Control4

EC-100 Energy Controller User Guide

Congratulations on receiving your new EC-100 Energy Controller!

Supported Models

C4-EC100 Energy Controller

Associated SKUs:
- C4-EC100-BL — EC-100 Energy Controller, Black
- C4-EC100-WH — EC-100 Energy Controller, White

Introducing the EC-100 Energy Controller

The Control4® EC-100 Energy Controller (EC-100) wirelessly connects to your home's Smart Meter and gathers information about how much energy you are using and how much that energy use is costing you. And if you know how much energy you're using, the Energy Controller can help you conserve energy and save money.

The EC-100 comes with a colorful touch screen on which you can view current and past data about your home's energy use in a clean, graphical format. Beyond that, the EC-100 provides an easy way to program and control your WT-100 Wireless Thermostat (sold separately), check your weather forecast, review your power bills, view messages about utility-driven energy savings events, and more!

EC-100 Features

- **Sleek 4.7" Color Touch Screen**: The EC-100's touch screen puts your home's energy management and control at your fingertips by allowing you to interact with data and controls for the electricity-consuming devices in your home.
- **Displays Your Home's Electricity Use**: Wirelessly communicates with your home's Smart Meter to gather information about your home's electricity use. This display lets you see your energy use over time, and shows you breakdowns of electricity use by device: heating and cooling, refrigerator, and more.
- **Broadband-Connected**: The EC-100 connects to your home's WiFi network to provide additional information including power bills, messages from your utility company and your local weather forecast.
- **Easy Thermostat Programming and Control**: The EC-100 makes it easy to program your WT-100 Wireless Thermostat (sold separately), turn your heat or air conditioner on or off, or change the temperature in your home. You can also easily set your Wireless Thermostat into a special energy-saving 'Vacation' mode when you leave town.
- **Utility Bills**: View and compare your monthly utility bills if available from your utility company.
- **Additional Resources**: Refer to the *EC-100 Energy Controller Setup Guide* for additional information about setting up and configuring your new EC-100 Energy Controller.

Terms

Term	Definition
EC-100	The EC-100 Energy Controller is a table top or counter top display that lets you view your home's energy usage data and control your WT-100 Wireless Thermostat.
WT-100	Your WT-100 Wireless Thermostat controls the heating and air-conditioning (HVAC) systems in your home.
Current Temp	The current temperature indicated on the thermostat inside the home.
Set Temp	Your set temperature is your desired temperature. You can program your desired temperatures for different times of day using the programming feature on the EC-100 or manually adjust your set temperature on either the EC-100 or WT-100 Wireless Thermostat.
Hold	When you manually adjust your set temperature, your selection will automatically hold or maintain your new set temperature for two (2) hours. All holds are two hours except for Vacation hold which will hold your Vacation set temperature until you cancel the Vacation hold.
Mode	The WT-100 can operate in up to seven (7) modes (Heat + Fan Auto, Heat + Fan On, Cool + Fan Auto, Cool + Fan On, Fan On, Emergency Heat (Heat Pump only), and Off). In any mode that the Fan is selected as On, the fan will run continuously. In Fan only mode, the fan will run continuously without using your heating or air-conditioning. For more details and other modes, see "Changing the Thermostat Mode and Fan settings" section in the *Control4 WT-100 Wireless Thermostat User Guide*.
Energy Event	A utility-driven Demand Response event which leads to a temporary adjustment of your thermostat's setting to reduce overall electricity consumption during peak periods of energy consumption.

