



# GAS-FIRED VENTED WALL FURNACE



## Installation and Operating Instructions

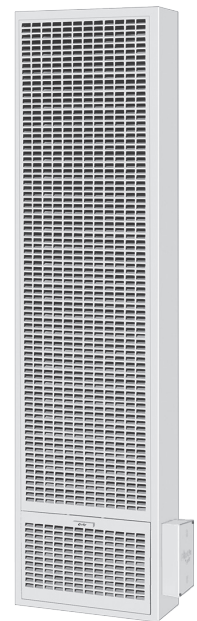


NATURAL GAS - W255GPPR, W255GPPD, W355GPPR, W355GPPD, W505GPPR & W505GPPD

**⚠ WARNING:** If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

- Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.
- **WHAT TO DO IF YOU SMELL GAS**
  - Do not try to light any appliance.
  - Do not touch any electrical switch; do not use any phone in your building.
  - Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department.
- Installation and service must be performed by a qualified installer, service agency or the gas supplier.

**INSTALLER:** Leave this manual with the appliance.  
**CONSUMER:** Retain this manual for future reference.



The coating selected to provide longer life to the heat exchanger may smoke slightly upon initial firing. Please provide adequate ventilation if this occurs.

This unit is **NOT** to be installed in mobile homes.

- Installation, maintenance, service, troubleshooting & repairs must be performed by a qualified service agency. **DO NOT** attempt any of these procedures if you are not qualified as this could expose you to property damage, personal injury, or loss of life and will invalidate all warranties.
- This unit is for residential use only and is not approved for installation in mobile homes, greenhouses, or environments involving dusty, wet, corrosive, or explosive conditions. Such conditions will invalidate the warranty and may create unsafe conditions.
- This appliance is equipped with a blocked flue switch designed to protect against a blocked flue condition.

**WARNING:** Operation of this furnace without the properly installed, factory furnished vent system & vent cap could result in Carbon Monoxide (C.O.) poisoning and possible death. For your safety, this furnace & the vent system should be inspected at least annually by a qualified service technician.

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These installation instructions are a general guide and do not supersede applicable local codes and ordinances. Before planning or making the installation be sure it complies with all phases of the local heating code. (Or, in the absence of local codes, with the latest edition of National Fuel Gas Code, ANSI.Z223.1, or CAN1-B149).

The appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the latest edition of National Electrical Code ANSI / NFPA 70, or Canadian Electrical Code CSA-C22.1.

All of the ANSI and NFPA standards referred to in these installation instructions are the ones that were applicable at the time the design of this appliance was certified.

#### NFPA Standards:

#### **NATIONAL FIRE PROTECTION ASSOCIATION**

1 Batterymarch Park  
Quincy, Massachusetts | USA 02169-7471

#### ANSI & Canadian Standards:

#### **CSA GROUP**

178 Rexdale Boulevard,  
Toronto, Ontario | Canada M9W 1R3

The design of this appliance was certified to comply with the latest edition of ANSI Z21.86 and CSA 2.32.

*Installer must leave these instructions with the consumer, have them complete, and return the warranty card.*

**The State of Massachusetts requires that installation and service of a gas appliance be performed by a plumber or gas fitter licensed in the Commonwealth of Massachusetts.**

## SPECIFICATIONS & DIMENSIONS

Your vented wall furnace comes packed in a single carton. Included in the box: the thermostat, thermostat wire, and insulated staples. Before installing the wall furnace check the rating plate to verify that the Model Number is correct and that the wall furnace is equipped for the type gas you intend to use.

<b>MODEL NUMBERS:</b>		<b>SINGLE WALL FURNACES</b>		<b>DOUBLE WALL FURNACES</b>
		<i>W255GPPR W255GPPD</i>	<i>W355GPPR W355GPPD</i>	<i>W505GPPR W505GPPD</i>
<b>Gas Type</b>		<b>Natural</b>	<b>Natural</b>	<b>Natural</b>
<b>Type of Control</b>		Millivolt Wall Stat.	Millivolt Wall Stat.	Millivolt Wall Stat.
<b>Height</b>		<i>68" h</i>	<i>68" h</i>	<i>68" h</i>
<b>Width</b>		<i>16.5" w</i>	<i>16.5" w</i>	<i>16.5" w</i>
<b>Depth</b>		<i>6.5" d</i>	<i>6.5" d</i>	<i>6.5" d</i>
<b>Input (BTU / HR)</b>		25,000	35,000	50,000
<b>Type of Pilot</b>		PilotPro - IPI *	PilotPro - IPI *	PilotPro - IPI *
<b>Vent size</b>		4"	4"	4"
<b>Gas Inlet</b>		1/2"	1/2"	1/2"
<b>Approximate Shipping Weight</b>		91 lbs	91 lbs	135 lbs
<b>Rear Register Kit</b>	Model Num. Weight	40542 5lbs	40542 5lbs	
<b>Fan Kit</b>	Model Num. Weight	WFF81 10 lbs	WFF81 10 lbs	WFF81 10 lbs

**NOTES:**

- *If optional rear register kit is to be used, see supplemental installation instructions (No. **84504**) and section marked "Special Instructions for Rear Register Kit Application" prior to installation of Rough-In.*
- *This heater may be installed without recessing into stud space by using optional FSK (Free Standing Kit).*

*\* IPI - Intermittent Pilot Ignition.  
(Type of Pilot used with IID Heaters).*

## INTRODUCTION

This is a gas-fired, gravity vented wall furnace that will operate safely and provide an efficient source of heat when installed, operated and maintained as recommended in these installation and operating instructions. Read these instructions thoroughly before installing, servicing, or using the appliance. If you do not understand any part of these instructions, consult local authorities, other qualified installers, service technician, the gas supplier or the manufacturer.

## SAFETY

1. The wall furnace should be located near the center of the house for best heat distribution.
2. Due to high temperatures, the appliance should be located out of traffic and away from furniture and draperies.
3. Children and adults should be alerted to the hazards of high surface temperature and should stay away to avoid burns or clothing ignition.
4. Young children should be carefully supervised when they are in the same room as the appliance.
5. Do not place clothing or other flammable material on or near the appliance. Precautions should be taken so as not to place furniture, drapes, or other articles directly in front of grille or lower access door that would obstruct air openings as proper air flow is critical to proper operation of unit.
6. Any safety screen guard or casing front removed for servicing an appliance must be replaced prior to operating the appliance.
7. Heater must be installed with legs resting on the 2x4 floor sill plate (recessed) or the factory FSK Kit (flush mount). The header plate shall then be installed at a height 65-3/4 inches above top surface of the plate that the heater legs rest on. This provides the listed 2 inch minimum floor clearance.  
If the area where the heater is installed contains carpeting, tile, etc., the listed 2 inch minimum floor clearance must be maintained from the top surface of these materials. If the heater is installed DIRECTLY on carpeting, tile or any combustible material other than wood flooring, the heater shall be installed on a metal or wood panel secured to the floor, extending the full width and depth of the heater.
8. Installation and repair must be done by a qualified installer or service technician. The wall furnace must be inspected before use and at least annually by a qualified service technician.



### **WARNING: CARBON MONOXIDE POISONING HAZARD**

**Failure to follow the steps outlined below for each appliance connected to the venting system being placed into operation could result in carbon monoxide poisoning or death.**

*The following steps shall be followed for each appliance connected to the venting system being placed into operation, while all other appliances connected to the venting system are not in operation:*

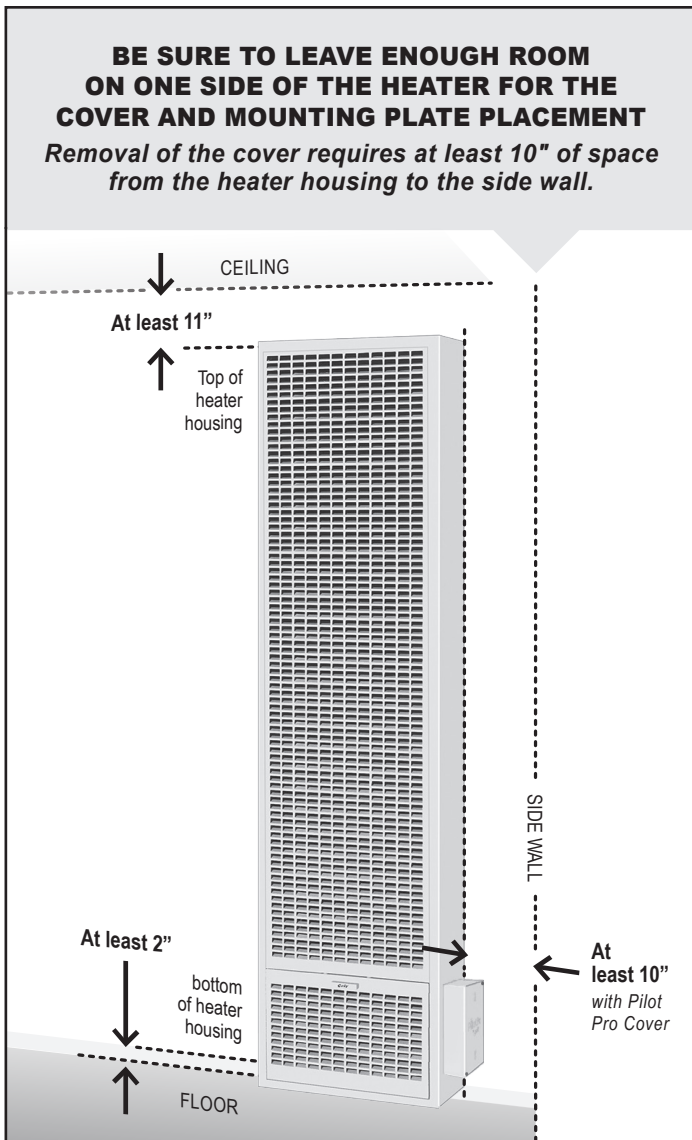
1. Seal any unused openings in the venting system.
2. Inspect the venting system for proper size and horizontal pitch, as required in the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or the Natural Gas and Propane Installation Code, CSA B149.1 and these instructions. Determine that there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.
3. As far as practical, close all building doors and windows and all doors between the space in which the appliance(s) connected to the venting system are located and other spaces of the building.
4. Close fireplace dampers.
5. Turn on clothes dryers and any appliance not connected to the venting system. Turn on any exhaust fans, such as range hoods and bathroom exhausts, so they are operating at maximum speed. Do not operate a summer exhaust fan.
6. Follow the lighting instructions. Place the appliance being inspected into operation. Adjust the thermostat so appliance is operating continuously.
7. Test for spillage from draft hood equipped appliances at the draft hood relief opening after 5 minutes of main burner operation. Use the flame of a match or candle.
8. If improper venting is observed during any of the above tests, the venting system must be corrected in accordance with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 and/or Natural Gas and Propane Installation Code, CSA B149.1.
9. After it has been determined that each appliance connected to the venting system properly vents when tested as outlined above, return doors, windows, exhaust fans, fireplace dampers and any other gas-fired burning appliance to their previous conditions of use.

**CLEARANCES**

As viewed from the front of heater, these are the minimum clearances from cabinet to combustible construction:

**Side Wall - 1"**  
*without Pilot Pro Cover*  
**Side Wall - 10"**  
*with Pilot Pro Cover*  
**Floor - 2"**  
**Ceiling - 11"**

- In selecting a location for installation it is necessary to provide adequate accessibility clearances for servicing and proper operation.
- This appliance must not be connected to a chimney flue that serves to vent a solid-fuel burning (wood or coal) appliance, or a multi-vent system.



**CONTROLS**

All controls are preassembled at the factory.

The normal manifold pressure should be 3.5" w.c. on Natural Gas. The maximum inlet pressure in the gas supply pipe should never exceed 7.0" w.c. on Natural Gas.

The appliance and its individual shutoff valve must be disconnected from the gas supply piping system during any pressure testing of that system at test pressures in excess of 1/2 psig.

The appliance must be isolated from the gas supply piping system by closing its individual manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 psig.

The minimum inlet pressure in the gas supply pipe should be 5.0" w.c. on Natural Gas "for purpose of input adjustment".

The appliance is orificed at the factory for elevations between sea level and 2,000 feet. If installed above 2,000 feet, the BTU input must be reduced 4% per 1,000 feet that the furnace is above sea level. See the following orifice chart for the proper orifice for a specific elevation. The orifice(s) will have to be drilled to correct size by a qualified installer, service technician or the gas supplier.

**ORIFICES**

Model No.	0' - 2,000'	2,000' - 4,000'	4,000' - 6,000'	6,000' - 8,000'	8,000' - 10,000'
W255GPPR	43	44	45	47	48
W255GPPD	43	44	45	47	48
W355GPPR	36	38	40	41	43
W355GPPD	36	38	40	41	43

**ORDER KIT #49820 45-1 High Altitude Kit**

Model No.	0' - 2,000'	2,000' - 4,000'	4,000' - 6,000'	6,000' - 8,000'	8,000' - 10,000'
W505GPPR	43	44	45	47	48
W505GPPD	43	44	45	47	48

**ORDER KIT #49850 2287-2 High Altitude Kit**

## COMBUSTION AND VENTILATION AIR

When installed, this gas appliance must be provided with fresh air for combustion, ventilation, and dilution of hot flue gases. The minimum required volume of the area where the appliance is installed should be 50 cubic feet per 1,000 btu/hr.

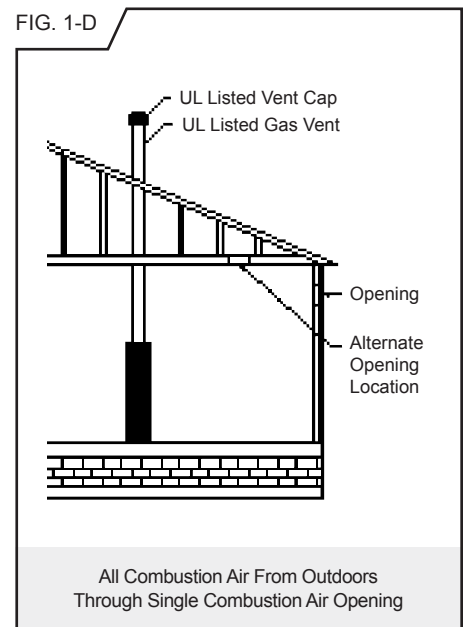
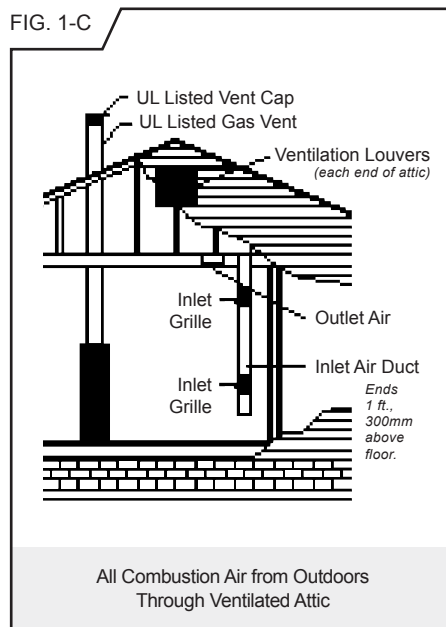
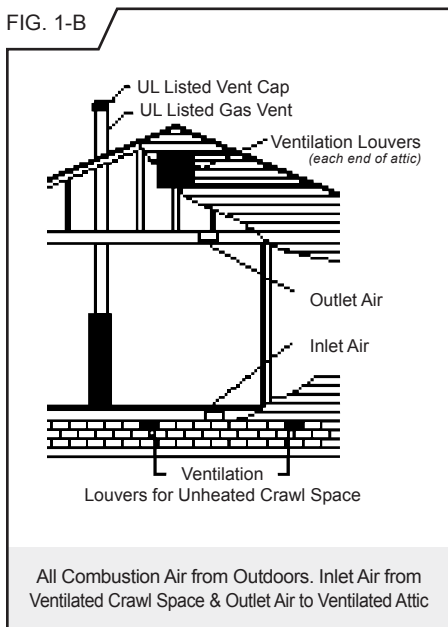
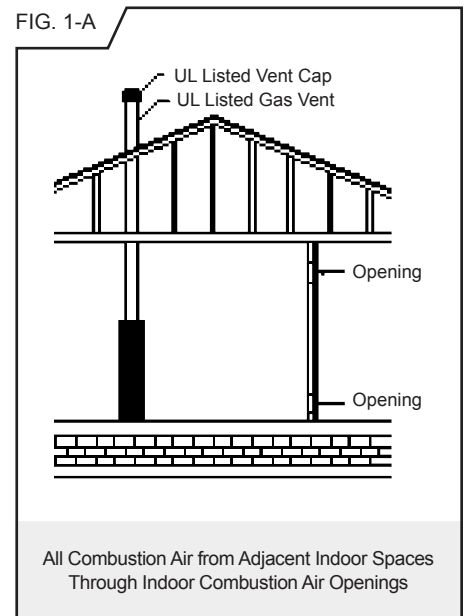
If installed in an area of the home that is considered an unconfined space, the natural infiltration of air around windows and doors will be adequate. If the area is considered a confined space (less than 50 cubic feet per 1,000 btu), fresh air can be supplied by providing two permanent openings into adjoining rooms. Each opening shall have a minimum free area of one square inch per 1,000 btu per hour of the total input rating of all gas appliances in the confined space, but not less than 100 square inches. One of the openings shall be within 12 inches of the ceiling and one within 12 inches of the floor. **See Figure 1-A.**

If the home is of unusually tight construction (new and remodeled homes), free air must be supplied through opening(s) to the outdoors. This can be accomplished by providing 2 permanent openings, one commencing within 12 inches of the ceiling and one within 12 inches of the floor. These openings shall communicate directly with the outdoors, or spaces that communicate freely with the outdoors, such as a ventilated attic and crawl space through galvanized or equivalent corrosion-resistant ducts. Exception: unobstructed stud and joist spaces are acceptable ducts provided that not more than one fire block is removed. Special provisions must be taken to insure that these stud and joist spaces cannot be blocked with insulation or other objects. Each of these openings using vertical ducts shall have a minimum free area of one square inch per 4,000 btu/hr of total input rating of all gas appliances. **See Figure 1-B and 1-C.** If horizontal ducts are used, the minimum free area shall be one square inch per 2,000 btu/hr of total input rating of all gas appliances.

Fresh make-up air can also be provided through a duct to one permanent opening commencing within 12 inches of the ceiling. The minimum free area of this opening shall be one square inch per 3,000 btu/hr of the total input rating of all gas appliances but not less than the sum of the areas of all vent connectors in the space. **See Figure 1-D.**

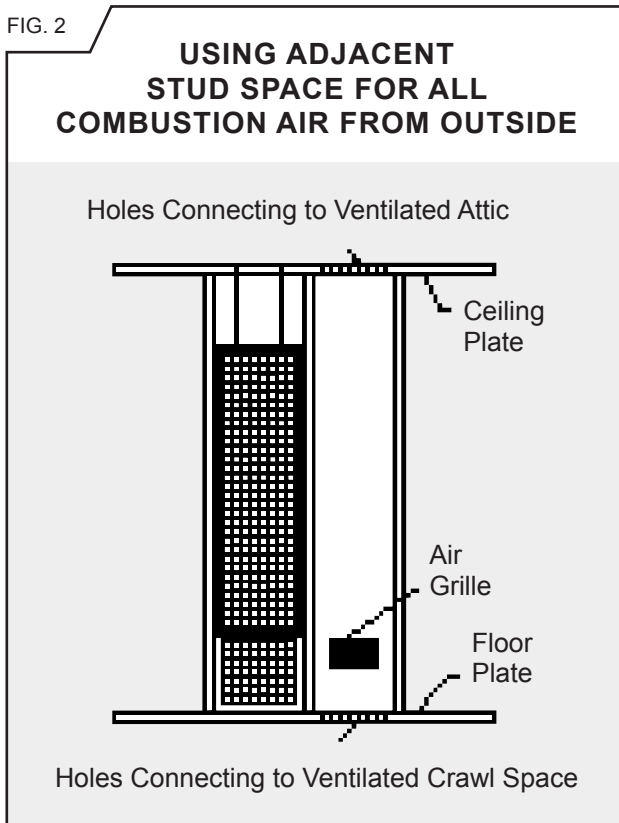
When calculating the amount of fresh air needed you must include make-up air requirements for the operation of exhaust fans, kitchen ventilation systems, clothes dryers, and fireplaces.

