



LED TV

Chassis : HWS60

Model : HG40EE460SK

SERVICE Manual

Hospitality Displays



HG40EE460SK

Contents

1. Precautions
2. Product specifications
3. Disassembly and Reassembly
4. Troubleshooting
5. Wiring Diagram

Contents

1. Precautions	1-1
1-1. Safety Precautions	1-1
1-1-1. Warnings.....	1-1
1-1-2. Servicing the LED TV	1-1
1-1-3. Fire and Shock Hazard	1-1
1-1-4. Product Safety Notices	1-2
1-2. Servicing Precautions.....	1-3
1-2-1. General Servicing Precautions	1-3
1-3. Static Electricity Precautions	1-4
1-4. Installation Precautions	1-5
2. Product Specifications.....	2-1
2-1. Product information	2-1
2-2. Product specification	2-2
2-3. Accessories	2-3
3. Disassembly and Reassembly	3-1
3-1. Disassembly and Reassembly	3-1
4. Troubleshooting	4-1
4-1. Previous Check	4-1
4-2. How to Check Fault Symptom	4-2
4-3. Factory Mode Adjustments	4-3
4-3-1. Detail Factory Option	4-4
4-3-2. Factory Data	4-5
4-4. Software Upgrade.....	4-18
4-4-1. Main SW Upgrade	4-18
4-4-2. SUBMICOM Upgrade	4-20
4-4-3. Check S/W Version.....	4-22
4-5. How to write EDID	4-23
5. Wiring Diagram	5-1
5-1. Wiring Diagram.....	5-1
5-2. Connector	5-2
5-3. Connector Functions	5-6
5-4. Cables	5-7
ANNEX. Exploded View & Part List [HG40EE460SKXEN DA01]	ANNEX-1
1-1. Exploded View.....	ANNEX-1
1-1-1. Parts List.....	ANNEX-1
2-1. Electrical Parts List	ANNEX-2



**This Service Manual is a property of Samsung Electronics Co.,Ltd.
Any unauthorized use of Manual can be punished under applicable
International and/or domestic law.**

**© 2016 Samsung Electronics Co.,Ltd.
All rights reserved.
Printed in Korea**

3. Disassembly and Reassembly

This section of the service manual describes the disassembly and reassembly procedures for the LED TV.






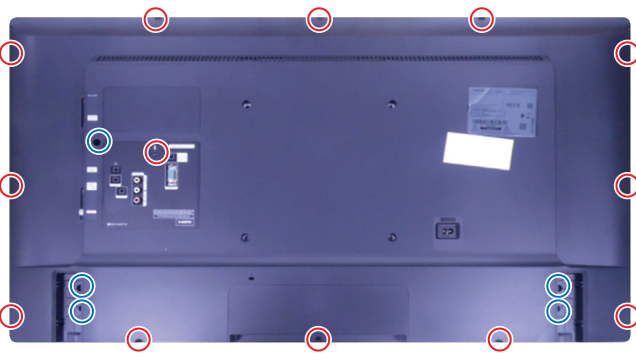
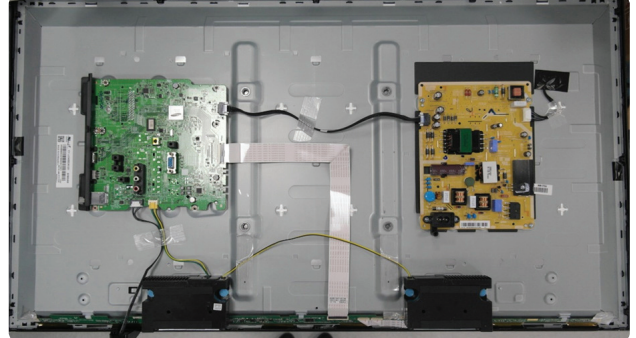
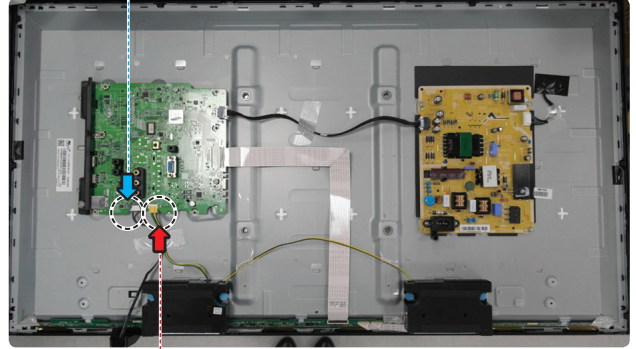
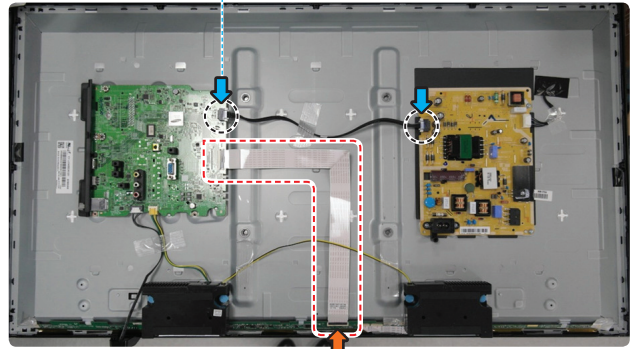
This LED TV contains electrostatically sensitive devices. Use caution when handling these components.

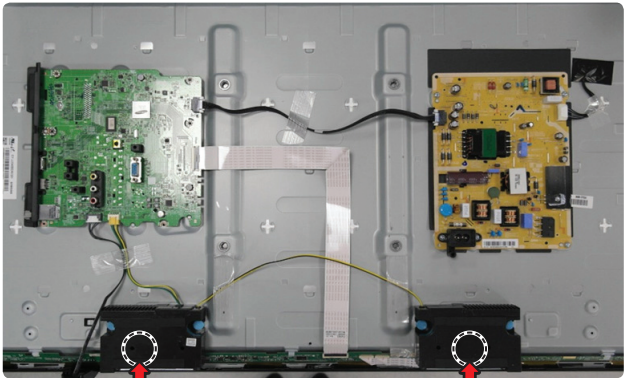



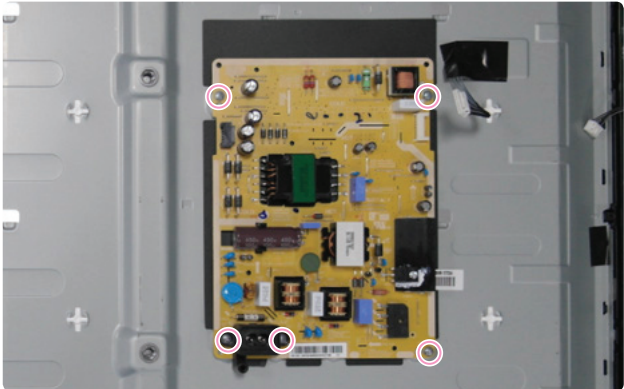

3-1. Disassembly and Reassembly



1. Disconnect the LED TV from the power source before disassembly.
2. Follow these directions carefully; never use metal instruments to pry apart the cabinet.
3. If there is no additional coment, it is same for all inches.

Description & Screws	Picture Description
<div>1</div> <div>Place a soft cloth over the table to protect the TV, and then place the TV on the cloth screen-side down.</div>	
<div>2</div> <div>Remove the screws from the ASSY STAND P-BASE.<ul style="list-style-type: none">• 40" : 4EA</div> <div>Screws</div> <div> 6003-001782 SCREW-TAPTYPE : M4 x L12, ZPC(BLK)</div>	
<div>3</div> <div>Remove the ASSY STAND P-BOTTOM.</div>	

Description & Screws	Picture Description
<p>4 Remove the screws from the ASSY COVER P-REAR.</p> <ul style="list-style-type: none">40" : 13EA / 5EA <p>Screws</p> <div> 6003-001782 SCREW-TAPTYPE : M4 x L12, ZPC(BLK)</div> <div> 6001-002755 SCREW-MACHINE : M3 x L6, ZPC(BLK)</div>	
<p>5 Remove the ASSY COVER P-REAR.</p>	
<p>6 Remove the All Cables.</p> <ul style="list-style-type: none">➡ ASSY BOARD P-FUNCTION Cable➡ ASSY SPEAKER P-FRONT (R/L) Cable <ul style="list-style-type: none">➡ Power Cable➡ LVDS Cable	<p>ASSY BOARD P-FUNCTION Cable</p>  <p>ASSY SPEAKER P-FRONT (R/L) Cable</p> <p>Power Cable</p>  <p>LVDS Cables</p>

Description & Screws	Picture Description
<div>7</div> <div>Remove the ASSY SPEAKER P-FRONT (R/L) on both sides.</div>	<div></div> <div>ASSY SPEAKER P-FRONT (R/L)</div>
<div>8</div> <div>Remove the screws from ASSY PCB MAIN BOARD.<ul style="list-style-type: none">40" : 3EA</div> <div>Screws</div> <div> 6001-003016 SCREW-MACHINE : M3 x L5, ZPC(WHT)</div>	<div></div>
<div>9</div> <div>Remove the screws from DC VSS-PD BOARD.<ul style="list-style-type: none">40" : 5EA</div> <div>Screws</div> <div> 6001-003016 SCREW-MACHINE : M3 x L5, ZPC(WHT)</div>	<div></div>
<div>10</div> <div>Completed the disassembly.</div>	<div></div>

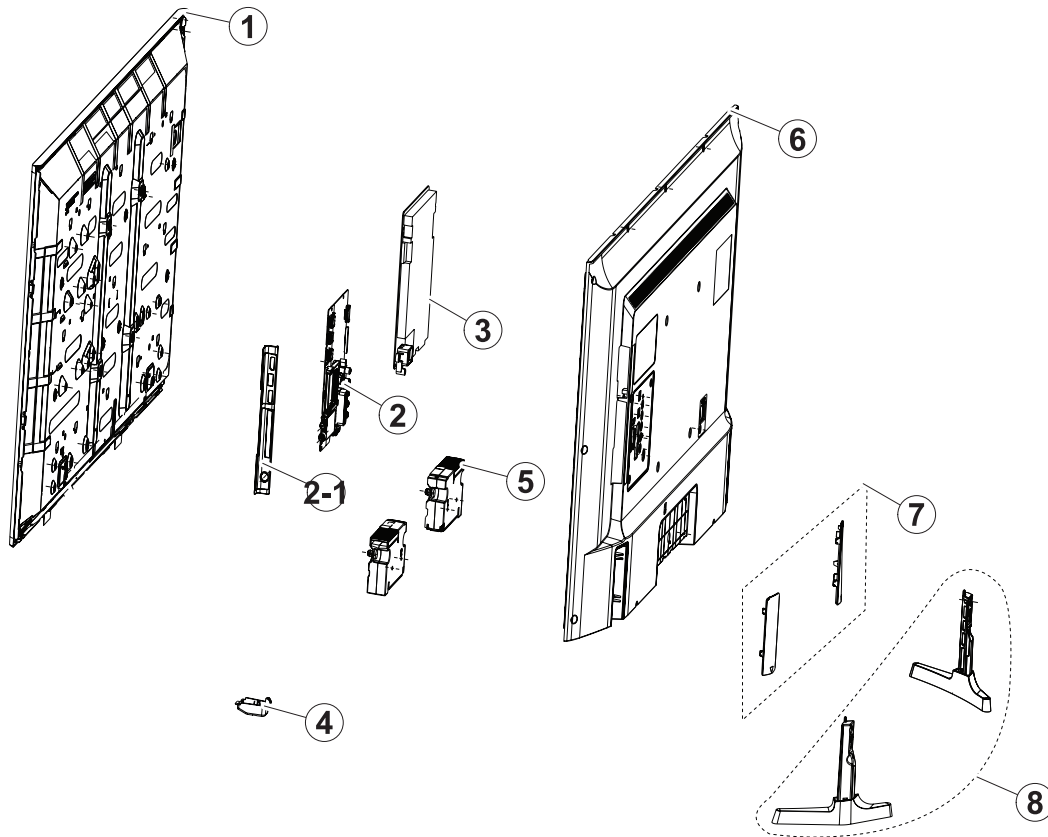


NOTE

Reassembly procedures are in the reverse order of disassembly procedures.

