



LCD-TV

Chassis GBE19MU

Model LN19R71W
LN19R71B

SERVICE Manual

LCD-TV



Fashion Feature

- LCD TV Model
- VCT49xy
- High Contrast Ratio(700:1)
- High Luminance(300cd/m2)

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LN19R71W/LN19R71B Service Manual

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1 Precautions

Follow these safety, servicing and ESD precautions to prevent damage and to protect against potential hazards such as electrical shock.

1-1 Safety Precautions

1-1-1 Warnings

1. For continued safety, do not attempt to modify the circuit board.
2. Disconnect the AC power and DC power jack before servicing.

1-1-2 Servicing the LCD Monitor

1. When servicing the LCD Monitor, Disconnect the AC line cord from the AC outlet.
2. It is essential that service technicians have an accurate voltage meter available at all times. Check the calibration of this meter periodically.

1-1-3 Fire and Shock Hazard

Before returning the monitor to the user, perform the following safety checks:

1. Inspect each lead dress to make certain that the leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the monitor.
2. Inspect all protective devices such as nonmetallic control knobs, insulating materials, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Leakage Current Hot Check (Figure 1-1):

WARNING : Do not use an isolation transformer during this test.

Use a leakage current tester or a metering system that complies with American National Standards Institute (*ANSI C101.1, Leakage Current for Appliances*), and Underwriters Laboratories (*UL Publication UL1410, 59.7*).

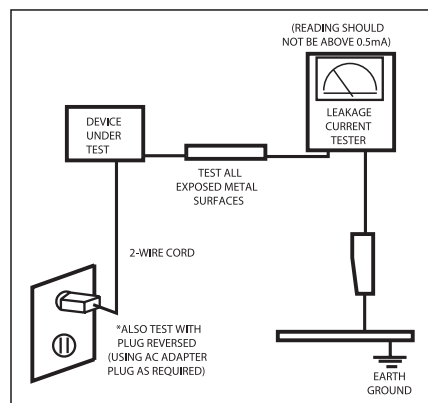


Figure 1-1. Leakage Current Test Circuit

4. With the unit completely reassembled, plug the AC line cord directly into a 120V AC outlet. With the unit's AC switch first in the ON position and then OFF, measure the current between a known earth ground (metal water pipe, conduit, etc.) and all exposed metal parts, including: metal cabinets, screwheads and control shafts. The current measured should not exceed 0.5 milliamp. Reverse the power-plug prongs in the AC outlet and repeat the test.

1-1-4 Product Safety Notices

Some electrical and mechanical parts have special safety-related characteristics which are often not evident from visual inspection. The protection they give may not be obtained by replacing them with components rated for higher voltage, wattage, etc. Parts that have special safety characteristics are identified by \triangle on schematics and parts lists. A substitute replacement that does not have the same safety characteristics as the recommended replacement part might create shock, fire and/or other hazards. Product safety is under review continuously and new instructions are issued whenever appropriate.

1 Precautions

1-2 Servicing Precautions

WARNING: An electrolytic capacitor installed with the wrong polarity might explode.

Caution: Before servicing units covered by this service manual, read and follow the Safety Precautions section of this manual.

Note: If unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions, always follow the safety precautions.

1-2-1 General Servicing Precautions

1. Always unplug the unit's AC power cord from the AC power source and disconnect the DC Power Jack before attempting to:
(a) remove or reinstall any component or assembly, (b) disconnect PCB plugs or connectors, (c) connect a test component in parallel with an electrolytic capacitor.
2. Some components are raised above the printed circuit board for safety. An insulation tube or tape is sometimes used. The internal wiring is sometimes clamped to prevent contact with thermally hot components. Reinstall all such elements to their original position.
3. After servicing, always check that the screws, components and wiring have been correctly reinstalled. Make sure that the area around the serviced part has not been damaged.
4. Check the insulation between the blades of the AC plug and accessible conductive parts (examples: metal panels, input terminals and earphone jacks).
5. Insulation Checking Procedure: Disconnect the power cord from the AC source and turn the power switch ON. Connect an insulation resistance meter (500 V) to the blades of the AC plug.
The insulation resistance between each blade of the AC plug and accessible conductive parts (see above) should be greater than 1 megohm.
6. Always connect a test instrument's ground lead to the instrument chassis ground before connecting the positive lead; always remove the instrument's ground lead last.

1-3 Static Electricity Precautions

Some semiconductor (solid state) devices can be easily damaged by static electricity. Such components are commonly called Electrostatically Sensitive Devices (ESD). Examples of typical ESD are integrated circuits and some field-effect transistors. The following techniques will reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor components or assemblies, drain the electrostatic charge from your body by touching a known earth ground. Alternatively, wear a discharging wrist-strap device. To avoid a shock hazard, be sure to remove the wrist strap before applying power to the monitor.
2. After removing an ESD-equipped assembly, place it on a conductive surface such as aluminum foil to prevent accumulation of an electrostatic charge.
3. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ESDs.
4. Use only a grounded-tip soldering iron to solder or desolder ESDs.
5. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ESDs.
6. Do not remove a replacement ESD from its protective package until you are ready to install it. Most replacement ESDs are packaged with leads that are electrically shorted together by conductive foam, aluminum foil or other conductive materials.
7. Immediately before removing the protective material from the leads of a replacement ESD, touch the protective material to the chassis or circuit assembly into which the device will be installed.
Caution: Be sure no power is applied to the chassis or circuit and observe all other safety precautions.
8. Minimize body motions when handling unpackaged replacement ESDs. Motions such as brushing clothes together, or lifting your foot from a carpeted floor can generate enough static electricity to damage an ESD.

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 product 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 repositioning 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. Contact with the high-voltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (10cm) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.

1 Precautions



Memo

2 Product Specifications

2-1 Fashion Feature

- MFM Model
- VCT49xy
- LCD TV model
- High Contrast Ratio(700:1)
- High Luminance(300cd/m2)

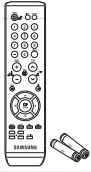
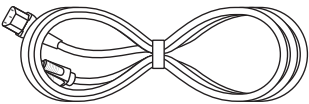
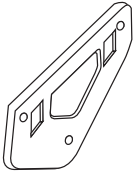
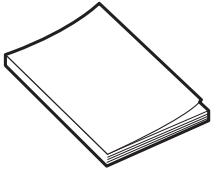
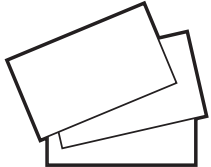
2-2 Specifications Comparison to the Old Model

Model	LN19R71W	MH17ES
Area	America	China / East-South Asia
Panel	LTM190M2-L01	EU-L21
Response Time	8ms	8ms
Micom	VCT49xy (Embeded MCU)	TDA15021H
Scaler	SE6181	TSU396AWJ-LF
PBA		

2-3 Specifications

Item	Description
LCD Panel	TFT-LCD panel, RGB vertical stripe, normaly white, 19-Inch viewable, 0.2835mm pixel pitch
Scanning Frequency	30 kHz ~ 81 kHz(Automatic)
Display Colors	16.7 Million colors
Maximum Resolution	Horizontal :1440 Pixels Vertical : 900 Pixels
Input Video Signal	Analog, 0.7 Vp-p \pm 1% positive at 75 Ω , internally terminated, DVI
Input Sync Signal	Type: Seperate H/V automatic synchronization without external switch of sync type, Composite Level: TTL level
Maximum Pixel Clock rate	140 MHz
Active Display Horizontal/Vertical	408.24(H) x 255.15(V)
AC power voltage & Frequency	AC 100 ~ 240 Volts (\pm 10%), 60/ 50 Hz \pm 3 Hz
Power Consumption	45 W (max)
Dimensions Set (W x H x D)	18.3 x 16.0 x 8.5 Inches (466 X 406 X 217 mm)
Weight (Set/Package)	6.2 kg (14 lbs)
TV / Video	Color system : NTSC
	Sound system : M
Antena Input	75 Ω , Coaxial Cable
Environmental Considerations	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C)
	Operating Humidity : 10 % ~ 80 %
	Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C)
	Storage Humidity : 5 % ~ 95 %
<ul style="list-style-type: none"> • Designs and specifications are subject to change without prior notice. 	

2-4 Option Specification

Item	Item Name	CODE.NO	Remark
	Remote Control & Batteries (AAA x 2)	BN59-00545B	
	Power Cord	3903-000085	
	Wall Mount kit	BN96-03969A	
	Owner's Instructions	BN68-00998F	
	Warranty Card Registration Card Safety Guide Manual	AA68-00371C BN68-00832C AA68-03242F	

Memo

3 Alignments and Adjustments

This section describes to adjust LCD TV after replacing EEPROM, Main PBA or Panel.

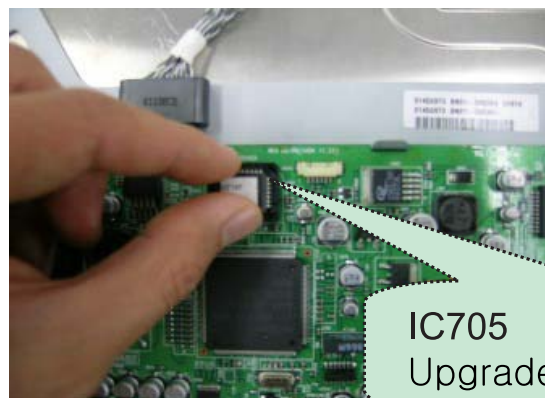
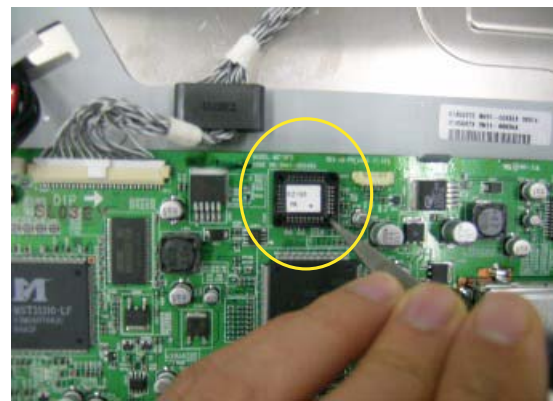
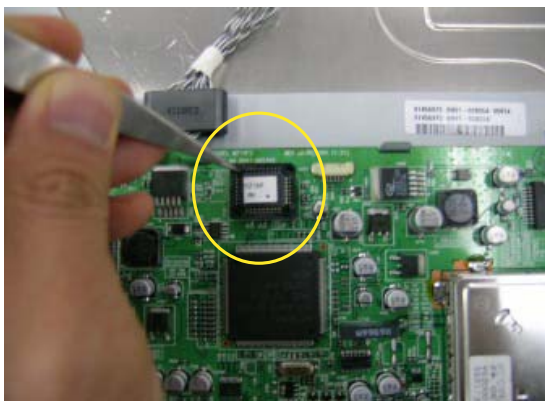
3-1 Program Upgrade

Change MICOM

: If the similar happenings occur, EEPROM can be changed

- EX1) When screen appears but remote control and function key aren't working
- EX2) When LED is on but the screen doesn't appear
- EX3) After mass production, when the micom program version is up-graded

* MICOM replacement can be done when Service Bulletin issue is in practice.
The process of working need to be prepare on Service Bulletin.

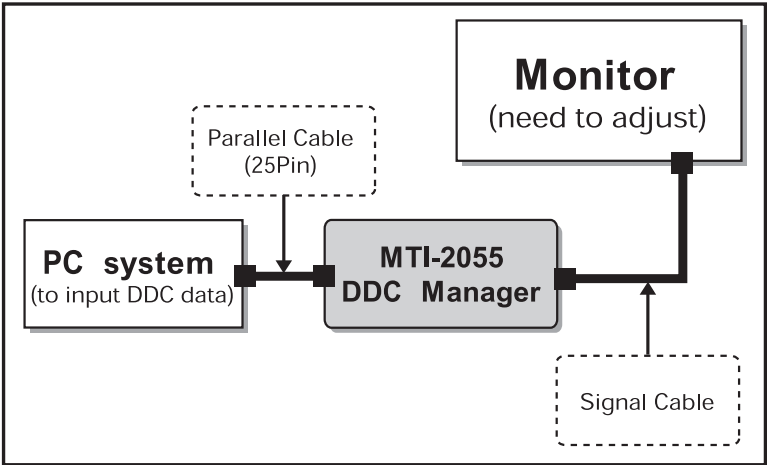


IC705
Upgraded EPROM(Micom)

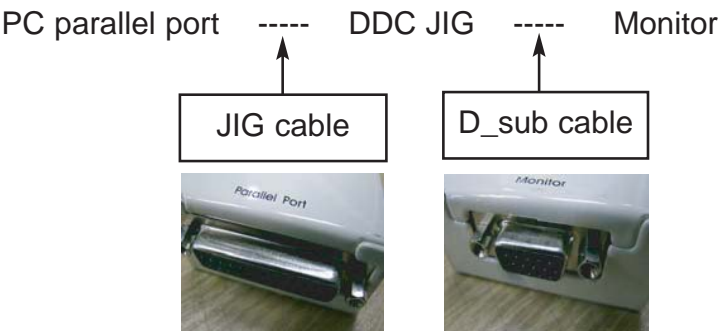
As the visual sample shown, after disassembling the set (refer to SET disassemble), remove the Micom in the exist IC705 Socket and replace new Micom.

- Use appropriate JIG or any sharp tool and place in the both corners to assist in removing.
(Be aware! If the socket cause any damage after replacement the monitor will not function properly.)
- When inserting, attend to IC No.1 direction and press with suitable amount of strength.
- After replacement, in case of EEPROM Clear, enter to Factory mode and perform into action.

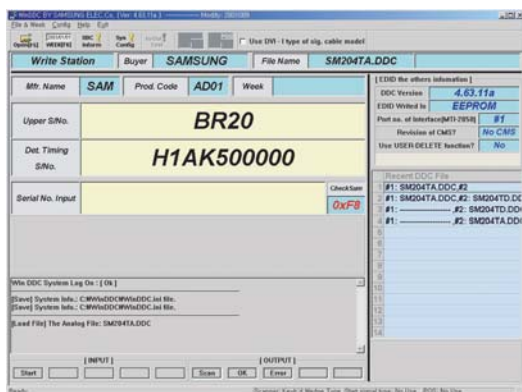
3-2 DDC JIG installation



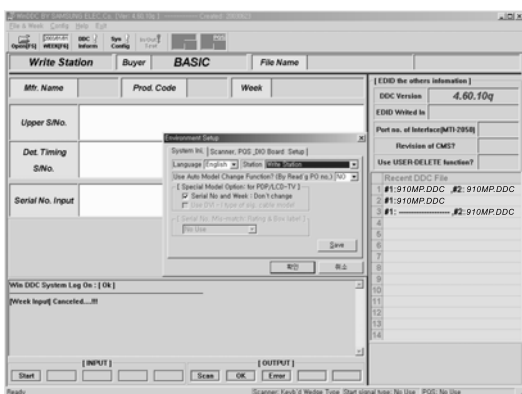
Connect DDC JIG.



3-3 EDID Installation with Windows Program



1. Execute "WinDDC.exe"

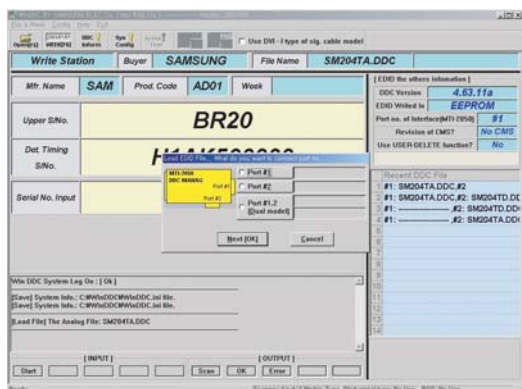


2. Click "Sys Config"

Select "Station : Write station"

Check "Serial No and Week : Don't change"

Click "Save"



3. Click "Open" icon.

Select "Connected Port #1" and Next "OK".

* File Name - GBR-19HMA.DDC : Analog

- GBR-19HMD.DDC : Digital

Press enter key on your keyboard.



4. Confirm the "DDC OK".

- After Replacing the Main Board
- EDID Installation (Analog and Digital)

3-4 Factory Mode Adjustments

3-4-1 Factory Mode Admission

- NTSC : Power off → MUTE → 1 → 8 → 2 → Power on

3-4-2 Service Mode Menu

Service	
PC Auto Color ▶	Auto color calibration(PC only)
VCTI Part ▶	Control the register value of VCTi
MSTAR Part ▶	Control the register value of SE6181
Adjust ▶	Control the offset and gain of R,G,B
Pre-setting ▶	Pre-set the channel information
Options ▶	Option menu (only for manufacturing process)
Checksum DD79 ▶	Micom checksum
Panel Information ▶	Working time of Monitor, Panel & Lamp
Reset ▶	Factory Reset
Bus - Stop : off ▶	
2006/07/10 T-BORD19NUS - 1003	
	Micom code version, date

-. VCTI Part

Only for picture quality setting at stage of development. Do not change this value.

Service		
PC Auto Color ▶		
VCTI Part ▶	→	VCTI Part
MSTAR Part ▶		
Adjust ▶		
Pre-setting ▶		
Options ▶		
Checksum DD79 ▶		
Panel Information ▶		
Reset ▶		
Bus - Stop : off ▶		
2006/07/10 T-BORD19NUS - 1003		

VCTI Part	
BLE ▶	Black Level Expander/Compressor(BLEC) : TV,AV,S-Video only
LTI ▶	
CTI ▶	Luma/Chrominance Transient Improvement(LTI/CTI) : TV,AV,S-Video
PEAKING ▶	
SCART RGB ▶	
Adjust Misc ▶	Peaking Control the peaking by changing overshoot and undershoot : TV,AV,S-Video

Contrast, Brightness, Saturation, Tint : TV,AV,S-Video

-. MSTAR Part

Only for picture quality setting at stage of development. Do not change this value.

Service	
PC Auto Color	▶
VCTI Part	▶
MSTAR Part	▶
Adjust	▶
Pre-setting	▶
Options	▶
Checksum DD79	▶
Panel Information	▶
Reset	▶
Bus - Stop : off	▶
2006/07/10	
T-BORD19NUS - 1003	

MSTAR Part	
PAGE 1	▶
PAGE 2	▶
Spr. Spect.	▶
ADC Part	▶
De-Interlacer	▶
Custom color	▶
6 Color	▶

Scaler(SE6181) Control
Control the register value of
each functional block of scaler,
SE6181

-. Adjust

Only for picture quality setting at stage of development. Do not change this value.

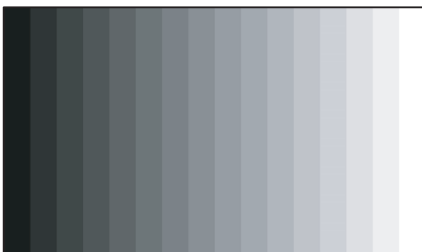
Service	
PC Auto Color	▶
VCTI Part	▶
MSTAR Part	▶
Adjust	▶
Pre-setting	▶
Options	▶
Checksum DD79	▶
Panel Information	▶
Reset	▶
Bus - Stop : off	▶
2006/07/10	
T-BORD19NUS - 1003	

PC Auto Color
-> PC analog : 1280x1024/60Hz, 16 Gray pattern

Adjust	
R Gain	114
G Gain	128
B Gain	132
R Offset	125
G Offset	128
B Offset	126
Sub Contrast	47
Sub Brightness	40
NVRAM Reset	▶

RGB input gain/offset

Reset the value of
factory status.



3 Alignments and Adjustments

-. Pre-Setting

Set up channel for each factory

Service	
PC Auto Color	▶
VCTI Part	▶
MSTAR Part	▶
Adjust	▶
Pre-setting	▶
Options	▶
Checksum DD79	▶
Panel Information	▶
Reset	▶
Bus - Stop : off	▶
2006/07/10	
T-BORD19NUS - 1003	



Pre-setting
Suwon America
Suwon Korea
Suwon Japan
Suwon Pal
SESK PAL
SAMEX America
TSED PAL
TSED America
.....

Set up channel for each factory

-. Options

Service	
PC Auto Color	▶
VCTI Part	▶
MSTAR Part	▶
Adjust	▶
Pre-setting	▶
Options	▶
Checksum DD79	▶
Panel Information	▶
Reset	▶
Bus - Stop : off	▶
2006/07/10	
T-BORD19NUS - 1003	



Options	
Auto-Auto	On
Help Menu	On
TTX Area	Auto
HotPlug	Off
GAMMA - NA	On
Hotel Option	▶
Shop Mode	Off

Auto adjustment at change the resolution.

Option function at Hotel



Hotel Option	
Hotel Mode	: Off
Power On Channel	: 3
Power On Band	: Air
Power On Volume	: 10
Max Volume	: 100
Panel Button Lock	: Off
Power On Source	: TV

Select first channel at power on
Select band at power on
Select volume value at power on
Control max volume limit
Lock the function key
Select source at power on

-. Panel Information

Service	
PC Auto Color	▶
VCTI Part	▶
MSTAR Part	▶
Adjust	▶
Pre-setting	▶
Options	▶
Checksum DD79	▶
Panel Information	▶
Reset	▶
Bus - Stop : off	▶
2006/07/10	
T-BORD19NUS - 1003	

Panel Information		
Monitor	: 15 Hr	
Panel Cycle	: 180	
	Time	Ch. No
Panel	: 15 Hr	0
Upper Lamp	: 15 Hr	0
Lower Lamp	: 15 Hr	0

Panel Time Reset :

Need to be practice after the Panel replacement. In the front portion of the monitor, press the Menu key for 5 seconds, then the time will be changed to 0 and Ch. No will be increase 1.

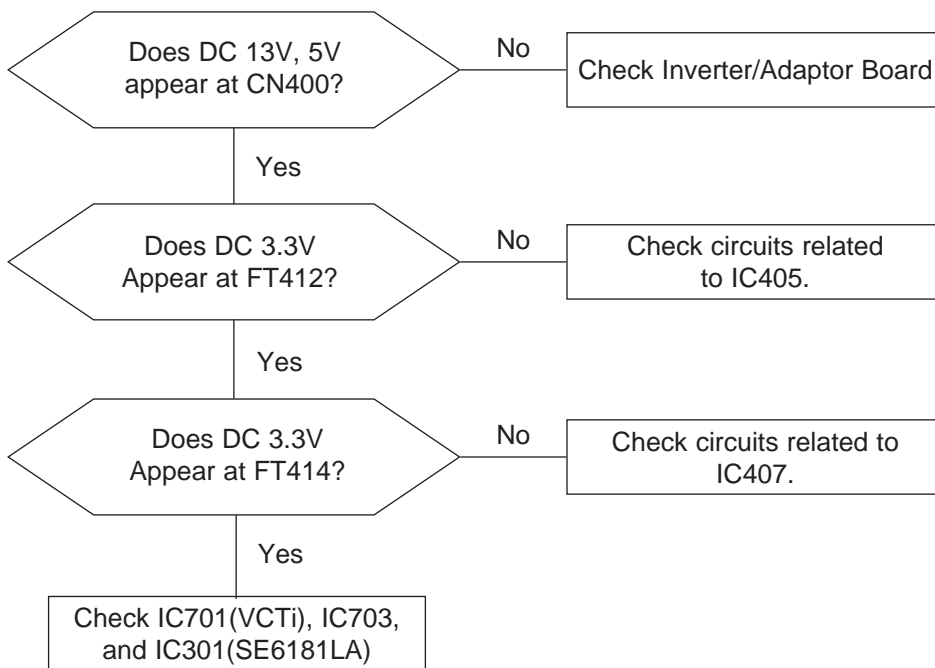
Factory Reset :

All of OSD values are initialized After Factory Reset, the monitor power is shut downed automatically

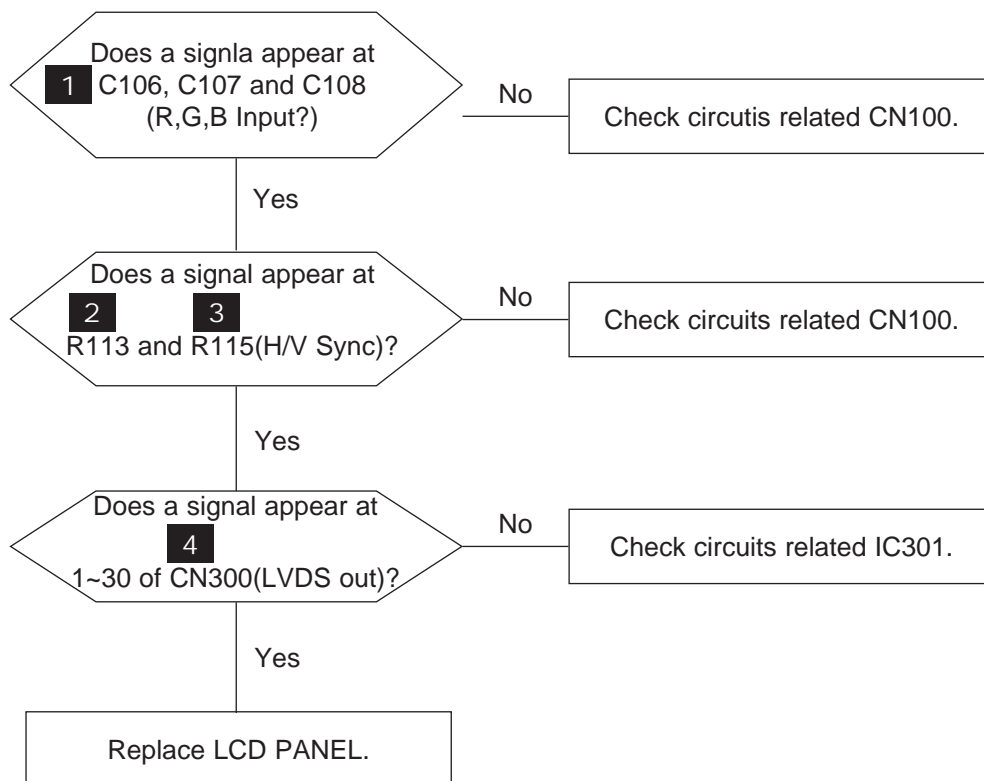
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4 Troubleshooting

