HEAT&GLO
No one builds a better fire

SERVICE TECHNICIAN MANUAL
Model: HE36CLX-S, HE36CLXLP-S
- Instructions -

Leave this manual with party responsible for use and operation.

WARNING! Risk of Injury! *Service to this appliance may ONLY be performed by a qualified service technician.*

NOTICE! DO NOT discard this manual. *Important service and maintenance instructions included.*

This service technician manual will assist a qualified service technician in the diagnosis of a problem and the corrective action to be taken. Contact your dealer to arrange a service call by a qualified service technician.

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

- **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.

⚠WARNING

HOT GLASS WILL CAUSE BURNS.
DO NOT TOUCH GLASS UNTIL COOLED.
NEVER ALLOW CHILDREN TO TOUCH GLASS.

A barrier designed to reduce the risk of burns from the hot viewing glass is provided with this appliance and shall be installed.

CAUTION! Risk of Cuts, Abrasions or Flying Debris. *Wear protective gloves and safety glasses during installation and service. Sheet metal edges are sharp.*

Installation and service of this appliance should be performed by a Hearth & Home Technologies factory-trained Energy Pro technician.

Tools and Supplies Needed

Before beginning the installation be sure that the following tools and building supplies are available.

Tape measure	Framing material
Pliers	Hammer
Phillips screwdriver	Manometer
Gloves	Framing square
Voltmeter	Electric drill and bits (1/4 in.)
Safety glasses	Flat blade screwdriver
Saw	Non-corrosive leak check solution

1/2 - 3/4 in. length, #6 or #8 Self-drilling screws

1/4 NPT barbed hose fitting (for checking gas pressures at valve)

⚠ Safety Alert Key:

- ***DANGER!*** *Indicates a hazardous situation which, if not avoided will result in death or serious injury.*
- ***WARNING!*** *Indicates a hazardous situation which, if not avoided could result in death or serious injury.*
- ***CAUTION!*** *Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.*
- ***NOTICE:*** *Used to address practices not related to personal injury.*

Table of Contents

1 Maintenance and Service

A. Maintenance Tasks-Qualified Service Technician

The following tasks must be performed by a qualified service technician.

Gasket Seal and Glass Assembly Inspection

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, drop cloth and a stable work surface.

- Inspect gasket seal and its condition.
- Inspect fixed glass assembly for scratches and nicks that can lead to breakage when exposed to heat.
- Confirm there is no damage to glass or glass frame. Replace as necessary.
- Verify that fixed glass assembly is properly retained and attachment components are intact and not damaged. Replace as necessary.

Logs

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves.

- Inspect for damaged or missing logs. Replace as necessary. Refer to log placement instructions in Section 6.
- Verify correct log placement and no flame impingement causing sooting. Correct as necessary.

Firebox

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, stainless steel cleaner, mineral spirits, primer and touch-up paint.

- Inspect for paint condition, warped surfaces, corrosion or perforation.
- It will be normal for surface corrosion to occur on the firebox interior surface of the condensing appliance.
- Internal surface of firebox can be maintained by using stainless steel cleaner to remove effects of oxidation.
- Do not use steel wool or sandpaper to remove oxidation from interior of firebox. This will reduce the corrosion-resistance of the stainless steel material.
- Factory-painted surfaces can be maintained with primer and touch up paint.
- Replace firebox if it has been perforated.

Control Compartment

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, dust cloths

See Section 1.C and 1.D for instructions on how to disengage the firebox from the appliance outer shell and engage the support wheels.

- Vacuum and wipe out dust, cobwebs, debris or pet hair. Use caution when cleaning these areas. Screw tips that have penetrated the sheet metal are sharp and should be avoided.
- Remove all foreign objects.
- Verify unobstructed air circulation.
- Verify unobstructed ducts and filter.
- Check for evidence of water/condensate leakage.

Return Air Filter

Frequency: Every Three Months

By: Qualified Service Technician

Tools needed: Protective sleeves, screw driver

Inspect filter and replace as needed. See Section 1.F for detailed information.

Condensate Drainage System

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, nut driver, screwdriver

See Section 1.C for instructions on disengaging the firebox from the appliance outer shell and engage the support wheels.

- Verify all components of condensate removal system are working properly. Refer to Section 4 for detailed information.
- Flush system with clean water. See Section 4 for instructions.

Burner Ignition and Operation

Frequency: Annually

By: Qualified Service Technician

Tools needed: Protective gloves, vacuum cleaner, whisk broom, flashlight, voltmeter, indexed drill bit set, and a manometer.

- Verify burner is properly secured and aligned with pilot or igniter.
- Clean off burner top, inspect for plugged ports, corrosion or deterioration. Replace burner if necessary.
- Replace Glowing embers with new dime-size pieces. **DO NOT** block ports or obstruct lighting paths. Refer to Section 6.C for proper ember placement.
- Check for smooth lighting and ignition carryover to all ports. Verify that there is no ignition delay.
- Inspect for lifting or other flame problems.
- Verify air shutter setting is correct. See appliance installation manual for required air shutter setting. Verify air shutter is clear of dust and debris.

- Inspect orifice for soot, dirt and corrosion. Verify orifice size is correct. See Service Parts List for proper orifice sizing.
- Verify manifold and inlet pressures. Adjust regulator as required.
- Inspect flame sensing rod for soot, corrosion and deterioration. Polish with fine steel wool or replace as required.

B. Frequently Asked Questions

ISSUE	SOLUTIONS
Ember lights on/No flame	There is a 2-1/2 minute pre-purge after the appliance is turned on before the flame lights. This is normal for this appliance.
Convection blower does not turn on when appliance is turned on.	There is a 4-1/2 minute delay between the time the appliance is turned on and the time that the convection blower will turn on. This is normal for the appliance.
Condensation on the glass	This is a result of gas combustion and temperature variations. As the fireplace warms, this condensation will disappear.
Blue flames	This is a result of normal operation and the flames will begin to yellow as the fireplace is allowed to burn for 20 to 40 minutes.
Odor from fireplace	When first operated, this fireplace may release an odor for the first several hours. This is caused by the curing of the paint and the burning off of any oils remaining from manufacturing. Odor may also be released from finishing materials and adhesives used around the fireplace.
Film on the glass	This is a normal result of the curing process of the paint and logs. Glass should be cleaned within 3 to 4 hours of initial burning to remove deposits left by oils from the manufacturing process. A non-abrasive cleaner such as gas fireplace glass cleaner may be necessary. See your dealer.
Metallic noise	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the fireplace.

ISSUE	CAUSE	SOLUTIONS		
System does not turn on when in “HEAT” mode.	A. Indoor temperature is higher than heat setting	Increase heat setting to a temperature higher than indoor temperature.		
	B. Wireless thermostat has lost connection. “No Signal” flashing in upper left corner of thermostat display.	1. Check Electronic Ignition Module (EIM) for POWER light. (Green)	Light on	
			No light	Check breaker. If breaker ok, call qualified service technician.
		2. Verify that the thermostat is located more than two feet from the Electronic Ignition Module (EIM).		
		3. Refer to RedLINK™ instructions regarding connections.		
	C. Check LED status code. See Figure 2.1.			
Thermostat screen is blank.	Check batteries.	Batteries dead.	Replace batteries.	
		Batteries ok.	Call qualified service technician.	

C. Disengage Firebox from Outer Shell

In order to perform certain setup and maintenance tasks, it will be necessary to partially separate the firebox from the outer shell of the appliance. Use a Phillips screwdriver to loosen the 1/4 turn fasteners on the two latches on the lower front face of the appliance and pull the firebox out carefully using both hands. See Figure 1.1.

CAUTION! Risk of injury! *Avoid pinch points by grasping only front and side of appliance door when pushing back into place.*

NOTICE! *Appliance is heavy. Slide out and in carefully to avoid scratching floor or hearth.*

D. Engage Support Wheels

This appliance is fitted with linear motion slide mechanisms to provide guidance and support of the appliance as it is separated from the outer shell. These slide mechanisms will deflect under the weight of the firebox. This deflection presents the possibility of the firebox contacting flooring materials as it is transferred in and out of the outer shell. The appliance is equipped with support wheel assemblies to carry the load and to reduce the possibility of damage to flooring.

There is one adjustable support wheel on both the left and right sides of the firebox to help support the weight of the firebox when it is being pulled out. Pull appliance out approximately four inches to access the support wheels. To utilize the support wheel, loosen the nuts and adjust the wheel to the desired height. Use care when pulling appliance out to avoid scratching the floor or hearth. Rest the slide in the slot at the appropriate height and tighten the nuts. If the firebox will be extended to a point where the wheel does not touch the surface, an additional means of support will be needed. See Section 1.E.

WARNING! Risk of injury! *Support firebox with support wheels. Firebox may tip when pulled away from outer shell.*

When finished with appliance maintenance task, push the firebox back to within four inches of closing, adjust the support wheels to the original stowed position and secure in place. Engage the 1/4 turn fasteners on the latches on the lower front face of the appliance, to secure it within the outer shell. Pull gently on the firebox to verify the firebox is correctly secured and latched.

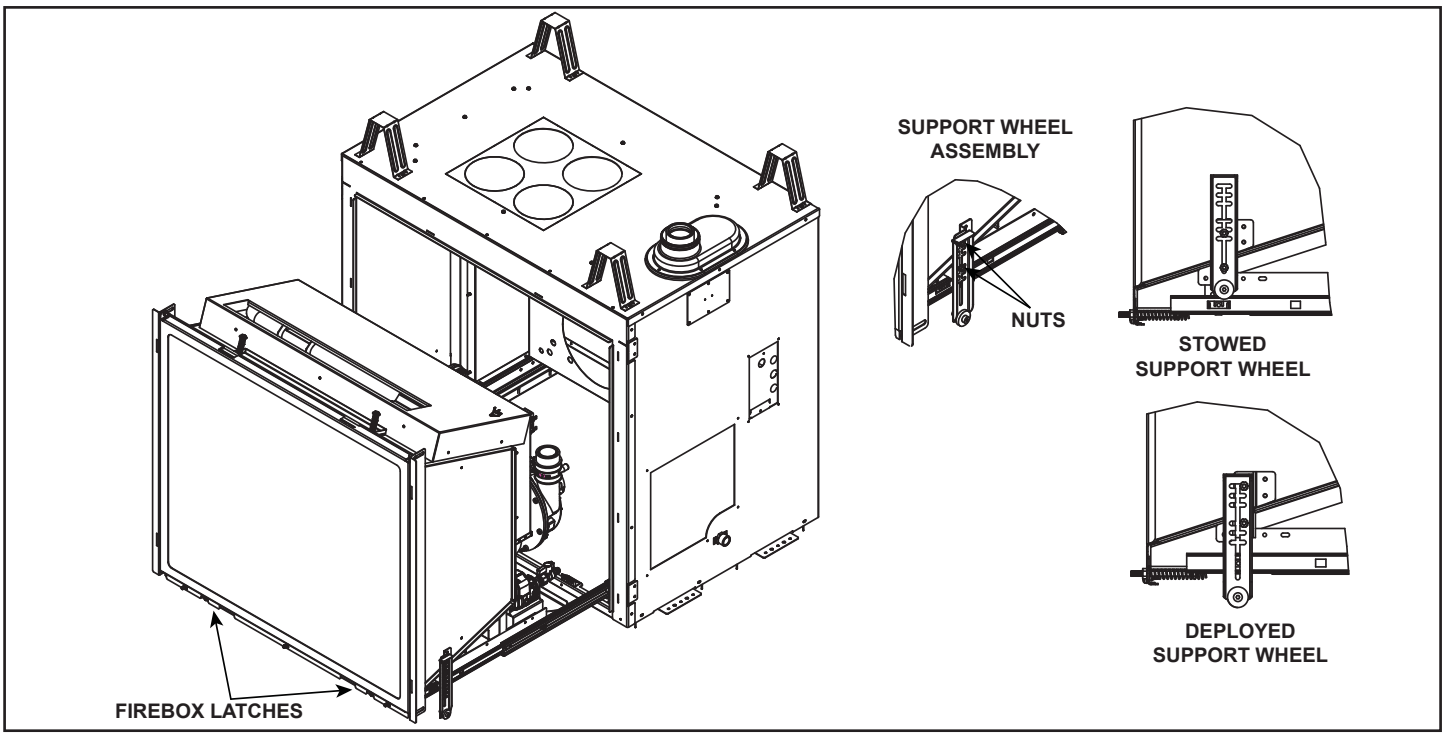


Figure 1.1. Disengage Firebox from Outer Shell

E. Appliance Support - Field Construction

Circumstances may require that a support be constructed in the field. The following materials will be necessary to construct the support.

Tape measure	Wood
Nails or Screws	Hammer
Screwdriver	Safety glasses
Gloves	Level

1. Disengage the appliance from the outer shell by following the instructions in Section 1.C.
2. Slide the appliance out over the raised hearth approximately one inch.

CAUTION! Risk of injury! *Avoid pinch points by grasping only front and side of appliance door when pushing back into place.*

NOTICE! *Appliance is heavy. Slide out and in carefully to avoid scratching floor or hearth.*

3. Measure from the floor to the bottom return bend as shown in Figure 1.3. The constructed support will be made to rest on the bottom return bend. Push the appliance back into the outer shell while constructing the support.

