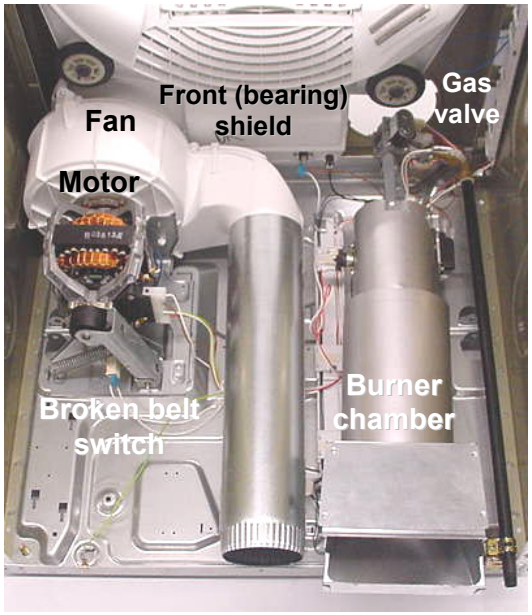
# 4 COMPONENTS

## 4.1 WTVC Gas Dryer Components

Basic components are control module, gas burner, gas igniter, flame sensor, drive motor with fan, two NTC temperature sensors, two hi-limit temperature protectors, moisture sensor and broken belt switch.

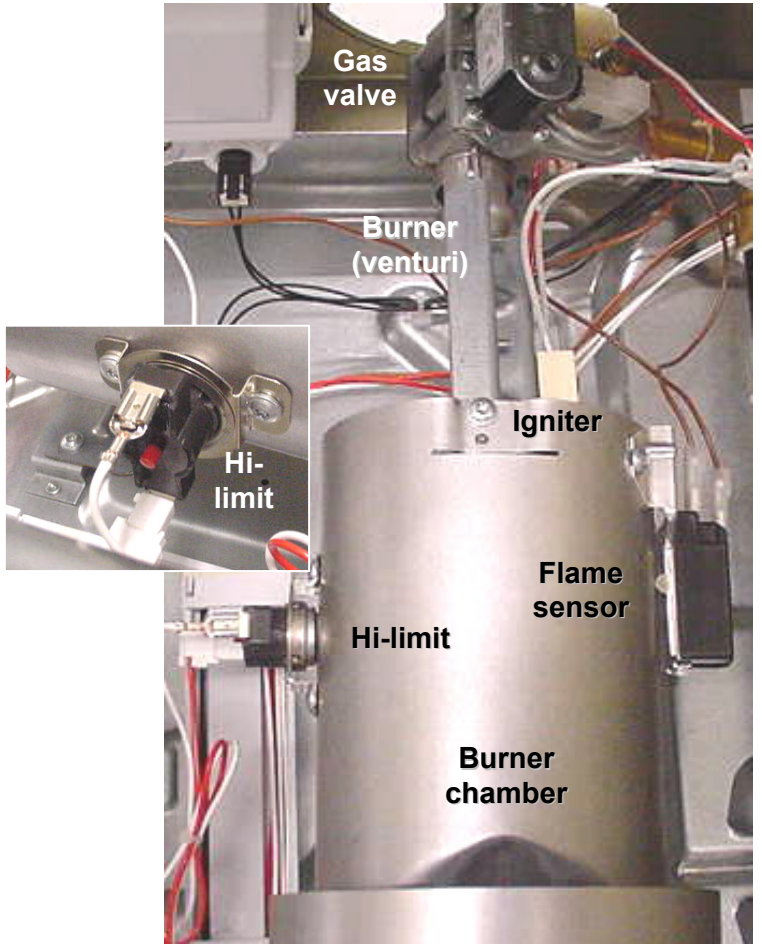



Gas dryers are set up for natural gas and can be converted to LP using a kit (WTZ1280).

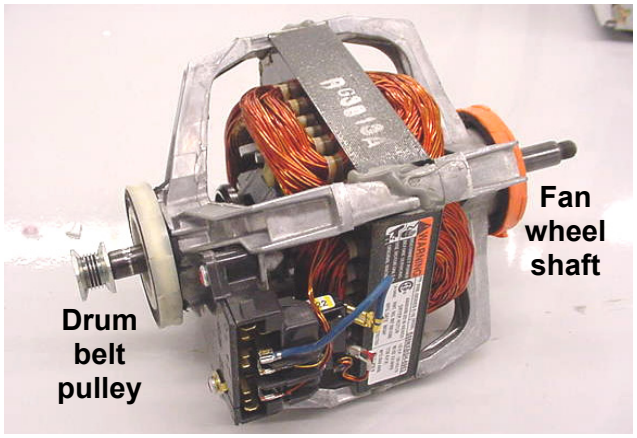
### 4.1.1 Gas burner assembly

Burner assemblies include an NTC temperature sensor and a manually resettable hi-limit temperature protector. The NTC is mounted at the rear of the assembly near where it attaches to the vent.