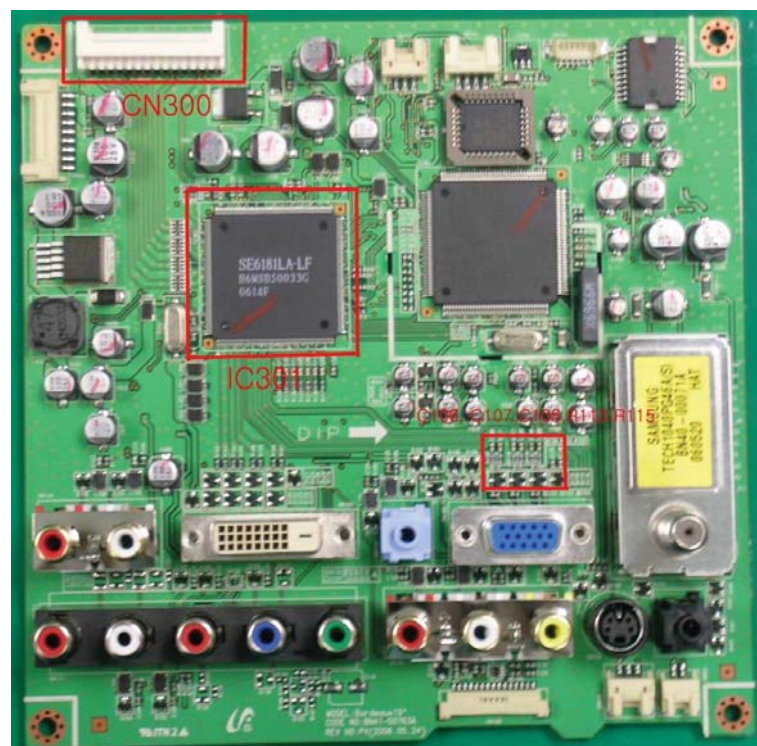
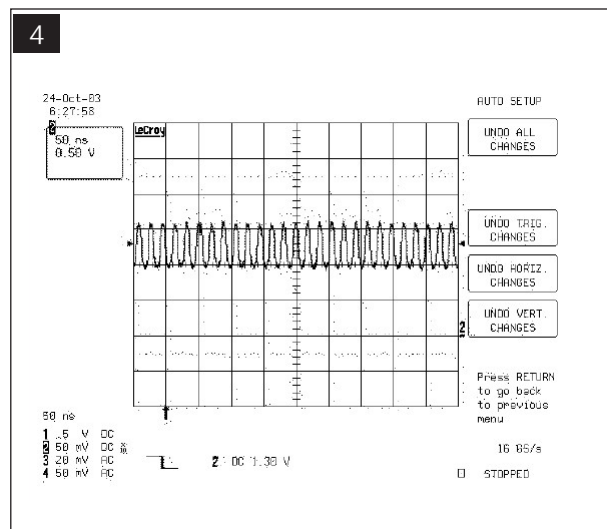
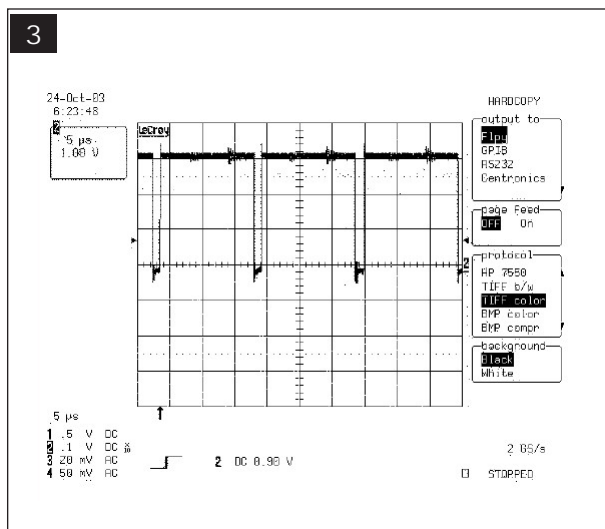
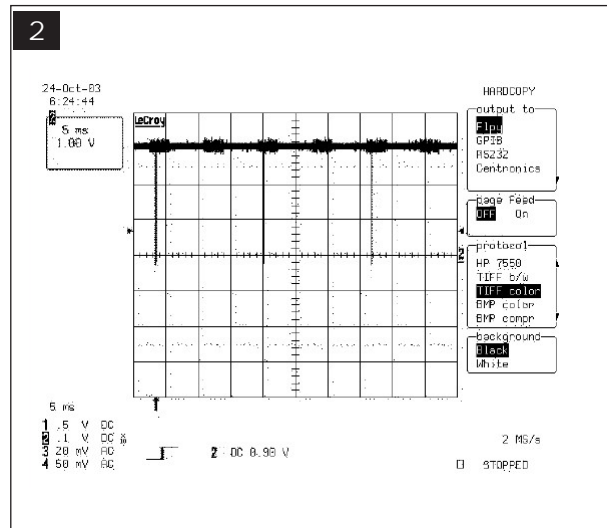
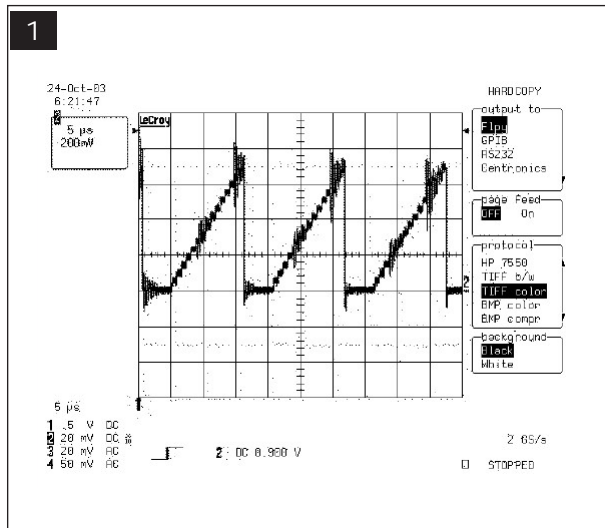
4-1 No Power



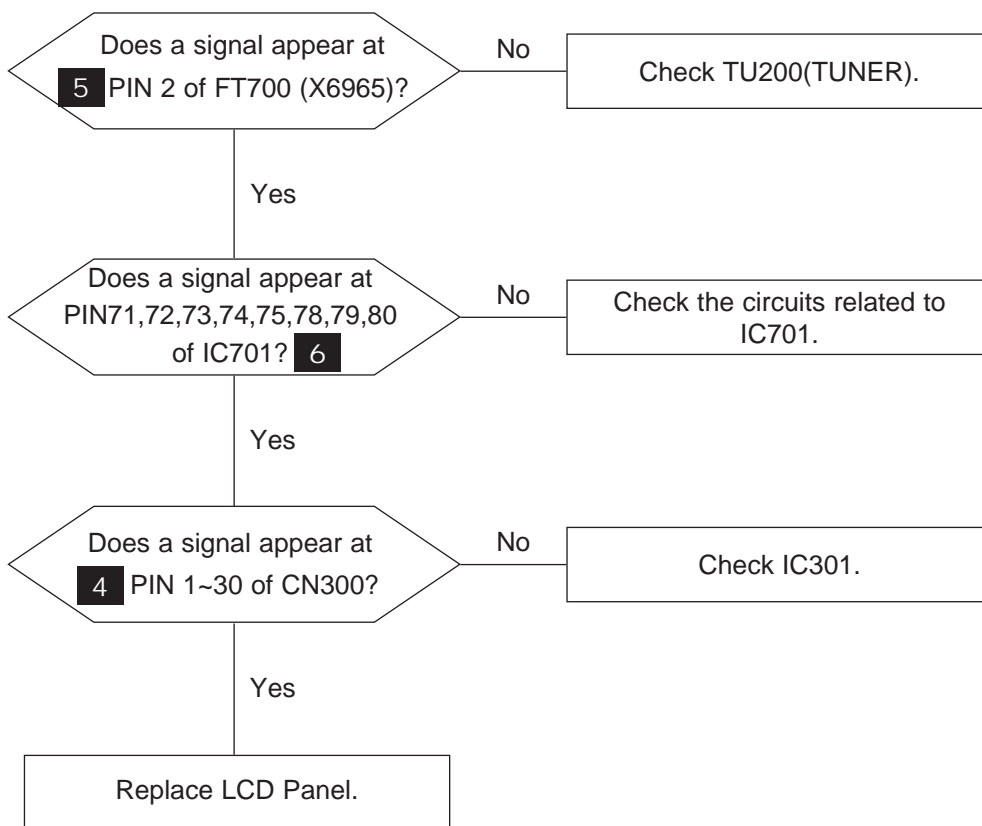
4-2 No Video (PC Signal)



WAVEFORMS

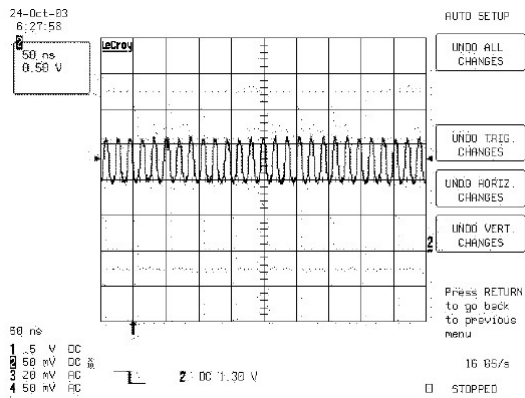


4-3 No Picture (TV)

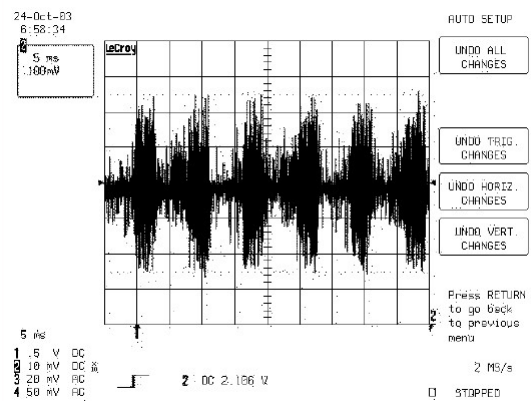


WAVEFORMS

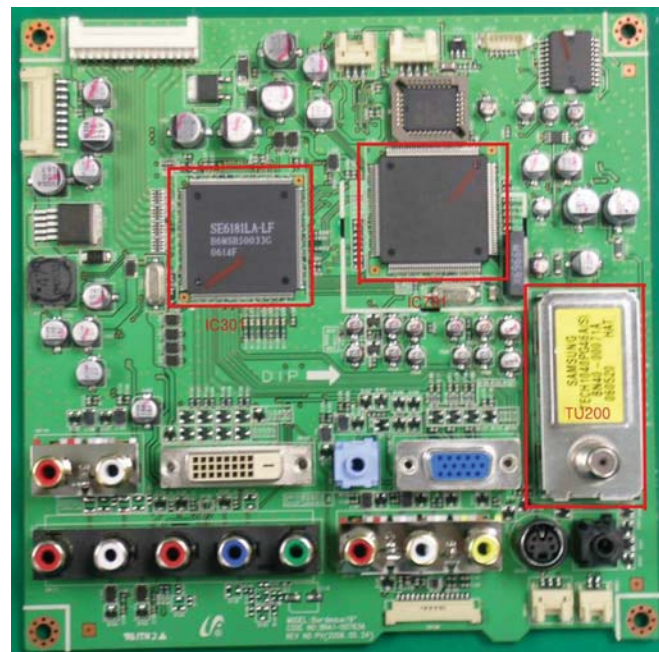
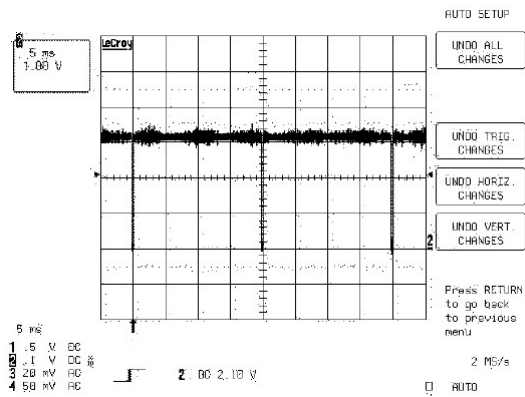
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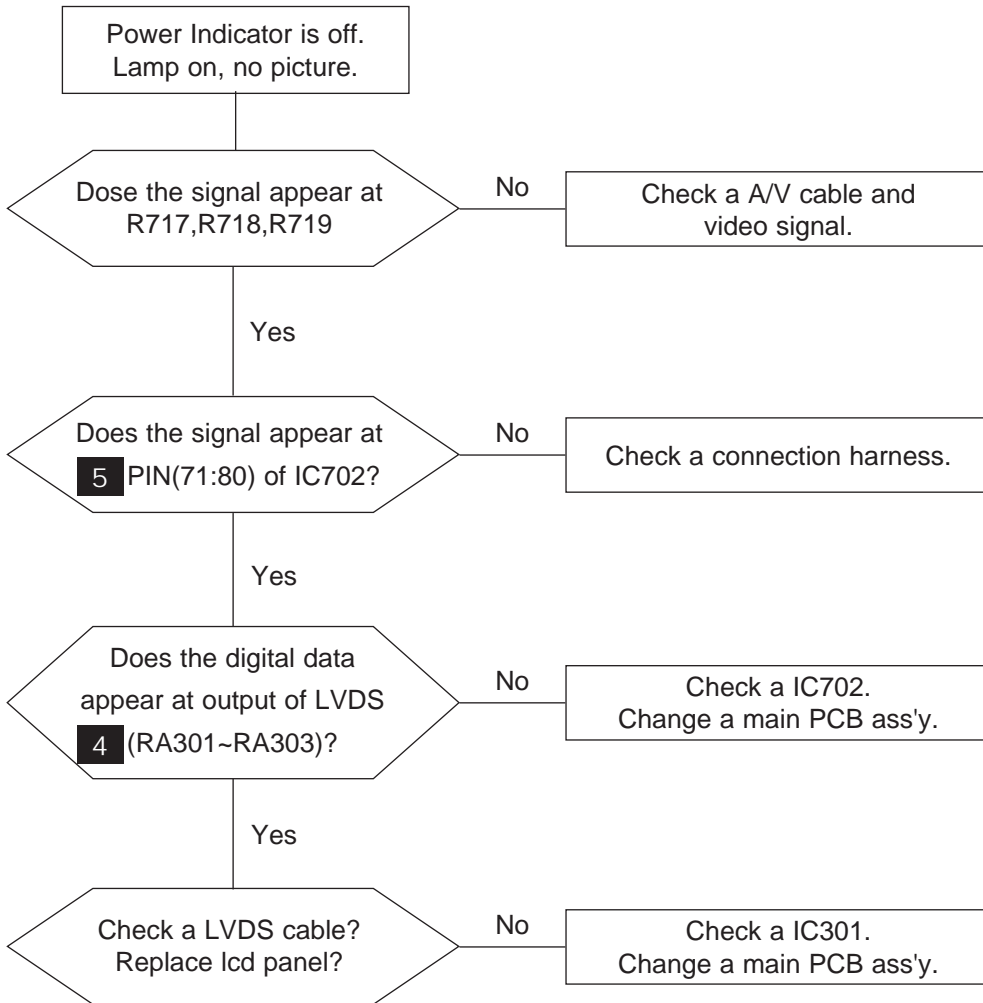
5



6

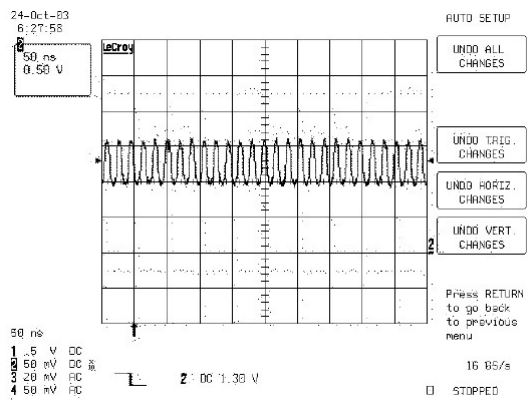


4-4 No Picture (Video/S-VIDEO)

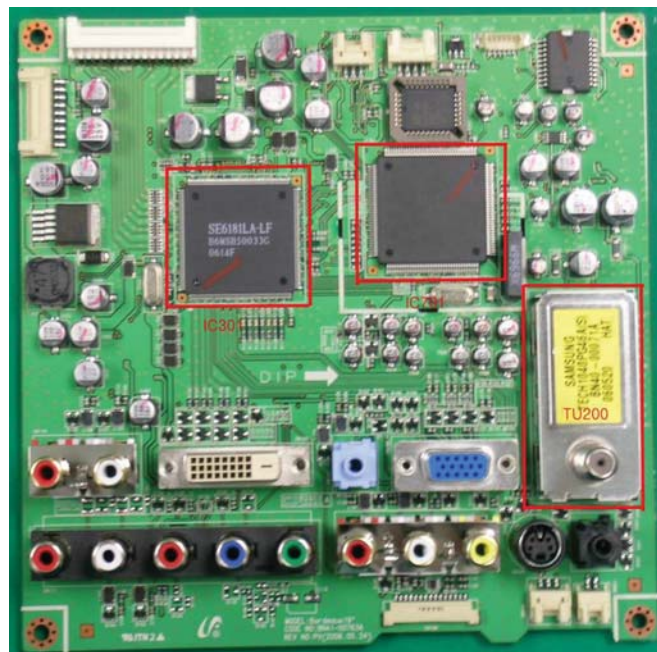
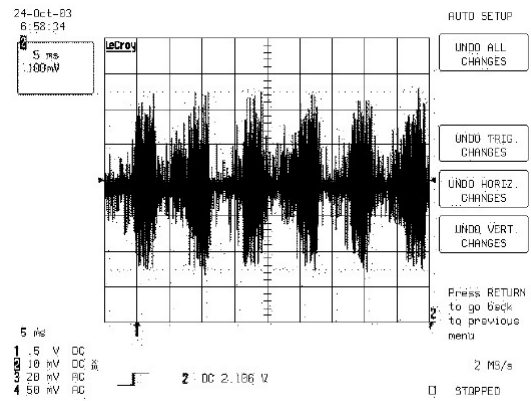


WAVEFORMS

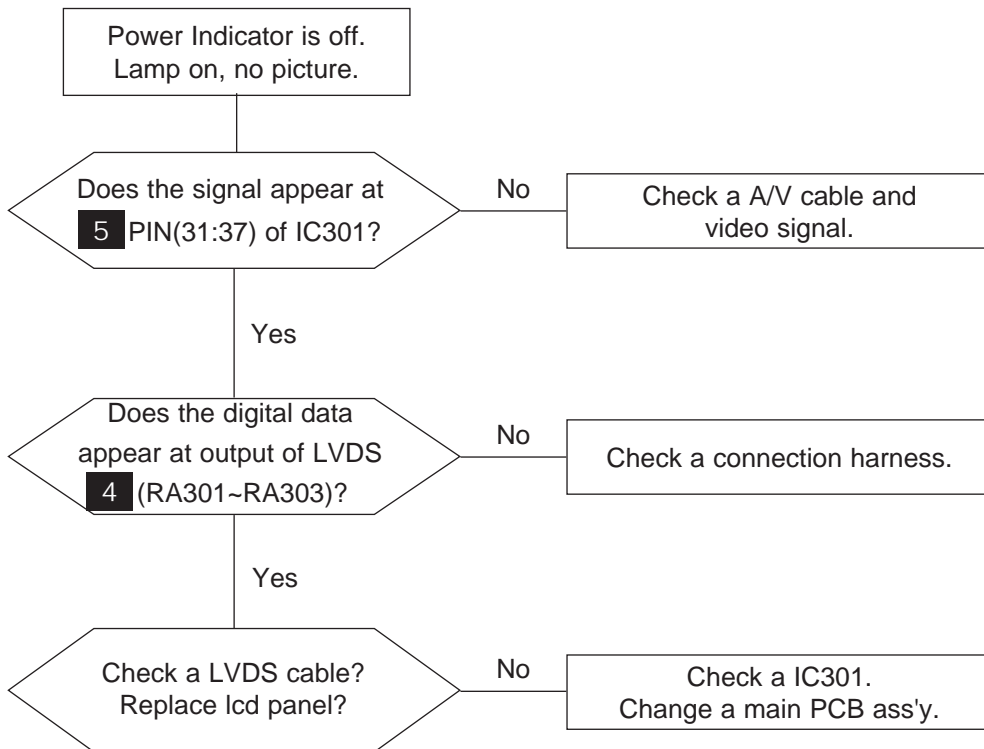
4



5

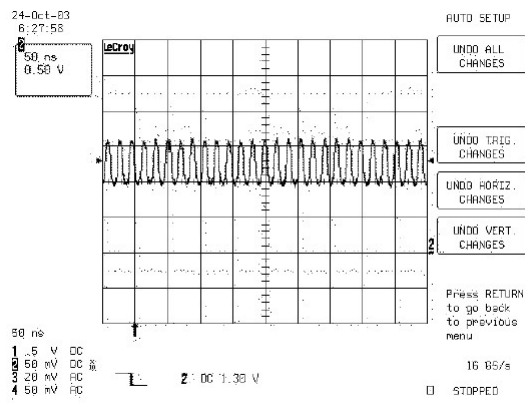


4-5 No Picture (COMPONENT)

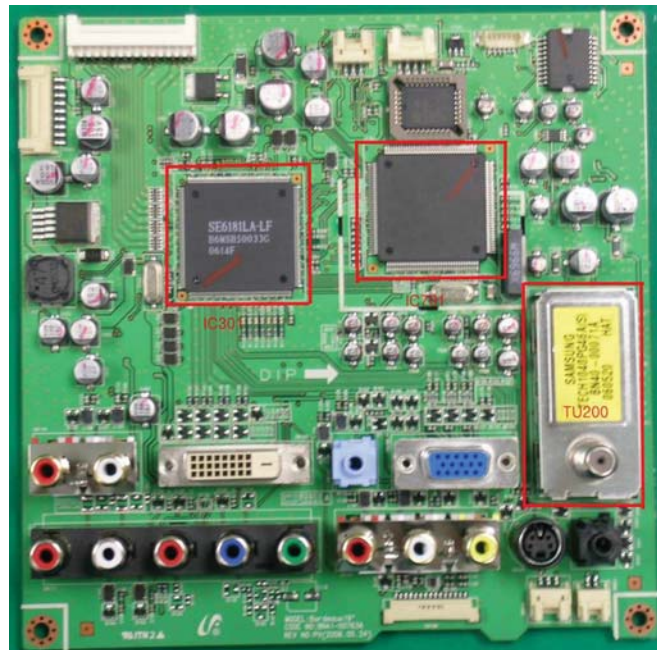
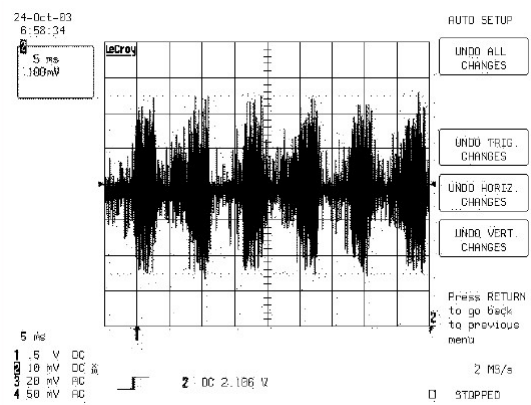


WAVEFORMS

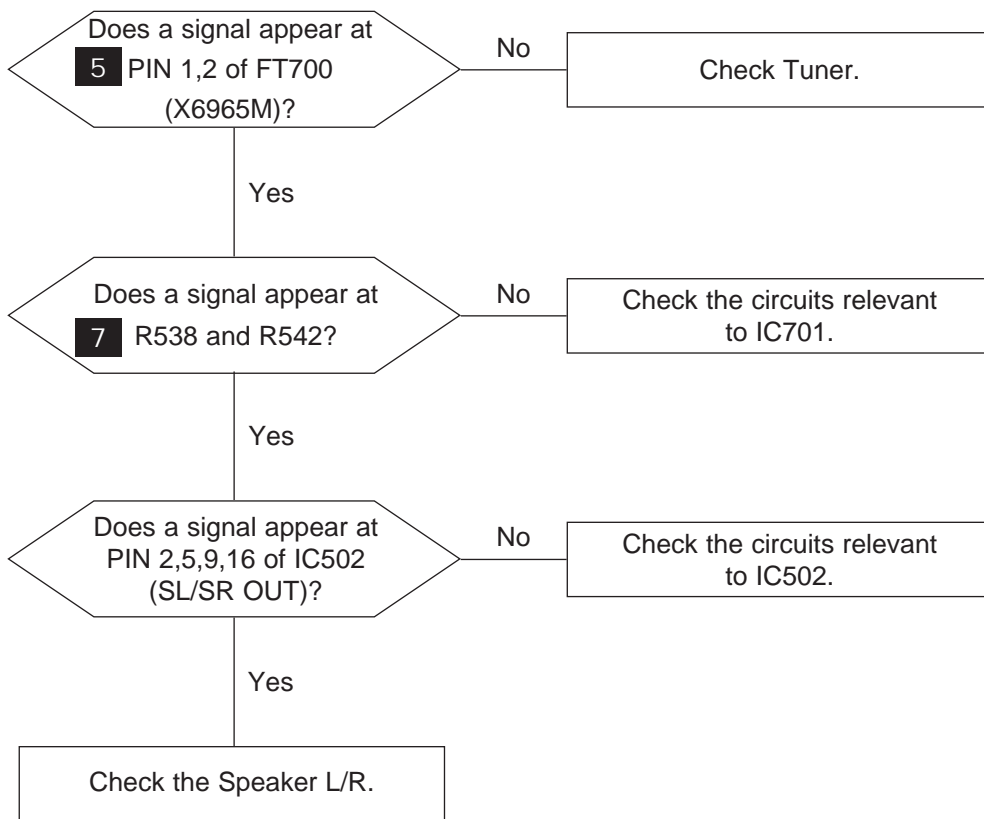
4



5

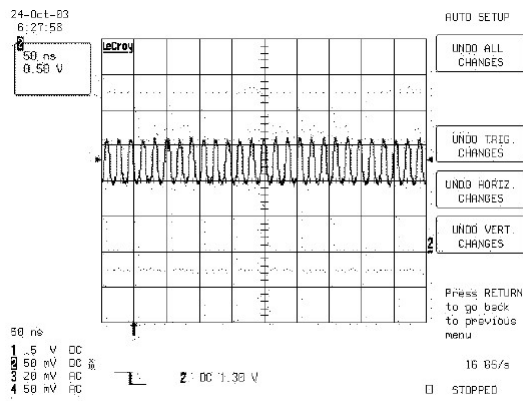


4-6 No Sound (TV)

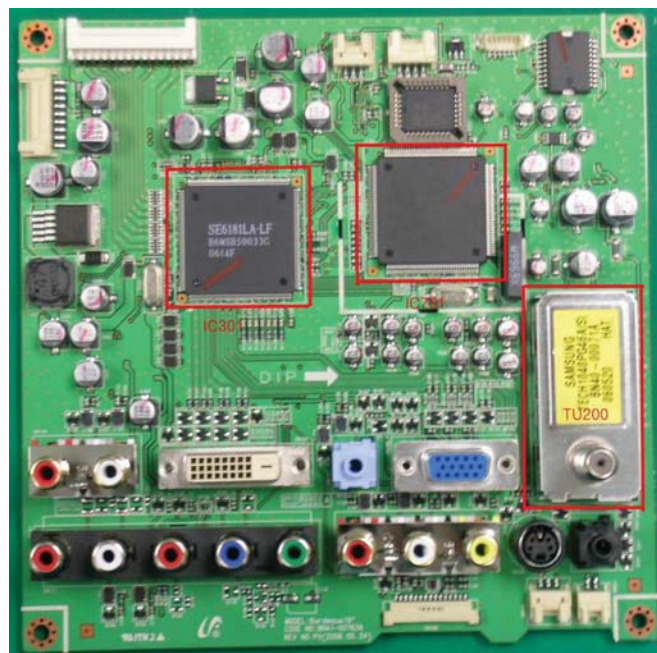
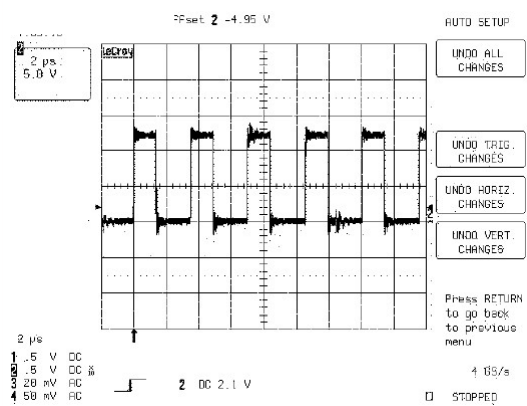