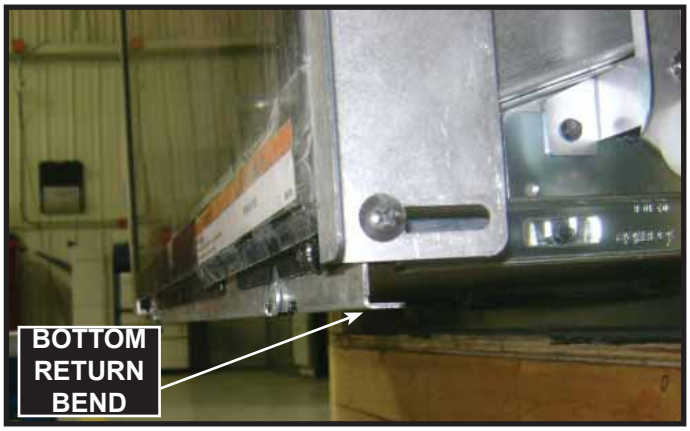


Figure 1.2. Location of Bottom Return Bend

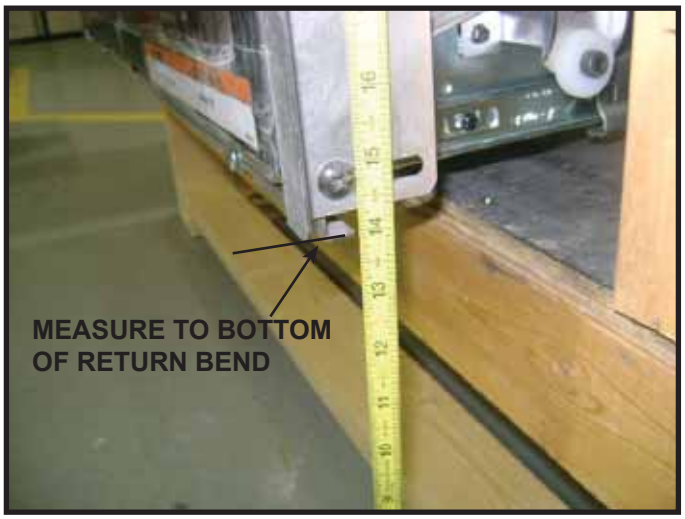


Figure 1.3. Measure from Hearth to Bottom Return Bend

4. Construct the support to a height no shorter than 1/4 inch less than the measurement taken in Step 3. See Figure 1.4 for a recommended design. In this scenario the width of the support is slightly wider than the width of the appliance.

Figure 1.4. Field-Constructed Appliance Support

5. Place the support in position at the desired distance in front of the appliance.

Note: When fully extended, the bottom return bend is approximately 27 inches from the outer shell.

6. Disengage the latches and slide the appliance out and set it on the support so that the bottom return bend rests on the constructed support.

Figure 1.5. Appliance Resting on Field-Constructed Support

Figure 1.6. Bottom Return Bend Resting on Field-Constructed Support

F. Filter Inspection & Replacement

This appliance requires a filtered return air duct. A slot is located on the lower left of the appliance for a standard 12 x 24 x 1 filter. See Figure 1.7. The filter may be used in the slot provided on this appliance or elsewhere in the ducting system between the intake(s) and the appliance. If multiple air intake locations exist, each must have its own filter. Filters are not included with this appliance.

1. To install or replace filter, disengage latch and pull firebox out by following the instructions in Section 1.C.
2. Remove the screw that secures the filter door to the appliance. See Figure 1.7.
3. Remove the filter door, place the filter in the slot so that the air flow is directed toward the inside of the appliance.
4. Reattach the filter door.
5. Push firebox back in and latch.

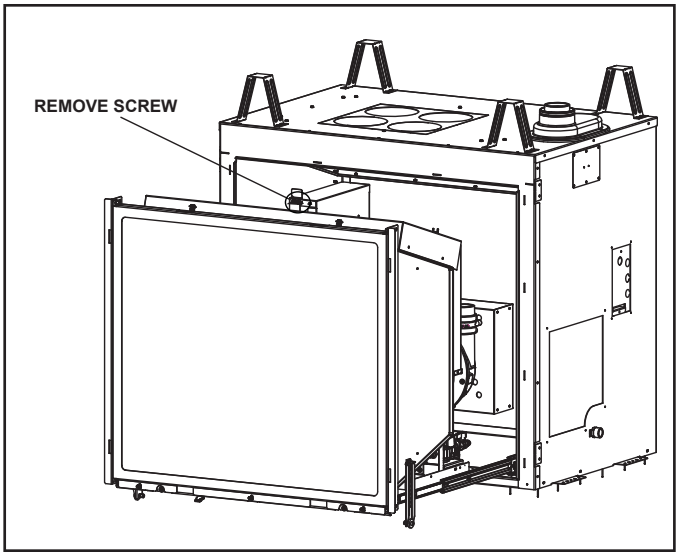


Figure 1.7. Filter Replacement

G. Fixed Glass Assembly

WARNING! Risk of Asphyxiation! *Handle fixed glass assembly with care. Inspect the gasket to ensure it is undamaged and inspect the glass for cracks, chips or scratches.*

- ***DO NOT*** *strike, slam or scratch glass.*
- ***DO NOT*** *operate fireplace with glass removed, cracked, broken or scratched.*
- *Replace as a complete assembly.*

Removing Fixed Glass Assembly

1. Remove the three 1/4 inch nuts on the bottom of the glass frame. See Figure 1.8.
2. Use a Phillips screwdriver to turn the 1/4 turn latching fasteners counterclockwise and pull the firebox out approximately two inches.
3. Grab the lower portion of the glass assembly and pivot out and up.

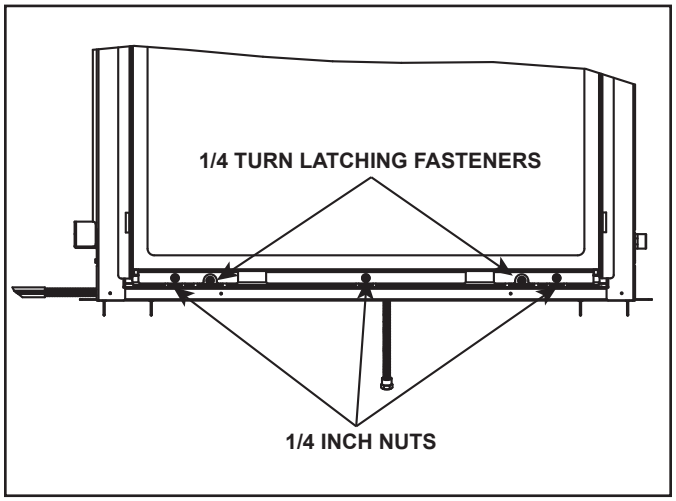


Figure 1.8. Door Latching Fasteners

Replacing Fixed Glass Assembly

1. Insert the top glass frame hook on the return bend on the top side of the firebox. See Figure 1.9.
2. Pivot the bottom of the glass assembly toward the firebox.
3. Reinstall the three 1/4 inch nuts on the bottom of the glass frame and tighten.
4. Push the firebox back into the outer shell.
5. Put the 1/4 turn latching fasteners back in place and turn clockwise to tighten. Pull gently on the firebox to verify the firebox is correctly secured and latched.

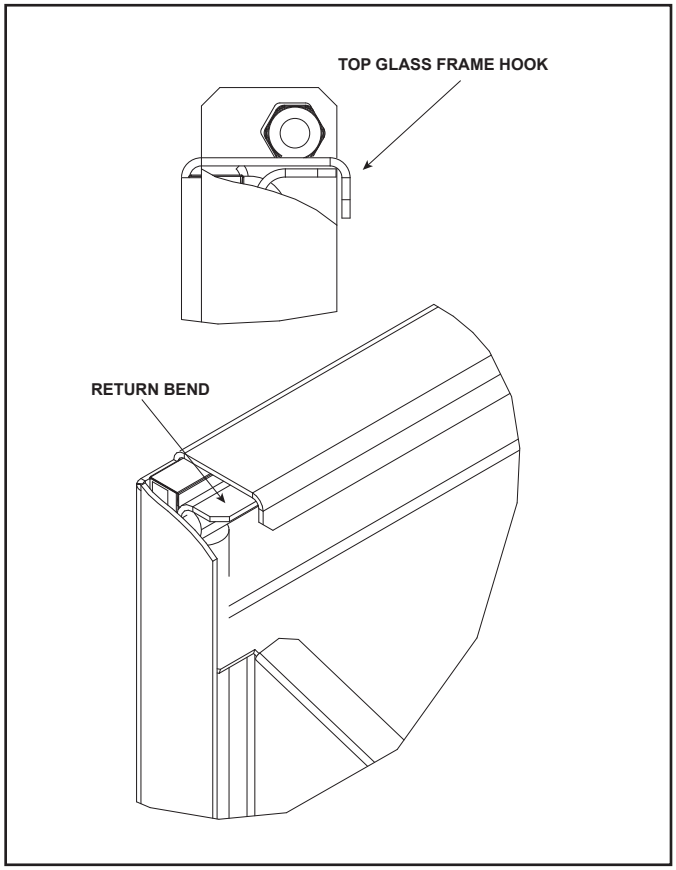


Figure 1.9. Top Glass Frame Hook

2 LED Sequence Troubleshooting

A. LED Sequence Troubleshooting

The LED flash sequences for the amber and green LED's are described in Figure 2.1.

The LED code can be viewed by disengaging the latch and pulling the firebox out approximately six inches. There is a reflective label on the upper right side that allows viewing of the LED's. See Figure 2.2. For instructions on disengaging the firebox from the outer shell, see Section 1.C.

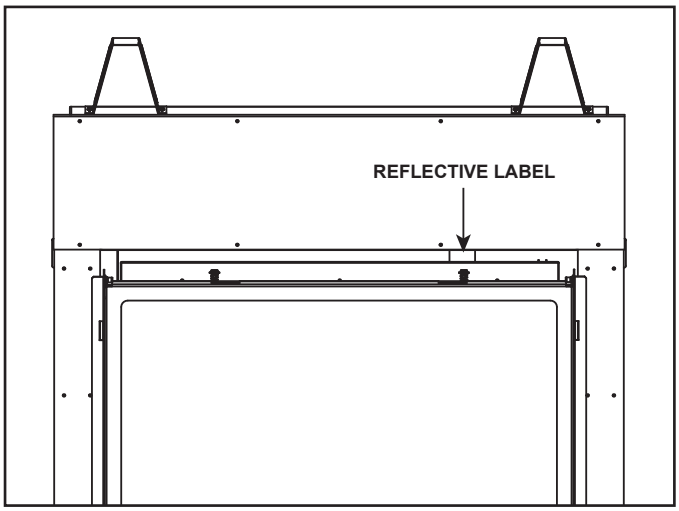


Figure 2.2. Reflective Label

GREEN LED FLASH SEQUENCE	CONTROL STATUS
Short flash once every four seconds	IDLE (no call for heat, no fault conditions)
"Heartbeat" alternates bright/dim	Call For Heat (no fault conditions)
Two Flash, three second pause	Pressure Switch Failed Closed
Three Flash, three second pause	Pressure Switch Failed Open
Four Flash, three second pause	Limit Switch Open
Five Flash, three second pause	Flame Out Of Sequence
Six-One Flash, three second pause	Soft Lockout - Failed Trial For Ignition
Six-Two Flash, three second pause	Soft Lockout - Recycle Limit - Limit Switch Opened
Six-Three Flash, three second pause	Soft Lockout - Recycle Limit - Pressure Switch Opened
Six-Four Flash, three second pause	Soft Lockout - Recycle Limit - Flame Lost
Six-Five Flash, three second pause	Soft Lockout - Flame out of Sequence Sensed
Seven-One Flash, three second pause	Control Board Fault
Seven-Two Flash, three second pause	Gas Valve Fault
Seven-Three Flash, three second pause	EnviraCOM™ Bus Fault

AMBER LED FLASH SEQUENCE (Flame Sense Indicator)

A amber LED labeled 'Flame" is provided to indicate flame status. When flame is sensed, the LED will indicate three flame signal levels:

LED DISPLAY	SIGNAL LEVEL	STATUS
On Solid	Flame signal at least 1 micro amp above RUN level	Normal
Flashing	Flame signal between Normal and Flame Lost levels	Alert
Off	Flame signal below Flame Lost level	No Flame Sensed

2183-905

See Troubleshooting information on following pages.

