

Self Diagnosis
Supported model

SERVICE MANUAL

AZ1-A(5-0) CHASSIS

MODEL	DEST	MODEL	DEST
KLV-26NX400 (black / silver)	RUSS	KLV-32NX500	RUSS
KLV-32NX400 (black / silver)	RUSS	KLV-40NX500	RUSS



RM-GA018

FLAT PANEL COLORTV
SONY®

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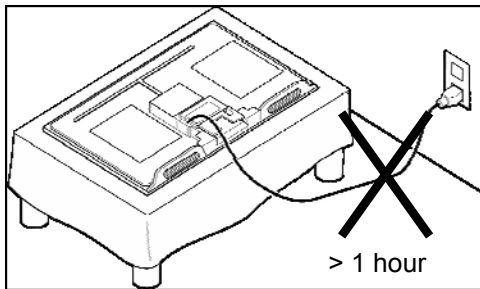
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1-1. Caution Handling of LCD Panel

When installing the LCD Panel, make sure you are grounded with a wrist band.

When installing 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 of time.
- 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 (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 circuit.
- 9) Protect the panel from ESD to avoid damaging the electronic circuit (C-MOS).
- 10) During the repair, DO NOT leave the Power On for more than 1 hour while the TV is face down on a cloth.



1-2. 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 interboard 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 absolutely 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 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 test as described next.
- 8) Live chassis can cause electric shock as its connected to the AC power line. Therefore, use isolation transformer and gloves when changing parts or removing plug. Please remember high voltage is there during servicing.
- 9) To follow safety after servicing, please make sure the removed screws, parts and wires are as original condition.

1-3. 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 0.5mA (500 microamperes). Leakage current can be measured by any one of the three methods:-

1. A commercial leakage tester such as the SIMPSON 229 or RCA WT-540A. Follow the manufacturers instructions to use those 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 0.75V 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 1.)

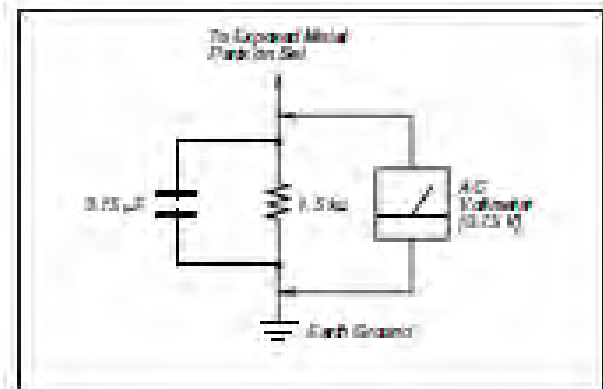


Figure 1. AC voltmeter to check AC leakage

1-4. WARNING !

SAFETY-RELATED COMPONENT WARNING!
 COMPONENTS IDENTIFIED BY SHADING AND MARK ! ON THE EXPLODED VIEWS 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.

1-5. 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 2: LF logo

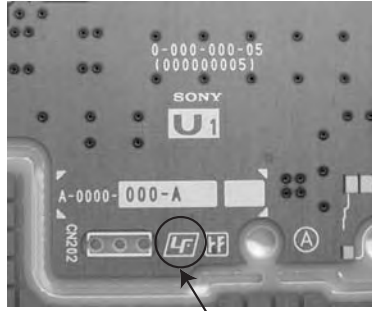


Figure 3: LF logo on circuit board

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. Lead Free Solder is available under the following part numbers:-

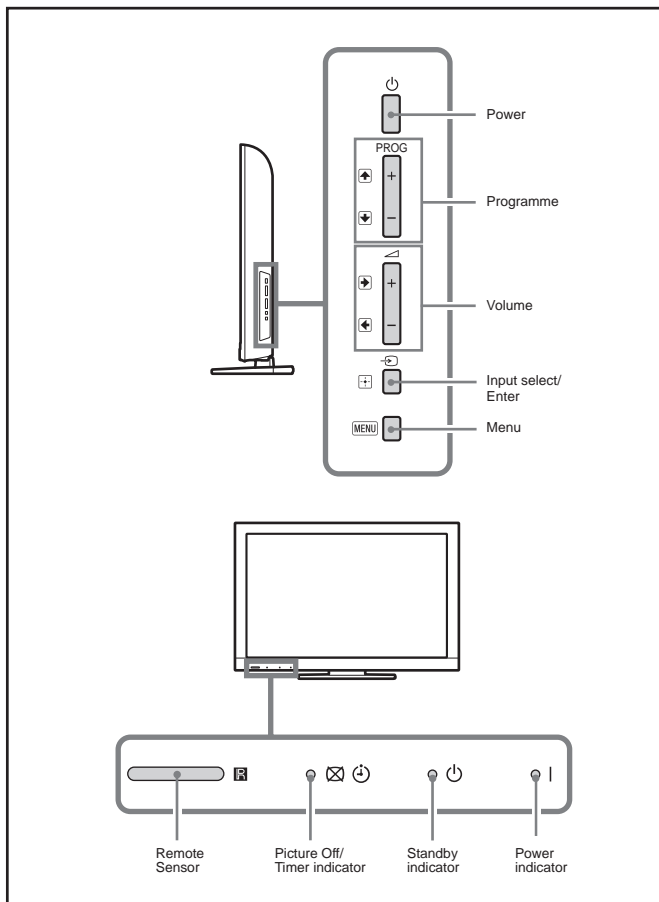
Part number	Diameter	Remarks
7-640-005-19	0.3mm	0.25Kg
7-640-005-20	0.4mm	0.50Kg
7-640-005-21	0.5mm	0.50Kg
7-640-005-22	0.6mm	0.25Kg
7-640-005-23	0.8mm	1.00Kg
7-640-005-24	1.0mm	1.00Kg
7-640-005-25	1.2mm	1.00Kg
7-640-005-26	1.6mm	1.00Kg

Due to high melting point of Lead Free Solder, the soldering iron tip temperature needs to be set to 370 degrees centigrade. This requires soldering equipment capable of accurate temperature control coupled with a good heat recovery characteristics.

For more information on the use of Lead Free Solder, please refer to <http://www.sony-training.com>

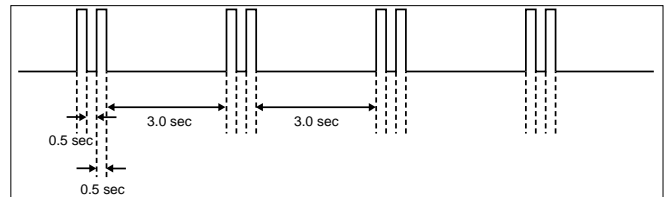
SECTION 2 SELF DIAGNOSTIC FUNCTION

2-1. Overview of Control Buttons



2-4. LED Pattern

When safety shutdown occurs, Standby LED display reports the cause by using the lightning patterns as indicated below.



Example:

The figure above shows LED display when SHUTDOWN is caused by Balancer Error. It repeats flashing for a specified number of times in 0.5sec/cycle and has a 3 seconds interval of lighting off. Please note that a 3 seconds interval of lighting off is fixed regardless of abnormal state types.

2-2. LED Display Specification

LEDType	Description	Remark
POWER	Green:LED	Green lights at power ON.
STANDBY	Red:One LED	Red lights during standby
Timer	Orange :One LED	Orange lights during Timer activation.

2-3. LED Display Control

Status	Display		Remark
	Power LED	Standby LED	
POWER ON	Green lights	OFF	Microcomputer is in a normal state.
STANDBY	OFF	Red lights	Microcomputer is in a sleep state.
Failure	OFF	Red flashes	Classify the trouble causes by the number of red blinking.

2-5. Standby LED Error Display and Board Replacement Order

Perform below countermeasures according to Standby LED blinking times.

Blinking times	Error	Countermeasure (Replace either/all according to sequence)
2	Main Power Error	1) Power Unit(26"), G2LE Unit(32"), G2HE Unit(40") board. 2) BAA board.
3	DC_ALERT 1/ Audio Error/ Motionflow Error	1) BAA board. 2) Power Unit(26"), G2LE Unit(32"), G2HE Unit(40") board. 3) TCON. 4) Speaker.
4	Balancer Error	1) Inverter board. 2) Panel. 3) Power Unit(26"), G2LE Unit(32"), G2HE Unit(40") board. 4) BAA board.
5	T-CON Error / Panel ID NVM Error	1) T-CON. 2) BAA board. 3) LVDS Cable. 4) Power Unit(26"), G2LE Unit(32"), G2HE Unit(40") board.
6	Backlight Error	1) Inverter board 2) Power Unit(26"), G2LE Unit(32"), G2HE Unit(40") board. 3) BAA board.
7	Temp. Error	1) BAA board. 2) Power Unit(26"), G2LE Unit(32"), G2HE Unit(40") board.

Note:-

- 1: Each of the above blinking repeats 3 seconds.
2. Countermeasure is list out by priority.

2-6. Triage Chart

Reference	Symptom (dead set)						Video distorted or missing							
	2Blinks	3Blinks	4Blinks	5Blinks	6Blinks	7Blinks	No Power	No Video BL OK OSD OK	No Video No BL	No Video BL OK No OSD	No Tuner Video OK	Tuner OK Video 1-3 Bad	No HDMI	No Audio
BAA board	●	●		▲		▲	●	●	●	●	●	●	●	●
H2LR board														
H2LS														
HLR3 board														
SW1 board														
Power Unit (26")	●				●	●	●		●					●
G2LE Unit (32")	●				●	●	●		●					●
G2HE Unit (40")	●				●	●	●		●					●
T-con board		●		●						▲				
Speaker unit		●												●
RF module											●			
Panel module			●											
FFC cable														
Joint connector														
Problem	No Power	BAA board	Balancer	TCON, Panel ID	Inverter	Temperature	No Power	BAA board	BAA board	BAA board	BAA board	BAA board	BAA board	BAA board

- Doubtful part
- ▲ Few possibility

SECTION 3 TROUBLESHOOTING

PLEASE REFER TO PAGE 23-51 FOR THE UPDATED TROUBLESHOOTING

PLEASE REFER TO PAGE 23-51 TO THE UPDATED TROUBLESHOOTING

SECTION 4 SERVICE ADJUSTMENT

4-1. Accessing Self Diagnostic Menu

1. While TV on standby mode, press the following sequence on the Remote commander.

< Display--> <5>--> <Vol Down>--> <Power>

Self Check		
002	Main Power	001
003	Dc_Alert	000
003	Aud_Prot	000
003	MotionFlow	000
004	Balancer_Error	000
005	T-CON Error	000
005	Panel ID NVM Error	000
006	Backlight Error	000
007	Temp_Error	000

indicates no. of times an error was detected.
0 indicates no error was detected

00009	00027	00009
Total Hours of Operation (max 65535)	Boot Count (max 65535)	Total Panel Hours (max 65535)

Diagnostic Menu Sample

2. To Reset Error Count & Error History
Press < 8 > --> < 0 > key
3. To Reset Panel Operation Time
Press < 7 > --> < 0 > key
4. To exit, turn the power off using Remote.

4-2. Accessing Service Mode

1. While TV on standby mode, press the following sequence on the Remote commander.

< Display--> <5>--> <Vol Up>--> <Power>

Tuning System	<[Auto]>
No_Signal_Mute	<[Off]>
Serial Number Edit	
Self Diagnosis History >>	
LVDS Spectrum (%)	<[10]>
Low of HPD	<[5]>
VCR1	<[off]>
GAISOU	<[0]>

Service Mode Menu Sample

2. Use the ↓ or ↑ button to select the item you want to refer and press for details.

Example Status information

Service Mode	
Status Information >>	
Test Reset	<[Off]>
Tuning System	<[Auto]>
No_Signal_Mute	<[Off]>
Serial Number Edit	
Self Diagnosis History >>	
LVDS Spectrum (%)	<[10]>
Low of HPD	<[5]>

Main Micro	
SW Version	TM0.341.012
NVM Version	TD0.341
Boot Version	TB0.341
Panel Version	MT0000.000.0030.LT
Flash PQ Version	
AQ Version	AQ0.003

4-3. GAISOU Adjustment (For Board Replacement)

- 1) When new board is replaced, please confirm the color ornamental of the TV set.
- 2) While TV on standby mode, press the following sequence on the Remote commander.

<Display> → <5> → <Vol Up> → <Power>

Tuning System	<[Auto]>
No_Signal_Mute	<[Off]>
Serial Number Edit	
Self Diagnosis History >>	
LVDS Spectrum (%)	<[10]>
Low of HPD	<[5]>
VCR1	<[off]>
GAISOU	<[0]>

Service Mode Menu Sample

3) Use the ↓ or ↑ button to select the GAISOU item.

Service Mode	
Status Information >>	
Test Reset	<[Off]>
Tuning System	<[Auto]>
No_Signal_Mute	<[Off]>
Serial Number Edit	
Self Diagnosis History >>	
LVDS Spectrum (%)	<[10]>
Low of HPD	<[5]>
VCR1	<[off]>
GAISOU	<[0]>

4) The color variation table of each TV set as below:-

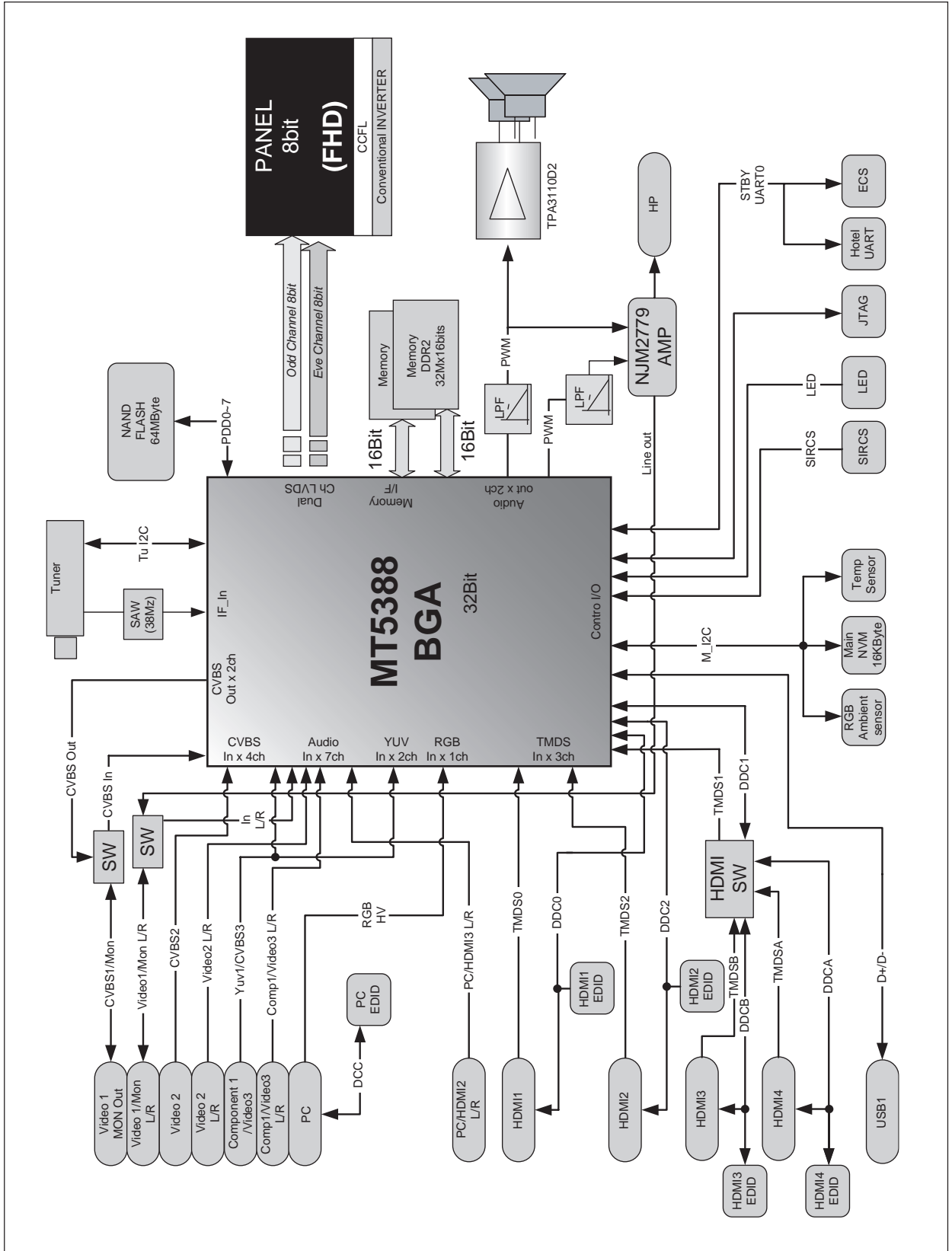
Case Table	Color Type	Model Name	Panel ID		Area ID
			Resolution	Inch Size	
00	Default	5-2	WXGA/FHD	40, 32, 26, 22	ALL
01	Glossy Gun Metallic (back print)	3a-2	FHD	32, 40, 46	GA
02	Glossy Silver (back print)	3a-2	WXGA	22, 26, 32	GA
03	Red	3a-2	FHD	32	GA
04	Blue	3a-2	FHD	32	GA
05	Matt Gun Metallic	3a-2	FHD	32, 40, 46	CH
06	Flat Gun Metallic Hairline	3a-1, 3a-0.5	HFR/ FHD	32, 40, 46, 55	ALL
07	Silver	5-0	FHD	32, 40	ALL
08	Black	5-0	WXGA	26, 32	ALL



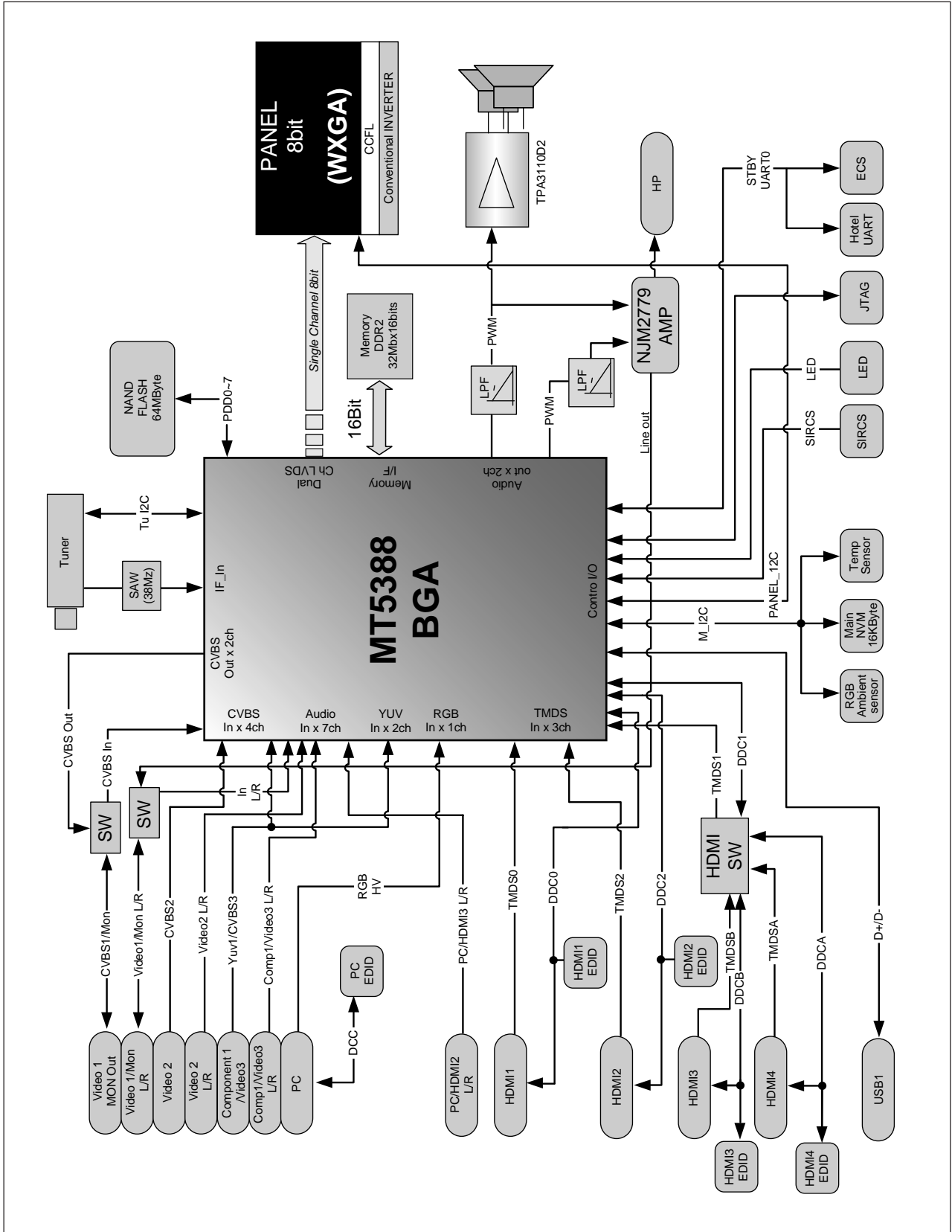
5) For example if color is Red than should select 03 in the service mode of the TV set.

SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM
5-1-1. -KLV-32,40 NX500



5-1-2. KLV-26,32 NX400(S/B), 26,32 NX400(S/B)/S



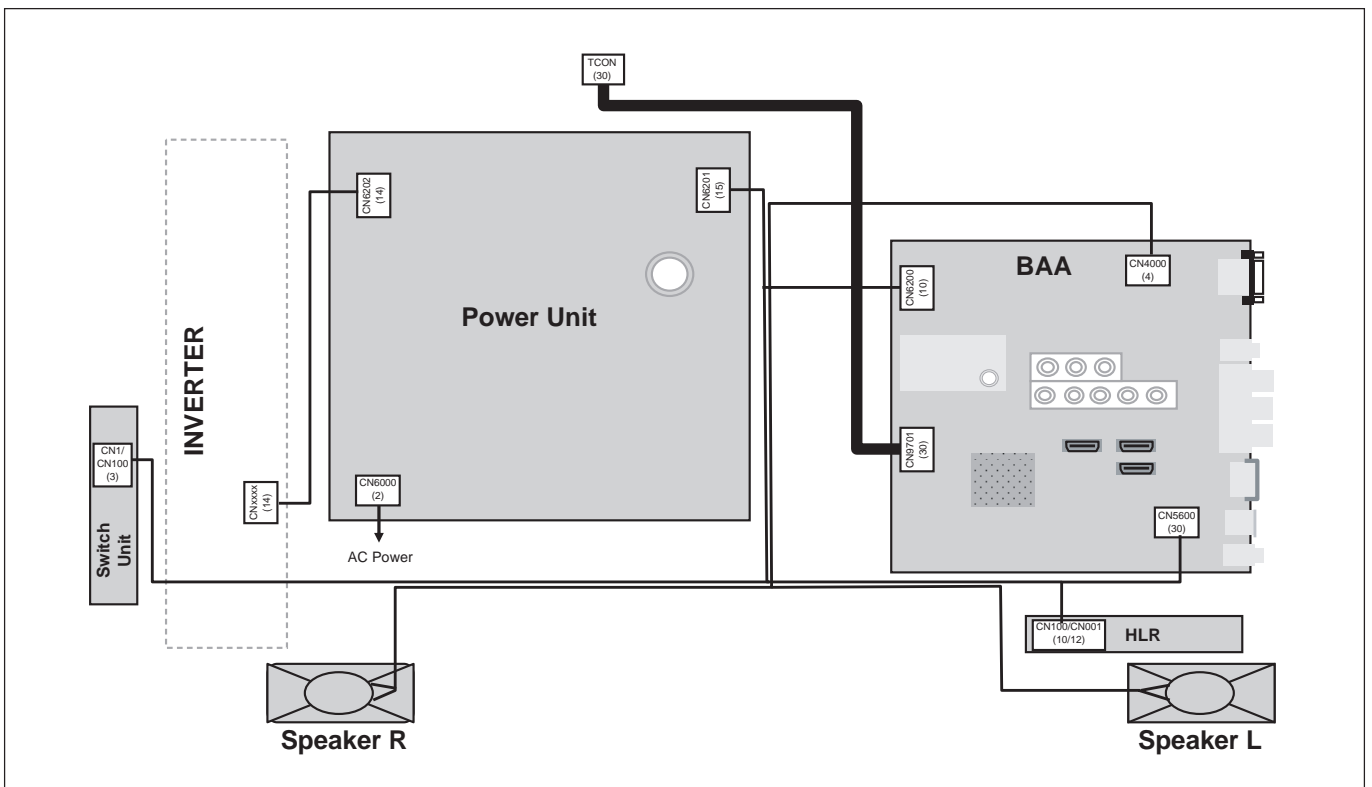
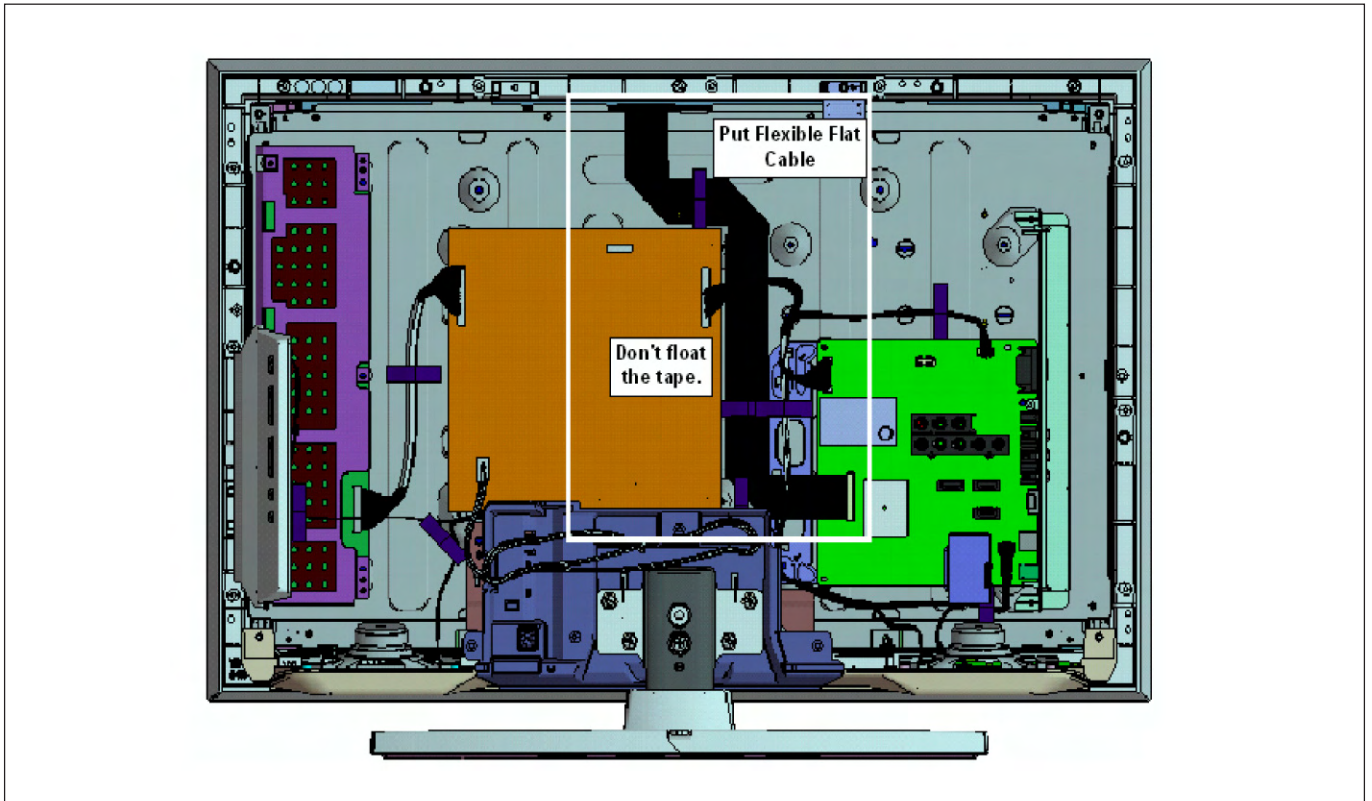
CAUTION :

1. Do not overpull the wires during dressing --> avoid disconnection of wires.
2. Make sure wires are kept away from sharp edges, heatsinks & other high-temperature parts.

 Tape

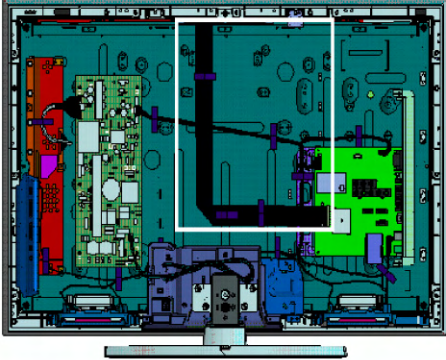
5-2. WIRE DRESSING AND CONNECTOR DIAGRAM

5-2-1. KLV-26 NX400(S/B), NX400(S/B)/S

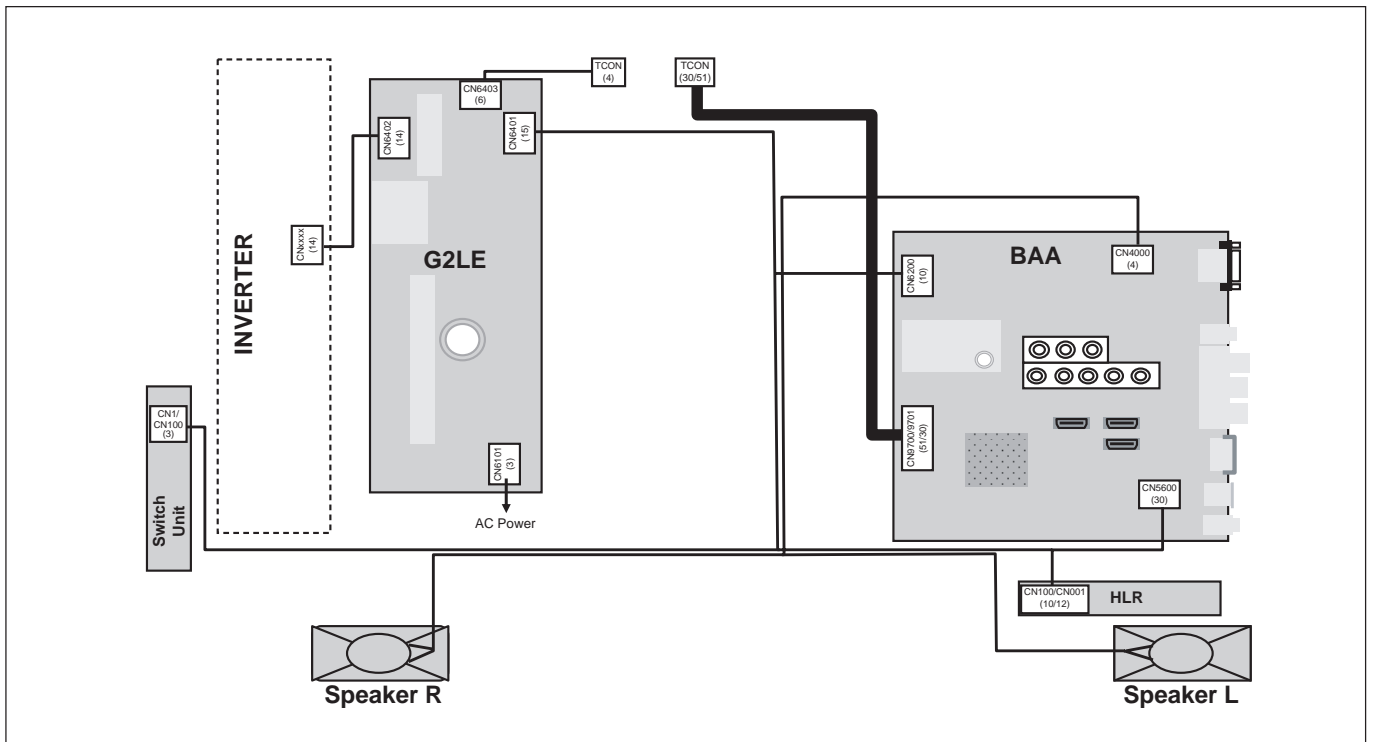
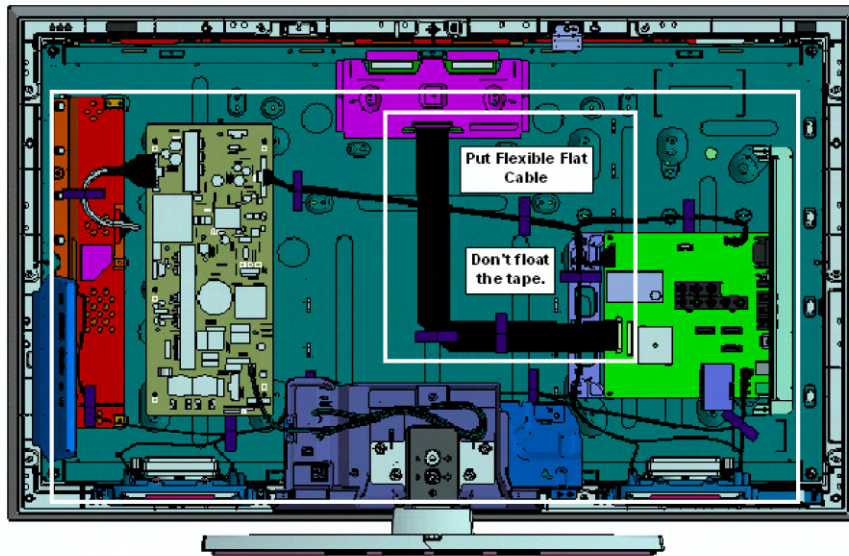
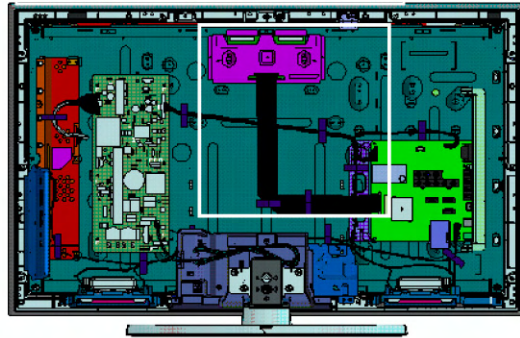


5-2-2. KLV-32 NX400(S/B), NX400(S/B)/S, NX500

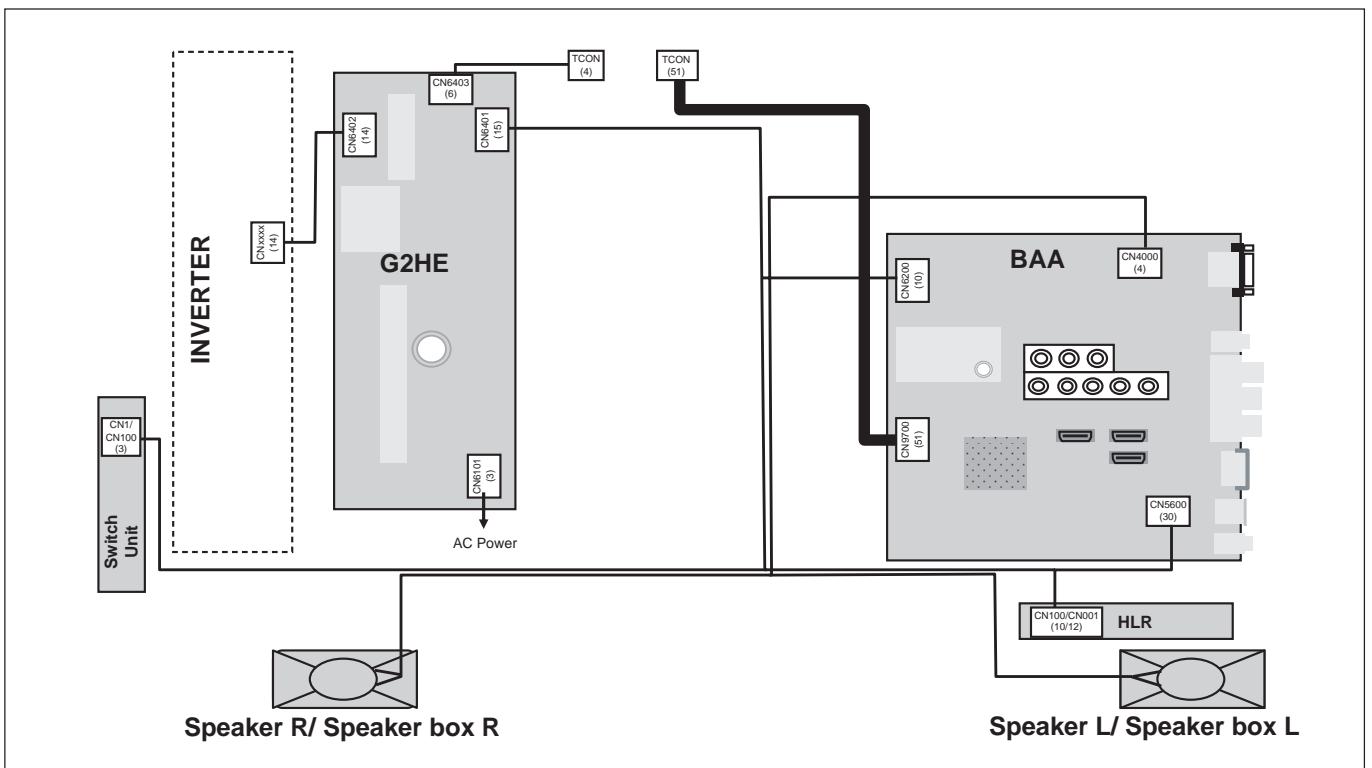
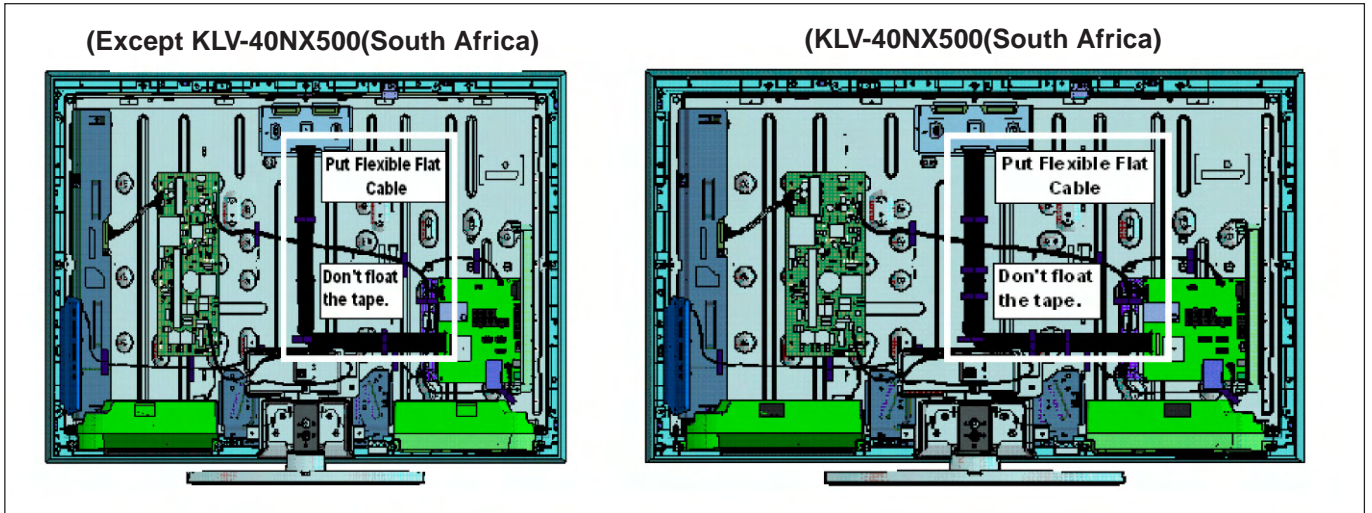
WXGA
(KLV-32 NX400(S/B), NX400(S/B)/S)



FHD
(KLV-32NX500)

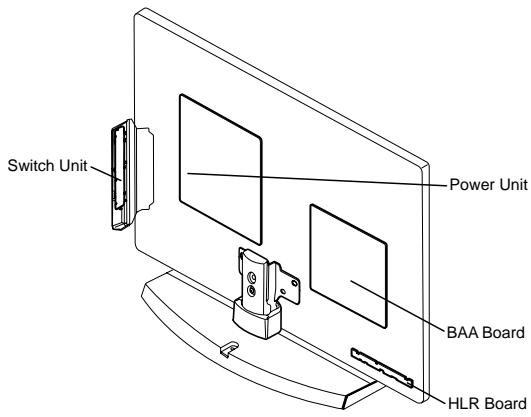


5-2-3. KLV-40NX500

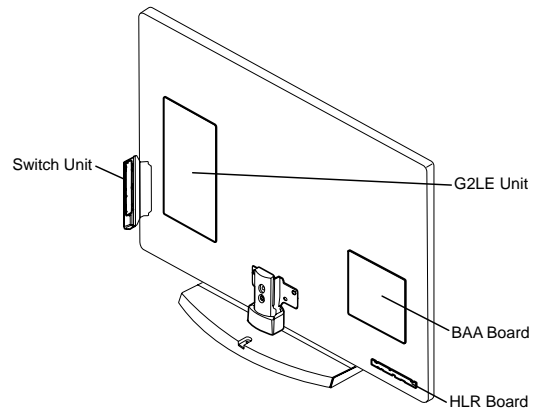


5-3. CIRCUIT BOARD LOCATION

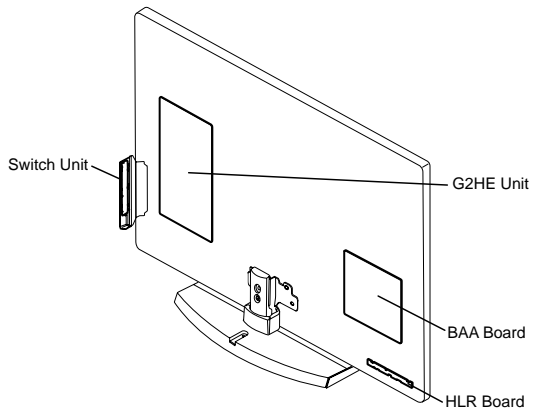
5-3-1. KLV-26 NX400(S/B), NX400(S/B)/S



5-3-2. KLV-32 NX400(S/B), NX400(S/B)/S, NX500



5-3-3. KLV-40NX500



SECTION 6 DISASSEMBLY, EXPLODED VIEW AND OTHER PARTS

Caution:

- ↑ ! 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.
- ↑ Place the TV set facing downwards on a stable, level surface before disassembly and assembly of parts.

