

# GRAND EFFECTS

## Rock Installation

### Model 100

#### OWNER'S MANUAL / OPERATING AND MAINTENANCE INSTRUCTIONS

**For your safety:**

If you smell gas:

1. Shut off gas to the appliance
2. Extinguish any open flame near unit.
3. If odor continues, immediately call your gas supplier

**For your safety:**

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



This manual should remain with the homeowner or parties responsible for operation.

(Rev B)

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## 1.0 Gas and Electrical requirements:

1.1	Input Voltage:	120 Vac / 60 Hz to Grand Effects Control Panel	
1.2	Output Voltage:	24 Vac	
1.3	Gas type:	<u>Natural Gas</u>	<u>Propane</u>
1.4	Gas Pressure:	Nominal: 7" wc	11"wc

1.4	Gas flow:	1 Bowl system:	60,000-80,000 btu/hr
		2 Bowl system:	120,000-160,000 btu/hr
		3 Bowl system:	180,000-240,000 btu/hr
		4 Bowl system:	240,000-320,000 btu/hr

Note: Check with your gas supplier to verify gas flows and pressures available at the location of your installation. In many cases utility companies will install larger meters at no charge to accommodate larger flows.

## 2.0 Installation

### **Warning: This unit is for outdoor use only**

- 2.1 Do not install near any combustibles such as wood structures, fuels, clothing, fabrics or dry vegetation.
- 2.2 Install Rock Inserts well out of the way of pedestrian traffic.
- 2.3 Installation shall be performed by a licensed contractor. All aspects of installation must conform to local or national codes, or in the absence of codes, with Natural Fuel Gas Code ANZI Z223.1.  
The Control Panel and approved gas valve shall be located where they can be easily accessible so that the gas can be shut off quickly in case of an emergency.
- 2.4 Install the Control Panel and gas piping as shown in Fig. 1(Natural Gas) or Fig. 2 (Propane Gas) or Fig.3 (Commercial Installation).
- 2.5 Note that propane piping is different than natural gas (shown in Fig. 1 and Fig.2).
- 2.6 The gas piping shall be installed underground between the Control Panel and each Fire Bowl as shown in Fig. 1. The piping shall be reduced to 1/2" NPT or larger at each Rock Insert as shown in Fig. 4.
- 2.7 Low voltage wiring (14 or 16 ga. 24Vac) shall be installed underground between the Control Panel and each Bowl. Wire per Grand Effects wiring diagram. 120 v source into Control Panel can come from any 120v source, including pool controller or home system.
- 2.8 Maintain good piping practice by keeping pipe length and elbows to a minimum to eliminate unnecessary pressure drops. Corrugated flex gas lines should not be used.
- 2.82 On commercial installations, it is recommended to install a keyed switch and kill switch located in close proximity and in visible sight of feature or features. The keyed and kill switches are supplied by others.

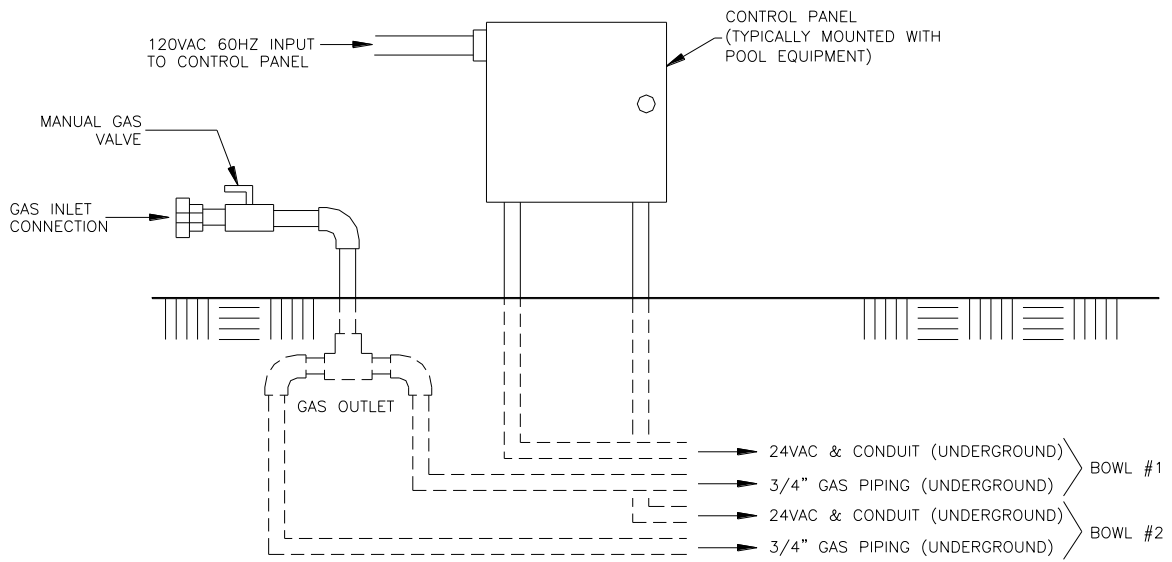


Fig. 1 (Natural Gas)

