



UHD TV

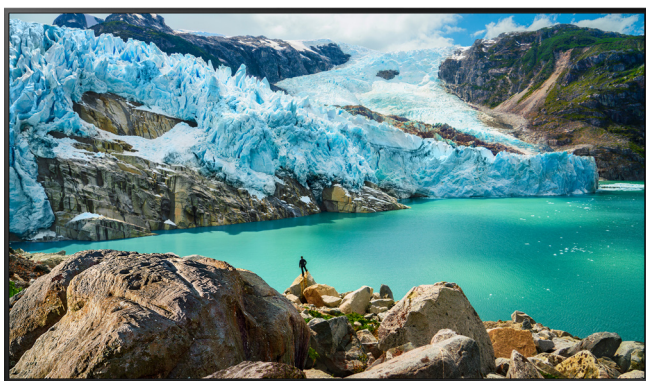
Project : URU7100H

Chassis : UWE90

Model : UA43RU7200K
UA50RU7200K
UA55RU7200K

SERVICE Manual

UHD TV



UA**RU200K

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2. Product specifications
3. Disassembly and Reassembly
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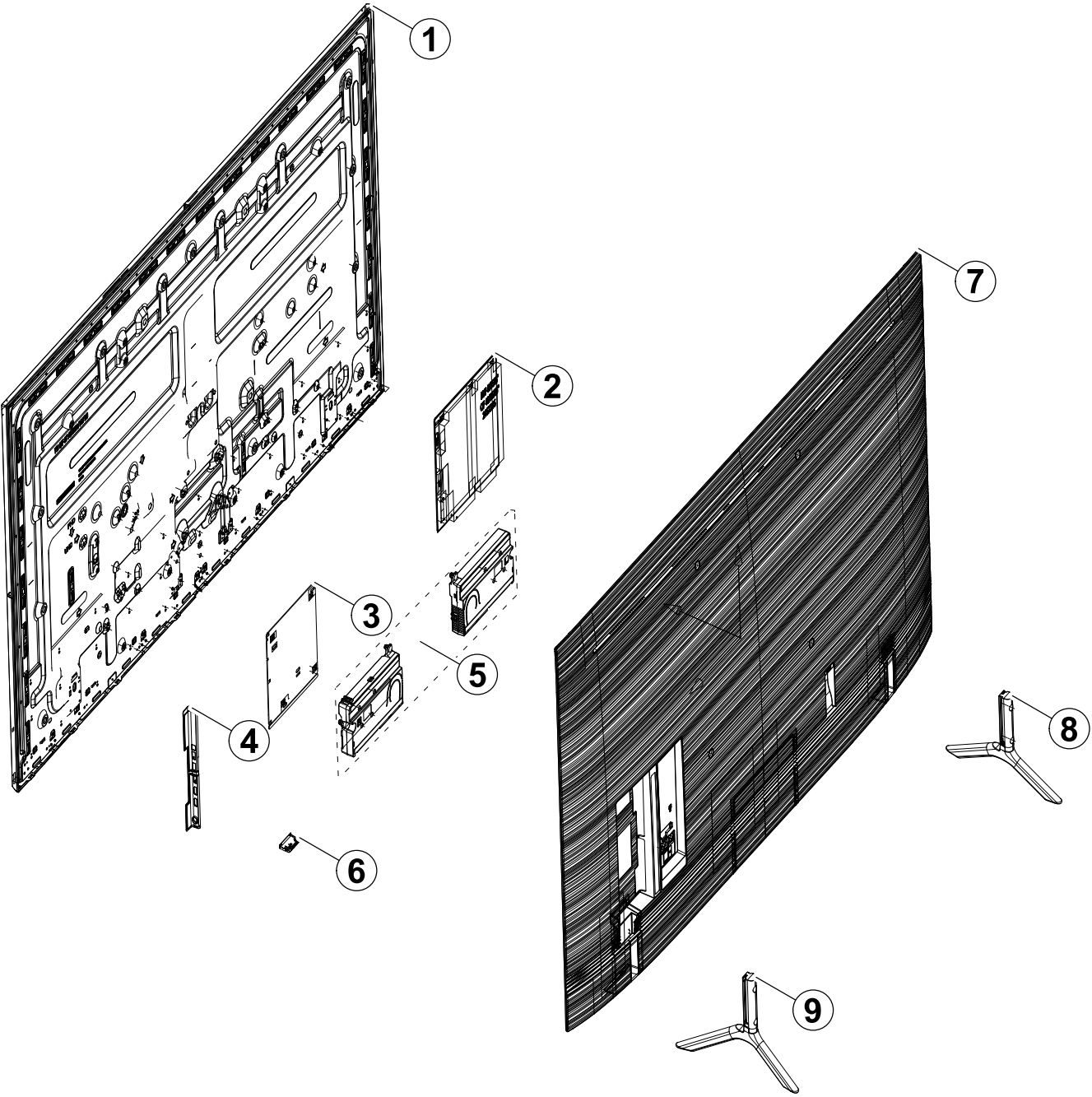


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1. Exploded View & Part List

Exploded View



Parts List

No.	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
1	1		BN95-04777D	PRODUCT LCD-BOE; CY-NN043HGEV8V/H,NU7100,	SA	1
2	2		BN44-00947H	DC VSS-PD BOARD; L43E7N_RDY,AC/DC,126W,AC	SA	1
3	2	M0014	BN94-14173C	ASSY PCB MAIN; URU7100H	SA	1
4	2		BN63-18112C	COVER-TERMINAL SIDE; 65URU7100H,HIPS,V-0,	SA	1
5	2		BN96-30337L	ASSY SPEAKER P-FRONT; TV-SPK,40UNU7100X,6	SA	1
6	2		BN96-48730A	ASSY BOARD P-FUNCTION TACT; Y19 VNB Carbo	SA	1
7	2	R001A	BN96-49116E	ASSY COVER P-REAR; 43URU7100H,PC+ABS+ED20	SA	1
8	2		BN96-45795A	ASSY STAND P-COVER TOP RIGHT; 43UNU7100X,	SA	1
9	2		BN96-45798A	ASSY STAND P-COVER TOP LEFT; 43UNU7100X,A	SA	1

