



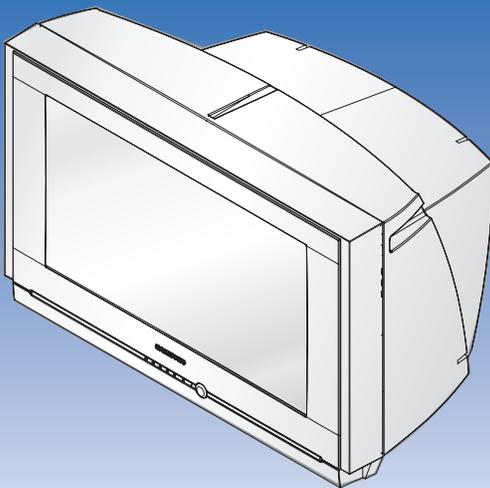
# COLOR TELEVISION RECEIVER

Chassis : S61B(P)\_Negotiator-2

Model : CW29M066V7XXEC

# ***SERVICE*** Manual

## COLOR TELEVISION RECEIVER



CW-29M066V

## FEATURES

- SRS, WOW(NICAM/STEREO)
- Simple 100Hz SCAN
- 2SCARTS / HALF TONE OSD
- 10Page TTX



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## 1. Precaution

To avoid possible damages or electric shocks or exposure to radiation, follow the instructions below with regard to safety, installation, service and ESD..

### 1-1 Safety Precautions

1. Make sure all protective devices are properly installed including non-metallic handles and compartment covers when installing or re-installing the chassis or chassis assemblies.
2. Make sure that no gaps exist between the cabinets for children to insert their fingers in to prevent children from receiving electric shocks. Gaps mentioned above include ventilation holes of a too great magnitude between the vacuum tube and the cabinet mask, and the improper installation of the rear cabinet.

Errors may occur when the resistance is below 1.0 M $\Omega$  or over 5.2 M $\Omega$ .

In these cases, make sure that the device is repaired before sending it back to the customer.

3. Check for Electricity Leakage (Figure 1-1)  
Warning: Do not use an insulated transistor for checking the leakage. Use only those current leakage testers or mirroring systems that comply with ANSIC 101.1 and the Underwriter Laboratory's specifications (UL1410, 59.7).

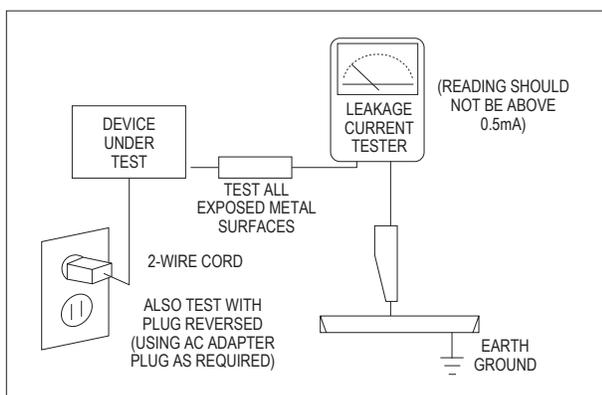


Fig. 1-1 AC Leakage Test

4. A high voltage is maintained within the specified limits using safety parts, calibration and tolerances. When voltage exceeds the specified limits, check each special part.

5. Warning for Engineering Changes:  
Never make any changes or additions to the circuit design or the internal part for this product.  
Ex: Do not add any audio or video accessory connectors. This might cause physical damage.  
Furthermore, any changes or additions to the original design/engineering will invalidate the warranty.

6. Warning - Hot Chassis:  
Some TV chassis are directly connected to one end of the AC power cord for electrical reasons.  
Without insulated transistors, the product can only be repaired safely when the chassis is connected to the earthed end of the AC power source.

To make sure the AC power cord is properly connected, follow the instructions below. Use the voltmeter to measure the voltage between the chassis and the earthed ground. If the measurement is over 1.0V, unplug the AC power cord and change the polarity before re-inserting it. Measure the voltage between the chassis and the ground again.

7. Some TV chassis are shipped with an additional secondary grounding system. The secondary system is adjacent to the AC power line. These two grounding systems are separated in the circuit using an unbreakable/unchangeable insulation material.
8. When any parts, material or wiring appear overheated or damaged, replace them with new regular ones immediately. When any damage or overheating is detected, correct this immediately and make a regular check of possible errors.
9. Check for the original shape of the lead, especially that of the antenna wiring, any sharp edges, the AC power and the high voltage power. Carefully check if the wiring is too tight, incorrectly placed or loose. Never change the space between the part and the printed circuit board. Check the AC power cord for possible damages. Keep the part or the lead away from any heat-emitting materials.

10. Safety Indication:

Some electrical circuits or device related materials require special attention to their safety features, which cannot be viewed by the naked eye. If an original part is replaced with another irregular one, the safety or protective features will be lost even if the new one has a higher voltage or more watts.

Critical safety parts should be bracketed with ( ). Use only regular parts for replacements (in particular, flame resistance and dielectric strength specifications). Irregular parts or materials may cause electric shock or fire.

## 1-2 Servicing Precautions

---

Warning 1: First carefully read the "Safety Instruction" in this service manual.

When there is a conflict between the service and the safety instructions, follow the safety instruction at all times.

Warning 2: Any electrolytic capacitor with the wrong polarity will explode.

1. The service instructions are printed on the cabinet, and should be followed by any service personnel.
2. Make sure to unplug the AC power cord from the power source before starting any repairs.
  - (a) Remove or re-install parts or assemblies.
  - (b) Disconnect the electric plug or connector, if any.
  - (c) Connect the test part in parallel with the electrolytic capacitor.
3. Some parts are placed at a higher position than the printed board. Insulated tubes or tapes are used for this purpose. The internal wiring is clamped using buckles to avoid contact with heat emitting parts. These parts are installed back to their original position.
4. After the repair, make sure to check if the screws, parts or cables are properly installed. Make sure no damage is caused to the repaired part and its surroundings.
5. Check for insulation between the blade of the AC plug and that of any conductive materials (i.e. the metal panel, input terminal, earphone jack, etc).
6. Insulation Check Process: Unplug the power cord from the AC source and turn the switch on. Connect the insulating resistance meter (500v) to the AC plug blade.  
  
The insulating resistance between the blade of the AC plug and that of the conductive material should be more than 1 M $\Omega$ .
7. Any B+ interlock should not be damaged. If the metal heat sink is not properly installed, no connection to the AC power should be made.
8. Make sure the grounding lead of the tester is connected to the chassis ground before connecting to the positive lead. The ground lead of the tester should be removed last.
9. Beware of risks of any current leakage coming into contact with the high-capacity capacitor.
10. The sharp edges of the metal material may cause physical damage, so ensure wearing protective gloves during the repair.

## 1-3 Static Electricity Precautions

---

1. Some semi-conductive ("solid state") devices are vulnerable to static electricity. These devices are known as ESD. ESD includes the integrated circuit and the field effect transistor. To avoid any materials damage from electrostatic shock, follow the instructions described below.
2. Remove any static electricity from your body by connecting the earth ground before handling any semi-conductive parts or ass'ys. Alternatively, wear a dischargeable wrist-belt.  
(Make sure to remove any static electricity before connecting the power source - this is a safety instruction for avoiding electric shock)
3. Remove the ESD ass'y and place it on a conductive surface such as aluminum foil to prevent accumulating static electricity.
4. Do not use any Freon-based chemicals. Such chemicals will generate static electricity that causes damage to the ESD.
5. Use only grounded-tip irons for soldering purposes.
6. Use only anti-static solder removal devices. Most solder removal devices do not support an anti-static feature. A solder removal device without an anti-static feature can store enough static electricity to cause damage to the ESD.
7. Do not remove the ESD from the protective box until the replacement is ready. Most ESD replacements are covered with lead, which will cause a short to the entire unit due to the conductive foam, aluminum foil or other conductive materials.
8. Remove the protective material from the ESD replacement lead immediately after connecting it to the chassis or circuit ass'y.
9. Take extreme caution in handling any uncovered ESD replacements. Actions such as brushing clothes or lifting your leg from the carpet floor can generate enough static electricity to damage the ESD.

### CAUTION

These servicing instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

## 1-4 Installation Precautions

---

1. For safety reasons, more than two people are required for carrying the product..
2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.
3. Do not place the projector in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.
4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.
5. Make sure to turn the power off and unplug the power cord from the outlet before removing the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.
6. Keep the antenna far away from any high-voltage cables and install it firmly. Contacting the high-voltage cable or the antenna falling over may cause fire or electric shock.
7. When connecting the RF antenna, check for a DTV receiving system and install a separate DTV reception antenna for areas with no DTV signal.
8. Check the basics of the screen test.  
- Image position/size, Tilt adjustment

# MEMO

## 2. Product Specification

### 2-1 Product Features

Block	Specification	Remark
CRT	34" FLAT CRT 32" FLAT CRT 29" FLAT GREEN CRT(H/V:26.5kV) 29" FLAT CRT(H/V 30kV) 28" FLAT CRT 25" FLAT CRT	
RF Part	- LNA & 2TUNER PIP F/S TUNER	TUNER(PIP,LNA) OPTION
Power	- WORLD WIDE INPUT VOLTAGE RANGE - STD-BY : 3W UNDER	STR-W6750F
Video	- PAL/SECAM/NT(CIS MODEL) - BASIC 100Hz	SDA5550 VSP9402 CXA2180Q
SOUND	- Output : 10W X2 - Function : NICAM/A2 STEREO, SRS,WOW TURBO	STV8237, TDA7297SA

#### ■ Core Parts Functions

- VSP9402 : RF-CVBS, EXT-CVBS, FRONT Y,C,SCART1 R G B, Video Signal Processing.
- CXA2180Q : H-out, VD-P, VD-N, RGB out, Video and Deflection Signal Processing.
- SDA5550M : IIC-Communication, Master Control Micom
- M27W201 : ROM MICOM
- TDA7266SA : 10W Sound Output BTL AMP
- LA7845 : Vertical Deflection AMP
- TDQ-6F(or 6L) : F/S PAL Tuner(LNA Option)
- TDA6109JF : R/G/B Drive AMP IC

## 2-2 Key Features

---

Model	CW-29M066V
Voltage	220 V
Frequency of Operation	50 Hz
Dimensions(mm)	730X485X575
Weight	43.5Kg

### ■ H/W Configuration

- 480i 60/50Hz
- Multi System
- Digital 100Hz
- Multi PIP

### ■ S/W Configuration

- 200 Page TTX(EAST, ASIA, CIS), 10page TTX(EAST ASIA, CIS)
- Multi System PAL/SECAM/NTSC4.43/NTSC3.58
- Auto wide, CM Label, Pre channel, On/off timer
- New LTI OSD

### ■ Picture

- System : PAL/SECAM/NTSC4.43/NTSC3.58
- Digital 100Hz
- Black Level expansion, CTI, VM, LTI
- AKB(Auto kinetic Bias)
- Still picture, Digital Noise reduction
- Panorama : Wide Model

### ■ Sound

- Sound System : A2, Nicam Stereo
- SRS WOW
- Output : 10W+10W
- AVL, Melody, Auto Stereo, Auto Mute, Equalizer

### ■ Feature

- Picture Size : 16:9/Panorama/Zoom1/Zoom2/4:3
- Auto Program
- Sleep Timer : 180 Min.
- Clock
- Zoom, Previous channel, White Screen, Color Tone
- Multi PIP

■ In/Out Terminals

- Side : 1 CVBS Input, 1 S-VHS Input
- Rear
- \*EU, CIS : 42p 2-SCART Input/Output (SCART1 RGB Input)

■ Remocon

- Universal : TM76

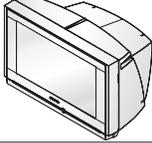
■ Power Supply

- AC230 50Hz/60Hz (Europe)
- AC100-240V 50Hz/60Hz (East Asia)
- AC160-300 50Hz/60Hz (CIS)

■ Power Consumption

- Standy-by : 3W

## 2-3 Specifications Analysis

Model			WS-32M30SSPN Negotiator	CW-29M166V Negotiator2	
Chassis			S61A	S61B	
Design					
Picture	DNle	DNle/DNle Jr	-/-	-/-	
	Noise Reduction	NR / DNR	DNR	DNR	
	Low Noise Amplifier	LNA	0	0	
	Picture Control	Color Tone	0	0	
		Auto White Balance Control	-	-	
		Tilt Control	MoO	0	
		Scan Mode Selection	-	-	
	Display	Screen Aspect Ratio(16:9/4:3)	16:9	16:9	
		Visible Diagonal	32"	32"	
		Type (Flat / Curved)	Flat	Flat	
Picture Function	3:2 Pull Down	-	-		
	Auto Knietic Bias(AKB)	0	0		
Sound	Stereo Type	Nicam / A2 Stereo	O/O	O/O	
		Line Stereo (AV Stereo) / Mono	O/O	O/O	
		Pseudo (Except Mono type)	0	0	
	Sound Control	Auto Stereo	0	0	
		Base/ Treble/ Balance	-/-/O	-/-/O	
		Sound Equalizer	0	0	
	Sound Effect System (Surround System)	DTS (Digital Theater Sound) / Dolby Digital (AC3)	-	-	
		Dolby Prologic / Dolby Prologic 2	-	-	
		Virtual Dolby	Virtual Dolby	SRS WOW	
		BBE	-	-	
	Samsung Sound Effect (Turbo/Turbo Plus/MDB, ETC)	Turbo	Turbo		
Features	CH	ATM (ATS)	-	-	
		Channel Skip	0	0	
		Channel Add/Erase	O/O	O/O	
		Channel Labeling	0	0	
		Previous Channel	0	0	
	PIP	PIP Channel Scan	-	X	
		Timer	On/Off Timer	0	0
			Sleep Timer	0	0
	Auto Clock Set/manual clock set		-/O	-/O	
	TeleText	Teletext	10P	10P	
		Blue Screen On/Off	0	0	
		Melody On-Off	0	0	
		Plug & Play	0	0	
		Absent Power Off	0	0	
		Auto Power Off	0	0	
		Picture Size Control(Zoom&Wide/Zoom)	O/-	O/-	
		Picture Mode Select (5mode / 3mode)	4 mode	4 mode	
Auto Wide		0	0		
Help(on OSD Menu)		0	0		
Terminals	Side In & Out Jacks	Composite (AV)	0	0	
		Y/C (S-Video)	0	0	
		Headphone(Earphone)	-	-	
	Rear Input Jacks	ANT.(RF)	0	0	
		Euro Scart	2 Scart	2 Scart	
		Audio Monitor Out	0	-	

## 2-4 Accessories

	Accessories	Item	Item code	Remark
Supplied Accessories		User Manual	-	Samsung Service Center
		Remote Control/ Alkaline Battery (1.5V AAA)2EA	AA59-00370B/ 4301-000121	
		Warranty Card	-	
Accessories that can be purchased additionally		Coaxial Cable	-	Internal shopping mall
		HDMI/DVI Cable	-	
		HDMI Cable	-	
		Video/Audio Cable	-	
		S-Video Cable	-	
		Component Cable	-	
		Optical Cable	-	

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## 3. Alignment & Adjustment

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### 3-1 Service Instruction

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#### 1. General Adjustment :

In general, a color TV can provide ideal visual quality by adjusting the basic settings such as the vertical size, horizontal size, focus, etc. Display a black and white picture on the screen to check if the picture is clearly displayed.

If there are some 'spotted' points on the screen when displaying a black and white picture, degauss the screen using the degauss coil. If the spotted points remain, re-adjust the purity and the convergence. This completes the basic performance examination.

#### △ Notice.

- These adjustments and the check list are only applied to S61B chassis-applied models.
- Only use 230V for the measurement set. It is recommended using an insulation transformer when supplying power to the set so as to prevent shock to the set or to yourself.
- These adjustment specifications have been created on the basis of the domestic S61B chassis-applied remote control Smodel. Some of the contents may be changed subject to the sales location and the product specifications.

#### 2. When replacing the Deflection Board:

Tilt adjustment, focus adjustment, screen voltage setting and W/B adjustment are all required

#### 3. When replacing the F-box Board :

Since the software is loaded to the flash memory of F-box board, check the version of the software after replacing the board. To check the version of the software, Enter service mode press the key on the remote control according to the following sequenu.(in stand-by status) Info→Menu→Mute→Power→ON

The software information will then be displayed below the OSD menu.The notation of the software information

: For example T\_NGTPEU1\_0006Since the settings including the Channel information, Deflection, etc. are saved to the nvRAM, reconfigure these settings when replacing the F-box Board.

#### 4. When replacing the CRT Ass'y : No adjustments required.

#### 5. When replacing the front panel master power switch : No adjustments required.

#### 6. When replacing the Side AV : No adjustments required.

#### 7. When replacing the control switch : No adjustments required.

## 3-2 How to Access Service Mode

---

1. To enter Service Mode, press the keys on the remote control according to the following sequence. (in Stand-by status)

Info → Menu → Mute → Power On

※ When failing to enter Service Mode, repeat the procedure above.

2. The initial screen of Service Mode.

```

Service/T-NG2PEU_XXX
Option(XX XX XX)
Deflection
Video Adjust 1
Video Adjust 2
Video Adjust 3
Video Adjust 4
Video Adjust 5
YC Delay
EEPROM
Checksum(0000)
Reset/XX-XX-XX XXPage
    
```

3. Functions of the Keys within Service Mode

MENU	Show all menus
▲ / ▼	Move the cursor to select an item.
◀ / ▶	Adjust the selected configuration value

### 3-3 Factory Data

★ The underlined are items applied during the service adjustment. None of the others should be adjusted.

#### 1. Option Byte1 (Russia)

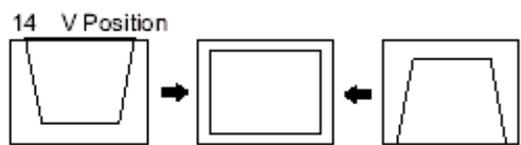
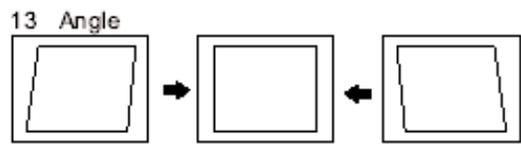
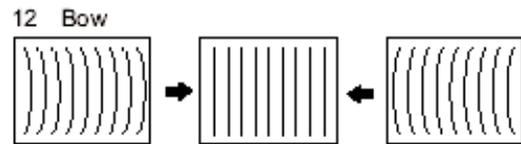
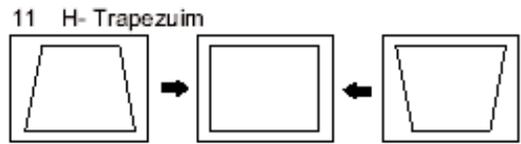
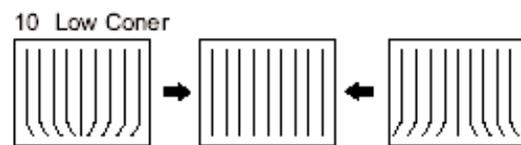
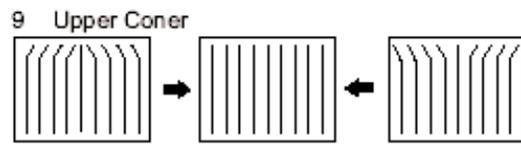
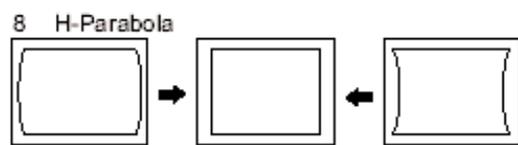
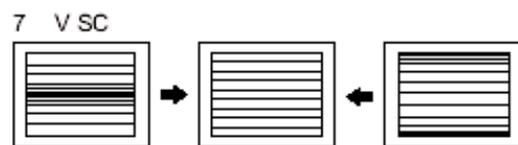
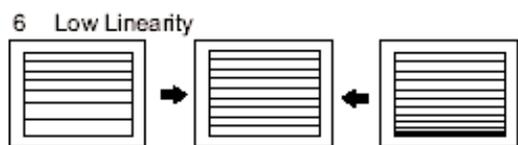
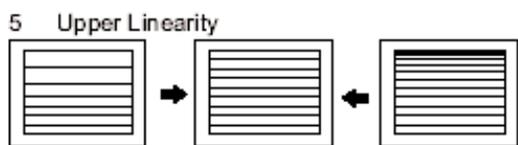
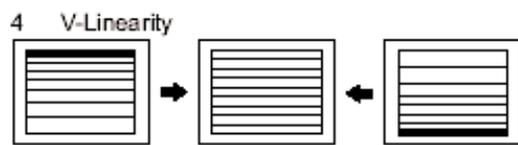
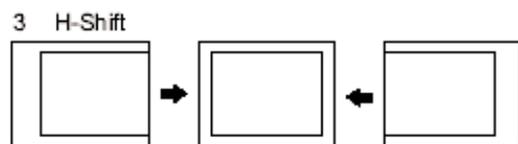
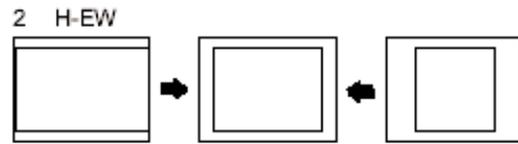
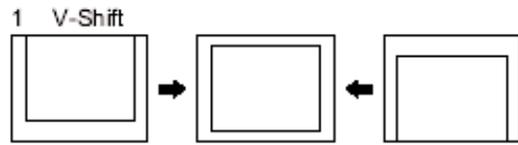
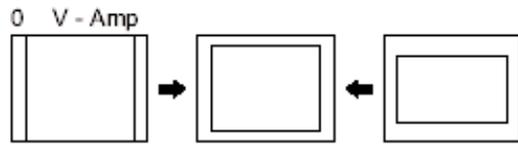
No	Item	25"[0.315mH]	25"[0.315mH]	25"[0.315mH]	29" [0.28mH]	29" [0.28mH]	29" [0.28mH]	32"[0.28mH]	32"[0.28mH]
		CS25M6SPQ	CS25M6SSQ	CS25M6SQQ	CS29M6SPQ CS29A11SPQ CS34A11SPQ	CS29M6SSQ CS29A11SSQ CS34A11SSQ	CS29M6SQQ	WS32A11SPQ	WS32A11SSQ
1	CRT	4:3	4:3	4:3	4:3	4:3	4:3	WIDE	WIDE
2	Osd Group	CIS	CIS	CIS	CIS	CIS	CIS	CIS	CIS
3	Osd Language	CIS	CIS	CIS	CIS	CIS	CIS	CIS	CIS
4	AV-Jack	Scart	Scart	Scart	Scart	Scart	Scart	Scart	Scart
5	DTV	Off	Off	Off	Off	Off	Off	Off	Off
6	PIP	2-TUNER	Off	Off	2-TUNER	Off	Off	2-TUNER	Off
7	LNA	On	On	On	On	On	On	On	On
8	Search_LNA	On	On	On	On	On	On	On	On
9	SOUND	SRS	SRS	A2/NICAM	SRS	SRS	A2/NICAM	SRS	SRS
10	Auto FM	On	On	On	On	On	On	On	On
11	Carrier mute	Off	Off	Off	Off	Off	Off	Off	Off
12	HIGH Deviation	Off	Off	Off	Off	Off	Off	Off	Off
13	Woofers	Off	Off	Off	Off	Off	Off	Off	Off
14	TTX Group	Russia	Russia	Russia	Russia	Russia	Russia	Russia	Russia
15	TTX LIST PRI	Off	Off	Off	Off	Off	Off	Off	Off
16	TTX ON/OFF	On	On	On	On	On	On	On	On
17	DTV1080I	50HZ	50HZ	50HZ	50HZ	50HZ	50HZ	50HZ	50HZ
18	Digital NR	On	On	On	On	On	On	On	On
19	AGC	Off	Off	Off	Off	Off	Off	Off	Off
20	Tilt	Off	Off	Off	On	On	On	On	On
21	Speaker	Non Dome	Non Dome	Non Dome	Non Dome	Non Dome	Non Dome	Non Dome	Non Dome
22	HOTEL MODE	OFF	OFF	OFF	OFF	OFF	OFF	OFF	OFF

## 2. Deflection Adjustment (PAL)

No	Item	CS25M6SPQ CS25M6SSQ CS25M6SQQ	CS29M6SPQ CS29M6SSQ CS29M6SQQ	WS32A11SPQ WS32A11SSQ	CS34A11SPQ CS34A11SSQ	Remark
		25"	29"	32"	34"	
0	<u>V Amp</u>	45	23	20	23->29	Adjust
1	<u>V SHIFT</u>	30	22	29	25->23	Adjust
2	<u>H EW</u>	33	40	40	30->28	Adjust
3	<u>H Shift</u>	35	22	36	20->21	Adjust
4	V Linearity	4	6	11	7	FIX
5	Upper-Linearity	8	8	10	6	FIX
6	Lower-Linearity	4	4	0	2	FIX
7	V SC	5	5	0	5	FIX
8	<u>H Parablar</u>	32	33	38	33->20	Adjust
9	<u>Upper Corner</u>	32	34	21	37->34	Adjust
10	<u>Lower Corner</u>	32	34	33	41->40	Adjust
11	<u>H Trapezium</u>	32	41	15	20->26	Adjust
12	<u>Bow</u>	32	31	31	32->30	Adjust
13	<u>Angle</u>	31	31	32	32	Adjust
14	V Position	40	40	40	40	FIX
15	CXA 2151 Sub01	68	68	68	68	FIX
16	CXA 2151 Sub01	1	1	1	1	FIX

## 3. Deflection Adjustment (NTSC)

No	Item	CS25M6SPQ CS25M6SSQ CS25M6SQQ	CS29M6SPQ CS29M6SSQ CS29M6SQQ	WS32A11SPQ WS32A11SSQ	CS34A11SPQ CS34A11SSQ	Remark
		25"	29"	32"	34"	
0	<u>V Amp</u>	cc	0	0	-2	Adjust
1	<u>V SHIFT</u>	2	3	3	2	Adjust
2	<u>H EW</u>	1	1	0	0	Adjust
3	<u>H Shift</u>	9	6	6	6	Adjust
4	V Linearity	2	2	2	1	FIX
5	Upper-Linearity	1	1	1	1	FIX
6	Lower-Linearity	-1	-1	-1	-2	FIX
7	V SC	0	0	0	0	FIX
8	<u>H Parablar</u>	0	1	-1	1	Adjust
9	<u>Upper Corner</u>	2	0	0	-2	Adjust
10	<u>Lower Corner</u>	0	2	0	2	Adjust
11	<u>H Trapezium</u>	-8	-5	-4	-12	Adjust
12	<u>Bow</u>	1	1	1	0	Adjust
13	<u>Angle</u>	-3	2	-2	-1	Adjust
14	V Position	0	0	0	0	FIX
15	CXA 2151 Sub01	68	68	68	68	FIX
16	CXA 2151 Sub01	1	1	1	1	FIX



## 4. Video Adjustment 1

No	Item	CS25M6SPQ CS25M6SSQ CS25M6SQQ	CS29M6SPQ CS29M6SSQ CS29M6SQQ	WS32A11SPQ WS32A11SSQ	CS34A11SPQ CS34A11SSQ	Remark
		25"	29"	32"	34"	
0	<u>R_CUTOFF</u>	34	40	49	50 s	Adjust
1	<u>G_CUTOFF</u>	25	25	25	25	FIX
2	<u>B_CUTOFF</u>	26	26	31	38	Adjust
3	Color On / Off	1	1	1	1	FIX
4	<u>CR_Offset</u>	35	35	35	35	Adjust
5	<u>CB_Offset</u>	25	25	25	25	Adjust
6	<u>R_Drive</u>	37	39	26	45	Adjust
7	G Drive	25	25	25	25	FIX
8	<u>B_Drive</u>	29	26	19	27	Adjust
9	<u>Sub_Bright</u>	37	46	51	48	Adjust
10	<u>Sub_Contrast</u>	4	7	6	10	Adjust
11	Sub Color	20	20	20	20	FIX
12	Secam sub color	2	2	2	2	FIX
13	Sub Tint	28	28	28	28	FIX
14	CTI Level	2	2	2	2	FIX
15	R-Y/R	15	15	15	15	FIX
16	R-Y/B	15	15	15	15	FIX
17	G-Y/R	9	9	9	9	FIX
18	G-Y/B	6	6	6	6	FIX
19	LTI Level	0	0	0	0	FIX
20	VSU	2	2	2	2	FIX
21	Melody volume	9	9	9	9	FIX
22	<u>Video mute time</u>	6	6	6	6	Adjust

## 5. Video Adjustment 2

No	Item	CS25M6SPQ CS25M6SSQ CS25M6SQQ	CS29M6SPQ CS29M6SSQ CS29M6SQQ	WS32A11SPQ WS32A11SSQ	CS34A11SPQ CS34A11SSQ	Remark
		25"	29"	32"	34"	
0	ABL Mode	3	3	3	3	FIX
1	Gamma	2	2	3	3	FIX
2	DPIC Level	2	2	2	2	FIX
3	DC Trans	2	2	2	2	FIX
4	ABL-TH	14	14	14	14	FIX
5	VM-Level	1	1	1	1	FIX
6	VM-F0	0	0	0	0	FIX
7	VM-Delay	3	3	3	3	FIX
8	SHP-F0	0	0	0	0	FIX
9	PRE Over	0	0	0	0	FIX
10	AKB Time	15	15	13	15	FIX
11	Coring	00	00	00	00	FIX
12	Bandpass	7	7	7	7	FIX
13	Highpass	8	8	8	8	FIX
14	Bandpass_AV	6	6	6	6	FIX
15	Highpass_AV	7	7	7	7	FIX
16	FLCOL_SW	1	1	1	1	FIX
17	FLCOL	0	0	0	0	FIX

## 6. Video Adjustment 3

No	Item	CS25M6SPQ CS25M6SS7Q CS25M6SQQ	CS29M6SPQ CS29M6SSQ CS29M6SQQ	WS32A11SPQ WS32A11SSQ	CS34A11SPQ CS34A11SSQ	Remark
		25"	29"	32"	34"	
0	H_EHT comp	4	5	7	2	FIX
1	V_EHT comp	4	6	6	2	FIX
2	NR OFF Value	6	6	6	6	FIX
3	PIP Contrast	13	13	13	13	FIX
4	PIP Bright	0	0	0	0	FIX
5	PIP Tint	63	63	63	63	FIX
6	PIP Color	7	7	7	7	FIX
7	PIP Pal V Pos	28	28	28	28	FIX
8	PIP NTSC V Pos	25	25	25	25	FIX
9	PIP H Pos	34	34	34	34	FIX
10	PIP R Cut off	0	0	0	0	FIX
11	PIP G Cut off	0	0	0	0	FIX
12	PIP B Cut off	0	0	0	0	FIX
13	PIP R Drive	56	56	56	56	FIX
14	PIP G Drive	56	56	56	56	FIX
15	PIP B Drive	56	56	56	56	FIX
16	PIP VSP Delay	5	5	5	5	FIX

## 7. Video Adjustment 4

No	Item	CS25M6SPQ CS25M6SSQ CS25M6SQQ	CS29M6SPQ CS29M6SSQ CS29M6SQQ	WS32A11SPQ WS32A11SSQ	CS34A11SPQ CS34A11SSQ	Remark
		25"	29"	32"	34"	
0	3Pip Pal V position	12	12	11	12	Adjust
1	3Pip Pal H Position	13	13	12	13	Adjust
2	3Pip Ntsc V Position	11	11	11	11	Adjust
3	3Pip Ntsc H Position	19	19	19	19	Adjust
4	Sync Phase (480p)	0	0	0	0	FIX
5	Sync Phase (576p)	1	1	1	1	FIX
6	Sync Phase (1080i)	0	0	0	0	FIX

## 8. YC DELAY

No	Item	CS25M6SP7X/BWT CS25M6SS7X/BWT CS25M6SQ7S/ELD	CS29M6SP7X/BWT CS29M6SS7X/BWT CS29M6SQ7S/ELD	WS32A11SP7XBWT WS32A11SS7XBWT	CS34A11SP7SBWT CS34A11SS7SBWT	Remark
		25"	29"	32"	34"	
0	P.YC (AV) Delay	-9	-9	-9	-9	FIX
1	S.YC (AV) Delay	-8	-8	-8	-8	FIX
2	N.YC (AV) Delay	-8	-8	-8	-8	FIX
3	P.BG.YC Delay	-8	-8	-8	-8	FIX
4	P.DK.YC Delay	-10	-10	-10	-10	FIX
5	P.I.YC Delay	-10	-10	-10	-10	FIX
6	P.M.YC DELAY	-9	-9	-9	-9	FIX
7	P.L.YC Delay	-8	-8	-8	-8	FIX
8	S.BG.YC Delay	-6	-6	-6	-6	FIX
9	S.DK.YC Delay	-8	-8	-8	-8	FIX
10	S.I.YC Delay	-10	-10	-10	-10	FIX
11	S.M4.43.YC DELAY	-10	-10	-10	-10	FIX
12	S.L.YC Delay	-5	-5	-5	-5	FIX
13	N.M.YC Delay	-7	-7	-7	-7	FIX