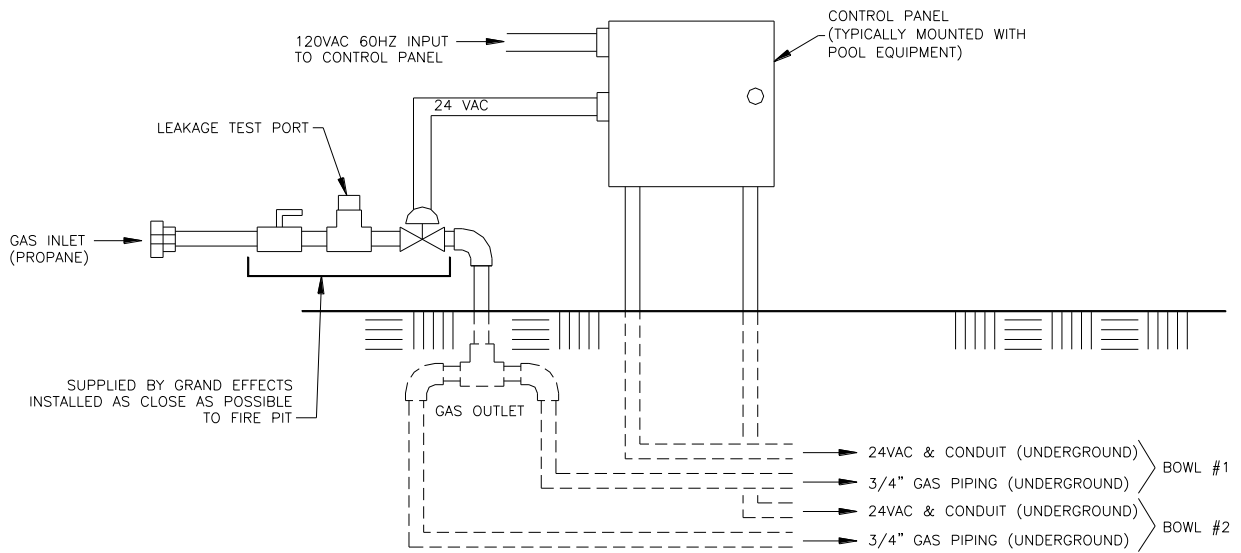


Fig. 2 (Propane Gas)