Push **red** button to reset Hi-limit protector.



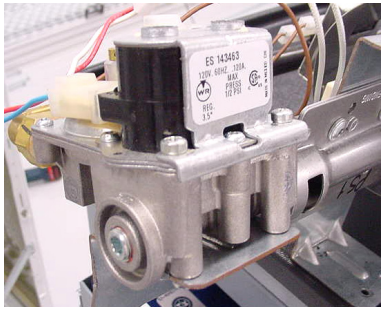
### 4.1.2 Drive motor

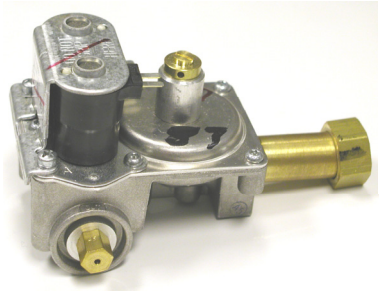



Motor is rated 120 VAC, 60 Hz, 1/3 HP (248.5 W), 5.0 A, 1725 RPM, 40ºC ambient, class B insulation. It drives the fan (in front) and drum (in rear, using pulley shown).

### 4.1.3 Gas valve

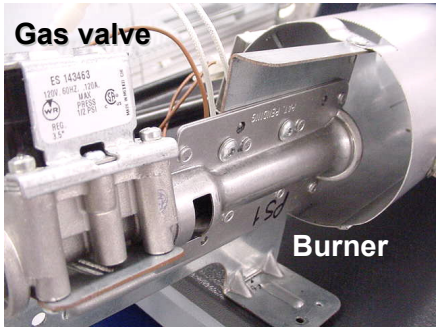
The gas valve, whether natural gas or LP, includes the appropriate regulator and jet (orifice).

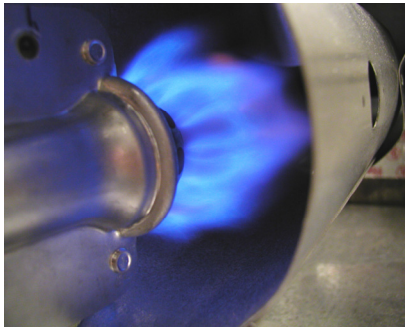




### 4.1.4 Burner

The burner mounts next to the gas valve jet (orifice). A burner ring is used for natural gas dryers to optimize performance.



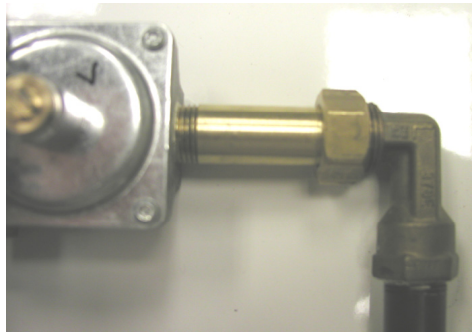
The gas dryer burner circuit runs through the motor & Hi-limit. The connection through the motor cuts out the burner if the motor isn't running.

### 4.1.5 Gas leak testing (using soapy water)

Whenever gas connections are changed or disturbed, they should be checked for leaks using a soapy water solution.

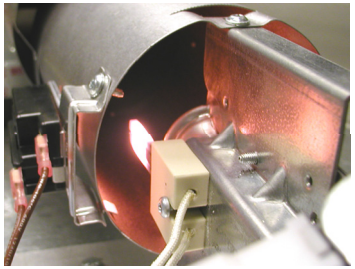
1. Reconnect all gas connections and turn on the gas supply to the dryer, using household gas inlet pressure.
2. Apply soapy water solution with a spray bottle. Spray union and brass connections completely.
3. Watch connections carefully for about two minutes. If there is a leak, bubbles will form in the area of the leak. Soapy water will not stay on connections long, so spray more solution on them when soapy water isn't visible.
4. If bubbles form around the union, tighten the connection and repeat steps 3 and 4 until no bubbles form.

