FIREGEAR® by earthcore®

PFS C US #20-024

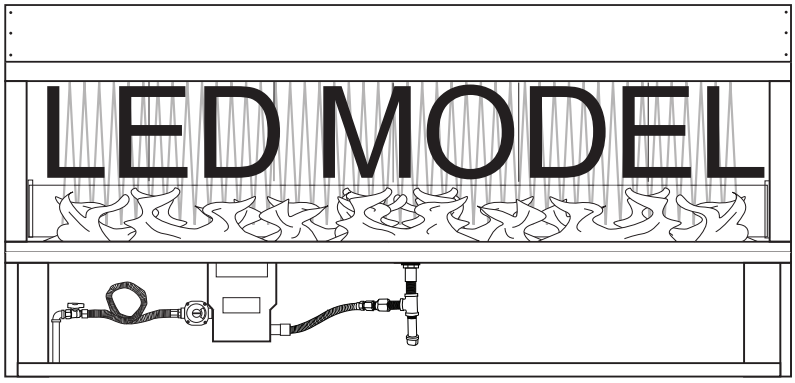
DO NOT DISCARD. THIS MANUAL HAS IMPORTANT OPERATING AND MANTENANCE INSTRUCTIONS. LEAVE WITH THE HOMEOWNER.

MODEL:

SERIAL #:

Outdoor Gas Fireplace with LED Lighting

Installation and Operating Instructions



MODELS

Natural Gas	Propane Gas	Description
OFP-36LECO-NLED	OFP-36LECO-PLED	36” Open Front Fireplace
OFP-48LECO-NLED	OFP-48LECO-PLED	48” Open Front Fireplace
OFP-60LECO-NLED	OFP-60LECO-PLED	60” Open Front Fireplace
OFP-72LECO-NLED	OFP-72LECO-NLED	72” Open Front Fireplace

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

IF YOU CANNOT READ OR UNDERSTAND THESE INSTALLATION INSTRUCTIONS DO NOT ATTEMPT TO INSTALL OR OPERATE THIS APPLIANCE

INSTALLATION PRECAUTION:

This fireplace requires a minimum 18-square inches (per side) of cross ventilation. Failure to provide proper ventilation can void the warranty.

Warning: For Outdoor Use Only

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

DANGER

CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor.

Using it in an enclosed area can kill you.

Never use this appliance in an enclosed space such as a camper, tent, car or home.

DANGER

FIRE OR EXPLOSION HAZARD

If you smell gas:

1. Shut off gas to the appliance
2. Extinguish any open flame.
3. If odor continues, leave the area immediately.
4. After leaving the area, call your gas supplier or fire department.

WARNING

Do not leave unattended during use.
Do not use for cooking.
Follow all gas leak procedures in this manual prior to operation.

DANGER

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 for the protection of children and other at-risk individuals.

WARNING

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or other appliance.

An LP cylinder not connected for use shall not be stored in the vicinity of this or any other appliance.

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage, personal injury of loss of life

WARNING

If the information in this manual is not followed exactly, a fire or explosion may result causing property damage, personal injury, or **loss of life**.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or other appliances.

CALIFORNIA PROPOSITION 65

WARNING

This product is designed to operate with one of the following fuel sources: Liquid Propane or Natural Gas. The fuel used to operate this product, and the products of combustion of such fuel, can expose you to chemicals including Benzene which is known to the State of California to cause cancer, birth defects and other reproductive harm and Carbon Monoxide which is known to the State of California to cause birth defects or other reproductive harm.
(For more information go to: www.p65Warnings.ca.gov.)

CERTIFICATION: These outdoor fireplaces are tested and approved to ANSI Z21.97- 2017/CSA 2.41.standards by PFS agency using listing #20-024. It should be installed by a qualified installer in accordance with local and state building codes using National Fuel Gas Code ANSI Z223.1/ NFPA54 or current CSA-B149.1 installation codes for Gas Burning Appliances and Equipment in Canada.

DESCRIPTION: These Outdoor fireplace models come ready to operate with HI/LO capabilities once installation is complete. They use an electronic ignition that runs off of a 7.5DCV adapter. In addition, each fireplace is equipped with LED lighting as a standard feature. All models can operate the LED lights with or without the fireplace operating. The LED lights operate from of a 12-volt adapter.

Use only approved media. All models are shipped as Natural Gas but can be converted to Propane Gas by ordering an optional conversion kit. See page 32.

NEVER obstruct the front opening(s) of the fireplace.

Massachusetts Requirements

These appliances are approved for installation in the US state of Massachusetts if the following additional requirements are met:

- Un-vented Room Heaters shall be installed in accordance with 527 CMR 30.
- Installation and repair must be done by a plumber or gas fitter licensed in the Commonwealth of Massachusetts.
- The flexible gas line connector used shall not exceed 36 inches (92 centimeters) in length.
- The individual manual shut-off must be a T-handle type valve.
- Unvented appliances may NOT be installed in bedrooms or bath¬rooms.
- A working smoke detector must be installed in the area where vent-free appliances are installed.
- Seller of unvented propane or natural gas-fired supplemental room heaters shall provide to each purchaser a copy of 527 CMR 30 upon sale of the unit.

CAUTION:

All media (i.e. lava rock, lava stones, lava boulders and fire glass) have the potential of thermal spalling. This is a process that may occur when media is wet and moisture gets trapped inside of the material due to rapid temperature differences. When this happens the media has the potential to crack or “pop” outside the fireplace. Heavy rains, high humidity and the presence of moisture can contribute to this process.

SAFETY

1. This appliance is configured from the factory only as Natural gas. It can be converted to LP gas.
2. Do not place Propane (LP) supply tanks inside any unapproved structures. Locate propane tanks outdoors if unsure.
3. This fireplace is to be used only outdoors in a well ventilated space and shall not be used in a building, garage, or any other enclosed area.
4. Do not use this fireplace as a wood burning fireplace. Use only high temperature glass media approved for use with this fireplace.
5. Do not use this fireplace to cook or burn paper or other objects.
6. Do not use if exposed to or under water. Immediately call a qualified service technician to inspect the fireplace and replace any part of the control system and any gas control which has been under water.
7. Turn fireplace OFF and let cool before servicing. Only a qualified service person should perform service.

ALWAYS USE CAUTION WHEN USING THE FIREPLACE

Extra caution should be taken when lighting a fireplace when heavy rains, high humidity and moisture are present. Light the fireplace and leave the area while the heat dissipates any moisture out of the media. We strongly recommend that during this drying out time that you monitor the fireplace from a distance. This drying out period should be no less than 30 minutes. Continue monitoring the flame from a safe distance to ensure that all popping has ceased before fully enjoying the fire.

LOCAL CODES

Install and use fireplace with care. Follow all local codes. In the absence of local codes, use the latest edition of the National Fuel Gas Code ANSI Z223.1/ NFPA54.

Fuels used in gas fired appliances, and the products of combustion such as fuels, contain chemicals known to cause cancer, birth defects and/or other reproductive harm. This warning is issued pursuant to the California Health & Safety Code Sec. 25249.1

IT IS IMPORTANT TO READ THROUGH THE ENTIRE INSTALLATION MANUAL BEFORE BEGINNING INSTALLATION OF THIS FIREPLACE!!

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This fireplace ships from the factory as a single-sided fireplace.
An optional kit must be purchased to convert it into a see-through fireplace.
If you choose to install it as a see-through, ensure you use pages 14 & 15 for proper specifications. Carefully read through this manual to understand.

INSTALLATION PRECAUTIONS

1. **<u>These fireplaces are designed for outdoor use only. Not approved for any indoor use.</u>**

2. Determine which fireplace you are preparing to install, single-sided or see-through. (Refer to page 11 or 14).

3. **This fireplace is not a "load bearing" fireplace. All finishing materials must be supported by the surrounding structure and not rely on the fireplace itself.**

4. Fireplaces create high temperatures, it is very important to have any combustibles at a safe distance. See pages 11 for a single sided installation or page 14 for see-through installation.

5. Fireplace should never be left unattended while in operation. It should always be a safe distance from all trees and combustible landscape materials.

6. The fireplace must be installed on a flat, level, stable, non-combustible surface. **Exception**: It is permissible to place one layer of ½" cement board underneath the entire fireplace, then it may sit on a flat, level, stable, combustible surface. Drainage is critical to ensure that water does not damage gas valve and components. ***<u>Never install the fireplace below grade</u>*.**

7. **CAUTION**: A minimum of 18 square inches of cross ventilation (per side) is required to keep the inside of the enclosure dry. Install the supplied VENT-KIT-6x12SS approximately 3 to 4 inches from the floor centered on each end of the fireplace (See Fig. 3, page 6).

8. Only non-combustible materials (i.e. metal studs and cement board) should come in direct contact with any part of the fireplace. Underneath area should be non-combustible or a flat level combustible surface according to the clearances specified in this manual. Bend out nailing flanges on ends of fireplace and secure to metal studs.

9. **<u>Hearth Extension:</u>** A hearth extension is not required with this fireplace. Any hearth extension used is for appearance only and does not have to conform to a standard hearth extension installation requirements.

10. This fireplace is designed to have glass media covering the burner trough, so the burner tube is not visible. Media is **NOT** provided and must be purchased separately. When installing media use minimum of ½" to ¾" diameter glass to fill the burner trough. After the burner trough is covered you are permitted to fill the remaining area in the burner pan. **DO NOT COVER THE IGNITION HOOD WITH ANY ROCK OR MEDIA.** See Figs. 34 - 36 on pages 25 and 26 for details.

11. Do not use media that will absorb moisture over time and will not release this moisture quickly. Moisture can boil in this media and can rapidly break apart and cause property damage or personal injury.

12. Never leave any other combustible material on top of the fireplace. This could cause unsafe operation of this system and damage to the component that will not be covered under our warranty.

13. It is recommended to wear gloves when moving the fireplace into position and watch for sharp edges when handling the fireplace.

14. We recommend using ¾" black iron pipe; however please refer to the NFPA54 (National Fuel Gas Code) for proper pipe sizing when exceeding 20-feet in length for fireplaces .

15. Follow the local code requirements for the gas type being used. This fireplace should be installed in accordance with local codes and ordinances or in the absence of local codes, with the latest National Fuel Gas Code, ANSI Z223.1 NFPA54 or CSA B149.1, Natural and Propane Installation Code in Canada.

16. This appliance must be electrically grounded in accordance with the local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70; or the Canadian Electrical Code, CSA C22.1, if applicable.

17. Gas lines and fittings must be installed into the non-combustible structure. All gas connections must be leak tested before installation of the fireplace. Leak detection is required before regular use of the fireplace.

18. **LED LIGHTING**: LED lighting must be installed before finishing materials are completed on this fireplace. Ensure electricity is run before the fireplace is installed. See pages 16-23. Ensure you follow the local codes per your installation.

INSTALLATION PRECAUTIONS

CAUTION: BEFORE BEGINNING INSTALLATION CAREFULLY REMOVE THE GLASS WINDSHIELD, PARTS BOX AND ANY PACKING MATERIALS FROM FIREPLACE AND SET ASIDE FOR LATER USE.

FRAMING: After framing is complete, place the fireplace into position and secure it with the side nailing flanges. Next install cement board, securing it to the metal studs and fireplace. The framing provides for a flush fit up to the opening of the fireplace. **DO NOT PROTRUDE INTO THE FIREPLACE OPENING WITH CEMENT BOARD.**

GAS LINE: The gas line must have a predetermined location to enable it to be installed. Fig. 1 shows one example of an inlet gas line with a gas shut off at the fireplace. This allows a technician to shut the inlet gas supply OFF and remove the burner for servicing. Ensure you follow the local and state gas codes per your installation.

RECOMMENDATION: Once the gas line is established it is recommended to remove the burner pan from the firebox until the fireplace is in the final stages and ready for the burner installation. Burner pan requires the removal of (4) screws at each corner of burner pan lip in addition to the (3) screws shown in Fig. 2.

GAS CONVERSION: The burner pan must be removed from the fireplace to convert it to LP gas. See pages 32-34.

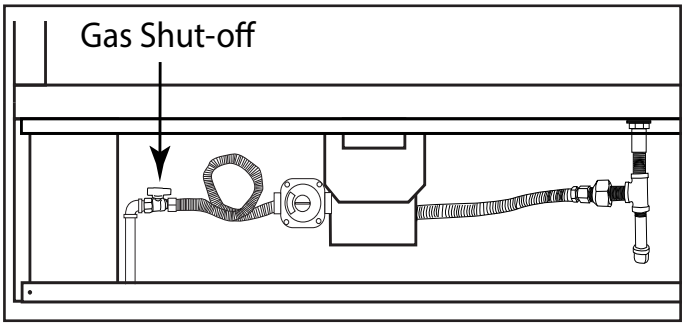


Fig.1 Close up view of inlet gas connection with shut-off valve.

IMPORTANT: It is permissible to reverse the burner pan in the field to enable a closer gas line connection if necessary.

BURNER PAN REMOVAL

Step 1: Remove the bottom end (it has 3 screws) from the opposite end of the burner pan. See Fig. 2.
Step 2: Lift the bottom end up and out from both sides of the burner pan area.
Step 3: Remove the four (4) screws (two on each end) of the burner pan. They are located at the outer edge of the burner pan, one each corner (See Fig. 2).

VENTILATION FOR NON-COMBUSTIBLE ENCLOSURE

Fireplaces are subjected to many outdoor elements such as rain, snow, wind, heat or cold. **A minimum of 18 square inches of cross ventilation (2 sides) is required to keep the components in good working order.** Use Fig. 3 as a guide.

Never fill the cavity under and around the valve box with any material, this is air space necessary for ventilation.

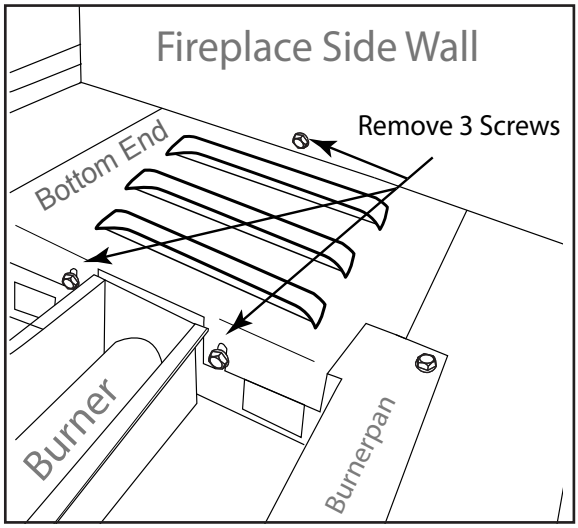


Fig. 2 Removal of burner pan screws.

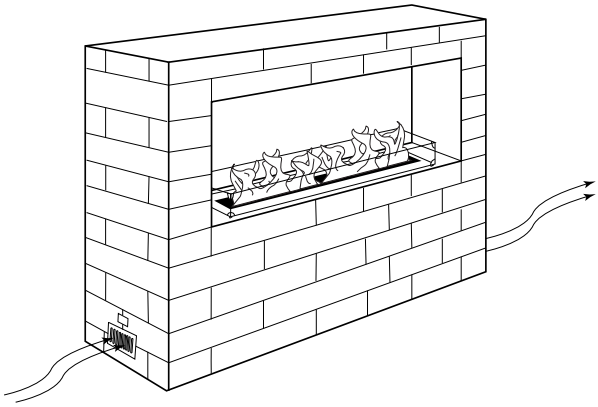


Fig. 3 - Cross ventilation example using the Cross Ventilation Kit, VENT-KIT-6x12, provided.

Note: Installation of two 18-square inch vents or one 36-square inch vent is required for ventilation of enclosures. When two vents are used, they may be installed on one wall. Install the bottom of the vent(s) within one foot of the floor level. See local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54 (USA) – latest edition or CAN/CGA-B149.1 Natural gas and propane installation code (Canada) – latest edition. Do not place Propane (LP) supply tanks inside any structure or enclosure. Locate propane tanks outdoors.

INSTALLATION PRECAUTIONS

The vents (VENT-KIT-6x12) used for cross ventilation should be installed at each end of the fireplace. Vents should be placed 3-4” from the bottom of the fireplace and centered side to side as shown in Fig. 3B.

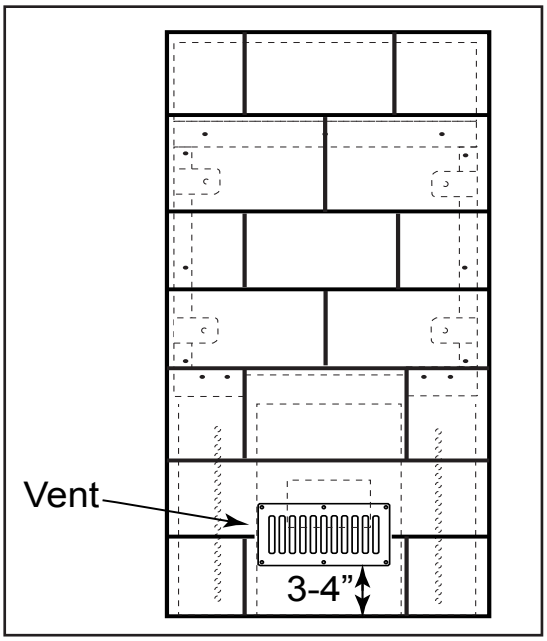


Fig. 3B Vent location.

WARNING: Proper clearances from combustible, construction materials must be maintained from all sides, top and bottom of this appliance.

IMPORTANT
Installation of Natural or Liquid Propane Gas should be done by a qualified installer, service agency or gas supplier. This appliance must be isolated from the gas supply piping system by closing its manual shutoff valve during any pressure testing of the gas supply piping system at test pressures equal to or less than ½ “psig (3.5kPa)

HARD PIPING TO FIREPLACE WITHOUT GAS PROXIMITY

NOTE: We recommend using ¾” black iron pipe; however please refer to the NFPA54 (National Fuel Gas Code) for proper pipe sizing when exceeding 20-feet in length for fireplaces rated above 100,000 BTU.

1. Turn **OFF** gas supply system. **NOTE**: All gas connections (except for brass to brass) require the following: Clean pipe threads using either a wire brush or steel wool. Apply pipe sealant to the fittings before making any connection. **BE CAREFUL!** Ensure all gas connections are snug, but do not over tighten!
2. Extend the gas supply using minimum of ¾” black iron pipe or an approved flexible gas line from existing house supply. This can be accomplished by teeing off or tapping into a gas line connection. Install necessary pipe for the distance required and then install a manual shut-off valve at the exterior house wall. If pipe is to pass through a foundation or house wall, make sure to re-seal the area around the pipe with weather sealant.
3. The primary gas shut-off (supplied) will require a ½” male flared fitting to enable connection of the stainless steel flex gas line supplied with the fireplace (See Fig. 1 page 6).

HIGH ELEVATION INSTALLATION

This appliance is listed for elevations from 0 to 4500 feet in Canada and the U.S. If elevation exceeds 4500 feet it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input should be reduced 4% for each 1000 feet beyond the 4500 feet above sea level. Check with your local gas utility for assistance in determining the proper orifice in your location. In some cases the heating value may already be reduced and downsizing the orifice may not be necessary.

PAY CLOSE ATTENTION TO THE FOLLOWING PAGES. THIS FIREPLACE IS SHIPPED AS A SINGLE-SIDED FIREPLACE, HOWEVER YOU HAVE THE OPTION TO CONVERT IT INTO A SEE-THROUGH FIREPLACE WITH AN OPTIONAL KIT. READ THE HEADERS CAREFULLY TO ENSURE YOU ARE FOLLOWING THE CORRECT INSTALLATION.

SPECIFICATIONS

NOTE: These fireplaces come shipped as Natural Gas models only. There is an LP conversion kit available as an accessory. Ensure you order the specific conversion kit for your model fireplace. Table 1 shows the applicable information if converting to Liquid Propane (LP) gas. See page 32.

IMPORTANT: It is permissible to reverse the burner pan in the field to enable a closer gas line connection if necessary.

