

# **PSPAC-AW**

## ADD-A-WIRE™ACCESSORY

INSTALLATION INSTRUCTIONS

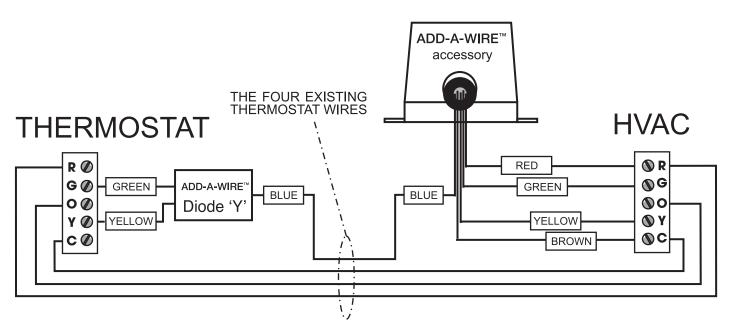


FIG. 5 - 4 existing wires with Add-A-Wire™ to accommodate a single stage heat pump.



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IMPORTANT: Read entire instructions before starting the installation.

#### **SAFETY CONSIDERATIONS**

Read and follow manufacturer instructions carefully. Follow all local electrical codes during installation. All wiring must conform to local and national electrical codes. Improper wiring or installation may damage the Add-A-Wire accessory.

Recognize safety information. This is the safety alert symbol. \(\begin{align\*}\text{.}\text{When}\) the safety alert symbol is present on equipment or in the instruction manual, be alert to the potential for personal injury.

Understand the signal words DANGER, WARNING, and CAUTION. These words are used with the safety alert symbol. DANGER identifies the most serious hazards which will result in severe personal injury or death. WARNING signifies a hazard that could result in personal injury or death. CAUTION is used to identify unsafe practices which would result in minor personal injury or property damage.

#### GENERAL

In applications where additional wiring cannot be run, the Add-A-Wire™ accessory can be used to add a wire to the thermostat. For example, if cooling is being added to a heat-only system, or if an existing wire has been broken, or if a common wire is needed on a 4-wire installation — the Add-A-Wire accessory allows one thermostat wire to carry two thermostat signals. Note: the green and yellow wires of the Diode 'Y' may not be connected to the R or C terminal of the thermostat.

#### **CONTENTS**

CONTENTS	QUANTITY
Add-A-Wire Accessory	1
Diode 'Y'	1
Wire Nuts	4

#### INSTALLATION

**Step 1 – Location** - The Add-A-Wire accessory can be mounted inside the HVAC unit or inside the control box. The Add-A-Wire accessory should not be installed in a location where the accessory or wiring may be exposed to the elements. Wires running from the accessory are 9 in. long. The Add-A-Wire accessory should be within 9 in. of the thermostat connections to the HVAC terminal block.

If necessary, mount the Add-A-Wire accessory with 2 screws (not provided). See Fig. 1.

**Step 2 – Wiring Requirements** – The Add-A-Wire accessory wiring has the following requirements:

- 1. All system wiring must be in compliance with all applicable local and national codes.
- All wiring should be color coded in conformance with standard recommendations.
- 3. All wiring should be 18- 22-gage, unshielded wire. The Maximum distance between the accessory and the thermostat for 18-gage wire is 100ft. The maximum distance between the Accessory and the thermostat for 22-gage. Wire is 36 ft.

#### **▲** WARNING

Before installing Add-A-Wire accessory, turn off all power to the unit. There may be more than one power disconnect. Electrical shock can cause injury or death.

**Step 3 – Accessory Wiring** – The Add-A-Wire accessory wiring has the following requirements:

Depending on the application and the usage of the Add-A-Wire accessory, wiring will vary. Refer to the wiring diagrams in Fig. 2-5 for more information on wiring the accessory.

- The BLUE wire of the Add-A-Wire accessory must always be connected to the BLUE wire of the Diode 'Y'.
- DO NOT connect the Add-A-Wire accessory BLUE, GREEN, or YELLOW wires to the R and C terminals of the HVAC Diode 'Y' using one of your existing thermostat wires unit, damage may result.
- The GREEN and YELLOW wires of the Diode 'Y' should be regarded as extensions of the yellow and green wires of the Add-A-Wire accessory. For example, if the YELLOW wire on the Diode 'Y' is connected to terminal W on the thermostat to control heat, the YELLOW wire on the Add-A-Wire accessory must be connected to W on the HVAC unit to control heat. If the GREEN wire on the Diode 'Y' is connected to terminal G on the thermostat to control the fan, the GREEN wire on the Add-A-Wire accessory must be connected to G on the HVAC unit to control the fan.
- Use the wirenuts for wire connections to the Diode 'Y'.
- The wiring diagrams are examples of the uses of the Add-A-Wire accessory. Each example may have more than one method of connection that will work. An experienced installer may use different combinations to achieve desired results.
- Do not connect the green and yellow wires of the Diode 'Y' to the R or C terminal of the thermostat.

