

Technical Guide

**Plasma Full High Definition
(GPH10DU Chassis)**

Troubleshooting Handbook

***Models : TH-42PZ700U
TH-50PZ700U
TH-58PZ700U
TH-50PZ750U
TH-58PZ750U***



**Panasonic Services Company
National Training**

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Revised 10/23/2008

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<Introduction>

1. Basic concept of how to determine the defective board

1) Verification of voltages

Normally, when there is a power problem, shutdown occurs immediately.

So, to resolve a power problem, voltage checks are necessary before shutdown.

2) Check if the power comes up after disconnecting the board under suspicion.

If power comes up (*) after disconnecting a board, the board is defective.

(*) "Power comes up" equals "no shutdown".

2. Troubleshooting Video and Audio problems

3. Examples of video problems

4. Adjustment after PCB exchange

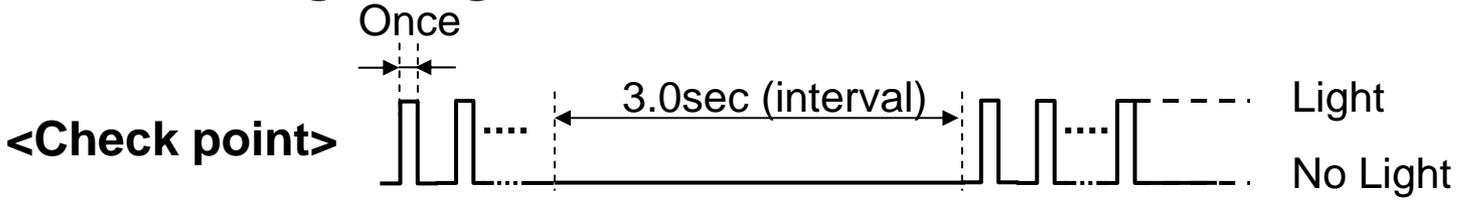
1) After exchanging the following boards, voltage adjustment is required.

P board, SC board, SS board => Please refer to the "Service Manual".

1. Troubleshooting Shutdown Problems

Power LED's Response to Shutdown Operation

<LED Blinking timing>



<Check point>

Number Of Blinks	Contents	Check Point
1	STB5V sense time out	DG Board
2	15V SOS	D
3	3.3V SOS	D
4	Power SOS	P
5	5V SOS	D
6	SC Driver Energy Recovery/DRV_RST SOS	SC
7	SC Floating Voltage SOS	SC
8	SS Energy Recovery (TH-42PZ700U PDP) SOS	SS
9	Panel Status SOS	D
10	SUB5V, Main3.3V, DTV9V, Tuner SOS	DG
11	Fan SOS	PB
12	Sound SOS	H
13	Communication Error With IC8001 SOS	DG

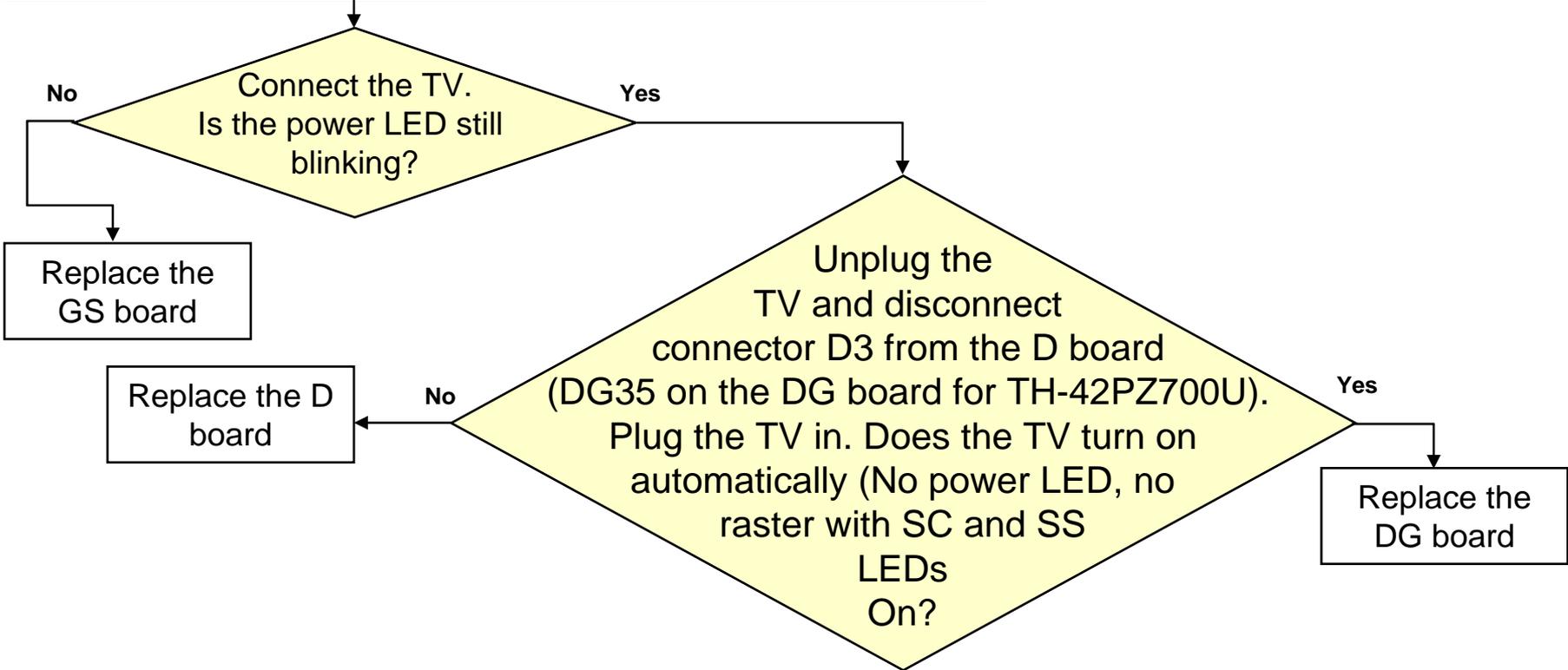
LED blinks 1 time

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board
Communication Error	DG Board

Warning: Disconnect AC Power prior to making any disconnection or connection.

Disconnect GS52 on the SD Card Slot Board (GS board)



LED blinks 2 times

<Trouble Mode and Defective Board>

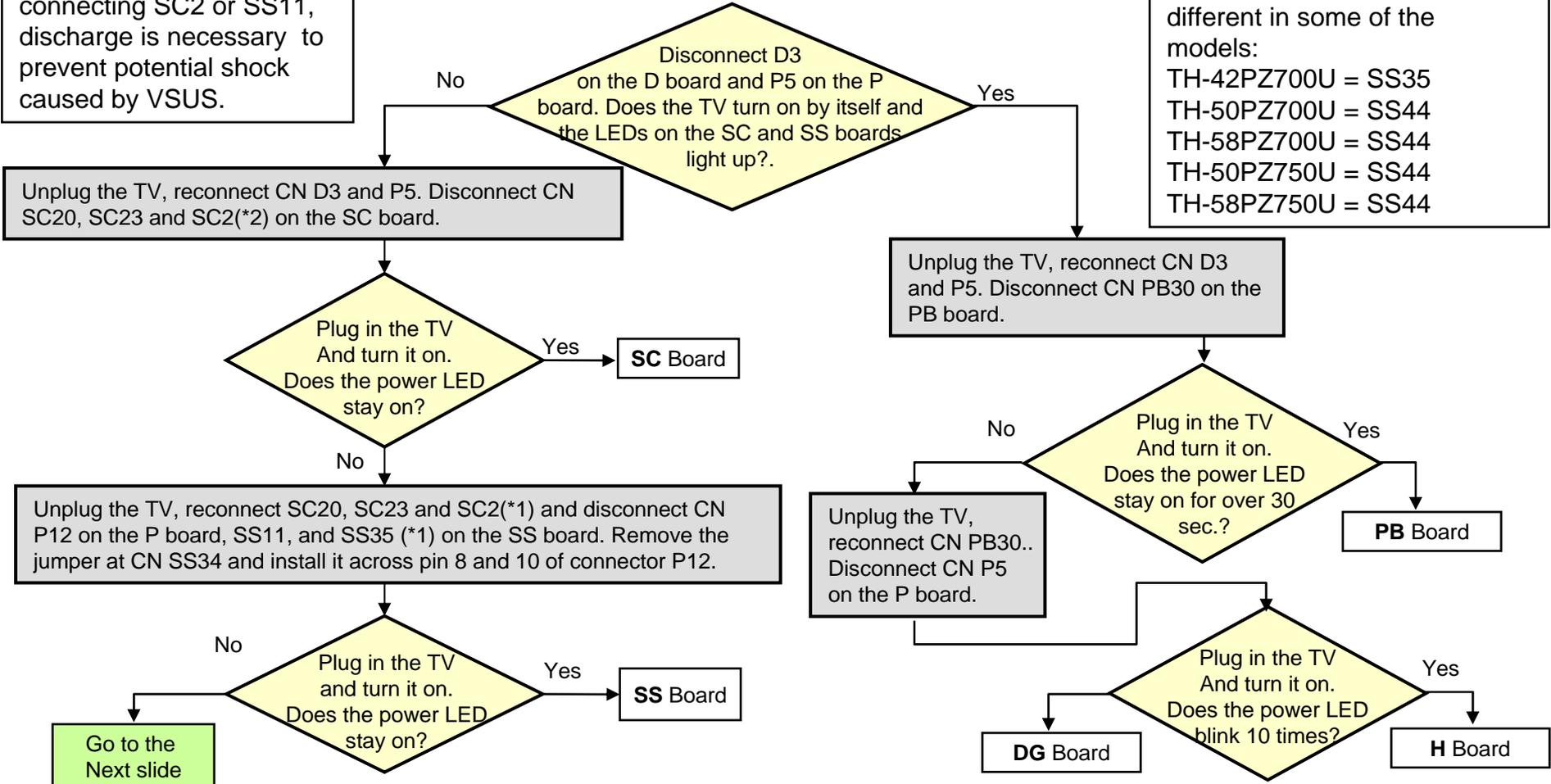
Trouble Mode	Defective Board (Possibility)
15V down SOS	P, D, H, PB, SC, SS, DG Board (P > H, D, SC, SS, PB, DG)

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*2) **CAUTION:** Before connecting SC2 or SS11, discharge is necessary to prevent potential shock caused by VSUS.

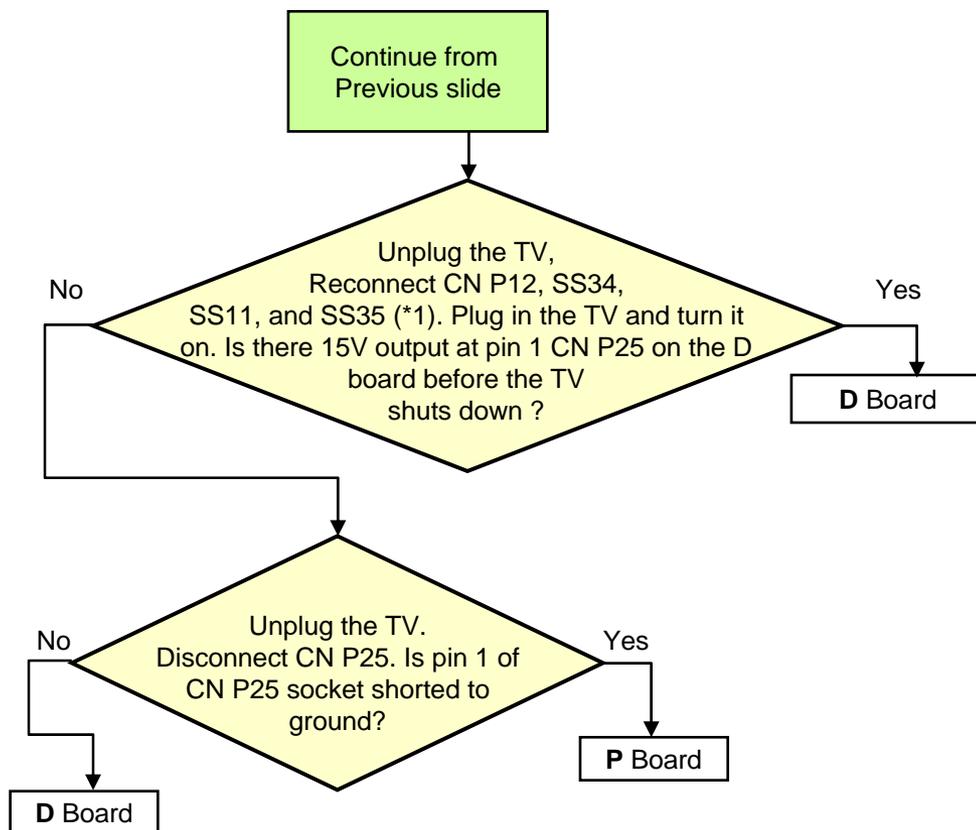
<How to find the defective boards>

(*1) = The reference number of the sustain data connector is different in some of the models:
 TH-42PZ700U = SS35
 TH-50PZ700U = SS44
 TH-58PZ700U = SS44
 TH-50PZ750U = SS44
 TH-58PZ750U = SS44



Note: CN = Connector

LED blinks 2 times



Warning: Disconnect AC Power prior to making any disconnection or connection.

(*1) = The reference number of the sustain data connector is different in some of the models:

TH-42PZ700U = SS35
TH-50PZ700U = SS44
TH-58PZ700U = SS44
TH-50PZ750U = SS44
TH-58PZ750U = SS44

Note: CN = Connector

LED blinks 3 times

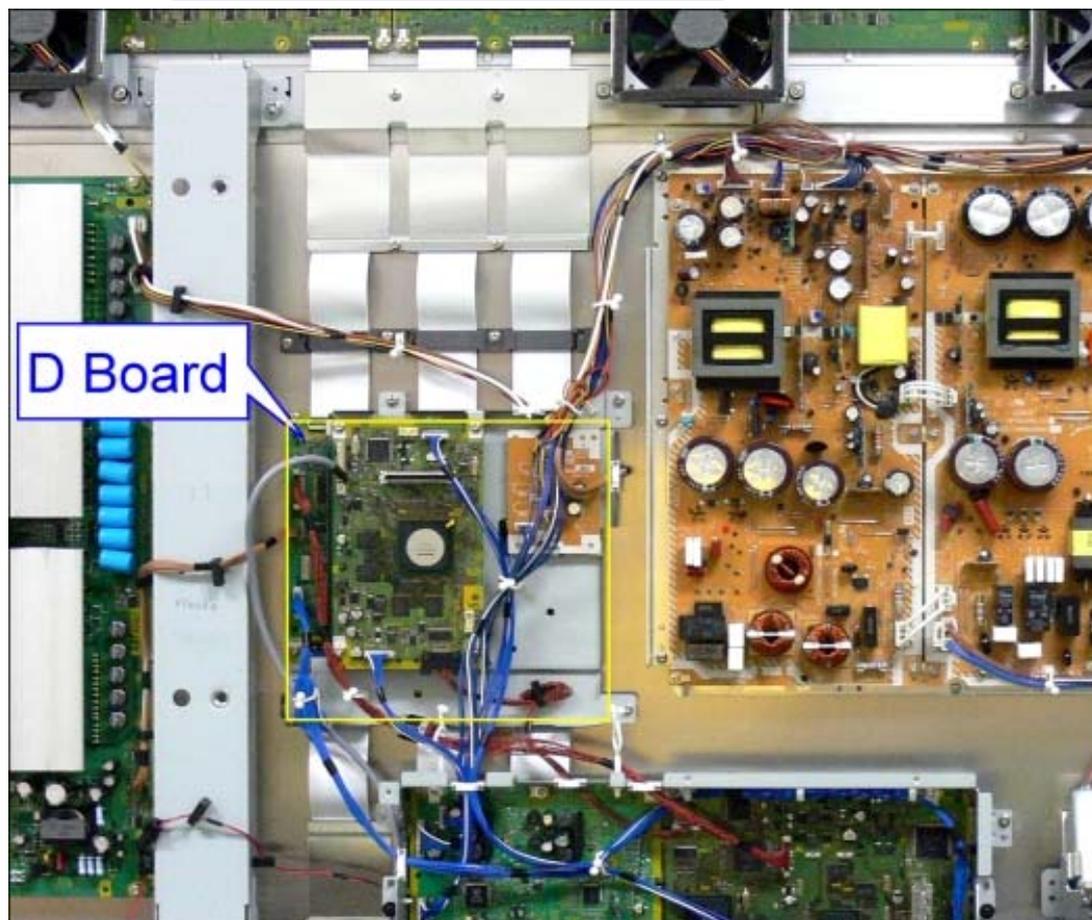
<Trouble Mode and Defective Board>

Trouble Mode	Defective Board
3.3V down SOS	D Board

Replace the D board

Warning: Disconnect AC Power prior to making any disconnection or connection.

For Models TH42PZ77U and TH42PZ700U, the D board is located behind the H/DG block assembly.



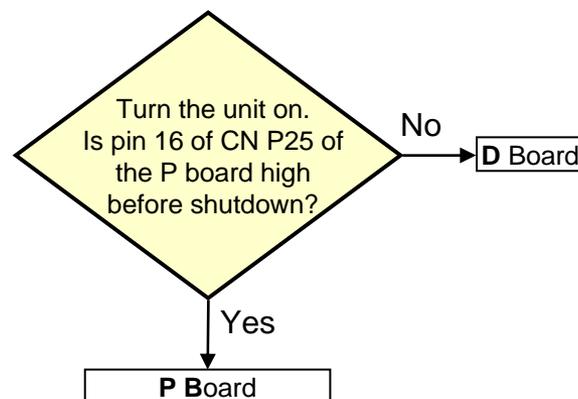
LED blinks 4 times

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board
Power Supply SOS	Primarily P board or possible D board

Warning: Disconnect AC Power prior to making any disconnection or connection.

<How to find the defective boards>



Note: CN = Connector

LED blinks 5 times TH-42PZ700U (1 of 4)

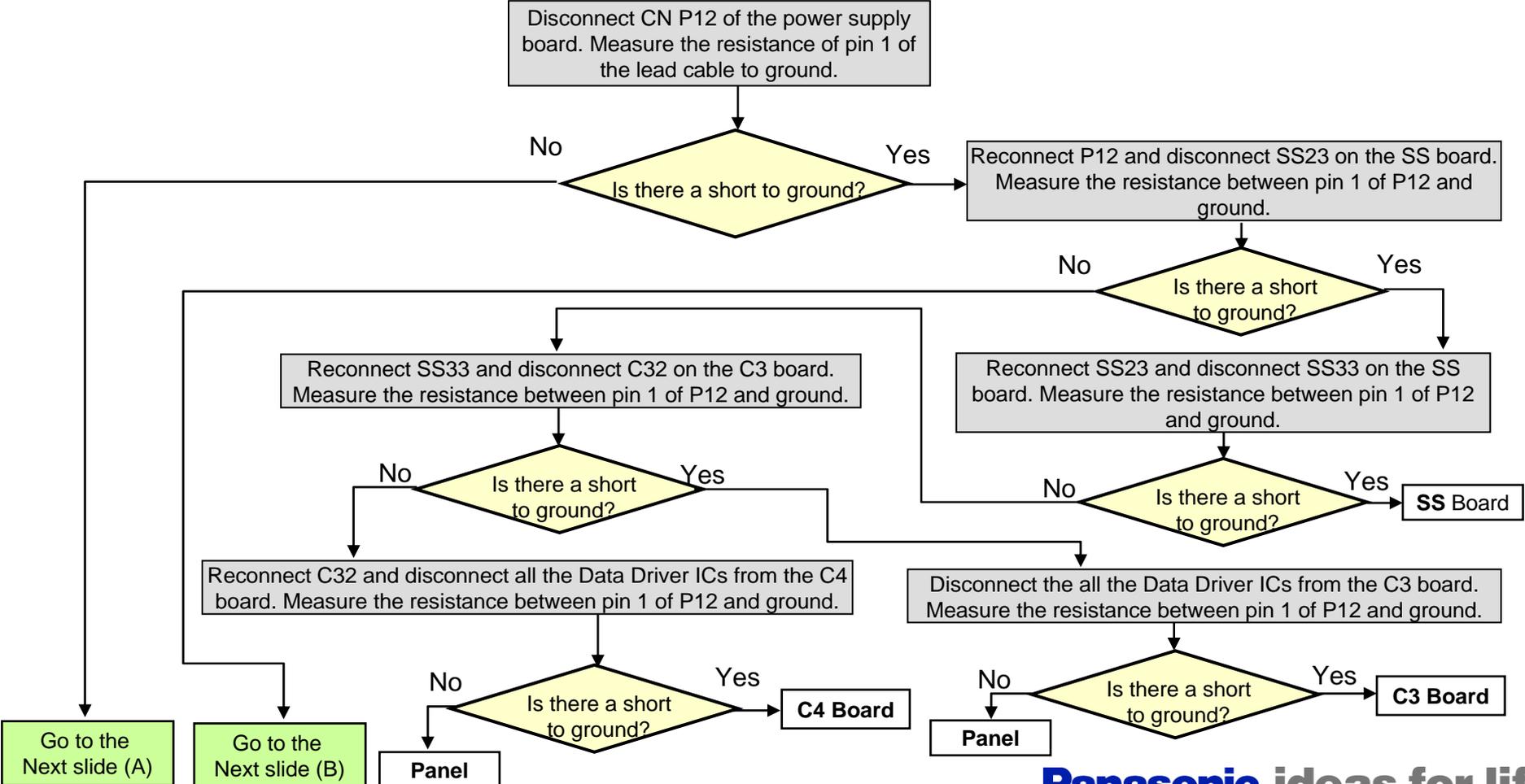
<Trouble Mode and Defective Board>

Trouble Mode	Defective Board
5V SOS	D, P, C, SC, SS board or Panel (DDIC)(*1)

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*1) = Data Driver IC

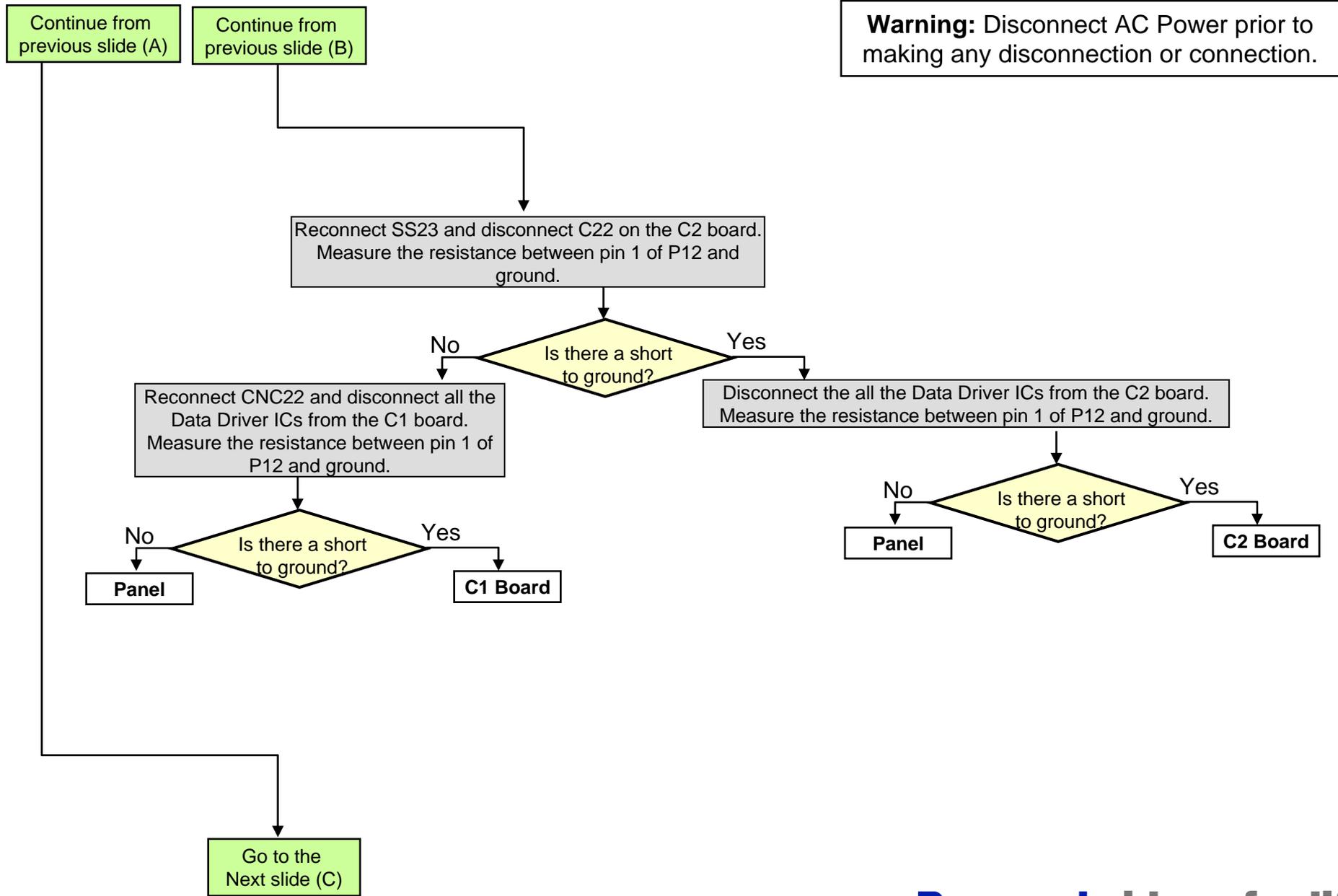
<How to find the defective boards>



Note: CN = Connector

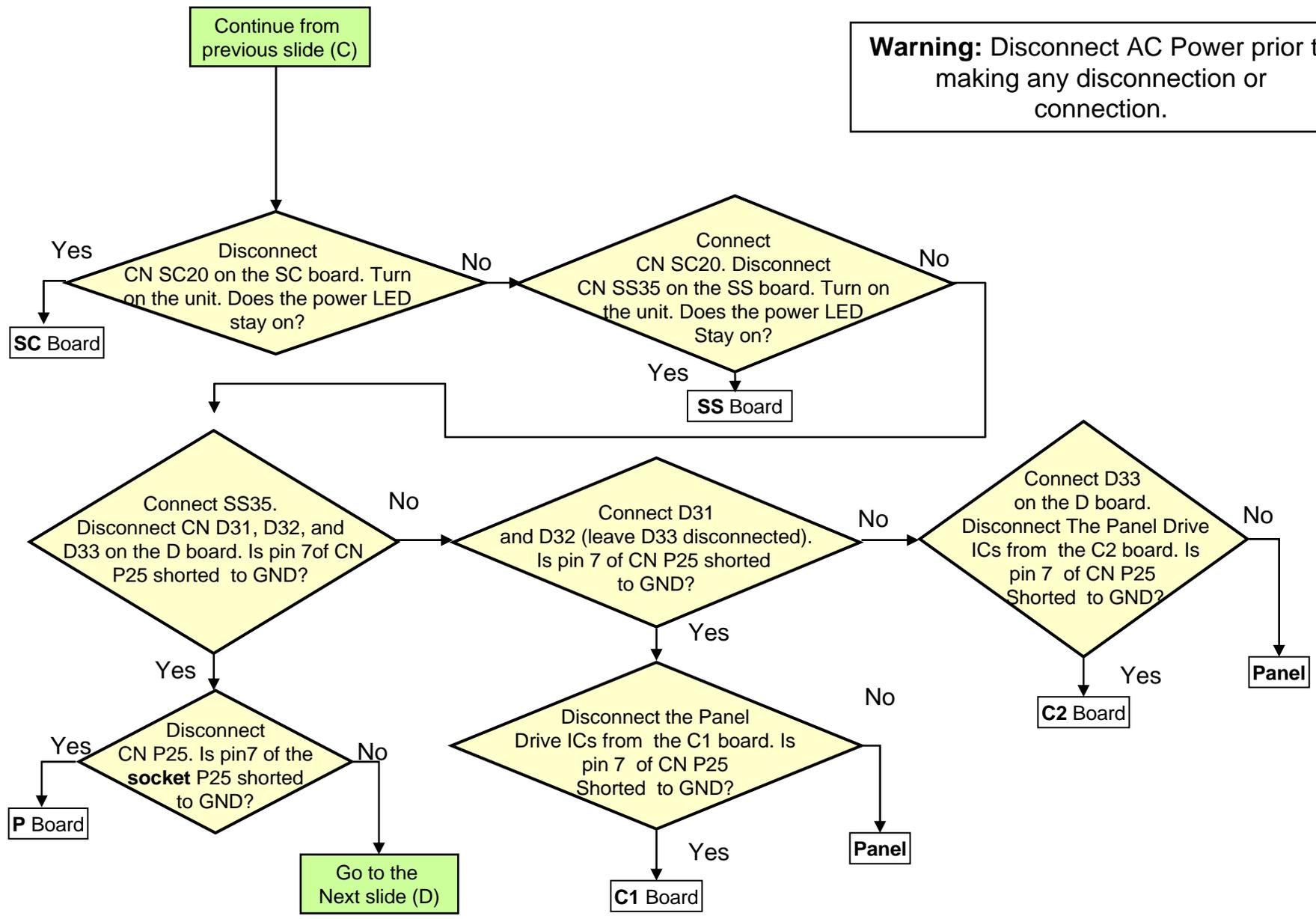
LED blinks 5 times TH-42PZ700U (2 of 4)

Warning: Disconnect AC Power prior to making any disconnection or connection.