Additional information can be found in the latest edition of ANSI Z223.1 (National Fuel Gas Code).



## VENTING

FIG. 2



Based on 4,000 BTU of total input rating of all gas appliances, the heater only requires a minimum free area of:

BTU	Square In.	Hole Size	Square In.
25,000	06.25	1"	0.785
33/35,000	08.75	1.5"	1.760
50,000	12.50	2"	3.140

This appliance must be properly connected to a venting system.

Consult local ordinances governing venting. Install only UL listed type BW 4" oval gas vent. When the vent enters the attic, a listed type B-1 round flue pipe may be used. **See Figure 7-A (on page 9).**

Vent pipe must connect to the wall furnace header plate with a "B" vent base plate and terminate with a cap at a point at least 12 foot above the bottom of the wall furnace, two feet above any obstacle within a 10 foot radius, and at least 3 foot above the roof.

### PROVISIONS MUST BE MADE FOR ADEQUATE COMBUSTION AND VENTILATION AIR.

This appliance is equipped with a manual reset blocked flue switch designed to protect against a blocked flue condition, which would cause combustion products to spill back into the living quarters.

*NOTE: A partially blocked, inadequate, or disconnected vent system may not activate the switch.*

Discoloration of the grille is an indication of a bad vent. If this occurs, the vent can be checked by a qualified serviceman using a draft gauge. After 15 minutes the gauge should read between -.02 up to -.04 inches w.c. Vent must be checked at the beginning of each heating season.

### Manual Reset Switch

The switch when activated will break the thermostat circuit turning off the main burner flame. Before the burner will relight, the switch must be manually reset. See **Figure 4-A (on page 8)** for location of the manual reset blocked flue switch. To reset the switch, insert a slender rigid object (i.e. screwdriver) through the front panel louvers and push the reset button down. See **Figure 4-B (on page 8)**. However, you may have to remove the front panel, then reset the switch and re-install the front panel before turning the burner on. If homeowner experiences this problem, the vent system must be checked and corrected.

*NOTE: A preexisting vent that has worked for years may not be adequate for todays design because of higher efficiency requirements that result in lower stack temperatures. See "Possible Causes and Corrective Action" on pages 30-32.*

All type "B" vents shall extend in a generally vertical direction with offsets not exceeding 45 degrees, except that a vent system having not more than one 60 degree offset may be allowed.

Any angle greater than 45 degrees from the vertical is considered horizontal. The total horizontal run of a vent plus the horizontal vent connector shall be not greater than 75 percent of the vertical height of the vent.

Any offsets used should be as far above the draffhood as possible to allow a venting action to begin before any restriction is encountered.

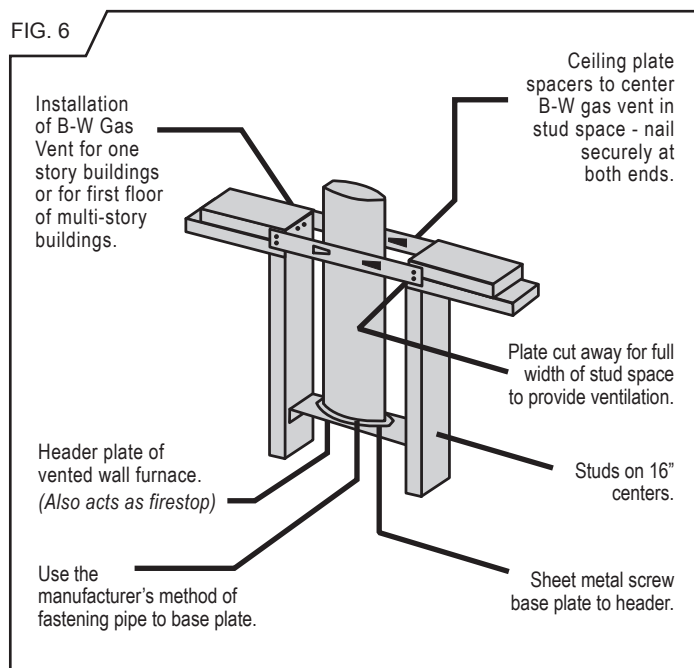
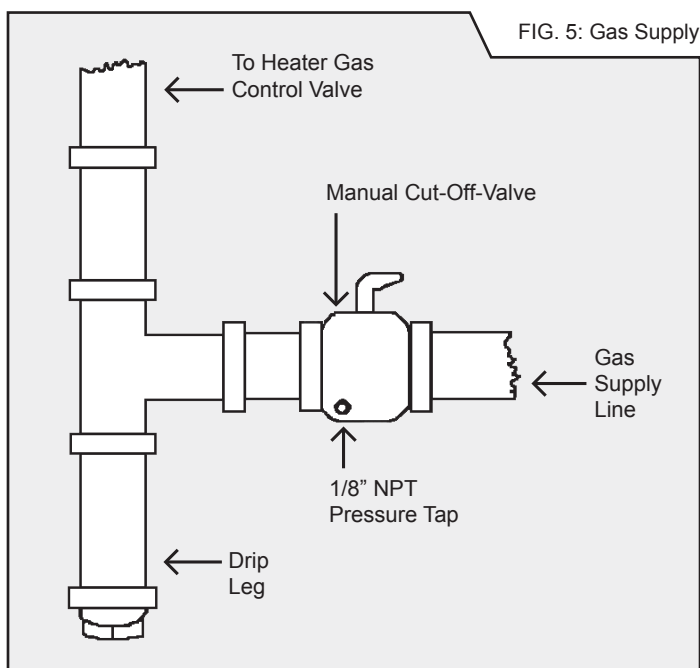
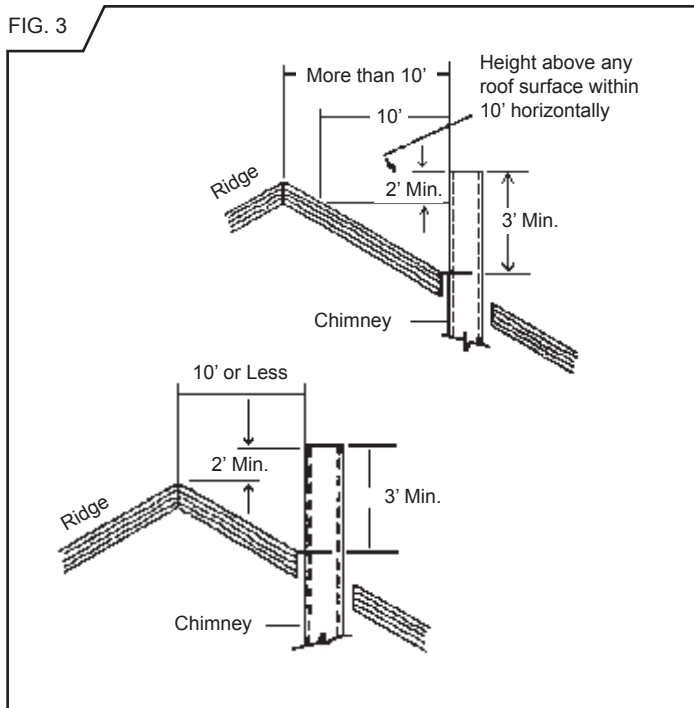
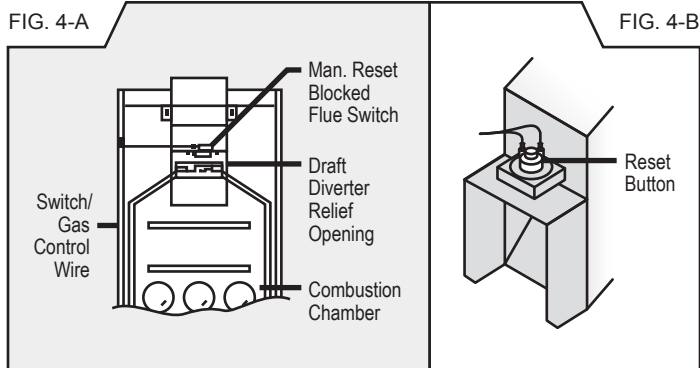
## ROUGH-IN INSTRUCTIONS

**⚠ WARNING:** Do not bypass the blocked flue switch. To do so could expose the consumer to property damage, personal injury or possible death.

*NOTE: MAXIMUM WALL THICKNESS FOR A DUAL WALL (W505GPPR, W505GPPD) INSTALLATION IS 5-3/8".*

### STEP 1.

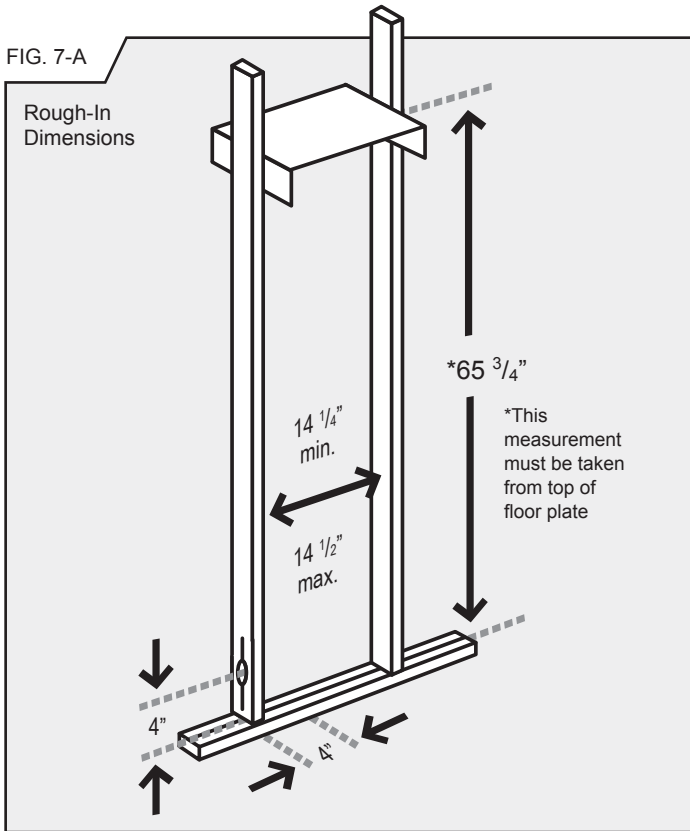
Attach the base plate (purchased with the vent pipe) to the header plate using two No. 8 sheet-metal screws through the pre-punched holes. The heater may not vent properly without a base plate to anchor and seal the vent system. **See Figure 6.**





## ROUGH-IN INSTRUCTIONS

FIG. 7-A



### STEP 2.

Cut out an opening between the studs of 14-3/8" x 66-1/2" above the floor plate. Embed the rear flange of the channel on top of header into either the drywall or the plastered wall. This provides part of the required fire stop. Square up and nail the header in place with the top front of header located 65-3/4" above floor plate. **See arrow on right side of header & Fig. 7-A, 7-B and 7-C.**

### STEP 3.

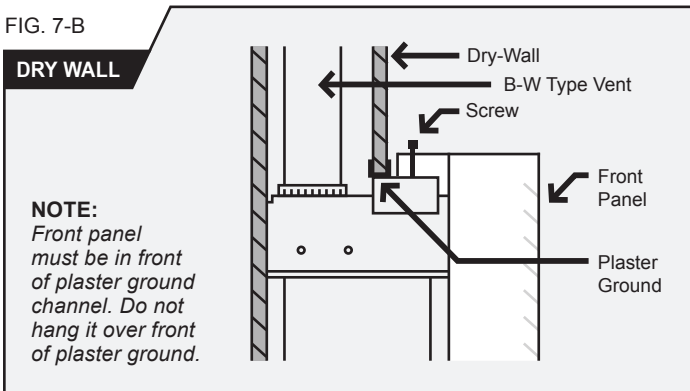
Rough in 1/2" gas supply on center line of left stud either 4" above top of floor plate or 4" to right of left stud through floor plate. (See Fig. 7-A)

### STEP 4.

Remove double ceiling plate between studs. Install one ceiling plate spacer across the cut out in ceiling plate. Install vent pipe into position, be sure to lock bottom of vent pipe into the base plate. Nail the second ceiling plate spacer in place. See Figure 6 (on page 8).

*NOTE: For proper combustion, make sure units are level, front to back and side to side.*

FIG. 7-B



### STEP 5.

If the vent continues through additional stories within the 2x4-stud space, then fire-stop-spacers must be installed at the second and subsequent ceiling levels. See Figure 7-D (below).

FIG. 7-C

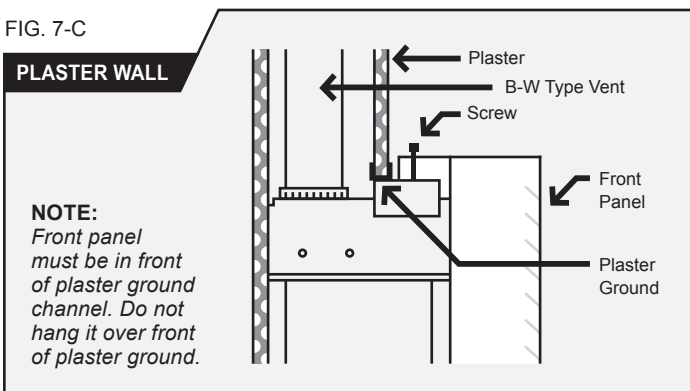
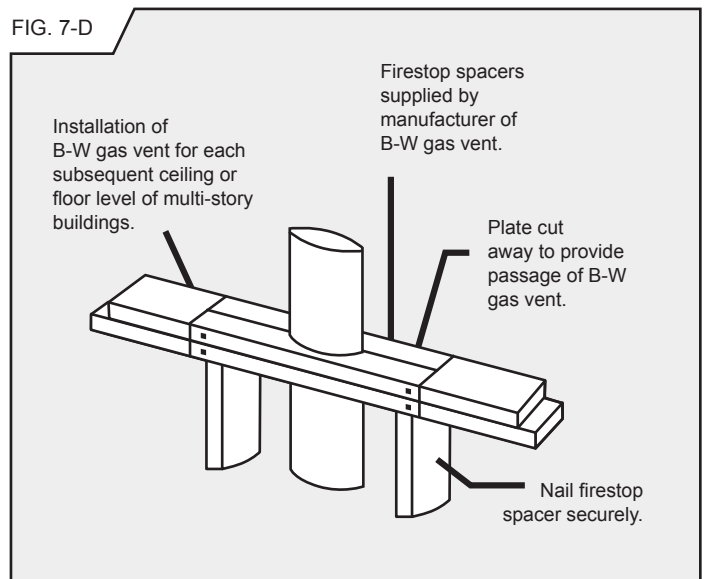
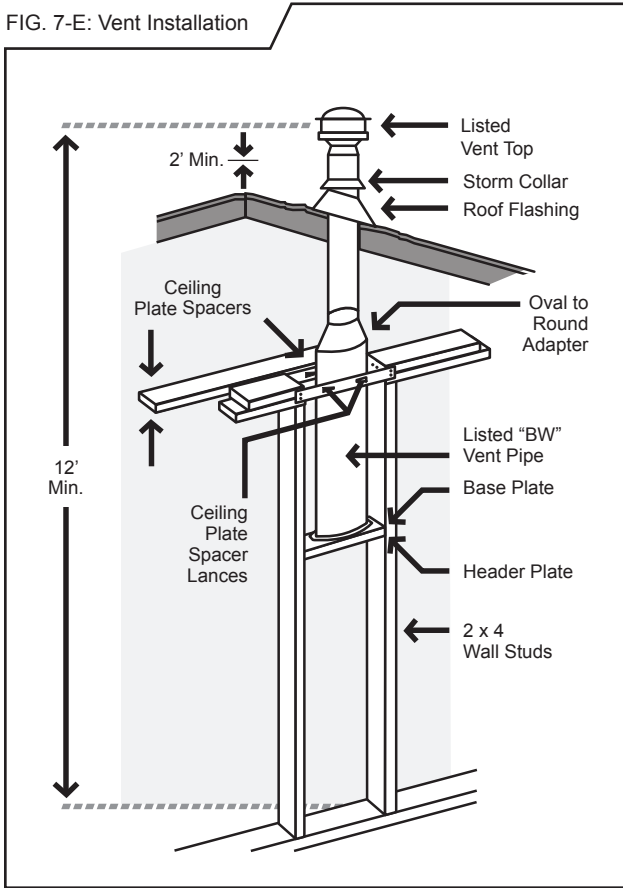


FIG. 7-D



## ROUGH-IN INSTRUCTIONS

FIG. 7-E: Vent Installation



### STEP 6.



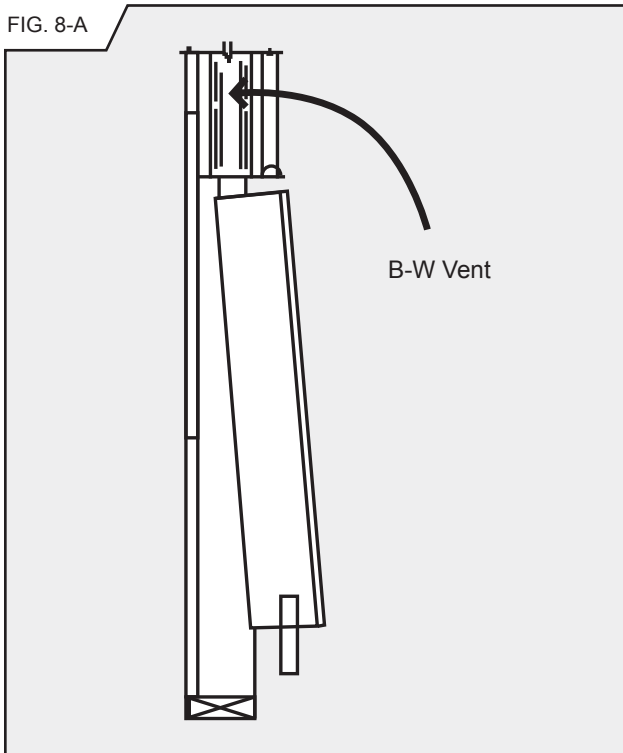
**WARNING:** *Failure to locate the thermostat properly or to wire the furnace correctly may result in continuous operation, control damage or failure to operate. This can cause property damage, personal injury, or loss of life.*

Follow the instructions included with the thermostat. Locate the thermostat approximately five (5') feet above the floor and four feet (4') from appliance. Always mount the thermostat on an inside wall where it won't be affected by heat or cold sources such as direct sunlight, televisions, fireplaces, hidden hot or cold water pipes, drafts, etc. The thermostat must never be installed in an adjoining room where a door can be closed between the thermostat and wall furnace. Do not use more thermostat wire than is included with the wall furnace. Do not run thermostat wire in same stud space with vent. Conceal wire inside wall or secure to wall with insulated staples that are included. *Your furnace is shipped with a wall thermostat (See page 34-35).*

### STEP 7.

To place furnace into position, grasp furnace and lift so furnace flue vent and header plate vent opening engage. Do not use burner or gas control to lift heater. Lift furnace upward and swing bottom into wall opening until legs rest on floor plate and are flush to finished wall. For proper combustion, level heater front to back and side to side. Nail legs to studs. **DO NOT BEND LEGS** as this will put the entire unit into a bind and cause expansion noises. **See Figure 8-A.**

FIG. 8-A



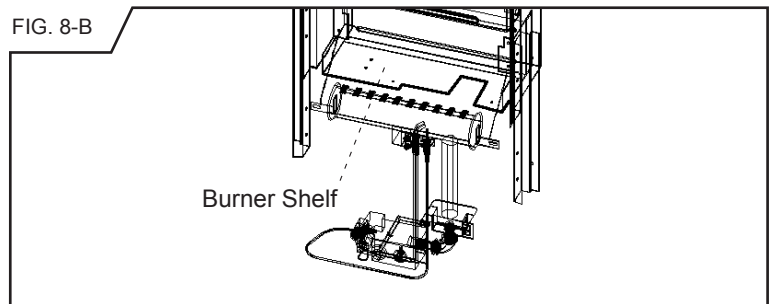
### STEP 8.