Install Batteries

Use a small Phillips screwdriver to remove the screws and cover. Insert the three (3) AA Alkaline batteries (included with the product) into the bottom of the product (see figures below). **Note**: Ensure that you insert them according to the diagram provided in the battery compartment (with the + and - terminals aligned correctly).
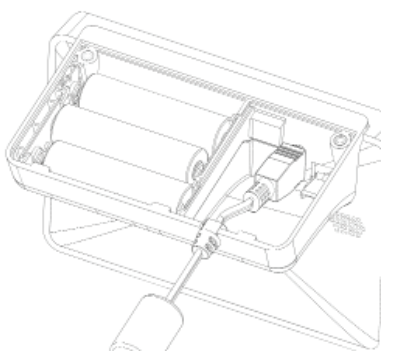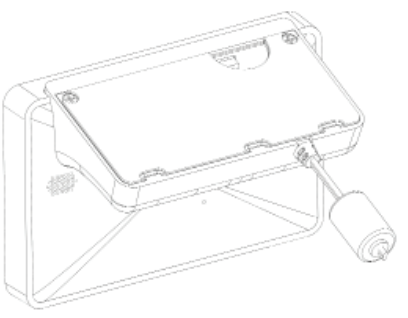
Figure A. Insert Batteries

Figure B. Battery Cover

Battery Installation and Replacement Safety Rules

⚠ **WARNING!** To prevent a battery short, leakage or rupture:

- Use typical AA Alkaline batteries only.
- Do not mix battery types, such as Alkaline and rechargeable NiMH batteries.
- Do not mix used batteries with fresh batteries.
- Do not attempt to recharge a battery unless the battery is specifically marked "rechargeable."
- Never dispose of batteries in a fire.

⚠ **ATTENTION!** Pour empêcher court-circuiter, fuite ou rupture de batterie:

- Utilisez les accumulateurs alcalins typiques d'AA seulement.
- Ne mélangez pas les types de batterie, tels que les batteries alkalines et rechargeables de NiMH.
- Ne mélangez pas des batterie frais avec des batterie ancien.
- N'essayez pas de recharger une batterie à moins que la batterie soit spécifiquement marqué « rechargeable ».
- Ne vous débarassez jamais des batteries dans un feu.

Battery Use and Care Tips

- Keep the battery contacts and compartment clean.
- Remove the batteries from the product if it is not going to be used for several months.
- Extreme temperatures reduce battery performance. Avoid putting the EC-100 in very warm places.

Control4 Main Menu and EC-100 Home Screen

- **Main Menu**. When you connect your EC-100 to an electrical outlet, the first screen to appear is the Control4 Main Menu. From this menu, you can access your thermostat, your energy use, your utility bills, messages from your utility company, system settings, and energy events from your utility company, weather information, and more.

- **EC-100 Home Screen**. The Home screen lets you view all types of information about your home's electrical use, your cost, messages, time, weather, current temperature, energy events, battery use, and more.

These two (2) screens are described in more detail next.

EC-100 Home Screen

Control4 Main Menu. Tap **Menu** on most screens to access the Main Menu screen.

My Home Now is the current energy consumption in your home. This corresponds with **kW** currently being used.

Price per kWh. The current energy cost per kWh.

kW. The current energy use in kW. Corresponds with **My Home Now**.

My Cost Per Hour. The cost to you at the current energy use. **Tip**: Tap this area to see more about your home's energy consumption.

Messages. Tap to view a list of messages from your power company.

Notification Area. View indicators including when the unit is on battery power.

Clock. View the current time.

Inside Temp. View the current inside temp of the Main Thermostat. Tap to change the Thermostat Set Temp or program your Thermostat.

Weather. View the current weather. Tap to access the Weather app.

Note: The Home profile must be configured for the Weather app to work.

Energy Event Indicator. Appears during Energy Savings Events initiated by your utility company.

Tip: The touch screen responds to pressure instead of heat, so you can either apply pressure with the tip of your finger, or simply tap on the screen using your fingernail. Most areas on the Home screen take you to other screens in the system.

Control4 Main Menu Screen

My Energy. View real-time electricity use and total home electricity use.

Home Page button. Tap to return to the Home screen.

Thermostat. Adjust the set temperature or change the thermostat program.

Messages. View a list of messages from your utility company.

Utility Bills. View bills and compare/contrast with past bills if available from your utility company.

