Service Adjustments

MAIN CHASSIS ADJUSTMENT

PIF Adjustment (38.9M Figure 1)

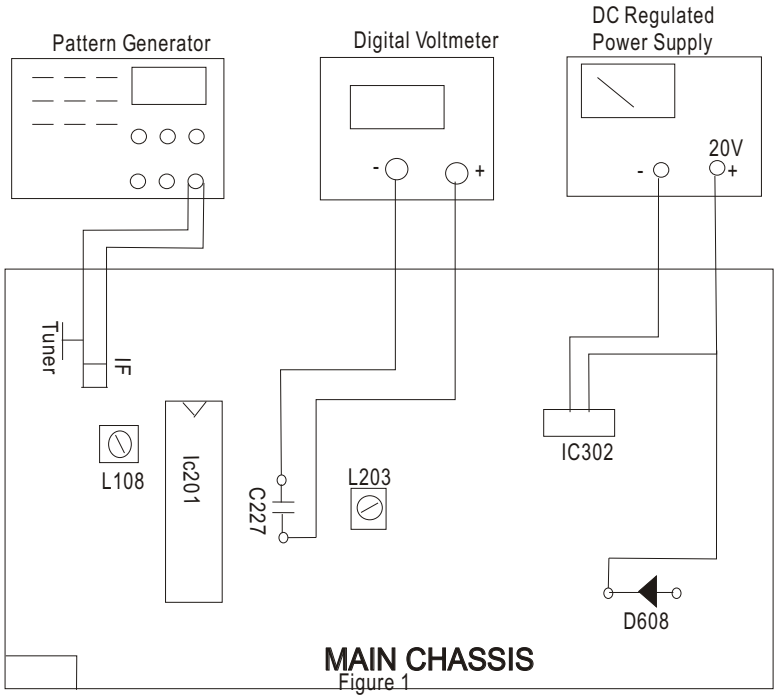


Figure 1

(1) Tuner AGC terminal connects to GND. Pattern Generator(set signal generator RFoutput level to 100dBu. If it can not obtain 100dBuv, set level to MAX) outputs 38.9MHz R.F.signal and connects to tuner IF output terminal or pin5 of saw filter.

(2) Connelct Digita voltmeter across C227. DC Regulated power supply positive terminal output +20V to pin1 of IC302 and negative trminal of D608. DC regulated power supply negative

System NTSC Adjustment (L108 Figure 2)

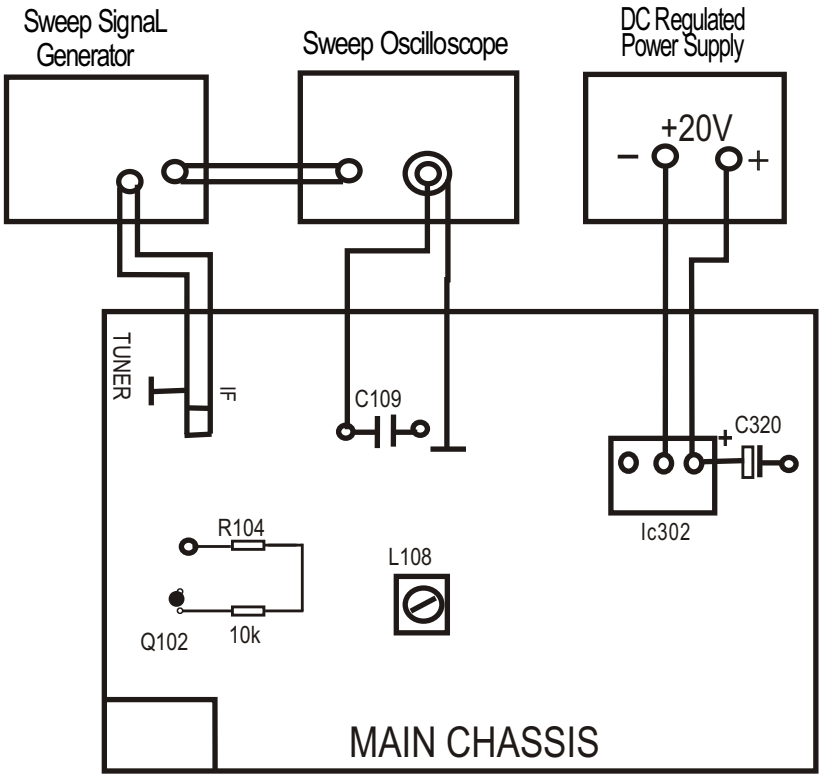
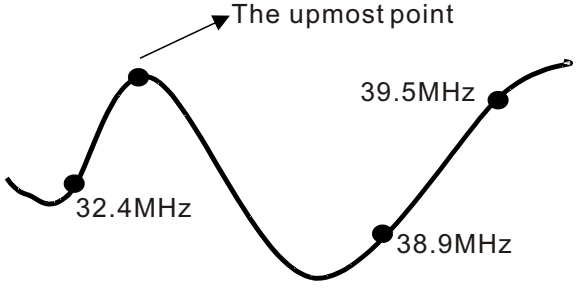


Figure 2

(1) Tuner AGC terminal connects to GND. Connect Sweep signal generator(set Sweep signal generator output level to 100dBuv. If it can not obtain 100dBuv,set Level to MAX.) to tuner IF output terminal.Sweep oscilloscope V-IN terminal connects to C109. And connect Q102 B pole to the power terminal of R104 thr-Ough a 10K resistor.(shown in figure2)

(2) Apply +20V DC across IC302, viz C320 Positive terminal as shown in figure2.

(3) Adjust L108 to obtain waveform as



Service Adjustments

MAIN CHASSIS ADJUSTMENT

B+ Adjustment (VR601)

(1) Disconnect horizontal load.Connect a light bulb(100W) AC250V across C321).
(2) Connect 220V AC 50/60Hz to CN601 and switch on power switch.
(3) Test the voltage with digital meter between C321 two terminals.
(4) Adjust VR601 to obtain +110V+/-0.5V.

FACTORY MODE ADJUSTMENT

(1) Press MENU key twin, till the PICTURE MENU appears, then press Q.VIEW key. MUTE key to turn on CPU. TV SET will go to factory mode. Press TIMER key TO go to the next Factory menu. Go to MENU3 status by this means.
(2) Press MENU key to exit factory mode.

AGC Adjustment

(1) Receive 60dB +/-2dB therefore signal. Connect Digital voltmeter positive terminal to AGC terminal of Tuner and negative terminal to GND.
(2) Go to MENU3 status accorging to FACTORY MODE ADJUSTMENT.
(2) Select RF.AGC by pressing CH+ or PROG+ keys. Adjust VOL+ and VOL- keys to obtain 4V Digital vol-Tage meter reading.
(3) Press MENU key to exit factory mode.

COMPLETE SET GENERAL ADJUSTMENT

FOCUS Adjustment

(1) Receive monoscope pattern.
(2) Set TV to work in dynamic status.
(3) Adjust the focus knob of FBT to get the clearest picture.

