

## HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

# ***SERVICE MANUAL***

**ORIGINAL MANUAL ISSUE DATE: 02/2015**

**GN1S CHASSIS**

**Segment: SE2N**

<b>Version</b>	<b>Date</b>	<b>Subject</b>
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1.0	02/2015	Original manual issue.
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**LCD TV**

**SONY®**

# ***SERVICE MANUAL***

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GN1S CHASSIS

Segment: SE2N

LCD TV

**SONY®**

# MODEL LIST

<i>MODEL</i>	<i>COLOR</i>	<i>COMMANDER</i>	<i>DEST.</i>
<b>KDL-32R500C</b>	<i>Black</i>	<i>RMT-TX102U</i>	(UC2) US/CND
<b>KDL-32R505C</b>	<i>Black</i>	<i>RMT-TX102B</i>	(CR1) COSTA RICA (ECU) ECUADOR (LA8) CHILE PERU VENEZUELA
<b>KDL-32R507C</b>	<i>Black</i>	<i>RMT-TX102B</i>	(CO1) COLOMBIA
<b>KDL-40R510C</b>	<i>Black</i>	<i>RMT-TX102U</i>	(U2) US
<b>KDL-40R550C</b>	<i>Black</i>	<i>RMT-TX102U</i>	(LA1) MX (UC2) US/CND
<b>KDL-40R555C</b>	<i>Black</i>	<i>RMT-TX102B</i>	(CR1) COSTA RICA (ECU) ECUADOR (LA8) CHILE PERU VENEZUELA

<i>MODEL</i>	<i>COLOR</i>	<i>COMMANDER</i>	<i>DEST.</i>
<b>KDL-40R557C</b>	<i>Black</i>	<i>RMT-TX102B</i>	(CO1) COLOMBIA
<b>KDL-48R510C</b>	<i>Black</i>	<i>RMT-TX102U</i>	(U2) US
<b>KDL-48R550C</b>	<i>Black</i>	<i>RMT-TX102U</i>	(LA1) MX (UC2) US/CND
<b>KDL-48R555C</b>	<i>Black</i>	<i>RMT-TX102B</i>	(BR6) BRAZIL (CR1) COSTA RICA (ECU) ECUADOR (LA8) CHILE PERU VENEZUELA
<b>KDL-48R557C</b>	<i>Black</i>	<i>RMT-TX102B</i>	(CO1) COLOMBIA

# WARNINGS AND CAUTIONS - ENGLISH

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## CAUTION

These servicing instructions are for use by qualified service personnel only.

To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

## 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.

## 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.

## SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and  $\Delta$  mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. 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 operation are identified in this manual.

Follow these procedures whenever critical components are replaced or improper operation is suspected.

## CAUTION ABOUT THE LITHIUM BATTERY

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

# WARNINGS AND CAUTIONS - FRENCH

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## ATTENTION!!

Ces instructions de service sont à l'usage du personnel de service qualifié seulement.

Pour prévenir le risque de choc électrique, ne pas faire l'entretien autre que celui contenu dans le Mode d'emploi à moins que vous soyez qualifié pour le faire ainsi.

## WARNING!!

Afin d'éviter tout risque d'électrocution provenant d'un châssis sous tension, un transformateur d'isolement doit être utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

## POUR TRANSPORTER LE TÉLÉVISEUR


Tenez compte de ce qui suit pendant l'installation du téléviseur :

- Débranchez tous les câbles avant de transporter le téléviseur.
- Transportez le téléviseur avec le nombre de personnes approprié ; un téléviseur de grande taille doit être transporté par au moins deux personnes.
- Lors du transport du téléviseur, l'emplacement des mains est très important pour votre sécurité, ainsi que pour éviter de causer des dommages.

## ALERTE!!

Afin d'éviter tout risque d'électrocution provenant d'un châssis sous tension, un transformateur d'isolement doit être utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

## ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

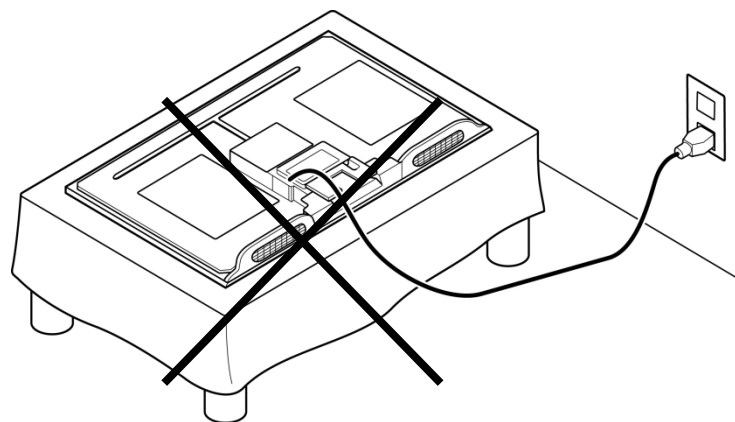
Les composants identifiés par une trame et par une marque  sur les schémas de principe, les vues explosées et les listes de pièces sont d'une importance critique pour la sécurité du fonctionnement. Ne les remplacer que par des composants Sony dont le numéro de pièce est indiqué dans le présent manuel ou dans des suppléments publiés par Sony. Les réglages de circuit dont l'importance est critique pour la sécurité du fonctionnement sont identifiés dans le présent manuel. Suivre ces procédures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

## USE CAUTION WHEN HANDLING THE LCD PANEL

When repairing the LCD panel, be sure you are grounded by using a wrist band.

When repairing the LCD panel on the wall, the LCD panel must be secured using the 4 mounting holes on the rear cover.

- 1) Do not press on 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 temperatures or in areas of high humidity for an extended period of time.
- 4) Do not expose the LCD panel to direct sunlight.
- 5) Avoid contact with water. It may cause a short circuit within the module.
- 6) Disconnect the AC power when replacing the backlight (CCFL) or inverter circuit. (High voltage occurs at the inverter circuit at 650Vrms.)
- 7) Always clean the LCD panel with a soft cloth material.
- 8) Use care when handling the wires or connectors of the inverter circuit. Damaging the wires may cause a short.
- 9) Protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).
- 10) It is recommended not to exceed 1 hour of Power-On nor Burn-in period with LCD panel face down condition, in repair activity.



# SAFETY CHECK-OUT

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

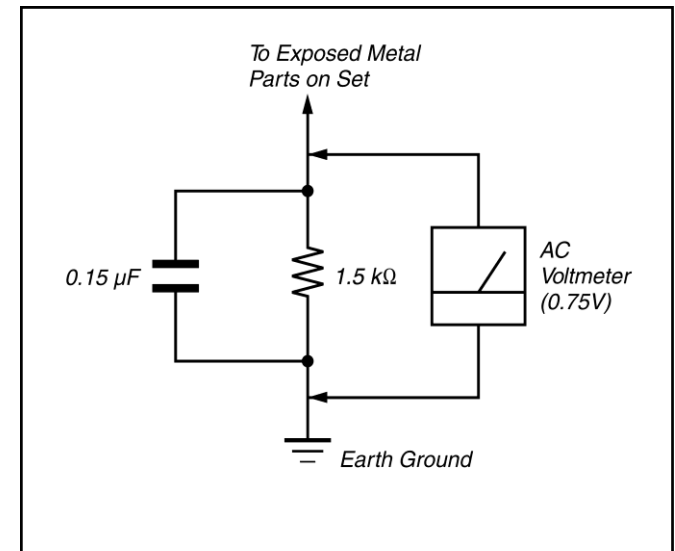
1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are “pinched” or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that 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 their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their 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, “metallized” knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.
8. For safety reasons, repairing the Power board and/or Inverter board is prohibited.

### Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes).

Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).



FigureA. Using an AC voltmeter to check AC leakage.

### How to Find a Good Earth Ground

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

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.

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 B).

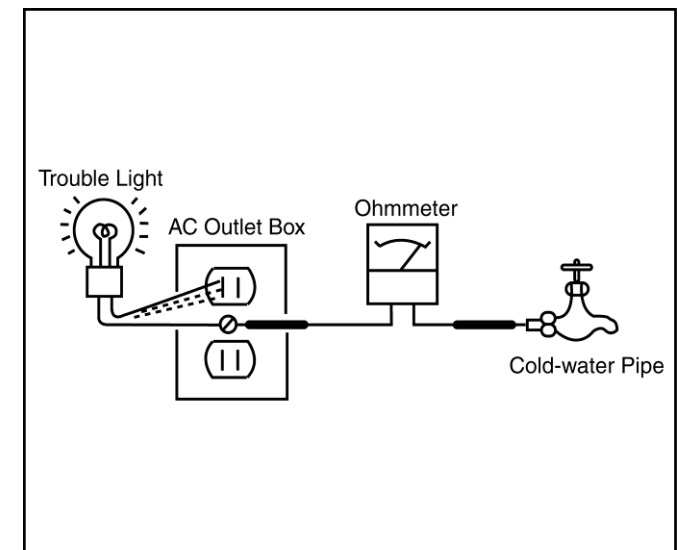


Figure B. Checking for earth ground.



**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

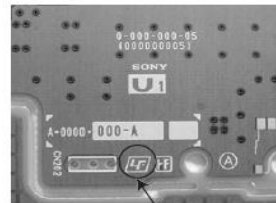


Figure 5: LF logo on circuit board

**Handling the FLEXIBLE FLAT CABLE (FFC)**

When you insert / pull out FFC, please grasp a reinforcement board and main body of FFC

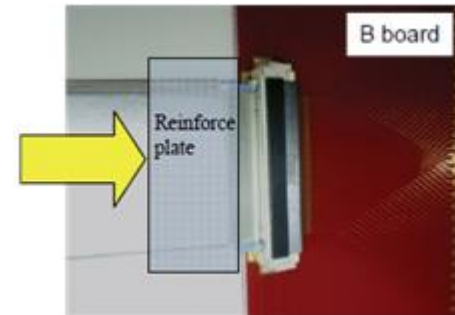


<GOOD>



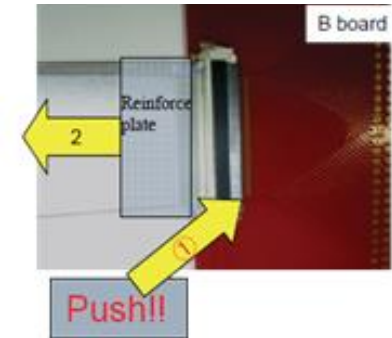
<NG>

Please hold reinforcement board and plunge it to depths.

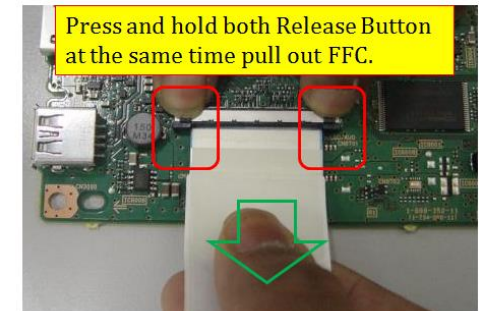
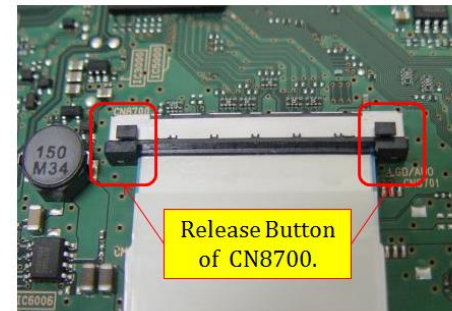


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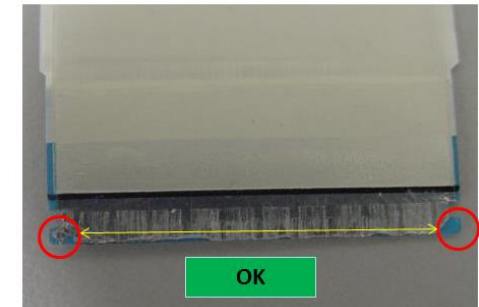
Please pull out FFC while pushing the button of both ends at the same time.



< Pull out >



FFC connector broken if pull out FFC without press and hold both Release Button of CN8700. Symptom 5X blinkings will be appear due to improperly seated.



# SELF DIAGNOSIS FUNCTION

## OUTLINE OF SELF DIAGNOSIS FUNCTION

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY 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 STANDBY 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.

## ABOUT ILLUMINATION LED

Amber = Red + Green
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Status	LED Color	Remarks
Power Off ( AC Off and *1)	OFF	*1 power switch off (by touch button)
Power On	Green	
Standby(by remote control off and Side Key off)	OFF	
Picture Off	Green	
Set "Sleep Timer"	Amber	
Set "On Timer" ( Power On )	Amber	
Set "On Timer"( Standby )	Amber	
Picture Frame	Amber	
Failure	Red Blinking	The number of LED blinking indicates cause of failure.
Error of panel ID	Amber/Green Blinking	Blinking:0.5sec Amber/ 0.5sec Green
Software Updating	Amber Blinking	Blinking: 1sec On / 1sec Off

**DIAGNOSTIC TEST INDICATORS**

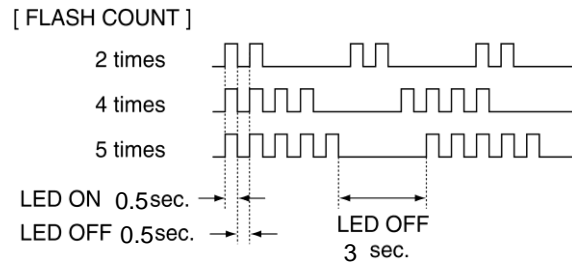
When an error occurs, the STANDBY LED will flash a set number of times to indicate the possible cause of the problem.

If there is more than one error, the LED will identify the first of the problem areas.

Result for all of the following diagnostic items are displayed on screen.

If the screen displays a “0”, no error has occurred .

**DISPLAY OF STANDBY LED FLASH COUNT**



Note: One flash counts is not self-diagnostic.

The Number of Standby LED (RED blinking)	Error Detection	Error Location
2	Main Power Error	AC adapter Error
3	Audio Error	B* board Error
4	Panel Power Error	B* board Error
5	Panel I2C COMM Error	B* or Source board Error
6	Backlight Error	B* board Error
7	Subwoofer Error	B* board Error

Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**SELF-DIAGNOSTIC SCREEN DISPLAY**

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure for confirmation on the screen:

**[To Bring Up Screen Test]**

In standby mode, press buttons on the remote commander sequentially in rapid succession as shown below:

i+ (info) ➔ Channel **5** ➔ Volume <sup>\*</sup> **-** ➔ **TV POWER**

\* : Note that this differs from entering the service mode (volume +)

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen. After you have completed the repairs, clear the result display to “0”.

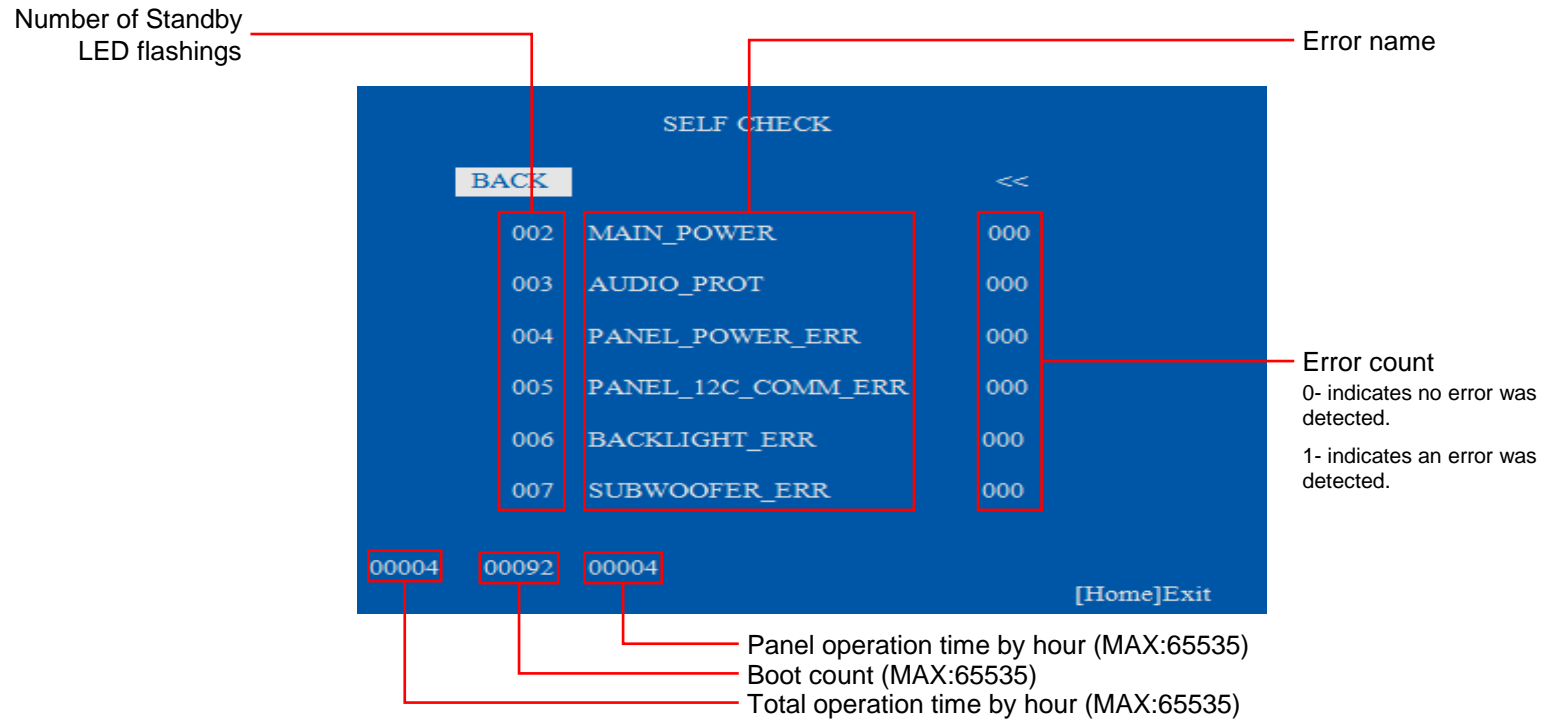
**Clearing the Self Check Diagnostic List**

1. Error history and Error count : Press the Channel 8 => Channel 0 .
2. Panel operation time : Press the Channel 7 => Channel 0 .

**Exiting the Self-diagnostic screen**

To exit the Self Diagnostic screen, turn off the power to the TV by pressing the POWER button on the remote or the POWER button on the TV.

**[SELF DIAGNOSTIC SAMPLE SCREEN DISPLAY]**



# SEC 1. DISASSEMBLY AND PARTS LIST

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- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " \* " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

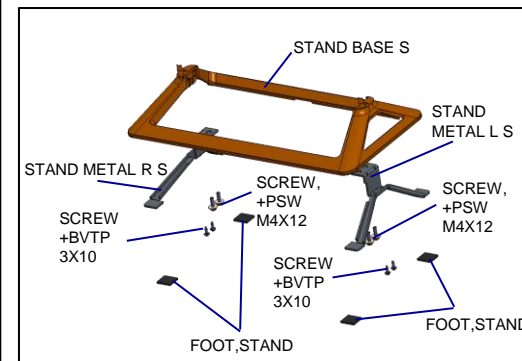
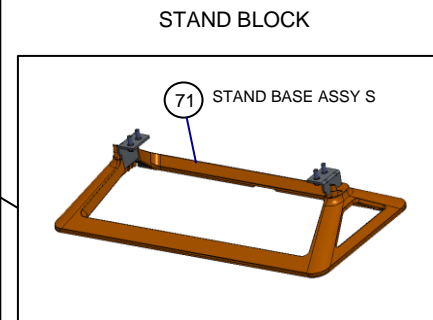
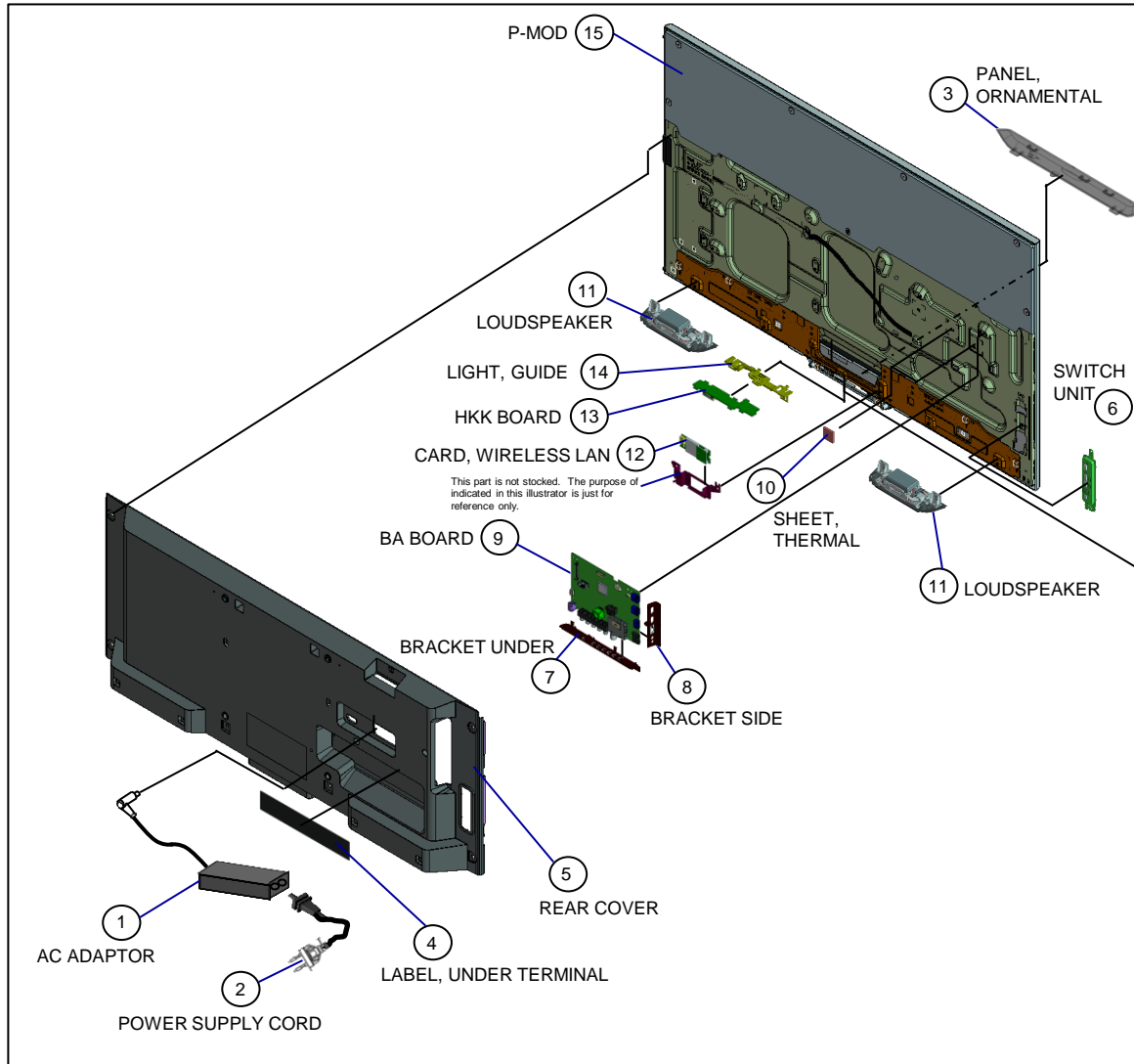
The components identified by shading and mark  $\triangle$  are critical for safety. Replace only with part number specified.

The components identified by mark  $\square$  contain confidential information. Strictly follow the instructions whenever the components are repaired and/or replaced.

Note: About the rear cover disassembly method, please refer to “APPENDIX-2”.

1-1. KDL-32R500C/505C/507C

1-1-1. Disassembly, Exploded View



**1-1. KDL-32R500C/505C/507C****1-1-1. Disassembly, Exploded View**

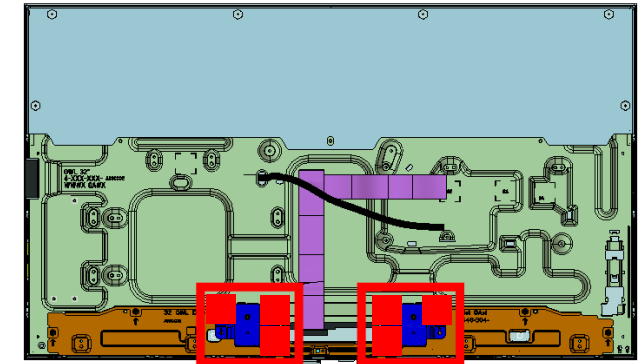
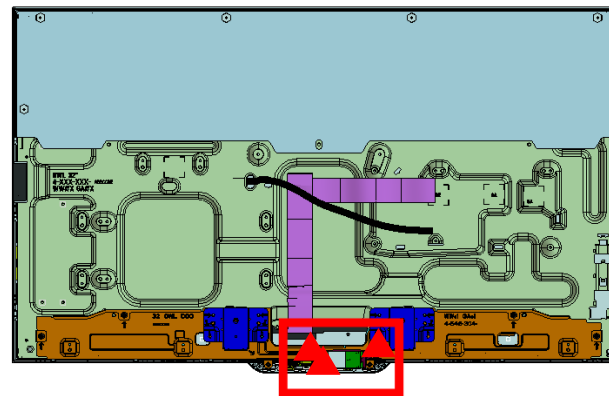
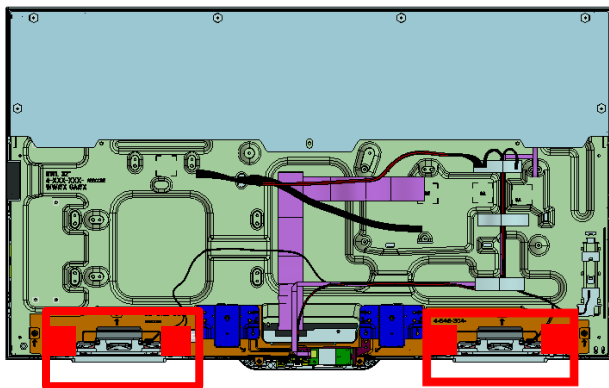
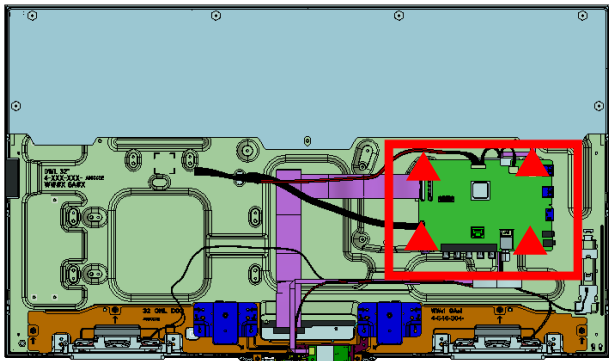
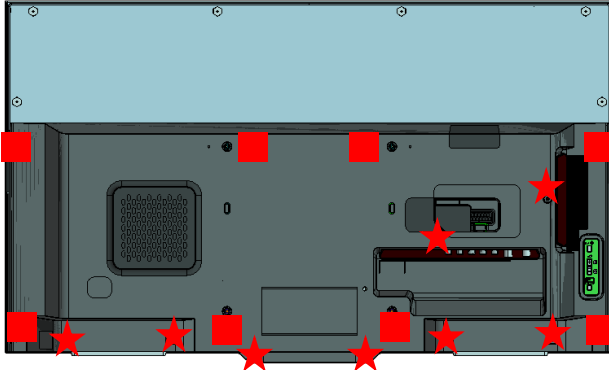
REF. No.	PART No.	DESCRIPTION	MARK	REF. No.	PART No.	DESCRIPTION	MARK
1	▲ 1-492-997-11	AC ADAPTOR (45W)		71	4-566-394-21	STAND BASE ASSY S (OWL)	
2	▲ 1-846-090-31	CORD SET, POWER-SUPPLY	CO1/UC2				
2	▲ 1-846-420-11	CORD SET, POWER-SUPPLY	LA8/CR1/ECU				
3	4-566-496-01	PANEL, ORNAMENTAL (OWL)					
4	4-549-627-01	LABEL, UNDER TERMINAL	UC2				
4	4-549-627-11	LABEL, UNDER TERMINAL	CO1/LA8/CR1/ECU				
5	4-566-589-01	REAR COVER (32OWL) A	UC2				
5	4-566-589-11	REAR COVER (32OWL) A	CO1/LA8/CR1/ECU				
6	1-492-517-21	SWITCH UNIT					
7	4-565-427-01	BRACKET, UNDER (OWL)	UC2				
7	4-565-427-11	BRACKET, UNDER (OWL)	CO1/LA8/CR1/ECU				
8	4-565-416-11	BRACKET, SIDE (OWL)					
9	🔒 A-2066-876-B	COMPL SVC BA_SE2N_BR_32W	LA8/CR1/ECU				
9	🔒 A-2066-906-B	COMPL SVC BA_SE2N_LA_32W	CO1				
9	🔒 A-2066-938-B	COMPL SVC BA_SE2N_UC_32W	UC2				
10	4-564-765-01	SHEET,THERMAL(5595)					
11	1-859-099-11	LOUDSPEAKER					
12	1-458-751-21	CARD, WIRELESS LAN					
13	A-2066-599-A	HKK(MOUNT)					
14	4-566-498-01	LIGHT, GUIDE (OWL)					
15	▲ A-2069-838-A	P-MOD (IS5F320VNO0101)					



1-1. KDL-32R500C/505C/507C

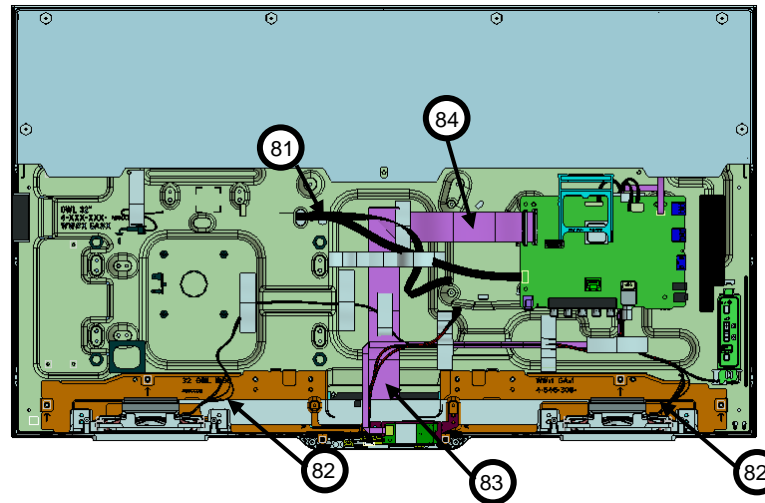
1-1-2. Screws

Ref	Part No	Description
■	4-167-019-21	SCREW, +PSW M3X8
●	2-580-602-01	SCREW, +PSW M4X12
▲	2-990-421-41	SCREW (+PSW) (M3X6)
★	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3



1-1. KDL-32R500C/505C/507C

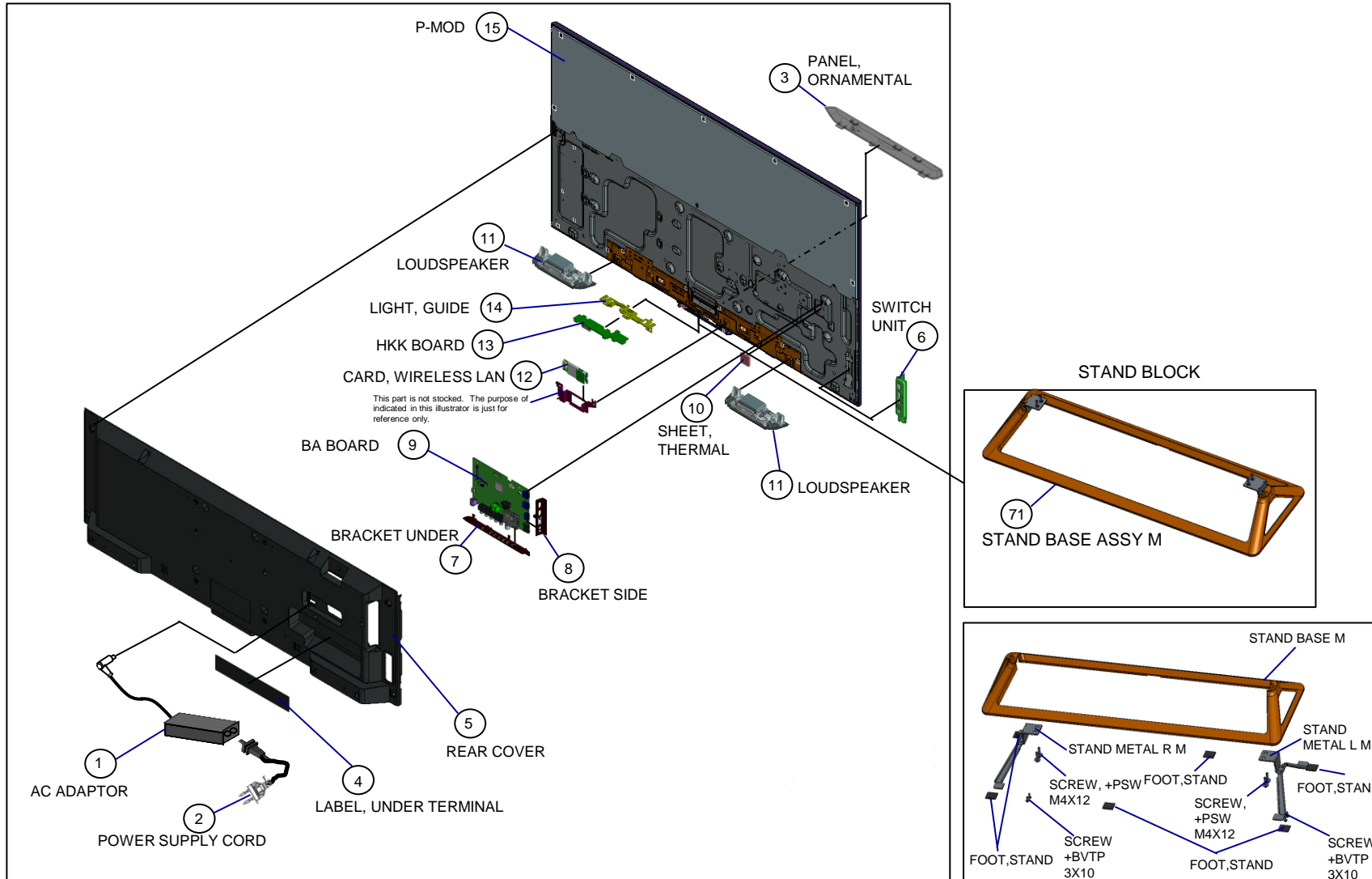
1-1-3. Connectors



REF. No.	PART No.	DESCRIPTION	MARK
81	1-910-805-23	CONNECTOR ASSY 10P	[CN9000(BA/BE)-(LS) (1)]
82	1-910-805-19	HARNESS ASSY	[CN9700(BA)-(H-BOARD)-(TACT KEY) / CN4001(BA)-(SP) (1)]
83	1-848-838-11	FLEXIBLE FLAT CABLE 5P	[CN9701(BA/BE)-(WIFI) (1)]
84	1-848-853-11	FLEXIBLE FLAT CABLE 30P	[CN8601(BA/BE)-(SOURCE BOARD) (1)]

## 1-2. KDL-40R510C/550C/555C/557C

### 1-2-1. Disassembly, Exploded View



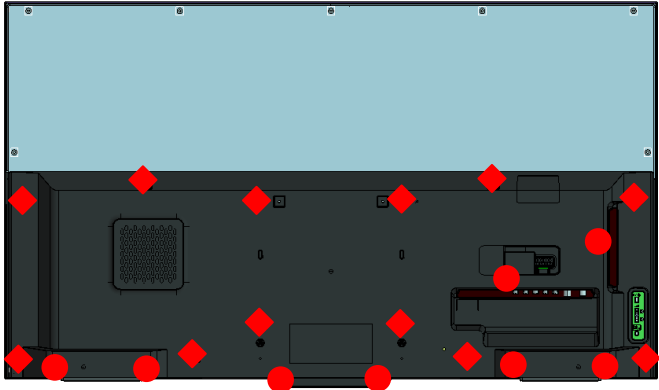
**1-2. KDL-40R510C/550C/555C/557C**

**1-2-1. Disassembly, Exploded View**

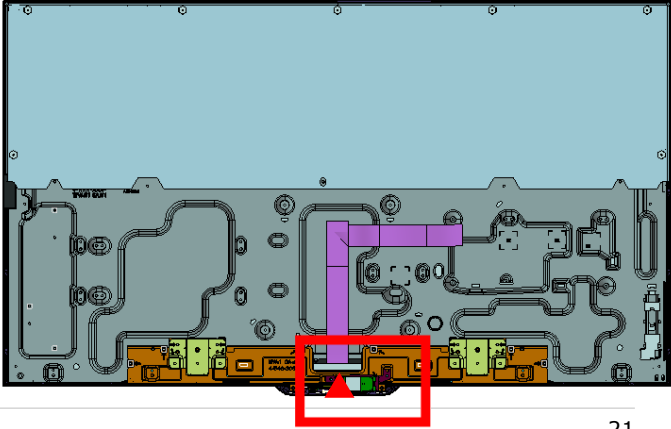
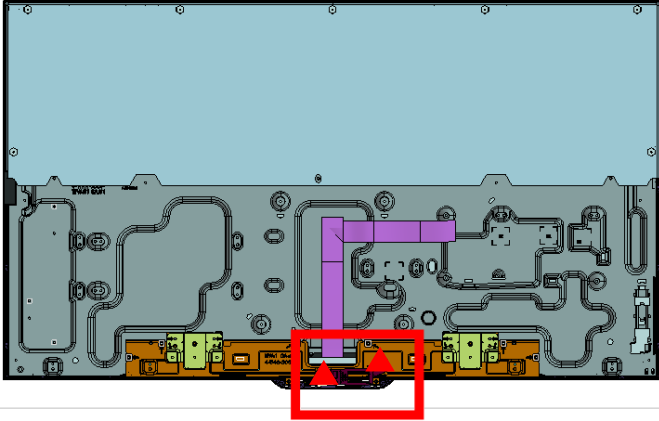
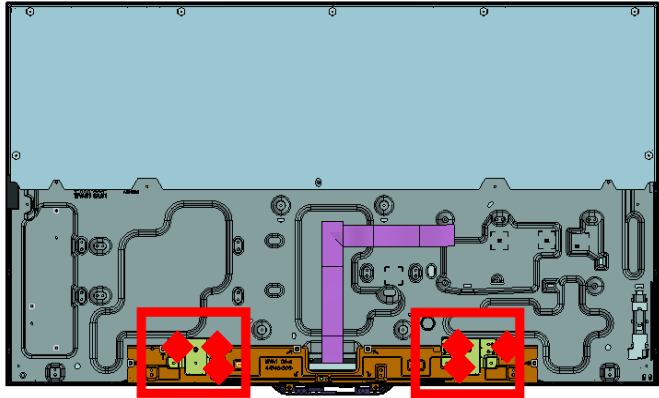
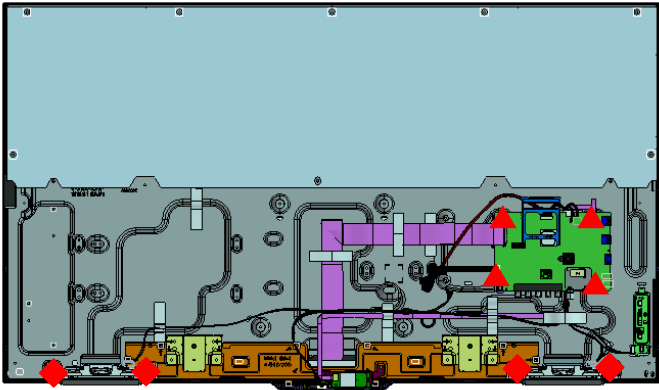
REF. No.	PART No.	DESCRIPTION	MARK	REF. No.	PART No.	DESCRIPTION	MARK
1	▲ 1-493-001-11	AC ADAPTOR (60W)		71	4-566-395-21	STAND BASE ASSY M (OWL)	
2	▲ 1-846-090-31	CORD SET, POWER-SUPPLY	CO1/U2/UC2/LA1				
2	▲ 1-846-420-11	CORD SET, POWER-SUPPLY	LA8/CR1/ECU				
3	4-566-496-01	PANEL, ORNAMENTAL (OWL)					
4	4-549-627-01	LABEL, UNDER TERMINAL	U2/UC2/LA1				
4	4-549-627-11	LABEL, UNDER TERMINAL	LA8/CO1/CR1/ECU				
5	4-566-593-01	REAR COVER (40OWL) A	U2/UC2/LA1				
5	4-566-593-11	REAR COVER (40OWL) A	LA8/CO1/CR1/ECU				
6	1-492-517-21	SWITCH UNIT					
7	4-565-427-01	BRACKET, UNDER (OWL)	U2/UC2/LA1				
7	4-565-427-11	BRACKET, UNDER (OWL)	LA8/CO1/CR1/ECU				
8	4-565-416-11	BRACKET, SIDE (OWL)					
9	🔒 A-2066-880-B	COMPL SVC BA_SE2N_BR_40F	LA8/CR1/ECU				
9	🔒 A-2066-910-B	COMPL SVC BA_SE2N_LA_40F	CO1				
9	🔒 A-2066-942-B	COMPL SVC BA_SE2N_UC_40F	U2/UC2/LA1				
10	4-564-765-01	SHEET,THERMAL(5595)					
11	1-859-099-11	LOUDSPEAKER					
12	1-458-751-21	CARD, WIRELESS LAN					
13	A-2066-599-A	HKK(MOUNT)					
14	4-566-498-01	LIGHT, GUIDE (OWL)					
15	▲ A-2069-842-A	P-MOD (NS5F400VND0101)					

**1-2. KDL-40R510C/550C/555C/557C**

**1-2-2. Screws**

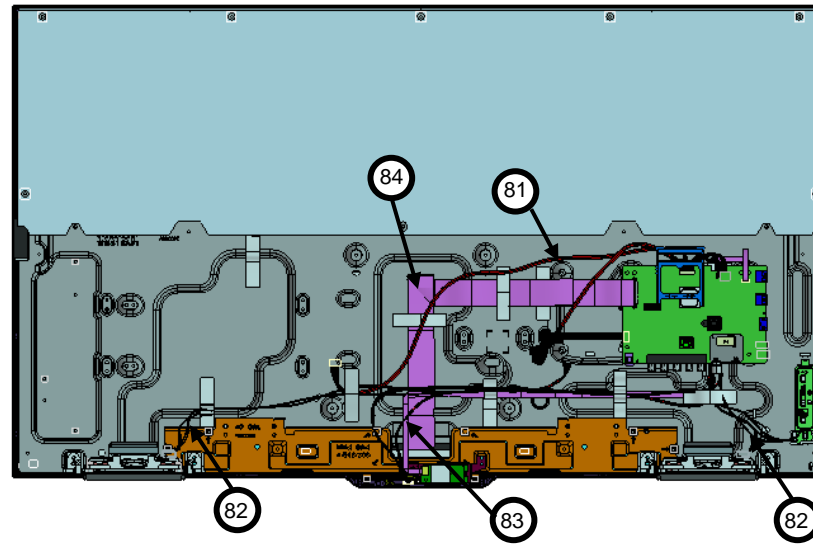


Ref	Part No	Description
●	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3
▲	2-990-421-41	SCREW (+PSW) (M3X6)
◆	4-167-019-21	SCREW, +PSW M3X8



1-2. KDL-40R510C/550C/555C/557C

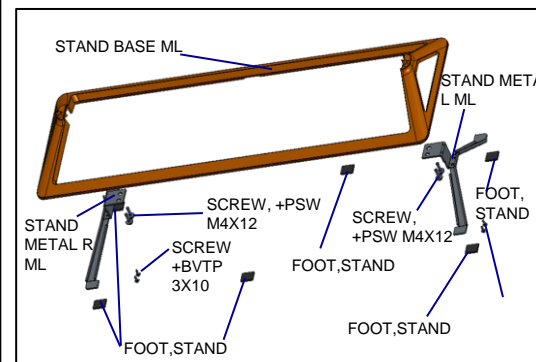
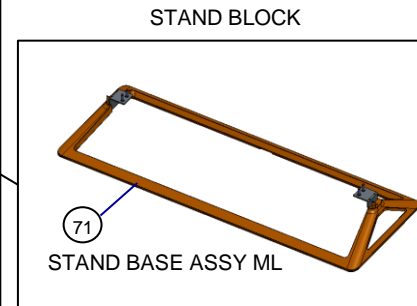
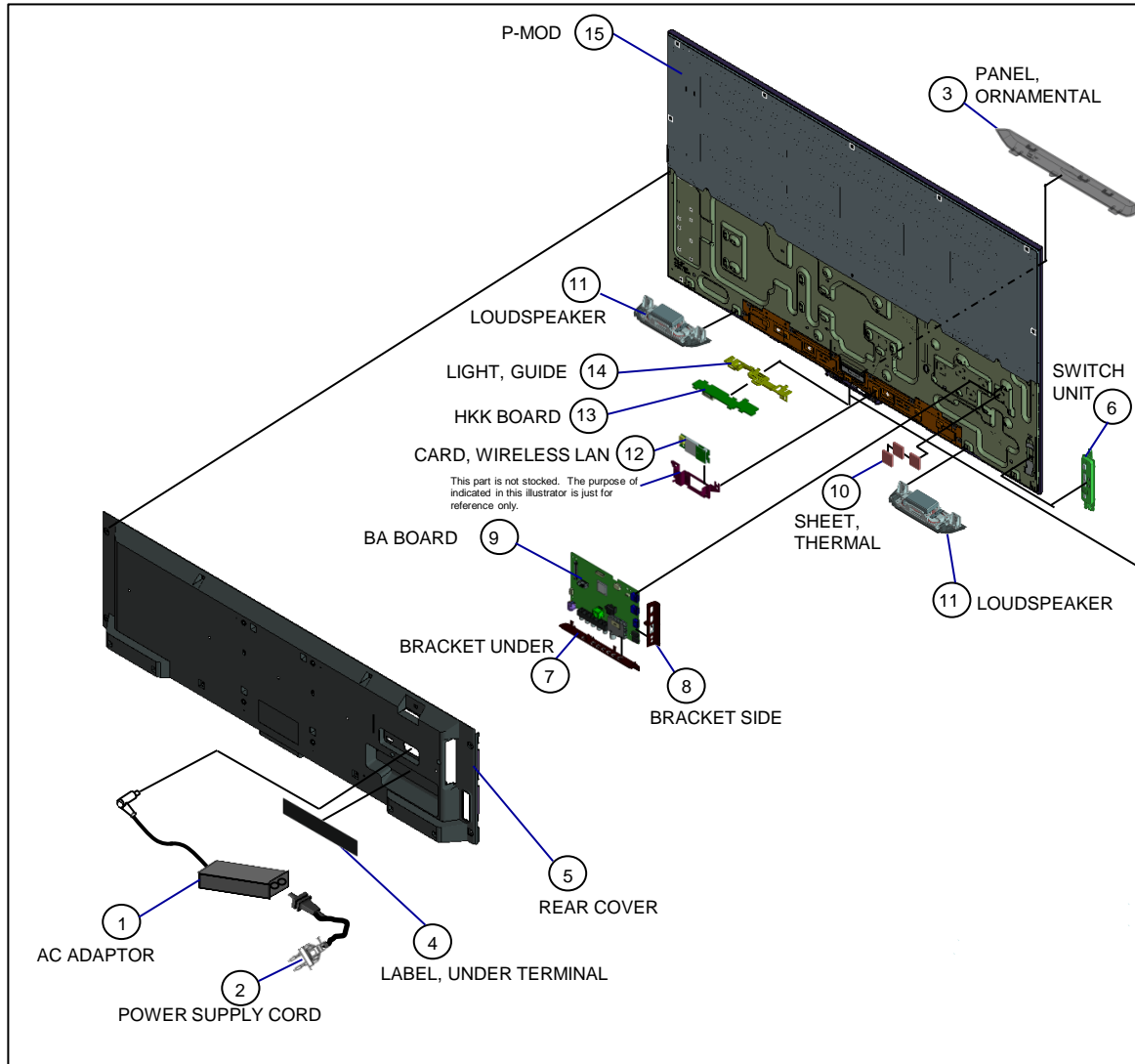
1-2-3. Connectors



REF. No.	PART No.	DESCRIPTION	MARK
81	1-910-805-29	CONNECTOR ASSY 10P	[CN9000(BA/BE)-(LS) (1)]
82	1-910-805-25	HARNESS ASSY	[CN9700(BA)-(H-BOARD)-(TACT KEY) / CN4001(BA)-(SP) (1)]
83	1-848-839-11	FLEXIBLE FLAT CABLE 5P	[CN9701(BA/BE)-(WIFI) (1)]
84	1-848-842-11	FLEXIBLE FLAT CABLE 51P	[CN8600(BA/BE)-(SOURCE BOARD)(1)]

1-3. KDL-48R510C/550C/555C/557C

1-3-1. Disassembly, Exploded View



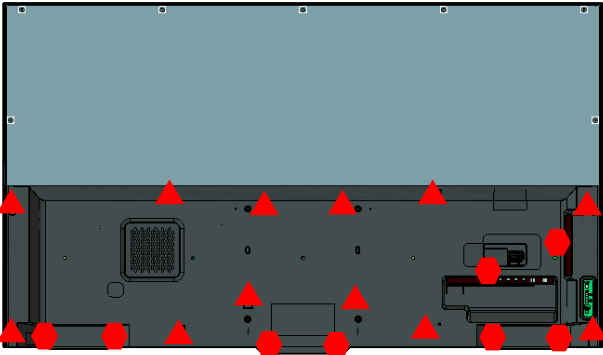
**1-3. KDL-48R510C/550C/555C/557C****1-3-1. Disassembly, Exploded View**

REF. No.	PART No.	DESCRIPTION	MARK	REF. No.	PART No.	DESCRIPTION	MARK
1	▲ 1-492-996-12	AC ADAPTOR (85W)	ECU	71	4-566-396-21	STAND BASE ASSY ML (SGL)	except BR6
1	▲ 1-493-000-11	AC ADAPTOR (85W)	except ECU	71	A-2072-349-A	STAND BASE ASSY ML (SGL)	BR6
2	▲ 1-846-090-31	CORD SET, POWER-SUPPLY	CO1/U2/UC2/LA1				
2	▲ 1-846-420-11	CORD SET, POWER-SUPPLY	LA8/CR1/ECU				
2	▲ 1-846-607-11	POWER-SUPPLY CORD (SET)	BR6				
3	4-548-878-01	PANEL, ORNAMENTAL (OWL)	BR6				
3	4-566-496-01	PANEL, ORNAMENTAL (OWL)	except BR6				
4	4-549-627-01	LABEL, UNDER TERMINAL	U2/UC2/LA1				
4	4-549-627-11	LABEL, UNDER TERMINAL	CO1/LA8/CR1/ECU/BR6				
5	4-566-597-01	REAR COVER (48SGL) A	U2/UC2/LA1				
5	4-566-597-11	REAR COVER (48SGL) A	CO1/LA8/CR1/ECU				
5	A-2074-142-A	REAR COVER (48SGL) A BR6	BR6				
6	1-492-517-21	SWITCH UNIT					
7	4-547-840-61	BRACKET, UNDER (OWL)	BR6				
7	4-565-427-01	BRACKET, UNDER (OWL)	U2/UC2/LA1				
7	4-565-427-11	BRACKET, UNDER (OWL)	CO1/LA8/CR1/ECU				
8	4-547-839-41	BRACKET, SIDE (OWL)	BR6				
8	4-565-416-11	BRACKET, SIDE (OWL)	except BR6				
9	🔒 A-2066-884-B	COMPL SVC BA_SE2N_BR_48F	LA8/CR1/ECU/BR6				
9	🔒 A-2066-914-B	COMPL SVC BA_SE2N_LA_48F	CO1				
9	🔒 A-2066-952-B	COMPL SVC BA_SE2N_UC_48F	U2/UC2/LA1				
10	4-564-765-01	SHEET, THERMAL(5595)					
11	1-859-101-11	LOUDSPEAKER	except BR6				
11	A-2073-687-A	LOUD SPEAKER ASSY SE2N 48INCH	BR6				
12	1-458-751-21	CARD, WIRELESS LAN	except BR6				
12	1-458-751-41	CARD, WIRELESS LAN	BR6				
13	A-2066-599-A	HKK (MOUNT)					
14	4-549-024-01	LIGHT, GUIDE (OWL)	BR6				
14	4-566-498-01	LIGHT, GUIDE (OWL)	except BR6				
15	▲ A-2061-934-A	P-MOD (NS5S480VND0101)	BR6				
15	▲ A-2069-846-A	P-MOD (NS5F480VND0101)	except BR6				

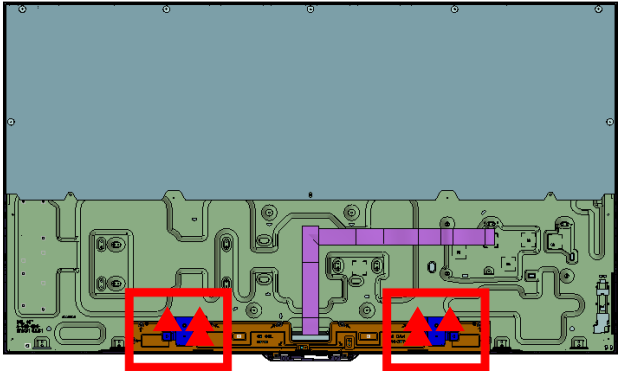
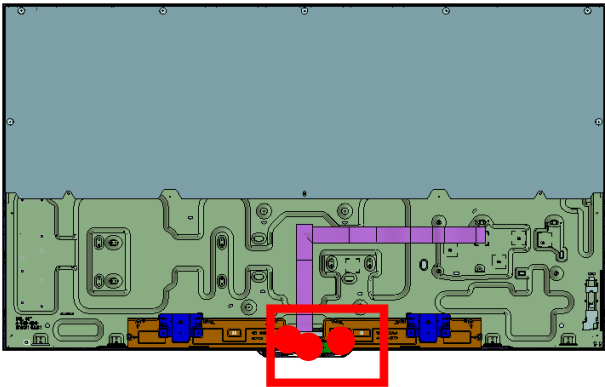
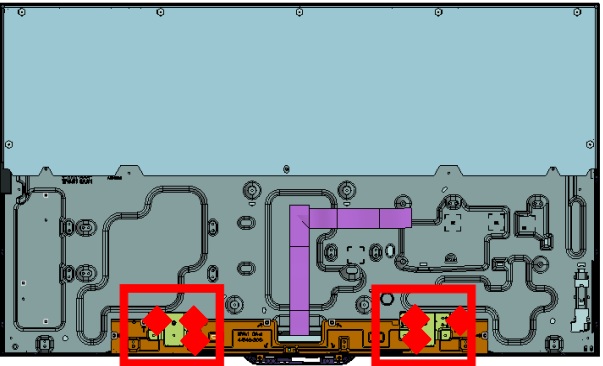
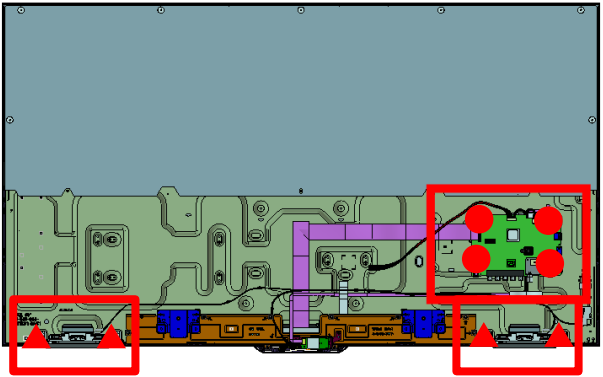


**1-3. KDL-48R510C/550C/555C/557C**

**1-3-2. Screws**

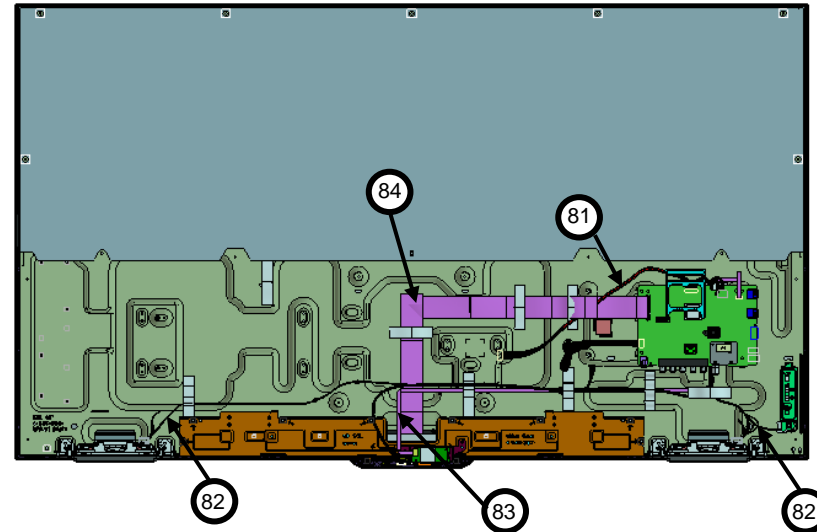


Ref	Part No	Description
■	2-580-602-01	SCREW, +PSW M4X12
●	2-990-421-41	SCREW (+PSW) (M3X6)
▲	4-167-019-21	SCREW, +PSW M3X8
◆	4-472-518-01	SCREW, +PSW M3X6
⬡	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3



1-3. KDL-48R510C/550C/555C/557C

1-3-3. Connectors



REF. No.	PART No.	DESCRIPTION	MARK
81	1-910-805-35	CONNECTOR ASSY 10P	[CN9000(BA/BE)-(LS) (1)]
82	1-910-805-31	HARNESS ASSY	[CN9700(BA)-(H-BOARD)-(TACT KEY) / CN4001(BA)-(SP) (1)]
83	1-848-840-11	FLEXIBLE FLAT CABLE 5P	[CN9701(BA/BE)-(WIFI) (1)]
84	1-848-844-11	FLEXIBLE FLAT CABLE 51P	[CN8600(BA/BE)-(SOURCE BOARD) (1)] except BR6
84	1-848-904-11	FLEXIBLE FLAT CABLE 51P	[CN8600(BA/BE)-(SOURCE BOARD) (1)] BR6

**1-4. OTHER PART****1-4-1. MISCELLANEOUS**

<b>PART No.</b>	<b>DESCRIPTION</b>	<b>MARK</b>
3-876-036-71	UNI-LABEL, BLANK	
4-262-708-04	CLAMPER, CABLE	
2-580-602-01	SCREW, +PSW M4X12	
7-600-031-96	TAPE (3M 1350FW-1)15MMX66M WHT	
7-600-031-97	TAPE (3M 1350FB-1)15MMX66M BLK	

**1-4-2. ACCESSORIES**

<b>PART No.</b>	<b>DESCRIPTION</b>	<b>MARK</b>
1-492-977-21	REMOTE COMMANDER (RMT-TX102B)	CO1/LA8/ CR1/ECU
1-492-977-31	REMOTE COMMANDER (RMT-TX102B)	BR6
1-492-980-11	REMOTE COMMANDER (RMT-TX102U)	U2/UC2/LA1
▲ 1-785-504-21	ADAPTOR, CONVERSION	LA8/CR1/ECU
* 4-562-276-11	MANUAL, INSTRUCTION	BR6
* 4-562-279-11	MANUAL, INSTRUCTION	U2/UC2
* 4-562-282-31	MANUAL, INSTRUCTION	LA8
* 4-562-284-31	MANUAL, INSTRUCTION	CO1
* 4-562-287-31	MANUAL, INSTRUCTION	LA1
* 4-566-298-31	MANUAL, INSTRUCTION	CR1/ECU

# SEC 2. ADJUSTMENT

## HOW TO ENTERING SERVICE MODE

- 1) Turn on the main power switch to place this set in standby mode.
- 2) Press the buttons on the remote commander as follows, and entering service mode.

i+ (info) → Channel **5** → Volume **+** → **TV POWER**

- 3) Service mode display.



