Rounding Up the Latest Thermostats

The Newest Residential and Commercial Offerings From Manufacturers

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Of *The NEWS* Staff

Read this roundup for a review of some of the latest thermostat models on the market for both residential and commercial applications.

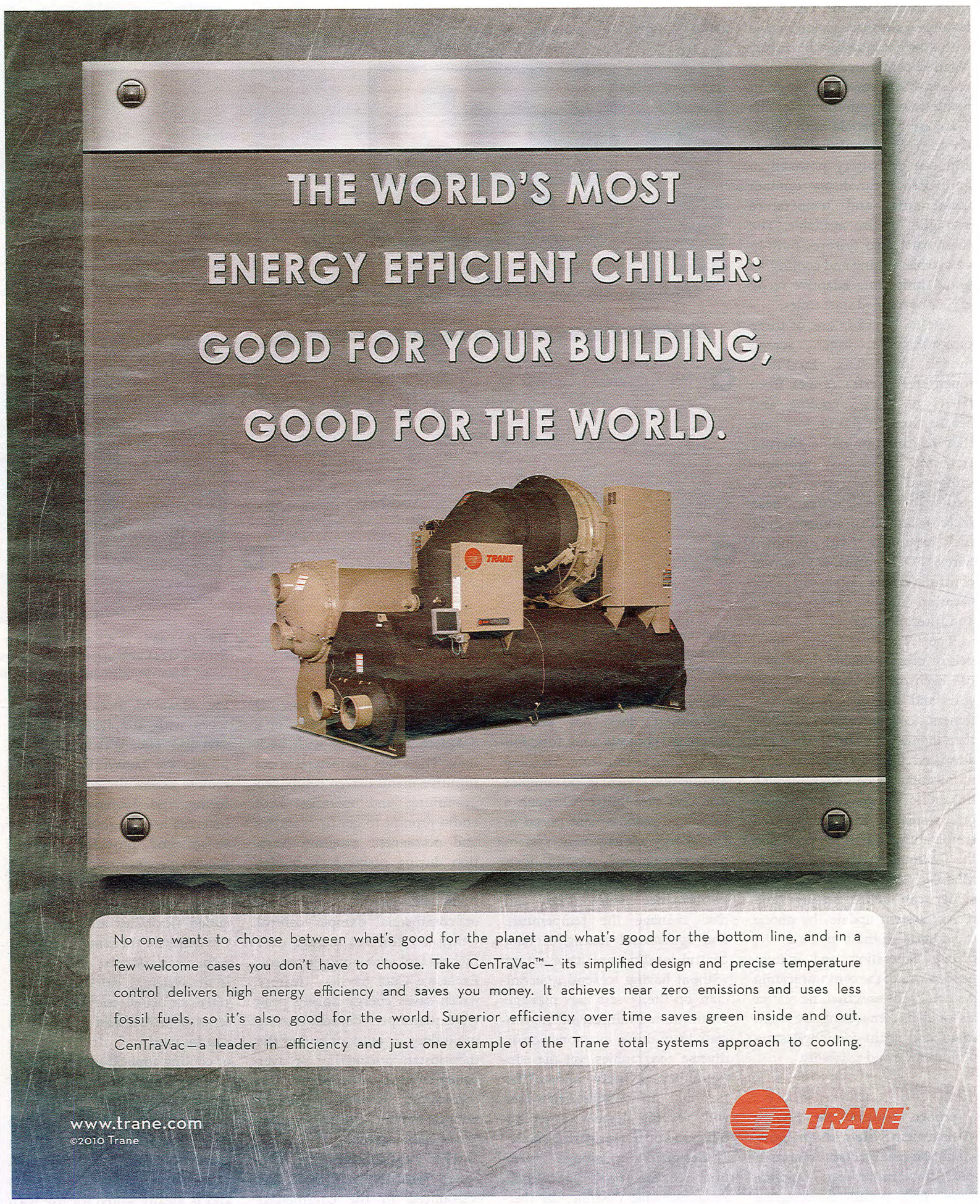
RESIDENTIAL THERMOSTATS

The ecobee Smart Thermostat, which debuted in January 2009, is a programmable seven-day thermostat with a touchscreen. It is Internet-enabled so customers can connect to their thermostats using an iPhone/iPod Touch app or web portal. The Smart Thermostat also features regular software updates, five-day live weather feeds, and proprietary algorithms. To make installation easy and consistent, it is based on a four-wire install, and wiring diagrams are available on the thermostat. ecobee also aims to help contractors strengthen their customer relationships by enabling them to send branded service reminders and manage all of their registered ecobee thermostats from a computer.

Emerson released its Emerson® Blue™ Easy Reader thermostat last year with display characters and numbers twice as large as other Emerson thermostats for enhanced user readability. The Blue Easy Reader includes a 6-square-inch back display with 1-inch characters for communicating room temperature, and ½-inch characters for other communications. Other features of the Emerson Blue Easy Reader thermostat include homeowner-specified names on buttons and a simple-to-follow manual. The Blue Easy Reader ships in an easy-to-use nonprogrammable setting with a seven-day programming option available.

