



Preferred Service

Service Manual

This manual is to be used by qualified appliance technicians only. Viking does not assume any responsibility for property damage or personal injury for improper service procedures done by an unqualified person.

Chimney / Wall Ventilation Hoods

This Base Manual covers general and specific information including, but not limited to the following models:

Models

DCH3042

DCH3642

DWH3006

DWH3606

RDWHC3042

RDWHC3644



SMV-0001A
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SAVE THESE INSTRUCTIONS

REVIEW ALL SERVICE INFORMATION IN THE APPROPRIATE SERVICE MANUAL AND TECHNICAL SHEETS BEFORE BEGINNING REPAIRS.

Pride and workmanship go into every product to provide our customers with quality appliances. It is possible, however, that during the lifetime of a product service may be required. Products should be serviced only by a qualified authorized service technician who is familiar with the safety procedures required to perform the repair and is equipped with the proper tools, parts, testing instruments, and the appropriate service manual.

Safety Information

We have provided many important safety messages throughout this manual and on the product. Always read and obey all safety statements. To properly identify a safety statement look for the following safety alert symbol.



This symbol alerts personnel to hazards that can many different types of altering messages. All safety messages will be preceded by a safety alert symbol and the word "DANGER", "WARNING" or "CAUTION".

All safety messages will identify the hazard, tell you how to reduce the chance of injury, and inform you what can happen if the instructions are not followed.

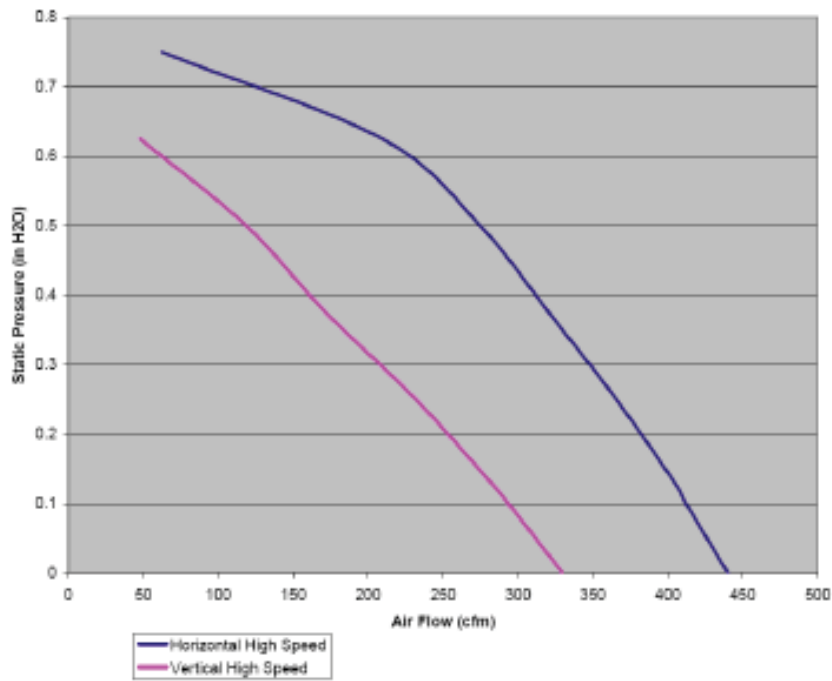
DANGER
Immediate hazards which WILL result in severe personal injury or death.
WARNING
Hazards or unsafe practices which COULD result in severe personal injury or death.
CAUTION
Hazards or unsafe practices which COULD result in minor personal injury, product or property damage.

WARNING
To avoid risk of serious injury or death, repairs should not be attempted by unauthorized personnel.

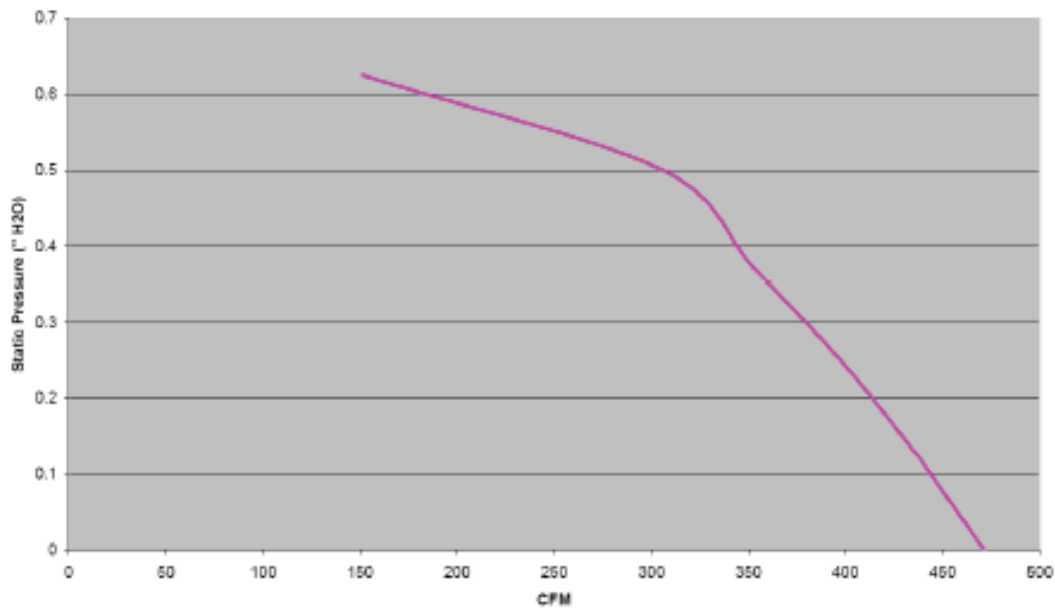
CAUTION
VIKING will not be responsible for any injury or property damage from improper service procedures. If performing service on your own product, you must assume responsibility for any personal injury or property damage which may result.

To locate an authorized service agent, call:
 Viking Customer Service
 Phone No. 1-888-845-4641
 Address your written correspondence to:
 Viking Preferred Service
 1803 HWY 82 West
 Greenwood, MS 38930

Performance Chart – DWH30SS – DWH36SS



Performance Chart – DCH/ RDWHC 30SS – DCH/ RDWHC 36SS



DWH30 (30") – DWH36 (36") Designer wall hoods

The 30 and 36 inch designer wall hoods are designed to operate both in a recirculation mode as well as exterior discharge mode. FIG 1 and 2 below shows the underside of the 30" wall hood

FIG. 1**FIG. 2**

The unit comes with a two-speed dual blower motor and a two level light selection, both controlled by two center mounted rocker switches. Each switch has a center OFF position. FIG 3 shows a close-up of the switches.

FIG. 3

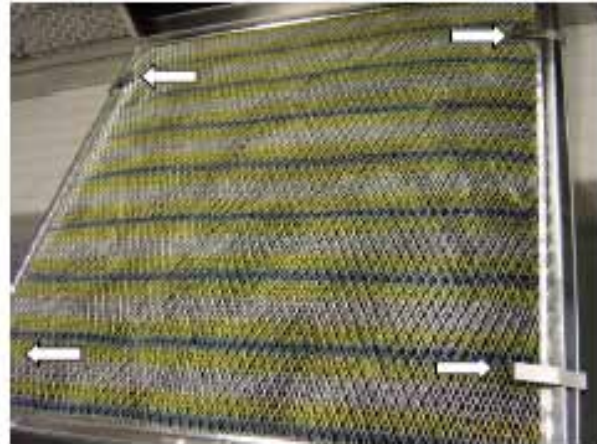
When the hood is installed to operate in recirculation mode, the addition of charcoal filters (supplied in kit) is required. FIG 4 shows the standard filter used when the hood is installed for exterior discharge.

FIG. 4



Standard Filter – Exterior Discharge

FIG. 5

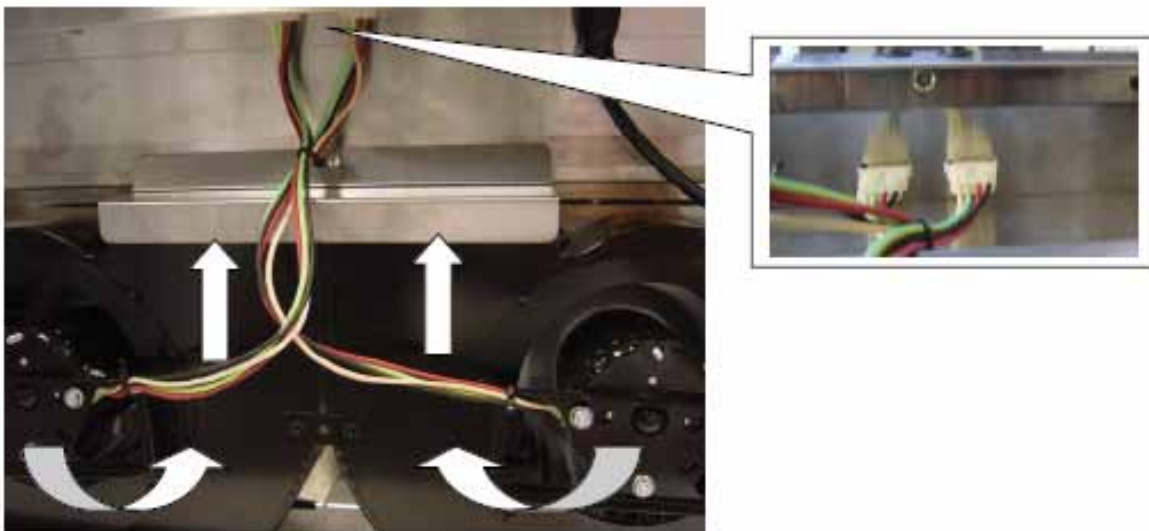


Recirculation – Charcoal Filter Added

The charcoal filter is held in place with four securing clips (Included with charcoal filter) as shown in FIG 5 above.