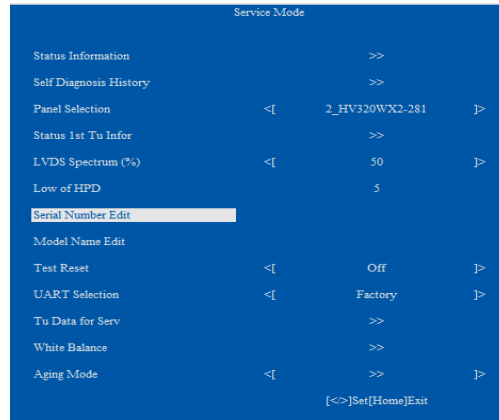
- 4) After entering service mode, then turn off the power switch.

**ACCESSING SERIAL NUMBER EDIT**

1) Press **➡** button on Remote to edit Serial Number.



Remote Commander

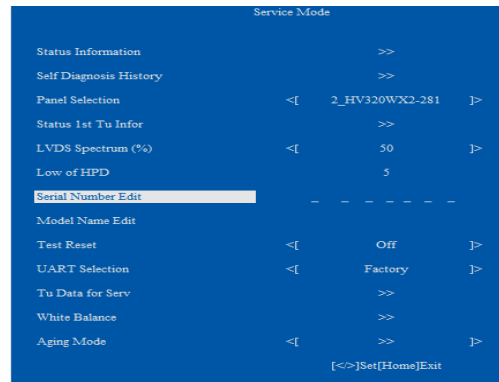


2) Press **⬆** or **⬇** button to select number.

\* The font color of YES is change to black when it is selected.

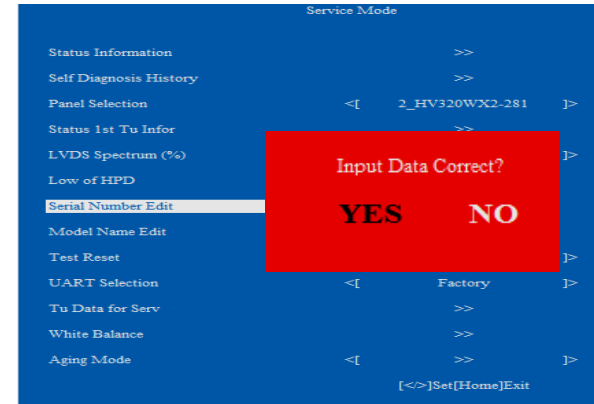


Remote Commander



3) Serial Number can be set **ONLY ONCE**.

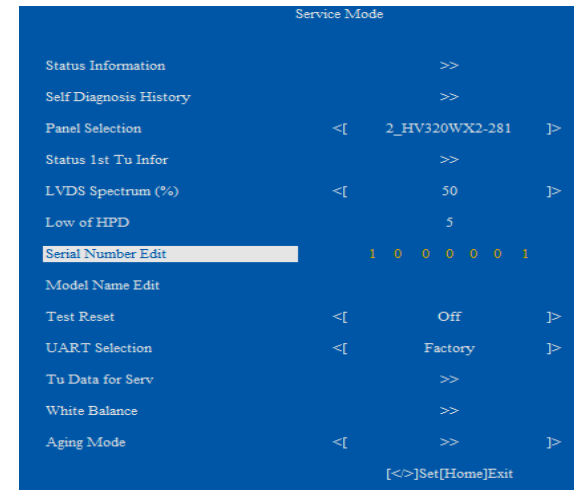
- After user input data , press <Enter>.
- Pop dialog will appear to inform user to confirm data.
- Press **➡** or **➡** button to select YES or NO.
- Select YES if input data is correct.
- Select NO if input data is incorrect.
- Press <Enter> to save answer.



Note: \* The font color of YES is change to black when it is selected.

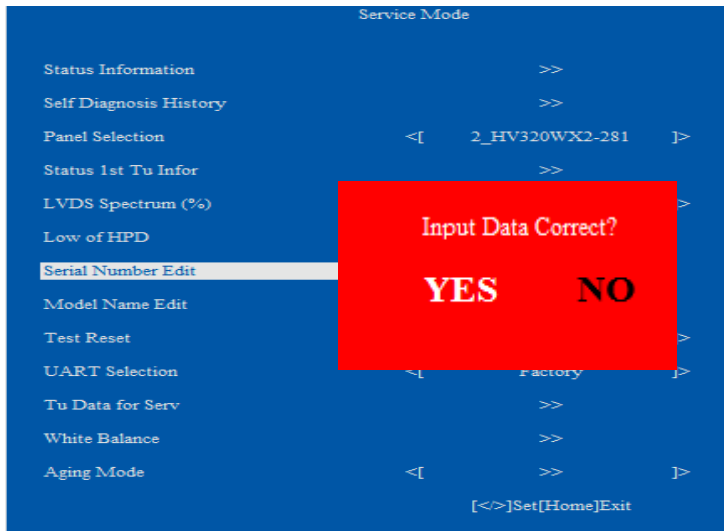
4) If **YES** is selected, the input data is saved into EEPROM.

- SERIAL NUMBER EDIT is grayed out and the serial number that has been input is displayed.
- User will **not able to edit** anymore.

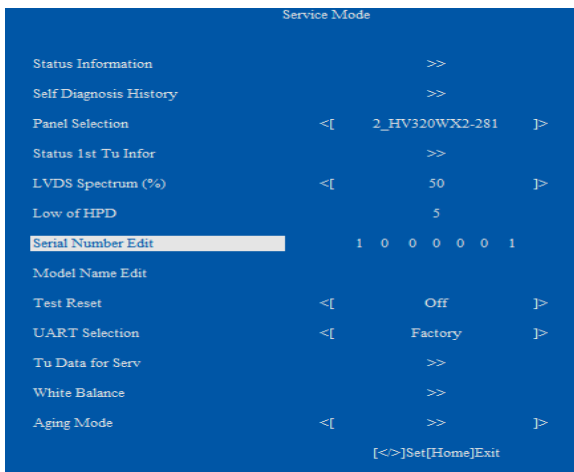


Note : \* The font color of SERIAL NUMBER is change to orange after YES is selected.

- 5) If **NO** is selected, the input data is not saved into EEPROM.
- The serial number that has been input is displayed.
  - User can still edit the Serial Number.



Note : \* The font color of NO is change to black when it is selected.



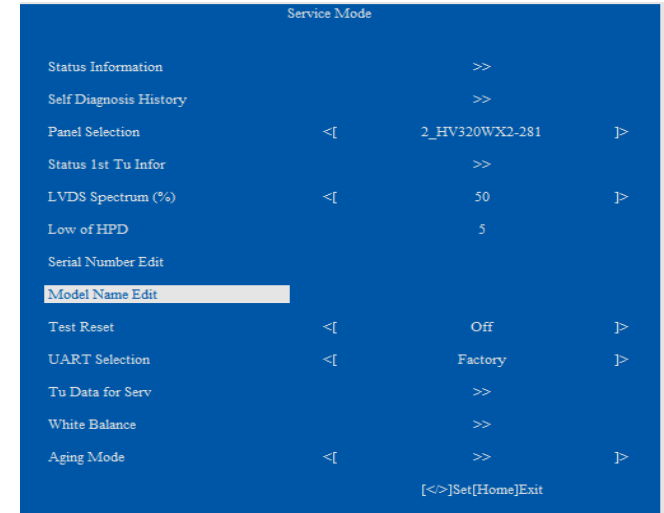
Note : \* The font color of SERIAL NUMBER is white after NO is selected.

### ACCESSING MODEL NAME EDIT

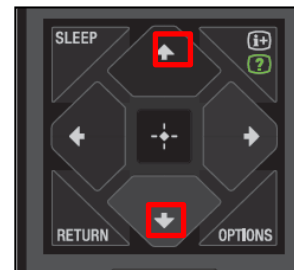
- 1) Press **➡** button on Remote to edit Model Name.



Remote Commander



- 2) Press **⬆** or **⬆** button on Remote to select character.

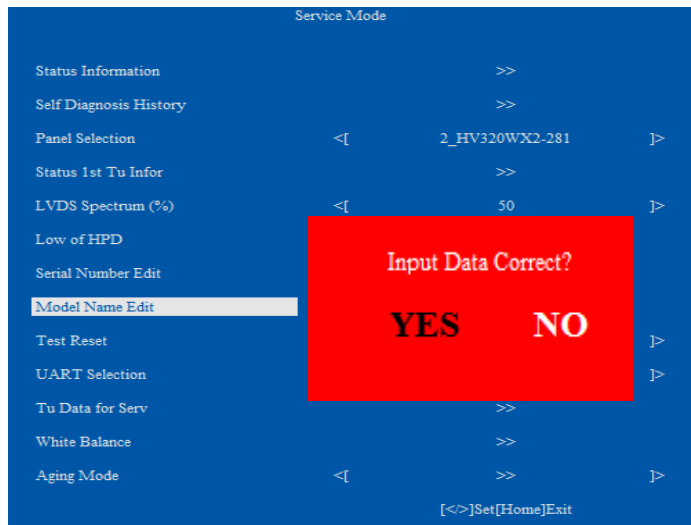


Remote Commander

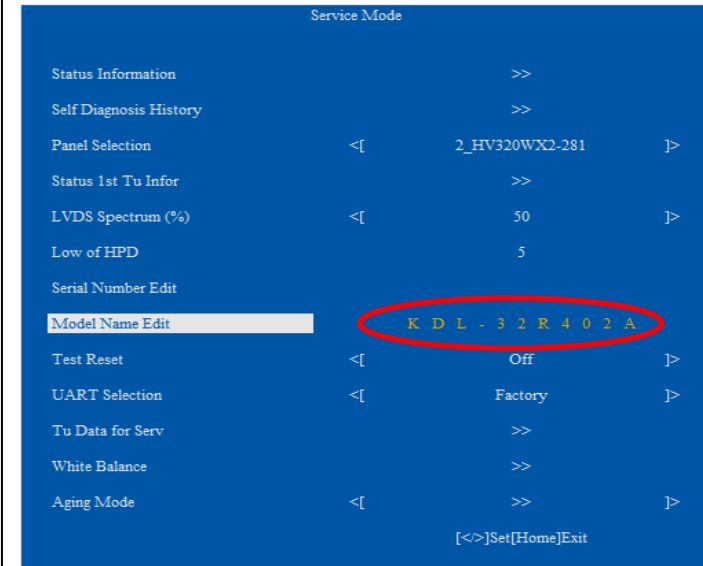


3) Model Name can be set **ONLY ONCE**.

- After user input data , press <Enter>.
- Pop dialog will appear to inform user to confirm data.
- Press **▶** or **◀** button to select YES or NO.
- Select YES if input data is correct.
- Select NO if input data is incorrect.
- Press <Enter> to save answer.



Note :\* The font color of YES is change to black when it is selected.

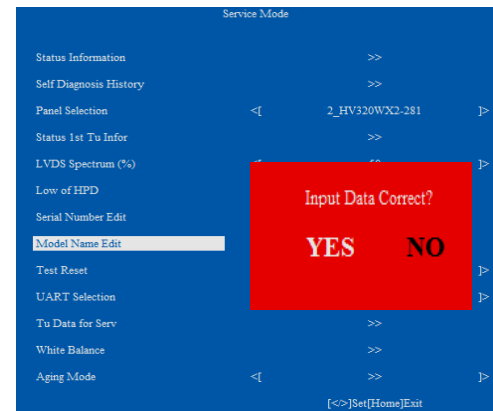


4) If **YES is selected**, the input data is saved into EEPROM.

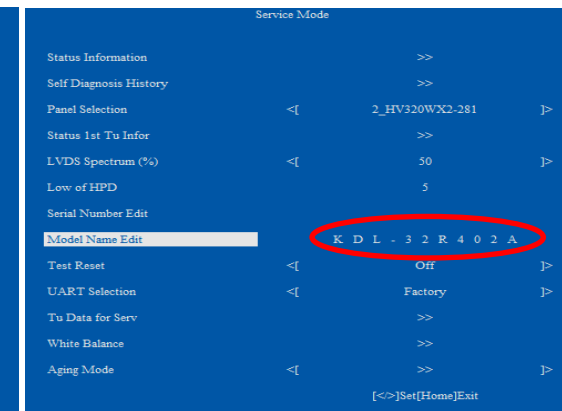
- Model Name EDIT is grayed out and the model name that has been input is displayed.
- User **will not able to edit** anymore

5) If **NO is selected**, the input data is not saved into EEPROM.

- The model name that has been input is displayed.
- User can still edit the Model Name.




Note :\*The font color of NO is change to black when it is selected.



Note :\* The font color of MODEL NAME is white after NO is selected.

WHITE BALANCE ADJUSTMENT

1) Press  button on Remote to enter White Balance Adjustment.



Remote Commander

Service Mode			Factory Mode --Color Temperature--		
SERIAL NUMBER EDIT			Back	<<	
MODEL NAME EDIT			Color Temp.	<[ Cool ]>	
TEST RESET	<[ Off ]>		R Gain	<[ 512 ]>	
UART Selection	<[ Off ]>		G Gain	<[ 512 ]>	
HDD Performance Check	>>		B Gain	<[ 512 ]>	
AAA	>>		R Offset	<[ 0 ]>	
TS format setting	>>		G Offset	<[ 0 ]>	
TS Max Frequency	>>		B Offset	<[ 0 ]>	
Tu Data for serv	>>		Recall Data	<[ Off ]>	
SDB Service Menu	>>		Data Save	<[ Off ]>	
White Balance	<[ Off ]>				
Aging Mode	<[ Off ]>				

2) Press  or  button to to change intended Color Temp adjustment.(Cool , Neutral and Warm)



Remote Commander

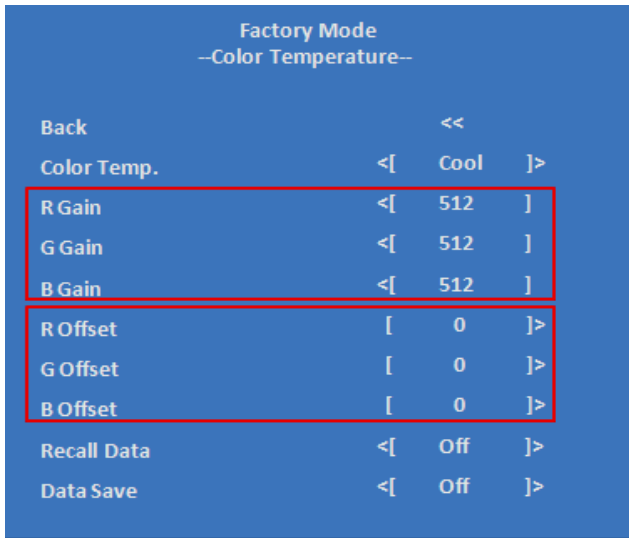
Factory Mode --Color Temperature--		
Back	<<	
Color Temp.	<[ Cool ]>	
R Gain	<[ 512 ]>	
G Gain	<[ 512 ]>	
B Gain	<[ 512 ]>	
R Offset	[ 0 ]>	
G Offset	[ 0 ]>	
B Offset	[ 0 ]>	
Recall Data	<[ Off ]>	
Data Save	<[ Off ]>	

Factory Mode --Color Temperature--		
Back	<<	
Color Temp.	<[ Neutral ]>	
R Gain	<[ 512 ]>	
G Gain	<[ 512 ]>	
B Gain	<[ 512 ]>	
R Offset	[ 0 ]>	
G Offset	[ 0 ]>	
B Offset	[ 0 ]>	
Recall Data	<[ Off ]>	
Data Save	<[ Off ]>	

Factory Mode --Color Temperature--		
Back	<<	
Color Temp.	<[ Warm ]>	
R Gain	<[ 512 ]>	
G Gain	<[ 512 ]>	
B Gain	<[ 512 ]>	
R Offset	[ 0 ]>	
G Offset	[ 0 ]>	
B Offset	[ 0 ]>	
Recall Data	<[ Off ]>	
Data Save	<[ Off ]>	



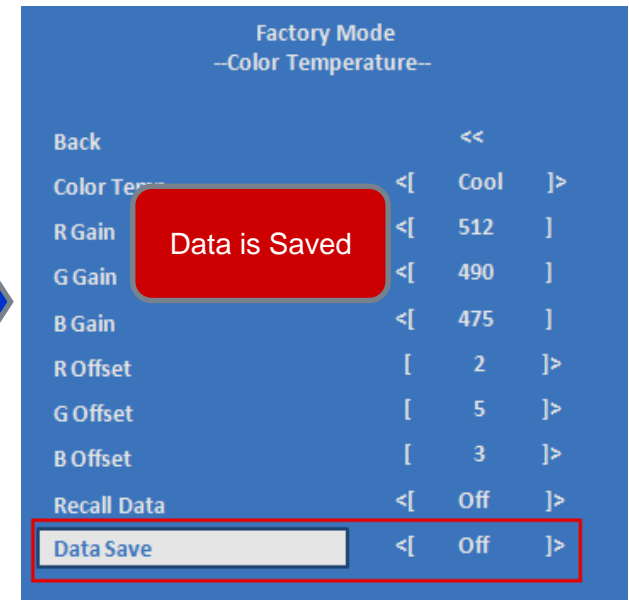
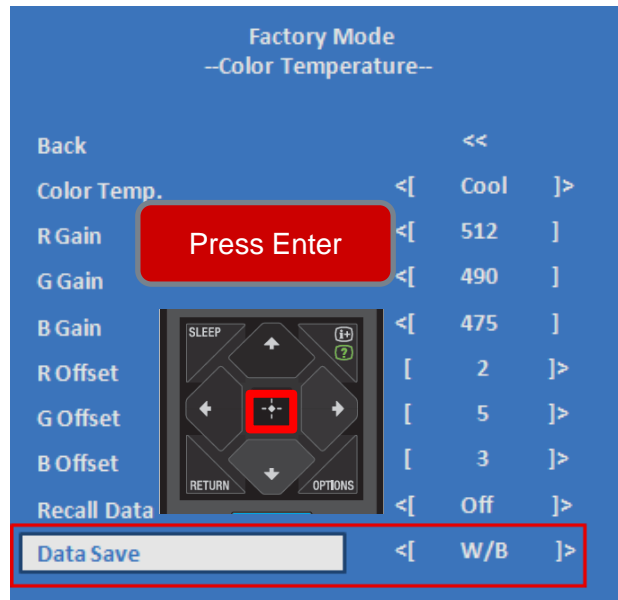
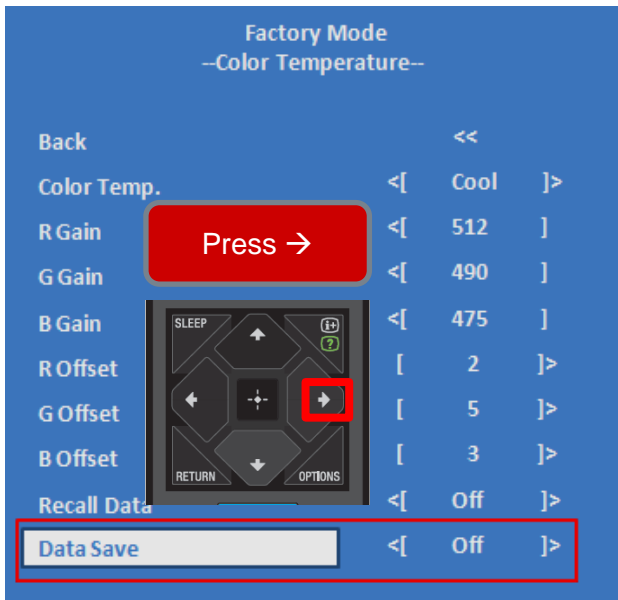
3) Start WB adjustment by changing R/G/B Gain & Offset register.



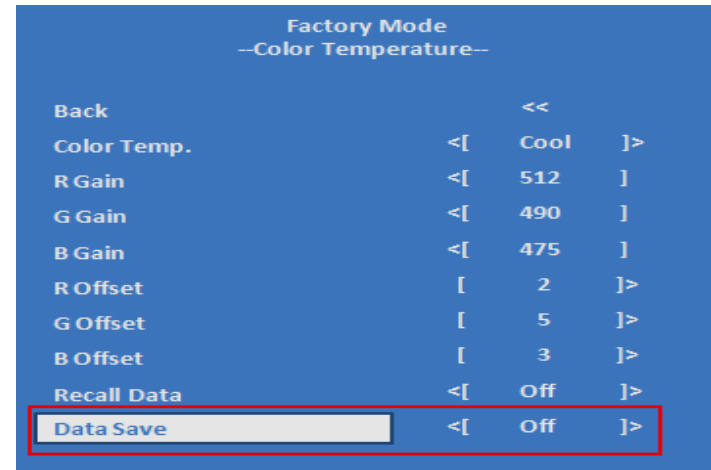
→R/G/B Gain setting around High luminance Adjustment (Default Value 512)

→R/G/B Offset setting around Low luminance Adjustment (Default Value 0)

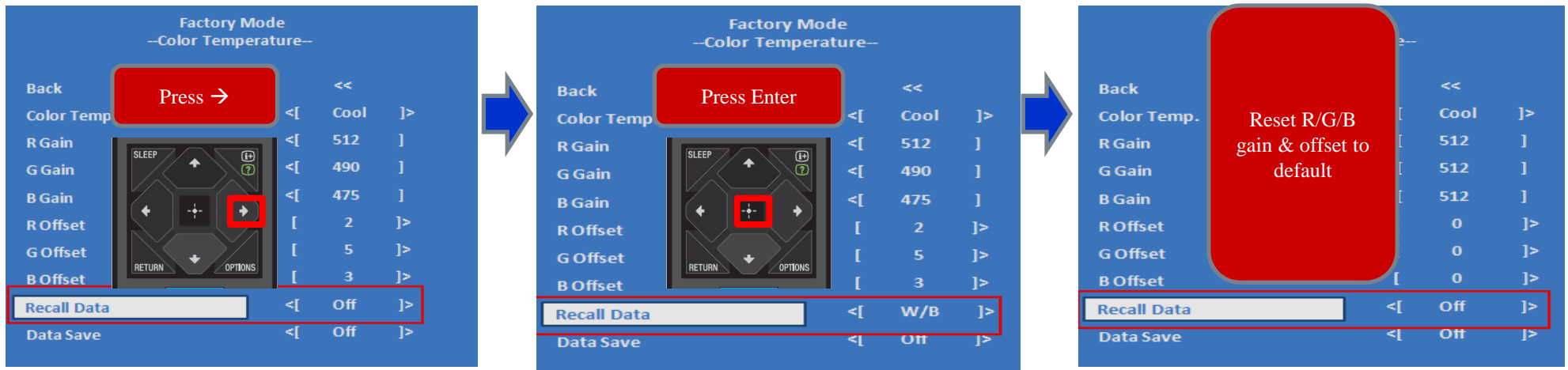
4) After adjustment completed go to Data Save and press → until it shows “W/B” and press enter.



**Remark #1:**  
**For this case only Cool Color Temp. will be saved to TV set. To save Neutral and Warm adjustment we need to change Color Temp. to intended Color temp. adjustment and execute Data Save operation again. After operation completed, just exit the Service Menu page.**



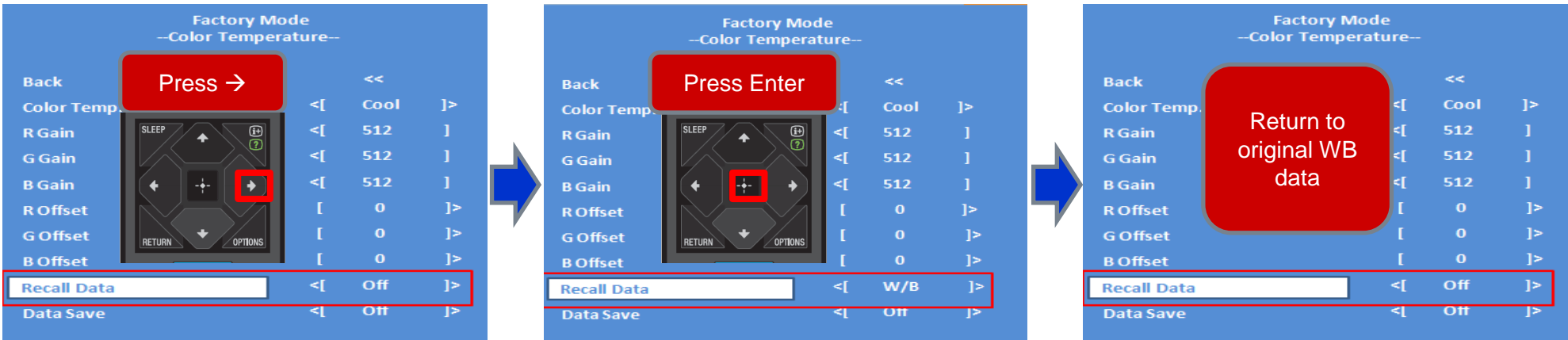
- 5) Recall Data operates 2 processes at the same time.
  - i) Reset current Color temp Data R/G/B Gain & Offset register to default.
  - ii) Return to original WB data
  
- 6) To perform Recall data, go to Recall Data and press → until it shows “W/B” and press enter.



**Remark #2:**  
**Data Recall only will reset current Color Temp. data to default. For this case only Cool Color Temp. will be reset to TV set. To reset Neutral and Warm adjustment we need to change Color Temp. to intended Color temp. and execute Recall Data operation again.**  
**Data Save is needed for every Color Temp. once Recall Data is executed to save the default data**

Factory Mode --Color Temperature--		
Back	<<	
Color Temp.	<[ Cool ]>	
R Gain	<[ 512 ]	
G Gain	<[ 512 ]	
B Gain	<[ 512 ]	
R Offset	[ 0 ]>	
G Offset	[ 0 ]>	
B Offset	[ 0 ]>	
Recall Data	<[ Off ]>	
Data Save	<[ Off ]>	

7) To get original WB data if panel or Board is changed, please execute Data recall for each color temp.



8) AC Off and ON is needed after Recall data.(For function 6(ii)).  
 Short time flicker (White pattern changes 3 times) can be observed to verify the Copy Data operation is working.

# SEC 3. TROUBLE SHOOTING

## 3-1. TRIAGE CHART

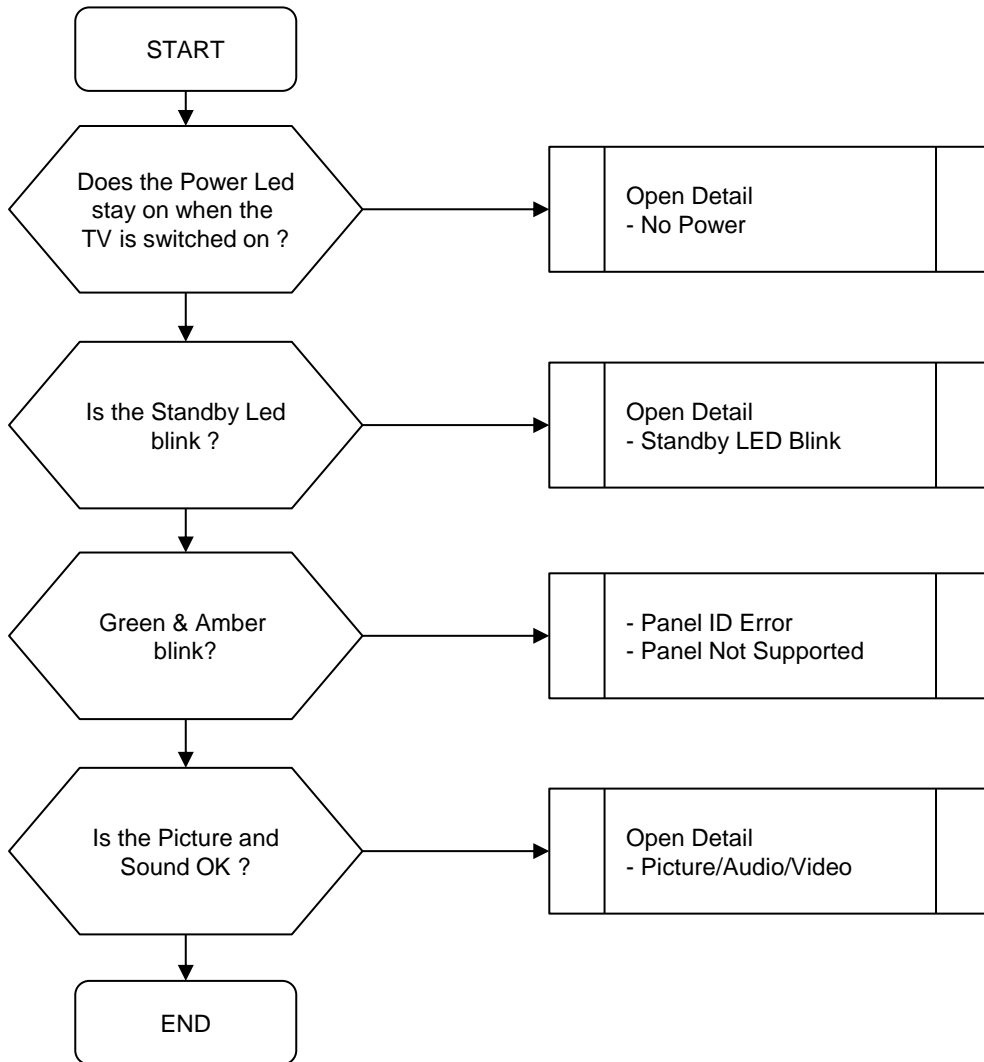
Reference	Blinking						No Picture							No Sound									
							UI OK																
	2	3	4	5	6	7	UI NG	Tuner	USB	Video	Component	HDMI	SCART	Main Speaker	Sub Speaker	HP	Video	Component	Tuner	HDMI	SCART	USB	
BA Board	●	●	●	▲	●		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
HK Board(HKK)																							
Light Source Board					●		▲																
Panel				●			▲																
AC Adaptor	●																						
Speaker Unit		▲				▲								●	●		●	●	●	●	●	●	●
LS Harness					▲																		
Main Harness														▲	▲		▲	▲	▲	▲	▲	▲	▲
Speaker Harness		▲				▲																	
FFC Cable				▲			▲																
K-Board						●																	

● Most likely defective part

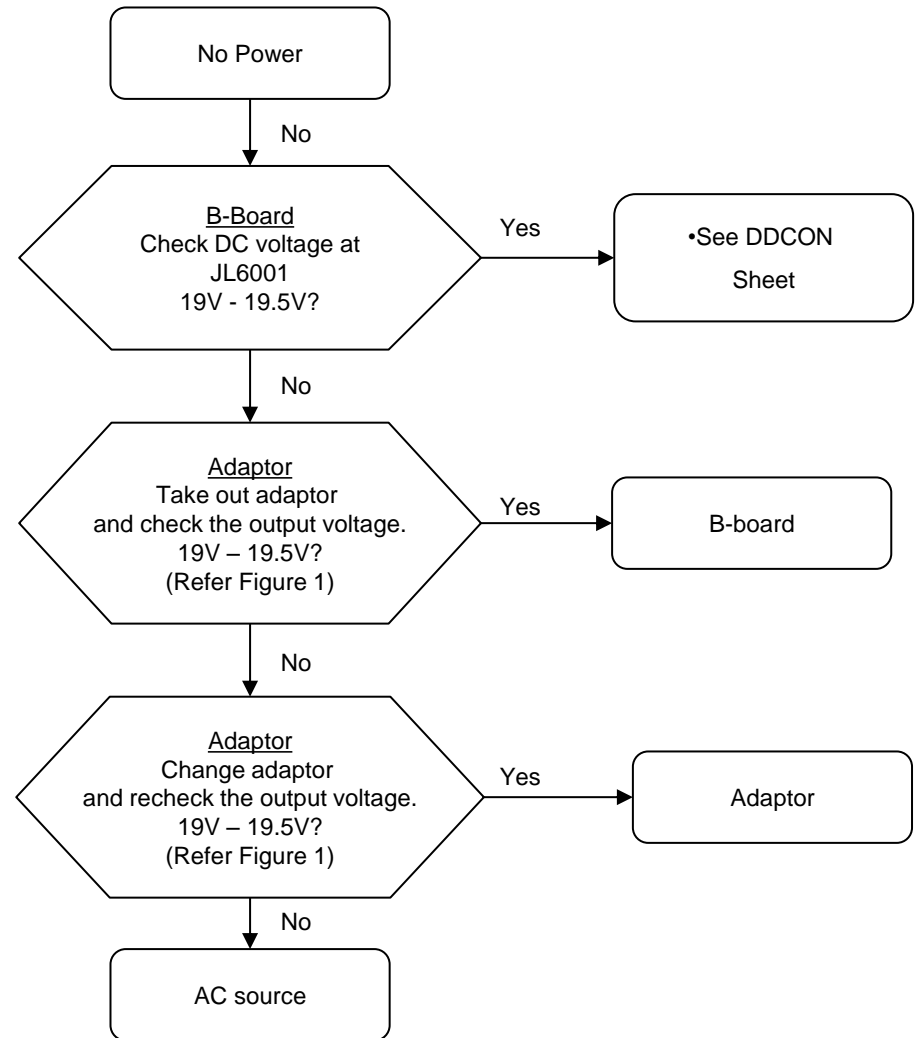
▲ Secondary possible defective part

Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-2. FLOW CHART**



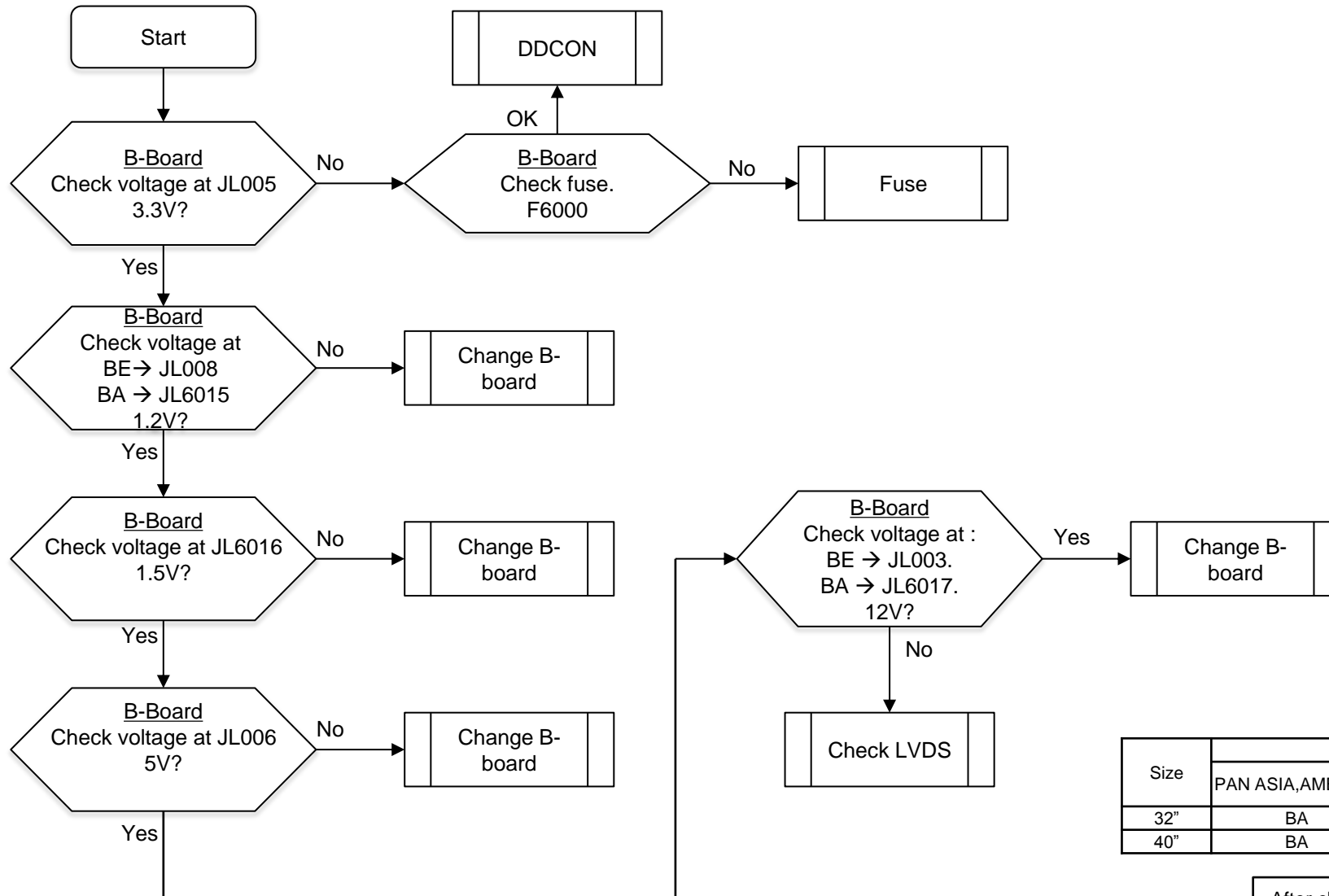
**3-3. NO POWER**



Note : TV must be power OFF condition before unplug any of the FFC/FPC/wire/cable from the board.  
-> This is to prevent possibility circuit damage happen.

Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

3-3-1. DD Con

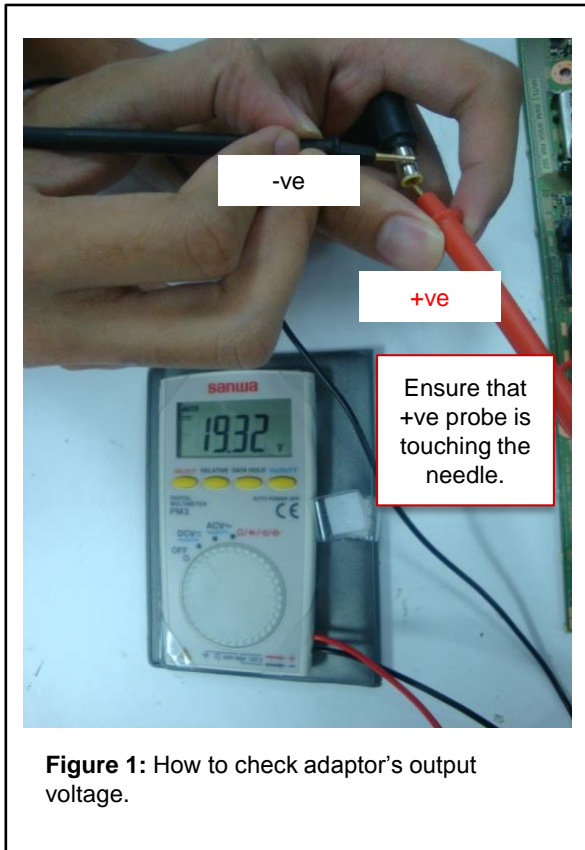


Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

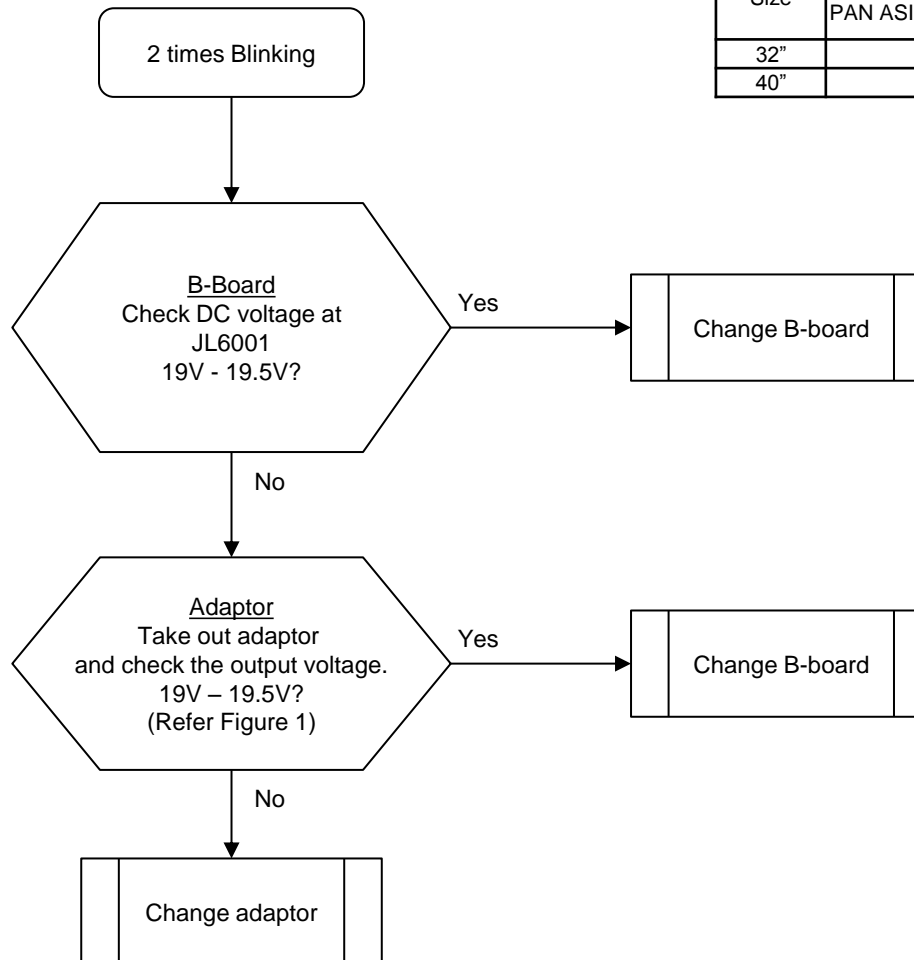
After checking, take note of NG condition & change B board

### 3-4. LED BLINKING

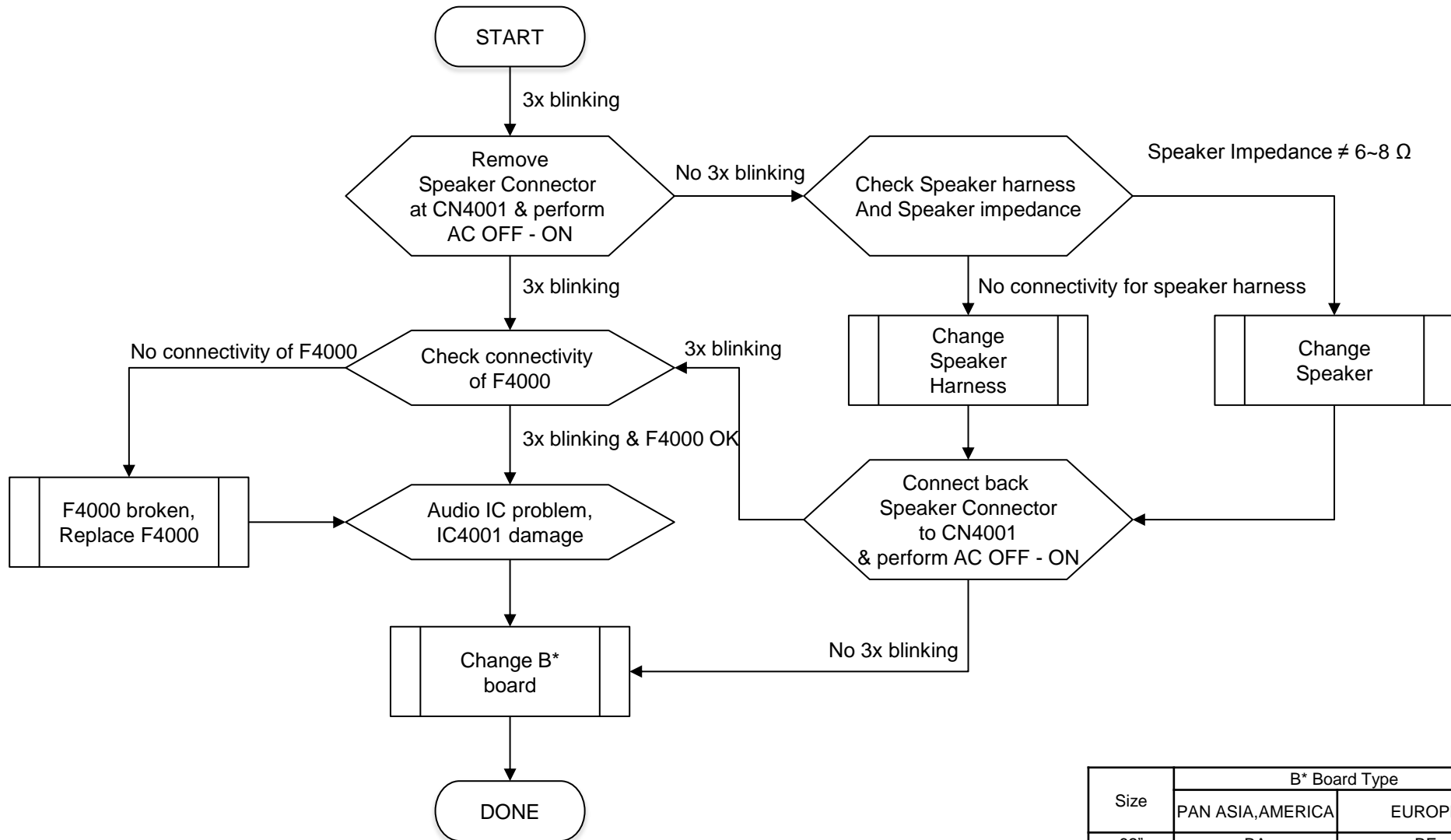
#### 3-4-1. 2Times Blinking



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE



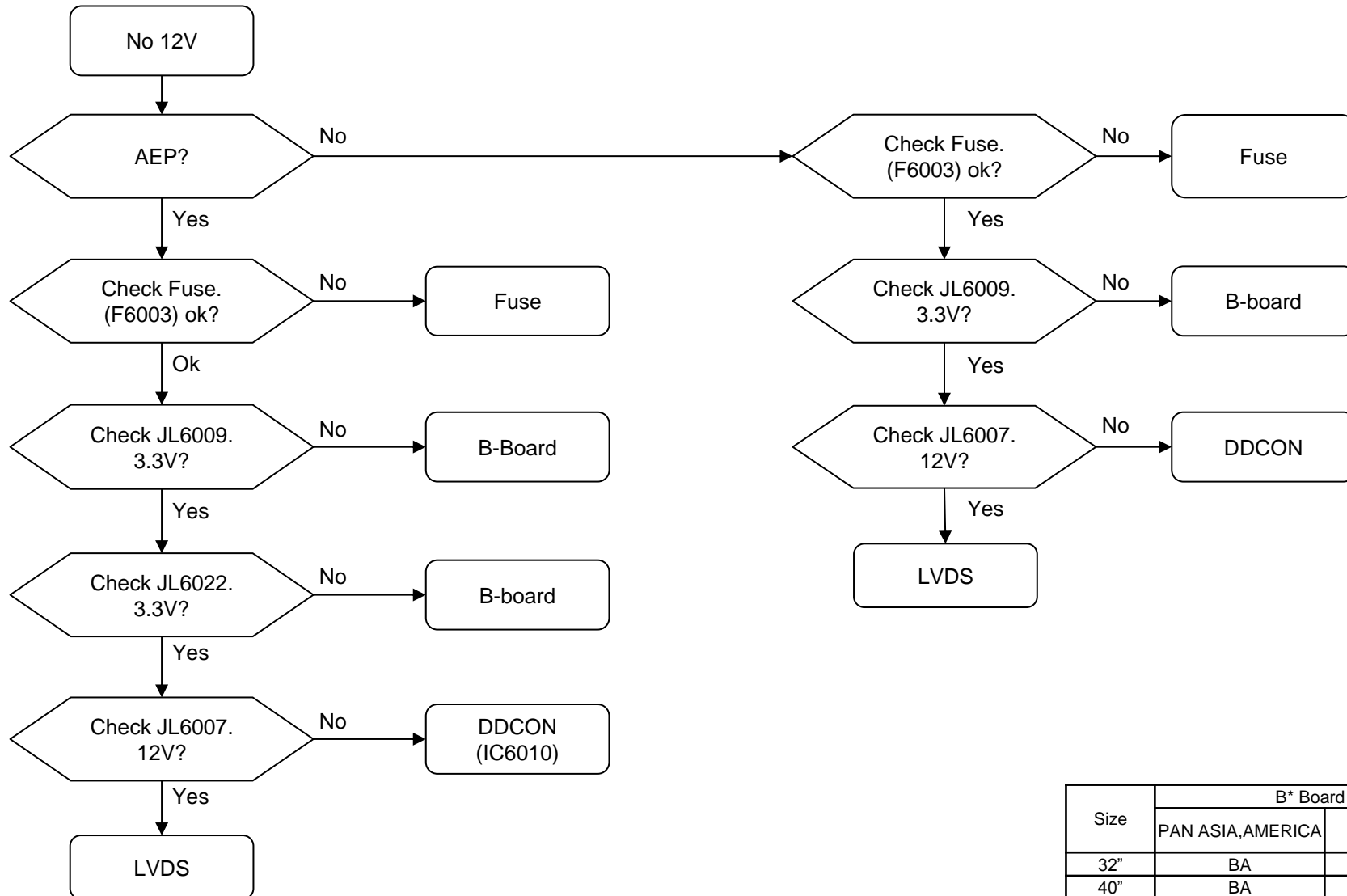
**3-4-2. 3Times Blinking**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

