

# Direct Spark Ignition



User Manual for: All Crystal Fire Burners operating on CF-DSI-NG and CF-DSI-LP

## CAUTION



### DO NOT DISCARD THIS MANUAL

- Important operating and maintenance instructions included.
- Read, understand, and follow these instructions for safe installation and operation.



## GAS-FIRED



## DANGER

If you smell gas:

- Shut off gas to the appliance.
- Extinguish any open flame.
- 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 any other gas appliance.

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

## DANGER



## CARBON MONOXIDE HAZARD

This appliance can produce carbon monoxide which has no odor.

Using it in an enclosed space can kill you.

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

## 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: For outdoor use only

## WARNING

Installation and repair should be performed only by a qualified service technician.

CF-DSI 42474 REV C 8/20/18

# Read this manual before installing or operating this appliance.

## Please retain this owner's manual for future reference.

### Congratulations

Congratulations on selecting an Outdoor GreatRoom Company decorative gas appliance. The product you have selected is designed to provide the utmost in safety, reliability, and efficiency.

As the owner of an Outdoor GreatRoom Company Direct Spark Ignition burner, you'll want to read and carefully follow all of the instructions contained in this owner's manual. Pay special attention to all cautions and warnings.

This owner's manual should be retained for future reference. We suggest you keep it with other important documents and product manuals.

The information contained in this owner's manual applies to Direct Spark Ignition systems only.

### Listing Label Information/Location

The model information regarding your specific appliance can be found on the rating plate attached to your burner via a metal chain. See the sample rating plate below for locations of specifications.

**GAS-FIRED**  
**UL** LISTED 42W4  
DECORATIVE OUTDOOR GAS-FIRED FIREPLACE

The Outdoor GreatRoom Company  
2015 Silver Bell Road, #195  
Eagan, MN 55122

Model: All Crystal Fires  
ANSI Z21.97-2014 and CSA 2.41-2014 for Canada. Installation must conform with local codes or in the absence of local codes, ANSI Z223.1 \* NFPA 54 National Fuel Gas Code – Natural gas and propane installation code, CSA B149.1 – or propane storage and handling code CSA B149.2

Model	Orifice Size		Max input BTU	
	LP	NG	LP	NG
CF-20 NF-16	#43	#31	55331	51706
CF-1224 NF-719	#43	#31	55331	51706
CF-2424 NF-1019	#36	#17	79229	107465
CF-1242 NF-737	#31	#21	100588	90776
CF-1264	#31	#21	100588	90776
CF-12120 CF-1242-L	#31(2)	#21(2)	100588 (per half)	90776 (per half)
CF-30	#31	#17	90,000	90,000
CF-12	#55	#49	20000	19500

**WARNING:** Must Not Be Used For Cooking.  
**WARNING:** For Outdoor Use Only. If stored indoors, detach and leave cylinder outdoors.  
MINIMUM CLEARANCES: Top: 6 Ft. (72") Sides: 2 Ft. (24") Bottom: 8 In.  
Minimum clearance from sides and back of unit to adjacent combustible construction below top of unit is 8 inches from sides and 8 inches from back.  
Minimum horizontal clearance from sides and back of unit to adjacent vertical combustible construction extending above top of unit is 24 inches from sides and 24 inches from back.

**WARNING:** Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to the owner's information manual provided with this appliance. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

CF-UL Rev E 9/18/15

Fuel Type: Type of Gas: Natural Gas, Propane Gas  
Model: CF-12  
Serial Number: SERIAL # XXXX  
Orifice Sizing: Orifice Size

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What's included...	
<b>CF-DSI-NG</b>	<b>CF-DSI-LP</b>
<ul style="list-style-type: none"><li>• Control Module &amp; Natural Gas Valve</li><li>• Wire harness with on/off switch</li><li>• 110 VDC / 3.3 VDC Adaptor</li><li>• Flexible metal gas line</li><li>• Owner's Manual</li><li>• Igniter wind guard</li></ul>	<ul style="list-style-type: none"><li>• Control Module &amp; LP Gas Valve</li><li>• Wire harness with on/off switch</li><li>• 110 VDC / 3.3 VDC Adaptor</li><li>• LP Regulator Hose</li><li>• Owner's Manual</li><li>• Igniter wind guard</li></ul>

