专用钮 (适用于其他型号)
22	CNI/II CNI/II




## CIRCUIT DESCRIPTION ( 电路说明 )

### Selection and CPU circuitry

The IC type M37271MF, performs IIC controls, channel selection, up/down analogue control, on screen displays, search tuning, on/off control of Head phone, on/off control of Super woofer, on/off control of Spatializer, systems selection and selection control of inputs AV terminals etc . . .

The pin function table of M37271MF are as below.

PIN NO.	NAME	FANCTION																														
1	H sync	Input This is the horizontal synchronous signal input pin for On-screen display.																														
2	V sync	Input This is the vertical synchronous signal input pin for On-screen display.																														
3	Dimmer	Input A/D terminal served to detect the present of Q004.																														
4	HP SW	Input This is the on/off pin for Main SP on Head Phone use.																														
5	ASW	Input This is the on/off signal input pin for super woofer.																														
6	SYNC	Input H.SYNC signal input. After A/D conversion, this pin also serve to detect the present of RF signal.																														
7	AFC	Input AFC voltage input. After A/D conversion, this pin also serve to detect the present of RF signal.																														
8	AGC	Output This is the force AGC pin for unstable OSD on no signal.																														
9	Scan1	Output Output for front control matrix to control vol., programme.																														
10	Scan2	Output Output for front control matrix to control vol., programme.																														
11	Timer	Output Output for timer LED. H:Timer set L:Normal																														
12	BEEP	Output Beep sound output. L:Off, Beep:  50% Duty Cycle.																														
13	50/60 Force	Output Ident by IIC data and controls output from this pin. L:60HZ, H:50HZ																														
14	COMB	Output Output for NTSC signal & S-VIDEO signal.																														
15	R/C	Input Remote con.serial data input from R/C recieve unit(X001)																														
16	Return1	Input Return of front control matrix.																														
17	Return2	Input Return of front control matrix.																														
18	VCC																															
19	HLF																															
20	RVCO																															
21	NC																															
22	NC																															
23	GND																															
24	X-IN	Input 8 MHZ clock in																														
25	X-OUT	Output 8 MHZ clock out																														
26	GND																															
27	VCC																															
28	S-DET	Input To identify the voltage of S-VIDEO signal.																														
29	Return3	Input Return of front control matrix.																														
30	Reset	Input Resets I004 initiated by Power(Pin 33)																														
31	I/M	Output Selects the sub sound system																														
32	B.G/D.K	Output <table style="display: inline-table; vertical-align: middle;"> <tr> <td></td> <td>I/M</td> <td>4.5MHZ</td> <td>5.5MHZ</td> <td>6.0MHZ</td> <td>6.5MHZ</td> </tr> <tr> <td></td> <td>L</td> <td>L</td> <td>L</td> <td>H</td> <td>H</td> </tr> <tr> <td></td> <td>H</td> <td>H</td> <td>L</td> <td>H</td> <td>L</td> </tr> </table>		I/M	4.5MHZ	5.5MHZ	6.0MHZ	6.5MHZ		L	L	L	H	H		H	H	L	H	L												
	I/M	4.5MHZ	5.5MHZ	6.0MHZ	6.5MHZ																											
	L	L	L	H	H																											
	H	H	L	H	L																											
33	POWER	Output Power on/off control. H:On, L:Stand by																														
34	SPATIALIZER	Output SPATIALIZER control output																														
35	HP SW	Output Head phone select (Main/Sub)																														
36	SDA2	In/Out IIC data select for EEPROM																														
37	SDA1	In/Out IIC data select																														
38	SCL2	In/Out IIC clock select for EEPROM																														
39	SCL1	In/Out IIC clock select																														
40	ON/OFF MUTE	Output Mute control output.																														
41	SW4	Output Select the main signal system																														
42	SW3	Output <table style="display: inline-table; vertical-align: middle;"> <tr> <td></td> <td>SW4</td> <td>4.5MHZ</td> <td>5.5MHZ</td> <td>6.0MHZ</td> <td>6.5MHZ</td> </tr> <tr> <td></td> <td>H</td> <td>H</td> <td>L</td> <td>L</td> <td>L</td> </tr> <tr> <td></td> <td>H</td> <td>L</td> <td>L</td> <td>L</td> <td>L</td> </tr> <tr> <td></td> <td>L</td> <td>HI-Z</td> <td>L</td> <td>HI-Z</td> <td>HI-Z</td> </tr> <tr> <td></td> <td>L</td> <td>HI-Z</td> <td>HI-Z</td> <td>L</td> <td>L</td> </tr> </table>		SW4	4.5MHZ	5.5MHZ	6.0MHZ	6.5MHZ		H	H	L	L	L		H	L	L	L	L		L	HI-Z	L	HI-Z	HI-Z		L	HI-Z	HI-Z	L	L
	SW4	4.5MHZ	5.5MHZ	6.0MHZ	6.5MHZ																											
	H	H	L	L	L																											
	H	L	L	L	L																											
	L	HI-Z	L	HI-Z	HI-Z																											
	L	HI-Z	HI-Z	L	L																											
43	SW2	Output																														
44	SW1	Output																														
45	HP VOL.	Output Output of the DC level to control the Head Phone.																														
46	E-W CORRECTION 1	Output 0 : L, 1 : H, 2 : L																														
47	E-W CORRECTION 2	Output 0 : L, 1 : L, 2 : H																														
48	VM ON/OFF	Output VM control output																														
49	OSD-BLK	Output On-Screen -Display blanking output																														
50	B	Output Blue output for On-Screen- Display																														
51	G	Output Green output for On-Screen- Display																														
52	R	Output Red output for On-Screen- Display																														

**TUNER AND IF CIRCUIT**

The tuner used on this chassis is power by the 9v supply, it is IIC Bus controlled and covers VHF, UHF & CATV Band (Mid, Supper and Hyper)

The IF circuit consists of I201 (LA7566), SAW X201, X208, Q2A2 and Q2A3

The IF output from tuner is applied to amplifier Q2A2 and Q2A3 (IF Sub PWB) respectively and input to pin 5 & 6 of I201 through SAW X201(PIF) & X208(SIF)

At the input of X201(PIF), Q205 serves to select the systems between (B/G,I,D/K) or (M)

After that, demodulation and sound systems selection (i e select B/G, I, D/K, M) are then performed by I201(LA7566) and create sound output at pin 1 and composite video signals at pin 13 At I201, the sound systems selection are as below

	B/G	I	D/K	M
I201 pin 22	H	H	L	L
I201 pin 23	H	L	H	L
Q205 base	L	L	L	H

**VIDEO/CHROMA**

I501 (TD1226AN) which incorporates VIDEO/CHROMA/DEFLECTION cct is used to perform auto color identification of PAL/SECAM/NTSC, sync separation, AFC, H/V oscillator and output stage etc

At H301(COMB), the Y/C separation of NTSC is performed For PAL /SECAM signals, color identification are operated within I501

At I502, first selection between NTSC and non-NTSC are operated by switching signal at pin 4 & 7 Either NTSC signal (Y/C) at pin 3/8 or composite video signals (other color systems) at pin 1/10 are selected and transfer to I301 via pin 5/6

At I301, Y/C signals from I502 or composite video signals (or signals from external terminals) are selected here and then transfer to I501 via Pin 37 and Pin 39

The received signals at I501 are as below

SYSTEMS	I501 pin 45/51	I501 pin 42
NTSC	Y	C
PAL / SECAM	COMPOSITE VIDEO	COMPOSITE VIDEO

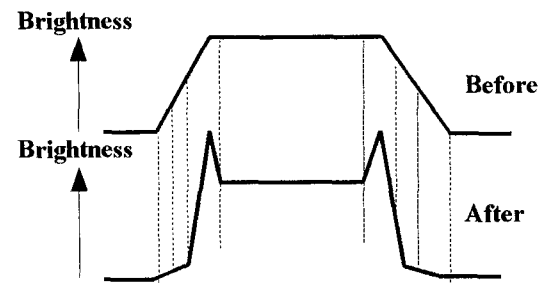
At I501, color identification and decoding are performed with internal 1HDL and x'tal 16.2 MHz at pin 40 instead of conventional 4.43

MHZ (PAL/SECAM) / 3.58MHz (NTSC) x'tal After that, the resulted R,G,B signals are then combine with the OSD R,G,B signals from pin 18~20 and T/T PinP R,G,B signals from pin 23~25 by switching operation at pin 21 (D YS), pin 22 (A YS) and IIC control

The output are finally emerge from pin 12~24 as the 'blue, green and red signals

Due to IIC control, the R,G,B drive VR and BLK VR at the CRT PWB are therefore not required

In order to improve the luminance at the edges of picture where input signal level varies steeply from black to white or reversely, the luminance signal from pin 37 of I301 is further enhanced by VM circuit (at CRT PWB) via Q306 & Q304 The result is as below -



The VM circuit at CRT PWB consists of Q841~Q850 and switch control by Q851, At the time when PinP or OSD (e.g MENU display etc) on operation, a "high" BLK signal is applied to the base of Q851 and turns "OFF" the VM circuit

**HORIZONTAL DEFLECTION**

This circuit used the horizontal deflection yoke (H DY) to deflect the electronic beam of the CRT horizontally, it also generates high-voltage and medium/low voltage power supplies through FBT At pin 51 of I501, the composite video signal from Q305 is applied to the internal sync separator and phase detector/correction of I501, the resulted horizontal drive pulse is output from pin 4 of I501

The horizontal drive pulse is supplied to the horizontal drive circuit consisted of Q708, Q709 and T701

At the horizontal output transistor Q708, it generate a FBT pulse of approx 1100V at the collector and also cause sawtooth current to flow to the H DY, thus deflecting the electron beam in the CRT horizontally

This FBT pulse also causes a high voltage (H V) and medium/low voltages (i.e 200V, 56V, 14V, 25V) to be generated at the secondary circuit of FBT T702

The pincushion distortion correction circuit in this chassis is to increase the H DY current to correct the pincushion distortion at both sides of screen. The vertical sawtooth wave of the V DY is input to Q665 and output as a parabolic wave. This parabolic wave modulates the horizontal pulse voltage at the cathode of diode modulator D703 through Q663, Q662 and Q661 with a vertical period to vary the H DY voltage.

The high-voltage beam current is supplied from +B (130V) to the ACL (Automatic Contrast Limiter) terminal of FBT. This produces a voltage proportional to the variations in the brightness at the ACL terminal. This voltage is applied to Q664, Q663 to correct meandering of the picture due to changes in brightness and also apply to Q663 through R663 to correct the size due to brightness change.

## VERTICAL DEFLECTION

At I501, the composite video signal from pin 51 are applied to the internal integrated circuit, V separation circuit and V C/D circuit which counts down the horizontal frequency to obtain the vertical frequency. C6A2 at pin 52 of I501 is used for ramp generation, and produces the required sawtooth waveform output from pin 53.

The vertical drive output from pin 53 of I501 is applied to pin 4 of I601 via R612, and the vertical output to drive the D Y is made available at pin 2. The voltage switching circuit in I601 increases the power voltage at pin 3 during the flyback period to make the flyback line faster.

The V deflection voltage that occurs is added to the DC voltage from pin 2 of I601, the result is applied to pin 54 of I501 and determine the linearity and vertical height.

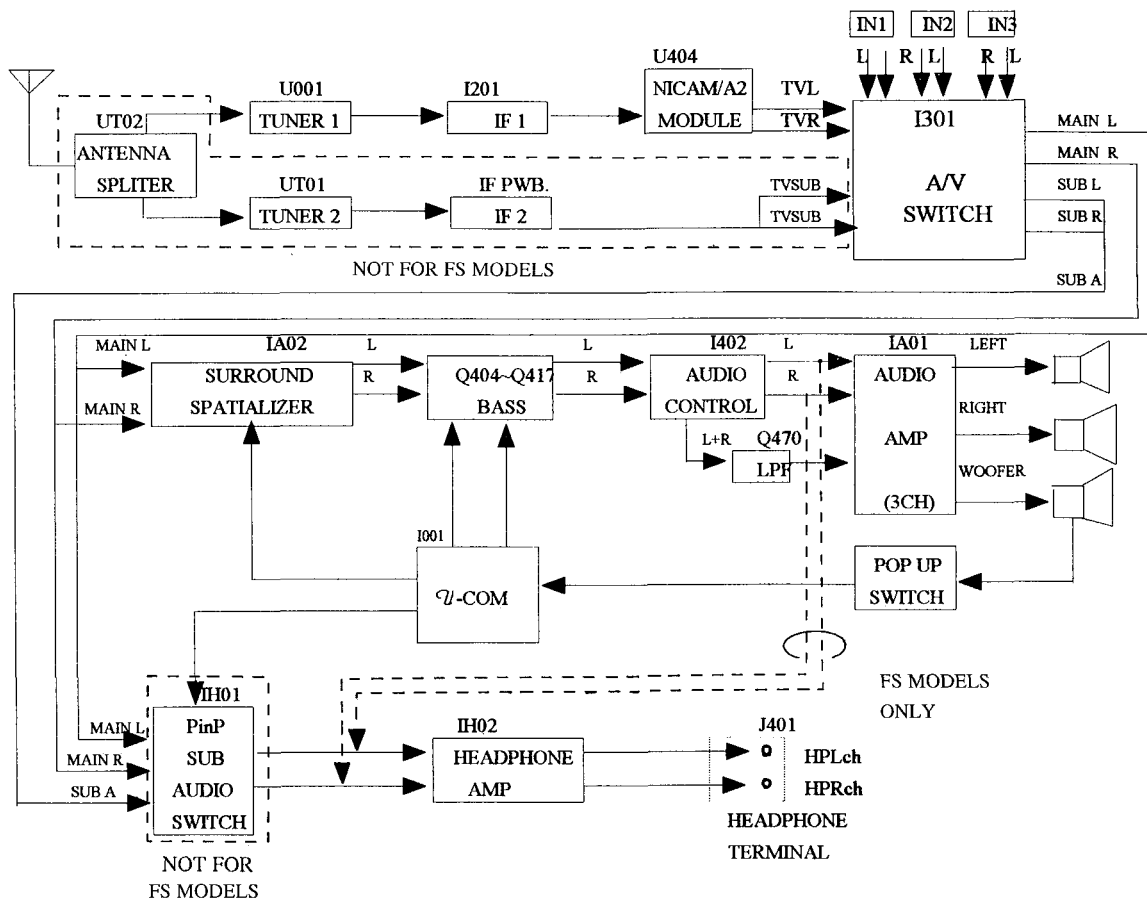
## AUDIO CIRCUIT

The Audio circuit consists of following circuitry

- a) Surround Circuit
- b) Dynamic Bass Circuit
- c) Audio Output Circuit
- d) Pin P Audio Switch Circuit

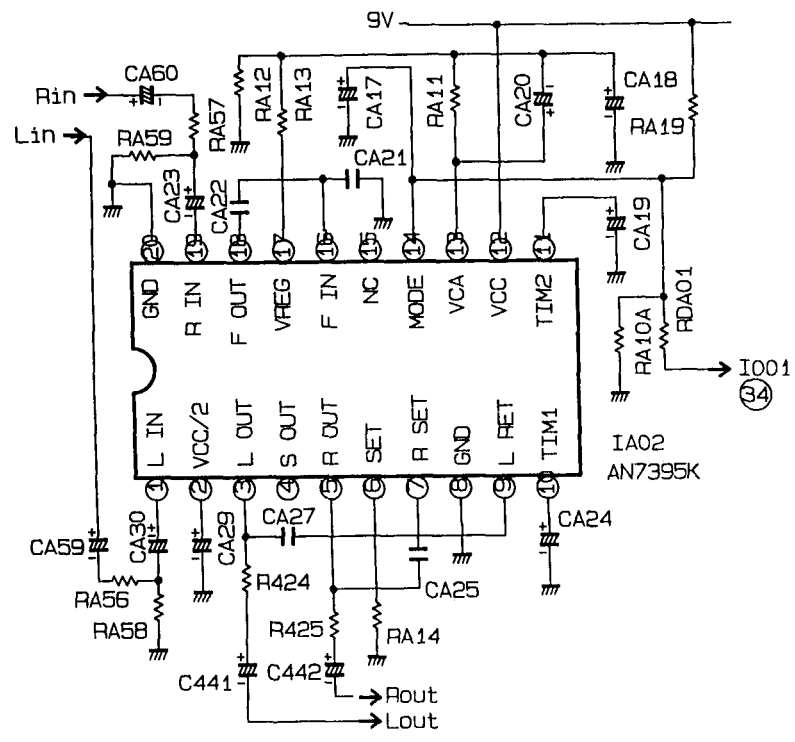
The following block diagrams show the audio circuitry

### S6 AUDIO CIRCUIT BLOCK DIAGRAM



**a) Surround circuit**

S6 chassis adopt the 3D Surround System, SPATIALIZER circuitry, by USA's DESPER PRODUCTS, INC... the following shows the surround circuit. The audio signals are input to pin 1 (Lin) and 19 (Rin) They are treated and output from pin 3 (Lout) and 5 (Rout)  
The Surround mode is controlled by the control signal supplied to IA02 pin 14 from the I001 pin 34

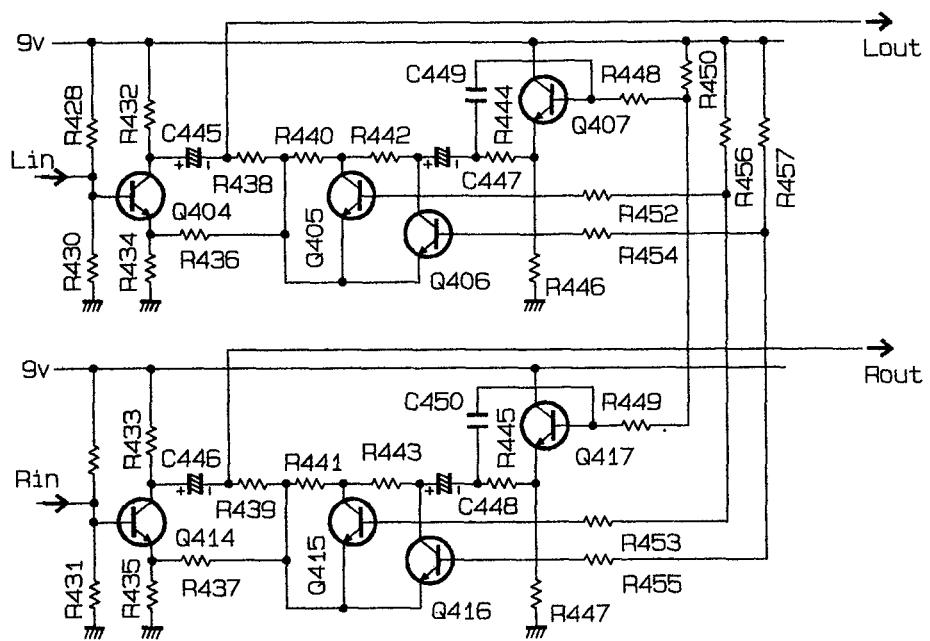


Mode	IA02 (14) pin
OFF	L (0V)
SPATIALIZER	M (2.5V)
MONO	H (5V)

**b) Dynamic Bass Circuit**

The following shows the dynamic bass circuit. This circuit boost up the bass sound. The gain of bass Sound is controlled by POP-UP SPEAKER.  
When the POP-UP SPEAKER is off, the gain of the bass sound is minimum  
When the POP-UP SPEAKER is on, the gain of the bass sound is maximum.

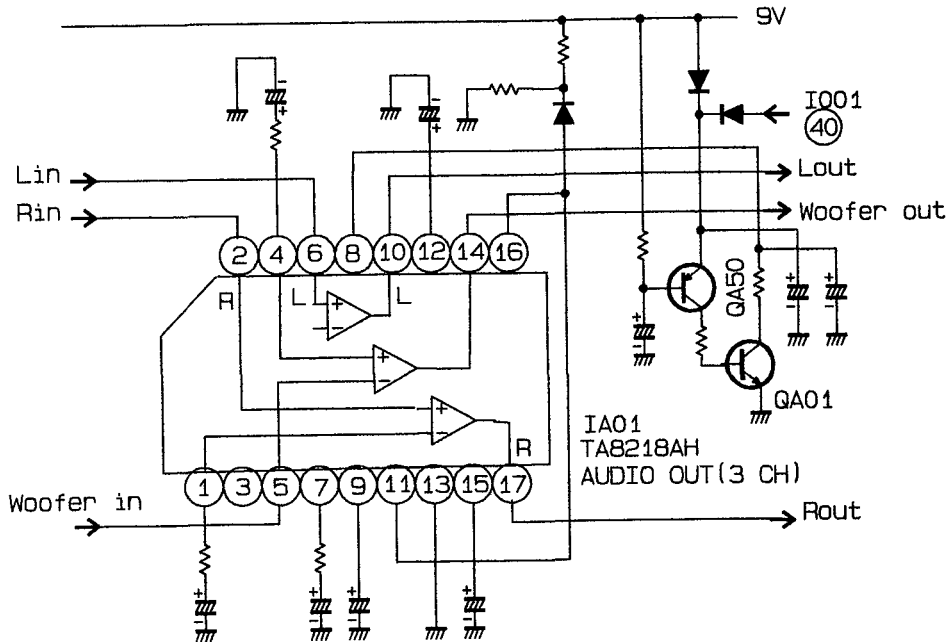
POP - UP	WOOFER	BASS SOUND GAIN
OFF	MUTE	MIN.
ON	ON	MAX.



**c) Audio Output Circuit**

The following shows the audio output circuit. The audio signals are input to pin 2 (Rin), 5 (Woofer in) and 6 (Lin). They are amplified and output from pin 17 (Rout), 14 (Woofer out) and 10 (Lout).

The mute circuit consists of QA50 and QA01, they are mute when power switch turned on and off.



**d) Pin P Audio Switch Circuit — For C3390FSP/C3399FSP only**

The following shows the headphone output circuit for Pin P.

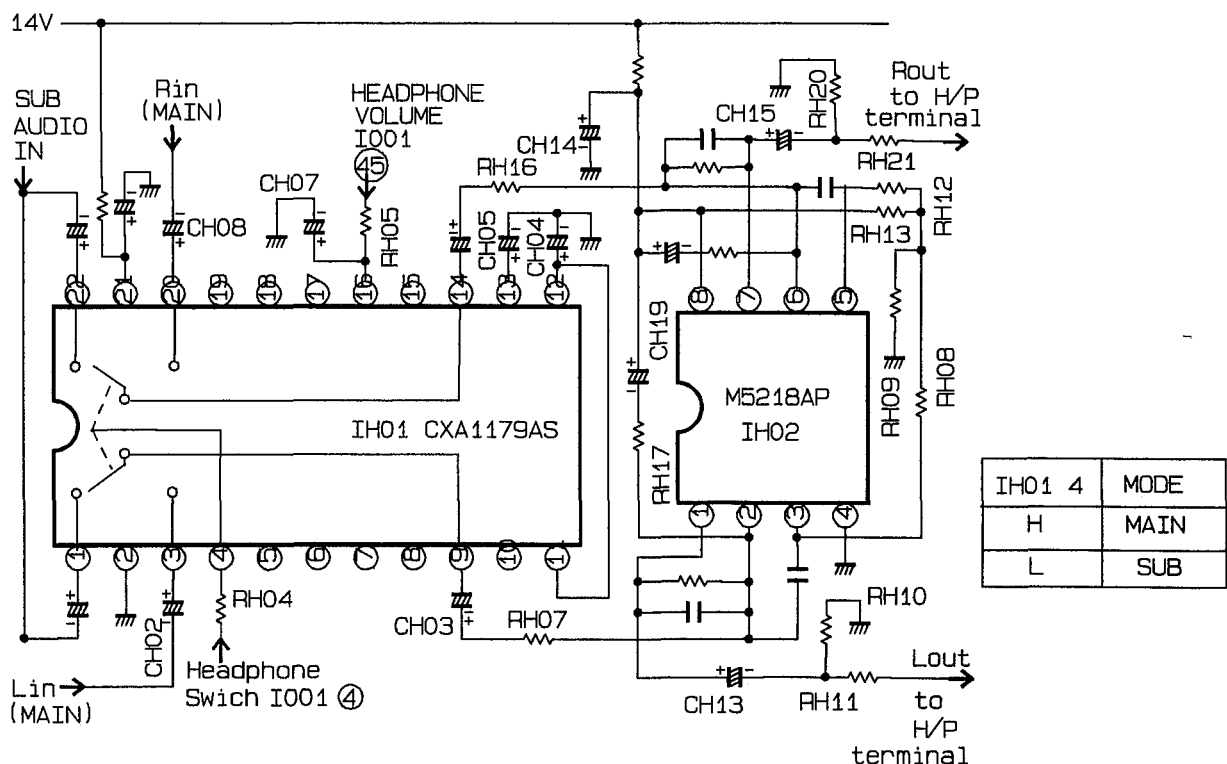
The main audio signals are input to IH01 pin 3 (Lch) and 20 (Rch).

The sub audio signals for sub picture are input to IH01 pin 1 (Lch) and 22 (Rch).

These signals are selected by the control signal supplied to IH01 pin 4 from I001 pin 4 and output from IH01 pin 9 (Lch) and 14 (Rch).

The selected audio signals are then input to IH02 pin 2 (Lch) and 6 (Rch).

They are amplified and output from IH02 pin 1 (Lch) and 7 (Rch).



### PinP (Sub Picture) signals Boardcasting — For C3390FSP/C3399FSP only

In this stage, the IF signal is first abstracted by the tuner and forward to the IF circuitry. The sound system switching provides the mode selection and output the selected signal to the IF circuitry. The VIDEO & AUDIO signals can then be detected and fed into I301.

I301 performs the switching between the External V1~3 signals inputs and the obtained signals inputs (Sub TV, L, R) All these functions are being controlled by I001 through the IIC bus.

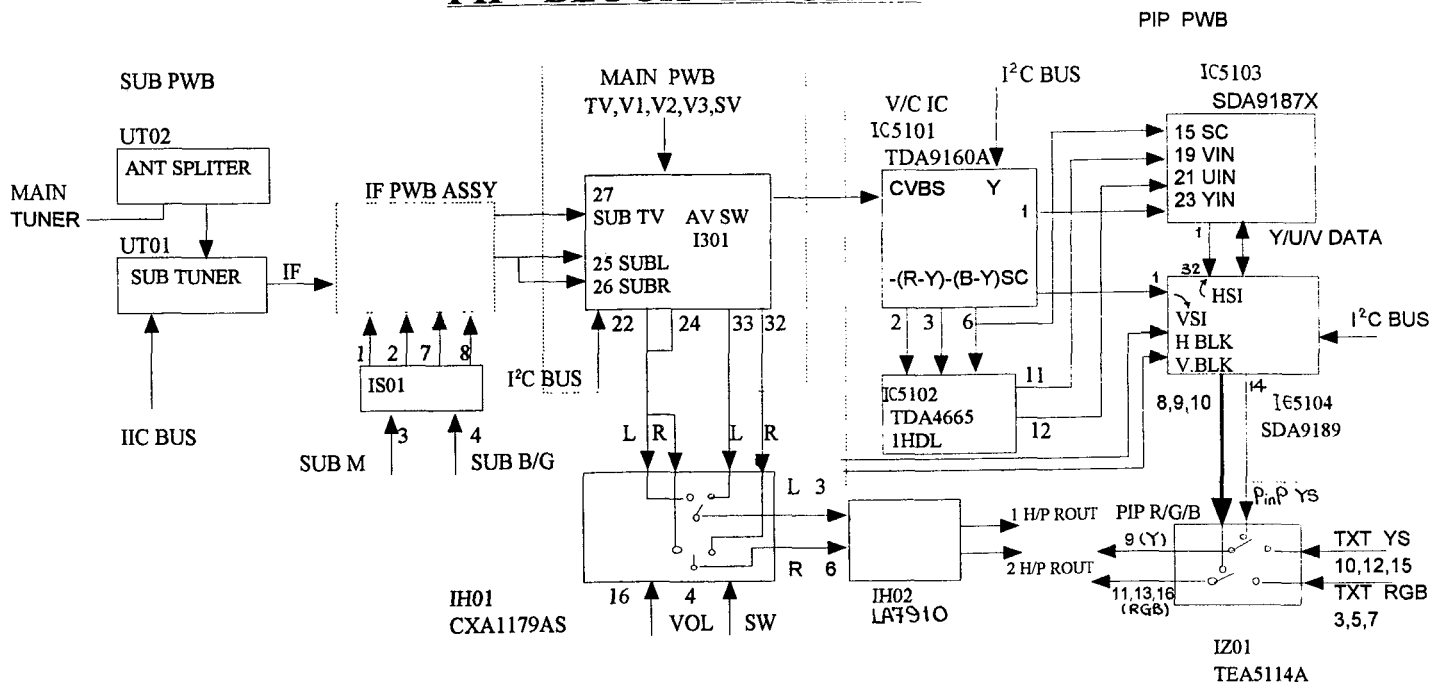
The selected VIDEO signal is injected into pin 24 of IC5101 (V/C/J TC) and the Y, -(R-Y), -(B-Y), VSYNC and SC (Sandcastle pulse) are generated. The SC, -(R-Y), and -(B-Y) signals are fed into pin 16 and 14 of IC 5102 (I HDL) and output as VIN (-(B-V)) and UIN (-(R-Y)) signals

After receiving the Y,U,V and SC (H.BLK) signals, IC 5103 (Pinp A/D) performs an analog to Digital conversion and output the YUV and HSI (H. BLK for sub picture) signals to IC 5104

With the VSI (VSYNC for sub), HSI, YUV signals and V. BLK, V. BLK signals from main picture being received, the IC 5104 (D/A, PinP controller) performs a signal conversion and the RGB, Ys (for PinP) are resulted. The PinP RGB is selected by IZ01 only if the PinP Ys is "HIGH".

