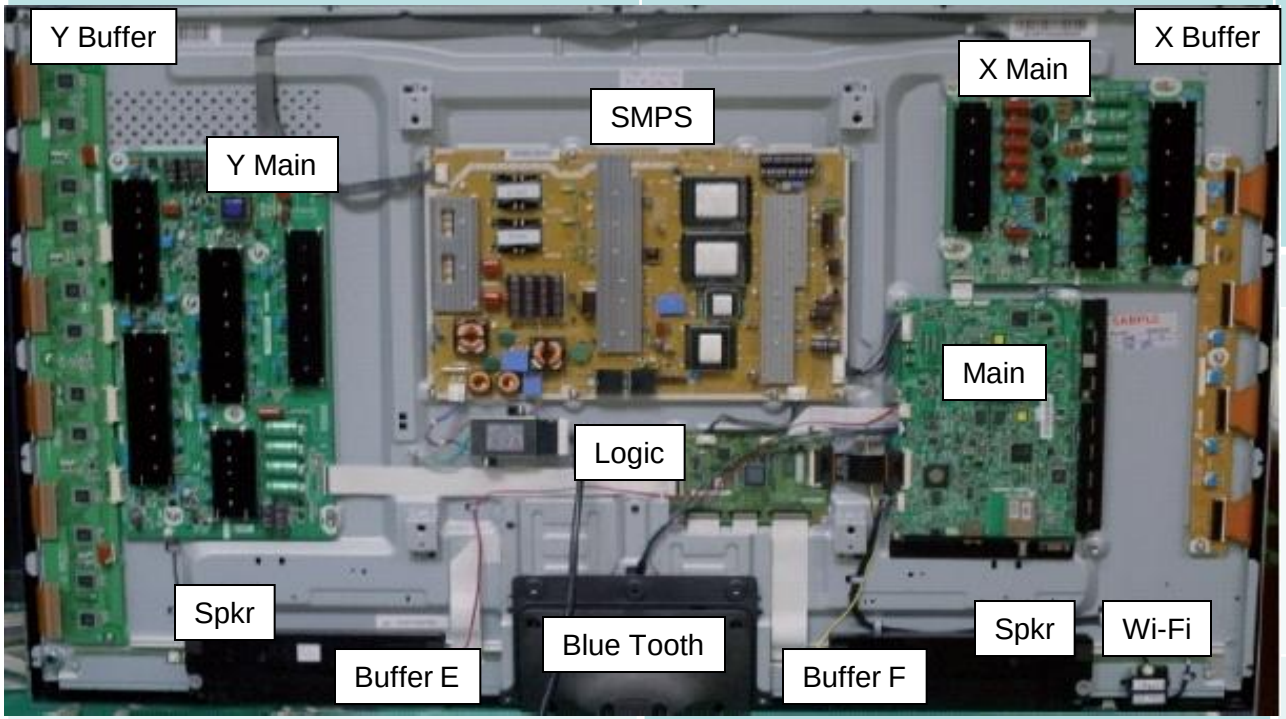


No Service Bulletins

Please check GSPN for parts update!

Quick Parts List:

Version	Parts No	Short Description
N202	BN44-00446A	Power PCB
N202	BN94-04402L	Main PCB
N202	BN96-16521A	Buffer E
N202	BN96-16522A	Buffer F
N202	BN96-16527A	Logic Main PCB
N202	BN96-16528A	X Main
N202	BN96-16529A	Y Main
N202	BN96-16530A	Buffer X
N202	BN96-17107A	RF module PCB
N202	BN96-19070B	Function & IR PCB
N202	BN96-19432A	Y Main Scan
N202	BN96-17359A	Panel
N202	BN96-16788A	Stand Guide
N202	BN96-16807A	Front Cover
N202	BN96-16825A	Rear Cover
N202	BN96-18195A	Stand Guide Neck
N202	BN96-18954C	Stand Base
N202	BN40-00208A	Tuner
N202	BN96-18070A	Speaker
N202	BN96-18130H	LVDS Cable
N202	4301-000103	Battery
N202	BN96-09872R	Power Cord