Introduced in January 2010, the ComfortNet™ communicating thermostat works on select Goodman and Amana brand indoor comfort systems for both residential and commercial applications. The ComfortNet thermostat features a 12-square inch display and color-coded temperature touch keys. According to the manufacturers, the thermostat's other desirable features include intuitive menu-driven programming, simplified dual-fuel configuration, and automatic system configuration and "call for service."

Introduced to the market last month, the new Prestige® IAQ thermostat from Honeywell is expected to begin shipping in mid-September. The Prestige is a high-definition, full-color, touchscreen, wireless-enabled programmable thermostat. Its patented, interview-based interface walks a homeowner through the set-up process by asking a series of questions such as "what time does the first person wake-up in the morning?" or "what time do you go to sleep at night?" According to Honeywell, the



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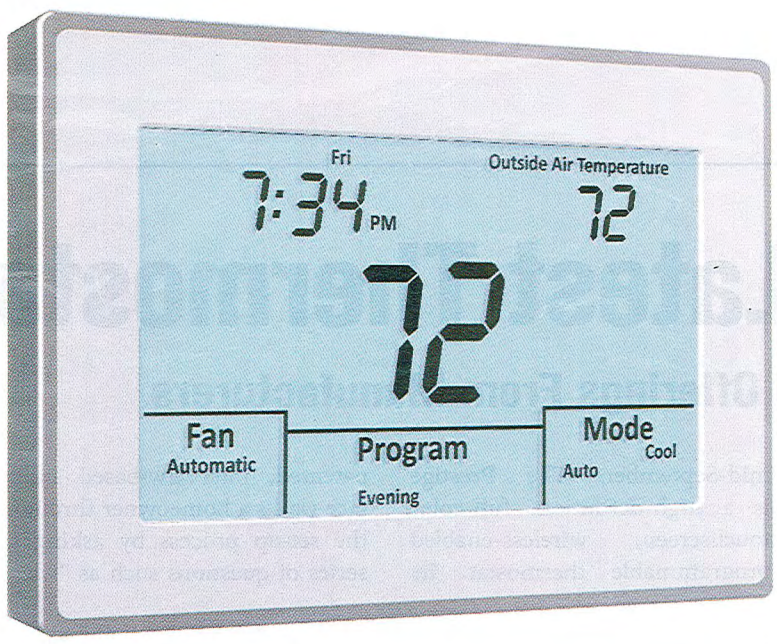
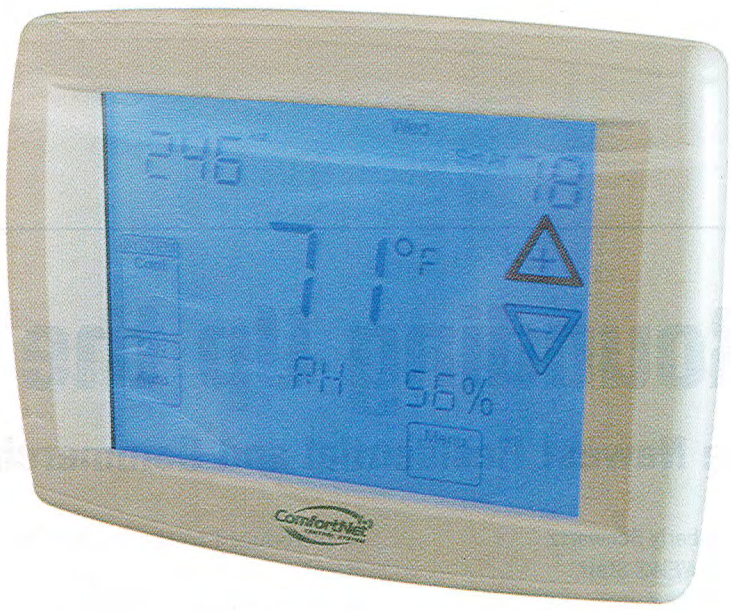
homeowner's answers help the thermostat program itself without the need for an owner's manual. In consumer testing, Honeywell said the Prestige was rated 10 times easier to use and program than other thermostats because of its visual clarity and graphical user interface.