Note:

- ↑ (*) parts are not stocked since they are seldom required for routine service. Some delays should be anticipated when ordering these components.
- ↑ Illustrations provided in this section might have slight difference from the actual sets.
- ↑ The reference number beside the part description in the illustration indicates the disassembly sequence.
- ↑ Lines that indicate parts are shown in blue in the illustration.
- ↑ Only part number and description for service parts are shown in the parts list.
- ↑ Unplug connectors before disassembly.
- ↑ Refer Electrical Parts List section for connector part number.

6-1. DISASSEMBLY & EXPLODED VIEW

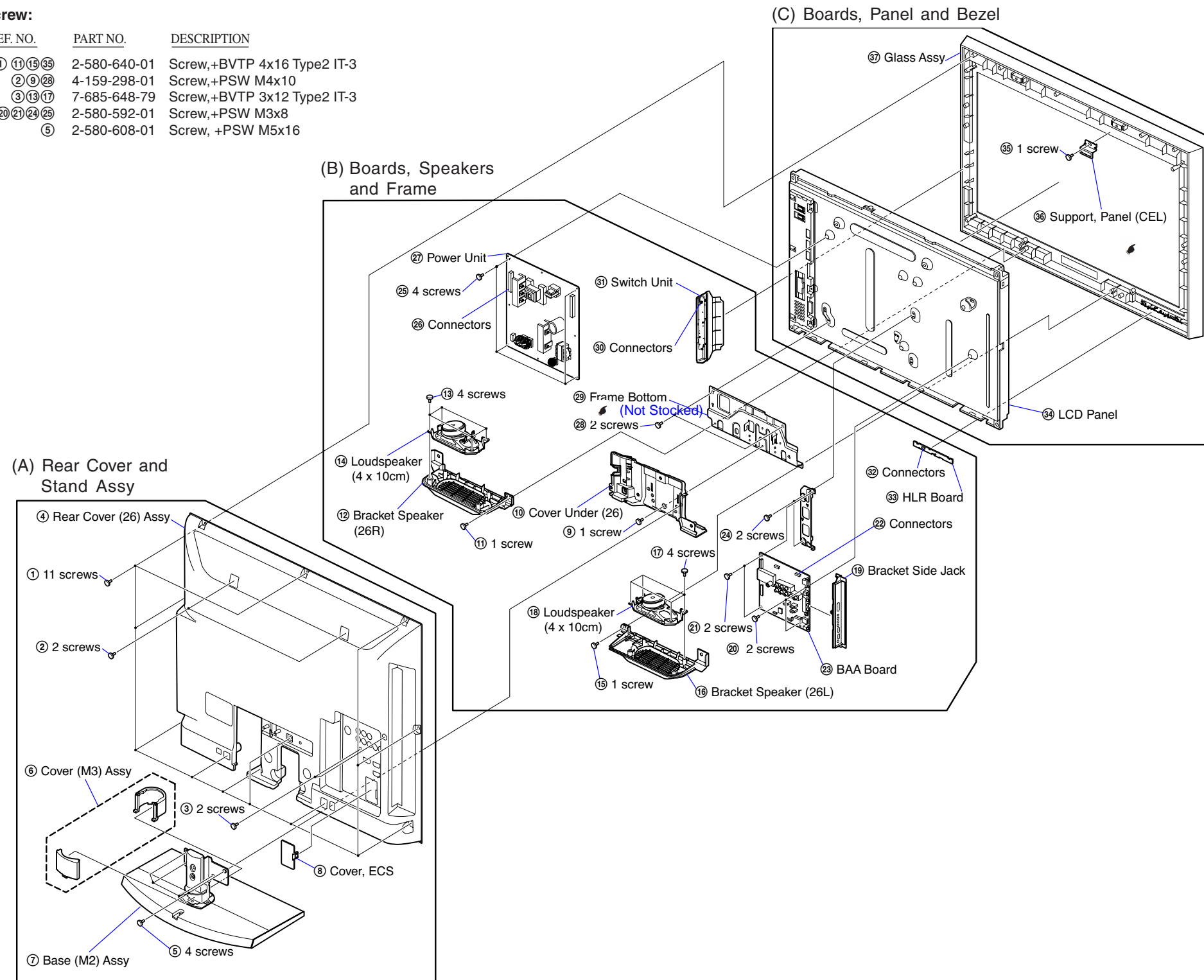
6-1-1. KLV-26 NX400(S/B), NX400(S/B)/S

Screw:

REF. NO.	PART NO.	DESCRIPTION
① ①①③⑤	2-580-640-01	Screw,+BVTP 4x16 Type2 IT-3
② ②②	4-159-298-01	Screw,+PSW M4x10
③ ③③⑦	7-685-648-79	Screw,+BVTP 3x12 Type2 IT-3
④ ④④④④	2-580-592-01	Screw,+PSW M3x8
⑤	2-580-608-01	Screw, +PSW M5x16

Parts List:

REF. NO.	PART NO.	DESCRIPTION	REMARK
4	X-2541-515-2	REAR COVER (26) ASSY	
6	X-2546-547-1	COVER (M3) ASSY	(Silver)
	X-2546-540-1	COVER (M3) ASSY	(Black)
7	X-2547-086-1	BASE (M2) ASSY	(Silver)
	X-2514-976-1	BASE (M2) ASSY	(Black)
8	4-115-101-41	COVER,ECS	
10	4-165-662-01	COVER, UNDER (26)	
12	4-165-664-01	BRACKET, SP (26 R)	
14	1-858-341-11	LOUDSPEAKER (4X10CM)	
16	4-165-663-01	BRACKET, SP (26 L)	
18	1-858-341-11	LOUDSPEAKER (4X10CM)	
19	4-156-944-41	BRACKET, SIDE JACK	
23	A-1784-345-A	BAA COMPL (NX_WXGA) (SERVICE)	
27	1-474-199-11	POWER UNIT	
31	1-487-730-11	SWITCH UNIT	
33	A-1753-637-A	HLR MOUNT	
34	! 1-811-071-11	LCD PANEL (A26V0)	
Ver.3.0 36	4-158-629-01	SUPPORT, PANEL (CEL)	
37	A-1773-973-A	GLASS ASSY SERVICE	(Black)
	A-1773-976-A	GLASS ASSY SERVICE	(Silver)



↑ The reference number beside the part description in the illustration indicates the disassembly sequence.

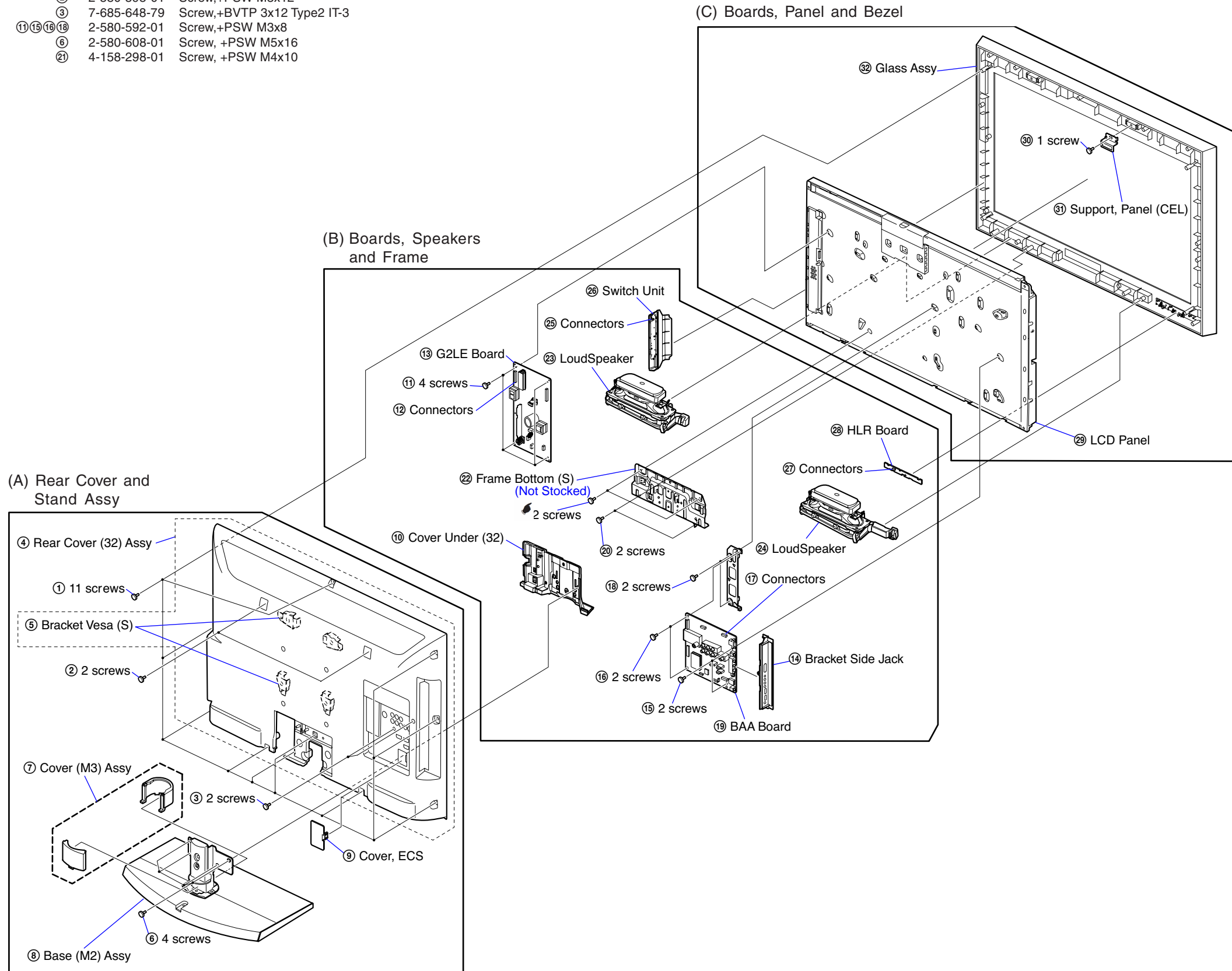
6-1-2. KLV-32 NX400(S/B), NX400(S/B)/S, NX500

Screw:

REF. NO.	PART NO.	DESCRIPTION
①②③④	2-580-640-01	Screw,+BVTP 4x16 Type2 IT-3
②	2-580-595-01	Screw,+PSW M3x12
③	7-685-648-79	Screw,+BVTP 3x12 Type2 IT-3
⑪⑬⑮⑱	2-580-592-01	Screw,+PSW M3x8
⑥	2-580-608-01	Screw, +PSW M5x16
⑳	4-158-298-01	Screw, +PSW M4x10

Parts List:

REF. NO.	PART NO.	DESCRIPTION	REMARK	
4	X-2515-112-1	REAR COVER (32) ASSY		
5	4-167-326-01	BRACKET, VESA (S)		
7	X-2546-540-1	COVER (M3) ASSY	(Black)	
	X-2546-547-1	COVER (M3) ASSY	(Silver)	
8	X-2514-976-1	BASE (M2) ASSY	(Black)	
	X-2547-086-1	BASE (M2) ASSY	(Silver)	
9	4-115-101-41	COVER, ECS		
10	4-158-590-01	COVER, UNDER (32)		
13	A-1752-778-A	G2LE UNIT		
14	4-156-944-41	BRACKET, SIDE JACK		
Ver 2.0	19	A-1784-345-A	BAA COMPL (NX_WXGA)	NX400
Ver 2.0		A-1752-269-A	BAA COMPL (NX_FHD)	NX500
23	1-858-367-21	LOUDSPEAKER		
24	1-858-367-11	LOUDSPEAKER		
26	1-487-730-11	SWITCH UNIT		
28	A-1753-637-A	HLR MOUNT		
Ver 2.0	29	! 1-811-058-11	LCD PANEL (S32TSC)	NX400
Ver 2.0		1-811-059-11	LCD PANEL (S32TSP)	NX500
Ver 3.0	31	4-158-629-01	SUPPORT, PANEL (CEL)	
32	A-1773-972-A	GLASS ASSY SERVICE	(Black)	
	A-1773-975-A	GLASS ASSY SERVICE	(Silver)	



↑ The reference number beside the part description in the illustration indicates the disassembly sequence.

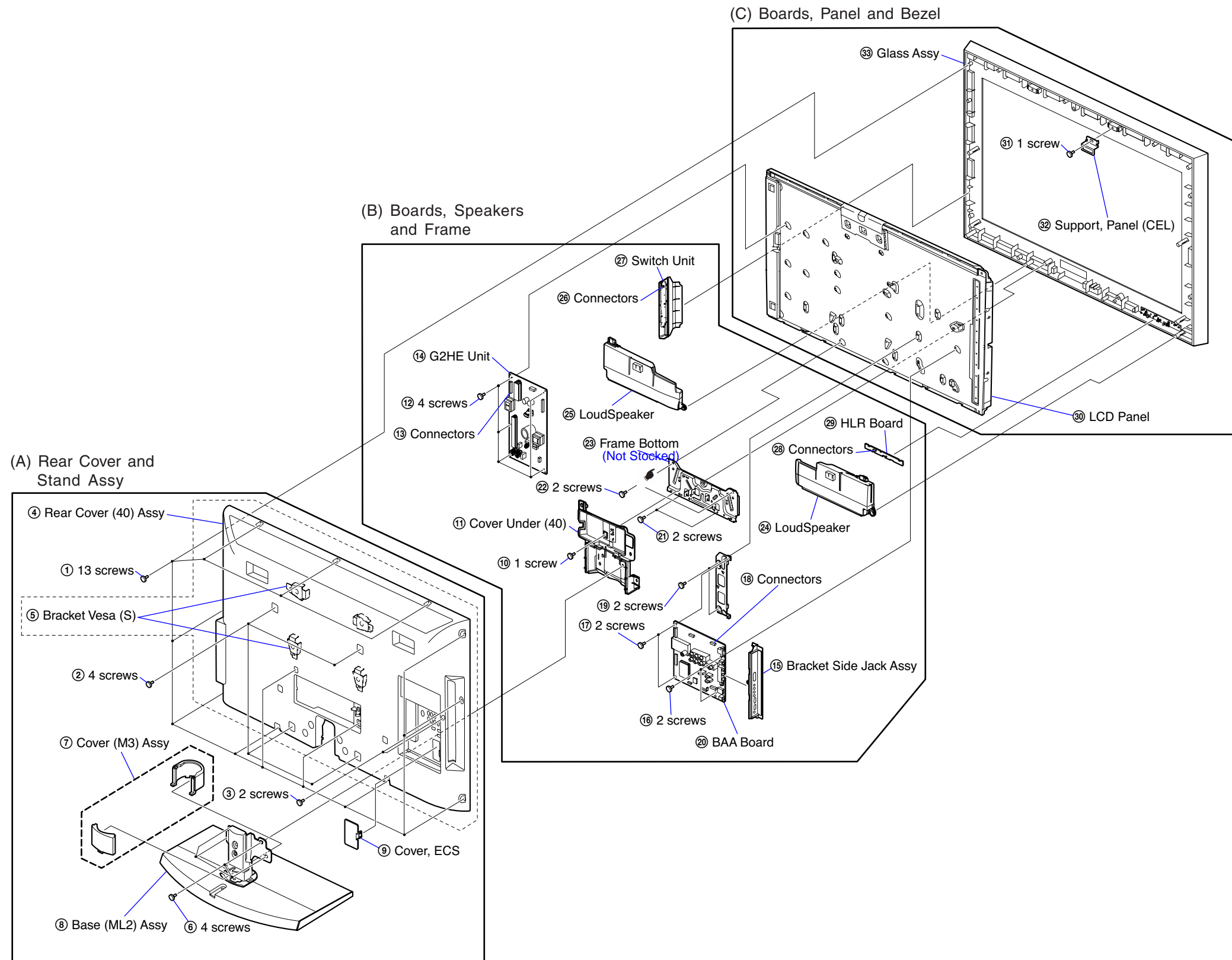
6-1-3. KLV-40NX500

Screw:

REF. NO.	PART NO.	DESCRIPTION
①②③	2-580-640-01	Screw,+BVTP 4x16 Type2 IT-3
②⑩⑲	4-159-298-01	Screw,+PSW M4x10
③	7-685-648-79	Screw,+BVTP 3x12 Type2 IT-3
⑫⑯⑰⑱	2-580-592-01	Screw,+PSW M3x8
⑥	2-580-608-01	Screw, +PSW M5x16

Parts List:

REF. NO.	PART NO.	DESCRIPTION	REMARK
4	X-2546-602-1	REAR COVER (40) ASSY	
5	4-167-326-01	BRACKET, VESA (S)	
7	X-2546-540-1	COVER (M3) ASSY	
8	X-2541-912-1	BASE (ML2) ASSY	
9	4-115-101-41	COVER, ECS	
11	4-168-771-11	COVER, UNDER (40)	
14	A-1752-780-A	G2HE UNIT	
15	4-156-944-41	BRACKET, SIDE JACK	
20	A-1784-343-A	BAA COMPL (NX_FHD) (SERVICE)	
24	1-858-345-11	LOUD SPEAKER	
25	1-858-345-21	LOUD SPEAKER	
27	1-487-730-11	SWITCH UNIT	
29	A-1753-637-A	HLR MOUNT	
30	! 1-811-060-13	LCD PANEL (S40TSP)	
Ver.3.0 32	4-158-629-01	SUPPORT, PANEL (CEL)	
33	A-1773-971-A	GLASS ASSY SERVICE	



↑ The reference number beside the part description in the illustration indicates the disassembly sequence.