HELP: 1-888-751-4086 (Tech Support)
1-866-894-0637 (FE)

GSPN
http://gspn3.samsungcsportal.com

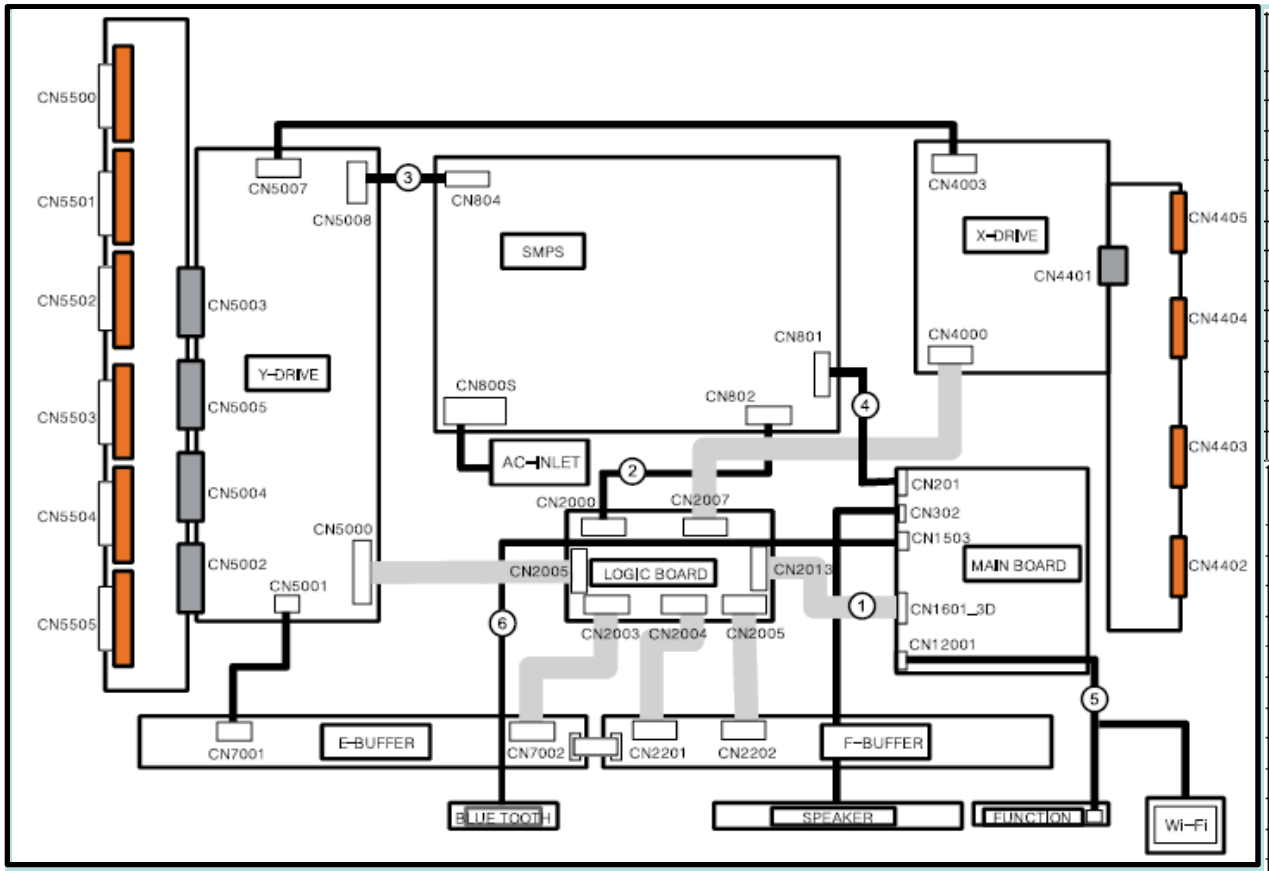
PLUS ONE
http://my.plus1solutions.net/clientPortals/samsung

HOT TIPS
-Power On Problems: (pg. 3)
-Video Problems: (pg. 4)

Latest Firmware:
Please check Samsung.com for latest update!