LED blinks 5 times (TH-42PZ700U) (3 of 4)

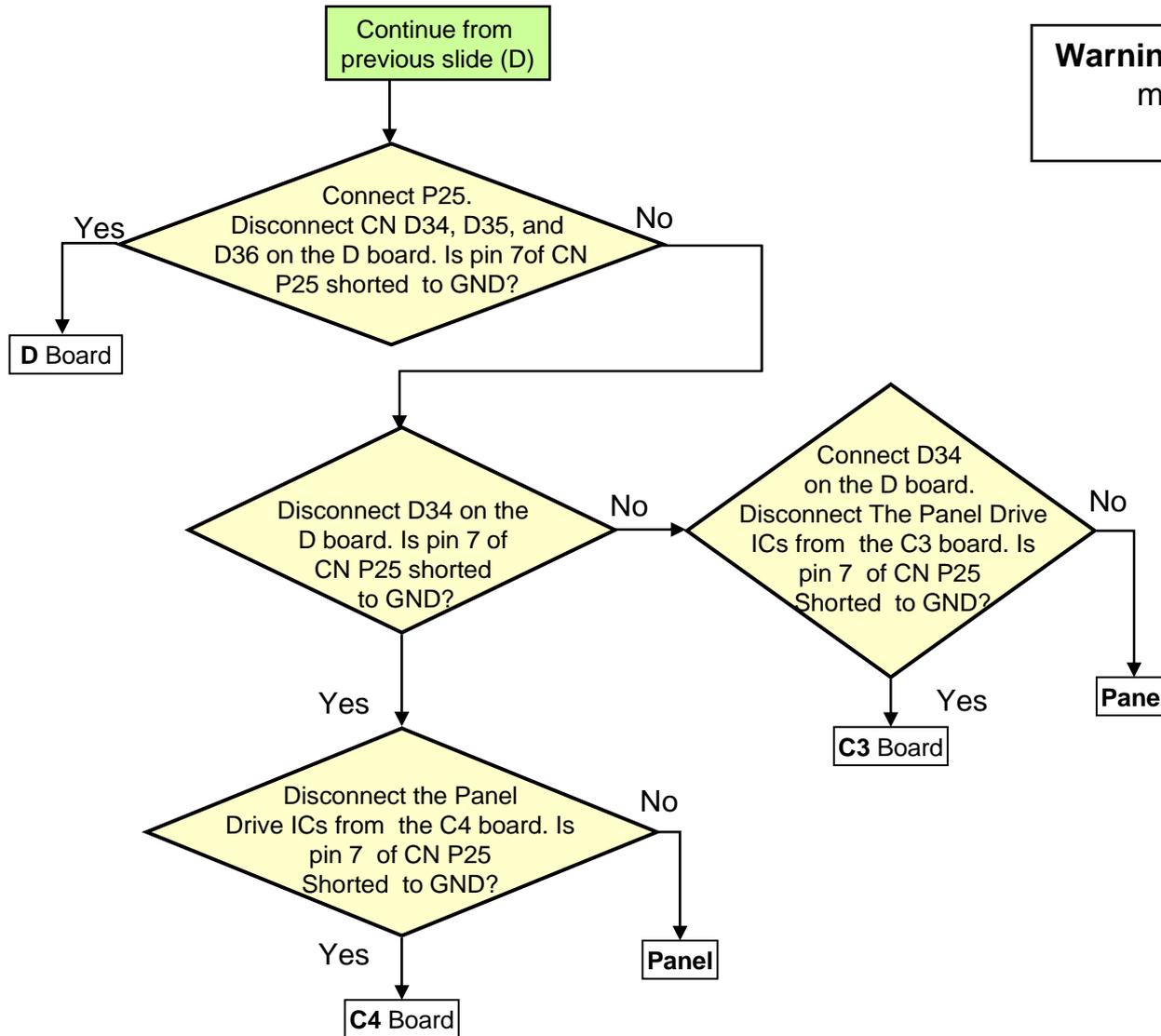
Warning: Disconnect AC Power prior to making any disconnection or connection.



Note: CN = Connector

LED blinks 5 times (TH-42PZ700U) (4 of 4)

Warning: Disconnect AC Power prior to making any disconnection or connection.



Note: CN = Connector

LED blinks 5 times TH-50/58PZ700U/PZ750U (1 of 4)

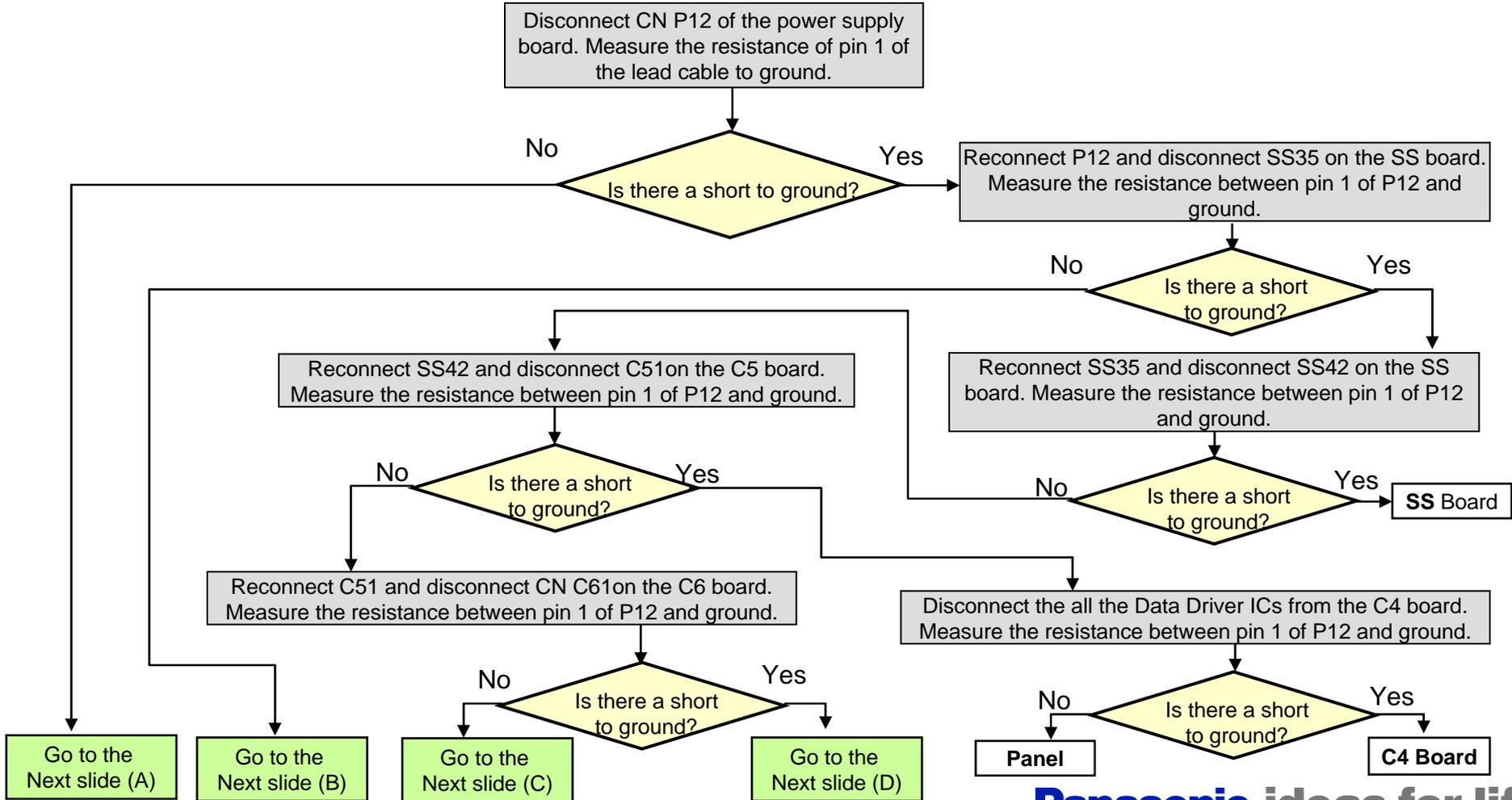
<Trouble Mode and Defective Board>

Trouble Mode	Defective Board
5V SOS	D, P, C, SC, SS board or Panel (DDIC)(*1)

Warning: Disconnect AC Power prior to making any disconnection or connection.

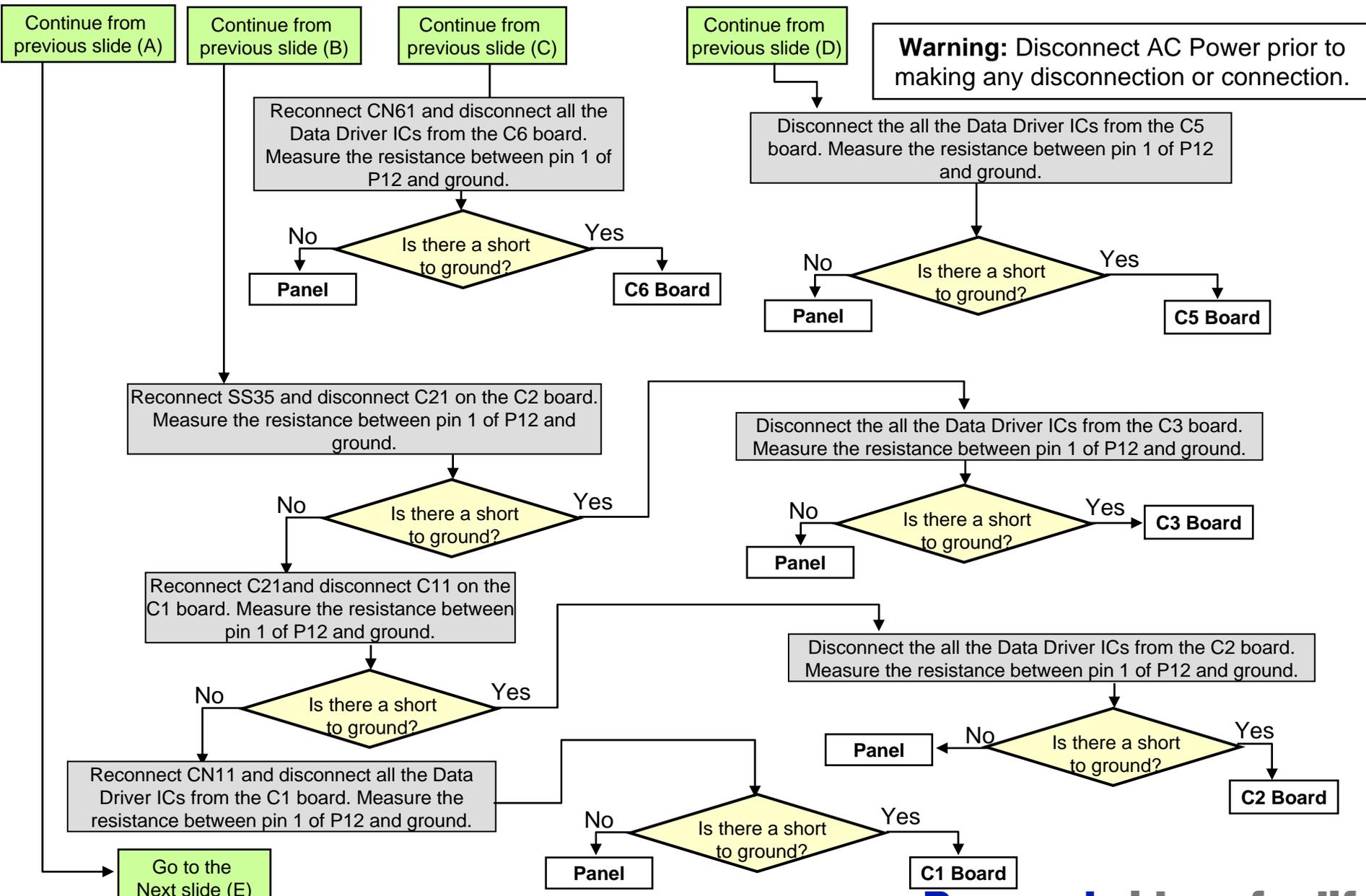
(*1) = Data Driver IC

<How to find the defective boards>



Note: CN = Connector

LED blinks 5 times (TH-50/58PZ700U/PZ750U) (2 of 4)

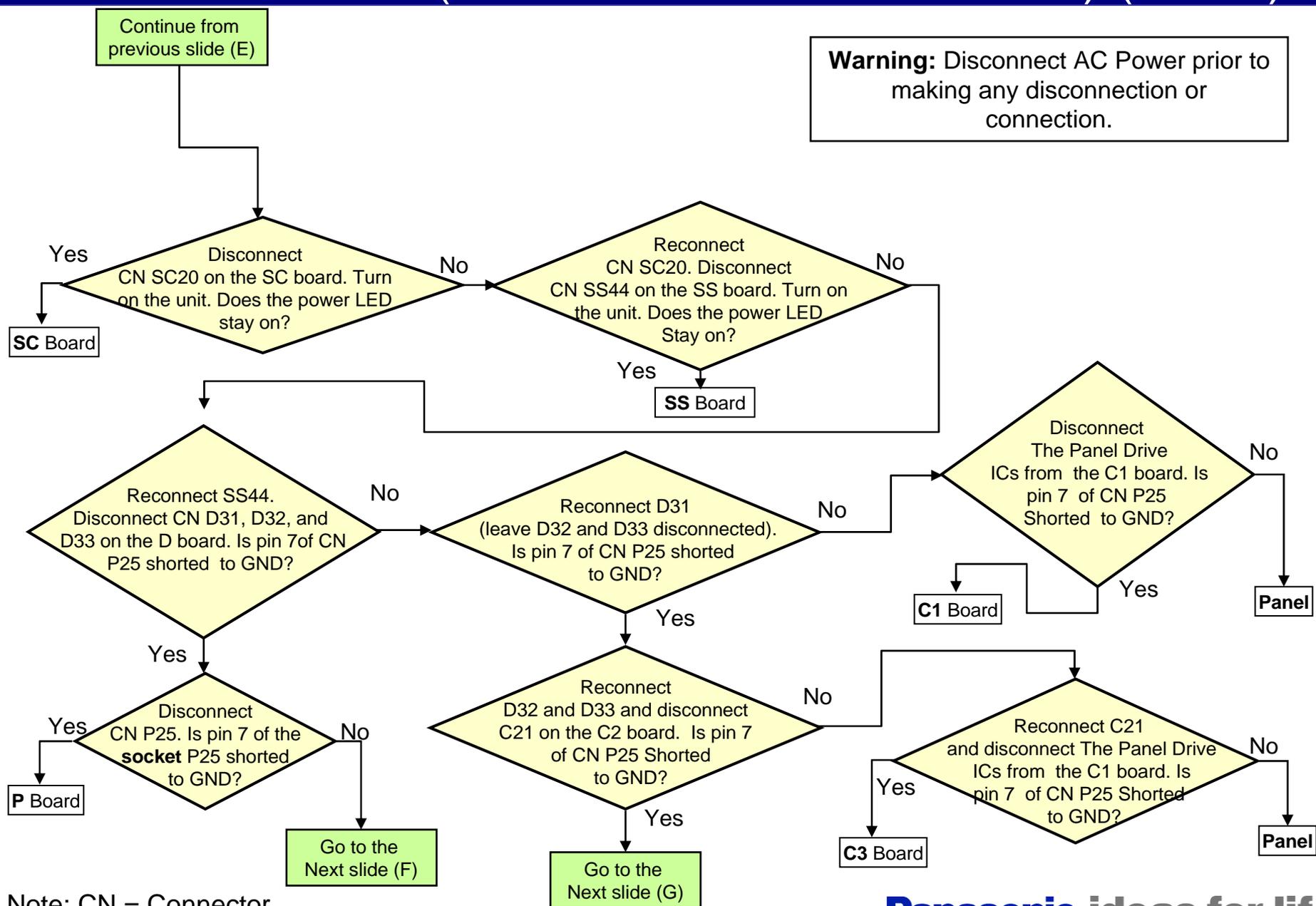


Warning: Disconnect AC Power prior to making any disconnection or connection.

Note: CN = Connector

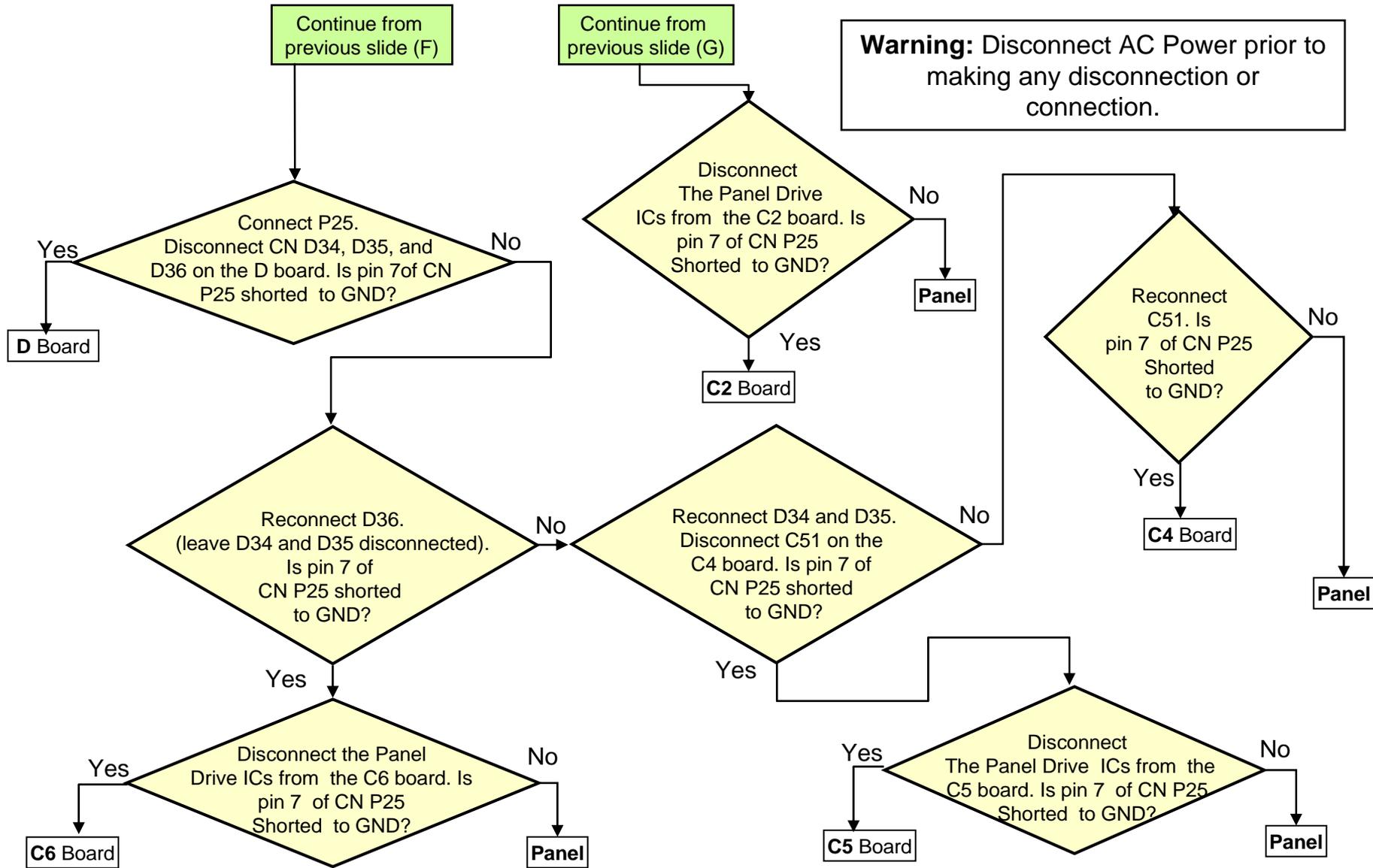
LED blinks 5 times (TH-50/58PZ700U/PZ750U) (3 of 4)

Warning: Disconnect AC Power prior to making any disconnection or connection.



Note: CN = Connector

LED blinks 5 times (TH-50/58PZ700U/PZ750U) (4 of 4)



Note: CN = Connector

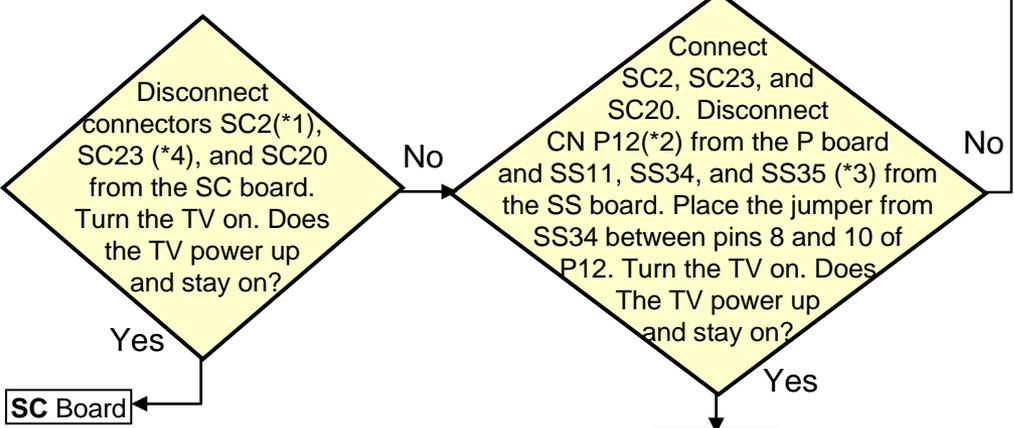
LED blinks 6 times

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board (Possibility)
SC Energy Recovery SOS	SC, D, SS, P Board (SC > D, SS, P)

Warning: Disconnect AC Power prior to making any disconnection or connection.