Figure 2.1. LED Codes

SEQUENCE*	STATUS	CAUSE	SOLUTION			
Two flash, three second pause.	Exhaust pressure switch (red) failed closed.	A. Vacuum tube connected properly. No kinks.	Verify vacuum tube is connected to switch and combustion blower.			
		B. Bad switch, (continuity is present).	Replace switch.			
Three flash, three second pause.	Pressure switch failed open.	A. Vacuum tubes.	1. Verify that vacuum tubes are connected properly.			
		B. Wires.	1. Ensure wires are connected to switch.			
		C. Continuity.	1. Check for continuity on an unpowered unit. See Section 3.A.	.4 in. w.c. Red label	With continuity	Replace switch.
				.4 in. w.c. Red label	No continuity	Switch is good.
				.35 in. w.c. Green label	With continuity	Switch is good.
				.35 in. w.c. Green label	No continuity	Replace switch.
		D. Inducer.	1. Verify that inducer runs when there is a call for heat.			
		E. Venting.	1. Verify that vent system components are not blocked or plugged.			
		F. Condensate.	1. Verify condensate system is working properly.			
Four flash, three second pause.	Limit Switch Open.	A. Wires.	1. Verify wires are connected properly.			
		B. Temp. Switch.	1. Check temp. switch for continuity.	Continuity = Good switch.		
				No continuity = Bad switch.	Replace switch.	
Five flash, three second pause.	Flame out of sequence.	A. Valve.	1. Check valve wires and ON/OFF switch.			
			2. Replace valve.			
Six-One flash, three second pause	Failed trial for ignition.	A. Gas supply.	1. Ensure gas is turned on.			
			2. Ensure valve switch is “ON.”			
		B. Igniter.	1. Verify igniter is wired to board and igniter.			
		C. Sensor wire.	1. Verify sensor wire (blue) is connected.			
		D. Spark Gap.	1. Ensure spark gap = .16 in.			
		E. Sensor rod.	1. Ensure flame sense rod is free of contaminants.	Polish with fine steel wool.		
		F. Igniter sparks.	1. Turn gas off. Verify igniter sparks.	Check for burner port obstructions.		
				Verify proper manifold pressure.		
				Verify gas ignition.		
				Verify flame is contacting flame sense rod.	If yes, replace flame sense rod.	

*Sequence description corresponds to information on label shown in Figure 2.1.

SEQUENCE*	ISSUE	CAUSE	SOLUTION			
Six-two flash, three second pause.	Recycle limit - Temp limit switch opened.	A. Convection blower.	Verify convection blower turns on.	No.	Check wires.	
					Check safety switch.	
					Check capacitor.	
					Replace blower. See Section 3.D.	
				Yes.	Check filter.	
					Verify that at least two ducts are open at all times.	
					Verify air intake is free of obstructions.	
					Check temp. limit switch.	
Six-three flash, three second pause.	Recycle limit - Pressure switch opened.	A. Vacuum tubes.	1. Check vacuum tubes.			
		B. Wires.	1. Ensure wires are connected to switch.			
		C. Continuity.	1. Check for continuity on an unpowered unit. See Section 3.A.	.4 in. w.c. Red label	With continuity	Replace switch.
				.4 in. w.c. Red label	No continuity	Switch is good.
				.35 in. w.c. Green label	With continuity	Switch is good.
				.35 in. w.c. Green label	No continuity	Replace switch.
		D. Inducer.	1. Verify that inducer runs when there is a call for heat.			
		E. Venting.	1. Verify that vent system components are not blocked or plugged.			
		F. Condensate.	1. Verify condensate system is working properly.			
Six-four flash, three second pause.	Recycle limit - Flame lost.	A. Flame sense rod.	1. Check wires.			
			2. Clean rod.			
			3. Replace rod.			
		B. Venting.	1. Verify that vent system components are not blocked or plugged.			
		C. Inducer.	1. Verify inducer is performing correctly.	Connect manometer to vacuum switch port on inducer. Verify a minimum of 1.00 in. w.c.		
		D. Condensate system.	1. Verify condensate system is working properly.			
Seven-one flash, three second pause.	Control Board fault.	A. Check wiring.	1. Verify fuse is operational.			
		B. Replace control board.				
Six-five flash, three second pause.	Flame out of sequence sensed.	A. Control board.	1. Verify fuse is operational.			
			2. Verify wiring.			
			3. Replace control board.			

*Sequence description corresponds to information on label shown in Figure 2.1.

3 Component and Testing Replacement

A. Testing Pressure Switches

1. Turn off gas supply to valve. Red gas shutoff knob is located on ball valve.
2. Disconnect electrical supply to the appliance.

WARNING! Risk of Shock! *Disconnect power to appliance prior to beginning this task.*

3. Remove decorative front.
4. Disengage the appliance from the outer shell by following the instructions in Section 1.C. Slide appliance out and engage support wheels or use field-constructed support.
5. Set the multimeter to "CONTINUITY" setting.
6. Identify the Exhaust pressure switch by locating the red label and 0.4 inches w.c. specification on that label. See Figure 3.1.
7. Place the test leads of the meter to the terminals on the switch. If continuity is present, the switch is not functioning correctly and should be replaced. If NO continuity is present, the switch tests good and is functioning correctly.
8. Identify the intake pressure switch by locating the green label and 0.35 inches w.c. specification on that label. See Figure 3.2.
9. Place the test leads of the meter to terminal 1 (c.) and 3 (n.c.). If continuity is present, the switch tests good and is functioning correctly. If NO continuity is present, the switch is not functioning correctly and should be replaced.

Figure 3.1. Test Exhaust Pressure Switch

Figure 3.2. Test Intake Pressure Switch

B. Testing 24V AC Transformer

1. Turn off gas supply to valve. Red gas shutoff knob is located on ball valve.
2. Remove decorative front from appliance.
3. Disengage the appliance from the outer shell by following the instructions in Section 1.C. Slide appliance out and engage support wheels or use field-constructed support.
4. Set the multimeter to VOLTS AC.
5. Place the leads on terminals 1 and 3. The display should read approximately 108-132VAC. See Figure 3.3.
6. Place the leads on terminals 4 and 5. The display should read "24V." See Figure 3.4.

If the readings are different than noted above, replace the transformer.

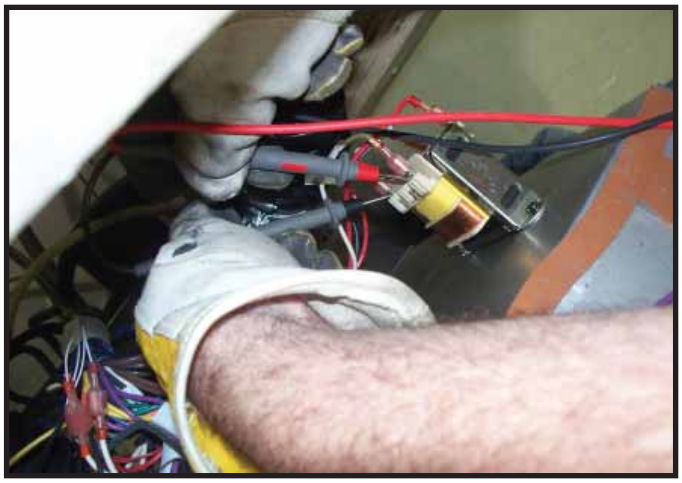


Figure 3.3. Test Terminals 1 and 3

Figure 3.4. Test Terminals 4 and 5

C. Convection Blower Safety Switch

The convection blower is wired through a safety switch so the convection blower will not operate when the firebox is disengaged from the outer wrap and/or being serviced. See Figure 3.5.

***WARNING! Risk of Injury! DO NOT** bypass the safety switch. Fan blades will cause injury.*

***WARNING! Risk of Shock!** Capacitor contains stored voltage. Discharge capacitor before servicing.*

Figure 3.5. Capacitor and Safety Switch

D. Replacing Convection Blower

1. Turn off gas supply to valve. Red gas shutoff knob is located on ball valve.
2. Disconnect electrical supply to the appliance.
3. Remove decorative front.
4. Disengage the appliance from the outer shell by following the instructions in Section 1.C and 1.D. Slide appliance out and engage support wheels or use field-constructed support.
5. Disconnect blower wires from capacitor.

***CAUTION! Risk of shock!** Capacitor has stored energy.*

6. Remove blower assembly by removing eight 3/8 in. bolts. See Figure 3.6.

Figure 3.6. Remove Blower Assembly

7. Remove grommet and feed wires through hole. See Figure 3.7.

Figure 3.7. Grommet and Wires

8. Remove blower assembly through the top opening of the appliance. See Figure 3.8.

Figure 3.8. Remove Blower Assembly

9. Remove four Phillips head screws. See Figure 3.9.

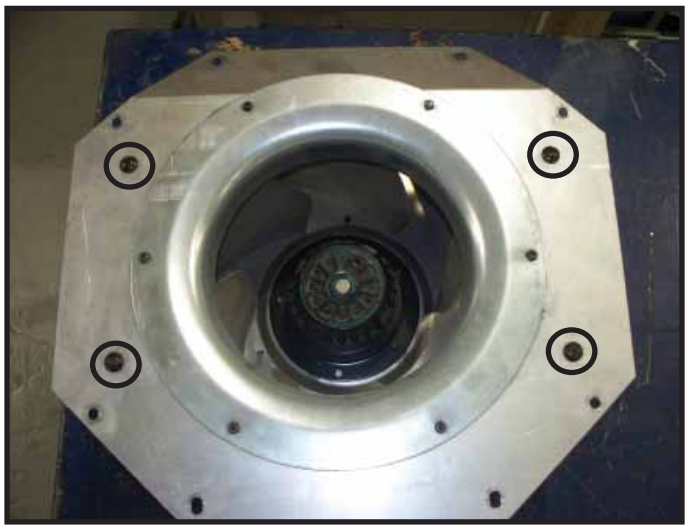


Figure 3.9. Remove Screws

10. Turn assembly over and remove four screws to release the blower from the mounting bracket. See Figure 3.10.

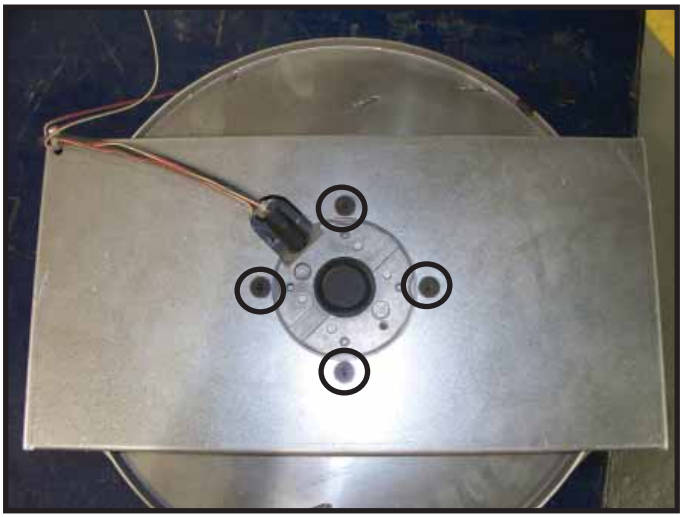


Figure 3.10. Remove Blower from Mounting Bracket

E. Testing Combustion Blower Performance

1. Turn off gas supply to valve. Red gas shutoff knob is located on ball valve.
2. Remove decorative front.
3. Disengage the appliance from the outer shell by following the instructions in Sections 1.C and 1.D. Slide appliance out and engage support wheels or use field-constructed support.
4. Disconnect the vacuum tube from the exhaust pressure switch. The exhaust pressure switch has the red label noting 0.4 in. w.c. See Figure 3.11.

Figure 3.11. Disconnect Vacuum Tube

5. Connect tube to manometer. See Figure 3.12.
6. Turn on combustion blower.
7. Check the manometer reading. It should be a minimum of 0.75 inches w.c. See Figure 3.12.

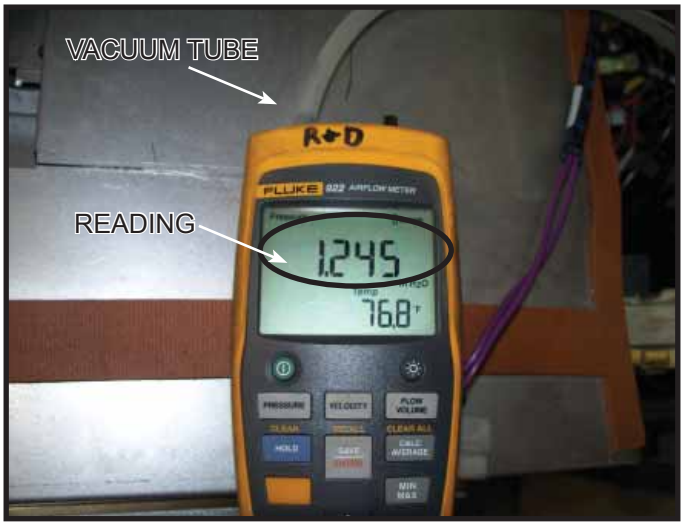


Figure 3.12. Manometer Reading.

F. Replacing Combustion Blower Assembly

1. Turn off gas supply to valve. Red gas shutoff knob is located on ball valve.
2. Disconnect electrical supply to the appliance.
3. Remove decorative front.
4. Disengage the appliance from the outer shell by following the instructions in Sections 1.C and 1.D. Slide appliance out and engage support wheels or use field-constructed support.
5. Disconnect the blower power wires and green/yellow ground wire. See Figure 3.13.

