

SAMSUNG

Fast Track Troubleshooting

IMPORTANT SAFETY NOTICE – “For Technicians Only” This service data sheet is intended for use by persons having electrical, electronic, and mechanical experience and knowledge at a level generally considered acceptable in the appliance repair trade. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible, nor assume any liability for injury or damage of any kind arising from the use of this data sheet.

Bulletins:

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Support Information:

HELP: 1-888-751-4086 (Tech Sup. – ASC/SSD) - 1-866-894-0637 (Tech Sup. - FE/ME)

GSPN: <http://gspn3.samsungcsportal.com/main.jsp>

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

Service Mode



How to enter:

- To enter Service Mode, press Mixed Load Bell + Temp. Keys 3 seconds in normal mode until it sends out a beeping sound.
- If pressing Mixed Load Bell + Temp. Keys in Service mode, it will return Normal mode.
- Even though entering Service mode, the operating cycle will not be influenced.

Cycle Count Mode



How to Enter

Press the Mixed loaded bell key in Service Mode.

Definition of Sensor Bar Touch Data Mode

This mode is to bring up the total number of cycles that User have carried out.

Touch Sensor Data Display Mode



How to Enter

- With Power On pressing Mixed Load Bell + Temp. for 3 seconds.
- This action will put the dryer into sensor bar touch data mode
- Dryer will display Sensor Bar data.

Definition of Sensor Bar Touch Data Mode

This mode is default mode of entering service mode.

Continuous Run Mode



How to Enter

Press Mixed Load Bell + Dry Level for 7 sec during Power On State (normal user mode). Once in Continuous Run Mode, display “CC” for 1 sec and the remaining time for 2 sec in turns. The previous cycle will restart during Continuous Run Mode until the mode is deactivated. During Continuous Run Mode, press Mixed Load Bell + Dry Level for 7 seconds to go back to normal user mode.

■ Sensor Bars & temperature sensor check

Sensor Bars

Disconnect harness and test Pink wire Pin 4 to Orange wire Pin 5.

- Approx ∞ Ω without laundry
- Approx $190\Omega \pm 10\%$ with wet clothes

Cycling Thermistor1

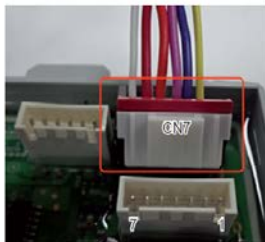
Disconnect harness and test Blue wire Pin 3 to Red wire Pin 6.

- Approx $10\text{ K}\Omega$ at $25^\circ\text{C}/77^\circ\text{F}$

Cycling Thermistor2

Disconnect harness and test Yellow wire Pin 2 to White wire Pin 7.