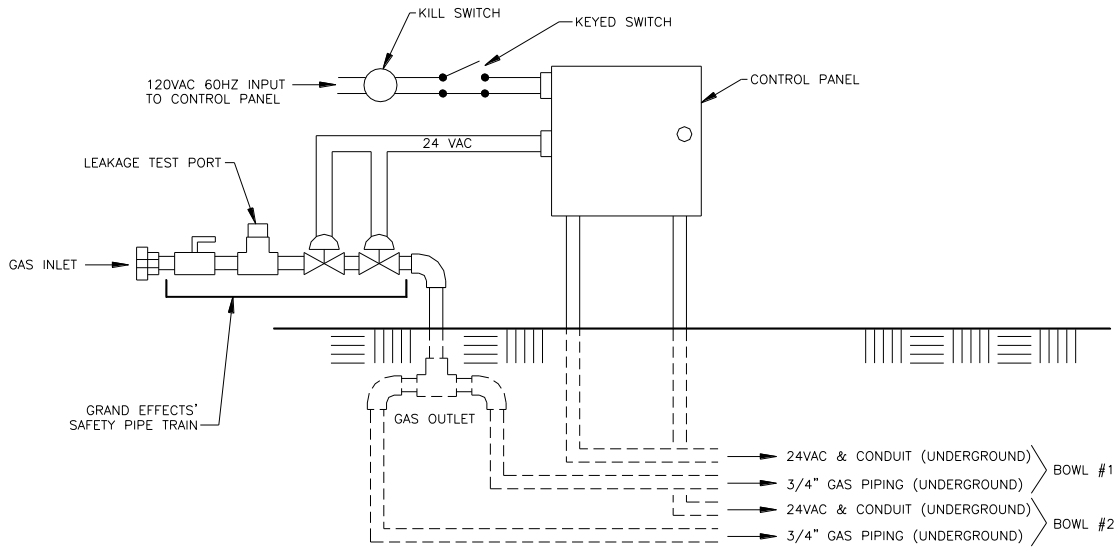
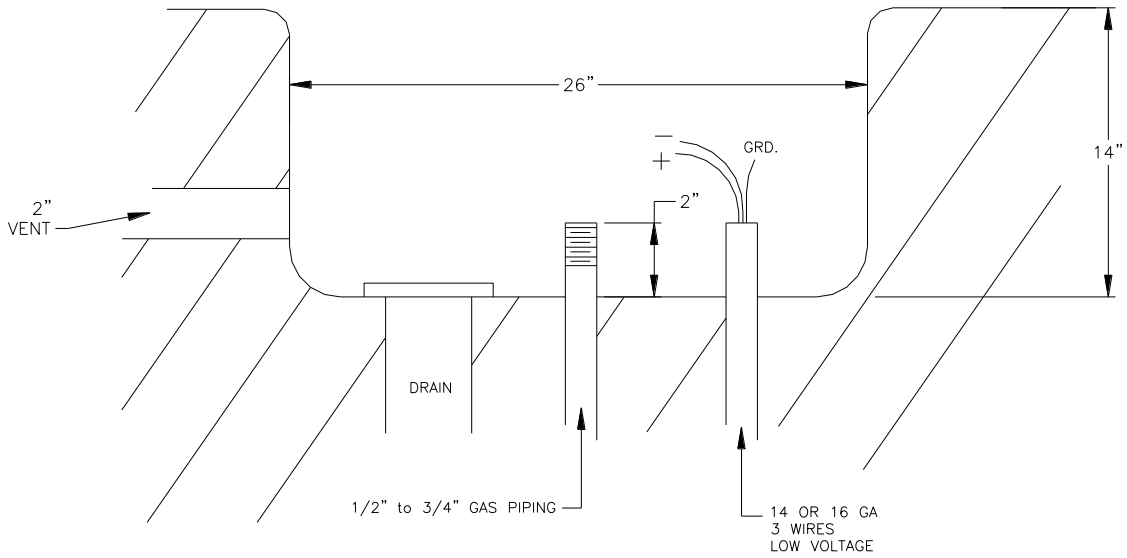


Fig. 3 (Commercial Installation)



SPACE REQUIRED FOR MODEL 100 BURNER ASSEMBLY  
IN ROCK CAVITY

Fig. 4

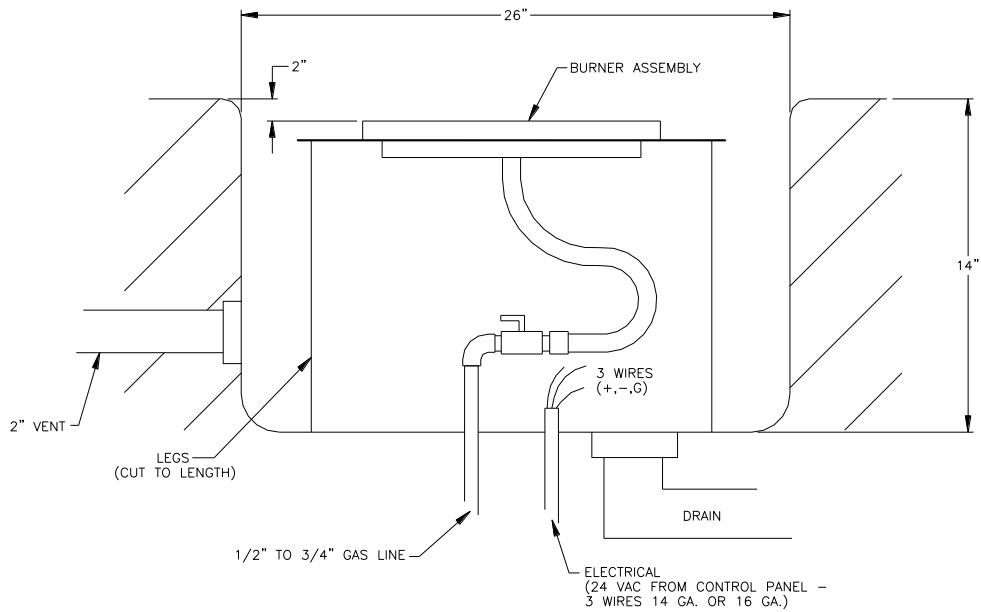


Fig. 5

Installation (continued)