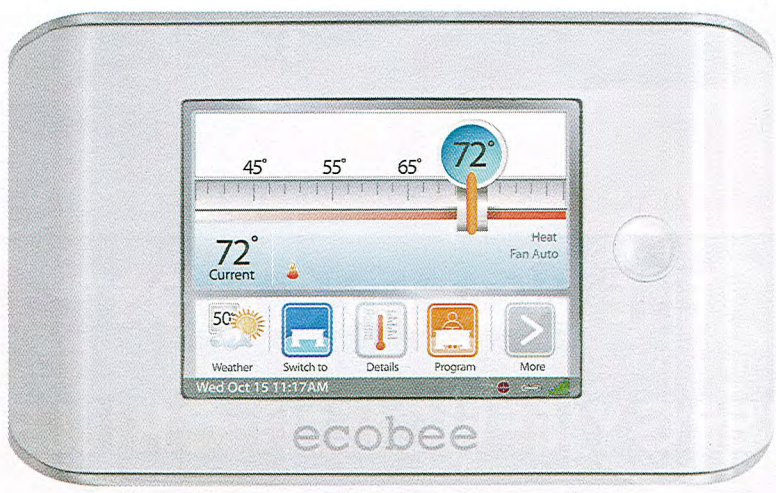
Slated to be released in fall 2010, the Comfort System™ T-21-P™ is an affordable, feature-rich touchscreen thermostat available from Jackson Systems. The T-21-P features a slim flat-screen profile with a bright blue backlit display. It can be configured to be manual or auto-changeover and programmable or nonprogrammable. The T-21-P is compatible with 1H/1C up to 2H/1C dual-fuel systems and can be battery powered or hardwired. It can display outdoor temperature, and temperature averaging is also available. The thermostat also features built-in adjustable heating and cooling set point limits, and adaptive recovery for optimized start times.