6-2. OTHER PARTS

REF NO.	PART NO.	DESCRIPTION	REMARK
6-2-1. KLV-26 NX400(S/B), NX400(S/B)/S			
		ACCESSORIES AND PACKING *****	
	X-2342-530-2	BAG ASSY, FALL LOCK BELT	
	4-179-524-11	MANUAL, INSTRUCTION	
	X-2546-339-1	NECK (M2) ASSY	
!	1-837-454-11	POWER-SUPPLY CORD	
	2-580-604-01	SCREW, +PSW M4X20	
	2-580-608-01	SCREW, +PSW M5X16	
	2-580-663-02	SCREW, WOOD 3.8X20	

		CONNECTORS *****	
*	1-910-059-59	CONNECTOR ASSY 14P (CN6202(G1LS)-INV(1))	
*	1-837-773-11	FLEXIBLE FLAT CABLE 30P (CN9701(BAA)-TCON(1))	
*	1-910-800-12	MAIN HARNESS (CN6200(BAA)-CN6201(G1LS)-CN5600(BAA)- CN001(HLR)-CN100(SW1) CN4000(BAA)-SP(1))	

6-2-2. KLV-32 NX400(S/B), NX400(S/B)/S, NX500			
		ACCESSORIES AND PACKING *****	
	X-2342-530-2	BAG ASSY, FALL LOCK BELT	
	4-179-524-11	MANUAL, INSTRUCTION	
	X-2546-339-1	NECK (M2) ASSY	
!	1-837-454-11	POWER-SUPPLY CORD	
	2-580-604-01	SCREW, +PSW M4X20	
	2-580-608-01	SCREW, +PSW M5X16	
	2-580-663-02	SCREW, WOOD 3.8X20	

		CONNECTORS *****	
*	1-910-059-62	CONNECTOR ASSY 14P (CN6402(G2LE/G2ME)-INV(1))	
*	1-837-561-11	FLEXIBLE FLAT CABLE 30P (CN9701(BAA)-TCON(1)) (32NX400)	
*	1-910-800-13	MAIN HARNESS (CN6200(BAA)-CN6401(G2LE)-CN5600(BAA)- CN001(HLR)-CN100(SW1) CN4000(BAA)-SP(1)) (32NX400)	

		MISCELLANEOUS *****	
	4-100-136-01	SHEET(CORE), C (32NX500(Iran))	

REF NO.	PART NO.	DESCRIPTION	REMARK
		HEATSINK *****	
	6-503-050-01	DI SBT80-06LS	
	8-719-510-53	DIODE D4SB60L	
	6-552-205-11	TR TK15A50D	
	6-552-461-11	TR TK5A50D(S4SONY,Q)	

6-2-3. KLV-40NX500			
		ACCESSORIES AND PACKING *****	
	X-2342-530-2	BAG ASSY, FALL LOCK BELT	
	4-179-524-11	MANUAL, INSTRUCTION	
	X-2546-340-1	NECK (ML2) ASSY	
!	1-837-454-11	POWER-SUPPLY CORD	
	2-580-604-01	SCREW, +PSW M4X20	
	2-580-608-01	SCREW, +PSW M5X16	
	2-580-663-02	SCREW, WOOD 3.8X20	

		CONNECTORS *****	
*	1-910-059-67	CONNECTOR ASSY 14P (CN6402(G2HE)-INV(1))	
*	1-837-731-11	FLEXIBLE FLAT CABLE WITH CONNECTOR (CN9700(BAA)-TCON(1))	
*	1-910-800-07	MAIN HARNESS (CN6200(BAA)-CN6401(G2HE)- CN5600(BAA)-CN001(HLR)-CN100(SW1) CN4000(BAA)-SP(1))	

		MISCELLANEOUS *****	
	4-100-136-01	SHEET(CORE), C (40NX500(Iran))	

		HEAT SINK *****	
	6-503-066-01	DI SF5K60M	
	6-503-052-01	DI SG30SC4M	
	6-503-053-01	DI STTH5L06FP	
	8-719-510-53	DIODE D4SB60L	
	6-552-205-11	TR TK15A50D	
	6-552-204-11	TR TK8A50D	

COMMON PART			
		REMOTE COMMANDER *****	
	1-487-701-11	REMOTE COMMANDER (RM-GA018)	

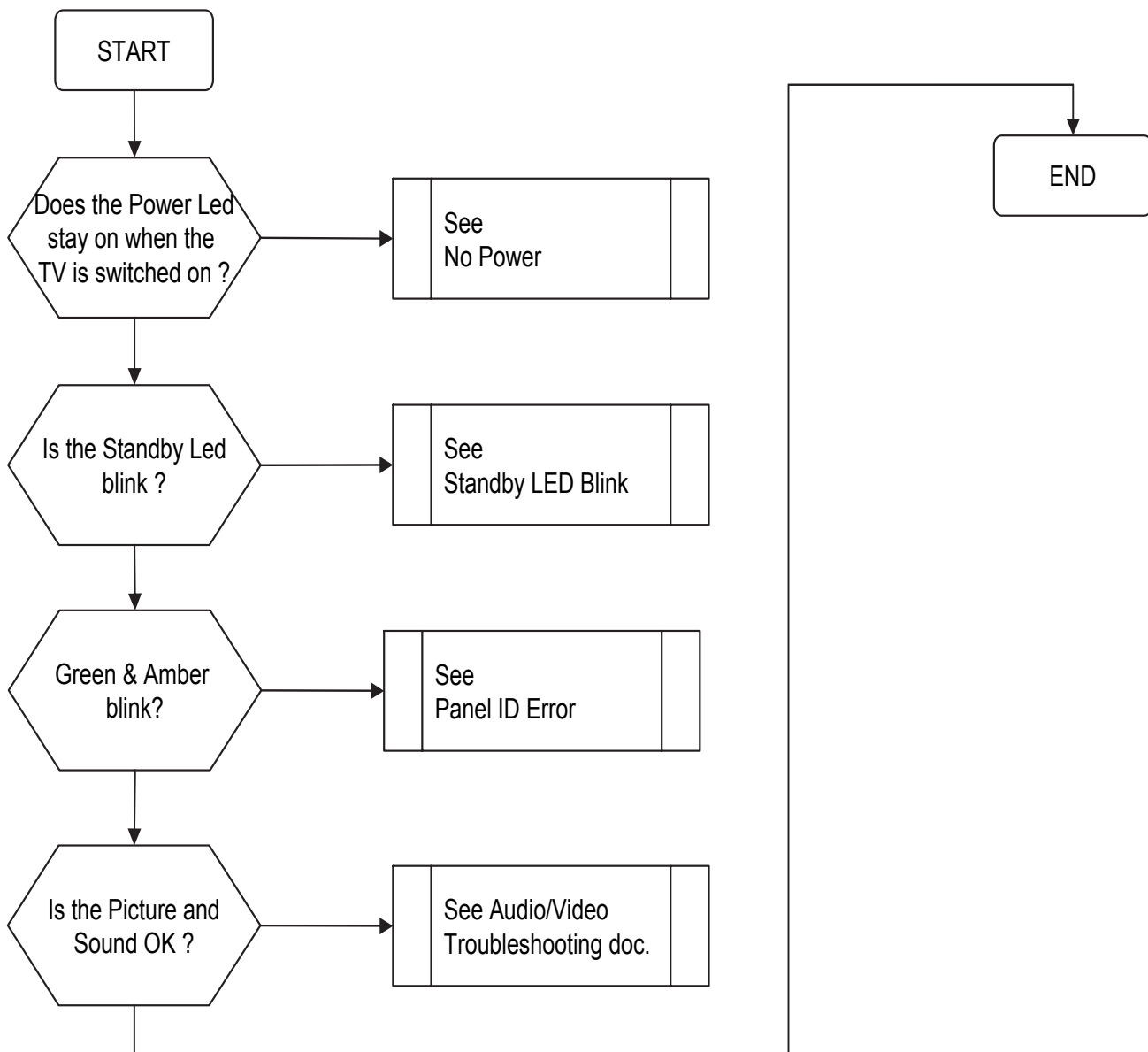
SUBJECT : Updated Section 3 (Troubleshooting) information