Models: N = Natural Gas P =Propane Gas	***NG Factory Orifice***	***NG Btu's High***	***NG Btu's Low***	***NG Low Rate Screw***	***LP Conversion Kit***	***LP Factory Orifice***	***LP Low Rate Screw***
OFP-36LECO-NLED OFP-36LECO-PLED	#41	31,000 (9.08 kW)	18,500 (5.42 kW)	#44	OFP-36LECO-LPK	OAS-LP52	ECO-LSS-52
OFP-48LECO-NLED OFP-48LECO-PLED	#32	43,500 (12.74 kW)	24,500 (5.42 kW)	#34	OFP-48LECO-LPK	OAS-LP48	ECO-LSS-46
OFP-60LECO-NLED OFP-60LECO-PLED	#30	50,000 (14.65 kW)	36,000 (7.18kW)	#27	OFP-60LECO-LPK	OAS-LP44	ECO-LSS-42
OFP-72LECO-NLED OFP-72LECO-PLED	#25	65,000 (19.00 kW)	42,000 (12.30 kW)	#18	OFP-72LECO-LPK	OAS-LP42	ECO-LSS-35

Table 1. Fireplace specifications and conversion kits.

Disclaimer: Btu listings are based on 7.0"WC (1.74 kPa) for Natural Gas at inlet side of gas regulator. Flex line sizing and proper gas pipe sizing can affect Btu's. As a result, your Btu's may vary slightly from Table 1 specifications.

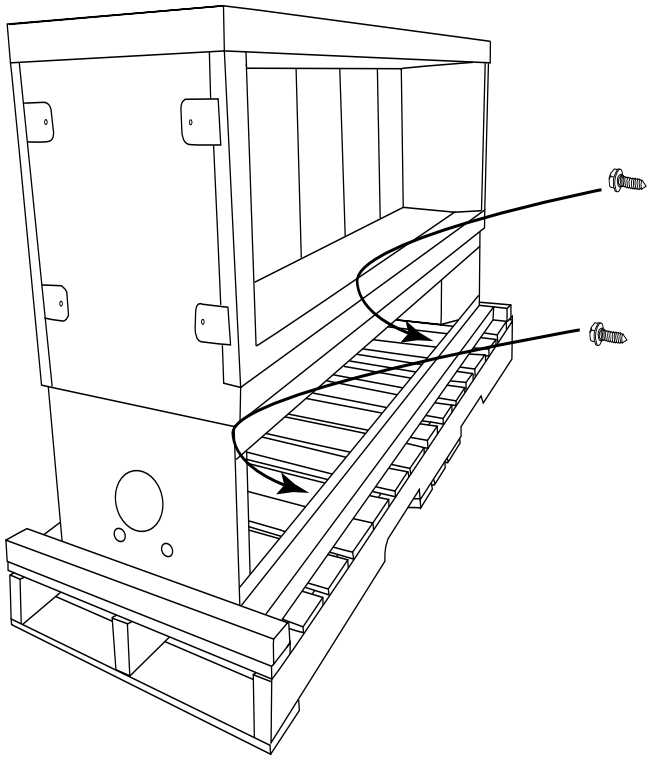


Fig. 4 The fireplace ships on a wooden skid. Remove the screws as shown and lift fireplace off of skid.
Note: Number of screws vary with model size.

Pressure	**NG**	**LP**
Min. Inlet	5.0" WC (1.24kPa)	10.5" WC (2.61 kPa)
Max. Inlet	10.5" WC (2.61kPa)	13.0" WC (3.23 kPa)
Normal Inlet	7.0" WC (1.74 kPa)	11.0" WC (2.73 kPa)
Manifold	4.0"WC (.99 kPa)	10.0"WC (2.48 kPa)

Table 2 Gas Pressures

GAS PIPE SIZING CHART

NATURAL GAS : PIPE SIZING CHART

Length of Pipe in Feet	1/2"	3/4"	1"	1 - 1/4"	1 - 1/2"	2"	2 - 2 1/2"	3"	4"
10	108	230	387	793	1237	2259	3640	6434	-
20	75	160	280	569	877	1610	2613	5236	9521
30	61	129	224	471	719	1335	2165	4107	7859
40	52	110	196	401	635	1143	1867	3258	6795
50	46	98	177	364	560	1041	1680	2936	6142
60	42	89	159	336	513	957	1559	2684	5647
70	38	82	149	317	476	896	1447	2492	5250
80	36	76	140	239	443	840	1353	2315	4900
90	33	71	133	275	420	793	1288	2203	4667
100	32	68	126	266	411	775	1246	2128	4518
125	28	60	117	243	369	700	1143	1904	4065
150	25	54	105	215	327	625	1008	1689	3645
175	23	50	93	196	303	583	993	1554	3370
200	22	47	84	182	280	541	877	1437	3160
300	17	37	70	145	224	439	686	1139	2539

- Natural Gas (NG) flow is given in thousands of BTU/hr. = 1 cubic foot of NG gas - 1000 BTU
- Nominal pressure at the burner for Natural Gas is 3.5" of water column. (Typical machine supply 5"-7")
- Pipe length must include additional length for all fittings. Add approximately 5 feet of pipe per fitting.
- Natural Gas Example: A machine with a burner that requires 440,000 BTU would need a 1 -1/4" pipe for a 20" long run.

LIQUID PROPANE : PIPE SIZING CHART

Length of Pipe in Feet	1/2"	3/4"	1"	1 - 1/4"	1 - 1/2"	2"	2 - 2 1/2"	3"	4"
10	275	567	1071	2205	3307	6221	10140	17990	35710
20	189	393	732	1496	2299	4331	7046	12510	25520
30	152	315	590	1212	1858	3465	5695	10110	20620
40	129	267	504	1039	1559	2992	4778	8481	17300
50	114	237	448	913	1417	2646	4343	7708	15730
60	103	217	409	834	1275	2394	3908	6936	14150
70	89	185	346	724	1086	2047	3329	5908	12050
80	78	162	307	630	976	1811	2991	5309	10830
90	69	146	275	567	866	1606	2654	4711	9613
100	63	132	252	511	787	1496	2412	4281	8736
125	54	112	209	439	665	1282	2083	3618	7382
150	48	100	185	390	590	1138	1808	3210	6549
175	43	90	168	353	534	1030	1637	2905	5927
200	40	83	155	325	491	947	1505	2671	5450
300	37	77	144	303	458	887	1404	2492	5084

- Liquid Propane (LP) Gas flow is given in thousands of BTU/hr. = 1 cubic foot of LP gas - 2500 BTU.
- This chart refers to low pressure LP, after regulation, Standard nominal pressure at the burner for Liquid Propane Gas is 11" of water column.
- Pipe length must include additional length for all fittings. Add approximately 5 feet of pipe per fitting.
- LP Example: A machine with a burner that requires 440,000 BTU would need a 1" pipe for a 20' long run.

NOTE: The sizing charts above list the specific pipe sizes required for the amount of BTU's for a new gas line installations. If you are using an existing gas line you must take into consideration the existing gas line capacities to ensure you will have proper pressure. This chart is for reference only, we recommend you consult with a Licensed Plumber/Gas Fitter or NFPA54 (National Fuel Gas Code - current edition) for more details.

Table 3 Gas pipe sizing.

SINGLE-SIDED FIREPLACE DIMENSIONS, FRAMING AND CLEARANCES SECTION

This fireplace comes with two boxes prepackaged inside and outside the fireplace. Do not discard any boxes unless noted to do so. Read the list below for the contents.

PART NUMBER	DESCRIPTION	QTY.
77146	**LED parts box (includes all parts in box)**	1
77102	12VDC adapter for LED light operation	1
01-487	01-487 connector valve ½"	1
77151	Ignition screen	1
77150	Pilot hood	1
VENT-6X12SS	6x12 vent kit (includes 2- stainless vents; 12- washers, 12- nuts; 12- screws)	1
77110	LED 24" harness at appliance	1
77161	ECO OFP 10-foot module harness	1
77111	LED 10-foot controller harness	1
AF-4000ADP24-80V5	7.5VDC adapter for gas valve system	1
77117	RGB control box assembly	1
(36") 73232 (48") 74232 (60") 75232 (72") 76232	**Windshield parts box**	1
(36") 73222 (48") 74222 (60") 75222 (72") 76222	LED tray assembly - right	1
(36") 73131 (48") 74131 (60") 75131 (72") 76131	Hood (see page 26)	1
(36") KB-36-73120 (48") KB-48-74120 (60") KB-60-75120 (72") KB-72-76120	Windshield (see part # for specific sizes)	1
77145A	Windshield Fastener Bag (includes 1- Left LED glass clip (77157) 1- Right LED glass clip (77156) 1- Left Std. glass clip (77155) 1- Right Std. glass clip (77154) & 7- hood screws (77129)	1

It is important to understand that when installing this outdoor appliance the installation must follow ANSI standards as described below.

AN OUTDOOR SPACE IS DEFINED AS FOLLOWS PER ANSI Z21.97:

Outdoor spaces - An appliance is considered to be outdoors if installed with shelter no more inclusive than:

- a) With walls on all sides, but with no over-head cover;
- b) Within a partial enclosure which includes an overhead cover and no more than two side walls. These side walls may be parallel, as in a breezeway, or at right angles to each other; or
- c) Within a partial enclosure which includes an overhead cover and three sidewalls, as long as 30% or more of the horizontal periphery of the enclosure is permanently open.

SINGLE-SIDED FIREPLACE DIMENSIONS & CLEARANCES

Model: N= Natural Gas P= Propane Gas	A Overall Length	B Inside Opening	C Overall Height	D Opening Height	E Overall Depth	F Leg Height	G Valve Box Depth	H Clearance To Combustible Side Wall	I Clearance To Combustible Ceiling
OFP-36LECO-NLED OFP-36LECO-PLED	40”	36”	33½”	16”	16¼”	11½”	10¼”	6”	46 ½”
OFP-48LECO-NLED OFP-48LECO-PLED	52”	48”	33½”	16”	16¼”	11½”	10¼”	6”	46 ½”
OFP-60LECO-NLED OFP-60LECO-PLED	64”	60”	33½”	16”	16¼”	11½”	10¼”	6”	46 ½”
OFP-72LECO-NLED OFP-72LECO-PLED	76”	72”	33½”	16”	16¼”	11½”	10¼”	6”	46 ½”

Table 4 Fireplace dimensions and clearances. Ensure you follow the proper clearances during installation.

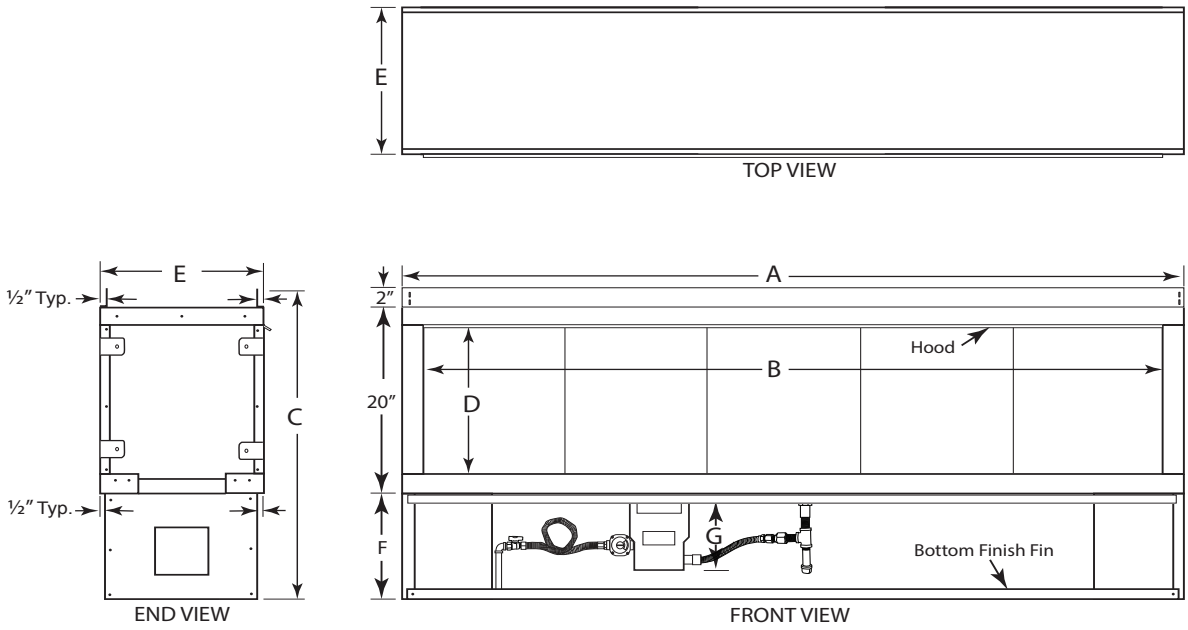


Fig. 5 Fireplace dimensions; refer to Table 3.

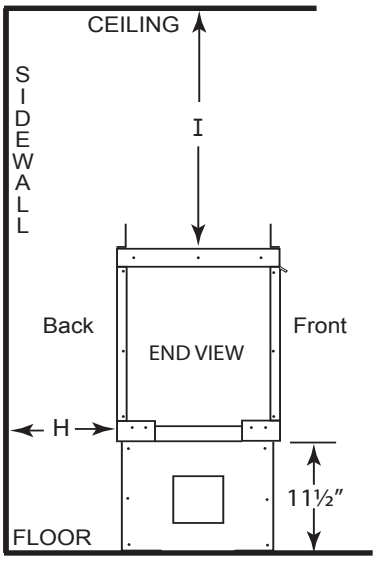


Fig. 6 Single-sided fireplace clearance to combustibles (See Table 3)

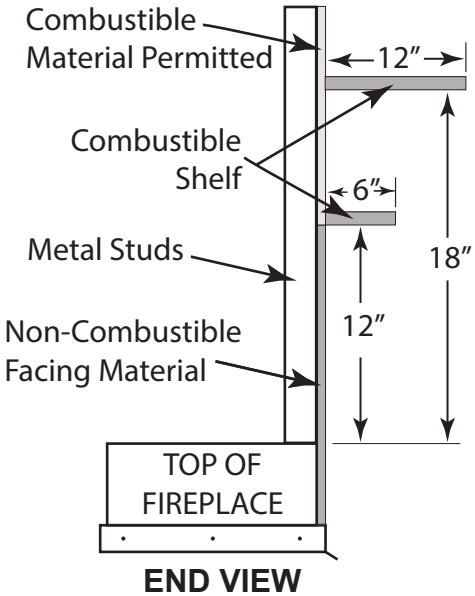


Fig. 7 Open front fireplace mantel clearances

SINGLE-SIDED FRAMING DIMENSIONS WITH METAL STUDS

Model: N = Natural Gas P = Propane Gas	A Width	B Height	C Depth
OFP-36LECO-NLED OFP-36LECO-PLED	40 ½"	33 ¾"	15¾"
OFP-48LECO-NLED OFP-48LECO-PLED	52 ½"	33¾"	15¾"
OFP-60LECO-NLED OFP-60LECO-PLED	64 ½"	33 ¾"	15¾"
OFP-72LECO-NLED OFP-72LECO-PLED	76 ½"	33 ¾"	15¾"

Table 5 Fireplace framing dimensions.

NOTE: This outdoor fireplace is not a "load bearing" fireplace. All finishing materials must be supported by the surrounding structure and not rely on the fireplace itself.

NOTE: This fireplace requires metal studs for framing. **WOOD STUDS ARE NOT PERMITTED**.

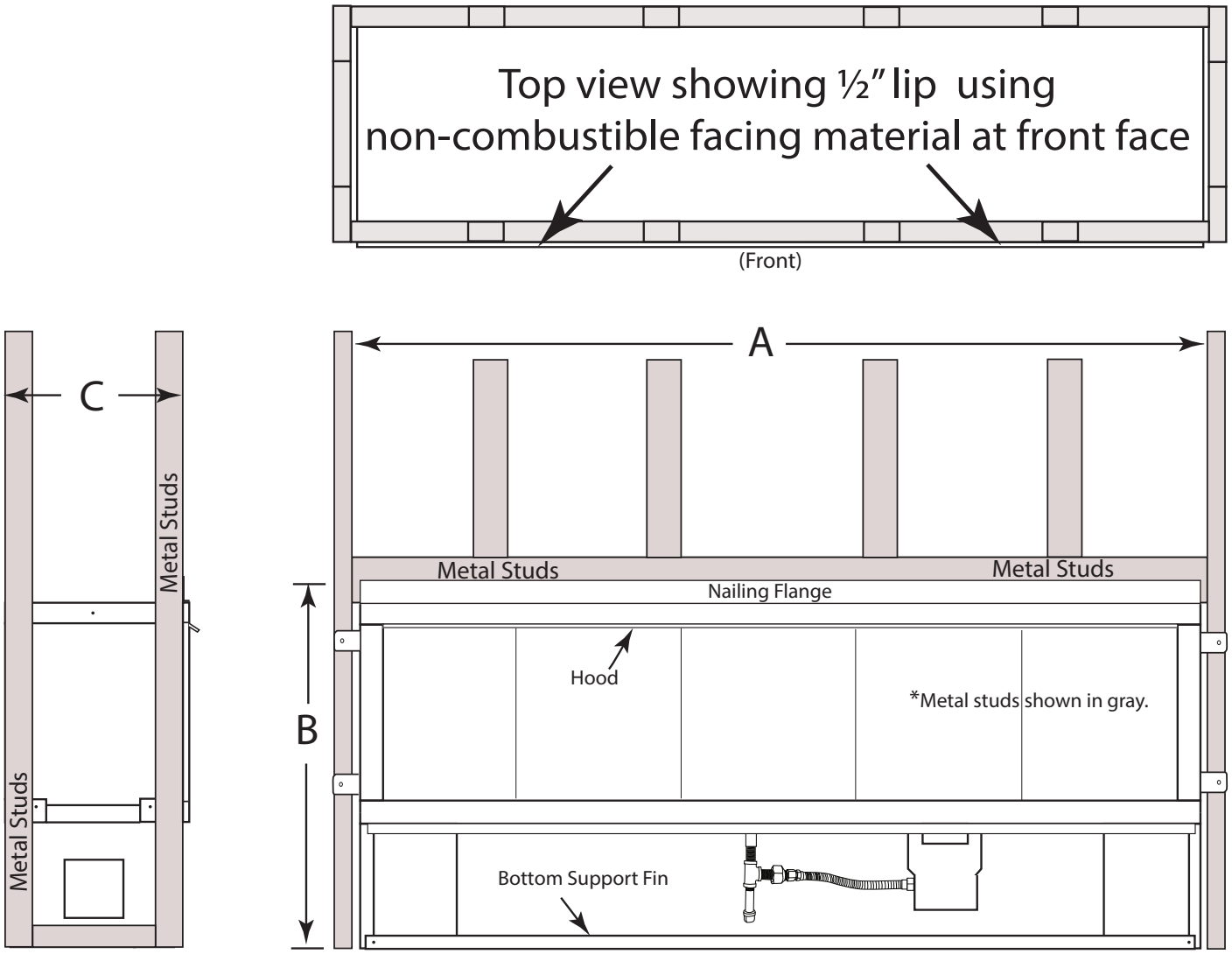


Fig. 8 Framing dimensions using all non-combustible materials for single-sided fireplace; refer to Table 4.

SEE-THROUGH FIREPLACE DIMENSIONS, FRAMING AND CLEARANCES SECTION

<u>NOTE: Preparation for the LED lighting and the inlet gas line must be planned before the fireplace is installed. See page 6, Fig 1 for inlet gasline and page 16 for LED lighting.</u>

It is important to understand that when installing this outdoor appliance the installation must follow ANSI standards as described below.

AN OUTDOOR SPACE IS DEFINED AS FOLLOWS PER ANSI Z21.97:

Outdoor spaces - An appliance is considered to be outdoors if installed with shelter no more inclusive than:

- a) With walls on all sides, but with no over-head cover;
- b) Within a partial enclosure which includes an overhead cover and no more than two side walls. These side walls may be parallel, as in a breezeway, or at right angles to each other; or
- c) Within a partial enclosure which includes an overhead cover and three sidewalls, as long as 30% or more of the horizontal periphery of the enclosure is permanently open.

