SERVICE MANUAL

ORIGINAL MANUAL ISSUE DATE: 2025.05

Update in 2025.11: add P84 Caution for Tape Cleaning.

DISCLAIMER: USE AT OWN RISK. SONY AND ITS AFFILIATES ARE NOT LIABLE FOR ANY DAMAGE OR INJURY CAUSED TO ANY DIGITAL ELECTRONIC EQUIPMENT, PERSON, OR PROPERTY, WHICH OCCURS DUE TO USE OF THE TOOLS, PARTS, DOCUMENTATION, OR OTHER MATERIALS HEREIN PROVIDED, WHETHER FOR REPAIR, DIAGNOSIS, MAINTENANCE, MODIFICATION, OR OTHERWISE, INCLUDING BUT NOT LIMITED TO: ANY INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES; ANY LOSS OF DATA, PRIVACY OR PROFITS; OR ANY INABILITY TO USE, OR REDUCED FUNCTIONALITY OF, THE DIGITAL ELECTRONIC EQUIPMENT. PLEASE READ ALL INSTRUCTIONS IN THIS MANUAL BEFORE PROCEEDING. PLEASE FOLLOW ALL STEPS IN THE ORDER IN WHICH THEY ARE DESCRIBED. IF YOU DO NOT HAVE ALL TOOLS AND PARTS AVAILABLE TO YOU, OR ARE NOT COMFORTABLE PERFORMING THE REPAIRS DESCRIBED HEREIN, DO NOT PROCEED. FAILURE TO FOLLOW THESE INSTRUCTIONS, OR USE THE PROPER TOOLS AND PARTS, MAY DAMAGE YOUR PRODUCT, LEAD TO PERSONAL INJURY OR CAUSE PROPERTY DAMAGE.

9-888-935-U1

LCD TV

SONY

Sony Taiwan Limited, HEST
© 2025

MODEL LISTS

Self Diagnosis Supported model

MODEL	REMOTE	DESTINATION
K-43S20M2	RMF-TX820U	UCM/UC2
K-50S20M2	RMF-TX820U	UCM/UC2
K-55S20M2	RMF-TX820U	UCM
K-55S20CM2	RMF-TX820U	U2
K-65S20M2	RMF-TX820U	UCM
K-65S20CM2	RMF-TX820U	U2
K-75S20M2	RMF-TX820U	UCM
K-75S20CM2	RMF-TX820U	U2

RMF-TX820U



TABLE OF CONTENTS

TITLE	PAGE
SAFETY NOTES	4
SELF DIAGNOSIS FUNCTION	10
TROUBLESHOOTING	13
SOFTWARE UPDATE & RESET	70
DIAGRAM	74
HANDLING GUIDE	75
TOOLS & EQUIPMENTS	81
FFC PRECAUTIONS	82
HARNESS PRECAUTIONS	85
SECTION 1: K-43S20M2	
DISASSEMBLY AND REMOVAL CAUTION	86
BOARD LOCATION	90
WIRE DRESSING	91
EXPLODED VIEW AND PART LIST	95
SECTION 2: K-50S20M2	
DISASSEMBLY AND REMOVAL CAUTION	100
BOARD LOCATION	104
WIRE DRESSING	105
EXPLODED VIEW AND PART LIST	109

TITLE	PAGE
SECTION 3: K-55S20M2 / K-55S20CM2	
DISASSEMBLY AND REMOVAL CAUTION	114
BOARD LOCATION	118
WIRE DRESSING	119
EXPLODED VIEW AND PART LIST	123
SECTION 4: K-65S20M2 / K-65S20CM2	
DISASSEMBLY AND REMOVAL CAUTION	128
BOARD LOCATION	132
WIRE DRESSING	133
EXPLODED VIEW AND PART LIST	137
SECTION 5: K-75S20M2 / K-75S20CM2	
DISASSEMBLY AND REMOVAL CAUTION	142
BOARD LOCATION	146
WIRE DRESSING	147
EXPLODED VIEW AND PART LIST	151
SMART CORE	
DISASSEMBLY AND REMOVAL CAUTION	156
EXPLODED VIEW AND PART LIST	158
APPENDIX	
SHARP EDGE	159
FFC REPLACEMENT CAUTIONS	160

Note: Illustrations in this manual may have difference from an actual set.

SAFETY NOTES

1-1. Warnings and Caution.

1) CAUTION :These servicing instructions are for use by qualified service personnel only.
2) To reduce the risk of electric shock, do not perform any servicing other than that stated in the operating instructions unless you are qualified to do so.
3) WARNING!!: An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the ac power line. The replaceable fuse should be in the neutral of the mains supply. When replacing the fuse, the mains must be disconnected to de-energize the phase conductors. (*Except AC ADAPTOR, because it does not carry out replacing an internal fuse.)
4) CARRYING THE TV: be sure to follow these guidelines to protect your property and avoid causing serious injury:
   - Carry the TV with an adequate number of people; larger size TVs require two or more people.
   - Correct hand placement while carrying the TV is very important for safety and to avoid damages.
5) SAFETY-RELATED COMPONENT WARNING!!: Components identified by shading and ⚠ mark on the exploded views, and in the parts list are critical for safe operations. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operations are identified in this manual. Follow these procedures whenever critical components are replaced, or improper operation is suspected.
6) IMPORTANT REMINDER FOR TV MAIN BOARD REPLACEMENT:

It is mandatory for service centers to confirm the TV's system information after each repair is carried out with Main board replacement. Whenever a TV Main board is replaced, the correct TV Model and Serial number must be reinserted into memory. This is a MANDATORY procedure that each service center must apply.

1-2. Caution Handling of LCD Panel.

When repairing the LCD Panel, make sure you are grounded with a wrist band.
When repairing the LCD Panel on the wall, the panel must be secured using the 4 mounting holes on the rear cover.

1) Do not press the panel or frame edge to avoid the risk of electric shock.
2) Do not scratch or press on the panel with any sharp objects.
3) Do not leave the module in high temperature or in areas of high humidity for an extended period.
4) Do not expose the LCD panel to direct sunlight.
5) Avoid contact with water. It may cause short circuit within the module.
6) Disconnect the AC power when replacing the backlight.
7) Always clean the LCD panel with a soft cloth material.
8) Handle the wires or connectors of the backlight circuit with care. Damaging the wires may cause a short circuit.
9) Protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).

SAFETY NOTES

10) During the repair, DO NOT leave the POWER ON or Burn-in period for more than 1 hour while the TV is facing down on a cloth. Refer Figure 1.

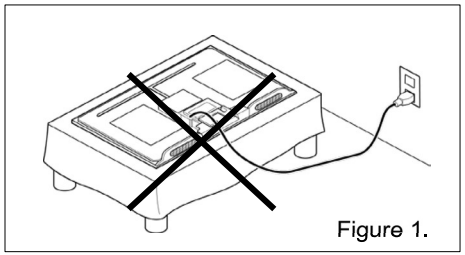


Figure 1.

1-3. Caution_for_Board_handling.

The following problems will occur due to handling of the IC mounted on the board

- Solder crack due to substrate handling (stress).
- IC breakdown due to static electricity (ESD).

When repairing the TV at the customer's home or service station or Repair of defect board, please pay attention to the handling of the board.

Substrate that needs attention for handling :

- Main Board(B** Board)
- Backend Board(D** Board)

※Things to prepare in advance.

ESD wrist-strap.



※Caution: ESD wrist-strap to be checked daily.
Use Multi-meter to make sure resistance of ESD wrist-strap is OK.
(R=750K Ohms to 35Mega Ohms)

ESD cushion / sheet
Please use a bag containing the board or a special seat

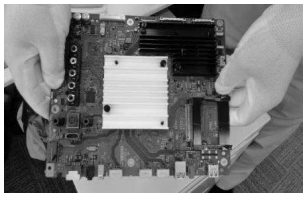
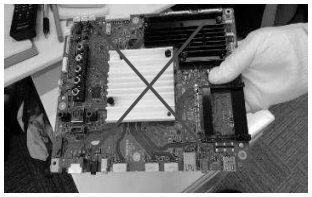




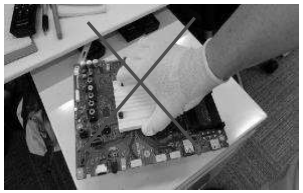
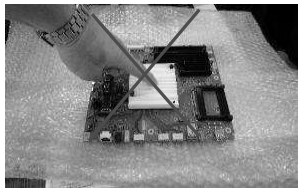
SAFETY NOTES

1) Caution for Board handling(Stress).Be sure to observe the following contents

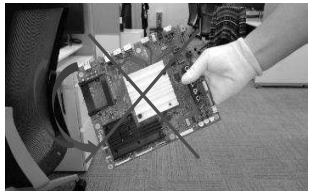
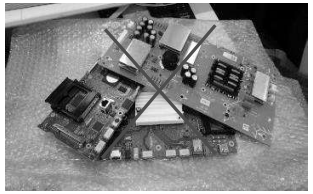
① Hold the board with both hands

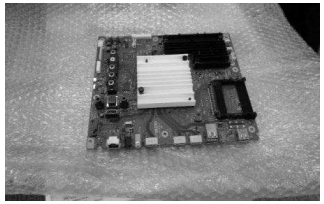
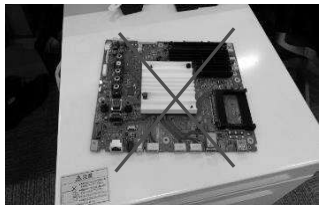
② Do not hold or push Heat-Sink

③ Handle with care. Do not swing ④ Do not stack up

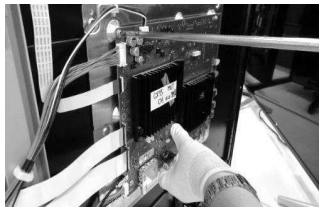
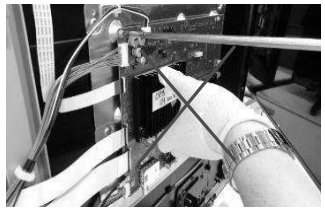
⑤ Regardless of good or defective board, always put it on ESD cushion slowly

⑥ Keep vertical position and put in/take out from Box. Always put into ESD bag then place into Box/Container Box



⑦ Do not hold Heat-Sink when take out or install it.

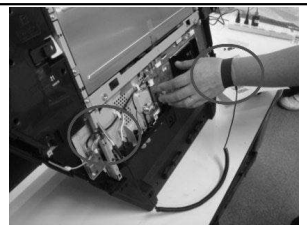



SAFETY NOTES

2) Caution for Board handling (ESD).Be sure to observe the following contents

① When take off Rear-Cover, do not touch board ② Use ESD wrist-strap

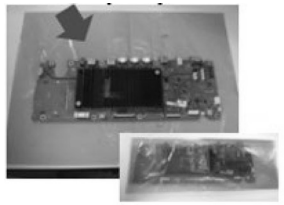




② When holding board, do not hit or touch to Plastic part(s)



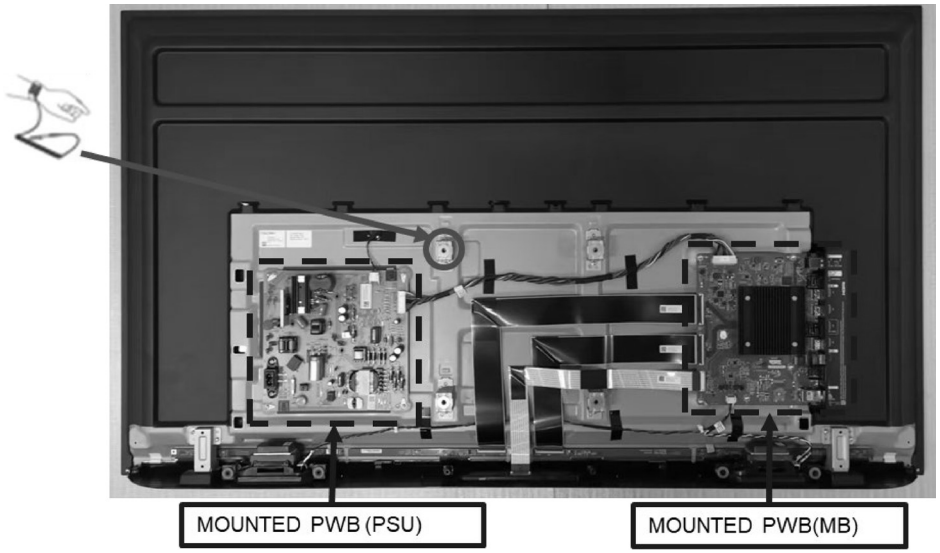
③ After take defective board out from TV, put it into ESD bag. Do not place on floor mat/carpet direct. Always put it on ESD cushion.





※Installation example of wrist-strap.

Please connect the clip to the metal part of the chassis of the TV with the wristband grounded. Below is a grounding example of each model.



※Caution : ESD wrist-strap to be checked daily. Use Multi-meter to make sure resistance of ESD wrist-strap is OK. (R=750K Ohms to 35Mega Ohms)

1-4. Caution About the Lithium Battery.

1) Danger of explosion if battery is incorrectly replaced.
   Replace only with the same or equivalent type.
2) Outer case broken battery should not contact to water.

SAFETY NOTES

1-5. Safety Check-Out

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:-

1) Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2) Check the inter board wiring to ensure that no wires are pinched or contact high-wattage resistors.
3) Check all control knobs, shields, covers, ground straps and mounting hardware have been replaced. Be certain you have replaced all the insulators.
4) Look for unauthorized replacement parts, particularly transistors that were installed during a previous repair. Point them out to the customer and recommend them replacement.
5) Look for parts which show obvious signs of deterioration even though functioning. Point them to the customer and recommend for replacement.
6) Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7) Check the antenna terminals, metal trim, metalized knobs, screws and all other exposed metal parts for AC leakage. Check leakage test as described next.
8) For safety reasons, repairing the Power board and/or Inverter board is prohibited.

1-6. Leakage Test.

(To protect electric shock when customer touch the terminal.). Leakage current can be measured by V: Voltmeter or oscilloscope (r.m.s or peak reading).

Stabilized power supply instrument and isolated voltage transformer:

Use too much current capacity and isolated voltage transformer does not need to use stabilized power supply equipment.

Specification of RMS voltmeter: Input resistance > 1 Mohm, Input capacitance < 200 pF, Frequency range: 15 Hz – 1MHz . Refer Figure 2. Isolated type volt - meter (FLUKE 8921A etc *1).

*1 Not use FLUKE 8920A that connected to protective earth by diode.

Leakage current of measurement instrument is less than 10μArms when under test equipment AC plug is opened.

Set up the following condition and turn on the set. Applied voltage: Nominal input voltage (Description on Nameplate).

Measure the leakage current between one phase conductor and neutral for terminal A and terminal B.

Read rms value, and then calculate to peak value PEAK VALUE =√2 RMS VALUE.

Comply with the following requirement.

Class II equipment (2-pin plug): for each terminal, the worst value of measurement must not exceed AC 350uA peak).

Note: *including* AC adaptor, AC adaptor/DC operated unit combination.

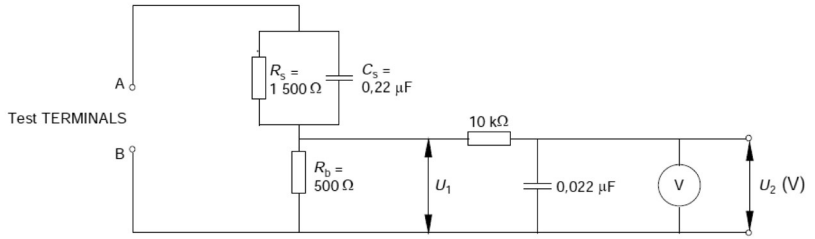


Figure 2 – Measuring network for Leakage Current

SAFETY NOTES

1-7. How to Find a Good Earth Ground.

1) A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground.

2) If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

3) If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure 3).

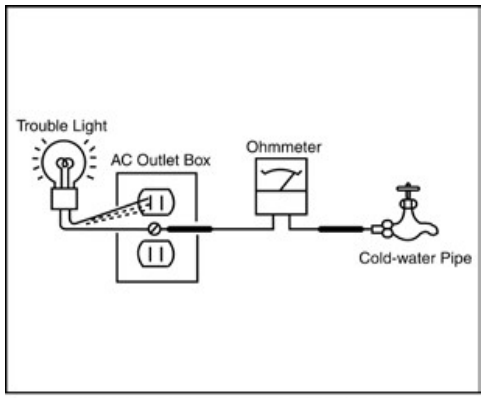


Figure 3. Checking for earth ground.

1-8. Lead Free Information

The circuit boards used in these models have been processed using Lead Free Solder. The boards are identified by the LF logo located close to the board designation.

Figure 4: LF Logo

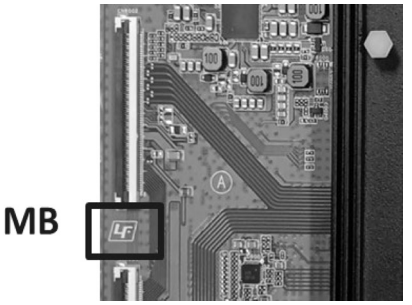


Figure 5: LF logo on circuit board

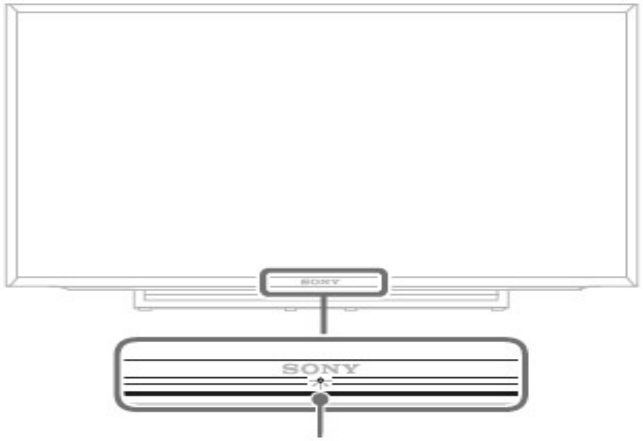
The servicing of these boards requires special precautions. It is strongly recommended to use Lead Free Solder material in order to guarantee optimal quality of new solder joints.

SELF DIAGNOSIS FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the Smart Core Red LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the Smart Core Red LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the remote commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

DIAGNOSTIC TEST INDICATORS

When an error occurs, the Smart Core Red LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas. Result for all the following diagnostic items are displayed on screen. If the screen displays a "0", no error has occurred .



LED Indicator
• Flashes while the remote is being operated.

Status	LED Colour	Remarks
Power Off (AC Off and *1)	OFF	*1 power switch off (by Side Key)
Power On	White → OFF	
Standby (by remote control off and Side Key off)	OFF	
Picture Off	OFF	
Failure	Red Blinking	The number of LED blinking indicates cause of failure.
Panel ID mismatch	Red / White Blinking	Blinking: White = On / Off / On Red = Off / On / Off
Software Updating	White Blinking	Blinking: White On/Off

SELF DIAGNOSIS FUNCTION

Note: Please be caution when checking failure board due to power is still supplied continuous when error is triggered. Please try recovery method by Remote Commander ON.

Failure LED Display

Number of RED LED flashing	Error Item	Go to Shutdown State	Monitoring Items	Description	Error Location
2	MAIN_POWER	Yes	12V_DET	Main power rail monitoring (12V) failure (Main 12V over voltage)	Main Board or Power Supply Board
3	AUD_ERR	Yes	X_AUDIO_MON1	Audio amp protection/failure	Main Board or Speaker
5	PANEL_ID_ERR	Yes	Panel I2C ACK	Panel ID read failure	Main Board or Panel Module or FFC cable
5	PMIC_LS_ERR	Yes	TCONLESS_FAULT	PMIC or LSIC error	Main board or Panel Module or FFC cable
6	BACKLIGHT	Yes	BL_ERR	Backlight error	Main Board or Power Supply Board or Panel Module or Harness

SELF DIAGNOSIS FUNCTION

Retry Limitation by Remote / Power Key

1) Main Power key & IR remote power key will be enabled for Recoverable shutdown.

2) When the Retry Count = 6, OFF/ON action by main power key & IR remote should not be accepted.

3) Retry Count will be reset after every AC OFF/ON.

TROUBLESHOOTING

Triage Chart

Before you make the service call:

1. Confirm the symptom from the customer.
2. Select that symptom from the chart.
3. Bring all the boards and cables listed for that symptom.
4. Follow the troubleshooting charts in the technical guides to isolate the board.

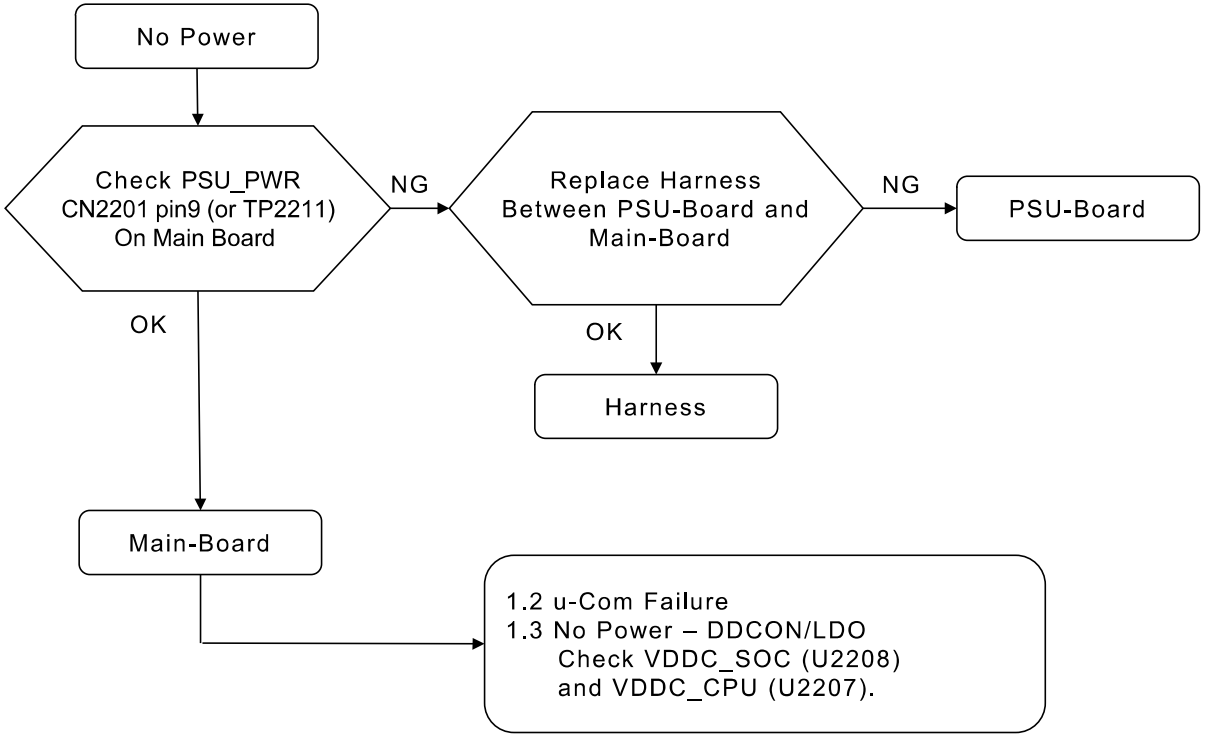
5. Chart Colour Code:
   - ● : Most likely defective part
   - ▲ : Secondary possible defective part
   - ■ : Tertiary possible defective part

   BLACK TEXT: Board that may correct the symptom

Reference	Symptoms - Shutdown. Power LED blinking red diagnostics sequences							Symptoms - no shutdown Error log record only									No Power	Video - missing or distorted				Remote	Network	Audio	Smart Core	Bluetooth (BT)
	2	3	4	5	6	7	8	TU_ DEMOD	TU_ DEMOD_ I2C	TCON_ ERR	FRCTC_ I2C	AUD_ ERR_ I2C	4KPQ_ ERR_ I2C	TEMP_ ERR_ I2C	EARC_ ERR_ I2C	AMB_ ERR_ I2C	No White Power LED & does not respond to remote (Dead Set)	Stationary colored lines or dots	No video One of Inputs	NO RF input	No video all Inputs	No Remote Operation	Cannot connect to Wireless Network	No Audio	Smart Core no LED (Set is still alive)	Bluetooth / One Step Remote (OSR) can't connect
Main Board	▲	●		■	■					▲		●					▲	▲	●	●	●	▲	▲	●	▲	▲
Power Board	●	▲		■	■												●				▲			▲		
Receiver Board																	▲					●			●	
Speaker		▲																						●		
Wi-fi & BT Module																							●			●
B_to_Panel FFC				▲						▲								▲			▲					
T-con				●						●								▲			■					
LCD Panel				▲	●					■								●			■					
Problem	Power	Power	Panel	Panel (Communication)	Panel (Backlight)	TEMP	4KBE																			
		Audio	LD																							

TROUBLESHOOTING

1.0 No Power - PSU

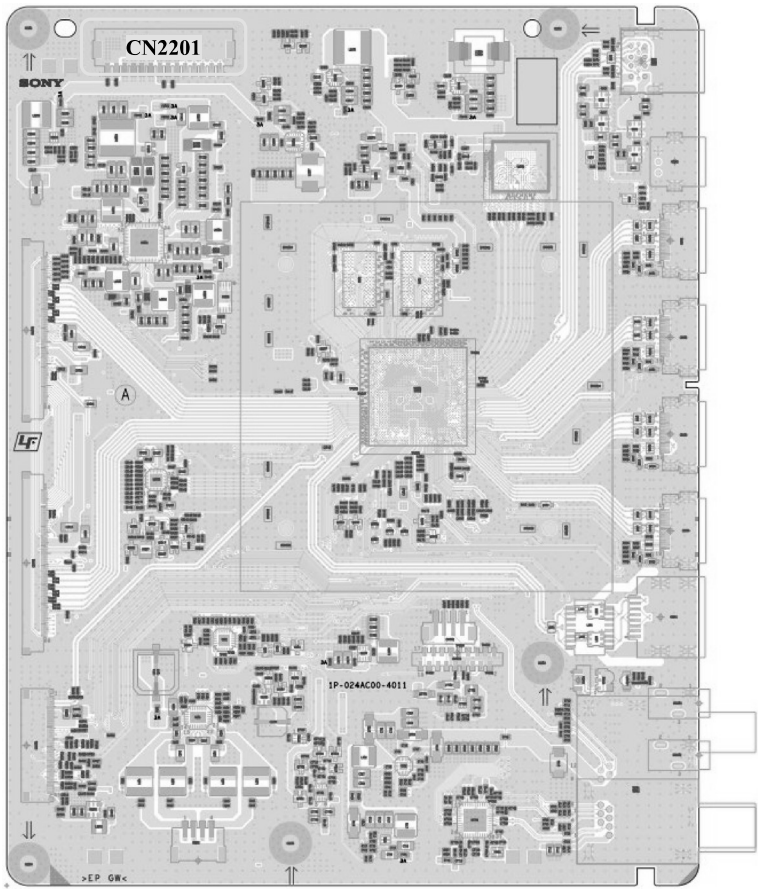


TROUBLESHOOTING

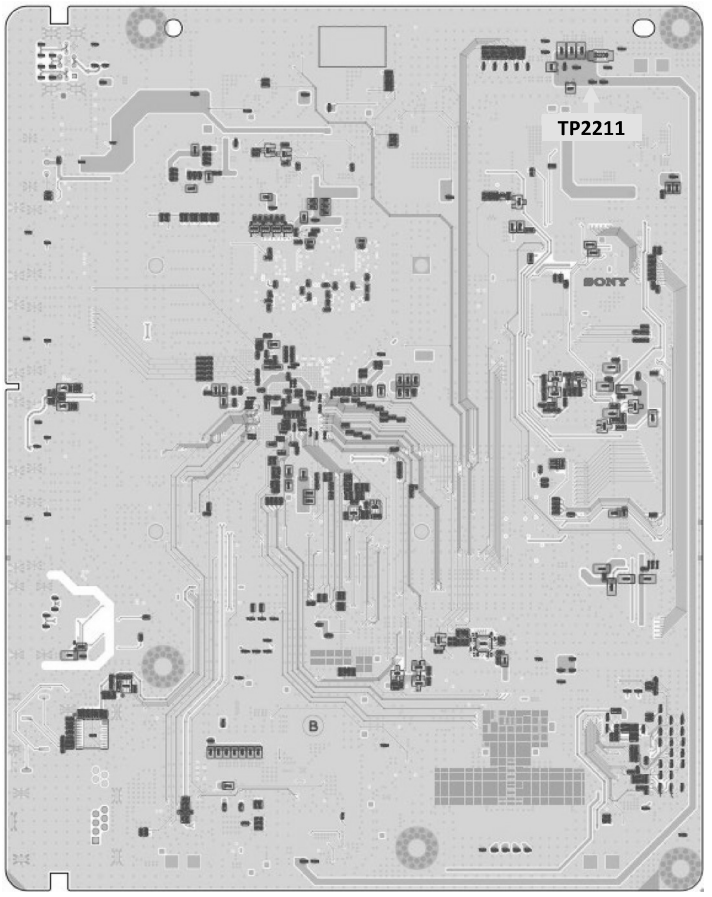
1.0 No Power - PSU

Checking Point – MB

A-side



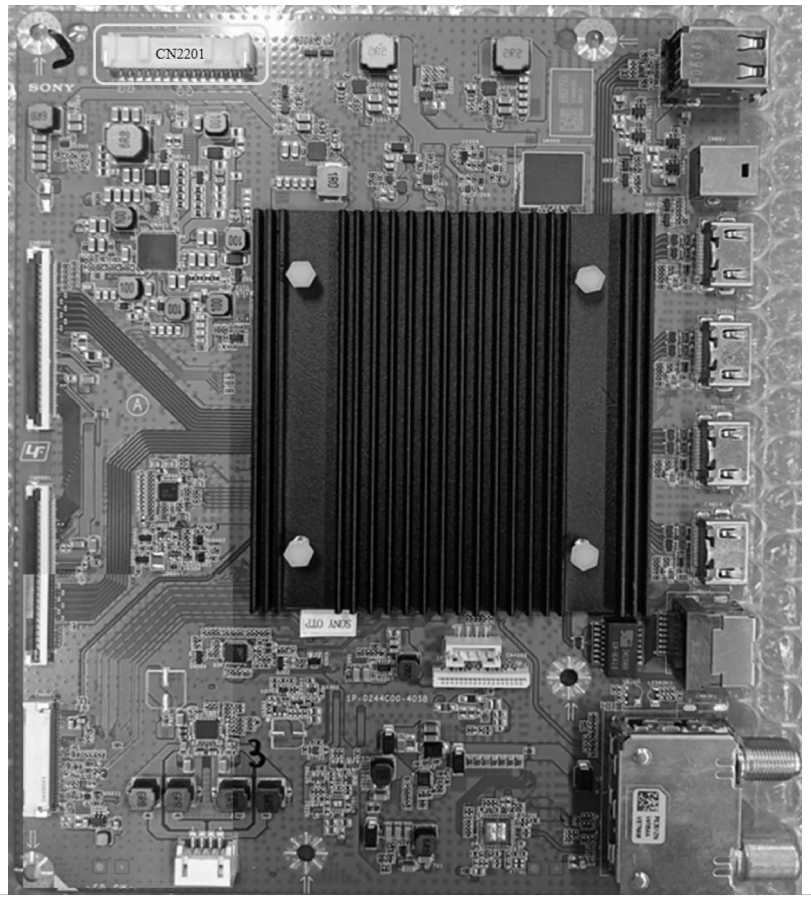
B-side



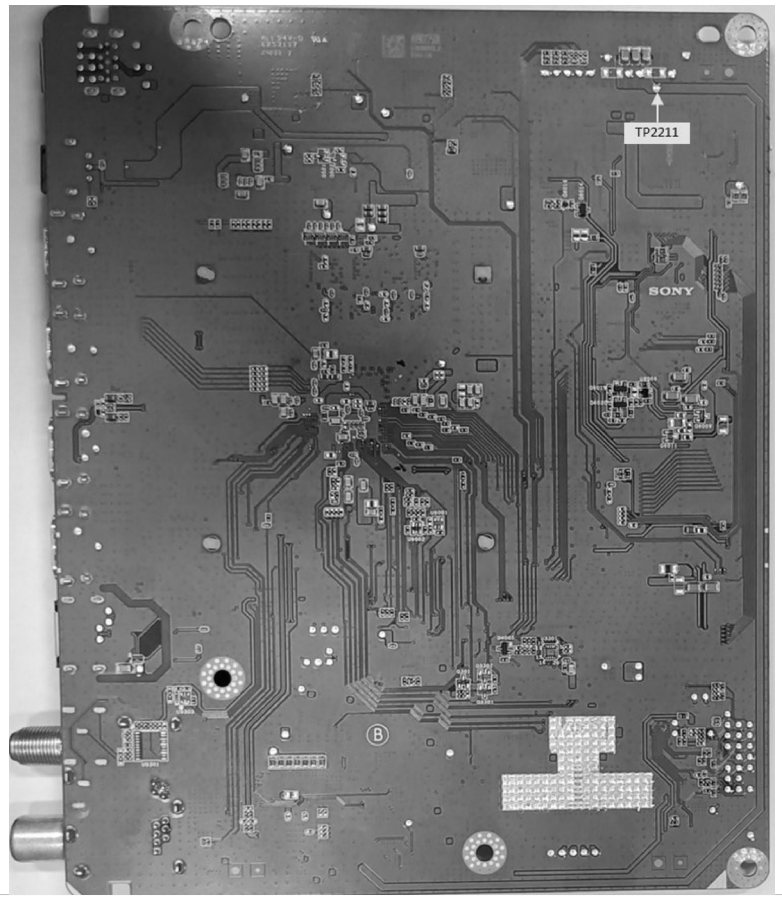
TROUBLESHOOTING

1.0 No Power - PSU

Board View **A-side**



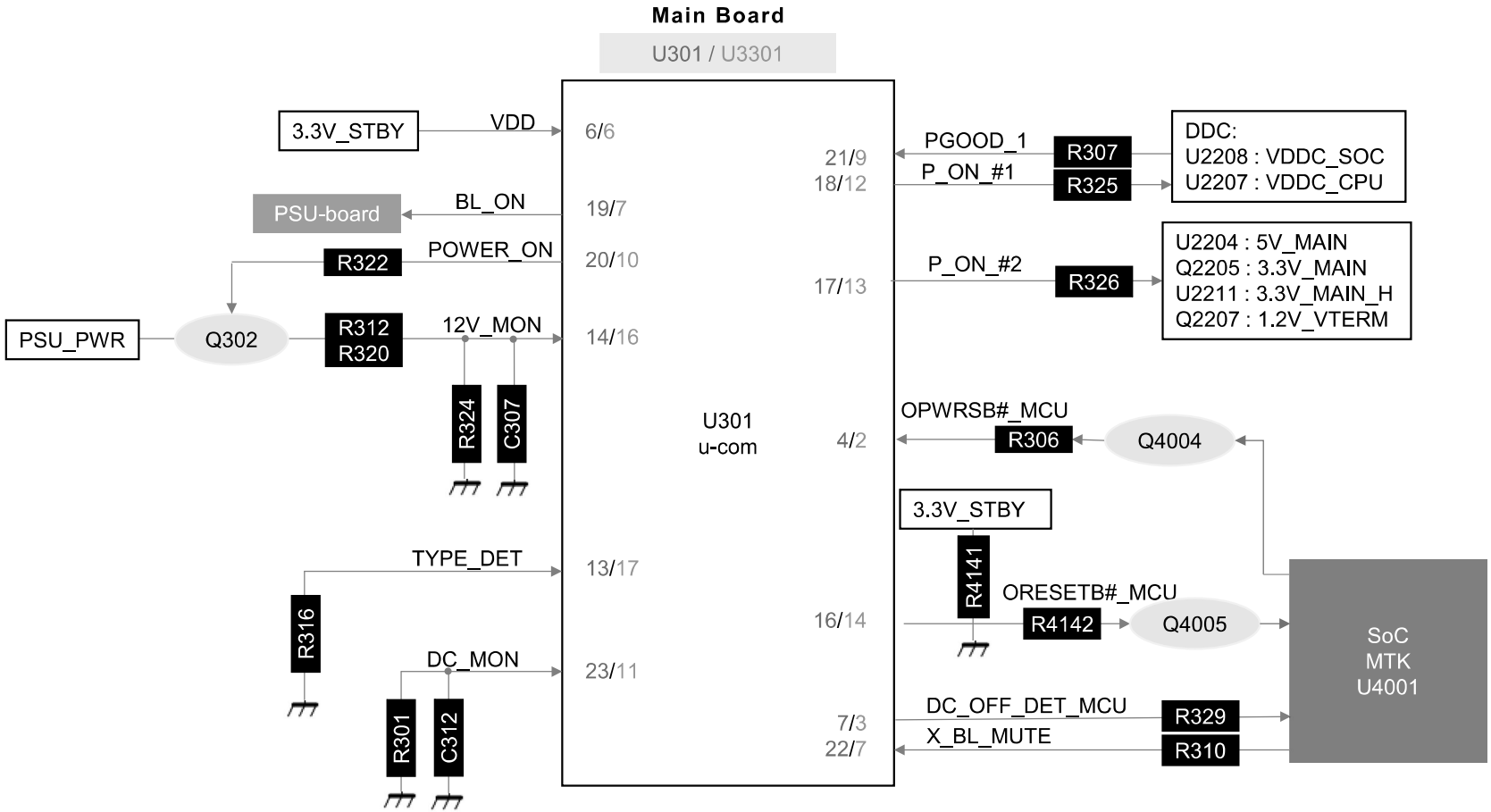
B-side



TROUBLESHOOTING

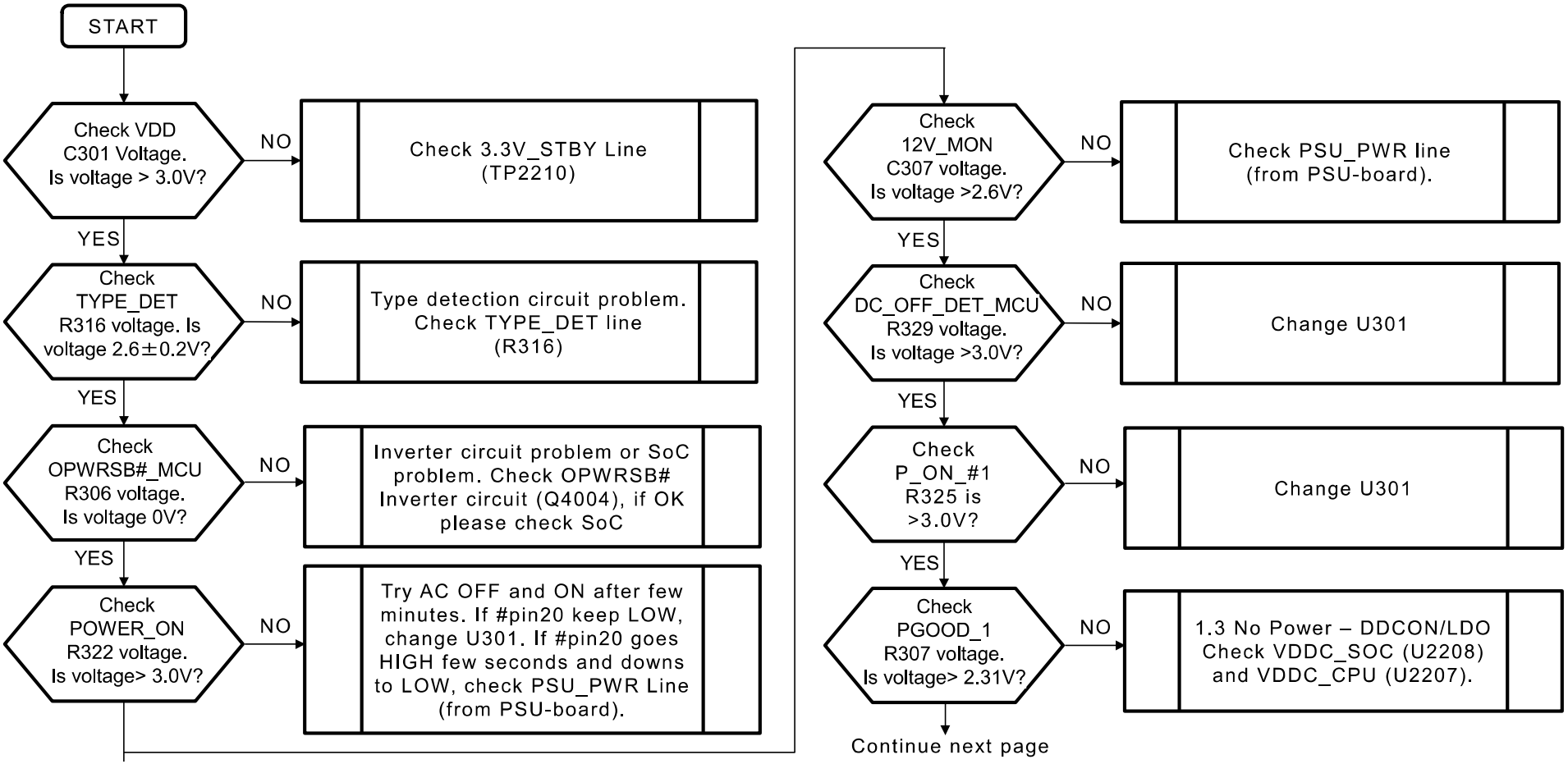
1.2 No Power U-Com Failure

P-on u-com control signal path summary



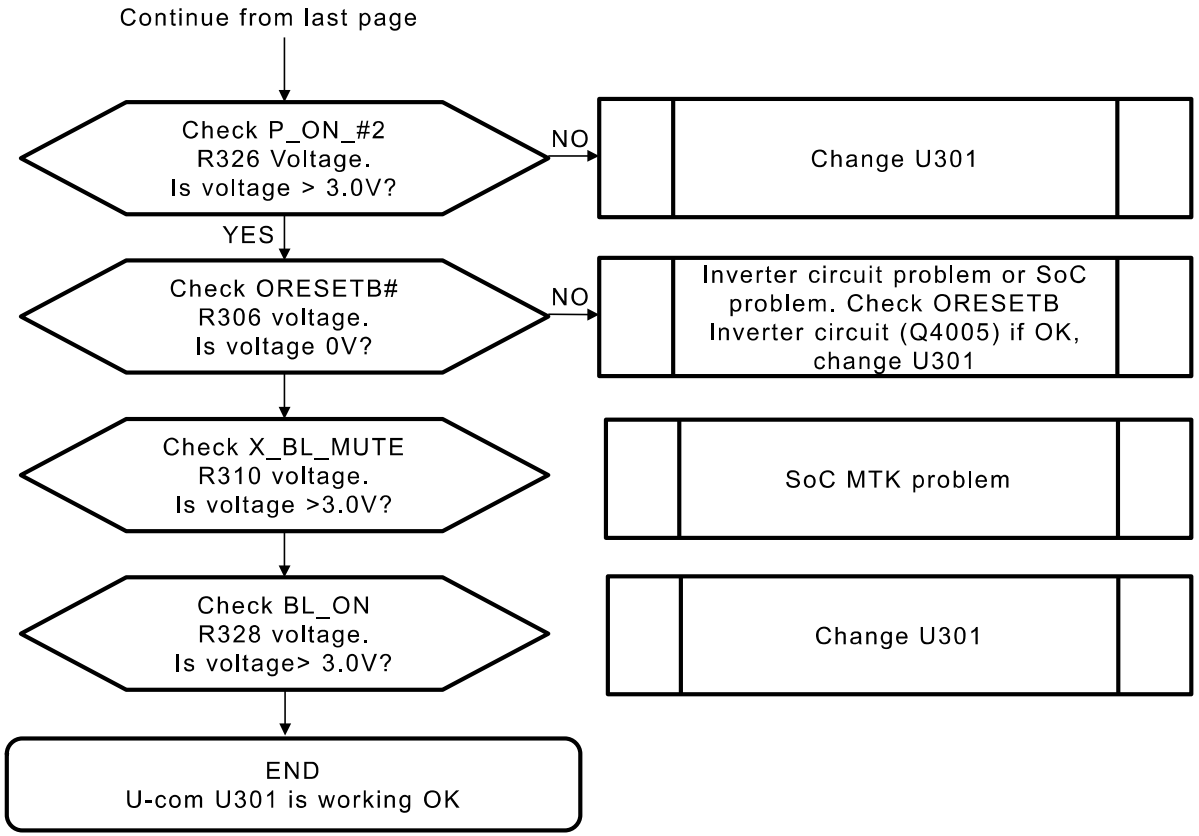
TROUBLESHOOTING

1.2 No Power U-Com Failure



TROUBLESHOOTING

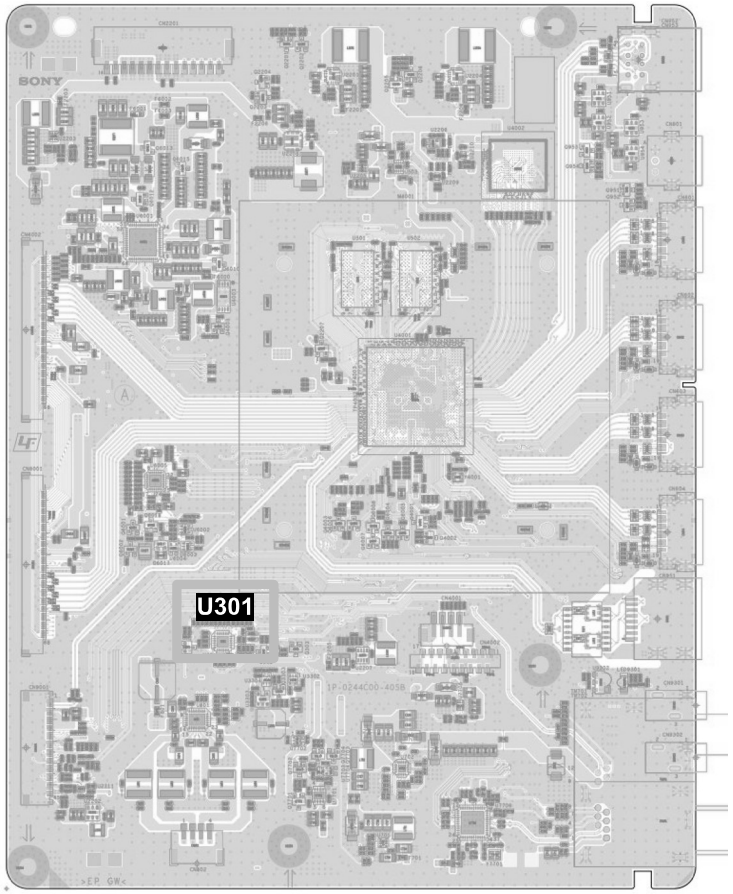
1.2 No Power U-Com Failure



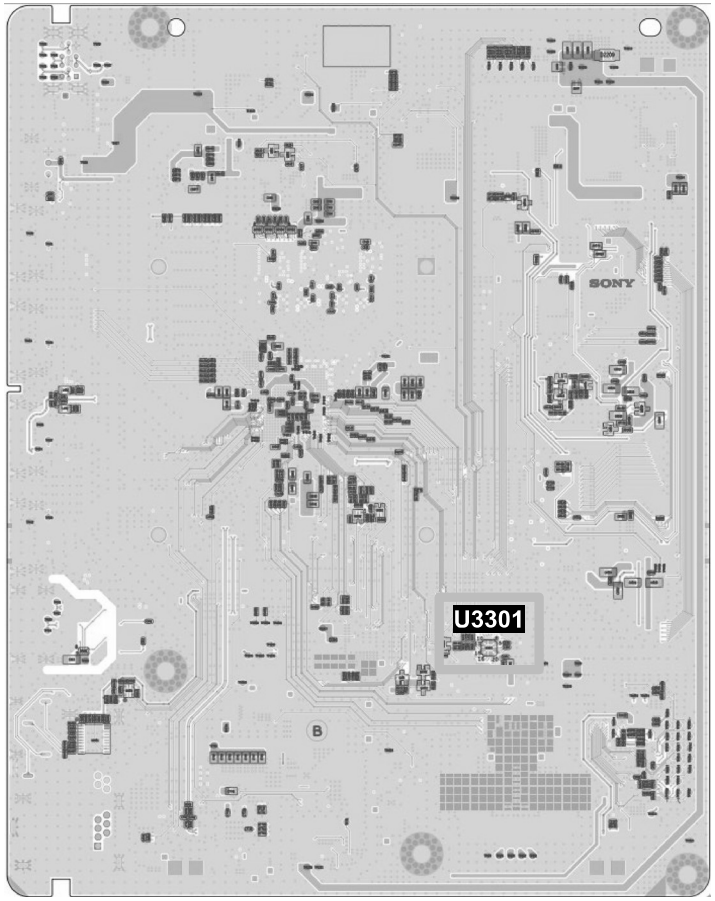
TROUBLESHOOTING

1.2 No Power U-Com Failure

Board View **A-side**



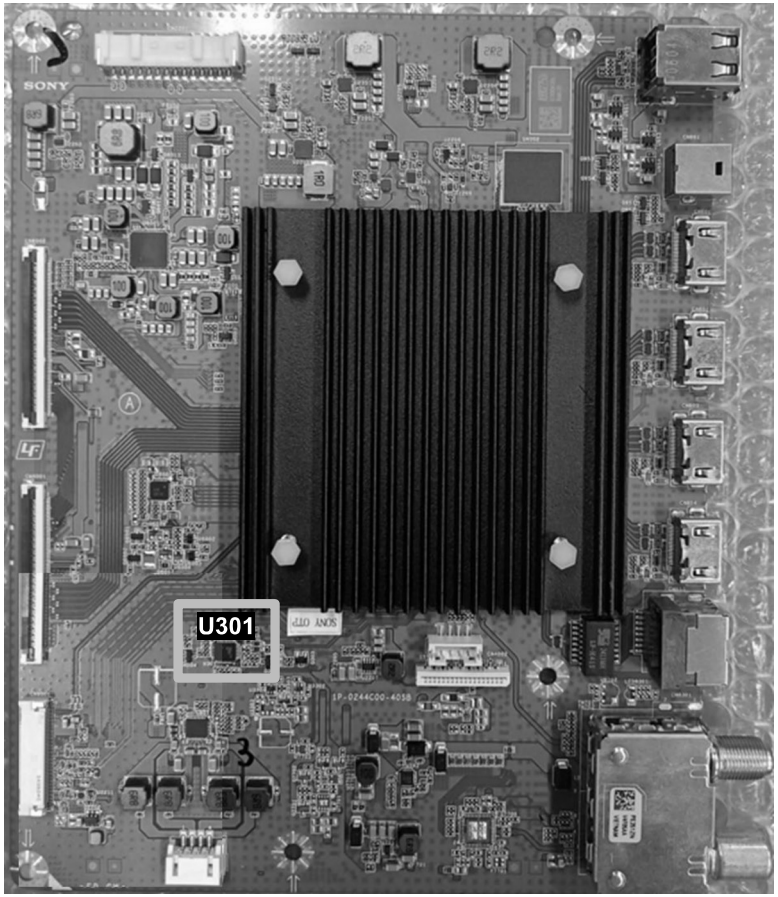
Board View **B-side**



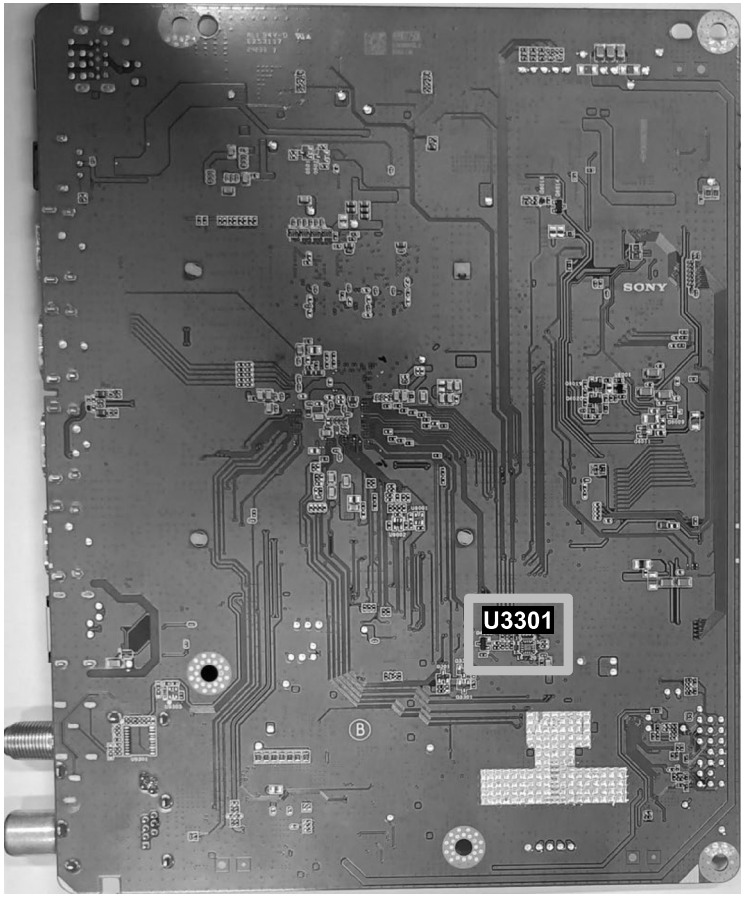
TROUBLESHOOTING

1.2 No Power U-Com Failure

Board View A-side



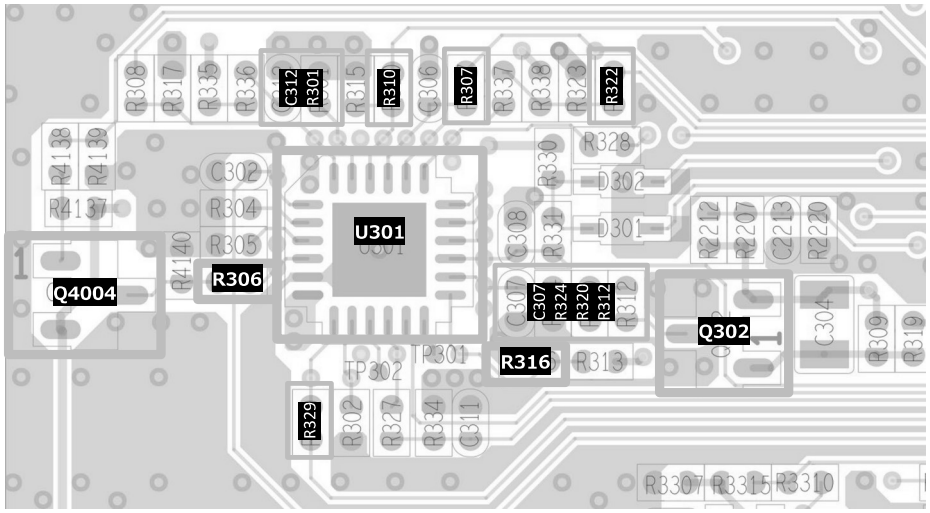
Board View B-side



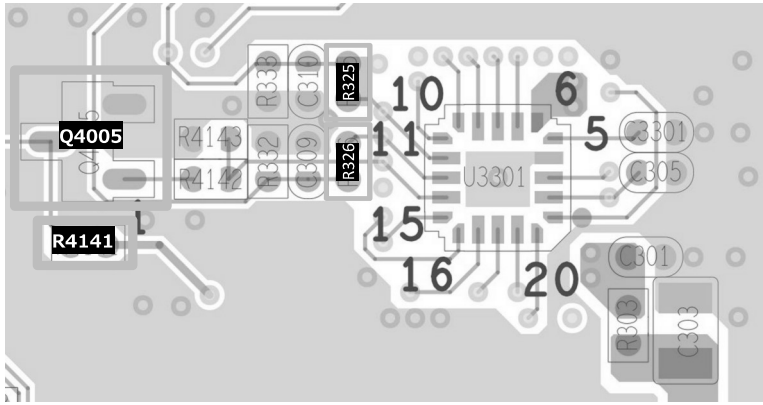
TROUBLESHOOTING

1.2 No Power U-Com Failure

Checking Point **A-side**



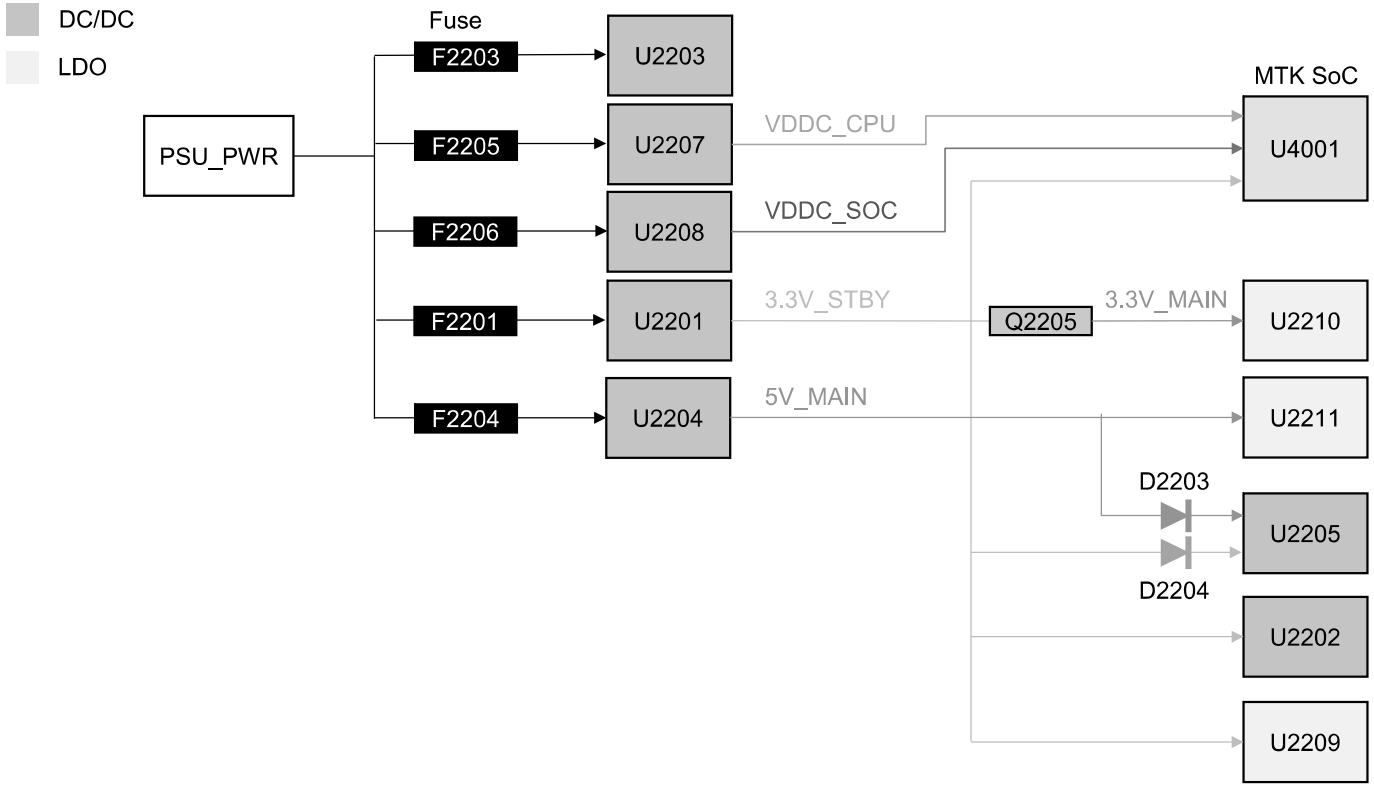
Checking Point **B-side**



TROUBLESHOOTING

1.3 No Power DDCON / LDO

Power Line Overview



TROUBLESHOOTING

1.3 No Power DDCON / LDO

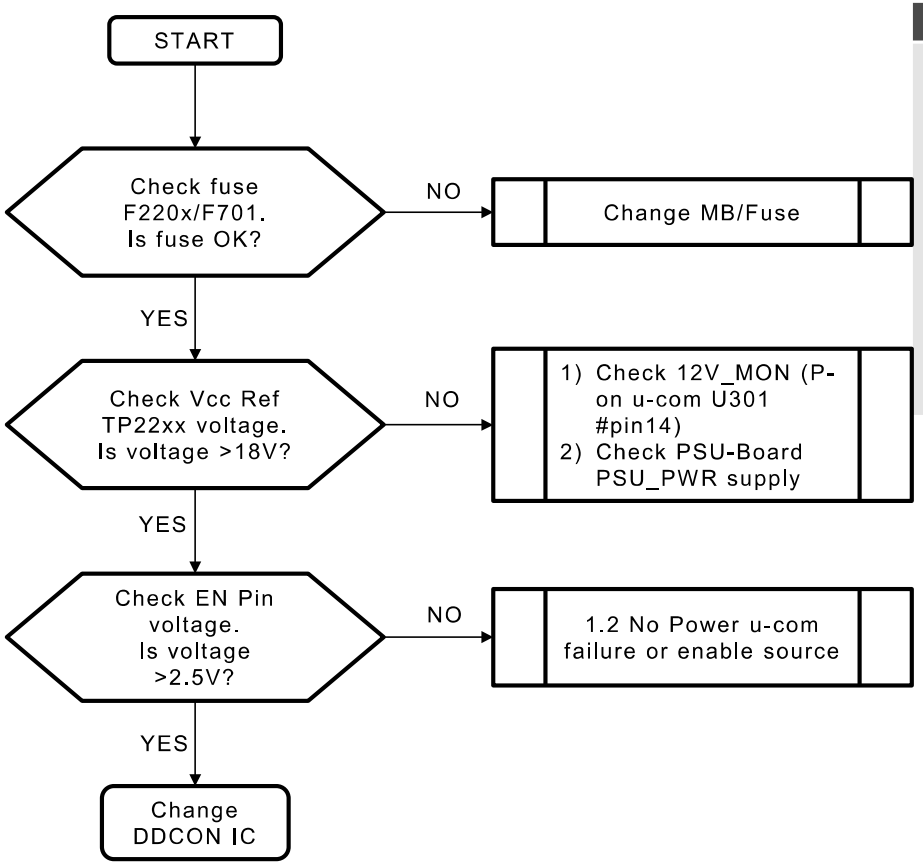
Check Item Summary

Board	Operation	REF	Power Line	Vcc Ref	Input Supply	Output Ref	EN Pin	EN Source	Fuse
MB	DC/DC	U2207	VDDC_CPU	C2277	PSU_PWR	C2281	U2207 #6	P_ON_#1	F2205
	DC/DC	U2208	VDDC_SOC	C2290	PSU_PWR	C2293	U2208 #19	P_ON_#1	F2206
	DC/DC	U2205	1.2V_DDR4	C2266	3.3V_STBY/5V_MAIN	C2269	U2205 #4	U2206 Reset IC	-
	LDO	U2209	2.5V_DDR	C2310	3.3V_STBY	C2312	U2209 #3	U2206 Reset IC	-
	LDO	U2210	1.8V_EMMC	C2315	3.3V_MAIN	C2317	U2210 #3	3.3V_MAIN	-
	DC/DC	U2202	5V_STBY	C2229	3.3V_STBY	C2231	U2202 #6	3.3V_STBY	-
	LDO	U2211	3.3V_MAIN_H	C2319	5V_MAIN	C2321	U2211 #3	P_ON_#2	-
	DC/DC	U2203	TCON_12V	C2239	PSU_PWR	C2243	U2203 #6	TCON_ON	F2203
	DC/DC	U2201	3.3V_STBY	C2216	PSU_PWR	C2221	U2201 #1	EN_SB	F2201
	DC/DC	U2204	5V_MAIN	C2252	PSU_PWR	C2256	U2204 #15	P_ON_#2	F2204
	DC/DC	U701	PWR_RF	C714	PSU_PWR	C717	U701 #6	P_ON_HL	F701

