

ISIMET

Fire Pit & Gas Grill Controller

Model: BGC

Installation Manual

ISIMET BGC
Installation Manual

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Patent Pending

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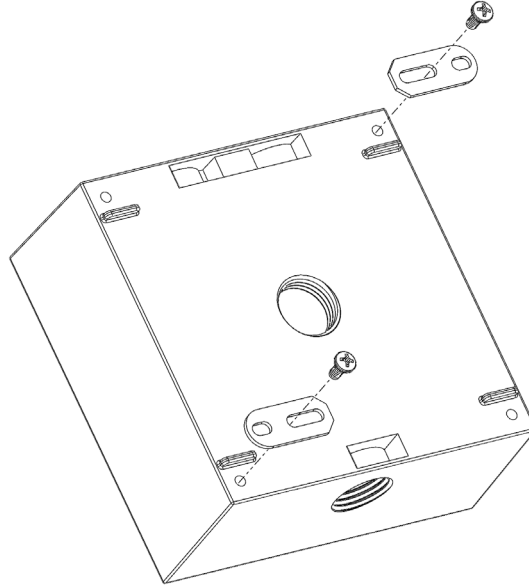


Mounting the BGC

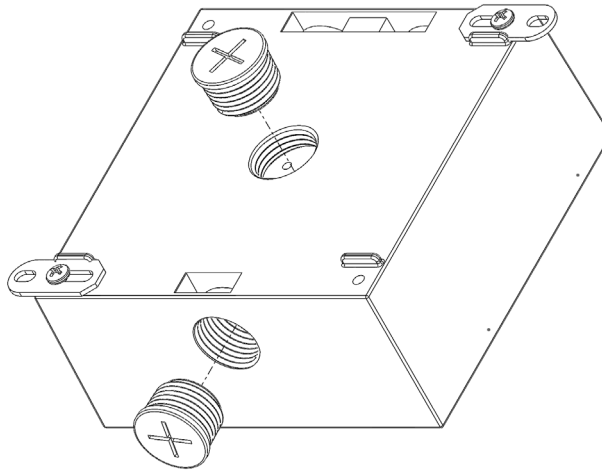
The BGC must be mounted in a location that is easily and readily accessible. The installation height of the BGC must comply with ADA standards. The BGC was designed to be Surface Mounted. While the BGC is outdoor rated, it should be installed under an overhang or location that provides adequate protection from direct sunlight and rain.