WAVEFORMS

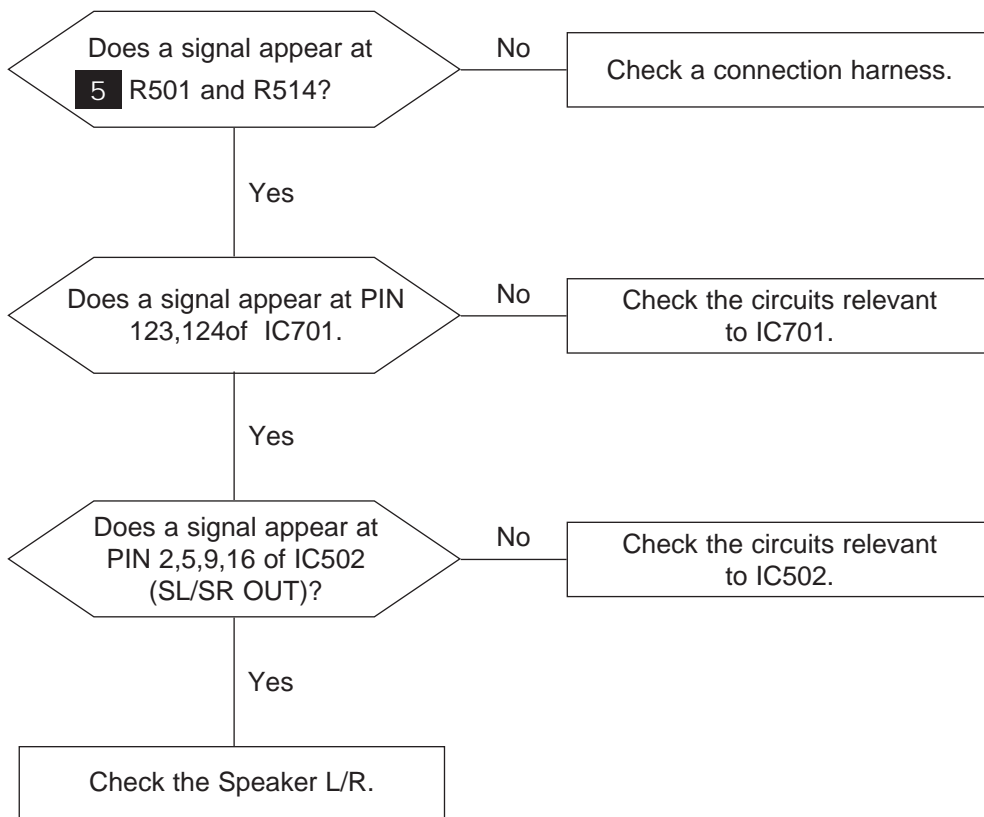
5



7

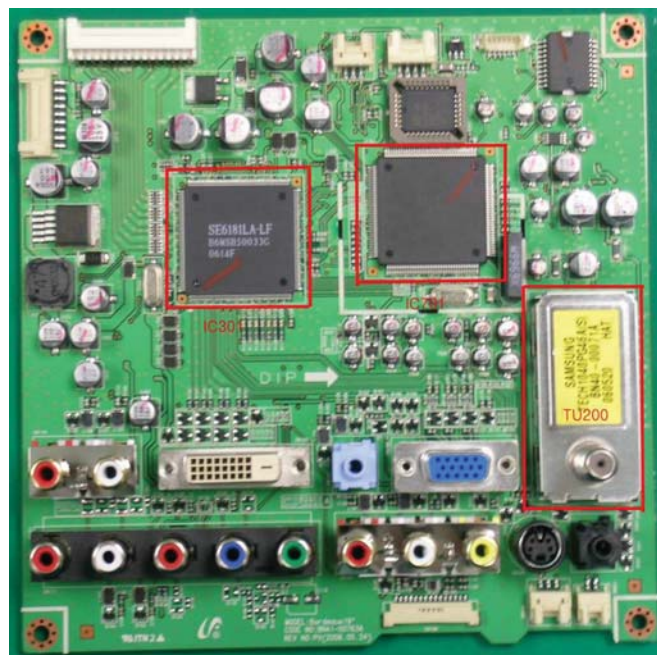
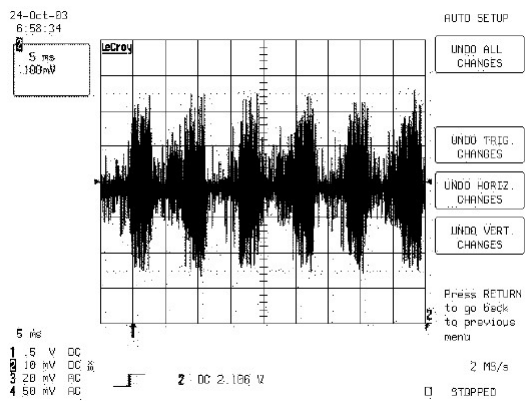


4-7 No Sound (COMPONENT)



WAVEFORMS

5

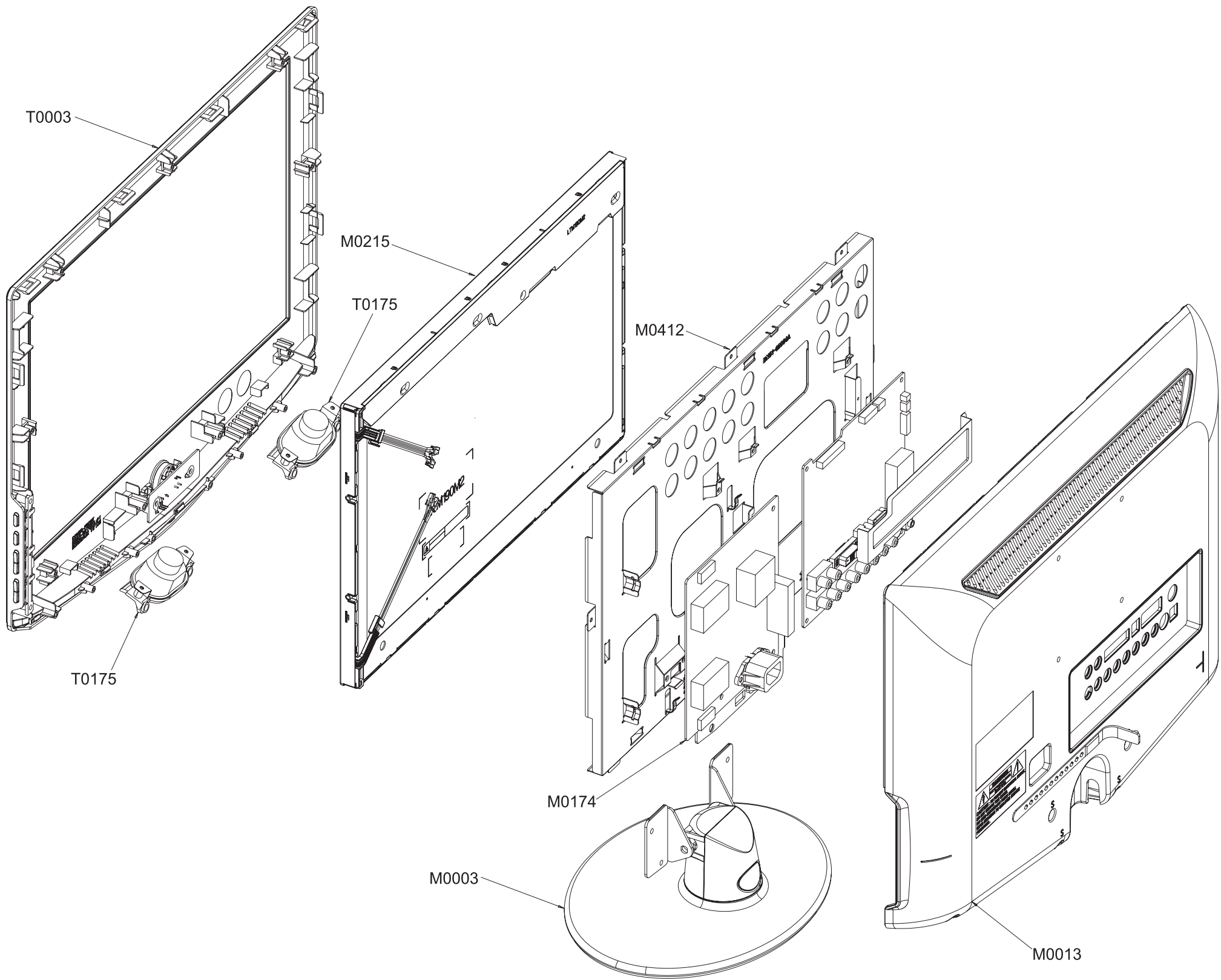


Memo

5 Exploded View and Parts List

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

5-1 LN19R71W / LN19R71B Exploded View



5 Exploded View & Parts List

5-2 LN19R71W Parts List

Location.No	CODE-NO	SPECIFICATION & DESCRIPTION	Q'TY	SA/SNA	REMARK
T0003	BN96-03863K	ASSY COVER P-FRONT;19R71,XAX(WHITE),ABS+	1	S.A	
T0175	BN96-03731A	ASSY SPEAKER P;16¥Ø,Bordeuax, 19,Left,3W	1	S.A	
T0175	BN96-03732A	ASSY SPEAKER P;16¥Ø,Bordeuax, 19,Right,3	1	S.A	
M0215	BN07-00280A	LCD-PANEL;LTM190M2-L01-D016,Dvorak,6BIT	1	S.A	
M0412	BN96-03959A	ASSY BRACKET P-PCB;BORDEAUX19,SECC	1	S.N.A	
M0174	BN44-00147B	IP BOARD;SIP-W19B,Bordeaux,3.2 ~4.8mA,6.	1	S.N.A	
M0003	BN92-01897P	ASSY BOX;LN19R7WX/XAX	1	S.N.A	
M0013	BN96-03864K	ASSY COVER P-REAR;19R71,XAX(WHITE),ABS+P	1	S.A	
M0013	BN96-03865B	ASSY STAND P-BASE;19R71(WHITE),-,ABS+PMM	1	S.A	

5-3 LN19R71B Parts List

Location.No	CODE-NO	SPECIFICATION & DESCRIPTION	Q'TY	SA/SNA	REMARK
T0003	BN96-03863J	ASSY COVER P-FRONT;19R71,XAX,ABS+PMMA,HB	1	S.A	
T0175	BN96-03731A	ASSY SPEAKER P;16¥Ø,Bordeuax, 19,Left,3W	1	S.A	
T0175	BN96-03732A	ASSY SPEAKER P;16¥Ø,Bordeuax, 19,Right,3	1	S.A	
M0215	BN07-00280A	LCD-PANEL;LTM190M2-L01-D016,Dvorak,6BIT	1	S.A	
M0412	BN96-03959A	ASSY BRACKET P-PCB;BORDEAUX19,SECC	1	S.N.A	
M0174	BN44-00147B	IP BOARD;SIP-W19B,Bordeaux,3.2 ~4.8mA,6.	1	S.N.A	
M0003	BN96-03865A	ASSY STAND P;19R71,-,ABS+PMMA,HB,BK23,H/	1	S.A	
M0003	BN92-01897M	ASSY BOX;LN19R71BX/XAO	1	S.N.A	
M0013	BN96-03864J	ASSY COVER P-REAR;19R71,XAX,ABS+PMMA,HB,	1	S.A	

6 Electrical Parts List

-You can search for updated part codes through ITSELF web site.

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

6-1 LN19R71W Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
0		LN19R71WX/XAX	LN19R71W,A22A/19R70-GBE,19,LCD-TV,MEXICO	0	
0.1	M0001	BN90-00984H	ASSY COVER FRONT;19R71,XAX(WHITE),ABS+PM	1	S.N.A
..2	T0175	BN96-03731A	ASSY SPEAKER P;16#Ø,Bordeaux, 19,Left,3W	1	S.A
..2	T0175	BN96-03732A	ASSY SPEAKER P;16#Ø,Bordeaux, 19,Right,3	1	S.A
..2	T0003	BN96-03863K	ASSY COVER P-FRONT;19R71,XAX(WHITE),ABS+	1	S.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	2	S.N.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	2	S.N.A
...3	T0069	AA60-00171F	SPACER-FELT;50L2,FELT,350,T0.5,5	2	S.N.A
...3	T0069	BN60-00027C	SPACER-FELT;19R7,FELT,90,T0.35,10	1	S.N.A
...3	T0060	BN61-01655A	SPRING ETC;STS-304 SUS,D8,L12,T0.5	1	S.N.A
...3		BN63-01608A	FELT-VIBRATION;MH17FS,FELT,T0.5,5,250,BL	2	S.N.A
...3	CCM1	BN63-02183D	COVER-SHEET;Rhcm,PE Vinyl,T0.05,680mm,20	0.6	S.N.A
...3	M0112	BN63-02702D	COVER-FRONT;19R71,XAX(WHITE),ABS+PMMA,HB	1	S.N.A
...3	T0059	BN64-00366A	INDICATOR LED;ROME-I,PC,CLEAR,ALL MODEL	1	S.N.A
...3	T0238	BN64-00453B	WINDOW REMOCON;32R71,PC,CLEAR,V0	1	S.N.A
...3	T0054	BN64-00477A	KNOB-DECORATION;SONOMA26,32,40,ABS,HB,GR	1	S.N.A
...3	T0023	BN64-00509B	KNOB POWER;19R71,PC+ACRYL,WHITE	1	S.N.A
...3	M0145	BN96-03403A	ASSY BOARD P-FUNCTION&KNOB;Bordeaux,CT50	1	S.A
....4	T0022	BN64-00442B	KNOB CONTROL;26,32,40R71,PC,WHITE,ACRYL	1	S.N.A
....4	M0145	BN96-03045A	ASSY BOARD P-FUNCTION;BORDEAUX,FUNCTION	1	S.A
...3	T0714	BN96-03956A	ASSY BOARD P-IR&POWER;Bordeaux19,SJ06-01	1	S.A
...3		BN96-04316B	ASSY COVER P-DECORATION;19R71,-,HIPS,HB,	1	S.N.A
....4	M0279	BN63-01474F	FELT;VENICE 20",FELT,T0.35,10,50	2	S.N.A
....4	T0056	BN63-02704B	COVER-DECORATION;19R71,HIPS,-,-,HB,-,G	1	S.N.A
0.1	M0002	BN90-00985H	ASSY COVER REAR;19R71,XAX(WHITE),ABS+PMM	1	S.N.A
..2	M0081	6003-001323	SCREW-TAPTITE;BH,+,B,M4,L12,NI PLT,SWRCH	6	S.A
..2	M0013	BN96-03864K	ASSY COVER P-REAR;19R71,XAX(WHITE),ABS+P	1	S.A
...3	CCM1	BN63-02183D	COVER-SHEET;Rhcm,PE Vinyl,T0.05,680mm,20	0.6	S.N.A
...3	M0006	BN63-02703F	COVER-REAR;19R71,XAX(WHITE),ABS+PMMA,HB,	1	S.N.A
...3	T0071	BN64-00512B	INLAY-TERMINAL;19R72,UO(WHITE),PS,SHEET,	1	S.N.A
...3	T0064	BN65-00002B	CLAMPER CORE;BORDEAUX,PP,V0,WHITE	1	S.N.A
...3	T0152	BN96-04317A	ASSY BRACKET P-VESA;19R71,SECC,T1.0	2	S.N.A
....4	T0069	BN60-00027C	SPACER-FELT;19R7,FELT,90,T0.35,10	1	S.N.A
....4	M0113	BN61-02621A	BRACKET-VESA;19R7,SECC,T1.0	1	S.N.A
0.1	M0216	BN90-00986B	ASSY STAND;19R71(WHITE)	1	S.N.A
..2	M0013	BN96-03865B	ASSY STAND P-BASE;19R71(WHITE),-,ABS+PMM	1	S.A
...3	M0081	6003-001001	SCREW-TAPTITE;FH,+,B,M3,L8,ZPC(BLK),SWRC	4	S.N.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	3	S.N.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	2	S.N.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	1	S.N.A
...3		BN61-02600A	BRACKET-STAND BOTTOM;19R7,SECC,T1.0	1	S.N.A
...3	CCM1	BN63-02183A	COVER-SHEET;ROME,PE Vinyl,T0.05,100mm,20	0.1	S.N.A
...3	CCM1	BN63-02183C	COVER-SHEET;Rhcm,PE Vinyl,T0.05,200mm,20	0.6	S.N.A
...3	CCM1	BN63-02183C	COVER-SHEET;Rhcm,PE Vinyl,T0.05,200mm,20	0.2	S.N.A
...3	CCM1	BN63-02183C	COVER-SHEET;Rhcm,PE Vinyl,T0.05,200mm,20	0.2	S.N.A
...3	T0004	BN63-02705B	COVER-STAND BASE;19R71(WHITE),ABS+PMMA,-	1	S.N.A
...3		BN63-02706B	COVER-STAND FRONT;19R71(WHITE),ABS+PMMA,	1	S.N.A
...3		BN63-02707B	COVER-STAND REAR;19R71(WHITE),ABS+PMMA,-	1	S.N.A
...3		BN64-00511B	KNOB-LOCKING;19R71(WHITE),ABS+PMMA,-,-,-	1	S.N.A
...3	T0132	BN73-00077A	RUBBER FOOT;MATISSE,BUMPON,®13.5,T2.0,6	4	S.N.A
...3	T0054	BN96-03866A	ASSY HINGE P;19R71,SECC,T2.0	1	S.N.A
0.1	M0019	BN91-00963C	ASSY LCD;LS19DOWSS/EDC	1	S.N.A
..2	M0215	BN07-00280A	LCD-PANEL;LTM190M2-L01-D016,Dvorak,6BIT	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
0.1		BN91-01094A	ASSY SHIELD-AMZ;LNS1951WX/XAA,-,-	1	S.N.A
..2	M0081	6003-000275	SCREW-TAPTITE;BH,+,-,B,M3,L10,ZPC(BLK),S	7	S.N.A
..2	M0081	6003-000275	SCREW-TAPTITE;BH,+,-,B,M3,L10,ZPC(BLK),S	3	S.N.A
..2	M0081	6003-000275	SCREW-TAPTITE;BH,+,-,B,M3,L10,ZPC(BLK),S	4	S.N.A
..2	M0081	6003-001439	SCREW-TAPTITE;BH,+,-,S,M4,L8,ZPC(WHT),SW	1	S.N.A
..2	M0412	BN96-03959A	ASSY BRACKET P-PCB;BORDEAUX19,SECC	1	S.N.A
...3	T0514	BN61-02599A	BRACKET-SUPPORT;19R7,SECC,T2.0	1	S.N.A
...3	M0107	BN61-02604A	BRACKET-PCB;19R7,SECC,T0.8	1	S.N.A
...3	M0131	AA63-01298A	GASKET;FIRENZE,Conductive Fabric,7mm,15m	1	S.N.A
...3	M0162	6502-001067	CABLE CLAMP;DAFC-1300,ID2.2,T5.2,NYLIN6/	1	S.N.A
..2	M2893	BN39-00682C	LEAD CONNECTOR-LVDS;BORDEAUX 19",UL1571#	1	S.A
..2	M0162	6502-001067	CABLE CLAMP;DAFC-1300,ID2.2,T5.2,NYLIN6/	1	S.N.A
..2	M0174	BN44-00147B	IP BOARD;SIP-W19B,Bordeaux,3.2 ~4.8mA,6.	1	S.N.A
0.1	M0017	BN91-01125A	ASSY CHASSIS-STN;LNS1951WX/XAA,UNITED ST	1	S.A
..2	M0014	BN94-01036A	ASSY PCB MAIN-STN;LNS1951WX/XAA,AMLCD P	1	S.N.A
...3	SUB05	0202-001477	SOLDER-CREAM;LST309-M,-,D20-45\$,96.5Sn/	0.599	S.N.A
...3	T0245	0202-001492	SOLDER-WIRE FLUX;HSE-02 LFM48 SR-34 S,-,	0.003	S.N.A
...3	FT700	2904-001196	FILTER-SAW AV;44MHZ,SIP5K,ST,16.2DB,-,42	1	S.A
...3	CN102	3701-001292	CONNECTOR-DVI;24P,3R,FEMALE,STRAIGHT,AU1	1	S.A
...3	CN100	3701-001294	CONNECTOR-DSUB;15P,3R,FEMALE,STRAIGHT,AU	1	S.A
...3	CN300	3711-005884	HEADER-BOARD TO BOARD;BOX,30P,2R,2mm,ANG	1	S.A
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	S.A
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	S.A
...3	JA332	3722-001734	JACK-VHS;4P,SN,BLK,STRAIGHT	1	S.A
...3	JA333	3722-001903	JACK-PIN;2P,-,AU,WHT/RED,-	1	S.A
...3	JA333	3722-002063	JACK-PIN;3P,AU,YEL/WHT/RED,STRAIGHT	1	S.A
...3	JA333	3722-002143	JACK-PIN;5P,NI,GRN/BLU/RED/WHT/RED,STRAI	1	S.A
...3	CIS3	BN40-00071A	TUNER;TECH1040PG46A(S),TECH1040PG46A(S),	1	S.A
...3	MAIN	BN97-01097A	ASSY MICOM-STN;T-BORD19NUS-1000,BE19MU,2	1	S.A
....4	IC902	1102-001129	IC-EPROM;M27W401,512KX8BIT,PLCC,32P,11.3	1	S.N.A
...3	T0174	BN97-01098A	ASSY SMD;LNS1951WX/XAA,BE19MU	1	S.N.A
....4	D100	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D101	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D108	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D113	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D114	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D115	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D121	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D122	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D123	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D124	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D125	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D126	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D127	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D128	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D129	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D200	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D201	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D202	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
....4	D400	0402-000553	DIODE-SCHOTTKY;SS24/B240,40V,2000mA,DO-2	1	S.A
....4	D102	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
....4	D116	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
....4	D119	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
....4	D120	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
....4	D146	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
....4	D500	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D501	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D502	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	D503	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
....4	ZD200	0403-001382	DIODE-ZENER;UDZ33B,32.15-33.79V,200mW,SO	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	D133	0403-001435	DIODE-ZENER;QZX363C5V6,5.32-5.88V,200MW,	1	SA
....4	D147	0403-001435	DIODE-ZENER;QZX363C5V6,5.32-5.88V,200MW,	1	SA
....4	Q100	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q103	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q300	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q400	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q401	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q402	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q404	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q500	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q501	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q502	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q503	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q504	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q505	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q506	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	SA
....4	Q409	0505-001170	FET-SILICON;SI9933ADY-T1,P,-20V,3.4A,0.0	1	SA
....4	Q409	0505-001170	FET-SILICON;SI9933ADY-T1,P,-20V,3.4A,0.0	1	SA
....4	IC104	0801-002404	IC-CMOS LOGIC;74VHC4066,ANALOG SWITCH,SO	1	SA
....4	IC104	0801-002709	IC-CMOS LOGIC;74HC373,D FLIP-FLOP,TSSOP,	1	SA
....4	IC104	0801-002899	IC-CMOS LOGIC;CD4069UBC,INVERTER,SOIC,14	1	SA
....4	IC104	0802-001025	IC-CMOS LOGIC;74LCX374,D FLIP-FLOP,TSSOP	1	SA
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	SA
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	SA
....4	IC112	1103-001279	IC-EEPROM;24C32,32Kbit,4Kx8Bit,SOP,8P,5x	1	SA
....4	IC113	1105-001284	IC-DRAM;636165,-,16Mbit,1Mx16Bit,TSOP,50	1	SA
....4	IC113	1105-001284	IC-DRAM;636165,-,16Mbit,1Mx16Bit,TSOP,50	1	SA
....4	T0085	1201-001980	IC-AUDIO AMP;TDA7266D,SO,20P,16X11.1MM,-	1	SA
....4	T0085	1201-002136	IC-AUDIO AMP;LM4810,MSOP,8P,3x3mm,DUAL,-	1	SA
....4	IC704	1203-001212	IC-VOL. DETECTOR;7029,SOT-89,3P,-,PLASTI	1	SA
....4	T0087	1203-001488	IC-POSIFIXED REG.;7805,TO-252,3P,-,PLAS	1	SA
....4	IC703	1203-001559	IC-RESET;DS1834A,SOIC,8P,150ML,PLASTIC,	1	SA
....4	T0087	1203-001816	IC-POSIFIXED REG.;78M08,TO-252,3P,-,PLA	1	SA
....4	IC406	1203-002796	IC-DC/DC CONVERTER;AP1501-33K5A,TO-263-5	1	SA
....4	T0087	1203-004169	IC-POSIFIXED REG.;G78D12A,TO-252,3P,6.7	1	SA
....4	IC109	1205-002738	IC-LCD CONTROLLER;SE6181LA-LF,LQFP,256P,	1	SA
....4	R112	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	SA
....4	R161	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	SA
....4	R176	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	SA
....4	R177	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	SA
....4	R706	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	SA
....4	R113	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R178	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R201	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R202	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R206	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R212	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R215	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	SA
....4	R350	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R504	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R505	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	SA
....4	R106	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R107	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R108	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R109	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R116	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R117	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R118	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R119	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R120	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R125	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA
....4	R126	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	SA

6 Electrical Parts List

[illegible]

[illegible]

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R414	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R416	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R304	2007-000118	R-CHIP;390ohm,5%,1/10W,TP,1608	1	S.A
....4	R167	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R516	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R517	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R707	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R708	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R155	2007-001002	R-CHIP;510ohm,5%,1/10W,TP,1608	1	S.A
....4	R122	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R123	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R124	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R131	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R132	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R133	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R174	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R740	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R741	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	RA300	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA301	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA302	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA303	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	RA304	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A
....4	C104	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C105	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C124	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C125	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C126	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C127	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C519	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C520	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C522	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C523	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C531	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C532	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C705	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C711	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C719	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C727	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C734	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C737	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C740	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C745	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	S.A
....4	C106	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C107	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C108	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C109	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C110	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C111	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C180	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C181	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C182	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C183	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C184	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C185	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C186	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C187	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C190	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C202	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C203	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C204	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A
....4	C205	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C210	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C211	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C212	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C216	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C320	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C329	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C351	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C403	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C406	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C407	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C413	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C414	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C426	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C501	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C507	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C508	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C512	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C714	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C720	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C721	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C725	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C742	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C747	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C748	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C752	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C753	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C755	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C757	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C103	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C120	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C220	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C221	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C213	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C308	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C427	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C209	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C215	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C325	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C706	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C713	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C715	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C717	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C746	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C309	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C310	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C728	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C731	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C122	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C123	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C112	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C113	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C114	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C323	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C324	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C326	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C129	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	SA
....4	C704	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C710	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C712	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C718	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C726	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C733	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C736	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	S.A
....4	C739	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	S.A
....4	C744	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	S.A
....4	C402	2203-002793	C-CER,CHIP;1000nF,+80-20%,25V,Y5V,2012	1	S.A
....4	C511	2203-002793	C-CER,CHIP;1000nF,+80-20%,25V,Y5V,2012	1	S.A
....4	C100	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C319	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C322	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C327	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C328	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C400	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C401	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C404	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C431	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C465	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C702	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C730	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	S.A
....4	C101	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C115	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C116	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C128	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C130	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C131	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C214	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C219	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C300	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C301	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C302	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C303	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C304	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C305	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C306	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C312	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C313	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C314	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C315	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C316	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C317	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C318	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C321	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C330	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C331	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C332	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C333	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C334	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C335	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C336	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C337	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C338	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C339	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C340	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C341	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C342	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C343	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C344	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C345	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C346	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C347	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C348	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C349	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C350	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A
....4	C411	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C424	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C425	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C502	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C503	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C529	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C700	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C722	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C743	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C750	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C218	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,1608	1	SA
....4	C311	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C428	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C436	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C500	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C701	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C703	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C707	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C708	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C716	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C723	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C729	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C732	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C735	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C738	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C741	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C756	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C412	2402-001044	C-AL,SMD;100UF,20%,25V,GP,TP,8.3X8.3X6.3	1	SA
....4	C207	2402-001080	C-AL,SMD;47uF,20%,50V,WT,TP,8x10mm	1	SA
....4	C208	2402-001080	C-AL,SMD;47uF,20%,50V,WT,TP,8x10mm	1	SA
....4	C408	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C451	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C490	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C491	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C307	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C409	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C433	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C437	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C217	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C410	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C430	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C432	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C480	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C504	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C505	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C506	2402-001158	C-AL,SMD;1UF,20%,50V,WT,TP,4X5.2MM	1	SA
....4	C517	2402-001159	C-AL,SMD;3.3UF,20%,50V,WT,TP,4X5.2MM	1	SA
....4	C518	2402-001159	C-AL,SMD;3.3UF,20%,50V,WT,TP,4X5.2MM	1	SA
....4	C513	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C514	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C515	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C516	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C521	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C524	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C525	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C526	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C527	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C528	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C724	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C530	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8mm	1	SA
....4	C509	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
....4	C510	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
....4	C709	2402-001222	C-AL,SMD;3.3UF,20%,50V,HR,TP,4.3X4.3X5.8	1	SA