Remove filters to access the internal blower motors. FIG 6 shows that the motor assembly consists of two motors, one which rotates in a Clockwise rotation (Below right) and the other in a counter-clockwise rotation (Below left). Each motor is connected separately to the control housing by the use of a 4-wire Molex disconnect plug (Inset).

FIG. 6



Recirculation installation shown

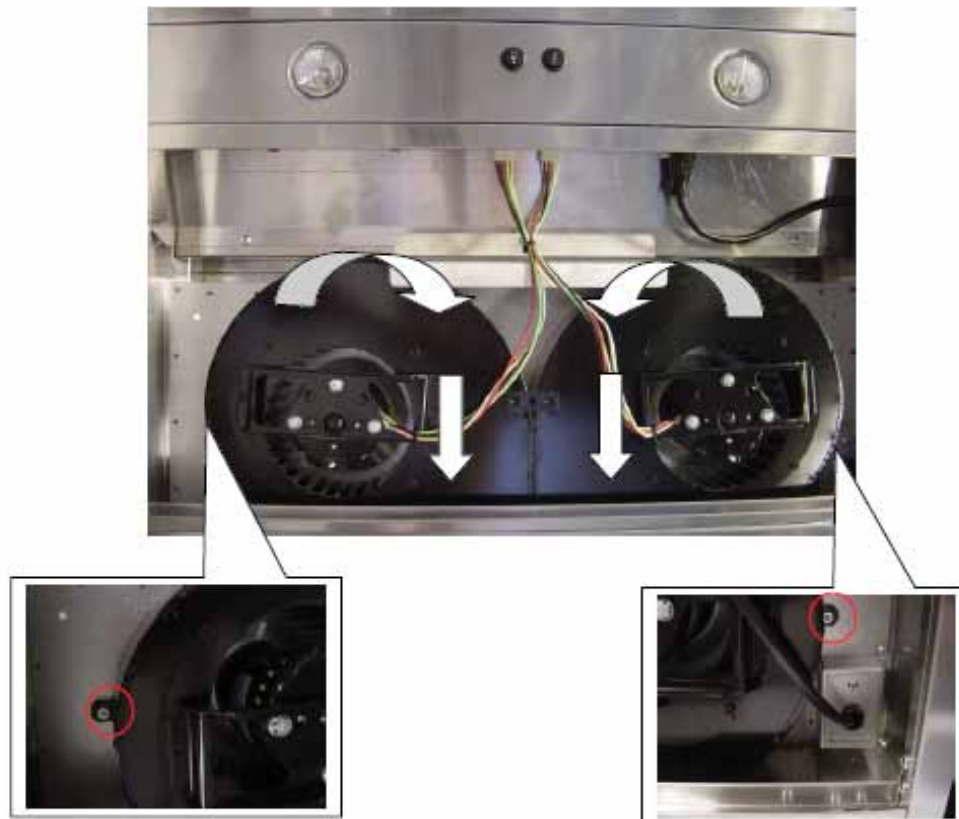
The air drawn in through the filters is regulated back into the kitchen through a top vent that runs the length of the hood as shown in FIG 7.

FIG. 7



In FIG 8, the blower motor assembly has been rotated 180° for rear and top external discharge. There are (2) 5/16th nuts that secure the blower assembly to the hood housing. The insets below show each side where the nut is located (circled in red). The right one is just above the main power connection

FIG. 8



When the unit is installed for exterior venting, a duct connection collar is attached to the hood and allows connection to external ducting. FIG 9 shows the hood with the vent collar attached for rear discharge. Notice a back draft damper is built into the collar. FIG 9 also shows the top access cover is in place

FIG. 9



FIG. 10



FIG 10 shows the rear of the hood with the damper removed. Notice the two squirrel wheels in place for rear discharge

Junction box (for incoming power supply) is located in upper right rear of hood.. Inside the hood a three wire power cable exits the junction box (Fig 11) and connects to a fixed (male) three prong plug (FIG 12) in the component compartment of the hood. If the lights and fan are not working, unplug the internal power plug and check for 120 volts at the female connection shown in Fig 13.

FIG. 11



FIG. 12



Fixed three prong connection

FIG. 13



⚠ WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

To access internal controls, remove left and right side trim held in place with (2) Phillips head screws shown in FIG 14 and Fig 15.

FIG. 14



FIG. 15



There are five Phillips head screws that hold the control panel in place. One on each side, one in the center and two that hold the filter supports in place, FIG 16 shows one of the side screws and filter support screw. The screw circled in red holds the component compartment to the main frame and must be removed to access the switches and thermostats.

FIG. 16



With the screws removed, remove the power and motor connection mounting plate from the hood. Internal wiring of the power connections is now accessible as shown in FIG 17.

FIG. 17



WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

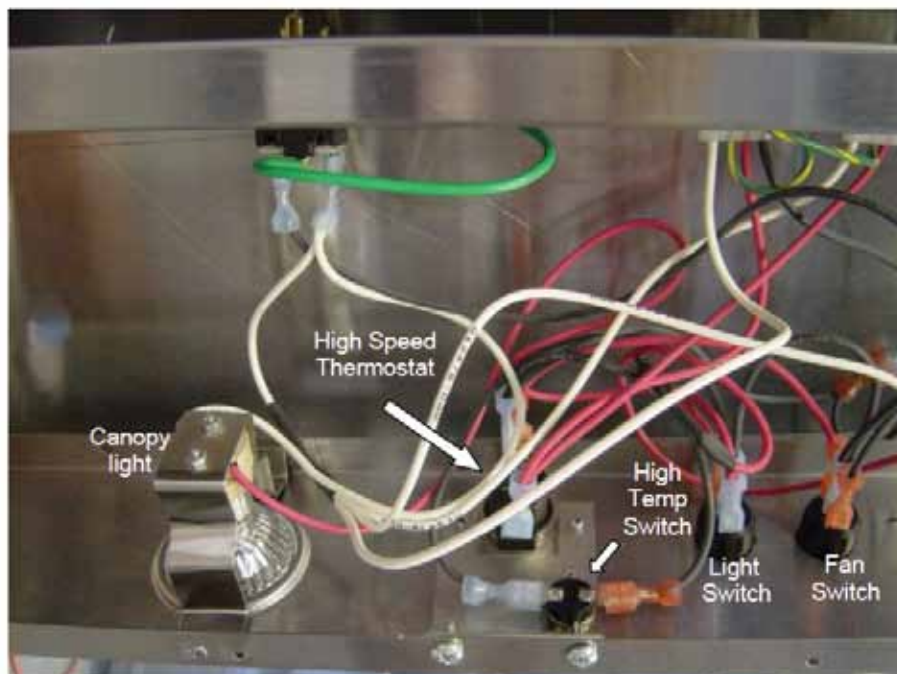
Remove the light and switch compartment. Remove screws securing the panel to the frame of the hood. One in the center and one next to each canopy light. FIG 18 shows the location of the right side screw that secures the panel housing. (Removed in photo).

FIG. 18



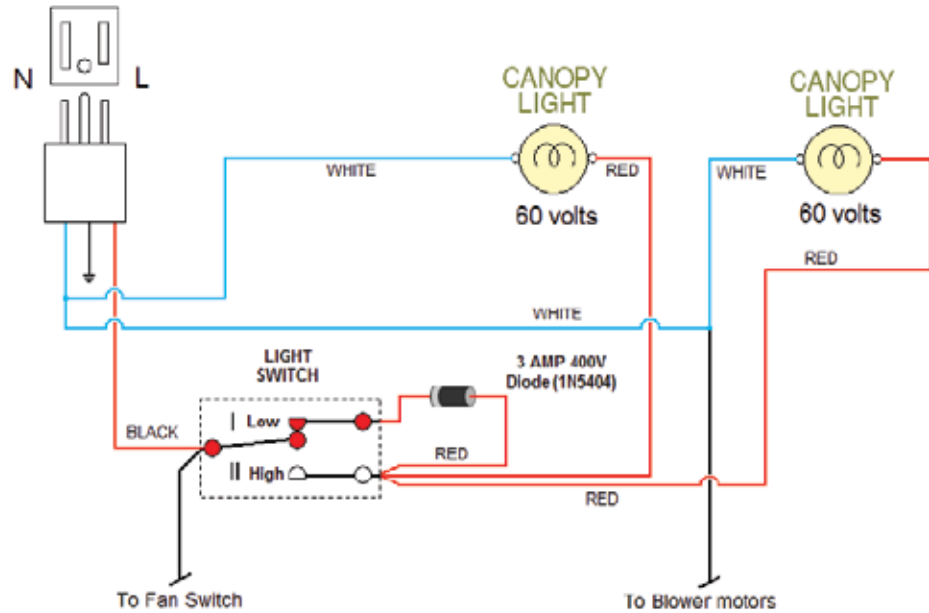
Lift the control panel from the frame to expose the internal operational components. FIG 19 shows the Fan Switch, Light Switch, Hi-Temp Thermostat, High Speed Thermostat and halogen light socket.