## 9.EEPROM

No	Item	25"	29"	32"	34"	Remark
0	System	0	0	0	0	FIX
1	System (VGA)	0	0	0	0	FIX
2	System (480p)	0	0	0	0	FIX
3	System (1080i)	0	0	0	0	FIX
4	Dynamic Contrast	90	90	90	90	FIX
5	Dynamic Brightness	50	50	50	50	FIX
6	Dynamic Sharpness	55	55	55	55	FIX
7	Dynamic Color	35	35	35	35	FIX
8	Dynamic Tint	50	50	50	50	FIX
9	Dynamic Color Tone	2	2	2	2	FIX
10	Standard Contrast	70	70	70	70	FIX
11	Standard Brightness	50	50	50	50	FIX
12	Standard Sharpness	50	50	50	50	FIX
13	Standard Color	50	50	50	50	FIX
14	Standard Tint	50	50	50	50	FIX
15	Standard Color Tone	2	2	2	2	FIX
16	Movie Contrast	40	40	40	40	FIX
17	Movie Brightness	50	50	50	50	FIX
18	Movie Sharpness	40	40	40	40	FIX
19	Movie Color	45	45	45	45	FIX
20	Movie Tint	50	50	50	50	FIX
21	Movie Color Tone	2	2	2	2	FIX
22	Left Blanking (PAL)	255	255	255	255	FIX
23	Right Blanking (PAL)	255	255	255	255	FIX
24	Left Blanking (VGA)	255	255	255	255	FIX
25	Right Blanking (VGA)	255	255	255	255	FIX
26	Left Blanking (480p)	215	215	215	215	FIX
27	Right Blanking(480p)	105	105	105	105	FIX
28	Left Blanking(1080i)	141	141	141	141	FIX
29	Right Blanking(1080i)	109	109	109	109	FIX
30	Brightness (RGB)	236	236	236	236	FIX
31	Contrast (RGB)	165	165	169	169	FIX
32	U Saturation (RGB)	94	94	94	94	FIX
33	V Saturation (RGB)	36	36	36	36	FIX
34	DVD Brightness (YPbPr)	255	255	255	255	FIX
35	DVD Contrast (YPbPr)	160	160	160	160	FIX
36	DVD U Saturation (YPbPr)	230	230	230	230	FIX
37	DVD V Saturation (YPbPr)	38	38	38	38	FIX
38	9402 Y Gain	200	200	200	200	FIX
39	9402 U Gain	85	85	85	85	FIX
40	-	255	255	255	255	FIX
41	9402 V Gain	75	75	75	75	FIX
42	CrCb Gain (480p)	119	119	119	119	FIX
43	CrCb Gain (1080i)	119	119	119	119	FIX
44	LTI Mode	2	2	2	2	FIX
45	LTI Mode (VGA)	255	255	255	255	FIX

No	Item	25"	29"	32"	34"	Remark
46	LTI Mode (480p)	1	1	1	1	FIX
47	LTI Mode (1080i)	1	1	1	1	FIX
48	NR ON value1	85	85	85	85	FIX
49	NR ON value2	85	85	85	85	FIX
50	NR OFF value1	68	68	68	68	FIX
51	NR OFF value2	68	68	68	68	FIX
52	NR ON value3	170	170	170	170	FIX
53	NR ON value4	170	170	170	170	FIX
54	NR OFF value3	34	34	34	34	FIX
55	NR OFF value4	34	34	34	34	FIX
56	-	255	255	255	255	FIX
57	SECAM $^{\circ}\mu\mu$	28	28	28	28	FIX
58	Range of R Gain	32	32	32	32	FIX
59	Range of G Gain	32	32	32	32	FIX
60	Range of B Gain	32	32	32	32	FIX
61	Range of F/B Gain	23	23	23	23	FIX
62	-	255	255	255	255	FIX
63	TTX V-Position	40	40	40	40	FIX
64	TTX H-Position	180	180	180	180	FIX
65	-	255	255	255	255	FIX
66	-	255	255	255	255	FIX
67	wide model 4:3 Normal Parabola	0	0	0	0	FIX
68	1080i 50HZ Trepizium	255	255	255	255	FIX
69	1080i 60HZ Trepizium	255	255	255	255	FIX
70	UP-UCG (Up Corner Semi Control)	0	0	0	0	FIX
71	LO-UCG (Low Corner Semi Control)	0	0	0	0	FIX
72	Vertical Slicing Level	15	15	15	15	FIX
73	Vertical Sync Lowpass-Filter	13	13	13	13	FIX
74	Amplifier Current Setting of Oscillator ad	2	2	2	2	FIX
75	PAL	185	185	185	185	FIX
76	Chroma (PAL)	215	215	215	215	FIX
77	Chroma PLLuto PLL	1	1	1	1	FIX
78	AV PAL	200	200	200	200	FIX
79	NT left blank	127	127	127	127	FIX
80	NT Right blank	126	126	126	126	FIX
81	Progressive TTX V Position	255	255	255	255	FIX
82	Progressive TTX H-Position	255	255	255	255	FIX
83	3Pip Pal V position	46	12	12	12	FIX
84	3Pip Pal H Position	35	13	13	13	FIX
85	3Pip Ntsc V Position	43	11	11	11	FIX
86	3Pip Ntsc H Position	30	30	30	30	FIX
87	-	22	22	22	22	FIX
88	-	27	27	27	27	FIX
89	-	255	255	255	255	FIX
90	RF SubBright	124	124	124	124	FIX
91	TTX Sub Brightness	235	235	235	235	FIX
92	Left Blanking	141	141	141	141	FIX

No	Item	25"	29"	32"	34"	Remark
93	Right Blanking	153	153	153	153	FIX
94	S - ABL	0	0	0	0	FIX
95	P - ABL	48	48	48	0	FIX
96	Picture Limit Level	3	3	3	3	FIX
97	OSD Level (LRGB2_LEV)	5	5	5	5	FIX
98	TTX Level (LRGB2_LEV)	3	3	3	3	FIX
99	AGCADJ1	230	230	230	230	FIX
100	AGCADJ2	110	110	110	110	FIX
101	ON TIMER CH memory	1	1	1	1	FIX
102	COMPONENT2 OSD Brightness	10	10	10	10	FIX
196	TNR1	207	207	207	207	FIX
197	TNR2	175	175	175	175	FIX
198	TNR3	149	149	149	149	FIX
199	TNR4	127	127	127	127	FIX
200	TNR5	99	99	99	99	FIX
201	TNR6	31	31	31	31	FIX
205	TNR1	156	156	156	156	FIX
206	TNR2	76	76	76	76	FIX
207	TNR3	64	64	64	64	FIX
250	EEPROM check sum	171	171	171	171	FIX
252	IKR Count	250	250	250	250	FIX
253	Start	40	40	40	40	FIX
254	End	150	150	150	150	FIX

## 1. Option Byte2 (Europe)

No	Item	SDI CRT(0.28mH)		SDI CRT(0.28mH)		SDI CRT(0.28mH)	
		29"		28"		32"	
		CW29M206P7X	CW29M206T(V)7X	WS28M206P7XXEC	WS28M206T(V)7X	WS32M206P7XXEC	WS32M206T(V)7X
0	CRT	4:3	4:3	Wide	Wide	Wide	Wide
1	AV-Jack	Scart	Scart	Scart	Scart	Scart	Scart
2	DTV	OFF	OFF	OFF	OFF	OFF	OFF
3	PIP	2-tuner	off	2-tuner	off	2-tuner	off
4	LNA	On	off	On	off	On	off
5	SEARCH_LNA	On	off	On	off	On	off
6	SOUND	SRS	SRS	SRS	SRS	SRS	SRS
7	Auto FM	On	On	On	On	On	On
8	Tilt on/off	Off	Off	ON	ON	ON	ON
9	HIGH Deviation	Off	Off	Off	Off	Off	Off
10	Woofer	Off	Off	Off	Off	Off	Off
11	TTX Group	Osd Language	Osd Language	Osd Language	Osd Language	Osd Language	Osd Language
12	TTX LIST	OFF	OFF	OFF	OFF	OFF	OFF
13	Digital NR	On	On	On	On	On	On
14	AGC on/off	Off	Off	Off	Off	Off	Off

## 2. Deflection Adjustment (PAL)

No	Item	SDI CRT(0.28mH)		SDI CRT(0.28mH)		SDI CRT(0.28mH)		Remark
		29"		28"		32"		
		CW29M206P7XXEC		WS28M206P7XXEC		WS32M206P7XXEC		
0	<u>V Amp</u>	30		40		25		Adjust
1	<u>V SHIFT</u>	25		25		25		Adjust
2	<u>H EW</u>	35		30		30		Adjust
3	<u>H Shift</u>	35		25		25		Adjust
4	<u>V Linearity</u>	11		6		11		FIX
5	<u>Upper-Linearity</u>	10		6		10		FIX
6	<u>Lower-Linearity</u>	0		3		0		FIX
7	<u>V SC</u>	0		3		0		FIX
8	<u>H Parablar</u>	35		32		25		Adjust
9	<u>Upper Corner</u>	20		32		20		Adjust
10	<u>Lower Corner</u>	30		32		25		Adjust
11	<u>H Trapezium</u>	20		32		28		Adjust
12	<u>Bow</u>	33		32		32		Adjust
13	<u>Angle</u>	30		32		31		Adjust
14	<u>V Position</u>	40		40		40		FIX

## 3. Deflection Adjustment (NTSC)\_Offset

No	Item	SDI CRT(0.28mH)			Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	V Amp	0	0	0	Adjust
1	V_SHIFT	-1	-1	-1	Adjust
2	H EW	1	1	1	Adjust
3	H Shift	6	6	6	Adjust
4	V Linearity	-4	-4	-4	FIX
5	Upper-Linearity	-1	-1	-1	FIX
6	Lower-Linearity	3	3	3	FIX
7	V SC	0	0	0	FIX
8	H Parablar	10→0	10→0	10→0	Adjust
9	Upper Corner	2	2	2	Adjust
10	Lower Corner	-2	-2	-2	Adjust
11	H Trapezium	9→5	9→5	9→5	Adjust
12	Bow	0	0	0	Adjust
13	Angle	0	0	0	Adjust
14	V Position	0	0	0	FIX

## 4. Video Adjustment 1

No	Item	SDI CRT(0.28mH)			Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	R_CUTOFF,	40	40	40	Adjust
1	G_CUTOFF,	25	25	25	Adjust
2	B_CUTOFF,	35	35	35	Adjust
3	Color On / Off	01	01	01	FIX
4	CR Offset	35	35	35	Adjust
5	CB Offest	25	25	25	Adjust
6	R Drive	37	37	37	Adjust
7	G Drive	32	32	32	Adjust
8	B Drive	29	29	29	Adjust
9	Sub Bright	45	45	45	Adjust
10	Sub Contrast	4	4	4	Adjust
11	Sub Color	9	9	9	FIX
12	Secam sub color	5	5	5	FIX
13	Sub Tint	28	28	28	FIX
14	CTI Level	2	2	2	FIX
15	R-Y/R	15	15	15	FIX
16	R-Y/B	15	15	15	FIX
17	G-Y/R	9	9	9	FIX
18	G-Y/B	6	6	6	FIX
19	LTI Level	0	0	0	FIX
20	VSU	2	2	2	FIX
21	Melody volume	9	9	9	Adjust
22	Video mute time	6	6	6	

## 5. Video Adjustment 2

No	Item	SDI CRT(0.28mH)	SDI CRT(0.28mH)	SDI CRT(0.28mH)	Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	ABL Mode	3	3	3	FIX
1	Gamma	2	3	3	FIX
2	DPIC Level	2	2	2	FIX
3	DC Trans	2	2	2	FIX
4	ABL-TH	14	14	14	FIX
5	VM-Level	1	1	1	FIX
6	VM-F0	0	0	0	FIX
7	VM-Delay	3	3	3	FIX
8	SHP-F0	0	0	0	FIX
9	PRE Over	0	0	0	FIX
10	AKB Time	15	13	13	FIX
11	Coring	00	00	00	FIX
12	Bandpass	7	7	7	FIX
13	Highpass	8	8	8	FIX
14	Bandpass_AV	6	6	6	FIX
15	Highpass_AV	7	7	7	FIX
16	FLCOL_SW	1	1	1	FIX
17	FLCOL	0	0	0	FIX
18	TRUBASS_CTRL(0XBA)	08	08	08	FIX
19	TRUBASS_LEVEL(0XBB)	1A	1A	1A	FIX
20	NICAM MAE VALUE	255	255	255	FIX

## 6. Video Adjustment 3

No	Item	SDI CRT(0.28mH)			Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	H_EHT comp	9	7	7	FIX
1	V_EHT comp	8	6	6	FIX
5	NR Value	6	6	6	FIX
6	PIP Contrast	8	8	8	FIX
7	PIP Bright	0	0	0	FIX
8	PIP Tint	52	52	52	FIX
9	PIP Color	10	10	10	FIX
10	PIP Pal V Pos	28	28	28	FIX
11	PIP NTSC V Pos	25	25	25	FIX
12	PIP H Pos	34	34	34	FIX
13	PIP R Cut off	0	0	0	FIX
14	PIP G Cut off	0	0	0	FIX
15	PIP B Cut off	0	0	0	FIX
16	PIP R Drive	75	75	75	FIX
17	PIP G Drive	75	75	75	FIX
18	PIP B Drive	75	75	75	FIX
19	PIP VSP Delay	5	5	5	FIX

## 7. Video Adjustment 4

No	Item	SDI CRT(0.28mH)			Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	<u>3Pip Pal V position</u>	11	11	11	Adjust
1	<u>3Pip Pal H Position</u>	12	12	12	Adjust
2	<u>3Pip Ntsc V Position</u>	11	11	11	Adjust
3	<u>3Pip Ntsc H Position</u>	19	19	19	Adjust
4	Sync Phase (480p)	-	-	-	FIX
5	Sync Phase (576p)	-	-	-	FIX
6	Sync Phase (1080i)	-	-	-	FIX

## 8. Video Adjustment 5

No	Item	SDI CRT(0.28mH)	SDI CRT(0.28mH)	SDI CRT(0.28mH)	Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	R-DRIVE_Cool2	-2	-2	-2	FIX
1	B-DRIVE_Cool2	5	5	5	FIX
2	R-CUT OFF_Cool2	-8	-8	-8	FIX
3	B-CUT OFF_Cool2	8	8	8	FIX
4	R-DRIVE_Cool1	0	0	0	FIX
5	B-DRIVE_Cool1	2	2	2	FIX
6	R-CUT OFF_Cool1	-6	-6	-6	FIX
7	B-CUT OFF_Cool1	3	3	3	FIX
8	R-DRIVE_Normal	0	0	0	FIX
9	B-DRIVE_Normal	0	0	0	FIX
10	R-CUT OFF_Normal	0	0	0	FIX
11	B-CUT OFF_Normal	0	0	0	FIX
12	R-DRIVE_Warm1	3	3	3	FIX
13	B-DRIVE_Warm1	-5	-5	-5	FIX
14	R-CUT OFF_Warm1	-1	-1	-1	FIX
15	B-CUT OFF_Warm1	-6	-6	-6	FIX
16	R-DRIVE_Warm2	7	7	7	FIX
17	B-DRIVE_Warm2	-11	-11	-11	FIX
18	R-CUT OFF_Warm2	3	3	3	FIX
19	B-CUT OFF_Warm2	-17	-17	-17	FIX

## 9. YC DELAY

No	Item	SDI CRT(0.28mH)	SDI CRT(0.28mH)	SDI CRT(0.28mH)	Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	P.YC (AV) Delay	-6	-6	-6	FIX
1	S.YC (AV) Delay	-5	-5	-5	FIX
2	N.YC (AV) Delay	-8	-8	-8	FIX
3	P.BG.YC Delay	-6	-6	-6	FIX
4	P.DK.YC Delay	-5	-5	-5	FIX
5	P.I.YC Delay	-8	-8	-8	FIX
6	P.M.YC DELAY	-	-	-	FIX
7	P.L.YC Delay	-8	-8	-8	FIX
8	S.BG.YC Delay	-2	-2	-2	FIX
9	S.DK.YC Delay	-6	-6	-6	FIX
10	S.I.YC Delay	-10	-10	-10	FIX
11	S.M4.43.YC DELAY	-	-	-	FIX
12	S.L.YC Delay	-5	-5	-5	FIX
13	N.M.YC Delay	-7	-7	-7	FIX

## 10. EEPROM

No	Item	SDI CRT(0.28mH)			Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
0	System	0	0	0	FIX
1	System (VGA)	0	0	0	FIX
2	System (480p)	0	0	0	FIX
3	System (1080i)	0	0	0	FIX
4	Dynamic Contrast	90	100	100	FIX
5	Dynamic Brightness	50	50	50	FIX
6	Dynamic Sharpness	50	50	50	FIX
7	Dynamic Color	50	50	50	FIX
8	Dynamic Tint	50	50	50	FIX
9	Dynamic Color Tone	2	2	2	FIX
10	Standard Contrast	70	70	70	FIX
11	Standard Brightness	50	50	50	FIX
12	Standard Sharpness	50	50	50	FIX
13	Standard Color	50	50	50	FIX
14	Standard Tint	50	50	50	FIX
15	Standard Color Tone	2	2	2	FIX
16	Movie Contrast	40	40	40	FIX
17	Movie Brightness	50	50	50	FIX
18	Movie Sharpness	40	40	40	FIX
19	Movie Color	45	45	45	FIX
20	Movie Tint	50	50	50	FIX
21	Movie Color Tone	2	2	2	FIX
22	Left Blanking (PAL)				FIX
23	Right Blanking (PAL)				FIX
24	Left Blanking (VGA)				FIX
25	Right Blanking (VGA)				FIX
26	Left Blanking (480p)	215	215	215	FIX
27	Right Blanking(480p)	169	169	169	FIX
28	Left Blanking(1080i)	141	141	141	FIX
29	Right Blanking(1080i)	109	109	109	FIX
30	Brightness (RGB)	238	238	238	FIX
31	Contrast (RGB)	165	165	165	FIX
32	U Saturation (RGB)	94	94	94	FIX
33	V Saturation (RGB)	36	36	36	FIX
34	DVD Brightness (YPbPr)	221	221	221	FIX
35	DVD Contrast (YPbPr)	166	166	166	FIX
36	DVD U Saturation (YPbPr)	122	122	122	FIX
37	DVD V Saturation (YPbPr)	57	57	57	FIX
38	9402 Y Gain	200	200	200	FIX
39	9402 U Gain	85	85	85	FIX
40	-				FIX
41	9402 V Gain	75	75	75	FIX
42	CrCb Gain (480p)	119	119	119	FIX
43	CrCb Gain (1080i)	119	119	119	FIX
44	LTI Mode	2	2	2	FIXss

No	Item	SDI CRT(0.28mH)	SDI CRT(0.28mH)	SDI CRT(0.28mH)	Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
45	LTI Mode (VGA)				FIX
46	LTI Mode (480p)	1	1	1	FIX
47	LTI Mode (1080i)	1	1	1	FIX
48	NR ON value1	85	85	85	FIX
49	NR ON value2	85	85	85	FIX
50	NR OFF value1	68	68	68	FIX
51	NR OFF value2	68	68	68	FIX
52	NR ON value3	170	170	170	FIX
53	NR ON value4	170	170	170	FIX
54	NR OFF value3	34	34	34	FIX
55	NR OFF value4	34	34	34	FIX
56	-				FIX
57	SECAM sensitivity	28	28	28	FIX
58	Range of R Gain	32	32	32	FIX
59	Range of G Gain	32	32	32	FIX
60	Range of B Gain	32	32	32	FIX
61	Range of F/B Gain	23	23	23	FIX
62	-				FIX
63	TTX V-Position	40	40	40	FIX
64	TTX H-Position	190	190	190	FIX
65	-				FIX
66	-	ss			FIX
67	wide model 4:3 Normal Parabola	0	0	0	FIX
68	1080i 50HZ Trepezium				FIX
69	1080i 60HZ Trepezium				FIX
70	UP-UCG (Up Corner Semi sntrol)	0	0	0	FIX
71	LO-UCG (Low Corner Semi Control)	0	0	0	FIX
72	Vertical Slicing Level	15	15	15	FIX
73	Vertical Sync Lowpass-Filter	13	13	13	FIX
74	Amplifier Current Setting of Oscillator Pad	2	2	2	FIX
75	PAL sensitivity	185	185	185	FIX
76	Chroma sensitivity (PAL)	215	215	215	FIX
77	Chroma PLL	1	1	1	FIX
78	WSS 4:3 Panorama				FIX
79	NT left blank	79	79	79	FIX
80	NT Right blank	126	126	126	FIX
81	Progressive TTX V Position				FIX
82	Progressive TTX H-Position				FIX
83	3Pip Pal V position				FIX
84	3Pip Pal H Position				FIX
85	3Pip Ntsc V Position				FIX
86	3Pip Ntsc H Position				FIX
87	-				FIX
88	-				FIX
89	-				FIX
90	RF SubBrights	124	124	124	

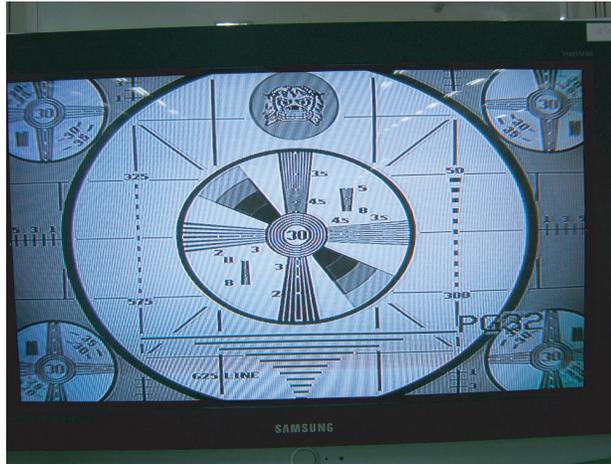
No	Item	SDI CRT(0.28mH)	SDI CRT(0.28mH)	SDI CRT(0.28mH)	Remark
		29"	28"	32"	
		CW29M206P7XXEC	WS28M206P7XXEC	WS32M206P7XXEC	
91	TTX Sub Brightness	235	235	235	FIX
92	Left Blanking	141	141	141	FIX
93	Right Blanking	153	153	153	FIX
94	S - ABL	0	0	0	FIX
95	P - ABL	48	48	48	FIX
96	Picture Limit Level	3	3	3	FIX
97	OSD Level (LRGB2_LEV)	5	5	5	FIX
98	TTX Level (LRGB2_LEV)	7	7	7	FIX
99	AGCADJ1	230	230	230	FIX
100	AGCADJ2	110	110	110	FIX
101	ON TIMER CH memory	1	1	1	FIX
102	COMPONENT2 OSD Brightness	10	10	10	FIX
196	TNR1	207	207	207	FIX
197	TNR2	149	149	149	FIX
198	TNR3	95	95	95	FIX
199	TNR4	63	63	63	FIX
200	TNR5	47	47	47	FIX
201	TNR6	31	31	31	FIX
202					FIX
203					FIX
204					FIX
205	HPLL timing	156	156	156	FIX
206	SECAM MODE INITIAL DATA	76	76	76	FIX
207	SECAM MODE INITIAL DATA	64	64	64	FIX
250	EEPROM check sum	81	81	81	FIX
252	IKR Count	250	250	250	FIX
253	Start	40	40	40	FIX
254	End	150	150 s	150	FIX

## 3-4 Service Adjustment

### 3-4-1 Adjusting the Picture Size

■ Since the S61B chassis has the deflection settings data within the Factory Data, the picture size has to be adjusted when replacing the System Board or the Deflection Board, according to the following procedures.

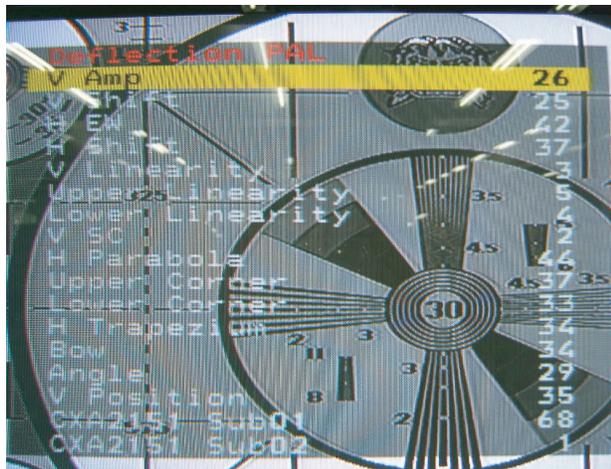
① Display the Lion pattern.



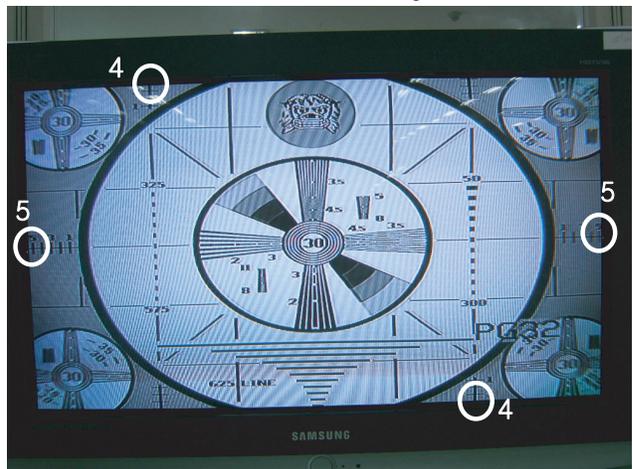
② Press "Info → Menu → Mute → Power On" using the remote control and enter Factory Mode.



③ Enter Deflection Mode.

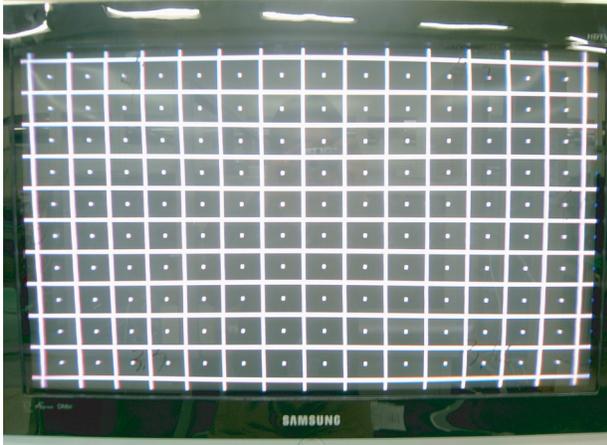


④ Adjust the V-AMP, V-SHIFT, H-AMP and H-SHIFT items so that the width becomes 5 and the height becomes 4.



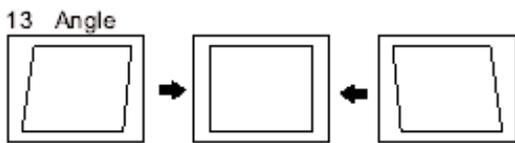
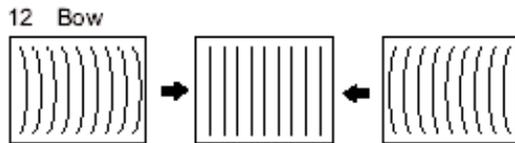
### 3-4-2 Adjusting the Picture Straight Lines

- ① Display the Cross Hatch pattern.

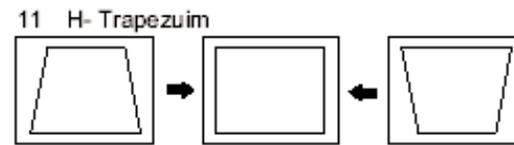
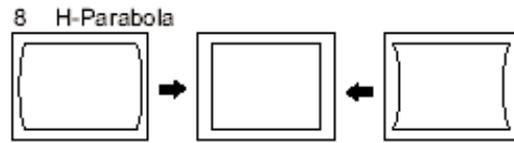


- ② Adjust settings other than V-AMP, V-SHIFT, H-AMP and H-SHIFT so that straight lines are displayed without curves.

- ③ Adjust BOW and the Angle settings so that the center line becomes a straight line.



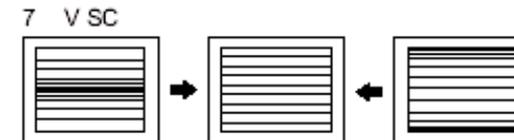
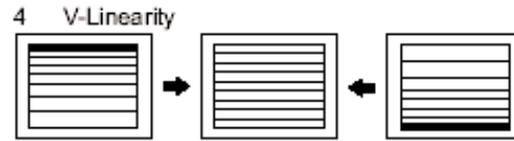
- ④ Adjust the H-Parabola and H-Trapezium settings so that the left and right lines become straight.



- ⑤ Adjust the Upper Corner and the Low Corner settings so that the end of the lines become straight.



- ⑥ Adjust the V-Linearity and V-SC settings so that the intervals of the horizontal lines become uniform.



- ⑦ When the adjustments are complete, display the Lion pattern and check that the picture size has not been changed. If there is no change, finish the adjustments.

## 3-5 Replacements & Calibration

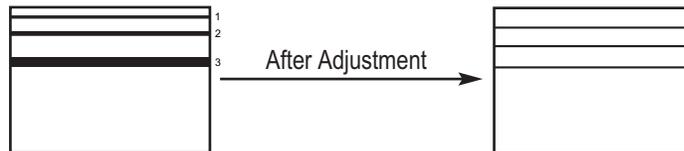
### 3-5-1 Adjusting the Focus

■ Since the S61B chassis has a built-in dynamic focus circuit, take care when adjusting the focus. When the CRT PCB, FBT or CRT has been replaced, the focus has to be adjusted according to the following procedures.

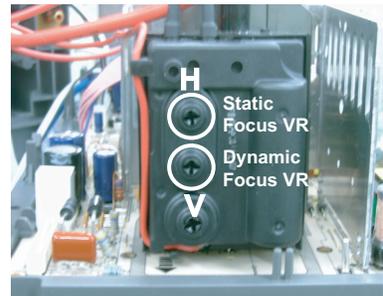
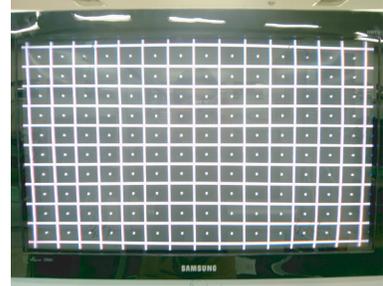
1. Display the Cross Hatch pattern.
2. Set the Screen Adjustment to "Standard".
3. Turn the Static Focus VR clockwise to the maximum position.  
(End of clockwise direction)
4. Turn the Dynamic Focus VR counter clockwise to the maximum position.  
(End of counter clockwise direction)
5. Slowly turn the Static Focus VR counter clockwise so that the center vertical line is the most clearly displayed.



6. Slowly turn the Dynamic Focus VR clockwise so that the 2nd line is the most clearly displayed.

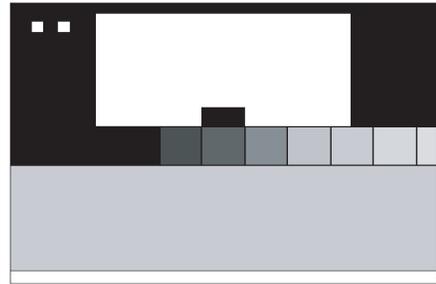


7. Check the entire screen focus and repeat steps 3 to 6, if necessary.

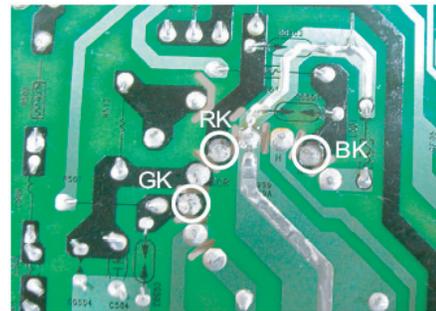


### 3-5-2 Adjusting the Screen Voltage

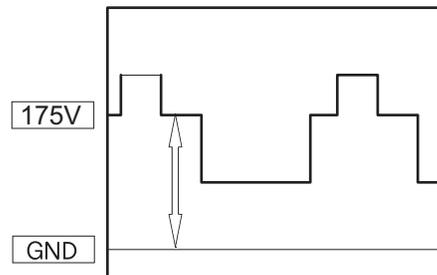
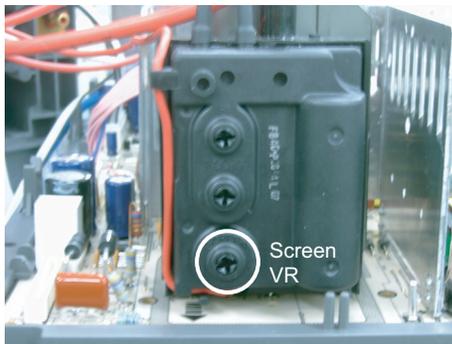
1. Select "Info → Menu → Mute → Power On" to enter Service Mode.
2. Initialize all settings to the values appropriate to the corresponding model.
3. Display the Toshiba pattern.



4. Using an Oscilloscope, measure the size of RK, BK and GK to the Pedestal Level.



5. Adjust the Screen VR of FEB so that the highest point of the Pedestal Level is 175V.



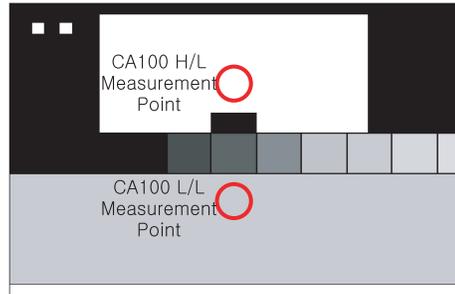
Adjust Method the Screen Voltage for Toshiba Pattern by Oscilloscope

※ Screen Voltage Measurement Data

No	Item	Data	Required Adjustment
1	Screen Voltage	The Highest Voltage among RK, GK and BK 145Vp-p-3V	Screen Voltage

### 3-5-3 Adjusting the White Balance

1. Select "Info → Menu → Mute → Power On" to enter Service Mode.
2. Initialize all settings to the values appropriate to the corresponding model.
3. Display the Toshiba pattern and adjust the White Balance using CA100 with the coordinates of the corresponding model.



[CA100]

4. Enter Video Adjust1 of Service Mode. Adjust Low/Light.
  - Adjust Sub Bright to set Y.
  - Adjust B Cutoff to set y.
  - Adjust R Cutoff to set x.
5. Enter Video Adjust1 of Service Mode. Adjust High/Light.
  - Adjust Sub Contrast to set Y.
  - Adjust B Drive to set y.
  - Adjust R Drive to set x.
6. Check Low/Light and readjust it if its value has been changed.
7. If you have readjusted Low/Light, readjust High/Light until the two values are identical to the coordinates of the corresponding model.

