

COMPONENT DEFINITIONS

Air Wash

To inhibit buildup of soot on the door glass, air is delivered to the glass through an air wash system located in the doorframe surrounding the glass.

Auger

It transfers the fuel from the hopper to the feed chute to deliver pellets to the UltraGrate™.

Auger Motor

Drives the Auger. Motor specifications are: .4 Amp, 1.1 RPM (revolutions per minute).

Blower, Room Air (Convection)

The blower function is to transfer the heat from the appliance to heat the room air.

Blower, Exhaust (Draft Inducer/combustion)

It has a radial impeller to deliver more air to the UltraGrate™. It pulls air into the UltraGrate by creating a negative pressure. This is done by extracting the exhaust gases out of the firebox and pushing the exhaust downstream to the flue exit.

Thermal Switch, High Limit (L250-30F, N/C)

There are 2 of these thermal switches on this model. If a temperature reaches 250° F., the high limit auto reset will "trip" and stop the flow of electricity to the auger motor. The thermal switches will not automatically reset until it has cooled below 220° F).

Thermal Switch for Room Air Blower – This thermal switch is located on the room air blower jacket and is designed to detect an overfire condition.

Thermal Switch for Combustion Air Inlet

– This thermal switch is located on the combustion air inlet and is designed to detect reversed flow. If negative pressure in the dwelling (i.e. An extremely tight house which may not supply adequate combustion and ventilation air) causes the exhaust to pull back from the combustion air inlet, the heat from the exhaust will result in heat activation of this thermal switch.

Door Switch

(Profile® 30 FS-2 and Profile 30 INS-2)

If the door is opened during operation (on model Profile 30 FS-2 and Profile 30 INS-2), this switch disconnects power to the auger motor resulting in the unit shutting down.

Hopper

The hopper is where the pellets are stored.

Heat Select Button

This is the heat output control button. It controls power to the feed system - auger motor and exhaust blower. Use the heat select button to adjust to any of the three feed rate settings (which controls the burn rate).

Photoeye

The photoelectric eye that senses the flame, or lack of. It is designed to signal the control board to discontinue power to the auger motor if it flame is not sensed in the UltraGrate.

Pressure Switch

A safety device used to shut off the feed system (auger motor) if there is too much back pressure in venting system. Some possible causes are as follows:

- The venting system is obstructed.
- High altitude or other misc. environmental conditions affecting exhaust flow.
- Improper venting system.

UltraGrate (Burn Grate)

This is where combustion occurs and may be referred to as the "Burn Grate".