TROUBLESHOOTING

1.3 No Power DDCON / LDO (DDCON Check)

Please refer page 24 for Ref number



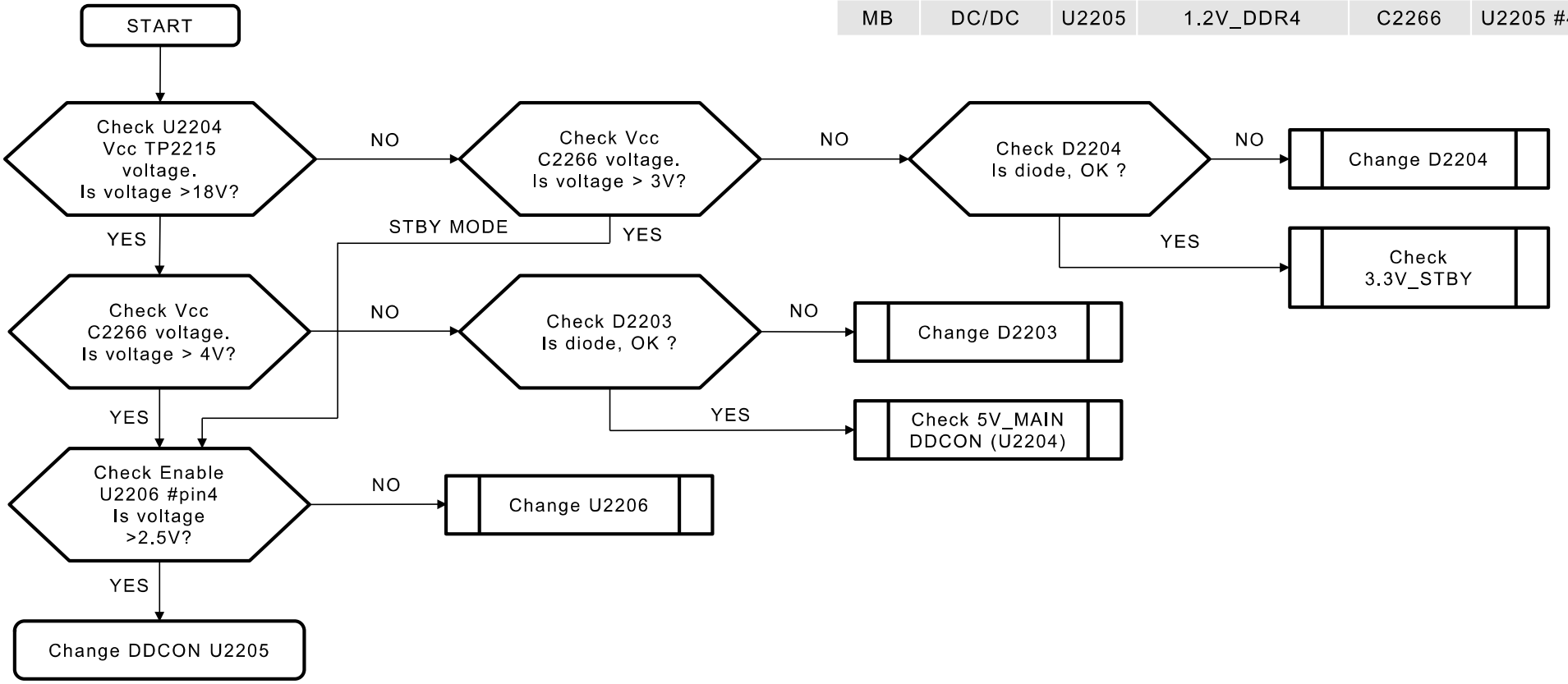
Board	Operation	IC Ref	Voltage supply	FUSE	Vcc Ref	EN Pin
MB	DC/DC	U2207	VDDC_CPU	F2205	TP2217	U2207 #6
	DC/DC	U2208	VDDC_SOC	F2206	TP2218	U2208 #19
	DC/DC	U2201	3.3V_STBY	F2201	TP2210	U2201 #1
	DC/DC	U2203	TCON_12V	F2203	TP2214	U2203 #6
	DC/DC	U2204	5V_MAIN	F2204	TP2215	U2204 #15
	DC/DC	U701	PWR_RF	F701	C717	U701 #6

TROUBLESHOOTING

1.3 No Power DDCON / LDO (DDCON Check)

Please refer page 24 for Ref number

Board	Operation	IC Ref	Voltage supply	Vcc Ref	EN Pin
MB	DC/DC	U2205	1.2V_DDR4	C2266	U2205 #4

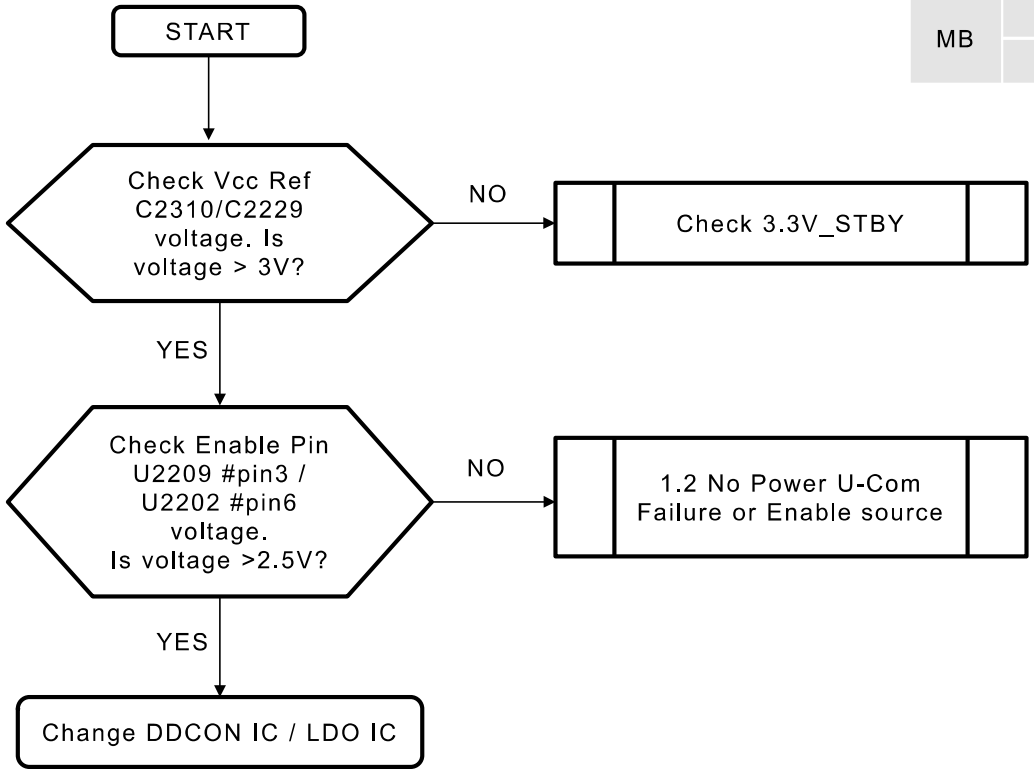


TROUBLESHOOTING

1.3 No Power DDCON / LDO (DDCON Check)

Please refer page 24 for Ref number

Board	Operation	IC Ref	Voltage supply	Vcc Ref	EN Pin
MB	LDO	U2209	2.5V_DDR	C2310	U2209 #3
	DC/DC	U2202	5V_STBY	C2229	U2202 #6

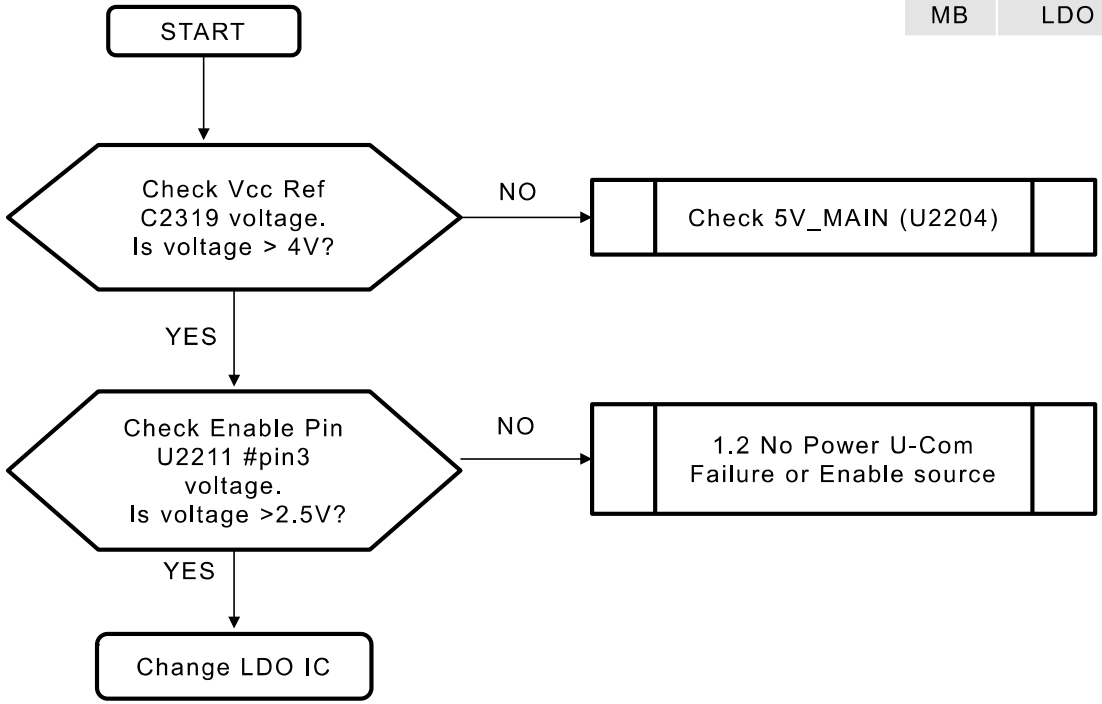


TROUBLESHOOTING

1.3 No Power DDCON / LDO (DDCON Check)

Please refer page 24 for Ref number

Board	Operation	IC Ref	Voltage supply	Vcc Ref	EN Pin
MB	LDO	U2211	3.3V_MAIN_H	C2319	U2211 #3

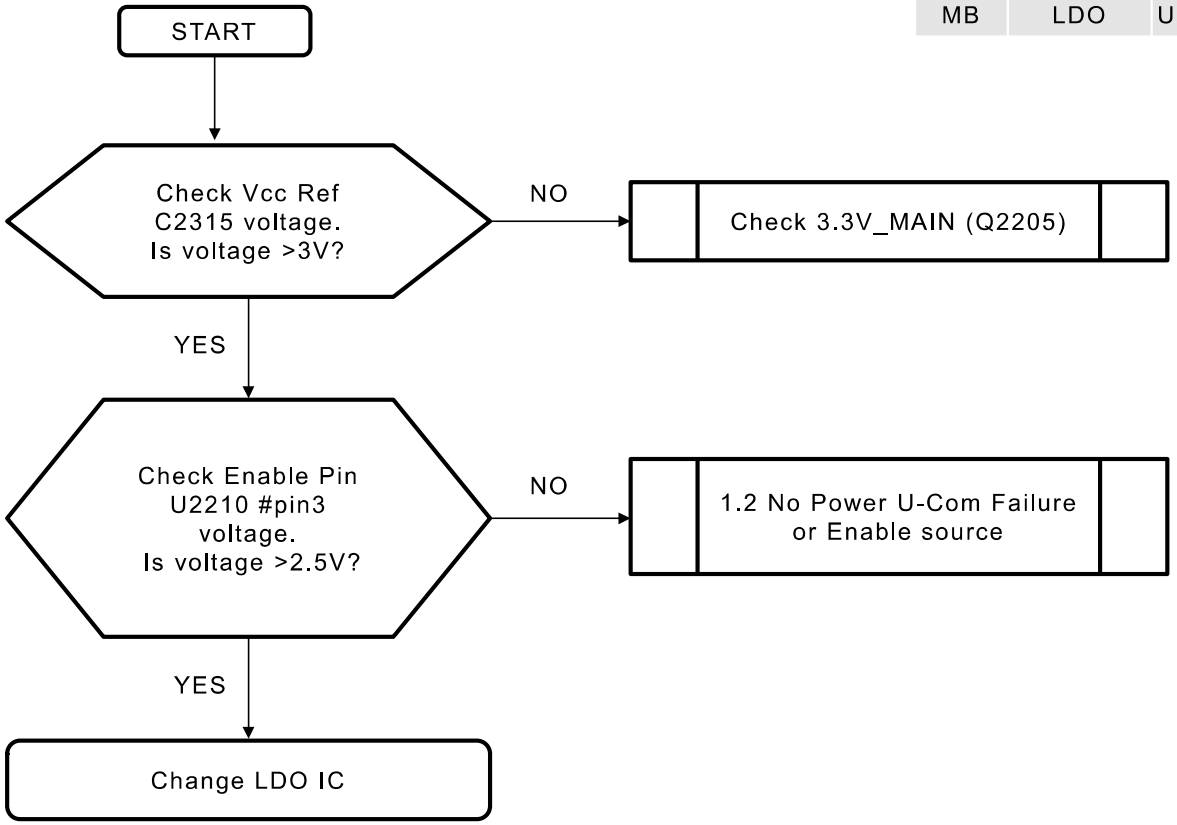


TROUBLESHOOTING

1.3 No Power DDCON / LDO (DDCON Check)

Please refer page 24 for Ref number

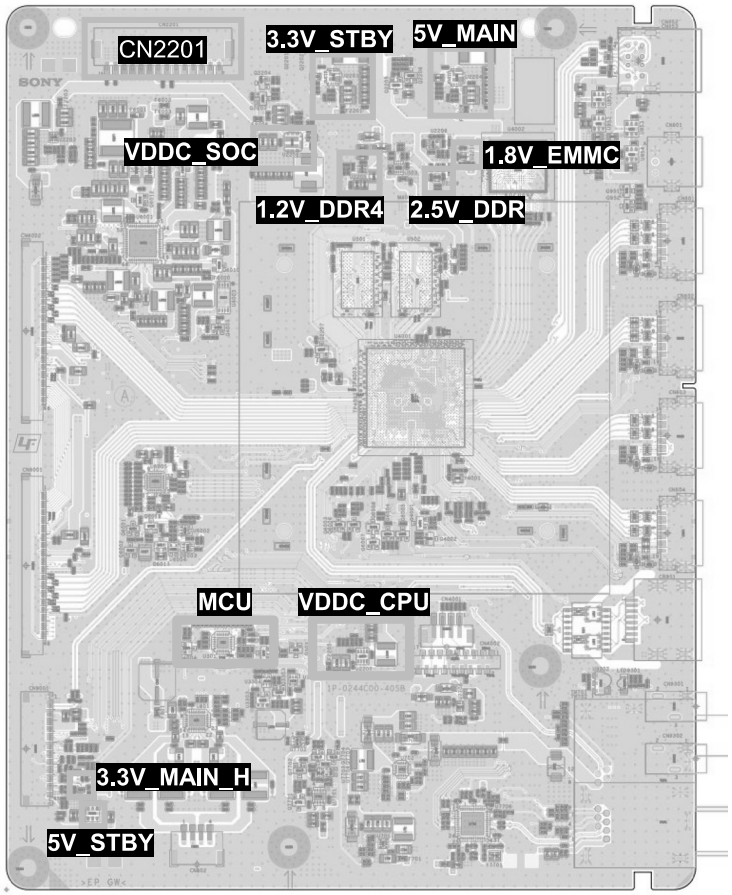
Board	Operation	IC Ref	Voltage supply	Vcc Ref	EN Pin
MB	LDO	U2210	1.8V_EMMC	C2315	U2210 #3



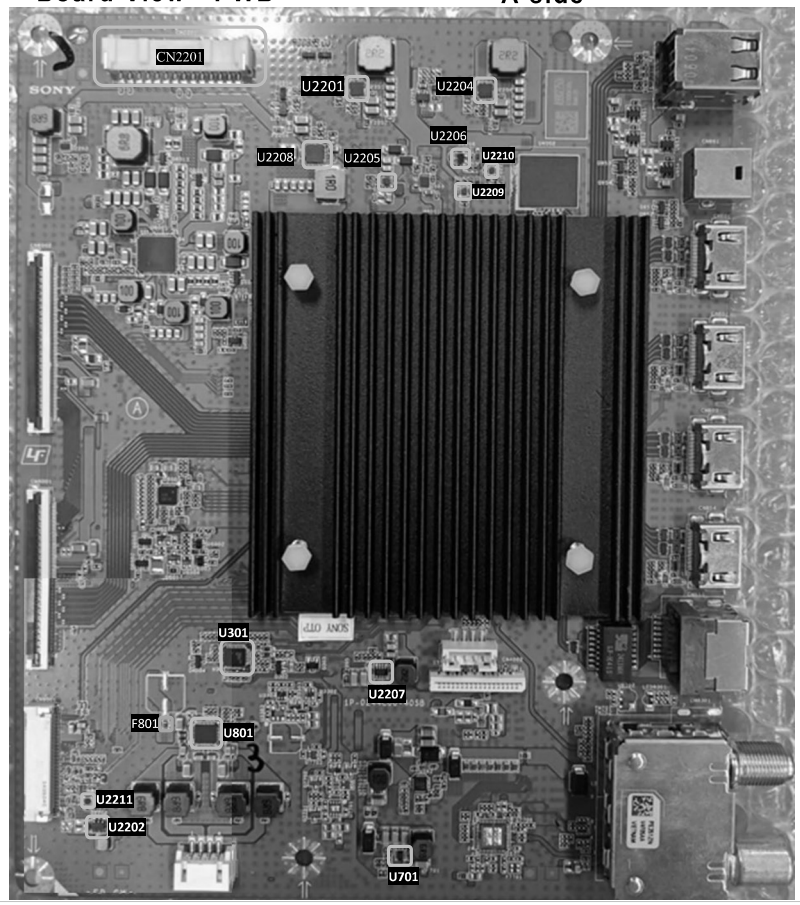
TROUBLESHOOTING

1.3 No Power DDCON / LDO

Board View - Layout **A-side**



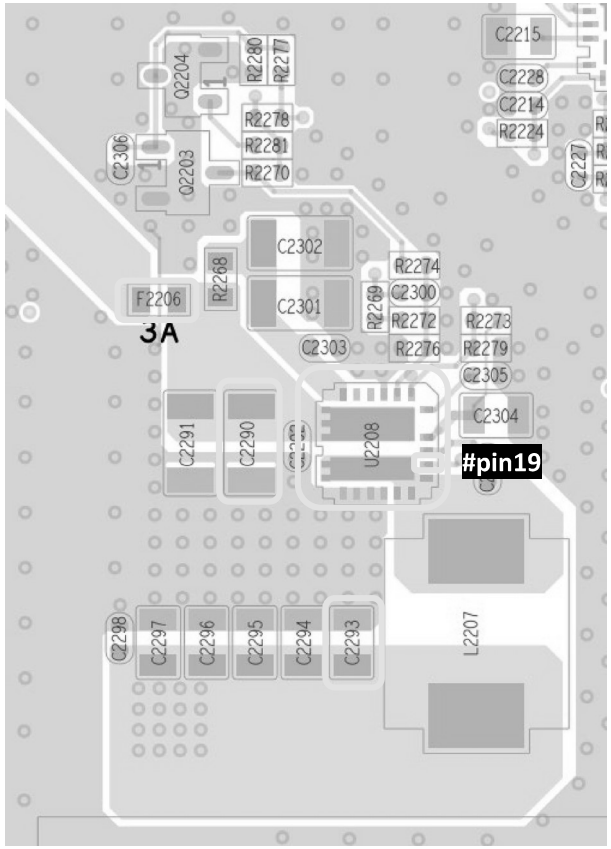
Board View - PWB **A-side**



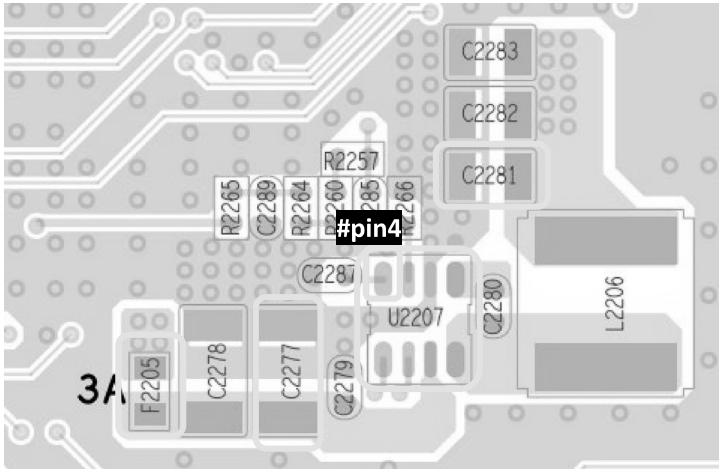
TROUBLESHOOTING

1.3 No Power DDCON / LDO

Checking Point – U2208 – VDDC_SOC **A-side**



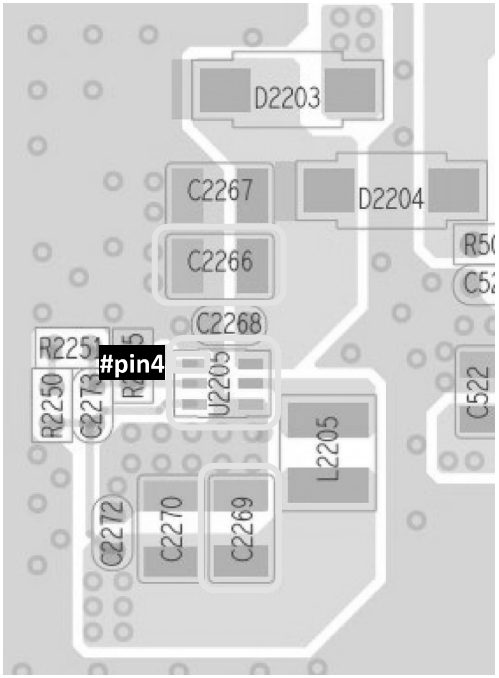
Checking Point – U2207 – VDDC_CPU **A-side**



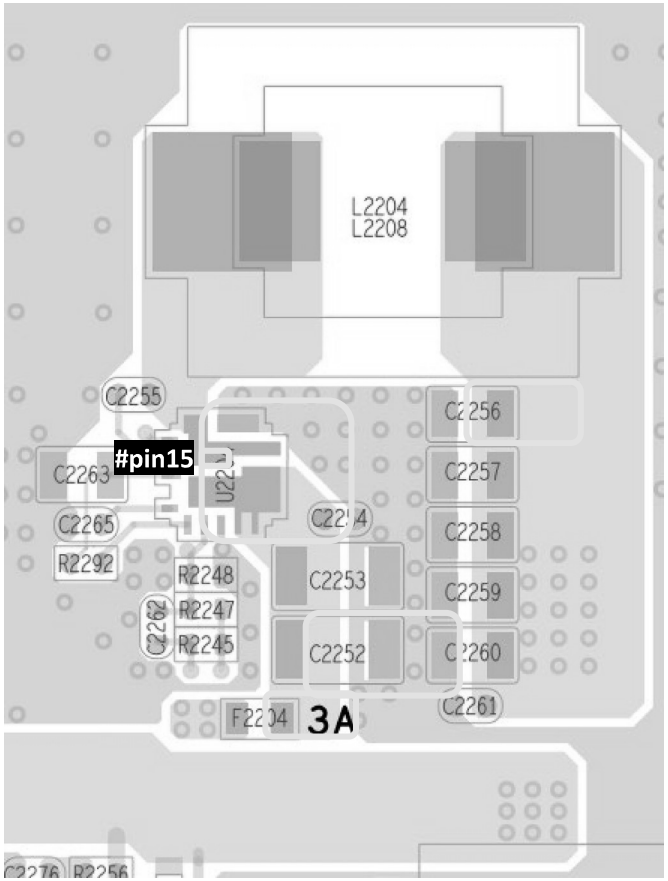
TROUBLESHOOTING

1.3 No Power DDCON / LDO

Checking Point – U2205 – 1.2V_DDR4 **A-side**



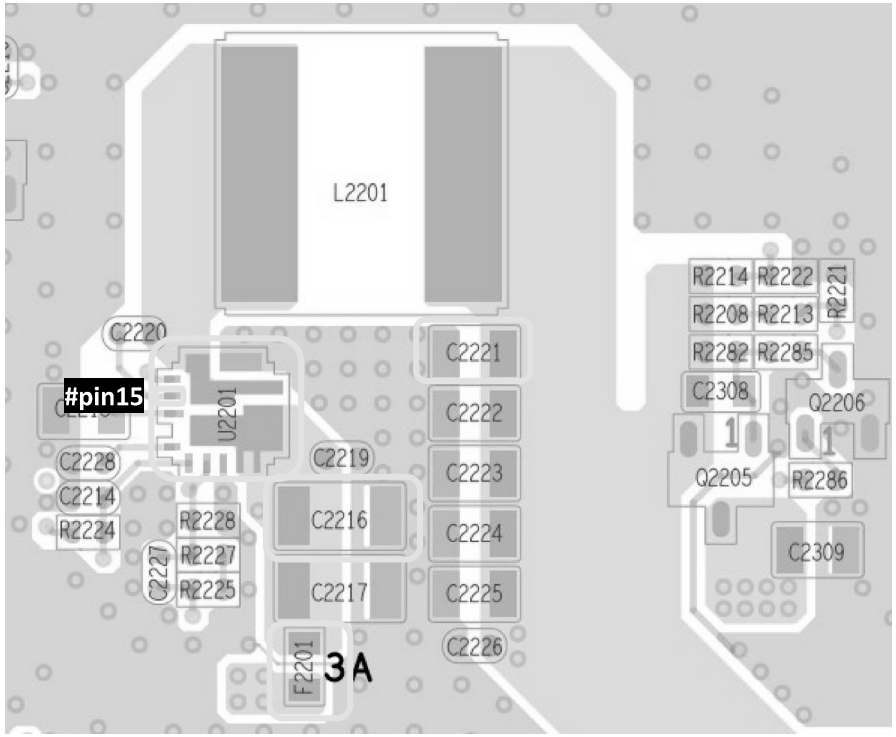
Checking Point - U2204 – 5V_MAIN **A-side**



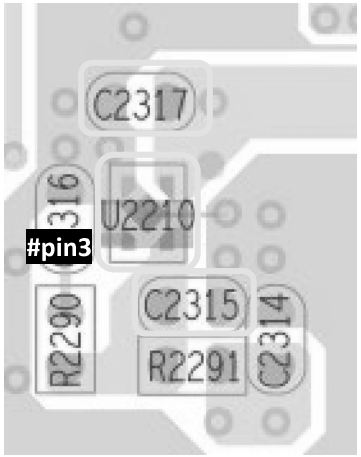
TROUBLESHOOTING

1.3 No Power DDCON / LDO

Checking Point – U2201 –3.3V_STBY **A-side**



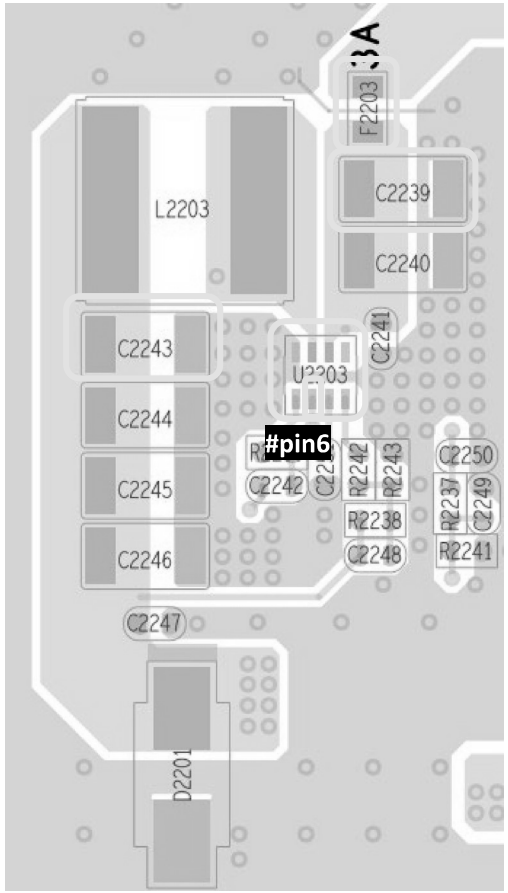
Checking Point – U2210 – 1.8V_EMMC **A-side**



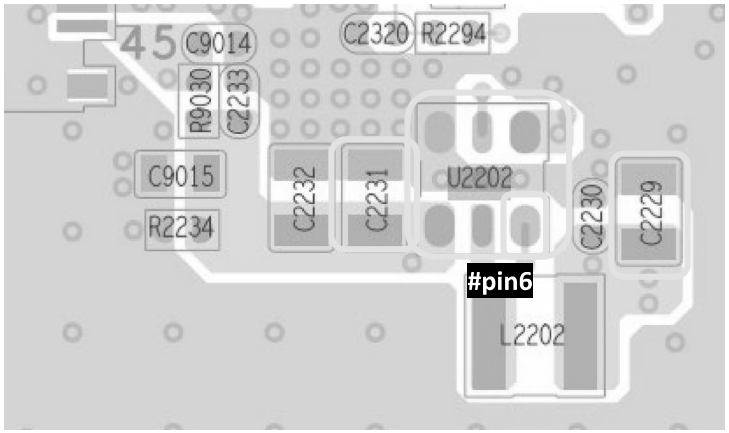
TROUBLESHOOTING

1.3 No Power DDCON / LDO

Checking Point - U2203 –TCON_12V **A-side**



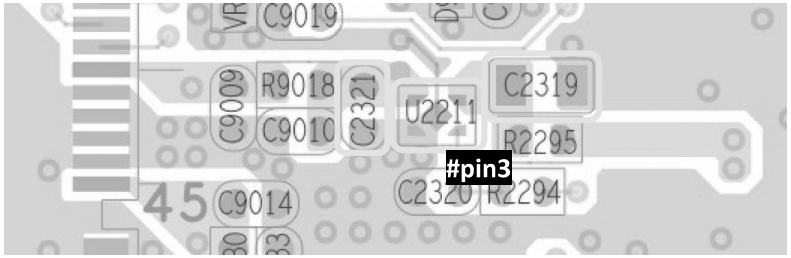
Checking Point – U2202 – 5V_STBY **A-side**



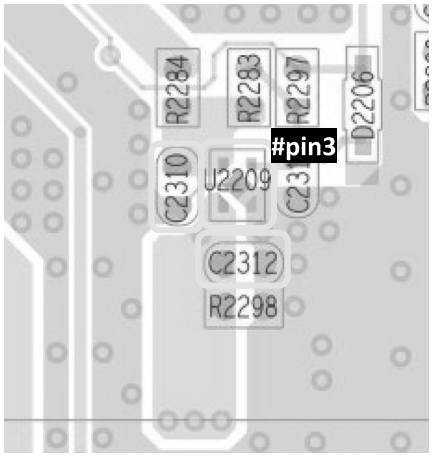
TROUBLESHOOTING

1.3 No Power DDCON / LDO

Checking Point – U2211 – 3.3V_MAIN_H **A-side**

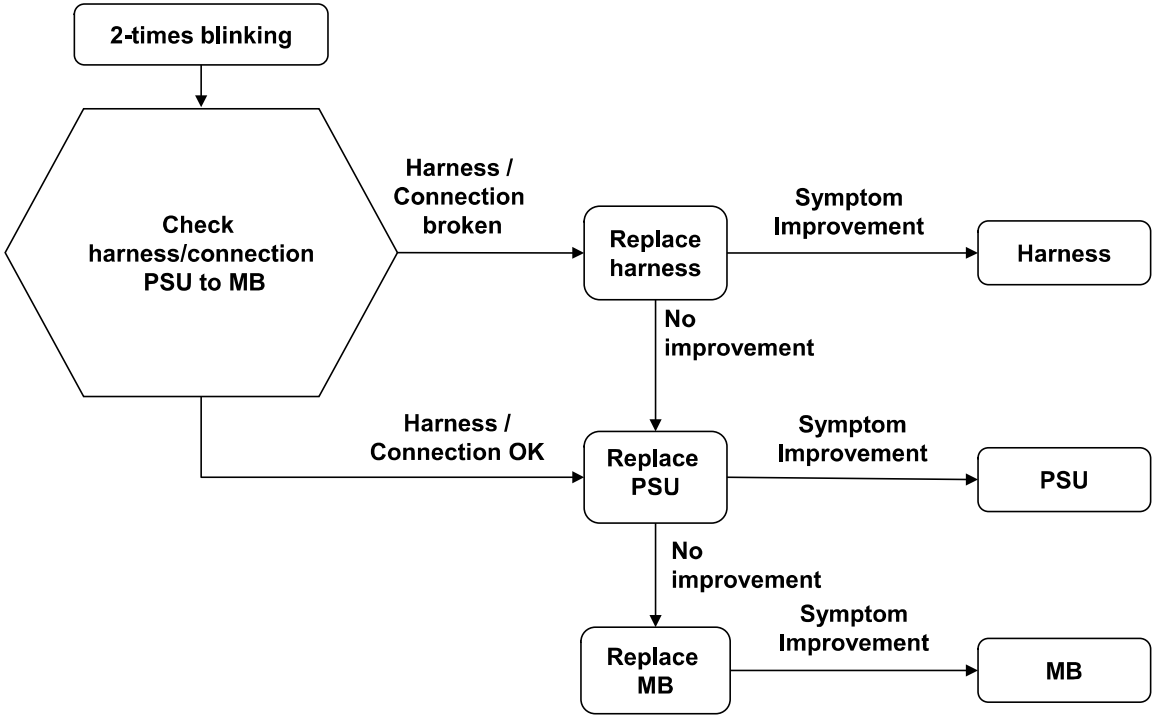


Checking Point – U2209 – 2.5V_DDR **A-side**



TROUBLESHOOTING

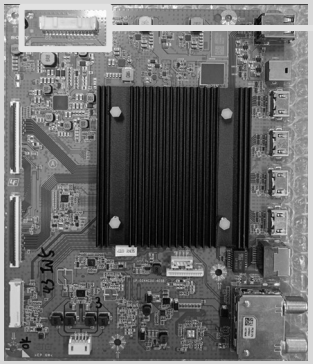
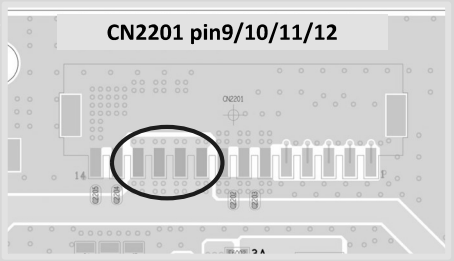
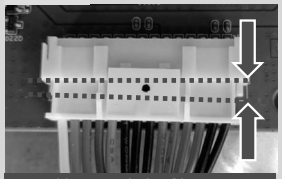
2.0 LED Blinking – 2x Main Power Error



TROUBLESHOOTING

2.0 LED Blinking – 2x Main Power Error

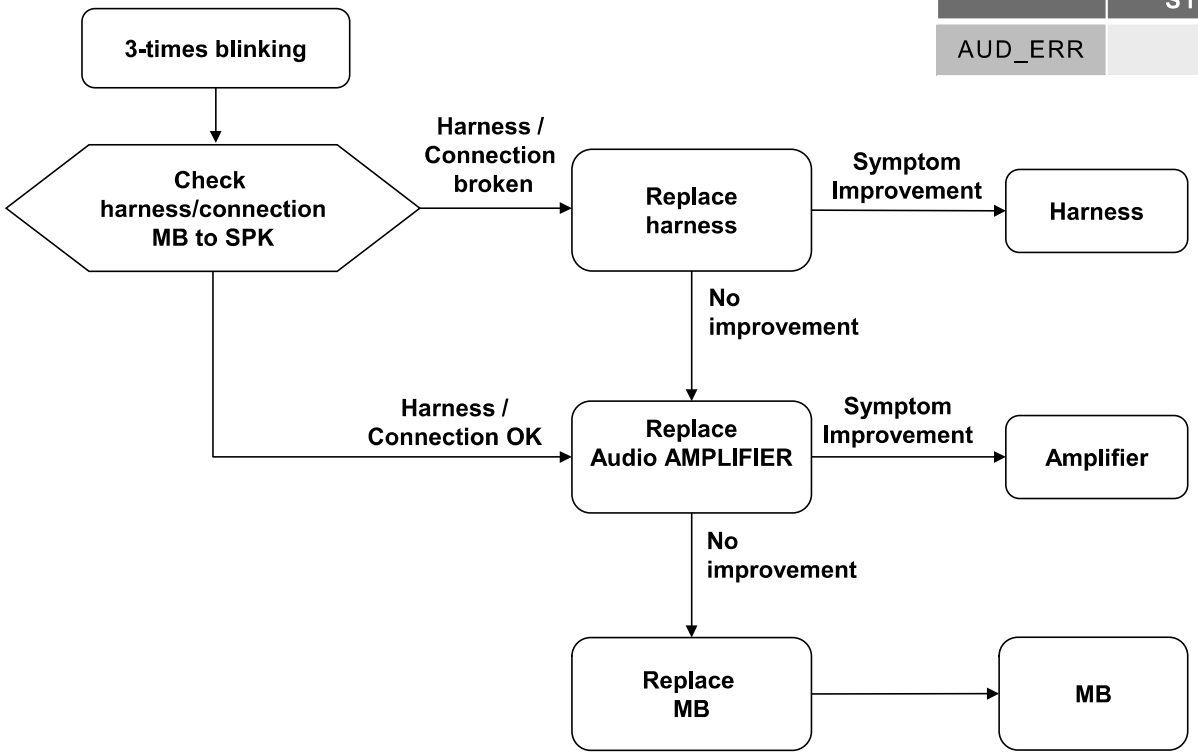
Checking Point

Board PWB (A side) & Cable	Detail
	
	OK  NG  Harness is half insert (with GAP at lock area)  Terminal Pin retraction

TROUBLESHOOTING

2.2 3x Blinking – AUD_ERR

Error Item	Number of STBY LED flashing	Description
AUD_ERR	3	Audio D.Amp error detection

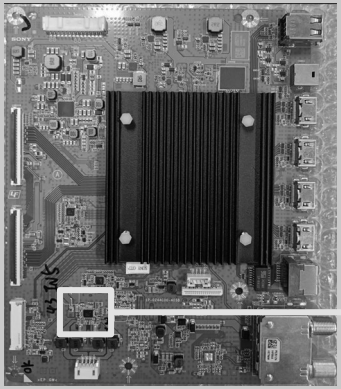
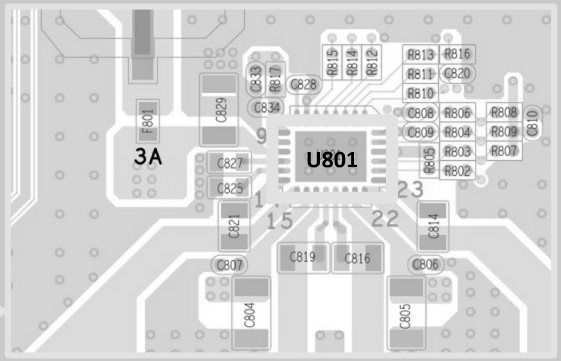
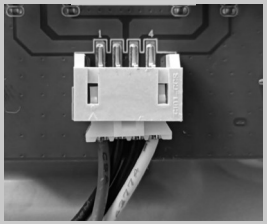
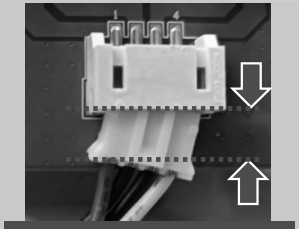
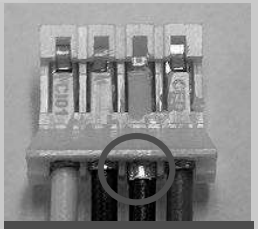


TROUBLESHOOTING

2.2 3x Blinking – AUD_ERR

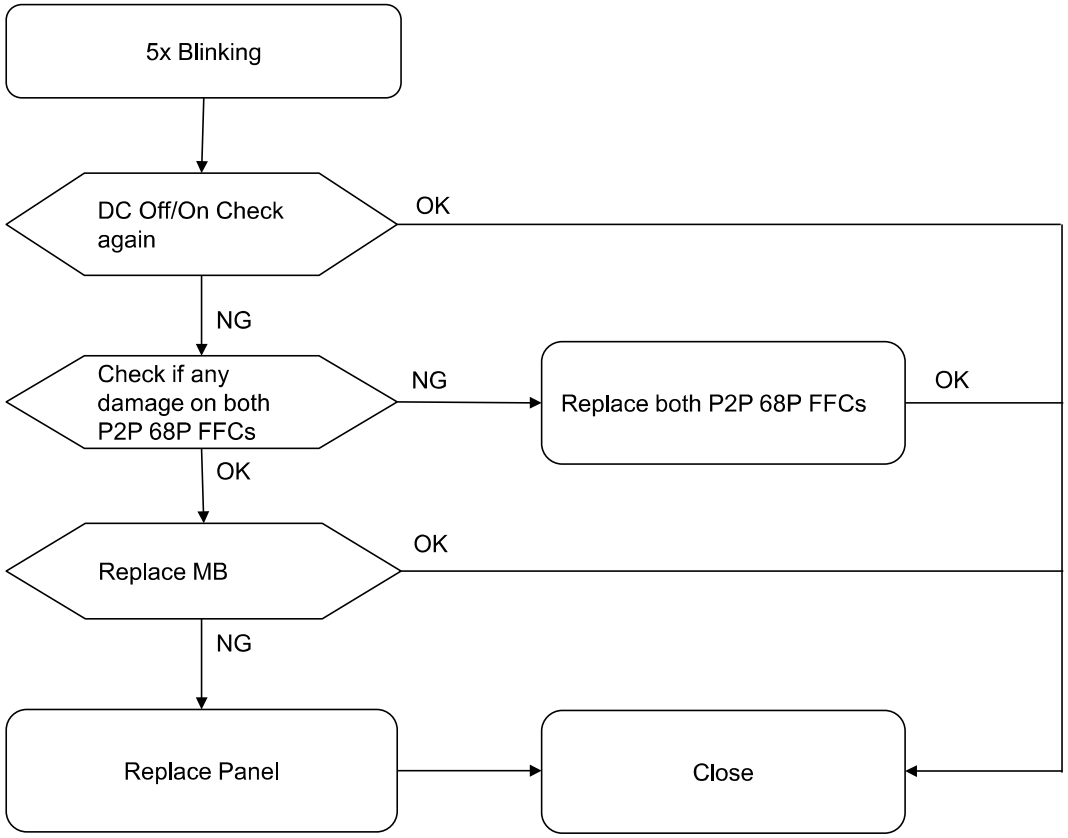
※Caution: Before start do checking point, please ensure TV in “Power off” condition for continuity check

Checking Point

Board PWB (A side) & Cable	Detail
	
OK 	NG  Harness is half insert (with GAP at lock area)  Terminal Pin retraction

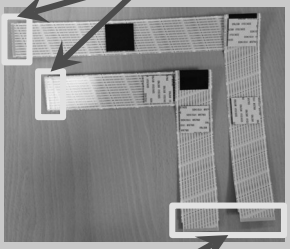
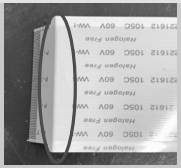
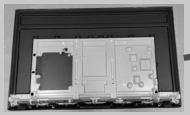
TROUBLESHOOTING

2.5 5x Blinking – Panel ID Read Error



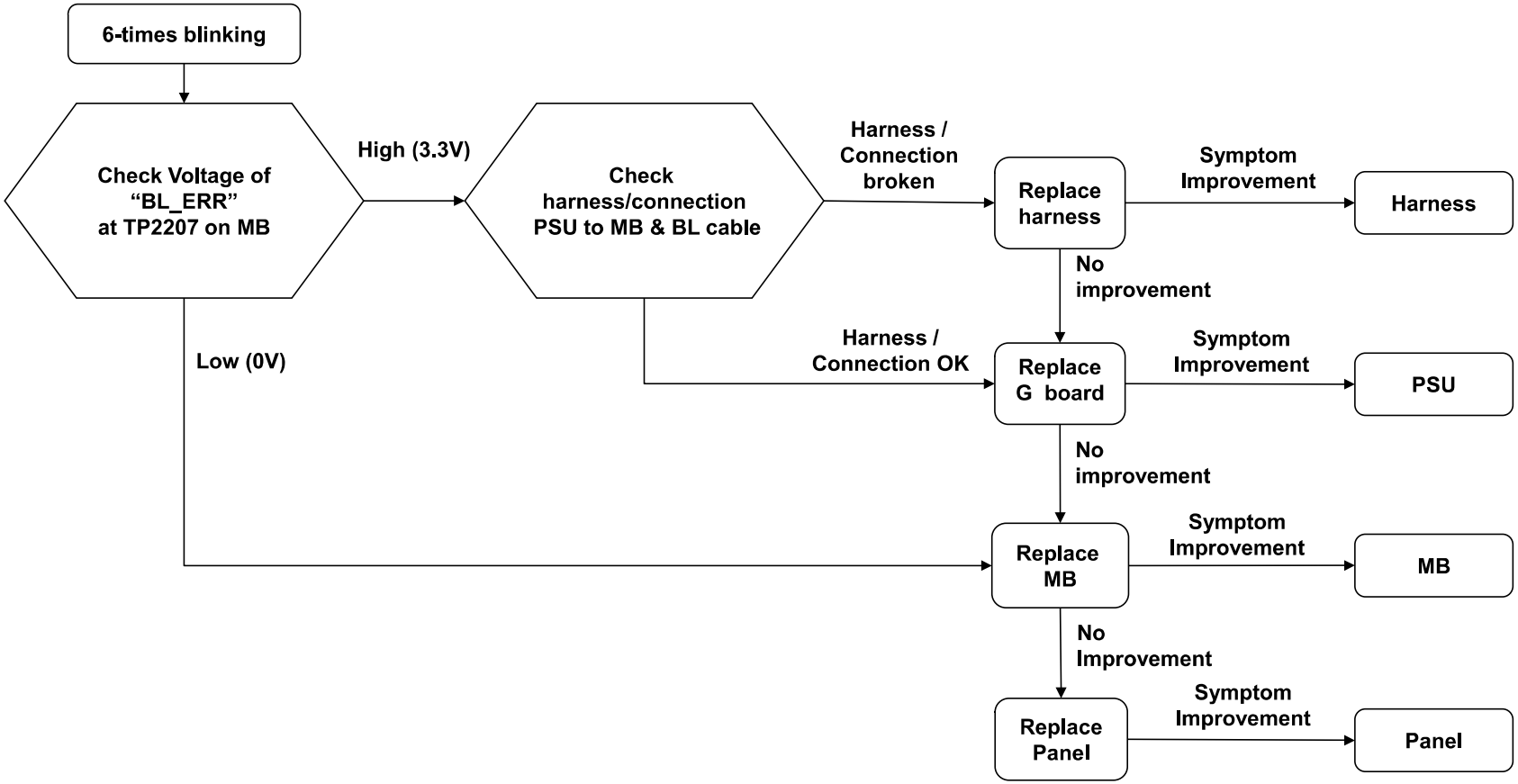
TROUBLESHOOTING

2.5 5x Blinking – Panel ID Read Error

Check Point		
①	Check harness &connection "MB to Panel"	Connect to 68P_CN on MB  Connect to 68P_CN on LCM_Source board  NG4: insert FFC in slanting condition NG1: if the coppers are peeled off  NG2: if the ears are damaged NG3: if FFC is bend out of shape 
②	Replace MB	 
③	Replace LCM	