FIG. 19

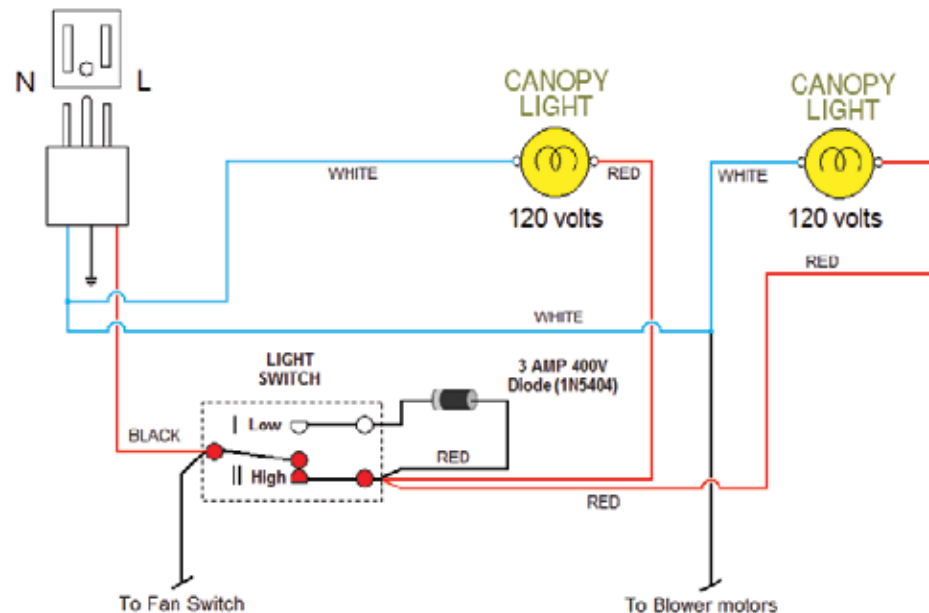


LIGHT OPERATION

When the lights are switched to position I (Low), the current runs through the light switch, through the diode which reduces the voltage to the lights. The lights will operate in a low-light condition.

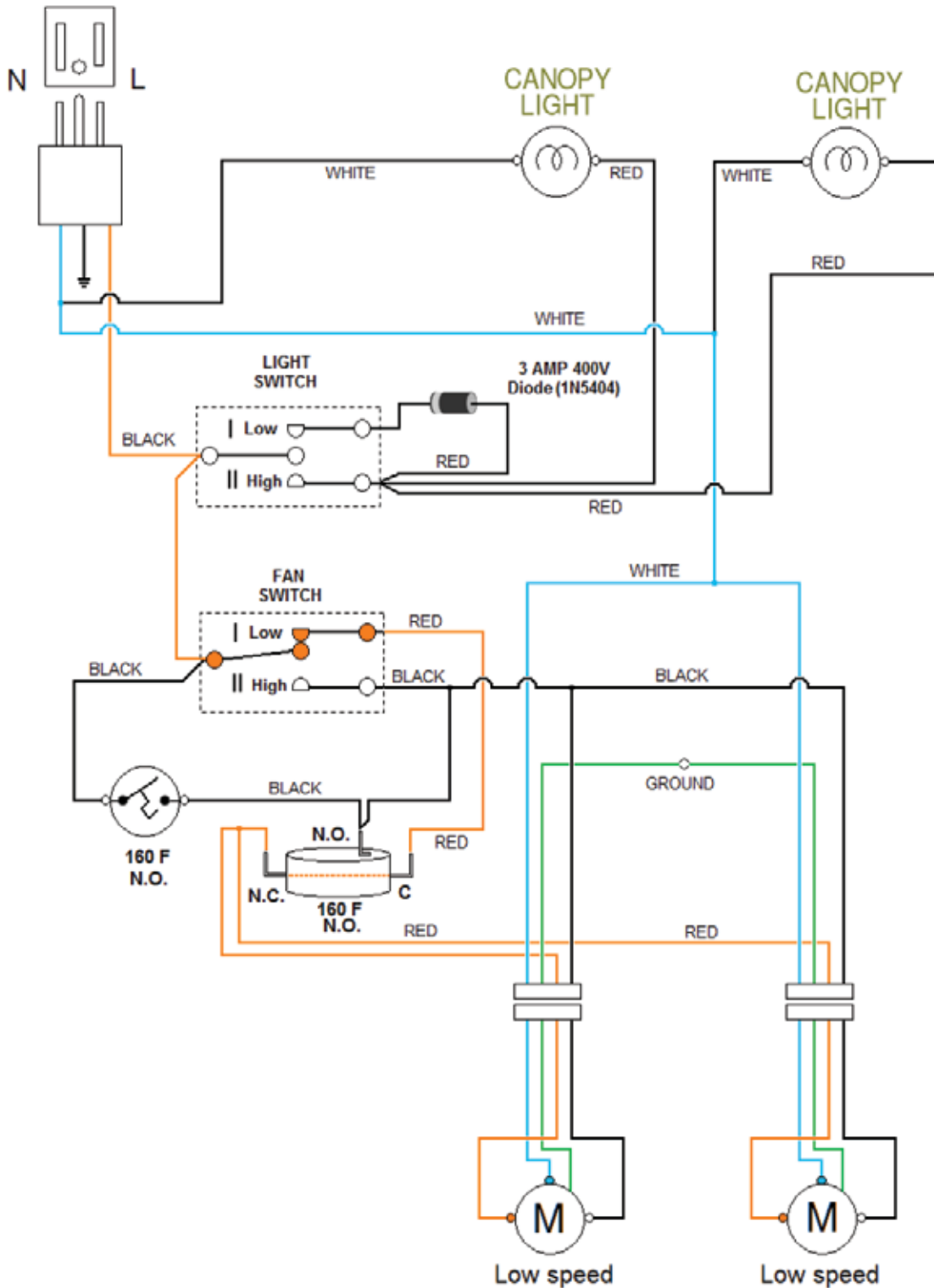


When the lights are switched to position II (High), the current runs through the light switch and directly to the lights. The lights will operate at full power.



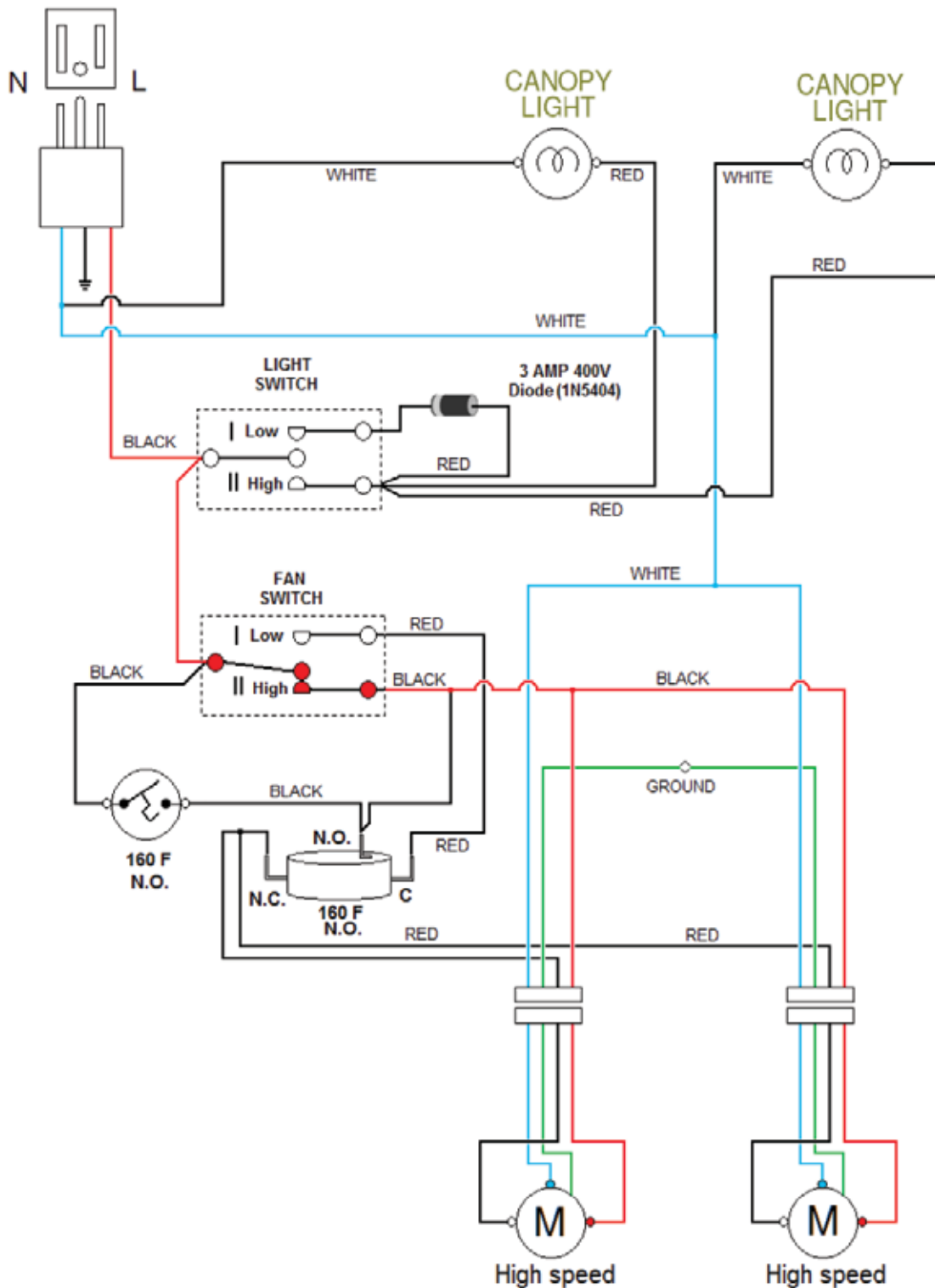
FAN OPERATION (Low Speed)