Surface Mount Installation

1. Install the surface mount brackets to the double-gang box using the included screws.

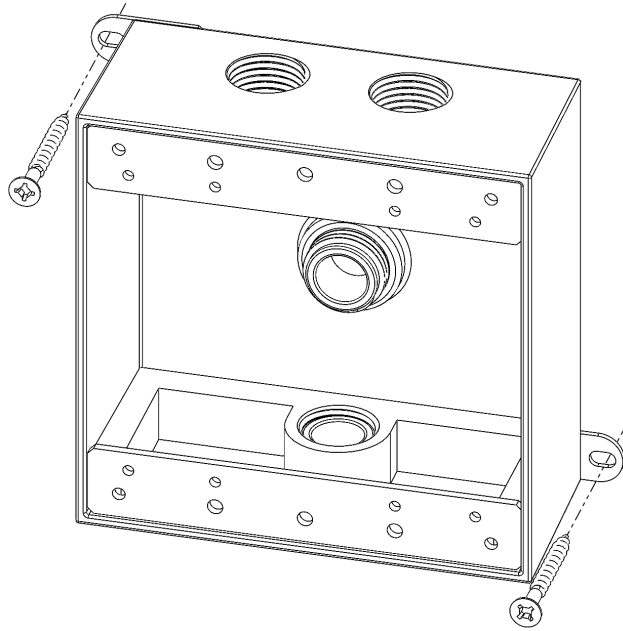


2. Install the two knockout plugs into the unused knockouts of the double-gang box.

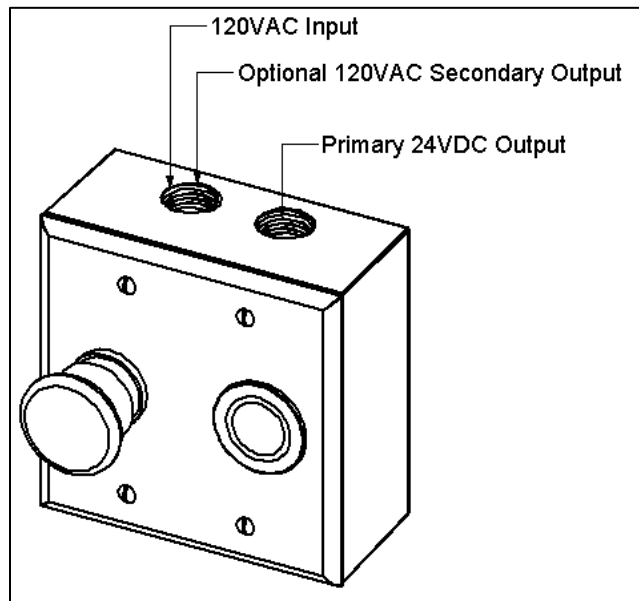


Note: It is recommended to use silicone sealant on the threads for outdoor applications.

3. Attach the double-gang box using appropriate screws (not included).



4. Install appropriate connectors and conduit between the BGC and power source (120V) and the BGC and the gas valve (24VDC).



Recommended wire sizes:

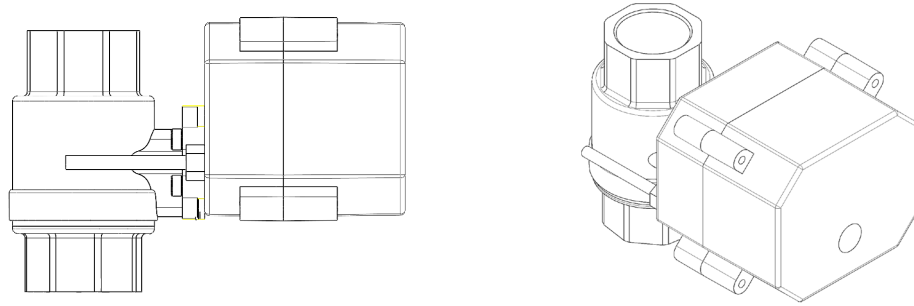
14AWG for the 120VAC and 18AWG for the gas valve

Mounting the Electronic Ball Valve (EBV) or Solenoid

A licensed installer should complete this section following all National and Local Codes.

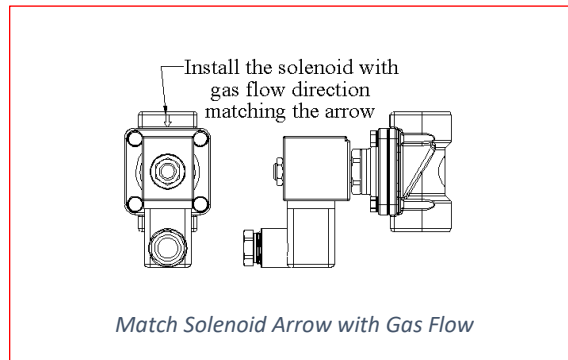
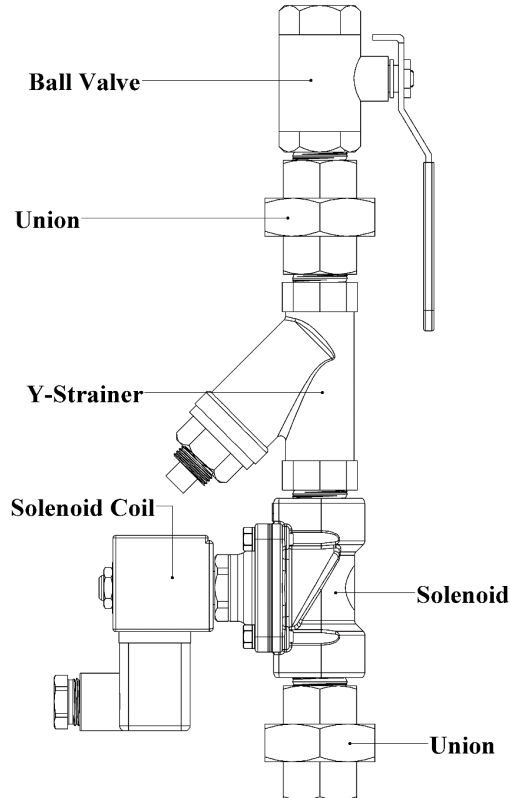
ISIMET's Electronic Ball Valve Installation Recommendations:

- ISIMET's electronic ball valves are the preferred gas valve for the BGC.
- Orientation and gas flow direction do NOT matter for electronic ball valves.
- Electronic ball valves do NOT have to be removed to flush the piping systems prior to initial startup. Simply open the valve, and flush the system prior to initial startup.



Solenoid Installation Recommendations:

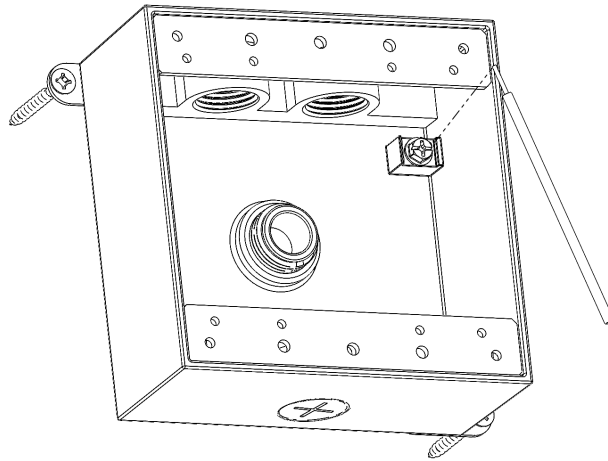
- Solenoid must be rated for 24VDC.
- ISIMET's Valve Assembly typically includes a Solenoid Assembly (see below), which includes a Y-Strainer, manual Ball Valve, and two Unions.
- The solenoids should be installed with an access panel for maintenance and/or service if not installed with an S-Series Enclosure.
- Remove the solenoid assemblies and flush the piping systems prior to initial startup.



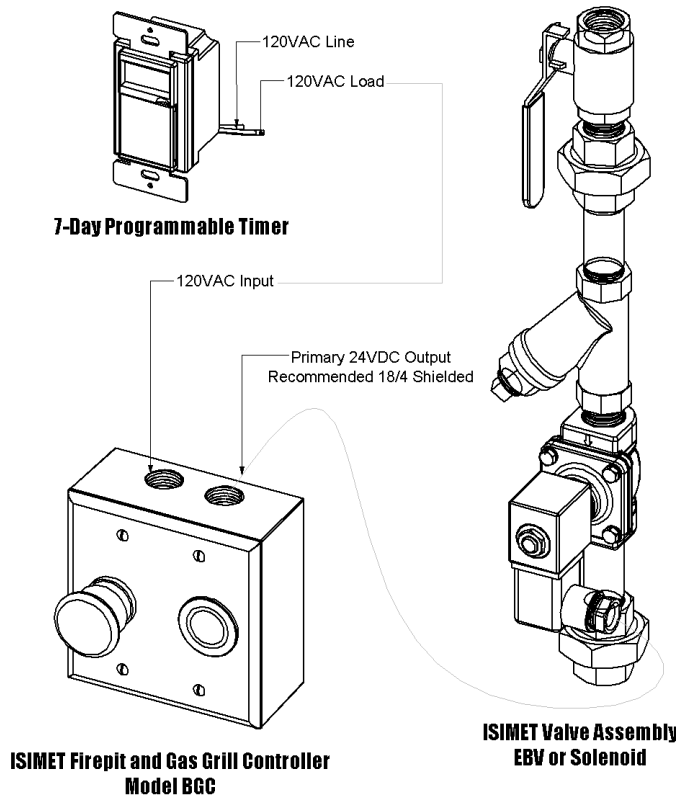
Wiring the BGC

A licensed electrical contractor should perform all 120VAC wiring following all electrical codes and procedures. Low-Voltage and control wiring should be isolated from any line voltages and use 18 AWG minimum. **Warning: All Inputs MUST be Dry-Contact (Voltage-Free)!**

