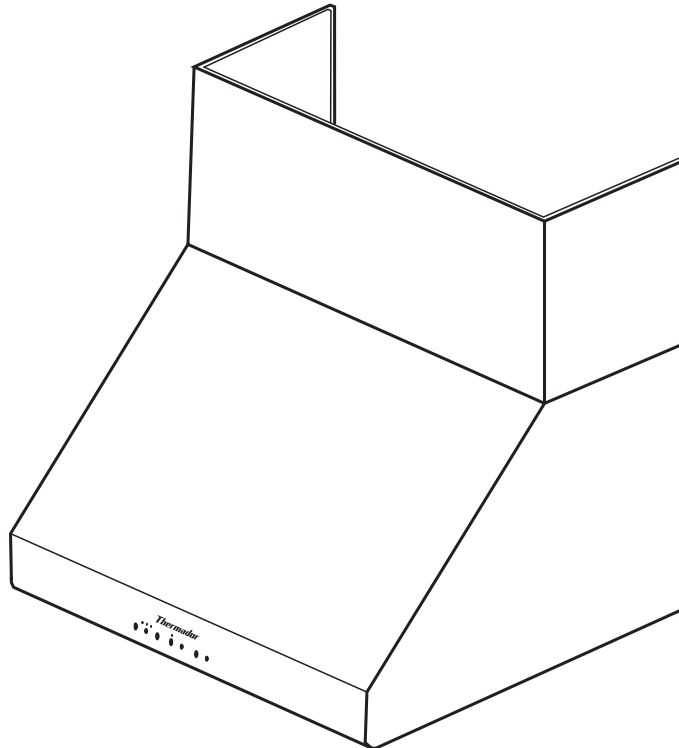


# ***Thermador***<sup>®</sup>

## **Service Manual**

for

### **PROFESSIONAL WALL HOODS**



#### **PH30ZS, PH36ZS, PH42ZS, PH48ZS, PH54ZS**

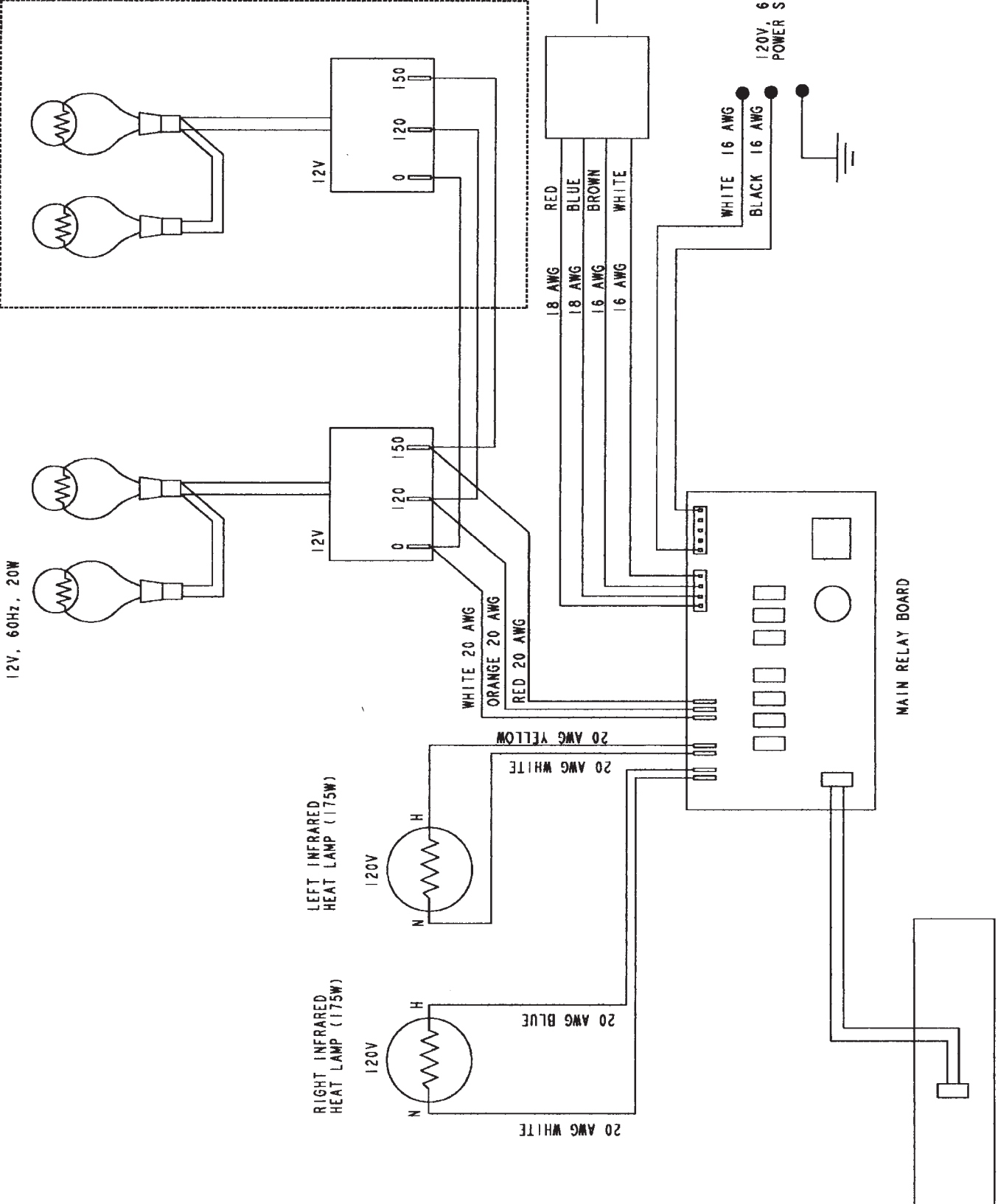
**Blower Requirements:** VTNI1000Q, VTR600R, VTRI000R, VTRI400Q