5. If bubbles form around the brass connector or on the gas valve itself, replace the leaking valve with a new one and repeat steps 3, 4 and 6.
6. Clean all soapy water solution with a rag or paper towel.
7. **Never** use a flame to check for gas leaks!



### 4.1.6 Igniter

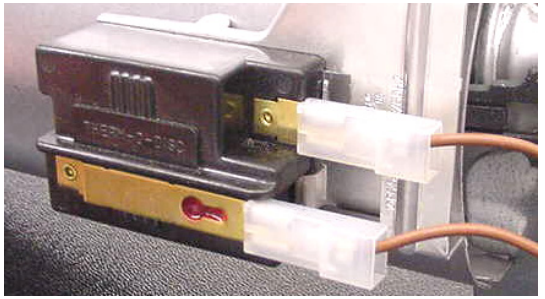
Igniters glow after 30 seconds, reliably igniting gas flames.



Igniters can be damaged if not handled with care.

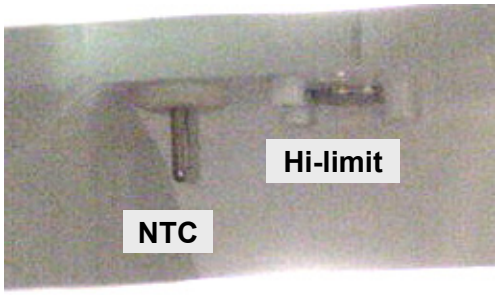
### 4.1.7 Flame sensor

Flame sensors detect flame out in 30 – 60 seconds and direct the igniter to reignite flames.



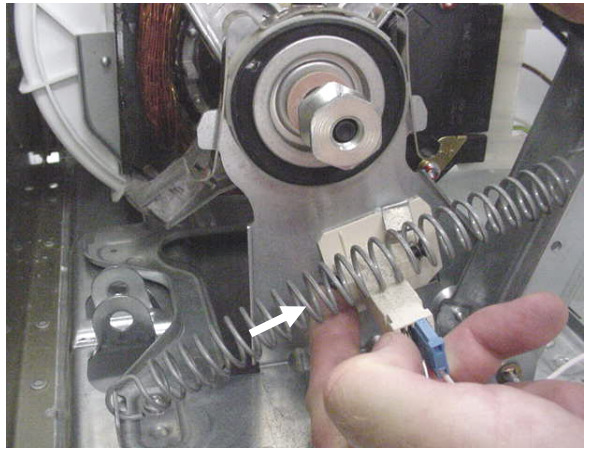
### 4.1.8 Lint screen sensors

The front (bearing) shield contains two sensors – accessible after the lint screen is removed. Along with the heater NTC and hi-limit protector, the lint screen NTC and hi-limit protector provide temperature regulation and safety.

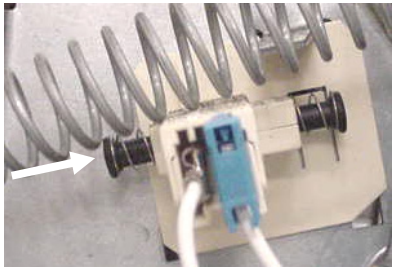



## 4.1.9 Broken belt switch

The broken belt switch prevents the dryer from running if the belt has broken or been left disconnected. It must be manually reset (by pushing the left plunger in (viewing rear of dryer) – the dryer will not run if the switch hasn't been reset.

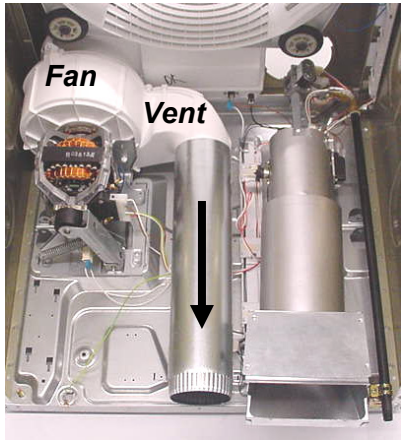


Push **left** plunger (toward right) to reset broken belt switch whenever drum or belt has been removed for **any** repair.



