

TOSHIBA

2010 Toshiba LCD Technical Training E200U/UM Chassis Family

2010 LCD410

SERIES 3

**INTERACTIVE
TROUBLESHOOTING**

**32E200U/UM, 37E200U/UM,
40E200U/UM**

FORWARD

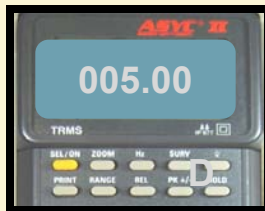


TOSHIBA AMERICA CONSUMER PRODUCTS, L.L.C.

SERIES 3 TROUBLESHOOTING

INTERACTIVE TROUBLESHOOTING

PREVIEW



DEAD SET

NO VIDEO

BACKLIGHT

NO AUDIO

INFO

FORWARD

BACK

HOME

END

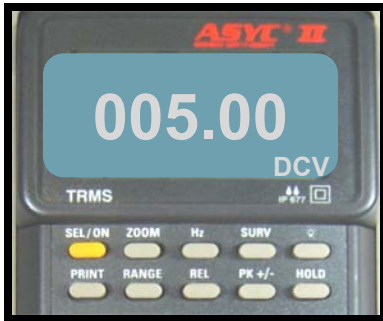
INTERACTIVE TROUBLESHOOTING

DEAD SET

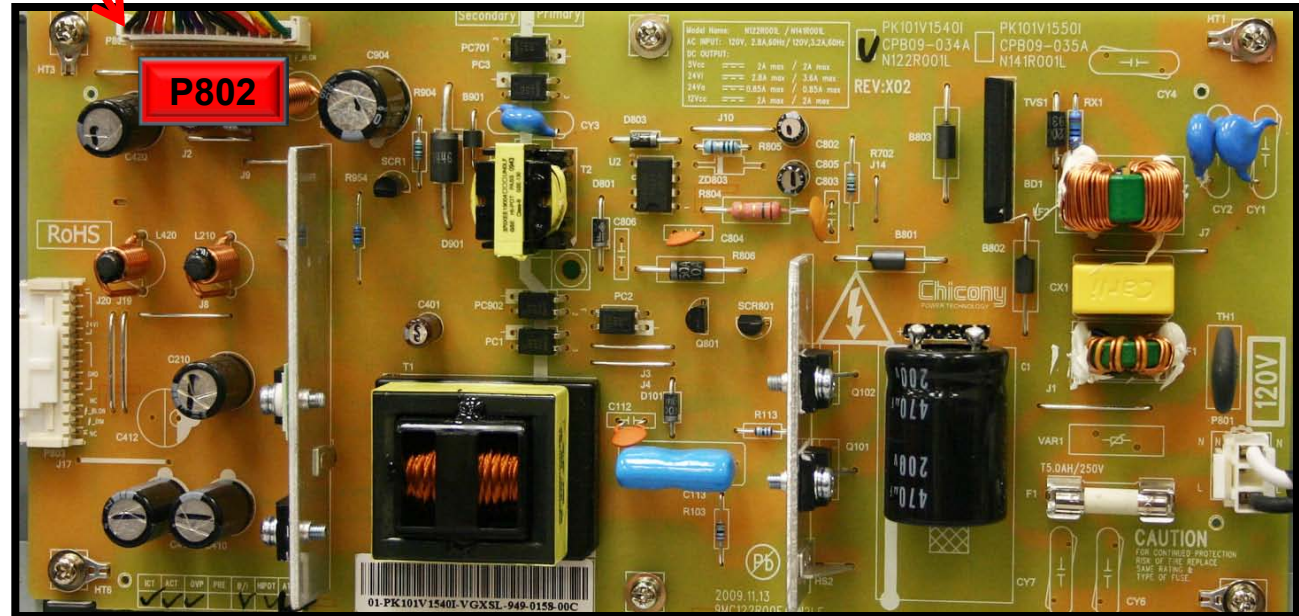
Is 5 VDC present at pins 11 and 12 of P802 on the Power Supply when AC is applied?

YES

NO



P802 Pin 1



Power Supply In/Out To/From Main Board

1. Gnd
2. Gnd
3. 24V Aud>
4. 24V Aud>
5. Gnd
6. Gnd
7. Gnd
8. 12V>
9. 12V(Panel Pwr.)>
10. NC
11. 5V>**
12. 5V>**
13. Pwr. On (Enable) 3.6V<
14. AC Det.(PWR Good) .07V>
15. Dim .1 to 3.3V<
16. BL On 5V<

INFO

FORWARD

BACK

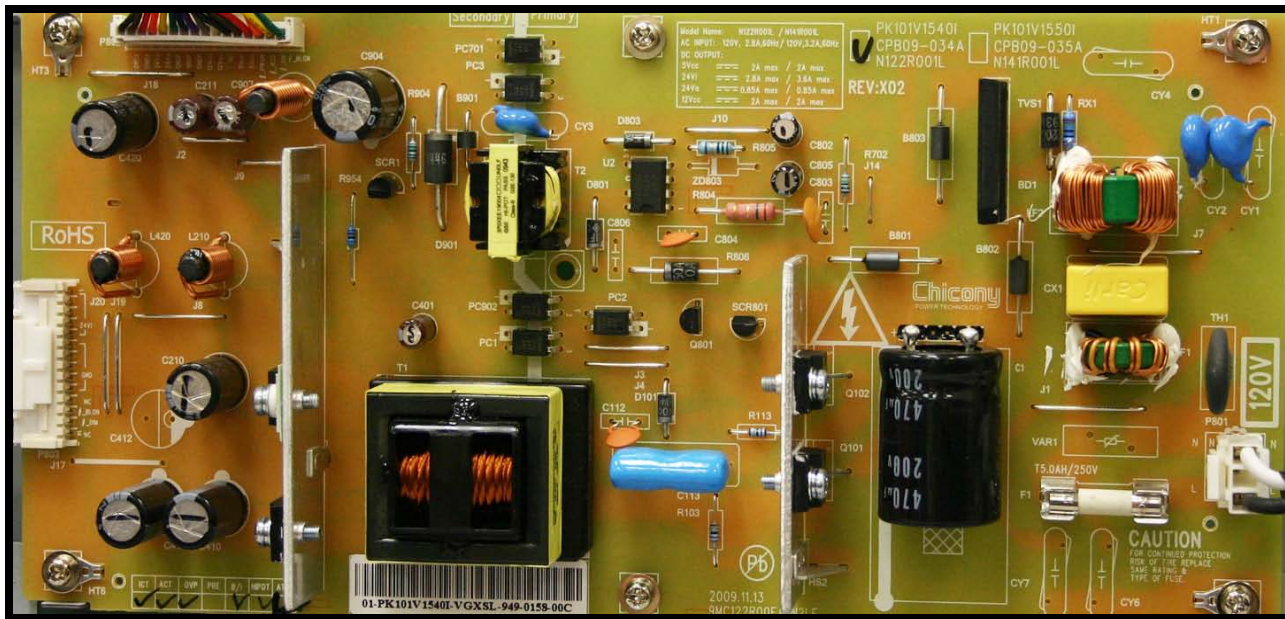
HOME

END

INTERACTIVE TROUBLESHOOTING

DEAD SET

Replace the Power Supply



For parts information contact the Toshiba National Parts Center 1-800-345-9785

INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

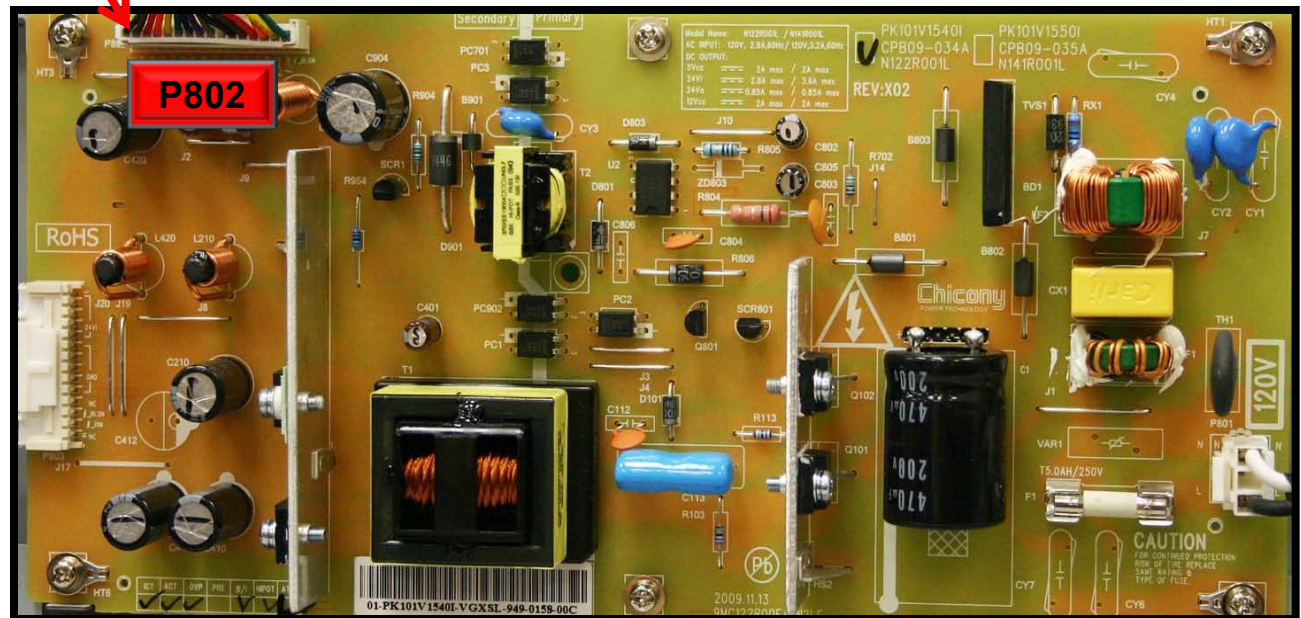
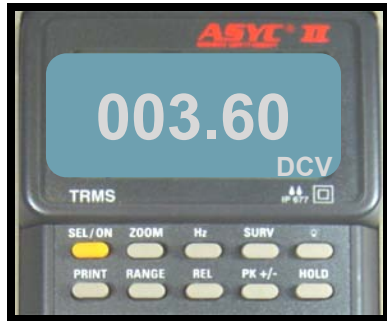
DEAD SET

Does 3.6vDC appear at pin 13 of P802 when the Power button is pushed?

