



## APF Burner System With

### All Weather Electronic Ignition System Upgrade

# Installation and Operation Guide

**ATTENTION:** Please carefully read this instructions prior to installing your All Weather Electronic Ignition System (AWEIS). Failure to adhere to these instructions may result in a possible fire hazard, explosion, property damage, serious injury or loss of life. Do not discard this installation guide, it must remain with fire feature.

**ATTENTION:** Installation and service must be performed by a qualified gas installer, service agency or gas supplier. Your installer must follow these instructions carefully. Architectural Pottery and their affiliates are not responsible for the actions of the installer or misuse of products.

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## Gas Requirements

2

Description	BTU Rating	Gas Inlet Size
12" Round Duel Burner, 304 Stainless Steel	Up to 90,000	1/2" Female NPT
18" Round Duel Burner, 304 Stainless Steel	Up to 125,000	1/2" Female NPT
24" Round Duel Burner, 304 Stainless Steel	Up to 150,000	1/2" Female NPT
30" Round Triple Burner, 304 Stainless Steel	Up to 175,000	3/4" Female NPT

### Gas Pressure (Nominal)

Natural Gas	7" wc
Propane	11" wc



### **WARNING!**

If you smell gas, immediately take the following actions:

1. Do not attempt to ignite your appliance.
2. Shut off the gas to the appliance.
3. Extinguish any open flame near the unit.
4. If odor lingers, call your gas supplier or local fire department.

- Do not store or use any gasoline or other flammable vapors and/or liquids in the vicinity of this or any other appliance.
- Never attempt to burn wood or any other flammable materials in this fire feature.

## Electrical Requirements



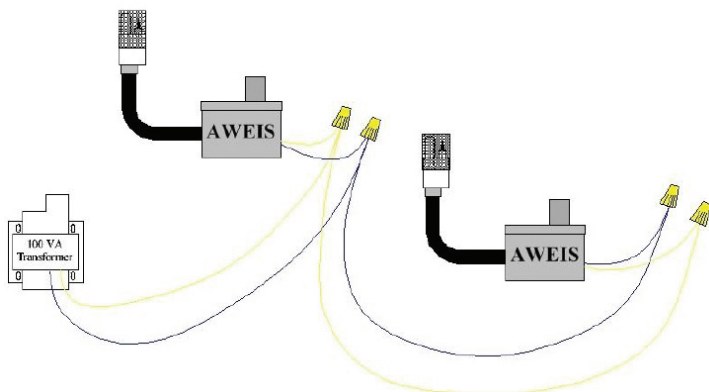
### **WARNING!**

The All Weather Electronic Ignition System operates on either **24 Volts AC or 30 Volts DC power ONLY** (Depending on which system you have. Check labeling to ensure which voltage is required)

**DO NOT Attempt to Power using 110 Volts AC Power - Damage WILL RESULT**

Recommended Wire Size: 12-gauge wire for all installations

### Daisy Chain Wiring of Multiple AWEIS



The AWEIS have a Yellow and a Blue wire protruding from them. These are the power wires. When daisy chaining multiple AWEIS the polarity between them must be the same. To achieve this all the Yellow wires must be connected to the same wire from the transformer and all the Blue wires connected to the other wire from the transformer as shown in this illustration.