2. Electrical Parts List

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
			UA43RU7200KXXV (BA02)		
1	S001A	BN90-09477A	ASSY STAND;LEDTV 7K	1	SNA
.2		BN96-45795A	ASSY STAND P-COVER TOP RIGHT;43UNU7100X,	1	SA
..3		6902-002777	BAG PREMIUM;HDPE,T0.03,W270,L230,TRP,REC	2	SNA
..3		BN63-17426A	COVER-STAND TOP RIGHT;43UNU7100X,ABS,HB,	1	SNA
...4		0103-011255	RESIN ABS;LX-0760/PG2018,Shadow Black,BK	250	SNA
...4		BN63-17434A	COVER-STAND NECK RIGHT;43UNU7100X,PC+GF2	1	SNA
..3	RF01	BN67-00398L	FOOT-RUBBER;UH6K,RUBBER,GRAY,T2,,	4	SNA
.2		BN96-45798A	ASSY STAND P-COVER TOP LEFT;43UNU7100X,A	1	SA
..3		0203-007085	TAPE-SINGLE FACE;PET,T0.05,W20,L100M,CLE	0	SNA
..3		BN63-17422A	COVER-STAND TOP LEFT;43UNU7100X,ABS,HB,B	1	SNA
...4		BN63-17430A	COVER-STAND NECK LEFT;43UNU7100X,PC+GF20	1	SNA
....5		0103-007285	RESIN PC;HF3200H/K21294,K21294,BK0007,V-	179	SNA
..3		BN68-05603A	LABEL-E PASS;ART,W/W,90g	2	SNA
..3		BN96-36261A	ASSY ACCESSORY-SCREW;JU7000 75",6003-001	1	SNA
...4	SCREW	6003-001334	SCREW-TAPTYPE;BH,+,S,M4,L14,ZPC(BLK),SWR	4	SA
...4		6902-002476	BAG SCREW;LDPE,T0.05*,W70,L90,TRP,RECYCL	1	SNA
..3		BN96-46450A	ASSY STAND P-HOLDER CABLE;55UNU7100X,ABS	1	SNA
...4		6902-000336	BAG PE;LDPE,T0.05,W70,L80,TRP,RECYCLE,Ho	1	SNA
...4		BN61-15815A	HOLDER-STAND CABLE;55UNU7100X,ABS,BK0007	2	SNA
1	R001A	BN90-10412F	ASSY COVER REAR;URU7100H	1	SNA
.2	R001A	BN96-49116E	ASSY COVER P-REAR;43URU7100H,PC+ABS+ED20	1	SA
..3		BN63-10851F	SHEET-PROTECTION COVER;HU8500,PET,T0.1,W	2	SNA
..3	R001	BN63-17502S	COVER-REAR;43URU7100H,PC+ABS+ED20%,V-1,B	1	SNA
...4		0103-010818	RESIN PC ABS;CM20G/BK00749,BLACK,BK0007,	1756	SNA
...4		BN68-05603E	LABEL-RESIN;ART,W8,L50,UL LABEL (COVER R	2	SNA
..3		BN64-04173A	INLAY-TERMINAL SIDE;55URU7100H,PET,T0.12	1	SNA
..3		BN68-07835Q	LABEL-STICKER LICENSE;65QNQ8CB,PET,T0.12	1	SNA
1		BN90-10662F	ASSY W/I;URU7100H	1	SNA
.2		BN81-08159Z	A/S PART SET-ELEC W/I;LED TV ELEC spec-C	1	SNA
.2		BN81-17115F	A/S PART SET-MECH W/I;URU7100H,U43RY*	1	SNA
1		BN91-20687B	ASSY SHIELD;URU7100H	1	SNA
.2	EC13	BN39-02217A	LEAD CONNECTOR-SUB ASSY;UN50KU6000,UL210	1	SA
.2		BN39-02457A	LEAD CONNECTOR-SUB ASSY;Q70,UL21016,12P,	1	SA
.2		BN44-00947H	DC VSS-PD BOARD;L43E7N_RDY,AC/DC,126W,AC	1	SA
.2		BN63-18112C	COVER-TERMINAL SIDE;65URU7100H,HIPS,V-0,	1	SA
..3		0103-004637	RESIN HIPS;VE-1897/K2901,Black,BK0020,V-	14	SNA
.2		BN96-30337L	ASSY SPEAKER P-FRONT;TV-SPK,40UNU7100X,6	1	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
.2		BN96-39820G	FFC CABLE;40NU7100,Fold,L500,96P,-	1	SA
.2		BN96-39821E	FFC CABLE;40NU7100,Fold,L350,96P,-	1	SA
.2		BN96-48730A	ASSY BOARD P-FUNCTION TACT;Y19 VNB Carbo	1	SA
1	M0017	BN91-20948C	ASSY CHASSIS;URU7100H	1	SNA
.2	M0014	BN94-14173C	ASSY PCB MAIN;URU7100H	1	SA
..3		BN62-00834D	HEAT SINK-PS;Muse-L Built-In,A1050,T1.5,	1	SNA
..3		BN68-05458A	LABEL-BARCODE;ALL,ART,W45,L12,BLACK,WHIT	1	SNA
..3		BN97-00029S	ASSY DRM;Muse-L Built-In,ISDB,NagSam, MA	1	SNA
...4		BN46-00109H	KEY CODE-CERTIFICATION;MAC,TV/AV,General	1	SNA
...4		BN46-00110P	KEY CODE-CERTIFICATION;MIRACAST(HDCP2.2)	1	SNA
...4		BN46-00972A	KEY CODE;Muse-L Built-In,Nagra CSC Data,	1	SNA
..3		BN97-00029Y	ASSY MICOM;TCON DATA,RU7K,43" BOE	1	SNA
...4		BN46-00977A	S/W MICOM;R43B6U1F20,RU7K	1	SNA
..3		BN97-15622C	ASSY SMD;URU7100H	1	SNA
...4		0202-001830	SOLDER-CREAM;LFM-48W TM-HP,D20~38um,96.5	4	SNA
...4	DS01A	0401-001056	DIODE-SWITCHING;MMBD4148SE,100V,200mA,SO	1	SA
...4		0403-001783	DIODE-ZENER;BZB84-C6V2,5.8~6.6V,300mW,SO	3	SNA
...4		0403-002014	DIODE-ZENER;KDZ16B,16.2~18.3V,1000mW,SOD	1	SNA
...4		0404-001404	DIODE-SCHOTTKY;BAT721C,40V,200mA,SOT-23,	2	SA
...4		0404-001640	DIODE-SCHOTTKY;SS1060HEWS,60V,1000mA,SOD	2	SA
...4		0404-001953	DIODE-SCHOTTKY;MBRA340F-HAF,40V,3000mA,S	3	SA
...4		0404-001976	DIODE-SCHOTTKY;SV540,40V,5000mA,TO-277,T	1	SA
...4		0406-001200	DIODE-TVS;RClamp0504F,6V,1MAV,TP	4	SA
...4		0406-001718	DIODE-TVS;SMF36A,40V,44.2V,3.8MAV,1.25VP	1	SA
...4		0406-001778	DIODE-TVS;PUSB3FR4,6V,9V,0.2MAV,0.7VPA,0	7	SA
...4		0406-001786	DIODE-TVS;PJE5V0V6TM,5V,7V,8V,0.1MAV,9V	1	SA
...4		0501-000445	TR-SMALL SIGNAL;KTC3875S-Y,NPN,150mW,SOT	4	SA
...4		0501-000462	TR-SMALL SIGNAL;MMBT2907A,PNP,350mW,SOT-	2	SA
...4		0504-000126	TR-DIGITAL;KSR1101,NPN,200mW,4.7K/4.7K,S	1	SA
...4		0505-002560	FET-SILICON;AO6415,P,20V,-3.3A,0.15ohm,1	1	SA
...4		0505-002598	FET-SILICON;AP2317GN,P,20V,-4.2A,0.052oh	1	SA
...4		0505-002660	FET-SILICON;Si2308BDS,N,60V,2.3A,0.156oh	1	SA
...4		0505-002893	FET-SILICON;AO4801AS,P,30V,-5A,2W,SOIC-8	1	SA
...4		0505-003205	FET-SILICON;DMG4435SSS-13,P,30V,-7.3A,1.	1	SA
...4		0505-003391	FET-SILICON;AOD2922,N,100V,8A,140Mohm,18	1	SA
...4		0505-003397	FET-SILICON;2N7002K,N,60V,0.38A,1.19ohm,	2	SA
...4		0505-003752	FET-SILICON;PJL9409,P,30V,50A,0.035ohm,3	1	SNA
...4		1103-001584	IC-EEPROM;M24512-DFMN6TP,512Kbit,64K x 8	1	SNA
...4		1105-002751	IC-DDR4 SDRAM;K4F2E3S4HM-MGCJ,LPDDR4-SDR	1	SA
...4		1105-002853	IC-DDR3 SDRAM;K4B4G1646E-BCNB,DDR3 2133,	1	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4		1201-004117	IC-AUDIO AMP;TAS5749M,QFP,48P,7x7x1mm,DU	1	SA
...4		1201-004217	IC-OP AMP;TLV9062,SOP,ST,8P,DUAL,PLASTIC	1	SA
...4		1203-008777	IC-DC/DC CONVERTER;TPS563201,SOT-23,6,1.	2	SA
...4		1203-009067	IC-DC/DC CONVERTER;TPS564201,SOT-23,6P,3	1	SA
...4		1203-009186	IC-POS. ADJUST REG.;TLV759P01PDRVR,TP,6P	2	SA
...4		1203-009188	IC-VOL. DETECTOR;G623F11U,TP,8P,4.9x6x1.	1	SA
...4		1203-009196	IC-DC/DC CONVERTER;TPS565201,SOT-23-THIN	1	SA
...4		1203-009206	IC-DC/DC CONVERTER;AOZ2255LQI-30,QFN-22L	1	SA
...4		1203-009208	IC-DC/DC CONVERTER;VPMSSM,QFN,72P,8x8x0.	1	SA
...4		1204-003779	IC-DECODER;SDP1804,FCBGA,794P,27x27x1.79	1	SA
...4		1205-004692	IC-SWITCH;TPS2069CDBVR,SOT-23,5P,2.9x2.8	2	SA
...4		1205-005749	IC-SWITCH;G2897KD1U,TDFN2X3-14,14P,2x3mm	1	SA
...4		1404-001731	THERMISTOR-NTC;33Kohm,4050K,1MWC,TP,1.6x	1	SNA
...4		1405-001232	VARISTOR;6.4V,5.6VDC,30A,1608,TP,19V,200	1	SNA
...4		1405-001271	VARISTOR;35V,20VDC,5A,1005,TP,100V,10pF	18	SA
...4		1405-001306	VARISTOR;11VDC,45A,1608,TP,50V,40pF	1	SA
...4		1405-001381	VARISTOR;11V,8VDC,30A,1608,TP,25V,500pF	3	SA
...4		1405-001382	VARISTOR;24.5V,16VDC,120A,2012,TP,42V,40	2	SA
...4		1405-001452	VARISTOR;15V,12VDC,8A,1608,TP,46V,18pF	6	SA
...4		2007-000052	R-CHIP;10Kohm,1%,1/10W,TP,1608	1	SA
...4		2007-000066	R-CHIP;20Kohm,1%,1/10W,TP,1608	1	SA
...4		2007-000070	R-CHIP;0ohm,5%,1/10W,TP,1608,T0.45	10	SA
...4		2007-000138	R-CHIP;100ohm,5%,1/16W,TP,1005,T0.35	1	SA
...4		2007-000141	R-CHIP;2.2Kohm,5%,1/16W,TP,1005,T0.35	1	SA
...4		2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005,T0.35	31	SNA
...4		2007-000772	R-CHIP;33Kohm,1%,1/10W,TP,1608	1	SA
...4		2007-000779	R-CHIP;33ohm,1%,1/10W,TP,1608	8	SNA
...4		2007-000932	R-CHIP;470ohm,5%,1/16W,TP,1005,T0.35	3	SA
...4		2007-000979	R-CHIP;5.6Kohm,1%,1/10W,TP,1608	1	SA
...4		2007-001125	R-CHIP;68Kohm,1%,1/10W,TP,1608	1	SA
...4		2007-001288	R-CHIP;18ohm,5%,1/16W,TP,1005,T0.35	4	SA
...4		2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005,T0.35	3	SA
...4		2007-001298	R-CHIP;51ohm,5%,1/16W,TP,1005,T0.35	4	SA
...4		2007-002899	R-CHIP;10ohm,1%,1/10W,TP,1608	18	SA
...4		2007-002906	R-CHIP;200Kohm,1%,1/10W,TP,1608	1	SA
...4		2007-007107	R-CHIP;100Kohm,1%,1/16W,TP,1005,T0.35,-	13	SA
...4		2007-007132	R-CHIP;15Kohm,1%,1/16W,TP,1005,T0.35	3	SA
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005,T0.35	40	SA
...4		2007-007137	R-CHIP;1.2Kohm,1%,1/16W,TP,1005,T0.35	4	SA
...4		2007-007138	R-CHIP;27Kohm,1%,1/16W,TP,1005,T0.35	2	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4		2007-007139	R-CHIP;47Kohm,1%,1/16W,TP,1005,T0.35	8	SA
...4		2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005,T0.35	28	SA
...4		2007-007306	R-CHIP;100ohm,1%,1/16W,TP,1005,T0.35	14	SA
...4		2007-007308	R-CHIP;33Kohm,1%,1/16W,TP,1005,T0.35	1	SA
...4		2007-007309	R-CHIP;12Kohm,1%,1/16W,TP,1005,T0.35	2	SA
...4		2007-007310	R-CHIP;8.2Kohm,1%,1/16W,TP,1005,T0.35	2	SA
...4		2007-007311	R-CHIP;22Kohm,1%,1/16W,TP,1005,T0.35	2	SA
...4		2007-007312	R-CHIP;20Kohm,1%,1/16W,TP,1005,T0.35	10	SA
...4		2007-007313	R-CHIP;6.8Kohm,1%,1/16W,TP,1005,T0.35	5	SA
...4		2007-007316	R-CHIP;3.3Kohm,1%,1/16W,TP,1005,T0.35	1	SNA
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005,T0.35	24	SNA
...4		2007-007517	R-CHIP;240ohm,1%,1/16W,TP,1005,T0.35	4	SNA
...4		2007-007520	R-CHIP;20ohm,1%,1/10W,TP,1608	1	SA
...4		2007-007528	R-CHIP;1.5Kohm,1%,1/16W,TP,1005,T0.35	1	SA
...4		2007-007588	R-CHIP;1.8Kohm,1%,1/16W,TP,1005,T0.3	1	SA
...4		2007-007736	R-CHIP;510Kohm,1%,1/10W,TP,1608	1	SA
...4		2007-007766	R-CHIP;2Kohm,1%,1/16W,TP,1005,T0.35	16	SA
...4		2007-007767	R-CHIP;200ohm,1%,1/16W,TP,1005	4	SA
...4		2007-007791	R-CHIP;9.1Kohm,1%,1/16W,TP,1005,T0.35	1	SNA
...4		2007-007798	R-CHIP;10ohm,1%,1/16W,TP,1005,T0.35	11	SA
...4		2007-007992	R-CHIP;1ohm,1%,1/10W,TP,1608	3	SA
...4		2007-008015	R-CHIP;75ohm,1%,1/16W,TP,1005,T0.35	6	SNA
...4		2007-008294	R-CHIP;33ohm,1%,1/16W,TP,1005,T0.35	16	SA
...4		2007-008298	R-CHIP;49.9ohm,1%,1/16W,TP,1005,T0.35	5	SA
...4		2007-008596	R-CHIP;0.1ohm,1%,1/4W,TP,3216	3	SC
...4		2007-009322	R-CHIP;1.3Kohm,1%,1/16W,TP,1005	1	SA
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	9	SNA
...4		2011-001448	R-NETWORK;10ohm,5%,1/16W,L,4P,TP,1.0x1.0	2	SA
...4		2011-001587	R-NETWORK;100ohm,5%,1/16W,L,CHIP,4P,TP,1	2	SA
...4	AD480	2203-000233	C-CER,CHIP;0.1nF,5%,50V,C0G,TP,1005,T0.5	5	SNA
...4	AD480	2203-000278	C-CER,CHIP;0.01nF,0.5pF,50V,C0G,TP,1005	2	SA
...4	AD480	2203-000359	C-CER,CHIP;0.15nF,5%,50V,C0G,TP,1005,T0.	5	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	6	SA
...4	AD480	2203-000489	C-CER,CHIP;2.2nF,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,T0	2	SNA
...4	AD480	2203-001072	C-CER,CHIP;0.056nF,5%,50V,C0G,TP,1005	1	SA
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,TP,1005	7	SNA
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	1	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4	AD480	2203-005057	C-CER,CHIP;0.0082nF,0.25pF,50V,C0G,TP,10	2	SA
...4	AD480	2203-005083	C-CER,CHIP;220nF,10%,50V,X7R,TP,1608,T0.	6	SNA
...4	AD480	2203-005249	C-CER,CHIP;100nF,10%,50V,X7R,TP,1608	5	SA
...4	AD480	2203-005642	C-CER,CHIP;0.22nF,5%,50V,C0G,TP,1005,T0.	3	SA
...4	AD480	2203-005968	C-CER,CHIP;4.7nF,10%,50V,X7R,TP,1005,T0.	2	SNA
...4	AD480	2203-006048	C-CER,CHIP;100nF,10%,10V,X7R,TP,1005,T0.	3	SNA
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,TP,1005,T0.5	3	SNA
...4	AD480	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,TP,1005,T0.	92	SA
...4	AD480	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005,T0	19	SA
...4	AD480	2203-006698	C-CER,CHIP;1000nF,10%,25V,X7R,TP,1608,T0	7	SA
...4	AD480	2203-006838	C-CER,CHIP;2200nF,10%,6.3V,X5R,TP,1005	2	SA
...4	AD480	2203-006844	C-CER,CHIP;470nF,10%,10V,X5R,TP,1005	1	SA
...4	AD480	2203-007176	C-CER,CHIP;10000nF,10%,16V,X5R,TP,2012,T	13	SNA
...4	AD480	2203-007240	C-CER,CHIP;22000nF,20%,6.3V,X5R,TP,1608,	49	SA
...4	AD480	2203-007269	C-CER,CHIP;22000nF,20%,10V,X5R,TP,2012(2	13	SA
...4	AD480	2203-007271	C-CER,CHIP;2200nF,10%,10V,X5R,TP,1005,T0	9	SNA
...4	AD480	2203-007306	C-CER,CHIP;10000nF,10%,25V,X5R,TP,2012,T	21	SNA
...4	AD480	2203-007393	C-CER,CHIP;4700nF,10%,10V,X5R,TP,1005,T0	23	SNA
...4	AD480	2203-007423	C-CER,CHIP;10000nF,10%,35V,X7R,TP,3216	4	SA
...4	AD480	2203-007544	C-CER,CHIP;100nF,10%,50V,X7R,TP,1005,T0.	9	SA
...4	AD480	2203-007795	C-CER,CHIP;10000nF,20%,10V,X5R,TP,1005,T	23	SA
...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	8	SA
...4	AD480	2203-008412	C-CER,CHIP;4700nF,10%,50V,X5R,TP,2012,T1	1	SNA
...4		2402-001268	C-AL,SMD;100uF,20%,25V,WT,TP,8x6.3mm	1	SA
...4		2409-001240	C-ORGANIC,SMD;33uF,20%,25V,LR,TP,7343(1.	1	SA
...4		2703-000213	INDUCTOR-SMD;470nH,10%,1.35Ohm,35mA,15,M	1	SA
...4		2703-002269	INDUCTOR-SMD;56nH,5%,1005,T0.5,1.4Ohm,15	3	SA
...4		2703-003747	INDUCTOR-SMD;22uH,20%,6060,0.135ohm,1300	2	SA
...4		2703-003862	INDUCTOR-SMD;10uH,20%,6060,0.065ohm,1900	4	SA
...4		2703-004724	INDUCTOR-SMD;8.2uH,20%,5050,T4,0.072Ohm,	4	SA
...4		2703-005191	INDUCTOR-SMD;1.5uH,20%,6060,T4.5,0.02Ohm	2	SA
...4		2703-005193	INDUCTOR-SMD;2.2uH,20%,6060,T4.5,0.024Oh	2	SA
...4		2703-005376	INDUCTOR-SMD;10uH,20%,10.7x10mm,T3.8,0.0	1	SA
...4		2703-005715	INDUCTOR-SMD;820nH,20%,11x10mm,T3.8,0.00	1	SNA
...4		2801-004021	CRYSTAL-SMD;24.576MHz,20ppm,28-AAN,12pF,	1	SA
...4		3301-001364	BEAD-SMD;1000ohm,1608,TP,1085ohm/108MHz,	2	SNA
...4		3301-002039	BEAD-SMD;26ohm,1608,TP	33	SA
...4		3601-001374	FUSE-SURFACE MOUNT;32V,5A,FAST-ACTING,PL	4	SA
...4		3601-001376	FUSE-SURFACE MOUNT;32V,3A,FAST-ACTING,Hi	1	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4		3701-001967	CONNECTOR-HDMI;19P,A,FEMALE,AU,0.5mm,BLK	3	SA
...4		3707-001123	CONNECTOR-OPTICAL;ANGLE,SPDIF,2.5PI	1	SA
...4		3708-003241	CONNECTOR-FPC/FFC/PIC;96P,0.5mm,SMD-A,AU	2	SNA
...4	EH01	3711-007803	HEADER-BOARD TO CABLE;BOX,12P,1R,1.25mm,	1	SA
...4	EH01	3711-008098	HEADER-BOARD TO CABLE;BOX,20P,1R,1.25mm,	1	SNA
...4	EH01	3711-008131	HEADER-BOARD TO CABLE;BOX,4P,1R,2.5mm,AN	1	SA
...4	EH01	3711-008859	HEADER-BOARD TO CABLE;BOX,12P,2R,2mm,ANG	1	SA
...4		3722-003229	JACK-MODULAR;8P/8C,Y,STRAIGHT,NONE,AU,1P	1	SA
...4		3722-003457	JACK-USB;4P/1C,NI,BLK,ANGLE,A,2.0,13.1x1	2	SA
...4	JACK PIN	3722-003546	JACK-PIN;5P,NI/SN,BLU/GRN/RED/WHT/YEL,SM	1	SA
...4		6302-001376	GASKET-SMD;SMT Gasket,Sn/Cu plated PI-Fi	5	SNA
...4		BN40-00330A	TUNER-DTV AIR CABLE;DTOS40EH7A,DVB-TC,38	1	SA
...4		BN41-02703A	PCB-MAIN;Muse-L Built-In,FR-4,4L,T1.6,1,	1	SNA
...4		BN59-01313A	NETWORK-WLAN CLIENT;WCP731M,70x35x18.33m	1	SA
...4	CB07	BN61-13312B	BRACKET-SCREWLESS PCB;55KS8000,SK5,T0.3,	4	SNA
...4		BN97-00029P	ASSY MICOM;T-MSLUABC,RU7.4K,KLM8G1GETF-B	1	SNA
....5		1107-002590	IC-EMMC;KLM8G1GETF-B041007,8Gbyte,64Gbx1	1	SNA
...4		BN97-00029V	ASSY MICOM;TCON F/W,Muse-L Built-In,W25Q	1	SNA
....5		1107-002339	IC-NOR FLASH;W25Q80DV,8Mbit,SOP,5.28x5.2	1	SNA
....5		BN46-00975A	S/W MICOM;Muse-L Built-In,TCON F/W	1	SNA
...4		BN97-00029W	ASSY MICOM;MLMICOM_INTV,Muse-L Built-In,	1	SNA
....5		1107-002226	IC-NOR FLASH;W25Q40CLSSIP,4Mbit,SOIC,8P,	1	SA
1		BN92-24160A	ASSY LABEL POP;URU7100H	1	SNA
.2		BN68-09637P	LABEL POP-BEZEL;50RU7200,PET,T0.188,W133	1	SNA
1		BN92-25306F	ASSY LABEL;URU7100H	1	SNA
.2		BN02-00102B	TAPE-SINGLE FACE;OPP,T0.15,W25,L50M,WHIT	0	SNA
.2		BN68-06708G	LABEL-RATING;Monitor,WW,PP,T0.161,W93,L7	1	SNA
.2		BN68-09502A	LEAFLET-QUICK SETUP GUIDE;UA58RU7100S,OT	1	SNA
.2		BN68-09659A	LABEL-ENERGY;UA43RU7200KXXV,XV,PET,T0.1,	1	SNA
1		BN92-25514J	ASSY P/MATERIAL;URU7100H	1	SNA
.2		6902-000379	BAG AIR;LDPE,T0.13,W1000,L1800,TRP,Hole	0	SNA
.2		6902-000609	BAG ROLL;LDPE,T0.05,W2400,L1000,TRP,RECY	0	SNA
.2		6902-002677	BAG ROLL;HDPE/HDPE/PE FOAM,T0.015/T0.5,W	1	SNA
.2		6922-000013	BAND;PP,T0.8,W18,L2300 M,TRP	1	SNA
.2		BN02-00319A	TAPE-SINGLE FACE;OPP,T0.05,W60,L800M,CLE	1	SNA
.2		BN02-00319B	TAPE-SINGLE FACE;OPP,T0.05,W75,L800M,CLE	1	SNA
.2		BN69-11504A	WRAP VINYL;LDPE,T0.018,W500,L10000,Trans	4	SNA
.2		BN69-17053D	PACKING ANGLE;ALL,PAPER,T3,W2000,L50,YEL	0	SNA
.2		BN69-17553A	CUSHION-SET;43UNU7100X,EPS,16.7g/l,WHITE	1	SNA
..3		BN81-01918A	A/S-RESIN;EPS,SG-302	0	SNA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
1		BN92-25628Y	ASSY BOX;URU7100H	1	SNA
.2		BN68-07893A	LABEL BOX;ALL,THERMAL PAPER,W60,L110,WHT	1	SNA
.2		BN68-07943A	LABEL BOX;ALL,XXV,ART,W100,L150,150g	1	SNA
.2		BN69-19416U	BOX UNIT;43RU7200,CB,DW2,F1,L1082,W136,H	1	SNA
1	ACCE1	BN92-25857F	ASSY ACCESSORY;URU7100H	1	SNA
.2		BN96-48930A	ASSY ACCESSORY MANUAL CABLE;URU7100H	1	SNA
..3	T0268	3903-001118	POWER CORD-DT;EUR,2P-F,250V,2.5A,BLK,L15	1	SA
..3		4301-000101	BATTERY-ALKALINE;1.5V,1650mAH,LR6,14.5x5	2	SNA
..3		6902-001962	BAG PE;LDPE,BIOBASED,T0.05,W400,L300,TRP	1	SNA
..3	ANT04	AA59-00853A	MODULE RF-SHIELD BOX;SGLBF-6B,PAL-BG,DK,	1	SA
..3		BN59-01312K	REMOCON-SMART CONTROL;2019 TV,SAMSUNG,21	1	SA
..3	T0527	BN68-00513A	LABEL-E PASS;ALL MODEL,WW,YUPO,W50,L15,W	1	SNA
..3		BN68-09529K	MANUAL USERS;RU7200,XV,MANUAL TV _ASIA_ VI	1	SNA
..3		BN68-09535C	LEAFLET-ACCESSORY KIT;URU7400G,XY & MR & HC&	1	SNA
..3	EH03A	BN96-43169A	ASSY HOLDER P-RING;65Q8C,ABS,BLACK,HB	1	SA
...4		6902-001404	BAG PE;LDPE,T0.05,W80,L100,TRP,Bio. N	1	SNA
...4		BN61-14912A	HOLDER-WALL RING;55Q7F,ABS,T2,BLACK,HB,1	4	SNA
1		BN95-04777D	PRODUCT LCD-BOE;CY-NN043HGEV8V/H,NU7100,	1	SA
.2	SCREW	6001-003016	SCREW-MACHINE;PWH,+,M3,L5.0,ZPC(WHT),SWR	4	SA
.2	CB18	BN61-15469A	BRACKET-STAND LINK;43UNU7100X,EGI-SECC,T	2	SA
..3		BN61-15975A	STUD-PEM;65NU7100,SUM24L,T0.5,L8,HEAD 7m	4	SNA
.2	M0131	BN63-00520A	GASKET-EMI;APPOLO_PAL,Conductive Fabric,	2	SNA
.2		BN68-05722A	LABEL-E PASS;POLYPROPYLENE,NON-COATING	1	SNA
.2		BN90-09701B	ASSY BACK LIGHT UNIT;43UNU7100X	1	SNA
..3		BN61-15651A	OPTICAL SHEET-COMPLEX;18Y_NU7K_43INCH_CO	1	SNA
..3		BN61-15657A	DIFFUSER PLATE;18Y_NU7K_43INCH_DIFFUSER	1	SNA
..3		BN61-15663A	LGP;18Y_NU7K_43INCH_LGP,MS,NewEdge(OD5mm	1	SNA
..3		BN61-15701A	OPTICAL SHEET-REFLECTOR;18Y_NU7K_43INCH_	1	SNA
..3		BN96-45678A	ASSY CHASSIS REAR P;43UNU7100X,EGI-SECC	1	SNA
...4		0203-007064	TAPE-DOUBLE FACE;ACRYL,T0.2,W6,N/A,WHITE	1	SNA
...4		0204-007677	COATING;TD 18740C,4.0%,3.0cps,CLEAR,1.61	0	SNA
...4		BN02-00040B	TAPE DOUBLE FACE;NNB 32/40/46/55",PET,T0	1	SNA
...4		BN02-00102B	TAPE-SINGLE FACE;OPP,T0.15,W25,L50M,WHIT	0	SNA
...4		BN39-02392A	LEAD CONNECTOR-BLU;43NU7100,UL21016,4P,L	1	SNA
...4		BN60-01534A	SPACER-PET;PET,689,BLACK,T0.3,W3	0	SNA
...4	CB20	BN61-11982C	BRACKET-WALL;65QNQ7FC,CR-SPCC,BLACK,M8,L	4	SNA
...4		BN61-13557E	BRACKET-WIRE;49KS7000,SW-C,T1,NATURAL,ZI	2	SA
...4		BN61-13557L	BRACKET-WIRE;40KU6400,SW-C,T1,NATURAL,ZI	2	SA
...4		BN61-15482A	BRACKET-LED PCB;43UNU7100X,AI,T1,NATURAL	1	SNA
...4		BN61-15526A	HOLDER-SOURCE PCB;65UNU7100X,ABS,BK0007,	2	SNA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
....5		0103-004609	RESIN ABS;HF-0680U,K21294,BK0007,HB,High	2	SNA
...4		BN61-15531A	HOLDER-LGP TOP RIGHT;65QNQ7FC,TPE,BK0020	1	SNA
....5		0103-010906	RESIN TPE;5202SP/5209B,BLACK,BK0020,HB,T	4	SNA
...4		BN61-15532A	HOLDER-LGP TOP LEFT;65QNQ7FC,TPE,BK0020,	1	SNA
....5		0103-005041	RESIN PC ABS;FR3200TV/901408,Black,BK000	4	SNA
...4		BN61-15540A	HOLDER-LGP BOTTOM LEFT;65QNQ7FC,TPE,BK00	1	SNA
...4		BN61-15541A	HOLDER-LGP BOTTOM RIGHT;65QNQ7FC,TPE,BK0	1	SNA
...4		BN61-16491A	FOOT;49NU7100,RUBBER,Gray,T18.7,T4.3, L1	4	SA
...4		BN63-17620A	INSULATOR-SOURCE PCB;43UNU7100X,PET,BLAC	1	SNA
...4		BN63-17622A	INSULATOR-SMPS;40UNU7100X,PC,BLACK,L255,	1	SNA
...4	CC04	BN64-03995A	CHASSIS-REAR;43UNU7100X,EGI-SECC,-,T0.5,	1	SNA
....5		BN01-00554A	STEEL;43NU7100,EGI-SECC,L995,0.5mm,595mm	1	SNA
...4	T0527	BN68-00513A	LABEL-E PASS;ALL MODEL,WW,YUPO,W50,L15,W	1	SNA
...4		BN96-45954A	ASSY LED BAR P;43inch_NU7100,ALUMINUM,NU	2	SA
..3		BN96-45694A	ASSY FRAME P-MIDDLE;43UNU7100X,PC+GF10%,	1	SNA
...4		BN02-00592A	TAPE DOUBLE FACE;65UNU7090P,ACRYL,T0.64,	2	SNA
...4		BN60-00715M	SPACER-CONDUCTIVE;65UNU7100X,CONDUCTIVE	2	SNA
...4		BN60-01604A	SPACER-FOAM;NU7K,PU FOAM,L50,WHITE,T0.8,	3	SNA
...4		BN60-01605A	SPACER-FOAM;NU7K,HR FOAM,L50,DARK GRAY,T	1	SNA
...4		BN61-15630A	FRAME-MIDDLE;43UNU7100X,PC+GF10%,V-2,WT0	1	SNA
....5		0103-010237	RESIN PC;LS-3104G/W95265,White,WT0044,V-	175	SNA
..2		BN96-45659D	ASSY CHASSIS FRONT P;43UNU7100X,PC+ABS+E	1	SNA
..3		BN60-00715C	SPACER-CONDUCTIVE;Y13 Slim F-LED 76,COND	4	SNA
..3		BN60-01620A	SPACER-CONDUCTIVE;NU7100,CONDUCTIVE FABR	3	SNA
..3	AC155	BN64-03982A	CHASSIS-FRONT;43UNU7100X,PC+ABS+ED18%,V-	1	SNA
...4		0103-010808	RESIN PC ABS;NH-1210/K21294,BLACK,BK0007	256	SNA
...4		BN63-17418C	SHEET-PROTECTION COVER;NU7K,PO,T0.05,W30	3	SNA
...4		BN63-17876A	SHEET-PROTECTION COVER;PO,T0.05,W9,L100,	0	SNA
..2		BN96-45683A	ASSY COVER P-SOURCE PCB;43UNU7100X,EGI-S	1	SNA
..3		BN63-17459A	COVER-SOURCE PCB;43UNU7100X,EGI-SECC,T0.	1	SNA
..3		BN63-17632A	INSULATOR-SOURCE PCB COVER;43UNU7100X,PE	1	SNA
..2		BN96-45714A	ASSY OPEN CELL;BOE,43Inch,Y2018 New opne	1	SNA
..3		BN81-16318A	A/S-POLARIZER-TFT;POLARIZER-TFT,38-10041	1	SNA
..3		BN81-16319A	A/S-POLARIZER-C/F;POLARIZER-C/F,38-10041	1	SNA
..3		BN81-16320A	A/S-ASSY PCB-SOURCE RIGHT;ASSY PCB-SOURC	1	SNA
..3		BN81-16321A	A/S-ASSY PCB-SOURCE LEFT;ASSY PCB-SOURCE	1	SNA
..3		BN81-16322A	A/S-IC DRIVER SOURCE;IC DRIVER SOURCE,47	1	SNA

3. Disassembly and Reassemble



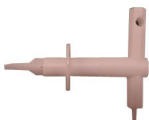
This section of the service manual describes the disassembly and reassembly procedures for the LED TV.





1. Disconnect the LED TV from the power source before disassembly.
2. Follow these directions carefully.
 - Use the Samsung Service tool to disassemble the cabinet.
 - Recommend to use the Samsung Service tool
 - Recommended Torque for Cabinet/Stand screws : 10 ~ 12kgf
 - A strength of Torque can be changed depending on the situation.





