

SAMSUNG

UHD TV

Project : URU8000F

Chassis : UWD91

Model : UA49RU8000K

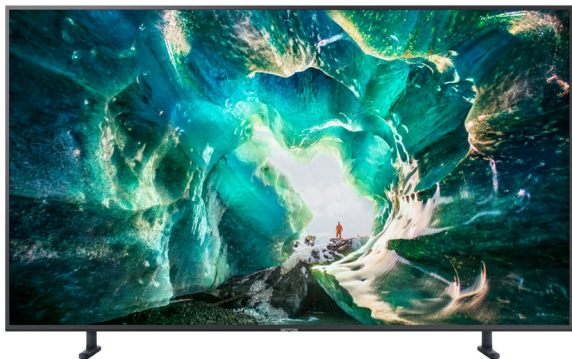
UA55RU8000K

UA65RU8000K

UA82RU8000K

SERVICE Manual

UHD TV



UA**RU8000K

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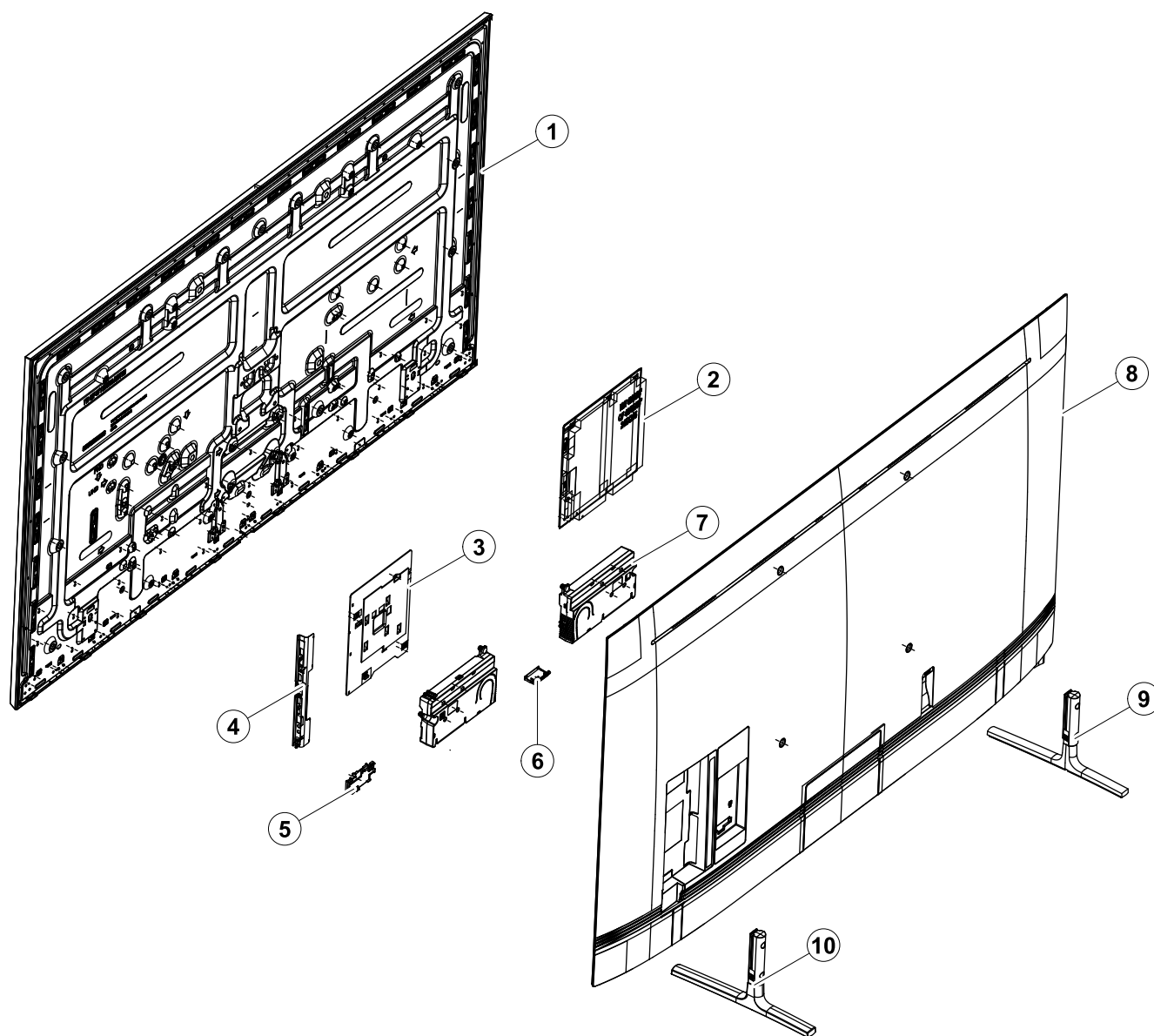


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1. Exploded View & Part List

Exploded View



Parts List

No.	Lvl.	Loc.	Material Code	Description & Specification	SNA	Qty.
1	1		BN95-05519A	PRODUCT LCD-SDC; CY-NR049HGLV1V/H,RU8000,	SA	1
2	2		BN44-00932L	DC VSS-PD BOARD; L55E8N_RSM,AC/DC,169W,AC	SA	1
3	2	M0014	BN94-14155A	ASSY PCB MAIN; URU8000F	SA	1
4	2		BN63-18049D	COVER-TERMINAL SIDE; 65QRQ60T,HIPS,V-0,BK	SA	1
5	2		BN59-01314A	NETWORK-WLAN CLIENT; WCP730M,78.3x29.3x7.	SA	1
6	2		BN96-48730A	ASSY BOARD P-FUNCTION TACT; Y19 VNB Carbo	SA	1
7	2		BN96-45632B	ASSY SPEAKER P-FRONT; TV-SPK,UNU7100X,6oh	SA	1
8	2	R001A	BN96-45655P	ASSY COVER P-REAR; 49QRQ60T,PC+ABS+ED20%,	SA	1
9	2		BN96-49125A	ASSY STAND P-COVER TOP RIGHT; 55URU8000F,	SA	1
10	2		BN96-49129A	ASSY STAND P-COVER TOP LEFT; 55URU8000F,A	SA	1

2. Electrical Parts List

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
			UA49RU8000KXXV (FA01)		
1		BN90-10401Q	ASSY W/I;URU8000F	1	SNA
.2		BN81-08159Z	A/S PART SET-ELEC W/I;LED TV ELEC spec-C	1	SNA
.2		BN81-17090W	A/S PART SET-MECH W/I;URU8000F,U49RF*	1	SNA
1	R001A	BN90-10565B	ASSY COVER REAR;QRQ60T	1	SNA
.2	R001A	BN96-45655P	ASSY COVER P-REAR;49QRQ60T,PC+ABS+ED20%,	1	SA
..3	R001	BN63-17489A	COVER-REAR;49UNU7100X,PC+ABS+ED20%,V-1,B	1	SNA
...4		0103-010818	RESIN PC ABS;CM20G/BK00749,BLACK,BK0007,	2712	SNA
..3		BN64-04171B	INLAY-TERMINAL SIDE;65QRQ60T,PET,T0.125,	1	SNA
..3		BN68-07835Q	LABEL-STICKER LICENSE;65QNQ8CB,PET,T0.12	1	SNA
1	S001A	BN90-10957F	ASSY STAND;URU8000F	1	SNA
.2		BN96-49125A	ASSY STAND P-COVER TOP RIGHT;55URU8000F,	1	SA
.2		BN96-49129A	ASSY STAND P-COVER TOP LEFT;55URU8000F,A	1	SA
..3		0203-007085	TAPE-SINGLE FACE;PET,T0.05,W20,L100M,CLE	0	SNA
..3		BN63-18022A	COVER-STAND TOP;55URU8000F,ABS,HB,TITAN	2	SNA
...4		0103-011425	RESIN ABS;640R/1E118AK,Titan Gray Lumino	62	SNA
...4		BN63-18028A	COVER-STAND NECK;55URU8000F,PP+GF40%,HB,	2	SNA
....5		0103-011475	RESIN PP;9500G40/9379B,Black,BK0020,HB,G	250	SNA
..3	RF01	BN67-00538A	FOOT-RUBBER;LED_J4000,Si,GRAY,T3	4	SNA
..3		BN68-05603A	LABEL-E PASS;ART,W/W,90g	2	SNA
..3		BN69-16172A	BAG ACCESSORY;HDPE,T0.03,L250,W350,Trans	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		BN96-49128A	ASSY HOLDER P-CABLE;55URU8000F,ABS,BLACK	1	SNA
...4		6902-000336	BAG PE;LDPE,T0.05,W70,L80,TRP,Hole N,Bio	1	SNA
...4		BN61-16343A	HOLDER-STAND CABLE;55URU8000F,ABS,BLACK,	1	SNA
1	M0017	BN91-20920D	ASSY CHASSIS;URU8000F	1	SNA
.2	M0014	BN94-14155A	ASSY PCB MAIN;URU8000F	1	SA
..3		BN62-00874A	HEAT SINK-PS;QN65Q70RAFXZA,A1050,T1.5,W1	1	SNA
..3		BN68-05458A	LABEL-BARCODE;ALL,ART,W45,L12,BLACK,WHIT	1	SNA
..3		BN97-15655H	ASSY SMD;URU8000F	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	1	SA
...4		0403-001783	DIODE-ZENER;BZB84-C6V2,5.8~6.6V,300mW,SO	4	SNA
...4		0403-001797	DIODE-ZENER;NZH3V0B,2.85~3.15V,500mW,SOD	1	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

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...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	6	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	8	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	5	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		0505-003205	FET-SILICON;DMG4435SSS-13,P,30V,-7.3A,1.	1	SA
...4		0505-003397	FET-SILICON;2N7002K,N,60V,0.38A,1.19ohm,	2	SA
...4		0505-003620	FET-SILICON;AOD4286,N,100V,14A,55.5mohm,	1	SA
...4		0505-003752	FET-SILICON;PIL9409,P,30V,50A,0.035ohm,3	3	SNA
...4		0903-002242	IC-MICROCONTROLLER;UEI1704,QFN,20P,4x4x0	1	SA
...4		1003-003029	IC-LEVEL DRIVER;VLS3GM,QFN,40P,6x6x0.9mm	1	SA
...4		1103-001564	IC-EEPROM;S-24C512CI-J800,512Kbit,64Kx8,	1	SA
...4		1105-002751	IC-DDR4 SDRAM;K4F2E3S4HM-MGCJ,LPDDR4-SDR	1	SA
...4		1105-002882	IC-DDR4 SDRAM;K4F8E304HB-MGCJ,LPDDR4-SDR	1	SA
...4		1201-004170	IC-AUDIO AMP;TAS880021A,TSSOP,48P,12.5x6	1	SA
...4		1201-004217	IC-OP AMP;TLV9062,SOP,ST,8P,DUAL,PLASTIC	1	SA
...4		1203-008920	IC-DC/DC CONVERTER;SYD105ADC,TSOT23,6P,2	1	SA
...4		1203-009059	IC-DC/DC CONVERTER;VPM2GM,QFN,56P,7x7x0.	1	SA
...4		1203-009186	IC-POS.LADJUST REG.;TLV759P01PDRVR,TP,6P	2	SA
...4		1203-009188	IC-VOL. DETECTOR;G623F11U,TP,8P,4.9x6x1.	1	SA
...4		1203-009193	IC-DC/DC CONVERTER;SYD113IADC,TSOT23-6,6	3	SA
...4		1203-009194	IC-DC/DC CONVERTER;SYD104IADC,TSOT23-6,6	1	SA
...4		1203-009197	IC-DC/DC CONVERTER;RT6203E,SOP-8,8P,5x4x	1	SA
...4		1203-009198	IC-DC/DC CONVERTER;TPS549A20,VQFN-CLIP,2	1	SA
...4		1204-003775	IC-DECODER;SDP1803,FCBGA,929P,31x31x2.19	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	IS01	1209-002183	IC-SENSOR;S-5851AAA-M6T1U,SOT,6Z30,2.9x1	1	SA
...4		1404-001731	THERMISTOR-NTC;33Kohm,4050K,1MWC,TP,1.6x	1	SNA
...4		1405-001271	VARISTOR;35V,20VDC,5A,1005,TP,100V,10pF	21	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

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4		1405-001452	VARISTOR;15V,12VDC,8A,1608,TP,46V,18pF	8	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		2007-000147	R-CHIP;8.2Kohm,5%,1/16W,TP,1005,T0.35	1	SA
...4		2007-000171	R-CHIP;0ohm,5%,1/16W,TP,1005,T0.35	37	SNA
...4		2007-000173	R-CHIP;22ohm,5%,1/16W,TP,1005,T0.35	4	SA
...4		2007-000343	R-CHIP;120ohm,1%,1/10W,TP,1608	1	SA
...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	1	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	3	SA
...4		2007-001292	R-CHIP;33ohm,5%,1/16W,TP,1005,T0.35	7	SA
...4		2007-001298	R-CHIP;51ohm,5%,1/16W,TP,1005,T0.35	2	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		2007-007013	R-CHIP;9.1Kohm,5%,1/16W,TP,1005	1	SA
...4		2007-007107	R-CHIP;100Kohm,1%,1/16W,TP,1005,T0.35,-	20	SA
...4		2007-007131	R-CHIP;13Kohm,1%,1/16W,TP,1005,T0.35	2	SA
...4		2007-007132	R-CHIP;15Kohm,1%,1/16W,TP,1005,T0.35	4	SA
...4		2007-007135	R-CHIP;18Kohm,1%,1/16W,TP,1005,T0.35	1	SNA
...4		2007-007136	R-CHIP;4.7Kohm,1%,1/16W,TP,1005,T0.35	61	SA
...4		2007-007137	R-CHIP;1.2Kohm,1%,1/16W,TP,1005,T0.35	3	SA
...4		2007-007138	R-CHIP;27Kohm,1%,1/16W,TP,1005,T0.35	2	SA
...4		2007-007139	R-CHIP;47Kohm,1%,1/16W,TP,1005,T0.35	10	SA
...4		2007-007142	R-CHIP;10Kohm,1%,1/16W,TP,1005,T0.35	27	SA
...4		2007-007306	R-CHIP;100ohm,1%,1/16W,TP,1005,T0.35	15	SA
...4		2007-007307	R-CHIP;150ohm,1%,1/16W,TP,1005,T0.35	1	SA
...4		2007-007309	R-CHIP;12Kohm,1%,1/16W,TP,1005,T0.35	3	SA
...4		2007-007310	R-CHIP;8.2Kohm,1%,1/16W,TP,1005,T0.35	6	SA
...4		2007-007312	R-CHIP;20Kohm,1%,1/16W,TP,1005,T0.35	11	SA
...4		2007-007313	R-CHIP;6.8Kohm,1%,1/16W,TP,1005,T0.35	6	SA
...4		2007-007315	R-CHIP;3.9Kohm,1%,1/16W,TP,1005,T0.35	2	SNA
...4		2007-007316	R-CHIP;3.3Kohm,1%,1/16W,TP,1005,T0.35	2	SNA
...4		2007-007318	R-CHIP;1Kohm,1%,1/16W,TP,1005,T0.35	21	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	5	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	3	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...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	24	SA
...4		2007-007767	R-CHIP;200ohm,1%,1/16W,TP,1005	4	SA
...4		2007-007798	R-CHIP;10ohm,1%,1/16W,TP,1005,T0.35	9	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		2007-008175	R-CHIP;330ohm,1%,1/16W,TP,1005	1	SNA
...4		2007-008294	R-CHIP;33ohm,1%,1/16W,TP,1005,T0.35	11	SA
...4		2007-008298	R-CHIP;49.9ohm,1%,1/16W,TP,1005,T0.35	8	SA
...4		2007-008596	R-CHIP;0.1ohm,1%,1/4W,TP,3216	3	SC
...4		2007-008779	R-CHIP;0ohm,1%,1/16W,TP,1005	12	SA
...4		2007-009322	R-CHIP;1.3Kohm,1%,1/16W,TP,1005	2	SA
...4		2011-001264	R-NETWORK;10ohm,5%,1/16W,L,CHIP,8P,TP,2.	14	SNA
...4		2011-001448	R-NETWORK;10ohm,5%,1/16W,L,4P,TP,1.0x1.0	2	SA
...4		2011-001527	R-NETWORK;4.7Kohm,5%,1/16W,L,CHIP,4P,TP,	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	2203-000254	C-CER,CHIP;10nF,10%,16V,X7R,TP,1005,T0.5	1	SA
...4	AD480	2203-000278	C-CER,CHIP;0.01nF,0.5pF,50V,C0G,TP,1005	1	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	2	SA
...4	AD480	2203-000438	C-CER,CHIP;1nF,10%,50V,X7R,TP,1005	5	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	7	SA
...4	AD480	2203-000940	C-CER,CHIP;0.47nF,10%,50V,X7R,TP,1005,T0	3	SNA
...4	AD480	2203-001072	C-CER,CHIP;0.056nF,5%,50V,C0G,TP,1005	1	SA
...4	AD480	2203-001428	C-CER,CHIP;470nF,10%,50V,X7R,TP,2012	1	SA
...4	AD480	2203-002285	C-CER,CHIP;10nF,10%,50V,X7R,TP,1005	12	SNA
...4	AD480	2203-002525	C-CER,CHIP;0.56nF,10%,50V,X7R,TP,1005	1	SA
...4	AD480	2203-002687	C-CER,CHIP;1.2nF,10%,50V,X7R,TP,1005	1	SA
...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.	4	SNA
...4	AD480	2203-005642	C-CER,CHIP;0.22nF,5%,50V,C0G,TP,1005,T0.	3	SA
...4	AD480	2203-006048	C-CER,CHIP;100nF,10%,10V,X7R,TP,1005,T0.	57	SNA
...4	AD480	2203-006126	C-CER,CHIP;47nF,10%,16V,X7R,TP,1005,T0.5	1	SNA
...4	AD480	2203-006158	C-CER,CHIP;100nF,10%,16V,X7R,TP,1005,T0.	81	SA
...4	AD480	2203-006377	C-CER,CHIP;4700nF,10%,25V,X5R,TP,2012	2	SNA
...4	AD480	2203-006562	C-CER,CHIP;1000nF,10%,10V,X5R,TP,1005,T0	23	SA
...4	AD480	2203-006698	C-CER,CHIP;1000nF,10%,25V,X7R,TP,1608,T0	7	SA
...4	AD480	2203-006841	C-CER,CHIP;1000nF,10%,16V,X5R,TP,1005,T0	8	SNA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...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	12	SNA
...4	AD480	2203-007230	C-CER,CHIP;47000nF,20%,6.3V,X5R,TP,2012,	9	SA
...4	AD480	2203-007240	C-CER,CHIP;22000nF,20%,6.3V,X5R,TP,1608,	46	SA
...4	AD480	2203-007269	C-CER,CHIP;22000nF,20%,10V,X5R,TP,2012(2	18	SA
...4	AD480	2203-007271	C-CER,CHIP;2200nF,10%,10V,X5R,TP,1005,T0	14	SNA
...4	AD480	2203-007306	C-CER,CHIP;10000nF,10%,25V,X5R,TP,2012,T	18	SNA
...4	AD480	2203-007393	C-CER,CHIP;4700nF,10%,10V,X5R,TP,1005,T0	19	SNA
...4	AD480	2203-007423	C-CER,CHIP;10000nF,10%,35V,X7R,TP,3216	4	SA
...4	AD480	2203-007425	C-CER,CHIP;2200nF,10%,25V,X5R,TP,1608	1	SNA
...4	AD480	2203-007544	C-CER,CHIP;100nF,10%,50V,X7R,TP,1005,T0.	18	SA
...4	AD480	2203-007795	C-CER,CHIP;10000nF,20%,10V,X5R,TP,1005,T	42	SA
...4	AD480	2203-008096	C-CER,CHIP;2200nF,10%,50V,X5R,TP,2012,1.	2	SA
...4	AD480	2203-008315	C-CER,CHIP;22000nF,20%,25V,X5R,TP,2012,T	12	SA
...4	AD480	2203-008412	C-CER,CHIP;4700nF,10%,50V,X5R,TP,2012,T1	2	SNA
...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	3	SA
...4		2703-005193	INDUCTOR-SMD;2.2uH,20%,6060,T4.5,0.024Oh	2	SA
...4		2703-005194	INDUCTOR-SMD;3.3uH,20%,6060,T4.5,0.03Ohm	1	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	49	SA
...4		3601-001374	FUSE-SURFACE MOUNT;32V,5A,FAST-ACTING,PL	5	SA
...4		3601-001376	FUSE-SURFACE MOUNT;32V,3A,FAST-ACTING,Hi	1	SA
...4		3701-001967	CONNECTOR-HDMI;19P,A,FEMALE,AU,0.5mm,BLK	4	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		3711-007975	CONNECTOR-HEADER;BOX,10P,1R,1.25mm,SMD-A	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		3722-003199	JACK-MODULAR;8P/8C,Y,ANGLE,NONE,AU,1PORT	1	SA