Screen Voltag Adjustment

(1) Go to factory mode MENU2 status according to AGC adjustment (2).
(2) Select V-KILL by prssing CH+ or PROG+ and CH- or PROG- KEYS.
(3) Press VOL+ key all the time, adjust the screen of FBT to get a horizontal faintness beam line. Then Loose VOL+

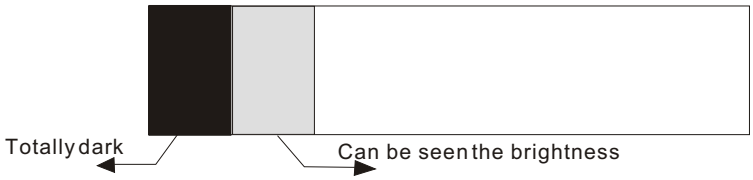
White Balance Adjustment(Applied when servicing)

(1) Set the TV set to AV mode. Receive black white pattern(color temperature test pattern).
(2) Put the test probe 1 of CRT color analyzer (CA-100) on the low bright area and the test probe 2 on the high bright area. Adjust bright and contrast to get 5nit of low bright area and 80nit of high bright area.
(3) Go to factory mode MENU2 according to AGC adjustment (2). Obtain low bright area to X=281 and Y=311 by adjusting R.bias and B.bias. Obtain both area to X=? and Y=? by adjusting the two status repeatedly.
Note: the values of X & Y may be changed by the favour 0f customers.

Service Adjustments

Sub-bright Adjustment

(1) Receive GREY SCALE signal.
(2) Set TV normal mode.
(3) Go to factory mode ,adjust sub-bright option to make the picture same as below.



Vertical size and pincushion adjustment

(1) Receive monoscope pattern. Set TV standard status. Adjust V.size to obtain picture vertical redisplay ratio more than 90% in factory mode MENU1.
(2) Receive cross hatch pattern. Set TV standard status. Adjust V.LINE and V.SC to obtain picture vertical pin cushion a good status in factory mode MENU1.
(3) Receive cross hatch pattern. Set Tv standard status. In factory mode MENU1 adjust V.POSITION to obtain picture vertical center of CRT screen.

Horizontal Center adjustment

Receive PHILIPS pattern. Set TV standard status. Adjust H.PHASE to obtain horizontal center at the center of of CRT screen.

Secam color decoder alignment

Receive the GREY SCALE/COLOR BAR signal. Enter into the factory mode. Adjust the valuse of secam R-Y DC and Secam B-Y DC to make the gray scale to the normal color.

Pure flat tube alignment

Horizontal size and pincushion distortion must be adjusted in pure flat tube as following:
1. Receive mono scope pattern;Adjust VR902 untill redisplay ratio is correct.
2.Receive cross hatch pattern signal;Adjust Vr901 untill the erect klines of the CRT two sides are most straight.

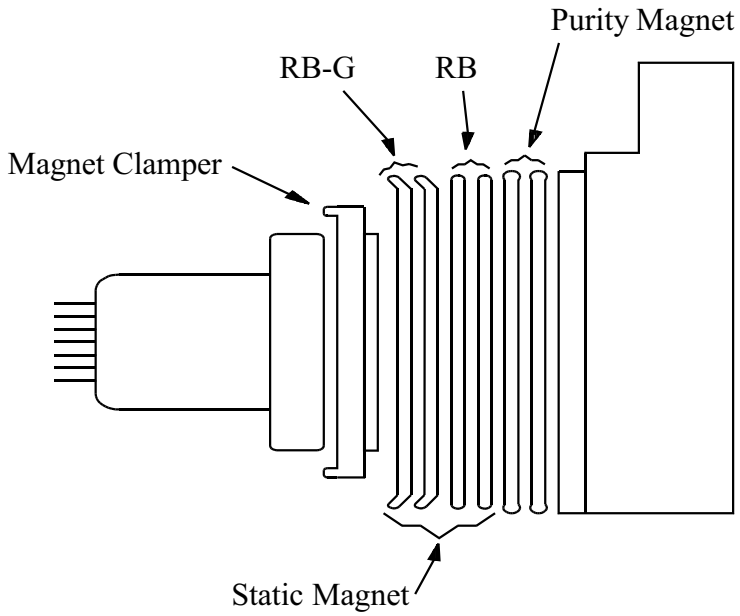
Purity and Convergence Adjustment

COLOR PURITY ADJUSTMENT

(1) Before color purity adjustment,warm up the TV set over 15 minutes and fully degauss.
(2) Receive pure white signal in AV status and set the TV receiver dynamic.
(3) Go to factory mod MENU2. After write down the values of R-BIAS and B-BIAS, set the values of R-BIAS and B-BIAS zero.
(4) Loosen the clamp screw of the deflection yoke and pull the deflection yoke towards color purity Magnetic loop.
(5) Adjust color purity magnetic loop to make the green area at the center of CRT screen.
(6) Slowly push the deflection yoke toward the front of CRT and set it where a uniform green field is obtained. Tighten the clamp screw of the deflection yoke.
(7) Restore the values of R-BIAS,G-BIAS AND B-BIAS.