ANNEX. Exploded View & Part List [HG40EE460SKXEN DA01]

1-1. Exploded View



1-1-1. Parts List

No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
1	BN95-02347B	PRODUCT LCD-INX; CY-JJ040BGNV2V/H,J5000,H	1	SA	
2	BN94-10894Y	ASSY PCB MAIN; HTV	1	SA	
2-1	BN61-10203A	COVER-TERMINAL SIDE; HIPS,HIPS,MOLD,BLACK	1	SNA	
3	BN44-00852A	DC VSS-PD BOARD; L48MSF_FDY,AC/DC,146W,10	1	SA	
4	BN96-36076E	ASSY BOARD P-FUNCTION TACT; UA43J5003,CT1	1	SA	
5	BN96-30337C	ASSY SPEAKER P-FRONT; TV-SPK,MEGA3,6ohm,1	1	SA	
6	BN96-38401N	ASSY COVER P-REAR; 40HE460,PC+ABS,V-1,BK0	1	SA	
7	BN96-37669A	ASSY GUIDE P-STAND; 40J5000,HIPS,BLACK	1	SA	
8	BN96-39048C	ASSY STAND P-BOTTOM; J5200 40,PC+ABS,BLAC	1	SA	

2-1. Electrical Parts List

Service Bom (SA: SERVICE AVAILABLE, SNA: SERVICE NOT AVAILABLE)

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
			HG40EE460SKXEN (DA01)			
1	S001A	BN90-07629A	ASSY STAND;HE460	1	SNA	
0.2	SG01A	BN96-37669A	ASSY GUIDE P-STAND;40J5000,HIPS,BLACK	1	SA	
..3		6902-000675	BAG PE;LDPE,T0.05,W200,L250,TRP,Recycle	1	SNA	
..3		BN63-14239A	COVER-STAND NECK;J5200 43",HIPS,MOLD,HB,	2	SNA	
..3		BN96-18013E	ASSY ACCESSORY-SCREW;ALL MODEL,6003-0017	1	SNA	
...4	SCREW	6003-001782	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	4	SA	
...4		6902-000341	BAG PE;LDPE,T0.05,W70,L90,TRP,Bio. N	1	SNA	
0.2	SB02A	BN96-39048C	ASSY STAND P-BOTTOM;J5200 40,PC+ABS,BLAC	1	SA	
..3		BN63-14386A	COVER-STAND NECK LEFT;J5200 43INCH MINI-	1	SNA	
..3		BN63-14387A	COVER-STAND NECK RIGHT;J5200 43INCH MINI	1	SNA	
...4		0103-007285	RESIN PC;HF3200H,K21294,BK0007,V-2	180	SNA	
..3		BN63-14929A	COVER-STAND BOTTOM LEFT;PC+ABS,MOLD,V-0,	1	SNA	
..3		BN63-14930A	COVER-STAND TOP RIGHT;PC+ABS,MOLD,V-0,BK	1	SNA	
...4		0103-005041	RESIN PC ABS;FR3200TV,901408,BK0008,1.2m	50	SNA	
..3	RF01	BN67-00524A	FOOT-RUBBER;J4003,Si,GRAY,W7,L12,T2.5	4	SNA	
..3		BN69-08751B	PACKING SHRINKAGE;STAND,PLASTIC OTHERS,P	0	SNA	
1	R001A	BN90-07794A	ASSY COVER REAR;HE460	1	SNA	
0.2	SCREW	6001-002755	SCREW-MACHINE;BH,+,M3,L6,ZPC(BLK),SWRCH1	5	SA	
0.2	SCREW	6003-001782	SCREW-TAPTYPE;BH,+,B,M4,L12,ZPC(BLK),SWR	13	SA	
0.2	R001A	BN96-38401N	ASSY COVER P-REAR;40HE460,PC+ABS,V-1,BK0	1	SA	
..3		BN60-00162C	SPACER-FOAM;PE FOAM,L50M,GRAY,T0.5,W15	0	SNA	
..3	R001	BN63-15935A	COVER-REAR;40HE460,PC+ABS,T2,V-1,BK0020,	1	SNA	
...4		0103-010376	RESIN PC ABS;FR3012 / 901510,BLACK,BK000	1600	SNA	
..3	T0071	BN64-02636F	INLAY-TERMINAL;HE460S EU,PS,T0.3,BLACK,4	1	SNA	
..3		BN68-07282T	INLAY-TERMINAL SIDE;HE470,PET,T0.125,W15	1	SNA	
1		BN91-15685A	ASSY SHIELD;HD460	1	SNA	
0.2	SCREW	6001-003016	SCREW-MACHINE;PWH,+,M3,L5.0,ZPC(WHT),SWR	8	SA	
0.2		BN02-00102B	TAPE-FILAMENT;FILAMENT,#8917,T0.15,W25,L	0	SNA	
0.2	10P	BN39-01885A	LEAD CONNECTOR-POWER;UN32H4200AF,UL21016	1	SA	
0.2	P001A	BN44-00852A	DC VSS-PD BOARD;L48MSF_FDY,AC/DC,146W,10	1	SA	
0.2		BN60-00162C	SPACER-FOAM;PE FOAM,L50M,GRAY,T0.5,W15	0	SNA	
0.2	SP01A	BN96-30337C	ASSY SPEAKER P-FRONT;TV-SPK,MEGA3,6ohm,1	1	SA	
0.2	FB05A	BN96-36076E	ASSY BOARD P-FUNCTION TACT;UA43J5003,CT1	1	SA	
0.2	FL06	BN96-38345D	FFC CABLE;40ND470S,Fold,L450,51P	1	SA	
1	M0017	BN91-17810Y	ASSY CHASSIS;HTV	1	SNA	
0.2	M0014	BN94-10894Y	ASSY PCB MAIN;HTV	1	SA	
..3		0202-001608	SOLDER-WIRE FLUX;LFC7-107,D0.8,99.3Sn/0.	0	SNA	
..3		BN61-10203A	COVER-TERMINAL SIDE;HIPS,HIPS,MOLD,BLACK	1	SNA	
...4		0103-004631	RESIN HIPS;HF-1690H,K21294,BK0007,1.5mm	12	SNA	
..3		BN97-09387Y	ASSY SMD;HTV,BN94-10894	1	SNA	
...4		0202-001830	SOLDER-CREAM;LFM-48W TM-HP,D20~38um,96.5	5	SNA	
...4	DS01A	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	4	SA	
...4	DS01A	0401-001099	DIODE-SWITCHING;1N4148WS,75V,150mA,SOD-3	2	SA	

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	DS01A	0401-001116	DIODE-SWITCHING;BAV99DW,75V,215mA,SOT-36	1	SA	
...4		0403-001783	DIODE-ZENER;BZB84-C6V2,5.8~6.6V,300mW,SO	6	SNA	
...4		0404-001089	DIODE-SCHOTTKY;RB551V-30,20V,500mA,SOD-3	1	SA	
...4		0404-001404	DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,	2	SA	
...4		0406-001200	DIODE-TVS;RClamp0504F,6V,1MAV,TP	1	SA	
...4		0406-001271	DIODE-TVS;RCLAMP0524P,6V,1MAV,5A,TR	2	SNA	
...4		0406-001635	DIODE-TVS;SMF5.0A,6.4V,6.7V,TV,200MAV,20	6	SA	
...4		0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	7	SC	
...4		0505-002560	FET-SILICON;AO6415,P,20V,-3.3A,0.15ohm,1	3	SA	
...4		0505-003397	FET-SILICON;2N7002K,N,60V,0.38A,1.19ohm,	2	SA	
...4		0801-003603	IC-CMOS LOGIC;MC74LCX244MN2TWG,Octal buf	1	SA	
...4		0801-003604	IC-CMOS LOGIC;NL17SZ17DFT2G,SC-70,5P,TP,	2	SA	
...4		0909-001032	IC-REAL TIME CLOCK;PCF8563,SOP,8P,4.9x3.	1	SA	
...4		1006-001266	IC-LINE TRANSCEIVER;3232,TSSOP,16P,174MI	1	SA	
...4		1103-001531	IC-EEPROM;S-24C256CI-J8T1U4,256Kbit,32Kx	1	SA	
...4		1103-001561	IC-EEPROM;S-24C02DI-J800,2Kbit,256X8bit,	1	SA	
...4		1201-003690	IC-AUDIO AMP;TAS5747PHPR,QFP,48P,DUAL,PL	1	SA	
...4		1203-004363	IC-VOL. DETECTOR;SOT-23,3Z30,2.9x1.6mm,P	1	SA	
...4		1203-006017	IC-VOL. DETECTOR;RT9824GJ8,TSOT23,8P,2.9	1	SA	
...4		1203-008103	IC-POS.FIXED REG.;S-13A1D15-E800,HSOP,8	1	SNA	
...4		1203-008104	IC-POS.FIXED REG.;S-13A1D18-E800,HSOP,8	1	SNA	
...4		1203-008105	IC-POS.FIXED REG.;S-13A1D33-E800,HSOP,8	1	SNA	
...4		1203-008734	IC-DC/DC CONVERTER;RT6214,TSOT-23,6,3x1.	3	SA	
...4		1204-003665	IC-VIDEO PROCESS;SENK17,LFBGA,562P,21x21	1	SA	
...4		1205-004447	IC-SWITCH;TPS2051CDBVR,SOT23-5,5P,3x1.65	1	SA	
...4		1205-005551	IC-SWITCH;ET20161,SOT23-5,5P,2.926x2.8mm	1	SA	
...4		1405-001271	VARISTOR;35V,20VDC,5A,1.0x0.5mm,TP,100V,	17	SA	
...4		1405-001382	VARISTOR;24.5V,16VDC,120A,2.0x1.25mm,TP,	1	SA	
...4		2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-000137	R-CHIP;2Kohm,5%,1/16W,TP,1005	7	SNA	
...4		2007-000138	R-CHIP;100ohm,5%,1/16W,TP,1005	31	SA	
...4		2007-000143	R-CHIP;4.7Kohm,5%,1/16W,TP,1005	49	SNA	
...4		2007-000148	R-CHIP;10Kohm,5%,1/16W,TP,1005	55	SA	
...4		2007-000153	R-CHIP;22Kohm,5%,1/16W,TP,1005	7	SNA	
...4		2007-000157	R-CHIP;47Kohm,5%,1/16W,TP,1005	3	SNA	
...4		2007-000162	R-CHIP;100Kohm,5%,1/16W,TP,1005	4	SNA	
...4		2007-000168	R-CHIP;470Kohm,5%,1/16W,TP,1005	3	SA	
...4		2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005	19	SNA	
...4		2007-000172	R-CHIP;10ohm,5%,1/16W,TP,1005	1	SNA	
...4		2007-000173	R-CHIP;22ohm,5%,1/16W,TP,1005	15	SNA	
...4		2007-000174	R-CHIP;47ohm,5%,1/16W,TP,1005	2	SNA	
...4		2007-000231	R-CHIP;1.3Kohm,1%,1/10W,TP,1608	1	SA	
...4		2007-000242	R-CHIP;1.5Kohm,5%,1/16W,TP,1005	1	SNA	
...4		2007-000475	R-CHIP;1Mohm,1%,1/10W,TP,1608	1	SA	
...4		2007-000539	R-CHIP;200ohm,5%,1/10W,TP,1608	1	SA	
...4		2007-000775	R-CHIP;33Kohm,5%,1/16W,TP,1005	1	SNA	
...4		2007-000932	R-CHIP;470ohm,5%,1/16W,TP,1005	4	SNA	

