

# EcoGuard

## Installation Guide

SS8020

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## Table of Contents

Table of Contents .....	i
Installation Requirements.....	1
Required Equipment .....	1
Electrical Requirements .....	1
Regulatory Compliance .....	2
FCC Notice .....	2
Wiring the EcoGuard .....	3
Associating the EcoGuard with an EcoInsight.....	5
Associating the EcoGuard with an EcoWave (EcoAir + EcoSource) .....	7
Associating the EcoGuard with an EcoView Occupancy Sensor.....	9
Troubleshooting.....	10
Issues Associating the EcoGuard with an EcoInsight or EcoWave .....	10
Issues Associating the EcoGuard with an EcoView Occupancy Sensor .....	10



## Installation Requirements

### Required Equipment

- EcoGuard (P/N: SS8020)
- Flathead screwdriver for mounting and unmounting wall plate.
- Wire nuts
- Voltmeter
- A paperclip for thermostat/occupancy sensor association.

### Electrical Requirements

Before installation, ensure that the EcoGuard will be connected to a line with the following electrical properties:

LINE Type	Alternating Current (AC)
LINE Voltage	120 Volts (V)
LINE Frequency	60 Hertz (Hz)

Before installation, ensure that the devices that will be connected to the EcoGuard use less than the following maximum loads (the table below contains the sum of both outlets):

Incandescent Load	600 Watts (W)
Motor Load	½ Horsepower (HP)
Resistive Load	1800 Watts (W) 15 Amperes (A)

## Regulatory Compliance

### FCC Notice

This equipment has been tested and found to comply with the limits for a class B 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 the 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 the receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or experienced radio/TV technician for help.

Operation with non-approved equipment is likely to result in interference to radio and TV reception. The user is cautioned that changes and modifications made to the equipment without the approval of the manufacturer could void the user's authority to operate the equipment.

To satisfy RF exposure requirements, this device and its antennas must operate with a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

## Wiring the EcoGuard

1. Turn the power off at the circuit breaker.
2. Unmount the existing outlet cover plate.
3. Unmount the existing outlet from the junction box.
4. Use the voltmeter to verify the power is off.
5. Disconnect the existing outlet from its wiring.
6. Use the table below to determine which wires are the 120V LINE, GROUND, and NEUTRAL from the circuit breaker.

Function	Term	Commonly Used Wire Color
120V In From Circuit Breaker	LINE	Black
Neutral From Breaker Panel	NEUTRAL	White
Ground	GROUND	Green



If there are no neutral wires, the EcoGuard will not function. Discontinue installation.

7. Label the wires appropriately.
8. Connect the LINE wire from the circuit breaker to the black wire on the EcoGuard using a wire nut.
9. Connect the NEUTRAL wire from the circuit breaker to the white NEUTRAL wire on the EcoGuard using a wire nut.
10. Connect the GROUND wire to the green GROUND wire on the EcoGuard using a wire nut.
11. Verify all wire connections. The wires should now look like Figure 1.

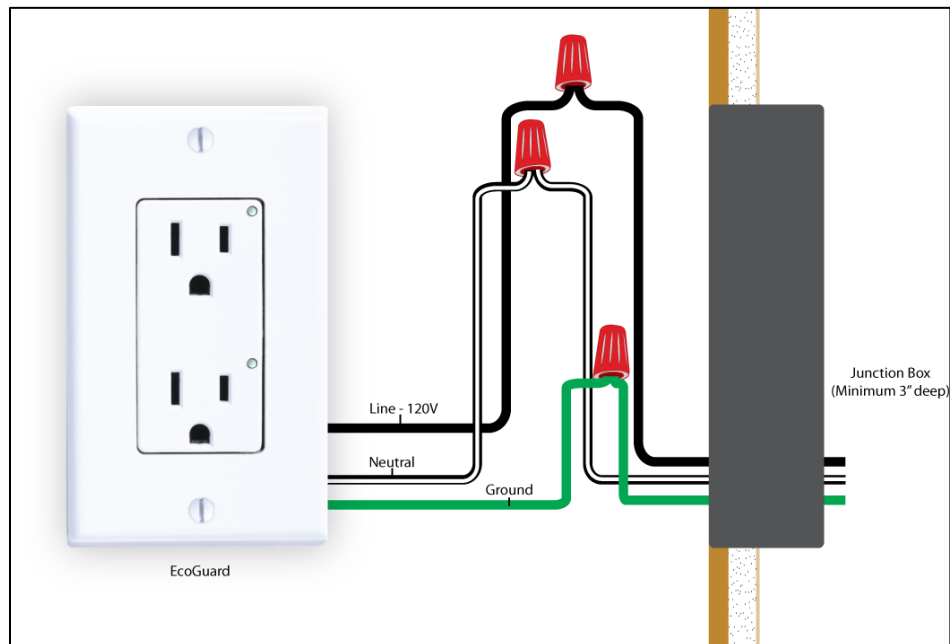


Figure 1: EcoGuard Wiring Diagram

12. Turn the power on at the circuit breaker.
13. Verify the LEDs next to both outlets are lit solid green.
14. Turn the power off at the circuit breaker.
15. Mount the EcoGuard into the junction box.
16. Mount the outlet cover plate.
17. Turn the power on at the circuit breaker.
18. Wiring is complete.



