



- 14,000-volt and 20,000-volt output for smoother ignition
- Solid state technology yields high performance, long life and durability
- Constant-duty rated
- Low current draw saves electricity
- Epoxy sealant provides water resistance and heat dissipation
- Consistent voltage output across a wide range of input voltages
- Easy testing — 41000 ignitor spark can jump 3/4" gap

# MODELS **41000** **40700 & 40900**

## 14-kV & 20-kV continuous-duty **Electronic ignitors**

### Data sheet

#### Installing and wiring

**WARNING** Carlin ignitors and ignitor kits must be installed and serviced only by a qualified burner service technician. Always disconnect power source before wiring to avoid electrical shock or damage to electrical components.

1. Carlin 41000 series ignitors can be mounted directly on top of the burner housing or other location, in the same manner as standard transformers. See back side of this sheet for available mounting plates and kits.

**WARNING** Mounting **40900** ignitors — **Mount 40900 ignitors ONLY on burner cover plate** so air blows across bottom of ignitor at all times during operation. Consult factory for details.

2. Disconnect electrical power to the burner. Disconnect wires from primary control to existing ignition transformer or ignitor.
3. Remove any screws securing ignition transformer or ignitor.
4. Observe the routing of electrical wiring from burner junction box to ignition transformer or ignitor.
5. Remove existing ignition transformer or ignitor.
6. Install new ignitor, reversing the above steps. Install, connect and route the ignitor wiring the same as the original ignition transformer or ignitor wiring was installed.
7. Make sure the ignitor is firmly attached and that all electrical connections meet local codes before applying power.

#### Field check

**WARNING** Never test an ignitor by placing a screwdriver (or other metallic object) across the high voltage clips. Check 40700 & 40900 ignitors only by observing spark at appliance ignition electrodes, with fuel supply **OFF**. Using any other method could cause ignitor damage and severe personal injury.

1. Checking 41000 ignitors only:
  - Disconnect electrical power to burner.
  - Remove hold down clips or screws. Lift ignitor mounting plate to the full-open position. Set high voltage clips to a 3/8" to 3/4" gap.
  - Carefully energize ignitor and check for spark arcing at the high voltage terminals. If spark jumps the gap, ignitor is good.

Ignitor model	41000	40700	40900
Power input	120 VAC, 60 HZ, 40 VA	208 – 240 VAC, 50/60 HZ, 60 VA	12 VDC, 50 VA
Ignitor output	14 KV, 35 mA RMS	14 KV, 35 mA RMS	20 KV, 28 mA RMS
Secondary grounding	Midpoint	Midpoint	Midpoint
Operating temperature limits	+32°F to +140°F	+32°F to +140°F	+32°F to +140°F
Storage temperature limits	-40°F to +185°F	-40°F to +185°F	-40°F to +185°F
Agencies	UL recognized (US) CSA certified (Canada)	NA	NA

41000 Replacement Ignitors with Base Plates (Note 1)	
Application	Part Number
ABC Bantom T-29-15 constant duty ignitor	41000-S0-BAN
ABC Sunray D & LC T-34-B constant duty ignitor	41000-S0-SUN
Aero constant duty ignitor	41000-S0-AR
Beckett AF, AFG constant duty ignitor	41000-S0-BK1
Beckett S, SR constant duty ignitor	41000-S0-BK2
Carlin constant duty ignitor (EZ, 99, 100 & 102)	41000-S0-CAS
Carlin constant duty ignitor (201-301CRD)	41000-S0-SC
Carlin constant duty ignitor (601CRD-1150FFD)	41000-S0-LC
Wayne E constant duty ignitor	41000-S0-WA2
Wayne HS constant duty ignitor	41000-S0-WA1
Wayne M constant duty ignitor	41000-S0-WA3
Weil-McLain QB constant duty ignitor	41000-S0-WM

Note 1 Above base-plate-mounted ignitors are for the 41000 ignitor only. Consult factory for part number and availability of base-plate-mounted 40700 or 40900 ignitors.

Base Plate Kits (Use only for 41000 ignitors) (Note 1)	
Application	Part Number
ABC Bantom T-29-15	41020-00-BAN
ABC Sunray D & LC T-34-B	41020-00-SUN
Aero	41020-00-AR
Beckett AF, AFG	41020-00-BK1
Beckett S, SR	41020-00-BK2
Carlin residential	41020-00-CAS
Carlin small commercial (201-301CRD)	41020-00-CSC
Carlin large commercial (601CRD-1150FFD)	41020-00-CLC
Wayne E	41020-00-WA2
Wayne HS	41020-00-WA1
Wayne M	41020-00-WA3
Weil-McLain QB	41020-00-WM

Note 1 Above base plates can be used only with 41000 ignitors. Model 40700 & 40900 ignitors may require special base plates. Consult factory for availability and part numbers.

Constant Duty Ignitor Only (No Base Plate)	
Application	Part Number
Constant duty ignitor only, 120 VAC	41000-S
Constant duty ignitor only, 208/240 VAC	40700-S
Constant duty ignitor only, 12 VDC	40900-S

Universal Ignitor Kit (For 41000 ignitors only)	
Application	Part Number
Universal ignitor kit in tote box	41000-S0-KIT

### Mounting hole template (41000 & 40700 ONLY)

- Use the template at right to drill clearance holes in the base plate to replace an existing ignitor or transformer with a Carlin 41000 or 40700 ignitor.

**NOTICE** Mounting 40900 ignitors — Do not use this template for 40900 ignitors. Consult Carlin for 40900 applications.

#### 98061A adapter plate

- Obtain a 98061A-S kit when needed for wire routing or to cover an existing baseplate opening. The kit contains the plate and mounting screws.
- Note 1: The opening, or openings, in the plate must clear the ignitor posts. Holes must be no smaller than in template.
- Note 2: Place the star lock wash under the screw head of this mounting screw. This is required to ensure good ground contact with the base plate.
- Note 3: Knock out the plastic centers of these two holes for access to Beckett base plate screws.