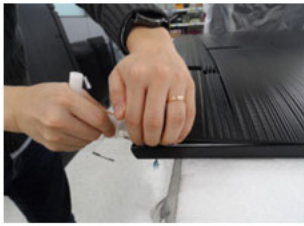


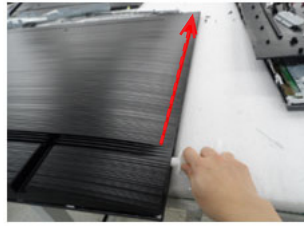

Open Jigs

Please Use Lower Open Jig, for opening of Screwless rear cover.

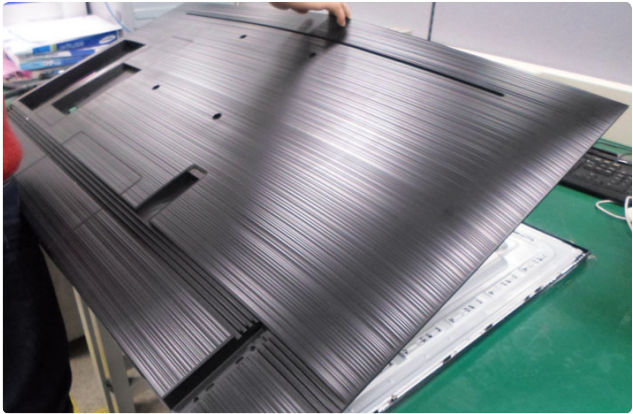



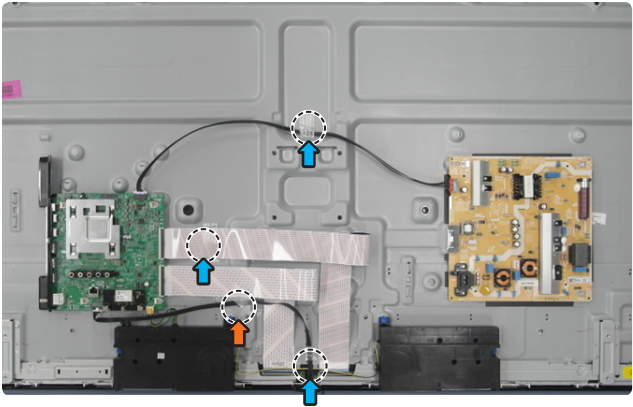




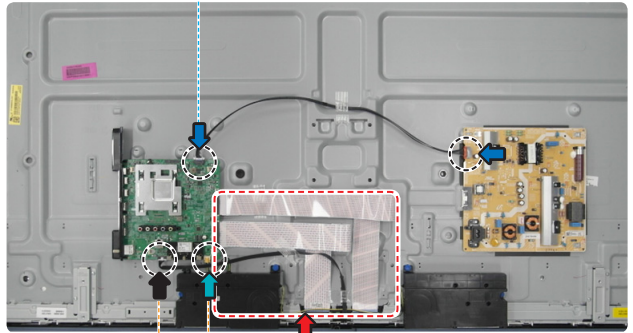
		
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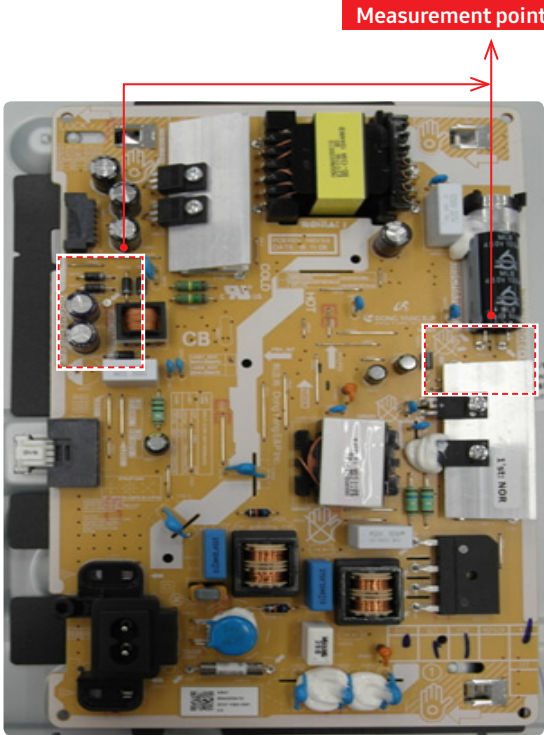
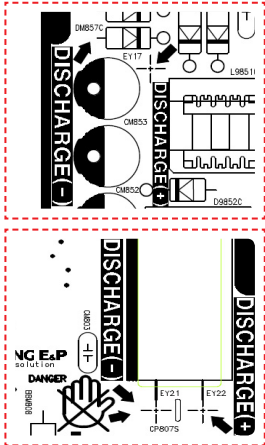

3-1. Disassembly


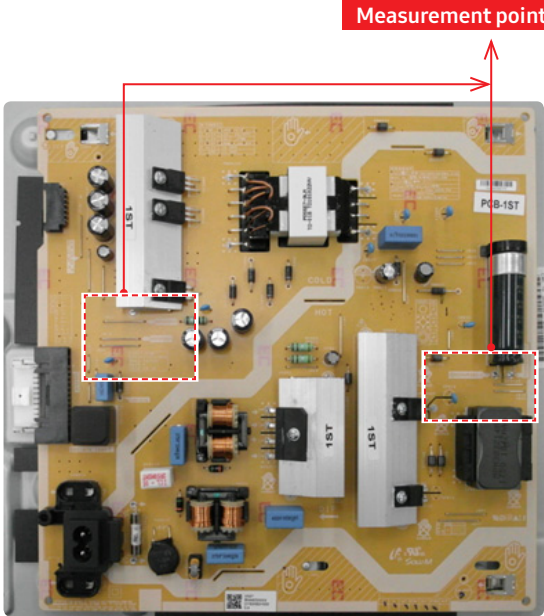
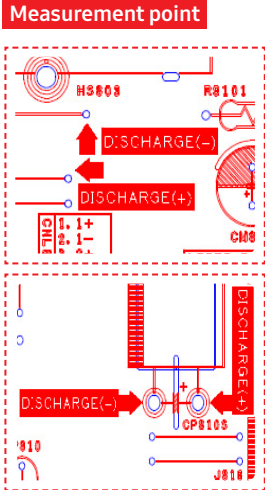
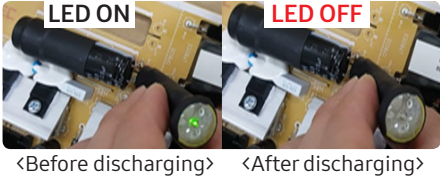
Description & Screws	Picture Description
<p>1 Carefully position the TV so that the screen is facing downwards.</p> <ul style="list-style-type: none"> • Make sure to place the TV upon a soft cushion or any material that will prevent damage to the screen. 	
<p>2 Remove the screws connecting the stand to the TV. Then carefully remove the stand.</p> <p>Screws</p> <p>6003-001334 SCREW-TAPTYPE : M4 x L14, ZPC(BLK)</p> <ul style="list-style-type: none"> • SET + STAND 	

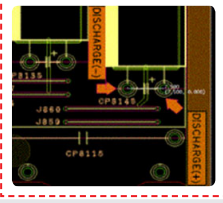
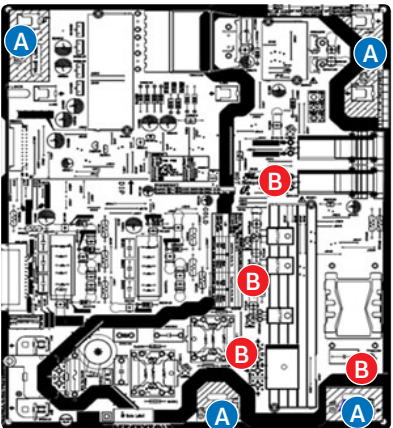



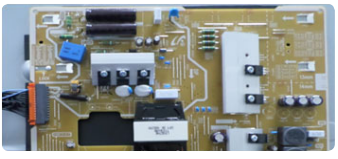
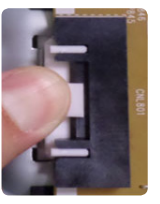
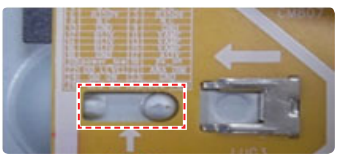
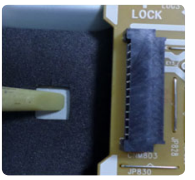
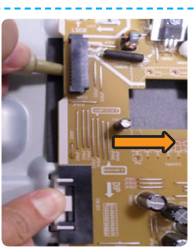
Description & Screws	Picture Description
<div data-bbox="164 293 638 356">3-1 Removing the 'ASSY REAR COVER'. (Please follow 8 sequence on right.)</div>	<div data-bbox="802 297 1106 521"></div> <div data-bbox="802 533 1062 584">1. Ready to insert open jig adjust jig edge to hole.</div> <div data-bbox="1126 297 1430 521"></div> <div data-bbox="1126 533 1414 560">2. Insert open jig till red line.</div> <div data-bbox="802 622 1106 846"></div> <div data-bbox="802 857 1115 884">3. Rotate open jig to 90-degree.</div> <div data-bbox="1126 622 1430 846"></div> <div data-bbox="1126 857 1414 907">4. Lift jig to unlock wire hook on bottom.</div> <div data-bbox="802 949 1106 1173"></div> <div data-bbox="802 1184 1094 1211">5. Insert hand and retain gap.</div> <div data-bbox="1126 949 1430 1173"></div> <div data-bbox="1126 1184 1394 1234">6. Take out jig and insert in side gap.</div> <div data-bbox="802 1279 1106 1503"></div> <div data-bbox="802 1514 1086 1541">7. Insert open jig till red line.</div> <div data-bbox="1126 1279 1430 1503"></div> <div data-bbox="1126 1514 1406 1563">8. Disassemble Hooks of Cover Rear along the side.</div>
<div data-bbox="164 1621 753 1684">3-2 Disassemble all Hooks of Cover Rear along the three side.</div>	<div data-bbox="802 1621 1430 1966"></div>

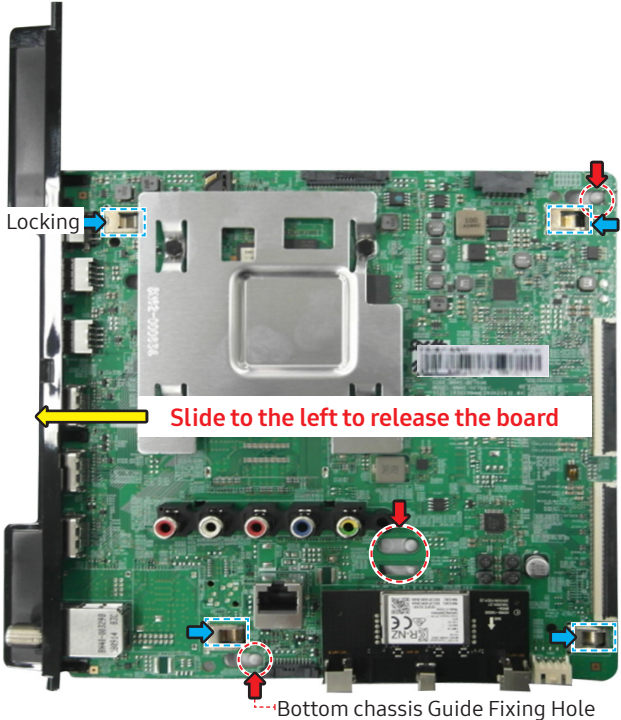
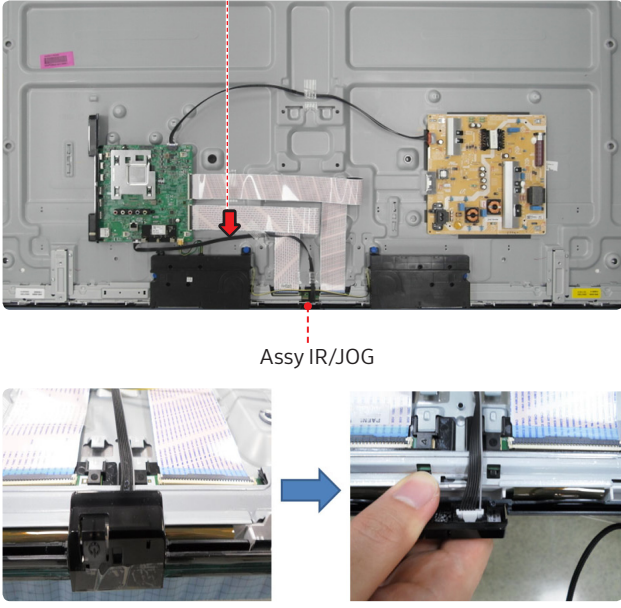
Description & Screws	Picture Description
<p>Locking tabs locations</p> <ul style="list-style-type: none"> 43" 	<p>Top Corner : 2 point (Snap Hook)</p> <p>Top : 8 point Locking</p> <p>Bottom : 6 point Locking</p> <p>L : 5 point Locking</p> <p>R : 5 point Locking</p>
<ul style="list-style-type: none"> 50" 	<p>Top Corner : 2 point (Snap Hook)</p> <p>Top : 10 point Locking</p> <p>Bottom : 6 point Locking</p> <p>L : 6 point Locking</p> <p>R : 6 point Locking</p> <p>Side AV : 1 Point Locking</p>
<ul style="list-style-type: none"> 55" 	<p>Top Corner : 2 point (Snap Hook)</p> <p>Top : 10 point Locking</p> <p>Bottom : 6 point Locking</p> <p>L : 6 point Locking</p> <p>R : 6 point Locking</p> <p>Side AV : 1 Point Locking</p>

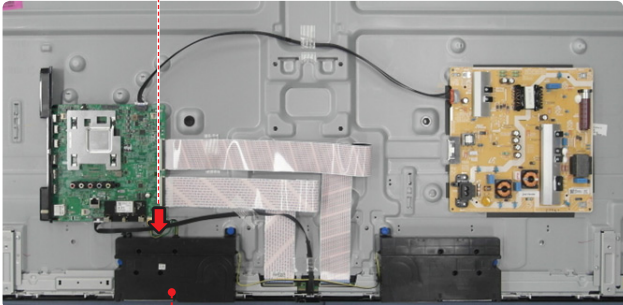
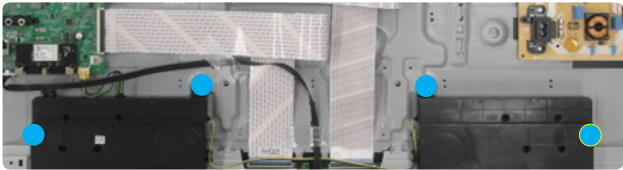
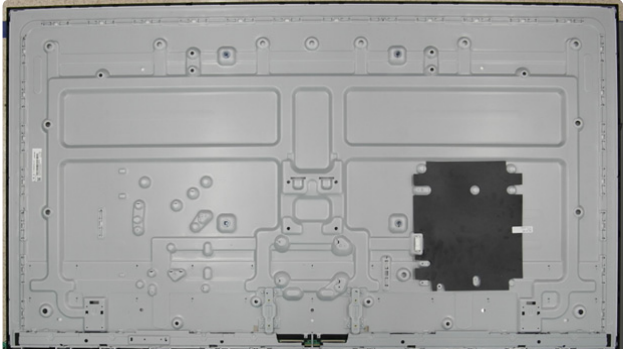
Description & Screws	Picture Description
<p>3-3 Lift top side then pull back to remove the back cover.</p>	
<p>4 Remove the Electric tapes shown on the images.</p> <ul style="list-style-type: none">•  EMI Filament Tape (Dressing)•  Safety Tape(Dressing) <div data-bbox="255 857 711 1081"><p> NOTE</p><ul style="list-style-type: none">• When assembling the TV, the electric tapes must be applied on the same locations. Please remember to take a picture of where the tapes were first applied.</div>	
<p>5 Remove the Cables.</p> <ul style="list-style-type: none">•  LEAD CONNECTOR-POWER Cable (SMPS - MAIN)•  FFC Cables•  ASSY SPEAKER P-FRONT Cable•  ASSY BOARD P-FUNCTION ONE KEY Cable	 <p>LEAD CONNECTOR-POWER Cables</p> <p>FFC Cables</p> <p>LEAD CONNECTOR-SUB ASSY Cable</p> <p>ASSY SPEAKER P-FRONT Cable</p>

Description & Screws	Picture Description
<p>6-1 Discharge Capacitors.</p> <ul style="list-style-type: none">• 43"• Before remove SMPS, Must discharge capacitors for your safety.• Check discharge point(1st, 2nd block) and then, discharge with discharge-Jig. <p>A/S-DISCHARGE-JIG</p>  <p>BN81-16292A</p>	<p>Measurement point</p>  <p>Measurement point</p>  <p>LED ON LED OFF</p>  <p><Before discharging> <After discharging></p>

Description & Screws	Picture Description
<div data-bbox="164 293 233 342">6-2</div> <div data-bbox="253 293 740 488"><p>Discharge Capacitors.</p><ul style="list-style-type: none">• 50" / 55"• Before remove SMPS, Must discharge capacitors for your safety.• Check discharge point(1st, 2nd block) and then, discharge with discharge-Jig.</div> <div data-bbox="263 539 489 568">A/S-DISCHARGE-JIG</div> <div data-bbox="263 584 379 645"></div> <div data-bbox="526 600 673 629">BN81-16292A</div>	<div data-bbox="836 309 1382 922"><p>Measurement point</p></div> <div data-bbox="863 947 1129 1435"><p>Measurement point</p></div> <div data-bbox="871 1469 1313 1644"><p>LED ON LED OFF</p><p><Before discharging> <After discharging></p></div>

Description & Screws	Picture Description
<p>7 Remove the DC VSS-PD BOARD. (Please follow 5 sequence on right.)</p> <p>CAUTION</p> <p>Plz discharge SMPS before disconnect SMPS. And Refer to available touch point.</p>  <p>Before SMPS disconnect, Use discharge Jig on this point for SMPS discharge.</p>  <p><You can see  silk for touch></p> <p> Point A : Can touch (2nd GND & NO materials)</p> <p> Point B : Don't touch (1st Important materials)</p> <p>DANGER</p>	<ol style="list-style-type: none"> 1. Remove power connector.  <ol style="list-style-type: none"> 2. Push and hold down BLU Connector Tab to release its panel lock connection.  <ol style="list-style-type: none"> 3. Lift to Release the Lock Tab on Upper left side of Board (Step 5 will assist).  <ol style="list-style-type: none"> 4. Locate a notch in insulation sheet (not all models).  <ol style="list-style-type: none"> 5. Use Open Tool in notch to help release & smoothly slide SMPS Board to the Right. (While pushing BLU Tab & Releasing Lock Tab) 

Description & Screws	Picture Description
<p>8 Remove the ASSY PCB MAIN BOARD.</p> <ul style="list-style-type: none"> Use both hands to hold the 'Main Board' and gently lift up 1 point marked. Slide the board to the Left side to release the board. Then carefully remove the 'ASSY PCB MAIN BOARD'. 	 <p>The diagram shows the main board with various components. A yellow arrow points left with the text "Slide to the left to release the board". A blue arrow points to a locking mechanism labeled "Locking". A red arrow points to a hole labeled "Bottom chassis Guide Fixing Hole".</p>
<p>9 Remove the ASSY IR/JOG unit.</p> <ul style="list-style-type: none"> ➡ LEAD CONNECTOR-SUB ASSY (MAIN - Function) 	<p>LEAD CONNECTOR-SUB ASSY Cable</p>  <p>The diagram shows the IR/JOG unit being removed from the main board. A red arrow points to the unit. Below, two images show the unit being disconnected from the main board. The first image shows the unit in its housing, and the second image shows a hand pulling it out.</p>

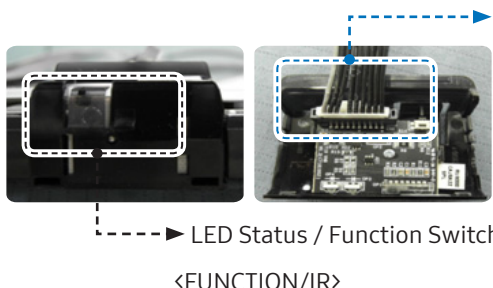
Description & Screws	Picture Description
<p>10 Remove the ASSY SPEAKER P-FRONT.</p> <ul style="list-style-type: none">➡ ASSY SPEAKER P-FRONT Cable● : Assy SPK to Panel Hole 4 Points	<p>ASSY SPEAKER P-FRONT Cable</p>  <p>ASSY SPEAKER P-FRONT</p>  <p><Hole 4 Points></p>
<p>11 Completed the disassembly.</p>	

**NOTE**

Reassembly procedures are in the reverse order of disassembly procedures.