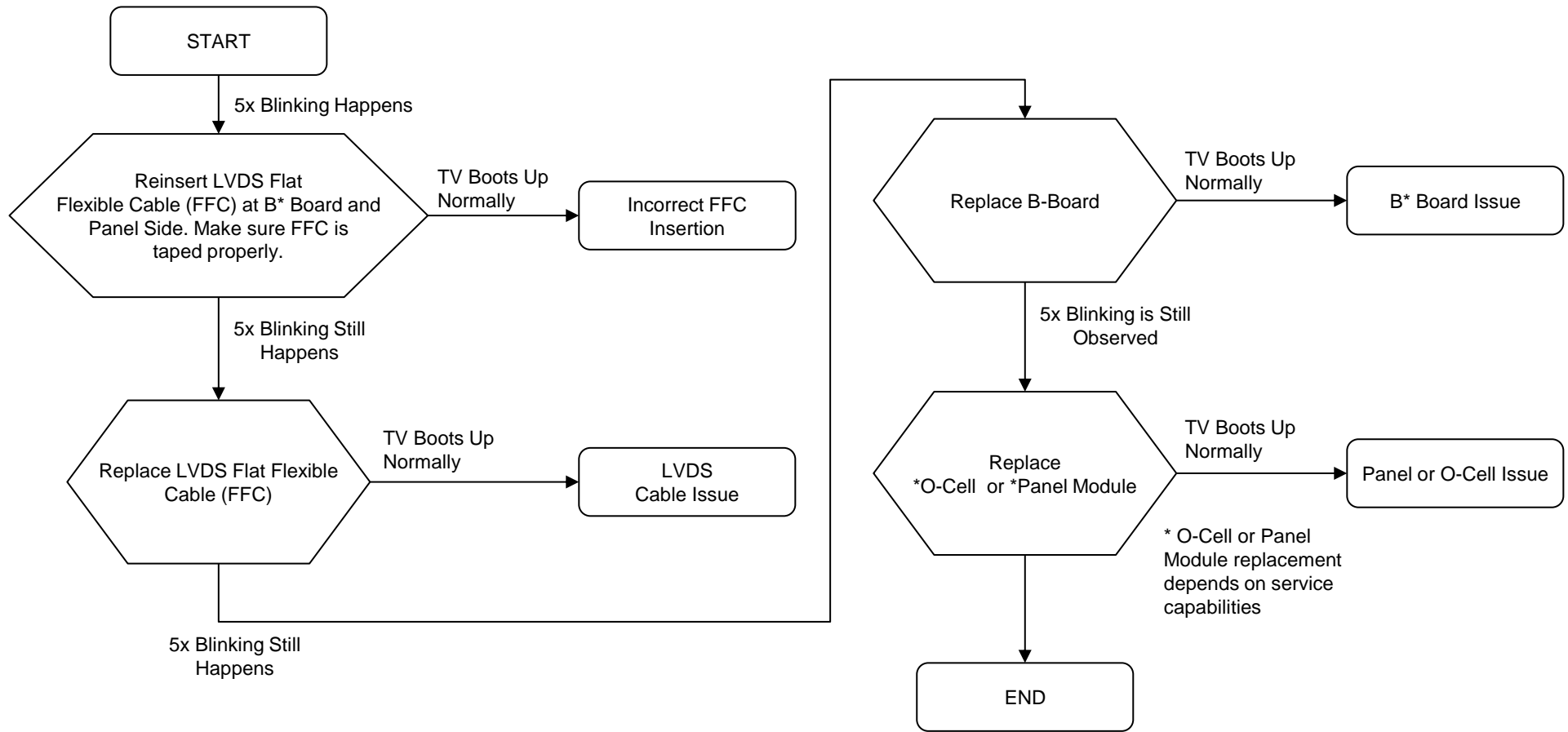


**3-4-3. 4 Times Blinking**



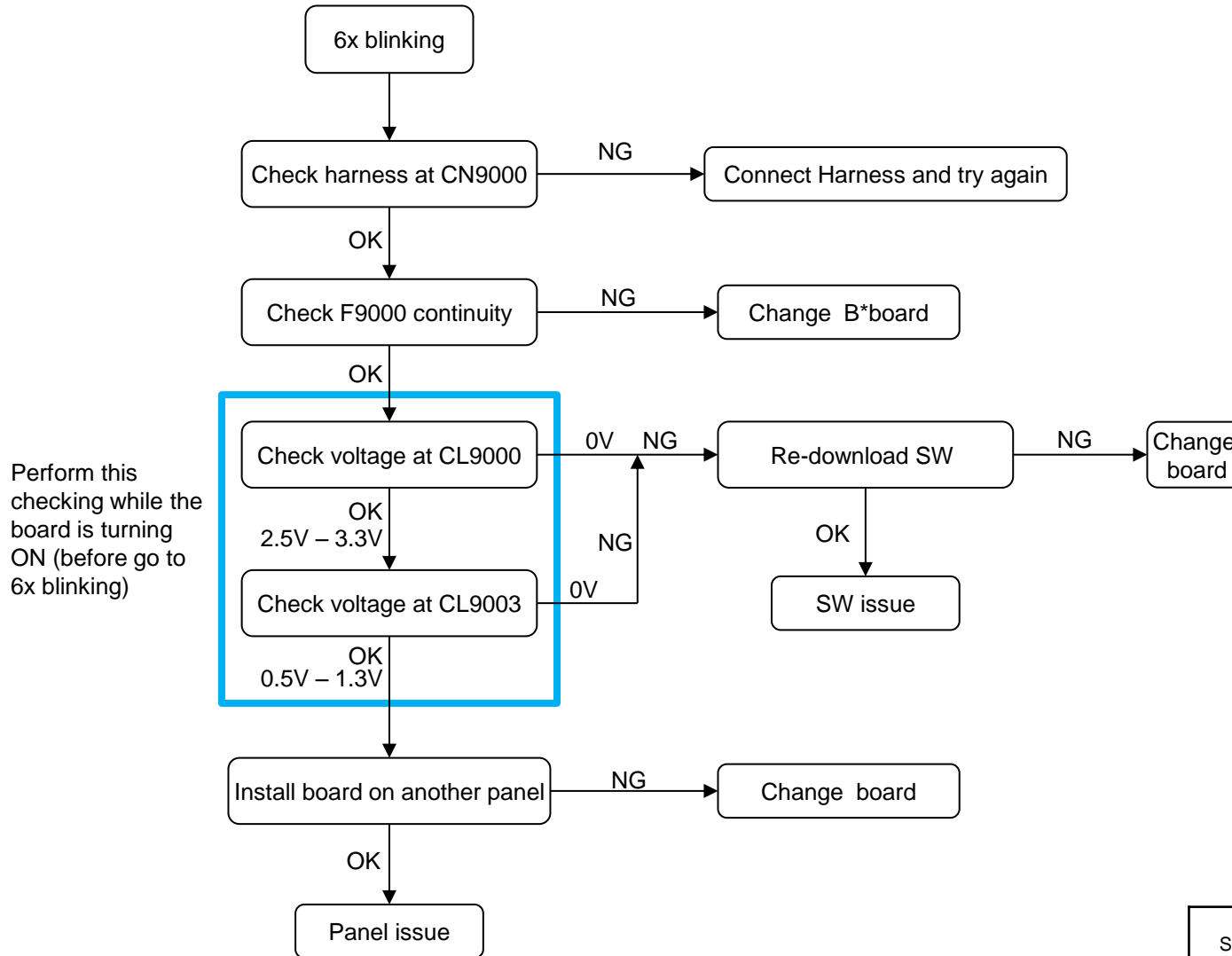
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-4-4. 5 Times Blinking**



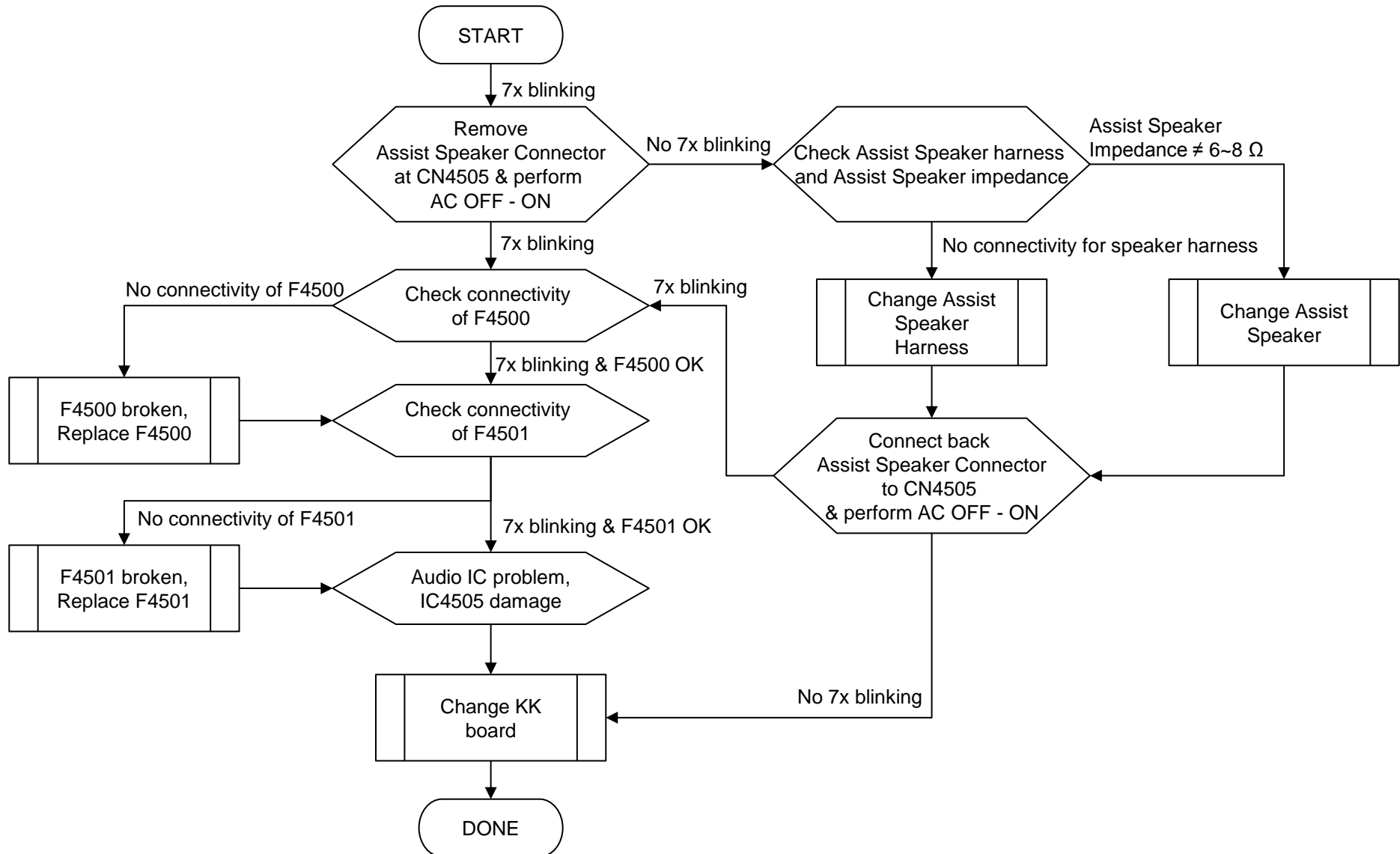
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

3-4-5. 6 Times Blinking

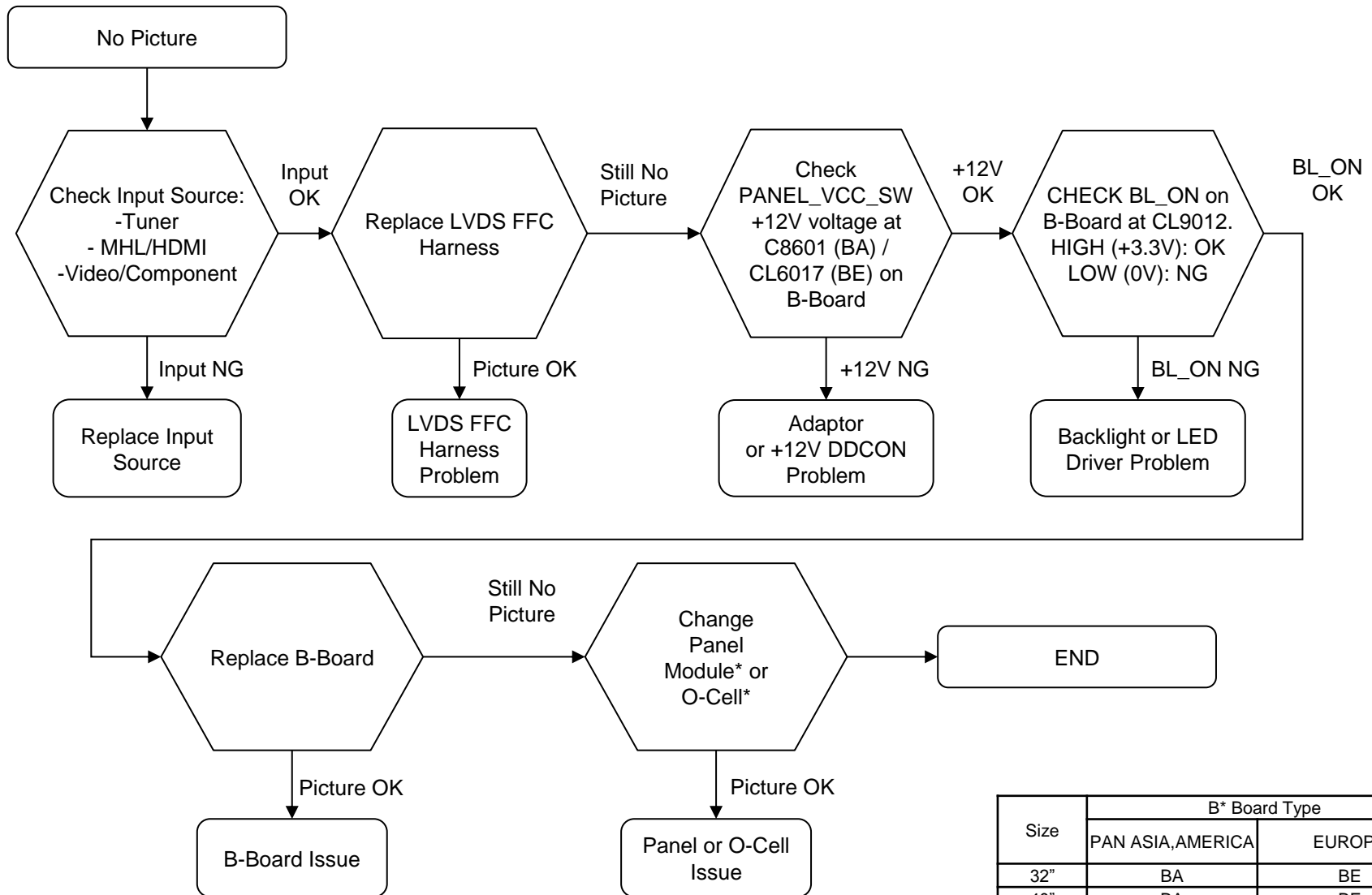


Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-4-6. 7 Times Blinking**



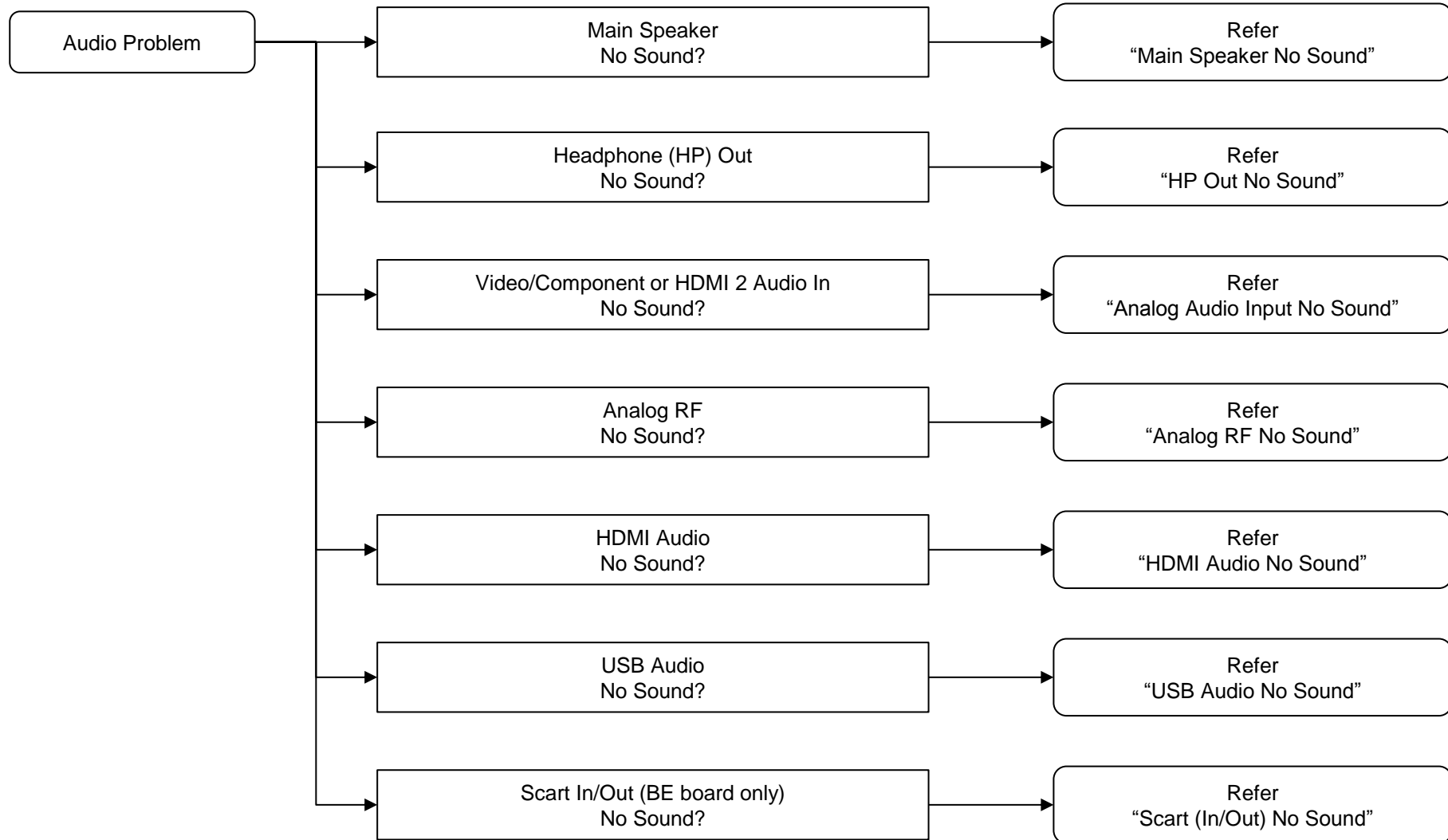
3-5. NO PICTURE



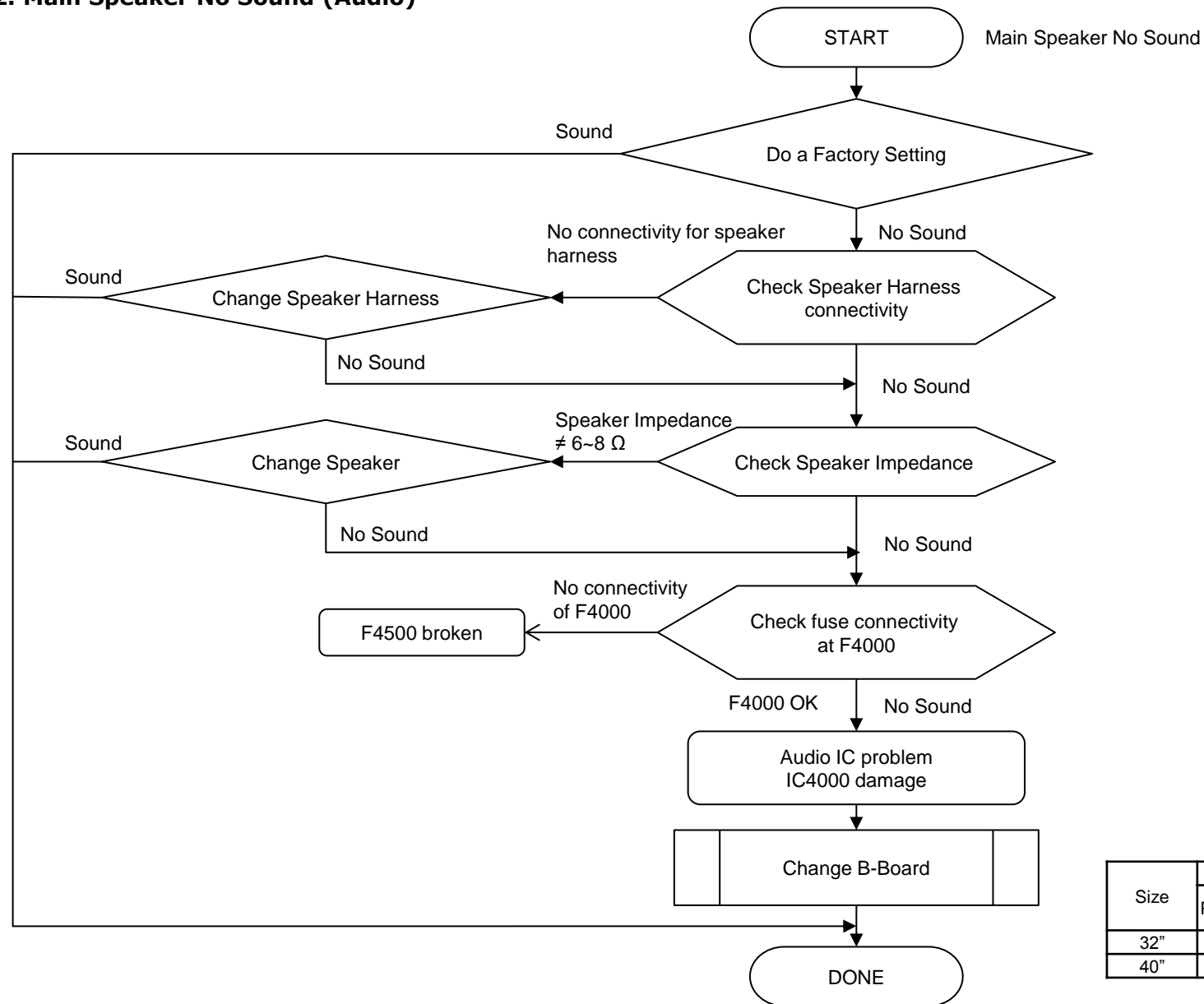
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-6. NO AUDIO**

**3-6-1. General (Audio)**

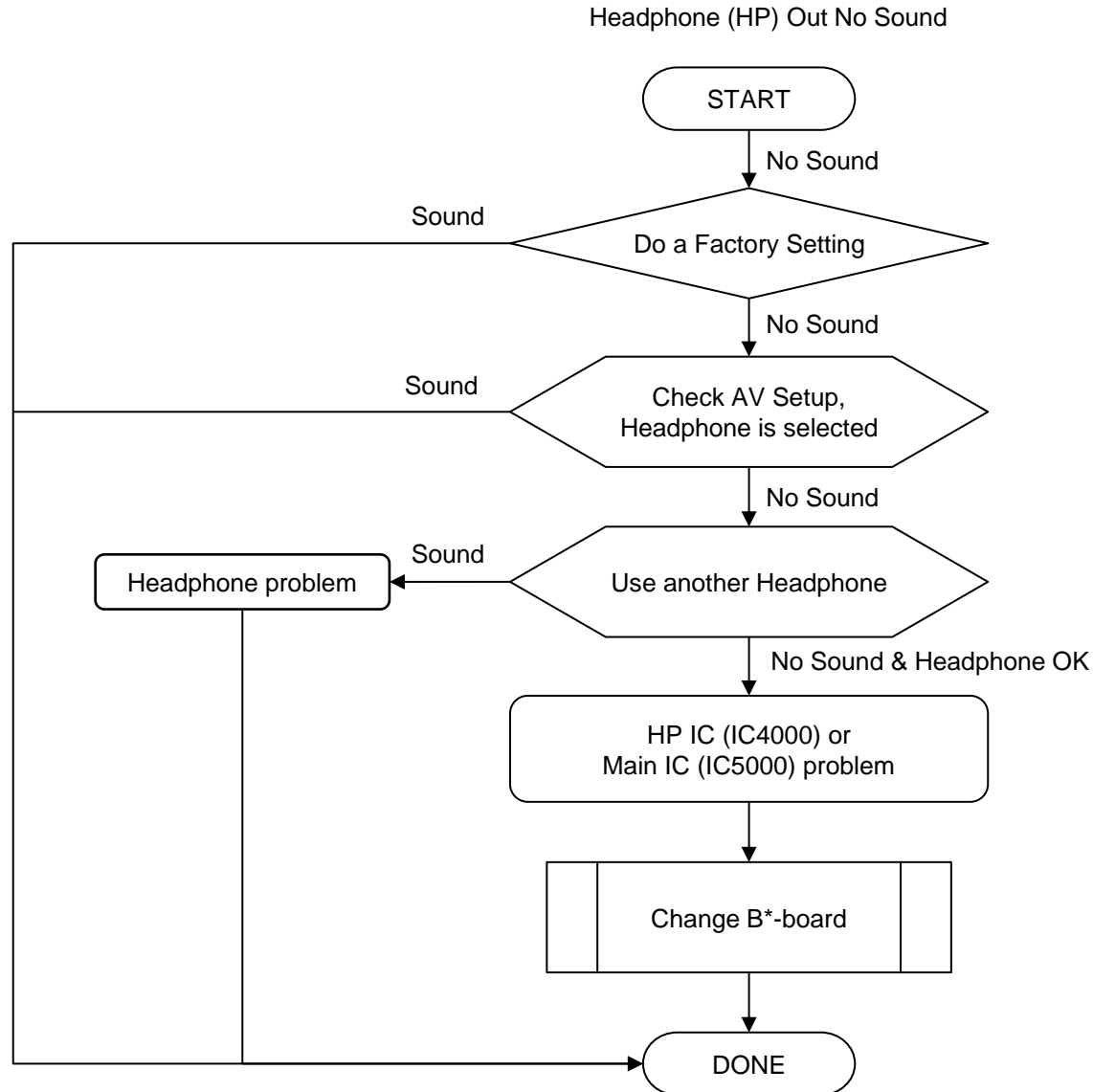


**3-6-2. Main Speaker No Sound (Audio)**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

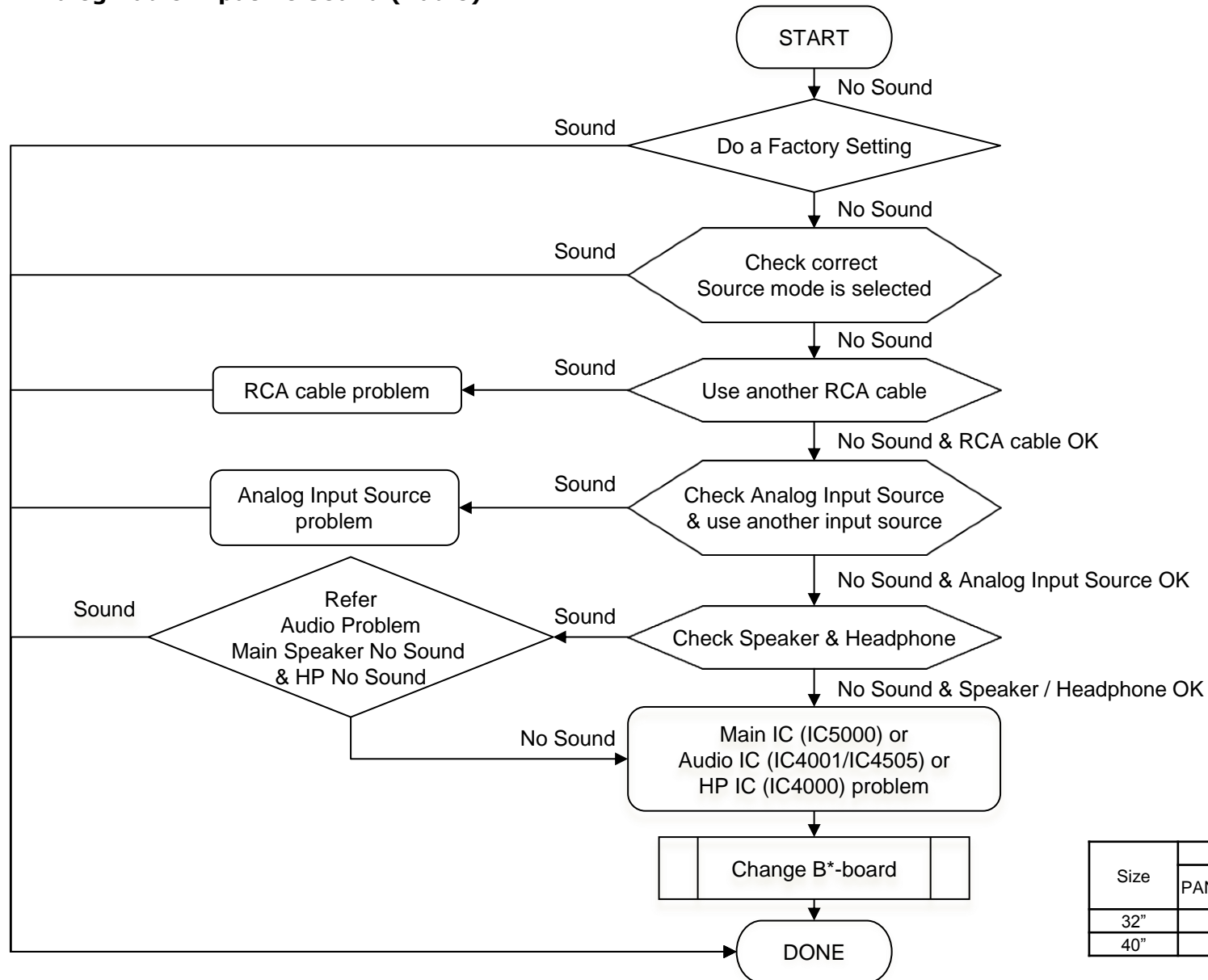
**3-6-3. Headphone (HP) Out No Sound (Audio)**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

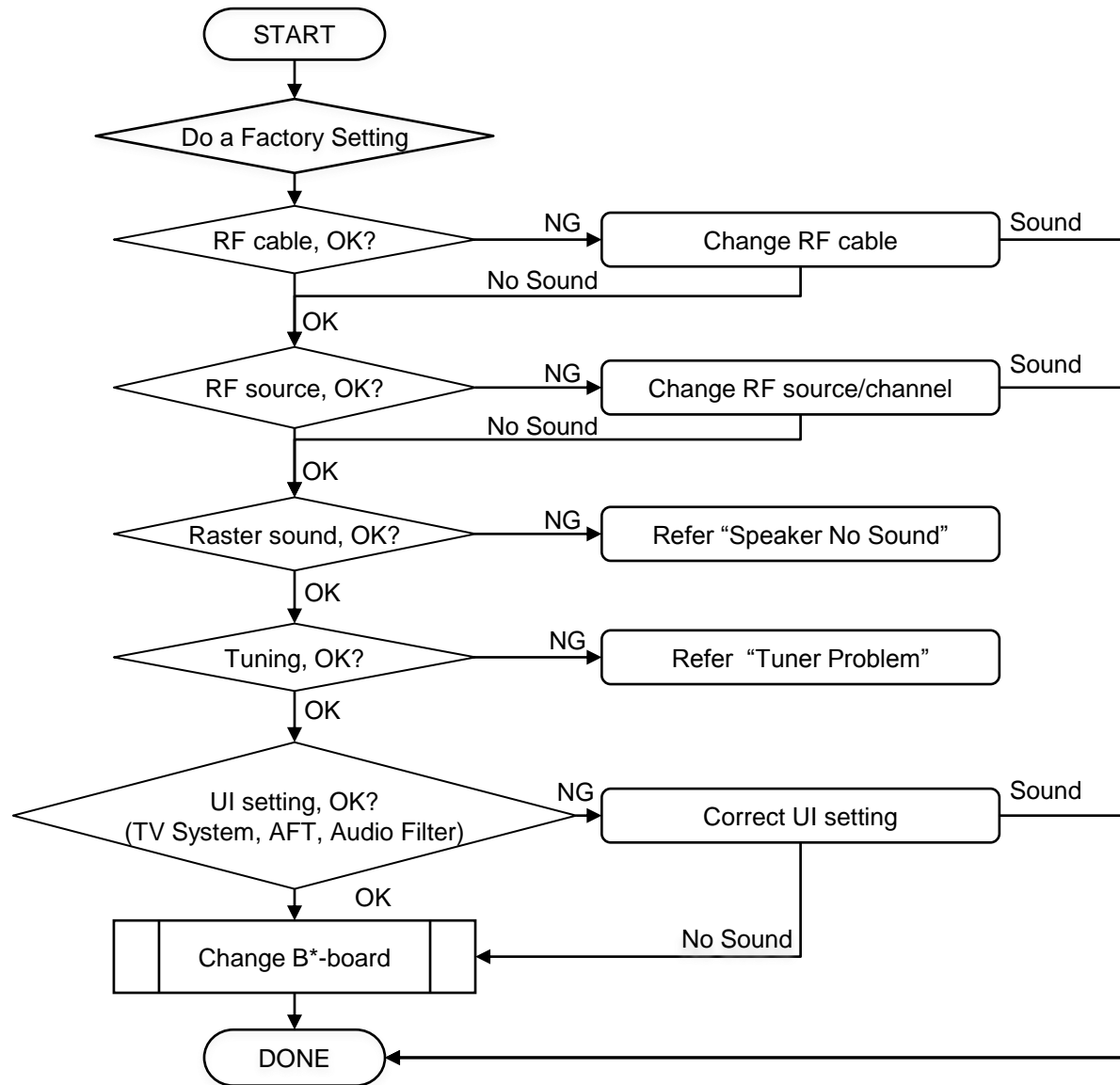


3-6-4. Analog Audio Input No Sound (Audio)



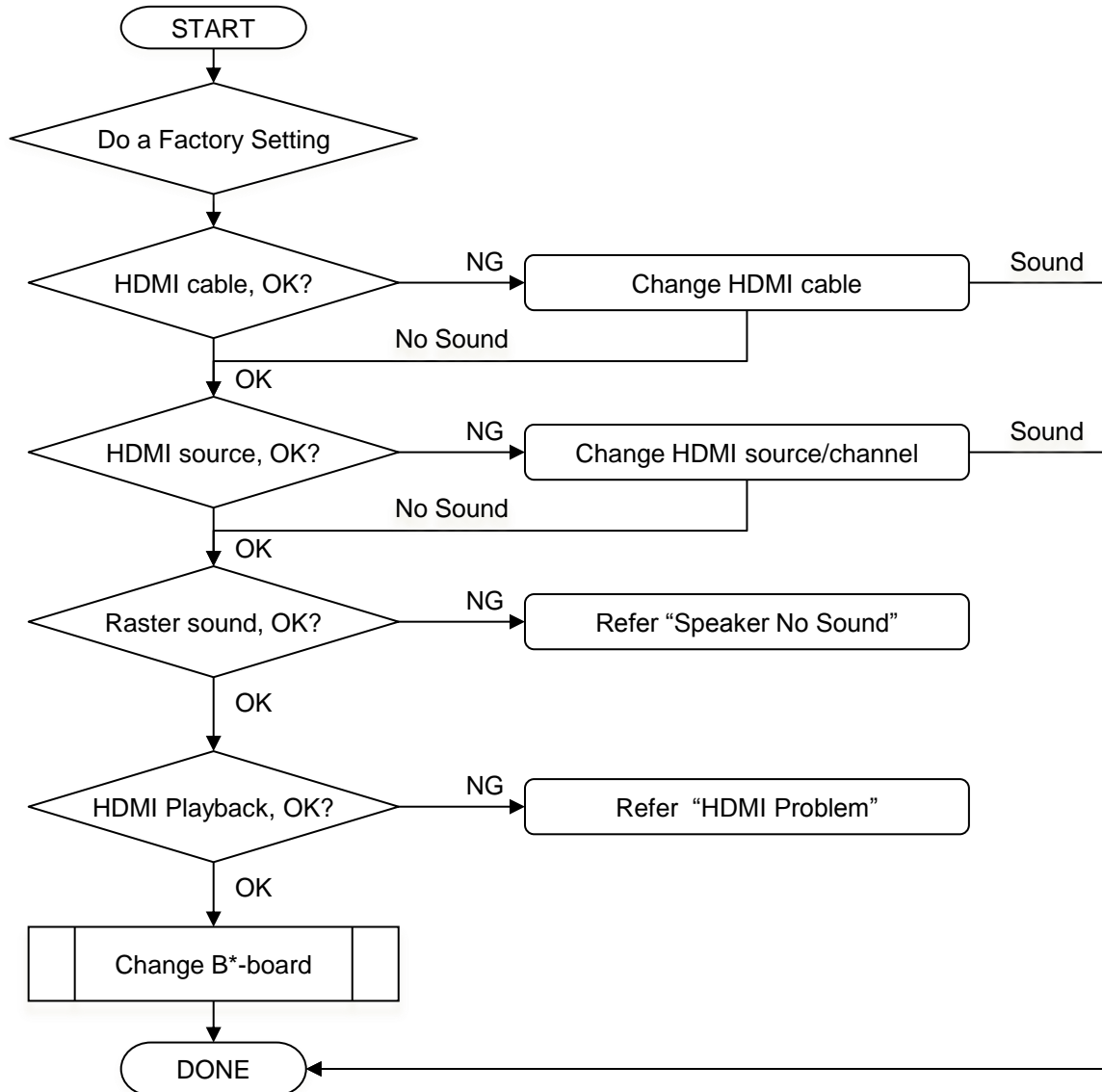
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-6-5. Analog RF No Sound (Audio)**



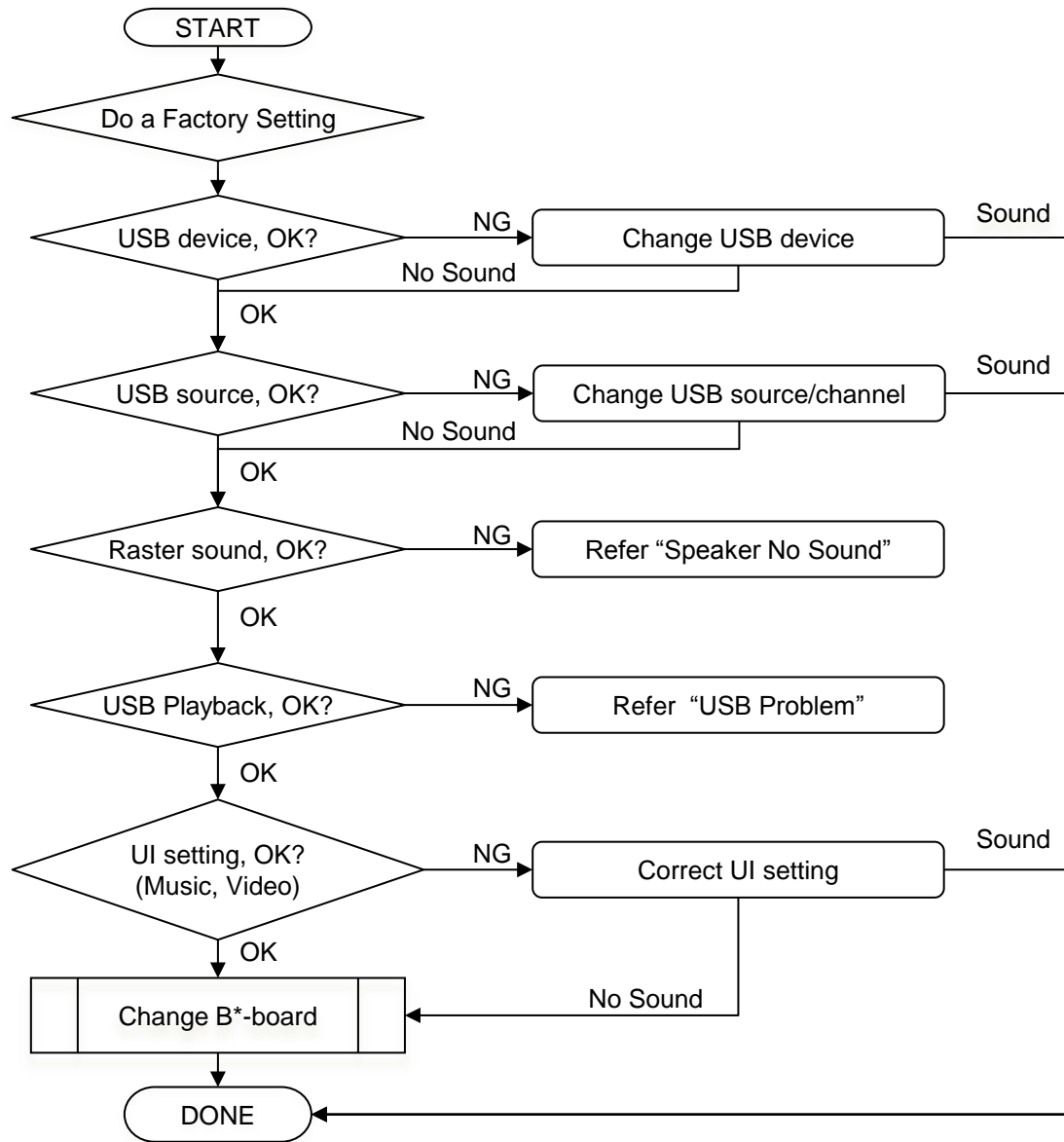
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-6-6. HDMI Audio No Sound (Audio)**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

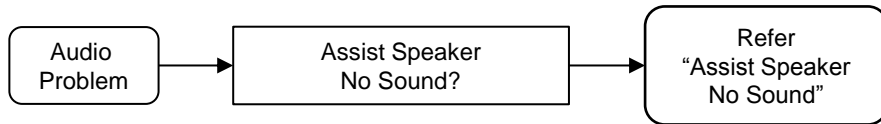
3-6-7. USB No Sound (Audio)



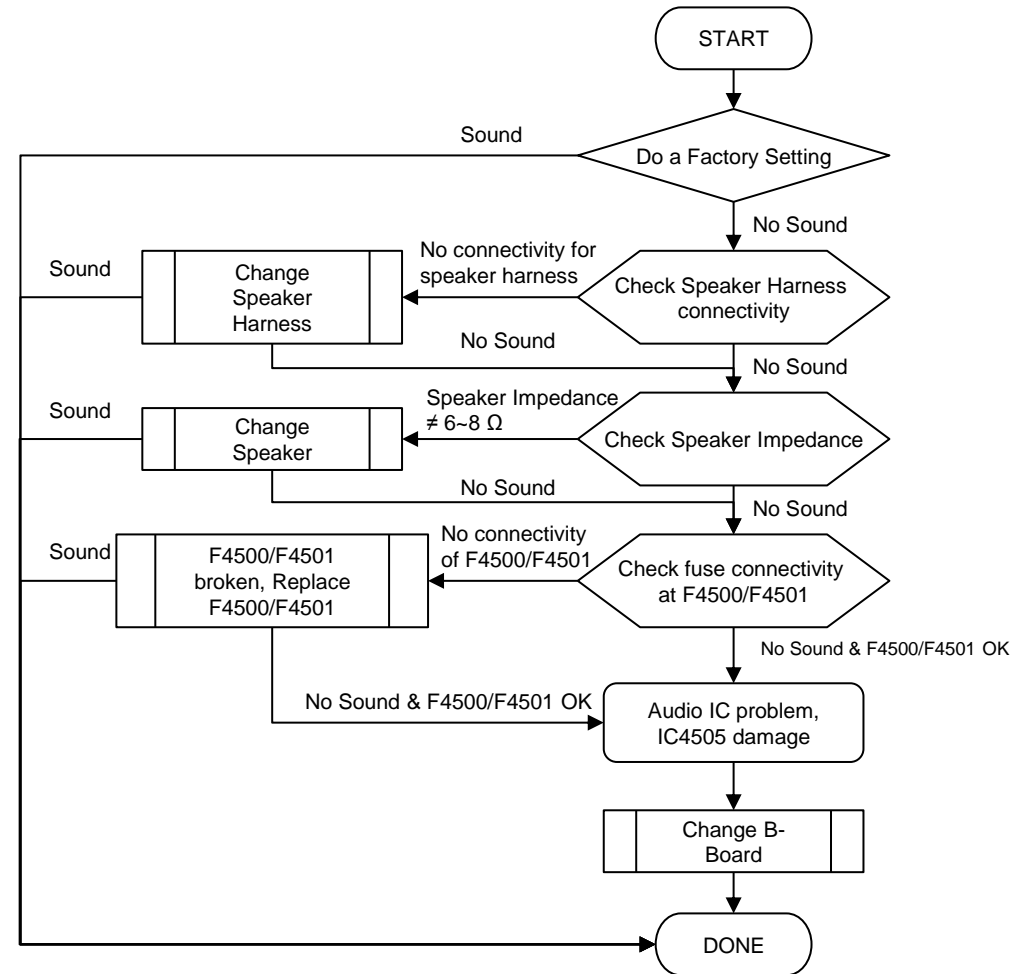
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

\*Confirm with OSD on bottom panel, if playback not support.  
 \*Please refer to IM for detail supported USB audio format.