## A. Appliance Certification

**MODEL:** CRYSTAL FIRE BURNERS WITH DIRECT SPARK IGNITION

**LABORATORY:** Underwriters Laboratories, LLC (UL LLC)

**TYPE:** Decorative Gas-Fired Outdoor Fireplace

**STANDARD:** Outdoor Decorative Gas Appliances ANSI Z21.97-2014 \* CSA 2.41-2014

The Crystal Fire Burner with Direct Spark Ignition has been tested in accordance with ANSI Z21.97-2014 and CSA 2.41-2014 for Canada and has been listed by Underwriters Laboratory, LLC (UL LLC) for installation and operation as described in these installation and operating instructions.

The installation must conform with local codes or, in the absence of local codes, ANSI Z223.1 \* NFPA 54 *National Fuel Gas Code – Natural Gas and Propane Installation Code*, CSA B149.1 – or *Propane Storage and Handling Code*, CSA B149.2



**WARNING:** This product can expose you to chemicals including Carbon Monoxide and Benzene which are known to the State of California to cause cancer or birth defects or reproductive harm. For more information, visit [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov)

## B. Specifications

Model	Orifice Size		Max input BTU	
	LP	NG	LP	NG
·CF-20 ·NF-16	#43	#28	55331	51706
·CF-1224 ·NF-719	#43	#28	55331	51706
·CF-2424 ·NF-1919	#36	#12	79229	107465
·CF-1242 ·NF-737	#31	#12	100588	90776
·CF-1264	#31	#12	100588	90776
·CF-12120 ·CF-1242-L	#31(2)	#12(2)	100588 (per half)	90776 (per half)
CF-30	#31	#12	90,000	90,000
CF-12	#55	#43	20000	19500

### WARNING

- Children and adults should be alerted to the hazards of high surface temperatures and open flames 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.
- Clothing or other flammable materials should not be hung from the appliance or placed on or near the appliance.
- Any guard, cover, or protective device removed for installation or service shall be replaced prior to operation.



Installation and repair should be done by a qualified service person. More frequent cleaning may be required as necessary. It is imperative that the control compartment, burners, and circulating air passageways of the appliance are kept clean.

This appliance is a Decorative Gas Appliance for **OUTDOOR USE ONLY** and **MUST NOT** be used for cooking.

Place the fire pit system on a flat and stable surface in an outdoor location such as a patio or deck. This location must be adjacent to the gas supply line or LP gas supply. **DO NOT** locate the appliance where it will get excessively wet or submerged in water.

## A. Design and Installation Considerations

When planning an appliance installation, it's necessary to determine the following information before installing:

- Where will it be installed? **See Section 3**
- Gas supply piping. **See Section 4**

## B. Tools and Supplies Required

Before beginning the installation, be sure that the following tools and supplies are at hand.

- Gloves
- Safety Glasses
- Phillips screwdriver
- Non-corrosive leak-check solution
- Wrenches
- Volt meter
- Gas pressure meter

### WARNING



The Outdoor GreatRoom Company disclaims any responsibility for, and the warranty will be voided by, the following actions:

- Installation and use of any damaged components.
- Modification of the burner assembly
- Installation other than as instructed by the Outdoor GreatRoom Company.

Any such action may cause a fire hazard

### WARNING

#### Asphyxiation Risk

- This gas appliance is for outdoor use in a well-ventilated space.
- This unit must not be installed inside an enclosed structure or unvented appliance

### WARNING

Do NOT use this appliance if any part of it has been underwater. Have an authorized service technician inspect the appliance and replace any part of the control system and any gas control which has been underwater.

### CAUTION

#### Sharp Edges

Wear protective gloves and safety glasses during installation.

### WARNING

Do not burn solid fuels in this gas appliance

## C. Inspect the Appliance and Components

### WARNING

Inspect appliance and components for damage. Damaged parts may impair safe operation.

- Do NOT install damaged, incomplete, or substitute components
- Report damaged parts to your dealer.

- Carefully remove all burner components from packaging.
- Read all instructions before beginning installation. Follow these instructions carefully during installation to ensure maximum safety and benefit.