YES

NO

P802 Pin 1



Power Supply In/Out To/From Main Board

1. Gnd
2. Gnd
3. 24V Aud>
4. 24V Aud>
5. Gnd
6. Gnd
7. Gnd
8. 12V>
9. 12V(Panel Pwr.)>
10. NC
11. 5V>**
12. 5V>**
13. Pwr. On (Enable) 3.6V<
14. AC Det.(PWR Good) .07V>
15. Dim .1 to 3.3V<
16. BL On 5V<

INFO

FORWARD

BACK

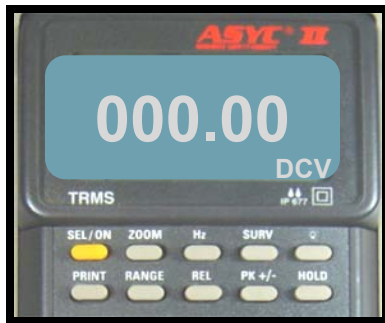
HOME

END

INTERACTIVE TROUBLESHOOTING

DEAD SET

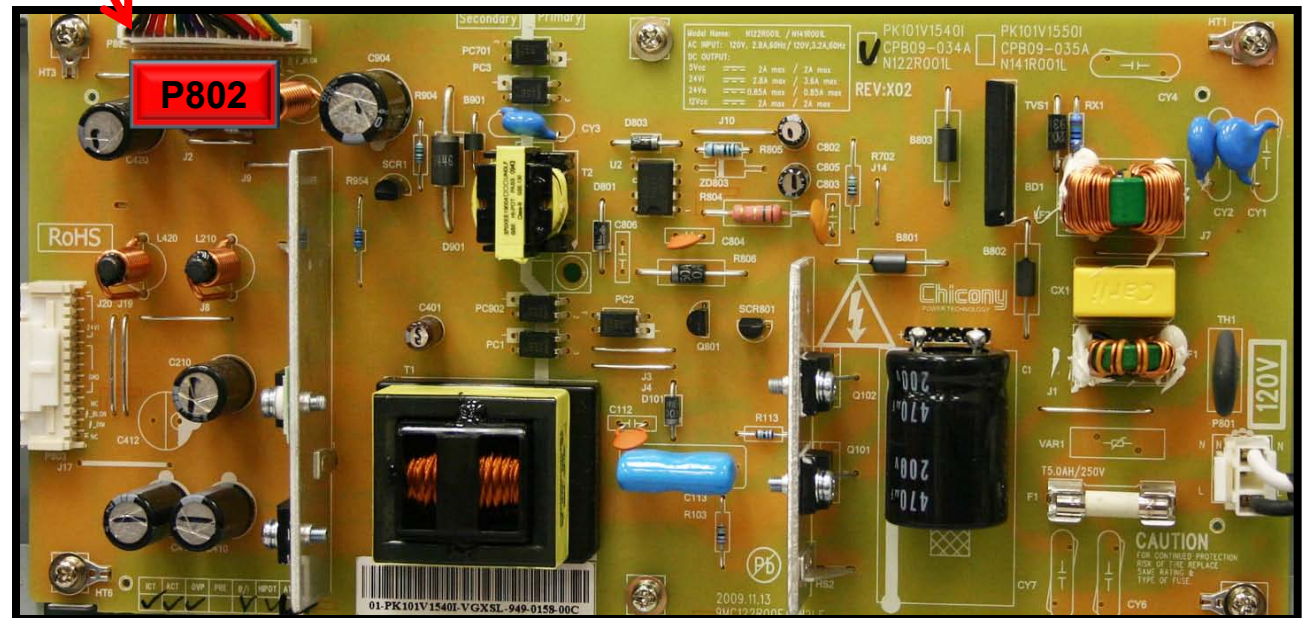
Is the Power Good (AC Detect) level approximately 0vDC at pin 14 of P802 when AC is applied?



P802 Pin 1

YES

NO



Power Supply In/Out To/From Main Board

1. Gnd
2. Gnd
3. 24V Aud>
4. 24V Aud>
5. Gnd
6. Gnd
7. Gnd
8. 12V>
9. 12V(Panel Pwr.)>
10. NC
11. 5V>**
12. 5V>**
13. Pwr. On (Enable) 3.6V<
14. AC Det.(PWR Good) .07V>
15. Dim .1 to 3.3V<
16. BL On 5V<