## Associating the EcoGuard with an Ecolnsight

1. Verify both the EcoGuard and the Ecolnsight are powered.
2. Press and hold the “Fan” button on the Ecolnsight for 10 seconds, then press the “On/Off” button. The Maintenance Menu should appear.
3. Verify the text “Learn” appears in the Maintenance Menu.
4. Press the “On/Off” button to enter the Learn menu. Either one or two numbers will appear in the center of the screen, depending on the number of devices associated with the Ecolnsight. See Figure 2 and Figure 3.



Figure 2: Maintenance -> Learn Menu with 0 Devices Associated



Figure 3: Maintenance -> Learn Menu with 1 Device Associated

5. Assign a unique installer number by pushing the up or down arrows. The number at the bottom of the screen will increase or decrease.
6. Press the “On/Off” button again to activate Learn Mode. The text “On” should appear next to the bottom number. See Figure 4.



**Figure 4: Maintenance -> Learn Menu with 1 Device Associated, In Learn Mode**

7. Using the paperclip, press the pushbutton inside the EcoGuard’s pinhole once.
8. Verify the LED on the EcoGuard blinks red a number of times equal to your unique installer number from step 5.
9. Verify the LED on the EcoGuard returns to solid green. If it is solid red, see “Issues Associating the EcoGuard with an Ecolnsight or EcoWave” on page 10.
10. Verify the number in the center of the Ecolnsight “Learn” menu has increased by one.
11. Press the Fan button on the Ecolnsight twice to exit out of the Maintenance Menu.
12. Association is complete.

## Associating the EcoGuard with an EcoWave (EcoAir + EcoSource)

1. Verify the EcoGuard, EcoSource, and EcoAir are powered.
2. Press and hold the “Fan” button on the EcoAir for 10 seconds, then press the “On/Off” button. The Maintenance Menu should appear.
3. Verify the text “Learn” appears in the Maintenance Menu.
4. Press the “On/Off” button to enter the Learn menu. Either one or two numbers will appear in the center of the screen, depending on the number of devices associated with the EcoSource. See Figure 5 and Figure 6.



Figure 5: Maintenance -> Learn Menu with 0 Devices Associated



Figure 6: Maintenance -> Learn Menu with 1 Device Associated

5. Assign a unique installer number by pushing the up or down arrows. The number at the bottom of the screen will increase or decrease.
6. Press the “On/Off” button again to activate Learn Mode. The text “On” should appear next to the bottom number. See Figure 4.



**Figure 7: Maintenance -> Learn Menu with 1 Device Associated, In Learn Mode**

7. Using the paperclip, press the pushbutton inside the EcoGuard’s pinhole once.
8. Verify the LED on the EcoGuard blinks red a number of times equal to your unique installer number from step 5.
9. Verify the LED on the EcoGuard returns to solid green. If it is solid red, see “Issues Associating the EcoGuard with an EcoInsight or EcoWave” on page 10.
10. Verify the number in the center of the EcoAir “Learn” menu has increased by one.
11. Press the Fan button on the EcoAir twice to exit out of the Maintenance Menu.
12. Association is complete.

## Associating the EcoGuard with an EcoView Occupancy Sensor

1. Verify the EcoGuard and EcoView are powered.
2. Using the paperclip, press the pushbutton inside the EcoGuard's pinhole once.
3. Verify the LED on the EcoGuard blinks red.
4. Using the paperclip, press the pushbutton inside the EcoView's pinhole once.
5. Verify the LED on the EcoGuard returns to solid green. If it is solid red, see "Issues Associating the EcoGuard with an EcoView Occupancy Sensor" on page 10.
6. Association is complete.

## Troubleshooting

### Issues Associating the EcoGuard with an EcoInsight or EcoWave

Problem	Potential Cause	Potential Solution
After pressing the EcoGuard's pushbutton with a paperclip, the EcoGuard LED blinks green.	The EcoGuard cannot find an EcoInsight or EcoView in Learn mode on the ZigBee™ network.	Reactivate Learn mode on the EcoInsight or EcoWave and try again.
After pressing the EcoGuard's pushbutton with a paperclip, the EcoGuard LED is solid red.	The EcoGuard associated with the EcoInsight or EcoWave, but has lost connection.	Verify the EcoInsight or EcoWave has power.  Reassociate the EcoGuard with the EcoInsight or EcoWave.

### Issues Associating the EcoGuard with an EcoView Occupancy Sensor

Problem	Potential Cause	Potential Solution
After pressing the EcoGuard's pushbutton with a paperclip, the EcoGuard LED blinks green.	The EcoGuard cannot find an EcoView in Learn mode on the ZigBee™ network.	Press the association button on the EcoView and try again.
After pressing the EcoGuard's pushbutton with a paperclip, the EcoGuard LED is solid red.	The EcoGuard associated with the EcoView, but has lost connection.	Replace the batteries in the EcoView.  Reassociate the EcoGuard with the EcoView.