# 3

## Setting up your DSI Burner

### A. Burner Assembly

- Check for damage. Do not use damaged components.
- The burner must be replaced prior to the appliance being put into operation if it is evident that the burner is damaged. The replacement burner assembly is specified by the manufacturer.
- Position the assembly in the desired location. This location must be adjacent to the gas supply line. You must have easy access to the Direct Spark Ignition system after it is installed and connected to the gas supply for service and maintenance.
- Ensure that the Direct Spark Ignition system will not be in contact with standing water. Provide drainage underneath burner location.
- Ensure that burner enclosure has adequate venting to prevent condensation. Consult Crystal Fire Burner Manual for venting requirements.

### B. Electrical Connections

- Connect the supplied 110 VAC/3.3 VDC transformer to the unit as shown. All connections are labeled and should match (3.3 VDC +, 3.3 VDC -)
- Connect the supplied control switch as shown.
- **Note:** The GROUND, SENSOR, and SPARKER connections will all be made at the factory when the burner is assembled.
- **Optional Battery Pack:** An optional battery pack can be added to the system. Two (2) D-Cell Batteries are required for operation.

### C. Glass Installation

Spread glass out evenly over burner area. Use all glass provided for best effect. **It is important that all ported surfaces are covered with media INCLUDING underneath the igniter/flame sensor. Do not overfill igniter/flame sensor wind guard with media. Ensure that media is not contacting igniter/flame sensor.**

#### Note:

A percentage of glass beads may arrive split in half. This is normal. Additional beads may split after use. This is also normal due to the physical properties of glass.



**DO NOT BURN WITHOUT GLASS OR  
OTHER SUBSTRATE SUCH AS LAVA  
ROCK IN BURNER.**

## A. Fuel

Before making gas connections, ensure the appliance being installed is compatible with the available gas type.

## B. Gas Pressure

Proper input pressures are required for optimum performance. Gas line sizing requirements need to be made following applicable sizing codes.

**⚠ WARNING**

**Fire Risk  
Explosion Risk**

Verify inlet pressures.

- High pressure may cause over fire condition and valve failure
- Low pressure may cause explosion.
- Verify minimum pressures when other household gas appliances are operating

**Install regulator upstream of valve if line pressure is greater than 14 inches of WC.**

Pressure requirements for appliance are shown in table below. Minimum pressures must be met when other household gas appliances are operating.

Pressure	Natural Gas	Propane
Minimum Inlet Pressure	4.5 in WC	10.5 in WC
Maximum Inlet Pressure	14 in WC	14 in WC

**The CF-DSI needs to be disconnected from a fixed fuel piping system with an appliance regulator during any pressure testing of the gas supply system at test pressures in excess of ½ psi (3.5 kPa).**

**The CF-DSI needs to be isolated from the gas supply system by closing a manual shutoff valve on the gas supply system during any pressure testing at or less than ½ psi (3.5 kPa).**

## C. Gas Connection

**Note: Have the gas supply installed in accordance with local building codes, if any. If not, follow AS4565:2004 & AS4558:2011. Installation should be done by an authorized installer approved and/or licensed as required by the locality.**

**⚠ WARNING**

**Fire Risk**

**Provide adequate clearance:**

- Around air openings
- For service access.

**Locate appliance away from traffic areas**

**⚠ WARNING**

**Fire Risk  
Explosion Risk**

- Gas build-up during line purge may ignite.
- Purge should be performed by authorized technician.
- Ensure adequate ventilation.
- Ensure there are no ignition sources such as sparks or open flames.

- A small amount of air will be in the gas supply lines. When first lighting appliance it will take a short time for air to purge from lines. Subsequent lighting of the unit will not require such purging.

**⚠ WARNING**

**CHECK FOR GAS LEAKS**

**Fire Risk  
Explosion Risk  
Asphyxiation Risk**

- Check all fittings and connections.
- Do not use open flame.
- After the gas line installation is complete, all connections must be tightened and checked for leaks with a commercially available leak-check solution. Be sure to rinse off all leak check solution. Be sure to rinse off all leak check solution following testing.

