



## 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

SH ITEM#	DESCRIPTION
9859210BFR1	EZ-Gas Natural/Propane, 10" Air Tube, 'B' Diffuser
9859210AFR1A	EZ-Gas Natural/Propane, 10" Air Tube, 'A' Diffuser

### STANDARD EQUIPMENT

- 120V dual gas valve (natural or propane gas)
- Direct spark ignition
- Pre-wired package burner
- Carlin primary safety control 60200FR
- Carlin 9KV solid state igniter
- Carlin PSC motor
- Indicator light – flame preset
- Flame signal test jack
- Heavy duty mounting flange or OEM welded flange and gasket
- 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"
- Orifice drilled for minimum input (propane)

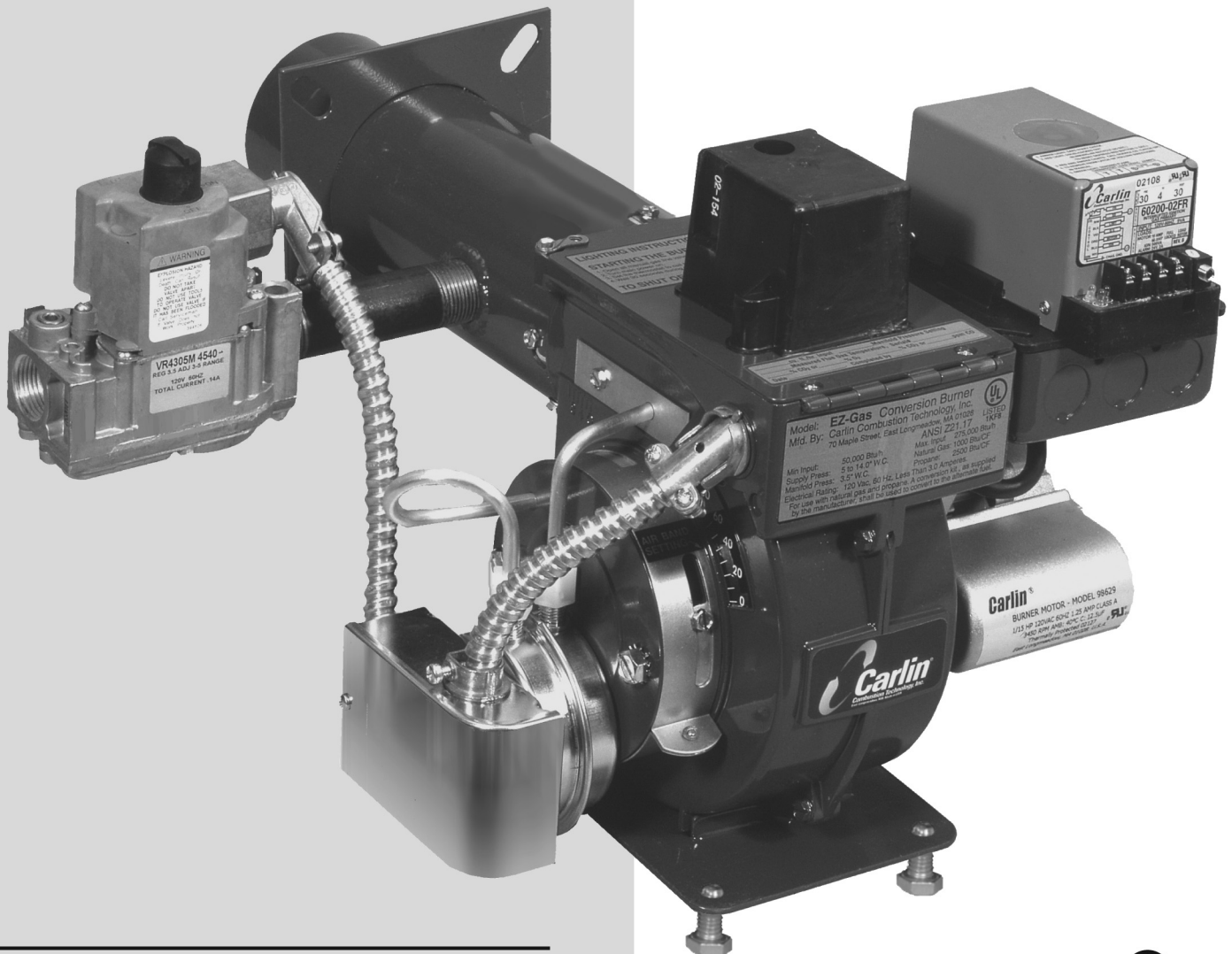
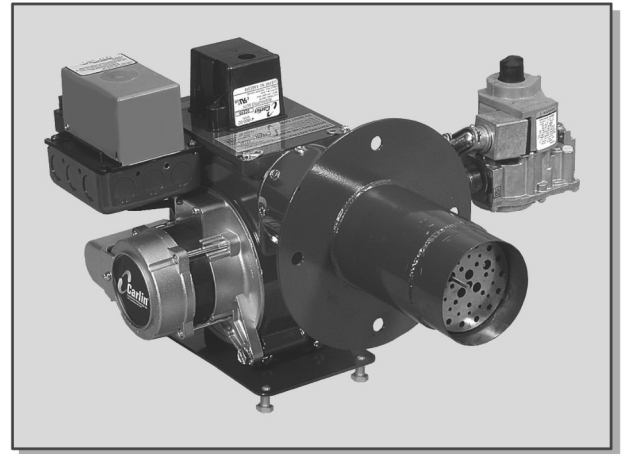
Model EZ-Gas fires both natural and propane gas WITHOUT a conversion kit.