A drip leg and a manual valve equipped with a 1/8 N.P.T. plugged tapping accessible for test gauge connection should be installed immediately upstream of the gas supply connection to the appliance. Some codes and ordinances require that the manual valve be located outside the appliance.

### STEP 9.

Make gas connection using connector the same size as gas connection of furnace. **CHECK ALL CONNECTIONS FOR GAS LEAKS WITH LEAK DETECTOR SOLUTION. DO NOT USE OPEN FLAME.**

FIG. 8-B



## INSTALLATION

### STEP 10.

- Remove the door from the heater housing.
- Locate the Pilot Pro in the carton and remove the cover from baseplate with a screwdriver.
- The Pilot Pro may be installed near the base of either side of the heater housing. *When selecting a side for installation, be sure to allow room for future removal of the pilot pro cover.*
- Check the inside of the housing for safety labels. Try to avoid drilling through any pertinent safety information during this step.

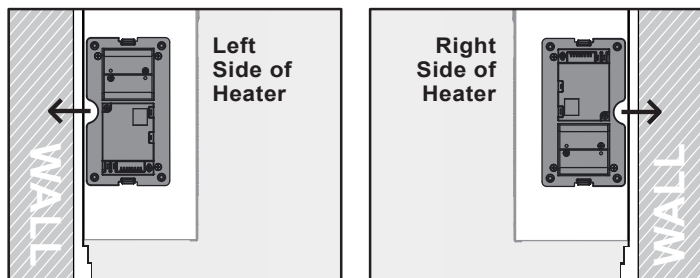
**USE THE MOUNTING PLATE (30) FOR THE FOLLOWING STEPS. MOUNTING PLATE MUST BE MOUNTED AS DIRECTED BELOW OR WIRE HARNESS WILL NOT REACH.**

**1. PLEASE NOTE **A** OF THIS STEP.**

*Do not mount the PilotPro any higher than the top of the access door of the housing.*

**2. PLEASE NOTE **B** OF THIS STEP.**

*Align the PilotPro very close to the back edge of the housing.*



**3. PLEASE NOTE **C** OF THIS STEP.**

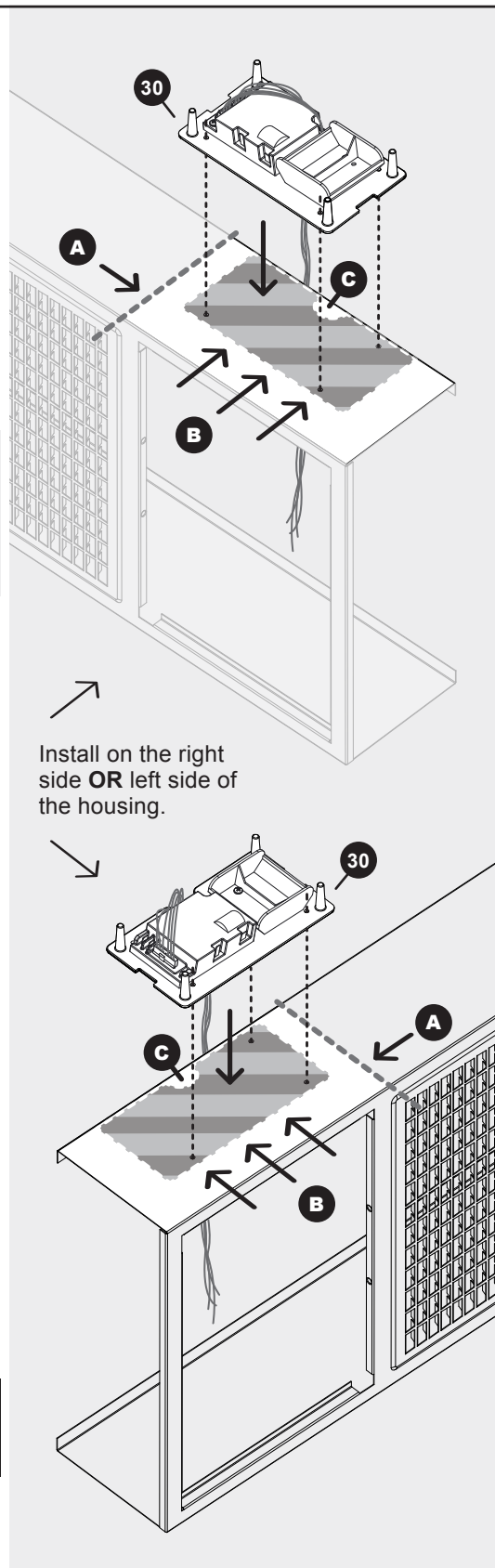
*Be sure to face the notch / cutout of the mounting plate (30) toward the wall.*

4. Using the mounting plate (30) as a template, align in place as illustrated. Using a marker or pencil, leave a mark for the three hole locations on the metal housing.

**SET ASIDE THE MOUNTING PLATE (30).**

**DO NOT DRILL DIRECTLY THROUGH MOUNTING PLATE. DRILL MAY CRACK THE MOUNTING PLATE.**

5. Drill the three holes into housing using a 3/16" drill bit.



## INSTALLATION

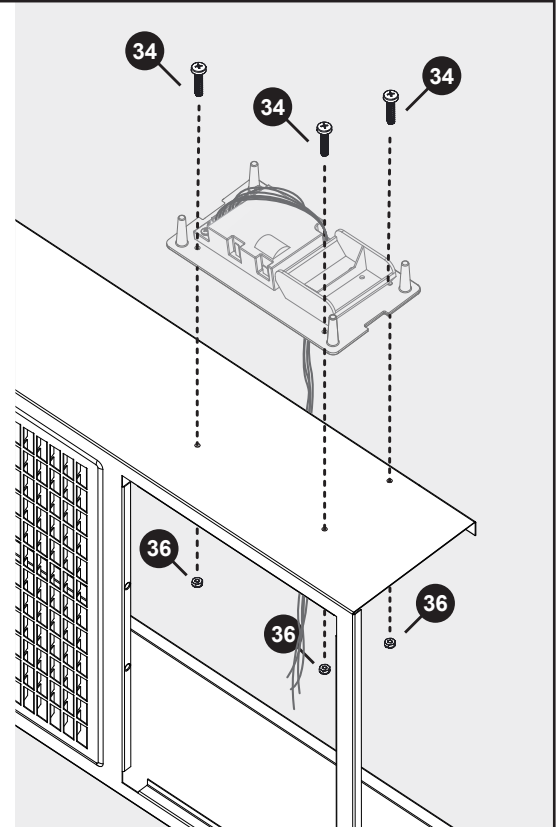
### STEP 11.

With a phillips-head screwdriver, attach the controls assembly to the side of the heater using:

- x3 Screws #8-32 x 3/4" (34)
- x3 Nuts #8 (36)

**DO NOT use a powered drill for this step, it could crack the mounting plate.**

**USE A SCREWDRIVER AND HAND-TIGHTEN ONLY.**



### STEP 12.

To fasten front panel to furnace, be sure exposed portion of header is free of debris. Place outer panel over furnace with top of panel about one inch above header and centered in opening. Keep front panel flush to finished wall and slide down until rear flange of top outer panel is wedged tight against the front of the plaster ground channel and flush with wall.

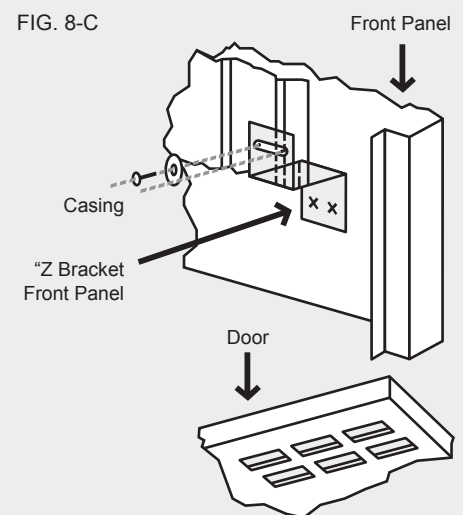
**CAUTION: DO NOT HANG FRONT PANEL BEHIND (OVER FRONT LIP) THE PLASTER GROUND CHANNEL AS THIS COULD RESULT IN EXCESSIVE NOISE.**

Open bottom door of front panel and place sheet metal screw into locking latch. Secure top of front panel to header plate with screw provided. This will hold front panel securely to wall.

**See Figures 7-B and 7-C (on page 10) and 8-C (to the right).**

*NOTE: Leave the access door open until installation is complete.*

FIG. 8-C



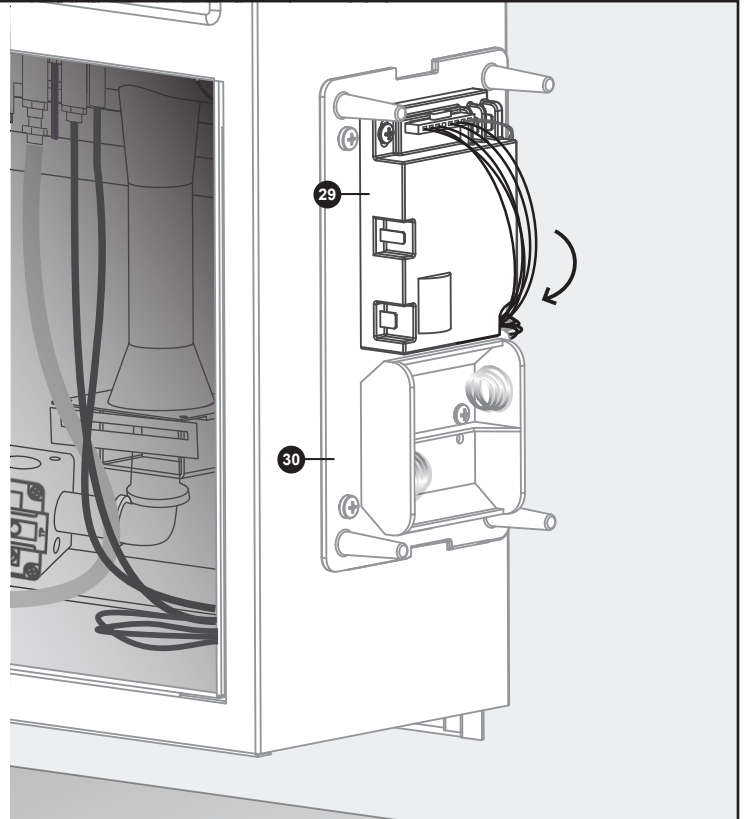
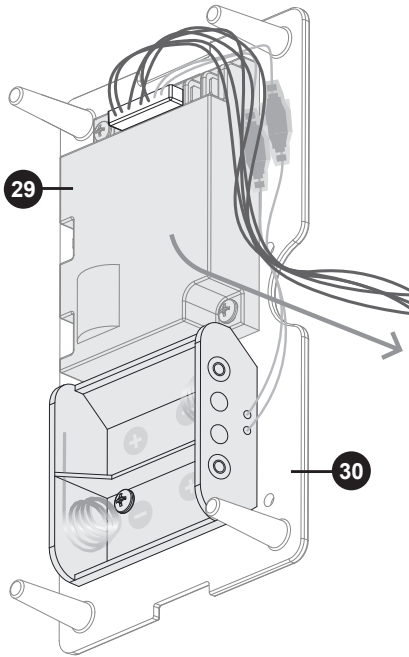
**MAKE SURE THERE ARE NO SHARP EDGES ON THE RIM OF THE HEATER HOUSING THAT COULD POTENTIALLY DAMAGE THE WIRES.**

## INSTALLATION

### STEP 13.

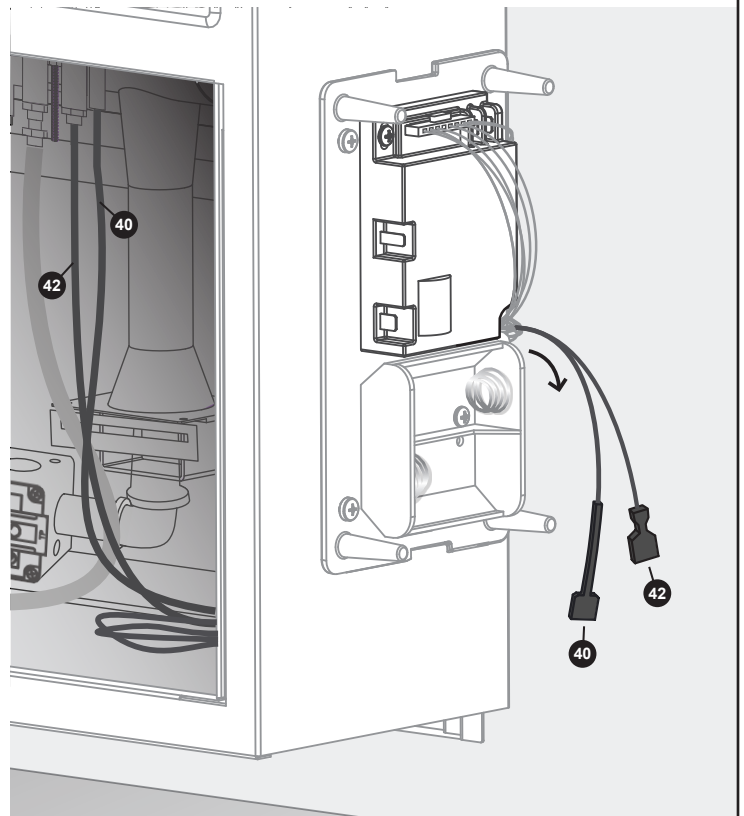
Direct the control module wires (29) through the small notch on the side of the mounting plate (30).

Tuck the wires around the edge of the heater housing, against the wall, and inside the heater.



On the inside of the heater, you will see orange and black wires extending from the burner.

Lead the orange pilot ignitor wire (40) and black flame sensor wire (42) out of the heater beside the wires you have just directed in.





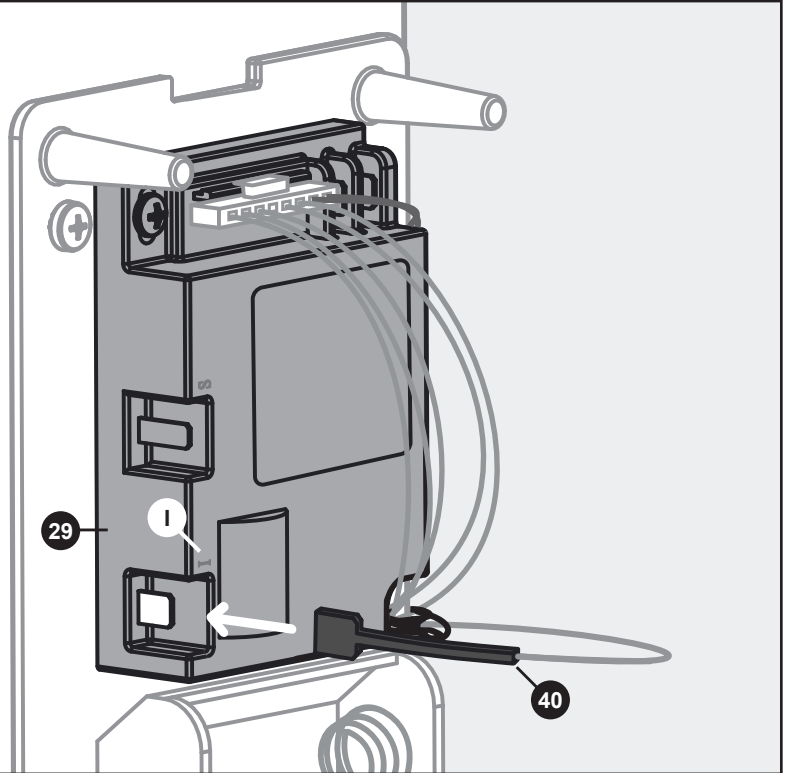
## ELECTRICAL CONNECTION



**WARNING:** Please Use Caution While Installing the Electrical Connection

### STEP 1.

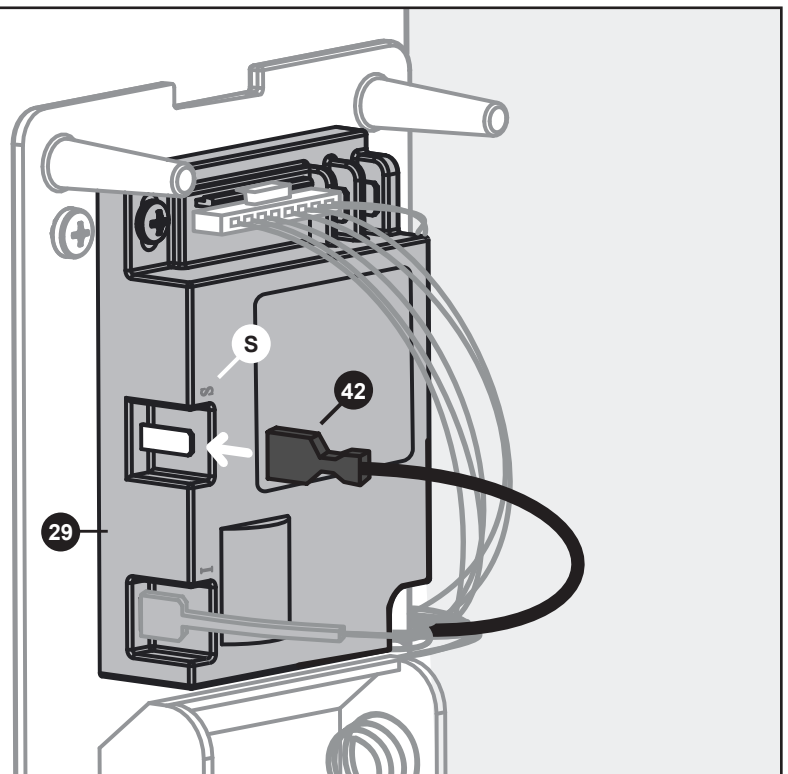
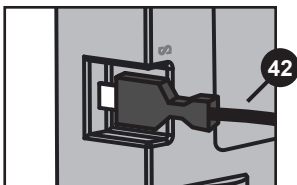
Plug the orange wire from Ignitor (40) into the port labeled "I" on the control module (29). *Ensure it is firmly seated.*



### STEP 2.

Plug the black flame sensor wire (42) into the port labeled "S" on the control module (29). *Ensure it is firmly seated.*