1. Install a ground pigtail wire using the supplied ground screw. The metal box must be grounded per NEC NFPA 70.



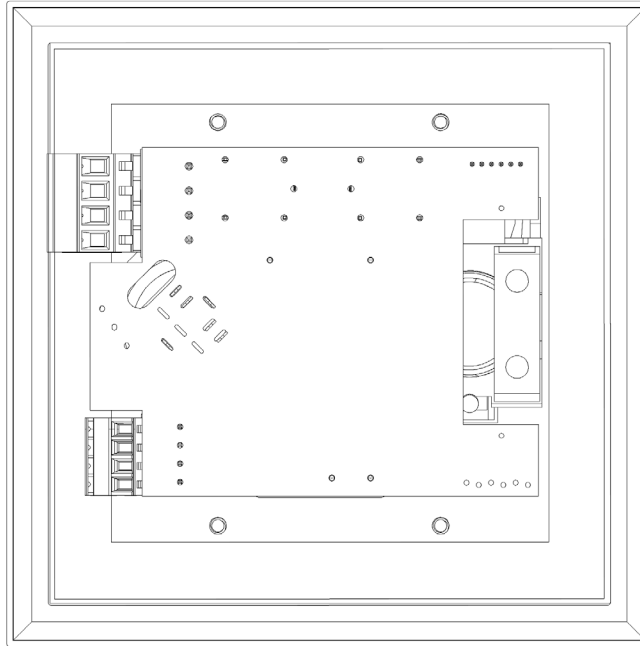
2. Attach the appropriate conduit to the BGC and connect the wires as needed:



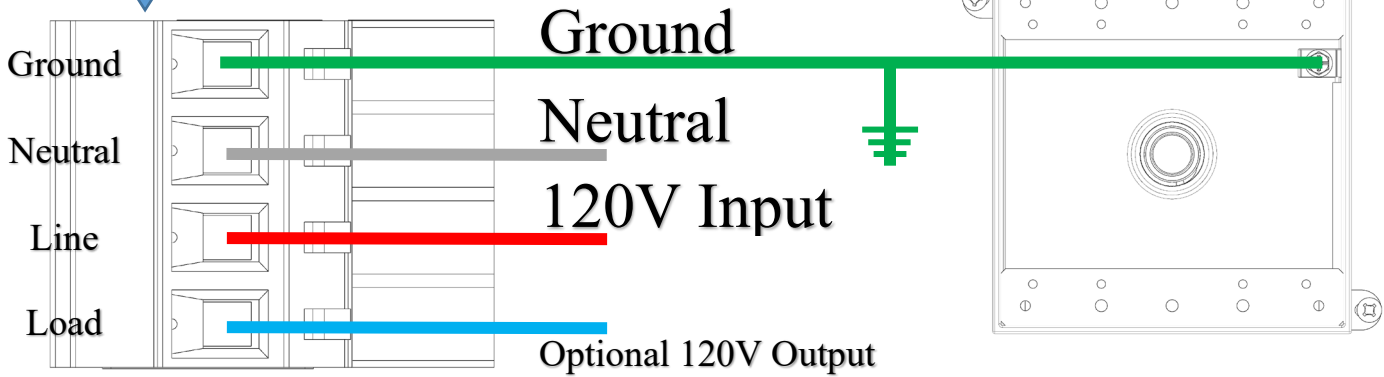
Typical Wiring Layout for the BGC

BGC High-Voltage Wiring Instructions

1. Remove the High-Voltage terminal block and connect the wires as shown below:



BGC (High-Voltage) Wiring Diagram



BGC Label

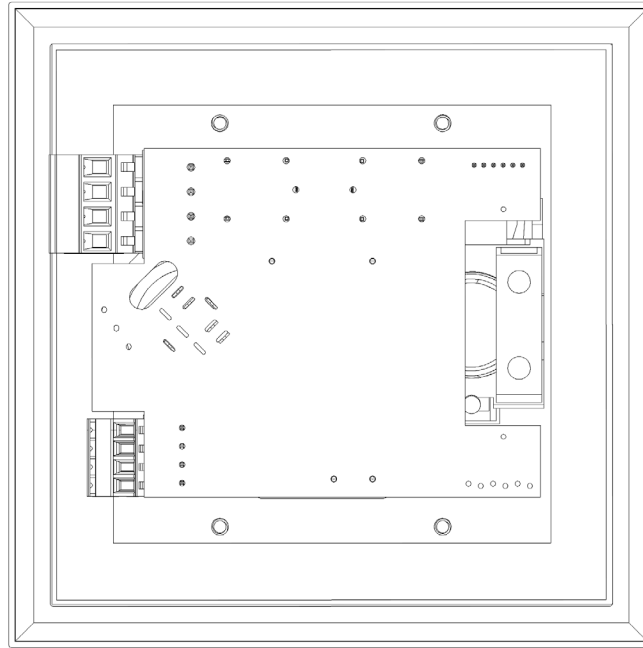
Description

<i>Ground Symbol</i>	<i>120VAC Ground</i>
<i>Neutral</i>	<i>120VAC Neutral</i>
<i>Line</i>	<i>120VAC Line</i>
<i>Load</i>	<i>Optional Igniter or Glow Plug output</i>