6 Electrical Parts List

[illegible]

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	D137	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D138	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D139	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D140	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D141	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D142	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D143	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D144	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	D145	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,SMD	1	S.A
....4	R142	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R143	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R144	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R145	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R148	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R149	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R150	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R151	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R508	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R509	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R115	2007-001044	R-CHIP;56ohm,5%,1/10W,TP,1608	1	S.A
....4	R290	2007-001044	R-CHIP;56ohm,5%,1/10W,TP,1608	1	S.A
....4	R200	2007-001179	R-CHIP;8.2Kohm,5%,1/10W,TP,1608	1	S.A
....4	C405	2402-001160	C-AL,SMD;330UF,20%,16V,WT,TP,1008	1	S.A
....4	C429	2402-001160	C-AL,SMD;330UF,20%,16V,WT,TP,1008	1	S.A
....4	T0568	3301-001793	BEAD-SMD;18ohm,1608,-,TP,11.8ohm/37.6MHz	1	S.A
....4	CN330	3711-005497	HEADER-BOARD TO CABLE;BOX,15P,1R,1.25MM,	1	S.A
....4	CN330	3711-005503	HEADER-BOARD TO CABLE;BOX,9P,1R,2mm,SMD-	1	S.A
....4	D109	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D110	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D111	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D112	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D190	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	T0087	1203-003696	IC-POSI.FIXED REG.;NCP1117DT18T5G,DPAK,3	1	S.A
....4	T0087	1203-003696	IC-POSI.FIXED REG.;NCP1117DT18T5G,DPAK,3	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
...3	T0562	6046-001013	STAND OFF;M3,L5,Ni PLT,SUM24L,#4-40	4	S.N.A
...3	T0099	BN62-00003A	HEAT SINK-IC;NK,SUN,A6063S,T2.5,W28,L28,	1	S.N.A
0.1	M0003	BN92-01897P	ASSY BOX;LN19R7WX/XAX	1	S.N.A
..2	T0130	BN69-01444D	BOX-00,SET;19R71,SY-01,A,WHT,A1,AMERICA(1.01	S.N.A
..2	T0081	BN96-02895A	ASSY MISC P-HANDLE PACKING;ALL MODEL,BN6	1	S.N.A
...3	M0103	BN66-00007A	LEVER-TOP;ALL MODEL,LDPE,WHITE	1	S.N.A
...3	M0102	BN66-00008A	LEVER-BOTTOM;ALL MODEL,LDPE,WHITE	1	S.N.A
0.1	M0113	BN92-01898A	ASSY P/MATERIAL;19R71	1	S.N.A
..2	T0376	6902-000061	BAG AIR;LDPE,T0.2,L1000,W500,TRP,,,	0.006	S.N.A
..2	T0376	6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,-,-	0.002	S.N.A
..2	T0003	6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	1.6	S.N.A
..2	M0081	6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,-,-	0.032	S.N.A
..2	T0524	6902-000758	BAG PE;HDPE/HDPE/NITRON(DOUBLE),T0.015/T	1	S.N.A
0.1		BN92-01938G	ASSY LABEL-WHITE;LN19R71WX/XAX	1	S.N.A
0.1	M0045	BN92-01939X	ASSY ACCESSORY;LN19R71WX/XAX	1	S.N.A
..2	T0074	BN59-00518B	REMOCON;Bordeaux 19, WHITE,TM85,SAMSUNG	1	S.A
..2		BN68-00797A	MANUAL FLYER-03,WARRANT CARD;SAMEX BASIC	1	S.N.A
..2	UNIT/ACCES	BN96-03961N	ASSY ACCESSORY-I/B;LN19R71BX/XAX	1	S.N.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	T0210	AA68-03242F	MANUAL FLYER-01,SAFETY GUIDE;All Model,S	1	S.N.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...3	ACCESSORY	BN63-01798A	CLOTH-CLEAN;RE40**,CLOTH,310,320,RHCM	1	S.N.A
...3	T0511	BN68-01074L	MANUAL USERS;COMM,SAMSUNG,Eng/Spa,S.Amer	1	S.N.A
...3	T0238	BP68-00515A	MANUAL FLYER-REGISTRATION CARD;PRC CARD,	1	S.N.A
..2	M0045	BN96-03961V	ASSY ACCESSORY;LN19R71WX/XAX	1	S.N.A
...3	T0268	3903-000085	CBF-POWER CORD;DT,US,BP3/YES,I(IEC C13/C	1	S.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	ACCESSORY	BN63-02715B	COVER-DECORATION LEFT;19R71,UO(WHITE),PC	1	S.N.A
...3	ACCESSORY	BN63-02716B	COVER-DECORATION RIGHT;19R71(WHITE),ABS+	1	S.N.A
..2	M0523	BN96-03969A	ASSY BRACKET P-WALL;BORDEAUX 19",SECC	1	S.N.A
...3	CIS	6902-000128	BAG ZIPPER;LDPE,T0.05,W200,L150,TRP,8,2-	1	S.N.A
...3	T0101	BN61-01162A	BRACKET-WALL;VE15,SECC,2.0	1	S.N.A
...3	M0132	BN96-01272A	ASSY MISC P-SCREW;VE15UO	1	S.N.A
...3		BN68-00850E	MANUAL FLYER-WALL POSITION;COMM,SAMSUNG,	1	S.N.A
...3		BN68-00850F	MANUAL FLYER-WALL MOUNT;COMM,SAMSUNG,Eng	1	S.N.A

6-2 LN19R71B Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
0		LN19R71BX/XAO	LN19R71B,A22A/19R70-GBE,19,LCD-TV,COLOMB	0	
0.1	M0001	BN90-00984G	ASSY COVER FRONT;19R71,XAX,ABS+PMMA,HB,B	1	S.N.A
..2	T0175	BN96-03731A	ASSY SPEAKER P;16#Ø,Bordeaux, 19,Left,3W	1	S.A
..2	T0175	BN96-03732A	ASSY SPEAKER P;16#Ø,Bordeaux, 19,Right,3	1	S.A
..2	T0003	BN96-03863J	ASSY COVER P-FRONT;19R71,XAX,ABS+PMMA,HB	1	S.A
...3	T0069	AA60-00171F	SPACER-FELT;50L2,FELT,350,T0.5,5	2	S.N.A
...3	T0069	BN60-00027C	SPACER-FELT;19R7,FELT,90,T0.35,10	1	S.N.A
...3	T0060	BN61-01655A	SPRING ETC;STS-304 SUS,D8,L12,T0.5	1	S.N.A
...3		BN63-01608A	FELT-VIBRATION;MH17FS,FELT,T0.5,5,250,BL	2	S.N.A
...3	CCM1	BN63-02183D	COVER-SHEET;Rhom,PE Vinyl,T0.05,680mm,20	0.6	S.N.A
...3	M0112	BN63-02702C	COVER-FRONT;19R71,XAX,ABS+PMMA,HB,BK23,S	1	S.N.A
...3	T0059	BN64-00366A	INDICATOR LED;ROME-I,PC,CLEAR,ALL MODEL	1	S.N.A
...3	T0061	BN64-00453A	WINDOW-REMOCON;32R71,PC,V0,VIOLET,DIFFUS	1	S.N.A
...3	T0054	BN64-00477A	KNOB-DECORATION;SONOMA26,32,40,ABS,HB,GR	1	S.N.A
...3	T0023	BN64-00537A	KNOB POWER;19R7,PC,T2.0,VIOLET	1	S.N.A
...3	M0145	BN96-03404A	ASSY BOARD P-FUNCTION&KNOB;Bordeaux,CT50	1	S.A
....4	T0022	BN64-00442A	KNOB CONTROL;26,32,40R71,PC,BLK,ACRYL CL	1	S.N.A
....4	M0145	BN96-03045A	ASSY BOARD P-FUNCTION;BORDEAUX,FUNCTION	1	S.A
...3	T0714	BN96-03956A	ASSY BOARD P-IR&POWER;Bordeaux19,SJ06-01	1	S.A
...3	T0066	BN96-04316A	ASSY COVER P-DECORATION;19R71,-,HIPS,HB,	1	S.N.A
....4	M0279	BN63-01474F	FELT;VENICE 20",FELT,T0.35,10,50	2	S.N.A
....4	T0056	BN63-02704A	COVER-DECORATION;19R7,HIPS,T2.0,-,HB,-	1	S.N.A
...3	M0081	6003-001321	SCREW-TAPTITE;BH,+,B,M4,L8,ZPC(BLK),SWRC	2	S.A
...3	M0081	6003-001321	SCREW-TAPTITE;BH,+,B,M4,L8,ZPC(BLK),SWRC	2	S.A
0.1	M0002	BN90-00985G	ASSY COVER REAR;19R71,XAX,ABS+PMMA,HB,BK	1	S.N.A
..2	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	6	S.N.A
..2	M0013	BN96-03864J	ASSY COVER P-REAR;19R71,XAX,ABS+PMMA,HB,	1	S.A
...3	CCM1	BN63-02183D	COVER-SHEET;Rhom,PE Vinyl,T0.05,680mm,20	0.6	S.N.A
...3	M0006	BN63-02703E	COVER-REAR;19R71,XAX,ABS+PMMA,HB,BK23,H/	1	S.N.A
...3	T0071	BN64-00512A	INLAY-TERMINAL;19R71,UO(BLACK),PS SHEET,	1	S.N.A
...3	T0064	BN65-00002A	CLAMPER CORE;BORDEAUX,PP,V0,BLK	1	S.N.A
...3	T0152	BN96-04317A	ASSY BRACKET P-VESA;19R71,SECC,T1.0	2	S.N.A
....4	T0069	BN60-00027C	SPACER-FELT;19R7,FELT,90,T0.35,10	1	S.N.A
....4	M0113	BN61-02621A	BRACKET-VESA;19R7,SECC,T1.0	1	S.N.A
0.1	M0216	BN90-00986A	ASSY STAND;19R71	1	S.N.A
..2	M0003	BN96-03865A	ASSY STAND P;19R71,-,ABS+PMMA,HB,BK23,H/	1	S.A
...3	M0081	6003-001001	SCREW-TAPTITE;FH,+,B,M3,L8,ZPC(BLK),SWRC	4	S.N.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	3	S.N.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	2	S.N.A
...3	M0081	6003-001003	SCREW-TAPTITE;BH,+,B,M4,L12,ZPC(BLK),SWR	1	S.N.A
...3		BN61-02600A	BRACKET-STAND BOTTOM;19R7,SECC,T1.0	1	S.N.A
...3	T0004	BN63-02705A	COVER-STAND BASE;19R7,ABS+PMMA,T2.5,-,-,	1	S.N.A
...3		BN63-02706A	COVER-STAND FRONT;19R7,ABS+PMMA,T2.5,-,-,	1	S.N.A
...3		BN63-02707A	COVER-STAND REAR;19R7,ABS+PMMA,T2.5,-,-,	1	S.N.A
...3		BN64-00511A	KNOB-LOCKING;19R7,ABS+PMMA,T2.0,-,-,HB,B	1	S.N.A
...3	T0132	BN73-00077A	RUBBER FOOT;MATISSE,BUMPON,*13.5,T2.0,6	4	S.N.A
...3	T0054	BN96-03866A	ASSY HINGE P;19R71,SECC,T2.0	1	S.N.A
...3	CCM1	BN63-02183A	COVER-SHEET;ROME,PE Vinyl,T0.05,100mm,20	0.1	S.N.A
...3	CCM1	BN63-02183C	COVER-SHEET;Rhom,PE Vinyl,T0.05,200mm,20	0.6	S.N.A
...3	CCM1	BN63-02183C	COVER-SHEET;Rhom,PE Vinyl,T0.05,200mm,20	0.2	S.N.A
...3	CCM1	BN63-02183C	COVER-SHEET;Rhom,PE Vinyl,T0.05,200mm,20	0.2	S.N.A
0.1	M0019	BN91-00963C	ASSY LCD;LS19DOWSS/EDC	1	S.N.A
..2	M0215	BN07-00280A	LCD-PANEL;LTM190M2-L01-D016,Dvorak,6BIT	1	S.A
0.1	M0017	BN91-01125A	ASSY CHASSIS-STN;LNS1951WX/XAA,UNITED ST	1	S.A
..2	M0014	BN94-01036A	ASSY PCB MAIN-STN;LNS1951WX/XAA,AMLCD P	1	S.A
...3	SUB05	0202-001477	SOLDER-CREAM;LST309-M,-,D20-45\$,96.5Sn/	0.599	S.N.A
...3	T0245	0202-001492	SOLDER-WIRE FLUX;HSE-02 LFM48 SR-34 S,-,	0.003	S.N.A

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Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...3	FT700	2904-001196	FILTER-SAW AV;44MHZ,SIP5K,ST,16.2DB,-42	1	S.A
...3	CN102	3701-001292	CONNECTOR-DVI;24P,3R,FEMALE,STRAIGHT,AU1	1	S.A
...3	CN100	3701-001294	CONNECTOR-DSUB;15P,3R,FEMALE,STRAIGHT,AU	1	S.A
...3	CN300	3711-005884	HEADER-BOARD TO BOARD;BOX,30P,2R,2mm,ANG	1	S.A
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	S.A
...3	JA330	3722-001061	JACK-PHONE;1P,3.6PI,AG,BLK,N	1	S.A
...3	JA332	3722-001734	JACK-VHS;4P,SN,BLK,STRAIGHT	1	S.A
...3	JA333	3722-001903	JACK-PIN;2P,-,AU,WHT/RED,-	1	S.A
...3	JA333	3722-002063	JACK-PIN;3P,AU,YEL/WHT/RED,STRAIGHT	1	S.A
...3	JA333	3722-002143	JACK-PIN;5P,NI,GRN/BLU/RED/WHT/RED,STRAI	1	S.A
...3	CIS3	BN40-00071A	TUNER;TECH1040PG46A(S),TECH1040PG46A(S),	1	S.A
...3	MAIN	BN97-01097A	ASSY MICOM-STN;T-BORD19NUS-1000,BE19MU,2	1	S.A
...4	IC902	1102-001129	IC-EPROM;M27W401,512KX8BIT,PLCC,32P,11.3	1	S.N.A
...3	T0174	BN97-01098A	ASSY SMD;LNS1951WX/XAA,BE19MU	1	S.N.A
...4	D100	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D101	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D108	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D113	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D114	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D115	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D121	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D122	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D123	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D124	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D125	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D126	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D127	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D128	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D129	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D200	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D201	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D202	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	S.A
...4	D0254	0402-000553	DIODE-SCHOTTKY;SS24/B240,40V,2000mA,DO-2	1	S.A
...4	D102	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
...4	D116	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
...4	D119	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
...4	D120	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
...4	D146	0403-000579	DIODE-ZENER;BZX84C5V1,4.8-5.4V,200mW,SOT	1	S.A
...4	D500	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
...4	D501	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
...4	D502	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
...4	D503	0403-001052	DIODE-ZENER;RD8.2MB,7.7-8.7V,200mW,SOT-2	1	S.A
...4	ZD200	0403-001382	DIODE-ZENER;UDZ33B,32.15-33.79V,200mW,SO	1	S.A
...4	D133	0403-001435	DIODE-ZENER;QZX363C5V6,5.32-5.88V,200MW,	1	S.A
...4	D147	0403-001435	DIODE-ZENER;QZX363C5V6,5.32-5.88V,200MW,	1	S.A
...4	Q100	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q103	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q300	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q400	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q401	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q402	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q404	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q500	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q501	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q502	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q503	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q504	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q505	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q506	0501-002080	TR-SMALL SIGNAL;2SC2412K,NPN,200mW,SC-59	1	S.A
...4	Q409	0505-001170	FET-SILICON;SI9933ADY-T1,P,-20V,3.4A,0.0	1	S.A
...4	Q409	0505-001170	FET-SILICON;SI9933ADY-T1,P,-20V,3.4A,0.0	1	S.A
...4	IC104	0801-002404	IC-CMOS LOGIC;74VHC4066,ANALOG SWITCH,SO	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	IC104	0801-002709	IC-CMOS LOGIC;74HC373,D FLIP-FLOP,TSSOP,	1	S.A
....4	IC104	0801-002899	IC-CMOS LOGIC;CD4069UBC,INVERTER,SOIC,14	1	S.A
....4	IC104	0802-001025	IC-CMOS LOGIC;74LCX374,D FILP-FLOP,TSSOP	1	S.A
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	S.A
....4	IC112	1103-000129	IC-EEPROM;24C02,2Kbit,256x8Bit,SOP,8P,5x	1	S.A
....4	IC112	1103-001279	IC-EEPROM;24C32,32Kbit,4Kx8Bit,SOP,8P,5x	1	S.A
....4	IC113	1105-001284	IC-DRAM;636165,-,16Mbit,1Mx16Bit,TSOP,50	1	S.A
....4	IC113	1105-001284	IC-DRAM;636165,-,16Mbit,1Mx16Bit,TSOP,50	1	S.A
....4	T0085	1201-001980	IC-AUDIO AMP;TDA7266D,SO,20P,16X11.1MM,-	1	S.A
....4	T0085	1201-002136	IC-AUDIO AMP;LM4810,MSOP,8P,3x3mm,DUAL,-	1	S.A
....4	IC704	1203-001212	IC-VOL. DETECTOR;7029,SOT-89,3P,-,PLASTI	1	S.A
....4	T0087	1203-001488	IC-POSIFIXED REG.;7805,TO-252,3P,-,PLAS	1	S.A
....4	IC703	1203-001559	IC-RESET;DS1834A,SOIC,8P,150MIL,PLASTIC,	1	S.A
....4	T0087	1203-001816	IC-POSIFIXED REG.;78M08,TO-252,3P,-,PLA	1	S.A
....4	IC406	1203-002796	IC-DC/DC CONVERTER;AP1501-33K5A,TO-263-5	1	S.A
....4	T0087	1203-004169	IC-POSIFIXED REG.;G78D12A,TO-252,3P,6.7	1	S.A
....4	IC109	1205-002738	IC-LCD CONTROLLER;SE6181LA-LF,LQFP,256P,	1	S.A
....4	R112	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R161	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R176	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R177	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R706	2007-000043	R-CHIP;1Kohm,1%,1/10W,TP,1608	1	S.A
....4	R113	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R178	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R201	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R202	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R206	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R212	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R215	2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608	1	S.A
....4	R350	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	S.A
....4	R504	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	S.A
....4	R505	2007-000072	R-CHIP;47ohm,5%,1/10W,TP,1608	1	S.A
....4	R106	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R107	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R108	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R109	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R116	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R117	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R118	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R119	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R120	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R125	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R126	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R127	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R128	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R129	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R130	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R134	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R135	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R136	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R154	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R159	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R160	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R162	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R163	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R165	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R168	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R169	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R170	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R172	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R173	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R175	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A

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Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R205	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R208	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R303	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R507	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R510	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R511	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R514	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R515	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R519	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R520	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R521	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R522	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R524	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R525	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R527	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R528	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R532	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R533	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R534	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R535	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R704	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R710	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R711	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R717	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R718	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R719	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R720	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R734	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R742	2007-000074	R-CHIP;100ohm,5%,1/10W,TP,1608	1	S.A
....4	R121	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R166	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R171	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R713	2007-000077	R-CHIP;470ohm,5%,1/10W,TP,1608	1	S.A
....4	R306	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R530	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R538	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R542	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R703	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R732	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R733	2007-000078	R-CHIP;1Kohm,5%,1/10W,TP,1608	1	S.A
....4	R100	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R102	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R103	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R207	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R300	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R301	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R302	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R305	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R307	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R420	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R506	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R526	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R529	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R536	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R537	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R540	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R715	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R716	2007-000084	R-CHIP;4.7Kohm,5%,1/10W,TP,1608	1	S.A
....4	R700	2007-000087	R-CHIP;6.8Kohm,5%,1/10W,TP,1608	1	S.A
....4	R701	2007-000087	R-CHIP;6.8Kohm,5%,1/10W,TP,1608	1	S.A
....4	R702	2007-000087	R-CHIP;6.8Kohm,5%,1/10W,TP,1608	1	S.A
....4	R101	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R104	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R105	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R111	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R137	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R153	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R156	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R157	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R164	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R209	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R308	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R309	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R310	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R311	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R313	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R314	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R315	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R405	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R406	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R407	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R418	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R421	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R422	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R423	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R502	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R503	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R518	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R523	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R539	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R541	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R543	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R721	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R722	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R723	2007-000090	R-CHIP;10Kohm,5%,1/10W,TP,1608	1	S.A
....4	R500	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R501	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R531	2007-000097	R-CHIP;47Kohm,5%,1/10W,TP,1608	1	S.A
....4	R512	2007-000098	R-CHIP;56Kohm,5%,1/10W,TP,1608	1	S.A
....4	R513	2007-000098	R-CHIP;56Kohm,5%,1/10W,TP,1608	1	S.A
....4	R210	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R216	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R402	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R403	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R404	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R414	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R416	2007-000102	R-CHIP;100Kohm,5%,1/10W,TP,1608	1	S.A
....4	R304	2007-000118	R-CHIP;390ohm,5%,1/10W,TP,1608	1	S.A
....4	R167	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R516	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R517	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R707	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R708	2007-000869	R-CHIP;4.7Kohm,1%,1/10W,TP,1608	1	S.A
....4	R155	2007-001002	R-CHIP;510ohm,5%,1/10W,TP,1608	1	S.A
....4	R122	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R123	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R124	2007-001164	R-CHIP;75ohm,1%,1/10W,TP,1608	1	S.A
....4	R131	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R132	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R133	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R174	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R740	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	R741	2007-001167	R-CHIP;75ohm,5%,1/10W,TP,1608	1	S.A
....4	RA300	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A

6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	RA301	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	SA
....4	RA302	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	SA
....4	RA303	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	SA
....4	RA304	2011-000881	R-NET;33ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	SA
....4	C104	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C105	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C124	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C125	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C126	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C127	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C519	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C520	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C522	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C523	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C531	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C532	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C705	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C711	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C719	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C727	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C734	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C737	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C740	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C745	2203-000140	C-CER,CHIP;1.5nF,10%,50V,X7R,1608	1	SA
....4	C106	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C107	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C108	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C109	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C110	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C111	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C180	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C181	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C182	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C183	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C184	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C185	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C186	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C187	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C190	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C202	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C203	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C204	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C205	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C210	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C211	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C212	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C216	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C320	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C329	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C351	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C403	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C406	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C407	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C413	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C414	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C426	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C501	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C507	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C508	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C512	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C714	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C720	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C721	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C725	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C742	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C747	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C748	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C752	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C753	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C755	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C757	2203-000189	C-CER,CHIP;100nF,+80-20%,25V,Y5V,1608	1	SA
....4	C103	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C120	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C220	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C221	2203-000236	C-CER,CHIP;0.1nF,5%,50V,C0G,1608	1	SA
....4	C213	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C308	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C427	2203-000257	C-CER,CHIP;10nF,10%,50V,X7R,1608	1	SA
....4	C209	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C215	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C325	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C706	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C713	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C715	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C717	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C746	2203-000440	C-CER,CHIP;1nF,10%,50V,X7R,1608	1	SA
....4	C309	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C310	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C728	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C731	2203-000626	C-CER,CHIP;0.022nF,5%,50V,C0G,1608	1	SA
....4	C122	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C123	2203-000783	C-CER,CHIP;0.33nF,5%,50V,C0G,1608	1	SA
....4	C112	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C113	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C114	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C323	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C324	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C326	2203-000972	C-CER,CHIP;47nF,10%,16V,X7R,1608	1	SA
....4	C129	2203-001071	C-CER,CHIP;0.056nF,5%,50V,C0G,1608	1	SA
....4	C704	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C710	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C712	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C718	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C726	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C733	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C736	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C739	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C744	2203-001656	C-CER,CHIP;0.47nF,5%,50V,NP0,1608	1	SA
....4	C402	2203-002793	C-CER,CHIP;1000nF,+80-20%,25V,Y5V,2012	1	SA
....4	C511	2203-002793	C-CER,CHIP;1000nF,+80-20%,25V,Y5V,2012	1	SA
....4	C100	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C319	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C322	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C327	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C328	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C400	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C401	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C404	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C431	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C465	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C702	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C730	2203-005005	C-CER,CHIP;100nF,10%,16V,X7R,1608	1	SA
....4	C101	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA
....4	C115	2203-005065	C-CER,CHIP;1000nF,+80-20%,10V,Y5V,1608	1	SA

6 Electrical Parts List

[illegible]

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	C723	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C729	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C732	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C735	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C738	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C741	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C756	2203-005437	C-CER,CHIP;10000nF,+80-20%,10V,Y5V,3216	1	SA
....4	C412	2402-001044	C-AL,SMD;100UF,20%,25V,GP,TP,8.3X8.3X6.3	1	SA
....4	C207	2402-001080	C-AL,SMD;47uF,20%,50V,WT,TP,8x10mm	1	SA
....4	C208	2402-001080	C-AL,SMD;47uF,20%,50V,WT,TP,8x10mm	1	SA
....4	C408	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C451	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C490	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C491	2402-001081	C-AL,SMD;100uF,20%,25V,WT,TP,8.3x8.3x10	1	SA
....4	C307	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C409	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C433	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C437	2402-001086	C-AL,SMD;100UF,20%,16V,WT,TP,6.6X6.6X5.3	1	SA
....4	C217	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C410	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C430	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C432	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C480	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C504	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C505	2402-001128	C-AL,SMD;100uF,20%,16V,-,TP,6.3X5.7mm	1	SA
....4	C506	2402-001158	C-AL,SMD;1UF,20%,50V,WT,TP,4X5.2MM	1	SA
....4	C517	2402-001159	C-AL,SMD;3.3UF,20%,50V,WT,TP,4X5.2MM	1	SA
....4	C518	2402-001159	C-AL,SMD;3.3UF,20%,50V,WT,TP,4X5.2MM	1	SA
....4	C513	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C514	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C515	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C516	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C521	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C524	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C525	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C526	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C527	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C528	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C724	2402-001165	C-AL,SMD;4.7UF,20%,35V,WT,TP,4X5.8MM	1	SA
....4	C530	2402-001178	C-AL,SMD;10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	SA
....4	C509	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
....4	C510	2402-001183	C-AL,SMD;22UF,20%,16V,WT,TP,5.3X5.3X6MM	1	SA
....4	C709	2402-001222	C-AL,SMD;3.3UF,20%,50V,HR,TP,4.3X4.3X5.8	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA
....4	T0052	2703-000398	INDUCTOR-SMD;10uH,10%,3225	1	SA
....4	T0052	2703-001334	INDUCTOR-SMD;1.5uH,10%,2012	1	SA
....4	T0052	2703-001334	INDUCTOR-SMD;1.5uH,10%,2012	1	SA
....4	T0052	2703-001334	INDUCTOR-SMD;1.5uH,10%,2012	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	SA