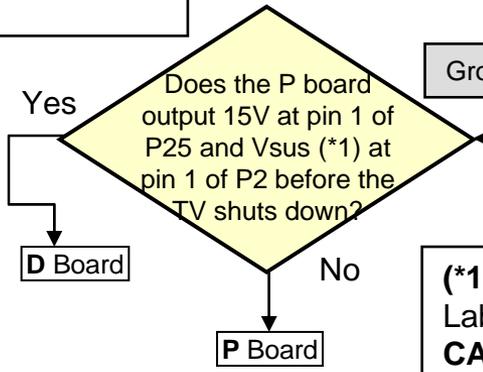
<How to find the defective boards>



(*4) Models TH42PZ77U and TH42PZ700U, do not have connector SC23

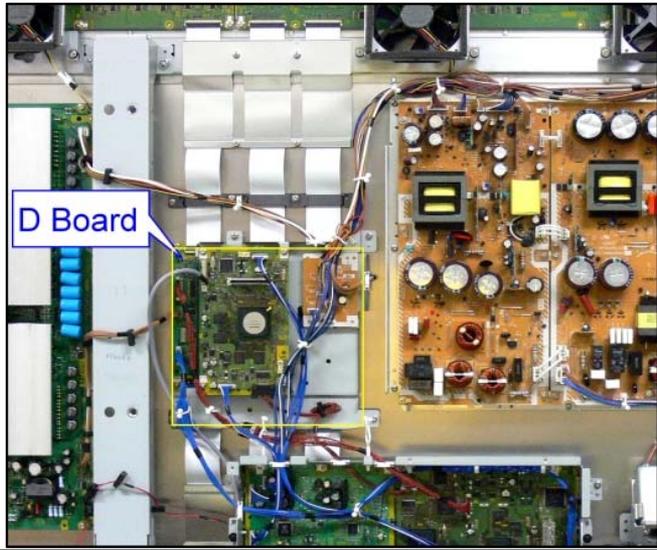
(*3) = The reference number of the sustain data connector is different in some of the models:

- TH-42PZ700U = SS35
- TH-50PZ700U = SS44
- TH-58PZ700U = SS44
- TH-50PZ750U = SS44
- TH-58PZ750U = SS44

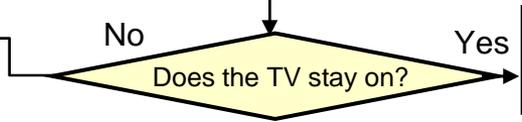


Note: CN = Connector

Connect CN P12, SS11(*1), SS34, and SS35(*3).



Ground the cathode of D300 (Fig. 1 next pg) on the D board and turn the power on



Reset the ribbon cables between the D and the C boards. Also reset the cables between the C boards.

(*1) VSUS about 180V (Accurate voltage is provided on the Panel Label)
CAUTION: Before connecting SC2 or SS11, discharge is necessary to prevent potential shock caused by VSUS.
 (*2) Place a jumper across pin 8 and 10 of connector P12. The unit will not enter the standby mode without the jumper.

LED blinks 6 times

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board (Possibility)
SC Energy Recovery SOS	SC, SS, D, P Board (SC > SS, D, P)

Warning: Disconnect AC Power prior to making any disconnection or connection.

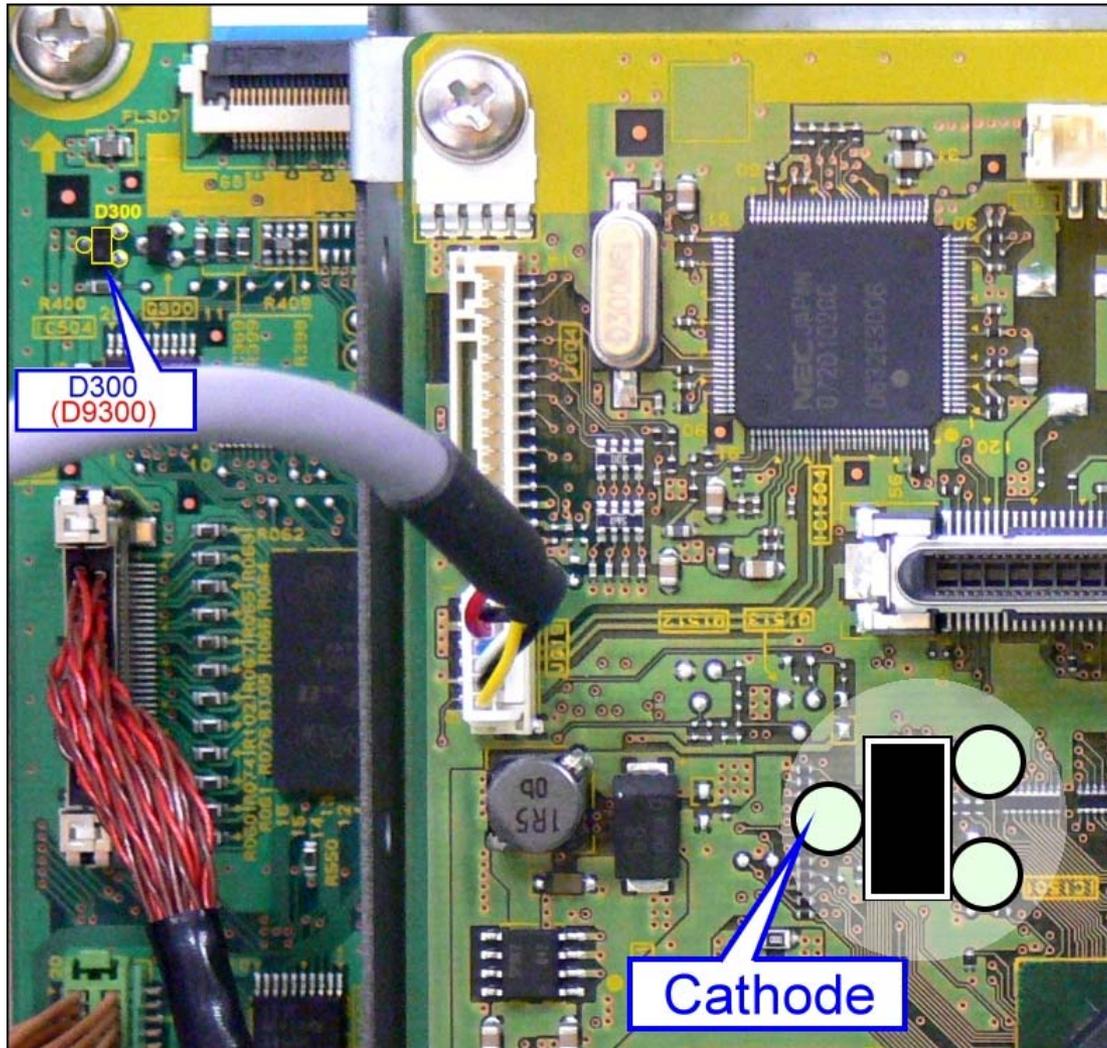


Figure 1

LED blinks 7 times

<Trouble Mode and Defective Board>

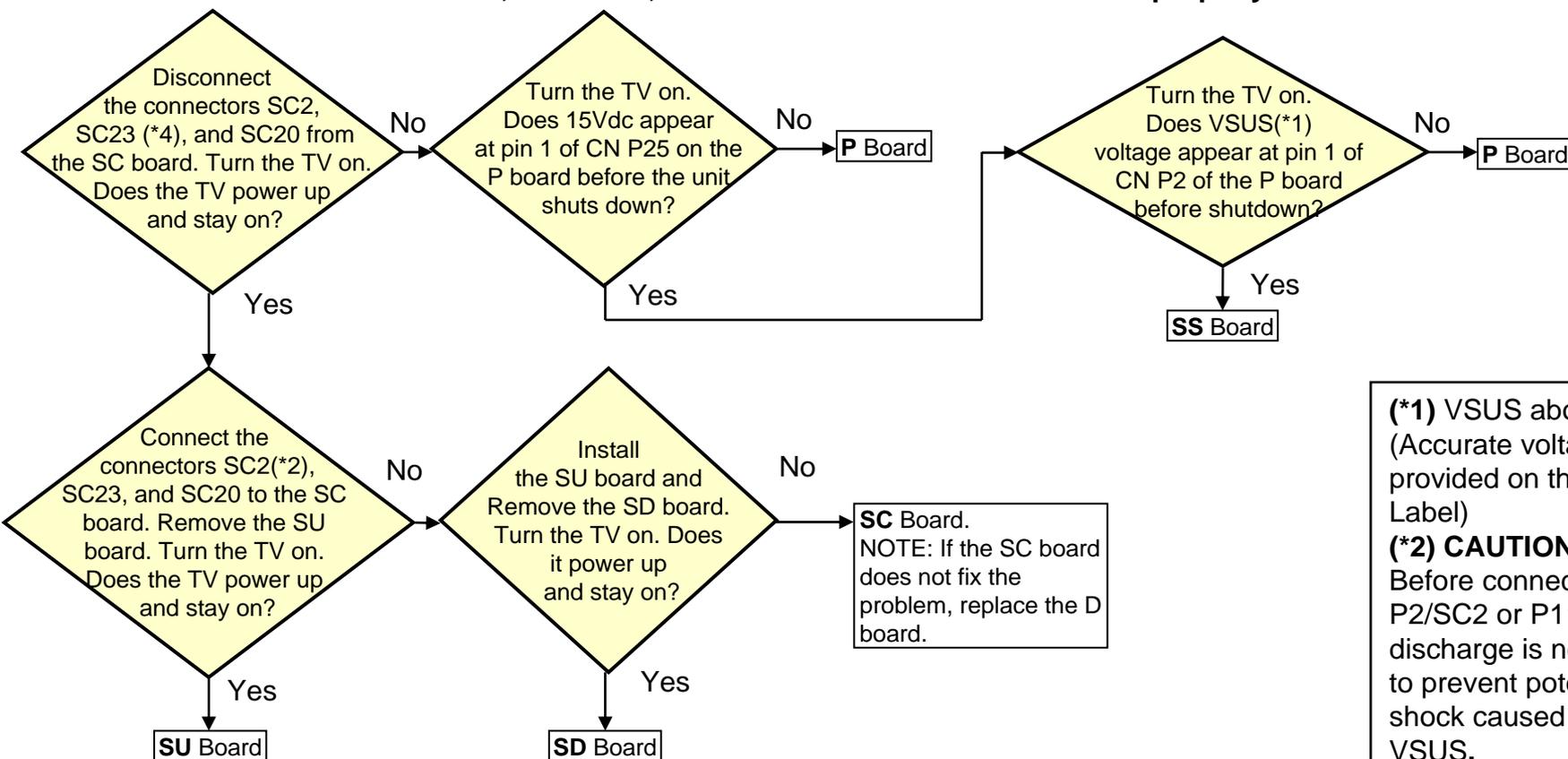
Trouble Mode	Defective Board (possibility)
SC Floating voltage SOS	SC, SU, SD, P board (SC,SU,SD>D,P)

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*4) Models TH42PZ77U and TH42PZ700U, do not have connector SC23

<How to find the defective boards>

Make sure the connectors P2/SC2, P23/SC23, SC20/D20 are not loose and seated properly.



(*1) VSUS about 180V (Accurate voltage is provided on the Panel Label)

(*2) **CAUTION:** Before connecting P2/SC2 or P11/SS11, discharge is necessary to prevent potential shock caused by VSUS.

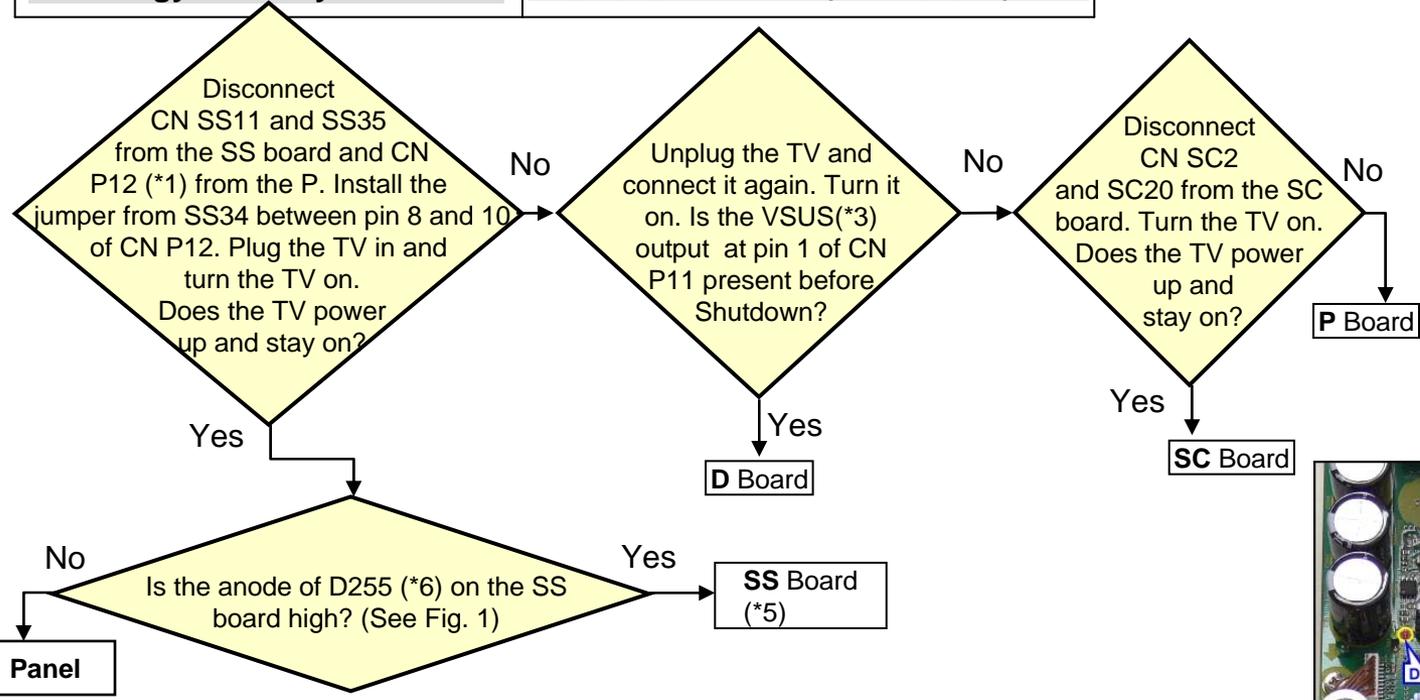
Note: CN = Connector

LED blinks 8 times TH-42PZ700U

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board (possibility)
SS Energy recovery SOS/Panel	SS, D, P, SC board (SS>D,P,SC)/PDP

Warning: Disconnect AC Power prior to making any disconnection or connection.



(*6) This diode is labeled D6255 on the schematic and D255 on the PC board

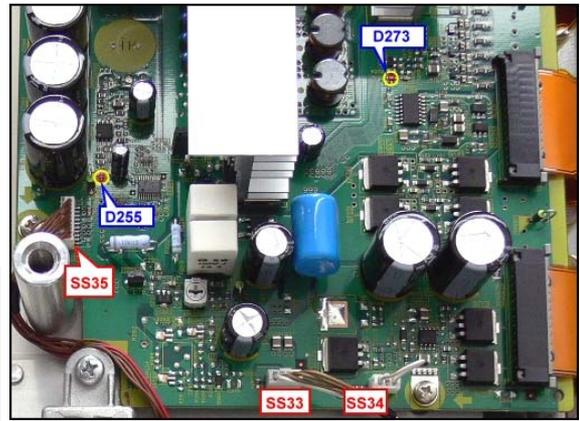


Figure 1



(*1) Place a jumper across pin 8 and 10 of connector P12. The unit will not enter the standby mode without the jumper.

(*3) VSUS about 180V (Accurate voltage is written on the Panel Label of the chassis)
CAUTION : To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

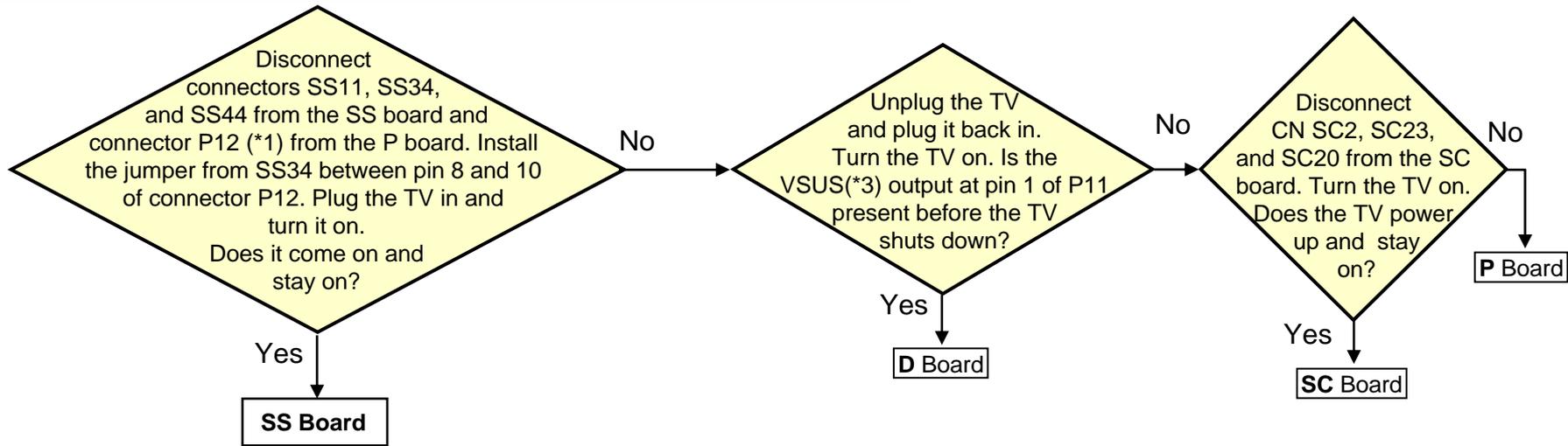
(*5) If the power LED continues to blink after replacing the SS board, change the D board.

LED blinks 8 times (TH-50/58PZ700U/PZ750U)

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board (possibility)
SS Energy recovery SOS/Panel	SS, SC, D, P board (SS>SC,D,P)/PDP

Warning: Disconnect AC Power prior to making any disconnection or connection.



(*1) Place a jumper across pin 8 and 10 of connector P12. The unit will not enter the standby mode without the jumper.

(*3) VSUS about 190V (Accurate voltage is written on the Panel Label of the chassis)

CAUTION : To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

(*5) If the power LED continues to blink after replacing the SS board, change the D board.

LED blinks 9 times

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board
Panel Status	D Board

Warning: Disconnect AC Power prior to making any disconnection or connection.

<How to find the defective boards>

In this case, the defective board is D board only.

LED blinks 10 times before pressing the power button

<Trouble Mode and Defective Board>

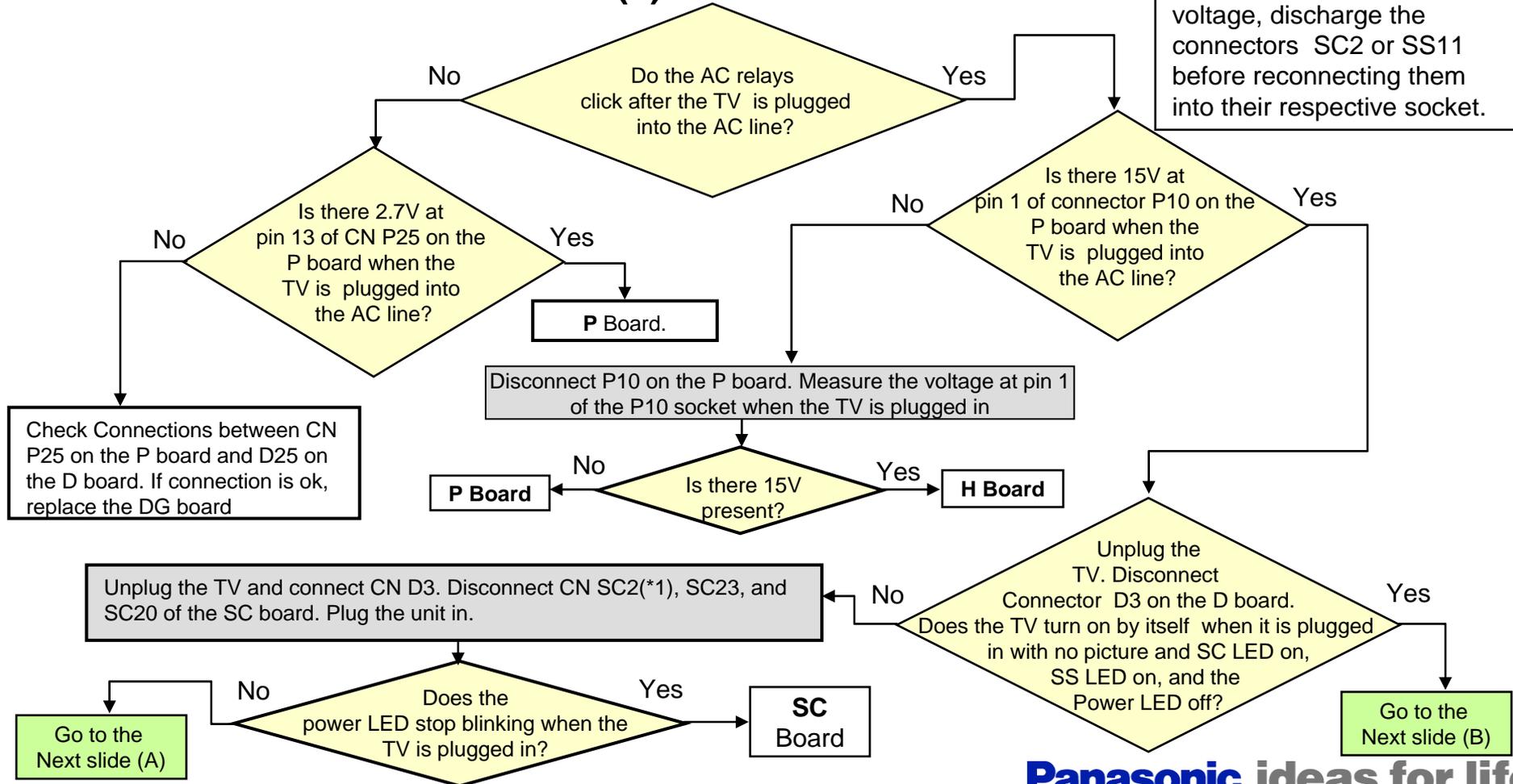
For TH-42PZ700U, see addendum at the end of the document.

Trouble Mode	Defective Board
SUB 5V SOS, Main 9V SOS DTV 9V SOS, Tuner Power SOS	H, P, DG, SC, SS, PB, JG, GH, and K Board

Warning: Disconnect AC Power prior to making any disconnection or connection.

<How to find the defective board(s)>

(*1) = To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.



LED blinks 10 times before pressing the power button

Continue from previous slide (A)

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*1) = To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

(*2) = The reference number of the sustain data connector is different in some of the models:
 TH-42PZ700U = SS35
 TH-50PZ700U = SS44
 TH-58PZ700U = SS44
 TH-50PZ750U = SS44
 TH-58PZ750U = SS44

Continue from previous slide (B)

Unplug the TV and re-connect connectors SC2(*1), SC23, and SC20 on the SC board. Disconnect connectors SS11(*1), SS35(*2), and SS34 of the SS board and connector P12 of the P board. Install the jumper from SS34 between pin 8 and 10 of connector P12. Plug in the TV.

(*6) The TV will only stay on for a few seconds with no fan operation, then it shuts down

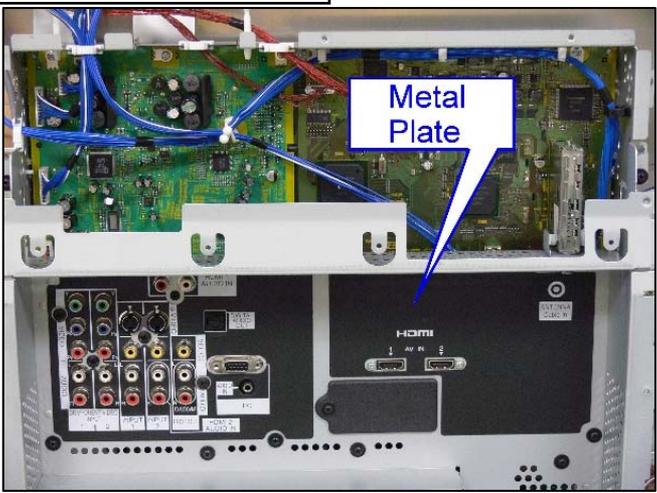
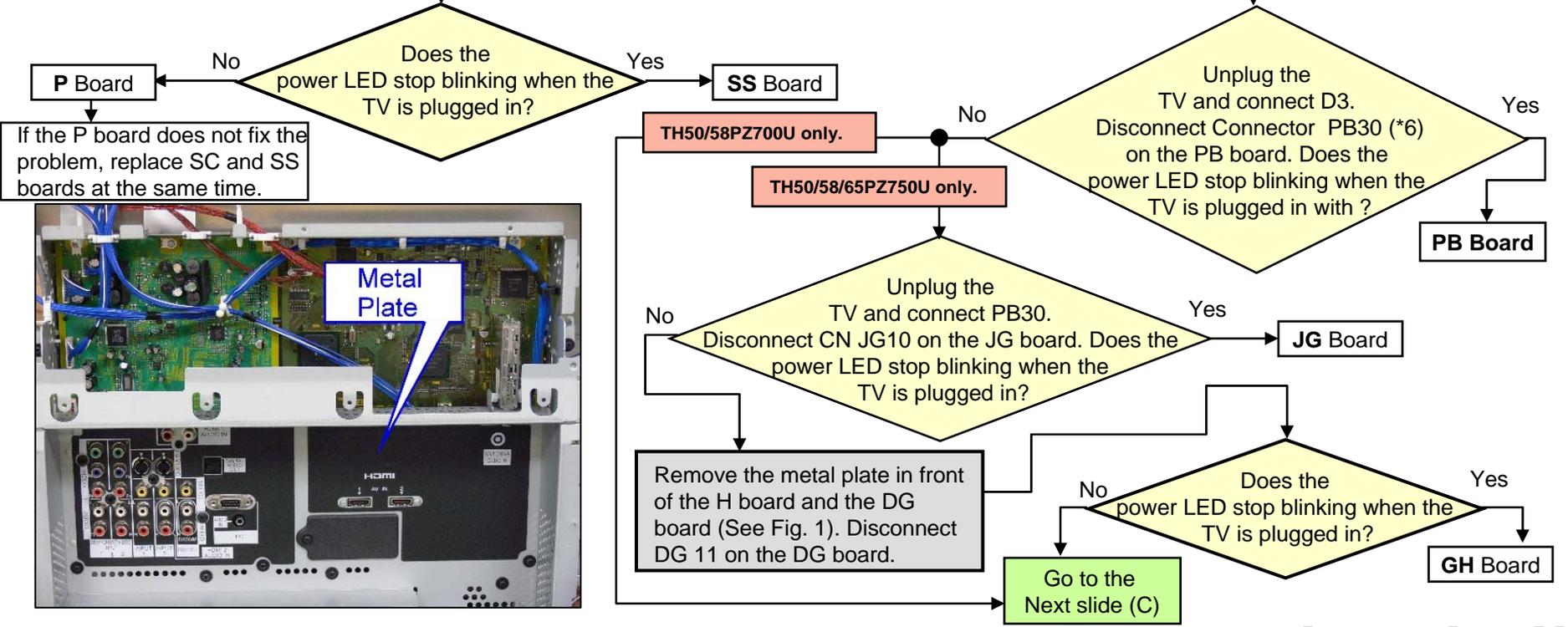


Figure 1

LED blinks 10 times before pressing the power button

Warning: Disconnect AC Power prior to making any disconnection or connection.