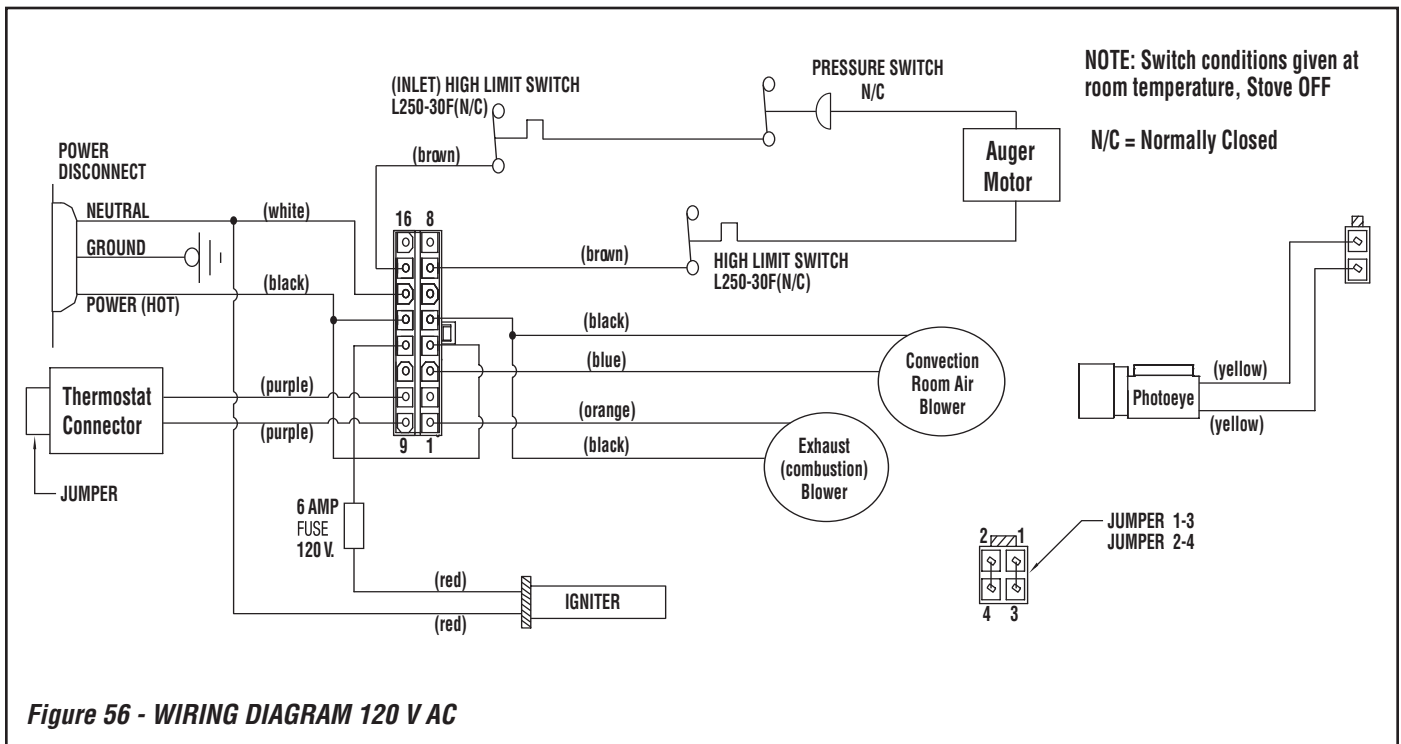


Figure 56 - WIRING DIAGRAM 120 V AC

* N/C = Normally Closed Switch
N/O = Normally Open Switch

TROUBLESHOOTING

QUALIFIED TECHNICIANS ONLY

Unplug Appliance Before Performing Any Troubleshooting or Maintenance

PROBLEM	CAUSE(S)	SOLUTIONS
1. Fire burns with a lazy orange flame. Pellets build up in the grate and there is excessive glass soot that is difficult to remove (Ash and soot are a product of combustion with any wood products, so some build-up on the glass is normal).	A) There is insufficient combustion air.	<p>A₁) Lack of maintenance (clean UltraGrate™, clean-out ports, exhaust flow passages, venting system, exhaust blower intake, etc.</p> <ul style="list-style-type: none"> Remove any clinkers or ash from the bottom of the UltraGrate that might be obstructing the primary air holes. Check that the heat exchange tubes are not coated with ash. Clean internal exhaust ducts. Check gasket seal around the door. Use a thin strip of paper, 1 in. wide. Open the door and close it on the paper strip. A slight friction should be felt when the paper strip is pulled. Repeat this process at various locations around the door gasket. Replace the door gasket if necessary. Check for blockage in the air inlet tube or exhaust pipe. Clean as Necessary. Inspect glass seal to ensure that it is in good condition and is properly seated to the door. <p>A₂) Fuel trim may need to be adjusted down for faster feeding fuels.</p> <p>A₃) Change to a better grade of fuel if necessary. Check that the damper has been opened enough for the amount of fuel fed.</p> <p>A₄) Have Your Authorized Lennox Hearth Products dealer check your exhaust blower for proper operation.</p> <p>A₅) The venting system design is too restrictive (call your authorized Lennox Hearth Products Technician to evaluate how the installation can be corrected to satisfy the exhaust flow requirements of the appliance).</p>
2. Fire goes out or stove shuts down automatically	<p>A) Stove has run out of fuel.</p> <p>B) Pellets are not feeding.</p> <p>C) The high limit temperature switch has tripped.</p> <p>D) There is too much combustion air for the amount of fuel.</p>	<p>A) Refill hopper.</p> <p>B) See (Pellets will not feed) this Page.</p> <p>C) Allow the appliance to cool for 1 hour, then re-light. If the stove has been operating at a medium to high burn rate with the room air blower adjusted to low, there may not be enough air flow to dissipate the heat. On higher feed rates, adjust the blower speed to a higher setting. If this problem persists (particularly at lower burn rates) then the high limit thermal switch may need to be replaced by your authorized dealer.</p> <p>D) Adjust the damper to reduce combustion air flow.</p>
3. Pellets will not feed.	<p>A) The hopper is empty.</p> <p>B) The auger motor or control board may be defective. The pressure switch tap or hose may be blocked.</p> <p>C) Back pressure in venting tripping pressure switch.</p> <p>D) Thermostat is in stand-by mode.</p> <p>E) Thermostat wires disconnected.</p> <p>F) High limit thermal switch may have been tripped.</p> <p>G) Door switch not engaged, stopping pellet feed (Profile® 30 FS-2 and Profile 30 INS-2).</p> <p>H) Self-aligning bearings in auger motor may be misaligned.</p>	<p>A). Refill hopper.</p> <p>B). Check to be sure that there is no blockage in the pressure tap or hose. Have your authorized Lennox Hearth Products dealer diagnose the problem and clean or replace any necessary parts.</p> <p>C). If new installation check for excessive 90° bends, long horizontal runs or excessive vertical run of 3" pipe. Possibly change to 4" pipe. If older installation check for excessive ash accumulation in pipe or other obstructions. Clean out pipe.</p> <p>D). Check to see if thermostat is set to low or if sun is shining directly on thermostat.</p> <p>E). Reinstall wires.</p> <p>F). Allow stove to cool. Increase room air blower setting.</p> <p>G). Have dealer check operation to determine if adjustment or replacement is necessary.</p> <p>H). Gently tap the auger motor.</p>