**3-6-8. Audio Problem (KK-board) (Audio)**



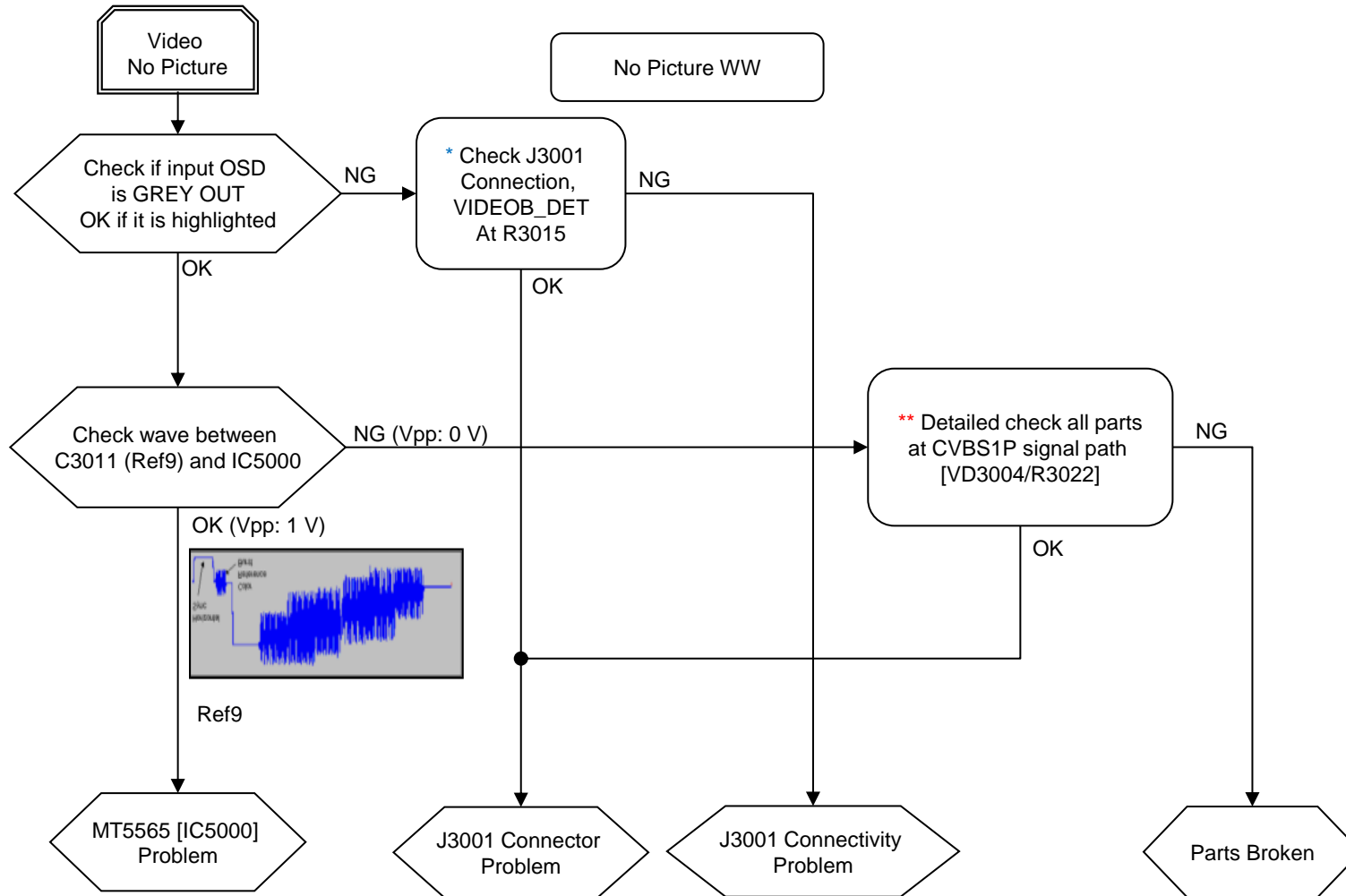
**3-6-9. Audio Problem -Assist Speaker No Sound (Audio)**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

### 3-7. VIDEO PROBLEM

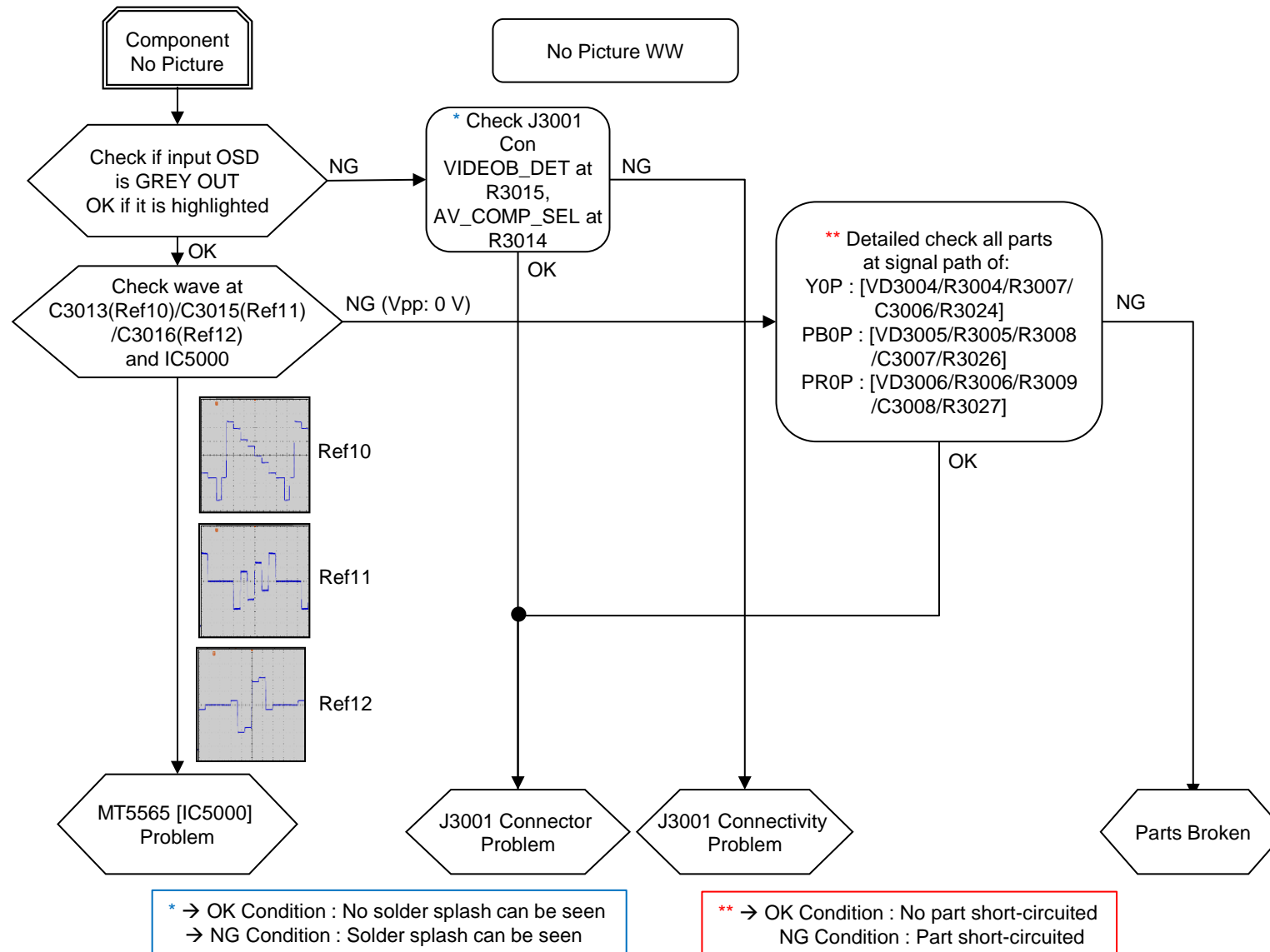
#### 3-7-1. No Picture WW Destination (BA) (a) (Video Problem)



\* → OK Condition : No solder splash can be seen  
 → NG Condition : Solder splash can be seen

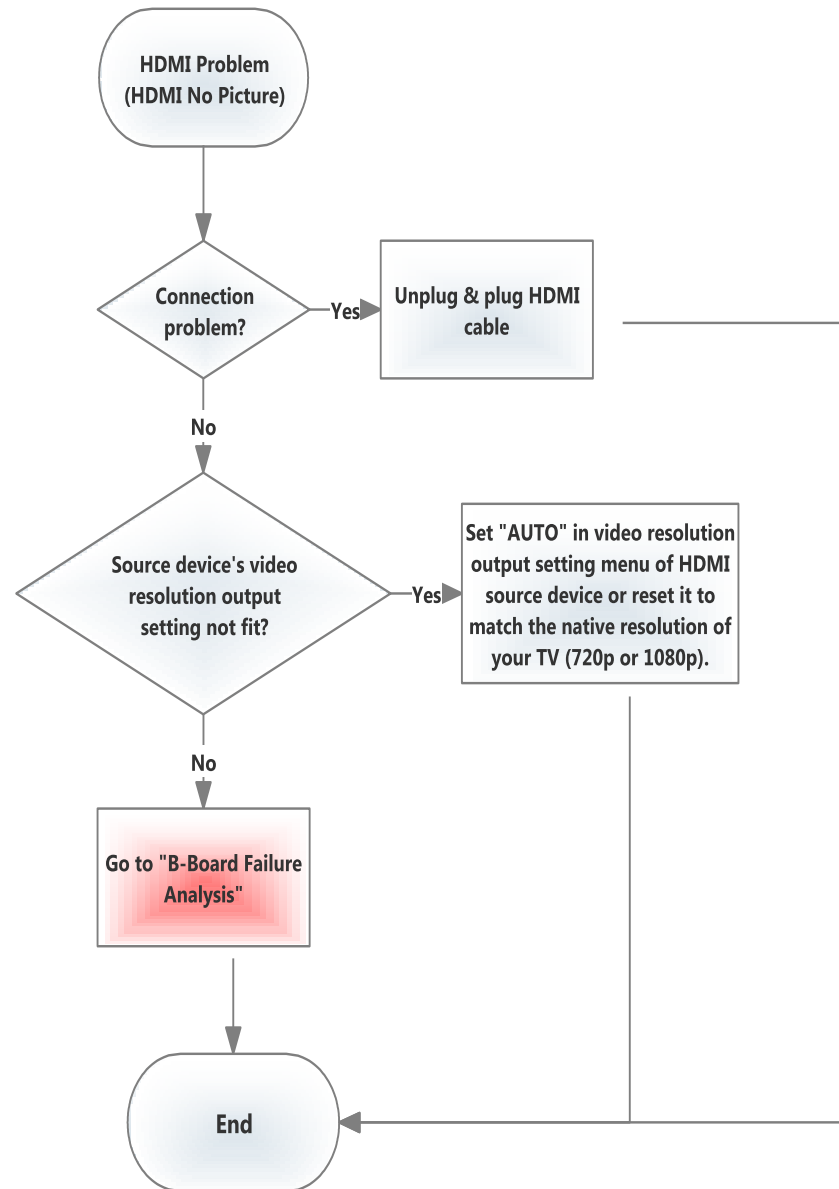
\*\* → OK Condition : No part short-circuited  
 NG Condition : Part short-circuited

3-7-2. No Picture WW Destination (BA) (b) (Video Problem)



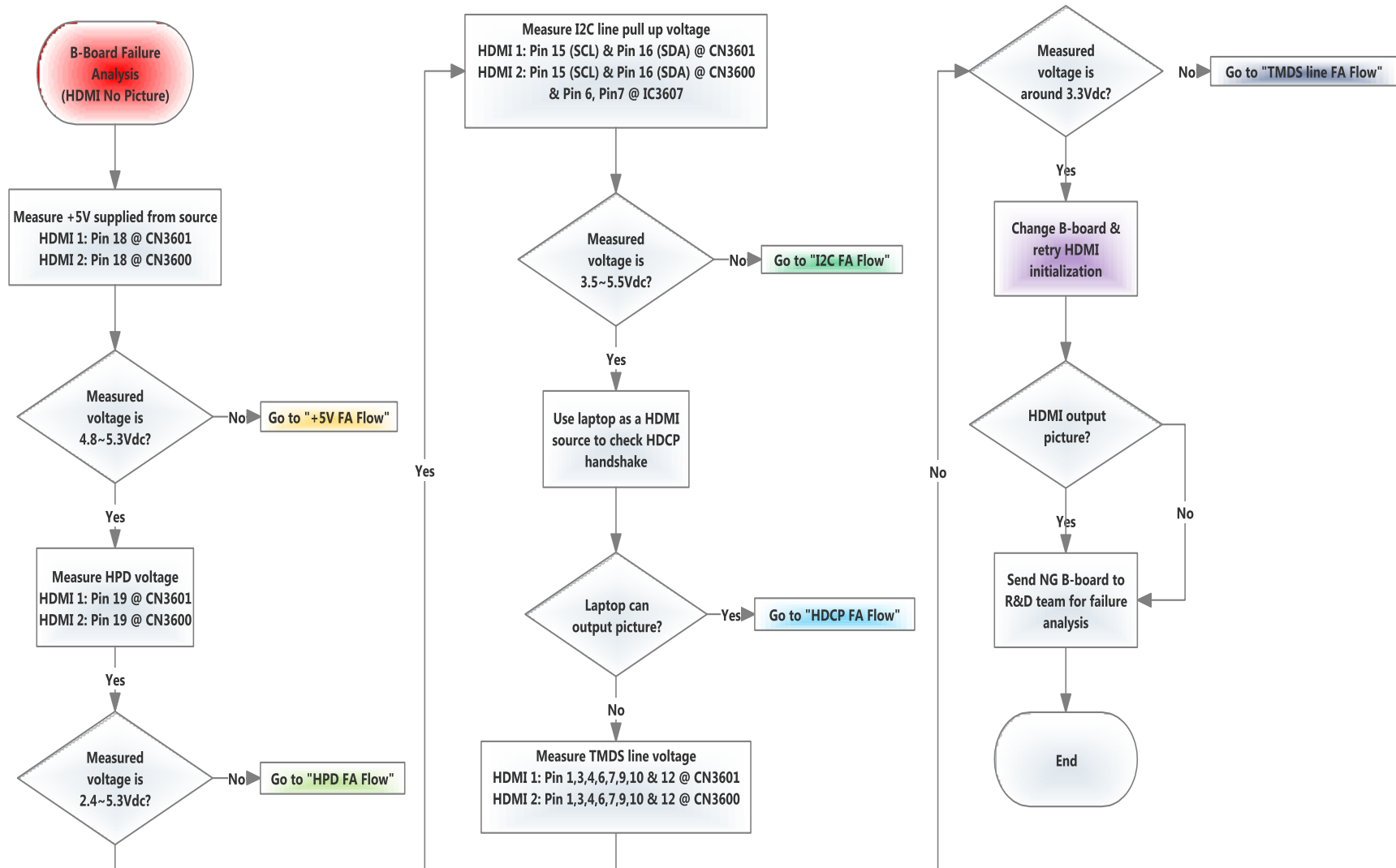
### 3-8. HDMI PROBLEM

#### 3-8-1. HDMI No Picture Basic Checking (HDMI Problem)

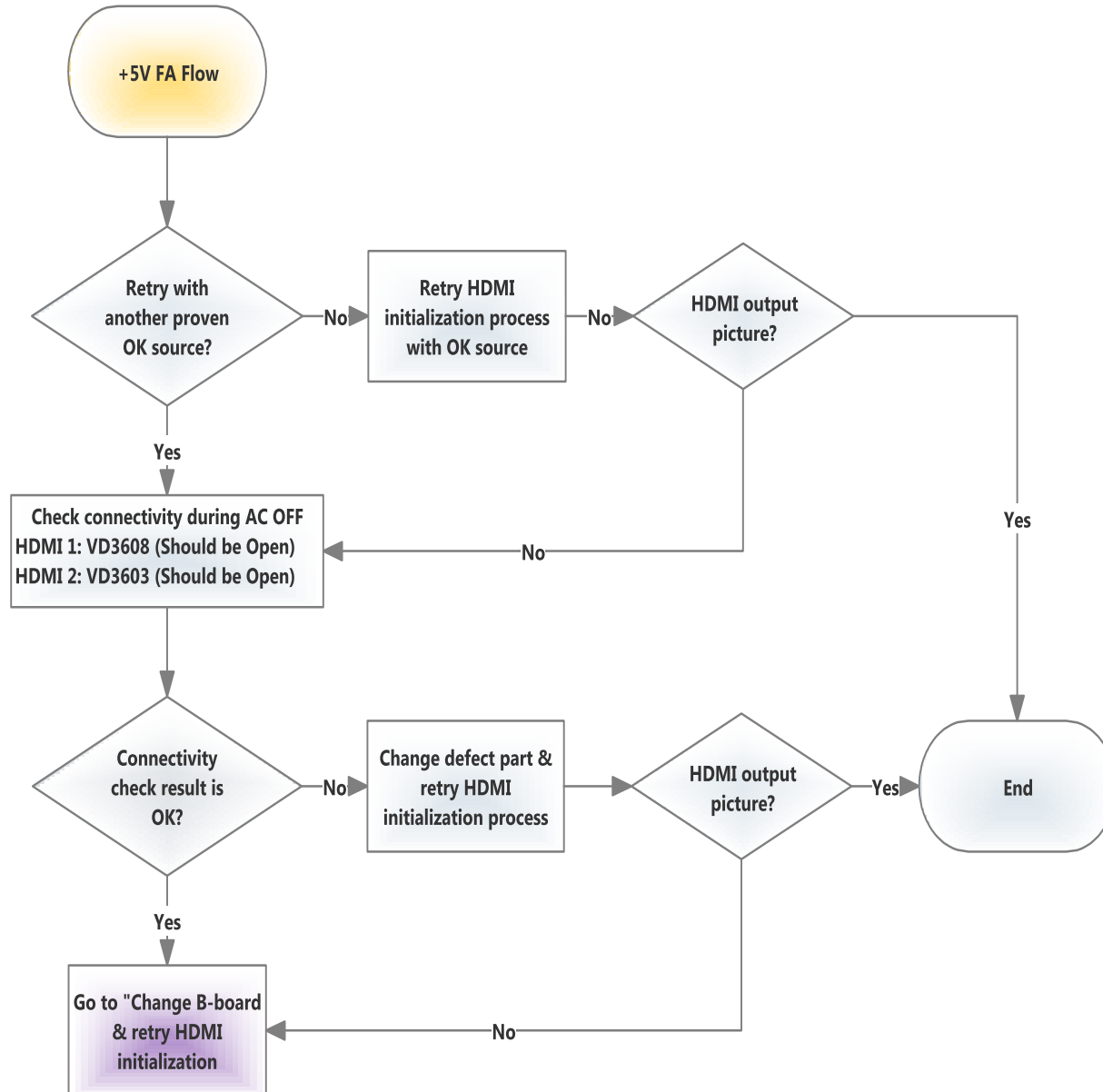




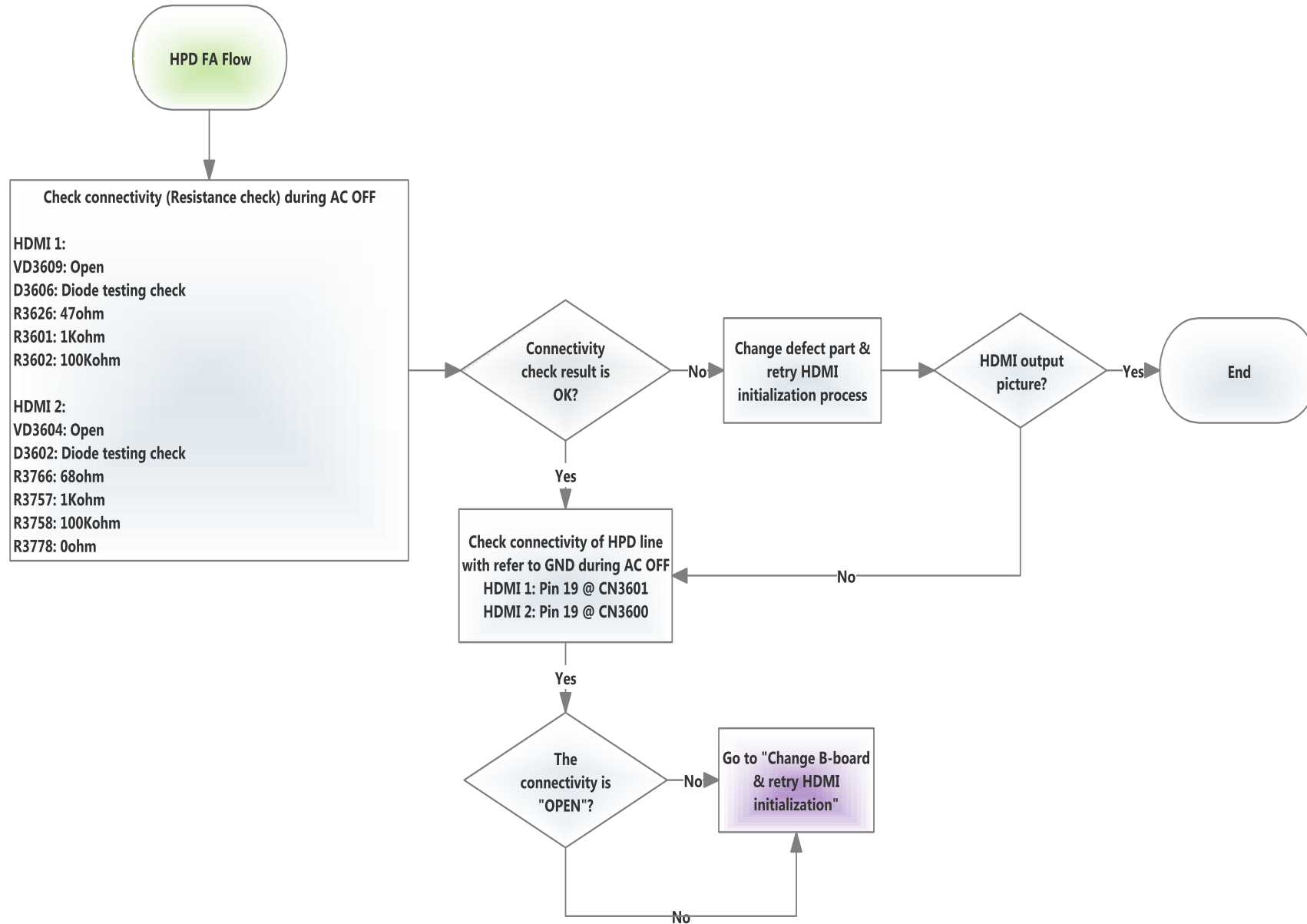
3-8-2. HDMI 1 & 2 Failure (BA (Non MHL) Board) - Main Flowchart (HDMI Problem)



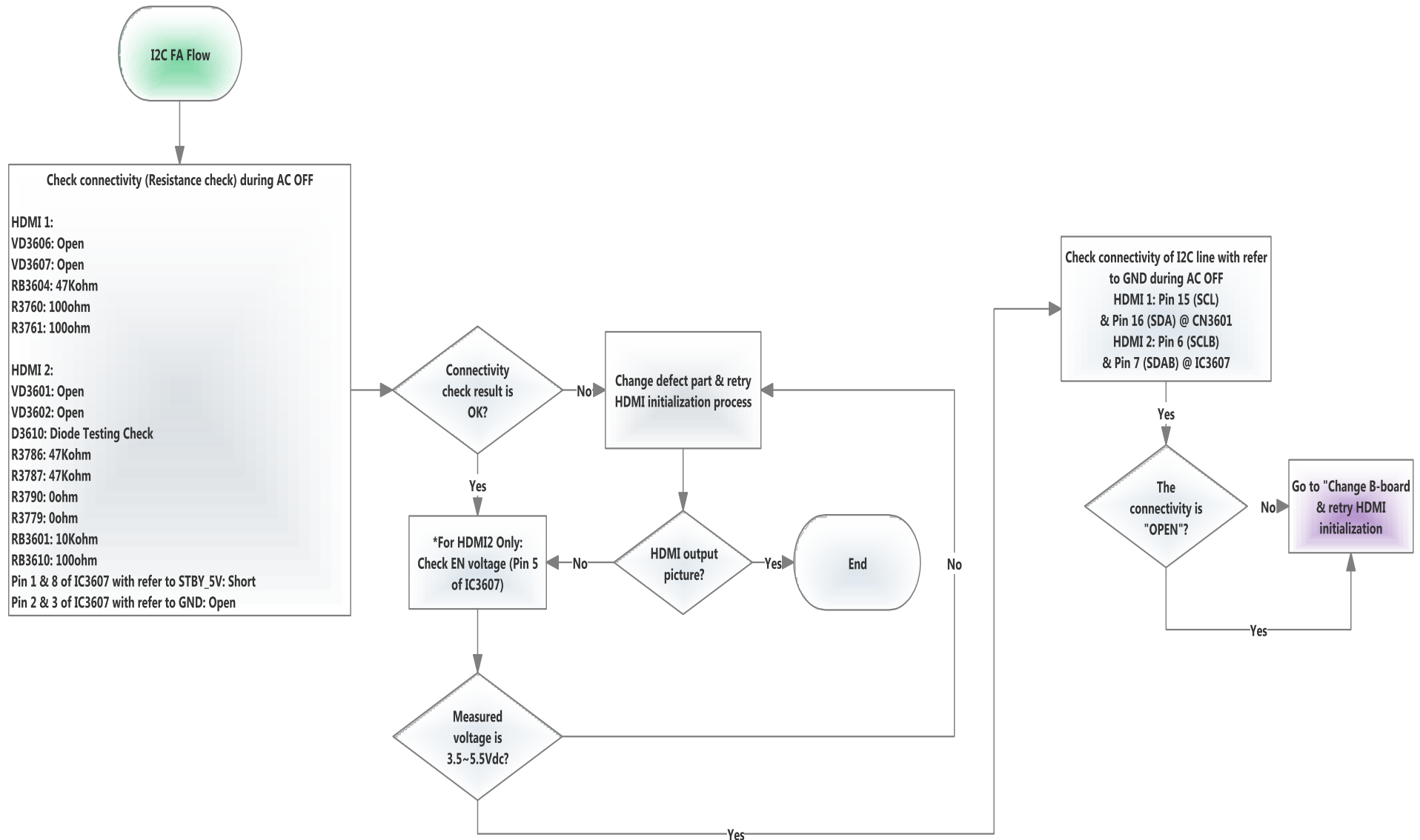
**3-8-3. HDMI 1 & 2 Failure (BA (Non MHL) Board) +5V FA Flow (HDMI Problem)**



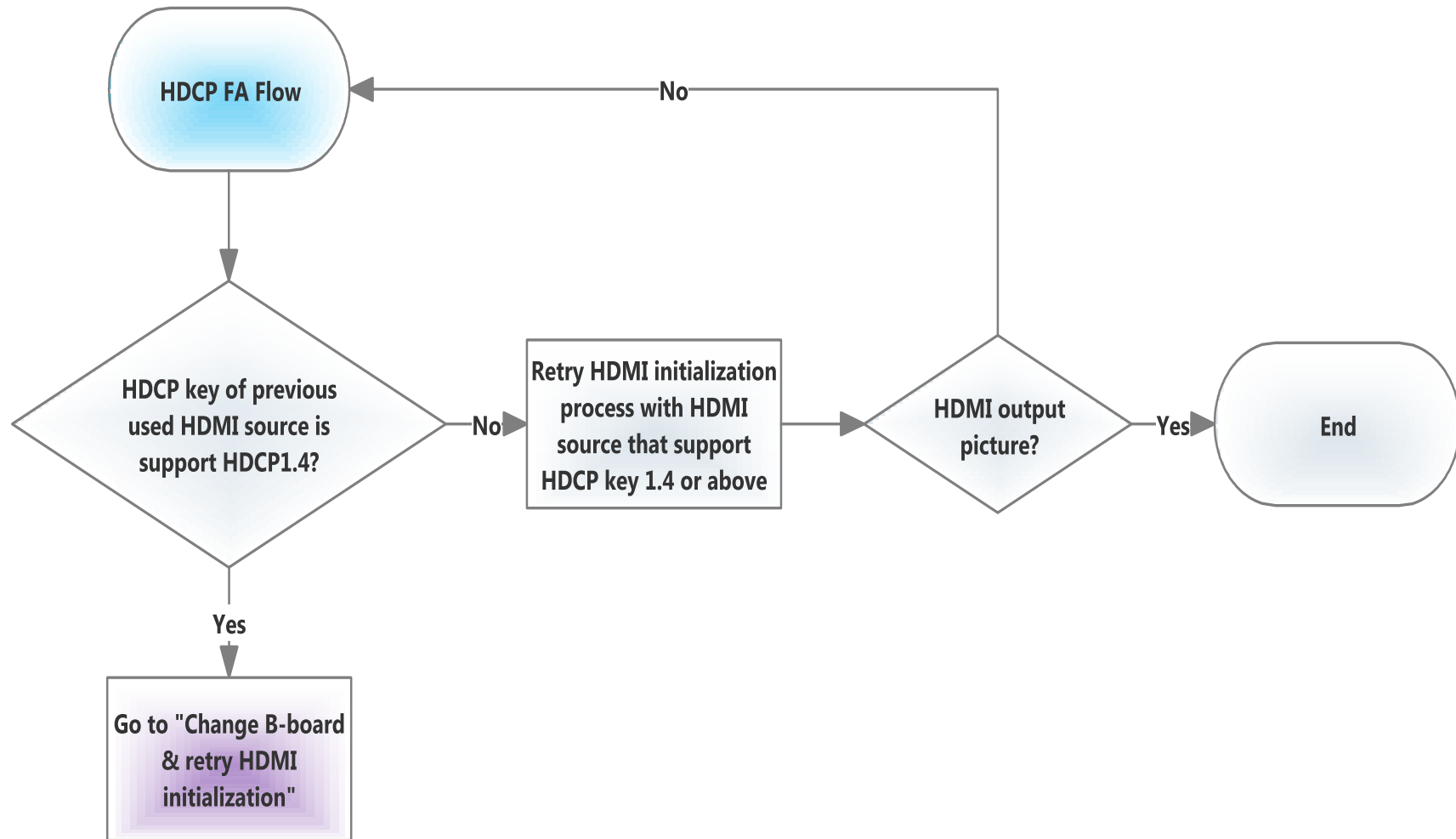
3-8-4. HDMI 1 & 2 Failure (BA (Non MHL) Board) HPD FA Flow (HDMI Problem)



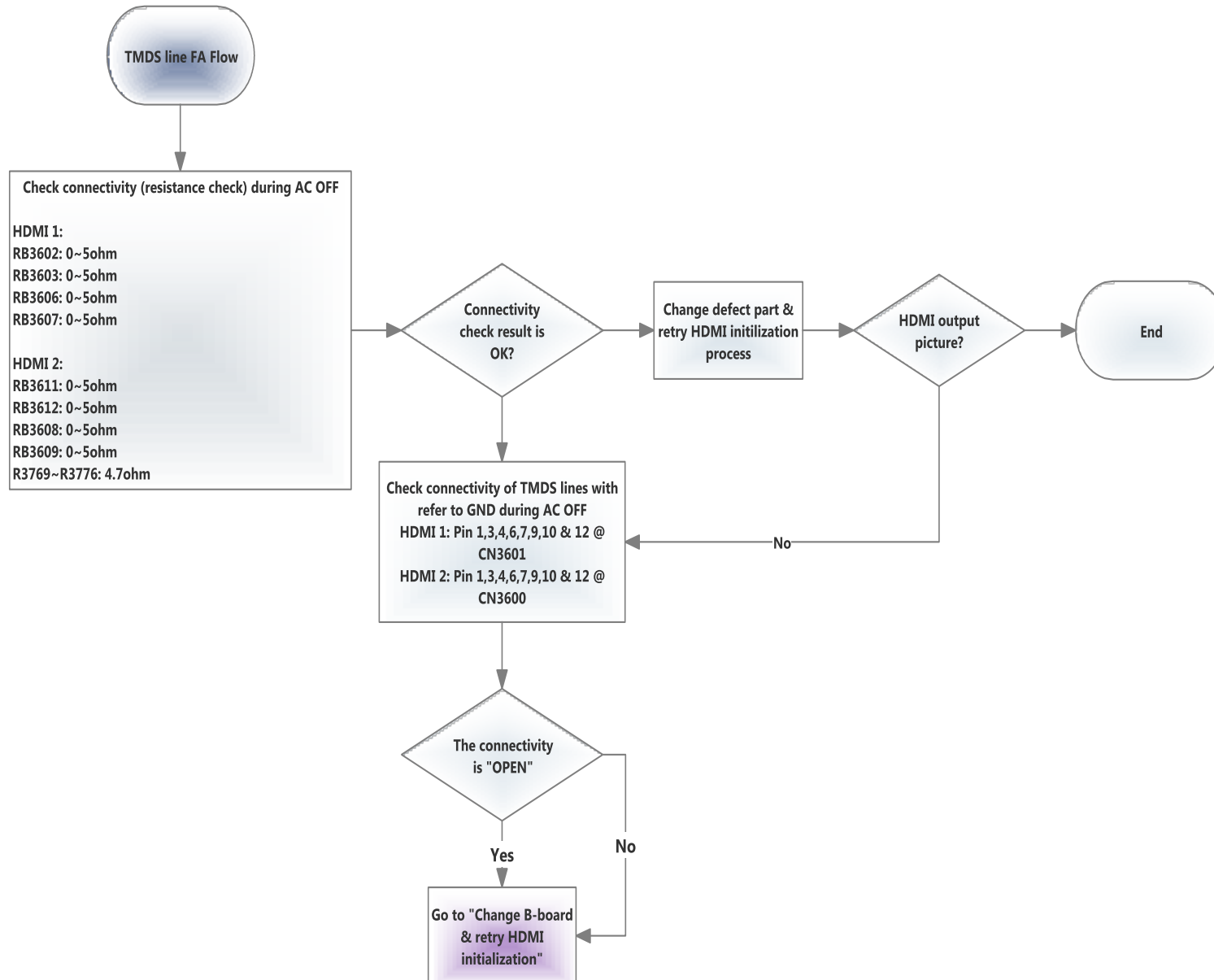
3-8-5. HDMI 1 & 2 Failure (BA (Non MHL) Board) I2C FA Flow (HDMI Problem)



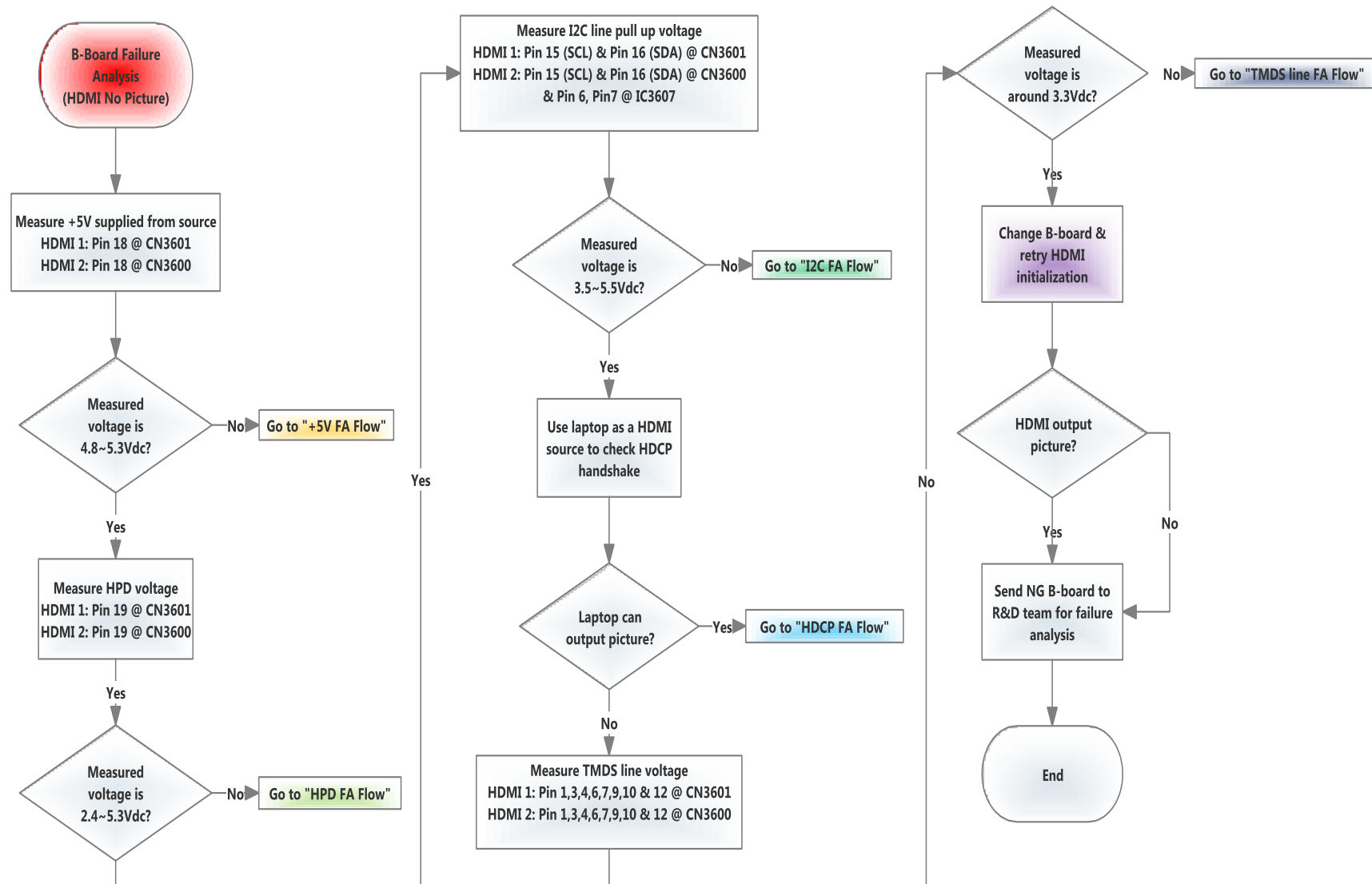
3-8-6. HDMI 1 & 2 Failure (BA (Non MHL) Board) HDCP FA Flow (HDMI Problem)



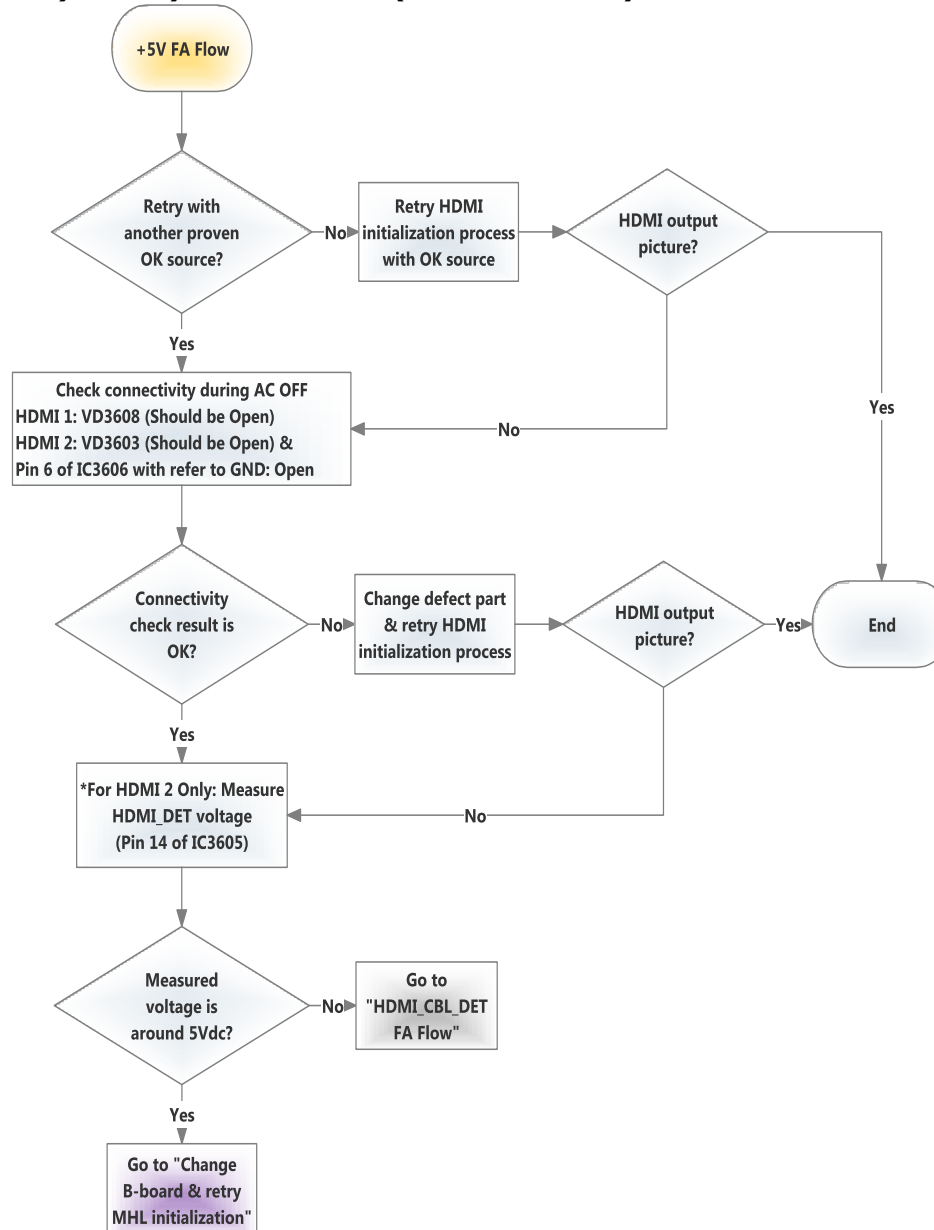
3-8-7. HDMI 1 & 2 Failure (BA (Non MHL) Board) TMDS line FA Flow (HDMI Problem)



3-8-8. HDMI 1 & 2 Failure (BA (MHL) Board) - Main Flowchart (HDMI Problem)

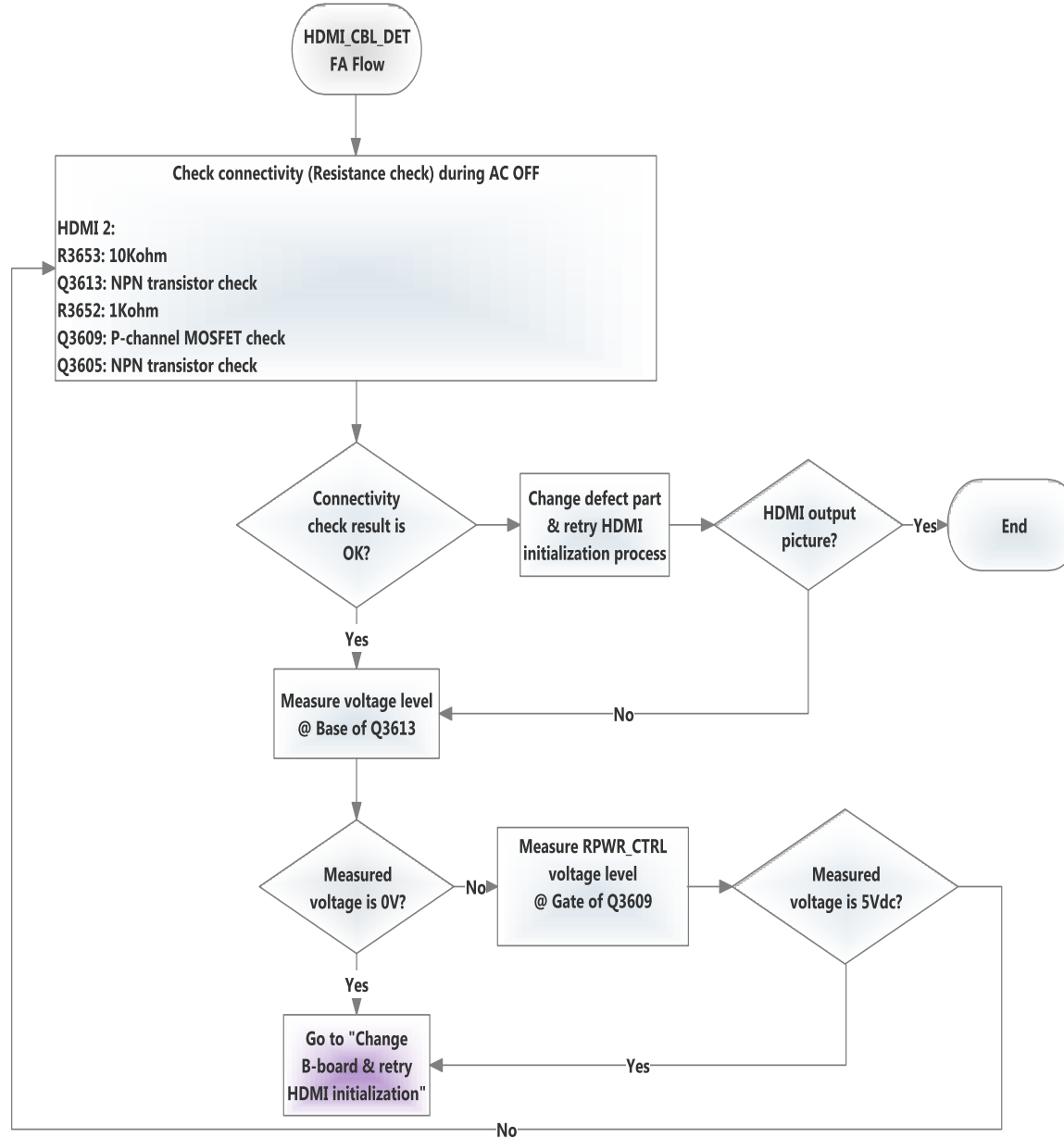


3-8-9. HDMI 1 & 2 Failure (BA (MHL) Board) +5V FA Flow (HDMI Problem)

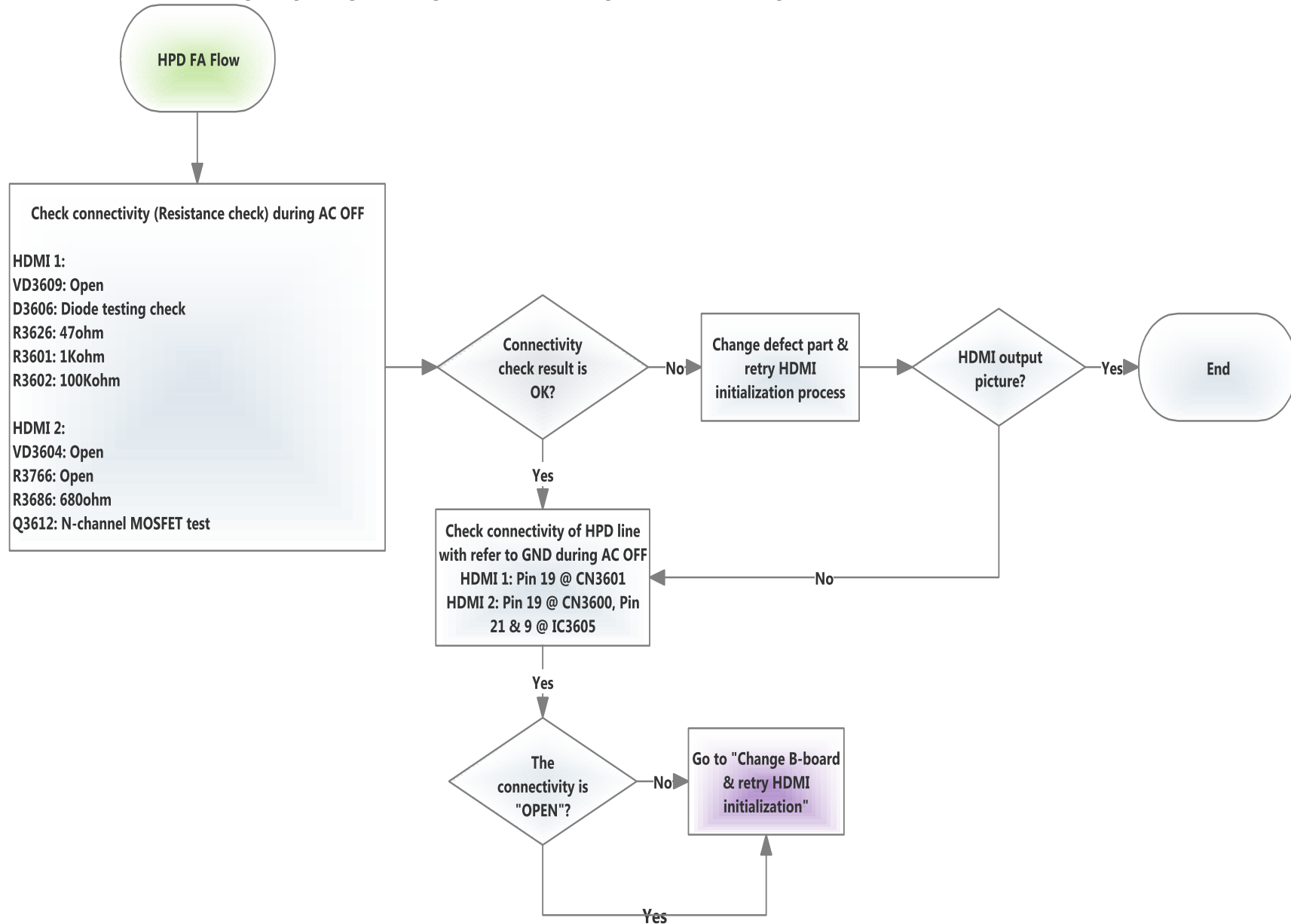




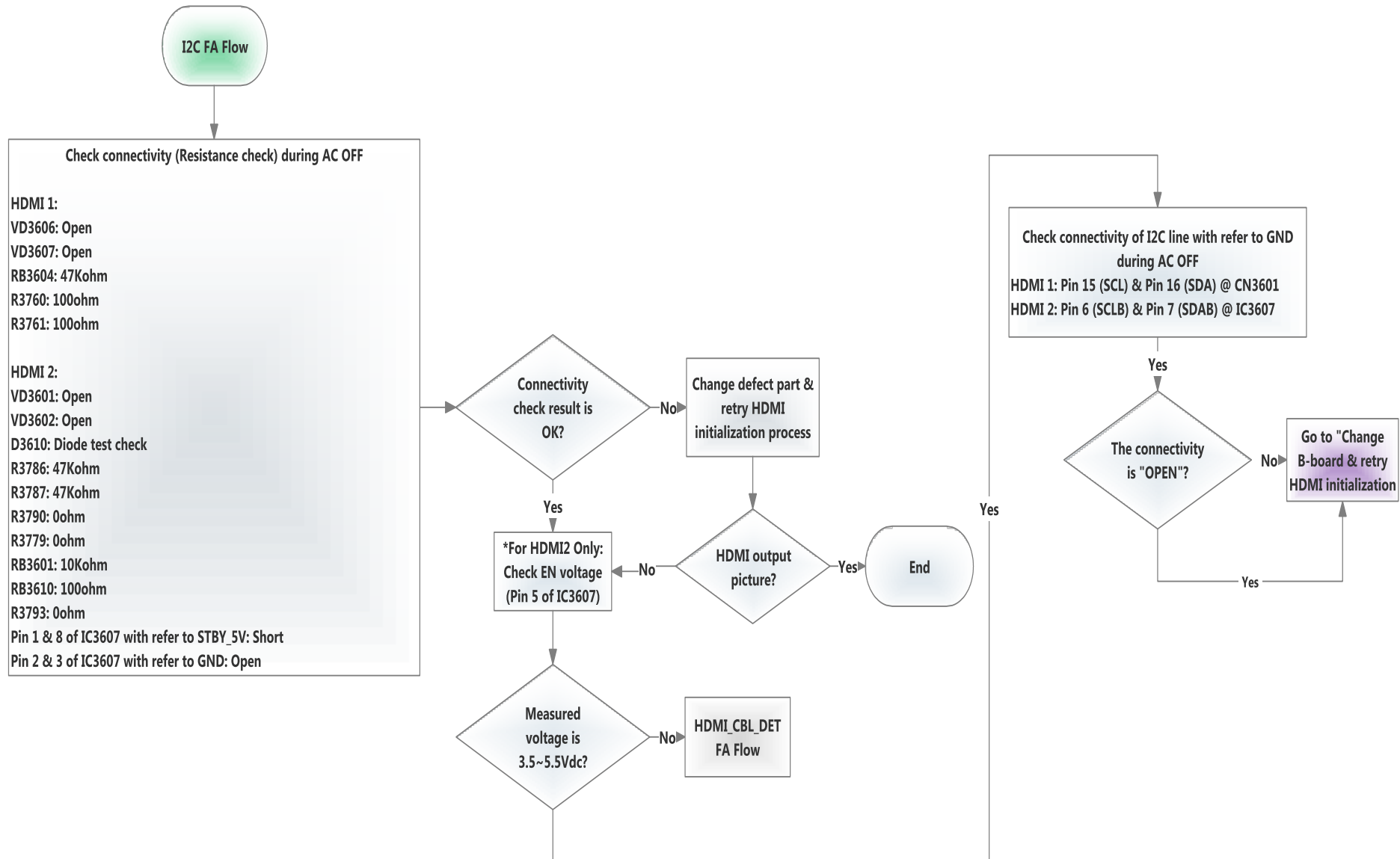
3-8-10. HDMI 1 & 2 Failure (BA (MHL) Board) HDMI\_CBL\_DET FA Flow (HDMI Problem)



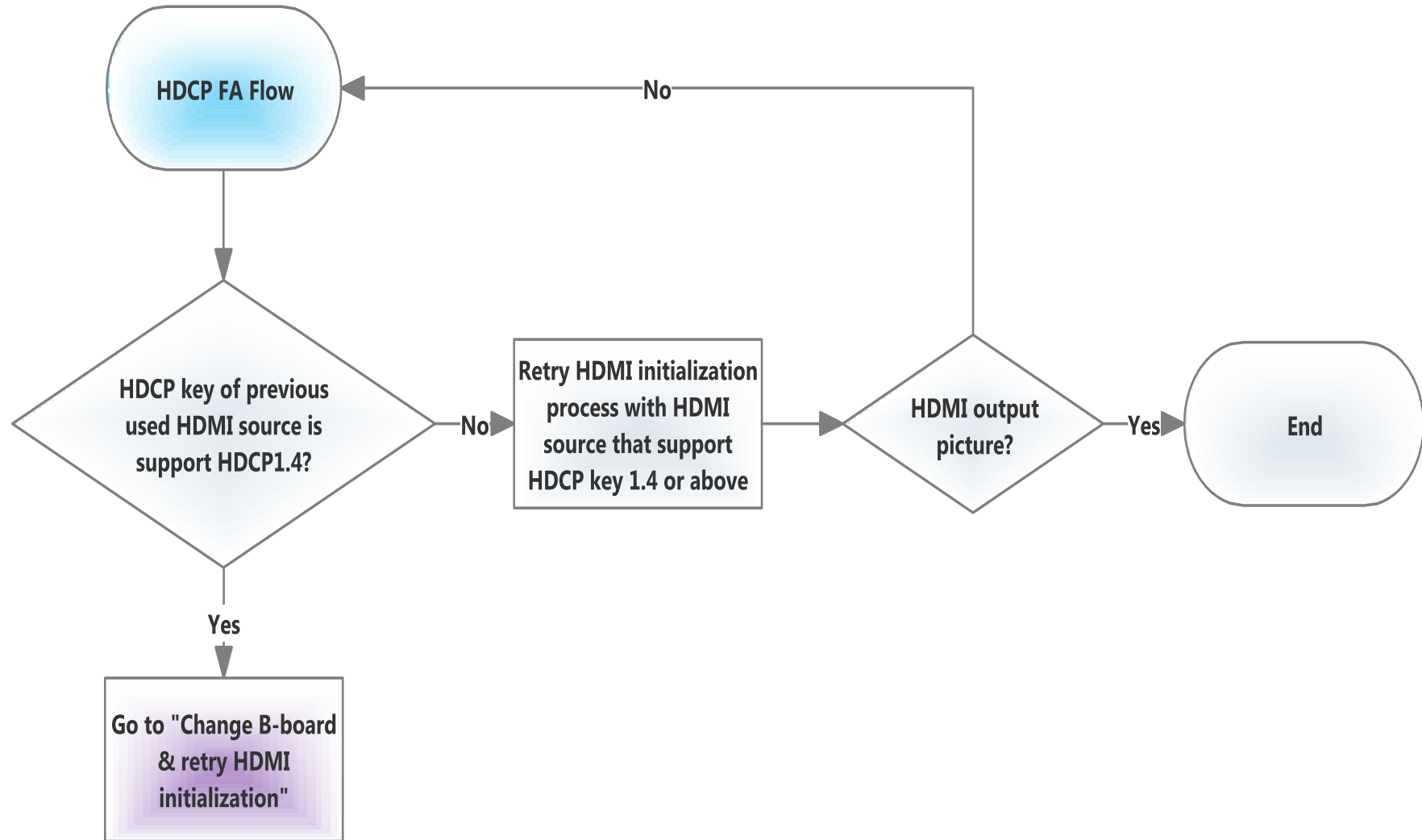
3-8-11. HDMI 1 & 2 Failure (BA (MHL) Board) HPD FA Flow (HDMI Problem)



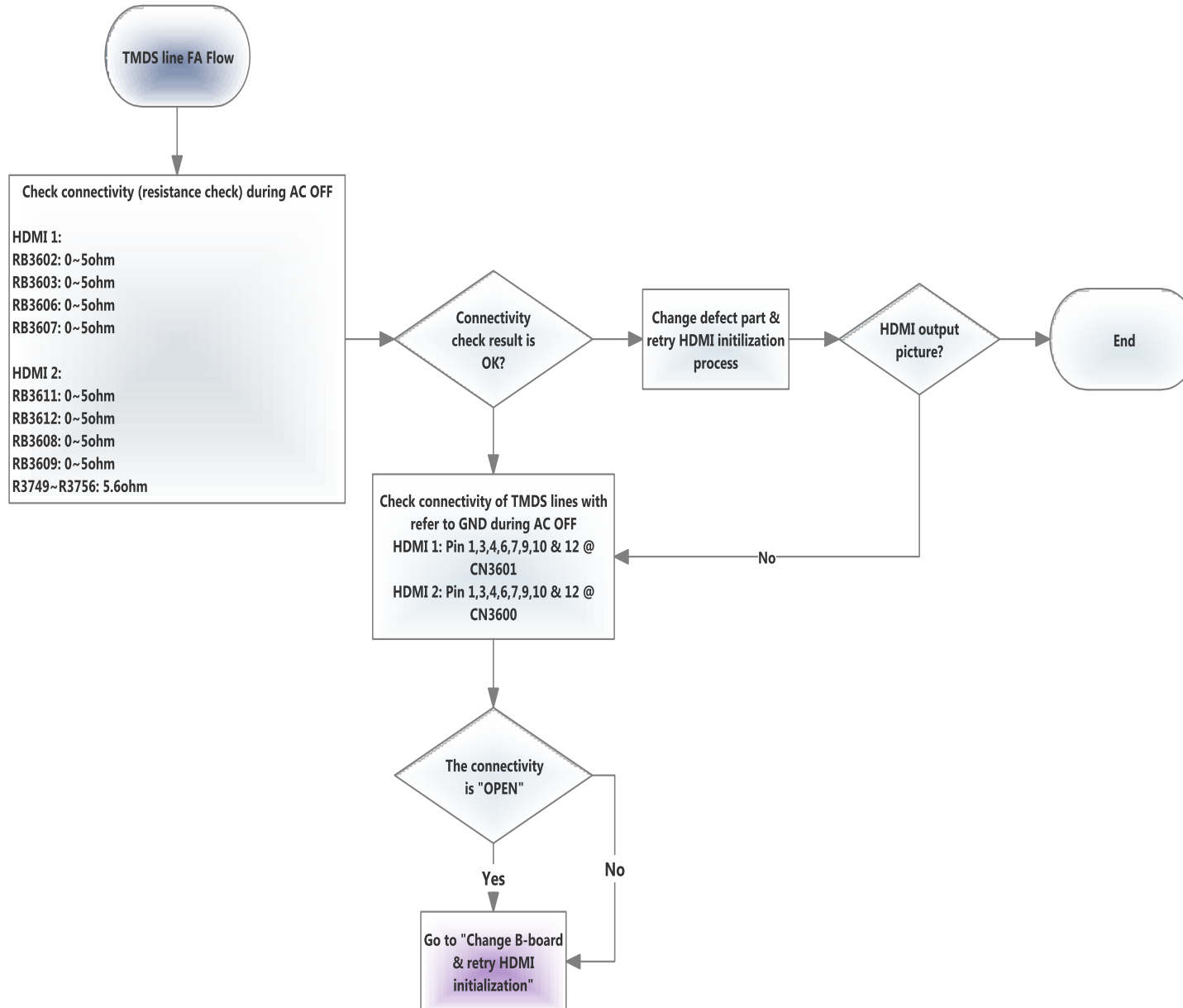
3-8-12. HDMI 1 & 2 Failure (BA (MHL) Board) I2C FA Flow (HDMI Problem)