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
...4		3722-003457	JACK-USB;4P/1C,NL,BLK,ANGLE,A,2.0,13.1x1	2	SA
...4	JACK	3722-003873	JACK-PHONE;1P/7C,AU/SN,BLU,ANGLE,3.5PI,1	1	SA
...4		3722-004127	JACK-PHONE;1P/7C,NL/SN,YEL,ANGLE,3.5PI,1	1	SA
...4		6302-001376	GASKET-SMD;SMT Gasket,Sn/Cu plated PI-Fi	8	SNA
...4		BN40-00330B	TUNER-DTV AIR CABLE;GTTH-7A11,DVB-TC,38.	1	SA
...4		BN41-02695A	PCB-MAIN;MUSE-M Built-In,FR-4,4L,T1.6,1,	1	SNA
...4	CB07	BN61-13312B	BRACKET-SCREWLESS PCB;55KS8000,SK5,T0.3,	4	SNA
...4		BN97-15835A	ASSY MICOM;MMMICOM_TV,Q70/Q80,1107-00222	1	SNA
....5		1107-002226	IC-NOR FLASH;W25Q40CLSSIP,4Mbit,SOIC,8P,	1	SA
...4		BN97-15838A	ASSY MICOM;TCON F/W,MUSE-M Built-in,W25Q	1	SNA
....5		1107-002339	IC-NOR FLASH;W25Q80DV,8Mbit,SOP,5.28x5.2	1	SNA
....5		BN46-00968A	S/W MICOM;MUSE-M Built-in,TCON F/W	1	SNA
...4		BN97-15994A	ASSY MICOM;T-MSMUABC,ASSY MICOM-MAIN,URU	1	SNA
....5		1107-002641	IC-EMMC;SDINBDG4-8G-945D,8GBYTE,64GBx1,B	1	SNA
...3		BN97-15678A	ASSY MICOM;TCON DATA,QRQ60, RU8000,49" S	1	SNA
...4		BN46-00943A	S/W MICOM;R49A6URM,QRQ60, RU8000	1	SNA
...3		BN97-15725A	ASSY DRM;Muse-M 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		BN46-00962A	KEY CODE;Muse-M built_in,Nagra CSC Data,	1	SNA
1		BN91-20971C	ASSY SHIELD;URU8000F	1	SNA
.2		BN39-02217D	LEAD CONNECTOR-POWER;43K5500,UL21016,12P	1	SA
.2		BN39-02457A	LEAD CONNECTOR-SUB ASSY;Q70,UL21016,12P,	1	SA
.2		BN39-02465A	LEAD CONNECTOR-SUB ASSY;49, 55 Q70,UL214	1	SA
.2		BN44-00932L	DC VSS-PD BOARD;L55E8N_RSM,AC/DC,169W,AC	1	SA
.2		BN59-01314A	NETWORK-WLAN CLIENT;WCP730M,78.3x29.3x7.	1	SA
.2		BN61-15579A	HOLDER-WIFI;65UNU8000F,ABS,BK0007,HB	1	SNA
...3		0103-004609	RESIN ABS;HF-0680U,K21294,BK0007,HB,High	11	SNA
.2		BN63-18049D	COVER-TERMINAL SIDE;65QRQ60T,HIPS,V-0,BK	1	SA
...3		0103-004637	RESIN HIPS;VE-1897/K2901,Black,BK0020,V-	14	SNA
.2		BN96-39820F	FFC CABLE;55NU7100,Fold,L500,96P,-	1	SA
.2		BN96-39821F	FFC CABLE;55NU7100,Fold,L350,96P,-	1	SA
.2		BN96-45632B	ASSY SPEAKER P-FRONT;TV-SPK,UNU7100X,6oh	1	SA
.2		BN96-48730A	ASSY BOARD P-FUNCTION TACT;Y19 VNB Carbo	1	SA
1		BN92-24840A	ASSY P/MATERIAL;URU8000F	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		6902-002678	BAG ROLL;HDPE/HDPE/PE FOAM,T0.015/T0.5,W	2	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

Level	Loc.	Part Code	Description & Specification	Qty.	SA/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		BN69-15268A	PACKING ANGLE;PAPER,T5,W50,L1600,YELLOW	0	SNA
.2		BN69-19041A	CUSHION-SET;49QRQ60T,EPS,16.7g/l,WHITE	1	SNA
..3		BN81-01918A	A/S-RESIN;EPS,SG-302	1	SNA
.2		BN96-45139F	ASSY PACKING P-PAD;49MU7000,PP/EPE,WITH	2	SNA
..3		BN68-08908A	LABEL WARNING;ALL MODEL,ART,W70,L100,90g	2	SNA
..3		BN69-16841F	PAD-EPE;49MU7000,EPE,T1.3/T3,W100,L605,M	2	SNA
1	ACCE1	BN92-24841K	ASSY ACCESSORY;URU8000F	1	SNA
.2		BN96-48695D	ASSY ACCESSORY MANUAL CABLE;URU8000F	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	EC03	BN39-02189A	GENDER CABLE;DC to RCA Cable,3P,L100,UL2	1	SA
..3	EC03	BN39-02190A	GENDER CABLE;DC to RCA Cable,2P,L100,UL2	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		BN68-09371A	LEAFLET-REGULATORY GUIDE;QT/UT,W/W,MOJO,	1	SNA
..3		BN68-09536D	MANUAL USERS;RU8000,XV,VIETNAM,MOJO,0,1	1	SNA
..3		BN68-09541C	LEAFLET-ACCESSORY KIT;QRQ70D,XY & MR & HC & RQ	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		BN92-24848A	ASSY LABEL POP;URU8000F	1	SNA
.2		BN68-09637G	LABEL POP-BEZEL;55RU8000,PET,T0.188,W133	1	SNA
1		BN92-25193D	ASSY LABEL;URU8000F	1	SNA
.2		BN02-00102B	TAPE-SINGLE FACE;OPP,T0.15,W25,L50M,WHIT	1	SNA
.2		BN68-06708G	LABEL-RATING;Monitor,WW,PP,T0.161,W93,L7	1	SNA
.2		BN68-09419A	LEAFLET-QUICK SETUP GUIDE;UA55RU8000W,OT	1	SNA
.2		BN68-09428A	LABEL-ENERGY;UA49RU8000KXXV,VIET NAM,PET	1	SNA
1		BN92-25603D	ASSY BOX;URU8000F	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		BN69-19404G	BOX UNIT;49URU8000F,CB,DW2,F1,L1234,W137	1	SNA
1		BN95-05519A	PRODUCT LCD-SDC;CY-NR049HGLV1V/H,RU8000,	1	SA
.2	SCREW	6001-003016	SCREW-MACHINE;PWH,+,M3,L5.0,ZPC(WHT),SWR	4	SA
.2	CB18	BN61-15470A	BRACKET-STAND LINK;55UNU7100X,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

Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
.2		BN63-18100A	COVER-SOURCE PCB;49QRQ60T,EGI-SECC,T0.5,	1	SNA
.2		BN68-05722A	LABEL-E PASS;POLYPROPYLENE,NON-COATING	1	SNA
.2		BN90-10376A	ASSY BACK LIGHT UNIT;URU8000F	1	SNA
...3		BN61-15658A	DIFFUSER PLATE;18Y_NU7K_49INCH_DIFFUSER	1	SNA
...3		BN61-16141A	FRAME-MIDDLE TOP;49QRQ60T,PC+GF10%,V-2,W	1	SNA
...4		0103-010237	RESIN PC;LS-3104G/W95265,White,WT0044,V-	60	SNA
...3		BN61-16243A	LGP;19Y_Q60_49INCH_LGP,PMMA,NewEdge(OD5m	1	SNA
...3		BN61-16254A	OPTICAL SHEET-COMPLEX;19Y_RU8_49INCH_DPP	1	SNA
...3		BN61-16255A	OPTICAL SHEET-REFLECTOR;19Y_RU8_49INCH_R	1	SNA
...3		BN96-48223A	ASSY FRAME P-MIDDLE BOTTOM;49QRQ60T,PC+G	1	SNA
...4		BN60-01605A	SPACER-FOAM;NU7K,HR FOAM,L50,DARK GRAY,T	1	SNA
...4		BN61-16142A	FRAME-MIDDLE BOTTOM;49QRQ60T,PC+GF10%,V-	1	SNA
...3		BN96-48225A	ASSY FRAME P-MIDDLE LEFT RIGHT;49QRQ60T,	2	SNA
...4		BN60-00715M	SPACER-CONDUCTIVE;65UNU7100X,CONDUCTIVE	2	SNA
...4		BN61-16143A	FRAME-MIDDLE LEFT RIGHT;49QRQ60T,PC+GF10	2	SNA
....5		0103-010237	RESIN PC;LS-3104G/W95265,White,WT0044,V-	124	SNA
...3		BN96-48229B	ASSY CHASSIS REAR P;49UNU8000F,EGI-SECC,	1	SNA
...4		0203-007064	TAPE-DOUBLE FACE;ACRYL,T0.2,W6,N/A,WHITE	1	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		BN39-02390A	LEAD CONNECTOR-BLU;55NU7.1K,UL21016,12P,	1	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		BN61-13557F	BRACKET-WIRE;55KS7000,SW-C,T1,SILVER,ZIN	2	SA
...4		BN61-13557P	BRACKET-WIRE;75QNQ8CB,SW-C,T1,SILVER,L66	3	SNA
...4		BN61-15526A	HOLDER-SOURCE PCB;65UNU7100X,ABS,BK0007,	4	SNA
....5		0103-004609	RESIN ABS;HF-0680U,K21294,BK0007,HB,High	8	SNA
...4		BN61-15857B	HOLDER-LGP TOP LEFT;65UNU7100X,TPE,BLACK	1	SNA
...4		BN61-15858B	HOLDER-LGP TOP RIGHT;65UNU7100X,TPE,BLAC	1	SNA
...4		BN61-16155A	BRACKET-LED PCB;49QRQ60T,Al,T1.5,NATURAL	1	SNA
...4		BN61-16230A	HOLDER-LGP BOTTOM LEFT;65QRQ60T,TPE,BK00	1	SNA
...4		BN61-16231A	HOLDER-LGP BOTTOM RIGHT;65QRQ60T,TPE,BK0	1	SNA
...4		BN63-17877A	INSULATOR-SMPS;65NU7K,PC,BLACK,L260,W255	1	SNA
...4	CC04	BN64-03997A	CHASSIS-REAR;49UNU8000F,EGI-SECC,-,T0.6,	1	SNA
....5		BN01-00548A	STEEL;49NU7100,EGI-SECC,L1140,0.6mm,670m	1	SNA
...4	T0527	BN68-00513A	LABEL-E PASS;ALL MODEL,WW,YUPO,W50,L15,W	1	SNA
...4		BN96-46045A	ASSY LED BAR P;18Y_NU7K_49INCH_EDGE_LED	2	SA
.2		BN96-39044D	ASSY OPEN CELL;SDC,49Inch,KU6400 VRD cha	1	SNA
...3		BN81-12946A	A/S OPEN CELL-ADHESIVE ACF;ADHESIVE ACF,	1	SNA
...3		BN81-12952A	A/S OPEN CELL-ADHESIVE SIL;ADHESIVE SIL,	1	SNA


Level	Loc.	Part Code	Description & Specification	Qty.	SA/SNA
..3		BN81-12960A	A/S OPEN CELL-IC DRIVER SOURCE;IC DRIVER	1	SNA
..3		BN81-13048A	A/S OPEN CELL-POLARIZER CF;POLARIZER CF,	1	SNA
..3		BN81-13049A	A/S OPEN CELL-POLARIZER TFT;POLARIZER TF	1	SNA
..3		BN81-13050A	A/S OPEN CELL-SOURCE PCB LEFT;SOURCE PCB	1	SNA
..3		BN81-13051A	A/S OPEN CELL-SOURCE PCB RIGHT;SOURCE PC	1	SNA
..2		BN96-48222B	ASSY CHASSIS FRONT P;49URU8000F,PC+ABS+E	1	SNA
..3		BN60-01620A	SPACER-CONDUCTIVE;NU7100,CONDUCTIVE FABR	3	SNA
..3		BN60-01630A	SPACER-CONDUCTIVE;65QRQ60T,CONDUCTIVE FA	4	SNA
..3		BN63-17418C	SHEET-PROTECTION COVER;NU7K,PO,T0.05,W30	3	SNA
..3		BN63-17876A	SHEET-PROTECTION COVER;PO,T0.05,W9,L100,	0	SNA
..3	AC155	BN64-04151B	CHASSIS-FRONT;49URU8000F,PC+ABS+ED18%,V-	1	SNA
...4		0103-011389	RESIN PC ABS;NH-1210/G34051,Titan Gray,G	260	SNA
...4		BN68-05603E	LABEL-RESIN;ART,W8,L50,UL LABEL (COVER R	2	SNA

2. Product Specifications

2-1. Product information

Model	UA**RU8000K		
Front View	<div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></d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2-2. Product specification

 **NOTE**

Design and specifications are subject to change without prior notice.

Item		UA49RU8000KXXV
General Information	Product	LED
	Cabinet Basic Code	U49RF3
	Series	8
	Country	VIET NAM
	Platform(TV)	SoC Muse-M
Display	Screen Size	49"
	Resolution	3,840 x 2,160
	Ultra Black	N/A
	Screen Curvature	N/A
Video	Picture Engine	UHD Engine
	Motion Rate	100
	PQI (Picture Quality Index)	1900
	HDR (High Dynamic Range)	HDR
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Mega Contrast
	Color	Dynamic Crystal Color
	Viewing Angle	N/A
	Micro Dimming	UHD Dimming
	Local Dimming	N/A
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Dialog Enhancement	Yes
	Audio Pre-selection Descriptor	N/A
	Sound Output (RMS)	20W
	Speaker Type	2CH
	Woofer	N/A
	Multiroom Link	Yes
	Bluetooth Audio	Yes

Item		UA49RU8000KXXV
Smart Service	Samsung SMART TV	Smart
	Bixby	US English, Korean, UK English, French, German, Italian, Spanish (features vary by language)
	Voice Interaction	VN, IN: Vietnamese
	Far-Field Voice Interaction	N/A
	Works with Google Assistant	Yes (SG only)
	Works With Alexa	N/A
	TV Plus	N/A
	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Universal Guide	N/A
	Gallery	Yes
Convergence	TV to Mobile - Mirroring	N/A
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	Yes
Localization	S-Share	N/A
	Auto Data Backup	N/A
	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Analog Clean View	Yes
	Senior Mode	N/A
	Triple Protection	Yes
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
Tuner/Broadcasting	Digital Broadcasting	DVB-T2 (*VN: DVB-T2C)
	Analog Tuner	Yes
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	HbbTV1.5(SG)
	TV Key	Yes
Connectivity	HDMI	4
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (Common Use for Component Y)
	Ethernet (LAN)	Yes

2. Product specifications

Item		UA49RU8000KXXV
Connectivity	Audio Out (Mini Jack)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	N/A
	CI Slot	N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes
Design	Design	New Edge
	Bezel Type	SNB
	Slim Type	Slim
	Front Color	TITAN GRAY
	Light Effect (Deco)	N/A
	Stand Type	FLAT FOOT SIMPLE
	Stand Color	TITAN GRAY
	Swivel (Left/Right)	N/A
Additional Feature	AI Technology	N/A
	AI Upscale	N/A
	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	N/A
	Processor	Quad-Core
	Accessibility	Learn menu screen(UK English, (Singapore: +France, Spanish))/ SeeColors/ Negative colors/ Grayscale/ Voice guide(UK English, Mandarin Chinese, Korean, (Singapore: +France, Italy, Germany, Spanish))/ Enlarge/ High contrast/ Learn TV Remote(UK English, (Singapore: +France, Spanish))/ Multi-output Audio
	Digital Clean View	Yes
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	Connect Share™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	EPG	Yes
	Extended PVR	Yes
	Game Mode	Yes (Auto Game Mode, Game Motion Plus, Dynamic Black EQ, Game Enhancer)
	Freesync	N/A
	OSD Language	Local Languages
	Picture-In-Picture	N/A
	BT HID Built-in	Yes

Item		UA49RU8000KXXV
Additional Feature	USB HID Support	Yes
	Teletext (TTX)	Yes
	Time Shift	Yes
	V-Chip	N/A
	IPv6 Support	Yes
	MBR Support	Yes
	Ultra Clean View	N/A
Eco Feature	Eco Sensor	Yes
	Energy Efficiency Class	5
Power	Power Supply	AC100-240V 50/60Hz
	Power Consumption (Max)	150 W

2. Product specifications

Item		UA55RU8000KXXV
General Information	Product	LED
	Cabinet Basic Code	U55RF3
	Series	8
	Country	VIETNAM
	Platform(TV)	SoC Muse-M
Display	Screen Size	55"
	Resolution	3,840 x 2,160
	Ultra Black	N/A
	Screen Curvature	N/A
Video	Picture Engine	UHD Engine
	Motion Rate	200
	PQI (Picture Quality Index)	2500
	HDR (High Dynamic Range)	HDR
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Mega Contrast
	Color	Dynamic Crystal Color
	Viewing Angle	Wide Viewing Angle
	Micro Dimming	UHD Dimming
	Local Dimming	N/A
	Auto Depth Enhancer	N/A
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	Ambient Mode	N/A
	Processor	Quad-Core
	Accessibility	Learn menu screen(UK English, (Singapore: +France, Spanish))/ SeeColors/ Negative colors/ Grayscale/ Voice guide(UK English, Mandarin Chinese, Korean, (Singapore: +France, Italy, Germany, Spanish))/ Enlarge/ High contrast/ Learn TV Remote(UK English, (Singapore: +France, Spanish))/ Multi-output Audio
	Digital Clean View	Yes
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	Connect Share™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	EPG	Yes
	Extended PVR	Yes
	Game Mode	Yes (Auto Game Mode, Game Motion Plus, Dynamic Black EQ, Game Enhancer)
	Freesync	FreeSync

Item		UA55RU8000KXXV
Additional Feature	OSD Language	Local Languages
	Picture-In-Picture	N/A
	BT HID Built-in	Yes
	USB HID Support	Yes
	Teletext (TTX)	Yes
	Time Shift	Yes
	V-Chip	N/A
	IPv6 Support	Yes
	MBR Support	Yes
	Ultra Clean View	N/A
Eco Feature	Eco Sensor	Yes
	Energy Efficiency Class	5
Power	Power Supply	AC100-240V 50/60Hz
	Power Consumption (Max)	160 W

2. Product specifications

Item		UA65RU8000KXXV
General Information	Product	LED
	Cabinet Basic Code	U65RF3
	Series	8
	Country	VIETNAM
	Platform(TV)	SoC Muse-M
Display	Screen Size	65
	Resolution	3,840 x 2,160
	Ultra Black	N/A
	Screen Curvature	N/A
Video	Picture Engine	UHD Engine
	Motion Rate	200
	Micro Dimming	UHD Dimming
	Local Dimming	N/A
	Color	Dynamic Crystal Color
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Natural Mode Support	Yes
	Viewing Angle	Wide Viewing Angle
	PQI (Picture Quality Index)	2500
	HDR (High Dynamic Range)	HDR
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Mega Contrast
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Dialog Enhancement	Yes
	Audio Pre-selection Descriptor	N/A
	Sound Output (RMS)	20W
	Speaker Type	2CH
	Woofer	N/A
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Voice Interaction	VN, IN: Vietnamese
	Far-Field Voice Interaction	N/A
	Works with Google Assistant	Yes (SG only)
	Works With Alexa	N/A
	Samsung SMART TV	Smart
	Bixby	US English, Korean, UK English, French, German, Italian, Spanish (features vary by language)

Item		UA65RU8000KXXV
Smart Service	TV Plus	N/A
	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Universal Guide	N/A
	Gallery	Yes
Convergence	TV to Mobile - Mirroring	N/A
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	Yes
Localization	S-Share	N/A
	Auto Data Backup	N/A
	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Senior Mode	N/A
	Triple Protection	Yes
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
	Analog Clean View	Yes
Tuner/Broadcasting	Digital Broadcasting	DVB-T2 (*VN: DVB-T2C)
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	HbbTV 1.5(SG)
	TV Key	Yes
	Analog Tuner	Yes
Connectivity	HDMI	4
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (Common Use for Component Y)
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	N/A
	CI Slot	N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes

2. Product specifications

Item		UA65RU8000KXXV
Design	Design	New Edge
	Bezel Type	SNB
	Slim Type	Slim
	Front Color	TITAN GRAY
	Light Effect (Deco)	N/A
	Stand Type	FLAT FOOT SIMPLE
	Stand Color	TITAN GRAY
	Swivel (Left/Right)	N/A
Additional Feature	AI Technology	N/A
	AI Upscale	N/A
	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	N/A
	Processor	Quad-Core
	Accessibility	Learn menu screen(UK English, (Singapore: +France, Spanish))/ SeeColors/ Negative colors/ Grayscale/ Voice guide(UK English, Mandarin Chinese, Korean, (Singapore: +France, Italy, Germany, Spanish))/ Enlarge/ High contrast/ Learn TV Remote(UK English, (Singapore: +France, Spanish))/ Multi-output Audio
	Digital Clean View	Yes
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	Connect Share™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	EPG	Yes
	Extended PVR	Yes
	Game Mode	Yes (Auto Game Mode, Game Motion Plus, Dynamic Black EQ, Game Enhancer)
	Freesync	FreeSync
	OSD Language	Local Languages
	Picture-In-Picture	N/A
	BT HID Built-in	Yes
	USB HID Support	Yes
	Teletext (TTX)	Yes
	Time Shift	Yes
	V-Chip	N/A
	IPv6 Support	Yes
	MBR Support	Yes
	Ultra Clean View	N/A

