

Fire Ring Outdoor Fire Pit Burners


Fire Ring Only	Fire Ring Kit	Description	Natural Gas (NG)
FG-FR-6SS	FG-FR-6SSK	6-inch Fire Ring Burner	42,000 Btu's
FG-FR-12SS	FG-FR-12SSK	12-inch Fire Ring Burner	42,000 Btu's
FG-FR-18SS	FG-FR-18SSK	18-inch Fire Ring Burner	60,000 Btu's
FG-FR-24SS	FG-FR-24SSK	24-inch Fire Ring Burner	100,000 Btu's
FG-FR-30SS	FG-FR-30SSK	30-inch Fire Ring Burner	up to 300,000 Btu's
FG-FR-36SS	FG-FR-36SSK	36-inch Fire Ring Burner	up to 300,000 Btu's
FG-FR-48SS	FG-FR-48SSK	48-inch Fire Ring Burner	up to 300,000 Btu's

Installation and Operating Instructions

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

INSTALLATION PRECAUTION:

Fire pit burners require a minimum 18-square inches (per side) of cross ventilation in an enclosure. Failure to provide proper ventilation can void the warranty.



Warning: For Outdoor Use Only



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.

PLEASE RETAIN THIS MANUAL FOR FUTURE REFERENCE



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

If you smell gas:

1. Shut off gas to the appliance
2. Extinguish any open flame.
3. If odor continues, keep away from the appliance and immediately call your gas supplier or fire department.



WARNING

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

Any LP cylinder not connected for use shall not be stored in the vicinity of this or other appliances.

WARNING

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



WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Read the installation, operating and maintenance instructions thoroughly before installing or servicing this equipment.

WARNING

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

FOR YOUR SAFETY

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



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

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CAUTION

All media (i.e. lava rock, lava stones, lava boulders and fire glass) has 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 fire feature.

WE HIGHLY RECOMMEND COVERING ALL FIRE FEATURES WHEN NOT IN USE

The use of a cover can lessen the impact of thermal spalling; however, heavy rains, high humidity and the presence of moisture may still cause the media to pop.

ALWAYS USE CAUTION WHEN USING THE FIRE FEATURE

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

FIRE RING SPECIFICATIONS

Models	Center Hub Size	Pan/Disc Depth	A Fire Ring Diameter	Min. Inside Pan Dimension	B Combustible Side Wall	C Combustible Ceiling	D Combustible Floor
Fire Ring Only /Fire Ring Kit							
FG-FR-6SS/ FG-FR-6SSK	1/2"	2 1/2" - 3"	6"	10"	36"	96"	18"
FG-FR-12SS/ FG-FR-12SSK	1/2"	2 1/2" - 3"	12"	16"	36"	96"	18"
FG-FR-18SS/ FG-FR-18SSK	1/2"	2 1/2" - 3"	18"	22"	36"	96"	18"
FG-FR-24SS/ FG-FR-24SSK	1/2"	2 1/2" - 3"	24"	28"	36"	96"	18"
FG-FR-30SS/ FG-FR-30SSK	3/4"	2 1/2" - 3"	30"	34"	36"	96"	18"
FG-FR-36SS/ FG-FR-36SSK	3/4"	2 1/2" - 3"	36"	40"	36"	96"	18"
FG-FR-48SS/ FG-FR-48SSK	3/4"	2 1/2" - 3"	48"	52"	36"	96"	18"

Table 1 Suggested pan sizes and clearance specifications

BEFORE INSTALLING A FIRE RING DETERMINE PAN SIZE TO BE USED:

Fire Ring burners and Fire Ring Kits listed above are not provided with a burner pan for installation. We suggest you provide an appropriate non-combustible burner pan to install the Fire Ring. Suggested burner pans sizes in Table 1 are strictly recommended based on the Fire Ring model size. The pans can be round, square, flat disc or solid flat surface.

NOTE: It is recommended to use 304 Stainless Steel. Burner pans should have 1/4" drainage holes to prevent standing water in pan and the center hole for burner connection should be 1-inch diameter for sizes FG-FR-6SS, FG-FR-12SS, FG-FR-18SS, FG-FR-24SS. Center hole for FG-FR-30SS, FG-FR-36SS, FG-FR-48SS models require a 1 1/4" center hole. A recommended material thickness for any burner pan or disc is 16 gage. Once a burner pan has been determined then proceed with this manual to complete the installation.

CAUTION: DO NOT use stiff screen/perforated metal as a burner pan. Some gases are heavier than air and screen/perforated metal can allow gas to flow downward in an enclosure which could cause delayed ignition or explosions.

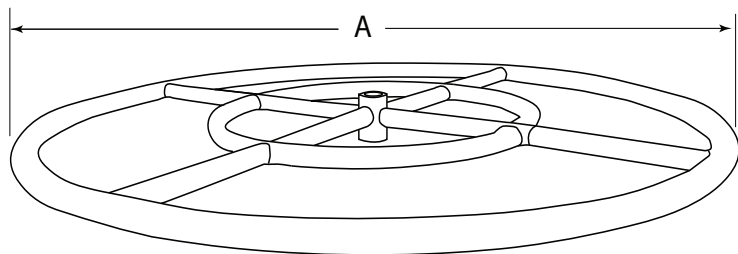


Fig. 1 Fire Ring Dimensions; refer to Table 1.

Model: Natural Gas (NG)	Factory Orifice NG	BTU's NG	Factory Orifice LP	Btu's LP
FG-FR-6SS	#38	42,000	#52	33,000
FG-FR-12SS	#38	42,000	#52	33,000
FG-FR-18SS	#31	60,000	#45	55,000
FG-FR-24SS	#22	100,000	#35	99,000
FG-FR-30SS	*N/A	300,000	#4	300,000
FG-FR-36SS	*N/A	300,000	#4	300,000
FG-FR-48SS	*N/A	300,000	#4	300,000

Table 2 Btu Specifications

*Firegear Outdoors does not offer main burner orifices larger than a #2 drill size.

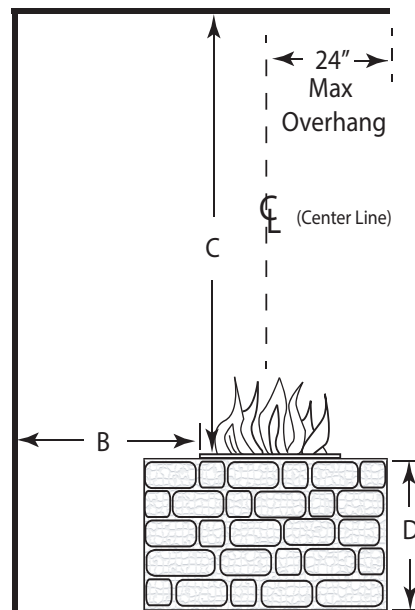


Fig. 2 Clearance to combustibles

Pressure	NG	LP
Min. Inlet	5.0" WC	10.5" WC
Max. Inlet	10.5" WC	13.0" WC
Normal Inlet	7.0" WC	11.0" WC

Table 3 Gas Pressures

Disclaimer: Btu listings are based on 7.0"WC for Natural Gas and 11.0"WC for Liquid Propane (LP) at the burner orifice. Flex line size and proper gas pipe sizing will also affect Btu's. As a result your Btu's may vary slightly from Table 2 specifications.



PREPARING A NON-COMBUSTIBLE STRUCTURE

The fire pit can be installed on a flat, stable surface, away from any combustible materials. Install Fire pit on any level, outdoor non-combustible, flat stable surface or a combustible floor according to the clearances specified in this manual. **NOTE:** Do not place fire pit directly on grass, dirt, or rocks this may prevent proper ventilation Fig. 3. In addition, do not recess the fire pit into the ground. **Ensure proper water drainage is also incorporated underneath the fire pit enclosure.**

HARD PIPING TO FIRE PIT WITHOUT GAS PROXIMITY

NOTE: Refer to the NFPA54 (National Fuel Gas Code) for proper pipe sizing. See gas line sizing chart on page 6 as a reference.