SEE-THROUGH FIREPLACE DIMENSIONS & CLEARANCES ONLY

This fireplace ships from the factory as a single sided fireplace, but can converted it into a see-through fireplace. Order the see-through kit to convert to a see through model. Your specific application, single sided verses see-through, will determine how you install. Ensure you follow the proper clearances during installation.

Model: N = Natural Gas P = Propane Gas	A Overall Length	B Inside Opening	C Overall Height	D Opening Height	E Overall Depth	F Leg Height	G Valve Box Depth	H Clearance To Combustible Side Wall	I Clearance To Combustible Ceiling
OFP-36LECO-NLED OFP-36LECO-PLED	40”	36”	33½”	16”	16”	11½”	10¼”	36”	46 ½”
OFP-48LECO-NLED OFP-48LECO-PLED	52”	48”	33½”	16”	16”	11½”	10¼”	36”	46 ½”
OFP-60LECO-NLED OFP-60LECO-PLED	64”	60”	33½”	16”	16”	11½”	10¼”	36”	46 ½”
OFP-72LECO-NLED OFP-72LECO-PLED	76”	72”	33½”	16”	16”	11½”	10¼”	36”	46 ½”

Table 6 Fireplace dimensions and clearances.

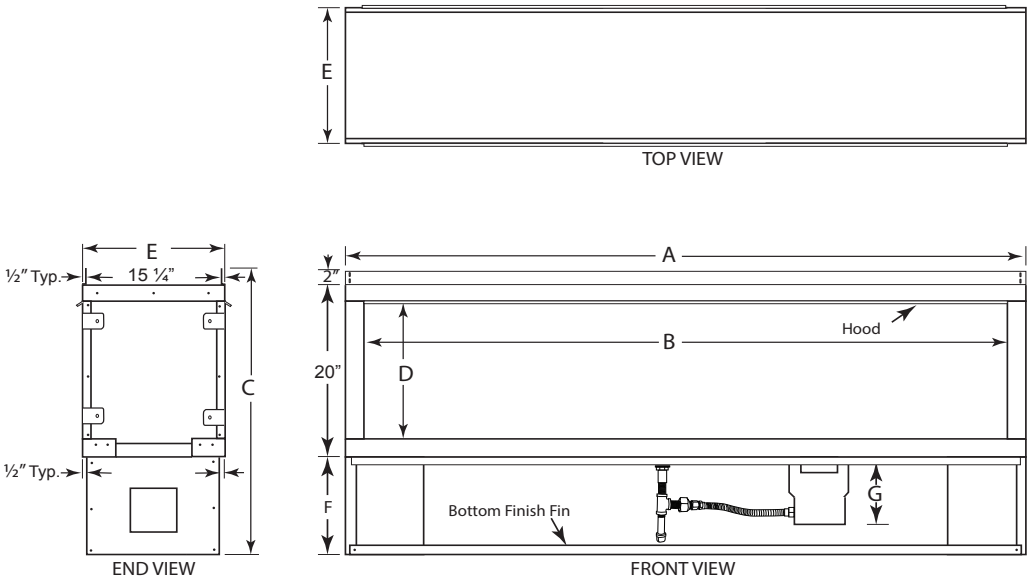


Fig. 9 Fireplace dimensions; refer to Table 6

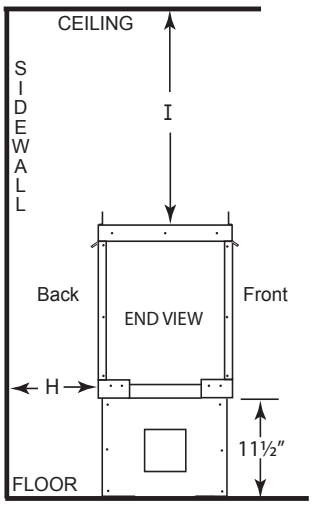


Fig. 10 See-through fireplace clearance to combustibles (See Table 6)

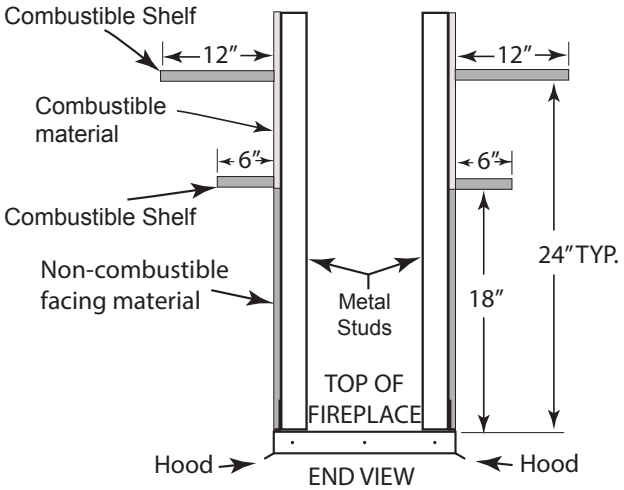


Fig. 11 See-through fireplace mantel clearances

SEE-THROUGH FRAMING DIMENSIONS WITH METAL STUDS

Model: N = Natural Gas P = Propane Gas	A Width	B Height	C Depth
OFP-36LECO-NLED OFP-36LECO-PLED	40 ½”	33 ¾”	15”
OFP-48LECO-NLED OFP-48LECO-PLED	52 ½”	33¾”	15”
OFP-60LECO-NLED OFP-60LECO-PLED	64 ½”	33 ¾”	15”
OFP-72LECO-NLED OFP-72LECO-PLED	76 ½”	33 ¾”	15”

Table 7 Fireplace framing dimensions.

NOTE: This outdoor fireplace is not a “load bearing” fireplace. All finishing materials must be supported by the surrounding structure and not rely on the fireplace itself.

NOTE: This fireplace requires metal studs for framing. **WOOD STUDS ARE NOT PERMITTED.**

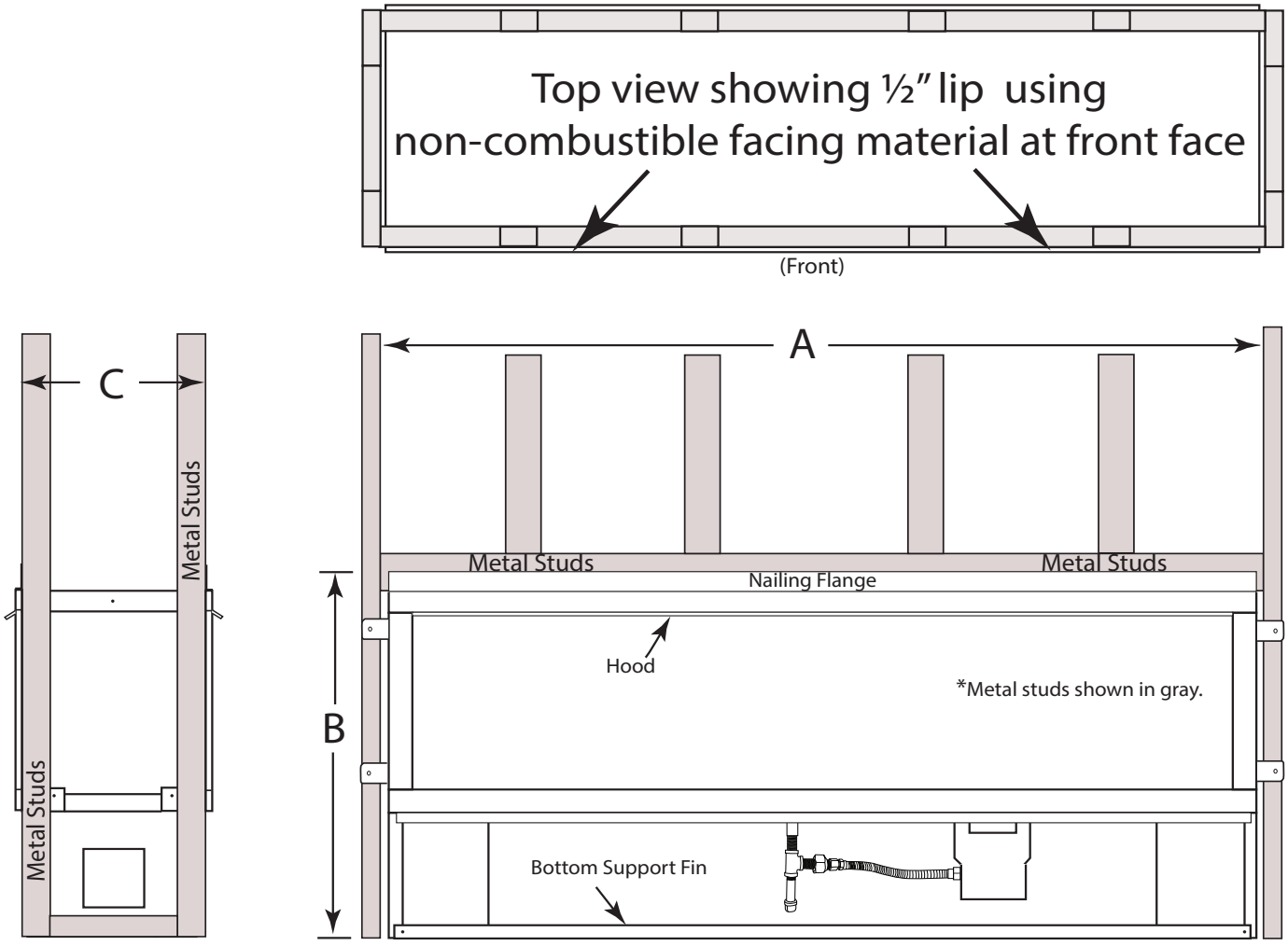


Fig. 12 Framing dimensions using all non-combustible materials for see-through fireplace; refer to Table 7.

LED LIGHTING INSTALLATION

This fireplace is equipped with LED lighting.
Preparation for the LED lighting a must be planned before the fireplace finish materials are installed. After the fireplace is set in its final location the LED lighting will need to be installed and tested before finishing materials are applied. You will need to provide the following:

(1) 120VAC GFCI outlet double gang junction box with a weatherproof cover. Provides power to LED lights and gas valve system. Follow local electrical codes for installation.

A RGB control box (with 10' of wire) is provided with the fireplace. It must be installed within the framing parameters of the wire length. **Note:** Additional extension wires are available in the Accessory section of this manual.

Step 1: Install the GFCI outlet double gang junction box with a weatherproof cover on the opposite side of the inlet gas supply.
Note: This is not a requirement; however, with the gang box on the opposite side of inlet will create more room for LED installation. Fig. 15 shows GFCI gang box installed.

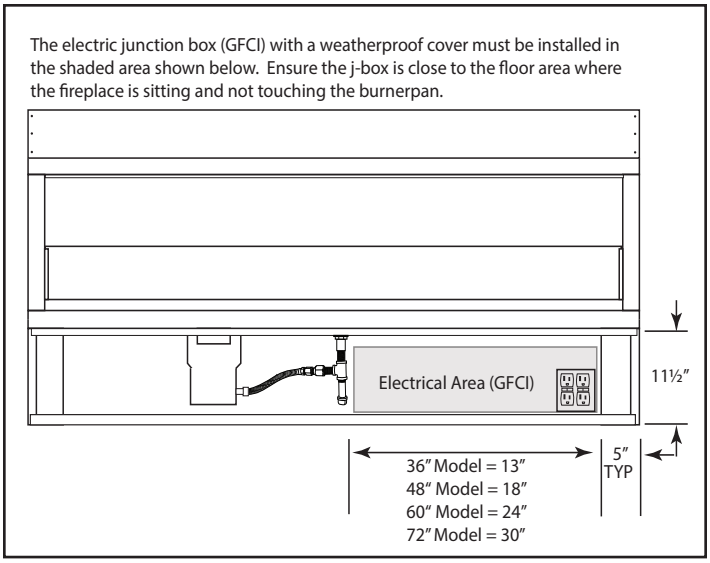


Fig. 13 Electrical placement.

Step 2: Find mounting location for the GFCI gang box. Fig. 14 shows flat area underneath burner pan. Mount box underneath the burner pan, below the square (cutout) hole area. Fig. 15 shows the GFCI outlet double gang junction box with a weatherproof cover mounted underneath the fireplace.

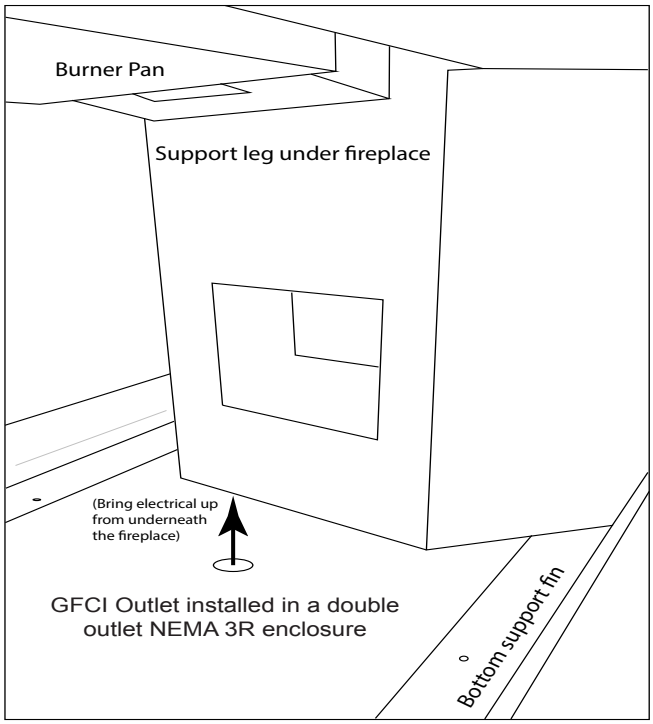


Fig. 14 GFCI box location under fireplace

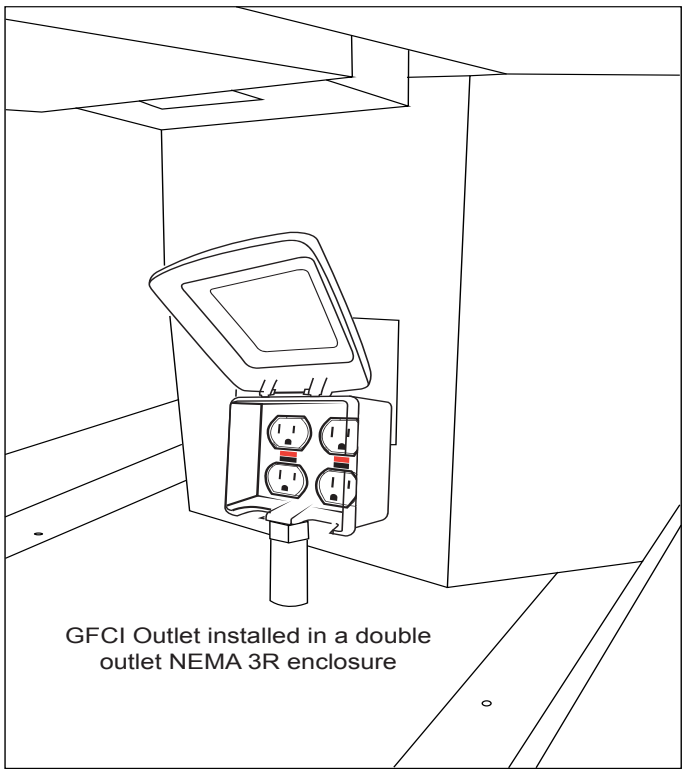


Fig. 15 Show GFCI box mounted in fireplace

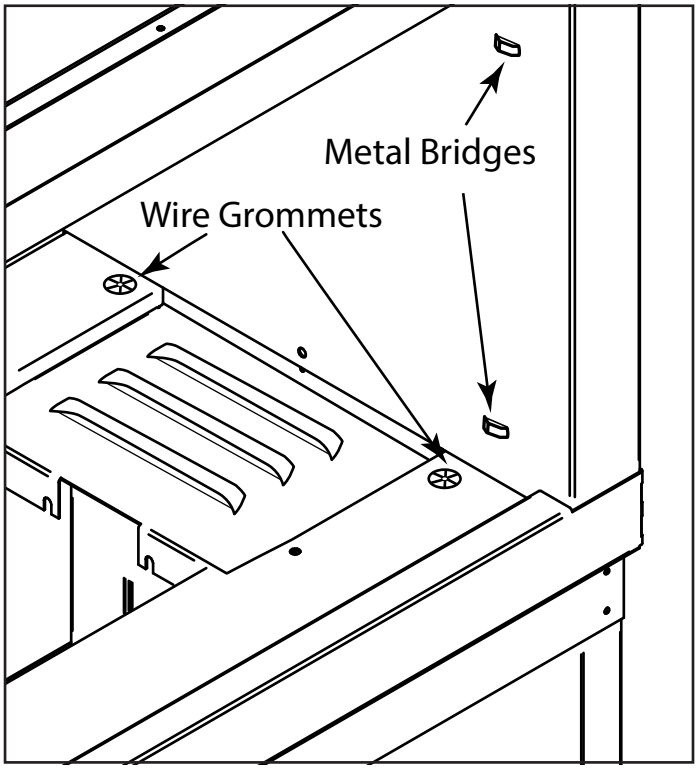


Fig. 16 Locating wire grommets

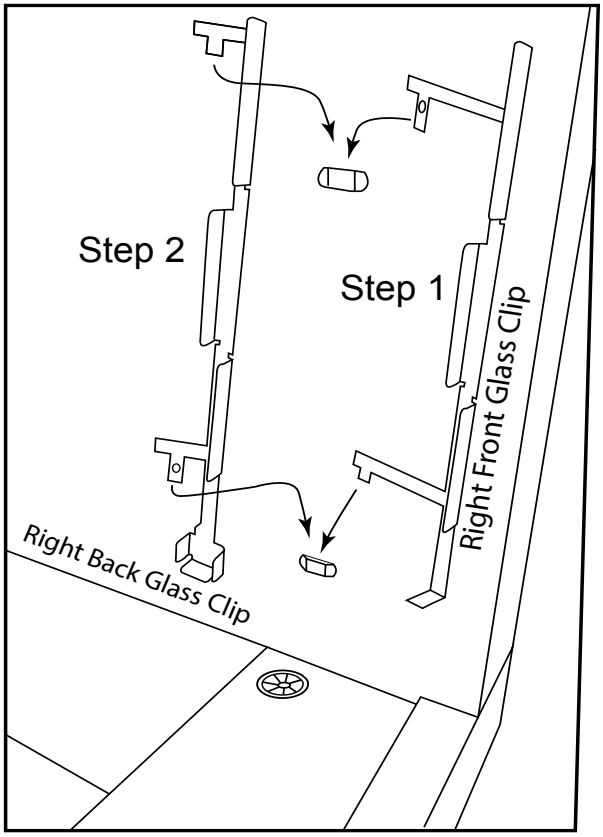


Fig. 17 Shows both glass clips being installed on right side of fireplace

Step 3: Locate the wire grommets inside the firebox. See Fig. 16. Directly above them will be a series of metal bridges to install the glass panel clips. Remove the glass panel clips from the glass panel packaging. **CAUTION:** The metal clips may have sharp edges, handle with care.

Peel the plastic coating from each glass panel clip before installing. There will be (4) glass clips. The two longest clips are use for the LED tray assembly and the shorter glass clips will installed in front of the LED clips. The LED clips (two longest clips) are installed first, closest to the burner tray. **Note:** There are two right side and two left side clips supplied.

Install the LED glass clips by sliding them down through the metal bridges as shown in Fig. 17. Install (1) clip on the left and (1) clip on the right side of the inner fireplace side panel. **Note:** If you are preparing a see-through fireplace you will install a total of (8) glass clips, two for each open side. The additional clips are supplied with the see-through conversion kit.

Step 4: After each LED glass clip is installed, use a flat blade screw and carefully bend the bottom tab out and upward to lock it into position. Use a fingertip or pliers to press the tab flat against the metal bridge. See Fig. 18.

