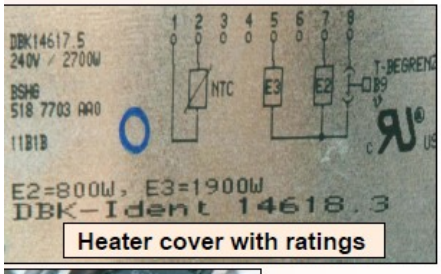
WTA 35 & WTL 54 Service Tips -- NTC

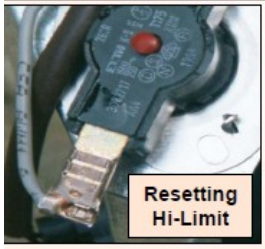
R2, Hi-Limit & Heater

HINT: NTC R2 reads ~ 21 kΩ @ room temperature.

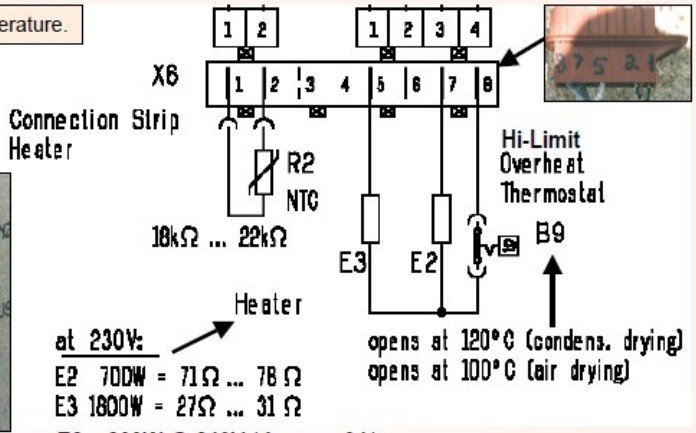
NOTE: Heaters cycle on and off as needed to keep temperatures at appropriate levels.



Heater cover with ratings



Resetting Hi-Limit

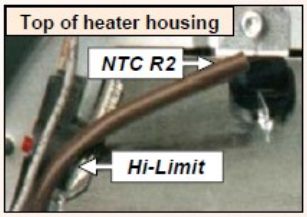


E2 = 800W @ 240V (draws ~ 3A)
E3 = 1900W @ 240V (draws ~ 7A)

HINT: Measure heater E3 between terminals 8 & 5 and heater E2 between terminals 8 & 7. If resistance = ∞, reset Hi-Limit thermostat and remeasure.

HINT: Hi-Limit (safety cutout) trips @:

- 100ºC (212ºF) for WTA 35
- 120ºC (248ºF) for WTL 54

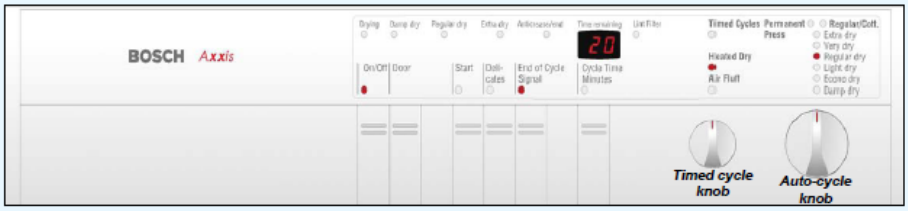


WTA/WTL Service Tips -- Test Program (1)

WTA 35 & WTL 54 dryers have test programs enabling them to self-diagnose problems, including listing the last fault code.

To enter/exit test program for WTA 35 & WTL 54 dryers:

- Rotate *Auto-cycle* and *Timed cycle* knobs to *Off* position.
- Push and hold ***Start*** and ***Delicate*** buttons at the same time, then turn dryer on by pushing *On/Off* button. After pushing *On/Off* button, keep holding ***Start*** and ***Delicate*** buttons until ***Start*** light flashes rapidly. Dryer is now in the test program.
- Lights will *flash* for drying faults -- fault shown will be the last fault code on the dryer (see fault chart on next page).
- *When test program has been entered:*
  - ***Start*** light flashes rapidly.
  - Select individual parts to test by rotating *Auto-cycle* knob as shown on next page.
  - Don't rotate *Auto-cycle* knob or push any button while individual tests are being run (so tests won't stop).
  - Once part to test has been selected, start test by pushing ***Start*** button. ***Start*** light will stay on continually while tests are running. Push ***Start*** button again to end any test. Tests have finished once ***Start*** light flashes rapidly again.
  - To exit test program, push ***Start*** button (while ***Start*** light flashes rapidly).



NOTE: Fault displayed will be 1st fault that occurred since last time dryer was turned on.

WTA/WTL Service Tips -- Test Program (2)

Test parts individually as follows:

- ***Indicating lights & digital display*** – To start test, rotate *Auto-cycle* knob to ***Regular/Cotton Extra Dry***, then push ***Start*** button. To end test, rotate *Auto-cycle* knob out of ***Regular/Cotton Extra Dry*** position.