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.
2. Ensure all gas connections are snug, but do not over tighten! **BE CAREFUL!**
3. Consult a plumber for proper installation to ensure you are providing adequate gas supply for your application.
4. The primary gas shut-off (not supplied) will require a ½" male flared fitting to enable connection of the stainless steel flex gas line supplied with the fire pit (see Fig. 12 page 10).
5. Do not place an LP tank inside any fire pit enclosure. Locate all propane (LP) tanks outside the enclosure.
6. To prevent performance problems in Propane (LP) fire pits, do not use a Propane tank less than 100lbs. capacity.

WARNING: Proper clearances from combustible materials must be maintained from all sides, top and bottom of this appliance. Use the specifications listed in Table 1 and Fig. 2 for proper clearance to combustibles.

IMPORTANT

Installation of Natural or LP 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" psi (3.5kPa).

HIGH ELEVATION INSTALLATION

This appliance is listed for elevations from 0-4500 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.

VENTILATION FOR NON-COMBUSTIBLE ENCLOSURE

Fire pits are subjected to many outdoor elements such as rain, snow, wind, heat or cold. **A minimum of 18 square inches (per side) of cross ventilation is required to keep the components in good working order.** Use Fig. 3 as guide to assist to incorporate proper ventilation.

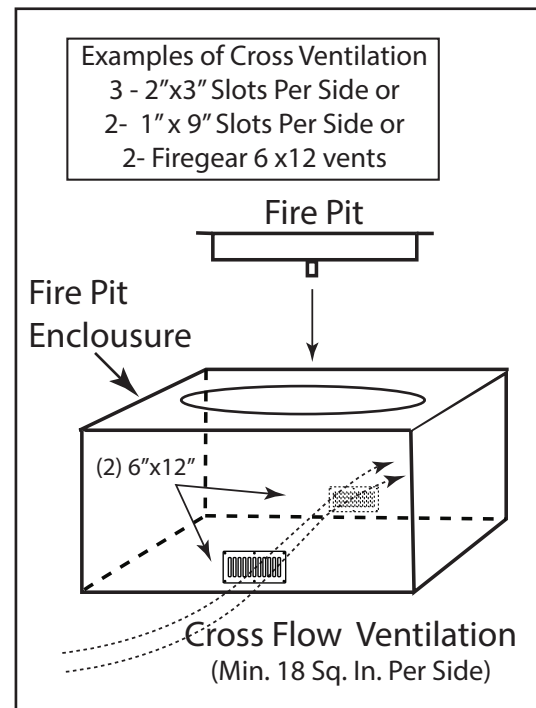


Fig. 3 Cross Ventilation Example

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 4 Gas Pipe Sizing Chart



INSTALLATION OF FIRE PIT INTO AN APPROVED ENCLOSURE

REQUIREMENTS

1. Only non-combustible materials should come in direct contact with any part of the fire pit. Underneath area should be non-combustible or a flat level combustible surface according to the clearances specified in this manual.
2. Refer to the NFPA54 (National Fuel Gas Code) for proper pipe sizing. Determine the size of the fire pit you are preparing to install (Refer to page 6, Table 4).
3. Determine the size of the round or square fire pit you are preparing to install (Refer to page 4).
4. You must provide a round or square opening to place the fire pit into the non-combustible enclosure. A minimum burner pan dimension is listed in Table 1.
5. Follow the local code requirements for the gas type being used. This fire pit 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.
6. Fire pits create high temperatures, it is very important to have any combustibles at a safe distance.
7. Do not fill the enclosure with gravel, rock or sand. The enclosure requires free flowing air underneath to keep enclosure cool, provide ventilation to prevent moisture, and provide an outlet for gas in the case of a gas leak.
8. **CAUTION: A minimum of 18 square inches of cross ventilation (opposite sides) is required to keep the enclosure dry.**
9. These products are designed for outdoor use only. **Not approved for any indoor use or any enclosed space.**
10. This fire pit is designed to have Firegear Outdoors lava rock or glass media completely covering the burner tube, so that the burner is not visible. Do not cover more than 1" above the top of burner. Use lava rock a minimum of 1" diameter as a base to fill the burner pan. DO NOT USE STONE OR RIVER ROCK.
11. Gas lines and fittings must be installed in to the non-combustible structure. All gas connections must be leak tested before installation of the fire pit. Soapy water leak detection is required before regular use of the fire pit.
12. Do not use material that will absorb moisture over time and will not release this moisture quickly. Moisture can boil in this material and can rapidly break apart and cause damage or personal injury.
13. Never leave any other combustible material on top of the fire pit. This could cause unsafe operation of this system and damage to the component that will not be covered under our warranty.
14. **Ensure proper water drainage is also incorporated into the fire pit enclosure.**

FIRE RING INFORMATION

Fire Rings Only include a plug to seal off one end of the center hub in the burner. Models FG-FR-6SS, FG-FR-12SS, FG-FR-18SS, FG-FR-24SS use a 1/2" female center hub. FG-FR-30SS, FG-FR-36SS and FG-FR-48SS use a 3/4" female center hub. The top center hub (port holes side) must be plugged to allow gas to flow into the burner. Each Fire Ring is designed for the port holes facing upward for both Natural and Liquid Propane (LP) gasses. All Fire Rings are provided with an main burner orifice except for those listed in Table 2 on page 4.

Fire Ring Kits include the listed items above with the Fire Rings Only and a manual key valve with 12-inch key and 46" flex line.

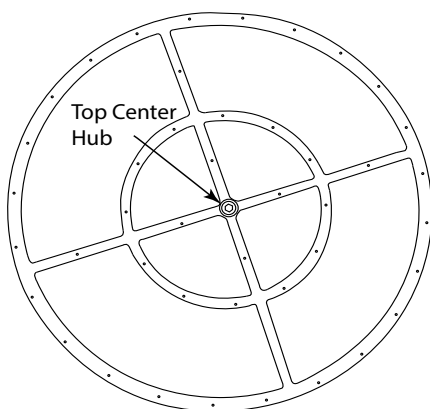


Fig. 4 Port Hole Side

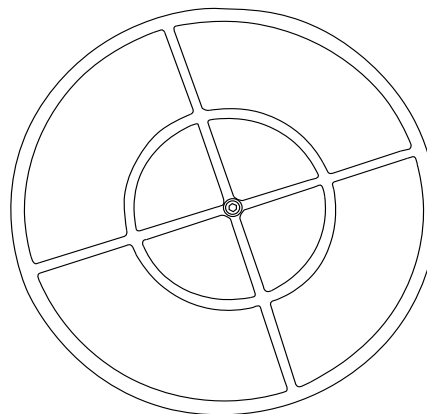


Fig. 5 Non-Port Hole Side

FIRE RING ASSEMBLY

CAUTION: Do not assemble the OAS and U3-8D-S until you are ready to install the fire ring into the burner pan. The OAS is 1½" in diameter and would not fit the recommended center hole size per Fig. 6 and Fig. 9.

FG-FR-6/12/18/24 MODELS

Before you begin installing the fire ring into a burner pan ensure the center hole is a minimum of 1-inch in diameter (See Fig. 6). Models FG-FR-6SS, FG-FR-18SS, FG-FR-24SS are supplied with a ½" plug, ½" nipple, OAS and FIP x MIP flare fittings (U3-8D-S). These items must be installed into the fire ring as shown in Fig. 7. Position the Fire Ring port holes facing upward for both Natural Gas and LP Gas. **Ensure to seal each NPT fitting with thread tape or pipe compound.** **NOTE:** Flared fittings will not require tape or compound on the flared side.

Step 1: Install ½" plug on top of fire ring and assemble the remaining parts as shown in Fig. 7.

Step 2: Install the fire ring through the pan (See Fig. 8) then install the OAS and U3-8D-S to the nipple connect inlet gas line as shown in Fig. 12 on page 10.

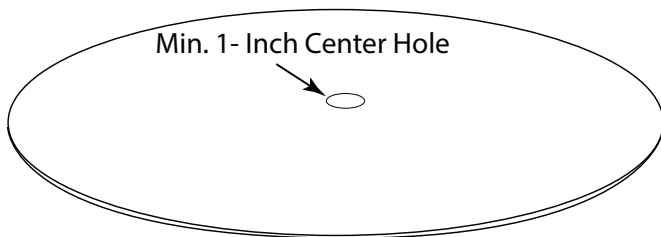


Fig. 6 Minimum 1-inch center clearance hole in burner pan.