Continue from previous slide (C)

(*2) Expect this voltage to be present for a couple of seconds only.

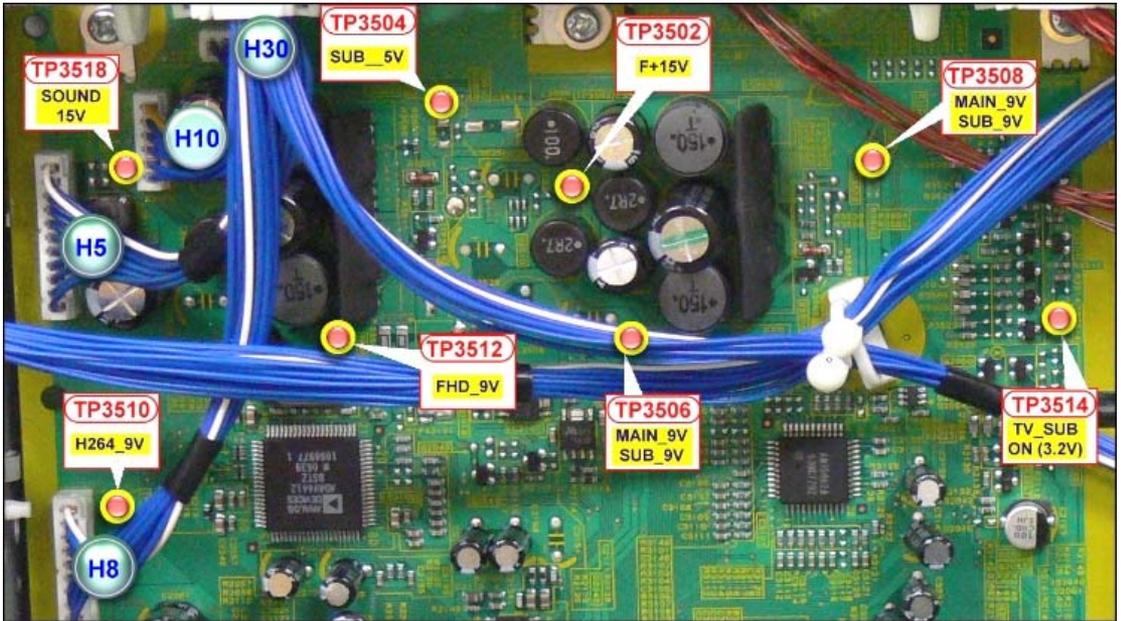
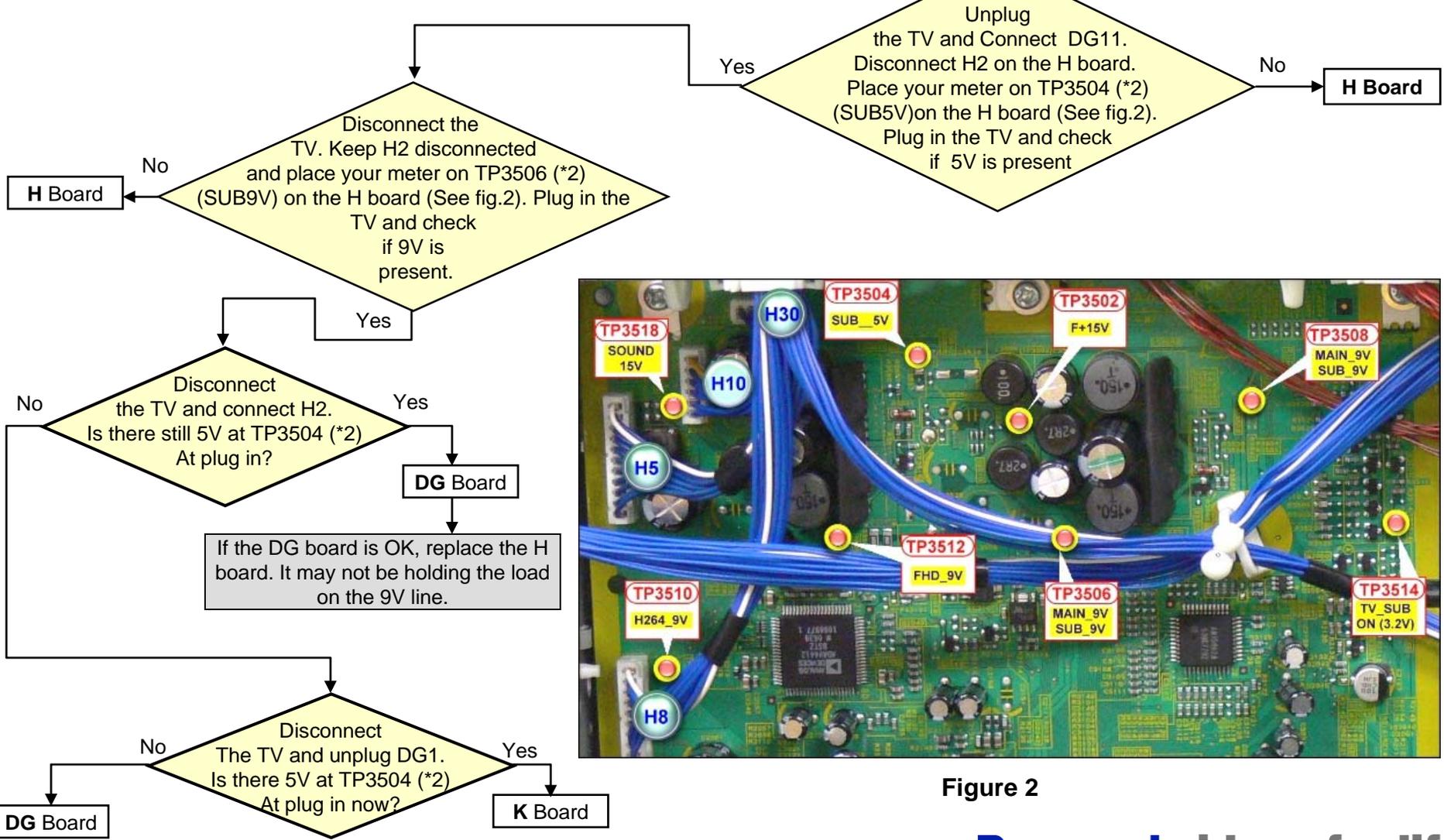


Figure 2

LED blinks 10 times after pressing the power button

<Trouble Mode and Defective Board>

For TH-42PZ700U, see addendum at the end of the document.

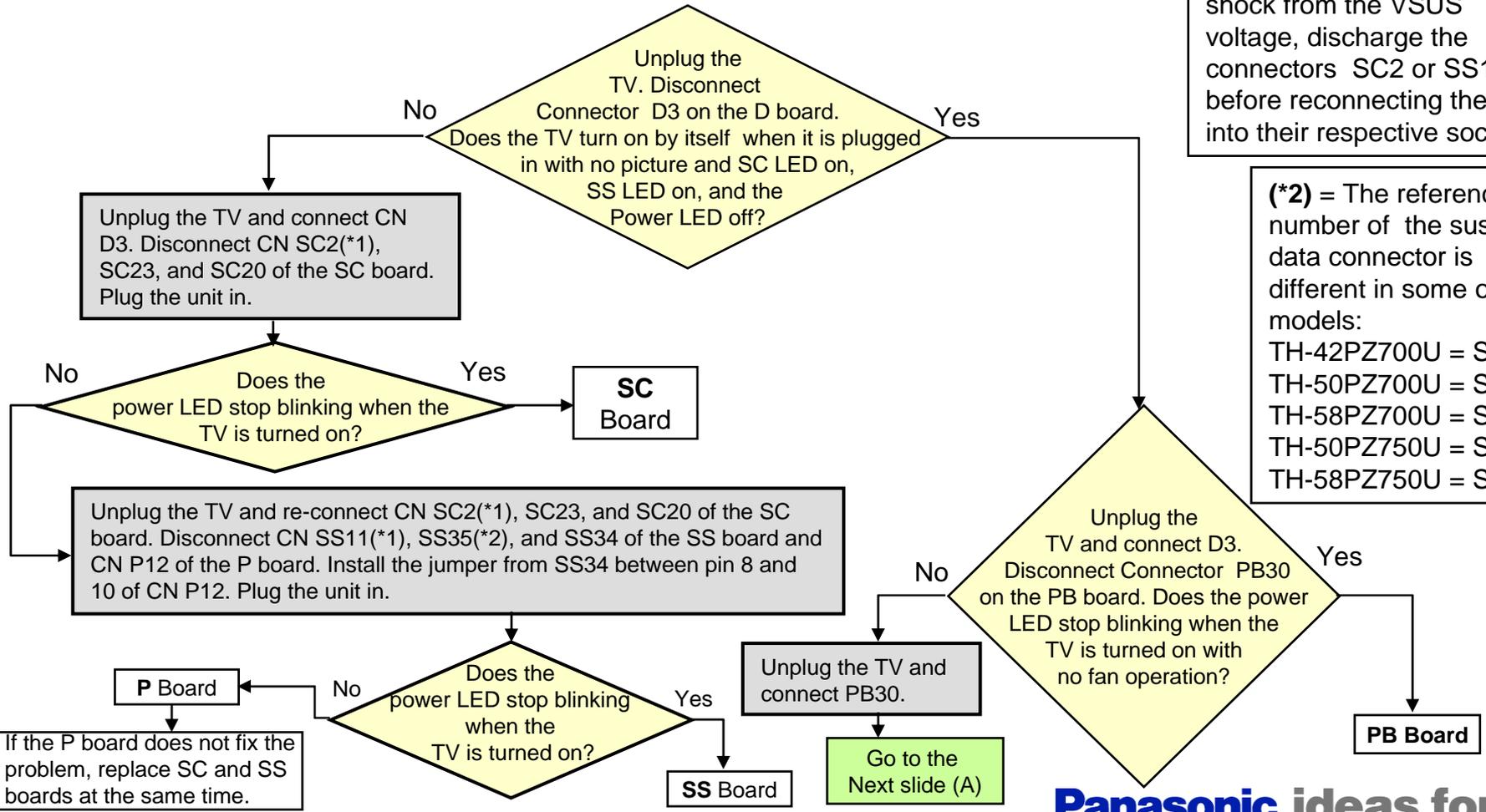
Trouble Mode	Defective Board
SUB 5V SOS, Main 9V SOS DTV 9V SOS, Tuner Power SOS	H, P, DG, SC, SS, PB, JG, GH, and K Board

Warning: Disconnect AC Power prior to making any disconnection or connection.

<How to find the defective board(s)>

(*1) = To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

(*2) = The reference number of the sustain data connector is different in some of the models:
 TH-42PZ700U = SS35
 TH-50PZ700U = SS44
 TH-58PZ700U = SS44
 TH-50PZ750U = SS44
 TH-58PZ750U = SS44



LED blinks 10 times after pressing the power button

Warning: Disconnect AC Power prior to making any disconnection or connection.

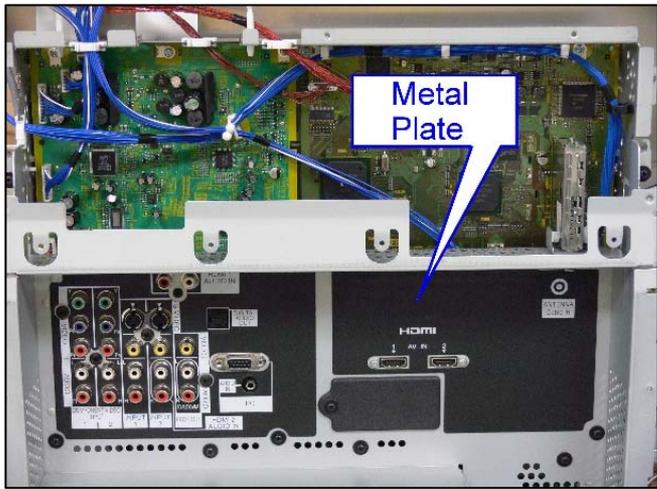
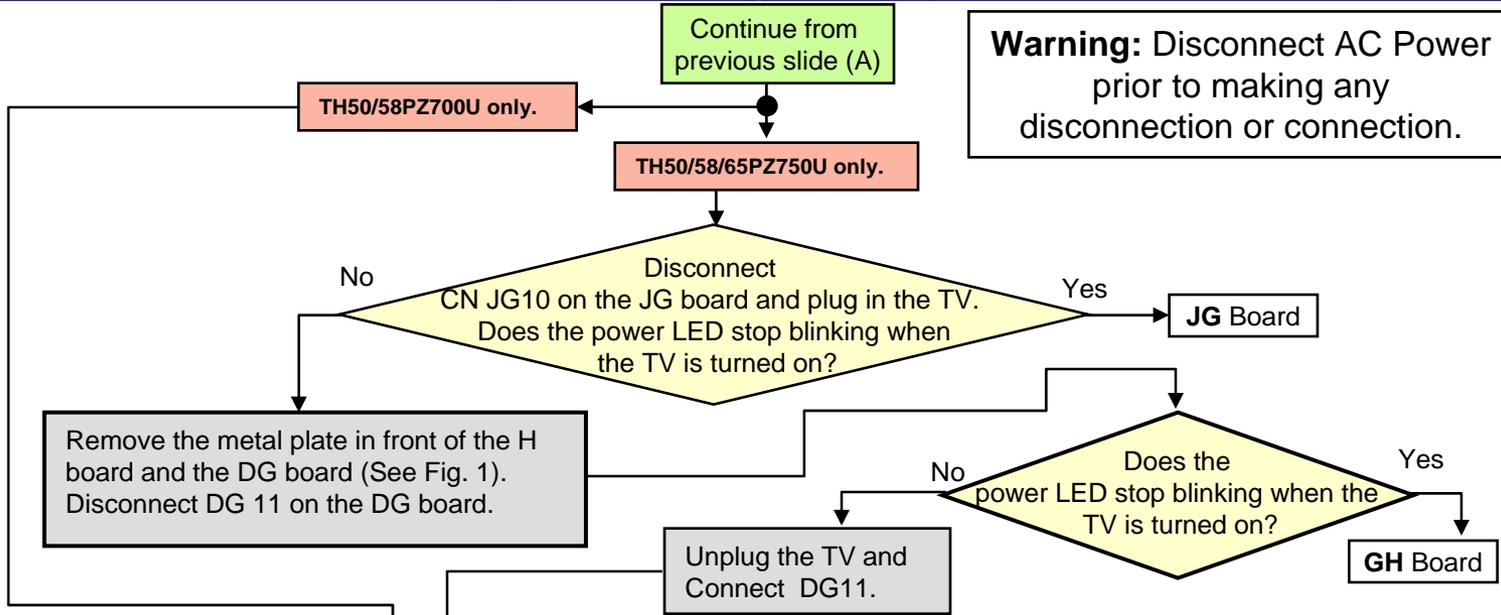


Figure 1

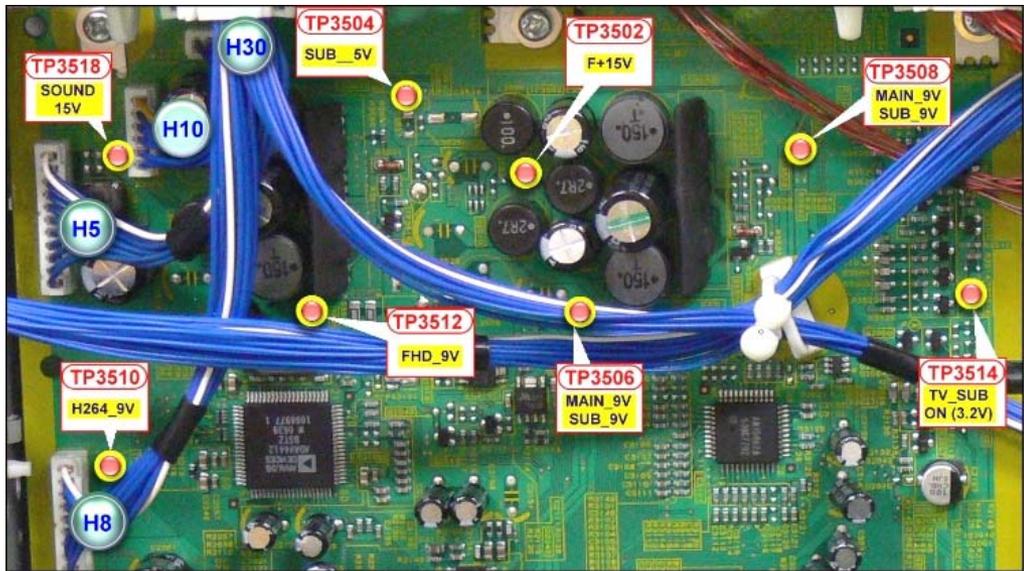
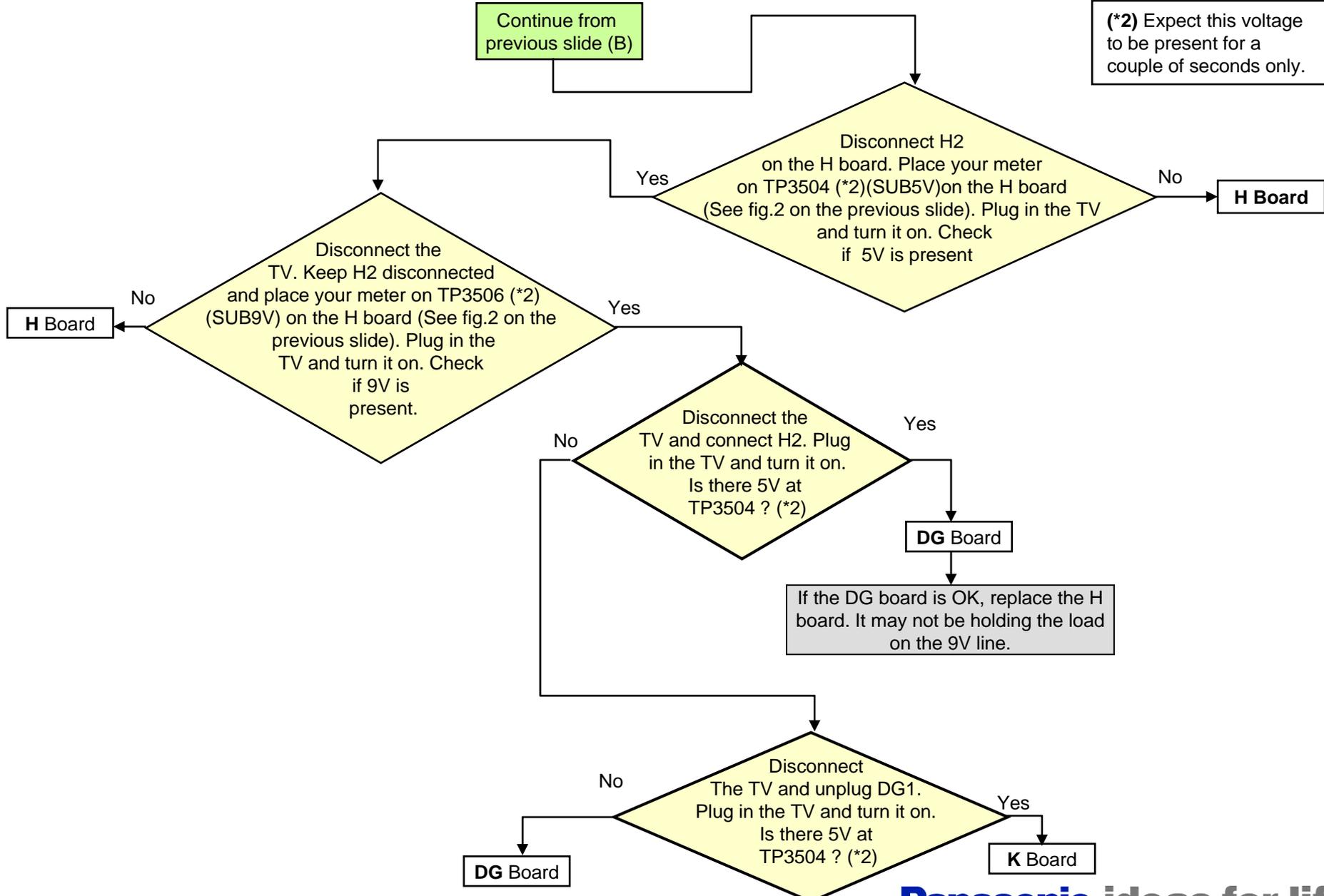


Figure 2

Go to the Next slide (B)

LED blinks 10 times after pressing the power button



(*2) Expect this voltage to be present for a couple of seconds only.

LED blinks 11 times

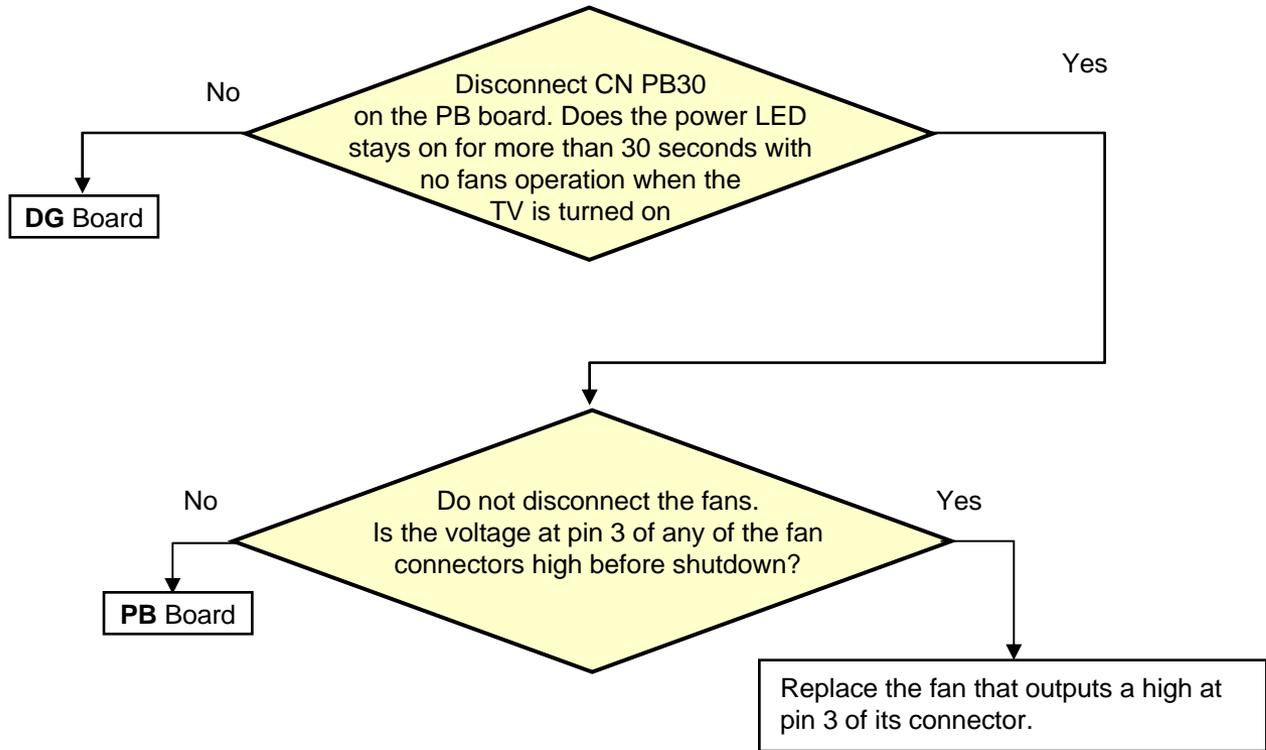
<Trouble Mode and Defective Board>

Trouble Mode	Defective Board (Possibility)
Fan SOS	PB, DG Board & Fans

Warning: Disconnect AC Power prior to making any disconnection or connection.

<How to find the defective boards>

Make sure that all the fan connectors on the PB board are connected properly.