- Approx $238.231\text{ K}\Omega$ at $25^\circ\text{C}/77^\circ\text{F}$



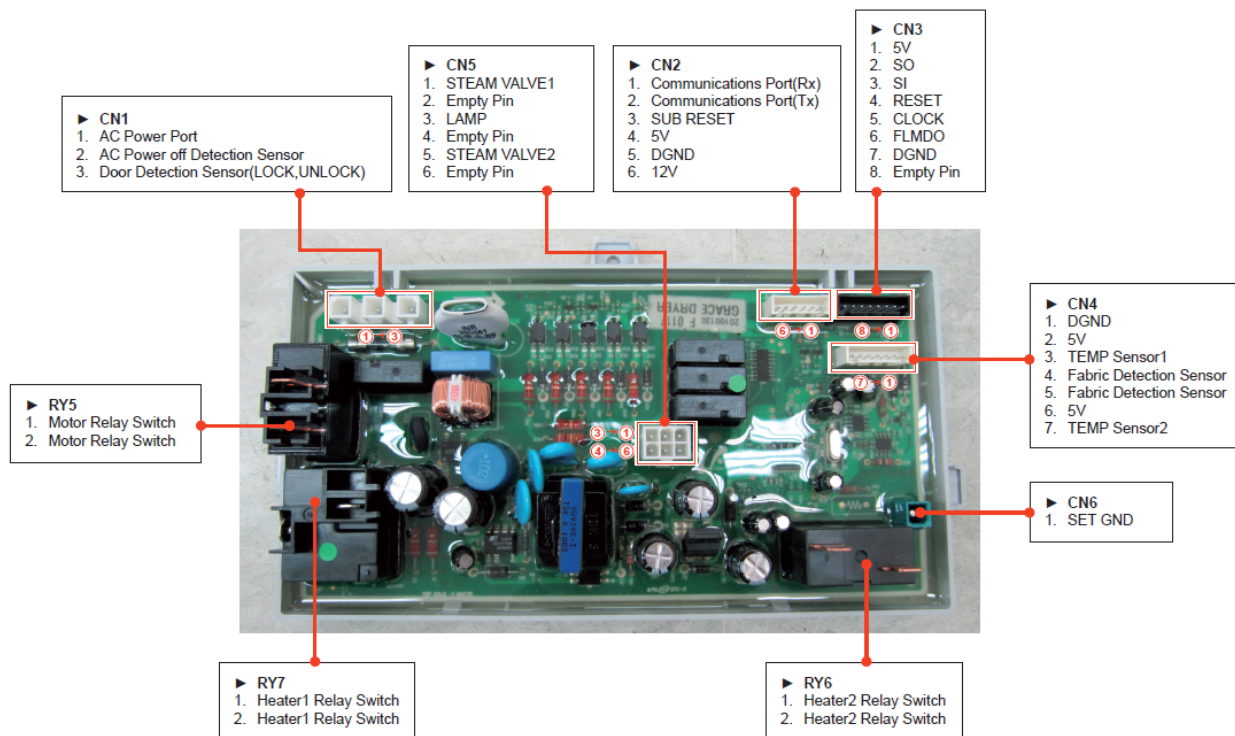
Error Codes

Error Display	Trigger	Action Taken
tE	The Thermistor resistance is very low or high.	Check for: - Clogged lint screen. - Restricted vent system. - Check Thermistor resistance.
dE	Running the dryer with door open.	Check for: - Close the door, and run the dryer. - Loose or open wire terminals in Door Sense circuit.
bE2	Invalid state of key.	Check for: - Display PCB key circuit short or not.
FE	Invalid power source Frequency.	Check for: - Not using regular power source frequency. - Invalid power frequency sense circuit.
9E1	Electronic Control Problem. (Over Voltage Error)	Check for: - Check PCB and Wire harness. - Check Power supply.
AE	Electronic Control Problem. (Communication Error)	Check for: - Check PCB and Wire harness. - Replace PCB.
EEE	Invalid state of Eeprom communication.	Check for : - PCB with Eeprom circuit.
dF	Invalid door.	Check for : - Loose or open wire terminals in Door Sense circuit.
HE	Invalid heating Temp in running the dryer.	Check for : - Call customer service.