TROUBLESHOOTING

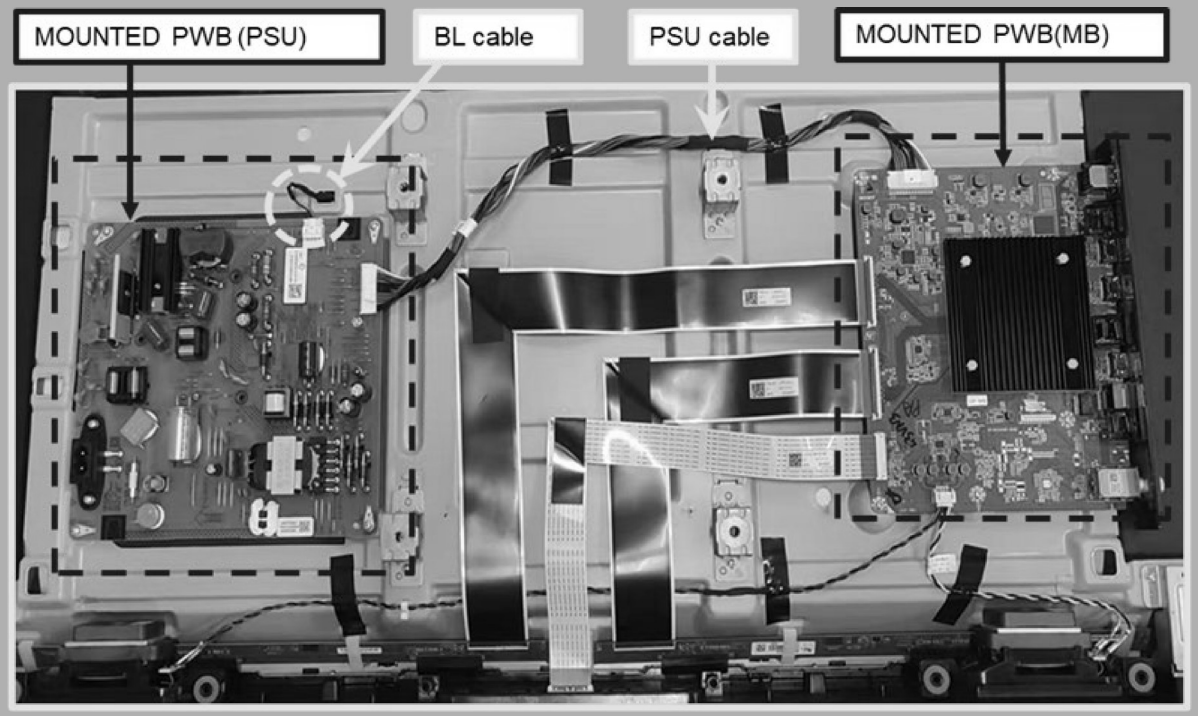
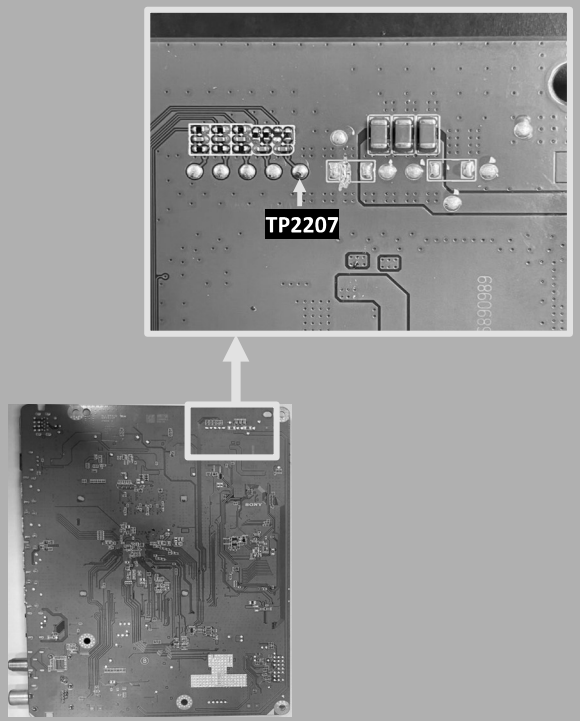
2.6 LED Blinking – 6x Backlight Error



TROUBLESHOOTING

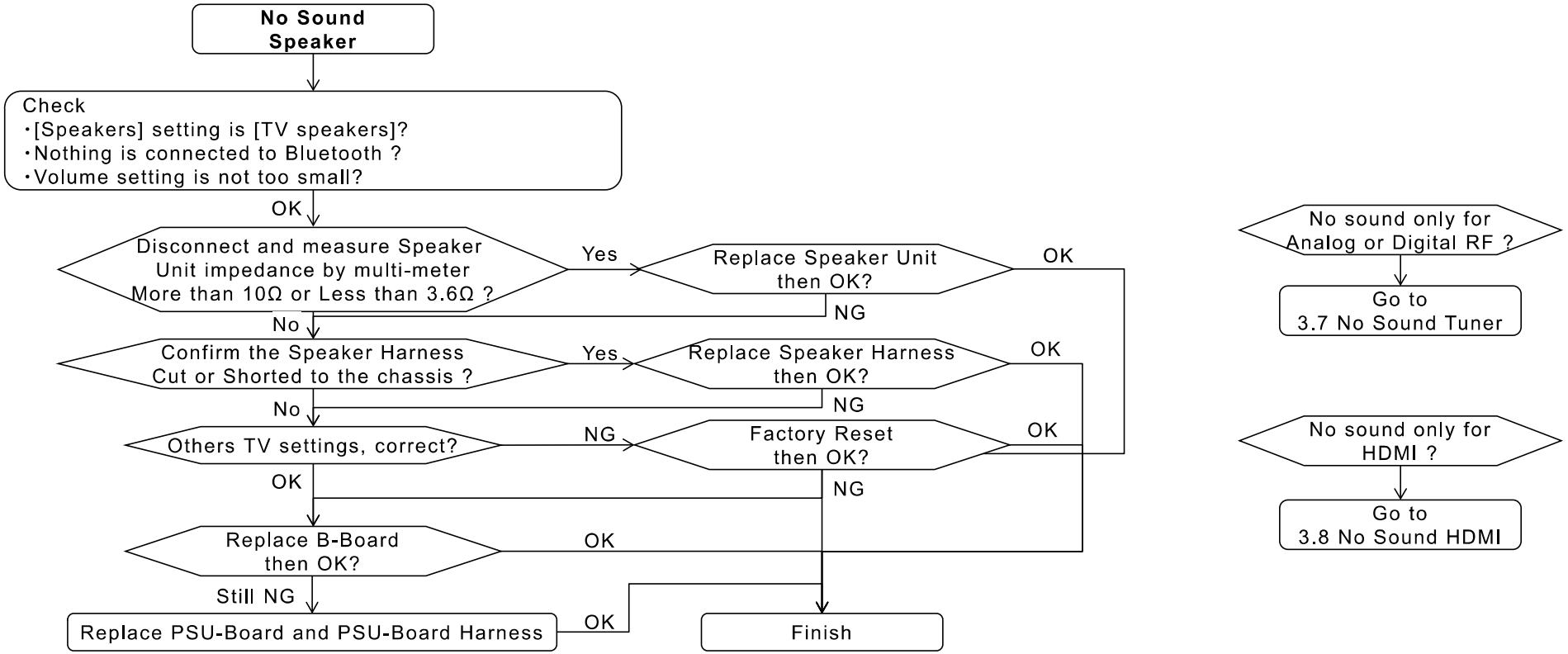
2.6 LED Blinking – 6X Backlight Error

Checking Point

Board & Cable location	Board PWB – MB (B-side)
	

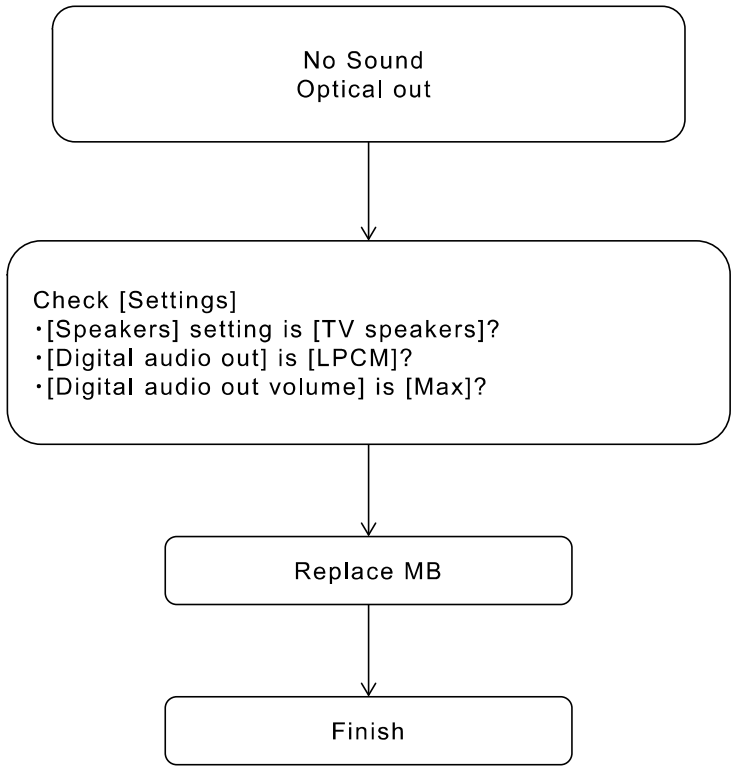
TROUBLESHOOTING

3.1 No Sound for speaker



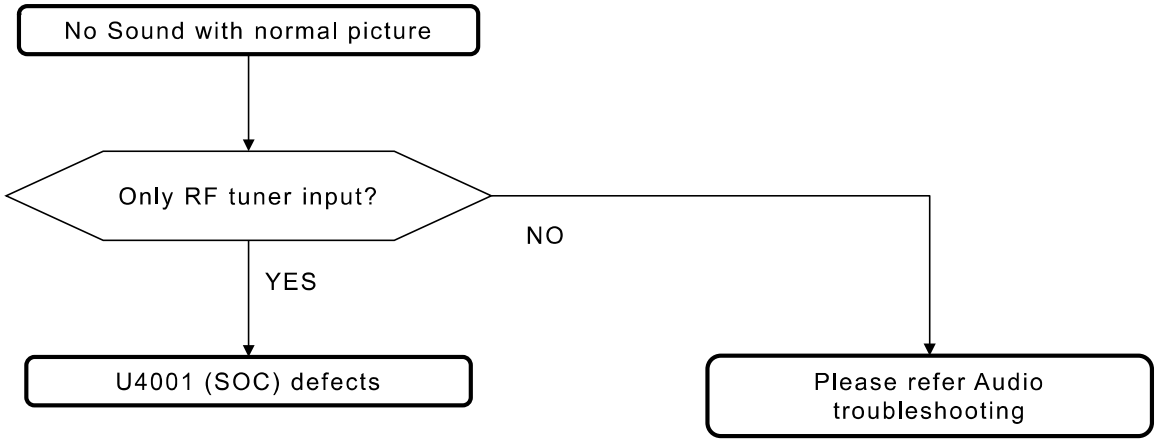
TROUBLESHOOTING

3.2 No Sound for Optical out



TROUBLESHOOTING

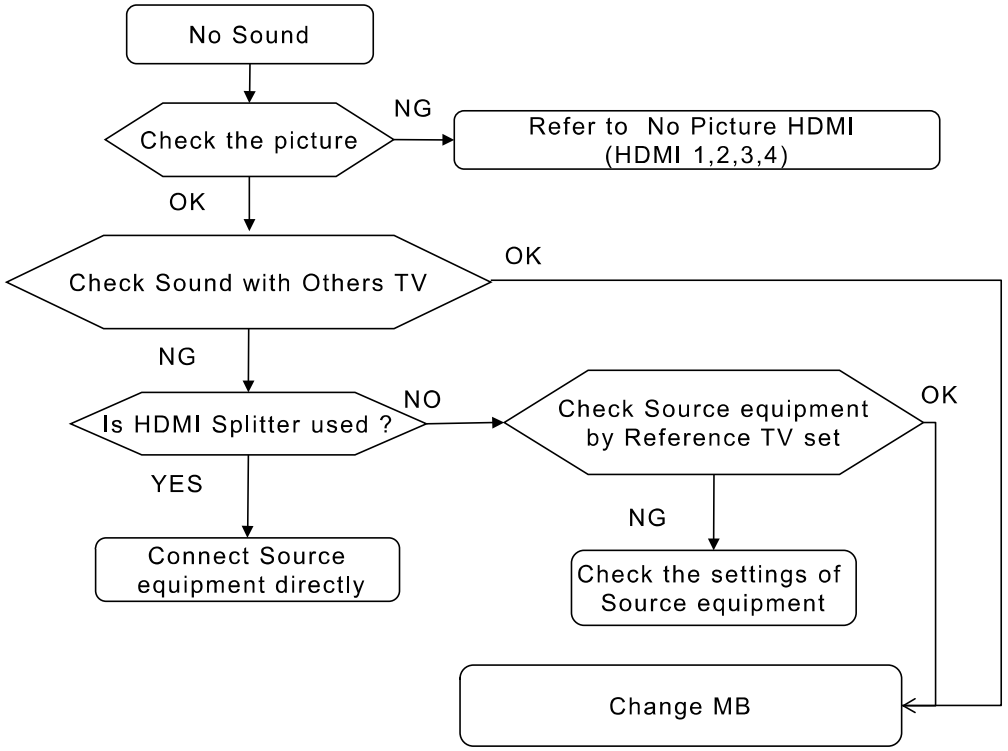
3.7 No Sound : @ Tuner



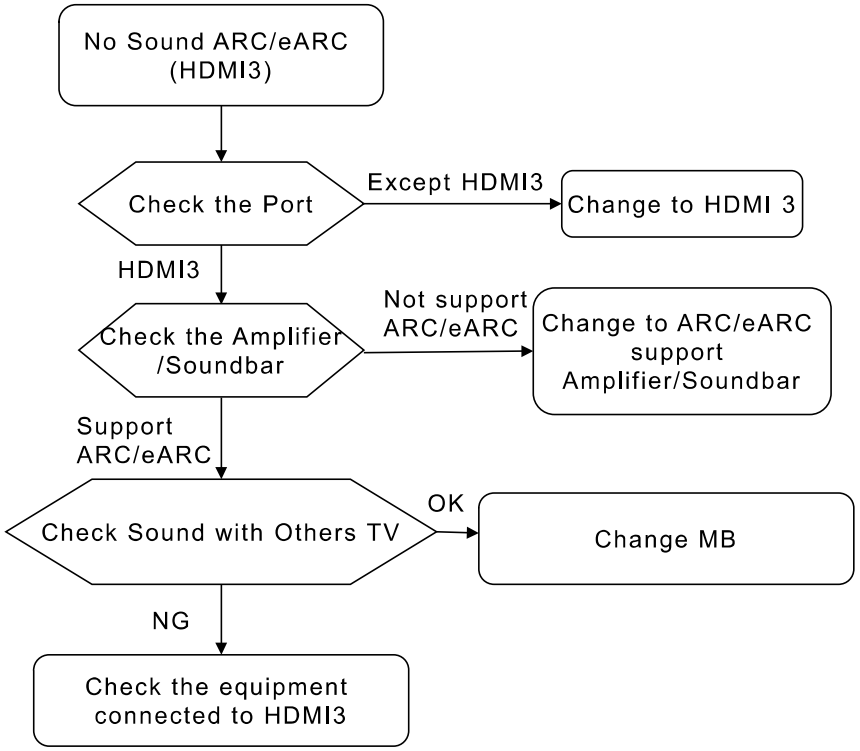
TROUBLESHOOTING

3.8 No Sound : HDMI 1/2/3/4

Non-ARC/eARC Connection
(Source →Audio System → TV)

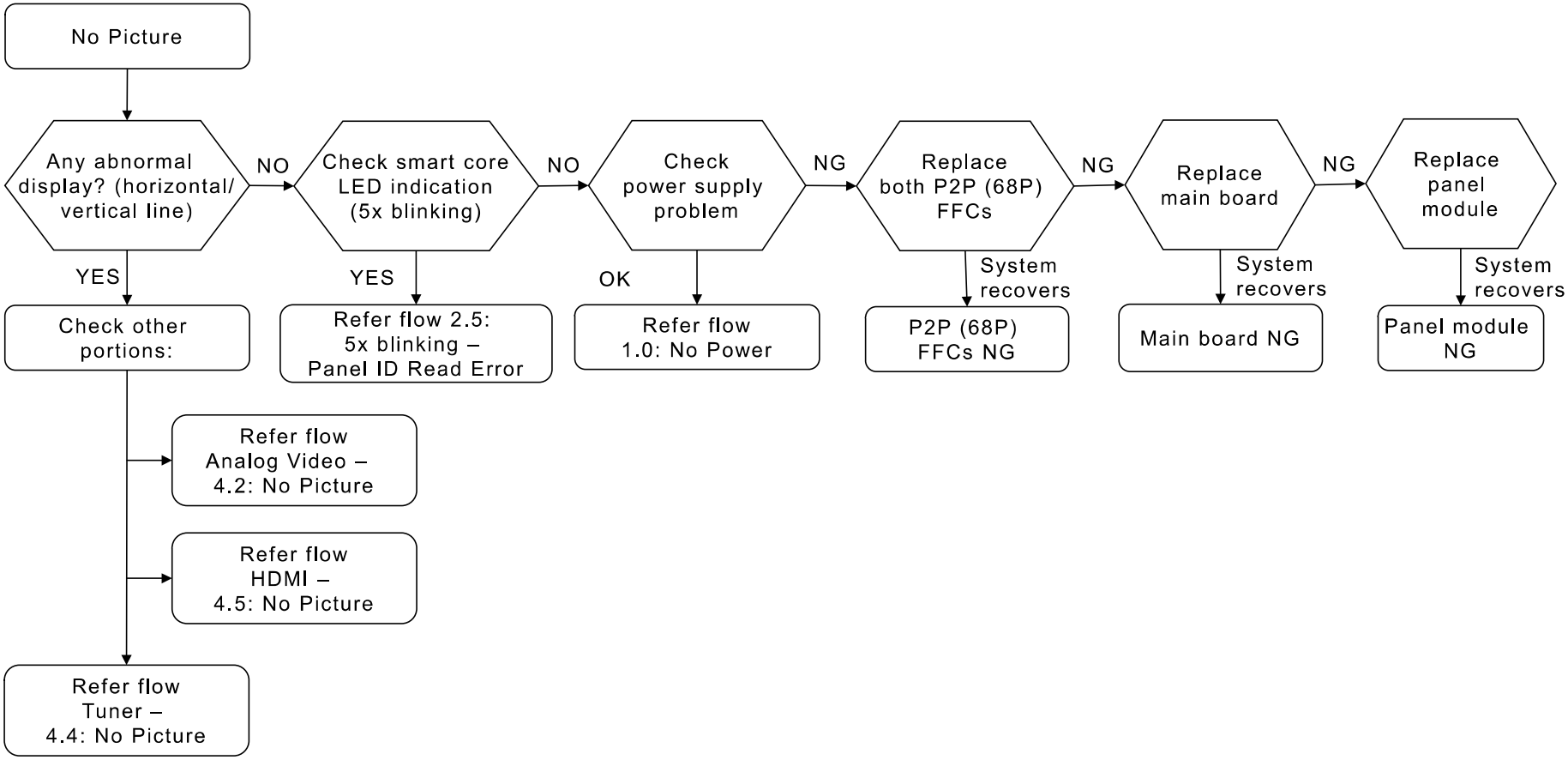


ARC/eARC Connection
(Source →TV→ Audio System)



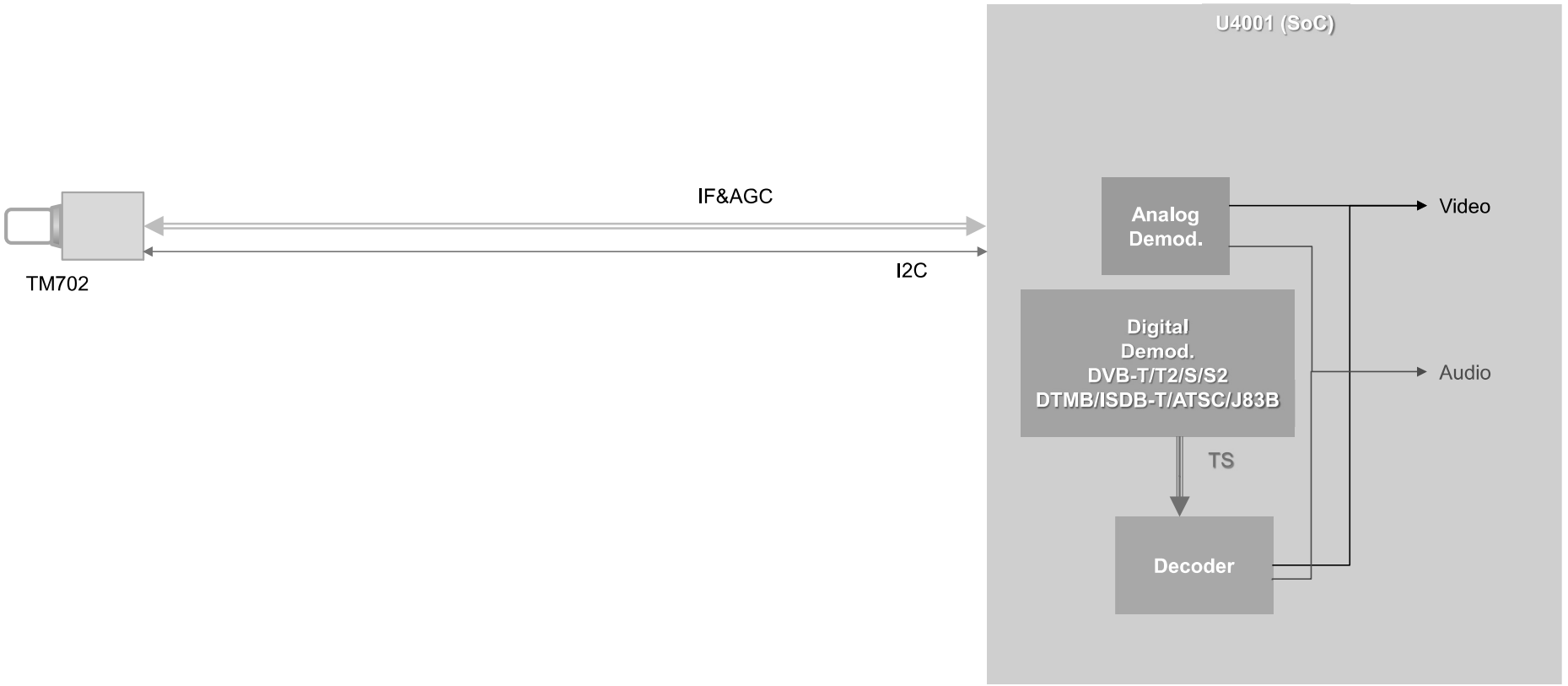
TROUBLESHOOTING

4.0 No Picture



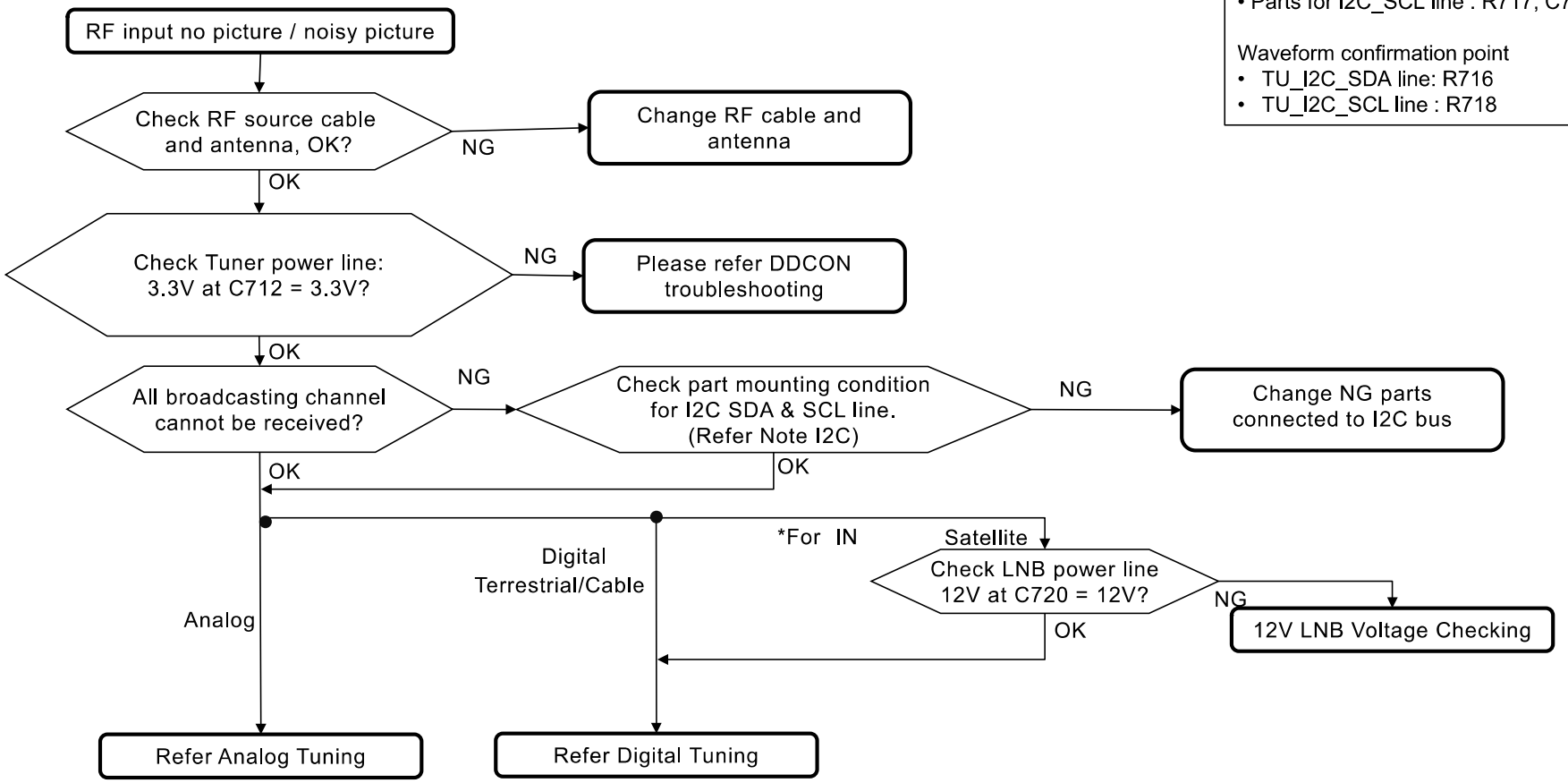
TROUBLESHOOTING

4.4 No Picture : @ Tuner



TROUBLESHOOTING

4.4 No Picture : @ Tuner



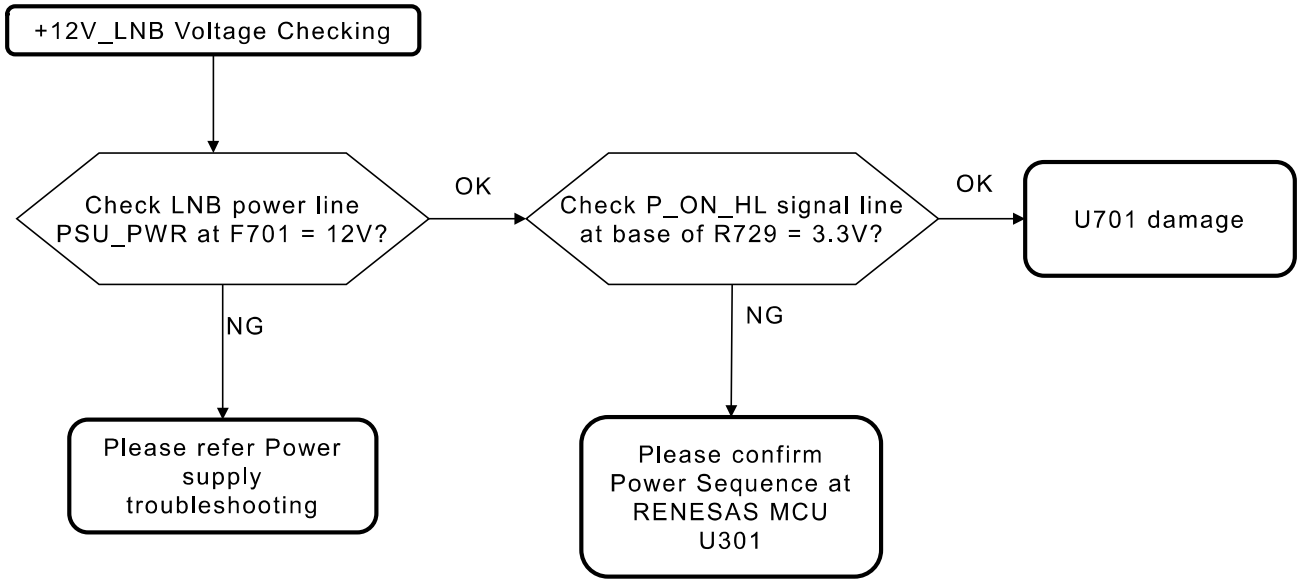
Notes: I2C
- Parts for I2C_SDA line: R715, C705
- Parts for I2C_SCL line : R717, C704

Waveform confirmation point
- TU_I2C_SDA line: R716
- TU_I2C_SCL line : R718

TROUBLESHOOTING

4.4 No Picture : @ Tuner

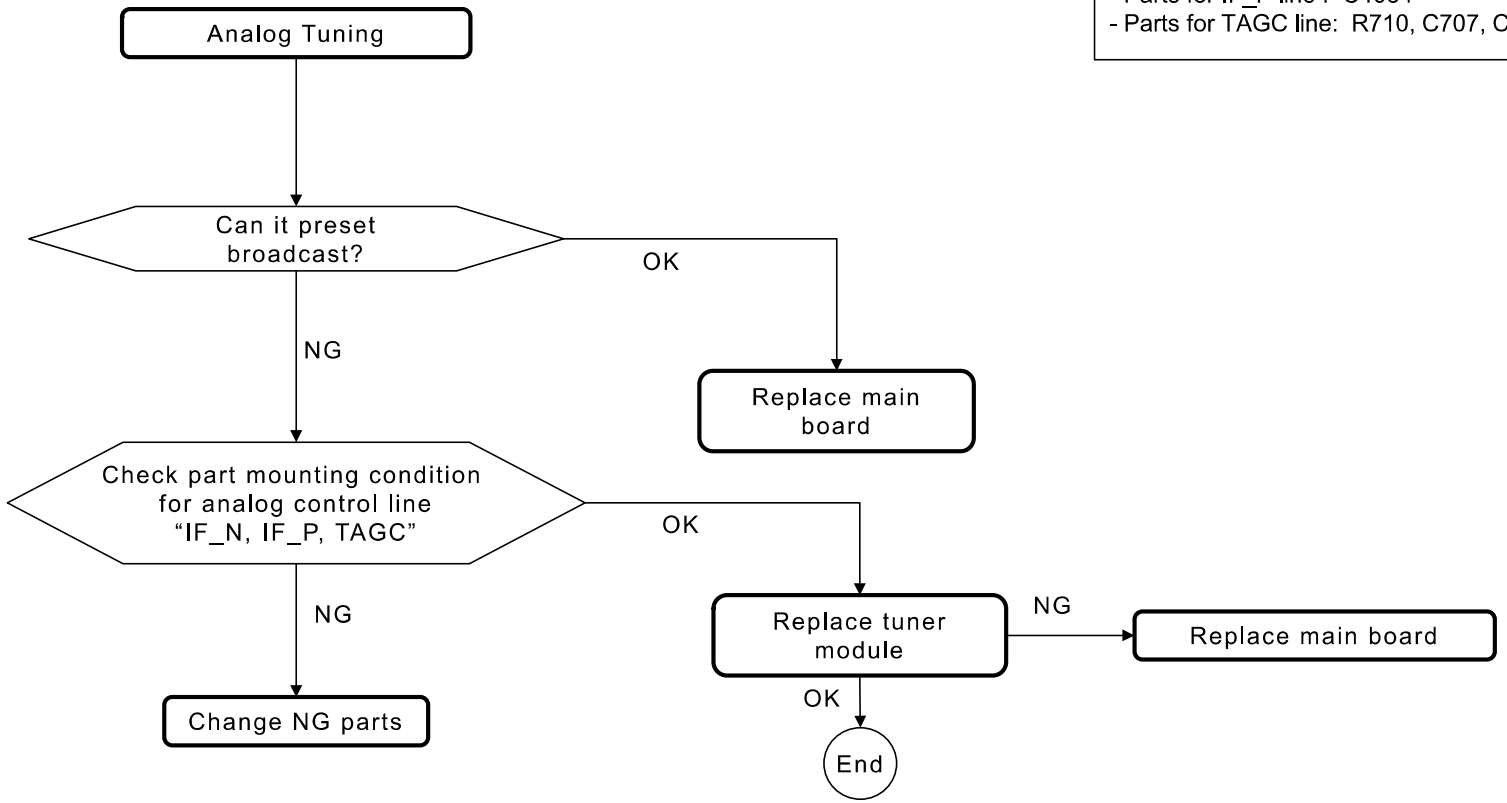
FOR 12V LNB Voltage Checking: @ IN



TROUBLESHOOTING

4.4 No Picture : @ Tuner
FOR ANALOG TUNING : All destinations

Notes:
- Parts for IF_N line : C4088
- Parts for IF_P line : C4084
- Parts for TAGC line: R710, C707, C4089, R4063, R4065, C4091

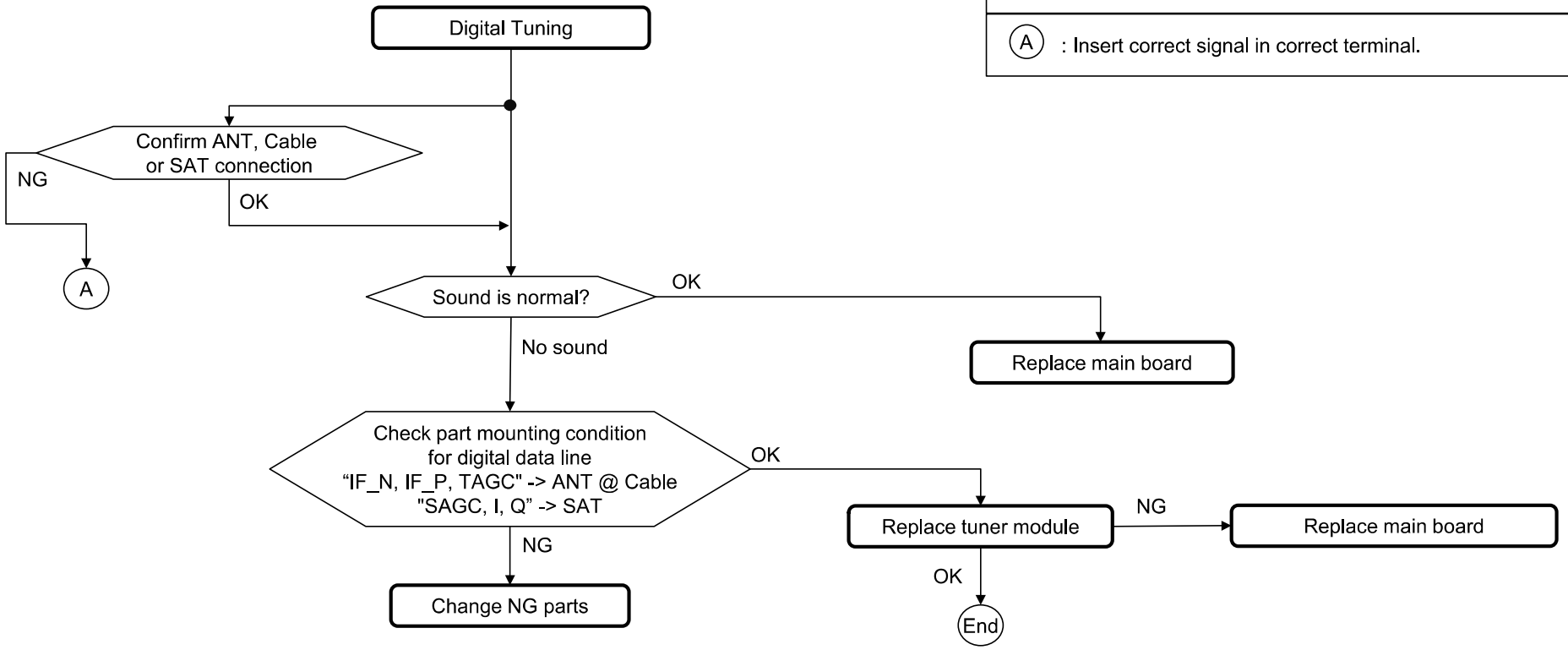


TROUBLESHOOTING

4.4 No Picture : @ Tuner
FOR DIGITAL TUNING : All destinations

Notes:
- Parts for IF_N line : C4088
- Parts for IF_P line : C4084
- Parts for TAGC line: R710, C707, C4089, R4063, R4065, C4091

(A) : Insert correct signal in correct terminal.



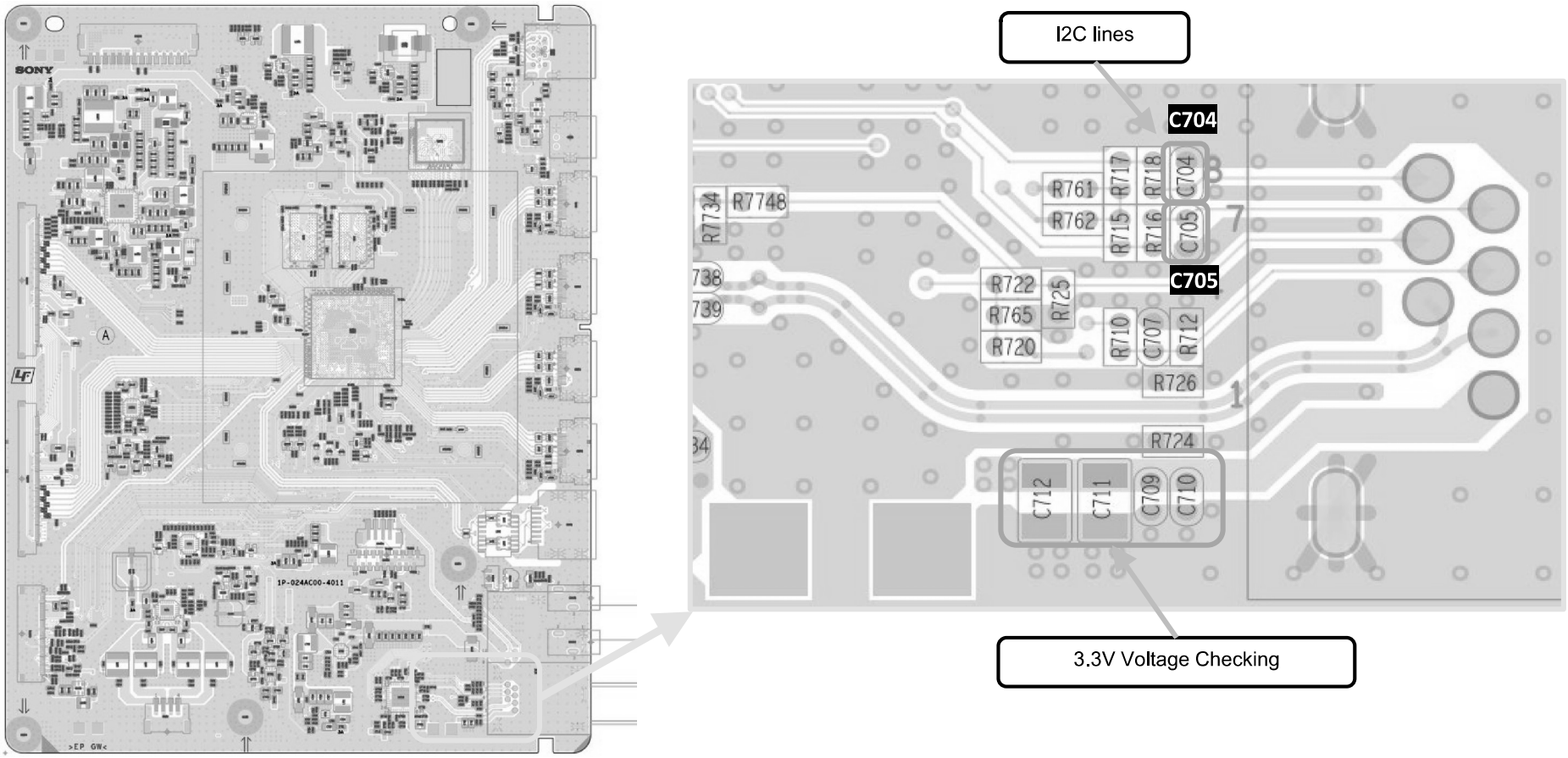
TROUBLESHOOTING

4.4 No Picture : @ Tuner

Tuner Power Lines and Tuner I2C: 3.3V

Note: Please refer to next slide for Ref.No and part location

MB(Top View)

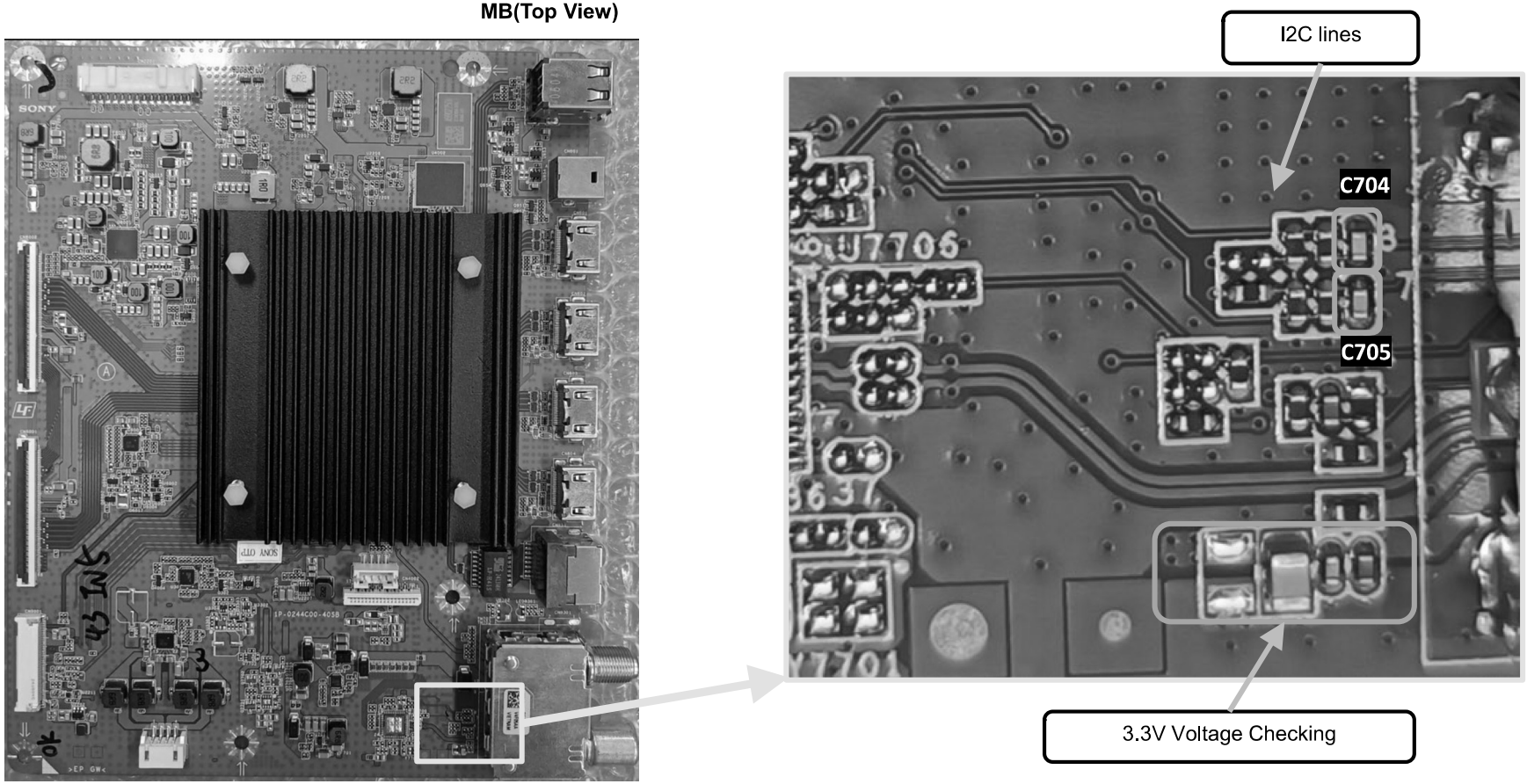


TROUBLESHOOTING

4.4 No Picture : @ Tuner

Tuner Power Lines and Tuner I2C: 3.3V

MB(Top View)

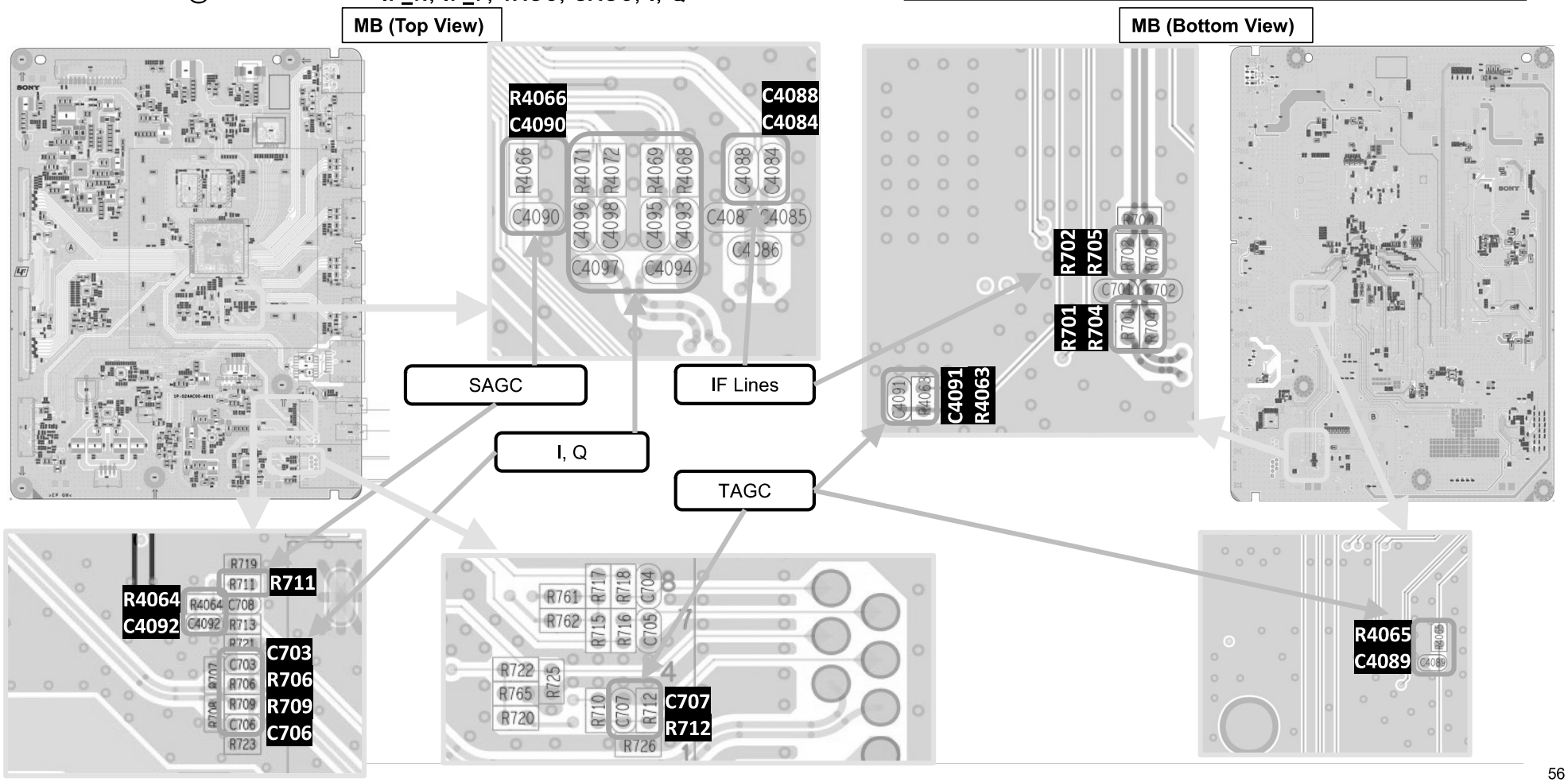


TROUBLESHOOTING

4.4 No Picture : @ Tuner

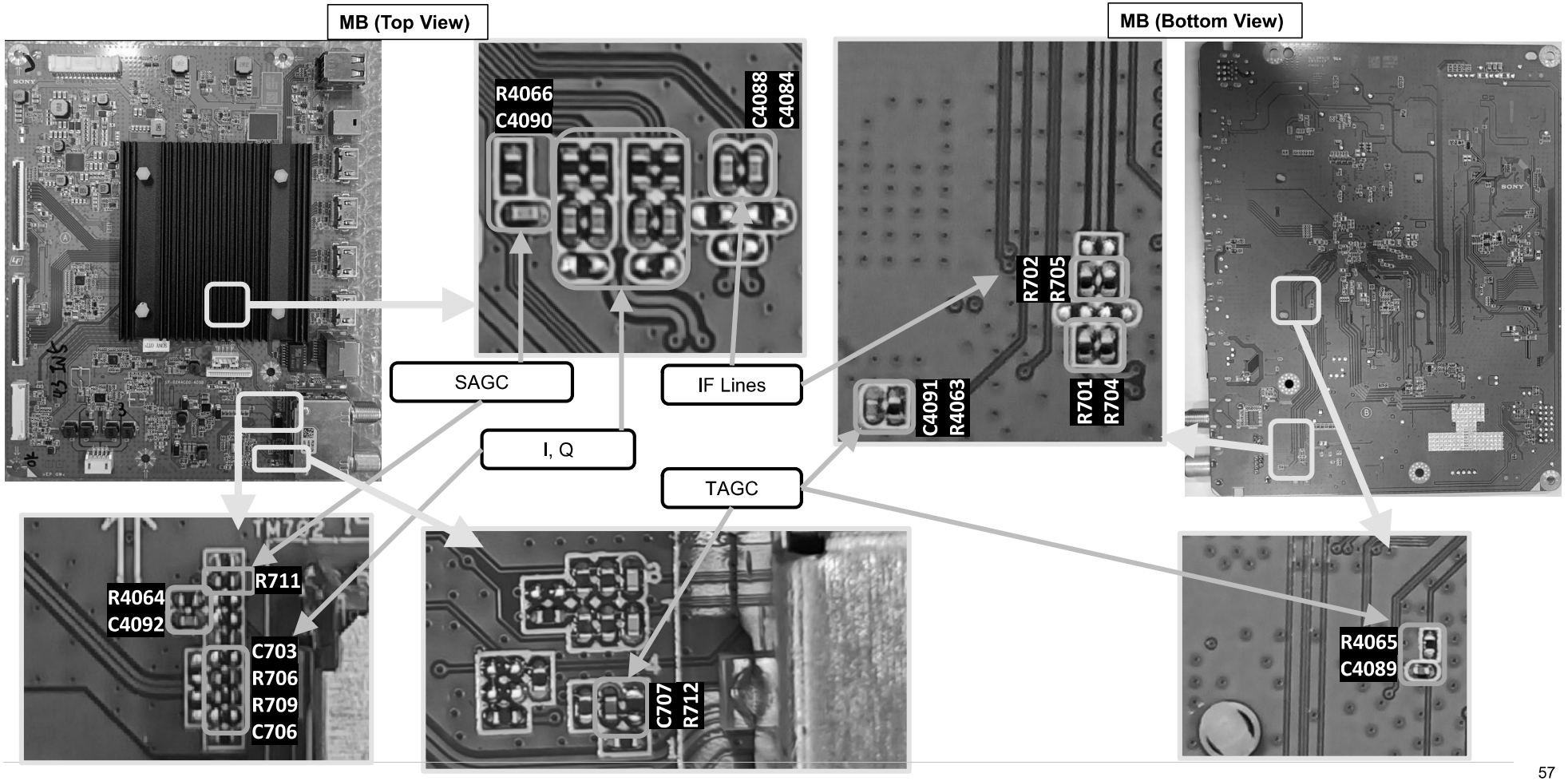
IF_N, IF_P, TAGC, SAGC, I, Q

Note: Please refer to next slide for Ref.No and part location



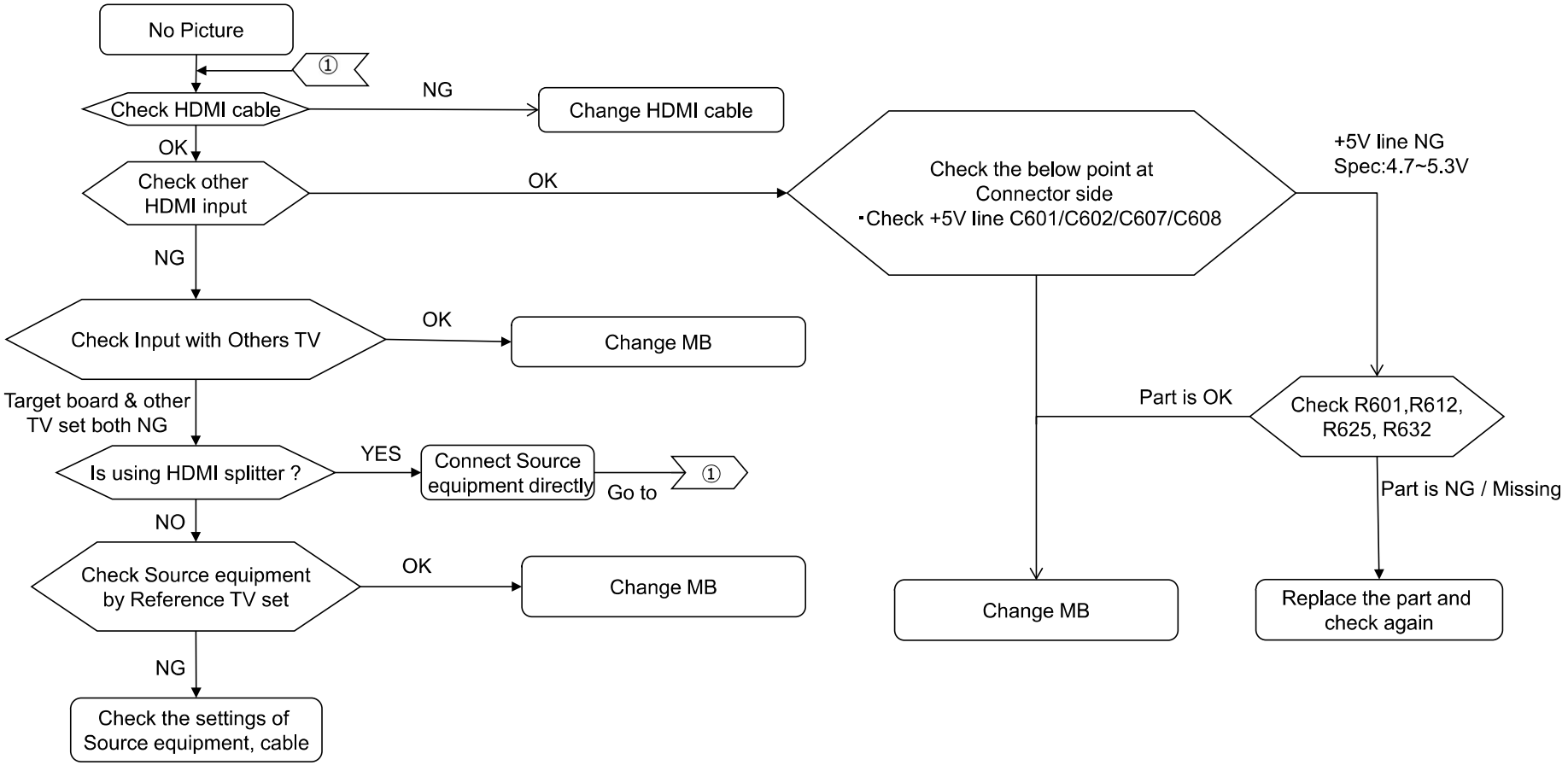
TROUBLESHOOTING

4.4 No Picture : @ Tuner



TROUBLESHOOTING

4.5 No Picture : HDMI 1/2/3/4

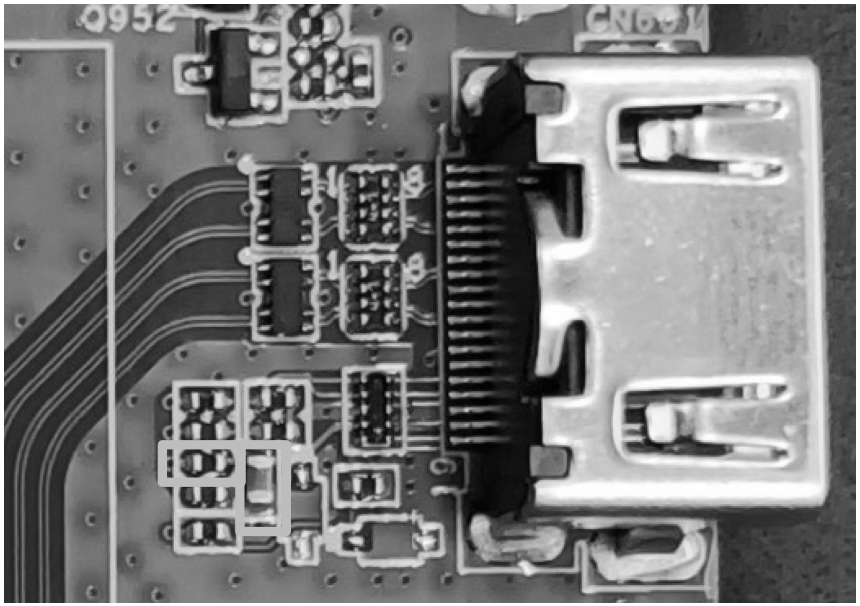


TROUBLESHOOTING

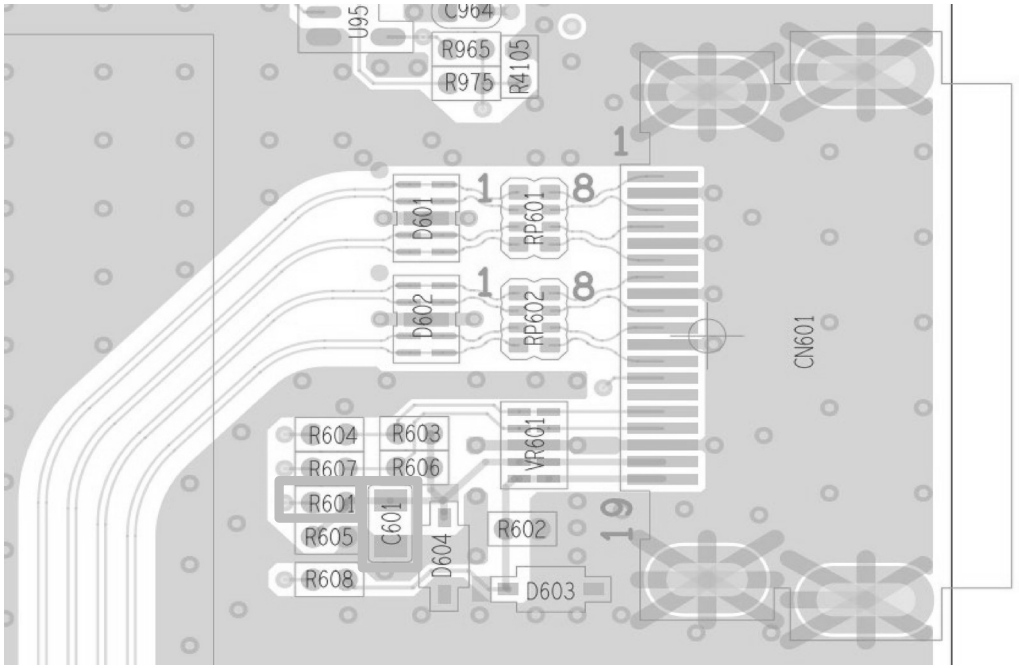
4.5 No Picture : HDMI 1/2/3/4

HDMI 1/2/3/4

MB (A side)