- 2.9 Install 90° pipe elbow and gas hose at gas connection as shown in Fig. 5
- 2.10 Connect Gas Hose to Burner Assembly.
- 2.11 Install wire nuts on wires from Control Panel and Burner Assembly. Be careful to hook up the "positive" to the "positive" and the "negative" to the "negative". Wrap wire nuts with electrical tape or some means to prevent moisture from getting in. Make sure wire nuts are positioned at bottom of bowl, away from bottom of burner assembly.
- 2.12 With all gas connections tight, position Burner Assembly so that it sits level in the Bowl. Rotate as required so that the gas hose rests in a compact position.

### **3.0 Burner Setup and Adjustment**

- 3.0 At the Control Panel, turn the manual gas valve to the “Off” position.
- 3.1 With 120Vac coming into the Control Panel, turn the burner switch “On”.
- 3.2 At each Burner Assembly, check that the spark electrode is arcing across to the pilot hood. You should be able to hear and see the electrode spark. If there is no spark, make sure that the Burner Assembly is receiving 24vac from the Control Panel. Check that the Main Gas Adjusting Valve is in the full open position. It is located on the bottom of the Burner Assembly as shown in Fig. 7.
- 3.3 Reposition Burner Assembly so that it is sitting level in the Bowl.
- 3.4 At the Control Panel, open the Manual Gas Valve.
- 3.5 In the Control Panel, turn the Burner switch to the “On” position.
- 3.6 After all Rock Inserts have been lit, they can now be adjusted for flame size.

**Important : At this time the corresponding Fire Bowl should ignite.  
If Burner does not light, it may be a result of air in the gas line.  
If this happens, carefully purge the air from the gas line.**

### **3.1 Burner Adjustment**

**Note: Each Burner should have a flame height of approximately  
12” – 15” from the top of the Burner.**

- 3.1.1 The height of the flame can be adjusted at each Burner by opening or closing the 1/2” Gas Valve as shown in Fig. 5.
- 3.1.2 Each Burner should be adjusted as required so that the flame size at each Bowl is similar in appearance to each other.
- 3.1.3 After all Burners have been adjusted, make sure that the Burner Assembly is repositioned so that it is sitting level in each Bowl.
- 3.1.4 Install decorative rock or glass on top of the “Burner Support” and Burner Assy. Larger lava rock is recommended (2”-4” in size). It will work better than smaller rock. Make sure that all rock is clear of the pilot area and hood area. Pilot Hood area needs to remain clear of rock for proper ventilation.
- 3.1.5 Note: Do not use glass with propane installations. (If you use glass, please consult Grand Effects Glass Install Manual. If you use 1/4” pieces of lava it should be treated as a glass installation).

**Important: Both sides of Pilot Hood need to be clear of rock for proper ventilation and operation. Do not use Fire Glass with propane installations.!!**

## 4.0 Maintenance

- 4.1 Periodically clean the Burner Assembly with a wet cloth or cleaning solution to remove carbon build-up.
- 4.2 Frequency of the cleaning will depend on usage.
- 4.3 Periodically inspect the underside of the Burner Assembly for any signs of excessive temperatures.
- 4.4 Check that all gas connections are tight.
- 4.5 The units should be cycled frequently (especially after a rain). The Burner Assembly will not work in snow and ice conditions. The Burner Assembly should be covered and protected from snow and ice. The Burner should not be operated in high wind conditions. High winds can limit the cooling air required for cooling of the Burner Assembly and cause over heating of the electronics.

**Important: The System needs to be turned on/off after a rain to remove any water in the pilot area.**

**Note: If any problems are present, consult a licensed heating Specialist or call Grand Effects.**

## 5.0 Operation

**Warning: This unit is for outdoor use only**

For your safety:

- 1. If you smell gas, shut off Gas Valve immediately.
- 2. Extinguish any open flame.
- 3. If odor continues, immediately call your gas supplier.
- 4. Do not store or use gasoline or other flammable vapors and / or liquids in the vicinity of this appliance.
- 5. Do not leave flame on while unsupervised.
- 6. Do not operate in windy or rainy conditions. If this is done, unit will cycle on and off automatically.
- 7. Unit should be operated only by a responsible adult.
- 8. When in use, an open flame is present, therefore, use with extreme care and at your own risk.
- 9. Before any inspection of the unit, always turn off power and gas supply at the Control Panel.
- 10. If you experience problems with this unit, call Grand Effects or a licensed heating professional. All work on this unit shall be performed by a licensed heating professional.