**Fittings and connections may have loosened during shipping and handling**

## D. LP Gas Supply

- The pressure regulator and hose assembly supplied with LP models must be used. Replacement pressure regulators and hose assemblies must be those specified in this manual.
- The LP gas supply cylinder used with LP models must be constructed and marked in accordance with the specifications for LP gas cylinders of the U.S. Department of Transportation (DOT).
- Cylinders must be stored outdoors in a well ventilated area out of the reach of children. Disconnected cylinders must have threaded valve plugs tightly installed and must not be stored in a building, garage, or any other enclosed area.
- Storage of this appliance indoors is permissible only if it has been disconnected from its fuel supply (natural gas line or LP gas cylinder).
- The LP gas cylinder supply system must be arranged for vapor withdrawal.
- The LP gas cylinder used must include a collar to protect the cylinder valve.
- When an LP model is not in use, the LP gas must be turned off at the supply cylinder.
- The specific size and capacity of the cylinder(s) to be used: **20 lb. or hard plumbed to propane tank.**

**IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION SERVICES, OR MAINTENANCE CAN CAUSE INJURY OR PROPERTY DAMAGE. REFER TO AND UNDERSTAND THIS MANUAL. FOR ASSISTANCE OR ADDITIONAL INFORMATION CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY, LICENSED TECHNICIAN OR THE GAS SUPPLIER.**

## Gas Setup for Liquid Propane

1. With burner in place in Outdoor GreatRoom Company fire pit table or other installation location and properly sized orifice inserted in burner neck (see chart on p.4 for orifice sizing), locate flexible rubber propane hose and regulator supplied with this burner.
2. Attach the propane hose to inlet fitting of Direct Spark Ignition system. The location of this fitting is shown at right. Using two wrenches, one to hold the DSI fitting and one to turn the LP hose fitting, tighten securely.
3. **For LP installations, the air shutter should be open  $\frac{1}{4}$ ".** To adjust air shutter, loosen the small securing screw and rotate air shutter to allow more or less airflow. Closing the shutter will produce a more yellow flame but will result in soot.



**CHECK ENTIRE SYSTEM FOR  
LEAKS BEFORE OPERATING.**

**When using flexible gas hose, inspect the hose for excessive abrasion, wear, or other damage before each use. DO NOT use appliance if flexible gas hose is damaged. Contact manufacturer for replacement information.**

**Locate flexible gas hose out of pathways where people can trip over it or where gas hose is subject to accidental damage.**

## Gas Setup for Natural Gas

1. With burner in place in Outdoor GreatRoom Company fire pit table or other installation location and properly sized orifice inserted in burner neck (see chart on p.4 for natural gas orifice sizing), adjust air shutter to a closed position (as shown at right, no light visible through the shutter) by loosening the small screw on the air shutter and rotating it to a closed position and re-tightening screw.
2. Connect properly sized and regulated natural gas supply line to the inlet fitting of the DSI system (3/8" or 1/2" flare fitting). It is highly recommended that a ball valve be placed in line before the DSI system. This will ensure that future services are able to be completed safely.



**CHECK ENTIRE SYSTEM FOR LEAKS  
BEFORE OPERATING.**

**When using flexible gas hose, inspect the hose for excessive abrasion, wear, or other damage before each use. DO NOT use appliance if flexible gas hose is damaged. Contact manufacturer for replacement information.**

**Locate flexible gas hose out of pathways where people can trip over it or where gas hose is subject to accidental damage.**

**IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION SERVICES, OR MAINTENANCE CAN CAUSE INJURY OR PROPERTY DAMAGE. REFER TO AND UNDERSTAND THIS MANUAL. FOR ASSISTANCE OR ADDITIONAL INFORMATION CONSULT A QUALIFIED INSTALLER, SERVICE AGENCY, LICENSED TECHNICIAN OR THE GAS SUPPLIER.**

# 5 Lighting and Operation

FOR YOUR SAFETY, READ BEFORE LIGHTING

## WARNING!

If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury, and/or loss of life.