ANNEX. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		2007-001168	R-CHIP;75ohm,5%,1/4W,TP,3216	1	SA	
...4		2007-001288	R-CHIP;18ohm,5%,1/16W,TP,1005	4	SA	
...4		2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005	16	SNA	
...4		2007-001298	R-CHIP;51ohm,5%,1/16W,TP,1005	1	SNA	
...4		2007-007001	R-CHIP;3.9Kohm,5%,1/16W,TP,1005	1	SA	
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005	4	SNA	
...4		2007-007138	R-CHIP;27Kohm,1%,1/16W,TP,1005	2	SA	
...4		2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005	3	SNA	
...4		2007-007156	R-CHIP;1ohm,5%,1/16W,TP,1005	13	SNA	
...4		2007-007306	R-CHIP;100ohm,1%,1/16W,TP,1005	1	SNA	
...4		2007-007308	R-CHIP;33Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007309	R-CHIP;12Kohm,1%,1/16W,TP,1005,T0.35	6	SA	
...4		2007-007311	R-CHIP;22Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007316	R-CHIP;3.3Kohm,1%,1/16W,TP,1005	1	SA	
...4		2007-007317	R-CHIP;2.2Kohm,1%,1/16W,TP,1005	2	SA	
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005	13	SNA	
...4		2007-007517	R-CHIP;240ohm,1%,1/16W,TP,1005	1	SNA	
...4		2007-008015	R-CHIP;75ohm,1%,1/16W,TP,1005	3	SA	
...4		2007-008485	R-CHIP;22ohm,1%,1/16W,TP,1005	2	SC	
...4		2007-009753	R-CHIP;52.3Kohm,1%,1/16W,TP,1005	1	SA	
...4		2011-000686	R-NETWORK;56ohm,5%,1/16W,L,CHIP,8P,TP,3.	2	SA	
...4		2011-001261	R-NETWORK;33ohm,5%,1/16W,L,CHIP,8P,TP,2.	2	SA	
...4		2011-001262	R-NETWORK;22ohm,5%,1/16W,L,CHIP,8P,TP,2.	3	SA	
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	2	SNA	
...4		2011-001344	R-NETWORK;100ohm,5%,1/16W,L,CHIP,8P,TP,2	2	SA	
...4		2011-001345	R-NETWORK;10Kohm,5%,1/16W,L,CHIP,8P,TP,2	2	SA	
...4		2011-001396	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,8P,TP,	2	SA	
...4		2011-001449	R-NETWORK;22ohm,5%,1/16W,L,4P,TP,1.0x1.0	5	SA	
...4		2011-001587	R-NETWORK;100ohm,5%,1/16W,L,CHIP,4P,TP,1	2	SNA	
...4	AD480	2203-000233	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005	6	SA	
...4	AD480	2203-000359	C-CER,CHIP;0.15nF,5%,50V,C0G,TP,1005,0.5	4	SA	
...4	AD480	2203-000386	C-CER,CHIP;0.015nF,5%,50V,C0G,TP,1005	2	SA	
...4	AD480	2203-000425	C-CER,CHIP;0.018nF,5%,50V,C0G,TP,1005	1	SA	
...4	AD480	2203-000438	C-CER,CHIP;1nF,10%,50V,X7R,TP,1005	2	SA	
...4	AD480	2203-000489	C-CER,CHIP;2.2nF,10%,50V,X7R,TP,1005	1	SA	
...4	AD480	2203-000585	C-CER,CHIP;0.22nF,10%,50V,X7R,TP,1005	1	SA	
...4	AD480	2203-000627	C-CER,CHIP;0.022nF,5%,50V,C0G,TP,1005	3	SNA	
...4	AD480	2203-000714	C-CER,CHIP;3.3nF,10%,50V,X7R,TP,1005	2	SA	
...4	AD480	2203-000812	C-CER,CHIP;0.033nF,5%,50V,C0G,TP,1005	3	SA	
...4	AD480	2203-000940	C-CER,CHIP;0.47nF,10%,50V,X7R,TP,1005	4	SA	
...4	AD480	2203-001412	C-CER,CHIP;0.03nF,5%,50V,NP0,TP,1005	3	SNA	
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,TP,1005	13	SNA	
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	2	SNA	
...4	AD480	2203-005083	C-CER,CHIP;220nF,10%,50V,X7R,TP,1608,0.8	6	SA	
...4	AD480	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	9	SNA	
...4	AD480	2203-005968	C-CER,CHIP;4.7nF,10%,50V,X7R,TP,1005,0.5	2	SNA	
...4	AD480	2203-006048	C-CER,CHIP;100nF,10%,10V,X7R,TP,1005	78	SA	

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,TP,1005	11	SNA	
...4	AD480	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,TP,1005,T0.	5	SNA	
...4	AD480	2203-006324	C-CER,CHIP;2200nF,10%,10V,X5R,TP,1608	2	SA	
...4	AD480	2203-006348	C-CER,CHIP;1000nF,10%,25V,X5R,TP,1608,0.	1	SA	
...4	AD480	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005	12	SNA	
...4	AD480	2203-006824	C-CER,CHIP;4700nF,10%,10V,X5R,TP,1608	2	SNA	
...4	AD480	2203-006890	C-CER,CHIP;10000nF,20%,6.3V,X5R,TP,1608	30	SA	
...4	AD480	2203-007176	C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012,1	1	SNA	
...4	AD480	2203-007240	C-CER,CHIP;22000nF,20%,6.3V,X5R,TP,1608(9	SA	
...4	AD480	2203-007269	C-CER,CHIP;22000nF,20%,10V,X5R,TP,2012(2	9	SA	
...4	AD480	2203-007270	C-CER,CHIP;10000nF,10%,10V,X5R,TP,1608,0	6	SNA	
...4	AD480	2203-007306	C-CER,CHIP;10000nF,10%,25V,X5R,TP,2012,1	4	SNA	
...4	AD480	2203-008096	C-CER,CHIP;2200nF,10%,50V,X5R,TP,2012,1.	1	SA	
...4	AD480	2203-008315	C-CER,CHIP;22000nF,20%,25V,X5R,TP,2012,T	3	SA	
...4		2402-001268	C-AL,SMD;100uF,20%,25V,WT,TP,8x6.3mm	1	SA	
...4		2409-001168	C-EDL;200000uF,3.3V,0.01mA,TP,6.8x11.3mm	1	SA	
...4		2703-000158	INDUCTOR-SMD;1uH,10%,0.4Ohm,50mA,45,Mult	1	SA	
...4		2703-000213	INDUCTOR-SMD;470nH,10%,1.35Ohm,35mA,15,M	1	SA	
...4		2703-001938	INDUCTOR-SMD;56nH,5%,1005,1.5Ohm,200mA,1	3	SA	
...4		2703-003149	INDUCTOR-SMD;2.2uH,20%,0.055Ohm,3000mA,W	1	SA	
...4		2703-003790	INDUCTOR-SMD;4.7uH,20%,8080,0.025Ohm,450	2	SA	
...4		2703-003930	INDUCTOR-SMD;4.7uH,20%,0.072Ohm,2450mA,W	4	SA	
...4		2801-000258	CRYSTAL-SMD;0.032768MHz,20ppm,SMD,12.5pF	1	SA	
...4		2801-003773	CRYSTAL-SMD;12MHz,30ppm,28-AAN,20pF,50Oh	1	SA	
...4		2801-003856	CRYSTAL-SMD;0.032768MHz,20ppm,28-ACP,7pF	1	SA	
...4		3301-000314	BEAD-SMD;120ohm,1608,TP,120ohm/100MHz	2	SNA	
...4		3301-001364	BEAD-SMD;1000ohm,1608,TP,1085ohm/108MHz,	6	SNA	
...4		3301-001687	CORE-FERRITE BEAD;47ohm,1608,TP,1000ohm/	3	SNA	
...4		3301-002039	BEAD-SMD;26ohm,1608,TP	27	SA	
...4		3601-001374	FUSE-SURFACE MOUNT;32V,5A,FAST-ACTING,PL	1	SA	
...4		3601-001376	FUSE-SURFACE MOUNT;32V,3A,FAST-ACTING,Hi	1	SNA	
...4		3701-001746	CONNECTOR-DSUB;15P,3R,FEMALE,STRAIGHT,A	1	SA	
...4		3701-001967	CONNECTOR-HDMI;19P,A,FEMALE,AU,0.5mm,BLK	1	SA	
...4		3708-003073	CONNECTOR-FPC/FFC/PIC;51P,0.5mm,SMD-A,AU	1	SA	
...4		3709-001712	CONNECTOR-CARD SLOT;68P,1.27mm,ANGLE,AU,	1	SA	
...4	EH01	3711-008131	HEADER-BOARD TO CABLE;BOX,4P,1R,2.5mm,AN	1	SA	
...4	EH01	3711-008521	HEADER-BOARD TO CABLE;BOX,8P,1R,2mm,ANGL	1	SA	
...4	EH01	3711-008634	HEADER-BOARD TO CABLE;BOX,10P,2R,2mm,ANG	1	SA	
...4	CONNECTOR	3719-001755	CONNECTOR-ACCESSORY;HOLDER-PCB,SPT 0.5	1	SA	
...4		3722-003457	JACK-USB;4P/1C,NI,BLK,ANGLE,A,2.0,13.1x1	1	SA	
...4		3722-003617	JACK-PHONE;2P/14C,SN,BLK,STRAIGHT,3.6PI,	1	SA	
...4		3722-003667	JACK-PHONE;1P/7C,NI/SN,BLK,STRAIGHT,3.6P	2	SA	
...4		3722-003725	JACK-PIN;3P,NI/SN,RED/WHT/YEL,STRAIGHT	1	SA	
...4	ET01	BN40-00313A	TUNER-DTV AIR CABLE;DTOS40EH5A,DVB-TC Ha	1	SA	
...4		BN41-02526A	PCB-MAIN;HE470_LARGE_INCH,FR-4,4L,1.2T,1	1	SNA	
...4		BN97-09388R	ASSY MICOM-MAIN;HE47X/HE460/HE570,1107-0	1	SNA	
...5		1107-002048	IC-NAND FLASH;MT29F2G08ABAEAWP:E,2Gbit,2	1	SA	

ANNEX. Exploded View & Part List

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
...4		BN97-09389N	ASSY MICOM-SUB;HE47X/HE460/HE570,0903-00	1	SNA	
....5		0903-001879	IC-MICROCONTROLLER;WT61P808,LQFP,48P,7x7	1	SA	
...4		BN97-09390G	ASSY MICOM-SPI;HE47X/HE460/HE570,1107-00	1	SNA	
....5		1107-002226	IC-NOR FLASH;W25Q40CLSSIP,4Mbit,SOIC,8P,	1	SA	
..3		BN97-11280A	ASSY DRM;NT16L/NT16M,BN46-00555A,UES60 & U	1	SNA	
...4		BN46-00555A	KEY CODE-CERTIFICATION;CI PLUS,NT16L,NT1	1	SNA	
1		BN92-17573A	ASSY P/MATERIAL;HD460	1	SNA	
0.2		0203-006958	TAPE-OPP;OPP,T0.065,W75,L1500M,CLEAR,#31	1	SNA	
0.2		6902-002731	BAG ROLL;HDPE/PE FOAM,T0.015/T0.5,W1200,	1	SNA	
0.2		6922-000013	BAND;PP,W18,L2300/L2900,TRP	0	SNA	
0.2		6932-000004	WRAP;T0.023,W750,L1000m,non stretched fi	1	SNA	
0.2	AS080	BN63-10787C	SHEET-PROTECTION COVER;UE37EH5000,PE,T4,	1	SNA	
0.2		BN69-12851A	CUSHION-SET;40"J5200 40INCH MINI-ARCH,EP	1	SNA	
..3		0103-005099	RESIN EPS;BASF303,Natural,Natural	287	SNA	
0.2		BN69-13583G	PAD-PACKING;LED,PAPER,T5,W50,L2400,H50,Y	1	SNA	
0.2		BN69-14414A	PALLET-WOODEN;UE43KU6000,WOOD,W1000,L120	1	SNA	
0.2		BN74-00008D	TAPE-OPP;OPP,T0.05,W75,L800M,CLEAR	1	SNA	
1	ACCE1	BN92-17798H	ASSY ACCESSORY;HG40EE460SKXEN	1	SNA	
0.2	ACCE1	BN96-35994H	ASSY ACCESSORY-CABLE;HG40EE460SKXEN	1	SNA	
..3	T0268	3903-000950	CBF-POWER CORD;DT,CEE,LP-21L,250V,2.5A,B	1	SA	
..3		4301-000121	BATTERY-MN;1.5V,R03,10.5x44.5m,7.5g,AAA	2	SNA	
..3		6902-001962	BAG PE;LDPE,BIOBASED,T0.05,W400,L300,TRP	1	SNA	
..3	REMOCON	AA59-00818A	REMOCON-TV;2012 TV,Samsung,44KEY,3V,HB46	1	SC	
..3		BN68-02839P	LEAFLET-WARRANTY;TV,Samsung,Turkish,Turk	1	SNA	
..3		BN68-02989A	LABEL ETC;ALL,ALL,PAPER,W30,L65,WHITE,SE	1	SNA	
..3		BN68-03019F	LEAFLET-REGULATORY GUIDE;HTV/MFM,Samsung	1	SNA	
..3		BN68-04972G	LEAFLET-REGULATORY GUIDE;LFD/MON,Samsung	1	SNA	
..3		BN68-07598A	LEAFLET-FICHE;ALL,W/P,0	1	SNA	
..3		BN68-07984F	LEAFLET-QUICK SETUP GUIDE;HE460S,EU,XC,X	1	SNA	
..3	EH03A	BN96-18153A	ASSY HOLDER P-RING;11 LED-TV,ABS,BLACK,H	1	SNA	
...4		6902-001404	BAG PE;LDPE,T0.05,W80,L100,TRP,Bio. N	1	SNA	
...4	AH365	BN61-07295A	HOLDER-WALL RING;40UD5500,ABS,MOLD,BK000	4	SC	
....5		0103-004609	RESIN ABS;HF-0680U,K21294,BK0007,HB,High	16	SNA	
1		BN92-17810R	ASSY LABEL;HG28EE460AKXEN	1	SNA	
0.2		BN68-06708G	LABEL-RATING;Monitor,WW,PP,T0.161,W93,L7	1	SNA	
0.2		BN68-07519A	LABEL-ENERGY;ALL JORDAN,WW,PP,T0.135,W60	1	SNA	
1		BN92-19007A	ASSY BOX;HD460	1	SNA	
0.2		BH68-00662A	LABEL BOX;ALL,ART PAPER,W60,L110,WHT,NO	1	SNA	
0.2		BN69-13910B	BOX UNIT;40HE460,CB,SW2,F1,L1088,W110,H5	1	SNA	
1		BN95-03225A	PRODUCT LCD DP;DP,BN95-02347B,SEH ONLY	1	SA	
0.2		BN92-19417A	ASSY P/MATERIAL;CY-JJ040BGNV1H,Inhouse p	1	SNA	
..3		BN69-12171B	CUSHION-PANEL;J5200 39.5",EPS,ESD EPS,22	1	SNA	
...4		0103-005099	RESIN EPS;BASF303,Natural,Natural	3171	SNA	
0.2	PANEL	BN95-02347B	PRODUCT LCD-INX;CY-JJ040BGNV2V/H,J5000,H	1	SA	
..3		BN02-00102B	TAPE-FILAMENT;FILAMENT,#8917,T0.15,W25,L	0	SNA	
..3	AS080	BN63-07229C	SHEET-PROTECTION COVER;rose70",PET,T0.05	1	SNA	
..3		BN68-05722A	LABEL-E PASS;POLYPROPYLENE,NON-COATING	1	SNA	