4. Troubleshooting

4-1. Function Control Operation Test

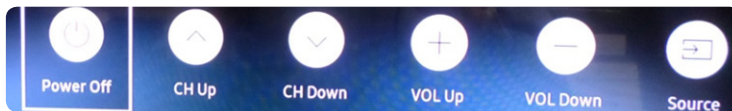


LED Status / Function Switch
<FUNCTION/IR>

<To CN1601 Main Board>

CN1601 (FUNCTION & IR)			
1	IR	2	GND
3	A3.3V_PW	4	SENSOR_SCL_I2C
5	SENSOR_SDA_I2C	6	KEY_INPUT1
7	-	8	LED_STB_OUT
9	IR_OUT_1	10	IR_OUT_2
11	GND	12	-

1. Place TV in Power Standby
2. Check **LED Status**
3. If **LED** is **OFF**
 - ✓ LED 1.7Vdc (pin **8**) and VCC for 3.3Vdc (pin **3**)
 - If missing suspect Function Assy/Cable/Main board.
4. If **LED** is **ON**
 - ✓ Switch Operation activates on screen display



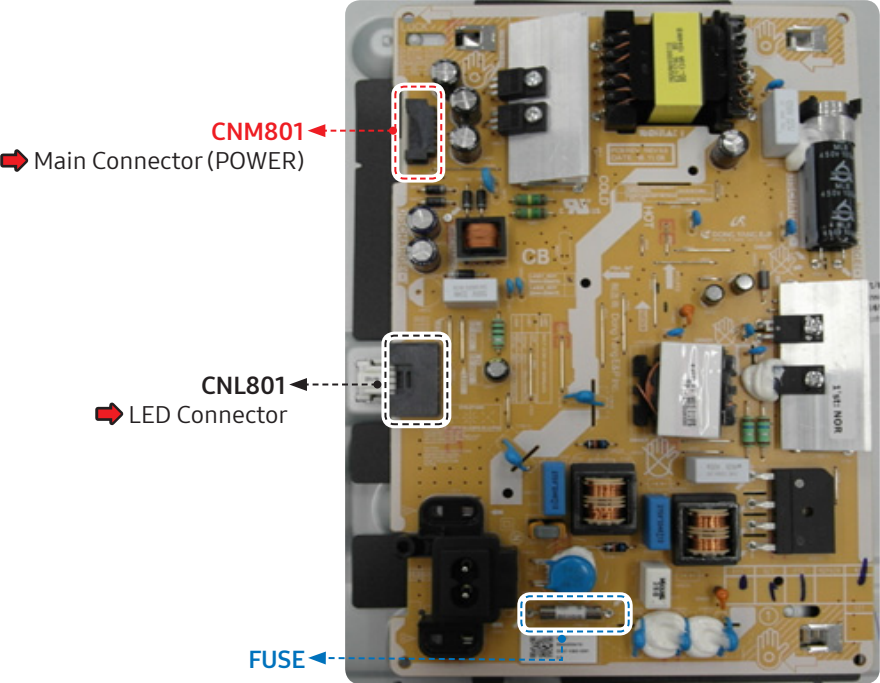
[On Screen Selections with Function Control]

- If missing:
 - ✓ **Key_Input1** (pin **6**) change to 0V with a command.
 - If wrong voltage or no change:
 - ✓ Switch for stuck or miss-operation.
5. Check **IR** operation with Standard Remote command changes.
 6. Check **SDA, SCL** for effective 3.3Vdc. (after power on)
 - If missing suspect Function Assy/Cable Assy./Main Assy

4-2. Power

4-2-1. SMPS Standby

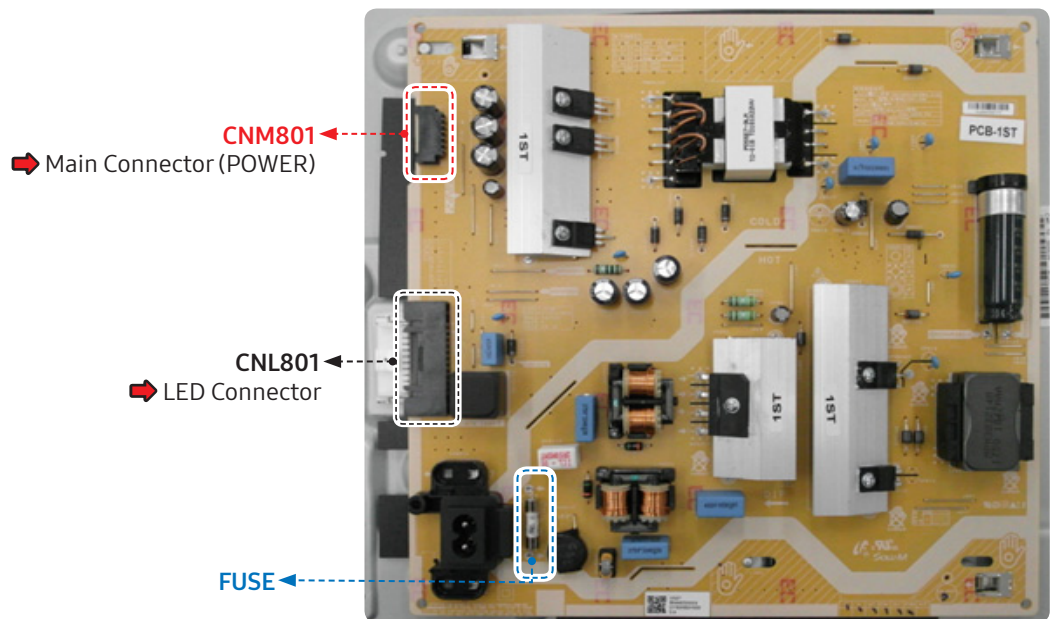
- 43 inches



CNM801 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	BLU_PWM
7	A13V	8	POWER_On/Off	9	A13V	10	GND	11	GND	12	GND

CNL801 (LED Connector)							
1	1+	2	1-	3	2+	4	2-

- 50/55 inches



CNM801 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	BLU_PWM
7	A13V	8	POWER_On/Off	9	A13V	10	GND	11	GND	12	GND

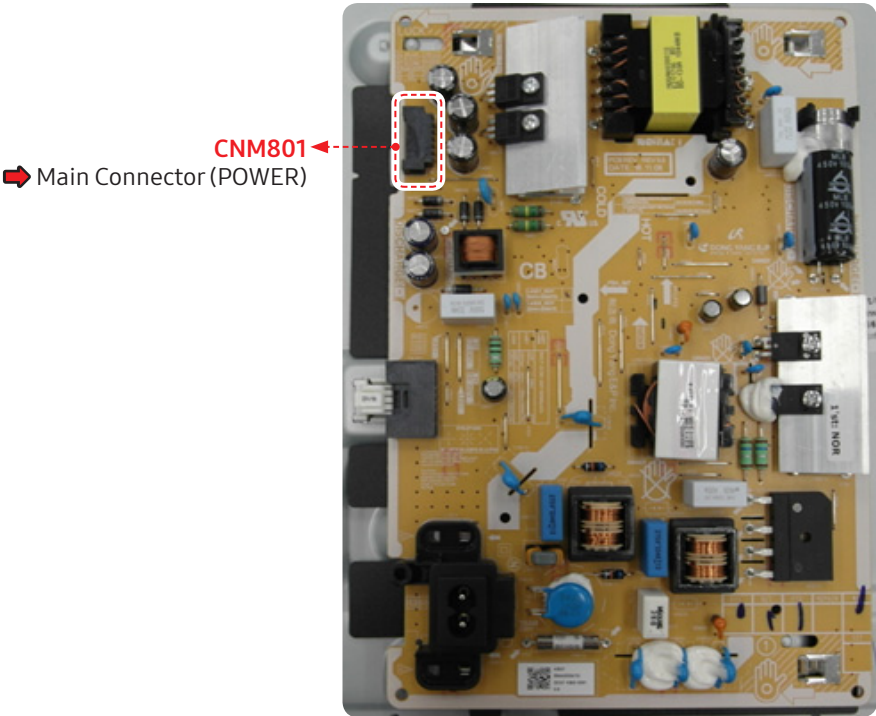
CNL801 (LED Connector)											
1	1+	2	1-	3	2+	4	2-	5	3+	6	3-
7	4+	8	4-	9	N.C	10	N.C	11	N.C	12	N.C

TV POWER STANDBY TEST :

- TV in Standby
 - ✓ Check **Standby LED Indicator**
- If Not Lit:
 - ✓ Check AC 120Vac Line
- If missing:
 - ✓ Check AC120Vac Source/Power Cord
- If OK:
 - ✓ Check resistance on SMPS **FUSE** after first removing AC power cord.
- If fuses are open : replace **SMPS**
- If fuses are OK:
 - ✓ **Standby: A13V** (Always On) to Main Board.
- If any missing remove the SMPS connector to the Main Board.
 - ✓ Check Standby **A13V** again.
 - If OK replace the **Main Board**.
 - If still missing replace **SMPS**.

4-2-2. SMPS Power On

- 43 inches



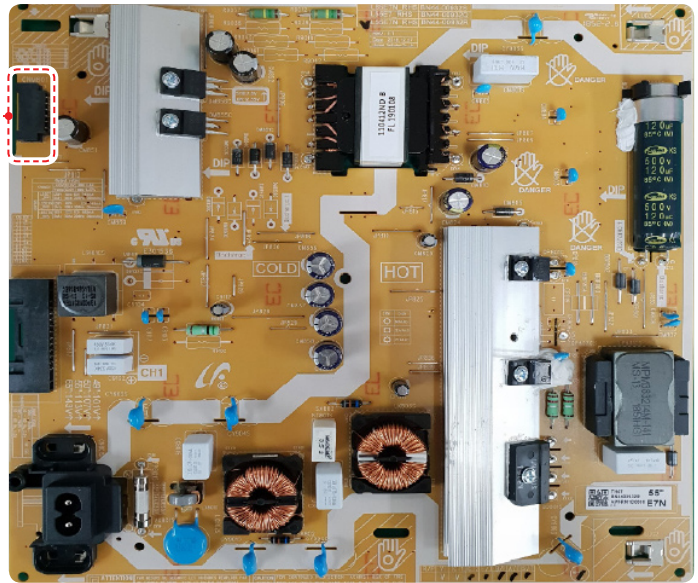
CNM801 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	BLU_PWM
7	A13V	8	POWER_On/Off	9	A13V	10	GND	11	GND	12	GND

Power

Backlight

- 50/55 inches

➡ Main Connector (POWER) **CNM801**



CNM801 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	PWM_BLU
7	A13V	8	POWER_On/Off	9	A13V	10	GND	11	GND	12	GND

──────────▶ Power (pins 2, 8)
 ──────────▶ Backlight (pins 6, 12)

TV POWER ON SEQUENCE TEST:

1. Power TV On

- ✓ **Power_On/Off / POWER_ON** (pin **8**) .2Vdc (when off) changes to **3.3Vdc** (on)



NOTE

- There is an approx 20 second delay from PS-ON to off condition when the TV is powered off, and approx a 2 minute delay when the TV is first plugged into AC Power.

2. If voltage error or no change:

- ✓ Jog Function Control Test

3. If OK replace **Main Board**

- ✓ All **A13V** supplies for approx. **12.7VDC** (pins **3**, **5**, **7**, **9**)

4. If any wrong voltages, remove SMPS connector to Main Board

- ✓ All **A13V** again for **12.7VDC** (pins **3**, **5**, **7**, **9**)

5. If OK replace **Main Board**

6. If still wrong voltage replace SMPS

- ✓ **OD_ON/OFF** (Over Voltage Detect) (pin **4**) 3.3Vdc : Operating Normal

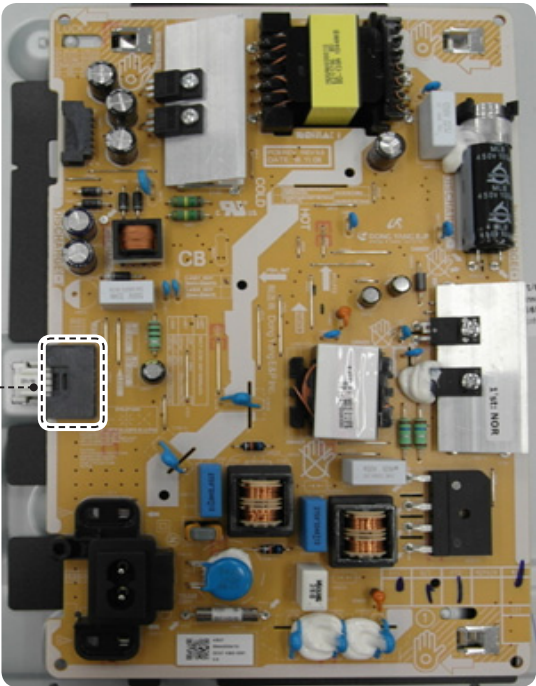
7. If OV or changing, an SMPS or Panel error exists. Perform Backlight Test.

- ✓ **BLU_PWM / PWM_BLU** (pin **6**) Backlight On/Off & Dim Control : **1Vdc – 3.3 Vdc** depending on backlight dimming level for video.
 - If missing or error : Replace **Main Board**.

4-2-3. SMPS / PANEL BACKLIGHT (Parallel Wired SMPS Panel Connections)

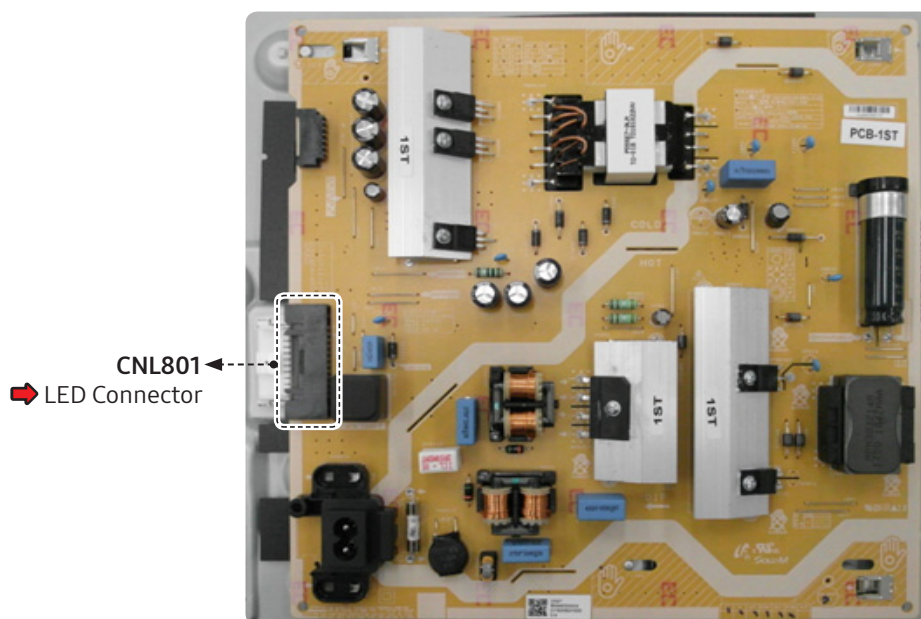
- 43 inches

CNL801
➡ LED Connector



CNL801 (LED Connector)								
1	1+	2	1-	3	2+	4	2-	

- 50/55 inches



CNL801 (LED Connector)											
1	1+	2	1-	3	2+	4	2-	5	3+	6	3-
7	4+	8	4-	9	N.C	10	N.C	11	N.C	12	N.C

Backlight Test :

1. **Activate Backlights Test** : Disconnect Lead Cable from Main to Power Supply.
 - ✓ Check TV Screen for active backlight LEDs.
2. **If No Backlights**
 - ✓ Minus (Control) pins & Plus (Supply) pins voltages on the Panel Connector. (**with fine test probe on left side of connector only for safety**)
 - If no pin voltages replace **SMPS**.
3. **If Backlights ON BUT PANEL SECTION(S) OFF**
 - ✓ The Supply Drive (+) pins and (-) pins. All should measure same.
 - If a Minus (-) pin measures low (near 0 volts), a string(s) of LEDs are likely open.
 - ✓ Replace **Panel**.
 - If a (+) pin measures low voltage.
 - ✓ Defective **SMPS**

BACKLIGHT DIMMING PROBLEMS :

- Go to **Menu > Picture > Backlight** and vary level (0 – 50)
- If no backlight changes observed:
 - ✓ Panel Connector **CNL801** minus (-) pin voltages and PWM_BLU control voltages **CNM801** while changing backlight level.
 - If **minus (-) pin voltages** don't change, and PWM_BLU changes, replace **SMPS**.
 - If PWM_BLU doesn't change replace **Main/T-Con Board**.


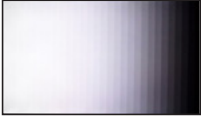
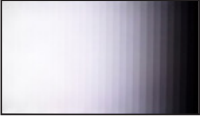
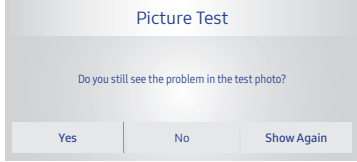
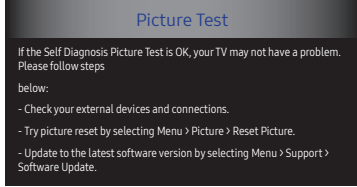
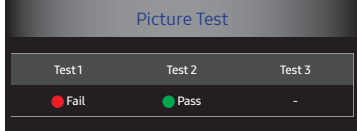
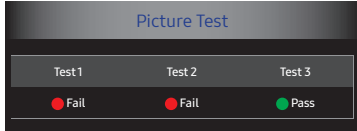

Backlight Test : In normal TV operating mode, use standard **IR Remote** or **Factory Remote** with commands.

Go to **MUTE > 4 > 1 > 9 > EXIT**

4-3. Video

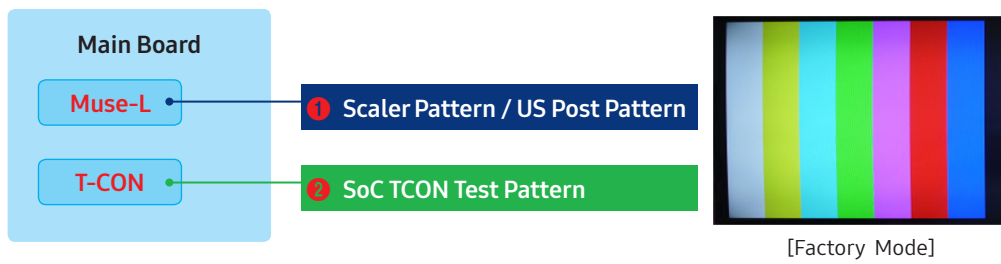
4-3-1. Customer Picture Test

■ MAIN/TCON BOARD

Main Section	Pre-FRC (T-CON)	Post FRC (T-CON)	Results	Problem
				
Pass	Pass	Pass		<ul style="list-style-type: none"> Check Signal Source and other inputs
Fail	Pass	Pass		<ul style="list-style-type: none"> Replace Main/T-CON Board
Fail	Fail	Pass		<ul style="list-style-type: none"> Replace Main/T-CON Board
Fail	Fail	Fail		<ul style="list-style-type: none"> Replace Main/T-CON Board or Panel

4-3-2. Check Test Patterns

- ENTER : **Factory mode** > **SVC** > **Test Pattern**



1. Verify "Scaler Pattern" and "US Post Pattern"
2. Verify "SoC TCON Test Pattern"

4-3-3. MAIN/T-CON BOARD

- Main Section > PRE FRC Section > POST FRC Section > T-CON Section > PANEL

■ Main Section

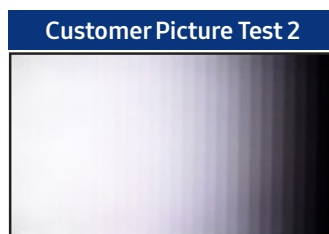


Video Operation

Generated on Main Section.

- **If OK:**
 - ✓ Source & Input Cables
 - ✓ Other inputs
- **If Noisy:**
 - ✓ Pre FRC Section Test Patterns

■ PRE FRC Section

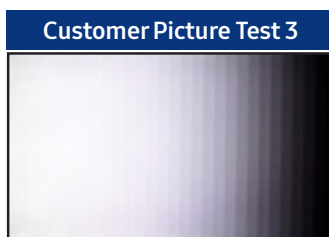


Video Operation

Generated at Pre FRC Section.

- **If OK:**
 - ✓ Replace Main/T-Con Board
- **If Noisy:**
 - ✓ Post FRC Section

■ POST FRC Section



Video Operation

Generated at Post FRC Section.

- **If OK:**
 - ✓ Replace Main/T-Con Board
- **If Noisy:**
 - ✓ Mute > 3 > 6 > 9 > Mute

■ T-CON Section



[May not be available for Larger models over 70 inches.]

Video Operation

Generated at T-CON Section.

1. **If OK:**
 - ✓ Replace Main/T-CON Board.
2. **If Noisy:**
 - ✓ Main/T-CON Board
 - ✓ Panel

■ PANEL



- Check Panel

1. If Noisy Video:

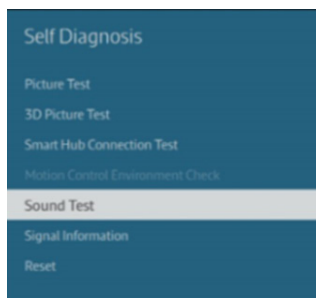
- ✓ Soc T-CON Pattern in Factory Mode
 - Use type of Noise observed (Bars, single lines, video distortion, etc to help.)
 - If noise is only on one half of screen check / swap panel cables.
 - Verify Defective Panel Cables, TV Main/T-CON Board or Panel.

