



# BGN891 Direct Spark Ignition Control Replacement for JCI G891 Pulse Ignition Control

The BASO BGN891 (black) Ignition Control is a direct replacement for Natural Gas or Propane ovens which have a Johnson Controls G891 (blue) Pulse Ignition Control.

## Replacement Instructions:

- 1. Disconnect the electrical power from the appliance before performing service.**
- 2. Remove the existing wires and the G891 ignition from the appliance:** Make sure to mark the SENSE (WHT or ORG) wire with the 3/16" Q.C. terminal before removing it from the ignition. Remove the wires, and disconnect the 6 Pin wire harness. Remove the mounting screws, and keep the screws for installing the BGN891 ignition. Remove the G891 ignition.
- 3. Mount the BASO BGN891 Ignition Control in the same place of the OLD G891, and use the same screws to secure the ignition in place. One additional 7/64" (0.109") hole may need to be drilled for a #6-32 mounting screw.**
- Connect the following Wires and Wire Harness to the BGN891 Ignition Control:
  - 4.1 Plug in the Wire Harness:** Connect the BGN (6 pin) Wire Harness into the existing wire harness.
  - 4.2 Connect the "GREEN" ground wire to frame:** Connect the #6 Ring Terminal to one of the mounting screws from Step 3.
  - 4.3 Connect the SENSE wire:** Connect the existing WHT or ORG SENSE wire coming from the appliance to the short ORG jumper wire with the 3/16" Q.C. terminal located on the SENSE terminal of the BGN891 ignition.
  - 4.4 Install the ORG SPARK wire (thick insulation):** Install the 1/4" Q.C. Insulated Terminal (provided in Kit) onto the SPARK Wire, and connect it to the SPARK terminal on the BGN891 Ignition Control.

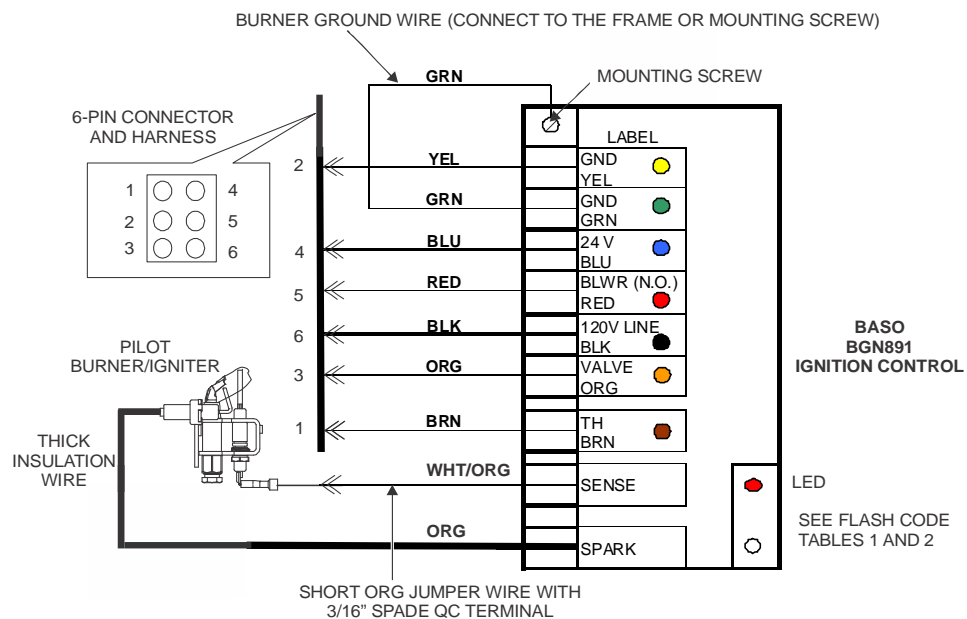


Figure 1: BGN891 Wiring Diagram



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**Table 1: Normal Operating LED Indications**

| Green LED                        | Definition                          |
|----------------------------------|-------------------------------------|
| Rapid Blinking                   | Spark Active                        |
| Steady On                        | Flame Detected, Main Burner On      |
| 0.5 Second On/Off                | Pre-purge, Interpurge or Post-purge |
| 0.5 Second On<br>4.5 seconds Off | Retry or Recycle Time               |

**Table 2: Error Code LED Indications  
Error Codes Blink 0.25 Second On/Off  
then Pause 1.0 Second and Repeat.**

| Led Light      | Error Definition         | Error Type |
|----------------|--------------------------|------------|
| Blinks 1 Time  | No Flame in Trial Time   | Lockout    |
| Blinks 2 Times | Flame Sense Circuit      | Lockout    |
| Blinks 3 Times | Pilot/Main Valve Circuit | Lockout    |
| Blinks 4 Times | Flame Loss               | Lockout    |
| Blinks 7 Times | Ground or Internal       | Lockout    |
| Steady On      | Line Voltage/Frequency   | Standby    |

## RES100A-600 Resistor Installation Instructions

### Application

The RES100A-600 Resistor is a direct replacement for Honeywell 202764BAC Resistor and is used in certain applications to ensure compatibility with power-stealing thermostats. The RES100A-600 is a 1000 ohm, 3 watt resistor.

### Installation

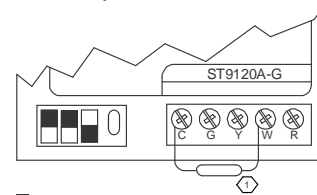
#### When Installing this Product...

**IMPORTANT:** Only qualified personnel should install or service BASO Gas Products®. These instructions are a guide for such personnel. Carefully follow all instructions for the appliance.

**CAUTION: Electrical Hazard.**  
**Can Cause Electrical Shock or Equipment Damage.**  
 Disconnect power supply before installing resistor.

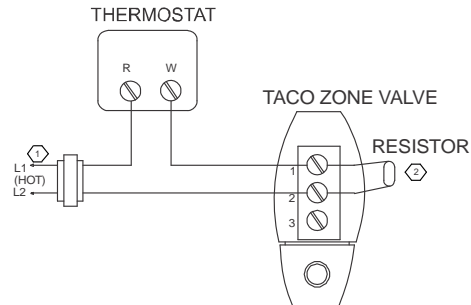
#### To Install the Resistor

1. Loosen terminal screws as shown in the application drawing.
2. Slide the resistor leads under the terminal screws and tighten the screws.
3. Turn on the system power.
4. After installation is complete, check out product operation as provided in these instructions.



1 DISCONNECT POWER SUPPLY BEFORE INSTALLATION

**Figure 1: Connect Resistor to ST9141 Fan Timer Terminals C and W**



1 POWER SUPPLY PROVIDES DISCONNECT MEANS AND OVERLOAD PROTECTION AS REQUIRED.

2 BEND RESISTOR AWAY FROM ZONE VALVE CASE TO PREVENT SHORTING.

**Figure 2: Connect Resistor to Taco Zone Valve Terminals 1 and 2**

**Note: If furnace fails to start, remove flapper and clean before re-starting.**

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