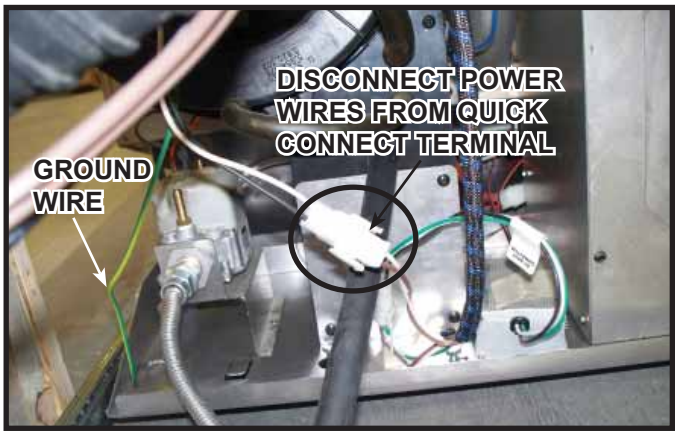


Figure 3.13. Disconnect Blower Wires

6. Loosen hose clamp on blower and remove flex hose.

Figure 3.14. Loosen Hose Clamp

7. Remove blower assembly bracket from the two screws on the appliance. See Figure 3.15.

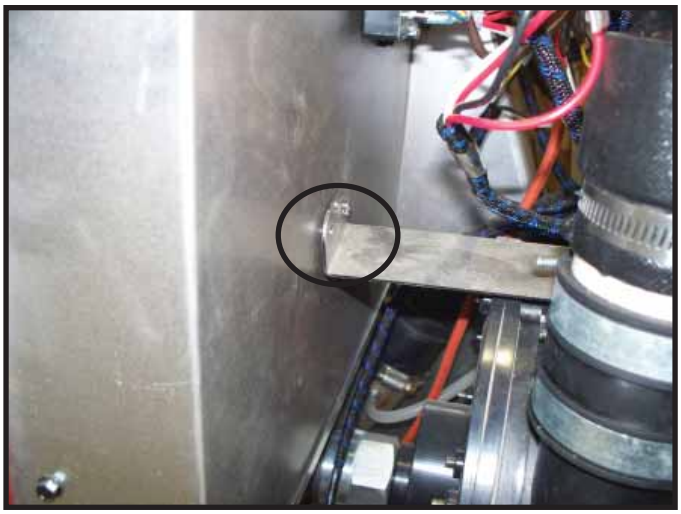


Figure 3.15. Remove Blower Assembly Bracket

8. Disconnect heat exchanger nut from blower assembly. See Figure 3.16.

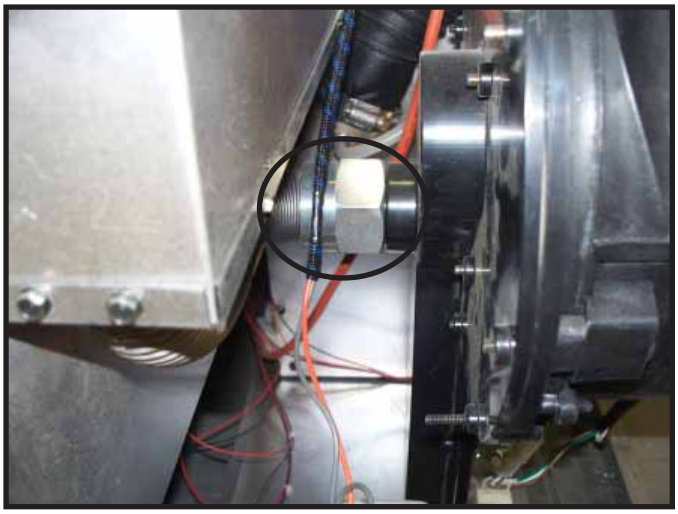


Figure 3.16. Disconnect Heat Exchanger

9. Remove four 3/8 in. mounting bolts. See Figure 3.17.

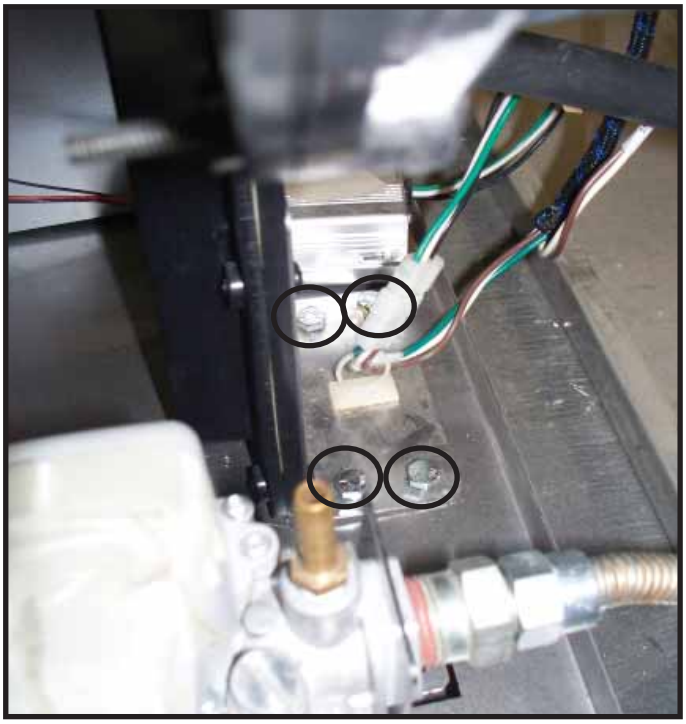


Figure 3.17. Remove Mounting Bolts

10. Disconnect the drain line from the blower assembly and remove the assembly from the appliance. Condensate will be present in the blower assembly, handle carefully.

CAUTION! Risk of Injury!

.• *Remove any excess condensate or spillage immediately to avoid slips and falls.*
- *Do not allow condensate to come into contact with mouth or eyes.*

11. Install new combustion blower assembly by performing Steps 9 through 5 in reverse. When reconnecting heat exchanger, tighten nut to hand-tight, plus an additional 1/4 turn. See Figure 3.16.
12. Reconnect the drainline to the blower assembly.

4 Condensate Removal System

A. Condensate Removal System

This appliance will create condensate. The condensate must be piped directly to a drain via approved piping or with a condensate pump. The condensate drain is located on the lower right side of the appliance. See Figure 4.1.

Drain pipe and fittings must conform to ANSI standards and ASTM D1785, D2466 or D2846. CPVC or PVC cement must conform to ASTM D2564 or F493. Primer must conform to ASTM F656. In Canada, use CSA or ULC certified schedule 40 CPVC or ULC certified schedule 40 CPVC or PVC drain pipe, fittings and cement.

The condensate drainage system and pump use gravity and should be located lower than the discharge location on the appliance. The condensate must be drained efficiently in order for the appliance to operate at peak performance.

CAUTION! Risk of Injury!

.• *Remove any excess condensate or spillage immediately to avoid slips and falls.*
- *Do not allow condensate to come into contact with mouth or eyes.*

If a condensate pump will be used with the appliance, it is recommended that a pump with a safety switch be used. In the event of a pump failure, the safety switch will not allow the appliance to operate. The pump should be approved for condensate producing appliances and have an overflow switch.

CAUTION! Risk of Injury!

- *Condensate pump should be located as close to the appliance as possible for efficient removal of condensate.*

Furnace condensate is mildly acidic and may be corrosive. A pH neutralizing filter may be needed. Check with local authorities if this type of filter is required.

An access panel is located on the right side of the appliance. This panel is for servicing the condensate system after appliance installation. The removal of five screws is required to remove the panel.

B. Winterizing Condensate Removal System

NOTICE: *The appliance must be winterized if the appliance is subjected to ambient temperatures of 32ºF (0ºC) or lower.*

Some water will accumulate in the heat exchanger as a result of the heat transfer process. To winterize your appliance:

1. Turn off gas supply to valve. Red gas shutoff knob is located on ball valve.
2. Disconnect electrical supply to the appliance.
3. Disengage firebox from outer shell approximately 12 inches. Adjust support wheels and/or provide additional support if necessary. See Section 1.C and 1.D
4. Remove upper inducer tube from inducer housing. See Figure 4.2.

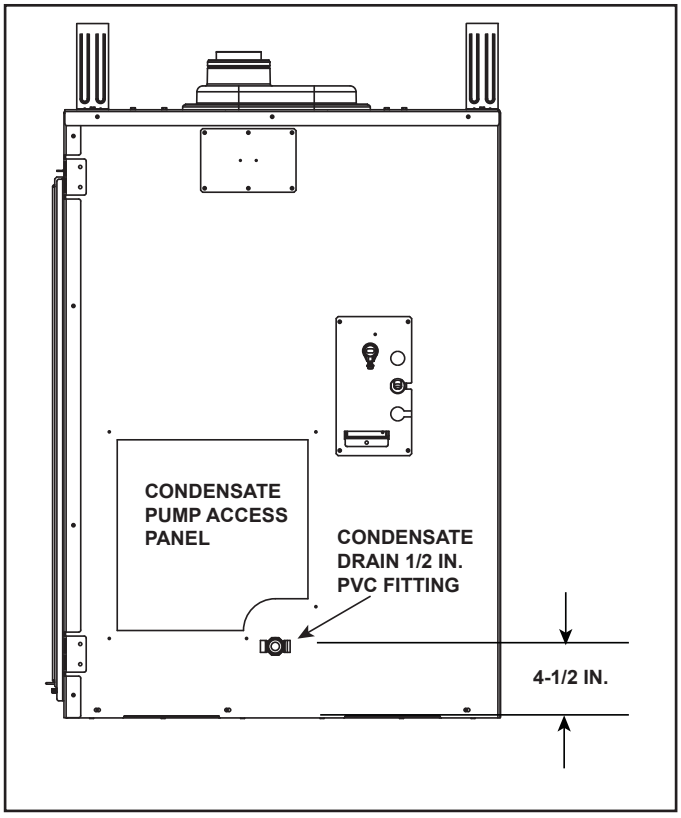


Figure 4.1.

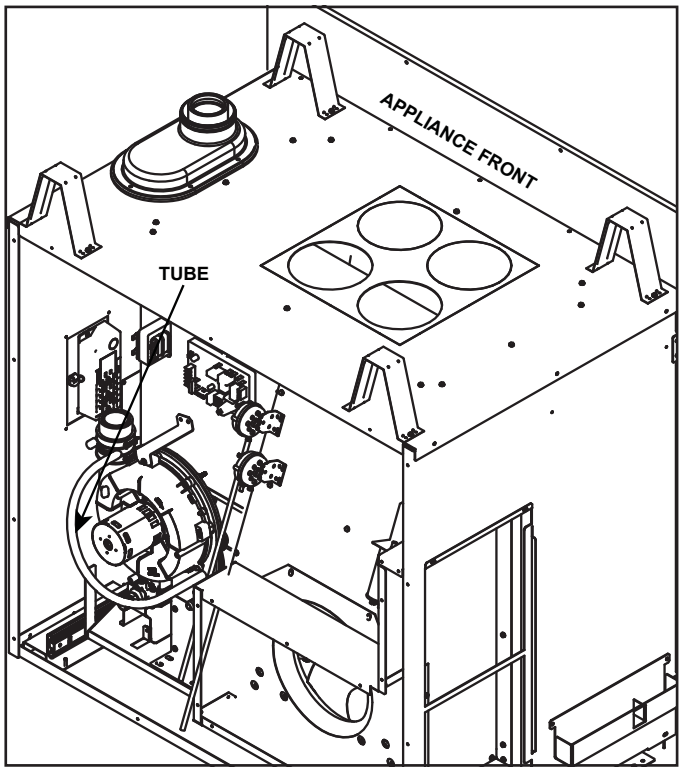


Figure 4.2. Upper Inducer Housing Tube - Connected to Inducer

5. Insert 3/8 inch (ID) field-supplied funnel into tube. See Figure 4.3.
6. Pour one quart propylene glycol (swimming pool/RV antifreeze) into funnel.

***NOTICE: DO NOT** use any antifreeze other than propylene glycol. Damage to plastic components may occur.*

Propylene glycol should run through inducer housing, fill condensate trap and overflow into condensate drain. Propylene glycol remains in condensate system. It does not need to be removed before appliance startup.

7. Remove funnel and reconnect upper inducer tube to the housing.
8. Disengage support wheels, return firebox to closed position and engage latch. See Section 1.C.
9. Reconnect electrical supply.
10. Turn on gas supply at valve.

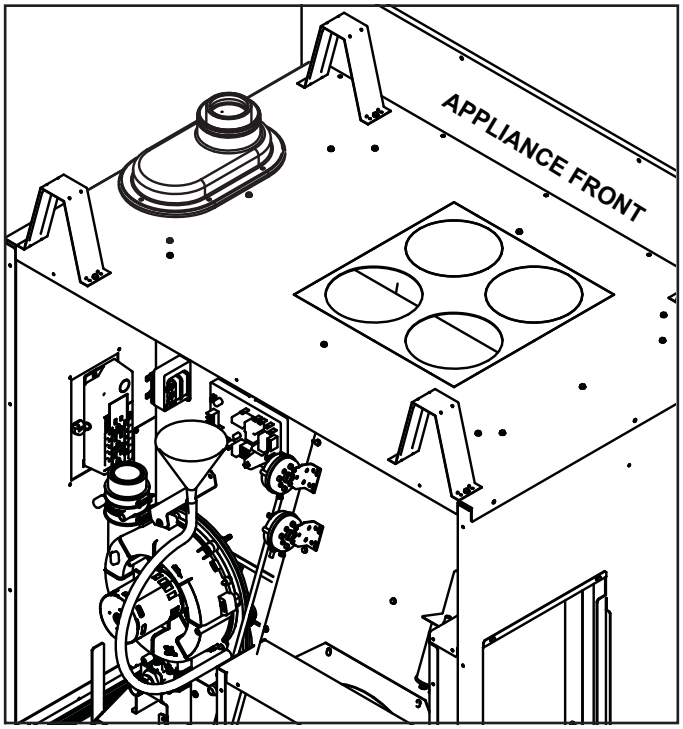


Figure 4.3. Upper Inducer Housing Tube Connected to Field-Supplied Funnel

5 Electrical Information

A. Wiring Requirements

NOTICE: *This appliance must be electrically wired and grounded in accordance with local codes or, in the absence of local codes, with* **National Electric Code ANSI/NFPA 70-latest edition** *or the* **Canadian Electric Code CSA C22.1.**

NOTICE: *Hearth & Home Technologies recommends that this appliance be wired on its own circuit with its own circuit breaker.*

- Wire the appliance junction box to 110-120 VAC.
- A 110-120 VAC circuit for this product must be protected with ground-fault circuit-interrupter protection, in compliance with the applicable electrical codes, when it is installed in locations such as in bathrooms or near sinks.
- Low voltage and 110-120 VAC voltage cannot be shared within the same wall box.