In the Headphone stage, the selected Audio signals output by I301 are applied to IH01 (Audio controller IC) for switching selection. The selected Audio signals (either MAIN or SUB) are amplified by IH02 (OP AMP) before outputting to the Headphone terminal

## PIP BLOCK DIAGRAM



## Power Supply Circuit Operation

### 1) Starting Operation

When the power switch S901 is turned on, the DC voltage rectified by D908 is applied to pin 9 of I901 (+B control). When the DC voltage becomes 8V, switching pulses are generated on pin V1-V3 of T901. The DC voltage rectified by D902 (8V) is applied to pin 9 of I901 through Q901 for back up. 50 to 100ms later, DC voltage rectified by D903 (9.5V) is applied to pin 9 and Q901 turns off.

DC voltage rectified by D953 (14V) is applied to the collector of Q957 (+5V regulator). The +5V on the emitter of Q957 is applied to pin 27 (VCC) of I001. When the voltage on pin 33 (power) of I001 becomes high, about 5V, Q955 and Q954 turn on and the voltage rectified by D953 is applied to pin 1 of I903 through Q954 (+9V regulator).

The +9V on pin 3 of I903 is applied to pin 3 of I501 (H. VCC) and the collector of Q962 (+5V regulator). The +5V on the emitter of Q957 is applied to pin 8 (VDD 5) of I501. As a result of this operation, horizontal oscillating pulses are generated on pin 4 (H. out) of I501.

### 2) Constant voltage operation

When the AC voltage rises or the picture becomes dark, +B voltage (130V) becomes higher. The base voltage of Q951 also becomes higher. This causes the collector current of Q951 and the diode current of I902 to increase. The collector current of I902 also increases. As a result, the rise time of voltage at pin 7 is reduced and the 'ON' time of power transistor in I901 becomes shorter. Hence, the +B voltage becomes lower and remains constant and vice versa.

### 3) Standby operation

When the TV set is turned off using the remote control transmitter, the voltage on pin 33 of I001 becomes lower, approximately 0V. This will cause Q955 and Q954 to turn off. The +9V on I903 reduces to 0V and the horizontal oscillations stop. At standby mode, Q956 turns off while Q953 turns on. This will cause Q951 to turn off. As a result, +B voltage becomes lower (+35V). This will decrease the power consumption. The voltage rectified by D953 also becomes lower. Due to this reason, the voltage rectified by D952 must be applied to the collector of Q957, through Q952 and Q958 to stabilize +5V supply on pin 27 of I001.

**NICAM / A2 (051, 751, 081S, PX-981 only)**

The analog sound IF signal is being inputted to a high pass filter. It has a frequency response whereby the chroma signal will be suppressed to prevent interference. The signal is amplified before injected into the IC1.

The SIF signal after received by IC1 will perform either a digital or analog demodulation based on the carrier frequency being identified. The table below shows the standard specifications of different systems.

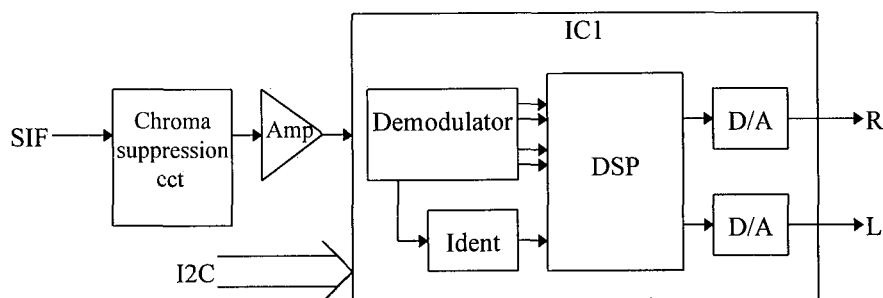
No.	Specification	NICAM		A2	
		UK	Scandinavia / Spain	Channel FM1	Channel FM2
1	Carrier frequency	6.552MHz	5.85MHz	5.5MHz	5.7421875Mhz
2	Carrier frequency of analog sound component	6.0Mhz FM mono	5.5Mhz FM mono	-	-
3	Vision/sound power difference	10dB	13dB	13dB	20dB
4	Pilot carrier frequency	-	-	-	54.6875kHz
5	Modulation frequency	-	-	-	mono: unmodulated stereo : 117.5Hz dual : 274.1Hz

In NICAM system, the digital encoded data contains the information bits on NICAM, Stereo, Bilingual or FM mode. It can be selected using remote controller, either CH I / II / FM. The system will automatically switch to stereo mode if the error received exceeds a certain limit.

Whereas in A2 system, a pilot carrier frequency imposed on the FM2 Channel shows the present of stereo and bilingual sound. The mode of operation depends on the modulation frequency received and user's selection.

Remote controller	NICAM	A2
CH I	NICAM STEREO	A2 STEREO
CH II	BILINGUAL	BILINGUAL
FM	FM mono	FM mono

After demodulation and decoding, the sound is being outputted to the L and R channel. All the IC1 operation is being controlled by I2C bus.



**Block diagram of the NICAM/A2**

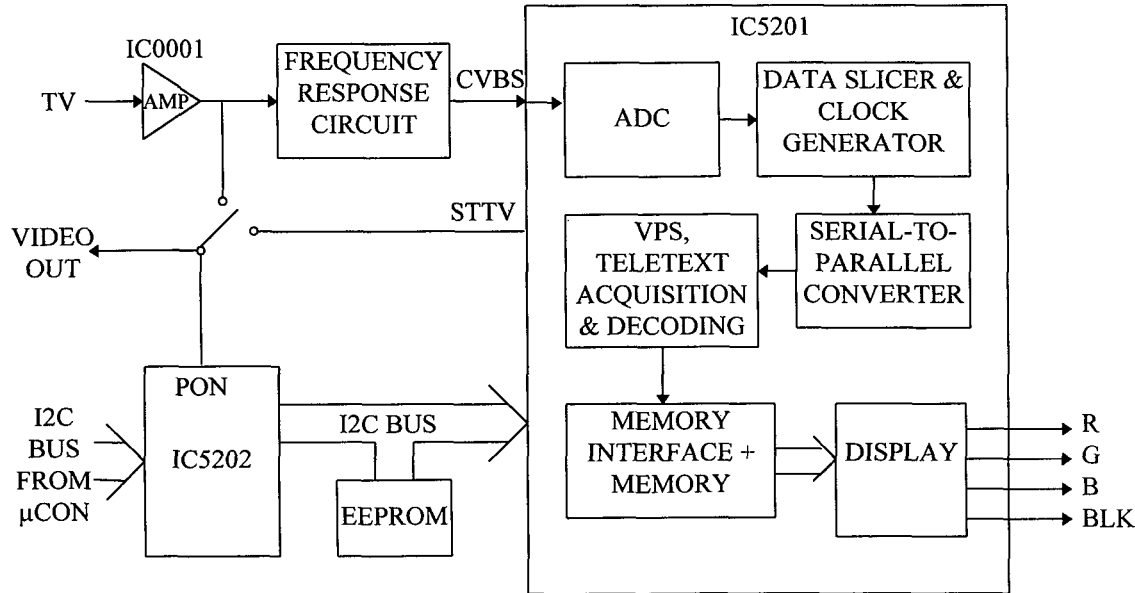


**Teletext Circuit (081S, PX-981 only)**

In teletext mode, the tv signal is being amplified by the IC001. The signal after amplification is injected into the frequency response circuitry for better reception. It is received by IC5201 where acquisition, decoding and data processing are being performed. The RGB and Blk signals are outputted.

On the other hands, IC5202 received the commands from the main  $\mu$ con through I2C Bus. It analyzed and re-decoded the commands for controlling IC5201 operation.

Whereas in Mix and TV modes, a “HIGH” is outputted from IC5202 to switch on Q006. The signal that had been amplified is redirected to the video out pin.

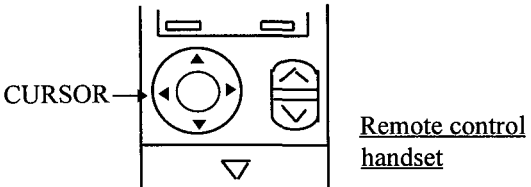


Block diagram of Teletext decoder

## ADJUSTMENT INSTRUCTIONS (调整说明)

### IIC ADJUSTMENTS

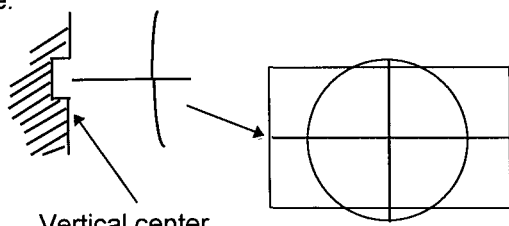
Most of the adjustment items in S6 chassis are control by IIC. Any changes on CRT, CPU IC, Video/Chorma IC or V. deflection IC(I601), please readjust the items shown in table 1  
To start the IIC adjustment, please ensure the AC power switch is at "off" position. Press the **TV/VIDEO** button on the front panel and then press the power switch while pressing **TV/VIDEO** button. Release all buttons after the following displays appeared on screen.

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">NO.</td> <td style="width: 15%;">DATA</td> <td></td> </tr> <tr> <td>001</td> <td>: 28</td> <td></td> </tr> <tr> <td style="border: 1px solid black;">002</td> <td style="border: 1px solid black;">: 28</td> <td>← Select the Adjust items by ▲ or ▼ cursor</td> </tr> <tr> <td>003</td> <td>: 28</td> <td></td> </tr> <tr> <td>004</td> <td>: 80</td> <td></td> </tr> <tr> <td>005</td> <td style="border: 1px dashed black;">: 80</td> <td>← Adjusts the selected item by ◀ or ▶ cursor</td> </tr> <tr> <td>006</td> <td>: 06</td> <td></td> </tr> <tr> <td>007</td> <td>: 75</td> <td></td> </tr> <tr> <td>008</td> <td>: 40</td> <td></td> </tr> <tr> <td colspan="2" style="padding-top: 10px;">                 ◀▶ : ADJUST                  ENTER : MEMORIZE             </td> <td></td> </tr> </table>	NO.	DATA		001	: 28		002	: 28	← Select the Adjust items by ▲ or ▼ cursor	003	: 28		004	: 80		005	: 80	← Adjusts the selected item by ◀ or ▶ cursor	006	: 06		007	: 75		008	: 40		◀▶ : ADJUST ENTER : MEMORIZE			
NO.	DATA																														
001	: 28																														
002	: 28	← Select the Adjust items by ▲ or ▼ cursor																													
003	: 28																														
004	: 80																														
005	: 80	← Adjusts the selected item by ◀ or ▶ cursor																													
006	: 06																														
007	: 75																														
008	: 40																														
◀▶ : ADJUST ENTER : MEMORIZE																															

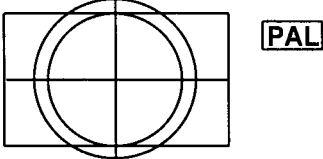
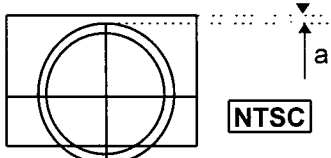
To select the adjustment items(e.g. H. phase, sub-brightness level etc...), press the ▲ or ▼ cursor button on Remote control handset. To adjust the data of selected item, press the ◀ or ▶ cursor button on Remote control handset.

After completed the adjustments, press the **ENTER** button on Remote control handset (memorized). Press **MENU** button or turns off the TV set to end the IIC adjustment.

### VERTICAL CENTER ADJUSTMENT

PREPARATION	PROCEDURES
<ol style="list-style-type: none"> <li>1. Turns on the TV set &amp; heat run about 5 min.</li> <li>2. Receive the circular pattern signal.</li> <li>3. AC 220+ - 1v.</li> </ol>	<ol style="list-style-type: none"> <li>1. Select the IIC control address No 54.</li> <li>2. Set the horizontal center line to vertical center marker of CRT by adjustment of IIC. i.e.</li> </ol> <div style="text-align: center; margin-top: 10px;">  <p>Vertical center marker of CRT</p> </div>

**VERTICAL SIZE ADJUSTMENT**

PREPARATION		PROCEDURES	
1	Turns on the TV set & heat run about 5 min	1	Select the IIC control address No 55
2	Receive circular pattern signal (PAL).	2	Adjust IIC data to obtain the following condition. i.e.
3	Set all picture settings to normal condition(i.e Brightness . Max, Others 0)		
4	AC 220 +-1V.		<p>PICTURE TOP Inner circle reach the edge of TV raster</p> <p>PICTURE BOTTOM Inner circle reach the edge of TV raster</p>
		3.	Receive the NTSC circular signal, and check the picture size after the above V size adjustment
		4.	If a > 0mm, go back to IIC control No 54(V-center adjustment), increase the IIC data by 1 position.
			

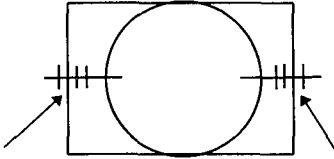
**SIDE PIN-CUSHION DISTORTION ADJUSTMENT**

PREPARATION		PROCEDURES	
1	Perform this adjustment after the purity and convergence adjustment	1	Adjust R656 so that all vertical lines except the lines at both the left and right ends are straight.
2	Receive the circular pattern signal	2	Receive the Cross Hatch signal, check that the vertical lines are straight except the 1st outer vertical line(R/L).
3.	Set the Contrast to max and Back level to normal		
4.	The horizontal size adjustment		
5	Set the horizontal size VR R657 to the mechanical center		
6.	Perform this adjustment after the Vertical size adjustment		

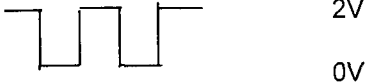
**HORIZONTAL CENTER ADJUSTMENT**

PREPARATION		PROCEDURES	
1.	Perform this adjustment after the Side pin adjustment	1	Select the IIC control address No 06
2.	Receive the circular pattern signal.	2.	Adjust the picture center to meet the CRT geometrical center

**HORIZONTAL SIZE ADJUSTMENT**

PREPARATION		PROCEDURES	
1.	Perform this adjustment after H center adjustment	1.	Turn R657 to Max(clockwise)
2.	Receive the HITACHI circular pattern signal(PAL).	2.	Adjust R657 so that the average reading of right and left is $1.5 \pm 0.5$
3.	Set the Contrast at Max, and others at 0(center).		i.e.
			

**WHITE BALANCE ADJUSTMENT**

PREPARATION		PROCEDURES	
1.	Switch on the TV set for at least 20mins.	1.	Connect and measure the waveform at No 5 pin of connector PY1(or pin 14 of I501)
2.	Adjust this adjustment after the Purity adjustment	2.	Select the IIC Control address No 01(Cut-off red) and adjust the data to obtain the following waveform at pin 5 of PY1.
3.	Ensure the vertical incident illumination on CRT surface to be 20 lux or less.		
4.	Receive the white balance raster	3.	Select the IIC control address No 02(Cut-off green) and No 03(Cut-off blue), adjust both data to the same data number as in address No 01
5.	Set the following settings by Remote control handset Contrast Max Brightness Center Color Min	4.	Select the IIC control address No 04(Blue drive) and No 05(Red drive), adjust both data to 80
		5.	Turn the screen VR of FBT fully counter-clockwise.
		6.	Press the <b>TV/VIDEO</b> button 3 times to obtain the lateral line mode
		7.	Turn the screen VR clockwise and set it to the position where the bright colored line starts to appear.
		8.	Release the lateral line mode by pressing <b>TV/VIDEO</b> button once.
		9.	Set the W/B meter probe at the center of the screen
		10.	Do the W/B adjustment to the desired W/B color temperature by using the following keys of IIC
			<u>IIC Adress No</u>
			R BKG 01
			G BKG 02
			B BKG 03
			R DRIVE 04
			B DRIVE 05
		Note	To obtain the low brightness and high brightness conditions, adjust the Brightness control of remote control handset

### SUB-BRIGHTNESS ADJUSTMENT

PREPARATION		PROCEDURES																																											
1.	Switch on the TV set for at least 20mins.	1.	Select the IIC control address No. 09.																																										
2.	Adjust this adjustment after the Horizontal size and Side pin cushion adjustment.	2.	Adjust the data until A1 portion becomes black and A2 portion becomes lighter black.																																										
3.	Ensure the vertical incident illumination on CRT surface to be 20 lux or less.	i.e <table border="1" style="margin-left: 20px;"> <tr> <td>W</td><td>Y</td><td>CY</td><td>G</td><td>MG</td><td>R</td><td>BL</td> </tr> <tr> <td>A7</td><td>A6</td><td>A5</td><td>A4</td><td>A3</td><td>A2</td><td>A1</td> </tr> <tr> <td colspan="7" style="text-align: center;">B</td> </tr> <tr> <td colspan="7" style="text-align: center;">C</td> </tr> <tr> <td colspan="7" style="text-align: center;">D</td> </tr> <tr> <td>Q</td><td>I</td><td colspan="2">W100%</td><td colspan="3">BLK</td> </tr> </table>		W	Y	CY	G	MG	R	BL	A7	A6	A5	A4	A3	A2	A1	B							C							D							Q	I	W100%		BLK		
W	Y	CY	G	MG	R	BL																																							
A7	A6	A5	A4	A3	A2	A1																																							
B																																													
C																																													
D																																													
Q	I	W100%		BLK																																									
4.	Receive color bar pattern signal.																																												
5.	Set the following settings by remote control handset. Contrast Min Color Min Brightness . Center																																												

### SUB-TINT ADJUSTMENT

PREPARATION		PROCEDURES	
1.	Receive the color bar signal (NTSC)	1.	Connect and measure the waveform at pin 5 of EY1(R signal)
2.	Set the following settings by Remote Control handset Contrast . Max Tint : Center Color . Center Black Level . Center Sharpness . Center	2.	Select the IIC address No. 08.
		3.	Adjust the data to obtain the following waveform (s and s'' to same level).
		<p>The diagrams show two waveforms. The top one shows a signal with a high level 's'' and a low level 's'. The bottom one shows a signal with a high level 's'' and a low level 's', with a note 'or' between them. Arrows point to the levels in both diagrams.</p>	

**TABLE1 : I1C-BUS CONTROL/ADDRESS**

ADJ No.	NAME OF ADJUSTMENT	DATE (INITIAL)	ADJUST WHEN CHANGE		
			MEMORY	CPT	V/C IC
			1002	V1	I201
1	R CUT OFF	0~256 (0)	0	0	0
2	G CUT OFF	0~256 (0)	0	0	0
3	B CUT OFF	0~256 (0)	0	0	0
4	G DRIVE GAIN	0~256 (80)	0	0	0
5	B DRIVE GAIN	0~256 (80)	0	0	0
6	HORIZONTAL POSITION	0~31 (16)	0	0	X
38	R-Y SECAM W/B	0~15 (8)	X	X	0
39	B-Y SECAM W/B	0~15 (8)	X	X	0
54	V. POTISION	0~7	0	0	0
55	V. SIZE	0~127 (64)	0	0	0
57	V. S CORECTION	0~127 (64)	0	0	0
59	V LINEARITY	0~31 (0)	0	0	0
80	MUTE MODE	0~3	X	0	X

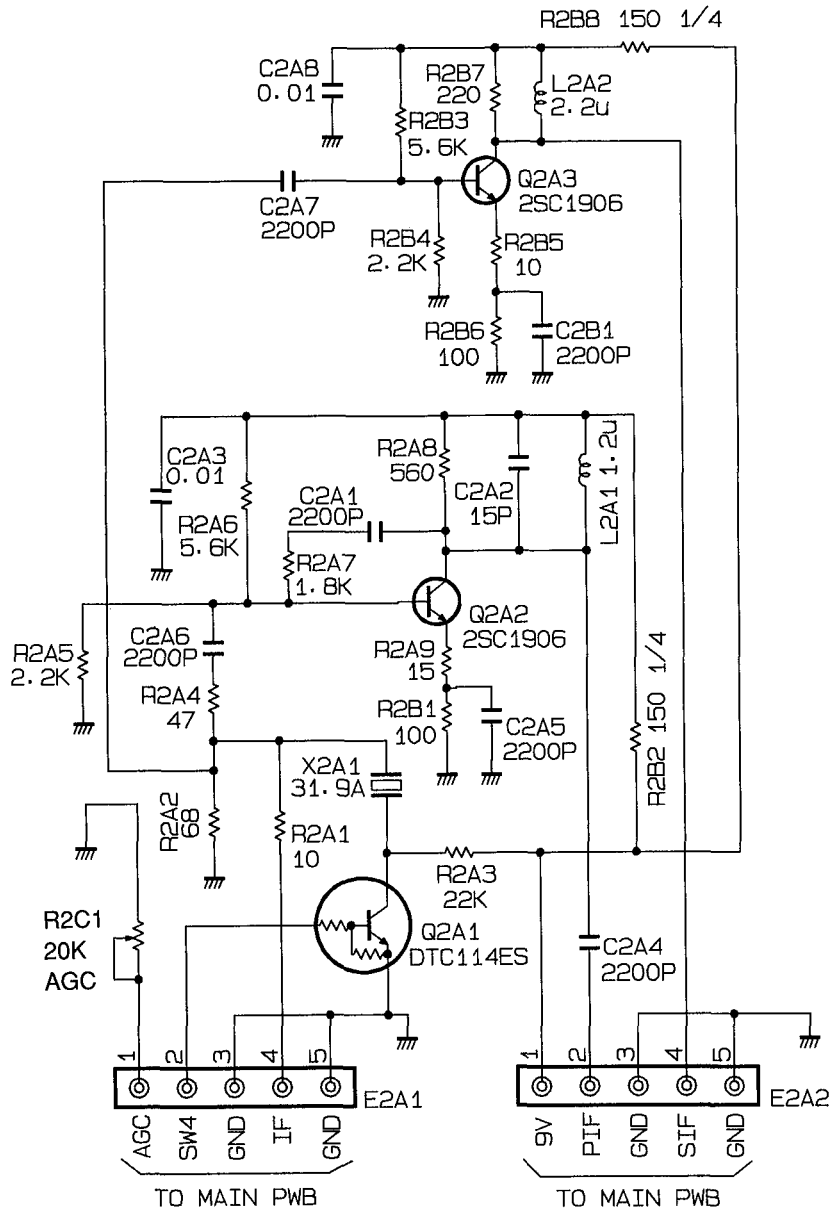
Note Do not adjust other ADJ NO except the items shown in table 1

## CIRCUIT DIAGRAMS ( 电路图 )

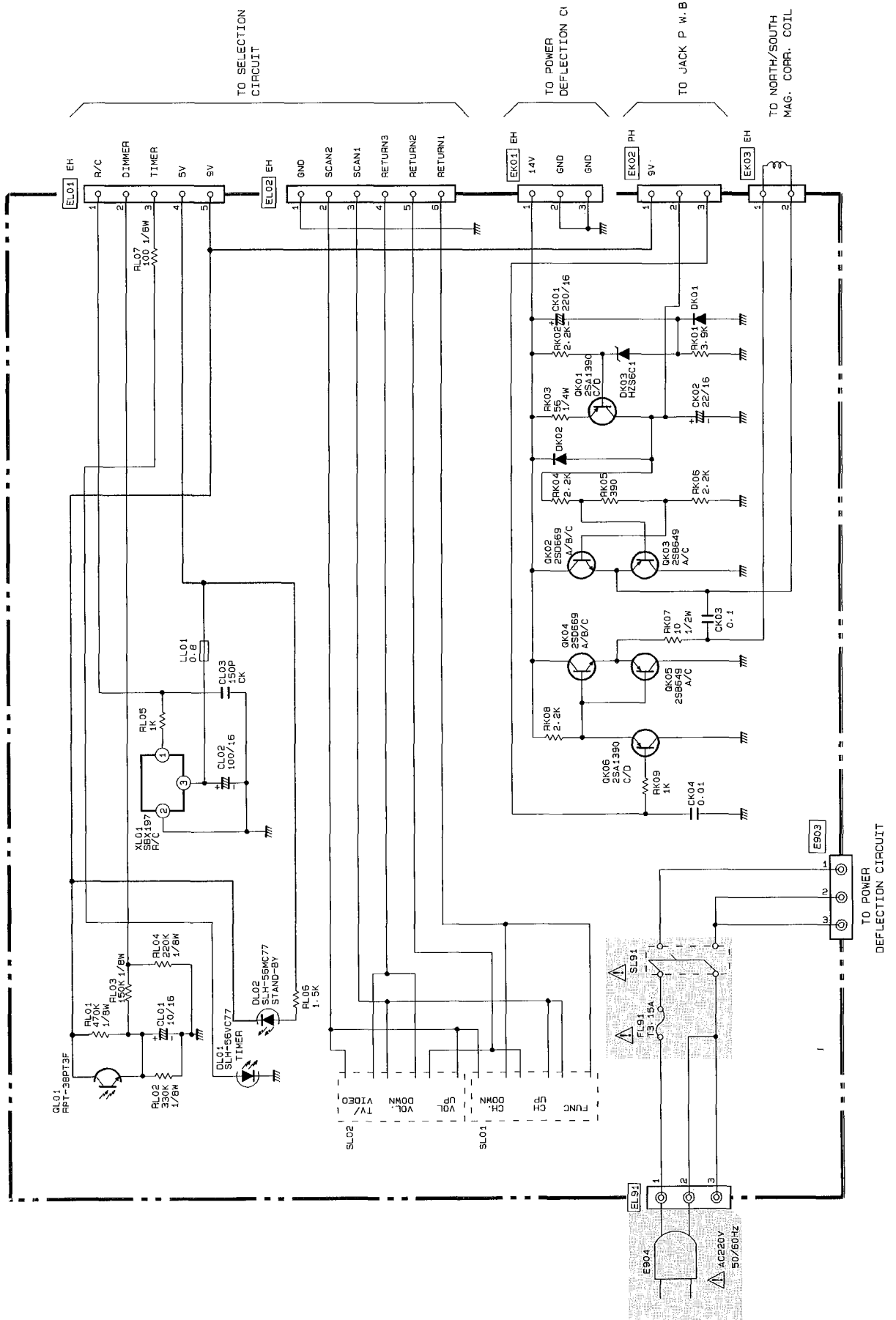
The circuit diagrams of C3390/C3399 consisted of the following.