- When lighting, follow these instructions exactly.
  - **Before lighting**, smell all around the appliance area for gas. Be sure to smell next to the base of the appliance because some gas is heavier than air and will settle on the floor.
  - Use only your hand to turn the gas control knob on propane tank (if equipped), never use tools. If the valve won't turn by hand, don't try to repair it, call a qualified service technician. Force or attempted repair may result in a fire or explosion.
  - Do not use the appliance if any part has been underwater. Immediately call a qualified service technician to inspect the appliance and replace any part which has been underwater.
  - The LP gas pressure regulator provided with this appliance must be used if burner is operating on LP. This regulator is set for an outlet pressure of 10.5 inches water column.
- WHAT TO DO IF YOU SMELL GAS:**
- Do not try to light any appliance.
  - Do not touch any electric switch, do not use any phone nearby.
  - Immediately call your gas supplier from a safe distance. Follow gas supplier's instructions.
  - If you cannot reach your gas supplier, call the fire department

## Lighting Instructions

Inspect system for damage before each use.

1. With power switch in the OFF position, open the valve on propane tank, or open valve at natural gas supply source.
2. Flip switch to ON (Or Remote, for optional remote system). System will beep once.  
The system should beep again, and then begin sparking and ignite the burner within 10 seconds.
3. Once a flame is established, the system will beep once more.
4. Flip the switch to the OFF position to extinguish the flame.

**In the event the flame does not light after multiple attempts:** Flip switch to the OFF position, wait 5 minutes, and re-attempt ignition.

### Before first use:

The power switch included with your Direct Spark Ignition system is labeled with three symbols. These indicate different modes of operation. Make sure system is set to **OFF** before installing propane tank, if unit is operating on LP.



Remote Operation



Power/Flame OFF

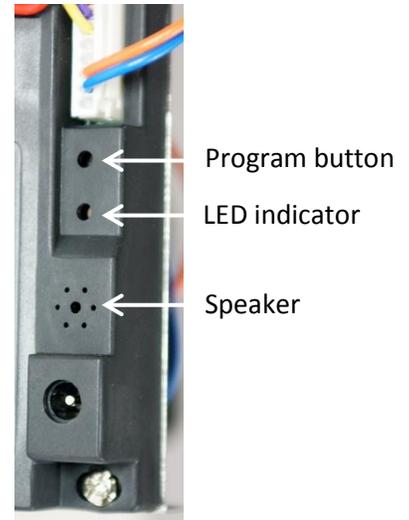


Power/Flame ON (Manual Operation)

# Programming a Remote:

An optional remote burner controller can be purchased for this product. **This remote uses one A23 battery (Not Included)**

1. Begin with the CF-DSI control switch in the **Remote Operation** position.
2. To program your remote, locate the program button on the *Control Module* (shown at right) and press it with a paper clip or similar small object. A single beep should be heard.
3. Press and hold the **SET** button on your remote until a series of beeps are heard from the *Control Module*. The remote is now paired with your burner.



## WARNING

### FIRE RISK – HIGH TEMPERATURES

Keep combustible household items away from appliance.

- Do NOT obstruct combustion and ventilation air.
- Do NOT place combustible items on top of or near appliance.
- Keep furniture, draperies away from appliance.
- Do NOT use lantern fuel, kerosene, charcoal lighter fluid, or similar liquids in this appliance.
- Combustible materials, flammable liquids, or vapors may ignite.

### Direct Spark Ignition System Normal Operation

- When the switch is turned to the ON or Remote Operation position:
  - a. The unit will perform self-diagnostics to ensure gas is not flowing and beep once the check has been performed (In Remote Operation, the system will then wait for the user to press the ON button on the remote transmitter before continuing to Step B)
  - b. A second beep will occur signaling that sparking will begin.
  - c. Sparking will begin to occur at the igniter.
  - d. Igniter will continue to spark until flame is “proven” (Flame sensor senses presence of flame).
  - e. A third beep will signal that flame has been proven and AI burner will continue to operate.
- If the flame sensor does not sense a flame and ignition is attempted for 12 seconds, the unit will shut down. If flame sense is lost but then regained before the 12 second shutdown limit, the unit will continue to operate and attempt to reignite the burner whenever a flame is not sensed.