#### ※ White Balance Standard Data

No	Item	Data	Required Adjustment
1	White Balance	H/LIGHT x:286±3 y:290±3 Y:35±3 L/LIGHT x:286±3 y:290±3 Y:1.0±0.3	White Balance (Europe)

### 3-5-4 Check List for the Screen Voltage and White Balance Adjustment

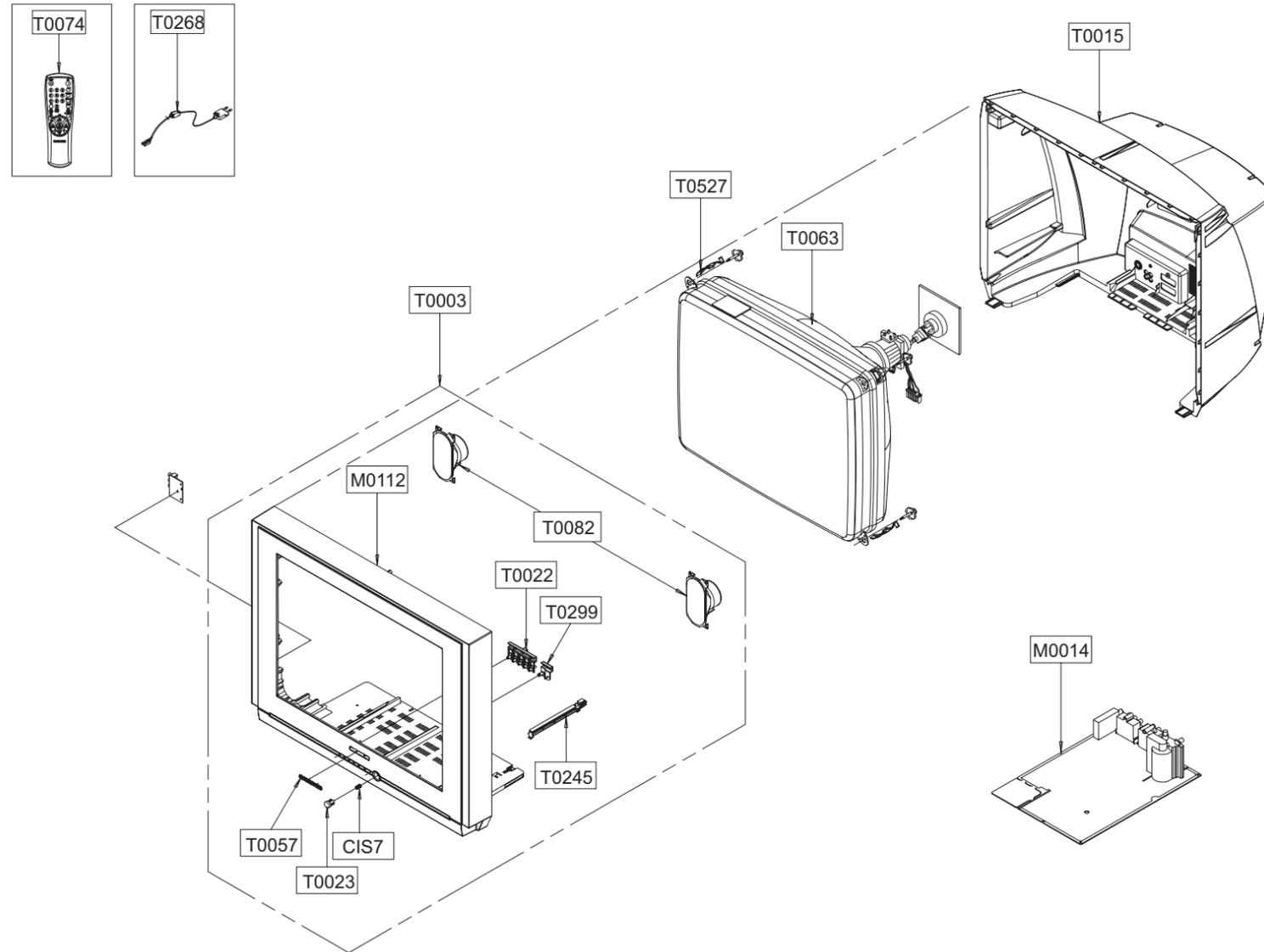
1. The Screen Voltage and White Balance are connected each other, and both of them have to be configured to the correct values.
2. Adjust the White Balance after the Screen Voltage was adjusted, and check if the Screen Voltage is normal after adjusting the White Balance.
3. If the White Balance is readjusted, check the Screen Voltage again.
4. When the adjustment is finished, check the following checklist.
  - If there is a spot on the screen when turning the TV set off/on, adjust the Screen Voltage again.
  - If there is a ghost line on the screen, adjust the Screen Voltage again.

# MEMO

## 4. Exploded View & Part List

### 4-1 CW29M066V7XXEC

You can search for the updated part code through ITSELF web site.  
 URL: <http://itself.sec.samsung.co.kr>



Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0014	AA94-15644A	ASSY PCB MAIN	29M166V7X	1	S.A	
M0112	AA63-01269A	COVER-FRONT	29M06,S61B,SRS,HIPS,HB,SV012	1	S.N.A	
T0003	AA96-02033B	ASSY COVER P-FRONT	29M06,S61B,HIPS,HB,SV	1	S.A	
T0015	AA64-04015A	CABINET BACK	29M06,HIPS,HB	1	S.A	
T0022	AA64-04011A	KNOB CONTROL	M06,HIPS,HB,SV012P,ALL,SEH	1	S.N.A	
T0023	AA64-04012A	KNOB POWER	M06,HIPS,HB,SV012P,ALL,SEH	1	S.N.A	
T0057	AA64-70117B	BADGE-BRAND	,AL,T1.5,10.6,L65,BLK,SILVER	1	S.A	
T0063	AA03-00451A	CRT COLOR	A68QFN793X002,380mG,0.28mH,11.	1	S.A	
T0074	AA59-00370B	REMOCON	SAMSUNG,TM79,175*44*23,SAMSUNG	1	S.A	
T0082	3001-001092	SPEAKER	10W,8OHM,87DB,150HZ	2	S.A	
T0245	HA61-00711C	HOLDER-PCB	29K8,HIPS,HB,GRY	1	S.N.A	
T0268	AA39-10001M	CBF-POWER CORD	-,KJP-140,KLCE-2F,2.4m,HO	1	S.A	
T0299	AA64-04013A	WINDOW-RMC,LED	M06,ACRYL,HB,CLEAR,SEH	1	S.N.A	
T0527	AA61-01373C	HOLDER-D COIL	NYLON,W31MM,WHT,SEH	4	S.N.A	

## 5. Electrical Part List

### 5-1 CW29M066V7XXEC

You can search for the updated part code through ITSELF web site.

URL:<http://itself.sec.samsung.co.kr>

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
<b>ASSY CHASSIS</b>						
M0017	AA91-09644A	ASSY CHASSIS	29M166V7X	1	S.N.A	
<b>M0014</b>	<b>AA94-15644A</b>	<b>ASSY PCB MAIN</b>	<b>29M166V7X</b>	<b>1</b>	<b>S.A</b>	
0	AA41-01162A	PCB-F/BOX	CW29M16,FR-4,4,A,1.6T,150 X 23	1	S.N.A	
C101	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C102	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
C103	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C104	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C105	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C106	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C109	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C110	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C116	2401-000913	C-AL	22uF,20%,16V,GP,TP,5x11,5	1	S.A	
C117	2401-001363	C-AL	470uF,20%,16V,GP,TP,10x12.5,5	1	S.A	
C201	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C202	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C203	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C204	2401-000050	C-AL	10uF,20%,16V,GP,TP,5x11,2.5	1	S.A	
C205	2401-000050	C-AL	10uF,20%,16V,GP,TP,5x11,2.5	1	S.A	
C206	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C301	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C302	2201-000192	C-CERAMIC,DISC	0.01nF,0.25PF,500V,C0G,TP	1	S.A	
C303	2305-000285	C-FILM,LEAD-PEF	220nF,5%,100V,TP,10.5X5.	1	S.A	
C304	2305-000289	C-FILM,LEAD-PEF	220nF,5%,63V,TP,-,5mm	1	S.A	
C305	2301-000160	C-FILM,LEAD-PEF	12nF,5%,50V,TP,11.0x6.0x	1	S.A	
C306	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C307	2305-000412	C-FILM,LEAD-PEF	470nF,5%,63V,TP,-,5mm	1	S.A	
C401	2201-000556	C-CERAMIC,DISC	0.47nF,10%,500V,Y5P,TP,5.	1	S.A	
C402	2401-001397	C-AL	470uF,20%,25V,GP,TP,10x16,5	1	S.A	
C403	2201-000556	C-CERAMIC,DISC	0.47nF,10%,500V,Y5P,TP,5.	1	S.A	
C404	2401-002288	C-AL	470uF,20%,25V,WT,TP,10x20,5	1	S.A	
C407	2301-001401	C-FILM,LEAD-PPF	27nF,5%,630V,TP,19x11x17	1	S.A	
C408	2301-001268	C-FILM,LEAD-PPF	33nF,5%,630V,TP,20x11x17	1	S.A	
C409	2201-000600	C-CERAMIC,DISC	0.56nF,10%,50V,Y5P,TP,5X3	1	S.A	
C410	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C411	2401-000493	C-AL	10uF,20%,50V,LZ,TP,5x11mm,5mm	1	S.A	
C412	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C413	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
C414	2305-000149	C-FILM,LEAD-PEF	100nF,5%,100V,TP,12x12.5	1	S.A	
C415	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C416	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C417	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C418	2301-000213	C-FILM,LEAD-PEF	220nF,5%,250V,TP,21.5x11	1	S.A	
C419	2201-000556	C-CERAMIC,DISC	0.47nF,10%,500V,Y5P,TP,5.	1	S.A	
C420	2401-001527	C-AL	47uF,20%,250V,HR,TP,13x25mm,5m	1	S.A	
C421	2306-000272	C-FILM,LEAD-PPF	820nF,5%,400V,BK,29X25.5	1	S.A	
C422	2201-000930	C-CERAMIC,DISC	0.22nF,10%,500V,Y5P,TP,5.	1	S.A	
C424	2306-000188	C-FILM,LEAD-PPF	330nF,5%,400V,BK,26X19.5	1	S.A	
C425	2301-001259	C-FILM,LEAD-PPF	100nF,5%,400V,TP,19x8x16	1	S.A	
C426	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
C430S	2306-000353	C-FILM,LEAD-PPF	6.3nF,5%,1.6KV,BK,26.5x8	1	S.A	
C431S	2306-000329	C-FILM,LEAD-PPF	7nF,3%,1.6KV,BK,28.5X18.	1	S.A	
C432S	2301-001418	C-FILM,LEAD-PPF	1.5nF,5%,2kV,TP,29x7x13.	1	S.A	
C607	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C608	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C609	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	1	S.A	

## Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
C610	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	1	S.A	
C615	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C616	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C619	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C621	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C628	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C629	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C630	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C634	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C640	2401-001271	C-AL	4.7uF,20%,50V,GP,TP,5x11mm,5	1	S.A	
C642	2401-001998	C-AL	1000uF,20%,25V,GP,TP,10x20,5mm	1	S.A	
C647	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C661	2401-002009	C-AL	100uF,20%,16V,GP,TP,6.3x7,5	1	S.A	
C663	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C801	2401-000133	C-AL	1000uF,20%,16V,GP,TP,10x20,5	1	S.A	
C802	2301-000235	C-FILM,LEAD-PEF	3.9nF,5%,50V,TP,6.5x3.0x	1	S.A	
C803	2401-003025	C-AL	330uF,20%,400V,GP,BK,30x40,10	1	S.A	
C804	2201-000332	C-CERAMIC,DISC	2.2NF,20%,250V,Y5U,TP,9X4	1	S.A	
C805	2201-000332	C-CERAMIC,DISC	2.2NF,20%,250V,Y5U,TP,9X4	1	S.A	
C806	2306-000112	C-FILM,LEAD-PPF	100nF,20%,250V,BK,-,15mm	1	S.A	
C807	2301-001342	C-FILM,LEAD-PPF	1.5nF,5%,800V,TP,15x6.5x	1	S.A	
C808	2401-003046	C-AL	47uF,20%,50V,WT,TP,6.3x11,2.5	1	S.A	
C809	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
C810	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C813	2201-000131	C-CERAMIC,DISC	0.1NF,10%,2KV,Y5P,TP,6.3X	1	S.A	
C815	2401-000787	C-AL	220uF,20%,160V,GP,BK,16x31.5mm,7.5	1	S.A	
C816	2401-000262	C-AL	100uF,20%,160V,HR,TP,16x25,7.5	1	S.A	
C817	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C818	2401-000689	C-AL	2200uF,20%,16V,GP,TP,13x25,5	1	S.A	
C819	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C820	2401-000703	C-AL	2200uF,20%,25V,GP,-,12.5x25mm,	1	S.A	
C821	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
C822	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C823	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C825	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C826	2401-000698	C-AL	2200uF,20%,16V,WT,TP,12.5x25,5	1	S.A	
C828	2201-000374	C-CERAMIC,DISC	0.22NF,5%,50V,C0G,TP,10.5	1	S.A	
C831	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C832	2401-000493	C-AL	10uF,20%,50V,LZ,TP,5x11mm,5mm	1	S.A	
C833	2401-002619	C-AL	47uF,20%,25V,GP,TP,5x11,5	1	S.A	
C834	2401-003034	C-AL	220uF,20%,16V,WT,TP,8x11.5,5	1	S.A	
C835	2401-000689	C-AL	2200uF,20%,16V,GP,TP,13x25,5	1	S.A	
C837	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C838	2401-001513	C-AL	47uF,20%,16V,WT,TP,5x11,5	1	S.A	
C840	2401-001513	C-AL	47uF,20%,16V,WT,TP,5x11,5	1	S.A	
C841	2401-000611	C-AL	1uF,20%,50V,WT,TP,5x11,5	1	S.A	
C843	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C844	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C901	2202-000632	C-CERAMIC,MLC-AXIAL	100nF,20%,50V,Z5U,TP	1	S.A	
C901	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
C902	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
C902	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
C903	2202-000127	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V	1	S.A	
C903	2203-001103	C-CER,CHIP	6.8nF,10%,50V,X7R,1608	1	S.A	
C904	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
C905	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
C906	2203-000357	C-CER,CHIP	0.15NF,5%,50V,C0G,TP,1608	1	S.A	
C912	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
C925	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CIS3	AA40-00128A	TUNER	TMQZ2-407A,PAL-CW,PAL Hyper,38.9MH	1	S.A	
CM01	2203-001628	C-CER,CHIP	0.03nF,5%,50V,NP0,1608	1	S.A	
CM02	2203-001628	C-CER,CHIP	0.03nF,5%,50V,NP0,1608	1	S.A	
CM03	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM04	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM05	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM06	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM07	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM08	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CM09	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM11	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM12	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
CM13	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM14	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
CM15	2203-000257	C-CERAMIC,CHIP	10nF,10%,50V,X7R,TP,1608	1	S.A	
CM20	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM21	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
CM23	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
CM24	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
CM25	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM26	2402-001033	C-AL,SMD	220uF,20%,16V,GP,TP,8.3x8.3x10	1	S.A	
CM27	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM28	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CN03	3711-003601	HEADER-BOARD TO CABLE	BOX,12P,1R,2.5mm,A	1	S.A	
CN301	AA60-40012F	PIN-GT	4P,2.36PI,6/12/14mm,NYLON66,LOCKI	1	S.N.A	
CN502	3711-003051	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,ST	1	S.A	
CN601	3711-003043	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,ST	1	S.A	
CN802	AA60-40012G	PIN-GT	3P,2.36PI,10/5mm,NYLON66,LOCKING	1	S.N.A	
CN904	3711-002646	HEADER-BOARD TO CABLE	BOX,7P,1R,2.5mm,ST	1	S.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
CNM04	3711-001111	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,AN	1	S.A	
CV901	2401-000302	C-AL	100uF,20%,25V,GP,TP,6.3x11,5	1	S.A	
△CX801S	2306-000318	C-FILM,LEAD-PPF	220NF,20%,250V,BK,-,22.5	1	S.A	
△CX802S	2306-000318	C-FILM,LEAD-PPF	220NF,20%,250V,BK,-,22.5	1	S.A	
△CY802S	2201-000446	C-CERAMIC,DISC	3.3NF,20%,400V,Y5U,BK,15X	1	S.A	
D0254	AA32-00015A	MODULE REMOCON	FRP-3521H31,38KHZ,940MM,M	1	S.A	
D201	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D202	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
D301	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D302	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D401	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D402	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D403	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D404	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D405	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D406	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D407	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D408	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D409	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D410	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D603	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D604	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
△D801S	0402-001399	DIODE-BRIDGE	GSIB660,600V,6A,SIP-4,BK	1	S.A	
D803	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D804	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D805	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D807	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D808	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D904	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DC01	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC02	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC05	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC06	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
DC07	2203-000491	C-CERAMIC,CHIP	2.2nF,10%,50V,X7R,TP,1608	1	S.A	
DC08	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
DC11	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC12	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC13	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC14	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC15	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC16	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC17	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC18	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC19	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC20	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	

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Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DC21	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC22	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
DC23	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
DC24	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC25	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC26	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC27	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC28	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC29	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC30	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC33	2203-002494	C-CERAMIC,CHIP	470nF,10%,16V,X7R,TP,2012	1	S.A	
DC34	2203-000888	C-CER,CHIP	4.7nF,10%,50V,X7R,TP,1608	1	S.A	
DC35	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
DC36	2203-000257	C-CERAMIC,CHIP	10nF,10%,50V,X7R,TP,1608	1	S.A	
DC37	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC38	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC39	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC40	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC41	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
DC43	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC44	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC45	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
DC48	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
DC49	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
DC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC52	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC57	2203-001052	C-CERAMIC,CHIP	0.56nF,10%,50V,X7R,TP,160	1	S.A	
DC58	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC59	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC60	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC61	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC62	2301-001664	C-FILM,LEAD-OTHER	100nF,3%,50V,TP,20x16x	1	S.A	
DC63	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC64	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DCN02	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
DCN03	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
DD01	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD02	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD03	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD04	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD05	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD06	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD07	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD08	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD09	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD10	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD11	0403-000746	DIODE-ZENER	RLZ3.9B,3.89-4.16V,500MW,LL-	1	S.A	
DD13	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD14	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD15	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD16	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD17	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD18	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD19	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DM01	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
DQ01	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ02	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ03	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ04	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ05	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ06	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ07	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DQ09	0501-000727	TR-SMALL SIGNAL	BC848C,NPN,310mW,SOT-23,	1	S.A	
DQ10	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
DQ11	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
DR03	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR04	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR05	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DR06	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR07	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR08	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
DR09	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR15	2007-000869	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	S.A	
DR18	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR19	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR21	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR23	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
DR24	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	1	S.A	
DR25	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
DR27	2007-000107	R-CHIP	470Kohm,5%,1/10W,TP,1608	1	S.A	
DR28	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
DR29	2007-000118	R-CHIP	390ohm,5%,1/10W,TP,1608	1	S.A	
DR30	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR31	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR32	2007-000081	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	1	S.A	
DR33	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
DR34	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
DR35	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR36	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR37	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
DR38	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR39	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR40	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
DR41	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
DR43	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR44	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR45	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR46	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR49	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR50	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR51	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR52	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR53	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR54	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR55	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR56	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR57	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR58	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR59	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR60	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR61	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR62	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR63	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
DR64	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR65	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR66	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
DR68	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR69	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR70	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR80	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
DR81	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
DR82	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
DR86	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
DR87	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
DR88	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR89	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR93	2007-000096	R-CHIP	30Kohm,5%,1/10W,TP,1608	1	S.A	
DY01	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DY02	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DZ301	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500MW,D	1	S.A	
DZ302	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500MW,D	1	S.A	
DZ303	0403-001221	DIODE-ZENER	UZ39BSB,35.36-37.19V,500MW,D	1	S.A	
DZ304	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500MW,D	1	S.A	
DZ305	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	1	S.A	

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DZ306	0403-001330	DIODE-ZENER	MTZJ30A,26.99-28.39V,500MW,D	1	S.A	
DZ401	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500MW,D	1	S.A	
DZ402	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DZ404	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZ407	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500MW,D	1	S.A	
DZ611	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZ801	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500MW,DO	1	S.A	
DZ802	0403-000716	DIODE-ZENER	MTZJ4.7B,4.59-4.77V,500MW,DO	1	S.A	
DZ803	0403-001327	DIODE-ZENER	MTZJ18A,16.22-17.06V,500MW,D	1	S.A	
DZ804	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	1	S.A	
DZ805	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZ806	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	1	S.A	
DZ807	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZ901	0403-000714	DIODE-ZENER	MTZJ3.3B,3.32-3.53V,500MW,DO	1	S.A	
DZV901	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
EC01	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC02	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC03	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC04	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC08	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC09	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC11	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC12	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC16	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC19	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC20	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC21	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC22	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC23	2203-000975	C-CERAMIC,CHIP	47nF,10%,25V,X7R,TP,1608,	1	S.A	
EC24	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC25	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC26	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC27	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC28	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC29	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC30	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC31	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC32	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC33	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC34	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
EC35	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
EC36	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC37	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC38	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC39	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC40	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC41	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC42	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
EC43	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC46	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC47	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
EC48	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
EC49	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
EC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC51	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC52	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC53	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC54	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC55	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC56	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC57	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC58	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC60	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC73	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC74	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
ED66	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EL205	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EL206	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL207	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL208	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL301	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL302	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL401	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL402	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL403	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL404	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL803	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL804	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL805	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL806	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EQ01	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
EQ02	0501-000669	TR-SMALL SIGNAL	KTA1505Y,PNP,150mW,SOT-2	1	S.A	
EQ03	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
EQ06	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
ER01	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER02	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER03	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER04	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER05	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER06	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
ER07	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
ER08	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	S.A	
ER09	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
ER10	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER11	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
ER12	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
ER13	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER16	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER19	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER20	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER21	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER22	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER23	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER24	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER38	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
ER39	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER40	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER41	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
ER42	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER43	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER44	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER45	2007-001167	R-CHIP	75ohm,5%,1/16W,DA,TP,1608	1	S.A	
ER46	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
ER47	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER48	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
EX01	2801-004004	CRYSTAL-SMD	20.25MHz,20ppm,28-AAN,13pF,2	1	S.A	
EY01	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY02	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY03	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY04	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY05	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY06	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY401	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY403	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY404	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY405	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY406	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY407	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY408	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY409	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY410	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY411	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY412	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY413	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY414	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	



Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY843	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY844	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY845	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY846	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY847	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY848	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY851	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY852	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY853	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY854	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5,TP,-	1	S.A	
F101	2901-000299	FILTER-EMI ON BOARD	-,6A,UL/CSA,-,9x7.5,	1	S.A	
F101	2901-000299	FILTER-EMI ON BOARD	-,6A,UL/CSA,-,9x7.5,	1	S.A	
F801A	3602-000114	FUSE-HOLDER	-,30mohm	1	S.A	
F801B	3602-000114	FUSE-HOLDER	-,30mohm	1	S.A	
△ FA801S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
△ FA802S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
△ FA803S	3601-001228	FUSE-AXIAL LEAD	125V,10A,FAST-ACTING,EPO	1	S.A	
FD802	3601-000414	FUSE-CARTRIDGE	250V,5A,SLOW-BLOW,GLASS,5	1	S.A	
G101	3301-001324	CORE-FERRITE BEAD	AB,150OHM,2X1.25X0.9MM,	1	S.N.A	
G101	3301-001324	CORE-FERRITE BEAD	AB,150OHM,2X1.25X0.9MM,	1	S.N.A	
GT101	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT102	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT403	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT804	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT805	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT806	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
H/S	0402-000233	DIODE-RECTIFIER	FML-G12S,200V,5A,-,-	3	S.A	
H/S	0402-001230	DIODE-RECTIFIER	FMG-G2CS,1000V,3A,DO-41,	1	S.A	
HC401	AA96-00310B	ASSY HEAT SINK P	SCREW,PLATE,AA62-00062A	1	S.N.A	
HC801	AA96-00475K	ASSY HEAT SINK P	SCREW,AA62-00066B,FMG-G	1	S.N.A	
IC01	1204-001948	IC-VIDEO DECODER	VSP9402A,MQFP,80P,14X14	1	S.A	
IC012	1203-001217	IC-POSIL.ADJUST REG.	431,TO-92,3P,4.58MIL	1	S.A	
IC06	1203-001211	IC-VOL. DETECTOR	7027,SOT-89,3P,-,PLASTI	1	S.A	
IC063	AA13-00094A	IC HYBRID	-,DDR1001A,SIP,5P,-,TP	1	S.A	
IC104	0801-000662	IC-CMOS LOGIC	74HC123,MULTIVIBATOR,SOP,1	1	S.A	
IC112	1103-001177	IC-EEPROM	24WC16,2Kx8,DIP,8P,9.2x6mm,1.8	1	S.A	
IC118	1204-002446	IC-VIDEO PROCESS	CXA2180Q,QFP,64P,20x14m	1	S.A	
IC301	AA96-50381A	ASSY HEAT SINK P	,AA62-30180B,LA7845	1	S.N.A	
IC401	1202-000103	IC-VOLTAGE COMP.	393,DIP,8P,300MIL,DUAL,	1	S.A	
IC602	AA96-02371A	ASSY HEAT SINK P	AA62-30181S,SCREW,TDA72	1	S.N.A	
△ IC801S	AA96-50371H	ASSY HEAT SINK P	-,SMPS,AA62-30181H,5Q15	1	S.N.A	
IC902	1102-001133	IC-EEPROM	M27W201-80B6,256KX8BIT,DIP,32P,	1	S.A	
ICM01	1204-001912	IC-DECODER	SDA5550M,P-MQFP,100P,-,PLASTI	1	S.A	
ICM04	1203-001814	IC-VOL. DETECTOR	7025,SOT-89,4P,98MIL,PL	1	S.A	
ICM07	1204-002462	IC-AUDIO PROCESSOR	STV8237,TQFP,80P,14x1	1	S.A	
INK	HA83-00052A	LP-TAPE-INK	,WIDTH 55 MM	0.01	S.N.A	
INK	HA83-00052A	LP-TAPE-INK	,WIDTH 55 MM	0.01	S.N.A	
JA701	3722-001884	JACK-SCART	42P,-,SNPB,BLK,-	1	S.A	
L101	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L103	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L201	2701-000200	INDUCTOR-AXIAL	5.6UH,10%,4298	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,,TP,,,	1	S.N.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,,TP,,,	1	S.N.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,,TP,,,	1	S.N.A	
L301	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L603	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L604	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L605	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L606	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L611	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L612	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L615	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	

## Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
L616	2701-000180	INDUCTOR-AXIAL	33UH,5%,2534	1	S.A	
L811	2701-001030	INDUCTOR-AXIAL	43UH,10%,4514	1	S.A	
L812	2701-001007	INDUCTOR-AXIAL	24UH,10%,4514	1	S.A	
L813	2701-001040	INDUCTOR-AXIAL	10UH,10%,4514	1	S.A	
L906	2701-000215	INDUCTOR-AXIAL	8.2UH,10%,2534	1	S.A	
LDY01	AA96-00461A	ASSY LED GUIDE	-,SL-255D,RED/GRN	1	S.A	
△LX801S	AA29-30002N	FILTER LINE NOISE	-,16MH,1.5A,AC100~260V	1	S.A	
△LX802S	AA29-30002N	FILTER LINE NOISE	-,16MH,1.5A,AC100~260V	1	S.A	
LY01	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
M0014	AA97-16317A	ASSY AUTO-MAIN	29M166V/ITX	1	S.N.A	
M0018	AA97-16333A	ASSY MICOM	S61B,SDA55XX,T_NG2PEU_1003,20	1	S.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	1	S.N.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	2	S.N.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	5	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTT,T0.3,-,-,-,-	1	S.N.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTT,T0.3,-,-,-,-	1	S.N.A	
MC01	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
MC02	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC03	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC04	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC05	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC06	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC07	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC08	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC09	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC10	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC11	2203-000798	C-CER,CHIP	33nF,10%,16V,X7R,TP,1608,-	1	S.A	
MC12	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC13	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
MC14	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
MC15	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC16	2203-000798	C-CER,CHIP	33nF,10%,16V,X7R,TP,1608,-	1	S.A	
MC17	2203-000802	C-CER,CHIP	33nF,10%,50V,X7R,2012	1	S.A	
MC18	2203-000802	C-CER,CHIP	33nF,10%,50V,X7R,2012	1	S.A	
MC19	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC20	2402-001160	C-AL,SMD	330UF,20%,16V,WT,TP,1008	1	S.A	
MC21	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC22	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
MC23	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
MC24	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC25	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
MC26	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC27	2203-000236	C-CERAMIC,CHIP	0.1nF,5%,50V,NP0,TP,1608	1	S.A	
MC28	2203-000257	C-CERAMIC,CHIP	10nF,10%,50V,X7R,TP,1608	1	S.A	
MC29	2203-006170	C-CER,CHIP	220nF,10%,16V,X7R,1608	1	S.A	
MC30	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
MC31	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC32	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC33	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC34	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC35	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC36	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC37	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC38	2402-001033	C-AL,SMD	220uF,20%,16V,GP,TP,8.3x8.3x10	1	S.A	
MC39	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC40	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
MC41	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC42	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC43	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC44	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
MC45	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC46	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,TP,1608	1	S.A	
MC47	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC48	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC49	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
MC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC51	2203-001077	C-CER,CHIP	0.056nF,5%,50V,NP0,TP,2012	1	S.A	
MD01	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
MR01	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR02	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR04	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR05	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR06	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR07	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR08	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR09	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
MR11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
MR12	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
MR14	2007-000119	R-CHIP	560ohm,5%,1/10W,TP,1608	1	S.A	
MR16	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
MR17	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR18	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MX01	2801-004222	CRYSTAL-SMD	27MHZ,30PPM,28-AAN,14PF,50OH	1	S.A	
P803T	1404-001154	THERMISTOR-PTC	4.5OHM,+30%/-20%,220V,270	1	S.A	
PC41	2402-001257	C-AL,SMD	470uF,20%,16V,-,TP,8.3*10	1	S.A	
△PC801S	0604-001038	PHOTO-COUPLER	TR,130-260%,200mW,DIP-4,ST	1	S.A	
△PFC01S	AA27-00269A	COIL CHOKE-PFC	35MH,CPTTV,35MH,10%,2.0OH	1	S.A	
Q101	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q409	0505-001116	FET-SILICON	BUZ73A,N,200V,22A,0.6ohm,40W	1	S.A	
Q409	0505-001723	FET-SILICON	FQP630TSTU,N,200V,9A,0.4OHM,	1	S.A	
Q409	0505-000109	FET-SILICON	2N7000,N,60V,200mA,5ohm,400m	1	S.A	
Q409	0505-001679	FET-SILICON	FDC6301N,N,25V,0.22A,5OHM,0.	1	S.A	
Q603	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q604	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q801	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q802	0501-000369	TR-SMALL SIGNAL	KSC2331-Y,NPN,1000mW,TO-	1	S.A	
Q803	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q804	AA96-00243G	ASSY HEAT SINK P	-,POWER,AA62-00045A,C20	1	S.N.A	
Q901	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
Q907	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
Q908	0501-000434	TR-SMALL SIGNAL	KTC3875S-GR,NPN,150mW,SO	1	S.A	
R101	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
R102	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
R104	2001-000702	R-CARBON	39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R105	2001-000864	R-CARBON	56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R108	2001-000786	R-CARBON	47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R109	2001-000786	R-CARBON	47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R110	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R111	2001-000869	R-CARBON	56OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R112	2001-000869	R-CARBON	56OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R113	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R301	2001-001163	R-CARBON(S)	560OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R302	2004-001369	R-METAL(S)	1.2Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R303	2001-000016	R-CARBON(S)	1OHM,5%,1/2W,AA,TP,2.4X6.4MM	1	S.A	
R304	2004-004087	R-METAL(S)	1.5ohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R305	2001-001048	R-CARBON(S)	1.2OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R307	2003-002205	R-METAL OXIDE(S)	330ohm,5%,2W,AG,TP,3.9X	1	S.A	
R308	2004-001369	R-METAL(S)	1.2Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R309	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R310	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R313	2001-000577	R-CARBON	2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R314	2001-000577	R-CARBON	2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R315	2001-001129	R-CARBON(S)	330KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R316	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R401	2003-001025	R-METAL OXIDE(S)	15Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R402	2003-001025	R-METAL OXIDE(S)	15Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R403	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R404	2001-000449	R-CARBON	2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R405	2008-000266	R-FUSIBLE(S)	1ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	
R406	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R407	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R408	2001-000028	R-CARBON(S)	100OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	

## Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R409	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R410	2008-001018	R-FUSIBLE(S)	0.47ohm,10%,2W,AF,TP,3.9x10	1	S.A	
R411	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R412	2004-004072	R-METAL(S)	3Kohm,1%,1/2W,AA,TP,2.5x6.5mm	1	S.A	
R413	2001-001163	R-CARBON(S)	560OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R414	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R415	2004-004083	R-METAL(S)	3.6Kohm,2%,1/2W,AA,TP,2.5x6.5	1	S.A	
R416	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R417	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R418	2004-001987	R-METAL(S)	4.3Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R419	2008-001011	R-FUSIBLE(S)	0.18ohm,10%,2W,AF,TP,3.9x10	1	S.A	
R420	2008-001011	R-FUSIBLE(S)	0.18ohm,10%,2W,AF,TP,3.9x10	1	S.A	
R421	2003-002071	R-METAL OXIDE	560ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R422	2004-000698	R-METAL	3.3Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
R423	2004-005059	R-METAL(S)	2.7KOHM,1%,1/2W,AA,TP,6.4X2.4	1	S.A	
R424	2004-004048	R-METAL(S)	3.9Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R426	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R427	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R428	2003-002064	R-METAL OXIDE(S)	7.5OHM,5%,2W,AF,TP,3.9X	1	S.A	
R429	2001-001155	R-CARBON(S)	5.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R431	2004-002016	R-METAL(S)	15Kohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R432	2004-001371	R-METAL(S)	1.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R433	2001-001114	R-CARBON(S)	270OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R440	2003-002181	R-METAL OXIDE(S)	68Kohm,5%,2W,AG,TP,3.9x	1	S.A	
R441	2003-001025	R-METAL OXIDE(S)	15Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R442	2001-003218	R-CARBON(S)	0.18ohm,10%,1/2W,AA,TP,2.4x6	1	S.A	
R450	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R451	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R452	2008-001011	R-FUSIBLE(S)	0.18ohm,10%,2W,AF,TP,3.9x10	1	S.A	
R621	2001-000660	R-CARBON	33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R622	2001-000660	R-CARBON	33KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R623	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R626	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R627	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R633	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R636	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R646	2001-001015	R-CARBON	9.1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R647	2001-001015	R-CARBON	9.1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R651	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R652	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R701	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R702	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R703	2001-000702	R-CARBON	39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R704	2001-000702	R-CARBON	39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R801	2001-000019	R-CARBON(S)	10OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R802	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R803	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R804	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R805	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R806	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R807	2001-001103	R-CARBON(S)	20KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R808	2001-001178	R-CARBON(S)	680OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R809	2003-002064	R-METAL OXIDE(S)	7.5OHM,5%,2W,AF,TP,3.9X	1	S.A	
R810	2001-000109	R-CARBON(S)	470OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R811	2001-001188	R-CARBON(S)	8.2KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R812	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R813	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R816	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R817	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R818	2001-001131	R-CARBON(S)	33KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R819	2004-001983	R-METAL(S)	2.49Kohm,1%,1/2W,AA,TP,2.4x6.	1	S.A	
R820	2001-001096	R-CARBON(S)	2.2OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R821	2004-001889	R-METAL(S)	127Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R822	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R823	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R824	2001-000633	R-CARBON	30KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R828	2008-001088	R-FUSIBLE(S)	1ohm,5%,2W,AG,TP,3.9x12mm	1	S.A	
R830	2003-002157	R-METAL OXIDE	220OHM,5%,2W,AG,TP,6X16MM	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R833	2001-000449	R-CARBON	2.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R841	2001-000800	R-CARBON	5.1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R842	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R843	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R901	2001-001126	R-CARBON(S)	300OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R901	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R902	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R903	2001-000302	R-CARBON	10OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R903	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R904	2001-000302	R-CARBON	10OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R904	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R905	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R905	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R906	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R906	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R907	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R908	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R909	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R910	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R910	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R911	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R911	2007-000729	R-CHIP	300ohm,5%,1/10W,TP,1608	1	S.A	
R912	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R913	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
R916	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R919	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R920	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R921	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R922	2007-000120	R-CHIP	680ohm,5%,1/10W,TP,1608	1	S.A	
R923	2007-000120	R-CHIP	680ohm,5%,1/10W,TP,1608	1	S.A	
R924	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R925	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
R926	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
R927	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R928	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R930	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
R932	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R935	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R936	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
R938	2007-000084	R-CHIP	4.7Kohm,5%,1/16W,DA,TP,1608	1	S.A	
R940	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R941	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R942	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R945	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R946	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R947	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R948	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R949	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R951	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R952	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R953	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
R958	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R960	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
R961	2007-000134	R-CHIP	33Kohm,5%,1/10W,TP,1608	1	S.A	
R962	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R964	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
R965	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
△ RL801S	3501-001053	RELAY-POWER	5VDC,530MW,10000MA,1FORMA,15	1	S.A	
RM01	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM02	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RM03	2007-000090	R-CHIP	10KOHM,5%,1/16W,DA,TP,1608	1	S.A	
RM04	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RM07	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
△ RR430S	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
RV914	2004-000680	R-METAL	2Kohm,1%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
RV915	2004-000869	R-METAL	3Kohm,1%,1/8W,AA,TP,1.8x3.2mm	1	S.A	
RV916	2004-001126	R-METAL	6.2Kohm,1%,1/8W,AA,TP,1.8x3.2m	1	S.A	
RV917	2004-000531	R-METAL	20Kohm,1%,1/2W,AA,TP,2.3x6.5mm	1	S.A	

## Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark	
△RX801S	2002-001011	R-COMPOSITION	3.3Mohm,5%,1/2W,AA,TP,3.7x	1	S.A		
	RY01	R-CARBON(S)	220OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A		
	RY11	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A		
△RY801S	2002-001012	R-COMPOSITION	8.2Mohm,5%,1/2W,AA,TP,3.7x	1	S.A		
	SC19	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A		
	SC20	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A		
	SC47	C-CERAMIC,CHIP	2.2nF,10%,50V,X7R,TP,1608	1	S.A		
	SC48	C-CERAMIC,CHIP	2.2nF,10%,50V,X7R,TP,1608	1	S.A		
	SC49	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A		
	SMD	ASSY SMD-F/BOX	NON PIP,10P,S61B,NEGO2,6V	1	S.N.A		
	SR35	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A		
	SR36	R-CHIP	1.6Kohm,5%,1/10W,TP,1608	1	S.A		
	SR37	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A		
	SR39	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A		
	SR40	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A		
	SR41	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A		
	SR42	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A		
	SR43	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A		
	SW801	SWITCH-PUSH	250V,5A,DPST,ON-OFF,-	1	S.A		
	SW901	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A		
	SW902	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A		
	SW903	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A		
	SW904	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A		
	SW905	SWITCH-TACT	12VDC,50MA,130GF,7.5X7.1,1	1	S.A		
	T0010	AA27-00017A	COIL CHOKE	-,-4MH,14X20 C:6.0,11MM,BK	1	S.A	
	T0010	AA27-00031A	COIL CHOKE	-,-140UH,AR 8X20,0.8MM,BK	1	S.A	
	T0010	AA27-00105B	COIL CHOKE	55uH,DR 15X27.5,BK,31.5T	1	S.A	
	T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
	T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
	T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
	T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
	T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
	T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
	T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
	T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
	T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
	T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
	T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
	T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
	T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
	T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	
	T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	
	T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	
	T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	
	T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	
	T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
	T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
	T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
	T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
	T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
	T0066	AA62-30181S	HEAT SINK-ES	CS29K10PF,A6063S,T2.0,26.2,	1	S.N.A	
	T0066	AA62-30197D	HEAT SINK-ES	DP,-,-,AA62-30181H,-,-,	1	S.N.A	
	T0066	AA62-30180B	HEAT SINK-ES	-,-A6063 EXTR.,2,WHT,70MM,-,	1	S.N.A	
	T0077	AA41-01141A	PCB MAIN	CS29M06,FR-1,1,A,1.6T,245*330,S	1	S.N.A	
	T0085	1201-002118	IC-AUDIO AMP	TDA7297SA,ZIP,15P,-,DUAL,32	1	S.A	
	T0086	1203-002512	IC-PWM CONTROLLER	KA5Q1565RF-YDTU,TO-3PF	1	S.A	
	T0087	1203-000243	IC-POSI.FIXED REG.	7812,TO-220,3P,-,PLAS	1	S.A	
	T0087	1203-001225	IC-POSI.FIXED REG.	78R09,TO-220,4P,-,PLA	1	S.A	
	T0087	1203-003196	IC-POSI.FIXED REG.	GM66102,TO-220,3P,12,	1	S.A	
	T0087	1203-002587	IC-POSI.FIXED REG.	KA278R05TU,TO-220,4P,	1	S.A	
	T0087	1203-003196	IC-POSI.FIXED REG.	GM66102,TO-220,3P,12,	1	S.A	
	T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
	T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
	T0087	1203-002302	IC-POSI.FIXED REG.	78RM33D,D-PAK,3P,-,PL	1	S.A	
	T0088	1204-000517	IC-VERTICAL DEF.	LA7845,SIP,7P,-,PLASTIC	1	S.A	
	T0098	AA62-00127A	HEAT SINK	DP, AA62-00066B,-,-,-,-,P55A	1	S.N.A	
	T0105	AA60-30001A	WASHER-PLATE	M3,ID3.5,15X8.5,T1.0,SBHG	1	S.N.A	
	T0122	2802-001177	RESONATOR-CERAMIC	2.696MHZ,0.4%,BK,10X4.	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0175	AA62-00065A	HEAT SINK-PS	DP,-,-,-,AA62-00045A,-,-,-,	1	S.NA	
T0175	AA62-00062A	HEAT SINK-PS	-,-,T2.0,SILVER,-,-,-,-,108	1	S.NA	
T0239	BH73-00028B	SILICON/RUBBER-HS	TV ALL,SILICON,26*30*T	1	S.NA	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.02	S.NA	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.03	S.NA	
T0296	AA27-00347A	COIL LINEARITY	10.4uH,+7A/32uH,-7A/4.5uH	1	S.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.NA	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.3	S.NA	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.6	S.NA	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.2	S.NA	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.18	S.NA	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.NA	
T0523	AA95-03417B	ASSY SUB PCB-F/BOX	NON PIP,10P,S61B,NEGO	1	S.NA	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.NA	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.NA	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.NA	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.NA	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.NA	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.NA	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.NA	
T0607	AA61-01390B	BRACKET-IC	NEO,SPC,T11.0,Sn	1	S.NA	
T0900	1404-001045	THERMISTOR-NTC	4.7ohm,15%,2900K,35.0mW,T	1	S.A	
T401	AA26-50001S	TRANS-HORIZ.DRIVE	-,-,-,6.0mH,-,-,44uH,-	1	S.A	
△ T444S	AA26-00223B	TRANS FBT	1402.4001C,CPTTV SEH,1.931mH,F	1	S.A	
△ T801S	AA26-00200B	TRANS SWITCHING	53B135-SC,WS32A20HE,AC16	1	S.A	
△ VP801S	1405-000187	VARISTOR	750V,1250A,12.5x7mm,TP	1	S.A	
△ VX801S	1405-000187	VARISTOR	750V,1250A,12.5x7mm,TP	1	S.A	
XM01	2801-004117	CRYSTAL-SMD	6MHZ,30PPM,28-ABX,20PF,150OH	1	S.A	
ZM03	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
	0502-001007	TR-POWER	KSC2073-H2,NPN,25V,TO-220,ST,6	1	S.A	
	0402-001296	DIODE-RECTIFIER	FMP-3FU,1.5KV,5A,DO-201A	1	S.A	
	0502-001230	TR-POWER	FJL6920YDTU,N,200000MW,TO-264 F	1	S.A	
	AA61-11028A	BRACKET	-,SECC,T11.0,-,-,-,-	1	S.NA	
	0202-001375	SOLDER-CREAM	RMA-20-21L,S63,-,Sn63/Pb36.	2.75	S.NA	
<b>T0239</b>	<b>AA96-03661A</b>	<b>ASSY PCB P-CRT</b>	<b>AA94-15207B</b>	<b>1</b>	<b>S.NA</b>	
C504	2201-000723	C-CERAMIC,DISC	4.7NF,20%,3KV,Y5U,TP,16X5	1	S.A	
C505	2401-000430	C-AL	10uF,20%,250V,GP,TP,10x16mm,5m	1	S.A	
C506	2201-000138	C-CERAMIC,DISC	0.1NF,10%,50V,Y5P,TP,4X4M	1	S.A	
C507	2401-001563	C-AL	47uF,20%,400V,GP,TP,16x25,7.5	1	S.A	
C508	2301-001259	C-FILM,LEAD-PPF	100nF,5%,400V,TP,19x8x16	1	S.A	
C509	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C511	2201-000119	C-CERAMIC,DISC	100NF,+80-20%,50V,Y5V,TP,	1	S.A	
C512	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C513	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C514	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C515	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C516	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C517	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C518	2401-000430	C-AL	10uF,20%,250V,GP,TP,10x16mm,5m	1	S.A	
C519	2301-001259	C-FILM,LEAD-PPF	100nF,5%,400V,TP,19x8x16	1	S.A	
CF01	2401-000360	C-AL	100uF,20%,50V,GP,TP,8x11.5,5	1	S.A	
CF02	2201-000017	C-CERAMIC,DISC	1nF,10%,50V,Y5P,-,5x3.5mm	1	S.A	
CF03	2201-000192	C-CERAMIC,DISC	0.01NF,0.25PF,500V,C0G,TP	1	S.A	
CF04	2201-000516	C-CERAMIC,DISC	4.7NF,+100-0%,500V,Y5U,TP	1	S.A	
CF05	2301-000261	C-FILM,LEAD-PEF	4.7nF,5%,100V,TP,10.5x12	1	S.A	
CF06	2201-000192	C-CERAMIC,DISC	0.01NF,0.25PF,500V,C0G,TP	1	S.A	
CF07	2201-000604	C-CERAMIC,DISC	0.056NF,+100-0%,500V,SL,T	1	S.A	
CF71	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
CF73	2401-000927	C-AL	22uF,20%,250V,GP,TP,13x20,5	1	S.A	
CF74	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
CF75	2401-000045	C-AL	10uF,20%,160V,GP,TP,10x16,5	1	S.A	
CN501	3711-003974	HEADER-BOARD TO CABLE	BOX,12P,1R,2.5mm,S	1	S.A	
CN502	3711-003051	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,ST	1	S.A	
CN504	3711-002643	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,ST	1	S.A	
CN505	3711-002642	HEADER-BOARD TO CABLE	BOX,3P,1R,2.5mm,ST	1	S.A	
D501	0402-000254	DIODE-RECTIFIER	RGP10J,600V,1A,DO-41,TP	1	S.A	
D502	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	



Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R507	2002-001008	R-COMPOSITION	1.8Kohm, 10%, 1/2W, AA, TP, 3.7	1	S.A	
R508	2008-001026	R-FUSIBLE	75ohm, 5%, 1/2W, AA, TP, 2.5x6.5mm	1	S.A	
R509	2002-001008	R-COMPOSITION	1.8Kohm, 10%, 1/2W, AA, TP, 3.7	1	S.A	
R511	2001-000281	R-CARBON	100OHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
R512	2002-001008	R-COMPOSITION	1.8Kohm, 10%, 1/2W, AA, TP, 3.7	1	S.A	
R513	2002-001009	R-COMPOSITION	2.7Kohm, 10%, 1/2W, AA, TP, 3.7	1	S.A	
R514	2008-000290	R-FUSIBLE(S)	2.4ohm, 5%, 2W, AF, TP, 3.9x10mm	1	S.A	
R516	2008-000205	R-FUSIBLE(S)	10ohm, 5%, 1/2W, AF, TP, 2.5x6.5	1	S.A	
R517	2001-001062	R-CARBON(S)	10MOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
R518	2001-000837	R-CARBON	51KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
R519	2001-000331	R-CARBON	12KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
R520	2001-000761	R-CARBON	430OHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
R521	2008-001053	R-FUSIBLE	22ohm, 5%, 1/2W, AF, TP, 2.5x6.5mm	1	S.A	
R522	2001-000052	R-CARBON(S)	3.3KOHM, 5%, 1/2W, AA, TP, 2.4X6.	1	S.A	
R523	2001-001126	R-CARBON(S)	300OHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
R524	2001-000085	R-CARBON(S)	100KOHM, 5%, 1/2W, AA, TP, 2.4X6.	1	S.A	
R525	2001-000085	R-CARBON(S)	100KOHM, 5%, 1/2W, AA, TP, 2.4X6.	1	S.A	
R526	2001-001071	R-CARBON(S)	12KOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
R527	2001-001040	R-CARBON(S)	0.68OHM, 5%, 1/2W, AA, TP, 2.4X6.	1	S.A	
R528	2001-000066	R-CARBON(S)	10KOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
R529	2001-000085	R-CARBON(S)	100KOHM, 5%, 1/2W, AA, TP, 2.4X6.	1	S.A	
R530	2001-000066	R-CARBON(S)	10KOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
R531	2001-001196	R-CARBON(S)	9.1KOHM, 5%, 1/2W, AA, TP, 2.4X6.	1	S.A	
R532	2001-001103	R-CARBON(S)	20KOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
R533	2004-005059	R-METAL(S)	2.7KOHM, 1%, 1/2W, AA, TP, 6.4X2.4	1	S.A	
R534	2004-001893	R-METAL(S)	22Kohm, 1%, 1/2W, AA, TP, 2.5x6.5m	1	S.A	
R535	2001-000290	R-CARBON	10KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
R536	2001-000800	R-CARBON	5.1KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
R537	2001-000347	R-CARBON	13KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
R538	2001-000011	R-CARBON	75KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF02	2003-000458	R-METAL OXIDE(S)	100ohm, 5%, 2W, AF, TP, 4x12	1	S.A	
RF04	2003-000995	R-METAL OXIDE(S)	3.3Kohm, 5%, 2W, AF, TP, 3.9	1	S.A	
RF05	2003-000995	R-METAL OXIDE(S)	3.3Kohm, 5%, 2W, AF, TP, 3.9	1	S.A	
RF06	2003-000995	R-METAL OXIDE(S)	3.3Kohm, 5%, 2W, AF, TP, 3.9	1	S.A	
RF13	2008-001014	R-FUSIBLE(S)	22ohm, 5%, 1W, AF, TP, 3.2x10mm	1	S.A	
RF17	2001-000019	R-CARBON(S)	10OHM, 5%, 1/2W, AA, TP, 2.4X6.4M	1	S.A	
RF18	2001-001079	R-CARBON(S)	15OHM, 5%, 1/2W, AA, TP, 2.4X6.4M	1	S.A	
RF19	2001-001079	R-CARBON(S)	15OHM, 5%, 1/2W, AA, TP, 2.4X6.4M	1	S.A	
RF20	2001-000331	R-CARBON	12KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF21	2001-000258	R-CARBON	1.8KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF22	2001-000241	R-CARBON	1.5KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF23	2001-000554	R-CARBON	270OHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF24	2003-001018	R-METAL OXIDE(S)	220ohm, 5%, 2W, AF, TP, 3.9x	1	S.A	
RF25	2001-000241	R-CARBON	1.5KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF26	2001-001179	R-CARBON(S)	68KOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
RF27	2001-001179	R-CARBON(S)	68KOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
RF28	2001-000241	R-CARBON	1.5KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF29	2001-001071	R-CARBON(S)	12KOHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
RF30	2001-000221	R-CARBON	1.2KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF31	2001-000221	R-CARBON	1.2KOHM, 5%, 1/8W, AA, TP, 1.8X3.2MM	1	S.A	
RF32	2003-000746	R-METAL OXIDE(S)	56ohm, 5%, 2W, AF, TP, 4x12m	1	S.A	
RF33	2001-001053	R-CARBON(S)	1.5OHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
RF34	2001-001100	R-CARBON(S)	2.7OHM, 5%, 1/2W, AA, TP, 2.4X6.4	1	S.A	
RF35	2003-000746	R-METAL OXIDE(S)	56ohm, 5%, 2W, AF, TP, 4x12m	1	S.A	
RF36	2003-000652	R-METAL OXIDE(S)	330ohm, 5%, 2W, AF, TP, 4x12	1	S.A	
T0074	1201-002114	IC-VIDEO AMP	TDA6109JF, SDIP, 9P, 18.5mm, -	1	S.A	
T0081	BH62-00041A	HEAT SINK-TR	PN17LT, A1050S, T1.0, 50, 23, WH	1	S.N.A	
T0100	AA97-16252A	ASSY AUTO-CRT	AA97-15879B, S61B, 29M20	1	S.N.A	
T0175	AA62-00065A	HEAT SINK-PS	DP, -, -, AA62-00045A, -, -, -	1	S.N.A	
T0175	AA62-00065A	HEAT SINK-PS	DP, -, -, AA62-00045A, -, -, -	1	S.N.A	
T0175	AA62-00147A	HEAT SINK-PS	K62A, A1050, T2.0, 35mm, 40mm, W	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-, RS60S, D1.2, 63Sn/37Pb,	0.01	S.N.A	
T0245	AA39-00088A	LEAD CONNECTOR-ASSY	HERCULES, UL1007/1185	1	S.A	
T0245	AA39-00127A	LEAD CONNECTOR-ASSY	, 8P, 400MM, 35155-0800	1	S.A	
T0245	AA39-20010B	LEAD CONNECTOR-ASSY	, 1P, 500, YFH800-01, S,	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V, 20%, -, -, TP	1	S.N.A	
T0310	4715-001036	SURGE ABSORBER	500V, 20%, -, -, TP	1	S.N.A	
T0310	4715-001036	SURGE ABSORBER	500V, 20%, -, -, TP	1	S.N.A	

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.1	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.N.A	
T0522	0205-001153	GREASE-SILICON	SC102,JAPAN,-	0.09	S.N.A	
T0603	AA63-10002A	BAND-TIE	NYLON66 V2,L100,NTR	2	S.N.A	
V999	3704-001197	SOCKET-CRT	8P+SEN,29PI,22.5PI,NL+SN,-	1	S.A	
	0502-000153	TR-POWER	2SC2344-D,NPN,1.2W,TO-220,-,60	1	S.A	
	0502-000131	TR-POWER	2SA1011-D,PNP,1.2W,TO-220,-,60	1	S.A	
	<b>AA96-03733A</b>	<b>ASSY PCB P-AV</b>	<b>AA94-14090N</b>	<b>1</b>	<b>S.N.A</b>	
C703	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C705	2202-000121	C-CERAMIC,MLC-AXIAL	100pF,10%,50V,Y5P,TP	1	S.A	
C706	2202-002008	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V	1	S.A	
C707	2202-002008	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,50V,Y5V	1	S.A	
JA701	3722-001031	JACK-PIN	3P,3.6mm,#18,AU	1	S.A	
JA702	3722-001163	JACK-VHS	4P,AU,BLK,ANGLE	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
M2893	MD39-00097B	LEAD CONNECTOR	S59B,UL1007#26,8P,600mm,#	1	S.A	
PCB	AA41-01018B	PCB SUB-A/V	CS29M6,FR-2,1,01,1.6,245*197	1	S.N.A	
△R706S	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
△R707S	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
T0238	AA97-16273A	ASSY AUTO	AA97-14919A	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0.01	S.N.A	

**ASSY PACKING**

	AA90-03236A	ASSY PACKING	29M6	1	S.N.A	
T0524	6902-000006	BAG PE	HDPE/NITRON/HDPE,T0.02/T0.5/T0.2,	1	S.N.A	
T0214	AA60-40006A	PIN-STAPLE	AUTO,33X17.8X2.4,H18,33X17.8X	24	S.N.A	
	HA83-00058A	LP-RESIN-EPS	,CHEIL SF-301V,WHT	0.77	S.N.A	
	HA83-00046A	LP-TAPE INK	,WIDTH 105 MM	0.22	S.N.A	

**ASSY COVER FRONT**

M0001	AA90-04970B	ASSY COVER FRONT	29M06,S61B,SEH	1	S.N.A	
T0081	6002-000515	SCREW-TAPPING	RH,+ ,2,M4,L15,ZPC(WHT),SWR	7	S.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+ ,B,M4,L12,ZPC(BLK),SWR	1	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+ ,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
CRT+CF	AA60-10050V	BOLT-HEX	-,SWRCH18A,M6,L30,HH,+ ,WC,- ,Z	4	S.N.A	
CIS1	AA65-30110A	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	1	S.N.A	
	AA81-00129A	A/S-TAPE-INK	ALL,BLK,W100MM	0.055	S.N.A	
T0003	AA96-02033B	ASSY COVER P-FRONT	29M06,S61B,HIPS,HB,SV	1	S.A	
T0082	3001-001092	SPEAKER	10W,8OHM,87DB,150HZ	2	S.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+ ,B,M4,L12,ZPC(BLK),SWR	8	S.N.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+ ,B,M4,L12,ZPC(BLK),SWR	1	S.N.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+ ,B,M4,L12,ZPC(BLK),SWR	1	S.N.A	
T0245	AA39-00102A	LEAD CONNECTOR-ASSY	,4P,900,700MM,35155-	1	S.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,- ,OD6,N7,OD6,- ,	1	S.N.A	
M0112	AA63-01269A	COVER-FRONT	29M06,S61B,SRS,HIPS,HB,SV012	1	S.N.A	
	AA81-00106A	A/S-MARKING PAINT	,P432U,DARK GREY,TPC	0.08	S.N.A	
T0091	HA83-00006A	LP-RESIN HIPS	,BAS495F,NTR,HB	2.361	S.N.A	
T0084	HA83-00011A	LP-RESIN	,M BATCH,WILSON 6007-GY-60,GRY	0.048	S.N.A	
	HA83-00040B	LP-MARKING PAINT	,METALLIC SILVER,SV-012	0.145	S.N.A	
T0022	AA64-04011A	KNOB CONTROL	M06,HIPS,HB,SV012P,ALL,SEH	1	S.N.A	
T0091	HA83-00006A	LP-RESIN HIPS	,BAS495F,NTR,HB	0.001	S.N.A	
T0084	HA83-00011A	LP-RESIN	,M BATCH,WILSON 6007-GY-60,GRY	0.001	S.N.A	
	HA83-00040B	LP-MARKING PAINT	,METALLIC SILVER,SV-012	0.001	S.N.A	
T0023	AA64-04012A	KNOB POWER	M06,HIPS,HB,SV012P,ALL,SEH	1	S.N.A	
T0091	HA83-00006A	LP-RESIN HIPS	,BAS495F,NTR,HB	2.16	S.N.A	
T0084	HA83-00011A	LP-RESIN	,M BATCH,WILSON 6007-GY-60,GRY	0.04	S.N.A	
	HA83-00040B	LP-MARKING PAINT	,METALLIC SILVER,SV-012	0.001	S.N.A	
T0299	AA64-04013A	WINDOW-RMC,LED	M06,ACRYL,HB,CLEAR,SEH	1	S.N.A	
T0084	HA83-00010A	LP-RESIN	,OROGLAS,VM-100 ZHN 2	0.001	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0057	AA64-70117B	BADGE-BRAND	,AL,T1.5,10.6,L65,BLK,SILVER	1	S.A	
CIS1	AA65-30105A	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	1	S.N.A	
T0245	HA61-00711C	HOLDER-PCB	29K8,HIPS,HB,GRY	1	S.N.A	
T0091	HA83-00006A	LP-RESIN HIPS	,BAS495F,NTR,HB	24.8	S.N.A	
T0084	HA83-00011A	LP-RESIN	,M BATCH,WILSON 6007-GY-60,GRY	0.5	S.N.A	
	HA83-00049A	LP-ADHESIVE-HM	12MM,NTR	0.28	S.N.A	
qms	HA83-00052A	LP-TAPE-INK	,WIDTH 55 MM	0.032	S.N.A	

### ASSY COVER REAR

M0002	AA90-04980B	ASSY COVER REAR	29M06,K55A,SEH	1	S.N.A	
T0015	AA64-04015A	CABINET BACK	29M06,HIPS,HB	1	S.A	
T0098	AA81-00096A	RESIN-A	VL-1823,G5433,A	,253.020	S.N.A	
T0522	AA65-30008A	CLAMPER CORE-CORD	-,PE,HB,-,BLK,-	1	S.N.A	
T0016	AA65-30109A	CLAMPER CORE-FBT	-,NYLON-66,V2,-,BLK,-	1	S.N.A	

### ASSY FIXING

T0892	AA91-09574A	ASSY FIXING	M06,M16,S61B,XEC,SEH	1	S.N.A	
T0121	3301-001201	CORE-FERRITE	AE,21x11x32mm,1500,280G	1	S.A	
△T0268	AA39-10001M	CBF-POWER CORD	-,KJP-140,KLCE-2F,2.4m,HO	1	S.A	
T0603	AA63-10002A	BAND-TIE	NYLON66 V2,L100,NTR	1	S.N.A	
CIS1	AA65-30105A	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	5	S.N.A	

### ASSY CPT

T0521	AA91-09603A	ASSY CPT	29,A68QFM793X002	1	S.N.A	
△T0063	AA03-00451A	CRT COLOR	A68QFN793X002,380mG,0.28mH,11.	1	S.A	
T0090	AA27-00314A	COIL DEGAUSSING-TILT	TILT,CPTTV,33.5mH,1	1	S.A	
T0089	AA27-00317A	COIL DEGAUSSING	29,CPTTV,10%,35T,4.5OHM	1	S.A	
T0603	AA98-70011A	ASSY TBC WIRE P	,29,NTSC,PAL,2P,UL1015#2	1	S.N.A	
T0527	AA61-01373C	HOLDER-D COIL	NYLON,W31MM,WHT,SEH	4	S.N.A	

### ASSY LABEL

M0019	AA92-11168B	ASSY LABEL	WS28M206V7XXEC,S61B,NEGOTIATO	1	S.N.A	
	AA81-00129A	A/S-TAPE-INK	ALL,BLK,W100MM	0.055	S.N.A	
	HA83-00052A	LP-TAPE-INK	,WIDTH 55 MM	0.032	S.N.A	

### ASSY ACCESSORY

M0045	AA92-11228A	ASSY ACCESSORY	WS32Z306VBXXEC,S61B,SHINE	1	S.N.A	
	HA83-00047A	LP-TAPEACETATE	T0.1MM,W20MM,L200MM	0.065	S.N.A	
T0074	AA59-00370B	REMOCON	SAMSUNG,TM79,175*44*23,SAMSUNG S	1	S.A	

# MEMO

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## 6. Troubleshooting

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### 6-1 Checkpoints by Error Mode

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- Power LED: Check that the LED works when turning the Master Switch ON/OFF
- LED Indicators: See table 6-2-1 Basic Troubleshooting: LED Diagnosis on the Front Panel.
- In case of a power failure or abnormal screen, check the following items.
  - 1) Check that the power cord is correctly connected to a 220V wall outlet.
  - 2) Check that the Master Switch has been pressed.
  - 3) Check that the transmitter is turned on.
  - 4) Check that transmitter device selection is set to TV.
  - 5) Check that the signal cable is properly connected.
  - 6) Check that channel setting has been set.

## 6-1-1 Basic Approaches for Troubleshooting

### ■ Troubleshooting Mechanism :

- 6-1 Check to determine whether the display is operating properly using the troubleshooting procedures.
- When the master switch is turned on, the secondary side of the power transformer supplies power to the Deflection/F-BOX.
- The F-BOX receives all signals, and processed signals are sent to CRT Ass'y. The Deflection/Focus is controlled by the Main Board.

### ■ Troubleshooting by Modules

#### 1) Check if the main secondary side voltage is abnormal.

Check if the master switch works, if the screen turns on and off by using the Picture ON/OFF switch, if the screen repeatedly turns on and off, and if the power port, which is output from the Stand-By circuit and the Micom, is normal.

(☞ See the circuit diagram in the Service Manual)

#### 2) Check if the Deflection Block is out of order.

Check if the Deflection Block is out of order when a picture is displayed abnormally, i.e. when the picture curls up horizontally, shrinks horizontally or vertically, or extends horizontally or vertically.

(☞ See the circuit diagram in the Service Manual)

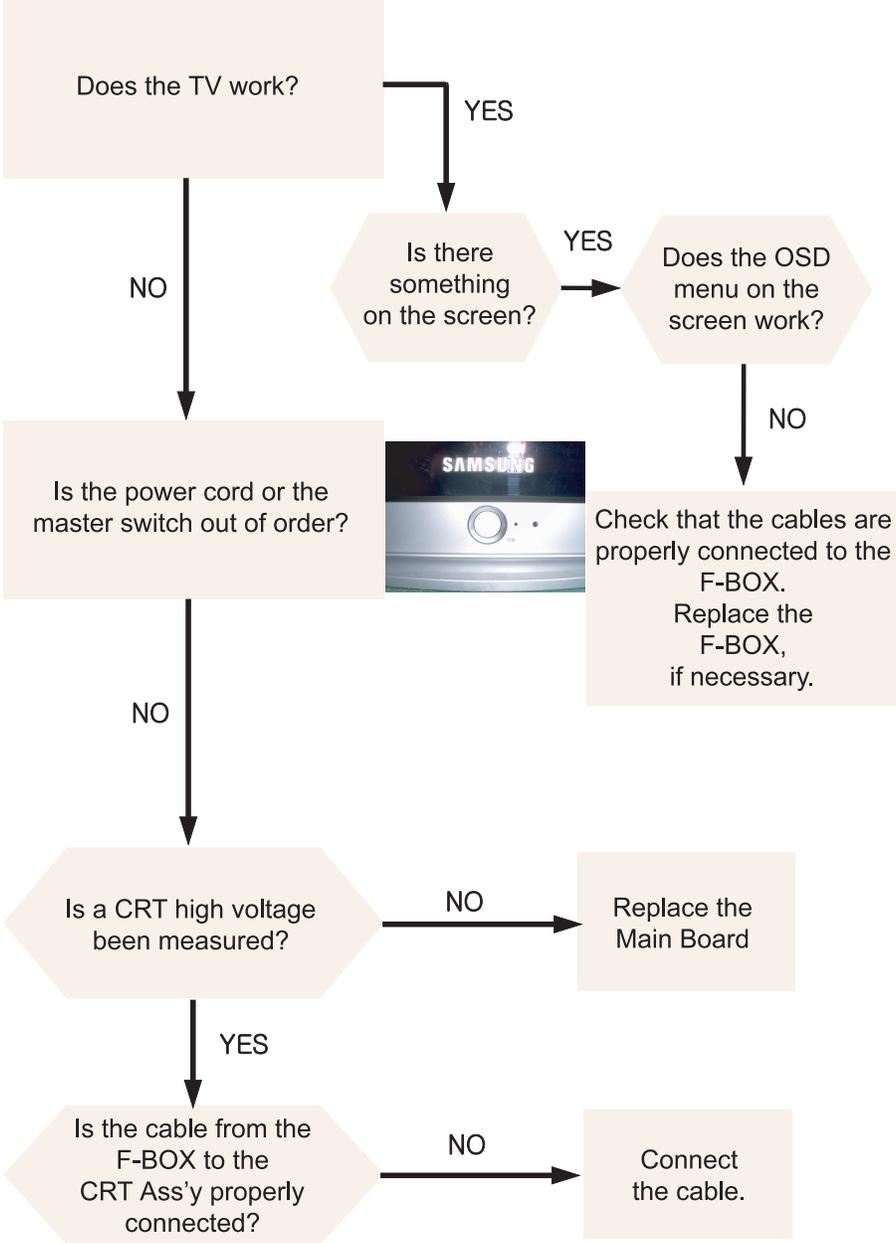
#### 3) Check if the F-box Block is out of order

Check if the F-box Block is out of order when the display or sound is out of order or the unit malfunctions even if the unit is turned on properly (☞ See the circuit diagram in the Service Manual)

#### 4) Check if the Deflection Board is out of order.

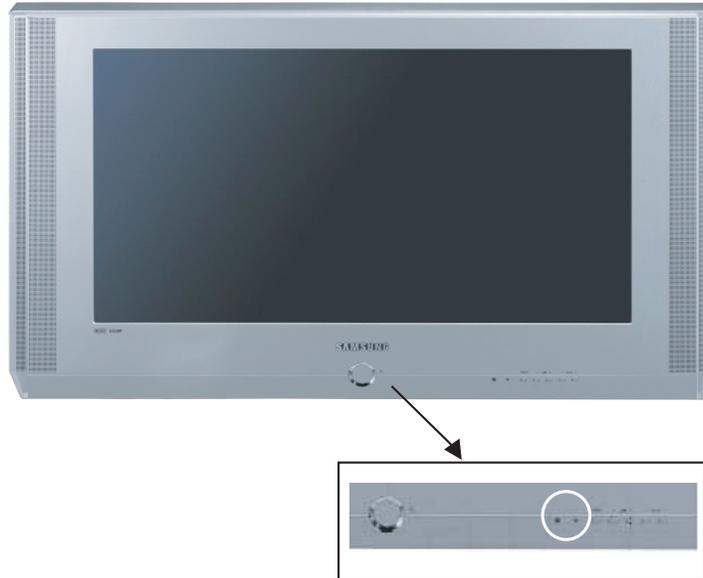
When the screen is not properly displayed and the left or right side of the picture is shrunk, or the top or bottom of the screen is expanded or shrunk, check if the Deflection Board is out of order.