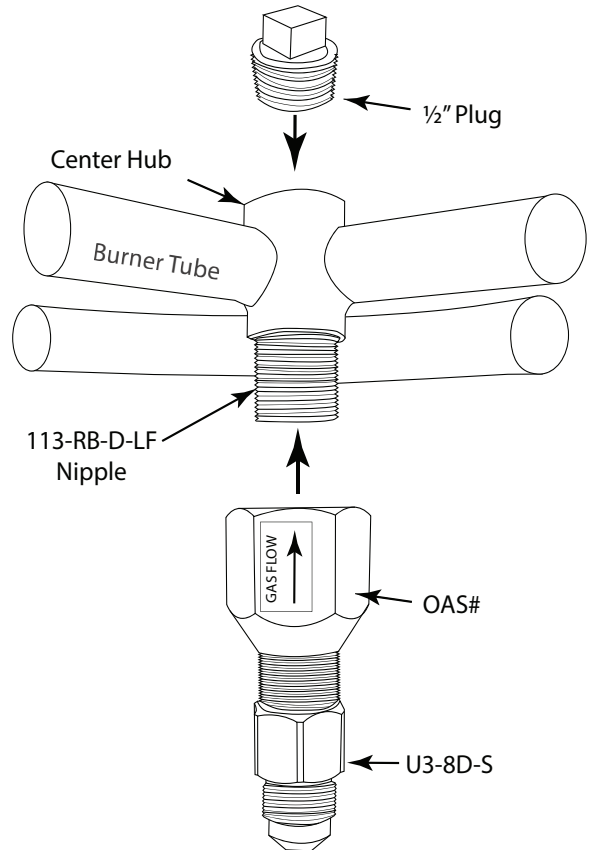


Fig. 7 Natural gas models 6/12/18/24-inch fire ring parts.

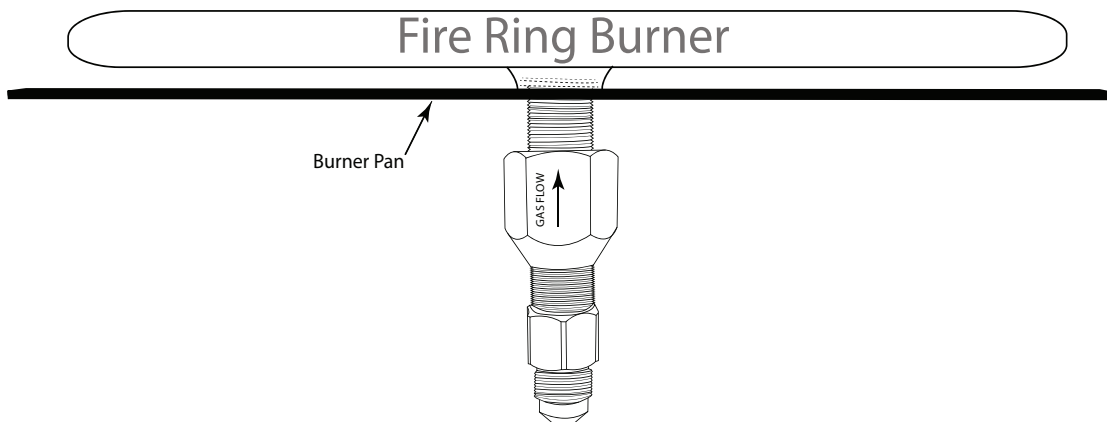


Fig. 8 Fire Ring Installed into Burner pan/disc.

FG-FR-30/36/48 MODELS

Before you begin installing the fire ring into your burner pan ensure the center hole is a minimum of 1¼-inch in diameter (See Fig. 9). Models FG-FR-30SS, FG-FR-36SS, FG-FR-48SS come with a ¾" plug, ½" nipple, OAS and FIP x MIP flare fittings (U3-8D-S) and ¾" to ½" reducer.

Note: The ½" reducer may not be needed depending on the size of the inlet gas line coming into the fire ring. These items must be installed into the fire ring as shown in Fig. 10. Position the Fire Ring port holes facing upward if using Natural or Propane (LP) gas. **Ensure each NPT fitting has thread tape or pipe compound.**

NOTE: Flared fittings will not require tape or compound on the flared side.

Step 1: Install ¾" plug on top of fire ring and assemble the remaining parts as shown in Fig. 10.

Step 2: Install the fire ring through the pan and connect inlet gas line as shown in Fig. 12 on page 10.

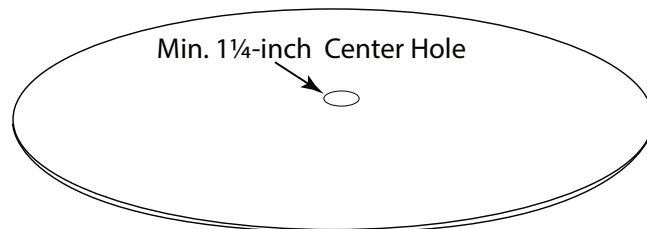


Fig. 9 Minimum 1¼ -inch center clearance hole in burner pan.

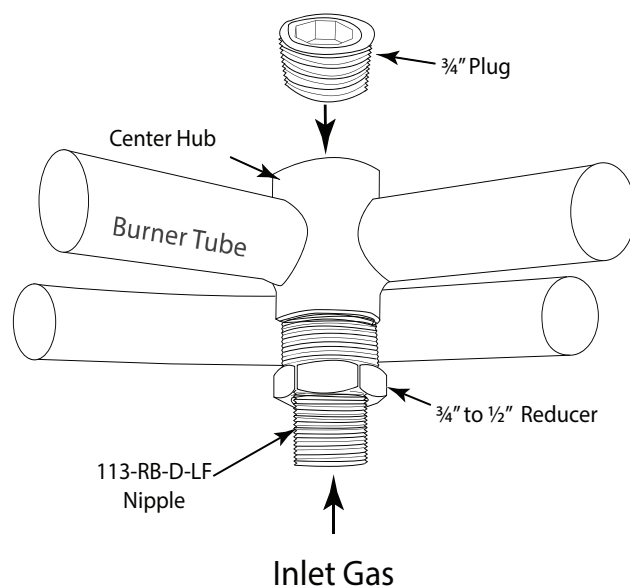


Fig. 10 Natural gas models 30/36/48-inch fire ring parts.

INSTALLING KEY VALVE

Note: If you did not order a Fire Ring kit with a key valve assembly you will need to provide a key valve for the installation or order one from Firegear Outdoors. See replacement parts list in manual for model numbers.

The key valve contents: 1- key valve, 1- key and 1- flange. (See Fig 11). The valve requires a 1¼" round clearance hole in the non-combustible enclosure wall. See the instructions supplied with the key valve for more specific details.

Note: Be sure to leak test all fitting before operation. Fig. 12 shows an example of a typical installation.