2011 PDP Firmware for D6000, D7000 Series (T-MST5AUSC, 1009.2

■ Firmware for D6000, D7000 Series
- Version : 1009.2
- Folder Name: T-MST5AUSC
- Related Models: LED: D6000, D7000 Series
- Description:
Support 3D Explore and Compassion Apps



(4) CN801 (SMPS) - CN201 (MAIN)	
Pin No.	Signal
1	PS_ON
2	STBY
3	GND
4	VAMP
5	GND
6	GND
7	D5.3V
8	D5.3V
9	GND
10	15V
11	15V
12	D5.3V

(5) CN12001 (MAIN) - FUNCTION/Wi-Fi	
Pin No.	Signal
1	B5V
2	Wi-Fi DM
3	Wi-Fi DP
4	GND
5	N/C
6	IR
7	GND
8	A3.3V
9	SCL
10	SDA
11	FUNC_INT
12	LED_STB

Power On Sequence:

1. STBY 5V (CN801, #2, 5v)
2. PS_ON (CN801, #1, 3.3v-0v)
3. VS_ ON (CN802, #6, 0-3.3v)
4. Panel should illuminate briefly

(6) CN1503 (MAIN) - B/T	
Pin No.	Signal
1	Sync_In
2	Sync_Out
3	GND
4	B/T_DP
5	B/T_DM
6	A5V
7	FUNC_INT

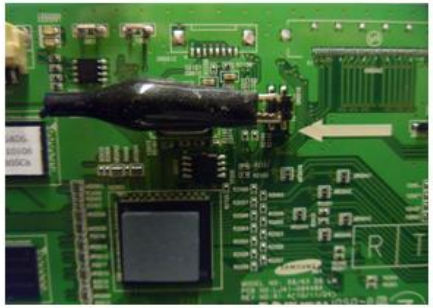
(2) CN802 (SMPS) - CN2000 (LOGIC)	
Pin No.	Signal
1	D5.3V
2	D5.3V
3	GND
4	GND
5	PS_ON
6	VS_ON

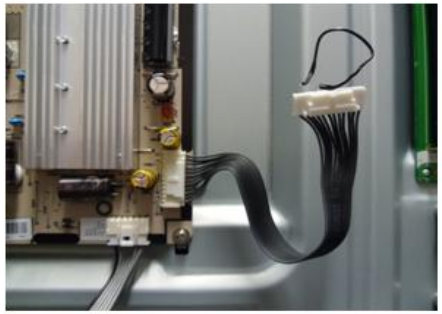
(3) CN804 (SMPS) - CN5008 (Y-BOARD)	
Pin No.	Signal
1	Vs
2	Vs
3	GND
4	Vg
5	GND
6	Va

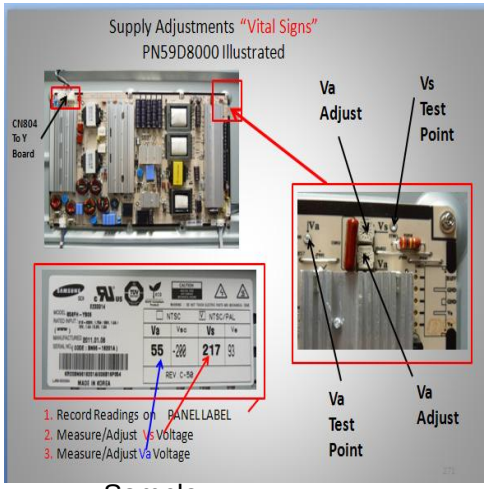
"Troubleshooting"

Activating Power & Logic Board Test Patterns without Main Board:

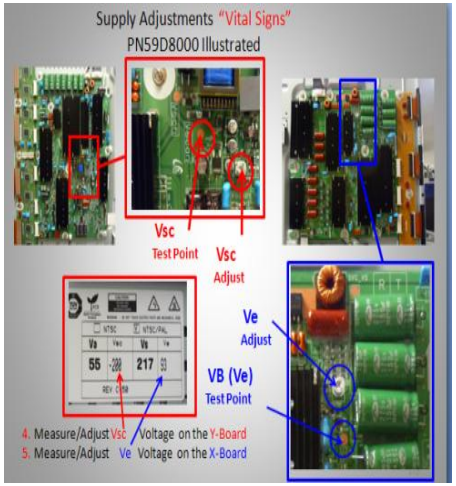
1. Remove Power Cord to Panel
2. Short Highest 2 Pin #s on Logic Board Test Jig (Can be 4 Pin or 6 Pin)
3. Remove Power Connector at Main Board (keeping connection to SMPS)
4. Short "Power On" Pin to Circuit Ground on Power Connector to SMPS.
5. Connect Power Cord to Panel







Sample



"VITAL SIGNS"

When troubleshooting, It's very important to first check **Vs, Va, Vsc & Ve**
If **Vs** is missing (0V), disconnect power and check for short. Use ohm meter to measure resistance while disconnecting Y-Board & X-Board supply feeds one at a time.
Turn Power On and Test SMPS with shorted connector removed for correct Vs voltage verification. (It may only come up briefly but to full level). Be careful not to reconnect power connectors until Vs falls below 10V.

If **Va** is low or missing, disconnect power connectors to Address Boards and Check to see if SMPS Supply is restored. (Note Va feed normally passes through the Y-Drive to the Address Boards (Logic Buffer Boards).

If **Vsc** is low or missing and Vs is OK, the failure is with the **Y-Board** since the Y-Board generates the Vsc voltage from the supplied Vs.

If **Ve** is low or missing and Vs is OK, the failure is with the **X-Board** since the Ve is generated by the X-Board from the supplied Vs. (Please note: In some rare cases the Ve is generated by the Y-Board fed to the X-Board.)

Other SMPS Voltages:
Check Low Voltage feeds to the Main Board and other supplied Assemblies.

Power Supply Trouble Shooting Notes:

2010/2011 models

Will not be run with the "X" or "Y" main disconnected. The SMPS will shut down immediately. However if a meter is first connected to the test point when power is applied it will read the correct voltage briefly before shut- ting down.(You have enough time to check key voltages)

CAUTION: Do not reconnect any connectors to SMPS or Y/X Boards until power has been turned off long enough for Vs to drop below 10V or damage will occur to X or Y Boards.

SMPS Over Current Protection

If a short circuit occurs on either the VS or VA voltage lines, the SMPS stops operating, but should not fail. When the short circuit is removed from the source line, the Power Supply will operate normally again.
Many SMPS Supplies are replaced needlessly!

TROUBLESHOOTING VIDEO PROBLEMS

1. Verify Video Operation

a) **Customer Picture Test** (if available)
b) **"Display"** (If display is OK source is suspected)
c) Substitute with known good Source (**external DVD or Signal Generator**)

2. Using Test Patterns in Service Mode

- ENTERING SERVICE MODE –

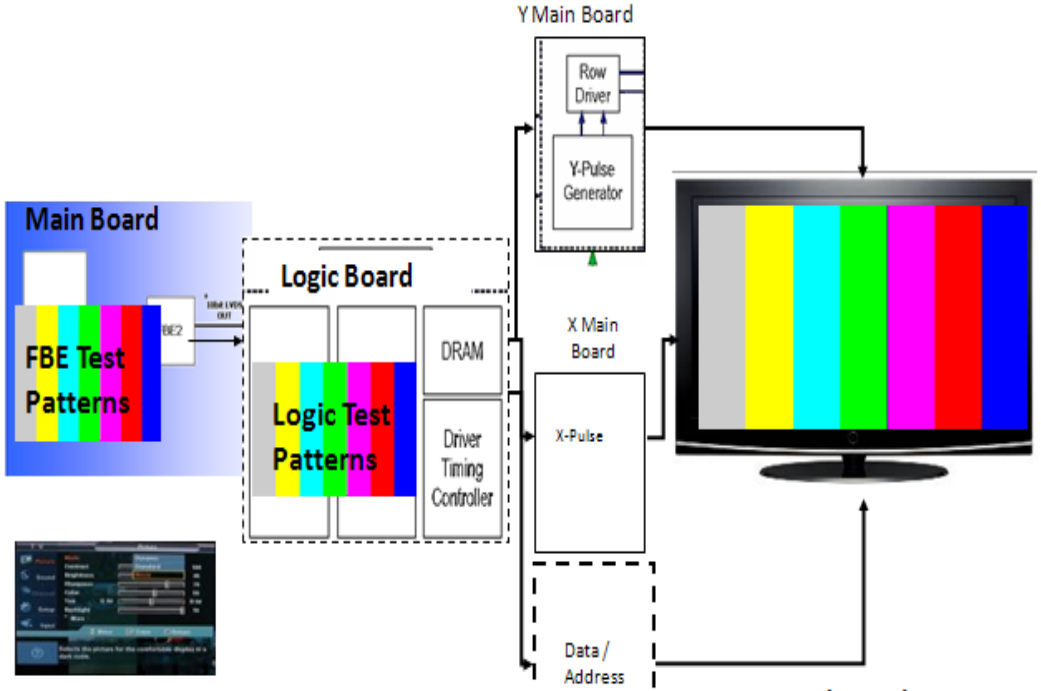
Customer Remote:
1. Power off
2. Mute, 182, Power