INFO

FORWARD

BACK

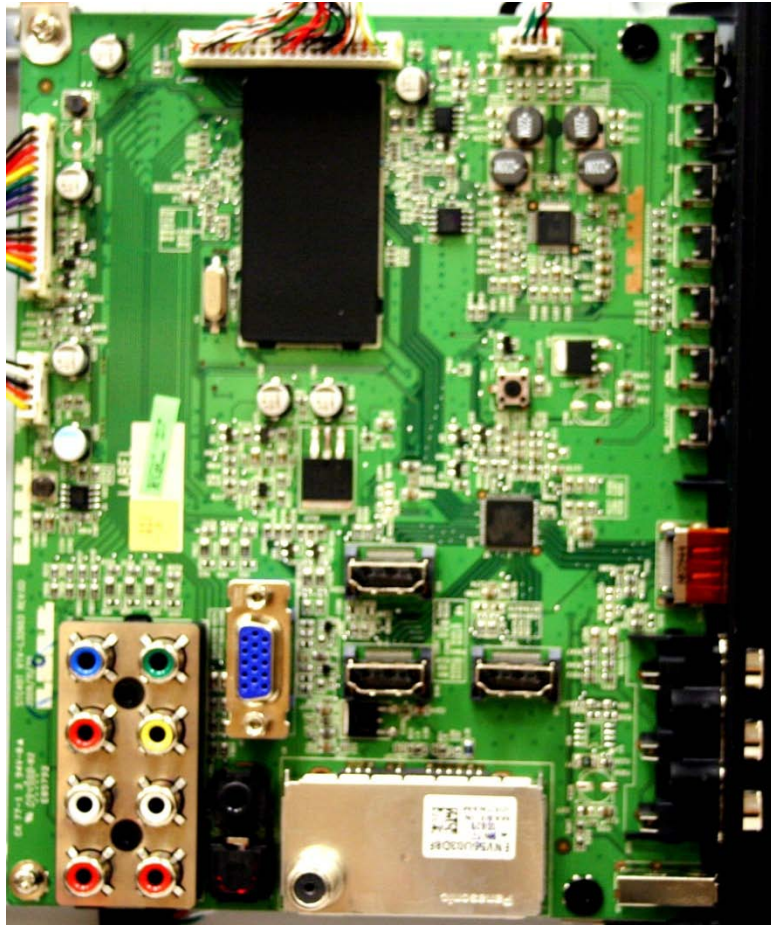
HOME

END

INTERACTIVE TROUBLESHOOTING

DEAD SET

Replace the Main PCB



INFO

FORWARD

BACK

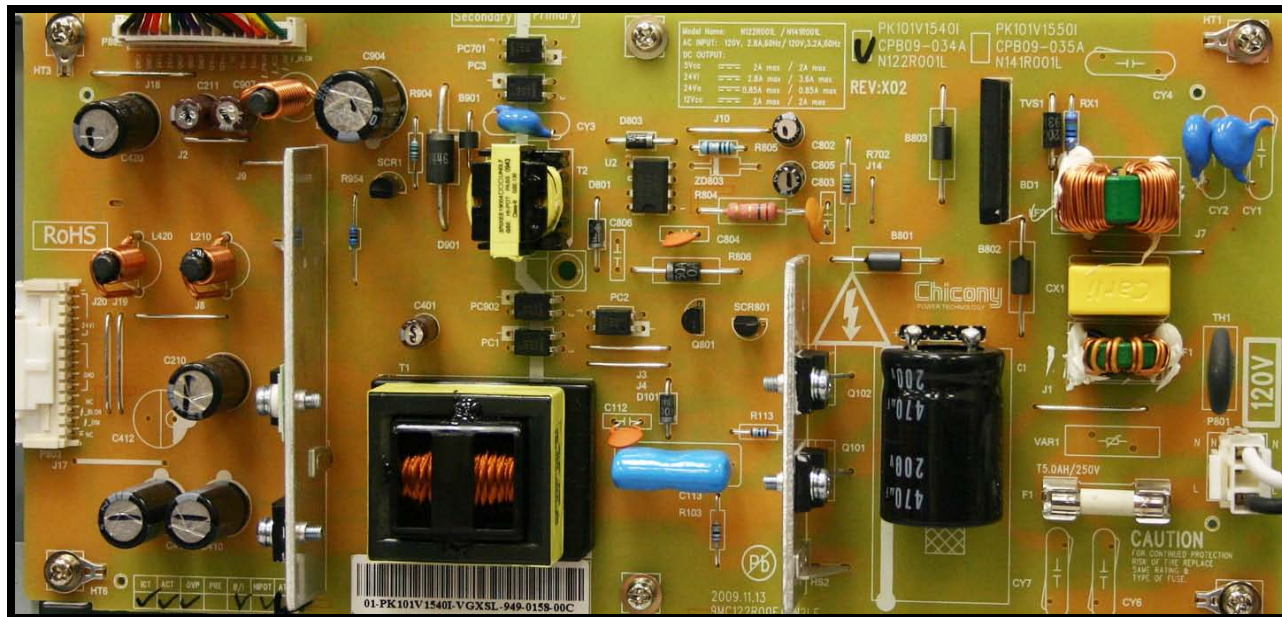
HOME

END

INTERACTIVE TROUBLESHOOTING

DEAD SET

Replace the Power Supply



INFO

FORWARD

BACK

HOME

END

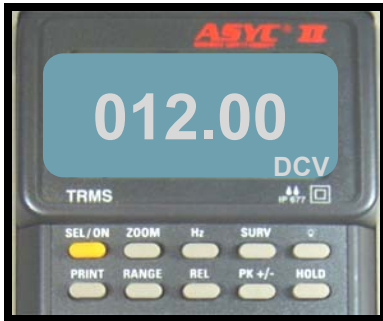
INTERACTIVE TROUBLESHOOTING

DEAD SET

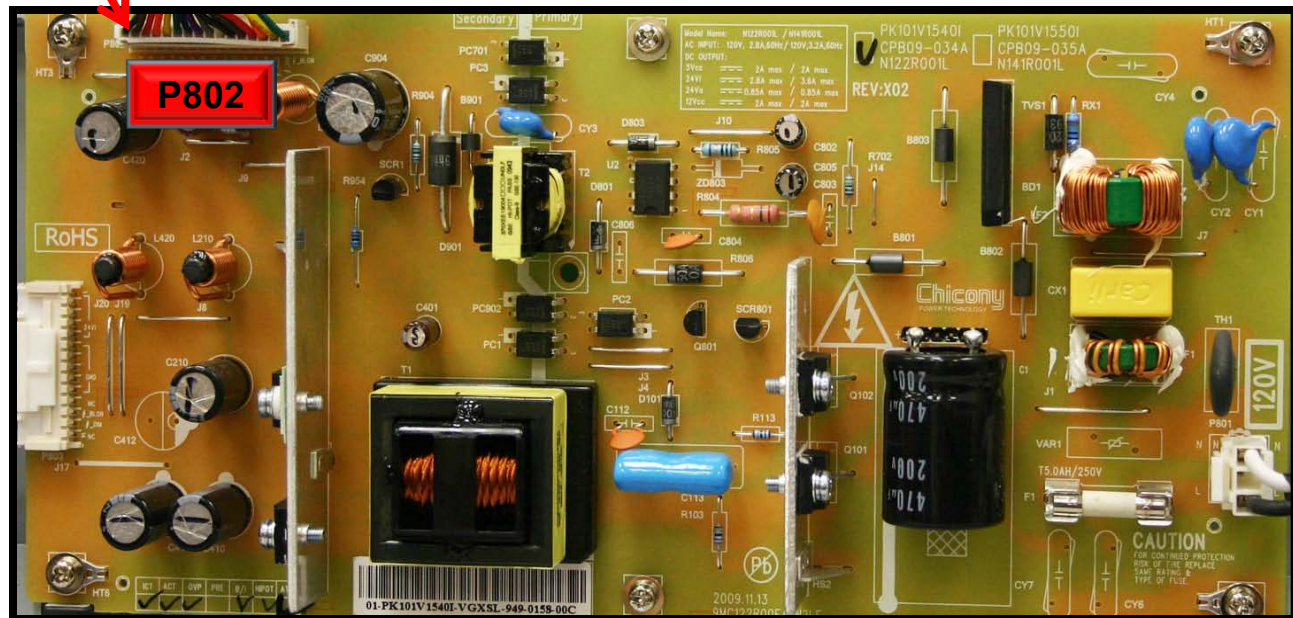
Does 12vDC appear at pin 8 of P802 when the power button is pushed?

YES

NO



P802 Pin 1



Power Supply In/Out To/From Main Board

1. Gnd
2. Gnd
3. 24V Aud>
4. 24V Aud>
5. Gnd
6. Gnd
7. Gnd
8. **12V>**
9. 12V(Panel Pwr.)>
10. NC
11. 5V>**
12. 5V>**
13. Pwr. On (Enable) 3.6V<
14. AC Det.(PWR Good) .07V>
15. Dim .1 to 3.3V<
16. BL On 5V<

INFO

FORWARD

BACK

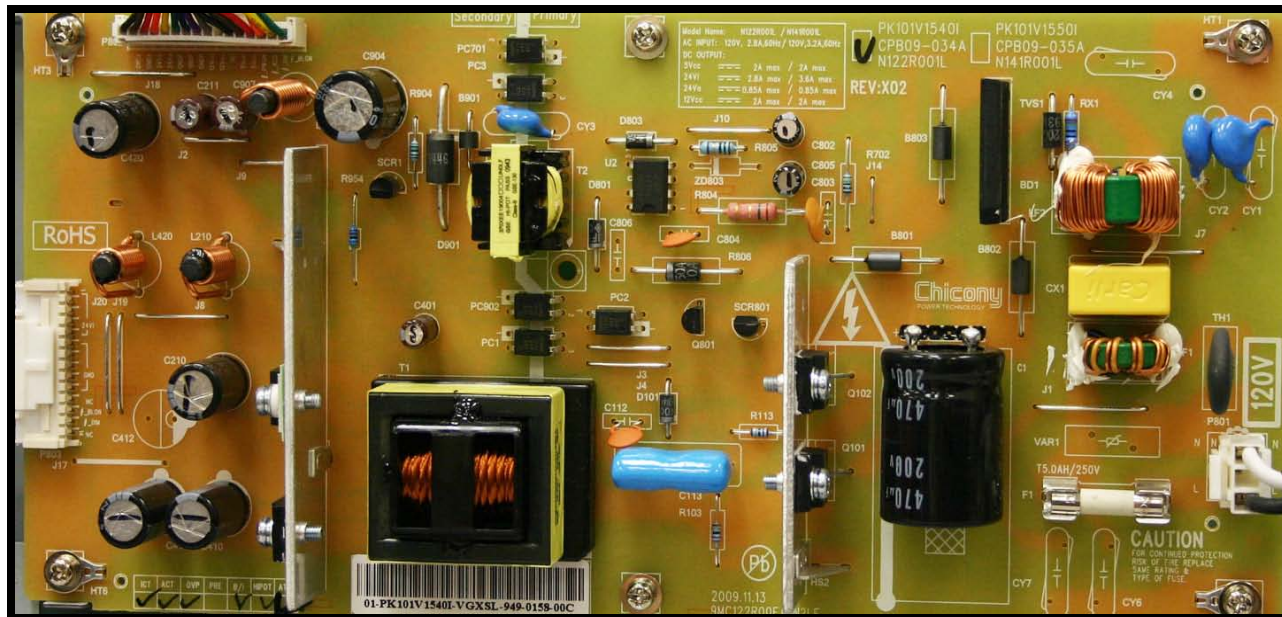
HOME

END

INTERACTIVE TROUBLESHOOTING

DEAD SET

Replace the Power Supply



INFO

FORWARD

BACK

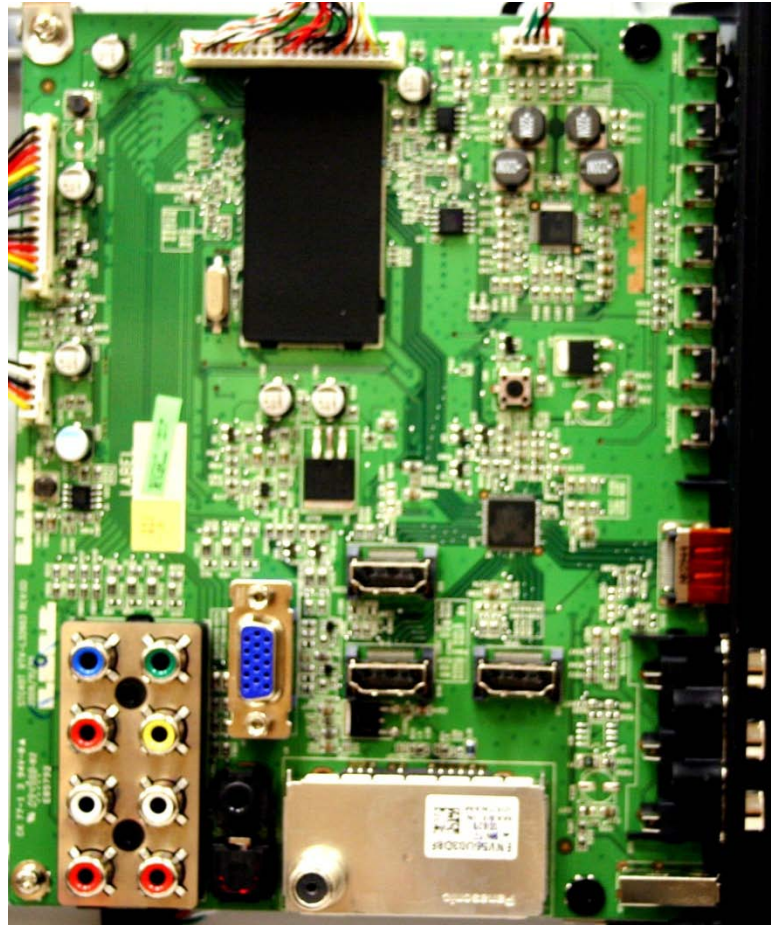
HOME

END

INTERACTIVE TROUBLESHOOTING

DEAD SET

Replace the Main PCB



INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

NO OR DISTORTED VIDEO

Does the back light function normally when the unit is turned on?