**NO MORE THAN 2 AWEIS ARE TO BE DAISY CHAINED TOGETHER**

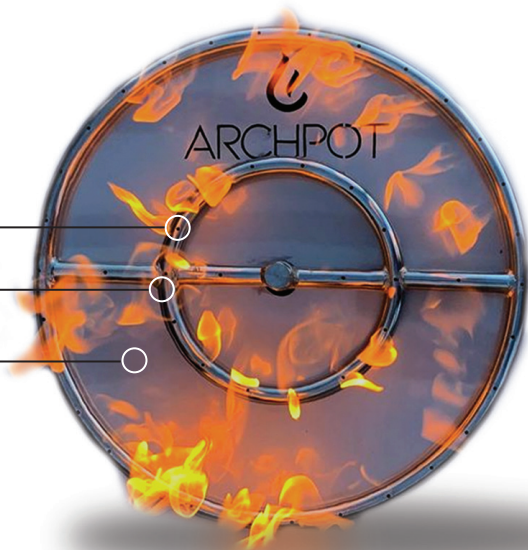
## ARCHPOT FIRE BURNER SYSTEMS

THE COMPLETE MODERN SOLUTION

**PRECISION DRILLED FOR BETTER PERFORMANCE**

**DURABLE CONSTRUCTION**

**HEAVY GAUGE 304 STAINLESS STEEL BURNER PLATE**

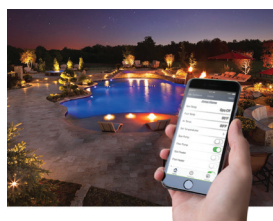


### ARCHPOT FIRE MANUAL BURNER SYSTEM INCLUDE:

- 304 Stainless Steel Burner • Heavy Gauge 304 Stainless Steel Support Plate
- Key Valve Assembly • Flex Line x2 • Mounting Bracket (for select models)

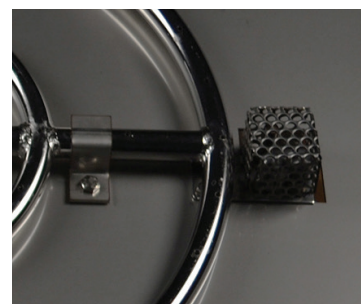
### ALL WEATHER ELECTRONIC IGNITION SYSTEM UPGRADE INCLUDES:

- AWEIS Control Box • Thermal Sensing Pilot Burner • 24V AC or 30V DC Transformer
- LC Certification • 304 Stainless Steel Burner • 304 Stainless Steel Support Plate
- Key Valve Assembly • Flex Line x2 • Mounting Bracket (for select models)



### KEY FEATURE

The All Weather Electronic Ignition System (AWEIS) Can Be Operated From Your Mobile Device By Connecting To Your Pool Or Home Operating System



### OPTIONAL PARTS

- Remote Control • Timer Switch • Emergency Shut Off Switch

## ARCHPOT FIRE BURNER SYSTEMS FOR ROUND, SQUARE AND LINEAR FIRE VESSELS



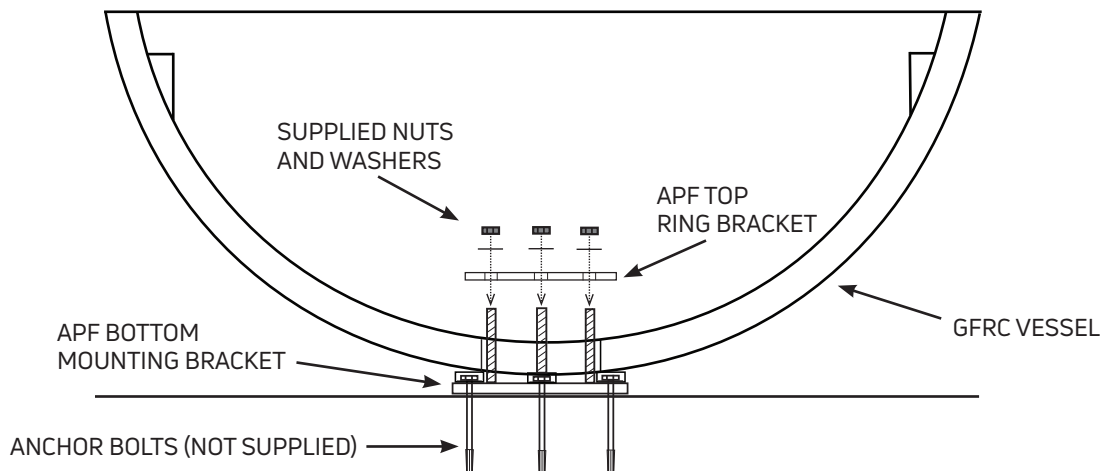
**WARNING!** This unit is for outdoor use only.

