



Control4® EC-100 Energy Controller and WT-100 Wireless Thermostat

Ongoing customer engagement is critical for the long-term success of energy management on the home area network (HAN). Control4® designed its EC-100 energy controller to be at-a- glance useful, so the most compelling information is always visible and available to consumers. With automatic device control, the value of the feedback is quickly reinforced. And, to keep homeowners engaged in energy management over time, we've added fun applications and social elements.

Small, But Mighty

There's a lot of functionality built into the EC-100, simplifying integration and reducing costs. The EC-100 serves as a network-communications gateway, in-home display, HVAC controller and HAN manager. It can communicate with utilities over broadband or the advanced metering infrastructure (AMI) network, as well as any device on the HAN. This allows consumers to monitor energy use, control thermostats and other smart devices in the home, receive utility messages and alerts, get up-to-date billing information, and evaluate and compare energy use—all from one tabletop display.

Empower Customers With Information

The EC-100 collects metered use data in real time, enabling a robust analytics engine to deliver up-to-the-minute insight about billing and energy use and to break usage down by appliance category. As a messenger between utility and customer, the EC-100 can alert consumers to demand response events, service status, critical peaks or time-of-use prices. And to encourage ongoing energy efficiency behavior, utilities can send energy tips that will have personal impact.

Customer Choice in Demand Response and Load Management

Utility customers participating in demand response or load control programs can use the EC-100 to opt-in to utility incentives or manually override events, and trust that their preferences will be retained every time. It's easy to program the WT-100 ZigBee thermostat from the EC-100 touch screen to automate responses to utilities' load management signals.

Device Control

The Control4 expertise in home automation has resulted in an ecosystem of over 6,600 certified end-node devices that interoperate on the Control4 operating system. We're taking the same approach to energy management, broadening our roster of partners connected to the EC-100 platform.

Making Energy Part of Everyday Life

The EC-100 was designed by usability experts to foster energy awareness every day. The EC-100 keeps consumers engaged with a variety of useful and entertaining applications including the 4Store application marketplace, which delivers games, social networking, and more.

Secure Communication on Three Networks

The EC-100 uses separate communications networks to support ZigBee SEP for utility AMI networks, WiFi protocols for broadband, and ZigBee Pro for home automation. Between utility AMI or wide area network (WAN) and customer HAN networks, the EC-100 achieves maximum intelligence without compromising security.

EC-100 Overview

- Tracks energy use and billing information
- Compares energy use to self (historical usage) and others
- Storage for up to 5 years of historical consumption and billing data
- Disaggregates electricity consumption by major use categories
- Delivers utility load management/demand response management system (LMS/DRMS) messages
- Customizes utility messages and alerts
- Programmable control of the WT-100 wireless thermostat
- Remote firmware updates and over-the-air Zigbee updates
- Applications include Weather with future expansion capability

EC-100 Device Features

- Colorful 4.7" TFT LCD display
- 480x272 dpi touch screen interface
- Supports 3 RF wireless communications to smart meters, home network and WiFi networks
- Battery-powered backup
- 2 speakers for audible energy alerts
- Customizable to support utility branding initiatives
- Open architecture based on Linux Operating System

EC-100 Technical Specifications

Display:

- Size: 4.7"
- LCD Display Resolution: 480 x 272
- Display Colors: 65,000
- Backlight: White, dimmable
- Minimum Life: 20,000 hours

Radios:

WiFi 802.11b/g

- WiFi Security Protocols: WEP-64, WEP-128, WPA/WPA2 (PSK)
- Open Air Range: 300 ft

ZigBee Smart Energy Profile 1.0 (SE)

- Certicom Certificates
- Open Air Range: 500 ft

ZigBee Pro (with support for HA)

- Open Air Range: 500 ft

Power:

- Power Supply Type: 5V, 1A Output AC-DC Wall Plug Adapter
- Power Consumption: 1.7 W typical
- 100-240V, 50-60Hz Input
- 3 AA Batteries for short-term backup

Dimensions: 4.9"w x 3.4"h x 2.6"d

WT-100 Overview

- 7-day digital, programmable thermostat with heat, cool and fan modes
- 4 programmable time periods per day, 2 temperature settings
- Supports single transformer, single stage, 3, 4, and 5 wire HVAC systems
- Vacation mode
- Manual override enables 2-hour temperature holds
- Defaults to Energy Star™ compliant efficiency settings

WT-100 Features

- Easy-to-read digital display
- Programmed remotely using the EC-100
- Automated response to utility load control programs through Control4 EMS 100
- Zigbee Pro connection to EC-100
- Non-power-stealing design

WT-100 Technical Specifications

Display:

- Size: 3.25"
- Transflective B&W Display
- Backlight: White
- Minimum Life: 20,000 Hours
- Temperature Accuracy +/- 1° Celsius

Radio:

- ZigBee Pro (with support for HA)
- Open Air Range: 500 ft

Power:

- Power Supply Type: 4 AA Batteries
- Active Power Consumption: 120 mW typical
- Standby Power Consumption: 250 µW
- Up to 1 Year Operation

Dimensions: 5.2"w x 3.9"h x 0.8"d

EC-100 and WT-100 Certifications

US/Canada: FCC, ICC, IC, ETL (for EC-100 only)

International: CE, C-TICK

EMS 100 Open Architecture

- Linux 2.6 Operating System
- Control4 IQ Network Operating System
- Adobe Flash Lite 3.1 graphical interface
- Adobe Flash Widget application support
- Open SSH terminal support
- RESTful remote communication through Control4 ADVANTAGE
- Control4 SDKs for device driver, user interface, and flash application developers