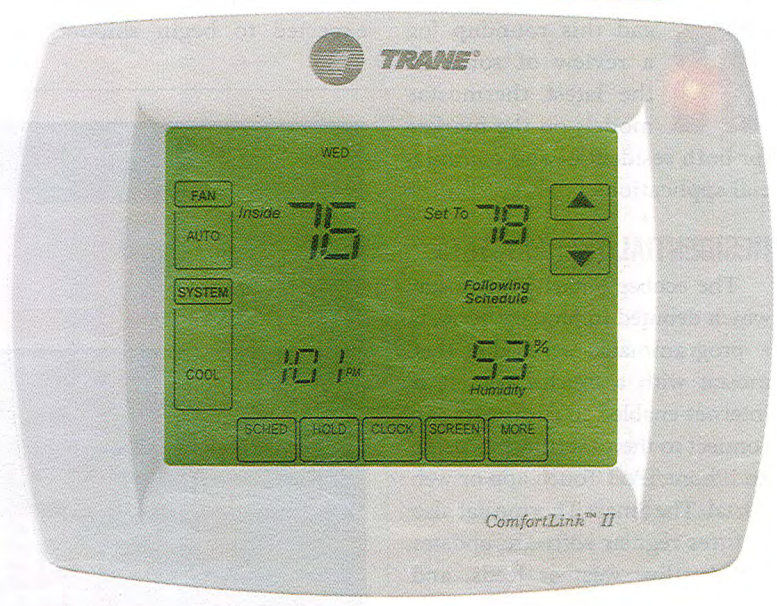
The PSP711TS is one of three programmable touch screen models from Lux. LuxPRO's touchscreen series ranges from 1H/1C to 3H/2C cooling and heating or heat pump. Lux says that its programmable thermostat line offers easy programming and configuration, and is rich with other features. These include humidity control, dual-fuel capability (with optional wireless OD sensor), IAQ blower control, coded keyboard lock, vacation mode, energy watch, and filter monitor.

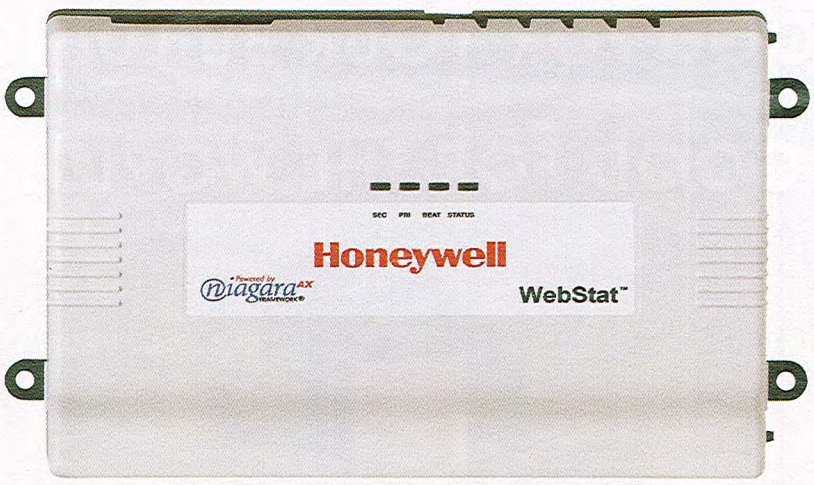
The Trane XL900 digital deluxe programmable thermostat has been on the market for two years and continues to offer customers a convenient way to adjust their home's climate through its advanced ComfortLink™ II communicating technology, which links all of the main components of a system to maintain desired temperature and humidity. When the optional Telephone Access Module (TAM) is added, a homeowner can adjust settings and receive system updates by phone. In addition to the benefits of the precise calibration and maintenance alerts of the communicating system, Trane says that the materials for all its components are tested again and again for long-lasting performance and reliability.

