



## *AES Technical Bulletin*

### **Magnum Snap Disks/Safety Sensors**

**Product models covered:** All models of Biomass/Corn/Wood pellet Magnum appliances.

**Topic:** This technical bulletin will be addressing snap disks/safety sensors, what the snap disk does, what will engage the snap disk, which snap disks are installed on each Magnum appliance, snap disk locations, and how repairs are handled so that normal operation can be resumed.

Temperature sensors such as the thermostat disks can go out periodically. We recommend checking them every year and if they are not operating properly replacing them. If the appliance is in a high humidity environment, in the basement, etc. the contacts will rust sitting over the summer and then they will not work well.

#### **WARNING**

##### **These safety features must not be bypassed.**

Always install these appliances on a separate circuit.

Always install a voltage surge protector or ground fault outlet.

In all Magnum appliances the snap disk tells the room air fan to go on. If the room air fan does not come on, this would immediately tell you either the snap disk or the room air fan is bad.

- **Power Outage**

**Magnum Countryside 3500 series (3500P, 3500L, 3502 & J3500), Magnum 6500 & 7500 Furnaces**

During a power outage, the stove will shut down safely. It will not automatically restart when the power returns, unless the exhaust is still up to temperature.

- **Stove Pressure Sensor (Hopper/Vacuum Pressure Switch/Snap-disk)**

**Magnum Baby Countryside (BC-AC & BC-DC), Magnum Winchester series (WIN-ACP, WIN-DCP, WIN-ACI & WIN-DCI), Magnum 6500 Furnace**

A blocked flue, a down draft, open door, open or unlatched ash drawer, open hopper lid, negative or positive pressure in the home, drafty location of the appliance, not hooking up the outside air, improper make up air for the home, improper venting or failure to clean the 3" exhaust in the stove will cause the pressure switch to shut off the fuel feed. To resume operation, it is necessary to locate the cause and correct it. Restart the stove.

- **High Temperature Thermodisk (Safety Sensor, Switch/ Snap-disk)**

**Magnum Baby Countryside (BC-AC & BC-DC), Magnum Winchester series (WIN-ACP, WIN-DCP, WIN-ACI & WIN-DCI), Magnum Countryside 3500 series (3500P, 3500L, 3502 & J3500), Magnum 6500 & 7500 Furnaces**

If the stove overheats, it will shut itself down safely. The stove may not be restarted until it has cooled. For the Baby & Winchester models this is a manual reset switch, the button has to be depressed. If the auger does not turn after cleaning the back of the unit, you might have tripped this disk. Check it by pressing in on the center button until it clicks into place.

- **Proof of Fire Thermodisk (Safety Switch/Sensor/Snap-disk)**

**Magnum Baby Countryside (BC-AC & BC-DC), Magnum Winchester series (WIN-ACP, WIN-DCP, WIN-ACI & WIN-DCI), Magnum Countryside 3500 series (3500P, 3500L, 3502 & J3500), Magnum 6500 & 7500 Furnaces**

If the temperature required by the proof of fire thermodisk is not high enough within the 15 minute startup cycle, the auger will stop feeding and you will need to push the ON/OFF button to start the cycle over again.

- **Cool Down Sensor (Safety Sensor, Low Limit Switch/Proof of Fire Snap-disk)**

**Magnum Baby Countryside (BC-AC & BC-DC), Magnum Winchester series (WIN-ACP, WIN-DCP, WIN-ACI & WIN-DCI).**

After the power switch has been moved to the “OFF” position, the blowers will continue to run for approximately 45 minutes. The cool down sensor will allow the stove to cool down and then automatically shut itself off. If the hopper runs out of fuel and the stove cools off, the auger will stop feeding. However, the blowers will continue to run until the Proof of Fire (POF) switch has cooled down to initiate the shut down cycle. If the fans continue to run, the sensor may be stuck closed.

- **Self-igniter**

**Magnum Baby Countryside (BC-AC & BC-DC), Magnum Winchester series (WIN-ACP, WIN-DCP, WIN-ACI & WIN-DCI).**

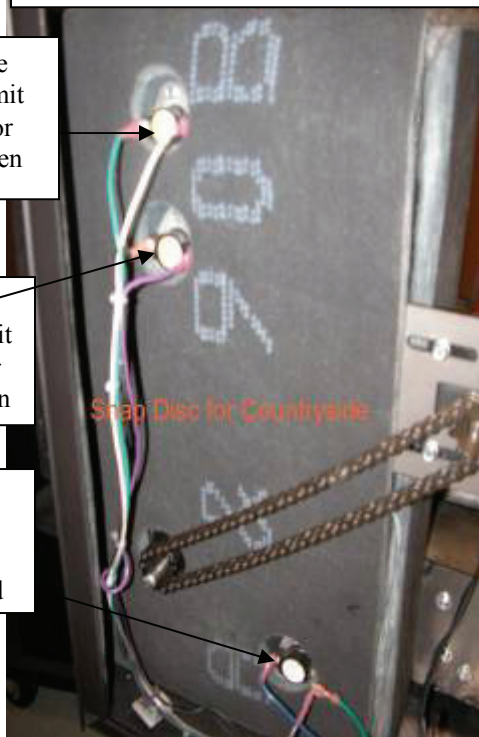
Automatically ignites wood pellets within 3-5 minutes, without the use of fire starter. The igniter will continue to run for approximately 10 minutes until a fire is established. If the fuel is wet, poor quality or the hopper not primed, it might take 2-3 cycles for the unit to properly light. Using a little fire starter will help with this. **Do not attempt to light corn.**

### Magnum Countryside

Proof of Fire  
110 °Low Limit  
Safety Sensor  
Normally Open

Room fan  
110 °Low Limit  
Safety Sensor  
Normally Open

High Limit  
250 °Auto-reset  
Safety Sensor  
Normally closed



### Magnum 6500 / 7500 Furnaces

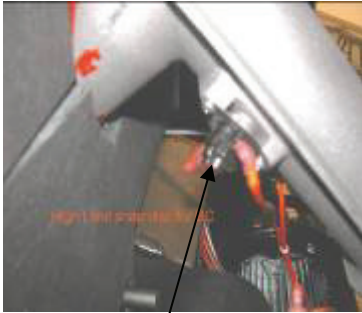
Proof of Fire  
110 °Low Limit  
Safety Sensor  
Normally Open



**Magnum Baby Countryside & Magnum Winchester**



Proof of Fire 110 °Low Limit Safety Sensor, Normally Open



High Limit Safety Sensor 225 °Normally Closed Manual Reset



Vacuum Pressure Switch