- Do not install near any combustibles such as wood structures, fuels, clothing, fabrics, or dry vegetation.
  - **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.
  - An approved gas valve or keyed valve shall be installed in the decorative bowl or upstream of the unit and located in an accessible area that is within 5ft from the AWEIS System.
- Note: All AWEIS Systems includes pre-installed key valve, unless otherwise specified.
- The approved gas valve must be located where they can be easily accessible so that the gas can be shut off quickly in case of an emergency.

## Installation

1. Install the Fire Feature as shown in Figure 1 and Figure 2.
2. 24"- 60" Geo Round, 24"- 48" Legacy Round, 24"- 36" Geo Square, 30"- 36" Legacy Square requires installation of the APF Mounting Bracket to secure the vessel and allow for ventilation and drainage. Install the mounting bracket as shown in Figure 1. The mounting bracket should be secured using supplied anchor bolts. Place the bolts through pre-drilled holes in GFRC vessel. Do not seal open space between mounting bracket and vessel. Warranty is voided if the mounting bracket is not installed.

Figure 1



**NOTE:** Drainage **MUST** be provided in the bottom of each bowl.

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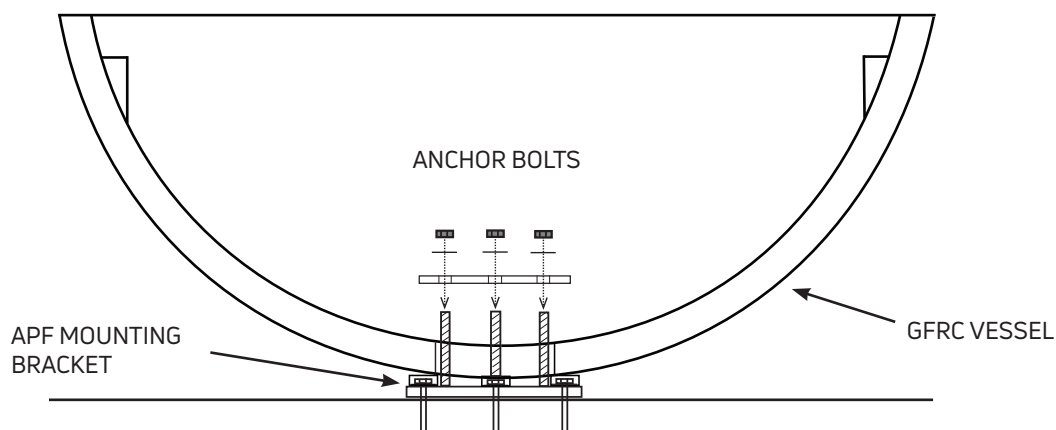
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Figure 1



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3. The natural gas source line and low voltage A/C power must be installed underground between each vessel, as shown in Figure 2. The natural gas source line must be reduced to 1/2" NPT for fire tables 42"+ and 3/8" NPT for fire vessels 24" - 36".



4. Using thread sealer, attach supplied flex line to natural gas source line. Then attach the other end of the flex line to key valve assembly as shown in photo. Do not kink or make a tight radius bend on the gas hose.

5. Using thread sealer, attach the second supplied flex line to the other side of the Key Valve Assembly making sure of proper gas flow direction towards the burner.

6. Take the Completed Burner Assembly and attach the Yellow and Blue wires from the AWEIS Control Module to the low voltage A/C power source previously installed.

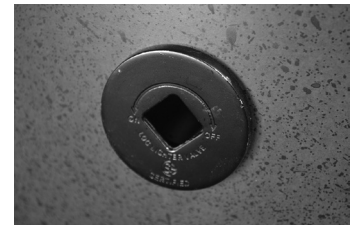


7. Using thread sealer, attach the flex line to the bottom of the AWEIS Control Module.

8. Check all gas connections are tight, position the burner assembly so that it sits level in the bowl. Rotate as required so that the gas hose rests in a compact position.