4-4. Audio

- Source > Main Board > Speakers

■ Source

- **No TV Sound**
 - ✓ Menu > Audio > Speaker Settings set to **TV Speaker**
- **Noisy / Distorted TV Audio**
 - ✓ Customer Menu > Support > **Sound Test**
 - **If Sound Test FAILS : (Missing / Noisy Audio)**
 - ✓ Speakers (compare resistance/quality)
 - Compare audio level out to speakers with multi meter.
 - ✓ Replace defective Speakers or Main Board or Cable.
 - **If Sound Test OK :**
 - ✓ Audio Source & External Cables
 - ✓ With external Audio Generator (device or App)
 - ✓ Other Inputs
- **Optical Digital Out Errors**
 - ✓ Red light from Optical Digital Out.
 - If missing replace Main Board



■ Main Board

- **No HDMI Audio**
 - ✓ Source / HDMI Cable
 - Swap with other HDMI Inputs / Sources.
 - Perform **EDID Write** in Factory Mode (Can restore missing HDMI Audio).
 - ✓ Bulletins and Latest firmware on TV.
 - If not restored replace Main Board
 - Check Audio Format PCM / Dolby based on external Receiver
- **ARC Issues**
 - ✓ HDMI Cable is input to the ARC Designated HDMI port.
 - ✓ ARC (HDMI Control) is enabled on the external Receiver.
- **Bluetooth Audio "Sound Share" Connection Issues**
 - ✓ Sound Bar is in TV Mode.
 - To Connect, Press & Hold Play Button until Sound Bar pairing mode begins.

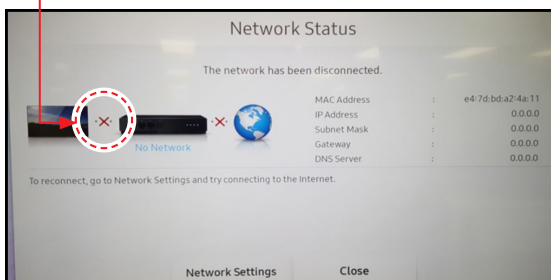
4-5. Network



■ TV to Router "Failure"

- ✓ **Check** Network Status

Check Network Status (TV ~~→~~ Router ~~→~~ Internet)



- ✓ **Wired & Wireless MAC Address** in Customer Support Menu.
 - **No Wired MAC Address:** Replace **Main Board**.
 - **No Wireless MAC Address:**
- ✓ **Module cabling & voltages** from Main Board.
 - If operating voltages are OK but signal missing.
 - ✓ Replace **WiFi Module** (WiFi/Bluetooth Module).
- ✓ **Proper security passcode**
- ✓ **Check** Wi-Fi signal strength at TV (use WiFi Analyzer or similar App).
 - Try another source (Hot spot or Test Router)
- ✓ **Check** related Bulletins.
- ✓ **Check** **Factory Mode** → **SVC** → **Info** → **WiFi Error Count** (replace module for high error counts).

■ Router to Network "Failure"

- ✓ **Check** Network Status

Check Network Status (TV → Router ~~→~~ Internet)



- Instruct the customer the TV has proper connection to the router and is likely OK.
- ✓ **Check** other devices using network are OK. If they test OK this does not mean the TV should be working.
 - Try another source (Hotspot) to test/show TV Network operation.

4-6. Smart Hub

- Menu > DNS Support > Self Diagnosis > Start Smart Hub Connection Test



Network Test/Gateway > DNS Test > ISP Blocking > Samsung Server Test > Samsung Apps Test

■ Network / Gateway

- If it Fails:
 - ✓ TV to Router Connection Test in "**Network Trouble shooting**"

■ DNS Test

- If it Fails:
 - ✓ **DNS** setting in "Network Settings"
- If DNS is set manually:
 - ✓ Settings are correct (may be set to 8.8.8.8 to prevent Netflix issues)
- If it still fails:
 - ✓ DNS Test with setting to Auto Mode
- If it fails both Manual & Auto problem is ISP or Router.

■ ISP Blocking

- If it Fails:
 - ✓ Internet Service Provider is Active.
 - ✓ With DNS setting at 8888.
 - ✓ With Hot Spot.

■ Samsung Server Test

- If it Fails:
 - ✓ Network Status.
- If OK:
 - ✓ Reset Smart Hub.
 - ✓ Terms of Agreement are accepted.

■ Samsung Apps

- If it Fails:
 - ✓ **Reset** Smart Hub.
 - ✓ Samsung Apps load correctly.
 - ✓ Perform "**Apps Reset**" in Factory Mode.
 - ✓ Go to Smart Hub and complete Terms of Agreement and set up information.
 - ✓ Samsung Apps load correctly.
 - ✓ Before selecting an App, allow Apps to load or failure wilre-occur.

4. Troubleshooting

For Netflix Operation/Connection Issues:

- ✓ **Check** Certificate & Netflix ESN Status in Factory Mode.

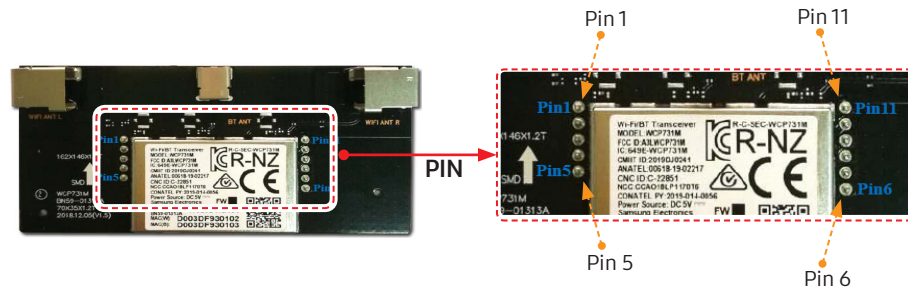


- If Certificate and ESN exists, "CO", "Nfo", change the **DNS** to **8.8.8.8**
- If Certificate is missing, "C/" replace the TV's Main Board.
- If ESN number is missing: **NF**/ do not replace the Main Board.
 - Reset TV Clock and check for correct Time & Date. Netflix relies on correct settings.
 - Reset Smart Hub. / Reset Apps In Factory Mode.

For Streaming Issues:

- Go to TV Web Browser / Go to speedof.me / testmy.net
 - ✓ **Check Speed** for at least 5 Mbps(HD streaming) / 25 Mbps (4K Streaming).
 - ✓ **Check Latency** for less than 50ms.

4-7. Bluetooth / WiFi Module



Pin Description

Pins	Pin Name	Description	Type
1	UART_TX	UART_Tx signal out	O
2	GND	Ground	G
3	WIFI_WAKE_UP	Wake up signal input	O
4	BT_WAKE_UP	Wake up signal input	O
5	RESET_N	Reset for Wi-Fi	I
6	GND	Ground	G
7	WIFI_USB_DP	USB Interface D+	I/O
8	WIFI_USB_DM	USB Interface D-	I/O
9	GND	Ground	G
10	USB_5V	+5V DC power supply for DC-DC	V
11	WIFI_USB_SUSPEND	USB Suspend	I

4-8. Factory Mode

■ Setting TV into Factory Mode



AA81-00243A

Factory Remote

1. Power TV ON.
2. Select TV Source.
3. **Info** → **Factory**.
4. Use **MENU** for return.

Samsung IR Remote

1. TV Power Standby.
2. Press as follows.

- Remote Button

NTSC	MUTE → 1 → 8 → 2 → POWER
------	---

PAL	INFO → MENU → MUTE → POWER
-----	--

■ Important Items

- **Option** (must set Option Bytes when replacing Main Board.)
- Option → **Factory Reset** (returns TV to out of box condition.)
 - Must perform when replacing Main Board or Full One Connect)
 - **Factory Reset** : Select Factory Reset

Factory Reset	
Type	50D6AU1NN
Writing Type	
Local Set	ED_VIET
SW Model	URU7400
Model Code	UA50RU7200KXXV
TUNER	-
Ch Table	NONE

← Ex. Sample Model

- SVC → Info → **ER Count** (Important to check for errors.)
 - Resets to 0 with Factory Reset.
 - ✓ Check before resetting TV
- SVC → **Test Patterns** (Use to check / troubleshoot) videos errors.
- Control → **EDID** (Use to Reset HDMI Operational Errors)

Setting **Option Bytes**

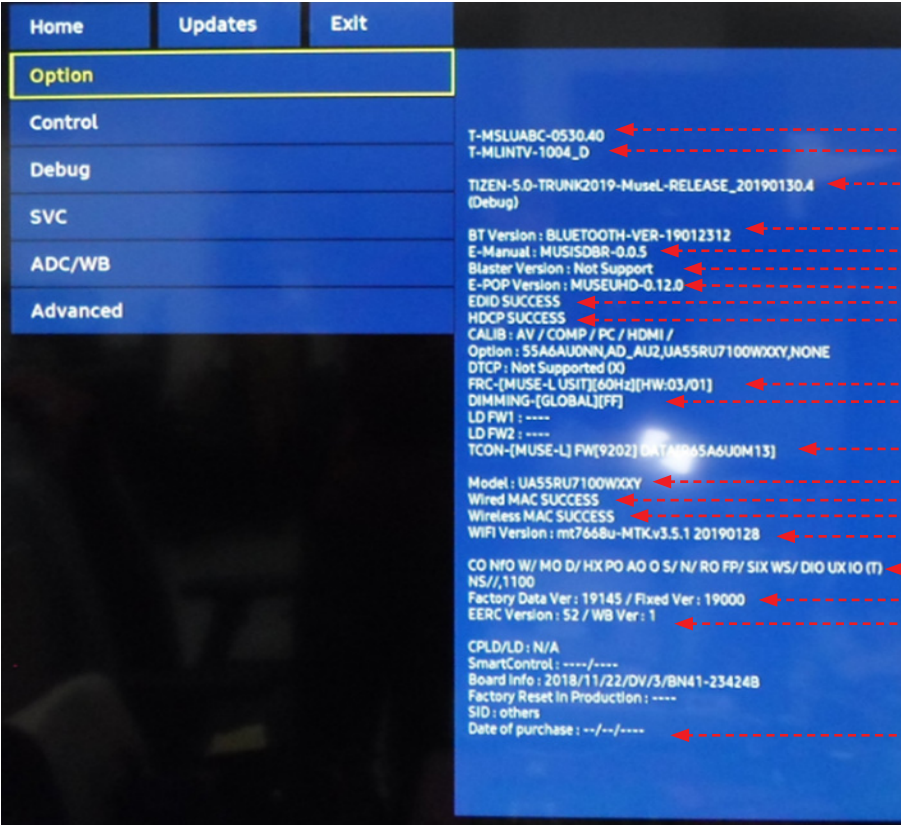
1. Enter Factory Mode with **Service Remote** (only).
2. Check Option Byte Table located on **GSPN** (Fast Track or Tips).
3. Select **Option**.
4. Select each item to change.
5. Can Use new **Writing Type** to enter model (if entered wrong it will not change.)
6. Soft power TV Off to load.

Performing **Factory Reset**

1. Enter Factory Mode.
2. Select **Option** > **Factory Reset**
3. TV will power off.
4. Perform ALL TV Settings. (New out of box condition)

First Screen Appearing in **Factory Mode**

- Sample



✓ **Testing Items**

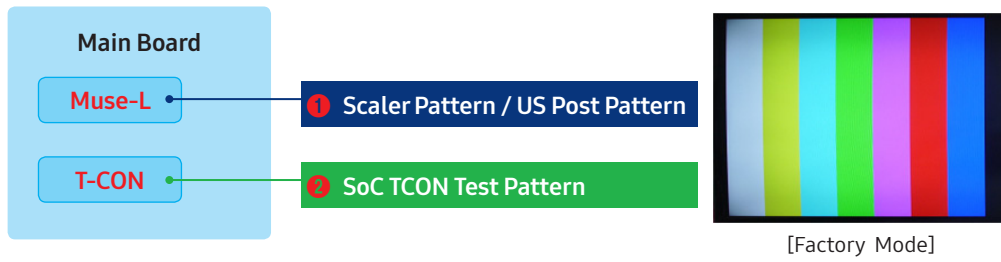
- ✓ Micom Version
- ✓ Sub Micom
- ✓ Tizen Platform info
- ✓ BT Version
- ✓ E-Manual
- ✓ Blaster Version
- ✓ E-Pop Version
- ✓ EDID Success (Status)
- ✓ HDCP Success (Status)
- ✓ FRC
- ✓ Dimming
- ✓ T-CON
- ✓ Model
- ✓ Wired MAC Success
- ✓ Wireless MAC Success
- ✓ WiFi Version
- ✓ CO Status ("O" Operational)
- ✓ Factory Data Version
- ✓ EERC Version
- ✓ Date of Purchase - Initial set up date (Resets with Factory Reset)

Slide Details

- Sample Model : **UA50RU7200KXXV**

Home	Updates	Exit	Testing Items		
Option			T-MSLUABC-XXXX.XX	✓ Micom Version	
			T-MLINTV-XXXX	✓ Sub Micom	
			TIZEN-X.X.-MAIN2019--MuseL-RELEASE_XXXXXXXX.X (Debug)	✓ Tizen Platform info	
			BT Version : BLUETOOTH-VER-XXXX	✓ BT Version	
			E-Manual:----	✓ E-Manual	
			Blaster Version : Not support	✓ Blaster Version	
			E-POP Version : XXXXXXX-XX.XX.X	✓ E-Pop Version	
			EDID SUCCESS	✓ EDID Success (Status)	
			HDCP SUCCESS	✓ HDCP Success (Status)	
			CALIB : AV/COMP/PC/HDMI/ Option : 50D6AU1NN,ED_VIET, UA50RU7200KXXV,NONE NONEDTCP : Not Supported(X)		
Control			FRC-[MUSE-L xxx][60Hz][HW:0x0F]	✓ FRC	
			DIMMING-[GLOBAL][FF]	✓ Dimming	
			LD FW1 : ---- LD FW2 : ----		
			TCON-[MUSE-L] FW[xxxx] DATA[xxxx]	✓ T-CON	
			Model : UA50RU7200KXXV	✓ Model	
			Wired MAC SUCCESS	✓ Wired MAC Success	
			Wireless MAC SUCCESS	✓ Wireless MAC Success	
			WiFi Version : x.x.xx.xxx.xxx.xxxxx	✓ WiFi Version	
			CO Nfo W/MO D/HX PO AO O S/N/RO FP/SIO WS/DIO UX IO (T) NS//,1100	✓ CO Status ("O" Operational)	
	Debug			Factory Data Ver : XXX / Fixed Ver : XX	✓ Factory Data Version
		EERC Version ; XX / WB Ver : 1	✓ EERC Version		
		CPLD/LD : N/A SmartControl : ----/----			
		Board Info : XXXX/XX/XX/XX/X/BNXX-XXXXXXX Factory Reset In Production : ----			
		SID : ---- Date of purchase : --/--/----	✓ Date of Purchase - Initial set up date (Resets with Factory Reset)		
SVC					
	ADC/WB				
Advanced					


■ SVC ➤ Test Patterns



1. Verify "Scaler Pattern" and "US Post Pattern".
2. Verify "SoC TCON Test Pattern".

Scaler Pattern	OFF
US Post Pattern	OFF
FRC Pre Pattern	0
FRC Post Pattern	0
SOC TCON Pattern	0
SOC TCON Pattern Level	255
FRC OSD Pre Pattern	0
FRC OSD Post Pattern	0
FRC2 Pre Pattern	0
FRC2 Post Pattern	0
SOC TCON2 Pattern	0
SOC TCON2 Pattern Level	255

■ SVC > Info > ER Count

WD Count	0	Serdes Error Count	2
AR Count	0	Serdes Reset Count	0
RS Count	1	Serdes WatchDog On/Off	OFF
WIFI NO DETECTION COUNT	3	AC Over-Voltage Detect	0
WIFI DETACHMENT COUNT	2	Vcc Fall Count	0
BT NO DETECTION COUNT	0	HDMI No Signal	
BT DETACHMENT COUNT	1	HDMI Blinking	
BT MGT OPEN FAIL COUNT	0	HDMI Color Space	
BT MGT DISCONNECT COUNT	0		
BT TV AUDIO DROP	0		
BT AUDIO TIMER EXP	0		
Camera ER Count			
FRC3D Emergency Reboot On/Off ON			
FRC3D ER Count	0		
Fan Error Count	0		

- **WD Count:** Watch Dog (Hardware related issue).
- **AR Count:** Auto Reset (software (i.e. Apps) related).
- ✓ **important Error Count** Status Screen.
- Verify each item listed.

■ Factory Mode > Control > EDID

1. Remove ALL **HDMI** connections.
2. Factory Mode → Control → **EDID**. (→ **Enter** Key)

Option	EDID
Control	Sub Option
Debug	
SVC	
ADC/WB	
Advanced	

3. Select EDID/OFF to ON. (→ **Right Arrow** Key)

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

4. Select EDID WRITE ALL. (→ **Enter** Key)

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

5. Wait to Success. (→ **Right Arrow** Key)

EDID WRITE ALL	Wait
----------------	------

6. Confirm EDID WRITE ALL Success. (→ **Menu** Key)

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

■ Important New Option Byte “Writing Type” Entry

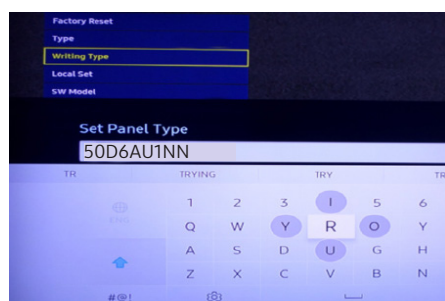
For Quick Entry of Type (Ex. Sample Model)

1. Confirm **Type** from Option Byte Table for your TV.
2. Select **Writing Type**.

Factory Reset	
Type	50D6AU1NN
Writing Type	
Local Set	ED_VIET
SW Model	URU7400
Model Code	UA50RU7200KXXV

◀Set Writing Type▶

3. “Set Panel Type” appears.

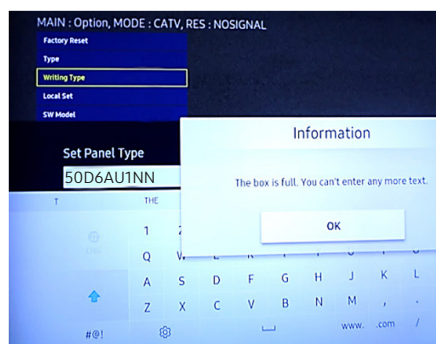


◀Set Writing Type▶

4. Enter exact Model Type using cursors.
5. Select **OK**.
6. Writing **Type Success** appears in the Option Table.
If the model Type you entered doesn't exist it will not load.
If you entered over 10 digits an Information screen box is full appears.

Factory Reset	
Type	50D6AU1NN
Writing Type	Success
Local Set	ED_VIET
SW Model	URU7400
Model Code	UA50RU7200KXXV

◀Writing Type Success▶



◀Writing Type digits exceeded▶

7. Complete rest of Option Byte Table info.
8. Press soft power off with remote to enter settings.



NOTE

When installing the ASSY PCB MAIN BOARD, verify the board is properly positioned in all 4 mounting slots.

■ Important New Option Byte “Model Code” Entry

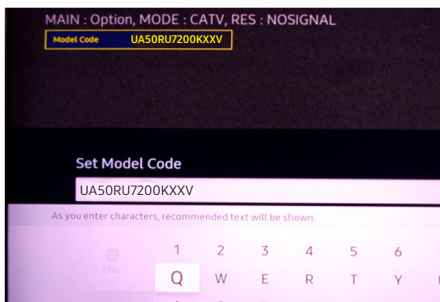
For Quick Entry of Model Code (Ex. Sample Model)

1. Confirm **Model Code** from Option Byte Table for your TV.
2. Select **Model Code**.

Factory Reset	
Type	50D6AU1NN
Writing Type	Success
Local Set	ED_VIET
SW Model	URU7400
Model Code	UA50RU7200KXXV

◀Select Model Code▶

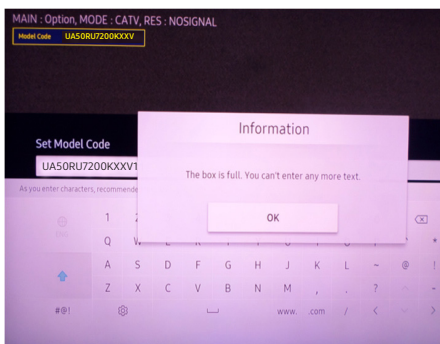
3. “Set Model Code” appears.
4. Enter exact Model Type using cursors.