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# Wiring Diagram

PH42ZS, PH48ZS, PH54 ZS MODELS ONLY



12V, 60Hz, 20W

LEFT INFRARED  
HEAT LAMP (175W)

120V

120V

RIGHT INFRARED  
HEAT LAMP (175W)

20 AWG WHITE

20 AWG BLUE

20 AWG WHITE

20 AWG YELLOW

WHITE 20 AWG

ORANGE 20 AWG

RED 20 AWG

12V

12V

0

120

150

18 AWG RED

18 AWG BLUE

16 AWG BROWN

16 AWG WHITE

CONNECT TO  
VENTILATOR  
MODELS: VTN1000C  
VTR600R, VTR100C  
VTR1400G

120V, 60Hz, 20A  
POWER SUPPLY

WHITE 16 AWG

BLACK 16 AWG

MAIN RELAY BOARD

# HALOGEN LAMPS

The halogen lamp assemblies are 12 volt, 20 watt halogen bulbs. There are two light settings; normal, and dim. These two settings are controlled by the step down transformer

## LIGHTS

NOTE: Turn off the lights and fan. Allow the lights to cool before handling. If new lights do not operate, be sure lights are inserted correctly before calling service.

### Halogen Light Replacement

- Using a flat edge from a screwdriver or equivalent tool, pry loose the lens cover as shown in Figure 3.
- Remove the damaged light and replace with a new 12 Volt, 20 Watt (maximum) halogen light made for a G-4 base. Follow package directions and do not touch new light with bare hands.
- Reinstall the light and cover.

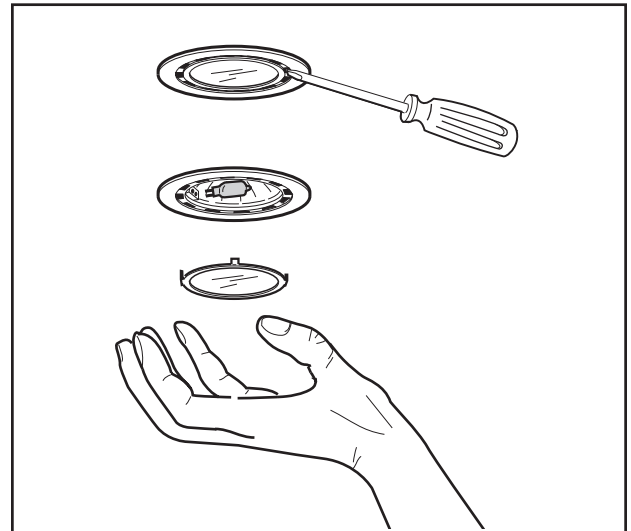


Figure 3

# Infra Red Heat Lamps

The infra red heat lamps are 120 v.a.c. 175 or 250 watt lamps.

- Turn heat lamp counterclockwise to remove.
- Replace lamp with either a PAR-38 175W heat lamp or a PAR-40 250W heat lamp.

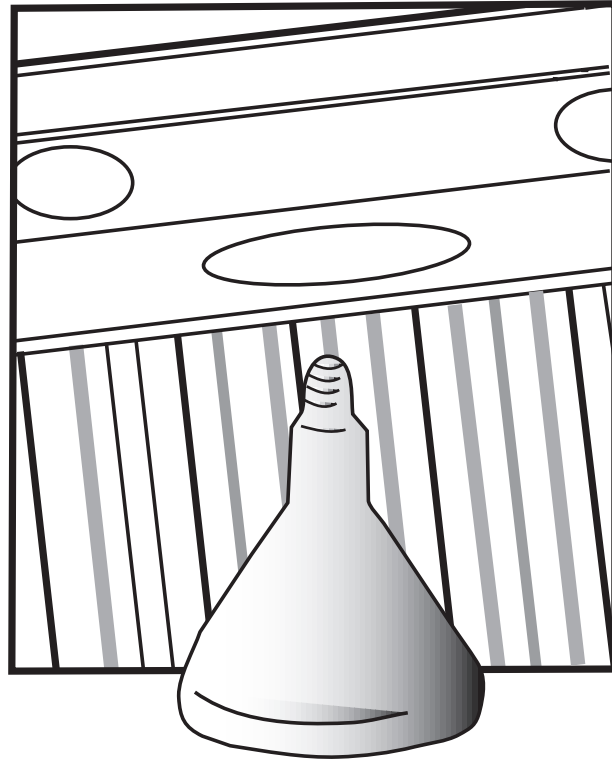
The PAR-38 175W heat lamp provides a tighter seal within the enclosure and produces the same amount of effective heat with lower energy consumption. These lamps may not be readily available at local retail outlets. The PAR-40 250W heat lamp is readily available at local retail outlets.