When the fans are switched to position I (Low), the current runs through the fan switch, through the Common and Normally closed (N.C.) contact in the High speed thermostat. From there the current is sent to both low speed windings in the motors. The fans will operate in a low speed condition.



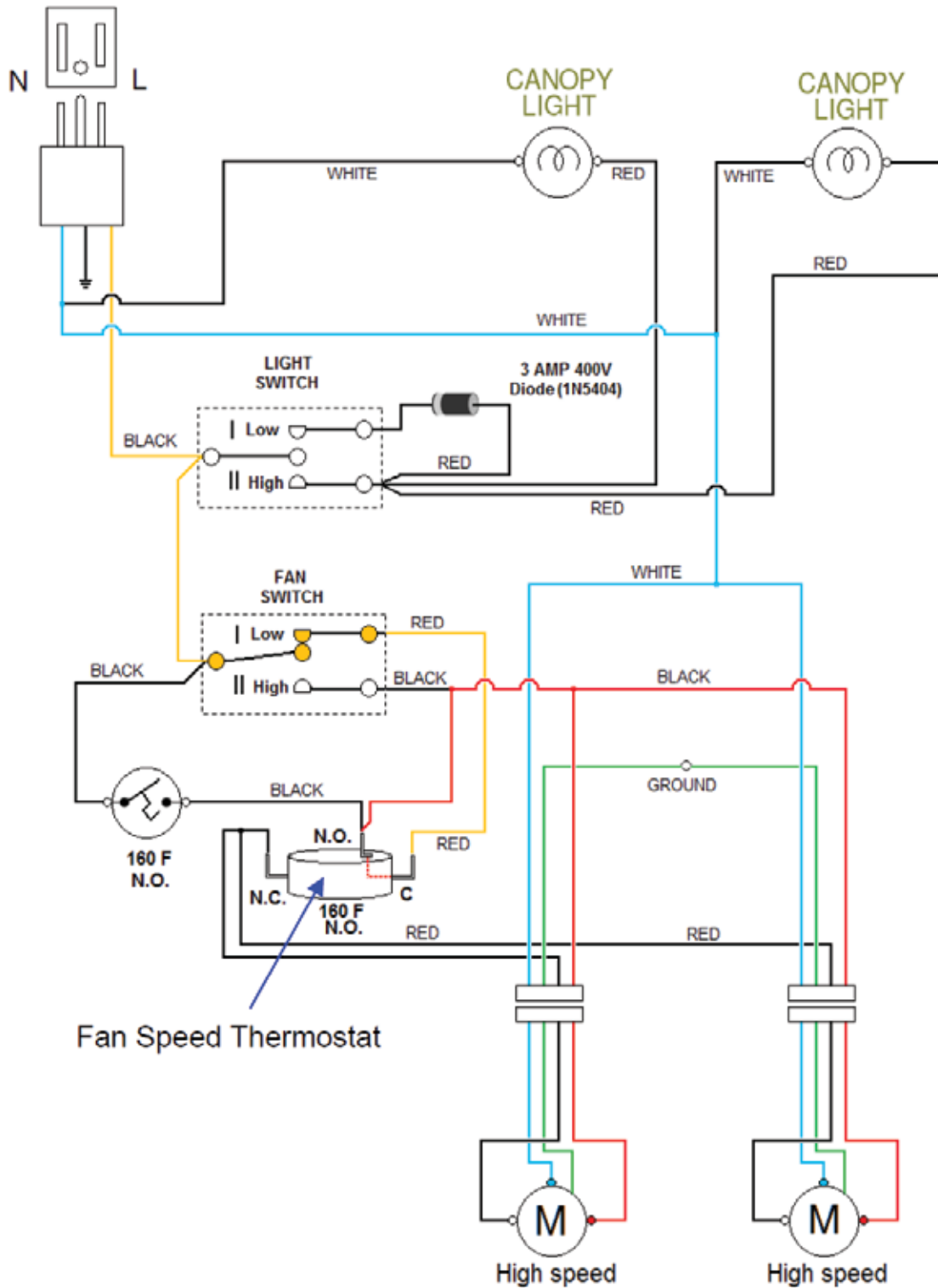
FAN OPERATION (High Speed)

When the fans are switched to position II (High), the current runs through the fan switch directly to both high speed windings in the motors. The fans will operate in a high speed condition.



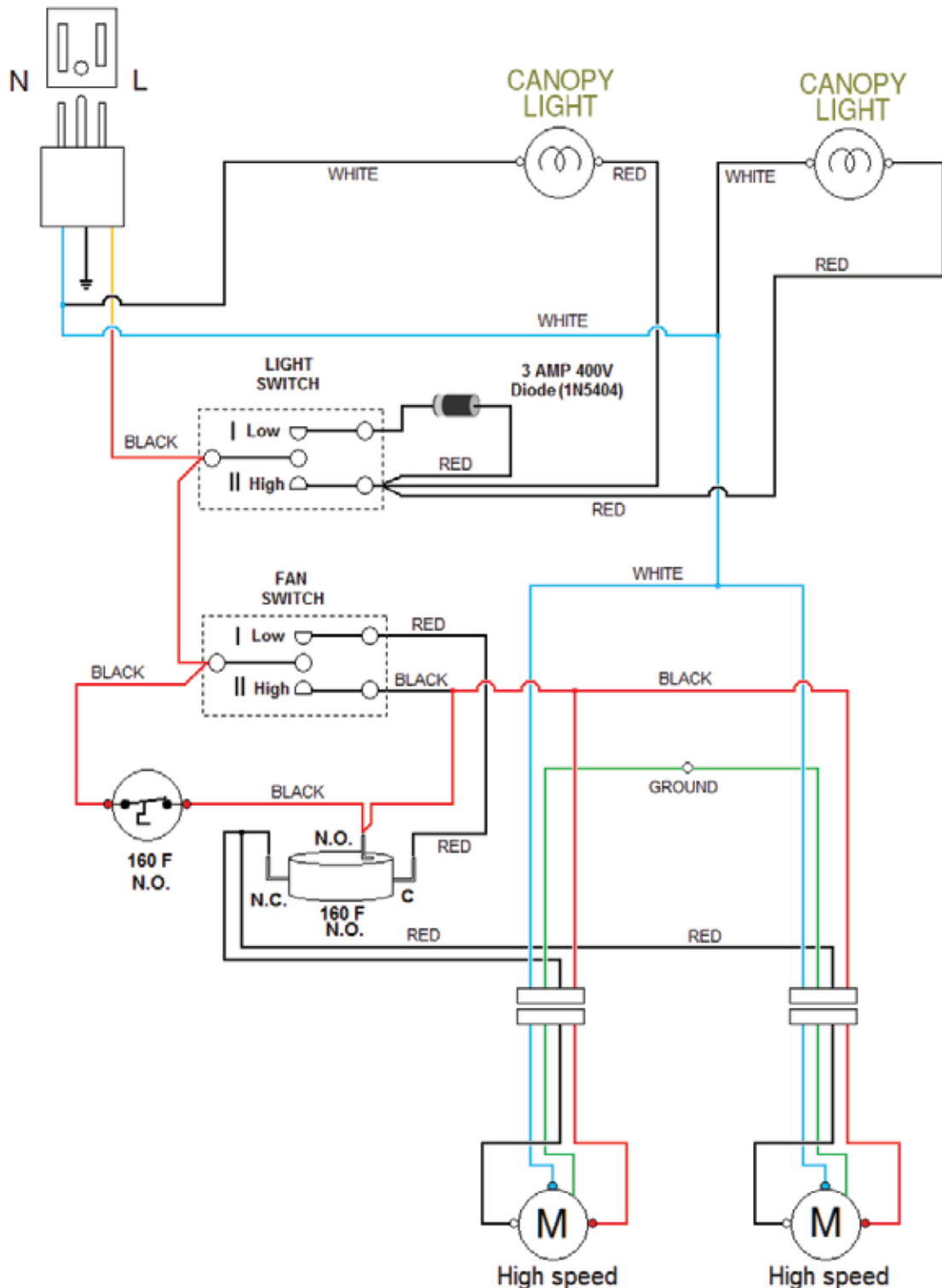
FAN OPERATION (High Speed Thermostat)