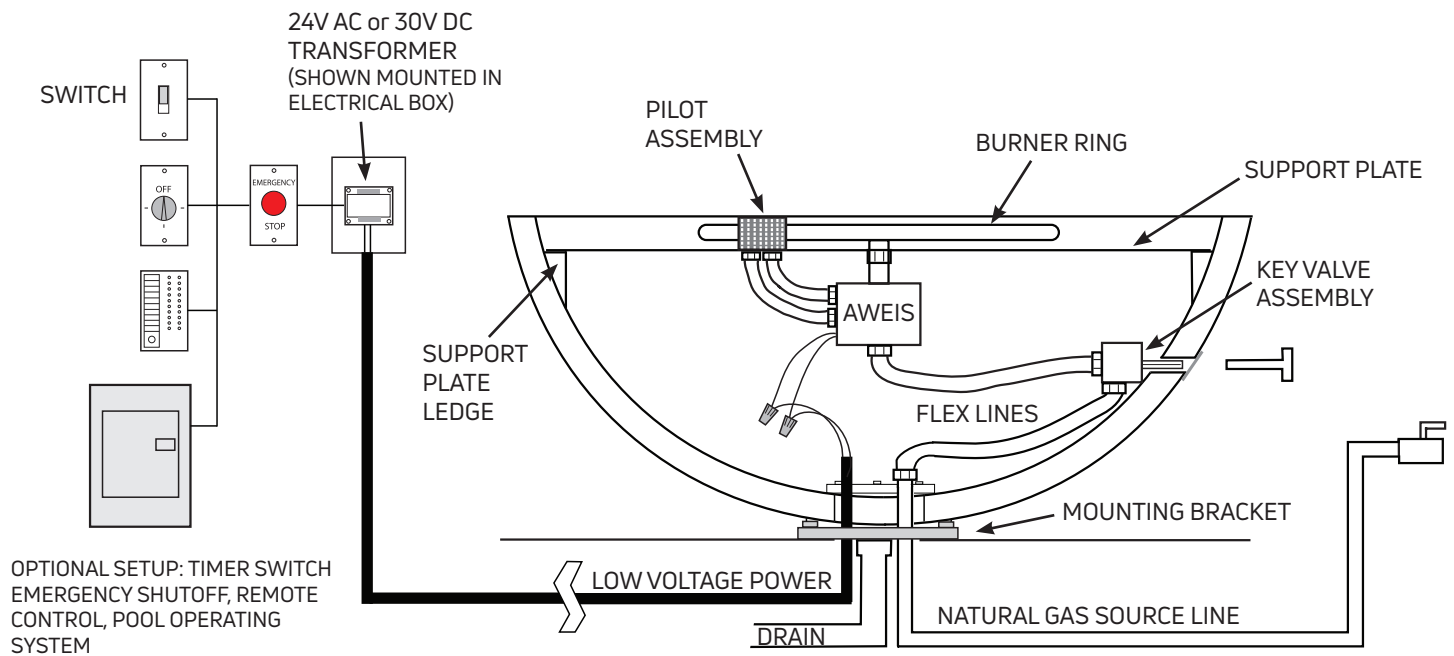
**Key Valve Assembly**  
(Inside View)



**Key Valve Assembly**  
(Outside View)



Figure 2



Installation must conform with local codes or, in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1 / NFPA 54, or International Fuel Gas Code. The appliance, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electric Code, ANSI/NFPA 70, if applicable.

## Trouble Shooting

### I installed the Electronic Ignition System, turned it on and nothing happened.

When this occurs it is usually due to an electrical wiring / power issue. Check all your electrical connections thoroughly to ensure all wires at the transformer and inside the fire feature are connected properly. If it appears all wiring is connected properly, disconnect the wires at the fire feature, attach a Multimeter to the wires to confirm a minimum of 24 volts when the fire feature is turned on. If you determine that you do not have a minimum of 24 volts at the fire feature conduct the same test at the transformer to ensure the transformer is in fact producing a minimum of 24 volts. If you do have a minimum of 24 volts at the fire feature contact us for further assistance.

### I installed the Electronic Ignition System, turned it on and I can see the glow plug glowing orange and I can hear gas flowing but it will not ignite.

There are two possible causes to this problem; Air in the Gas Line or not enough Electrical Current to the fire feature.