Level	Location No.	Code No.	Description & Specification	Q'ty	SA/SNA	Remark
..3		BN90-07262A	ASSY MISC-BLU;TPV(RUBBER) 5402PV,5402A_0	1	SNA	
...4		BN02-00152E	TAPE PET;Y14 SF-LED,PET,T0.07,W12,L21,GR	2	SNA	
...4		BN61-12391A	FRAME-MIDDLE TOP;J5.2K 39.5",TPV,HB,BK00	1	SNA	
...4		BN61-12397A	FRAME-MIDDLE BOTTOM;J5.2K 39.5",TPV,HB,M	1	SNA	
...4		BN61-12403A	FRAME-MIDDLE LEFT RIGHT;J5.2K 39.5",TPV,	2	SNA	
....5		0103-010669	RESIN TPE;5402PV/5409H,Black,BK0008,HB,T	105	SNA	
...4		BN61-12411B	SUPPORT-PLATE;J5200 43",PC,V-2,CLEAR	8	SNA	
...4		BN61-12835A	DIFFUSER PLATE;15Y_J5.2K 40INCH_DIFFUSER	1	SNA	
...4		BN63-14605A	OPTICAL SHEET-COMPLEX;15Y J5.2K 39.5inch	1	SNA	
...4		BN63-14606A	OPTICAL SHEET-REFLECTOR;15Y J5.2K 39.5in	1	SNA	
...4		BN96-39160A	ASSY CHASSIS REAR P;LCM,EGI-SECC,-,with	1	SNA	
....5		BN02-00102B	TAPE-FILAMENT;FILAMENT,#8917,T0.15,W25,L	0	SNA	
....5		BN60-00162C	SPACER-FOAM;PE FOAM,L50M,GRAY,T0.5,W15	0	SNA	
....5		BN96-37135A	ASSY CHASSIS REAR P;J5200 39.5",EGI-SECC	1	SNA	
....6		BN02-00040C	TAPE DOUBLE FACE;F-LED ALL,PET,T0.3,W3,L	2	SNA	
....6		BN02-00102B	TAPE-FILAMENT;FILAMENT,#8917,T0.15,W25,L	0	SNA	
....6		BN02-00352B	TAPE-POLY;PET,T0.05,W30,L50M,BLACK,ULNO.	0	SNA	
....6	EC13	BN39-02125A	LEAD CONNECTOR-BLU;5200 39.5" WIRE_Hame	1	SNA	
....6		BN61-11027A	HOLDER-SOURCE PCB;H4.2K 58",PA66,MOLD,V-	4	SNA	
....6	CB20	BN61-11982A	BRACKET-WALL;Y15 F-LED,CR-SPCC,T1.2,L15.	4	SNA	
....6		BN61-12513B	FRAME-MIDDLE CORNER;39.5J5200,PC+GF10%,V	4	SNA	
.....7		0103-007368	RESIN PC;LS-3104G,K2495,BK0048,3.0mm V-2	20	SNA	
....6		BN62-00739A	INSULATOR-SMPS;J5200,PC,BLACK,L255,W170,	1	SNA	
....6		BN63-14964A	GASKET-EMI;GASKET,FABRIC,T2,W20,L11,BLAC	4	SNA	
....6	CC02	BN64-03155A	CHASSIS-REAR;40J5200,EGI-SECC,T0.5,NATUR	1	SNA	
.....7		BN01-00310B	STEEL;40J5200,EGI-SECC,L963,0.5,578,AG	1	SNA	
....6		BN74-00053E	TAPE-PAPER;PAPER,3M2307,T0.14,W20,L50M,W	0	SNA	
....5		BN96-37622A	ASSY LED BAR P;39.5_FHD_FCOM_MODULE,ALUM	3	SA	
..3		BN96-33321A	ASSY OPEN CELL;V400HJ6-PE1,16:9,39.5inch	1	SNA	
...4		BN81-10993A	A/S-IC DRIVER SOURCE;V400HJ6-PE1,6101B00	1	SNA	
...4		BN81-10994A	A/S-IC DRIVER GATE;V400HJ6-PE1,6101B0016	1	SNA	
...4		BN81-10995A	A/S-ASSY PCB SOURCE LEFT;V400HJ6-PE1,6B0	1	SNA	
...4		BN81-10996A	A/S-ASSY PCB SOURCE RIGHT;V400HJ6-PE1,6B	1	SNA	
...4		BN81-10997A	A/S-POLARIZER CF;V400HJ6-PE1,4101B001YC0	1	SNA	
...4		BN81-10998A	A/S-POLARIZER TFT;V400HJ6-PE1,4101B001YH	1	SNA	
..3	TC01A	BN96-39003A	ASSY CHASSIS FRONT P;LCM,PC+ABS+MF15%	1	SNA	
...4		BN60-00667A	SPACER-CONDUCTIVE;Y13 SF-LED,CONDUCTIVE	3	SNA	
...4		BN60-01271A	SPACER-CONDUCTIVE;J5200 39.5,CONDUCTIVE	2	SNA	
...4		BN60-01272A	SPACER-CONDUCTIVE;J5200 39.5,CONDUCTIVE	2	SNA	
...4		BN63-10886D	SHEET-PROTECTION COVER;U28D590,AL,T0.052	1	SNA	
...4		BN63-10886G	SHEET-PROTECTION COVER;UH7000,AL,T0.052,	2	SNA	
...4	AC157	BN64-03309A	CHASSIS-FRONT;LED_J4000,PC+ABS+MF15%,MOL	1	SNA	
....5		0103-010326	RESIN PC ABS;HRM1530F/BK00749,Black,BK00	300	SNA	

1. Precautions

1-1. Safety Precautions

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

1-1-1. Warnings



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

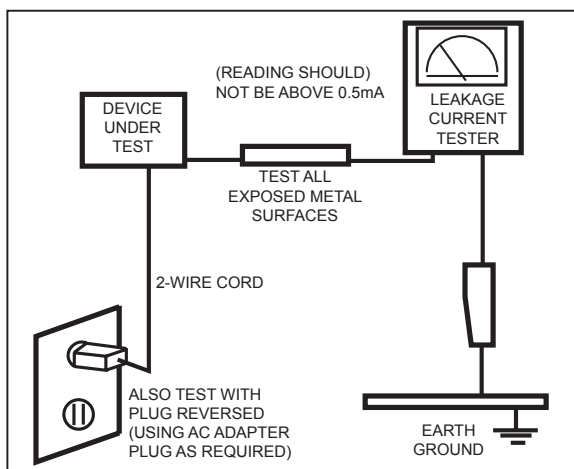
1-1-2. Servicing the LED TV

1. When servicing the LED TV, 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:




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).

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 safetyrelated 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  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.

1-2. Servicing Precautions



An electrolytic capacitor installed with the wrong polarity might explode.



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



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.



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 a 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 highvoltage cable or the antenna falling over may cause fire or electric shock.
7. When installing the product, leave enough space (0.4m) between the product and the wall for ventilation purposes. A rise in temperature within the product may cause fire.
8. If an equipment is provided with a replaceable battery, and if replacement by an incorrect type could result in an explosion (for example, with some lithium batteries), the following applies:

**CAUTION**

- Risk of explosion if battery is replaced by an incorrect type dispose of used batteries according to the instructions.
- Do not dispose of batteries in a fire.
- Do not short circuit, disassemble or overheat the batteries.
- Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type.
- Do not be exposed to excessive heat such as sunshine, fire or the like.

2. Product Specifications

2-1. Product information

Model	HG40EE460SK		
Front View	 <p>* W : Width H : High D : Depth</p>		
Detail View			
Color	Front : BLACK / Stand : BLACK		
Dimensions (W x H x D)	40"	Without Stand	922.7 x 530.7 x 72.0 mm
		With Stand	922.7 x 555.1 x 170.3 mm
Weight	40"	Without Stand	6.7 kg
		With Stand	6.9 kg
Panel Type	Anti Glare		
Flash	256 Mbtye		
DDR	256 Mbtye		
Feature	Media Play (Movie)		

2-2. Product specification

- **Common** : Digital-TV, RF, 1-HDMI, 1-USB2.0, 1-Headphone,1-DATA,1-RJP, 1-PC IN, 1-PC/DVI Audio in, 1-Headphone-ID
- **Difference** : 1-Cl, 1-Scart
- Dynamic Contrast Ratio : Mega Contrast
- Response Time : 8.5 ms


Model	HG40EE460SK
Item	Description
Screen Size (Diagonal)	40 inches
LCD Panel	HD 80Hz
Display Colors	16.7M color
Display Resolution	1920 x 1080
Input Signal	Analog 0.7 Vp-p \pm 5% positive at 75 Ω , internally terminated
Input Sync Signal	H/V Separate, TTL, P. or N.
Active Display	878.112 (H) x 485.352 (V)
AC Power Voltage & Frequency	AC220-240V 50/60Hz
Environmental Considerations	Operating Temperature : 50°F ~ 104°F (10°C ~ 40°C) Operating Humidity : 10% ~ 80%, non-condensing Storage Temperature : -4°F ~ 113°F (-20°C ~ 45°C) Storage Humidity : 5% ~ 95%, non-condensing
Sound (Output)	20 W (10W x 2)
Note : Dolby Digital Plus/Pulse, USB2.0, Film mode, Energy Saving	

2-3. Accessories

**NOTE**

- The items' colors and shapes may vary depending on the model.
- Cables not included in the package contents can be purchased separately.
- The part code for some accessories may differ depending on your region.

Product	Code. No	Product	Code. No
• Remote Control	AA59-00818A	• Quick Setup Guide	BN68-07984F
• Batteries (AAA x 2)	4301-000121	• Regulatory Guide	BN68-03019F
• Power Cord	3903-000950		

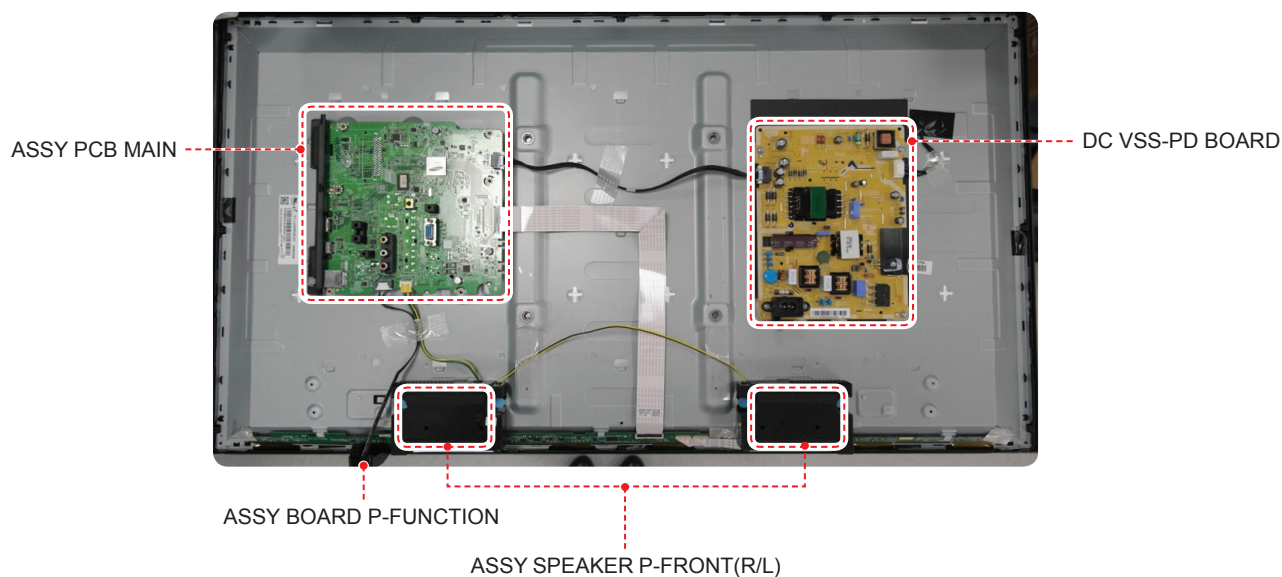
Image	Product	Code. No
	• Holder-Wire Stand	BN61-07295A