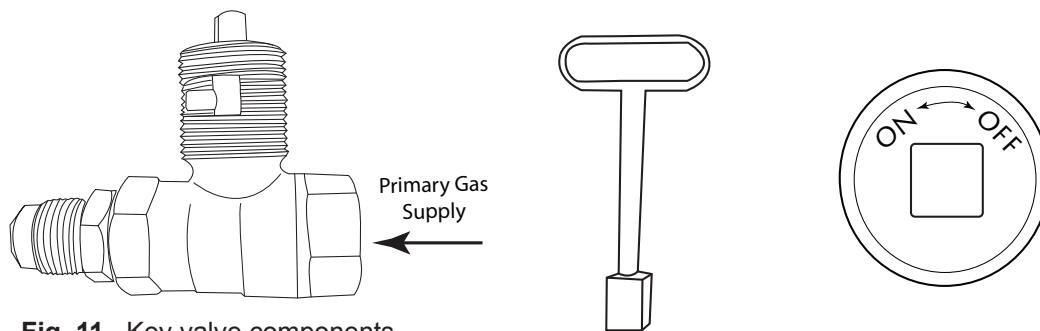
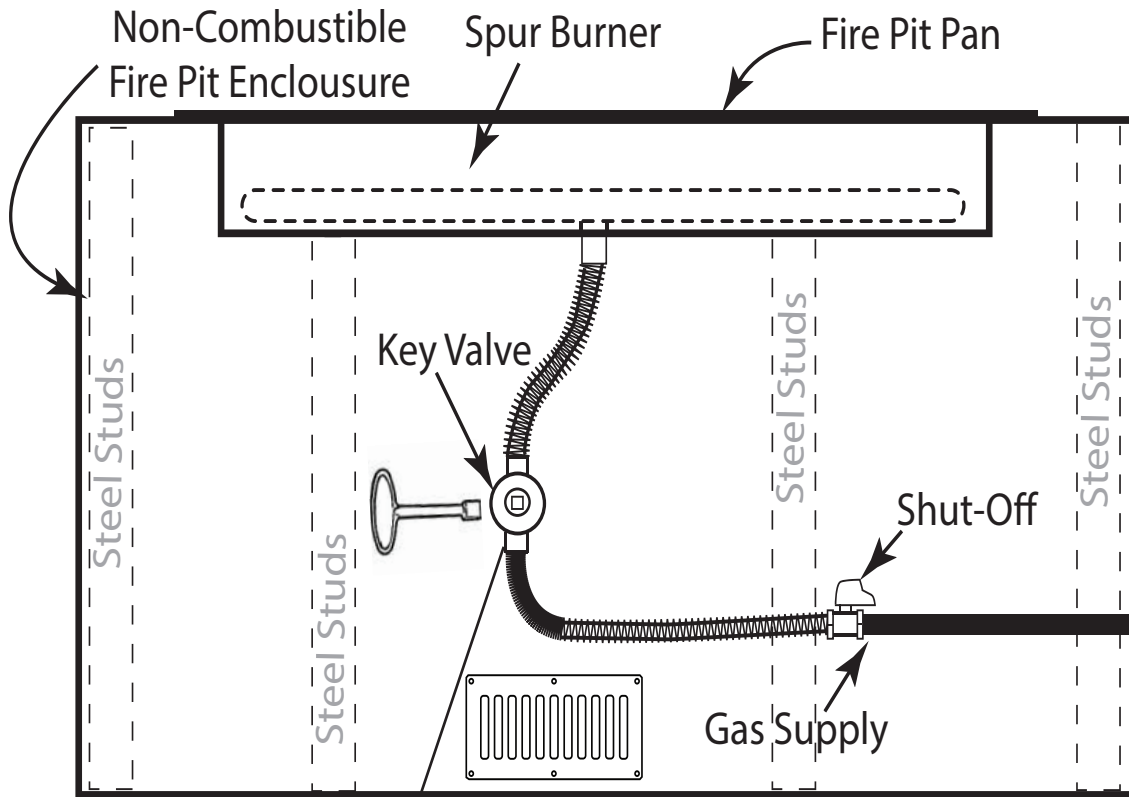


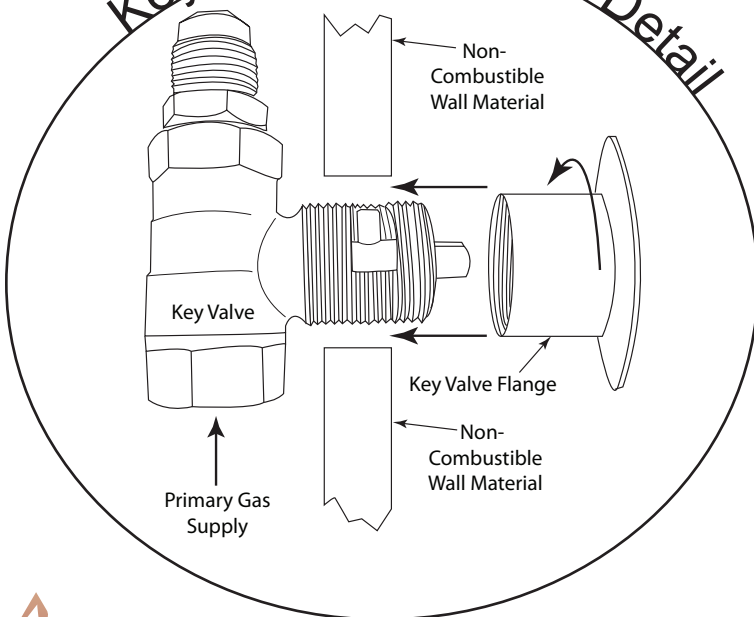
Fig. 11 Key valve components.

TYPICAL INSTALLATION DRAWINGS



NOTE: Key valve and flexible gas lines are supplied. Gas shut-off is not supplied.

Key Valve Side View Detail



Note: A 1 1/4" x 2" black iron or galvanized coupler/nipple (not supplied) can be used as a spacer between the manual valve and the valve flange to add additional support to hold the manual key valve in place.

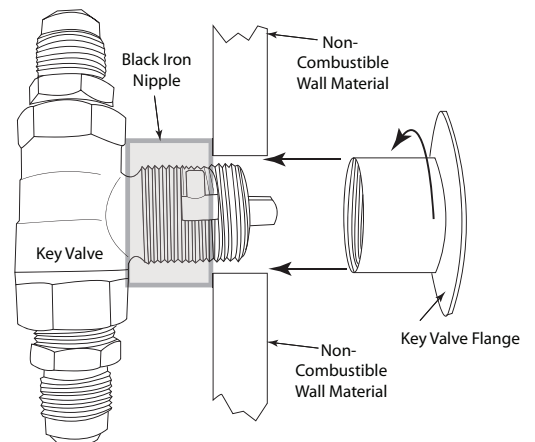


Fig. 12 Typical installation.

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, which has been under water.

SAFETY WARNINGS

1. Never leave the fire pit 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 FIRE PIT

CAUTION: Ensure you have leak tested the fire pit before operating.

TURNING ON FIRE PIT

1. Insert key into shut-off valve and secure into square end (See Figs. 13 & 14).
2. Light a long match or butane lighter and hold it near the burner (see Fig. 15).
3. Turn the key slowly counter-clockwise in key valve (ON position) to allow gas to flow and simultaneously apply the long burning match or Butane lighter as close to the end burner as possible to light the fire pit.
4. Gas should ignite within 10 seconds or less. If fire pit does not light within 10 seconds turn key clockwise to turn **OFF** the gas supply. Ensure there is not too much media on top of the burner that might inhibit gas flow and try again in 5 minutes.

TURNING OFF FIRE PIT

1. Insert key into shut-off valve and secure into square end.
2. Turn key clockwise until it stops.
3. After cooling off install cover.