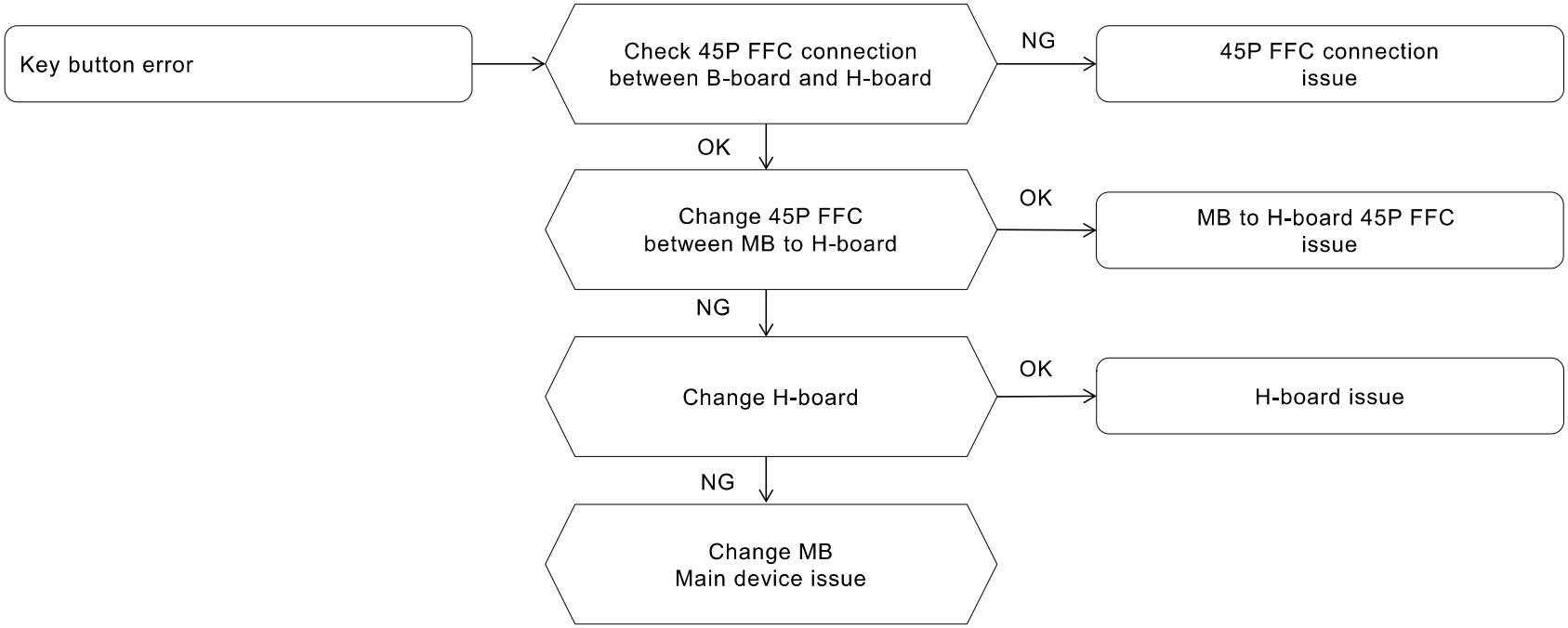


Check point



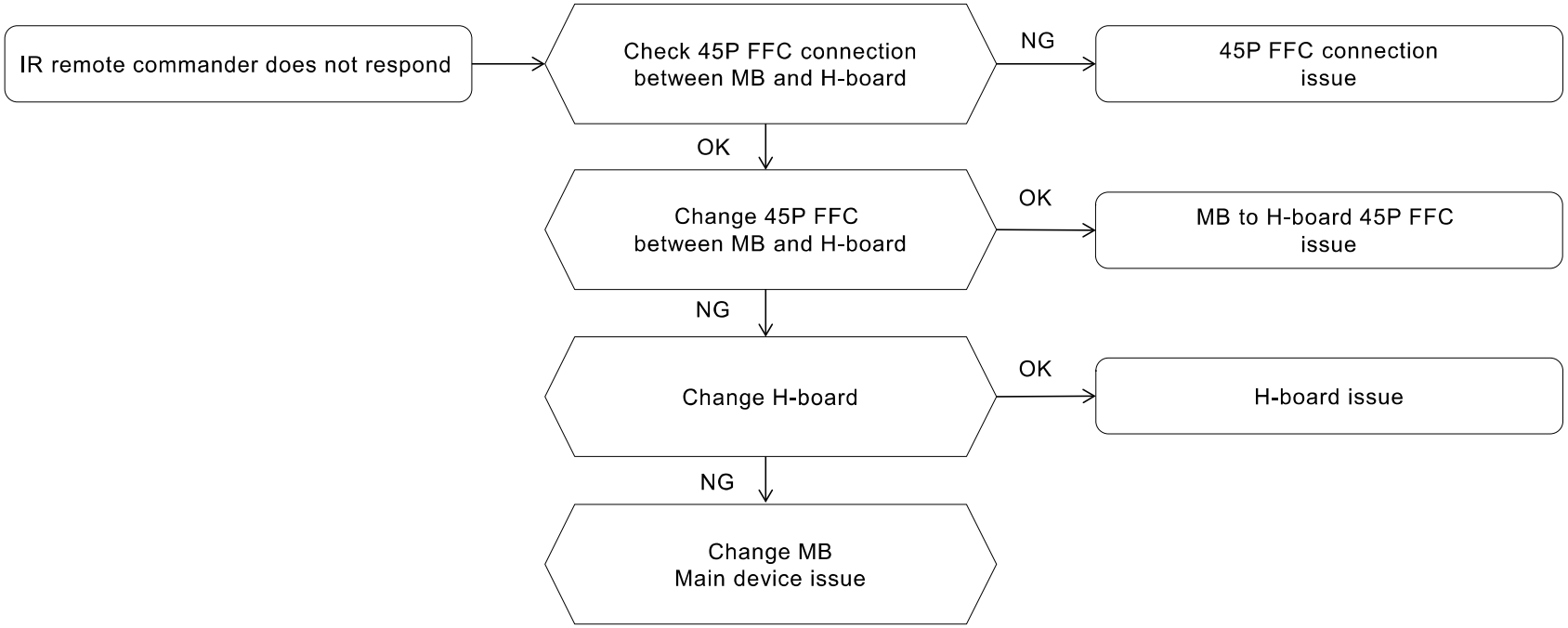
TROUBLESHOOTING

5.0 Key Switch Button Error



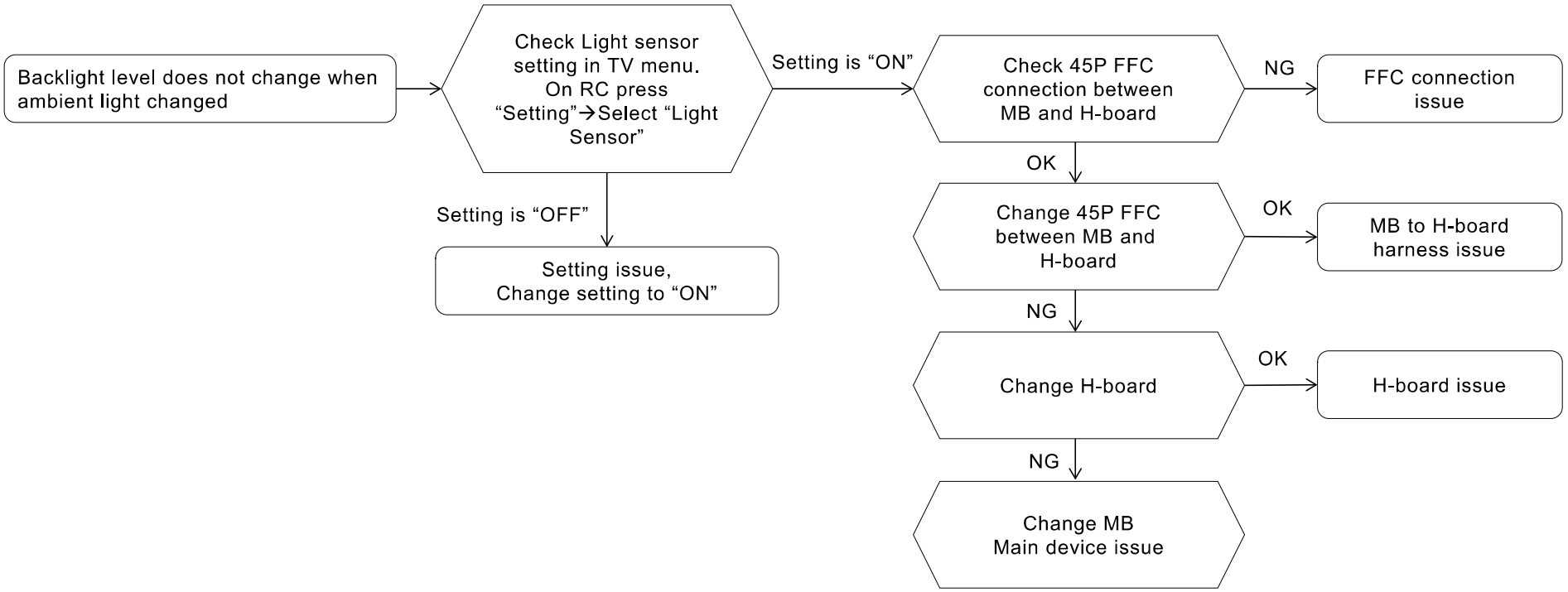
TROUBLESHOOTING

5.1 IR Remote Commander Error



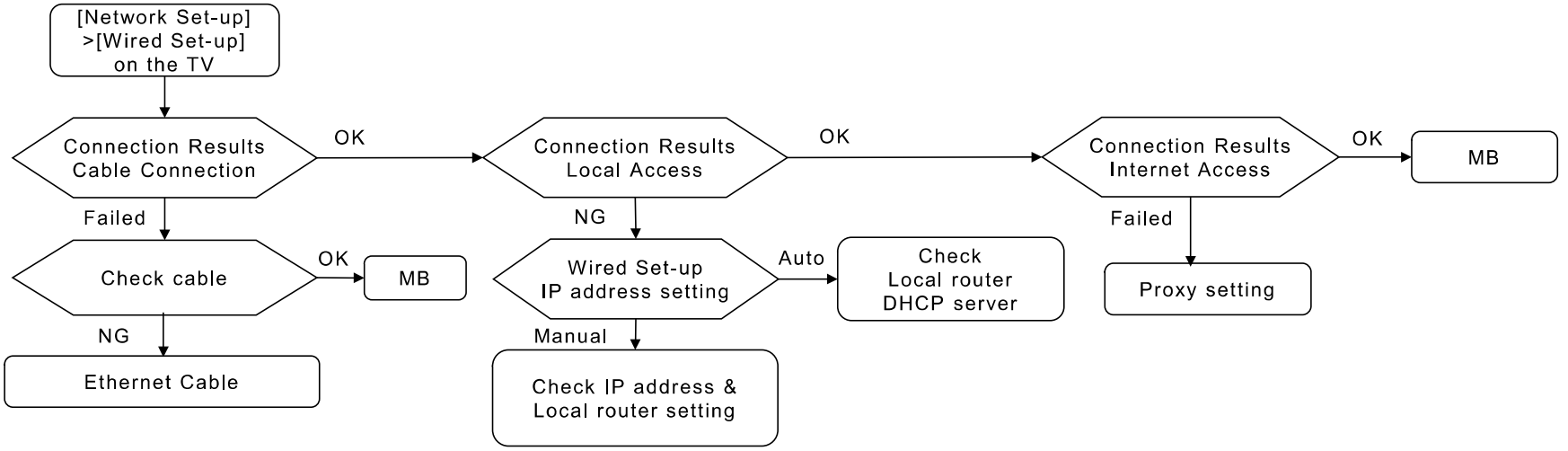
TROUBLESHOOTING

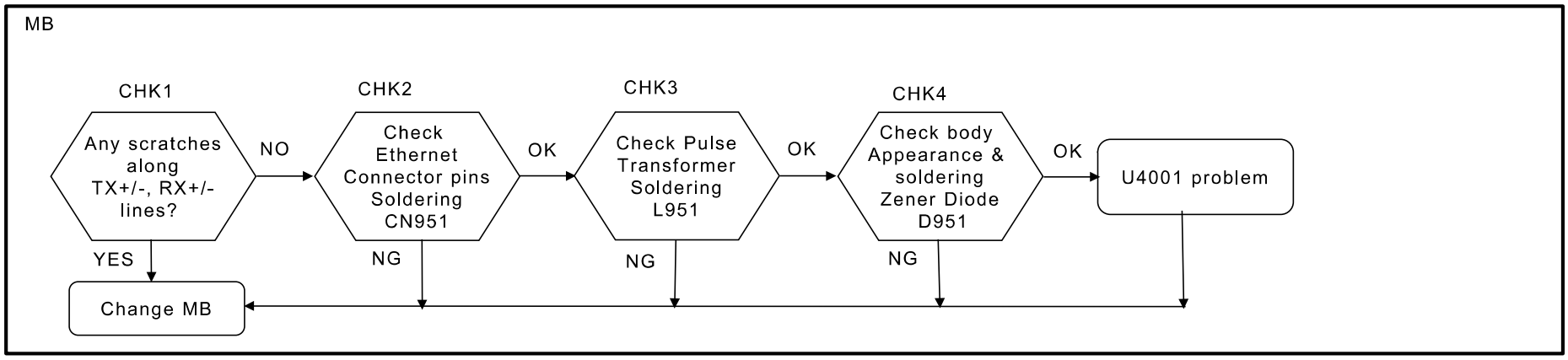
5.2 Light Sensor Error



TROUBLESHOOTING

6.0 Network Malfunction : Ethernet (Wired)

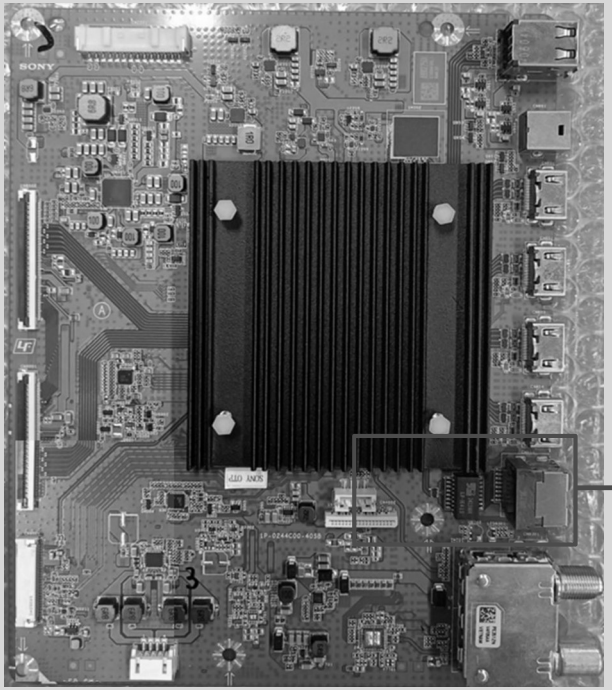
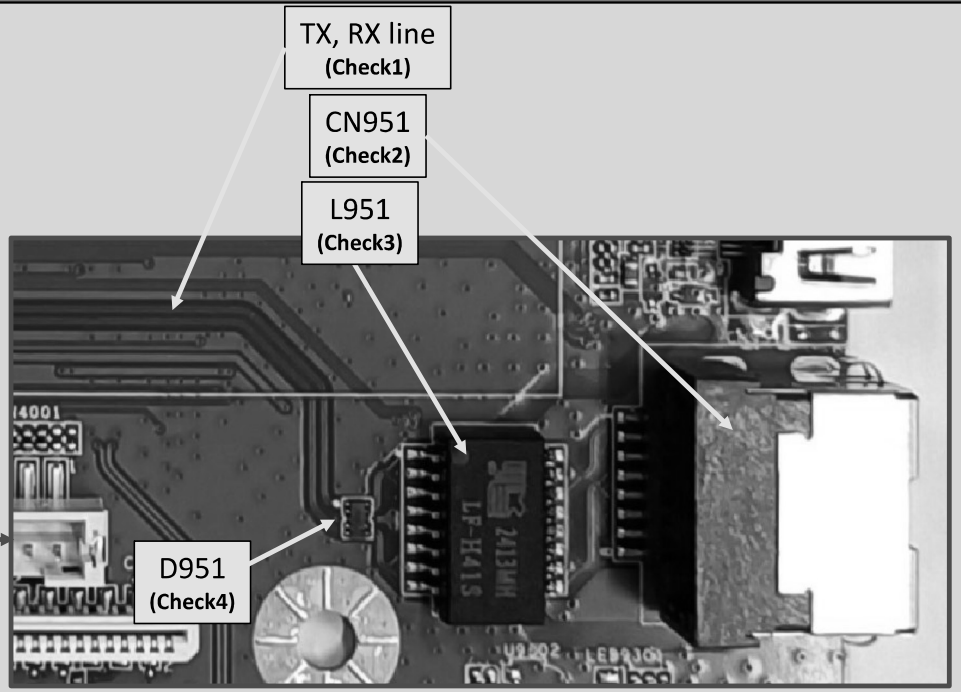




TROUBLESHOOTING

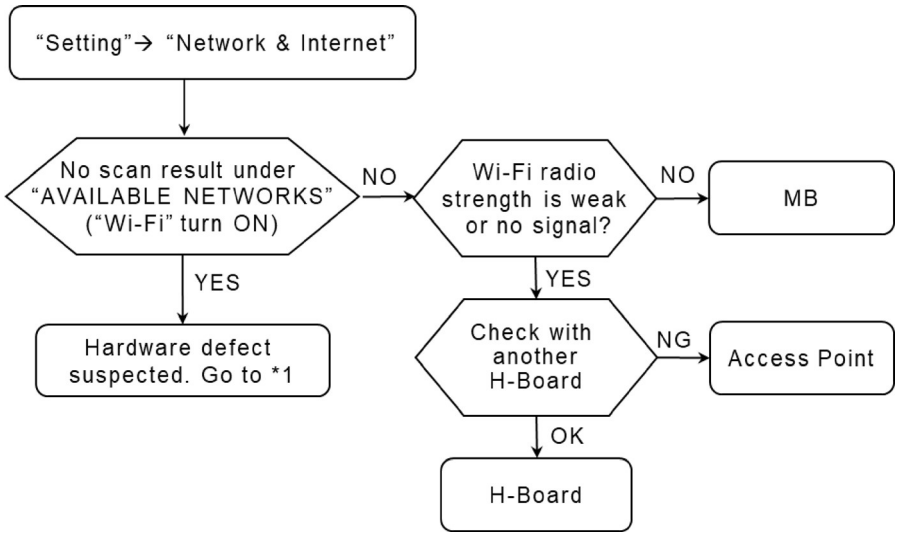
6.0 Network Malfunction : Ethernet (Wired)

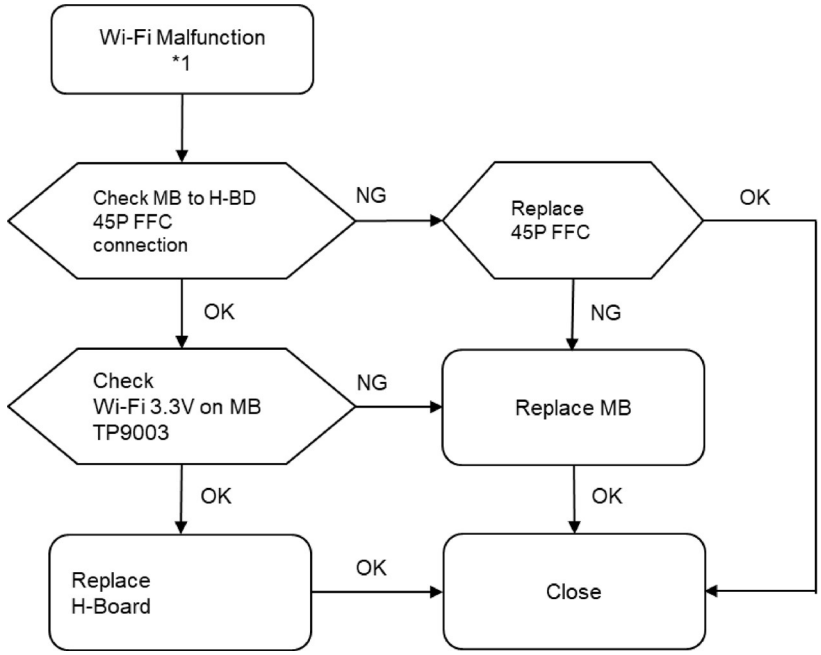
Checking Point

Full Board (A side)	Detail
	

TROUBLESHOOTING

6.2 Wireless Network Malfunction



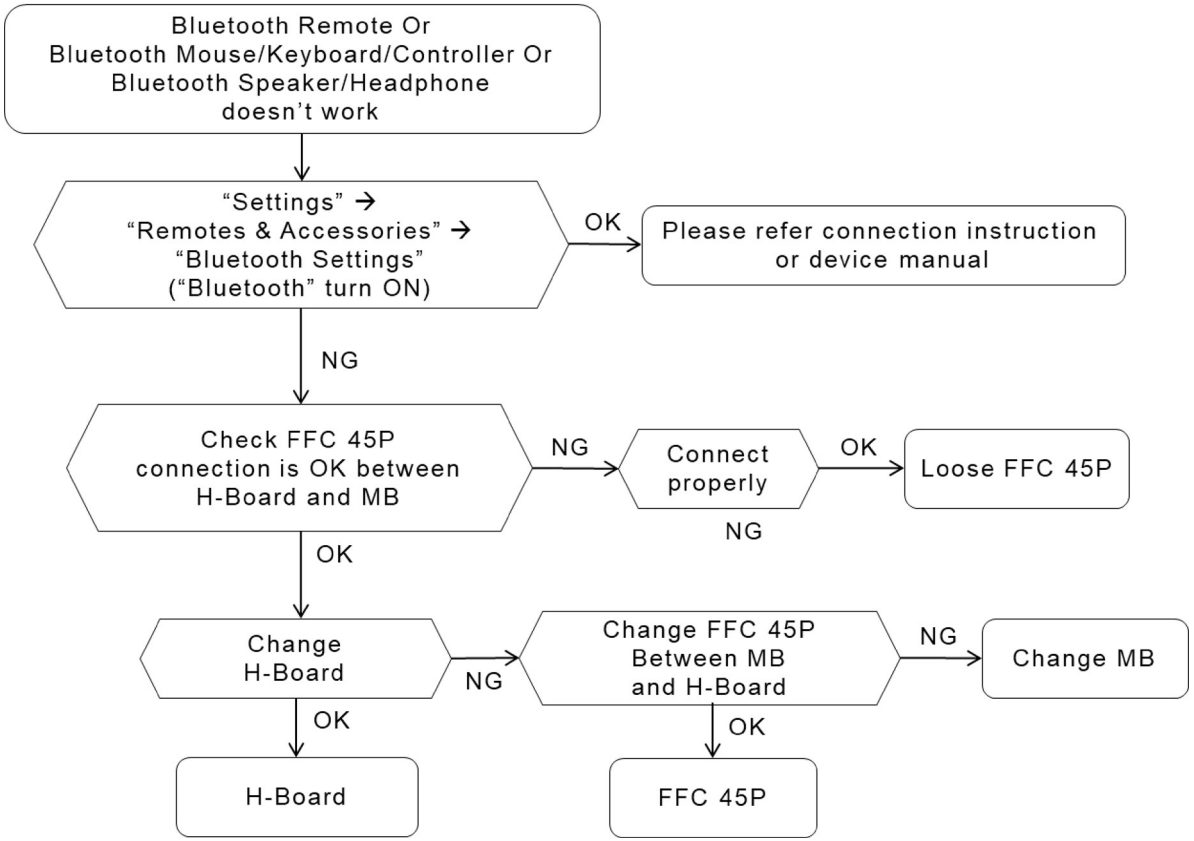


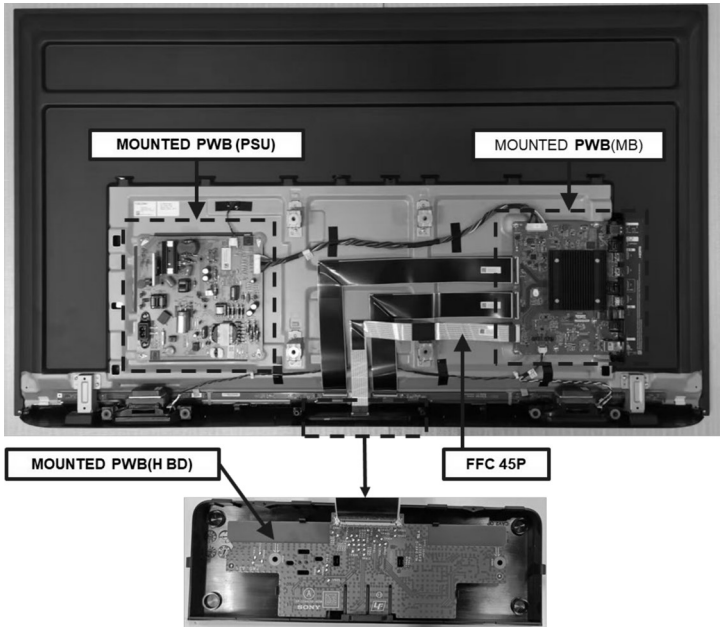
If Wi-Fi malfunction happens, below part is suspected:

- H-board
- FFC between MB and H-board
- MB

TROUBLESHOOTING

6.3 Bluetooth Malfunction





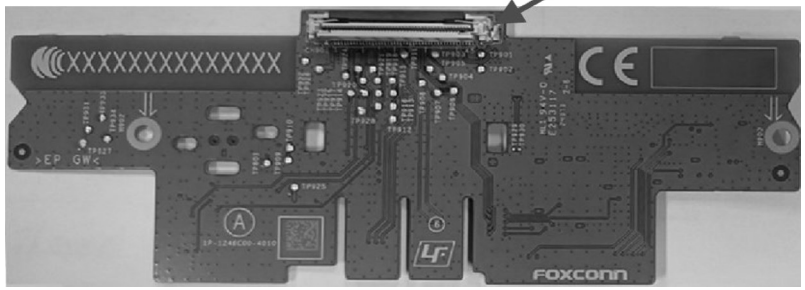
TROUBLESHOOTING

6.3 Bluetooth Malfunction

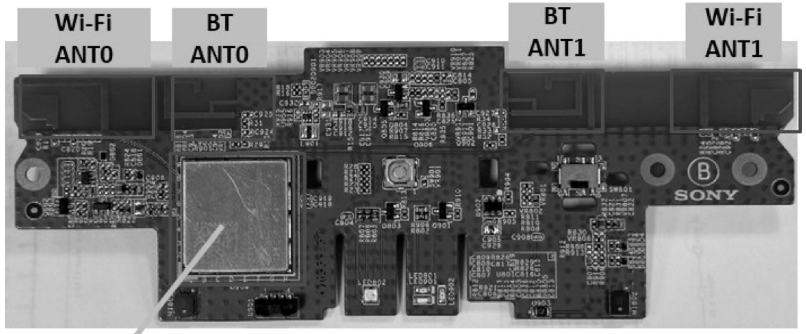
Wi-Fi module / BT antenna

H board (A-side)

H Board connector

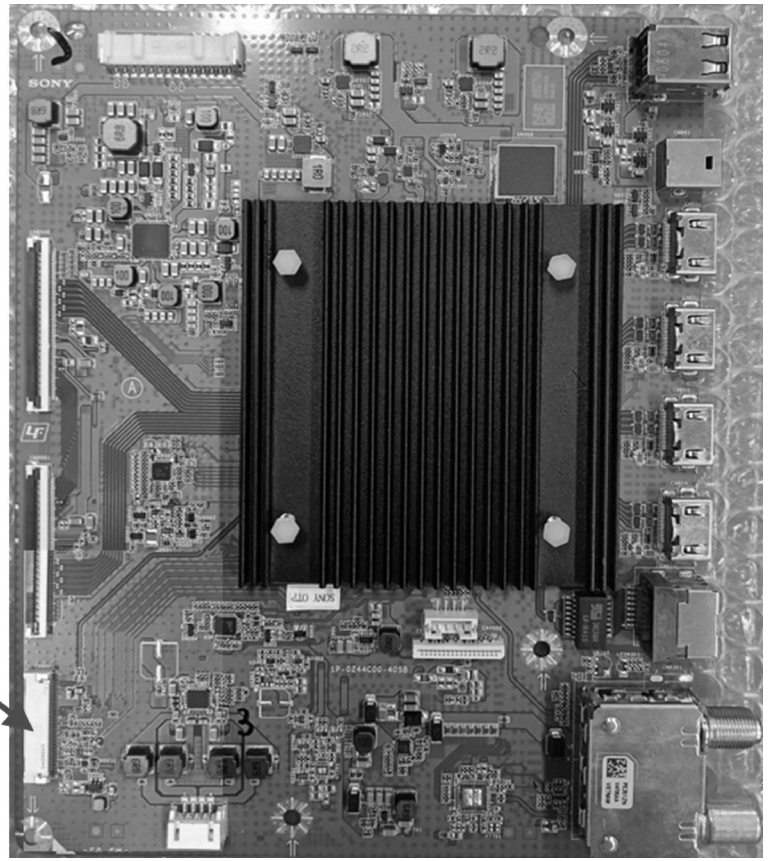


H board (B-side)



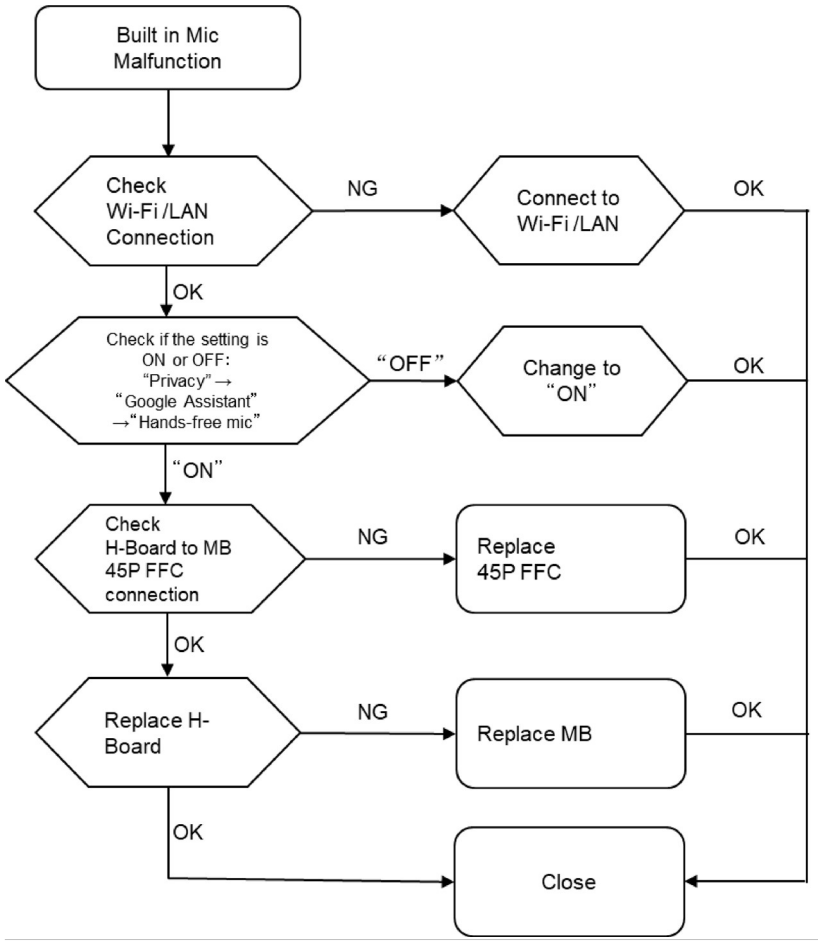
MB (A-side)

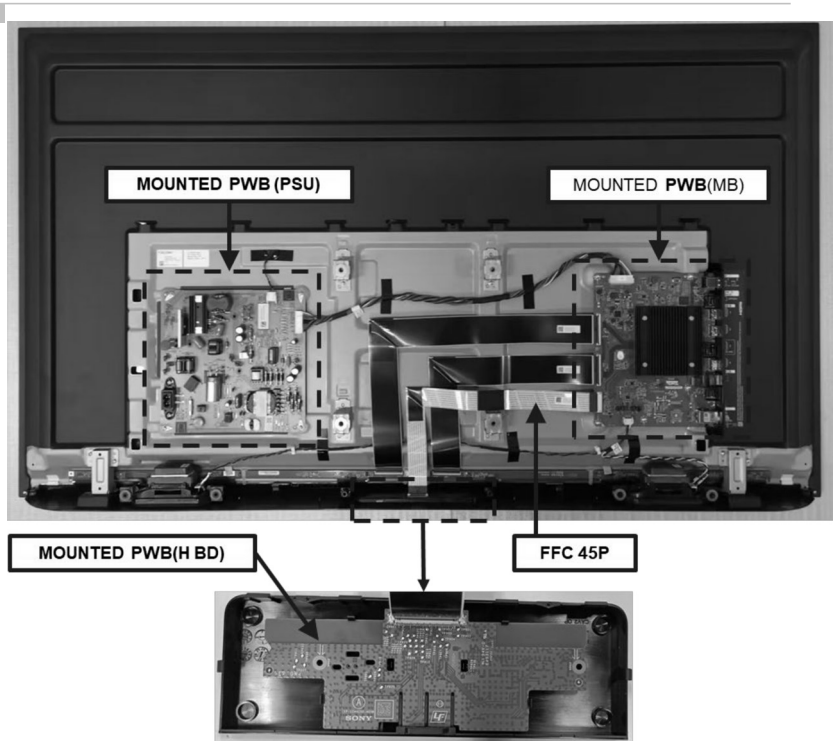
H Board connector



TROUBLESHOOTING

6.4 Built in Mic Malfunction

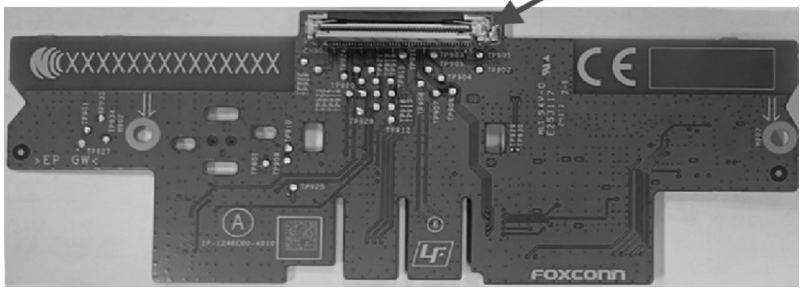




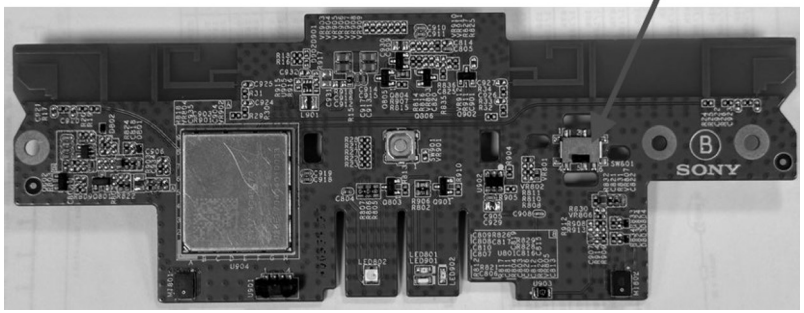
TROUBLESHOOTING

6.4 Built in Mic Malfunction

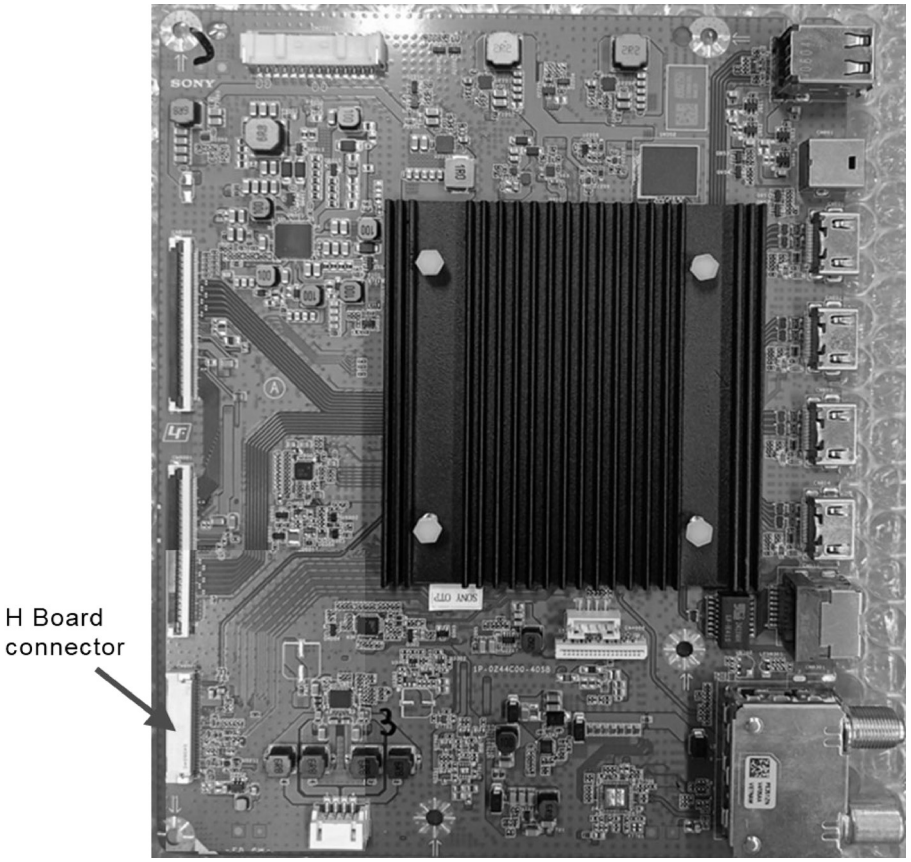
H Board (A side)



H Board (B side)



MB (Top view)



SOFTWARE UPDATE & RESET

USB Update

※Caution :
1) DO NOT power off while the update is in progress.
2) Display may change depending on the model / SW version

1: Download USB image

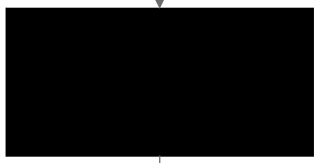
2: Copy zip file to USB memory root folder

3: Insert USB memory to TV
Software will auto update

4-a: USB image is newer version

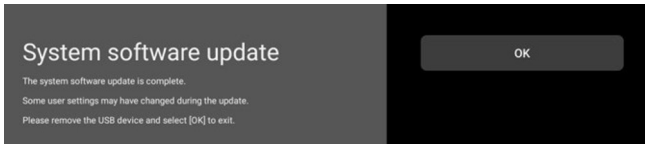


4-a-i: System software update 100%



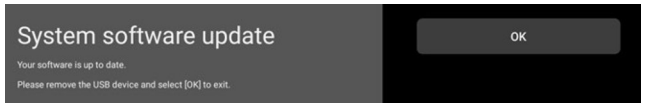
System reboot will happen once or twice

5: Finished



4-b: USB image is not newer version

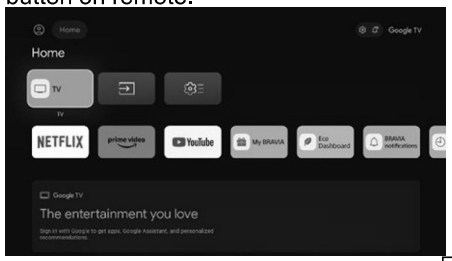
5: Finished



SOFTWARE UPDATE & RESET

Factory Data Reset – with UI method

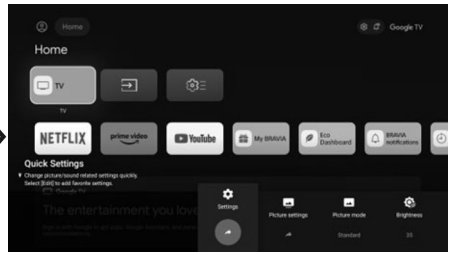
1) At Home Menu, press “Settings” button on remote.



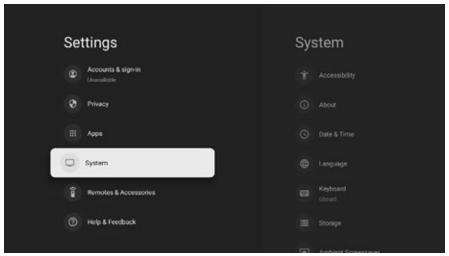


Remote Commander

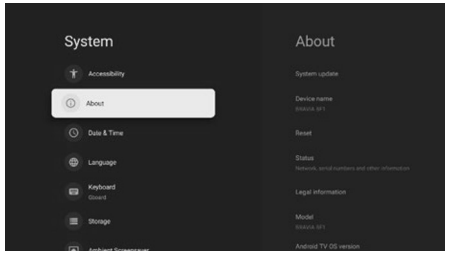
2) Select “Settings”



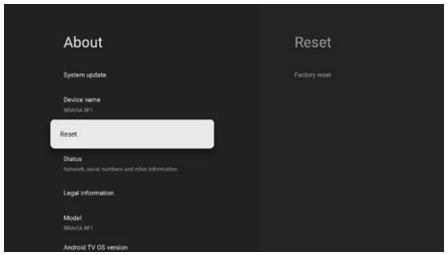
3) Select “System”



4) Select “About”



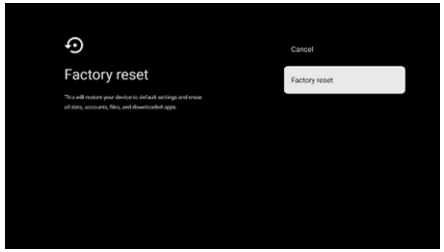
5) Select “Reset”



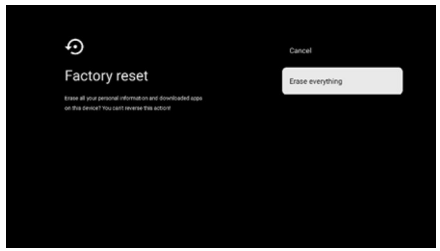
6) Select “Factory reset”



7) Select “Factory reset”



8) Select “Erase everything”



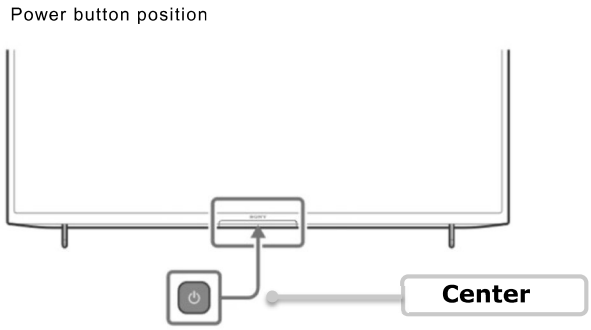
9) TV will reboot



SOFTWARE UPDATE & RESET

Factory Data Reset – force method (without UI)

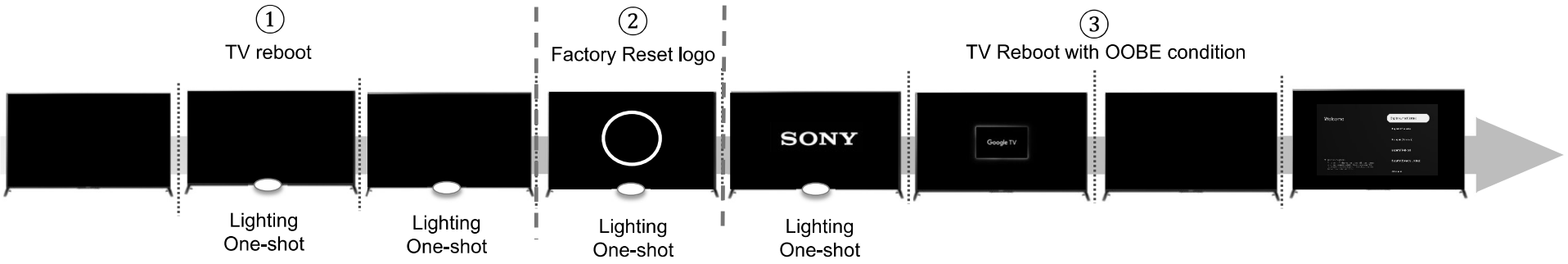
1. Press “Center” key.



2. AC ON (while holding “Center” key until Factory Reset logo appears).

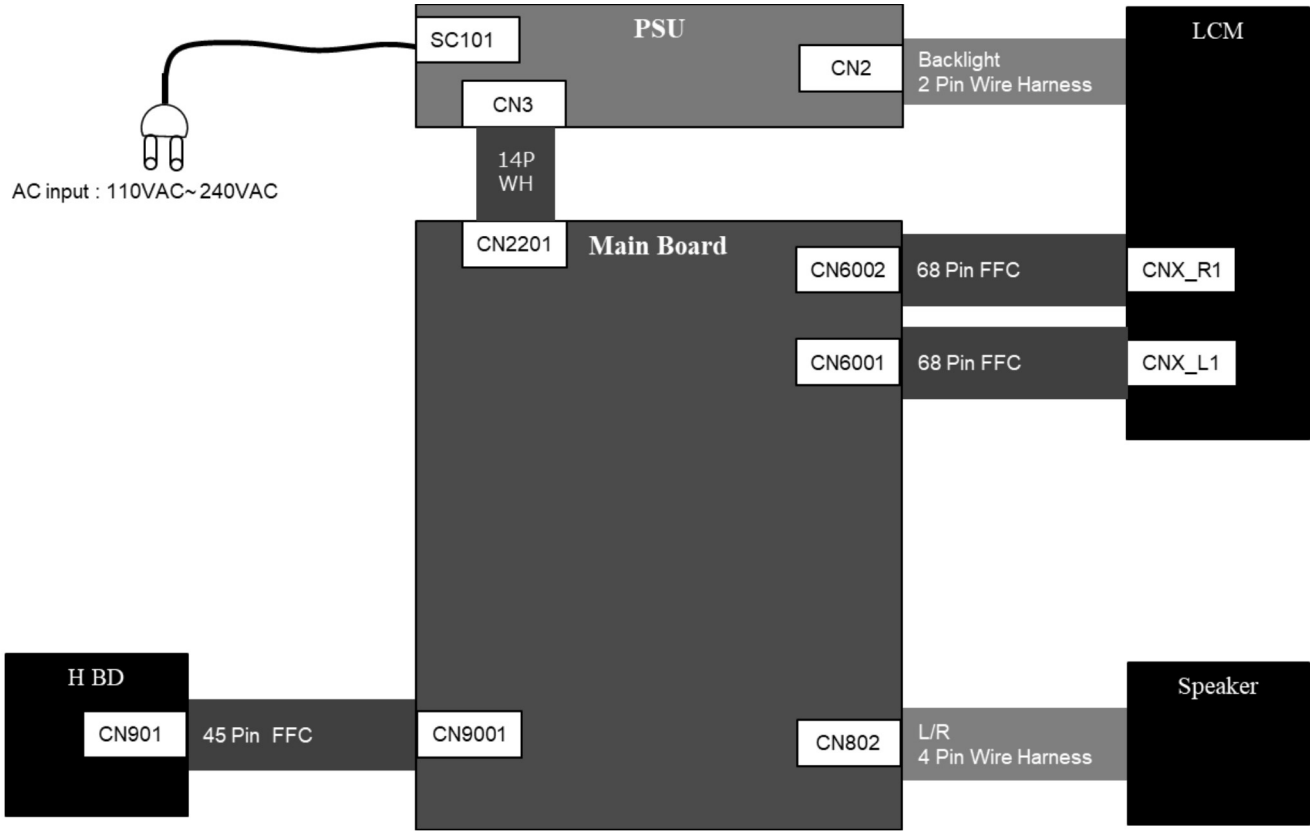
SOFTWARE UPDATE & RESET

TV behavior during Factory Data Reset operation



DIAGRAM

Connecting Diagram: 43”/50”/55”/65”/75”



HANDLING GUIDE

1. Holding Position

OK



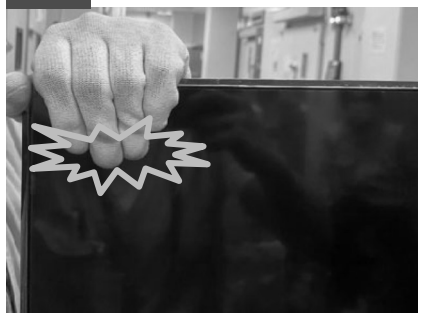
Be sure to wear gloves and work with two people

OK



Holding edge of the Bezel without touching the O-cell

NG



Hand pressing the O-Cell

OK



Support set at edge of the Bezel without touching the O-cell

NG



Hand pressing the O-Cell

HANDLING GUIDE

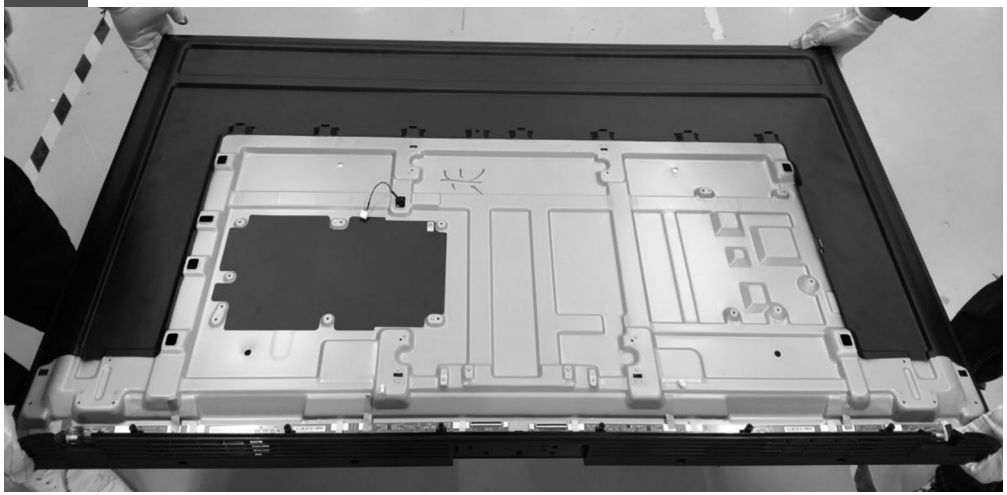
2. Carry Position

OK



The panel should be carried in vertical.

NG



DO NOT carry the panel horizontally

HANDLING GUIDE

3. Carry Condition

OK



The panel should be carried by two people.

NG



NG



DO NOT carry the panel alone

NG



Since the O-cell may pop out, **DO NOT** apply force to the Back Chassis or rotate the Bezel

HANDLING GUIDE

4. Carry Condition

OK



The panel should be carried by the corners.