- Air in the Gas Line. If a new gas line was installed and the air was never purged from it prior to installing the Electronic Ignition System then it may take several times of turning the fire feature on and off before the air is purged from the gas line.

Here is how our system works; after you turn it on the glow plug will come on first followed by the Pilot Gas Valve opening 4 seconds later. For the next 180 seconds (3 minutes) the glow plug will cycle on and off every 30 seconds while the Pilot Gas Valve will remain on the entire time. Therefore, if you are attempting to purge air from the gas line, turn the system on and leave it on for approximately 3 minutes. Then turn it off and then back on (no need to wait to turn it back on). Let the system run for another 3 minutes. Usually when purging air from a new gas line you will need to cycle the power several times as described above before gas begins to flow. If at any point you smell gas but still don't have ignition, attempt to light the Pilot flame with a hand held BBQ lighter. If the flame ignites when you light it by hand, go to the section below, "Electrical Current".

• Electrical Current

If you have determined that air in the gas line is not the problem then most likely the failure to ignite is due to the fact the glow plug is not getting hot enough to ignite the gas. The reason a glow plug will not get hot enough is due to the fact it is not getting enough 'amps'. Often times when troubleshooting electricians will check the electrical power and when they see they have a minimum of 24 volts they think everything is fine electrically so there must be a problem with the Electronic Ignition System. The problem is not due to the volts but rather the amps. The number of amps reaching the fire feature is heavily dependent on the gauge wire used between the transformer and the fire feature. Our Install Instructions require no less than 12 gauge wire be run for all fire features. Often times we learn that in many cases less than 12 gauge wire has been used and herein lies the cause of the problem.

Here is how you check to determine if enough Electrical Current (amps) are getting to the fire feature:

1. CAUTION: Turn off the gas supply prior to the next step.
2. Using a clamp on ammeter, clamp the ammeter around one of the wires providing power to the Electronic Ignition System.
3. Turn the fire feature on.
4. The amps you should see will range between 1.4 to 1.6 amps initially. Four seconds after being turned on the amps will jump to approximately 2.0 amps.

If you do not see the amps listed above AND the wire gauge used was less than 12 gauge wire – change the wiring. Otherwise contact us for further assistance.

**I turned the Fire Feature off but I still see small flames emanating from the fire feature.**

Turn the fire feature on, let the main fire ring light and then turn it off again – do this several times. Small pieces of debris from the gas line can get caught in the main or pilot valve thereby preventing it from closing all the way. This will sometimes happen with a new gas line. By cycling power you can often times dislodge the debris. If cycling power does not rectify the problem, turn the gas off using the manual gas shutoff and contact us for further assistance.