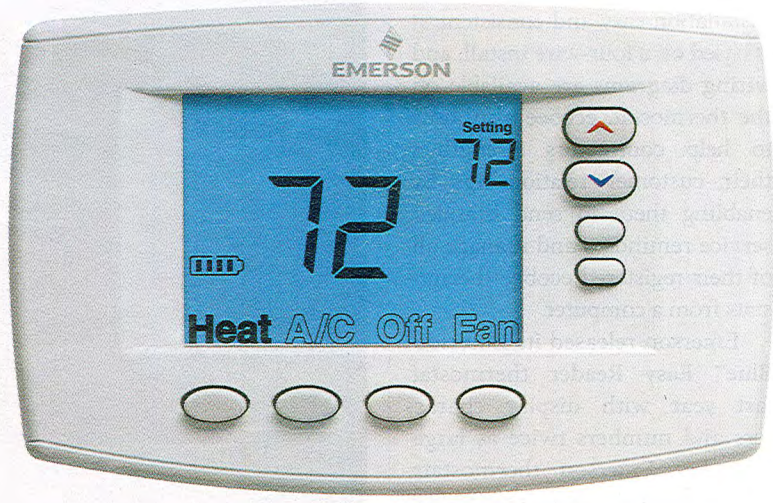












TOP: Jackson Systems' T-21-P touchscreen thermostat. **MIDDLE:** ecobee Energy Management System home screen. **ABOVE:** Honeywell's WebStat® Controller simplifies building automation for small and multi-tenant facilities.

TOP: The ComfortNet™ communicating control system. **MIDDLE:** The Trane XL900 Series 7-day Communicating Programmable Comfort Control. **ABOVE:** Emerson® Blue™ 6 inch programmable commercial thermostat.

COMMERCIAL THERMOSTATS

ecobee released its Energy Management System in April 2010, which the manufacturer claims is ideal for "in-between" applications. This system is designed to fill the gap for an application where a simple programmable thermostat does not provide adequate controls and functionality, but a full-scale building automation system is too complex and cost prohibitive. Through a dedicated management portal in the energy management system, users can remotely monitor, identify, analyze, and troubleshoot performance issues. They can also manage the temperature and operational settings from a central location and take action without having to send a technician on-site. Users can manage an unlimited number of thermostats in multiple locations across diverse geographies, yet the configuration protocol allows the flexibility to provide each user with varying degrees of accessibility and operating permissions.

Designed for simple operation, the Emerson® Blue 6-inch Programmable Commercial thermostat has been on the market since 2008. It features large display characters and numbers on a 6-square-inch display with backlight. The Blue Commercial offers intuitive menu-driven setup, programming, and operation with audio prompt to confirm entries and permanent program retention during power loss. It also covers universal staging applications and provides economizer or commercial damper control. Other key features include dual-fuel control with outdoor sensor; Exclusive Cool Savings™ feature, which saves energy during peak a/c demand periods; remote sensing indoor or outdoor and at the thermostat; prioritizing or averaging between indoor sensor and thermostat; automatic daylight savings option; and keypad limited or total lockout.

This past summer, the Honeywell WebStat® or T7350H was introduced to the commercial market with the goal of combining advanced thermostat advantages with simplicity and cost savings. The WebStat communicates via LonWorks®, allowing remote access for control, monitoring, and diagnostics. It also includes an integrated humidity sensor and provides complete 365-day programming, including holiday scheduling. The WebStat works with remote sensors for added flexibility and offers the flexibility for the same thermostat to be used on every rooftop unit in the system. It can control up to 3H/3C or 2H/4C conventional systems or 3H/2C heat pumps, and can be used in hydronic heating or cooling applications.

The Comfort System™ T-32-P™ universal thermostat was brought to the market in the fall of 2009 by Jackson Systems. The T-32-P is compatible with most residential and commercial HVAC systems and is ideally suited for use with Comfort System zoning systems. According to Jackson Systems, the thermostat offers intuitive operation and performance at an affordable price. Its features designed for commercial applications include the following: the ability to have two or four schedules a day, adjustable set point limits, keypad lockout, smart fan logic, and an integrated Modbus option allowing for web-based monitoring and control. The T-32-P is compatible with 1H/1C up to 3H/2C dual-fuel systems. The PSP722E from Lux is a 3H/2C universal programmable thermostat, which the manufacturer says is ideally featured and priced for the commercial market. It boasts auto changeover capability as well as programmable IAQ intermittent blower, filter monitor, coded keyboard lock, upper and lower temperature limits, energy usage monitor and much more. The PSP722E is one of five models in LuxPRO's ProFit Series. ■