Item		UA65RU8000KXXV
Eco Feature	Eco Sensor	Yes
	Energy Efficiency Class	5
Power	Power Supply	AC100-240V 50/60Hz
	Power Consumption (Max)	195

2. Product specifications

Item		UA82RU8000KXXV
General Information	Product	LED
	Cabinet Basic Code	U82RF3
	Series	8
	Country	VIETNAM
	Platform(TV)	SoC Muse-M
Display	Screen Size	82"
	Resolution	3,840 x 2,160
	Ultra Black	N/A
	Screen Curvature	N/A
Video	Picture Engine	UHD Engine
	Motion Rate	200
	PQI (Picture Quality Index)	2500
	HDR (High Dynamic Range)	HDR
	HDR10+	Yes
	HLG (Hybrid Log Gamma)	Yes
	Contrast	Mega Contrast
	Color	Dynamic Crystal Color
	Viewing Angle	Wide Viewing Angle
	Micro Dimming	UHD Dimming
	Local Dimming	N/A
	Auto Depth Enhancer	N/A
	Contrast Enhancer	Yes
	Auto Motion Plus	Yes
	Film Mode	Yes
	Natural Mode Support	Yes
Audio	Dolby Digital Plus	Yes
	DTS Codec	N/A
	Dialog Enhancement	Yes
	Audio Pre-selection Descriptor	N/A
	Sound Output (RMS)	20W
	Speaker Type	2CH
	Woofer	N/A
	Multiroom Link	Yes
	Bluetooth Audio	Yes
Smart Service	Samsung SMART TV	Smart
	Bixby	US English, Korean, UK English, French, German, Italian, Spanish (features vary by language)
	Voice Interaction	VN, IN: Vietnamese
	Far-Field Voice Interaction	N/A
	Works with Google Assistant	Yes (SG only)
	Works With Alexa	N/A


Item		UA82RU8000KXXV
Smart Service	TV Plus	N/A
	Web Browser	Yes
	SmartThings App Support	Yes
	SmartThings	Yes
	Universal Guide	N/A
	Gallery	Yes
Convergence	TV to Mobile - Mirroring	N/A
	Mobile to TV - Mirroring, DLNA	Yes
	360 Video Player	Yes
	360 Camera Support	Yes
	Bluetooth Low Energy	Yes
	WiFi Direct	Yes
	TV Sound to Mobile	Yes
	Sound Mirroring	Yes
Localization	S-Share	N/A
	Auto Data Backup	N/A
	Dongle Compatibility (3G / LTE / WiFi)	N/A
	Analog Clean View	Yes
	Senior Mode	N/A
	Triple Protection	Yes
	Clean View	N/A
	Family TV 2.0	N/A
	Local Cinema Mode	N/A
Tuner/Broadcasting	Digital Broadcasting	DVB-T2 (*VN: DVB-T2C)
	Analog Tuner	Yes
	2 Tuner	N/A
	CI (Common Interface)	N/A
	Data Broadcasting	HbbTV1.5(SG)
	TV Key	Yes
Connectivity	HDMI	4
	USB	2
	Component In (Y/Pb/Pr)	1
	Composite In (AV)	1 (Common Use for Component Y)
	Ethernet (LAN)	Yes
	Audio Out (Mini Jack)	N/A
	Digital Audio Out (Optical)	1
	RF In (Terrestrial / Cable input / Satellite input)	1/1(Common Use for Terrestrial)/0
	Ex-Link (RS-232C)	N/A
	CI Slot	N/A
	HDMI A / Return Ch. Support	Yes
	HDMI Quick Switch	Yes
	Wireless LAN Built-in	Yes
	Anynet+ (HDMI-CEC)	Yes

2. Product specifications

Item		UA82RU8000KXXV
Design	Design	New Edge
	Bezel Type	SNB
	Slim Type	Slim
	Front Color	TITAN GRAY
	Light Effect (Deco)	N/A
	Stand Type	FLAT FOOT SIMPLE
	Stand Color	TITAN GRAY
	Swivel (Left/Right)	N/A
Additional Feature	AI Technology	N/A
	AI Upscale	N/A
	Art Mode (The Frame)	N/A
	Motion Detection (The Frame)	N/A
	Ambient Mode	N/A
	Processor	Quad-Core
	Accessibility	Voice Guide(US English)/ Enlarge/ High Contrast/ Learn TV Remote(US English)/ Multi-output Audio/ SeeColors/ Negative Colors/ Grayscale/ Learn Menu Screen(US English) /?video?Zoom / Key Repeat Delay
	Digital Clean View	Yes
	Auto Channel Search	Yes
	Auto Power Off	Yes
	Caption (Subtitle)	Yes
	Connect Share™ (HDD)	Yes
	ConnectShare™ (USB 2.0)	Yes
	EPG	Yes
	Extended PVR	Yes
	Game Mode	Yes (Auto Game Mode, Game Motion Plus, Dynamic Black EQ, Game Enhancer)
	Freesync	FreeSync
	OSD Language	Local Languages
	Picture-In-Picture	N/A
	BT HID Built-in	Yes
	USB HID Support	Yes
	Teletext (TTX)	Yes
	Time Shift	Yes
	V-Chip	N/A
	IPv6 Support	Yes
	MBR Support	Yes
	Ultra Clean View	N/A
Eco Feature	Eco Sensor	Yes
	Energy Efficiency Class	5

Item		UA82RU8000KXXV
Power	Power Supply	AC100-240V 50/60Hz
	Power Consumption (Max)	275 W

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.
- The provided accessories may vary depending on the model.

Product	Code. No		Product	Code. No	
• Samsung Smart Remote	BN59-01312M		• AV IN Adapter	BN39-02189A	
• Batteries (AA x 2)	4301-000101		• Component In	BN39-02190A	
• Warranty Card	(Not available in some locations)		• Regulatory Guide	(Not available in some locations)	
• TV Power Cable	49"	3903-001118	• User Manual	49"	BN68-09536E
	55"	3903-001118		55"	BN68-09536E
	65"	3903-001118		65"	BN68-09536E
	82"	3903-001130		82"	BN68-09536F

■ For Wall Mount

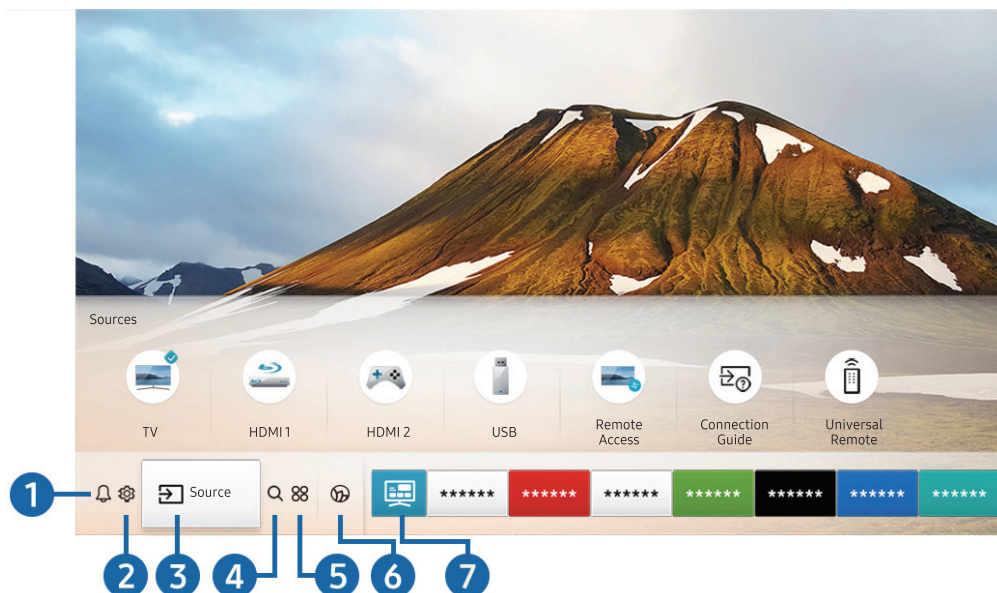
Product	Code. No
• Wall Mount Adapter (4 EA)	BN96-43169A

2-4. Viewing the Functions

2-4-1. Smart Hub

Connect to Smart Hub for apps, games, movies, and more.

Enjoy the multiple functions provided by Smart Hub simultaneously on a single screen.



- The image on your TV may differ from the image above depending on the model and geographical area.

When you press the  button on your remote control, you can use the following functions and features.

1 Notification

You can view a list of notifications for all events that occur on your TV. A notification appears on the screen when it is time to broadcast a scheduled program or when an event occurs on a registered device.

For more information, refer to "Displaying the Home Screen."

2 Settings

When the focus is moved to **Settings**, a list of quick settings icons appears above the top of the menu. You can quickly set frequently used functions by clicking the icons.

3 Source

You can select an external device connected to the TV.

- For more information, refer to "Switching between external devices connected to the TV."

4 Search

You can search for channels, programs, movie titles, and apps from Smart Hub.

- To use this feature, the TV must be connected to the Internet.




5 APPS


You can enjoy a wide range of content including news, sports, weather, and games by installing the corresponding apps on your TV.

- To use this feature, the TV must be connected to the Internet.
- For more information, refer to "Using the APPS Service."

6 Ambient Mode

You can elevate your living space with decorative content that matches the surroundings or life information such as weather, time, and news on the TV screen when you are not watching TV.

To enter **Ambient Mode**, press the  button. To return to the TV mode, press the  button. To shut off the TV, press the  button.

If you press the  button when the TV is turned off, the TV turns on in **Ambient Mode**.

- If you use a remote control other than the Samsung Smart Remote, there may be restrictions to entering **Ambient Mode**.
- Because this function is a QLED TV-specific function, it may not be supported depending on the model.
- For more information about the **Ambient Mode**, refer to "Using the Ambient Mode."

7 Universal Guide

Universal Guide is an app that allows you to search for and enjoy various content such as TV shows, dramas, and movies in one place. **Universal Guide** can recommend content tailored to your preferences.

- For more information about **Universal Guide**, refer to "Using the Universal Guide App."
- Images may look blurry depending on the service provider's circumstances.
- This function may not be supported depending on the model or geographical area.

2-4-2. Ambient Mode




Learn about the functions available in Ambient Mode that are specific to the QLED TV.


> Ambient Mode

You can elevate your living space with decorative content that matches the surroundings or life information such as weather, time, and news on the TV screen when you are not watching TV.

- Because this function is a QLED TV-specific function, it may not be supported depending on the model.

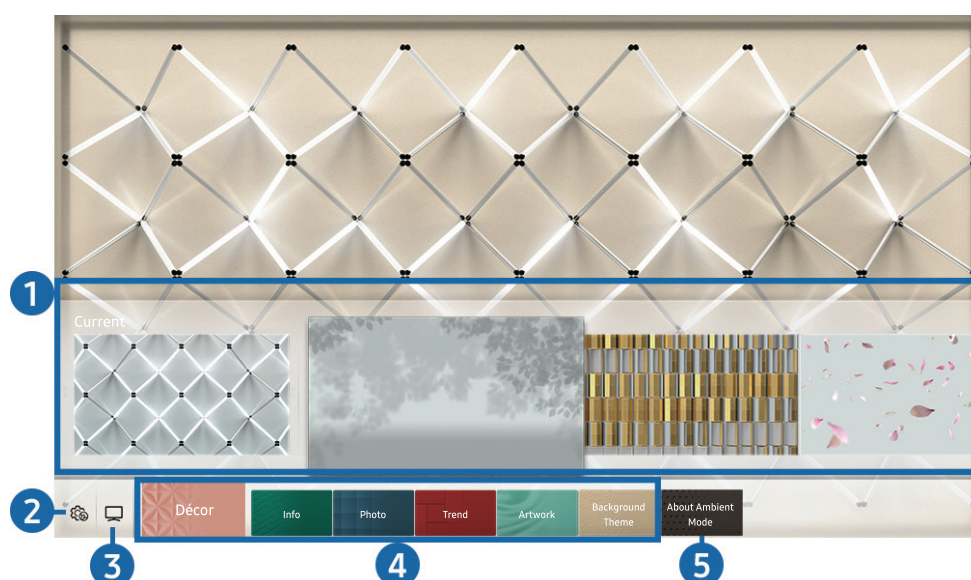
Entering Ambient Mode

To enter **Ambient Mode** from the TV viewing screen, press the  button, or select  >  **Ambient Mode**.



If you press the  button when the TV is turned off, the TV turns on in **Ambient Mode**.

- If you use a remote control other than the Samsung Smart Remote, there may be restrictions to entering **Ambient Mode**.

Ambient Mode browser screen



- The image on your TV may differ from the image above depending on the model and geographical area.

When you press the  or  button in **Ambient Mode**, the **Ambient Mode** browser screen appears at the bottom of the screen. In the **Ambient Mode** browser screen, you can select content and change the **Ambient Mode** settings.

1 Function and content preview

When you select a category at the bottom of the screen, a preview of available functions and content appears here. To view detailed information about a content item, move the focus to it, and then press the up directional button.

2 Ambient Settings

You can configure the following **Ambient Mode** settings:

• Auto Brightness


Changes the auto brightness setting for **Ambient Mode**.

- When this function is set to **Off**, the brightness level of the TV screen is not automatically adjusted in response to the surrounding light level.

2. Product specifications

- **Sleep After**

Sets the time when the **Ambient Mode** screen turns off automatically.

- If there is no remote control input for the set time, the screen goes off. To turn the screen back on in **Ambient Mode**, press the  button on the remote control.

- **Reset All Photos**

Resets the photos imported from your mobile device or Samsung Cloud.3 TV

3 TV

You can enter the TV viewing screen.

4 **Selecting a content category**

You can select your preferred content and background for the **Ambient Mode** screen.

- Available content categories may differ depending on the model or geographical area.
 - **Décor**
Allows you to select content with a sensible and beautiful design.
 - **Info**
Allows you to select essential real-time information such as weather and news.
 - This function may not be supported depending on the geographical area.
 - **Photo**
Allows you to set a photo stored in your mobile device or Samsung Cloud as the wallpaper of the **Ambient Mode** screen.
 - To import photos from your mobile device or Samsung Cloud, use the SmartThings app on your mobile device.
 - **Trend**
The TV provides pictures and stories related to a specific topic or interest you select.
 - This function may not be supported depending on the model or geographical area.
 - **Artwork**
Allows you to select content such as world famous photos and artwork.
 - **Background Theme**
Allows you to set a background theme provided by Samsung as the background for content.
 - Take a picture of a wall using the SmartThings app on your mobile device to set it as the background of **Ambient Mode**. When you use this function, there may be a delay in image transmission and optimization depending on network conditions.

5 **About Ambient Mode**

You can view information about **Ambient Mode**.

Applying effects to the content


When you are enjoying content in **Ambient Mode**, press the down directional button to change the following settings for the content:

- Available functions may not be supported depending on the content.
 - **Backgrounds**
Changes the background of the content.
 - This function may not be supported depending on the content.
 - **Shadow Effects**
Applies a shadow effect that you select to the content.
 - This function may not be supported depending on the content.
 - **Brightness**
Adjusts the brightness of the content.
 - **Saturation**
Adjusts the saturation of the content.
 - **Color Tone**
Adjusts the colors of the content.
 - **Red Tone / Green Tone / Blue Tone**
Adjusts the red, green, blue contrast.

View detailed information about the content

When you are enjoying content in **Ambient Mode**, press the up directional button to view detailed information about the content.

Entering the TV viewing screen from Ambient Mode

To enter the TV viewing screen from **Ambient Mode**, press the  button, or select **TV** in the **Ambient Mode** browser screen.



- If you press the  button when the TV is turned off, the TV viewing screen appears.

2-4-3. Bixby



Speak into the microphone on your Samsung Smart Remote to control your TV.


- Bixby is available only when the TV is connected to the Internet.
- To use Bixby, you must register and sign in to your Samsung account.
- The supported language may differ depending on the geographical area.
- Bixby may not be supported depending on the model or geographical area.


Calling Bixby with voice

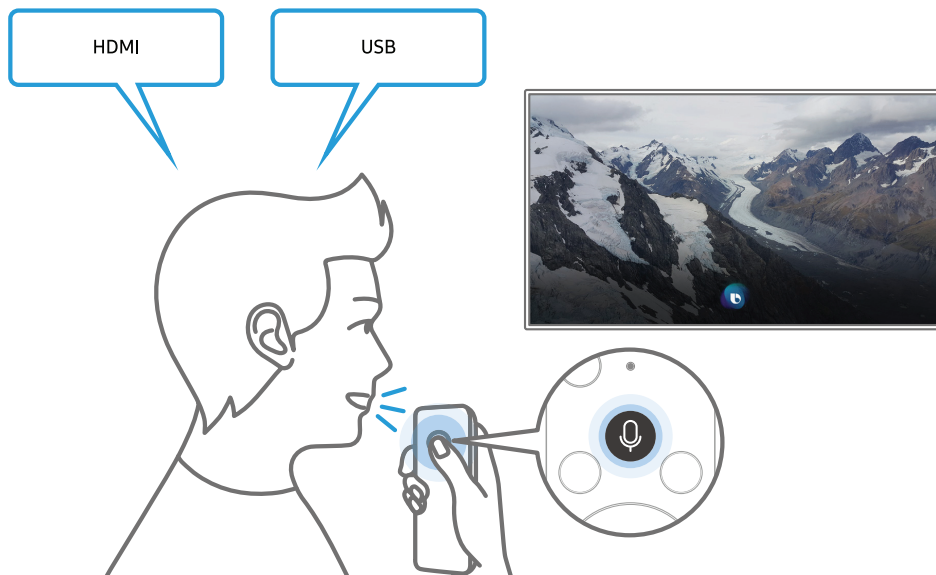
You can immediately start a conversation with Bixby by saying "Hi, **Bixby**." Say "Hi, **Bixby**," and the Bixby icon at the bottom of the TV screen is activated in Listen mode and a beep sounds. Speak what you want. If Bixby does not respond to your voice, turn on the Voice Wake-up function, and then try again. ( > **Explore Now** >  **Settings** > **Voice Wake-up**)

Talking with Bixby using buttons

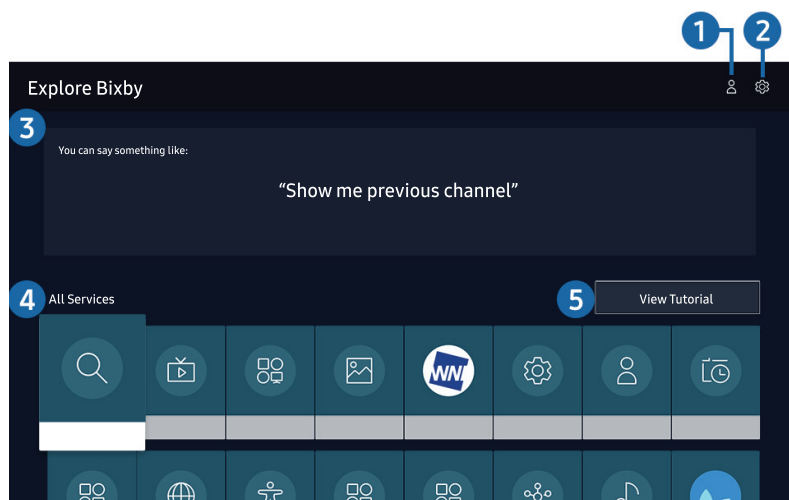
You can also make a conversation with Bixby using the Samsung Smart Remote buttons. Press and hold the  button on your Samsung Smart Remote, say a command, and then release the  button. The TV recognizes the voice command.

To view the Bixby guide, press the  button once:

- When you press the  button, the **Explore Now** button appears at the bottom of the screen. Press the Select button to go to the **Explore Bixby** screen.



Learning about Explore Bixby Screen



- The image on your TV may differ from the image above depending on the model and geographical area.

1 Ambient Settings

Go to the **My Profile** screen to create a new account or register a voice ID. Sign in to your account with your voice, that is, your registered voice ID.

- If you are signed out of your Samsung account, select  **My Profile** to sign in.

2 Settings

You can change the settings for using Bixby.

- Language**
You can change Bixby's language.
 - The languages of the TV and other apps will not change.
 - Bixby only supports some languages, and the supported functions may differ depending on the geographical area.
- Voice response**
You can change Bixby's voice.
 - This function may not be supported depending on the selected Bixby's language.
- Voice Wake-up**
When you turn on the function, Bixby will respond to your voice.
 - This function may not be supported depending on the model or geographical area.
- Sound feedback**
You can set Bixby to tell you verbally when it starts hearing your voice.
- Privacy**
You can set whether to allow Bixby to use your personal information when using Bixby services.

3 Recommended commands

Displays recommended commands you can use to control the TV with Bixby given the current context.


4 All Services

You can learn the voice commands that let you use Bixby in various situations. Use the directional buttons to move to the desired command, and then press the Select button. You can operate the TV with various voice commands.

