Model EZ-Gas Gas Burner - Models Stocked in CDC as of 1/15/2009

*Direct Spark Ignition, 120V Control System and 120V Gas Valve*
50,000 – 275,000 BTUH Input – Diffuser BTU Rates: ‘B’ 50,000 – 175,000 BTU, ‘A’ 150,000 – 275,000 Btu

<table>
<thead>
<tr>
<th>SH ITEM#</th>
<th>DESCRIPTION</th>
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<tbody>
<tr>
<td>9859210BFR1</td>
<td>EZ-Gas Natural/Propane, 10” Air Tube, ‘B’ Diffuser</td>
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<tr>
<td>9859210AFR1A</td>
<td>EZ-Gas Natural/Propane, 10” Air Tube, ‘A’ Diffuser</td>
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</tbody>
</table>

**STANDARD EQUIPMENT**

1. 120V dual gas valve (natural or propane gas)
2. Direct spark ignition
3. Pre-wired package burner
4. Carlin primary safety control 60200FR
5. Carlin 9KV solid state igniter
6. Carlin PSC motor
7. Indicator light – flame preset
8. Flame signal test jack
9. Heavy duty mounting flange or OEM welded flange and gasket

10. Air Tube:
    - 10” with UTL, 1-3/4” – 3-1/2”
    - 12” with UTL, 1-3/4” – 5-1/2”
    - 14” with UTL, 1-3/4” – 7-1/2”
    - 16” with UTL, 1-3/4” – 11-1/2”
    - 18” with UTL, 1-3/4” – 9-1/2”

11. Orifice drilled for minimum input (propane)

Model EZ-Gas fires both natural and propane gas WITHOUT a conversion kit.
The IDEAL burner for even the toughest applications

MODEL EZ-Gas™
Power Gas Burner
50,000 to 275,000 BTUH

CARLIN. THE TECHNOLOGY LEADER.
Carlin EZ-Gas Power Gas Burner

Features
- Converts from propane to natural gas with just an orifice change — no conversion kit needed
- Fires negative or positive chambers from 50,000 to 275,000 Btu/h input
- Provides dependable, direct-spark ignition of main flame — for quick, clean light-offs
- Comes standard with time-tested solid state ignition and state-of-the-art microprocessor control technology
- Factory-packaged with combustion control and gas fuel train
- Shipped completely assembled and wired — for “EZ” installation and start-up
- Diagnostic LED lights annunciate operating mode: Self-check, Flame-on, Recycle, Lockout and Latch-up
- High-efficiency, compact flame pattern design ensures clean, quiet operation
- Does not require a refractory liner — fires with or without a combustion chamber
- Available with custom welded air tube flange (and/or optional pedestal) to accommodate most appliance mounting requirements
- Includes 1-year warranty

Specifications
- Input: 50,000 to 275,000 Btu/h
- Fuels: Natural gas or propane gas
- Maximum supply pressure: 14 inches w.c.
- Minimum supply pressure: 5.0 inches w.c.
- Manifold pressure: 3.5 inches w.c.
- Electrical
  - Power: 120 VAC/60 Hz, 1-phase
  - Limit circuit input: 120 VAC/60 Hz
  - Motor: 1/15 HP, 3450 rpm
  - Current: Approximately 2.0 amps
  - Fuel valve power: 120 VAC/60 Hz
- Ignition
  - Carlin Model 41800 solid state electronic ignitor
  - Ignition voltage: 9,000 volts
- Control
  - Carlin Model 60200FR microprocessor control
    - 4-sec. Trial for ignition (TFI)
    - 1.3-sec. FFRT
    - Pre-purge and post-purge
    - Serviceman reset protection (Latch-up after three consecutive lockouts)
    - Interrupted duty ignition
    - Recycle on flame failure
- Agencies
  - UL Listed (United States) per ANSI Z21.17
  - MEA approval #137-05-E

Orifice selection

<table>
<thead>
<tr>
<th>Input</th>
<th>Orifice drill size</th>
<th>Air band</th>
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<tbody>
<tr>
<td>Btu/h</td>
<td>Natural gas</td>
<td>Propane gas</td>
</tr>
<tr>
<td>50,000</td>
<td>#19 (.166)</td>
<td>#32 (.116)</td>
</tr>
<tr>
<td>75,000</td>
<td>#11 (.191)</td>
<td>#26 (.147)</td>
</tr>
<tr>
<td>100,000</td>
<td>#1 (.228)</td>
<td>#16 (.177)</td>
</tr>
<tr>
<td>125,000</td>
<td>D (.246)</td>
<td>#9 (.196)</td>
</tr>
<tr>
<td>150,000</td>
<td>J (.277)</td>
<td>7/8 (.219)</td>
</tr>
<tr>
<td>175,000</td>
<td>N (.302)</td>
<td>C (.242)</td>
</tr>
<tr>
<td>200,000</td>
<td>F (3/8) (.318)</td>
<td>7/8 (.266)</td>
</tr>
<tr>
<td>225,000</td>
<td>T (.358)</td>
<td>7/8 (.281)</td>
</tr>
<tr>
<td>250,000</td>
<td>X (.397)</td>
<td>7/8 (.312)</td>
</tr>
<tr>
<td>275,000</td>
<td>7/8 (.437)</td>
<td>R (.339)</td>
</tr>
</tbody>
</table>

Note: Air band setting is approximate only. Follow burner manual and appliance manual instructions to adjust burner using combustion test instruments.

Wiring

Carlin Combustion Technology, Inc.
70 Maple Street  East Longmeadow, MA 01028  Phone 413-525-7700  Fax 413-525-8306

e-mail us at: info@carlincombustion.com  visit our website: www.carlincombustion.com

Carlin part number MNEZGAS1 Rev. 02/17/06
Where appliance instructions differ from this manual, follow the appliance instructions.

**EZ-Gas burner at-a-glance**

1. Air tube (flange omitted for clarity), with powder coat paint finish
2. Diffuser plate (hole or slot pattern)
3. Gas manifold (concentric cylinders swaged and welded at ends) — Gas manifold delivers gas to gas openings on inner wall of manifold near the diffuser plate.
4. Ignitor electrode insulator
5. Flame rod insulator
6. Ignitor electrode
7. Flame rod electrode
8. Gas orifice nipple — see pages 7 and 8 for orifice sizing requirements
9. Gas inlet connection (gas entrance to gas manifold)
10. Gas manifold outer wall
11. Gas manifold inner wall
12. Hinged cover plate (for access to blower wheel & electrodes)
13. Ignitor — Carlin Model 41800 solid state electronic ignitor — 9,000 volts, continuous duty rated
14. Primary control (Carlin Model 60200FR microprocessor-based interrupted ignition flame supervisory control, for use with flame rod flame rectification)
14a. Flame current test jack
15. Burner junction box
16. Motor (Carlin PSC motor, with permanently-lubricated bearings and automatic thermal overload protection)
17. Blower housing (cast aluminum), with powder coat paint finish
18. Blower wheel
19. Air band with indicator — Only a single adjustment required for setting combustion air; see page 7 for starting setting based on appliance model and input
20. Airflow proving switch — Prevents burner from firing if air is not moving
21a. Airflow proving switch sensing line (aluminum) — blower inlet
21b. Airflow proving switch sensing line (aluminum) — blower outlet
22. Combination gas valve (with integral gas pressure regulation — set for 3½” w.c. outlet pressure)
23. Gas supply entrance — ¼” NPT; 5” w.c. min; 14” w.c. max

*Carlin part number MNEZGas Rev. 05/30/08*