

# INSTALLATION INSTRUCTIONS

## ELECTRONIC OIL IGNITER • 240 VAC

### APPLICATION INFORMATION:

- This igniter is designed for use with 240 VAC.
- It is rated for continuous duty and can be used with intermittent, or interrupted ignition primary controls.
- The Beckett oil igniter is designed to mount in the same manner as standard ignition transformers and igniters.
- This igniter can be adapted to multiple base plates to accommodate Beckett residential and commercial burners. It will also fit on many other vendors' transformer base plates.

**CAUTION!** *Do not use this igniter beyond its design specifications. Improper operation and igniter failure may result.*

### SPECIFICATIONS:

**Input Voltage:** 168-264 VAC, 50/60 Hz

**Output Voltage:** 19 kV peak

**Output Current:** 25 mA RMS

**Input Current:** 0.3A

**Secondary Floating Ground**

**Ambient Operating Temperature:** -40 to +150° F

**Storage Temperature:** -40 to +150° F

**Moisture:** 5 to 95% Relative Humidity, Condensing

Table 1 - Complete Igniter Base Plate Assemblies

| Part No. | Burner Models                           |
|----------|---|
| 5199701U | AF, AFG, NX, and CF375                  |
| 5199702U | SM, SF, CF500, and CF800                |
| 5199703U | CF1000, CF1400, CF2300, CF2500A, CF3500 |
| 5199707U | Wayne 'M' Models.                       |
| 5199708U | Wayne 'E' Models.                       |

### **WARNING** Electrical Shock Hazard



**Failure to disconnect all power sources could result in severe personal injury or death.**

- Disconnect all electrical power to the burner before servicing. There could be more than one disconnect switch in the supply circuit.
- Installation and service must only be performed by a qualified service technician.
- Perform all wiring in compliance with the National Electric Code ANSI/NFPA 70 (Canada CSA C22.1).
- Connect burner housing and circuit to earth ground.

### Installation Instructions *(If base plate is already installed, skip to step number 9):*

1. Locate the igniter blue "hot" and white "neutral" input leads.
2. Install the 32411 igniter gasket, if required, and route the leads through the appropriate base plate lead exit hole. Make sure these leads are not being crushed.
3. Mount the igniter flush to base plate with the mounting screws supplied.
4. Note: Use #6 x 7/16" screws when using the bottom mounting holes. Use #10 thread forming paint scraping screws, if using the two top mounting holes for 5199701 & 5199702. For 5199703, use 1/4" machine screws, placing (1) 1/4" lockwasher between screw head and baseplate to ensure ground.
5. Tighten all screws securely.
6. Install the barrier and base plate gaskets for AF, AFG, and CF375 Beckett burners. Do not use barrier gasket on NX.
7. Use gaskets for other burner models, as required by the manufacturer.
8. Use of top mounting screws is possible for Beckett AF, AFG, NX, CF375, SM, SF, CF500 and CF800.
9. Mount the assembled unit to the burner using the screws supplied.
10. Use "paint scraping" screws for all burners (2 at the hinge and 2 for non-hinged base plates). Tighten these screws securely to provide effective grounding to burner housing.
11. Verify the burner is properly grounded.
12. Carefully route the igniter input leads to prevent them from being pinched during closing. Install cad cell, if applicable.
13. Fasten cad cell leads to control, if applicable. Wire white to neutral and blue to primary control ignition lead. Refer to control or appliance manufacturer's wiring diagram.
14. Verify the igniter secondary output terminals are correctly arranged to make good electrical contact with the oil burner electrodes.
15. Close the igniter. Install and securely tighten the two front base plate retaining screws (4 screws, if no hinge).
16. Reconnect electric power to the burner circuit.
17. Verify with instruments that the burner is adjusted to the manufacturer's recommended settings
18. Cycle the burner several times to verify prompt and smooth ignition before leaving.

**WARNING** Electrical Shock Hazard

**Failure to wire the burner correctly could cause serious injury or death.**

- Perform all wiring in compliance with ANSI/NFPA 70 (Canada CSA 22.1).
- Connect the electrical circuit and burner housing to earth ground.

*Beckett*  
**POWERLIGHT™**  
 240 VAC Oil Igniter

Figure 1 - Igniter Assembly Components (5199701U shown. Other models will have different baseplates and terminals.)

