

Onelink™

Intro

The Add-A-Wire™ accessory is a device that allows the addition of a wire to help independent fan control regain functionality — even in a four-wire system. The accessory can be used to:

- Add a wire to a thermostat when additional wiring cannot be run
- Fix a broken wire
- Combine two signals onto one wire
- Add cooling to a 3 wire heat-only system
- Add a common wire to a four-wire system
- **Note:** The Add-A-Wire™ can not be used for two wire installations

Safety Considerations

- **Note:** Add-A-Wire™ can not be used for R,C or SENSOR wires

To ensure safety, read and follow these instructions carefully. It is important to follow all local electrical codes during installation. All wiring must conform to local and national electrical codes; improper wiring or installation may cause damage to sensor and harm to users.

When displayed, the safety alert symbol  warns of potential for personal injury. The words DANGER, WARNING, and CAUTION are used with the safety alert symbol and signify the following:

- DANGER** A serious hazard with the most potential for severe personal injury or death
- WARNING** A hazard that could result in personal injury or death
- CAUTION** Unsafe practices that could result in minor personal injury or property damage

Warning

To prevent injury or death from electrical shock, make sure all power to the HVAC system is off before installing the Add-A-Wire™ accessory. The unit may have more than one power supply to disconnect.

Contents

- (1) Add-A-Wire™ Accessory
- (1) Diode “Y” : do not discard
- (2) Wire Nuts

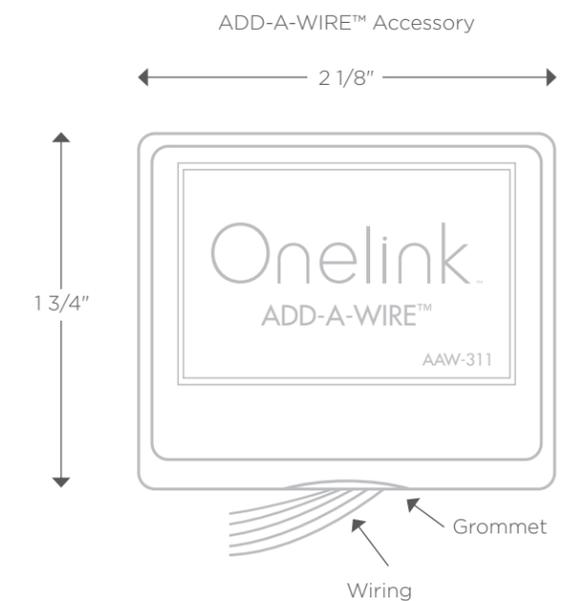


Fig. 1 - ADD-A-WIRE™ Accessory Mounting



Online Videos and Tools

Visit www.firstalert.com/thermostats for installation videos and product feature demonstrations.

Installation

Step 1 - Location

When installing the Add-A-Wire™ accessory, choose an enclosed mounting location to keep the wiring safe from the elements. The accessory can be mounted in the HVAC unit located in the control box (two mounting holes are available - see Fig. 1.) Due to the short length of the wires, the Add-A-Wire™ accessory should be within nine inches of thermostat connections to the HVAC terminal block.

Step 2 - Wiring Requirements

All system wiring must be in compliance with any and all applicable local and national codes and color-coded in conformance with standard recommendations. All wiring should be 18- to 22-gauge, unshielded wire. For 18-gauge wire, the maximum distance between the accessory and thermostat is 100 ft. For 22-gauge wire, the maximum distance between the accessory and thermostat is 36 ft.

- On the Thermostat, Move the "G" wire to "C" Terminal
- At the HVAC, Move the "G" wire to the "C" Terminal

Step 3 - Accessory Wiring

Wiring may vary based on the application and usage of the Add-A-Wire™ accessory. Refer to the wiring diagrams on the next page for more information. Take note of the following:

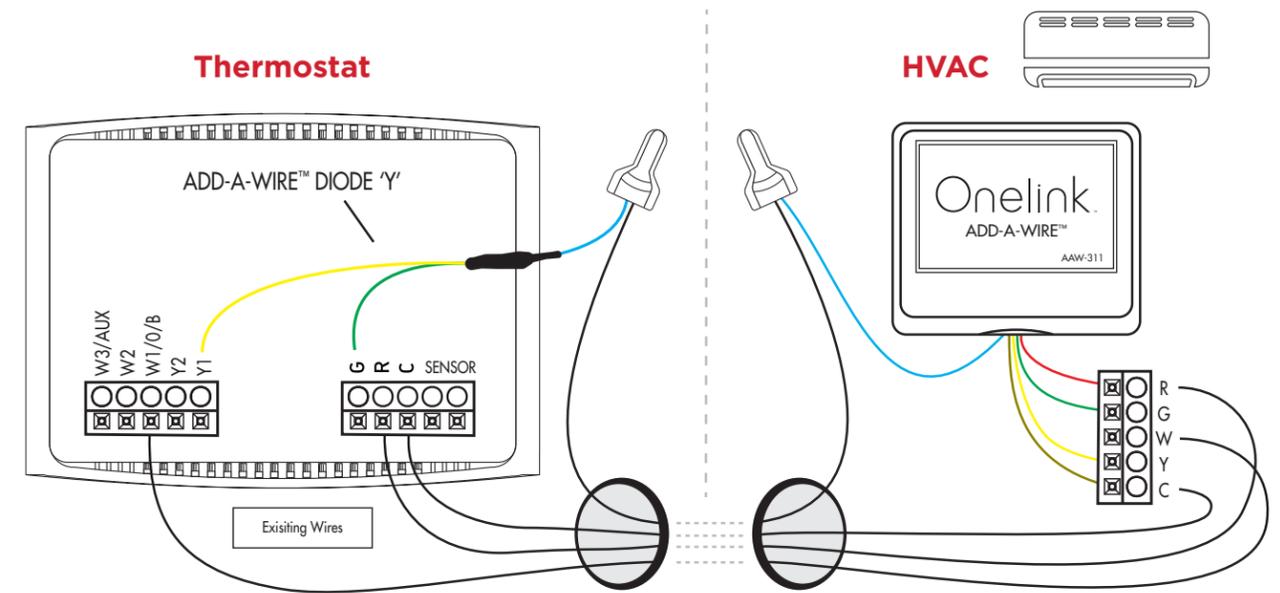
- Always connect the BLUE wire of the Add-A-Wire™ accessory to the BLUE wire of the Diode "Y".
- Never connect the Add-A-Wire™ accessory BLUE, GREEN, or YELLOW wires to the R and C terminals of the HVAC unit (improper connection may be dangerous.)