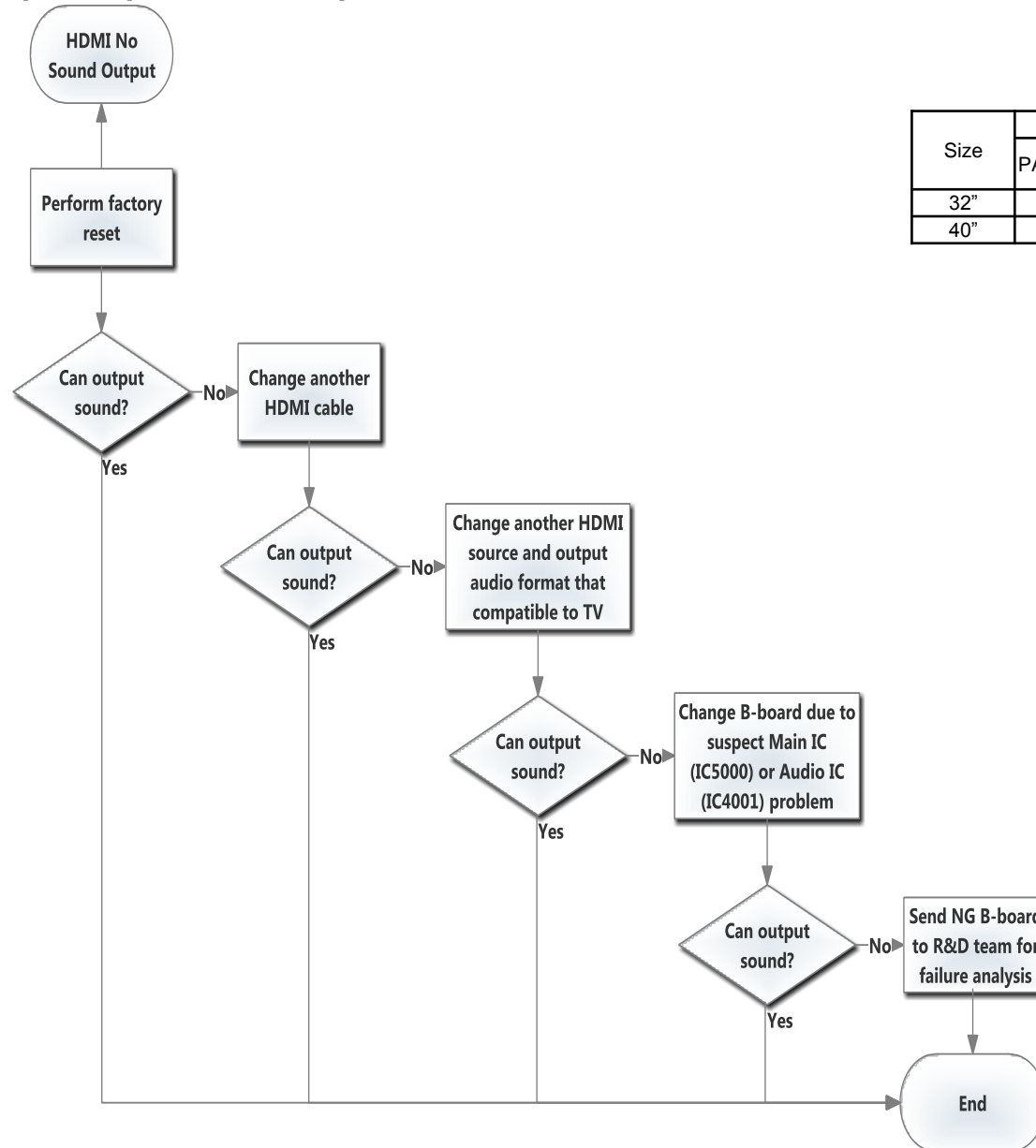
3-8-13. HDMI 1 & 2 Failure (BA (MHL) Board) HDCP FA Flow (HDMI Problem)



3-8-14. HDMI 1 & 2 Failure (BA (MHL) Board) TMDS Line FA Flow (HDMI Problem)



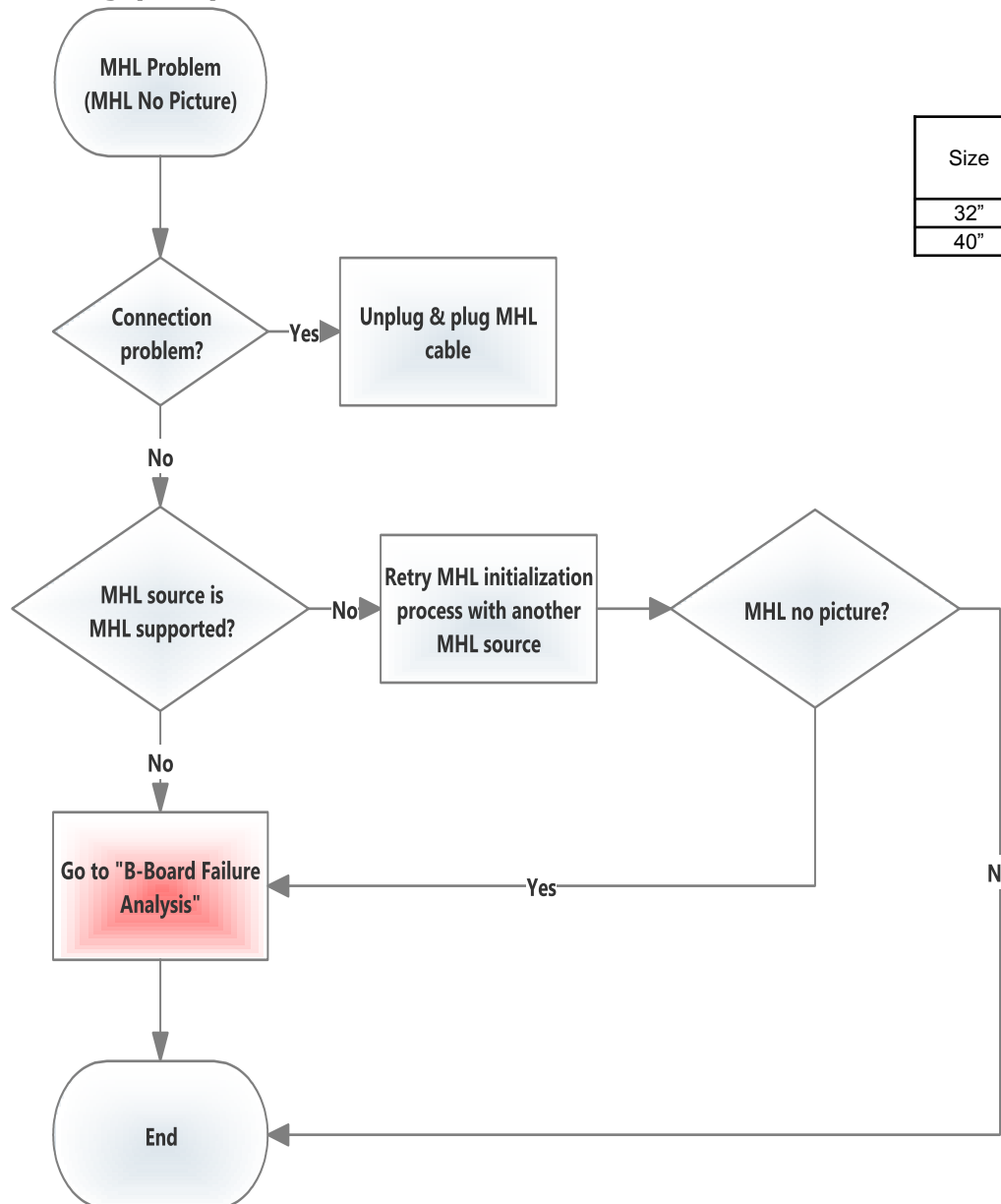
**3-8-15. HDMI No Sound Output FA (HDMI Problem)**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

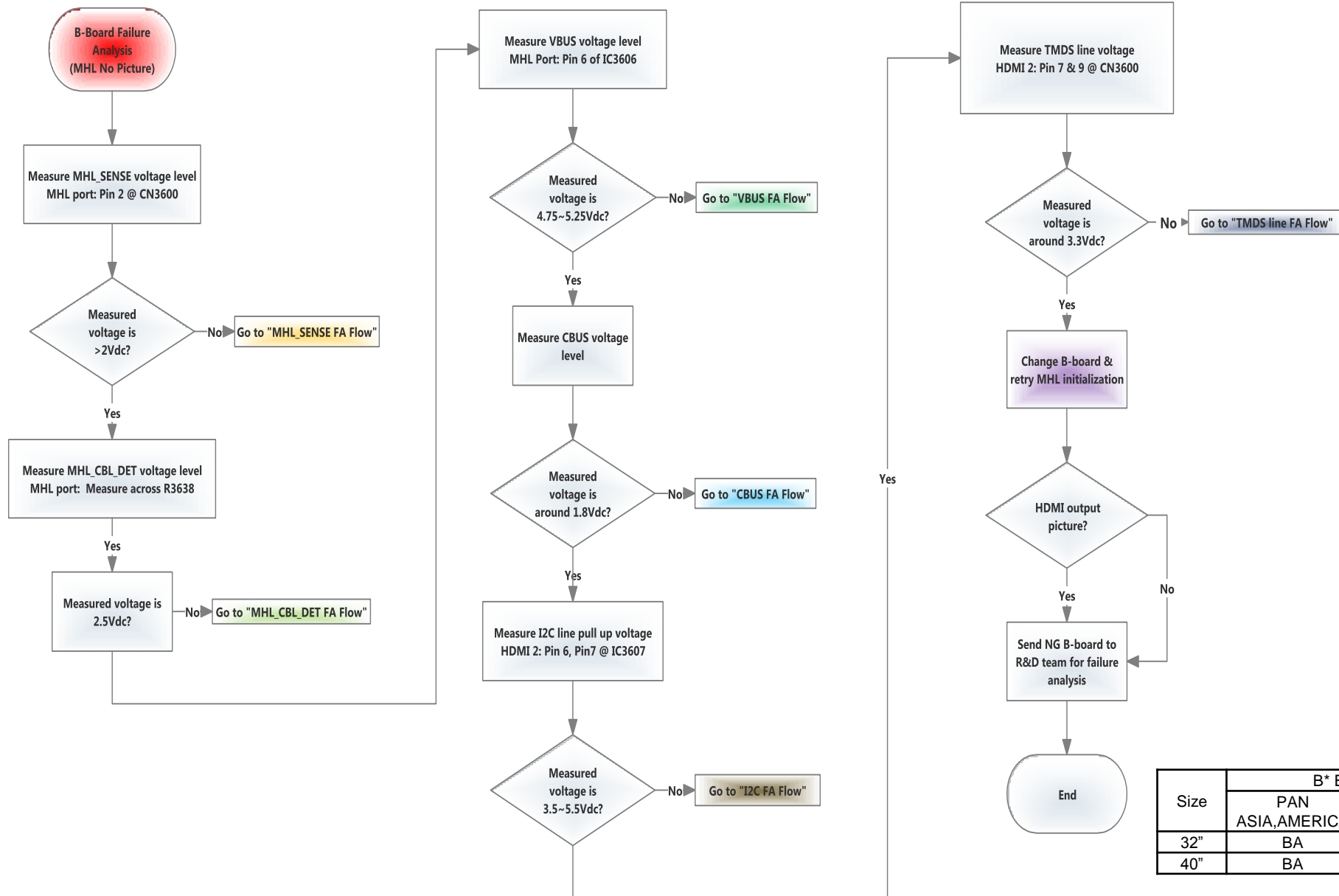
**3-9. MHL**

**3-9-1. MHL No Picture Basic Checking (MHL)**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

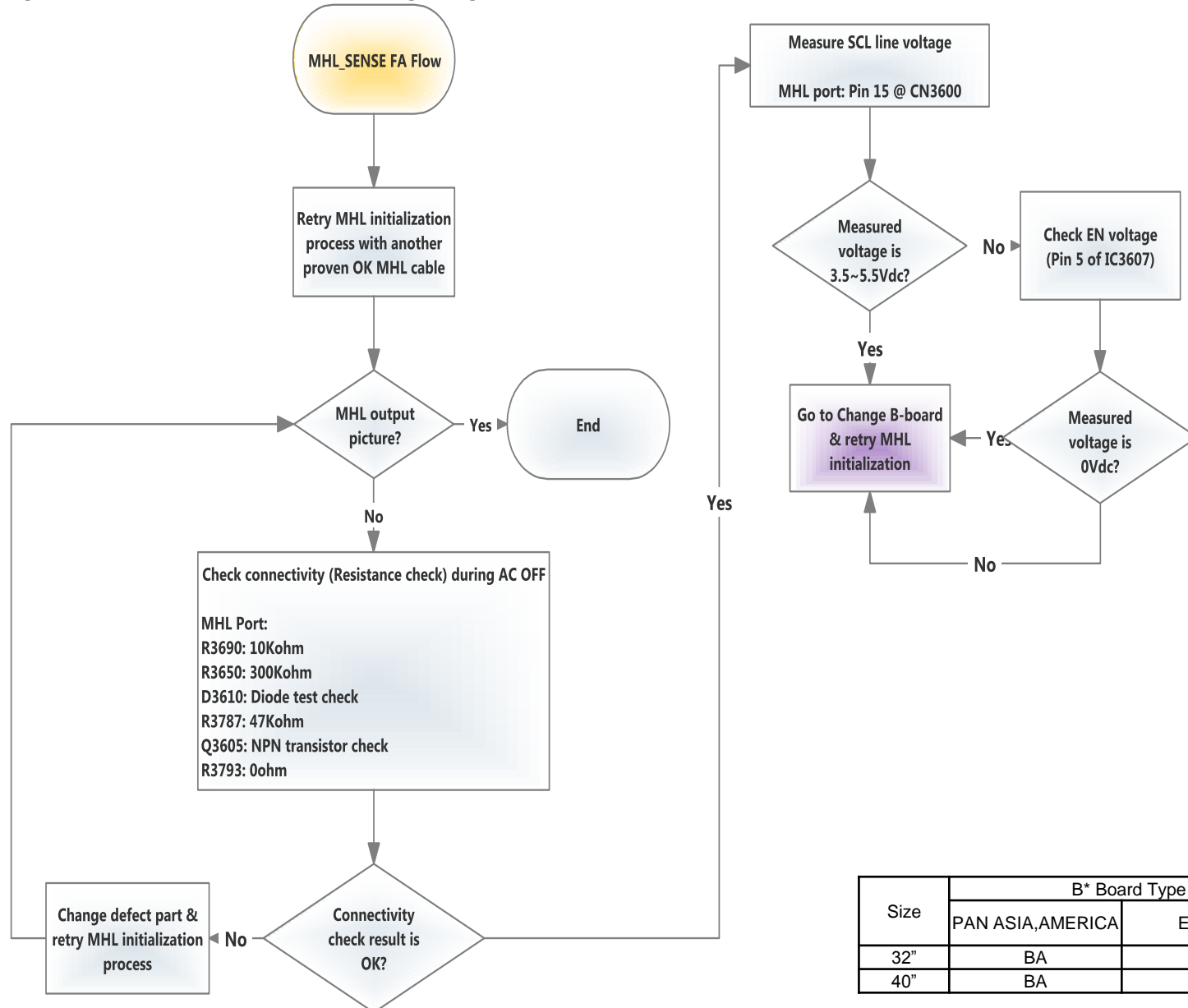
3-9-2. MHL Failure Analysis Flow Main Flow Chart (MHL)



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

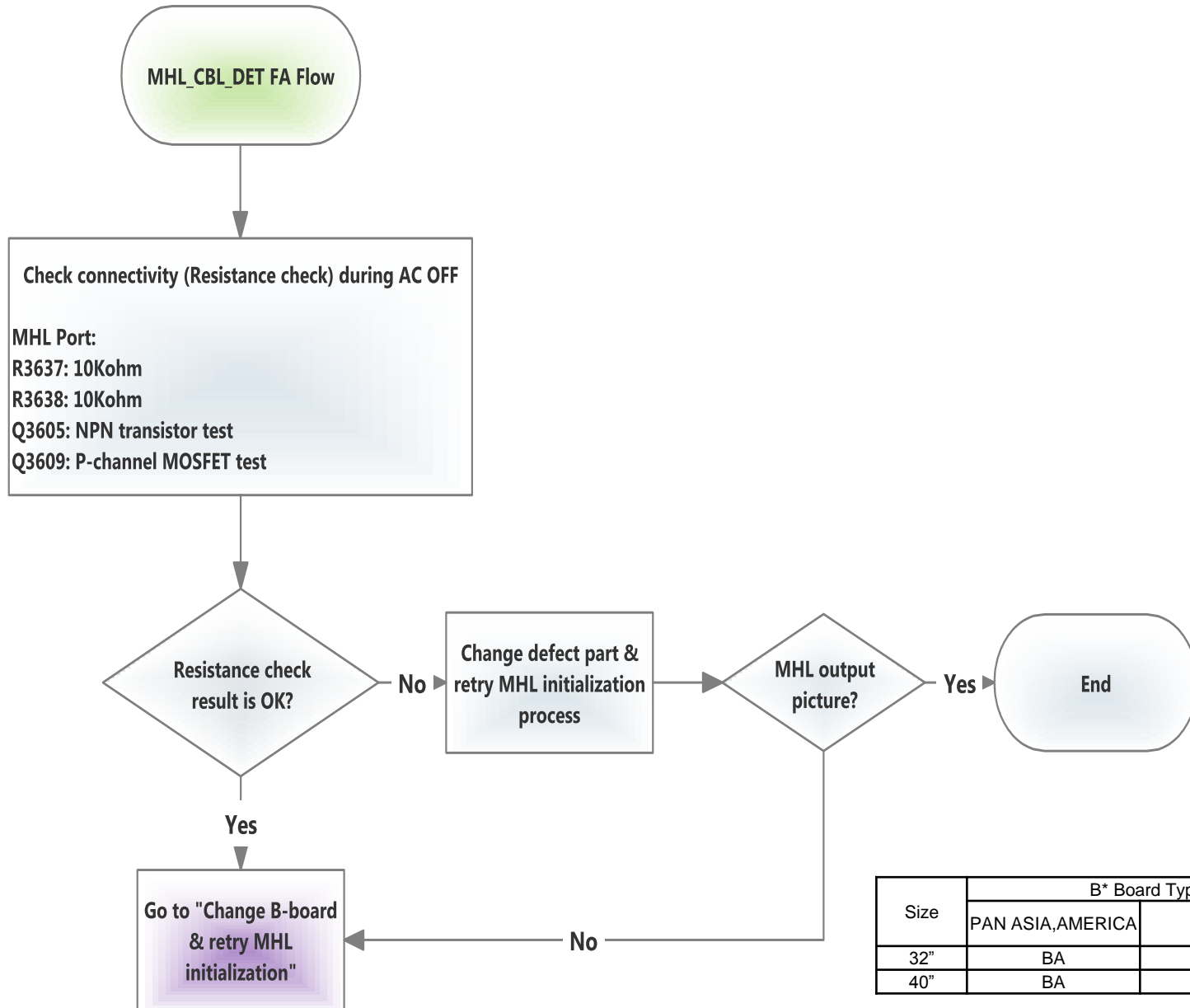


3-9-3. MHL Failure Analysis Flow MHL\_SENSE FA Flow (MHL)

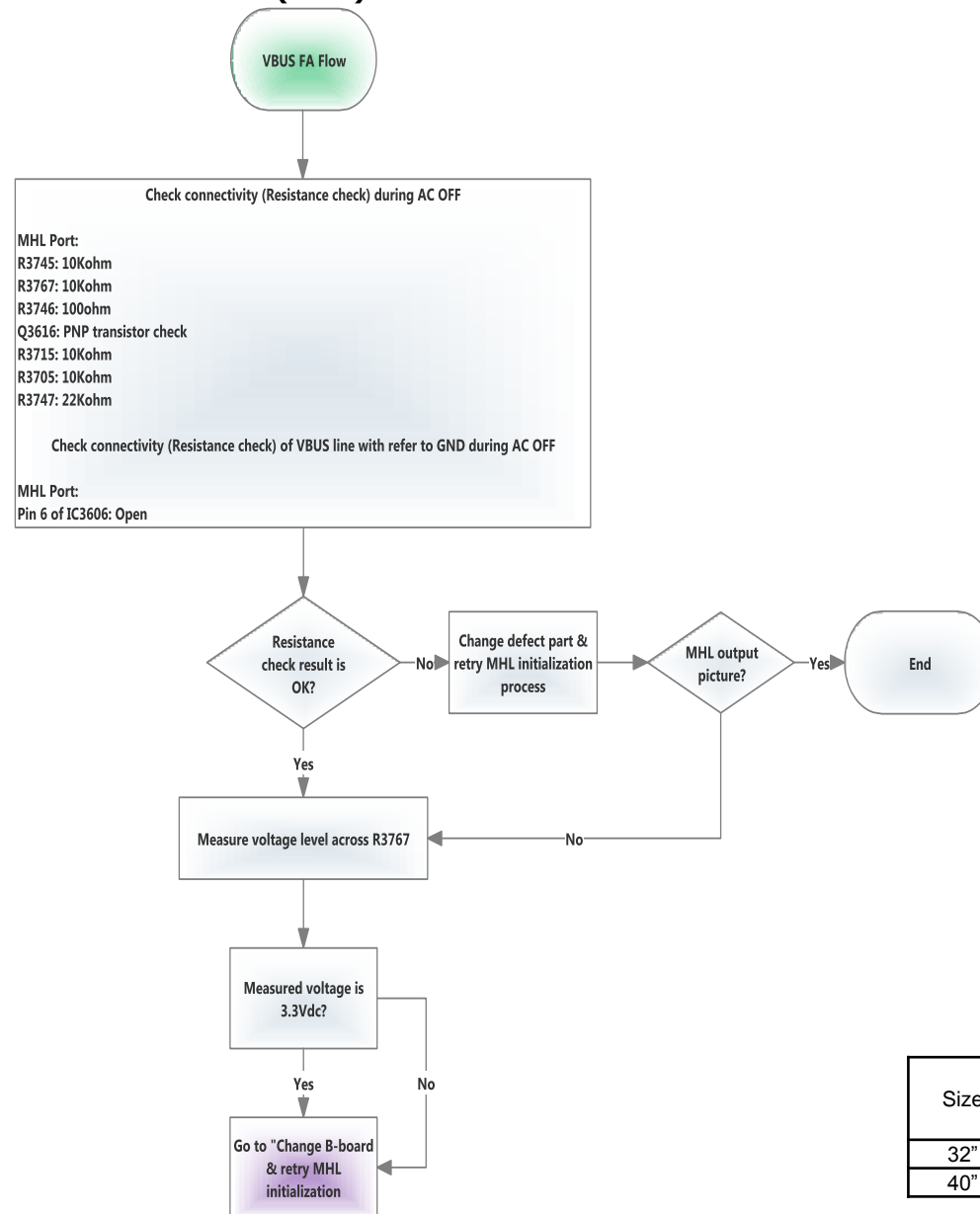


Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

3-9-4. MHL Failure Analysis Flow MHL\_CBL\_DET FA Flow (MHL)

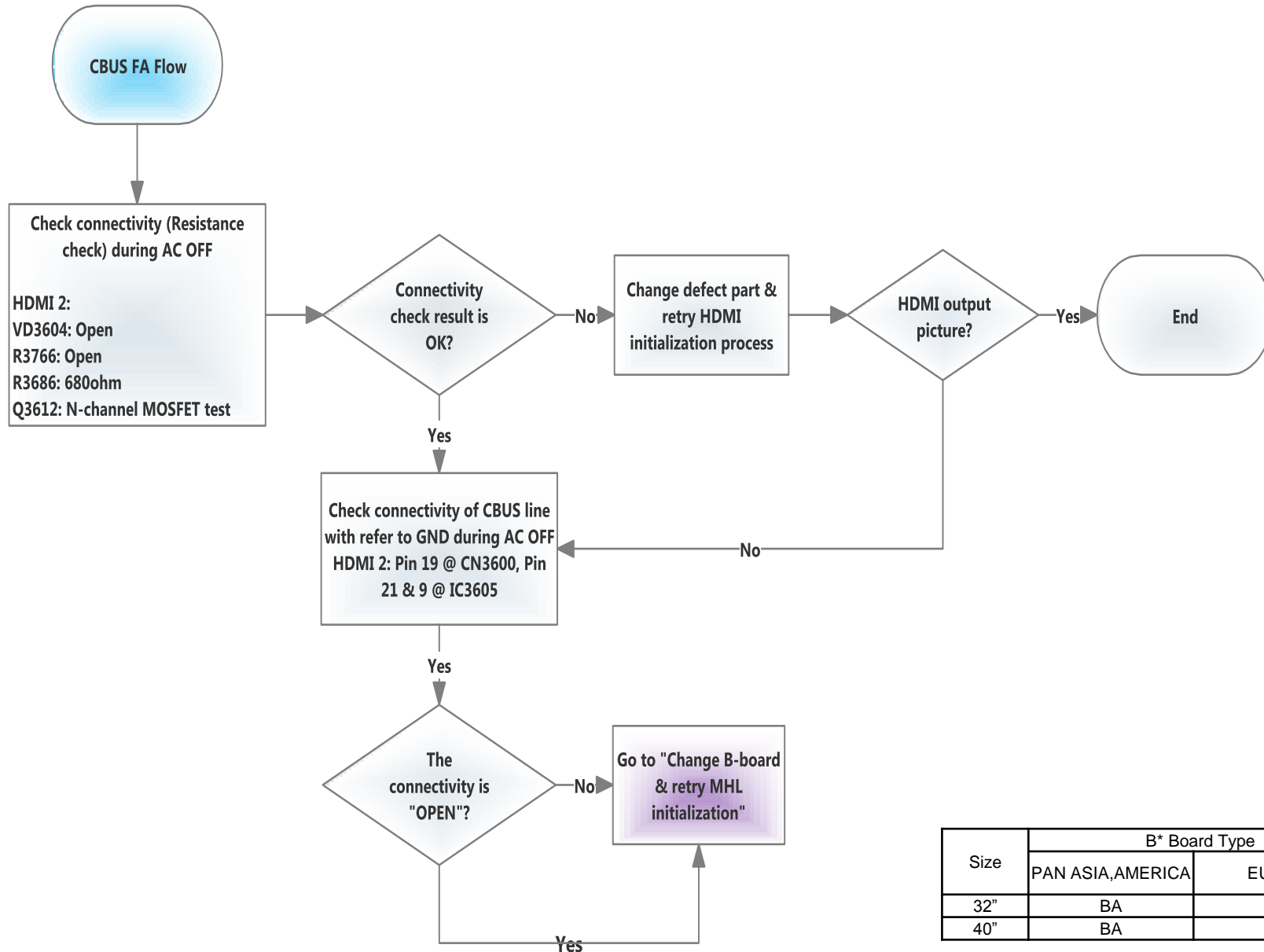


3-9-5. MHL Failure Analysis Flow- VBUS FA Flow (MHL)



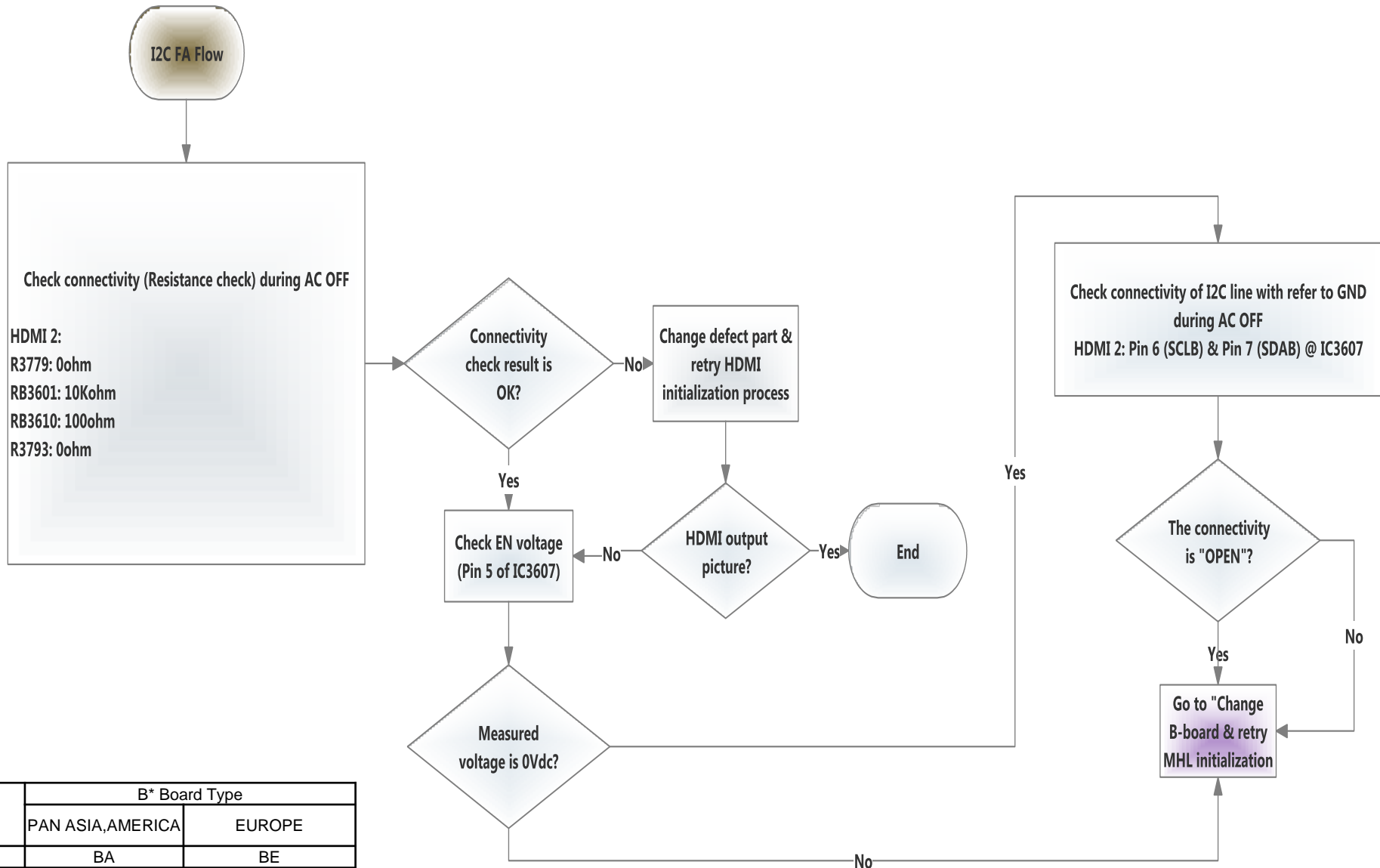
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

3-9-6. MHL Failure Analysis Flow- CBUS FA Flow (MHL)



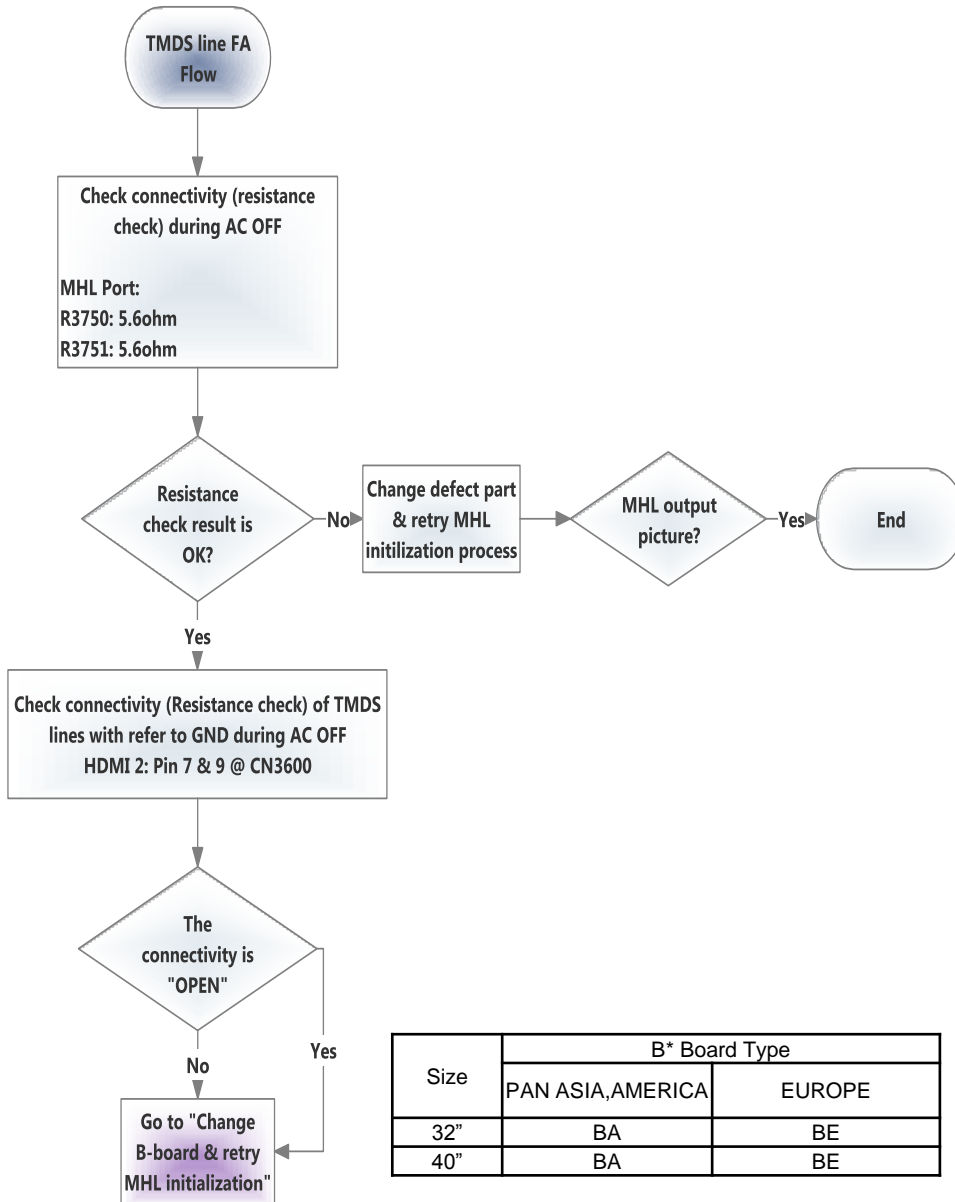
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-9-7. MHL Failure Analysis Flow- I2C FA Flow (MHL)**

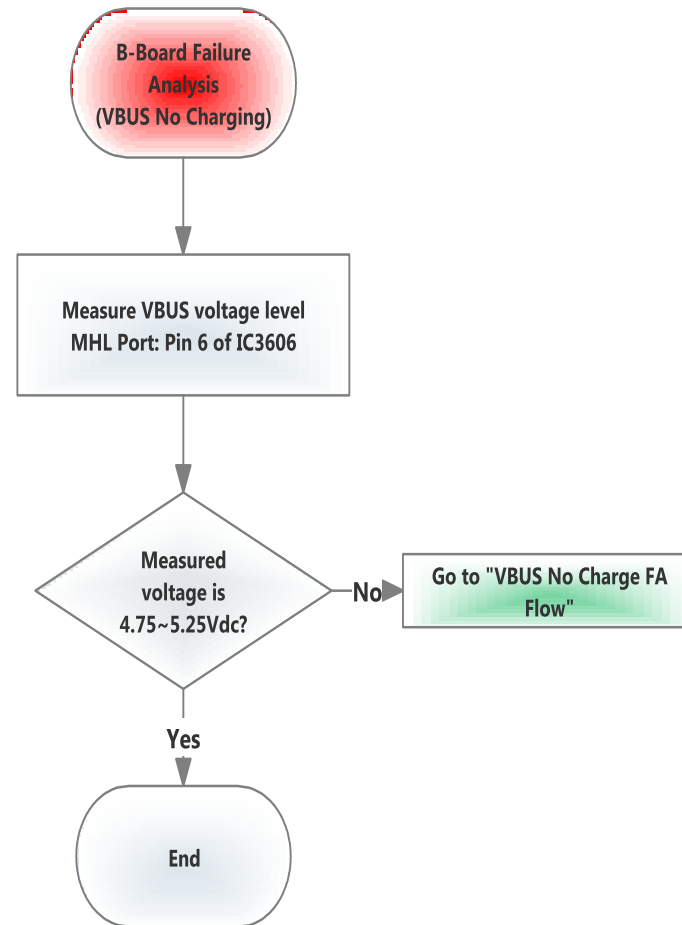


Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

3-9-8. MHL Failure Analysis Flow- TMDS Line FA Flow (MHL)

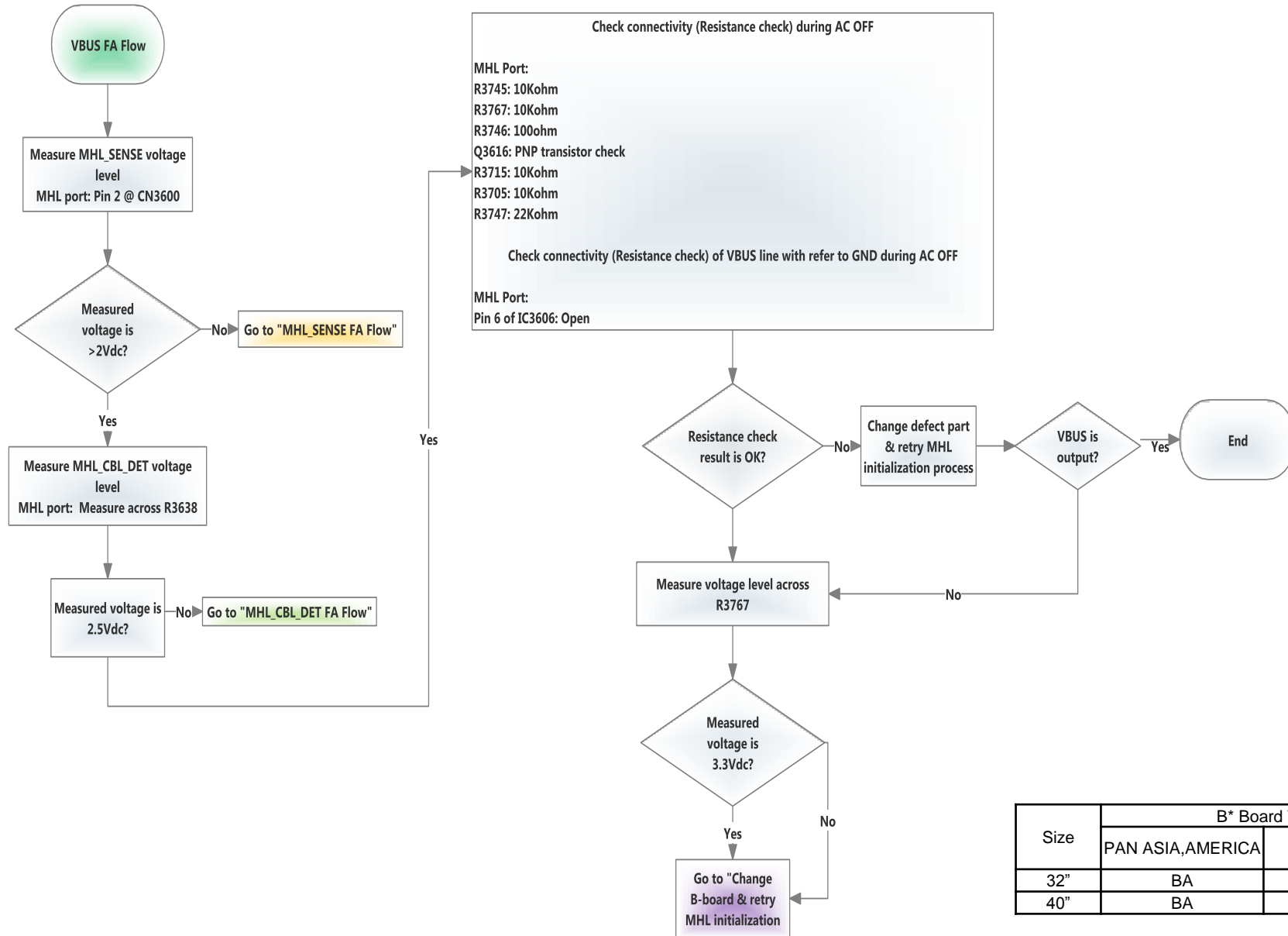


3-9-9. MHL No Charging-Main Flow Chart (MHL)



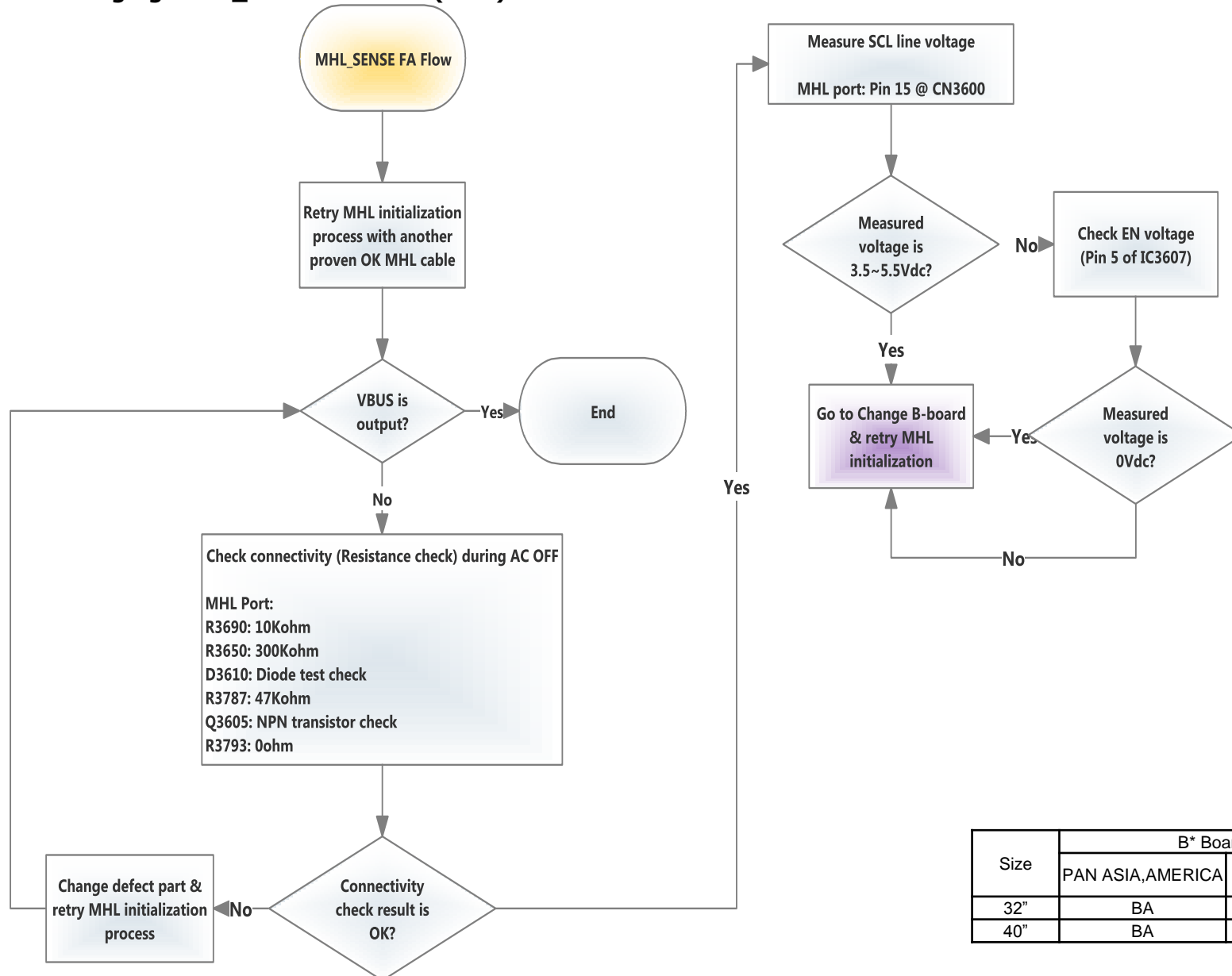
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

3-9-10. MHL No Charging- VBUS FA Flow (MHL)



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

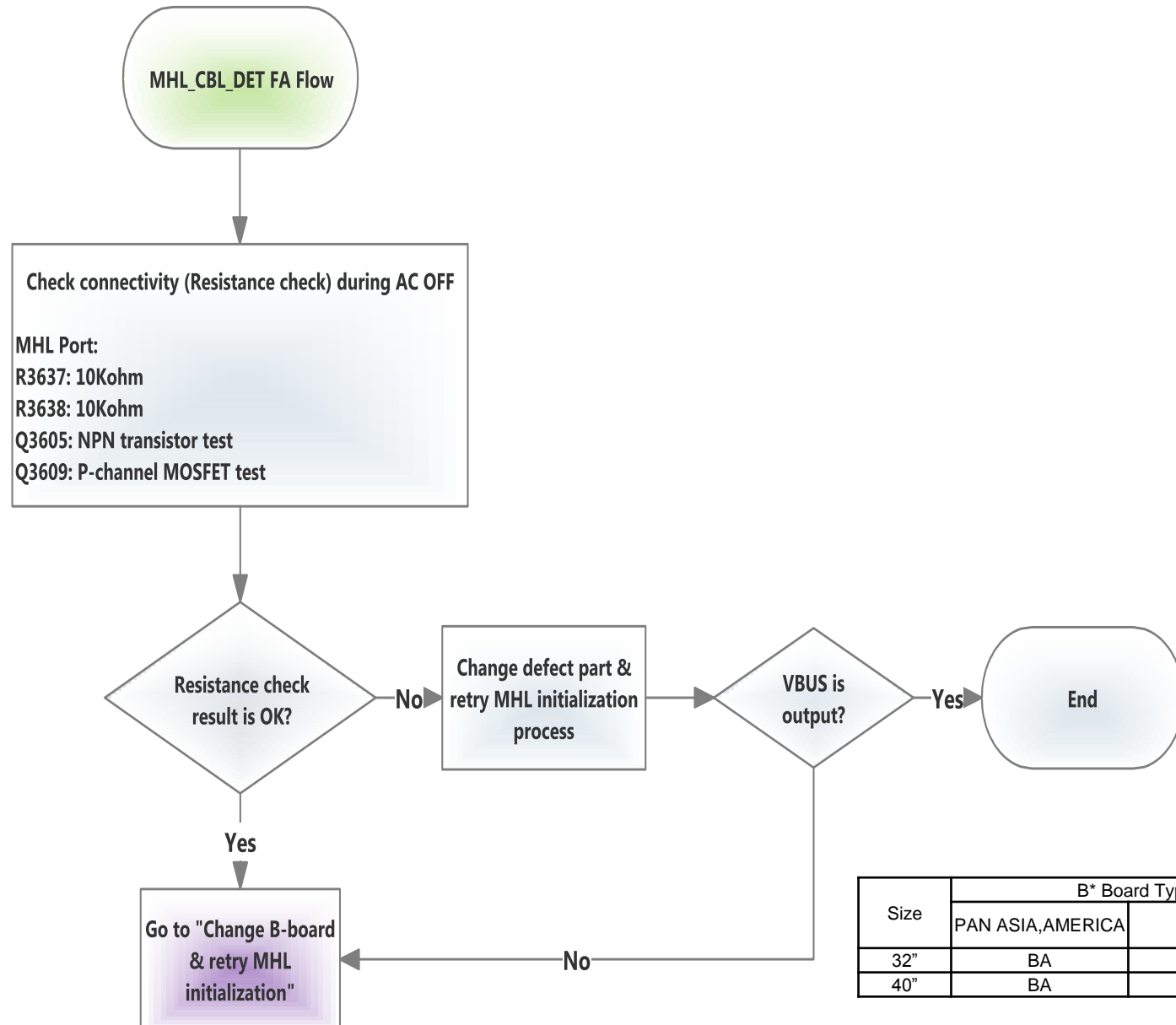
3-9-11. MHL No Charging- MHL\_SENSE FA Flow (MHL)



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE



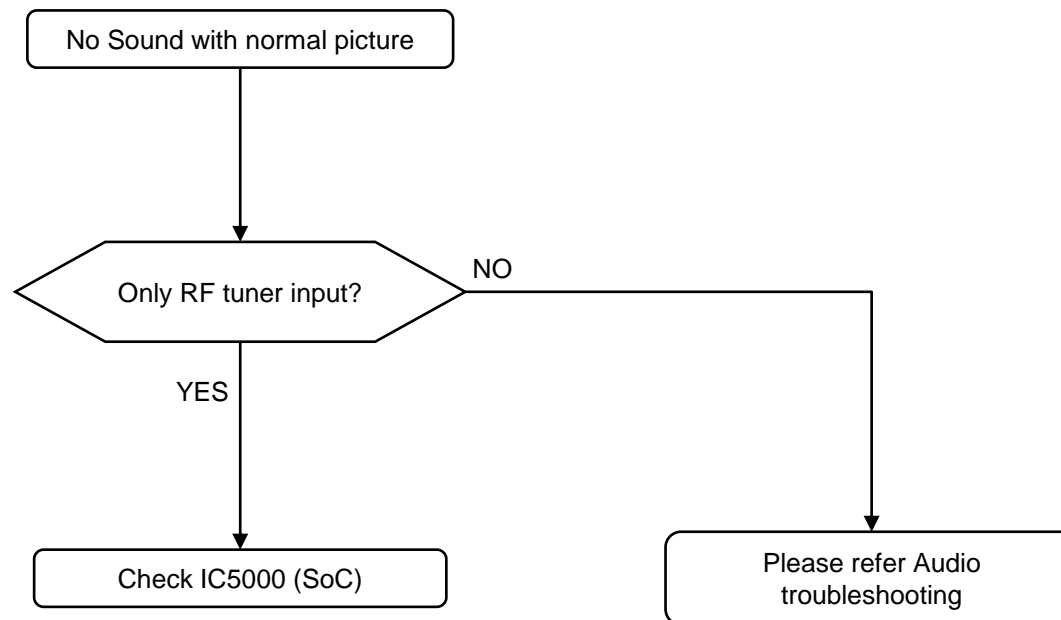
3-9-12. MHL No Charging- MHL\_CBL\_DET FA Flow (MHL)