	CONTENTS	Pg	SIZE	REMARKS
1.	IF SUB PWB	22	A4	FOR ALL MODELS
2.	CONTROL PWB	23	A4	FOR ALL MODELS
3.	JACK PWB	24	A4	FOR ALL MODELS
4.	CRT PWB	25	A4	FOR ALL MODELS
5.	AUDIO CIRCUIT	26	A4	FOR ALL MODELS
6.	POWER/DEFLECTION	27	A2	FOR ALL MODELS
7.	SUB PWB 1	28	A2	FSP MODELS ONLY
8.	SIGNAL CIRCUIT	29	A2	FOR ALL MODELS
10.	CPU SELECTION	30	A2	FOR ALL MODELS
11.	SUB PWB 2	31	A2	FS MODELS ONLY
12.	IF PWB	33	A3	FSP MODELS ONLY
13.	PinP CIRCUIT	34	A3	FSP MODELS ONLY

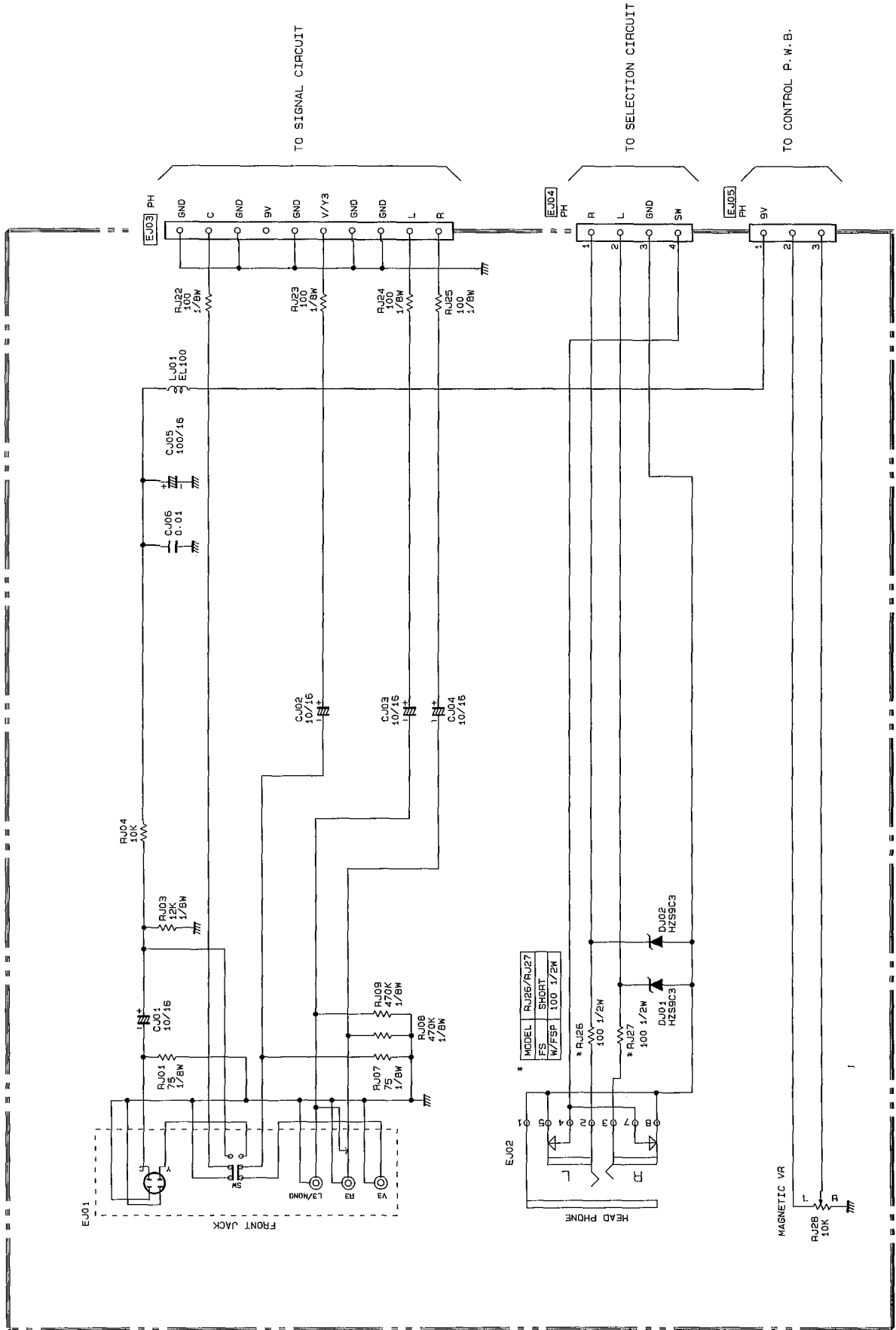
### CIRCUIT DIAGRAM : IF SUB PWB



CIRCUIT DIAGRAM : CONTROL PWB

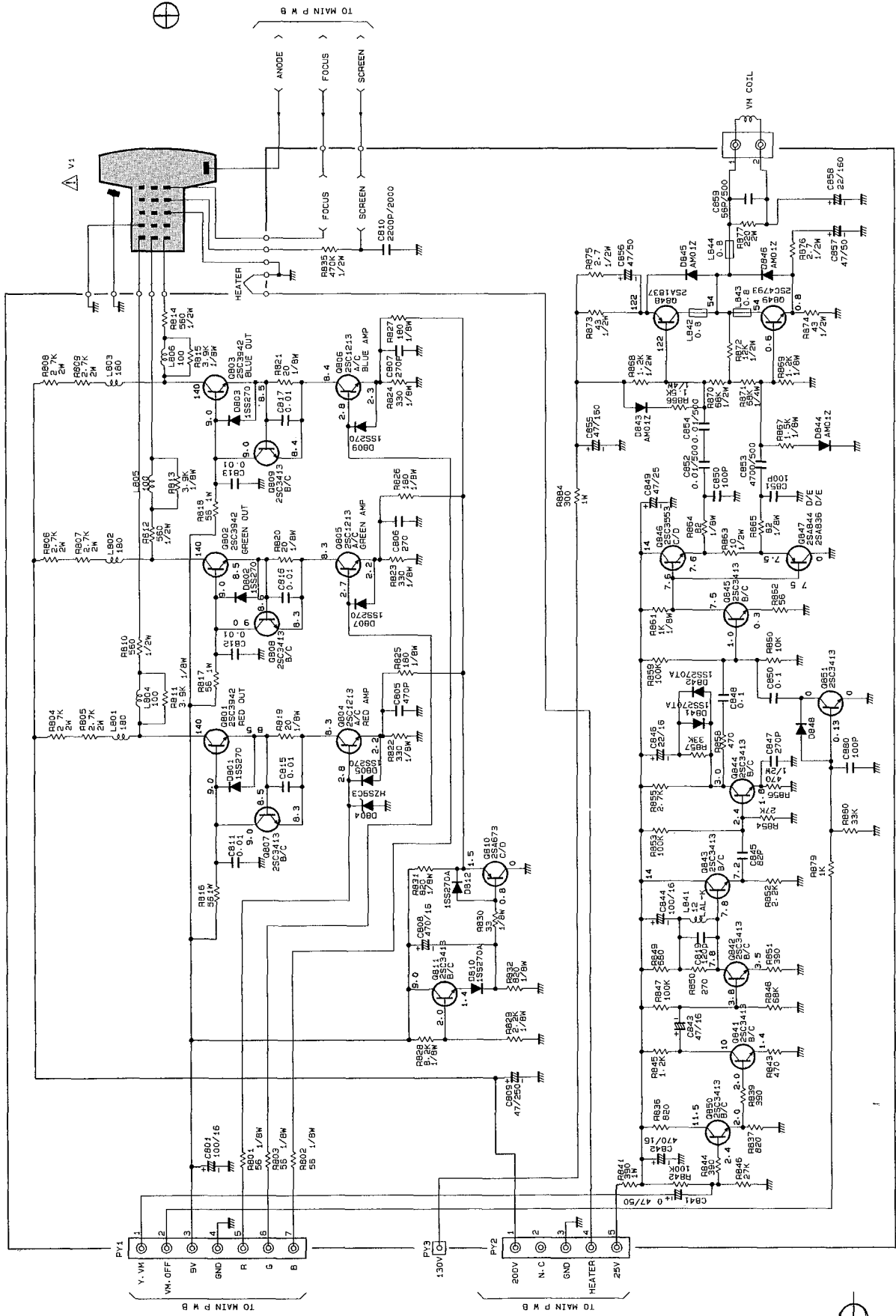


CIRCUIT DIAGRAM : JACK PWB

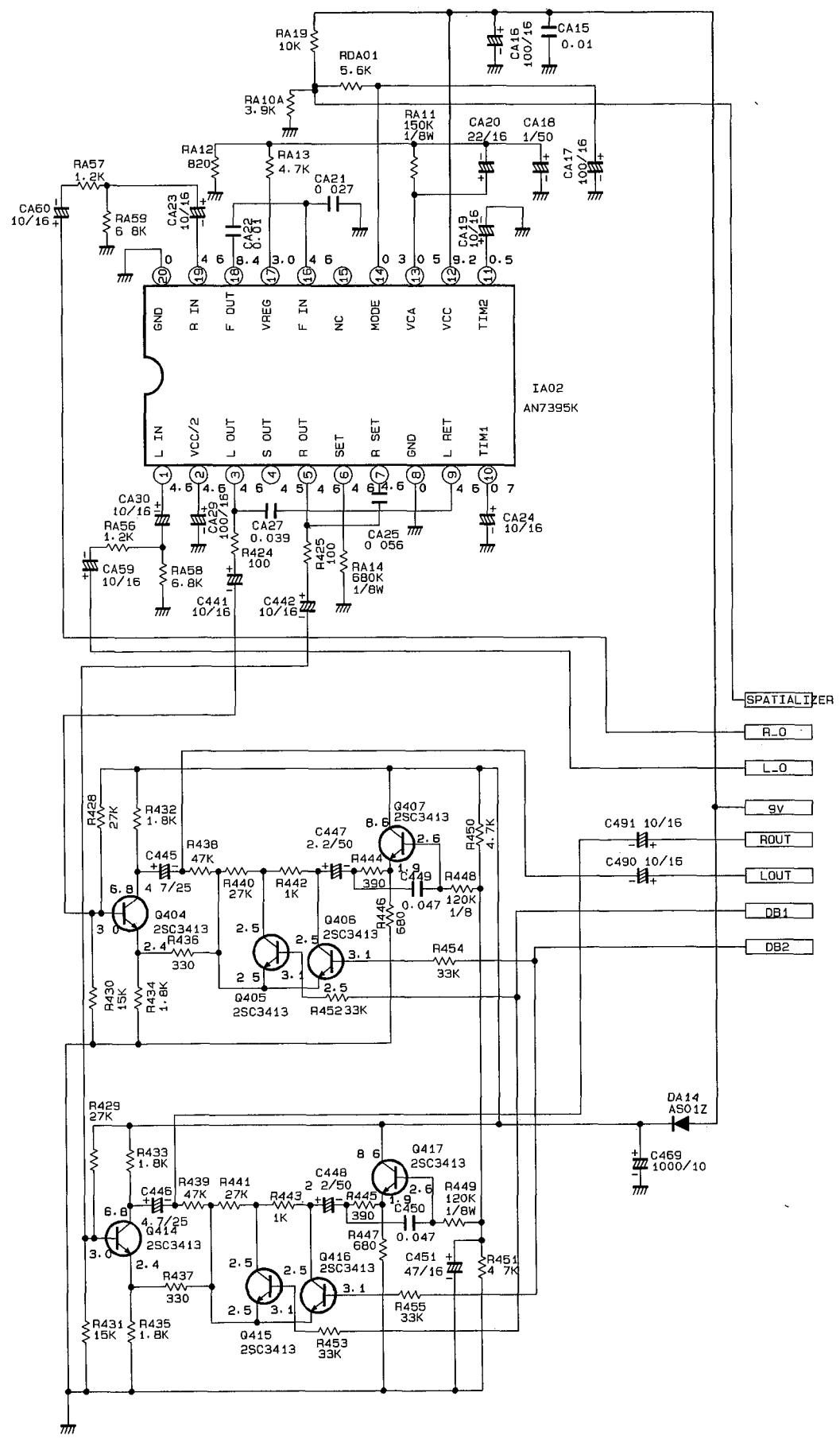




CIRCUIT DIAGRAM : CPT PWB



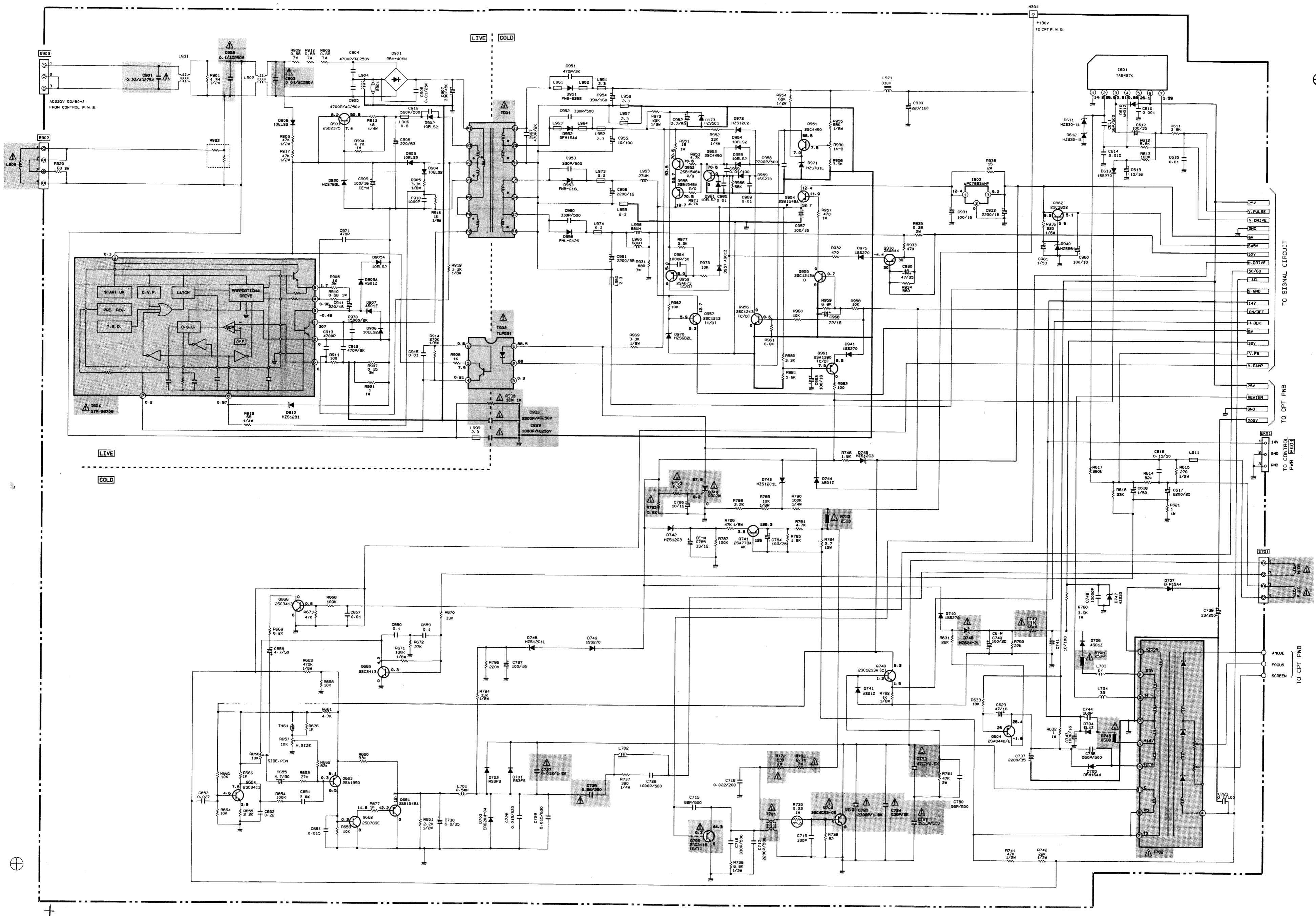
CIRCUIT DIAGRAM : AUDIO CIRCUIT



SPATIALIZER	IA02 ⑭
OFF	0V
STEREO	2.6V
MONO	4.8V

CIRCUIT DIAGRAM : POWER/DEFLECTION CIRCUIT

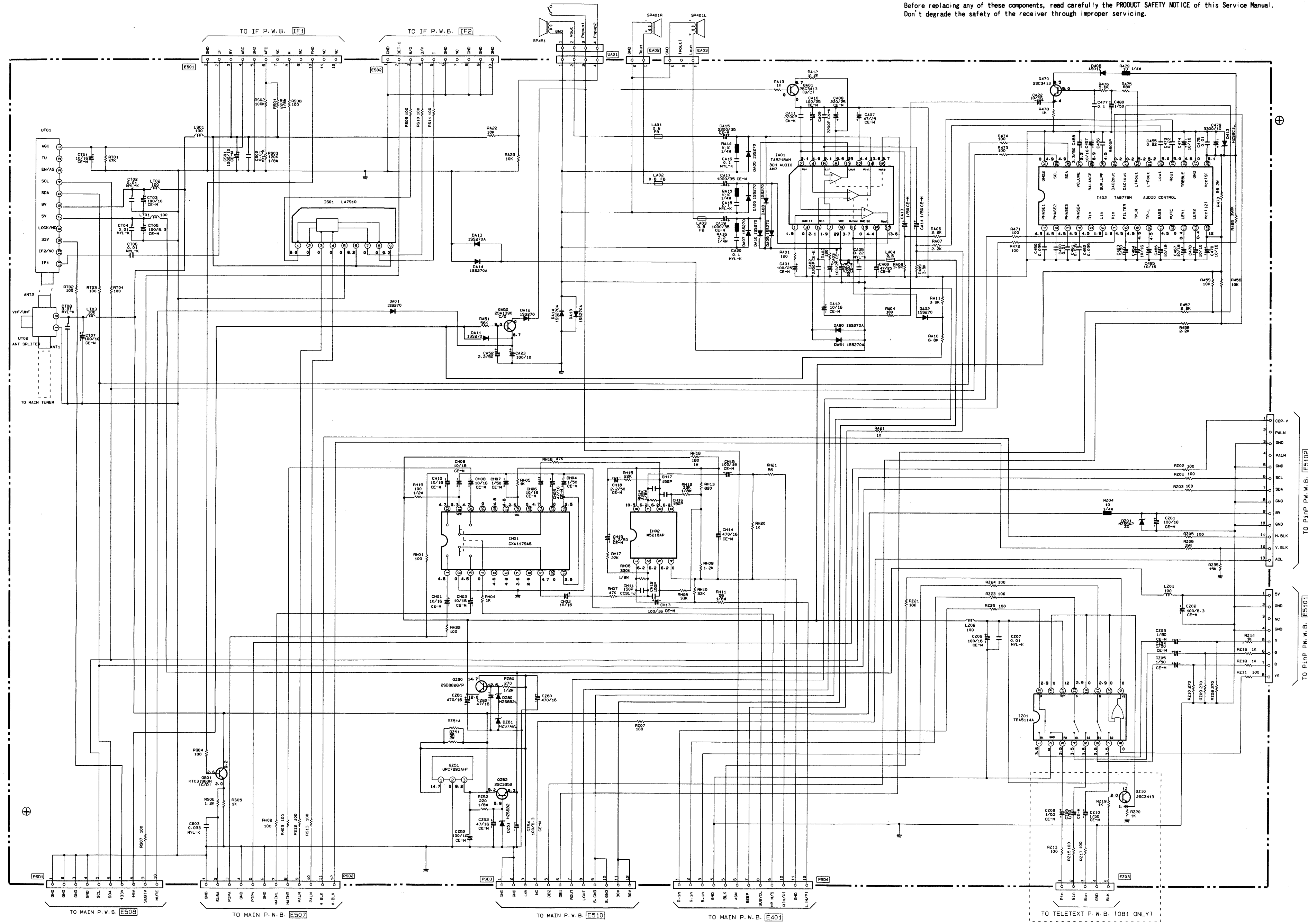
PRODUCT SAFETY NOTE : Components marked with a  $\Delta$  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.  
• All DC voltage to be measured with a tester (100k $\Omega$ /V).  
Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT DIAGRAM : SUB PWB 1 (C3390FSP, C3399FSP)

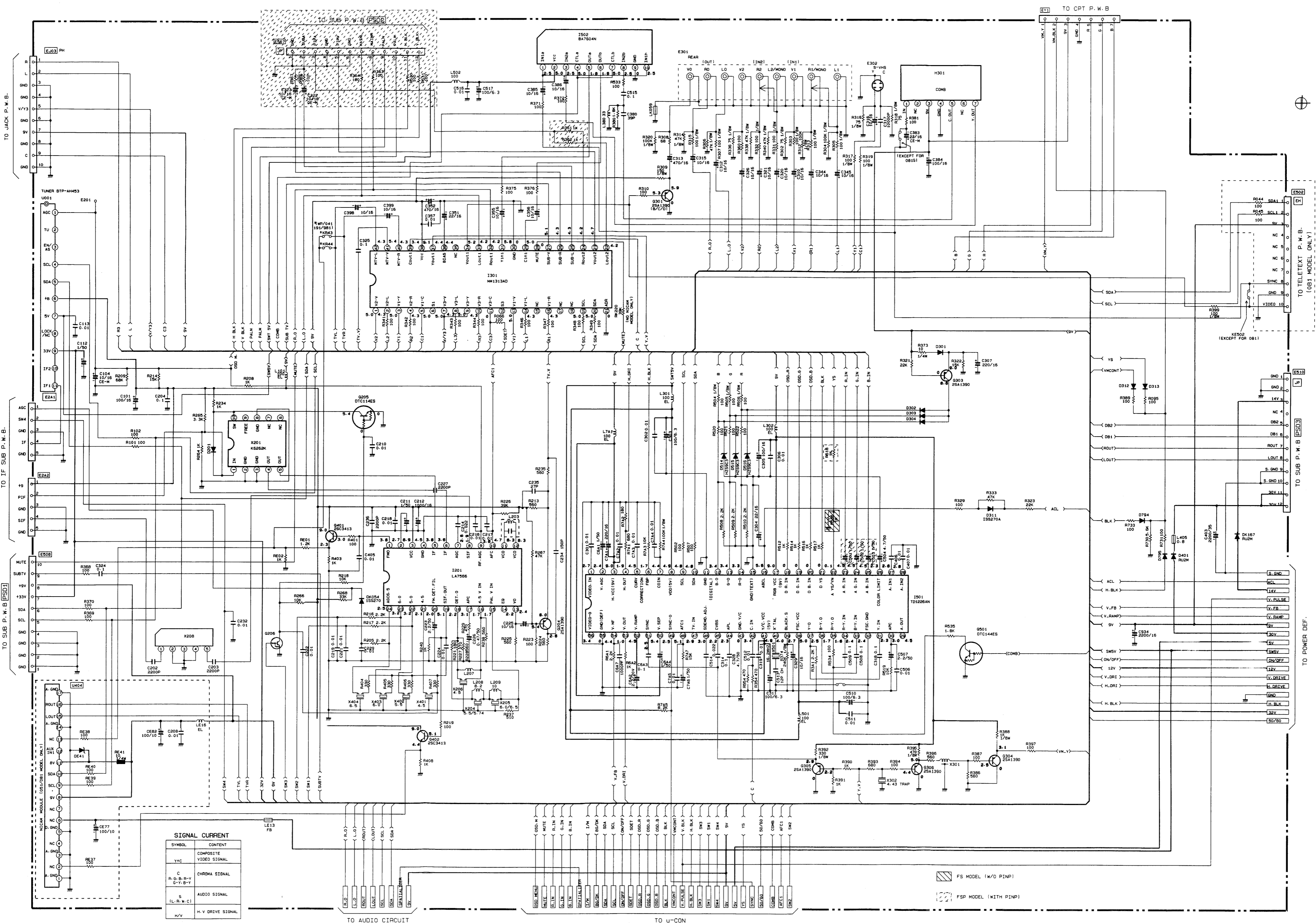
PRODUCT SAFETY NOTE: Components marked with a  $\Delta$  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.  
• All DC voltage to be measured with a tester (100k $\Omega$ /V).  
Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT DIAGRAM : SIGNALS CIRCUIT

PRODUCT SAFETY NOTE : Components marked with a  $\Delta$  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



**SIGNAL CURRENT**

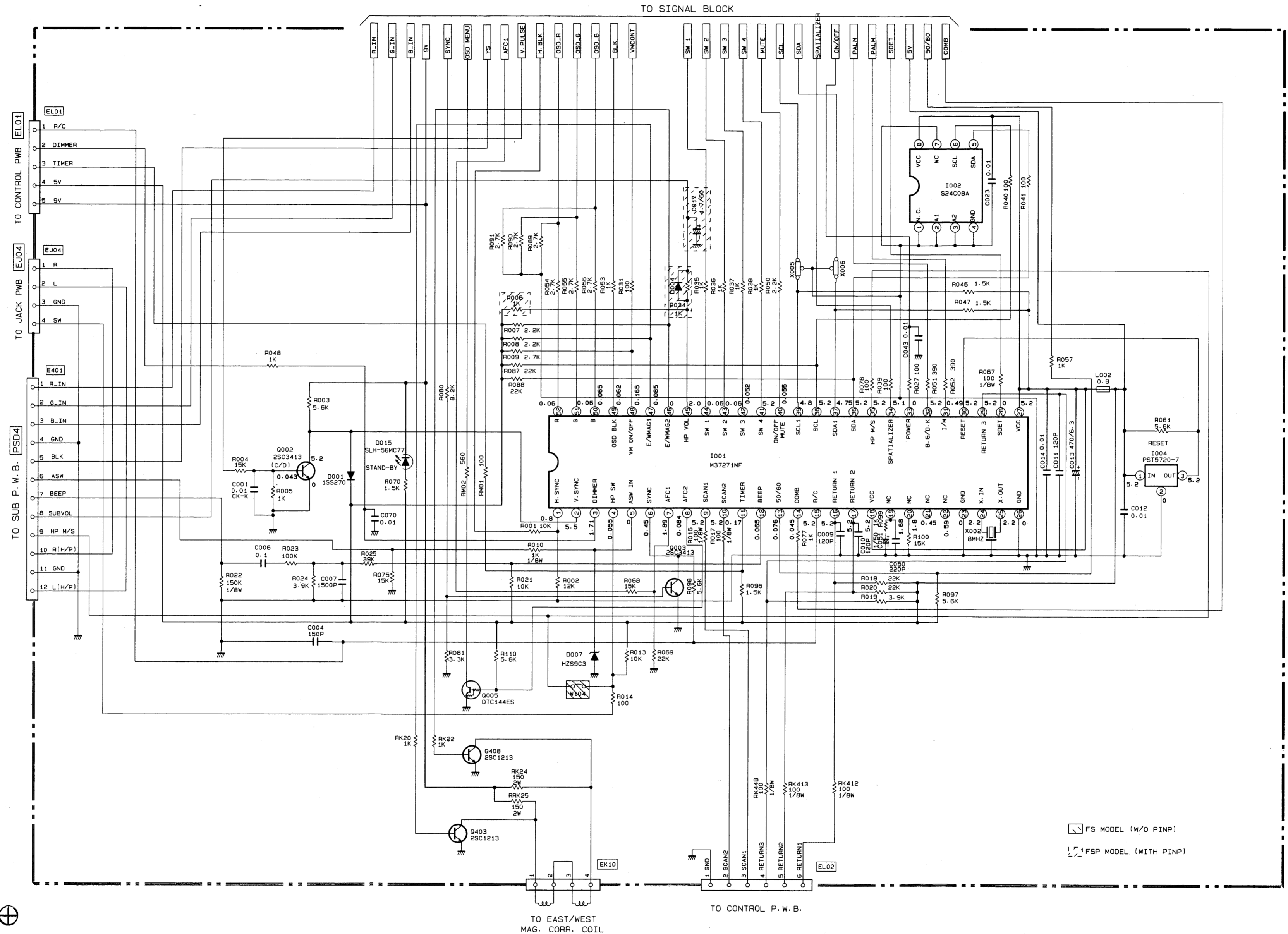
SYMBOL	CONTENT
Y+C	COMPOSITE VIDEO SIGNAL
C	CHROMA SIGNAL
R, G, B, R-Y, G-Y, B-Y	CHROMA SIGNAL
S	AUDIO SIGNAL
L, R, W, C	H.V DRIVE SIGNAL

$\Delta$  FS MODEL (W/O PINP)  
FSP MODEL (WITH PINP)

• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.  
• All DC voltage to be measured with a tester (100 $\Omega$ /V).  
Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT DIAGRAM : CPU SELECTION CIRCUIT

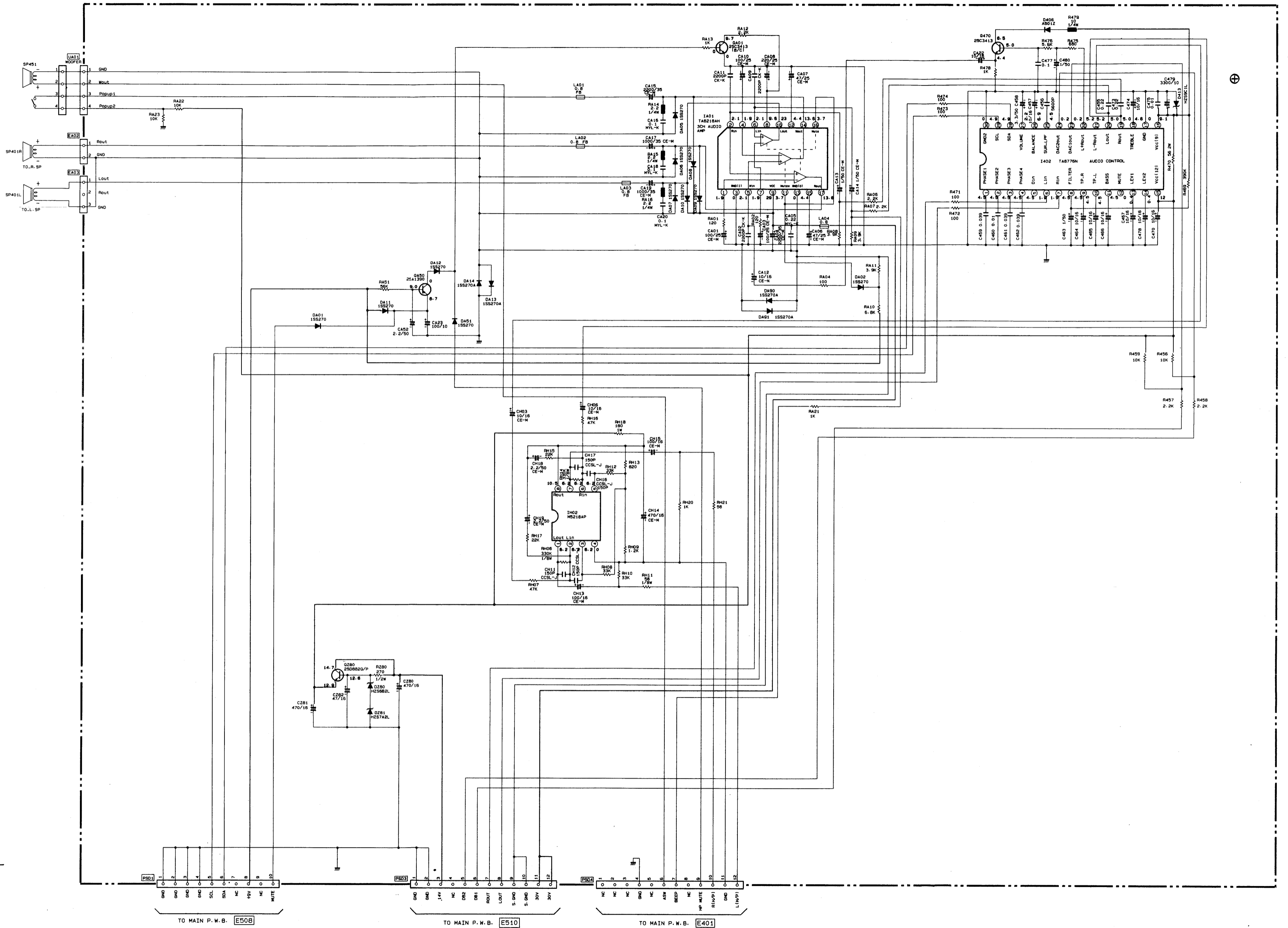
PRODUCT SAFETY NOTE : Components marked with a  $\Delta$  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.