Troubleshooting

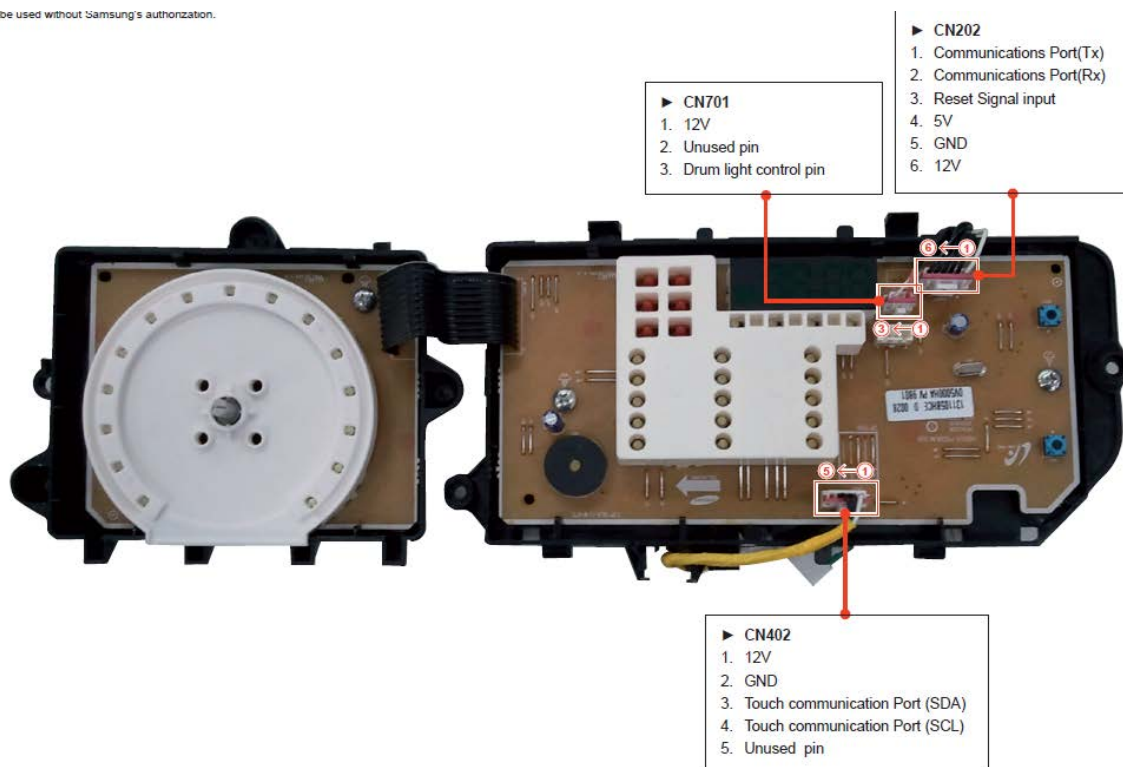
No	Problem	What to do
1	Will Not Start or Run	- All wires are hooked up to their corresponding terminals. - Is the dryer is plugged in. - Blown fuse or circuit breaker. - Is the Door switch functional...door closed. Check for error code 3 (See Table for code definition). - Start/Pause rotary selector dial functional. - Is the control Board operational. - Belt off or broken and Belt Cut-off Switch operates. - Is the motor functional. - Check motor winding resistance: 2.88ohms between pin #3 and 4, 3.5ohms between pin #4 and 5.
2	Motor runs/ tumbler will not turn	- Belt off or broken/damaged. - Idler tension spring too weak or stretched. - Idler pulley jammed or stuck.
3	Runs a few minutes and then stops	- Lint buildup around drive motor. - Low voltage present. - Blower impeller blocked in blower housing. - Check the actuator of motor.
4	Blows fuses or trips circuit breaker	- Is the belt connected well? - Is the winding of the motor continuous? (Rotor winding, stator winding, generator) - Is the motor protector normal? - If above points are not found, the PCB assembly is out of order. Replace it.
5	Blows fuses or trips circuit breaker (Gas Model)	- During ignition the dryer will draw 6 amps. With the burner ON, the dryer will draw 4.5 amps. If the dryer is drawing amperages above this, then the house wiring, fuse box or circuit breaker is suspected to be at fault. - Igniter harness loose and shorted to base. - Incorrect wiring or wire shorted to ground. - Drive motor winding shorting to ground.
6	Will not heat (motor runs)	- Open heating element. - Hi-Limit trips easily or is open. - Regulating thermostat trips easily or is open. - Membrane switch open. - Check Thermistor.
7	Will Not Dry Gas Model Poor Gas Ignition	When the dryer is operated on a heat setting, the igniter should be energized and burner shall fire within 45 seconds at 120 VAC. The failure of a component in this system will usually be indicated by one of three symptoms (No.8, No.9, No.10)
8	The igniter does not glow	If the igniter does not heat up, remove power and using an ohmmeter, check the following: - Open flame sensor - Open igniter - Shorted booster coil - Open wiring - Bad motor switch (Neutral supply) - No power from control (L1 supply)
9	Igniter glows - No gas ignition	If the igniter heats up but the main burner flame is not ignited, remove power and using an ohmmeter, check the following: - Open secondary coil - Open holding coil - Open wire harness - Stuck flame sensor (Stuck closed)
10	The gas is ignited but the flame goes out	If a normal ignition takes place and after a short while the flame goes out, check for the following: - Radiant sensor contacts opening prematurely. - Weak gas valve coil may open when stressed by higher Temps. - Weak Hi-Limit - Poor venting - Bad drum seals
11	Improper drying clothes wrinkled Rough texture long dry time	- The lint filter is not clean. - Any restriction in the exhaust. - The outside exhaust hood damper door stuck closed. - Is the exhaust too long, too many elbows, flex ductwork installed. - Poor intake air available for the dryer. - Incorrect tumbler speed. Tumbler belt slipping. - Blower impeller bound; check for foreign material in blower area. - Customer overloading dryer. - Check clothing labels for fabric content and cycle selected. - Clothes too wet due to insufficient spin out by washer.
12	Noisy and/or Vibration	"Thumping" Check for loose tumbler baffle, rear tumbler roller(s) worn or misaligned, out-of-round tumbler or high weld seam on tumbler. "Ticking" Check for loose wire harness or object caught in blower wheel area. - Scraping Check for front or rear bulkhead felt seal out of position or worn tumbler front bearings. "Roaring" Check for blower wheel rubbing on blower housing or bad motor bearings. - Popping or squealing sound. Check for a sticky or frayed belt.

