

# LN Series

## Installation, Operation and Startup Instruction Manual

### SUPPLEMENT FOR NOx CONE SYSTEM

### NATURAL GAS

MANUFACTURED BY GORDON-PIATT ENERGY GROUP, INC.

**NOTE:**

YOUR BURNER MAY HAVE A LETTER PREFIX OR SUFFIX ADDED TO THE MODEL DESIGNATION, HOWEVER, THIS IS FOR IDENTIFICATION PURPOSES ONLY AND DOES NOT AFFECT THE INSTRUCTIONS IN THIS MANUAL

**NOTE**

This manual should be used as a supplement to the standard Installation, Operation and Startup Manuals for Models R, S or F/FL burners. The LN designation is a prefix to the standard burner model.

## PRINCIPLES OF OPERATION

The LN Series of burner models uses a NOx cone attached to the end of a standard model burner combustion head. The design of this cone causes the flue gas in the combustion chamber to recirculate back into the base of the fire. The mixing of the flue gas into the fire reduces the combustion rate and therefore the flame temperature, lowering thermal NOx production. It is important to remember that each boiler has its own unique operating

requirements. Two boilers of the same size with the same equipment can have different combustion properties and requirements. With different size boilers, there can be large differences in combustion properties. For these reasons, specific values or setup requirements will vary from unit to unit. Installation, operation and startup will be the same as a standard model burner except as noted in this supplement.

# Table of Contents

INSTALLATION INSTRUCTIONS .....	3-4
BURNER ADJUSTMENTS .....	5
BURNER START-UP .....	6
SUPPLEMENTARY DATA .....	8

## WARNINGS

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. EVACUATE people from building.
5. Immediately call the gas supplier.

The use and storage of gasoline or other flammable liquids and vapors in open containers in the vicinity of this appliance is hazardous.

In accordance with OSHA standard 1910.147, all equipment, machines and processes shall be locked out prior to servicing.

If not installed, vented, operated and maintained in accordance with the manufacturer's instructions, this product could expose you to substances in fuel or from fuel combustion which can cause death or serious illness and which are known to the State of California to cause cancer, birth defects or other reproductive harm.

Improper servicing of this equipment may create a potential hazard to equipment and operators.

**SERVICING MUST BE DONE ONLY BY FULLY TRAINED AND QUALIFIED PERSONNEL.**

Before disconnecting or opening up a fuel line and before cleaning or replacing parts of any kind.

- Turn **OFF** the main manual fuel shutoff valves including pilot gas cock, if applicable. If a multiple fuel burner, shut **OFF** all fuels.
- Turn **OFF** all electrical disconnects to the burner and any other equipment or systems electrically interlocked with the burner.

Do **NOT** use TEFLON TAPE or compounds with TEFLON content as an oil or gas pipe sealant. TEFLON can cause valves to fail creating a **SAFETY HAZARD**. Warranties are nullified and liability rests solely with the installer when evidence of TEFLON is found.

Rectorseal No. 2 pipe thread compound is used for factory assembly of oil and gas piping.