To order PAR-38 175 heat lamps with a credit card, phone:

- OpTechInc. 800-848-6624 or
- [www.bulbs.com](http://www.bulbs.com) 888-455-2800

## Caution

**DO NOT TOUCH THE BULBS IMMEDIATELY AFTER USE. THE BULBS WILL REMAIN HOT FOR SEVERAL MINUTES. DO NOT PLACE HIGHLY FLAMMABLE MATERIAL ON WARMING SHELVES.**

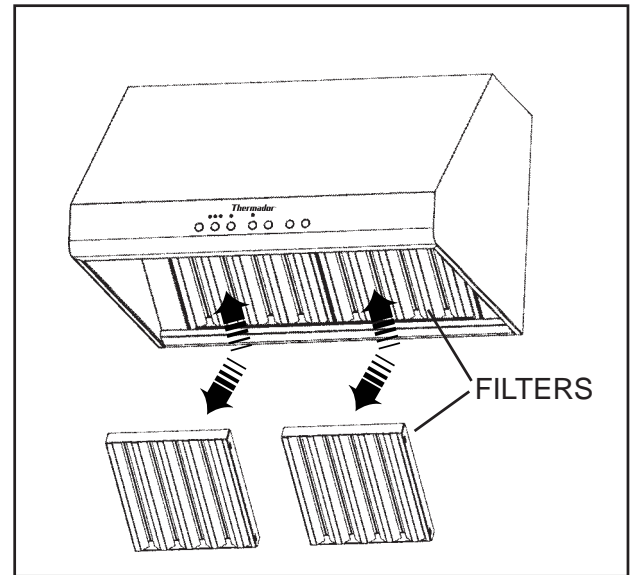


# Filters

The metal grease filters are made of anodized aluminum and are long lasting.

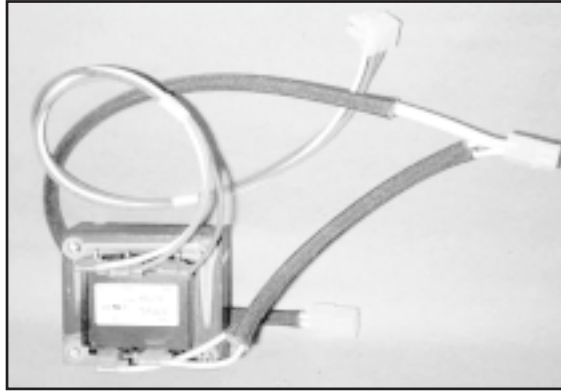
## To Remove The Metal Grease Filters

- Turn the fan and lights off.
- Allow filters to cool before removal.
- In the following order remove the baffle filters, trims, and grease troughs.
- To remove filters, push up then pull down as shown in Figure 2.



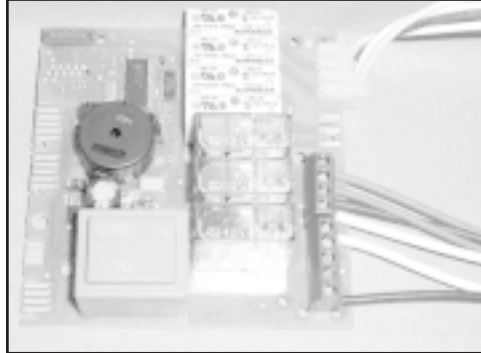
# Step Down Transformer

The step down transformer is a multiple tap 120 v.a.c. step down transformer. one tap outputs 12 v.a.c. for regular lights, and the other tap outputs 9.6 v.a.c. when the dim light is selected.