LED blinks 12 times

<Trouble Mode and Defective Board>

Trouble Mode	Defective Board (Possibility)
Sound SOS	Speakers, H, DG, P, D, SC, SS Board

(*1) = To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

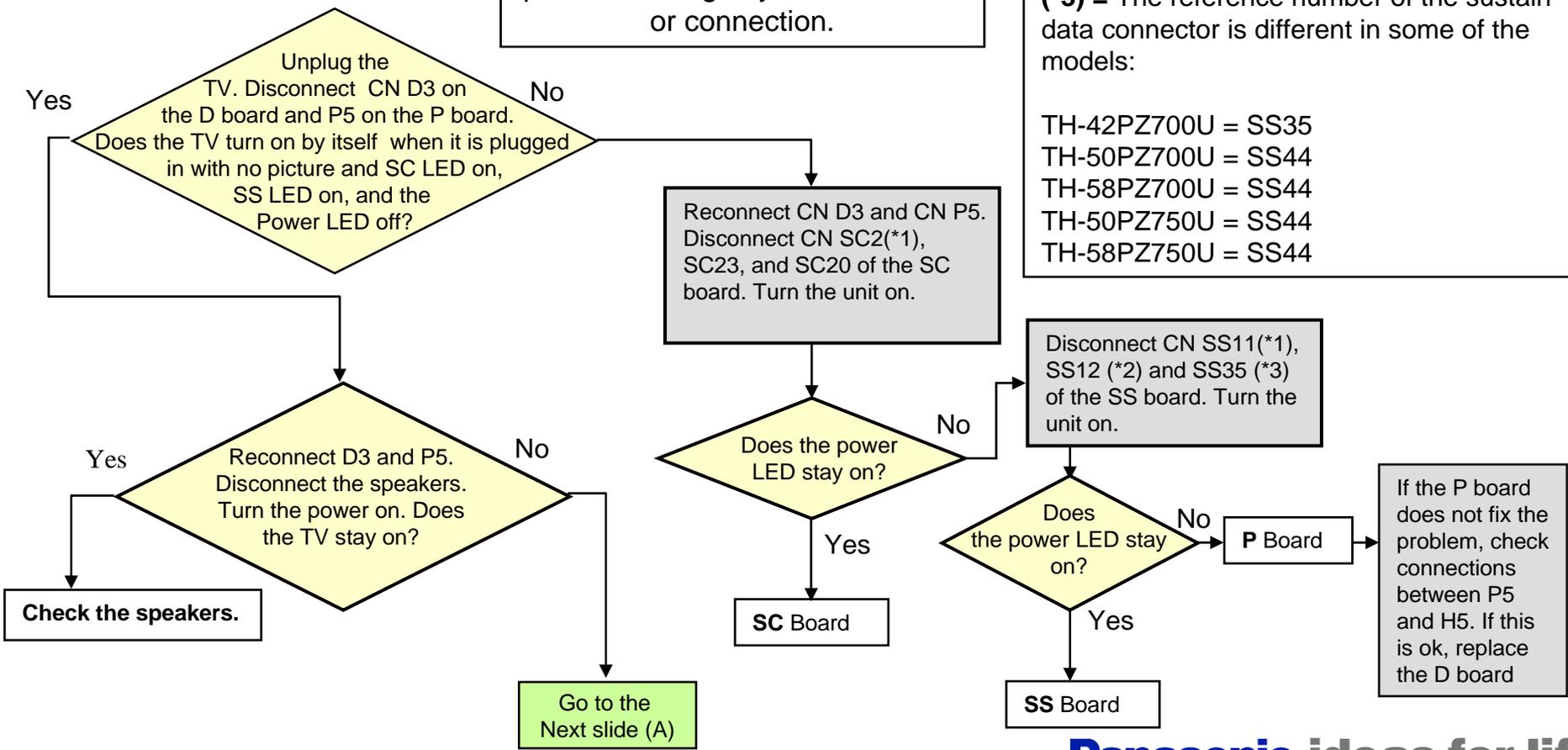
<How to find the defective boards>

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*2) = Remove the jumper at CN SS34 and install it across pin 8 and 10 of connector P12.

(*3) = The reference number of the sustain data connector is different in some of the models:

- TH-42PZ700U = SS35
- TH-50PZ700U = SS44
- TH-58PZ700U = SS44
- TH-50PZ750U = SS44
- TH-58PZ750U = SS44



LED blinks 12 times

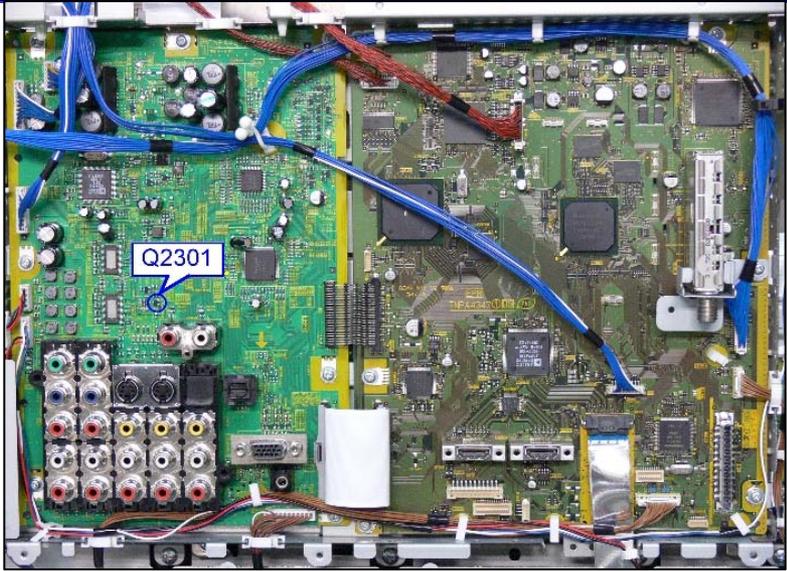
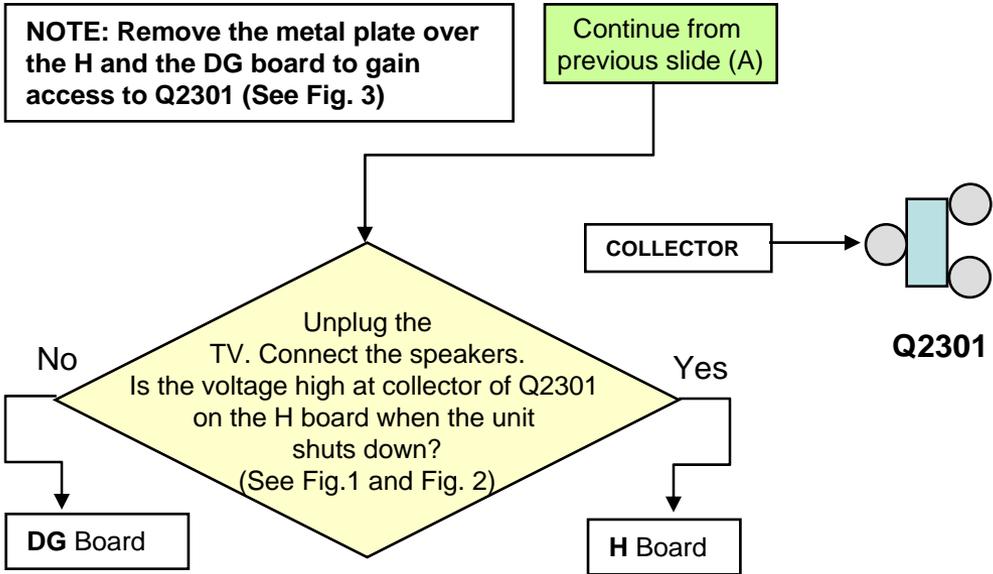


Figure 1

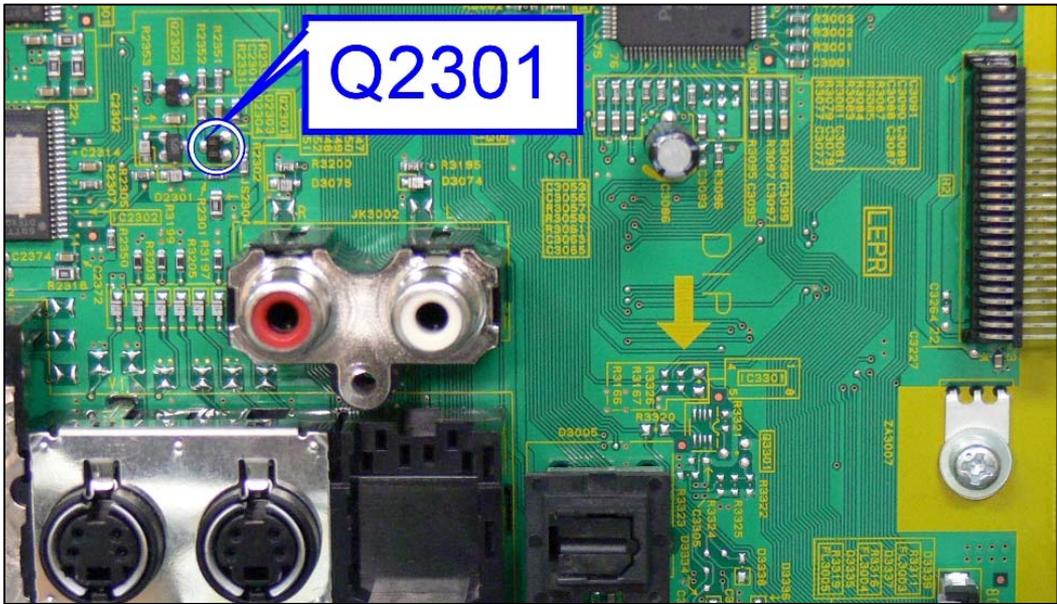


Figure 2

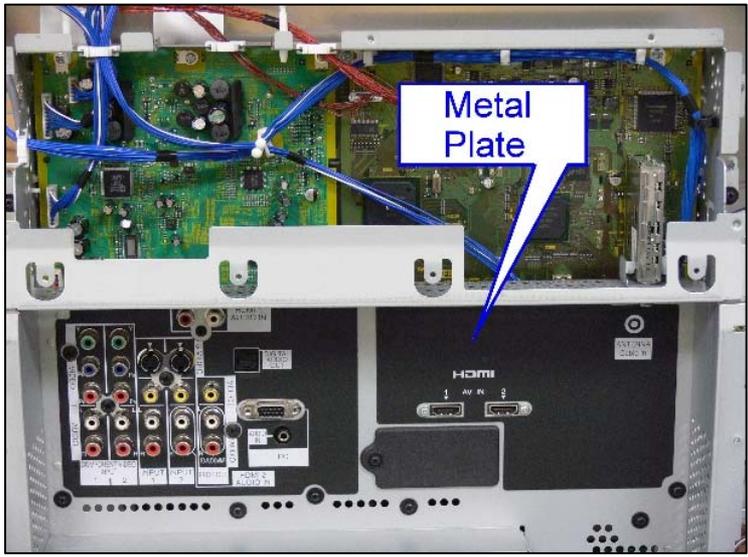


Figure 3

LED blinks 13 times

<Trouble Mode and Defective Board>

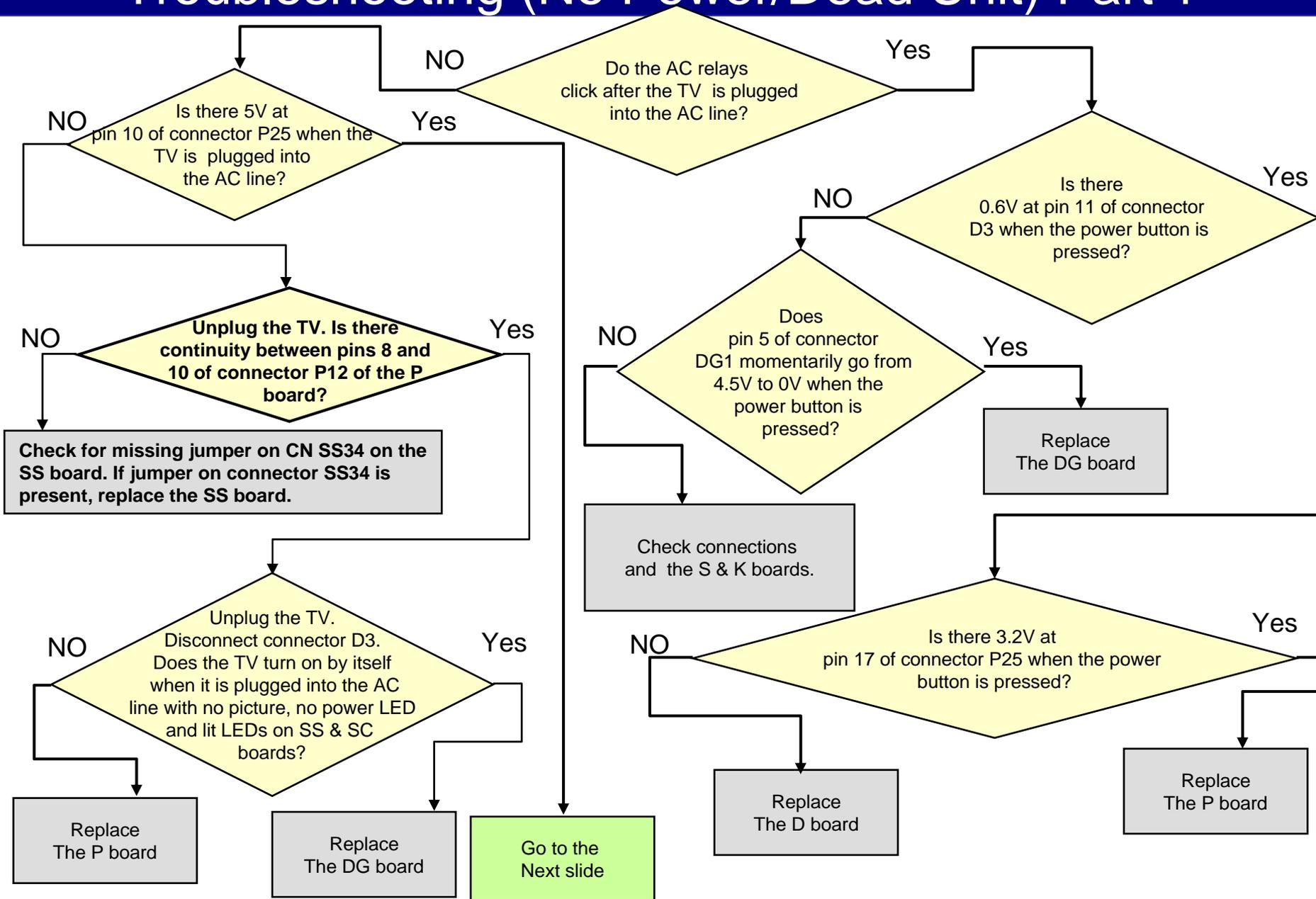
Trouble Mode	Defective Board
Communication Error With IC8001 SOS	DG Board

Warning: Disconnect AC Power prior to making any disconnection or connection.

<How to find the defective boards>

In this case, the defective board is DG board .

Troubleshooting (No Power/Dead Unit) Part 1



Troubleshooting (No Power/Dead Unit) Part 2

Continue from Previous slide

NO

Is there 2.7V at pin 13 of connector P25 when the TV is plugged into the AC line?

Yes

Replace The P board

NO

Disconnect connector DG3. Do the AC relays click after the TV is plugged into the AC line?

Yes

NO

Connect DG3 and disconnect H51 from the H board. Do the AC relays click after the TV is plugged in?

Yes

If cable between connectors H51 and G51 is OK, replace the G board.

Replace The H board

NO

Reconnect DG3 and disconnect connector DG1. Do the AC relays click after the TV is plugged into the AC line?

Yes

Replace The DG board

If cable between connectors DG1 and K1 is OK, Replace the K board.

No Picture from one or all inputs (OSD and Sound OK)

<Symptom>

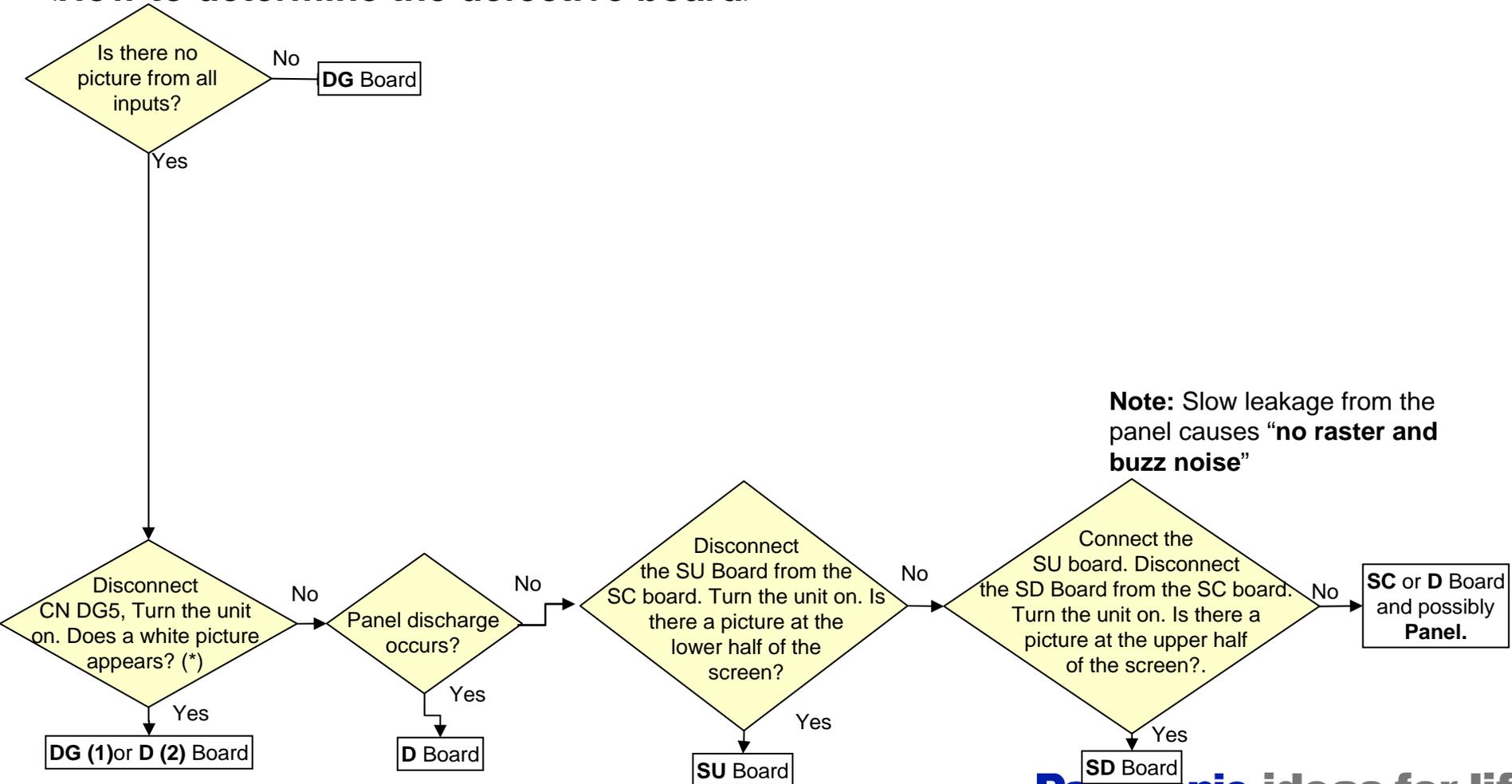
No Picture from one or all inputs (Sound OK)

<Models>

All models

<How to determine the defective board>

Warning: Disconnect AC Power prior to making any disconnection or connection.



No Picture\No OSD

<Symptom>

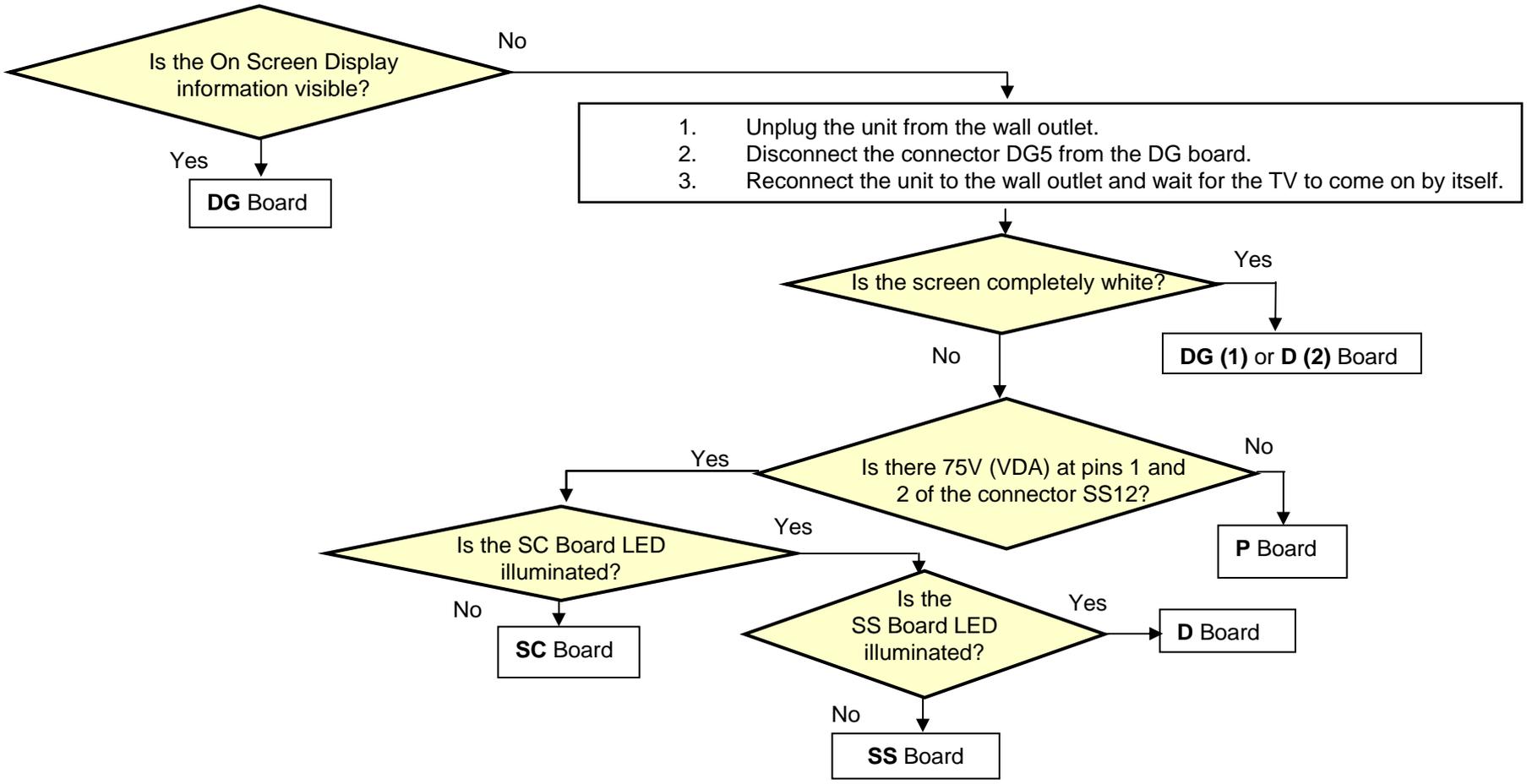
No Picture at all

<Models>

All Models)

<How to determine the defective board>

Warning: Disconnect AC Power prior to making any disconnection or connection.



Note: CN = Connector

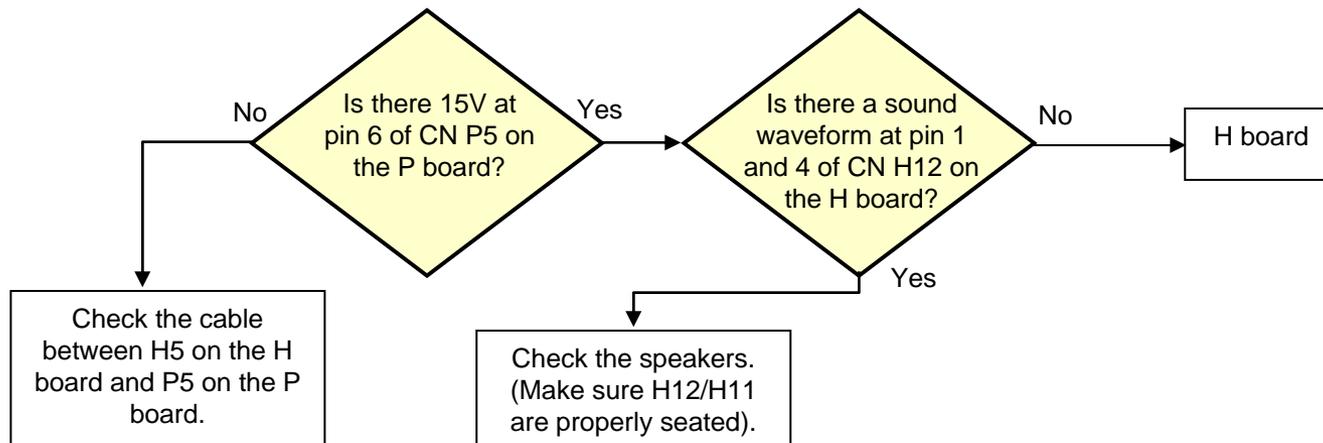
No Sound

<Symptom>

No Audio

<How to determine the defective board>

Warning: Disconnect AC Power prior to making any disconnection or connection.



Note: CN = Connector

This page is purposely left blank.

Troubleshooting for Picture Problems

<Introduction>

1. There are two kinds of picture problem

- 1) Abnormal picture
- 2) No picture

2. Basic concept of determining the defective board

- 1) Which area is the symptom displayed on the screen?
 - A. Part of the screen
 - B. All over the screen

3. Adjustment after PCB exchange

- 1) After exchanging the following boards, voltage adjustment is required.
P board, SC board, SS board => Please refer to "Service Manual".

Diagnosis by Test Pattern When OSD is Available

<Purpose>

Picture problem such as "Picture Noise and or Vertical Line" displayed all over the screen is mainly caused by a defective D or A board. The "internal Test Pattern Generator" can help determine whether to replace the D or A board. The test patterns are created by the D board. Follow the steps below to confirm the operation of the D or A boards.