**Caution!** Before you turn on the Grand Effects System, make sure that features are clear of people, animals or any objects that are combustible.

**Operating Instructions:**

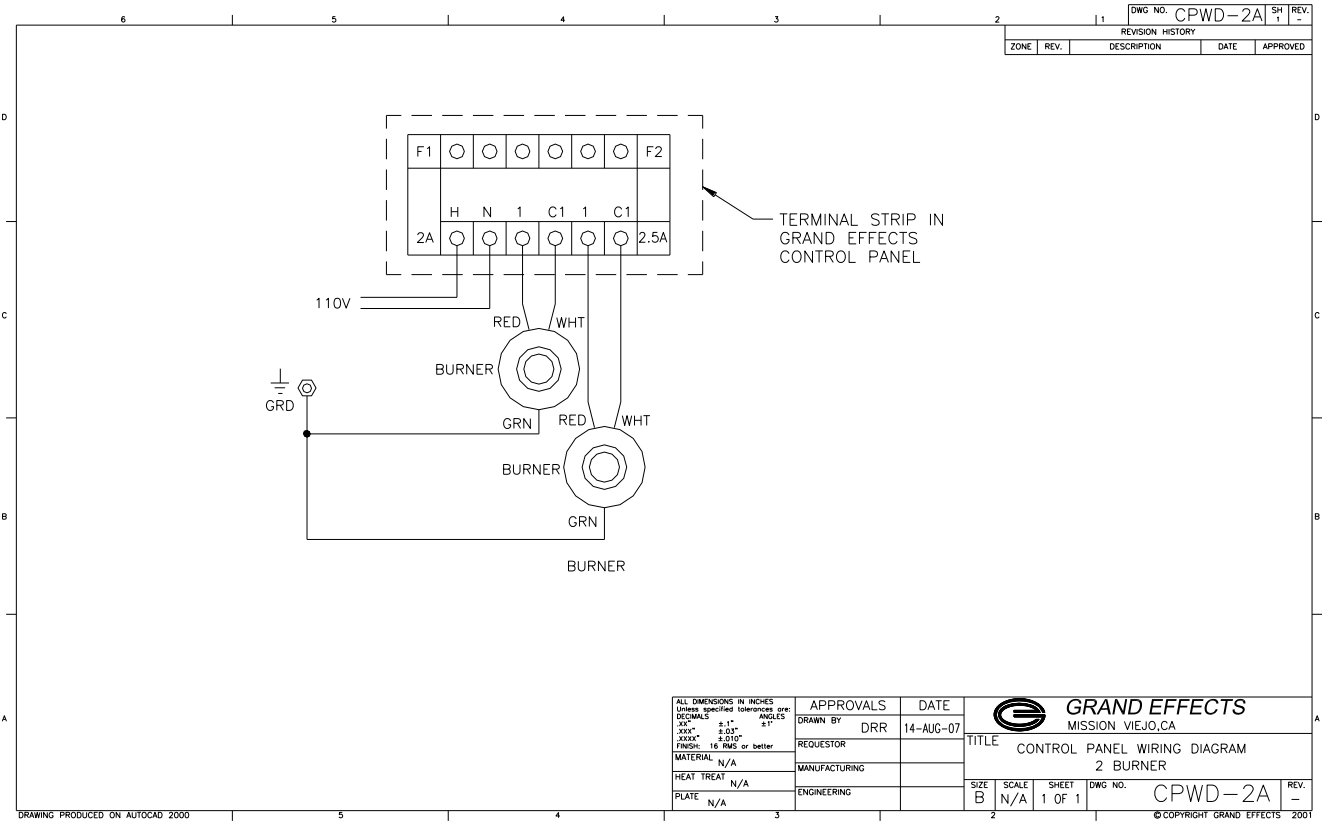
To turn unit "On":

1. Open manual gas valve.
2. Turn Burner Switch "On".

To turn unit "Off":

1. Turn Burner Switch "Off".
2. Close manual gas valve.

**Note: If Burner fails to light, turn corresponding Burner Switch in the Control Panel to the "Off" position then to the "On" position. This will initiate a new trial for ignition.**