*NOTE: Base of the connector terminal may be slightly exposed.*



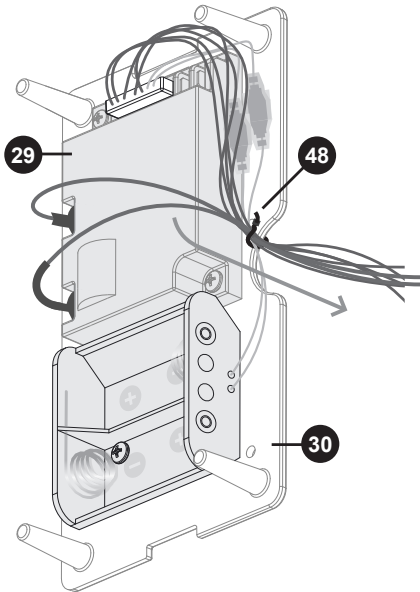


## ELECTRICAL CONNECTION



**WARNING:** Please Use Caution While Installing the Electrical Connection

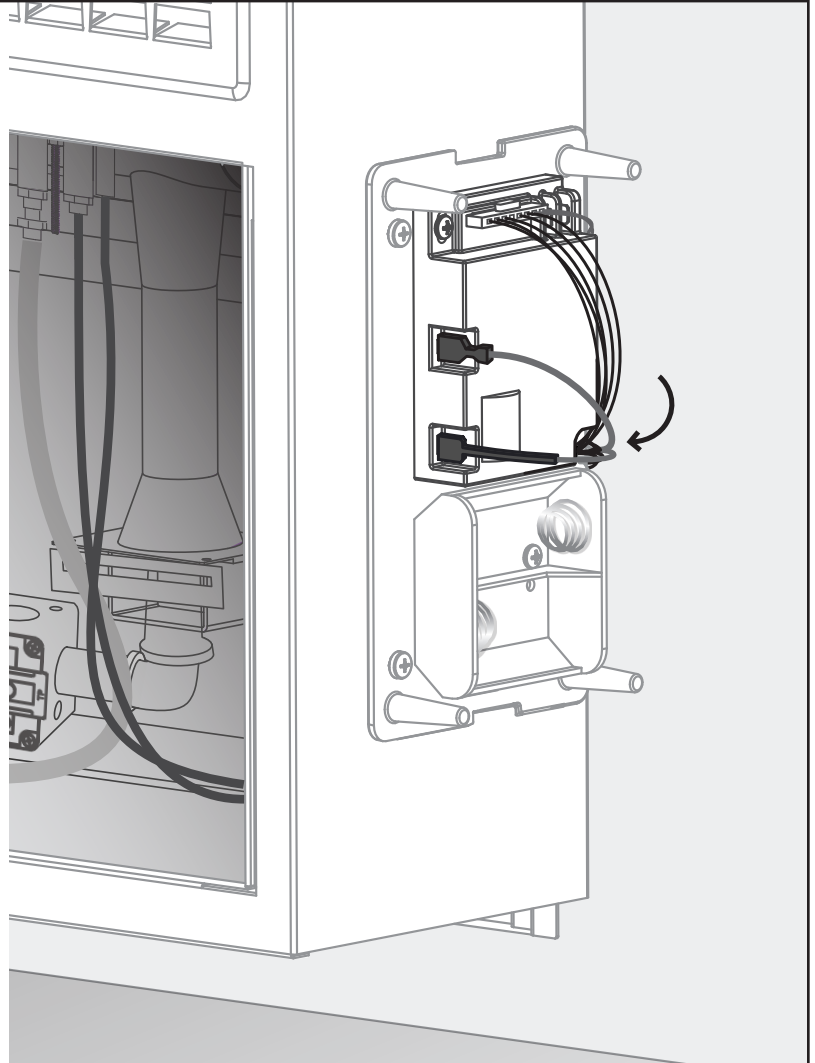
### STEP 3.



Run a cable tie (48) through the small hole beside the notch on the mounting plate (30).

Gather all the wires from the control module (29) with the cable tie (48).

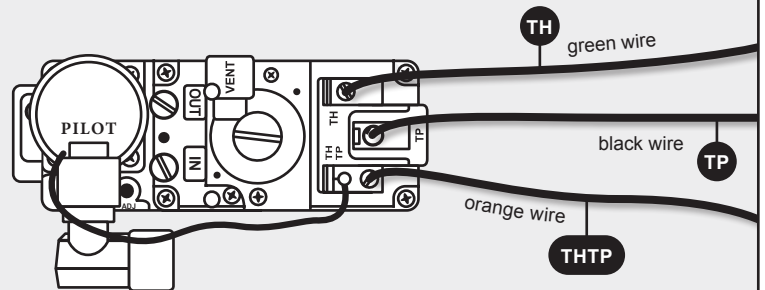
Guide any excess wire length back into the heater.



### STEP 4.

- Connect Black TP wire to the TP terminal of valve.
- Connect Green TH wire to TH terminal of the valve.
- Connect Orange THTP wire to the THTP terminal of the valve.

*NOTE: Ensure that all of the connections are tightened firmly.*





## ELECTRICAL CONNECTION



**WARNING:** Please Use Caution While Installing the Electrical Connection

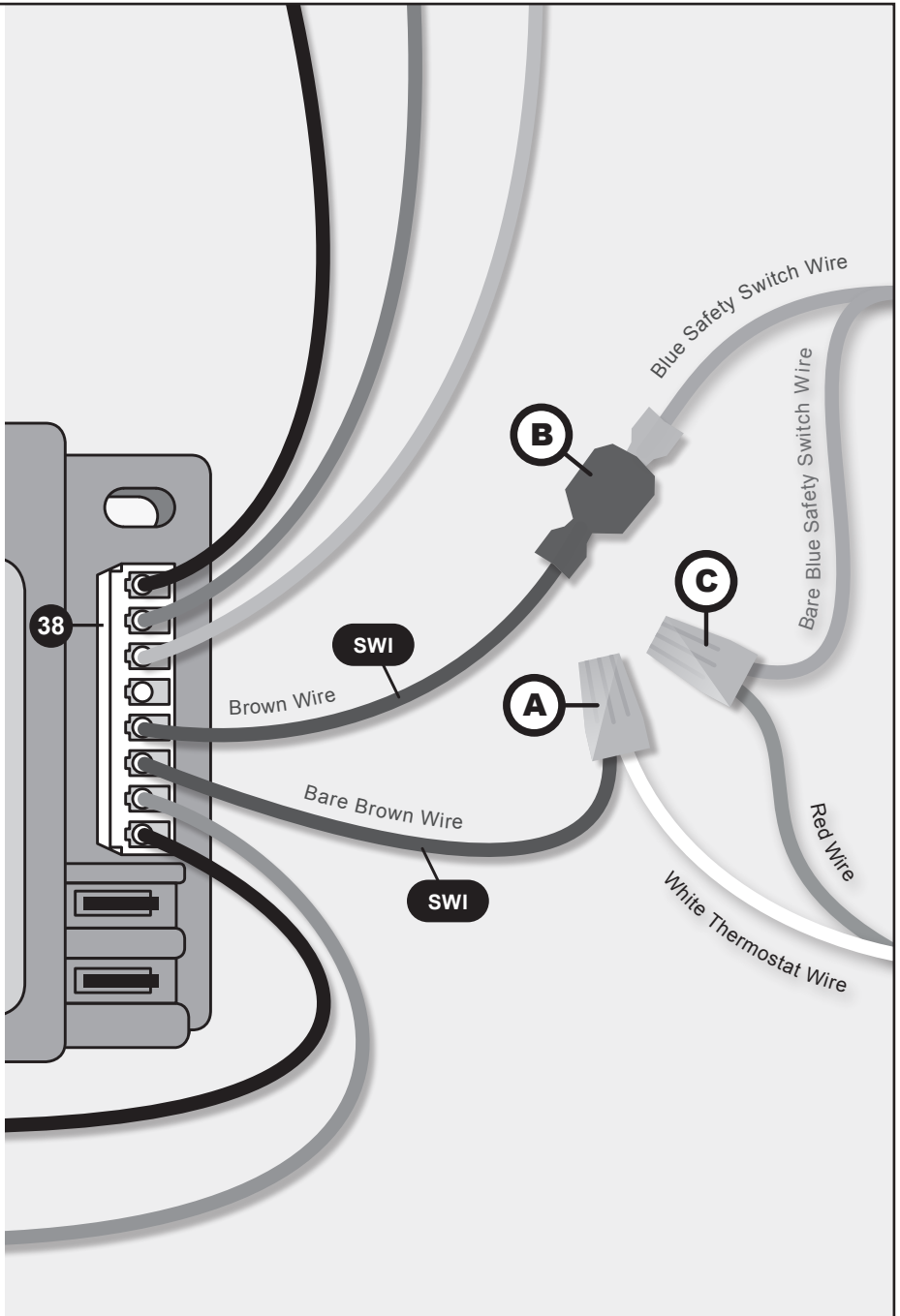
### STEP 5.

- A** Connect bare brown SWI wire from the control module wiring harness (38) to the white thermostat wire.
- B** Connect the brown male blade quick connect SWI wire from the control module wiring harness (38) to the blue female quick connect from safety switch.



**WARNING:**  
*The two brown wires must be wired properly to prevent carbon monoxide poisoning or death.*

- C** Connect the bare blue wire from safety switch to the red thermostat wire.







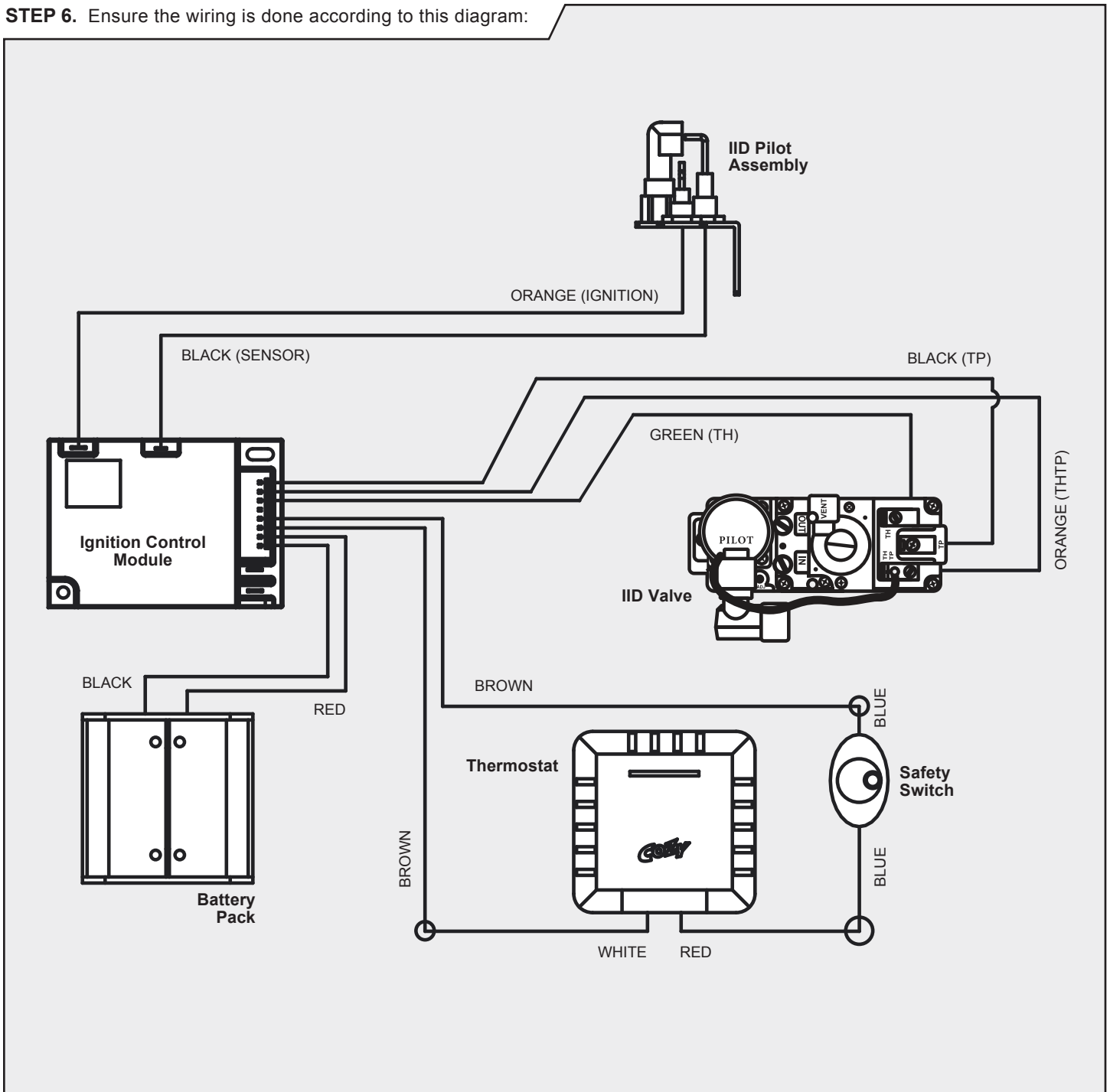
## ELECTRICAL CONNECTION



**WARNING:** Please Use Caution While Installing the Electrical Connection

**CAUTION:** Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing and secure wires away from sharp edges, flames or hot surfaces inside and outside the unit.

**STEP 6.** Ensure the wiring is done according to this diagram:





## ELECTRICAL CONNECTION

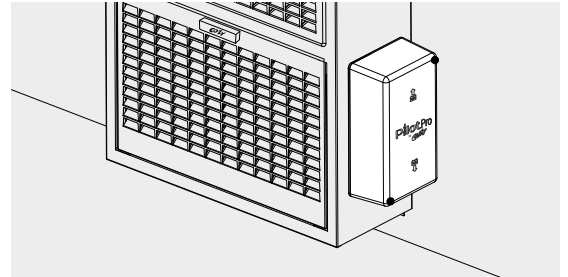


**WARNING:** Please Use Caution While Installing the Electrical Connection

### FOLLOW THIS STEP IF THE PILOT PRO IS ON THE **RIGHT** SIDE OF THE HOUSING.

(Proceed to step 7-B if the Pilot Pro is on the left side of the housing).

*Make certain wiring connections are tight before proceeding and secure so they will not be able to contact high temperature locations.*



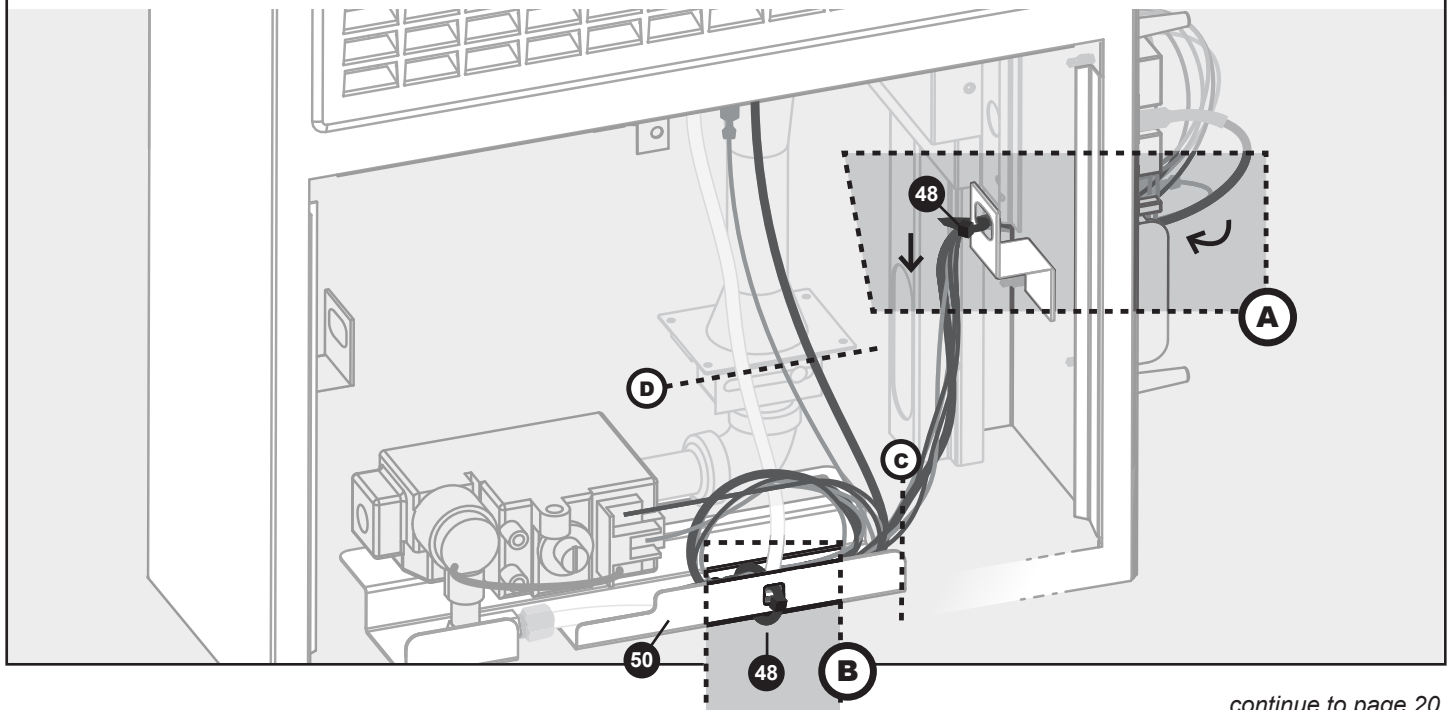
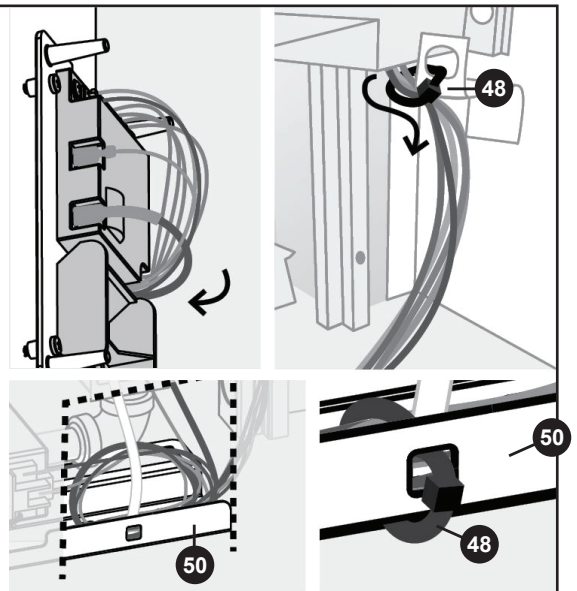
#### STEP 7-A.

**A** Route the wires around the back edge & inside the heater housing. Bundle wires neatly with a cable tie (48) attached to the Z-shaped bracket inside the liner.

**B** Bundle the wires against the valve bracket. Fix the wires in place neatly by attaching them with a cable tie (48) to the valve bracket (50).

Do not allow the bundled wires to hang beyond the edge of the valve bracket (**C**) and keep the bundled wires below the lower part of the burner (**D**).

*NOTE: Keep all wires away from the burner.*



...continue to page 20.



## ELECTRICAL CONNECTION

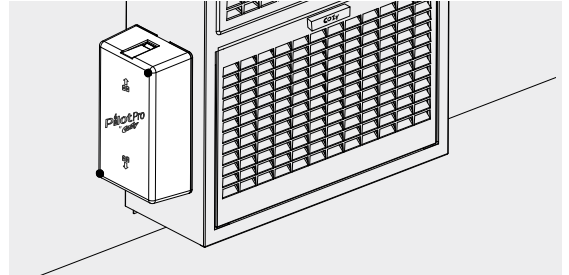


**WARNING:** Please Use Caution While Installing the Electrical Connection

### FOLLOW THIS STEP IF THE PILOT PRO IS ON THE **LEFT** SIDE OF THE HOUSING.

(Go back to step 7-A if the Pilot Pro is on the right side of the housing).