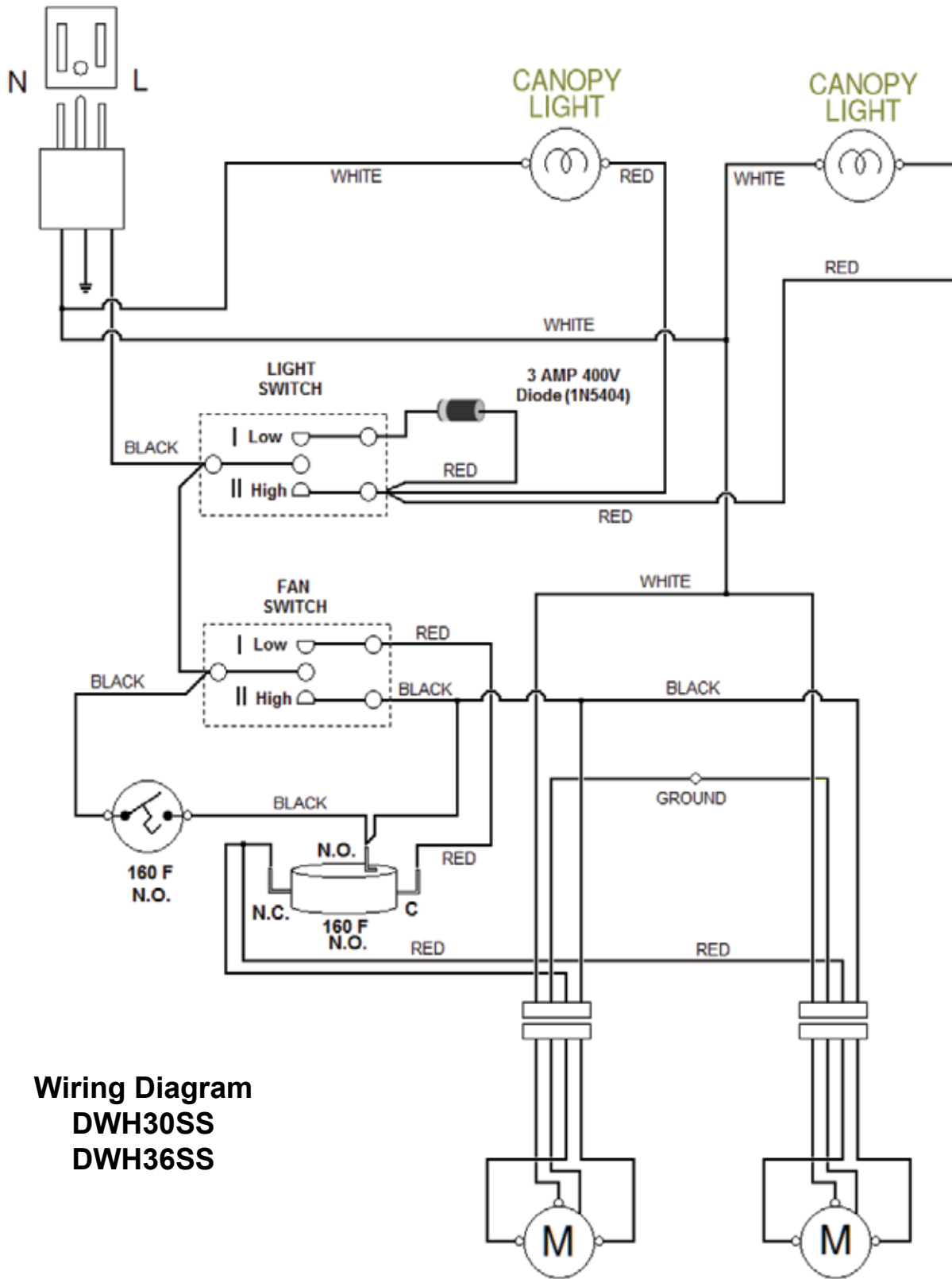
If the fans are set to run at low speed and the temperature in the hood exceeds 160° Fahrenheit, the Fan speed thermostat will switch to the Normally Open Contact and switch power from the low speed windings to the high speed windings. When the temperature drops below 160°, the thermostat will switch back to the Normally Closed contact and the fan speed will revert to low operation.



FAN OPERATION (High Temperature Thermostat)

If at any time the interior of the hood exceeds 160° F, the High Temp thermostat will close and operate the fans at HIGH speed. When the temperature drops below 145°, the High Temp Thermostat will open fans will shut off or revert back to previous condition.





**Wiring Diagram
DWH30SS
DWH36SS**

DCH/RDWHC 30SS (30") – DCH/RDWHC 36SS (36") Professional wall hood

The 30 and 36 inch Professional wall hoods are designed to operate as exterior discharge mode only. FIG 1 below shows the underside of the 30" wall hood.

FIG. 1

The unit comes with a variable speed blower motor and a variable level light selection, both controlled by two center mounted On-Off push button switches.

FIG 2 shows a close-up of the light controls and FIG 3 shows the fan controls.

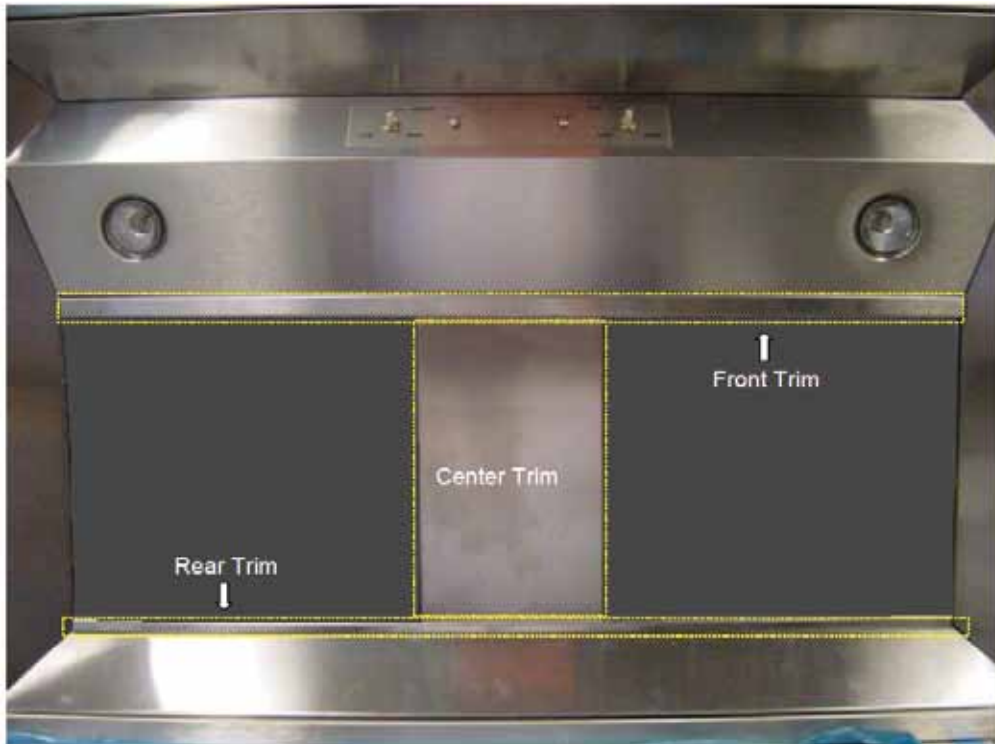
FIG. 2**FIG. 3**

WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

To access to the blower motor and internal switches, remove the filters. FIG 4 shows two trims that run the length of the hood, both front and rear, as well as the center support and are held in place with six Phillips head screws. Remove all three supports.

FIG. 4



The blower assembly consists of the motor and two squirrel cage blower wheels, one at each end of the motor. The left side wheel is shown in FIG 5. FIG 6 shows the right side blower wheel, along with the internal power and motor connections.

FIG. 5



FIG. 6



⚠ WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

In the top rear center of the hood is where the main wire connections are made by the electrician. Inside the hood a three wire power cable exits the junction box and connects to a fixed (male) three prong plug (shown unplugged in FIG 7 in the component compartment of the hood. If now power is coming out of the J-Box, a three wire grounded extension cord can be used to test the operation of the hood.

