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High Efficiency Water Heaters, Boilers and Pool Heaters

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# SMART SYSTEM™

# & the Industry's Smartest Design

SMART SYSTEM is the industry's most advanced operating control. Right out of the box, it gives you unequaled control and monitoring functions that are easy to understand and use.



"I really like the KNIGHT Boiler because it's very simple to install and program. The SMART SYSTEM control is great and I really like being able to troubleshoot with the pocket PC. My customers choose KNIGHT for its high efficiency and state-of-the-art design, and they're all thrilled that KNIGHT operates so quietly and makes their home much more comfortable."

— Chad Padilla, TLC Plumbing, Albuquerque, NM

### 2-Line, 16-Character LCD Display

Displays setup and diagnostic information in words, not codes

### Password Security

Dual passwords for installer and user

### Product Service Indicator

Program reminders for cycle count, operation hours or last service

### Pump Relay w/Freeze Protection

Ensures water temperature does not fall below 40°F

### Low-Water Flow Indicator

Protects against high temperature differential in the heat exchanger with reduced modulation or shutdown

### Outdoor Reset

Outdoor temperature monitor guides the reset schedule to meet load

### Night Setback

Program a temperature setback for any time of the day, each day of the week

### Building Management System (BMS) Control

0-10 VDC, BMS-driven input for modulation rate or temperature control

### DHWP with Pump Control

On call for hot water, SMART SYSTEM overrides outdoor reset and starts DHWP pump to the indirect. Runtime can alternate between heating and domestic hot water to meet demand simultaneously

### System & Boiler Pump Controls

Provides power to both system and boiler pumps based on a call for heat. Programmable delay allows pumps to operate after a call has been satisfied

### In/Out Temp. Sensors and Display

Allows installer to select which sensor controls the boiler setpoint



### PC Connection –

Can be used with KNIGHT PC or Pocket PC software to troubleshoot and program SMART SYSTEM functions and to track historical data, including faults, trends and energy consumption.

### Field Connection Versatility

User-friendly terminal strip allows for 28 low-voltage field connections. Plus, 4 line voltage connections supply power to the unit, and up to three pumps operated by the SMART SYSTEM.

### Built-in Cascading Sequencer

SMART SYSTEM includes a built-in sequencer for 2–8 units, eliminating the cost and labor of a third-party sequencer. On demand, one boiler acts as lead unit and modulates with demand to meet capacity. The additional load then "cascades" to the next boiler in line and continues all are operating or demand is satisfied. When demand drops, the process reverses.



"The control system on the KNIGHT is head and shoulders above anything else available. Straight out of the box, the KNIGHT can do anything I need without third-party controls. Hands-down, it's the best boiler on the market."

— Don Smet, Standard Plumbing Heating Controls Corp., Spokane, WA