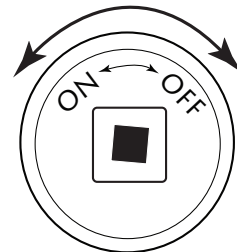


Fig. 13 Key Valve Face

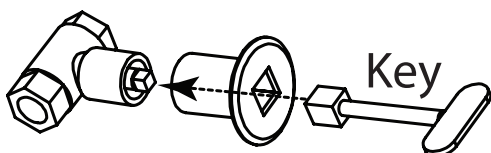


Fig. 14 Inserting Key into Valve

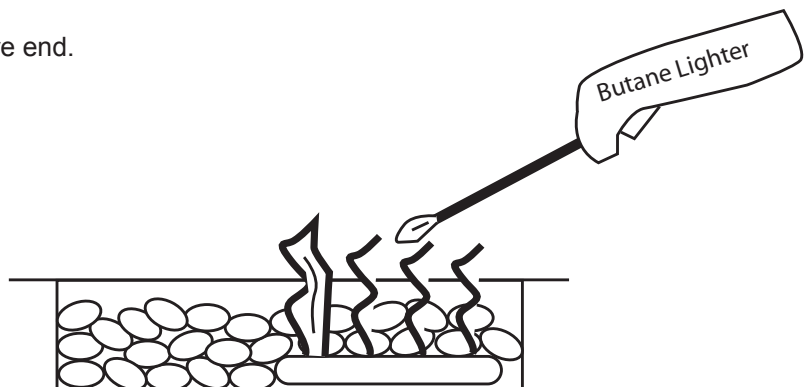
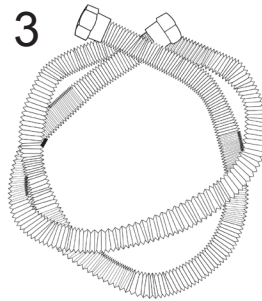
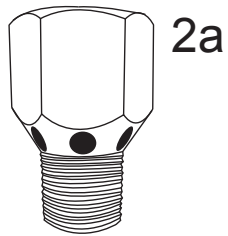
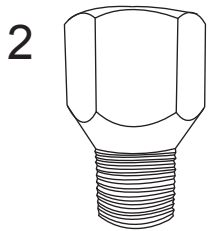
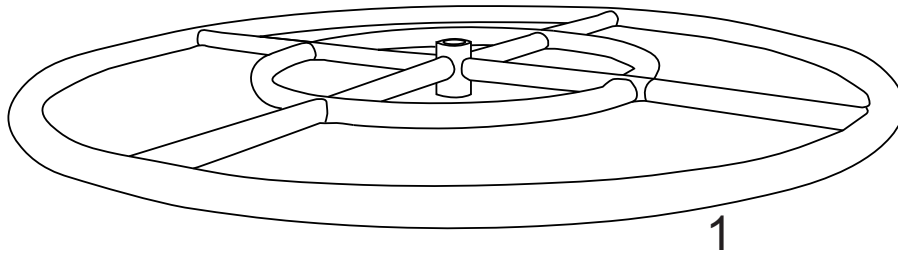
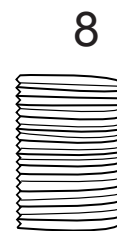
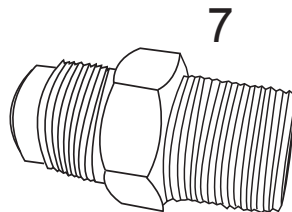
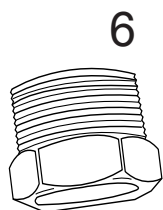
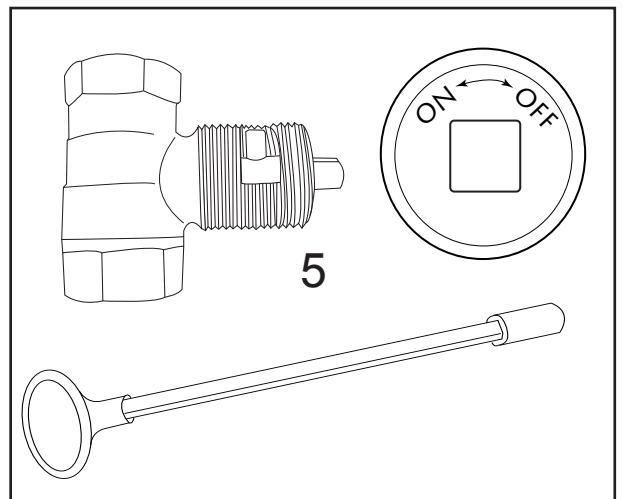
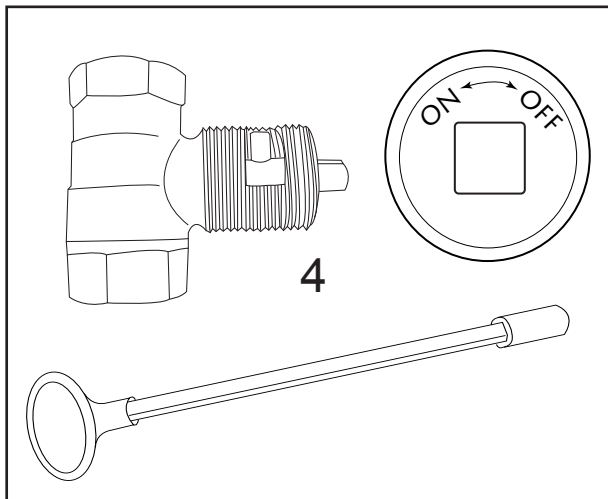


Fig. 15 Lighting fire pit with lighter

FIRE RING REPLACEMENT PARTS



Drawings not to scale

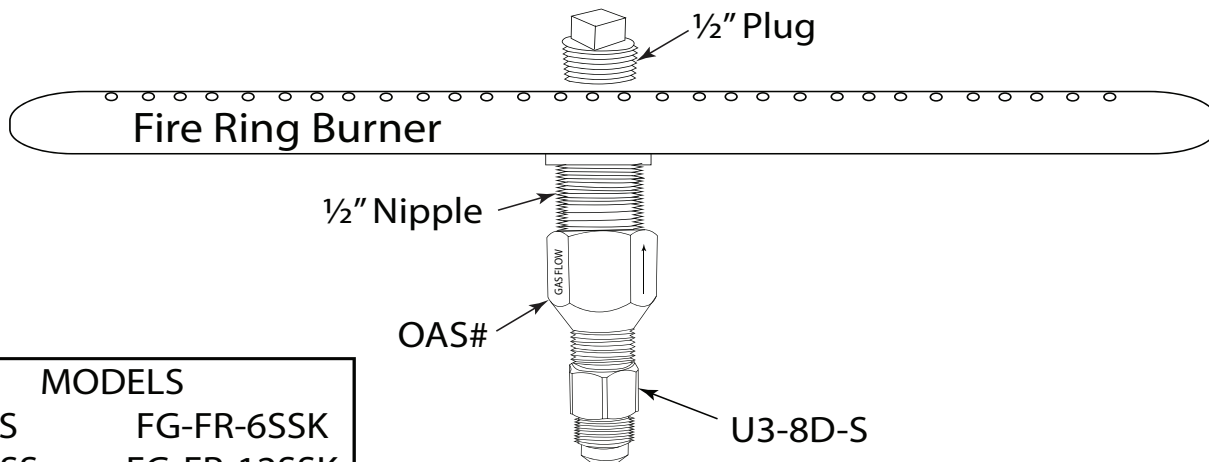


FIRE RING REPLACEMENT PARTS

Item	Description	Qty.	Part Number
1	6-inch Round Stainless Steel Fire Ring Burner	1	FG-FR-6SS
1	12-inch Round Stainless Steel Fire Ring Burner	1	FG-FR-12SS
1	18-inch Round Stainless Steel Fire Ring Burner	1	FG-FR-18SS
1	24-inch Round Stainless Steel Fire Ring Burner	1	FG-FR-24SS
1	30-inch Round Stainless Steel Fire Ring Burner	1	FG-FR-30SS
1	36-inch Round Stainless Steel Fire Ring Burner	1	FG-FR-36SS
1	48-inch Round Stainless Steel Fire Ring Burner	1	FG-FR-48SS
2	Orifice Air Shutter - NG 42,000 Btu's (Used with FG-FR-6SS & FG-FR-6SSK)	1	OAS-NG38
2	Orifice Air Shutter - NG 42,000 Btu's (Used with FG-FR-12SS & FG-FR-12SSK)	1	OAS-NG38
2	Orifice Air Shutter - NG 60,000 Btu's (Used with FG-FR-18SS & FG-FR-18SSK)	1	OAS-NG31
2	Orifice Air Shutter - NG 100,000 Btu's (Used with FG-FR-24SS & FG-FR-24SSK)	1	OAS-NG22
2	Orifice Air Shutter - NG 300,000 Btu's (Used with FG-FR-30SS & FG-FR-30SSK)	1	N/A
2	Orifice Air Shutter - NG 300,000 Btu's (Used with FG-FR-36SS & FG-FR-36SSK)	1	N/A
2	Orifice Air Shutter - NG 300,000 Btu's (Used with FG-FR-48SS & FG-FR-36SSK)	1	N/A
2a	Orifice Air Shutter - LP 33,000 Btu's (Conversion kit used with FG-FR-6SS & FG-FR-6SSK)	1	FR-OAS-LP52
2a	Orifice Air Shutter - LP 33,000 Btu's (Conversion kit used with FG-FR-12SS & FG-FR-12SSK)	1	FR-OAS-LP52
2a	Orifice Air Shutter - LP 55,000 Btu's (Conversion kit used with FG-FR-18SS & FG-FR-18SSK)	1	FR-OAS-LP45
2a	Orifice Air Shutter - LP 99,000 Btu's (Conversion kit used with FG-FR-24SS & FG-FR-24SSK)	1	FR-OAS-LP35
2a	Orifice Air Shutter - LP 300,000 Btu's (Conversion kit used with FG-FR-30SS & FG-FR-30SSK)	1	FR-OAS-LP4
2a	Orifice Air Shutter - LP 300,000 Btu's (Conversion kit used with FG-FR-36SS & FG-FR-36SSK)	1	FR-OAS-LP4
2a	Orifice Air Shutter - LP 300,000 Btu's (Conversion kit used with FG-FR-48SS & FG-FR-36SSK)	1	FR-OAS-LP4
3	1/2" OD x 34" long Flex Gas Line (used with all kits)	1	T200-9898-34
4	Std. Capacity Key Valve with 12-inch key and chrome cover (used with Fire Ring Burners or Kits 6" to 24" models under 158,000 Btu's for NG or LP gas)	1	BVL2SKCP
5	High Capacity Key Valve with 12-inch key and chrome cover (used with Fire Ring Burners or Kits 30" to 48" models over 158,000 Btu's for NG or LP gas)	1	BVL3SKCP
6	3/4" to 1/2" reducer (provided with 36" Fire Ring)	2	S4100-128
7	1/2" OD Flare to 3/4" MIP Fitting	1	U1-8E-S
8	1/2" x 1 1/2" Nipple (provided with all Fire Rings)	1	113-SS4-D15
9	3/4" MIP to 1/2" Flare (not shown)	1	48-812
10	1/2" x 5" Stainless Steel Nipple (not shown)	1	113-SS4-D5