• Since this is a basic circuit diagram, the value of the parts is subject to be altered for improvement.  
• All DC voltage to be measured with a tester (100k $\Omega$ /V).  
Voltage taken on a complex color bar signal including a standard color bar signal.

CIRCUIT DIAGRAM : SUB PWB 2 (C3390FS/C3399FS)

PRODUCT SAFETY NOTE : Components marked with a  $\Delta$  and shaded have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

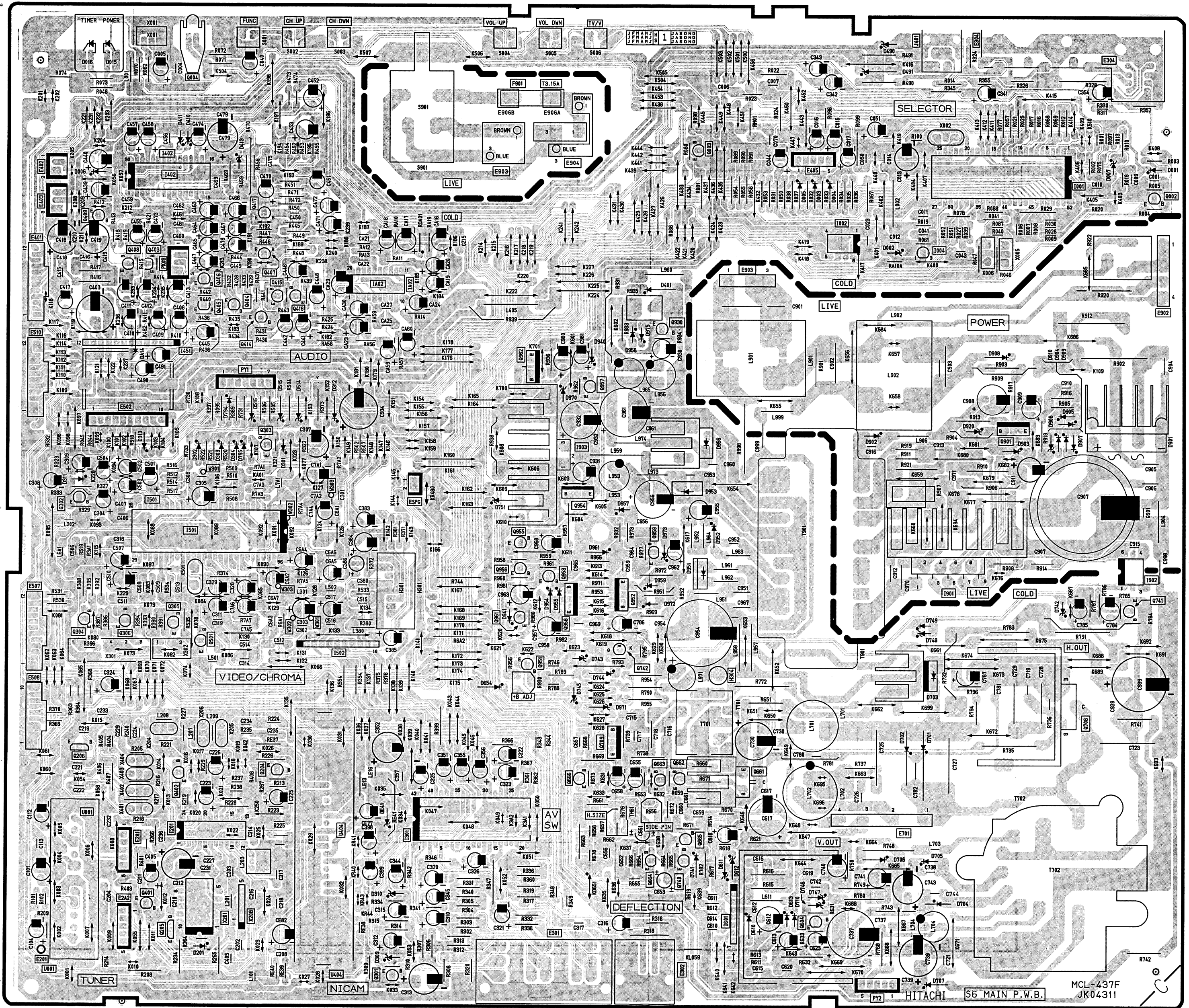
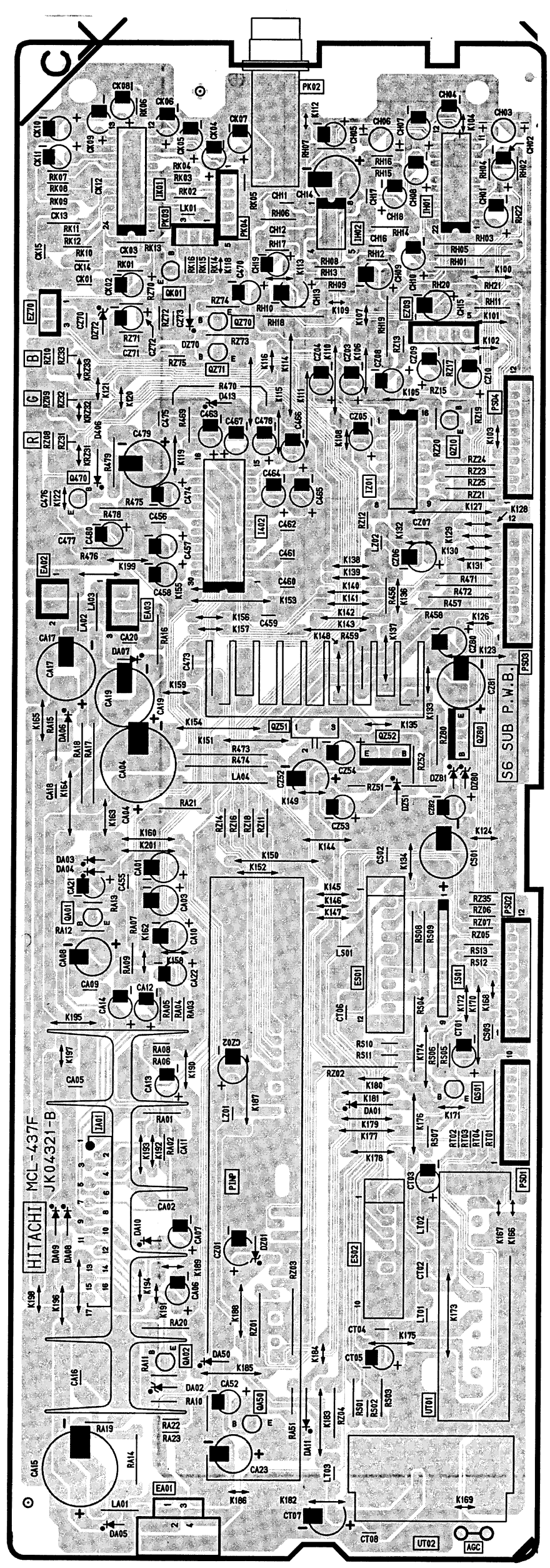


● Since this is basic circuit diagram, the value of the parts is subject to be altered for improvement  
 ● All DC voltage to be measured with a tester (100k  $\Omega/V$ ).  
 Voltage taken on a complex color bar signal including a standard color bar signal.

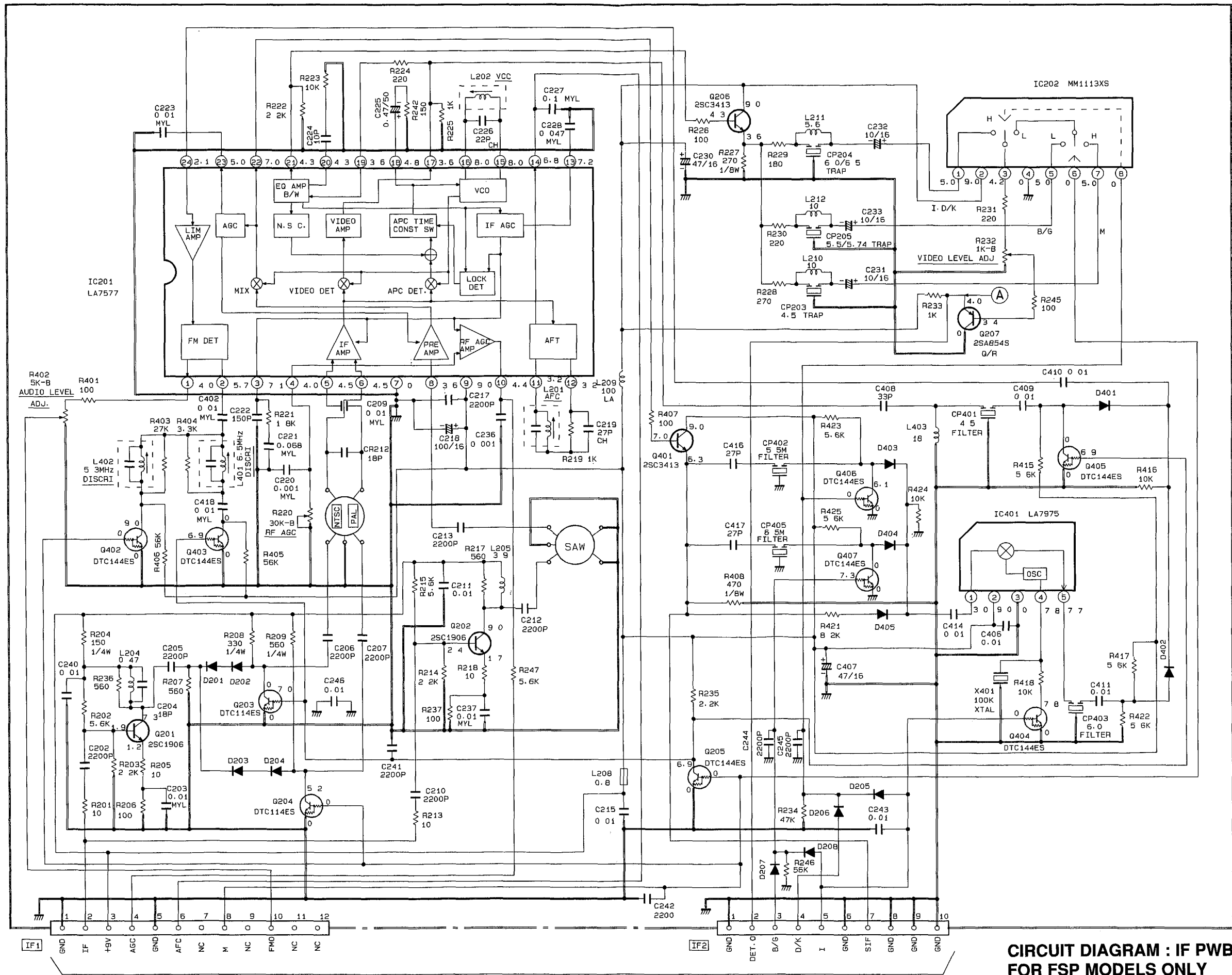
# PRWTD WIRING BOARD (印刷电路图)

SUB PWB

MAIN PWB



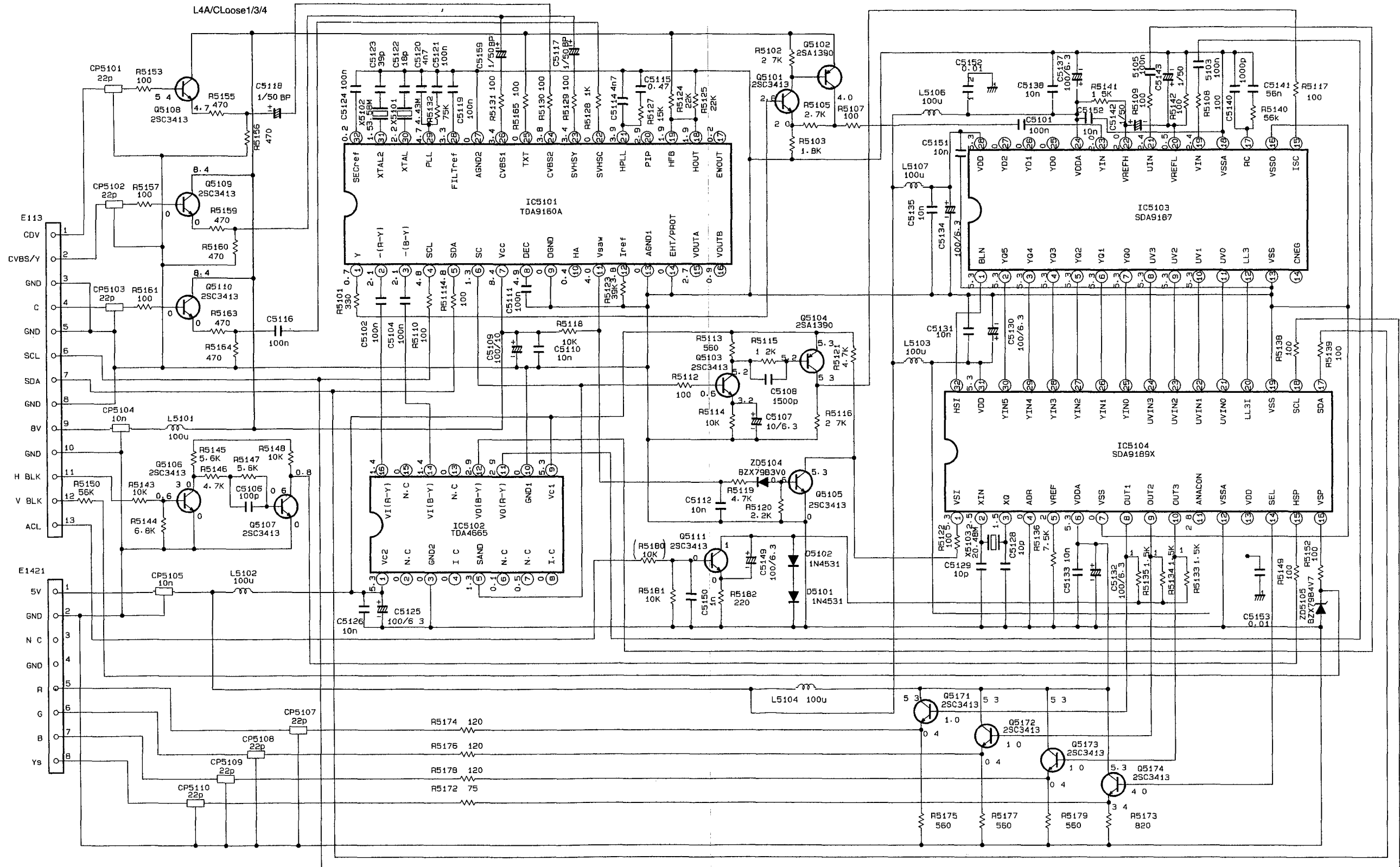




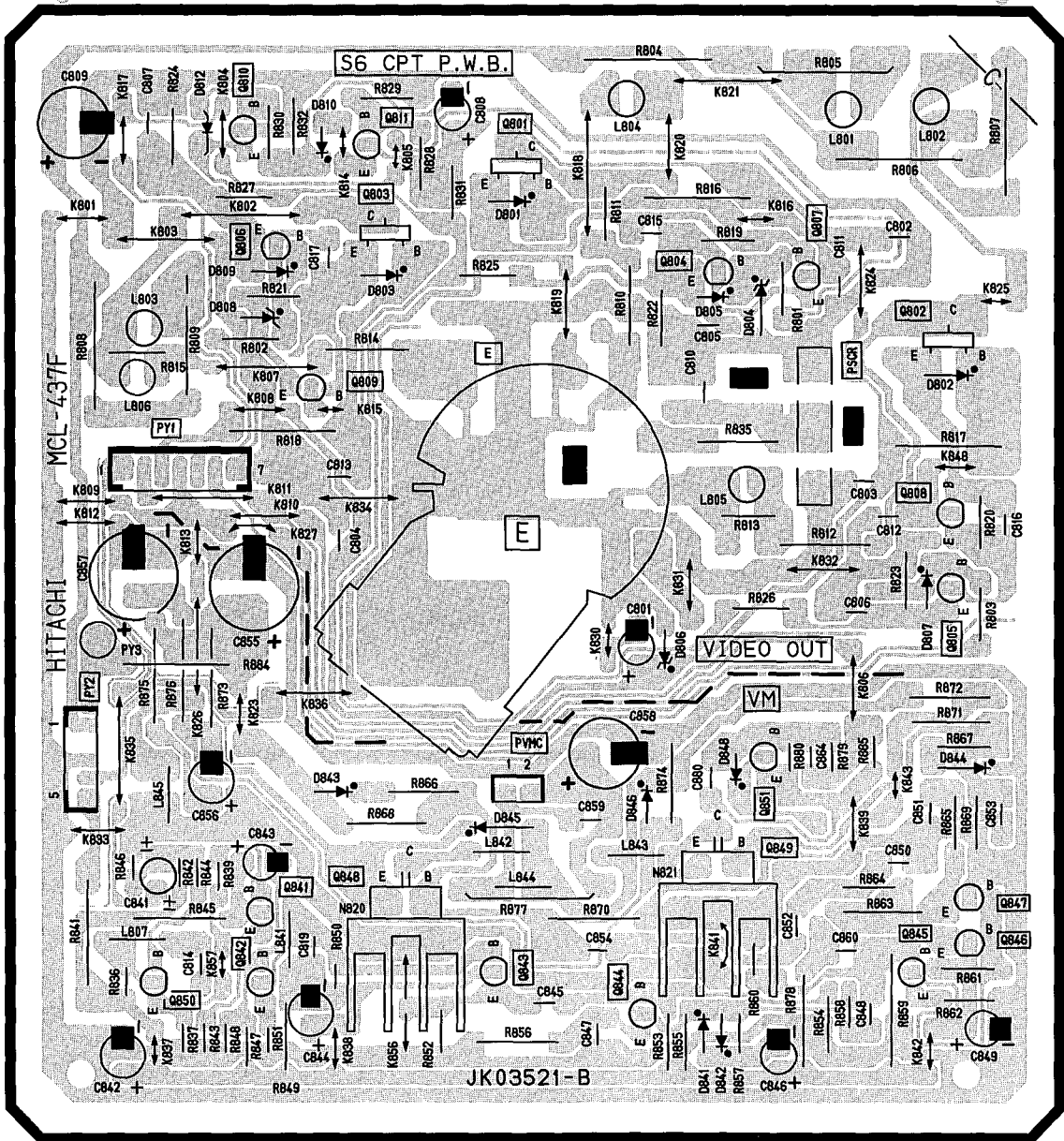
CIRCUIT DIAGRAM : IF PWB  
FOR FSP MODELS ONLY

TO SUB P. W. B.

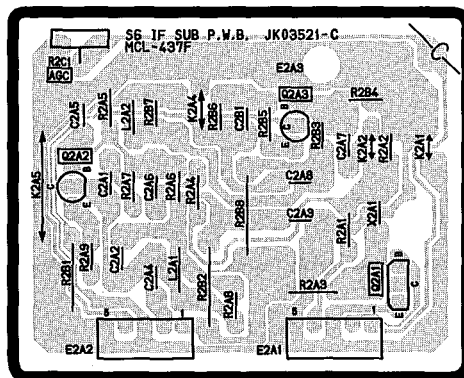
**CIRCUIT DIAGRAM**  
**PinP PWB (FOR FSP MODELS ONLY)**



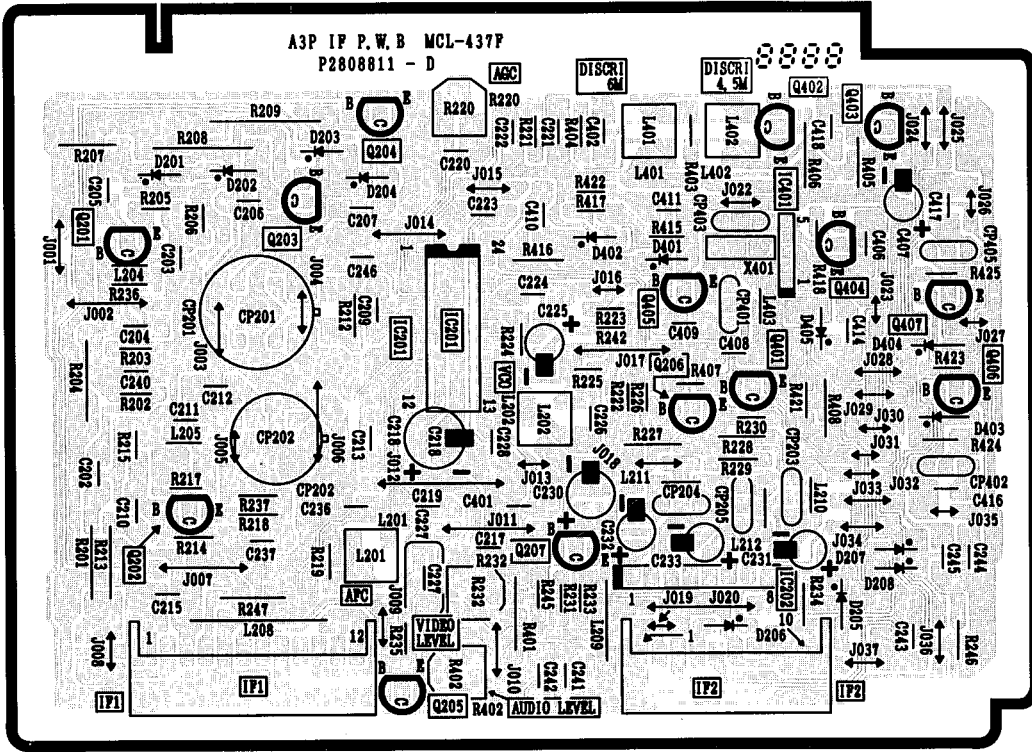
CRT PWB



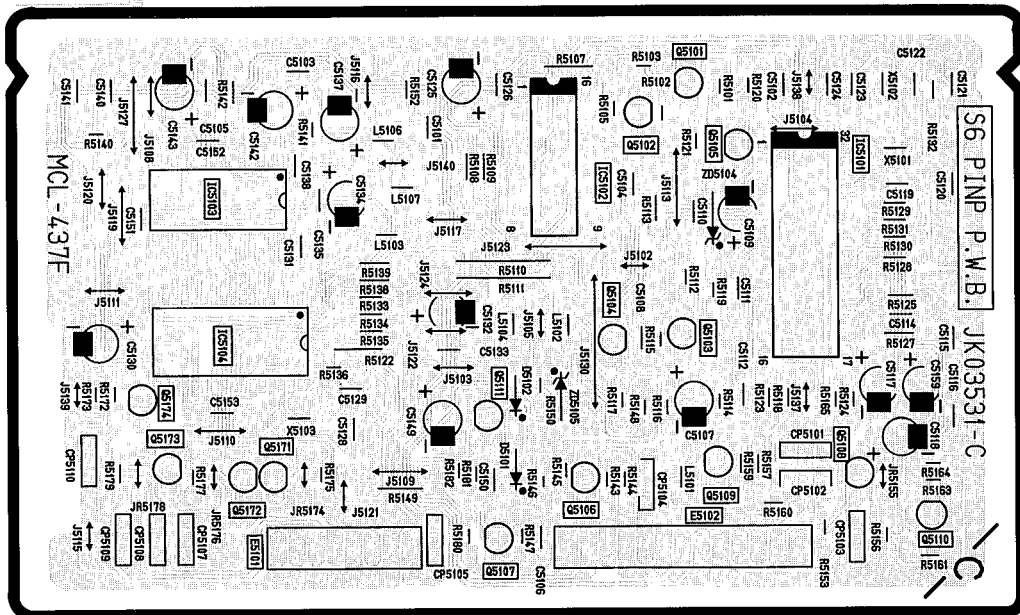
IF SUB PWB

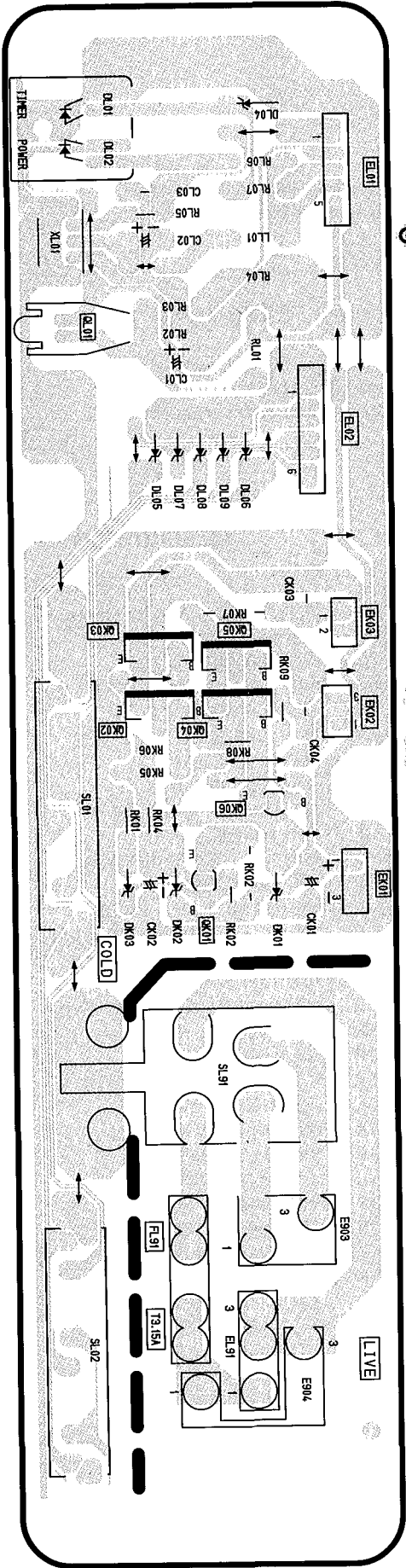


IF PWB

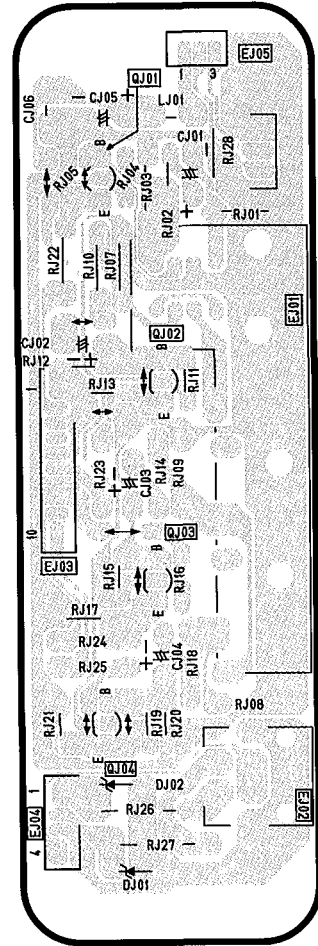


Pin P PWB





**CONTROL/JACK PWB**



## REPLACEMENT PARTS LIST

**PRODUCT SAFETY NOTE:** Components marked with a  $\Delta$  have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

**ABBREVIATIONS** Capacitors . CD Ceramic Disk, PF Polyester Film, EL Electrolytic, PP Polypropylene, PR Paper, TA Tantalum, TM Trimer  
Resistors CF Carbon film, WW Wire Wound, FR Fuse Resistor, MG Metal Glazed, VR Variable Resistor, CC Carbon Composition, MF Metal Oxide Film  
Semiconductors TR Transistor, DI Diode, ZD Zener Diode, VA Varistor, TH Thermistor