<Model>

All Models

<Symptom>

Picture Noise, Full Vertical Line

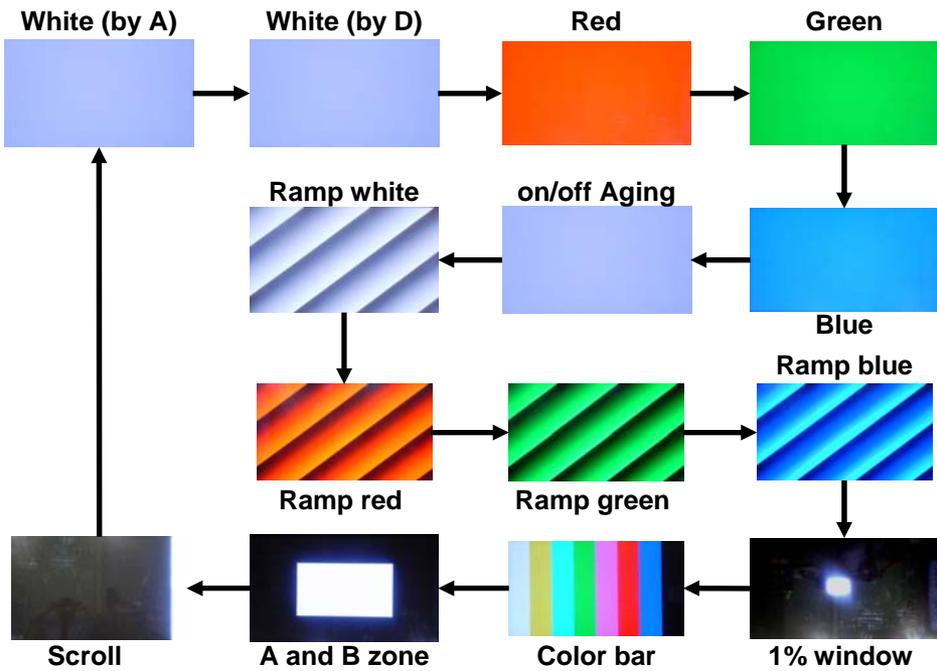
<Diagnosis>

Pattern	Defective Board
Abnormal	D Board
Normal	DG Board (or D board)

<How to enter the Test Pattern>

1. While pressing "VOLUME-" button of the TV set, press "RECALL" button of the remote control three times within 3 seconds.
2. Push button "1 or 2" of the Remote Control and select "Aging".
3. Press the number "3" button or the number "4" button of the Remote Control to select the test pattern.

<Test Pattern (Normal)>



<Test Pattern (Abnormal)>

Example Picture



Diagnosis by Removing the D5 Connector

<Purpose>

Symptom such as “No picture, No OSD, Sound OK” is mainly caused by a defective A or D board. The internal pattern generator cannot be accessed due to the loss of OSD. This method makes it possible to determine whether the DG board or the D (SC,SS) is defective.

<Model>

2007 Full HD Models ONLY

<Symptom>

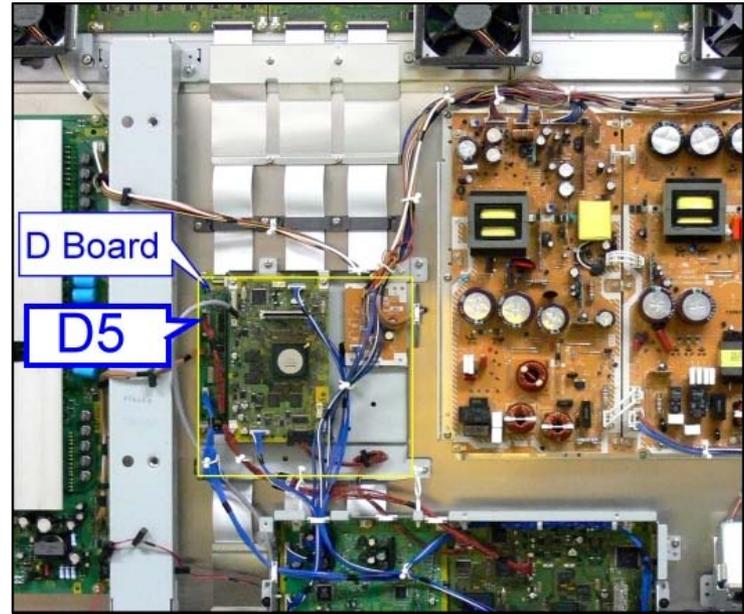
No picture (Sound OK)

<Diagnosis>

Connect the TV after removing D5 Connector

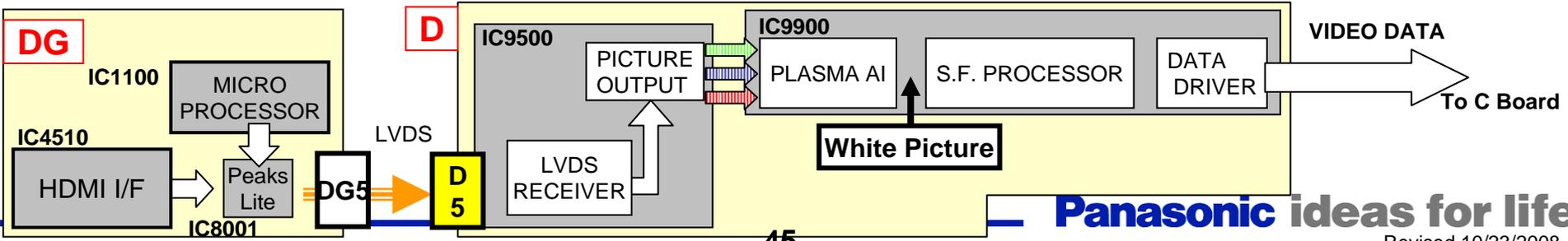
Pattern	Defective Board
White Picture	DG Board (D board)
No Picture	D board (SC or SS)

<Position of D5 Connector>



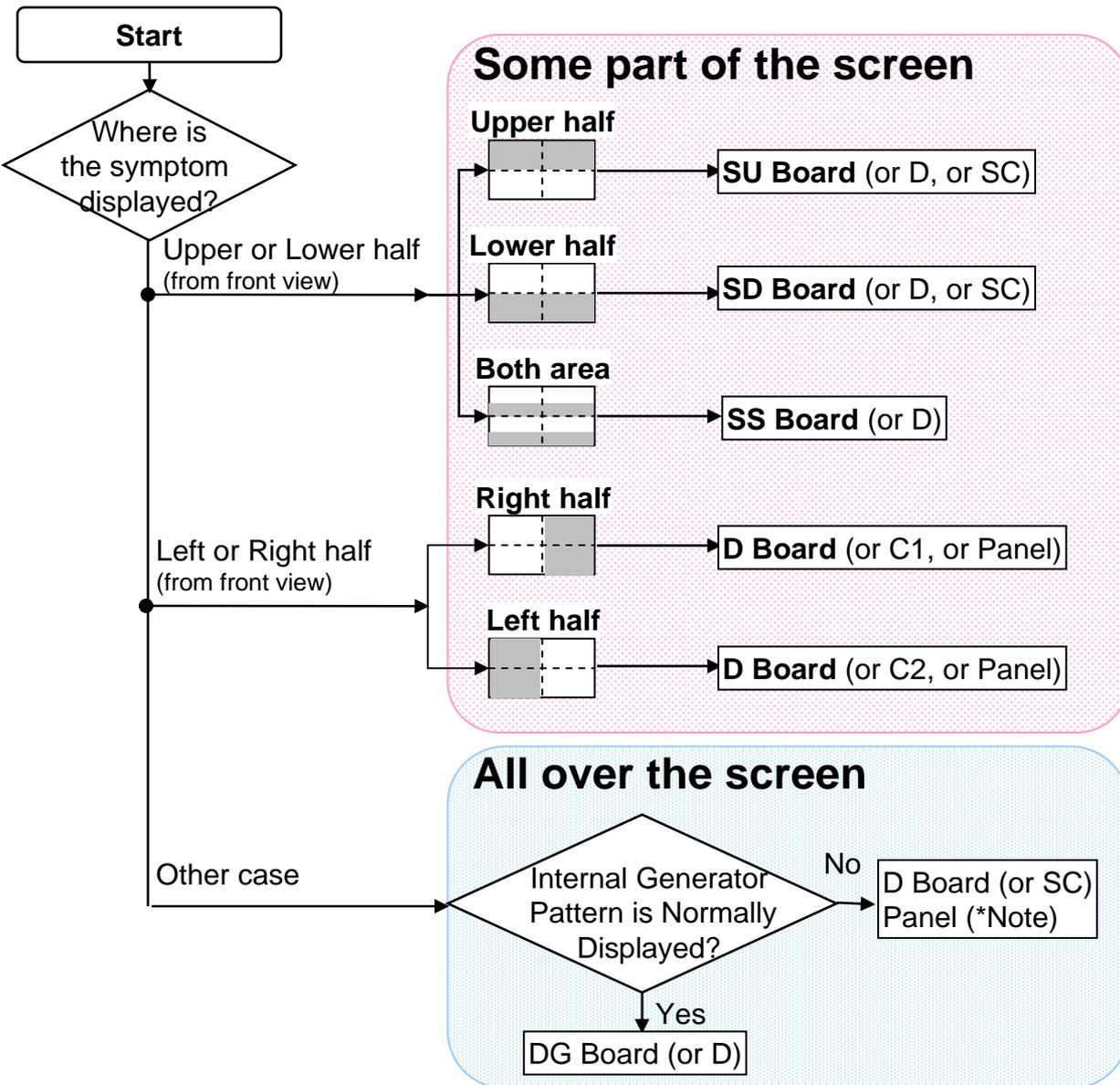
<Block Diagram and Explanation>

1. This white pattern is generated by IC9900 on D board.
 2. When the TV is plugged in after disconnecting connector D5, it turns on automatically and a white picture is provided to the panel drive circuit.
- If the panel drive section of the unit is ok, a white picture is automatically displayed by the PDP.



Troubleshooting for Picture Trouble

<How to determine the defective board>



***Note :**Panel gas leakage



Because of a very small crack in the panel, gas leakage will start. In this picture, gas leakage started at the left top corner. Finally, gas leakage will lead to the symptom **“No picture with buzz noise”**.

Diagnosis for Picture Problem (All Over the Screen)

<Symptom>

Abnormal Color, Vertical Line, Sync Error, Noise Picture

<Model>

All Models

<Sample Picture>

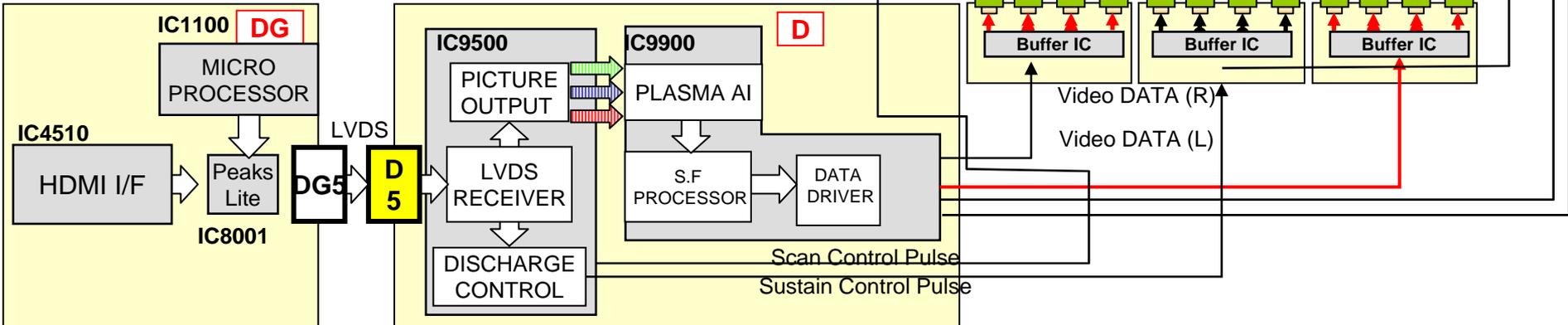


<Possible Cause>

DG Board, D Board, SC Board, SU Board, SD Board

<Block Diagram>

e.g. TH-42PZ700U



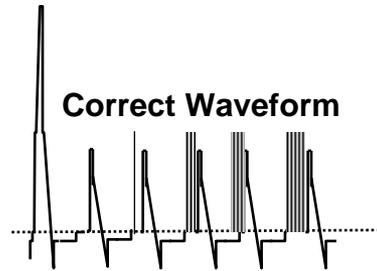
Diagnosis for Picture Problem (All Over the Screen)

<Diagnosis (2)>

Confirm the waveform at "TPSC1" of the SC board

<Result>

Waveform **OK**

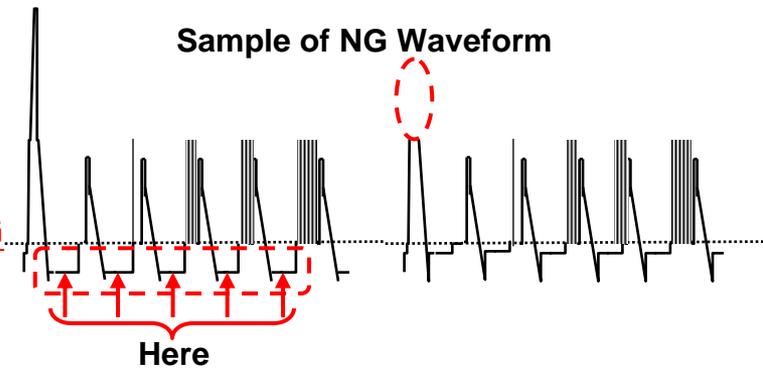


<Cause>

D Board defect

<Result>

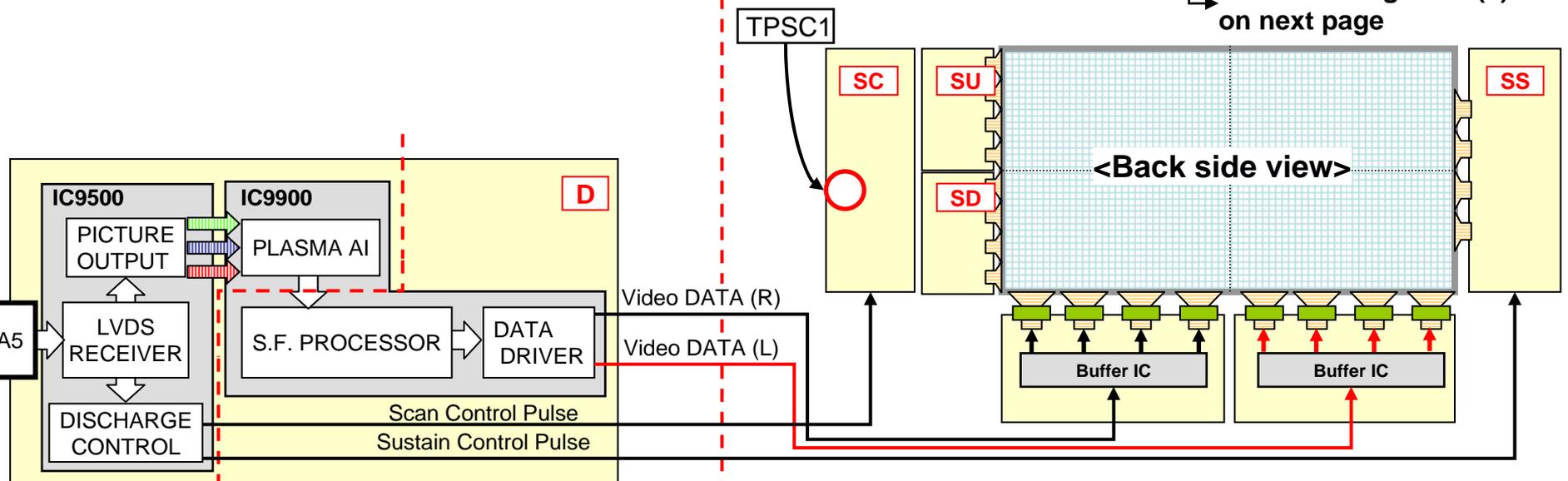
Waveform **NG**



<Cause>

SC,SU,SD Board defect

Refer to "Diagnosis (3)" on next page



<Defective Area>



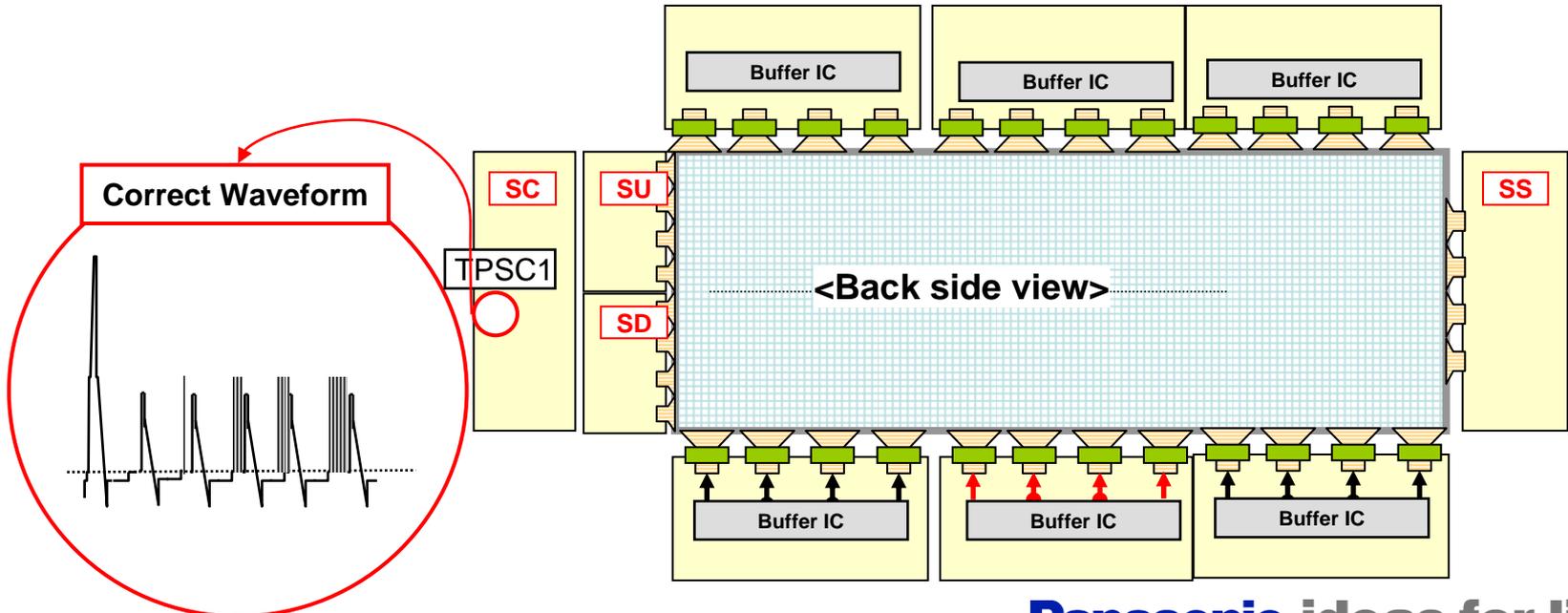
Diagnosis for Picture Problem (All Over the Screen)

<Diagnosis (3)>

Confirm the waveform at "TPSC1" after removing the SU or SD Board from the SC Board

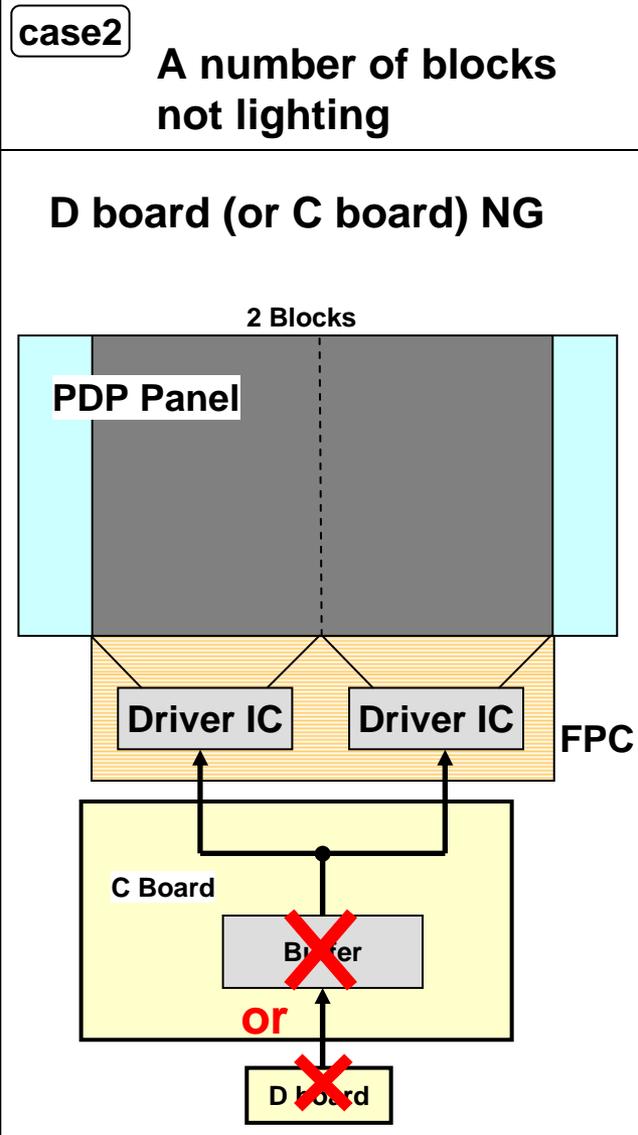
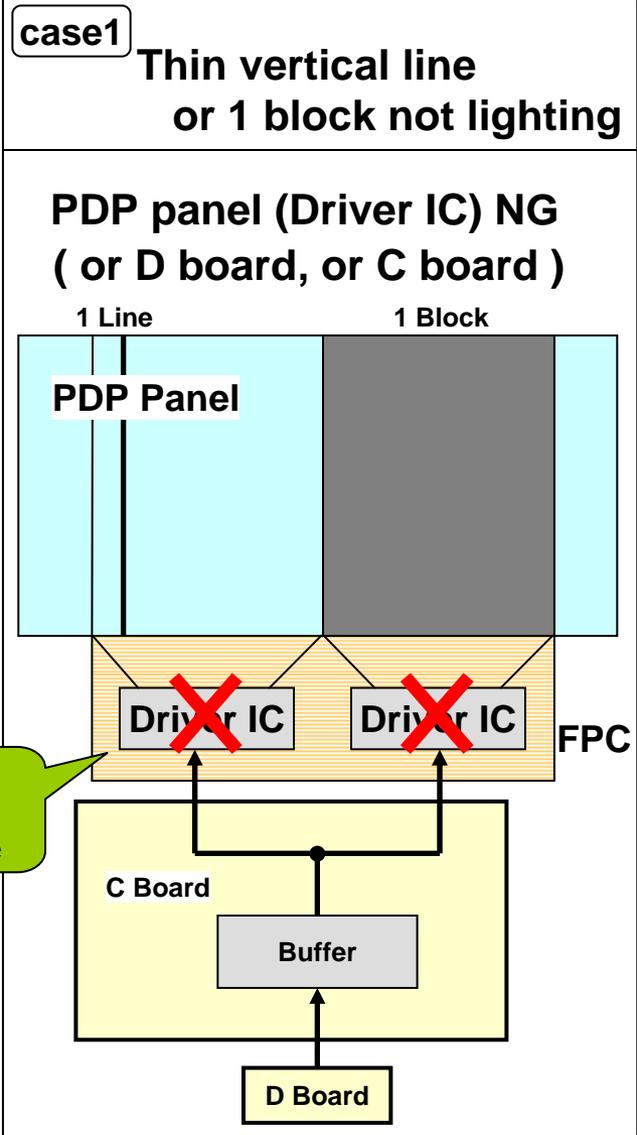
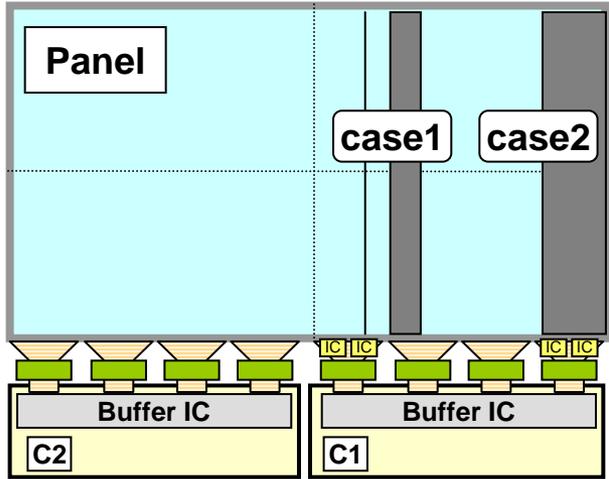
<Result>

Situation	Condition	Condition 2	Cause
Disconnect SU Board (Connect SD)	Waveform OK?	Bottom half of Picture OK?	SU Board
Disconnect SD Board (Connect SU)	Waveform OK?	Upper half of Picture OK?	SD Board
Disconnect the SU and SD Boards	Waveform OK?	Screen should be black	SC Board



Diagnosis of Vertical Line Problem

NG Area (Front view)



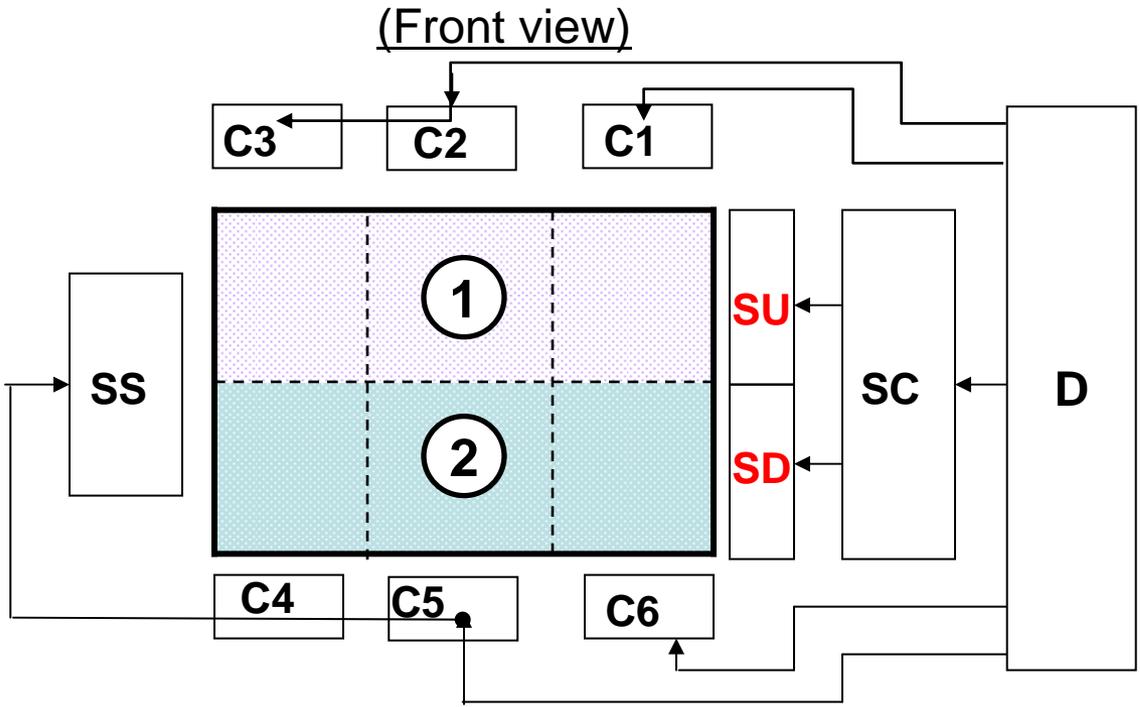
Picture Trouble at Upper or Lower half

<Symptom>

No Picture, Picture noise, Full Horizontal line, etc.