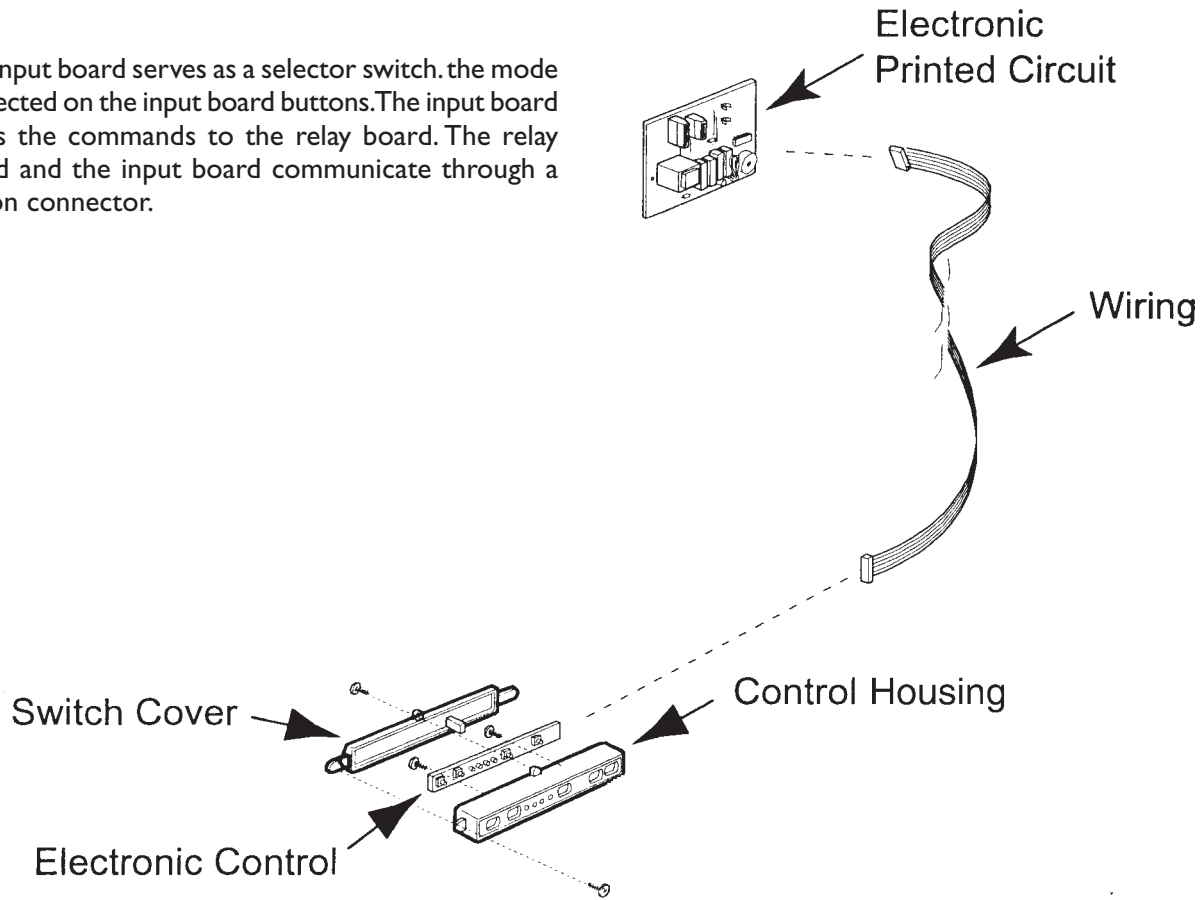
# Main Relay Board

The main relay board is a microprocessor based printed circuit board. The relay board has specific relays to activate the components in the hood. The relay board reacts to input and commands from the input board.



# Input Board

The input board serves as a selector switch. The mode is selected on the input board buttons. The input board sends the commands to the relay board. The relay board and the input board communicate through a ribbon connector.





# Heat Sensor

The PHZ hood is equipped with a heat sensor that is located inside the input board. It is not visible or field replaceable. The entire input board must be replaced. The sensor detects over temperature conditions and turns the fan on to protect the components. The sensor is set to activate at 165°F (75°C) and reset at 140°F (60°C).

## Here's how it works when the sensor detects excessive heat:

- 1) If the ventilator is "off," the ventilator will turn on at low speed and the corresponding LED will blink.
- 2) If the ventilator is "on" at any speed, the corresponding LED will blink. No speed change will occur.

## While the sensor is activated due to excessive heat:

- 1) The ventilator speed can be changed or turned off and the corresponding LED will blink.
- 2) All lights will remain operational.
- 3) When the sensor resets back to 140°F, the control will continue to operate at the existing setting though the LED will stop blinking, indicating there is no longer an over temperature condition.

## Fault code:

The circuit is equipped with an alarm indicating that the heat sensor protection is not working due to a damaged sensor. In this case, the three speed indicator LED's will start blinking.