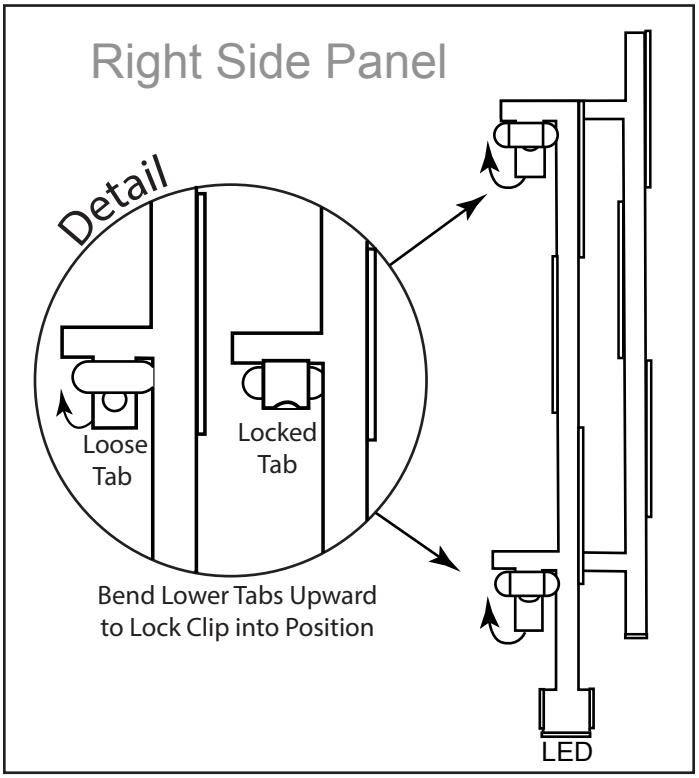


Fig. 18 Installing windshield clips

LED LIGHTING INSTALLATION

Step 5: Remove the LED right channel assembly from the carton (The front of the channel has a shield facing the front with the LED wire hanging on the right side). See Figs. 19-21 for details. **Note:** If you are installing into a see-through fireplace you will install both right and left channels assemblies.

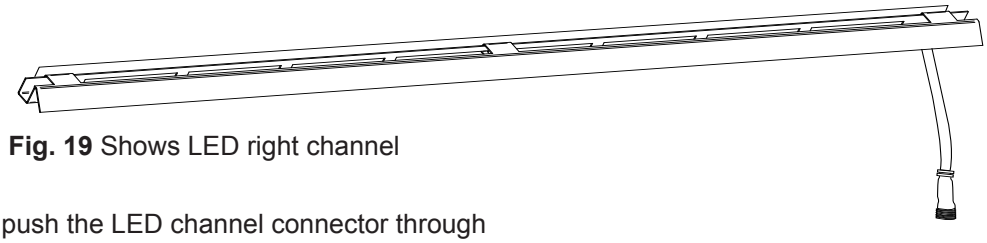


Fig. 19 Shows LED right channel

Step 6: Carefully push the LED channel connector through the wire grommet. As you push it through the grommet sit the LED channel into the bottom of the glass clip. Ensure the other end of the channel is also sitting inside the other retainer clip. See Figs. 20 & 21 as a reference. **Note:** If you are installing into a see-through fireplace, install the other LED light strip and channel the same direction.

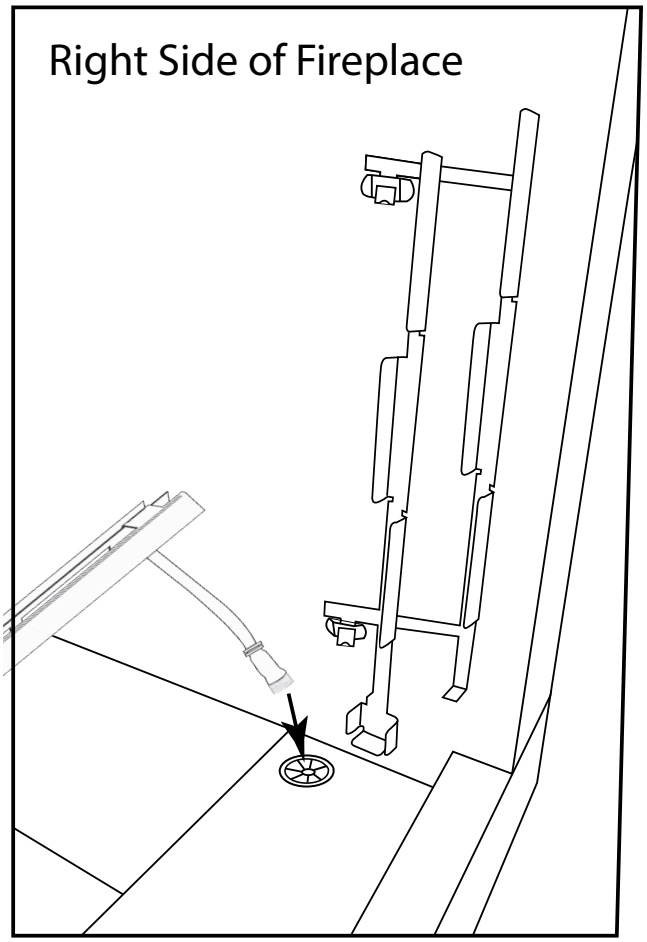


Fig. 20 Installing LED lights and channel

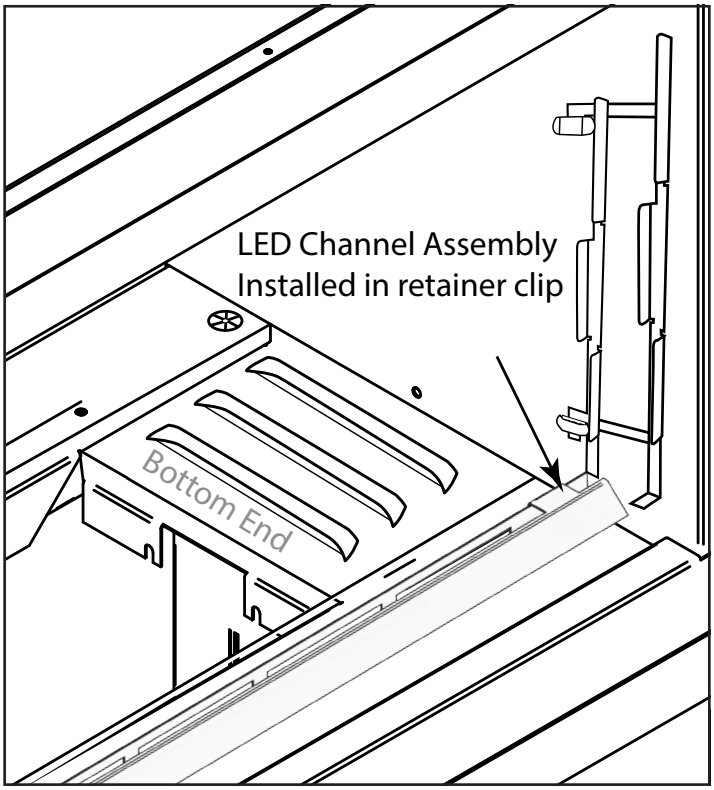


Fig. 21 LED installed in retainer clip inside fireplace

LED LIGHTING INSTALLATION

Step 7: If needed, remove the screws from the "bottom end" of the burner pan area to provide additional room for wiring the LED lights. The "bottom end" fills the space between the burner pan and the fireplace side panel. It is held into place with three (3) screws. See Fig. 22. First remove the two inside screws, then the screw securing the side wall. Lift up the area where the two screws were and push down where the single screw was, then lift the bottom end out of the fireplace.

Step 8: Using Fig. 23 below, insert the LED channel assembly female connector (protruding through the wire grommets) to the LED male connector 77110. **Note:** The male end of the LED connector will only insert into the female connector in one direction. Once locked in position, screw the threaded cap of the female connector securely over the male connector.

Step 9: Attach 77110 to 77111 using the molex connectors. After connecting the LED lights into the 77111 wire harness insert the 12-volt adapter 77102 with ¼" terminals) into the (red & black wires) of LED wire harness. Plug the 12-volt adapter into the 120VAC GFCI box with weather proof cover. See Fig. 26, page 21.

Step 10: Re-install the "bottom end" if applicable.

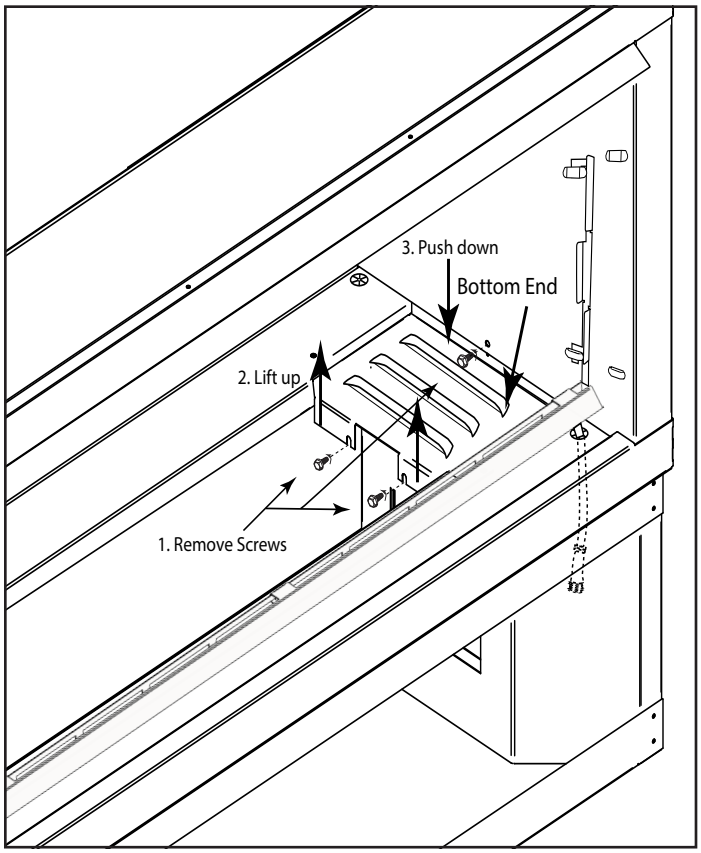


Fig. 22 Removing bottom end

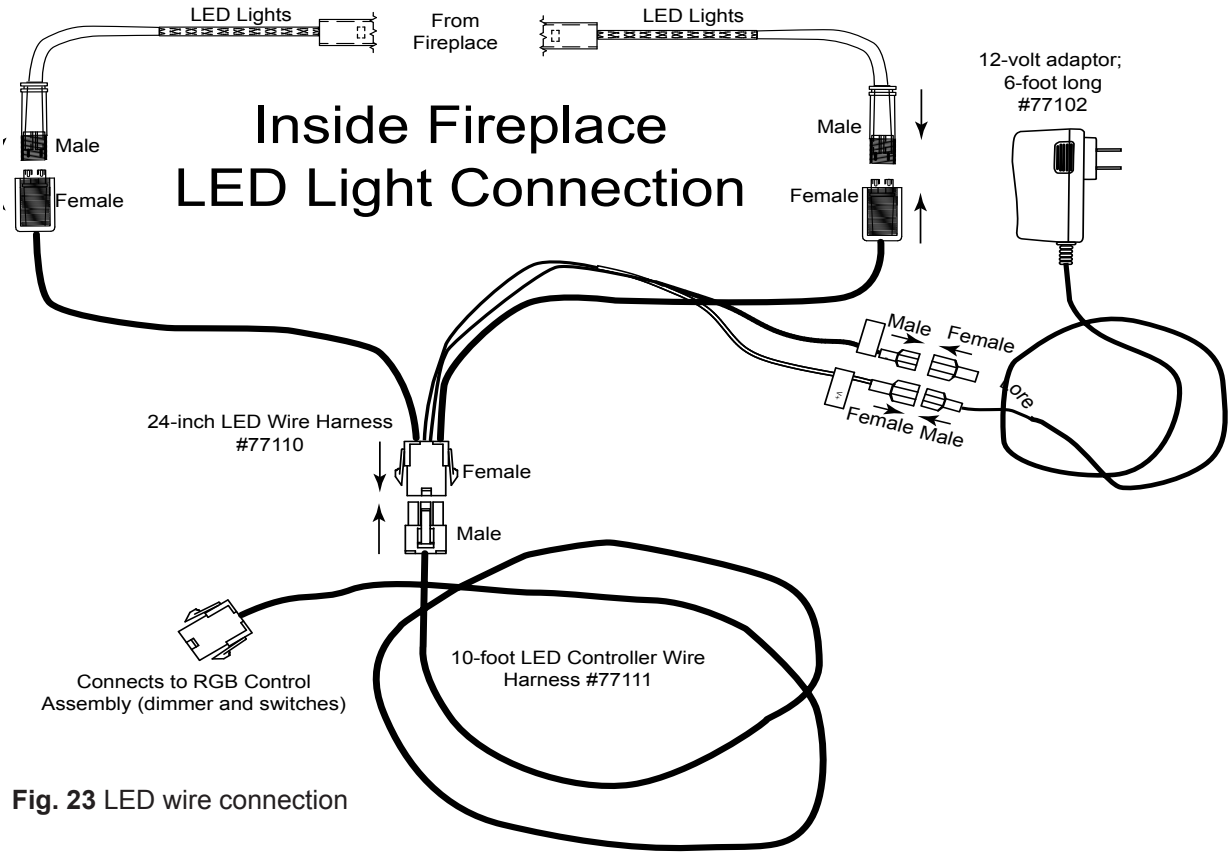


Fig. 23 LED wire connection

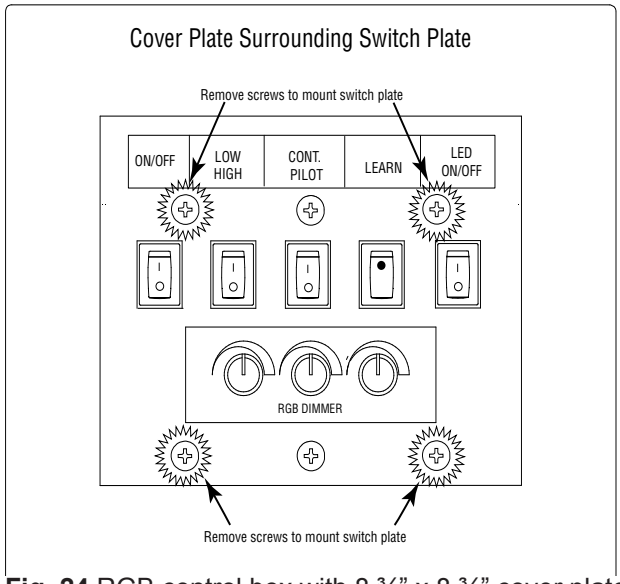


Fig. 24 RGB control box with 8 ¾" x 8 ¾" cover plate.

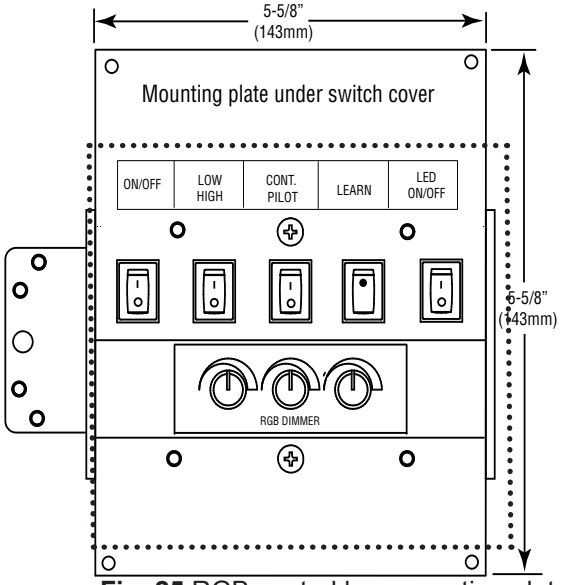


Fig. 25 RGB control box mounting plate

Step 11: Remove the RGB control box from the components parts carton. Find a suitable location within a close proximity of the fireplace for convenience of operation and mount the control box upright and level as shown in Fig. 26, page 21. Use Figs 24 & 25 for dimensional reference. The fireplace is supplied with 10-feet of wiring for the RGB control box (switches and dimmer) installation. **Note:** If desired, you can purchase 10-feet wire extensions in the accessories section that will enable you to move the RGB control box up to 50-feet away from the fireplace. **CAUTION:** Ensure all switches are in the OFF position. **"I" indicates ignite/ON and "O" indicates OFF.** Learn button does not apply.

Step 12: Remove the four (4) outer screws from each corner inside the cover plate and lift off. See Fig. 24. This will expose the mounting plate. See Fig. 25. **CAUTION:** Do not remove the two center screws from the cover plate. This will release the entire switch box wiring from inside the junction box and make it difficult to reinstall.

Take note of the 8-PIN (77160) and 6-PIN (77111) wire connectors. These are labeled LED lights (6-PIN) and Control Module (8-PIN) connections. These will be the final connection to the fireplace and crucial to the operation.

Step 13: Find a desired location to mount the RGB control box. Cut a 6" wide x 5 ½" tall hole into the cement board. See dotted line in Fig. 25. Mount the RGB control box. **Note:** The wires from the switches can be removed for easier installation, if needed. Ensure to match the wires with the labels for each switch when reattaching.

Step 14: Remove the 8-PIN module wire harness (77161) from the components part box. Locate the 8-PIN male connector from the valve box (under the fireplace) and connect it to the 8-PIN female end of the wire harness. Connectors only attach one way; press together until it snap locks into place. See Fig. 26, page 21 for details.

Step 15: Feed the other end of the wire harness through the square access hole underneath the fireplace and pass the GFCI box, outside the fireplace to the RGB control box and connect. Connectors only attach one way; press together until it snap locks into place.

Step 16: Locate the two ¼" male terminals from the valve box and connect the AF-4000ADP24 adapter. Plug the 7.5VDC adapter into the 120VAC GFCI box.

Step 17: Locate the 6-PIN wire harness (77111) for the LED lights and feed the wire harness up to the RGB control box and attach. Connectors only attach one way; press together until it snap locks into place. See Fig. 26, pg 21.

Step 18: Plug 12-volt adapter (77120) into the 120VAC GFCI outlet double gang junction box described on page 16.

Step 19: Plug 77160 into 77161 to connect the control module to RGB control box then connect the AF-4000ADP48EXT to the AF-4000ADP24 and plug it into the 120VAC GFCI outlet double gang junction box. See Fig. 26, pg 21 for reference.