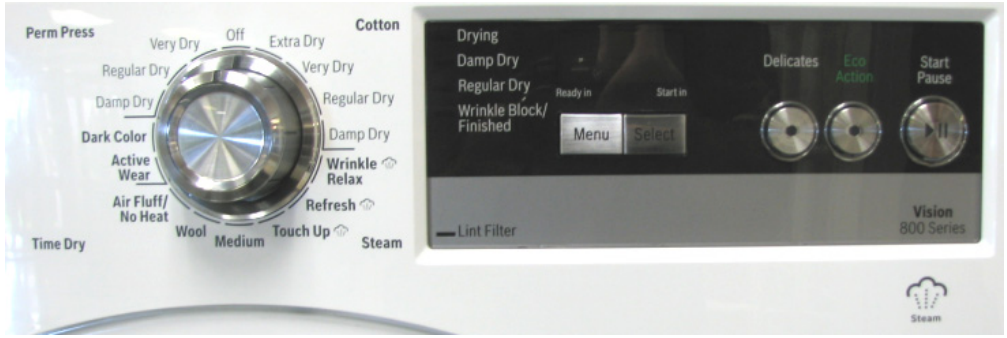
## 4.1.10 Air exhaust duct

Air exhaust duct connects to the fan and allows exhausting through the rear of dryers. Using kits (sales accessories), dryers can be vented out the bottom or right side.




## 4.1.11 Fascia (control) panel

Fascia panel includes the knob, which is factory built into the panel and cannot be obtained separately. Buttons can be obtained separately.



### 4.1.12 Moisture sensor

Moisture sensor consists of two electrodes (located just left of the lint screen on the front bearing shield). Moisture from clothes completes the circuit between the two sensors, showing clothes aren't dry. Placing the moisture sensor on the front shield eliminates sensors inside drums and conductance brushes outside drums.

### 4.1.13 Door switch

Door switch engages the door, turning the light on and off and notifying the dryer the door is closed for drying. To remove it, push the two latches inward and slide the switch toward the front of the dryer.

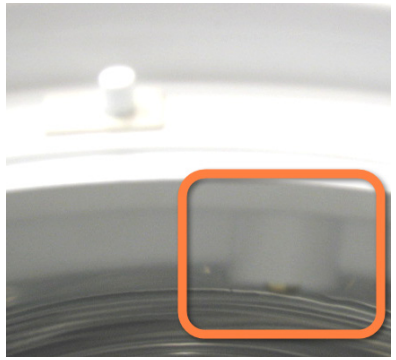
### 4.1.14 Fan wheel replacement

Even though WTVC and WTMC dryers use the same fan motor, they do **not** use the same fan. Due to differing front bearing shield and lint screen dimensions, air flows differently through the two dryers. Dryer control software for each dryer is *carefully matched* to each fan to provide the same drying results.

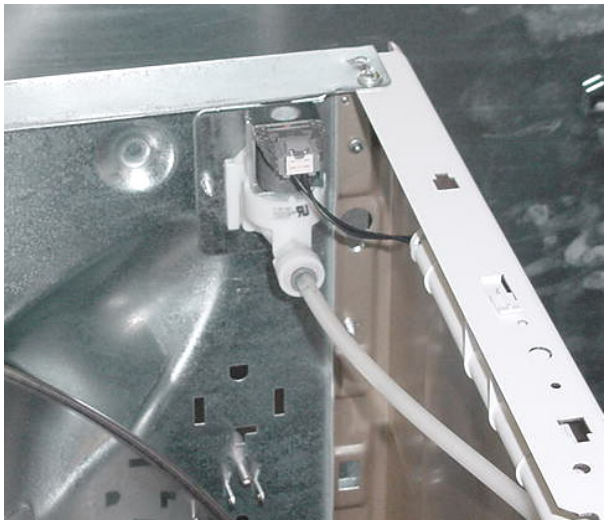
WTMC fan **491640** hasn't been tested in WTVC dryers and WTVC fan **648683** hasn't been tested in WTMC dryers. Fans must **not** be interchanged because it will void the warranty, will affect the UL certification, will affect drying and may generate error codes.

### 4.1.15 Mist care (on selected dryers)

Mist care (on selected dryers) sprays a mist of water into dryers to refresh clothing and relax any wrinkles. Water sprays occasionally as needed, determined by the control.



A cold water inlet valve similar to washers is used.

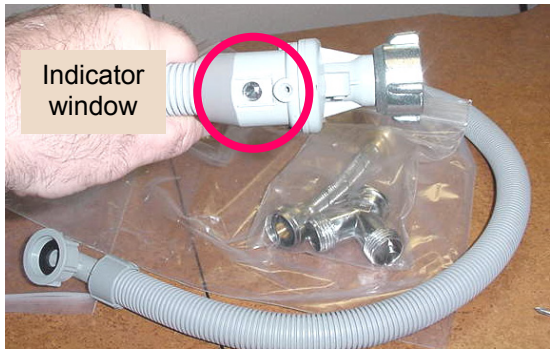



A 90º elbow connects the hose to the nozzle (through a hex adapter). It can be accessed by removing the front panel.