FIG. 7

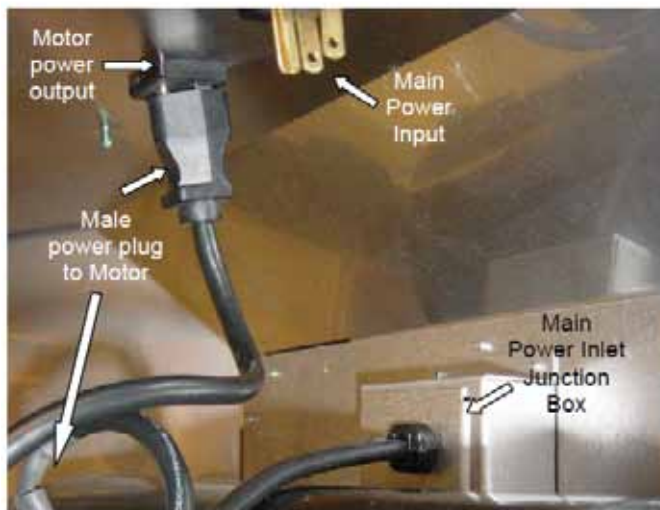


FIG. 8

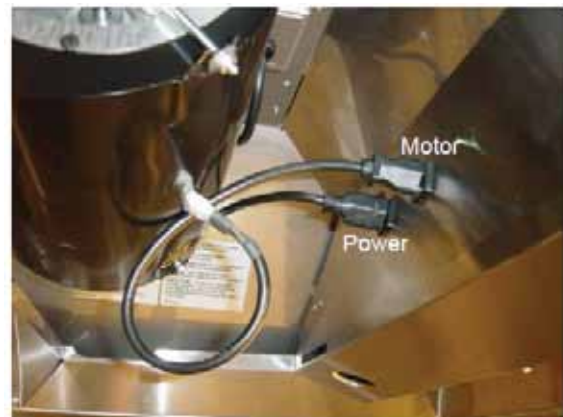


Fig 8 shows the motor and power connection both connected.

To access the internal switches and connections, there are 4 Phillips head screws that must be removed. FIG 9 shows the right front corner of the hood looking towards the front. With the light bulbs removed, remove both securing screws on each side of the hood. A 6" long Phillips head screwdriver (7-10" long) will be required to reach the screws. Two screws (one on each side come forward into the front frame).

FIG. 9



FIG. 10

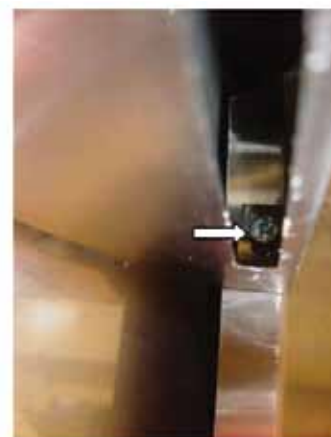


FIG 10 shows the side screws location accessed through the rear slotted opening in the panel.

WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

FIG 11 and FIG 12 show the left front screw location accessed through the light bulb openings. This view is looking forward from inside the hood. Suggest using a handheld mirror to locate screws while disassembling and reassembling.

FIG. 11

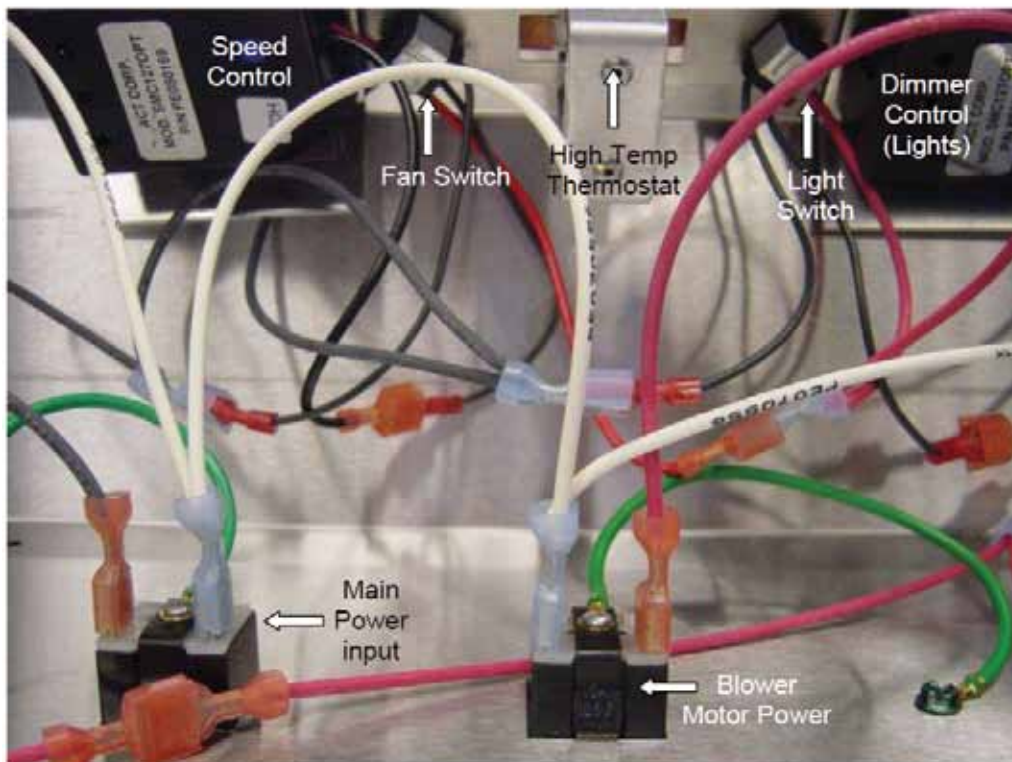


FIG. 12



Lift the control panel compartment from inside the hood to access the Light sockets, control switches, High Temp Thermostat, Speed Control and light dimmer. FIG 13 shows the internal compartment, which houses the incoming power, Dimmer control, Speed Control, On / Off switches and High Temperature thermostat.

FIG. 13



⚠ WARNING

To avoid risk of electrical shock, personal injury, or death, disconnect electrical power source to unit, unless test procedures require power to be connected. Discharge capacitor through a resistor before attempting to service. Ensure all ground wires are connected before certifying unit as repaired and/or operational.

The Dimmer switch and Motor Speed control are secured to the frame from the front locking nut. In order to replace the Light and Fan On/Off switch, remove the nuts that secure the switches to the mounting bracket. The location is shown circled in FIG 14.

FIG. 14



FIG. 15

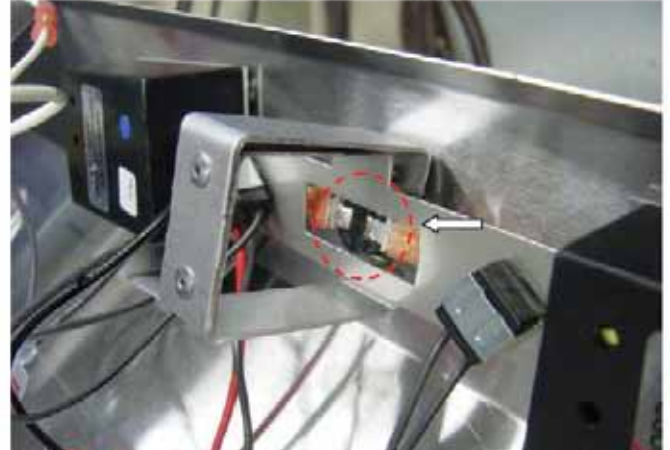


FIG 15 shows the location of the High Temperature Thermostat. If the hood cavity exceeds 160° Fahrenheit, The thermostat will close and run the blower motor at full power. To remove, drill out the two pop rivets and remove bracket holding thermostat. Reinstall new thermostat and install two new rivets.

In order to replace the Blower Motor or blower wheels, first unplug mole connector from motor housing. Loosen the locking nuts shown in FIG 16, one on each side of the motor assembly, then move bolts away from the motor assembly. Reinstall in reverse order and secure locking nuts.