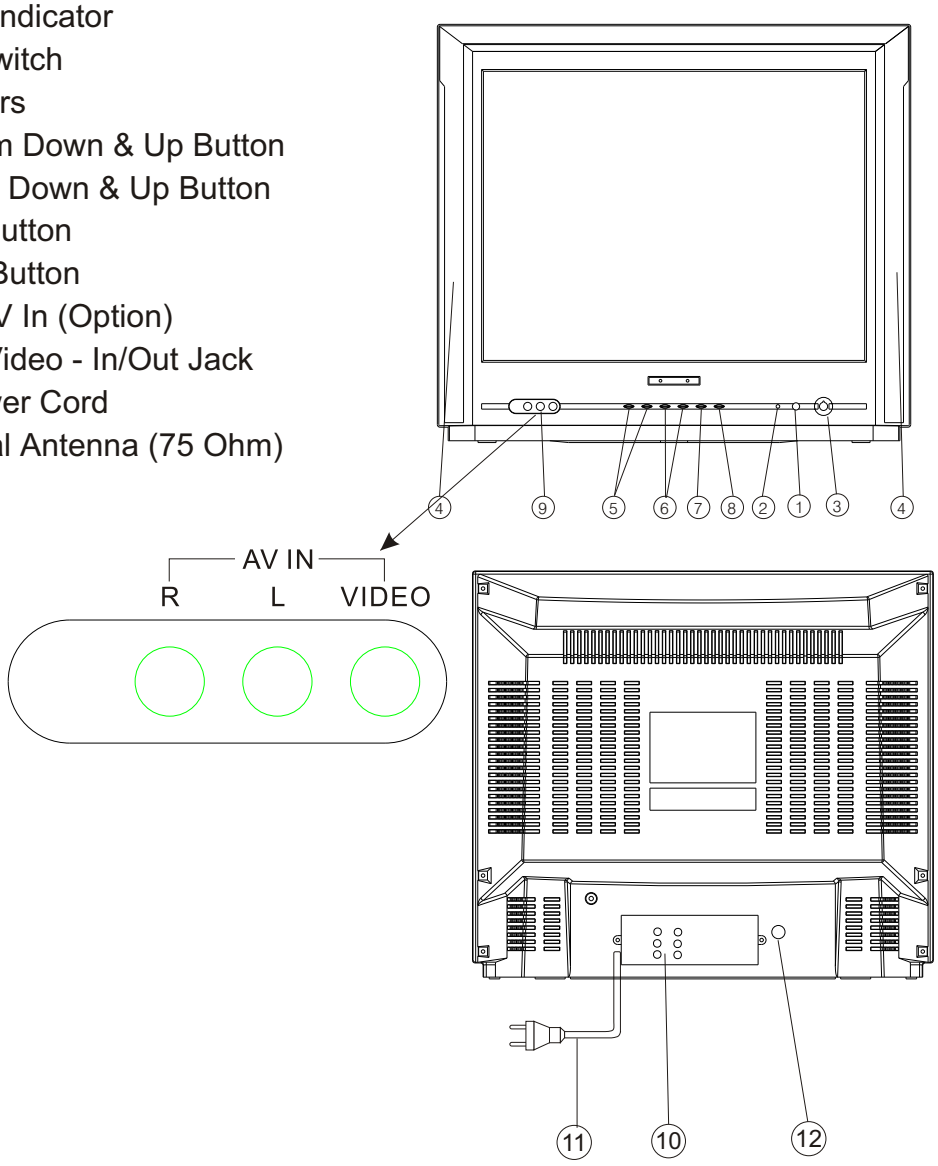
CONVERGENCE ADJUSTMENT

(1) Receive a dotted pattern. Set the TV receiver dynamic.
(2) Loose the convergence magnet clamperrrrr and align red with blu dots at the center of the screen by rotating(R,B) static convergence magnets.
(3) Align Red/Blue with green dots at the center of the screen by rotating(RB-G) static convergence magnet.
(4) Remove the DY wedges and slightly tilt the deflection yoke horizontally and vertically to obtain the good overall convergnce. Fix them after the goob overall convergence got.
(5) Fix purity error is found,follow PURITY ADJUSTMENT instructions.



Control Location

1. Remote Sensor
2. Power Indicator
3. Main Switch
4. Speakers
5. Program Down & Up Button
6. Volume Down & Up Button
7. Menu Button
8. AV/TV Button
9. Front AV In (Option)
10. Audio/Video - In/Out Jack
11. AC Power Cord
12. Terminal Antenna (75 Ohm)

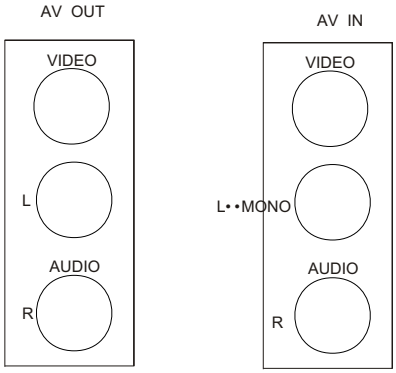


Input and Output Terminals

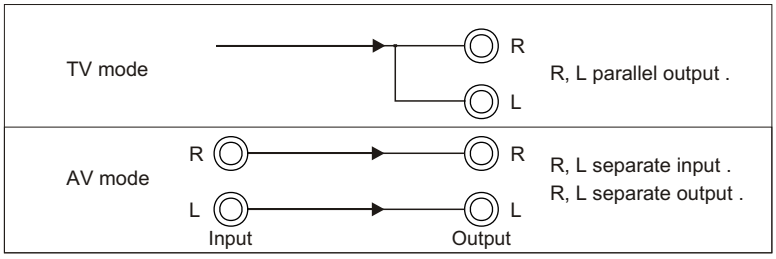
VIDEO AND AUDIO INPUT/OUTPUT TERMINALS

1. Video / Audio input for playback for VCR.
2. Video / Audio monitor output .

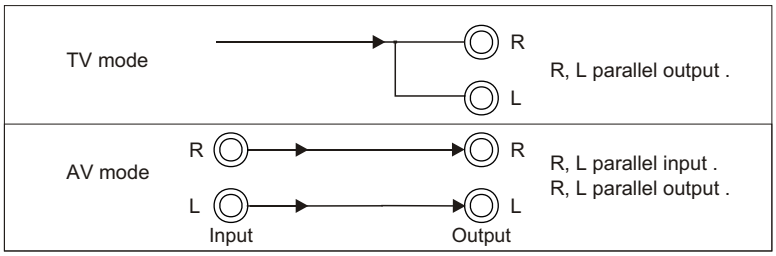
*Please keep AC cord unplugged when connecting TV system.



** AV stereo model (option)



** Mono model



**CAUTION:Do not connect and turn on both the devices which are connected to side AV in and rear AV in at the same time ,otherwise ,a distorted and interference picture will occur.

For the Mono model, during the TV reception, or AV mode connected the audio input at R, L , R&L, the speaker will output only the mono sound. And at the AV-R, L output also mono sound output only.

Operation Instructions

WARNING: The Main Power Switch (No.6 of the Control Location page) is the Manually Operated Mechanical Switch (MOMS). It is requested to Manually to turn On and Off the Main power. The Remote control can not cut off main voltage at the TV set. For safety purpose, turn off the Main Switch manually when long time not use the TV or for the long vacation. Press once will turn on the Main supply of the TV set. The Power indicator (No.6 of the Control Location page) will light up. To make sure the power is turn off, please fully press the Main switch and make sure the power indicator light off.

Turn the TV set on, then power indicator will light up. The picture will appear after a few seconds . (If tuned on) The program number is displayed on the top right-hand corner of the screen.

MENU BUTTON

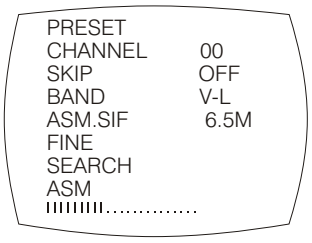
1.Press this button to select menu. PRESET, PICTURE, SYSTEM ,and TIME menu can be selected cyclically.

Preset Menu → Picture Menu → System Menu → Time Menu → Exit Menu

2.After enters each menu, you can select the item which you will adjust by PROG.+/- buttons, and adjust this item by VOL. +/- buttons.

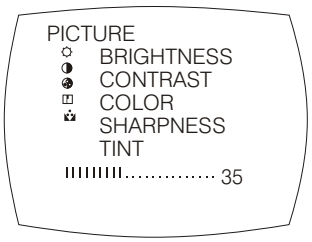
*The item which you select will change blue.

Preset menu



1. CHANNEL
In this item, you can store the channel number which are watching, and change the channel number by VOL.+/- Buttons (or number keys).
2. SKIP
You can set "ON" by VOL.+/- Buttons if you want to cancel the channel number which you are watching.
3. BAND
You can select V-L, V-H or UHF.
4. ASM.SIF
You can select 6.0M, 4.5M, 6.5M or 5.5M.
*4.5M is only a option for some models.
5. FINE
To tune in weak station this item must be used.
6. SEARCH
Press VOL.+/- Buttons to start searching. The VOL- button searches for lower-numbered channels; the VOL+ button for higher-numbered channels. When a TV station signal is received ,the searching will stop.
7. ASM
Press VOL.+/- Buttons, then the TV set will automatically search from V-L band to U band.