WARNING! Risk of Shock or Explosion! DO NOT *wire 110V to the valve or to the Equipment Interface Module. Incorrect wiring will damage controls.*

WARNING! Risk of Shock! Keep electrical wires away from condensate drainage system.

B. Optional Components

Wiring for optional components should be done now to avoid reconstruction. Follow manufacturer's instructions that accompany those components.

Examples of optional components:

- Condensate Pump
- Heat Duct Dampers

C. Dampers Wiring Requirements

The appliance is supplied with two (eight foot) lengths of low voltage wire. The control module supplies 24V AC to these wires. A switch must be installed to operate any power dampers. The switch should be located between the yellow and red wires. See Figure 5.2. The power relay on the control module is activated or deactivated by switching these wires. The control switch will not operate the dampers.

D. Electrical Service and Repair

WARNING! Risk of Shock! *Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.*

WARNING! Risk of Shock! *Replace damaged wire with type 105º C rated wire. Wire must have high temperature insulation.*

E. Equipment Interface Module (EIM)

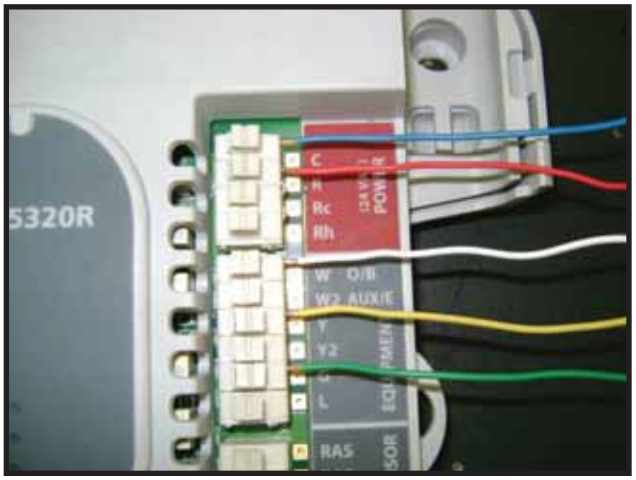
The Equipment Interface Module (EIM) is used for communication to take place between the appliance and the wireless thermostat. The EIM can be installed in a remote area, but will need to be accessible after installation and finishing of the appliance are complete. The appliance is supplied with 25 feet of low voltage wire that will be used to wire the EIM to the appliance. See Figure 5.1 and 5.2 for wiring. Refer to the manufacturer's instructions included with the EIM for further operating instructions.

NOTICE: *The wireless thermostat must be located no less than two feet and no more than 80 feet from the Equipment Interface Module.*

WARNING! Risk of Shock! *Disconnect 110-120 VAC power supply before installing EIM.*

Wire the EIM as shown in Figure 5.1.

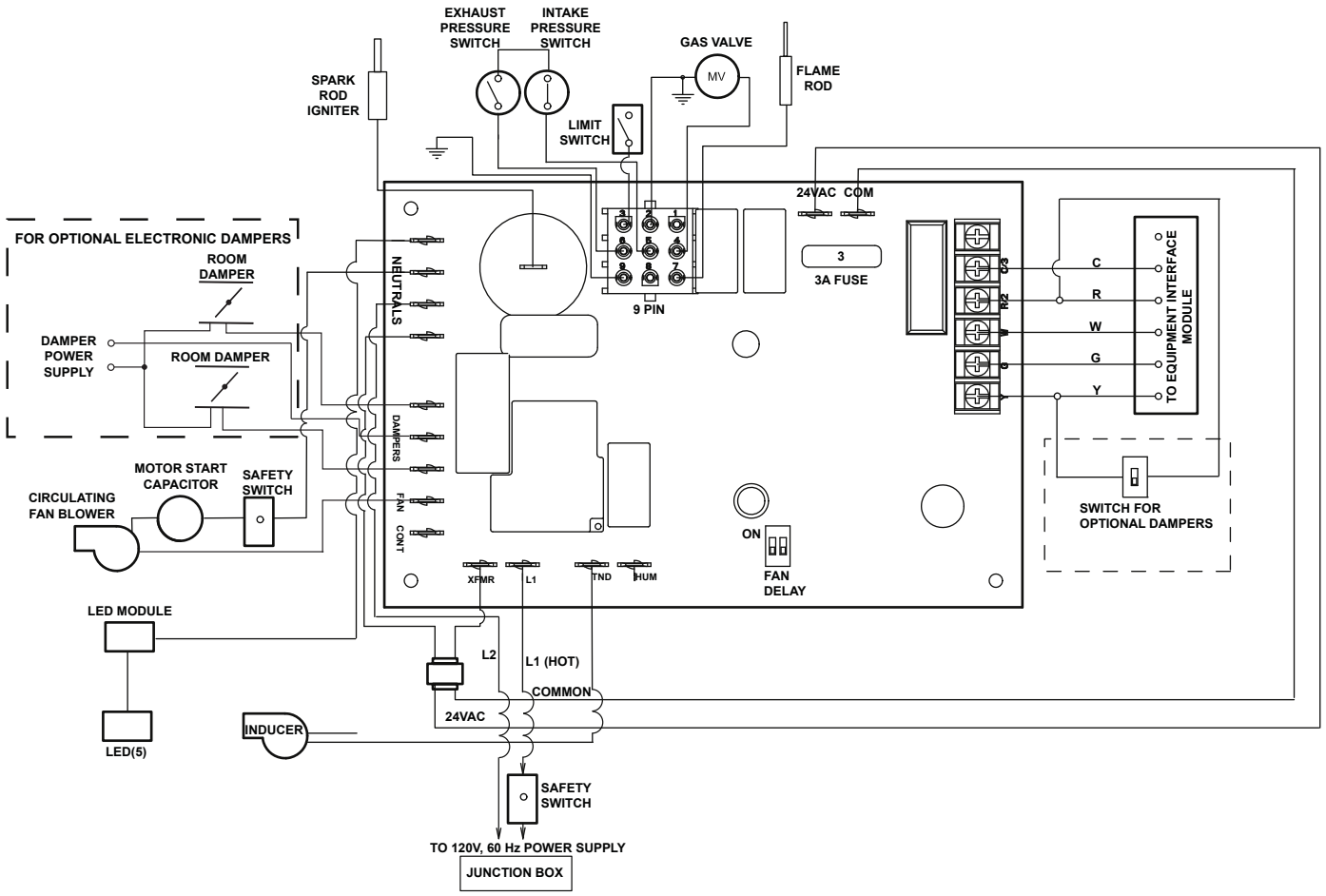
WARNING! Risk of Shock! DO NOT *wire 110V to the Equipment Interface Module. Incorrect wiring will damage EIM.*



WIRE COLOR	MODULE LOCATION
Blue	C
Red	R
White	W
Yellow	Y
Green	G

Figure 5.1. EIM Wiring

WARNING! Risk of Shock! *Label all wires prior to disconnection when servicing controls. Wiring errors can cause improper and dangerous operation. Verify proper operation after servicing.*



TERMINALS		
Pin #	**Thermostat**	**Function**
1	D (Yellow)	Toggle dampers on/off
2	G (Green)	Call for continuous low speed fan
3	W (White)	Call for heat from thermostat
4	R/2 (Red)	24 VAC hot for thermostat
5	C/3 (Blue)	24VAC system common

DAMPERS	
Pin #	**Function**
D1	Damper 1 power
D_IN	24 VAC supply
D2	Damper 2 power

9-PIN	
Pin #	**Function**
1	Not used
2	Gas valve 24 VAC common – Must be wired to appliance chassis for proper flame sense operation.
3	Limit switch input (Common with pin 6)
4	Main gas valve output
5	Pressure switch input
6	Pressure switch output (common with pin 3)
7	Flame sense output
8	Limit switch output
9	Flame sense/chassis ground (24VAC common)

Figure 5.2. Appliance Wiring Diagram

F. Junction Box Installation

To wire the junction box from the **INSIDE** of the appliance:

- Disengage the latch and pull the firebox out. Refer to Section 1.C and 1.D for instructions.
- Remove the screw attaching the junction box/receptacle to the outer shell, rotate the junction box inward to disengage it from the outer shell.
- Pull the electrical wires from outside the appliance through the opening into the valve compartment and secure wires with a Romex connector.
- Make all necessary wire connections to the junction box/receptacle and reattach the junction box/receptacle to the outer shell.

NOTICE: *Hearth & Home Technologies recommends that this appliance be wired on its own circuit with its own circuit breaker.*

This appliance is equipped with an exhaust safety switch that will shut down the appliance in the event of an exhaust hose disconnection. See Figure 5.3. The exhaust safety switch is wired to the supplied junction box to the "FAN" terminals. See Figure 5.4. The power cord from the wire harness is then plugged into the "FAN" slot on the supplied junction box. See Figure 5.5.

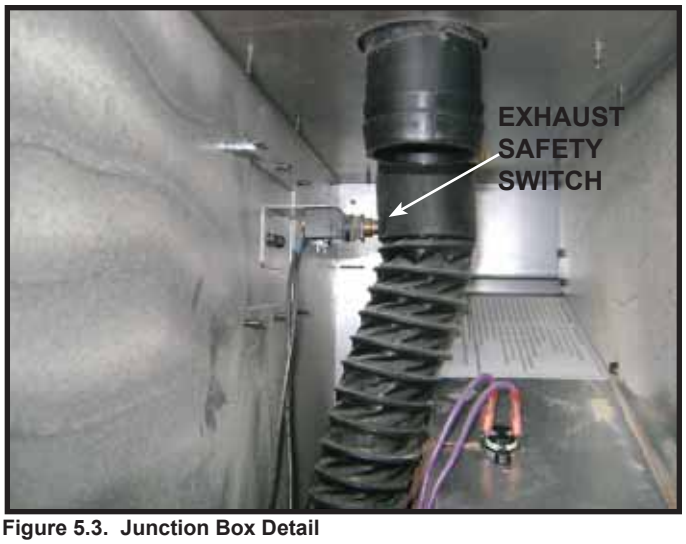


Figure 5.3. Junction Box Detail

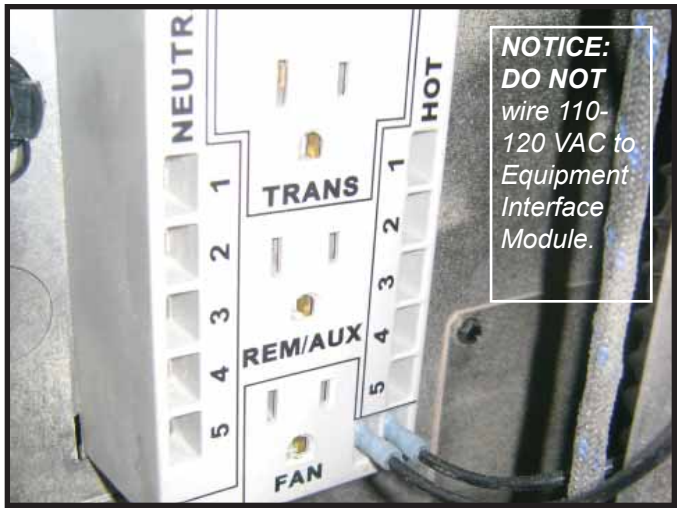


Figure 5.4.

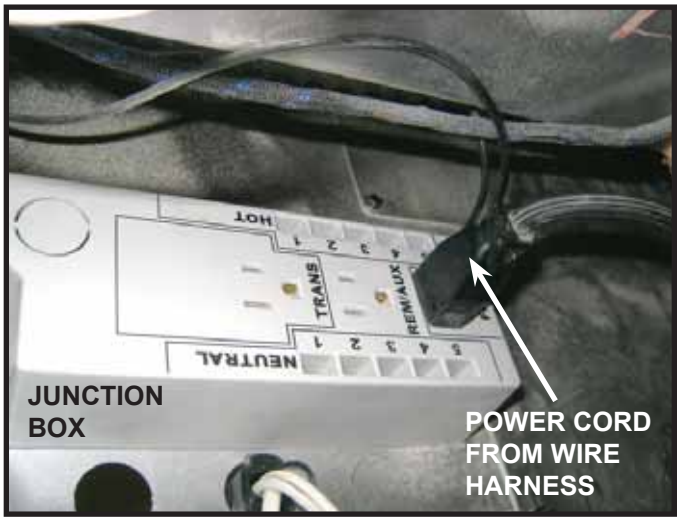


Figure 5.5. Power Cord from Wire Harness Plugged into Junction Box

6 Decorative Components Installation

A. Refractory

CAUTION! Risk of Cuts or Abrasions. *Wear protective gloves and safety glasses during installation.*

NOTICE: *Handle refractory panels with care. Refractory may chip or crack if dropped or impacted.*

KIT COMPONENTS

(1) Left Refractory
(1) Right Refractory
(1) Back Refractory
(1) Top Refractory
(1) Left Refractory Base
(1) Right Refractory Base
(1) Front Refractory Base

INSTALLATION

1. Install back refractory by placing against the back wall of the firebox. See Figure 1.

Figure 1.