*Make certain wiring connections are tight before proceeding and secured so they will not be able to contact high temperature locations.*

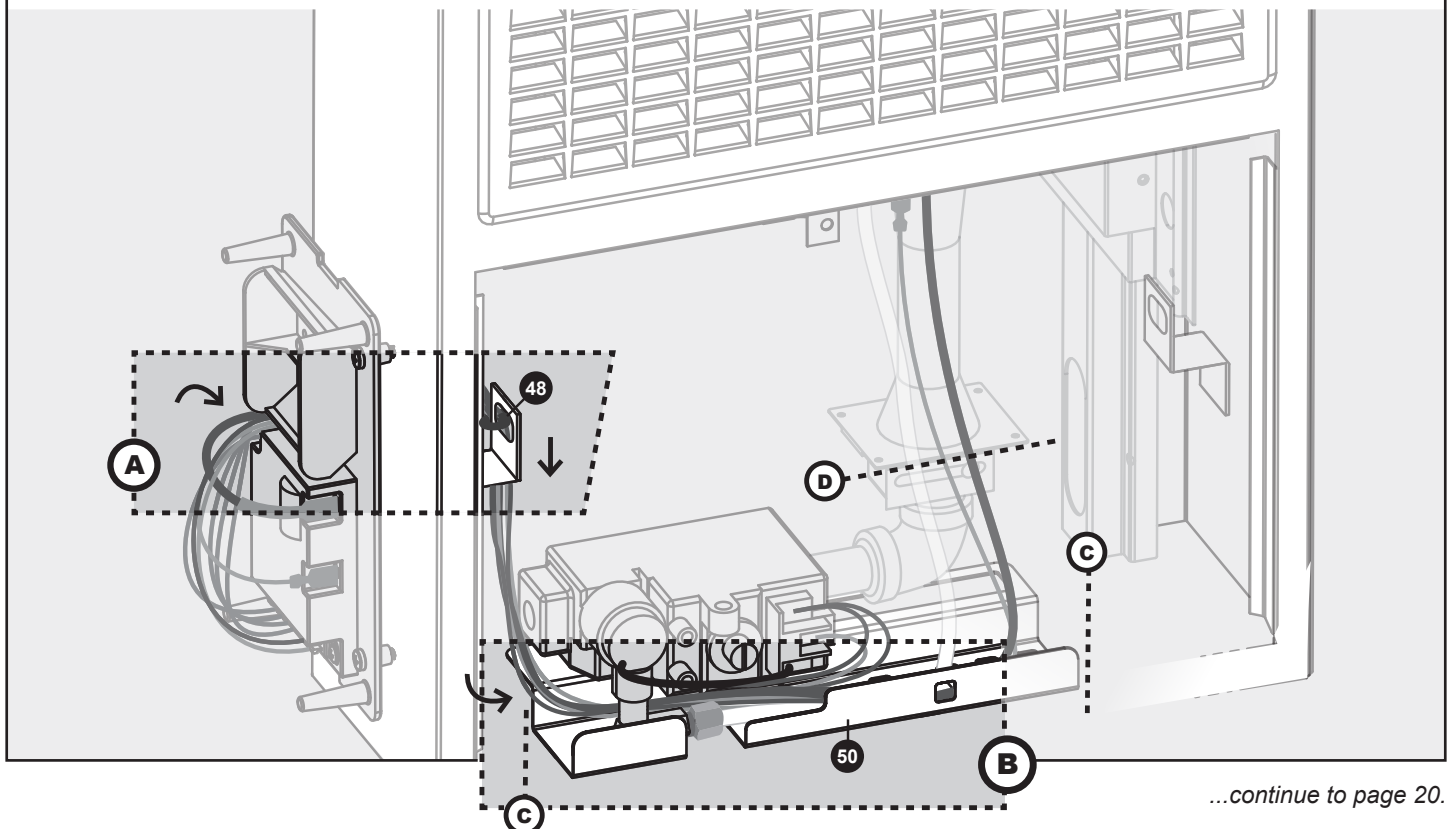
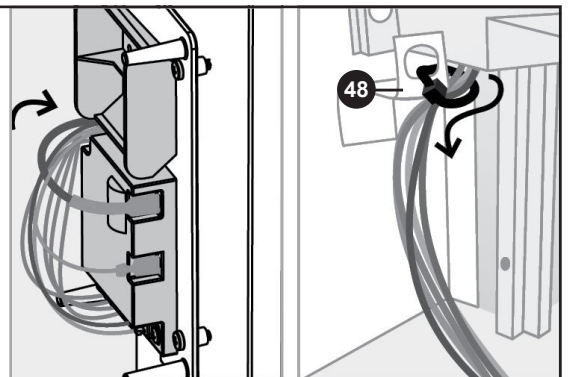


#### STEP 7-B.

- A** Route the wires around the back edge and inside the heater housing. Bundle wires neatly with a cable tie (**48**) attached to the Z-shaped bracket inside the liner.
- B** Lead the bundle of wires through the gap between the valve and valve bracket.

Do not allow the bundled wires to hang beyond the edge of the valve bracket (**C**) and keep the bundled wires below the lower part of the burner (**D**).

*NOTE: Keep all wires away from the burner.*



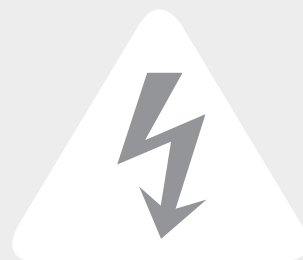
...continue to page 20.

## STARTING PILOT PRO SYSTEM PER ANSI Z21.71

### STEP 1.

#### Turn on all gas and electricity to the appliance.

Conduct a gas leakage test of the appliance piping & control system downstream of the shutoff valve in the supply line to the appliance.



### STEP 2.

#### Adjust thermostat to lowest setting.

#### Place two D Batteries (46) in the Battery pack (28).

2a. Initial startup of the pilot pro system may take several minutes due to air in the PILOT gas line.

2b. After turning up thermostat, the ignitor will begin to spark. After 1 minute, it will stop.

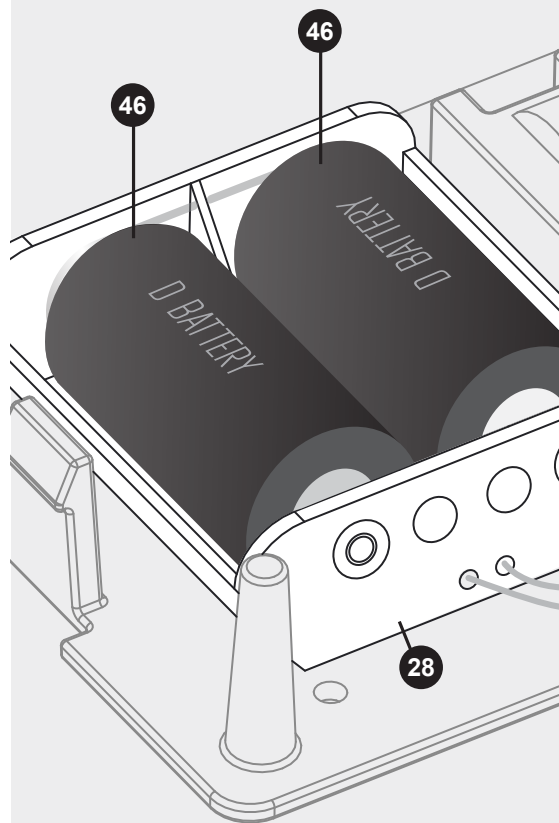
2c. **IF PILOT DOES NOT LIGHT:**  
Lower thermostat to **OFF**, then turn it back up.

2d. Ignitor will start to spark.

2e. Repeat steps 2b through 2d until the pilot lights.

2f. Visually determine that main burner is burning properly (i.e., Flame isn't too soft or too hard).

*To adjust the primary air shutter(s) as required, see flame adjustments on page 25.*



## STARTING PILOT PRO SYSTEM PER ANSI Z21.71

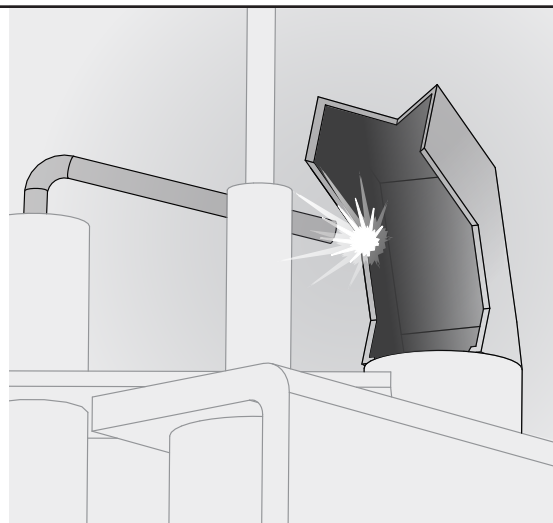
### STEP 3.



**Ensure Ignitor sparks only against the hood of the pilot.**

Ignitor should not spark against the flame sensor, brackets, heating chamber, burner, etc. Adjust ignitor probe location if required.

- **DO NOT twist ignitor wire or break from ceramic base.**
- **DO NOT use a broken ignitor.**



### STEP 4.

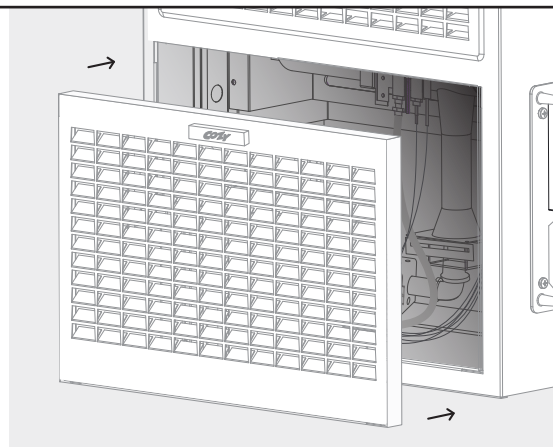
Determine that the pilot is igniting and burning properly and that main burner ignition is satisfactory by turning the thermostat off and back on. Make this determination with the appliance burner both cold and hot. Perform this step as many times as is necessary to satisfy yourself that the automatic intermittent pilot system is operating properly.

Sequence the appliance through at least three (3) operating cycles.



### STEP 5.

Re-install the heater door on the front of the housing, at the base.



## STARTING PILOT PRO SYSTEM PER ANSI Z21.71

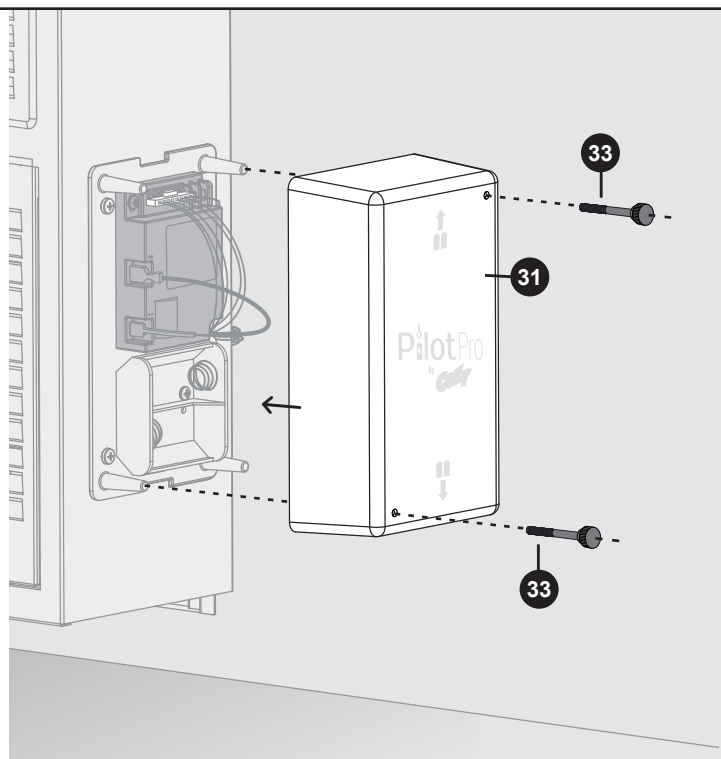
### STEP 6.

Slide the Pilot Pro cover (31) over the controls. Secure in place with:

- x2 Screw with knob (33)

**NOTE:**

*Hand-tighten only.  
Do not over tighten.*



### STEP 7.

#### **⚠ WARNING: CARBON MONOXIDE POISONING HAZARD**

**Failure to follow the steps outlined below for each appliance connected to the venting system being placed into operation could result in carbon monoxide poisoning or death.**

*The following steps shall be followed for each appliance connected to the venting system being placed into operation, while all other appliances connected to the venting system are not in operation:*

1. Seal any unused openings in the venting system.
2. Inspect the venting system for proper size and horizontal pitch, as required in the National Fuel Gas Code, ANSI Z223.1/NFPA 54 or the Natural Gas and Propane Installation Code, CSA B149.1 and these instructions. Determine that there is no blockage or restriction, leakage, corrosion and other deficiencies which could cause an unsafe condition.
3. As far as practical, close all building doors and windows and all doors between the space in which the appliance(s) connected to the venting system are located and other spaces of the building.
4. Close fireplace dampers.
5. Turn on clothes dryers and any appliance not connected to the venting system. Turn on any exhaust fans, such as range hoods and bathroom exhausts, so they are operating at maximum speed. Do not operate a summer exhaust fan.
6. Follow the lighting instructions. Place the appliance being inspected into operation. Adjust the thermostat so appliance is operating continuously.
7. Test for spillage from draft hood equipped appliances at the draft hood relief opening after 5 minutes of main burner operation. Use the flame of a match or candle.
8. If improper venting is observed during any of the above tests, the venting system must be corrected in accordance with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 and/or Natural Gas and Propane Installation Code, CSA B149.1.
9. After it has been determined that each appliance connected to the venting system properly vents when tested as outlined above, return doors, windows, exhaust fans, fireplace dampers and any other gas-fired burning appliance to their previous conditions of use.

## LIGHTING INSTRUCTIONS - ( IID PILOT )

MODELS: W255GPPR W255GPPD / W355GPPR W355GPPD / W505GPPR W505GPPD

### FOR YOUR SAFETY READ BEFORE LIGHTING

**WARNING: IF YOU DO NOT FOLLOW THESE INSTRUCTIONS EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.**

- A. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
- B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

#### WHAT TO DO IF YOU SMELL GAS:

- **DO NOT** try to light any appliance.
- **DO NOT** touch any electric switch.
- **DO NOT** use any phone in your building.
- Immediately call your gas supplier from a neighbor's

- phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

- C. Do not force any component of the ignition system. Attempted repair may result in a fire or explosion. Call a qualified service technician.
- D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control which has been under water.

# 1

1018052-B 05/19

### TURNING OFF GAS TO THE APPLIANCE

1. Set the thermostat to lowest setting.
2. Remove battery cover, located on side of heater.

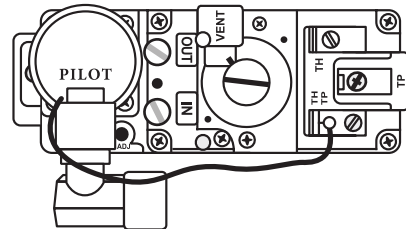
# 3

3. Remove batteries.
4. Replace battery cover.

1018052-B 05/19

### OPERATING INSTRUCTIONS

1. **STOP!** Read the safety information above on this label.
2. Set the thermostat to lowest setting.
3. This appliance is equipped with an ignition device which automatically lights the pilot. Do not try to light the pilot by hand.
4. Remove battery cover, located on side of heater.
5. Remove batteries.
6. Wait five (5) minutes to clear out any gas. If you smell gas, **STOP!** Follow "B" in the safety information above on this label. If you do not smell gas, go to next step.
7. Install batteries.
8. Replace the battery cover.
9. Set thermostat to desired setting.
10. If the appliance will not operate, follow the instructions "TURNING OFF GAS TO THE APPLIANCE" and call your service technician or gas supplier.



1018052-B 05/19

## **MAINTENANCE INSTRUCTIONS**

- STEP 1.** Installation and repair must be done by a qualified service person. The appliance should be inspected before use and at least annually by a professional service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, pilot burners, circulating air passageways and venting systems of the appliance be kept clean.
- STEP 2.** If the appliance has been equipped with the optional WFF81-C fan kit assembly, the bearings of the motor should be oiled every six months with approximately 2 drops of S.A.E. 20 oil.
- STEP 3.** The appliance area must be kept clear and free of any combustible materials, gasoline and other flammable vapors and liquids.
- STEP 4.** It is essential that the flow of combustion and ventilation air not be obstructed.
- STEP 5.** Periodic examination of the entire ventilation system as a routine part of the safety performance check is recommended on an annual basis.

## **PILOT ADJUSTMENT**

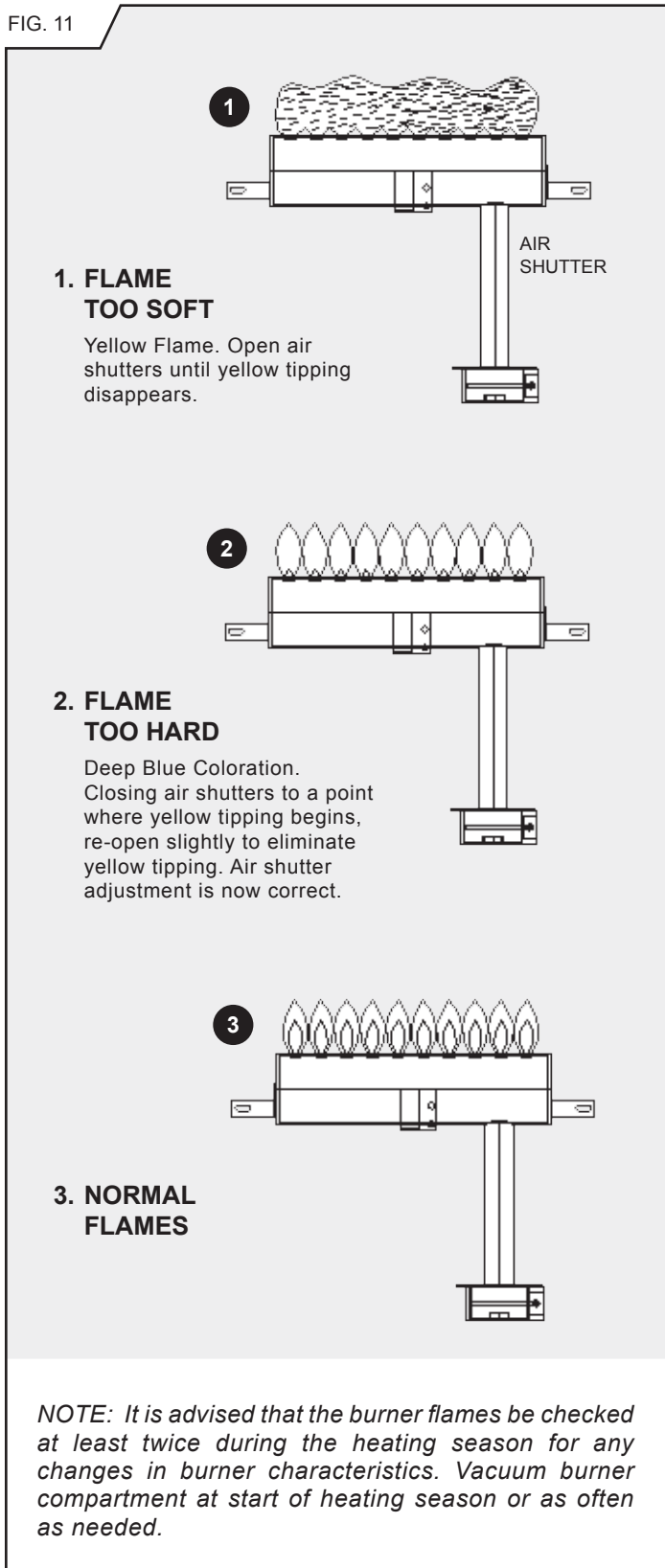
The valve with this product does NOT have an adjustable pilot.