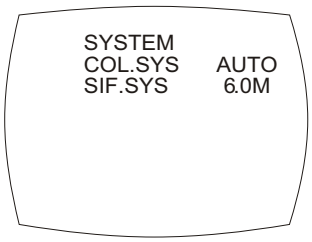
Picture menu



You can select BRIGHTNESS, CONTRAST, COLOR, SHARPNESS, and TINT item by PROG.+/- Buttons , and adjust the item which you select by VOL.+/- Buttons.

Operation Instructions

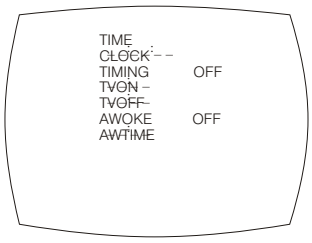
System menu



1. COL.SYS
You can change present color system in this item.
AUTO–PAL–SECAM–NTSC1–NTSC2

**SECAM is only an option for some models.
2. SIF.SYS
You can select 6.0M, 4.5M, 6.5M or 5.5M.
**4.5M is only an option for some models.

Time menu



1. CLOCK
You can adjust the currently time by this item. Press the VOL+button set hour , and the VOL-button set minute .
2. TIMING
If you set the item is TIMING ON , you can set the time of TV ON and TV OFF .
3.TV ON
Set the time when the TV set turn on .
4.TV OFF
Set the time when the TV set turn off .
5.AWOKE
Selecting AWOKE ON , you can set theAWTIME item.
6.AWTIME
Set the awake time that you want . If you set the AWTIME is 12:00, The •• CATCH TIME11:58:00•• will display on the screen for awaking you .It will disappear from the screen until•• CATCH TIME 12:00:00•• .

SELECTING PROGRAM

Use 0-9 digit buttons to call directly on the program number that you want. If you want to select a double digits program number , firstly press "-/--" button, then input the two digits.
Program number can also be changed by "PROGRAM DOWN" and "PROGRAM UP" buttons. Press "PROGRAM UP" button, program number will increase. Press "PROGRAM DOWN" button, program number will decrease.

CHILD LOCKED

The TV set can provide the panel key control locked or prevent your children for watching the TV set.
SET CHILD LOCKED:
Press the "LOCK" button on remote control unit. The key locked (🔑) is displayed on the screen. Then the symbol will disappear after change of the program or released child locked mode. You can not use any panel control key on the TV set while locked .Only the remote control can normal operate the TV set .The "key locked " symbol(🔑)is displayed on the screen when turn off the Main switch and turn on again. It can release the child lock totally by pressing "LOCK"button or press the standby to turn off the TV set and turn on again .The child lock keep locked but you can operate the TV set by remote control .Keep the remote control out of child after locked.
RELEASE CHILD LOCKED:
You can cancel this mode by pressing the 'LOCK" button until the "key symbol"(🔑)disppear from screen .If the symbol displayed on screen then press the LOCK button once will unlock .If the symbol not displayed on screen such as after program changed or standby off and on again .Press the LOCK button twin to unlock.

Mechanical Disassemblies

CABINETBACKREMOVAL

1.Refer to Figure 1,remove7screws.
2.Pulloffcabinet back andremove.

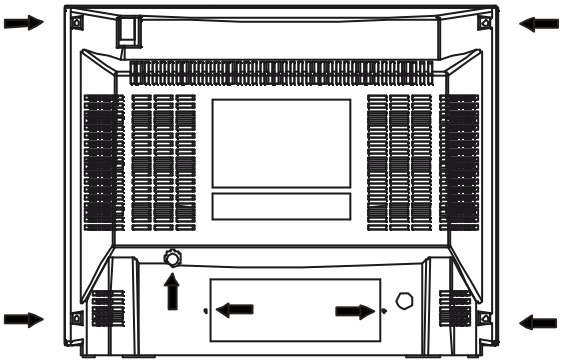


Figure1.CabinetBackRemovel

CHASSISREMOVAL

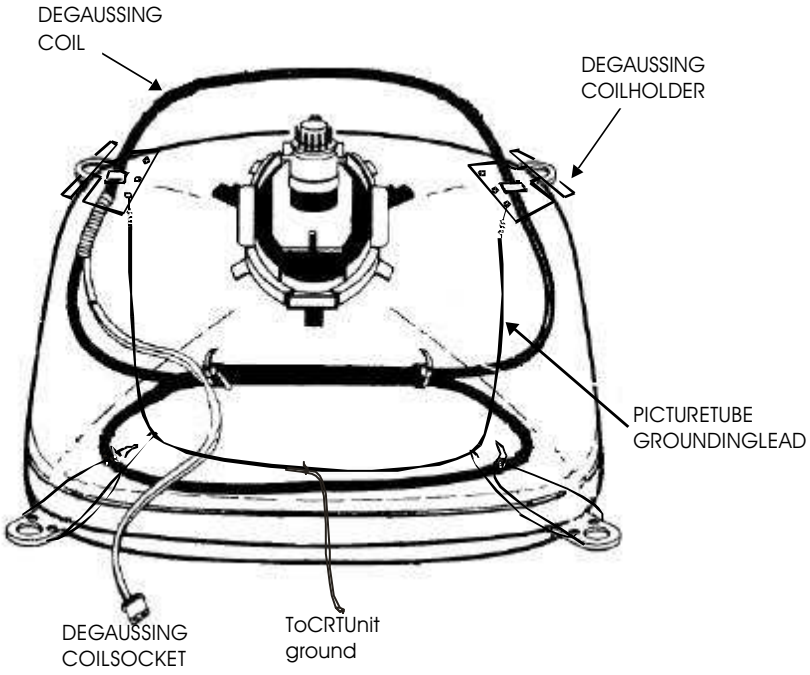
1.Removecabinetback.
2.Dischargethepicturetubeanode(2ndanodelead)tothe dagcoating(picturetubegroundinglead).
3.DisconnectDegaussingcoilsocket(KE),Picturetubesocket, Deflectionyokeconnector(KDY),Speakerconnectors(KL andKR),and2ndanodelead.
4.Removechassiscompletelybyslidingitstraightback.