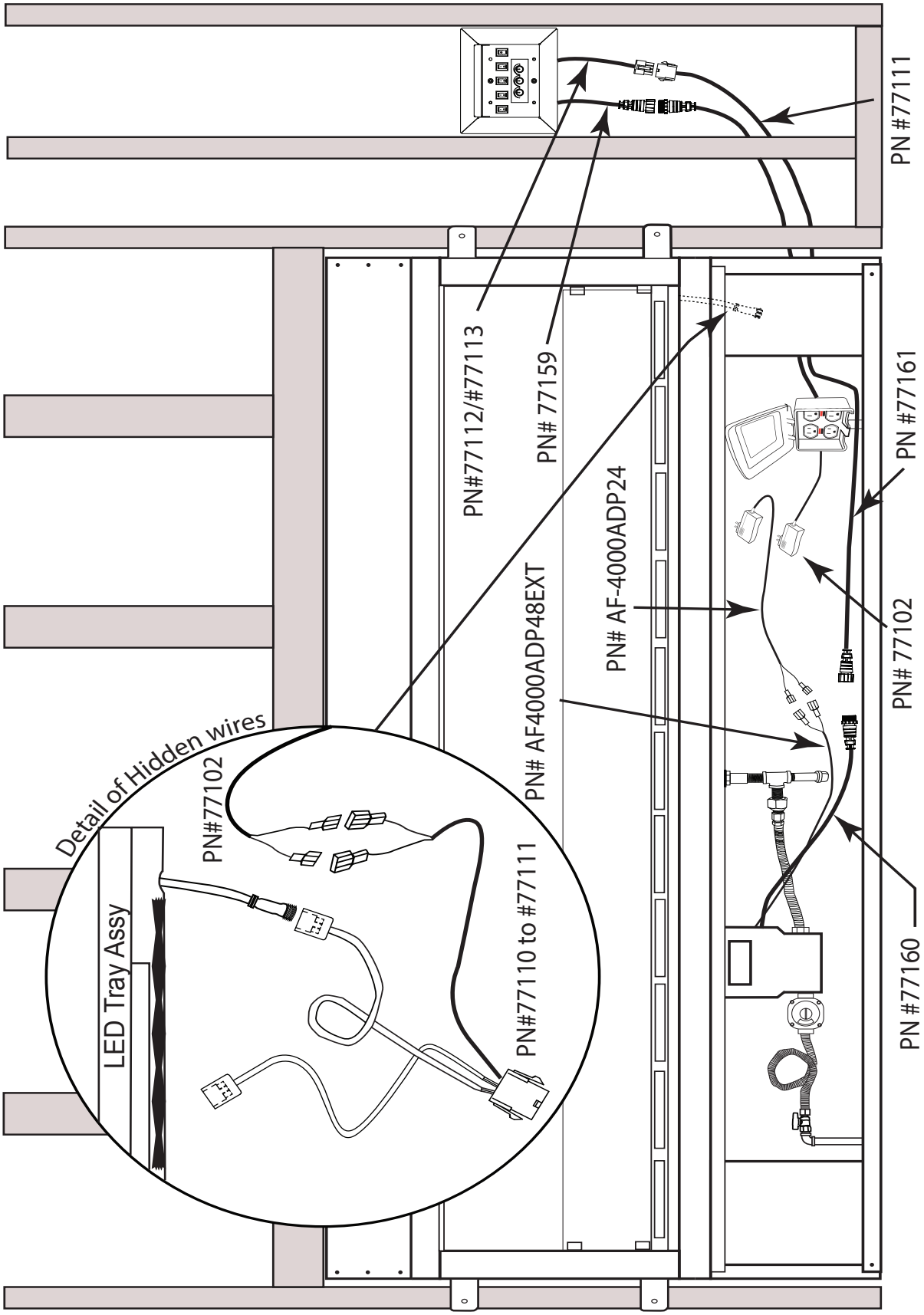


Fig. 26 Overview of fireplace wiring to control box. **Note:** The fireplace is provided with 10-feet of wire. If you require a longer length, an optional 10-foot wire harness 77161 & 77111 are available in replacemet parts section.

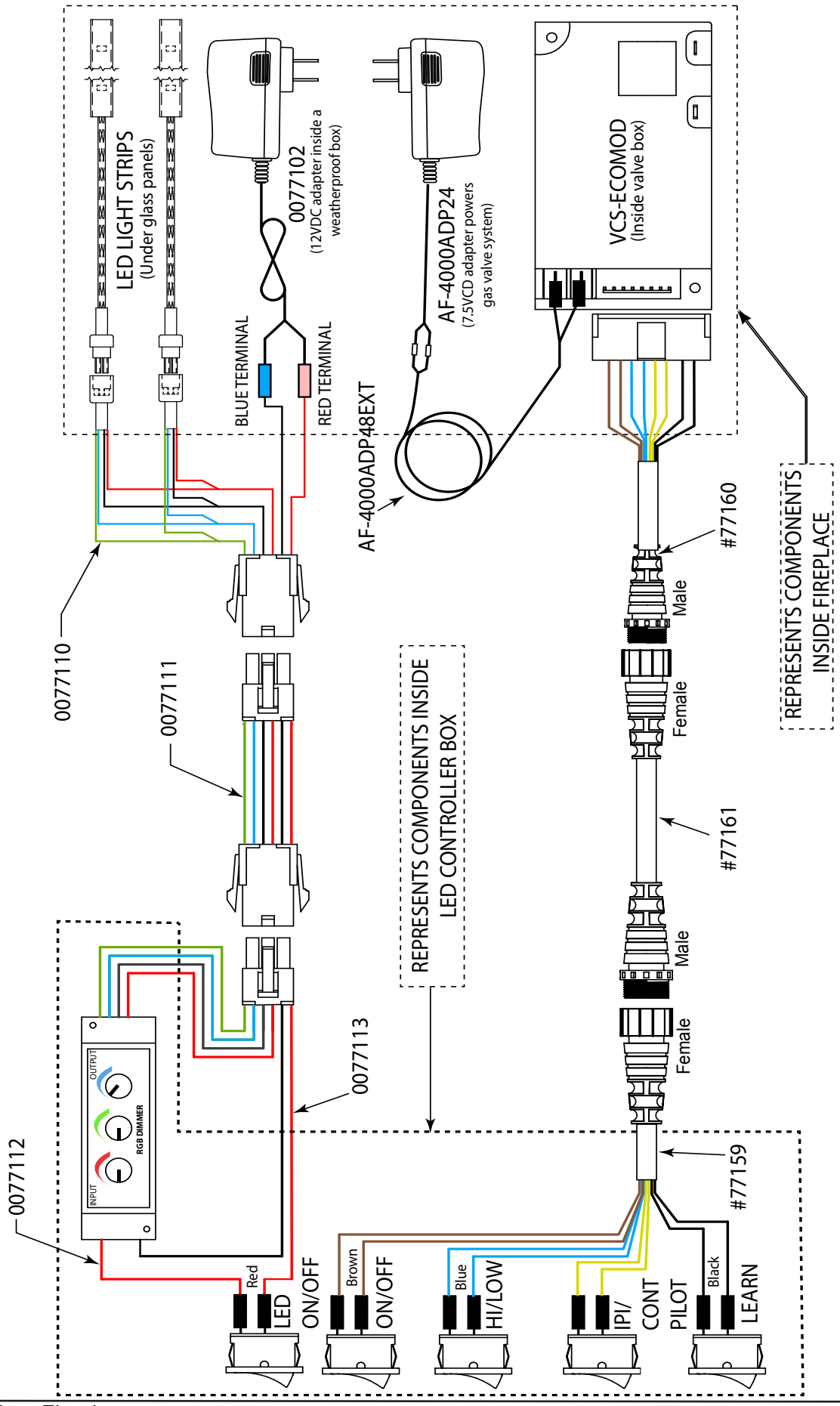


Fig. 27 This wiring diagram shows the LED circuit in relationship to the IPI gas valve control system. Each is independent of the other.

GAS VALVE WIRING DIAGRAM

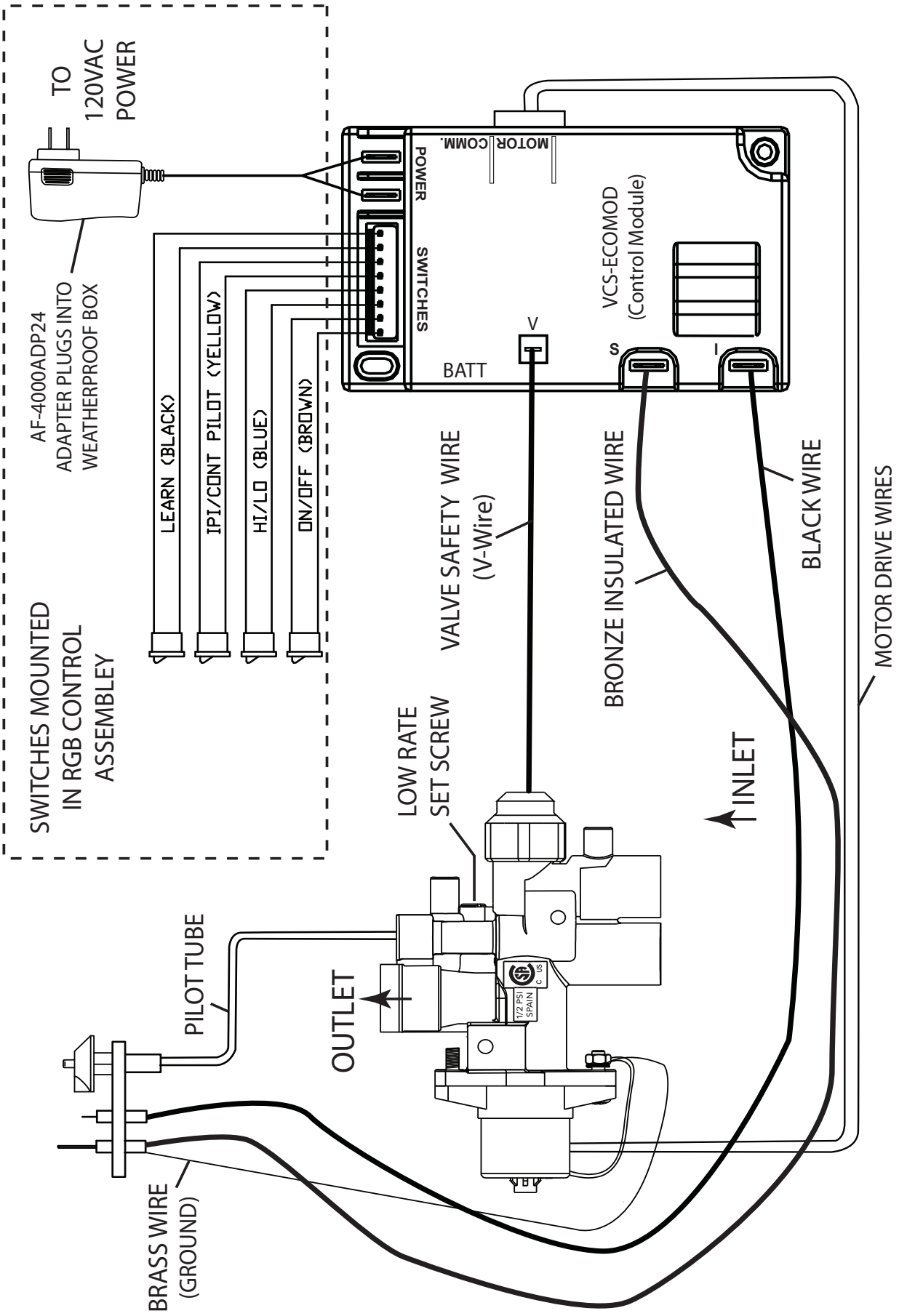


Fig. 28 This wiring diagram shows the components inside the valve box.. The dotted line box shows the components external of the valve box.

FINAL PREPARATION

Step 20: Install the burner pan back into the fireplace. See Fig. 29.

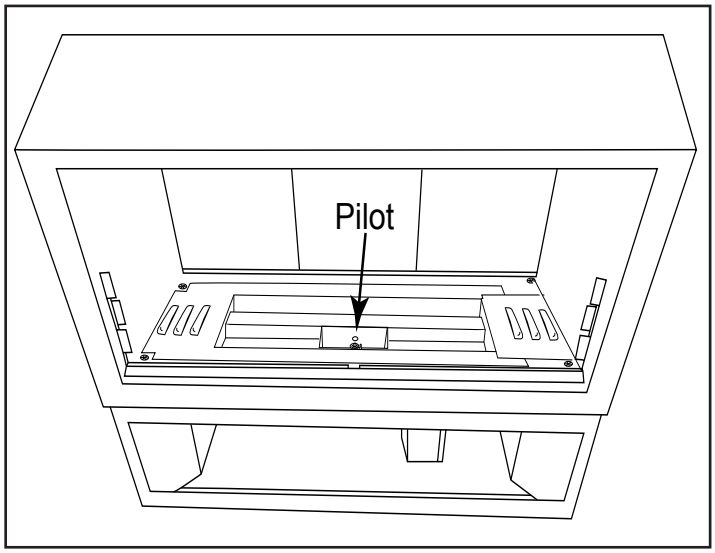


Fig. 29 Shows burner pan installed into fireplace.

Step 21: Install ignition screen (from parts box) overtop of the burner tube with the cutout area centered behind the pilot box ignition hole as shown in Fig. 30. The ignition screen sit on top of the burner tube.

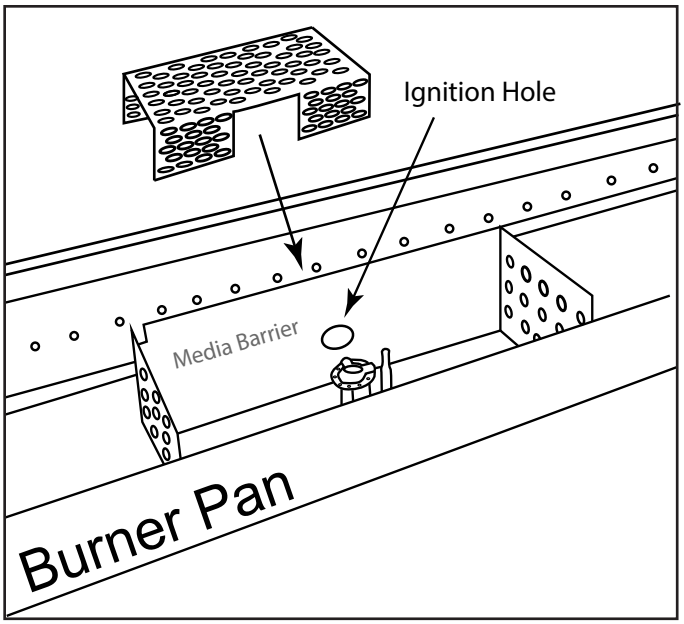


Fig. 30 Installing ignition screen.

NOTE: The pilot hood will have a plastic film that must be removed before installing.

Remove the plastic film from the pilot hood and place it on top of the pilot box as shown in Fig. 32.

Step 22: Place pilot hood on top of the pilot box and ensure if sits flat, providing ventilation for the pilot at the front edge of the burner pan. See Figs. 31 and 32.

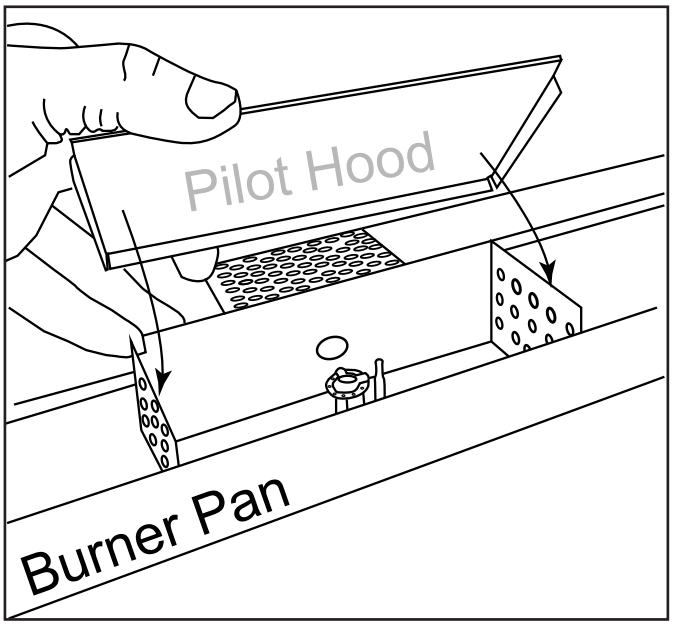


Fig. 31 Pilot hood installing over top of pilot box.

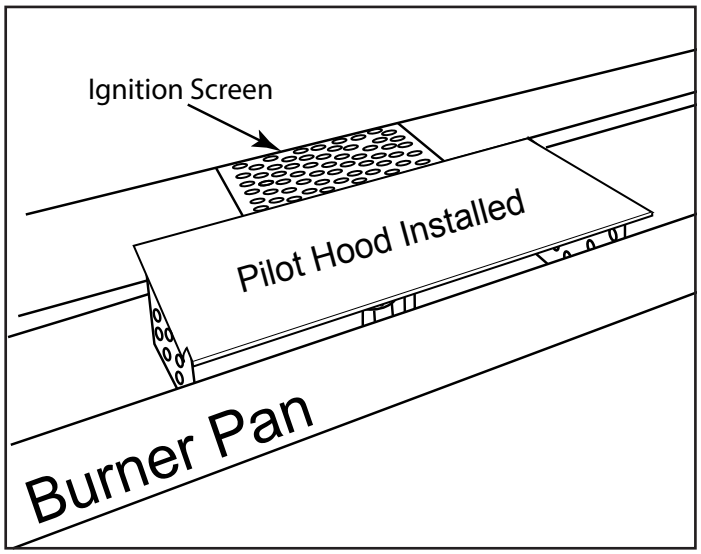


Fig. 32 Pilot hood installed, showing ventilation at front edge of burner pan.

FINAL PREPARATION

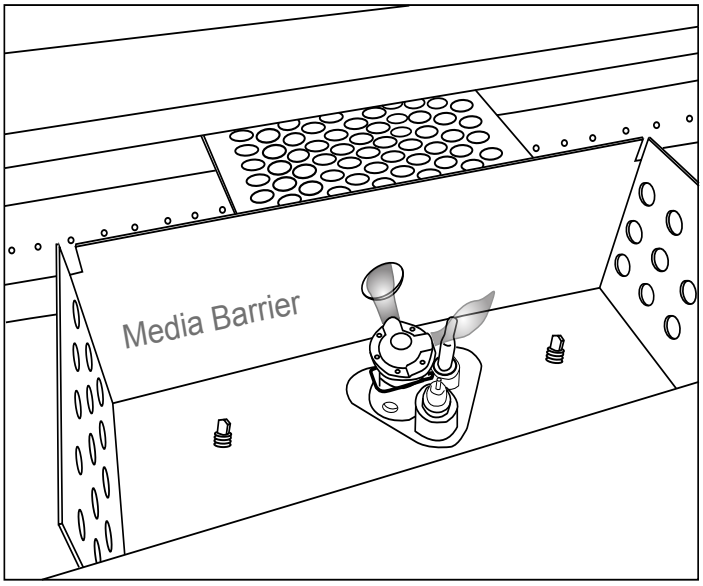


Fig. 33 Proper pilot flame through ignition hole.

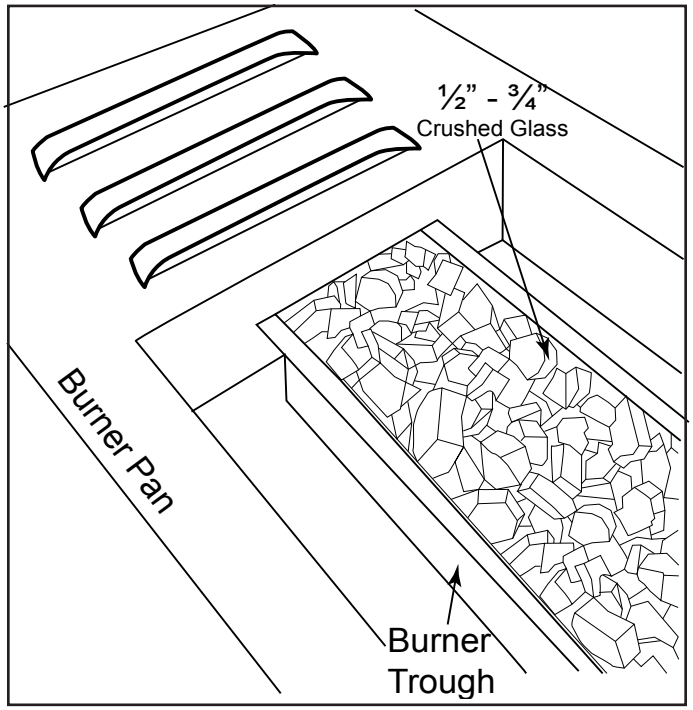


Fig. 34 Installing media into the fireplace.

PILOT OPERATION & TEST FIRE

Step 23: The pilot assembly is located in the center of the burner. Ensure the pilot flame is passing through the ignition hole, to the burner for proper ignition. Use the Fig. 33 as a guide.

Test fire the fireplace before installing media to ensure flame is passing through igniton hole as shown in Fig. 31. This is a good time to double check for any gas leaks or electrical connections before finalizing the installation by installing the glass media.

INSTALLING MEDIA

Step 24: Open the media box and install the glass media as shown is Figs. 34 - 36. Place media fireglass into the trough area first as shown in Fig. 35. Use the remaining media to fill the burner pan equally on both sides. Install only one layer over top of the ignition screen (Fig. 32), just enough to camoflauge it.

Keep media in burner pan the same level as the trough to allow the burner area to appear as one complete burner pan.