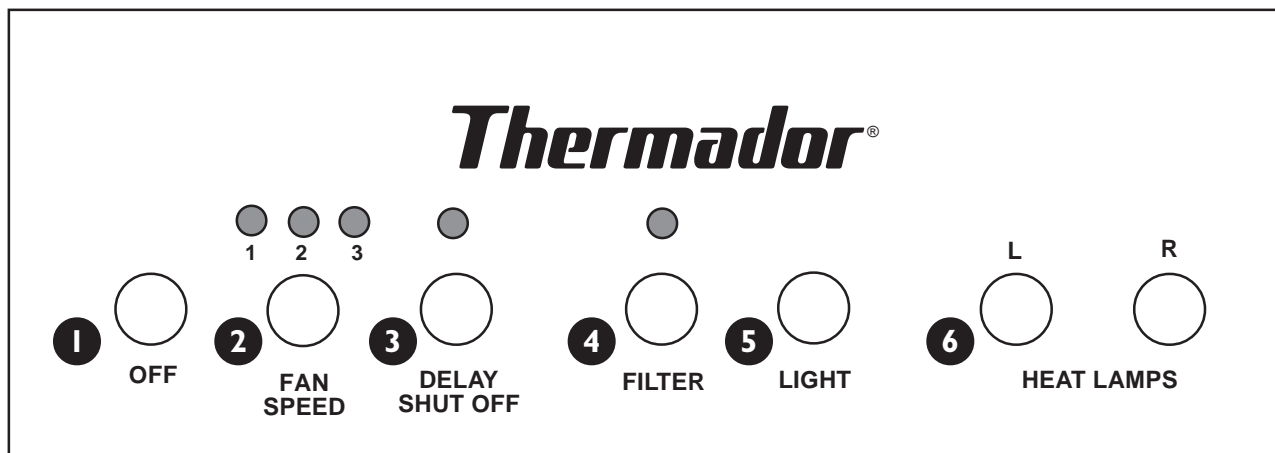
# Hood Operating Instructions

The blower should be turned on for about 5 minutes **before** cooking in order to establish air currents upward through the hood. Thus when heat, smoke, moisture, grease and cooking odors are produced, they will be carried outside instead of drifting into

other rooms. Use the low speeds for normal use and the higher speeds for strong odors or fumes.

Drafts across the range or cooktop will reduce the effectiveness of the hood. Such drafts should be prevented when possible.

## CONTROL PANEL



**1** OFF BUTTON – Pressing button once turns ventilator off and resets control.

**2** FAN SPEED BUTTON – Pressing button once, from an off state, turns the ventilator on low. Each successive press of the button increases the fan speed until high where the fan cycles back to the low speed.

- The LEDs above this button indicate the current fan speed. When the fan is on, the corresponding LED is illuminated.
  - 1 – Low
  - 2 – Medium
  - 3 – High

**3** DELAY SHUT OFF BUTTON –

- Press to turn fan on high for 10 minutes. If the ventilator is off when the delay button is pressed, the ventilator will turn on to the high speed setting for 10 minutes. At the end of the cycle the ventilator will turn off.

If the ventilator is on when the delay button is pressed, the ventilator runs for 10 minutes at the current speed then turns off.

- During a timed period, the LED above the Delay Shut Off button is illuminated.

**4** • To interrupt a timed period, press Fan Speed or Off button.

CLEAN FILTER REMINDER – After 40 hours of operation the clean filter reminder LED above this button will illuminate indicating that the filters need to be cleaned. Pressing this button for 3 seconds resets the 40-hour period and turns the LED off.

**5**

LIGHT On/Dim/Off – This button controls the halogen lighting. The first press turns the lights on. A second press dims the lights. A third press turns the lights off.

**6**

HEAT LAMP BUTTONS – The buttons marked “L” and “R” independently control the left and right infrared heating lamps, turning the lights on or off.

# Cleaning Instructions

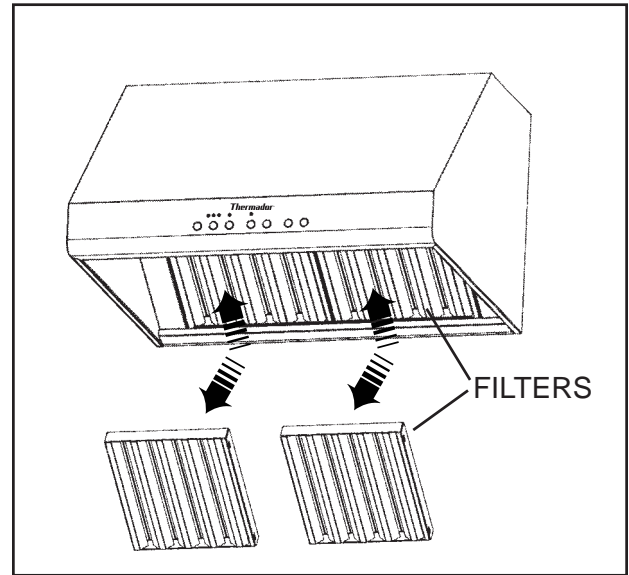
Be sure lights are cool before cleaning the hood.

## To Clean Filters

- When the filter reminder illuminates, the filters and grease troughs should be cleaned. When used over a grill, more frequent cleaning may be required.
- The filters can be washed by hand or in the dishwasher.

## To Clean Hood Surface

- For general care, wipe the outside of the stainless steel with sudsy water or household cleaners such as Fantastic® or Formula 409®. Rinse well and dry with clean soft cloth to avoid water marks.
- Wipe and dry brushed stainless steel in the same direction as the grain.
- Do not use abrasive products.
- To remove finger prints and give added shine use spray cleaners such as Stainless Steel Magic® and Shimmer®.