Arrows. Tap the right arrow to move to the next page. Tap the left arrow to return to this page.

Settings. View and modify the device, display and connectivity settings.

Energy Events. View information on future, current and past Energy Savings Events, with the ability to opt out of future events.

Weather. View the current weather conditions.

Arrow. Tap to return to the first screen.

Tip: As new features are added to the system, they will display on this screen.
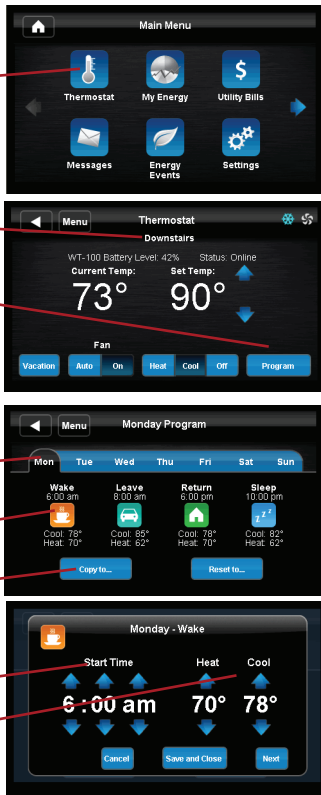
Control4 Main Menu Buttons

- **Thermostat**: Adjust the set temperature or change the thermostat's program.

- **My Energy**: View real-time and historic electricity use, total use, and device use.

- **Utility Bills**: View and compare your monthly utility bills if available from your utility company.

- **Messages**: View messages from your utility company.

- **Energy Events**: View Energy Events from your utility company. Get notified in advance of an event, when it starts and ends, and a history. View information on current, past, or future Energy Savings Events. During an Energy Savings Event, the utility company may control your Thermostat to reduce overall electricity consumption.

- **Settings**: Set up your EC-100 for optimal use. View messages sent by your utility company, adjust your screen brightness, adjust sound, set up or change your WiFi connection, and more.

- **Weather**: View the current weather conditions, 36-hour forecast, or 5-day forecast.

Programming Your WT-100 Wireless Thermostat

Your WT-100 Wireless Thermostat comes pre-programmed with recommended heating and air conditioning settings from Energy Star. To modify this program:

1 From the Main Menu, tap **Thermostat**.

2 If you have more than one thermostat, select the one you want to adjust.

3 Tap **Program**. **Tip**: On the Program page, you will notice that there are four (4) Program Events (Wake, Leave, Return, Sleep) for each day of the week. You can set a different start time and temperature for each Event for each day of the week, or copy the same schedule to all days of the week.

4 Select the day you want to adjust.

5 Select the Program Event that you want to change (Wake, Leave, Return, Sleep).

6 Adjust the start time Event by tapping the **Up** and **Down** arrows on the screen. An Event ends when the next one begins.

7 Select your desired **Heating** and **Cooling** set temperatures for the Event.

- The Heat set temperature is used when your thermostat is in Heat mode.
- The Cool set temperature is used when your thermostat is in Cool mode.

8 Tap **Next** if you want to adjust the temperature or start time for the next Event (repeat Steps 6 and 7 for any other Event you want to change), or tap **Save** and **Close** if you are finished adjusting the Events for that day.

9 To copy the schedule you have created to other days, tap **Copy To** and choose the days you want to copy the current schedule to.

Note: When you finish changing the program, the EC-100 will send the program wirelessly to the WT-100 Wireless Thermostat. This process may take several minutes to complete.

Changing Your Set Temperature

1 From the Main Menu, tap **Thermostat**.

2 If you have more than one thermostat, select the one you want to adjust.

3 Tap the **Up** and **Down** arrows to change your set temperature. The thermostat will automatically hold your new set temperature for two (2) hours.

4 To return to your regularly-scheduled Thermostat Program Event before the end of the two (2)-hour hold, tap **Cancel**. See "Programming Your WT-100 Wireless Thermostat" if you want this to be a permanent change.