NG

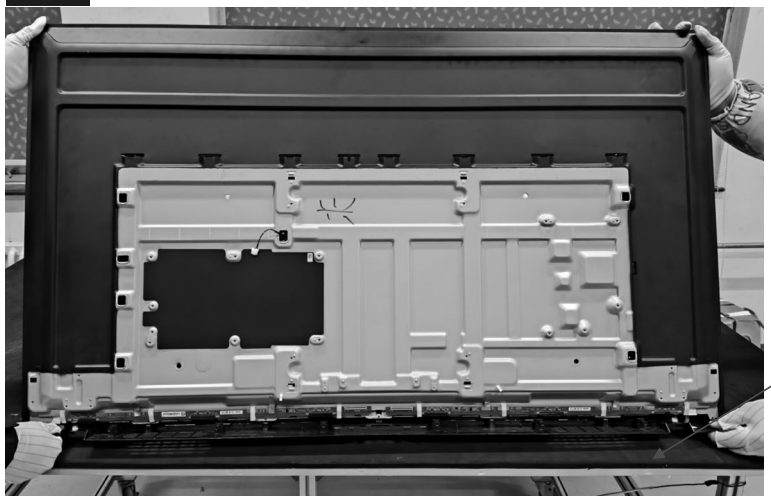


DO NOT carry the panel at the center area

HANDLING GUIDE

5. Resting Condition

OK



2 persons put the panel on the table

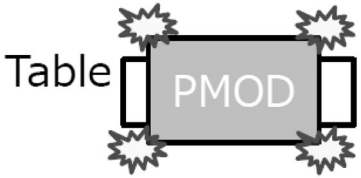
NG



DO NOT put the panel on the table by yourself



Panel can be fully supported by table surface



Panel is not fully supported by table surface (Corner / edge is hanging)

HANDLING GUIDE

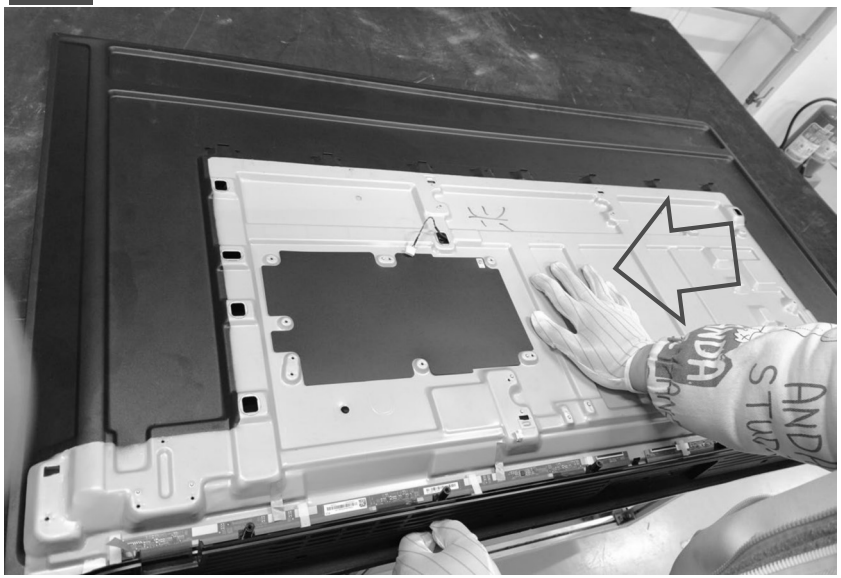
6. Prohibit Method

NG



Handle the panel without gloves

NG



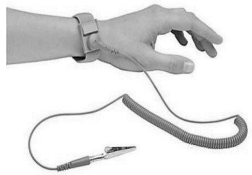
Press on the panel during Assy & Disassy

TOOLS & EQUIPMENTS

1 LIST OF ITEMS TO PREPARE

i. Screwdriver (e.g., #1,#2 Phillips Screwdriver).
ii. Multimeter.
iii. ESD Wrist Straps.
iv. Service Manual - to remove & replace details.







2 OPTIONAL EQUIPMENTS

i. Screwdriver (e.g., #0 Phillips Screwdriver).
ii. Parts Tray for loose screws and small items.
iii. Flashlight.
iv. Service Manual

3 PREPARATION BEFORE REPAIRS

Before you begin, unplug the TV from the wall outlet and stand it up on a level work surface to begin removing the Rear Cover. If you are working on a TV that was wall-mounted, and does not have a stand, simply place the TV faced-down on top of a thick blanket, on a large/flat surface, or you may be able to lean it up against a wall near a wall outlet.

FFC PRECAUTIONS

※Caution: DO NOT hold / touch copper side during FFC handling.

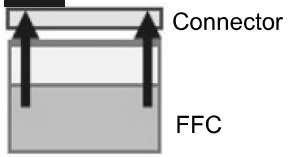
FFC INSERTION METHOD

ESSENTIAL CAUTION INFO THAT MUST BE FOLLOWED BY PRODUCTION FOR ANY FFC INSERTION METHOD

INSERT FFC IN STRAIGHT CONDITION

STRAIGHT INSERT

OK



NG

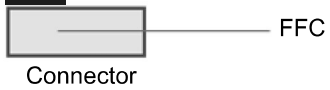


DO NOT INSERT FFC IN SLANTING CONDITION

DO NOT APPLY EXCESSIVE FORCE DURING INSERTION

INSERT ANGLE

OK

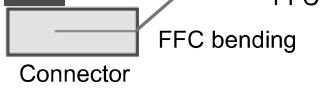


＜20°

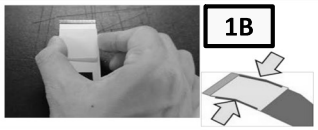
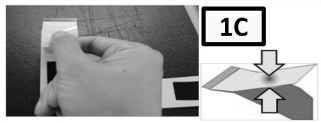
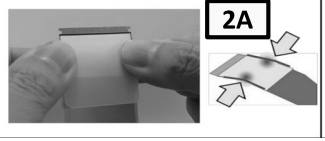
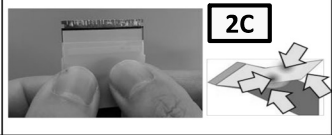


Cross section of TV set from A

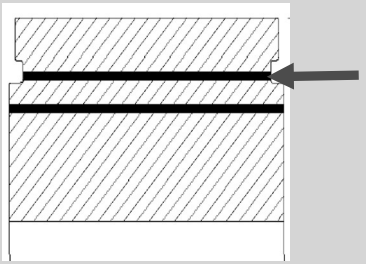
NG



RECOMMENDED FFC HOLDING METHOD MATRIX

	A Sandwich	B Both ends	C Plate
1 One-hand	 1A	 1B	 1C
2 Both hands	 2A		 2C

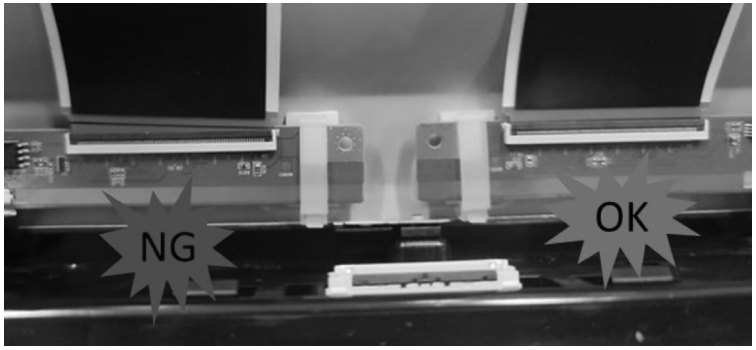
INDICATION FOR FFC FULL INSERTION



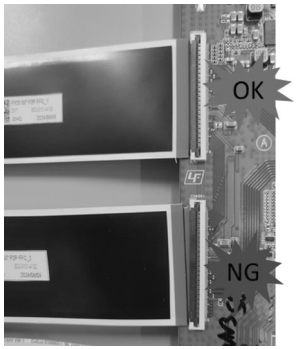
FFC PRECAUTIONS

CAUTION FOR FFC WITH HOUSING CONNECTOR

CAUTION FOR FFC WITH CONNECTOR INSTALLATION AT PANEL SIDE



CAUTION FOR FFC WITH CONNECTOR INSTALLATION AT MB SIDE

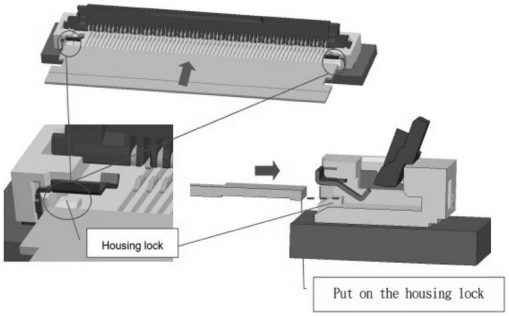


FFC INSERTION CAUTION

Please operate in the center of the cover, and do not operate on both sides



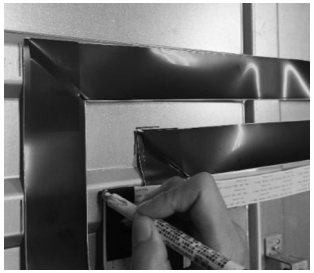
FFC insert : FFC must be put on the housing lock



Add in 2025.11

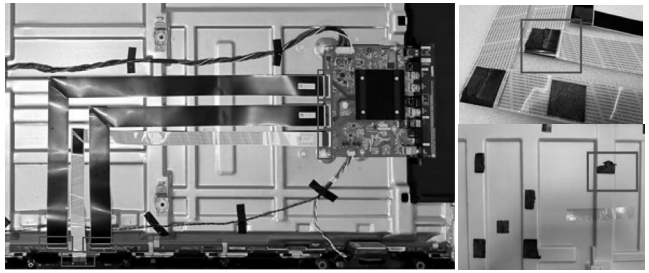
FFC PRECAUTIONS

CAUTION FOR TAPE CLEANING FOR FFC REPLACEMENT

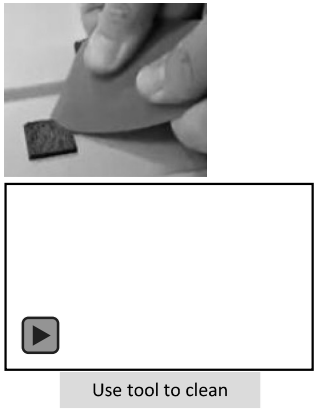




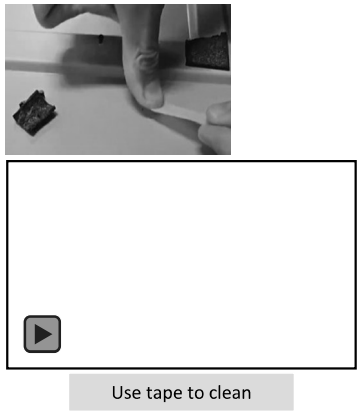
1. Mark position of FFC before removal by recommended mark pen as above.



2. Release connectors and then remove FFC.







3-1. Tape cleaning - Remove double-side cushion.

3-2. Tape cleaning - Remove the residue.

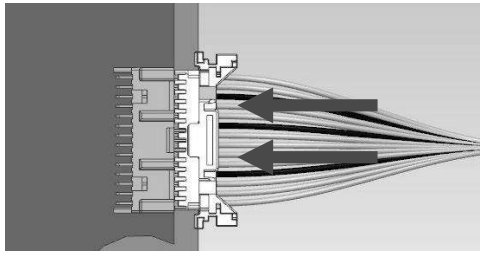


HARNESS PRECAUTIONS

HARNESS INSERTION METHOD

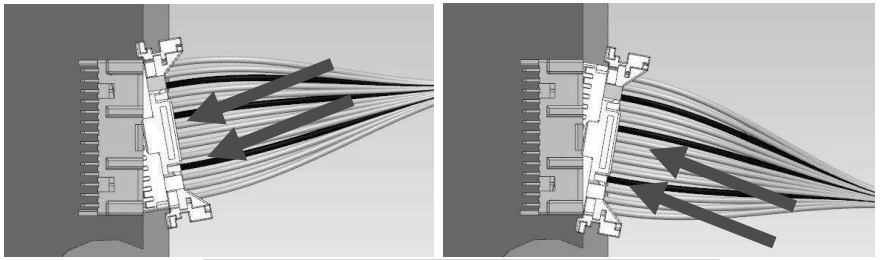
ESSENTIAL CAUTION INFO THAT MUST BE FOLLOWED BY PRODUCTION FOR HARNESS INSERTION

Straight Insert

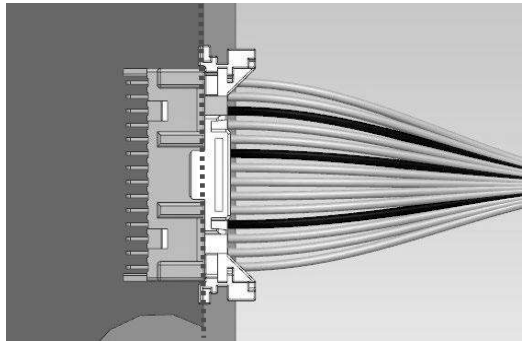


INSERT HARNESS IN STRAIGHT CONDITION

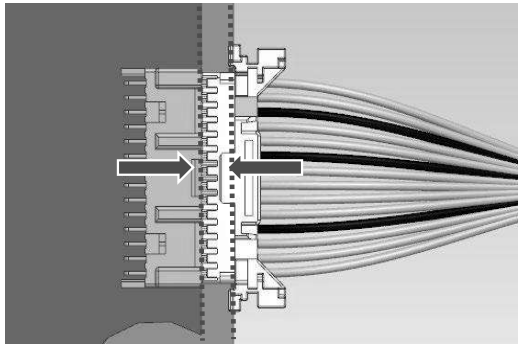
Slanting Insert



DO NOT INSERT HARNESS IN SLANTING CONDITION



Harness is fully insert & locked (NO GAP)



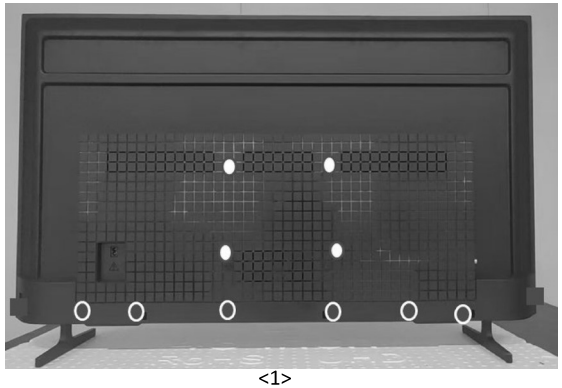
Harness is half insert (with GAP at lock area)

Note:
Connector and housing image is for illustration only. Actual shape may differ.

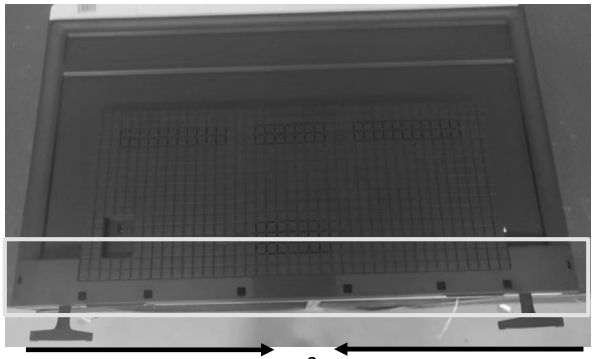
SECTION 1: DISASSEMBLY AND REMOVAL CAUTION 43”

REAR COVER

1. Remove the screws from the Rear Cover (12 pcs)



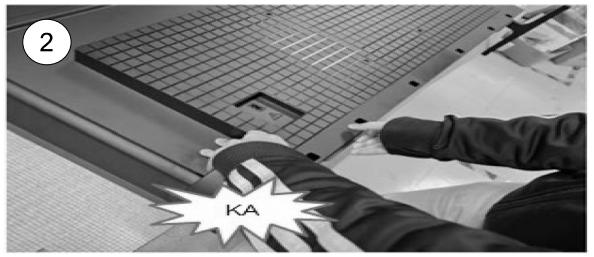
2. Unhook the bottom hook, starting from center.

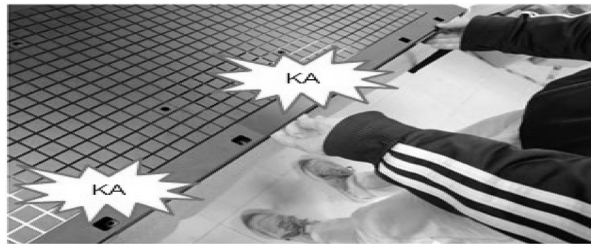


<1> <2>

① Pull up stand area of RC (show as the picture) and the hook-opening sound can be heard.
② Pinch the rear cover edge and pull up, then rear cover hooks will be released.





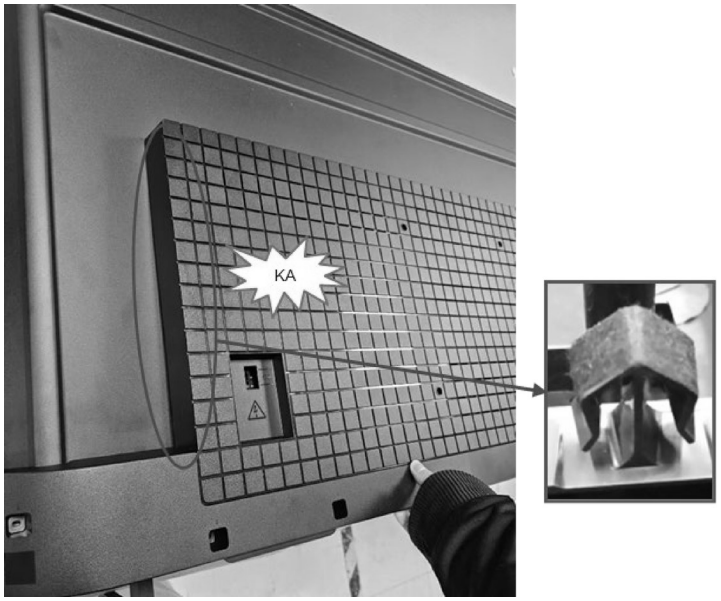


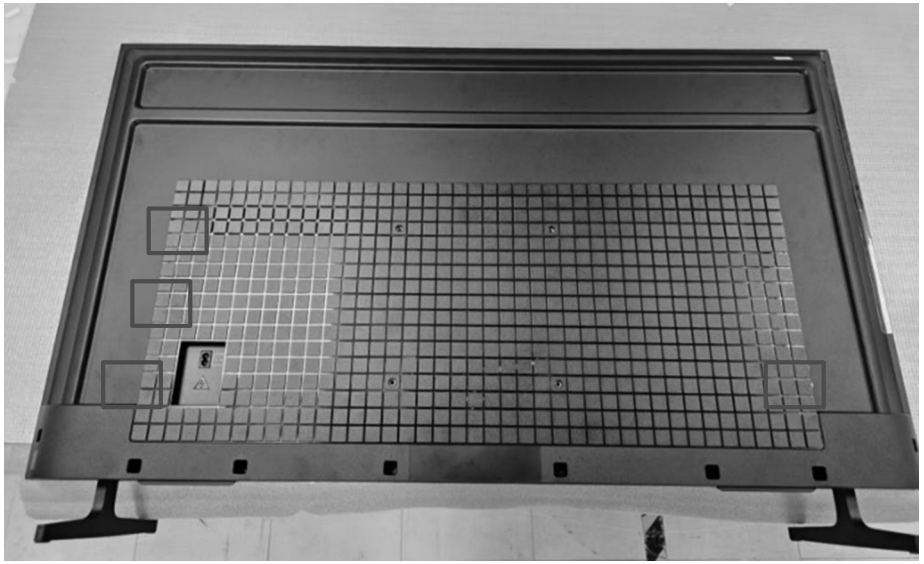
SECTION 1: DISASSEMBLY AND REMOVAL CAUTION 43”

REAR COVER

3. Unhook left and right side hooks.

Total Rear Cover back chassis : 4 hooks





SECTION 1: DISASSEMBLY AND REMOVAL CAUTION 43”

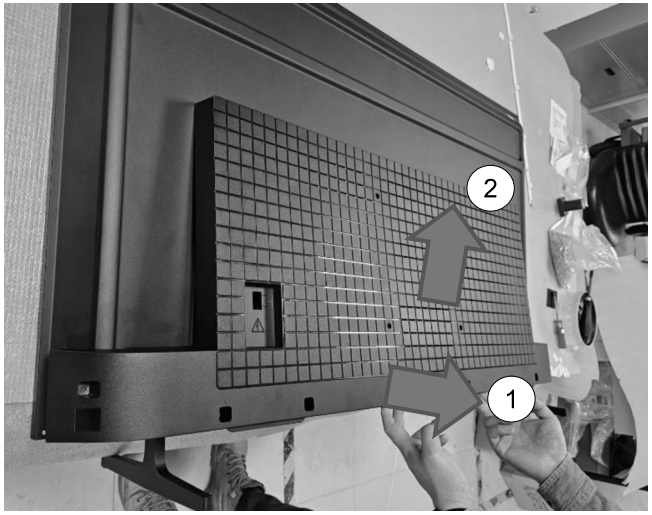
REAR COVER

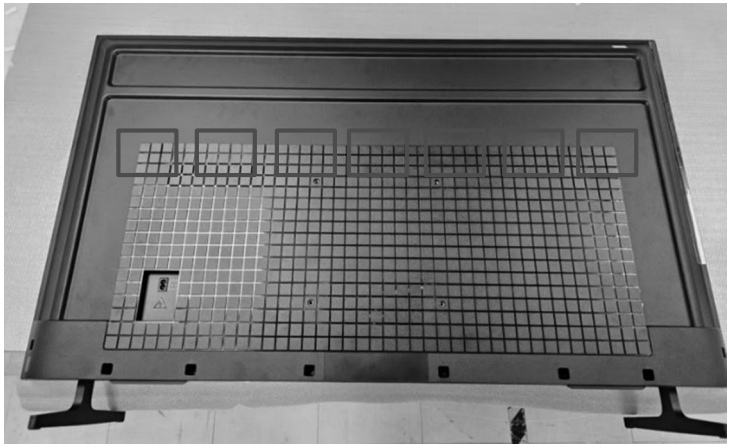
4. Unhook top row

Total Rear Cover back chassis : 7 hooks

① Raise the RC towards back side.

② Push up the RC towards top side.

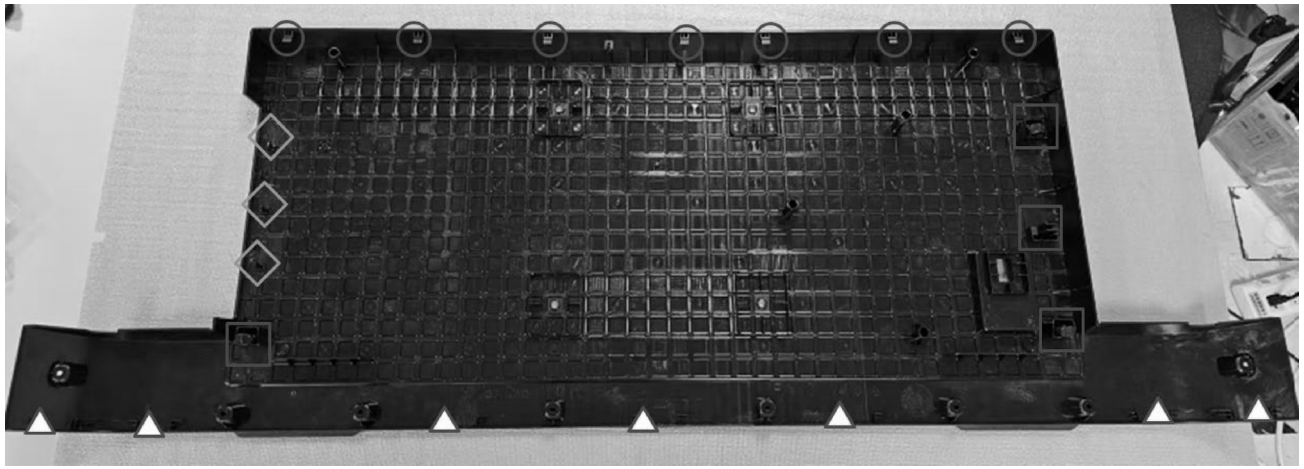




SECTION 1: DISASSEMBLY AND REMOVAL CAUTION 43”

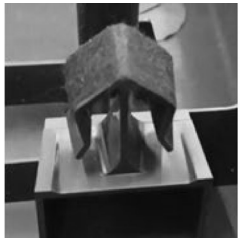
REAR COVER

Hook positioning



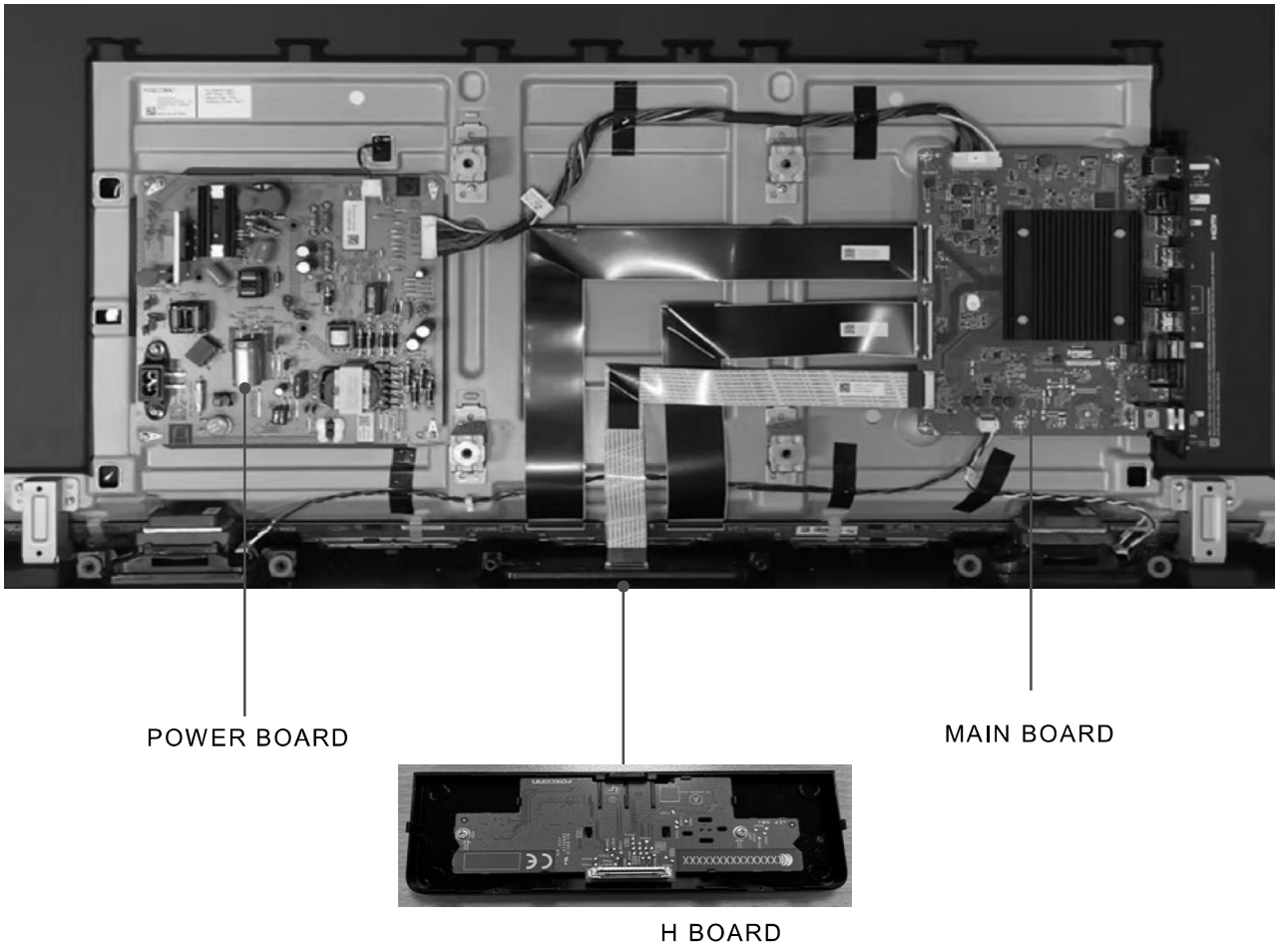
○ 

△ 

□ 

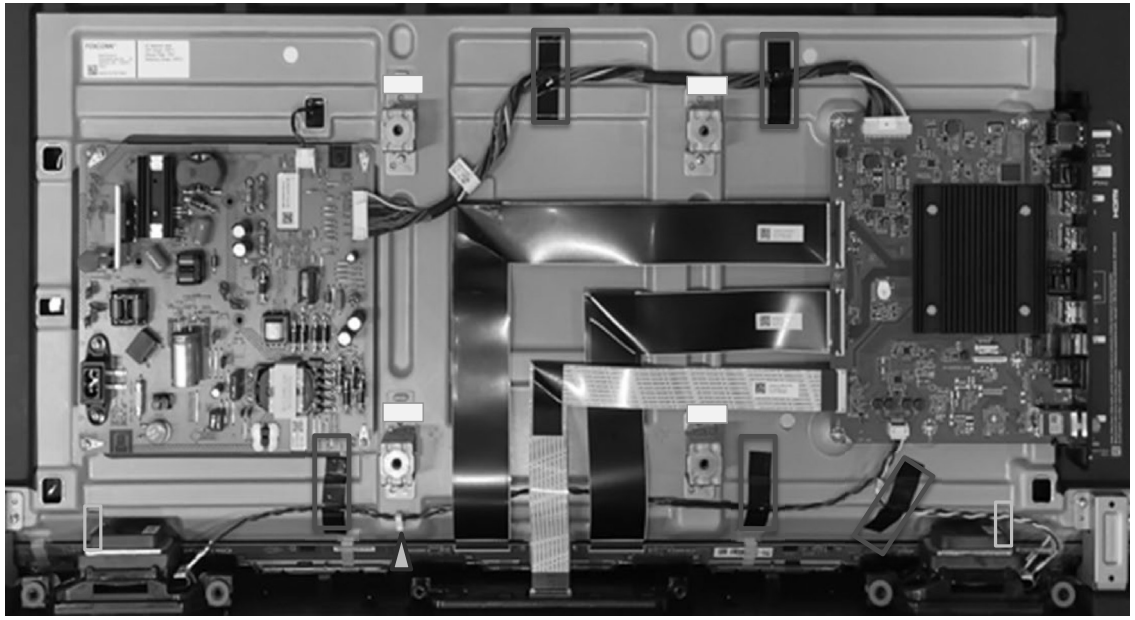
◇ 

SECTION 1: BOARD LOCATION 43”



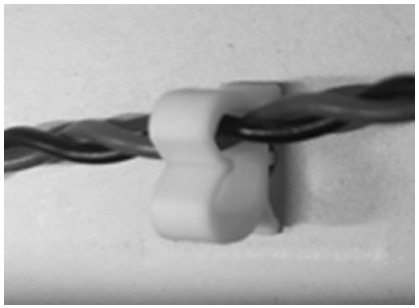
SECTION 1: WIRE DRESSING 43”

WIRE DRESSING



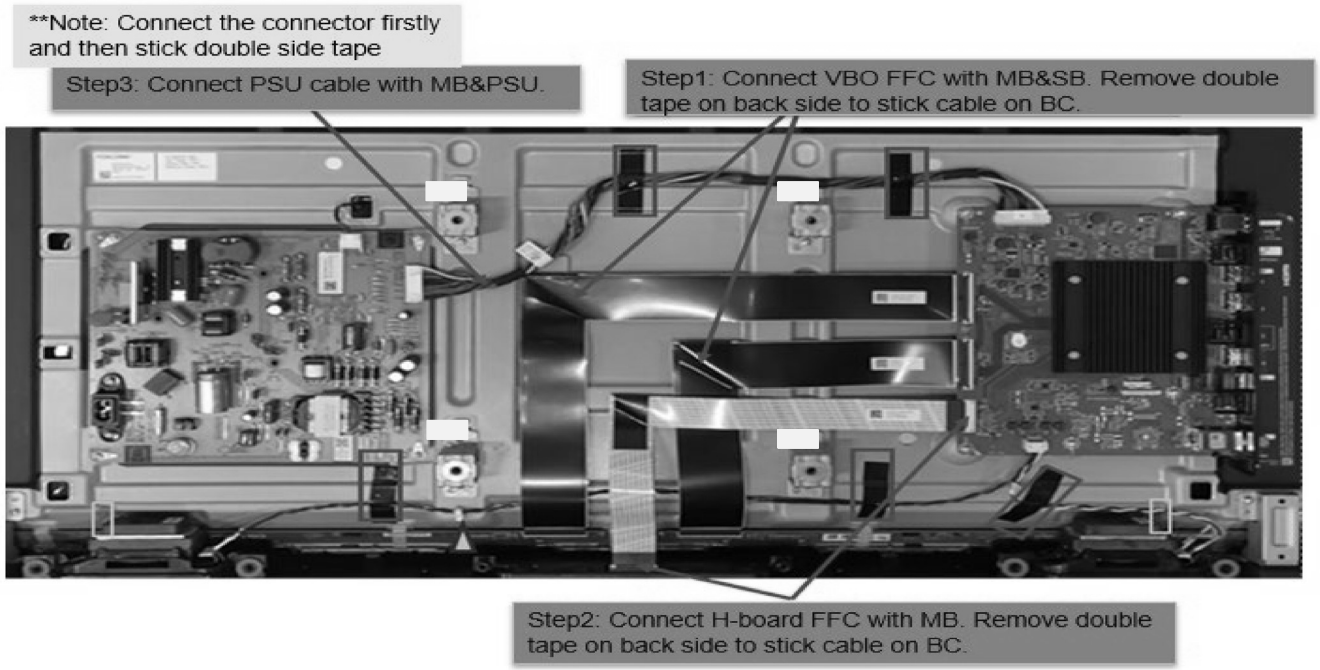
▭	HOLE COVER TAPE, SLIVER	4pcs
▯	3M WIRE TAPE BLACK,15*60MM	5pcs
▯	EMI TAPE 40*10MM	2pcs
▲	CABLE LOCKER	1pcs

Put SPK wire into cable locker



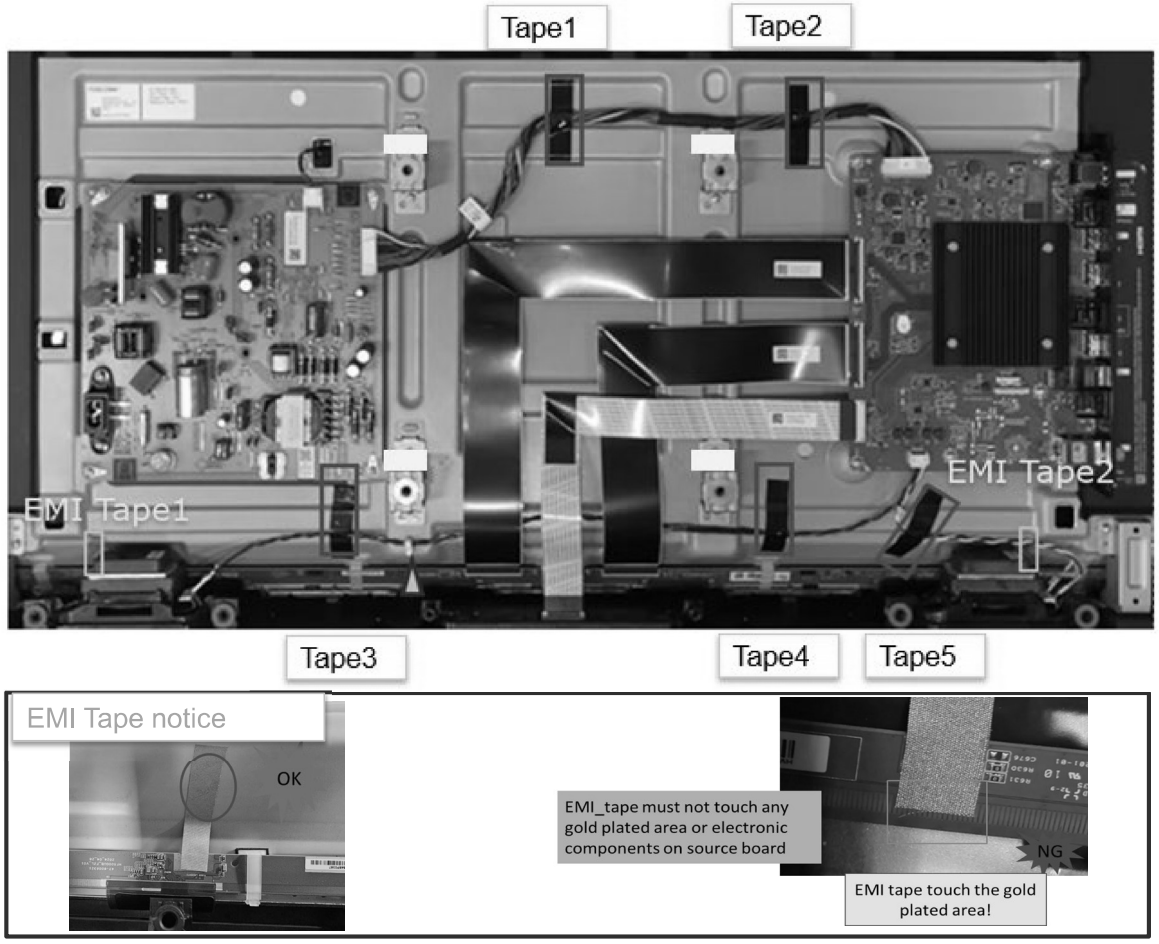
SECTION 1: WIRE DRESSING 43”

WIRE DRESSING



SECTION 1: WIRE DRESSING 43”

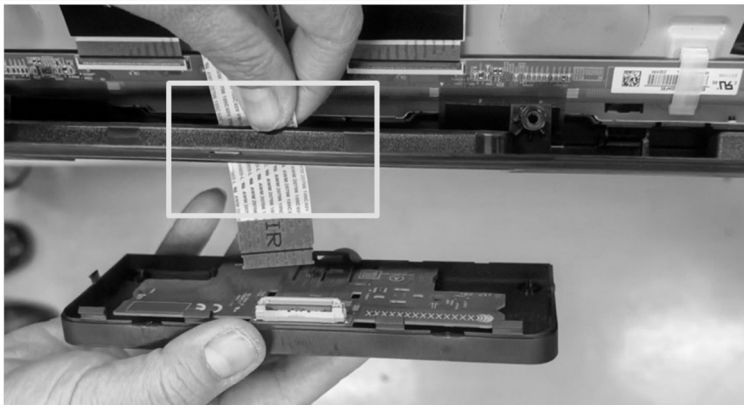
TAPE



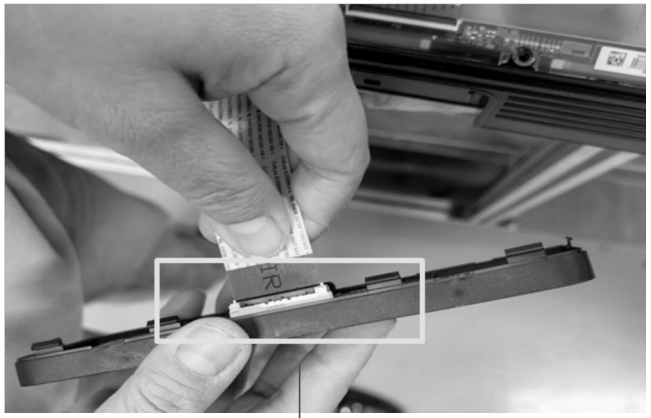
SECTION 1: WIRE DRESSING 43”

INFORMATION

(1)H_BD FFC passes the bz hole



(2)H_BD FFC assembled onto H_BD

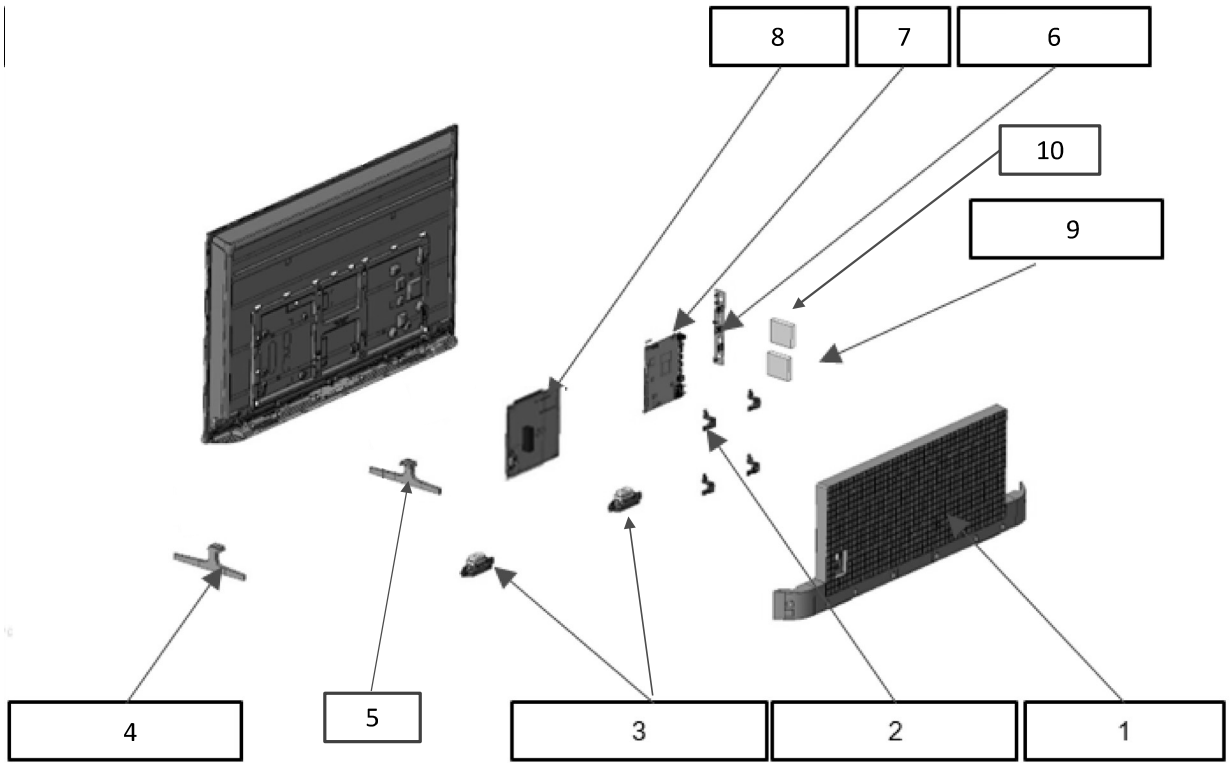




SECTION 1: EXPLODED VIEW AND PART LIST 43”

- Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.
- ⚠ and shaded parts are critical for safety. Replace only with part number specified.
- 🔒 Parts contain confidential information. Strictly follow the instruction whenever the components are repaired and/or replaced

- (*) Parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- Picture provided in this section might have slight difference from the actual sets.
- The reference number beside the part indicates the disassembly sequence.
- Remove screws before disassembly. Unplug connectors before disassembly



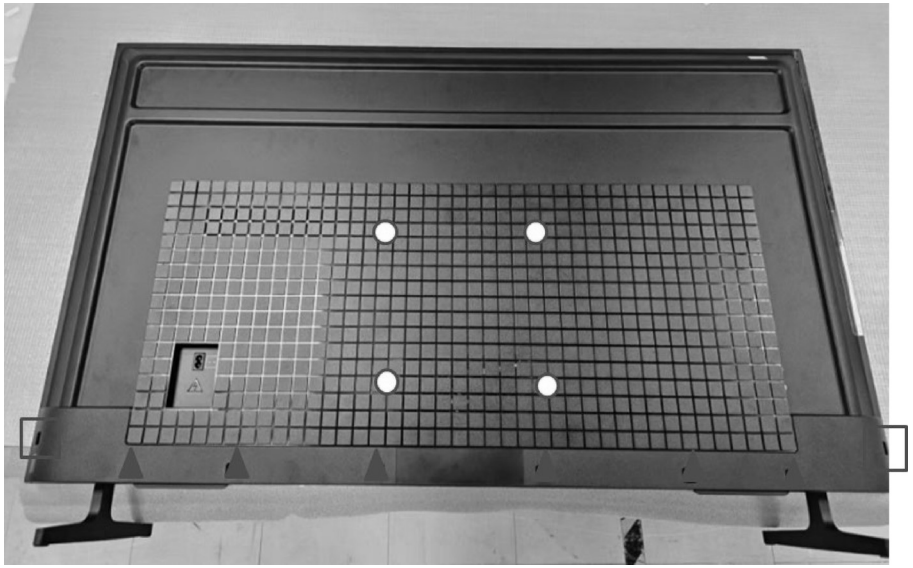
SECTION 1: EXPLODED VIEW AND PART LIST 43”

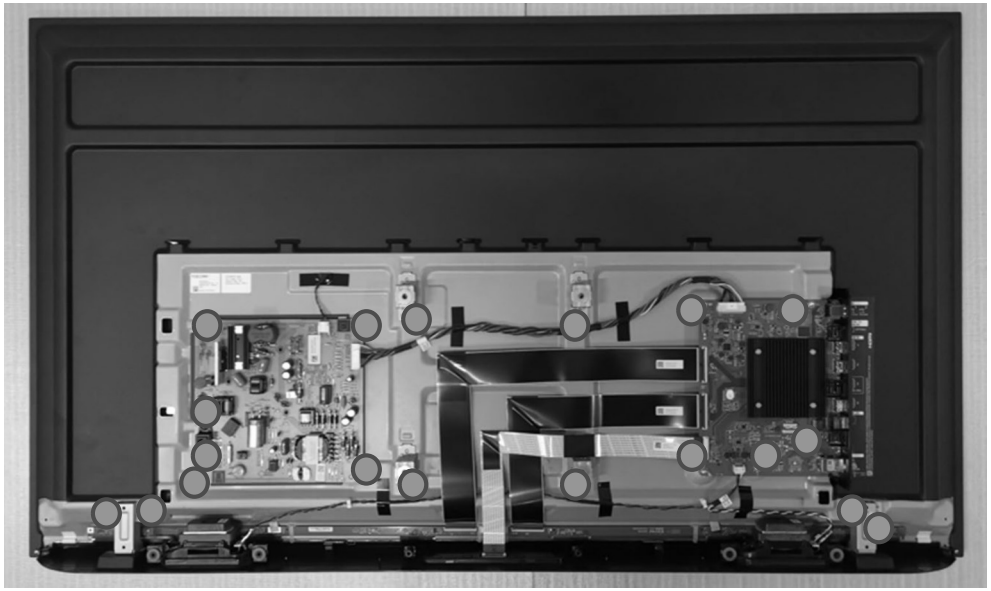
SET PART LIST

REF. NO		PART NO.	DESCRIPTION	K-43S20M2
				UCM/UC2
⚠	1	5-066-824-01	REAR COVER ASSY	•
	2	*5-066-791-01	VESA BRACKET	•
⚠	3	1-024-589-11	LOUDSPEAKER 12W(43/50)	•
	4	5-066-833-01	STAND ASSY(R-2) (43&50)	•
	5	5-066-832-01	STAND ASSY(L-1) (43&50)	•
	6	5-066-782-01	ASSY, I/O COVER (NA)	•
🔒	7	A-5079-534-A	MOUNTED PWB(MB) NA Y25 FBC	•
	8	1-024-570-11	POWER SUPPLY 43(FSP123-1FS03)	•
	9	5-068-102-01	THERMAL PAD 27X27	•
	10	5-068-103-01	THERMALPAD,16*16*2.4MM,PINK	•

SECTION 1: EXPLODED VIEW AND PART LIST 43”

SCREW

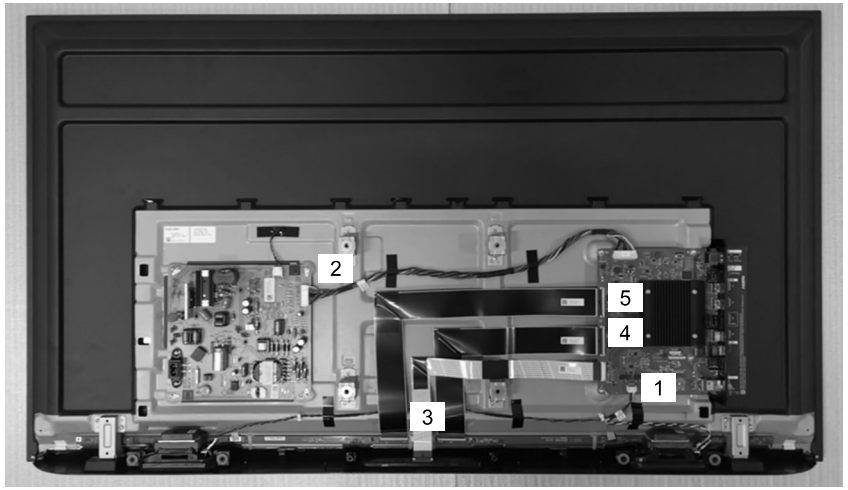




REF. NO	PART NO.	DESCRIPTION	QUANTITY	TORQUE (kgf.cm)
○	5-028-335-01	SCREW, M6*12	4	12±0.3
▲	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	6	9.5±0.3
□	4-729-978-01	SCREW, +PSW M3X8, W8, BLK	2	4.0±0.3
●	2-990-421-41	SCREW (+PSW) (M3X6)	19	4.0±0.3

SECTION 1: EXPLODED VIEW AND PART LIST 43”

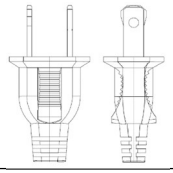
CONNECTOR



REF. NO	PART NO.	DESCRIPTION	REMARKS
1	1-024-564-11	CONNECTOR ASSY 4P (MB-SP)_43	CN802(MB)-SP(1)
2	1-024-563-11	CONNECTOR ASSY 14P (MB-PSU)_43	CN2201(MB)-CN3(PSU-board)(1)
3	1-024-565-11	CONNECTOR ASSY 45P (MB-H BD)43	CN9001(MB)-CN901(H-BD)(1)
4	1-024-584-11	CABLE_FFC_P2P(2) 68P_43	CN6001(MB)-CNX_L1
5	1-024-583-11	CABLE_FFC_P2P(1) 68P_43	CN6002(MB)-CNX_R1

SECTION 1: EXPLODED VIEW AND PART LIST 43”

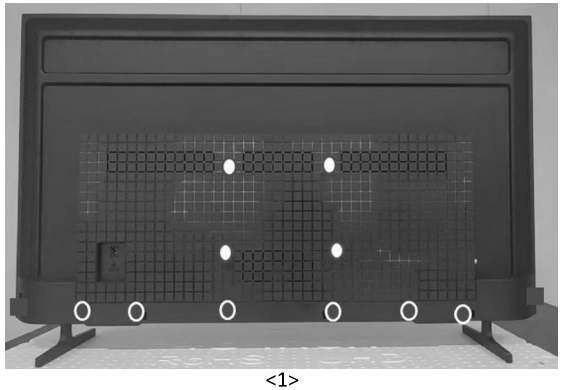
OTHER PARTS

PART NO.			DESCRIPTION	K-43S20M2	REMARKS
				UCM/UC2	
	⚠	1-012-957-21	C7L AC POWER CORD SETS (US)	•	-
-		1-019-559-22	REMOTE CONTROLLER, RMF-TX820U	•	-
-		*5-065-334-01	REFERENCE GUIDE	•	-
-		*5-065-772-01	SETUP GUIDE	•	-

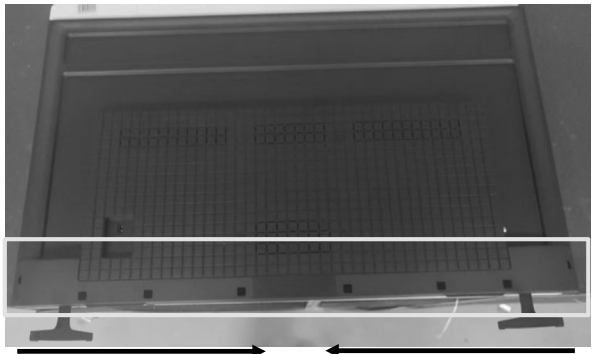
SECTION 2: DISASSEMBLY AND REMOVAL CAUTION 50”

REAR COVER

1. Remove the screws from the Rear Cover (12 pcs)



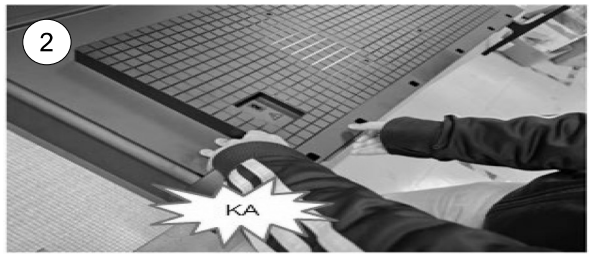
2. Unhook the bottom hook, starting from center.

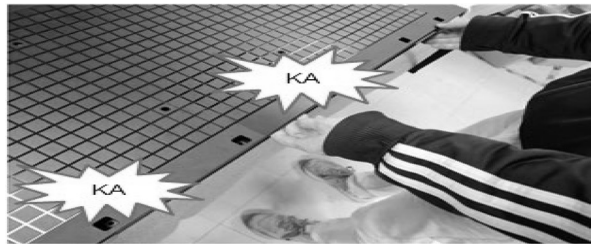


① Pull up stand area of RC (show as the picture) and the hook-opening sound can be heard.
② Pinch the rear cover edge and pull up, then rear cover hooks will be released.