5 View Tutorial

The popup window on using Bixby appears.

Read Before Using Bixby

- The supported voice interaction languages and features may differ depending on the geographical area.
- If the language set differs from the language of your country, some features are not available.
- Bixby is available only when the TV is connected to the Internet.
- Even if the TV is connected to the Internet, there may be no response due to a Bixby server error.
- The existing functional specifications may be changed if Bixby is updated.
- Bixby is available only on TVs that support it and come with remote controls that have a microphone.
- Symbols including "-" and special characters are not supported. Consequently, if a word or sentence contains numeric values or symbols, the function may not operate properly.
- Searched results may not provide complete results.
- You may be required to pay for some apps. Consequently, you may encounter a service application or contract.
- To change the current channel by saying channel names as voice commands, you must finish **Set Up Your Service Provider**. If **Set Up Your Service Provider** is not completed, you can complete it using **Reset** ( > **Settings** > **General** > **Reset**).
- To use the voice text input function and the search function, you must consent to provisions allowing third parties to collect and use your voice data.
- To use the Bixby function, you must:
 - Agree to Smart Hub's Terms of Use
 - Agree to a guidance regarding the collection and use of personal information for the Smart Hub service.
 - Consent to the collection and use of personal information for the voice interaction-based service.

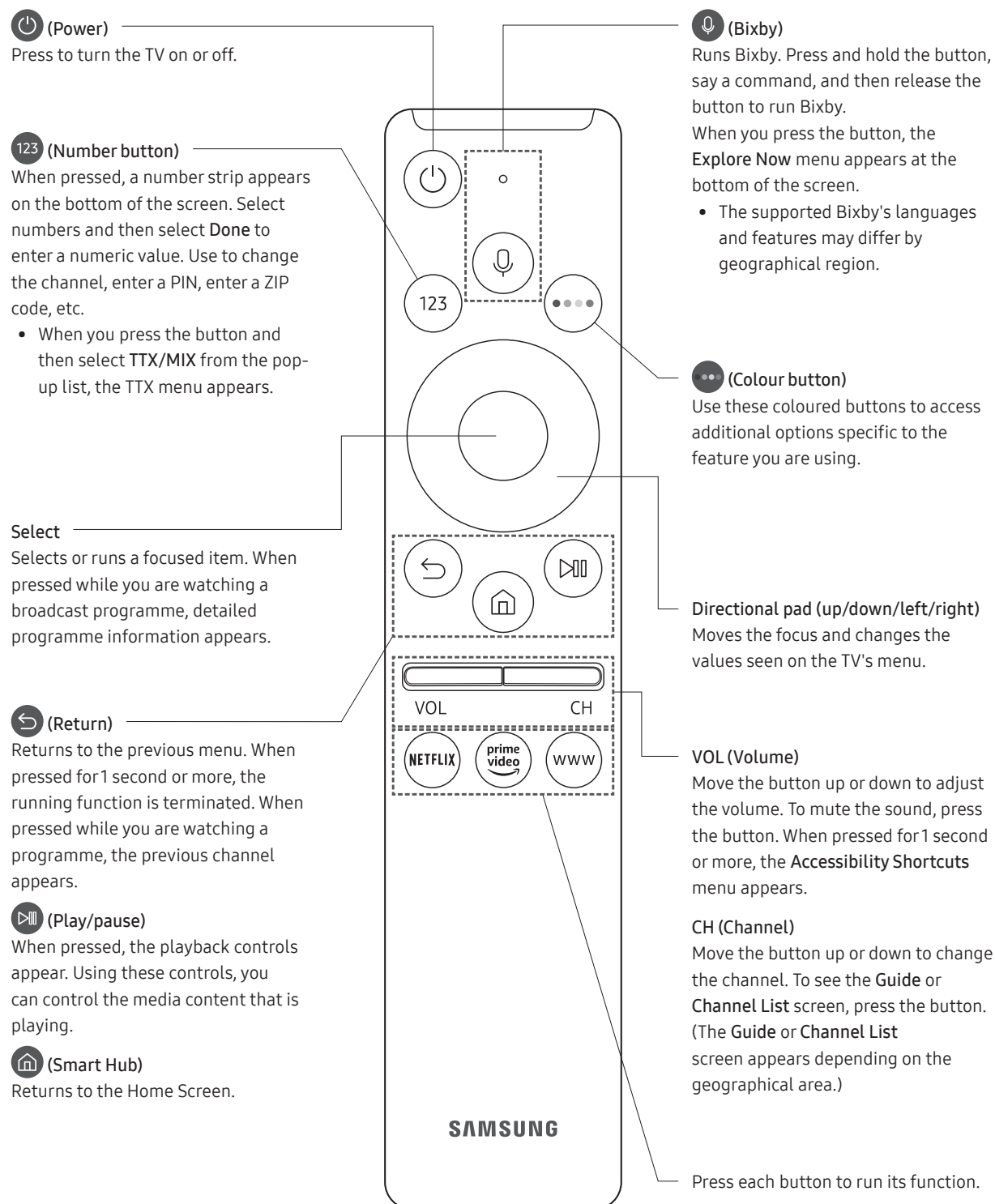
Provisions for using Bixby

- The voice interaction rate differs with the volume/tone, pronunciation, and ambient sound environment (TV sound and ambient noise).
- The optimal volume for voice commands is between 75 dB and 80 dB.

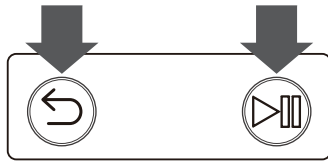
2-5. The Samsung Smart Remote



■ About the Buttons on the Samsung Smart Remote

- The images, buttons, and functions of the Samsung Smart Remote may differ depending on the model.
- The Universal Remote function operates normally only when you use the Samsung Smart Remote that comes with the TV.

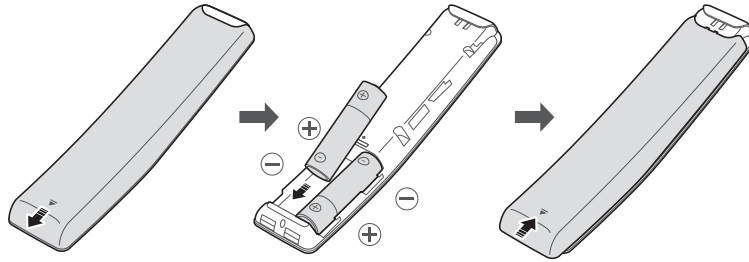


■ Pairing the TV to the Samsung Smart Remote



When you turn on the TV for the first time, the Samsung Smart Remote pairs to the TV automatically. If the Samsung Smart Remote does not pair to the TV automatically, point it at the remote control sensor of the TV, and then press and hold the buttons labeled  and  as shown in the figure on the left simultaneously for 3 seconds or more.

■ Installing batteries into the Samsung Smart Remote



To install the batteries, push the rear cover open in the direction of the arrow at the bottom of the illustration, and then insert the batteries as shown in the figure. Make sure that the positive and negative ends are facing in the correct direction. Close the rear cover as shown.

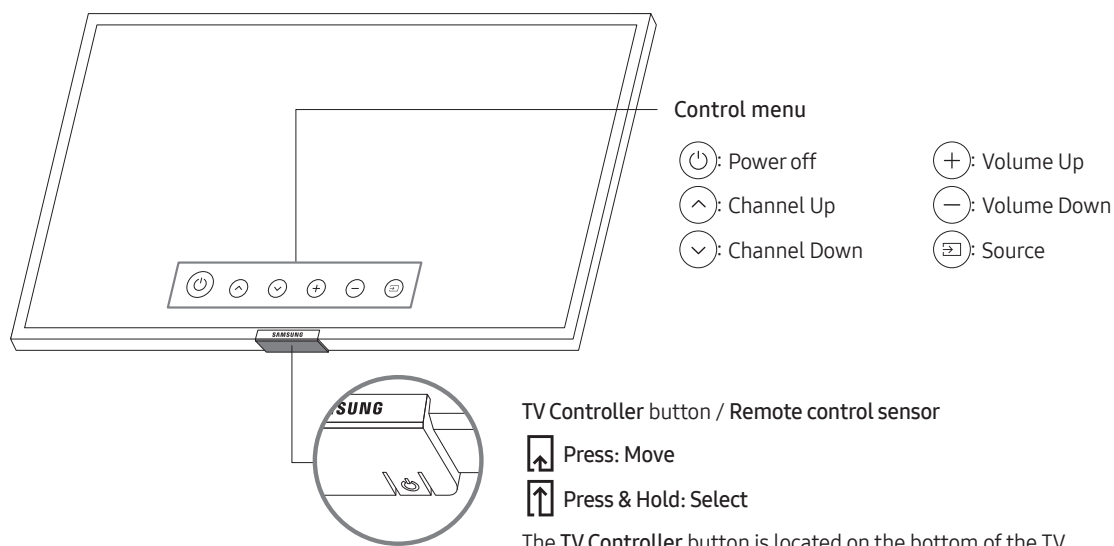
- Alkaline batteries are recommended for longer battery life.

2-6. Using the TV Controller

You can turn on the TV with the TV Controller button at the bottom of the TV, and then use the Control menu.

The Control menu appears when the TV Controller button is pressed while the TV is On. For more information about its usage, refer to the figure below.

- The screen may dim if the protective film on the SAMSUNG logo or the bottom of the TV is not detached. Please remove the protective film.



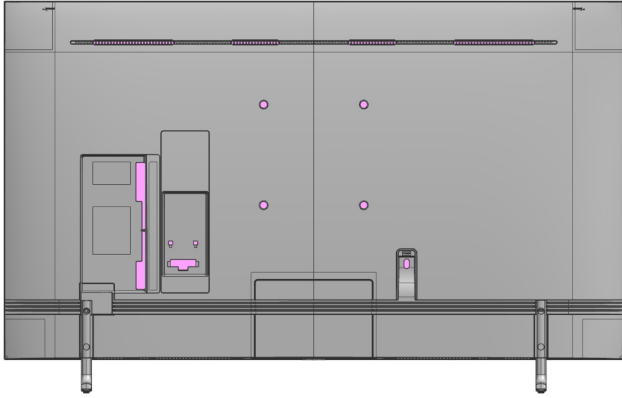



3. Disassembly and Reassemble


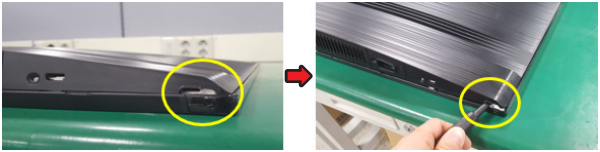
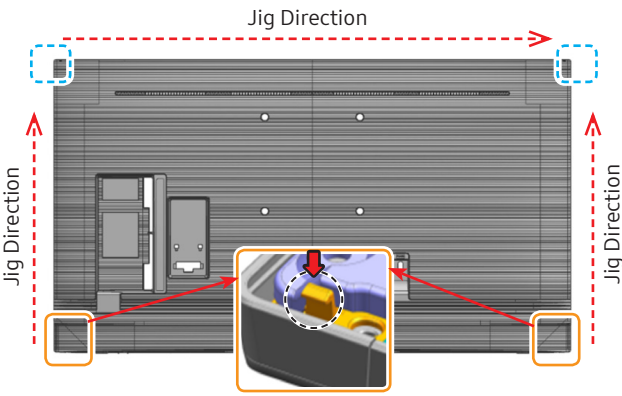
This section of the service manual describes the disassembly and reassembly procedures for the LED TV.

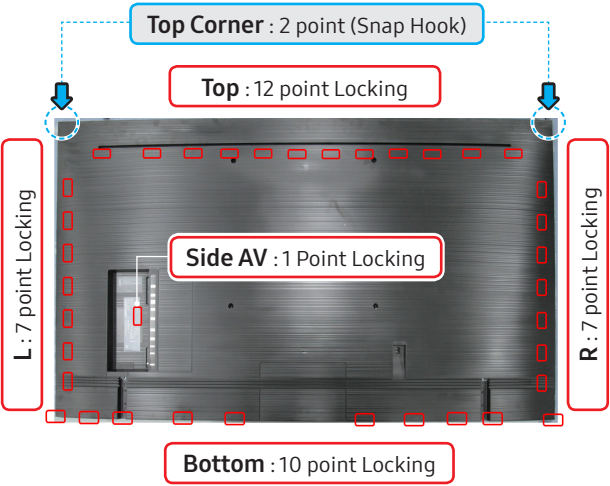
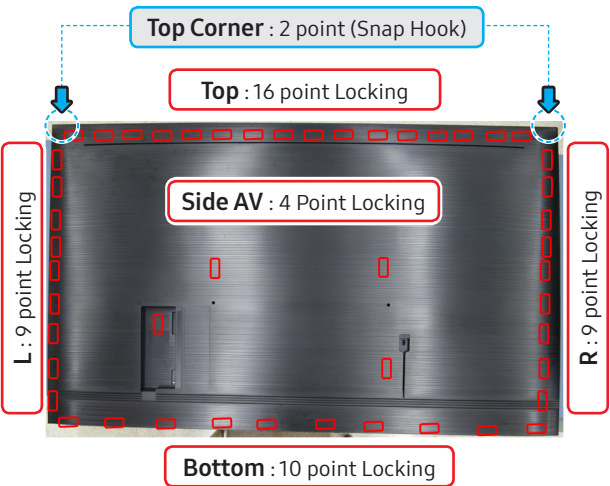
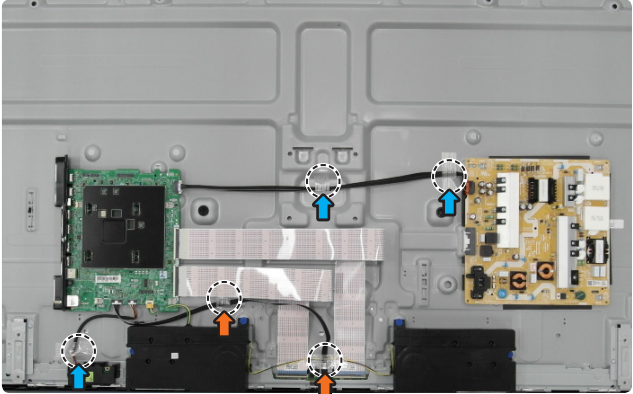


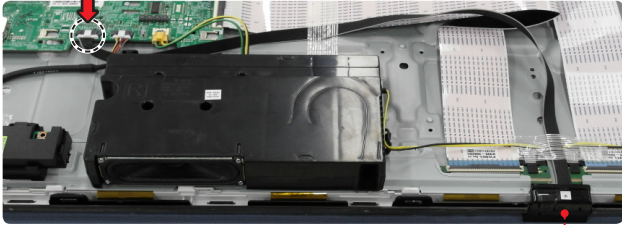
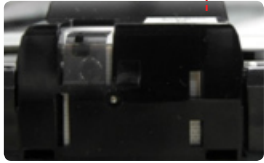
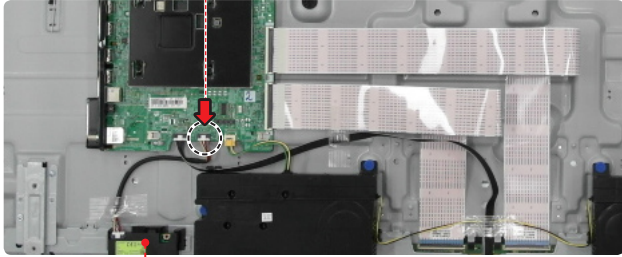

1. Disconnect the LED TV from the power source before disassembly.
2. Follow these directions carefully.
 - Use the Samsung Service tool to disassemble the cabinet.
 - Recommend to use the Samsung Service tool
 - Recommended Torque for Cabinet/Stand screws : 10 ~ 12kgf
 - A strength of Torque can be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

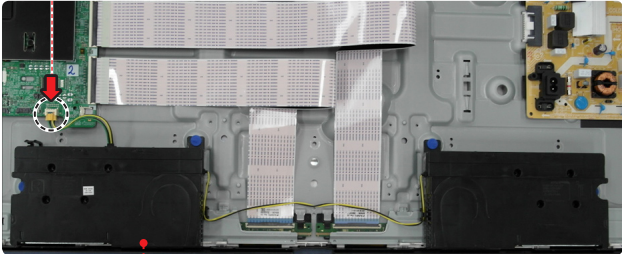
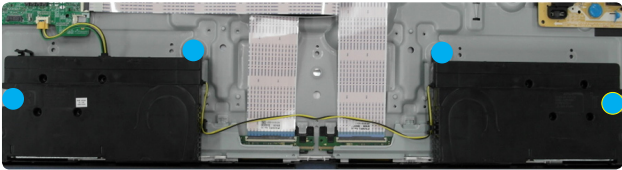
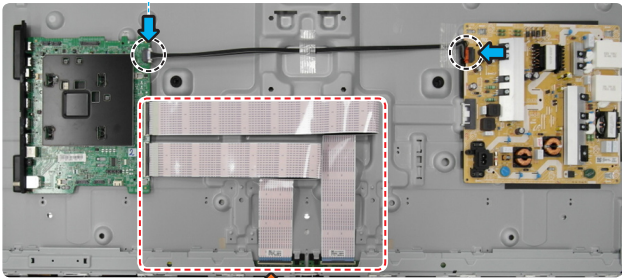
3-1. Disassembly

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 of ASSY GUIDE P-STAND, and then ASSY GUIDE P-STAND.</p> <p>Screws</p> <p> 6003-001334 x 4ea TORQUE (22.0 ~ 26.5lbf) • SET + STAND</p>	 

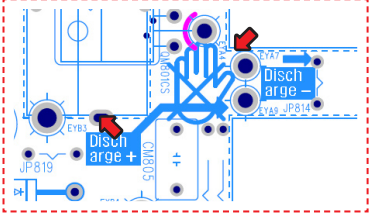



Description & Screws	Picture Description
<div data-bbox="180 293 775 741"><p>3 Use Open Jig to release tape in corners and all clips as indicated in red on sides and top & bottom.</p><p>Gently lift up the Rear Cover starting at the top being careful of function assembly at the bottom.</p><ul style="list-style-type: none">• When the 4 points () Hook is broken. Although the hook is broken, the appearance of the Rear cover is no problem and Gap problem is not appeared after re-assembly.• To prevent the Inner Hook's broken.<ol style="list-style-type: none">1. Catch the upper section of the rear cover.2. Open the rear cover from top to bottom.<ul style="list-style-type: none">• If the wire is bent, need to change the wire.</div> <div data-bbox="260 757 775 929"><p>Open Jigs</p><div data-bbox="308 801 458 826">BN81-12884A</div><div data-bbox="571 801 719 826">BN81-14946A</div></div> <div data-bbox="250 965 496 992"><p>Locking tabs locations</p></div> <div data-bbox="250 1001 325 1025"><ul style="list-style-type: none">• 49"</div> <div data-bbox="250 1509 325 1534"><ul style="list-style-type: none">• 55"</div>	<div data-bbox="804 311 1428 920"><p>Jig Direction</p><p><Bottom Conner></p></div> <div data-bbox="804 983 1428 1458"><p>Top Corner : 2 point (Snap Hook)</p><p>Top : 10 point Locking</p><p>Side AV : 1 Point Locking</p><p>L : 6 point Locking</p><p>R : 6 point Locking</p><p>Bottom : 7 point Locking</p></div> <div data-bbox="804 1525 1428 2000"><p>Top Corner : 2 point (Snap Hook)</p><p>Top : 10 point Locking</p><p>Side AV : 1 Point Locking</p><p>L : 6 point Locking</p><p>R : 6 point Locking</p><p>Bottom : 6 point Locking</p></div>

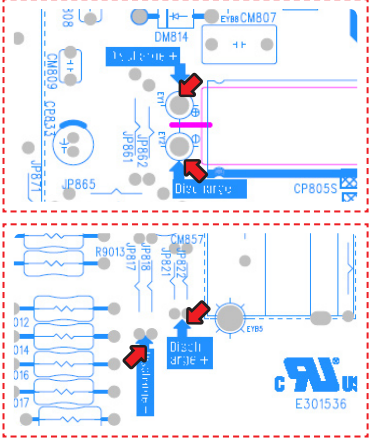

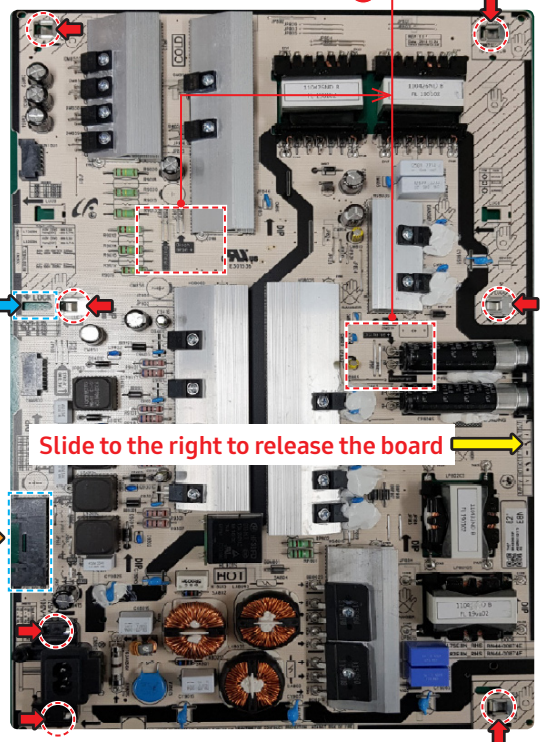
Description & Screws	Picture Description
<ul style="list-style-type: none"> 65" 	
<ul style="list-style-type: none"> 82" 	
<p>4 Remove the Electric tapes shown on the images.</p> <ul style="list-style-type: none"> EMI Filament Tape (Dressing) Safety Tape(Dressing) <div data-bbox="256 1529 708 1765"> <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>	