# 7 Troubleshooting

Symptom		Possible Causes		Corrective Actions
1.	Burner won't light.	A.	No fuel	Check gas valve at main supply if natural gas or whole house LP. Check if tank has fuel if 20 lb. LP
		B.	Gas valve does not get power, but unit sparks.	Confirm 0.7 VDC are going to valve head from control with voltmeter. If not, replace control.
		C.	LP tank OPD activated	Close all valves, ensure all gas line connections are tight with no leaks, open tank valve slowly.
		D.	Loose or bad wire connections	Refer to wiring diagram on page 15. Ensure that there is no corrosion on connections.
		E.	Dead/No batteries	Replace or install batteries. Batteries must provide 2.8 V or greater if voltmeter is available.
		F.	Plugged burner orifice	Check the burner orifice for blockage. Remove blockage if necessary.
2.	Unit runs for 20-30 seconds then shuts off	A.	Electrode corroded	Clean electrodes with emery cloth, check connection of sensor wire. Refer to page 15 for wiring diagram.
		B.	Flame not contacting electrode	Ensure media is properly placed per instructions, ensure wind guard is installed properly on burner. If AI system was retrofitted ensure correct orifice is installed in burner.
3.	Blue Flames	A.	This is a result of normal operation and flames will begin to yellow as unit is allowed to burn for 16-20 minutes.	Do nothing.
		B.	Improper air/fuel mixture related to air shutter position.	Adjust air shutter. (For LP, leave 1/8 in open, Natural gas, close air shutter)
4.	Metallic noise	A.	Noise is caused by metal expanding and contracting as it heats up and cools down, similar to the sound produced by a furnace or heating duct. This noise does not affect the operation or longevity of the appliance.	Do nothing.
5.	Sparker makes clicking sound but no visible spark is produced at igniter.	A.	Sparker is improperly grounded	Refer page 15 for wiring diagram. Check all wire connections to ensure everything is connected properly.
		B.	Ignition or ground wire not plugged in.	
		C.	Igniter tip set too far from grounding probe	Check that tip of sparker is within 6mm of grounding probe. Gently bend igniter tip or grounding probe by hand to achieve a smaller gap.

**Further questions about the Direct Spark Ignition system may be answered by the CF-DSI FAQ on [OutdoorRooms.com](http://OutdoorRooms.com) in the Support Section.**

- Although the frequency of appliance servicing and maintenance will depend on use and the type of installation, an authorized service technician should perform an appliance check-up annual.
- Storage of an appliance indoors is permissible only if disconnected and removed from the gas supply.
- The use of a vinyl table cover is highly recommended to keep your table and burner looking new and ensuring extended trouble-free operation.

## WARNING

Risk of injury or property damage

Before servicing:

- Turn off gas supply to appliance.
- Ensure appliance is completely cooled.

## WARNING

Annual inspection by qualified technician recommended.

Check:

- Obstructions of combustion and ventilation air.
- Condition of burner assembly.
- Burner ignition and operation.
- Burner air shutter adjustment.
- Gas connections and fittings.

Risk of:

- Fire
- Delayed ignition or explosion
- Exposure to combustion fumes
- Odors

## Maintenance and Service Tasks

For service calls: Contact the dealer your product was purchased from first.  
Contact the Outdoor GreatRoom Company at 1-651-287-7460 or sales@outdoorrooms.com if further assistance is needed.

Inspect	Maintenance Tasks	
Burner Assembly	1	Remove decorative glass and examine burner. Vacuum and wipe out as needed. <b>Use caution when cleaning these areas</b>
	2	Inspect for warping and corrosion. Contact dealer or OGC if repair is necessary.
	3	Verify air shutter area is clean
Burner Ignition and Operation	1	Verify all gas connections are tight and leak-free
	2	Clean burner top, inspect for plugged ports, corrosion, or deterioration. Replace burner if necessary.
	3	Inspect for flame problems.
	4	Verify air shutter is clear of dust and debris and is in correct position for the gas type being used.
	5	Inspect orifice for soot, dirt, or corrosion
	6	Verify inlet and test point pressures. Adjust regulator as required.

**IF THERE IS EVIDENCE OF DAMAGE TO THE BURNER OR DSI CONTROL SYSTEM, THE UNIT SHOULD NOT BE OPERATED UNTIL THE COMPONENTS ARE REPLACED. CONTACT MANUFACTURER FOR PROPER REPLACEMENT COMPONENTS.**