YES

NO

“Normally” means in a reasonable time frame and evenly lit.

INFO

FORWARD

BACK

HOME

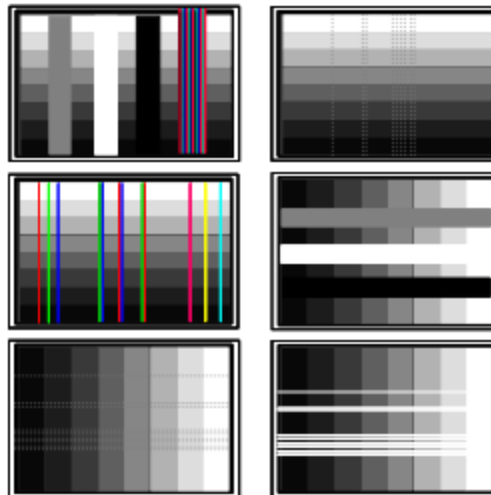
END

INTERACTIVE TROUBLESHOOTING

NO OR DISTORTED VIDEO

Is the screen discolored or does it have streaks and dark areas as shown in the example below?

Examples



YES

NO

INFO

FORWARD

BACK

HOME

END

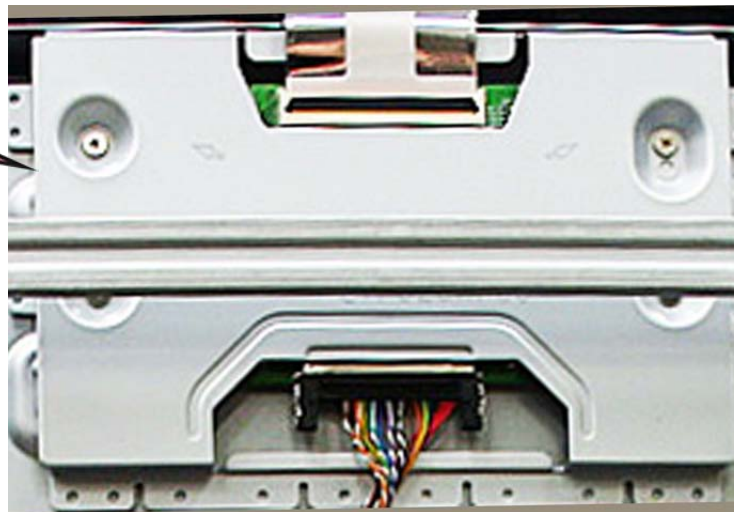
INTERACTIVE TROUBLESHOOTING

NO OR DISTORTED VIDEO

If the T-Con (Timing Control Board) is available, try it. If not, or if it does not help, replace the LCD Panel.***

**T-CON POSSIBLE
BUT NOT LIKELY**

T-Con



*****Warranty
replacement Requires
pre-authorization.**

For parts information contact the Toshiba National Parts Center 1-800-345-9785

INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

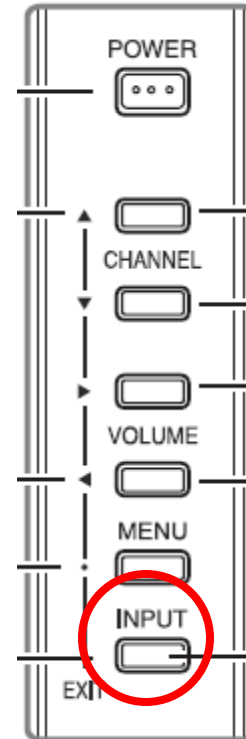
NO OR DISTORTED VIDEO

When the input button is pressed on the receiver or remote, is the On Screen Display clear and normal?



YES

NO



INFO

FORWARD

BACK

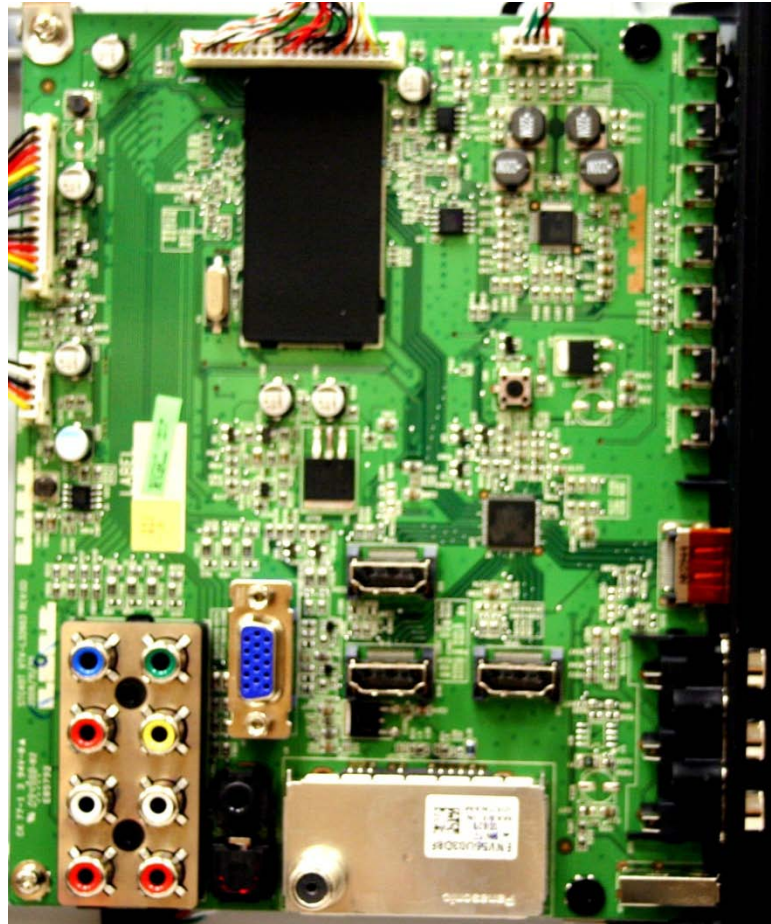
HOME

END

INTERACTIVE TROUBLESHOOTING

NO OR DISTORTED VIDEO

Replace the Main PCB



INFO

FORWARD

BACK

HOME

END

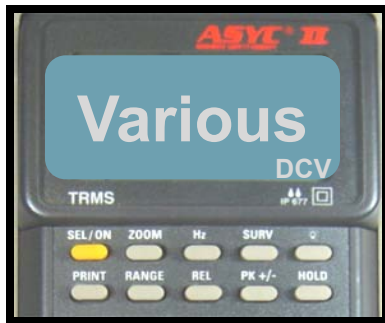
INTERACTIVE TROUBLESHOOTING

NO OR DISTORTED VIDEO

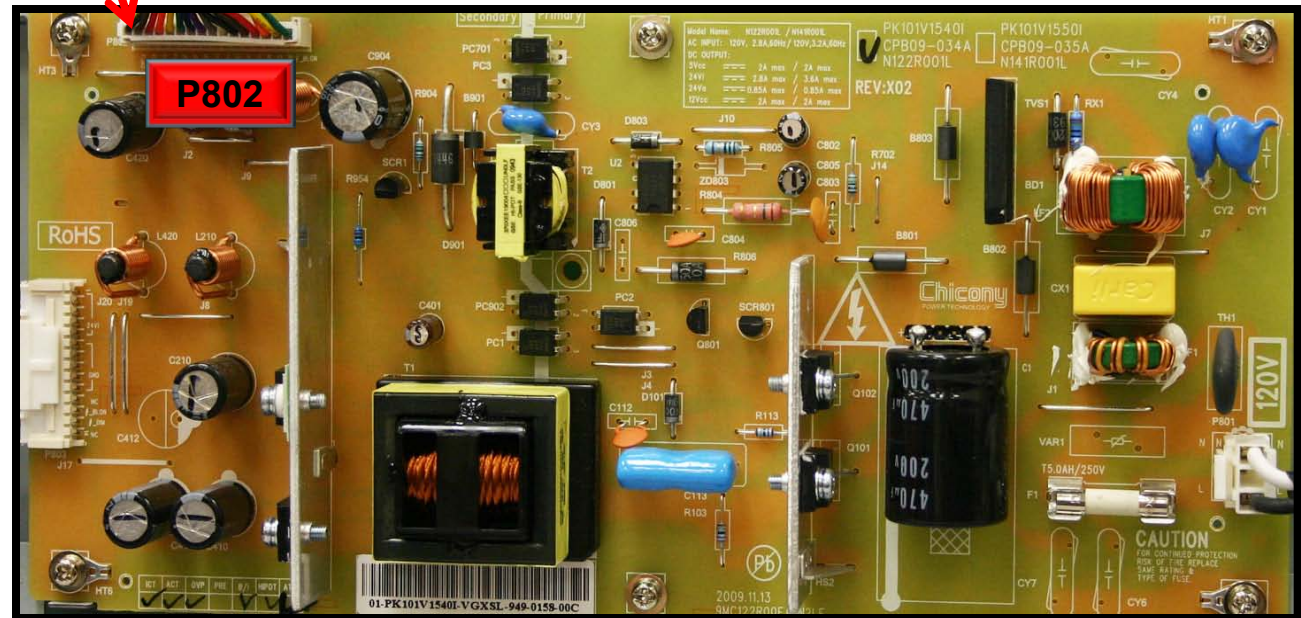
Using the power distribution diagram, are the voltages normal at P802 on the Power Supply?