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C001	0880009R	PF 0 01MF 50V	C217	0244105R	*CD 2200PF 50V B (IF PWB)
C006	0880016R	PF 0 1MF 50V	C217	0880009R	PF 0 01MF 50V
C007	0890089R	CD 0 0015M 50V B	C218	0244171R	CD 10000PF 50V F
C009	0890075R	CD 120PF 50V SL	C218	0800326R	*EL 100MF 16V SMG (IF PWB)
C010	0890075R	CD 120PF 50V SL	C219	0244171R	CD 10000PF 50V F
C011	0890075R	CD 120PF 50V SL	C219	0246450R	*CD 27PF 50V CH (IF PWB)
C012	0880009R	PF 0 01MF 50V	C220	0880031R	*PF 0.001MF 50V
C013	0800072R	EL 470MF 6 3V SME	C221	0244171R	CD 10000PF 50V F
C014	0880009R	PF 0 01MF 50V	C221	0880055R	*PF 0 068MF 50V (IFPWB)
C017	0800012R	*EL 4 7MF 50V SME	C222	0244171R	CD 10000PF 50V F
C023	0880009R	PF 0 01MF 50V	C222	0890076R	*CD 150PF 50V B (IF PWB)
C043	0880009R	PF 0 01MF 50V	C223	0800005R	EL 2 2MF 50V SME
C050	0243505R	CD 220PF 500V B	C223	0880044R	*PF 0 01MF 50V (IF PWB)
C051	0800003R	EL 1MF 50V SME	C224	0880009R	PF 0 01MF 50V (NOT FOR 051, 081S,751,PN-981)
C070	0880044R	PF 0 01MF 50V	C224	0890061R	*CD 10PF 50V SL (IF PWB)
C101	0800049R	EL 100MF 16V SME	C225	0800001R	*EL 0 47MF 50V SME (IF PWB)
C104	0800015R	EL 10MF 16V SME	C225	0800015R	EL 10MF 16V SME
C112	0800003R	EL 1MF 50V SME	C226	0800001R	EL 0 47MF 50V SME
C113	0244171R	CD 10000PF 50V F	C226	0890118R	*CD 22PF 50V CH (IF PWB)
C202	0244105R	*CD 2200PF 50V B	C227	0244105R	CD 2200PF 50V B
C203	0244105R	CD 2200PF 50V B	C227	0880057R	*PF 0 1MF 50V (IF PWB)
C203	0880044R	*PF 0.01MF 50V (IF PWB)	C228	0880053R	*PF 0 047MF 50V
C204	0880016R	PF 0 1MF 50V	C229	0244171R	CD 10000PF 50V F
C204	0890117R	*CD 18PF 50V CH (IF PWB)	C230	0800041R	*EL 47MF 16V SME
C205	0244105R	*CD 2200PF 50V B	C231	0800015R	*EL 10MF 16V SME
C206	0244105R	*CD 2200PF 50V B	C232	0244171R	CD 10000PF 50V F
C207	0244105R	*CD 2200PF 50V B	C232	0800015R	*EL 10MF 16V SME (IF PWB)
C208	0880009R	PF 0 01MF 50V (NOT FOR 041, 433,191,192)	C233	0244171R	CD 10000PF 50V F
C209	0880044R	*PF 0 01MF 50V	C233	0800015R	*EL 10MF 16V SME (IF PWB)
C210	0244105R	*CD 2200PF 50V B (IF PWB)	C234	0890076R	CD 150PF 50V B
C210	0244171R	CD 10000PF 50V F	C235	0890066R	CD 27PF 50V SL
C211	0244171R	*CD 10000PF 50V F (IF PWB)	C236	0244105R	CD 2200PF 50V B
C211	0800003R	EL 1MF 50V SME	C236	0880031R	*PF 0 001MF 50V (IF PWB)
C212	0244105R	*CD 2200PF 50V B (IF PWB)	C237	0880044R	*PF 0 01MF 50V
C212	0800361N	EL 100MF 16V SMG	C240	0244171R	*CD 10000PF 50V F
C213	0244105R	*CD 2200PF 50V B	C241	0244105R	*CD 2200PF 50V B
C214	0880012R	PF 0.022MF 50V	C242	0244105R	*CD 2200PF 50V B
C215	0880044R	*PF 0 01MF 50V	C243	0244171R	*CD 10000PF 50V F
C216	0880009R	PF 0.01MF 50V	C244	0244105R	*CD 2200PF 50V B

\* PARTS FOR FSP MODELS ONLY

**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety  
Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual  
Don't degrade the safety of the receiver through improper servicing

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C245	0244105R	*CD 2200PF 50V B	C399	0800015R	EL 10MF 16V SME
C246	0244171R	*CD 10000PF 50V F	C402	0880044R	*PF 0.01MF 50V
C2A1	0244105R	CD 2200PF 50V B	C403	0255011F	EL 2200MF 35V KME
C2A2	0890063R	CD 15PF 50V SL	C405	0880009R	PF 0 01M 50V (NOT FOR 051, 081S,751,PX-981)
C2A3	0244171R	CD 10000PF 50V F	C406	0244171R	*CD 10000PF 50V F
C2A4	0244105R	CD 2200PF 50V B	C407	0244171R	CD 10000PF 50V F
C2A5	0244105R	CD 2200PF 50V B	C407	0800041R	*EL 47MF 16V SME (IF PWB)
C2A6	0244105R	CD 2200PF 50V B	C408	0890067R	*CD 33PF 50V SL
C2A7	0244105R	CD 2200PF 50V B	C409	0244171R	*CD 10000PF 50V F
C2A8	0244171R	CD 10000PF 50V F	C410	0244171R	*CD 10000PF 50V F
C2B1	0244105R	CD 2200PF 50V B	C411	0244171R	*CD 10000PF 50V F
C301	0244171R	CD 10000PF 50V F	C414	0244171R	*CD 10000PF 50V F
C302	0244171R	CD 10000PF 50V F	C416	0890066R	*CD 27PF 50V SL
C303	0800047R	EL 100MF 6 3V SME	C417	0890066R	*CD 27PF 50V SL
C304	0800023R	EL 22MF 16V SME	C418	0880044R	*PF 0.01MF 50V
C305	0800049R	EL 100MF 16V SME	C441	0800015R	EL 10MF 16V SME
C306	0244171R	CD 10000PF 50V F	C442	0800015R	EL 10MF 16V SME
C307	0800058R	EL 220MF 16V SME	C445	0800009R	EL 4 7MF 25V SME
C310	0800015R	EL 10MF 16V SME	C446	0800009R	EL 4 7MF 25V SME
C311	0800047R	EL 100MF 6.3V SME	C447	0800005R	EL 2.2MF 50V SME
C312	0800015R	EL 10MF 16V SME	C448	0800005R	EL 2.2MF 50V SME
C313	0800074N	EL 470MF 16V SME	C449	0880014R	PF 0.047MF 50V
C314	0880016R	PF 0.1MF 50V	C450	0880014R	PF 0 047MF 50V
C315	0800015R	EL 10MF 16V SME	C451	0800041R	EL 47MF 16V SME
C316	0800015R	EL 10MF 16V SME	C455	0880018R	PF 0 22MF 50V
C317	0244171R	CD 10000PF 50V F	C456	0880041R	PF 0.0056MF 50V
C318	0880016R	PF 0 1MF 50V	C457	0800015R	EL 10MF 16V SME
C319	0244171R	CD 10000PF 50V F	C458	0800007R	EL 3.3MF 50V SME
C320	0800015R	EL 10MF 16V SME	C459	0880052R	PF 0.039MF 50V
C321	0800015R	EL 10MF 16V SME	C460	0880009R	PF 0.01MF 50V
C322	0800015R	*EL 10MF 16V SME	C461	0880052R	PF 0.039MF 50V
C323	0800015R	*EL 10MF 16V SME	C462	0880052R	PF 0.039MF 50V
C324	0880016R	*PF 0 1MF 50V	C463	0800003R	EL 1MF 50V SME
C325	0880016R	PF 0.1MF 50V	C464	0800015R	EL 10MF 16V SME
C326	0800015R	EL 10MF 16V SME	C465	0800015R	EL 10MF 16V SME
C328	0800012R	EL 4 7MF 50V SME	C466	0800015R	EL 10MF 16V SME
C329	0800015R	EL 10MF 16V SME	C467	0800015R	EL 10MF 16V SME
C344	0800015R	EL 10MF 16V SME	C469	0800081N	EL 1000MF 10V SME
C345	0800015R	EL 10MF 16V SME	C470	0800015R	EL 10MF 16V SME
C351	0800023R	EL 22MF 16V SME	C473	0880018R	PF 0.22MF 50V
C352	0800353R	EL 470MF 16V SMF	C474	0800015R	EL 10MF 16V SME
C355	0800015R	EL 10MF 16V SME	C475	0880009R	PF 0.01MF 50V
C356	0800015R	EL 10MF 16V SME	C477	0880016R	PF 0.1MF 50V
C357	0880009R	PF 0.01MF 50V	C478	0800015R	EL 10MF 16V SME
C380	0890068R	CD 39PF 50V SL	C479	0800371N	EL 3300MF 10V SMG
C383	0800023R	EL 22MF 16V SME	C480	0800003R	EL 1MF 50V SME
C384	0800049R	EL 100MF 16V SME	C490	0800015R	EL 10MF 16V SME
C385	0800015R	EL 10MF 16V SME	C491	0800015R	EL 10MF 16V SME
C386	0252396R	EL 10MF 16V BP	C501	0800003R	*EL 1MF 50V SME
C398	0800015R	EL 10MF 16V SME			

\* PARTS FOR FSP MODEL.S ONLY

制品安全上的注意: 在下表附带△标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C502	0800003R	*EL 1MF 50V SME	C5143	0800003R	*EL 1MF 50V SME
C503	0800003R	*EL 1MF 50V SME	C5149	0800047R	*EL 100MF 6.3V SME
C504	0800012R	EL 4.7MF 50V SME	C515	0880016R	PF 0.1MF 50V
C506	0880009R	PF 0.01MF-K 50V	C5150	0890087R	*CD 1000PF-K 50V B
C507	0800005R	EL 2.2MF 50V SME	C5151	0880044R	*PF 0.01MF-K 50V
C508	0880016R	PF 0.1MF 50V	C5152	0880044R	*PF 0.01MF-K 50V
C509	0880016R	PF 0.1MF 50V	C5153	0880044R	*PF 0.01MF-K 50V
C510	0800047R	EL 100MF 6.3V SME	C5159	0284623R	*EL 1MF 50V SME
C5101	0880057R	*PF 0.1MF 50V	C516	0244171R	CD 10000PF 50V F
C5102	0880057R	*PF 0.1MF 50V	C517	0800047R	EL 100MF 6.3V SME
C5103	0880057R	*PF 0.1MF 50V	C610	0890087R	CD 1000PF-K 50V B
C5104	0880057R	*PF 0.1MF 50V	C611	0247848R	CD 56PF-J 500V SL
C5105	0880057R	*PF 0.1MF 50V	C612	0800052R	EL 100MF 35V SME
C5106	0890074R	*CD 100PF 50V SL	C613	0800015R	EL 10MF 16V SME
C5107	0800015R	*EL 10MF 16V SME	C614	0880011R	PF 0.015MF-K 50V
C5108	0890089R	*CD 0.0015PF-K 50V B	C615	0880009R	PF 0.01MF-K 50V
C5109	0800048R	*EL 100MF 10V SME	C616	0880017R	PF 0.15MF-K 50V
C511	0244171R	CD 10000PF 50V F	C617	0800368N	EL 2200MF 25V SMG
C5110	0890101R	*CD 0.01PF 50V B	C618	0800003R	EL 1MF 50V SME
C5111	0880057R	*PF 0.1MF-K 50V	C623	0800041R	EL 47MF 16V SME
C5112	0890101R	*CD 0.01PF 50V B	C651	0880018R	PF 0.22MF-K 50V
C5114	0890096R	*CD 4700PF 25V B	C652	0880018R	PF 0.22MF-K 50V
C5115	0276725R	*PF 0.47MF-J 50V	C653	0880049R	PF 0.027MF-K 50V
C5116	0880057R	*PF 0.1MF 50V	C655	0800012R	EL 4.7MF 50V SME
C5117	0284623R	*EL 1MF 50V SME	C657	0880009R	PF 0.01MF-K 50V
C5118	0284623R	*EL 1MF 50V SME	C658	0800012R	EL 4.7MF 50V SME
C5119	0880057R	*PF 0.1MF 50V	C659	0880016R	PF 0.1MF 50V
C512	0880009R	PF 0.01MF-K 50V	C660	0880016R	PF 0.1MF 50V
C5120	0890096R	*CD 4700PF 25V B	C661	0880011R	PF 0.015MF-K 50V
C5121	0880057R	*PF 0.1MF 50V	C6A1	0800003R	EL 1MF 50V SME
C5122	0890117R	*CD 18PF-J 50V CH	C6A2	0292718F	TA 2.2MF 20V
C5123	0890122R	*CD 39PF-J 50V CH	C6A3	0880016R	PF 0.1MF 50V
C5124	0880057R	*PF 0.1MF 50V	C6A4	0800003R	EL 1MF 50V SME
C5125	0800047R	*EL 100MF 6.3V SME	C6A7	0890087R	CD 1000PF-K 50V B
C5126	0890101R	*CD 0.01PF 50V B	C715	0247850R	CD 68PF-J 500V SL
C5128	0890114R	*CD 10PF-D 50V CH	C716	0243507R	CD 330PF-K 500V B
C5129	0890114R	*CD 10PF-D 50V CH	C717	0244505R	CD 2200PF-K 500V B
C513	0246442R	CD 12PF-J 50V CH	C718	0299918F	PF 0.022MF-K 200V E
C5130	0800047R	*EL 100MF 6.3V SME	C719	0890081R	CD 330PF-K 50V B
C5131	0890101R	*CD 0.01PF 50V B	C721	0279693R	PF 0.1MF-K 100V
C5132	0800047R	*EL 100MF 6.3V SME	C723	0262412F	PF 0.0037MF 1.8KV
C5133	0890101R	*CD 0.01PF 50V B	C724	0244722	CD 560PF 2KV
C5134	0800047R	*EL 100MF 6.3V SME	C725	0262801F	PF 0.56MF-J 250V
C5135	0890101R	*CD 0.01PF 50V B	C726	0244501R	CD 1000PF-K 500V B
C5137	0800047R	*EL 100MF 6.3V SME	C727	0262429F	PF 0.012MF-J 1.8KV
C5138	0890101R	*CD 0.01PF 50V B	C728	0299720F	PF 0.015MF 630V
C514	0880012R	PF 0.022MF-K 50V	C729	0299720F	PF 0.015MF 630V
C5140	0890087R	*CD 1000PF-K 50V B	C730	0259475	EL 6.8MF-M 35V BP
C5141	0880054R	*PF 0.056MF-K 50V	C737	0284442	EL 2200MF-M 35V
C5142	0800003R	*EL 1MF 50V SME	C738	0243510R	CD 560PF-K 500V B

\* PARTS FOR FSP MODELS ONLY



**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety  
Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual  
Don't degrade the safety of the receiver through improper servicing

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
C739	0253974N	EL 33MF 250V	C858	0253957F	EL 22MF-M 160V
C740	0800051R	EL 100MF 25V SME	C859	0247848R	CD 56PF-J 500V SL
C741	0800021R	EL 10MF 100V SME	C860	0880057R	PF 0 1MF-K 50V
C742	0880009R	PF 0 01MF-K 50V	C880	0890074R	CD 100PF-J 50V SL
C743	0800361N	EL 1000MF 16V SMG	$\triangle$ C901	0262773A	PF 0.1MF-M 250V (041,751 ONLY)
C744	0243510R	CD 560PF-K 500V B	$\triangle$ C901	0262774A	PF 0 22MF-M 250V
C780	0247848R	CD 56PF-J 500V SL	C902	0262773A	PF 0.1MF-M 250V (041,751 ONLY)
C781	0244507R	CD 3300PF-K 500V B	C903	0262773A	PF 0 1MF-M 250V (041,751 ONLY)
C782	0249491F	CD 470PF-K 2.5KV B	C904	0248593F	CD 4700PF-Z 250V F
C784	0800051R	EL 100MF 25V SME	C905	0248593F	CD 4700PF-Z 250V F
C785	0800032R	EL 33MF 16V SME	C906	0248594F	CD 0.01PF-Z 250V F
C786	0800015R	EL 10MF 16V SME	C907	AL00095	EL 330MF 450V
C787	0800326R	EL 100MF 16V SMG	C908	0800063N	EL 220MF 63V SME
C7A1	0800058R	EL 220MF 16V SME	C909	0800326R	EL 100MF 16V SMG
C7A2	0244171R	CD 10000PF 50V F	C910	0890087R	CD 1000PF-K 50V B
C7A3	0880009R	PF 0 01MF-K 50V	C911	0284405R	EL 220MF-M 16V
C7A4	0880009R	PF 0 01MF-K 50V	C912	0244202F	CD 470PF-K 2KV R
C7A5	0880009R	PF 0 01MF-K 50V	C913	0244109R	CD 4700PF-K 50V B
C7A6	0800003R	EL 1MF 50V SME	C915	0880044R	PF 0 01UF-K 50V
C801	0800326R	EL 100MF 16V SMG	C916	0243510R	CD 560PF-K 500V B
C805	0890083R	CD 470PF-K 50V B	C930	0800043R	EL 47MF 35V SME
C806	0890079R	CD 270PF-K 50V B	C931	0800326R	EL 100MF 16V SMG
C807	0890079R	CD 270PF-K 50V B	C932	0254510N	EL 2200MF 16V KME
C808	0800353R	EL 470MF 16V SMG	C934	0800087F	EL 2200MF 16V SME
C809	0253973F	EL 22MF 250V SME	C939	0253862F	EL 220MF-M 160V
C810	0244889R	CD 2200PF-K 2KV B	C951	0244202F	CD 470PF-K 2KV R
C811	0880044R	PF 0 01MF-K 50V	C952	0243507R	CD 330PF-K 500V B
C812	0880044R	PF 0 01MF-K 50V	C953	0243507R	CD 330PF-K 500V B
C813	0880044R	PF 0 01MF-K 50V	C954	0251703	EL 390MF-M 160V
C815	0880044R	PF 0 01MF-K 50V	C955	0284478R	EL 10MF-M 100V
C816	0880044R	PF 0.01MF-K 50V	C956	0254510N	EL 2200MF 16V KME
C817	0880044R	PF 0 01MF-K 50V	C957	0800326R	EL 100MF 16V SMG
C819	0890075R	CD 120PF-J 50V SL	C958	0244505R	CD 2200PF-K 500V B
C841	0284621R	EL 0 47MF 50V BP	C959	0279687R	PF 0 01MF 100V
C842	0800353R	EL 470MF 16V SMG	C960	0243507R	CD 330PF-K 500V B
C843	0800041R	EL 47MF 16V SME	C961	0255011F	EL 2200MF 35V KME
C844	0800326R	EL 100MF 16V SMG	C962	0800005R	EL 2 2MF 50V SME
C845	0890073R	CD 82PF-J 50V SL	C963	0800326R	EL 100MF 16V SMG
C846	0800023R	EL 22MF 16V SME	C964	0890087R	CD 1000PF-K 50V B
C847	0890079R	CD 270PF-K 50V B	C965	0880044R	PF 0.01MF-K 50V
C848	0880057R	PF 0 1MF-K 50V	C967	0244211F	CD 1000PF-K 2KV
C849	0800042R	EL 47MF-M 25V SME	C968	0800023R	EL 22MF 16V SME
C850	0890074R	CD 100PF-J 50V SL	C969	0880044R	PF 0.01MF-K 50V
C851	0890074R	CD 100PF-J 50V SL	C970	0244213	CD 1500PF-K 2KV
C852	AJ00001R	CD 0.01PF-Z 500V	C971	0890083R	CD 470PF-K 50V B
C853	0244509R	CD 4700PF-K 500V	C980	0800048R	EL 100MF 10V SME
C854	AJ00001R	CD 0.01PF-Z 500V	C981	0800003R	EL 1MF 50V SME
C855	0253959F	EL 47MF 160V	$\triangle$ C998	AJ00184F	PF 2200PF 250V
C856	0800044R	EL 47MF 50V SME	$\triangle$ C999	AJ00182F	PF 1000PF 250V
C857	0800044R	EL 47MF 50V SME	CA01	0800051R	EL 100MF 25V SME

\* PARTS FOR FSP MODELS ONLY

制品安全上的注意: 在下表附带△标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
CA02	0890092R	CD 2200PF 50V B	CH09	0800015R	*EL 10MF 16V SME
CA03	0800051R	EL 100MF 25V SME	CH10	0800015R	*EL 10MF 16V SME
CA04	0253934F	EL 2200MF 35V SME	CH11	0890076R	CD 150PF 50V B
CA05	0880018R	PF 0.22MF 50V	CH12	0890076R	CD 150PF 50V B
CA06	0800042R	EL 47MF 25V SME	CH13	0800049R	EL 100M 16V SME
CA07	0800042R	EL 47MF 25V SME	CH14	0800353R	EL 470MF 16V SMG
CA08	0800059R	EL 220MF 25V SME	CH15	0800049R	EL 100M 16V SME
CA09	0890092R	CD 2200PF 50V F	CH16	0890076R	CD 150PF 50V B
CA10	0800051R	EL 100MF 25V SME	CH17	0890076R	CD 150PF 50V B
CA11	0890092R	CD 2200PF 50V F	CH18	0800005R	EL 2.2MF 50V SME
CA12	0800015R	EL 10MF 16V SME	CH19	0800005R	EL 2.2MF 50V SME
CA13	0800003R	EL 1MF 50V SME	CJ01	0800015R	EL 10 MF 16V (SME)
CA14	0800003R	EL 1MF 50V SME	CJ02	0800015R	EL 10 MF 16V (SME)
CA15	0253934F	EL 2200MF 35V (SUB PWB)	CJ03	0800015R	EL 10 MF 16V (SME)
CA15	0880009R	PF 0.01MF 50V	CJ04	0800015R	EL 10 MF 16V (SME)
CA16	0800049R	EL 100M 16V SME	CJ05	0800049R	EL 100 MF 16V (SME)
CA16	0880016R	PF 0.1MF 50V (SUB PWB)	CJ06	0880044R	PF 0.01MF 50V
CA17	0800049R	EL 100M 16V SME	CK01	0800058R	EL 220 MF 16V (SME)
CA17	0800084N	EL 1000MF 35V SME (SUB PWB)	CK02	0800023R	EL 22 MF 16V (SME)
CA18	0800003R	EL 1MF 50V SME	CK03	0880016R	PF 0.1MF 50V
CA18	0880016R	PF 0.1MF 50V (SUB PWB)	CK04	0880009R	PF 0.01MF 50V
CA19	0800015R	EL 10MF 16V SME	CL01	0800015R	EL 10 MF 16V (SME)
CA19	0800084N	EL 1000MF 35V SME (SUB PWB)	CL02	0800049R	EL 100 MF 16V (SME)
CA20	0800023R	EL 22MF 16V SME	CL03	0890076R	CD 150PF 50V (B)
CA20	0880016R	PF 0.1MF 50V (SUB PWB)	CP201	BG00331	*SAW FILTER HW3071
CA21	0880049R	PF 0.027MF 50V	CP202	2305861	*SAW FILTER HW2226
CA22	0800015R	EL 10MF 16V SME (SUB PWB)	CP203	2142241A	*TRAP 4.5MHZ
CA22	0880009R	PF 0.01MF 50V	CP204	2143473	*TRAP 6/6 5MHZ
CA23	0800015R	EL 10MF 16V SME	CP205	2167371	*TRAP 5 5/5 74MHZ
CA23	0800048R	EL 100MF 10V SME (SUB PWB)	CP401	2142601	*CERAMIC FILTER 4 5MHZ
CA24	0800015R	EL 10MF 16V SME	CP402	2142602	*CERAMIC FILTER 5 5MHZ
CA25	0880054R	PF 0.056MF 50V	CP403	2142603A	*CERAMIC FILTER 6.0MHZ
CA27	0880052R	PF 0.039MF 50V	CP405	2142604	*CERAMIC FILTER 6.5MHZ
CA29	0800049R	EL 100M 16V SME	CP5101	2791751R	*LC FILTER 22PF
CA30	0800015R	EL 10MF 16V SME	CP5102	2791751R	*LC FILTER 22PF
CA52	0800005R	EL 2.2MF 50V SME	CP5103	2791751R	*LC FILTER 22PF
CA59	0800015R	EL 10MF 16V SME	CP5104	2791762R	*LC FILTER 10,000PF
CA60	0800015R	EL 10MF 16V SME	CP5105	2791762R	*LC FILTER 10,000PF
CE77	0800048R	EL 100MF 10V SME (NOT FOR 041,433,191,192)	CP5107	2791751R	*LC FILTER 22PF
CE82	0800048R	EL 100MF 10V SME (NOT FOR 041,433,191,192)	CP5108	2791751R	*LC FILTER 22PF
CH01	0800015R	*EL 10MF 16V SME	CP5109	2791751R	*LC FILTER 22PF
CH02	0800015R	*EL 10MF 16V SME	CP5110	2791751R	*LC FILTER 22PF
CH03	0252396R	EL 10MF 16V BP	CR212	0890117R	*CD 18PF 50V CH
CH04	0800003R	*EL 1MF 50V SME	CS01	0800359R	*EL 1000MF 10V SMG
CH05	0800041R	*EL 47MF 16V SME	CS02	0890101R	*CD 0.01MF 50V B
CH06	0252396R	EL 10MF 16V BP	CS03	0880013R	*PF 0.033MF 50V
CH07	0800003R	*EL 1MF 50V SME	CT01	0800015R	**L 10MF 16V SME
CH08	0800015R	*EL 10MF 16V SME	CT02	0890101R	*CD 0.01MF 50V B
			CT03	0800048R	*EL 100MF 10V SME
			CT04	0890101R	*CD 0.01MF 50V B