<Models>

42/50/58inch (HD Panel),



<Defective board>

① Trouble at Upper half : **SU-board** (SC or D) defect

② Trouble at Lower half : **SD-board** (SC or D) defect

(*) Full Horizontal line at both area : **SS-board** (D) defect

<Actual Symptom>

Symptom : **Horizontal line (Lower side)**

Result : **SD board**



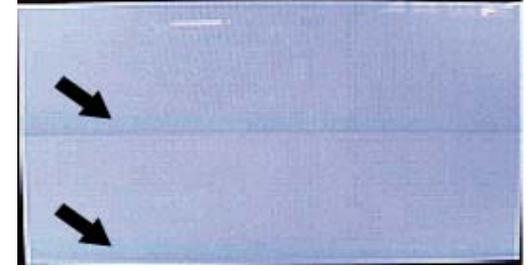
Symptom : **Horizontal line (Upper side)**

Result : **D board**



Symptom : **Horizontal line (Both area)**

Result : **SS board**



Picture Trouble at Right or Left half

<Symptom>

No Picture, Picture noise, etc.

<NG Area>

(Front view)

<Actual Symptom>



Symptom : **Cyan noise (Right side)**

Result : **D board**

<Defective board>

① Trouble at Right half : **D-board** defect

② Trouble at Left half : **D-board** defect

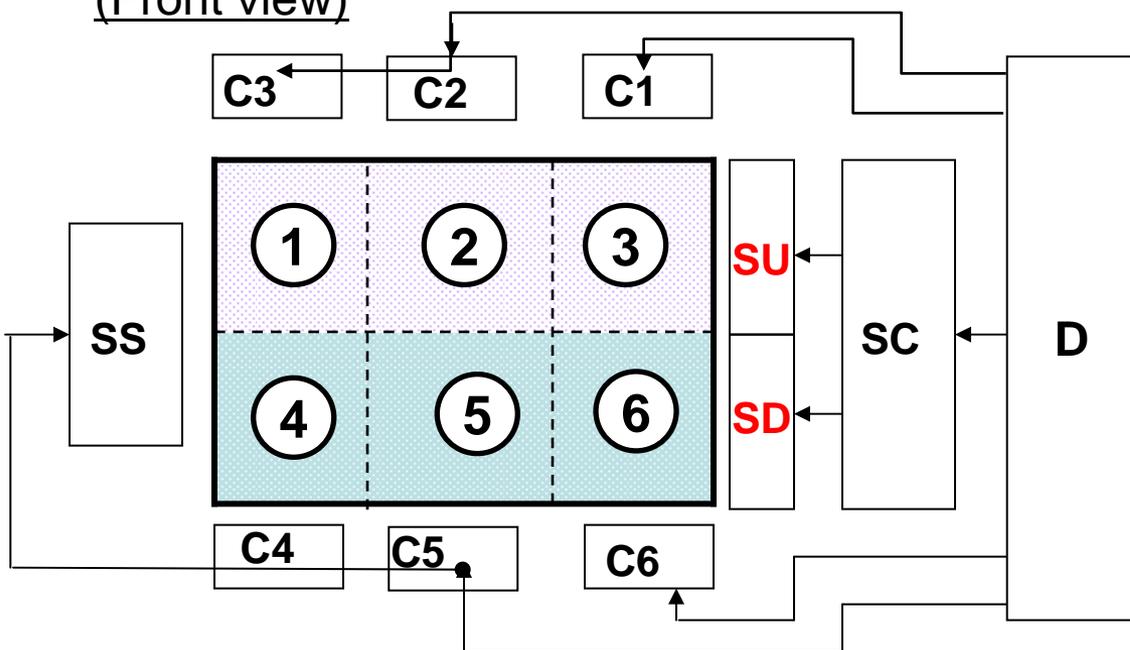
Picture Trouble

<Symptom>

No Picture, Picture noise, Half Vertical line, etc.

<NG Area>

(Front view)



<Defective board>

- ① Trouble at Upper left :
C3 board or Panel defect
- ② Trouble at Upper middle :
C2 board or Panel defect
- ③ Trouble at Upper right :
C3 board or Panel defect
- ④ Trouble at Lower left :
C4 board or Panel defect
- ⑤ Trouble at Lower middle :
C5 board or Panel defect
- ⑥ Trouble at Lower right :
C6 board or Panel defect

Picture Trouble all Over the Screen

<Symptom>

Picture noise, Full Vertical line, etc.

<Actual Symptom>

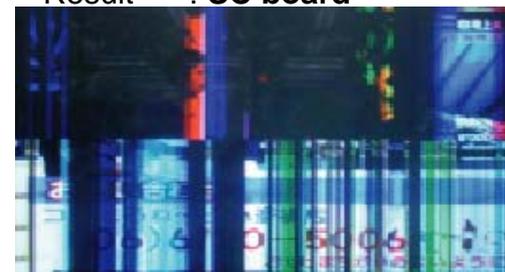
Symptom : **Vertical line (All over screen)**
Result : **D board**



Symptom : **White balance NG**
Result : **D board**



Symptom : **Abnormal Picture**
Result : **SC board**



<Defective board>

- ① Trouble at All area : **D or DG or SC board**
(SU,SD) defect

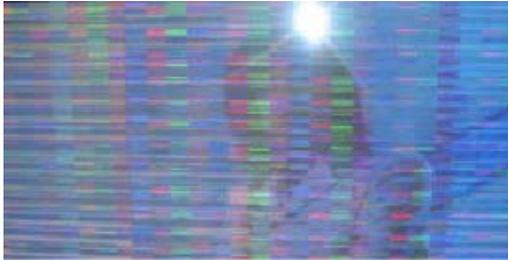
Examples of Symptoms and Remedies

Picture Problem (All over the screen)

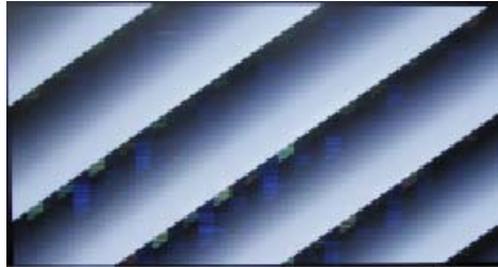
<Symptom> Noise Picture

<Photo of Symptom>

Result : D Board



Result : D Board



Result : D Board



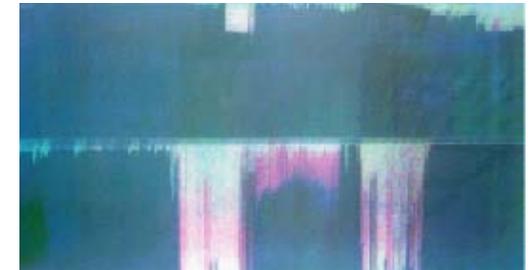
Result :DG Board



Result : SC Board



Result : SC Board



Result : SC Board



Result : SC Board



Result : SC Board



Picture Problem (All over the screen)

<Symptom> Vertical Line

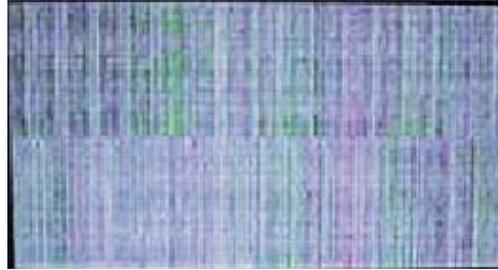
<Photo of Symptom>

Result : D Board



Result : D Board

Result : D Board



Result : D Board



Result : SC Board

Result : DG Board



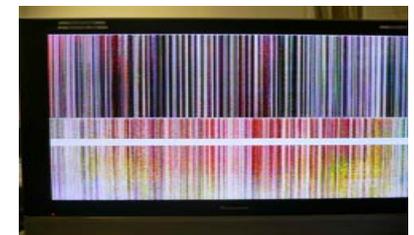
Result : DG Board



Result : SD Board



Result : SD Board



Picture Problem (All over the screen)

<Symptom> Abnormal Color, White Balance NG

<Photo of Symptom>

Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : DG Board



Result : D Board



Result : DG Board



Result : DG Board



Result : D Board



Picture Problem (All over the screen)

<Symptom> Sync Error

<Photo of Symptom>

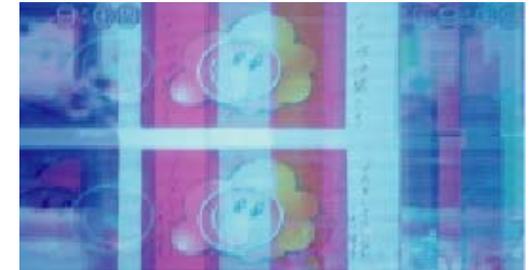
Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board



Picture Problem (Right half or Left half)

<Symptom> Vertical Line

<Photo of Symptom>

Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board



Result : D Board

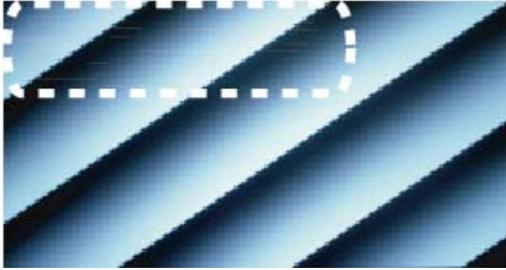


Picture Problem (Upper or Bottom)

<Symptom> Vertical Line

<Photo of Symptom>

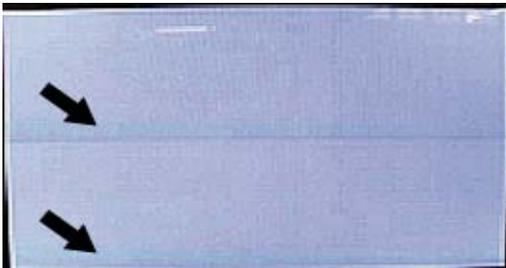
Result : D Board



Result : SU Board



Result : SS Board



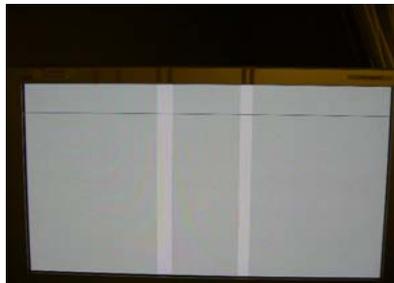
Result : D Board



Result : D Board



Result : SU Board



Result : D Board



Result : SC Board



Self-check Procedure

CHASSIS: GPH10D

All models

NOTE: This procedure does
not reset the TV

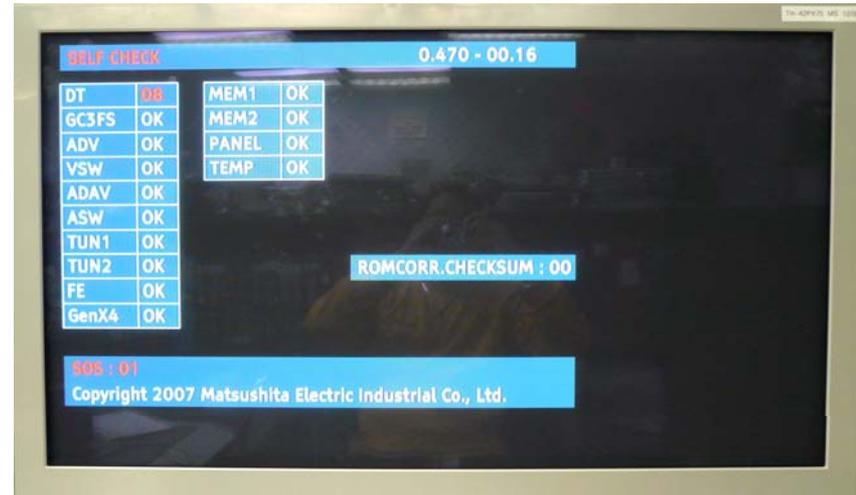
How to access the self-check screen to reset the unit.

Select a television channel, and while pressing the [VOLUME (-)] button on the main unit, press the [OK] button on the remote control for more than 3 seconds.

How to Exit the self-check screen

Press and hold the Power button on the TV for 5 seconds or disconnect the AC cord from the wall outlet.

Self-check Screen



TV volume down & OK on remote only does a basic IC self check. It does NOT Reset the TV.

It does not clear channel programmed settings, picture settings, channel labels, LOCK mode settings, or password.

Using this method, it shows the unit firmware version (Peaks 1.050 and GenX 1.00) and it checks IC communications ONLY.

This is more useful to identify the firmware version without having to decode the info in the setup menu About/Version screen.

Reset Procedure

CHASSIS: GPH10D

All models

To Reset the Unit, turn the TV on and while pressing the “VOLUME (-)” button on the main unit, press the “Menu” button on the remote control for more than 3 seconds. The Self-Check menu appears on screen. Then, disconnect the AC cord from the wall outlet.

Note: All customer programmed parameters will be erased.

TH-42PZ700U/ Driver Setup Adjustment

Item / Preparation

1. Input a white signal to plasma video input.
2. Set the picture controls as follows.
Picture menu: Vivid
Normal: Set
Aspect: Full

Caution

1. First perform Vsus adjustment.
2. Confirm the voltage level of VSCN. This should be done after the adjustment of Vad which should be -140V
When Vad = -140V, Vscn voltage is $8V \pm 1V$.

Note: See the panel label for voltages that are not listed in the service manual

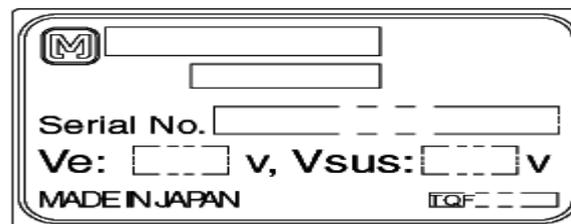
Initialization Pulse Adjustment

1. Input a 100% White signal to the unit.
2. Set the picture controls as follows:
Picture menu : Vivid
Normal : Set
Aspect : Full
3. Connect an Oscilloscope to test point TPSC1. Using VR6602, adjust (T2) for $250 \pm 10\mu$ Sec.

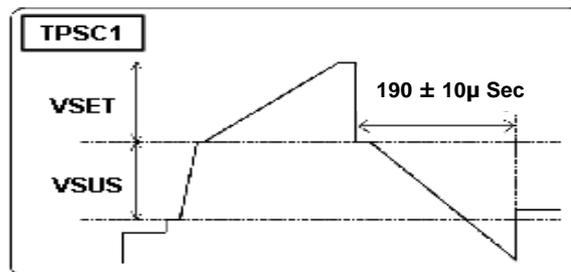
	Test point	Volume	Level
T2	TPSC1 (SC)	VR6602 (SC)	$250 \pm 10\mu$ Sec

Name	Test Point	Voltage	Volume
Vsus	TPVSUS (SS)	$V_{sus} \pm 2V$	VR251 (P)
Ve	TPVE (SS)	$V_e \pm 1V$	VR6000 (SS)
Vset	TPVSET (SC)	$240V \pm 7V$	Fixed
Vad	TPVAD (SC)	$-90V \pm 1V$	VR6600 (SC)
Vscn	TPVSCN (SC)	$V_{ad} + 140V \pm 4V$	Fixed
Vda	TPVDA (SS)	$75V + 1V, -3V$	Fixed

Panel Label



Adjustment Voltage



TH-50/58PZ700U/ TH-50/58PZ750U Drvr Setup Adj.

Item / Preparation

1. Input a white signal to plasma video input.
2. Set the picture controls as follows.
Picture menu: Vivid
Normal: Set
Aspect: Full

Caution

1. First perform Vsus adjustment.
2. Confirm the voltage level of VSCN. This should be done after the adjustment of Vad which should be - 90V
When Vad = -90V, Vscn voltage is 50V \pm 4V.

Note: See the panel label for voltages that are not listed in the service manual

Initialization Pulse Adjustment

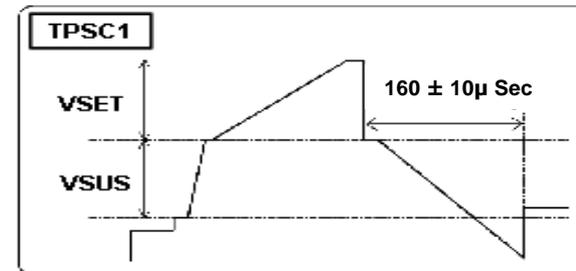
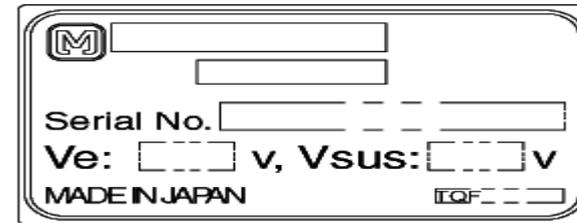
1. Input a 100% White signal to the unit.
2. Set the picture controls as follows:
Picture menu : Vivid
Normal : Set
Aspect : Full
3. Connect an Oscilloscope to test point TPSC1. Using VR6602, adjust (T2) for 160 \pm 10 μ Sec.

	Test point	Volume	Level
T2	TPSC1 (SC)	VR6602 (SC)	160 \pm 10 μ Sec

Driver Setup Table

Name	Test Point	Voltage	Volume
Vsus	TPVSUS (SS)	Vsus \pm 2V	VR251 (P)
Ve	TPVE (SS)	Ve \pm 1V	VR6000 (SS)
Vset	TPVSET	240V \pm 7V	Fixed
Vad	TPVAD (SC)	-90V \pm 1V	VR6600 (SC)
Vscn	TPVSCN	Vad+140V \pm	Fixed
	(SC)	4V	
Vda	TPVDA (SS)	75V + 1V, -3V	Fixed

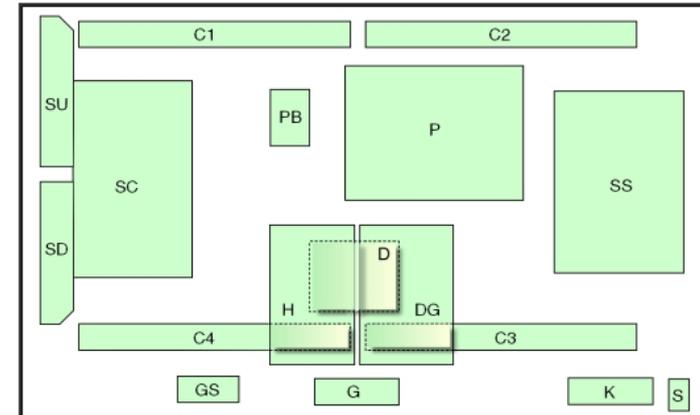
Panel Label



TH-42PZ700U BOARD LAYOUT & PART NUMBERS

Part Number	Board Name
TXNC11HATJ	C1
TXNC21HATJ	C2
TXNC31HATJ	C3
TXNC41HATJ	C4
TXNSC1HATJ	SC
ETX2MM681MFS	P
TXNSD1HJTA	SD
TXNSS1HATJ	SS
TNPA4346ABS	H
TXNSU1HJTA	SU
TNPA4347ACS	DG
TZTNP01HJTU	D
TNPA4243AES	PB
TNPA4306ABS	G
TNPA4236ABS	K
TNPA4237S	S
TNPA4143AES	GS
MD42F10A1J	PLASMA DISPLAY PANEL
N2QAYB000100	REMOTE CONTROL

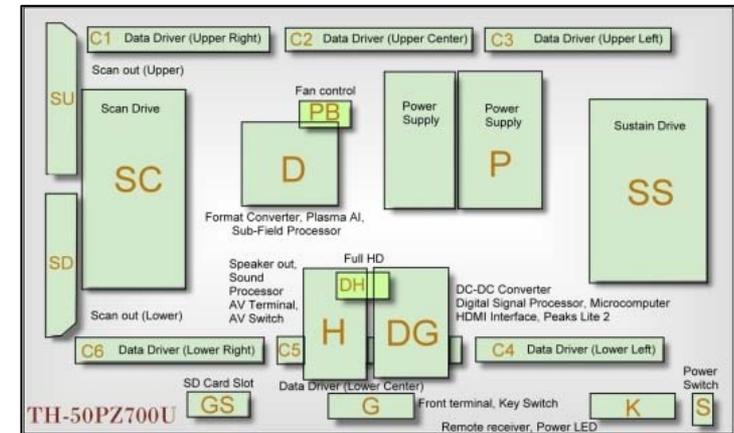
TH-42PZ700U BOARD LAYOUT



TH-50PZ700U BOARD LAYOUT & PART NUMBERS

Part Number	Board Name
ETXMM624MGHS	P
TXNC11ETTJ	C1
TXNC21ETTJ	C2
TXNC31ETTJ	C3
TXNC41ETTJ	C4
TXNC51ETTJ	C5
TXNC61ETTJ	C6
TXNSC1ETTJ	SC
TXNSD1ETTJ	SD
TXNSS1ETTJ	SS
TXNSU1ETTJ	SU
TNPA4131AGS	H
TNPA4129S	DG
TXNDH1HHTU	DH
TXN/D1HHTU	D
TNPA4243ABS	PB
TNPA4306ABS	G
TNPA4236ABS	K
TNPA4237S	S
TNPA4143AES	GS
MD50F09A1J	PLASMA DISPLAY PANEL

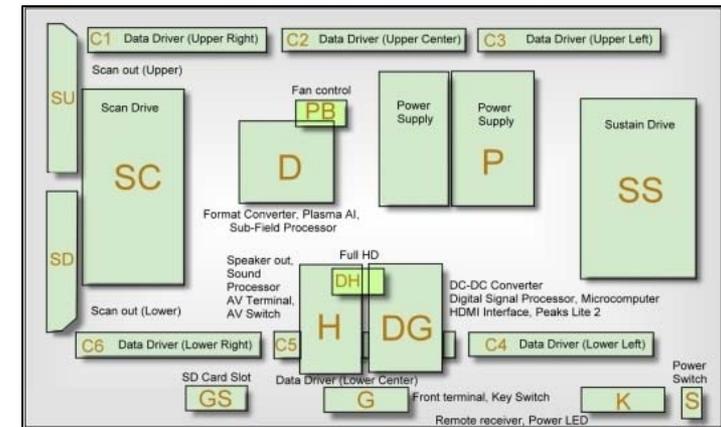
TH-50PZ700U BOARD LAYOUT



TH-58PZ700U BOARD LAYOUT & PART NUMBERS

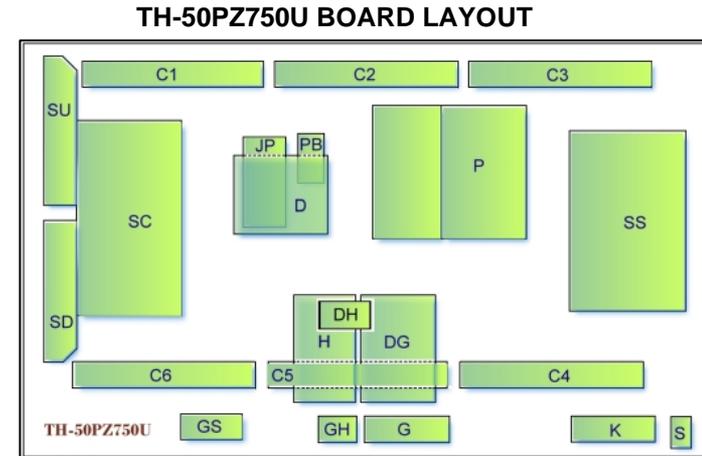
Part Number	Board Name
TNPA4131AGS	H
TNPA4129ABS	DG
TXNDH1HHTU	DH
TNPA4243ACS	PB
ETXMM625AGHS	P
TXNC11HGTUJ	C1
TXNC21HGTUJ	C2
TXNC31HGTUJ	C3
TXNC41HGTUJ	C4
TXNC51HGTUJ	C5
TXNC61HGTUJ	C6
TZTNP01HGTU	D
TXNSC1HGTUJ	SC
TXNSD1HGTUJ	SD
TXNSS1HGTUJ	SS
TNPA3841S	SS2
TNPA3842S	SS3
TXNSU1HGTUJ	SU
TNPA4306ABS	C G
TNPA4236ABS	K
TNPA4237S	S
TNPA4143AES	GS
MD58F09A1J	58FHD9 PDP PANEL
N2QAYB000100	REMOTE CONTROL