Using The Y1 Wire

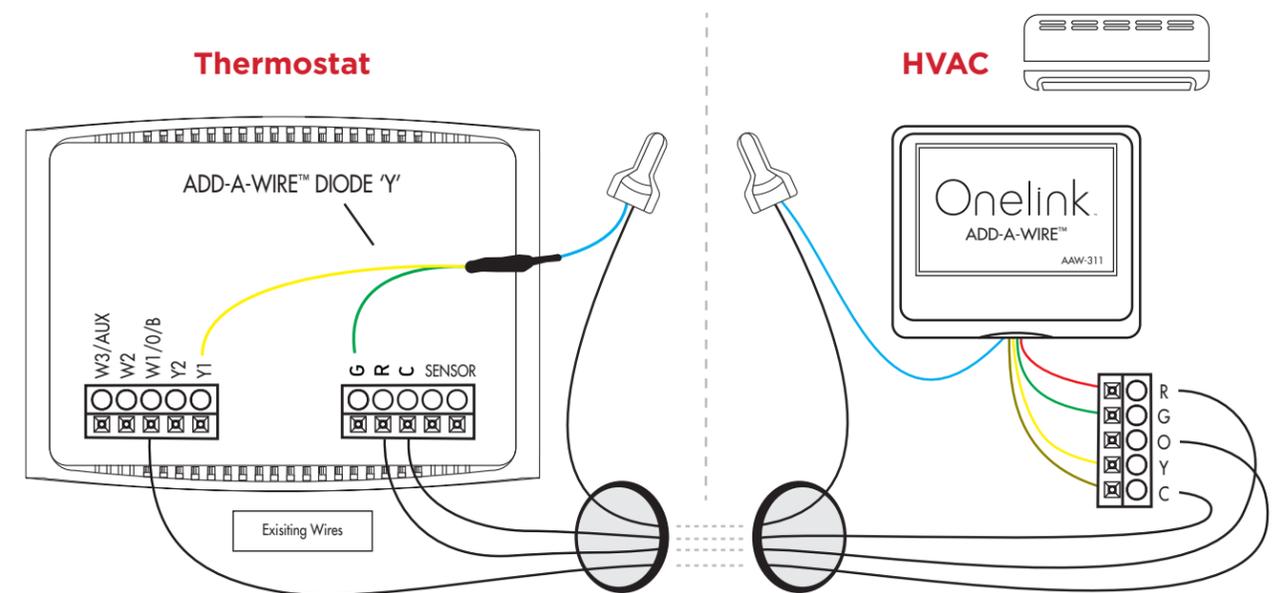
- The GREEN and YELLOW Diode "Y" wires should be regarded as extensions of the GREEN and YELLOW Add-A-Wire™ accessory wires. For example, if the YELLOW Diode "Y" wire is connected to terminal W on the thermostat to control heat, the YELLOW Add-A-Wire™ accessory wire must be connected to the W on the HVAC unit to control heat. If the GREEN Diode "Y" wire is connected to terminal G on the thermostat to control the fan, the GREEN Add-A-Wire™ accessory wire must be connected to terminal G on the HVAC unit to control the fan. *Use wire nuts for connections to the Diode "Y".
- Do not connect the GREEN and YELLOW Diode "Y" wires to the R and C terminals of the thermostat.
- The following diagrams provide wiring examples; more than one connection method may work for each example.

Sample Wiring Diagram Captions:

1. Accommodate a thermostat that requires five wires by using the Add-A-Wire™ accessory with four existing wires.
2. Add cooling to a heat-only system by using the Add-A-Wire™ accessory with three existing wires.
3. Accommodate a single-stage heat pump by using the Add-A-Wire™ accessory with four existing wires.



4 existing wires with Add-A-Wire™ to accommodate a thermostat that requires 5 wires.



4 existing wires with Add-A-Wire™ to accommodate a single stage heat pump.