Page 8-9 in Service Manual

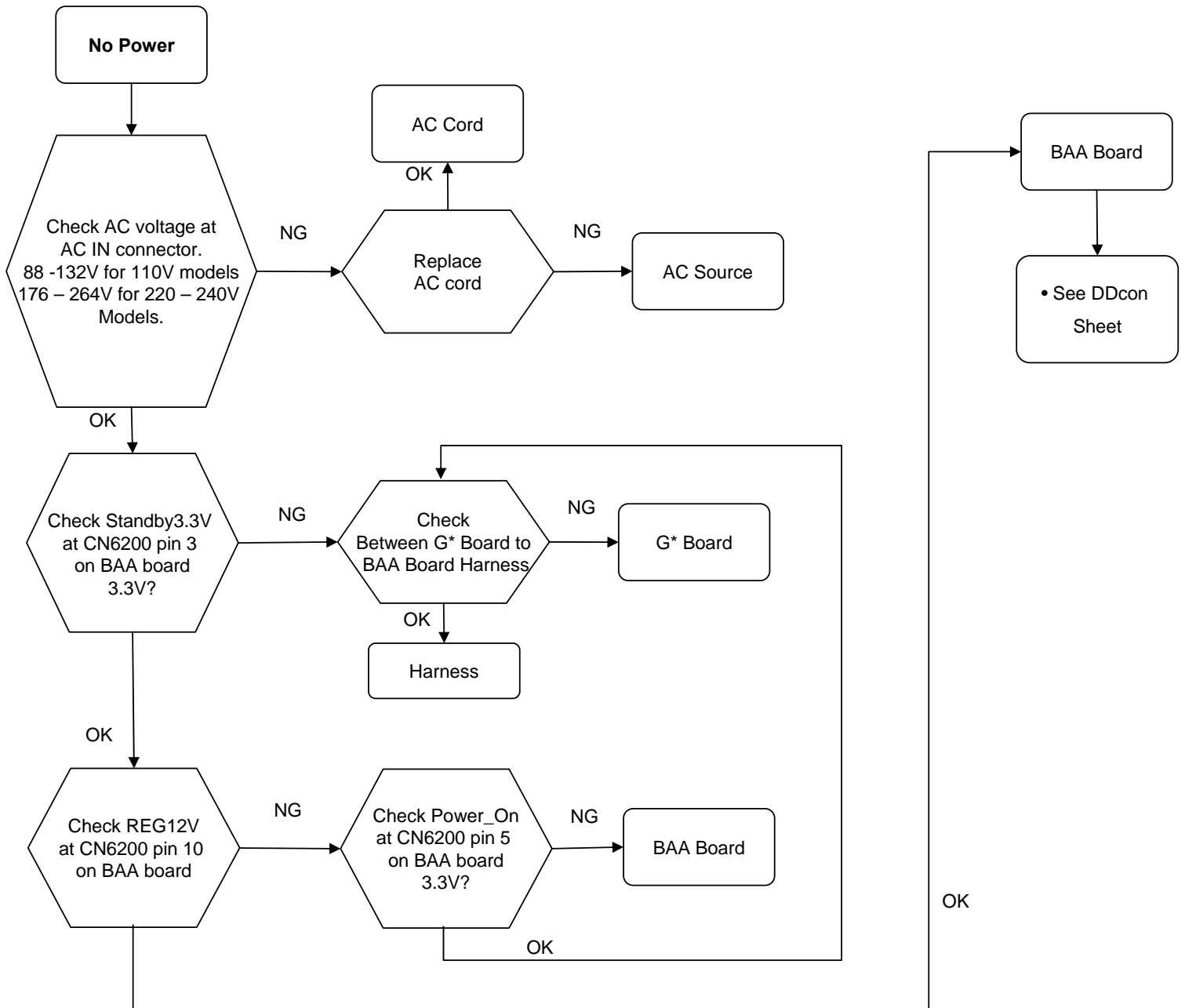
Section 3 TROUBLESHOOTING

3-1. Troubleshooting Power Problem

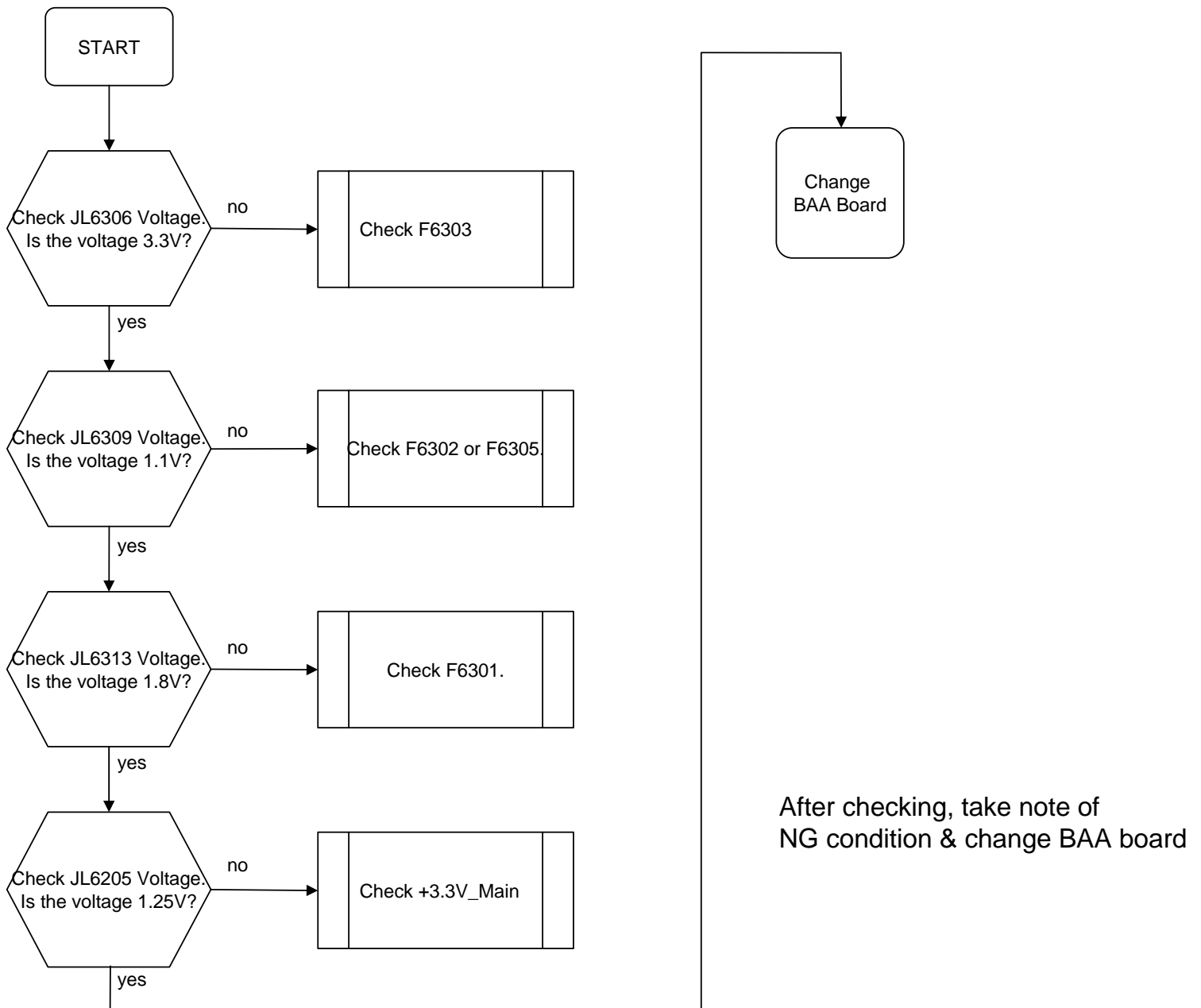
3-1-1.Flow Chart



3-1-2. NO POWER

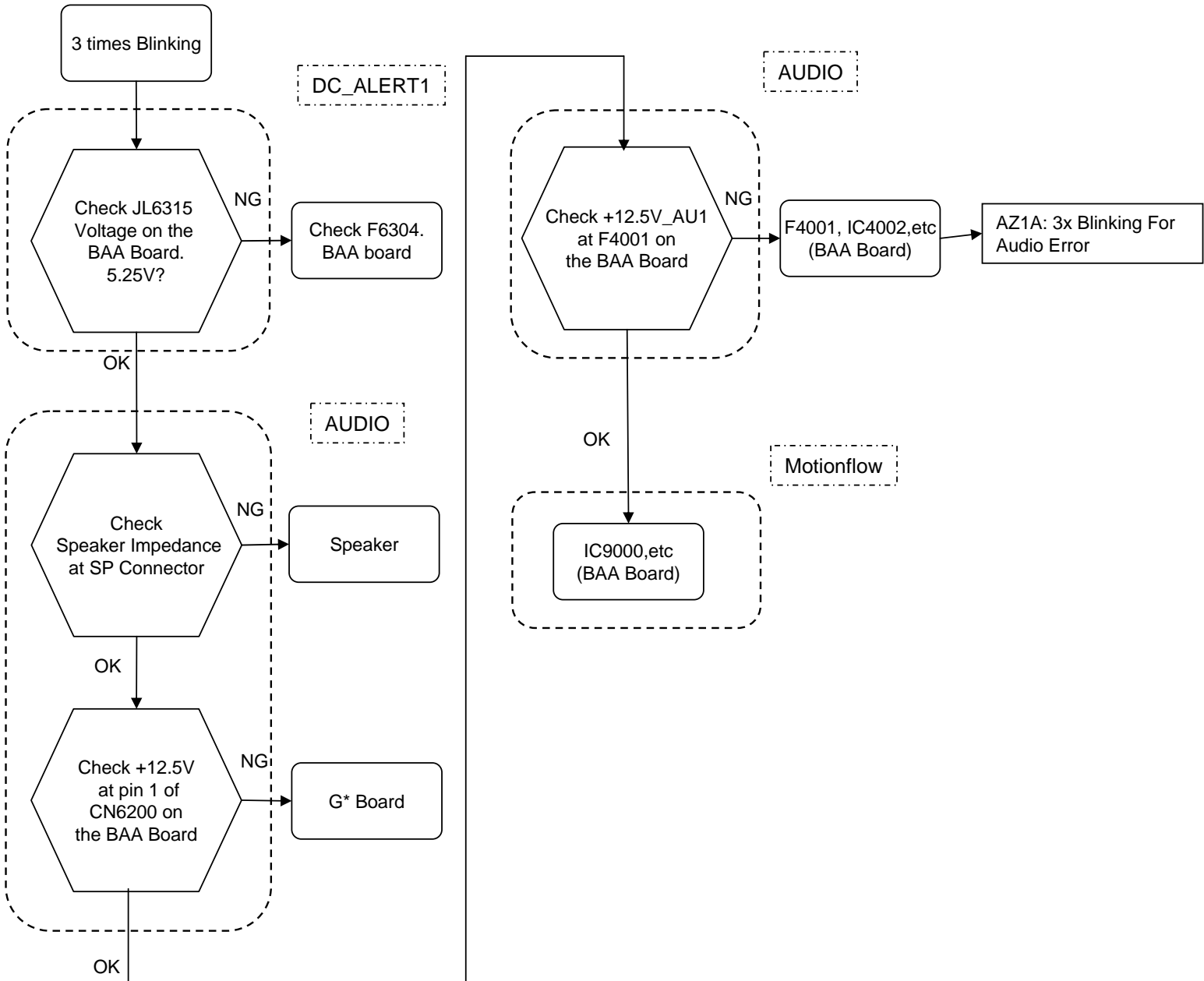


3-1-3. DDCON SHEET



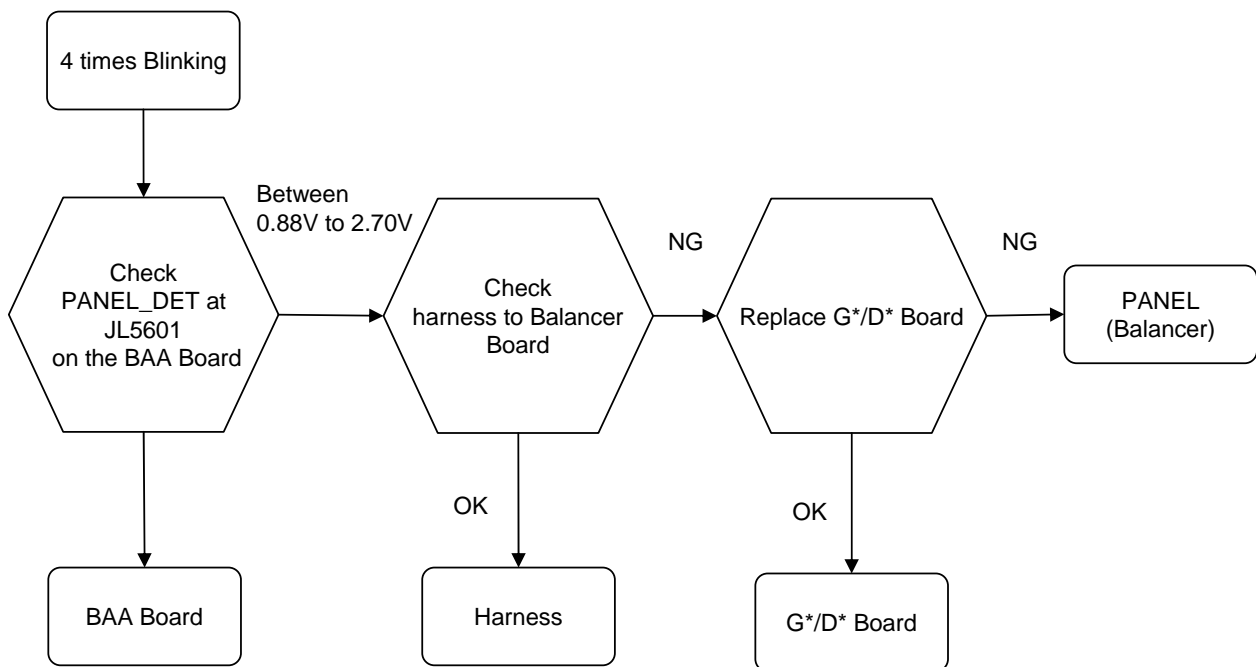
3-1-4. STANDBY LED BLINK

a) 3 times blinking



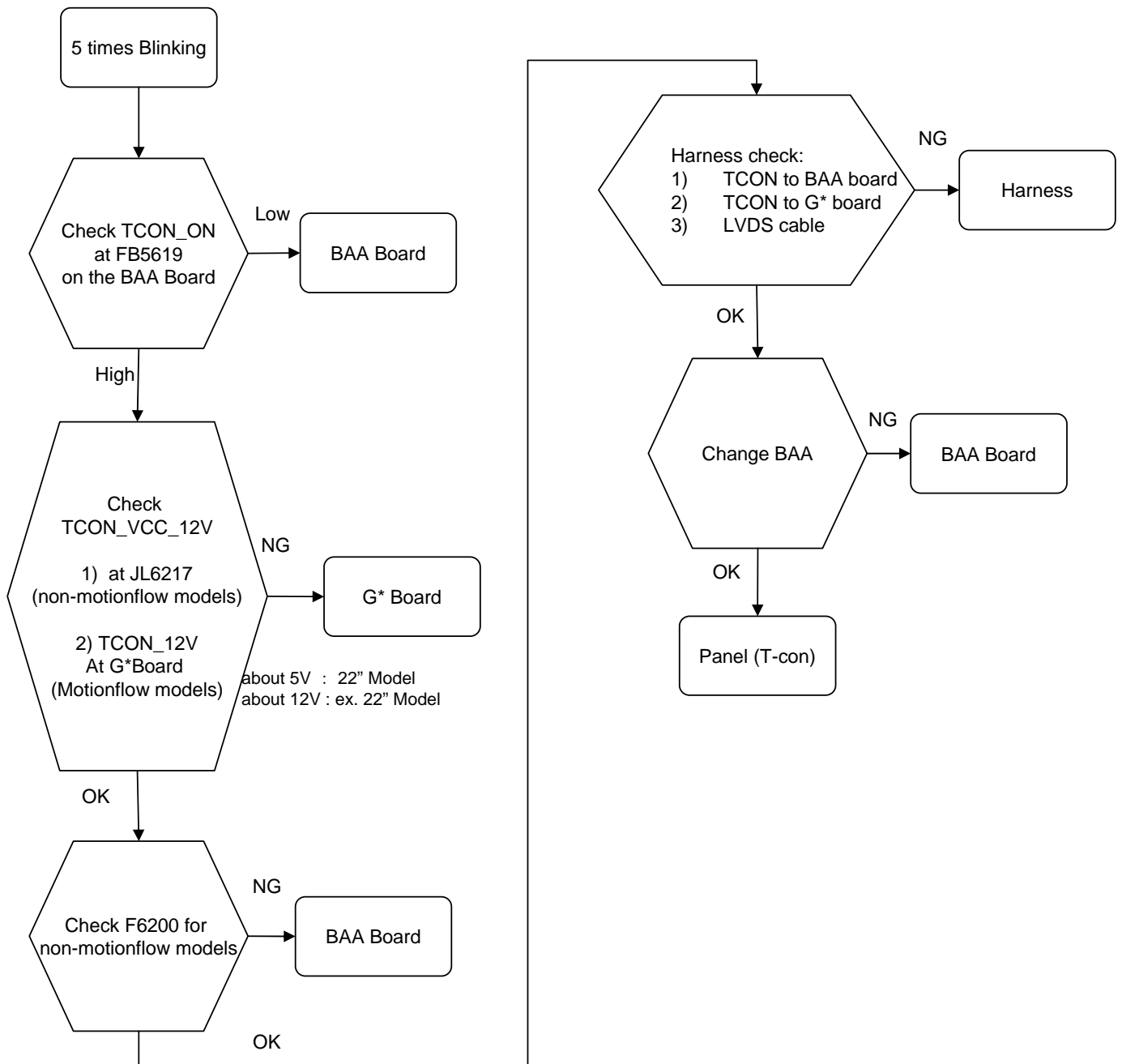
3-1-4. STANDBY LED BLINK

b) 4 times blinking



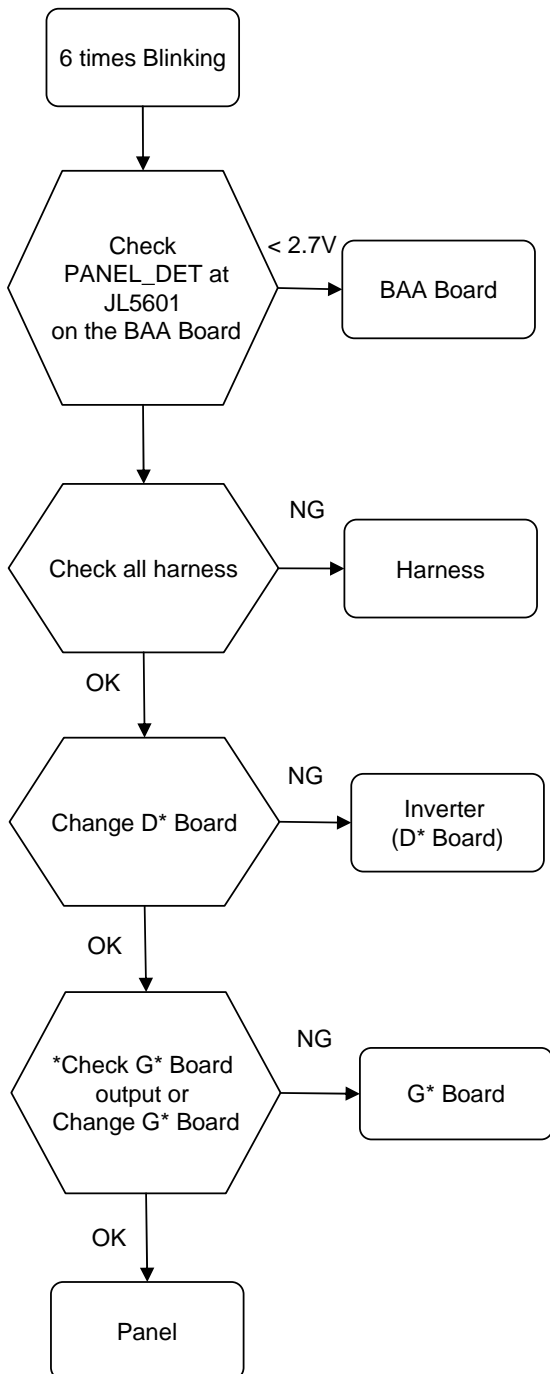
3-1-4. STANDBY LED BLINK

c) 5 times blinking



3-1-4. STANDBY LED BLINK

d) 6 times blinking



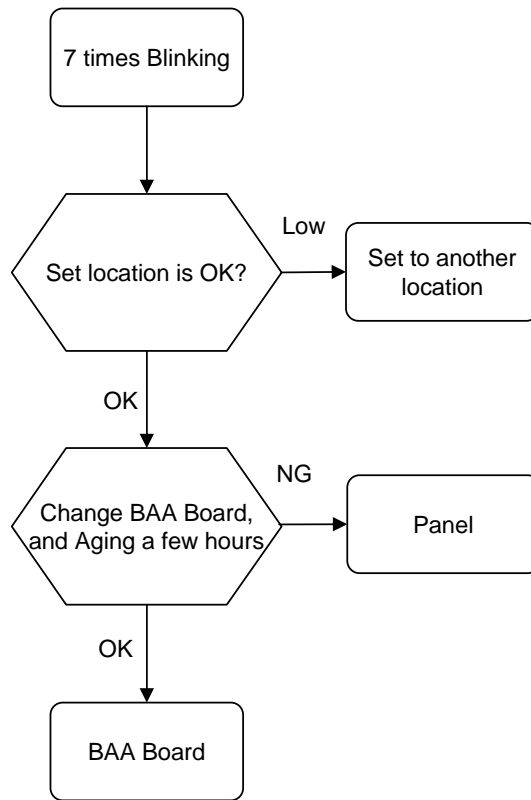
Check G Board output:

- a) G2** UNREG24V = +24.0V
- b) G5 PFC out Pin 5 CN6301 = +396.0V
- c) G1LS UNREG24V = +24.0V

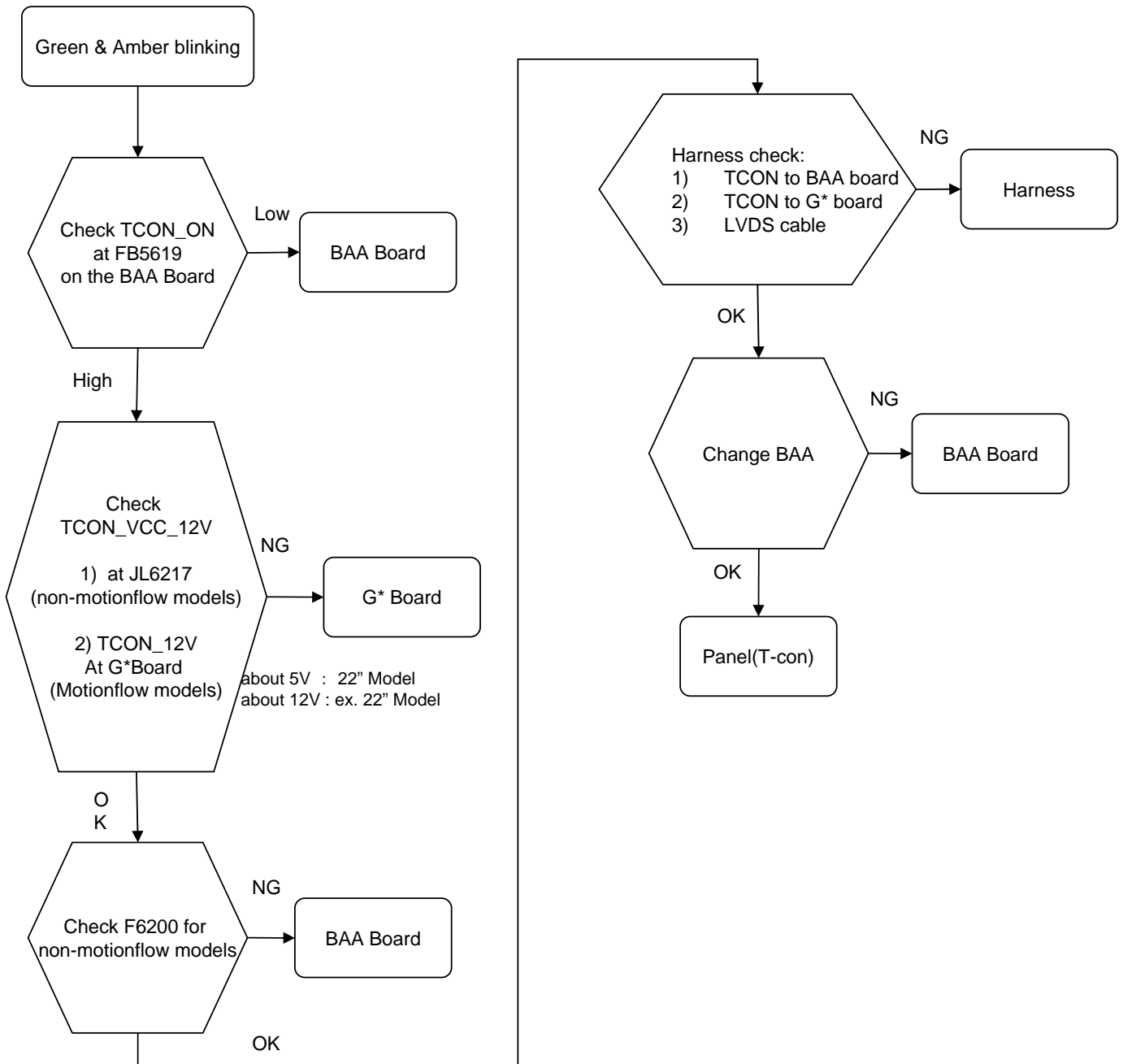
For boards not mention above, please change board directly.