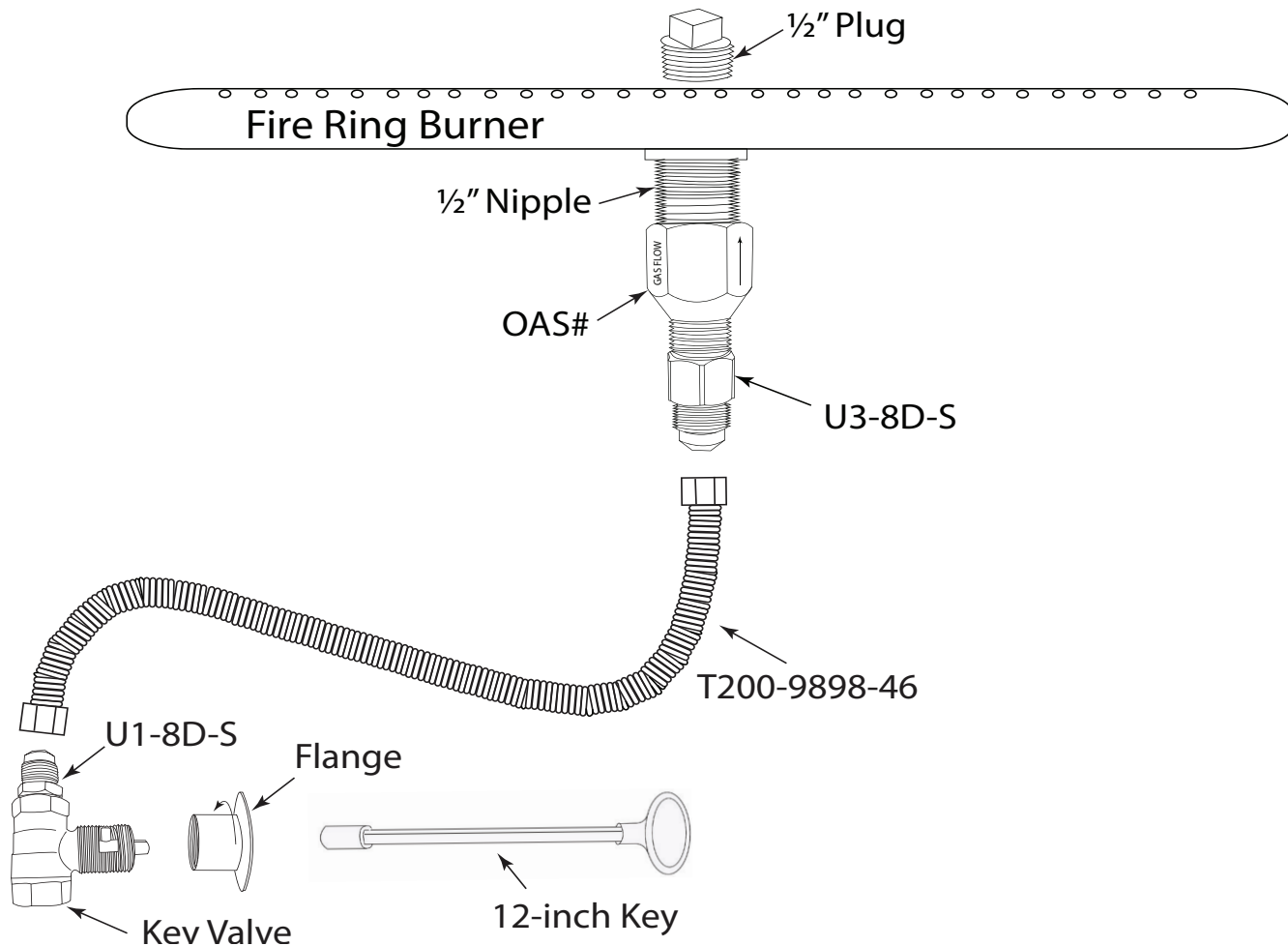
See the Firegear Outdoors catalogue for a variety of fittings and flex connectors also available.

