

An Automatic Variable-Rate Heat Solution: SMART SENSE®

C The biggest advantage of Smart Sense automatic variable rate heat for me was the savings last winter in LP. I have a barn that was built in 2006 that has standard heaters, and that barn used 450 more gallons of LP than the barn built in 2013 with Smart Sense. The capability of Smart Sense heaters being able to stay within 2-3 degrees of set point has to be beneficial. The 2006 barn can have a 8 degree swing in temperature when it's bitter cold and the wind is blowing hard."



Curt Gentz Producer G & K Pork





Works with leading environmental control systems such as: MAXIMUS, DICAM, EDGE, FUSION, GENIUS, AP, VALCO, & PMSI! May work with similar systems that have a 0-10V control.

Smart Sense® Technology



Scan the QR code to view the Wean to Finish Heating Protocol, or download it at **www.lbwhite.com**.

A Difference You Can Feel

Smart Sense[®] is a technologically-advanced swine facility heating solution. This **innovative heating technology** eliminates the inefficiency of standard on/off controls by managing the heat automatically through the house control. Smart Sense[®] operates at maximum efficiency to provide:

- ✓ Fuel-cost savings up to 35%
- ✓ Consistent room temperature
- ✓ Enhanced animal welfare
- ✓ Improved air quality

The L.B. White[®] system generates only the amount of heat required to reach, maintain, and hold a desired temperature by modulating Btu output. This is achieved only through our patented technology engineered for L.B. White[®] forced air heaters and radiant heat brooders.

Manage Room Temperature Automatically

Don't React to the Room Environment—Control It!

Smart Sense automatically provides heat at only the rate required to reach a set point, and then maintains that temperature. This technology has been field tested with major integrators and growers across the upper Midwest. The results of these tests reflected increases in fuel-cost savings and improved heat management.

✓ I know L.B. White Smart Sense heaters are saving money in my facility even without calculating the exact difference in fuel usage between Smart Sense and standard heaters. On the coldest days of the year, the Smart Sense heaters never run at 100% output and they still maintain temperature setpoint. You can feel the low output when standing next to the heater, which is confirmed by the percent output readings on the control. The Smart Sense heaters run over a prolonged period to create a more even air quality in the room, and this is reflected in the temperature probe readings. The heaters clearly assist in overall air quality by circulating the air in the rooms to achieve uniform air temperature."

James A. Kober, DVM, MS

Diplomate ABVP – Swine Health Management Swine Veterinary Consultant 4 Star Veterinary Service





An L.B. White[®] forced air heater and radiant heat brooder with Smart Sense[®].

UP TO **SAVE 35%** ON HEATING COSTS!

You're Smart, Heat Smart!

Guardian[®] 2.0 with Smart Sense[®] Forced Air Heaters

Guardian[®] heaters with Smart Sense[®] provide an automatic variable-rate control, compared to manual control in today's standard Guardian[®] heaters. (Complete with our latest upgrades including: robust nickel plated steel terminals sealed and covered with polyolefin adhesive-lined shrink tubing, and covered and sealed connections), these upgrades reinforce our commitment to provide you with the best performing product on the market.

Smart Sense[®] allows the heater to run longer at lower firing rates and become part of the circulation system. This results in a much more consistent room temperature.



A Guardian® forced air heater with Smart Sense®.

✓ Available Smart Sense[®] Configurations:

- 100,000 Btu/h - Galvanized

- 250,000 Btu/h - Tri-Shield Protected

- ✓ Ignition Types:
 - **3**.
 - Spark Hot Surface
- ✓ Works with Leading Environmental Control Systems:
 - MAXIMUS - GENIUS
- AP DICAM - VALCO - PMSI



Operates at firing rates as low as 25% of max Btu/h!

while maintaining acceptable carbon monoxide levels and ignition characteristics.



Brooder Heater with Smart Sense[®]

- FUSION

Radiant Heat Brooder with Zone Control

- ✓ Both standard manual and spark ignition I-17 brooders function with Smart Sense[®].
- ✓ Requires sensor mounting kits for existing and new installations.
- ✓ Operates with any existing 0-10 vdc control.

I-17 Manual Ignition for OEM 0-10V Control

- 24 Brooder capacity—Model ZPMA3120S
- Solenoid valve, control module, power supply, and sensor bracket

I-17 Spark Ignition for OEM 0-10V Control

- 24 Brooder capacity—Model 500-26487
- Solenoid valve, control module, power supply, sensor bracket

I-17 Manual Ignition (any zone control or thermostat)

- Low-High Zone
 - 40 Brooder capacity—Model ZPHA2216S
- Low-Medium-High Zone
 - 40 Brooder capacity—Model ZPHA2316S



The sensor bracket eliminates variation in sensor location and provides consistent, even temperatures between zones, and room to room.

Sensor Bracket

Our Smart Sense® sensor bracket is a critical component in variable-rate radiant heat technology. It keeps the sensor always locked into position to achieve precise results based on suggested protocols and desired pig pattern.



An Automatic Variable-Rate Heat Solution: SMART SENSE

- ✓ Saves up to 35% in fuel costs
- ✓ Automatically manages room temperature
- ✓ Works with the ventilation system to provide consistent, even heat throughout the room
- ✓ Reduces day-to-day management

With Smart Sense, I don't have to worry about human error and making constant temperature adjustments. The automated control turns the heaters on at their lowest firing rate and then ramps up to provide the heat needed to reach the set points on my temperature curve. It's hands off ... and that saves me time and money."

Aaron Russel Cargill Grower



C Our nursery with Smart Sense heaters is saving 30% in fuel costs compared to our rooms with standard on/off heaters ... and I believe Smart Sense heaters could help us save even more. The uniformity of the heat in a room is very good because the Smart Sense heaters work to circulate air and prevent chilled spots."

Ted Hendrickson Head of Nurseries Maxwell Foods

About L.B. White

For more than 60 years, L.B. White has been setting the standard in swine confinement heating. Today, L.B. White is proud to be the exclusive provider of automatic variable-rate heat for both forced air box heaters and brooders with U.S. Patent No. 9,328,937 Smart Sense™ technology.