

Operation Guide CT110

Radio(())Thermostat



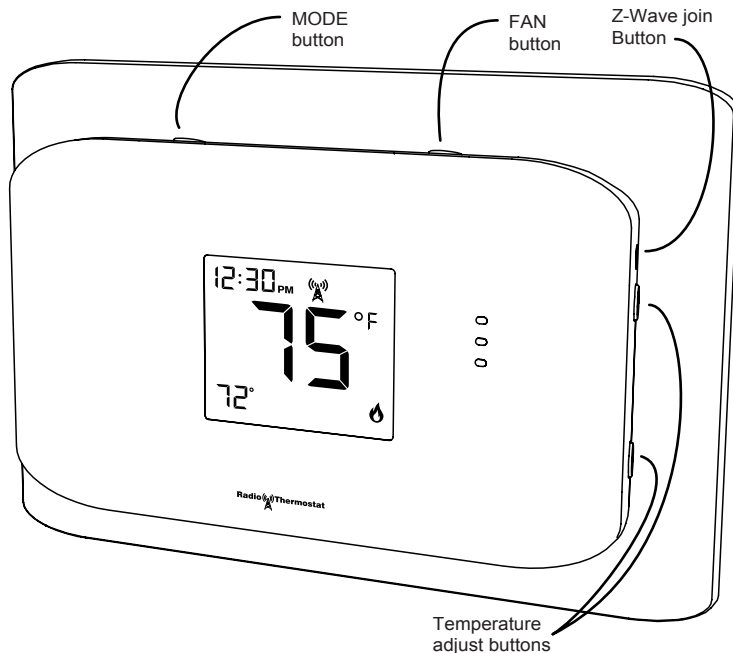
Radio Thermostat Company of America

The CT110 communicating thermostat operates via a high-quality, easy-to-use radio interface. After you have joined to your Z-Wave network you can control it from phone apps or the web.

Without a radio connection you can locally set or adjust your CT110, simply press the buttons on the side of the unit. The screen will automatically light up and you will hear a “beep.” There are five buttons on the unit - +, -, FAN, MODE, and RESET.

Statement of use: 100% Compatible with all popular residential HVAC systems; 24VAC single, two stage conventional heating systems (gas/oil/electric), heat pumps with up to two stages of heat and two stage auxiliary heat(electric or fossil), zoned forced air and zoned hot water (2 or 3 wire), millivolt systems (with a 12-24 AC or DC source), one or two stage cooling, and hybrid systems.

1308-002-001



ENGLISH

OPERATION

HOME Screen

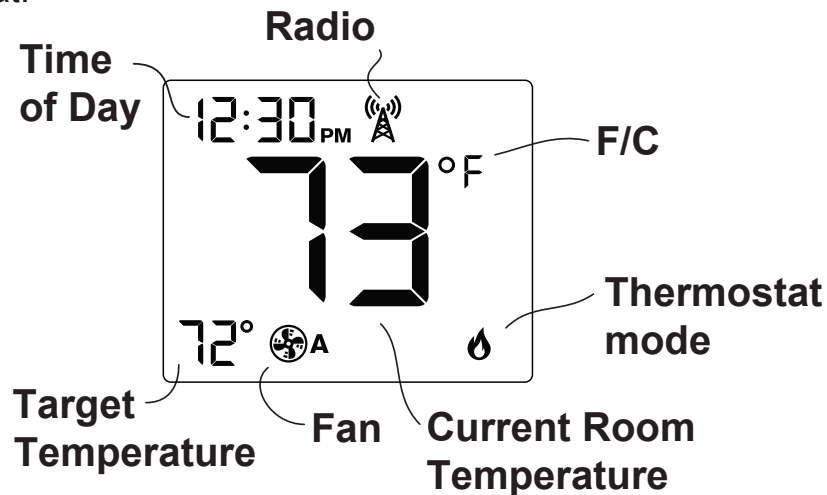
Before you operate the CT110 please get familiar with these basic control screens. All the CT110 functions are accessed through these screens: HOME, and CONFIG. The CT110 radio control technology allows you to configure your thermostat.

The **HOME** screen is displayed when the unit is operating.

To set a Mode:

Press the mode button (on the top). The CT110 will step through the modes HEAT, OFF, COOL, OFF, AUTO, OFF in order.

To Change the current temperature target use the +/- buttons on the right side of the CT110.



Initial settings

TIME of DAY - This can be adjusted in the settings area of the web interface and displays in 12:00 or 24:00 format.