6 Electrical Parts List

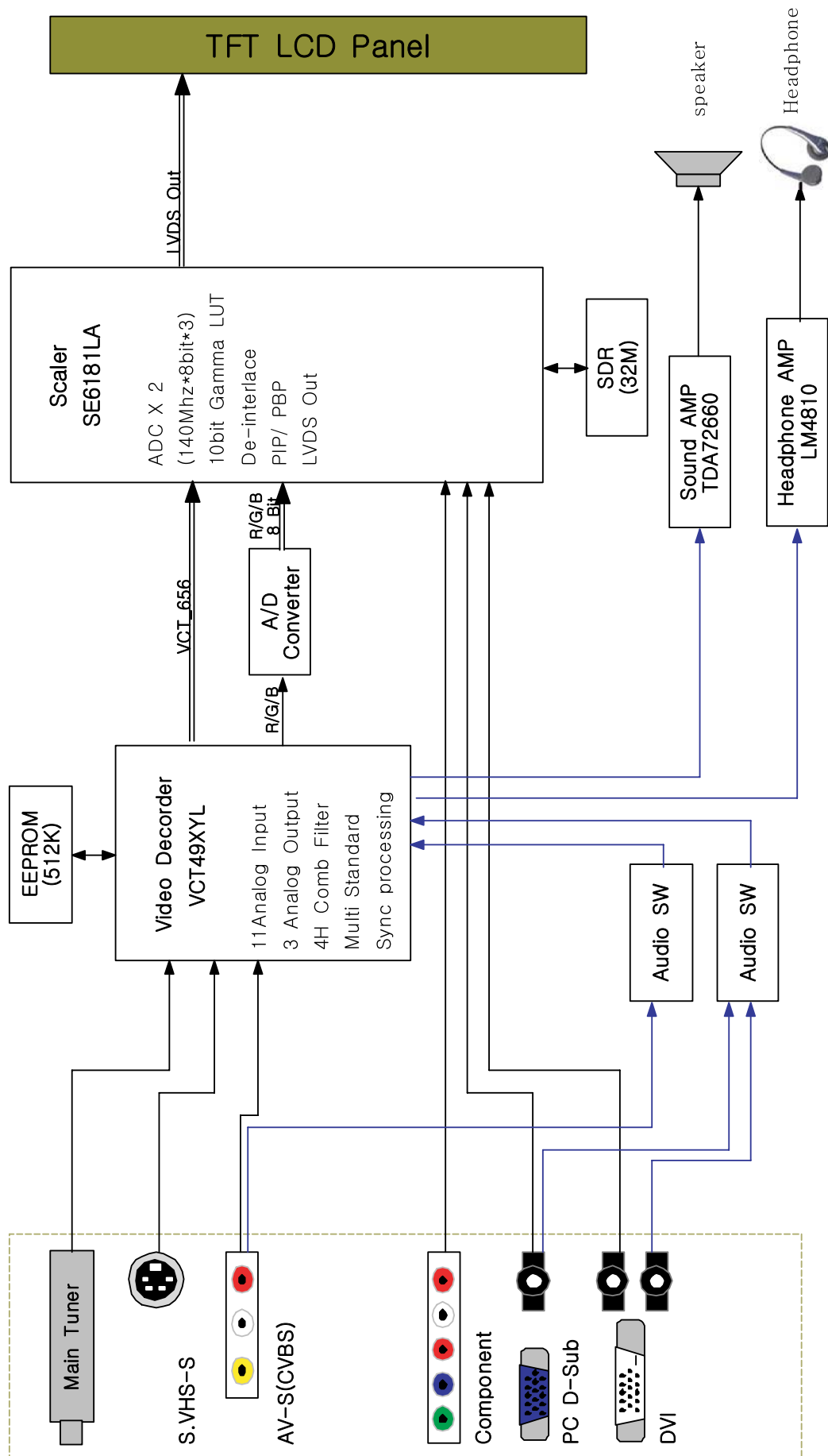
Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	T0052	2703-001778	INDUCTOR-SMD;3.3uH,20%,3225	1	S.A
....4	X300	2801-003667	CRYSTAL-SMD;14.31818MHz,30ppm,28-AAN,16,	1	S.A
....4	X700	2801-004004	CRYSTAL-SMD;20.25MHz,20ppm,28-AAN,13pF,2	1	S.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001145	BEAD-SMD;60ohm,4516,TP,70ohm/45MHz,82ohm	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	T0568	3301-001236	BEAD-SMD;60ohm,1608,-,-,-	1	S.N.A
....4	CN330	3711-003057	HEADER-BOARD TO CABLE;BOX,6P,1R,1.25MM,S	1	S.A
....4	CN330	3711-005291	HEADER-BOARD TO CABLE;BOX,2P,1R,2MM,SMD-	1	S.A
....4	CN330	3711-005292	HEADER-BOARD TO CABLE;BOX,3P,1R,2MM,SMD-	1	S.A
....4	CN330	3711-005292	HEADER-BOARD TO CABLE;BOX,3P,1R,2MM,SMD-	1	S.A
....4	CN330	3711-005477	HEADER-BOARD TO CABLE;BOX,4P,1R,2mm,SMD-	1	S.A
....4	T0119	BN09-00020A	IC MICOM;VCT4862R-XX-F2,144P,8.7,20.25,N	1	S.N.A
....4	L402	BN27-00002A	COIL-CHOKE(SMD);47uH,47uH,20%,12*12*8mm,	1	S.A
....4	T0077	BN41-00763A	PCB MAIN;BORDEAUX 19,FR-4,4,1.0,1.6,160*	1	S.N.A
....4	D410	0402-001614	DIODE-RECTIFIER;S1G,400V,1A,DO-214AC,TP	1	S.A
....4	D411	0402-001614	DIODE-RECTIFIER;S1G,400V,1A,DO-214AC,TP	1	S.A
....4	D103	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D104	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D105	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D106	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D107	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D135	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D136	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D137	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D138	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D139	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D140	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D141	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D142	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D143	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D144	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	D145	0406-001163	DIODE-TVS;CDS3C05GTA,6.4V/-/-,-,SMD	1	S.A
....4	R142	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R143	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R144	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R145	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R148	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R149	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R150	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R151	2007-000071	R-CHIP;22ohm,5%,1/10W,TP,1608	1	S.A
....4	R508	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A
....4	R509	2007-000075	R-CHIP;220ohm,5%,1/10W,TP,1608	1	S.A

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
....4	R115	2007-001044	R-CHIP;56ohm,5%,1/10W,TP,1608	1	S.A
....4	R290	2007-001044	R-CHIP;56ohm,5%,1/10W,TP,1608	1	S.A
....4	R200	2007-001179	R-CHIP;8.2Kohm,5%,1/10W,TP,1608	1	S.A
....4	C405	2402-001160	C-AL,SMD;330UF,20%,16V,WT,TP,1008	1	S.A
....4	C429	2402-001160	C-AL,SMD;330UF,20%,16V,WT,TP,1008	1	S.A
....4	T0568	3301-001793	BEAD-SMD;18ohm,1608,-,TP,11.8ohm/37.6MHz	1	S.A
....4	CN330	3711-005497	HEADER-BOARD TO CABLE;BOX,15P,1R,1.25MM,	1	S.A
....4	CN330	3711-005503	HEADER-BOARD TO CABLE;BOX,9P,1R,2mm,SMD-	1	S.A
....4	D109	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D110	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D111	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D112	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	D190	0403-000258	DIODE-ZENER;BZX84C5V6,5.2-6V,225mW,SOT-2	1	S.A
....4	T0087	1203-003696	IC-POSI.FIXED REG.;NCP1117DT18T5G,DPAK,3	1	S.A
....4	T0087	1203-003696	IC-POSI.FIXED REG.;NCP1117DT18T5G,DPAK,3	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
....4	F103	2901-001302	FILTER-EMI SMD;20V,0.3A,-,-,2.0x1.2x1.3m	1	S.A
...3	T0562	6046-001013	STAND OFF;M3,L5,Ni PLT,SUM24L,#4-40	4	S.N.A
...3	T0099	BN62-00003A	HEAT SINK-IC;NK,SUN,A6063S,T2.5,W28,L28,	1	S.N.A
0.1	M0003	BN92-01897M	ASSY BOX;LN19R71BX/XAO	1	S.N.A
..2	T0376	BN69-01444A	BOX-00.MONITOR;19R71,SY-01,A,WHT,A1,W557	1.01	S.N.A
..2	T0081	BN96-02895A	ASSY MISC P-HANDLE PACKING;ALL MODEL,BN6	1	S.N.A
...3	M0103	BN66-00007A	LEVER-TOP;ALL MODEL,LDPE,WHITE	1	S.N.A
...3	M0102	BN66-00008A	LEVER-BOTTOM;ALL MODEL,LDPE,WHITE	1	S.N.A
0.1		BN92-01938D	ASSY LABEL-BLACK;LN19R71BX/XAO	1	S.N.A
0.1	M0045	BN92-01939S	ASSY ACCESSORY;LN19R71BX/XAO	1	S.N.A
..2	T0074	BN59-00545B	REMOCON;Bordeaux 19, BLACK,TM85,SAMSUNG	1	S.A
..2	UNIT/ACCESS	BN96-03961P	ASSY ACCESSORY-I/B;LN19R71BX/XAO	1	S.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	ACCESSORY	AA68-03242F	MANUAL FLYER-02;SAFETY GUIDE;All Model,S	1	S.N.A
...3	ACCESSORY	AA68-03727A	MANUAL FLYER-01,WARRANTY CARD;All,SAMSUN	1	S.N.A
...3	ACCESSORY	BN63-01798A	CLOTH-CLEAN;RE40**,CLOTH,180,200,RHCM	1	S.N.A
...3	T0511	BN68-01074L	MANUAL USERS;COMM,SAMSUNG,Eng/Spa,S,Amer	1	S.N.A
..2	M0523	BN96-03969A	ASSY BRACKET P-WALL;BORDEAUX 19",SECC	1	S.A
...3	CIS	6902-000128	BAG ZIPPER;LDPE,T0.05,W200,L150,TRP,8,2-	1	S.N.A
...3	T0101	BN61-01162A	BRACKET-WALL;VE15,SECC,2.0	1	S.N.A
...3	M0132	BN96-01272A	ASSY MISC P-SCREW;VE15UO	1	S.N.A
...3		BN68-00850E	MANUAL FLYER-WALL POSITION;COMM,SAMSUNG,	1	S.N.A
...3		BN68-00850F	MANUAL FLYER-WALL MOUNT;COMM,SAMSUNG,Eng	1	S.N.A
..2	M0045	BN96-03970A	ASSY ACCESSORY;BORDEAUX19	1	S.N.A
...3	T0268	3903-000085	CBF-POWER CORD;DT,US,BP3/YES,I(IEC C13/C	1	S.A
...3	T0524	6902-000110	BAG PE;LDPE,T0.05,W250,L400,TRP,28,2	1	S.N.A
...3	ACCESSORY	BN63-02715A	COVER-DECORATION LEFT;19R71,UO,PC+ABS,T3	1	S.N.A
...3	ACCESSORY	BN63-02716A	COVER-DECORATION RIGHT;19R71,UO,PC+ABS,T	1	S.N.A
0.1		BN91-01094E	ASSY SHIELD-AMZ;LN19R71BX/*	1	S.N.A
..2	M0162	6502-001067	CABLE CLAMP;DAFC-1300,ID2.2,T5.2,NYLIN/	1	S.N.A
..2	M2893	BN39-00682C	LEAD CONNECTOR-LVDS;BORDEAUX 19",UL1571#	1	S.A
..2	M0174	BN44-00147A	IP BOARD;SIP-W19A,Bordeaux,3.2 -4.8mA,6,	1	S.A
..2	M0081	6003-000275	SCREW-TAPTITE;BH,+,-,B,M3,L10,ZPC(BLK),S	7	S.N.A
..2	M0081	6003-000275	SCREW-TAPTITE;BH,+,-,B,M3,L10,ZPC(BLK),S	3	S.N.A
..2	M0081	6003-000275	SCREW-TAPTITE;BH,+,-,B,M3,L10,ZPC(BLK),S	4	S.N.A
..2	M0081	6003-001439	SCREW-TAPTITE;BH,+,-,S,M4,L8,ZPC(WHT),SW	1	S.N.A
..2	M0412	BN96-03959A	ASSY BRACKET P-PCB;BORDEAUX19,SECC	1	S.N.A
...3	T0514	BN61-02599A	BRACKET-SUPPORT;19R7,SECC,T2.0	1	S.N.A
...3	M0107	BN61-02604A	BRACKET-PCB;19R7,SECC,T0.8	1	S.N.A
...3	M0131	AA63-01298A	GASKET;FIRENZE,Conductive Fabric,7mm,15m	1	S.N.A

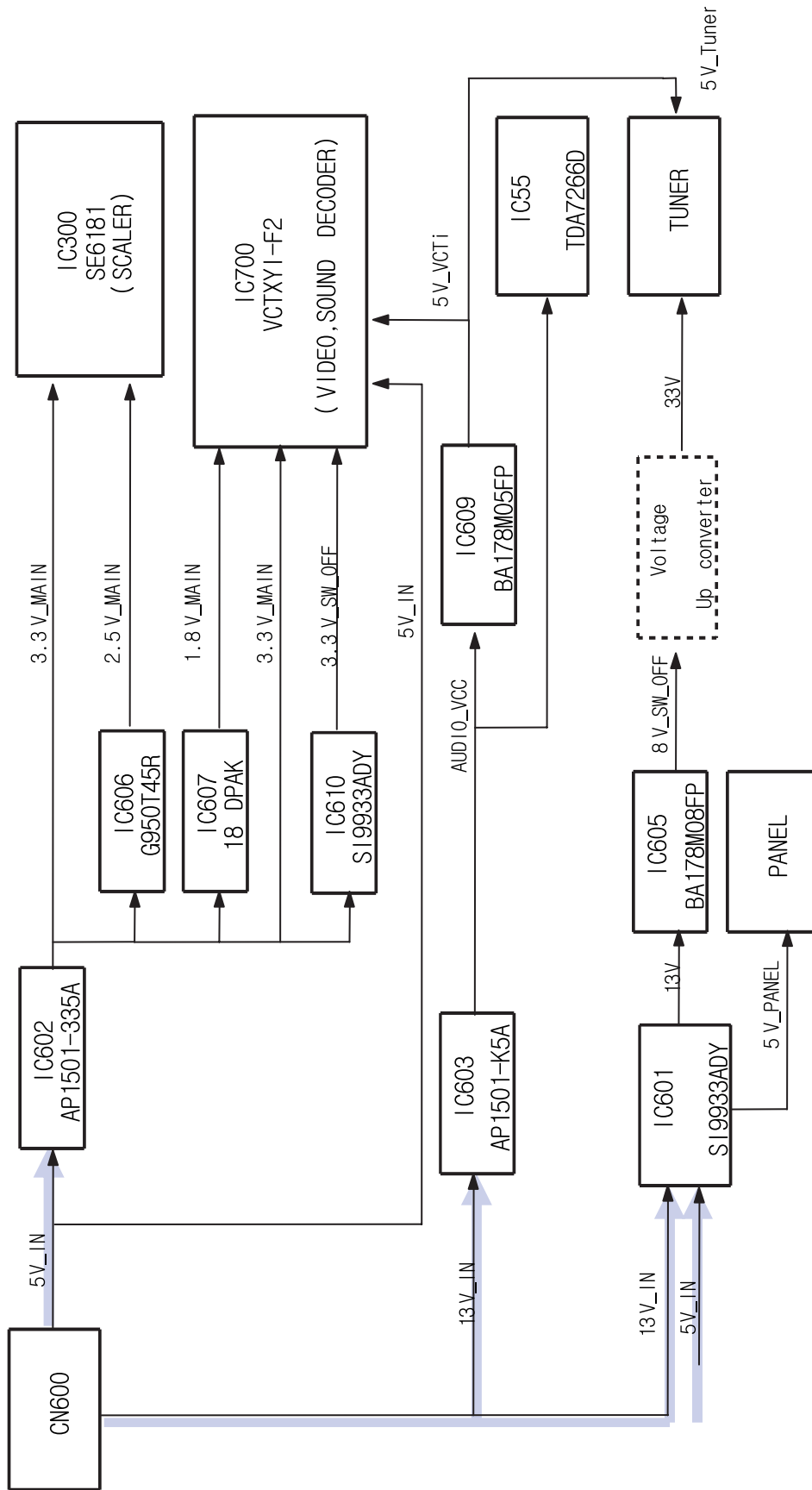
6 Electrical Parts List

Level	Loc. No.	Code No.	Description & Specification	Q'ty	SA/SNA
...3	M0162	6502-001067	CABLE CLAMP;DAFC-1300,ID2.2,T5.2,NYLIN6/	1	S.N.A
0.1	M0113	BN92-01898C	ASSY P/MATERIAL;19R71,ABS+PMMA,-,-,-	1	S.N.A
..2	T0376	6902-000061	BAG AIR;LDPE,T0.2,L1000,W500,TRP,,,	0.006	S.N.A
..2	T0524	6902-000241	BAG PE;NITRON/HDPE,T0.5/T0.012,W600,L600	1	S.N.A
..2	T0376	6902-000379	BAG AIR;LDPE,T0.2,W1000,L1800,TRP,-,-	0.002	S.N.A
..2	T0003	6902-000604	BAG WRAPPING;LDPE,T0.02,W500,L10000,TRP,	1.6	S.N.A
..2	M0081	6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,-,-	0.032	S.N.A

7 Block Diagram



Power Tree



8 Wiring Diagram

CN400 (Power Supply)

1	+13V
2	+13V
3	GND
4	GND
5	+5V
6	+5V
7	BL_CTL
8	BL_EN

CN104 (S-Video)

1	SVHS_CIN
2	SVHS_YIN
3	GND
4	GND
5	CHK_VIDEO
6	GND

CN105 (Video)

1	GND
2	CHK_VIDEO
3	VCR_IN
4	GND
5	VCR_ARIN
6	VCR_ALIN
7	GND
8	VCR_ALIN
9	VCR_ARIN

CN102 (DVI)

1	Rx2-
3	GND
4	NC
5	NC
6	DVI_DDC_CLK
7	DVI_DDC_DAT
8	NC
9	Rx1-
10	Rx1+
11	GND
12	NC
13	NC
14	+5V_DDC
15	CHK_DVI
16	HDCP_CONTROL
17	Rx0-
18	Rx0+
19	GND
20	NC
21	NC
22	GND
23	RxC+
24	RxC-

CN100 (PC)

1	RED_IN
2	GREEN_IN
3	BLUE_IN
4	NC
5	GND
6	R_GND_S
7	G_GND_S
8	B_GND_S
9	+5V_DDC
10	CHK_DSUB
11	NC
12	+5V_DDC
13	PC_HSYNC_IN
14	PC_VSYNC_IN
15	+5V_DDC

CN103 (PC Audio)

1	GND
2	PC_ARIN
3	PC_ALIN
4	NC
5	NC
6	GND
7	NC

CN110 (DVI Audio)

1	GND
2	DVI_ALIN
3	DVI_ALIN
4	GND
5	DVI_ARIN
6	DVI_ARIN

CN101 (Component)

1	COM_Y
2	COM_PB
3	COMP_PR
4	DTV_ALIN
5	DTV_ARIN

CN106 (Function key)

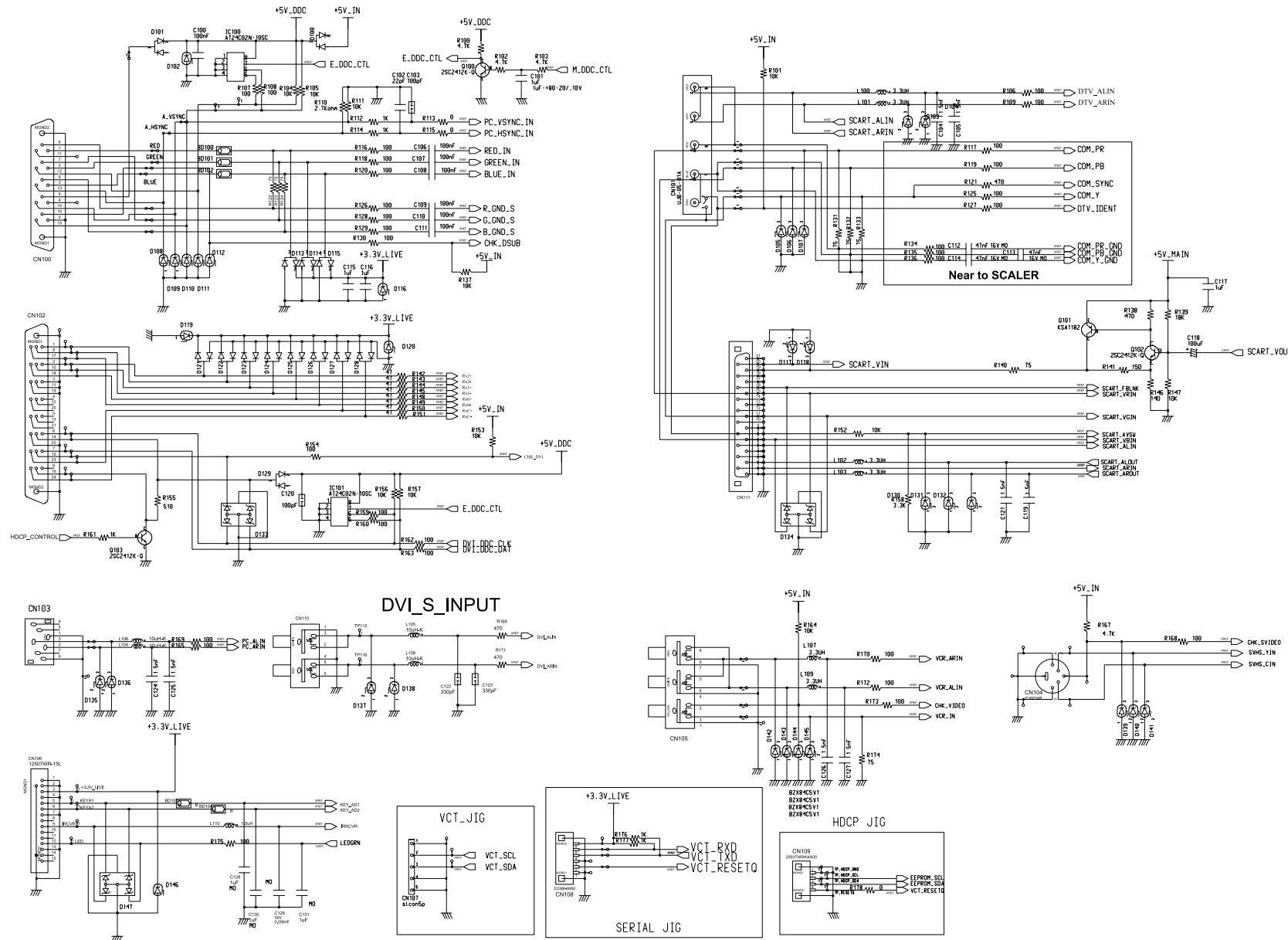
1	GND
2	GND
3	+3.3V
4	GND
5	KEY_AD1
6	KEY_AD2
7	GND
8	NC
9	IRRRCVR
10	NC
11	NC
12	LED_GRN
13	GND
14	NC
15	NC

Memo

9 Schematic Diagrams

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

-Signal Input part



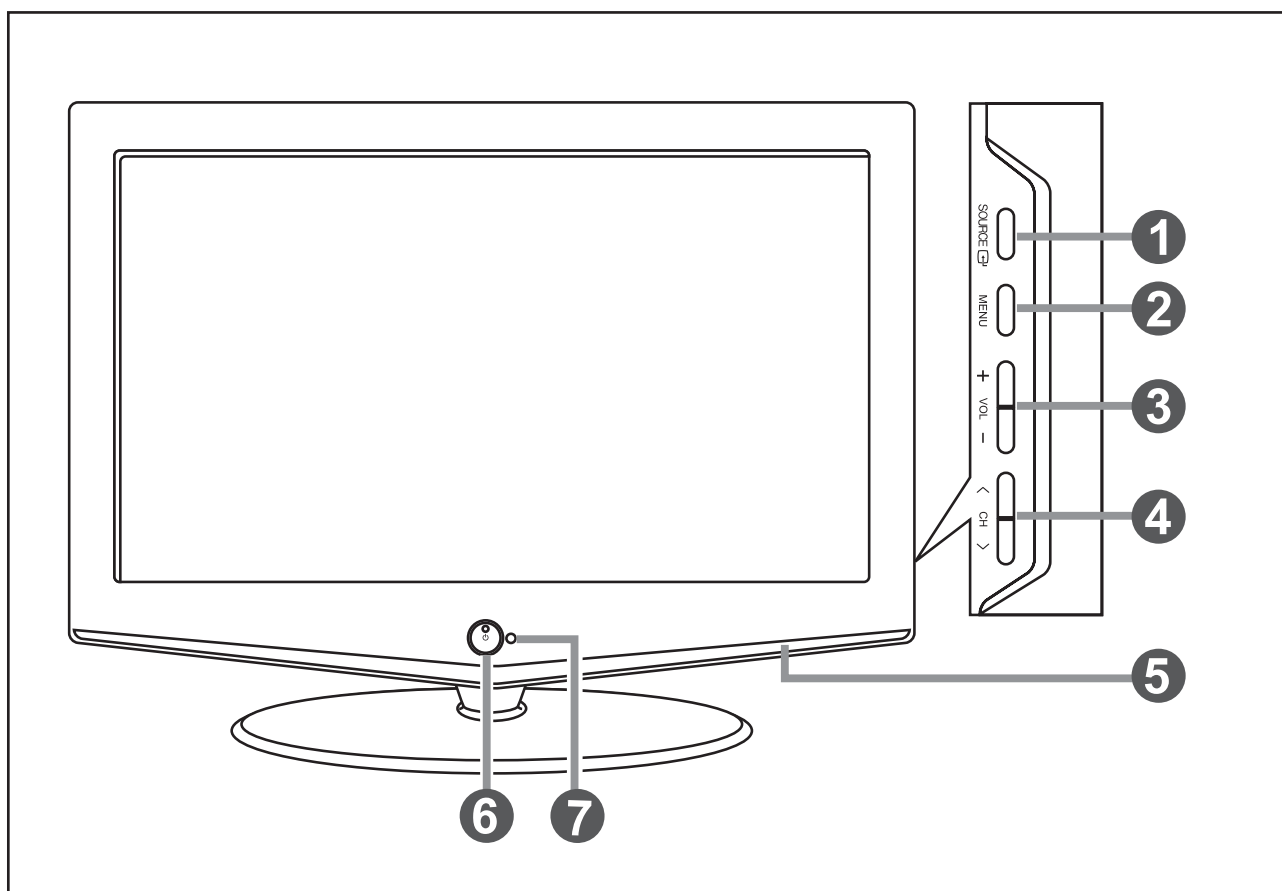






10 Operating Instructions and Installation

10-1 Front



1. SOURCE

Toggles between all the available input sources (TV, AV, S-Video, Component, PC, DVI). In the on-screen menu, use this button as you would use the ENTER button on the remote control.

2. MENU

Press to see an on-screen menu of your TV's features.

3. — VOL +

Press to decrease or increase the volume. In the on-screen menu, use the + VOL - buttons as you would use the and buttons on the remote control.

4. < CH >

Press to change channels. In the on-screen menu, use the buttons as you would use the ◀ and ▶ buttons on the remote control.

5. SPEAKERS

6. POWER

Press to turn the TV on and off.