\* PARTS FOR FSP MODELS ONLY

**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
CT05	0800047R	*EL 100MF 6 3V SME	D516	2339869M	ZD HZS9C3
CT06	0890101R	*CD 0.01MF 50V B	D610	CH00681M	DI 11ES2 200V
CT07	0800048R	*EL 100MF 10V SME	D611	2339231M	ZD HZS30-1L
CT08	0890101R	*CD 0 01MF 50V B	D612	2339231M	ZD HZS30-1L
CZ01	0800048R	*EL 100MF 10V SME	D613	2338321M	DI 1SS270
CZ02	0800047R	*EL 100MF 6 3V SME	D701	2348511	DI RS3FS
CZ03	0800003R	*EL 1MF 50V SME	D702	2348511	DI RS3FS
CZ04	0800003R	*EL 1MF 50V SME	D703	2344071	DI ERC20M-04
CZ05	0800003R	*EL 1MF 50V SME	D704	2359361M	DI EL1ZV
CZ06	0800049R	*EL 100M 16V SME	D705	2338902M	DI DFM1SA4
CZ07	0890101R	*CD 0 01MF 50V B	D706	CH00711M	DI DFM1SA4
CZ08	0800003R	EL 1MF 50V SME	D707	2338902M	DI 1SS270
CZ09	0800003R	EL 1MF 50V SME	D710	2338321M	DI 10ELS2
CZ10	0800003R	EL 1MF 50V SME	D741	CH00711M	ZD HZS12C3
CZ52	0800048R	*EL 100MF 10V SME	D742	2339889M	ZD HZS12C1L
CZ53	0800041R	*EL 47MF 16V SME	D743	2339151M	DI 10ELS2
CZ54	0800047R	*EL 100MF 6 3V SME	D744	CH00711M	ZD HZS12C3
CZ80	0800353R	EL 470MF 16V SMG	D745	2339889M	ZD HZS24-2L
CZ81	0800353R	EL 470MF 16V SMG	D746	2339212M	ZD HZT33-02
CZ82	0800041R	EL 47MF 16V SME	D747	2335991M	ZD HZS12C1L
D001	2338321M	DI 1SS270	D748	2339151M	DI 1SS270
D004	2338321M	*DI 1SS270	D749	2338321M	DI 1SS254/1SS270
D007	2339869M	ZD HZS9C3	D794	2344041M	DI 1SS254/1SS270
D201	2338321M	*DI 1SS270	D795	2344041M	DI 1SS254/1SS270
D202	2338321M	*DI 1SS270	D801	2344041M	DI 1SS254/1SS270
D203	2338321M	*DI 1SS270	D802	2344041M	DI 1SS254/1SS270
D204	2338321M	*DI 1SS270	D803	2344041M	ZD HZS9C3
D205	2338321M	*DI 1SS270	D804	2339869M	DI 1SS254/1SS270
D206	2338321M	*DI 1SS270	D805	2344041M	DI 1SS254/1SS270
D207	2338321M	*DI 1SS270	D807	2344041M	DI 1SS254/1SS270
D208	2338321M	*DI 1SS270	D809	2344041M	DI 1SS254/1SS270
D301	2338321M	DI 1SS270	D810	2344041M	DI 1SS254/1SS270
D302	2338321M	DI 1SS270	D812	2344041M	DI 1SS254/1SS270
D303	2338321M	DI 1SS270	D841	2344041M	DI 1SS254/1SS270
D304	2338321M	DI 1SS270	D842	2344041M	DI 1SS254/1SS270
D311	2337341M	DI 1SS270A	D843	2339491M	DI AM01Z 200V
D312	2338321M	DI 1SS270	D844	2339491M	DI AM01Z 200V
D313	2338321M	DI 1SS270	D845	2339491M	DI AM01Z 200V
D401	2333001M	DI RU2M	D846	2339491M	DI AM01Z 200V
D401	2338321M	*DI 1SS270 (IF PWB)	D848	2338321M	DI 1SS270
D402	2338321M	*DI 1SS270	D850	2339888M	ZD HZS12C2
D403	2338321M	*DI 1SS270	D851	2339888M	ZD HZS12C2
D404	2338321M	*DI 1SS270	D852	2339888M	ZD HZS12C2
D405	2338321M	*DI 1SS270	D901	2338313	DI RBV-406M (60V)
D406	2339481M	DI AS01Z 200V	D902	CH00711M	DI 10ELS2
D413	2339867M	ZD HZS9C1	D903	CH00711M	DI 10ELS2
D5101	2338321M	*DI 1SS270	D904	CH00711M	DI 10ELS2
D5102	2338321M	*DI 1SS270	D906	CH00711M	DI 10ELS2
D514	2339869M	ZD HZS9C3	D907	CH00711M	DI 10ELS2
D515	2339869M	ZD HZS9C3	D908	CH00712M	DI 10ELS4 400V

\* PARTS FOR FSP MODELS ONLY

制品安全上的注意: 在下表附带△标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
D909A	2339481M	DI AS01Z	E008	2905241	ADAPTOR
D909B	2339481M	DI AS01Z	E009	3705233	ANODE CLAMPER
D910	2339884M	ZD HZS12B1	E1001	2941311	BATTERY EVEREADY AA1015
D920	2339053M	ZD HZS7B3L	E1L	1EF2014	3P CONN W/WIRES
D940	2339844M	ZD HZS6B1	E1R	1EF2013	2P CONN W/WIRES (L=680)
D941	2338321M	DI 1SS270	E1TXT	1EF2010	10P CONNECTOR WITH WIRES
D951	2338931	DI FMG-G26S	E1VMC	2979222	CO-02C-C2R5-121(VM)
D952	2338902M	DI DFM1SA4	E1Y1	2973833	7P CONN W/WIRES (L=680)
D953	2349851	DI FMB-G16L	E1Y2	1EF2008	5P CONN W/WIRES
D954	CH00711M	DI 10ELS2	E1Y3	2997976	1P CONNECTOR WITH LEAD
D955	CH00711M	DI 10ELS2	E201	2122652M	FERRITE CORE WITH LEAD
D956	2338944	DI FML-G12S (F)	E2A1	ED00363	5P PIN POST
D957	CH00711M	DI 10ELS2	E2A2	ED00363	5P PIN POST
D959	2338321M	DI 1SS270	E2A3	1ML2001	SHOULDER PIN RIVET
D961	CH00711M	DI 10ELS2	E301	2693863	TERMINAL JPJ1989
D970	2339022M	ZD HZS6B2L	E302	2693851	TERMINAL JXT1043
D971	2339051M	ZD HZS7B1L	E401	2674646	PH 12P CONNECTOR
D972	2339888M	ZD HZS12C2	E502	2902269	*10P MINI PLUG PIN WITH BASE
D973	2339837M	ZD HZS5C1	E507	2674646	*PH 12P CONNECTOR
D975	2338321M	DI 1SS270	E508	2674645	JP 10 PIN CONNECTOR
DA01	2338321M	DI 1SS270	E510	2674646	PH 12P CONNECTOR
DA02	2338321M	DI 1SS270	E5101	1EA2002	*8P "F" CONNECTOR
DA05	2338321M	DI 1SS270	E5102	1EA2003	*13P "F" CONNECTOR
DA06	2338321M	DI 1SS270	E701	2665272	4P PLUG PIN W/BASE (UL) HAS
DA07	2338321M	DI 1SS270	△ E880	2698673	CRT SOCKET
DA08	2338321M	DI 1SS270	E902	2661753	4P PLUG PIN WITH BASE
DA09	2338321M	DI 1SS270	E903	2903543	63P PLUG PIN W/BASE
DA10	2338321M	DI 1SS270	E903	2998587A	3J MINI CONNECTOR WIRE
DA11	2338321M	DI 1SS270	E903	2999291	EARTH WIRE
DA12	2338321M	DI 1SS270	E904	2972582A	POWER CORD (191/192/981 ONLY)
DA13	2338321M	DI 1SS270	E904	2972584	POWER CORD (041 ONLY)
DA14	2338321M	DI 1SS270 (SUB PWB)	E904	2972591	POWER CORD (081/433 ONLY)
DA14	2339481M	DI AS01Z 200V	E904	EV00001	POWER CORD (751 ONLY)
DA51	2338321M	DI 1SS270 (FS MODELS ONLY)	E904	EV00071	POWER CORD (051 ONLY)
DA90	2338321M	DI 1SS270	EA01	ED01521	4P FG SOCKET
DA91	2338321M	DI 1SS270	EA02	2723101J	2P PLUG PIN W/BASE
DE41	2339862M	ZD HZS9A2(NOT FOR 041,433,191,192)	EA03	2723102J	3P PLUG
DJ01	2339869M	ZD HZS9C3	EAN1	EY00031	*PINCABLE L TYPE 1 7C
DJ02	2339869M	ZD HZS9C3	EAN2	EY00031	*PINCABLE L TYPE 1 7C
DK01	2338321M	DI 1SS270	EB	2776541	MAGNET ETC35C61FA
DK02	2338321M	DI 1SS270	EEJ03	EF06591	10P CONNECTOR W/WIRES
DK03	2339847M	ZD HZS6C1	EEJ04	2908684	4P CONNECTOR W/WIRES
DK054	2338321M	DI 1SS270	EEL01	2973704	3P CONNECTOR W/WIRES
DK167	2333001M	DI RU2M	EEL02	2908664	3P CONNECTOR W/WIRES
DL02	CH00231A	LED (RED)	EEL01	2973754	5P CONNECTOR W/WIRES
DZ01	2339863M	*ZD HZS9A3	EEL02	2973796	6P CONNECTOR W/WIRES
DZ51	2339845M	*ZD HZS6B2	EF5	2956783	2P CONNECTOR WITH WIRE (UL3239)
DZ80	2339022M	ZD HZS6B2L	EJ01	3673601	US 13PIN JACK
DZ81	2339042M	ZD HZS7A2L	EJ02	2672041	HEADPHONE JACK
E001	2774731R	*FERRITE CORE WITH LEAD	EJ03	2959059	10P PLUG PIN

\* PARTS FOR FSP MODELS ONLY

**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.


SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
EJ03	2959059	PH 10 PIN CONNECTOR	KR220	0700062M	CF 39K OHM 1/16W +-5% (NOT FOR 051,081,751,PX-981)
EJ04	2959053	PH 4 PIN CONNECTOR	L001	2123461M	FERRITE BEADS B 0.8 MH
EJ04	2959053	5P POST PIN 4P TYPE PH	L002	2123461M	FERRITE BEADS B 0.8 MH
EJ05	2959052	PIN POST (PH 3P)	L101	2123781R	PEAKING COIL 100MH-K
EK01	2902262	3P MINI PLUG PIN WITH BASE	L201	2143601	*7MM SQUARE COIL
EK01	2902262	PH 3 PIN CONNECTOR	L202	2143812	*IF COIL WITH 7 CASE 11T
EK02	2959052	PIN POST (PH 3P)	L203	BH00614	VCO COIL 38.9MHZ
EK03	2902261	2P MINI PLUG PIN WITH BASE	L204	2123407M	*LAL AXIAL COIL 0.47MH
EL01	2902264	5P MINI PLUG PIN WITH BASE	L205	2123097M	*LAL AXIAL COIL 3.9MH
EL01	29602264	PH 5 PIN CONNECTOR	L207	2123104M	LAL AXIAL COIL 12MH
EL02	2902265	PH 6 PIN CONNECTOR	L208	2123102M	LAL AXIAL COIL 8.2MH
EL02	2902265	PIN POST (B6B-EH)	L208	2123461M	*FERRITE BEADS B 0.8 MH (IF PWB)
EL90A	2729252R	FUSE HOLDER	L209	2122253M	*LAL AXIAL COIL 100MH (IF PWB)
EL90B	2729252R	FUSE HOLDER	L209	2123103M	LAL AXIAL COIL 10MH
ES01	2675591	12P PLUG PIN	L210	2123103M	*LAL AXIAL COIL 10MH
ES02	2675588	10P PLUG PIN	L211	2123099M	*LAL AXIAL COIL 5.6MH
ESPG	2902261	2P MINI PLUG PIN WITH BASE	L212	2123103M	*LAL AXIAL COIL 10MH
EW01	EF05192	4P CONNECTOR W/FG	L2A1	2123412M	LAL AXIAL COIL 1.2MH
EZ03	2902264	5P MINI PLUG PIN WITH BASE	L2A2	2123415M	LAL AXIAL COIL 2.2MH
$\triangle$ FL91	2720402	FUSE 3 15A	L301	2123781R	PEAKING COIL 100MH
G901	CJ00071R	SPARK GAP	L302	2123781R	PEAKING COIL 100MH
H301	HP00151	Y/C COMB FILTER	L380	2122949M	LAL AXIAL COIL 33MH
H304	2661756	1P PLUG PIN WITH BASE	L401	2145992	*6.0MHZ COIL
I001	CP03804	IC M37271MF-231SP	L402	2145991	*SIF COIL 4.5MHZ
I002	CP03981	IC S24C08A	L403	2123106M	*LAL AXIAL COIL 18MH
I004	2003522R	IC PST5720-7	L405	2123461M	FERRITE BEADS B 0.8MH
I201	CP03771	IC LA7566	L501	2123781R	PEAKING COIL 100MH
I301	CP03781	IC MM1313AD	L502	2123781R	PEAKING COIL 100MH
I402	2004901	IC TA8776N	L5101	2123781R	*PEAKING COIL 100MH
I501	CP03791U	IC TB1226AN	L5102	2123781R	*PEAKING COIL 100MH
I502	2003981	IC BA7604N	L5103	2123781R	*PEAKING COIL 100MH
I601	CP03651	IC TA8427K	L5104	2123781R	*PEAKING COIL 100MH
I901	2373382	IC STR-S6709	L5106	2123781R	*PEAKING COIL 100MH
$\triangle$ I902	2004761	IC TLP631	L5107	2123781R	*PEAKING COIL 100MH
I903	2003423	IC UPC7893AHF	L611	2123461M	FERRITE BEADS 0.8MH
IA01	2004681	IC TA8218AH	L701	2124183	CHOKE COIL
IA02	CP01251U	IC AN7395K	L702	2165404	LINEARITY COIL
IC201	2004171	*IC LA7577	L703	2125763R	RADIAL COIL 27MH
IC202	2004693	*IC MM1113XS	L704	BH00547	FIXED COIL 33MH
IC401	2020561	*IC LA7975	L7A1	2123781R	PEAKING COIL 100MH
IC5101	CP01611U	*IC TDA9160A	L801	2123766R	RADIAL COIL 180MH
IC5102	CP02611	*IC TDA4665	L802	2123766R	RADIAL COIL 180MH
IC5103	CK02691U	*IC SDA9187X	L803	2123766R	RADIAL COIL 180MH
IC5104	CK02701U	*IC SDA9189X	L804	2123763R	COIL 100MH
IF1	ED00201	*12P CONNECTOR WITH LOCK	L805	2123763R	COIL 100MH
IF2	ED00198	*10P CONNECTOR WITH LOCK	L806	2123763R	COIL 100MH
IH01	2004362	*IC CXA1279AS	L841	2122944M	LAL AXIAL COIL 12MH
IH02	2387304	IC M5218AP	L842	2123468M	FERRITE CORE 0.8MH
IS01	2366621	*INTEGRATED CIRCUIT LA7910	L843	2123468M	FERRITE CORE 0.8MH
IZ01	2008741	IC TEA5114A			

\* PARTS FOR FSP MODELS ONLY

制品安全上的注意: 在下表附带△标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION	
	L844	2123468M	FERRITE CORE 0 8MH	PY2	2675216	PLG-05P2R5VPWB4
△	L901	2276071	LINE FILTER (041,751 ONLY)	PY3	2661756	1P PLUG PIN WITH BASE
△	L901	2276072	LINE FILTER	Q002	2327773M	TR 2SC3413C/D
△	L902	2276072	LINE FILTER (041,751 ONLY)	Q003	2327773M	TR 2SC3413C/D
	L904	2161152	FILTER COIL	Q005	2326873R	TR DTC144ES
△	L905	BZ00501A	DEGAUSSING COIL	Q201	2320144M	*TR 2SC1906
	L906	2123461M	FERRITE BEADS 0 8MH	Q202	2320144M	*TR 2SC1906
	L951	2123462M	FERRITE BEADS 2.3MH	Q203	2326872R	*TR DTC114ES
	L952	2123462M	FERRITE BEADS 2 3MH	Q204	2326872R	*TR DTC114ES (IF PWB)
	L953	2125803N	COIL 27MH	Q204	2327752M	TR 2SA1390 B/C
	L956	2125808N	COIL 68MH	Q205	2326872R	TR DTC114ES
	L957	2123462M	FERRITE BEADS 2 3MH	Q205	2326873R	*TR DTC144ES (IF PWB)
	L958	2123462M	FERRITE BEADS 2 3MH	Q206	2326872R	TR DTC114ES
	L959	2123462M	FERRITE BEADS 2 3MH	Q206	2327773M	*TR 2SC3413C/D (IF PWB)
	L960	2123462M	FERRITE BEADS 2.3MH	Q207	2325702M	*TR 2SA854S Q/R
	L961	2123461M	FERRITE BEADS 0 8MH	Q2A1	2326872R	TR DTC114ES
	L962	2123461M	FERRITE BEADS 0 8MH	Q2A2	2320144M	TR 2SC1906
	L963	2123461M	FERRITE BEADS 0 8MH	Q2A3	2320144M	TR 2SC1906
	L964	2123461M	FERRITE BEADS 0 8MH	Q301	2327751M	TR 2SA1390 B/C/D
	L965	2125808N	COIL 68MH	Q303	2327752M	TR 2SA1390 B/C
	L971	2125804N	FILTER COIL 33MH	Q304	2327754M	TR 2SA1390 D
	L973	2123462M	FERRITE BEADS 2 3MH	Q305	2327751M	TR 2SA1390 B/C/D
	L974	2123462M	FERRITE BEADS 2 3MH	Q306	2327751M	TR 2SA1390 B/C/D
	L999	2123462M	FERRITE BEADS 2 3MH	Q401	2327773M	TR 2SC3413C/D (NOT FOR 051, 081S,751,PX-981)
	LA01	2123468M	FERRITE CORE WITH LEAD 0 8MH	Q402	2326873R	TR DTC144ES (NOT FOR 051, 751,081S,PX-981)
	LA02	2123468M	FERRITE CORE WITH LEAD 0 8MH	Q402	2327773M	*TR 2SC3413C/D (IF PWB)
	LA03	2123468M	FERRITE CORE WITH LEAD 0 8MH	Q403	2320647M	TR 2SD1213 C/D
	LA04	2123468M	FERRITE CORE WITH LEAD 0 8MH	Q403	2326873R	*TR DTC144ES (IF PWB)
	LE13	2123461M	FERRITE BEADS B 0 8MH (NOT FOR 041,433,191,192)	Q404	2326873R	*TR DTC144ES (IF PWB)
	LE16	2123781R	PEAKING COIL 100MH-K (NOT FOR 041,433,191,192)	Q404	2327773M	TR 2SC3413C/D
	LJ01	2123781R	PEAKING COIL 100MH	Q405	2326873R	*TR DTC144ES (IF PWB)
	LK059	2123461M	FERRITE BEADS B 0 8MH	Q405	2327773M	TR 2SC3413C/D
	LL01	2123461M	FERRITE BEADS B 0 8 MH	Q406	2326873R	*TR DTC144ES (IF PWB)
	LMF1	8Z02382	E-W CORRECTION COIL	Q406	2327773M	TR 2SC3413C/D
	LS01	2123781R	*PEAKING COIL 100MH-K	Q407	2326873R	*TR DTC144ES (IF PWB)
	LT01	2123781R	*PEAKING COIL 100MH-K	Q407	2327773M	TR 2SC3413C/D
	LT02	2123781R	*PEAKING COIL 100MH-K	Q408	2320647M	TR 2SC1213 C/D
	LT03	2123781R	*PEAKING COIL 100MH-K	Q414	2327773M	TR 2SC3413C/D
	LZ01	2123781R	*PEAKING COIL 100MH-K	Q415	2327773M	TR 2SC3413C/D
	LZ02	2123781R	*PEAKING COIL 100MH-K	Q416	2327773M	TR 2SC3413C/D
	N702	3333923	EARTH SPRING	Q417	2327773M	TR 2SC3413C/D
	PSCR	2665271	3P PLUG PIN W/BASE	Q470	2327773M	TR 2SC3413C/D
	PSD1	2674635	PLUG PIN	Q501	2326873R	TR DTC144ES
	PSD2	2674636	*PLUG PIN	Q5101	CF01421R	*TR KTC3198 GR
	PSD3	2674636	PLUG PIN	Q5102	CF01431R	*TR KTA 1266Y
	PSD4	2674636	PLUG PIN	Q5103	CF01421R	*TR KTC3198 GR
	PVMC	2902261	2P MINI PLUG PIN WITH BASE	Q5104	CF01431R	*TR KTA 1266Y
	PY1	2974193S	7P CONNECTOR W/BOARD IN	Q5105	CF01421R	*TR KTC3198 GR

\* PARTS FOR FSP MODELS ONLY

**PRODUCT SAFETY NOTE:** Components marked with a  have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
Q5106	CF01421R	*TR KTC3198 GR	Q954	2315931	TR 2SB1548A-P
Q5107	CF01421R	*TR KTC3198 GR	Q955	2320665R	TR 2SC1213A(D R)
Q5108	CF01421R	*TR KTC3198 GR	Q956	2320647M	TR 2SC1213 C/D
Q5109	CF01421R	*TR KTC3198 GR	Q957	2320647M	TR 2SC1213 C/D
Q5110	CF01421R	*TR KTC3198 GR	Q958	2315933	TR 2SB1548A-P/Q
Q5111	CF01421R	*TR KTC3198 GR	Q959	2320637M	TR 2SA673 C/D
Q5171	CF01421R	*TR KTC3198 GR	Q961	2327753M	TR 2SA1390 C/D
Q5172	CF01421R	*TR KTC3198 GR	Q962	2312171	TR 2SC3852
Q5173	CF01421R	*TR KTC3198 GR	QA01	2327773M	TR 2SC3413 C/D
Q5174	CF01421R	*TR KTC3198 GR	QA50	2327753M	TR 2SA1390 C/D
Q604	2321351M	TR 2SA836/844D/E	QK01	2327751M	TR 2SA1390 B/C/D
Q661	2315933	TR 2SB1548A-P/Q	QK02	2323891	TR 2SD669 A/B/C
Q662	2323522M	TR 2SD789E	QK03	2322521	TR 2SB649A (C)
Q663	2327752M	TR 2SA1390 B/C	QK04	2323891	TR 2SD669 A/B/C
Q664	2327773M	TR 2SC3413 C/D	QK05	2322521	TR 2SB649A (C)
Q665	2327773M	TR 2SC3413 C/D	QK06	2327751M	TR 2SA1390 B/C/D
Q666	2327773M	TR 2SC3413 C/D	QL01	2312995	PHOTO TRS RPT-38PT3F (L/M)
Q708	2315454F	TR 2SC4589-05	QS01	CF01421R	*TR KTC3198 GR
Q709	2326216	TR 2SC3116 S/T	QZ10	2327773M	TR 2SC3413C/D
Q740	2320663M	TR 2SC1213AC	QZ51	2003423	*IC UPC7893AHF
Q741	2321112M	TR 2SA778AK-02	QZ52	2312171	*TR 2SC3852
Q742	2323782	THYRISTOR 03P2M	QZ80	2324611	TR 2SD882 Q/P
Q742	2323782R	THYRISTOR 03P2M	R001	0700054M	CF 10K OHM 1/16W +-5%
Q801	CF00951	TR KTC 3229	R002	0700055M	CF 12K OHM 1/16W +-5%
Q802	CF00951	TR KTC 3229	R003	0700051M	CF 5.6K OHM 1/16W +-5%
Q803	CF00951	TR KTC 3229	R004	0700056M	CF 15K OHM 1/16W +-5%
Q804	2320663M	TR 2SC1213AC	R005	0700041M	CF 1K OHM 1/16W +-5%
Q805	2320663M	TR 2SC1213AC	R006	0700041M	*CF 1K OHM 1/16W +-5%
Q806	2320663M	TR 2SC1213AC	R007	0700045M	CF 5 6 OHM 1/16W +-5%
Q807	2327772M	TR 2SC3413 B/C	R008	0700045M	CF 2 2K OHM 1/16W +-5%
Q808	2327772M	TR 2SC3413 B/C	R009	0700046M	CF 2 7K OHM 1/16W +-5%
Q809	2327772M	TR 2SC3413 B/C	R010	0100065M	CF 1K OHM 1/8W +-5%
Q810	2320637M	TR 2SA673 C/D	R013	0700054M	CF 10K OHM 1/16W +-5%
Q811	2327772M	TR 2SC3413 B/C	R014	0700027M	CF 100 OHM 1/16W +-5%
Q841	2327772M	TR 2SC3413 B/C	R018	0700058M	CF 22K OHM 1/16W +-5%
Q842	2327772M	TR 2SC3413 B/C	R019	0700048M	CF 3.9K OHM 1/16W +-5%
Q843	2327772M	TR 2SC3413 B/C	R020	0700058M	CF 22K OHM 1/16W +-5%
Q844	2327772M	TR 2SC3413 B/C	R021	0700054M	CF 10K OHM 1/16W +-5%
Q845	2327772M	TR 2SC3413 B/C	R022	0100117M	CF 150K OHM 1/8W +-5%
Q846	2327783M	TR 2SC3553 C/D	R023	0700067M	CF 100K OHM 1/16W +-5%
Q847	2321351M	TR 2SA836/844D/E	R024	0700048M	CF 3.9K OHM 1/16W +-5%
Q848	2315381	TR 2SA1837	R025	0700062M	CF 39K OHM 1/16W +-5%
Q849	2315391	TR 2SC4793	R027	0700027M	CF 100 OHM 1/16W +-5%
Q850	2327772M	TR 2SC3413 B/C	R031	0700027M	CF 100 OHM 1/16W +-5%
Q851	2327773M	TR 2SC3413C/D	R034	0700041M	*CF 1K OHM 1/16W +-5%
Q901	2312174	TR 2SD2375 (P)	R035	0700041M	CF 1K OHM 1/16W +-5%
Q930	2321351M	TR 2SA836/844D/E	R036	0700041M	CF 1K OHM 1/16W +-5%
Q951	CF00114R	TR 2SC4490AN Q,R,T	R037	0700041M	CF 1K OHM 1/16W +-5%
Q952	2315933	TR 2SB1548A-P/Q	R039	0700027M	CF 100 OHM 1/16W +-5%
Q953	CF00114R	TR 2SC4490AN Q,R,T	R040	0700027M	CF 100 OHM 1/16W +-5%