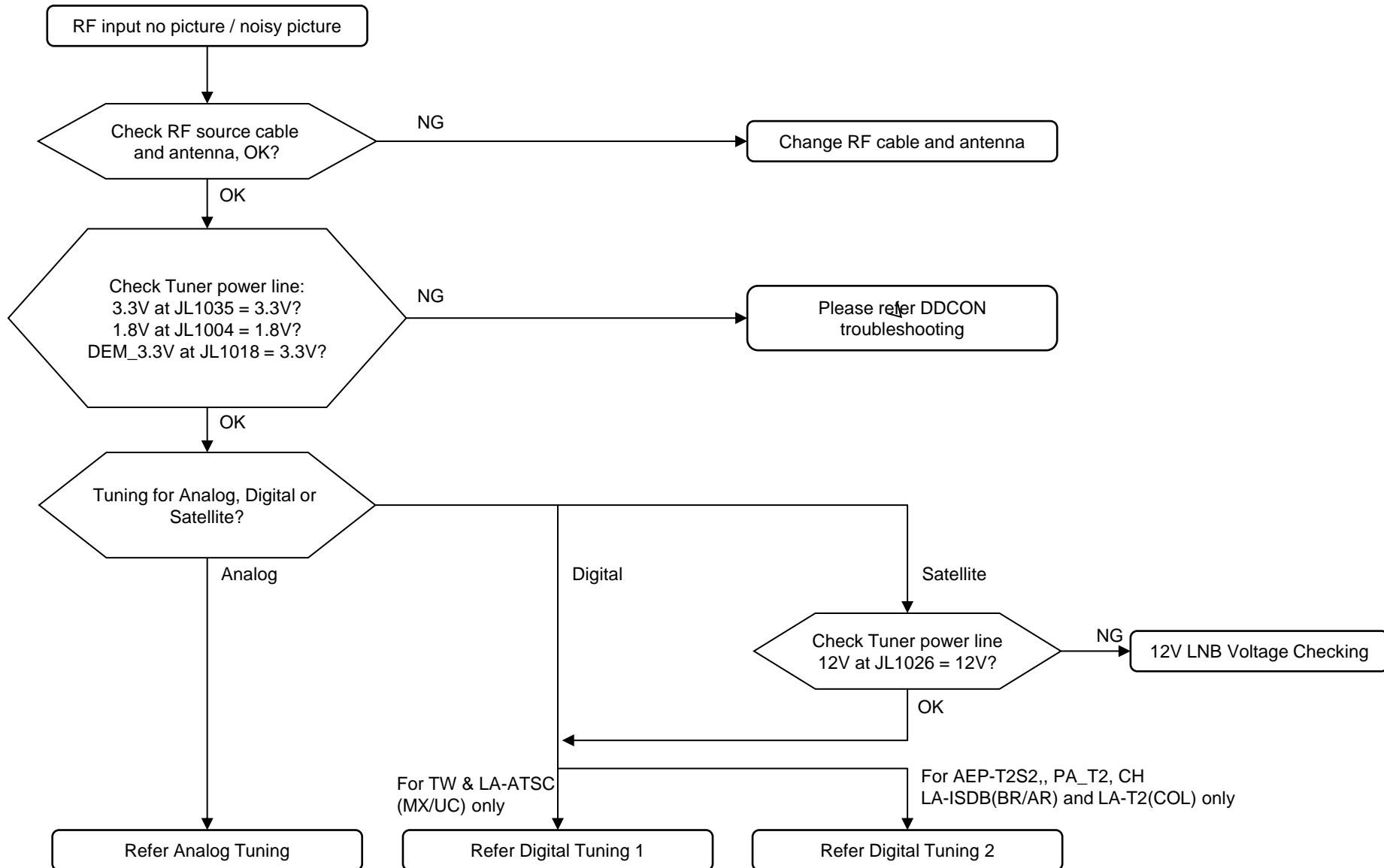
### 3-10. TUNER

#### 3-10-1. No Sound: Tuner (Tuner)

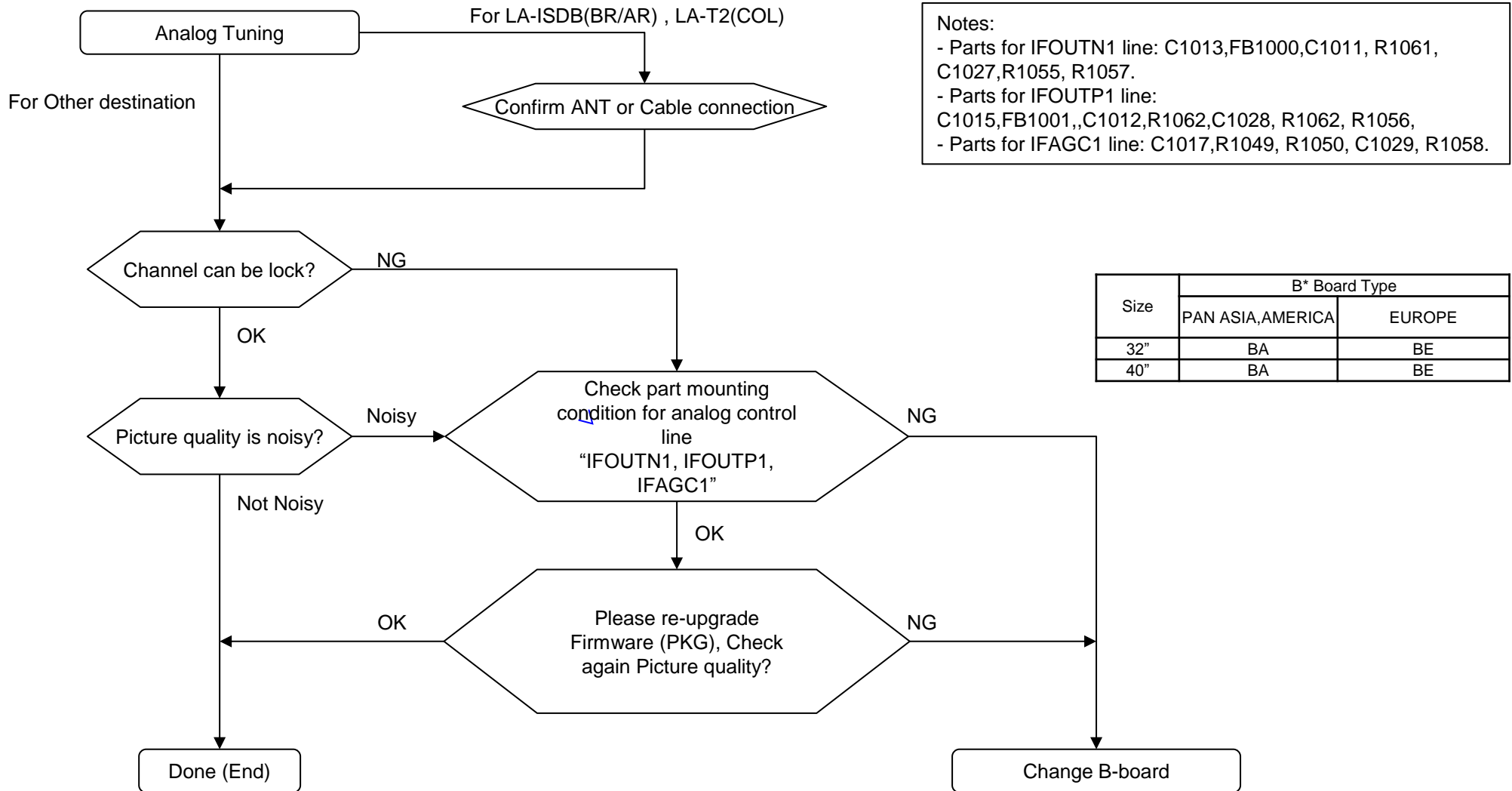
This troubleshooting is only for Analog



3-10-2. No Picture: @ Tuner (Tuner)



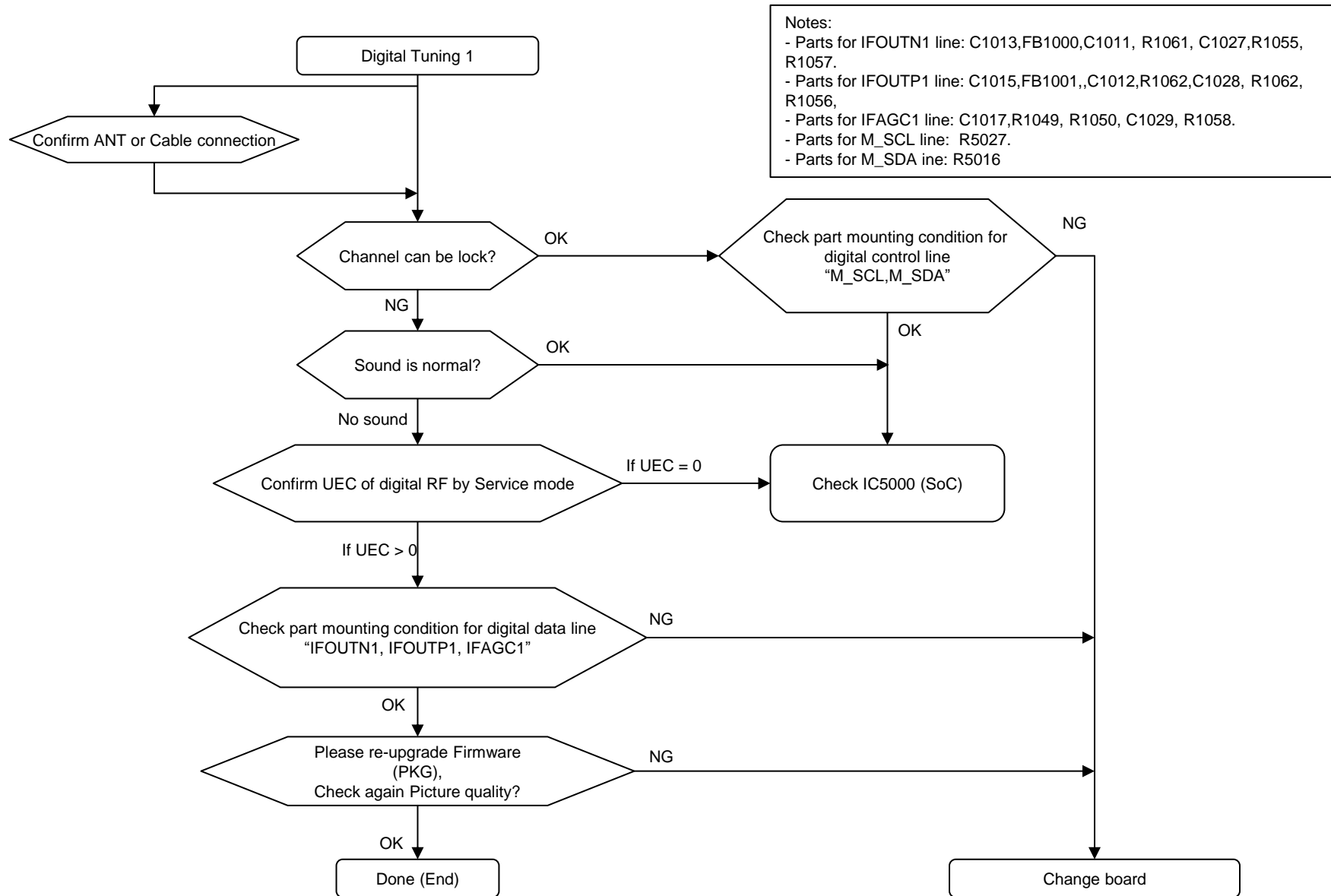
3-10-3. For Analog Tuning: @ All Destination (Tuner)



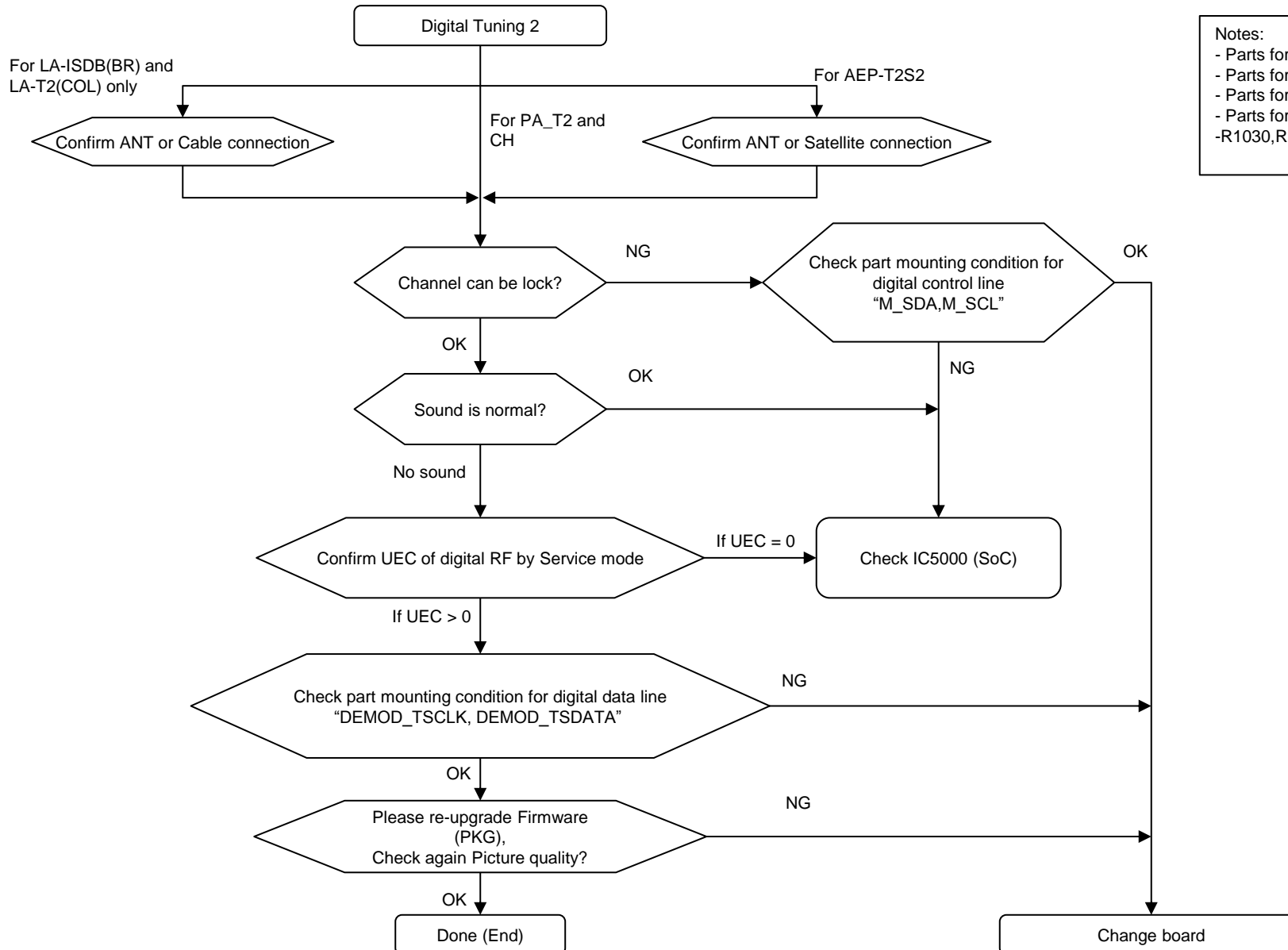
Notes:  
 - Parts for IFOUTN1 line: C1013,FB1000,C1011, R1061, C1027,R1055, R1057.  
 - Parts for IFOUTP1 line: C1015,FB1001,,C1012,R1062,C1028, R1062, R1056,  
 - Parts for IFAGC1 line: C1017,R1049, R1050, C1029, R1058.

Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

**3-10-4. For Digital Tuning 1: @ AM-ATSC(MX/UC) (Tuner)**



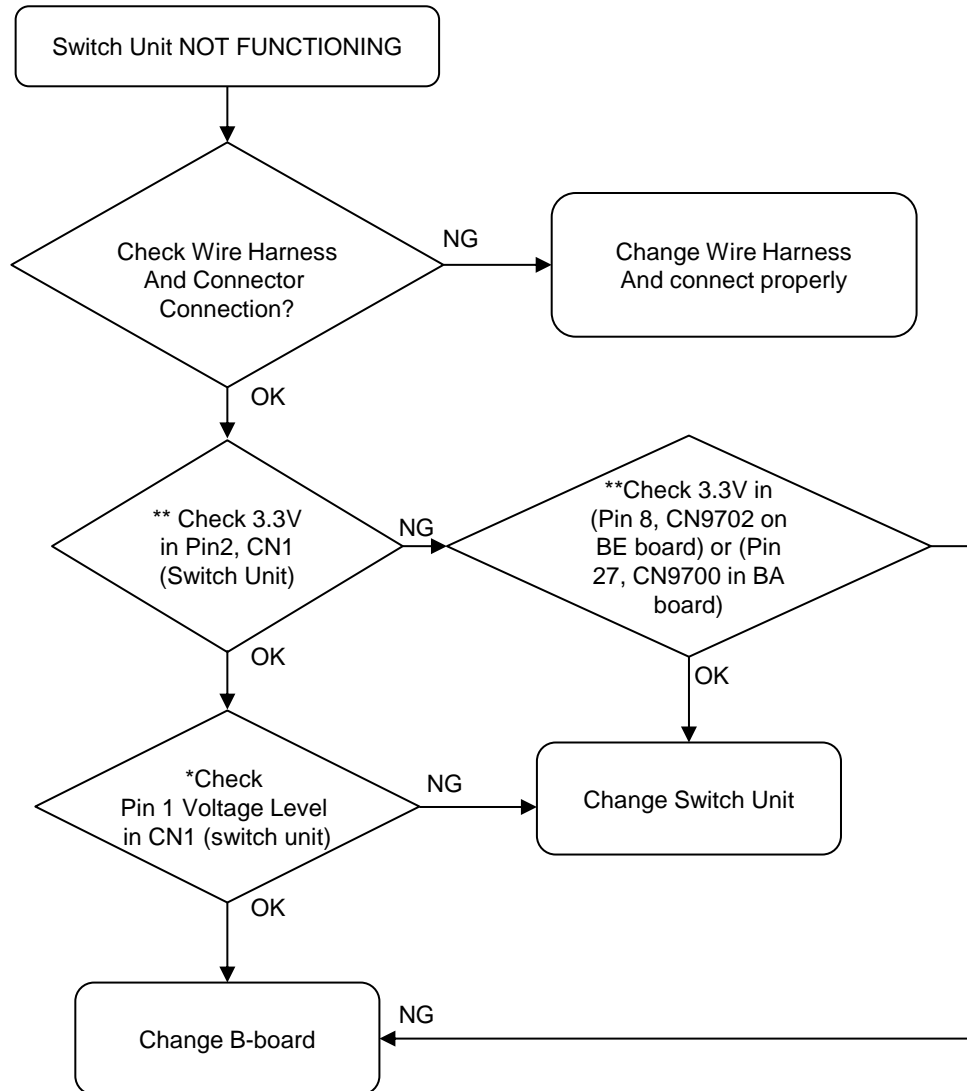
**3-10-5. For Digital Tuning 2: @ AEP-T2S2, PA\_T2, CH, LA-ISDB(BR/AR) and LA-T2(COL) (Tuner)**



Notes:  
 - Parts for M\_SCL line: R5027.  
 - Parts for M\_SDA line: R5016  
 - Parts for DEMOD\_TSCLK line:R1029  
 - Parts for DEMOD\_TSDATA line:  
 -R1030,R1031, R1032,R1033, R1034,R1035, R1036

### 3-11. TACT KEY

#### 3-11-1. Switch Unit Buttons (Tuner)



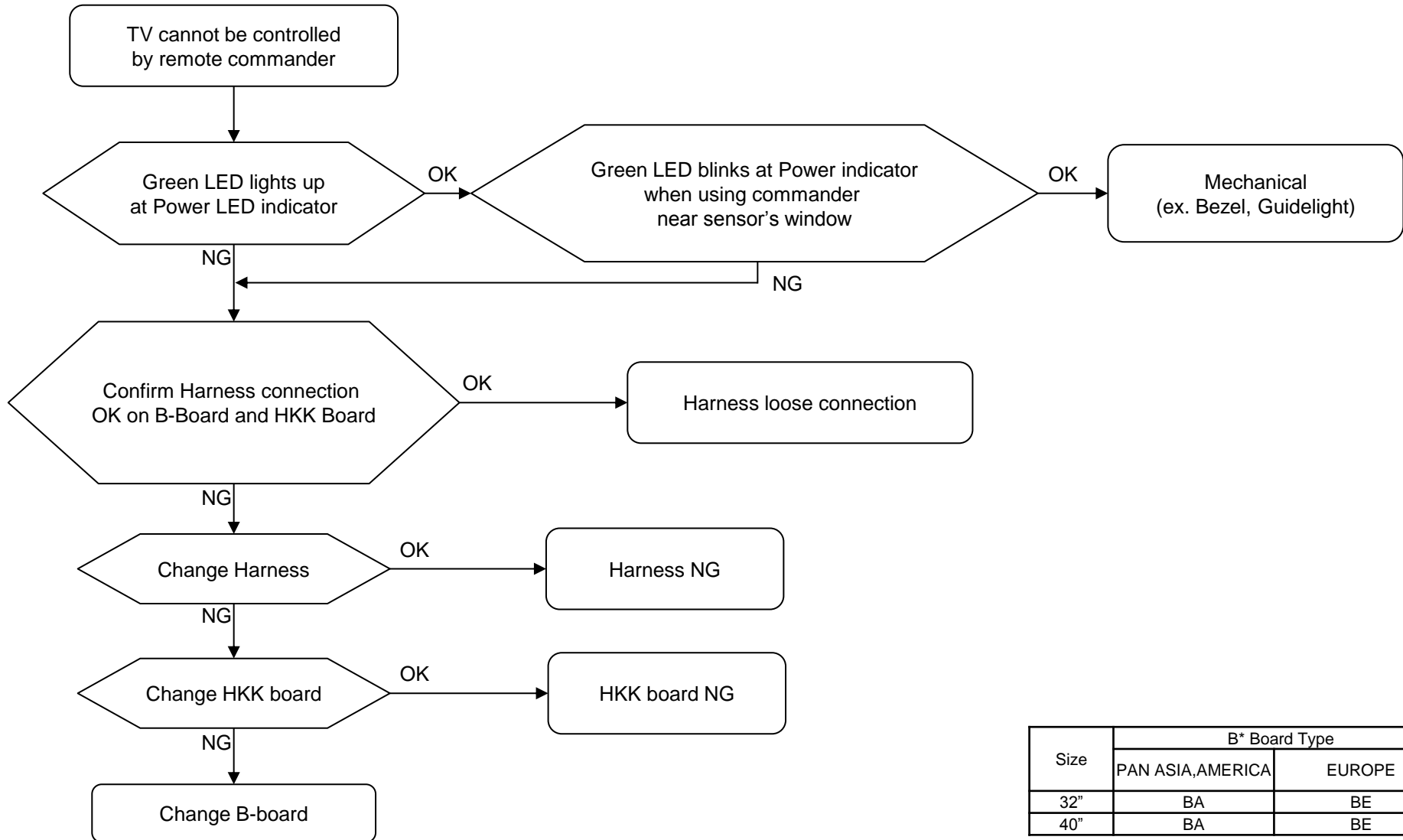
**\*VOLTAGE LEVEL FOR EACH PRESSED BUTTON**

KEY	Voltage (average)	Voltage range
-	0.000	0.00 – 0.2
+	1.114	1.00 – 1.22
CH/Input	1.693	1.53 – 1.86
No Input	2.420	2.3 – 2.54

\*\*see the following slide for probing point at BA board and BE board to check 3.3V, and probing point at switch unit

Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

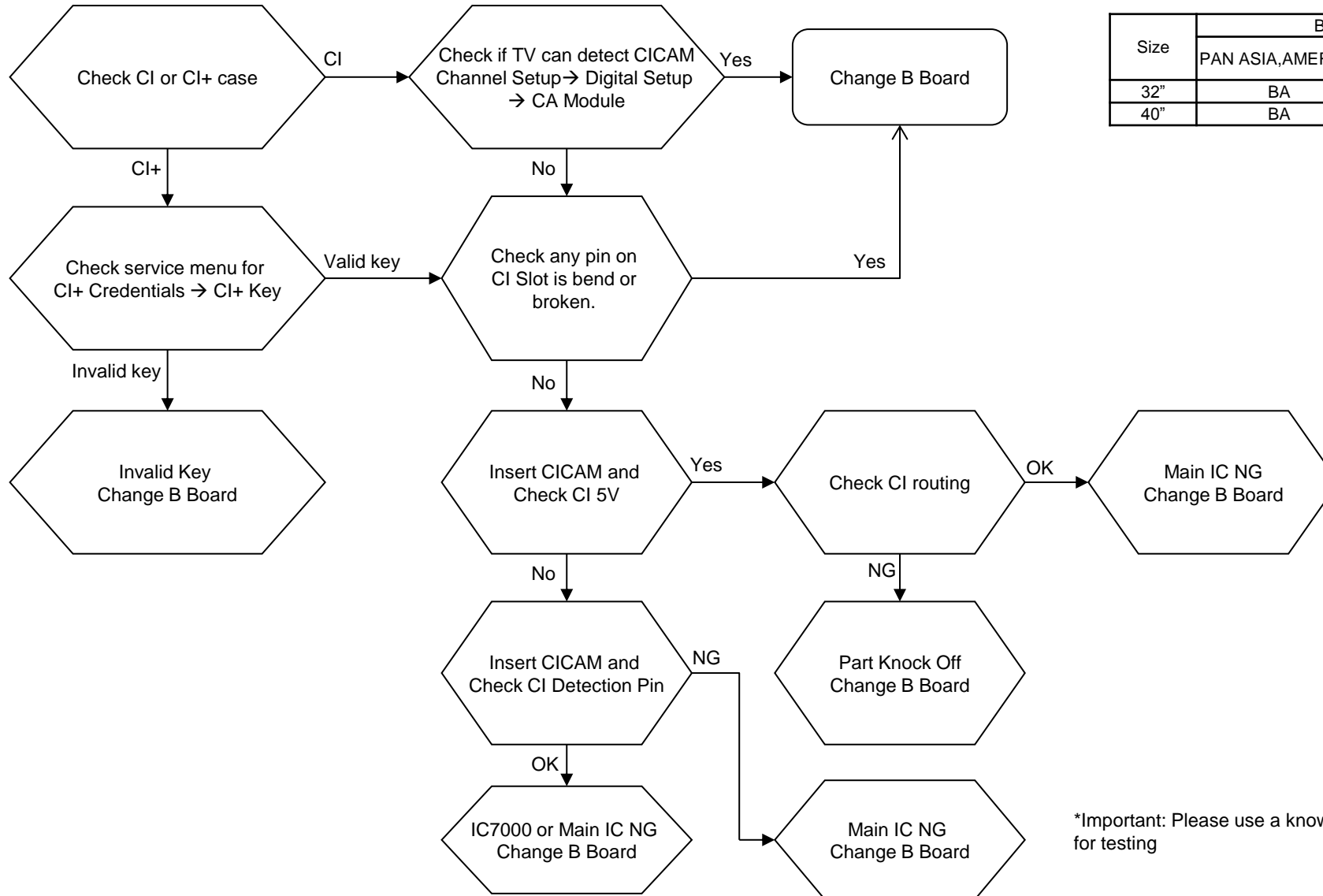
3-12. IR



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE



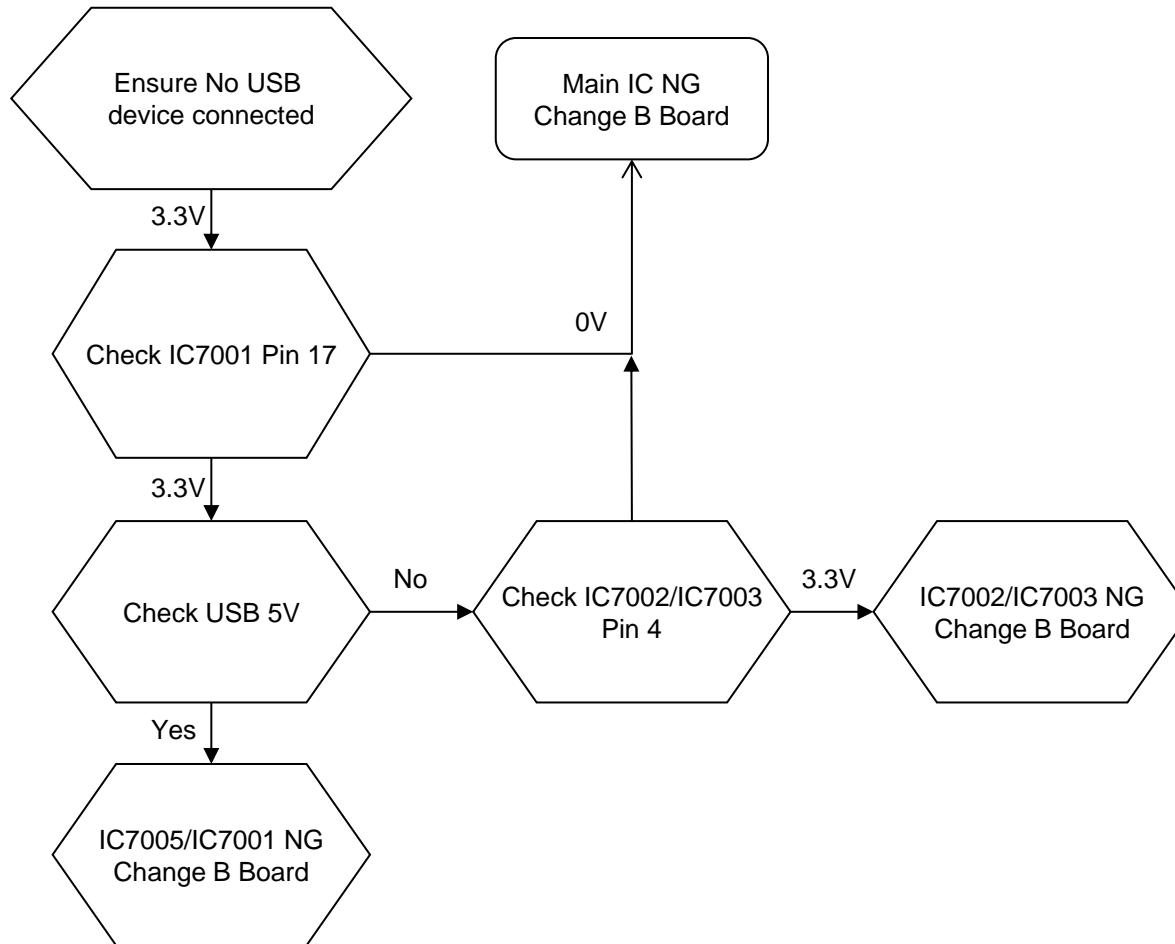
3-13. CI



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

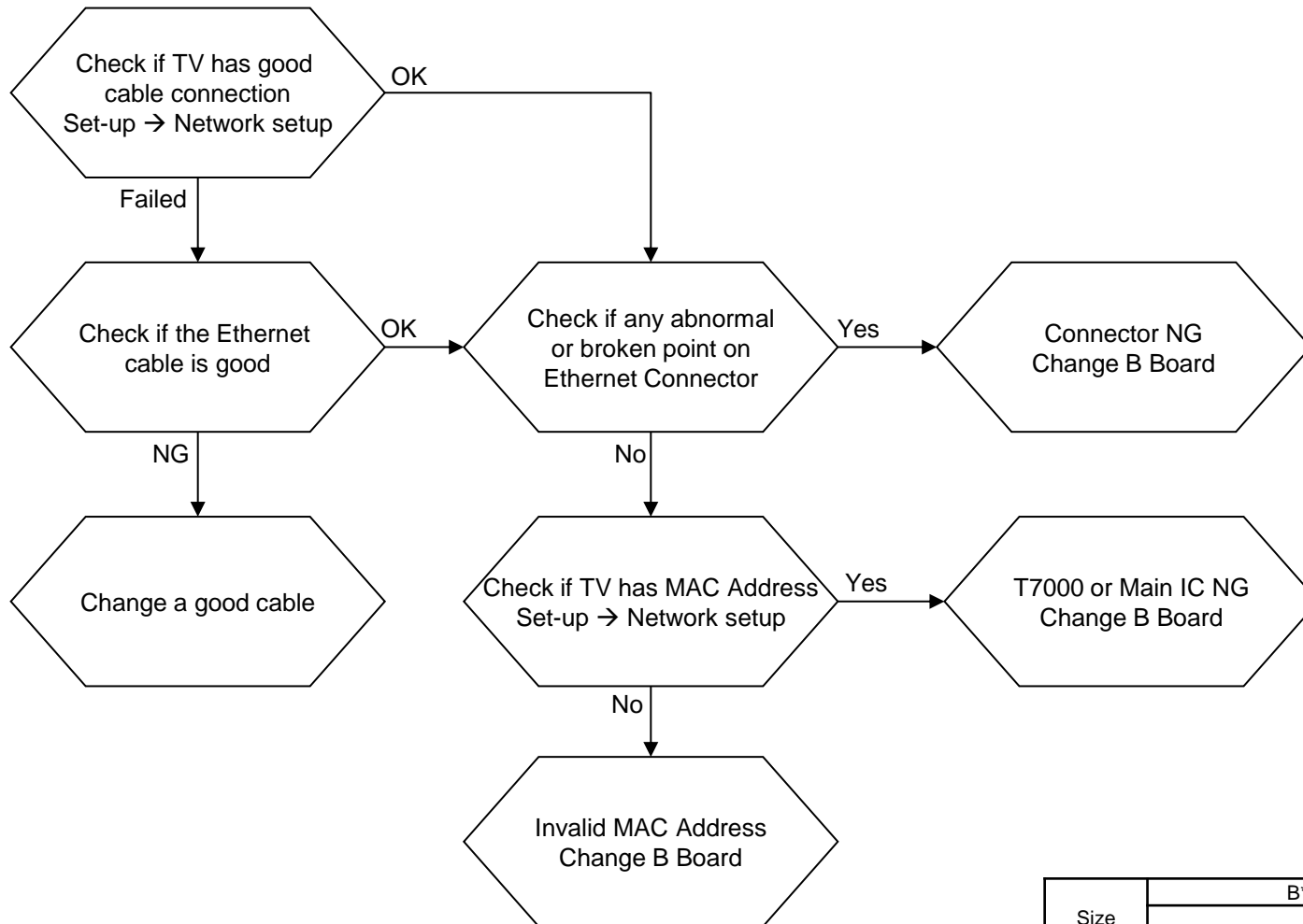
\*Important: Please use a known good CICAM for testing

**3-14. USB**



Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

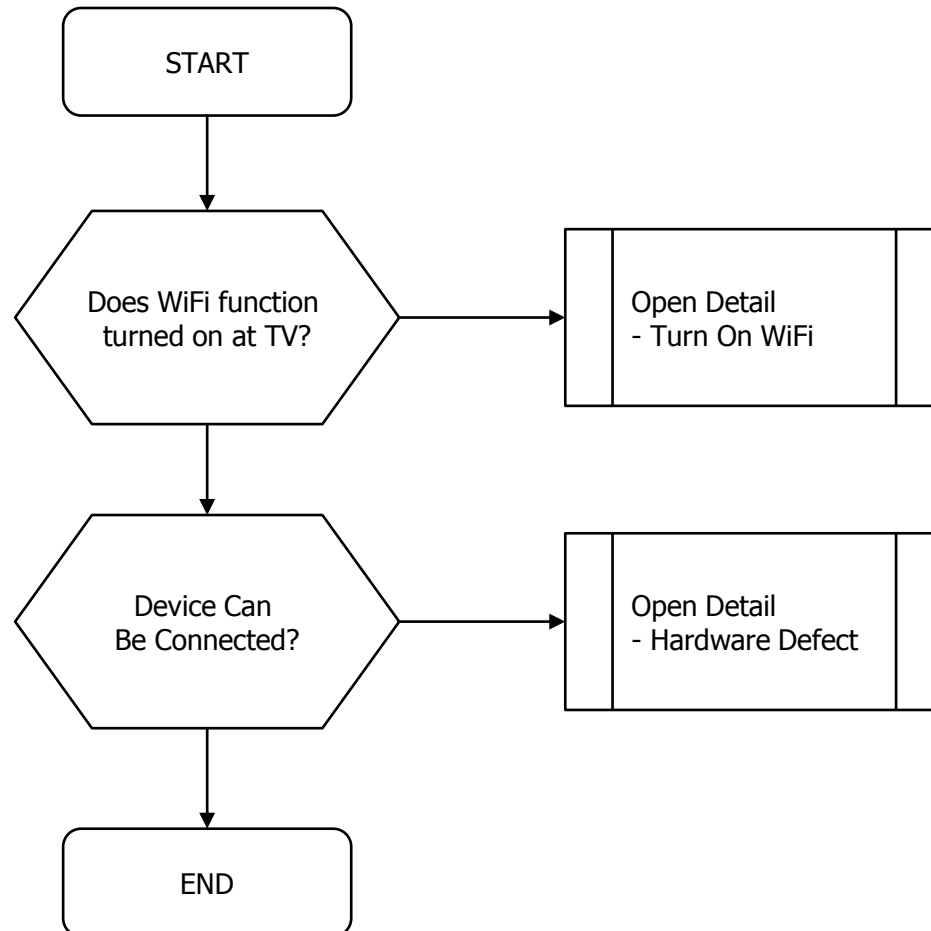
3-15. ETHER



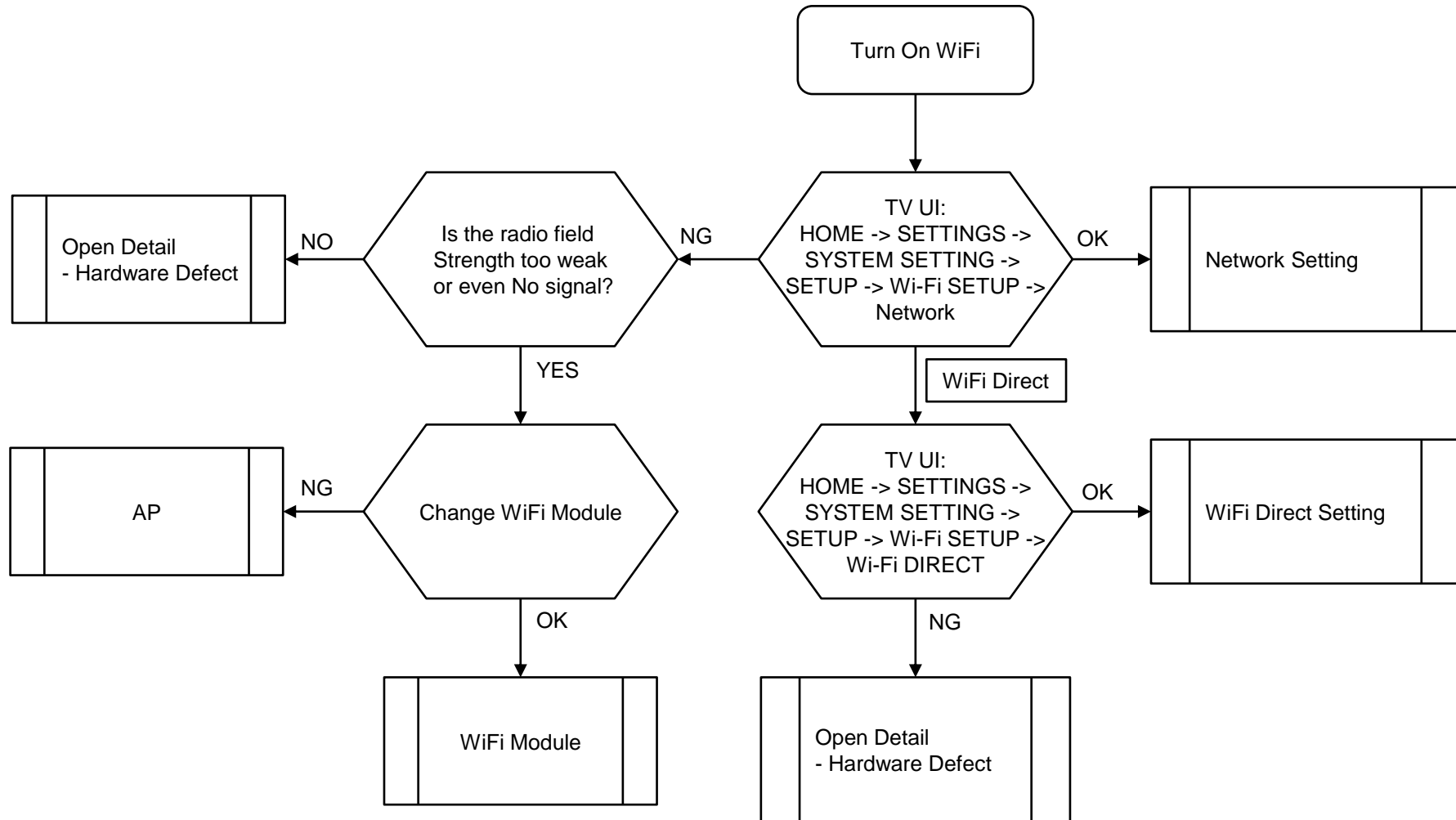
Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

### 3-16. Wifi-MODULE

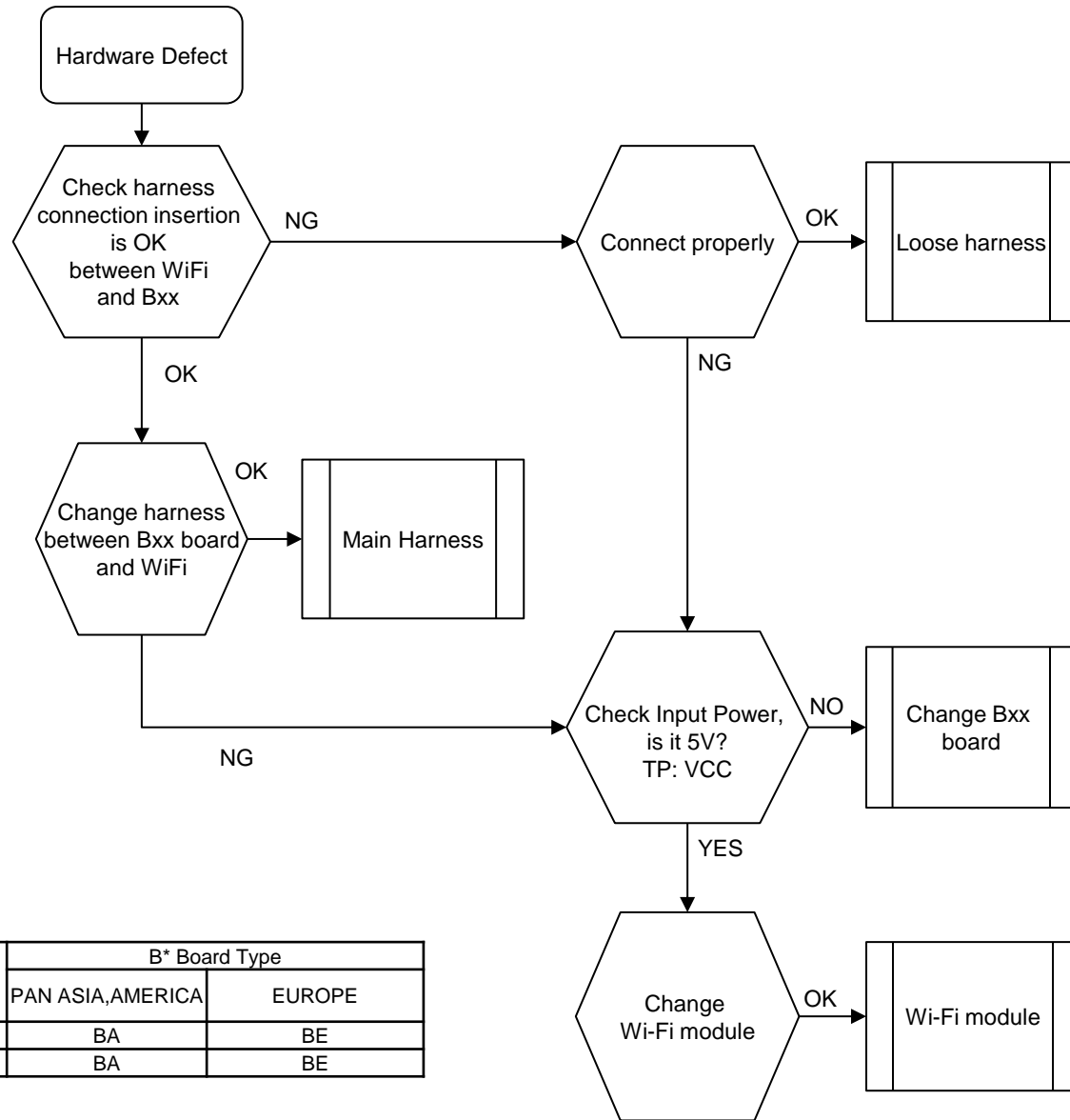
#### 3-16-1. Main Flow (Wifi-Module)



3-16-2. Turn On WiFi (Wifi-Module)



**3-16-3. Hardware Defect (Wifi-Module)**

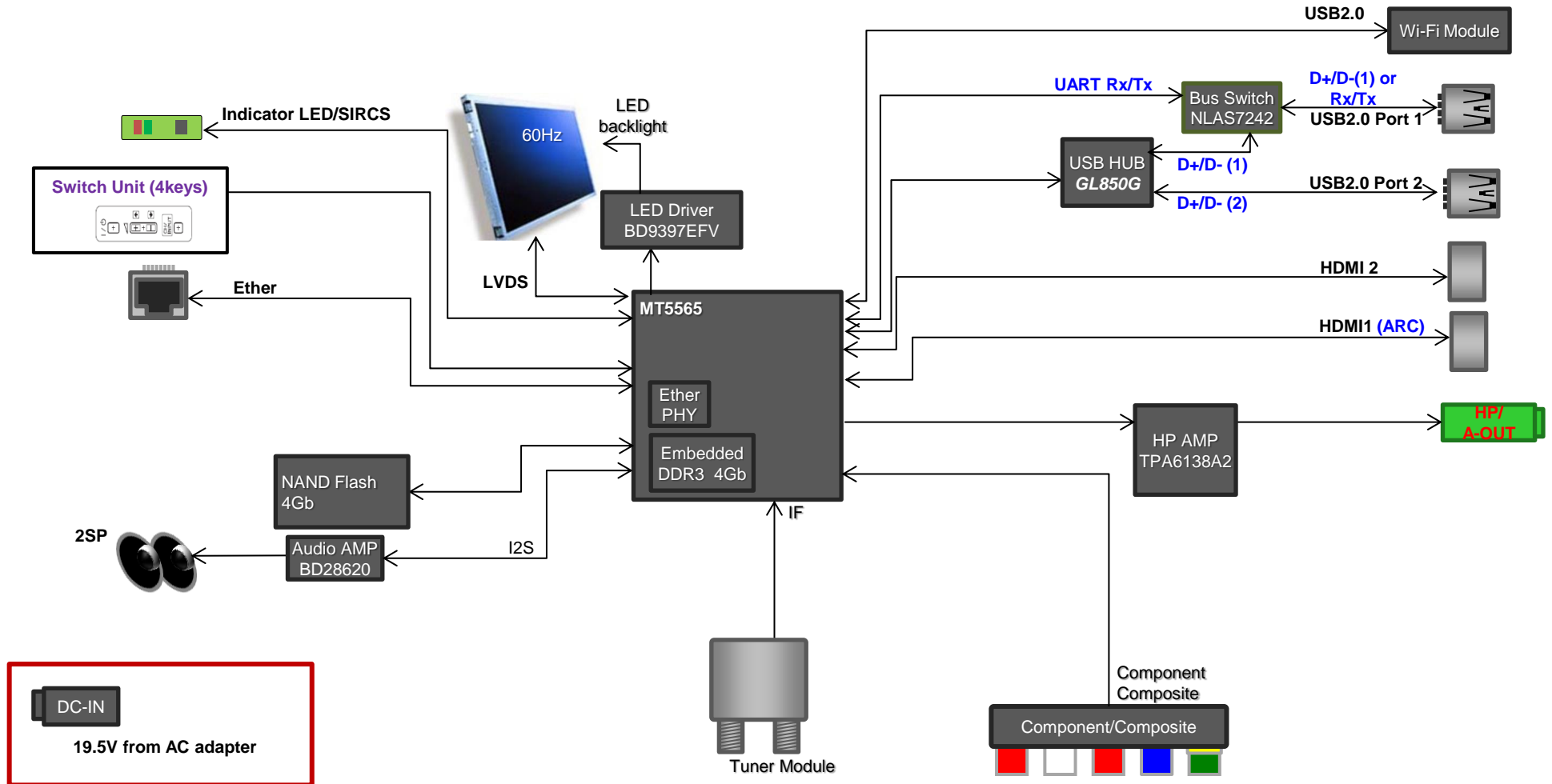


Size	B* Board Type	
	PAN ASIA,AMERICA	EUROPE
32"	BA	BE
40"	BA	BE

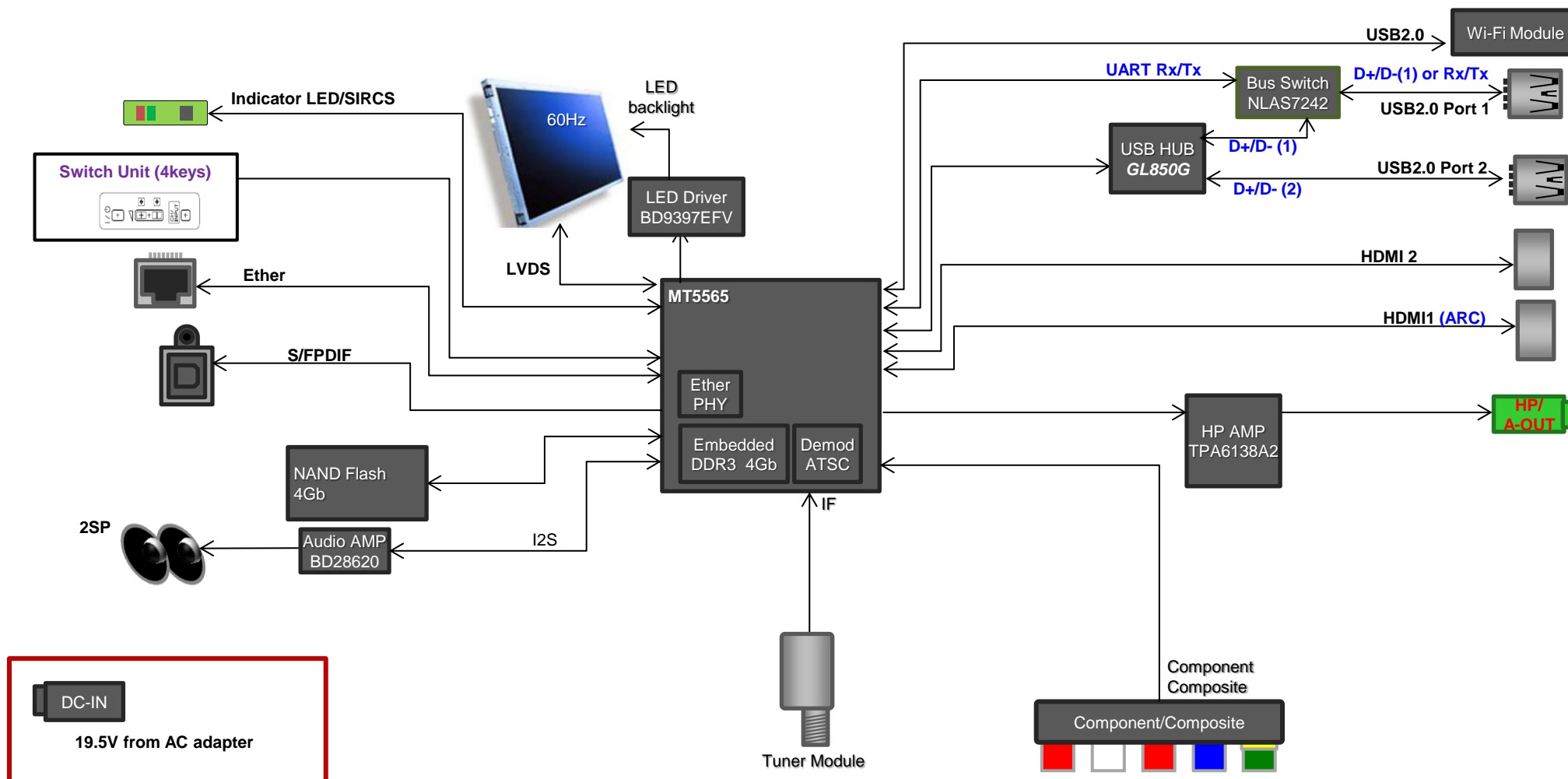
# SEC 4. DIAGRAMS

## 4-1. BLOCK DIAGRAM

### 4-1-1. BA SE-2N (BR)(Block Diagram)



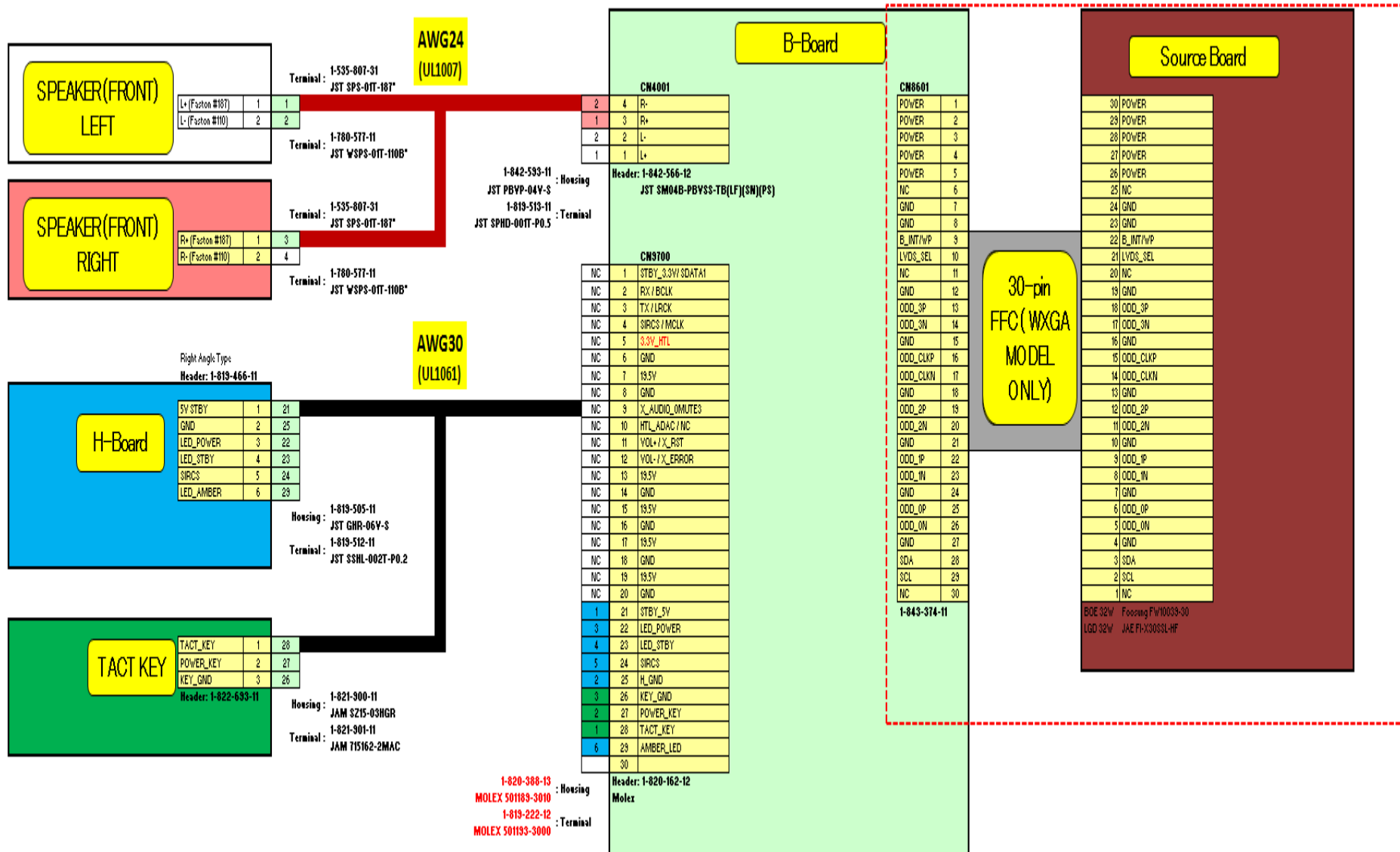
4-1-2. BA SE-2N (UC)(Block Diagram)