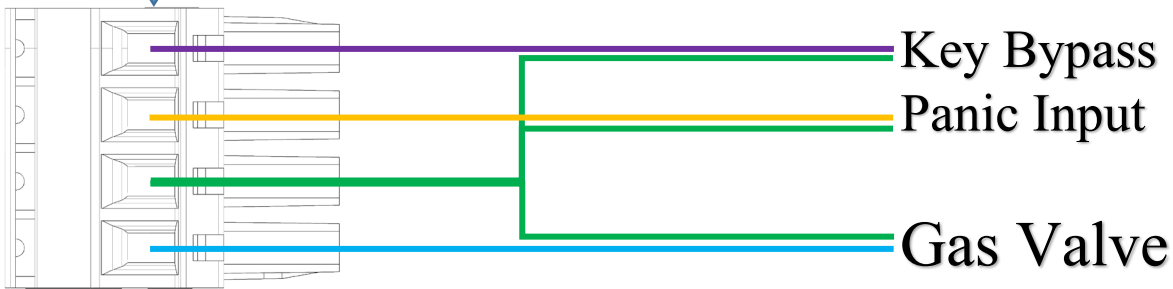
BGC Low-Voltage Wiring Instructions

Recommended: 18/4 Shielded Wire

1. Remove the Low-Voltage terminal block and connect the wires as shown below:



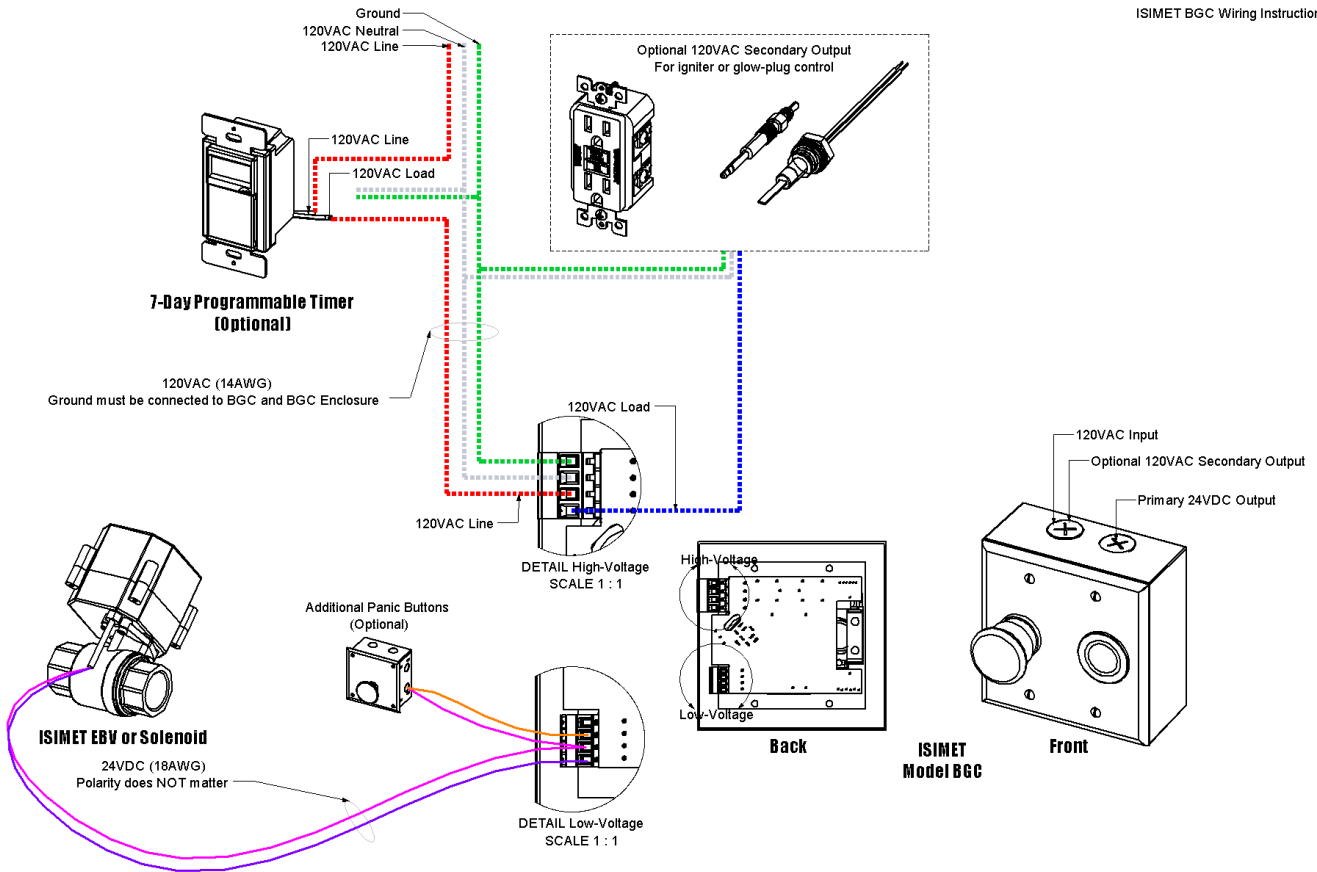
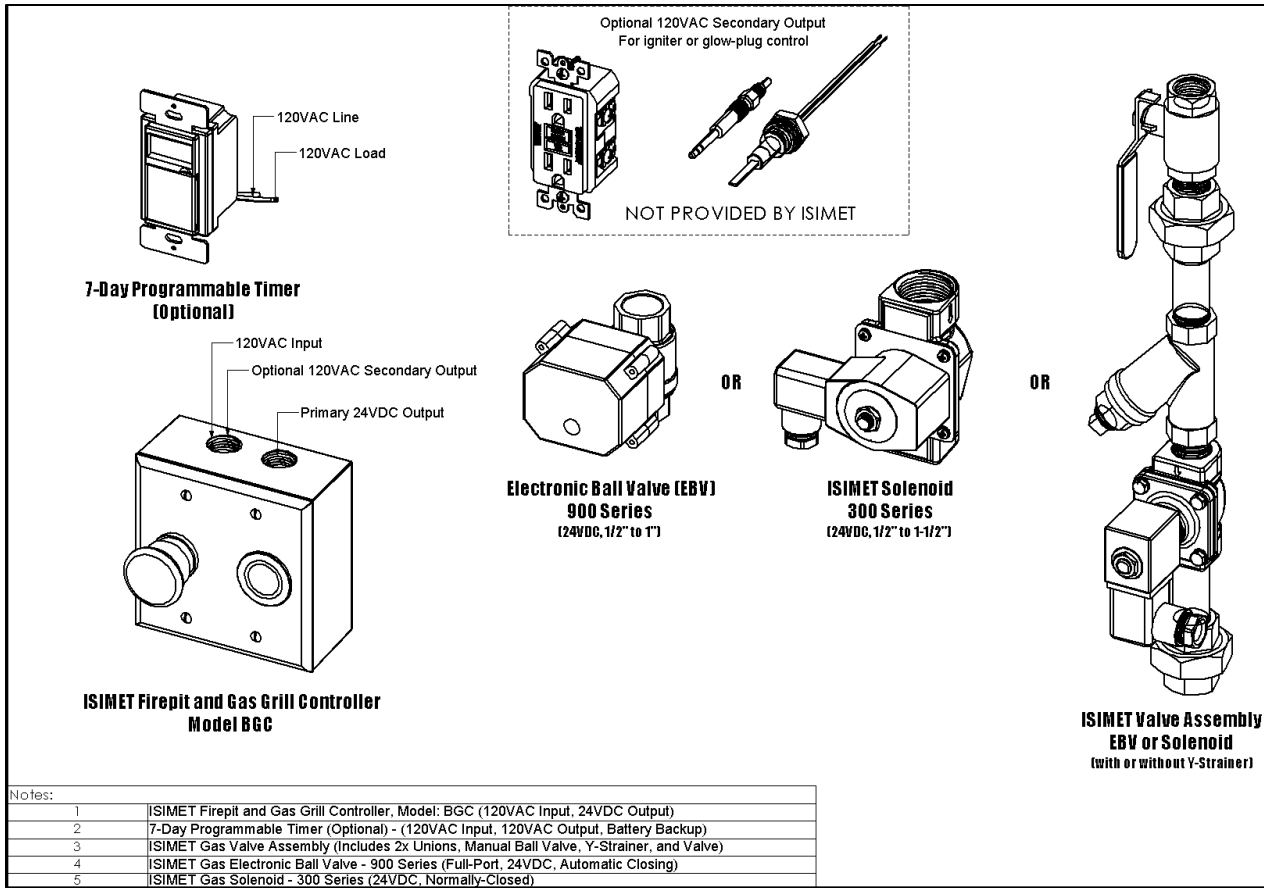
BGC (High-Voltage) Wiring Diagram