YES

NO



P802 Pin 1



Power Supply In/Out To/From Main Board

1. Gnd
2. Gnd
3. 24V Aud>
4. 24V Aud>
5. Gnd
6. Gnd
7. Gnd
8. 12V>
9. 12V(Panel Pwr.)>
10. NC
11. 5V>**
12. 5V>**
13. Pwr. On (Enable) 3.6V<
14. AC Det.(PWR Good) .07V>
15. Dim .1 to 3.3V<
16. BL On 5V<

INFO

FORWARD

BACK

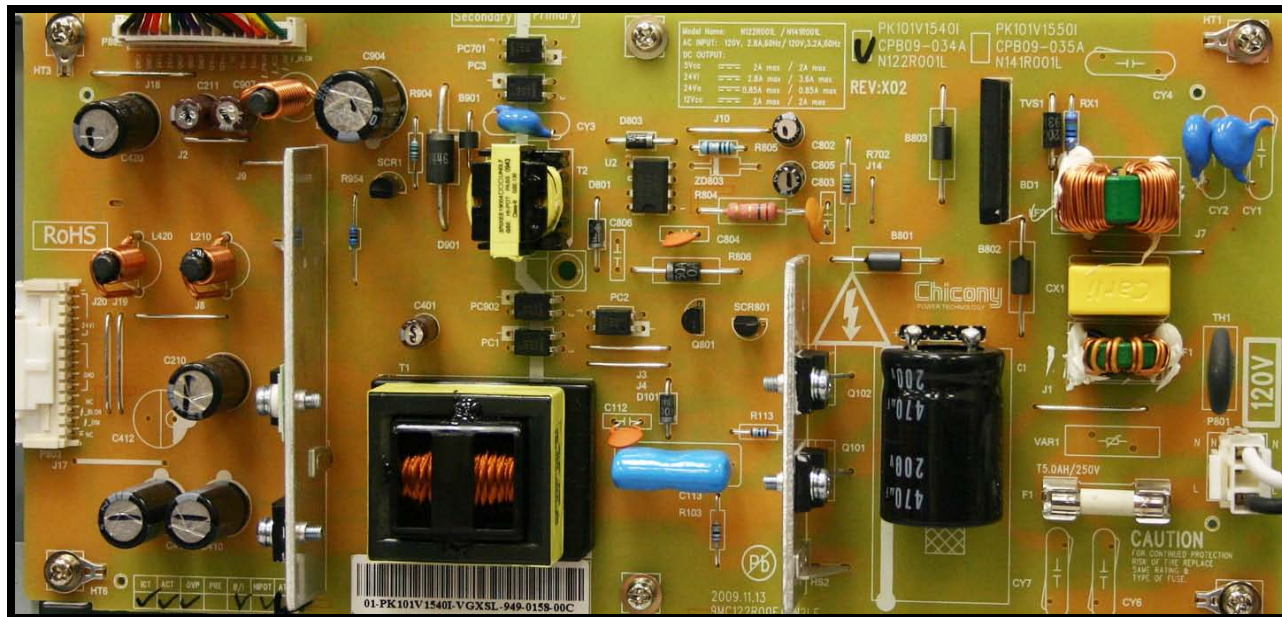
HOME

END

INTERACTIVE TROUBLESHOOTING

NO OR DISTORTED VIDEO

Replace the Power Supply



INFO

FORWARD

BACK

HOME

END

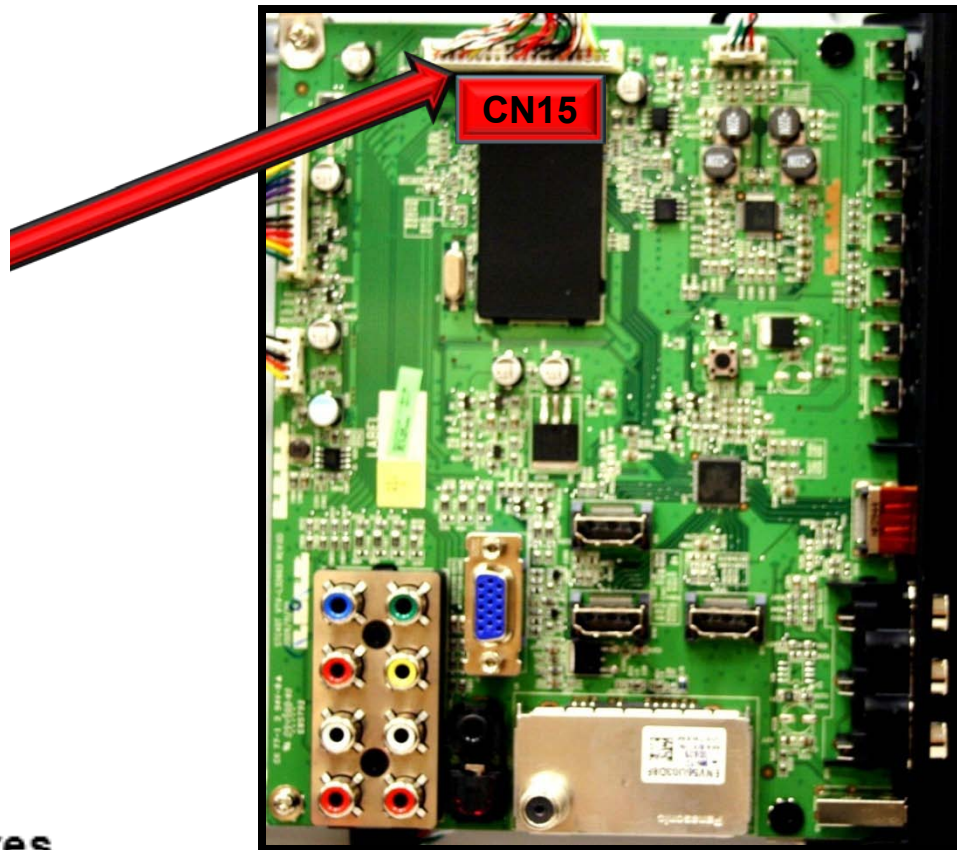
INTERACTIVE TROUBLESHOOTING

NO OR DISTORTED VIDEO

Check for LVDS activity at CN15 – If activity is present, replace the T-Con or LCD Panel.* If not present replace the Main PCB.



This signal viewed from the twisted cable pairs at the LVDS connector while referencing cold ground.



***Warranty
replacement Requires
pre-authorization.**

INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

Does the back light function and then turn off or is there a dark horizontal line on the screen?



YES

NO

INFO

FORWARD

BACK

HOME

END

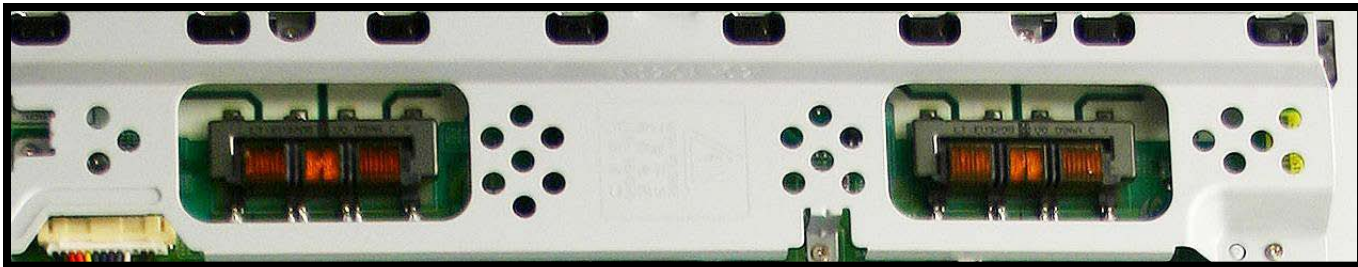
INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

If available, try one or both inverters. If this does not help, replace the **LCD Panel.*****

LCD PANEL IS
MOST LIKELY.

***Warranty
replacement Requires
pre-authorization.



For parts information contact the Toshiba National Parts Center 1-800-345-9785

INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

Is 24vDC present at pins 1 through 5 of P803 on the Power Supply when the power button is pushed?