Fire Ring Only Contents

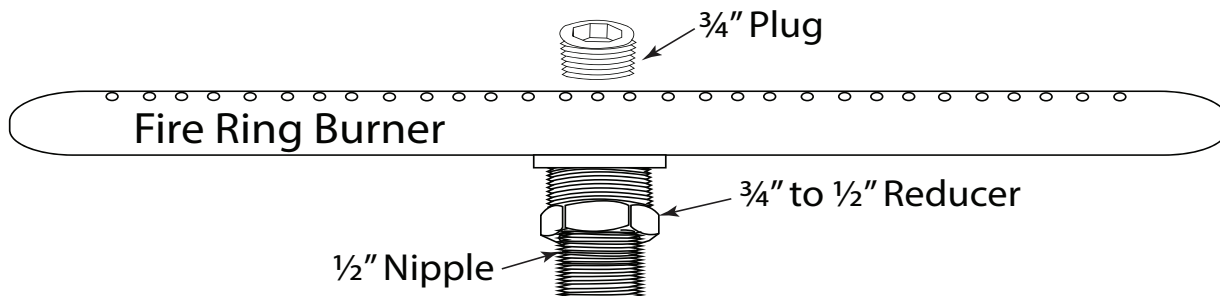


MODELS	
FG-FR-6SS	FG-FR-6SSK
FG-FR-12SS	FG-FR-12SSK
FG-FR-18SS	FG-FR-18SSK
FG-FR-24SS	FG-FR-24SSK

Fire Ring Kit Contents



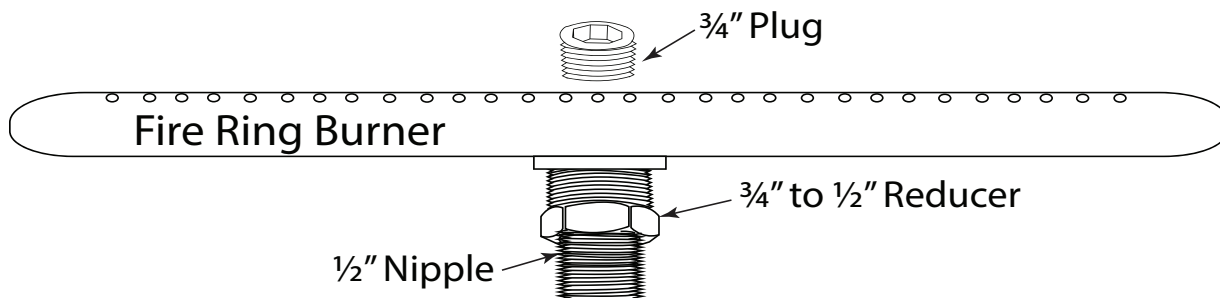
Fire Ring Only Contents



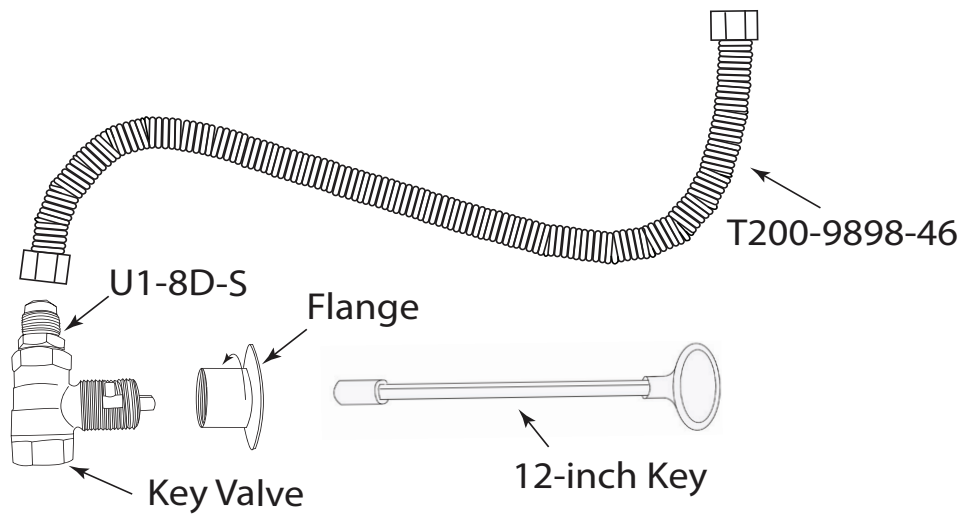
Note: No main burner orifice supplied

MODELS	
FG-FR-30SS	FG-FR-30SSK
FG-FR-36SS	FG-FR-36SSK
FG-FR-48SS	FG-FR-48SSK

Fire Ring Kit Contents



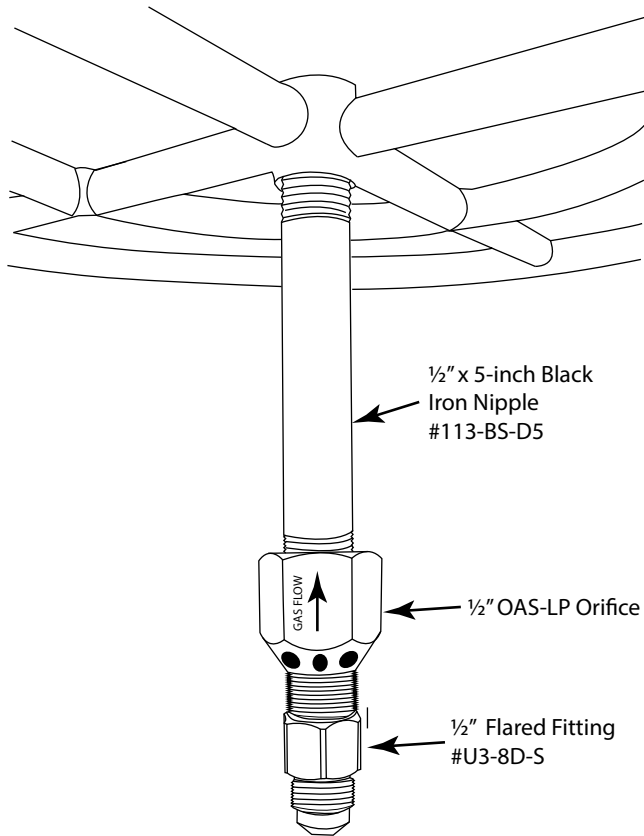
Note: No main burner orifice supplied



CONVERTING FIRE RING TO LP GAS

When converting fire rings when using LP gas the main burner orifice must be a minimum of 6-inches away from the fire ring inlet side to prevent any back pressure at the orifice. See Fig. 16 below for details. **Note:** It is acceptable to install a 90° elbow if necessary to run the gas line the opposite direction (see Fig 17). A 90° elbow is not provided with the kit.

All NPT pipe threads must be sealed with approved gas Teflon tape or pipe compound. Ensure the orifice air shutter is open to reduce soot build up and the arrow on the orifice air shutter is pointing toward the fire ring.



Models:	LP Conversion Kit	Kit Includes
FG-FR-6SS FG-FR-6SSK	FR-OAS-LP52	OAS-LP-52, 113BS-D5, U3-8D-S
FG-FR-12S FG-FR-12SSK	FR-OAS-LP52	OAS-LP-52, 113BS-D5, U3-8D-S
FG-FR-18SS FG-FR-18SSK	FR-OAS-LP45	OAS-LP-45, 113BS-D5, U3-8D-S
FG-FR-24S FG-FR-24SSK	FR-OAS-LP35	OAS-LP-35, 113BS-D5, U3-8D-S
FG-FR-30SS FG-FR-30SSK	FR-OAS-LP04	OAS-LP-04, 113BS-D5, U3-8D-S
FG-FR-36SS FG-FR-36SSK	FR-OAS-LP04	OAS-LP-04, 113BS-D5, U3-8D-S
FG-FR-48SS FG-FR-48SSK	FR-OAS-LP04	OAS-LP-04, 113BS-D5, U3-8D-S

Fig. 16 Proper LP conversion illustration.

Note: The larger fire rings will have the 3/4" to 1/2" reducer (part #7; page 11) fitting (not shown in Fig drawings) installed in the fire ring first.

CAUTION: Ensure there is ventilation under the burner to provide fresh air for air shutter.

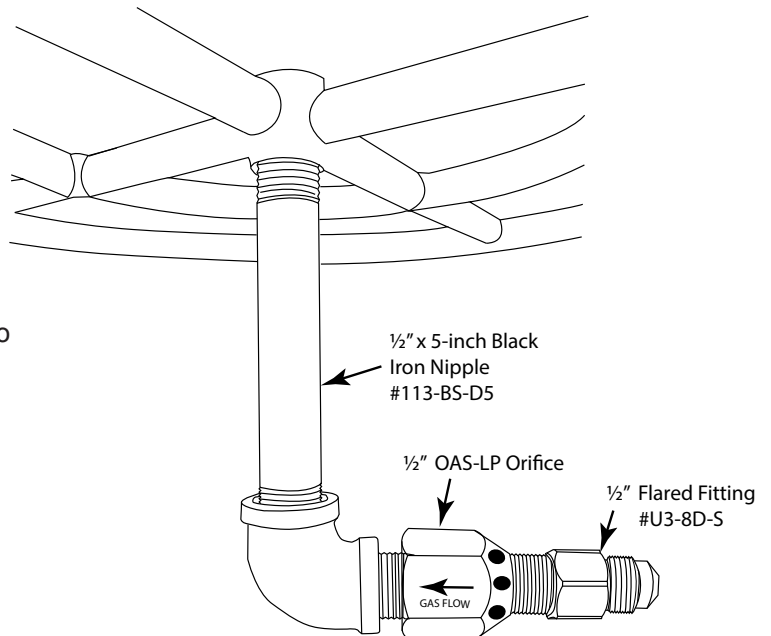


Fig. 17 Optional LP conversion illustration with 90° elbow (not supplied).