3-1-4. STANDBY LED BLINK

e) 7 times blinking

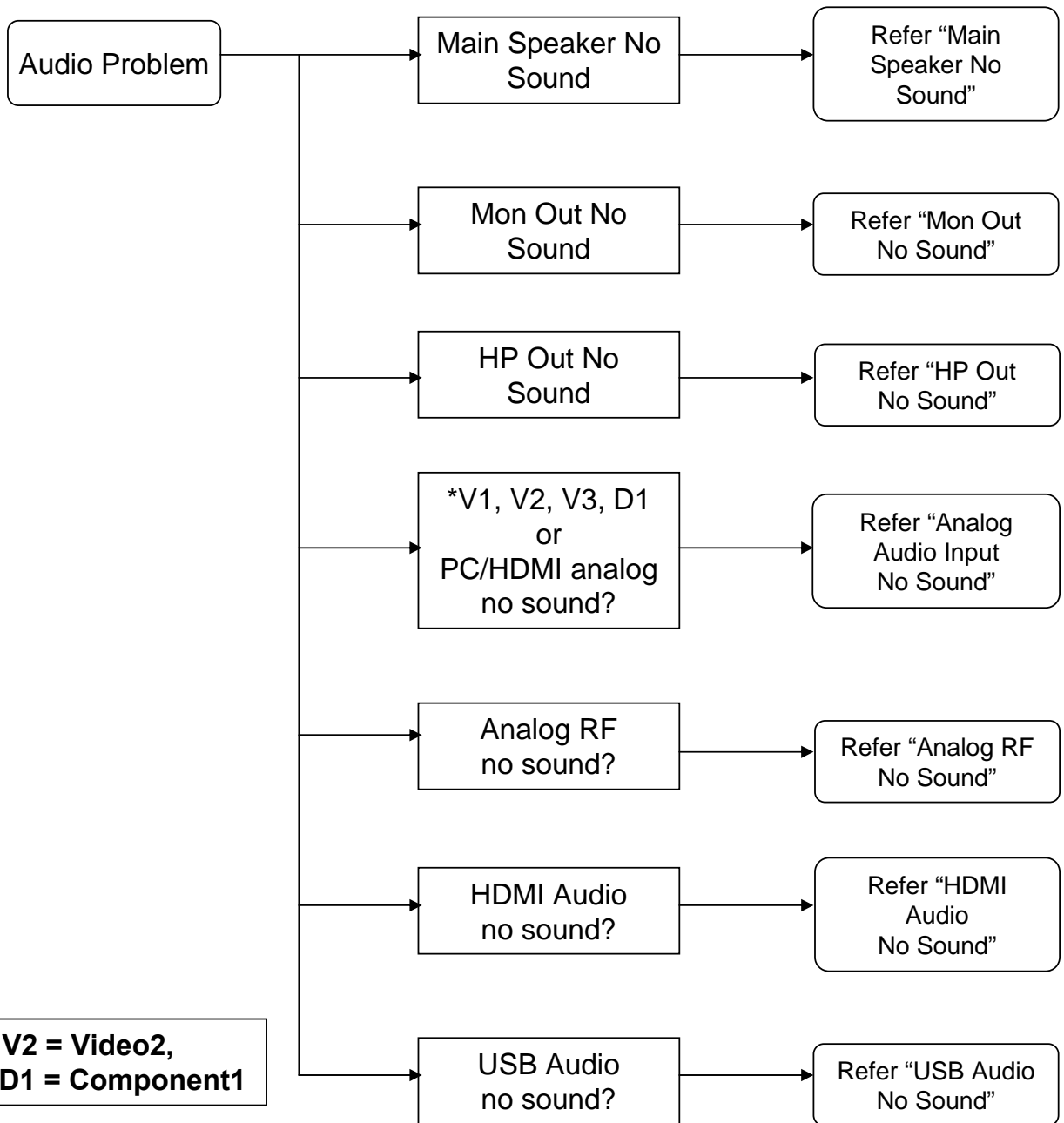


3-1-5. PANEL ID ERROR

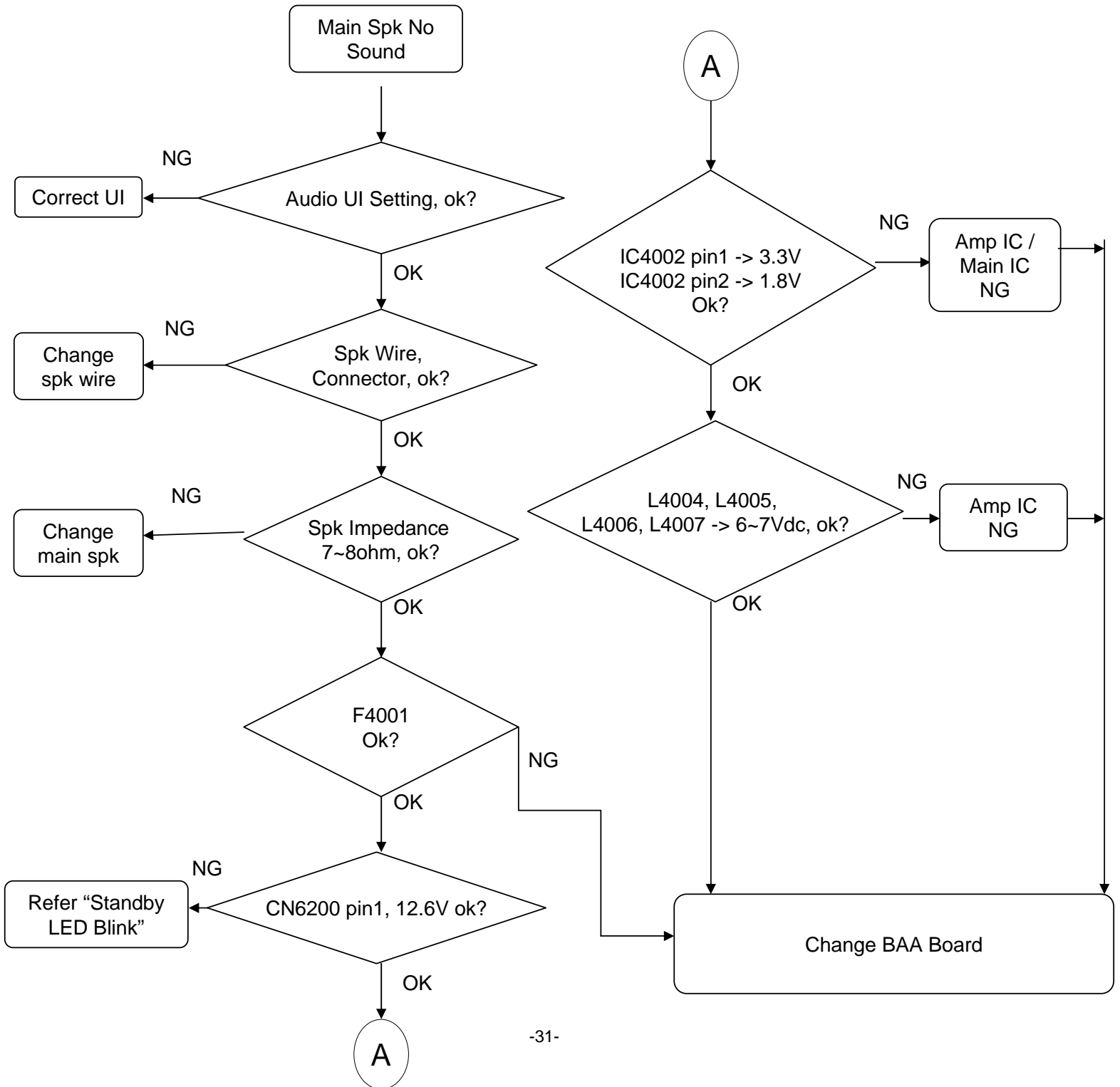


3-2. Troubleshooting AUDIO Problem

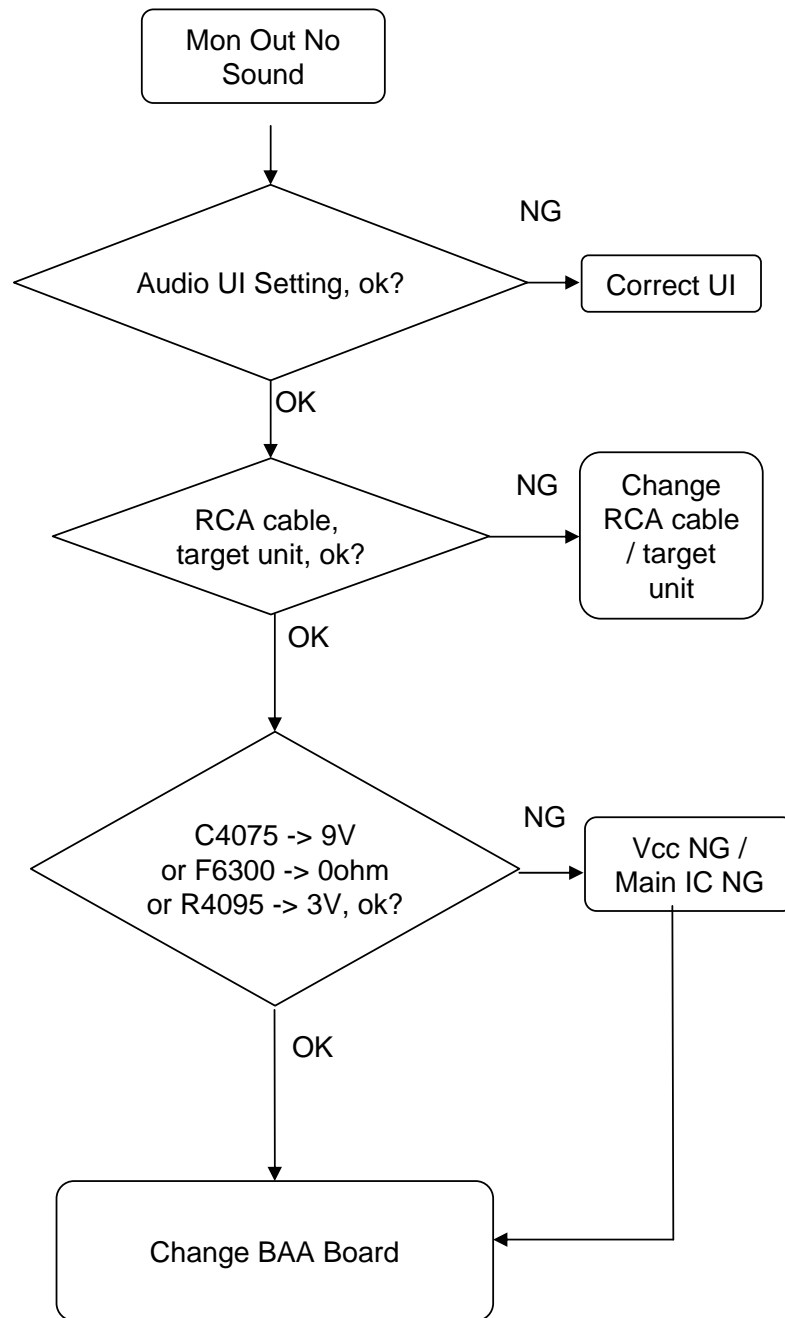
3-2-1. FLOWCHART A



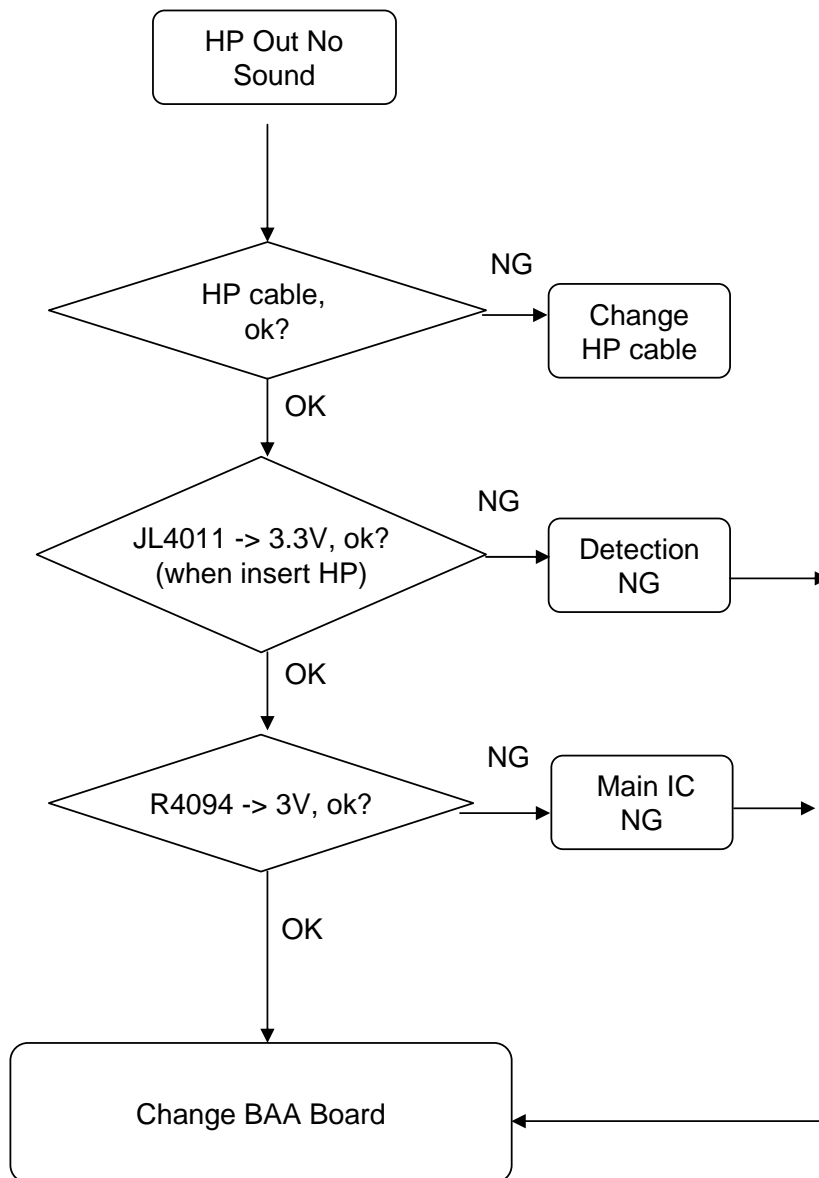
3-2-2. FLOWCHART B (Main Speaker No Sound)



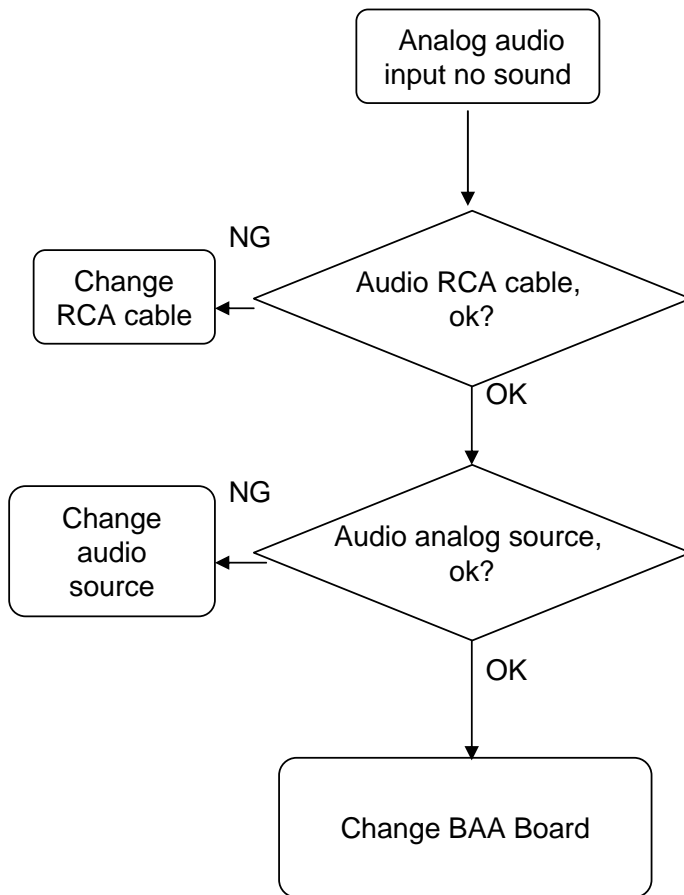
3-2-3. FLOWCHART C (Monitor Out No Sound)



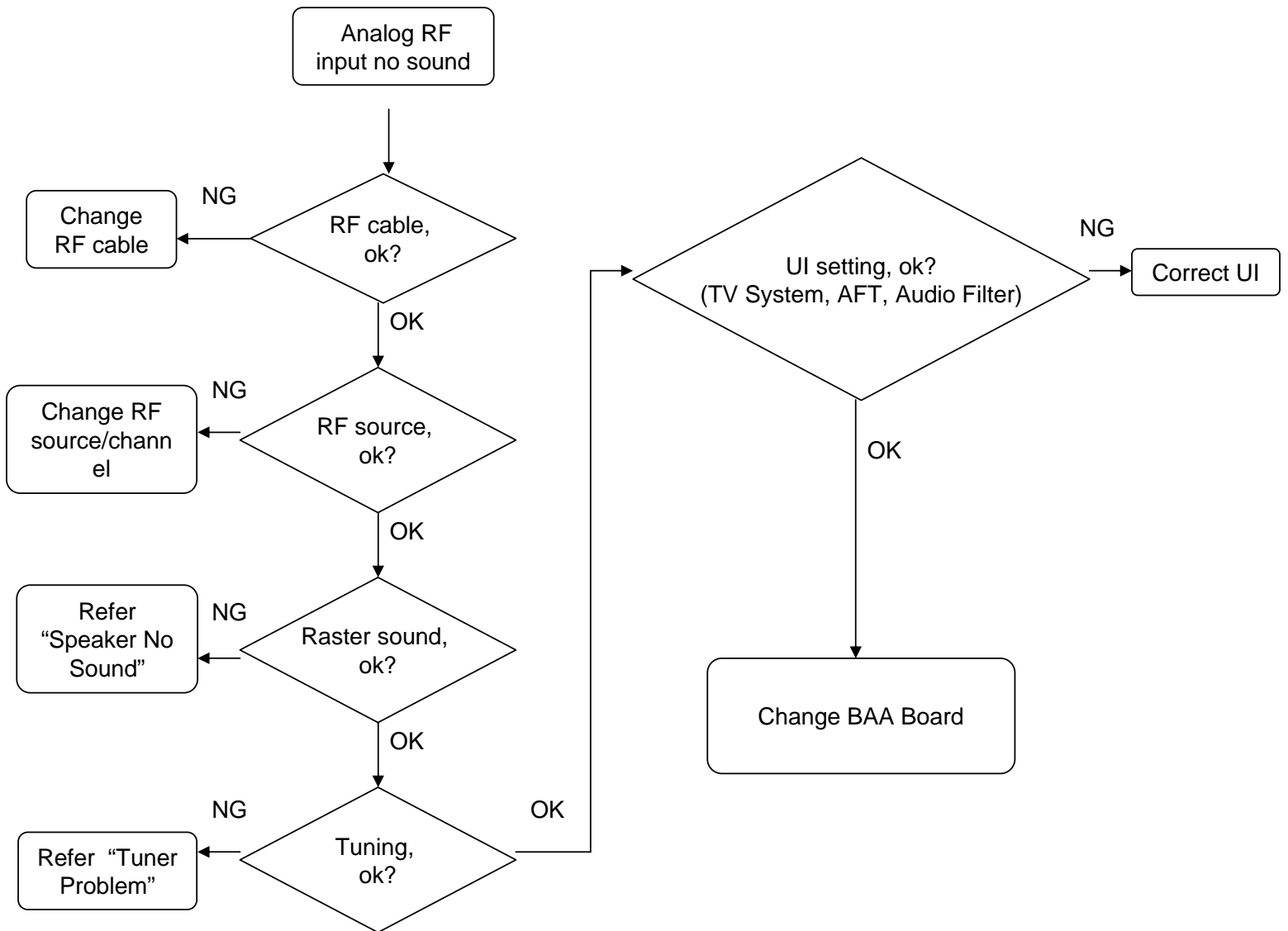
3-2-4. FLOWCHART D (HP OUT No Sound)



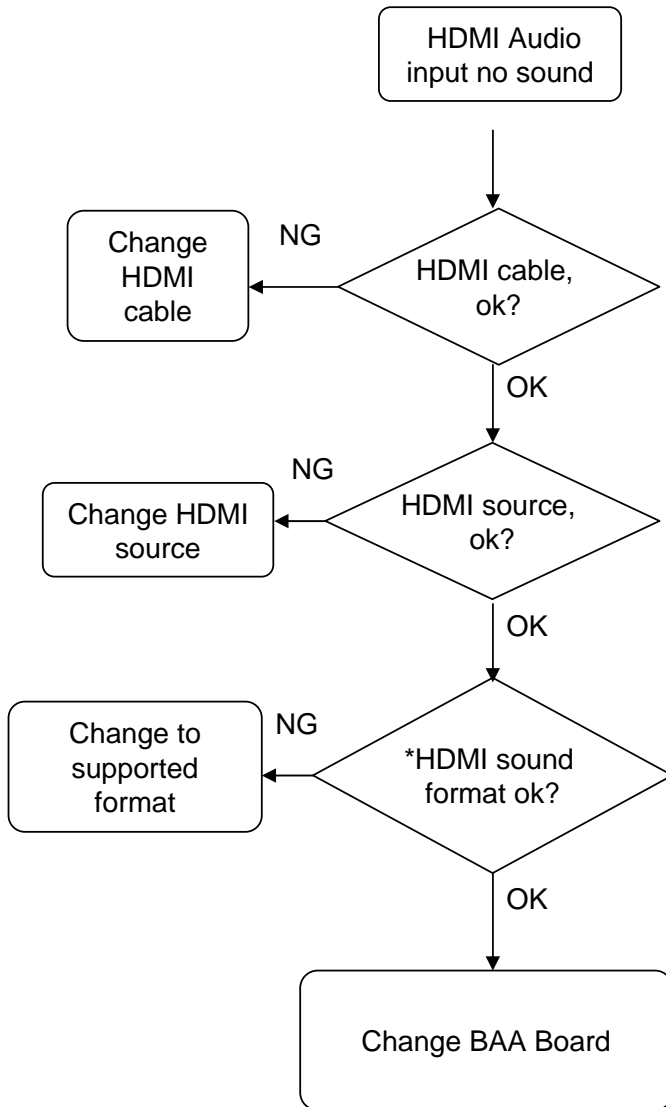
3-2-5. FLOWCHART E (Analog Audio Input No Sound)



3-2-6. FLOWCHART F (Analog RF No Sound)

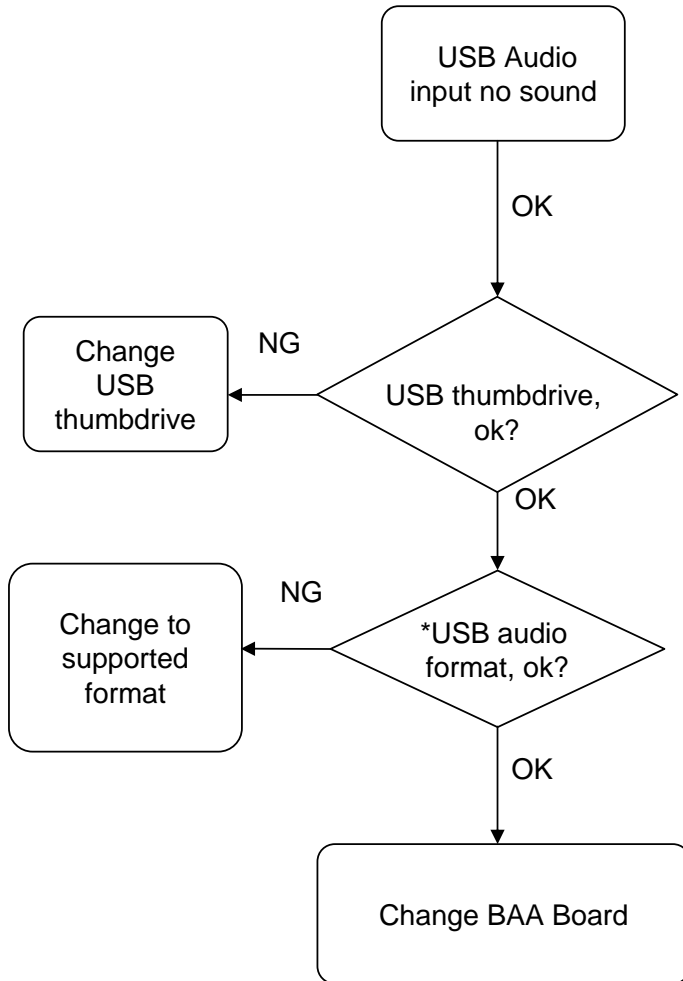


3-2-7. FLOWCHART G (HDMI Audio No Sound)



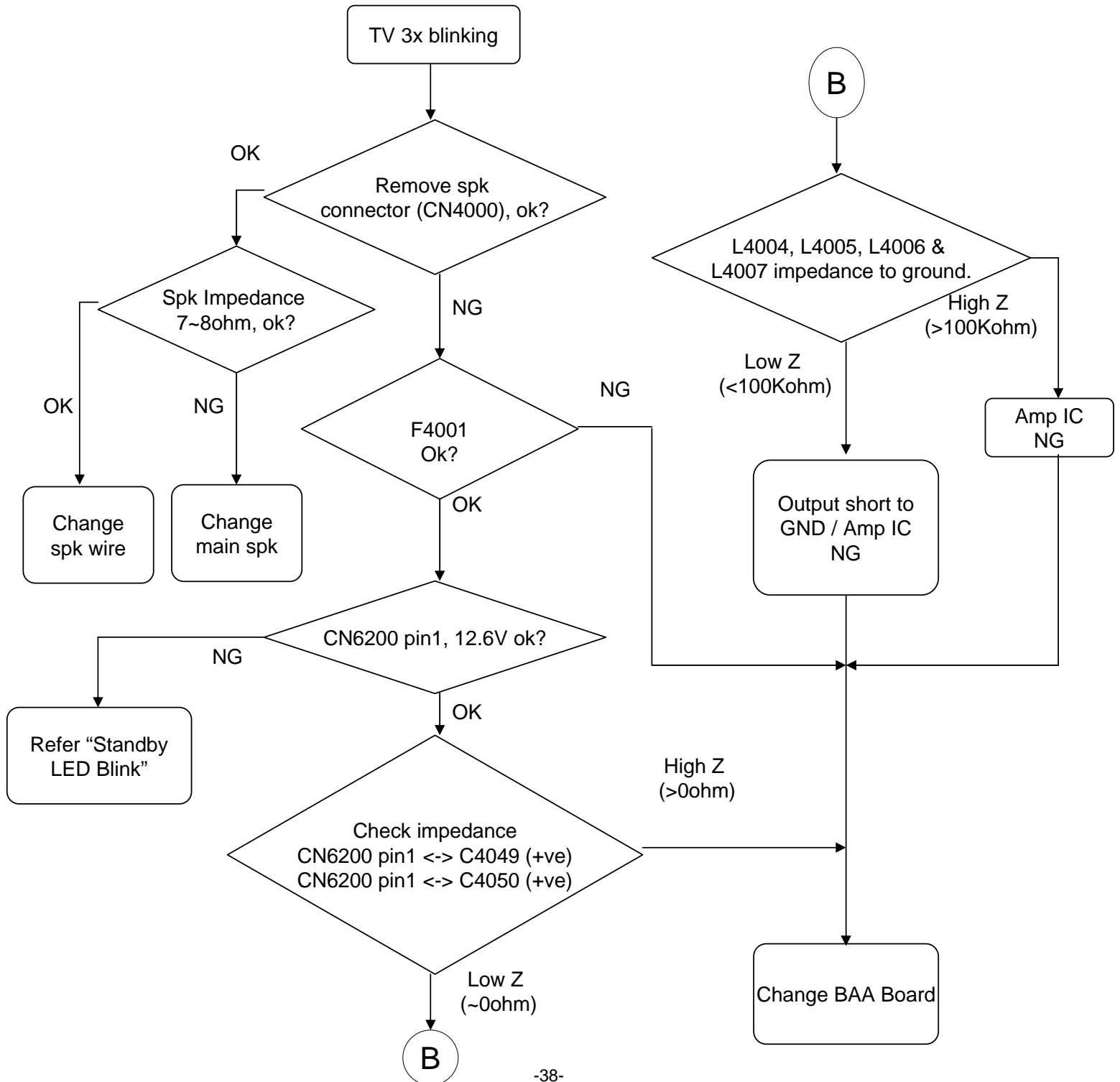
*** Please refer to IM for supported HDMI audio format.**

3-2-8. FLOWCHART H (USB Audio input No Sound)