Main PCB

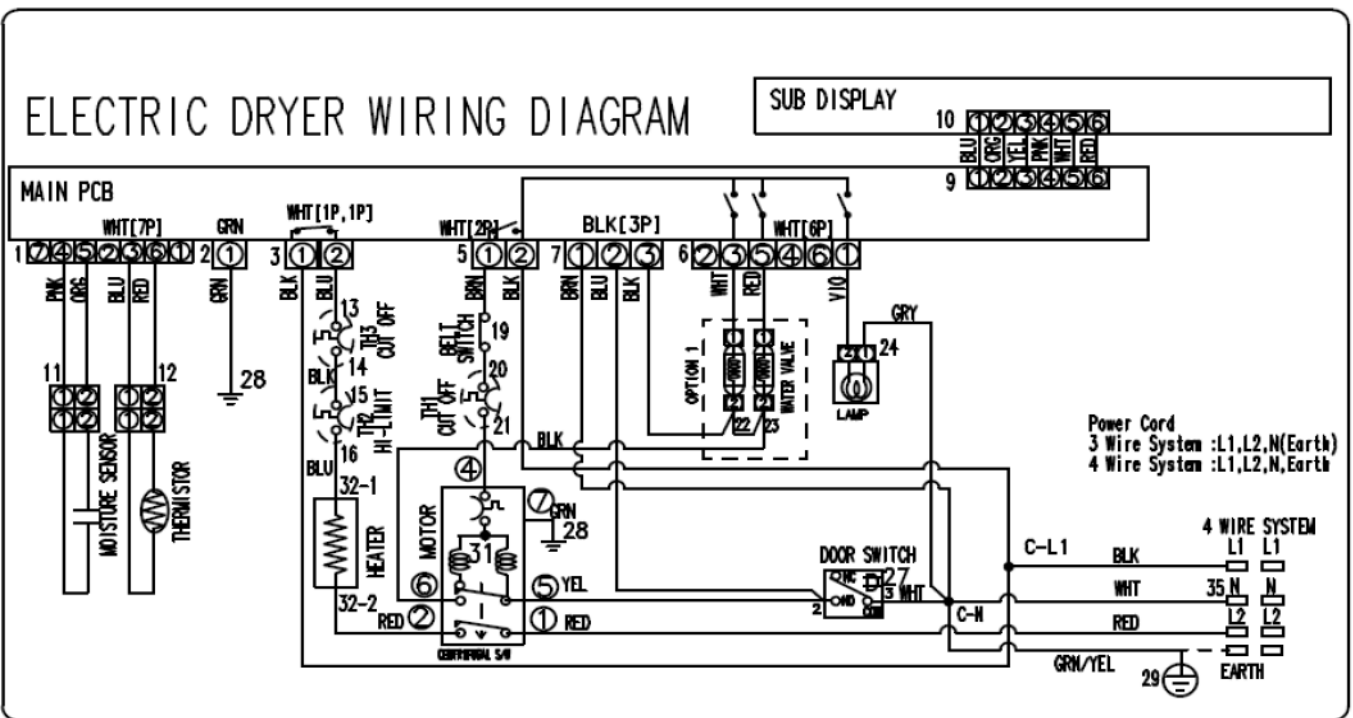


Sub PCB

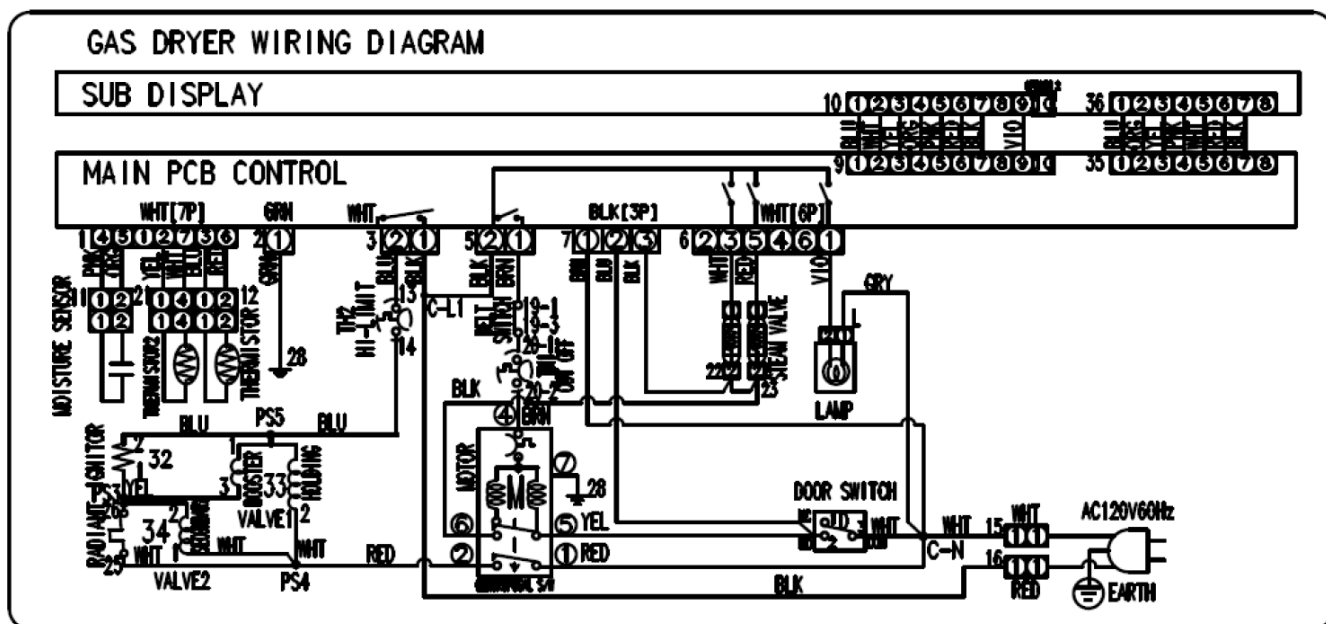
It can not be used without Samsung's authorization.

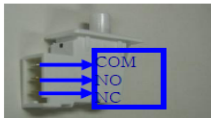


Double Heater



GAS



Parts	Image	Description	Value
[Electric] 			
Thermistor		Unplug connector and test from wire insertion side. Pin #2 and Pin #6 of CN6	10 K Ω @ 77° F/25°C
Door Switch		Unplug connectors and test switch terminals. Door open terminals COM to NC Door open terminals COM to NO Door closed terminals COM to NC Door closed terminals COM to NO	Infinity Less than 1 Ω Infinity Less than 1 Ω
Lamp		Unplug connectors and test switch terminals. Check across terminals	80 to 100 Ω
Belt Switch		Unplug connectors and test switch terminals. Check across terminals switch closed Check across terminals switch open	Less than 1 Ω Infinity

Parts	Spec	Description	Value
Thermostat 1  [Electric] 			
Thermostat 1	Thermostat Cut Off 185°F/85°C, 25A	Unplug connector and measure its resistance	Less than 1 Ω
Thermostat 2	Hi Limit 260°F/127°C, 25A (Electric) 230°F/110°C, 25A (Gas)	Unplug connector and measure its resistance	Less than 1 Ω
Thermostat 3	Thermostat Cut Off 320°F/160°C, 25A	Unplug connector and measure its resistance	Less than 1 Ω
Heater	230V / 4700W	Unplug connectors and test Heater terminals	10 Ω