2. Install left side refractory by placing the left refractory panel against the side of the firebox and pushing toward the back of the firebox until side refractory contacts back refractory panel. See Figure 2. Ensure side panels contact back panel so that no gaps exist. Follow the same procedure to place the right side refractory panel.

Figure 2.

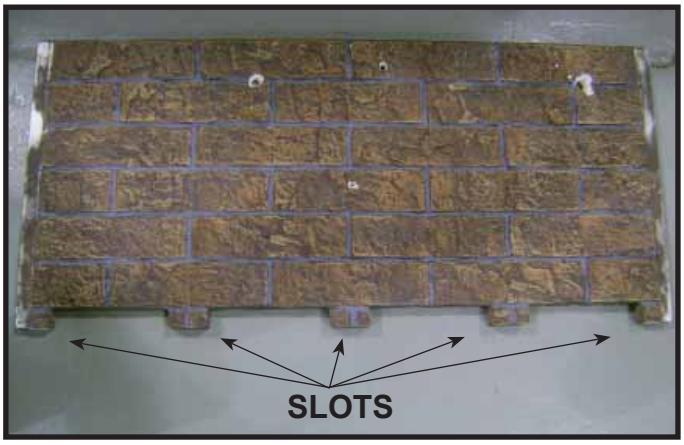


Figure 3. Refractory Tabs

3. Using both hands, hold the top refractory panel with the brick pattern facing down and the slots toward the rear of the firebox. See Figure 3.
4. Insert the top refractory panel into the firebox and lift it toward the top. Keep top refractory panel close to upper firebox lip. This will allow for easier installation due to the wider dimension of the front of the firebox. Slide the top refractory panel in toward the back wall of firebox, maintaining the same angle as the top section of the side panels.

5. Lower the top refractory panel onto the side and back refractory panels. There is a lip on the top panel that allows it to sit on the top edge of the side panels. Push tight against back refractory panel.
6. Installation is complete when top refractory panel is set securely in place. Top refractory panel may need to be pulled down to fit correctly. Chamfers should properly fit together and gaps should be minimized with correct installation. See Figure 4.

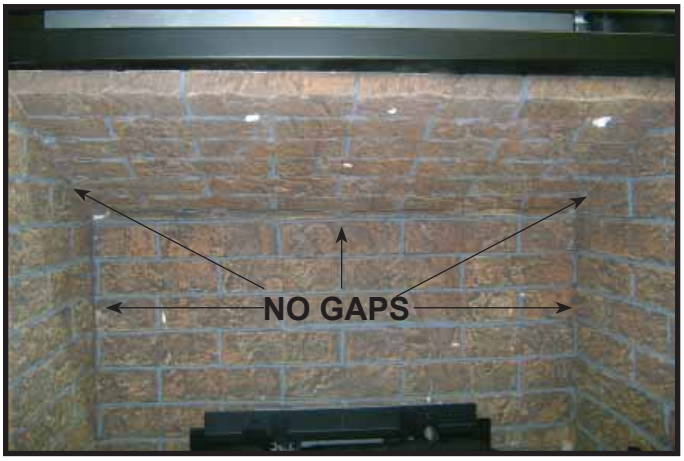


Figure 4.

4. Install left and right base refractory by pivoting and sliding under the grate assembly. Panels will fit flush with the bottom of the firebox. See Figure 5.

Figure 5.

5. Install front base refractory by placing it on the bottom of the firebox. The front edge should be flush with the front of the firebox. See Figure 6.

Figure 6.

2183-936

B. Teco-Sil Placement

1. Pour Teco-Sil between the base refractory and burner as shown in Figure 6.1.

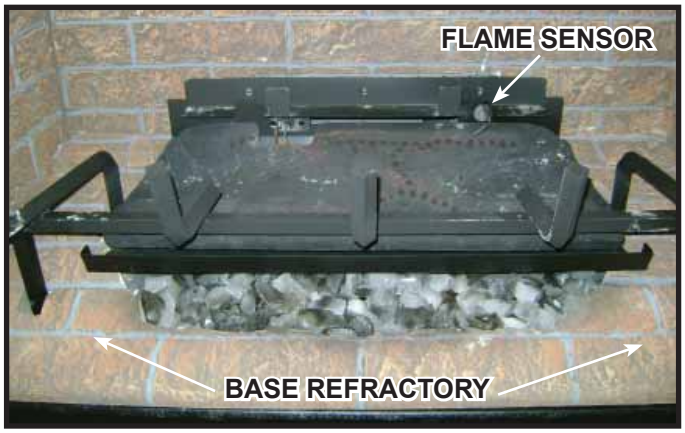


Figure 6.1. Placement of Embers

2. Using a high temperature black paint, fog the Teco-Sil to the desired look. See below for fogging tips.

Fogging Tips

- Apply paint with the ember lights turned on. This will help you avoid over fogging or under fogging. Prior to painting, take precautions to prevent any overspray from reaching the flame sensor. See Figure 6.1.
- Reduce the lighting in the room while applying the paint.
- Fog the Teco-Sil to create a realistic coal bed appearance.

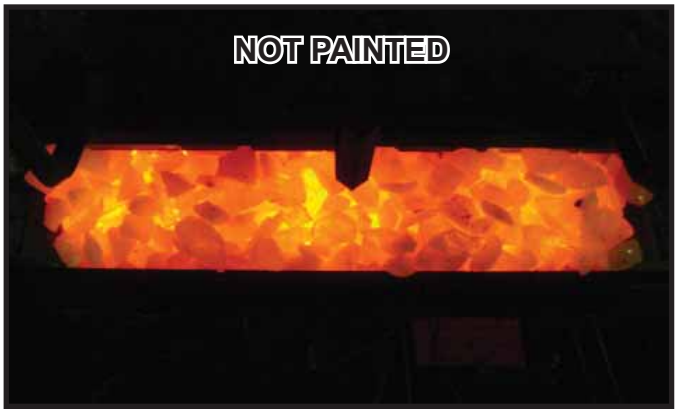


Figure 6.2. Teco-Sil Not Painted

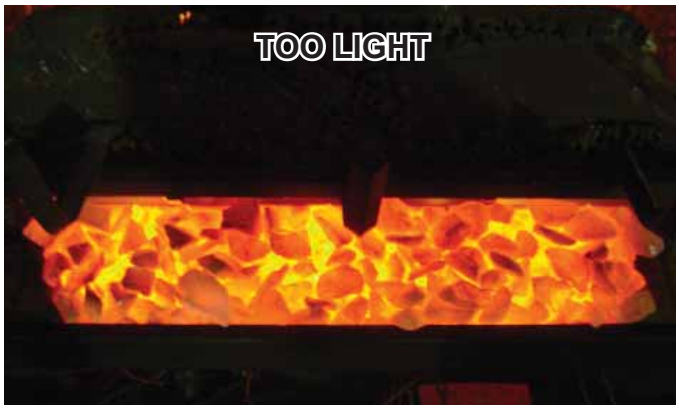


Figure 6.3. Teco-Sil Too Light

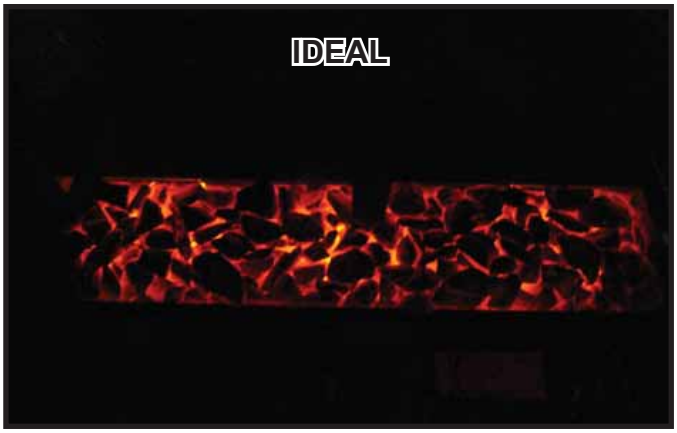


Figure 6.4. Teco-Sil Ideal

C. Ember Placement

WARNING! Risk of Explosion! *Follow ember placement instructions in manual. DO NOT completely block burner ports with ember material. Replace ember material annually. Improperly placed embers interfere with proper burner operation.*

1. Locate the guide sleeves on the burner assembly. See Figure 6.5. Position the fiber burner top on the pins and carefully push burner top into place.
2. Ember material is shipped with this gas appliance. To place the ember material:

- Embers CANNOT completely block burner ports. Care should be taken not to block the lighting trail of ports.
- Embers may only be placed in areas as shown in Figure 6.6.
- **LP Only:** Using dime-size pieces of Glowing Embers®, overlap the burner ports. See Figure 6.7. The impingement created by the embers will help blend the fire.
- Save the remaining ember materials for use during appliance servicing. The embers provided should be enough for 3 to 5 applications.

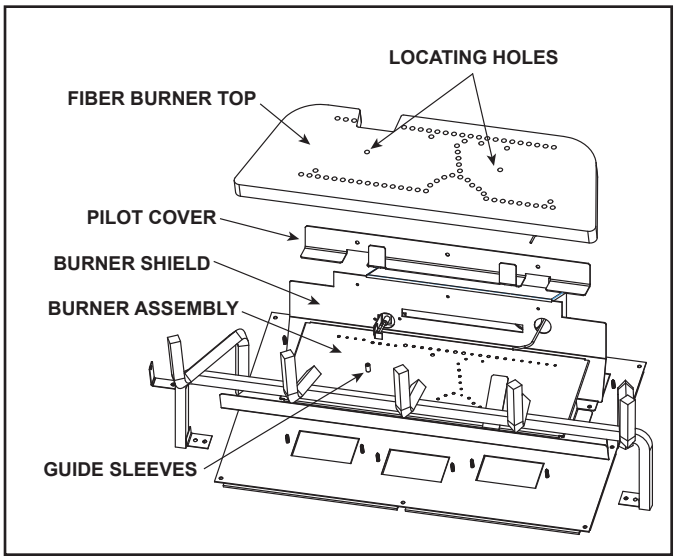


Figure 6.5. Place Fiber Burner Top on Pins

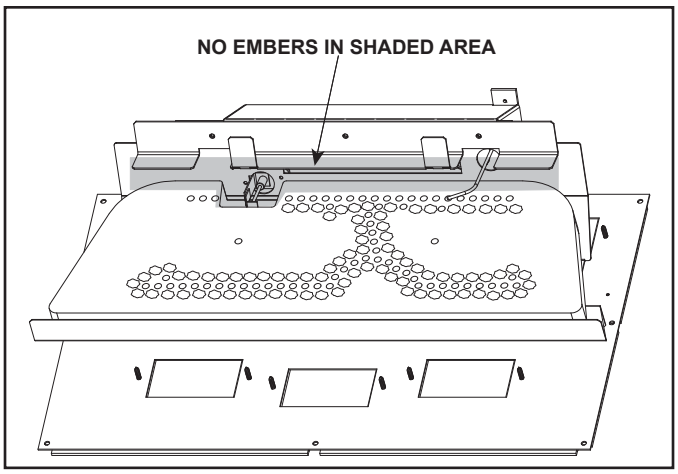


Figure 6.6. Placement of Embers

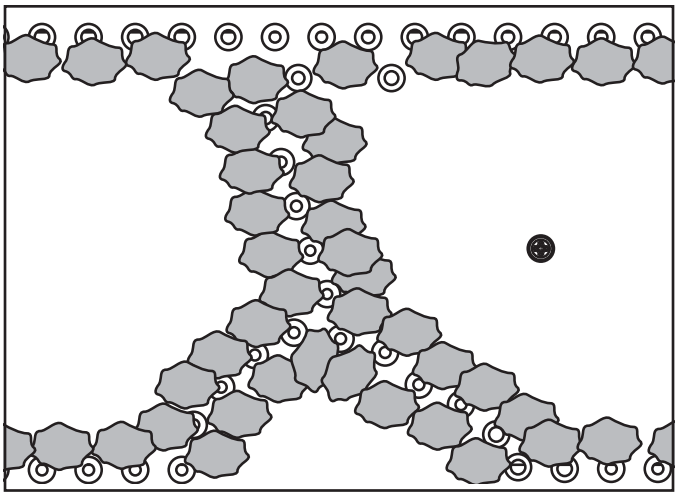


Figure 6.7. Embers Overlapping Burner Port Holes (LP only).