TROUBLESHOOTING

QUALIFIED TECHNICIANS ONLY

Unplug Appliance Before Performing Any Troubleshooting or Maintenance

PROBLEM	CAUSE(S)	SOLUTIONS
4. Blowers will not operate when the ON/OFF start button is depressed.	<p>A) There is no power to the stove.</p> <p>B) There is no power to the control board.</p>	<p>A) Check that the stove is plugged in to the wall outlet.</p> <p>B₁) Check if the house circuit breaker has tripped.</p> <p>B₂) Check the wire connections on the high limit thermal switch and control board.</p>
5. There is soot or fly ash in the house.	<p>A) The window is being cleaned when the stove is operating.</p> <p>B) There is leakage at the joints between the exhaust blower, connection or exhaust pipe connections. This will be evidenced by dust on the impeller of the room air blower, and in the heat exchanger area.</p> <p>C) The vacuum cleaner is leaking.</p>	<p>A) Turn down the room air blower or turn off stove before cleaning to prevent dispersion of ash and soot into the room.</p> <p>B) Seal up any leaks in the exhaust system with room temperature vulcanizing high temperature silicone sealer (RTV).</p> <p>C) DO NOT use a standard household vacuum or "shop vac" as the filters will leak the fine particles of ash. Clean the stove with an approved ash vacuum ONLY.</p>
6. Stove acts as if a fire is present when there is not a fire in the grate.	A) Excessive sun light may be shining directly into firebox from window.	A) Block excessive sunlight. Call authorized Lennox Hearth Products dealer if problem persists.
7. Stove will not light.	<p>A) The igniter element may have failed.</p> <p>B) There is not enough pellets in the UltraGrate.</p>	<p>A) Check igniter element fuse in rear stove compartment. Call your authorized Lennox Hearth Products dealer. See <i>Lighting Procedure Without Igniter, Page 21</i>.</p> <p>B) Prime the feed system (see <i>Initial Start-Up, Page 20</i>).</p>
8. Fault	<p>A) Photoeye not detecting flame.</p> <p>B) Stove has run out of fuel.</p> <p>C) A disk has tripped / pressure switch.</p> <p>D) Door switch not engaged, stopping pellet feed (Profile® 30 FS-2 and Profile 30 INS-2).</p>	<p>A) Check connection at control board following yellow wires to all connectors. Inspect and clean photoeye filter, if necessary.</p> <p>B) Refill hopper.</p> <p>C) Blower intake, exhaust passages and / or venting system needs cleaning (follow routine and annual maintenance procedures).</p> <p>D₁) Have dealer check operation to determine if adjustment or replacement is necessary.</p> <p>D₂) If this does not correct the problem contact your local authorized Lennox Hearth Products dealer.</p>
9. Blowers run continuously	A) Wire harness and/or control board has been damaged – unplug stove and contact dealer.	A) Contact your local authorized Lennox Hearth Products dealer.
10. All lights on control are on but nothing happens	<p>A) When using a thermostat. Thermostat not calling for heat.</p> <p>B) If not using a thermostat - Check thermostat jumper</p>	<p>A) The lights on the control board remain on even when the thermostat is not demanding heat. When the thermostat demands heat the stove will begin to operate.</p> <p>B) Ensure that the thermostat jumper at terminal block is installed and making good contact.</p>