Note: By default, your set temperature and current temperature are displayed in Fahrenheit. You may change to Celsius in the Settings screen (access from the Main Menu).

Changing Your Thermostat Mode

If you want to change your mode: Heat, Cool, Fan, follow these steps.

1 From the Main Menu, tap **Thermostat**.

2 At the bottom of the thermostat screen, set the Mode (Heat, Cool, or Off). **Tip**: In the Off mode neither the furnace nor the air conditioner will turn on regardless of the temperature of your home.

3 Set the Fan state (Auto or On).

Vacation Hold

If you're going to be away from your home for an extended period of time, but you do not want to turn your Thermostat off, you may set a 'Vacation' hold.
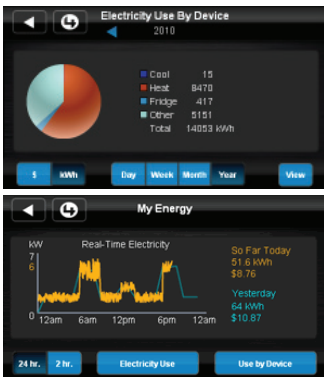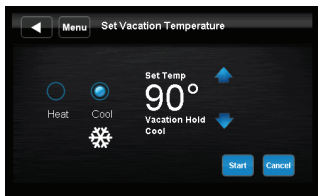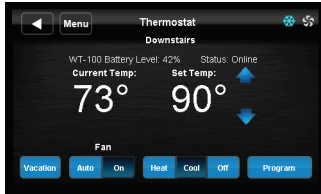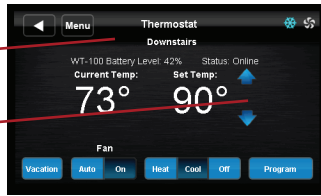
1 From the Main Menu, tap **Thermostat**.

2 If you have more than one thermostat, be sure to select the one you want to adjust.

3 Tap **Vacation**.

4 Choose your Mode (Heat, Cool or Off), and then specify your set temperature.

5 To apply Vacation hold, tap **Start Now**.

6 To end the Vacation hold, tap **Cancel**.

7 Repeat these steps for the other thermostats in your home.

Viewing Your Electricity Use Information

Your EC-100 lets you see how much electricity your home uses, how much electricity major systems in your home use (air conditioning, etc), and how this changes over time.

Note: It will take several days, weeks, and months for all charts to show valuable data, as the EC-100 gathers data over time.

1 From the Main Menu, tap **My Energy**.

2 You can then view your current Real Time Electricity, or select either **Electricity Use** or **Use by Device** to see more detailed energy consumption data.

- View the data in terms of cost ($) or electricity consumption (kWh).
- Select the unit of time (Day, Week, Month, Year), and review other time periods by tapping the arrows next to the displayed date range.
- Tap **View** to view different data and chart your home's electricity usage with other homes like yours or with the outside temperature, and more.

Viewing Your Utility Bill Information

Your EC-100 lets you view your utility bills. **Note**: This billing information may not be available from your utility company.

1 From the Main Menu, select **Utility Bills**.

2 View bill data over a specific time period, or tap **Compare Bills** to compare detailed use and billing.

Messages

From the Main Menu, tap **Messages** to view messages from your utility company.

Regulatory Compliance

IMPORTANT! Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

FCC/Industry Canada

FCC ID: R33D1/Canadian IC : 7848A-D1

This device complies with Part 15 of the FCC Rules Sub-Part B and C and also with Canada ICES-003 and RSS-Gen. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B and C digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This product has been tested to the requirements of, and shown to be in compliance with, the following requisite standard:

Australia/New Zealand

- AS/NZS CISPR 22:2006/A1:2007.

Warranty

For complete warranty information, including details on consumer legal rights as well as warranty exclusions, visit www.control4.com/warranty.

Recycling

For information on recycling, please go to www.control4.com/recycling.

About this Document