4. Troubleshooting

4-1. Previous Check

■ Check list for initial operation

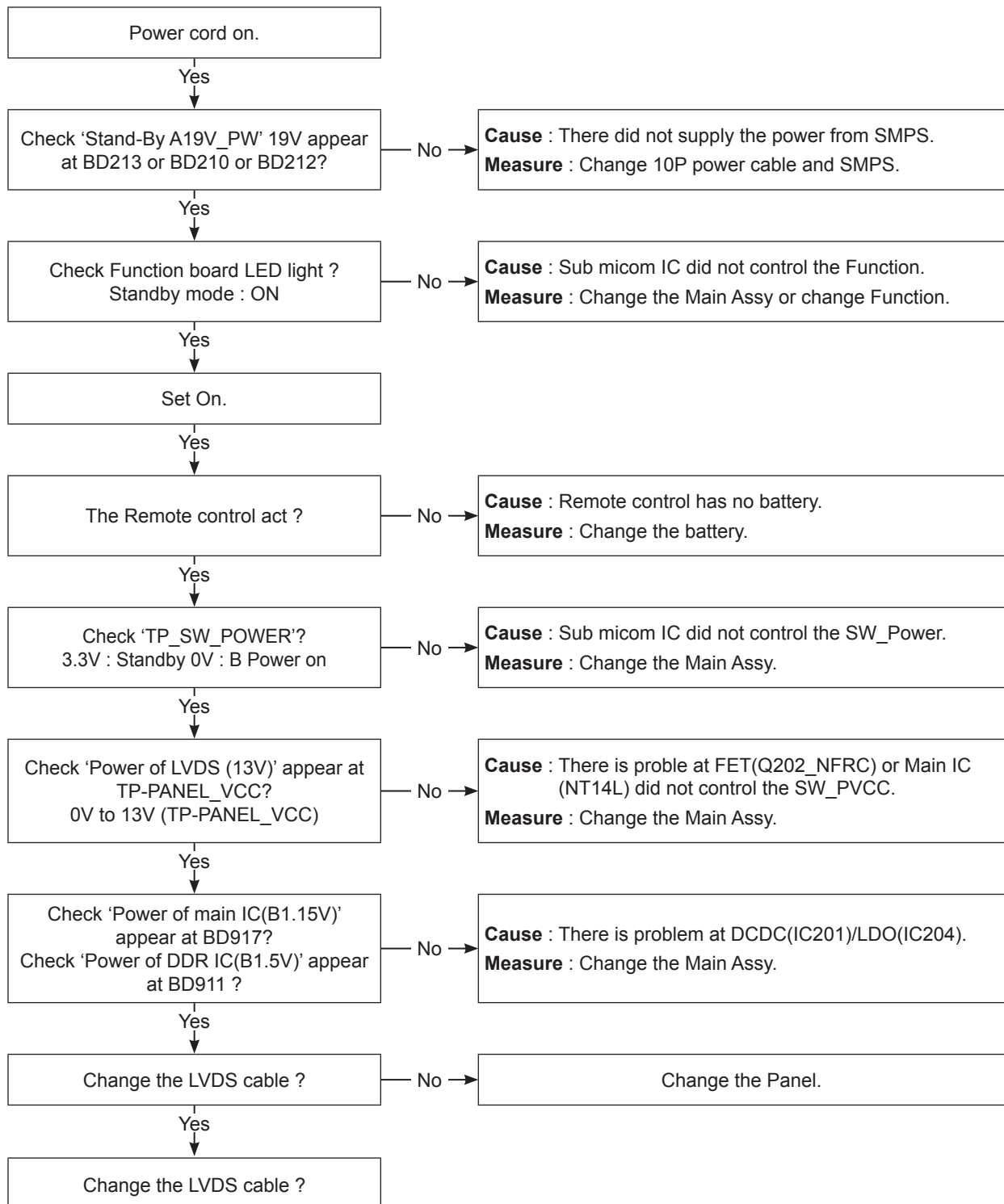
- AC Power Cord connected to the TV and the wall receptacle.
- Standby Power/IR Indicator LED is turned On.
- If Power/IR Indicator is not on check 10p power cable is connected and for correct Standby Voltage from SMPS to Main. Also check Jog Function Cable.
- Power turned On with Jog Function or Remote.
- Power on command from main Board to SMPS.
- Power/IR Indicator Flashes.
- Panel Back Lights are turned On.
- If no Backlights, unplug AC Power Cord, unplug 10 pin connector to SMPS, plug in AC Power Cord, Back light should come on. Check Main Board operation for error.
- Power/IR Indicator goes off.
- Picture or banner is displayed.
 - If nothing is displayed, check the LVDS cable.



CN202(to Power board)			
1	A19V_PW	6	DGND
2	DGND	7	A19V_PW
3	A19V_PW	8	DGND
4	DGND	9	A19V_PW
5	A19V_PW	10	DGND

4-2. How to Check Fault Symptom

■ NO Power and No Video



4-3. Factory Mode Adjustments

To enter 'Service Mode' Press the remote -control keys in this sequence :

- If you do not have Factory remote control



- If you have Factory remote control



- If you don't have Factory remote control, can't control some menus. (Expert, Advanced menu)

MODE : CATV, RES : NOSIGNAL

Option
Control
Debug
SVC
ADC/WB
Advanced

T-NT16LDEUCB-xxxx ←

T-NT16LDEUSB-xxxx ←

EDID SUCCESS

HDCP SUCCESS

CALIB : AV / COMP / PC / HMDI /

Option : xxxx xxxx xxx

DTP-SDAL-NT16M-HOTEL_DEU_15-xxx

RFS:"NT16M xxxx" K/ xxxx-xx-xx

KERNEL : xxx.xxxx, / Onboot : XXXX

TCON Version: ----

NSP-DTVTD-xxxx-xxxx

Model : HG40EE460SK***

CIP Success

DRM CRC:----

Factory Data Ver : xxx

EERC Version:xxx

NSP-BP-HAL-xxxx

NSP-AP-CNC-xxxx

NSP-AP-MM-xxxx

NSP-BP-MW-xxxx

NSP-BP-APP-xxxx

Date of purchase : mm/dd/yyyy

✓ **Testing Items**

✓ Main SW Version

✓ Sub SW Version

4-3-1. Detail Factory Option



NOTE

If you replace the main board with new one, please change the factory option as well.
The options you must change are "**Type**".

■ HG40EE460SKXEN

Version		DA01	DB02	DC03
PANEL	Vendor	INX	INX	INX
	Code	BN95-02347B	BN95-02347P	BN95-02347J
	Spec.	CY-JJ040BGNV2V/H	CY-JJ040BGNV8V	CY-JJ040BGNV6V/H
SMPS	Vendor	DYREL	DYREL	DYREL
	Code	BN44-00852A	BN44-00852A	BN44-00852A
	Spec.	L48MSF_FDY	L48MSF_FDY	L48MSF_FDY
MAIN	ASSY CHASSIS	BN91-17810Y	BN91-18231C	BN91-18385C
	ASSY PCB MAIN	BN94-10894Y	BN94-10909C	BN94-11364C
Byte	Item			
0	Factory Reset	-		
1	Type	40D6AF0JJ	40D6AF1JJ	40D6AF2JJ
2	Local set	EU		
3	SW Model	HE460		
4	BOM Model	460		
5	Tuner	-		
6	Ch table	NONE		
7	Front Color	-		

4-3-2. Factory Data

■ Option

Factory Menu Name		Data	Range
Factory Reset		-	
Type	40"	40D6AF2JJ; 40D6AF1JJ; 40D6AF0JJ	
Local Set		EU	
SW Model		HE460	
BOM Model		460	
TUNER		-	
Ch Table		NONE	
MRT Option			
Front Color		N/A	
Lvds Format		JEIDA	
Language_Arabic		EU	
Region		PANEURO	
PnP Language		ENG	
WIFI REGION		E	
OTN Support		OFF	
MediaPlay DLNA		...	
TTX		ON	
China HD		OFF	
NT Conversion		OFF	
Num of DTV		1	
Num of AV		0	
Num of COMP		0	
Num of HDMI		1	
Num of SCART		1	
Num of USB Port		1	
Num of RVU		0	
Num of Display		2	
Num of IPTV		0	
Num of RUI		0	
TOOLS Support		1849	
LNA Support		0	
24P*4 Support		OFF	
BD Wise Support		OFF	
Data Service Support		OFF	

4. Troubleshooting

Factory Menu Name	Data	Range
PVR Support	OFF	
CI Support	ON	
OTA Support	OFF	
LEDMotionPlus Support	OFF	
Natural Mode Support	OFF	
Relax Mode Support	OFF	
HDMI/DVI SEL	0	
Select LCD/PDP	LCD	
Wall Mount	0	
HV Flip	HV Flip	
PVR RECOND NUM	0	
Light Effect	OFF	
e-Pop Default	OFF	
CAMERA Support	OFF	
NETWORK Support	Not Support	
EcoSensor Support	OFF	
3D Support	OFF	
BT Support	OFF	
BT ADDRESS	Not Support	
HP LINE	Headphone	
Capture Recording Support	OFF	
JAVA Data Service Support	OFF	
African Cinema Mode support OFF		
Indian Cinema Mode support	OFF	
Cricket Score Game Support	OFF	
Engineer Option		
Type Of Panel Key	Horizontal	
5 Way Function Key	R_BOTTOM	
Contents Bar	0	
Cable Modulation	...	
Standby Led on/off	OFF	
Recognition Support	OFF	
IF AGC	0	
D AGC	0	
PH BW	3	
FQ BW	3	
PH RATE	4	

Factory Menu Name	Data	Range
PD EN	1	
PEQ Inx	183	
WF Scale		
Num of Network Stream	0	
DP V Size	1	
Backend Device	ECHO_FS	
BT_AUDIO_ON_OFF	OFF	
Config_AV_PATH		
V_HDMI IDENT TYPE	2134	
V_HDMI PATH TYPE	BACD	
V_EDID TYPE	LCD_FHD	
V_ATV	CVBS_PORT 2	
V_AV1	None	
V_AV2	None	
V_COMP1	None	
V_COMP2	None	
V_PC	None	
V_SCART1_CVBS	CVBS_PORT_3	
V_SCART1_RGB	ADC-PORT-2	
V_SCART2_CVBS	None	
V_SCART2_RGB	None	
A_ATV	SIF	
A_DTV	DECODER	
A_AV1	AUIN0	
A_AV2	None	
A_COMP1	None	
A_COMP2	None	
A_PC	None	
A_SCART1	AUIN0	
A_SCART2	None	
A_DVI	None	
A_HDMI	None	
A_Media	DECODER	
USING_PSI_UPDATE		
FAST LOGO DELAY	0	
NUM OF PANEL KEY	6	

■ Control

4. Troubleshooting

Factory Menu Name	Data	Range
EDID		
EDID ON/OFF	Off	
EDID WRITE ALL	...	
EDID WRITE PC	...	
EDID WRITE HDMI	...	
EDID Ver	...	
EDID Port	...	
EDID WRITE DVI	...	
Sub Option		
RS-232 Jack	UART	
Serial Log On/Off	ON	
Watchdog	ON	
Checksum	0x0000	
Fast Boot in Production	OFF	
USB Serial	OFF	
Eeprom Reset		
EER Reset	0	
NVR ALL Clear	OFF	
ECO IC TYPE	None	
Info Link Server Type	operating	
Info Link Country	None	
TTX Group	UserOSD	
Visual Test	...	
MediaPlay DB	...	
OPTION_SUM		
OTN Server Type	operating	
OTN Test Server	OFF	
SWU Reset		
SWU Duration	OFF	
SWU Fail Test	OFF	
SWU_Diag_Code		
OPTION_NUM		
Num of ATV	1	
Num of SVIDEO	-	
Num of PC	-	
Num of DVI	-	
Num of OPTICAL Link	-	

Factory Menu Name	Data	Range
Num of MEDIA	1	
Num of Tuner	1	
Num of PVR RECORD	-	
RF Remocon Support	OFF	
CDD mode		
DPMS Support	OFF	
Num of IPTV CIP	0	
Num of CI	1	
Num of DECODER	0	
T-CON Device		
BOARD CONTROL	OFF	
RM		
Server Type	Operationg	
RTS mode	0	
PSA		
FKP Download1		
FKP Download2		
LMK threshold	0	
Low threshold	0	
High threshold	0	
CSB	ON	
CLB	ON	
EEPG Enable	OFF	
FAnet Thread	5	
UNIQUE TRIPLET	ON	
Hotel Option		
Hospitality Mode		
SI Vendor		
Power On		
Power On Channel	Last Saved	
Power On Channel Num	
Power On Channel Type		
Power on Volume	Last Saved	
Power on Volume Num	
Min Volume	0	
Max Volume	100	
Power on Source	TV	