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE

REPLACEMENT PARTS LIST

DOOR PARTS AND BODY COMPONENTS

Item	Part No. / Cat. No.	Description	Stove Model
	13640075	Clip Kit, Glass Bottom	Profile® 20 FS-2
	13640086	Clip Kit, Glass Right and Left Side	Profile 20 FS-2
	14750264	Clip Kit, Glass Top Bottom (Doors w/ 3pc glass)	Profile 30 FS-2 & INS-2
	13640085	Clip Kit, Glass Top	Profile 20 FS-2
1	H3752	Door Assembly, Firebox (with 3 Piece Glass)	Profile 20 FS-2
2	H0297	Door Assembly, Firebox, DK-P30 (with 3 Piece Glass)	Profile 30 FS-2 & INS-2
	26M81	Gasket, Door, 3/4" Rope, (8 Feet)	Profile 20 FS-2
	61051000	Gasket, Door, 1" Rope, (7 Feet)	Profile 30 FS-2 & Profile 30 INS-2
	61057202	Gasket Kit, Glass (10 Feet)	All
	H0257	• Glass, Center	Profile 20 FS-2
	H0258	• Glass, Side (order 2 if set is needed)	Profile 20 FS-2
	H0254	• Glass, Center	Profile 30 FS-2 & Profile 30 INS-2
	H0255	• Glass, Side (order 2 if set is needed)	Profile 30 FS-2 & Profile 30 INS-2
3	17250095	Handle Assembly, Door	Profile 20 FS-2
4	17150095	Handle Assembly, Door	Profile 30 FS-2 & Profile 30 INS-2
5	14650047	Hinge Bracket, Door	Profile 20 FS-2
6	14750021	Hinge Bracket, Door	Profile 30 FS-2 & Profile 30 INS-2
	13740005	Bracket, Hopper Lid Support	Profile 30 FS-2
	11950068	Bracket, Hopper Lid Support	Profile 20 FS-2
7	14650003	Panel, Left Side	Profile 20 FS-2
8	14650004	Panel, Right Side	Profile 20 FS-2
9	14750070	Panel, Left Side	Profile 30 FS-2
10	14750075	Panel, Right Side	Profile 30 FS-2
11	14650048	Panel, Rear	Profile 20 FS-2
12	14750150	Panel, Rear (2 piece)	Profile 30 FS-2
13	14750340	Panel, Left Side	Profile 30 INS-2
14	14750345	Panel, Right Side	Profile 30 INS-2
15	14750300	Panel, Top	Profile 30 INS-2
16	14650012	Panel, Top	Profile 20 FS-2
16	14750060	Panel, Top	Profile 30 FS-2
17	14750186	Pedestal Assembly	Profile 30 FS-2
	14655000	Pedestal Assembly	Profile 20 FS-2
	12051409	Knob, Control Panel Door (6 per package w/studs)	All

• Includes gasket.

ELECTRICAL PARTS

Item	Part No. / Cat. No.	Description	Stove Model
18	12046300	Auger Motor	All
43	12050011	Blower, Exhaust (complete)	All
	12056011	Blower Motor Only, Exhaust	All
44	12146109	* Blower, Room Air, Hard Washer	All
19	16053941	Control Board	Profile 20 FS-2
19	16052112	Control Board	Profile 30 FS-2 & Profile 30 INS-2
20	12147705	Thermal Switch, High Limit, 250 DG (L250-30F,60T21) Set of 3	All

REPLACEMENT PARTS LIST

ELECTRICAL PARTS

Item	Part No. / Cat. No.	Description	Stove Model
	18150150	Fuse, Control Board, 5 Amp, 250 volt, Fast blow, 12pk.	All
21	12150213	Igniter Assembly, Replacement, 380 Watts, 3.3 Amp.'s, 1 each(includes fuse holder w/fuse)	All
22	14750404	Photoeye Kit, Replacement	All
24	12058820	Power Cord, 8 feet	All
26	16050001	Pressure Switch	All
28	13050002	Switch, Door (3 per pkg.)	Profile® 30 FS-2 & INS-2
25	16050205	Thermostat, Wall, Honeywell (Thermostat Wire, P/N H3457, is not included)	All
27	12050815	Wiring Harness	All
	H3457	Wire, Thermostat, 20' coil - 18 gage (16020204)	All

FIREBOX PARTS

Item	Part No. / Cat. No.	Description	Stove Model
	13650046	Baffle, Heat Exchange	Profile® 20 FS-2
29	13640028	Clips, Brick	Profile 20 FS-2
30	11750011	Clips, Brick	Profile 30 FS-2 & INS-2
31	14650011	Firebrick Set	Profile 20 FS-2
32	14750015	Firebrick Set	Profile 30 FS-2 & INS-2
33	12051263	UltraGrate	All

AUGER SYSTEM COMPONENTS

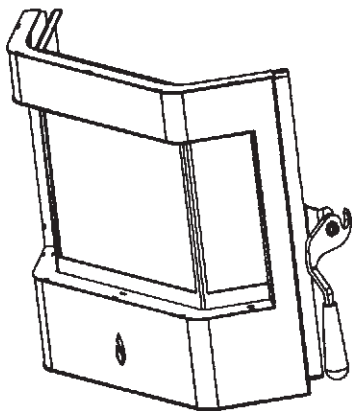
Item	Part No. / Cat. No.	Description	Stove Model
37	11756300	Auger Shaft Kit	All
35	12041300	Collar and Screw Set, Auger (3 per pkg.)	All
36	17250241	End Plate, Auger (flange) (w/nylatron bushing)	All

MISC.