SWING - This can be set in the settings area of the web interface.



SWING controls how frequently your HVAC comes on. This feature allows you to set the desired variance in temperature between the CT110 setting and the room temperature required before the heating or cooling system will turn on—Swing range: 0.5 to 2.0°F (.25 to 1°C). For example, if SWING is set to 2.0°F and the CT110 is set to 70°F Target Temperature, the heat cycle will start when room temperature drops to 68°F. Similarly, the cooling system will start when the room temperature increases to 72°F. The HVAC then runs and will shut off at the Target Temperature. You can set the SWING from 0.5° to 4.0°F (.5 to 2°C). The HVAC will run more frequently at .5°F and less at 4°F. Default is 1°F.

Differential - This can be set in the settings area of the web interface. (Used for multiple stage systems only, not displayed for single stage) The differential is the number of degrees between the room temperature and the Target Temperature at which the 2nd stage will be used. Default is 2°F, range is 2°F to 6°F (1°- 3°C). Recommend 2°F for very cold climates and the 4°F for warm climates and 6°F for hot climates.

Physical Buttons

TEMPERATURE - Touch the +/- buttons to select your desired Target Temperature. If you create a program on the web, this temporary change in target will revert to the programmed target at the next time slot.

⚙ mode button - The mode button sets the CT110 to HEAT, COOL, or OFF modes. Press it once to step through OFF to the next mode: HEAT -> OFF-> COOL -> OFF , etc. AUTO mode is only accessible from the web interface - AUTO mode will automatically switch the CT110 from HEAT to COOL depending on the temperature trend in your house.




🌀 (fan) button - The fan button toggles the fan from AUTO to ON modes. The control is normally in the auto mode shown by this icon, . This means that the fan operates automatically with the HVAC system and the thermostat. When the fan button is pressed the fan goes on and the  icon will blink; the fan will run continuously in this manual override until switched back to auto by pressing the FAN button again. These functions can also be accessed from the web interface. [NOTE: Fan **ON** function is available in the OFF mode to allow simple ventilating.]

📶 Z-Wave join Button - Use to connect to a network. See Install section for details.

RESET button - The RESET button re-boots the CT110 processor. It does not effect the target temperatures that have been stored in permanent memory. You must use a paperclip to press RESET switch inside the CT110.

Remote Access Features

°F or °C set - Toggle this to switch the temperature display scale from °F to °C .

 **LOCK** - From the settings screen of the web interface, click the  icon and select lock. In lock, no changes can be made at the thermostat. Once locked, the CT110 will not respond to any local controls and the  icon will be displayed.

To UNLOCK - Deselect **FULL** lock on the web interface.

Compressor Delay - The CT110 has a minimum cycle time of 4 minutes to protect your compressor in cool and in heat pump (if you have one). During this time and the compressor will not come on until the 4 minute delay is over. “Cd” is displayed during a delay.

EMER (when configured for HEAT PUMP) If you set your CT110 for HEAT PUMP with auxiliary heat, EMER function is available on the web interface. If you click **EMER**, your HEAT PUMP is disabled and auxiliary heat is your sole source of heat. This manual override stays active until you toggle EMER off. Auxiliary heat is more expensive than the heat pump so use EMER only if the heat pump cannot keep up or is defective.

HOLD - Accessed from the web interface, this will hold the current Target temperature indefinitely. Pg 5

until **HOLD** is turned off.

SAVE ENERGY - Accessed from the web interface, this function sets the target temperature to the lowest consuming point in the current program, or a simple 4 deg offset if no program is present.

Display Icons

Message and Time - This shows the time and various messages during operation.

Settings - This is displayed when setting the HVAC configuration during installation.

Fan - This shows if the fan is ON (blinking) or in AUTO.

HEAT PUMP - This is displayed if your system is configured for HEAT Pump Operation. In a multi-stage Heat pump the number 2 is displayed when the second stage is operational.

COOL - This is displayed when the CT110 is in Cool mode. Blinking when active.

HEAT - This is displayed when the CT110 is configured for conventional heat. In a multi-stage Heating system the number 2 is displayed when the second stage is operational. Blinking when

active.

Battery Status - This is displayed when the battery power is low. It is very important to replace batteries as soon as this is displayed.

LOCK - This is displayed when the CT110 is in Lock. The unit must be unlocked from the web interface.

Radio - This is displayed when the CT110 is connected to a network. The radiators blink when transmitting or receiving.

Heat Pump EMER - This is displayed by the ! mark next to the HEAT icon. Blinking when active.