\* PARTS FOR FSP MODELS ONLY

制品安全上的注意: 在下表附带△标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R041	0700027M	CF 100 OHM 1/16W +-5%	R213	0700037M	CF 560 OHM 1/16W +-5%
R044	0700027M	CF 100 OHM 1/16W +-5%	R214	0700045M	*CF 2.2K OHM 1/16W +-5% (IF PWB)
R045	0700027M	CF 100 OHM 1/16W +-5%	R214	0700056M	CF 15K OHM 1/16W +-5%
R046	0700047M	CF 3.3K OHM 1/16W +-5%	R215	0700051M	*CF 5 6K OHM 1/16W +-5%
R047	0700047M	CF 3.3K OHM 1/16W +-5%	R216	0700045M	CF 2 2K OHM 1/16W +-5%
R050	0700045M	CF 2 2K OHM 1/16W +-5%	R217	0700037M	*CF 560 OHM 1/16W +-5% (IF PWB)
R051	0700035M	CF 390 OHM 1/16W +-5%	R217	0700045M	CF 2 2K OHM 1/16W +-5%
R052	0700035M	CF 390 OHM 1/16W +-5%	R218	0700014M	*CF 10 OHM 1/16W +-5% (IF PWB)
R053	0700041M	CF 1K OHM 1/16W +-5%	R218	0700054M	CF 10K OHM 1/16W +-5%
R054	0700046M	CF 2 7K OHM 1/16W +-5%	R219	0700027M	CF 100 OHM 1/16W +-5% (051,751, 081,MPX-981 ONLY)
R055	0700046M	CF 2 7K OHM 1/16W +-5%	R219	0700041M	*CF 1K OHM 1/16W +-5% (IF PWB)
R056	0700046M	CF 2 7K OHM 1/16W +-5%	R220	0150158	*VR 30K OHM-B
R057	0700041M	CF 1K OHM 1/16W +-5%	R221	0700031M	CF 180 OHM 1/16W +-5%
R061	0700051M	CF 5 6K OHM 1/16W +-5%	R221	0700044M	*CF 1 8K OHM 1/16W +-5% (IF PWB)
R066	0700027M	CF 100 OHM 1/16W +-5%	R222	0700045M	*CF 2 2K OHM 1/16W +-5%
R067	0100041M	CF 100 OHM 1/8W +-5%	R223	0700054M	*CF 10K OHM 1/16W +-5% (IF PWB)
R068	0700056M	CF 15K OHM 1/16W +-5%	R223	0700063M	CF 47K OHM 1/16W +-5%
R069	0700058M	CF 22K OHM 1/16W +-5%	R224	0700032M	*CF 220 OHM 1/16W +-5% (IF PWB)
R075	0700056M	CF 15K OHM 1/16W +-5%	R224	0700037M	CF 560 OHM 1/16W +-5%
R077	0700041M	CF 1K OHM 1/16W +-5%	R225	0700041M	*CF 1K OHM 1/16W +-5%
R078	0700027M	*CF 100 OHM 1/16W +-5%	R226	0700027M	*CF 100 OHM 1/16W +-5% (IF PWB)
R080	0700053M	CF 8 2K OHM 1/16W +-5%	R226	0700062M	CF 39K OHM 1/16W +-5%
R081	0700047M	CF 3 3K OHM 1/16W +-5%	R227	0100051M	*CF 270 OHM 1/8W +-5% (IF PWB)
R087	0700058M	CF 22K OHM 1/16W +-5%	R227	0700033M	CF 270 OHM 1/16W +-5%
R088	0700058M	CF 22K OHM 1/16W +-5%	R228	0700033M	*CF 270 OHM 1/16W +-5% (IF PWB)
R089	0700046M	CF 2.7K OHM 1/16W +-5%	R228	0700037M	CF 560 OHM 1/16W +-5%
R090	0700046M	CF 2 7K OHM 1/16W +-5%	R229	0700036M	*CF 470 OHM 1/16W +-5%
R091	0700046M	CF 2.7K OHM 1/16W +-5%	R230	0700032M	*CF 220 OHM 1/16W +-5%
R095	0700027M	CF 100 OHM 1/16W +-5%	R231	0700032M	*CF 220 OHM 1/16W +-5%
R096	0700043M	CF 1 5K OHM 1/16W +-5%	R232	0150134	*VR 1K OHM-B
R097	0700051M	CF 5 6K OHM 1/16W +-5%	R233	0700041M	*CF 1K OHM 1/16W +-5%
R098	0700051M	CF 5 6K OHM 1/16W +-5%	R234	0700041M	CF 1K OHM 1/16W +-5%
R099	0700041M	CF 1K OHM 1/16W +-5%	R234	0700063M	*CF 47K OHM 1/16W +-5% (IF PWB)
R100	0700056M	CF 15K OHM 1/16W +-5%	R235	0700037M	CF 560 OHM 1/16W +-5%
R101	0700027M	CF 100 OHM 1/16W +-5%	R235	0700045M	*CF 2 2K OHM 1/16W +-5% (IF PWB)
R102	0700027M	CF 100 OHM 1/16W +-5%	R236	0700037M	*CF 560 OHM 1/16W +-5%
R110	0700051M	CF 5 6K OHM 1/8W +-5%	R237	0187058M	CF 510 OHM 1/16W +-5%
R201	0700014M	*CF 10 OHM 1/16W +-5%	R237	0700027M	*CF 100 OHM 1/16W +-5% (IF PWB)
R202	0700051M	*CF 5 6K OHM 1/16W +-5%	R238	0700039M	CF 820 OHM 1/16W +-5%
R203	0700045M	*CF 2 2K OHM 1/16W +-5%	R240	0700041M	CF 1K OHM 1/16W +-5%
R204	0114135M	*CF 150 OHM 1/4W +-5%	R242	0700029M	*CF 150 OHM 1/16W +-5%
R205	0700014M	*CF 10 OHM 1/16W +-5% (IF PWB)	R245	0700027M	*CF 100 OHM 1/16W +-5%
R205	0700045M	CF 2 2K OHM 1/16W +-5%	R246	0700064M	*CF 56K OHM 1/16W +-5%
R206	0700027M	*CF 100 OHM 1/16W +-5%	R247	0700051M	*CF 5 6K OHM 1/16W +-5%
R207	0700037M	*CF 560 OHM 1/16W +-5%	R264	0700041M	CF 1K OHM 1/16W +-5%
R208	0114143M	*CF 330 OHM 1/4W +-5% (IF PWB)	R265	0700047M	CF 3 3K OHM 1/16W +-5%
R208	0700041M	CF 1K OHM 1/16W +-5%	R266	0700054M	CF 10K OHM 1/16W +-5%
R209	0114149M	*CF 560 OHM 1/4W +-5% (IF PWB)	R267	0700063M	CF 47K OHM 1/16W +-5%
R209	0700065M	CF 68K OHM 1/16W +-5%	R268	0700061M	CF 33K OHM 1/16W +-5%
R213	0700014M	*CF 10 OHM 1/16W +-5% (IF PWB)			

\* PARTS FOR FSP MODELS ONLY



**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety  
Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual  
Don't degrade the safety of the receiver through improper servicing

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R2A1	0700014M	CF 10 OHM 1/16W +-5%	R346	0700027M	CF 100 OHM 1/16W +-5%
R2A2	0700025M	CF 68 OHM 1/16W +-5%	R347	0700027M	CF 100 OHM 1/16W +-5%
R2A3	0700058M	CF 22K OHM 1/16W +-5%	R348	0700027M	CF 100 OHM 1/16W +-5%
R2A4	0700023M	CF 47 OHM 1/16W +-5%	R349	0700027M	CF 100 OHM 1/16W +-5%
R2A5	0700045M	CF 2 2K OHM 1/16W +-5%	R354	0700036M	CF 470 OHM 1/16W +-5%
R2A6	0700051M	CF 5.6K OHM 1/16W +-5%	R360	0700027M	CF 100 OHM 1/16W +-5%
R2A7	0700044M	CF 1 8K OHM 1/16W +-5%	R361	0700041M	*CF 1K OHM 1/16W +-5%
R2A8	0700037M	CF 560 OHM 1/16W +-5%	R362	0700041M	*CF 1K OHM 1/16W +-5%
R2A9	0700016M	CF 15 OHM 1/16W +-5%	R363	0700027M	*CF 100 OHM 1/16W +-5%
R2B1	0700027M	CF 100 OHM 1/16W +-5%	R364	0700027M	*CF 100 OHM 1/16W +-5%
R2B2	0114135M	CF 150 OHM 1/4W +-5%	R366	0700027M	*CF 100 OHM 1/16W +-5%
R2B3	0700051M	CF 5 6K OHM 1/16W +-5%	R367	0700027M	*CF 100 OHM 1/16W +-5%
R2B4	0700045M	CF 2 2K OHM 1/16W +-5%	R368	0700027M	*CF 100 OHM 1/16W +-5%
R2B5	0700014M	CF 10 OHM 1/16W +-5%	R369	0700027M	CF 100 OHM 1/16W +-5%
R2B6	0700027M	CF 100 OHM 1/16W +-5%	R370	0700027M	CF 100 OHM 1/16W +-5%
R2B7	0700032M	CF 220 OHM 1/16W +-5%	R371	0700027M	CF 100 OHM 1/16W +-5%
R2B8	0114135M	CF 150 OHM 1/4W +-5%	R372	0700027M	CF 100 OHM 1/16W +-5%
R2C1	0150306	VR 20K OHM +-5%	R373	0119514S	CF 10 OHM 1/4W +-5%
R302	0100038M	CF 75 OHM 1/8W +-5%	R374	0100122M	CF 240K OHM 1/8W +-5%
R303	0100041M	CF 100 OHM 1/8W +-5%	R375	0700027M	CF 100 OHM 1/16W +-5%
R304	0100113M	CF 100K OHM 1/8W +-5%	R376	0700027M	CF 100 OHM 1/16W +-5%
R305	0100041M	CF 100 OHM 1/8W +-5%	R380	0700044M	CF 1.8K OHM 1/16W +-5%
R306	0100105M	CF 47K OHM 1/8W +-5%	R381	0700027M	CF 100 OHM 1/16W +-5%
R307	0100041M	CF 100 OHM 1/8W +-5%	R386	0700037M	CF 560 OHM 1/16W +-5%
R308	0700025M	CF 68 OHM 1/16W +-5%	R387	0700027M	CF 100 OHM 1/16W +-5%
R309	0100045M	CF 2 2K OHM 1/16W +-5%	R388	0100065M	CF 1K OHM 1/8W +-5%
R310	0700027M	CF 100 OHM 1/16W +-5%	R389	0700027M	CF 100 OHM 1/16W +-5%
R312	0100113M	CF 100K OHM 1/8W +-5%	R390	0700041M	CF 1K OHM 1/16W +-5%
R313	0100041M	CF 100 OHM 1/8W +-5%	R391	0700041M	CF 1K OHM 1/16W +-5%
R314	0100105M	CF 47K OHM 1/8W +-5%	R392	0100053M	CF 330 OHM 1/8W +-5%
R315	0100041M	CF 100 OHM 1/8W +-5%	R393	0700038M	CF 680 OHM 1/16W +-5%
R316	0100038M	CF 75 OHM 1/8W +-5%	R394	0700027M	CF 100 OHM 1/16W +-5%
R317	0100041M	CF 100 OHM 1/8W +-5%	R395	0100057M	CF 470 OHM 1/8W +-5%
R318	0100038M	CF 75 OHM 1/8W +-5%	R396	0700037M	CF 560 OHM 1/16W +-5%
R319	0100041M	CF 100 OHM 1/8W +-5%	R397	0700027M	CF 100 OHM 1/16W +-5%
R320	0100113M	CF 100K OHM 1/8W +-5%	R399	0100041M	CF 100 OHM 1/8W +-5%
R321	0700058M	CF 22K OHM 1/16W +-5%	R3A1	0700045M	CF 2 2K OHM 1/16W +-5%
R322	0700056M	CF 15K OHM 1/16W +-5%	R401	0700027M	CF 100 OHM 1/16W +-5% (NOT FOR 051,081S,751M,PX-981)
R323	0700058M	CF 22K OHM 1/16W +-5%	R402	0150136	*VR 5K OHM-B
R329	0700027M	CF 100 OHM 1/16W +-5%	R403	0700041M	CF 1K OHM 1/16W +-5% (NOT FOR 051,081S,751,PX-981)
R331	0100041M	CF 100 OHM 1/8W +-5%	R403	0700059M	*CF 27K OHM 1/16W +-5% (IF PWB)
R332	0100041M	CF 100 OHM 1/8W +-5%	R404	0700034M	CF 330 OHM 1/16W +-5% (NOT FOR 051,081,751,PX-981)
R333	0700063M	CF 47K OHM 1/16W +-5%	R404	0700047M	*CF 3 3K OHM 1/16W +-5% (IF PWB)
R336	0100038M	CF 75 OHM 1/8W +-5%	R405	0700034M	CF 330 OHM 1/16W +-5% (NOT FOR 051,081,751,PX-981)
R338	0100105M	CF 47K OHM 1/8W +-5%	R405	0700064M	*CF 56k OHM 1/16W +-5% (IF PWB)
R340	0100105M	CF 47K OHM 1/8W +-5%	R406	0700034M	CF 330 OHM 1/16W +-5% (NOT FOR 051,081,751,PX-981)
R341	0700027M	CF 100 OHM 1/16W +-5%			
R342	0700027M	CF 100 OHM 1/16W +-5%			
R343	0700027M	CF 100 OHM 1/16W +-5%			
R344	0700027M	CF 100 OHM 1/16W +-5%			

\* PARTS FOR FSP MODELS ONLY

制品安全上的注意: 在下表附带△标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R406	0700064M	FOR 051,081,751,PX-981)	R459	0700054M	CF 10K OHM 1/16W +-5%
R407	0700027M	*CF 56K OHM 1/16W +-5% (IF PWB)	R469	0100127M	CF 100 OHM 1/16W +-5%
R407	0700034M	*CF 100 OHM 1/16W +-5% (IF PWB)	R470	0110215S	MF 56 OHM 2W +-5%
		CF 330 OHM 1/16W +-5% (NOT	R471	0700027M	CF 100 OHM 1/16W +-5%
		FOR 051,081,751,PX-981)	R472	0700027M	CF 100 OHM 1/16W +-5%
R408	0100057M	*CF 470 OHM 1/8W +-5% (IF PWB)	R473	0700027M	CF 100 OHM 1/16W +-5%
R408	0700041M	CF 1K OHM 1/16W +-5% (NOT	R474	0700027M	CF 100 OHM 1/16W +-5%
		FOR 051,081S,751,PX-981)	R475	0700038M	CF 680 OHM 1/16W +-5%
R415	0700051M	*CF 5 6K OHM 1/16W +-5%	R476	0700051M	CF 5 6K OHM 1/16W +-5%
R416	0700054M	*CF 10K OHM 1/16W +-5%	R478	0700041M	CF 1K OHM 1/16W +-5%
R417	0700051M	*CF 5 6K OHM 1/16W +-5%	R479	0119514G	FR 10 OHM 1/4W +-5%
R418	0700054M	*CF 10K OHM 1/16W +-5%	R480	0140972M	CF 10M OHM 2W +-5%
R421	0700053M	*CF 8 2K OHM 1/16W +-5%	R502	0700027M	CF 100 OHM 1/16W +-5%
R422	0700051M	*CF 5 6K OHM 1/16W +-5%	R504	0100041M	CF 100 OHM 1/8W +-5%
R423	0700051M	*CF 5 6K OHM 1/16W +-5%	R505	0100041M	CF 100 OHM 1/8W +-5%
R424	0700027M	CF 100 OHM 1/16W +-5%	R506	0100041M	CF 100 OHM 1/8W +-5%
R424	0700054M	*CF 10K OHM 1/16W +-5% (IF PWB)	R507	0700027M	CF 100 OHM 1/16W +-5%
R425	0700027M	CF 100 OHM 1/16W +-5%	R508	0700045M	CF 2.2K OHM 1/16W +-5%
R425	0700051M	*CF 5 6K OHM 1/16W +-5% (IF PWB)	R509	0700045M	CF 2 2K OHM 1/16W +-5%
R428	0700059M	CF 27K OHM 1/16W +-5%	R510	0700045M	CF 2 2K OHM 1/16W +-5%
R429	0700059M	CF 27K OHM 1/16W +-5%	R5101	0700034M	*CF 330 OHM 1/16W +-5%
R430	0700056M	CF 15K OHM 1/16W +-5%	R5102	0700046M	*CF 2 7K OHM 1/16W +-5%
R431	0700056M	CF 15K OHM 1/16W +-5%	R5103	0700044M	*CF 1 8K OHM 1/16W +-5%
R432	0700044M	CF 1 8K OHM 1/16W +-5%	R5105	0700046M	*CF 2 7K OHM 1/16W +-5%
R433	0700044M	CF 1 8K OHM 1/16W +-5%	R5107	0700027M	*CF 100 OHM 1/16W +-5%
R434	0700044M	CF 1 8K OHM 1/16W +-5%	R5108	0700027M	*CF 100 OHM 1/16W +-5%
R435	0700044M	CF 1.8K OHM 1/16W +-5%	R5109	0700027M	*CF 100 OHM 1/16W +-5%
R436	0700034M	CF 330 OHM 1/16W +-5%	R5110	0700027M	*CF 100 OHM 1/16W +-5%
R437	0700034M	CF 330 OHM 1/16W +-5%	R5111	0700027M	*CF 100 OHM 1/16W +-5%
R438	0700063M	CF 47K OHM 1/16W +-5%	R5112	0700027M	*CF 100 OHM 1/16W +-5%
R439	0700063M	CF 47K OHM 1/16W +-5%	R5113	0700037M	*CF 560 OHM 1/16W +-5%
R440	0700059M	CF 27K OHM 1/16W +-5%	R5114	0700054M	*CF 10K OHM 1/16W +-5%
R441	0700059M	CF 27K OHM 1/16W +-5%	R5115	0700042M	*CF 1.2K OHM 1/16W +-5%
R442	0700041M	CF 1K OHM 1/16W +-5%	R5116	0700046M	*CF 2 7K OHM 1/16W +-5%
R443	0700041M	CF 1K OHM 1/16W +-5%	R5117	0700027M	*CF 100 OHM 1/16W +-5%
R444	0700035M	CF 390 OHM 1/16W +-5%	R5118	0700054M	*CF 10K OHM 1/16W +-5%
R445	0700035M	CF 390 OHM 1/16W +-5%	R5119	0700049M	*CF 4 7K OHM 1/16W +-5%
R446	0700038M	CF 680 OHM 1/16W +-5%	R512	0700041M	CF 1K OHM 1/16W +-5%
R447	0700038M	CF 680 OHM 1/16W +-5%	R5120	0700045M	*CF 2.2K OHM 1/16W +-5%
R448	0100115M	CF 120K OHM 1/8W +-5%	R5121	0700049M	*CF 4 7K OHM 1/16W +-5%
R449	0100115M	CF 120K OHM 1/8W +-5%	R5122	0700027M	*CF 100 OHM 1/16W +-5%
R450	0700049M	CF 4 7K OHM 1/16W +-5%	R5123	0700062M	*CF 39k OHM 1/16W +-5%
R451	0700049M	CF 4 7K OHM 1/16W +-5%	R5124	0700058M	*CF 22k OHM 1/16W +-5%
R452	0700061M	CF 33K OHM 1/16W +-5%	R5125	0700058M	*CF 22k OHM 1/16W +-5%
R453	0700061M	CF 33K OHM 1/16W +-5%	R5127	0700056M	*CF 15k OHM 1/16W +-5%
R454	0700061M	CF 33K OHM 1/16W +-5%	R5128	0700041M	*CF 1K OHM 1/16W +-5%
R455	0700061M	CF 33K OHM 1/16W +-5%	R5129	0700027M	*CF 100 OHM 1/16W +-5%
R456	0700054M	CF 10K OHM 1/16W +-5%	R5130	0700027M	*CF 100 OHM 1/16W +-5%
R457	0700045M	CF 2 2K OHM 1/16W +-5%	R5131	0700027M	*CF 100 OHM 1/16W +-5%
R458	0700045M	CF 2.2K OHM 1/16W +-5%	R5132	0187110M	*CF 75K OHM 1/16W +-5%

\* PARTS FOR FSP MODELS ONLY

**PRODUCT SAFETY NOTE:** Components marked with a  $\Delta$  have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R5133	0700043M	*CF 1 5K OHM 1/16W +-5%	R611	0700048M	CF 3 9K OHM 1/16W +-5%
R5134	0700043M	*CF 1 5K OHM 1/16W +-5%	R612	0700051M	CF 5 6K OHM 1/16W +-5%
R5135	0700043M	*CF 1 5K OHM 1/16W +-5%	R613	0700067M	CF 100K OHM 1/16W +-5%
R5136	0187086M	*CF 7 5K OHM 1/16W +-5%	R614	0700066M	CF 82K OHM 1/16W +-5%
R5138	0700027M	*CF 100 OHM 1/16W +-5%	R615	0188123M	CF 270 OHM 1/2W +-5%
R5139	0700027M	*CF 100 OHM 1/16W +-5%	R617	0100127M	CF 390K 1/8W +-5%
R514	0700041M	CF 1K OHM 1/16W +-5%	R618	0700061M	CF 33K OHM 1/16W +-5%
R5140	0700064M	*CF 56K OHM 1/16W +-5%	R621	0119722M	RM 1 0 OHM 1W +-5%
R5141	0700043M	*CF 1 5K OHM 1/16W +-5%	R631	0700058M	CF 22K OHM 1/16W +-5%
R5142	0700027M	*CF 100 OHM 1/16W +-5%	R632	0119722M	RM 1 0 OHM 1W +-5%
R5143	0700054M	*CF 10K OHM 1/16W +-5%	R633	0700054M	CF 10K OHM 1/16W +-5%
R5144	0700052M	*CF 6 8K OHM 1/16W +-5%	R651	0188135M	CF 2 2K OHM 1/2W +-5%
R5145	0700051M	*CF 5 6K OHM 1/16W +-5%	R653	0700059M	CF 27K OHM 1/16W +-5%
R5146	0700049M	*CF 4 7K OHM 1/16W +-5%	R654	0700067M	CF 100K OHM 1/16W +-5%
R5147	0700051M	*CF 5 6K OHM 1/16W +-5%	R655	0700045M	CF 2 2K OHM 1/16W +-5%
R5148	0700054M	*CF 10K OHM 1/16W +-5%	R656	0150287	VR 10K OHM-B
R5149	0700027M	*CF 100 OHM 1/16W +-5%	R657	0150287	VR 10K OHM-B
R5150	0700064M	*CF 56k OHM 1/16W +-5%	R658	0700054M	CF 10K OHM 1/16W +-5%
R5152	0700027M	*CF 100 OHM 1/16W +-5%	R659	0700054M	CF 10K OHM 1/16W +-5%
R5153	0700027M	*CF 100 OHM 1/16W +-5%	R660	0700061M	CF 33K OHM 1/16W +-5%
R5155	0700036M	*CF 470 OHM 1/16W +-5%	R661	0700049M	CF 4 7K OHM 1/16W +-5%
R5156	0700036M	*CF 470 OHM 1/16W +-5%	R662	0700066M	CF 82K OHM 1/16W +-5%
R5157	0700027M	*CF 100 OHM 1/16W +-5%	R663	0100129M	CF 470K 1/8W +-5%
R5159	0700036M	*CF 470 OHM 1/16W +-5%	R664	0700054M	CF 10K OHM 1/16W +-5%
R516	0700041M	CF 1K OHM 1/16W +-5%	R665	0700054M	CF 10K OHM 1/16W +-5%
R5160	0700036M	*CF 470 OHM 1/16W +-5%	R666	0700041M	CF 1K OHM 1/16W +-5%
R5161	0700027M	*CF 100 OHM 1/16W +-5%	R668	0700067M	CF 100K OHM 1/16W +-5%
R5163	0700036M	*CF 470 OHM 1/16W +-5%	R669	0700053M	CF 8 2K OHM 1/16W +-5%
R5164	0700036M	*CF 470 OHM 1/16W +-5%	R670	0700061M	CF 33K OHM 1/16W +-5%
R517	0700041M	CF 1K OHM 1/16W +-5%	R671	0100119M	CF 180K OHM 1/8W +-5%
R5172	0187038M	*CF 75 OHM 1/16W +-5%	R672	0700059M	CF 27K OHM 1/16W +-5%
R5173	0700039M	*CF 850 OHM 1/16W +-5%	R673	0700063M	CF 47K OHM 1/16W +-5%
R5175	0700037M	*CF 560 OHM 1/16W +-5%	R676	0700041M	CF 1K OHM 1/16W +-5%
R5177	0700037M	*CF 560 OHM 1/16W +-5%	R677	0700041M	CF 1K OHM 1/16W +-5%
R5179	0700037M	*CF 560 OHM 1/16W +-5%	R6A1	0700045M	CF 2 2K OHM 1/16W +-5%
R518	0700041M	*CF 1K OHM 1/16W +-5%	R6A2	0700041M	CF 1K OHM 1/16W +-5%
R5181	0700054M	*CF 10K OHM 1/16W +-5%	R730	0700051M	CF 5 6K OHM 1/16W +-5%
R5182	0700032M	*CF 220 OHM 1/16W +-5%	R731	0700027M	CF 100 OHM 1/16W +-5%
R519	0700054M	CF 10K OHM 1/16W +-5%	R732	0145051S	WW 2 7K OHM 7W +-5%
R520	0700027M	CF 100 OHM 1/16W +-5%	R733	0700027M	CF 100 OHM 1/16W +-5%
R521	0700027M	CF 100 OHM 1/16W +-5%	$\Delta$ R735	0119688M	MF 0 22 OHM 1W +-5%
R522	0700027M	CF 100 OHM 1/16W +-5%	R736	0700026M	CF 82 OHM 1/16W +-5%
R530	0700027M	*CF 100 OHM 1/16W +-5%	R737	0114145M	CF 390 OHM 1/4W +-5%
R531	0700027M	*CF 100 OHM 1/16W +-5%	R738	0188142M	CF 6 8K OHM 1/2W +-5%
R533	0700027M	CF 100 OHM 1/16W +-5%	R741	0188153M	CF 8.2K OHM 1/16W +-5%
R534	0700027M	CF 100 OHM 1/16W +-5%	R742	0188148M	CF 22K OHM 1/2W +-5%
R535	0700044M	CF 1 8K OHM 1/16W +-5%	$\Delta$ R743	AZ00026	PROTECTOR 2 5A
R536	0700041M	CF 1K OHM 1/16W +-5% (NOT FOR 081,PX-981)	R746	0700044M	CF 1 8K OHM 1/16W +-5%
			$\Delta$ R748	AZ00026M	PROTECTOR 2 5A
R554	0700036M	CF 470 OHM 1/16W +-5%	R749	0114211M	CF 27K 1/4W +-5%

\* PARTS FOR FSP MODELS ONLY

制品安全上的注意: 在下表附带△标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION	
	R750	0700058M	CF 22K OHM 1/16W +-5%	R827	0100047M	CF 180 OHM 1/8W +-5%
	R772	0110243S	MF 820 OHM 2W +-5%	R828	0100087M	CF 8 2K OHM 1/8W +-5%
	R780	0110159S	MF 3 9K OHM 1W +-5%	R829	0100074M	CF 2 4K OHM 1/8W +-5%
	R781	0110285S	MF 47K OHM 2W +-5%	R830	0100029M	CF 33 OHM 1/8W +-5%
	R782	0100065M	CF 1K OHM 1/8W +-5%	R831	0100063M	CF 820 OHM 1/8W +-5%
△	R783	AZ00026M	PROTECTOR 2.5A	R832	0100063M	CF 820 OHM 1/8W +-5%
△	R784	0147817A	WW 2.7 OHM 15W +-5%	R835	0113815M	CF 470K OHM 1/2W +-5%
	R785	0700044M	CF 1.8K OHM 1/16W +-5%	R836	0700039M	CF 820 OHM 1/16W +-5%
	R786	0100105M	CF 47K 1/8W +-5%	R837	0700039M	CF 820 OHM 1/16W +-5%
	R787	0700067M	CF 100K OHM 1/16W +-5%	R839	0700035M	CF 390 OHM 1/16W +-5%
	R788	0700045M	CF 2 2K OHM 1/16W +-5%	R841	0110135S	MF 390 OHM 1W +-5%
	R789	0100089M	CF 10K OHM 1/8W +-5%	R842	0700067M	CF 100K OHM 1/16W +-5%
	R790	0114281M	CF 100K OHM 1/4W +-5%	R843	0700036M	CF 470 OHM 1/16W +-5%
	R791	0700049M	CF 4 7K OHM 1/16W +-5%	R844	0700035M	CF 390 OHM 1/16W +-5%
	R793	0700039M	CF 820 OHM 1/16W +-5%	R845	0700042M	CF 1 2K OHM 1/16W +-5%
	R794	0100101M	CF 33K OHM 1/8W +-5%	R846	0700059M	CF 27K OHM 1/16W +-5%
	R795	0700051M	CF 5 6K OHM 1/16W +-5%	R847	0700067M	CF 100K OHM 1/16W +-5%
	R796	0700072M	CF 220K OHM 1/16W +-5%	R848	0700065M	CF 68K OHM 1/16W +-5%
	R7A1	0700038M	CF 680 OHM 1/16W +-5%	R849	0700038M	CF 680 OHM 1/16W +-5%
	R7A2	0700031M	CF 180 OHM 1/16W +-5%	R850	0700033M	CF 270 OHM 1/16W +-5%
	R7A3	0700054M	CF 10K OHM 1/16W +-5%	R851	0700035M	CF 390 OHM 1/16W +-5%
	R7A4	0100113M	CF 100K OHM 1/8W +-5%	R852	0700045M	CF 2 2K OHM 1/16W +-5%
	R7A5	0700053M	CF 8 2K OHM 1/16W +-5%	R853	0700067M	CF 100K OHM 1/16W +-5%
	R7A7	0700056M	CF 15K OHM 1/16W +-5%	R854	0700059M	CF 27K OHM 1/16W +-5%
	R801	0100035M	CF 56 OHM 1/8W +-5%	R855	0700046M	CF 2 7K OHM 1/16W +-5%
	R802	0100035M	CF 56 OHM 1/8W +-5%	R856	0113742M	CF 470 OHM 1/2W +-5%
	R803	0100035M	CF 56 OHM 1/8W +-5%	R857	0700061M	CF 33K OHM 1/16W +-5%
	R804	0110255S	MF 2 7K OHM 2W +-5%	R858	0700036M	CF 470 OHM 1/16W +-5%
	R805	0110255S	MF 2 7K OHM 2W +-5%	R859	0700067M	CF 100K OHM 1/16W +-5%
	R806	0110255S	MF 2 7K OHM 2W +-5%	R860	0700054M	CF 10K OHM 1/16W +-5%
	R807	0110255S	MF 2 7K OHM 2W +-5%	R861	0100065M	CF 1K OHM 1/8W +-5%
	R808	0110255S	MF 2 7K OHM 2W +-5%	R862	0700024M	CF 56 OHM 1/16W +-5%
	R809	0110255S	MF 2 7K OHM 2W +-5%	R863	0113701M	CF 10 OHM 1/2W +-5%
	R810	0113744M	CF 560 OHM 1/2W +-5%	R864	0100039M	CF 82 OHM 1/8W +-5%
	R811	0100079M	CF 3 9K OHM 1/8W +-5%	R865	0100039M	CF 82 OHM 1/8W +-5%
	R812	0113744M	CF 560 OHM 1/2W +-5%	R866	0188133M	CF 1.5K OHM 1/2W +-5%
	R813	0100079M	CF 3 9K OHM 1/8W +-5%	R867	0100069M	CF 1 5K OHM 1/8W +-5%
	R814	0113744M	CF 560 OHM 1/2W +-5%	R868	0188132M	CF 1 5K OHM 1/2W +-5%
	R815	0100079M	CF 3 9K OHM 1/8W +-5%	R869	0100067M	CF 100K OHM 1/16W +-5%
	R816	0110115S	MF 56 OHM 1W +-5%	R870	0188155M	CF 68K OHM 1/2W +-5%
	R817	0110115S	MF 56 OHM 1W +-5%	R871	0188155M	CF 68K OHM 1/2W +-5%
	R818	0110115S	MF 56 OHM 1W +-5%	R872	0113776M	CF 12K OHM 1/2W +-5%
	R819	0100024M	CF 20 OHM 1/8W +-5%	R873	0113716M	CF 43 OHM 1/2W +-5%
	R820	0100024M	CF 20 OHM 1/8W +-5%	R874	0113716M	CF 43 OHM 1/2W +-5%
	R821	0100024M	CF 20 OHM 1/8W +-5%	R875	0113686M	CF 2 7 OHM 1/2W +-5%
	R822	0100053M	CF 330 OHM 1/8W +-5%	R876	0113686M	CF 2 7 OHM 1/2W +-5%
	R823	0100053M	CF 330 OHM 1/8W +-5%	R877	0110229S	MF 220 OHM 2W +-5%
	R824	0100053M	CF 330 OHM 1/8W +-5%	R879	0700041M	CF 1K OHM 1/16W +-5%
	R825	0100047M	CF 180 OHM 1/8W +-5%	R880	0700061M	CF 33K OHM 1/16W +-5%
	R826	0100047M	CF 180 OHM 1/8W +-5%	R884	0110132S	MF 300 OHM 1W +-5%