# MODEL **EZ-Gas™** Power Gas Burner

**50,000 TO 275,000 BTUH**

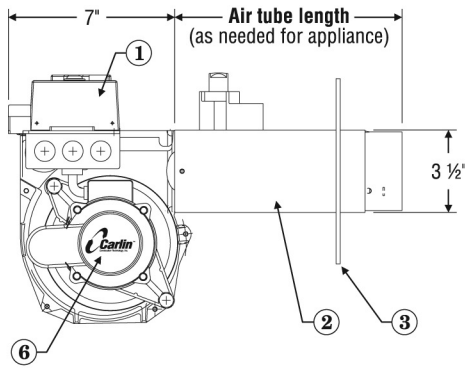
**The IDEAL  
burner  
for even the  
toughest  
applications**



**CARLIN. THE TECHNOLOGY LEADER.**

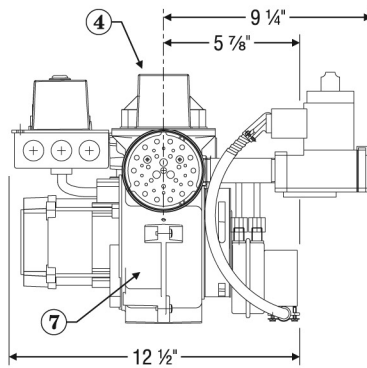


# Carlin EZ-Gas Power Gas Burner

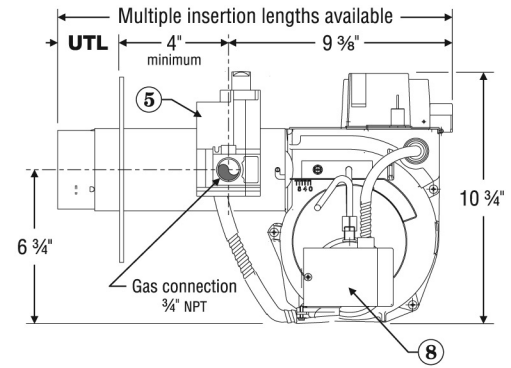


- ① Carlin 60200FR microprocessor control  
⑤ Combination gas valve

- ② Air tube  
⑥ Carlin PSC motor



- ③ Flange (selected to meet appliance requirements)  
⑦ Cast aluminum blower housing



- ④ Carlin 41800 solid state ignitor  
⑧ Air flow proving switch

## 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 Btuh 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

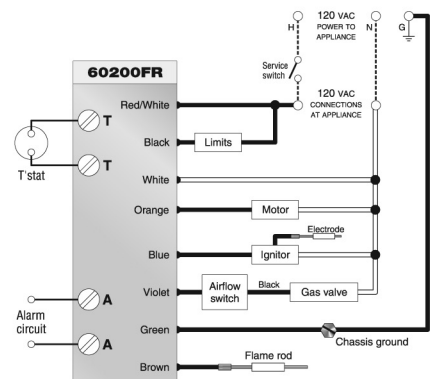
- Input**  
..... 50,000 to 275,000 Btuh
- Fuels**  
..... Natural gas or propane gas  
Maximum supply pressure ..... 14 inches w.c.  
Minimum supply pressure ..... 5.0 inches w.c.  
Manifold pressure ..... 3.5 inches w.c.
- Electrical**  
Power ..... 120 VAC/60 HZ/1-PHASE  
Limit circuit input ..... 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

Input Btuh	Orifice drill size		Air band	
	Natural gas	Propane gas	Slots	Approximate Setting (note)
50,000	#19 (.166)	#32 (.116)	1	0 %
75,000	#11 (.191)	#26 (.147)	1	5 %
100,000	#1 (.228)	#16 (.177)	1	20 %
125,000	D (.246)	#9 (.196)	1	30 %
150,000	J (.277)	7/32 (.219)	2	20 %
175,000	N (.302)	C (.242)	2	30 %
200,000	2 1/64 (.328)	17/64 (.266)	2	35 %
225,000	T (.358)	9/32 (.281)	2	45 %
250,000	X (.397)	5/16 (.312)	2	55 %
275,000	7/16 (.437)	R (.339)	2	75 %