TH-50PZ700U BOARD LAYOUT



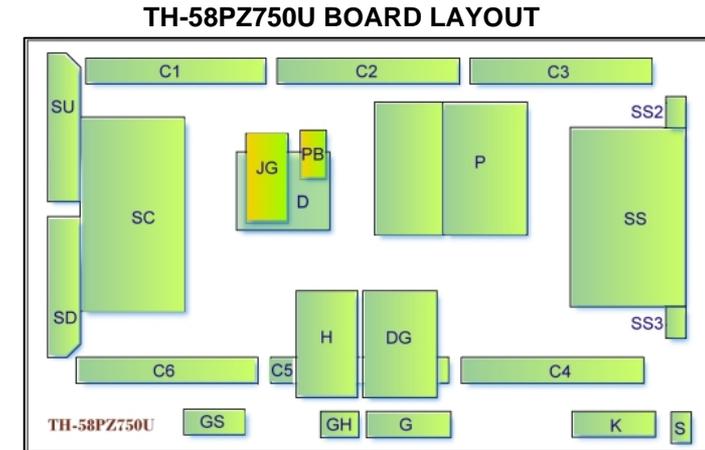
TH-50PZ750U BOARD LAYOUT AND PART NUMBERS

Part Number	Board Name
ETXMM624MGHS	P
TXNC11ETTJ	C1
TXNC21ETTJ	C2
TXNC31ETTJ	C3
TXNC41ETTJ	C C4
TXNC51ETTJ	C5
TXNC61ETTJ	C6
TXNSC1ETTJ	SC
TXNSD1ETTJ	SD
TXNSS1ETTJ	SS
TXNSU1ETTJ	SU
TNPA4346S	H
TNPA4347S	DG
TXNKG1LFTU	JG
TNPA4243ABS	PB
TZTNP01LXTU	D
TNPA4306ABS	C G
TNPA4135ADS	GH
TNPA4236ABS	K
TNPA4237S	S
TNPA4143ABS	GS
MD50F09A1J	PLASMA DISPLAY PANEL
K1U939A00003	TERMINAL BOARD



TH-58PZ750U BOARD LAYOUT AND PART NUMBERS

Part Number	Board Name
TNPA4346S	H
TNPA4347ABS	DG
TXNJG1LFTU	JG
TNPA4243ACS	PB
ETXMM625AGHS	P
TXNC11HGTUJ	C1
TXNC21HGTUJ	C2
TXNC31HGTUJ	C3
TXNC41HGTUJ	C4
TXNC51HGTUJ	C5
TXNC61HGTUJ	C6
TZTNP01HGTU	D
TXNSC1HGTUJ	SC
TXNSD1HGTUJ	SD
TXNSS1HGTUJ	SS
TNPA3841S	SS2
TNPA3842S	SS3
TXNSU1HGTUJ	SU
TNPA4306ABS	G
TNPA4135ADS	GH
TNPA4236ABS	K
TNPA4237S	S
TNPA4143ABS	GS
MD58F09A1J	58FHD9 PDP PANEL
N2QAYB000099	REMOTE CONTROL



TH-42PZ700U

**Plasma Full High Definition
(GPH10DU Chassis)
10 blinks Addendum**

Model : TH-42PZ700U



Panasonic Services Company
National Training

LED blinks 10 times before pressing the power button (TH-42PZ700U)

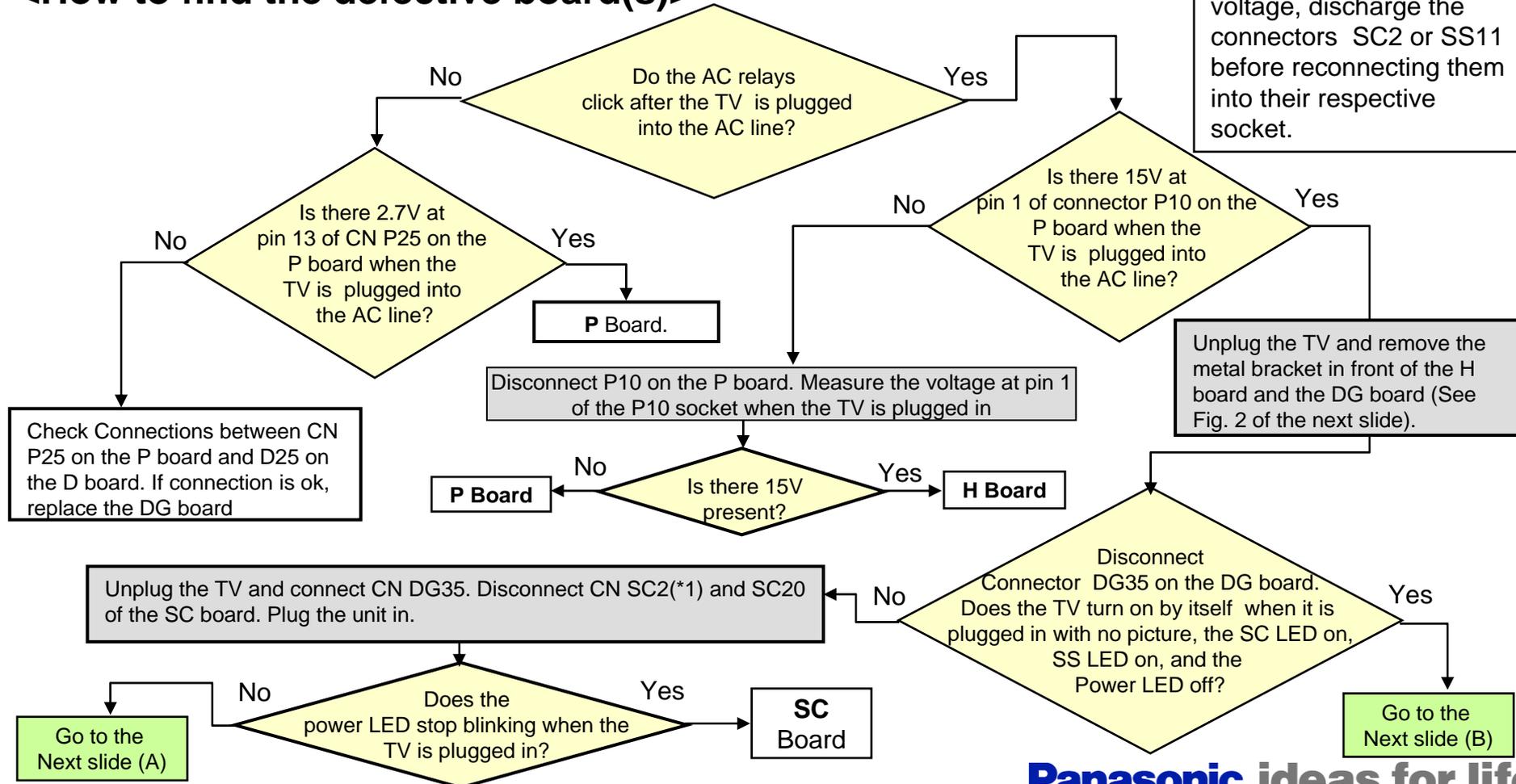
<Trouble Mode and Defective Board>

Trouble Mode	Defective Board
SUB 5V SOS, Main 9V SOS DTV 9V SOS, Tuner Power SOS	H, P, DG, SC, SS, PB, and K Board

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*1) = To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

<How to find the defective board(s)>

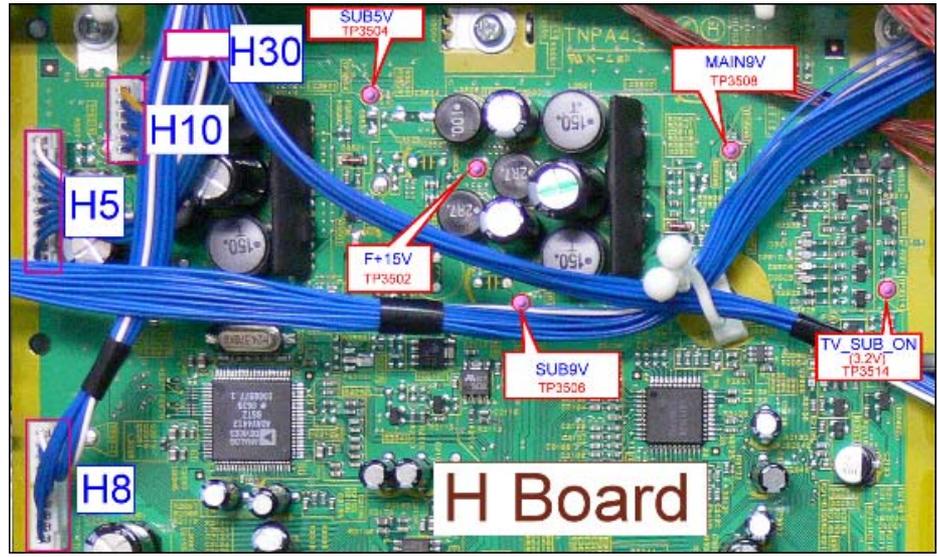


LED blinks 10 times before pressing the power button (TH-42PZ700U)

Continue from previous slide (A)

(*1) = To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

Unplug the TV and re-connect CN SC2(*1), and SC20 of the SC board. Disconnect CN SS11(*1), SS35, and SS34 of the SS board and CN P12 of the P board. Install the jumper from SS34 between pin 8 and 10 of CN P12. Plug the unit in.



Continue from previous slide (B)

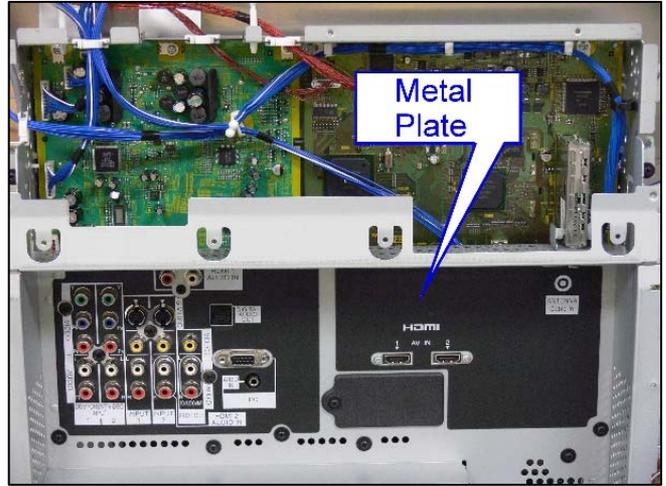
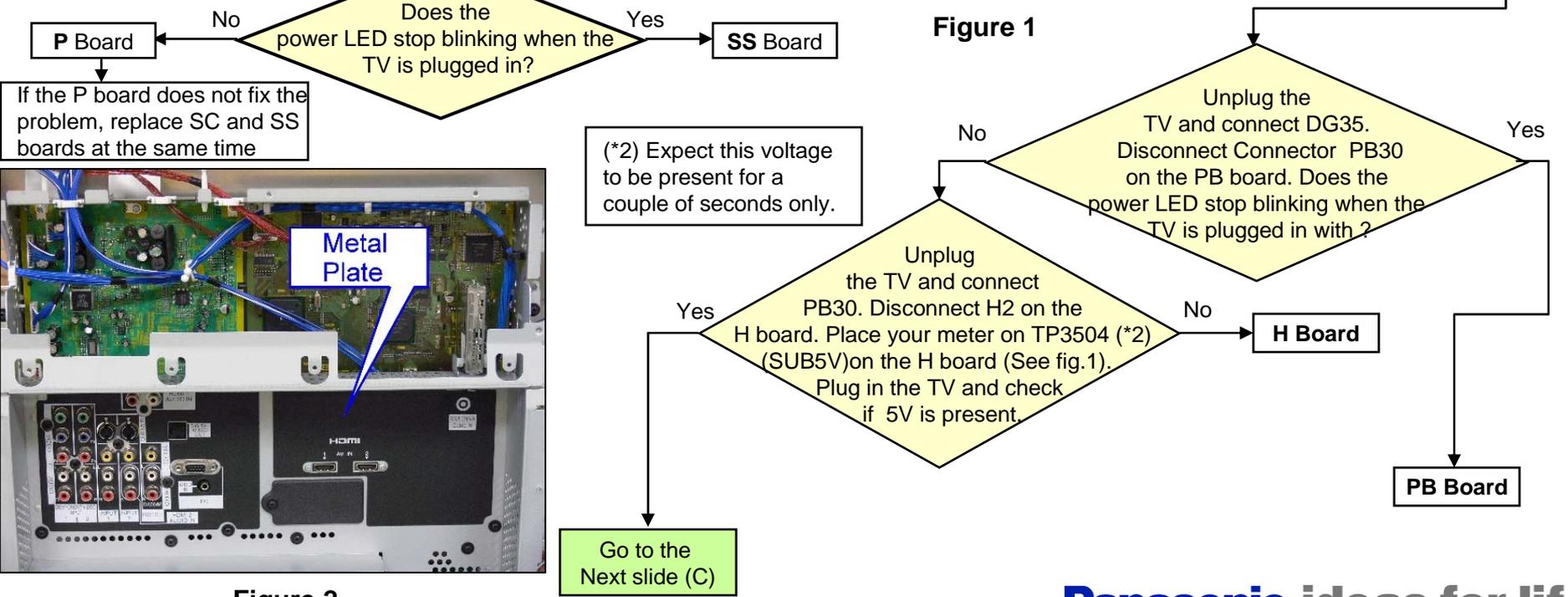


Figure 2

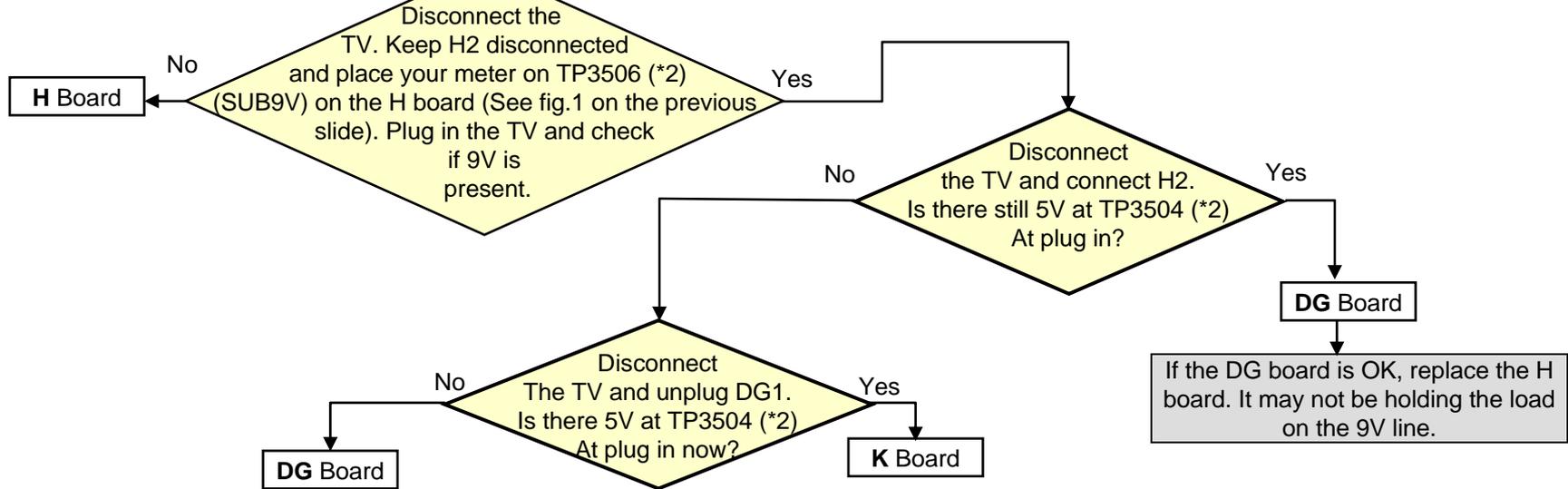
LED blinks 10 times before pressing the power button (TH-42PZ700U)

Warning: Disconnect AC Power prior to making any disconnection or connection.

Continue from previous slide (C)

(*2) Expect this voltage to be present for a couple of seconds only.

Test points locations are shown on figure 1 on the previous slide.



LED blinks 10 times after pressing the power button (TH42PZ700U)

<Trouble Mode and Defective Board>

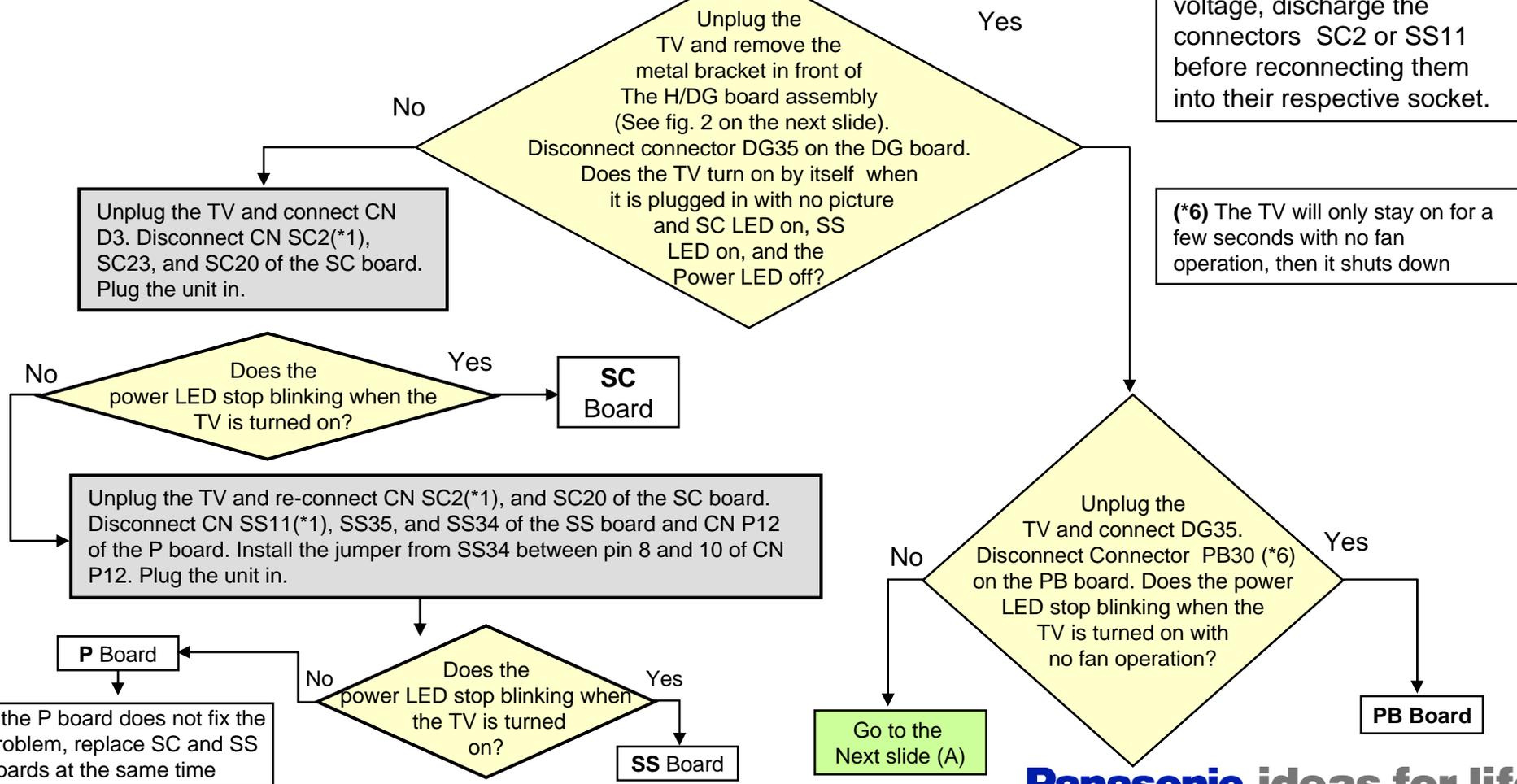
Trouble Mode	Defective Board
SUB 5V SOS, Main 9V SOS DTV 9V SOS, Tuner Power SOS	H, P, DG, SC, SS, PB, and K Board

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*1) = To avoid potential shock from the VSUS voltage, discharge the connectors SC2 or SS11 before reconnecting them into their respective socket.

(*6) The TV will only stay on for a few seconds with no fan operation, then it shuts down

<How to find the defective board(s)>



LED blinks 10 times after pressing the power button (TH42PZ700U)

Warning: Disconnect AC Power prior to making any disconnection or connection.

(*2) Expect this voltage to be present for a couple of seconds only.

Continue from previous slide (A)

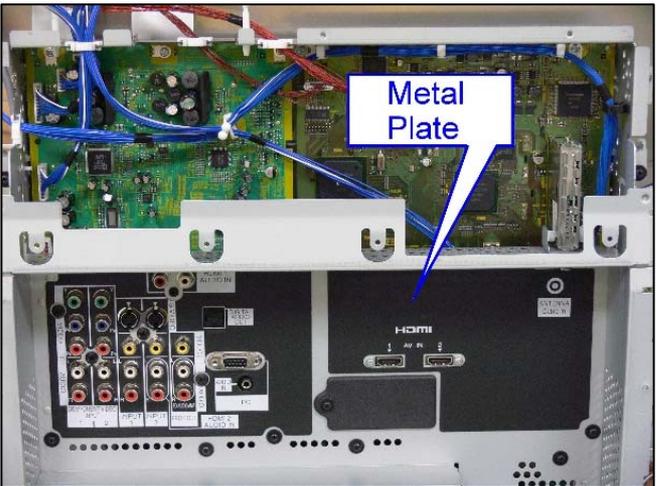
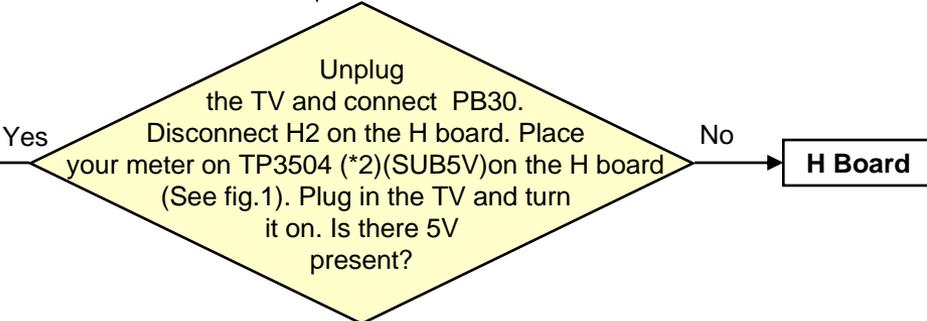


Figure 2

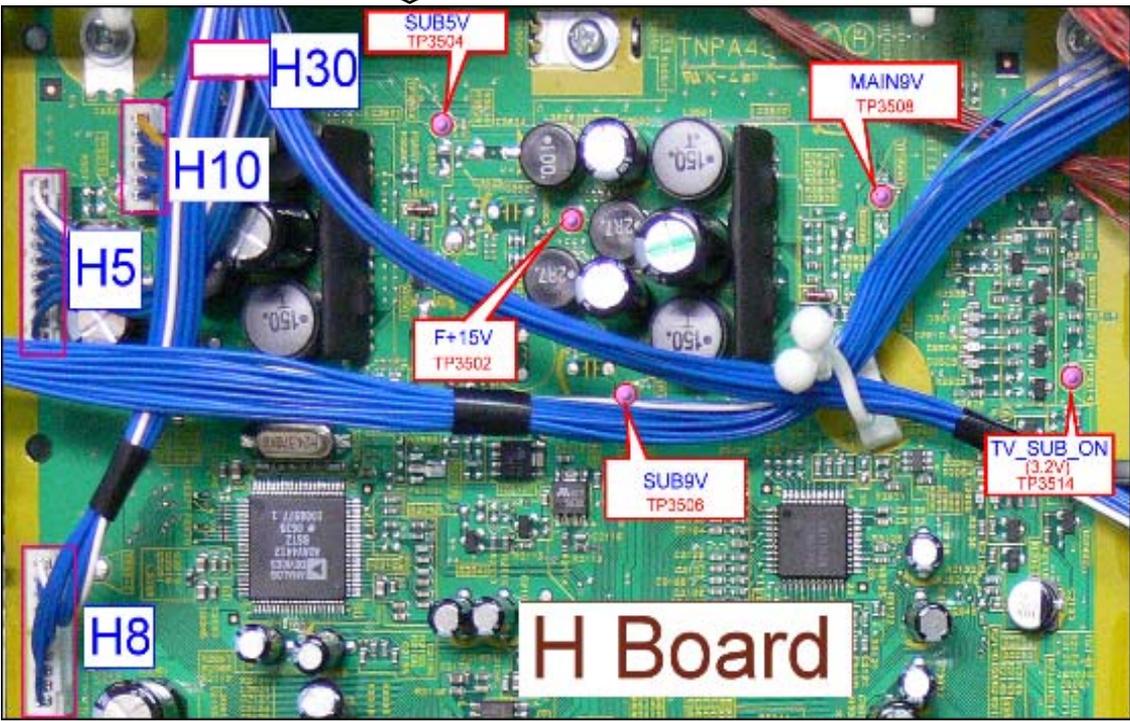


Figure 1

Go to the Next slide (B)

LED blinks 10 times after pressing the power button (TH42PZ700U)

Warning: Disconnect AC Power prior to making any disconnection or connection.