◀Set Model Code▶

5. If you entered over 19 digits an **Information** screen **box is full** appears.

IMPORTANT: It will accept wrong model code, be sure to enter correct code



◀Model Code digits exceeded▶

Factory Reset	
Type	50D6AU1NN
Writing Type	Success
Local Set	ED_VIET
SW Model	URU7400
Model Code	UA50RU7200KXXV1

◀Wrong Model Code Entry▶

6. Complete rest of Option Byte Table info.
7. Press soft power off with remote to enter settings.

4-9. Factory Mode Adjustments

4-9-1. Entering Factory Mode

- To enter [Service Mode] press the remote-control keys in this sequence :

- With Consumer Remote (IR Remote)

✓ Remote Button :

NTSC POWER OFF → MUTE → 1 → 8 → 2 → POWER ON

PAL POWER OFF → INFO → MENU → MUTE → POWER ON

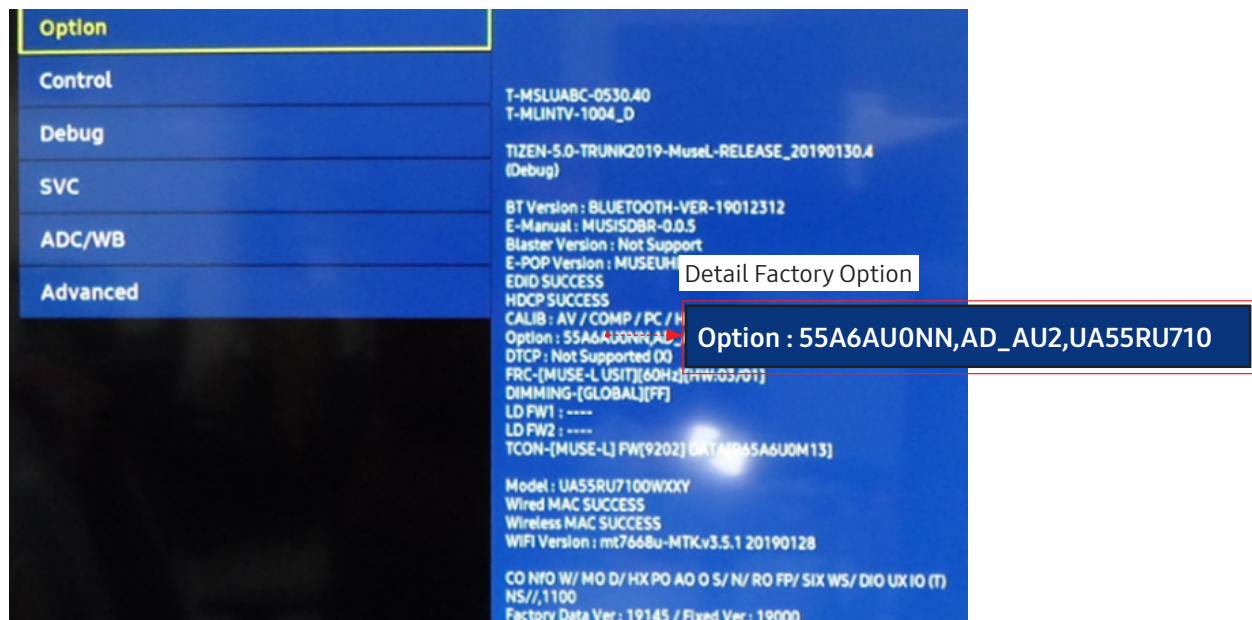
- With Factory Remote

INFO → FACTORY

- The following screen appears.

- Please refer to "Detail Factory Option" page" for details.

- Sample :



4-9-2. 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**".

■ UA43RU7200KXXV

- PANEL / SMPS / MAIN Information

Side Version	AC01					
PANEL			SMPS		MAIN	
Vendor	AUO		Vendor	DYREL	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04776F	CY-NN043HGAVCV/H	43L6AU1NN	BN44-00947H	L43E7N_RDY	BN91-20904D	BN94-14152C

Side Version	BA02					
PANEL			SMPS		MAIN	
Vendor	BOE		Vendor	DYREL	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04777D	CY-NN043HGEV8V/H	43B6AU1NN	BN44-00947H	L43E7N_RDY	BN91-20948C	BN94-14173C

- MAIN Factory Option

Local Set	BOM Model	Front Color	S/W Model
ED_VIET	7200	U-F-RU71-S-43	URU7400

- PBA Factory Option

Panel Type	Local Set	S/W Model	BOM Model
00GD00020	AD_AU2	URU7400	Follow S/W Model

■ UA50RU7200KXXV

• PANEL / SMPS / MAIN Information

Side Version	DB01					
PANEL			SMPS		MAIN	
Vendor	INX		Vendor	SOLUM	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04773K	CY-NN050HGNVHV/H	50D6AU1NN	BN44-00932P	L55E7N_RSM	BN91-20694D	BN94-14020J

Side Version	AA02					
PANEL			SMPS		MAIN	
Vendor	AUO		Vendor	SOLUM	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04772A	NN050HGAV1V/H	50L6AU1NN	BN44-00932P	L55E7N_RSM	BN91-21422T	BN94-14756D

• MAIN Factory Option

Local Set	BOM Model	Front Color	S/W Model
ED_VIET	7200	U-F-RU71-S-50	URU7400

• PBA Factory Option

Panel Type	Local Set	S/W Model	BOM Model
00GD00020	AD_AU2	URU7400	Follow S/W Model

■ UA55RU7200KXXV

- PANEL / SMPS / MAIN Information

Side Version	FB01					
PANEL			SMPS		MAIN	
Vendor	SDC		Vendor	SOLUM	ASSY CHASSIS	ASSY PCB MAIN
Code	Spec	Type	Code	Spec		
BN95-04767A	CY-NN055HGLV2V/H	55A6AU0NN	BN44-00932P	L55E7N_RSM	BN91-20894B	BN94-14489A

- MAIN Factory Option

Local Set	BOM Model	Front Color	S/W Model
ED_VIET	7200	U-F-RU71-S-55	URU7400

- PBA Factory Option

Panel Type	Local Set	S/W Model	BOM Model
00GD00020	AD_AU2	URU7400	Follow S/W Model

4-9-3. Factory Data

■ Option

Factory Menu Name		Data	Range
Factory Reset		-	
Type	43"	43L6AU1NN	43L6AU1NN/...
	50"	50D6AU1NN	50D6AU1NN/...
	55"	55A6AU0NN	55A6AU0NN/...
Writing Type			
Local set		ED_VIET	
SW Model		URU7400	
Model Code		UA**RU7200KXXV	43/50/55
TUNER		-	DVB-T2 (*VN: DVB-T2C)
Ch Table		NONE	
MRT Option			
Engineer Option			

■ Control

Factory Menu Name		Data	Range
EDID			
EDID ON/OFF		OFF	
EDID WRITE ALL		...	
EDID WRITE HDMI		...	
EDID WRITE PC		...	
HDMI EDID Ver		...	
HDMI EDID Port		...	
Sub Option			
RS-232 Jack		UART	
EXT Link Support		ON	
Serial Log On/Off		OFF	
Watchdog		ON	
FRC Monitoring		OFF	
Checksum		0x0000	
Fast Boot In Production		ON	
USB Serial		OFF	
COLOR IC TYPE		RISF315	
Info Link Server Type		development	
Info Link Country		None	

Factory Menu Name	Data	Range
TTX Group	UserOSD	
Visual Test	Diable	
OPTION_SWU		
RF Remocon Support	OFF	
CDD mode	...	
DPMS Support	OFF	
T-CON Device	Muse-L	
RM Server Type	Operating	
LMF LEAVE THRESHOLD	160	
LMF TRIM THRESHOLD	120	
LMF TERM THRESHOLD	80	
EOS Click	OFF	
BP PMS Reset	1	
FAnet Thread	2	
CI CPLD Version	1	
ACM_MC	ON	
UNIQUE TRIPLET	ON	
FS_FAV	OFF	
Private Range USE	ON	
SCSA Support	OFF	
OCM Reboot	ON	
SPI Protection		
FKP Server Type	Default	
OCM Support	ON	
Preloading Support	ON	
Multitasking Support	ON	
Browser preloading Support	FULL	
EXT IR Boot Support	OFF	
APP BOOTING SUPPORT	ON	
NagSam Support	OFF	
EWBS Support	OFF	
MVPD MBR Provider	COMCAST	
cloudscan Always Upload	OFF	
FirstScreen Cach Size	300	
Hotel Option		
Hospitality Mode	OFF	
Power On		

4. Troubleshooting

Factory Menu Name	Data	Range
Menu OSD		
Operation		
Music Mode		
External Source		
Eco Solution		
Cloning		
Shop Option		
Exhibition Mode	OFF	
Peak Mode	ON	
Metadata	ON	
Shopmode Picture Reset	ON	
Asia Option		
Unbalance	OFF	
AF Level adjust	0	
TX Power Level	0	
Mono Last Memory	OFF	
H Shaking	0	
SOUND		
High Devi	OFF	
Carrier_Mute	ON	
Pilot Level High Thld	0x20h	
Pilot Level Low THLD	0x10h	
Carrier2 Amp High ThLD	9	
Carrier2 Amp Low THLD	6	
Amp Volume	0xc4h	
Amp Scale	0x3ch	
Amp EQ Check Sum	0x000057B5	
Subwoofer Support	3	
Woofer Type	0	
Woofer Volume	0xc7h	
Woofer Scale	0x3fh	
Woofer Check sum	0x0000A273	
PEQ Inx	76	
PEQ Test	Ready	
Speaker EQ	ON	
Bottom Checksum	NONE	
Wall Filter Type	3	

Factory Menu Name	Data	Range
SRS Tuning Parm	0	
SPDIF PCM Gain	-9	
AudioDock BT Delay	90	
3D_Glass BT delay	50	
Mic Scale	OFF	
India Sound	0	
Speaker Delay Normal	0	
NTV CU Delay	NORMAL	
Lipsync Inx	1	
Lipsync Checksum	0x4972	
Lipsync USB Test	Ready	
Lipsync BT Checksum	0x0000	
TP volume	0xc4h	
TP Scale	0x6ch	
TP EQ CheckSum	NONE	

■ Debug

Factory Menu Name	Data	Range
Spread Spectrum		
LVDS Spread	0	
DDR Spread	0	
Period	0	
Amplitude	0	
HD DDR SSC ON OFF	OFF	
HD DDR SSC Value	0	
FHD DDR SSC ON OFF	OFF	
FHD DDR SSC Value	4	
UHD DDR SSC ON OFF	ON	
UHD DDR SSC Value	0	
P eBus SSC ON/OFF	OFF	
P eBus Value	0	
LVDS SSC ON/OFF	OFF	
LVDS SSC Value	0	
AP Vx1 SSC ON/OFF	ON	
AP Vx1 Value	12	
N Vx1 SSC ON/OFF	ON	
N Vx1 Value	0	

4. Troubleshooting

Factory Menu Name	Data	Range
FRC Vx1 SSC ON/OFF	OFF	
FRC Vx1 SSC Period	0	
FRC Vx1 SSC Modulation	0	
FRC LVDS ON/OFF	ON	
FRC LVDS SSC MFR	3	
FRC LVDS SSC MRR	2	
FRC DDR SSC ON/OFF	ON	
FRC DDR SSC Period	1	
FRC DDR SSC Modulation	2	
ADV7619 Data strength	1	
ADV7619 Clock strength	1	
ADV7619 H_V_DE strength	1	
AP DDR SSC ON/OFF	OFF	
AP DDR SSC Value	0	
AP USIT SSC ON/OFF	ON	
AP USIT SSC Value	13	
OCM Vx1 SSC ON/OFF	OFF	
OCM Vx1 SSC Value	0	
TCON USIT SSC ON/OFF	BYPASS	
DDR Margin		
A CTRL_OFFSET_0_3	0	
A CTRL_OFFSET_D	0	
B CTRL_OFFSET_0_3	0	
B CTRL_OFFSET_D	0	
BT_ON_OFF	ON	
RF Mute Time	600ms	
Tuner Margin	3	European specifications
FRC		
FRC FDISPLAY ON/OFF	OFF	
3D FDISPLAY ON/OFF	OFF	
PC Mode ON/OFF	OFF	
FRC VX1 RX EQ SETTING	OFF	
FRC VX1 TX Pre_emphasis setting	0	
Netflix OSD Threshold	179	
TCON		
TCON_TEMP READ	34	
TEMP LAST	6000	

Factory Menu Name	Data	Range
DCC VERSION	0x0	
TCON Demura Bypass	OFF	
TCON FDisplay	OFF	
Panel Code 1		
Panel Code 2		
Panel Revision		
Panel Menu Week		
Panel S/N 1		
Panel S/N 2		
Panel S/N 3		
Panel S/N 4		
MPEG Margin	20	
H.264 Margin	15	
CAM Wait Time	15	
Voice Debug	OFF	
Power Management		
Cert Option	Waiting	
RM_BIST_DTV	0	
RM_BIST_ATV	0	
RM_BIST_CABLE	0	
SerDES Check		
SerDES Tuner	Failure	
HDMI SW	Failure	
HDMI Rx	Failure	
MP Failure		
Main SerDES	Failure	
Jack SerDES	Failure	
Stress Mode	OFF	
Log Analyzer	ON	
Error Popup On/Off	OFF	
DeadLock KILL	OFF	
CES Option	OFF	
CES Convergence Option	OFF	
CES ATSC 3_0	OFF	
CES OOB E MVPD SUPPORT	OFF	
BT DUT	OFF	

4. Troubleshooting

Factory Menu Name	Data	Range
BT Throughput	Failure	
Reproduce Module	ON	
21_9		
L-DETECT STABLE TIME	7	
L-DETECT UNSTABLE TIME	3	
L-DETECT CAPTION THRESHOLD	720	
L-DETECT RAGION THRESHOLD	720	
L-DETECT B-LEVEL THRESHOLD	32	
L-DETECT USB SUPPORT	0	
DB Download		
MRT Option Dump	Failure	
Picture Data Dump	Failure	
VCONF Dump	Failure	
Read Eco Sensor Data	0	
No Signal Power OFF	ON	
Alert Option	ON	
Default HDMI1 Booting	OFF	

■ SVC

Factory Menu Name	Data	Range
Self Test(for HW)		* the Output of test pattern from each IC
Info		
Reset		
Apps Reset		
SVC Reset		
SPI Flash Reset		
Data Sync Reset		
Factory Data Reset		
OPTION_HDMI		
DVI/HDMI SOUND	Auto	
HDMI HOT PLUG	Disable	
HOTPLUG SWITCHING	Auto	
HOT PLUG DURATION	800ms	
CLK TERM DURATION	300ms	
HDMI FLT CNT SIG	0ms	
HDMI FLT CND SIG2		

Factory Menu Name	Data	Range
HDMI FLT CNT LOS	0ms	
UNSTABLE BAN CNT	1250ms	
HDMI ROBIN	0	
HDMI Callback	ON	
HDMI CTS Thld	0	
HDMI CTS Cnt1	0	
HDMI EQ	0	
HDMI Write Type	0	
HDMI Switch	0	
DVI SET TIME	0	
H Write	0	
HDMI Sync	0	
HDMI 3D DET	1	
HOT PLUG OFF HOLD TIME	600ms	
HDMI MUTE TIME	0ms	
HDMI NFST UNMUTE TIME	800ms	
HDMI FST UNMUTE TIME	0ms	
REPEA AUDIO PKT	OFF	
HDMI Stable Count	3	
HDMI HDCP EN	OFF	
HDMI HDCP EN FLAG	85	
POWER ON FLT CNT LOS		
HDCP UPDATE SPI	READY	
SPI VERSION	0	
HdmiRx EQ	0	
HDMI TMDS ERR DET	1	
DVB CI		
TS Clock delay TC	0	
TS Clock delay S	0	
CI Control Buf ON	ON	
TS Clock delay CPU	1	
TS Clock delay TC2	0	
TS Clock delay S2	0	
CI Control Buf ON2	1	
TS Clock delay CPU2	0	
Test Pattern		
Scaler Pattern	OFF	
US Post Pattern	OFF	

4. Troubleshooting

Factory Menu Name	Data	Range
FRC Pre Pattern	0	
FRC Post Pattern	0	
SOC TCON Pattern	0	
SOC TCON Pattern Level	255	
FRC OSD Pre Pattern	0	
FRC OSD Post Pattern	0	
FRC2 Pre Pattern	0	
FRC2 Post Pattern	0	
SOC TCON2 Pattern	0	
SOC TCON2 Pattern Level	255	
Upgrade		
T-CON DATA UPGRADE		
T-CON FW UPGRADE		
T-CON CheckSum		
T-CON2 Usb Download		
T-CON2 CheckSum		
PANEL EEPROM UPGRADE		
PANEL FLASH UPGRADE		
Logic Usb D/L		
SUBMICOM UPGRADE	.	* Upgrade Sub-Micom Program
SUBMICOM JP USB UPGRADE		
BT UPGRADE	.	* Upgarde BT(There is upgrade program in
Main-Image)		
BT FREEPAIRING		
Function Upgrade		
FRC3D FW UPGRADE		
FRC3D SRP UPGRADE		
FRC3D LD UPGRADE		
FRC2 3D FW UPGRADE		
Camera Upgade	.	* Upgarde Camera module(There is upgrade program in Main-Image)
Mic Upgrade	.	* Upgarde MIC in Camera module(There is upgrade program in Main-Image)
Jump UPGRADE		
IR Blaster Upgrade		
IR Blaster delay time		
NTV CU UPDATE		
UD LDC PROFILE UPGRADE		

Factory Menu Name	Data	Range
Pic Data USB Update		
Audio Data USB Update		
Eco Data USB Update		
CI CPLD Upgrade		
SC ADK Upgrade		
Other Setting		
Delete S/N		
IPERF	Stopped	
Expert		
CAL Data Backup	...	
CAL Data Restore		
MICOM POWER OFF	ON	
NTV CU FW VER	0	
ATV IF AGC SPEED	0	
Upgrade UHD OSD Test	0	
Main USB Path		
JackP USB Path		
Source Direct On/Off	OFF	
Apps Update		
Auto Power	LAST POWER	
SMCE Control		
Motor Test		
Cube Test		
V APP	OFF	
Picture Direct On/Off	OFF	
SVC Panel	ORIGINAL	
S/N		
Serial number		
Writing S/N		

■ ADC/WB

Factory Menu Name	Data	Range
ADC		
AV Calibration		
Comp Calibration		
PC Calibration		
HDMI Calibration		

4. Troubleshooting

Factory Menu Name	Data	Range
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	128	
2nd_G_L	128	
2nd_B_L	128	
2nd_R_H	69	
2nd_G_H	69	
2nd_B_H	69	
White Balance		
R-Offset	128	
G-Offset	128	
B-Offset	128	
R-Gain	128	
G-Gain	128	
B-Gain	128	
WB-W2_R_Offset	128	
WB_W2_B_Offset	128	
WB_W2_R_Gain	136	
WB_W2_B_Gain	76	
WB_N_R_Offset	128	
WB_N_B_Offset	128	
WB_N_R_Gain	131	
WB_N_B_Gain	119	
MGA		
MGA On/Off	OFF	
R1_Gain		
G1_Gain		
B1_Gain		
R2_Gain		
G2_Gain		
B2_Gain		
R3_Gain		

Factory Menu Name	Data	Range
G3_Gain		
B3_Gain		
R4_Gain		
G4_Gain		
B4_Gain		
R5_Gain		
G5_Gain		
B5_Gain		
R6_Gain		
G6_Gain		
B6_Gain		
R7_Gain		
G7_Gain		
B7_Gain		
R8_Gain		
G8_Gain		
B8_Gain		
R9_Gain		
G9_Gain		
B9_Gain		
R10_Gain		
G10_Gain		
B10_Gain		
SPI White Balance		
SPI White Balance On/Off		
SPI R-Offset		
SPI G-Offset		
SPI B-Offset		
SPI R-Gain		
SPI G-Gain		
SPI B-Gain		
SPI N Rgain		
SPI N Bgain		
SPI N Roffset		
SPI N Boffset		
SPI W2 Rgain		
SPI W2 Bgain		

Factory Menu Name	Data	Range
SPI W2 Roffset		
SPI W2 Boffset		
SPI MGA		
WB Data to SPI		

■ Advanced

4-10. Replacing Main Board

When replacing Main Board, certain values needs to be manually input in Factory menu to complete the replacement.

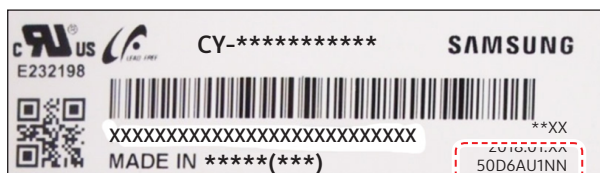
■ Steps to Replace Main Board

1. Enter Factory Menu (Use Factory Remote only).
 - Power TV on : **Select TV Source > Info/Factory > Option**
2. Change Each value according to the TV Model.
 - **Type, Local Set, SW Model, BOM Model** must be set to correct value.