<1>





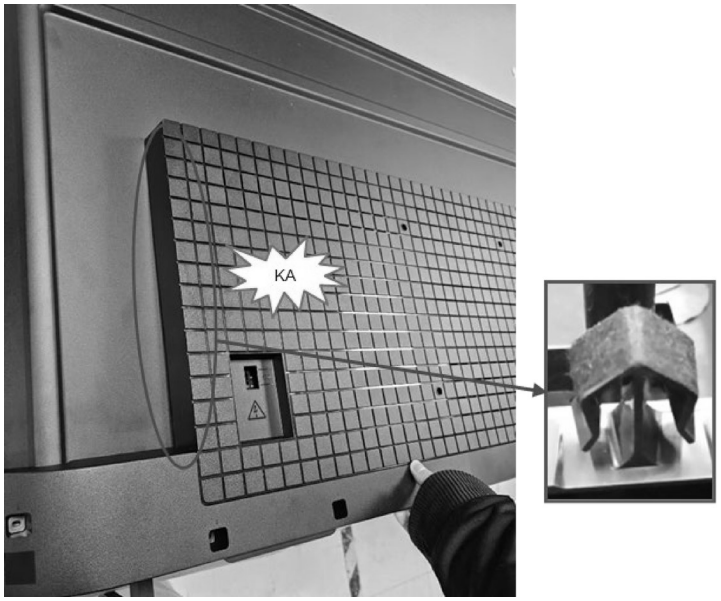


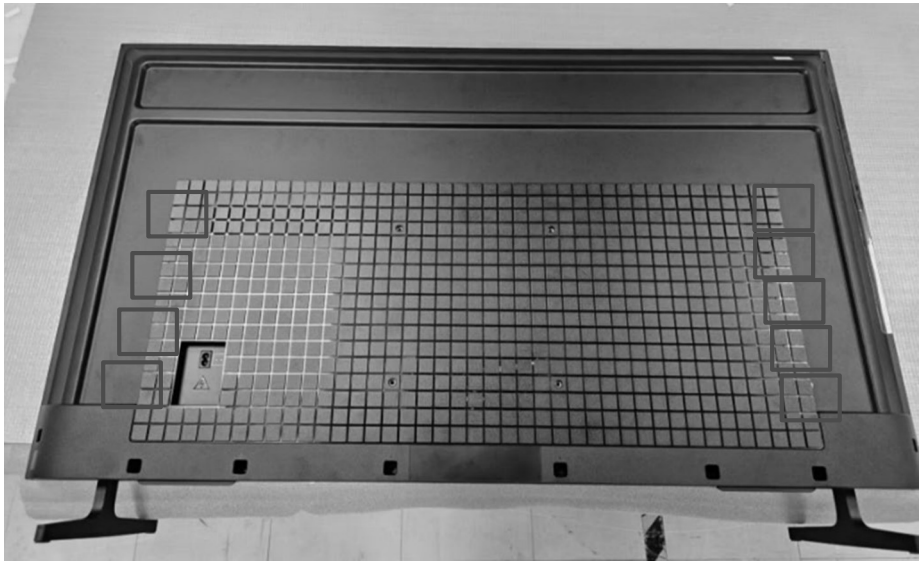
SECTION 2: DISASSEMBLY AND REMOVAL CAUTION 50”

REAR COVER

3. Unhook left and right side hooks.

Total Rear Cover back chassis : 9 hooks





SECTION 2: DISASSEMBLY AND REMOVAL CAUTION 50”

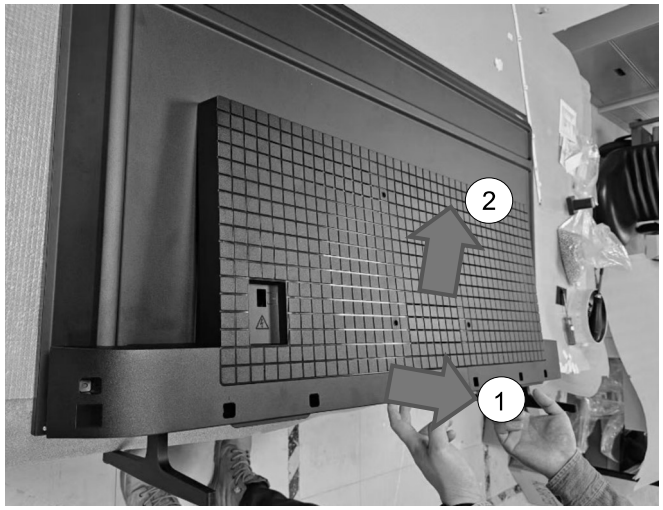
REAR COVER

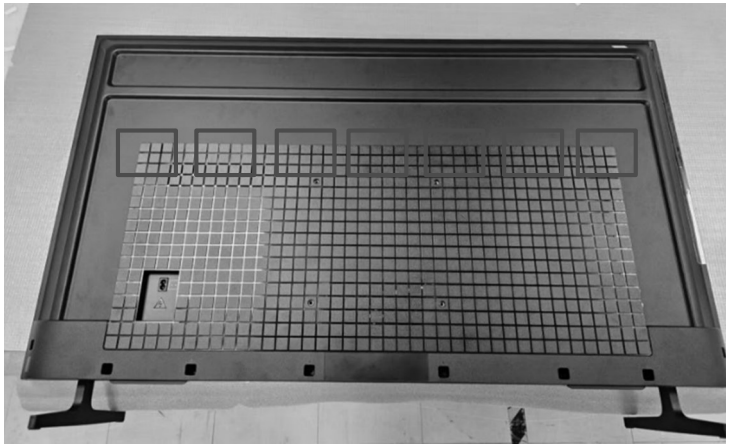
4. Unhook top row

Total Rear Cover back chassis : 7 hooks

① Raise the RC towards back side.

② Push up the RC towards top side.

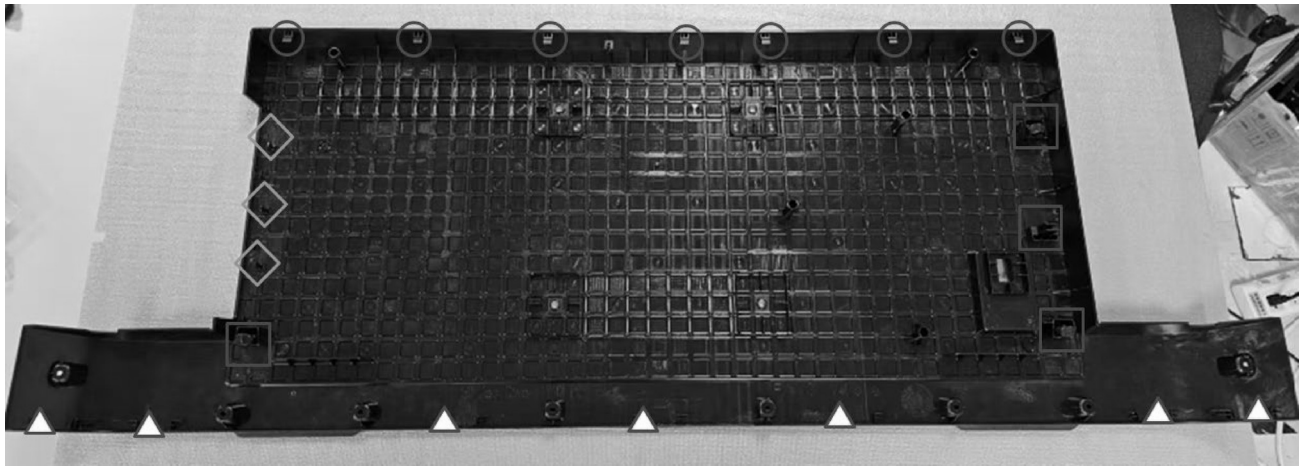




SECTION 2: DISASSEMBLY AND REMOVAL CAUTION 50”

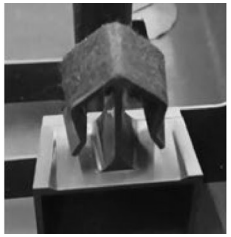
REAR COVER

Hook positioning



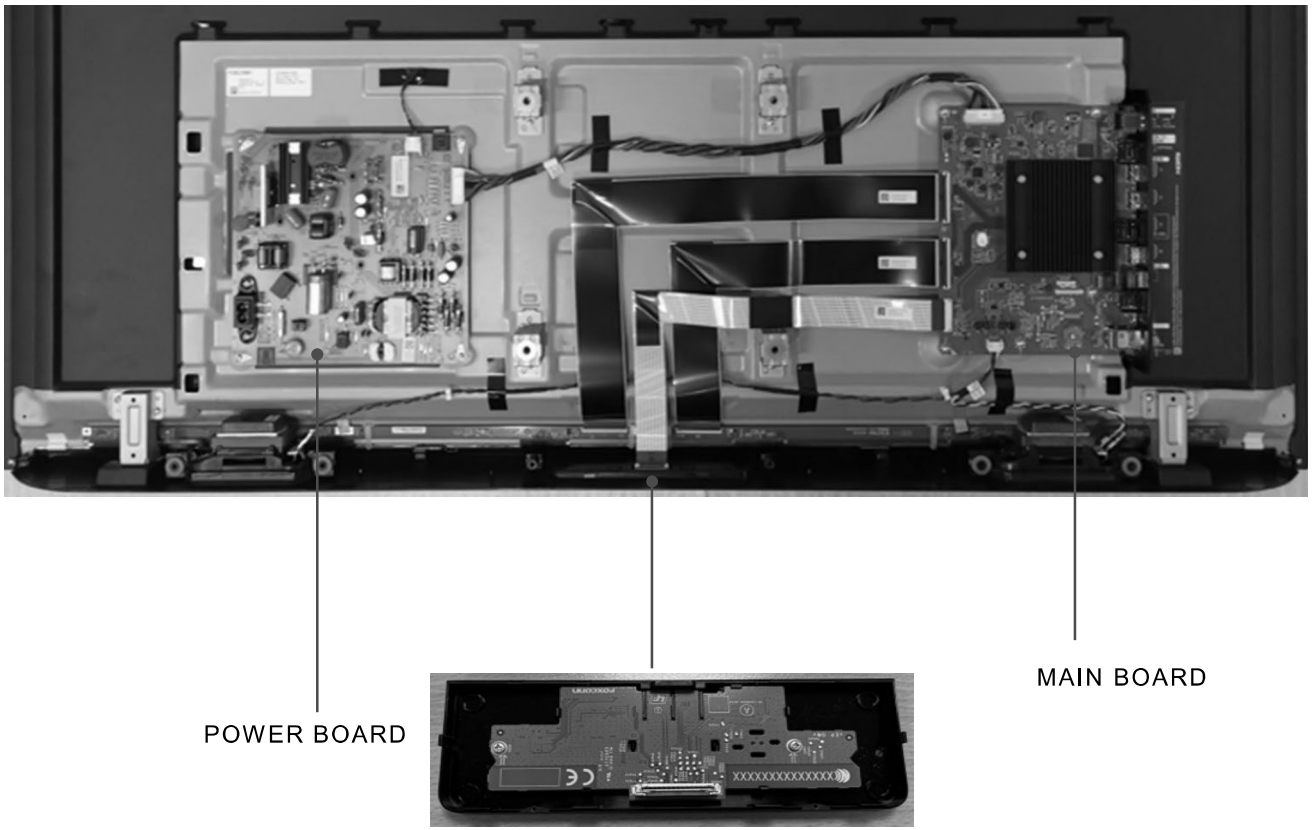
○ 

△ 

□ 

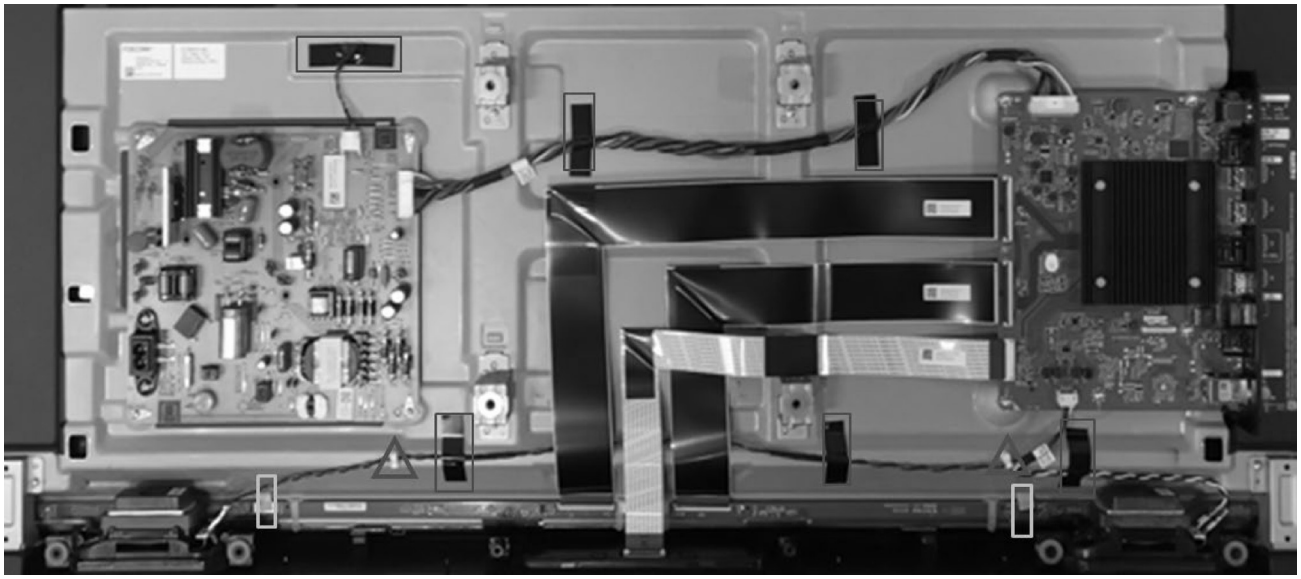
◇ 

SECTION 2: BOARD LOCATION 50”



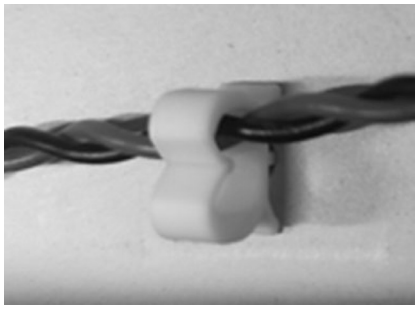
SECTION 2: WIRE DRESSING 50”

WIRE DRESSING



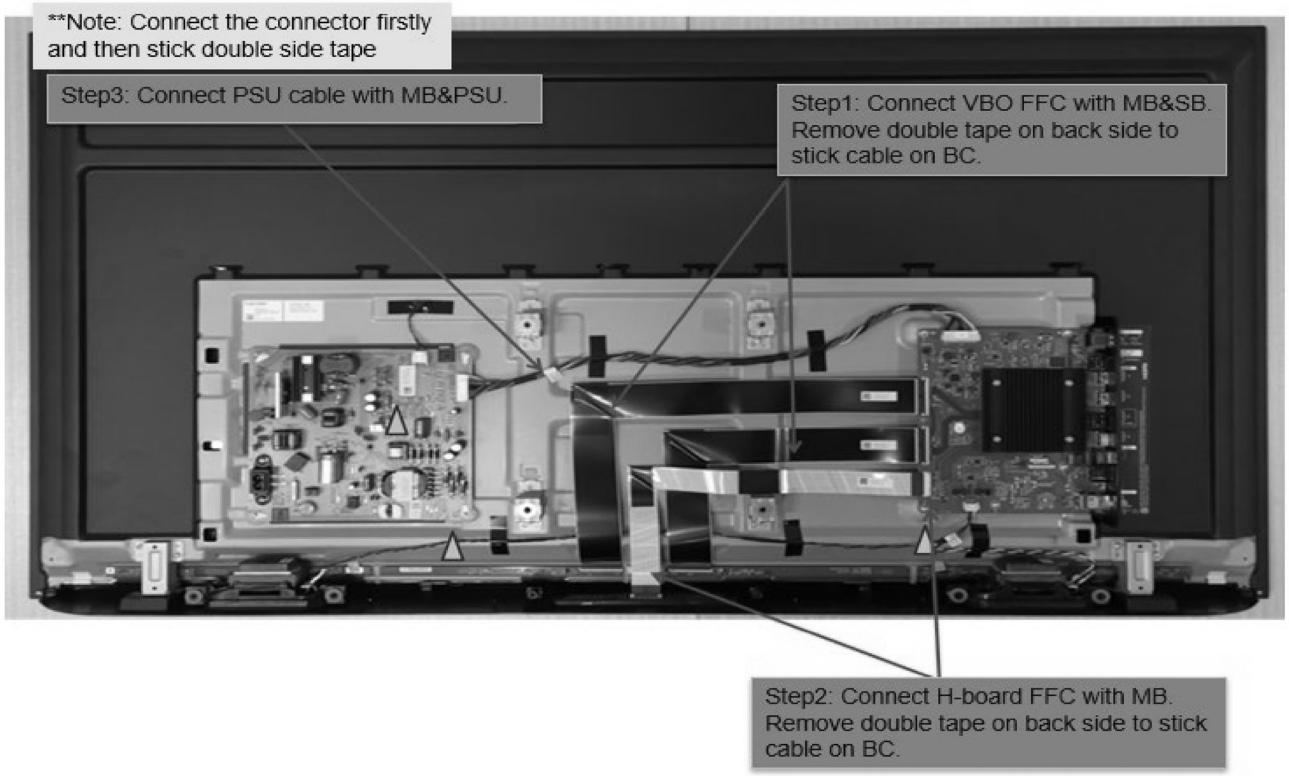
▯	3M WIRE TAPE BLACK,15*60MM	6pcs
▯	EMI TAPE 40*10MM	2pcs
△	CABLE LOCKER	2pcs

Put SPK wire into cable locker



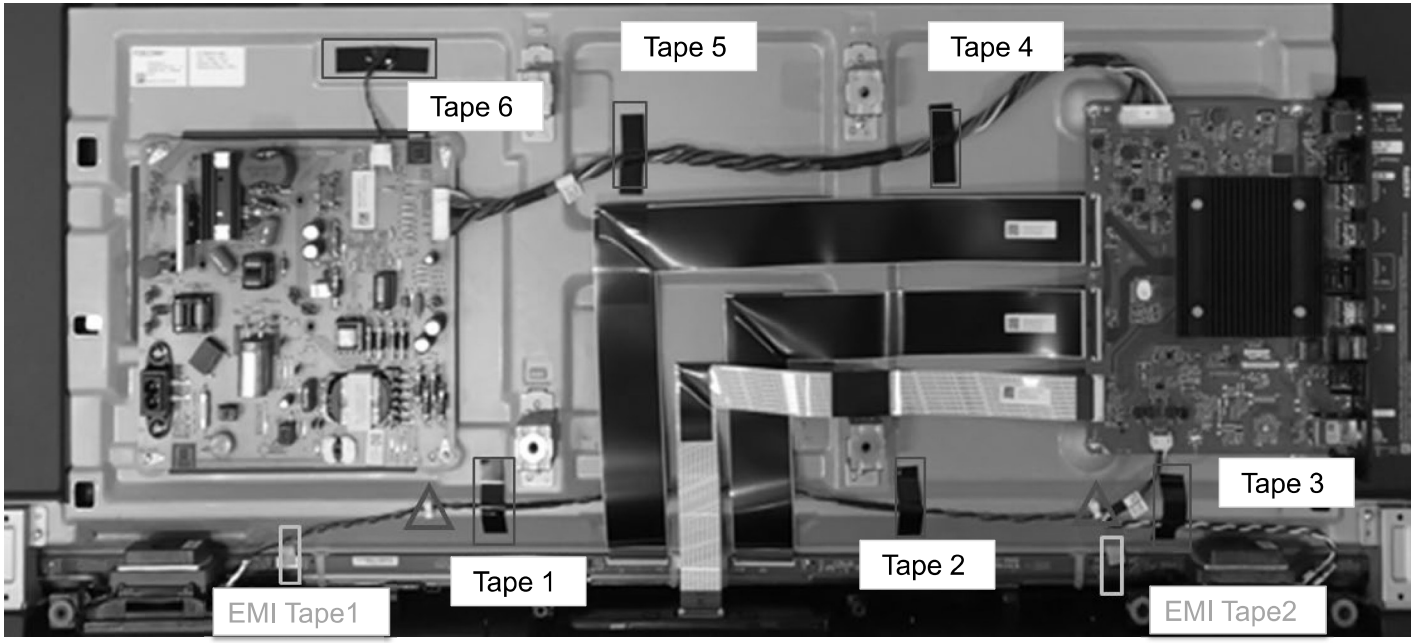
SECTION 2: WIRE DRESSING 50”

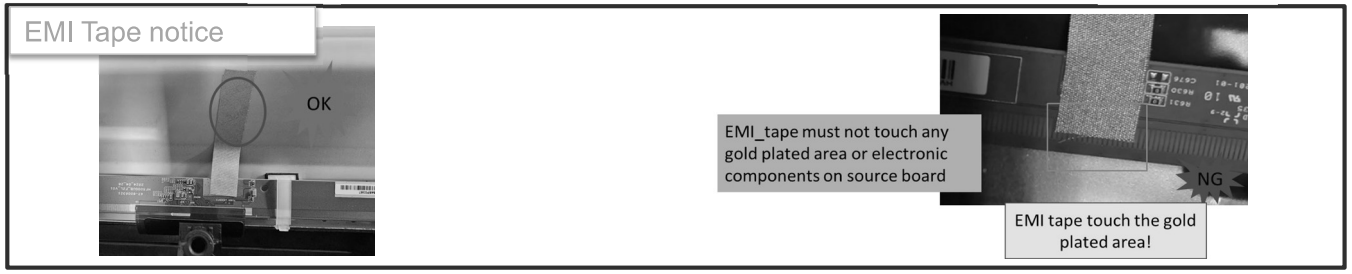
WIRE DRESSING



SECTION 2: WIRE DRESSING 50”

TAPE

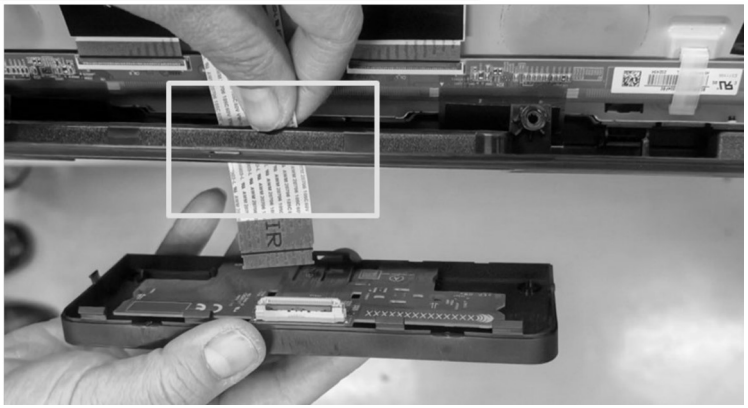




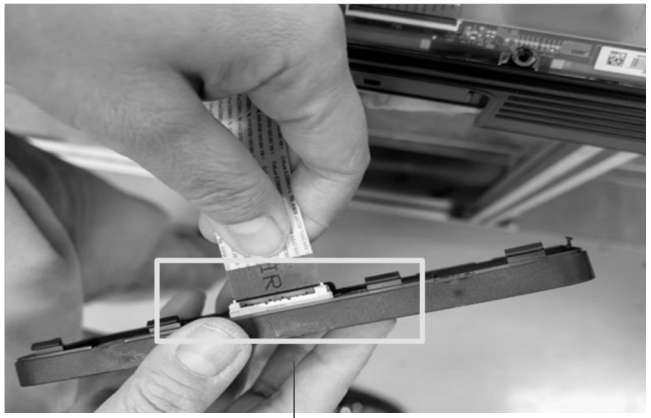
SECTION 2: WIRE DRESSING 50”

INFORMATION

(1)H_BD FFC passes the bz hole



(2)H_BD FFC assembled onto H_BD

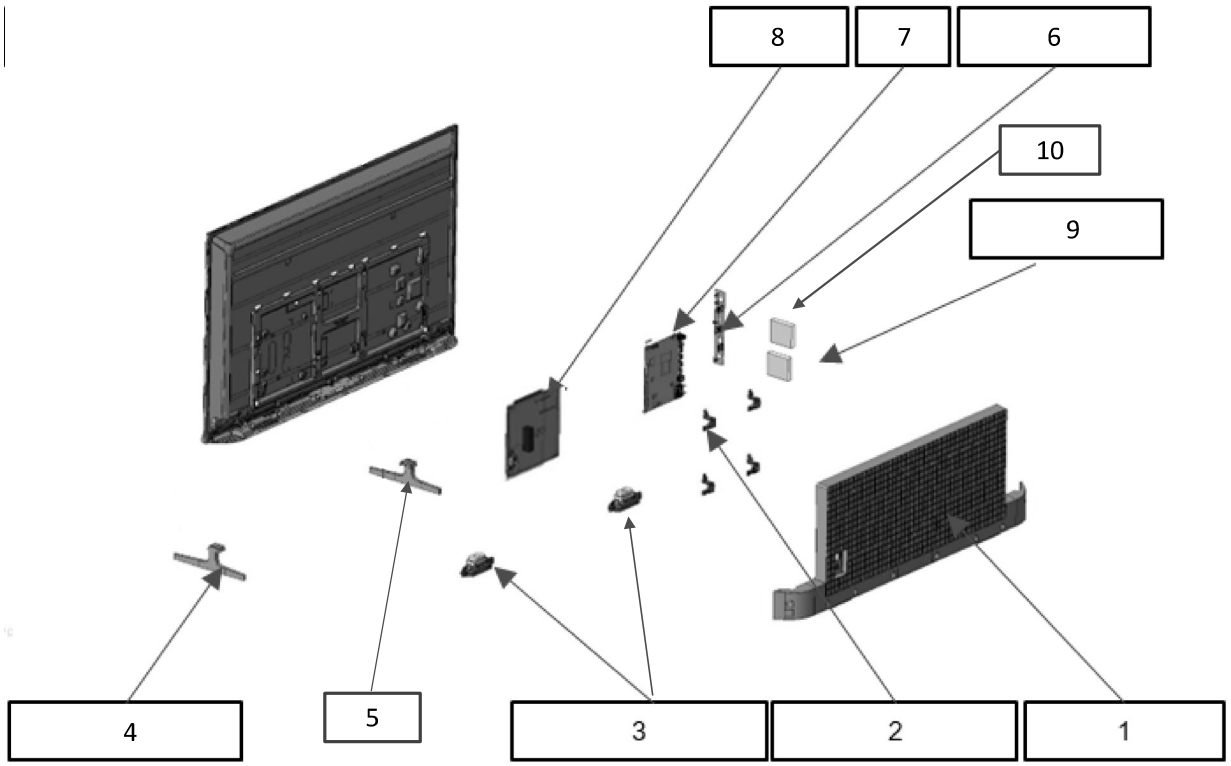




SECTION 2: EXPLODED VIEW AND PART LIST 50”

- Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.
- ⚠ and shaded parts are critical for safety. Replace only with part number specified.
- 🔒 Parts contain confidential information. Strictly follow the instruction whenever the components are repaired and/or replaced

- (*) Parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- Picture provided in this section might have slight difference from the actual sets.
- The reference number beside the part indicates the disassembly sequence.
- Remove screws before disassembly. Unplug connectors before disassembly



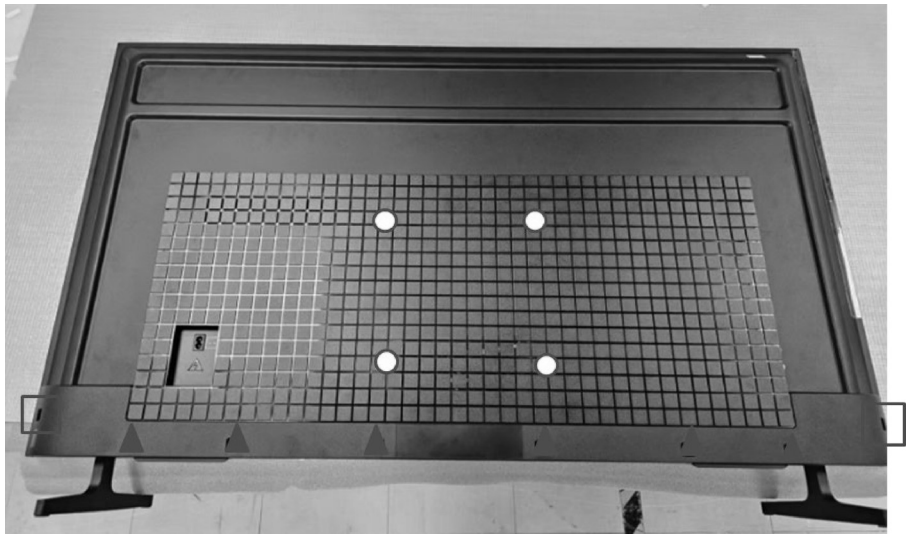
SECTION 2: EXPLODED VIEW AND PART LIST 50”

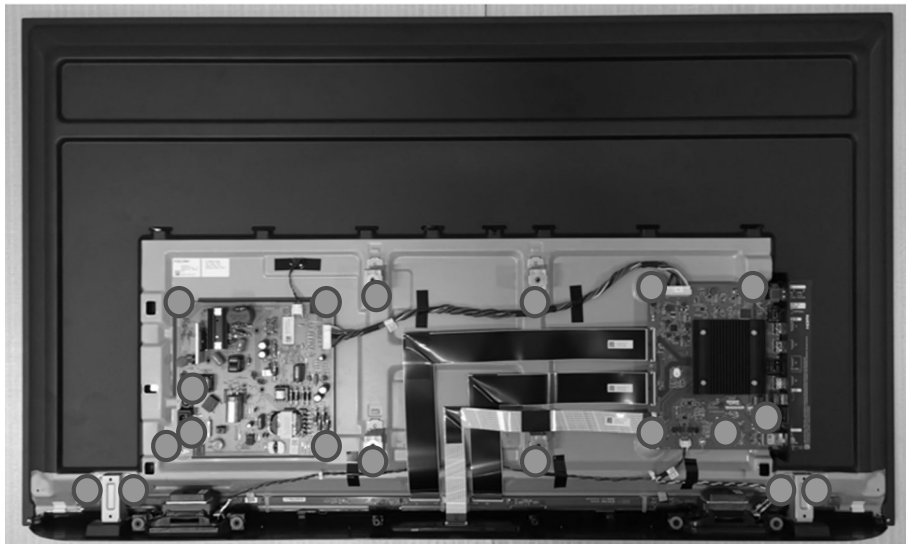
SET PART LIST

REF. NO		PART NO.	DESCRIPTION	K-50S20M2 UCM/UC2
⚠	1	5-066-831-01	REAR COVER ASSY	•
	2	*5-066-791-01	VESA BRACKET	•
⚠	3	1-024-589-11	LOUDSPEAKER 12W(43/50)	•
	4	5-066-833-01	STAND ASSY(R-2) (43&50)	•
	5	5-066-832-01	STAND ASSY(L-1) (43&50)	•
	6	5-066-782-01	ASSY, I/O COVER (NA)	•
🔒	7	A-5079-534-A	MOUNTED PWB(MB) NA Y25 FBC	•
	8	1-024-569-11	POWER SUPPLY 50(FSP138-1FS02)	•
	9	5-068-102-01	THERMAL PAD 27X27	•
	10	5-068-103-01	THERMALPAD,16*16*2.4MM,PINK	•

SECTION 2: EXPLODED VIEW AND PART LIST 50”

SCREW

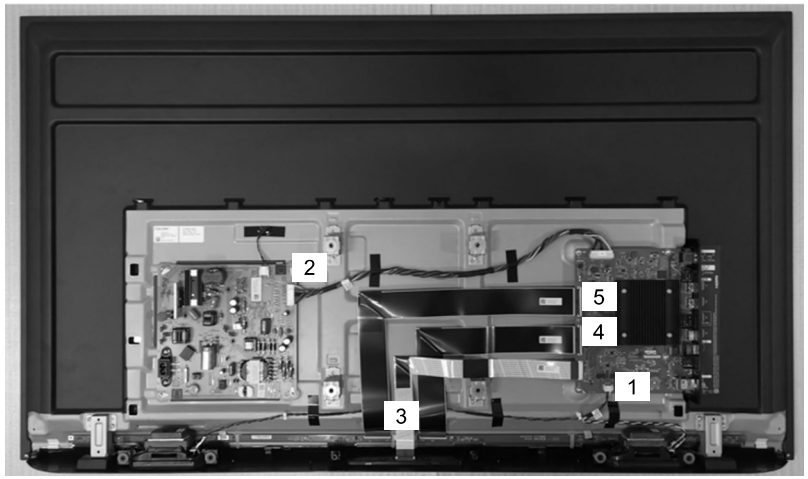




REF. NO	PART NO.	DESCRIPTION	QUANTITY	TORQUE (kgf.cm)
○	5-028-335-01	SCREW, M6*12	4	12±0.3
▲	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	6	9.5±0.3
□	4-729-978-01	SCREW, +PSW M3X8, W8, BLK	2	4.0±0.3
●	2-990-421-41	SCREW (+PSW) (M3X6)	19	4.0±0.3

SECTION 2: EXPLODED VIEW AND PART LIST 50”

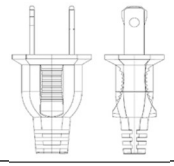
CONNECTOR



REF. NO	PART NO.	DESCRIPTION	REMARKS
1	1-024-561-11	CONNECTOR ASSY 4P (MB-SP)_50	CN802(MB)-SP(1)
2	1-024-560-11	CONNECTOR ASSY 14P (MB-PSU)_50	CN2201(MB)-CN3(PSU-board)(1)
3	1-024-562-11	CONNECTOR ASSY 45P (MB-H BD)50	CN9001(MB)-CN901(H-BD)(1)
4	1-024-582-11	CABLE_FFC_P2P(2) 68P_50	CN6001(MB)-CNX_L1
5	1-024-581-11	CABLE_FFC_P2P(1) 68P_50	CN6002(MB)-CNX_R1

SECTION 2: EXPLODED VIEW AND PART LIST 50”

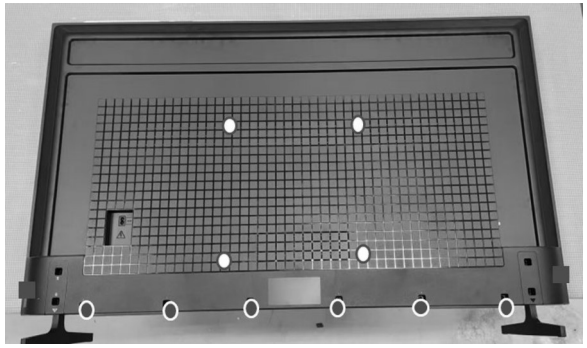
OTHER PARTS

PART NO.			DESCRIPTION	K-50S20M2	REMARKS
				UCM/UC2	
	⚠	1-012-957-21	C7L AC POWER CORD SETS (US)	•	-
-		1-019-559-22	REMOTE CONTROLLER, RMF-TX820U	•	-
-		*5-065-334-01	REFERENCE GUIDE	•	-
-		*5-065-772-01	SETUP GUIDE	•	-

SECTION 3: DISASSEMBLY AND REMOVAL CAUTION 55”

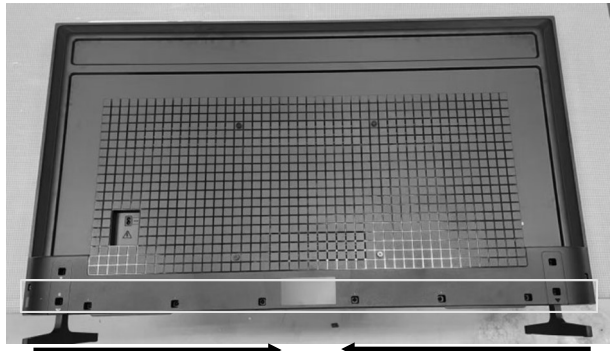
REAR COVER

1. Remove the screws from the Rear Cover (12 pcs)



<1>

2. Unhook the bottom hook, starting from corner.

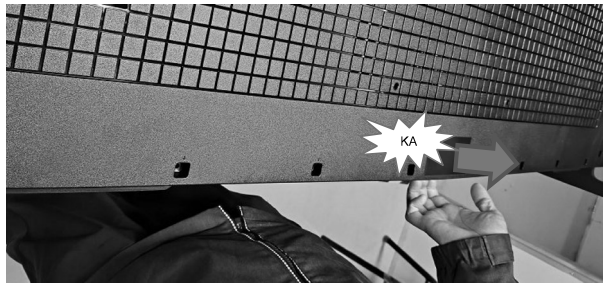


<2>

① Pull up stand area of RC (show as the picture) and the hook-opening sound can be heard.
② Pinch the rear cover edge and pull up, then rear cover hooks will be released.





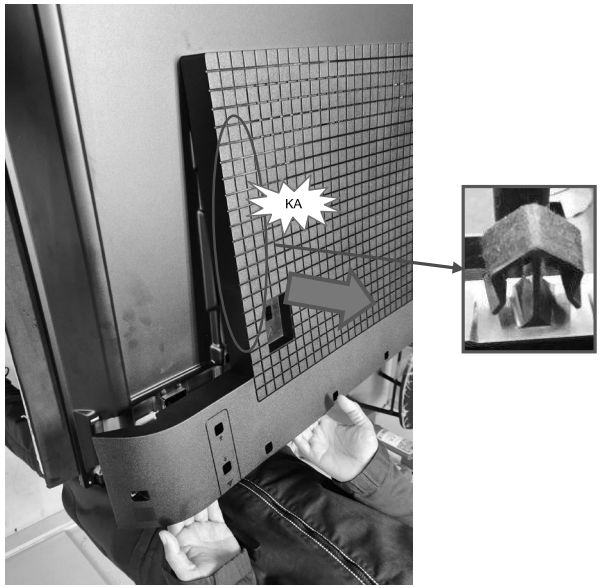


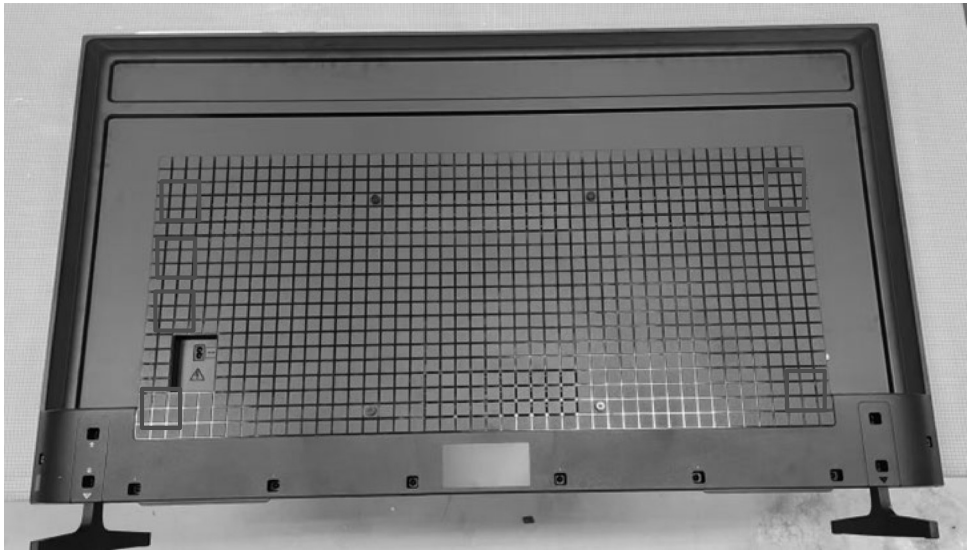
SECTION 3: DISASSEMBLY AND REMOVAL CAUTION 55”

REAR COVER

3. Unhook left and right side hooks.

Total Rear Cover back chassis : 6 hooks





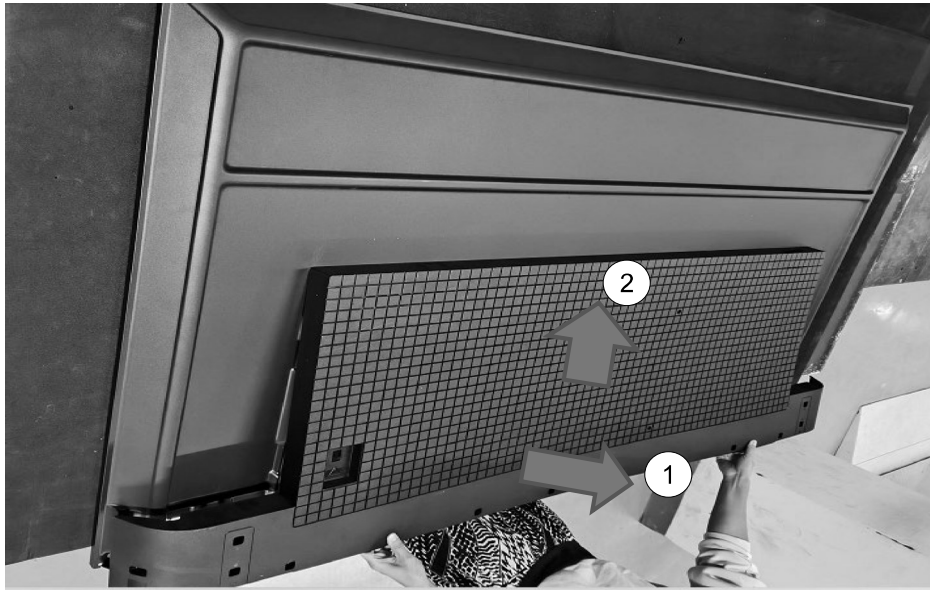
SECTION 3: DISASSEMBLY AND REMOVAL CAUTION 55”

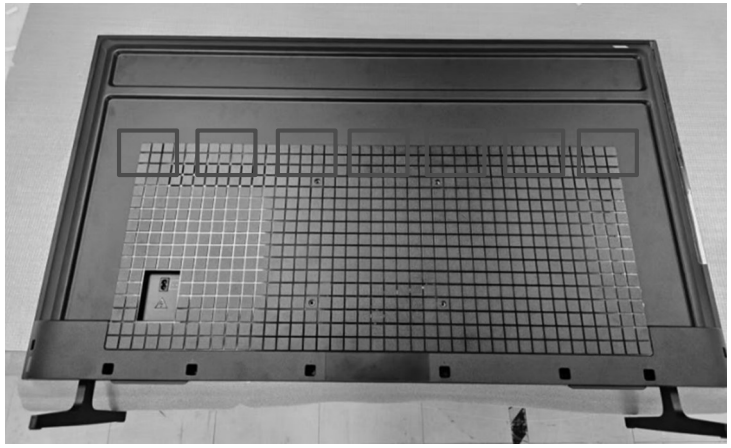
REAR COVER

4. Unhook top row.

Total Rear Cover back chassis : 7 hooks

① Raise the RC towards back side
② Push up the RC towards top side

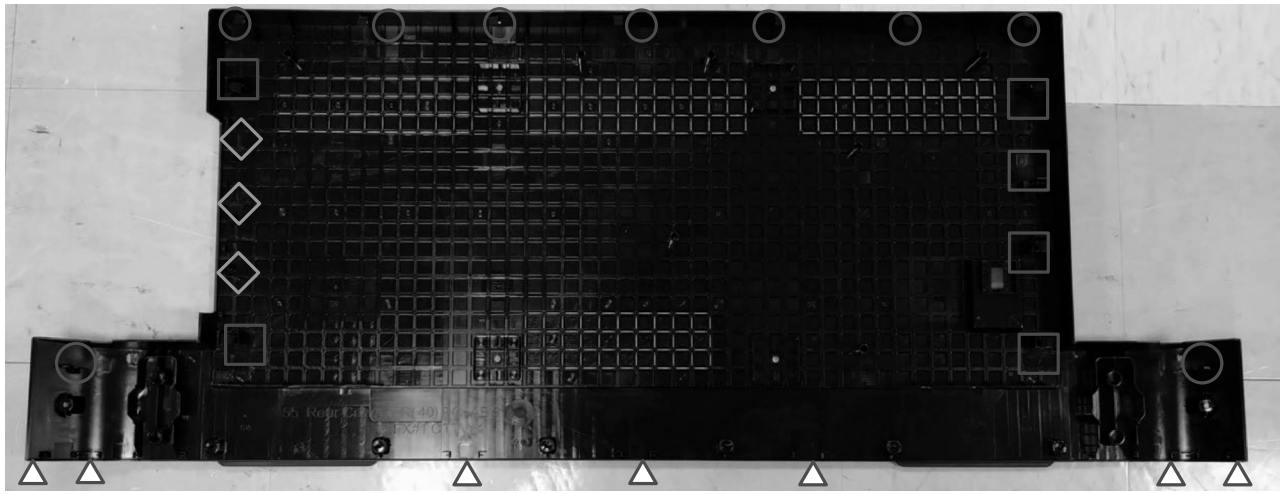




SECTION 3: DISASSEMBLY AND REMOVAL CAUTION 55”

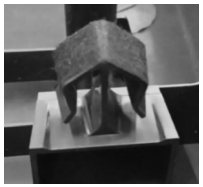
REAR COVER

Hook positioning.

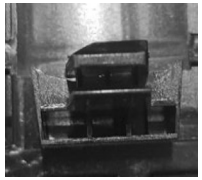


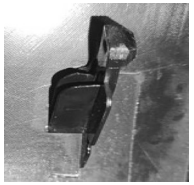




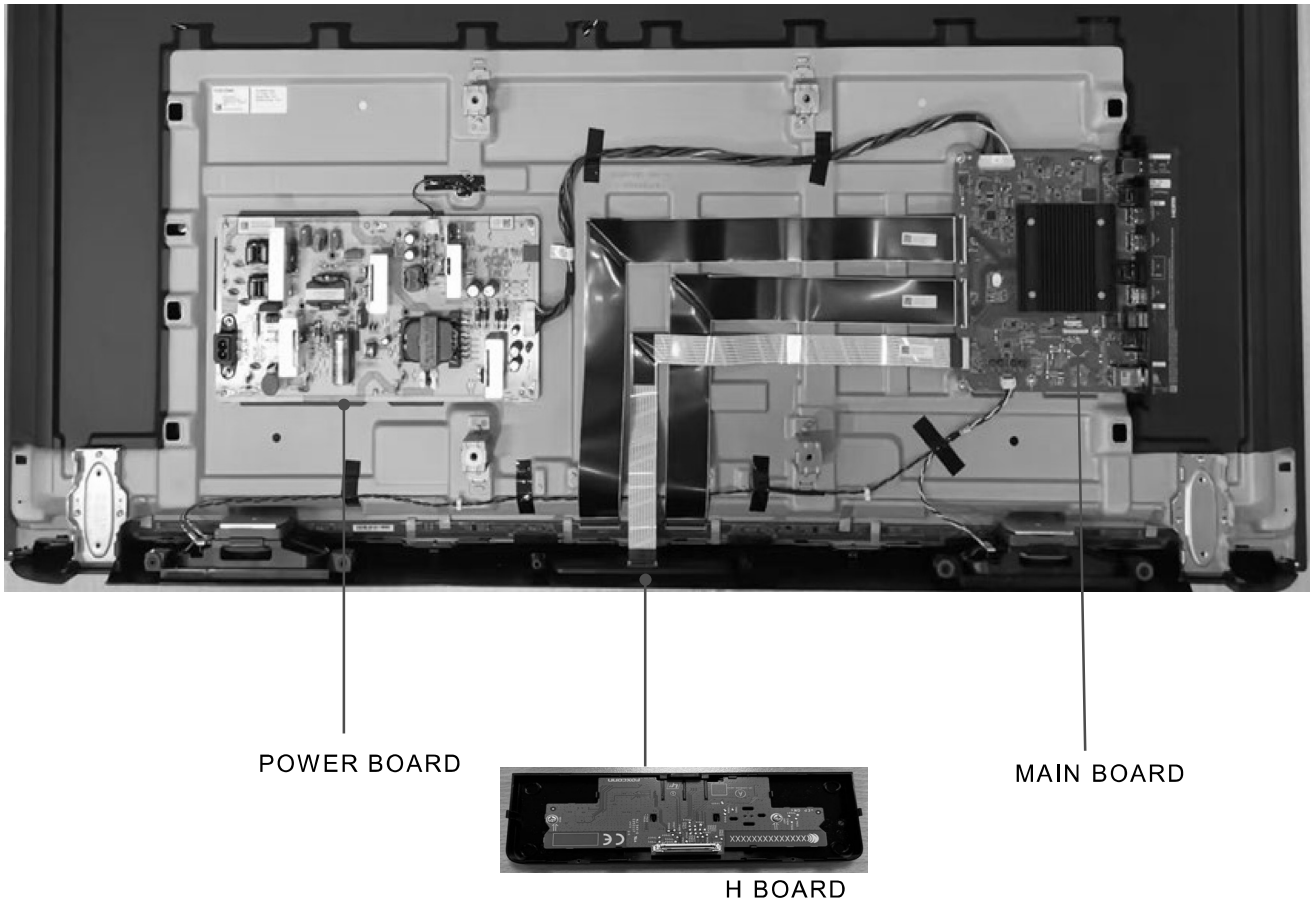






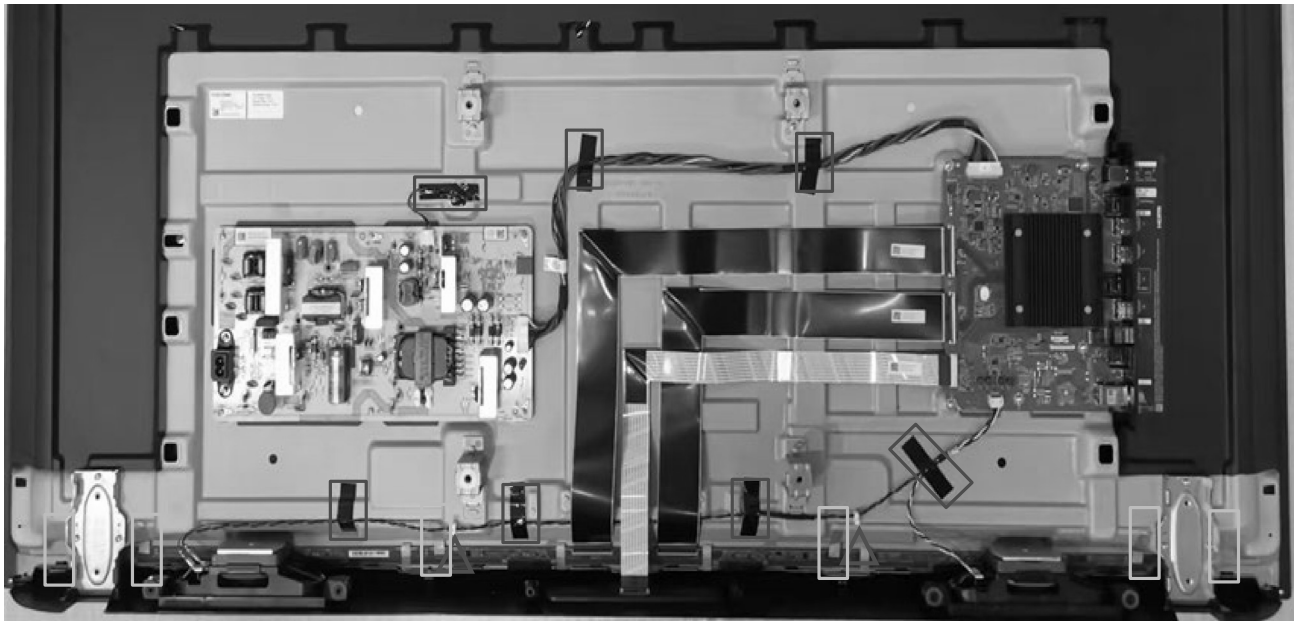


SECTION 3: BOARD LOCATION 55”



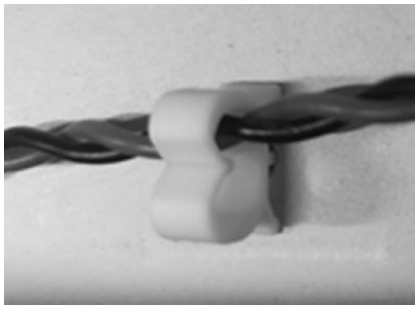
SECTION 3: WIRE DRESSING 55”

WIRE DRESSING



▯	3M WIRE TAPE BLACK,15*60MM	7pcs
▯	EMI TAPE 40*10MM	6pcs
△	CABLE LOCKER	2pcs

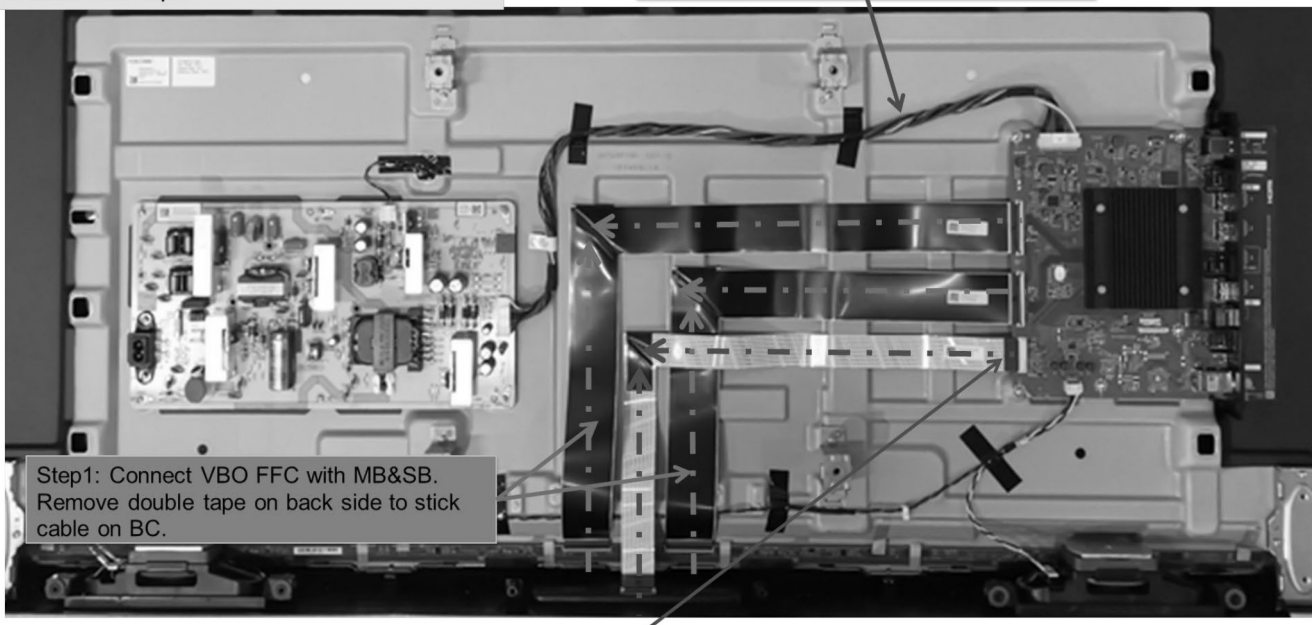
Put SPK wire into cable locker



SECTION 3: WIRE DRESSING 55”

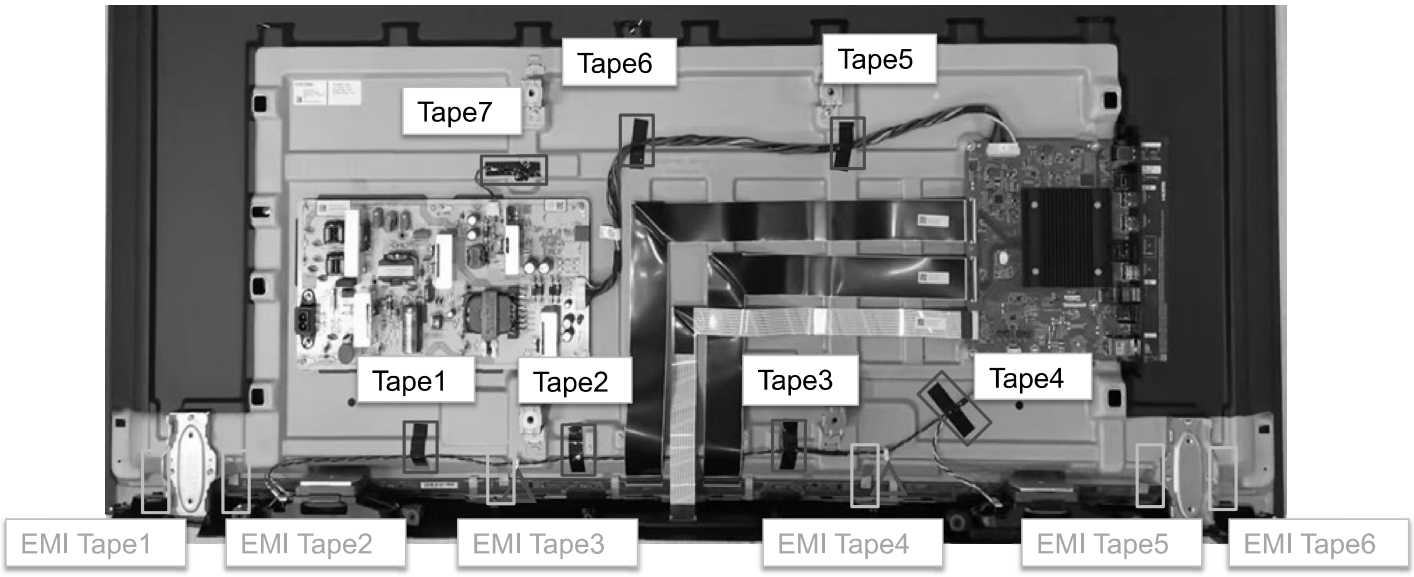
WIRE DRESSING

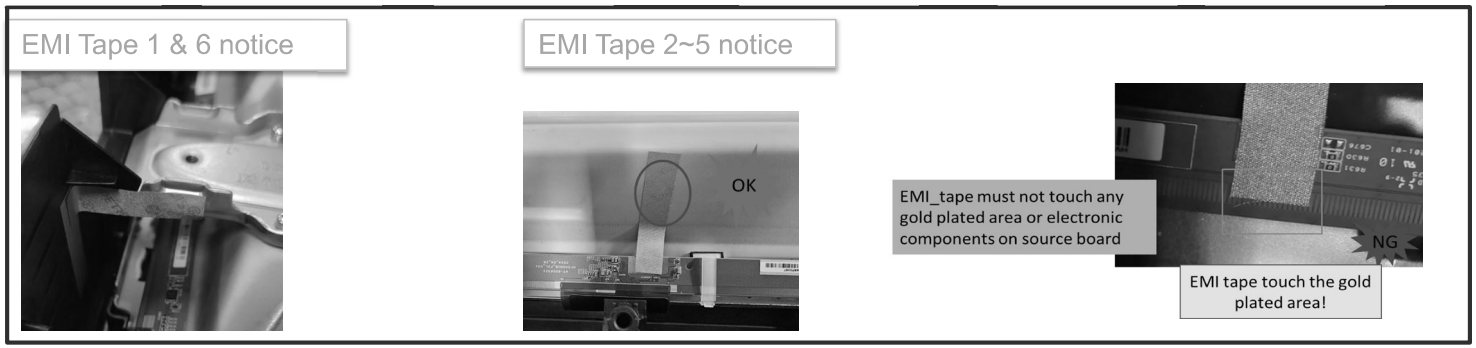
**Note: Connect the connector firstly and then stick double side tape