4. Troubleshooting

Factory Menu Name	Data	Range
Power on Option	Last Option	
Channel		
Channel Setup		
Channel Editor		
Mixed Channel Map	ON	
Dynamic SI	OFF	
Channel Rescan Message	ON	
Pan Euro MHEG	OFF	
My channel	OFF	
Genre Editor		
Subtitle Auto On	OFF	
TTX WIDESCREEN MODE	OFF	
MENU OSD		
Picture Menu Lock	Off	
Menu Display	On	
TOOLS DISPLAY	ON	
CHANNEL MENU DISPLAY	OFF	
Panel Button lock	Unlock / Lock /OnlyPower / Menu/ Source	
Home Menu Display	ON	
Home Menu Editor		
Home Menu Auto Start	ON	
Clock		
Clock Typ	OFF	
Local Time	Standalone : Manual / TTX Interactive : Manual / TTX / Auto	
Time Channel Type		
Time Channel Num		
MUSIC Mode		
Remote Jack Pack		
Priority HDMI	1	
HDMI Option	HDMI	
External Source		
USB Pop-up Screen	Default	
External Source Banner	ON	
Auto source	OFF	
Anynet+Return Source	Power On Src	
HP Managament		

Factory Menu Name	Data	Range
HP Mode	OFF	
Default HP Volume		
Main Speaker	ON	
Eco Solution		
Energy Saving	Off	
Logo/Message		
Welcome Message	OFF	
Edit Welcome Message	-	
Hospitality Logo	OFF	
Hospitality Logo DL	...	
Logo Display Time	...	
Cloning		
Clone TV to USB	-	
Clone USB to TV	-	
Setting Auto Intialize	OFF	
REACH Solution		
REACH 3.0	OFF	
Ticker	OFF	
Reach server Version	0	
Security		
Password Input		
Password Setting		
Password Reset		
Security Mode		
USB		
HDMI		
TTX Security		
System		
Self Diagnosis for TV		
Self Diagnosis for HTV		
SW Upgrade		
Service Pattern	OFF	
Sound Bar Out	OFF	
Contact Samsung		
Standby LED	ON	
TV Reset		
Shop Option		

4. Troubleshooting

Factory Menu Name	Data	Range
Shop Mode	...	
Exhibition Mode	OFF	
3D CUBE	OFF	
Asia Option		
Sepco 120Hz	OFF	
Unbalance	OFF	
FMTransmitter Support	OFF	
FMTransmitter Carrier	OFF	
AF level adjust	3	
TX Power Level	0	
Mono Last Memory	OFF	
H Shaking	OFF	
Sound		
High Devi	OFF	
Carrier Mute	OFF	
Speaker Delay Normal	0	
Wiselink Delay Menu	0	
Pilot Level High Thld	0x13h	
Pilot Level Low Thld	0x09h	
Pilot_Phase_diff_on_THR	OFF	
FM Prescale	0X2Eh	
AM Prescale	0x1Ah	
NICAM Prescale	0x1Dh	
AMP Model	NTP7414	
Amp Volume	0xc5h	
Amp Scale	0x6bh	
Amp Check Sum	0x1E23D3A9	
SubWoofer Support	0	
Woofer Type	0	
Woofer Volume	0xcbh	
Woofer Scale	0x8ah	
Woofer Check Sum	NONE	
Woofer Local Check Sum	NONE	
Amp Local Check Sum	NONE	
Speaker EQ	ON	
PEQ Test	Ready	
Speaker cut-off Freq	5	

Factory Menu Name	Data	Range
SPDIF PCM Gain	-9db	
FM M Prescale	0	
BTSC Mono Prescale	0	
BTSC stereo Prescale	0	
SAP Prescale	0	
A2 Ident High Thld	15	
A2 Ident low Thld	4	
Carrier2 Amp High Thld	16	
Carrier2 Amp Low Thld	14	
Carrier2 SNR High Thld	32	
Carrier2 SNR Low Thld	17	
Audio-IP Test	Ready	
SRS Tuning Param	0	
TruBass-Checksum	0	
Mic Scale	0	
India Sound	OFF	
Wall Filter Type	0	
SAP High Thld	9	
SAP Low Thld	7	
Bottom CheckSum	0	
Bottom Local CheckSum	0	
MFM Option		
PDD	1670	
A_Dimming_Support	OFF	
UnderDriver_Switch	OFF	

■ Debug

Factory Menu Name	Data	Range
Spread Spectrum		
DDR Margin		
ND ADJ Support	0	
MICOM POWER OFF	0	
RF Mute Time	6ms	
CI+1.3	0	
FRC		
Tuner Margin	0	
MPEG Margin	1	

Factory Menu Name	Data	Range
H.264 Margin	8	
CAM Wait Time	0	
TS Clock delay	0	
TCON_TEMP READ	0	
TEMPLAST	60	
DCC VERSION	0x0	
DDC CHK SEL	0	
DDC CHECK LOCAK	0x0	
DDC CHECK TOTAL	0x0	
MultiACC Checksum	0	
IIC Bus Stop	OFF	
Tuner Status		

■ SVC

Factory Menu Name	Data	Range
Test Pattern		
Pattern Sel	Off	
LOGIC Pattern Sel	...	
LOGIC Level Sel	...	
FRC Pre Test Pattern	0	
FRC Post Test Pattern	0	
SOC TCON Test Pattern	0	
SOC TCON Test Pattern	0	
SOC TCON Patten Level	0	
SOC TCON FRC Patten	0	
HDMI WB Pattern	0	
HDMI Pattern Sel	0	
PANEL DISPLAY TIME	6Hr	
SVC Info	0	
Delete S/N	Failure	
Upgrade		
Smart Hub Reset	0	
ER Count		
LOG		
Self Diagnosis		
IPERF	Stopped	
OPTION_HDMI		

Factory Menu Name	Data	Range
DVB CI		
CAL Data Backup_Copy	...	
CAL Data Restore_Copy	...	
Expert		
ATV IF AGC SPEED	0	
Reset		
Auto Power	MEMORY	

■ ADC/WB

Factory Menu Name	Data	Range
ADC		
AV Calibration	Success	
Comp Calibraion	Success	
PC Calibration	Success	
HDMI Calibration	Success	
ADC Result		
1st_Y_GH	0	
1st_Y_GL	0	
1st_Cb_BH	0	
1st_Cb_BL	0	
1st_Cr_RH	0	
1st_Cr_RL	0	
2nd_R_L	134	
2nd_G_L	134	
2nd_B_L	134	
2nd_R_H	49	
2nd_G_H	49	
2nd_B_H	49	
White Balance		
R-Offset	128	
G-Offset	128	
B-Offset	128	
R-Gain	124	
G-Gain	128	
B-Gain	149	
WB_W2_R_Offset	128	
WB_W2_B_Offset	128	

4. Troubleshooting

Factory Menu Name	Data	Range
WB_W2_R_Gain	162	
WB_W2_B_Gain	74	
WB_N_R_Offset	128	
WB_N_B_Offset	128	
WB_N_R_Gain	148	
WB_N_B_Gain	111	
MGA		
MGA On/Off	OFF	
R1_Gain	512	
B1_Gain	512	
G1_Gain	512	
R2_Gain	512	
B2_Gain	512	
G2_Gain	512	
R3_Gain	512	
B3_Gain	512	
G3_Gain	512	
R4_Gain	512	
B4_Gain	512	
G4_Gain	512	
R5_Gain	512	
B5_Gain	512	
G5_Gain	512	
R6_Gain	512	
B6_Gain	512	
G6_Gain	512	
R7_Gain	512	
B7_Gain	512	
G7_Gain	512	
R8_Gain	512	
B8_Gain	512	
G8_Gain	512	
R9_Gain	512	
B9_Gain	512	
G9_Gain	512	
R10_Gain	512	
B10_Gain	512	

Factory Menu Name	Data	Range
G10_Gain	512	

■ Advanced

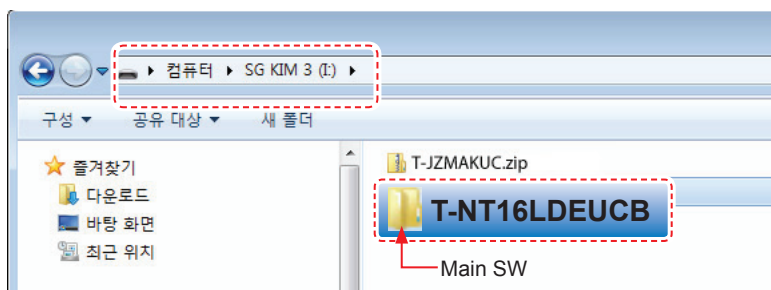
4-4. Software Upgrade

■ How to Upgrade SW and Micom

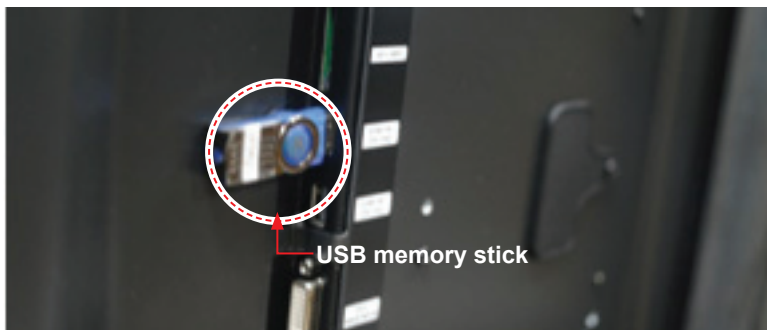
- Insert a USB drive containing the firmware upgrade downloaded from [samsung.com](http://displaysolutions.samsung.com/resources/downloadCenter?method=list) into the Set. Please be careful to not disconnect the power or remove the USB drive while upgrades are being applied.
- The set will turn off and turn on automatically after completing the firmware upgrade. Please check the firmware version after the upgrades are complete (the new version will have a higher number than the old version).
- When software is upgraded, video and audio settings you have made will return to their default (factory) settings. We recommend you write down your settings so that you can easily reset them after the upgrade.

4-4-1. Main SW Upgrade

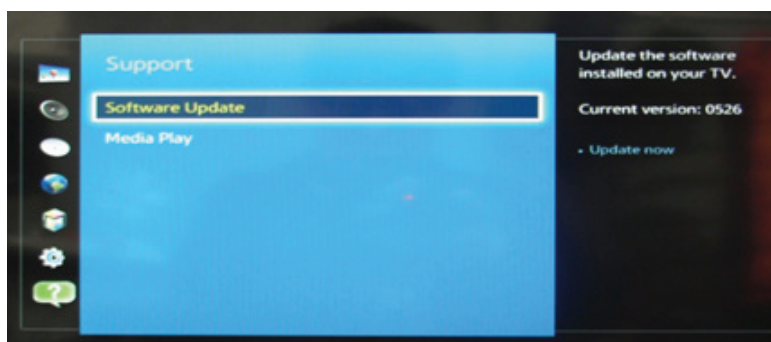
1. You need USB, including update file.
 - <http://displaysolutions.samsung.com/resources/downloadCenter?method=list> save file in USB.
 - **T-NT16LDEUCB**
2. Store the SW program in a USB memory stick.



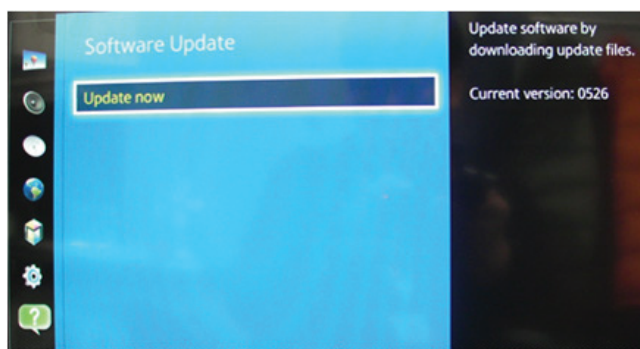
3. Connect the USB memory stick.