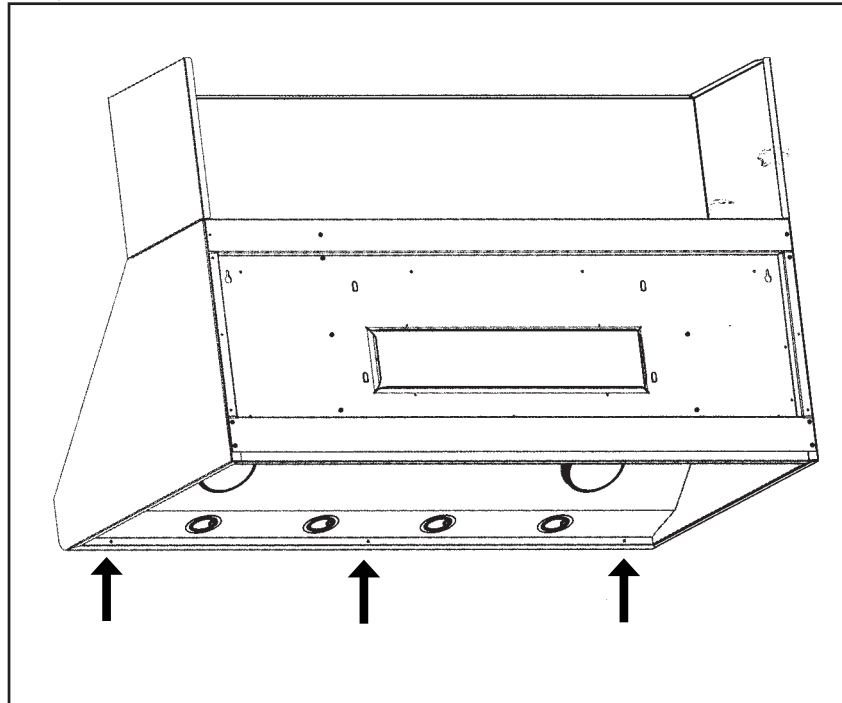


# Disassembly

The halogen lights and infra red lights are mounted on the light panel.

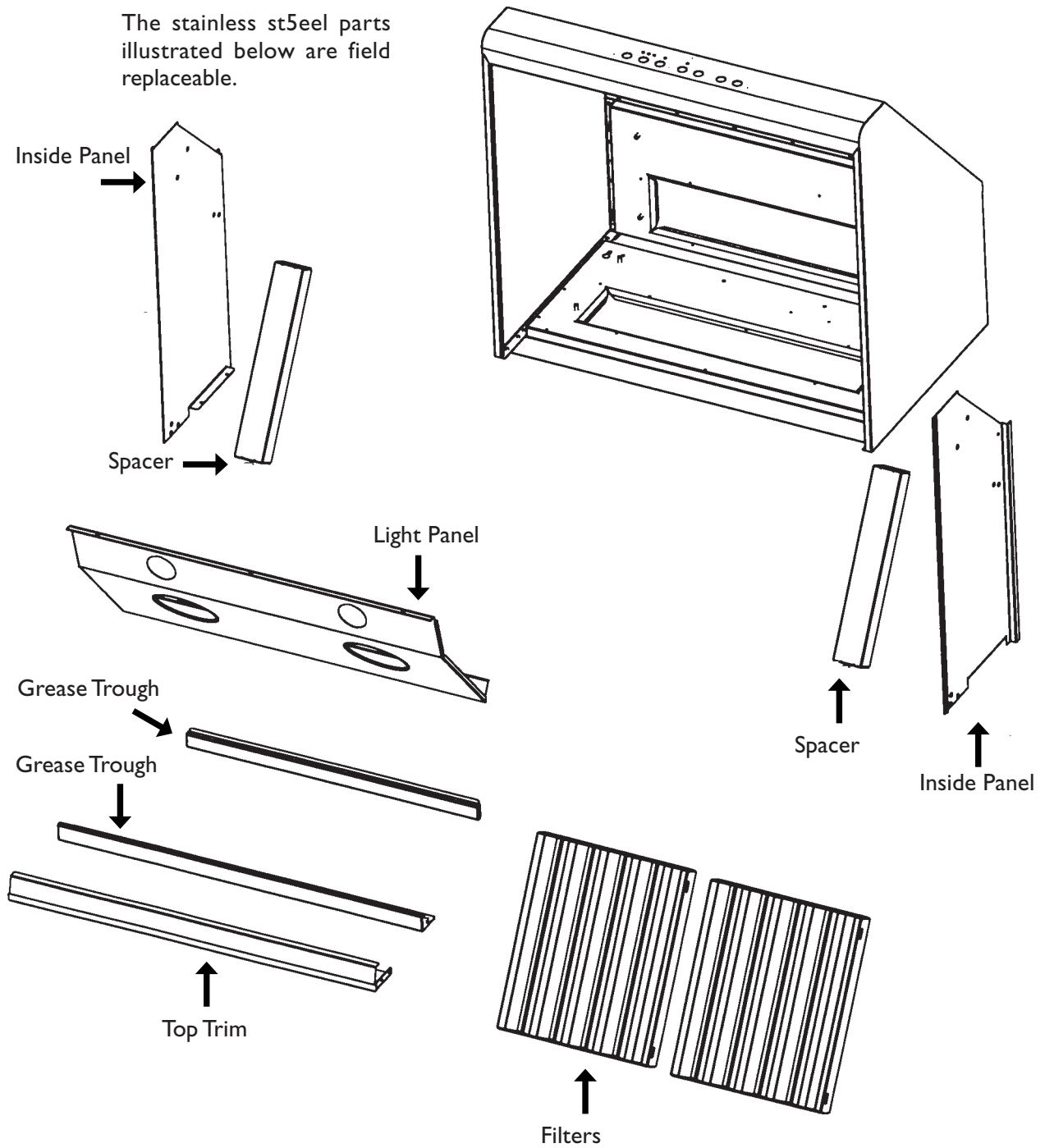
**To drop light panel, and gain access to components;**

