

Warmth and Comfort.  
*efficiency and savings.*



*The smartest way to heat your home.*

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## Have it all with KNIGHT®... The smartest way to heat your home!

Since 1919, Lochinvar Corporation has provided homes and businesses with innovative, efficient solutions for water heating and space heating. Lochinvar's industry-leading technology makes the KNIGHT heating boiler the best choice you can make to keep your family warm and comfortable through the entire range of winter temperatures.



### The ENERGY STAR means energy savings.

KNIGHT meets strict ENERGY STAR efficiency guidelines set by the Department of Energy and the Environmental Protection Agency. Its remarkable 96% AFUE\* efficiency rating means that 96 cents of every energy dollar you spend with your gas utility provider goes directly into heating your home. In lower-temperature applications such as radiant floor heating, **KNIGHT can deliver even higher thermal efficiencies up to an amazing 99%!** As part of the Energy Star Certification, KNIGHT Boilers with BTU/Hr inputs up to 285,000 qualify for Federal and State Tax Credit programs.



And with clean air quality NOx emissions less than 20 ppm, KNIGHT is “green” for the environment, and delivers significant energy cost savings compared to boilers with the 80% minimum AFUE requirement for new housing. KNIGHT savings are even higher compared to 75% or lower AFUE units found in many older homes.

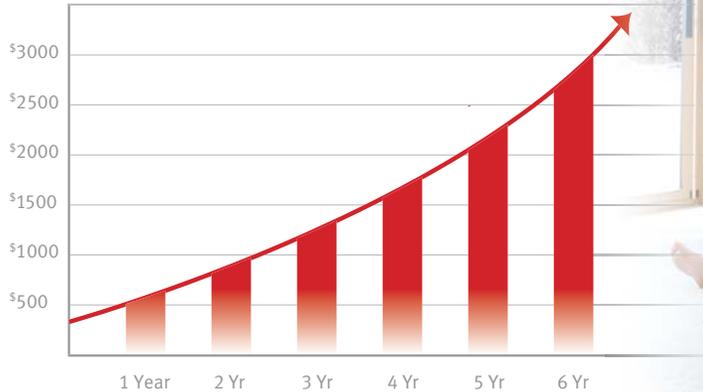
\*The AFUE is the most widely used measure of a boiler's heating efficiency. It measures the amount of heat actually delivered to your house compared to the amount of fuel that you must supply to the boiler. Thus, a boiler that has an 80% AFUE rating converts 80% of the fuel that you supply to heat – the other 20% is lost out the chimney.





**For example... 96% efficiency means  
that over 6 years of heating bills  
KNIGHT could save \$3,000 in fuel cost!**

*Compared to a 75% AFUE boiler and based on 80,000 Btu heating load over 2,000 hours of operation and a fuel cost of \$1.13 per therm.*



## ***KNIGHT Modulates to Quietly Help Save Energy!***

What is modulation? Let's say your home is heated by a KNIGHT with 285,000 Btu/hr heating power. When it's just "pretty cold" outside, the boiler starts by firing at a fuel-saving 57,000 Btu/hr, only 20% of its maximum heating potential. As the temperature drops to "really *really* cold," KNIGHT is designed to "modulate" upward to the 100% maximum 285,000 Btu/hr of heating power.

KNIGHT automatically adjusts its firing rate to exactly meet demand for heat. Modulation eliminates the frequent, noisy on/off cycling heard from boilers or forced-air systems that can only fire at 100%. This helps reduce wasted fuel, and ensures a "quiet KNIGHT" for your home.

***KNIGHT'S BURNER MODULATION***  
***ADJUSTS TO OPTIMIZE BOILER HEATING***  
***PERFORMANCE AND EFFICIENCY AS***  
***TEMPERATURES DROP***



***The new SMART SYSTEM™ provides unequalled control and monitoring functions that are easy to understand and use.***

Every KNIGHT has SMART SYSTEM, the industry's most advanced boiler control. With a large LCD screen and easy-to-use soft keys, SMART SYSTEM gives you and your contractor a complete database of performance history, and an unprecedented level of control and complete information over all system functions.

Plus with standard SMART SYSTEM features such as Outdoor Air Reset, the control automatically adjusts the boiler supply temperature based on the temperature outdoors.

The smart function of the control saves you energy every day of the year that the outdoor temperature is above the worst-case scenario design temperature of the heating system.

**SMART**  
™  
**SYSTEM**



*A YELLOW SCREEN ALERTS WHEN YOUR BOILER REQUIRES MAINTENANCE, AND GIVES YOU THE NAME AND NUMBER OF YOUR INSTALLING CONTRACTOR.*





## *There's a KNIGHT for every home!*

Lochinvar innovation provides you with a choice of 17 floor-standing or wall-mount models that are compact, lightweight and easy to install. A single KNIGHT boiler will meet the need for most homes.

For large homes with very high heating demand, or homeowners who want traditional space heating, PLUS radiant floor heating and/or outdoor snow melt, as many as 8 KNIGHT boilers can be installed together, to provide total input as high as 3,192,000 Btu/hr.

Wall-mount



Wall-mount models are available with inputs from 50,000 to 399,000 Btu/hr



Floor-standing



Floor-standing models are available with inputs from 80,000 to 285,000\* Btu/hr

\*KNIGHT floor-standing models are also manufactured in commercial sizes with inputs from 399,000 to 800,000 Btu/hr