D. Install the Log Assembly

LOG PLACEMENT INSTRUCTIONS

Log Set Assembly: LOGS-6000CLX

Models: 6000CLX-IPI-S, 6000CLX-IPILP-S 6000CLX-IPI-T, 6000CLX-IPILP-T, HE36CLX-S, HE36CLXLP-S

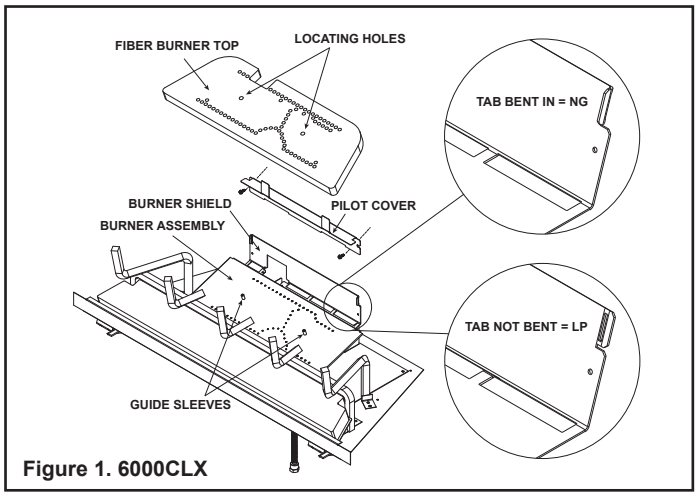


Figure 1. 6000CLX

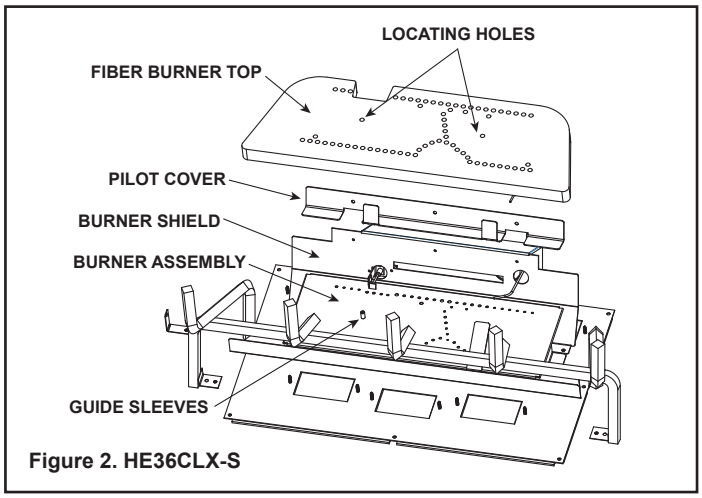


Figure 2. HE36CLX-S

CAUTION: *Logs are fragile, handle with care.* **Log #1 (2166-721)**: Locate log placement tabs on the pilot cover. Bend tabs upward as shown in Figure 3. Tabs should be in a vertical orientation. A pliers may need to be used. Locate the log placements slots on the bottom of Log # 1. See Figure 4. Mate the slots located on the bottom of Log #1 with the placement log tabs on the pilot cover. Log # 1 is properly installed when it sits squarely and completely on pilot cover with tabs engaged. See Figure 5.

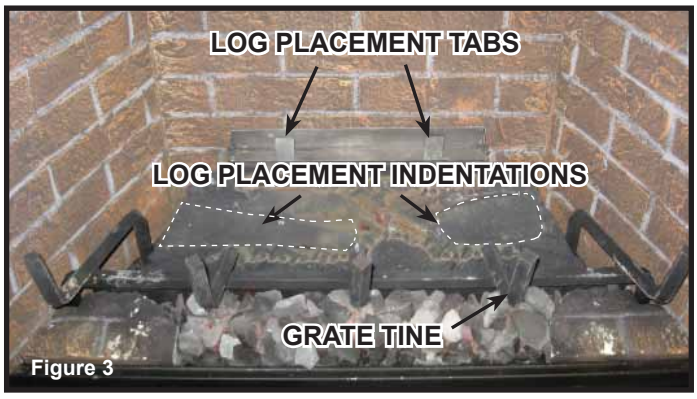


Figure 3

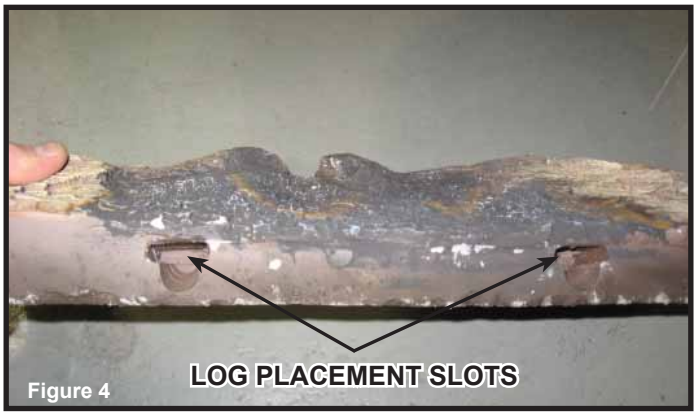


Figure 4

Figure 5 shows the log placement protrusions located on the top of Log # 1. The protrusions will be mated with the grooves located on the bottom of Log #2 and Log #3. See Figure 6. Log #2 and Log #3 also have grooves that allow the logs to be seated properly on the grate. See Figure 6. Hold Log #1 upright while placing Log #2.

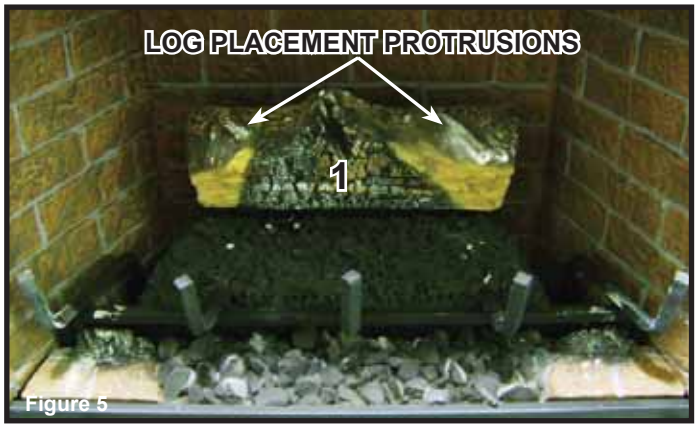


Figure 5

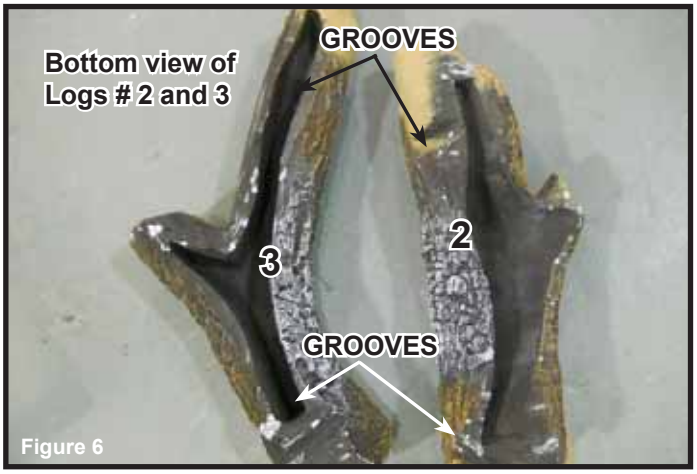


Figure 6

Log #2 (2166-722): Mate the groove located on the bottom of Log #2 with the left protrusion on top of Log #1. After groove and protrusion have been fitted together, mate the groove located on the bottom of Log #2 with the horizontal grate bar and slide Log # 2 toward the left until it rests against the far left grate tine. See Figure 7.

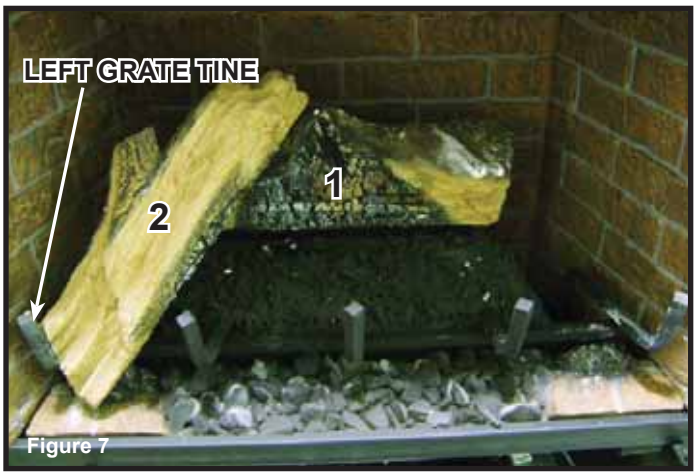


Figure 7

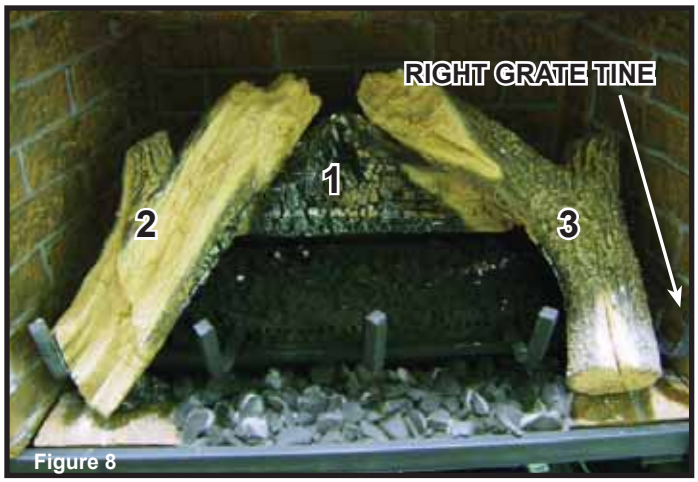


Figure 8

Log #3 (2166-723): Mate the groove located on the bottom of Log #3 with the right log placement protrusion on top of Log #1. After groove and protrusion have been fitted together, mate the groove located on the bottom of Log #3 with the horizontal grate bar and slide Log # 3 toward the right until it rests against the far right grate tine. See Figure 8.

Log #4 (2166-724): Place Log #4 in the left log indentation on the burner top. See Figure 3. Slide Log # 4 from right to left under Log #2 to fit completely and securely into the indentation. See Figure 9. Nose of log #4 should be pulled to fit securely against right hand side of log indentation.

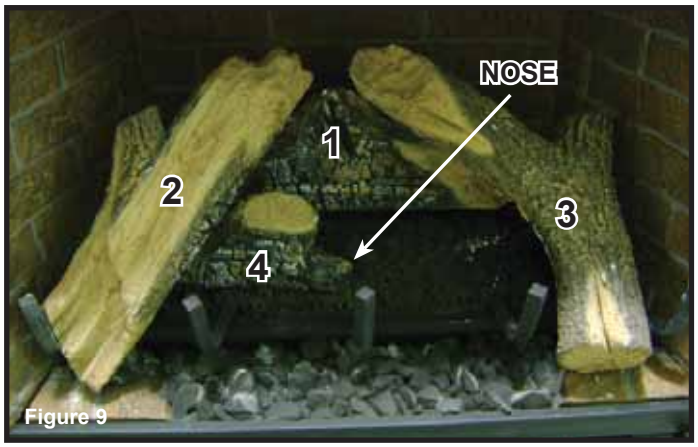


Figure 9

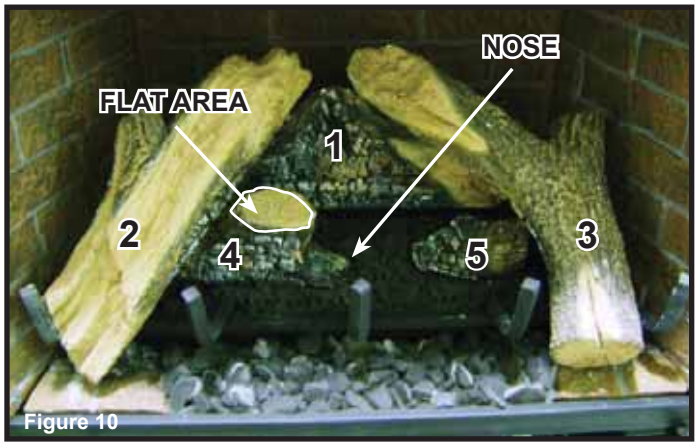


Figure 10

Log #5 (2166-725): Place Log #5 in the right log indentation on the burner top. See Figure 3. Ensure the log fits completely and securely in the recessed indentation. See Figure 10. Log #5 should be pulled to the left hand side of log indentation. Rotate right side of Log #5 toward the back of the indentation.

Log #6 (2166-726): Mate the groove located on the lower end of Log #6 with the fourth grate tine (from left to right) as shown in Figure 11. Set the other end of Log #6 on the flat area located on top of Log #4. See Figure 10. Log #6 will also rest against center grate tine. When properly installed, Log #6 will rest securely on all 3 contact points, not allowing movement or shifting.

Log #7 (2166-727): Place back (unnotched) end of Log #7 on the flat area on the top of Log #5. Log #7 must be pulled tight to the locating notch. Pivot the front (notched) end of Log #7 to the right until the notch of Log #7 contacts the grate tine located 4th from the left as shown in Figure 12.