  Cycle buttons & selector switches – To start test, rotate *Auto-cycle* knob to ***Regular/Cotton Very Dry***, then push ***Start*** button. To end test, push ***Start*** button again (since test doesn't end).
- ***Pump, motor, heater & NTC's*** – To start test, rotate *Auto-cycle* knob to ***Regular/Cotton Regular Dry***, then push ***Start*** button. Test ends automatically.
- ***Sensor conductance*** – To start test, rotate *Auto-cycle* knob to ***Regular/Cotton Light Dry***, then push ***Start*** button. To end test, push ***Start*** button again (since test doesn't end).

Fault	*Possible Causes*	*Flashing Lights*	*Digital Display*
Drying time too long	❑ Control module failed. ❑ Moisture sensor(s) failed. ❑ Hi-Limit ("overheat") thermostat tripped and failed to reset. ❑ Water level switch failed (WTL 54 only). ❑ Supply voltage too low.	● *Anti-Crease/ End*	
Overheating	❑ Control module failed. ❑ Heater failed.	● *Extra Dry*	
R3 NTC failed (short or open circuited)	❑ NTC # R3 failed.	● *Damp Dry*	
R2 NTC failed (short or open circuited)	❑ NTC # R2 failed.	● *Regular Dry*	
Condensed water not pumped out (WTL 54 condensation models only)	❑ Pump failed.		**E1**

WTA/WTL Service Tips -- Test Program (3)

SELECTOR KNOB	KNOB PROGRAMS	KNOB POSITION	LIGHTS				
			Drying	Damp Dry	Regular Dry	Extra Dry	Anti-Crease/End
Program Selector Knob **NOTE**: Red *Regular/ Cotton Very Dry* lights stay lit during this test no matter what program selector position is chosen – no other *Regular/ Cotton* or *Permanent Press* lights comes on.	*Off*	↑					
	Regular/Cotton Extra Dry	↗	On				
	Regular/Cotton Very Dry	↗		On			
	Regular/Cotton Regular Dry	→			On		
	Regular/Cotton Light Dry	↘				On	
	Regular/Cotton Econo Dry	↘					On
	Regular/Cotton Damp Dry	↓	On	On			
	Permanent Press Econo Dry	↙	On		On		
	Permanent Press Light Dry	↙	On			On	
	Permanent Press Regular Dry	←	On				On
	Permanent Press Very Dry	↖		On	On		
	Permanent Press Extra Dry	↖		On		On	
Timed Cycle Knob **NOTE**: *program selector* knob **MUST** be straight up for tests to run. ↑	*Timed cycle Heated Dry*	↗		On			On
	Timed cycle	↘			On	On	
	Timed cycle	↙			On		On
	Timed cycle Air Fluff	←				On	On

Cycle Buttons & Selector Switches Test Chart

NOTES:

- Pushing "START" button after test has ended will repeat it.
- Door can be opened (if desired) during this test.
- *Delicates*, *End of Cycle Signal* and *Cycle Time Minutes* lights stay lit whenever button underneath them is pushed and held.
- Digital display does not come on during this test.

WTA/WTL Service Tips -- Test Program (4)

Pump, motor, heater & NTC's Test Sequence Chart

PART TESTED	TEST ORDER & TIME (SECONDS)																		NOTES
	START	15				5	2	5	29									END	
		3	5	5	2				5	1	5	1	5	1	5	1	5		
Pump	START OF TEST	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	END OF TEST	For WTL 54 condensation dryer only
Motor – right rotation			■	■	■	■	■	■	■				■				■		During 29 second drum reversing cycle, drum runs for 5 seconds on / 1 second off – check drum rotation with door open.
Motor – off		■								■		■		■		■			
Motor – left rotation											■				■				
Heater (E2)						■													Feel for heat with door open.
Heater (E3)								■											Feel for heat with door open.

NOTES:

- Test ends automatically. Pushing ***Start*** button after test has ended will repeat it.
- Opening door stops test – closing door resumes test. To check if drum is turning and if heat is coming out of drum, run test with door open by tripping door latch (by gently pushing it with a screwdriver).

To exit test program (from any test), turn unit off by pressing "*ON/OFF*" button.

WTA/WTL Service Tips -- Test Program (5)

Sensor Conductance Test

HINTS:

- Tests can be run with door closed. Opening door during testing stops the test.
- To run 2nd test with sensors and drum connected, remove top panel and connect jumper to copper braids (for two "brushes" touching outside of drum).
- Drum **must** be empty during these tests – damp clothes in drum will give wrong results.
- Lights won't flash during this test.

To exit test program (from any test), turn unit off by pressing "*ON/OFF*" button.

LIGHTS SHOWING CONDUCTANCE OF MOISTURE SENSORS			
Test	***"Drying" light***	***"Damp Dry" light***	***Comments***
Drum empty –sensors and drum not connected	● *Drying*	○ *Damp Dry*	**No fault**
	○ *Drying*	○ *Damp Dry*	**Fault** – short circuit
Drum empty – with sensors and drum connected	○ *Drying*	● *Damp Dry*	**No fault**
HINT: Remove top panel and jumper between copper braids (to "brushes" touching outside of drum).	○ *Drying*	○ *Damp Dry*	**Fault** – open circuit or circuit resistance is too high

HINT: Using the test program can cut down repair times & eliminate repeat calls from misdiagnosing problems. The pump, motor, heaters, NTC's and moisture sensor conductance tests are more helpful than the buttons, knobs, lights and display tests.