- 1) Remove 3 screws as illustrated and drop the light panel.



# Stainless Steel Parts

The stainless steel parts illustrated below are field replaceable.

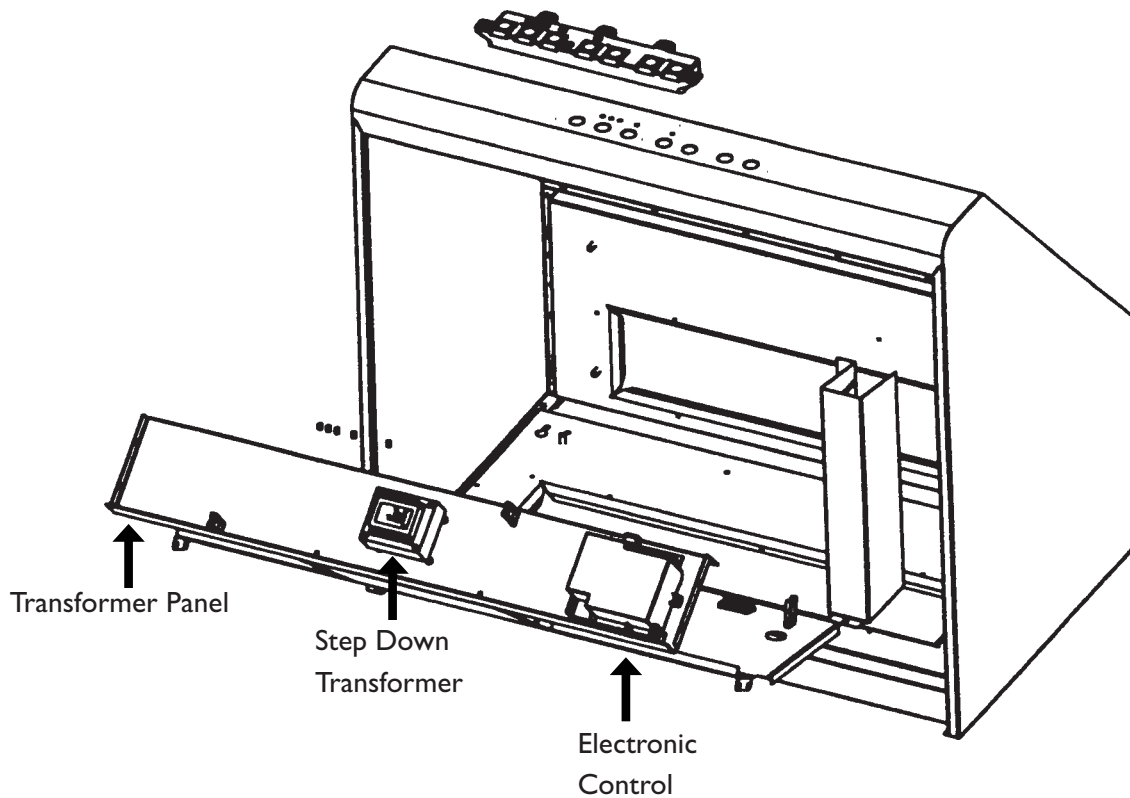


# Transformer Panel Removal

The step down transformer, electronic control and wire harness are mounted on the transformer panel.

**To remove the transformer panel and gain access to these components;**

- 1) Lower the light panel.
- 2) Remove 4 screws that attach the transformer panel to the sides of the hood. (see illustration).