IMPORTANT: Media can only be placed in the trough and burner pan area. No media is to be place into the shaded area shown in Figs. 34-36, pages 25- 26.

CAUTION: Ensure there is no media in the ignition hole area. The burner tube gas ignites in this area to light the fireplace. Media in this area could cause delayed ignition.

The fireplace requires ½"-¾" large broken fireglass to be installed into the burner trough and burner pan. Use the table below to assist in determining the amount of media needed for your specific model.

	Large Broken Glass
Model #	Burner pan & Trough
36"	15lbs.
48"	20lbs.
60"	25lbs.
72"	25lbs.

Table 8 Media specifications. Requires ½" - ¾" fireglass (Burner pan media amount does not include the trough)

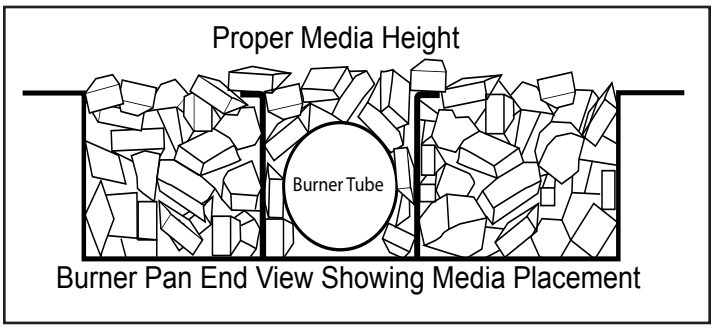


Fig. 35 End view of burner with media.

Note: Media amounts listed in Table 8 are guides and can vary depending on media used. Ensure not to cover more than ½ -inch above the actual burner tube and keep all media within the burner pan area (See Fig. 35).

WARNING: Media must be installed in the fireplace as previously described and used during operation.

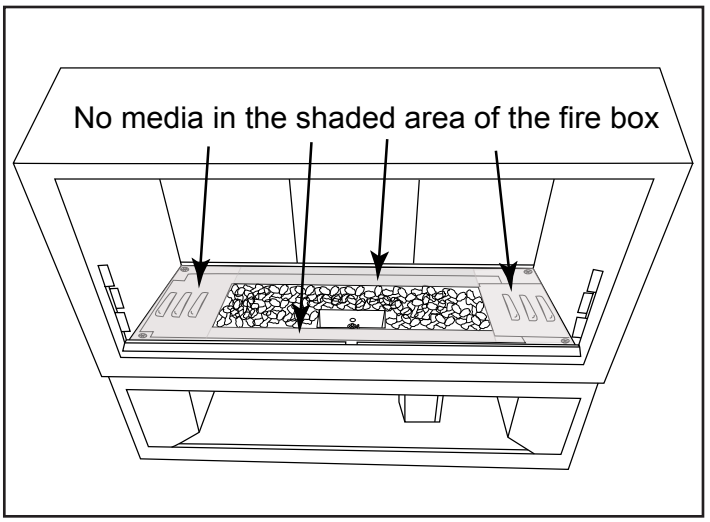


Fig. 36 Covering the entire fireplace floor is NOT permitted in the shaded area.

INSTALLING HOOD(S)

Step 25: The fireplace requires a hood to be installed into the upper opening of the firebox. All models require five (5) screws to secure the hood to the fireplace except the 72-inch model, which uses seven (7) screws (77129 - 8-32x1/2" stainless pan head) to secure the hood. The hood protrudes 1-inch from fireplace opening. Fig. 37 shows hole location and installation process for hood installation. The protruding area of the hood is to be angled downward for proper installation, see Hood Detail below.

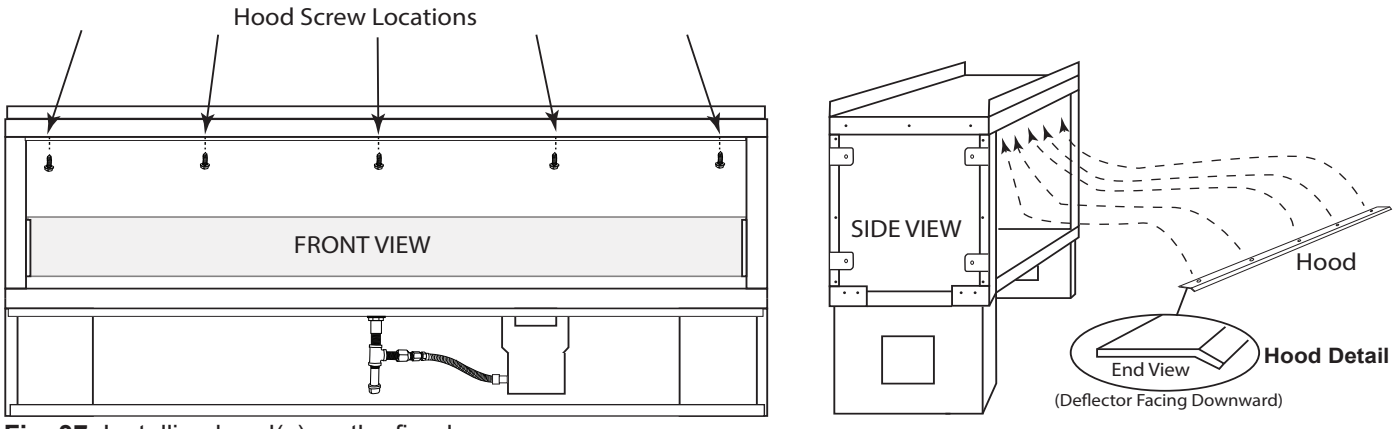


Fig. 37 Installing hood(s) on the fireplace.

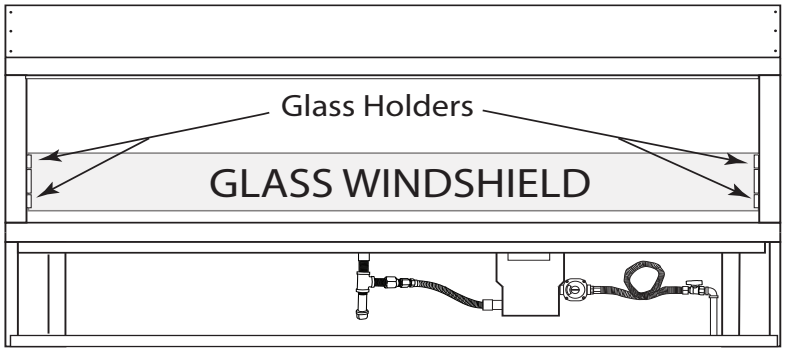


Fig. 38 Glass clips location.

DANGER

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 for the protection of children and other at-risk individuals.

INSTALLING REMAINING GLASS CLIPS

Step 26: Install the remaining (2) glass clips in front of the LED clips as described on page 17 in steps 3 and 4, Fig. 18.

GLASS PANEL/WINDSHIELD INSTALLATION

Step 27:

- Carefully unpack the glass panels.
- Using gloves carefully lift one glass panel, into the fireplace opening, over top of the glass clips, and slide it down into the metal retainer clip, supporting the glass at the top and bottom as you handle it. See Fig. 39
- As the glass enters the clip the bottom edge of the glass will rest in place on the bottom of the clip.
- Install the second glass pane in the same manner as described in Fig. 39.
- Both glass panels should be level when installed.
- Center glass between clips after installation.

"WARNING: Both glass panels must be installed when the fireplace is in operation". Note: All four (4) glass panels must be installed on see through fireplaces.

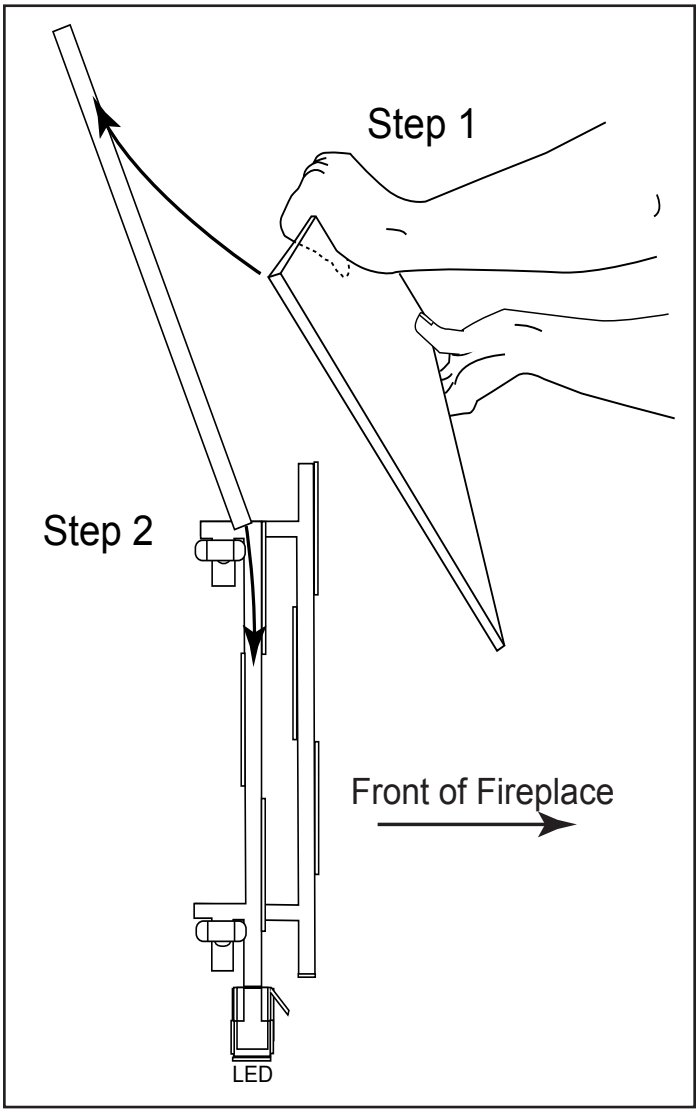


Fig. 39 Installing glass panels.

CAUTION: THIS IS TEMPERED GLASS. DO NOT CHIP GLASS. CHIPPED TEMPERED GLASS CAN BREAK WITHOUT WARNING.

FINAL PREPARATION

FLAME HEIGHT

Proper flame height (Fig. 40) should be at the top edge of glass windshield (peaking above at times) while on HI setting. **Note:** Glass windshield is 7-inches tall. The LO setting will be at least half of the height of HI or maybe lower. There can be a variance in flame height between Natural Gas and Liquid Propane (LP) Gas models.

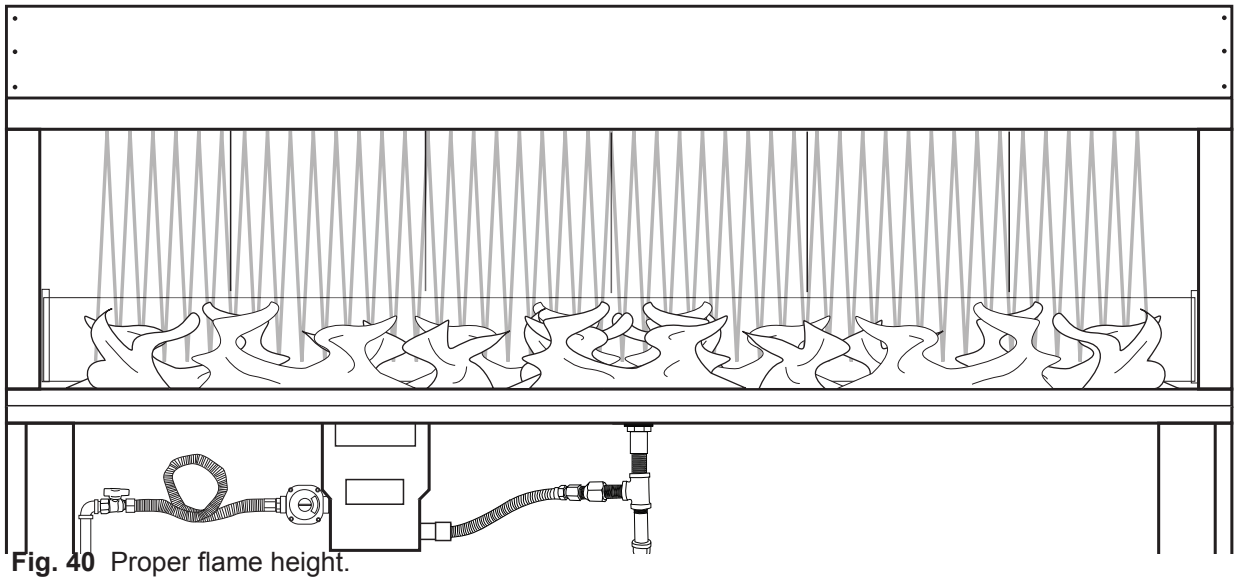


Fig. 40 Proper flame height.

PROGRAMMING OPTIONAL REMOTE CONTROLS

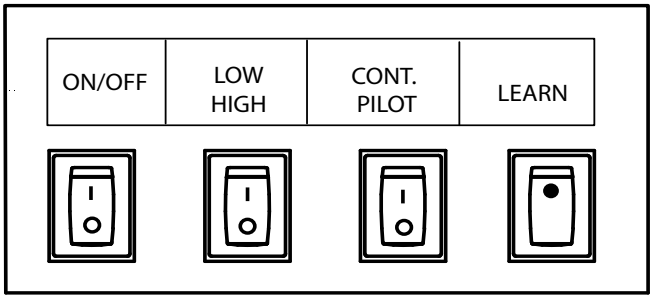


Fig. 41 Control panel

LEARNING TRANSMITTER TO MODULE

1. To **LEARN** (pair) the remote transmitter to the control module, press and release the LEARN button (switch) in the control box. See Fig. 41. You will hear single audible beep indicating the module is ready to learn the transmitter security code. Press any button on the transmitter within 60 seconds. The code is accepted when you hear 4 short beeps in rapid succession. Security codes will be retained in memory indefinitely if power is removed. **Note**: Control module accepts a total of three (3) wireless transmitters.
2. To **Clear Codes**: Press and hold learn switch on for 6 seconds to clear all transmitter security codes retained in memory. Codes are clear when you hear three long beeps in succession.

Note: After "Learning" the remote control to the control module you will be able to operate the fireplace with the remote, without pushing any of the switches inside the control box. You still have the option to operate the fireplace manually if needed by accessing the control box and pushing the ON/OFF switch. Refer to the lighting instructions above.

OPERATION

CAUTION: Children and adults should be alerted to the hazards on high surface temperatures and should stay away to avoid burns or clothing ignition. Young children should be carefully supervised when they are in the area of the appliance.

WARNING: 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 control system and any gas control, that has been under water.

SAFETY WARNINGS

1. Never leave the fireplace unattended during operation.
2. Clothing or other flammable materials should not be placed on or near the appliance.
3. Any guard or other protective device removed for servicing the appliance must be replaced prior to operating the appliance.
4. Installation and repair should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required as necessary. It is imperative the control compartment, burners and circulating air passageways of the appliance be kept clean.
5. Inspect the fuel supply connection before each use of the appliance.
6. Temporary storage of this appliance indoors is permissible only if it has been disconnected from its fuel supply (Natural or L.P. gas line).

WARNING

1. This appliance is hot when operated and can cause severe burns if contacted.
2. Do not burn any solid fuels in this appliance.

LIGHTING INSTRUCTIONS

READ ALL WARNING AND SAFETY INFORMATION ABOVE BEFORE ATTEMPTING TO LIGHT FIREPLACE

Turn **ON** main gas supply and check all fittings and connections for leaks with a soap and water solution.

HOW TO TURN ON

2. Push the “I” on the ON/OFF switch to turn ON (System will take approximately 7-10 seconds before ignition after the gas line is purged). During this time, an “Ignition In-Process” beeping pattern will take place. (e.g. one short beep, pause, three short beeps, pause; repeated until ignition occurs). NOTE: Beeping pattern may be difficult to hear outdoors.

3. The main flame ignites (defaults) in the HIGH position. Press the “I” on the LOW/HIGH button to adjust to the LOW setting.

4. A continuous pilot flame can be turned ON or OFF with the continuous pilot button.

5. Push the “I” on the LED ON/OFF switch. LED’s will turn ON. Adjust the intensity of the lighting by turning the knobs clockwise on each dimmer knob. There is infinite color combinations by adjusting the dimmer knobs to personal taste.

HOW TO TURN OFF

1. To turn OFF the fireplace press the “O” position on the ON/OFF switch. This will turn OFF the fireplace. NOTE: Fireplace must be OFF for 5 minutes before relighting.

   To turn OFF the LED lights in the fireplace press the “O” position on the LED ON/OFF switch. This will turn OFF the LED lights. The LED lights are independent of the fireplace and can be used when the fireplace is not in operation.

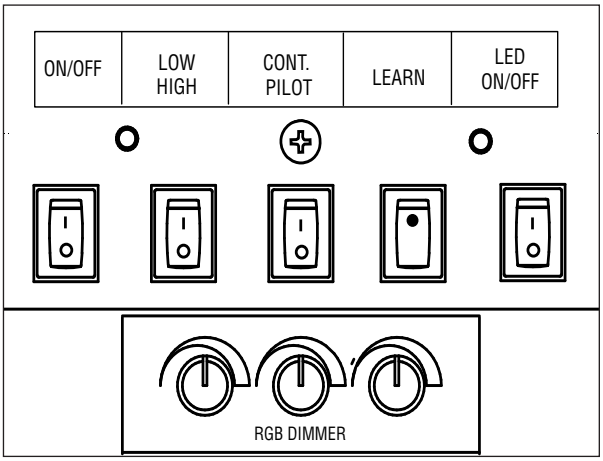
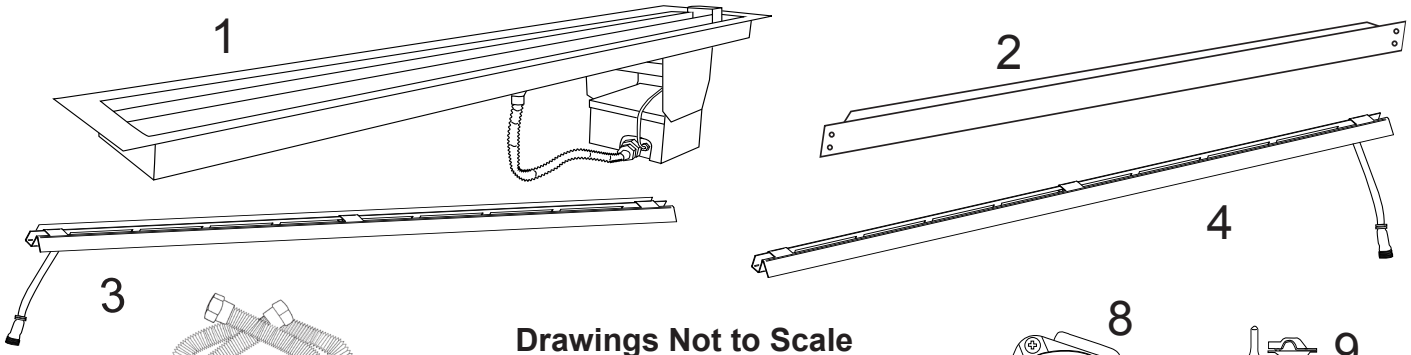
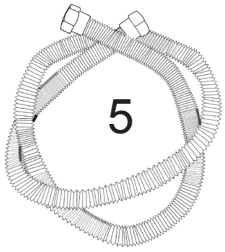


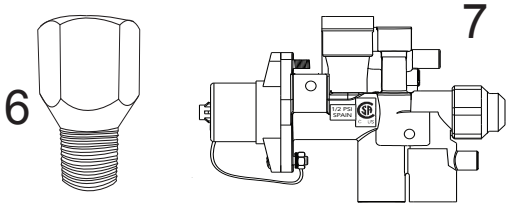
Fig. 42 Control panel rocker switches.
“I” indicates Ignite/ON and “O” indicates OFF.