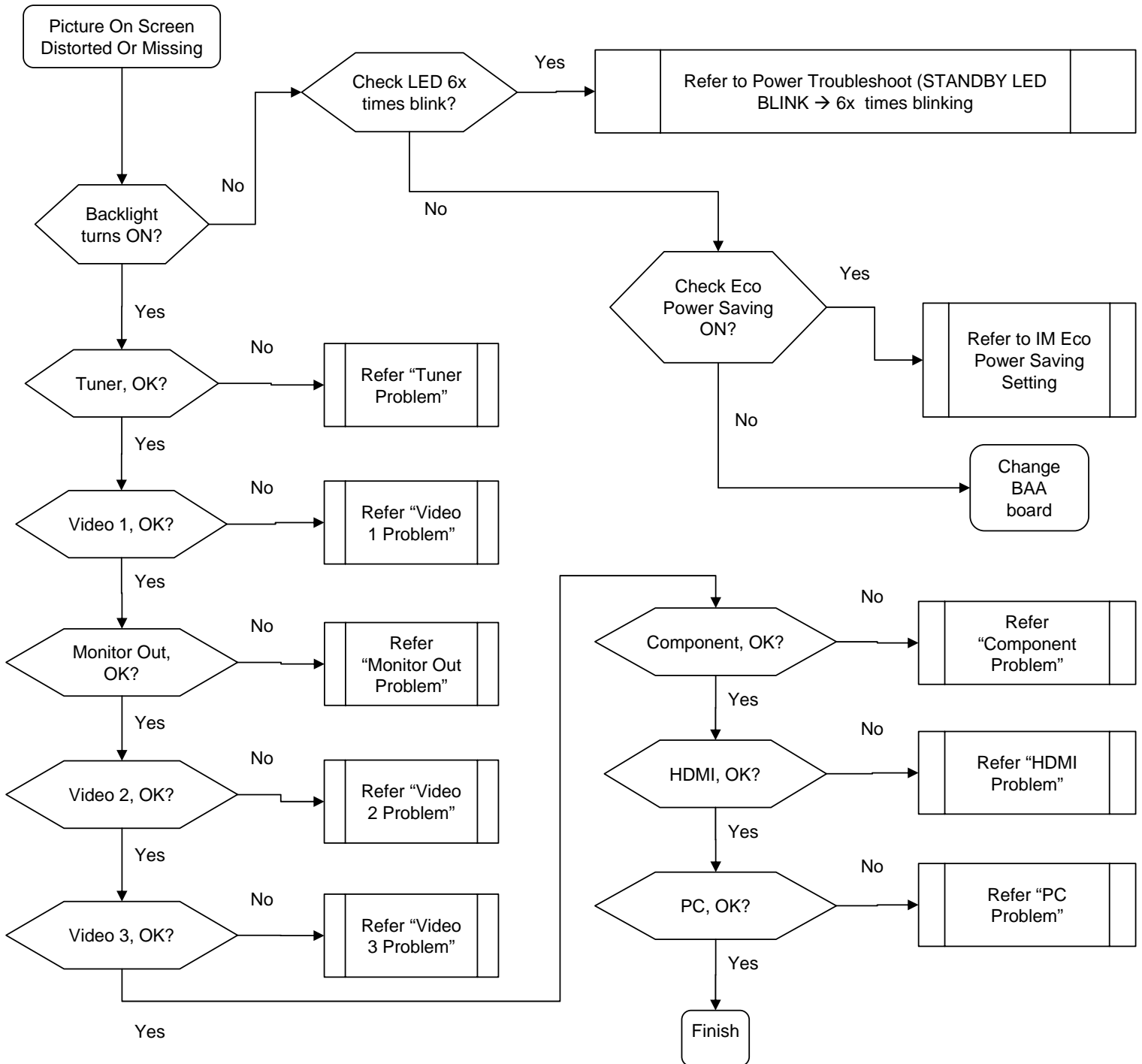


*** Please refer to IM for supported USB audio format.**

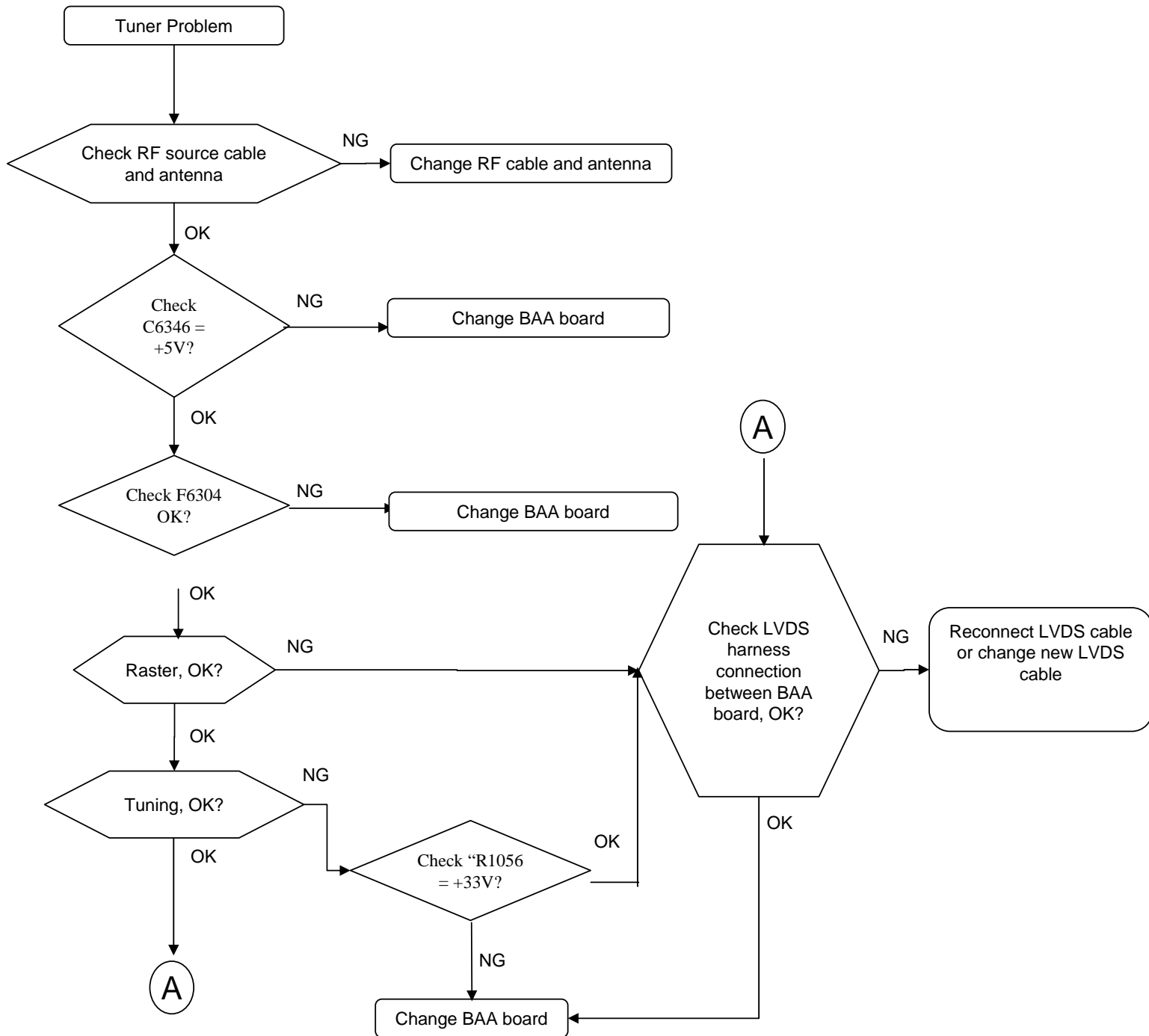
3-2-9. FLOWCHART I (3x Blinking For Audio Error)