YES

NO

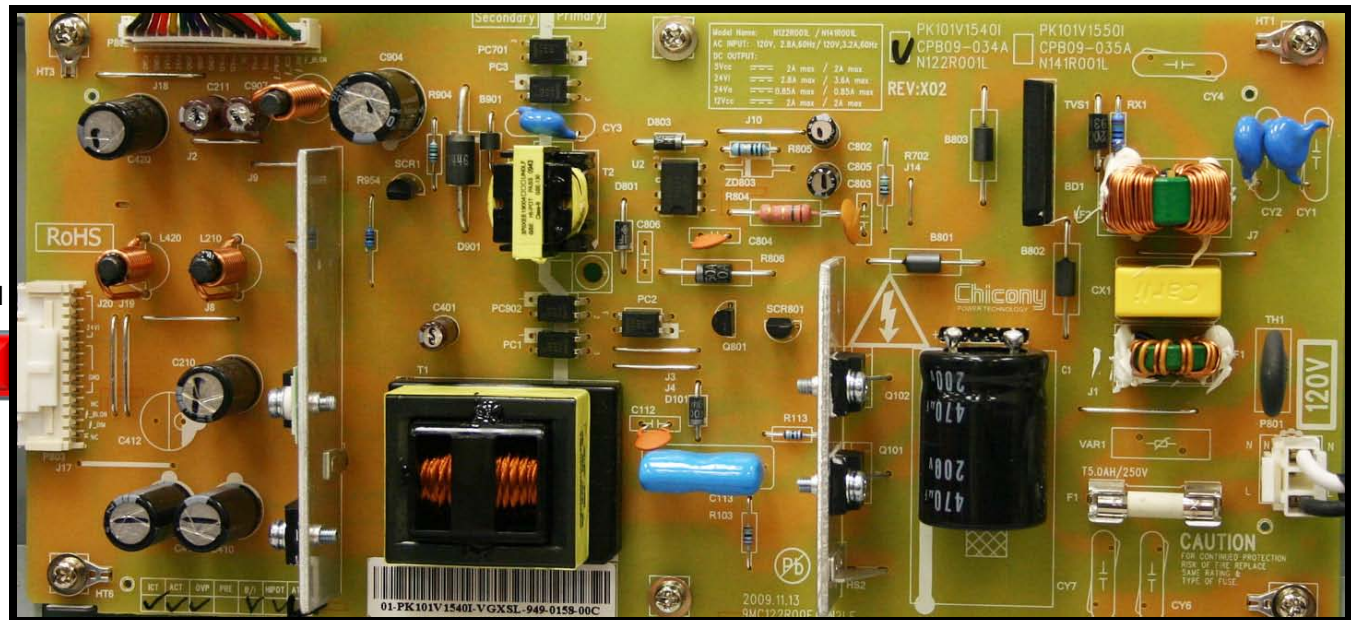


To Inverter

1. 24V<
2. 24V<
3. 24V<
4. 24V<
5. 24V<
6. Gnd
7. Gnd
8. Gnd
9. Gnd
10. Gnd
11. NC
12. BL On 5V<
13. Dim .1 to 3.2V<
14. NC

PIN 1

P803



INFO

FORWARD

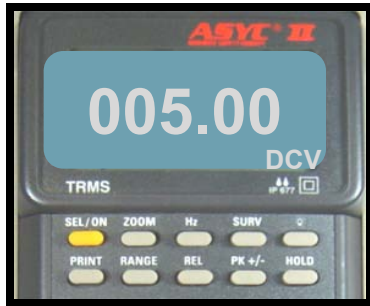
BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS



Does 5vDC appear at pin 16 of P802 after the unit is turned on?

YES


NO

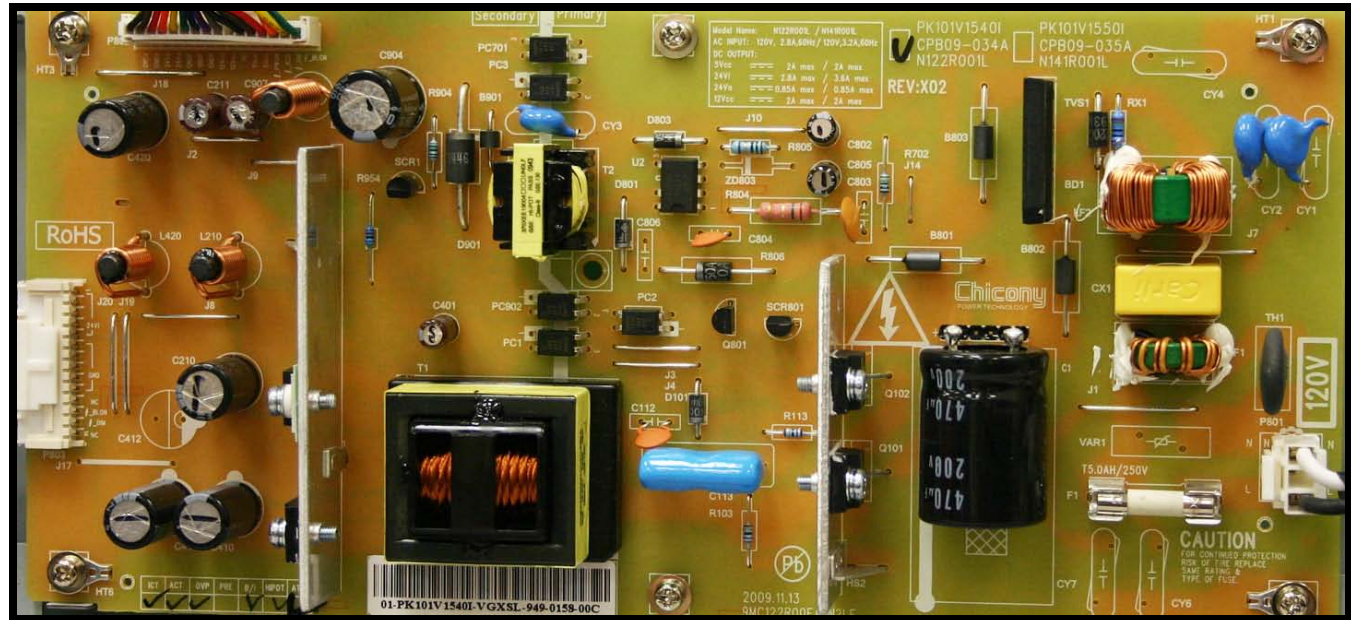
P802

P802



Power Supply In/Out

1. Gnd
2. Gnd
3. 24V Aud>
4. 24V Aud>
5. Gnd
6. Gnd
7. Gnd
8. 12V>
9. 12V (Panel Pwr.) >
10. NC
11. 5V>**
12. 5V>**
13. Pwr. On (Enable) 3.6V<
14. AC Det.(PWR Good) .07V>
15. Dim .1 to 3.3V<
16. BL On 5V< 



INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

If available, try one or both inverters. If this does not help, replace the **LCD Panel.*****

LCD PANEL IS
MOST LIKELY.

***Warranty
replacement Requires
pre-authorization.



For parts information contact the Toshiba National Parts Center 1-800-345-9785

INFO

FORWARD

BACK

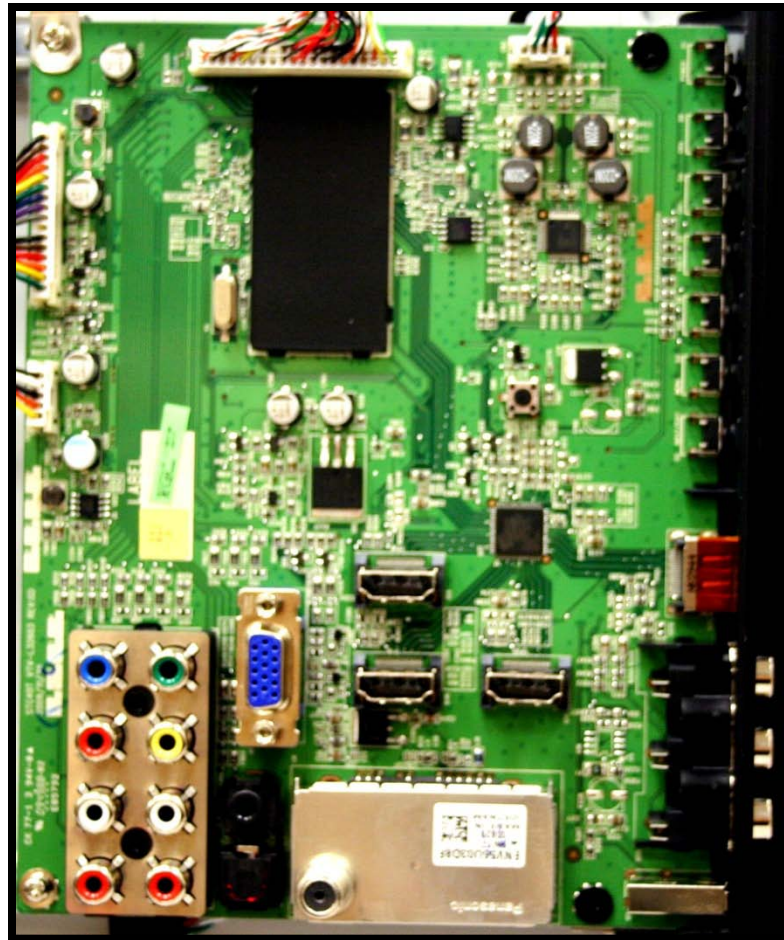
HOME

END

INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

Replace the Main PCB



INFO

FORWARD

BACK

HOME

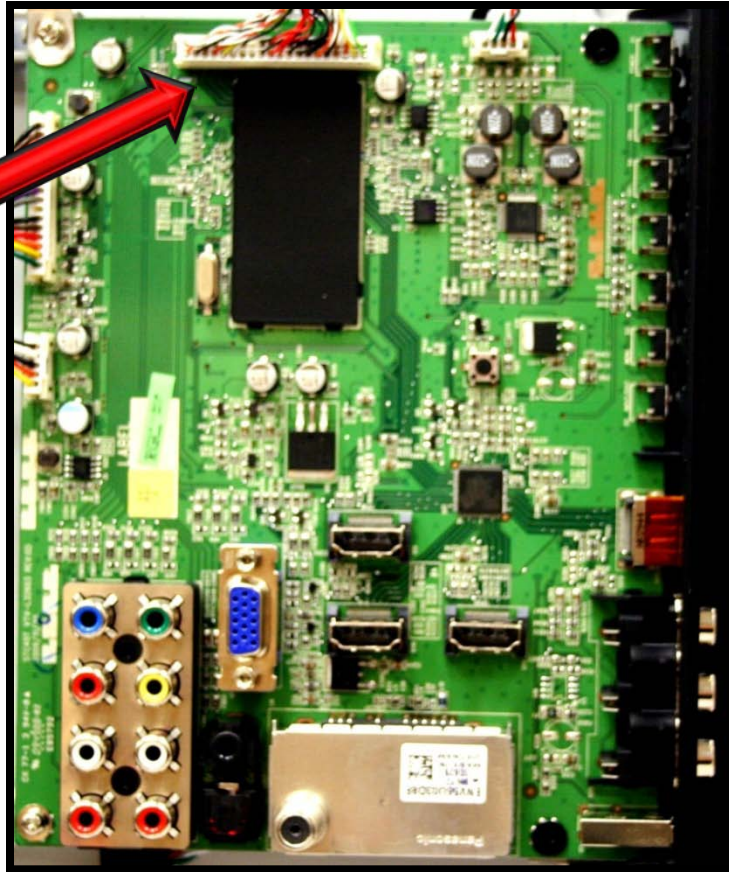
END

INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

Remove AC, unplug the LVDS cable, then reapply AC. Turn the set on. Does 24vDC return to P803?