PICTURE TUBE REMOVAL

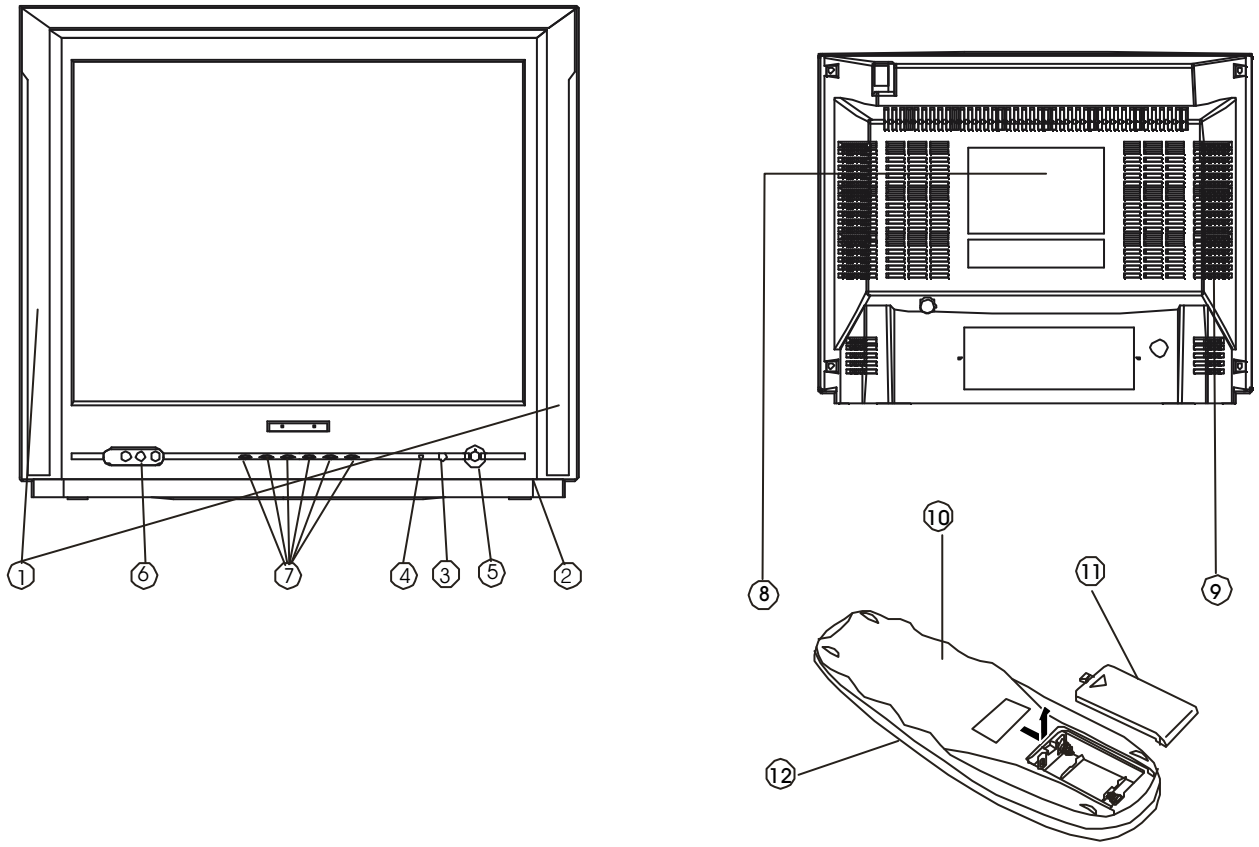
CAUTION: Donotdisturbthedeflectionyoke ormagnetassemblyon the picture tube Neck.Care must be takentokeep these assembliesintact,unless picture tube is beingreplaced.Dischargethepicturetube tothecoatingbeforehandingth e Tube.

1.Removechassis,referringtoChassisRemovalinstructions.
2.Placecabinetfront facedownonthesoftsurface.
3.Removethescrewoneachcornerofthepicturetubeand GENTLYliftthepicturetubeoutofthecabinet.
4.Installareplacementpicture tubeinreverseorder. Properly installthedegaussingcoilandpicturetube groundin g leadonthepicturetube.SeeFigure2.

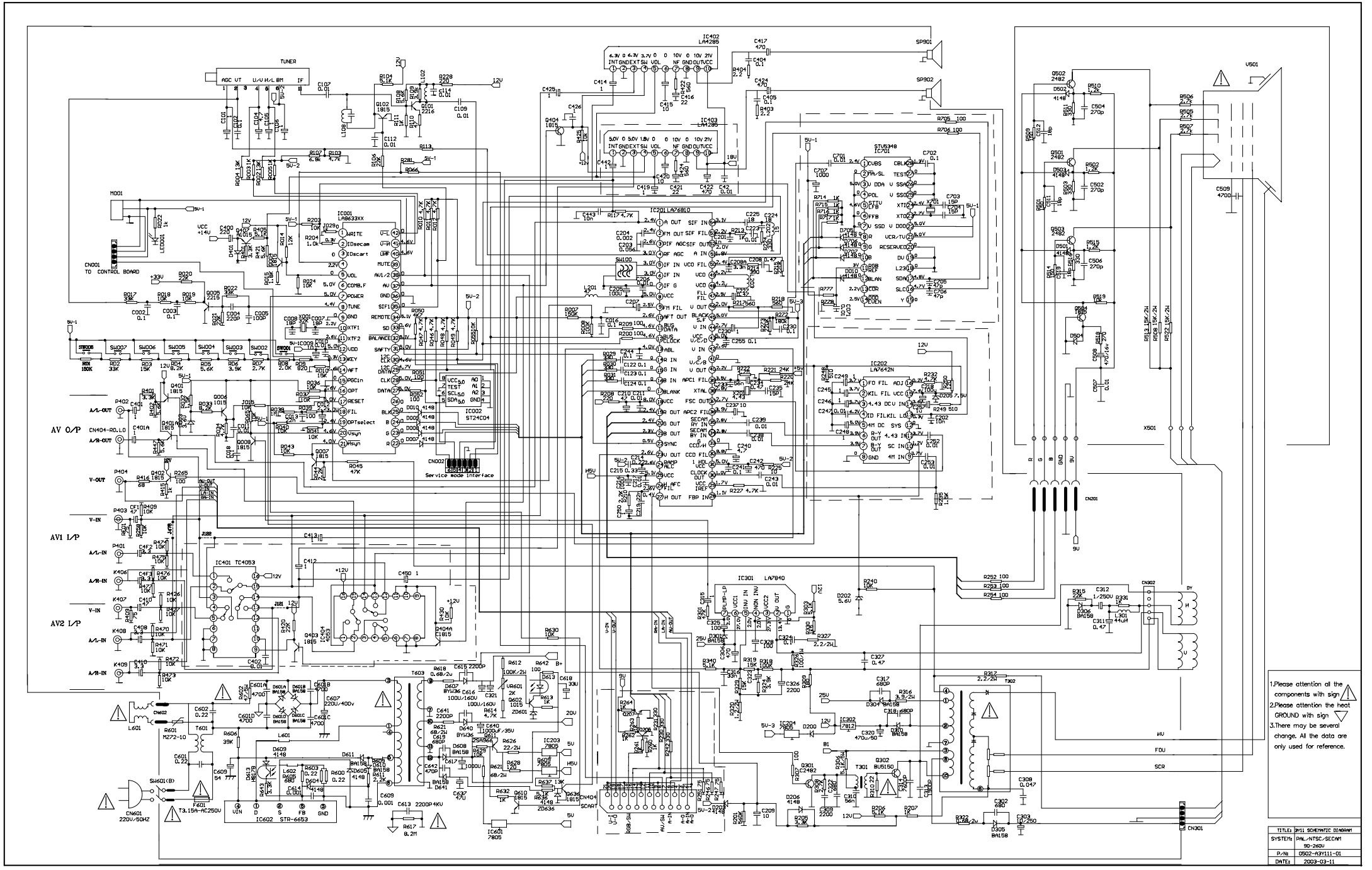
Note:IfthePictureTubeisbeingreplaced,mountthe DegaussingCoil onthepicturetube.Seefollowing..