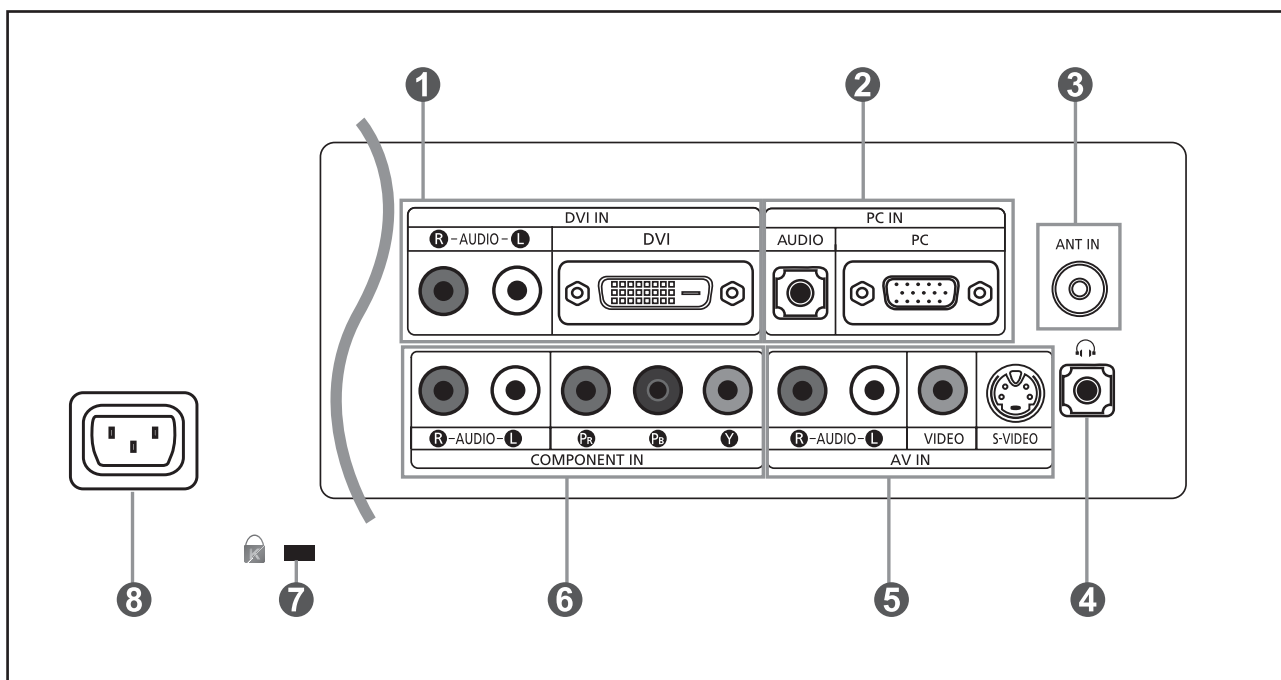
POWER INDICATOR

Blinks and turns off when the power is on and lights up in standby mode.

7. REMOTE CONTROL SENSOR

Aim the remote control towards this spot on the TV.

10-2 Rear



1. DVI IN

Connect to the digital video output jack on your DVD/Set-Top Box.
- DVI-D terminal does not support PC.

2. PC IN

Connect to the video and audio output jacks on your PC.

3. ANT IN

Connect to an antenna or cable TV system.

4. HEADPHONE

Connect a set of external headphones for private listening.

5. AV IN

Video and audio inputs for external devices, such as a camcorder or VCR.

S-VIDEO

Connect an S-Video signal from a camcorder or VCR.

6. COMPONENT IN

Connect Component video/audio.

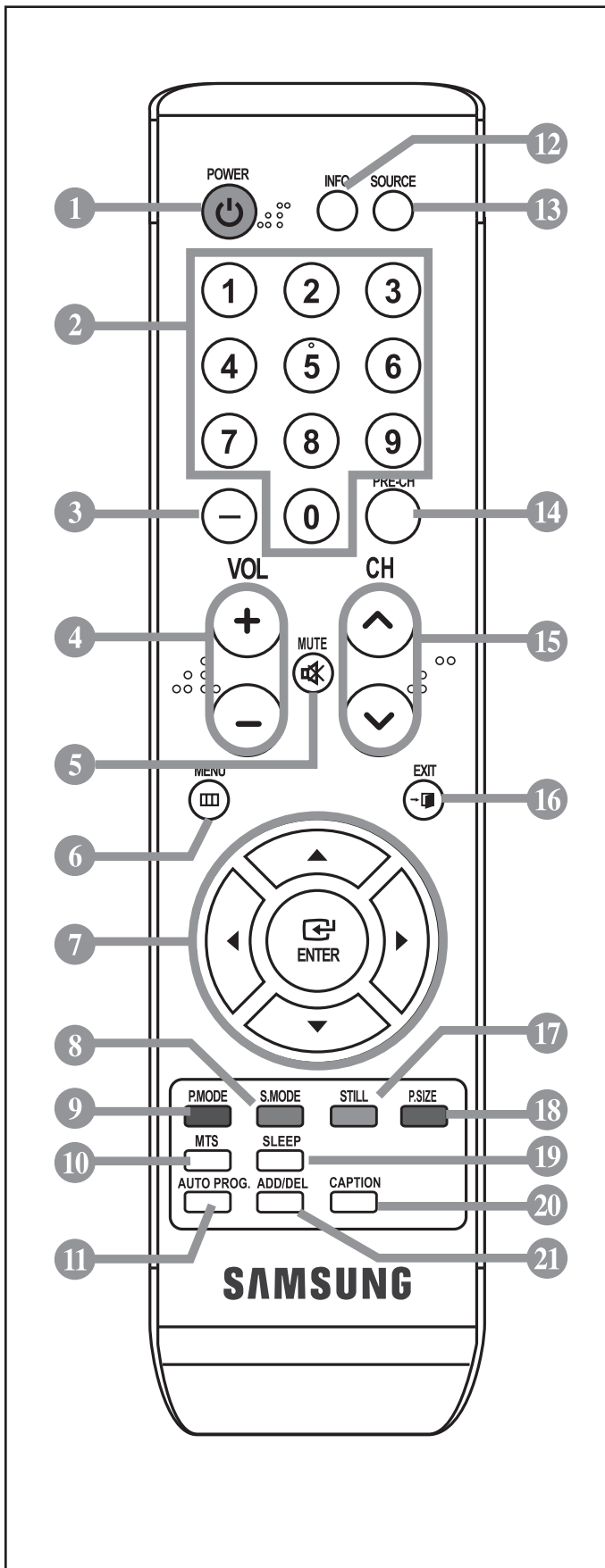
7. KENSINGTON LOCK

The Kensington lock (optional) is a device used to physically fix the system when used in a public place.
If you want to use a locking device, contact the dealer where you purchased the TV.

8. POWER INPUT

Connect the supplied power cord.

10-3 Remote Control



1. POWER
2. NUMERIC BUTTONS
3. -
4. VOL + / VOL -
5. MUTE
6. MENU
7. UP / DOWN / LEFT / RIGHT / ENTER
8. S.MODE
9. P.MODE
10. MTS
11. AUTO PROG.
12. INFO
13. SOURCE
14. PRE-CH
15. CH
16. EXIT
17. STILL
18. P.SIZE
19. SLEEP
20. CAPTION
21. ADD/DEL

1. POWER

Turns the TV on and off.

2. Number button

Press to change the channel.

3. -

Press to select channels over 100.

For example, to select channel 121, press "+100", then press "2" and "1".

4. VOL - VOL +

Press to increase or decrease the volume.

5. MUTE

Press to temporarily cut off the sound.

6. MENU

Displays the main on-screen menu.

7. UP / DOWN / LEFT / RIGHT / ENTER

Use to select on-screen menu items and change menu values.

8. S.MODE

Press to select the sound mode.

9. P.MODE

Press to select the picture mode.

10. MTS

Press to choose stereo, mono or Separate Audio Program (SAP broadcast).

11. AUTO PROG.

Press to automatically store selected TV/Cable channels.

12. INFO

Press to display information on the TV screen.

13. SOURCE

Press to display all of the available video sources.

14. PRE-CH

Tunes to the previous channel.

15. CH

Press to change channels.

16. EXIT

Press to exit the menu.

17. STILL

Press to stop the action during a particular scene.
Press again to resume normal video.

18. P.SIZE

Press to change the screen size.

19. SLEEP

Press to select a preset time interval for automatic shut off.

20. CAPTION

Controls the caption decoder.

21. ADD/DEL

Use to store and delete channels to/from memory.

10-4 Installation Notes and Precautions

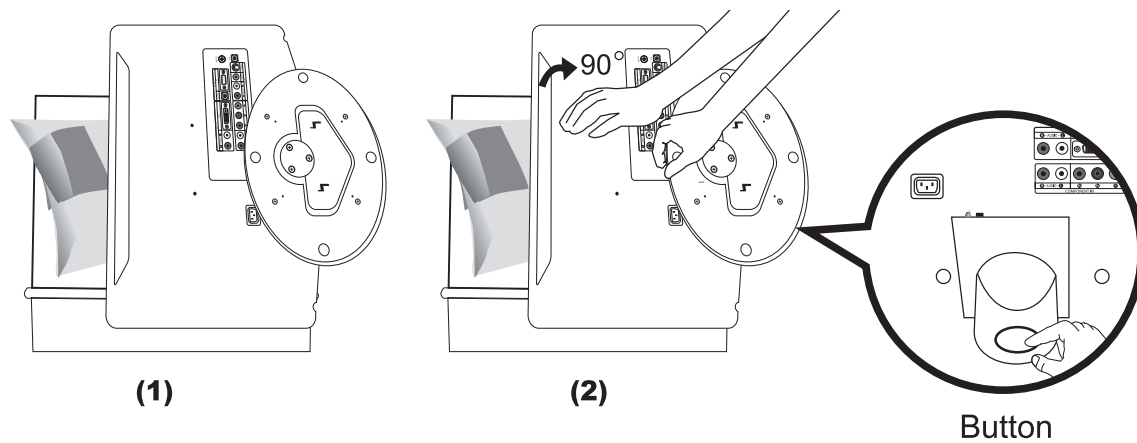
10-4-1 Using the Anti-Theft Kensington Lock



The Kensington lock is a device used to physically fix the system when using it in a public place. The locking device has to be purchased separately. The appearance and locking method may differ from the illustration depending on the manufacturer. Please refer to the manual provided with the Kensington lock for proper use.

1. Insert the locking device into the Kensington slot on the LCD TV (Figure 1), and turn it in the locking direction (Figure 2).
2. Connect the Kensington lock cable.
3. Fix the Kensington lock to a desk or a heavy stationary object.

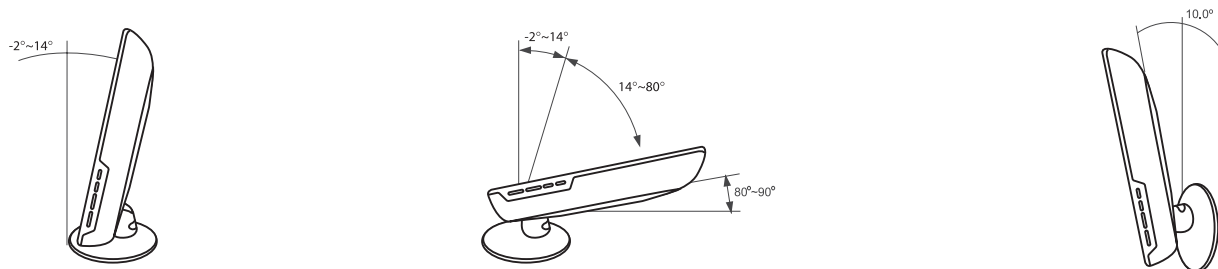
10-4 How to Adjust the Stand



1. Place the front of the TV onto a soft cloth or cushion on a table as in Figure (1).
- Align the TV bottom along the table edge.
2. Press on the center of the TV back.
Adjust the stand as in Figure (2) while pressing the button on the back of the stand.
3. Place the TV on the table so that the TV sits safely.

Note: When you adjust the stand, press the button on the back of the stand.

10-5 How to Adjust the Angle of the TV

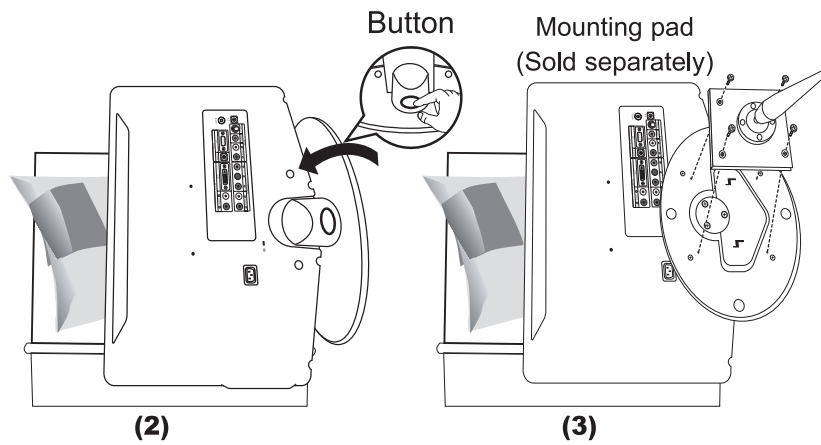


Note: When you adjust the stand, press the button on the back of the stand.

1. Figure (1) shows the adjustment angle ($-2^{\circ} \sim 14^{\circ}$) when you use the LCD on its stand.
Excessive tilting can turn the LCD TV over which may cause damage.
2. Figure (2) shows the adjustment angle ($14^{\circ} \sim 80^{\circ}$) when you convert the LCD from stand-based use to wall-mount.
3. Figure (3) shows the adjustment angle ($0^{\circ} \sim 10^{\circ}$) when you mount the LCD TV to a wall.

Note: You will hear a Click sound when changing the angle from 1 to 2 or 3 to 2.

10-6 Installing VESA compliant mounting devices



1. Place the TV faced down on a soft cloth or cushion on a table.
2. Adjust the stand, pressing the button on the back of the stand.
3. Align the mounting interface pad (not supplied) with the holes in the stand bottom and secure it with the four screws that come with the arm-type base, wall mount hanger or other bases (not supplied).

Note: When you adjust the stand, press the button on the back of the stand.

Memo

11 Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the TFT-LCD TV.

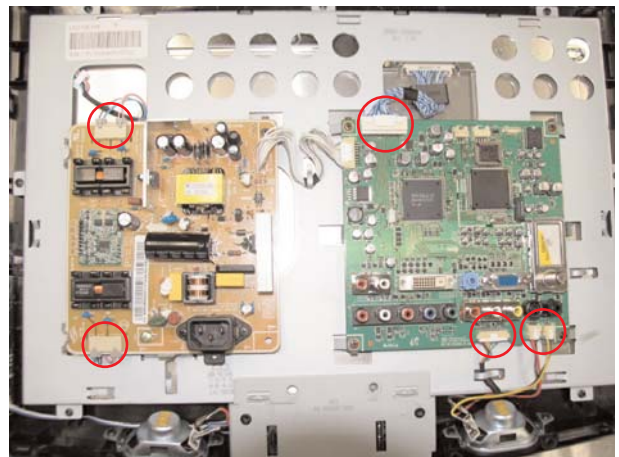
⚠ WARNING: This LCD TV contains electrostatically sensitive devices. Use caution when handling these components.

11-1 Disassembly

- ⚠ Cautions:**
1. Disconnect the monitor from the power source before disassembly.
 2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.

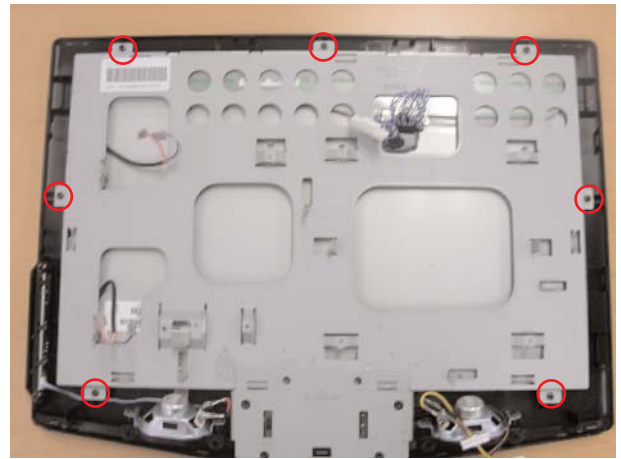
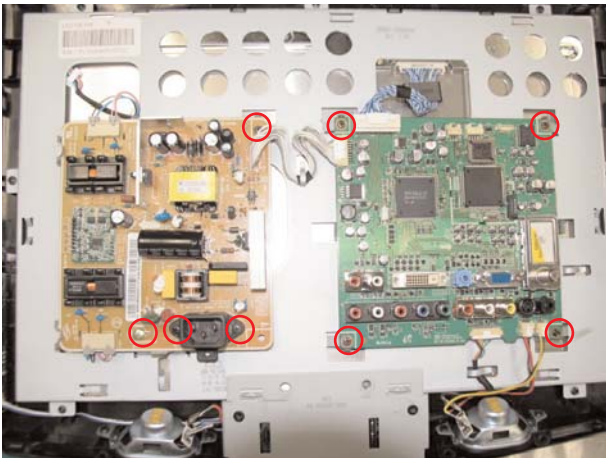


1. Place the face of the LCD TV downward on cushioned table.
Remove screws from the rear-cover and the stand.



2. Lift up the rear-cover.
Disconnect cables from the boards.

11 Disassembly and Reassembly



3. Remove screws from the boards and the shield cover.



4. Lift up the shield-cover.



5. Lift up the LCD panel.

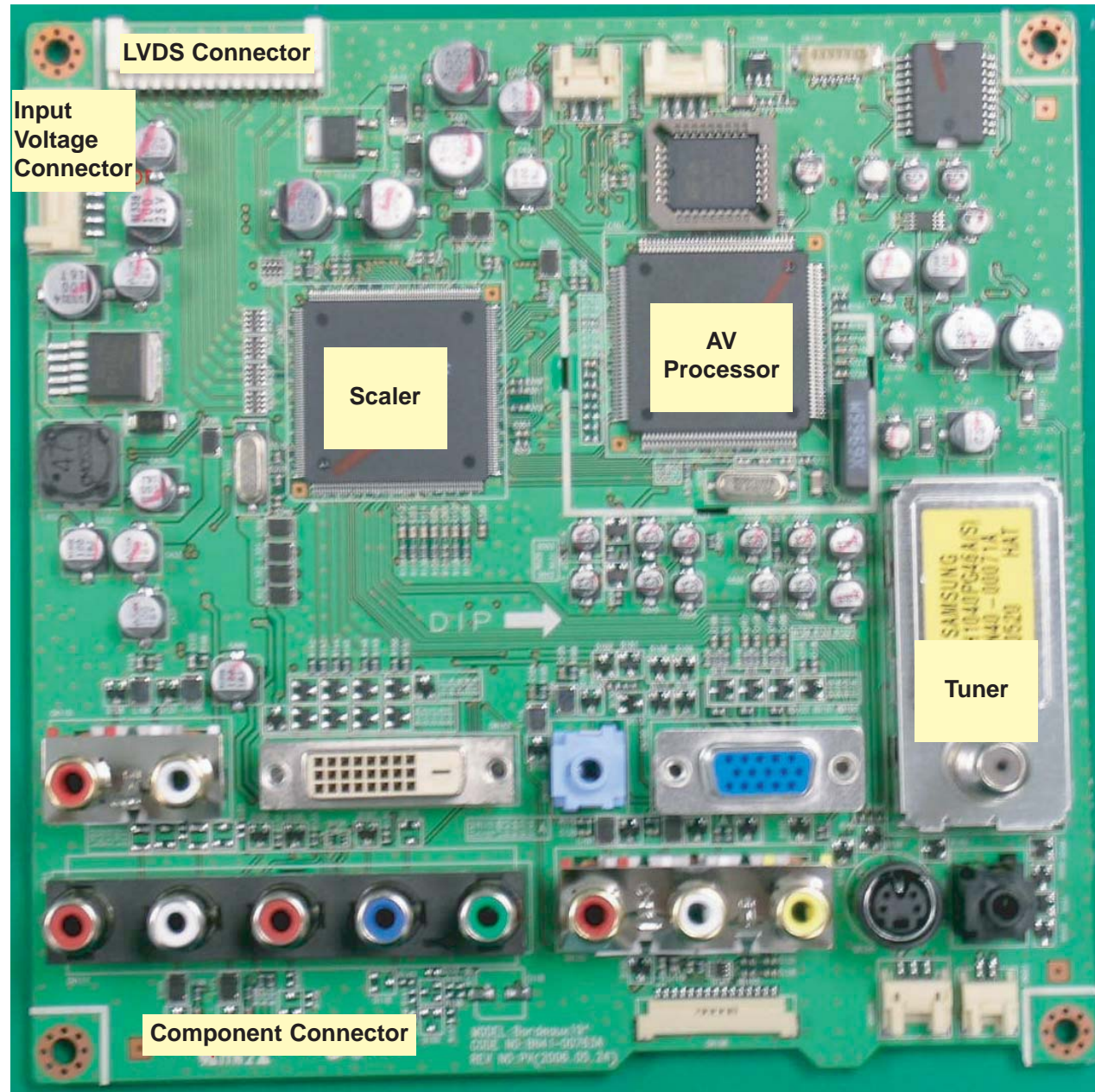


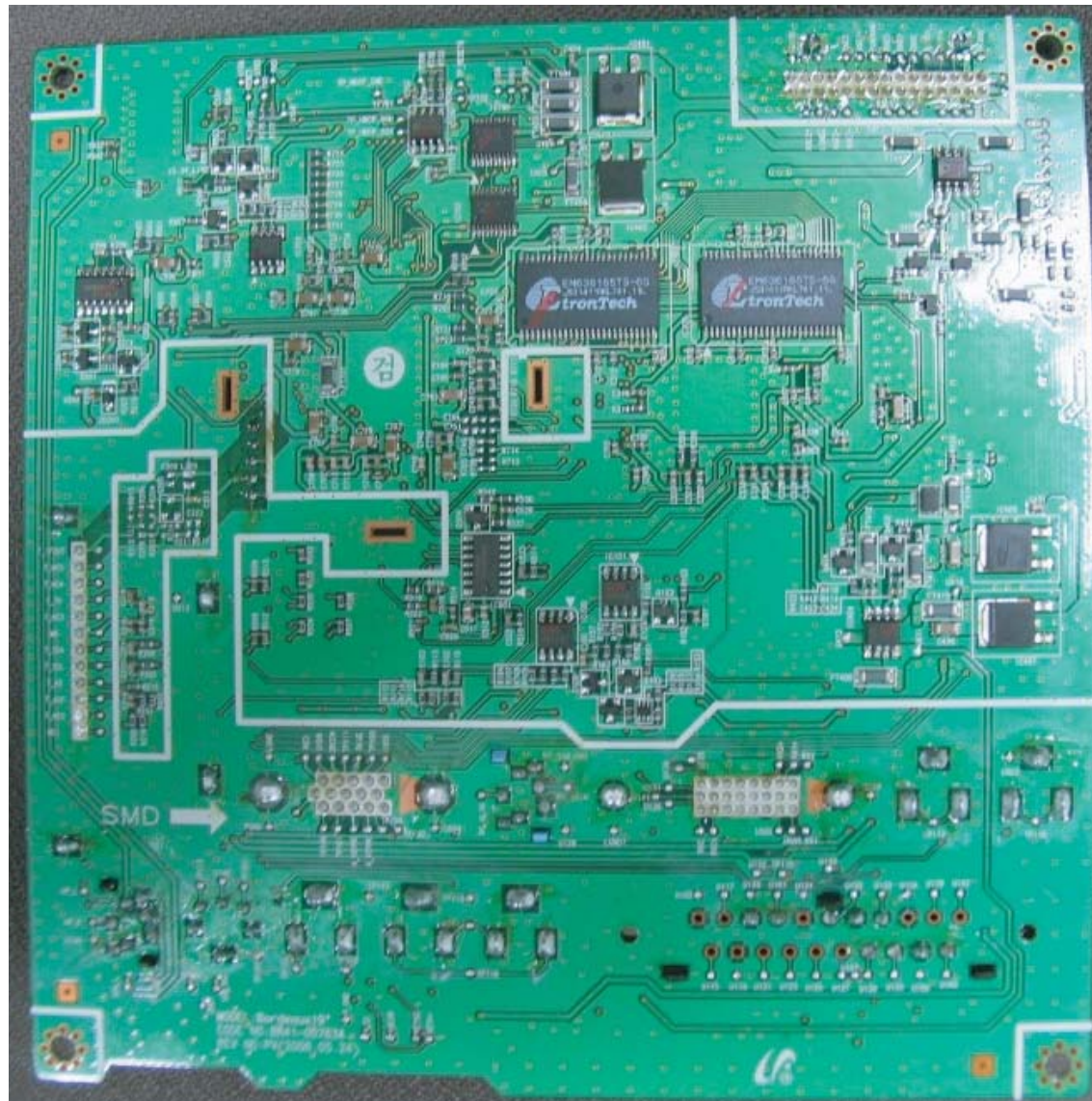
11-2 Reassembly

-Reassembly procedures are in the reverse order of disassembly procedures.