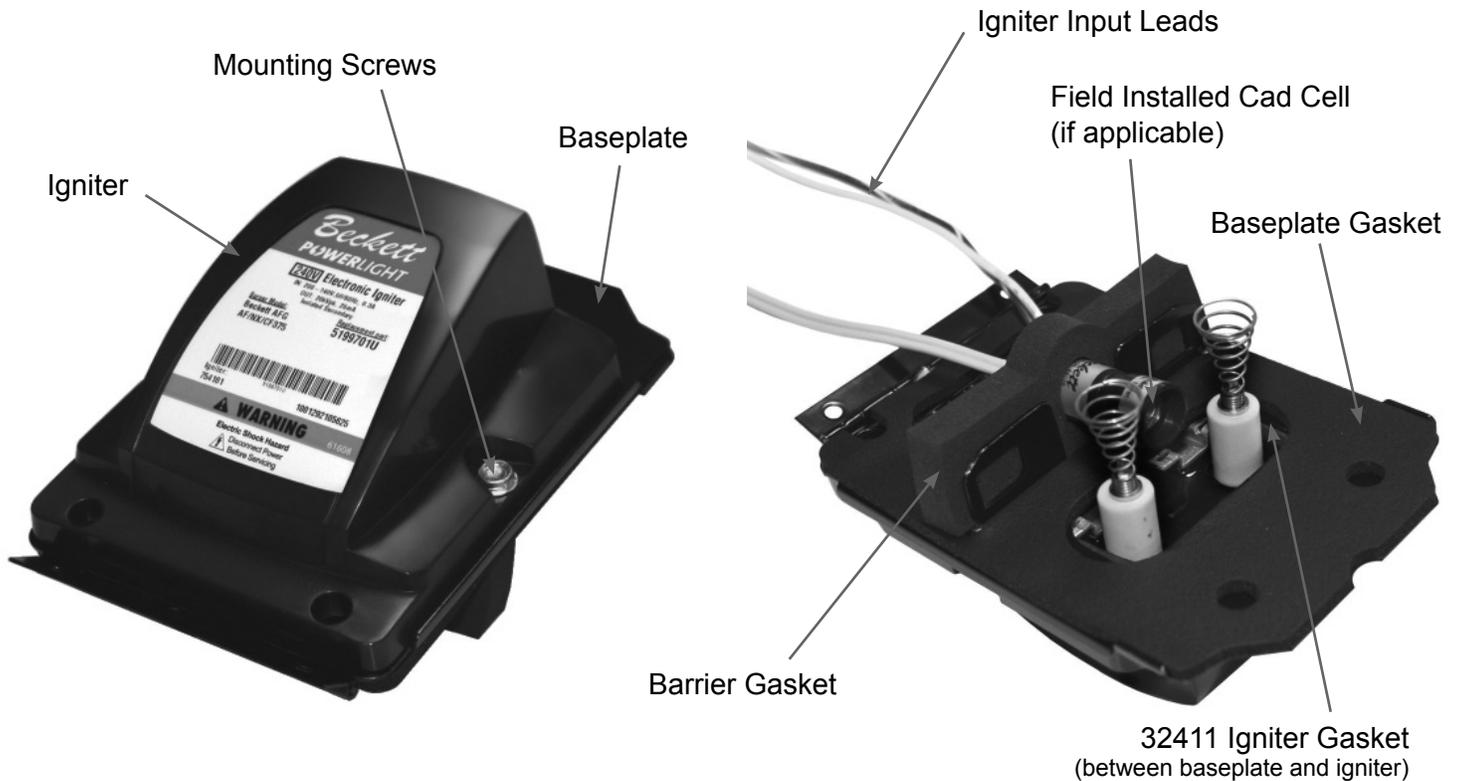


Table 2 - Igniter Base Plate Bill of Materials

| Part No. | Burner Models                           | Baseplate Gasket | Baseplate | Igniter Gasket | Barrier Gasket |
|----------|---|------------------|-----------|----------------|----------------|
| 5199701U | AF, AFG, NX, and CF375                  | 31405            | 51780BK   | 32411          | 32301*         |
| 5199702U | SM, SF, CF500, and CF800                | 31481            | 51855BK   | 32411          | n/a            |
| 5199703U | CF1000, CF1400, CF2300, CF2500A, CF3500 | 31412            | 31412     | 32411          | n/a            |
| 5199707U | Wayne 'M' Models.                       | n/a              | 51899BK   | n/a            | n/a            |
| 5199708U | Wayne 'E' Models.                       | n/a              | 21847     | n/a            | n/a            |

\* 32301 Barrier Gasket is not used on igniters for the NX burner. It is used only on AF, AFG & CF375.

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