UNPLUG



YES

NO

INFO

FORWARD

BACK

HOME

END

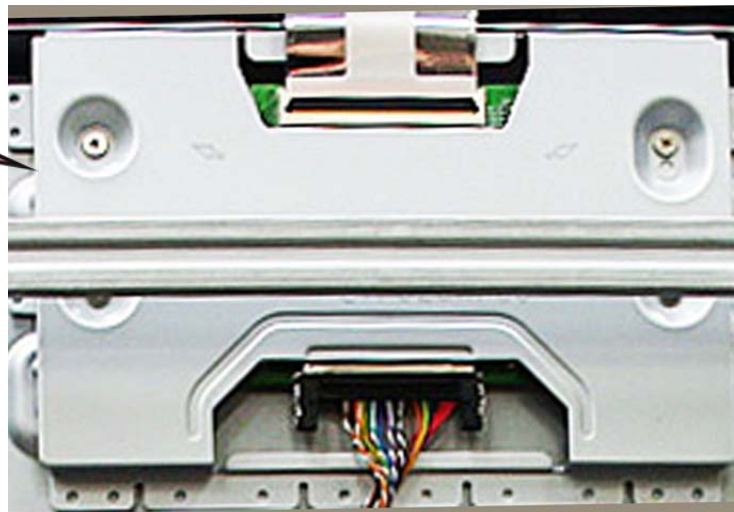
INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

If the T-Con (Timing Control Board) is available, try it. If not, or if it does not help, replace the LCD Panel.***

T-Con

**T-CON POSSIBLE
BUT NOT LIKELY**



*****Warranty
replacement Requires
pre-authorization.**

For parts information contact the Toshiba National Parts Center 1-800-345-9785

INFO

FORWARD

BACK

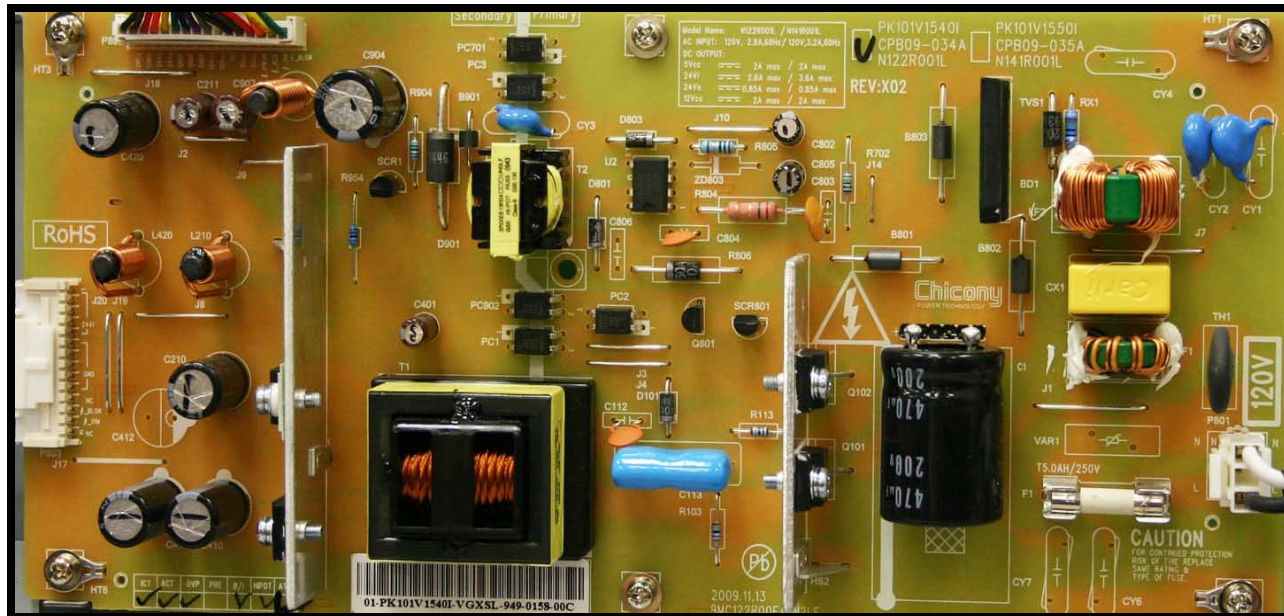
HOME

END

INTERACTIVE TROUBLESHOOTING

BACKLIGHT PROBLEMS

Replace the Power Supply



INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

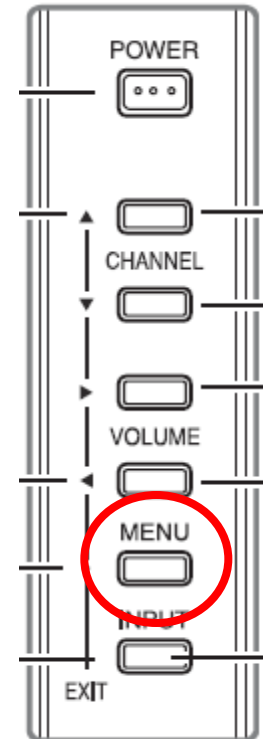
NO AUDIO

Using the Remote or the manual keyboard, access the menu. Make sure the speakers are on and the input selection is a known good source. Did this restore audio?



YES

NO



INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

NO AUDIO

PROBLEM SOLVED

INFO

FORWARD

BACK

HOME

END

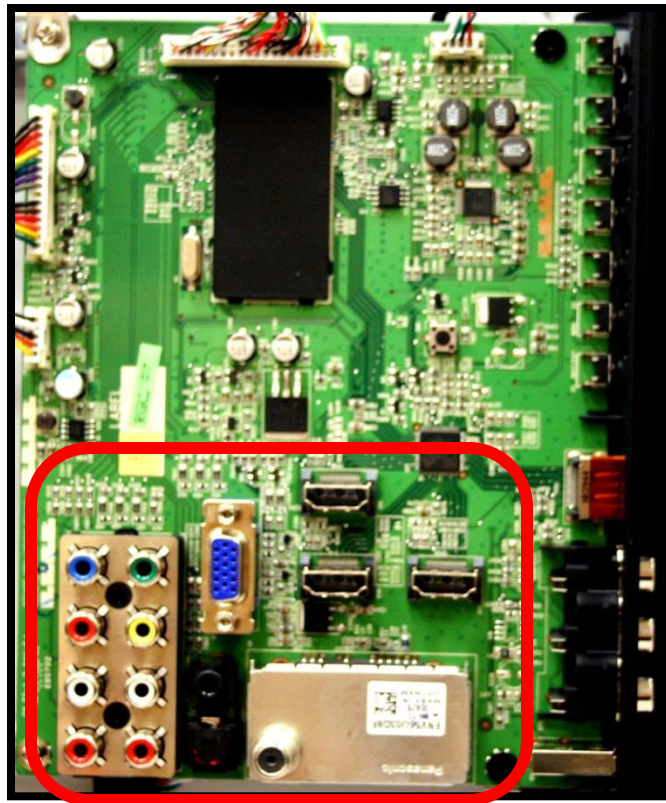
INTERACTIVE TROUBLESHOOTING

NO AUDIO

Is audio missing or distorted on all sources?

YES

NO



INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

NO AUDIO

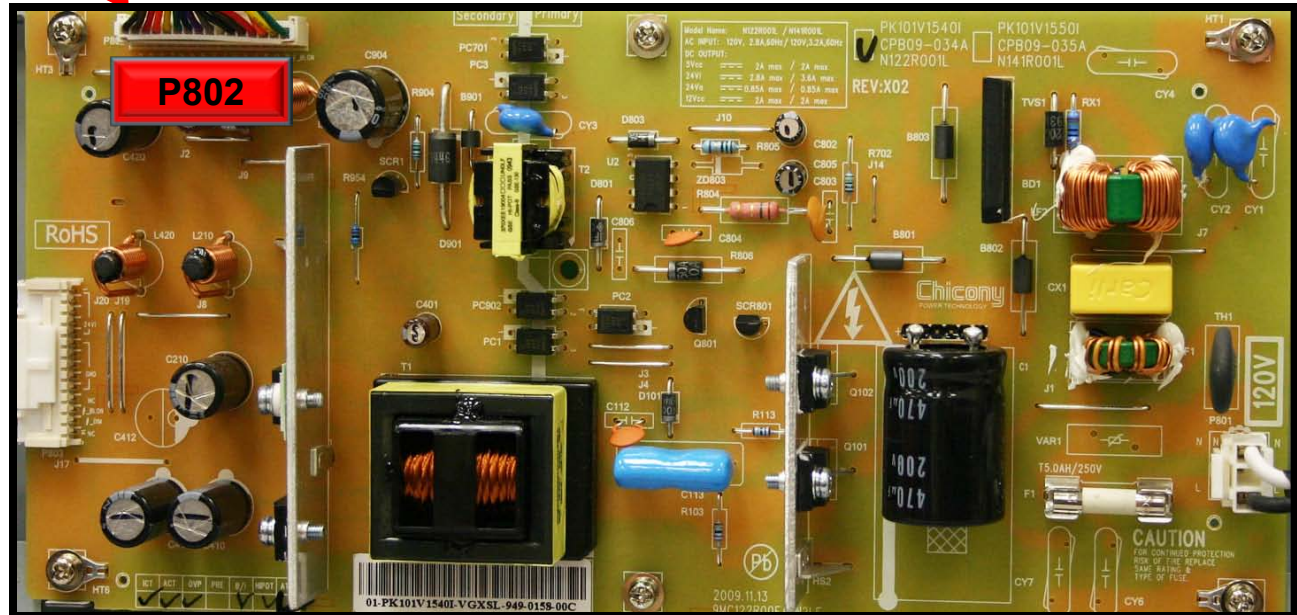
Does 24vDC appear on pins 3 and 4 of P802 when the set is turned on?