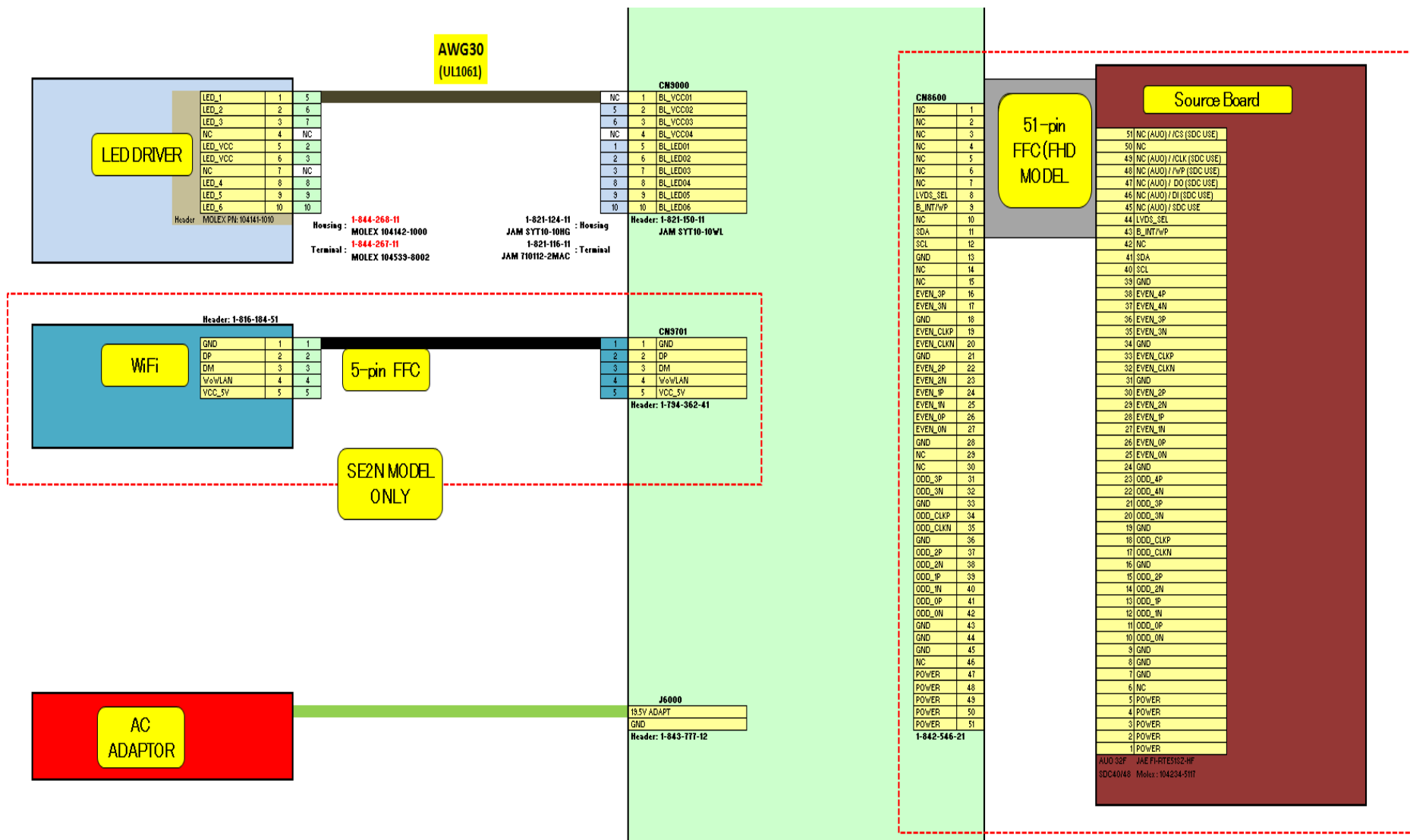


## 4-2. CONNECTOR DIAGRAM

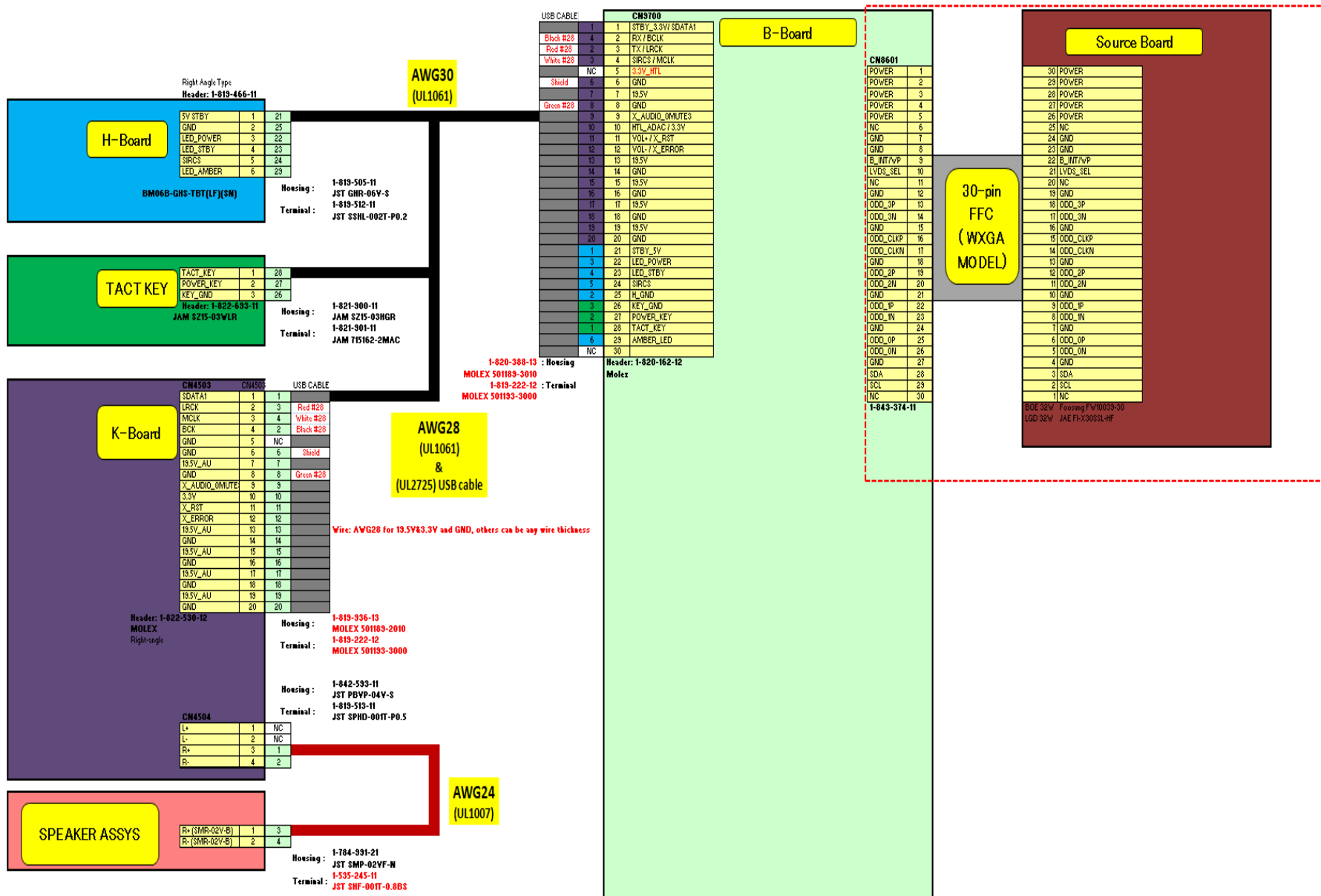
### 4-2-1. BA (i)



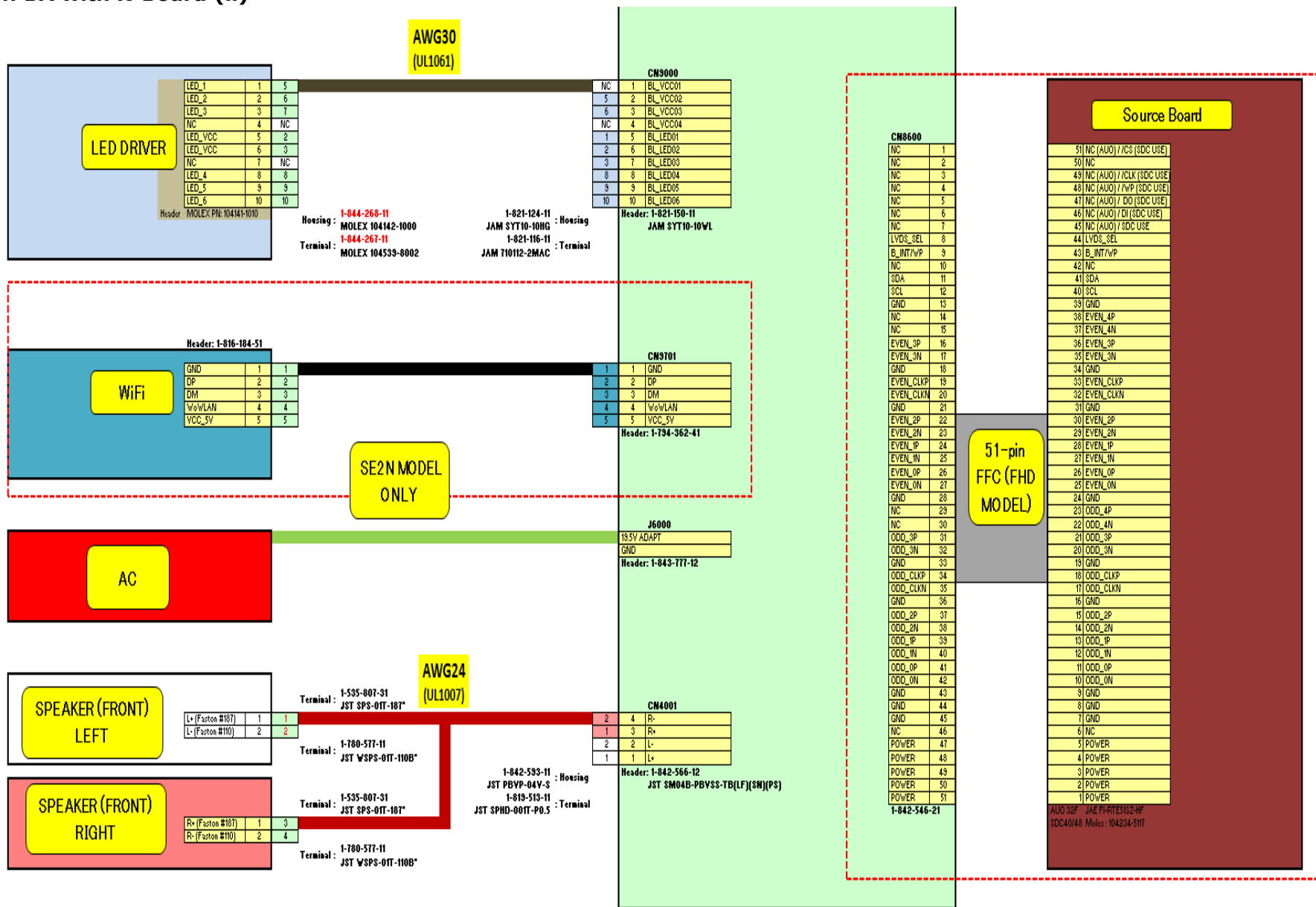
4-2-2. BA (ii)



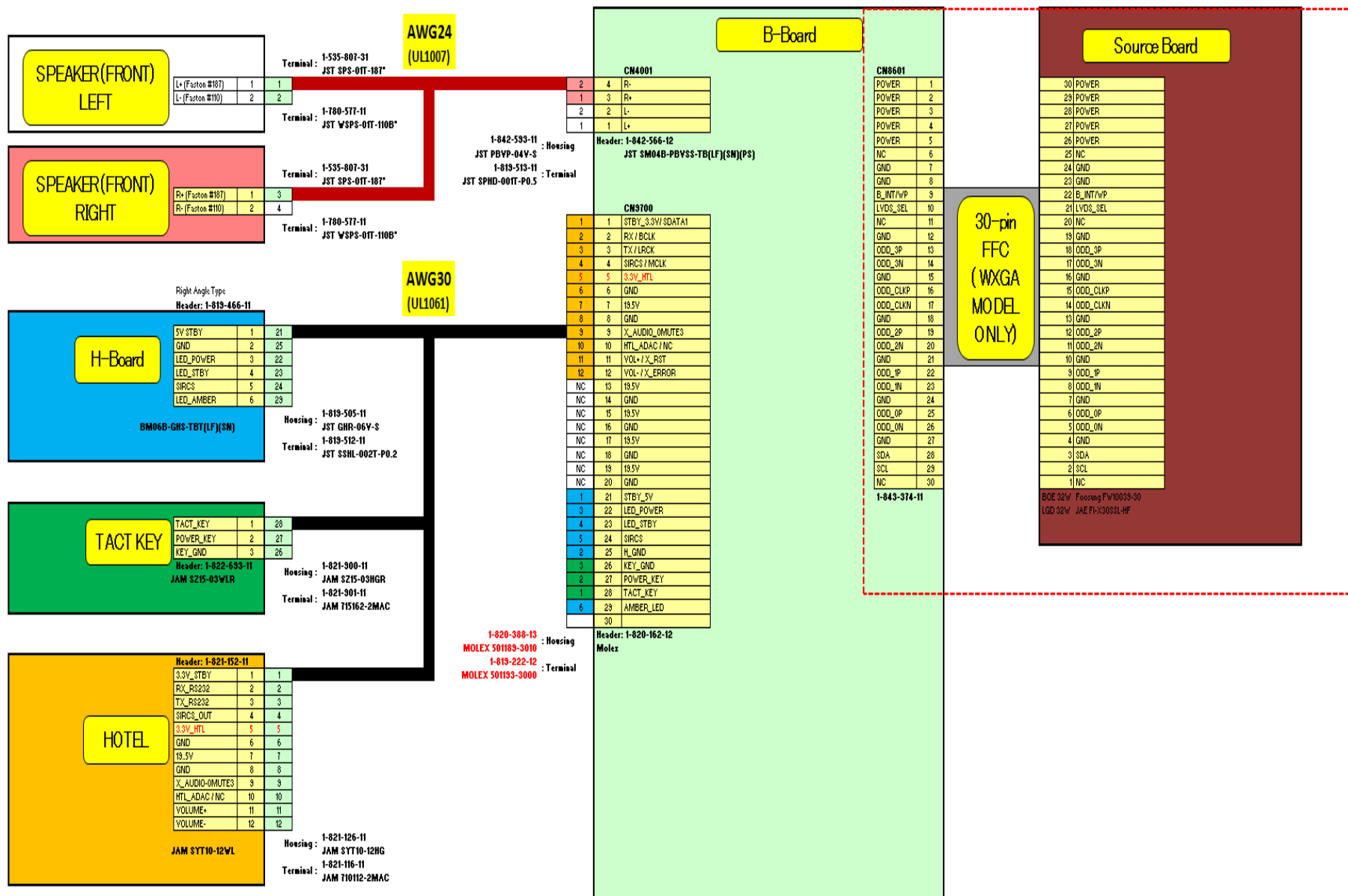
4-2-3. BA with K-Board (i)



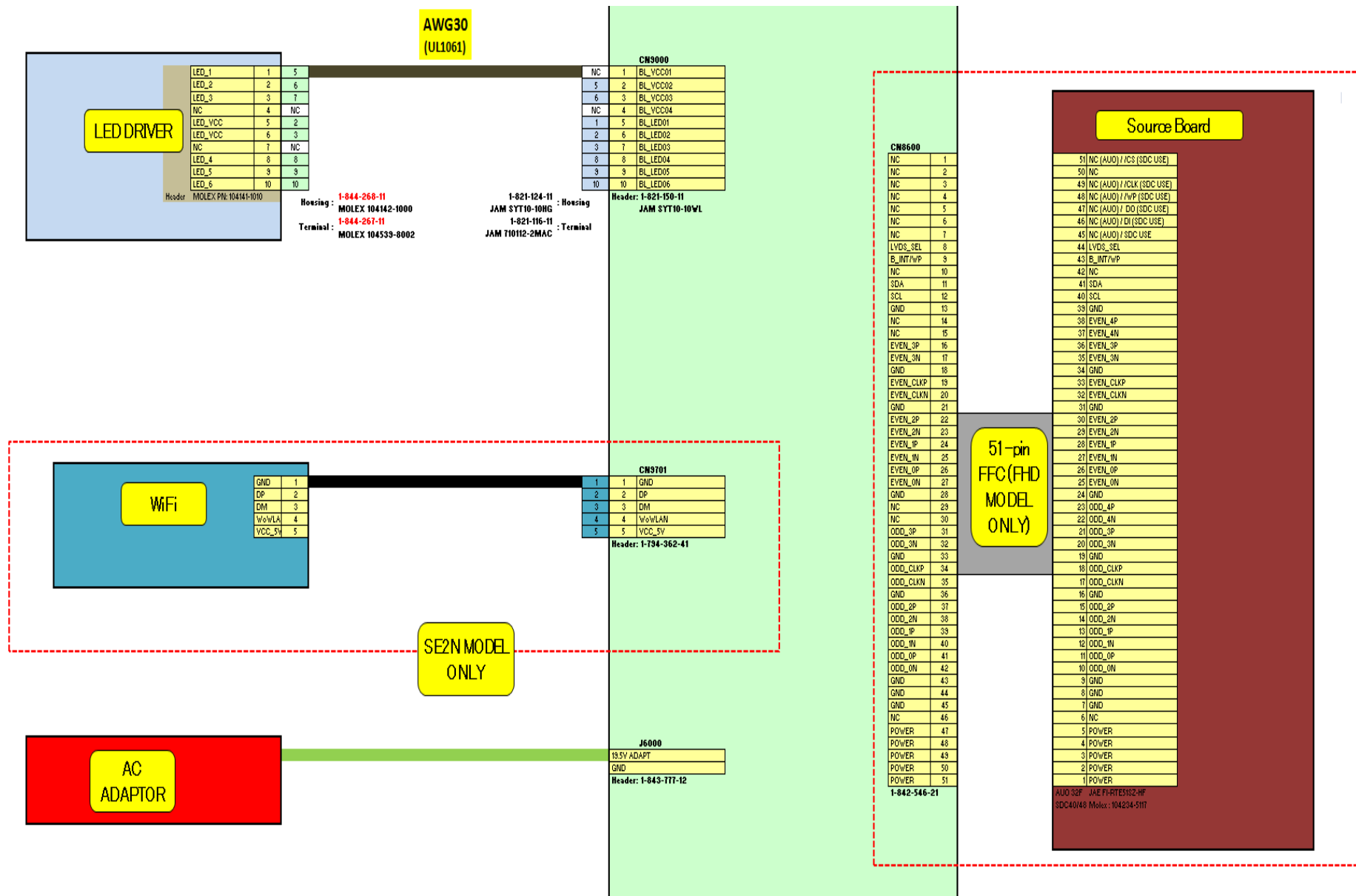
4-2-4. BA with K-Board (ii)



4-2-5. BA Hotel (i)

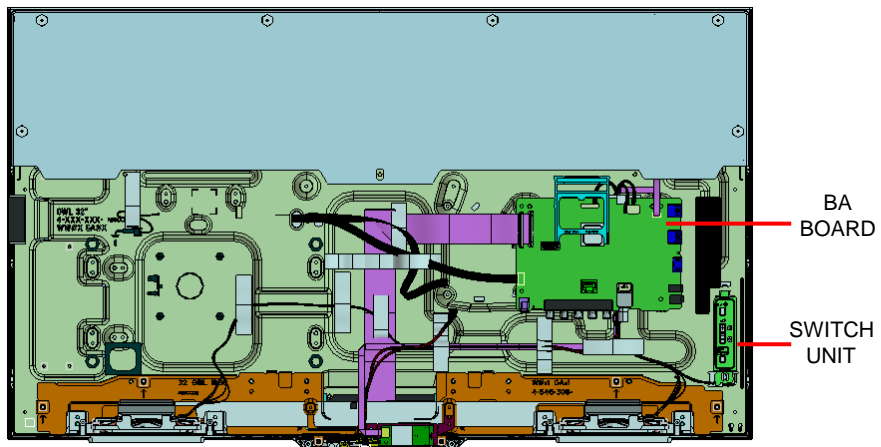


4-2-6. BA Hotel (ii)

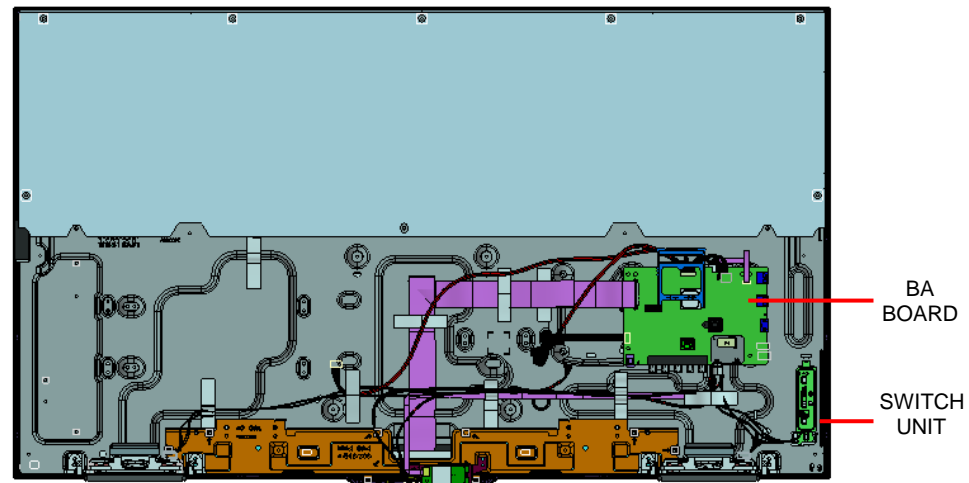


### 4-3. CIRCUIT BOARDS LOCATION

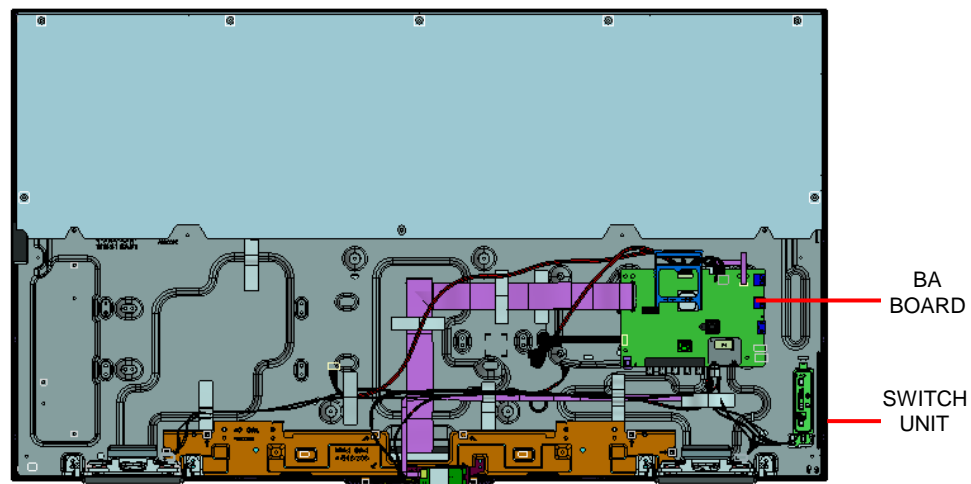
#### 4-3-1. KDL-32R500C/505C/507C



#### 4-3-2. KDL-40R510C/550C/555C/557C

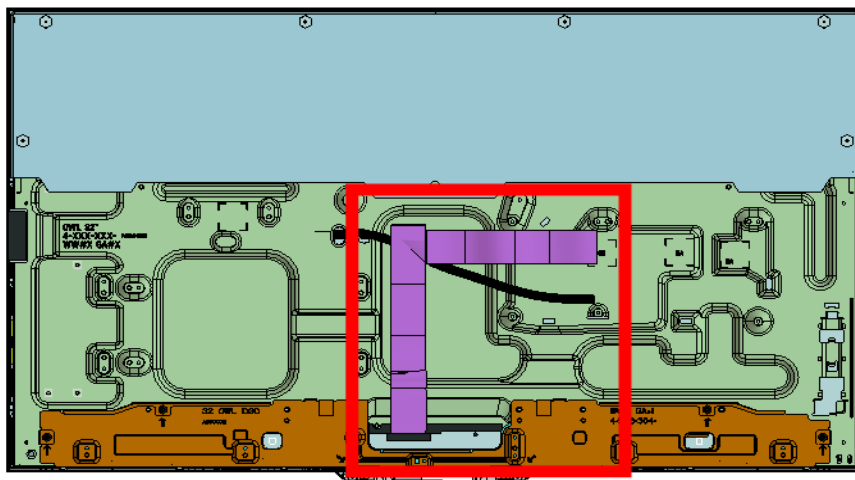


#### 4-3-3. KDL-48R510C/550C/555C/557C

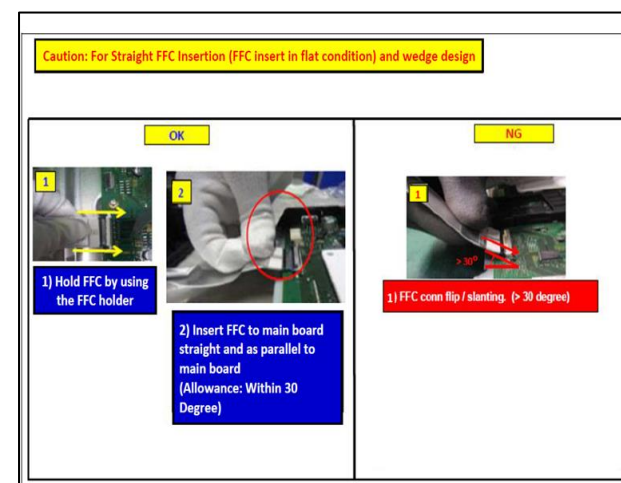
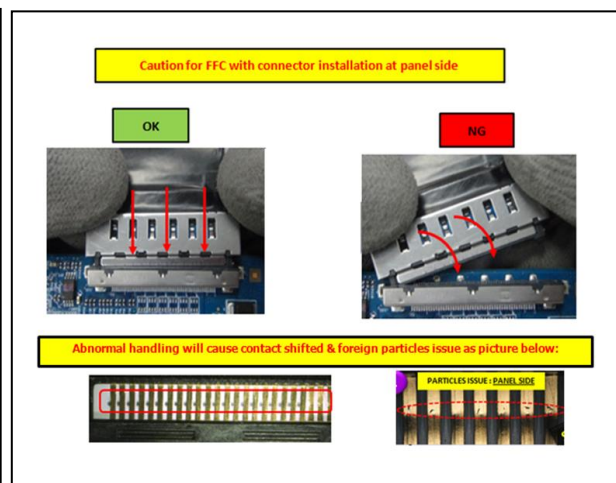
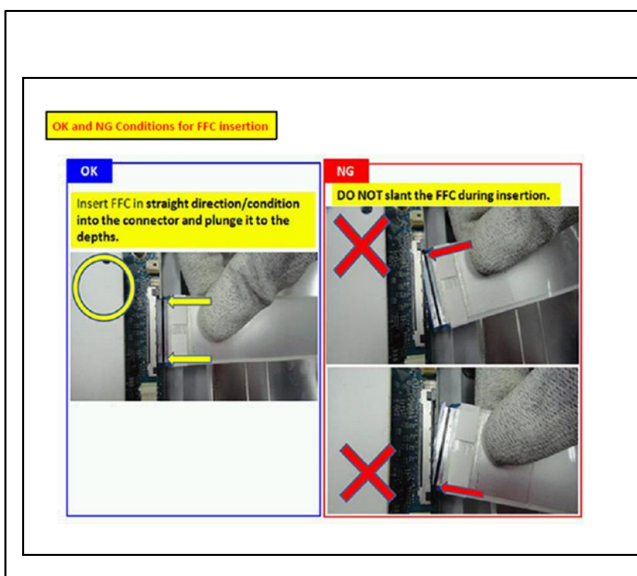
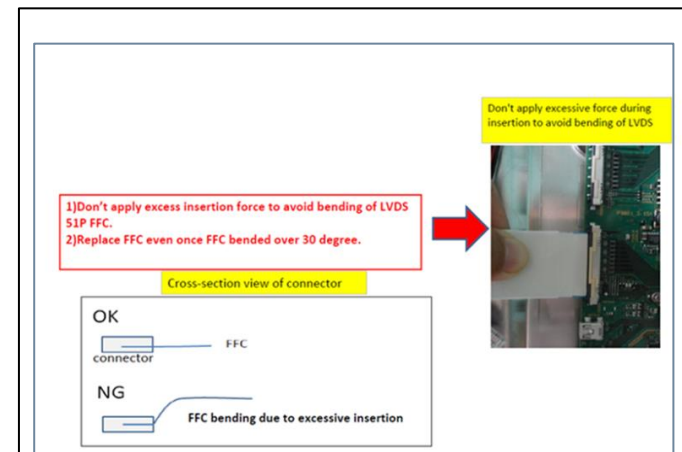


## 4-4. WIRE DRESSING

### 4-4-1. Flexible Flat Cable 30p (Wire Dressing)

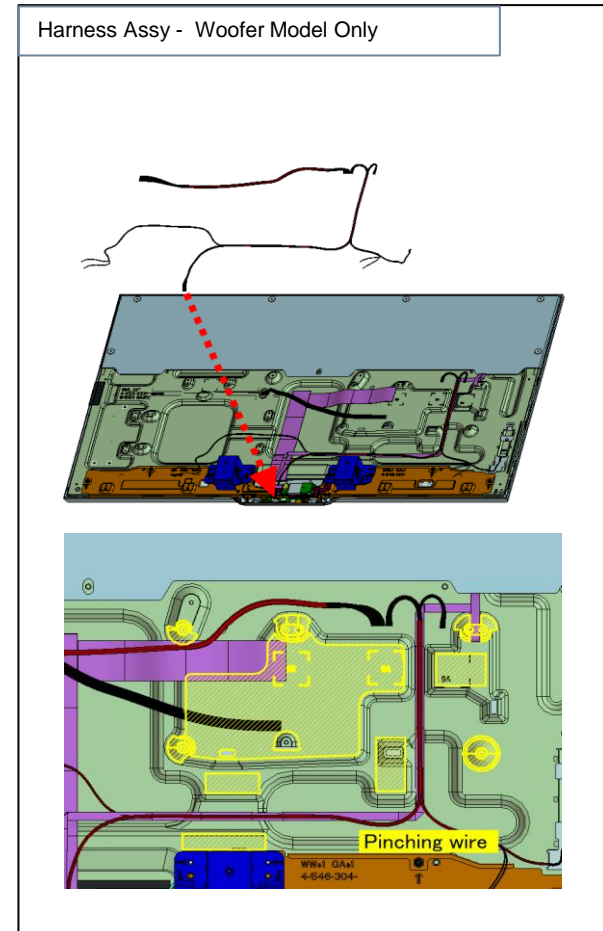
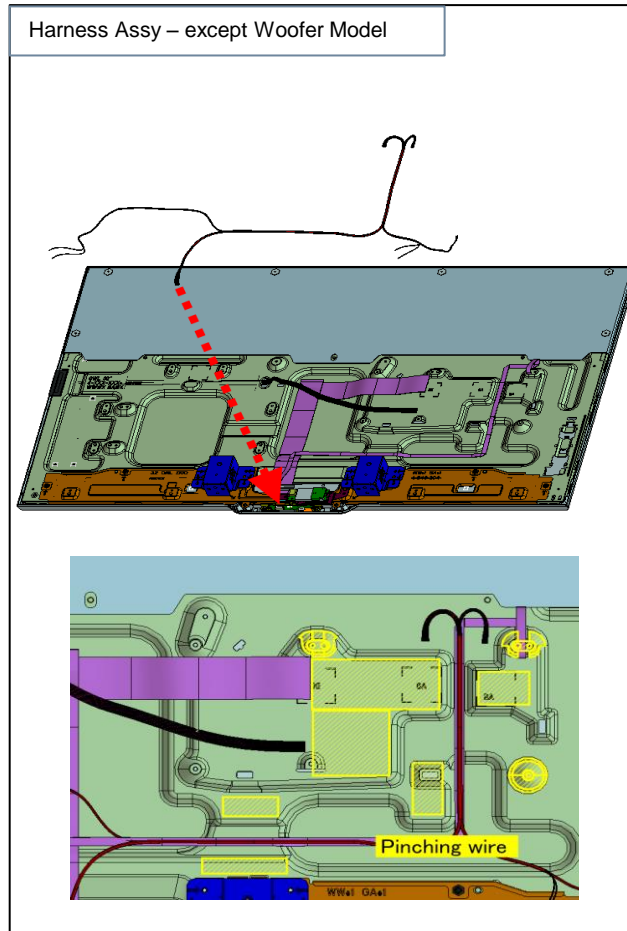
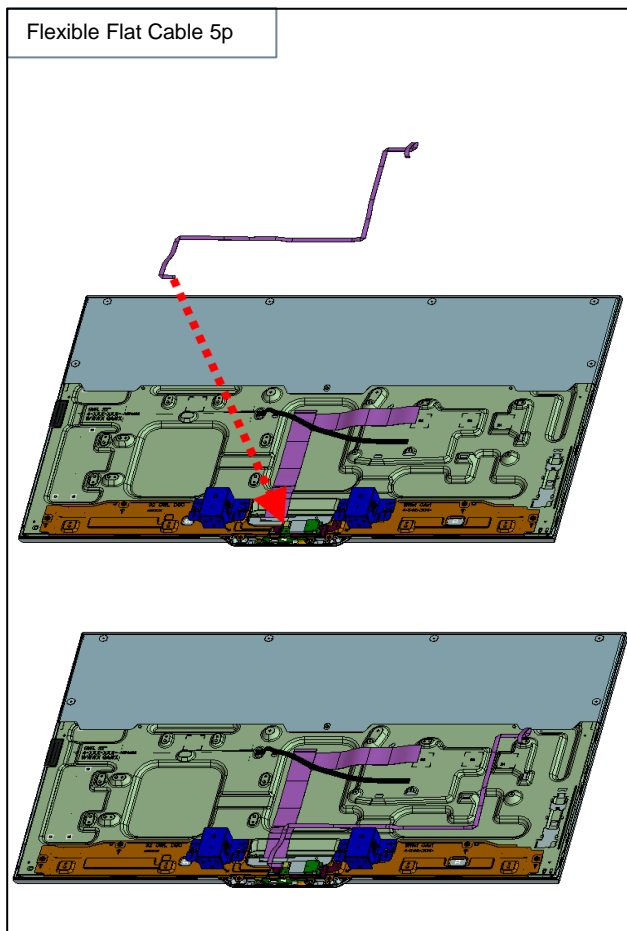


Caution during handling Flexible Flat Cable

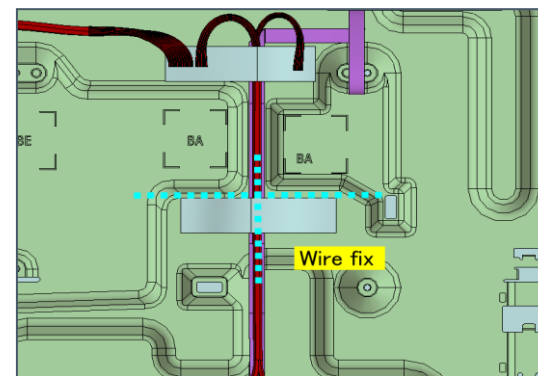
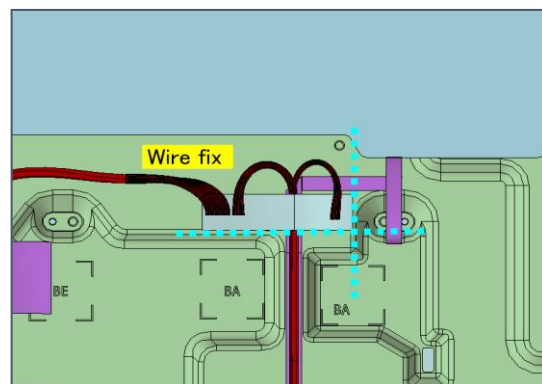
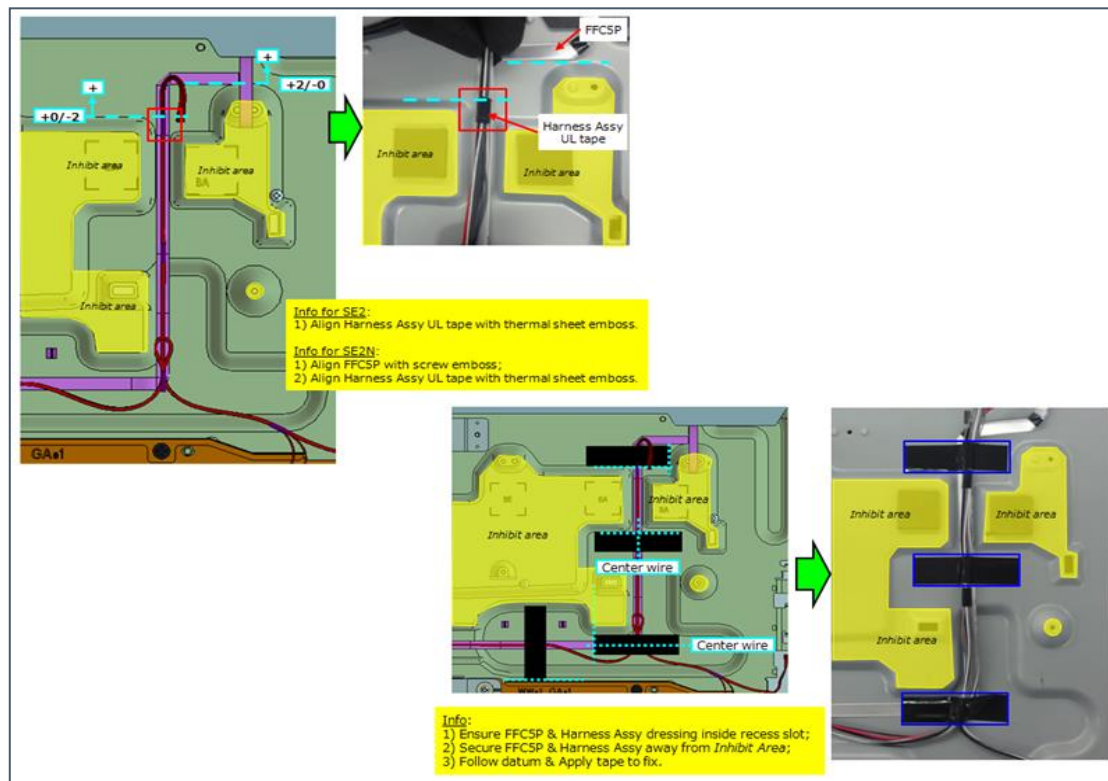




4-4-2. Flexible Flat Cable 5p & Harness Assy (Wire Dressing)



### 4-4-3. Tape-1 (Wire Dressing)



### 4-4-4. Tape-2 (Wire Dressing)

**Info:**  
 1) Ensure Harness Assy away from *Inhibit area*.  
 2) Follow datum & Apply tape to fix.  
 3) Caution: Avoid harness pinching by under bracket.

**OK** **NG**

*Inhibit area* *Inhibit area*

**NG** **NG**

Harness enters *Inhibit area*. Pinching by under bracket.

Risk of leaving gap at emboss corner/edge (not fully stick)

Rattle sound & Interference

WW\*1 GA\*1  
4-546-304-

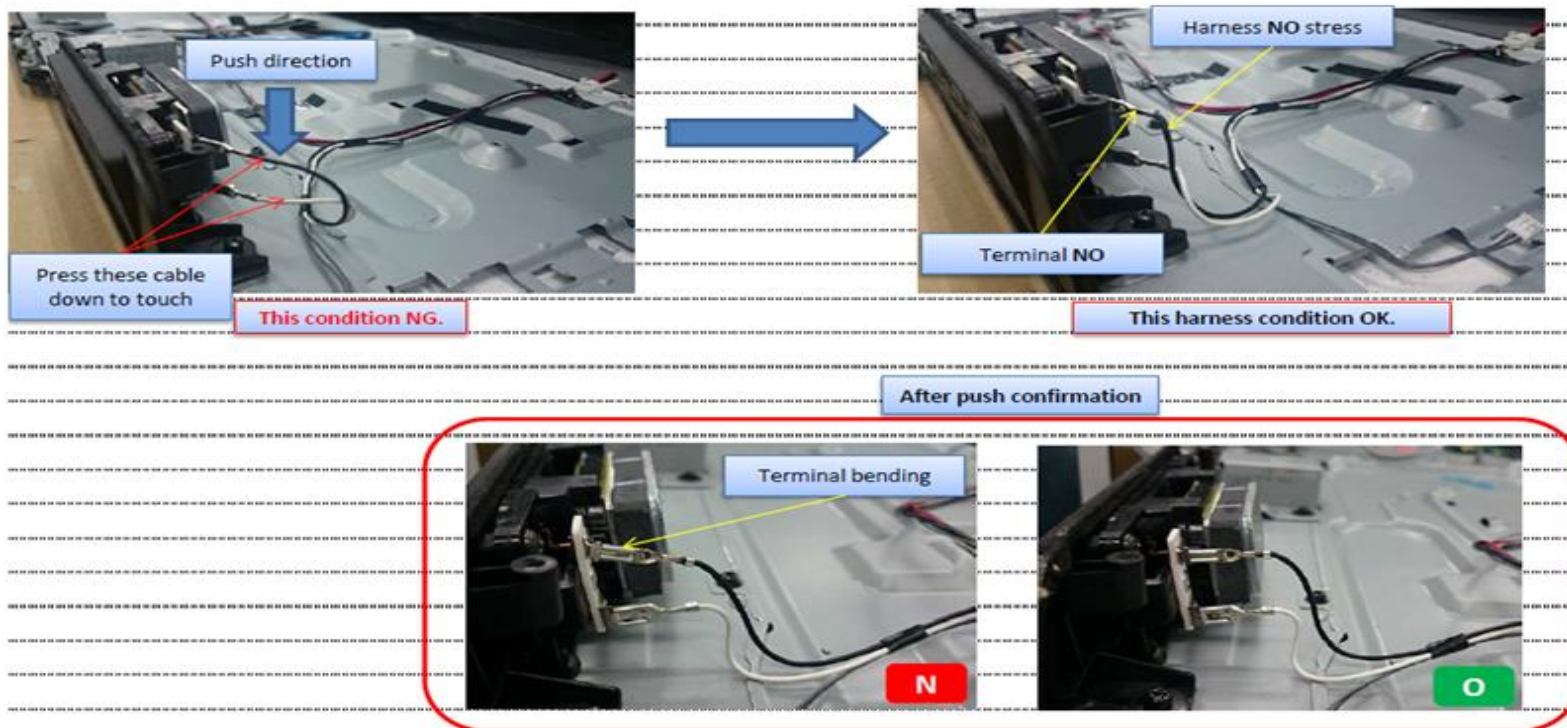
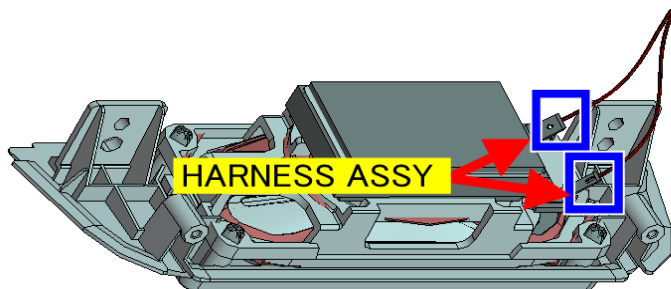
#### Woofer Model Only

**Info:**  
 1) Ensure LS harness on upper side of K-board harness cable tie;  
 2) Dress LS harness under K-board harness.

LS harness on upper side of cable tie.

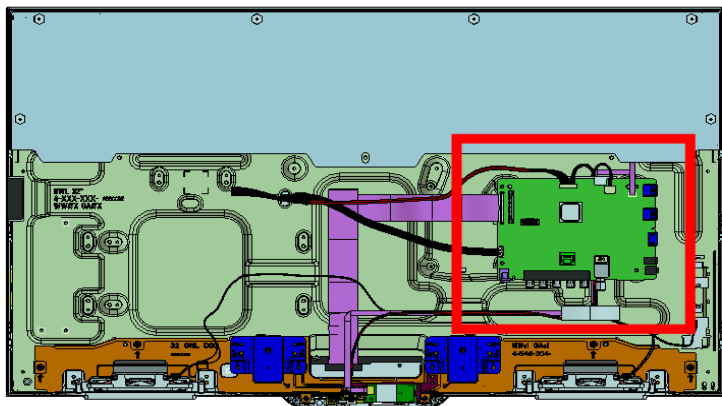
LS harness dress under K-board harness.

### 4-4-5. Loudspeaker (Wire Dressing)

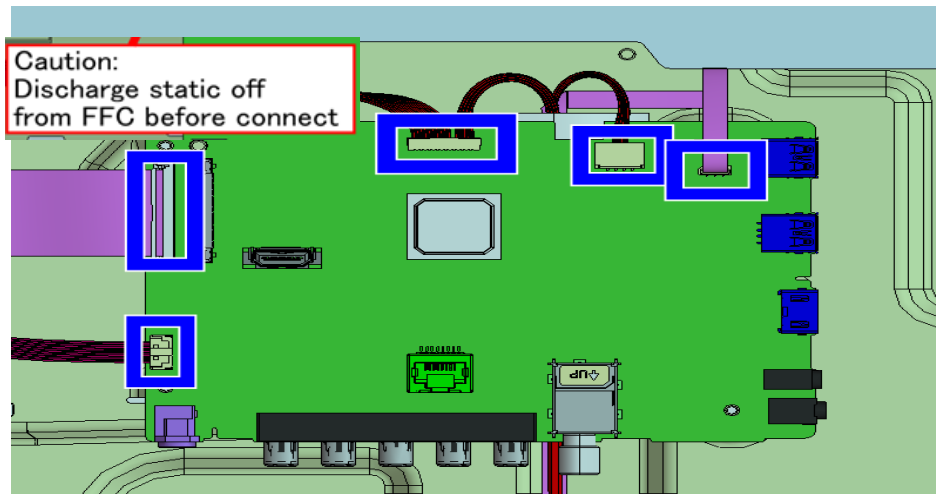


### 4-4-6. Insert Connector (Wire Dressing)

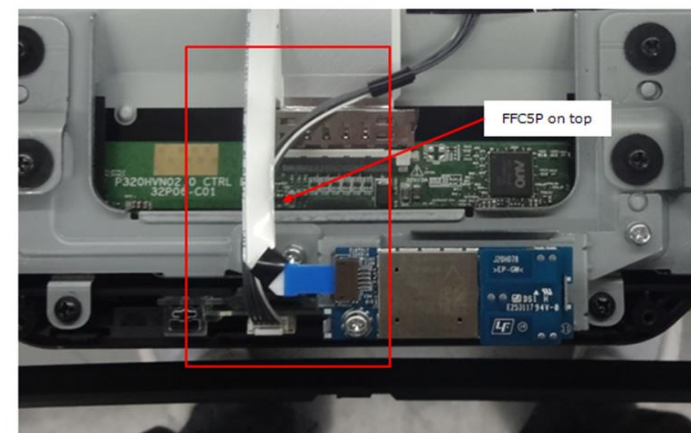
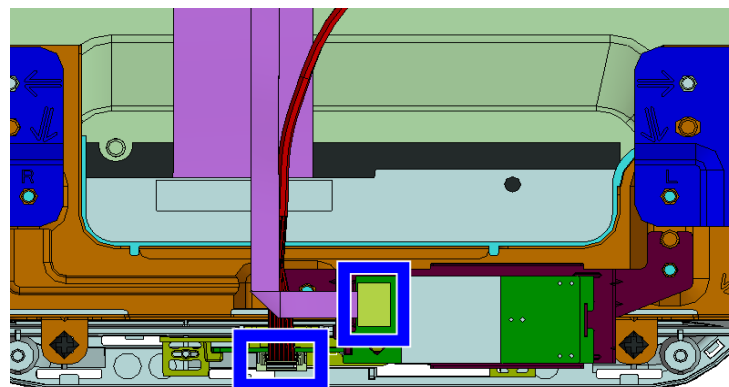
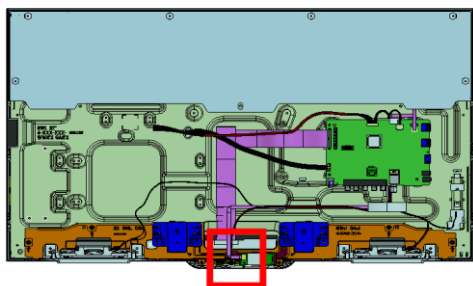
Insert Connector at BA MOUNT ( 32 " 40" 48" )



Caution:  
Discharge static off  
from FFC before connect

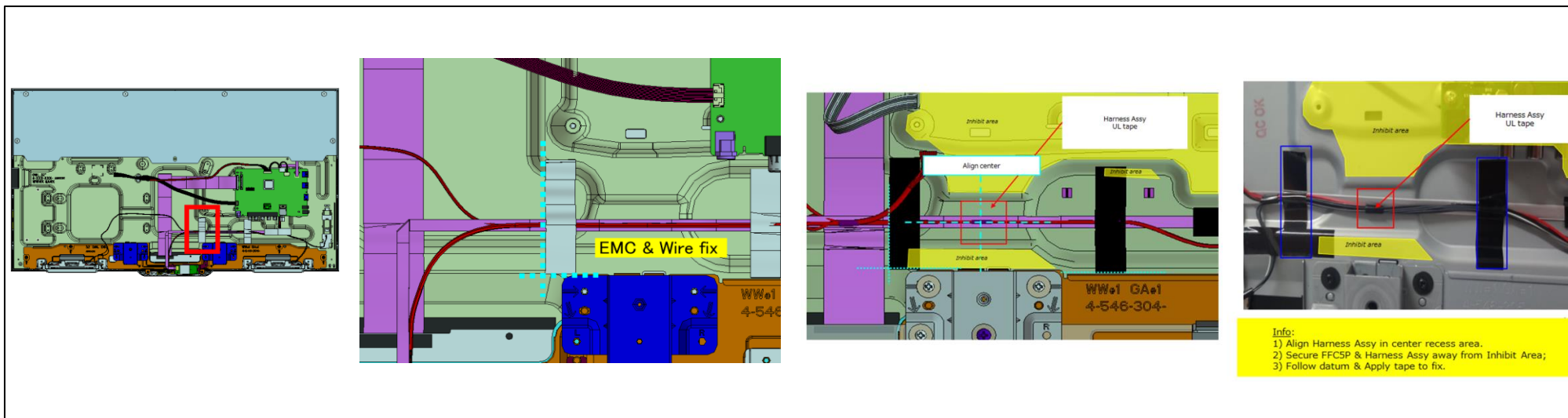
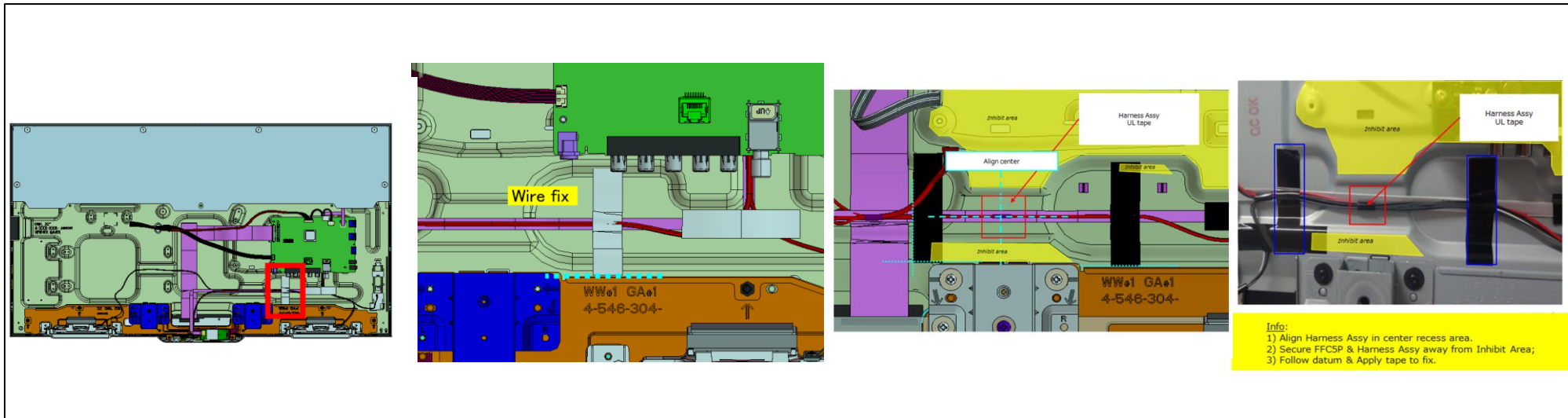


Insert Connector ( 32 " 40" 48" )

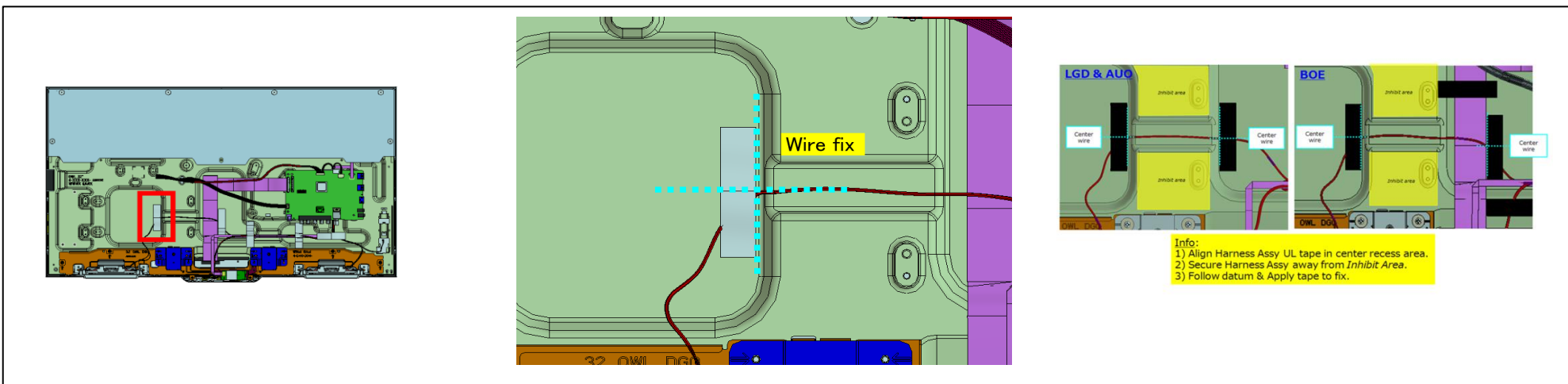
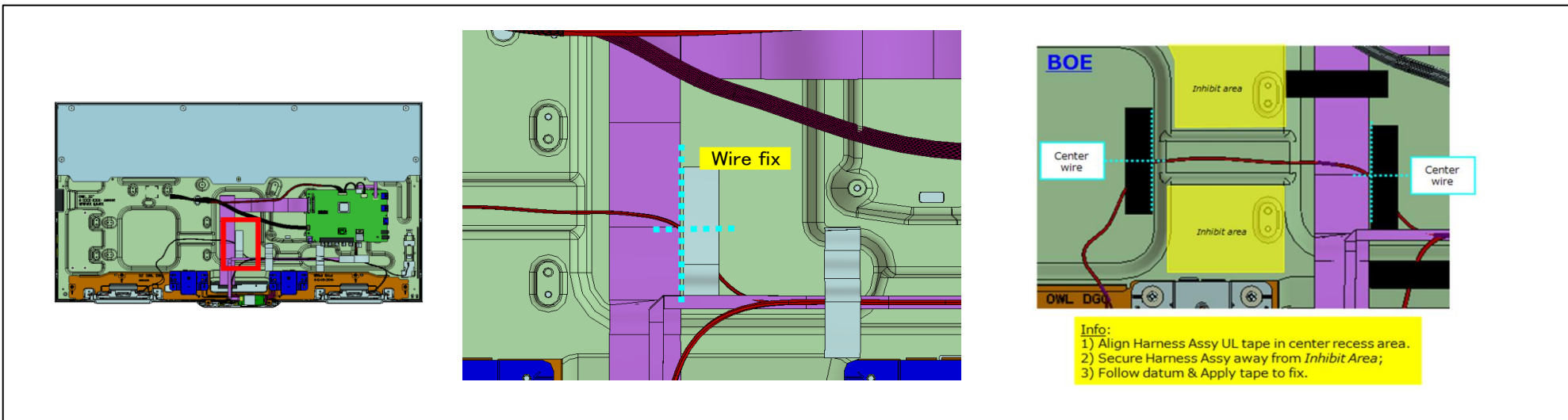


Info:  
1) Ensure Harness H-board dress under FFCSP.