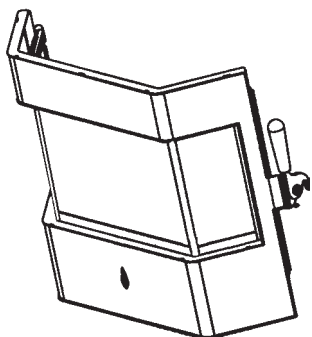
Item	Part No. / Cat. No.	Description	Stove Model
	14750306	Ashpan, Center, Left and Right, Profile 30 INS-2	Profile 30 INS-2
	14751189	Ashpan, Profile 30 FS-2	Profile 30 FS-2
38	12050004	Brush, Cleaning (for exchange tubes)	Profile 30 FS-2 & INS-2
	12021101	Bushing, Nyatron 1/2"	All
	12151306	Damper Rod Kit (includes 1/4" rod, handle and set collar)	Profile 20 FS-2 & Profile 30 FS-2
39	61050003	Gasket, Auger Flange, 5 per pkg..	All
40	61050005	Gasket, Exhaust Blower, Fan Mount, 5 per pkg.	All
41	61057203	Gasket, Room Air Blower, 5 per pkg.	All
	61050041	Gasket, Exhaust Blower, Tear Down, 5 per pkg.	All
42	61050016	Gasket, Quick Disconnect, 5 per pkg..	All
	13656003	Hose, Pressure Switch, 19" (may need to be cut to size) - 3 per pkg.	All
	17100034	Plate, Ash Clean-Out, Left	Profile 30 FS-2 & INS-2
	17100035	Plate, Ash Clean-Out, Right	Profile 30 FS-2 & INS-2
	14750014	Scraper Rod Kit, Replacement (Fits - Profile Series, Free-Standing and Insert)	All
	14650015	Trim Kit, Standard, Met. Black, Replacement (louvers)	Profile 20 FS-2
	14750055	Trim Kit, Standard, Met. Black, Replacement (louvers)	Profile 30 FS-2 & INS-2
45	12055500	Tool, Grate Scraper	All
46	12050093	Quick Disconnect 3" Vent Side	All

REPLACEMENT PARTS DIAGRAMS

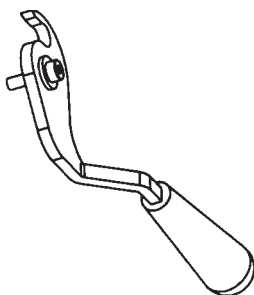
1



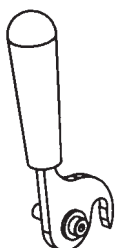
2



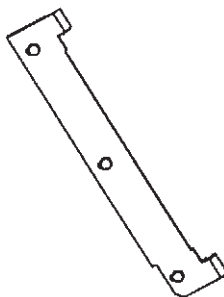
3



4



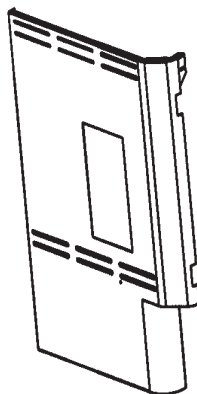
5



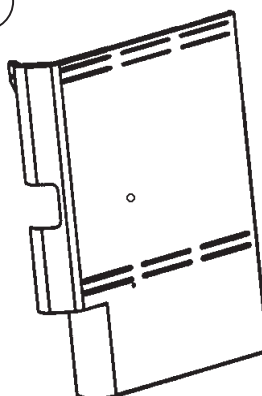
6



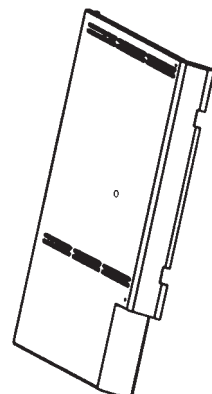
7



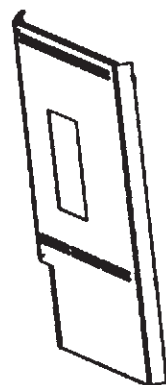
8



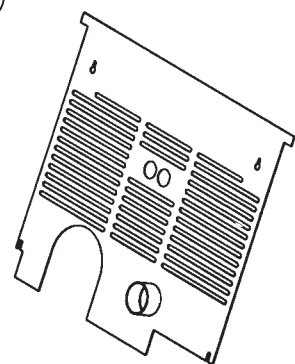
9



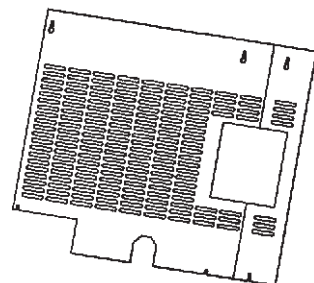
10



11



12



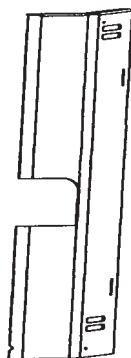
NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE

REPLACEMENT PARTS DIAGRAMS

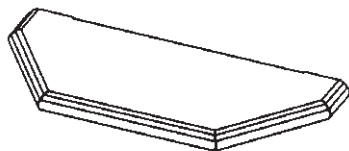
13



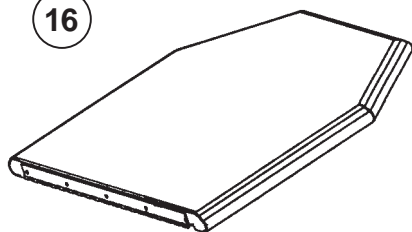
14



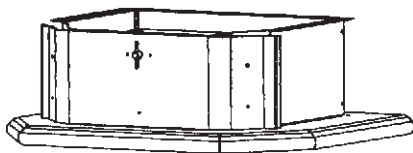
15



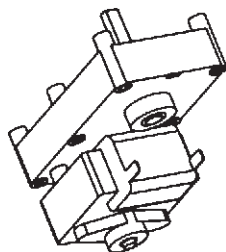
16



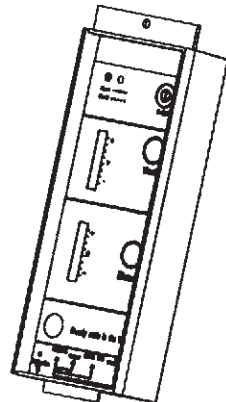
17



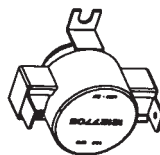
18



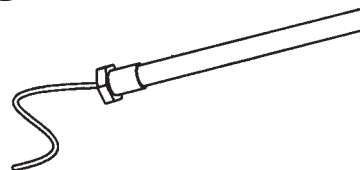
19



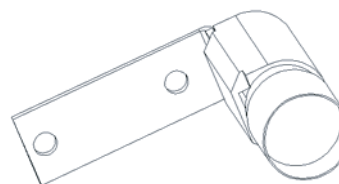
20



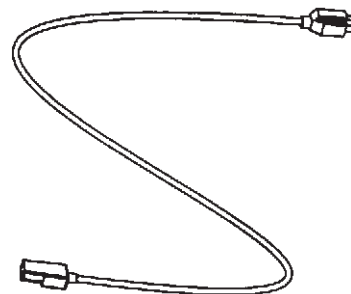
21



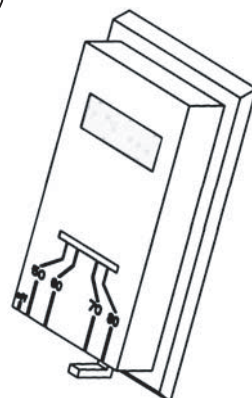
22



24

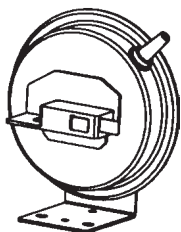


25

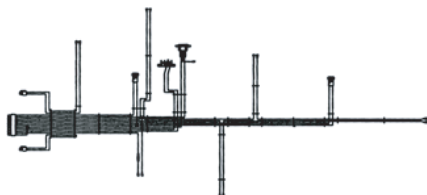


REPLACEMENT PARTS DIAGRAMS

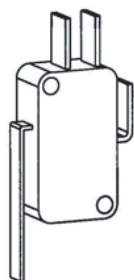
26



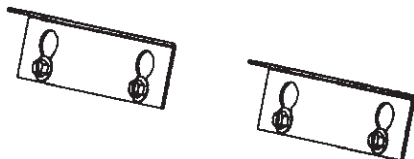
27



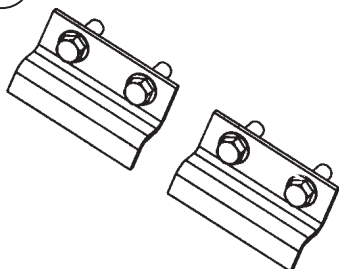
28



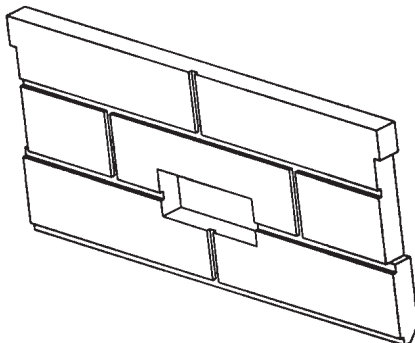
29



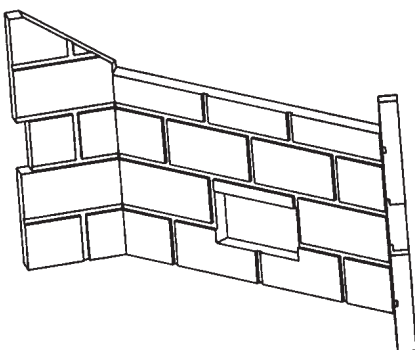
30



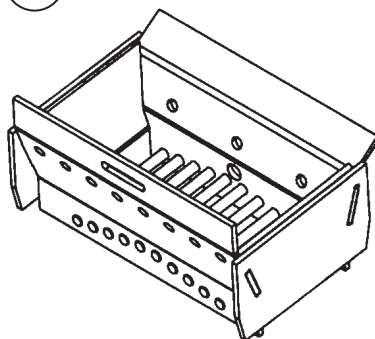
31



32



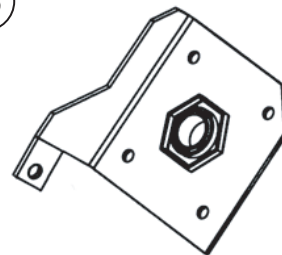
33



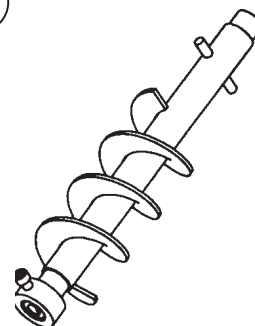
35



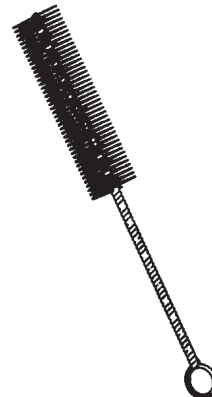