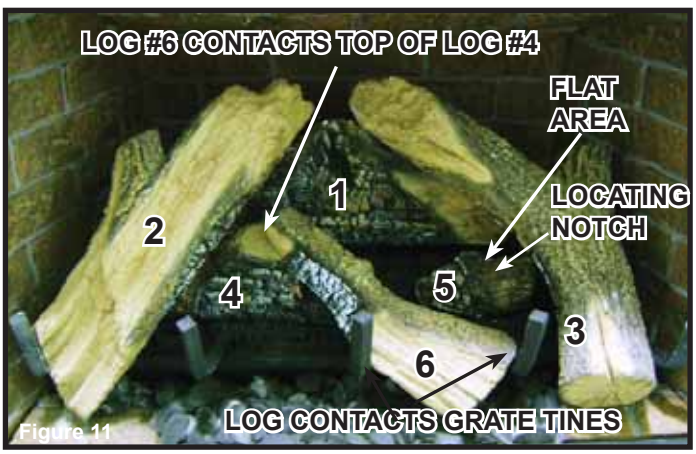


Figure 11

Figure 12

2183-935C

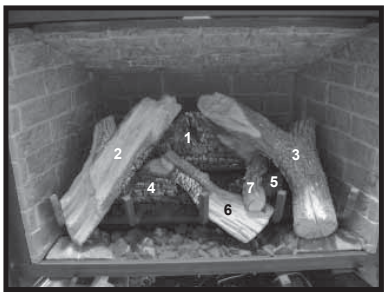
HEAT&GLO™
No one builds a better fire

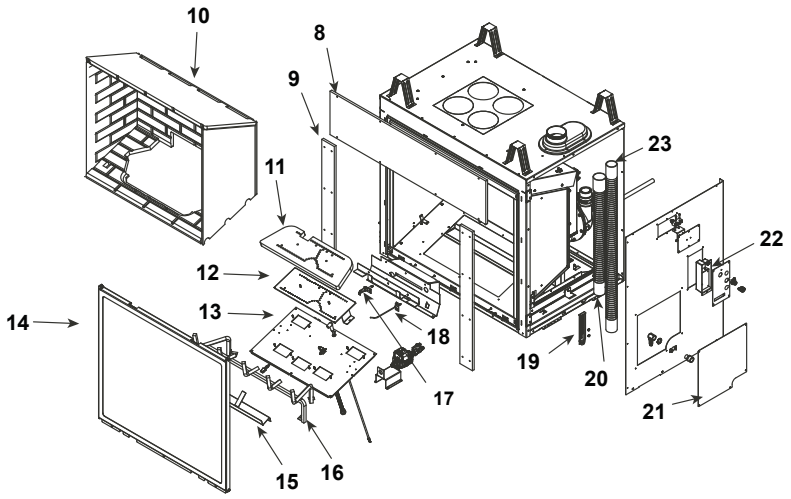
A. Service Parts — HE36CLX-S, HE36CLXLP-S

36" High Efficiency Gas Fireplace - DV

Beginning Manufacturing Date: Dec 2012
Ending Manufacturing Date: Active

Log Set Assembly





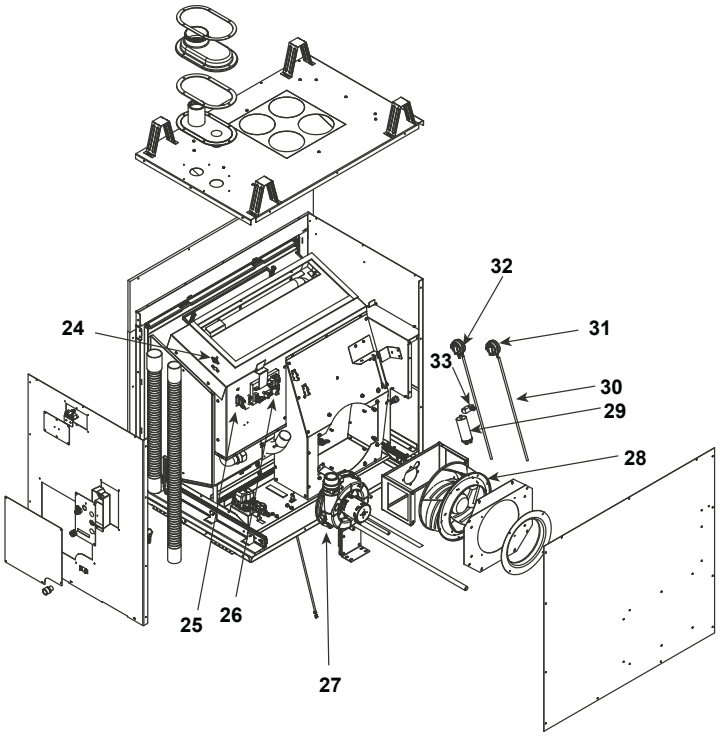
IMPORTANT: THIS IS DATED INFORMATION. Parts must be ordered from a dealer or distributor. **Hearth and Home Technologies does not sell directly to consumers.** Provide model number and serial number when requesting service parts from your dealer or distributor.

ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
	Log Assembly, Pre May 2012 must order complete set		LOGS-6000CLX	Y
1	Log #1		SRV2166-721	
2	Log #2		SRV2166-722	
3	Log #3		SRV2166-723	
4	Log #4		SRV2166-724	
5	Log #5		SRV2166-725	
6	Log #6		SRV2166-726	
7	Log #7		SRV2166-727	
8	Non-combustible board, Top		2183-430	
9	Non-combustible board, side	Qty 2 req	2183-431	
10	Refractory Assembly	**Refer to following page**		
11	Burner Top		SRV2166-100	Y
12	Burner Assembly NG		2183-014	Y
	Burner Assembly LP		2183-022	Y
13	Valve Asembly	**Refer to following page**		
14	Glass Assembly		GLA-HE36	Y
15	Burner Front Plate		2183-120	
16	Grate Assembly		2183-181	
17	Igniter		2183-401	Y
18	Flame Sensor		2183-403	Y
19	Firebox Support Assembly	Qty 2 req	2183-028	
20	Flexible Exhaust Tube		2183-146	
21	Pump Access Panel		2183-144	
22	Junction box		4021-013	Y
23	Flexible Intake Tube		2183-145	

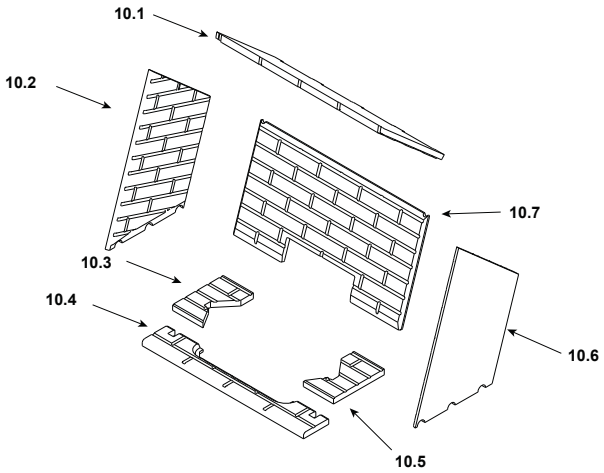
Additional service part numbers on following page.

10/14

Back Assembly



#10 Refractory Assembly



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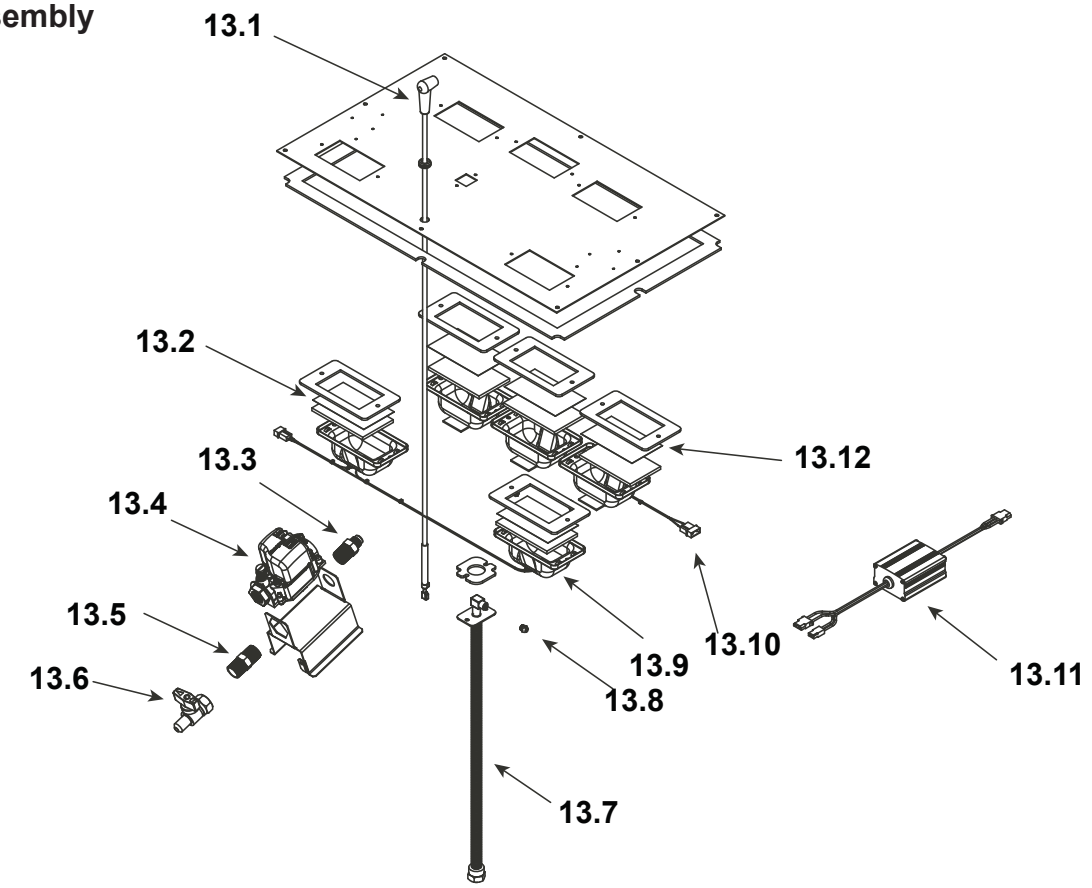
ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
24	Temp Disk		2183-326	Y
25	Transformer		2183-405	Y
26	Control Board		2183-400	Y
27	Blower Condensate Assembly		2183-080	
28	Convection Blower		2183-330	
29	Capacitor		2183-325	Y
30	Vacuum Switch Tube	Qty 2 req	2183-369	Y
31	Vacuum Switch, 4"		2183-420	Y
32	Vacuum Switch, .35"		2183-421	Y
33	Limit Switch, Convection Blower		2183-406	Y
10	Refractory Assembly		SRVHE36REF-STRT	
10.1	Refractory, Top		SRV2183-716	
10.2	Refractory, Left		SRV2183-713	
10.3	Refractory, Left Base		SRV2183-711	
10.4	Refractory, Front Base		SRV2183-710	
10.5	Refractory, Right Base		SRV2183-712	
10.6	Refractory, Side Right		SRV2183-714	
10.7	Refractory, Back		SRV2183-715	

Additional service part numbers on following page.

#13 Valve Assembly



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ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
13.1	Ignition Cable, 36"		2183-402	Y
13.2	Kapton Lens, Light Orange	Qty 2 req	2166-171	Y
13.3	Male Connector		302-315	
13.4	Valve, NG		2183-425	Y
	Valve, LP		2183-301	Y
13.5	Male Connector, 1/2"		2183-307	
13.6	Gas Ball Valve		15697	Y
13.7	Flex, 18"		530-302A	Y
13.8	Orifice, NG (#33C)		582-833	Y
	Orifice, LP (#50C)		582-850	Y
13.9	3-Gang LED Assembly		2166-316	Y
13.10	2-Gang LED Assembly		2166-315	Y
13.11	LED Controller		2166-336	Y
13.12	Led Glass	Qty 5 req	2166-163	Y
13.13	Kapton Lens, Dark Orange	Qty 3 req	2166-184	Y

Additional service part numbers on following page.

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ITEM	DESCRIPTION	COMMENTS	PART NUMBER	Stocked at Depot
	Air Shutter Burner Tube		2052-157	
	Equipment Interface		2183-410	
	Gasket Assembly Contains: Vent, Burner Neck, Valve, LED, and Adjustable Air Shutter Gaskets		2183-055	
	Mineral Wool		050-721	
	Nut, 1/4-20 Hex Insert		7000-236	
	Teco-sil, 5 lb Bag		700-790	
	Touch Up Paint		TUP-GBK-12	
	Touch Up Paint, Logs	Black	SRV999-404	
		Brown	SRV999-403	
		Split	SRV999-472	
	Wire Harness		2183-175	**Y**
	Wireless Thermostat		2183-415	
	Conversion Kit NG		NGK-HE36CLX	**Y**
	Conversion Kit LP		LPK-HE36CLX	**Y**

B. Contact Information

HEAT&GLO

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Heat & Glo, a brand of Hearth & Home Technologies
7571 215th Street West, Lakeville, MN 55044
www.heatnglo.com

Please contact your Heat & Glo dealer with any questions or concerns.
For the location of your nearest Heat & Glo dealer,
please visit www.heatnglo.com.