6-1-2 Flow Chart for Malfunction



## 6-2 Troubleshooting Procedures by Error Modes

### 6-2-1 Basic Troubleshooting: Diagnosis of LED on the Front Panel



- : Light is On
- ◐ : Light is Blinking
- : Light is Off

Power	Description
○	This happens when the Master Switch is not pressed or the power cord is disconnected.
●	This happens when the power cord is connected and the power switch is pressed. If you cannot set the power switch on by pressing it, check the power switch Ass'y.
○ → ◐ → ●	If you press the power switch of the transmitter or the channel key on the remote control when in St-BY status, the screen will be turned on. If the LED blinks and the screen is not displayed, check the connection between the Power and the System Board.

### 6-2-2 Troubleshooting by the Checksum

- Diagnosis of trouble by the checksum is neither reliable nor convenient.  
You can only use the checksum of the current direct-view TV to determine whether the software is corrupted or not.  
The Checksum value is determined according to the version of the software loaded on the set.  
Therefore, you can determine whether the software has been properly downloaded, if you know the correct checksum for that version of the software.

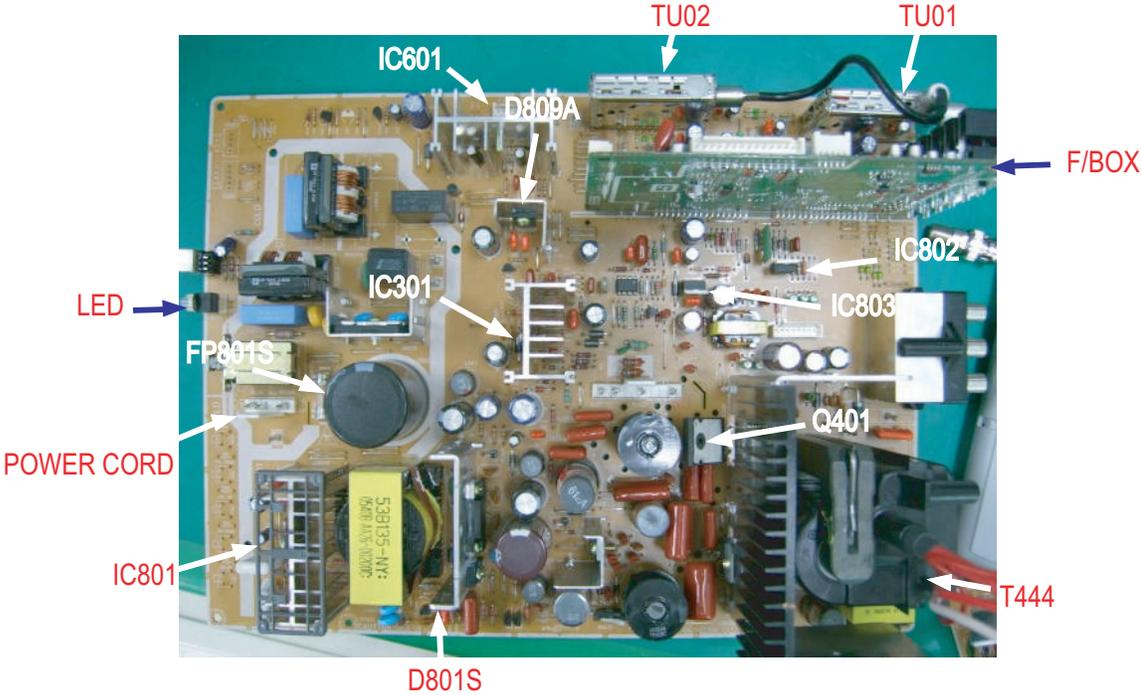
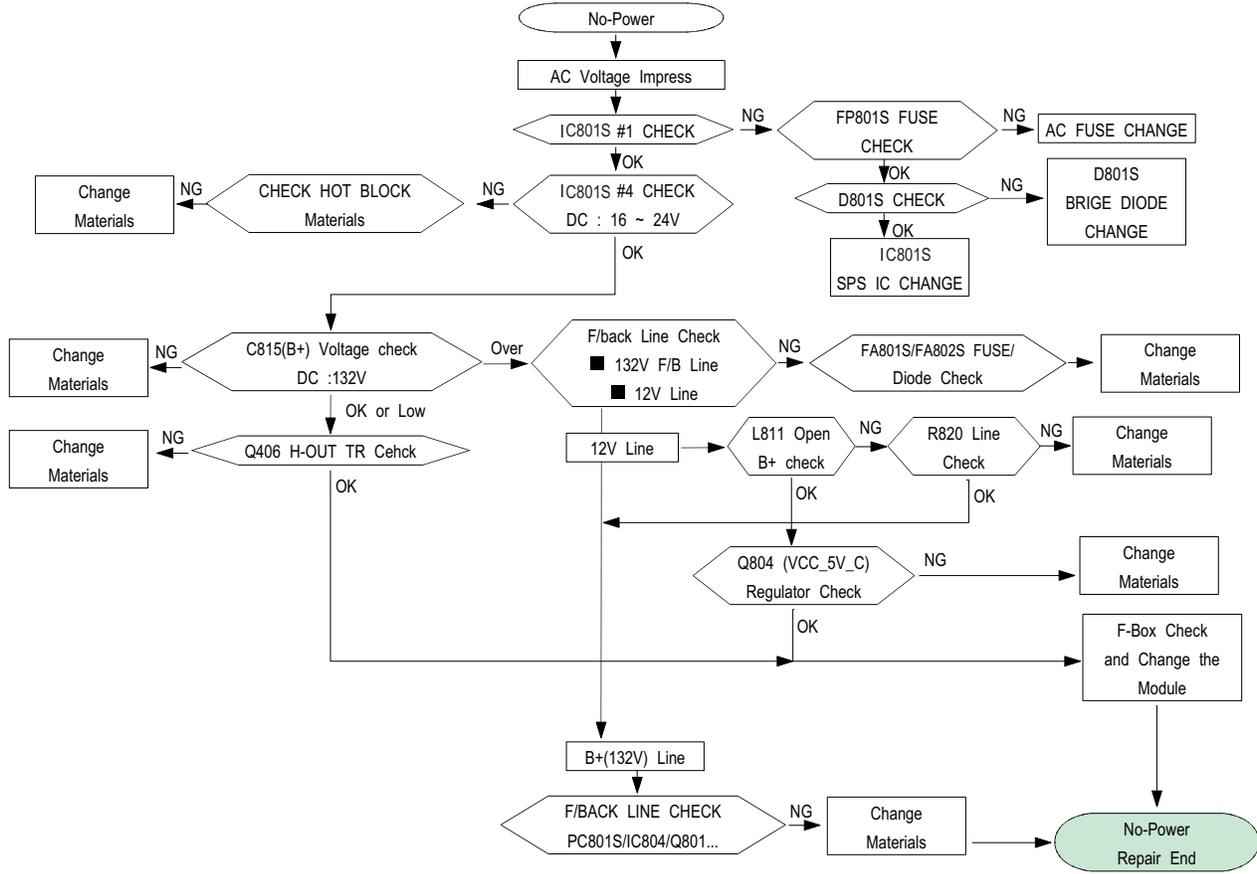
You can check the checksum according in the following order.

Factory Mode → Checksum → Right Button → Calculate Checksum → Output Checksum (e.g. 0xab2b)

- Checksum Examples  
T\_NG2PEU\_1001 : checksum = 0xab2b

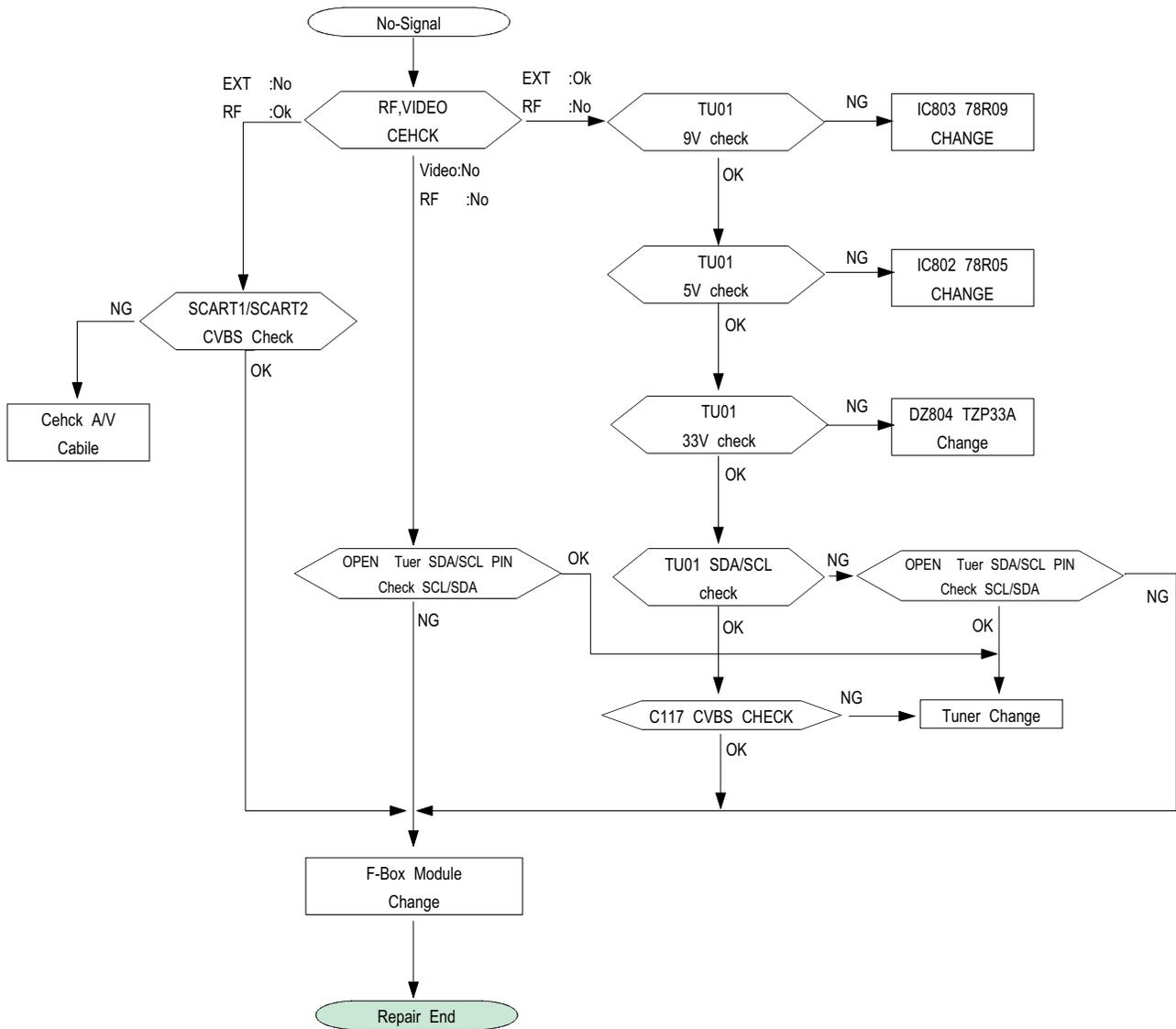
# 6-3 Troubleshooting Procedures by ASS'Y

## 6-3-1 NO POWER



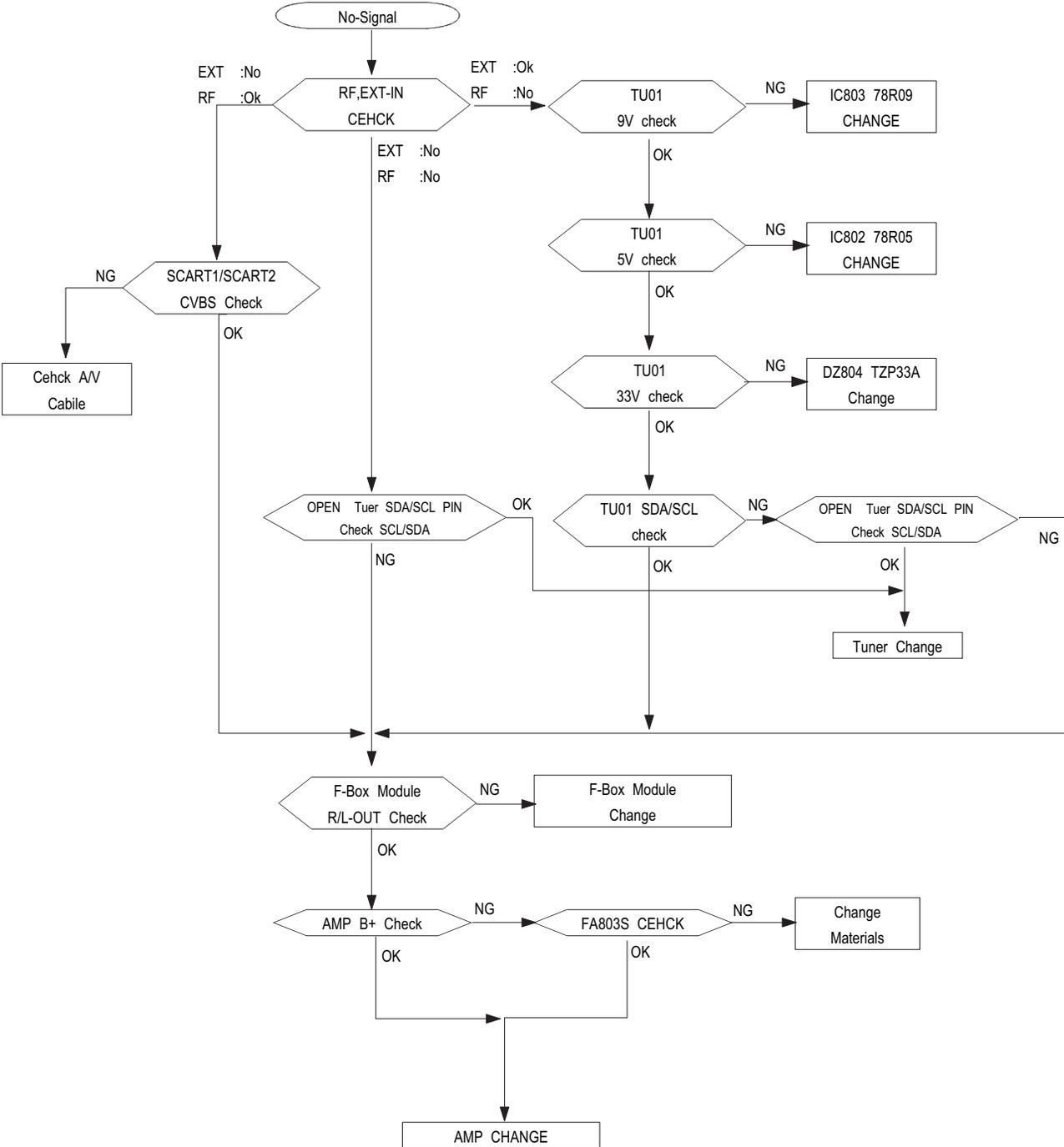
### 6-3-2 NO Signal

1. When the Power Board is normal



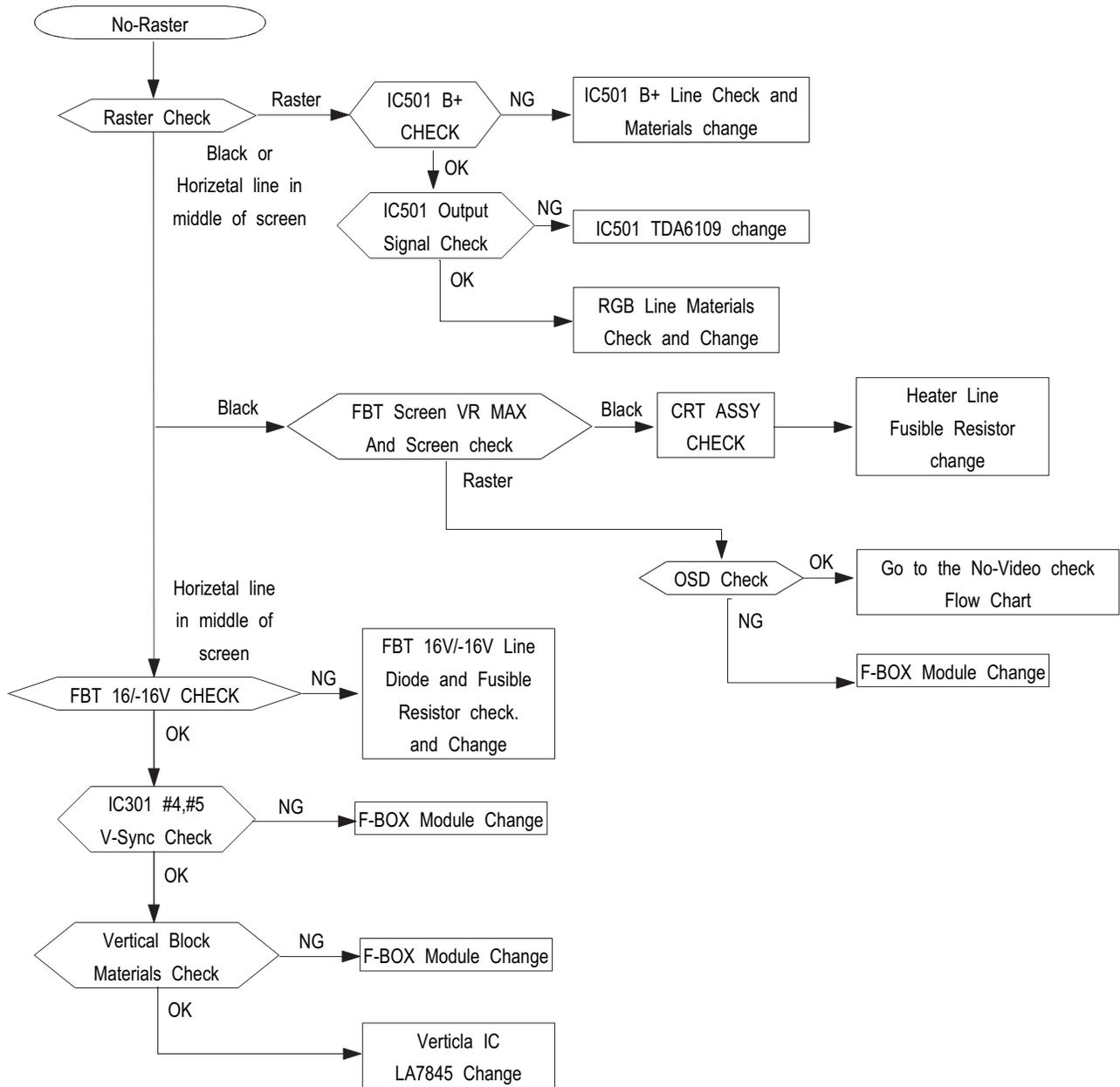
### 6-3-3 No Sound

1. When the Power Board is normal



### 6-3-4 No Raster

1. When the Power Board is normal



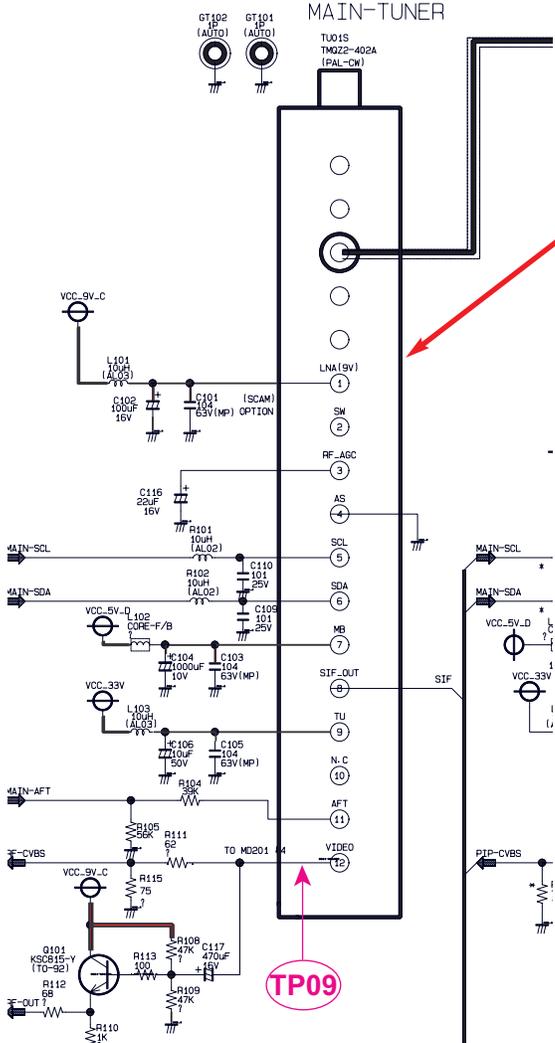
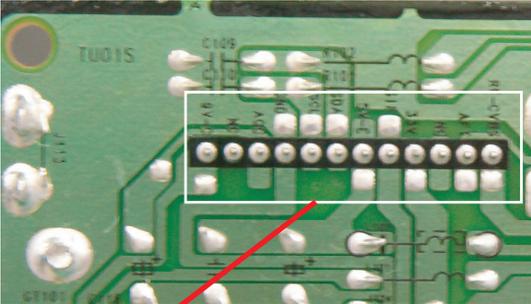
# 6-4 Troubleshooting by Blocks

## 6-4-1 Troubleshooting System Boards

### 1. Tuner Diagnosis

If no signal is received even though the RF signal from the external aerial is connected to the MAIN Board Tuner, check the following items.

- Supply Power: 5V, 9V, 33V
- Check for an RF defect: Check the CVBS output
- Check for an AUDIO defect: Check the SIF Signal output



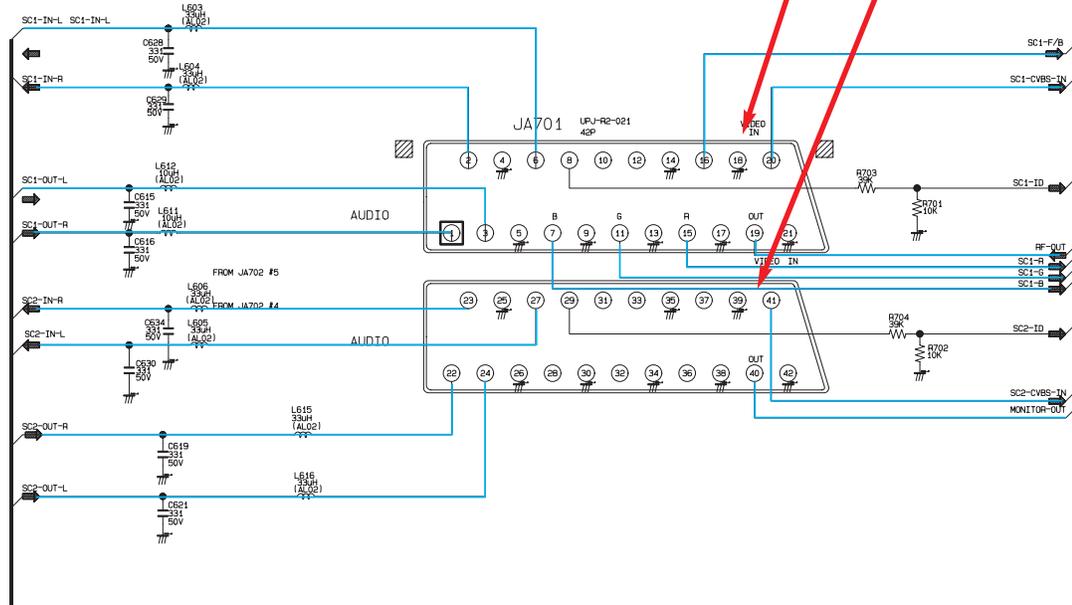
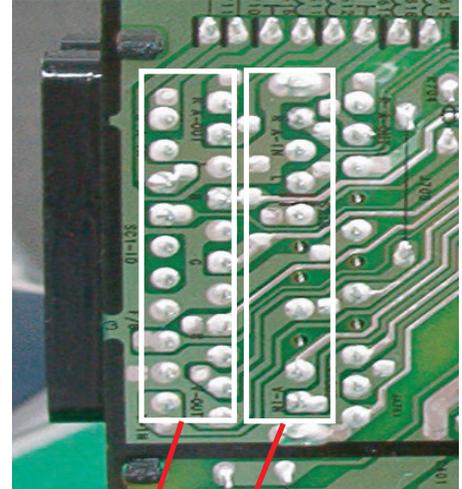
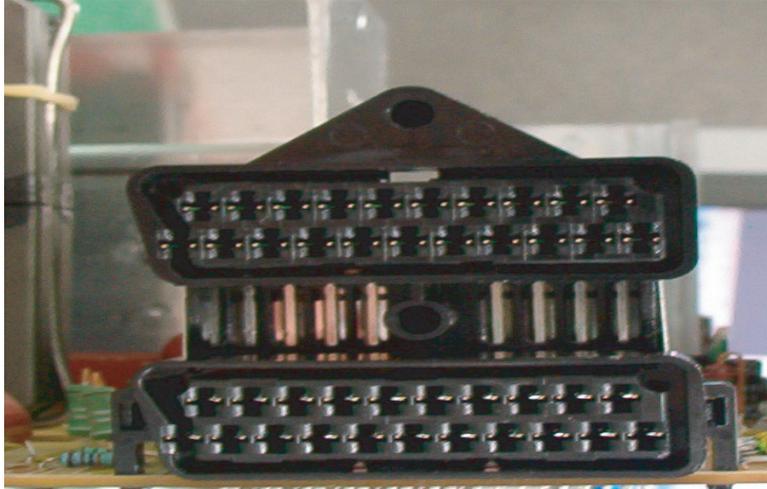
## 2. External Input Diagnosis

It receives the EXT1/EXT2/signal and consists of monitor output (video and audio).

The signal is input to VSP9402 through the port.

If no signal input/output is detected, check the following items

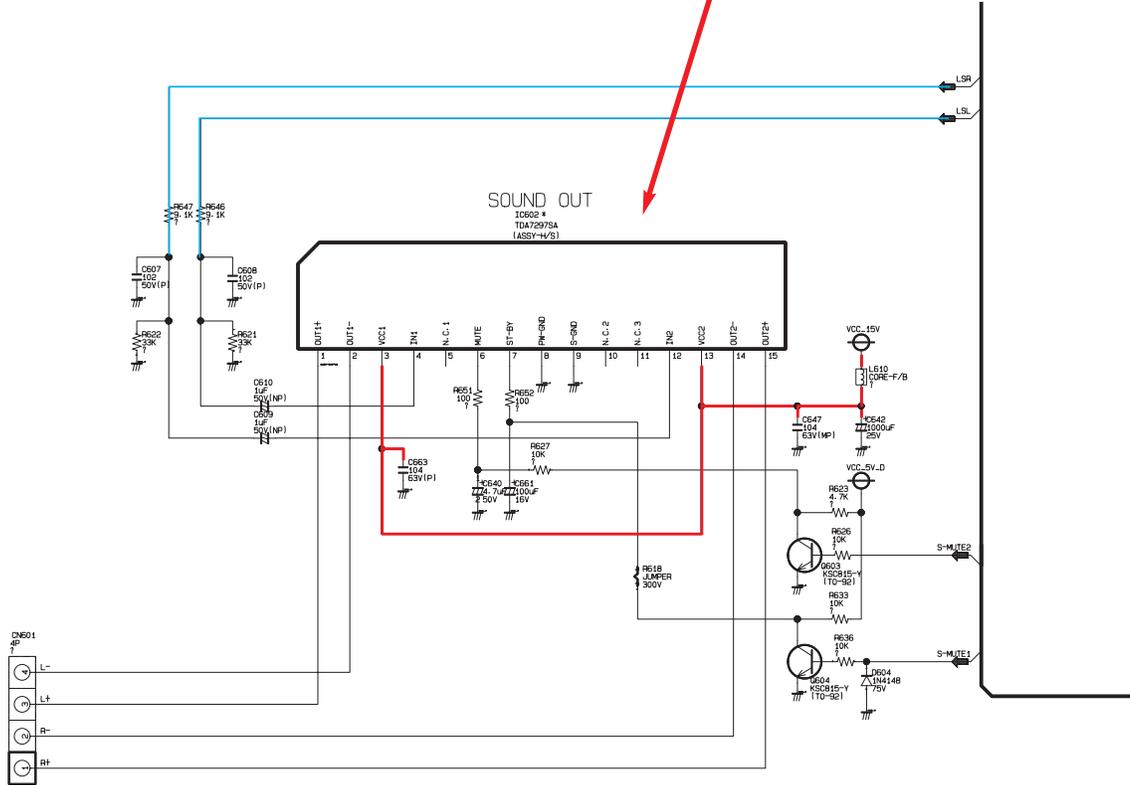
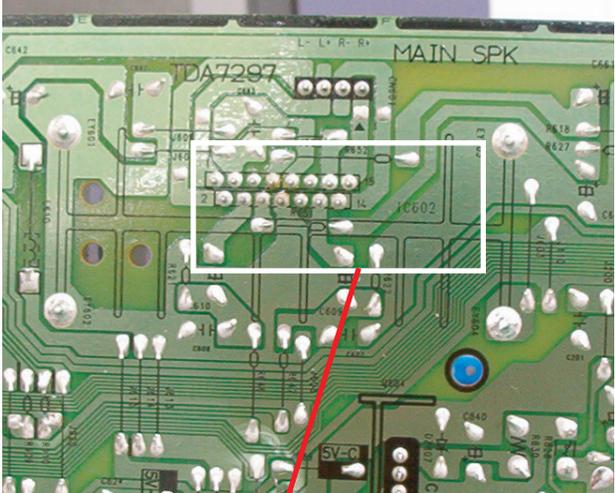
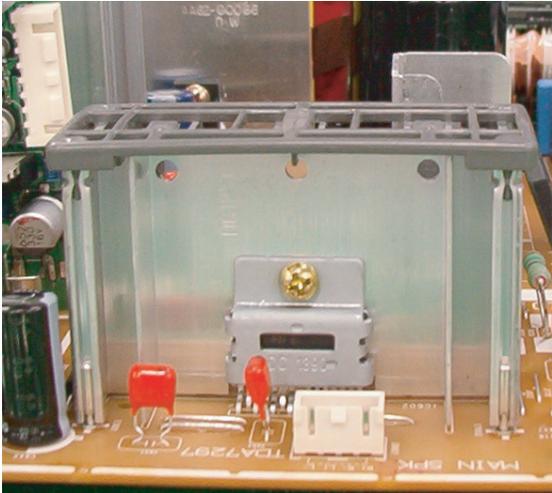
- Power supply : VSP9402(3.3V,1.8V) , CXA2180(5V)
- Check if the input and output jacks are defective



### 3. TDA7297(Audio AMP) Diagnosis

The signal is received from the Audio Processor (MSP3421G) and sound is output at 10W + 10W power.

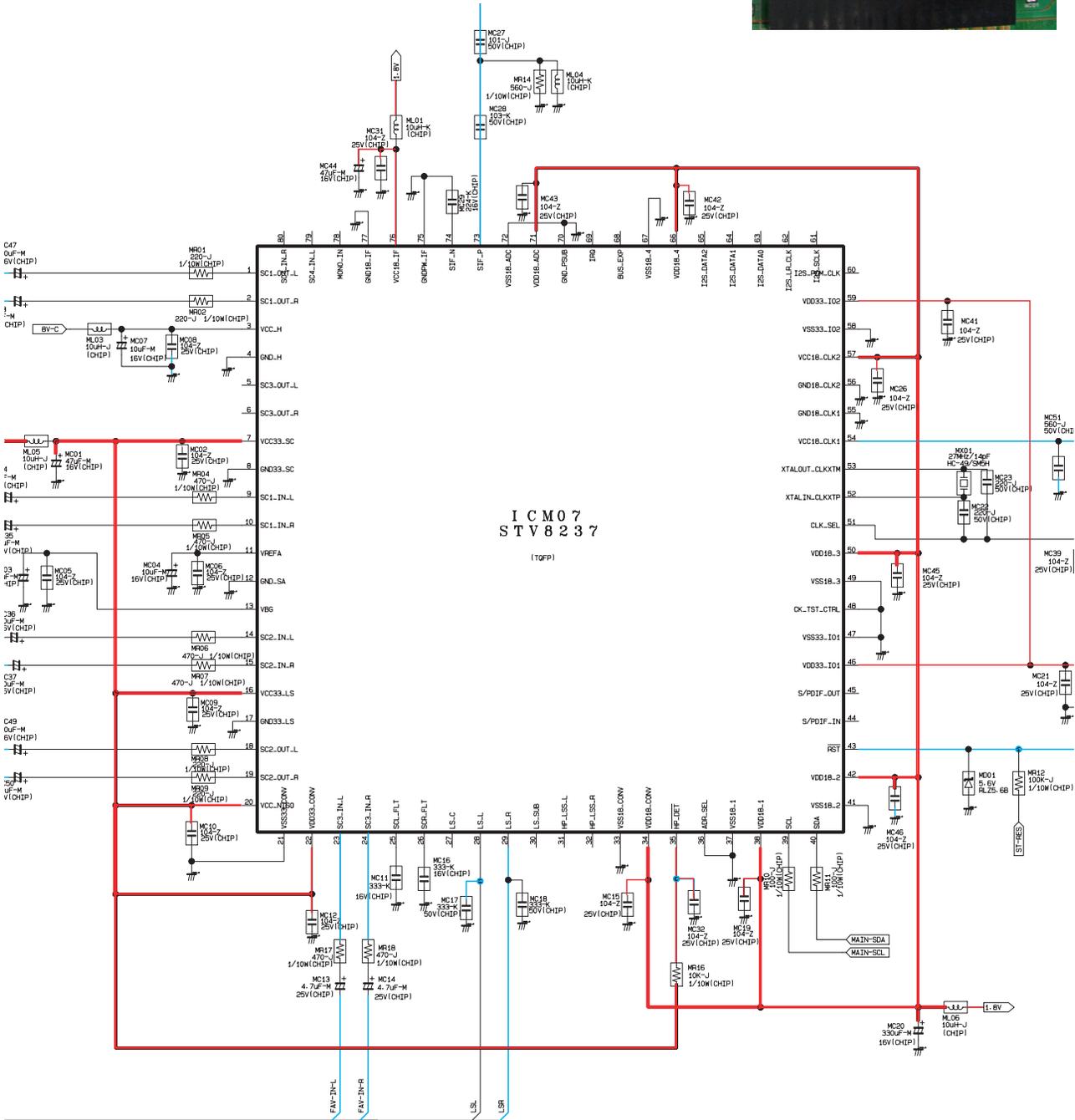
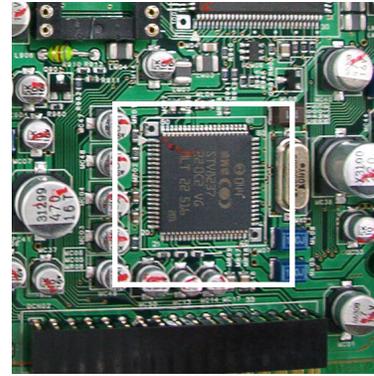
- Power supply : 15V
- Check for input defects : L/R
- Check for output defects : L+, L-, R+, R-



#### 4. STV8237(Audio Processor) Diagnosis

It processes the SIF and SCL 1/2 signal output from the Tuner.