BGC Label

Description

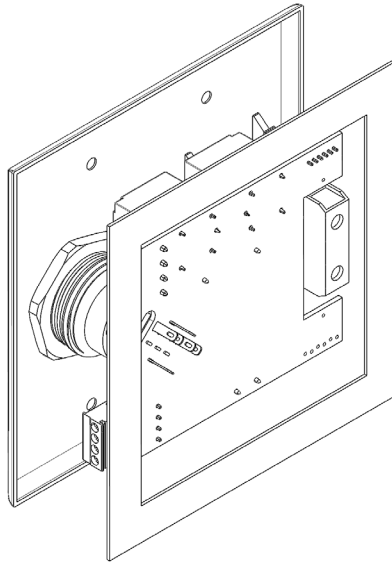
<i>Key</i>	<i>Key Bypass – Enables the Gas (Normally-Open Dry-Contact)</i>
<i>Panic</i>	<i>Emergency Shutoff Input (Normally-Open Dry-Contact)</i>
<i>Ground Symbol</i>	<i>Common</i>
<i>+24V</i>	<i>Gas Control Output (24V Electronic Ball Valve or Solenoid)</i>



Completing the BGC Installation

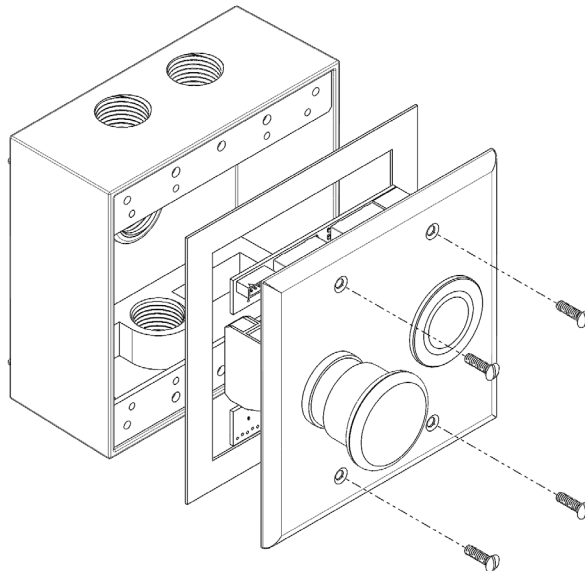
Attach the BGC Front Cover Assembly to the Double-Gang Box

1. The included weather foam gasket should be attached to the BGC Front Cover Assembly.



Weather Foam Gasket

2. Attach the BGC Front Cover Assembly using the included screws and make sure the foam gasket is centered to prevent water from entering the enclosure.