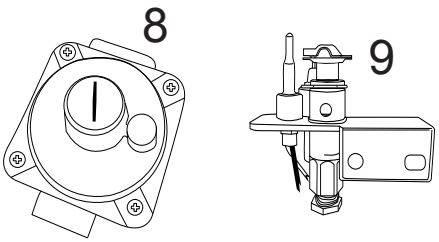
REPLACEMENT PARTS

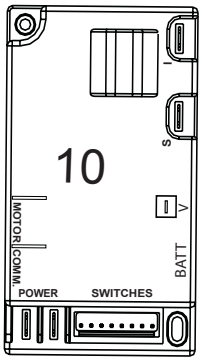


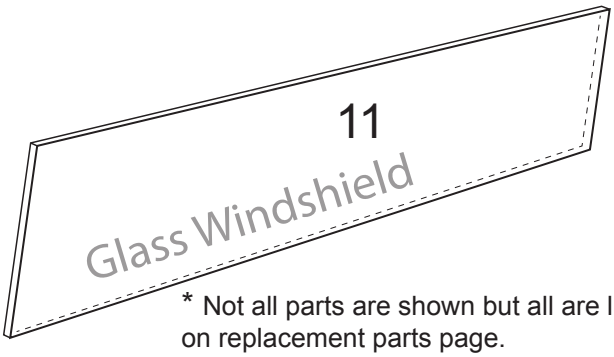
Drawings Not to Scale



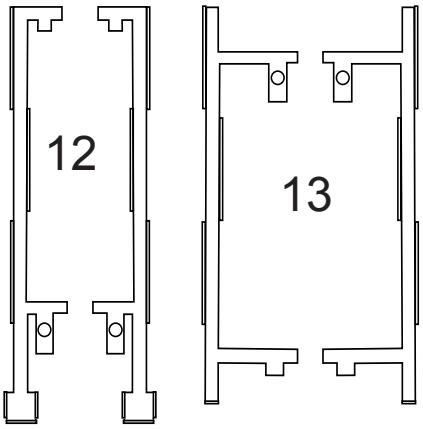


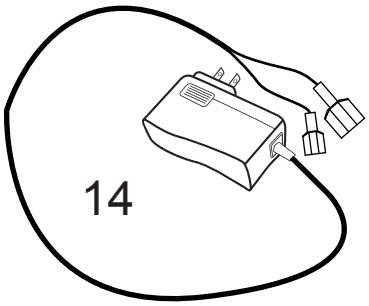


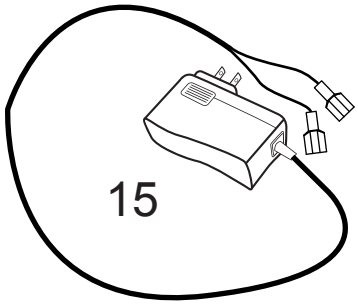


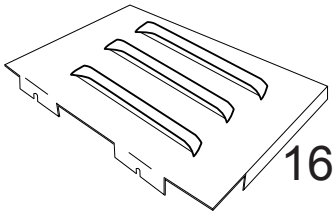


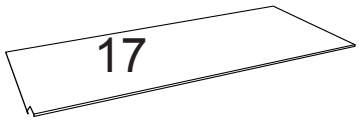
* Not all parts are shown but all are listed on replacement parts page.

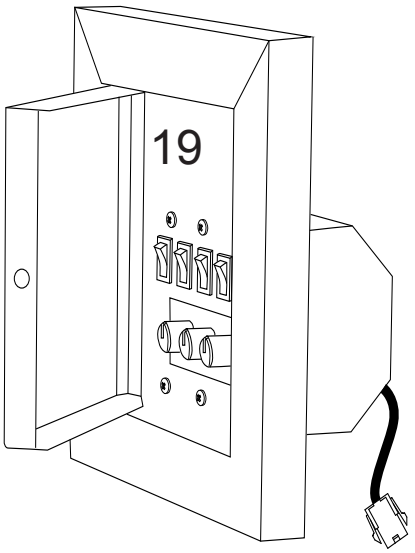


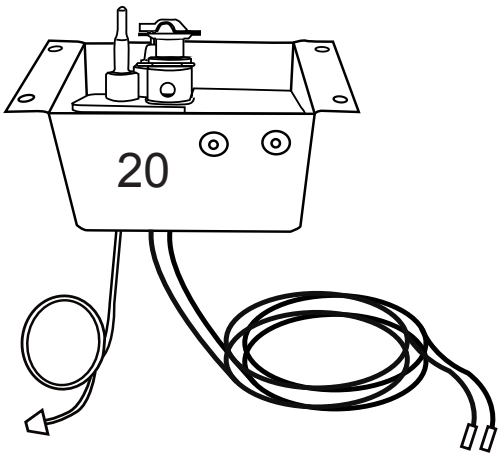


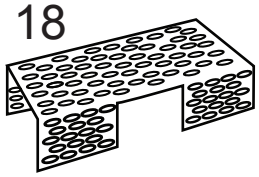












REPLACEMENT PARTS LIST

Item	Description	Part Number
1	Complete Stainless Steel Burner Pan Assembly	36”-(73235) 48”-(74235) 60”-(75235) 72”-(76235)
2	Bottom Support Fin for - 2 per unit (Fig 12, page 14)	36”-(73130) 48”-(74130) 60”-(75130) 72”-(76130)
3	LED Tray Assembly - Left	36”-(73221) 48”-(74221) 60”-(75221) 72”-(76221)
4	LED Tray Assembly - Right	36”-(73222) 48”-(74222) 60”-(75222) 72”-(76222)
5	1/2” Flex Gas Line (46-inch Length)	T-200-9898-46
6	Air Shutter Orifice NG (for 36” Natural Gas Models)	OAS-NG41
6	Air Shutter Orifice NG (for 48” Natural Gas Models)	OAS-NG32
6	Air Shutter Orifice NG (for 60” Natural Gas Models)	OAS-NG30
6	Air Shutter Orifice NG (for 72” Natural Gas Models)	OAS-NG25
7	EcoFlow Gas Valve with Step Motor with ECO-LSS-44 for 36” Model	73224
7	EcoFlow Gas Valve with Step Motor with ECO-LSS-34 for 48” Model	74224
7	EcoFlow Gas Valve with Step Motor with ECO-LSS-27 for 60” Model	75224
7	EcoFlow Gas Valve with Step Motor with ECO-LSS-18 for 72” Model	76224
8	Natural Gas Regulator (convertible to LP) See page 33	REG-C80K-NG
9	Side Mount Pilot Assembly (order item #19 if replacing entire pilot)	ECO-VK-PILOT
10	Ignition Control Module includes 8-pin wire harness)	ECO-VK-ECOMOD-WH
11	Tempered Glass Windshield for 36” model (¼” x 8” x 35 ½”)	KB-36-73120
11	Tempered Glass Windshield for 48” model (¼” x 8” x 47 ½”)	KB-48-74120
11	Tempered Glass Windshield for 60” model (¼” x 8” x 59 ½”)	KB-60-75120
11	Tempered Glass Windshield for 72” model (¼” x 8” x 71 ½”)	KB-72-76120
12	Glass Clips (2) supports for LED channel	(Right) 77156 (Left) 77157
13	Glass Clips (2) supports for glass panel only	(Right) 77154 (Left) 77155
14	12-DC volt adapter for LED lights (male and female terminals)	77102
15	7.5-DC volt adapter for Ecoflow operating system (2 female terminals)	AF-4000ADP24
16	Bottom End (Used to center burner pan into fireplace)	76125
17	Pilot Hood	77150
18	OFP PILOT SCREEN (Ignition screen behind pilot box)	77151
19	RGB Control Box Assembly (includes LED controller)	77117
20	Pilot Box Assembly (pilot installed in pilot box for replacement)	77158
21	Manual gas shut-off valve (½” OD Fare x ½” FIP) - not shown	01-487
22	Fireplace Hood - (deflects heat from top opening) not shown	36”-(73131) 48”-(74131) 60”-(75131) 72”-(76131)
23	Poly Lighting Label (inside of control box) - not shown	77144
24	10-foot Module Wire Harness- not shown	77161
25	10-foot LED Wire Harness- not shown	77111

Note: All items are shipped as one replacement part unless noted in the description.

NATURAL GAS TO LP GAS CONVERSION

This kit will properly convert the outdoor fireplace to LP gas. Kit contents are: (1) OAS-LP# (Brass orifice) and (1) ECO-LSS# (Brass low rate set screw), (1) LP Conversion label (placed next to blank space on rating label, (1) Installation instruction

Model	Main Burner Orifice	Low Rate Set Screw
OFP-36LECO-LPK	OAS-LPR52	ECO-LSS-52
OFP-48LECO-LPK	OAS-LPR48	ECO-LSS-46
OFP-60LECO-LPK	OAS-LPR44	ECO-LSS-42
OFP-72LECO-LPK	OAS-LPR42	ECO-LSS-35

Table 1 Reference information

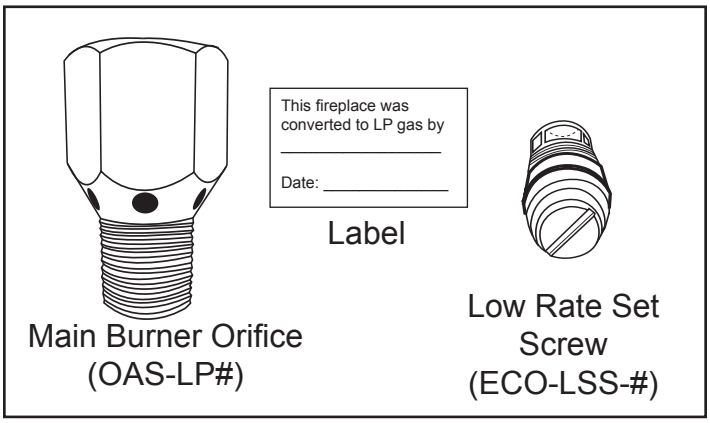


Fig. 1. Contents of kit

Step 1: Turn OFF the gas supply to the outdoor fireplace and disconnect any electrical power.

Step 2: Remove the burner pan from the fireplace to enable conversion access. See installation manual if necessary.

Step 3. Disconnect the flex line at the main burner orifice. Then remove the orifice and flared fitting from the orifice. Re-tape the flared fitting with the new OAS-LP orifice per Table 1. Ensure to use gas rated Teflon tape around the threads or pipe compound. Check for leaks after conversion is complete.

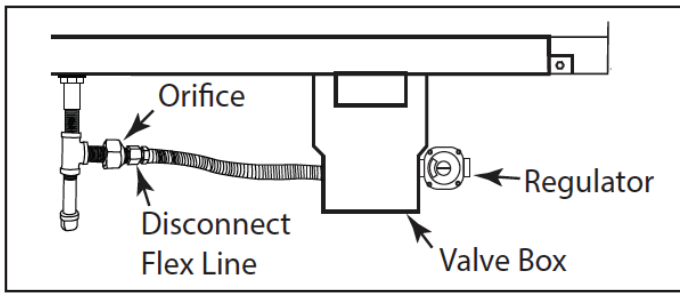


Fig. 2 Changing main burner orifice

Step 4: Locate the gas regulator the opposite side of the valve box. Using a regular size flat bladed screwdriver remove the aluminum cap and washer from the regulator. See Fig. 2.

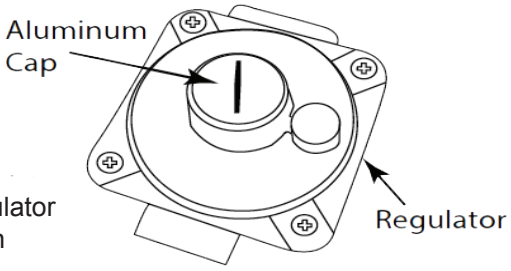


Fig. 3 Regulator cap location

Step 5: On the underneath side of the aluminum cap is a plastic stem. Using a 6mm wrench remove the stem, unscrew the stem (counter-clockwise), turn it over and install the opposite end back into the cap. See Fig. 4.

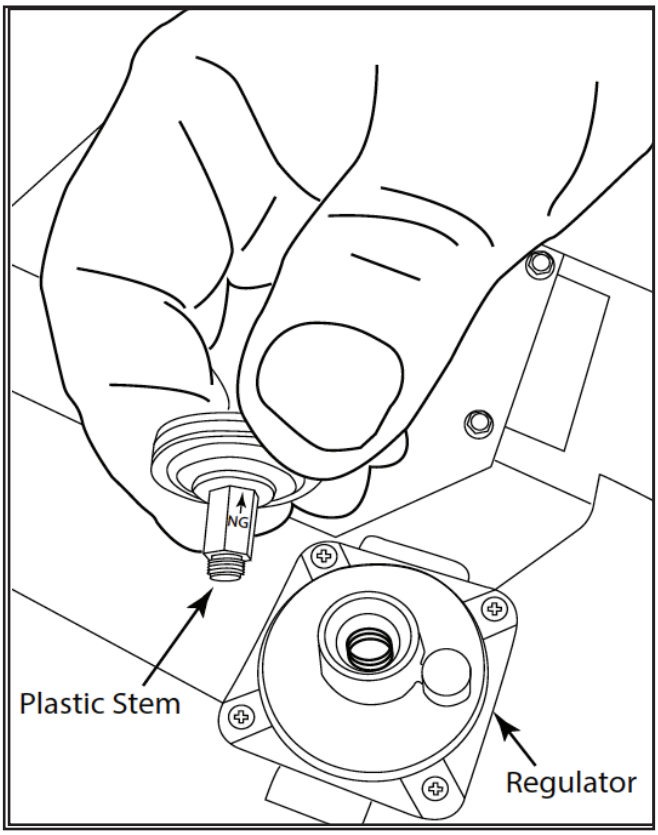


Fig. 4 Regulator stem shown in NG setting

NOTE: The plastic stem has a marking on it with an arrow. Look carefully on the stem, it may be difficult to read.

The gas type is determined with the arrow pointing at the aluminum cap as seen in Figs. 4 and 5.

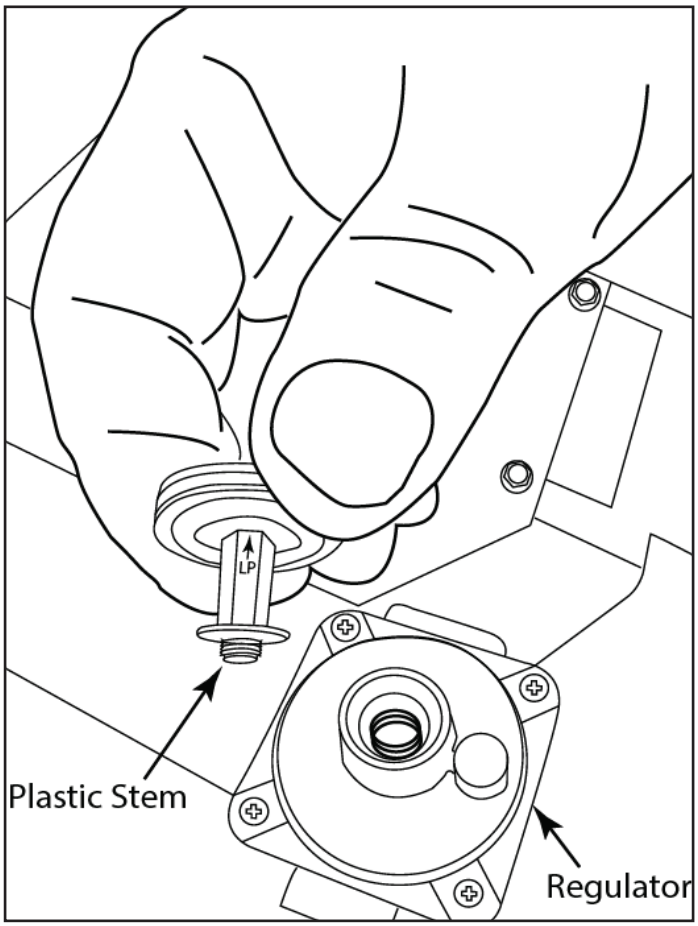


Fig. 5 Regulator stem shown in LP setting

CAUTION: Ensure the aluminum cap is installed with the plastic stem seated completely into the cap and the metal washer is installed with the aluminum cap.

Step 6: Secure the aluminum cap with a screwdriver.

Step 7: In the center of the burner pan where the pilot is located (See Fig. 6), remove the pilot head. **Note**: Some media may need to be removed to gain access.

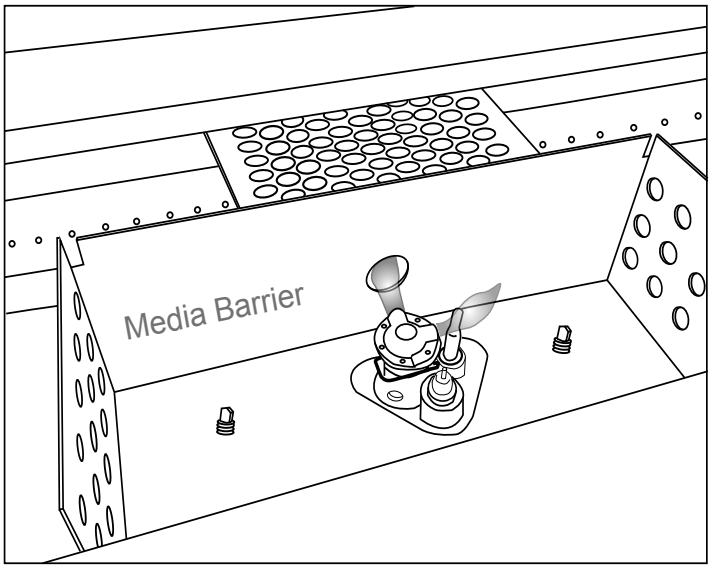


Fig. 6 Show pilot assembly under the pilot hood.

Step 8: Lift/pull the pilot head straight up and out of the pilot assembly. If pilot head does not move, then pull the wire clip, under the head, with a small screwdriver or needle-nose pliers, then lift the head off. See Fig. 9.

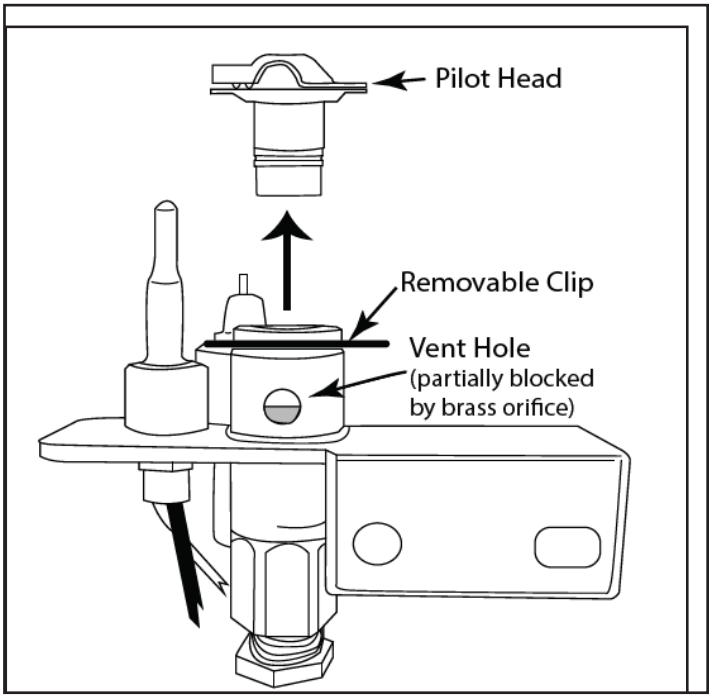


Fig. 7 Pilot head removal

Step 9: Insert a 4mm hex head (allen wrench) into the octagon hole of the brass orifice inside the pilot assembly and turn clockwise until it stops (approximately 2 full revolutions). See Fig. 8.