SECTION 3: WIRE DRESSING 55”

TAPE

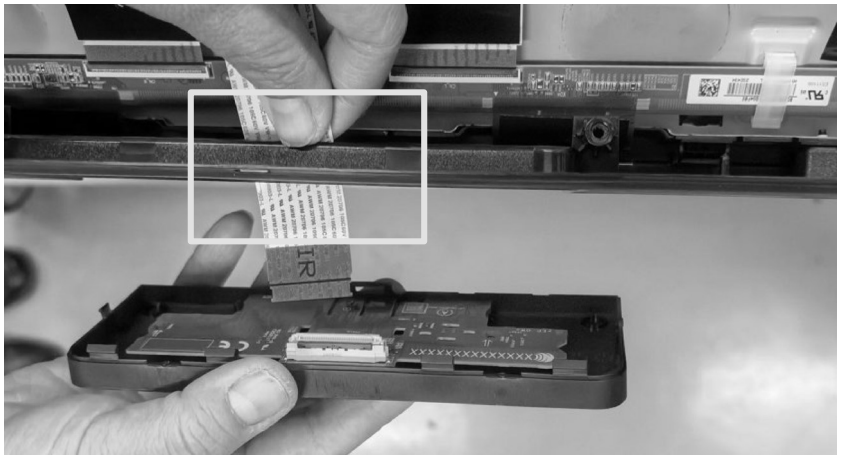




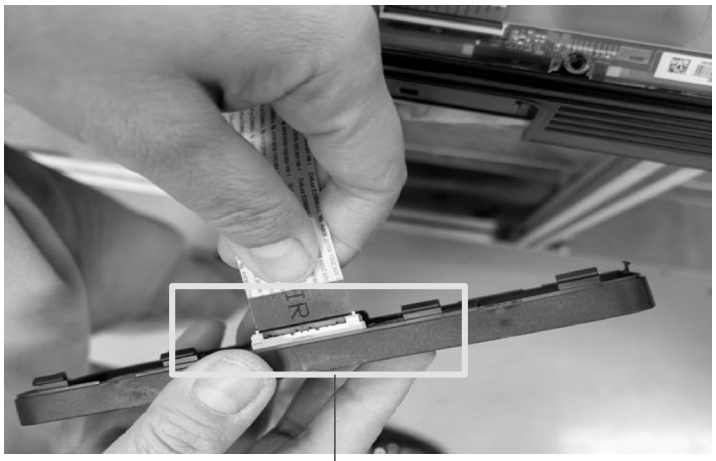
SECTION 3: WIRE DRESSING 55”

INFORMATION

(1)H_BD FFC passes the bz hole



(2)H_BD FFC assembled onto H_BD

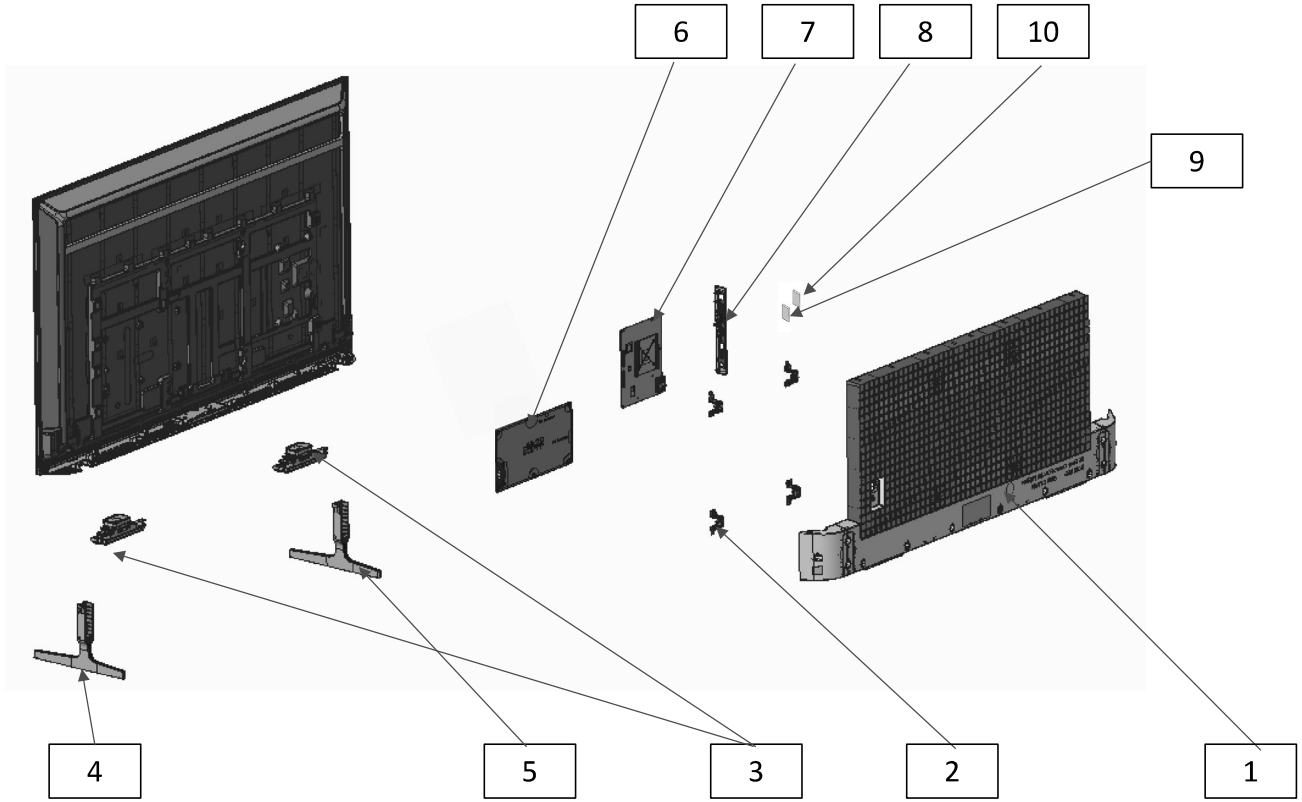




SECTION 3: EXPLODED VIEW AND PART LIST 55”

- Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.
- ⚠ and shaded parts are critical for safety. Replace only with part number specified.
- 🔒 Parts contain confidential information. Strictly follow the instruction whenever the components are repaired and/or replaced

- (*) Parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- Picture provided in this section might have slight difference from the actual sets.
- The reference number beside the part indicates the disassembly sequence.
- Remove screws before disassembly. Unplug connectors before disassembly



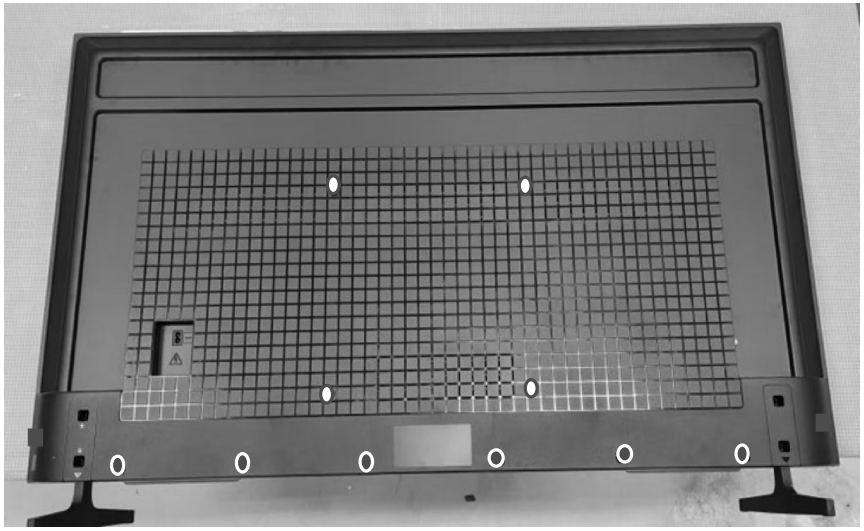
SECTION 3: EXPLODED VIEW AND PART LIST 55”

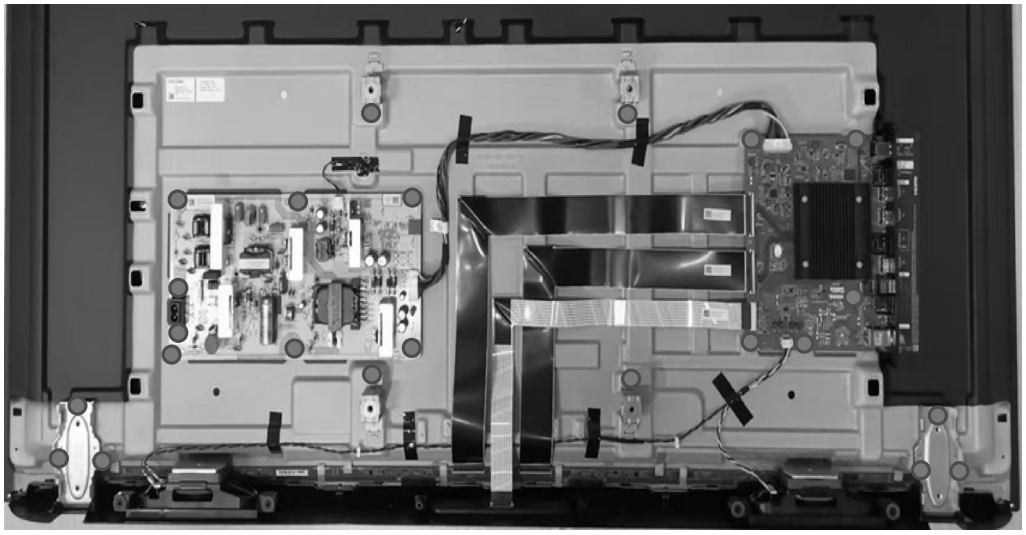
SET PART LIST

REF. NO		PART NO.	DESCRIPTION	K-55S20M2	K-55S20CM2
				UCM	U2
⚠	1	5-066-815-01	ASSY, REAR COVER (55)	•	•
	2	*5-066-791-01	VESA BKT	•	•
⚠	3	1-024-588-11	LOUDSPEAKER 12W(55/65/75)	•	•
	4	5-066-817-01	STAND ASSY(R-2) (55)	•	•
	5	5-066-816-01	STAND ASSY(L-1) (55)	•	•
	6	1-024-568-11	POWER SUPPLY 55(FSP169-1FS01)	•	•
🔒	7	A-5079-534-A	MOUNTED PWB(MB) NA Y25 FBC	•	•
	8	5-066-782-01	ASSY, I/O COVER (NA)	•	•
	9	5-068-102-01	THERMAL PAD 27X27	•	•
	10	5-068-103-01	THERMALPAD,16*16*2.4MM,PINK	•	•

SECTION 3: EXPLODED VIEW AND PART LIST 55”

SCREW

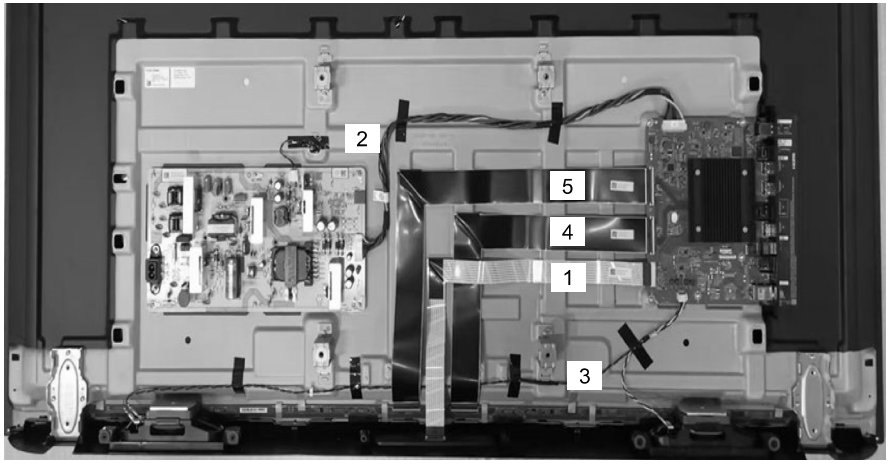




REF. NO	PART NO.	DESCRIPTION	QUANTITY	TORQUE (kgf.cm)
○	5-028-335-01	SCREW, M6*12	4	12±0.3
●	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	6	9.5±0.3
■	4-729-978-01	SCREW, +PSW M3X8, W8, BLK	2	4.0±0.3
◉	2-990-421-41	SCREW (+PSW) (M3X6)	23	4.0±0.3

SECTION 3: EXPLODED VIEW AND PART LIST 55”

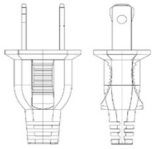
CONNECTOR



REF. NO	PART NO.	DESCRIPTION	REMARKS
1	1-024-559-11	CONNECTOR ASSY 45P (MB-H BD)55	CN802(MB)-SP(1)
2	1-024-557-11	CONNECTOR ASSY 14P (MB-PSU)_55	CN2201(MB)-CN3(PSU-board)(1)
3	1-024-558-11	CONNECTOR ASSY 4P (MB-SP)_55	CN9001(MB)-CN901(H-BD)(1)
4	1-024-579-11	CABLE_FFC_P2P(2) 68P_55	CN6001(MB)-CNX_L1
5	1-024-580-11	CABLE_FFC_P2P(1) 68P_55	CN6002(MB)-CNX_R1

SECTION 3: EXPLODED VIEW AND PART LIST 55”

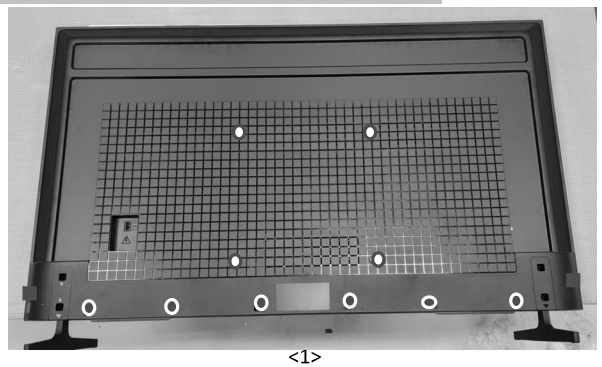
OTHER PARTS

PART NO.			DESCRIPTION	K-55S20M2	K-55S20CM2	REMARKS
				UCM	U2	
	⚠	1-012-957-21	C7L AC POWER CORD SETS (US)	•	•	-
-		1-019-559-22	REMOTE CONTROLLER, RMF-TX820U	•	•	-
-		*5-065-334-01	REFERENCE GUIDE	•	•	-
-		*5-065-339-01	SETUP GUIDE	•	•	-

SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 65”

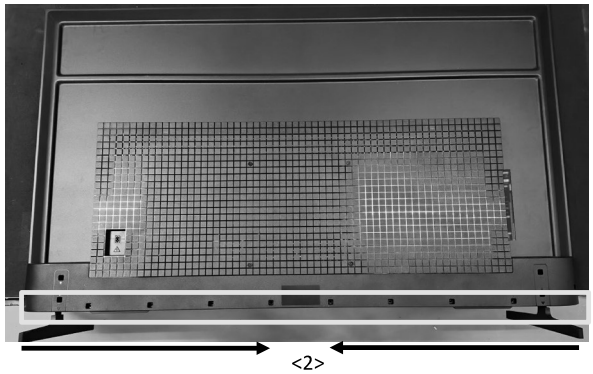
REAR COVER

1. Remove the screws from the Rear Cover (12 pcs)



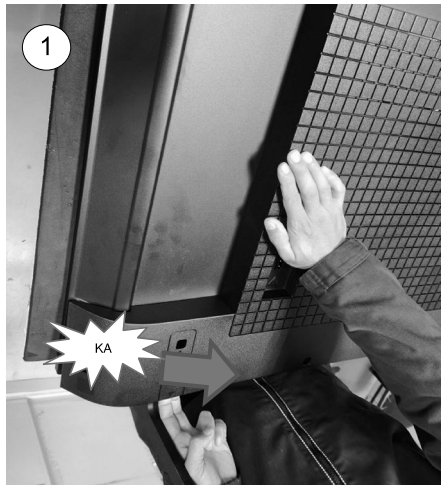
<1>

2. Unhook the bottom hook, starting from corner.

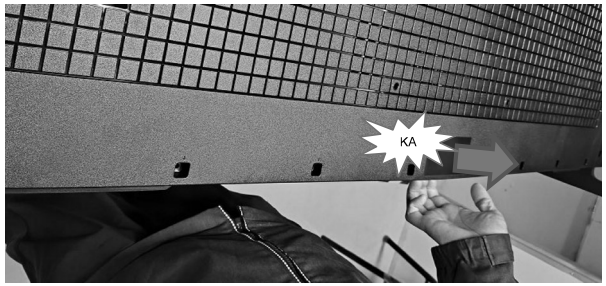


<2>

① Pull up stand area of RC (show as the picture) and the hook-opening sound can be heard.
② Pinch the rear cover edge and pull up, then rear cover hooks will be released.





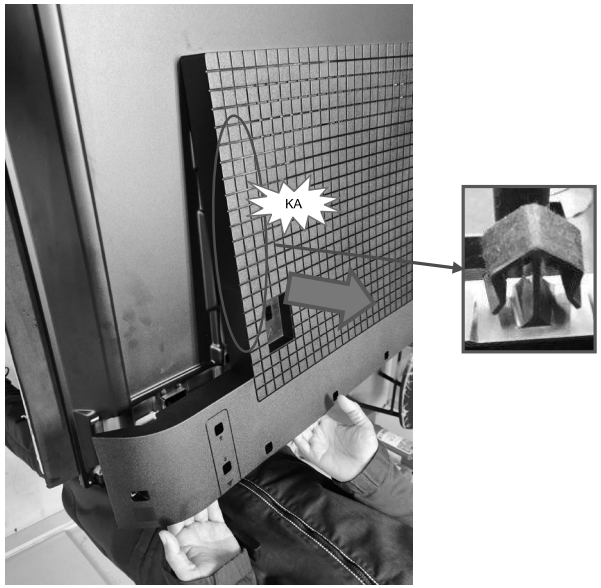


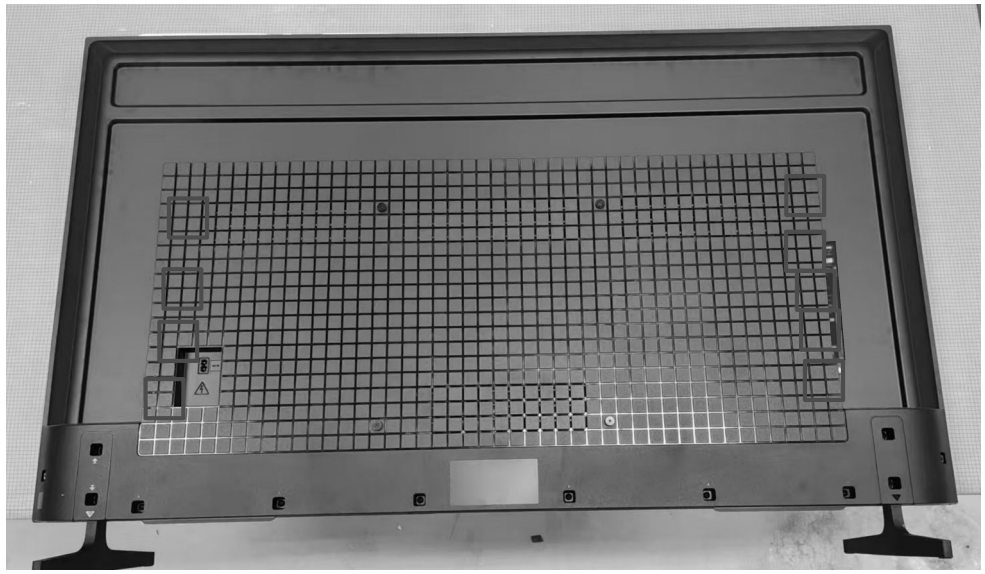
SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 65”

REAR COVER

3. Unhook left and right side hooks.

Total Rear Cover back chassis : 9 hooks





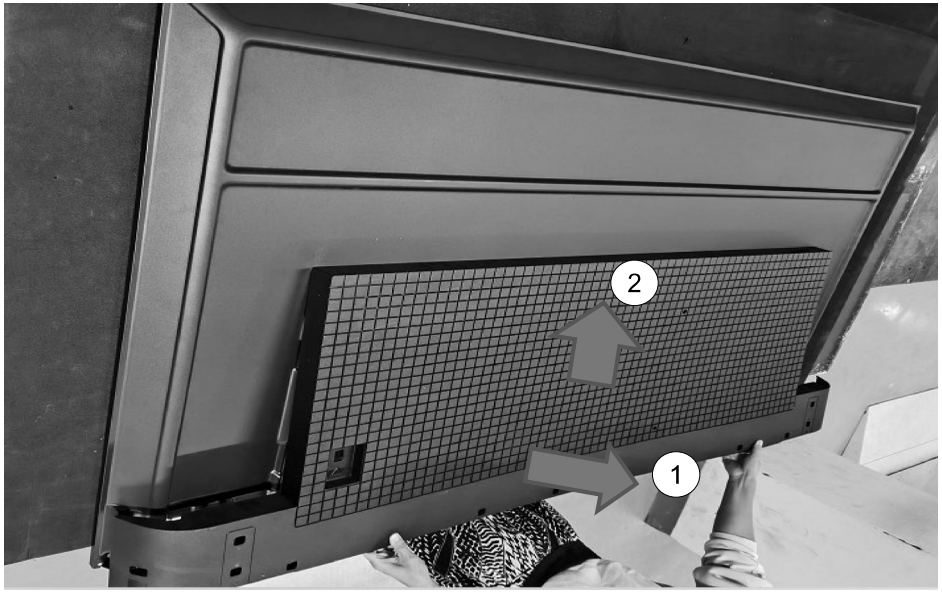
SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 65”

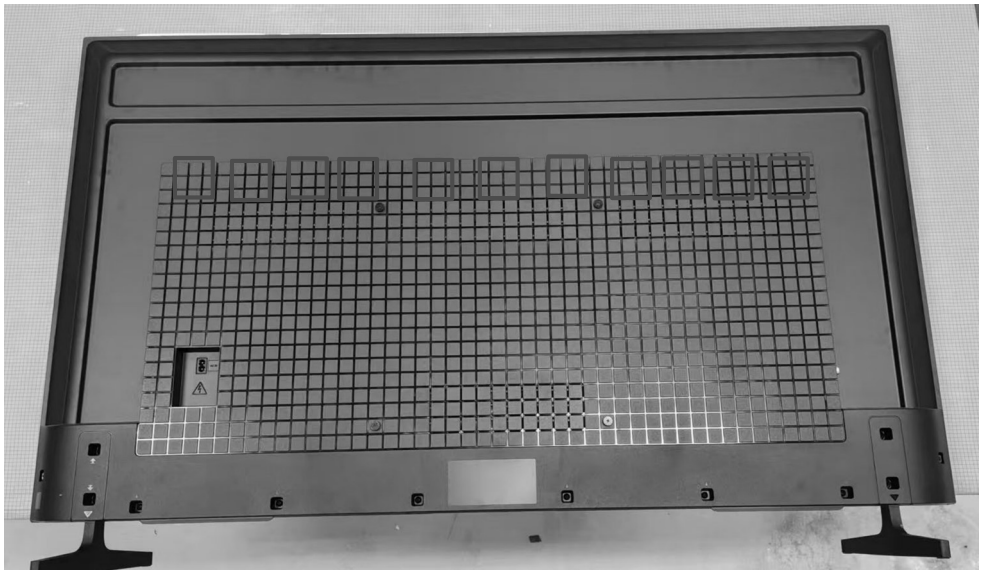
REAR COVER

4. Unhook top row.

Total Rear Cover back chassis : 11 hooks

① Raise the RC towards back side
② Push up the RC towards top side

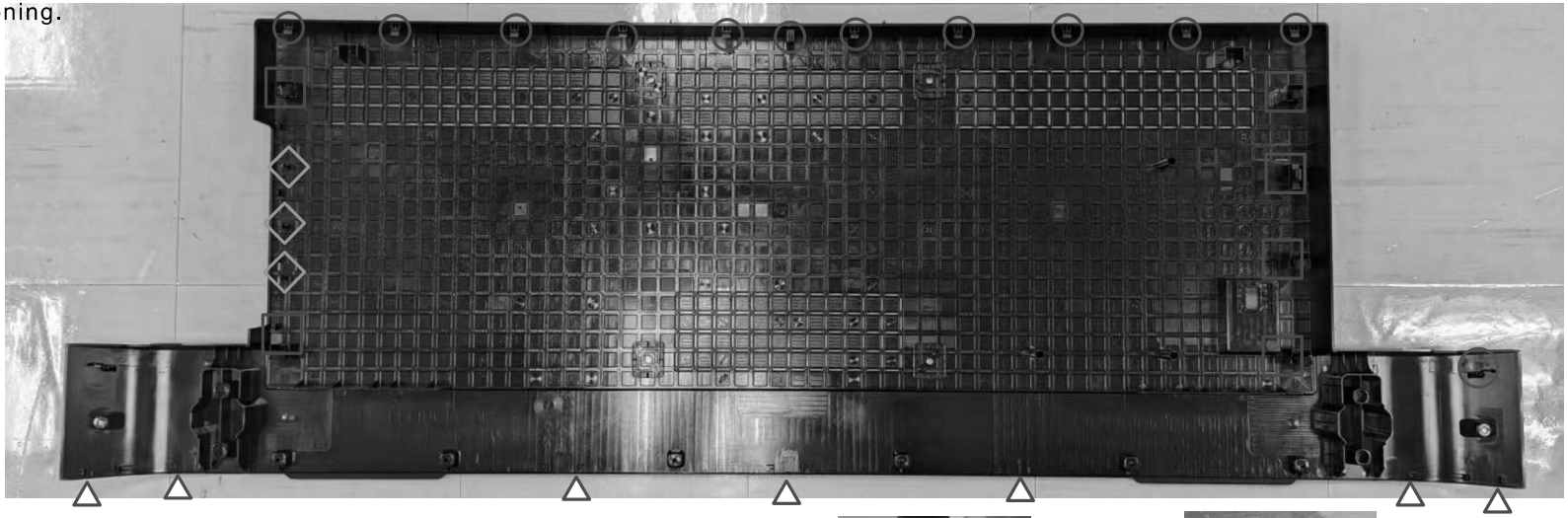




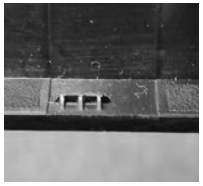
SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 65”

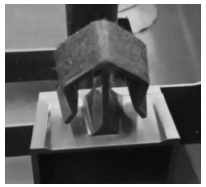
REAR COVER

Hook positioning.

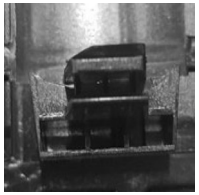


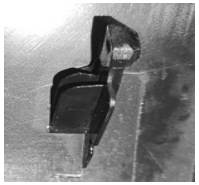




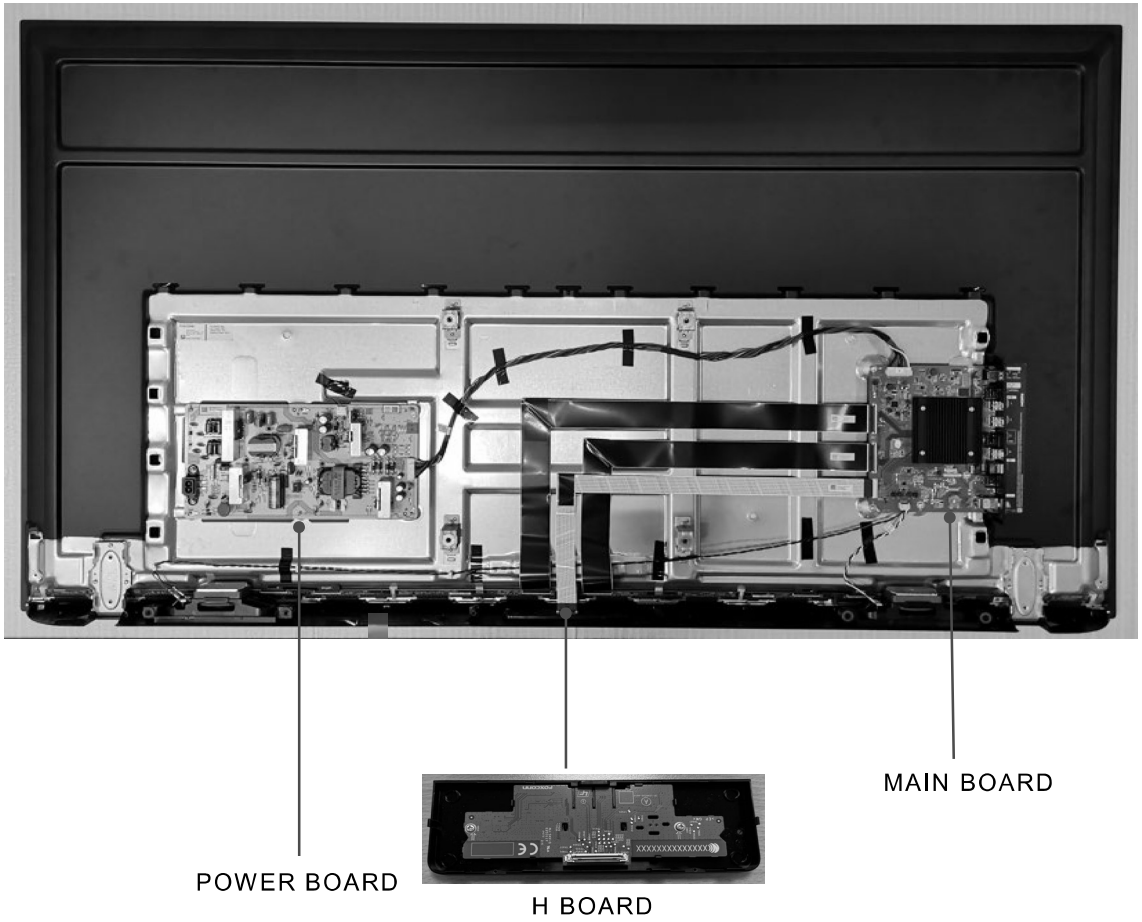






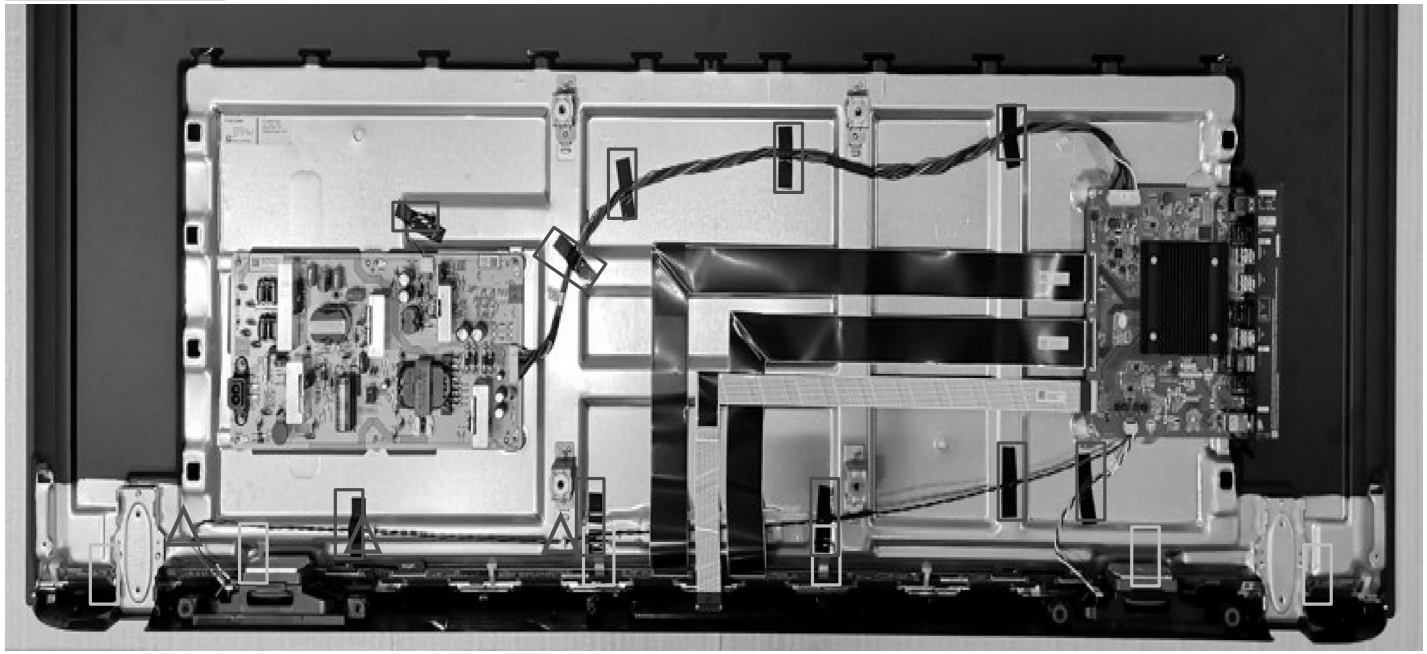


SECTION 5: BOARD LOCATION 65”



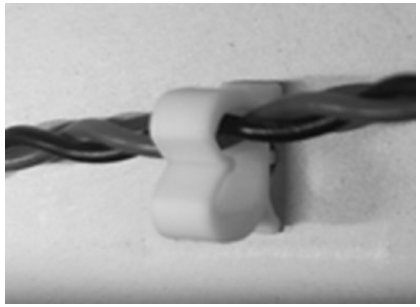
SECTION 5: WIRE DRESSING 65”

WIRE DRESSING



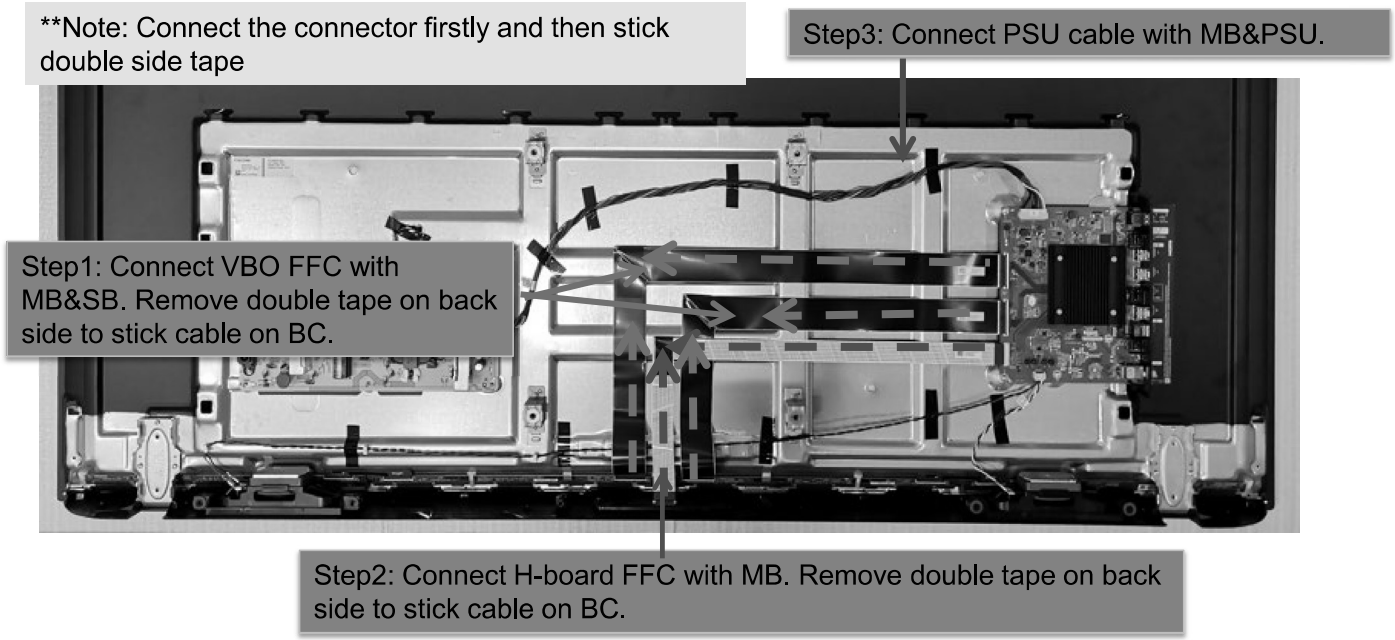
▯	3M WIRE TAPE BLACK,15*60MM	10pcs
▯	EMI TAPE 40*10MM	6pcs
△	CABLE LOCKER	3pcs

Put SPK wire into cable locker



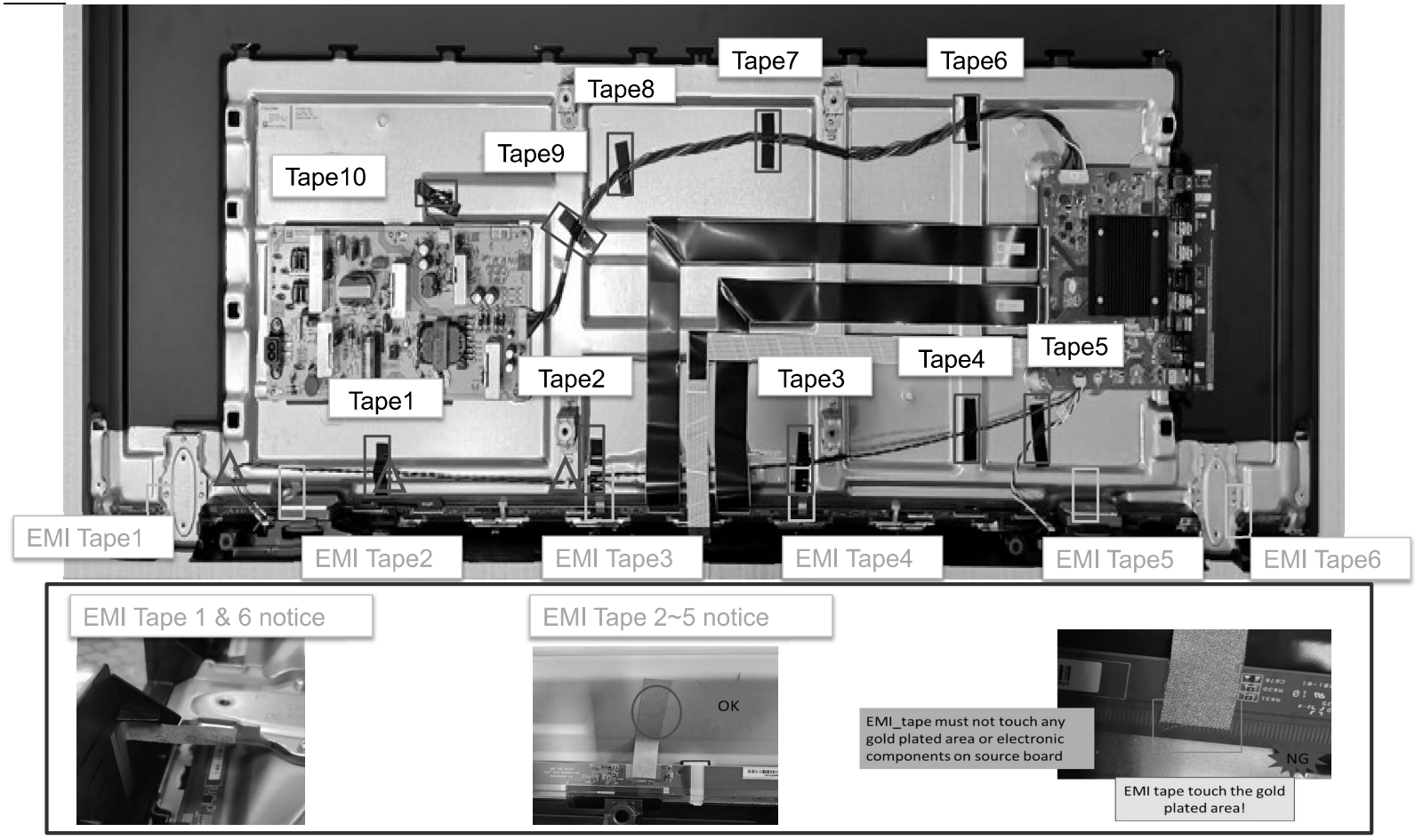
SECTION 5: WIRE DRESSING 65”

WIRE DRESSING



SECTION 5: WIRE DRESSING 65”

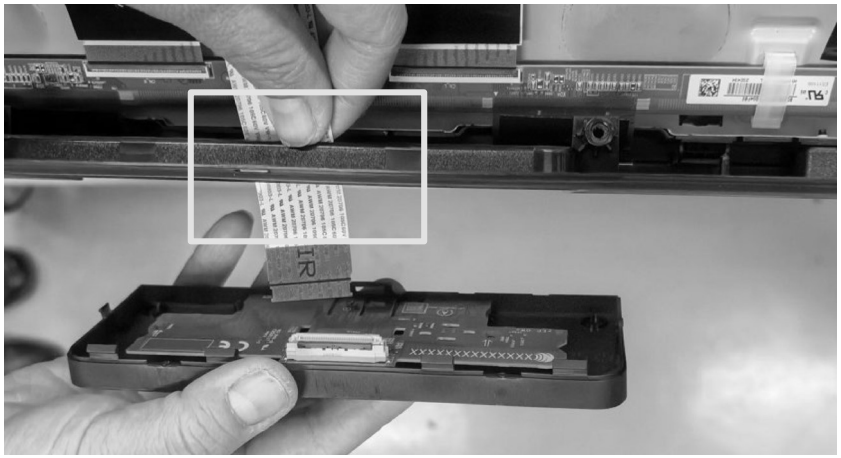
TAPE



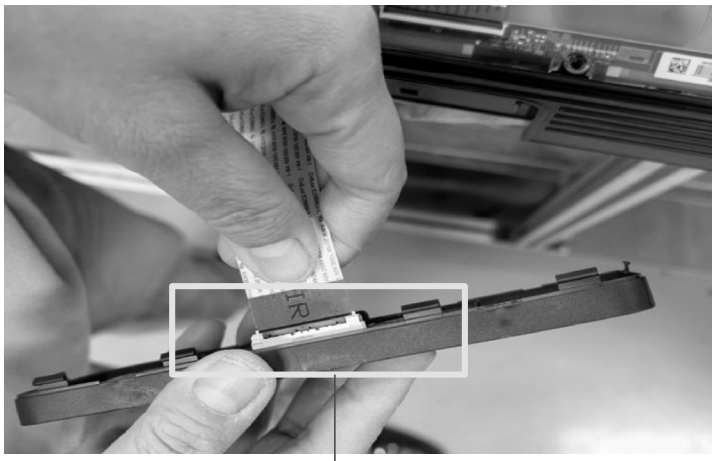
SECTION 5: WIRE DRESSING 65”

INFORMATION

(1)H_BD FFC passes the bz hole



(2)H_BD FFC assembled onto H_BD

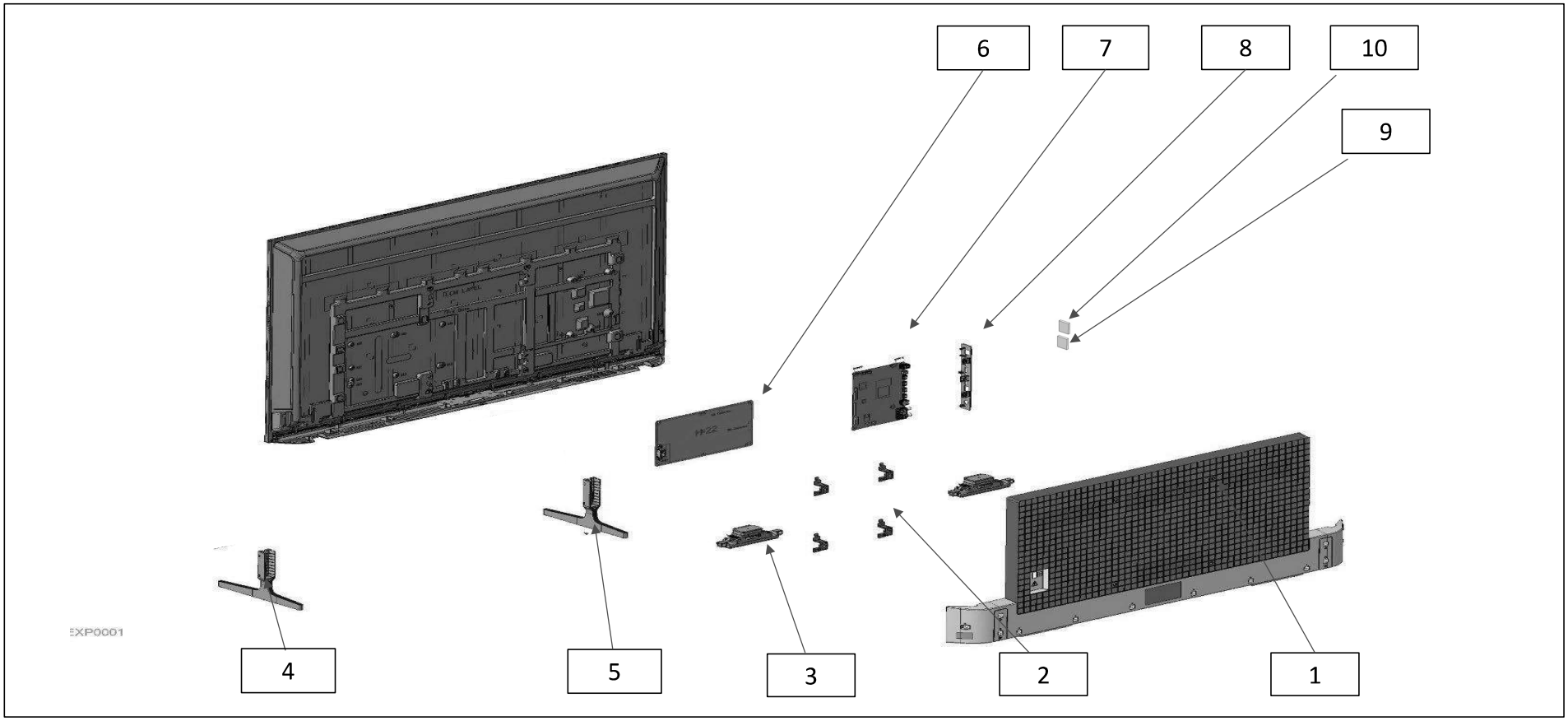




SECTION 4: EXPLODED VIEW AND PART LIST 65”

- Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.
- ⚠ and shaded parts are critical for safety. Replace only with part number specified.
- 🔒 Parts contain confidential information. Strictly follow the instruction whenever the components are repaired and/or replaced

- (*) Parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- Picture provided in this section might have slight difference from the actual sets.
- The reference number beside the part indicates the disassembly sequence.
- Remove screws before disassembly. Unplug connectors before disassembly



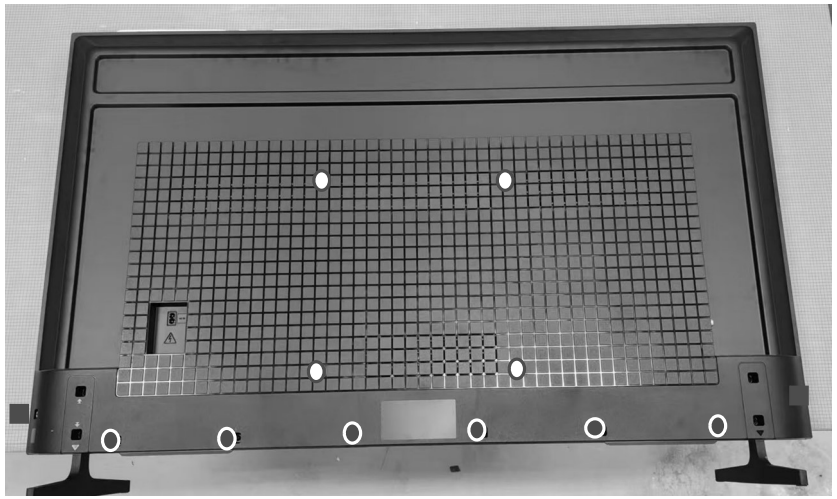
SECTION 4: EXPLODED VIEW AND PART LIST 65”

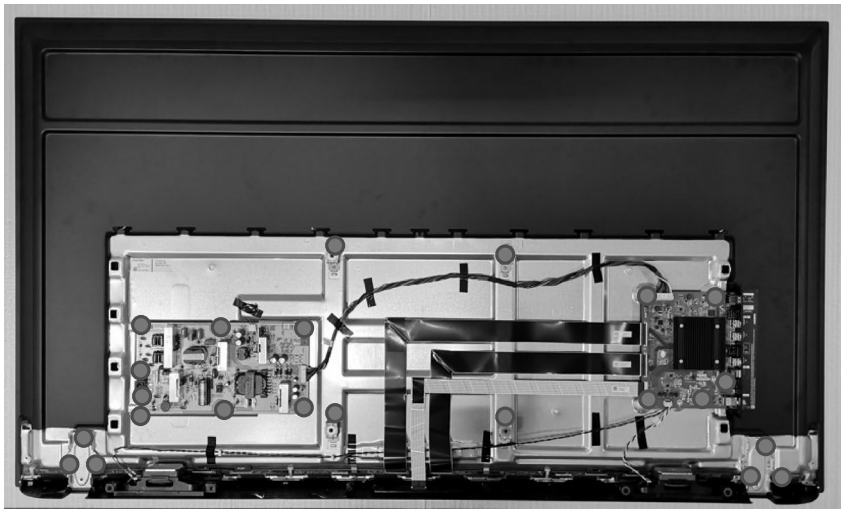
SET PART LIST

REF. NO		PART NO.	DESCRIPTION	K-65S20M2	K-65S20CM2
				UCM	U2
⚠	1	5-066-803-01	ASSY, REAR COVER (65)	•	•
	2	*5-066-791-01	VESA BKT	•	•
⚠	3	1-024-588-11	LOUDSPEAKER 12W(55/65/75)	•	•
	4	5-066-805-01	STAND ASSY(R-2) (65)	•	•
	5	5-066-804-01	STAND ASSY(L-1) (65)	•	•
	6	1-024-567-11	POWER SUPPLY 65(FSP209-1FS01)	•	•
🔒	7	A-5079-534-A	MOUNTED PWB(MB) NA Y25 FBC	•	•
	8	5-066-782-01	ASSY, I/O COVER (NA)	•	•
	9	5-068-102-01	THERMAL PAD 27X27	•	•
	10	5-068-103-01	THERMALPAD,16*16*2.4MM,PINK	•	•

SECTION 4: EXPLODED VIEW AND PART LIST 65”

SCREW

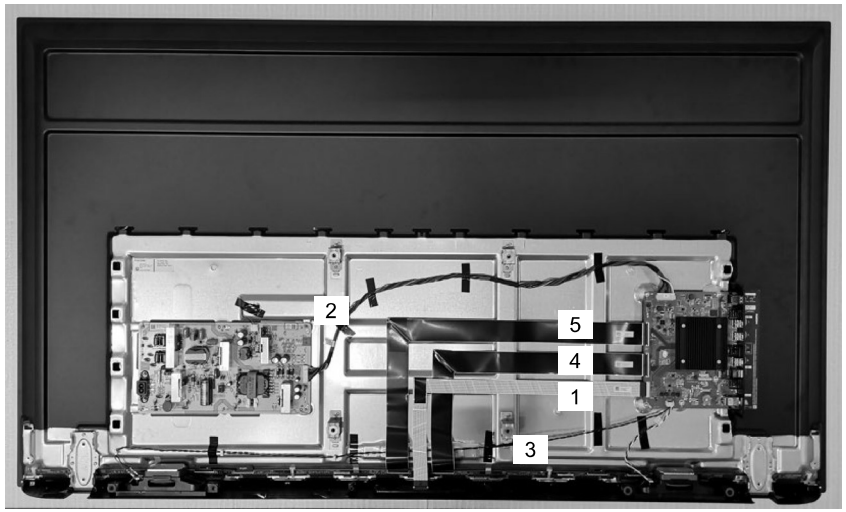




REF. NO	PART NO.	DESCRIPTION	QUANTITY	TORQUE (kgf.cm)
○	5-028-335-01	SCREW, M6*12	4	12±0.3
●	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	6	9.5±0.3
■	4-729-978-01	SCREW, +PSW M3X8, W8, BLK	2	4.0±0.3
◉	2-990-421-41	SCREW (+PSW) (M3X6)	23	4.0±0.3

SECTION 4: EXPLODED VIEW AND PART LIST 65”

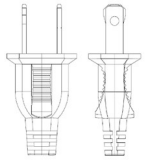
CONNECTOR



REF. NO	PART NO.	DESCRIPTION	REMARKS
1	1-024-555-11	CONNECTOR ASSY 4P (MB-SP)_65	CN802(MB)-SP(1)
2	1-024-554-11	CONNECTOR ASSY 14P (MB-PSU)_65	CN2201(MB)-CN3(PSU-board)(1)
3	1-024-556-11	CONNECTOR ASSY 45P (MB-H BD)65	CN9001(MB)-CN901(H-BD)(1)
4	1-024-578-11	CABLE_FFC_P2P(2) 68P_65	CN6001(MB)-CNX_L1
5	1-024-577-11	CABLE_FFC_P2P(1) 68P_65	CN6002(MB)-CNX_R1

SECTION 4: EXPLODED VIEW AND PART LIST 65”

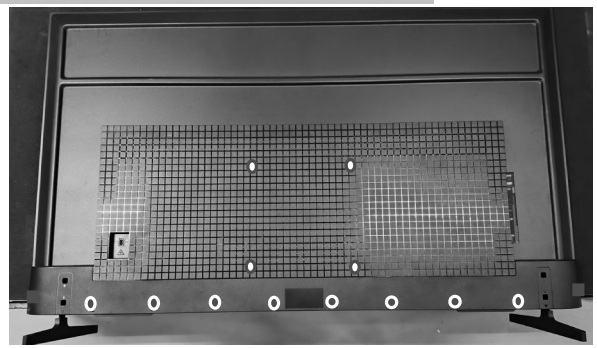
OTHER PARTS

PART NO.			DESCRIPTION	K-65S20M2	K-65S20CM2	REMARKS
				UCM	U2	
	⚠	1-012-957-21	C7L AC POWER CORD SETS (US)	•	•	-
-		1-019-559-22	REMOTE CONTROLLER, RMF-TX820U	•	•	-
-		*5-065-334-01	REFERENCE GUIDE	•	•	-
-		*5-065-340-01	SETUP GUIDE	•	•	-

SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 75”

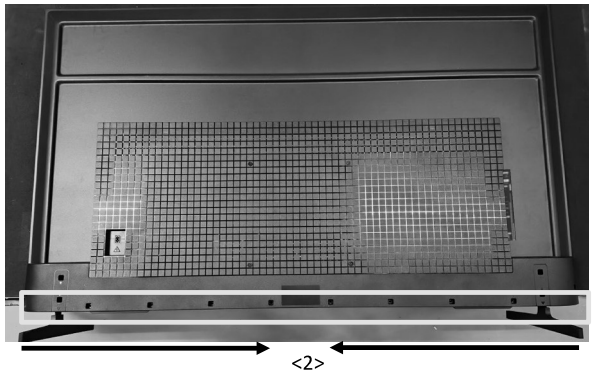
REAR COVER

1. Remove the screws from the Rear Cover (14 pcs)



<1>

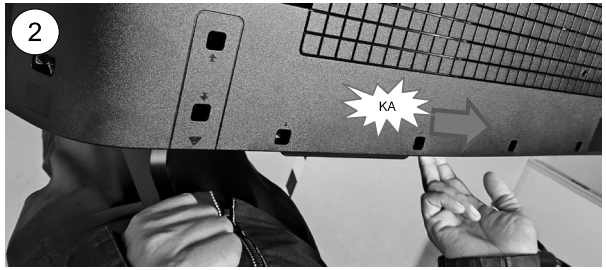
2. Unhook the bottom hook, starting from corner.