Dryers come with a “Y” adapter, allowing the cold water line to be split and connected to both washer and dryer.

## 4.1.16 AQUASTOP® (aqua secure) inlet hoses

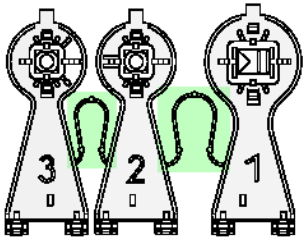
Hot and cold water **AQUA**STOP® inlet hoses eliminate leaking. The **AQUA**STOP® hose consists of an inner hose (~ inlet water tubing) and an outer hose (corrugated, ~ to drain hoses). If the inner hose leaks, a small indicator window will show **red**, meaning the hose must be replaced (hoses cannot be reused once a leak occurs).




**AQUA**STOP® hoses can be used with any washer (or misting dryer) with standard US threads (3/4” NH, 11.5 threads/inch). They protect homes and provide peace of mind for people on vacation and those asleep, busy or who don’t shut off water valves when washers (and misting dryers) aren’t in use.

## 4.1.17 Round button assembly

The three (3) round buttons are joined by delicate plastic rods. Be careful installing or removing buttons so button joining rods aren't broken.

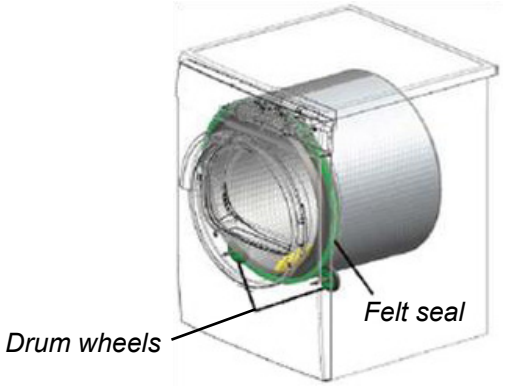



## 4.1.18 Door glass cover

Complete door assemblies are not available. However, all door components can be readily disassembled and replaced, including the outer door glass cover and inner glass bowl.

## 4.1.19 Front felt drum seal

Dryers have a self-adhesive, Teflon coated, felt front seal which can be replaced. When replacing the seal, make sure all old adhesive is removed and no new adhesive gets onto the drum. Any excess adhesive or residue may cause squeaking.




If the seal doesn't fit snugly against the drum, it can be reshaped. After the seal is attached to the drum, wet the seal thoroughly using a spray bottle. Shape the seal toward the drum and run the dryer 20 minutes on a heated timed dry setting. Since felt shrinks when dried rapidly, the seal will shrink to the drum and fit it snugly.

## 4.1.20 Empty drum detection

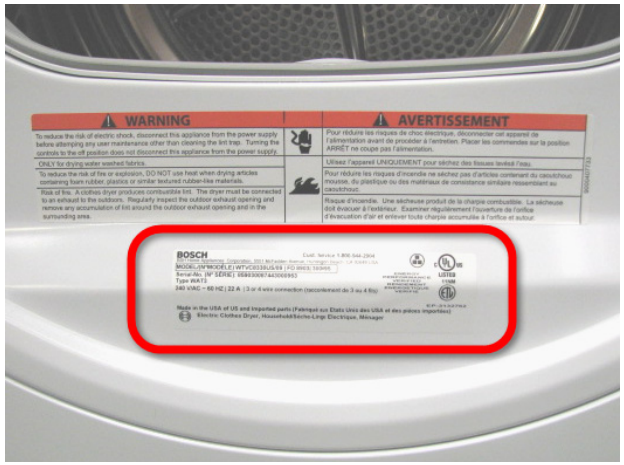
Dryers shut down after 11 minutes if no moisture is detected. Dryers can be immediately restarted.

## 4.1.21 Wrinkle Block/Finished light

If the *Wrinkle Block/Finished* light is on while the display is off, an internal switch (**S3**) on the control board has been damaged and the entire control module has to be replaced.