## A. Service Parts List

#	Description of Part	Part Number	Qty.
1	Automatic Gas Valve (Specify Propane or Natural Gas)	OGR-6003V-(LP/NAT)	1
2	Electrode with Ignition Sensing Probe	CF-DSI-ELECTRODE	1
3	Battery Holder	BATTERY PACK	1
4	AI System Control Box	OGR-6KR-NT	1
5	Replacement Wiring Harness	CF-DSI-WH	1
<b>Optional Accessories</b>			
1	Switch Extension Kit	Contact OGC for more details	1
2	Remote Transmitter	CF-AI-R	1
3	Natural Gas Conversion Kit	6003V NAT 3.5" CK	1
4	AC Power Adaptor	OGR-3V-ADP	1
5	LPG conversion kit	Contact OGC for more details	1
6	Control Panel for AI switch on DIY cabinet	Contact OGC for more details	1



For more information, you can visit us online at

[Http://www.OutdoorRooms.com](http://www.OutdoorRooms.com)

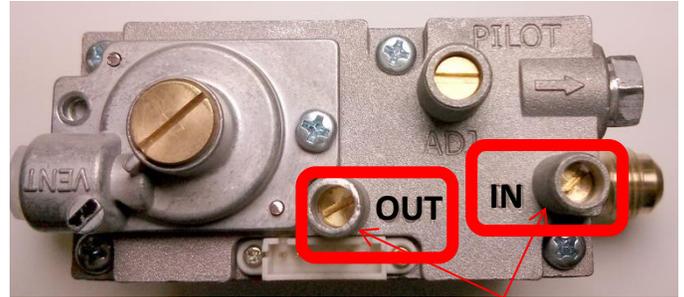
Or Call Us At:

1-651-287-7460

## B. Checking Test Point Pressure

To test inlet and outlet pressure on your valve, a manometer or magnehelic gauge is required. This pressure measuring device must have a ¼" (6.4 mm) ID tube connected to it in order to connect to the pressure taps of the AI system valve.

1. With gas supply turned off, use a flathead screwdriver to open the inlet port (DO NOT remove the screw)
2. Attach pressure measuring device securely and turn gas supply on. Record pressure.
3. Repeat measurement with the unit in operation.
4. Turn off gas supply, re-tighten test port, and leak check.
5. Repeat steps 1-4 on the output test port. (This port will only show pressure while unit is in operation)