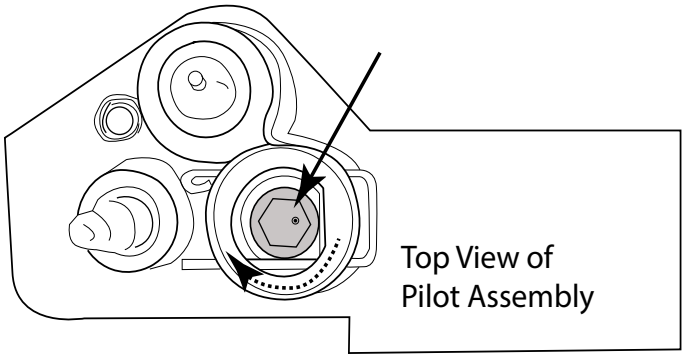


Fig. 8 Shows slot inside pilot orifice

Once the orifice has been converted to LP then re-install the pilot hood, ensure the clip is in place (if removed) and mount the metal pilot box back into place in the same manner you removed it from the burner pan. See Fig. 6 as a reference.

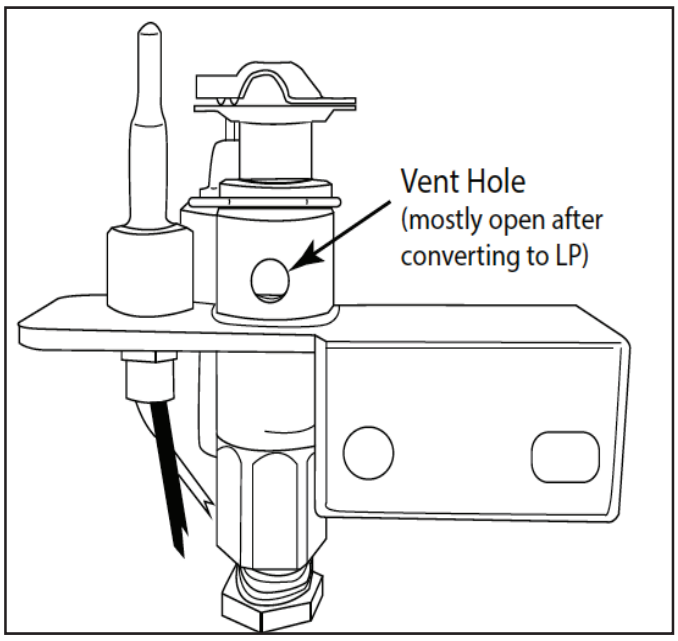


Fig. 9 Pilot assembly converted to LP

NOTE: Figs 7 and 9 provide a visual reference of the pilot orifice from Natural gas to LP gas through the vent hole of the pilot assembly.

Step 10: Look for the low rate set screw in the gas valve box. There is a cutout (window) area that allows access to the low rate set screw. Fig. 10 below shows the side view of the burner pan and a close-up detail.

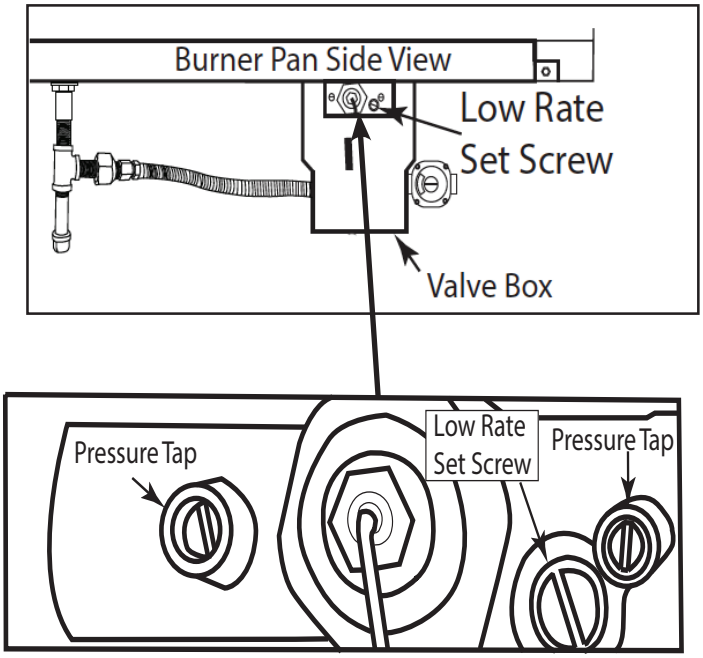


Fig. 10 Detailed location of low rate set screw

Step 11: Remove the low rate set screw with a flat bladed screwdriver turning the screw counter-clockwise. The set screw has a rubber "O" ring on the outer portion of the screw, as a result the screw will rotate only 3-4 revolutions and not unscrew any farther. **Note**: If you drop the low rate screw inside the valve area you can retrieve it through the access door of the valve box.

Step 12: Remove the low rate set screw using a small pair of needle-nose pliers. Grab the outer edge of the screw and pull outward.

Step 13: Insert the correct new low rate screw from Table 1 with the needle-nose pliers. Secure the new low rate set screw (clockwise) with screwdriver until it is tight and now longer spins.

CAUTION: DO NOT REMOVE OR LOOSEN THE SMALL SET SCREWS ON EACH SIDE OF THE V-WIRE. THESE ARE PRESSURE TEST PORTS. IF THESE ARE LOOSENED THEY MUST BE RE-TIGHTENED TO ENSURE NO GAS LEAKS OCCUR.

Step 14: Fill out the label "This fireplace has been converted to LP gas" and affix it to the blank area on the rating plate.

Step 15: Ensure you test the burner pan after it is installed into the fireplace for any gas leaks.

Step 16: Conversion is now complete.

FIREPLACE MAINTENANCE

1. The fireplace should be inspected and cleaned before first use at the beginning of each season by a qualified field service person.

2. Any component that is found faulty must be replaced with an approved component.

3. Any tampering with or modifying the fireplace is dangerous and voids all warranties.

4. During winter months in cold climates and various seasons operation the fireplace may be affected by weather conditions. It is recommended to use a weather proof cover overtop for your fireplace to protect it from humid/rainy weather conditions when not in use. Heavy rains/downpours could affect the fireplace operation if not covered; if this occurs ensure you allow the fireplace time to dry out before attempting to operate. **NOTE**: If a combustible type cover is used over the fireplace when not in use be sure to remove it before operation to prevent a severe safety hazard.

5. Carbon (soot) may build up on the metal interior during heavy use and sooting may also occur periodically under the pilot cover. Do the following: To clean, mix several drops of dish washing liquid into a bucket of hot water. The dish soap assists in breaking up the soot and removing it from the metal. **CAUTION:** Ensure fireplace is cool to touch and gas is turned OFF before cleaning.
    A. Dip a scrubbing sponge into the soapy water and wipe it back and forth over the soot deposits. This breaks off the majority of the soot from the metallic surface.
    B. Spray any remaining soot deposits with a combination of warm water and white vinegar mixed in a spray bottle in a half-and-half solution. White vinegar is slightly acidic and this helps break up the soot and cleans the metal effectively.
    C. Run a nylon scrub brush against any stubborn soot to remove it from the metal. Avoid using a metal scrub brush since this can result in scratching.
    D. Buff the metal with a damp rag to remove any remaining soap or vinegar and then dry it with a dry rag.

6. Over time stainless steel parts can discolor when heated, usually a golden or brown hue. This discoloration is normal and does not affect the performance of the appliance.
7. LED lights can get dirty over time and may require cleaning.
    A. Remove the glass windshield.
    B. Use a Q-tip dipped in alcohol to gently wipe the top of the LED lights. Careful not to puncture the light strip.
    C. Replace the glass windshield.

GENERAL TROUBLESHOOTING

Symptom	Remedy
Fireplace Won't Light	1. Bleed gas line. 2. Ensure all gas lines are turned ON. 3. Ensure there is not too much media overtop the burner, it can inhibit the gas flow. Too little or no media can also contribute to non-lighting. 4. Media blocking pilot hole. See Fig. 33 on page 25.
No Spark to Ignite	1. Visually look at ignitor for any physical damage. 2. Ensure batteries in battery pack measure 1.5 volts each. 3. Listen closely to vent area for any beeping sound. If beeping is heard refer to page 37.
Continues to Spark after Lighting	1. Thermocouple out of alignment. 2. Check connection of thermocouple at "S" terminal on control module to ensure it is connected. 3. Control module "proves" flame before lighting. See Ignition safety on page 37.
Low Flame	1. Ensure the media is at least ½" - ¾" in diameter. See page 33, Fig. 34. 2. Ensure all shut-off valves are fully open (See page 6, Fig. 1). 3. Check for spider webs inside burner orifice. 4. Check gas type and gas pressure. 5. Wrong media installed into the burner trough. 6. Too much media installed overtop of the trough (See page 25-26, Figs. 34 - 36 for details).
Water in my Fireplace	1. Excess dust/sand material from media may be blocking the weep holes to relieve water. Remove all media and unplug weep holes. Clean or install new media free of dust and dirt. 2. Ensure fire pit enclosure has proper drainage for water and proper ventilation to dry out. 3. Recommend to purchase a cover (if applicable) to keep excessive water out of the fire pit.
Whistling Noises	1. Check media to ensure it is not too tightly packed around the burner tube. 2. Ensure a non-whistling flex connector is being used.
Fireplace Won't Stay Lit	1. Check alignment of pilot flame through ignition hole on page 25, Fig. 33. 2. Thermocouple reading should be between 10-20mV while operating. Use a multi-meter and test at the brass ground lead on gas valve and the gold lead at "S" terminal on the control module. If no minimum millivolts are maintained replace the thermocouple. Must test with pilot operating to obtain readings. 3. Check continuity of thermocouple. Using a volt meter remove the TC test lead "S" from the control module and the brass fork terminal from the gas valve. Test for continuity. If no continuity, replace the thermocouple. 4. Ensure thermocouple is clean and free of any debris. Excessive soot can be an issue.
Sooting	1. Incorrect gas for the fireplace. Ensure rating label has proper model number for gas being used. 2. Too much media can cause sooting. 3. Wrong media being used. (See pages 25-26 for details).

ERROR CODE TROUBLESHOOTING

Error Codes

The control module has the ability to detect problems with the fireplace and will initiate error codes when they occur. If an error code occurs the control module will emit a series of “beeping” patterns to determine the error. Due to the outdoor environment, it may be difficult to hear the control module “beeping” inside the fireplace We suggested to “listen” at the vents or next to the burner tube.

The error codes listed below will guide you through troubleshooting issues.

Ignition Safety Error: One short beep every one second.
Cause: Pilot did not light within the trial period of 50-60 seconds therefore step motor will turn gas valve to OFF position.
Corrective Action: Press OFF button to clear. Wait 30 seconds and try again.

Recycle Safety Error: Two short beeps every one second.
Cause: 1. Pilot automatically lights and drops out 3-times within 2-minutes causes step motor to turn gas valve to OFF position. 2. Someone has pressed the ON/OFF button 6-times within 2-minutes causing the step motor to turn gas valve to OFF position.
Corrective Action: Press OFF button to clear. After 5-minutes the beeping will stop then retry.

Sensor Safety Error: Four short beeps every one second (constant beeping).
Cause: Pilot flame sensor voltage too high, ground circuit not properly connected, pilot ground wire loose or not connected, or motor not plugged into control module; therefore, step motor will turn gas valve to OFF position.
Corrective Action: Press OFF button to clear. Wait 30-seconds to thermocouple to cool down. If persist, then check other possible causes and retry.

Thermal Safety: Four short beeps every two seconds.
Cause: System has overheated and exceeded 170°F internal temperature limit and the step motor will turn gas to OFF.
Corrective Action: Internal temperature must cool down to below 160°F then press the OFF button to clear and retry.

Communication Safety: One short beep every four seconds.
Cause: Transmitter and module are not communicating properly. Could be related to distance greater than 20-feet away from each other or weak/dead batteries in one or the other.
Corrective Action: Module must receive a signal from transmitter

OPTIONAL ACCESSORIES

The following accessories are available from your local dealer/distributor.
Each accessory comes with a separate installation manual. Read each instruction thoroughly before installing.

Media

GRL-Series (Reflective Glass in mutiple colors)

Optional Remote

Model: RCAF-3TX (hand held remote)

LED See-Thru Conversion Kit

78002 (36-inch model)
78004 (48-inch model)
78006 (60-inch model)
78008 (72-inch model)

Kit includes: hood, right/left glass holders & screws

LP Conversion Kit

Model:
OFP-36LECO-LPK (36-inch model)
OFP-48LECO-LPK (48-inch model)
OFP-60LECO-LPK (60-inch model)
OFP-72LECO-LPK (72-inch model)

Converts fireplace from Natural gas to LP gas. See page 32 in manual.

Wireless Wall Switches

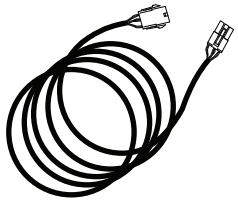
Model: 1322-WT
Wireless wall switch (ON/OFF/HI/LO)

Model: 1001D-ATX
Wireless wall switch (ON/OFF) ONLY

Model: TM-R-AF1TX
4-Button Wall Timer (30/60/120/OFF)

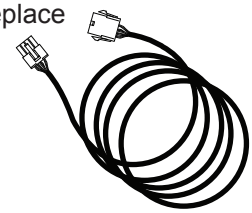
LED Extension Wire

Model: 77111
6-pin LED extension wire harness to move control box further distance from fireplace



Module Extension Wire

Model: 77161
8-pin Module extension wire harness to move control box further distance from fireplace



Home Automation System

Model: AF-4000HAT
Enables the fireplace to operate with a home automation device.

Twig Set

Model: 926-930
6 piece Beach Driftwood twisted twig set.
NOTE: Logs cannot be placed directly on the burner. They must be placed around the burner.

FOR TECHNICAL SERVICE, CALL:

Firegear Outdoors, an Earthcore Industries Brand
1600 Riverfork Drive
Huntington, IN 46750
260-388-5653
techsupport@firegearoutdoors.com

Manual changes often occur, ensure to check the Firegear website for any recent updates and warranty information.

FIREGEAR

LIMITED WARRANTY

Firegear Outdoors hereby warrants to the end user that products will be free from material and workmanship defects that prevent safe and correct operation of the product. The warranty commences from date of sale to the end user for the following period:

ALL WARRANTIES WITHIN THIS DOCUMENT ONLY APPLY TO PRODUCTS MANUFACTURED AFTER | 01 / 01 / 2026

BURNER SYSTEMS I BURNERS I COMPONENTS I ACCESSORIES TYPE OF PRODUCT	CONSUMER APPLICATIONS	COMMERCIAL APPLICATIONS
Construction and Manufacturer Defects	Lifetime Warranty	2 Year Warranty
Stainless Steel Burners and Pans	Lifetime Warranty	2 Year Warranty
Pro Series Burners	Lifetime Warranty	2 Year Warranty
Gas Valve, Spark Igniter, and Pilot Assemblies	5 Year Warranty	2 Year Warranty
AWS Electronic Ignition Systems (12 VAC, 24 VAC, 30 VAC)	3 Year Warranty	1 Year Warranty
TPSI Electronic Components	5 Year Warranty	2 Year Warranty
MT Components (Key Valve)	5 Year Warranty	2 Year Warranty
Refractory Gas Log Sets	5 Year Warranty	2 Year Warranty
Skytech Manufactured Optional Controls	2 Year Warranty	1 Year Warranty

OUTDOOR FIREPLACE I KALEA BAY TYPE OF PRODUCT	CONSUMER APPLICATIONS	COMMERCIAL APPLICATIONS
Construction and Manufacturer Defects	Lifetime Warranty	Lifetime Warranty
Stainless Steel Components	Lifetime Warranty	Lifetime Warranty
Gas Valve, pilot Assembly, Power Supply, and Controls	5 Year Warranty	2 Year Warranty
Skytech Manufactured Optional Controls	5 Year Warranty	2 Year Warranty

SANCTUARY SERES - GFRC FIRE FEATURES TYPE OF PRODUCT	CONSUMER APPLICATIONS	COMMERCIAL APPLICATIONS
GFRC Structure	* 3 Year Warranty	* 3 Year Warranty
* The warranty covers manufacturing defects or structural failure. Small stress cracks and surface crazing are a natural occurrence in GFRC products and are not covered within this warranty. Discoloration over time is a natural process and is not covered by this warranty		
Burner System	** Refer to Burner System	** Refer to Burner System
** Please refer to your burner system warranty for more information about your warranty.		

ACCESSORIES TYPE OF PRODUCT	CONSUMER APPLICATIONS	COMMERCIAL APPLICATIONS
Construction and Manufacturer Defects	Lifetime Warranty	Lifetime Warranty
Stainless Steel Components (Lids, Stainless Steel Covers)	Lifetime Warranty	Lifetime Warranty
ESTOP1-0H, Windshields, Hoses & Regulators	1 Year Warranty	1 Year Warranty

For additional details, please refer to the products installation manual

The end-user must provide a bill of sale, canceled check, or payment record to verify the purchase date and to establish the warranty period. This Limited Warranty shall be valid and limited to the original purchaser only.

WARNING: Any modification to the product will void the warranty.

This Limited Warranty shall be limited to the repair and/or replacement of parts that have been proven to be defective under normal use and service. All warranty claims must be made by the Distributor/Dealer account on behalf of the end-user. You may contact Technical Support at 800-966-8126.

Our Technical Service Department must confirm all approved defects. If a defect is confirmed and we approve the claim, we will replace such parts without charge. This warranty gives you specific legal rights, and you may also have other rights, which vary from state to state.

The manufacturer may request defective products returned with an RMA (Return Merchandise Authorization) issued by Firegear Outdoors for specific products, which is considered to be the nature of the defect and or warranty claim. Product to be returned should; be packed so as not to incur damages during transportation. Firegear Outdoors is not responsible for damages on returned items. RMA is valid for thirty (30) days from the date issued. The RMA must be clearly marked on the outside of the package.

Please check with your local building code department or governing agency for proper approvals before purchasing. Firegear Outdoors is not responsible for any violation of local codes.

Travel, diagnostic cost, service labor to repair the defect on warranty parts to and from the factory will be the responsibility of the owner. We will not be responsible for labor charges and/or damage incurred in installation, repair, and replacement. Firegear Outdoors is not responsible for Issues related to gas or electrical installation.

The Limited Warranty is voided if not assembled, installed, and operated as intended. This Limited Warranty does not cover any defects due to accident, abuse, misuse, alteration, misapplication, vandalism, improper installation or improper maintenance or service, removal from the original location, or re-installation into another location, or failure to perform normal and routine maintenance.

Damage due to severe weather conditions such as hail, hurricanes, earthquakes, tornadoes, discoloration due to overheating, exposure to chemicals (including chlorine and salt), either directly or in the atmosphere, or very high humidity, is not covered by this Limited Warranty. Coastal, humid and/or salt environments are subject to manufacturer review. All out-of-box claims must be made within 30 days of purchase and must be made prior to installation. Any product installed damaged will be considered damaged during installation and not covered under warranty.

There are no other express warranties except as set forth herein. For consumer applications, any applicable implied warranties of merchantability and fitness are limited in duration to the period of coverage of this Limited Warranty. Some states do not allow limitation on how long an implied warranty lasts, so this limitation may not apply to you.

For Commercial Applications, the liability of Firegear Outdoors is limited to the express terms of this warranty. We expressly disclaim any and all implied warranties, including any warranties of fitness for a particular purpose or merchantability.

We are not liable for any special, indirect or consequential damages. Our maximum liability is limited to the purchase price of the purchased units. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusion may not apply to you.

We do not authorize any person or company to assume for it any other obligation or liability in connection with the sale, installation, use, removal, return, or replacement of its equipment, and or such representation are binding.

FIREGEAR
Firegear Outdoors
1600 Riverfork Dr. East
Huntington, IN 46750

www.firegearoutdoors.com

Notes:

Having problems getting the fire pit to operate? Don't leave the job site! We want to help! Call 260-355-5577 for Technical Support between the hours of 8:30AM to 4:30PM

BEFORE YOU CALL WE WILL NEED THIS INFORMATION

1. Model Number: _____
2. Serial Number: _____
3. How long is the gas line run? Nat Gas ____ LP Gas ____
4. What size is gas line? _____
5. Inlet Gas Pressure: _____WC
   Manifold Gas Pressure: _____ WC
6. What type of media are you using? _____
7. Review the troubleshooting section in the installation manual.
8. What are the symptoms? Please be prepared to explain.
9. Be prepared to send photos to us when on the phone.
10. Found missing or damaged parts? Let us know ASAP or send photos.