Memo

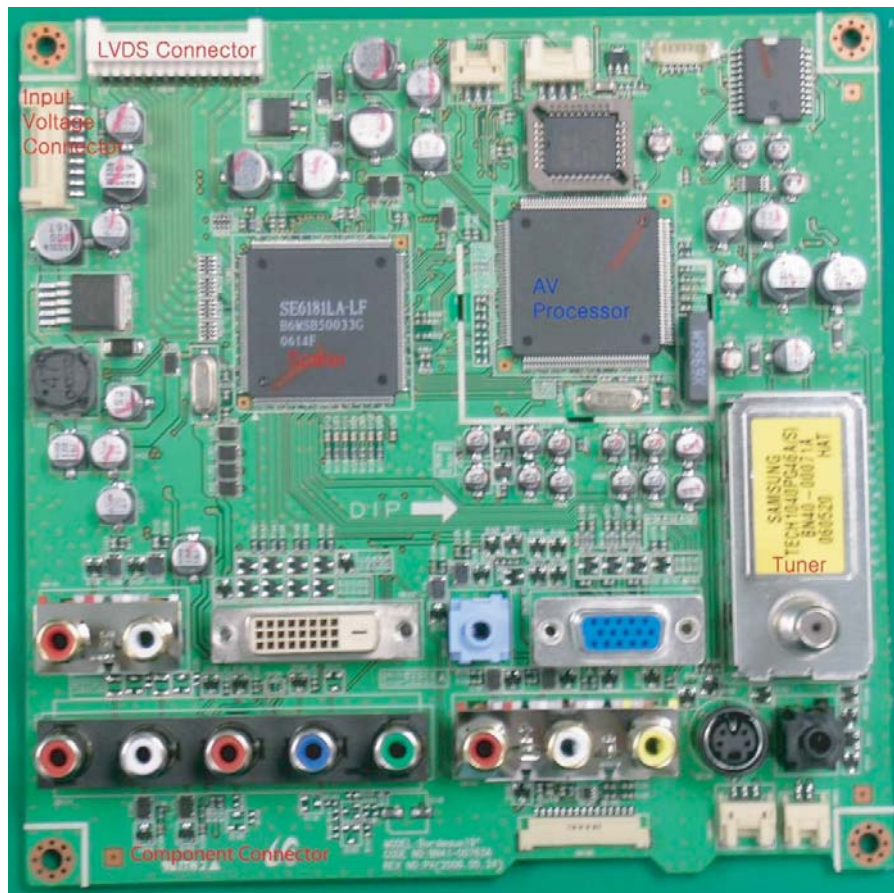
12 PCB Diagram





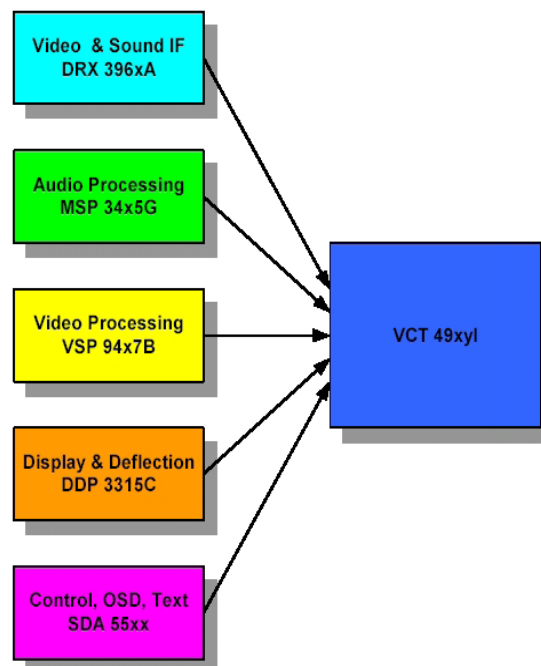
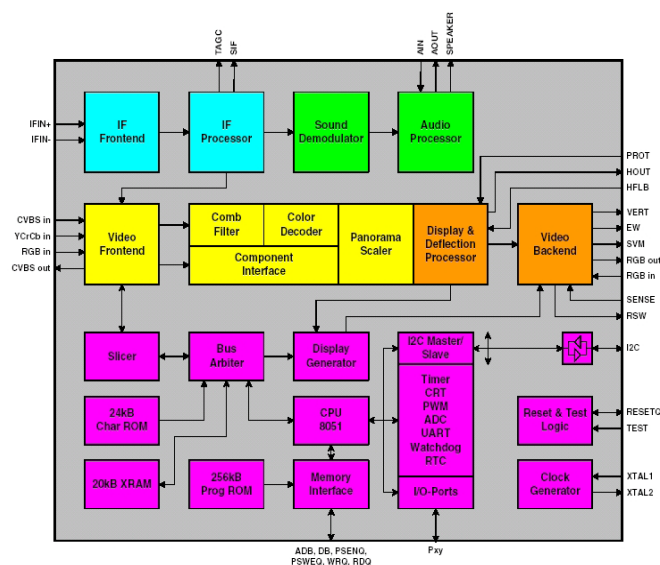
13 Circuit Descriptions

13-1 Block description



No	Block	Description	Name
1	AV Processor	Versatile signal processor	VCT49X3R
2	Scaler	SXGA LCD Controller with Analog Interface and Dual TTL/LVDS Transmitter	SE6181-F2
3	Tuner	Antenna RF in	TECH1040PG46A
4	D_sub Input	D_sub input connector	
5	Function connector	Function key connector	
6	Speaker connector	Left, Right Speaker Ass'y connector	
7	Audio jack	JACK-EAR PHONE	
8	Filter	Video SAW Filter	X6965M
9	IP Board connector	Power in	

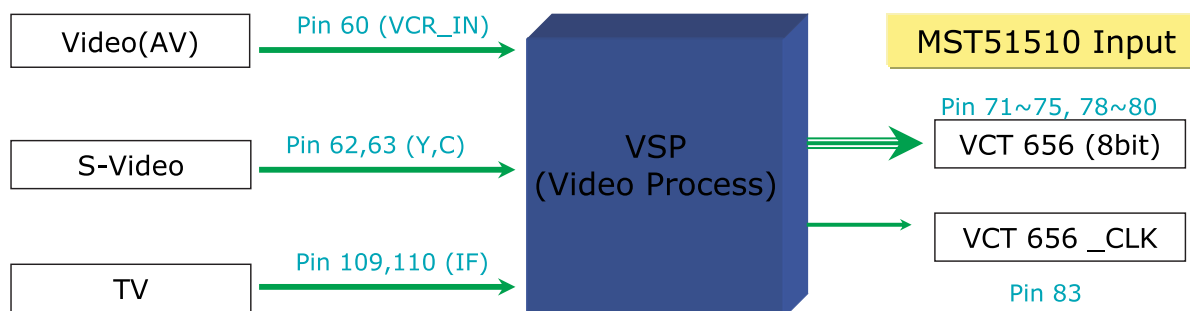
13-1-1 VCT49XYI (IC700)



13-1-2 VSP Block

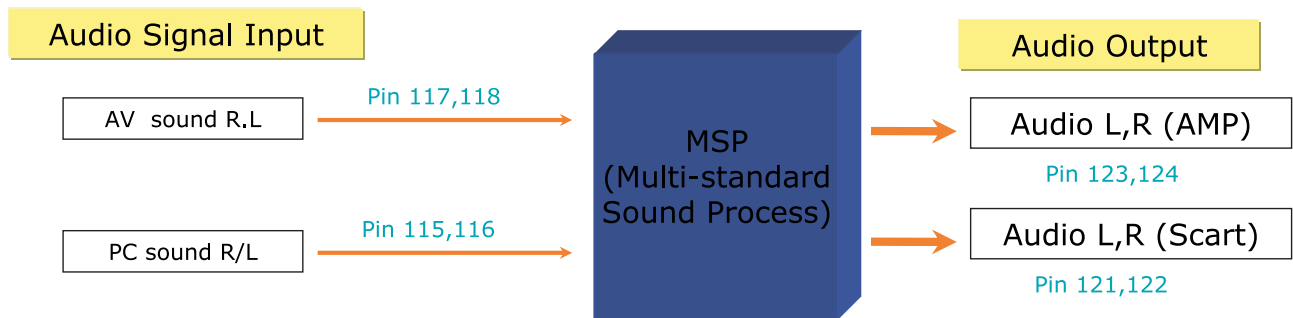
: CVBS, S-Video, RF(IF), SCART
(RGB) Convert 656 format to video
input and transfer to MST51510

External Video Signal Input

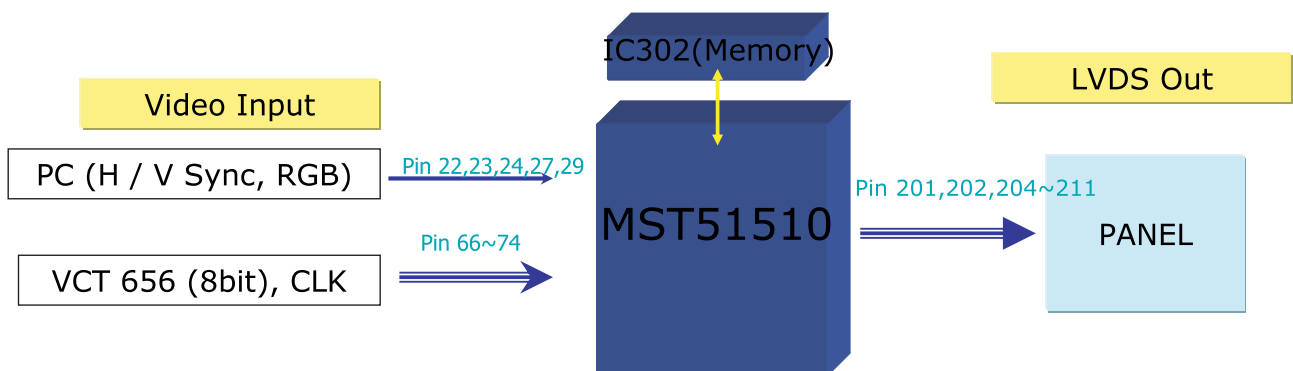


13-1-3 MSP Block

: PC, Sound L/R, SCART,
Receive audio input and send
out to AMP.

**13-1-4 SE6181(IC301)**

- Scaler(MFM)
- Support Digital Video Input
- Internal LVDS IC
- Support PIP
- OSD controller engine



Memo

14 Reference Information

14-1 Technical Terms

- TFT-LCD

(Thin film Transistor Liquid Crystal Display)

ADC(Analog to Digital Converter)

This is a circuit that converts from analog signal to digital signals.

- PLL(Phase Locked Loop)

During progressing ADC, Device makes clock synchronizing HSYNC with Video clock

- Inverter

Device that supply Power to LCD panel lamp. this device generate about 1,500~2,000V.

- AC Adapter

Device that converts AC(90V~240V) to DC(+12V or 14V)

- SMPS(Switching Mode Power Supply)

Switching Mode Power supply. This design technology is used to step up/down the input power by switching on/off

- FRC(Frame Rate Controller)

Technology that change image frame quantity displayed on screen for one second.

Actually TFT-LCD panel require 60 pcs of frame for one second.

so, this technology is needed to convert input image to 60 pcs regardless input frame quantity.

- Image Scaler

Technology that convert various input resolution to other resolution.(ex. 640* 480 to 1024*768)

- Auto Configuration(Auto adjustment)

This is an algorithm to adjust monitor to optimum condition by pushing one key.

- OSD(On Screen Display)

On screen display. customer can control the screen easily with this.

- Image Lock

This means "Fineness adjustment " in LCD Monitor, the features are "Fine" and "Coarse"

- FINE

"Fine" adjustment is used to adjust visibility by control phase difference.

- COARSE

This is a adjustment by tuning with Video clock and PLL clock.

- DVI (Digital Visual Interface)

This provides a high speed digital connection for visual data types that is display technology independent. this interface is primarily focused at providing a connection between a computer and its display device.

- L.V.D.S.(Low Voltage Differential Signaling)

a kind of transmission method for Digital. It can be used from Main PBA to Panel.

- T.M.D.S

(Transition minimized Differential Signaling)

a kind of transmission method for Digital.

It can be used from Video card to Main PBA.

- DDC(Display data channel)

It is a communication method between Host Computer and related equipment.

It can make it Plug and Play between PC and Monitor.

- EDID

Extended Display Identification Data PC can recognize the monitor information as Product data, Product name, Display mode, Serial number and Signal source, etc through DDC Line communicating with PC and Monitor.

- Dot Pitch

The image on a monitor is composed of red, green and blue dots. The closer the dots, the higher the resolution. The distance between two dots of the same color is called the 'Dot Pitch'. Unit: mm

- Vertical Frequency

The screen must be redrawn several times per second in order to create and display an image for the user. The frequency of this repetition per second is called Vertical Frequency or Refresh Rate. Unit: Hz

Example: If the same light repeats itself 60 times per second, this is regarded as 60 Hz.

- Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle. The inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

- Interlace and Non-Interlace Methods

Showing the horizontal lines of the screen from the top to the bottom in order is called the Non-Interlace method while showing odd lines and then even lines in turn is called the Interlace method. The Non-Interlace method is used for the majority of monitors to ensure a clear image. The Interlace method is the same as that used in TVs.

- Plug & Play

This is a function that provides the best quality screen for the user by allowing the computer and the monitor to exchange information automatically. This monitor follows the international standard VESA DDC for the Plug & Play function.

- Resolution

The number of horizontal and vertical dots used to compose the screen image is called 'resolution'. This number shows the accuracy of the display. High resolution is good for performing multiple tasks as more image information can be shown on the screen.

Example: If the resolution is 1280 x 1024, this means the screen is composed of 1280 horizontal dots (horizontal resolution) and 1024 vertical lines (vertical resolution).

- DVD

A type of digital disk technology that takes up only the benefits of CD and LD, to implement a high resolution/quality, which enables the user to enjoy clearer images.

- DTV

Broadcasting (Digital TV Broadcasting)
An enhanced broadcasting technology to process digital video signals using a set-top box, which implements a high resolution and clearer digital images on the screen.

- A2

This system uses two carriers to transmit voice data. Countries such as South Korea and Germany use this system.

- BTSC

Broadcast Television System Committee
The stereo broadcasting system that is used in most of the countries that have adopted the NTSC system, including the United States, Canada, Chile, Venezuela and Taiwan. It also refers to the organization that has been organized to promote its development and management.

- EIAJ

Electronic Industries Association of Japan.

- RF Cable

A round signal cable generally used for TV antennas.

- Satellite Broadcasting

Broadcasting service provided via satellite. Enables high picture quality and clear sound throughout the country regardless of the location of the viewer.

- Sound Balance

Balances the levels of the sound coming from each speaker in televisions with two speakers.

- Cable TV

Whereas the terrestrial broadcasting is delivered via frequency signals through the air, cable broadcasting is transmitted via a cable network. In order to view cable TV, one must purchase a cable receiver and hook it up to the cable network.

- CATV

"CATV" refers to the broadcasting service offered at hotels, schools and other buildings through their own broadcasting system, apart from VHF or UHF broadcasting by terrestrial broadcasters. The CATV programs may include movies, entertainment and educational programs. (Different from cable TV.)
CATV can be viewed only within the area in which the CATV service is offered.

- S-Video

Short for "Super Video." S-Video allows up to 800 lines of horizontal resolution, enabling high-quality video.

- VHF/UHF

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

- Channel Fine Tuning

This feature allows the viewer to fine-tune the TV channel to obtain the best viewing conditions. The Samsung LCD TV has both automatic and manual channel fine-tuning features to enable the viewer to adjust their desired settings.

- External Device Input

External device input refers to video input from such external video device as VCR, camcorder and DVD player, separate from a TV broadcast.

- LNA (Low Noise Amplifier)

This derives from artificial satellite technology that amplifies weak signals even in poor reception areas for sharper images.

- Antenna Converter

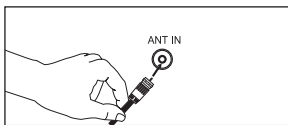
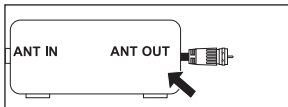
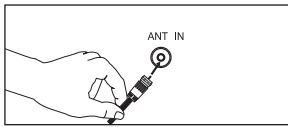
A connection part that is used to link a wide antenna cable (feeder cable) to the TV.

- English Caption (= Caption Setting)

A kind of language selection feature that provides English subtitles (caption) or character information services from broadcasting services (ex: AFKN) or video tapes (marked CC), and which are especially useful for studying English.

14-2 Connecting the TV

- Connecting Cable TV



Cable without a Cable Box

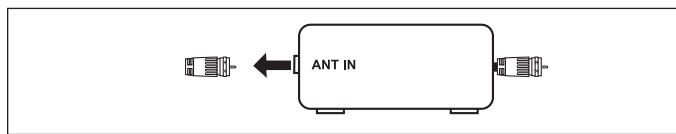
1. Plug the incoming cable into the ANT IN terminal on the back of the TV.
 - Because this TV is cable-ready, you do not need a cable box to view unscrambled cable channels.

Connecting to a Cable Box that Descrambles All Channels

1. Find the cable that is connected to the ANT OUT terminal on your cable box.
 - This terminal might be labeled "ANT OUT", "VHF OUT" or simply, "OUT".
2. Connect the other end of this cable to the ANT IN terminal on the back of the TV.

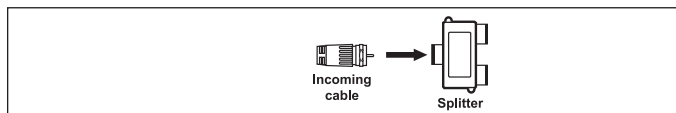
Cable without a Cable Box

If your cable box descrambles only some channels (such as premium channels), follow the instructions below. You will need a two-way splitter, an RF (A/B) switch, and four lengths of RF cable. (These items are available at most electronics stores.)

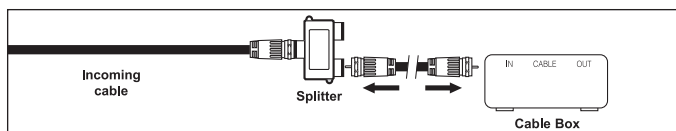


1. Find and disconnect the cable that is connected to the ANT IN terminal on your cable box.

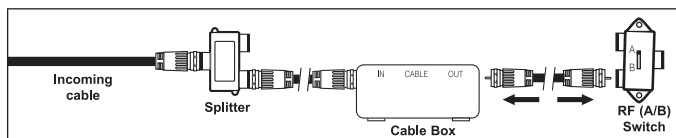
- This terminal might be labeled "ANT OUT", "VHF OUT" or simply, "OUT".



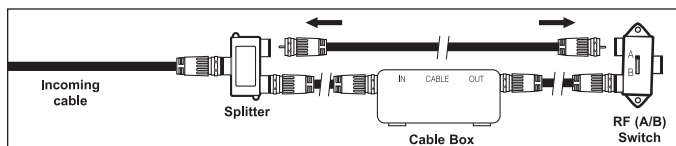
2. Connect this cable to a two-way splitter.



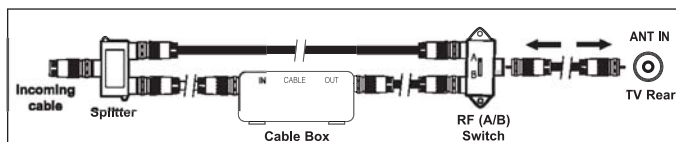
3. Connect an RF cable between an OUTPUT terminal on the splitter and the IN terminal on the cable box



4. Connect an RF cable between the ANT OUT terminal on the cable box and the B.IN terminal on the RF(A/B) switch.



5. Connect another cable between the other OUT terminal on the splitter and the A.IN terminal on the RF (A/B) switch.



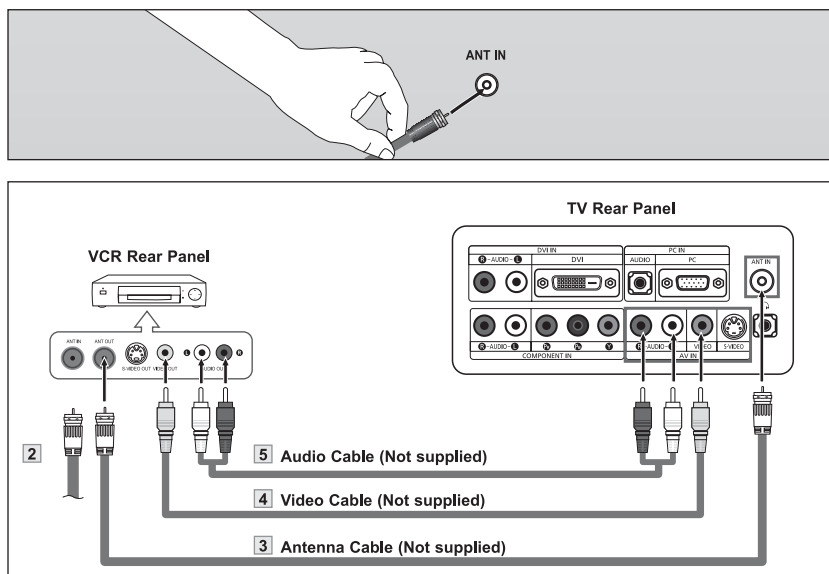
6. Connect the last RF cable between the OUT terminal on the RF (A/B) switch and the ANT IN terminal on the rear of the TV.

After you have made this connection, set the A/B switch to the "A" position for normal viewing. Set the A/B switch to the "B" position to view scrambled channels.

(When you set the A/B switch to "B", you will need to tune your TV to the cable box's output channel, which is usually channel 3 or 4.)

- Connecting a VCR

These instructions assume that you have already connected your TV to an antenna or a cable TV system. Skip step 1 if you have not yet connected to an antenna or a cable system.



Follow the instructions in "Viewing a VCR or Camcorder Tape" to view your VCR tape.

> Each external input source device has a different back panel configuration.

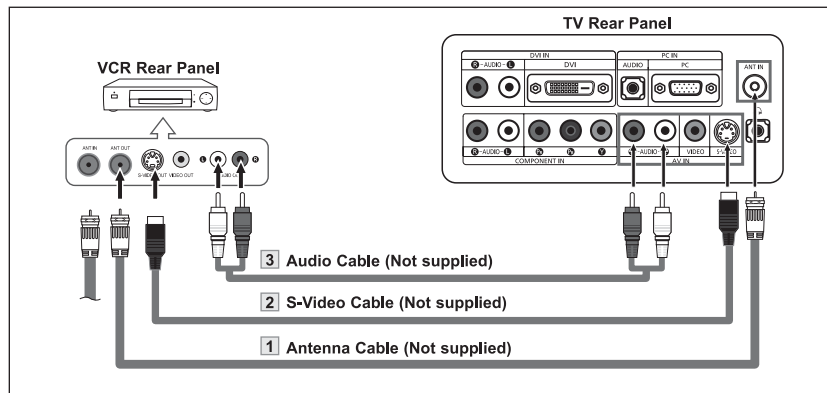
> When connecting an external device, match the color of the connection terminal to the cable.

1. Unplug the cable or antenna from the back of the TV.
2. Connect the cable or antenna to the ANT IN terminal on the back of the VCR.
3. Connect an Antenna Cable between the ANT OUT terminal on the VCR and the ANT IN terminal on the TV.
4. Connect a Video Cable between the VIDEO OUT jack on the VCR and the AV IN [VIDEO] jack on the TV.
5. Connect Audio Cables between the AUDIO OUT jacks on the VCR and the AV IN [R-AUDIO-L] jacks on the TV.

> If you have a "mono" (non-stereo) VCR, use a Y-connector (not supplied) to hook up to the right and left audio input jacks of the TV. If your VCR is stereo, you must connect two cables.

- Connecting an S-VHS VCR

Your Samsung TV can be connected to an S-Video signal from an S-VHS VCR.
(This connection delivers a better picture as compared to a standard VHS VCR.)



An S-Video cable is usually included with an S-VHS VCR. (If not, check your local electronics store.)

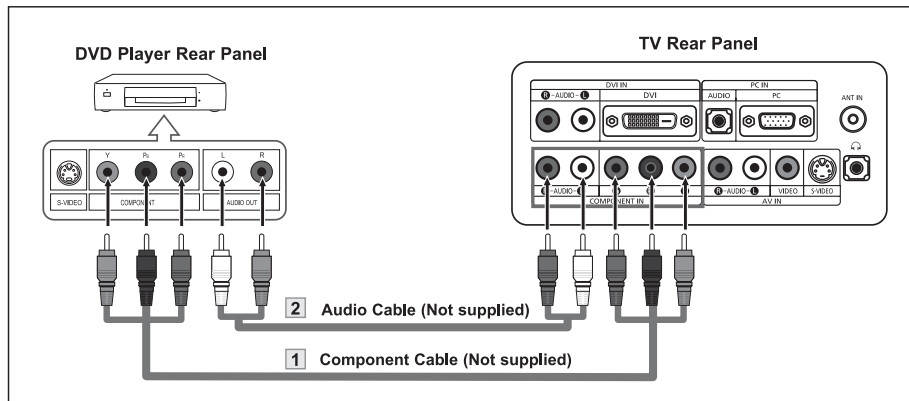
> Each external input source device has a different back panel configuration.

> When connecting an external device, match the color of the connection terminal to the cable.

1. To begin, follow steps 1.3 in the previous section to connect the antenna or cable to your VCR and your TV.
2. Connect an S-Video Cable between the S-VIDEO OUT jack on the VCR and the AV IN [S-VIDEO] jack on the TV.
3. Connect Audio Cables between the AUDIO OUT jacks on the VCR and the AV IN [R-AUDIO-L] jacks on the TV.

- Connecting a DVD Player

The rear panel jacks on your TV make it easy to connect a DVD player to your TV.



> Component video separates the video into Y (Luminance (brightness)), Pb (Blue) and Pr (Red) for enhanced video quality.

Be sure to match the component video and audio connections.

For example, if connecting the video cable to COMPONENT IN, connect the audio cable to COMPONENT IN also.

> Each external input source device has a different back panel configuration.

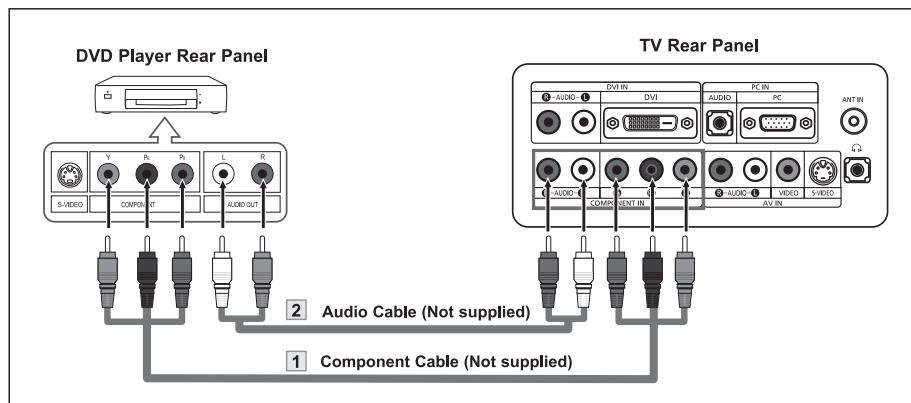
> When connecting an external device, match the color of the connection terminal to the cable.

1. Connect a Component Cable between the COMPONENT IN [P_R, P_B, Y] jacks on the TV and the COMPONENT [Y, P_B, P_R] jacks on the DVD player.

2. Connect Audio Cables between the COMPONENT IN [R-AUDIO-L] jacks on the TV and the AUDIO OUT jacks on the DVD player.

- Connecting a DVD Player/Set-Top Box via DVI

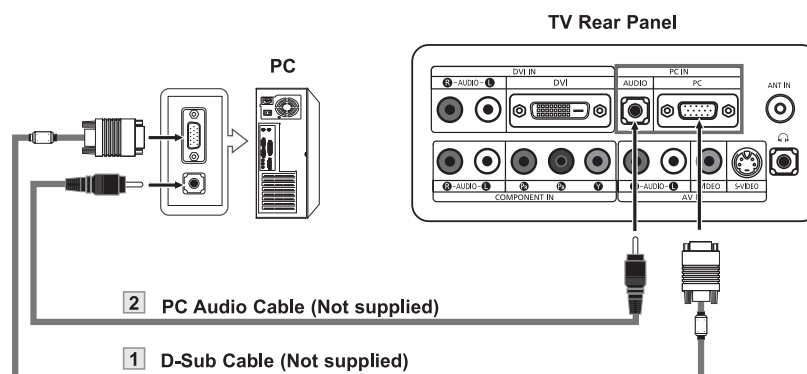
This connection can only be made if there is a DVI Output connector on the external device.



- > Each external input source device has a different back panel configuration.
- > When connecting an external device, match the color of the connection terminal to the cable.

1. Connect a DVI-D Cable Adapter between the DVI IN connector on the TV and the DVI connector on the DVD player/Set-Top Box.
2. Connect Audio Cables between the DVI IN [R-AUDIO-L] jack on the TV and the AUDIO OUT jacks on the DVD player / Set-Top Box.

- Connecting a PC



1. Connect a D-Sub Cable between PC IN [PC] connector on the TV and the PC output connector on your computer.
2. Connect a PC Audio Cable between PC IN [AUDIO] jack on the TV and the Audio Out jack of the sound card on your computer.

- > Each external input source device has a different back panel configuration.
- > When connecting an external device, match the color of the connection terminal to the cable.
- > The DVI jacks do not support PC connection.

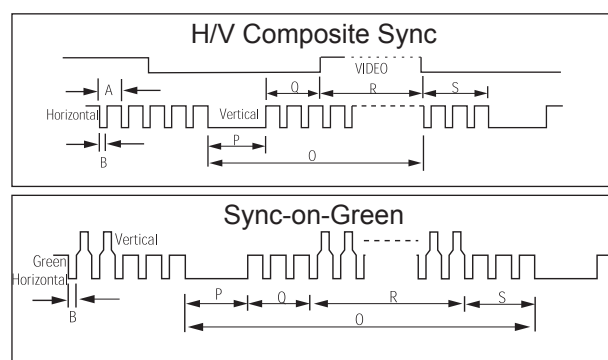
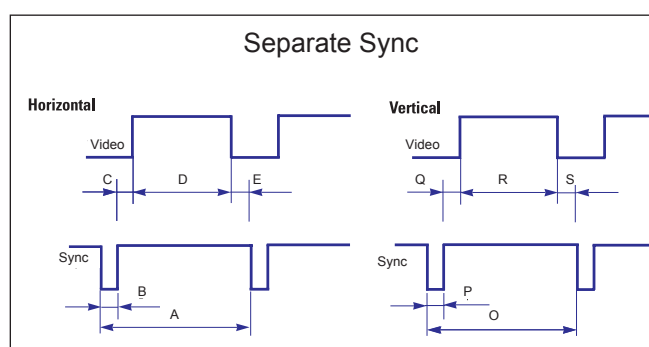
14-4 Pin Assignments

<div> <div>Sync Type</div> <div>Pin No.</div> </div>	15-Pin Signal Cable Connector	
	Separate	Composite
1	Red	Red
2	Green	Green
3	Blue	Blue
4	GND	GND
5	GND (DDC Return)	GND (DDC Return)
6	GND-Red	GND-Red
7	GND-Green	GND-Green
8	GND-Blue	GND-Blue
9	DDC +5V	DDC +5V
10	CHK D_SUB	CHK D_SUB
11	GND	GND
12	DDC Data	DDC Data
13	Horizontal sync	H/V-Sync
14	Vertical sync	Not Used
15	DDC Clock	DDC Clock

14-5 Timing Chart

This section of the service manual describes the timing that the computer industry recognizes as standard for computer-generated video signals.

