



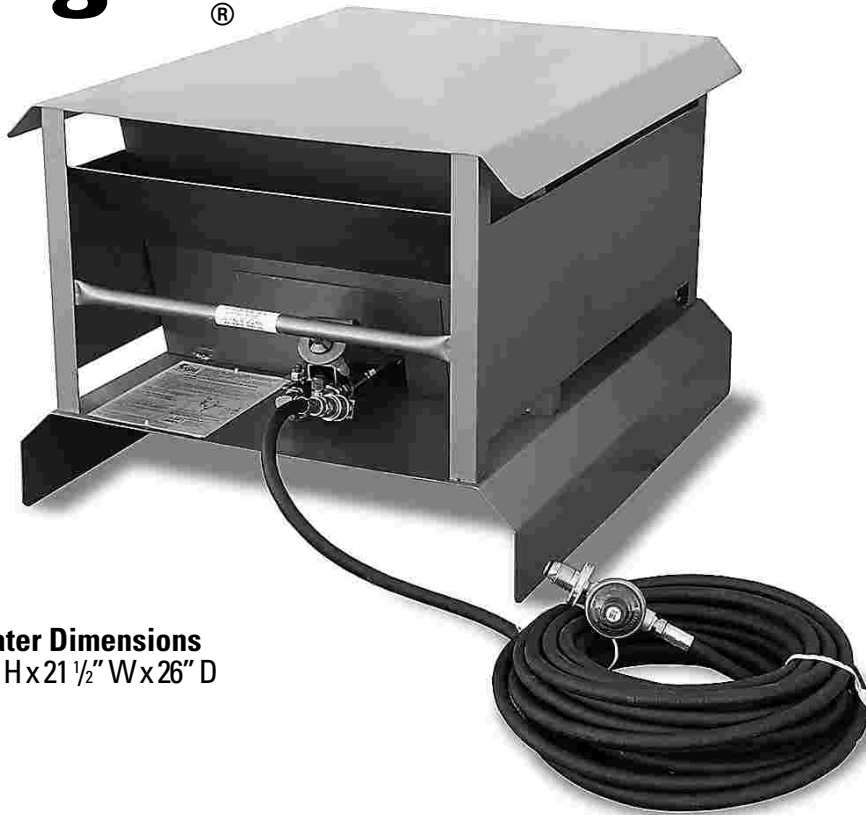
## Construction Heater

### Models:

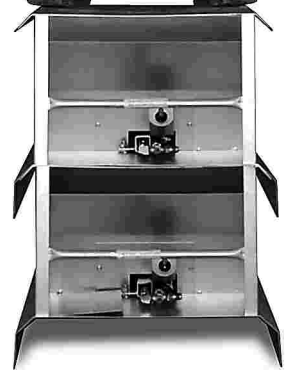
CH 220 QC with 10' hose

CH 225 QC with 25' hose

CH 250QC with 50' hose



**Heater Dimensions**  
16 1/2" H x 21 1/2" W x 26" D



### Special Features

The Red Dragon "HOT BOX," made of sturdy, rectangular construction, offers the following important features not found on other construction heaters:

- Low profile prevents accidental tipping.
- Stackable for convenient storage.
- High heat output close to the surface means a warmer working area.
- More radiating surface than a cylindrical shape construction heater.
- One bolt removes burner and all controls.

### PLUS...

- Heat output: 200,000 BTU/hr. at 18 psi.
- Heavy gauge metal construction.
- Piezo electronic ignitor.
- Thermocouple safety control.
- U.L. listed LP-Gas Hose Assemblies w/Quick Connect.
- 18 psi preset regulator.
- Safety Excess Flow P.O.L.



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CH220INST010/28/09

# OPERATING INSTRUCTIONS FOR THE “Hot Box” RED DRAGON CH 220QC, CH 225QC & CH 250-QC CONSTRUCTION HEATERS

*Note: Unpack and inspect for damage. Retain this information sheet for future reference after reading thoroughly.*