ACCESSORIES

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

<p style="text-align: center;"><i>Fire Ring Only LP Conversion</i></p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; border: none;">Models</th> <th style="text-align: left; border: none;">Kit</th> </tr> </thead> <tbody> <tr><td style="border: none;">FG-FR-6SS</td><td style="border: none;">FR-OAS-LP52</td></tr> <tr><td style="border: none;">FG-FR-12SS</td><td style="border: none;">FR-OAS-LP52</td></tr> <tr><td style="border: none;">FG-FR-18SS</td><td style="border: none;">FR-OAS-LP45</td></tr> <tr><td style="border: none;">FG-FR-24SS</td><td style="border: none;">FR-OAS-LP35</td></tr> <tr><td style="border: none;">FG-FR-30SS</td><td style="border: none;">FR-OAS-LP04</td></tr> <tr><td style="border: none;">FG-FR-36SS</td><td style="border: none;">FR-OAS-LP04</td></tr> <tr><td style="border: none;">FG-FR-48SS</td><td style="border: none;">FR-OAS-LP04</td></tr> </tbody> </table> <p>See page 16 for details.</p>	Models	Kit	FG-FR-6SS	FR-OAS-LP52	FG-FR-12SS	FR-OAS-LP52	FG-FR-18SS	FR-OAS-LP45	FG-FR-24SS	FR-OAS-LP35	FG-FR-30SS	FR-OAS-LP04	FG-FR-36SS	FR-OAS-LP04	FG-FR-48SS	FR-OAS-LP04	<p style="text-align: center;"><i>Fire Ring Kits LP Conversion</i></p> <table style="width: 100%; border: none;"> <thead> <tr> <th style="text-align: left; border: none;">Models</th> <th style="text-align: left; border: none;">Kit</th> </tr> </thead> <tbody> <tr><td style="border: none;">FG-FR-6SSK</td><td style="border: none;">FR-OAS-LP52</td></tr> <tr><td style="border: none;">FG-FR-12SSK</td><td style="border: none;">FR-OAS-LP52</td></tr> <tr><td style="border: none;">FG-FR-18SSK</td><td style="border: none;">FR-OAS-LP45</td></tr> <tr><td style="border: none;">FG-FR-24SSK</td><td style="border: none;">FR-OAS-LP35</td></tr> <tr><td style="border: none;">FG-FR-30SSK</td><td style="border: none;">FR-OAS-LP04</td></tr> <tr><td style="border: none;">FG-FR-36SSK</td><td style="border: none;">FR-OAS-LP04</td></tr> <tr><td style="border: none;">FG-FR-48SSK</td><td style="border: none;">FR-OAS-LP04</td></tr> </tbody> </table> <p>See page 16 for details.</p>	Models	Kit	FG-FR-6SSK	FR-OAS-LP52	FG-FR-12SSK	FR-OAS-LP52	FG-FR-18SSK	FR-OAS-LP45	FG-FR-24SSK	FR-OAS-LP35	FG-FR-30SSK	FR-OAS-LP04	FG-FR-36SSK	FR-OAS-LP04	FG-FR-48SSK	FR-OAS-LP04	<p style="text-align: center;"><i>Media</i></p> <p><i>Lava Stones: 1" to 2" size (50 lbs)</i> Model: FG-LS-50</p> <p><i>Lava Boulders: 6" to 12" size (30lbs)</i> Model: FG-LB30</p> <p><i>Lava Rock: 1" to 1½" size (50 lbs)</i> Model: FG-LAVA-50</p>
Models	Kit																																	
FG-FR-6SS	FR-OAS-LP52																																	
FG-FR-12SS	FR-OAS-LP52																																	
FG-FR-18SS	FR-OAS-LP45																																	
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FG-FR-36SSK	FR-OAS-LP04																																	
FG-FR-48SSK	FR-OAS-LP04																																	
<p style="text-align: center;"><i>Log Sets</i></p> <p>Model: L-SF (Spit Fire) - 17pc (52lbs) L-BF (Beach Fire) 8pc (20lbs) L-Sedona (Sedona) 19pc (200lbs) 326-930 Twigs 6pc (20lbs)</p>	<p style="text-align: center;"><i>E-STOP</i></p> <p>Mechanical gas timer valve with emergency shut-off.</p> <p>Model: ESTOP1-0H 1hr. timer Model: ESTOP2-5H 2.5hr. timer</p>	<p style="text-align: center;"><i>FLEXFRAME</i></p> <p>Universal brackets to support fire pit disc when using paver blocks or other non-combustible enclosures.</p> <p>Model: FLEXFRAME-PC FLEXFRAME-SS</p>																																
<p style="text-align: center;"><i>Vent Kits</i></p> <p>Provide 18 sq. in of ventilation per side of enclosure)</p> <p>Model: VENT-KIT-6X12SS Model: PAVER-VENT-4LNLS Model: PAVER-VENT-6LNLS</p>	<p style="text-align: center;"><i>Paver Control Panels</i></p> <table style="width: 100%; border: none;"> <tbody> <tr> <td style="border: none;">PAVER-CP-MT</td> <td style="border: none;">MT systems</td> </tr> <tr> <td style="border: none;">PAVER-CO-TMSI</td> <td style="border: none;">TMSI systems</td> </tr> </tbody> </table>	PAVER-CP-MT	MT systems	PAVER-CO-TMSI	TMSI systems	<p style="text-align: center;"><i>Fireglass/Liquid Glass/ Reflective Glass</i></p> <p>Sold in 5lb bags in various colors. See your Firegear dealer for various options.</p>																												
PAVER-CP-MT	MT systems																																	
PAVER-CO-TMSI	TMSI systems																																	

NOTE: See the Firegear Outdoors catalogue for a variety of fittings and flex connectors and other accessories.

FIRE PIT MAINTENANCE

1. The fire pit should be inspected and cleaned before initial use at least annually by a qualified field service person.
2. Any component that is found faulty must be replaced with an approved component.
3. Any tampering or modifying with the fire pit is dangerous and voids all warranties.
4. During winter months in cold climates and various seasons operation the fire pit may be affected by weather conditions. It is recommended to use a ventilated cover overtop of your fire pit to protect it from humid/rainy weather conditions when not in use. Heavy rains/downpours could affect the fire pit operation if not covered; if this occurs ensure you allow the fire pit time to dry out before attempting to operate. **NOTE:** If a combustible type cover is used over the fire pit when not in use be sure to remove it before operation to prevent a severe safety hazard.
5. 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.

TROUBLE SHOOTING

<u>Symptom</u>	<u>Remedy</u>
Fire pit won't light	<ol style="list-style-type: none">1. Bleed gas line.2. Ensure all gas supply lines are turned ON.3. Ensure there is not too much media overtop of burner; it can inhibit gas from flowing.4. Check gas pressure.
Low flame	<ol style="list-style-type: none">1. Ensure the base media is at least 1-inch in diameter and top media is no more than 1-inch over top of burner.2. Ensure all shut-off valves and key valve is fully open. See page 11; Figure 143. Check gas pressure.4. Check for spider webs blocking the air shutter orifice.
Water in my fire pit	<ol style="list-style-type: none">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.

FOR TECHNICAL SERVICE, CALL: (855) 498-8324

Firegear Outdoors
9230 Conservation Way
Fort Wayne, IN 46809
Sales: (888) 672-8929
Sales Support: (888) 699-6167
Canadian Inquires: (877) 472-3923

WEB SITE: www.firegearoutdoors.com





LIMITED WARRANTY

Skytech Products Group (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:

CONSUMER/NON-COMMERCIAL APPLICATIONS:

Stainless Steel Components	5 Years
Gas Valve, Spark Igniter & Electronic Parts	2 Years
Log Sets	3 Years
Glass Windshields	5 Years
Glass Media	1 Year
Controls	5 Years
AnF Enclosures	5 Years

Lava Rock and Lava Stones are not covered by warranty

COMMERCIAL APPLICATIONS:

Stainless Steel Components	1 Year
Gas Valve, Spark Igniter & Electronic Parts	1 Year
Log Sets	1 Year
Glass Windshields	1 Year
Glass Media	1 Year
Controls	1 Year
AnF Enclosures	1 Year

Lava Rock and Lava Stones are not covered by warranty

End User must provide a bill of sale, canceled check, or payment record from the end user to verify purchase date and to establish 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 proven to be defective under normal use and service. Before returning any parts, contact our Technical Service Department for a Return Materials Authorization (RMA) number. All warranty claims must be made by the OEM / Distributor / Dealer account on behalf of the end user. You may contact Technical Service at (855) 498-8324.

All approved returned defects must be confirmed by our Technical Service Department. If the 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.

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

This 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 salt), either directly or in the atmosphere, or very high humidity, is not covered by this Limited 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 products. Some states do not allow the exclusion or limitation of incidental or consequential damages, so this limitation or exclusions 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 no such representations are binding.





Having problems getting your Firegear Outdoors fire pit to operate?
Don't leave the job site! We want to help! Call 855.498.8324
for Technical Support between the hours of 8:00AM to 5:00PM EST.
Text photos to 260.255.5750 or e-mail photos to support@skytechpg.com.

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. Missing or damaged parts? Let us know ASAP or send photos.