36



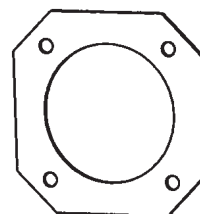
37



38

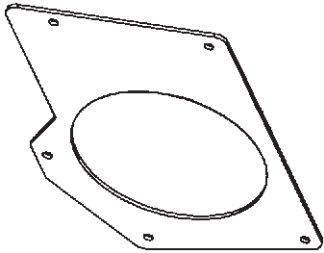


39

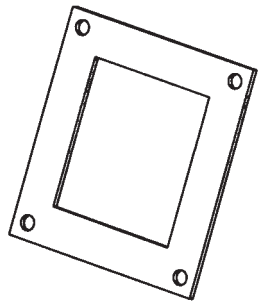


REPLACEMENT PARTS DIAGRAMS

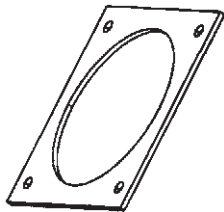
40



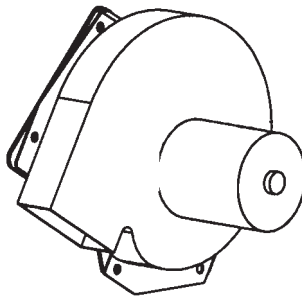
41



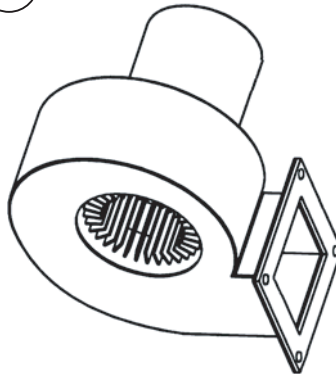
42



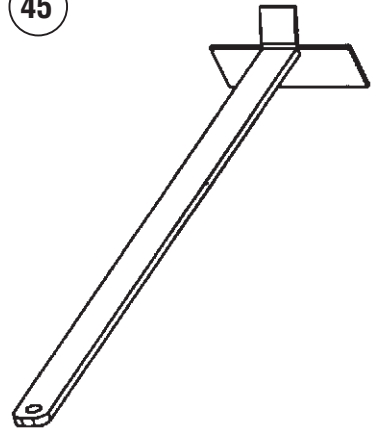
43



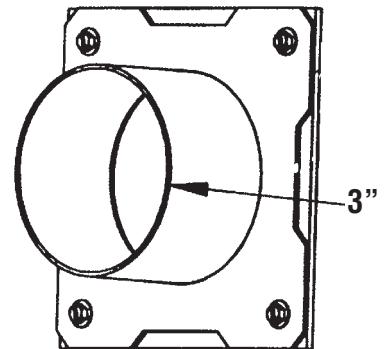
44



45



46

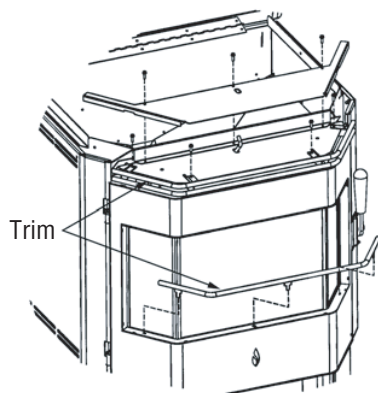


OPTIONAL ACCESSORIES

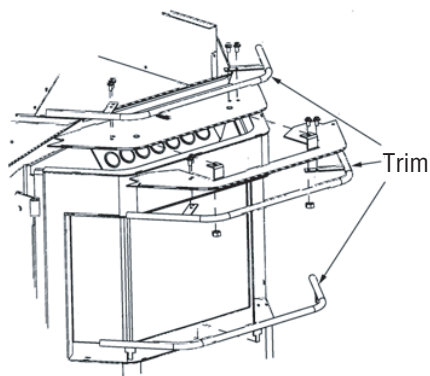
Item #	Part #	Model	Description	Stove Model
1	14 m46	TKP2-G	Trim Kit, Gold	Profile® 20 FS-2
1	14 m47	TKP2-N	Trim Kit, Nickel	Profile 20 FS-2
1	14 m49	TKP3-G	Trim Kit, Gold	Profile 30 FS-2 & INS-2
1	14 m50	TKP3-N	Trim Kit, Nickel	Profile 30 FS-2 & INS-2
2	14 m81	QDPC-4	Quick Disconnect Pipe Connector, 4" *	All
	70K99	TSPK-B	Touch-up Spray Paint Kit, Black	All
3	14 m52	SKSP3	Surround Kit, Small, 28-1/2" x 40-3/4", Black	Profile 30 INS-2
3	14 m53	SKMP3	Surround Kit, Medium, 32" x 44", Black	Profile 30 INS-2