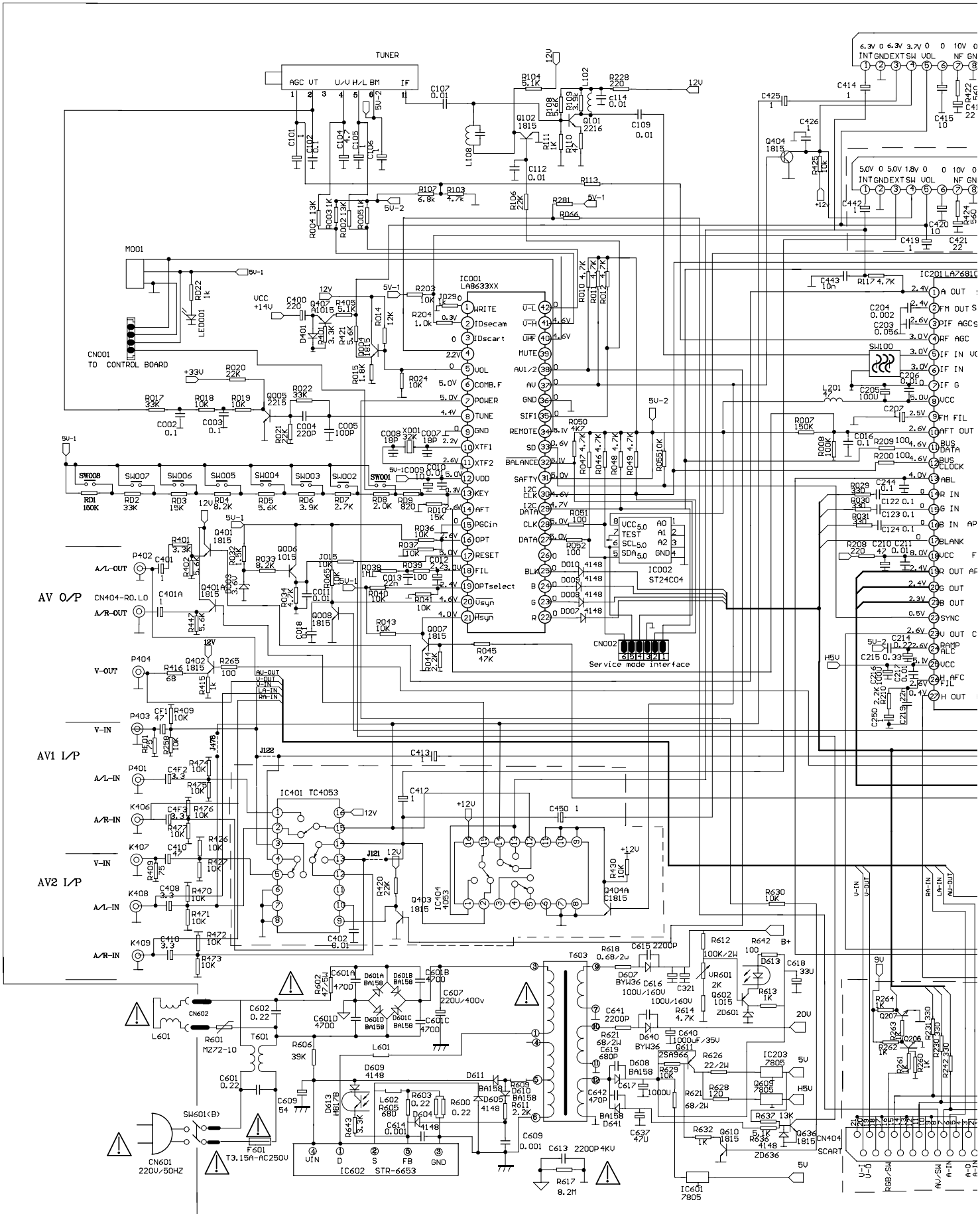


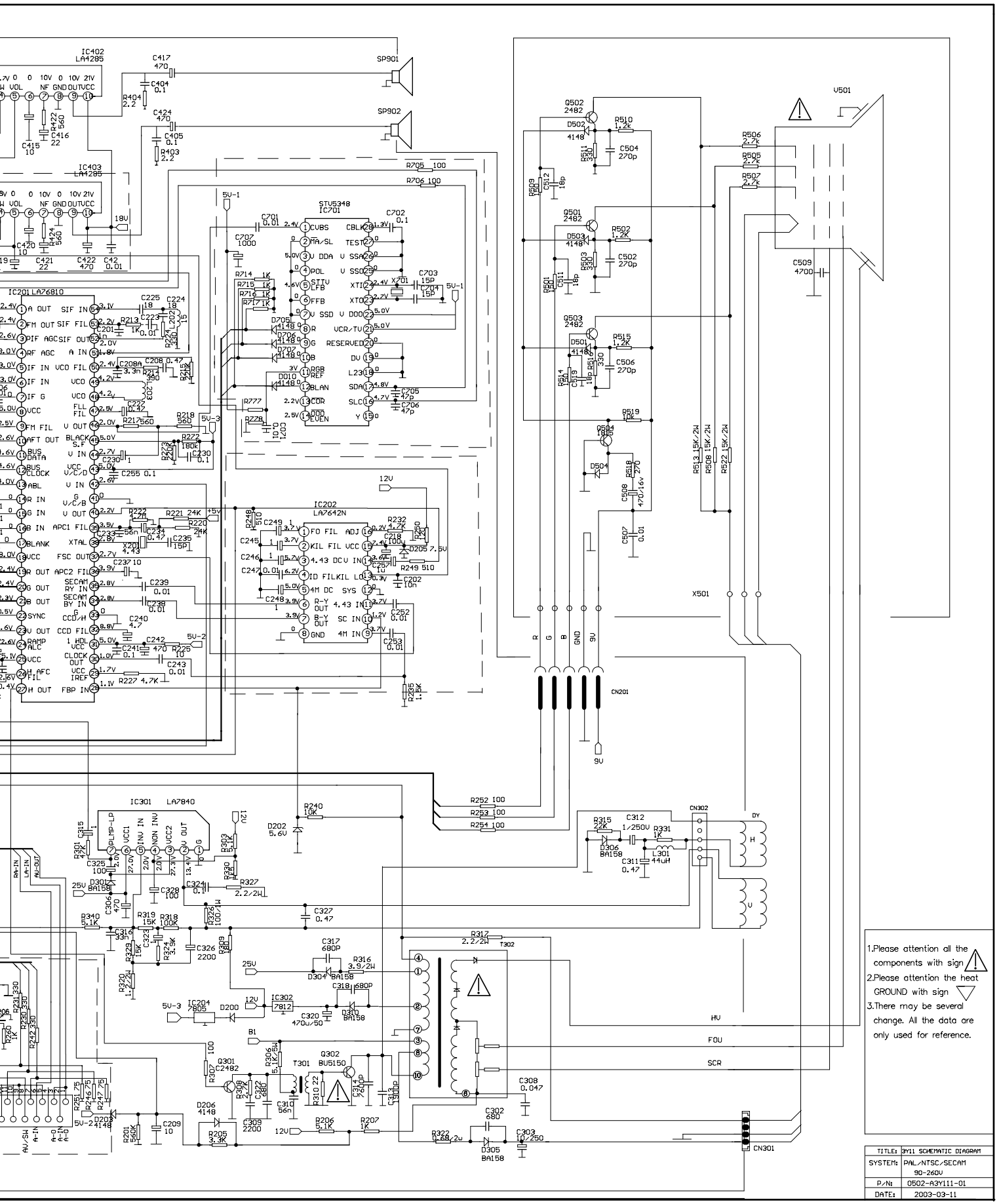
Cabinet Parts List

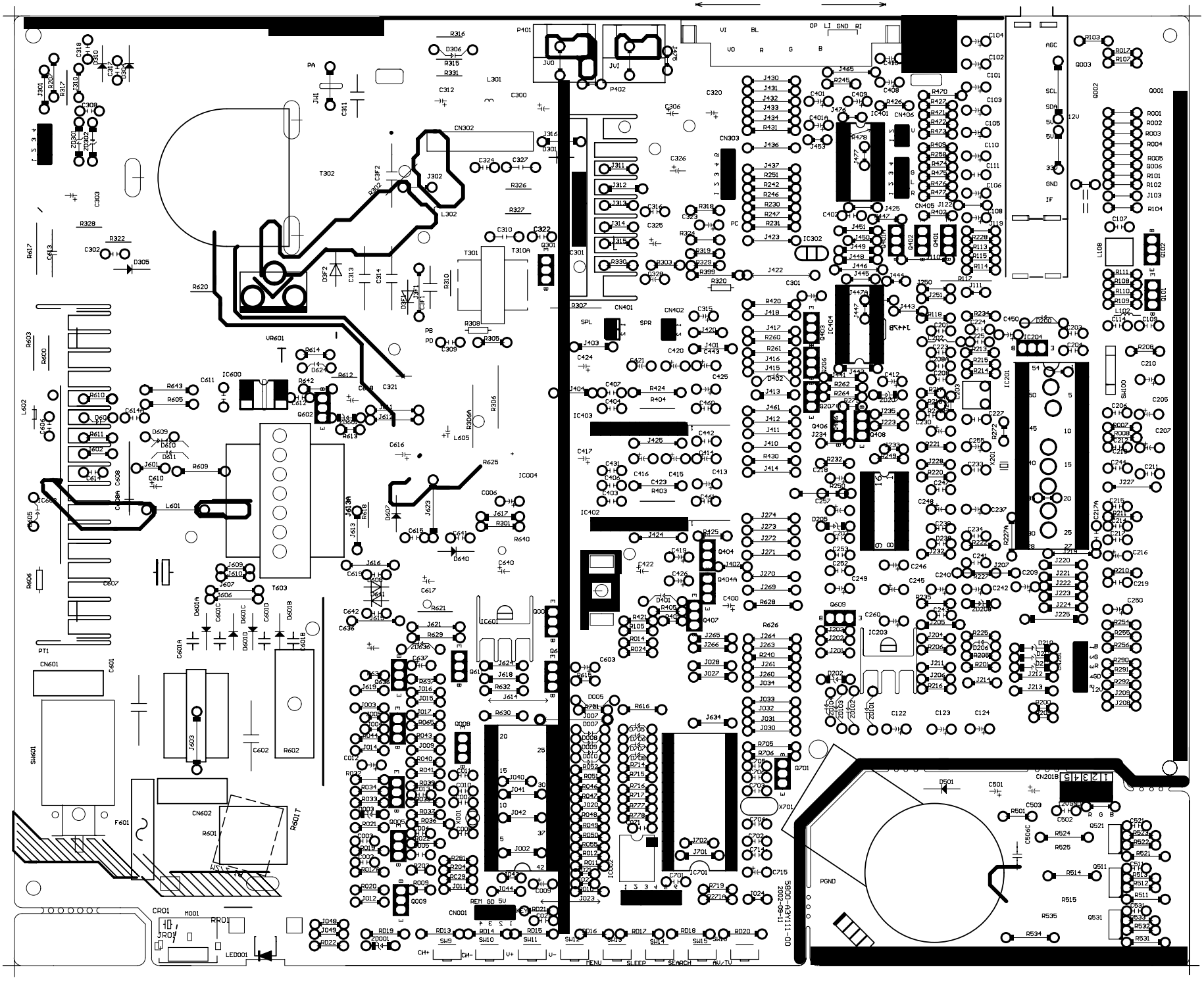


KeyNo .	PartNo .	Description
1	SK140114NZM00 1	SPEAKERGRILL-SILVE R BLUE #SB001 (PVC)
2	SK100114NZM00 2	FRONTCABINET-METALSILVERGREY#MSG001W/A V STEREOEN G (3Y07) 94V-0
3	SK100714NZM00 0	FRONTLENS-TRANSPAREN T (REMOT E CONTROLWINDOW)
4	SK100714NZM00 0	FRONTLENS-TRANSPAREN T (LEDWINDOW)
5	SK100914NZM00 1	POWERKNOB-ELECTROPLATIN G SILVER(ABS)
6	SK121314NZM00 1	INLAY(A) - FRONT AVMETALSILVERGREY#MSG00 1 W/3HOLE S EN G (3Y01)
7	SK100814NZM00 1	CONTROLKEYKNOB-ELECTROPLATIN G SILVER(ABS)
8	SK060114NZM2W 6	BACKLABELFISHERR14H2ENG
9	SK100214NKM00 4	BACKCABINET-DARKGREY# DG00 194V- 0 (HIPS)
10	SK1015HS08000 5	BOTTOMCABINE T-METALSILVERGREY#MSG001(ABS)
11	SK1016HS08000 6	BATTERYDOOR-METALSILVERGREY#MSG001(ABS)
12	SK1014HS08004 4	TOP CABINET-METALSILVERGREY#MSG00 1 FISHERW/RemoteControl


TUNER
IC402 LA4285
IC403 LA4285
IC201 LA76810
IC202 LA7642N
IC301 LA7840
IC401 TC4053
IC601 7805
IC602 STR-6653
IC001 LA8633XX
IC002 ST24C04
STV5348 IC701
CN001 TO CONTROL BOARD
Service mode interface
AV1 I/P
AV2 I/P
AV O/P
CN404-RO.LO
SCART
FBT
FOU
SCR
HU
X501
V501
SP901
SP902
CN201
CN301
CN302
CN601 220V/50HZ
F601 T3.15A-AC250V
SW601(B)
L601
T601
T603
T301
T302
1.Please attention all the components with sign
2.Please attention the heat GROUND with sign
3.There may be several change. All the data are only used for reference.
TITLE: 9V11 SCHEMATIC DIAGRAM
SYSTEM: PAL/NTSC/SECAM
90-260V
P/No: 0502-A9V111-01
DATE: 2003-03-11