- **Sample Model : UA50RU7200KXXV**

Type

- Check Panel label (located in the back chassis of panel) and choose same Type code from the list.



Type" in Panel Label

Home	Updates	Exit
Factory Reset		
Type	50D6AU1NN	
Writing Type		
ocal Set	ED_VIET	
SW Model	URU7400	
Model Code	UA50RU7200KXXV	
TUNER	-	
Ch Table	-	
MRT Option		
Production Option		
Engineer Option		
55A1QU7QN	55L1QU7QN	
75L1QU7QN	55A1QU8XN	
55L1QU7QN	55A1QU7QN	
65D6AU0NN	50D6AU1NN	
65A1QU7QN	65L1QU7QN	
65A1QU8XN	65L1QU8XN	
55A6AU0NN	55L6AU0NN	

<Type list in the Factory Menu>

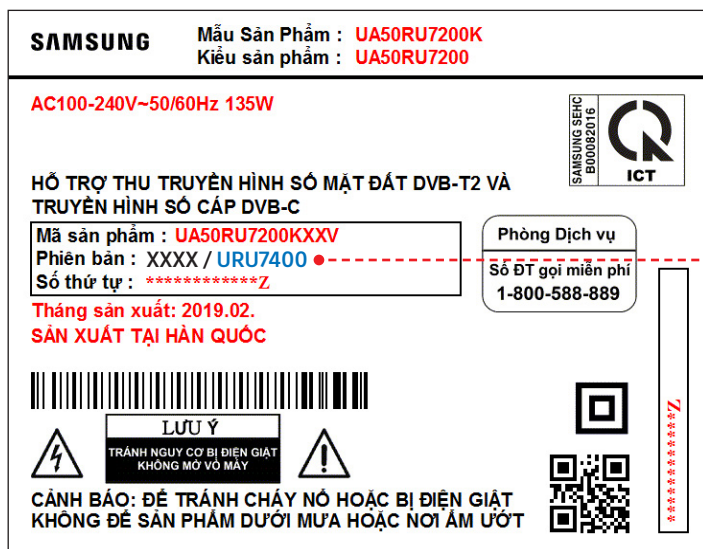
3. Change Each value according to the TV Model.

Local Set

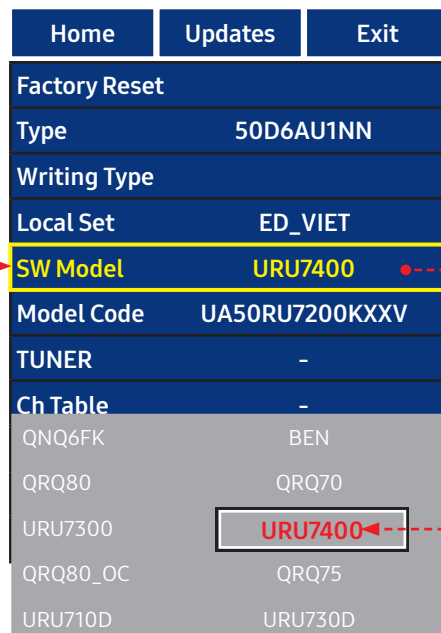
- Set according to Local region(country).

SW Model

- Check Label Rating of the TV(located on the Rear Cover).
 - SW Model is digits **after "/"** in **Version No.**
 - Choose same SW Model code from the list.



<"SW Model" in Label Rating>



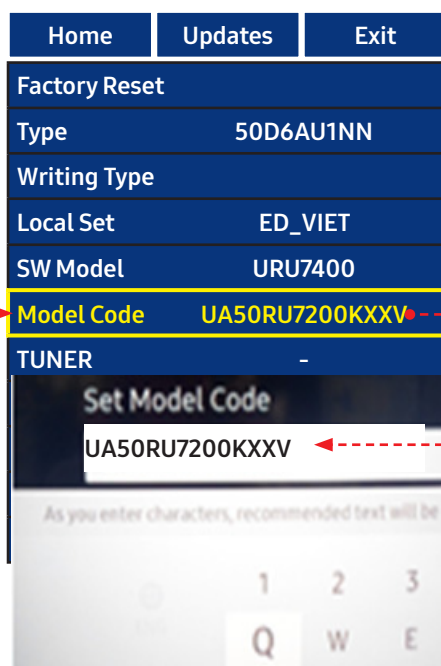
<SW Model list in the Factory Menu>

Model Code

- 6th~9th Digit of Model Code.
 - Check 6th~9th digit of Model code and type in.
 - e.g.) Model Code : **UA50RU7200KXXV**



<"BOM Model" in Label Rating>



<Model Code input in Factory Menu>

4-11. White Balance

4-11-1. Calibration

1. Into the Factory Mode.
2. Select **ADC/WB** menu.
3. Select **ADC** menu.

Option	AV Calibration
Control	Comp Calibration
Debug	PC Calibration
SVC	HDMI Calibration
ADC/WB	
Advanced	

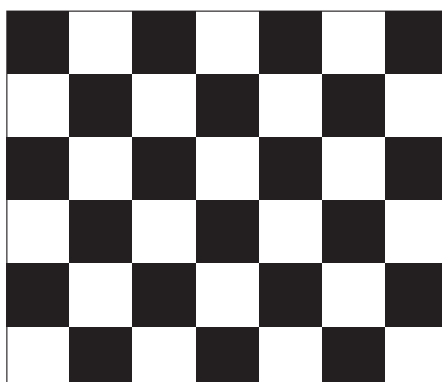
4-11-2. Service Adjustment

You must perform Calibration in the Lattice Pattern before adjusting the White Balance.

■ Color Calibration

- Adjust Specification

Source	Setting Mode	Pattern	Use Equipment
HDMI	1280 x 720@60 Hz	Pattern #24 (Chess Pattern)	CA210 & Master MSPG925 Generator



(Chess Pattern)

- Use other equipment only after comparing the result with that of the Master equipment.

Input mode	Calibration	Pattern
CVBS IN (Model_#1)	Perform in NTSC B&W Pattern #24	Lattice
Component IN (Model_#6)	Perform in 720p B&W Pattern #24	Lattice
PC Analog IN (Model_#21)	Perform in VESA XGA (1024x768) B&W Pattern #24	Lattice
HDMI IN	Perform in 720p B&W Pattern #24	Lattice

Method of Color Calibration (AV)

1. Apply the NTSC Lattice (N0. 3) pattern signal to the AV IN1 port.
2. Press the Source key to switch to "AV1" mode.
3. Enter Service mode.
4. Select the "ADC" menu.
5. Select the "AV Calibration" menu.
6. In "AV Calibration Off" status, press the "▶" key to perform Calibration.
7. When Calibration is complete, it returns to the high-level menu.
8. You can see the change of the "AV Calibration" status from Failure to Success.

Method of Color Calibration (Component)

1. Apply the 720p Lattice (N0. 6) pattern signal to the Component IN1 port.
2. Press the Source key to switch to "Component1" mode.
3. Enter Service mode.
4. Select the "ADC" menu.
5. Select the "Comp Calibration" menu.
6. In "Comp Calibration Off" status, press the "▶" key to perform Calibration.
7. When Calibration is complete, it returns to the high-level menu.
8. You can see the change of the "Comp Calibration" status from Failure to Success.

Method of Color Calibration (PC)

1. Apply the VESA XGA Lattice (N0. 21) pattern signal to the PC IN port.
2. Press the Source key to switch to "PC" mode.
3. Enter Service mode.
4. Select the "ADC" menu.
5. Select the "PC Calibration" menu.
6. In "PC Calibration Off" status, press the "▶" key to perform Calibration.
7. When Calibration is complete, it returns to the high-level menu.
8. You can see the change of the "PC Calibration" status from Failure to Success.

Method of Color Calibration (HDMI)

1. Apply the 720p Lattice (N0. 6) pattern signal to the HDMI1/DVI IN port.
2. Press the Source key to switch to "HDMI1" mode.
3. Enter Service mode.
4. Select the "ADC" menu.
5. Select the "HDMI Calibration" menu.
6. In "HDMI Calibration Off" status, press the "▶" key to perform Calibration.
7. When Calibration is complete, it returns to the high-level menu.
8. You can see the change of the "HDMI Calibration" status from Failure to Success.

4-11-3. Adjustment

1. Into the Factory Mode.
2. Select **ADC/WB** menu.
3. Select **White Balance** menu.

Option			
Control			
Debug			
SVC		(Low Light)	(Hight Light)
ADC/WB	White Balance	Sub Brightness	Sub Contrast
Advanced		R offset	R gain
		G offset	G gain
		B offset	B gain

4-12. LED Indicator Test

4-12-1. Diagnostic Methods - **Flashing** Symptom Codes

After TV is "COLD BOOTED" (AC Power Re-Cycled), Flashing symptom codes will operate and show the defect block with number of LED flash.

Place a mirror or phone directly under Standby LED to observe flashing.

■ Defect type and Number of LED flash

Defect Block	Detection Method	Number of LED Flash	
OCB	-	LED off	No Blinking
Main Board	<ul style="list-style-type: none"> WDC -> Reboot -> Flash Error -> Flash 	1 time	<p>Blinks 1 time when cold boot</p> <p>1 set 4 sec x 5 time</p>
Panel	<ul style="list-style-type: none"> Error -> Reboot -> Flash Error -> Flash(after 10cm) 	2 time	<p>4 sec(10min) x 5 time</p>
SMPS	<ul style="list-style-type: none"> Error -> Reboot -> Flash Error -> Flash 	3 time	<p>4 sec x 5 time</p>
Bluetooth / WIFI	<ul style="list-style-type: none"> Cold Boot -> 30 sec after module starts 	4 time	<p>20~30sec x 5 time</p>
AOC	<ul style="list-style-type: none"> Cold Boot -> 30 sec after module starts Signal level below threshold 	5 time	<p>4 sec(30sec) x 5 time</p> <p>↑ Cold Boot</p>

How to COLD BOOT the TV

- Method 1) Unplug and re-plug in the power cord.
- Method 2) While TV is on, Press & Hold Power Button of TV remote for 4 seconds. TV will turn off and on by itself.

4-13. Updating the TV's Software

View your TV's software version and update it if necessary.



DO NOT turn off the TV's power until the update is complete. The TV will turn off and on automatically after completing the software update. Video and audio settings will be reset to their defaults after a software update.

-  >  **Settings** > **Support** > **Software Update**

■ Updating through the Internet

-  >  **Settings** > **Support** > **Software Update** > **Update Now**



Updating from the Internet requires an active Internet connection.

■ Updating through a USB device

-  >  **Settings** > **Support** > **Software Update** > **Update Now**

After downloading the update file from the Samsung website and storing it on a USB device, connect the USB device to the TV to update.



To update using a USB device, download the update package from Samsung.com to your computer. Then, save the update package in the USB device's top-level folder. Otherwise, the TV will not be able to locate the update package.

■ Updating the TV automatically

-  >  **Settings** > **Support** > **Software Update** > **Auto Update**

If the TV is connected to the Internet, you can have the TV update its software automatically while you are watching the TV. When the background update is completed, it is applied the next time the TV is turned on.

If you agree to the Smart Hub terms and conditions, **Auto Update** is set to **On** automatically. If you want this function disabled, use the Select button to turn it off.



This function may take a longer time if another network function is running concurrently.

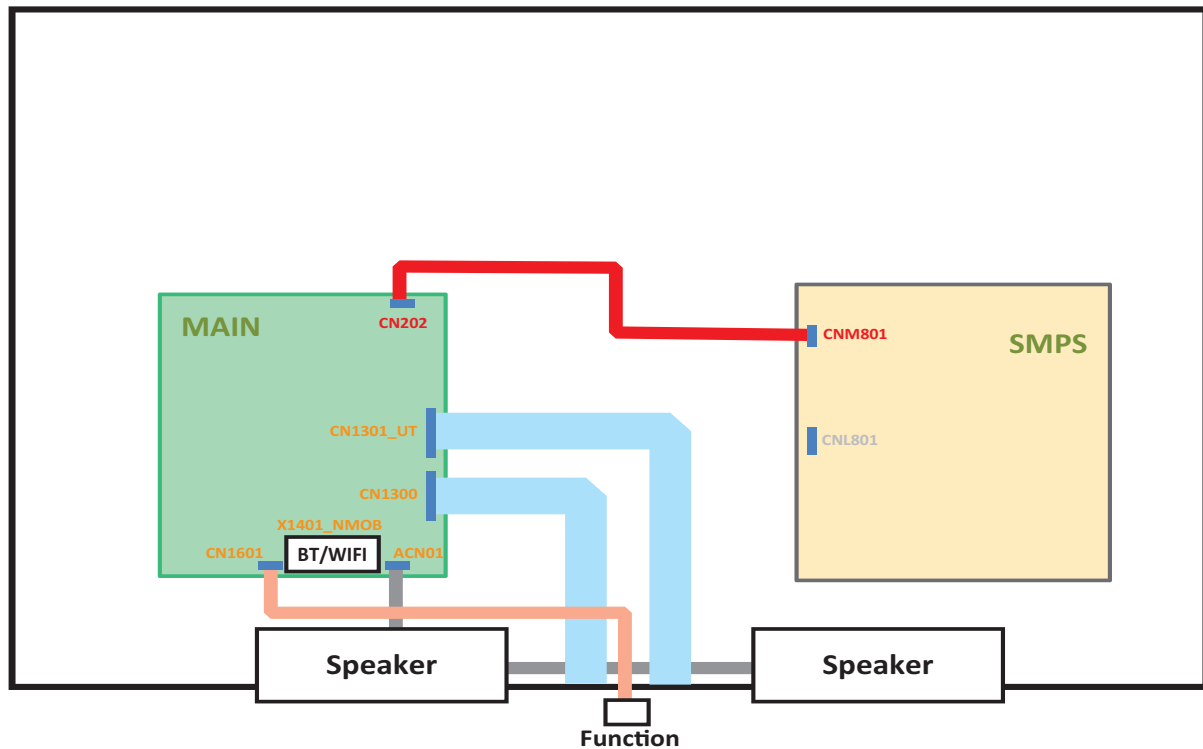


This function requires an Internet connection.

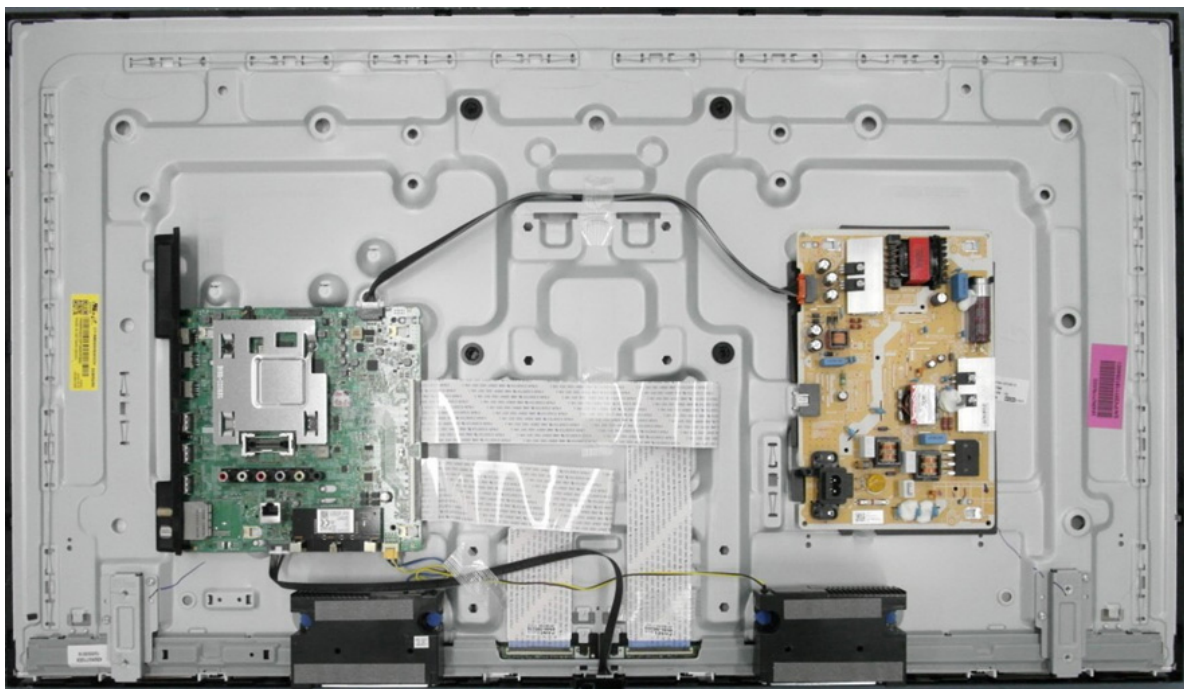
5. Wiring Diagram

5-1. Wiring Diagram

- All inches

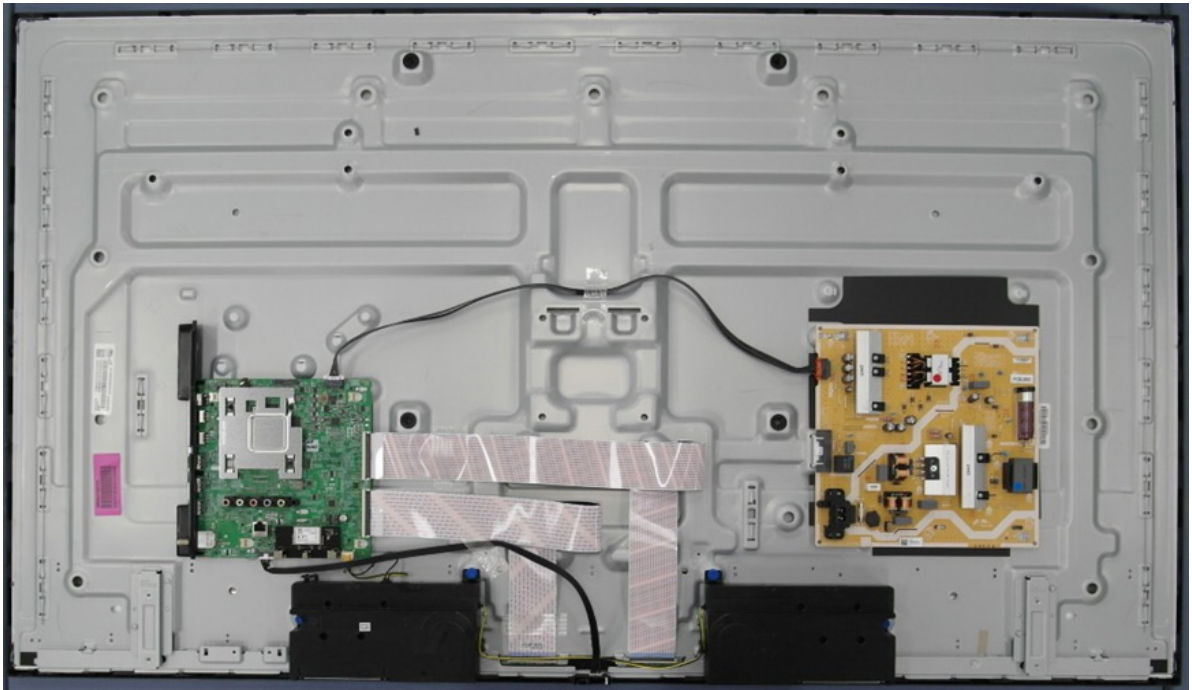


- 43 inches



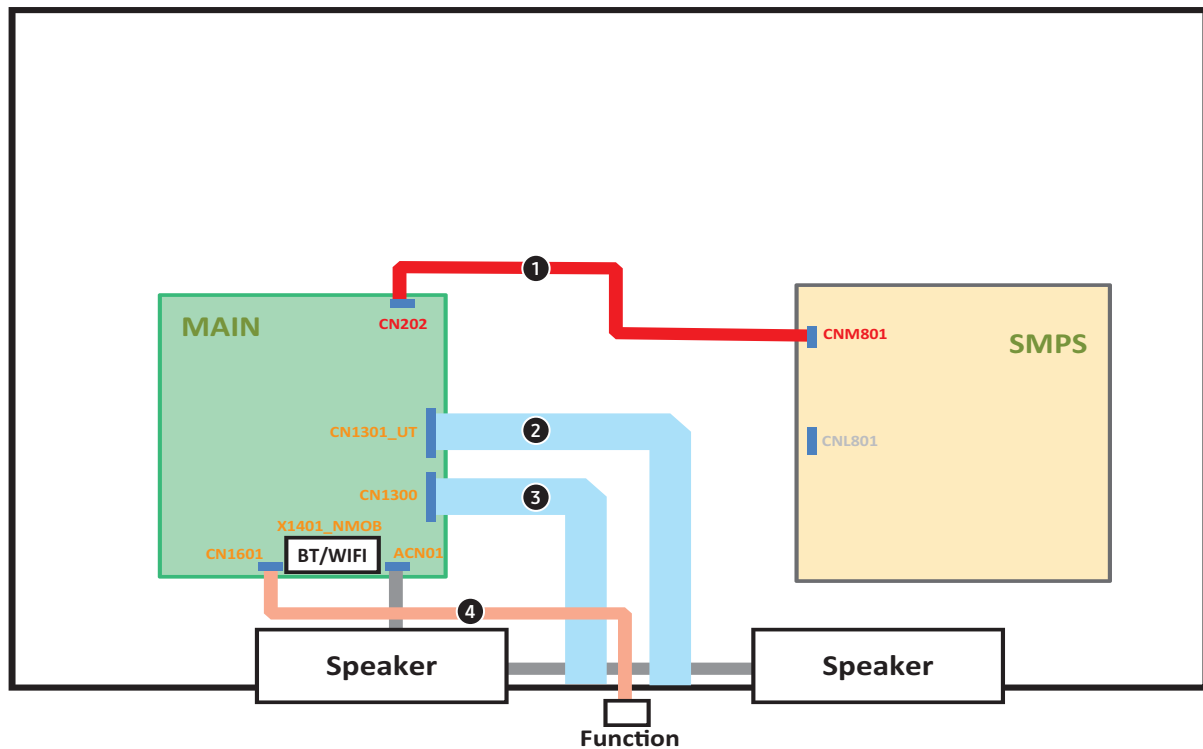
5. Wiring Diagram


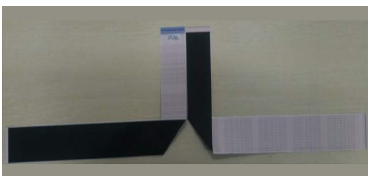
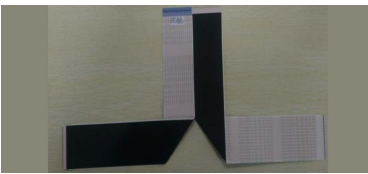