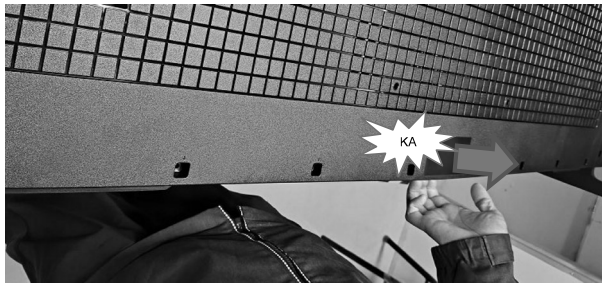


<2>

① Pull up stand area of RC (show as the picture) and the hook-opening sound can be heard.
② Pinch the rear cover edge and pull up, then rear cover hooks will be released.





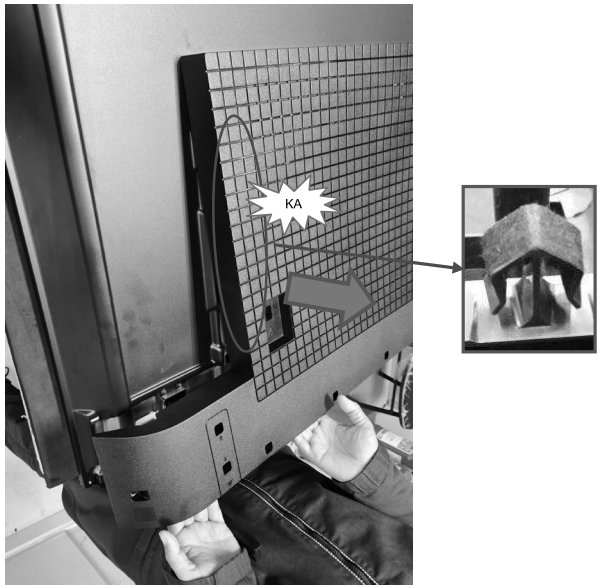


SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 75”

REAR COVER

3. Unhook left and right side hooks.

Total Rear Cover back chassis : 9 hooks





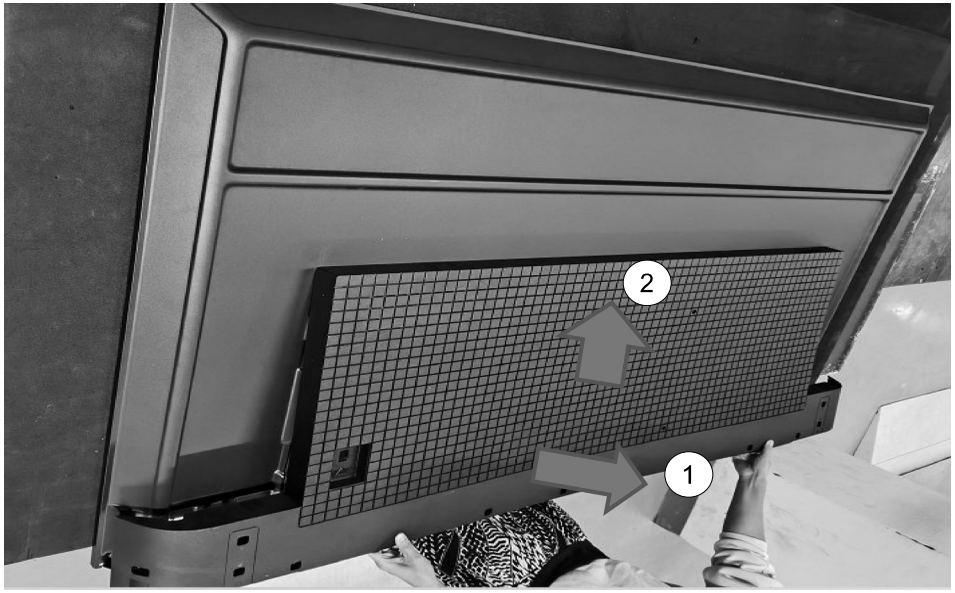
SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 75”

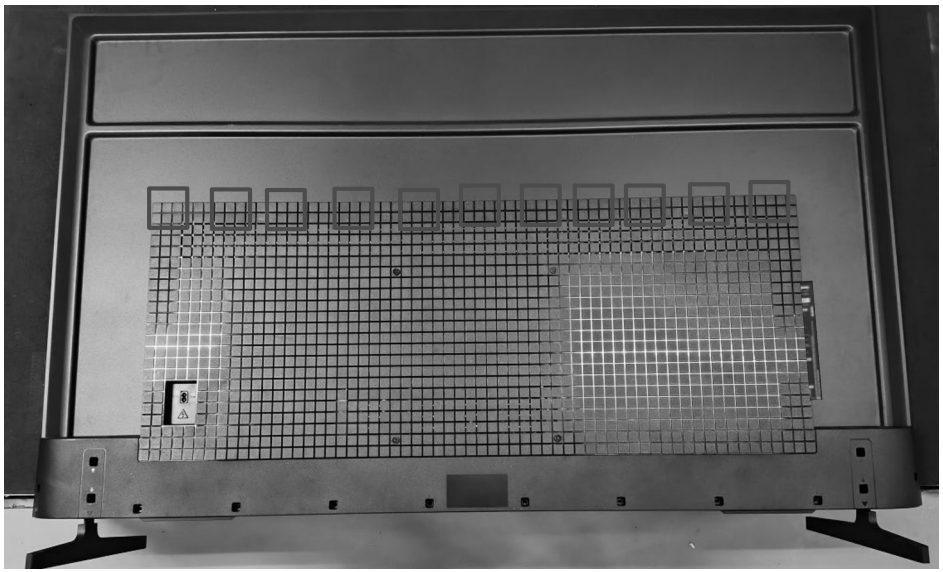
REAR COVER

4. Unhook top row.

Total Rear Cover back chassis : 11 hooks

① Raise the RC towards back side
② Push up the RC towards top side

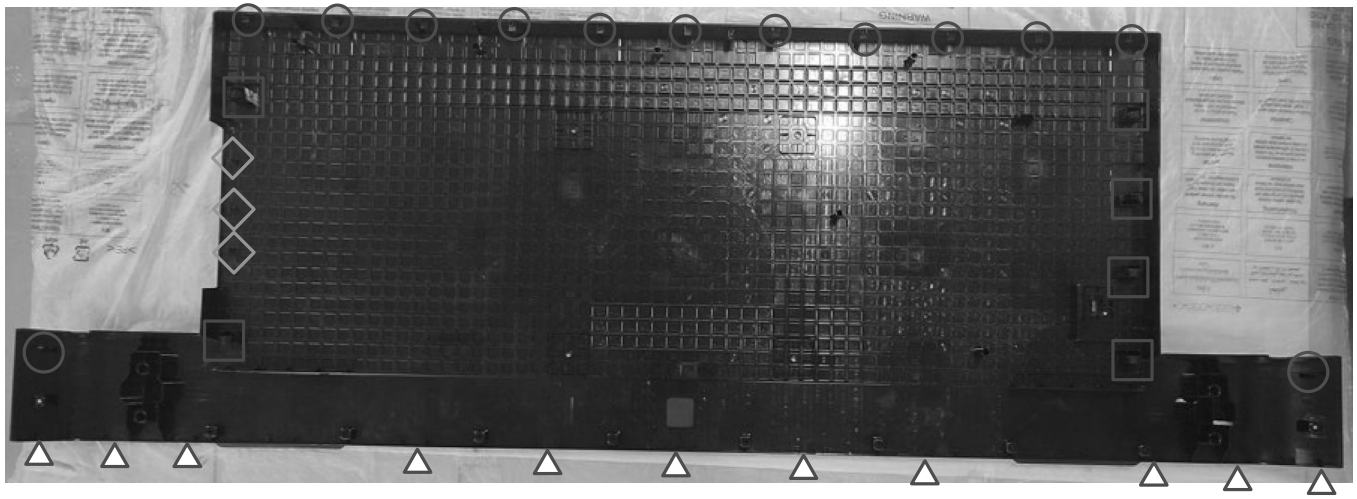


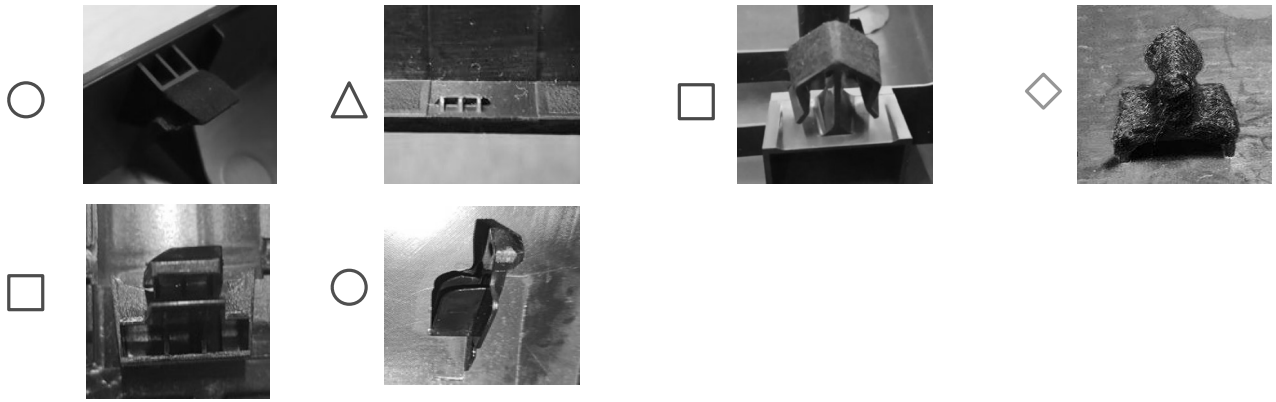


SECTION 5: DISASSEMBLY AND REMOVAL CAUTION 75”

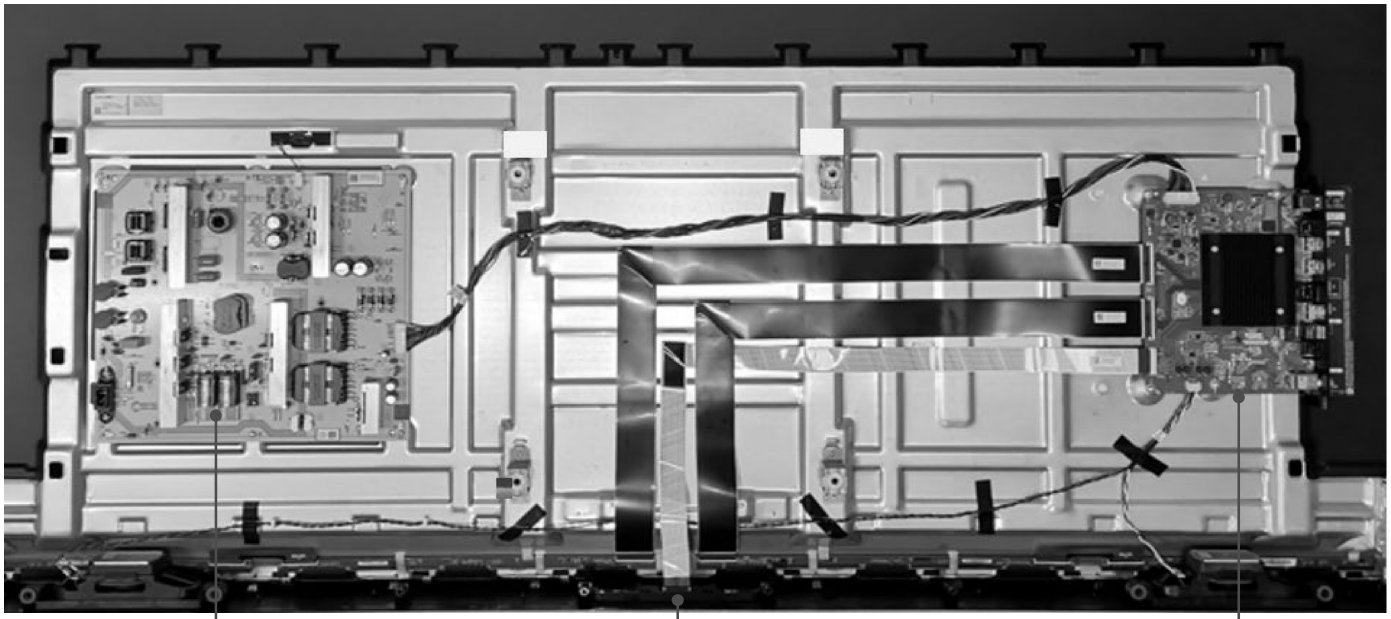
REAR COVER

Hook positioning.



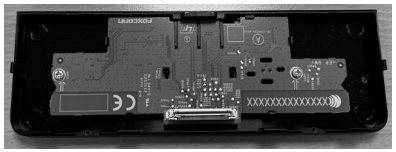


SECTION 5: BOARD LOCATION 75”



POWER BOARD

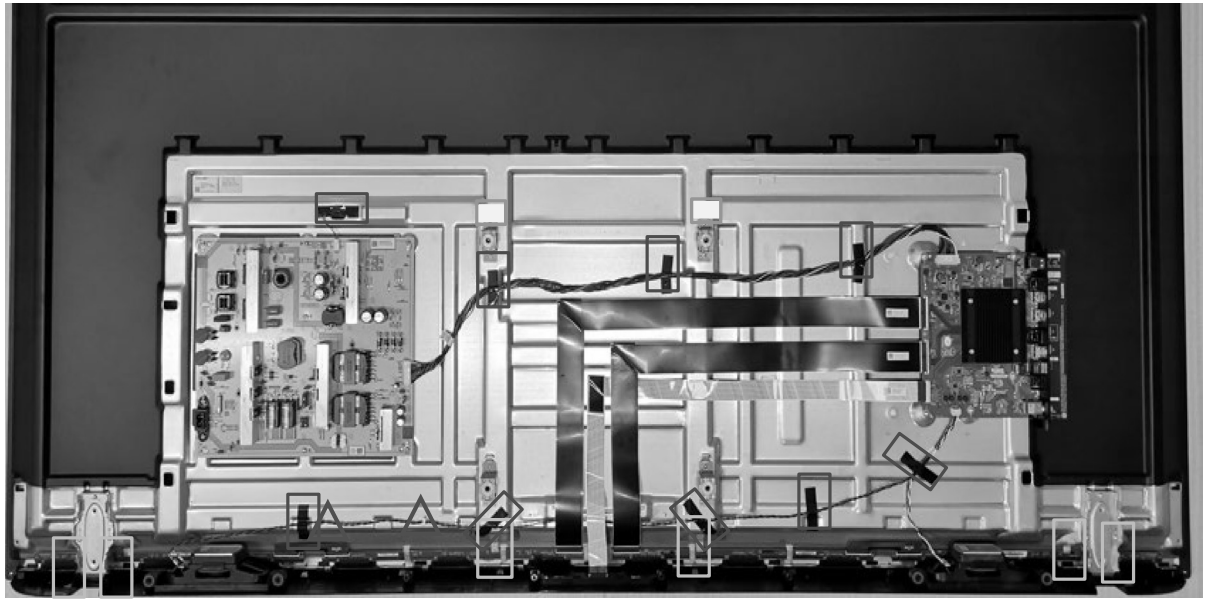
MAIN BOARD



H BOARD

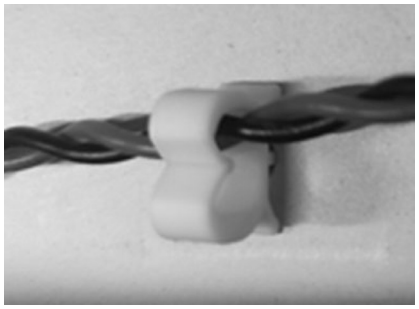
SECTION 5: WIRE DRESSING 75”

WIRE DRESSING



▭	HOLE COVER TAPE, SLIVER	2pcs
▯	3M WIRE TAPE BLACK,15*60MM	9pcs
▯	EMI TAPE 40*10MM	6pcs
△	CABLE LOCKER	2pcs

Put SPK wire into cable locker

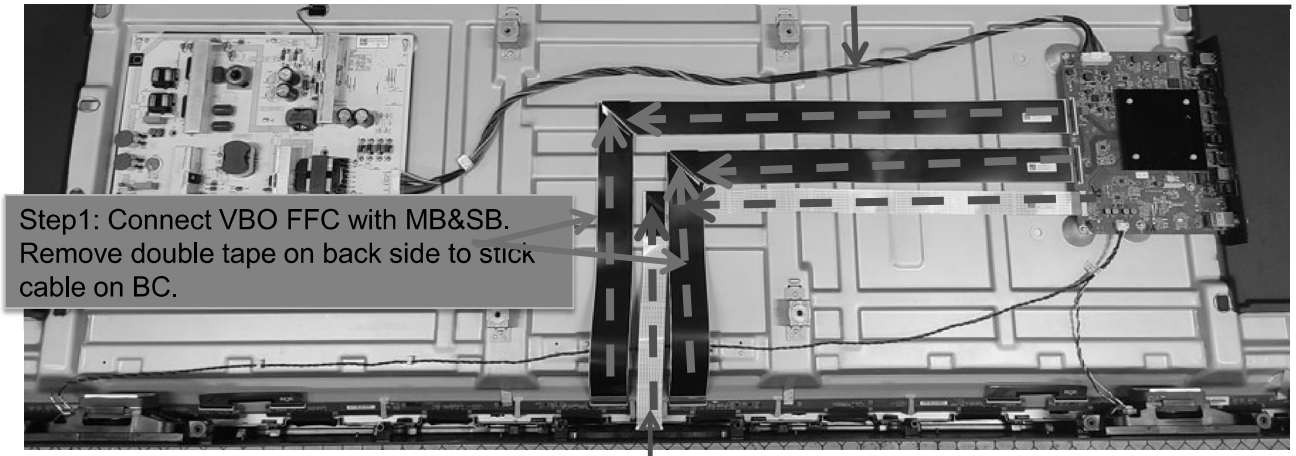


SECTION 5: WIRE DRESSING 75”

WIRE DRESSING

**Note: Connect the connector firstly and then stick double side tape

Step3: Connect PSU cable with MB&PSU.

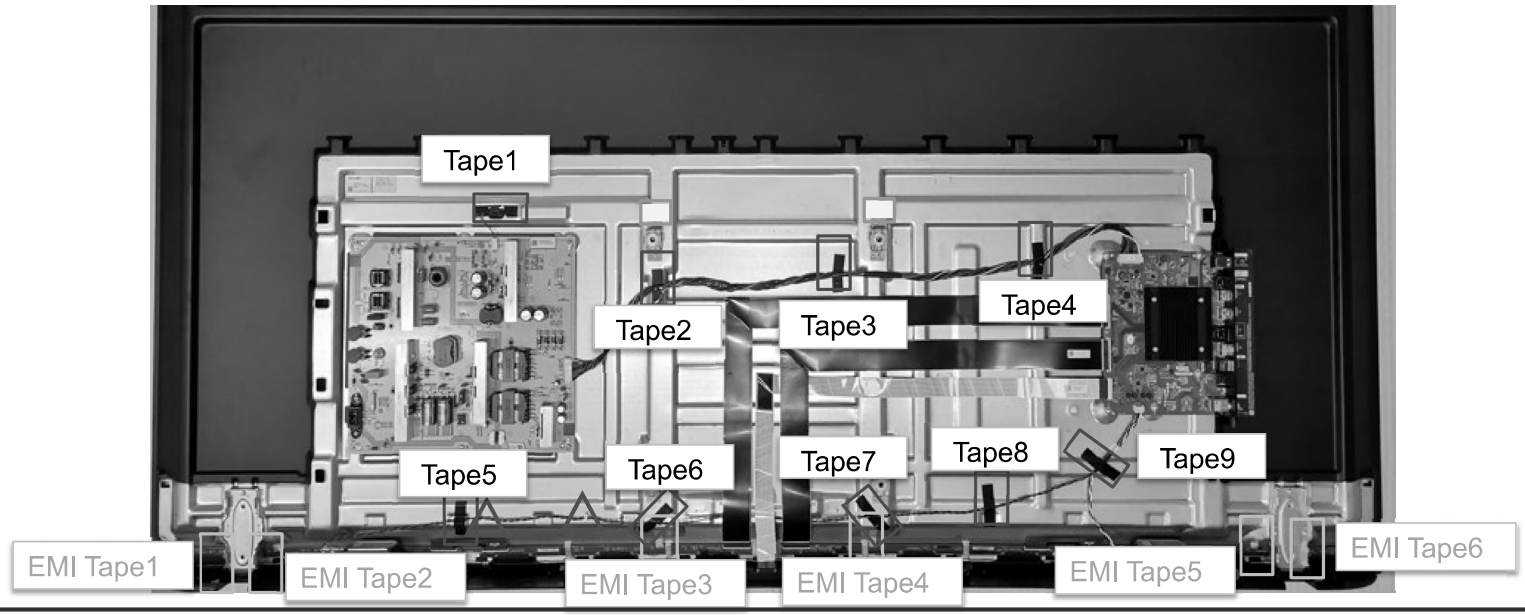


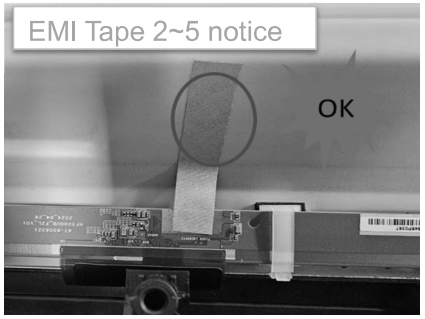
Step1: Connect VBO FFC with MB&SB. Remove double tape on back side to stick cable on BC.

Step2: Connect H-board FFC with MB. Remove double tape on back side to stick cable on BC.

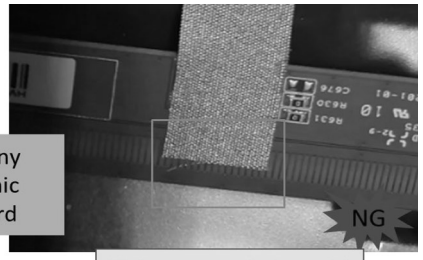
SECTION 5: WIRE DRESSING 75”

TAPE





EMI_tape must not touch any gold plated area or electronic components on source board

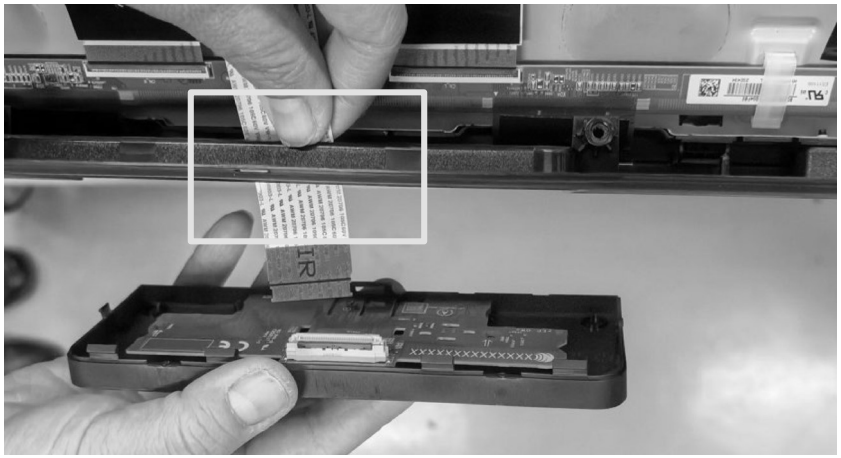


EMI tape touch the gold plated area!

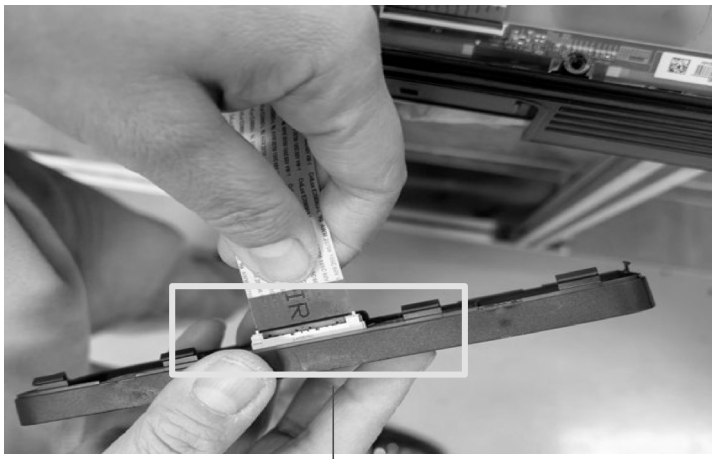
SECTION 5: WIRE DRESSING 75”

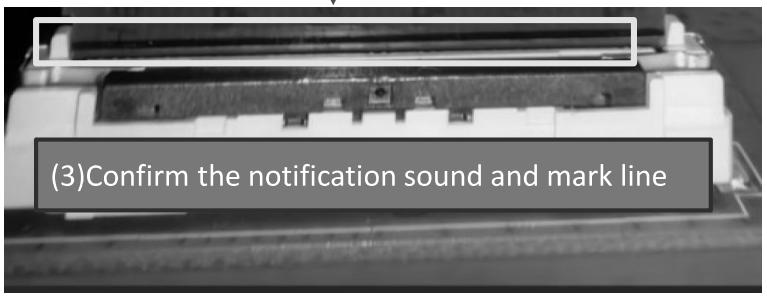
INFORMATION

(1)H_BD FFC passes the bz hole



(2)H_BD FFC assembled onto H_BD

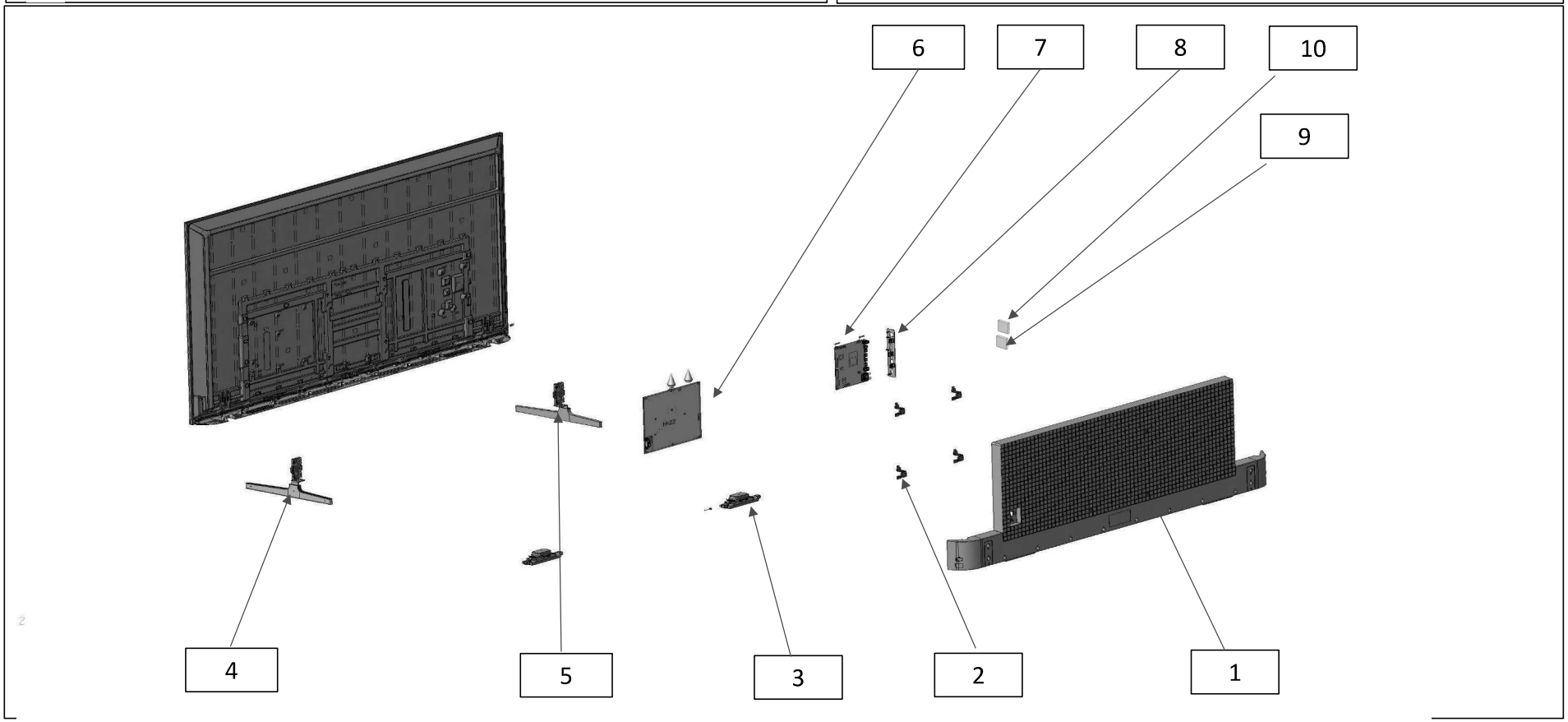




SECTION 5: EXPLODED VIEW AND PART LIST 75”

- Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.
- ⚠ and shaded parts are critical for safety. Replace only with part number specified.
- 🔒 Parts contain confidential information. Strictly follow the instruction whenever the components are repaired and/or replaced

- (*) Parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- Picture provided in this section might have slight difference from the actual sets.
- The reference number beside the part indicates the disassembly sequence.
- Remove screws before disassembly. Unplug connectors before disassembly



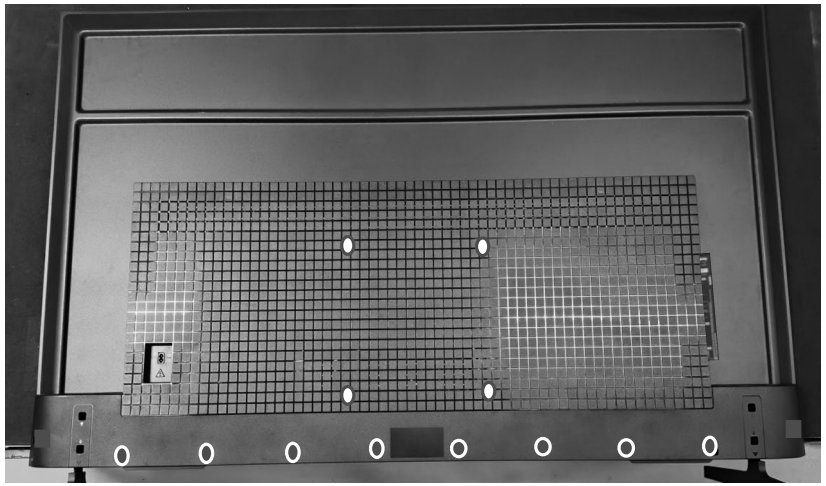
SECTION 5: EXPLODED VIEW AND PART LIST 75”

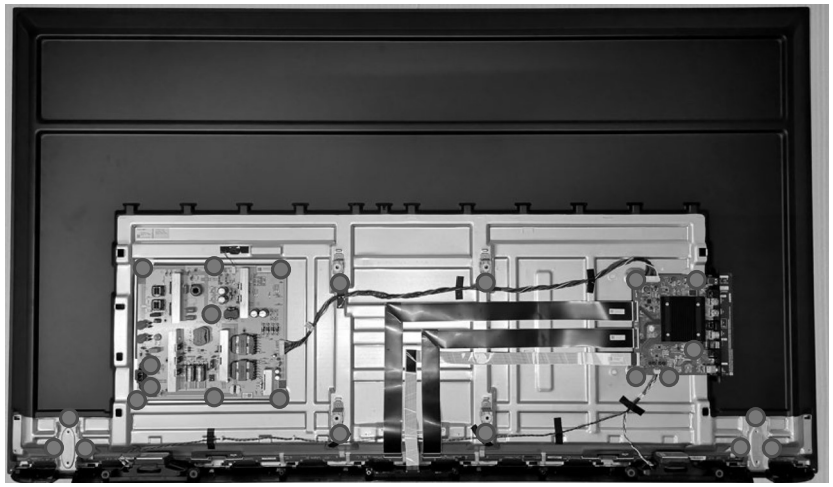
SET PART LIST

REF. NO		PART NO.	DESCRIPTION	K-75S20M2	K-75S20CM2
				UCM	U2
⚠	1	5-066-777-01	ASSY, REAR COVER (75)	•	•
	2	*5-066-791-01	VESA BKT	•	•
⚠	3	1-024-588-11	LOUDSPEAKER 12W(55/65/75)	•	•
	4	5-066-779-01	STAND ASSY(R-2) (75)	•	•
	5	5-066-778-01	STAND ASSY(L-1) (75)	•	•
	6	1-024-566-11	POWER SUPPLY 75(FSP232-1FS01)	•	•
🔒	7	A-5079-534-A	MOUNTED PWB(MB) NA Y25 FBC	•	•
	8	5-066-782-01	ASSY, I/O COVER (NA)	•	•
	9	5-068-102-01	THERMAL PAD 27X27	•	•
	10	5-068-103-01	THERMALPAD,16*16*2.4MM,PINK	•	•

SECTION 5: EXPLODED VIEW AND PART LIST 75”

SCREW

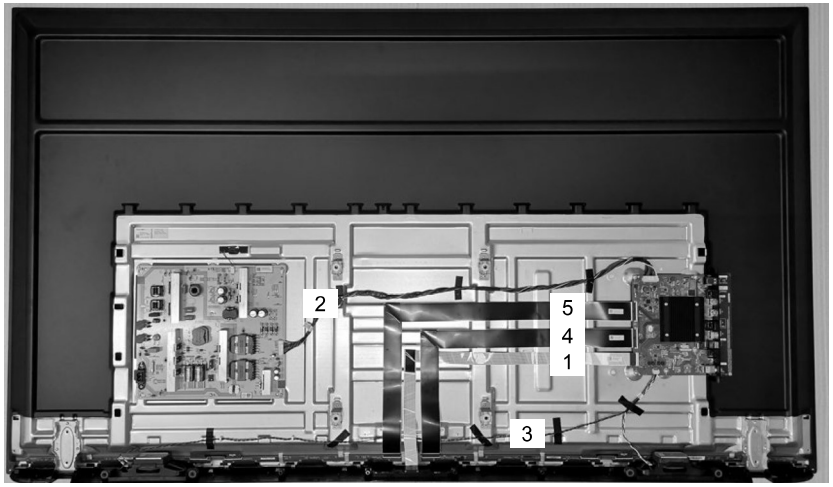




REF. NO	PART NO.	DESCRIPTION	QUANTITY	TORQUE (kgf.cm)
○	5-028-335-01	SCREW, M6*12	4	12±0.3
●	2-580-639-01	SCREW, +BVTP 4X12 TYPE2 IT-3	8	9.5±0.3
■	4-729-978-01	SCREW, +PSW M3X8, W8, BLK	2	4.0±0.3
◉	2-990-421-41	SCREW (+PSW) (M3X6)	24	4.0±0.3

SECTION 5: EXPLODED VIEW AND PART LIST 75”

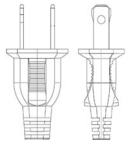
CONNECTOR



REF. NO	PART NO.	DESCRIPTION	REMARKS
1	1-024-553-11	CONNECTOR ASSY 45P (MB-H BD)75	CN802(MB)-SP(1)
2	1-024-551-11	CONNECTOR ASSY 14P (MB-PSU)_75	CN2201(MB)-CN3(PSU-board)(1)
3	1-024-552-11	CONNECTOR ASSY 4P (MB-SP)_75	CN9001(MB)-CN901(H-BD)(1)
4	1-024-576-11	CABLE_FFC_P2P(2) 68P_75	CN6001(MB)-CNX_L1
5	1-024-575-11	CABLE_FFC_P2P(1) 68P_75	CN6002(MB)-CNX_R1

SECTION 5: EXPLODED VIEW AND PART LIST 75”

OTHER PARTS

PART NO.			DESCRIPTION	K-75S20M2	K-75S20CM2	REMARKS
				UCM	U2	
	⚠	1-012-957-21	C7L AC POWER CORD SETS (US)	•	•	-
-		1-019-559-22	REMOTE CONTROLLER, RMF-TX820U	•	•	-
-		*5-065-334-01	REFERENCE GUIDE	•	•	-
-		*5-065-340-01	SETUP GUIDE	•	•	-

SMART CORE: DISASSEMBLY AND REMOVAL CAUTION

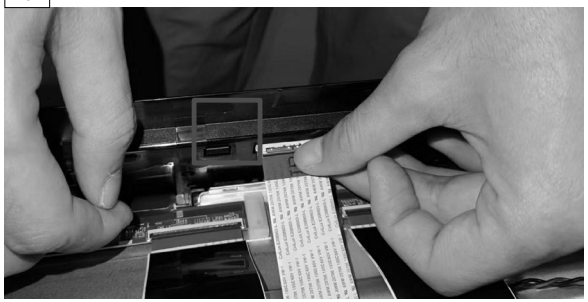
DISASSEMBLE SMART CORE

1. Push black bar of connecter to remove the FFC from H-board.

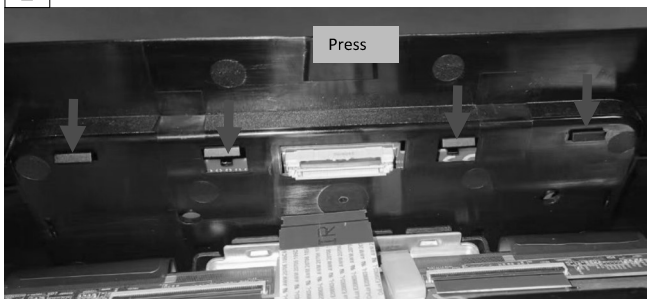
2. Push hooks of ornament panel (OP).

3. Push OP downward to take it out.

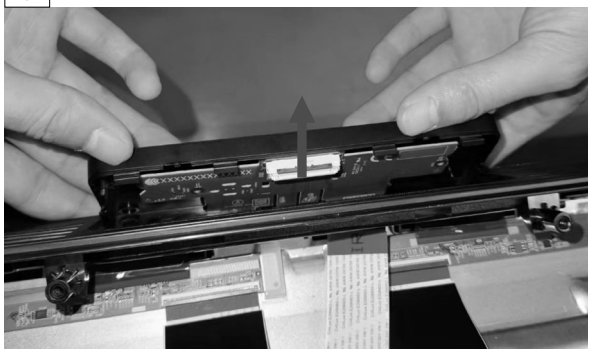
1



2



3

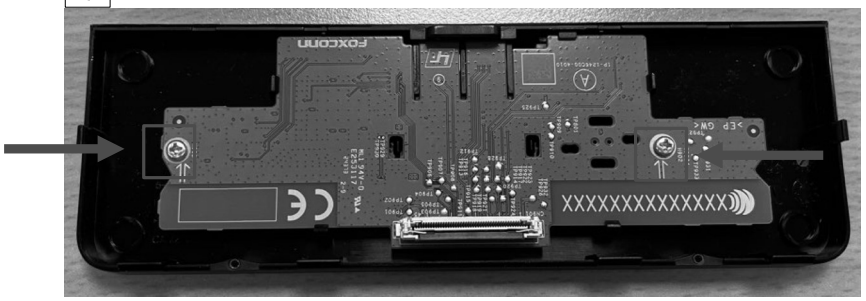


SMART CORE: DISASSEMBLY AND REMOVAL CAUTION

DISASSEMBLE RECEIVER BOARD

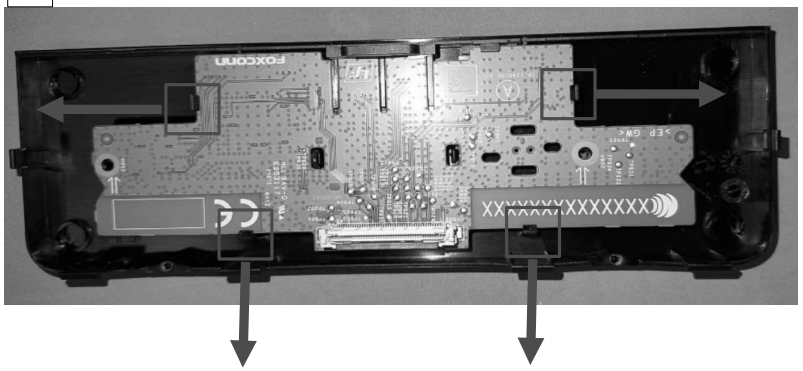
1. Remove 2pcs screw.

1

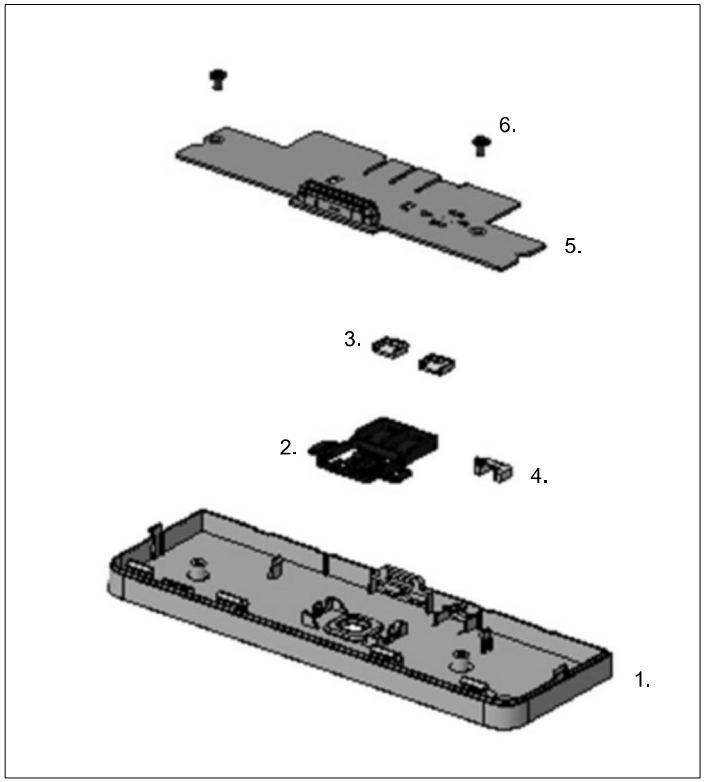


2. Push hooks follow arrow direction and disassembly H-board.

2



SMART CORE: EXPLODED VIEW AND PART LIST



REF. NO	PART NO.	DESCRIPTION	REMARKS
1	5-066-787-01	ASSY, OP COVER W/O MIC	-
2	5-066-786-01	ASSY, KEY COVER	-
3	5-066-784-01	LIGHT GUIDE	2pcs
4	5-066-785-01	LIGHT SENSOR GUIDE	-
5	1-024-574-11	MOUNTED PWB(H BD) FBC	-
6	5-067-566-01	SCREW,+BTP T2.6*L5	2pcs

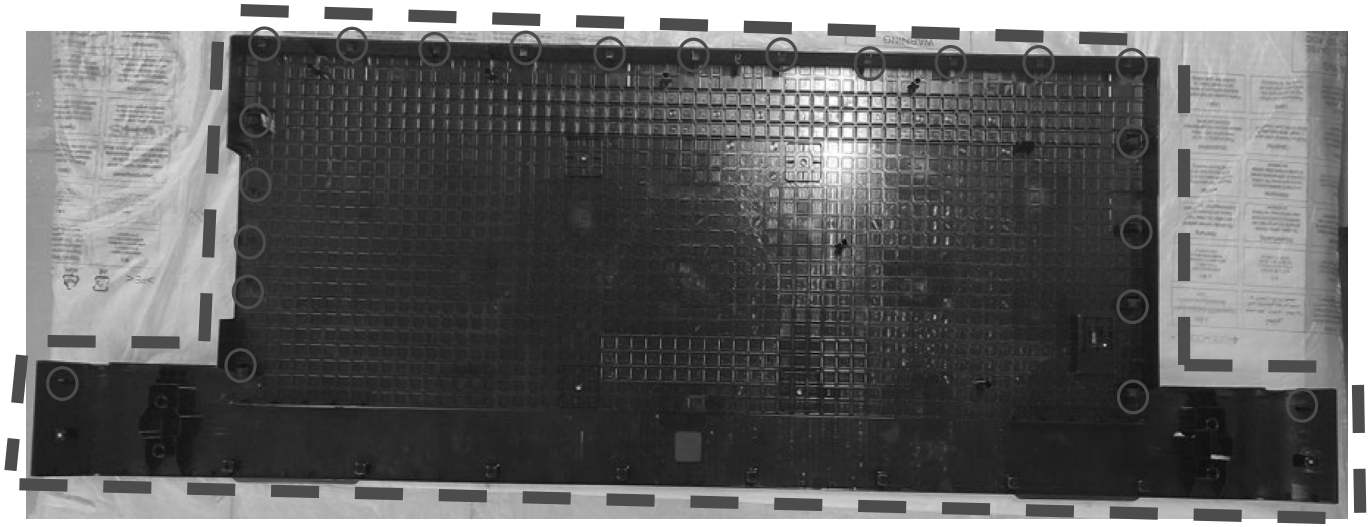
APPENDIX: SHARP EDGE

- Please wear gloves when removing rear cover to avoid sharp edge at bottom side and hook area as shown in the next figure.

: Sharp edge and sharp corner

Hook position may vary according to inch

: Sharp edge



WITHDRAWAL OF 45P FFC CONNECTOR -1 (MB side)

Step 1 – Lock release :
Push the side-release lock buttons inward (Push at both end)
(highlighted in blue).

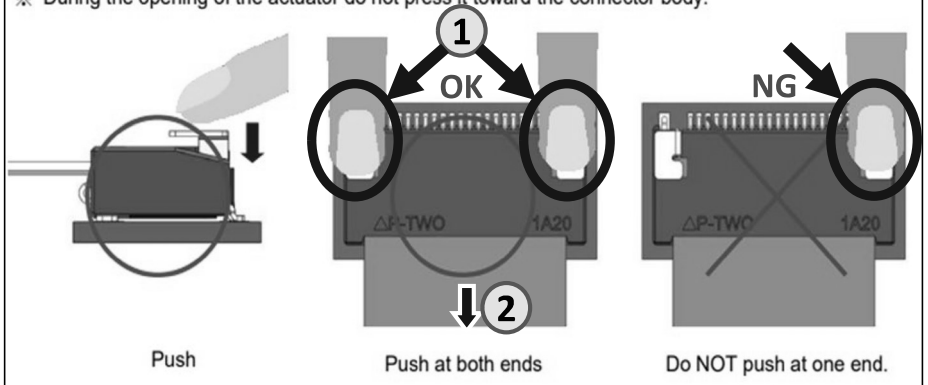
FPC/FFC removal (Lock release)

While holding down the top of the redease lever, the FPC/FFC pull out.

※ Do not operate the actuator from one end only.

※ Do not attempt to open it past this angle or grasp it.

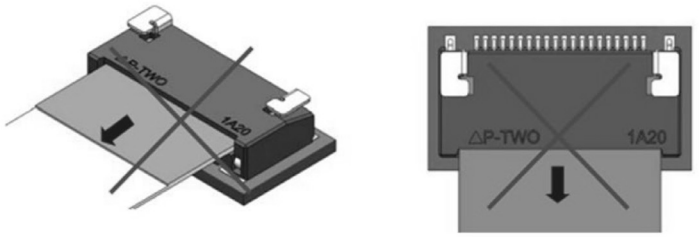
※ During the opening of the actuator do not press it toward the connector body.



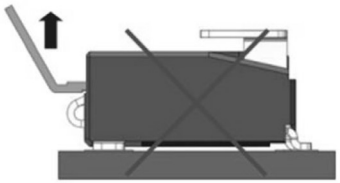
Step 2 – Pull-out FFC :
Pull-out FFC in straight direction while pushing side-release lock buttons at the same time.

Caution

※ Do not removal FFC/FPC when Lock is closed.

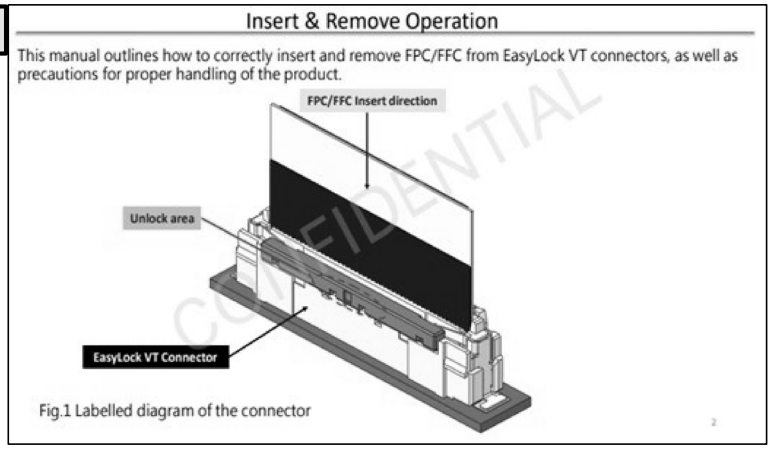


※ Application of excessive force to the inserted FPC/FFC may cause damage to connector and may affect the reliability of electrical connection.
If specific application requires continuous or repeated pull or bend of the inserted FPC/FFC, assure that the forces are NOT transmitted directly to the connector.



WITHDRAWAL OF 45P FFC CONNECTOR -2 (H-board side)

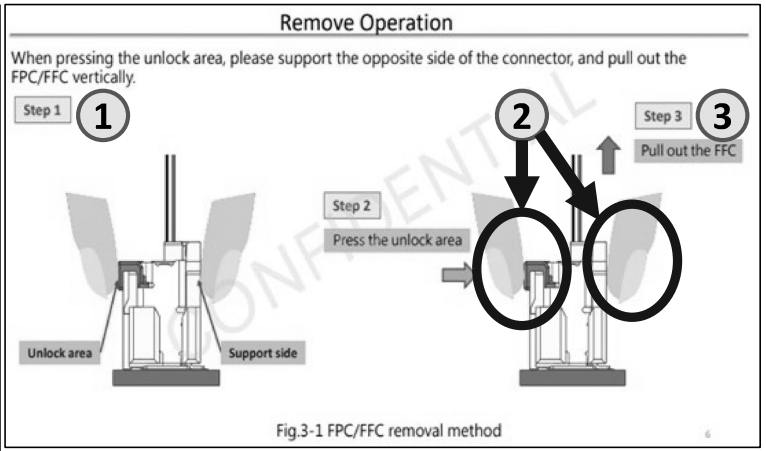
Initial condition



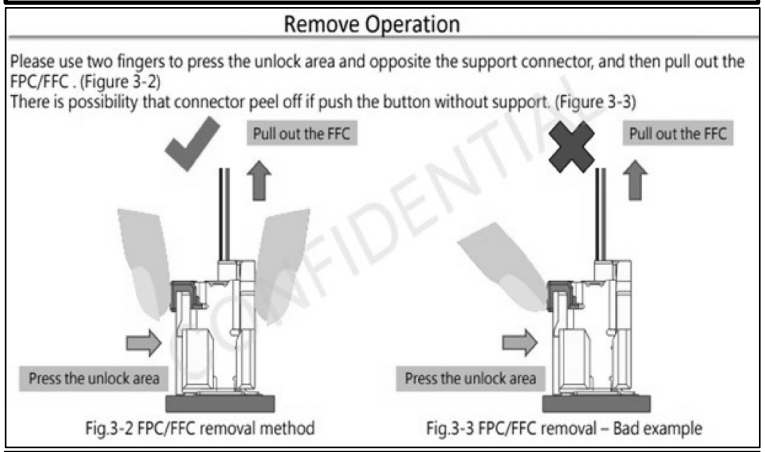
Step 1 – Find the unlock area

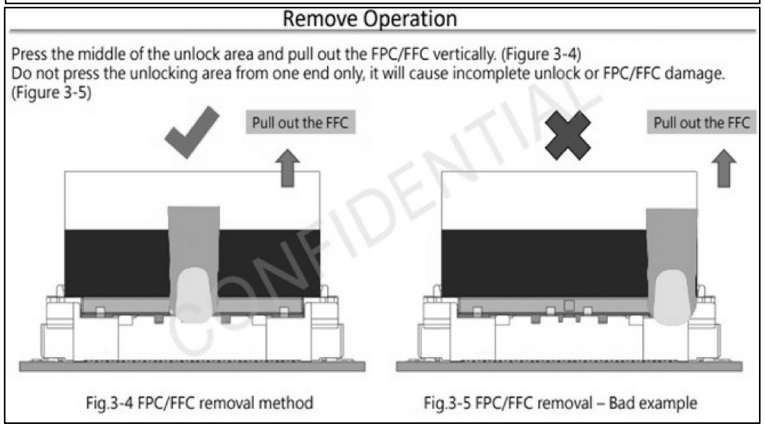
Step 2 – Lock release :
Push the unlock area inward, And support the opposite side of the connector (Push at both side)
(highlighted in blue).

Step 3 – Pull-out FFC :
Pull-out FFC in straight direction while pushing the unlock area at the same time.



Caution



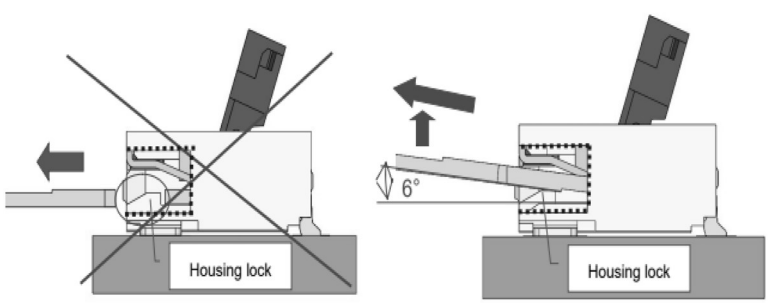


WITHDRAWAL OF 68P FFC CONNECTOR

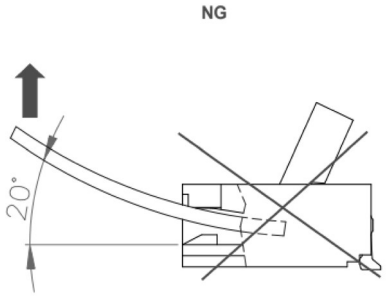
Step 1



Step 2



When the FFC taking out, it needs to be lifted up past the housing lock



When taking out the FFC, the angle should not be greater than 20◦

1. Open and flip actuator.
   Please operate in the center of the cover, and do not operate on both sides

2. Pull-out FFC in straight direction.
   When the FFC taking out, it needs to be lifts up past the housing lock.

Note: FFC as in image is only for reference purpose.
Actual FFC outlook may vary by each vendor.

© 2025