YES

NO



P802 Pin 1



P802

Power Supply In/Out To/From Main Board

1. Gnd
2. Gnd
3. 24V Aud>
4. 24V Aud>
5. Gnd
6. Gnd
7. Gnd
8. 12V>
9. 12V(Panel Pwr.)>
10. NC
11. 5V>**
12. 5V>**
13. Pwr. On (Enable) 3.6V<
14. AC Det.(PWR Good) .07V>
15. Dim .1 to 3.3V<
16. BL On 5V<

INFO

FORWARD

BACK

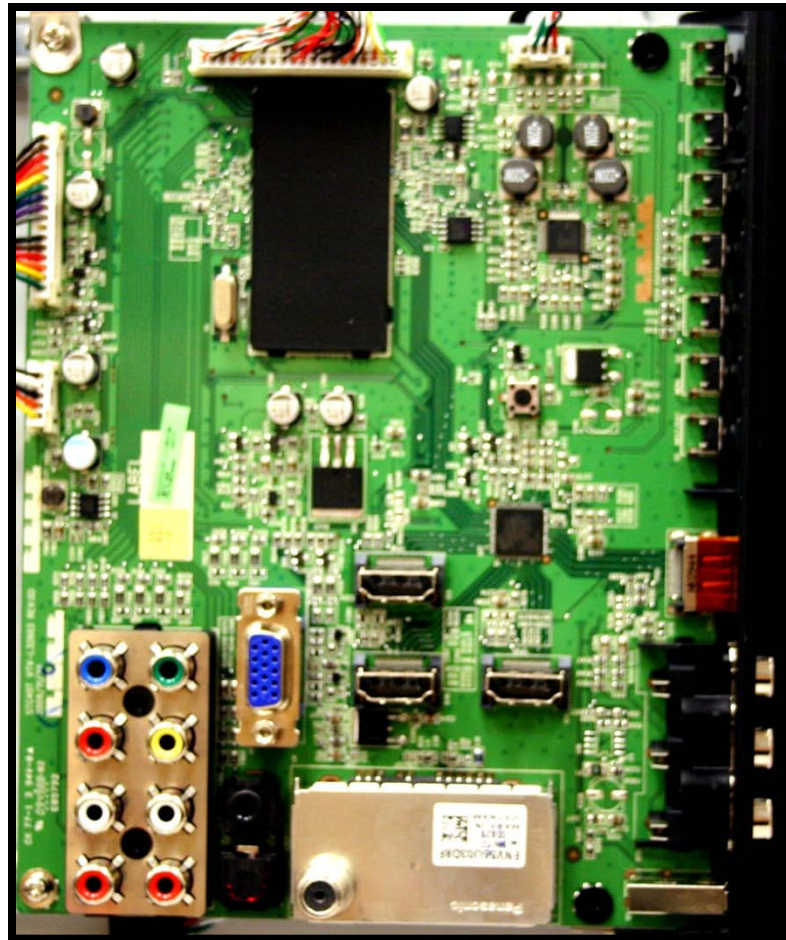
HOME

END

INTERACTIVE TROUBLESHOOTING

NO AUDIO

Replace the Main PCB



INFO

FORWARD

BACK

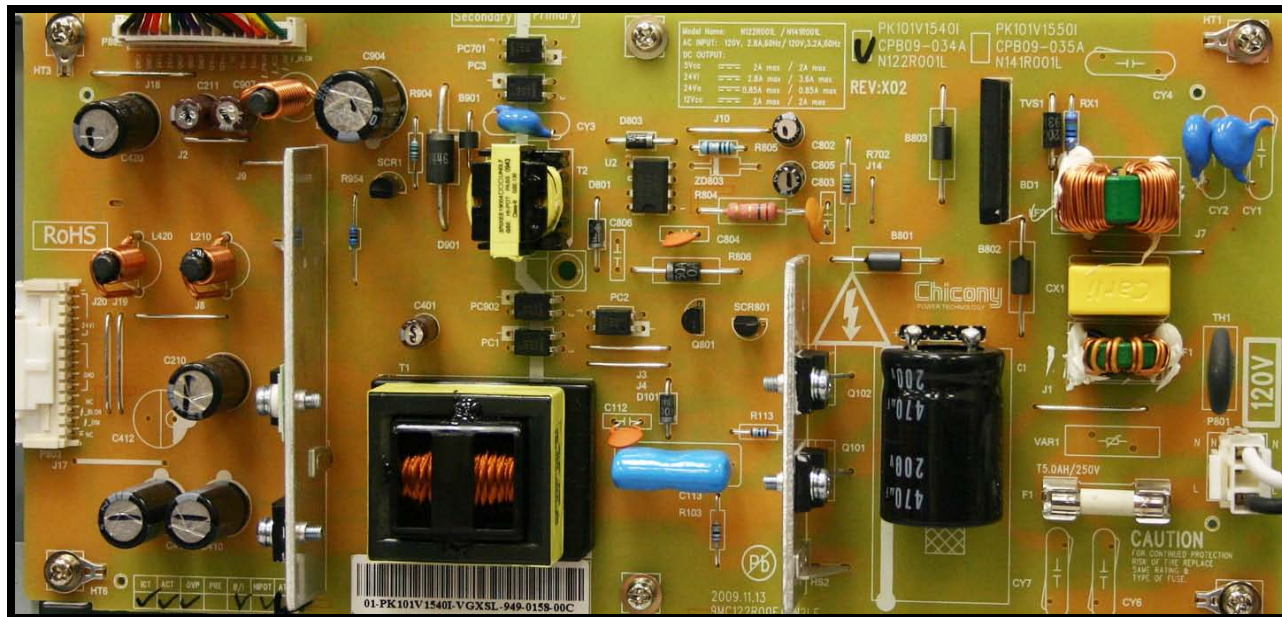
HOME

END

INTERACTIVE TROUBLESHOOTING

NO AUDIO

Replace the Power Supply



INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

NO AUDIO

Did a firmware upgrade solve the audio problem?

YES

NO



INFO

FORWARD

BACK

HOME

END

INTERACTIVE TROUBLESHOOTING

NO AUDIO

PROBLEM SOLVED

INFO

FORWARD

BACK

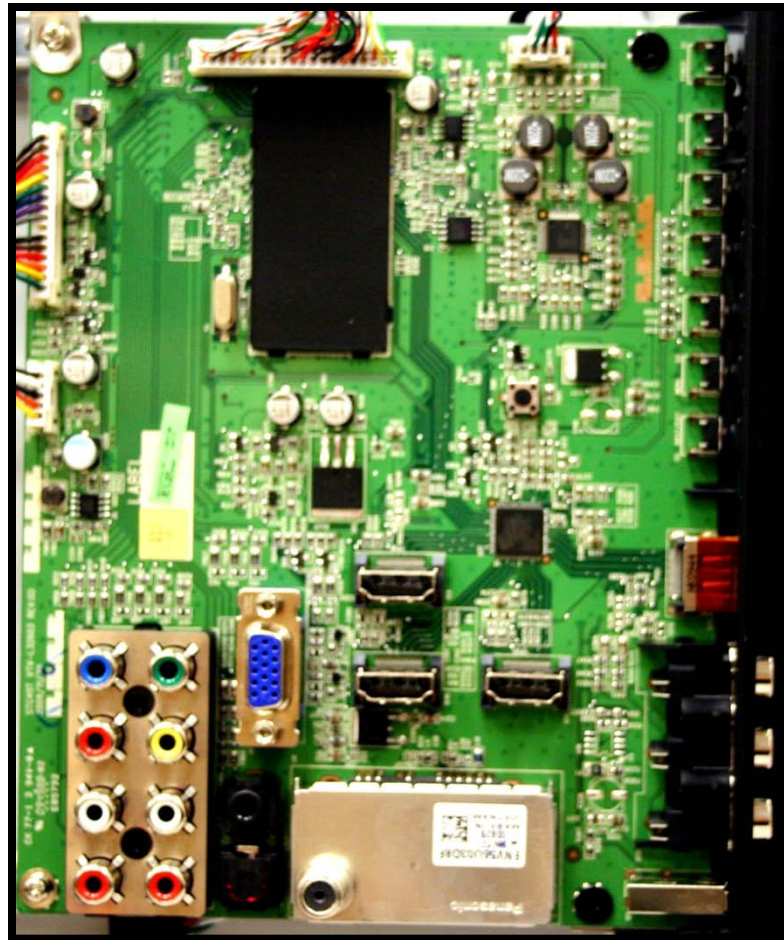
HOME

END

INTERACTIVE TROUBLESHOOTING

NO AUDIO

Replace the Main PCB



INFO

FORWARD

BACK

HOME

END



**THIS CONCLUDES 2010 LCD410
SERIES 3 - INTERACTIVE
TROUBLESHOOTING**

THANKS FOR ATTENDING