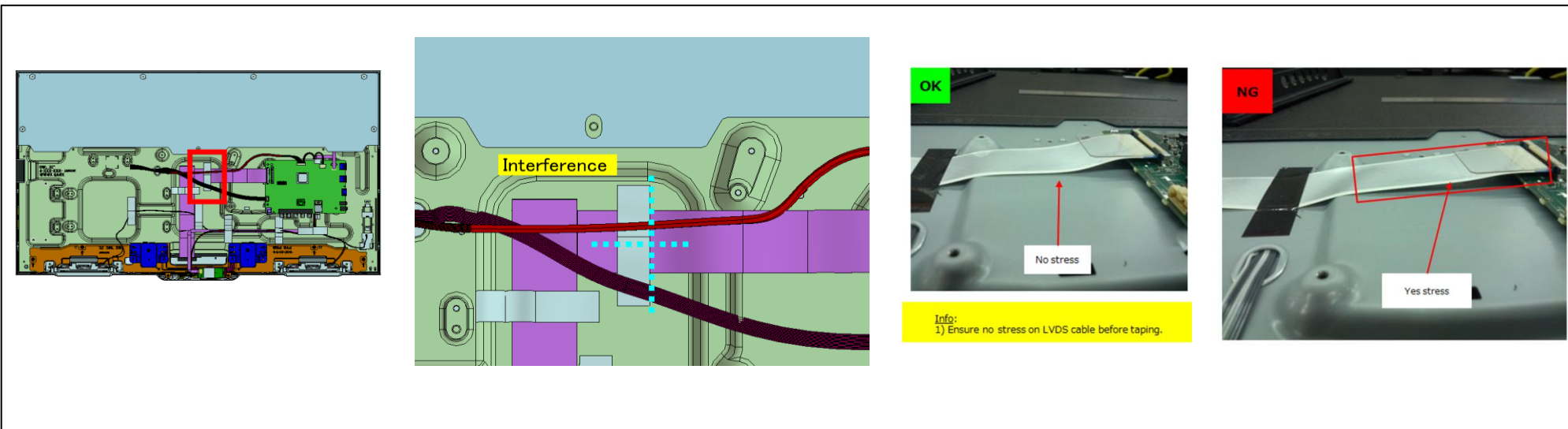
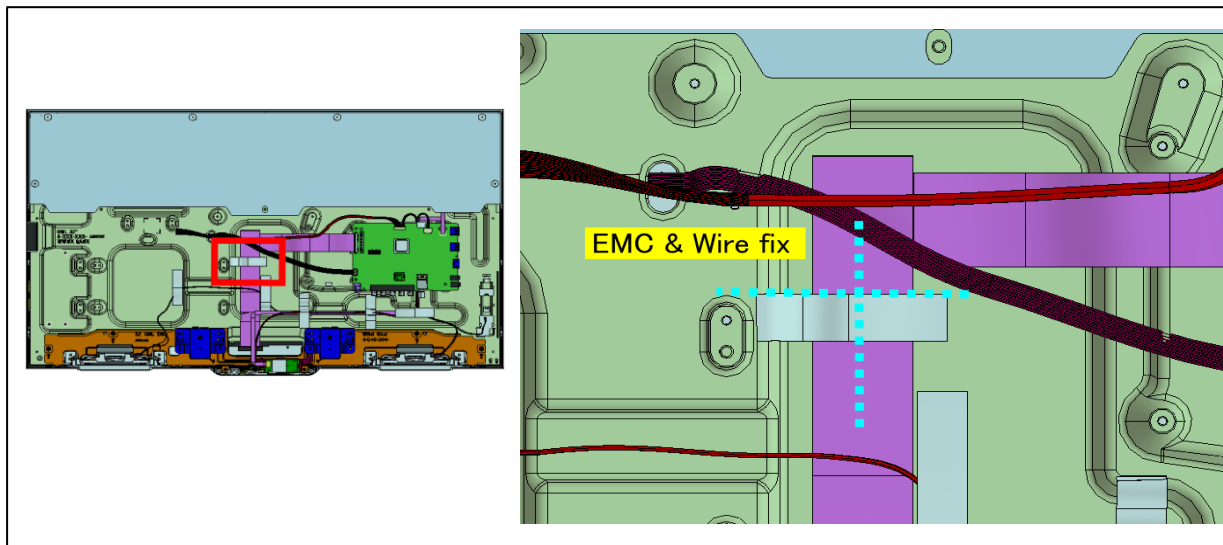
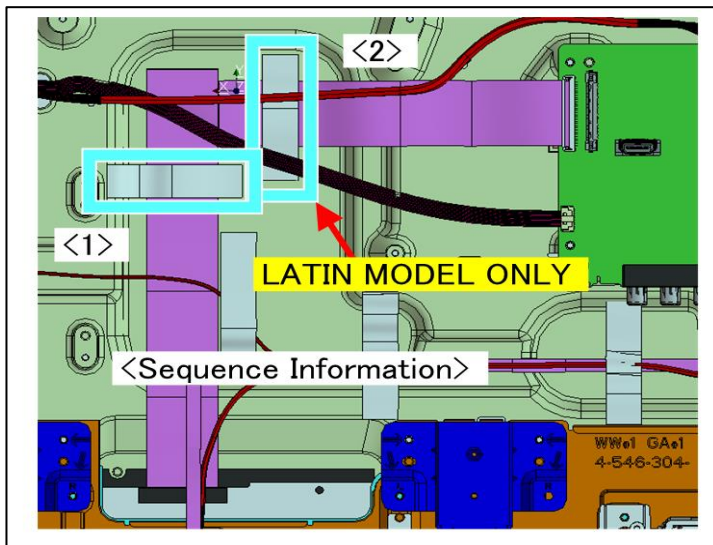
4-4-7. Tape-3 (Wire Dressing)



4-4-8. Tape-4 (Wire Dressing)

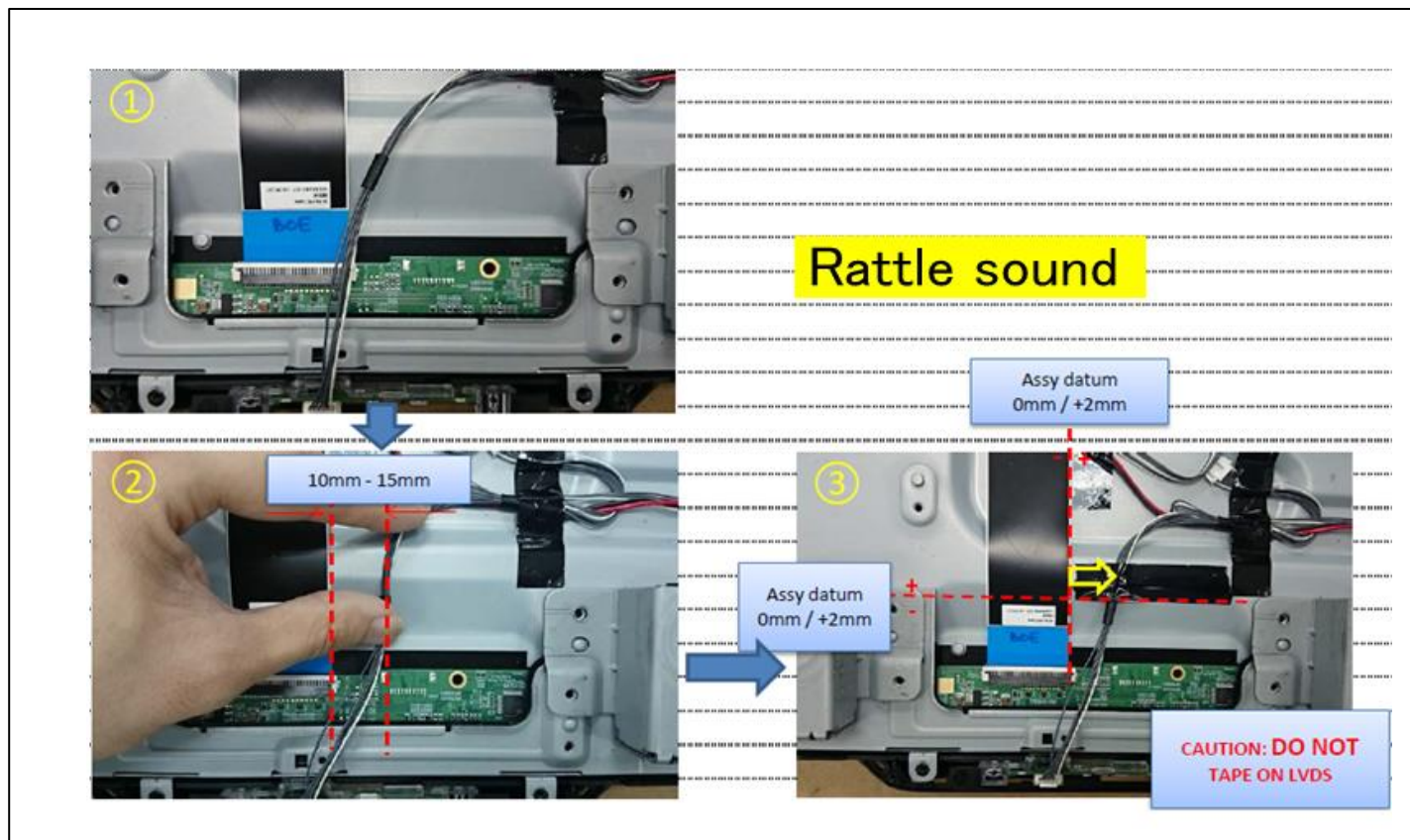
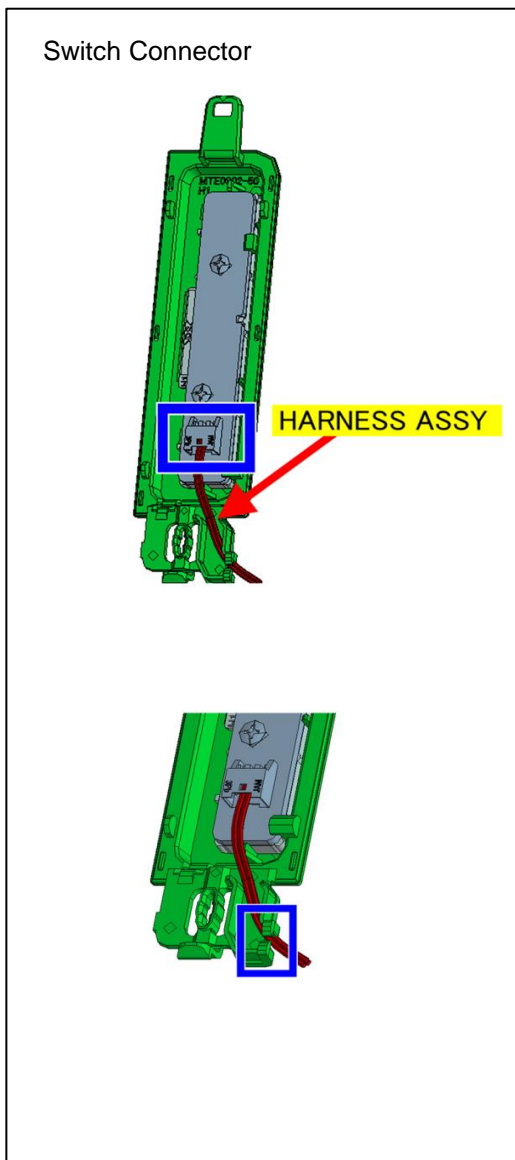


4-4-9. Tape-5 (Wire Dressing)

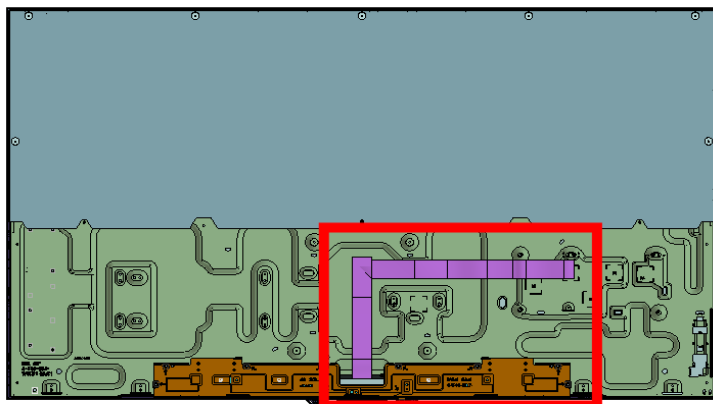




4-4-10. Switch Connector (Wire Dressing)



### 4-4-11. Flexible Flat Cable 51P-1 (40", 48") (Wire Dressing)



#### Caution during handling Flexible Flat Cable

Don't apply excessive force during insertion to avoid bending of LVDS

1) Don't apply excess insertion force to avoid bending of LVDS 51P FFC.  
2) Replace FFC even once FFC bended over 30 degree.

Cross-section view of connector

OK  
connector FFC

NG  
FFC bending due to excessive insertion

**OK and NG Conditions for FFC Insertion**

**OK**  
Insert FFC in straight direction/condition into the connector and plunge it to the depths.

**NG**  
DO NOT slant the FFC during insertion.

**Caution for FFC with connector installation at panel side**

**OK** **NG**

Abnormal handling will cause contact shifted & foreign particles issue as picture below:

PARTICLES ISSUE - PANEL SIDE

**Caution: For Straight FFC Insertion (FFC insert in flat condition) and wedge design**

**OK** **NG**

1) Hold FFC by using the FFC holder

2) Insert FFC to main board straight and as parallel to main board (Allowance: Within 30 Degree)

1) FFC conn flip / slanting (> 30 degree)

### 4-4-12. Flexible Flat Cable 51P-2 (40", 48") (Wire Dressing)

<Application> FFC Insertion for Panel Side [Molex Connector : 104234-5117]  
 <Method> Follow below method accordingly  
 <Caution> FFC handling with care.

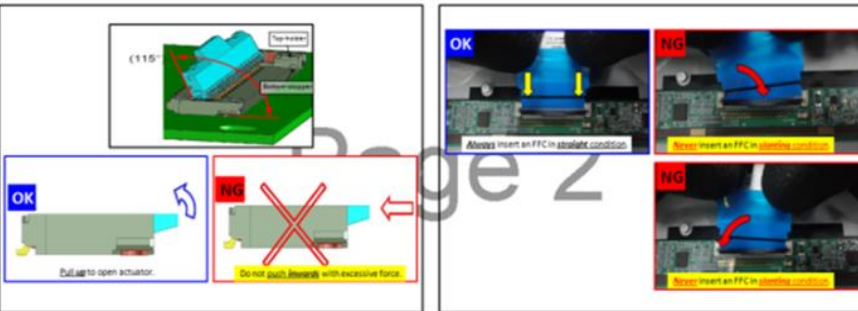





**Note:** FFC as in image is only for reference purpose. Actual FFC outlook may vary by each vendor.

Title	No.
FFC Insertion Caution for Molex : 104234-5117	1

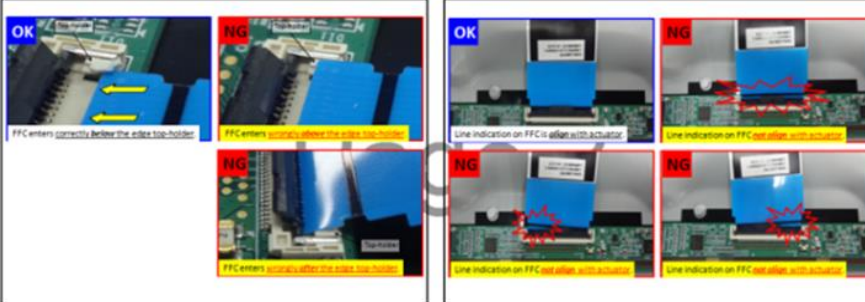
**OK AND NG CONDITION FOR FFC INSERTION**



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

Title	No.
FFC Insertion Caution for Molex : 104234-5117	2

**OK AND NG CONDITION FOR FFC INSERTION**

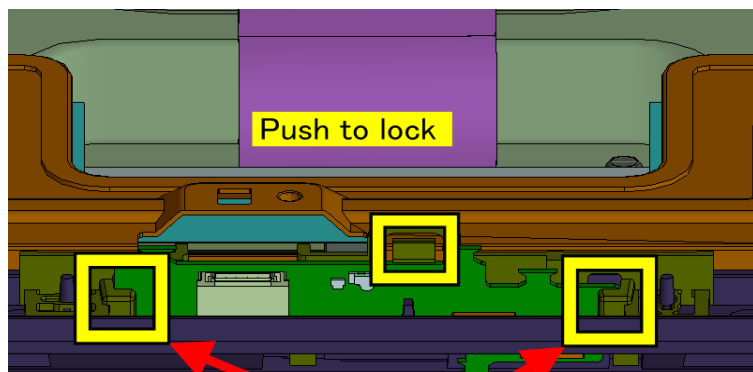
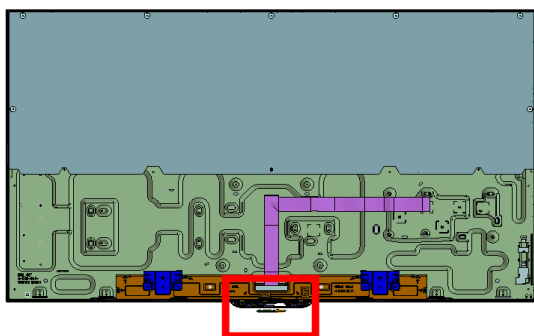


**Note:** FFC as in image is only for reference purpose. Actual FFC outlook may vary by each vendor.

Title	No.
FFC Insertion Caution for Molex : 104234-5117	3

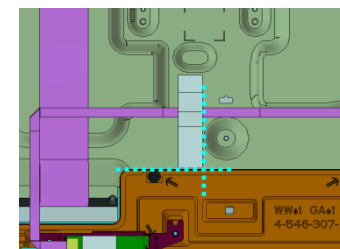
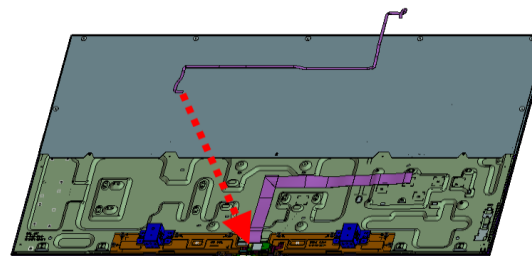
### 4-4-13. hook & Tape (Wire Dressing)

HKK Mount Hooks



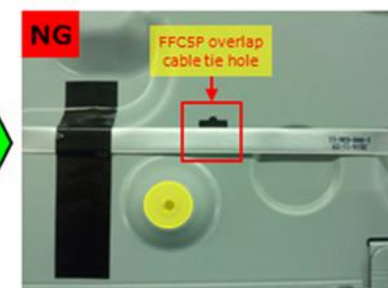
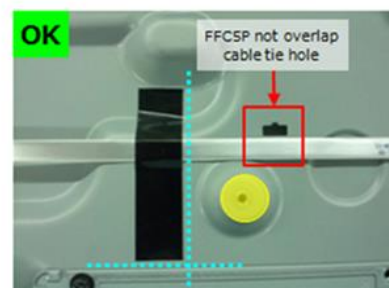
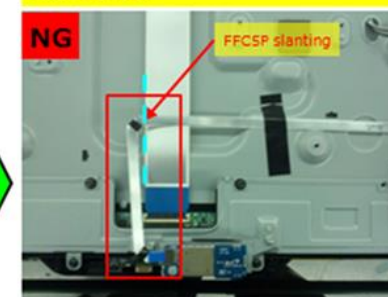
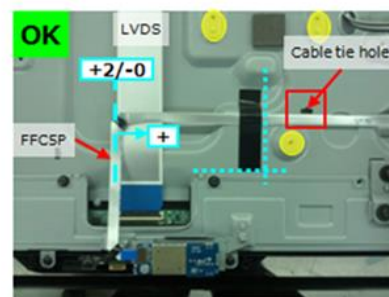
Ensure board fully insert in the hook

FFC 5p

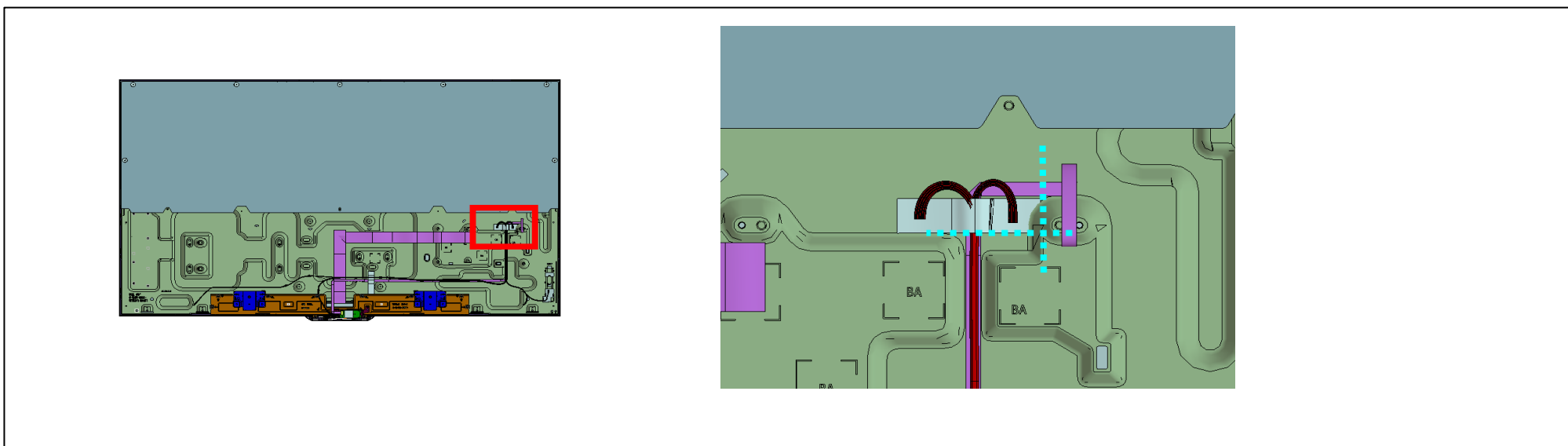
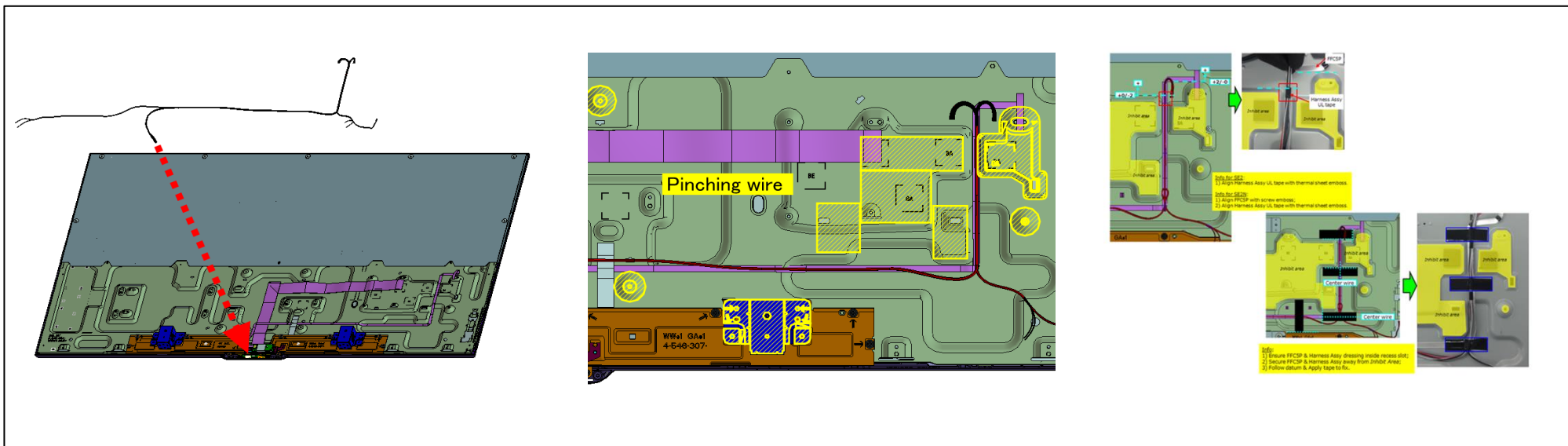


Tape

- Info:
- 1) Align FFCSP center with LVDS edge.
  - 2) Avoid Inhibit area.
  - 2) Apply tape to fix.
  - 3) Caution: Ensure FFCSP not overlap with cable tie hole.



4-4-14. Harness & Tape-1 (Wire Dressing)



### 4-4-15. Harness & Tape-2 (Wire Dressing)

The diagram illustrates the correct and incorrect methods for wire dressing on a harness assembly. It includes a top-level view of the harness, a detailed view of the wire placement, and three photographs showing 'OK' and 'NG' (Not Good) examples of wire placement.

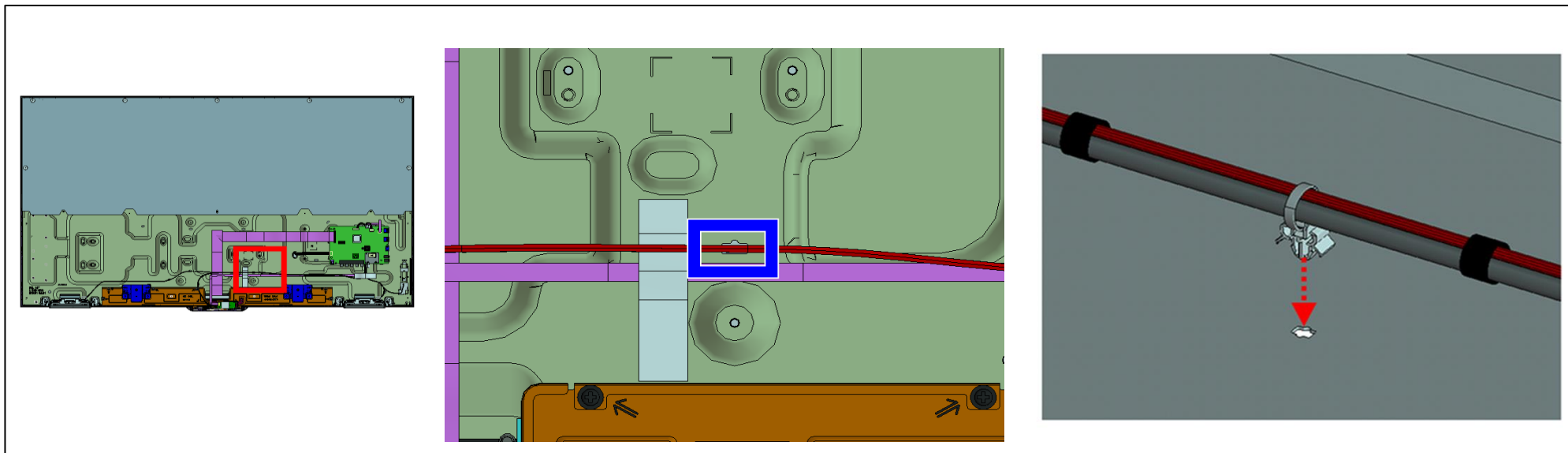
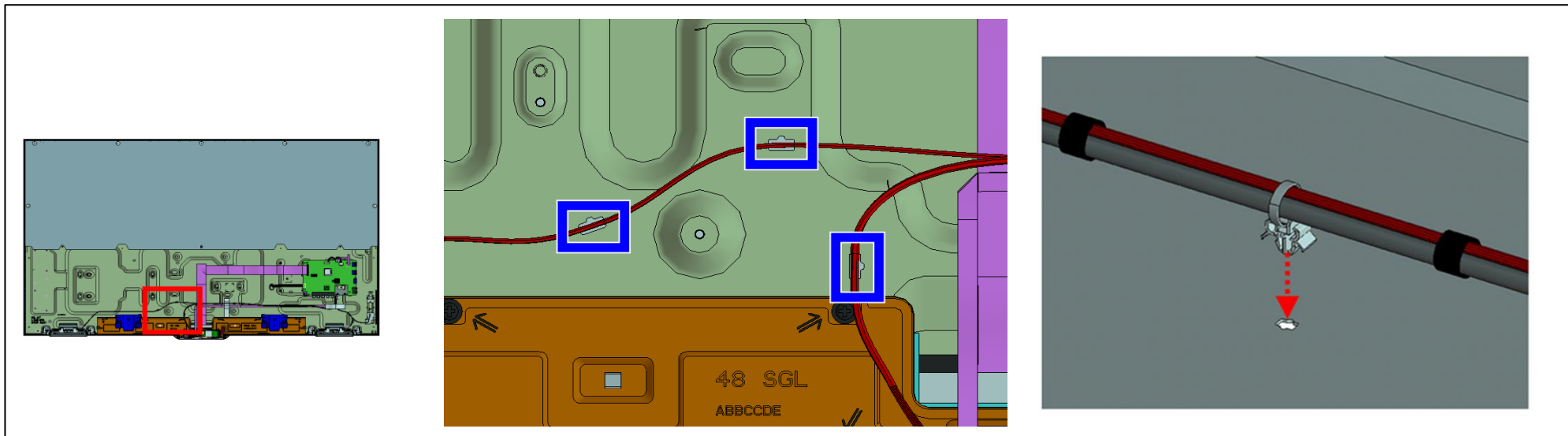
**OK** (Green label): Shows the correct placement of the center wire, which is centered and secured with tape. The 'Inhibit area' is clearly marked.

**NG** (Red label): Shows incorrect placement. The top 'NG' image shows the wire not centered. The middle 'NG' image shows the wire being pinched by the under bracket. The bottom 'NG' image shows a gap at the emboss corner/edge where the tape is not fully stuck.

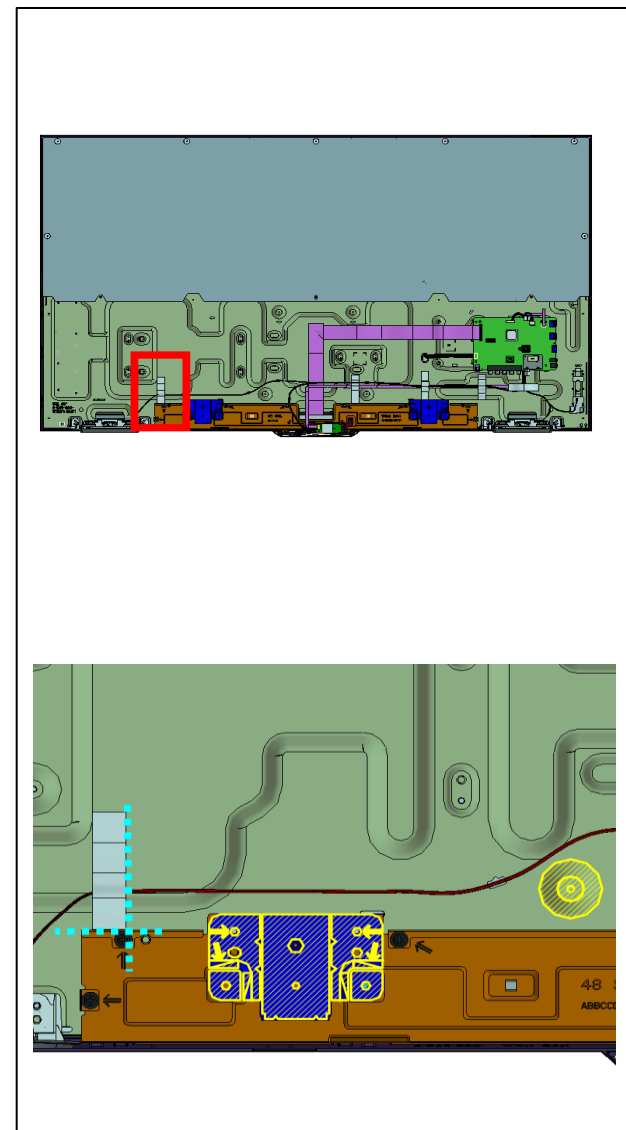
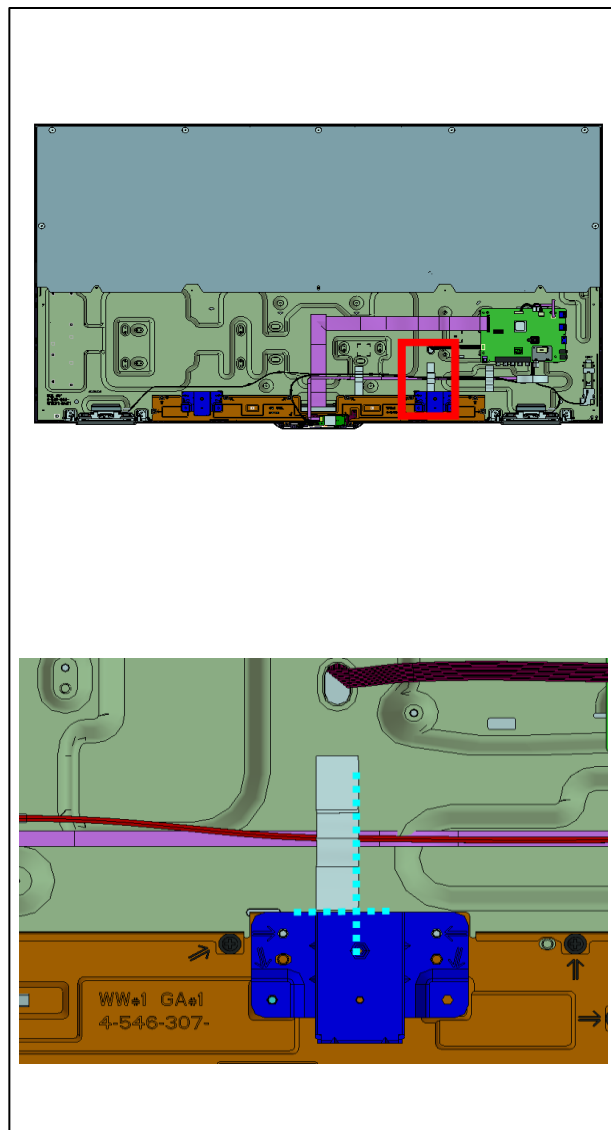
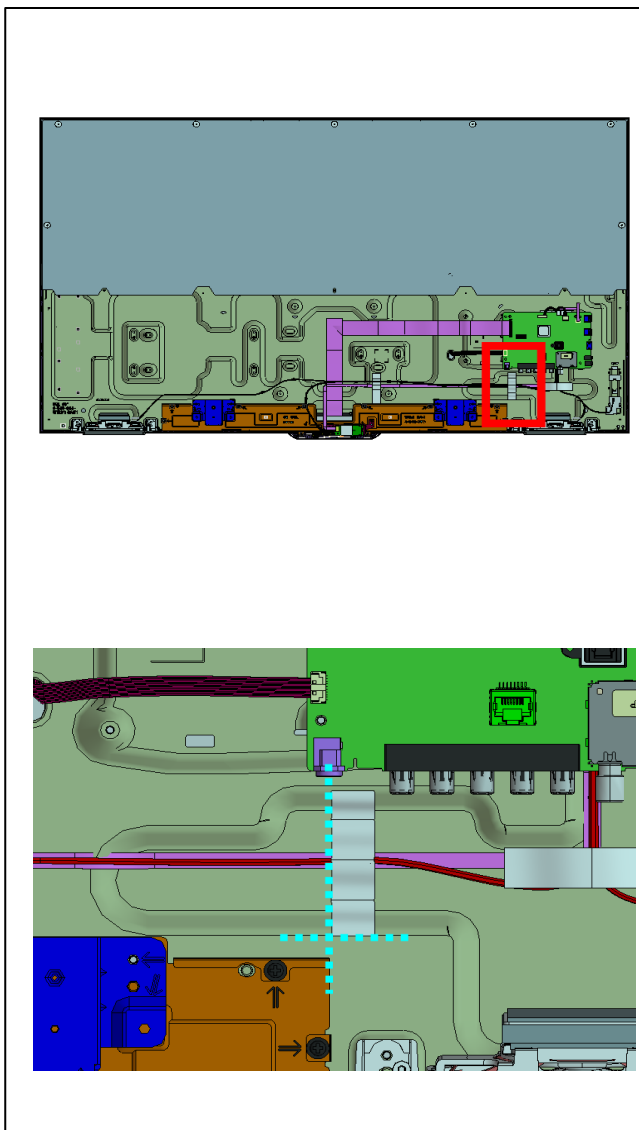
**Info:**

- 1) Ensure Harness Assy away from *Inhibit area*.
- 2) Apply tape to fix.
- 3) Caution: Avoid harness pinching by under bracket.

4-4-16. Hook (Wire Dressing)

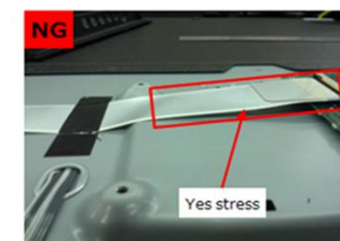
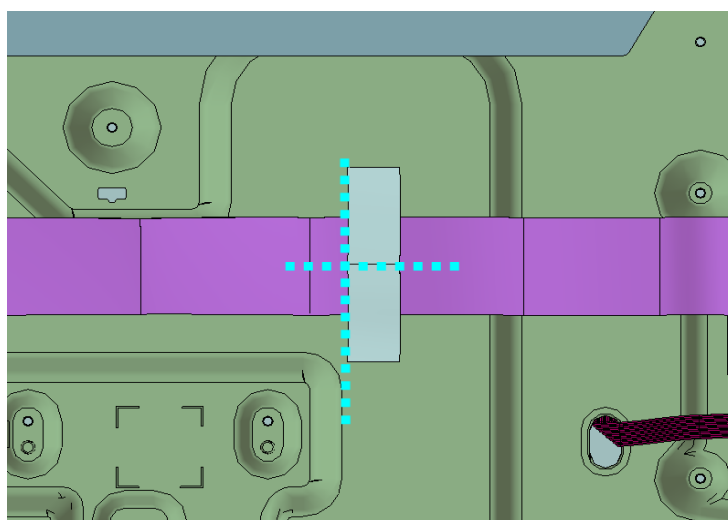
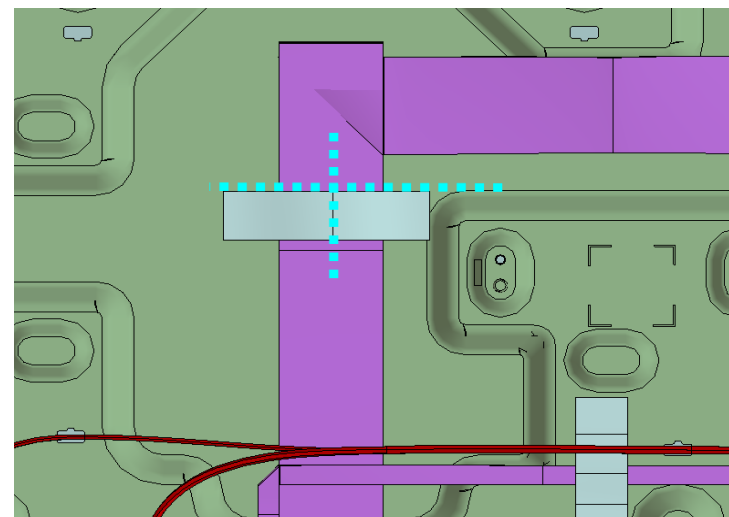
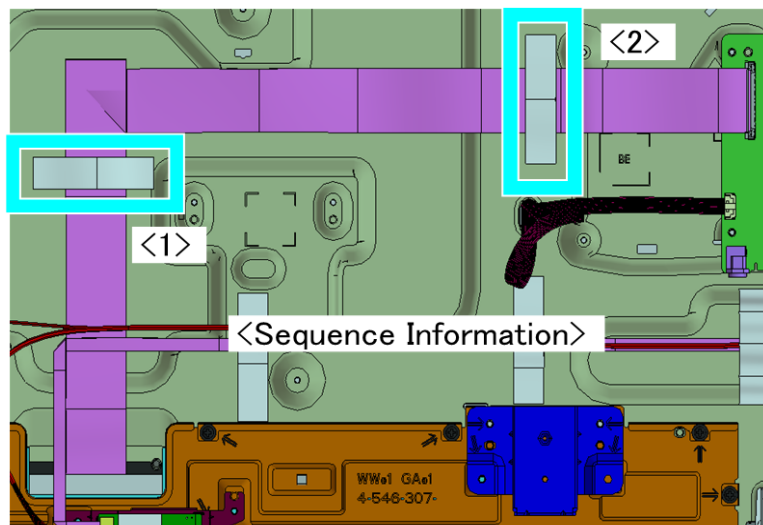


4-4-17. Tape-6 (Wire Dressing)





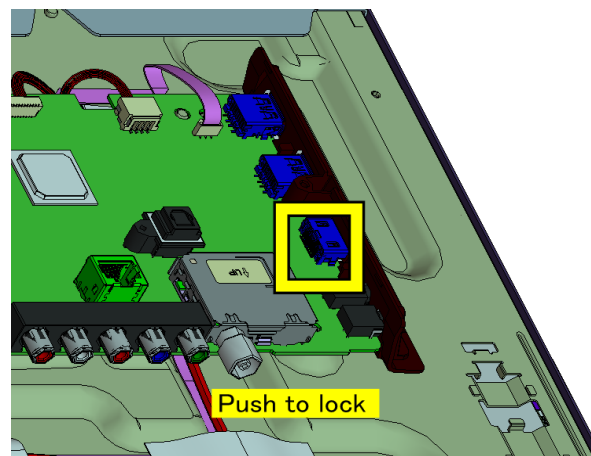
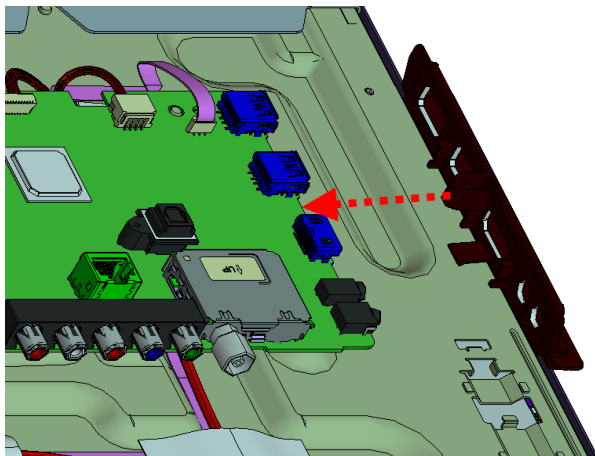
4-4-18. Tape-7 (Wire Dressing)



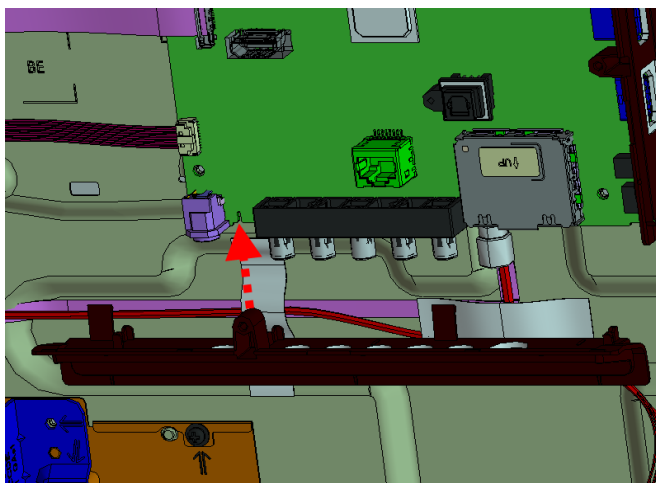
Info:  
 1) Insert LVDS to connector first before taping.  
 2) Ensure no stress on LVDS cable before taping.

4-4-19. Bracket (Wire Dressing)

BRACKET, SIDE (OWL)



BRACKET, UNDER (OWL)



**END**

---

# APPENDIX-1

## How to update TV Software

1. Please download TV firmware image from Server in each region on your PC.  
(filename: sony\_fwboot\_2015\_<Version>\_<Dest\_ID(lower-case)>\_.zip, Refer the matrix of this page)
2. Extract TV firmware image and you will get 2files.  
(sony\_fw\_2015\_<Version>\_<Dest\_ID>.pkg & sony\_boot\_2015\_<Version>\_<Dest\_ID>.bin)
3. Copy [sony\\_fw\\_2015\\_<Version>\\_<Dest\\_ID>.pkg](#) file to the root directory of USB pen drive. (ex: sony\_fw\_2015\_1500\_SLPDA.pkg)
4. Insert USB pen drive to USB port of TV.



Model	EU	PAA	PAD	CND	CO	U/C/M	BR	CHI/PE
SE2 (JustTV)	8.000	9.000	1.000	-	-	-	-	-
Dest_ID	SLEU1	SLPA1	SLPD1	-	-	-	-	-
SE2N (Simple IPTV)	8.500	9.500	1.500	3.500	5.500	4.500	7.500	6.500
Dest_ID	SLEUA	SLPAA	SLPDA	SLCDA	SLCOA	SLUSA	SLBRA	SLCPA

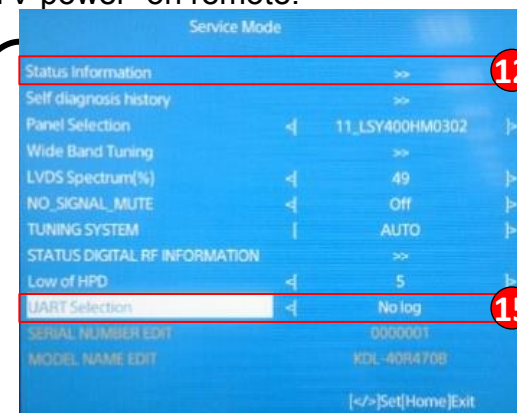
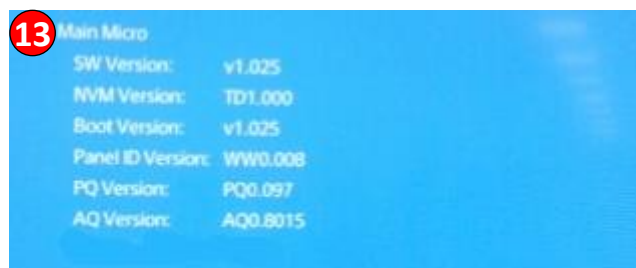
5. Pull Out the AC plug and wait 10 second (considering the charge of AC adaptor).
6. Press and hold the side Power Key for 5 seconds and re-insert the AC plug at the same time.

7. After 20-30 seconds, the LED is turn to Amber and blink.
  - LED blinking indicates “Under SW Update”.
  - **IMPORTANT NOTE: PLEASE DO NOT PULL OUT**
  - **THE AC PLUG DURING THIS STATE.**



8. After 1-2 minutes, LED blinking will finish. Please press <Power> key.  
If “SONY” Logo displays the screen and LED is turn to GREEN, Software update is success!!
9. Pull out the USB pen drive from TV.

10. TV on standby and Enter Service Mode. Press “i+ (info)”, “5”, “Volume +” then “TV power” on remote.
11. Select “Status Information” item and Press <Enter> key.
12. Confirm SW,NVM,Boot,Panel ID,PQ,AQ Version.

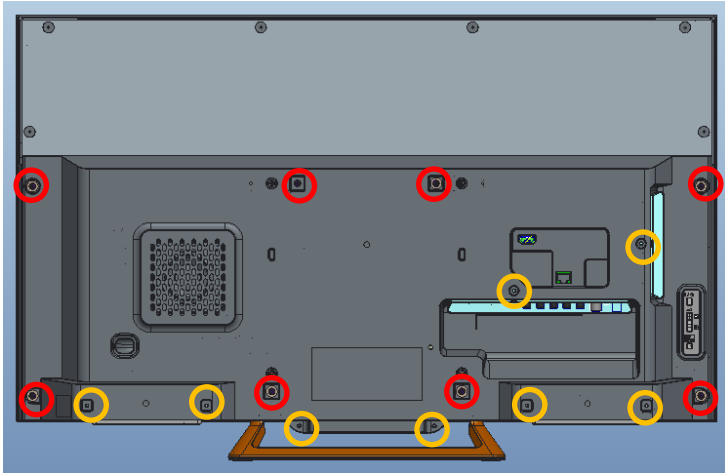


13. Press <Return> to back Service Mode Menu.
14. Select “UART Selection” by ↑↓ key, and select “No log” item by ←→ Key and press <Enter> key for Selection.
15. Pull Out the AC plug and wait 10 second (considering the charge of AC adaptor).
16. Insert the AC plug.
17. Press <Power> Key to turn on the TV.

# APPENDIX-2

## Rear Cover Disassembly Method

1. Remove the screw



# SE2/N rear cover can be disassembled without detach stand.

Screw type and qty to disassemble RC

Screw type	32"	40"	48"
○	8 pcs	12 pcs	12 pcs
○	8 pcs	8 pcs	8 pcs

2. Disassembly Rear Cover