3	14 m54	SKLP3	Surround Kit, Large, 36" x 48", Black	Profile 30 INS-2
4	14 m55	STKSP3-B	Surround Trim Kit, Small, 28-1/2" x 40-3/4", Brass	Profile 30 INS-2
4	14 m56	STKMP3-B	Surround Trim Kit, Medium, 32" x 44", Brass	Profile 30 INS-2
4	14 m57	STKLP3-B	Surround Trim Kit, Large, 36" x 48", Brass	Profile 30 INS-2
5	H0244	DLS-P20	Decorative Log Set	Profile 20 FS-2
6	H0464	DLS-AO3	Decorative Log Set	Profile 30 FS-2 & INS-2
	H0416	ZCK-PI	Zero Clearance Kit (for installing insert as a built-in)	Profile 30 INS-2
	70K99	TSPK - B	Touch-up Spray Paint Kit, Black	All

1

Profile 30 FS-2 & Profile INS-2

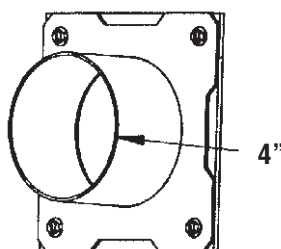


Profile 20 FS-2



2

Converts from standard 3" outlet to 4"



5

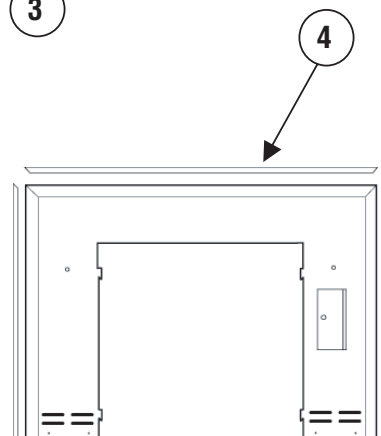


6



3

4



Surround / Trim Sizes

Large:
36" (91.4cm) height
48" (121.9cm) width

Medium:
32" (81.3cm) height
44" (111.75cm) width

Small:
28 1/2" (72.4cm) height
40 3/4" (103.5cm) width

NOTE: DIAGRAMS & ILLUSTRATIONS ARE NOT TO SCALE