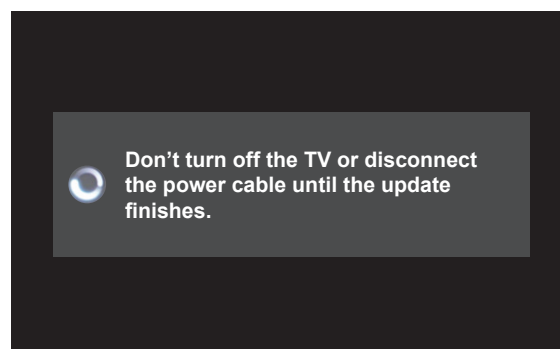
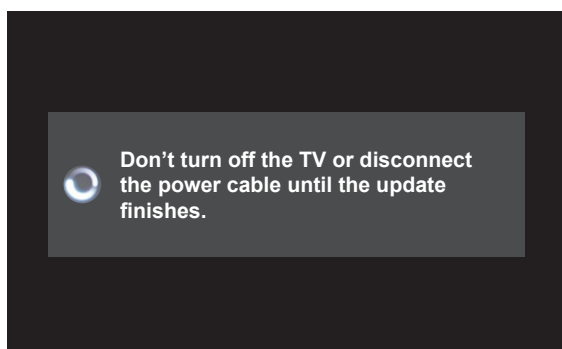
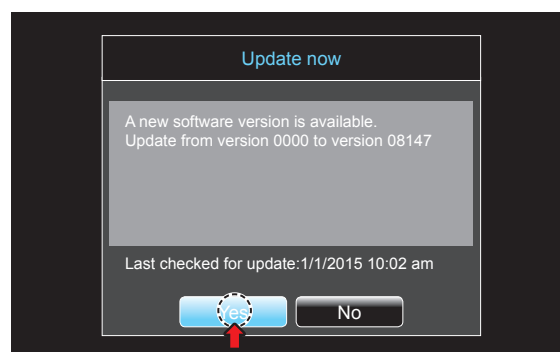
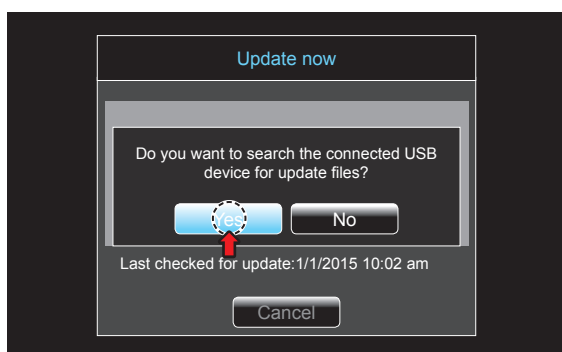
4. Click the **MENU** button on the remote control.
 - You can use OSD menu.
5. Select **Support** menu.
 - Locate the menu cursor **Software Upgrade** menu.



6. Locate the menu cursor **Update now** menu.



7. Click the **YES** button.

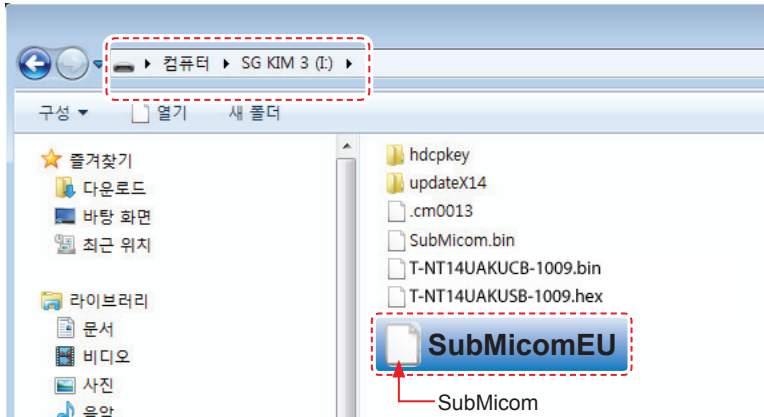


4-4-2. SUBMICOM Upgrade

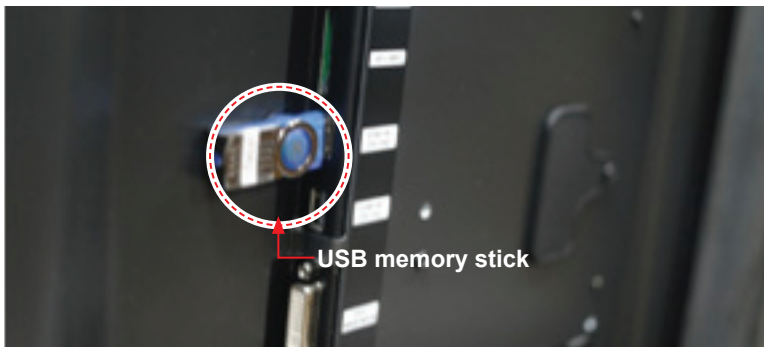
You can upgrade SUBMICOM in factory mode without DDC program. But it take long time about 5 minutes.

1. Store the SW program in a USB memory stick.

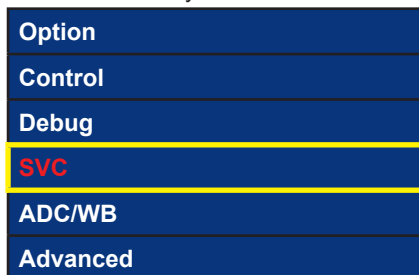
– SubMicomEU.bin



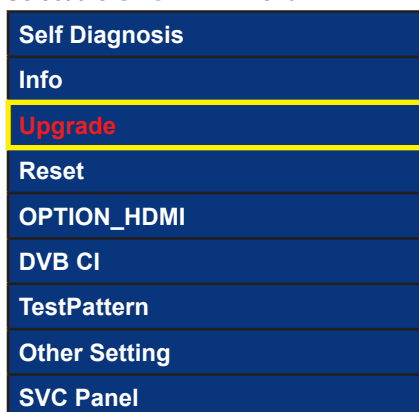
2. Connect the USB memory stick.



3. Access the factory mode. Select the **SVC** menu.



4. Select the **UPGRADE** menu.



5. Locate the cursor **SUBMICOM** upgrade menu.

T-CON Usb Download	Failure	IR Blaster Upgrade	Failure
T-CON CheckSum	N/A	IR Blaster delay time	50
Logic Usb D/L	-	CPLD Download	
SUBMICOM UPGRADE	off	LDC Profile Upgrade	0
BT UPGRADE		Pic Data USB Upgrade	0
BT FREEPAIRING	ON	Audio Data USB Upgrade	0
Fuction Upgrade	Failure	Eco Data USB Upgrade	0
FRC3D FW Upgrade		SC ADK Upgrade	Failure
FRC3D LD Upgrade	0000	SC MBR Upgrade	Failure
Camera Upgrade			
Mic Upgrade	ON		
CPLD USB Download			
JP MICOM UPGRADE	Failure		
DP MICOM UPGRADE	Failure		
Jump Upgrade	Failure		

6. Click the **Enter** button.
7. Click the **Right (►)** button on the remote control.
- Wait for upgrade complete about 5 minutes.

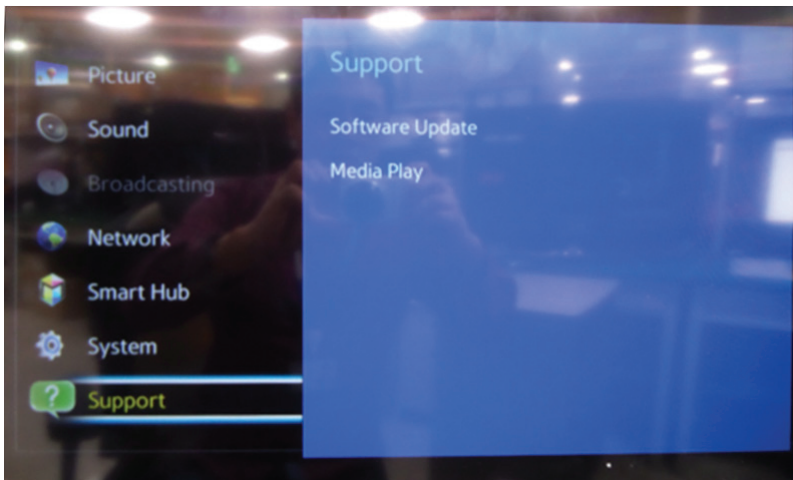
SUBMICOM UPGRADE	Ready
SUBMICOM UPGRADE	Upgrading...

8. Check the Micom version.

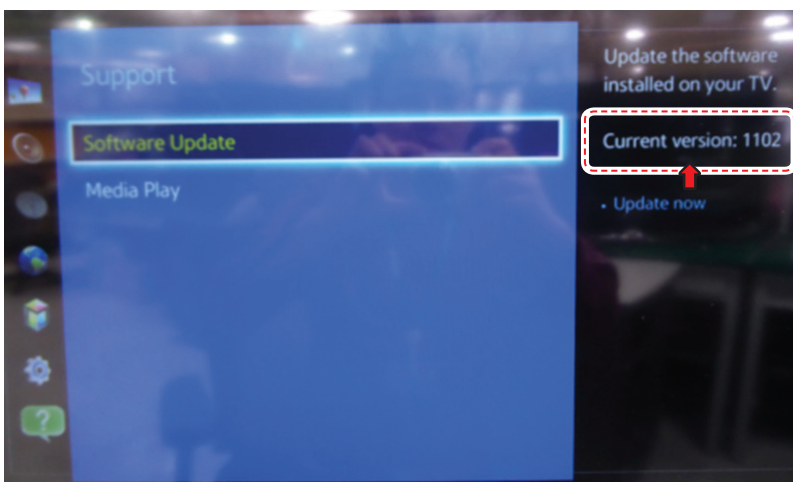
4-4-3. Check S/W Version

You can upgrade SUBMICOM in factory mode without DDC program. But it take long time about 5 minutes.

1. Enter the Menu and move to the **Support**.



2. Toggle to **Software Update**.
 - You can check the Main S/W Version on the "**Current version**"



4-5. How to write EDID

1. Select **Control** - **EDID**.

Option	EDID
Control	Sub Option
Debug	PDP Option
SVC	Hotel Option
ADC/WB	Shop Option
Advanced	Asia Option
	LFD Option
	Config Option

2. Select **EDID ON/OFF** and push ► button of remote control.
then you can see the change of state **OFF** to **ON**.

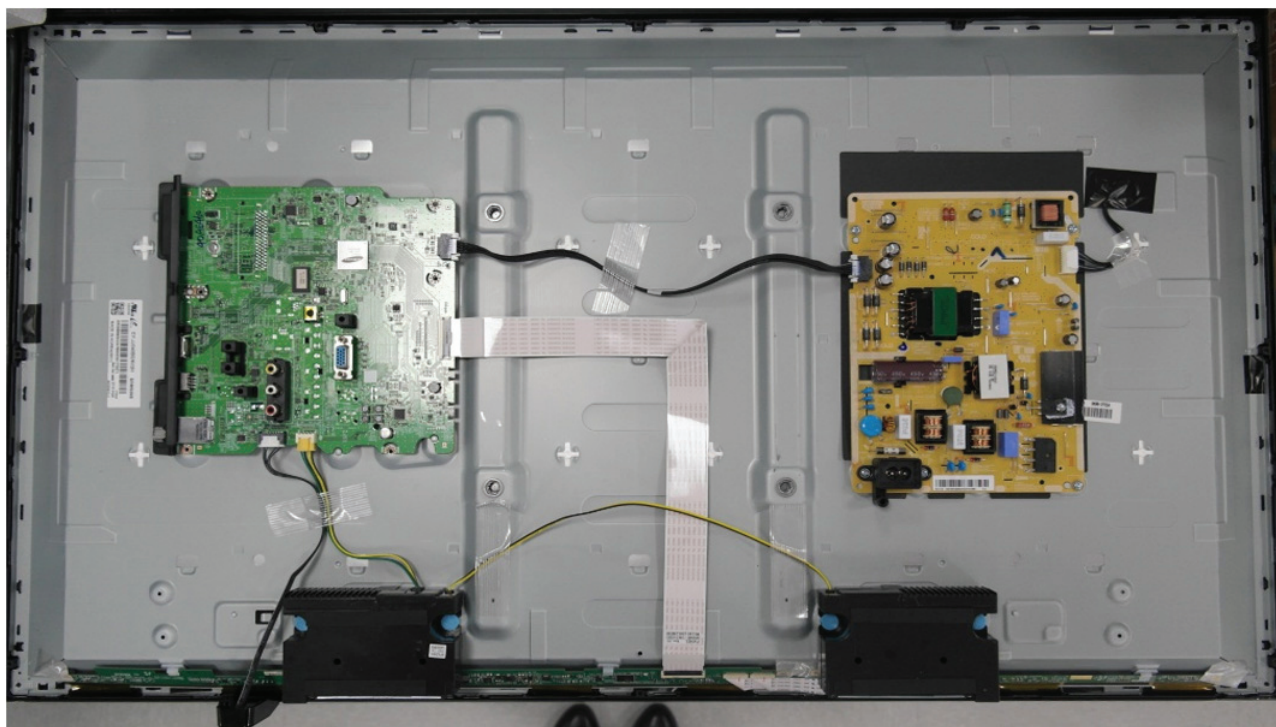
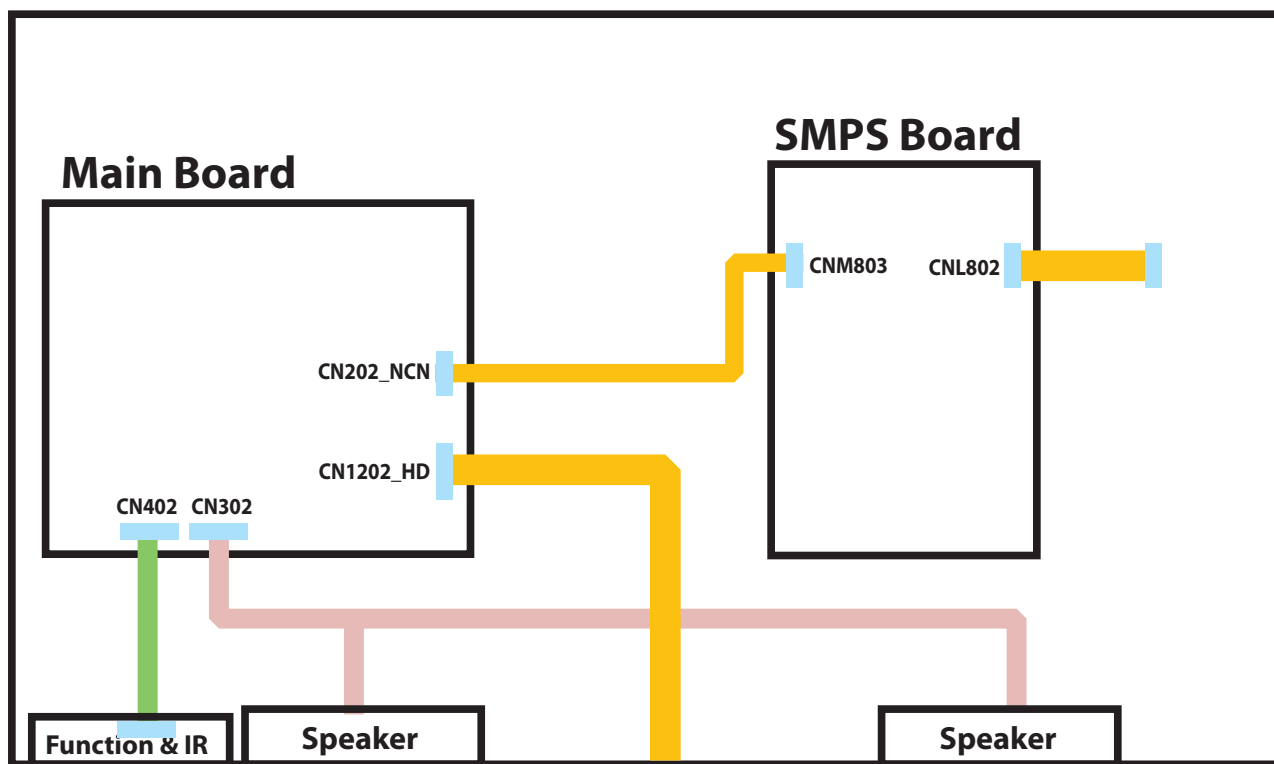
EDID ON/OFF	ON
--------------------	-----------