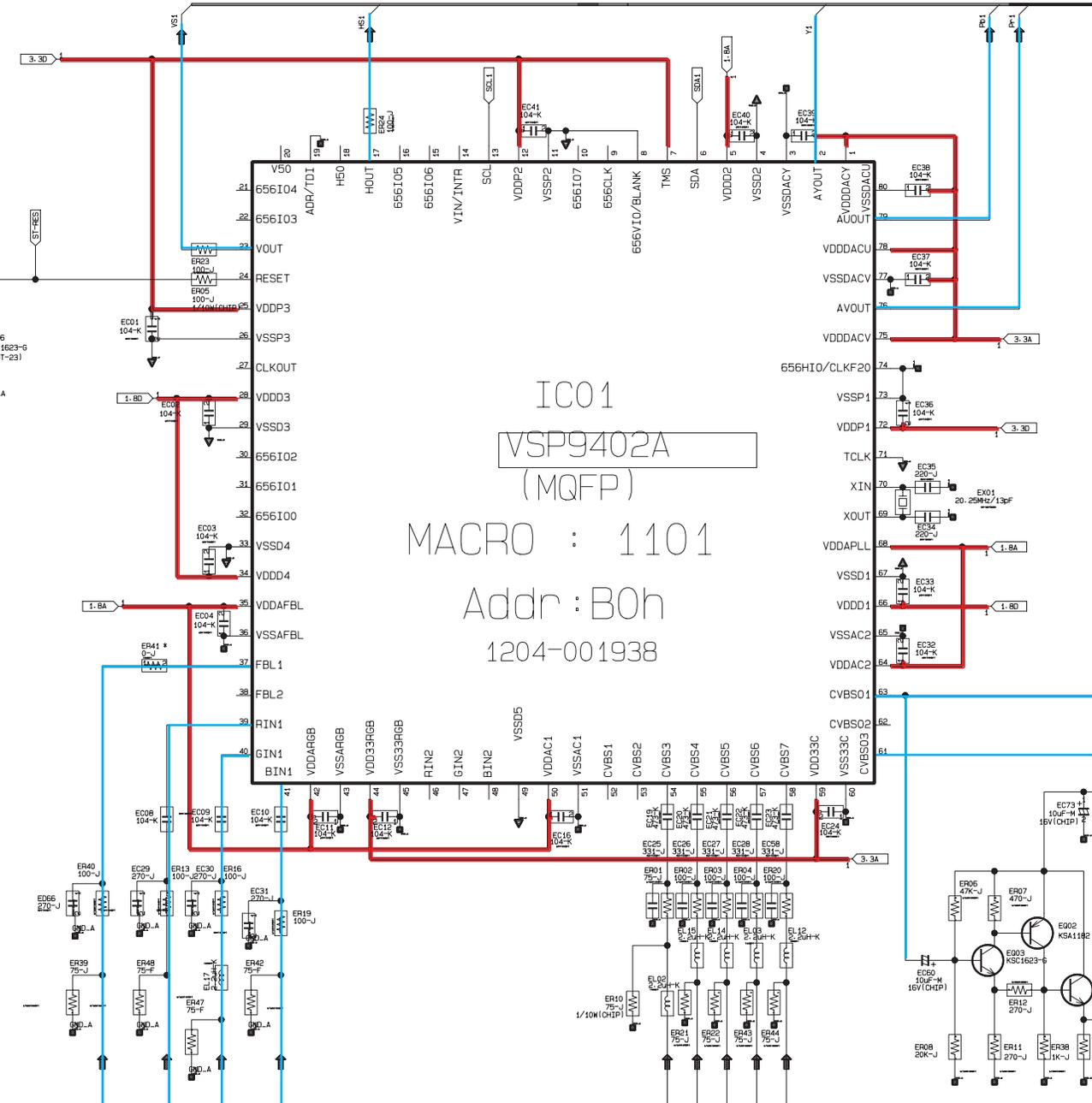
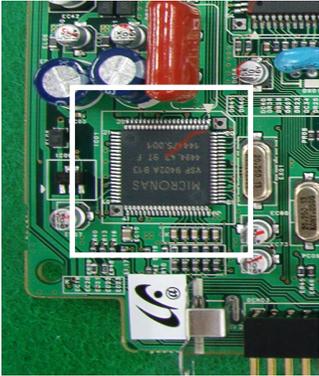
- Power supply : 3.3V,1.8V,9V , 5V
- Check for input defects :SIF, SCL1/2-IN,SCL1/2-OUT
- Check for output defects : SOUND L/R



5. VSP9402 Diagnosis

It receives RF, AV1/2/3 and S-VHS (Y,C) signals and outputs to Y/Pb/Pr of CXA2180Q,M-OUT and V-OUT through internal switching.

- Power supply : 1.8V, 3.3V
- Check for input defects : RF, SCL1/2,S-VHS(Y,C)
- Check for output defects : M-OUT,Y,Pb,Pr,HS1,VS1

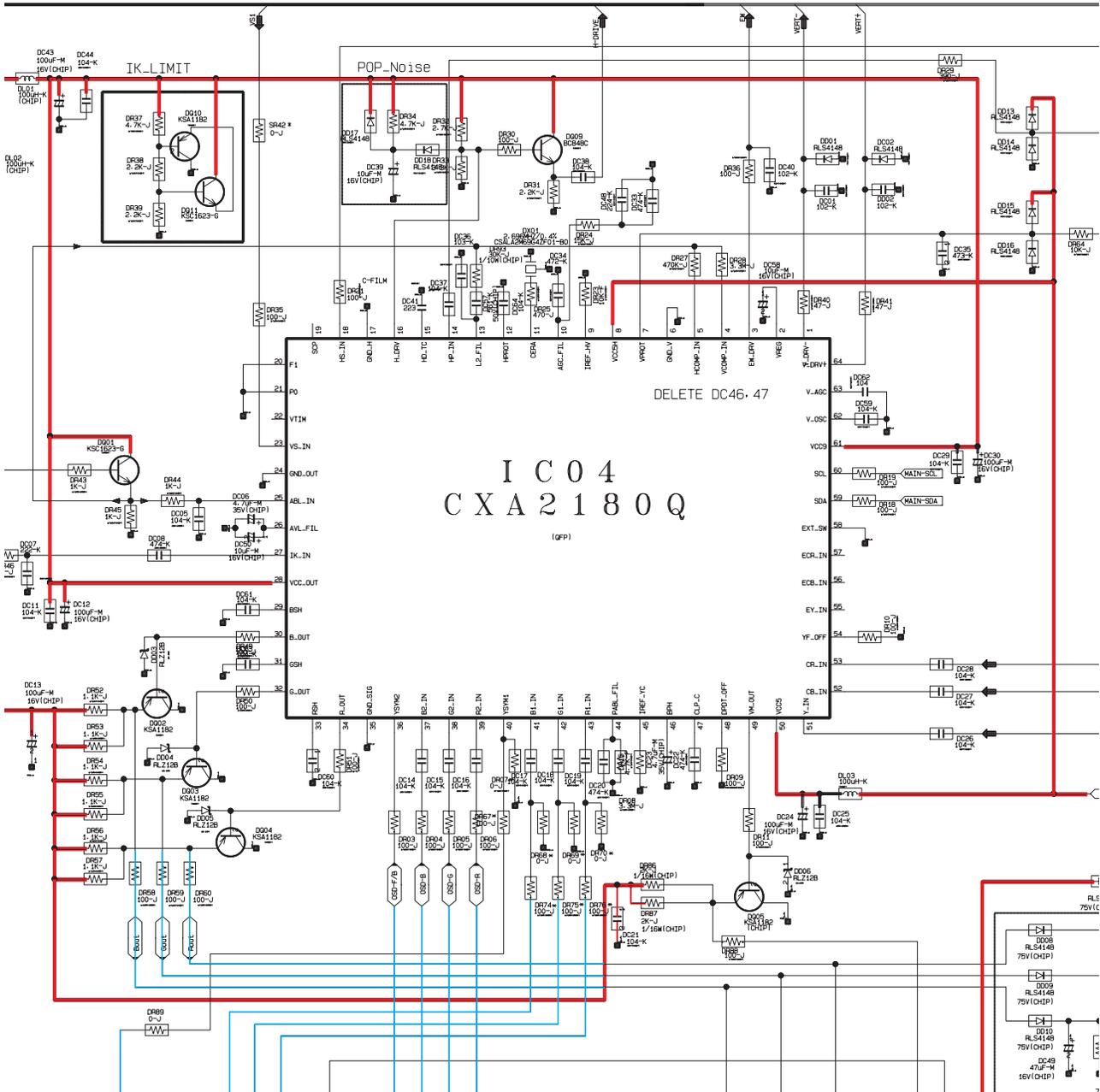
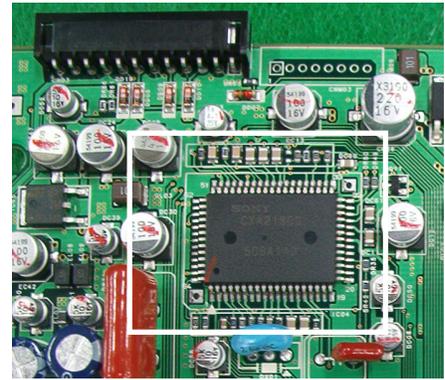


### 6. CXA2180 Diagnosis

The Y/Pb/Pr signal is received from VSP9405B and CXA2151Q and the signal is output as R/G/B. It also outputs the V/H Drive, E/W and performs the ABL and EHT operation.

If V-Drive output is not detected, check for an IC defect.

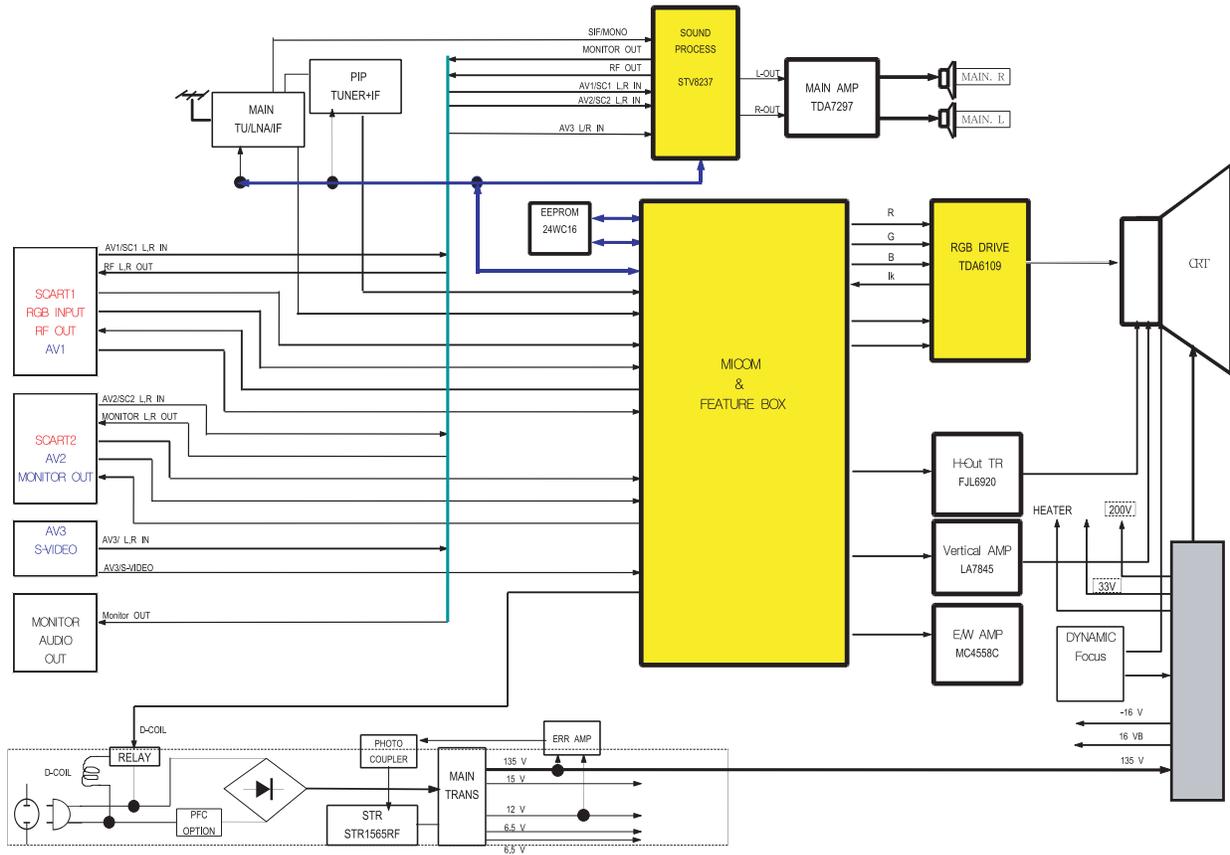
- Power supply : 5V, 9V
- Check for input defects : Y/Pb/Pr, H/V
- Check for output defects : R/G/B, ABL, EW, V/H-DRIVE



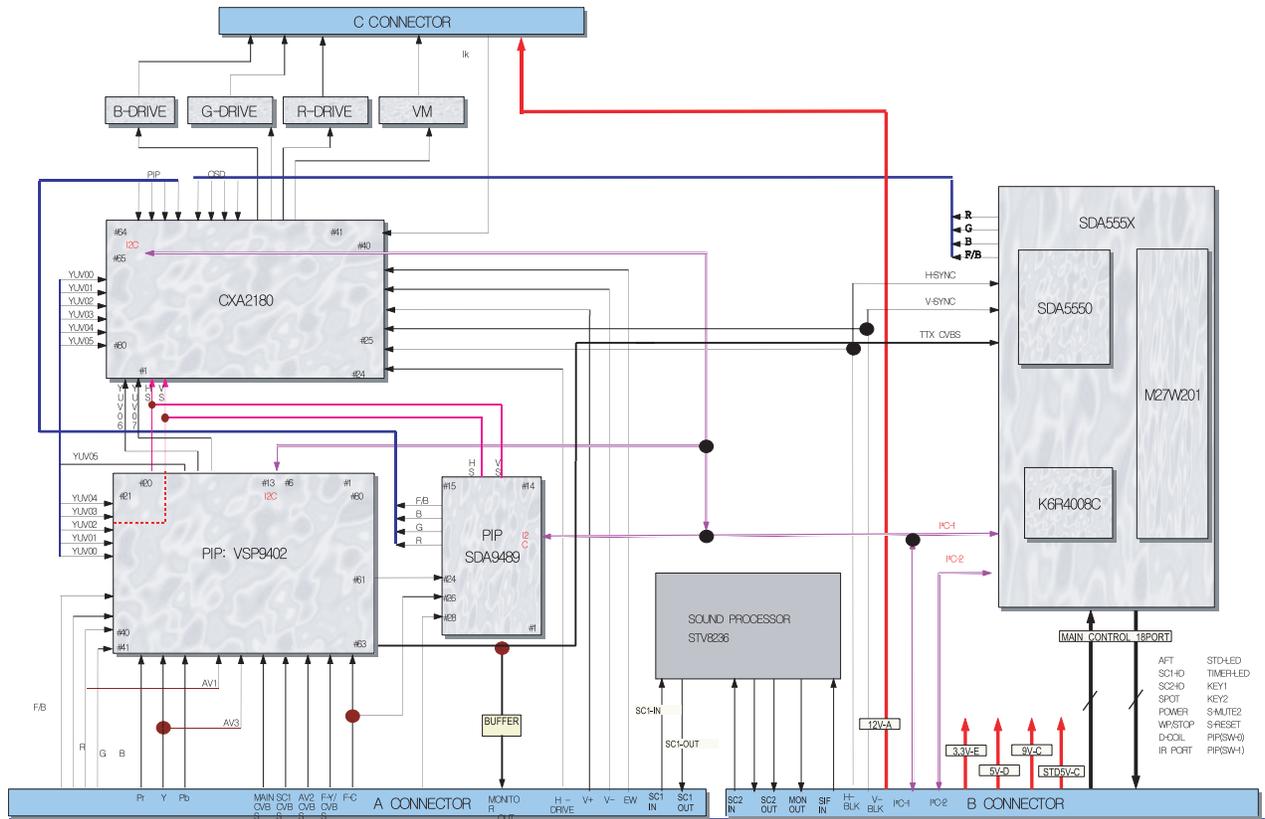


## 7-2 Partial Block Diagram

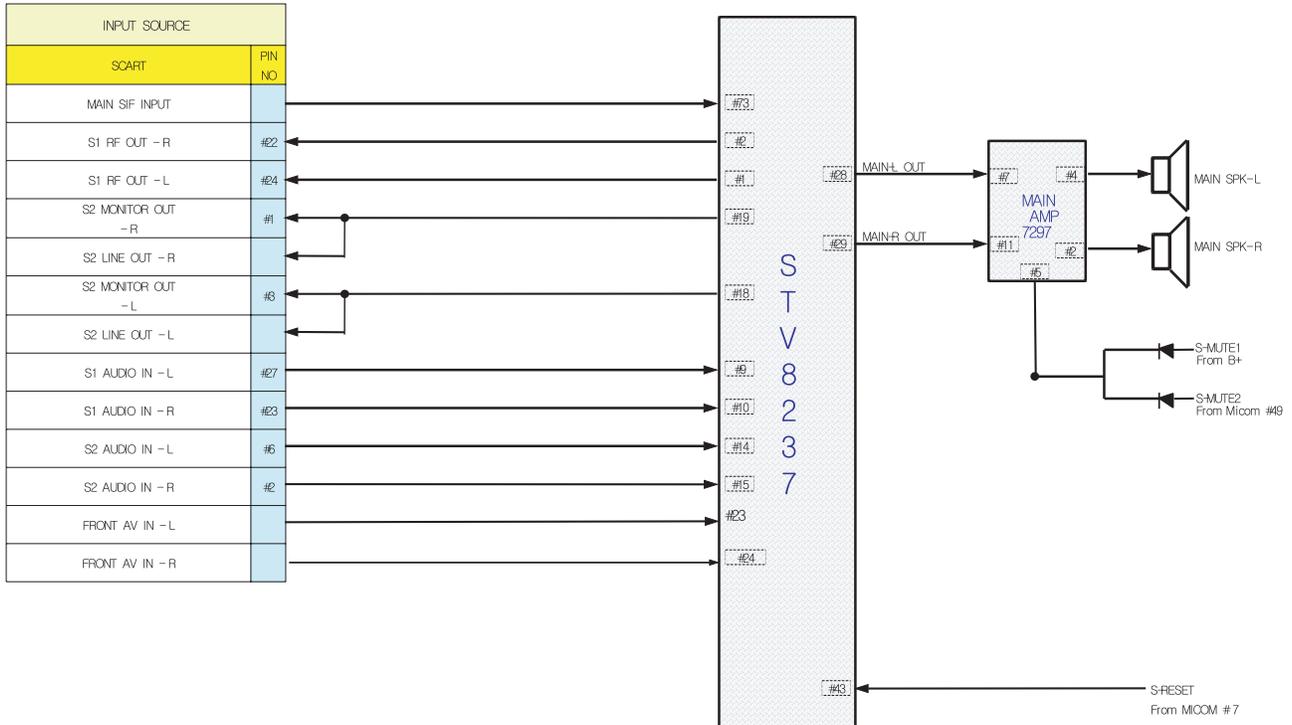
### 7-2-1 Main Block Diagram



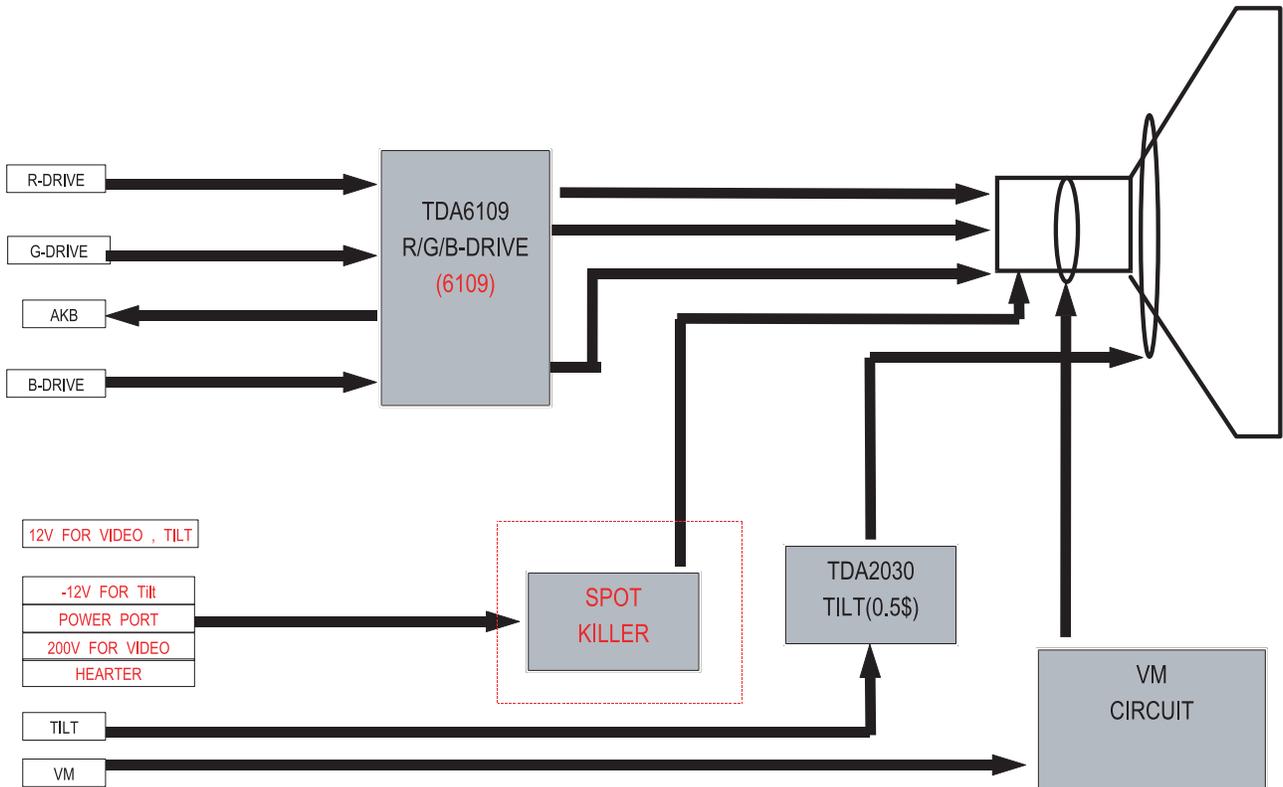
### 7-2-2 F-Box Block( Simple 100) : Negotiator2



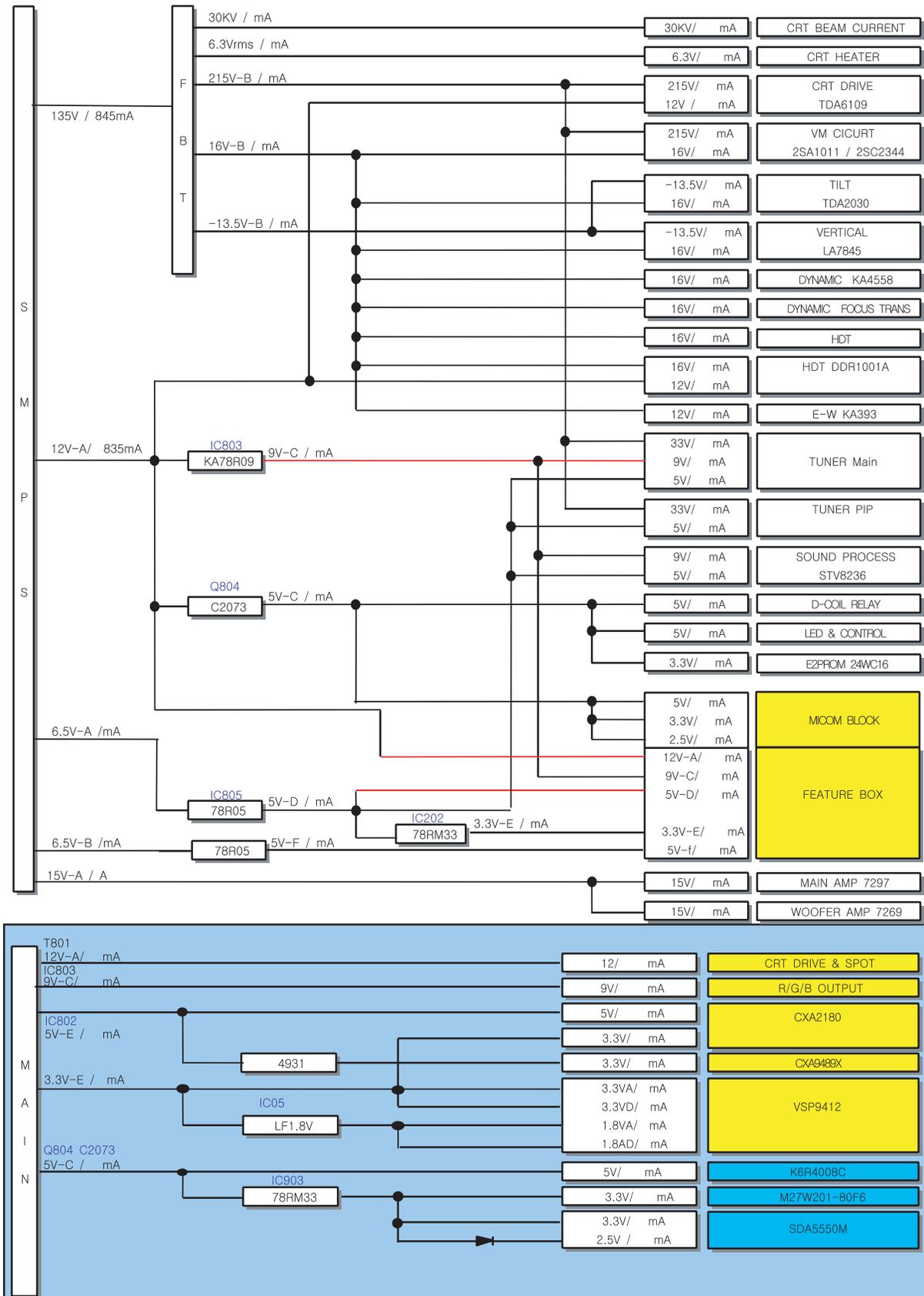
### 7-2-3 Sound Signal Diagram



### 7-2-4 CRT Drive Signal Diagram



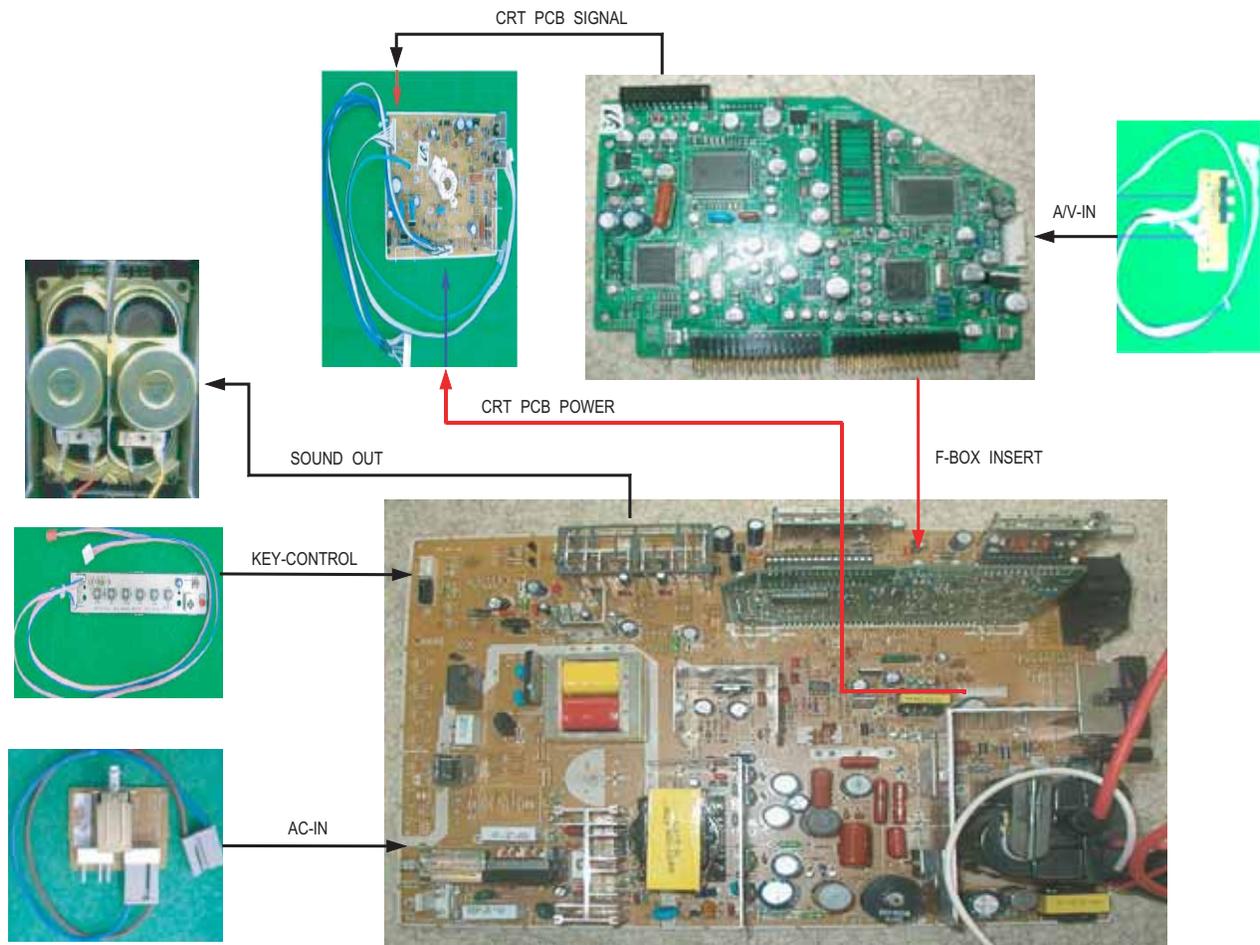
### 7-3 Power Block Diagram



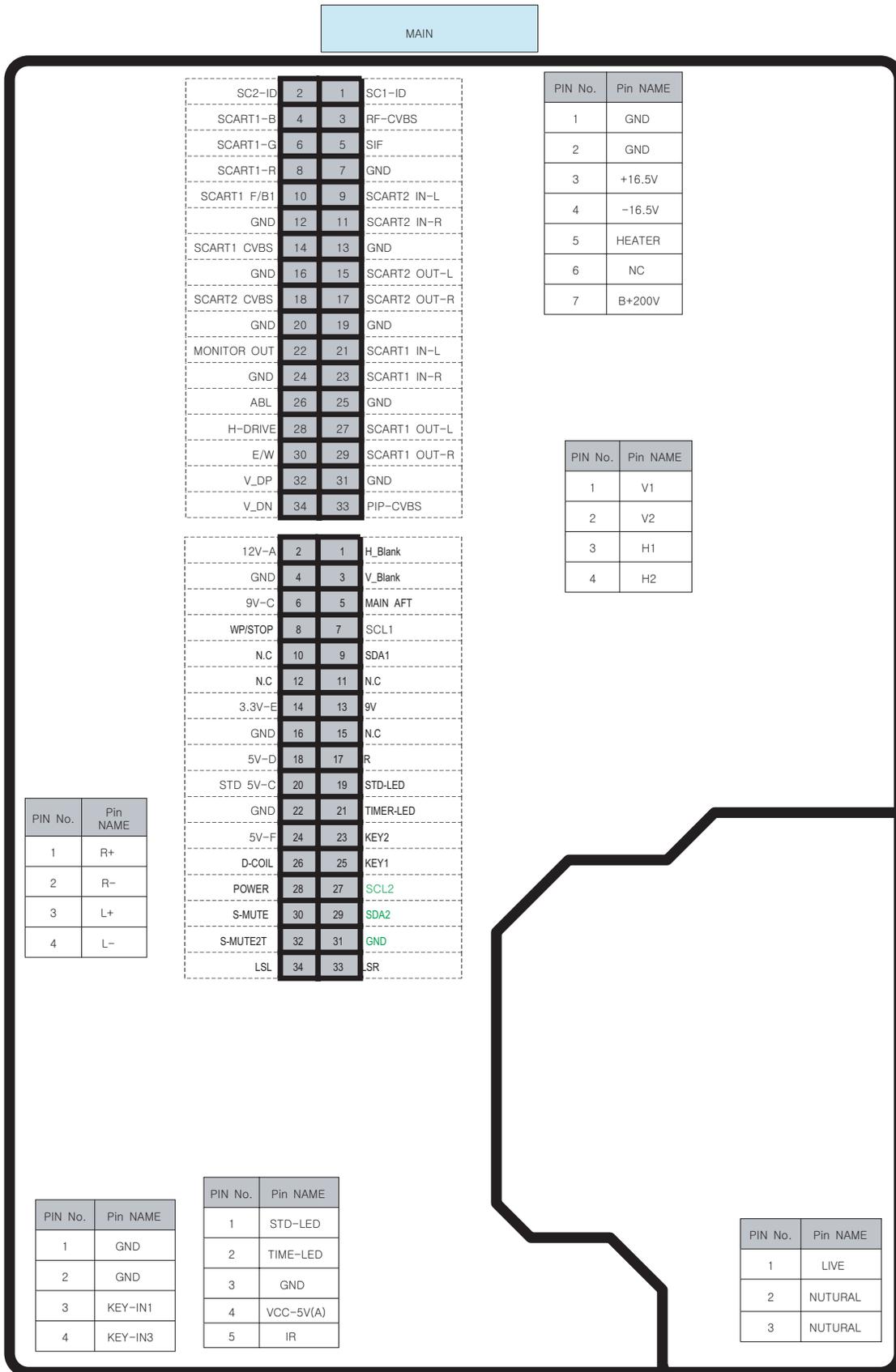
# MEMO

# 8. Wiring Diagram

## 8-1 Overall Wiring



## 8-2 Pin Connection



F-BOX

C Connector(CRT)	
1	IK
2	GND
3	B-OUT
4	GND
5	G-OUT
6	GND
7	R-OUT
8	GND
9	12V-A
10	SVM
11	POWER PORT
12	TILT

SC2-ID	2	1	SC1-ID
SCART1-B	4	3	RF-CVBS
SCART1-G	6	5	SIF
SCART1-R	8	7	GND
SCART1 F/B	10	9	SCART2 IN-L
GND	12	11	SCART2 IN-R
SCART1 CVBS	14	13	GND
GND	16	15	SCART2 OUT-L
SCART2 CVBS	18	17	SCART2 OUT-R
GND	20	19	GND
MONITOR OUT	22	21	SCART1 IN-L
GND	24	23	SCART1 IN-R
ABL	26	25	GND
H-DRIV	28	27	SCART1 OUT-L
E/W	30	29	SCART1 OUT-R
V_DP	32	31	GND
V_DN	34	33	PIP-CVBS