<b>WARNING</b>	<b>AVERTISSEMENT:</b>	<b>ADVERTENCIA:</b>
<p><b>DO NOT OPERATE THIS EQUIPMENT IF:</b></p> <ul style="list-style-type: none"><li>• You are subject to seizures, loss of consciousness, or fainting.</li><li>• You have been drinking alcohol, using illicit drugs, or prescription drugs that might effect your judgment or balance.</li><li>• You have not read or do not understand the operator’s manual.</li><li>• You are not capable of safely operating this type of equipment.</li></ul> <p><b>DO NOT ALLOW CHILDREN TO OPERATE THIS EQUIPMENT.</b></p>	<p><b>NE PAS FAIRE FONCTIONNER CET APPAREIL SI:</b></p> <ul style="list-style-type: none"><li>• Vous avez des crises, de la perte de connaissance, ou vous êtes prêt à s'évanouir.</li><li>• Vous avez bu de l'alcool, utilisé des drogues illicites, ou des drogues de l'ordonnance qui pourraient affecter votre jugement ou votre équilibre.</li><li>• Vous n'avez pas lu ou vous ne comprenez pas le manuel de l'instruction.</li><li>• Vous n'êtes pas capable de faire fonctionner ce type d'appareil sans accident.</li></ul> <p><b>NE PAS PERMETTRE AUX ENFANTS DE FAIRE FONCTIONNER CET APPAREIL</b></p>	<p><b>No opere este equipo si:</b></p> <ul style="list-style-type: none"><li>• Está asunto a convulsiones, pérdida de conciencia, o desmayo.</li><li>• Ha bebido alcohol, usa drogas ilícitas, o medicina de prescripción que puede efectuar su juicio o equilibrio.</li><li>• No ha leído o no entiende el manual del operador.</li><li>• No pueda operar seguramente este tipo de equipo.</li></ul> <p><b>No deje que niños operan este equipo.</b></p>

## Always

- Inspect heater prior to each use, and at least annually by a qualified service person.
- Visually inspect the hose assembly before each use of the heater for evidence of excessive abrasion, wear or cuts. Replace hose assembly if any of these conditions exist.
- Read instruction plate located on heater cabinet.
- Follow procedures step by step.
- Use soapy water or leak detector to check all connections for gas leaks prior to use.

**FOR YOUR SAFETY...**  
*DO NOT use this heater in a space where gasoline or other liquids having flammable vapors are stored or used.*

- WARNING:**
- *Temperatures at the base of heater may ignite combustible materials.*  
*Use only on noncombustible floors.*
  - **DO NOT Leave Heater Unattended**

## Caution

- Use only on noncombustible floors.
- This heater is designed for indoor use when, and only when adequate ventilation is provided.
- For safety this heater is equipped with a thermocouple, safety control valve and preset regulator.
- Do not operate this heater without these items properly installed and in working condition.
- Heater must set level and comply with minimum clearances as stated on operating instructions.
- Keep fuel containers at least 10 feet from heater.
- Cylinders with 100 pound capacities are recommended for peak performance.
- Do not move, handle, or service heater while it is in operation or still hot from use.
- Using soapy water or leak detector, check all connections for gas leaks and test function of all moving parts.
- Perform these checks and tests prior to initial use and each time the unit is relocated.
- Follow safety, maintenance, and operating instructions packaged with heater.
- This unit is not intended for heating living quarters except that which is under new construction or repairs, and then only on a noncombustible surface and in an area which is properly ventilated.
- Installation must comply with all applicable codes.

## Curing The Paint

- The finish on your Red Dragon Construction Heater is designed to withstand high temperature. Prior to initial use, this finish should be cured as described below. Because the curing procedure may cause smoke or odor, we suggest it be conducted outdoors and away from flammable materials.
- Locate operating instructions on heater cabinet.
- Read operating instructions.
- Start the heater and adjust the control valve to a low volume.
- Gradually open the control valve to full capacity.
- After 10 to 15 minutes or when all smoke and odor have disappeared, close LP-gas cylinder valve and allow gas to burn out of system.

# OPERATING INSTRUCTIONS FOR THE “Hot Box” RED DRAGON CH 220QC, CH 225QC & CH 250-QC CONSTRUCTION HEATERS

*Note: The “HOT BOX” is intended for the temporary heating of buildings under construction, alteration or repair.  
Use only in a well-ventilated area.*