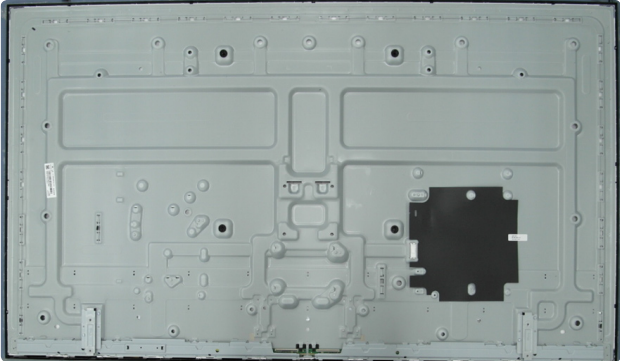
Description & Screws	Picture Description
<div>5</div> <div>Remove the ASSY BOARD P-FUNCTION ONE KEY.</div> <div><ul style="list-style-type: none">➡ ASSY BOARD P-FUNCTION ONE KEY Cable</div>	<div>ASSY BOARD P-FUNCTION ONE KEY Cable</div> <div></div> <div></div> <div>ASSY BOARD P-FUNCTION ONE KEY</div>
<div>6</div> <div>Remove the NETWORK.</div> <div><ul style="list-style-type: none">➡ NETWORK Cable</div>	<div>NETWORK Cable</div> <div></div> <div>NETWORK</div> <div></div> <div><Disassemble WiFi></div>

Description & Screws	Picture Description
<p>7 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>8 Remove the Cables.</p> <ul style="list-style-type: none">➡ LEAD CONNECTOR-POWER (SMPS - MAIN)➡ FFC Cables	<p>LEAD CONNECTOR-POWER Cables</p>  <p>FFC Cables</p>

Description & Screws	Picture Description
<div data-bbox="183 291 215 347">9</div> <div data-bbox="252 291 753 448"><p>Remove the ASSY PCB MAIN BOARD.</p><ul style="list-style-type: none">• Gently lift up (Top Right corner) to release the lock.• Use both hands to hold the board and slide to the left to release the board.</div> <div data-bbox="260 465 777 629"><div data-bbox="260 465 311 521"></div><div data-bbox="323 483 384 512">NOTE</div><div data-bbox="260 537 753 622"><p>When installing the ASSY PCB MAIN BOARD, verify the board is properly positioned in all 4 mounting slots.</p></div></div> <div data-bbox="252 629 758 779"><div data-bbox="252 629 395 779"></div><div data-bbox="403 692 480 719">Locking</div><div data-bbox="491 629 635 779"></div><div data-bbox="643 692 758 719">Fixing Hole</div></div>	<div data-bbox="802 286 1425 981"></div> <div data-bbox="1023 999 1345 1025">Bottom chassis Guide Fixing Hole</div>

Description & Screws	Picture Description
<p>10 Remove the DC VSS-PD BOARD. (Decomposition order: ① - ② - ③)</p> <ul style="list-style-type: none"> 49" / 55" / 65" <p>① Before Removing SMPS Board, You have to discharge the SMPS by using service JIG.</p> <ul style="list-style-type: none"> If LED ON -> LED OFF discharge is completed. <p>Measurement point</p>  <p>LED ON LED OFF</p> <p><Before discharging> <After discharging></p> <p>② Remove the SMPS Board pushing to the arrow direction.</p> <ol style="list-style-type: none"> Pushing Connector A. Insert the OPEN JIG like a picture. Gently lift up (Top Left corner) to release the lock. <p>③ Gently lift up (Top Left corner) to release the lock and Slide Board to the Right.</p> <div style="display: flex; justify-content: space-around; align-items: center;">  Locking  Fixing Hole </div> <p>A/S-DISCHARGE-JIG</p> <div style="display: flex; align-items: center;">  <div style="margin-left: 20px;">BN81-12884A</div> </div>	<p>③ Locking</p> <p>Measurement point</p> <p>①</p> <p>Slide to the right to release the board</p> <p>②</p> <p>③ Bottom chassis Guide Fixing Hole...</p> <div style="border: 1px dashed blue; padding: 5px; margin-top: 10px;"> <p>Connector A</p> <p>① Pushing Connector A</p> <p>② Insert the OPEN JIG like a picture</p> <p>③ Gently lift up (Top Left corner) to release the lock</p> </div>

Description & Screws	Picture Description
<p>11 Remove the DC VSS-PD BOARD. (Decomposition order: ① - ② - ③)</p> <ul style="list-style-type: none"> 82" <p>① Before Removing SMPS Board, You have yo discharge the SMPS by using service JIG.</p> <ul style="list-style-type: none"> If LED ON -> LED OFF discharge is completed. <p>Measurement point</p>  <div data-bbox="316 1081 758 1254"> <div>LED ON</div> <div>LED OFF</div> <div><Before discharging></div> <div><After discharging></div> </div> <p>② Remove the SMPS Board pushing to the arrow direction.</p> <ol style="list-style-type: none"> Pushing Connector A. Insert the OPEN JIG like a picture. Gently lift up (Top Left corner) to release the lock. <p>③ Gently lift up (Top Left corner) to release the lock and Slide Board to the Right.</p> <div data-bbox="311 1568 750 1680"> <div>Locking</div> <div>Fixing Hole</div> </div> <p>A/S-DISCHARGE-JIG</p>  <p>BN81-12884A</p>	<p>Measurement point</p> <p>①</p>  <p>③ Locking</p> <p>Slide to the right to release the board</p> <p>②</p> <p>③ Bottom chassis Guide Fixing Hole</p> <div data-bbox="893 1176 1420 1646"> <div>Connector A</div> <div>① Pushing Connector A</div> <div>② Insert the OPEN JIG like a picture</div> <div>③ Gently lift up (Top Left corner) to release the lock</div> </div>

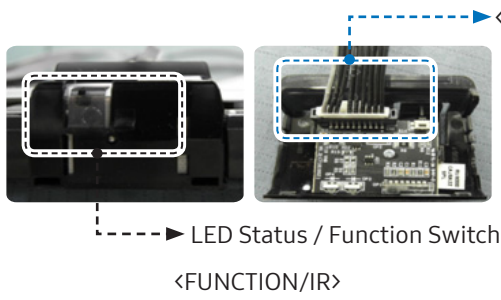
Description & Screws	Picture Description
12 Completed the disassembly.	

**NOTE**

Reassembly procedures are in the reverse order of disassembly procedures.

4. Troubleshooting

4-1. Function Control Operation Test

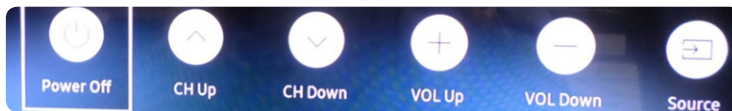


LED Status / Function Switch
<FUNCTION/IR>

<To CN1501 Main Board>

CN1501 (FUNCTION & IR)			
1	IR	2	GND
3	A3.3V_PW	4	SENSOR_SCL_I2C
5	SENSOR_SDA_I2C	6	KEY_INPUT1
7	KEY_INPUT2	8	LED_STB_OUT
9	IR_OUT_1	10	IR_OUT_2
11	GND	12	N.C.

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



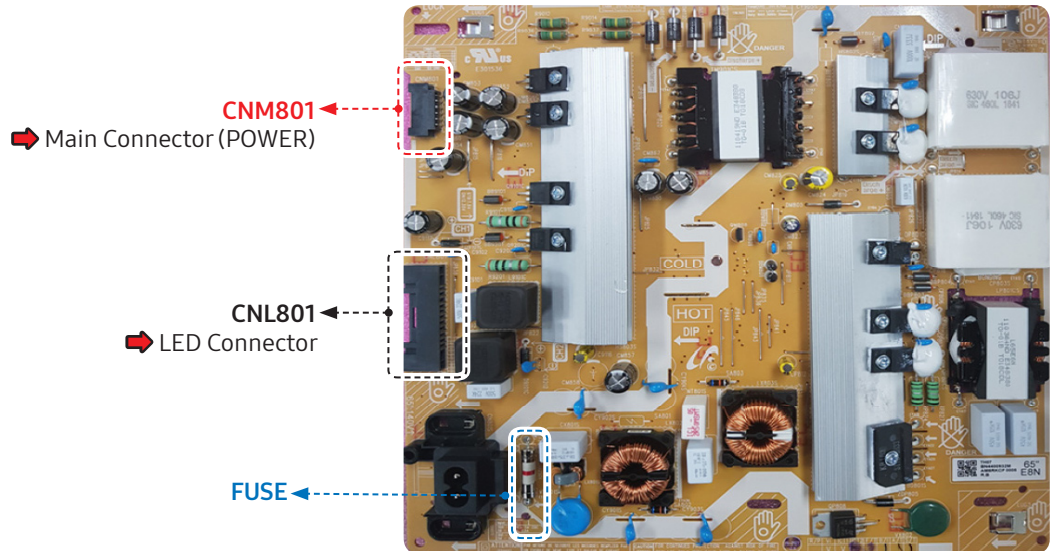
[On Screen Selections with Function Control]

- 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

- 49 / 55 / 65 inches



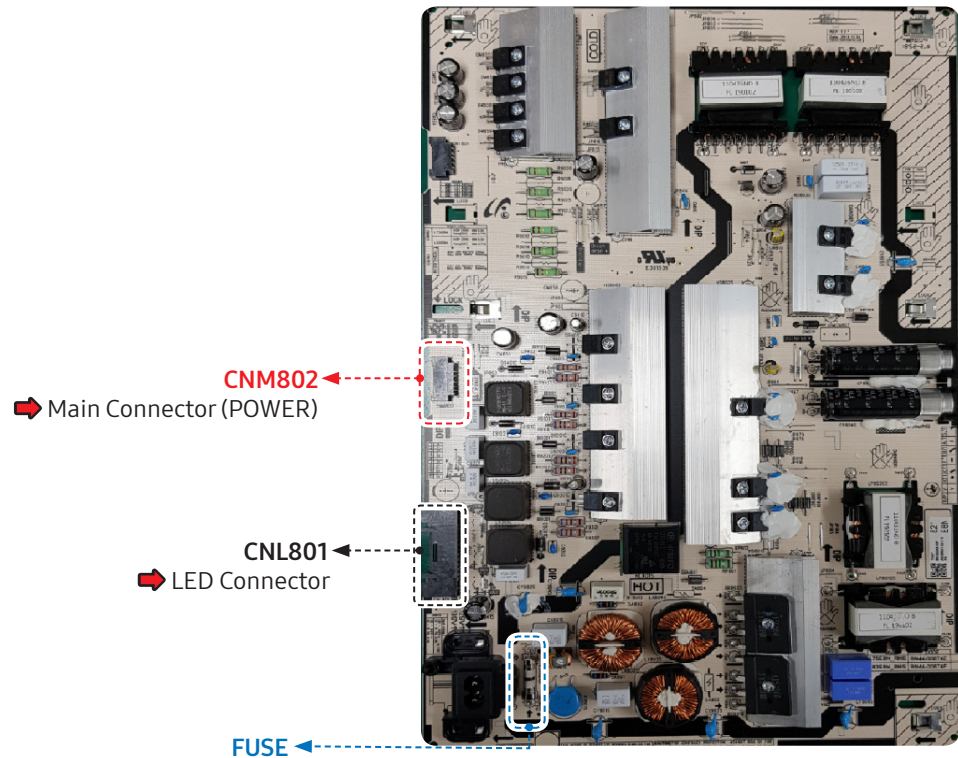
CNM801 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	BLU_PWM
7	A13V	8	POWER_On/Off	9	A13V	10	GND	11	GND	12	GND

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 AC 120Vac 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**.

- 82 inches



CNM802 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	PWM_BLU
7	A13V	8	POWER_ON	9	A13V	10	GND	11	GND	12	GND

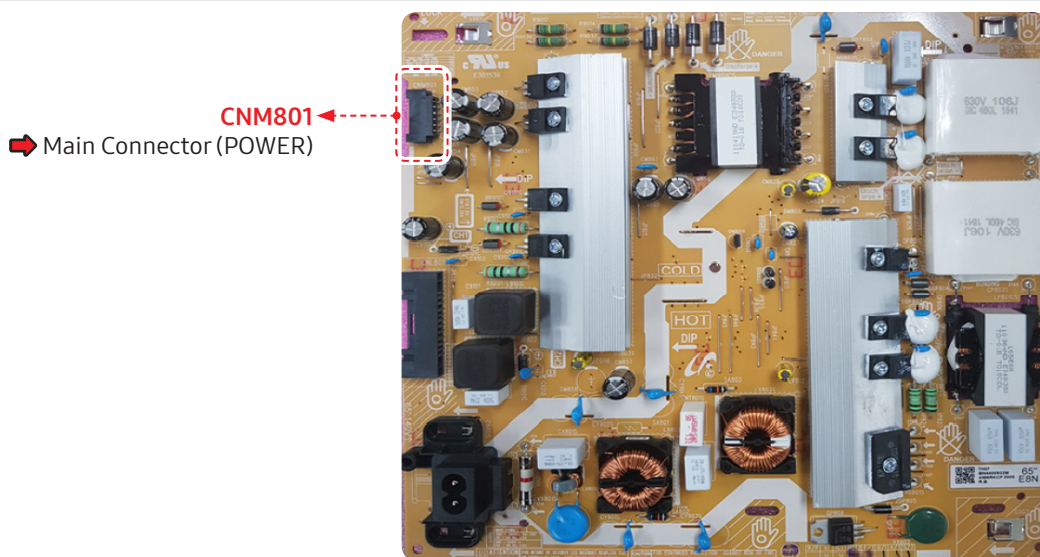
CNL801 (LED Connector)											
1	1+	2	1-	3	2+	4	2-	5	4+	6	4-
7	3+	8	3-	9	6-	10	6+	11	5-	12	5+

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

- 49 / 55 / 65 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

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 a delay from PS-ON to off condition when the TV is powered off.

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

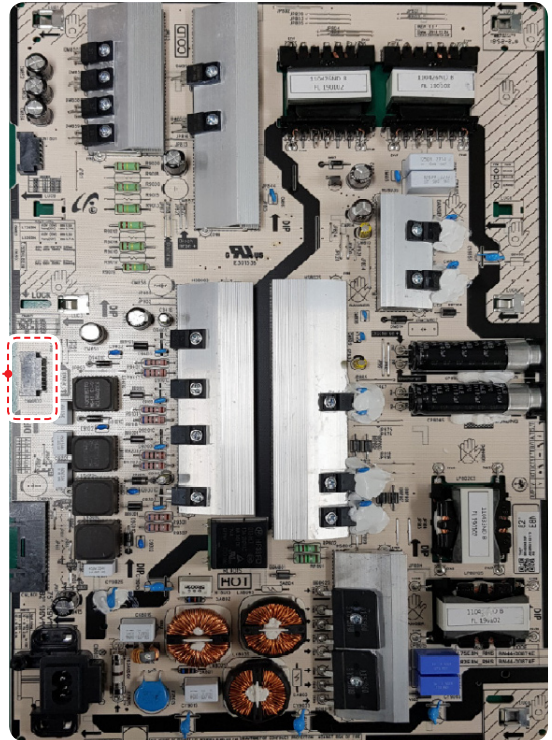
- ✓ **OD_ON/OFF** (Over Voltage Detect) (pin **4**) 3.3Vdc : Operating Normal

7. If 0V 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**.

- 82 inches

➡ Main Connector (POWER) **CNM802**



CNM802 (MAIN Connector)											
1	GND	2	ANA-DIM	3	A13V	4	OD_ON/OFF	5	A13V	6	PWM_BLU
7	A13V	8	POWER_ON	9	A13V	10	GND	11	GND	12	GND

➡ Power (from pin 8) ➡ Backlight (from pin 6)

TV POWER ON SEQUENCE TEST :

8. Power TV On

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



NOTE

- There is a delay from PS-ON to off condition when the TV is powered off.

9. If voltage error or no change:

- ✓ Jog Function Control Test

10. If OK replace **Main Board**

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

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

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

12. If OK replace **Main Board**

13. If still wrong voltage replace SMPS

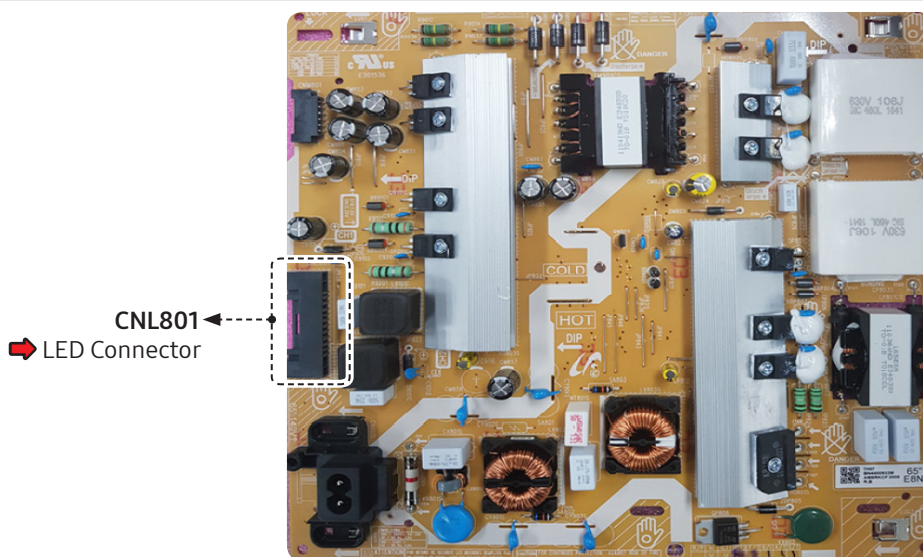
- ✓ **OD_ON/OFF** (Over Voltage Detect) (pin **4**) 3.3Vdc : Operating Normal

14. 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)

- 49 / 55 / 65 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**

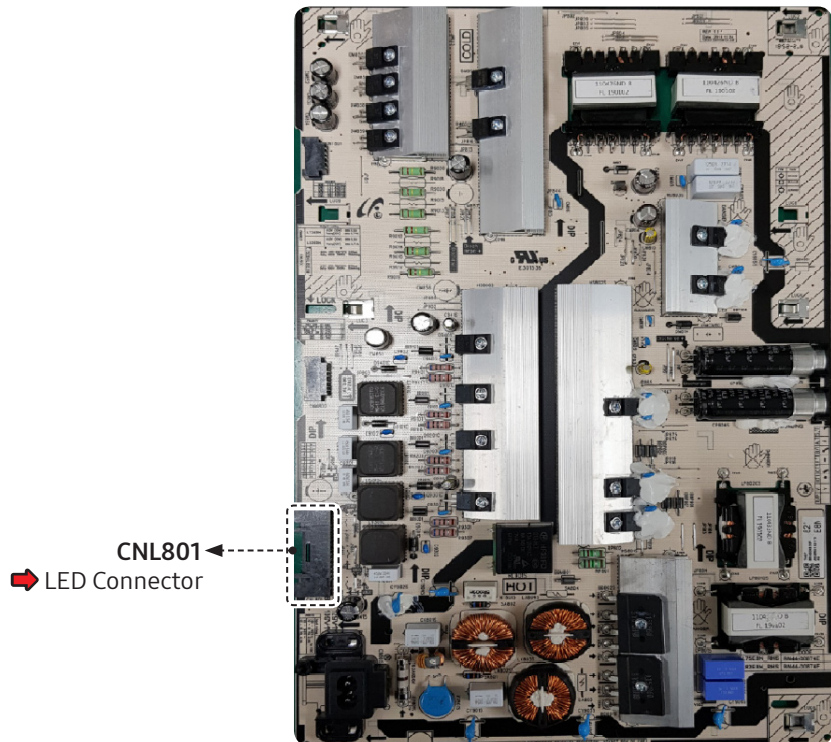
BACKLIGHT DIMMING PROBLEMS :

- 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** **CNM802** 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**

- 82 inches



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

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 CNM802)** 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**.