Mode Timing	IBM		VESA								
	VGA2/ 70 Hz 720 x 400	VGA3/ 60 Hz 640 x 480	640/75 Hz 640 x 480	800/60 Hz 800 x 600	800/75 Hz 800 x 600	1024/60Hz 1024 x 768	1024/75Hz 1024 x 768	1280/60Hz 1280x1024	1280/75Hz 1280x1024 (Analog Only)	1440/60Hz 1440x900	1440/75Hz 1440x900
fH (kHz)	31.469	31.469	37.500	35.879	46.875	48.363	60.023	63.981	79.976	55.935	75.000
A μ sec	31.777	31.778	26.667	26.400	21.333	20.677	16.660	11.852	12.504	17.878	14.157
B μ sec	3.813	3.813	2.032	3.200	1.616	2.092	1.219	1.037	1.067	1.427	1.112
C μ sec	1.589	1.589	3.810	2.200	3.232	2.462	2.235	2.296	1.837	2.178	1.814
D μ sec	26.058	26.058	20.317	20.000	16.162	15.754	13.003	9.259	9.481	13.521	10.530
E μ sec	0.318	0.318	0.508	1.000	0.323	0.369	0.203	0.444	0.119	0.751	0.702
fV (Hz)	70.087	59.940	75.000	60.317	75.000	60.004	75.029	60.020	75.025	59.887	75.000
O msec	14.268	16.683	13.333	16.579	13.333	16.666	13.328	60.020	13.329	16.698	13.336
P msec	0.064	0.064	0.080	0.106	0.064	0.124	0.050	0.047	0.038	0.107	0.085
Q msec	0.858	0.794	0.427	0.607	0.448	0.600	0.466	0.594	0.475	0.447	0.467
R msec	13.155	15.761	12.800	15.840	12.800	15.880	12.795	15.630	12.804	16.090	12.741
S msec	0.191	0.064	0.027	0.026	0.021	0.062	0.017	0.016	0.013	0.054	0.042
Clock Freq. (MHz)	28.322	25.175	31.500	40.000	49.500	75.000	78.750	108.000	135.000	106.500	136.750
Polarity											
H.Sync	Negative	Negative	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Negative	Negative
V.Sync	Positive	Negative	Negative	Positive	Positive	Negative	Positive	Positive	Positive	Positive	Positive
Remark	Separate	Separate	Separate	Separate	Separate	Separate	Separate	Separate	Separate	Separate	Separate



A : Line time total

B : Horizontal sync width

O : Frame time total

P : Vertical sync width

C : Back porch

D : Active time

Q : Back porch

R : Active time

E : Front porch

S : Front porch

14-6 Preset Timing Modes

-If the signal transferred from the computer is the same as the following Preset Timing Modes, the screen will be adjusted automatically. However, if the signal differs, the screen may go blank while the power LED is on. Refer to the video card manual and adjust the screen as follows.

Table 1. Preset Timing

Display Mode	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock (MHz)	Sync Polarity (H/V)
MAC, 640 x 480	35.000	66.667	30.240	-/-
MAC, 832 x 624	49.726	74.551	57.284	-/-
MAC, 1152 x 870	68.681	75.062	100.000	-/-
IBM, 640 x 350	31.469	70.086	25.175	+/-
IBM, 640 x 480	31.469	59.940	25.175	-/-
IBM, 720 x 400	31.469	70.087	28.322	-/+
VESA, 640 x 480	37.500	75.000	31.500	-/-
VESA, 640 x 480	37.861	72.809	31.500	-/-
VESA, 800 x 600	35.156	56.250	36.000	+, -/+, -
VESA, 800 x 600	37.879	60.317	40.000	+/+
VESA, 800 x 600	48.077	72.188	50.000	+/+
VESA, 800 x 600	46.875	75.000	49.500	+/+
VESA, 1024 x 768	48.363	60.004	65.000	-/-
VESA, 1024 x 768	56.476	70.069	75.000	-/-
VESA, 1024 x 768	60.023	75.029	78.750	+/+
VESA, 1280 X 960	60.000	60.000	108.00	+/+
VESA, 1280 X 1024	63.981	60.020	108.00	+/+
VESA, 1280 X 1024	79.976	75.025	135.00	+/+
VESA, 1440 x 900	55.935	59.887	106.5	-/+

Horizontal Frequency

The time to scan one line connecting the right edge to the left edge of the screen horizontally is called Horizontal Cycle and the inverse number of the Horizontal Cycle is called Horizontal Frequency. Unit: kHz

Vertical Frequency

Like a fluorescent lamp, the screen has to repeat the same image many times per second to display an image to the user. The frequency of this repetition is called Vertical Frequency or Refresh Rate. Unit: Hz

14-7 Panel Description

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LT140X1-002	BN07-00004A	SA	BN68-00239H	-
SEC	LT150XS-L01	BN07-00009A	SB		-
SEC	LT150XS-L01-B	BN07-00022A	SC		-
SEC	LTM150XS-L02	BN07-00005A	SD		-
SEC	LT181E2-132	BN07-00001A	SE		-
SEC	LT150XS-T01	BN07-00010A	SF		-
SEC	LTM181E3-132	BN07-00019A	SG		-
SEC	LT170E2-131	BN07-10001D	SH		-
SEC	LT181E2-131	BN07-10001E	SJ		-
SEC	LTM170E4-L01	BN07-00018A	SK		-
SEC	LTM240W1-L01	BN07-00015A	SL		-
SEC	LTM213U3-L01	BN07-00016A	SM		-
SEC	LTM150XH-L01	BN07-00026A	SN		-
SEC	LTM150XH-L03	BN07-00027A	SP		-
SEC	LTM150XS-L01	BN07-00032A	SQ		DELL(ZPD)
SEC	LTM181E4-L01	BN07-00034A	SR		PVA
SEC	LTM170EH-L01	BN07-00036A	SS		TN
SEC	LTM170E5-L01	BN07-00037A	SU		PVA
SEC	LTM150XH-L11	BN07-00041A	SV		-
SEC	LTM213U4-L01	BN07-00039A	SW		PVA
SEC	LTM150XH-L01(ZPD)	BN07-00045A	SX		ZPD
SEC	LTM150XH-L04	BN07-00046A	SY		New panel with high brightness
SEC	LTM170W1-L01	BN07-00047A	SZ		Panel for TV
SEC	LTM150XH-L06	BN07-00053A	EA		Panel for TV/ High luminance for 450cd _ SONY&EOS Team Panel for TV
SEC	LTM153W1-L01	BN07-00054A	EB		Use NIKE MODEL
SEC	LTM170EH-L05	BN07-00055A	EC		Panel EOS proj. for high brightness of 17" EH-L05
SEC	LTM170E5-L03	BN07-00056A	ED		Dell 1702FP pro. E4. EH mechanical Compatible
SEC	LTM190E1-L01	BN07-00057A	EE		DELL 1900 FP
SEC	LTM181E5-L01	BN07-00061A	EF		18" narrow bezel GH18PS
SEC	LTM150XP-L01	BN07-00065A	EG		AMLCD PVA PANEL
SEC	LTM240W1-L02	BN07-00062A	EH		Panel for 15" Wide TV
SEC	LTM170EU-L01	BN07-00071A	EJ		Slim design, TN
SEC	LTM170E5-L04	BN07-00072A	EK		E5-L04 6 bits FRC... for IBM
SEC	LTA220W1-L01	BN07-00074A	EL		Panel for 22" TV
SEC	LTM170E6-L02	BN07-00075A	EM		AMLCD Narrow & slim design 17" PVA mode
SEC	LTM170W1-L01	BN07-00082A	EN		LTM170W1-L01 ZPD panel
SEC	LTM170EH-L01	BN07-00080A	EP		LTM170EH-L01 ZPD panel
SEC	LTM170E5-L01	BN07-00081A	EQ		LTM170E5-L01 ZPD panel
SEC	LTM170EH-L05	BN07-00083A	ER		LTM170EH-L05 ZPD panel
SEC	LTM170E5-L03	BN07-00084A	ES		LTM170E5-L03 ZPD panel
SEC	LTM170EU-L01	BN07-00085A	ET		LTM170EU-L01 ZPD panel
SEC	LTM170E5-L04	BN07-00086A	EU		LTM170E5-L04 ZPD panel
SEC	LTM170E6-L02	BN07-00087A	EV		LTM170E6-L02 ZPD panel
SEC	LTM150XH-L06	BN07-00091A	EW		Color coordinates change for LCD TV
SEC	LTM153W1-L01	BN07-00092A	EX		AMLCD WIDE 15",9/10
SEC	LTM170W1-L01	BN07-00100A	EY		Color Coordinates change code management
SEC	LTM170EH-L05	BN07-00097A	EZ		LTM170E5-L05 Color Coordinates Change Panel Code

14 Reference Information

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LTA400W1-L01	BN07-00109A	S1		PANEL of AMLCD 40" TV
SEC	LTM153W1-L01	BN07-00110A	S2		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM150XH-L06	BN07-00111A	S3		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM170W1-L01	BN07-00112A	S4		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM170EH-L05	BN07-00113A	S5		Color coordinates change 0.280/0.290, 10000k & ZPD Panel
SEC	LTM220W1-L01	BN07-00114A	S6		ZPD Panel for AMLCD 22" TV
SEC	LTM150XH-L06	BN07-00117A	S7		ZPD Panel code
SEC	LTM153W1-L01	BN07-00118A	S8		ZPD Panel code
SEC	LTM170WP-L01	BN07-00119A	S9		PVA Panel for NIKE
SEC	LTM213U4-L01	BN07-00039A	E1		21.3" NARROW
SEC	LTA260W1-L01	BN07-00121A	E2		VENUS
SEC	LTA220W1-L01	BN07-00074B	E3		"Panel B-level panel code for 22"" TV Panel "
SEC	LTA320W1-L01	BN07-00108A	E4		"Panel for AMLCD 32"" TV"
SEC	LTM213U4-L01	BN07-00124A	E5		NARROW BEZEL 21 " PANEL
SEC	LTM170E6-L04	BN07-00129A	E6		"HIGHLAND 17"" LOW PANEL (Panel only for TCO03)"
SEC	LTM190E1-L01	BN07-00088A	E7		LTM190E1-L01 ZPD panel
SEC	M150X4-L06	BN07-00137A	E8		15" Narrow & Slim panel
SEC	LTA170V1	BN07-00139A	E9		"17"" Panel for Muse 4:3 VGA TV"
SEC	LTM190E1-L02	BN07-00128A	E10		"New Panel from AMLCDI, Specification : 6bit Driver IC"
SEC	LTM170EX-L01	BN07-00143A	E11		"Development new Panel from AMLCD"
SEC	LTM170E8-L01	BN07-00144A	E12		"Development new Panel from AMLCD"
SEC	LTM170E6-L04	BN07-00129B	E13		"ZPD panel for AMLCD (Panel only for TCO03)"
SEC	LTA320W1-L02	BN07-00108B	E14		"Creat B-level Panel code for AMLCD 32"" TV"
SEC	LTM190E1-L03	BN07-00151A	E15		"Development new 19"" Panel form AMLCD (Panel only for TCO03)"
SEC	LTM240W1-L03	BN07-00134A	E16		"AMLCD 24"" panel development"
SEC	LTM190E1-L02	BN07-00128B	E17		"New Panel from AMLCD, Specification : 6bit Driver IC(ZPD)"
SEC	LTM190E4-L01	BN07-00145A	E18		"AMLCD 24"" new panel development"
SEC	LTM170E8-L01	BN07-00158A	E19		"ZPD code derivation"
SEC	LTM170EX-L01	BN07-00159A	E20		"ZPD code derivation"
SEC	LTM190E1-L03	BN07-00151B	E21		"Creat new panel code for AMLCD 19"" (Panel only for TCO03)"
SEC	LTA460H1-L01	BN07-00157A	E22		"creat panel code for AMLCD 46"" TV "
SEC	LTM170EU-L11	BN07-00160A	E23		"creat new panel code for AMLCD 17"" (Panel only for TCO03)"
SEC	LTM240W1-L03	BN07-00134B	E24		"24"" panel ZPD code derivation"
SEC	LTM190E4-L01	BN07-00145B	E25		"AMLCD 19"" ZPD Panel code derivation"
SEC	LTM240W1-L03	BN07-00134B	E26		"24"" panel ZPD code derivation"
SEC	LTM150XO-L01	BN07-00164A	E27		"AMLCD 15"" XO-L01 new panel development"
SEC	LTM150XO-L01	BN07-00164B	E28		"AMLCD 15"" XO-L01 ZPD code derivation"
SEC	LTM170EU-L11	BN07-00160B	E29		"AMLCD 17"" NEW panel code derivation"
SEC	LTA320W2-L01	BN07-00172A	SPZ		AMLCD 32" NEW panel
SEC	LTM213U4-L01	BN07-00124B	SPZ		21.3" Narrow PANEL ZPD Panel derivation
SEC	LTM170EU-L11	BN07-00189A	STH		AMLCD EU-L11 Pb free panel code derivation
SEC	LTM170EU-L11	BN07-00189B	STZ		AMLCD EU-L11 Pb free panel ZPD code derivation
SEC	LTM240W1-L04	BN07-00188A	SPH		24" A-DCC new panel development
SEC	LTM240W1-L04	BN07-00188B	SPZ		24" A-DCC panel ZPD code derivation
SEC	LTM190EX-L01	BN07-00191A	STH		AMLCD 19" TN new Panel
SEC	LTM190EX-L02	BN07-00191B	STZ		AMLCD 19" TN new Panel ZPD derivation
SEC	LTA230W1-L02	BN07-00184A	SPZ		AMLCD 23" 16:9 new Panel

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
SEC	LTA260W2-L01	BN07-00185A	SPZ		AMLCD 26" 16:9 new Panel
SEC	LTM240M1-L01	BN07-00195A	SPH		24" panel with high brightness development
SEC	LTA400W2-L01	BN07-00186A	SPZ		AMLCD 40" 16:9 new Panel
SEC	LTM150XO-L01	BN07-00197A	STH		AMLCD 15" XO-L01 Pb free panel code
SEC	LTM150XO-L01	BN07-00197B	STZ		AMLCD 15" XO-L01 Pb free panel ZPD code
SEC	LTM170EU-L21	BN07-00202A	STZ		AMLCD EU-L21 ZPD new code derivation
SEC	LTA460W2-L03	BN07-00187A	SPZ		BEETOVEN 46"ZPD new panel
SEC	LTM240M1-L01	BN07-00195B	SPZ		24" igh brightness panel ZPD code derivation
SEC	M170EX-L21	BN07-00206A	STZ		AMLCD LTM170EX-L21 ZPD new code derivation
SEC	LTA460H3-L01	BN07-00200A	SPZ		AMLCD 46" LED BLU panel
SEC	LTM170EU-L15	BN07-00214A	STZ		AMLCD EU-L15 TV high brightness ZPD new code derivation
SEC	LTM170E8-L21	BN07-00218A	SPZ		AMLCD LTM170E8-L21 PVA ZPD new code derivation
SEC	LTM190EX-L21	BN07-00222A	STZ		DISPLAY LCD
SEC	LTM201U1-L01	BN07-00190B	SPZ		AMLCD 20.1" Normal panel ZPD code derivation
SEC	LTM190E4-L21	BN07-00223A	SPZ		HAYDN 17" PZD code PANEL derivation
SEC	LTA570H1-L01	BN07-00196A	SPZ		AMLCD 57" new panel development
SEC	LTM150XO-L21	BN07-00229A	STZ		AMLCD 15" XO-L21 8ms panel code
SEC	LTA260W2-L11	BN07-00239A	SPZ		AMLCD 26" 16:9 7Line new Panel
SEC	LTA400WS-LH1	BN07-00245A	SPZ		AMLCD 40" 16:9 SPVA 90% new Panel
SEC	LTM213U6-L01	BN07-00231A	SPZ		AMLCD 21.3" PVA new Panel Code
SEC	LTA320WS-LH2	BN07-00244A	SPZ		AMLCD 32" 16:9 SPVA 90% new Panel
SEC	LTA400WS-LH1	BN07-00245A	SPZ		AMLCD 40" 16:9 SPVA 90% new Panel
CPT	CLAA150XG09	BN07-00141A	PA		"CPT 15"" Monitor new panel development"
CPT	CLAA170EA02	BN07-00148A	PB		"17"" CPT NEW development panel"
CPT	CLAA170EA02	BN07-00148B	PC		"17"" CPT ZPD panel code derivation"
CPT	CLAA150XG09	BN07-00141B	PTZ		"CPT 15"" panel ZPD code derivation (GOYA-PJT)"
CPT	CLAA150XP01	BN07-00173A	PTH		CPT 15" PSWG code derivation
CPT	CLAA150XP01	BN07-00173B	PTZ		CPT 15" PSWG panel ZPD code
CPT	CLAA170EA07	BN07-00174A	PTH		"CPT 17"" PSWG panel code derivation
CPT	CLAA170EA07	BN07-00174B	PTZ		CPT 17"" PSWG type new Panel code""
CPT	CLAA170EA07	BN07-00174B	PTZ		CPT 17" PSWG type new Panel code
CPT	CLAA170EA07Q	BN07-00220A	PTZ		CPT 17" PSWG R/T 8msec code derivation
CPT	CLAA170EA07Q	BN07-00220B	PTH		CPT 17" PSWG R/T 8msec HPD code derivation
CPT	CLAA150XP01F	BN07-00236A	PTZ		CPT 15" PSWG panel ZPD & Lead free code derivation
TOSHIBA	LTM15C419(A)	BN07-00002A	TA		-
TOSHIBA	LTM15C423(B)	BN07-00006A	TB		-
TOSHIBA	LTM18C161	BN07-00008A	TC		-
TOSHIBA	LTM15C443	BN07-00031A	TD		-
TOSHIBA	LTM15C458	BN07-00043A	TE		-
TOSHIBA	LTM15C458S	BN07-00077A	TF		"TSB 15"" high brightness Panel"
TOSHIBA	LTM15C458	BN07-00078A	TG		Toshiba ZPD panel
TOSHIBA	LTM15C458S	BN07-00099A	TH		TSB LTM15C458S (ZPD)
HANNSTAR	HSD150MX41A(A)	BN07-00020A	NA		"TTL type"
HANNSTAR	HSD150MX12	BN07-00030A	NB		"TTL type"
HANNSTAR	HSD170ME13	BN07-00180A	NTH		Hannstar 17" TN new panel development
HANNSTAR	HSD170ME13	BN07-00180B	NTZ		Hannstar 17" TN new panel development ZPD code derivation
HANNSTAR	HSD190ME12	BN07-00210A	NTZ		Hannstar 19" TN new panel development

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Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
HANNSTAR	HSD150MX17-A	BN07-00226A	NTZ		Hannstar 15" slim panel ZPD code derivation
TORISAN	TM150XG-22L03(A)	BN07-00021A	RA		-
TORISAN	TM150XG-26L06	BN07-00042A	RB		-
TORISAN	TM181SX-76N01	BN07-00048A	RC		-
TORISAN	TM150XG-26L06	BN07-00059A	RD		15" XGA TN MODE(ZPD)
TORISAN	TM290WX-71N31	BN07-00063A	RE		"RS24NS (TORISAN 29"" NEW PANEL)"
TORISAN	TM396WX-71N31	BN07-00064A	RF		"RS24NS (TORISAN 40"" NEW PANEL)"
TORISAN	TM150XG-26L09	BN07-00073A	RG		"Panel for 15"" TV"
TORISAN	TM150XG-26L10	BN07-00089A	RH		"L10(change except D/I/C) ZPD"
TORISAN	TM150XG-26L10	BN07-00090A	RJ		L10 NORMAL
TORISAN	TM190SX-70N01	BN07-00098A	RK		Torisan 19" Panel
TORISAN	TM181SX-76N01	BN07-00106A	RL		ZPD Panel code
TORISAN	TM190SX-70N01	BN07-00107A	RM		ZPD Panel code
TORISAN	TM290WX-71N31	BN07-00115A	RN		"Color Coordinates change panel for TORISAN 29"" TV"
TORISAN	TM396WX-71N31	BN07-00116A	RP,Q		"Color Coordinates change panel for TORISAN 40"" TV"
TORISAN	TM220WX-71N31	BN07-00125A	RR		"Development TORISAN 22"" TV PANEL (ZPD)"
TORISAN	TM220WX-71N31	BN07-00127A	RS		"Development TORISAN 22"" TV PANEL (HPD)"
TORISAN	TM396WX-71N32A	BN07-00150A	RT		120V inverter Exclusive panel
TORISAN	TM190SX-70N02	BN07-00154A	RMH		Torisan 6bit panel code Derivation
TORISAN	TM190SX-70N02	BN07-00154B	RMZ		Torisan 6bit panel code Derivation
TORISAN	TM150XG-A01	BN07-00162A	RTH		Torisan 15" Narrow & Slim panel development
TORISAN	TM150XG-A01	BN07-00162B	RTZ		Torisan 15" N&S panel ZPD code Derivation
SHARP	LQ181E1DG11(A)	BN07-10001C	PA		-
SHARP	LQ150X1LW71	BN07-00067A	PB		SHARP 15" PVA PANEL
SHARP	LQ370T3LZ41	BN07-00216A	FAZ		Rome2
HITACHI	TX38D12VC0CAA(A)	BN07-00003A	HA		-
HITACHI	TX43DVCOCAB	BN07-00060A	HB		17" SXGA PVA MODE
HITACHI	TX43D15VC0CAB	BN07-00101A	HC		ZPD Panel
HITACHI	TX51D11VC0CAB	BN07-00122A	HD		20.1" NARROW
HITACHI	TX54D11VC0CAB	BN07-00123A	HE		21.3" NARROW
HITACHI	TX80D12VC0CAB	BN07-00169A	HIZ		"Development new panel for Hitachi 32"" TV (ZPD)"
HITACHI	TX54D11VC0CAB	BN07-00123B	HIZ		Hitachi 21.3"ZPD panel
IBM	ITSX94S	BN07-00017A	IA		-
UNIPAC	UM170E0	BN07-00028A	UA		Loaded by cisdba
HYUNDAI	HT15X13	BN07-00035A	DA		-
HYUNDAI	HT17E11-200	BN07-00049A	DB		TN MODE
HYUNDAI	HT17E11-300	BN07-00093A	DC		HT17E11-300 ZPD panel
HYUNDAI	HT17E11-400	BN07-00094A	DD		HT17E11-400 normal panel
HYUNDAI	HT17E11-400	BN07-00095A	DE		HT17E11-400 ZPD panel code
HYUNDAI	HT17E12	BN07-00096A	DF		HT17E12 (Narrow & slim Design)
HYUNDAI	HT17E12	BN07-00105A	DG		ZPD Panel code
HYUNDAI	HT15X15-D00	BN07-00146A	DH		"Development for Ares 15"" Hydis TV"
HYUNDAI	HT15X15-D01	BN07-00146B	DJ		"Derivation panel HPD for Ares 15"" Hydis TV "
HYUNDAI	HT17E13-100	BN07-00167A	DTH		"PINEHURST-2(IBM) PJT 17"" HYDIS PANEL Derivation"
HYUNDAI	HT17E13-100	BN07-00167B	DTZ		"PINEHURST-2(IBM) Hydis 17"" ZPD code Derivation"
ACER	L170E3	BN07-00044A	AA		TN(ADT)
ACER	M170EN05	BN07-00076A	AB		AU 17" Panel (Narrow & slim design)

Maker	VENDOR P/N	PANEL_CODE	PANEL_ABB	STICKER_CODE	Remarks
ACER	M170EN05	BN07-00102A	AC		ZPD Panel code
ACER	M190EN02	BN07-00170A	AMH		"AU Monitor 19"" new panel development (P19-1S)"
ACER	M190EN02	BN07-00170B	AMZ		"AU 19"" ZPD code derivation (ZPD)"
ACER	M170EN06	BN07-00171A	ATH		"AU Monitor 17"" New panel development "
ACER	T260XW01	BN07-00163A	AMZ		"AU 26"" new panel development (NF26EO)"
ACER	A201SN01	BN07-00177A	ATZ		"AU TV panel 20.1"" TN SVGA new panel development"
ACER	M170EN06	BN07-00171B	ATZ		AU Monitor 17" ZPD code derivation
ACER	T315XW01	BN07-00194A	AMZ		AU 32" new
ACER	M170EG01	BN07-00192A	ATH		AU TN PSWG type new Panel code
ACER	M170EG01	BN07-00192B	ATZ		AU TN PSWG type NEW panel code derivation
ACER	M190EN04	BN07-00203A	ATH		AU Monitor 19" ZPD new Panel code
ACER	T260XW02	BN07-00208A	AMZ		AUO 26" ZPD panel
ACER	M170EG01 V8	BN07-00221A	ATZ		AU TN PSWG type new Panel (8msec) ZPD code derivation
ACER	T260XW02	BN07-00233A	AMZ		AUO 26" Panel new (Cosmetic spec down grade)
ACER	T315XW01	BN07-00234A	AMZ		AUO 32" Grade new (Cosmetic spec down grade)
ACER	M190EN03	BN07-00224A	AMZ		AU Monitor 19" MVA new code derivation
ACER	T315XW01	BN07-00237A	AMZ		LCD TV VE project new
ACER	T315XW01	BN07-00238A	AMZ		LCD TV VE project new
ACER	M201UN02 V3	BN07-00168A	AMZ		
CHIMEI	M170E3-L01	BN07-00050A	CA		TN PANEL
CHIMEI	M150X3-L01	BN07-00051A	CB		COMPATIBLE
CHIMEI	M170E4-L01	BN07-00052A	CC		MVA PANEL
CHIMEI	M150X2-L01	BN07-00066A	CD		CHIMEI 15" PVA PANEL
CHIMEI	M150X3-L01	BN07-00079A	CE		Chimei ZPD panel
CHIMEI	M170E3-L01	BN07-00103A	CF		ZPD Panel code
CHIMEI	M170E4-L01	BN07-00104A	CG		ZPD Panel code
CHIMEI	V296W1-L01	BN07-00120A	CH		MVA
CHIMEI	M170E6-L02	BN07-00126A	CJ		HIGHLAND 17" LOW PANEL
CHIMEI	M190E2-L01	BN07-00131A	CK		GH19AS,BS CHIMEI PANEL
CHIMEI	M150X4-L06	BN07-00137A	CL		15" Narrow & Slim panel
CHIMEI	M170E6-L01	BN07-00133A	CM		"2003-03-11 vendor change"
CHIMEI	M170E6-L01	BN07-00133B	CN		ZPD derivation panel
CHIMEI	V201V1-T01	BN07-00135A	CP		CHIMEI 20.1" panel development
CHIMEI	M170E6-L02	BN07-00126B	CQ		"HIGHLAND 17"" LOW PANEL ZPD derivation panel"
CHIMEI	M170E6-L05	BN07-00152A	CR		"CMO 17"" new panel development code"
CHIMEI	M170E6-L05	BN07-00152B	CS		"CMO 17"" ZPD panel code derivation"
CHIMEI	M150X4-L06	BN07-00137B	CT		Chimei 15" Narrow & Slim panel ZPD derivation
CHIMEI	M170E5-L05	BN07-00165A	CTH		CMO 17" new panel development code (GOYA2-PJT)
CHIMEI	M170E5-L05	BN07-00165B	CTZ		CMO 17" ZPD panel(GOYA2-PJT)
CHIMEI	V230W1-L02	BN07-00209A	CMZ		CMO 23" development
CHIMEI	V320B1-L01	BN07-00207A	CMZ		CMO 32" development
CHIMEI	V270W1-L01	BN07-00136A	CMZ		CHI MEI 27" panel development
NEC	SVA150XG04TB	BN07-00225A	BTZ		SVA NEC 15" panel ZPD code

Memo