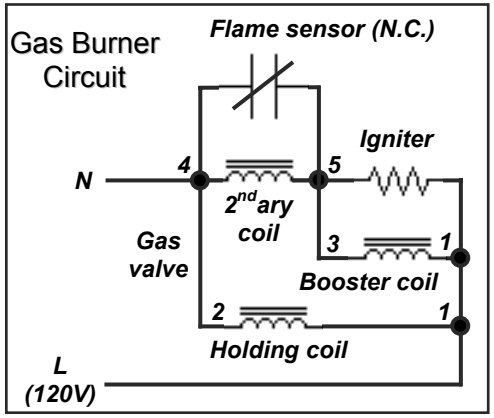

## 4.1.22 Serial # label

The serial # label is located below the door and shows the model (E-Nr) and serial # of the dryer.



## 4.2 Operation

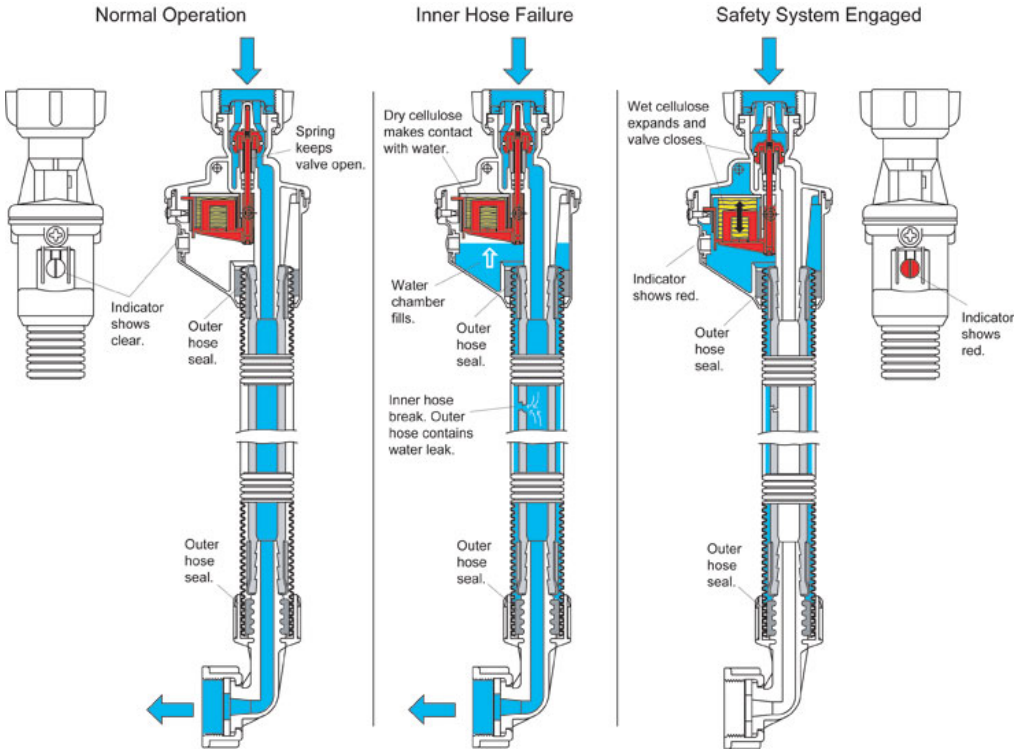
### 4.2.1 Gas burner operation




- ***Starting (& flame out)*** **–** Cool flame sensor is closed, which bypasses secondary coil & turns on igniter & holding/booster coils (to open dual valve). Secondary coil is off (so no gas flows to burner). Igniter current is ~ 4 A.
- ***Running*** – Igniter heats up & opens flame sensor, which turns off igniter & turns on secondary coil (so gas flows to burner). Hot igniter ignites gas – flames keep flame sensor open. Booster coil turns off since current flows thru secondary coil & igniter (~ .1 A) – holding coil stays energized to keep gas flowing.

### 4.2.2 AQUASTOP® (aqua secure) hose operation

The **AQUA**STOP® hose consists of a sealed inner and outer hose and a leak detection / shut-off assembly. A spring holds a plunger open allowing the inner hose to carry water. If an inner hose ever should leak, water fills the outer hose where a sponge in the hose end (connected to the water line) absorbs water, pulling a plunger down to stop water flow and show **red** in the indicator window. The outer hose is sealed and won't leak.




Any remaining water pressure won't re-open the hose, but will help keep the hose closed.

The hose has a one-time failure duty. If an inner hose should ever leak where the indicator shows **red**, the hose must be replaced.

**AQUA**STOP® hoses stop hose leaks, whether appliances are on or not. They're superior to braided hoses, whether nylon or ss, and can be used with any washer (or misting dryer) with standard US threads (3/4" NH, 11.5 threads/inch).