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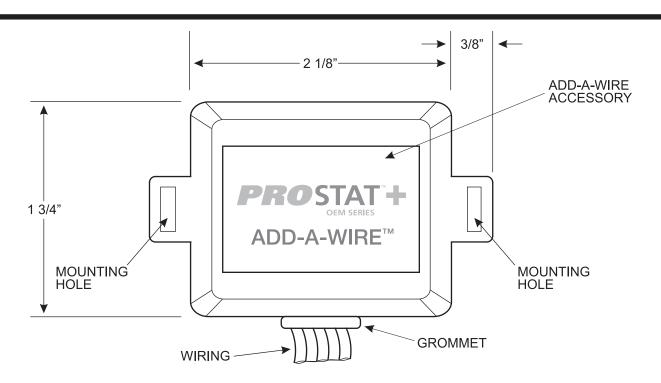


FIG. 1 - Add-A-Wire™ Accessory Mounting

# **Sample Wiring Diagrams**

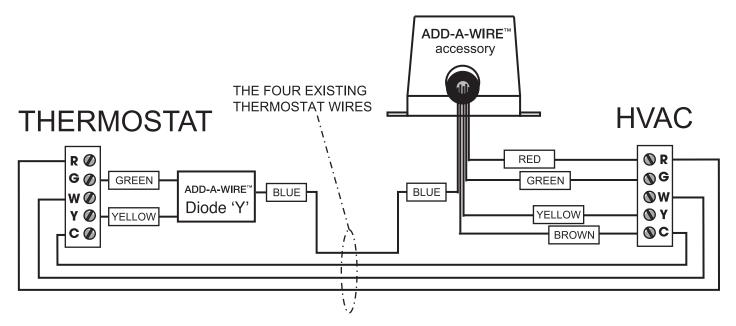


FIG. 2 - 4 existing wires with Add-A-Wire™ to accommodate a thermostat that requires 5 wires.



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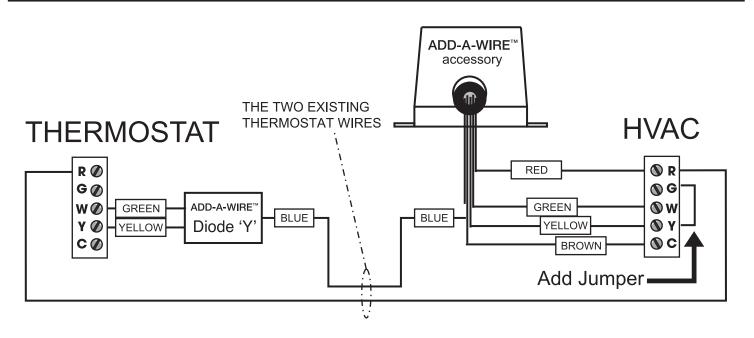


FIG. 3 - 2 existing wires with Add-A-Wire™ to accommodate heating and cooling. No independent fan switching.

A jumper is required across G & Y.

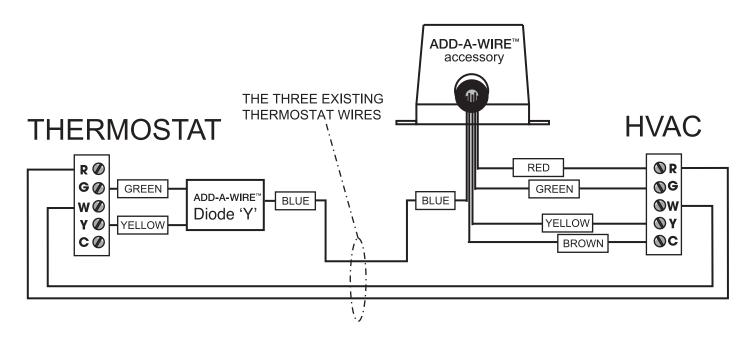


FIG. 4 - 3 existing wires with Add-A-Wire™ to add a cooling to a system that already has heating.