3. Select **EDID WRITE ALL** and push ► button of remote control.

EDID WRITE ALL	Success
-----------------------	----------------

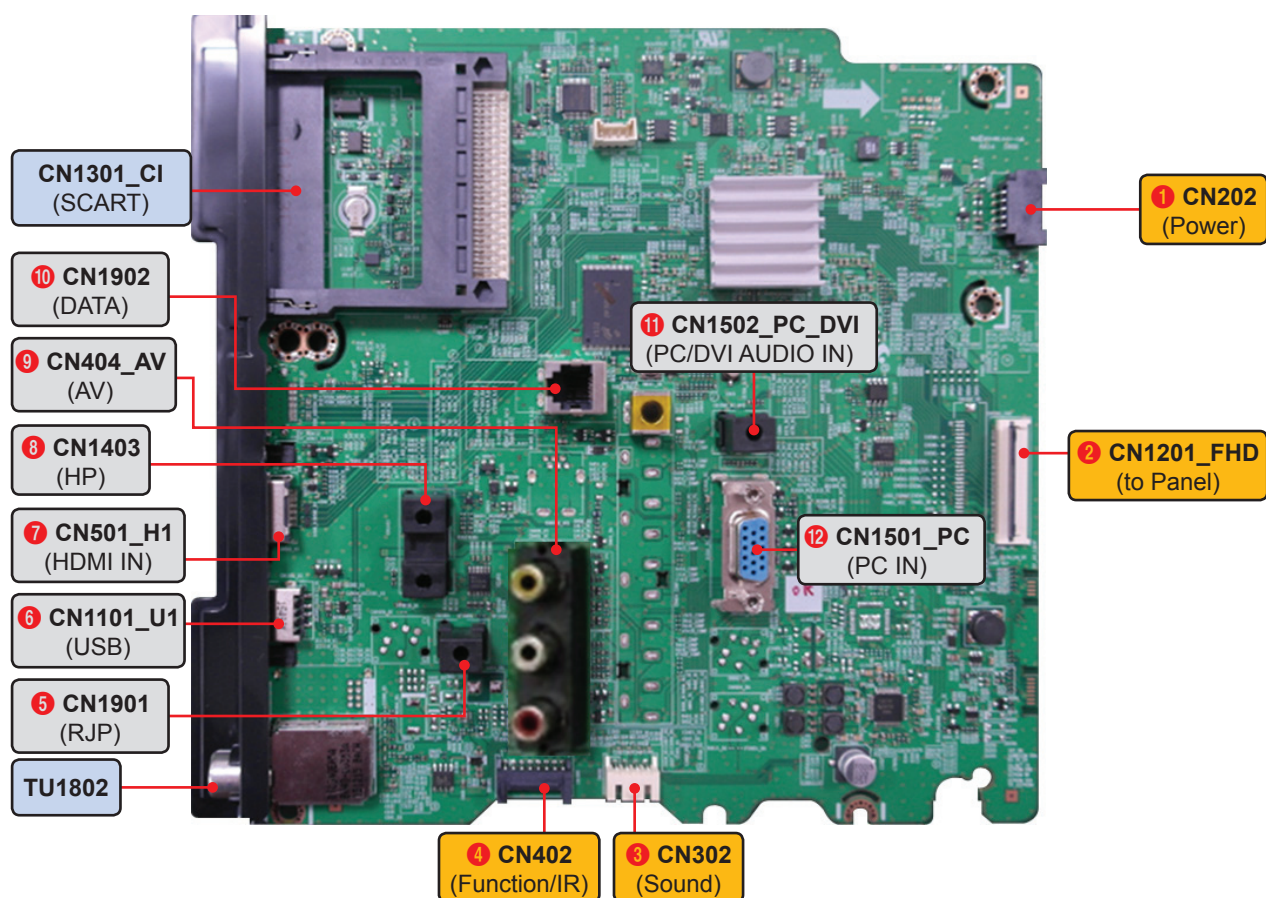
5. Wiring Diagram

5-1. Wiring Diagram



5-2. Connector

■ Main Board



■ Main Board Pin Map

1 CN202 (to Panel)			
1	PANEL 13V_PW	16	EVEN_TXCLK+_LVDS
2	PANEL 13V_PW	17	EVEN_TXCLK-_LVDS
3	PANEL 13V_PW	18	DGND
4	PANEL 13V_PW	19	EVEN_TX2+_LVDS
5	PANEL 13V_PW	20	EVEN_TX2-_LVDS
6	DGND	21	GND
7	DGND	22	EVEN_TX1+_LVDS
8	DGND	23	EVEN_TX1-_LVDS
9	TCON_WP	24	DGND
10	LVDS_FORMAT	25	EVEN_TX0+_LVDS
11	NC	26	EVEN_TX0-_LVDS
12	DGND	27	DGND
13	EVEN_TX3+_LVDS	28	TCON_SDA
14	EVEN_TX3-_LVDS	29	TCON_SCL
15	DGND	30	DGND

2 CN1201_FHD (to Powr board)			
1	A19V_PW	6	DGND
2	DGND	7	A19V_PW
3	A19V_PW	8	DGND
4	DGND	9	A19V_PW
5	A19V_PW	10	DGND

3 CN302 (to Speaker)			
1	R+	3	L+
2	R-	4	L-

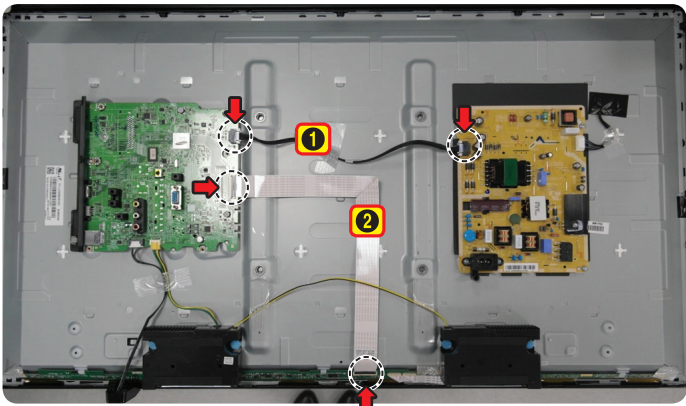
4 CN402 (to Function/IR)			
1	IR	4	KEY_INPUT1
2	GND	5	
3	A3.3V	6	LED_STB

5 CN1901 (RJP)			
1		5	
2	TX_JACK_DEBUG_RJP	6	
3	RX_JACK_DEBUG_RJP	7	
4			
6 CN1101 (USB)			
1	B5V_USB1_PW	3	USB0_DP+_USB
2	USB0_DM-_USB	4	DGND
7 CN501_H1 (HDMI1)			
1	HDMI1_RX2+	11	GND
2	GND	12	HDMI1_RXCLK-
3	HDMI1_RX2-	13	CEC
4	HDMI1_RX1+	14	HDMI1_ARC
5	GND	15	HDMI1_SCL_DDC
6	HDMI1_RX1-	16	HDMI1_SDA_DDC
7	HDMI1_RX0+	17	GND
8	GND	18	HDMI1_5V
9	HDMI1_RX0-	19	HDMI1_HOT_PLUG
10	HDMI1_RXCLK+		
8 CN1403			
1	GND	5	TEST_SR
2	MO_HP_SL_OUT	6	IDENT_HP_MO
3	MO_HP_SR_OUT	7	GND
4	TEST_SL		
9 CN404(AV)			
1	TSET_SR	5	SC_SL_IN
2	SC_SR_IN	6	GND
3	GND	7	IDENT_VIDEO1
4	TSET_SL	8	SC_CVBS_IN
10 CN1902 (DATA)			
1	TP_RJ12_IR	4	TP_RJ12_GND
2		5	
3	TP_RJ12_RX	6	TP_RJ12_TX
11 CN1502_PC_DVI			
1	GND	5	TEST_SR
2	PC_DVI_SL_IN	6	
3	PC_DVI_SR_IN	7	GND
4	TEST_SL		
12 CN1501_PC			
1	PC_RED	9	PC_5V
2	PC_GREEN	10	IDNENT_PC
3	PC_BLUE	11	
4		12	PC_SDA_DDC
5	GND	13	H_SYNC
6	GND	14	V_SYNC
7	GND	15	PC_SCL_DDC
8	GND		
CN1301_CI (PCMCIA)			
1	GND	35	GND
2	EXT_DATA[3]	36	PCM_CD1
3	EXT_DATA[4]	37	TSO_DATA[3]
4	EXT_DATA[5]	38	TSO_DATA[4]
5	EXT_DATA[6]	39	TSO_DATA[5]
6	EXT_DATA[7]	40	TSO_DATA[6]
7	PCM_CE1	41	TSO_DATA[7]
8	EXT_ADDR[10]	42	PCM_CE2
9	PCM_OE	43	NC
10	EXT_ADDR[11]	44	PCM_IORD
11	EXT_ADDR[9]	45	PCM_IOWR
12	EXT_ADDR[8]	46	CH_START
13	EXT_ADDR[13]	47	CH_DATA[0]
14	EXT_ADDR[14]	48	CH_DATA[1]
15	PCM_WE	49	CH_DATA[2]
16	PCM_IRQA	50	CH_DATA[3]
17	CI_VCC	51	CI_VCC
18	CI_VCC	52	CI_VCC
19	CH_VALID	53	CH_DATA[4]
20	CH_CLK	54	CH_DATA[5]
21	EXT_ADDR[12]	55	CH_DATA[6]
22	EXT_ADDR[7]	56	CH_DATA[7]
23	EXT_ADDR[6]	57	TSO_CLK
24	EXT_ADDR[5]	58	PCM_RESET
25	EXT_ADDR[4]	59	PCM_WAIT
26	EXT_ADDR[3]	60	NC
27	EXT_ADDR[2]	61	PCM_REG
28	EXT_ADDR[1]	62	TSO_VALID
29	EXT_ADDR[0]	63	TSO_START
30	EXT_DATA[0]	64	TSO_DATA[0]
31	EXT_DATA[1]	65	TSO_DATA[1]
32	EXT_DATA[2]	66	TSO_DATA[2]
33	CI_VCC	67	GND
34	GND	68	GND

5-3. Connector Functions

Connector	Function
• CN202 ↔ CNM803	Supply main power and dimming signal from IP Board to Main Board.
• CN1201_FHD/HD ↔ HD	The LVDS signal transferred from Main Board to Panel.

5-4. Cables

USE		① Main-SMPS	② Main-SOURCE
		LEAD CONNECTOR-POWE	FFC CABLE
Code	40"	BN39-01885A	BN96-38345D
Photo			

**NOTE**

The code number of cable (Lead-connector) can be changed, see "Exploded Views and Parts List".