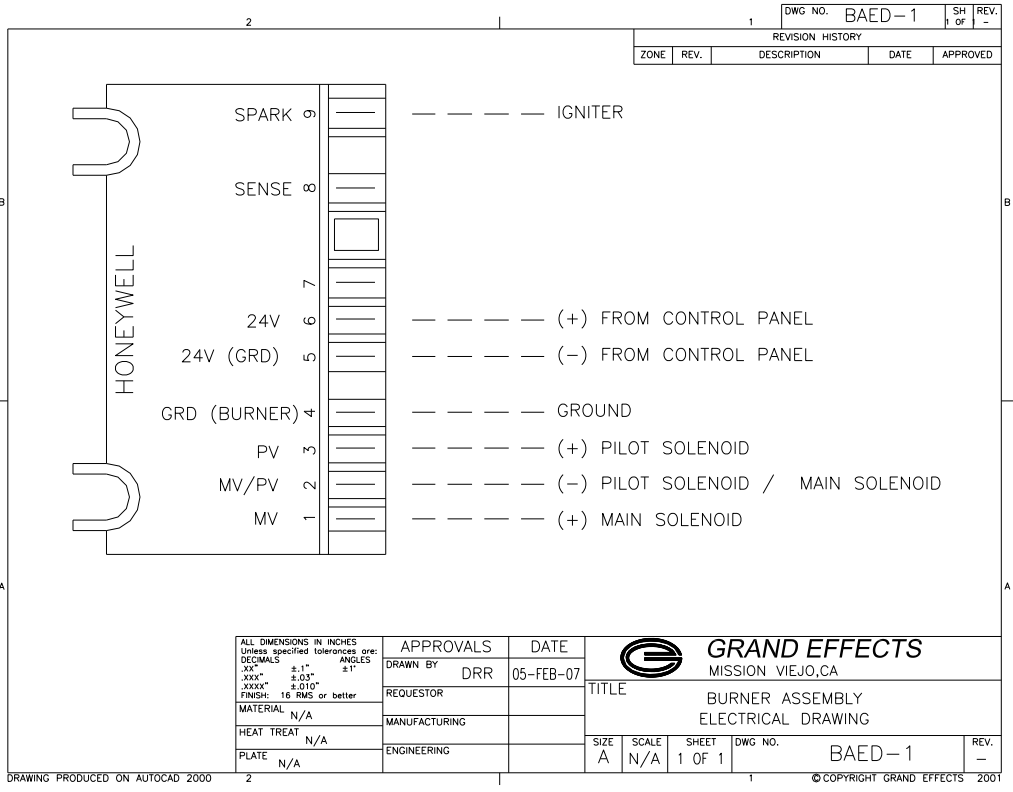


DWC NO. CPWD-2A		SH 1	REV. -
REVISION HISTORY			
ZONE	REV.	DESCRIPTION	DATE

<small>ALL DIMENSIONS IN INCHES          Unless specified tolerances are:          DECIMALS ±.1"          ANGLES ±1°          XXX" ±.03"          XXXX" ±.010"          FINISH: 16 RMB or better</small>	APPROVALS	DATE	<b>GRAND EFFECTS</b> MISSION VIEJO, CA	
	DRAWN BY	14-AUG-07		
	MATERIAL	N/A	REQUESTOR	TITLE
	HEAT TREAT	N/A	MANUFACTURING	CONTROL PANEL WIRING DIAGRAM 2 BURNER
PLATE	N/A	ENGINEERING	SIZE B SCALE N/A SHEET 1 OF 1 DWG NO. CPWD-2A REV. -	

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## **Grand Effects**

### **1 year Limited Residential Warranty-6 Months Commercial**

Grand Effects will replace, at its expense, any unit, which in normal use, has proven to be defective in workmanship or material, provided that the customer returns the product prepaid to Grand Effects with proof of product within one year and provides Grand Effects with reasonable opportunity to verify the alleged defect by inspection. Grand Effects will not be responsible for any asserted defect, which has resulted from misuse, abuse, repair or alteration. Under no circumstances will Grand Effects be liable for incidental or consequential damage resulting from defective products. This warranty is Grand Effects' sole warranty and sets forth the customer's exclusive remedy, with respect to defective products, all other warranties, expressed or implied, whether of merchantability, fitness for purpose or otherwise, are expressly disclaimed by Grand Effects. Grand Effects is not responsible for any injury or mishap related to misuse, abuse or lack of judgment choosing fire display locations.



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