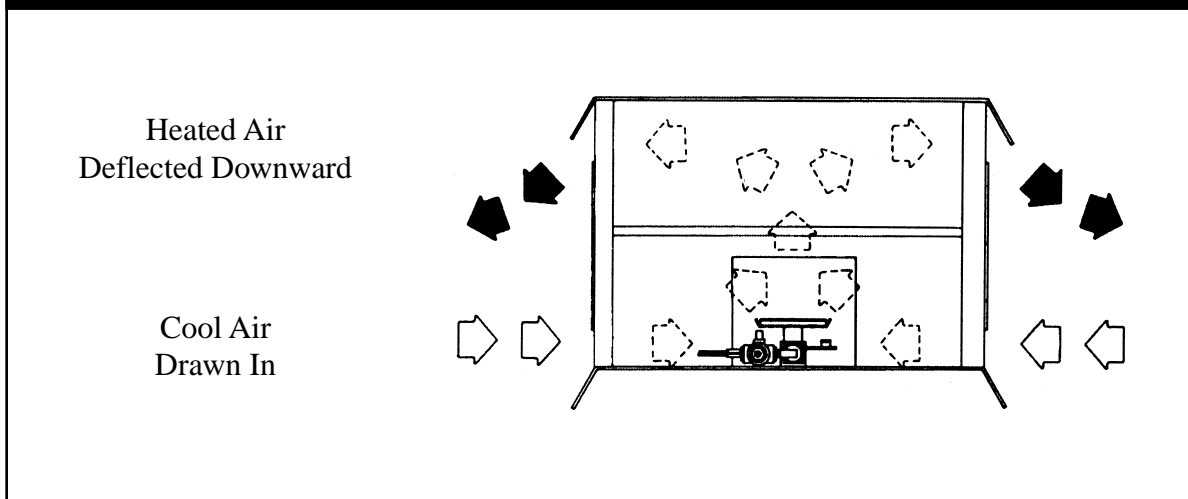
## Lighting Instructions

1. Remove unit from box. Be sure to remove all packaging.
2. Visually inspect all hose for cuts, nicks or abrasions.
3. Place unit on noncombustible surface and keep the unit away from all combustibles.
4. Connect unit to a 100 lb. LP cylinder (configured for vapor withdrawal).
5. Be sure control valve on unit is closed.
6. Slowly open tank valve.
7. Check all connections for leaks using soapy water. Should a leak be found, correct and retest before proceeding.
8. Depress button on safety valve and slowly open the control valve until a small amount of gas can be heard escaping from the orifice.
9. When a small amount of gas is heard, depress ignitor button several times or until unit is lit. If unit fails to light, close all valves and contact customer service at 800-255-2469.
10. When unit ignites, continue to hold safety valve for 30-60 seconds to warm the thermocouple.
11. After 30-60 seconds, release safety valve button. If unit goes out, repeat steps 1 through 10 holding the safety valve for up to 90 to 120 seconds.
12. With the unit ignited, adjust flame to desired output.
13. When shutting down, close cylinder valve and allow remaining fuel in the hose to burn out.

## Storage

- When the heater is to be stored indoors, the connection between the LP-Gas supply cylinder(s) and the heater must be disconnected and the cylinder(s) removed from the heater and stored in accordance with NFPA Pamphlet 58.
- The unique design of the “HOT BOX” allows safe stacking of the units to reduce storage space during the off-season.
- Before igniting the burner after seasonal storage, check to make sure components are free of dust or other flammable debris which can accumulate during storage.

## Heat Pattern



# OPERATING INSTRUCTIONS FOR THE "Hot Box" RED DRAGON CH 220QC, CH 225QC & CH 250-QC CONSTRUCTION HEATERS

*Questions? If you have any questions about the operation of your heater call your local distributor or Flame Engineering, Inc. at 1-800-255-2469 or fax 785-222-3619.*

## Parts List

- |    |           |   |     |            |   |
|----|-----------|---|-----|------------|---|
| 1. | P-3200 W  | Excess Flow P.O.L.                          | 8.  | 332        | Spark Plug  |
| or | P-W 795   | Hand Tighten Excess Flow P.O.L.             | 9.  | 101-CH 221 | Heater Burner   |
| 2. | R-700 C   | 18 P.S.I. Preset Regulator                  | 10. | V-326      | Flame Control Valve   |
| 3. | HP 10 TQ  | U.L. Listed 10' LP Gas Hose w/Quick Connect | 11. |            | 1/4" Elbow  |
|    | HP 25 TQ  | U.L. Listed 25' LP Gas Hose w/Quick Connect | 12. | CH 221QC   | Complete Burner/Control Assembly<br>(Includes everything except hose, regulator & P.O.L.) |
|    | HP 50 TQ  | U.L. Listed 50' LP Gas Hose w/Quick Connect | 13. | HP 10 TQC  | 10' LP Gas Hose Kit with P.O.L. & Regulator   |
| 4. | HN-7      | 1/4" Female x Male Quick Connect Elbow      |     | HP 25TQC   | 25' LP Gas Hose Kit with P.O.L. & Regulator   |
| 5. | H-19 H    | Safety Control Valve                        |     | HP 50TQC   | 50' LP Gas Hose Kit with P.O.L. & Regulator   |
| 6. | M-3012    | 12" Thermocouple                            |     |            |   |
| 7. | Model 21C | Ignitor with Lead Wire (3309) & Spark Plug  |     |            |   |
| 7. | 3309      | Lead Wire for Ignitor w/ends                |     |            |   |