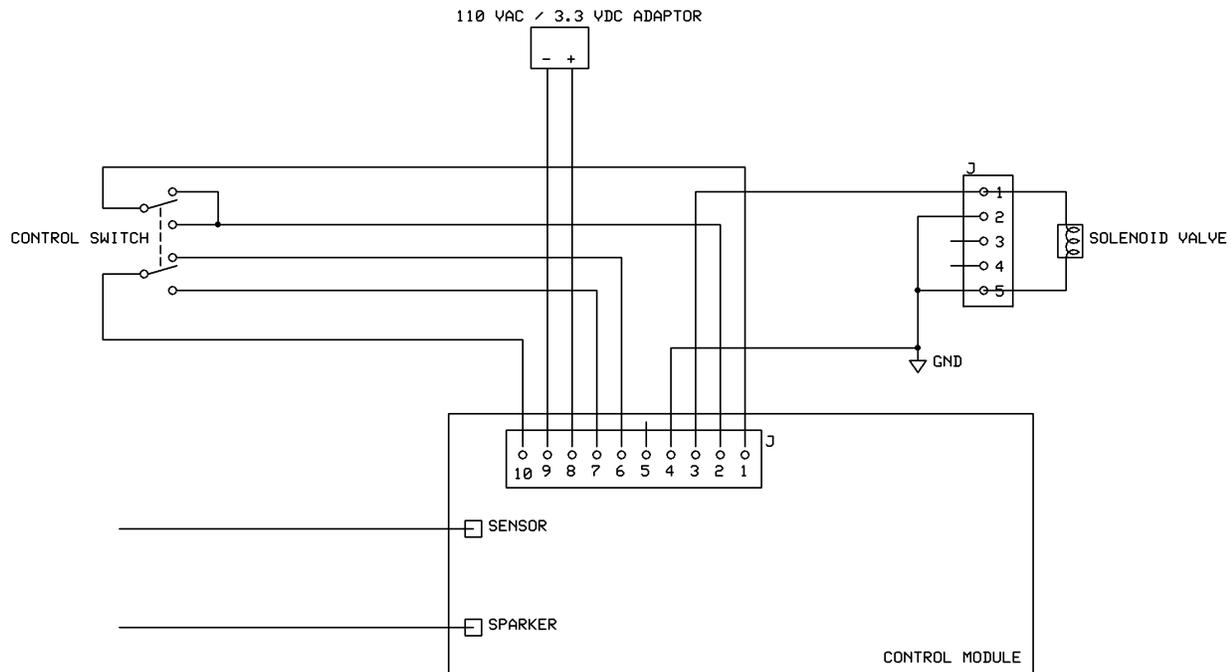
6.4mm (1/4") pressure tap

Ideal test point pressures

	LP	Natural gas
In	11 in WC	7 in WC
Out	10 in WC	3.5 in WC

## C. Wiring Diagram

If wiring needs to be repaired or disassembled, disconnect the fire pit from gas supply before anything is done to electrical components.





## The Outdoor GreatRoom Company Outdoor Products Limited Warranty

The Outdoor GreatRoom Company extends the following warranty for Outdoor GreatRoom outdoor products used in the United States of America or Canada. Dealers and employees of The Outdoor GreatRoom Company have no authority to make any warranty or authorize any remedies in addition to or inconsistent with the terms of this warranty. This warranty gives you specific legal rights. You may also have other rights that vary from state to state.

The Outdoor GreatRoom Company warrants that this Outdoor GreatRoom Outdoor Product (the "Product") will be free from defects in material and workmanship for a period of one year from its date of purchase. Stainless steel parts and assemblies carry a limited lifetime warranty. This warranty is subject to the conditions, exclusions and limitations described below.

This warranty applies only to the original owner of the Product and is non-transferable. The Outdoor GreatRoom Company obligation under this warranty does not extend to damages resulting from (1) assembly, operation or maintenance of the Product not in accordance with the Installation/Assembly Instructions, Operating Instructions and the Listing Agency Identification Label furnished with the Product; (2) installation or use which does not comply with local building codes and ordinances; (3) shipping, improper handling, improper operation, abuse, misuse, accident or unworkmanlike repairs; (4) use of fuels other than those specified in the Operating Instructions; (5) Installation or use of components not supplied with the Product or any other components not expressly authorized and approved in writing by The Outdoor GreatRoom Company; and/or (6) modification of the Product not expressly authorized and approved in writing by The Outdoor GreatRoom Company. Any of the circumstances described in the previous sentence voids this warranty. This warranty is void if the Product or any component has been removed, repaired, or replaced before The Outdoor GreatRoom Company has been afforded a reasonable opportunity to inspect the Product.

This warranty is limited to the replacement or repair of defective components or workmanship and The Outdoor GreatRoom Company may fully discharge its obligations under this warranty by repairing or replacing, at its discretion, the defective components. The Outdoor GreatRoom Company will provide replacement parts at no charge and will pay reasonable and necessary labor and freight costs related to replacing or repairing defective components under this warranty. The maximum amount recoverable under this warranty is limited to the purchase price of the Product and, if The Outdoor GreatRoom Company is unable to provide replacement or repair in an expedient and cost-effective manner, The Outdoor GreatRoom Company may discharge all obligations under this warranty by refunding the purchase price of the Product.

EXCEPT TO THE EXTENT PROVIDED BY LAW, THE OUTDOOR GREATROOM COMPANY MAKES NO EXPRESS WARRANTIES OTHER THAN THE WARRANTY EXPRESSED HEREIN. THE DURATION OF ANY IMPLIED WARRANTY IS LIMITED TO THE DURATION OF THE WARRANTY SPECIFIED ABOVE. IN NO EVENT SHALL THE OUTDOOR GREATROOM COMPANY BE LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES CAUSED BY DEFECTS IN THE PRODUCT. Some states do not allow limitations on how long an implied warranty lasts, or do not allow exclusion or limitation of incidental or consequential damages, so these limitations may not

### To obtain service under this warranty, you must:

1. Send written notice of the claimed condition to: The Outdoor GreatRoom Company, 14400 Southcross Drive, Suite 100 Burnsville, MN 55306.
2. Affirm that you are the original owner of the Product.
3. Provide The Outdoor GreatRoom Company reasonable opportunity to investigate the claim, including reasonable opportunity to inspect the Product prior to any repair or replacement work and before the Product or any component of the Product has been removed.