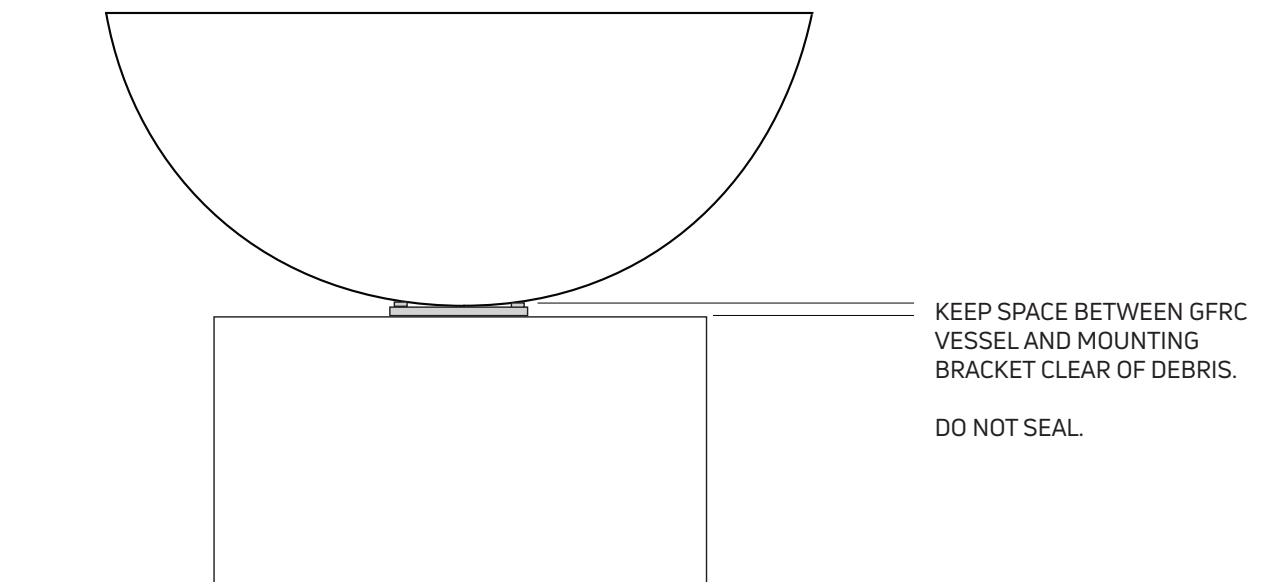


**CAUTION!** Use only approved decorative media to cover the burner assembly. Architectural Pottery Tumbled Lava Rock and Fire Glass are accepted media. Use caution when in the immediate area, as pieces may pop or explode when exposed to heat or moisture.

- Clean the burner assembly and bowl with a wet cloth or cleaning solution to remove carbon build-up, frequency of the cleaning will depend on usage.
- Inspect the gap between the base of the bowl and the mounting bracket. It should be kept free of dirt and debris that may restrict ventilation and drainage (see Figure 3).
- Periodically inspect the underside of the burner assembly for any signs of excessive temperatures. Check that all gas connections are tight.
- The vessel and burner assembly should be covered and protected from extreme weather conditions.
- The burner should not be operated in high wind conditions.

**Note:** If any problems occur, consult a licensed heating professional or call Architectural Pottery.

Figure 3



**NOTE:** Warranty void if Mounting Bracket is not installed as required by vessels specified in step 2 of Product Installation.



**WARNING!**

This unit is for outdoor use only.

For Your Safety

- If you smell gas, shut off the gas valve immediately.
- Extinguish any open flame.
- If odor continues, immediately call your gas supplier.
- Do not store or use gasoline or other flammable vapors and/or liquids in the vicinity of this appliance.
- Do not leave flame on while unsupervised.
- Do not operate in windy or rainy conditions.
- Unit should be operated only by a responsible adult.
- When in use, an open flame is present; therefore, use with extreme care and at your own risk.
- Before any inspection of the unit, always turn off gas supply.
- If you experience problems with this unit, call Architectural Pottery or a licensed heating professional.
- All work on this unit must be performed by a licensed heating professional.