## BURNER FLAME ADJUSTMENT

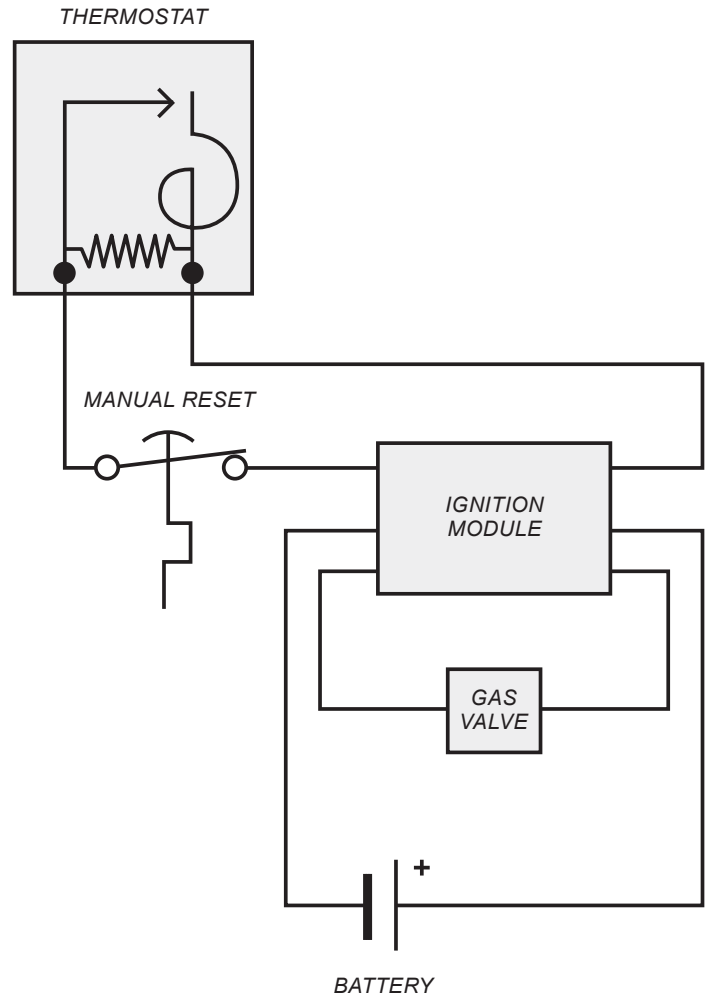
(Stainless Steel Burner)

FIG. 11



## IID PILOT LADDER SCHEMATIC

W255GPPR, W255GPPD, W355GPPR, W355GPPD, W505GPPR & W505GPPD



**WARNING:**  
If any of the original wire (as supplied with the appliance) must be replaced, it must be replaced with type 105°C wire or its equivalent.

**40542-A REAR REGISTER KIT (Optional Accessory)**  
*Installation Instructions for Gravity Vented Wall Furnaces*

- STEP 1.** Cut hole within stud space behind heater in the back wall 8-1/4" high by 12-5/8" wide. The lower edge of the hole to be 45-3/4" above the floor plate or 47" from the floor (with standard 2"x4" floor base) as shown in **Figure 12-A (below)**.
- STEP 2.** Install plaster ground frame for rear register in hole and nail frame to stud as shown in **Figure 12-B (below)**.
- STEP 3.** REAR REGISTER INSTALLATION: Cut and remove embossed plates in inner and outer casing. Follow instructions for installation of regular furnace.
- STEP 4.** After furnace is installed, attach rear register grille as shown in **Figures 13-B & 13-C (on page 27)** by insertion over plaster ground and attach with sheet metal screws, provided.
- STEP 5.** Damper as shown in **Figure 13-C (on page 27)** can be adjusted from full open for maximum heat to fully closed.

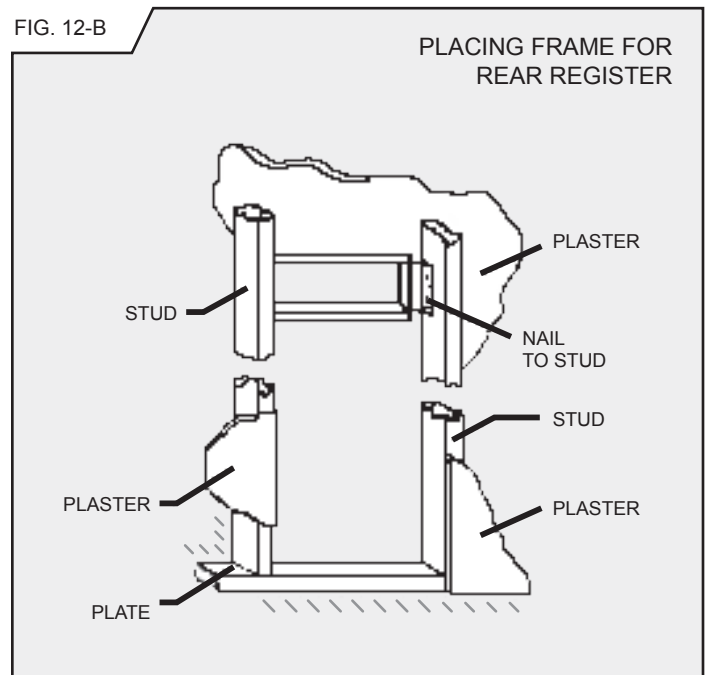
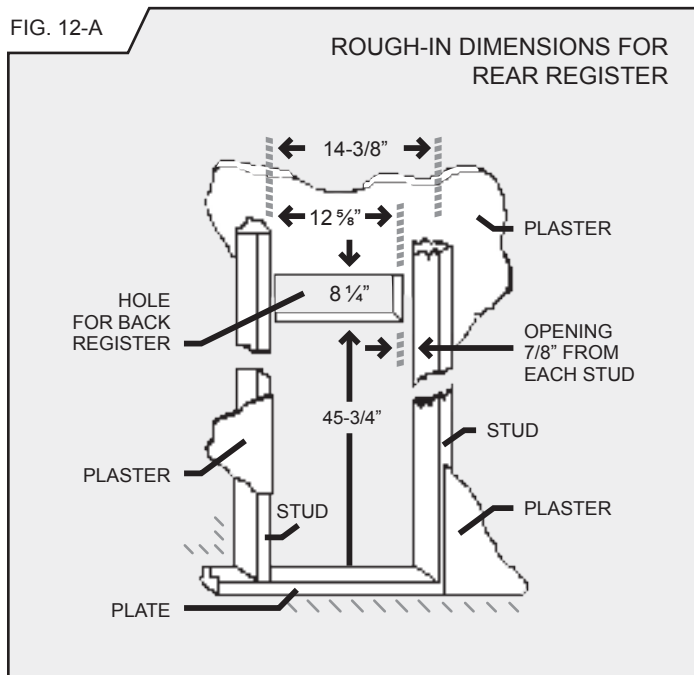


FIG. 12-C

**40542-A REAR REGISTER KIT - W25/35 Series (Used on Single Wall Models Only)**

<u>Part Description</u>	<u>Ref. No.</u>	<u>Part No.</u>
Damper	69	40375
Damper Spring	70	40377
Frame Assembly	71	40365
Register Chain	72	40379
Bell, Pull	73	85003
Register Assembly	74	40355
Installation Instructions	--	84504

**40542-A REAR REGISTER KIT ( OPTIONAL ACCESSORY ) - Continued**

*Installation Instructions for Gravity Vented Wall Furnaces*

FIG. 13-A

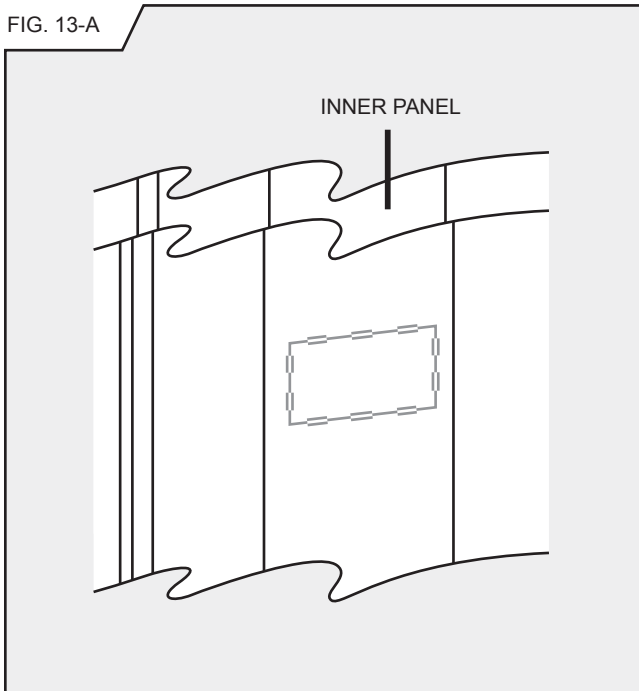


FIG. 13-C

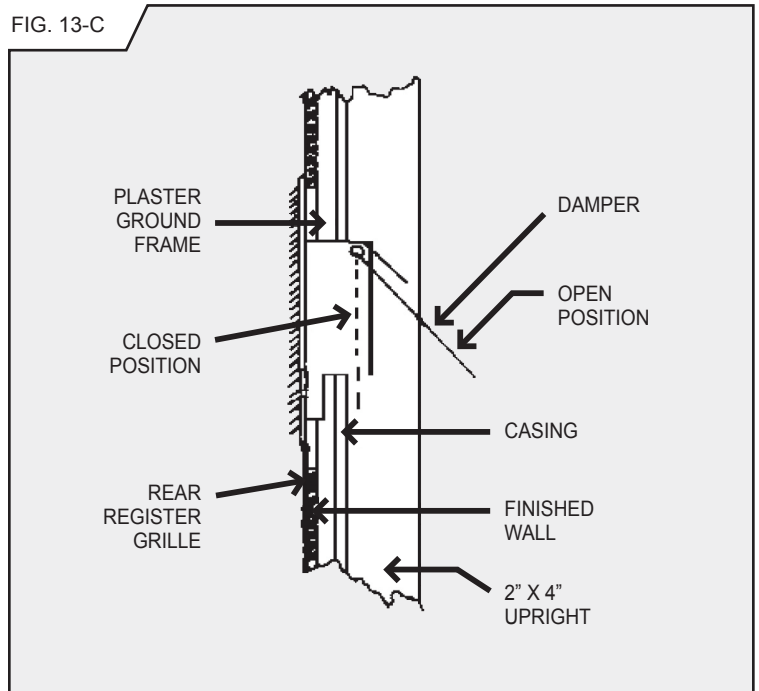
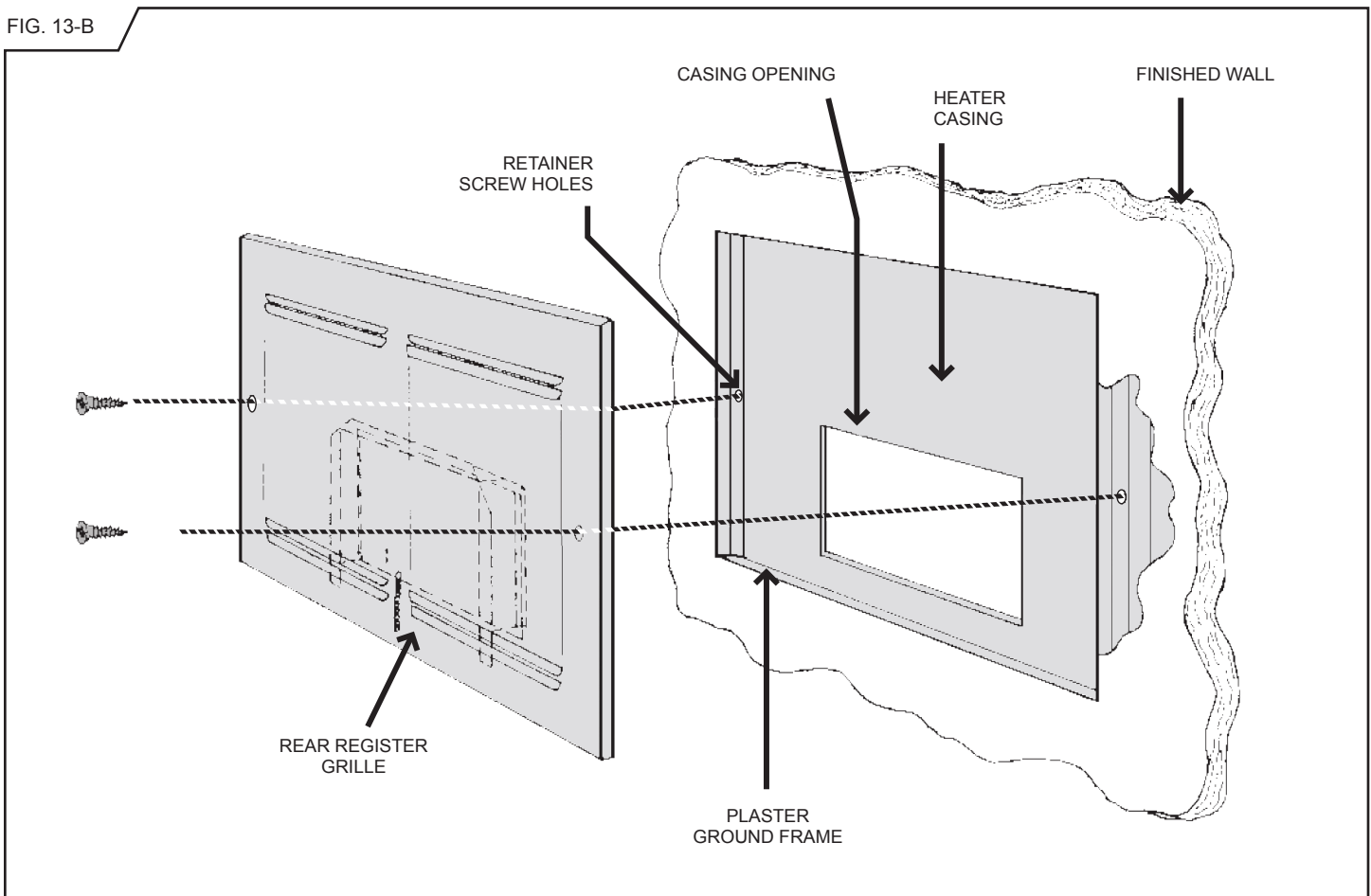


FIG. 13-B

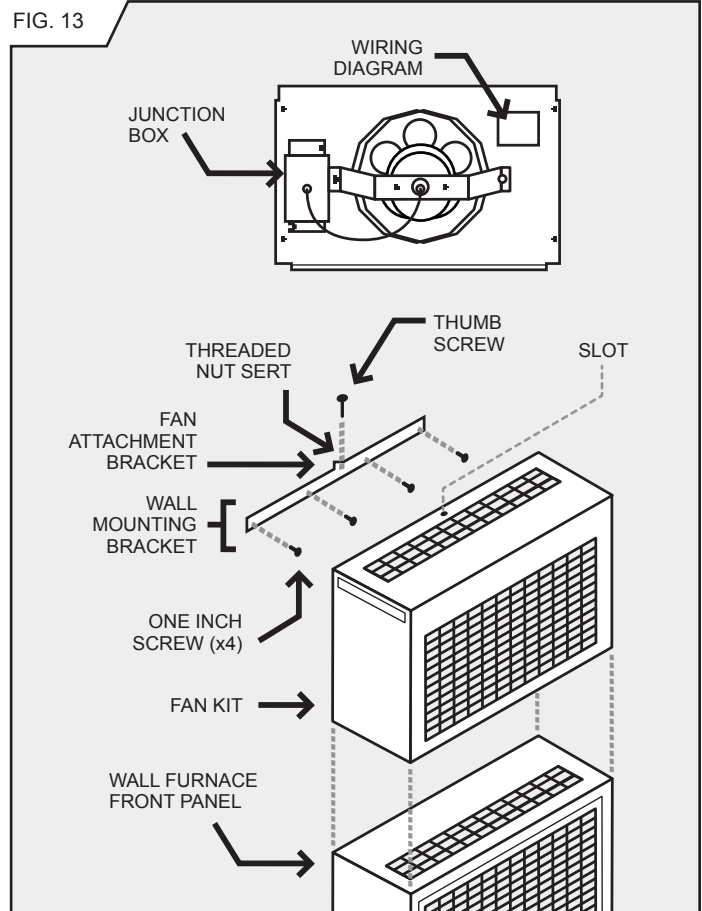


## MODEL WFF81-C OPTIONAL FAN KIT - (Optional)

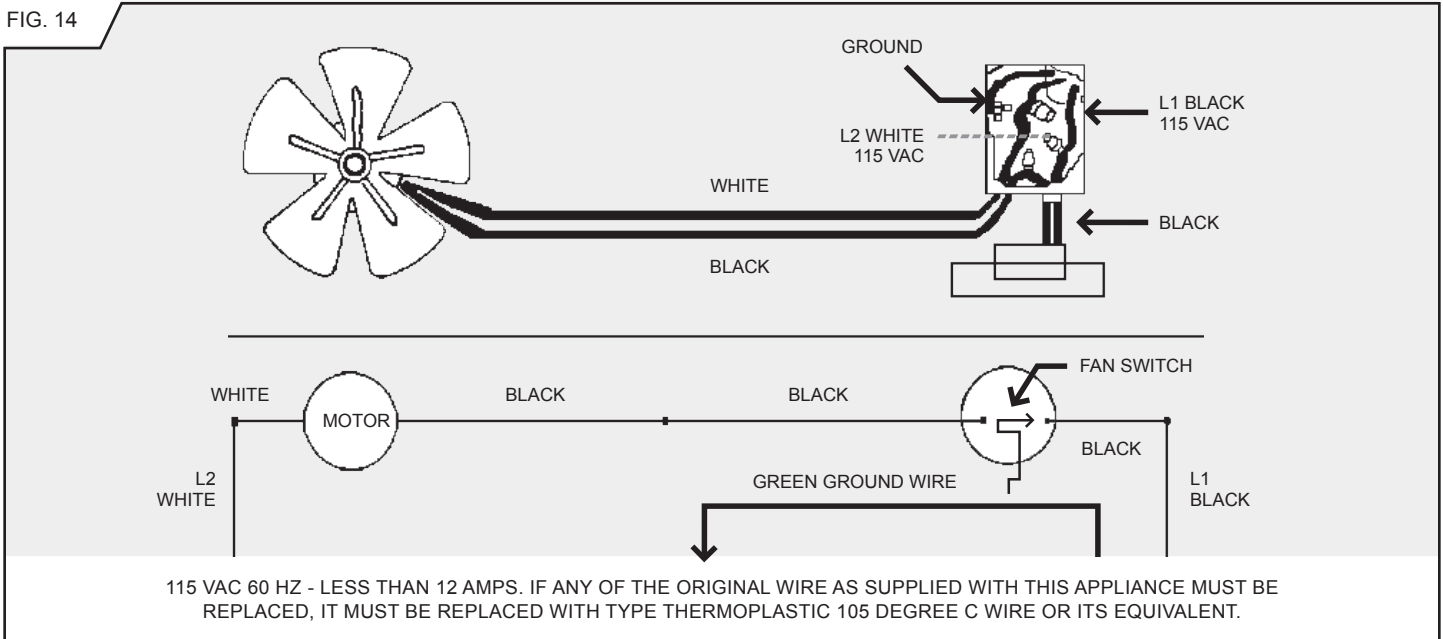
### *Installation Instructions*

**NOTE:** This fan kit is to be installed after installation of the wall furnace and with the wall furnace front panel in place.