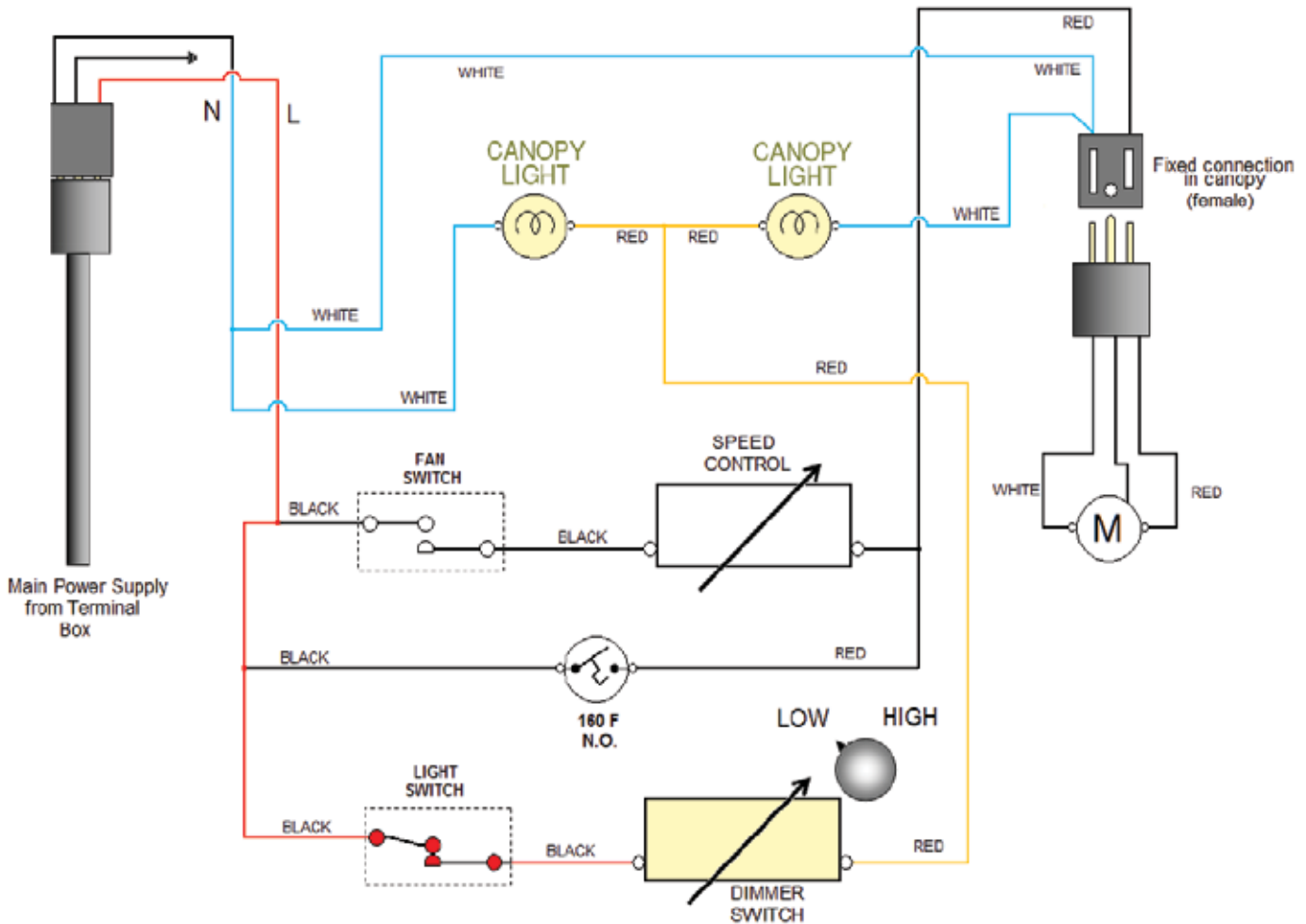
CAUTION! Make sure motor is held in place while removing so it does not drop on the cooking surface below.

FIG. 16



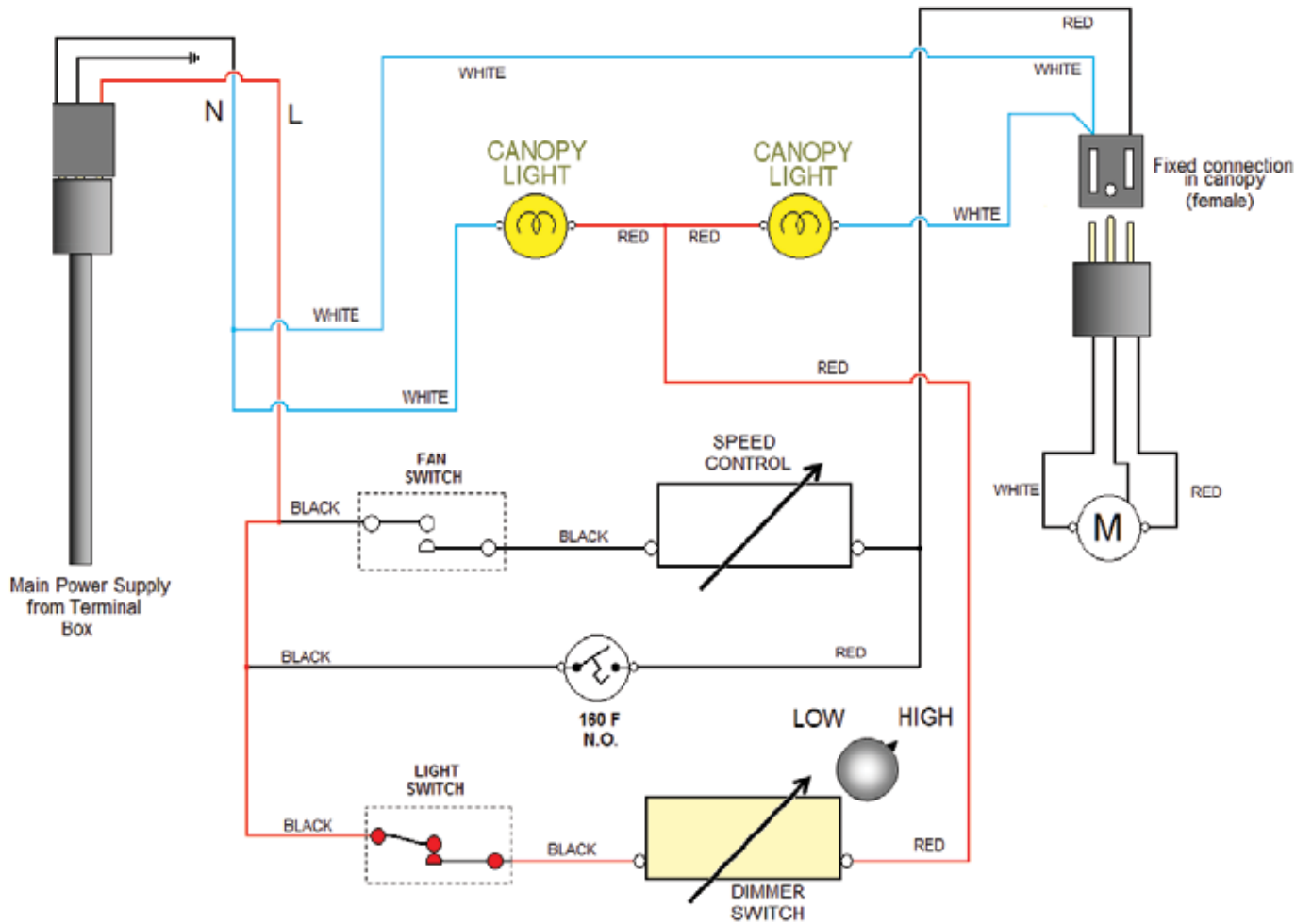
LIGHT OPERATION (Low)

When the dimmer is set between low, high or any variation in between, the intensity of the light output will vary. The current runs through the light switch, through the dimmer control, then out to the cavity lights. The diagram below shows the lights at a LOW dimmer setting. The cavity lights are very low in intensity.



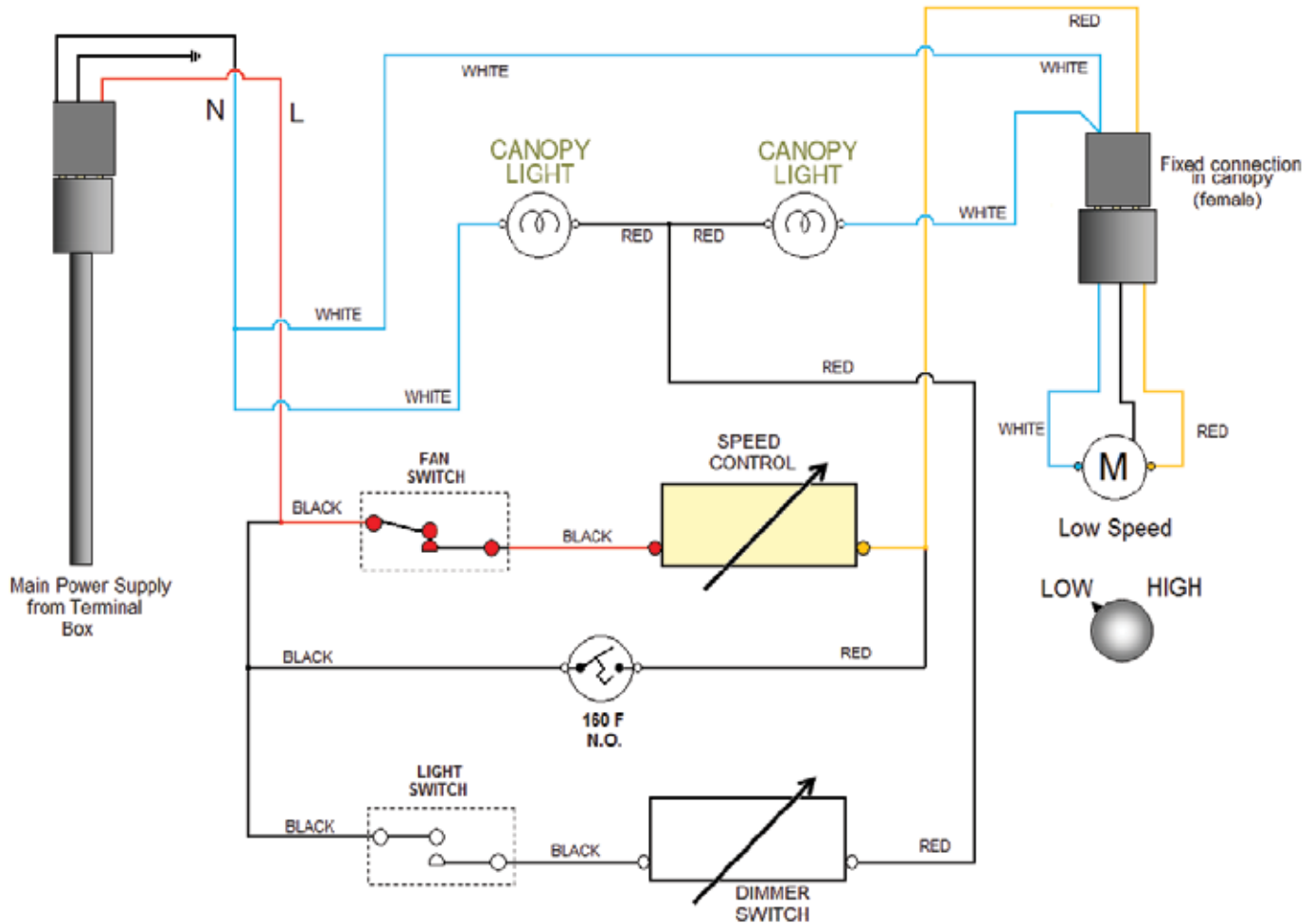
LIGHT OPERATION (High)

With dimmer set to high, the intensity of the lights will be at full output.