12V-A	2	1	H_Blank
GND	4	3	V_Blank
9V-C	6	5	MAIN AFT
WP/STOP	8	7	SCL1
N.C	10	9	SDA1
N.C	12	11	N.C
3.3V-E	14	13	9V
GND	16	15	N.C
5V-D	18	17	IR
STD 5V-C	20	19	STD-LED
GND	22	21	TIMER-LED
5V-F	24	23	KEY2
D-COIL	26	25	KEY1
POWER	28	27	SCL2
S-MUTE	30	29	SDA2
S-MUTE2T	32	31	GND
LSL	34	33	LSR

1	A-L
2	A-R
3	GND
4	Y/CVBS
5	GND
6	C-ID
7	GND
8	NC

CRT

VM

1	A-L
2	A-R
3	GND
4	Y/CVBS
5	GND
6	C-ID
7	GND
8	NC

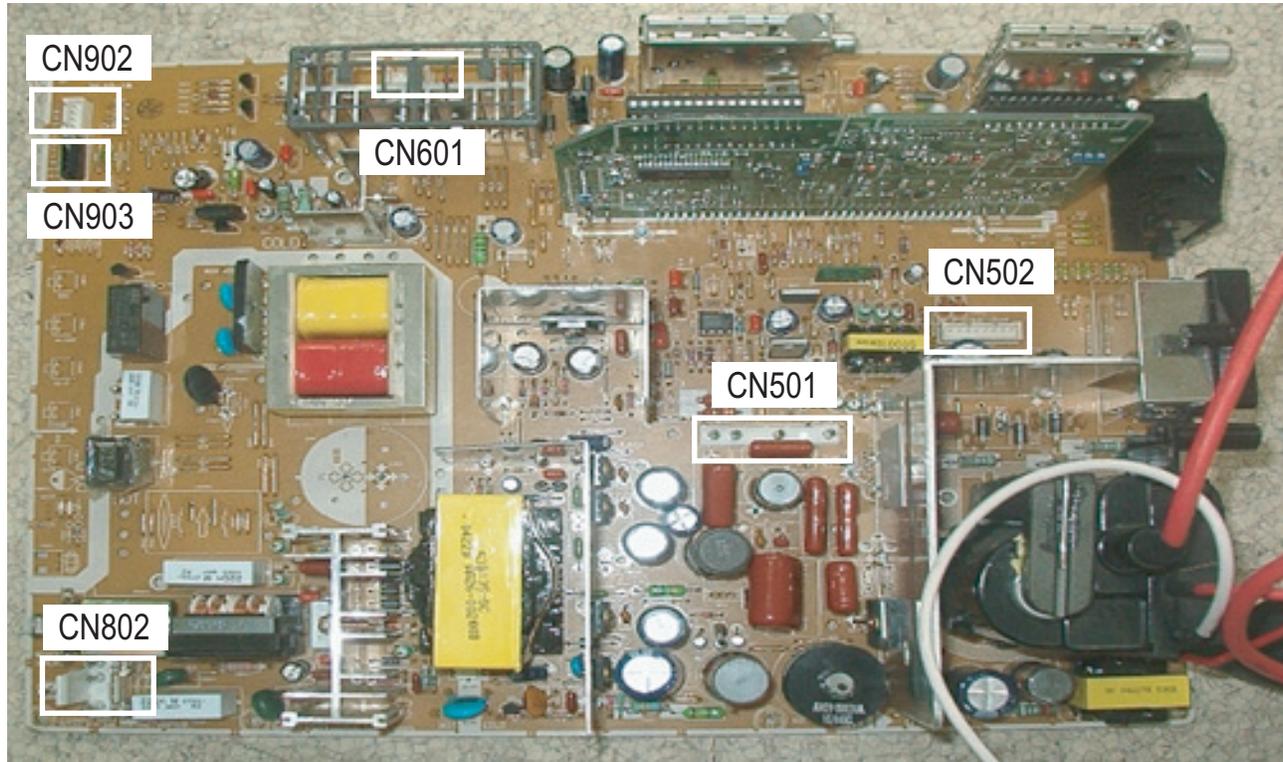
1	IK
2	GND
3	B
4	GND
5	G
6	GND
7	R
8	GND
9	15V
10	Y
11	POWER
12	TILT

TILT

## 9. PCB Diagram

### 9-1 Main Board

#### 9-1-1 ASS'Y Main Board



#### 9-1-2 Names & Roles of Key Parts

- \* CN802 : A 3 pin port connected to the MASTER ASS'Y, which handles MASTER POWER ON/OFF.
- \* CN902 : A 4 pin port connected to the CONTROL ASSY, which delivers the necessary signal to KEY-IN1, KEY-IN3 CONTROL.
- \* CN903 : A 5 pin port connected to the CONTROL ASSY, which delivers the necessary signal to the remote control and the LED CONTROL.
- \* CN601 : 4 pin port connected to the SPEAKER port, which delivers the signal from the AMP to the speakers.
- \* CN502 : A 8 pin port connected to the CRT ASS'Y. Through this port, the power from the DEFLECTION BLOCK is supplied to drive the CRT and AMP.
- \* CN501 : A 4 pin port connected to the DY.

**9-1-3 Main Board Connector Pin****CN903**

Connected to the Control Ass'y

Pin No.	Pin Name
1	STD-LED
2	TIME-LED
3	GND
4	VCC-5V(A)
5	IR

**CN802**

Connected to the PIP Module

Pin No.	Pin Name
1	LIVE
2	NUTURAL
3	NUTURAL

**CN902**

Connected to the Control Ass'y

Pin No.	Pin Name
1	GND
2	GND
3	KEY-IN1
4	KEY-IN3

**CN602**

Connected to the Speaker Port

Pin No.	Pin Name
1	R+
2	R-
3	L+
4	L-

**CN502**

Connected to the CRT Ass'y

Pin No.	Pin Name
1	GND
2	GND
3	+16.5V
4	-16.5V
5	HEATER
6	NC
7	B+200V

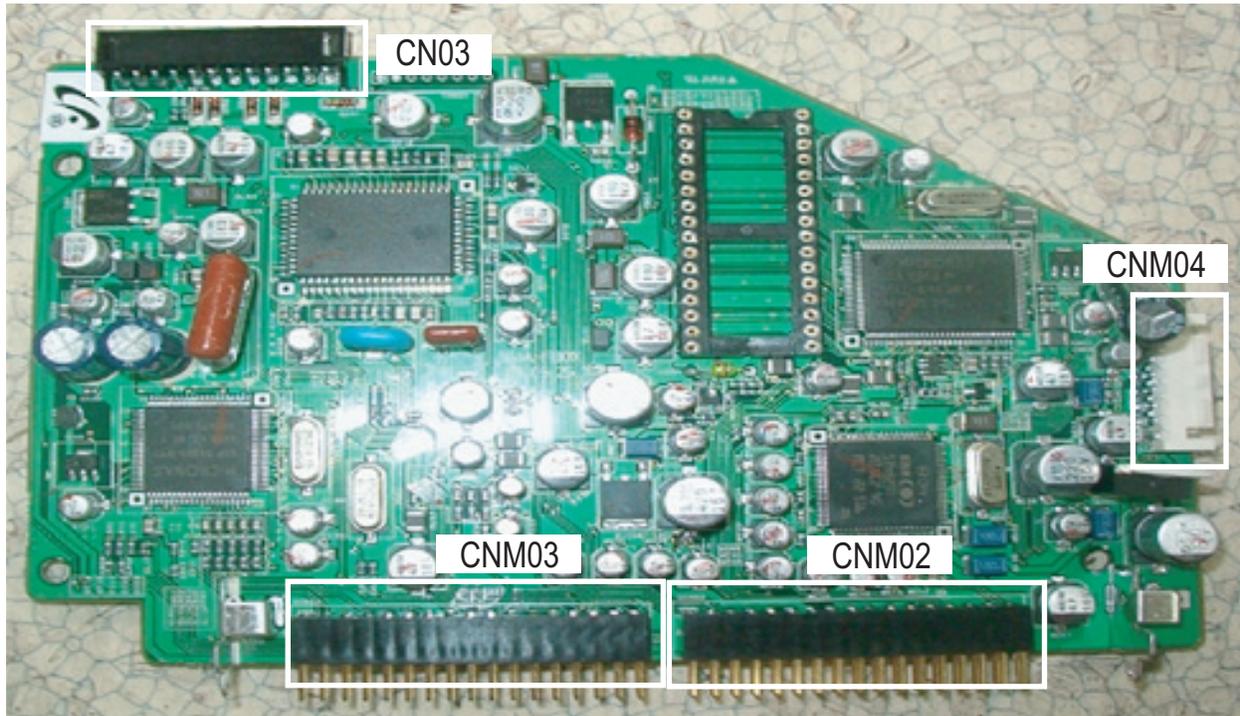
**CN501**

Connected to the CRT Ass'y

Pin No.	Pin Name
1	V1
2	V2
3	H1
4	H2

## 9-2 F/BOX Module

### 9-2-1 F/BOX Module



#### ■ Signal Controls

### 9-2-2 Names & Roles of Key Parts

- \* CNM02 : The 34-pin terminal that is inserted into MAIN ASS'y and connects the DATA/CLK and power lines from MAIN.
- \* CNM03 : The 34-pin terminal that is inserted into the MAIN ASS'y and connects various signals such as the SCART1, SCART 2 and CVBS signals.
- \* CN03 : The 12-pin terminal that is connected to the CRT ASS'y and connects the RGB and AK signals.
- \* CNM04 : The 8-pin terminal that is connected to the SIDE A/V and connects the AV and S-Video signals to the SIDE.

### 9-2-3 F-Box Board Connector Pin

CNM03

Pin Name	PIN No.		Pin Name
SC2-ID	2	1	SC1-ID
SCART1-B	4	3	RF-CVBS
SCART1-G	6	5	SIF
SCART1-R	8	7	GND
SCART1 F/B1	10	9	SCART2 IN-L
GND	12	11	SCART2 IN-R
SCART1 CVBS	14	13	GND
GND	16	15	SCART2 OUT-L
SCART2 CVBS	18	17	SCART2 OUT-R
GND	20	19	GND
MONITOR OUT	22	21	SCART1 IN-L
GND	24	23	SCART1 IN-R
ABL	26	25	GND
H-DRIVE	28	27	SCART1 OUT-L
E/W	30	29	SCART1 OUT-R
V_DP	32	31	GND
V_DN	34	33	PIP-CVBS

CN03

Pin No	Pin Name
1	IK
2	GND
3	B-OUT
4	GND
5	G-OUT
6	GND
7	R-OUT
8	GND
9	12V-A
10	SVM
11	POWER PORT
12	TILT

CNM02

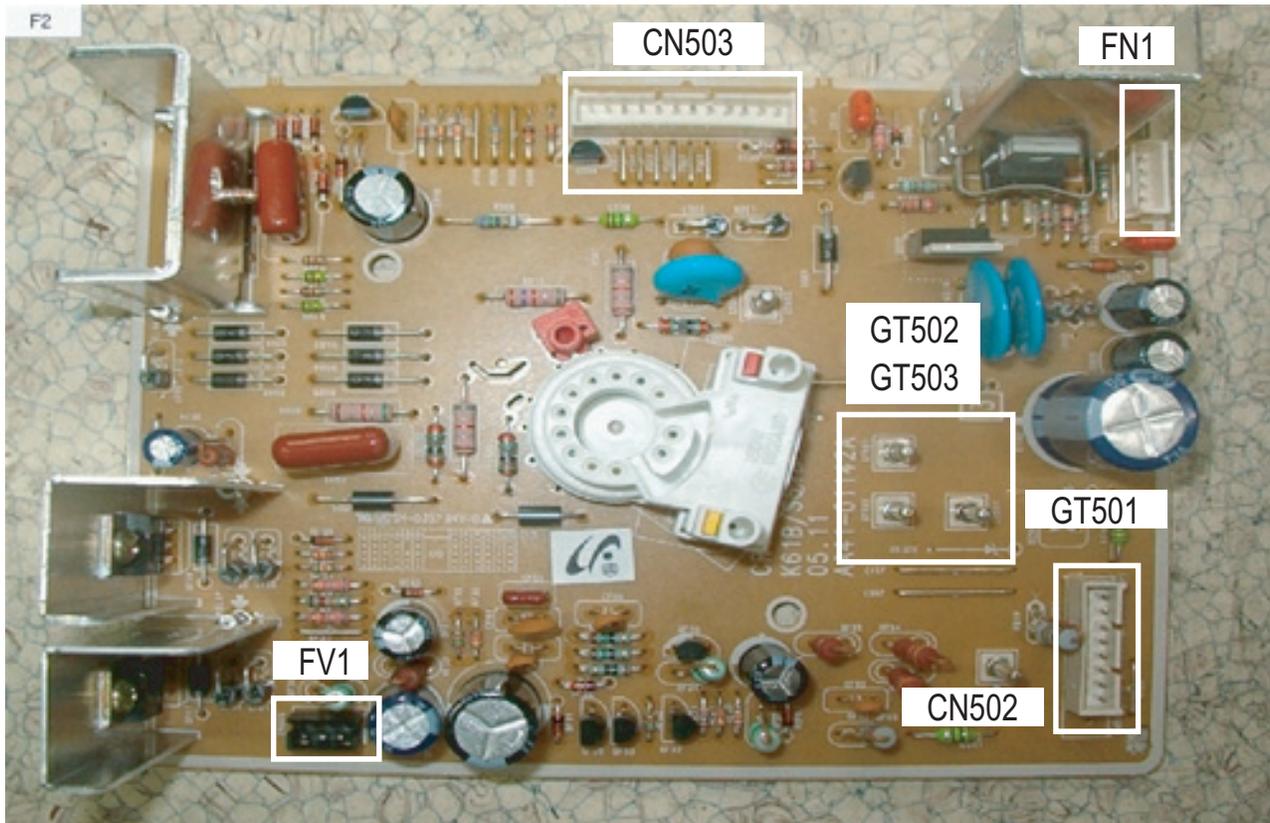
Pin Name	Pin No.		Pin Name
12V-A	2	1	H_Blank
GND	4	3	V_Blank
9V-C	6	5	MAIN AFT
WP/STOP	8	7	SCL1
N.C	10	9	SDA1
N.C	12	11	N.C
3.3V-E	14	13	9V
GND	16	15	N.C
5V-D	18	17	IR
STD 5V-C	20	19	STD-LED
GND	22	21	TIMER-LED
5V-F	24	23	KEY2
D-COIL	26	25	KEY1
POWER	28	27	SCL2
S-MUTE	30	29	SDA2
S-MUTE2T	32	31	GND
LSL	34	33	LSR

CNM04

Pin No	Pin Name
1	A-L
2	A-R
3	GND
4	Y/CVBS
5	GND
6	C-ID
7	GND
8	NC

## 9-3 CRT Board

### 9-3-1 CRT Board



■ The board that receives power and signals from MAIN and F/BOX, drives the CRT, and displays pictures on the screen.

### 9-3-2 Names & Roles of Key Parts

- \* GT501 & GT503 : The TBC-WIRE connection terminal that plays the role of CRT Ground.
- \* CN503 : Supplies the final R/G/B signal and the signal required for CRT deflection control, from the F/BOX Deflection IC to the CRT RGB Drive IC.
- \* FV1 : The pin that connects the signal from the image contour correction circuit, which is called the VM signal.
- \* FN1 : The pin connecting the Tilt Coil.

### 9-3-3 CRT Board Connector Pin

CN503

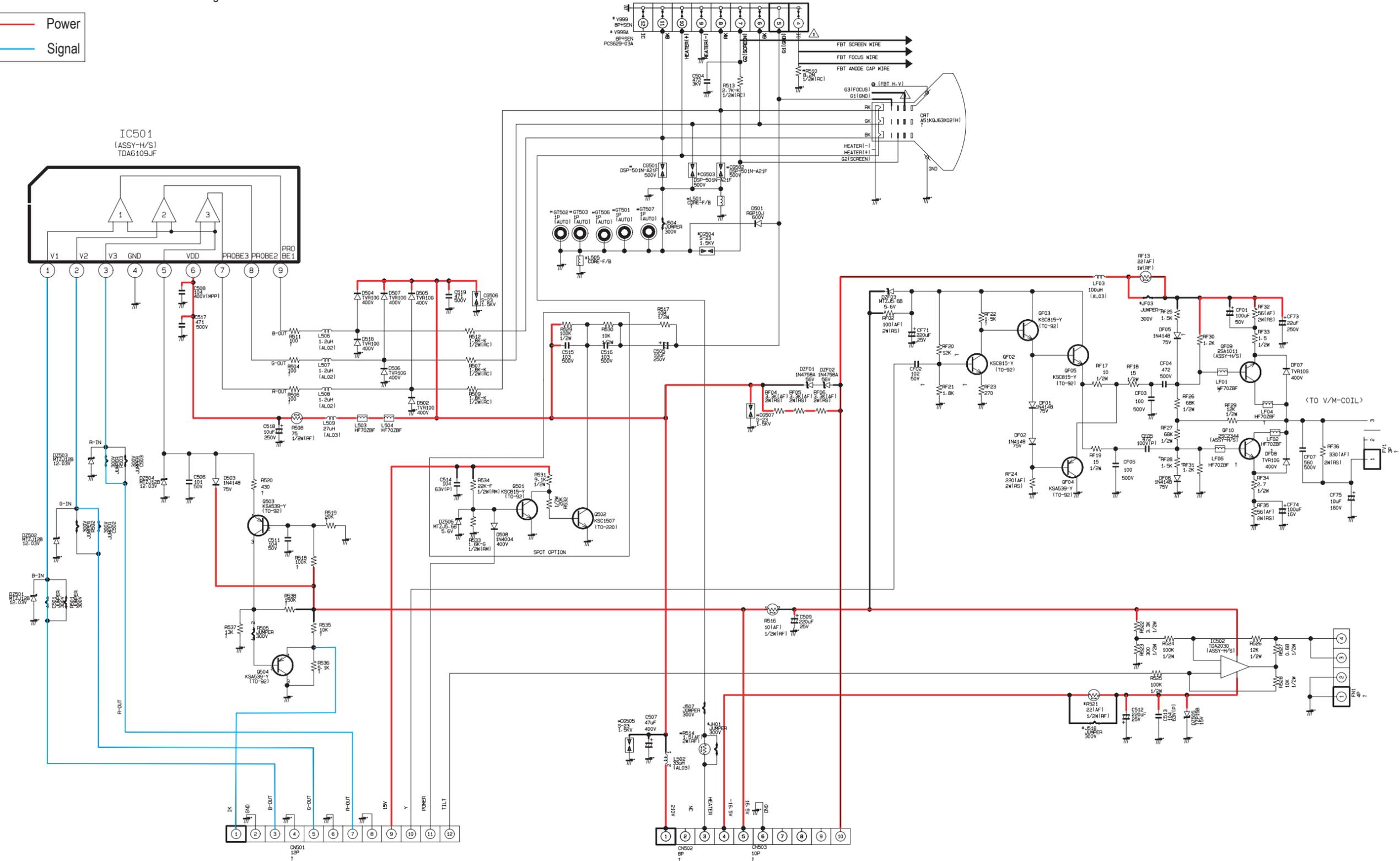
Pin No	Pin Name
1	IK
2	GND
3	B
4	GND
5	G
6	GND
7	R
8	GND
9	15V
10	Y
11	POWER
12	TILT

# MEMO

# 10. Schematic Diagram

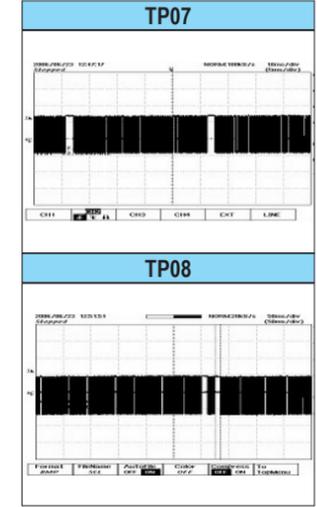
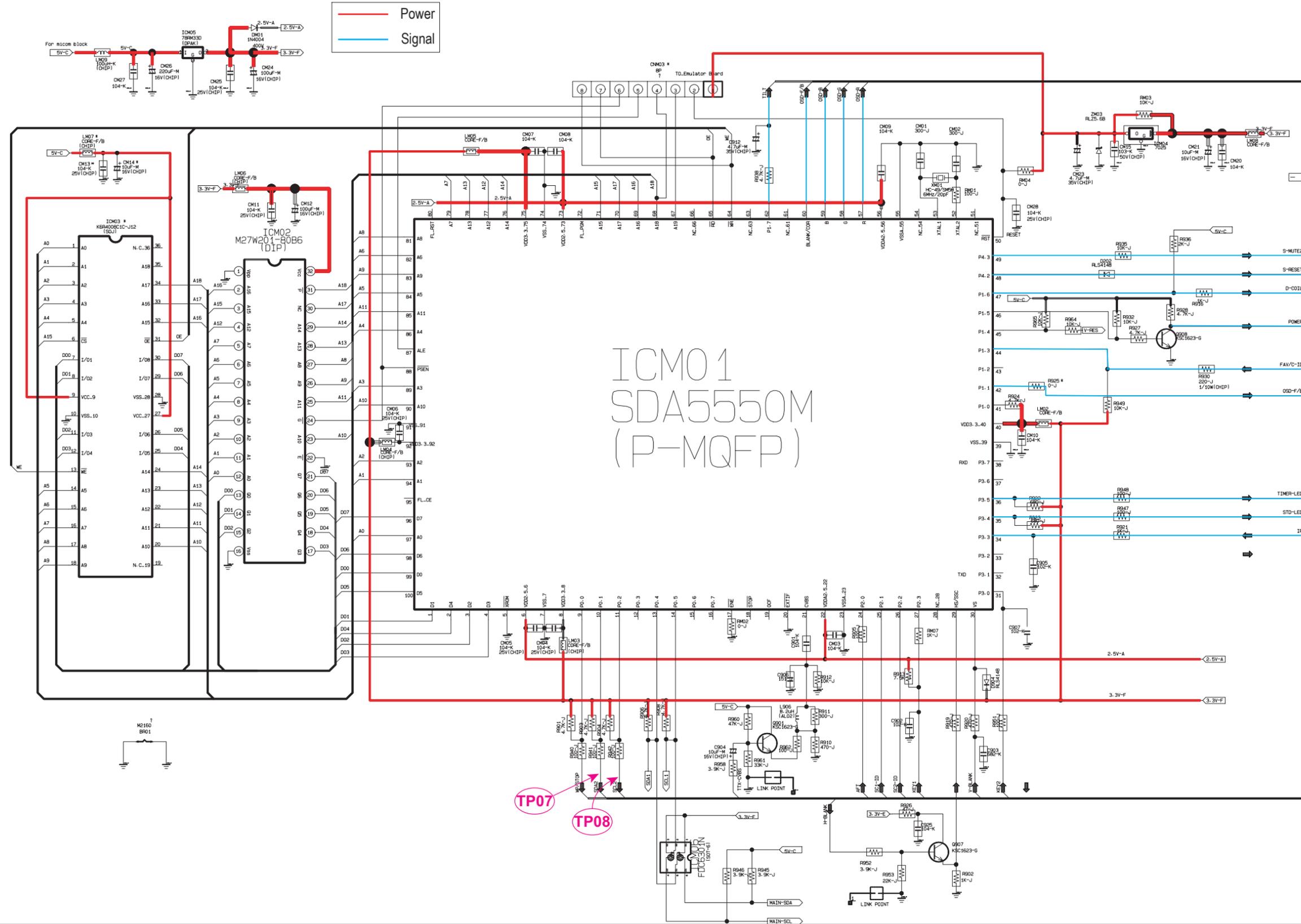
## 10-1 CRT DRIVE

This Document can not be used without Samsung's authorization.



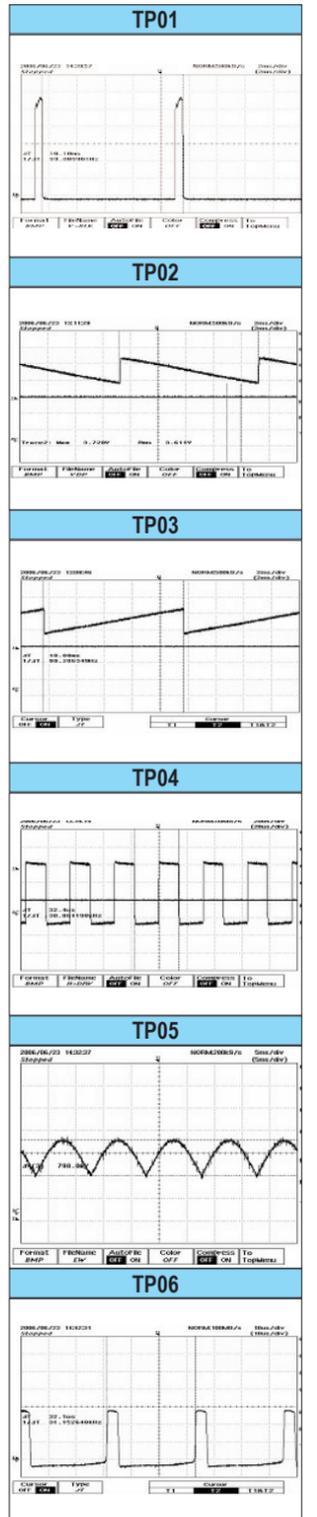
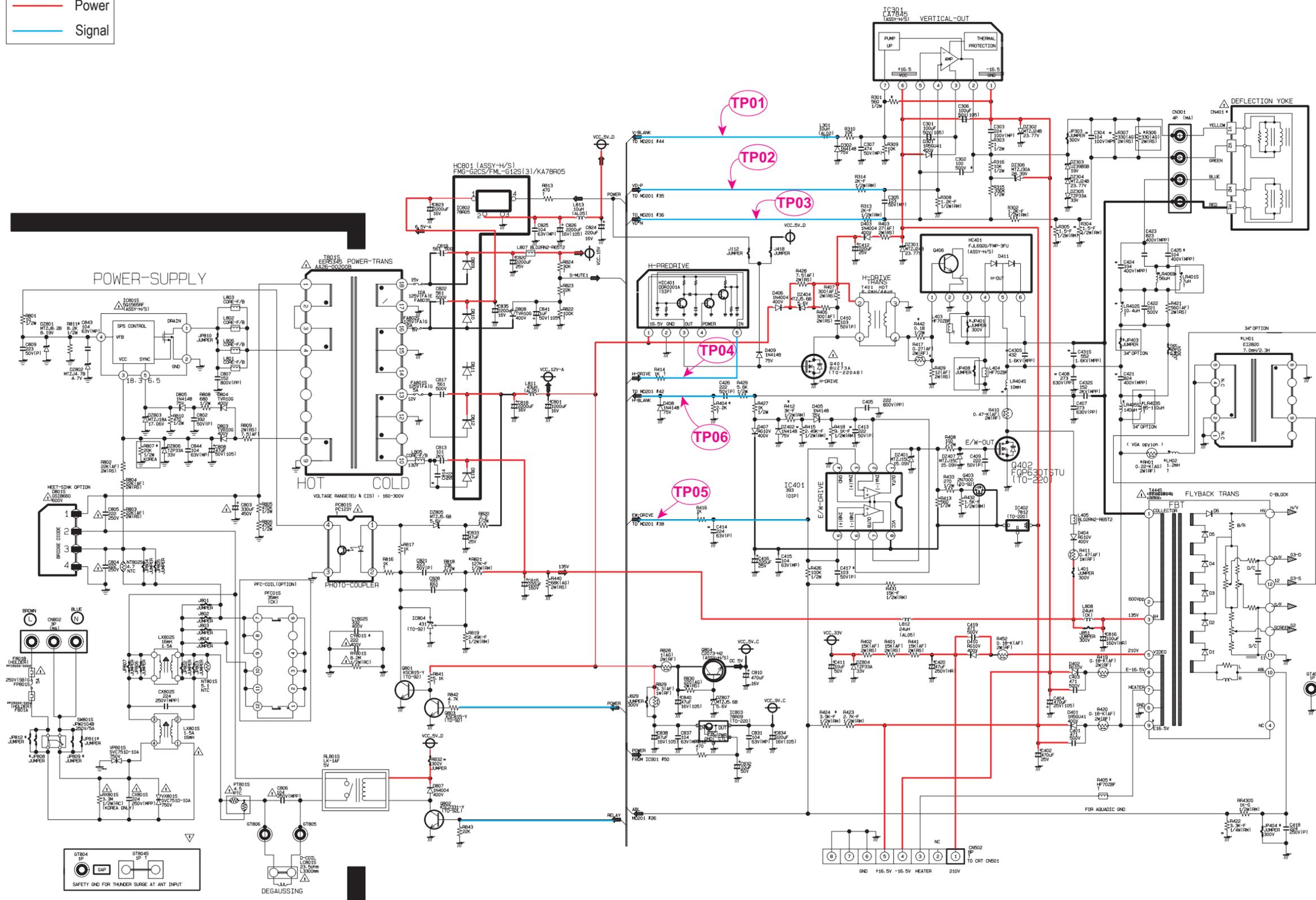
# 10-2 MICOM

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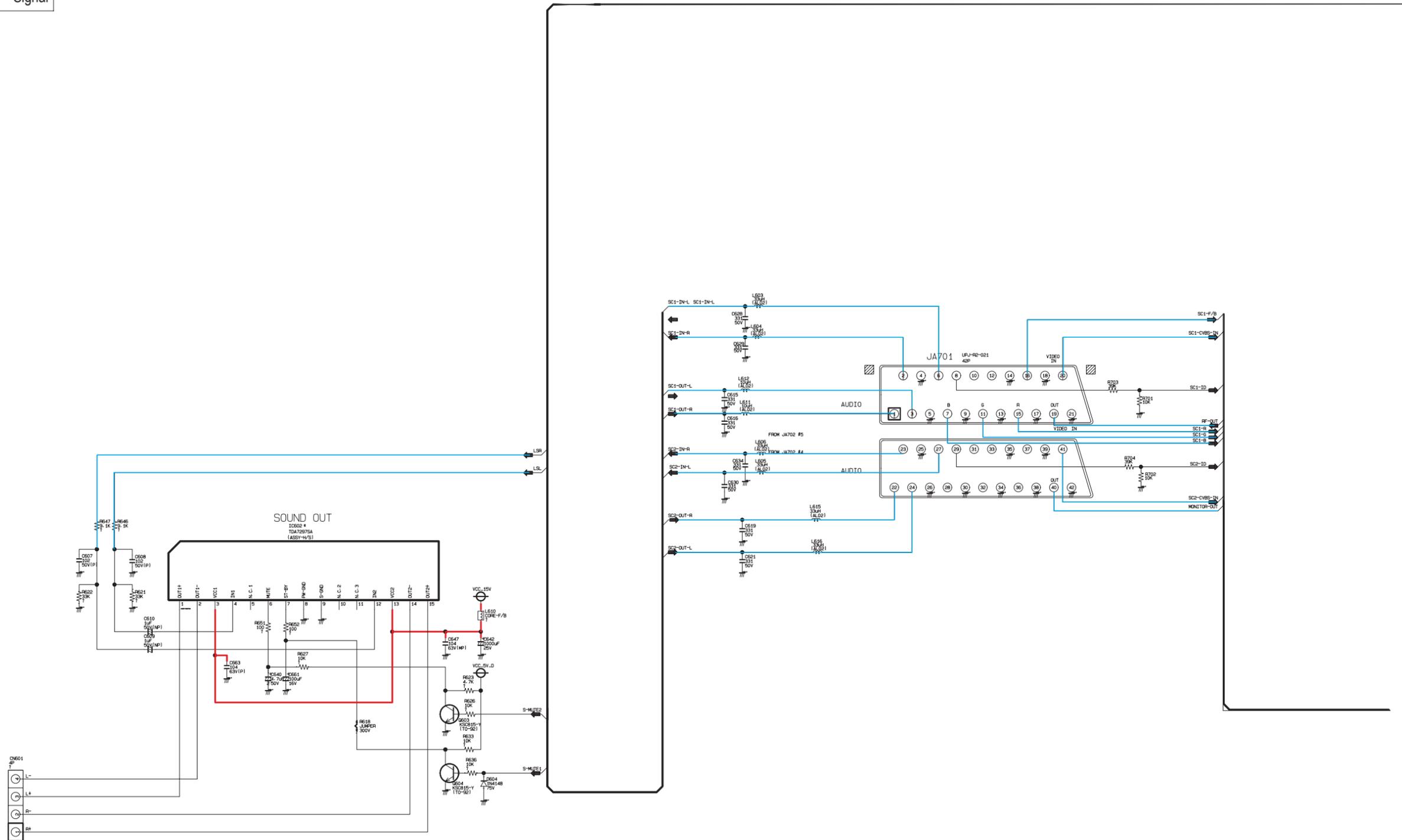
# 10-3 Power & Deflection

This Document can not be used without Samsung's authorization.