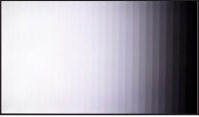
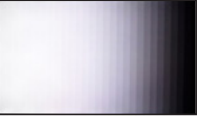
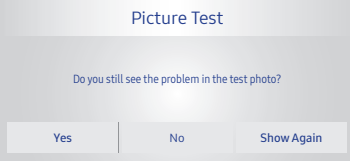
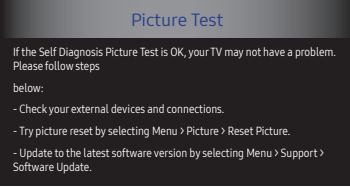
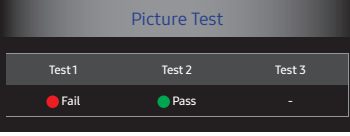
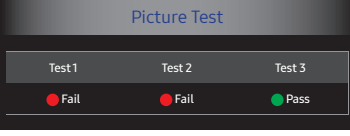
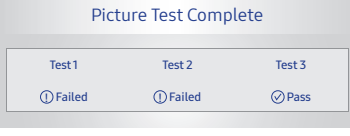
Backlight Test : In normal TV operating mode, use standard **IR Remote** or **Factory Remote** with commands.

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

4-3. Video

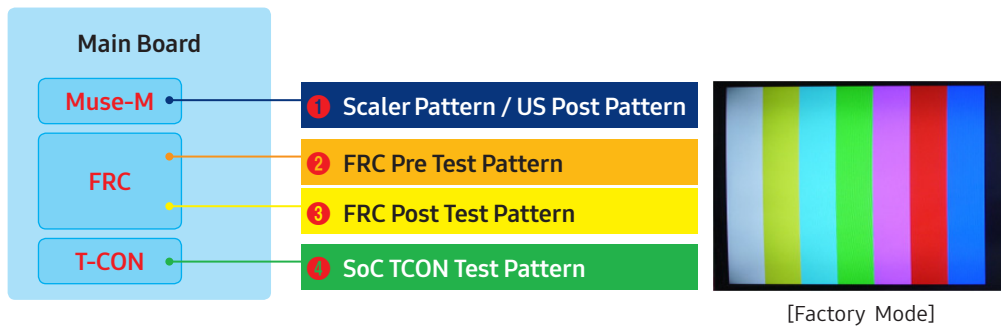
4-3-1. Customer Picture Test

■ 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**

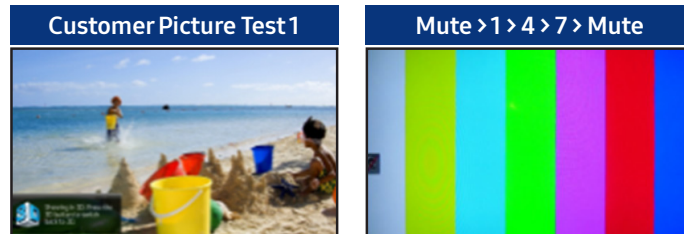


1. Verify "Scaler Pattern" and "US Post Pattern"
2. Verify "FRC Pre Test Pattern"
3. Verify "FRC Post Test Pattern"
4. Verify "SoC TCON Test Pattern"

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

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

■ Main Section

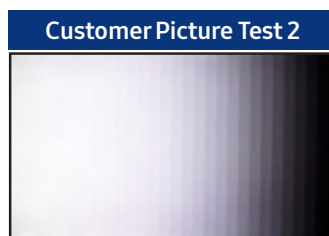


Video Operation

Generated on Main Section.

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

■ PRE FRC Section

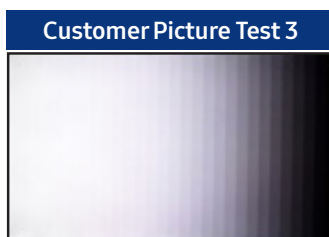


Video Operation

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



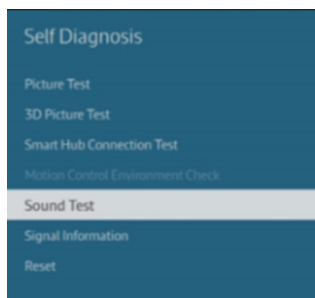
- Check Panel
1. **If Noisy Video:**
 - ✓ Soc T-CON Pattern in Factory Mode
 - Use type of Noise observed (Bars, single lines, video distortion, etc to help.)
 - If noise is only on one half of screen check / swap panel cables.
 - Verify Defective Panel Cables, TV Main/T-CON Board or Panel.

4-4. Audio

- Source > Main Board/T-CON > 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.

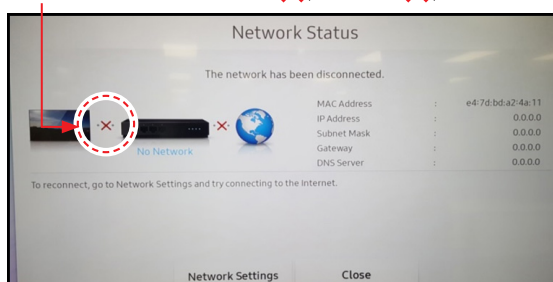
4-5. Network



■ 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 > Support > Self Diagnosis > Start Smart Hub Connection Test



[Network Test/Gateway Test](#) > [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.

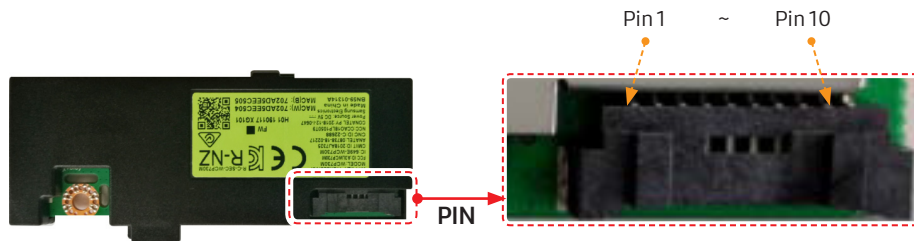


- If Certificate and ESN exists, "CO", "Nfo", change the **DNS** to **8.8.8.8**
- If Certificate is missing, "C/" replace the TV's Main Board.
- If ESN number is missing: **NF**/ do not replace the Main Board.
 - Reset TV Clock and check for correct Time & Date. Netflix relies on correct settings.
 -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

For Streaming Issues:

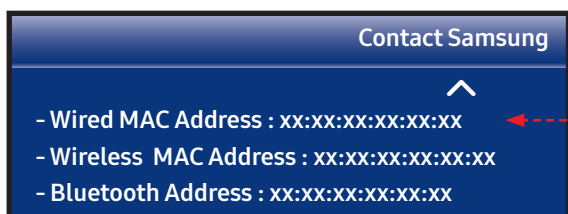
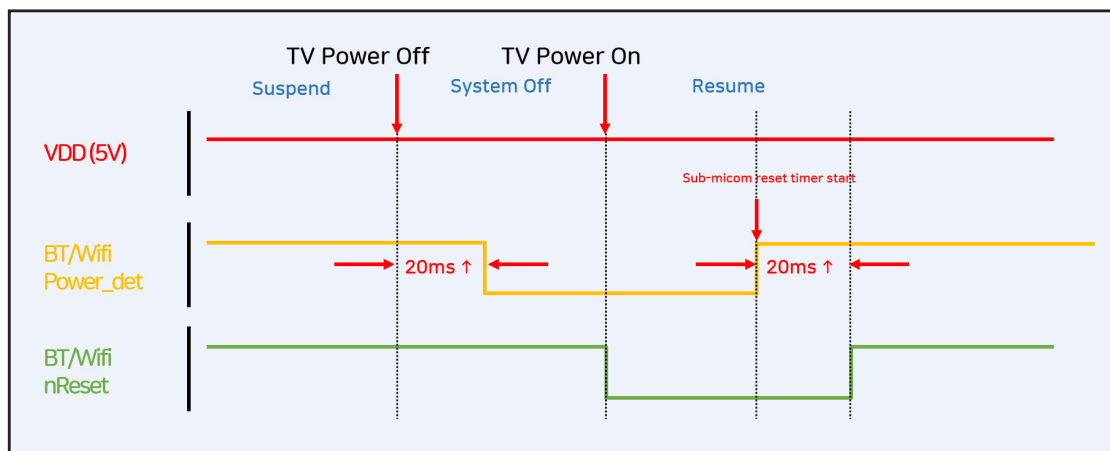
- Go to TV Web Browser / Go to speedof.me / testmy.net
 - ✓ **Check Speed** for at least 5 Mbps(HD streaming) / 25 Mbps (4K Streaming).
 - ✓ **Check Latency** for less than 50ms.

4-7. BlueTooth / WiFi Module



Pin Description

Pins	Name	Standby	Power On
1	BT_WAKE	3.3 Vdc	3.3 Vdc
2	BT_UART_TXD	3.3 Vdc	3.3 Vdc
3	WIFI_PHY_ON	0	3.3 Vdc
4	GND	0	0
5	D+_USB_BTWIFI	0	Sig(DP)
6	D-_USB_BTWIFI	0	Sig(DM)
7	GND	0	0
8	WIFI_5V	5 Vdc	5 Vdc
9	WIFI_WOW	3.3 Vdc	3.3 Vdc
10	BTWIFI_NRESET	3.3 Vdc	3.3 Vdc



Missing or Error : Replace **Main Board**.

Go to [Menu](#) > [Support](#) > [Contact Samsung](#)

- ✓ Wireless MAC Address
- ✓ Bluetooth Address
 - If **Bluetooth Address** or **Wireless MAC Address** are missing or errors exist.
- ✓ BT & Wi-Fi Connector Voltages.
 - If Voltages are OK but no BT or Wi-Fi Signals voltage(s), replace defective Module.

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	65A1AU0NR
Writing Type	
Local Set	ED_VIET
SW Model	URU8000
Model Code	UA65RU8000KXXV
TUNER	-
Ch Table	NONE
MRT Option	
Production Option	
Engineer Option	

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)

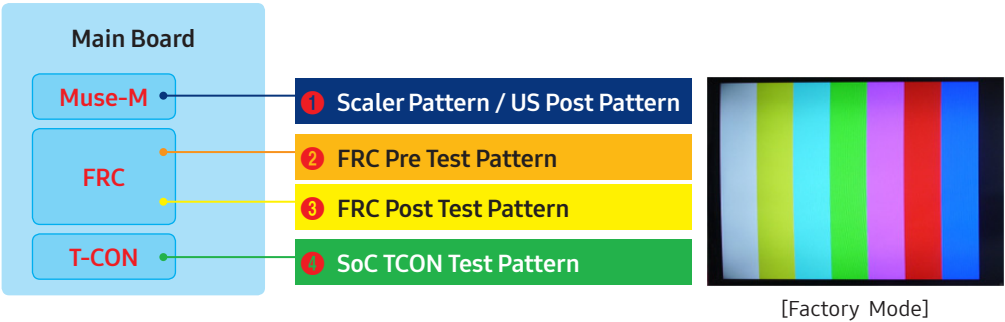
First Screen Appearing in Factory Mode

Important Screen Info

- Sample (2019 82Q70 Example)

Option		
Control		
Debug	T-MSMAKUC-0719.20 T-MMINTV-1001	✓ Micom Version ✓ Sub Micom
SVC	TIZEN-5.0-MAIN2019-MuseM-RELEASE_20181219.2 (Perf)	✓ Tizen Platform info
ADC/WB	BT Version : BLUETOOTH-VER-18102323 E-Manual : MUSATSCR-0.0.1 Blaster Version : A81106-U81101-1704A8 E-POP Version : ---- EDID SUCCESS HDCP SUCCESS	✓ BT Version ✓ E-Manual ✓ Blaster Version ✓ E-Pop Version ✓ EDID Success (Status) ✓ HDCP Success (Status)
Advanced	CALIB : AV / COMP / PC / HDMI / Option : 82A1AU7TR_US_QN82Q70RAPHZA_NONE DTCF : Not Supported (0) FRC-[MUSE-M USIT][120Hz][HW:07/01] DIMMING-[DIRECT-6x8][02] LD FW1 : 19800020 LD FW2 : ---- TCON-[MUSE-M] FW[9011] DATA[R82A1UQM13] Model : QN82Q70RAPHZA Wired MAC SUCCESS Wireless MAC SUCCESS WiFi Version : mt7668u-MTKv3.3.3 20181214 CO NI/ W/ MO D/ H2 PO AO O S/ N/ RO FP/ SIX WS/ DI/ UX I/ (T) NSOO,0000001c49000001,0000 Factory Data Ver : 19106 / Fixed Ver : 19000 EERC Version : 31 / WB Ver : 1 CPLD/LD : N/A SmartControl : 00000000/000000 Board Info : 2018/12/13/PR/1/BN41-02695A Factory Reset In Production : 0 SID : ---- Date of purchase : --/--/----	✓ 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)


■ SVC ➤ Test Patterns



- 1. Verify "Scaler Pattern" and "US Post Pattern".
- 2. Verify "FRC Pre Test Pattern".
- 3. Verify "FRC Post Test Pattern".
- 4. 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
SOC TCON3 Pattern	0
SOC TCON3 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	Hotel Option
SVC	Shop Option
ADC/WB	Asia Option
Advanced	Sound

- 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

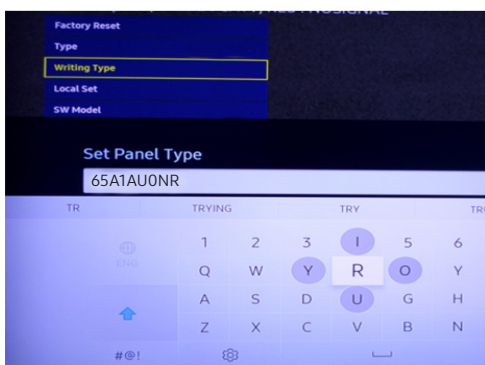
For Quick Entry of Type

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

Factory Reset	
Type	65A1AU0NR
Writing Type	
Local Set	ED_VIET
SW Model	URU8000
Model Code	UA65RU8000KXXV

◀Select Writing Type▶

3. “Set Panel Type” appears.

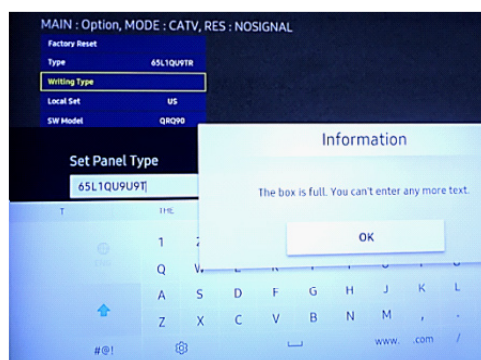


◀Set Writing Type▶

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	65A1AU0NR
Writing Type	Success
Local Set	ED_VIET
SW Model	URU8000
Model Code	UA65RU8000KXXV

◀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

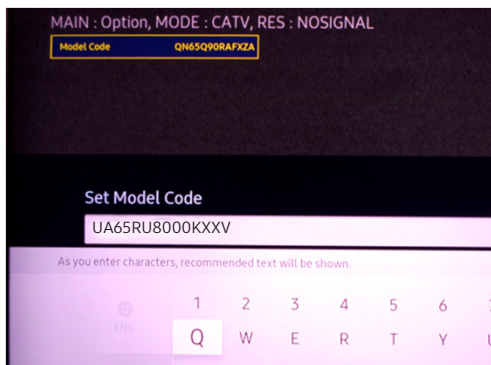
For Quick Entry of Model Code

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

Factory Reset	
Type	65A1AU0NR
Writing Type	Success
Local Set	ED_VIET
SW Model	URU8000
Model Code	UA65RU8000KXXV

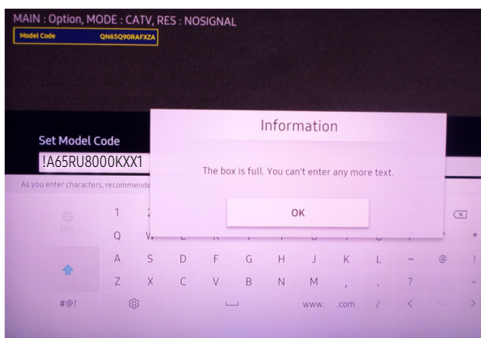
<Select Model Code>

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	65A1AU0NR
Writing Type	Success
Local Set	ED_VIET
SW Model	URU8000
Model Code	!A65RU8000KXXV1

<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. 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**".

■ UA49RU8000KXXV

- PANEL / SMPS / MAIN Information

Multi Bom	Panel Info	Panel Type	Description	SMPS	Assy Chassis	Assy PCB/ Main	S/W Model
FA01	BN95-05519A	49A6AU0NR	PRODUCT LCD-SDC	BN44-00932L	BN91-20920D	BN94-14155A	URU8000

- MAIN Factory Option

Local Set	ED_VIET	Bom Model	8000	Front Color	Q-F-RU80-S-49
-----------	---------	-----------	------	-------------	---------------

- PBA Factory Option

Panel Type	00GD00019	Local Set	AD_AU2	S/W Model	URU8000	Bom Model	Follow S/W Model
------------	-----------	-----------	--------	-----------	---------	-----------	------------------

■ UA55RU8000KXXV

- PANEL / SMPS / MAIN Information

Multi Bom	Panel Info	Panel Type	Description	SMPS	Assy Chassis	Assy PCB/ Main	S/W Model
FA01	BN95-05517A	55A1AU0NR	PRODUCT LCD-SDC	BN44-00932L	BN91-20910E	BN94-14155F	URU8000

- MAIN Factory Option

Local Set	ED_VIET	Bom Model	8000	Front Color	Q-F-RU80-S-55
-----------	---------	-----------	------	-------------	---------------

- PBA Factory Option

Panel Type	00GD00019	Local Set	AD_AU2	S/W Model	URU8000	Bom Model	Follow S/W Model
------------	-----------	-----------	--------	-----------	---------	-----------	------------------

■ UA65RU8000KXXV

- PANEL / SMPS / MAIN Information

Multi Bom	Panel Info	Panel Type	Description	SMPS	Assy Chassis	Assy PCB/ Main	S/W Model
FA01	BN95-05515A	65A1AU0NR	PRODUCT LCD-SDC	BN44-00932M	BN91-20675E	BN94-14004E	URU8000
AA02	BN95-05516A	65L1AU0NR	PRODUCT LCD-AUO	BN44-00932M	BN91-20877B	BN94-14162D	URU8000

- MAIN Factory Option

Local Set	ED_VIET	Bom Model	8000	Front Color	Q-F-RU80-S-65
-----------	---------	-----------	------	-------------	---------------

- PBA Factory Option

Panel Type	00GD00019	Local Set	AD_AU2	S/W Model	URU8000	Bom Model	Follow S/W Model
------------	-----------	-----------	--------	-----------	---------	-----------	------------------

4-9-2. Factory Data

■ Option

Factory Menu Name		Data	Range
Factory Reset		-	
Type	49"	49A6AU0NR	
	55"	55A1AU0NR	
	65"	65A1AU0NR, 65L1AU0NR	
	82"	-	
Writing Type			
Local set		ED_VIET	
SW Model		URU8000	
Model Code		UA**RU8000KXXV	49/55/65/82
TUNER		-	PAL,DVB-T2/C
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	
ECO IC TYPE		NOT_DETECT	
COLOR IC TYPE		RISG315	

Factory Menu Name	Data	Range
Info Link Server Type	development	
Info Link Country	None	
TTX Group	UserOSD	
OPTION_SWU		
RF Remocon Support	OFF	
CDD mode	...	
DPMS Support	OFF	
T-CON Device	MUSE-M	
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	

4. Troubleshooting

Factory Menu Name	Data	Range
Power On		
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	*If the broadcast signal is not good, TV will complement the characteristics of the signal (most use when weak signal comes from the growing area countries)
Carrier_Mute	ON	*If the noise comes from weakness-electromagnetic field, TV will be set Mute automatically(Only default on in North America)
Pilot Level High Thld	0x20h	* The High threshold value of stereo signal(If Pilot level is greather than High threshold value, recognize Stereo signal)
Pilot Level Low THLD	0x10h	* The Low threshold value of stereo signal(If Pilot level is less than Low threshold value, recognize Mono signal)
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	

Factory Menu Name	Data	Range
Woofer Check sum	0x0000A273	
PEQ Inx	76	
PEQ Test	Ready	
Speaker EQ	ON	
Bottom Checksum	NONE	
Wall Filter Type	3	
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	
PeBus SSC ON/OFF	OFF	
PeBus Value	0	

4. Troubleshooting

Factory Menu Name	Data	Range
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	
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	

Factory Menu Name	Data	Range
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	
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		
H.264 Margin		
CAM Wait Time		
Voice Debug		
Power Management		
Cert Option		
RM_BIST_DTV		
RM_BIST_ATV		
RM_BIST_CABLE		
SerDES Check		
SerDES Tuner		
HDMI SW	Failure	
HDMI Rx	Failure	
MP Failure		
Main SerDES	Failure	
Jack SerDES	Failure	
Stress Mode		
Log Analyzer		
Error Popup On/Off		
DeadLock KILL		

4. Troubleshooting

Factory Menu Name	Data	Range
CES Option		
CES Convergence Option		
CES ATSC 3_0		
CES OOB E MVPD SUPPORT		
BT DUT		
BT Throughput		
Reproduce Module		
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		
No Signal Power OFF		
Alert Option		
Default HDMI1 Booting		

■ 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	

Factory Menu Name	Data	Range
HOTPLUG SWITCHING	Auto	
HOT PLUG DURATION	800ms	
CLK TERM DURATION	300ms	
HDMI FLT CNT SIG	0ms	
HDMI FLT CND SIG2		
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	