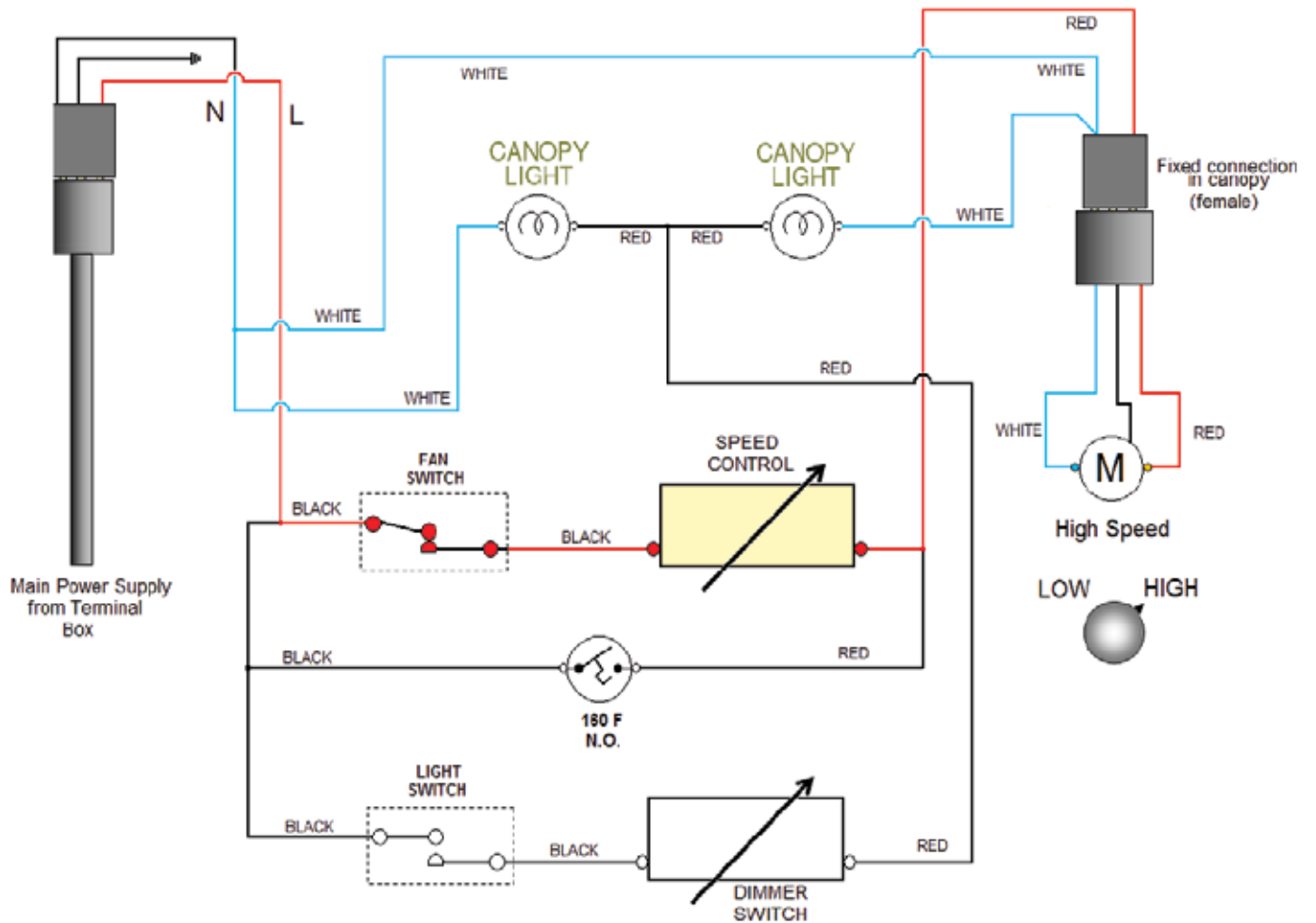
MOTOR OPERATION (Low)

When the Motor Controller is set between low, high or any variation in between, the speed of the motor will vary. The current runs through the Fan switch, through the Motor Controller, then out to the motor assembly. The diagram below shows the motor at a LOW speed setting.



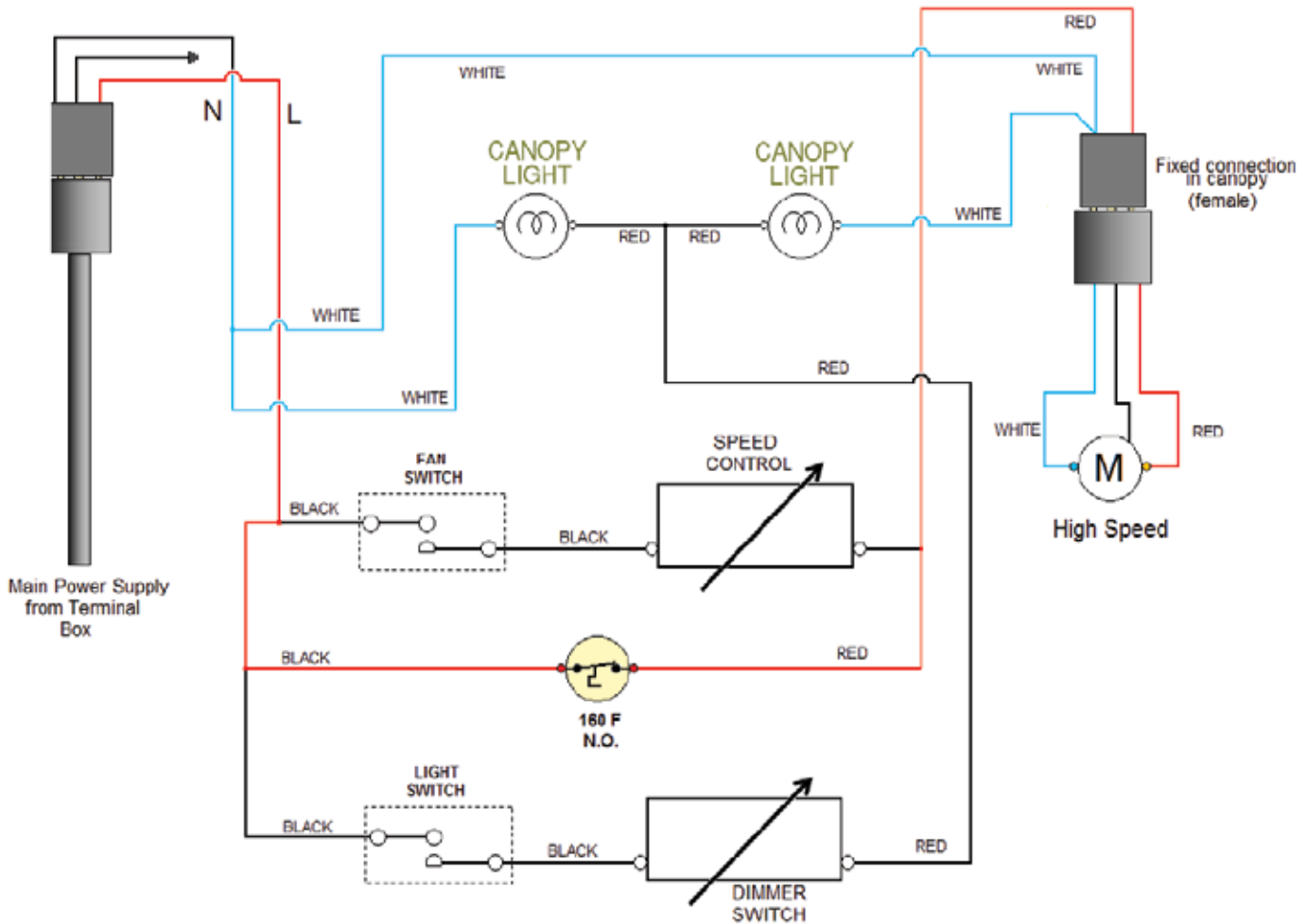
MOTOR OPERATION (High)

With motor controller is set to high, the motor will run at full speed.



FAN OPERATION (High Temperature Thermostat)

If at any time the interior of the hood exceeds 160° F, the High Temp thermostat will close and operate. **The fan at HIGH speed. When the temperature drops below 145°, the fans will shut off.**



**Wiring Diagram
DCH/RDWHC30SS
DCH/RDWHC36SS**