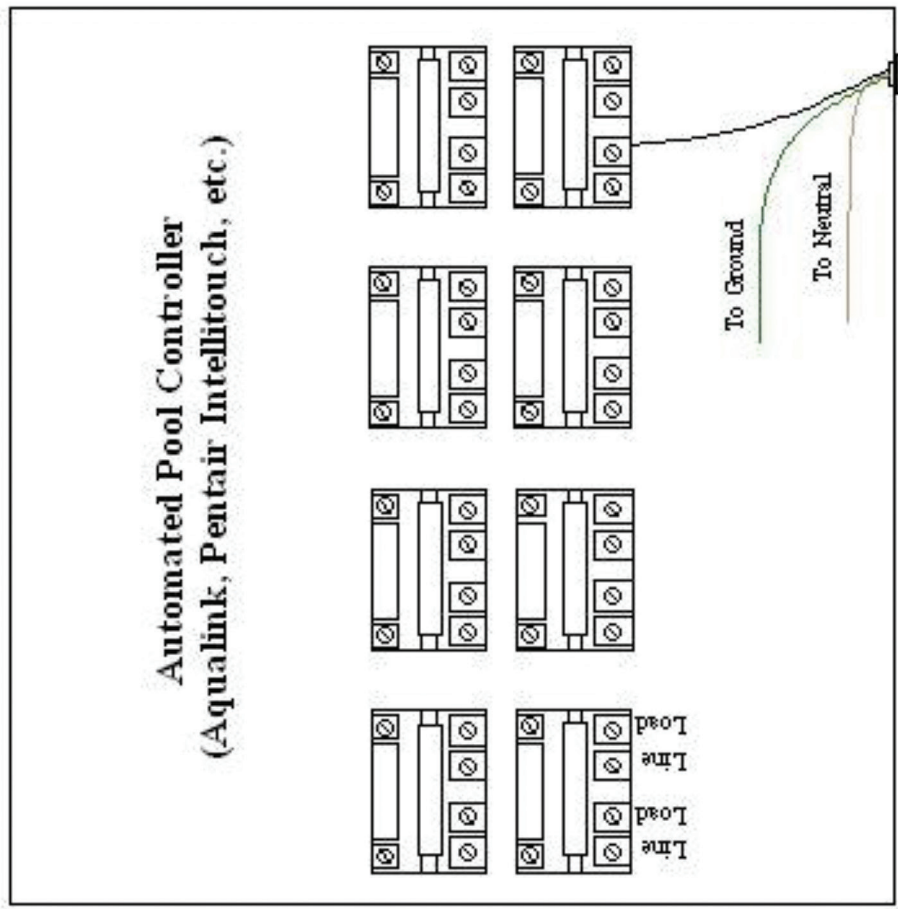
**CAUTION!** Before you turn on the AWEIS System, make sure that features are clear of people, animals, or any objects that are combustible.

## Operating Instructions

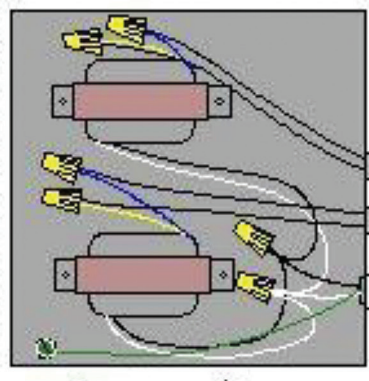
- With the unit in off position check for gas smell or leaks.
- Check Key Valve is open - Key Valve should remain in open position.
- Making sure area is clear, switch on power source to ignite.
- Adjust flame if needed for safe use.
- To extinguish flame turn off power. (To manually turn off flame turn off key valve if needed).

Attachment 1  
Automated Pool Controller Wiring

**Wiring When  
2 Fire Features  
Turned On & Off  
with One Button**



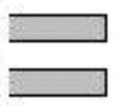
J-Box with 24v Transformers  
(One Transformer Needed  
For Each Fire Feature)



Black/White  
Wires  
110 v Side  
Blue/Yellow  
Wires  
24v Side

\* At night 2 conduit are shown, one to each fire feature. It is possible to daisy chain the conduit and wire run. This would make it possible to run one conduit to the 2 fire features and then link the fire features with conduit.

Conduit to  
Each Fire  
Feature\*



### All Weather Electronic Ignition System One Year Warranty:

Architectural Pottery warrants its products, when purchased new, to be free from defects in materials and workmanship under normal use and service for one year, from the original date of purchase. Replacement or repair at the option of Architectural Pottery.

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### Terms and Conditions:

1. Prices are subject to change without notice. All dimensions shown in catalog are approximates.
2. All orders require a 50% deposit, balance paid in full before shipment, including freight and handling charges. Once production has started, deposit is non refundable.
3. All orders are shipped FOB Midway City. Freight collect or third party billing allowed. Architectural Pottery provides local delivery service at rates based on the size of the order and the distance.
4. Architectural Pottery assumes no risk or damage incurred in transit, except orders delivered locally by Architectural Pottery's delivery service. All items are shipped at purchaser's risk. Any claims for loss or damage sustained in transit must be filed with carrier immediately.
5. All sales are final. No refunds. Exchanges for equal value or higher with prior approval. A restocking charge will apply.
6. All sales are made pursuant to these conditions and orders are received with the understanding that they are placed under these conditions.