TUNER
AGC VT U/V H/L BM IF
IC001 LA6633XX
WRITE
IDsecam
IDscart
VOL
COMB.F
POWER
TUNE
GND
XTF1
XTF2
VDD
KEY
AFT
PGCin
OPT
RESET
FIL
OPTselect
Vsyn
Hsyn
SCL
SDA
IC002 ST24C04
Service mode interface
CN002
CN001
TO CONTROL BOARD
LED001
MOD1
IC401 TC4053
IC404 4053
IC602 STR-6653
IC601 7805
IC203 7805
IC201 LA7681C
AV O/P
AV1 I/P
AV2 I/P
A/L-OUT
A/R-OUT
V-OUT
V-IN
A/L-IN
A/R-IN
CN404-RO.LO
CN404
SCART
CN601
220V/50HZ
CN602
SW601(B)
F601
T3.15A-AC250V
L601
T601
T603
SW001
SW002
SW003
SW004
SW005
SW006
SW007
SW008
Q102 1815
Q101 2216
Q404 1815
Q401 1815
Q402 1815
Q403 1815
Q404A C1815
Q407 1015
Q004 1815
Q005 2215
Q006 1015
Q007 1815
Q008 1815
Q610 1815
Q636 1815
Q602 1015
Q605 7805
Q207 1815
ZD601
ZD636
D607 BYW36
D608 BA158
D609 4148
D610 BA158
D611 BA158
D612 4148
D613 HBT78
D640 BYW36
D641 BA158
2SA966
X001 32K
SW100
VR601 2K
T: 0.5A/250V
5V-1
5V-2
12V
+12V
+33V
+14V
H5V
9V
B+
20V

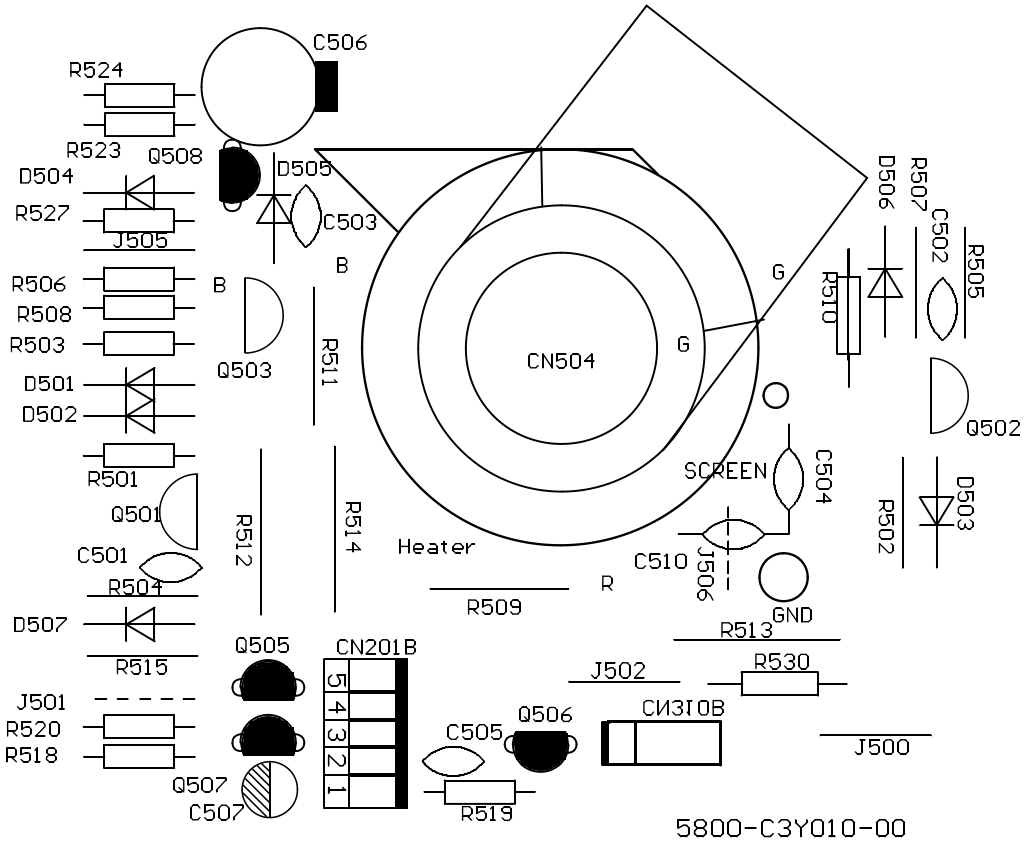

IC402 LA4285
IC403 LA4285
SP901
SP902
C417 470
C404 0.1
C405 0.1
C424 470
C422 470
C42 0.01
C421 22
C420 10
C415 10
C416 22
R403 2.2
R404 2.2
R422 560
R424 560
18V
5V-1
5V-2
5V-3
IC201 LA76810
A OUT
SIF IN
FM OUT
SIF FIL
DIF AGC
SIF OUT
RF AGC
A IN
IF IN
VCO FIL
IF G
VCO
VCC
FLL FIL
FM FIL
V OUT
AFT OUT
BLACK S.F
BUS DATA
V IN
BUS CLOCK
VCC V/C/D
ABL
R IN
G IN
B IN
APC1 FIL
BLANK
XTAL
VCC
FSC OUT
R OUT
APC2 FIL
G OUT
SECAM RY IN
B OUT
SECAM BY IN
SYNC
G CCD/H
CCD OUT
CCD FIL
RAMP
HDL VCC
ALC
VCC
CLOCK OUT
H AFC FIL
VCC IREF
H OUT
FBP IN
STV5348 IC701
CVBS
TTA/SL
POL
STTV LFB
FFB
V SSD
R
G
B
BLAN
COR
DDD EVEN
CBLK
TEST
V SSA
V SSD
XTI
XTO
V DDD
VCR/TV
RESERVED
DV
L23
SDA
SLC
Y
IC202 LA7642N
FO FIL
ADJ
KIL FIL
VCC
4.43 DCV IN
ID FILKIL
LO
4M DC
SYS
R-Y 4.43 IN
OUT
B-Y
SC IN
GND
4M IN
IC301 LA7840
DL LMP-LP
VCC1
INV IN
NON INV
VCC2
V OUT
G
IC204 7805
IC302 7812
Q301 C2482
Q302 BU5150
T301
T302
D200
D202 5.6V
D203 5V-24148
D204 4148
D205 7.5V
D206 4148
D301 BA158
D302 BA158
D303 BA158
D304 BA158
D305 BA158
D306 BA158
D307 4148
D308 4148
D309 4148
D310 BA158
D501 4148
D502 4148
D503 4148
D504
Q501 2482
Q502 2482
Q503 2482
V501
X501
X701
X201 4.43
CN201
CN301
CN302
R
G
B
GND
9V
HV
FOU
SCR
1.Please attention all the components with sign
2.Please attention the heat GROUND with sign
3.There may be several change. All the data are only used for reference.
TITLE: 3Y11 SCHEMATIC DIAGRAM
SYSTEM: PAL/NTSC/SECAM 90-260V
P/N: 0502-A3Y111-01
DATE: 2003-03-11



2002-9-11
8800-A3A111-00(3A11)

CRT&FRONT AV&CONTROL PCB Top Layer

CRT PCB TOP LAYER



FRONT AV & CONTROL PCB TOP LAY

