TANTALUS ST-1480

Programmable Communicating Thermostat

Feature-rich, customizable smart thermostat for customer signaling and energy conservation

Close the loop with customers. The Tantalus smart thermostat enables utilities to introduce year-round load control and energy efficiency.

The ST-1480 is the cornerstone of emergency, environmental & economic Load Management and/or Demand Response. Two tri-color indicator lights (green, yellow, red) can be configured to glow when an event is in effect. For example, a red light can signal a peak rate period. A yellow light could indicate an optional load shed event, which allows customers to opt out at the push of a button; a red light could signal a mandatory event that customers cannot opt out of.

The ST-1480 can be programmed to automatically regulate temperature when certain rates are in effect. Operating ranges such as thermostat set point and scheduling preferences are easily adjusted. An optional "conserve mode" allows customers to instantly change the temperature to a pre-set level and begin saving energy and money immediately.

Installation is easy. An ST-1480 simply replaces an existing thermostat. Communication via TUNet® is automatically established. Over-the-air programming enables a utility to configure devices remotely. Adjusting price alert levels, adding functionality or moving a customer to a new DR plan are controlled by utility staff via a TUNet web application.

Tantalus

www.tantalus.com | 604.299.0458

DEMAND RESPONSE

The ST-1480 provides a fast, affordable & highly effective way to manage peak load events, interact with customers during peak events and assist with on-going energy efficiency efforts. The ST-1480 is a two-way, utility/consumer communications device that can be customized, configured and upgraded as Demand Response requirements evolve. Tantalus designed the ST-1480 to support multi-tier, Time-of-Use price signaling as well as load control. The ST-1480 gives a utility central control over load devices such as HVAC units at residential and C&I accounts. It features an intuitive console, large LCD screen, and two indicator lights that can display up-to-the-minute price signals or alert consumers if a load shedding event is in effect. Time-stamped records verify start & stop time and provide the data needed for accurate billing, reporting and administration of customer incentives. The ST-1480 can also serve as a Home Area Network (HAN) gateway using the integrated ZigBee component.

TANTALUS ADVANTAGES

- Configurable & customizable – enables a utility to implement desired rate & load control structures, define signal meanings and over-ride permissions
- Confirms commands; time-stamped reports verify start & stop time of curtailment for accurate billing and regulatory reporting
- Operates seamlessly within the TUNet network for 24/7 connectivity; self-initiating & self-healing association; no in-field programming required
- Supports over-the-air upgrades and programming via TUNet to extend features and change operating parameters
- Functions as a standalone device or in conjunction with other TUNet-enabled meters or load control switches; embedded ZigBee® for HAN communication
- Works with a variety of direct loads in both residential and C&I deployments such as HVAC air conditioners and heat pumps
- Universal standalone climate controls for conventional equipment with 2 heat / 2 cool configuration or heat pumps with 3 heat / 2 cool configuration
- Non-volatile memory maintains data and configuration during a power outage
- Automatically re-activates power after pre-programmed time, fail-on design
- Provides maximum end-user flexibility with over-ride capabilities that allow consumers to opt out of events; utilities can designate voluntary or mandatory load shed events
- Bright, tri-color visual alerts can notify consumers when load shedding is active and when low, medium or peak energy rates are in effect
- Slim, low-profile design with attractive LCD display and easy-to-use, seven button key pad with on-screen Help prompts
- Multi-language display: English, French, Spanish
- Features Tantalus TruPush™ technology for instant, field initiated event notifications eg: outage alerts or load shed success; no device polling required

Operating Power
- Supply: 24VAC proprietary non-power stealing design

Radio
- Frequency range: 902-928 MHz ISM Band
- TUNet TruPush™ Technology
- Vectored Channels: 64,000
- Data rate: 10-300 kbps
- Transmit power: +27 dBm (0.5 watt)
- Receive sensitivity: -116 dBm
- Antenna: built-in
- ZigBee built-in; 2.5 dBm device

Physical
- Operating temperature range:
  Indoor: 0° to 40°C (32° to 104°F); 5% to 95% RH
  Storage: -20° to 80°C (-4° to 176°F); 5% to 95%RH
- Enclosure: 5" h x 6" w x 0.7" d

Approvals / Standards
- FCC approved
- Title 24 compliant

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