- STEP 1.** This appliance, when installed, must be electrically grounded in accordance with local codes, or in the absence of local codes, with the latest edition of the National Electric Code, ANSI/NFPA No. 70. In Canada, see the current Canadian Electrical Code CSA C22.1.
- STEP 2.** Set fan kit on top of the wall furnace front panel. Using the back top edge of the fan kit cabinet as a guide, mark a horizontal line across the wall. Mark a small vertical line which aligns with the slot located toward the rear of the fan kit casing.
- STEP 3.** Using the four one inch screws provided, secure the wall mounting bracket to wall 1/8" below the horizontal line. Fan attachment bracket must be up and threaded nut sert aligned with the small vertical line.
- Note: Anchors (not provided) may be required.*
- STEP 4.** Remove junction box and connect 115v power supply in accordance with the wiring diagram. Replace junction box.
- STEP 5.** Set fan kit on top of wall furnace front panel. Slot should align with the nut sert. Secure fan kit to wall mounting bracket with thumb screw provided.



### WFF81 - C WIRING SCHEMATIC

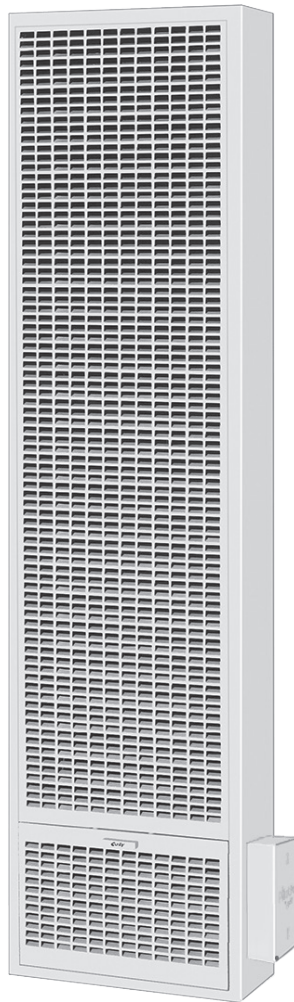




# TROUBLESHOOTING

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## W255GPPR, W255GPPD, W355GPPR, W355GPPD, W505GPPR & W505GPPD



**TROUBLESHOOTING CHART ( FOR QUALIFIED SERVICE TECHNICIAN )**  
**MAIN BURNER**

Please follow the following corrective actions in order.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
<b>Flame Too Large</b>	<ol style="list-style-type: none"> <li>1. Defective operator section of gas valve.</li> <li>2. Burner orifice too large.</li> <li>3. If installed above 2,000 ft.</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace complete valve.</li> <li>2. Check with local gas company for proper orifice size &amp; replace.</li> <li>3. Refer to orifice chart, <b>Page 5</b>.</li> </ol>
<b>Flame Pops Back</b>	<ol style="list-style-type: none"> <li>1. Too much primary air.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust air shutter. (<b>See Page 25</b>).</li> </ol>
<b>Noisy Flame</b>	<ol style="list-style-type: none"> <li>1. Too much primary air.</li> <li>2. Burr in orifice (if it whistles or resonates).</li> <li>3. Excessive gas input.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust air shutter. (<b>See Page 25</b>).</li> <li>2. Remove burr or replace orifice (Do not enlarge orifices).</li> <li>3. See "Flame Too Large" above.</li> </ol>
<b>Yellow Tip Flame</b>	<ol style="list-style-type: none"> <li>1. Too little primary air.</li> <li>2. Clogged main burner ports.</li> <li>3. Clogged draft hood.</li> <li>4. Linted up air shutter.</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjust air shutter. (<b>See Page 25</b>).</li> <li>2. Clean main burner ports. (Do not enlarge ports).</li> <li>3. Clean draft hood.</li> <li>4. Check for dust or lint at air mixer opening &amp; around the shutter. Clean as necessary.</li> </ol>
<b>Floating Flame</b>	<ol style="list-style-type: none"> <li>1. Blocked venting.</li> <li>2. Insufficient primary air.</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean flue passageways to remove blockage.</li> <li>2. Adjust air shutter to increase primary air supply. (<b>See Page 25</b>).</li> </ol>
<b>Gas Odor</b>	<ol style="list-style-type: none"> <li>1. Gas leak.</li> <li>2. Chimney or flue obstruction.</li> <li>3. Drafts around appliance.</li> </ol>	<ol style="list-style-type: none"> <li>1. Shut off gas service immediately. Check piping. Call gas company. (<b>See Page 1</b>).</li> <li>2. Clean flue.</li> <li>3. Eliminate drafts.</li> </ol>
<b>Delayed Ignition</b>	<ol style="list-style-type: none"> <li>1. Pilot flame too small.</li> <li>2. Burner ports clogged near pilot.</li> <li>3. Low gas pressure.</li> <li>4. Pilot decreases in size when main burners come on.</li> <li>5. Air shutter open too far.</li> <li>6. Drafts around appliance.</li> <li>7. Bad venting.</li> <li>8. Defective pilot assembly.</li> <li>9. Battery is low.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check or clean the pilot orifice. <b>See page 5 for gas pressure.</b></li> <li>2. Clean burner ports (Do not enlarge ports).</li> <li>3. Check gas supply pressure. <b>See page 5.</b></li> <li>4. Supply piping is inadequately sized. Consult local gas utility or competent installer.</li> <li>5. Close air shutter to proper setting as outlined in these instructions (<b>See Page 25</b>).</li> <li>6. Eliminate drafts.</li> <li>7. See "Venting" on <b>page 7</b>.</li> <li>8. Inspect pilot assembly for loose or broken components or wires. Replace. Refer to parts list.</li> <li>9. Turn thermostat off and replace batteries.</li> </ol>

**TROUBLESHOOTING CHART ( FOR QUALIFIED SERVICE TECHNICIAN )**  
**MAIN BURNER**

Please follow the following corrective actions in order.

SYMPTOM	POSSIBLE CAUSES	CORRECTIVE ACTION
<b>Failure to Ignite</b>	<ol style="list-style-type: none"> <li>1. Main gas off.</li> <li>2. Defective gas valve.</li> <li>3. Defective pilot assembly.</li> <li>4. Battery is low.</li> <li>5. Control module is defective.</li> <li>6. Manual reset blocked flue switch tripped.</li> <li>7. Tubing hasn't filled with enough gas to light the pilot. <i>(This issue can occur if the furnace has not been used recently).</i></li> </ol>	<ol style="list-style-type: none"> <li>1. Open all manual gas valves.</li> <li>2. Replace gas valve.</li> <li>3. Inspect pilot assembly for loose or broken components or wires. Replace. Refer to parts list.</li> <li>4. Turn thermostat off and replace batteries.</li> <li>5. Replace the control module. Refer to the parts list.</li> <li>6. Reset switch, <b>see Page 7.</b></li> <li>7. Refill the line with gas. <i>Initial startup of the Pilot Pro system may take several minutes due to air in the gas line. The ignition control module will time out after 1 minute of sparking. See step 2 on page 20.</i></li> </ol>
<b>Condensation of Water Vapor</b>	<ol style="list-style-type: none"> <li>1. Improper venting.</li> </ol>	<ol style="list-style-type: none"> <li>1. See "Venting" on <b>page 7.</b></li> </ol>
<b>Burner Won't Turn Off</b>	<ol style="list-style-type: none"> <li>1. Defective or the automatic valve is sticking.</li> <li>2. Excessive gas pressure</li> <li>3. Control module is defective</li> </ol>	<ol style="list-style-type: none"> <li>1. Clean or replace valve.</li> <li>2. To correct this situation contact the utility supplying the gas. <i>See page 5 for gas pressure.</i></li> <li>3. Replace the control module. Refer to the parts list.</li> </ol>
<b>Incorrect Gas Input</b>	<ol style="list-style-type: none"> <li>1. Gas input not checked.</li> <li>2. Clogged orifice.</li> </ol>	<ol style="list-style-type: none"> <li>1. Re-check gas input.</li> <li>2. Check orifice for clogging. If clogged, clean out the hole carefully with a smooth wood toothpick. <i>(Do not in any way enlarge or distort it).</i></li> </ol>
<b>Not Enough Heat</b>	<ol style="list-style-type: none"> <li>1. Appliance undersized.</li> <li>2. Temperature dial set too low. <i>(Bulb type valves).</i></li> <li>3. Incorrect supply pressure.</li> </ol>	<ol style="list-style-type: none"> <li>1. This is especially true when a dwelling or room is enlarged. Have the heat loss calculated and compare to the appliance output (70% of input). Your gas company or installer can supply you with this information. If appliance is undersized, replace with correct size unit.</li> <li>2. Raise setting of Temperature Dial. <b>See "Lighting &amp; Shutting Down Instructions" on page 23.</b></li> <li>3. <b>See page 5</b> for gas pressure.</li> </ol>
<b>Too Much Heat</b>	<ol style="list-style-type: none"> <li>1. Temperature dial set too high.</li> <li>2. Combination control valve sticks open.</li> </ol>	<ol style="list-style-type: none"> <li>1. Lower setting of temperature dial. <b>See "Lighting &amp; Shutting Down Instructions" on page 23.</b></li> <li>2. Replace combination control valve.</li> </ol>
<b>Burner Won't Turn On</b>	<ol style="list-style-type: none"> <li>1. Pilot flame too large or too small.</li> <li>2. Dirt in pilot orifice.</li> <li>3. Defective automatic pilot section in combination control valve.</li> <li>4. Defective pilot generator.</li> <li>5. Defective combination control valve.</li> <li>6. Manual reset blocked flue switch tripped.</li> </ol>	<ol style="list-style-type: none"> <li>1. Check or clean the pilot orifice. <b>See page 5 for gas pressure.</b></li> <li>2. Clean pilot orifice with air or solvent, do not ream.</li> <li>3. Replace entire combination control valve.</li> <li>4. Replace pilot generator.</li> <li>5. Replace valve.</li> <li>6. Reset switch, <b>see Page 8</b> (Fig. 4-A).</li> </ol>

**TROUBLESHOOTING CHART ( FOR QUALIFIED SERVICE TECHNICIAN )**  
**BLOCKED FLUE SWITCH**

Please follow the following corrective actions in order.

POSSIBLE CAUSES	CORRECTIVE ACTION
<b>Blockage in Vent Pipe</b>	<ul style="list-style-type: none"> <li>A. Check vent pipe for blockage, such as bird nest, wasp nest, twigs, leaves, etc.</li> <li>B. Check inside the bottom of the vent pipe to make sure the top of the draft diverter did not rip the inner liner causing it to block part of the vent opening.</li> <li>C. Check that no insulation from the header plate got caught on top of the draft diverter when the heater was inserted into the wall.</li> <li>D. Check that the vent cap is properly installed, not shoved too far down on the vent pipe.</li> </ul>
<b>Burner is Overfiring</b>	<ul style="list-style-type: none"> <li>A. Check the manifold pressure.</li> <li>B. Check the rate. <i>NOTE: The appliance is orificed at the factory for elevations between sea level and 2,000 feet. If installed above 2,000 feet, refer to orifice chart (on page 5) in controls section of instructions for proper orifice size and re-orifice accordingly.</i></li> </ul>
<b>Improper Vent System</b> <ul style="list-style-type: none"> <li>A. Vent too short</li> <li>B. Restriction in vent system caused by offsets</li> <li>C. Incorrect vent pipe</li> </ul>	<p><b>Correct vent system.</b></p> <ul style="list-style-type: none"> <li>A. The vent should terminate a minimum of 12 feet above the floor. <b>See Figure 7-E (on page 10).</b> Also, the top of the vent must be at least 2 foot above any obstacle within a 10 foot radius, including the roof. <b>See Figure 1-A (on page 6).</b></li> <li>B. All type "B" vents shall extend in a generally vertical direction with offsets not exceeding 45 degrees, except that a vent system having not more than one 60 degree offset may be allowed.  Any angle greater than 45 degrees from the vertical is considered horizontal. The total horizontal run of a vent plus the horizontal vent connector shall be not greater than 75 percent of the vertical height of the vent.  Any offsets used should be as far above the draft hood as possible to allow a venting action to begin before any restriction is encountered.</li> <li>C. Use listed BW type vent pipe. Do not use tansite or any other type of ceramic pipe for venting. Do not use single wall pipe. When venting into a masonry chimney the chimney must be properly lined and sized for this gas furnace. The use of type B or flexible chimney liner is recommended.</li> </ul>
<b>Incorrect Header Plate Location</b>	<p>The header plate must be 65-3/4" above the floor plate. <i>See rough-in instructions. see Figure 7-A (on page 9).</i></p>
<b>Vent Pipe not Down on the Header Plate Securely</b>	<p>Use a base plate (<i>obtained from the vent pipe manufacturer</i>) on top of our header plate. This will lock the vent pipe down and prevent the draft diverter from shoving it up.</p>
<b>Loose Connections on the Vent Safety Wiring Harness</b>	<p>Check the connection on both the switch and the gas valve. Tighten if necessary.</p>

**DO NOT BYPASS THE BLOCKED FLUE SWITCH**  
**To do so could expose the consumer to property damage, personal injury or possible death.**

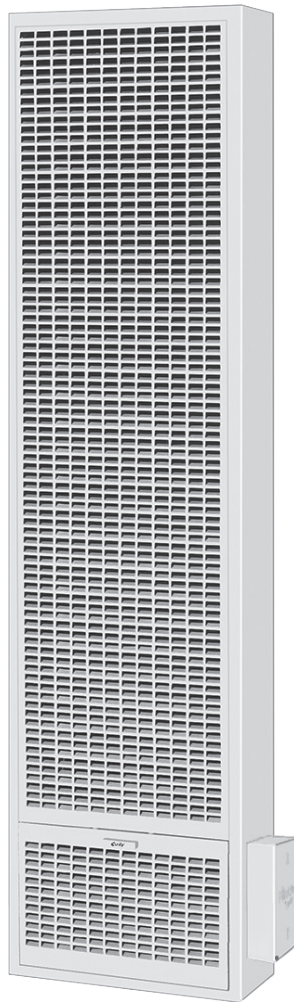




# PARTS LIST

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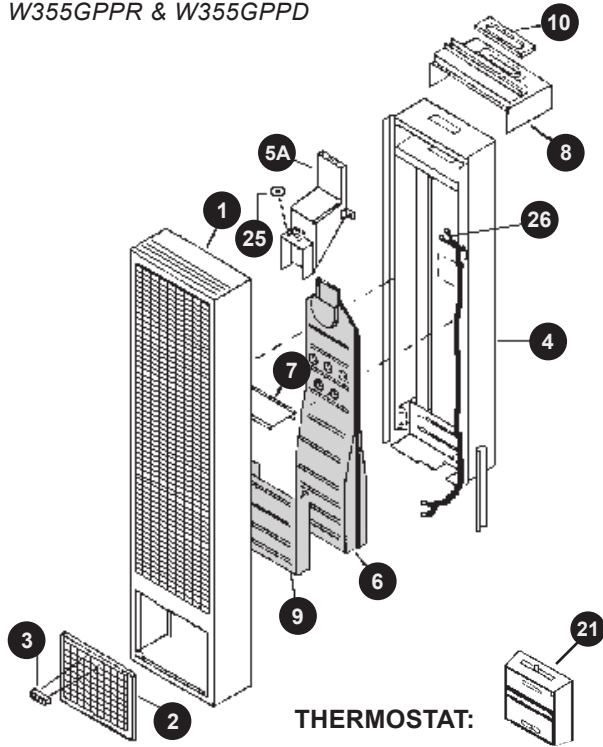
**W255GPPR, W255GPPD, W355GPPR, W355GPPD,  
W505GPPR & W505GPPD**



## PARTS LIST - ( GRAVITY WALL FURNACE )

### SINGLE WALL FURNACE PARTS

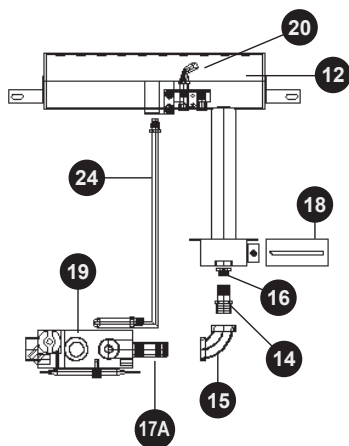
Natural Gas:  
W255GPPR, W255GPPD,  
W355GPPR & W355GPPD



### BURNER ASSEMBLY:

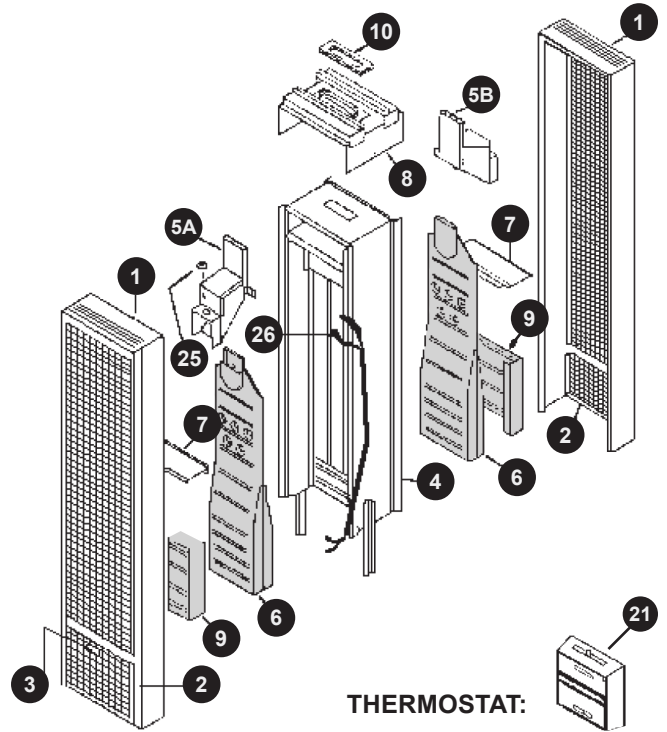
When ordering any component in the Burner Assembly, specify either Honeywell or Robertshaw components.

*\*For IID Models, see diagram on pg 36.*



### DUAL WALL FURNACE PARTS

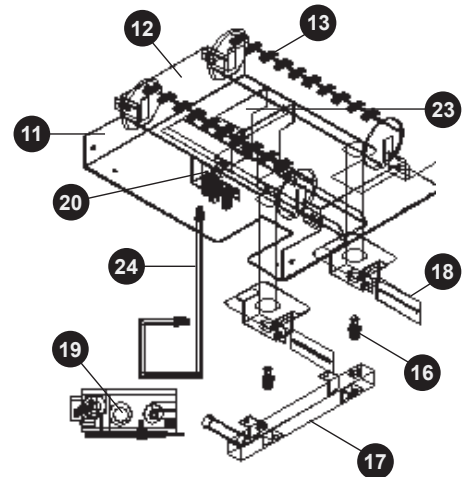
Natural Gas:  
W505GPPR & W505GPPD



### BURNER ASSEMBLY:

When ordering any component in the Burner Assembly, specify either Honeywell or Robertshaw components.

*\*For IID Models, see diagram on pg 36.*



### HOW TO PROPERLY ORDER PARTS:

In addition to the part description and numbers, please be prepared to provide: Model number, serial number & type of gas used. *This information can be found on the rating plate that is attached to the heater.*

NOTE: Parts & schematic drawings on current models are shown at: [cozyheaters.com](http://cozyheaters.com) | Specifications subject to change without notice.

**PARTS LIST - ( GRAVITY WALL FURNACE )**

**ATTN: Contractors and Qualified Service Technicians:** We only sell parts through our wholesalers.  
For prompt parts service, contact the wholesaler from which you purchased your Cozy heater.