Service Remote:
1. Power On
2. Info, Factory

3. Determine cause

a) If Logic pattern is NG; Logic board, Logic buffers or Panel are suspect.
b) If FBE patterns is NG and Logic is OK; Main or LVDS cable are suspect.
c) If both are OK it is likely a source issue.

2010 PDP Signal Path for Troubleshooting



Along with the OSD and the test patterns in the FBE2 IC on the Main board there are additional test patterns on the Logic board that can be accessed from the service mode.

1. Enter Service Mode.
2. Check FBE Pattern Test Signals. (Main Board)
3. Check Logic Pattern Test Signals. (Logic Board)

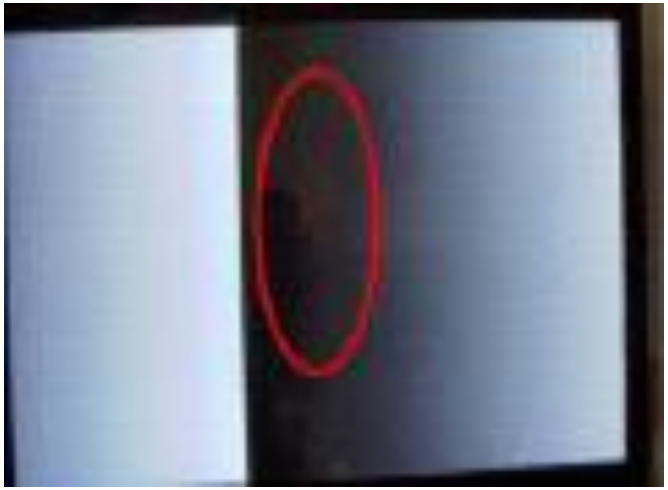
ALIGNMENTS & OPTION BYTES :

1. **Check/Adj. VS, VA, VE, & VSC according to Panel Label and Diffusion test. (see bulletins for any special notes before making changes)**
2. **Check/Set Option Bytes:**
   - ENTER SERVICE MODE -
   a) Customer Remote: Power off; Mute, 182, Power On
   b) Service Remote: Power On; Info, Factory

Model Code	PN51D6900DFXZA						
Side Label	Option						
	Type	Model	Tuner	Light Effect	Ch Table	Country	Front Color
N201	51DSArD	PD6900	SI_ATC	OFF		USA	P-W-VIO
N202	51DSArD	PD6900	SI_ATC	OFF		USA	P-W-VIO

DIFFUSION TEST/ADJ. (cell miss-firing, older units)

- Allow the unit to warm up 15 to 20 minutes
- Access the Burn Protect Sig. Pattern in Cust. Menu.
-Adjust the Vs volts until screen errors are gone in both dark and bright areas.
- Adjust the Vs volts within +/- 10V on the panel label.



SPECIAL NOTES:

See bulletin "Red Dots" for correction/ adjustments for this model.