4. Troubleshooting

Factory Menu Name	Data	Range
CI Control Buf ON2	1	
TS Clock delay CPU2	0	
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	
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		
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		

Factory Menu Name	Data	Range
IR Blaster Upgrade		
IR Blaster delay time		
NTV CU UPDATE		
UD LDC PROFILE UPGRADE		
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		
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		

Factory Menu Name	Data	Range
G1_Gain		
B1_Gain		
R2_Gain		
G2_Gain		
B2_Gain		
R3_Gain		
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		

4. Troubleshooting

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

■ Advanced

4-10. AV Control Tab

Control Item				Cmd1	Cmd2	Cmd3	Value
General	Power	Power		0x00	0x00	0x00	0x00
		Off					0x01
		On					0x02
	Volume	Direct		0x01	0x00	0x00	(0~100)
		Up				0x01	0x00
		Down				0x02	0x00
	Mute			0x02	0x00	0x00	0x00
	Ch.	Direct		0x04	-		
		Continuous	Up	0x03	0x00	0x01	0x00
			Down			0x02	0x00
Input	Source List	TV	TV	0x0a	0x00	0x00	0x00
		AV	AV1			0x01	0x00
			AV2				0x01
			AV3				0x02
		S-Video	S-Video1			0x02	0x00
			S-Video2				0x01
			S-Video3				0x02
		Component	Component1			0x03	0x00
			Component2				0x01
			Component3				0x02
		PC	PC1			0x04	0x00
			PC2				0x01
			PC3				0x02
		HDMI	HDMI1			0x05	0x00
			HDMI2				0x01
			HDMI3				0x02
			HDMI4				0x03
		DVI	DVI1			0x06	0x00
			DVI2				0x01
			DVI3				0x02
		RVU	RVU			0x07	0x00
PICTURE	Mode	Dynamic(Entertain)		0x0b	0x00	0x00	0x00
		Standard					0x01
		Movie					0x02
		Natural					0x03
		CAL-NIGHT					0x04
		CAL-DAY					0x05
		BD Wise					0x06
		Relax					0x07

4. Troubleshooting

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	BackLight(CellLight)		0~20		0x01	0x00	(0~20)
	Contrast		0~100		0x02	0x00	(0~100)
	Brightness		0~100		0x03	0x00	(0~100)
	Sharpness		0~100		0x04	0x00	(0~100)
	Color		0~10		0x05	0x00	(0~100)
	Tint	G/R			0x06	0x00	(0~100)
	Advanced Settings	Black Tone	Off		0x07	0x00	0x00
			Dark				0x01
			Darker				0x02
			Darkest				0x03
		Dynamic Contrast	Off			0x01	0x00
			Low				0x01
			Medium				0x02
			Hlgh				0x03
		Gamma	-3 ~ 3			0x03	(-3~3)
		RGB Only Mode	Off			0x05	0x00
			Red				0x01
			Green				0x02
			Blue				0x03
		Color Space	Auto			0x06	0x00
			Native				0x01
			Custom				0x02
		White Balance	R-Offset(LCD)			0x07	(-50~50)
		White Balance	G-Offset(LCD)			0x08	(-50~50)
		White Balance	B-Offset(LCD)			0x09	(-50~50)
		White Balance	R-Gain(LCD)			0x0a	(-50~50)
		White Balance	G-Gain(LCD)			0x0b	(-50~50)
		White Balance	B-Gain(LCD)			0x0c	(-50~50)
		White Balance	Reset(LCD)			0x0d	0x00
		Flesh Tone	-15 ~ 15			0x0e	(-15~15)
		xvYCC	Off			0x10	0x00
			On				0x01
		Motion Lighting	Off			0x11	0x00
			On				0x01
		Color Space Custom Color	Red			0x12	0x00
			Green				0x01
			Blue				0x02
			Yellow				0x03

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	Advanced Settings	Color Space Custom Color	Cyan				0x04
			Magenta				0x05
		Color Space Custom Color Red Value	0~100			0x13	0~100
		Color Space Custom Color Green Value	0~100			0x14	0~100
		Color Space Custom Color Blue Value	0~100			0x15	0~100
		Color Space Custom Reset				0x1c	0x00
		LED Motion Plus	Off		0x0a	0x07	0x00
			On(Normal)				0x01
			Cinema				0x02
			Ticker				0x03
		10p White Balance	Off		0x07	0x16	0x00
			On		0x07	0x16	0x01
			Interval		0x07	0x17	(1~10)
			Red		0x07	0x18	(-50~50)
			Green		0x07	0x19	(-50~50)
			Blue		0x07	0x1a	(1~10)
			Reset		0x00	0x1b	0x00
	Picture Option	Color Tone	Cool		0x0a	0x00	0x00
			Standard				0x01
			Warm1				0x02
			Warm2				0x03
		Digital Noise Filter	Off			0x02	0x00
			Low				0x01
			Medium				0x02
			High				0x03
			Auto				0x04
			Auto Visualization				0x05
		MPEG Noise Filter	Off			0x03	0x00
			Low				0x01
			Medium				0x02
			High				0x03
			Auto				0x04
		HDMI Black Level	Normal			0x04	0x00
			Low				0x01
		Film Mode	Off			0x05	0x00
			Auto1				0x01

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE		Film Mode	Auto2				0x02
			Cinema Smooth				0x03
		Auto Motion Plus	Off			0x06	0x00
			Clear				0x01
			Standard				0x02
			Smooth				0x03
			Custom				0x04
		Blur Reduction			0x0b	0x01	value
		Judder Reduction				0x02	value
		LED Clear Motion	Off			0x03	0x00
		LED Clear Motion	On				0x01
		HDMI1 UHD Color Mode	Off			0x04	0x00
			On				0x01
		HDMI2 UHD Color Mode	Off			0x05	0x00
			On				0x01
		HDMI3 UHD Color Mode	Off			0x06	0x00
			On				0x01
		HDMI4 UHD Color Mode	Off			0x07	0x00
			On				0x01
		Analog Clean View	On			0x08	0x00
	Screen Adjustment	Picture Size	16:9	0x0b	0x0a	0x01	0x00
			Zoom1				0x01
			Zoom2				0x02
			Wide Fit				0x03
			4:3				0x04
			Screen Fit				0x05
			Smart View I				0x06
			Smart View II				0x07
			Auto Wide				0x08
			Wide Zoom				0x09
			Zoom				0x0a
		Fit to Screen	Off		0x0b	0x00	0x00
		Zoom	Zoom1		0x0c	0x00	0x00
			Zoom2				0x01
			Zoom3				0x02
			Zoom4				0x03
		Position	Position1			0x01	0x00
			Position2				0x01

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	Screen Adjustment	Position	Position3				0x02
			Position4				0x03
	Reset Picture	Reset Picture		0x0d	0x0b	0x00	0x00
	3D	3D Mode	Off	0x0e	0x0c	0x00	0x00
			2D→3D				0x01
			Side By Side				0x02
			Top Bottom				0x03
			Line By Line				0x04
			Vertical Line				0x05
			Checker BD				0x06
			Frame Sequence				0x07
		3D → 2D	Off			0x01	0x00
			On				0x01
		3D View Point				0x02	(-5~5)
		Depth				0x03	(1~10)
		3D Auto View	Off			0x05	0x00
			Message Notice				0x01
			On				0x02
			Auto1				0x03
			Auto2				0x04
		3D Light Control	Low			0x06	0x00
			High				0x01
		L/R Change	L to R			0x07	0x00
			R to L				0x01
		3D Perspective				0x08	value
		Optimize				0x09	value
	Factory-SVB	Expert-N/D Adj	On	0x0b	0x0d	0x00	0x00
			Off				0x01
			Fix				0x02
	Apply Picture Mode	All Sources		0x0f	0x00	0x00	0x00
		Current Source					0x01
	Pip	PIP	Off	0x0b	0x08	0x00	0x00
			On				0x01
			Antenna			0x01	0xff
			Size			0x02	0xff
			Position			0x03	0xff
			Sound_Select_Main			0x04	0x00

Control Item				Cmd1	Cmd2	Cmd3	Value
PICTURE	Pip		Sound_Select_Sub				0x01
			Channel_Up			0x05	0x00
			Channel_Down				0x01
Sound	Sound Mode	Standard		0x0c	0x00	0x00	0x00
		Music					0x01
		Movie					0x02
		Clear Voice					0x03
		Amplify					0x04
	Equalizer	Balance			0x01	0x00	(0~20)
		100hz				0x01	(0~20)
		300hz				0x02	(0~20)
		1khz				0x03	(0~20)
		3khz				0x04	(0~20)
		10khz				0x05	(0~20)
		Reset				0x06	0x00
	SRS TruSurround HD	Off			0x02	0x00	0x00
	Virtual Surrond	On					0x01
	SRS TruDialog	Off			0x03	0x00	0x00
	Dialog Clarify	On					0x01
	Preferred Language	English			0x04	0x00	0x00
		Spanish					0x01
		French					0x02
		Korean					0x03
		Japanese					0x04
	Multi-Track Sound	Mono			0x05	0x00	0x00
		Stereo					0x01
		SAP					0x02
	Auto Volume	Off			0x06	0x00	0x00
		Normal					0x01
		Night					0x02
	Speaker Select	TV Speaker			0x07	0x00	0x00
		External Speaker					0x01
		Audio Out					0x01
	Sound Select	Main			0x08	0x00	0x00
		Sub					0x01
	Sound Reset	Sound Reset			0x09	0x00	0x00
	3D Audio	Off			0x0a	0x00	0x00
		Low					0x01
		Medium					0x02
		High					0x03

Control Item				Cmd1	Cmd2	Cmd3	Value
Sound	TV Installation Type	Stand			0x0c	0x00	0x00
		Wallmount					0x01
	Audio Delay	Dealy Value (0~250)			0x0d	0x00	0~250 (0x00~0xFA)
KEY	Key Generation			0x0d	0x00	0x00	*Refer for Table
OSD	Show/Hide Control	Show		0x0e	0x00	0x00	0x00
		Hide					0x01
Get Status	Power (On/Off)			0xf0	0x00	0x00	0x00
	Volume(0~100)			0xf0	0x01	0x00	0x00
	Mute (On/Off)			0xf0	0x02	0x00	0x00
	Channel Number			0xf0	0x03	0x00	0x00
	Source (TV/AV/.../HDMI/...)			0xf0	0x04	0x00	0x00
	Picture Size			0xf0	0x05	0x00	0x00
	3D (On/Off)			0xf0	0x06	0x00	0x00
	Picture Mode			0xf0	0x07	0x00	0x00
	Sound Mode			0xf0	0x08	0x00	0x00

* Refer for Table

KEY	Value
Up	96 (0x60)
Down	97 (0x61)
Left	101 (0x65)
Right	98 (0x62)
Menu	26 (0x1A)
Enter(OK)	104 (0x68)
EXIT	45 (0x2D)

4-11. 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.

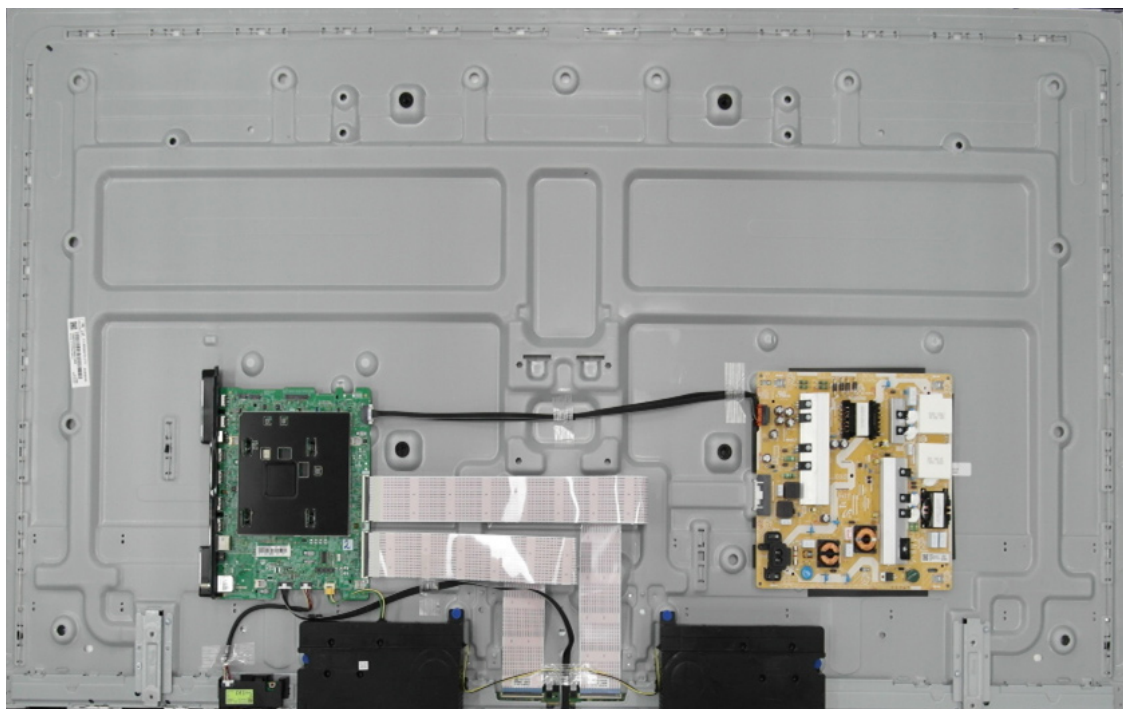
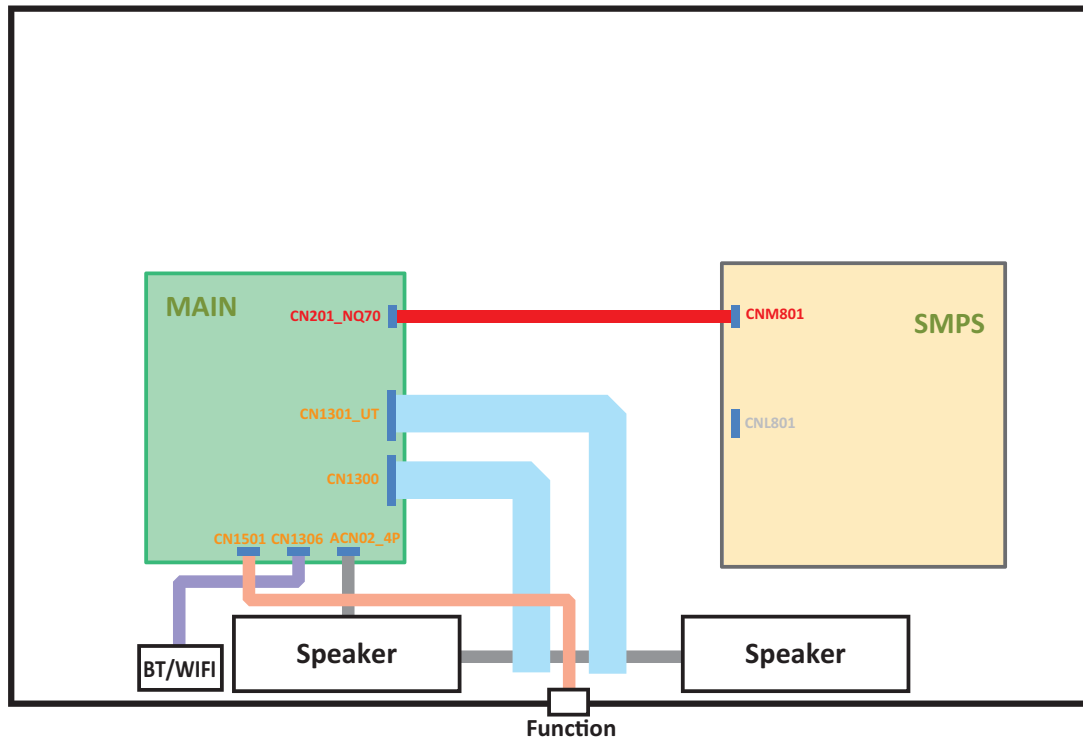


This function requires an Internet connection.

5. Wiring Diagram

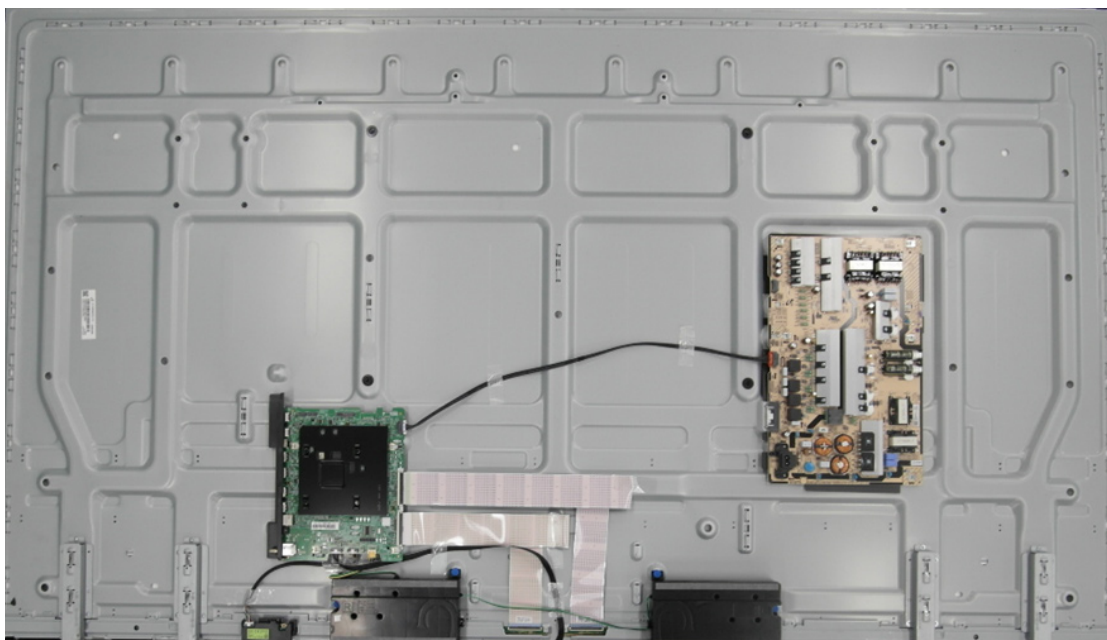
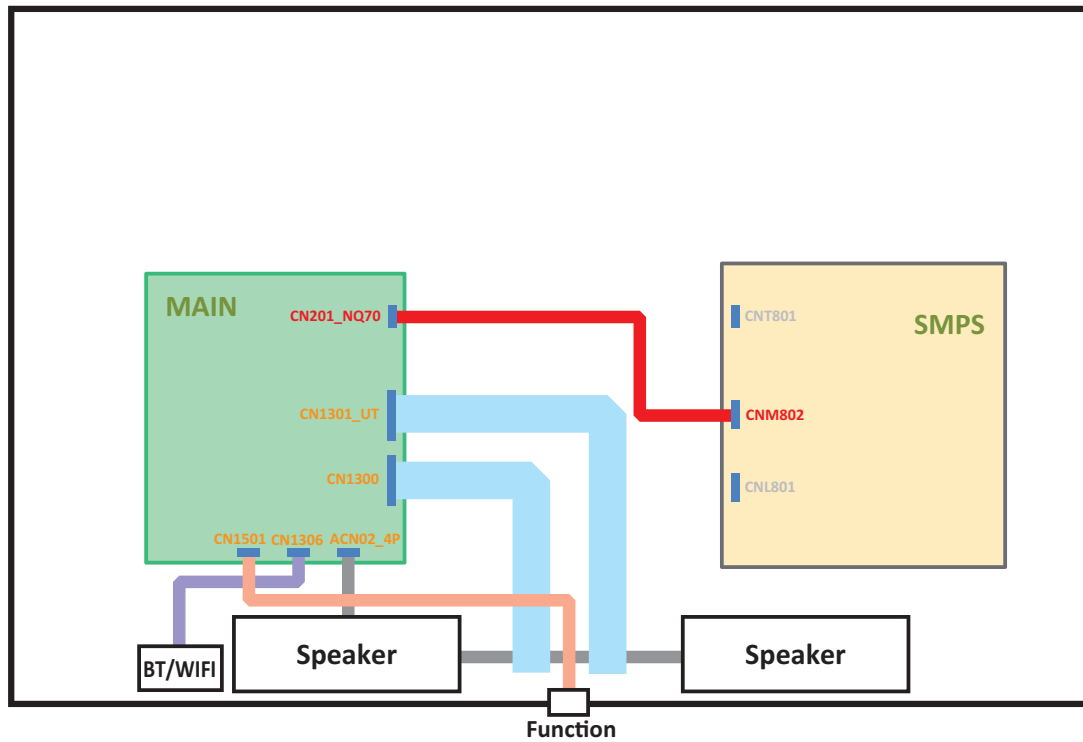
5-1. Wiring Diagram