### 10-4 Sound & Scart

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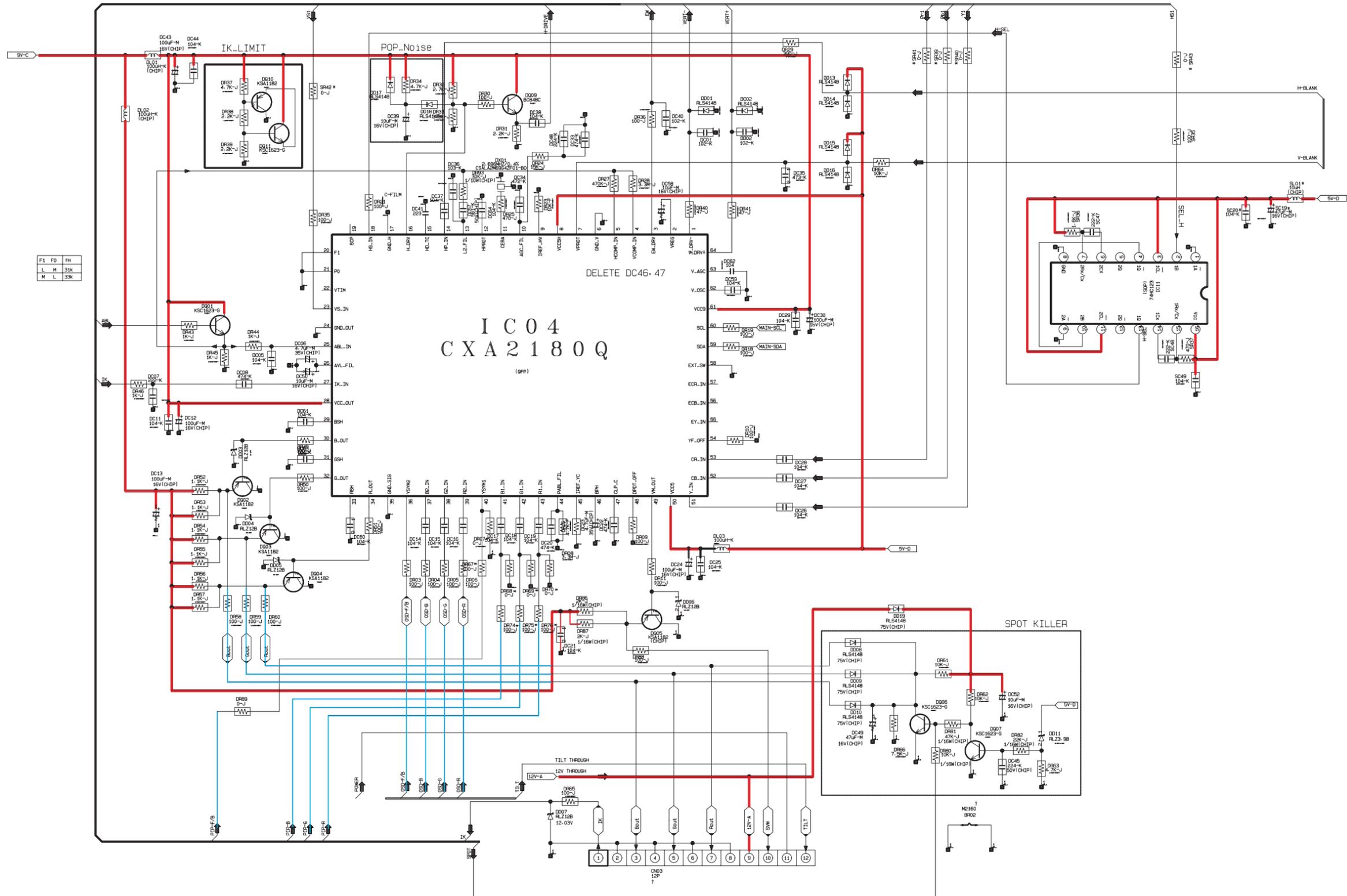






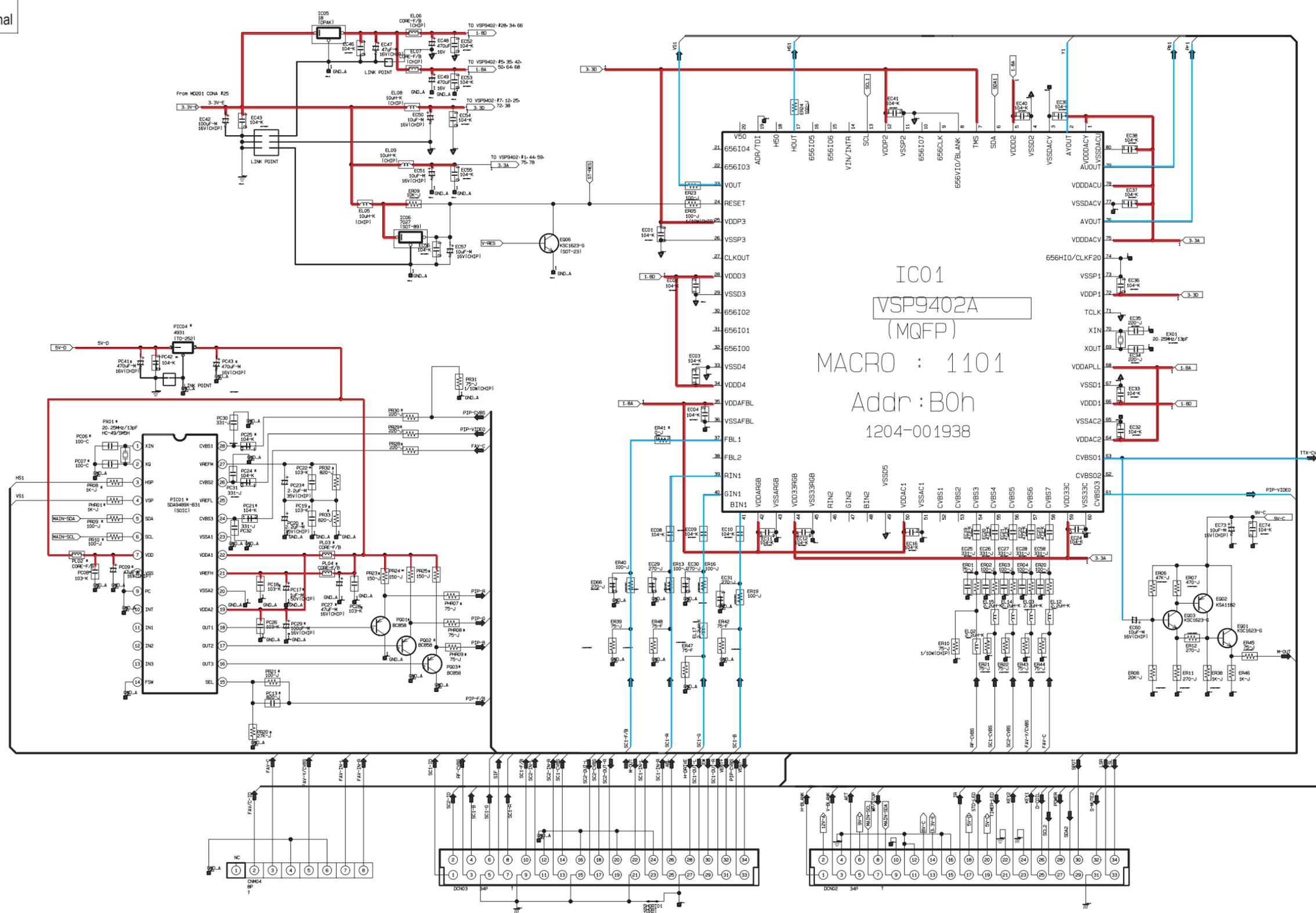
### 10-7 Video processor

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# 10-8 Video SW & AD

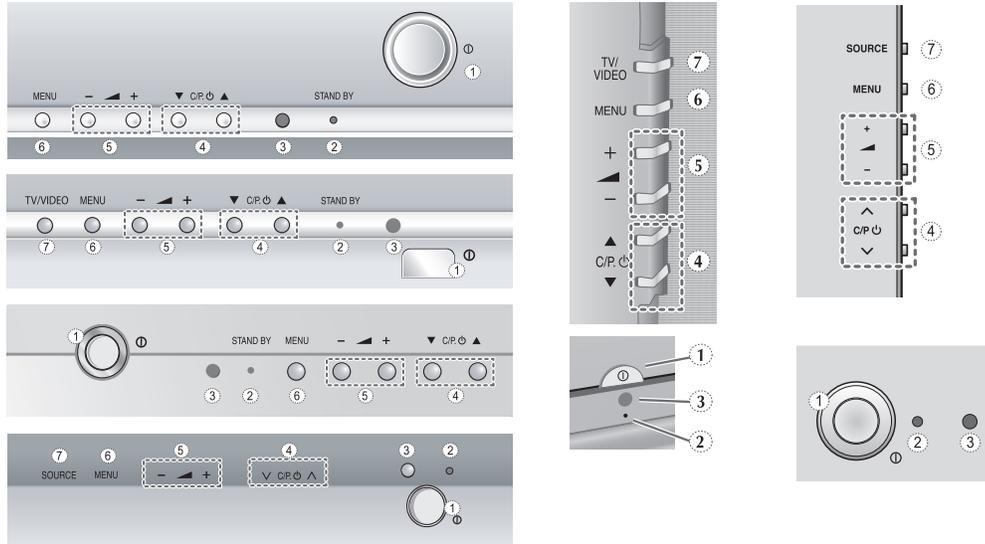
This Document can not be used without Samsung's authorization.



# 11. Operation Instruction & Installation

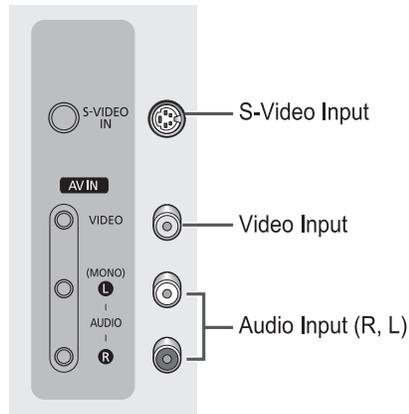
## 11-1 Product Features and Functions

### 11-1-1 Control Panels

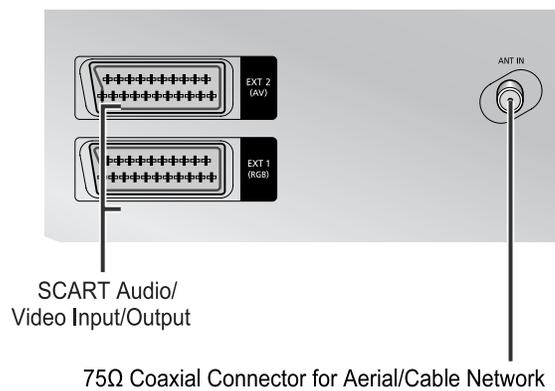


- |                          |                           |
|--------------------------|---------------------------|
| 1) Power On/Off          | 5) Volume Adjustment      |
| 2) Standby Indicator     | 6) Menu Display           |
| 3) Remote Control Sensor | 7) Input source selection |
| 4) Channel Selection     |                           |

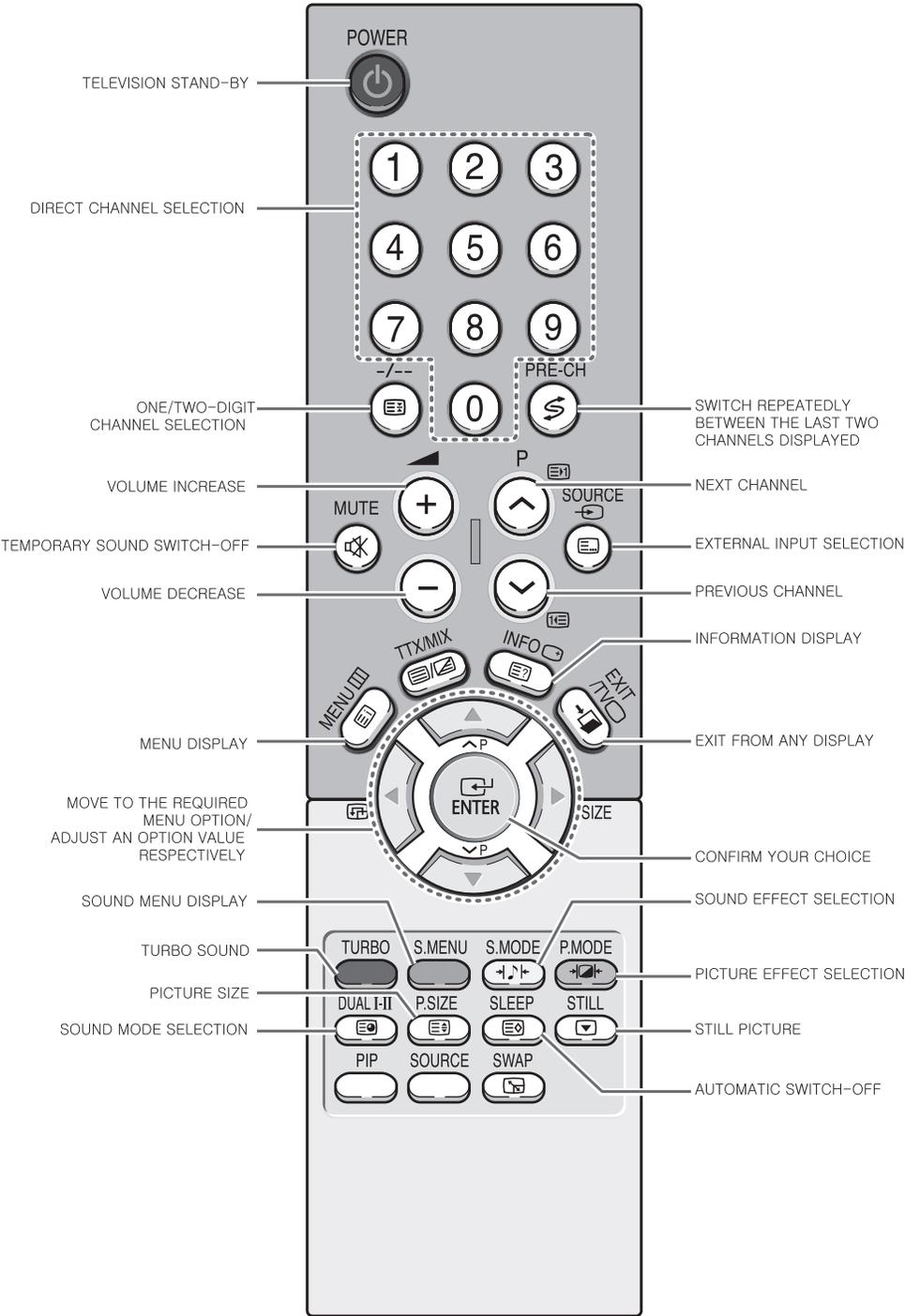
### 11-1-2 Side Panel Jacks

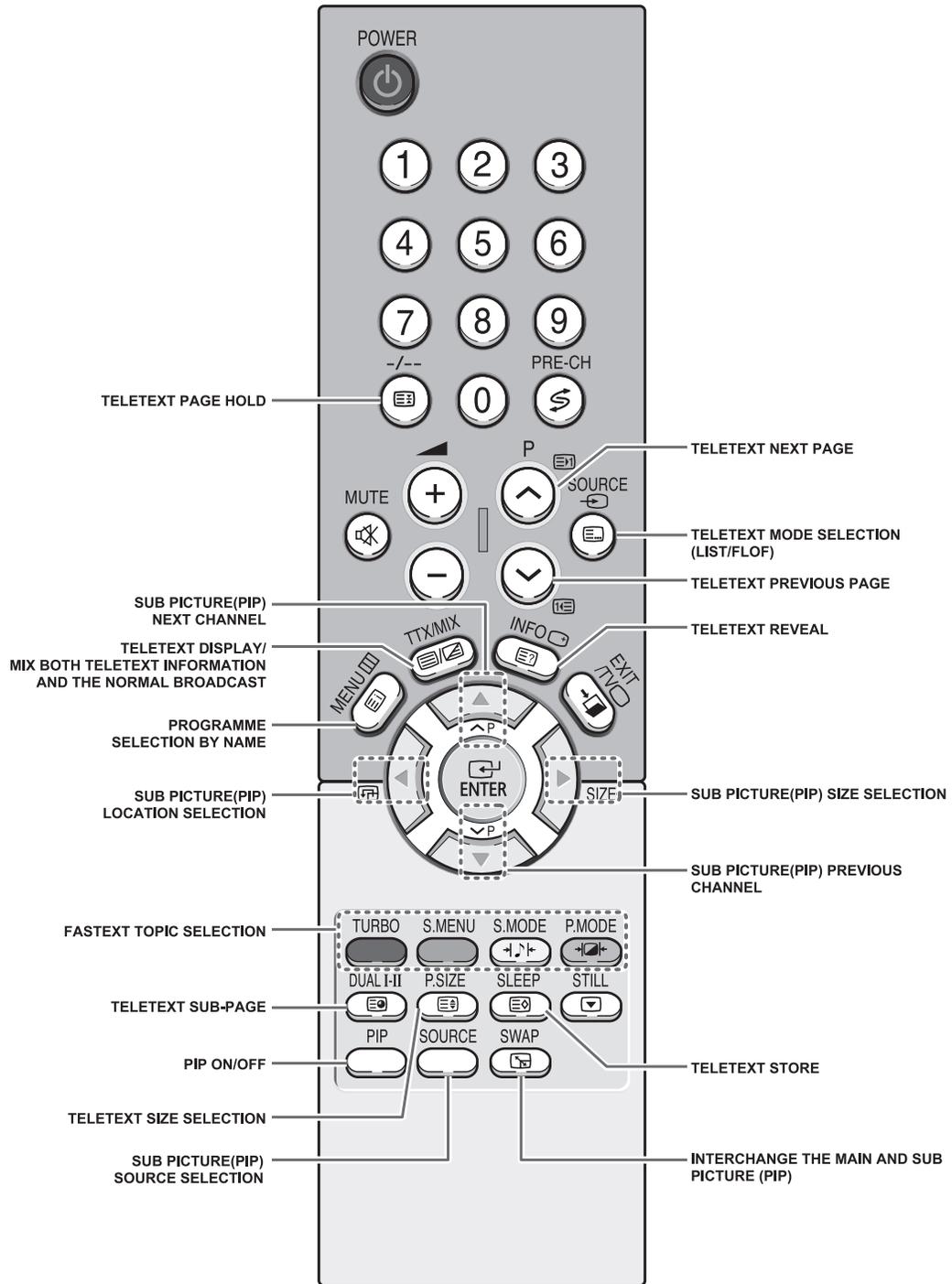


### 11-1-3 Connection Jacks (Rear)



### 11-1-4 Remote Control

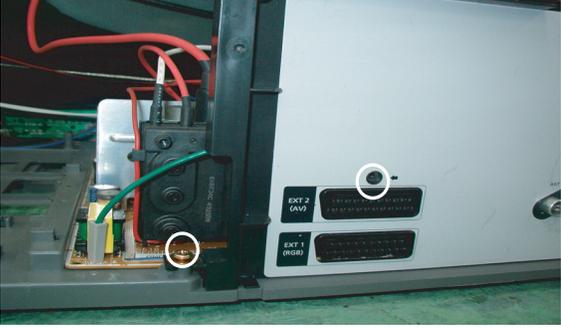




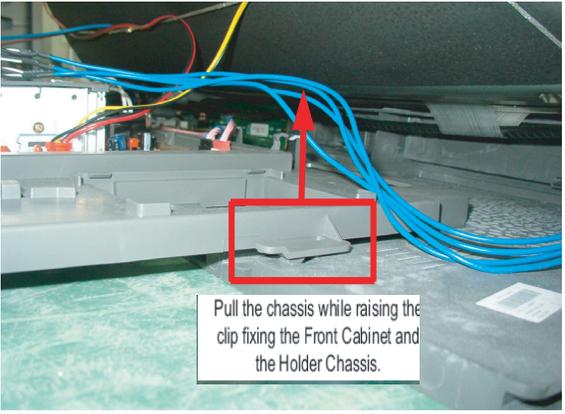
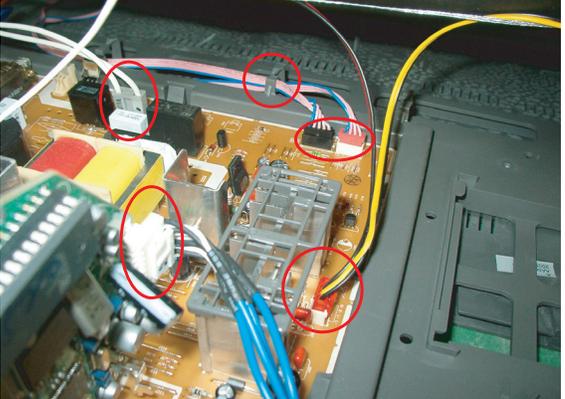
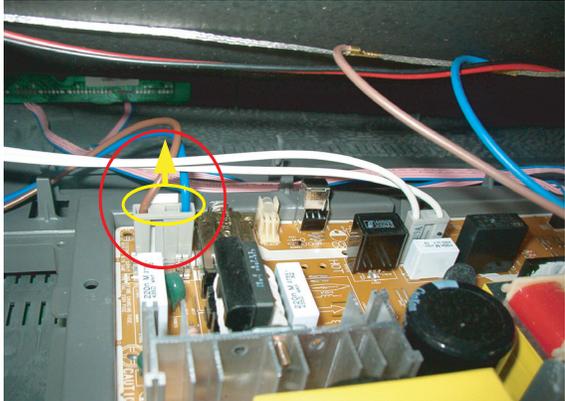
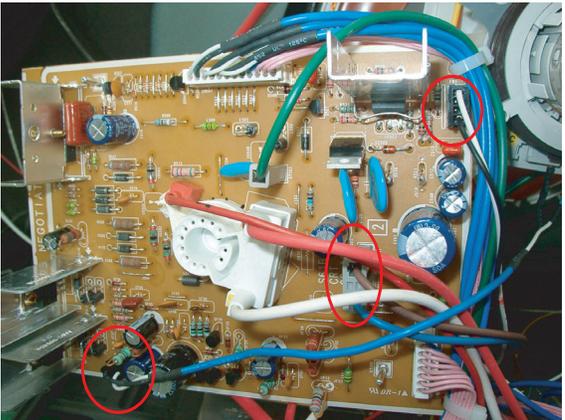
## 12. Disassembly & Reassembly

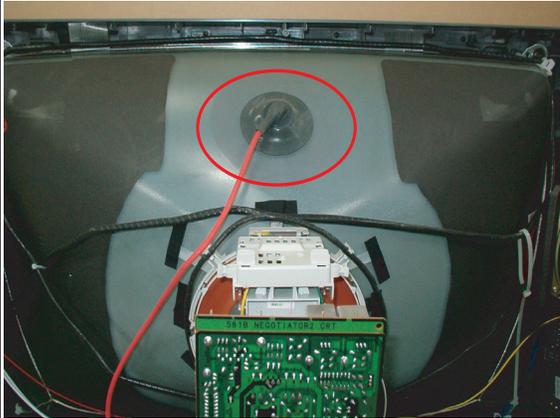
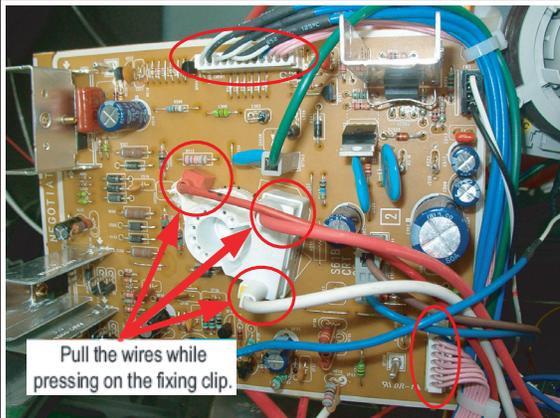
### 12-1 Overhaul Disassembly & Reassembly

#### 12-1-1 Disassembling the Cabinet

Part Name	Description	Description Photo
Back Cover	<p>① Remove the 9 screws fixing the Back Cover. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A</p> <p>② Tap the upper part of the Back Cover 2 or 3 times and pull the Back Cover to separate it from the unit.</p> <p>Notice: Disassemble the product after disconnecting the power cord and discharge the unit to prevent an electric shock and damage to the product due to static electricity.</p>	
Terminal Board	<p>① Remove the 2 screws fixing the Terminal Board and the Jacks. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A</p> <p>② Lift the fixing holder up at  and pull the Terminal Board to separate it from the unit.</p>	

### 12-1-2 Disassembling the CRT and Chassis

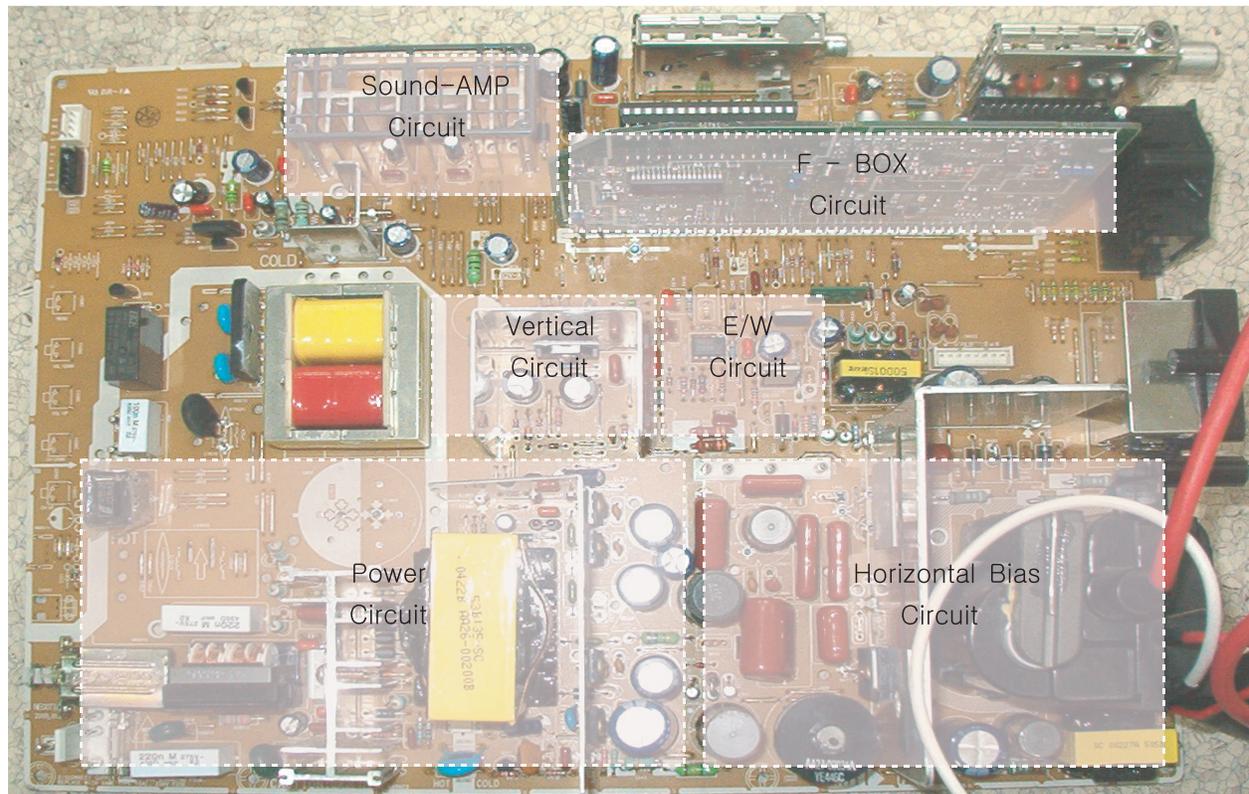
Part Name	Description	Description Photo
Chassis Holder	<p>① Separate the Ass'y Holder chassis from the Front Cabinet.</p> <p>② Pull the Chassis Holder lifting the fixing clip up.</p> <p>Notice: Pulling the Chassis Holder by force may damage the clip or the connector. Pull the Chassis Holder just until the clip comes off the hole.</p>	
	<p>① Separate the Speakers, the Side AV Wire, the Control from the Front Cabinet</p> <p>② Separate the wire from the Wire fixing holder at ○.</p> <p>Notice: Since there is a clip to connect the Connector Header in the Wire Connector, pulling it by force may damage the clip or the connector. Press the clip down completely and pull the connector.</p>	
	<p>① Separate power cable from the Front Cabinet and Power Board.</p> <p>② To separate the power cord, slide the fixing clip and lift the cable up.</p>	
	<p>① Separate the CRT Ass'y from the CRT</p> <p>② Separate the TBC wire, GND, VM and Tilt cables from the CRT Ass'y sequentially</p>	

Part Name	Description	Description Photo
Chassis Holder	<p>① Separate the cables connecting the FBT and the CRT.</p> <p>Notice: Since there may be a remaining high-voltage current in the CRT, take care not to touch the CRT hole with metal or a part of yourself when separating the cables.</p>	
CRT Ass'y	<p>① Separate the cables from the F-box Board and CRT Ass'y.</p>	

# MEMO

## 13. Circuit Description

### 13-1 Overall Block Description



#### ■ Circuit Constitution.

##### 1. Horizontal Bias Part

- Controls the high voltage generation and horizontal bias.. FBT, HDT, CT condenser etc.

##### 2. Vertical Bias Circuit

- While mostly controlling the vertical bias.LA7845,etc.

##### 3. E/W (East / West) Correction Circuit.

- A circuit for correcting the spool shape which appears on the left and right part of a picture.

This is caused by the difference between the distances from the center of a picture to each corner.

KA393, FQP630 etc. (Adopt PWM circuit)



## 13-2 IC Line up

Block	Item			
	NAME	FUNCTION	MAKER	BOARD
F-BOX	VSP9412	DEC, SRC	MICRONAS	F- box
	CXA2180	MATRIX, DEFLECTION	SONY	
	SDA9489X	PIP	MICRONAS	
	74HC123D	Logic		
	SDA55XX	ROM Version	MICRONAS	
	SDA5550M	ROM LESS	MICRONAS	
	M27W201-80F6	EPROM 256K	STM	
	K6R4008C	SRAM 512K	SEC	
	SOUND	STV8237	MULTI SOUND PROCESSOR	
TDA7297		Main BTL	THOMSON	
Tuner	CW SPT MAIN	TMQZ2-402A	ALPS	
	CS LNA MAIN	TMQZ6-405A	ALPS	
	CW SUB	TMQZ2-408A	ALPS	
	CS SUB	TMQZ6-404A	ALPS	
	CW MAIN	TMQZ2-407A	ALPS	
	CS MAIN	TMQZ6-406A	ALPS	
CRT DRIVE	TDA6109	R.G.B DRIVE	PHILIPS	CRT DRIVE

# MEMO

## 14. Reference Information

### 14-1 Other issues related to other products

Problem	Descriptions
A fixed screen can cause permanent damage to the TV Braun tube.	Braun, PDP and LCD TVs can all be damaged. When a still image is displayed in a sequence, this can leave stains or after-images due to the characteristics of the panel. However, the DLP TV has the advantage that no stains or after-images are left on the screen. The DLP TV has mirror pixels on the DMD panel that project the beam onto the screen, in which the mirror is a digital representation of 0s and 1s, leaving no trace of light. The mirror returns to a blank state so that no stains or after-images are left.
When a digitally distributed TV user receives HD-rated broadcasts:	The digital distributed TV (Ready Technique) can render HD sources as HD-rated. However, you need to install a set-top box for this purpose. The digital TV alone cannot render HD broadcasting as HD-rated. Install the formal set-top box for HD broadcasts.
When a digital distributed TV user selects normal size (4:3) to receive SD-rated digital broadcasts:	The digitally distributed TV (Ready Technique) renders any broadcasting service as SD-rated. However, when connected to a set-top box, the digital TV renders HD broadcasts as HD-rated and renders SD as SD-rated. The screen size is scaled to 4:3.

## 14-2 Technical Terms

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### **Mono**

A type of audio interface that transmits audio signals through a single channel.

Through a mono interface, it is hard to experience stereophonic sound and sound is played only by one speaker.

### **Stereo**

A type of audio interface that transmits audio signals through 2 channels.

Stereo transmits audio signals for the right and left channels so that you can experience stereophonic sound, and the sound is played with 2 speakers.

### **Analog Broadcast**

Analog Broadcast is a television broadcasting signal transmitted according to the NTSC standard.

### **ANTENNA IN Port**

A port to connect the TV aerial using a coaxial cable. It is generally used to watch public broadcast programs.

### **English Caption**

A function that shows English caption or text information included in the broadcasting signal or video tape. You can use this function to study English by watching AFKN or CC marked video tapes.

### **Video/Audio Ports**

You may experience poor visual and audio quality when watching a video tape on channel 3 or 4 through the antenna cable.

You can experience better visual and audio quality connecting the TV and VCR through the Video/Audio ports. The video port is distinguished by the color yellow, and the audio ports are distinguished by the white (left) and red colors (right).

### **External Input**

External Input is connecting video devices such as a VCR, camcorder, DTV receiver, DVD, etc. as a video source.

### **Satellite Broadcast**

Satellite Broadcast transmits programs via satellite so that the broadcast is viable in all areas at a high visual and sound quality. It provides approximately 100 channels including public broadcast channels. To view satellite broadcast, you have to install an additional receiver.

### **Wired Broadcast**

Satellite Broadcast refers to movie, entertainment and educational programs transmitted by the broadcasting station in a hotel or school.

### **Audio Multimix**

Audio Multimix provides 2 languages for audio when broadcasting a foreign movie, drama, news, etc. You can select and listen to one of the supported languages or you can select and listen to both languages simultaneously.

### **Component Port (Green, Blue, Red)**

The Component Port separately transmits the luminance signal and provides the best quality of all video connection types.

### **Cable Broadcast**

Cable Broadcast transmits programs via cable instead of radio wave. To view a cable broadcast, you need to subscribe to your local cable broadcast service provider and install an additional receiver.

### **Tuner**

A device that enables selecting a specific frequency for a channel on a TV or radio.

### **DVD (Digital Versatile Disc)**

DVD is a large capacity media that can save multimedia content such as video, game, audio applications, etc. using MPEG-2 video compression technology on a CD-sized disc.

### **S-VIDEO IN Port**

This is called super video. S-Video is a type of video signal which has the video luminance and color signals separated in order to provide a better visual quality.

### **VHF/UHF**

VHF refers to TV channels 2 to 13, and UHF refers to TV channels 14 to 69.