BGC Install Front Cover Assembly

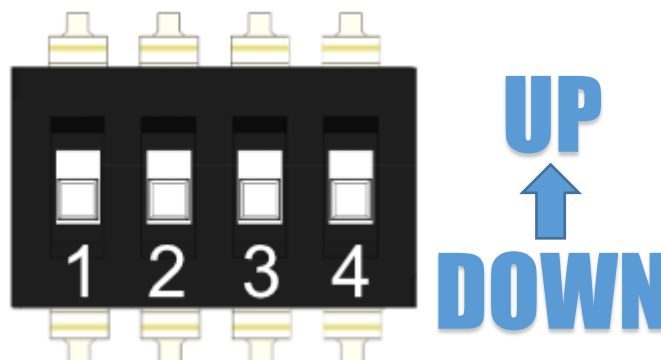
3. Turn on the power to the unit and test the functionality.

Configuring the BGC

The BGC will come preconfigured from the factory to turn the gas off after 1 hour; however, the configuration can easily be changed to an alternate timeout setting. The BGC time settings are adjusted by removing the front cover and adjusting the Timer Config DIP switch.

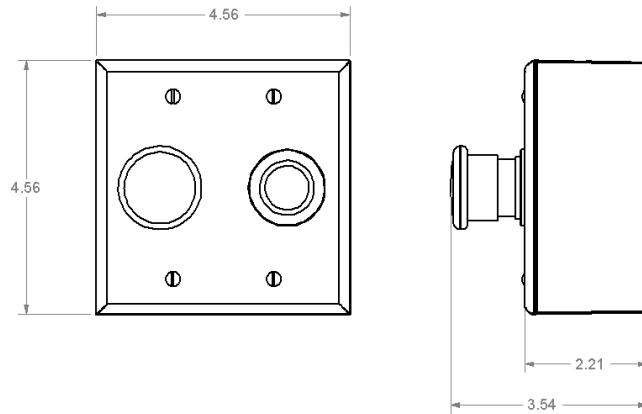
BGC Timing Configuration Settings

Timeout Setting	Timer Config 1	Timer Config 2	Timer Config 3	Timer Config 4
10 minutes	DOWN	DOWN	DOWN	DOWN
15 minutes	DOWN	DOWN	DOWN	UP
20 minutes	DOWN	DOWN	UP	DOWN
30 minutes	DOWN	DOWN	UP	UP
45 minutes	DOWN	UP	DOWN	DOWN
1 hour	DOWN	UP	DOWN	UP
2 hours	DOWN	UP	UP	DOWN
3 hours	DOWN	UP	UP	UP
4 hours	UP	DOWN	DOWN	DOWN
6 hours	UP	DOWN	DOWN	UP
8 hours	UP	DOWN	UP	DOWN
10 hours	UP	DOWN	UP	UP
12 hours	UP	UP	DOWN	DOWN
14 hours	UP	UP	DOWN	UP
16 hours	UP	UP	UP	DOWN
20 hours	UP	UP	UP	UP



Electrical Specifications

The BGC Utility Controller system is designed to be used with 15A/120VAC line voltage and a 24VDC Circuit Output.



Dimensional Drawing of BGC

BGC

100-240VAC (50/60Hz) Line Voltage Input

Line Input Current (1A + igniter/glow-plug)

24VDC Circuit Output (Max 0.9A)

24VDC Output (Max 20W)

**Low-Voltage Short-Circuit Protection
(No Fuses)**

Line-Voltage Wire Size: 14 AWG Recommended

Control Wire Size: 18 AWG Recommended