- 49 / 55 / 65 inches



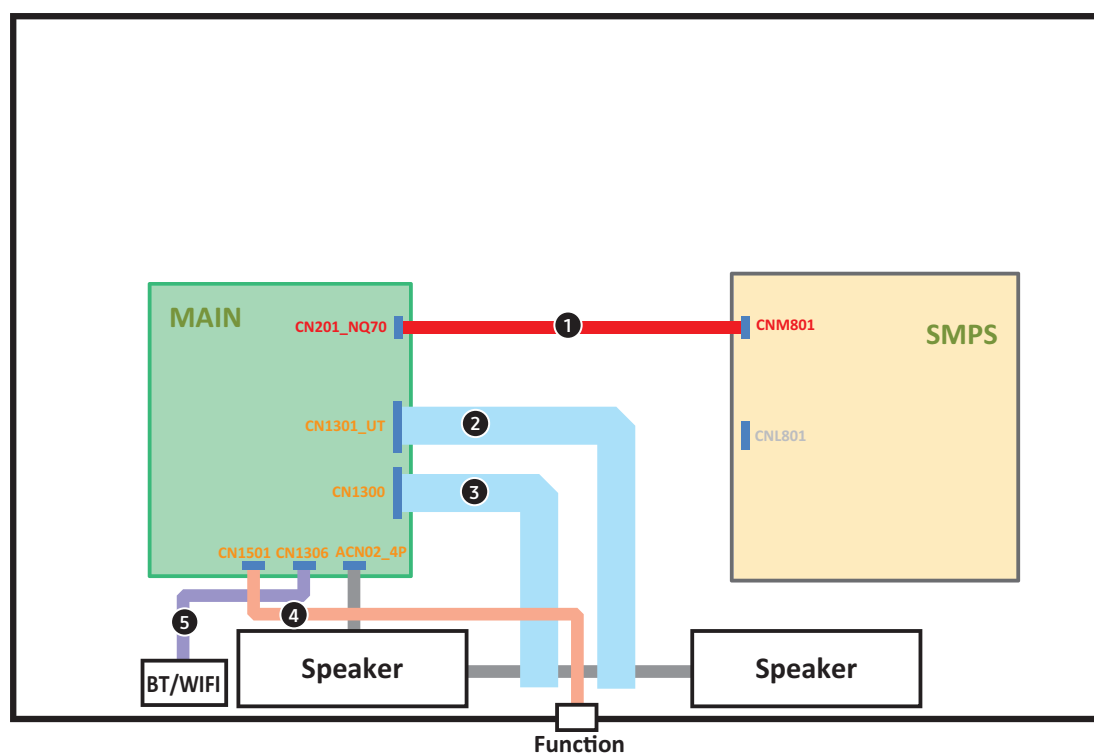
5. Wiring Diagram


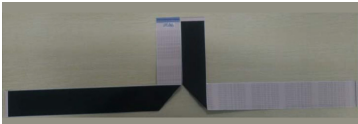
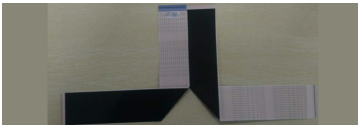


- 82 inches



■ Cables

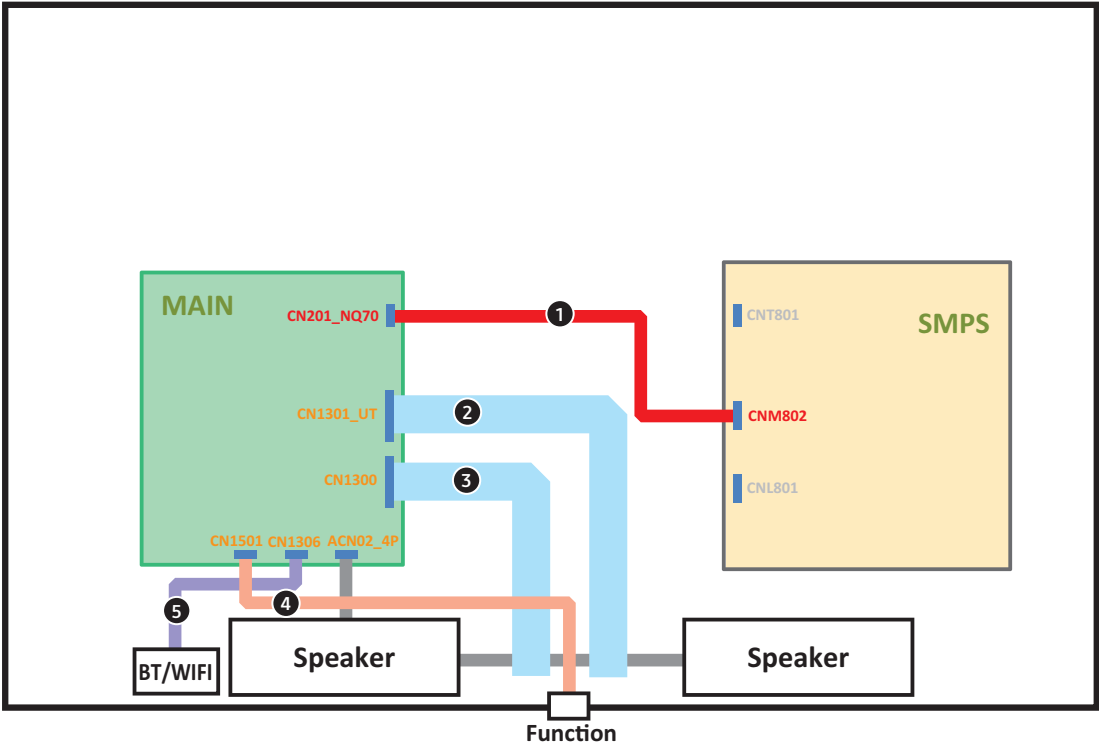
- 49 / 55 / 65 inches

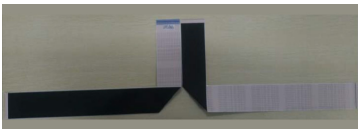
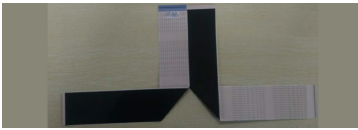


Part Name & Connection		Part Spec		Code No.	
①	LEAD CONNECTOR-POWER SMPS - MAIN		12P/300	49"	BN39-02217D
				55"	BN39-02217D
			12P/500	65"	BN39-02217E
②	FFC CABLE Main - Source B		96P/L500	49"	BN96-39820F
				55"	BN96-39820F
			96P/L650	65"	BN96-39903C
③	FFC CABLE Main - Source B		96P/L350	49"	BN96-39821F
				55"	BN96-39821F
			96P/L500	65"	BN96-39820H
④	LEAD CONNECTOR-SUB ASSY Main - FUNCTION		12P/L400	49"	BN39-02457A
				55"	BN39-02457A
			12P/L500	65"	BN39-02457B
⑤	LEAD CONNECTOR-SUB ASSY Main - WiFi		10P/L250	49"	BN39-02465A
				55"	BN39-02465A
			10P/L200	65"	BN39-02465B

5. Wiring Diagram

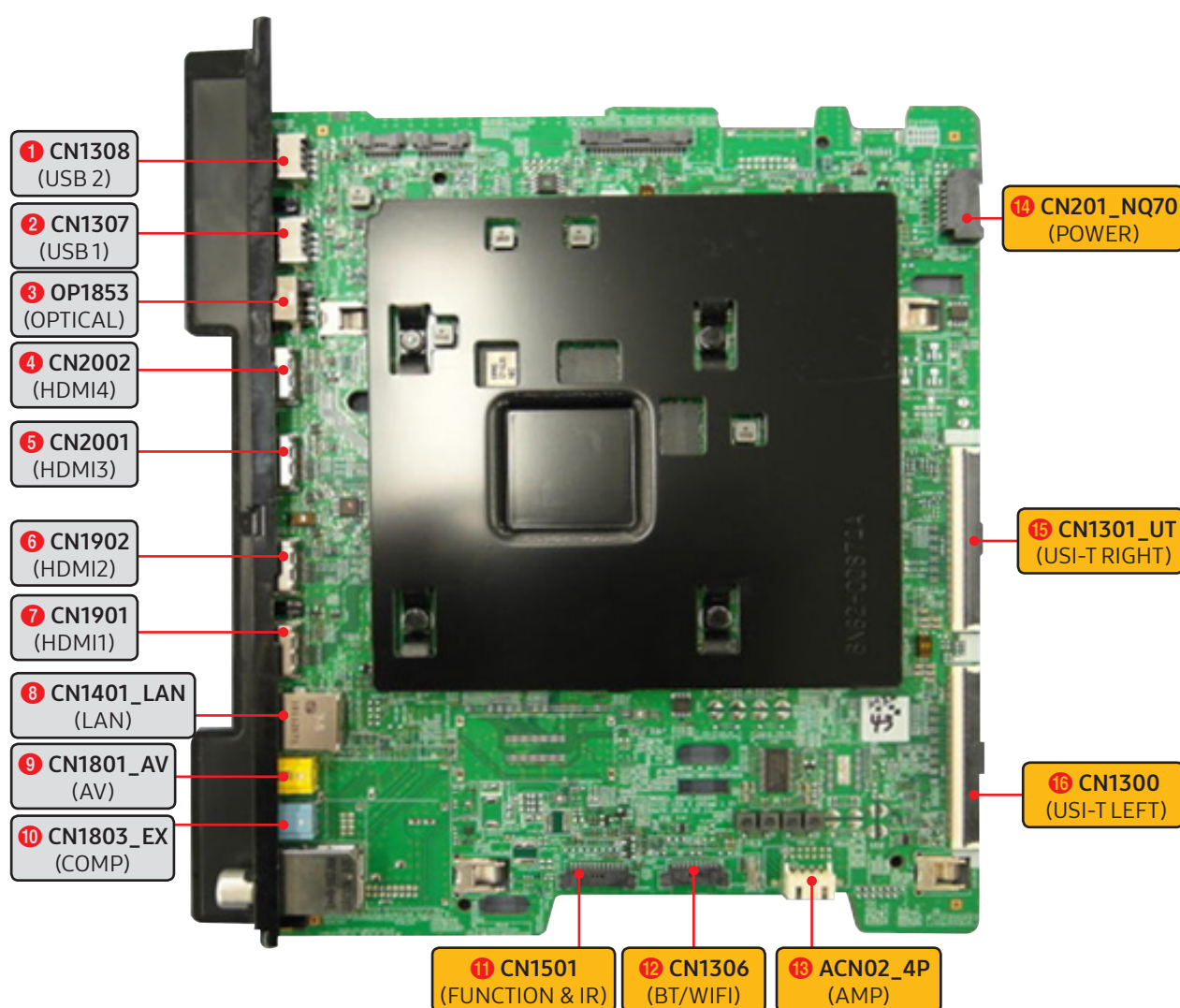
- 82 inches



Part Name & Connection		Part Spec		Code No.	
①	LEAD CONNECTOR-POWER SMPS - MAIN		12P/L600	82"	BN39-02217F
②	FFC CABLE Main - Source B		96P/L650	82"	BN96-39903C
③	FFC CABLE Main - Source B		96P/L500	82"	BN96-39820H
④	LEAD CONNECTOR-SUB ASSY Main - FUNCTION		12P/L500	82"	BN39-02457B
⑤	LEAD CONNECTOR-SUB ASSY Main - WiFi		10P/L250	82"	BN39-02465A

5-2. Connector

5-2-1. Main Board



■ Main Board Pin Map

1 CN1308 (USB2)				3 OP1853 (OPTICAL)			
1	USB2_VCC_5V_PW	2	D-	1	SPDIF_OUT	2	B5V_PW
3	D+	4	GND	3	GND	4	IDENT_SPDIF
2 CN1307 (USB1)				5	GND		
1	USB1_VCC_5V_PW	2	D-				
3	D+	4	GND				

5. Wiring Diagram

4 CN2002 (HDMI IN4)			
1	HDMI4_RX2+_HDMI	2	GND
3	HDMI4_RX2-_HDMI	4	HDMI4_RX1+_HDMI
5	GND	6	HDMI4_RX1-_HDMI
7	HDMI4_RX0+_HDMI	8	GND
9	HDMI4_RX0-_HDMI	10	HDMI4_RX_CLK+_IN_HDMI
11	GND	12	HDMI4_RX_CLK-_IN_HDMI
13	CEC	14	ARC_SINGLE
15	HDMI4_SCL_DDC	16	HDMI4_SDA_DDC
17	HDMI4_INS_DET	18	HDMI4_5V_PW
19	HDMI4_HPD		
7 CN1901 (HDMI IN1)			
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 CN2001 (HDMI IN3)			
1	HDMI3_RX2+_HDMI	2	GND
3	HDMI3_RX2-_HDMI	4	HDMI3_RX1+_HDMI
5	GND	8	GND
7	HDMI3_RX0+_HDMI	6	HDMI3_RX1-_HDMI
11	GND	12	HDMI3_RX_CLK+_IN_HDMI
9	HDMI3_RX0-_HDMI	10	HDMI3_RX_CLK-_IN_HDMI
15	HDMI3_SCL_DDC	16	HDMI3_SDA_DDC
13	CEC	14	GND
17	HDMI3_INS_DET	18	HDMI3_5V_PW
19	HDMI3_HPD		
8 CN1401_LAN (LAN)			
1	EPHY_TXP_LAN	2	GND
3	EPHY_TXN_LAN	4	EPHY_RXP_LAN
5	GND	6	EPHY_RXN_LAN
7	N.C	8	GND
9 CN1801_AV (AV)			
1	GND	2	AV_IN_CVBS
3	COMP_AV_SR_IN	4	IDENT_AV
5	TEST_SR	6	TEST_SL
7	COMP_AV_SL_IN		
10 CN1803_EX (COMP)			
1	GND	2	COMP_PB_N
3	COMP_PR	4	IDENT_COMP
5	TEST_PR	6	GND
7	HOTEL_TX_MTI		
6 CN1902 (HDMI IN2)			
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		
11 CN1501 (FUNCTION & IR)			
1	IR	2	GND
3	A3.3V_PW	4	SENSOR_SCL_I2C
5	SENSOR_SDA_I2C	6	KEY_INPUT1
7	KEY_INPUT2	8	LED_STB_OUT
9	IR_OUT_1	10	IR_OUT_2
11	GND	12	N.C.
12 CN1306 (BT/WIFI)			
1	BTWIFI_NRSEET	2	WIFI_WOW
3	WIFI_5V	4	GND
5	D-_USB_BTWIFI	6	D+_USB_BTWIFI
7	GND	8	WIFI_PHY_ON
9	BT_UART_TXD	10	BT_WAKE

13 ACN02_4P (AMP)				14 CN201_NQ70 (POWER)			
1	MID_R+	2	MID_R-	1	DGND	2	GND
3	MID_L+	4	MID_L-	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	N.C.	12	ANA_DIMMING

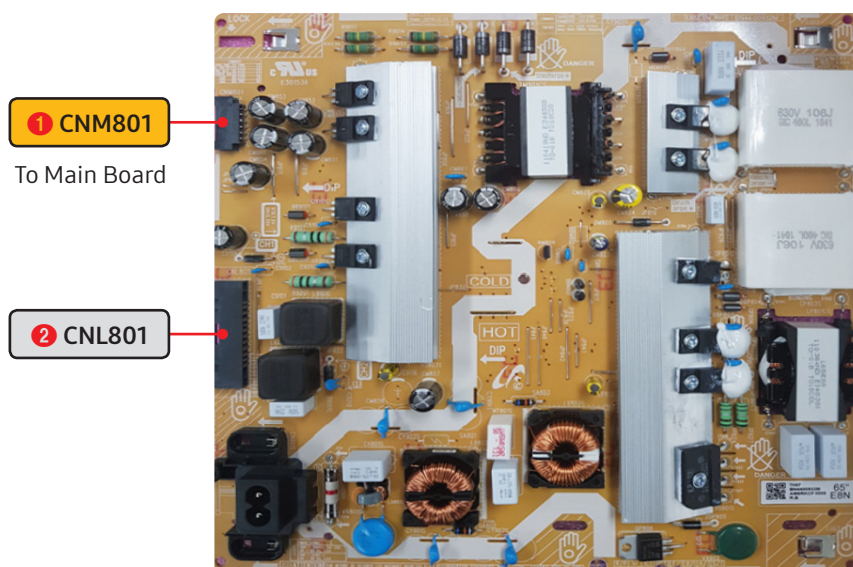
15 CN1301_UT (USI-T RIGHT)							
1	FB_TRDY_2	2	N.C.	3	AVDD_17V_PW	4	AVDD_17V_PW
5	AVDD_17V_PW	6	AVDD_17V_PW	7	UH_CELL	8	UL_CELL
9	HAVDD_8.5V_PW	10	LH_CELL	11	LL_CELL	12	VCCB_1.8V_PW
13	VCCA_1.9V_PW	14	PI_DSIF_MON	15	PORTNUM	16	GND
17	N.C.	18	N.C.	19	N.C.	20	GND
21	SFC1	22	GND	23	TX_CH1_B2+_USIT	24	TX_CH1_B2-_USIT
25	GND	26	TX_CH1_A2+_USIT	27	TX_CH1_A2-_USIT	28	GND
29	TX_CH0_B2+_USIT	30	TX_CH0_B2-_USIT	31	GND	32	TX_CH0_A2+_USIT
33	TX_CH0_A2-_USIT	34	GND	35	TX_CH8_A+_USIT	36	TX_CH8_A-_USIT
37	GND	38	TX_CH8_B+_USIT	39	TX_CH8_B-_USIT	40	GND
41	TX_CH9_A+_USIT	42	TX_CH9_A-_USIT	43	GND	44	TX_CH9_B+_USIT
45	TX_CH9_B-_USIT	46	GND	47	TX_CH10_A+_USIT	48	TX_CH10_A-_USIT
49	GND	50	TX_CH10_B+_USIT	51	TX_CH10_B-_USIT	52	GND
53	TX_CH11_A+_USIT	54	TX_CH11_A-_USIT	55	GND	56	TX_CH11_B+_USIT
57	TX_CH11_B-_USIT	58	GND	59	N.C.	60	N.C.
61	GND	62	N.C.	63	N.C.	64	GND
65	N.C.	66	N.C.	67	GND	68	N.C.
69	N.C.	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	VGHD_30V_PW
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

5. Wiring Diagram

16 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	LC1_VGP1_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+_VX1
33	TX_CH0_1A-_VX1	34	GND	35	TX_CH0_1B+_VX1	36	TX_CH0_1B-_VX1
37	GND	38	TX_CH1_1A+_VX1	39	TX_CH1_1A-_VX1	40	GND
41	TX_CH1_1B+_VX1	42	TX_CH1_1B-_VX1	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

5-2-2. SMPS Board

- 49 / 55 / 65 inches

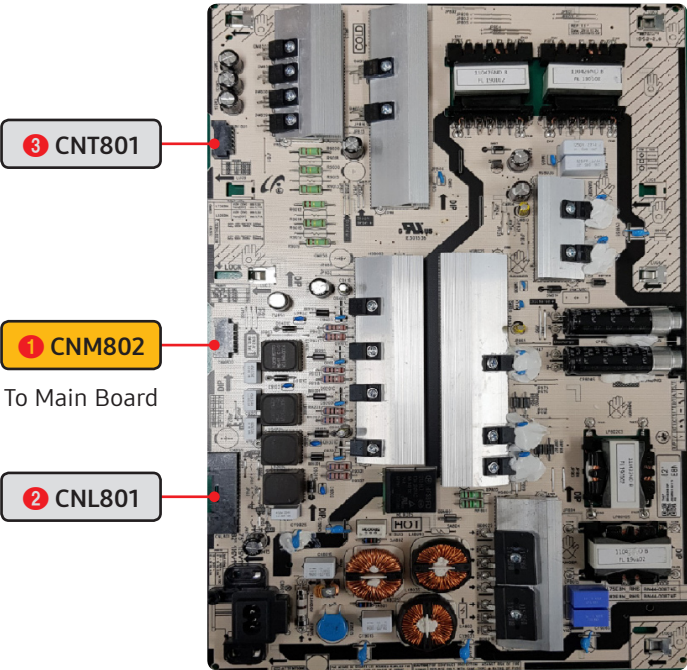


■ SMPS Board Pin Map

1 CNM801				2 CNL801			
1	GND	2	ANA_DIM	1	1+	2	1-
3	A13V_PW	4	OD ON/OFF	3	2+	4	2-
5	A13V_PW	6	BLU_PWM	5	3+	6	3-
7	A13V_PW	8	Power_On/Off	7	4+	8	4-
9	A13V_PW	10	GND	9	N.C	10	N.C
11	GND	12	GND	11	N.C	12	N.C

5. Wiring Diagram

- 82 inches



■ SMPS Board Pin Map

1 CNM802				2 CNL801			
1	GND	2	ANA_DIM	1	1+	2	1-
3	A13V_PW	4	OD ON/OFF	3	2+	4	2-
5	A13V_PW	6	BLU_PWM	5	4-	6	4+
7	A13V_PW	8	Power_On/Off	7	3-	8	3+
9	A13V_PW	10	GND	9	6-	10	6+
11	GND	12	GND	11	5-	12	5+

3 CNT801 (Option)			
1	A13V(TCON)	2	GND
3	A13V(TCON)	4	GND
5	A13V(TCON)	6	GND
7	A13V(TCON)	8	GND
9	A13V(TCON)	10	GND