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

## Wiring



TECH SUPPORT HOTLINE 800-989-2275



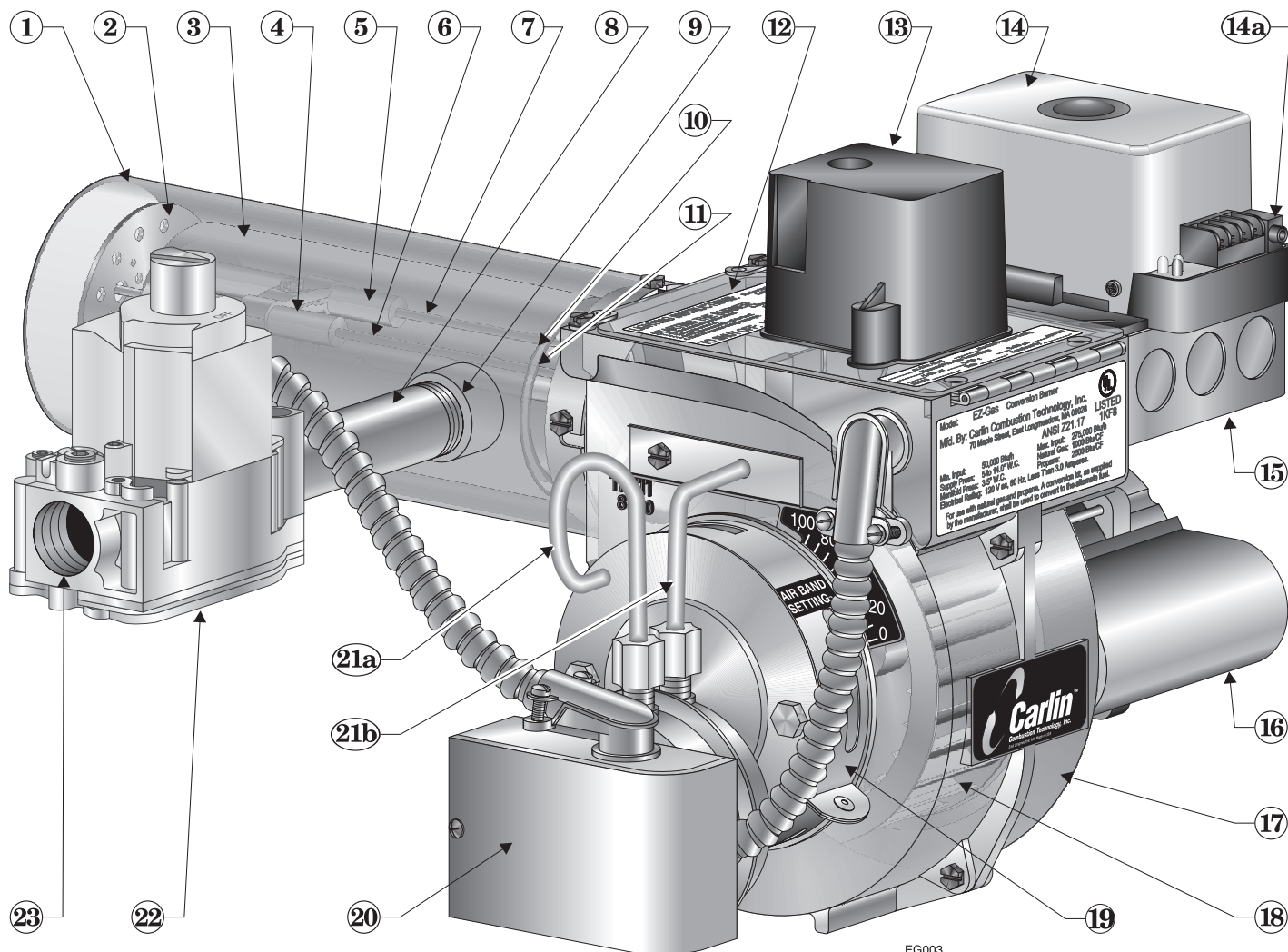
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## Model EZ-Gas gas burner — Instruction manual

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   | 14 Primary control (Carlin Model 60200FR microprocessor-based interrupted ignition flame supervisory control, for use with flame rod flame rectification)      |
| 2 Diffuser plate (hole or slot pattern)  | 14a Flame current test jack  |
| 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. | 15 Burner junction box   |
| 4 Ignitor electrode insulator  | 16 Motor (Carlin PSC motor, with permanently-lubricated bearings and automatic thermal overload protection)  |
| 5 Flame rod insulator  | 17 Blower housing (cast aluminum), with powder coat paint finish   |
| 6 Ignitor electrode  | 18 Blower wheel  |
| 7 Flame rod electrode  | 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) |
| 8 Gas orifice nipple — see pages 7 and 8 for orifice sizing requirements   | 20 Airflow proving switch — Prevents burner from firing if air is not moving   |
| 9 Gas inlet connection (gas entrance to gas manifold)  | 21a Airflow proving switch sensing line (aluminum) — blower inlet  |
| 10 Gas manifold outer wall   | 21b Airflow proving switch sensing line (aluminum) — blower outlet   |
| 11 Gas manifold inner wall   | 22 Combination gas valve (with integral gas pressure regulation — set for 3½" w.c. outlet pressure)  |
| 12 Hinged cover plate (for access to blower wheel & electrodes)  | 23 Gas supply entrance — ¾" NPT; 5" w.c. min; 14" w.c. max   |
| 13 Ignitor — Carlin Model 41800 solid state electronic ignitor — 9,000 volts, continuous duty rated)   |  |