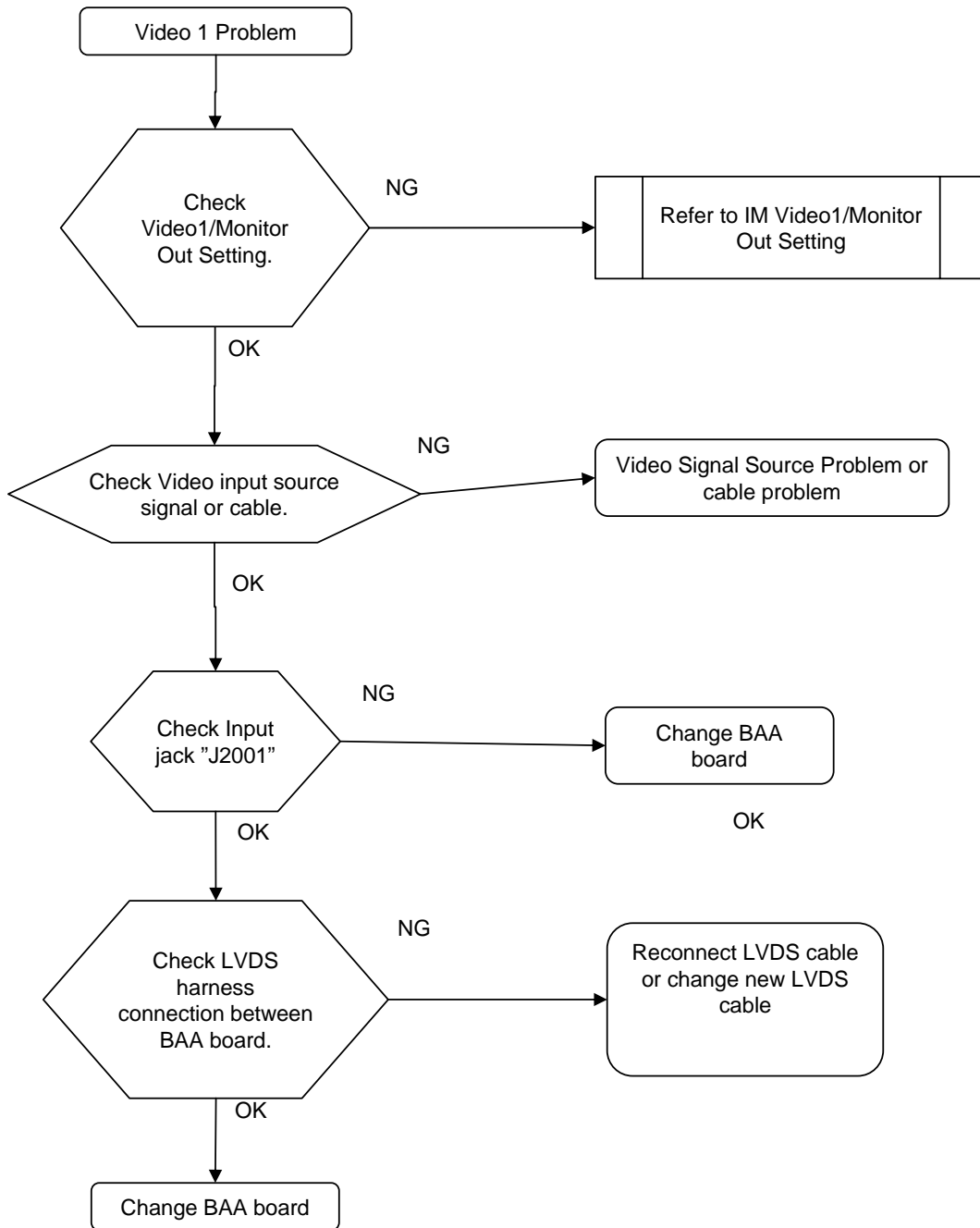
3-3. Troubleshooting Video Problem



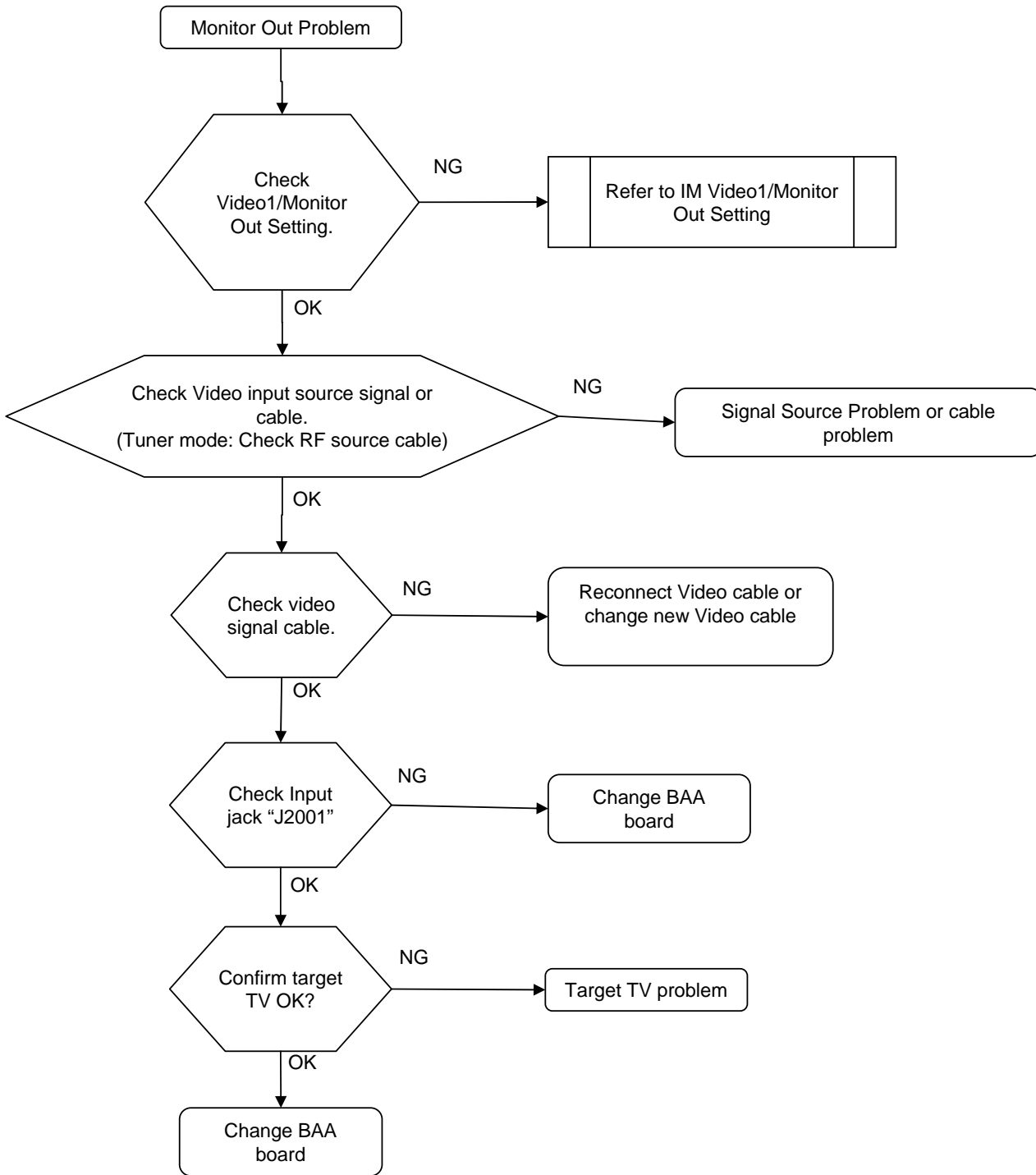
3-3-1. TUNER PROBLEM



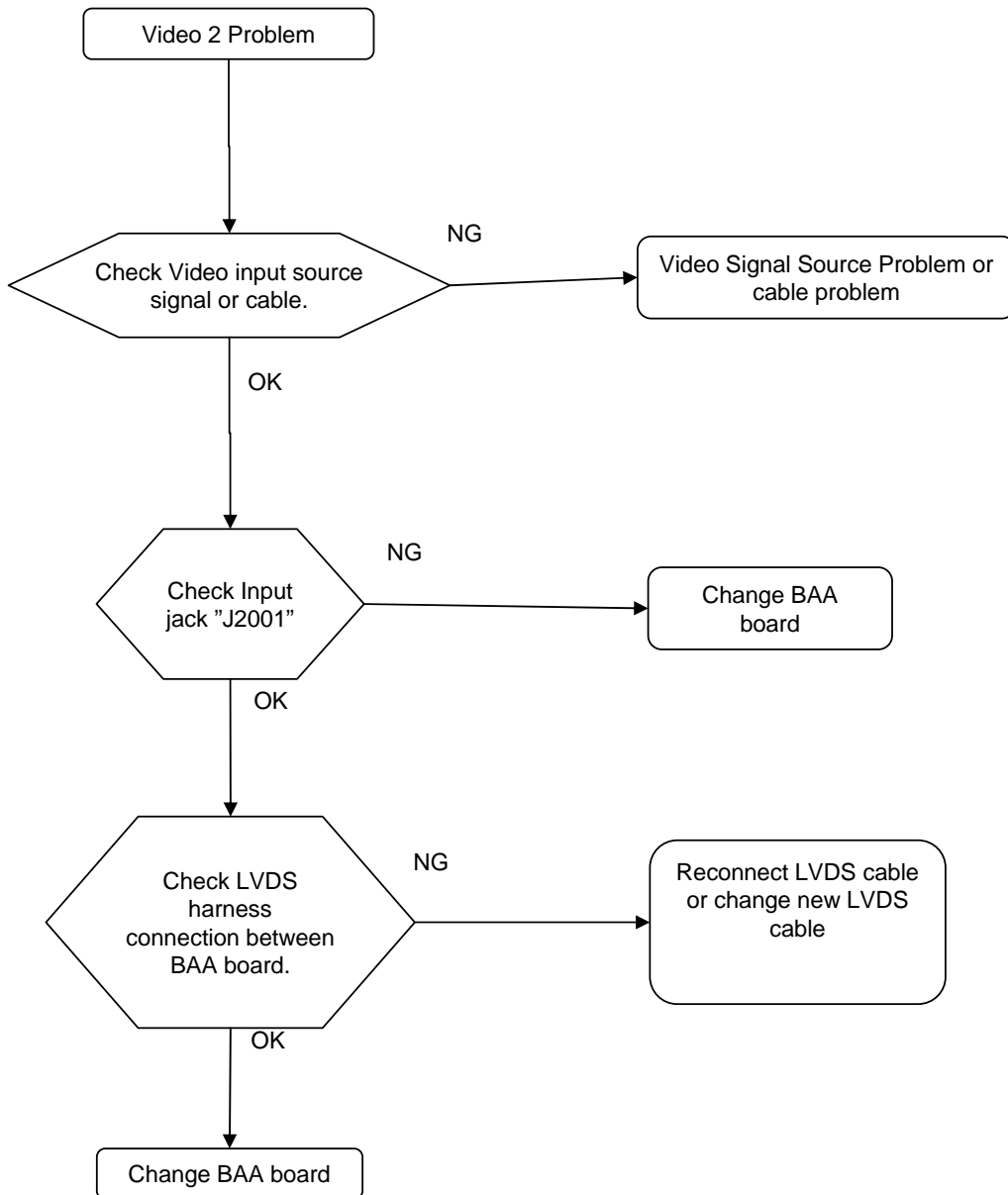
3-3-2. VIDEO 1 Problem



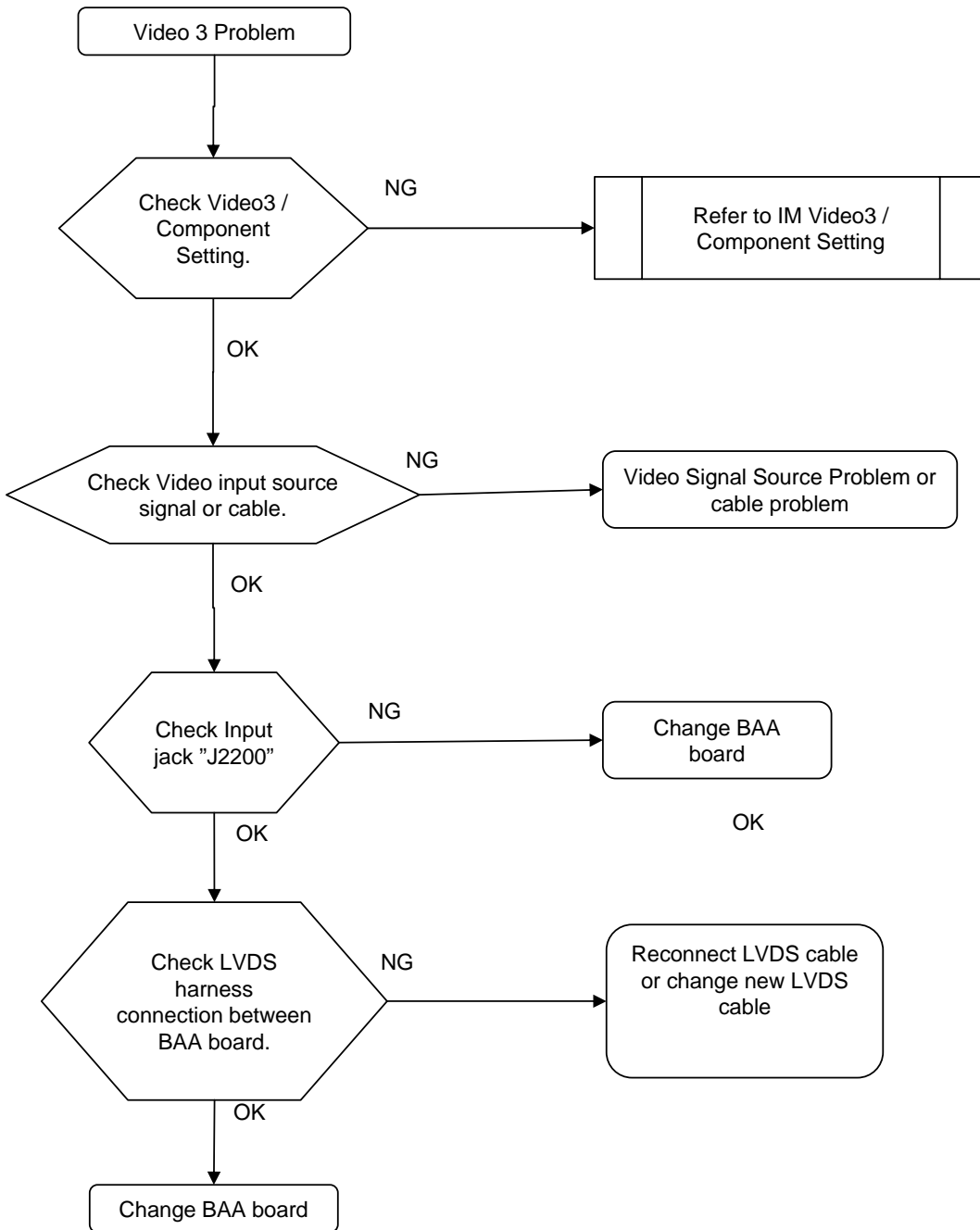
3-3-3 MONITOR OUT Problem



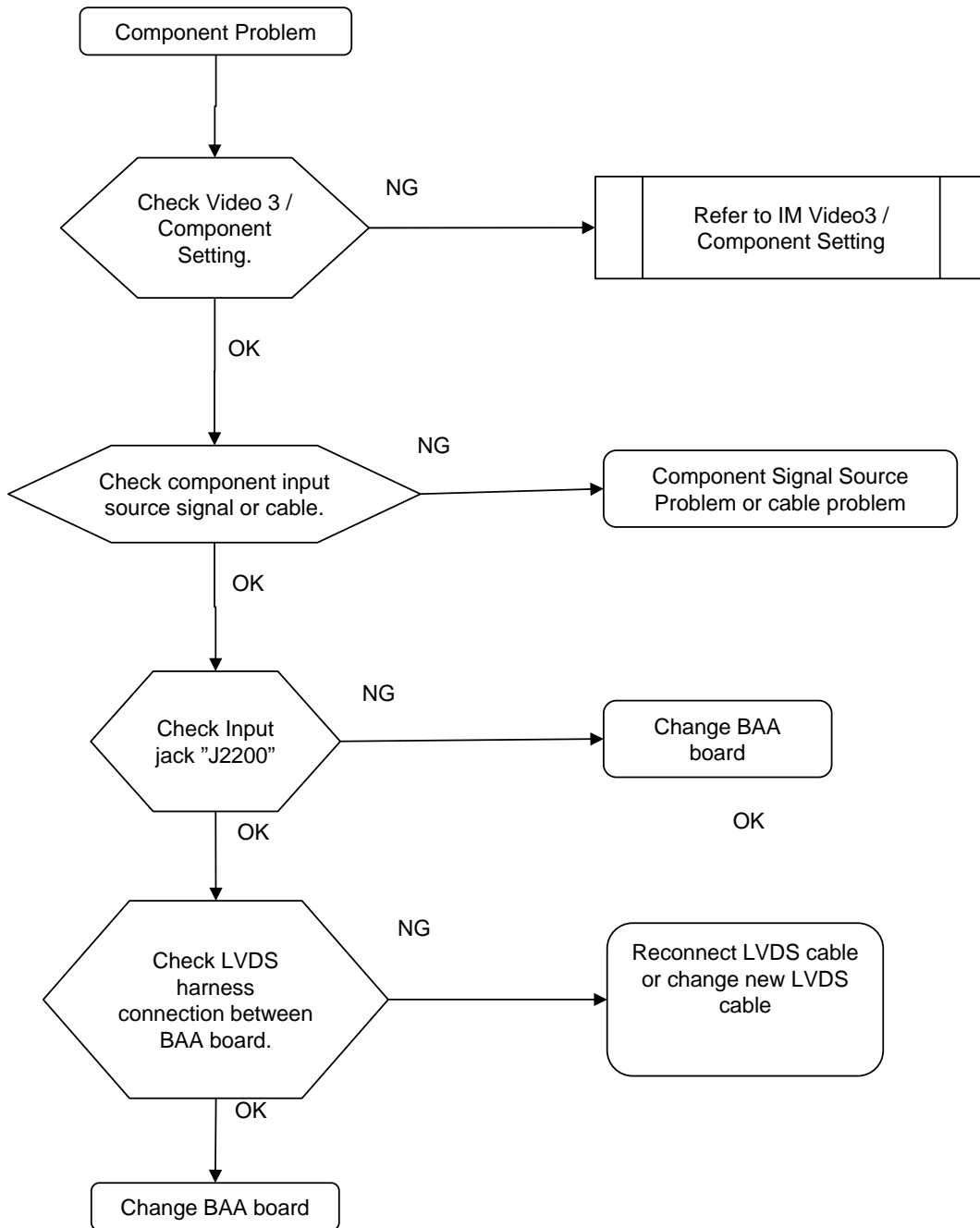
3-3-4. VIDEO 2 Problem



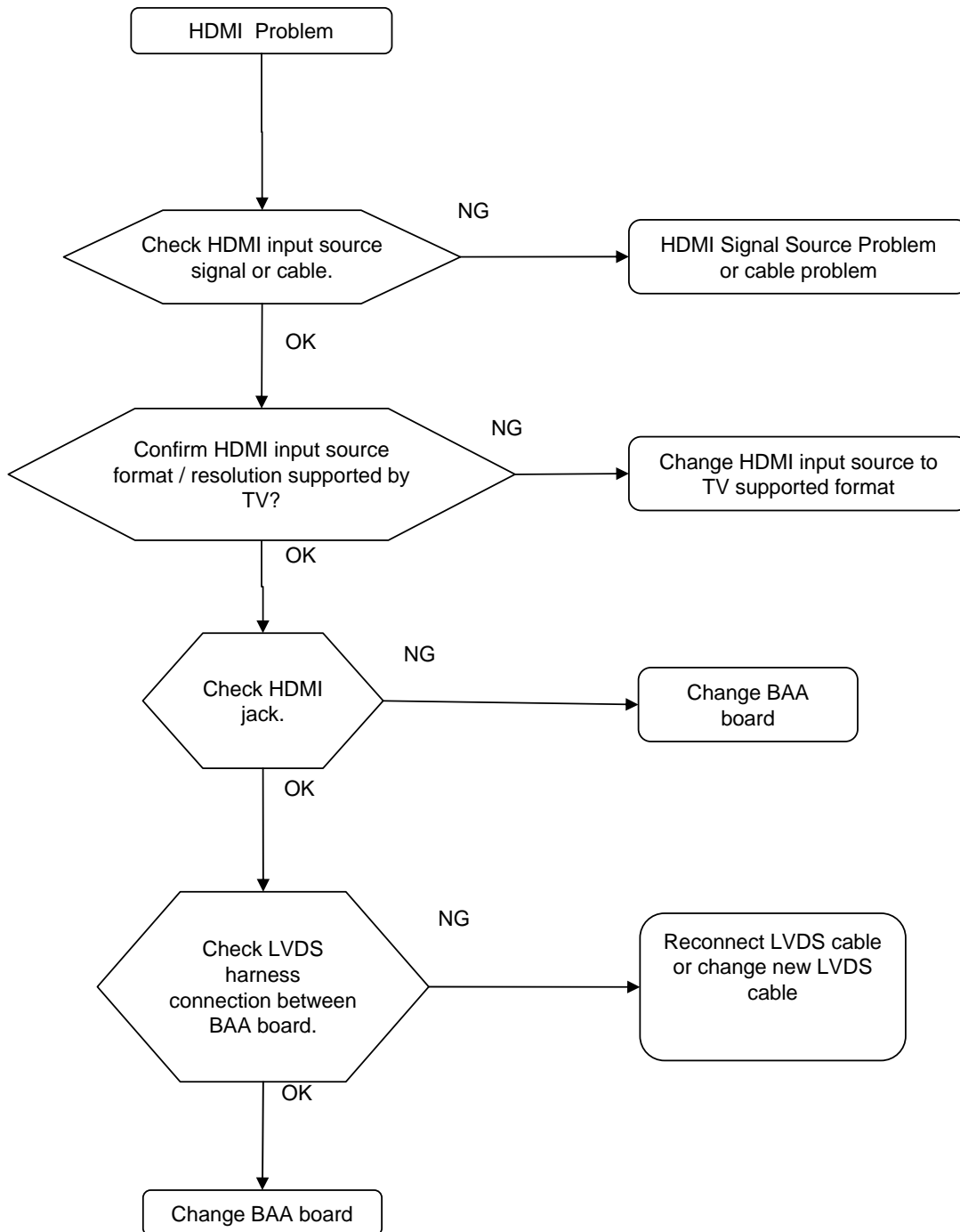
3-3-5. VIDEO 3 Problem



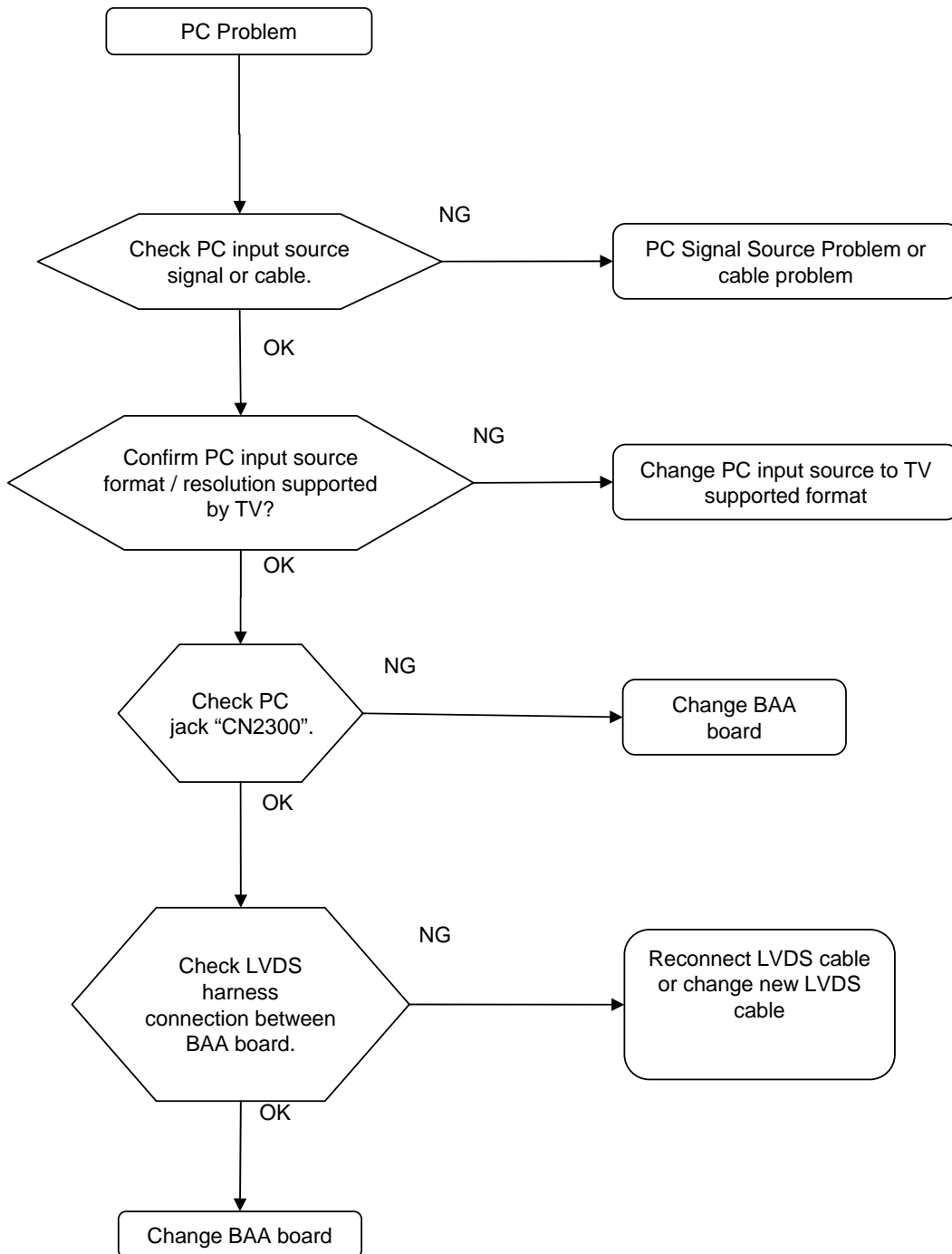
3-3-6. COMPONENT Problem



3-3-7. HDMI Problem



3-3-8. PC Problem



3-4. Troubleshooting IR Problem

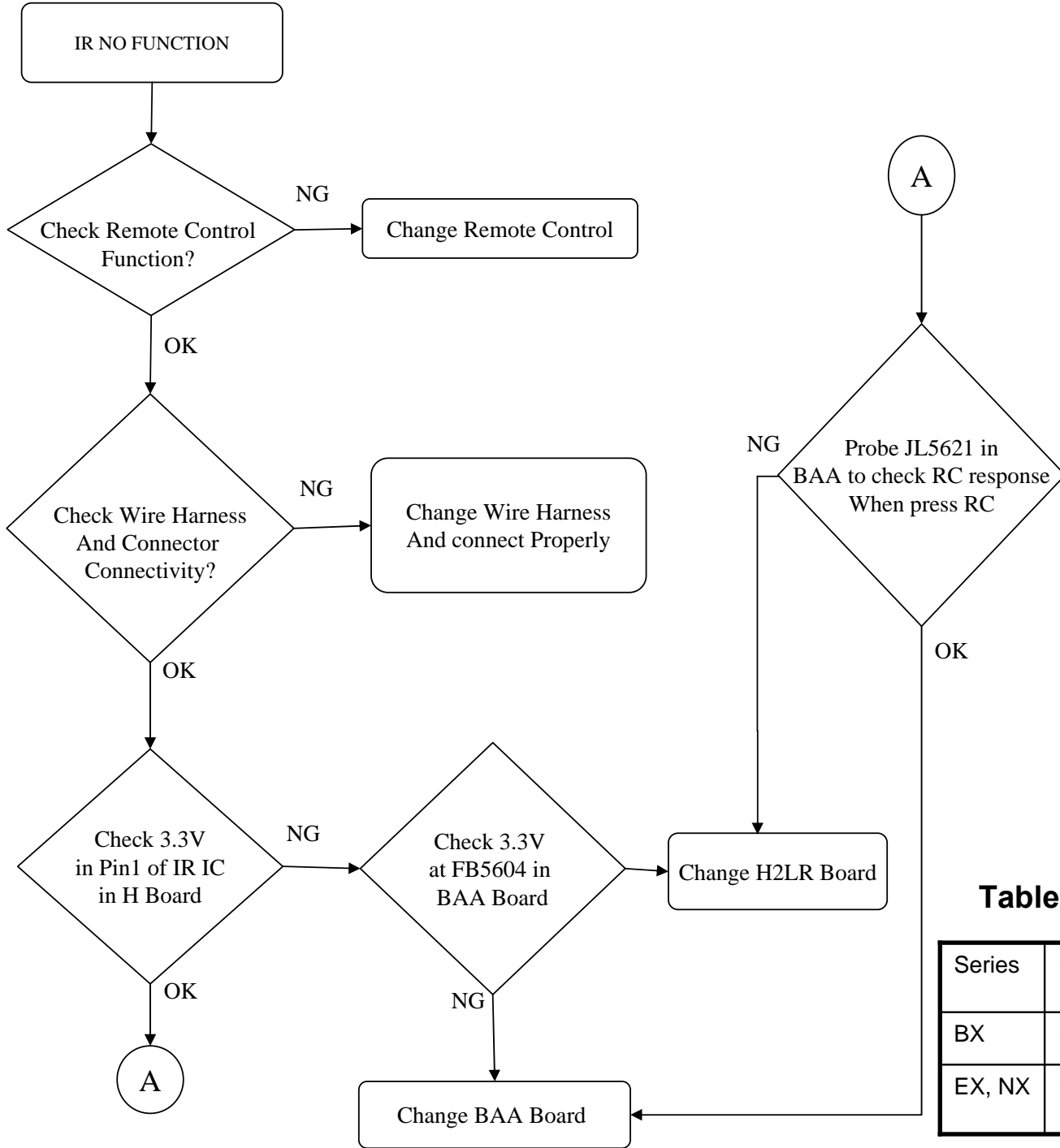
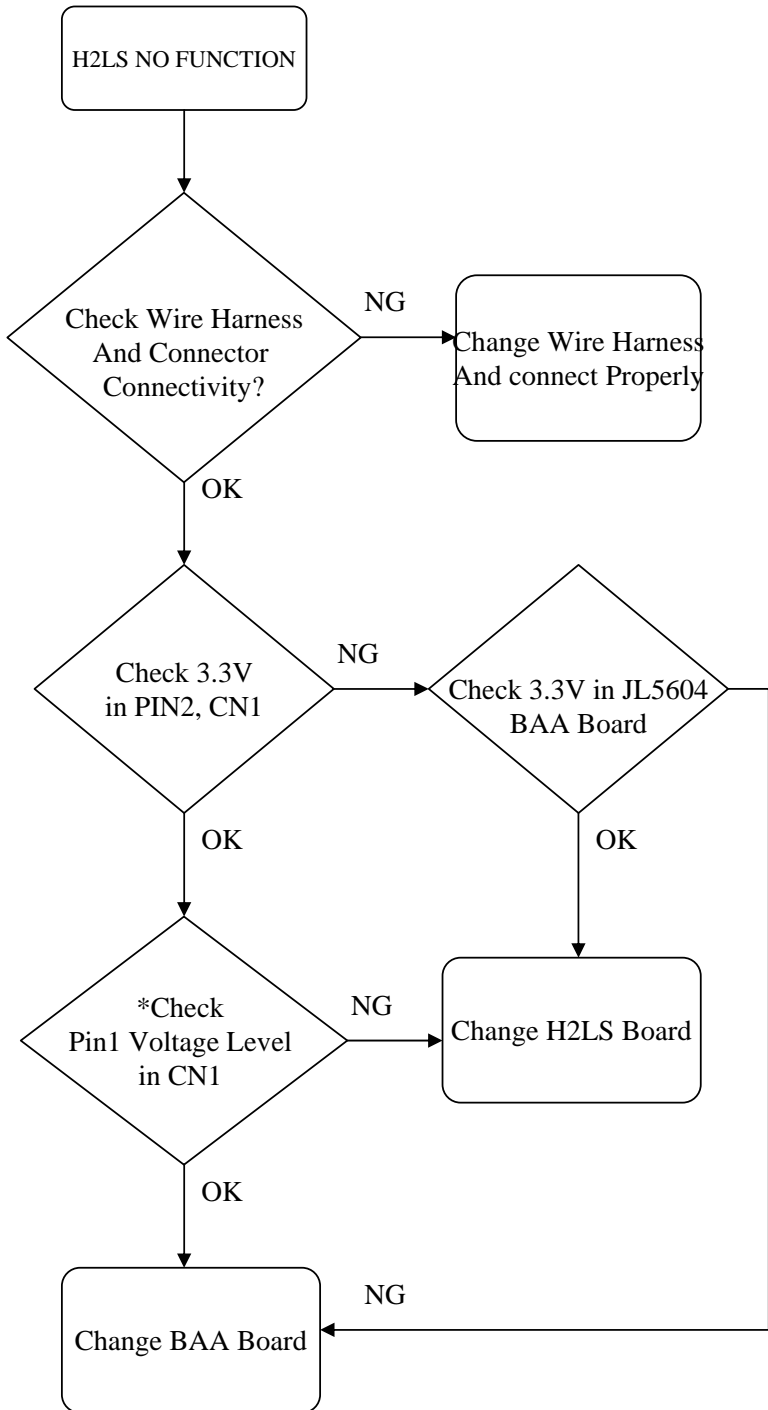


Table: IR IC Ref no

Series	H Board	IR ref no.
BX	H2LR	IC101
EX, NX	HLR	IC002

3-5. Tact SW Problem

***VOLTAGE LEVEL FOR EACH PRESSED BUTTON**



KEY	Voltage (average)	Voltage range
CH -	0.00V	0.0000V
CH +	0.38V	0.3421 – 0.4178V
Vol -	0.85V	0.7720 – 0.9403V
Vol +	1.30V	1.1747 – 1.4268V
Input	1.85V	1.6710 – 2.0229V
Menu	2.37V	2.1536 - 2.5988V
No Input	2.80V	2.8 – 3.3V