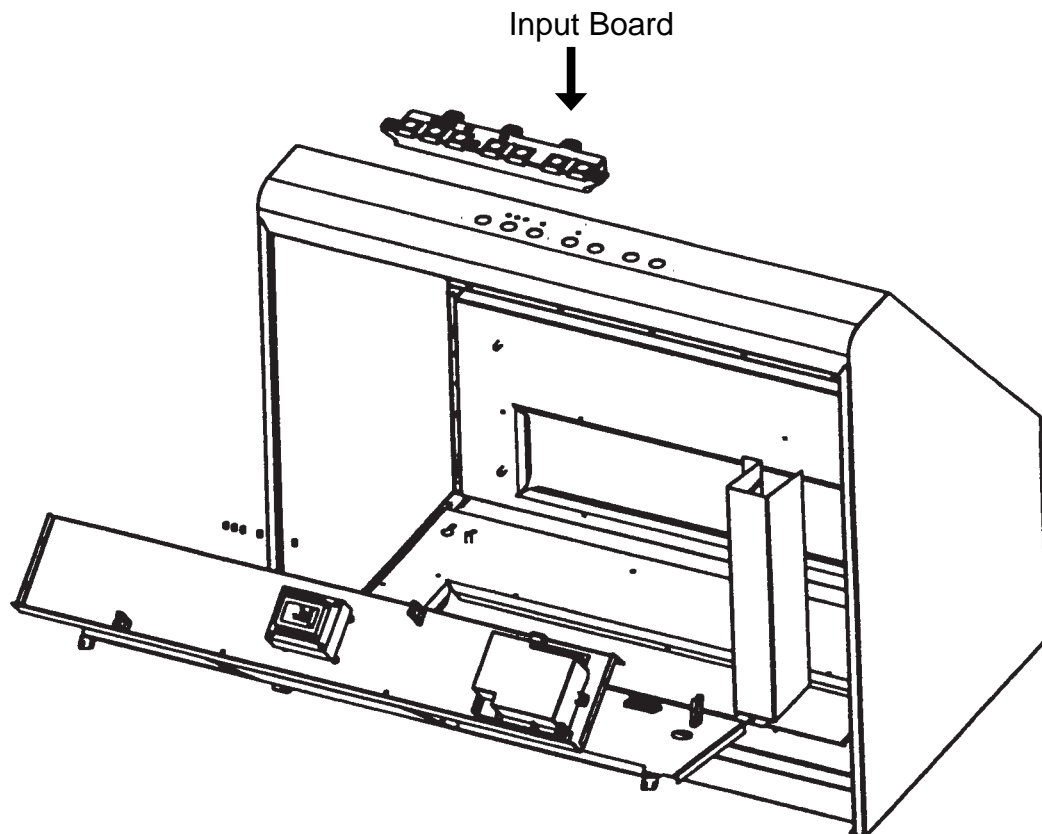


# Input Board Removal

The input board is mounted on the inside of the hood.

To remove the input board:

- 1) Remove light panel.
- 2) Remove (4) number 9 hex head nuts that attach the input board to the hood. (see illustration),



# THERMADOR HOOD WARRANTY

## FULL ONE YEAR WARRANTY

Covers one year from date of installation, or date of occupancy on a new, or previously unoccupied dwelling. Save your dated receipt or other evidence of installation/ occupancy date.

### Thermador **Will Pay For:**

All repair labor and replacement parts found to be defective due to materials and workmanship.

Service must be provided by a Factory Authorized Service Agency, during normal working hours. For a Service Agency nearest you, please call 800/735-4328.

### Thermador **Will Not Pay For:**

1. Service by an unauthorized agency Damage or repairs due to service by an unauthorized agency or the use of unauthorized parts.
2. Service visits to:
  - Teach you how to use the appliance.
  - Correct defects or repairs due to improper installation. You are responsible for providing electrical wiring and other connecting facilities.
  - Reset circuit breakers or replace home fuses.
  - Damage caused from accident, alteration, misuse, abuse, improper installation or installation not in accordance with local electrical codes or plumbing codes, or improper storage of the appliance.
  - Service labor during limited warranty period.
  - Travel fees and associated charges incurred when the product is installed in a location with limited or restricted access. (i.e., airplane flights, ferry charges, isolated geographic regions).
  - Repairs due to other than normal home use.

This warranty applies to appliances used in residential applications; it does not cover their use in commercial installations.

The warranty is for products purchased and retained in the 50 states of the U.S.A., the District of Columbia and Canada. Should the appliance be sold by the original purchaser during the warranty period, the new owner continues to be protected until the expiration date of the original purchaser's warranty period. Products for use in Canada must be purchased through the Canadian distribution channel to ensure regulatory compliance and warranty coverage

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

## HOW TO OBTAIN SERVICE

- Contact the Factory Authorized Service Agent in your area.
- Contact the Dealership where you purchased the appliance.
- Call the Thermador Customer Support Call Center at 800-735-4328.
- Write us to at: Thermador 5551 McFadden Avenue, Huntington Beach CA, 92649.

The Thermador logo is written in a bold, italicized, sans-serif font. The word "Thermador" is in a dark color, and a registered trademark symbol (®) is located to the upper right of the final letter.

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