\* PARTS FOR FSP MODELS ONLY

**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety. Before replacing any of these components, read carefully the **PRODUCT SAFETY NOTICE** of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
$\triangle$ R901	0179538M	MG 4 7M OHM 1/8W +-5%	$\triangle$ R998	0174704G	MF 10M OHM 1W +-5%
$\triangle$ R902	0147606	WW 0 68 OHM 7W +-5%	RA01	0700028M	CF 120 OHM 1/16W +-5%
R903	0188153M	CF 47K OHM 1/2W +-5%	RA02	0700028M	CF 120 OHM 1/16W +-5%
R904	0110161S	MF 4 7K OHM 1W +-5%	RA04	0700027M	CF 100 OHM 1/16 W +-5%
R905	0100077M	CF 3 3K OHM 1/8W +-5%	RA06	0700045M	CF 2 2K OHM 1/16W +-5%
$\triangle$ R906	0110199S	MF 12 OHM 2W +-5%	RA07	0700045M	CF 2 2K OHM 1/16W +-5%
R907	0148044	WW 0 15 OHM 3W +-5%	RA08	0700048M	CF 3.9K OHM 1/16W +-5%
R908	0700041M	CF 1K OHM 1/16W +-5%	RA09	0700048M	CF 3 9K OHM 1/16W +-5%
$\triangle$ R909	0147606	WW 0 68 OHM 7W +-5%	RA10	0700052M	CF 6.8K OHM 1/16W +-5%
$\triangle$ R910	0119731M	MF 0 68 OHM 1W +-5%	RA10A	0700048M	CF 3 9K OHM 1/16W +-5%
$\triangle$ R911	0700027M	CF 100 OHM 1/16W +-5%	RA11	0100117M	CF 150K OHM 1/8W +-5%
$\triangle$ R912	0147606	WW 0 68 OHM 7W +-5%	RA11	0700048M	CF 3 9K OHM 1/16W +-5%
R913	0114047M	CF 18 OHM 1/4 +-5%	RA12	0700039M	CF 820 OHM 1/16W +-5%
R914	0100123M	CF 270K OHM 1/8W +-5%	RA12	0700045M	CF 2 2K OHM 1/16W +-5%
R916	0100065M	CF 1K OHM 1/8W +-5%	RA13	0700041M	CF 1K OHM 1/16W +-5%
$\triangle$ R917	0188153M	CF 47K OHM 1/2W +-5%	RA13	0700049M	CF 4 7K OHM 1/16W +-5%
$\triangle$ R918	0114061M	CF 68 OHM 1/4W +-5%	RA14	0100133M	CF 680K OHM 1/8W +-5%
R919	0100077M	CF 3 3K OHM 1/8W +-5%	RA14	0119505G	MF 2.2 OHM 1/4W +-5%
R920	0110217S	MF 68 OHM 2W +-5%	RA15	0119505G	MF 2 2 OHM 1/4W +-5%
$\triangle$ R921	0119722M	MF 1 0 OHM 1W +-5%	RA16	0119505G	MF 2 2 OHM 1/4W +-5%
R922	CJ00041	PTC THERMISTOR	RA19	0700054M	CF 10K OHM 1/16W +-5%
R930	AW00102	VR 1K OHM-B	RA21	0700041M	CF 1K OHM 1/16W +-5%
R931	0110341S	MF 680 OHM 3W +-5%	RA22	0700054M	CF 10K OHM 1/16W +-5%
R932	0700036M	CF 470 OHM 1/16W +-5%	RA23	0700054M	CF 10K OHM 1/16W +-5%
R933	0700036M	CF 470 OHM 1/16W +-5%	RA51	0700064M	CF 56K OHM 1/16W +-5%
R934	0700037M	CF 560 OHM 1/16W +-5%	RA56	0700042M	CF 1 2K OHM 1/16W +-5%
R935	0148019	WW 0 39 OHM 2W +-5%	RA57	0700042M	CF 1 2K OHM 1/16W +-5%
R936	0100049M	CF 220 OHM 1/8W +-5%	RA58	0700052M	CF 6.8K OHM 1/16W +-5%
R938	0110201S	MF 15 OHM 2W +-5%	RA59	0700052M	CF 6 8K OHM 1/16W +-5%
R951	0110103S	MF 18 OHM 1W +-5%			
R952	0114213M	CF 33K OHM 1/4W +-5%	RDA01	0700051M	CF 5 6K OHM 1/16W +-5%
R953	0700049M	CF 4 7K OHM 1/16W +-5%	RE01	0700042M	CF 1 2K OHM 1/16W +-5% (NOT FOR 051,081S,751,PX-981)
R954	0188155M	CF 68K OHM 1/2W +-5%			
R955	0188155M	CF 68K OHM 1/2W +-5%	RE02	0700044M	CF 1 8K OHM 1/16W +-5% (NOT FOR 051,081S,751,PX-981)
R956	0700048M	CF 3 9K OHM 1/16W +-5%	RE37	0700027M	CF 100 OHM 1/16W +-5% (051,751, 081,PX981 ONLY)
R957	0110137S	MF 470 OHM 1W +-5%	RE38	0700027M	CF 100 OHM 1/16W +-5% (NOT FOR 041,433,191,192)
R958	0700054M	CF 10K OHM 1/16W +-5%	RE39	0700027M	CF 100 OHM 1/16W +-5% (NOT FOR 041,433,191,192)
R959	0700052M	CF 6.8K OHM 1/16W +-5%	RE40	0700027M	CF 100 OHM 1/16W +-5% (NOT FOR 041,433,191,192)
R960	0700054M	CF 10K OHM 1/16W +-5%	RE41	0110203S	MF 18 OHM 2W +-5% (NOT FOR 041,433,191,192)
R961	0700052M	CF 6.8K OHM 1/16W +-5%			
R962	0700054M	CF 10K OHM 1/16W +-5%	RH01	0700027M	*CF 100 OHM 1/16W +-5%
R966	0700064M	CF 56K OHM 1/16W +-5%	RH02	0700027M	*CF 100 OHM 1/16W +-5%
R969	0100077M	CF 3 3K OHM 1/8W +-5%	RH03	0700027M	*CF 100 OHM 1/16W +-5%
R971	0700049M	CF 4 7K OHM 1/16W +-5%	RH04	0700041M	*CF 1K OHM 1/16W +-5%
R972	0113783M	CF 22K OHM 1/2W +-5%	RH05	0700041M	*CF 1K OHM 1/16W +-5%
R973	0700054M	CF 10K OHM 1/16W +-5%			
R977	0700047M	CF 3.3K OHM 1/16W +-5%			
R980	0700047M	CF 3 3K OHM 1/16W +-5%			
R981	0700051M	CF 5 6K OHM 1/16 +-5%			
R982	0700027M	CF 100 OHM 1/16 +-5%			

\* PARTS FOR FSP MODELS ONLY

制品安全上的注意: 在下表附带△!标记的机件具备特别的安全特性。要替换这些机件以前请详细阅读这检修手册中“制品安全上的注意: 一书, 以避免因检修不当而降低电视机的安全性。

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
RH06	0100125M	CF 330K OHM 1/8W +-5%	RL05	0700041M	CF 1K OHM 1/16W +-5%
RH07	0700063M	CF 47K OHM 1/16W +-5%	RL06	0700043M	CF 1 5K OHM 1/16W +-5%
RH08	0700061M	CF 33K OHM 1/16W +-5%	RL07	0100041M	CF 100 OHM 1/8W +-5%
RH09	0700042M	CF 1 2K OHM 1/16W +-5%	RM01	0700027M	CF 100 OHM 1/16W +-5%
RH10	0700061M	CF 33K OHM 1/16W +-5%	RM02	0700037M	CF 100 OHM 1/16W +-5%
RH11	0100035M	CF 56 OHM 1/8W +-5%	RS01	0100121M	*CF 220K OHM 1/8W +-5%
RH12	0700061M	CF 33K OHM 1/16W +-5%	RS02	0700067M	*CF 100K OHM 1/16W +-5%
RH13	0700039M	CF 820 OHM 1/16W +-5%	RS03	0100115M	*CF 120K OHM 1/8W +-5%
RH14	0100125M	CF 330K OHM 1/8W +-5%	RS04	0700027M	*CF 100 OHM 1/16W +-5%
RH15	0700058M	CF 22K OHM 1/16W +-5%	RS05	0700041M	*CF 1K OHM 1/16W +-5%
RH16	0700063M	CF 47K OHM 1/16W +-5%	RS06	0700042M	*CF 1 2K OHM 1/16W +-5%
RH17	0700058M	CF 22K OHM 1/16W +-5%	RS07	0700027M	*CF 100 OHM 1/16W +-5%
RH18	0110127S	MF 180 OHM 1W +-5%	RS08	0700027M	*CF 100 OHM 1/16W +-5%
RH19	0113725M	*CF 100 OHM 1/2W +-5%	RS09	0700027M	*CF 100 OHM 1/16W +-5%
RH20	0700041M	CF 1K OHM 1/16W +-5%	RS10	0700027M	*CF 100 OHM 1/16W +-5%
RH21	0100035M	CF 56 OHM 1/8W +-5%	RS11	0700027M	*CF 100 OHM 1/16W +-5%
RH22	0700027M	*CF 100 OHM 1/16W +-5%	RS12	0700027M	*CF 100 OHM 1/16W +-5%
RJ01	0100038M	CF 75 OHM 1/8W +-5%	RS13	0700027M	*CF 100 OHM 1/16W +-5%
RJ03	0100091M	CF 12K OHM 1/8W +-5%	RT01	0700063M	*CF 47K OHM 1/16W +-5%
RJ04	0700054M	CF 10K OHM 1/16W +-5%	RT02	0700027M	*CF 100 OHM 1/16W +-5%
RJ07	0100038M	CF 75 OHM 1/8W +-5%	RT03	0700027M	*CF 100 OHM 1/16W +-5%
RJ08	0100129M	CF 470K OHM 1/8W +-5%	RT04	0700027M	*CF 100 OHM 1/16W +-5%
RJ09	0100129M	CF 470K OHM 1/8W +-5%	RZ01	0700027M	*CF 100 OHM 1/16W +-5%
RJ22	0100041M	CF 100 OHM 1/8W +-5%	RZ02	0700027M	*CF 100 OHM 1/16W +-5%
RJ23	0100041M	CF 100 OHM 1/8W +-5%	RZ03	0700027M	*CF 100 OHM 1/16W +-5%
RJ24	0100041M	CF 100 OHM 1/8W +-5%	RZ04	0119514G	*FR 10 OHM 1/4W +-5%
RJ25	0100041M	CF 100 OHM 1/8W +-5%	RZ05	0700027M	*CF 100 OHM 1/16W +-5%
RJ26	0113725M	CF 100 OHM 1/2W +-5%	RZ06	0700062M	*CF 39K OHM 1/16W +-5%
RJ27	0113725M	CF 100 OHM 1/2W +-5%	RZ07	0700027M	*CF 100 OHM 1/16W +-5%
RJ28	0155719	RES VAR 5K-B	RZ08	0700033M	*CF 270 OHM 1/16W +-5%
RK01	0700048M	CF 3 9K OHM 1/16W +-5%	RZ09	0700033M	*CF 270 OHM 1/16W +-5%
RK02	0700045M	CF 2 2K OHM 1/16W +-5%	RZ10	0700033M	*CF 270 OHM 1/16W +-5%
RK03	0114059M	CF 56 OHM 1/4W +-5%	RZ11	0700027M	*CF 100 OHM 1/16W +-5%
RK04	0700045M	CF 2 2K OHM 1/16W +-5%	RZ13	0700027M	CF 100 OHM 1/16W +-5%
RK05	0700035M	CF 390 OHM 1/16W +-5%	RZ14	0700041M	*CF 1K OHM 1/16W +-5%
RK06	0700045M	CF 2 2K OHM 1/16W +-5%	RZ15	0700027M	CF 100 OHM 1/16W +-5%
RK07	0113701M	CF 10 OHM 1/2W +-5%	RZ16	0700041M	*CF 1K OHM 1/16W +-5%
RK08	0700045M	CF 2 2K OHM 1/16W +-5%	RZ17	0700027M	CF 100 OHM 1/16W +-5%
RK09	0700041M	CF 1K OHM 1/16W +-5%	RZ18	0700041M	*CF 1K OHM 1/16W +-5%
RK20	0700041M	CF 1K OHM 1/16W +-5%	RZ19	0700041M	CF 1K OHM 1/16W +-5%
RK24	0110225S	MF150 OHM 2W	RZ20	0700041M	CF 1K OHM 1/16W +-5%
RK25	0110225S	MF150 OHM 2W	RZ21	0700027M	CF 100 OHM 1/16W +-5%
RK411	0100065M	CF 1K OHM 1/8W +-5%	RZ23	0700027M	CF 100 OHM 1/16W +-5%
RK412	0100065M	CF 1K OHM 1/8W +-5%	RZ24	0700027M	CF 100 OHM 1/16W +-5%
RK413	0100065M	CF 1K OHM 1/8W +-5%	RZ25	0700027M	CF 100 OHM 1/16W +-5%
RK448	0100065M	CF 1K OHM 1/8W +-5%	RZ35	0700056M	*CF 15K OHM 1/16W +-5%
RL01	0100129M	CF 470K OHM 1/8W +-5%	RZ51	0110215S	*MF 56 OHM 2W +-5%
RL02	0100125M	CF 330K OHM 1/8W +-5%	RZ51A	0110215S	MF 56 OHM 2W +-5%
RL03	0100117M	CF 150K OHM 1/8W +-5%	RZ52	0100049M	*CF 220 OHM 1/8W +-5%
RL04	0100121M	CF 220K OHM 1/8W +-5%	RZ80	0113735M	CF 270 OHM 1/2W +-5%

\* PARTS FOR FSP MODELS ONLY

**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety  
Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual  
Don't degrade the safety of the receiver through improper servicing

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION	
	SL01	FE00281	TACT SW	X5103	BP00681	*X'TAL 20 48MHZ
	SL02	FE00281	TACT SW	XL01	CZ00522	R/C RECEIVER
$\triangle$	SL91	2634732	MAINS SWITCH	ZD5104	2339815M	*ZD HZS3B2
	SP401L	GK00241	6x12 SPEAKER	ZD5105	2339834M	*ZD HZS5B1
	SP401R	GK00241	6x12 SPEAKER		2808811	*A3P IF PWB
	T701	BS00011	H DRIVE TRANS		JK03521D	CPT/IF SUB PWB
$\triangle$	T702	2436628	FBT		JK03531C	*S6 P IN P PWB
$\triangle$	T901	BT00661	SWT TRANSFORMER		JK04311D	S6 MAIN PWB
	TH61	2340371	THERMISTOR		JK04321E	S6 SUB PWB
	TK22	0700041M	CF 1K OHM 1/16W +-5%		JK04461A	CONTROL / JACK PWB
	U001	HJ00132	TUNER BTP AH453 (FSP MODELS ONLY)		GM00453	WOOFER UNIT ASSEMBLY
	U001	HJ00133	TUNER BTP AH451 (FS MODELS ONLY)			
	U1001	HL00171	R/C UNIT CLE-908 (FSP MODELS ONLY)			
	U1001	HL00871	R/C UNIT CLE-925 (FS MODELS ONLY)			
	U404	HP00451	MSP3410 UNIT (0581,751,081, PX-981 ONLY)			
	U701	BY00821	DY			
	UT01	HJ00132	*TUNER BTP AH453			
	UT02	FU00401	*ADAPTOR			
$\triangle$	V1	DE01371	CRT 80LJF30X			
	WSPG	2976147A	2P CONNECTOR W/WIRES			
	X002	BP00761	X'TAL CST8.00MTW			
	X005	2791754R	LC FILTER			
	X006	2791754R	LC FILTER			
	X201	BG00671	SAW FILTER K6262K			
	X204	2167371	CER TRAP 5 5/5 74MHZ			
	X205	2143472	COMPOSITE TRAP 6 0/6 5MHZ			
	X206	2142241	CER TRAP 4 5MHZ			
	X208	BJ00271	FILTER SAF33 4MCB70Z			
	X2A1	BN00081	HIGH FREQ TRAP 31 9 MHZ			
	X301	2150411	200N SEC DELAY LINE			
	X302	2143893	TRAP COIL 4 43MHZ			
	X401	2167311B	CER FILTER 4 5MHZ (NOT FOR 051,081S,751,PX-981)			
	X401	2168971	*OSC CSB503E5 (IF PWB)			
	X402	2167211B	CER FILTER 5 5MHZ (NOT FOR 051,081S,751,PX-981)			
	X403	2167212B	CER FILTER 6.0MHZ (NOT FOR 051,081S,751,PX-981)			
	X404	2167213B	CER FILTER 6 5MHZ (NOT FOR 051,081S,751,PX-981)			
	X501	BP00661	X'TAL 16 2MHZ			
	X5101	BP00691	*X'TAL 4 433619MHZ			
	X5102	2788591	*X'TAL 3 58MHZ			

\* PARTS FOR FSP MODELS ONLY

**THE FOLLOWING PART LIST FOR TELETEXT PWB ONLY (081S, PX-981 only)**

**PRODUCT SAFETY NOTE:** Components marked with a  $\Delta$  have special characteristics important to safety  
Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual  
Don't degrade the safety of the receiver through improper servicing

**ABBREVIATIONS** Capacitors . . . CD Ceramic Disk, PF: Polyester Film, EL Electrolytic, PP Polypropylene,  
PR: Paper, TA Tantalum, TM Trimer  
Resistors . . . . .CF Carbon film, WW Wire Wound, FR: Fuse Resistor, MG Metal Glazed,  
VR Variable Resistor, CC: Carbon Composition, MF Metal Oxide Film  
Semiconductors . .TR: Transistor, DI: Diode, ZD: Zener Diode, VA Varistor, TH Thermistor

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
B001	JK00692C	T/TEXT SUB PWB	Q006	CF00875R	TR 2SC5343 Y/G
B5201	JK00072	S2 T/TEXT PWB	Q007	CF00865R	TR 2SA1980 Y/G
C002	0890077R	CD 180PF +-10% 50V(B)	Q008	CF00875R	TR 2SC5343 Y/G
C003	0800048R	EL 100MF 10V(SME)	Q5201	CF00875R	TR 2SC5343 Y/G
C006	0800001R	EL 0.47MF 50V(SME)	R001	0700029M	CF 150 OHM +-5% 1/16W
C007	0880016R	PF 0 1MF +-10% 50V	R002	0700029M	CF 150 OHM +-5% 1/16W
C008	0880044R	PF 0 01MF +-10% 50V	R003	0700034M	CF 330 OHM +-5% 1/16W
C009	0800049R	EL 100MF 16V(SME)	R004	0700049M	CF 4 7K OHM +-5% 1/16W
C010	0800047R	EL 100MF 6 3V(SME)	R005	0700047M	CF 3 3K OHM +-5% 1/16W
C020	0890087R	CD 0.001MF +-10% 50V(B)	R006	0700024M	CF 56 OHM +-5% 1/16W
C5200	0238296	CEE PLUG PIN	R007	0700041M	CF 1K OHM +-5% 1/16W
C5201	0800048R	EL 100MF 10V(SME)	R008	0700041M	CF 1K OHM +-5% 1/16W
C5201	0800143	EL 100MF 6 3V	R009	0700041M	CF 1K OHM +-5% 1/16W
C5202	0270734R	PF 0 1MF +-5% 50V	R012	0700027M	CF 100 OHM +-5% 1/16W
C5203	0880003R	PF 0 001MF +-10% 50V	R015	0700027M	CF 100 OHM +-5% 1/16W
C5204	0890063R	CD 15PF +-5% 50V(SL)	R016	0700027M	CF 100 OHM +-5% 1/16W
C5205	0890061R	CD 10PF +-5% 50V(SL)	R017	0700027M	CF 100 OHM +-5% 1/16W
C5206	0270734R	PF 0 1MF +-5% 50V	R018	0700024M	CF 56 OHM +-5% 1/16W
C5207	0270734R	PF 0.1MF +-5% 50V	R019	0700034M	CF 330 OHM +-5% 1/16W
C5208	0270734R	PF 0.1MF +-5% 50V	R020	0700032M	CF 220 OHM +-5% 1/16W
C5209	0270734R	PF 0 1MF +-5% 50V	R021	0700032M	CF 220 OHM +-5% 1/16W
C5210	0890118R	CD 22PF +-5% 50V(CH)	R022	0700054M	CF 10K OHM +-5% 1/16W
C5211	0890118R	CD 22PF +-5% 50V(CH)	R023	0700054M	CF 10K OHM +-5% 1/16W
C5222	0270734R	PF 0.1MF +-5% 50V	R030	0700032M	CF 220 OHM +-5% 1/16W
C5299	0270741R	PF 0.33MF +-5% 50V	R031	0700043M	CF 1.5K OHM +-5% 1/16W
D019	2338321M	DI 1SS270	R032	0700029M	CF 150 OHM +-5% 1/16W
E001	2902269	10P MINI PLUG PIN WITH BASE	R033	0700027M	CF 100 OHM +-5% 1/16W
E1TXT	2973916A	10J EH CONNECTOR (L=390)	R035	0110207S	MF 27 OHM +-5% 2W
IC0001	2004691	IC MM1118XS	R037	0700054M	CF 10K OHM +-5% 1/16W
IC5201	2009902	IC SAA5281ZP/E	R038	0700041M	CF 1K OHM +-5% 1/16W
IC5202	CP00241	IC T900580	R050	0150262	VR 2K OHM-B
IC5203	2007951	IC M-BR24C02	R5204	0700027M	CF 100 OHM +-5% 1/16W
L5201	2123781R	PEAKING COIL 100MH	R5205	0700027M	CF 100 OHM +-5% 1/16W
L5202	2123098M	LA AXIAL COIL 4 7MH	R5206	0700027M	CF 100 OHM +-5% 1/16W
L5203	2122956M	LA AXIAL COIL 100MH	R5207	0700033M	CF 270 OHM +-5% 1/16W
Q001	CF00865R	TR 2SA1980 Y/G	R5209	0700027M	CF 100 OHM +-5% 1/16W
Q002	CF00875R	TR 2SC5343 Y/G	R5210	0700047M	CF 3.3K OHM +-5% 1/16W
Q003	2326875R	TR DTC144WS	R5211	0700059M	CF 27K OHM +-5% 1/16W
Q004	CF00875R	TR 2SC5343 Y/G	R5212	0700034M	CF 330 OHM +-5% 1/16W
Q005	CF00875R	TR 2SC5343 Y/G	R5213	0700036M	CF 470 OHM +-5% 1/16W



**PRODUCT SAFETY NOTE:** Components marked with a  $\triangle$  have special characteristics important to safety. Before replacing any of these components, read carefully the PRODUCT SAFETY NOTICE of this Service Manual. Don't degrade the safety of the receiver through improper servicing.

SYMBOL NO.	PART NO.	DESCRIPTION	SYMBOL NO.	PART NO.	DESCRIPTION
R5214	0700036M	CF 470 OHM +-5% 1/16W			
R5215	0700036M	CF 470 OHM +-5% 1/16W			
R5216	0700036M	CF 470 OHM +-5% 1/16W			
R5222	0700027M	CF 100 OHM +-5% 1/16W			
R5223	0700027M	CF 100 OHM +-5% 1/16W			
R5224	0700041M	CF 1K OHM +-5% 1/16W			
R5225	0700041M	CF 1K OHM +-5% 1/16W			
R5226	0700081M	CF 1M OHM +-5% 1/16W			
R5231	0700046M	CF 2 7K OHM +-5% 1/16W			
R5232	0700049M	CF 4 7K OHM +-5% 1/16W			
R5233	0700049M	CF 4.7K OHM +-5% 1/16W			
R5251	0700036M	CF 470 OHM +-5% 1/16W			
R5252	0700042M	CF 1 2K OHM +-5% 1/16W			
R5253	0700054	CF 10K OHM +-5% 1/16W			
R5254	0700062	CF 39K OHM +-5% 1/16W			
R5255	0700054	CF 10K OHM +-5% 1/16W			
X5201	BP00031	XTALOSX27X1527MHZ			
X5202	2940241	CRYSTAL 6 MHZ			
ZD001	2339837M	ZD HZS5C1			

# HITACHI

HITACHI LTD. TOKYO JAPAN  
International Sales Division,  
THE HITACHI ATAGO BLDG.  
No. 15 -12 Nishi-Shinbashi, 2 - Chome,  
Minato-Ku, Tokyo 105, Japan  
Tel. Tokyo 3 32581111

**HITACHI SALES EUROPA GmbH**  
Am Seestern 18,  
40547 Düsseldorf,  
Germany  
Tel. 0211 5291 50

**HITACHI SALES (HELLAS) S.A.**  
91, Falirou Street, 117-41 Athens,  
Greece  
Tel. 92 42-620-4

**HITACHI HOME ELECTRONICS (EUROPE) Ltd.**  
Hitachi House, Station Road, Hayes,  
Middlesex UB3 4DR,  
England  
Tel. 0181 849 2000

**HITACHI SALES IBERICA, S.A.**  
Gran Via Carlos Tercero.101,1 -1  
Barcelona 08028  
Tel. 3- 330.86.52

**HITACHI FRANCE (RADIO-T.V.-ELECTRO-MENAGER) S.A.**  
4, allée des Sorbiers,  
Parc d'active de Chêne,  
69671 BRON Cedex,  
France  
Tel. 72 14-29-70

**HITACHI HOME ELECTRONICS NORDIC**  
Domnarvsgatan 29 Lunda, Box 62  
S-163 91 Spanga,  
Sweden  
Tel. 08 621 8250

**Scan & PDF-Design: Schaltungsdienst  
Lange oHG  
Verlag technische Druckschriften**

**Zehrendorfer Straße 11  
D-12277 Berlin**

**<http://www.schaltungsdienst.com>**