Model Numbers .....		W255GPPR W255GPPD	W355GPPR W355GPPD	W505GPPR W505GPPD
REF. #	PART DESCRIPTION	PART NO.	PART NO.	PART NO.
1	Front Panel Assembly	# 40025-K	# 40025-K	#*40025-K
2	Lower Door	40032-80	40032-80	*40032-80
3	Handle Assembly	40033	40033	*40033
4	Body Assembly	39805	39805	40103
5A	Draft Diverter Assembly	40042	40098	40140
5B	Draft Diverter Assembly	-	-	40140
6	Heat Exchanger	40266	40267	*40266
7	Upper Shield	40068	40068	*40068
8	Header Assembly	40055-K	40055-K	40150-K
9	Lower Front Shield	40065	40065	*40065
10	Gasket Flue Pipe	78050	78050	78050
11	Burner, Support Assembly	-	-	40212
12	Burner, Steel	84070	84070	84070
13	Burner, Steel with Carry Over Tapping	-	-	84071
14	Orifice Coupling	84631	84631	-
15	Elbow 3/8 90 Degree	84124	84124	-
<b>ORIFICES:</b>		Orifice Size	Orifice Size	Orifice Size
16	Nat. Orifice for IID	84639 ( 43 )	84642 ( 36 )	*95274 ( 43 )
16	Nat. Orifice for 0 - 2,000 ft	84639 ( 43 )	84642 ( 36 )	*95274 ( 43 )
16	Nat. Orifice for 2 - 4,000 ft	95102 ( 44 )	95009 ( 38 )	*72141 ( 44 )
16	Nat. Orifice for 4 - 6,000 ft	80025 ( 45 )	95010 ( 40 )	*78163 ( 45 )
16	Nat. Orifice for 6 - 8,000 ft	80120 ( 47 )	80167 ( 41 )	*95272 ( 47 )
17	Manifold	-	-	84072
17A	Pipe Nipple	84122	84122	-
18	Air Shutter	84078	84078	*84078
19	Valve	1018036	1018036	1018036
20	Pilot	84128	84128	84128
21	Thermostat	74592	74592	74592
22	Wire, Thermostat	49925	49925	49925
23	Carry Over Shield	-	-	40209
24	Pilot Tubing w/ Fittings	1018570	1018570	1018570
-	Installation Instructions	1018079	1018079	1018079
-	Lighting Instr., Wall	1018055	1018055	1018055
25	Blocked Flue Sw. 350 Deg.	84166	84166	84166
26	Wiring Harness / Wall	84133	84133	84133

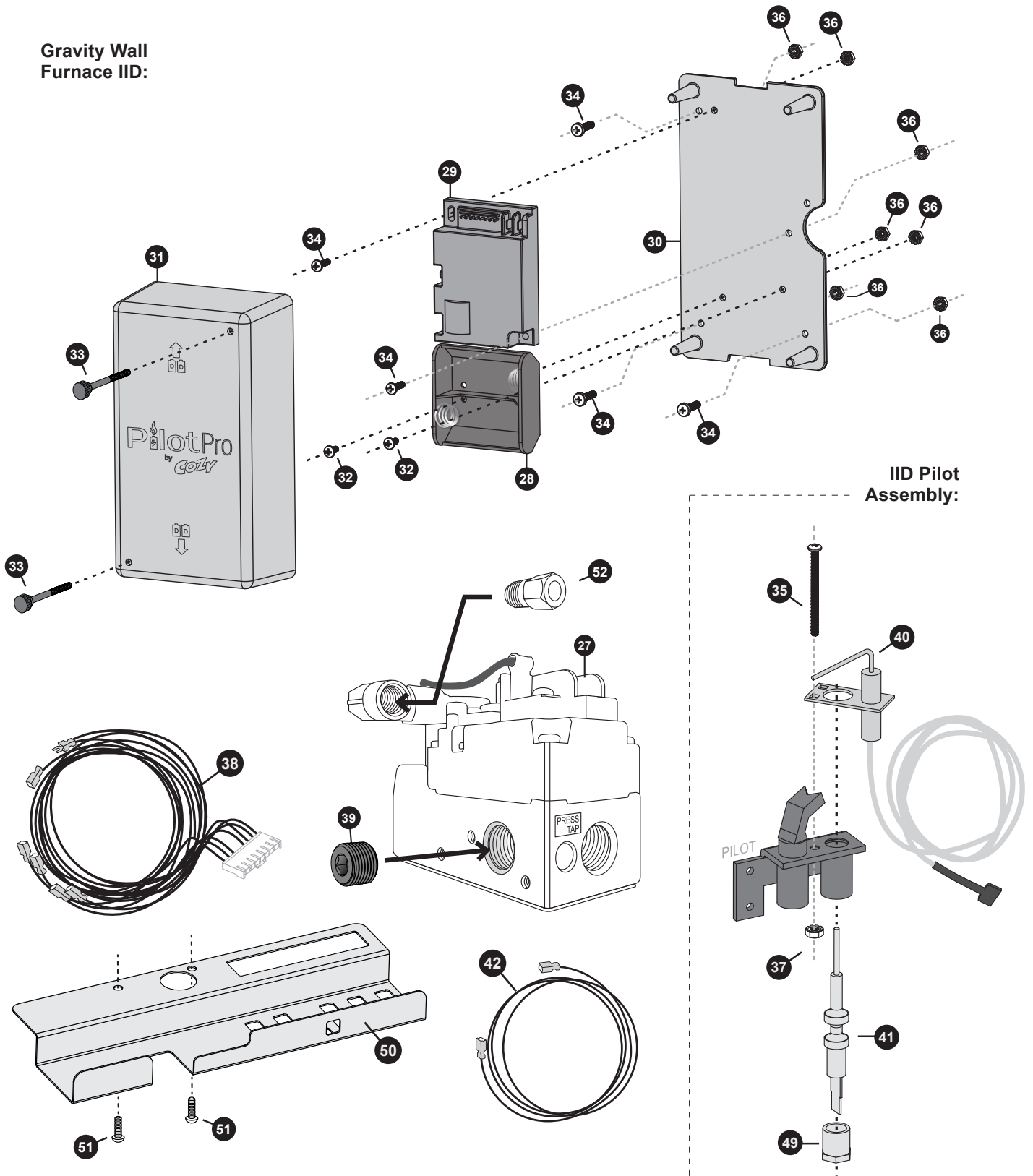
# 40025 ① - Includes Lower Door (40032) ② and Handle Assembly (40033) ③

\*Two (2) are Required

NOTE: Parts & schematic drawings on current models are shown at: [cozyheaters.com](http://cozyheaters.com) | Specifications subject to change without notice.

**PARTS LIST - ( GRAVITY WALL FURNACE )**

**Gravity Wall  
Furnace IID:**



NOTE: Parts & schematic drawings on current models are shown at: [cozyheaters.com](http://cozyheaters.com) | Specifications subject to change without notice.

## PARTS LIST - ( GRAVITY WALL FURNACE )

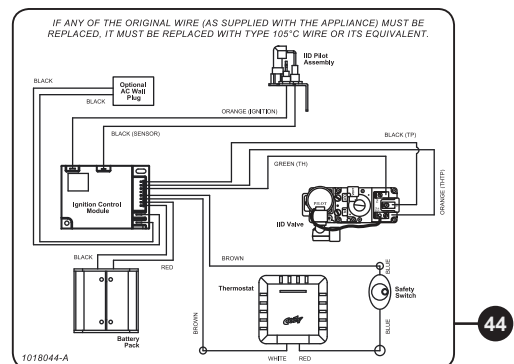
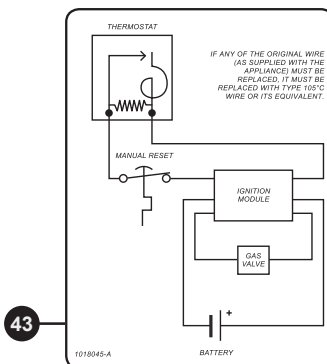
**ATTN: Contractors and Qualified Service Technicians:** We only sell parts through our wholesalers. For prompt parts service, contact the wholesaler from which you purchased your Cozy heater.

	Model Numbers .....		W255GPPR, W255GPPD, W355GPPR, W355GPPD, W505GPPR and W505GPPD
REF. #	PART DESCRIPTION	( QTY. )	PART NO.
27	IID Valve, Natural	( 1 )	1018036
28	Battery Pack	( 1 )	1018002
29	Control Module	( 1 )	1018000
30	Mounting Plate	( 1 )	1018397
31	Cover	( 1 )	1018398
32	Screw, #8 x 3/8"	( 2 )	50139
33	Screw with knob	( 2 )	1018690
34	Screw, #8-32 x 3/4"	( 5 )	1018526
35	Screw, #4 x 1.5"	( 1 )	1018331
36	Nut, #8	( 7 )	50052
37	Nut, #4	( 1 )	1018330
38	IID Wiring Harness	( 1 )	1018001
39	Outlet Plug	( 1 )	1018037
40	Ignitor, Pilot	( 1 )	1018634
41	Flame Sensor	( 1 )	1018350
42	Wire, Flame Sensor	( 1 )	1018302
43	Label, Ladder Schematic	( 1 )	1018045, 1018045SP, 1018045FR
44	Label, Wiring Diagram	( 1 )	1018044, 1018044SP, 1018044FR
45	Lighting Instructions*	( 1 )	1018055, 1018053, 1018054
46	1.5V D-Cell Battery*	( 2 )	1018416
47	Electrical Sleeving*	( 6 )	1018501
48	Tie, Cable 7in*	( 8 )	B-6395
49	Nut, Flame Sensor	( 1 )	1018351
50	Bracket, Valve	( 1 )	1018541
51	Screw, #10-24 x 3/8"	( 2 )	50187
52	Compression Nut	( 1 )	84084

\* Not shown

### HOW TO PROPERLY ORDER PARTS:

In addition to the part description and numbers, please be prepared to provide: Model number, serial number & type of gas used. *This information can be found on the rating plate that is attached to the heater.*

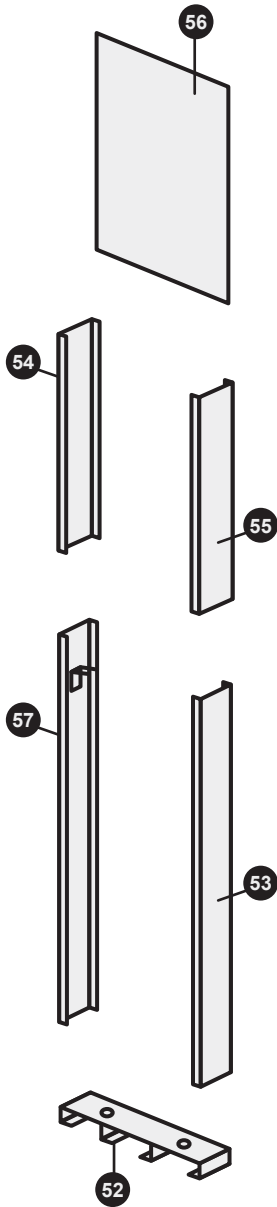


NOTE: Parts & schematic drawings on current models are shown at: [cozyheaters.com](http://cozyheaters.com) | Specifications subject to change without notice.

## PARTS LIST - ( OPTIONAL KITS )

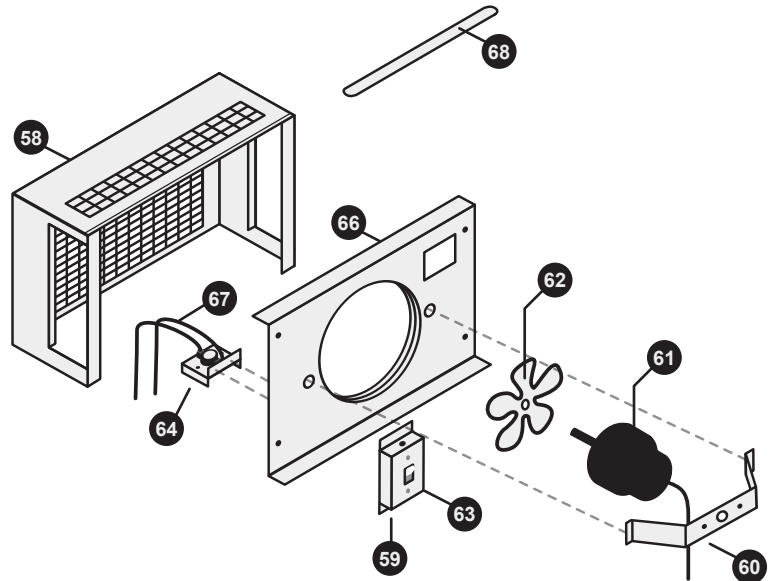
### FSK-A

Free Standing Kit



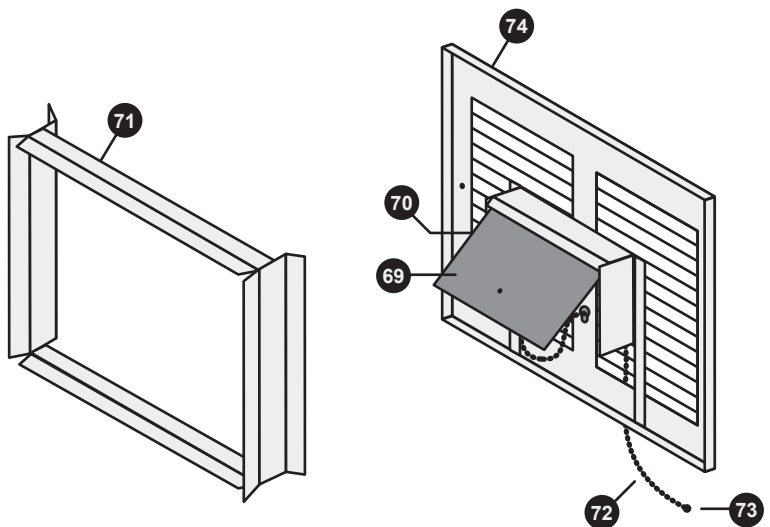
### WFF81-C FAN KIT

Used on Single & Double Wall Models



### 40542-A REAR REGISTER KIT

Used on Single Wall Models Only



### HOW TO PROPERLY ORDER PARTS:

In addition to the part description and numbers, please be prepared to provide: Model number, serial number & type of gas used. *This information can be found on the rating plate that is attached to the heater.*

NOTE: Parts & schematic drawings on current models are shown at: [cozyheaters.com](http://cozyheaters.com) | Specifications subject to change without notice.

**PARTS LIST - ( OPTIONAL KITS )**

**ATTN: Contractors and Qualified Service Technicians:** We only sell parts through our wholesalers.  
For prompt parts service, contact the wholesaler from which you purchased your Cozy heater.

**FSK-A FREE STANDING KIT**

**W25/35 Models Only**

REF. #	PART DESCRIPTION	( QTY. )	PART NO.
52	Floor Plate Assembly	( 1 )	40405
53	Right Side Assembly	( 1 )	40410
54	Upper Left Side	( 1 )	40415
55	Upper Right Side	( 1 )	40416
56	Upper Front	( 1 )	40418
57	Left Side Assembly	( 1 )	40422

**WFF81-C FAN KIT**

**Fits All Models**

REF. #	PART DESCRIPTION	( QTY. )	PART NO.
58	Fan Cabinet	( 1 )	40304
59	Junction Box	( 1 )	40315
60	Motor Mounting Bracket	( 1 )	40313
61	Motor	( 1 )	85110
62	Fan Blade	( 1 )	85115
63	Heyco Strain Relief	( 1 )	84155
64	Fan Switch	( 1 )	84170
65	Wiring Diagram (Label)	( 1 )	91147
66	Fan Housing	( 1 )	40311
67	Fan Switch Wire	( 1 )	*84171
68	Wall Meeting Bracket	( 1 )	40317
N/A	Installation Manual	( 1 )	84511

\* Two (2) required

**40542-A REAR REGISTER KIT**

**W25/35 Models Only**

REF. #	PART DESCRIPTION	( QTY. )	PART NO.
69	Damper	( 1 )	40375
70	Damper Spring	( 1 )	40377
71	Frame Assembly	( 1 )	40365
72	Register Chain	( 1 )	40379
73	Bell, Pull	( 1 )	85003
74	Register Assembly	( 1 )	40355
-	Installation Manual	( 1 )	84504

# LIMITED WARRANTY

Cozy Heating Systems LLC warrants to the original user the accompanying product for the period specified herein, provided said product is installed, operated, maintained, serviced, and used according to the instructions and specifications accompanying the product. **AS OUTLINED IN OUR INSTRUCTIONS, ANY WARRANTY CONSIDERATIONS ARE CONTINGENT ON INSTALLATION BY A QUALIFIED INSTALLER (CONTRACTOR). SELF-INSTALLATION IS PROHIBITED AND WILL INVALIDATE YOUR WARRANTY.**

If within a period of one year from the date of installation of the product, any part supplied by the manufacturer proves to be defective due to workmanship or material, it will replace such part, provided parts have not been subjected to misuse, alteration, neglect, or accidents. The term of the warranty for the heat exchanger and burners is covered in Table A below. Any claim not made within ten (10) days after the expiration of the warranty period shall be deemed waived by the user.

The manufacturer shall have no liability or be required to perform any obligation under this warranty unless, when requested, the user returns, at the user's expense, the component or product claimed defective, to the manufacturer for inspection, to enable the manufacturer to determine if the claimed defect is covered by this warranty.

No charges for freight, labor or other expenses incurred in the repair, removal, or replacement of any product or component claimed to be defective, will be paid by the manufacturer to the user, and the manufacturer will not be liable for any expenses incurred, by the user, in remedying any defect in the product.

Service under this warranty is the responsibility of the installer. In the event service under this warranty is needed, the user of the product shall request such service directly from the installer. If the user is unable to locate the

installer, the user should write directly to the manufacturer, and the name of an alternative service source will be supplied.

The product safety registration card (packed inside the appliance) must be completed and returned to the factory.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED (WHETHER WRITTEN OR ORAL). ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE IS EXPRESSLY LIMITED TO THE DURATION OF THE MANUFACTURER'S EXPRESS, WRITTEN WARRANTY.

UNDER NO CIRCUMSTANCES SHALL THE MANUFACTURER BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES OR EXPENSES ARISING DIRECTLY OR INDIRECTLY FROM ANY COMPONENT OR FROM THE USE THEREOF. THE REMEDIES SET FORTH HEREIN SHALL BE THE EXCLUSIVE REMEDIES AVAILABLE TO THE USER AND ARE IN LIEU OF ALL OTHER REMEDIES.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.

SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATIONS OR EXCLUSIONS MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS, WHICH VARY, FROM STATE TO STATE.

**TABLE - A**

**WARRANTY PERIOD**

<b>PRODUCT</b>	<b>TUBES / HEAT EXCHANGER</b>	<b>BURNERS</b>
Cozy Gas Fired Floor Furnace	10 Years	10 Years
Cozy Gas Fired Wall Furnace	10 Years	10 Years
Cozy Gas Fired Vented Console Heater	10 Years	10 Years
Cozy Gas Fired Direct Vent Heater	10 Years	10 Years
Cozy Gas Fired Counterflow Furnace	10 Years	10 Years
Cozy Gas Fired Counterflow Direct Vent Furnace	10 Years	10 Years
Cozy Gas Fired Hi-Efficient Direct Vent Wall Furnace	10 Years	10 Years
Cozy Fan-Type, Direct Vent Through-The-Wall Gas Heater	10 Years	10 Years

**COZY HEATING SYSTEMS, LLC**  
 3230 INDUSTRIAL PARKWAY. – JEFFERSONVILLE, IN 47130