- 50/55 inches



■ Cables

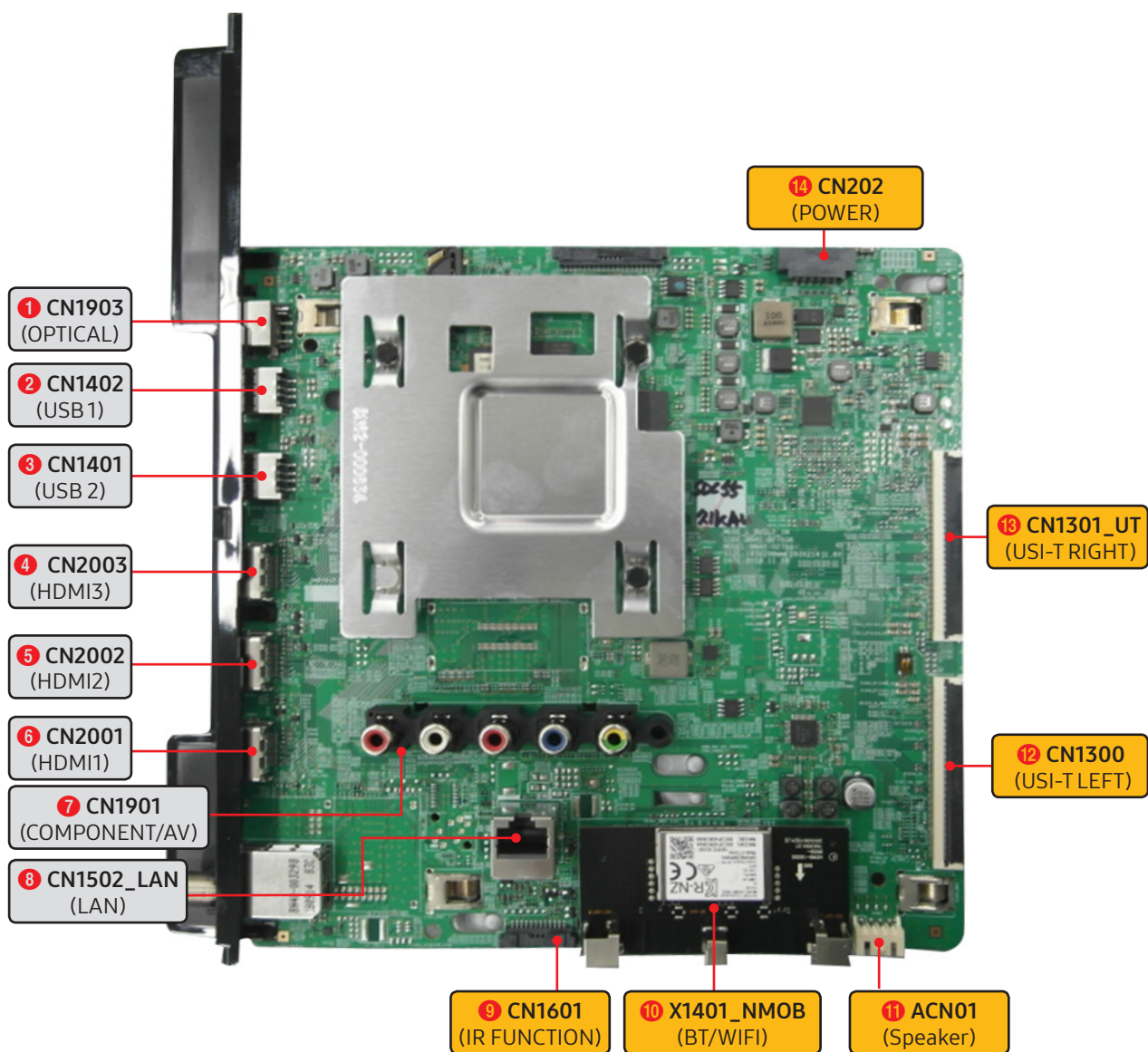
- All inches



Part Name & Connection		Part Spec		Code No.	
①	LEAD CONNECTOR-POWER SMPS - MAIN		12P/400	43"	BN39-02217A
				50"	BN39-02217A
				55"	BN39-02217A
②	FFC CABLE Main - Source B		96P/L500	43"	BN96-39820G
				50"	BN96-39820F
				55"	BN96-39820F
③	FFC CABLE Main - Source B		96P/L350	43"	BN96-39821E
				50"	BN96-39821F
				55"	BN96-39821F
④	LEAD CONNECTOR-SUB ASSY Main - FUNCTION		12P/L400	43"	BN39-02457A
				50"	BN39-02457A
				55"	BN39-02457A

5-2. Connector

5-2-1. Main Board



■ Main Board Pin Map

1 CN1903 (OPTICAL)				3 CN1401 (USB2)			
1	SPDIF_OUT	2	B5V_PW	1	USB2_VCC_5V_PW	2	D-
3	GND			3	D+	4	GND

2 CN1307 (USB1)			
1	USB1_VCC_5V_PW	2	D-
3	D+	4	GND

4 CN2003 (HDMI3)

1	HDMI1_RX2+_HDMI	2	GND
3	HDMI1_RX2-_HDMI	4	HDMI1_RX1+_HDMI
5	GND	6	HDMI1_RX1-_HDMI
7	HDMI1_RX0+_HDMI	8	GND
9	HDMI1_RX0-_HDMI	10	HDMI1_RX_CLK+_IN_HDMI
11	GND	12	HDMI1_RX_CLK-_IN_HDMI
13	CEC	14	GND
15	HDMI1_SCL_DDC	16	HDMI1_SDA_DDC
17	HDMI1_INS_DET	18	HDMI1_5V_PW
19	HDMI1_HPD		

5 CN2002 (HDMI2)

1	HDMI2_RX2+_HDMI	2	GND
3	HDMI2_RX2-_HDMI	4	HDMI2_RX1+_HDMI
5	GND	6	HDMI2_RX1-_HDMI
7	HDMI2_RX0+_HDMI	8	GND
9	HDMI2_RX0-_HDMI	10	HDMI2_RX_CLK+_IN_HDMI
11	GND	12	HDMI2_RX_CLK-_IN_HDMI
13	CEC	14	GND
15	HDMI2_SCL_DDC	16	HDMI2_SDA_DDC
17	HDMI2_INS_DET	18	HDMI2_5V_PW
19	HDMI2_HPD		

6 CN2001 (HDMI1)

1	HDMI3_RX2+_HDMI	2	GND
3	HDMI3_RX2-_HDMI	4	HDMI3_RX1+_HDMI
5	GND	6	HDMI3_RX1-_HDMI
7	HDMI3_RX0+_HDMI	8	GND
9	HDMI3_RX0-_HDMI	10	HDMI3_RX_CLK+_IN_HDMI
11	GND	12	HDMI3_RX_CLK-_IN_HDMI
13	CEC	14	GND
15	HDMI3_SCL_DDC	16	HDMI3_SDA_DDC
17	HDMI3_INS_DET	18	HDMI3_5V_PW
19	HDMI3_HPD		

7 CN1901 (COMPONENT/AV)

1	GND	2	COMP_Y / AV_IN_CVBS
3	IDENT_AV	4	GND
5	COM_PB	6	IDENT_COMP
7	GND	8	COM_PR
9	TEST_PR	10	GND
11	COMP_AV_SL_IN	12	TEST_SL
13	GND	14	COMP_AV_SR_IN
15	TEST_SR		

8 CN1502_LAN (LAN)

1	EPHY_TXP_LAN	2	A1.8V_PW
3	EPHY_TXN_LAN	4	EPHY_RXP_LAN
5	A1.8V_PW	6	EPHY_RXN_LAN
7		8	GND

9 CN1601 (IR FUNCTION)

1	IR	2	GND
3	A3.3V_PW	4	SENSOR_SCL_I2C
5	SENSOR_SDA_I2C	6	KEY_INPUT1
7		8	LED_STB_OUT
9	IR_OUT_1	10	IR_OUT_2
11	GND	12	

10 X1401_MOB (WIFI/BT)

1	UART_TX	2	GND
3	WIFI_WOW	4	BT_WAKE
5	A1.3V_PW	6	SW_POWER_OUT
7	D+_USB_WIFI	8	D-_USB_WIFI
9	GND	10	A5V_PW
11	WIFI_PHY_ON		

11 ACN01 (Speaker)

1	MID_R+	2	MID_R-
3	MID_L+	4	MID_L-

5. Wiring Diagram

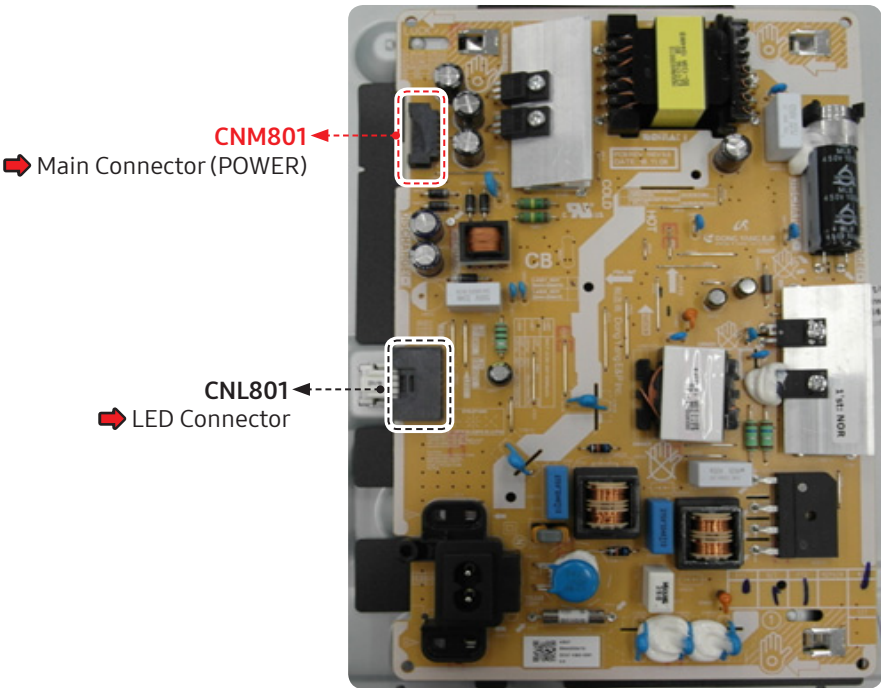
12 CN1300 (USI-T LEFT)							
1	FB_TRDY_1	2	GND	3	PANEL_3.3V_PW	4	PANEL_3.3V_PW
5	FB_VCOM1_2_CELL	6	VCOM1_CELL	7	VCOM2_CELL	8	VCOM3_CELL
9	VSS_OUT1_CELL	10	VOFF_-11V_PW	11	VGHD_30V_PW	12	CKV1_GOA
13	CKV2_GOA	14	CKV3_GOA	15	CKV4_GOA	16	CKVB1_GOA
17	CKVB2_GOA	18	CKVB3_GOA	19	CKVB4_GOA	20	STVP1_GOA
21	STVP1_GOA	22	ST_GOA	23	DEMURA_SSPFRM_SPI	24	DEMURA_SSPLCK_SPI
25	DEMURA_SSPHOLD_SPI	26	DEMURA_SSPWP_SPI	27	DEMURA_SSPRXD_SPI	28	DEMURA_SSPTXD_SPI
29	DEMURA_SSPFRM_SPI	30	SFC2	31	GND	32	TX_CH0_A+_USIT
33	TX_CH0_A-_USIT	34	GND	35	TX_CH0_B+_USIT	36	TX_CH0_B-_USIT
37	GND	38	TX_CH1_A+_USIT	39	TX_CH1_A-_USIT	40	GND
41	TX_CH1_B+_USIT	42	TX_CH1_B-_USIT	43	GND	44	TX_CH2_A+_USIT
45	TX_CH2_A-_USIT	46	GND	47	TX_CH2_B+_USIT	48	TX_CH2_B-_USIT
49	GND	50	TX_CH3_A+_USIT	51	TX_CH3_A-_USIT	52	GND
53	TX_CH3_B+_USIT	54	TX_CH3_B-_USIT	55	GND	56	TX_CH4_A+_USIT
57	TX_CH4_A-_USIT	58	GND	59	TX_CH4_B+_USIT	60	TX_CH4_B-_USIT
61	GND	62	TX_CH5_A+_USIT	63	TX_CH5_A-_USIT	64	GND
65	TX_CH5_B+_USIT	66	TX_CH5_B-_USIT	67	GND	68	TX_CH6_A+_USIT
69	TX_CH6_A-_USIT	70	GND	71	TX_CH6_B+_USIT	72	TX_CH6_B-_USIT
73	GND	74	TX_CH7_A+_USIT	75	TX_CH7_A-_USIT	76	GND
77	TX_CH7_B+_USIT	78	TX_CH7_B-_USIT	79	GND	80	SFC1
81	GND	82	PI_DSF_MON	83	PORTNUM	84	VCCA_1.9V_PW
85	VCCB_1.8V_PW	86	LL_CELL	87	LH_CELL	88	HAVDD_8.5V_PW
89	UL_CELL	90	UH_CELL	91	AVDD_17V_PW	92	AVDD_17V_PW
93	AVDD_17V_PW	94	AVDD_17V_PW	95	N.C.	96	FB_TRDY_2

13 CN1301_UT (USI-T RIGHT)							
1	FB_TRDY_2	2	N.C.	3	AVDD_17V_PW	4	AVDD_17V_PW
5	AVDD_17V_PW	6	AVDD_17V_PW	7	UH_CELL	8	UL_CELL
9	HAVDD_8.5V_PW	10	LH_CELL	11	LL_CELL	12	VCCB_1.8V_PW
13	VCCA_1.9V_PW	14	PI_DSF_MON	15	PORTNUM	16	GND
17	N.C.	18	N.C.	19	N.C.	20	GND
21	SFC1	22	GND	23	TX_CH8_A+_USIT	24	TX_CH8_A-_USIT
25	GND	26	TX_CH8_B+_USIT	27	TX_CH8_B-_USIT	28	GND
29	TX_CH9_A+_USIT	30	TX_CH9_A-_USIT	31	GND	32	TX_CH9_B+_USIT
33	TX_CH9_B-_USIT	34	GND	35	TX_CH10_A+_USIT	36	TX_CH10_A-_USIT
37	GND	38	TX_CH10_B+_USIT	39	TX_CH10_B-_USIT	40	GND
41	TX_CH11_A+_USIT	42	TX_CH11_A-_USIT	43	GND	44	TX_CH11_B+_USIT
45	TX_CH11_B-_USIT	46	GND	47	TX_CH12_A+_USIT	48	TX_CH12_A-_USIT
49	GND	50	TX_CH12_B+_USIT	51	TX_CH12_B-_USIT	52	GND
53	TX_CH13_A+_USIT	54	TX_CH13_A-_USIT	55	GND	56	TX_CH13_B+_USIT
57	TX_CH13_B-_USIT	58	GND	59	TX_CH14_A+_USIT	60	TX_CH14_A-_USIT
61	GND	62	TX_CH14_B+_USIT	63	TX_CH14_B-_USIT	64	GND
65	TX_CH15_A+_USIT	66	TX_CH15_A-_USIT	67	GND	68	TX_CH15_B+_USIT
69	TX_CH15_B-_USIT	70	GND	71	SFC2	72	GND
73	ST_GOA	74	LC1_VGP1_GOA	75	STVP1_GOA	76	CKVB4_GOA
77	CKVB3_GOA	78	CKVB2_GOA	79	CKVB1_GOA	80	CKV4_GOA
81	CKV3_GOA	82	CKV2_GOA	83	CKV1_GOA	84	N.C.
85	VOFF_-11V_PW	86	VSS_OUT2_CELL	87	N.C.	88	VCOM3_CELL
89	FB_VCOM3_CELL	90	VCOM2_CELL	91	VCOM1_CELL	92	BLINK_O
93	PANEL_3.3V_PW	94	PANEL_3.3V_PW	95	FB_TRDY_3	96	FB_TRDY_3

14 CN202 (POWER)			
1	GND	2	GND
3	A13V_PW	4	GND
5	A13V_PW	6	SW_POWER_OUT
7	A13V_PW	8	PWM_DIMMING_OUT1
9	A13V_PW	10	OVD_ONOFF_LD_SDA_I2C
11	GND	12	ANA_DIMMING

5-2-2. SMPS Board

- 43 inches

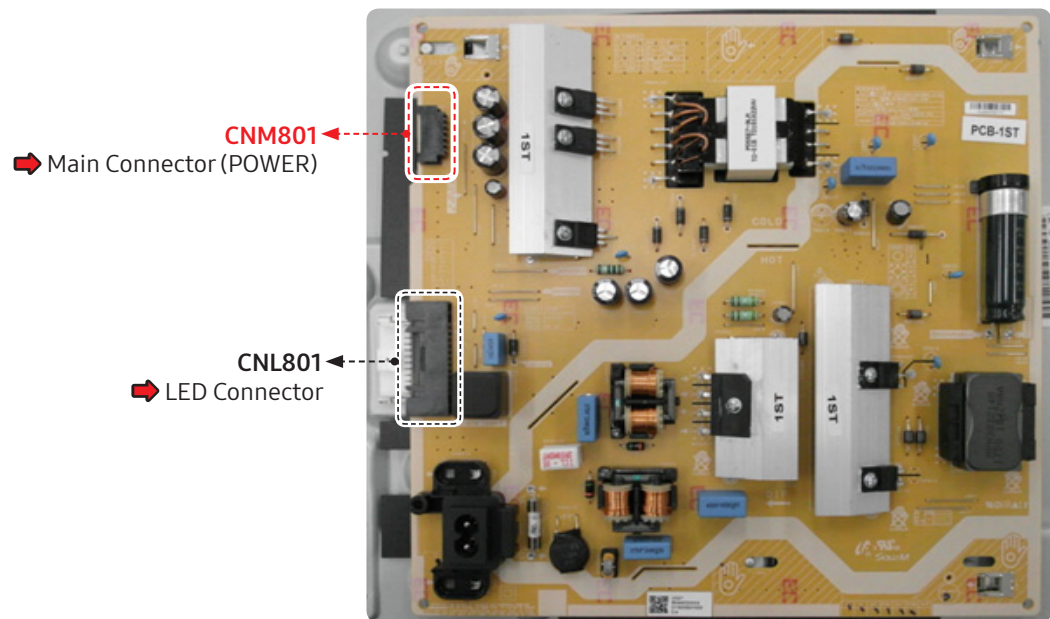


■ SMPS Board Pin Map

CNM801 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	BLU_PWM
7	A13V	8	POWER_On/Off	9	A13V	10	GND	11	GND	12	GND

CNL801 (LED Connector)							
1	1+	2	1-	3	2+	4	2-

- 50/55 inches



■ SMPS Board Pin Map

CNM801 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	BLU_PWM
7	A13V	8	POWER_On/Off	9	A13V	10	GND	11	GND	12	GND

CNL801 (LED Connector)											
1	1+	2	1-	3	2+	4	2-	5	3+	6	3-
7	4+	8	4-	9	N.C	10	N.C	11	N.C	12	N.C