INSTALLATION MANUAL



This manual covers the following models:

• T601

Thermostat Applications Guide

Description	
Gas or Oil Heat	Yes
Electric Furnace	Yes
Heat Pump (No Aux. or Emergency Heat)	Yes
Heat Pump (with Aux. or Emergency Heat)	No
Multi-stage Systems	No
Heat Only Systems	Yes
Heat Only Systems - Floor or Wall Furnaces	Yes
Cool Only Systems	Yes
Millivolt	Yes

Power Type

Battery Power
Hardwire (Common Wire)
Hardwire (Common Wire) with Battery Backup

Table of Contents Page **Installation Tips** 2 Thermostat Quick Reference 3 Subbase Installation 4 5 Wiring 6 Wiring Diagrams Technician Setup - Gas or Electric 7 7 Setting Temperature Swing 8 Mounting the Thermostat Battery Installation 8 9 Specifications

Una versión española de este manual puede ser descargada en www.pro1iaq.com

A trained, experienced technician must install this product.

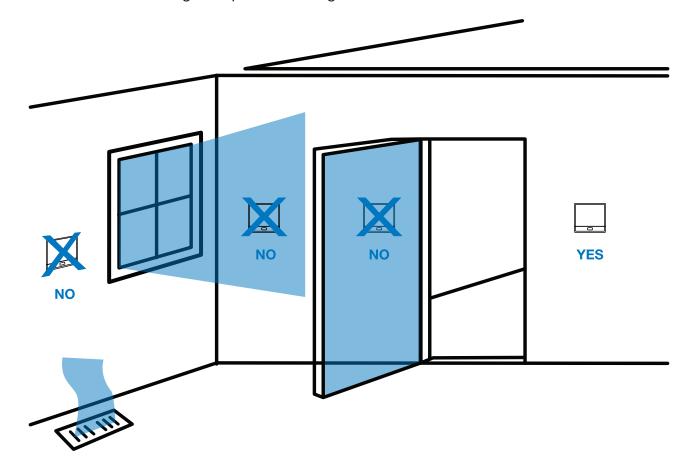
Carefully read these instructions. You could damage this product or cause a hazardous condition if you fail to follow these instructions.

Need Help?

For assistance with this product please visit http://www.pro1iaq.com or call Pro1 Customer Care toll-free at 888-Pro1iaq (776-1427) during normal business hours (Mon-Fri 9 AM - 6 PM Eastern)

Wall locations

The thermostat should be installed approximately 4 to 5 feet above the floor. Select an area with average temperature and good air circulation.



Do not install thermostat in locations:

- Close to hot or cold air ducts
- That are in direct sunlight
- With an outside wall behind the thermostat
- In areas that do not require conditioning
- Where there are dead spots or drafts (in corners or behind doors)
- Where there might be concealed chimneys or pipes

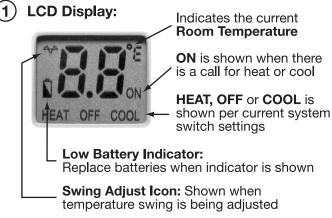
PRO1 Tip

Pick an installation location that is easy for the user to access. The temperature of the location should be representative of the building.

THERMOSTAT QUICK REFERENCE

Easy to use controls





2 Temperature Setpoint Dial:
Turn the adjustment knob to the desired room temperature. There is a marker on the knob that points to the current setting.

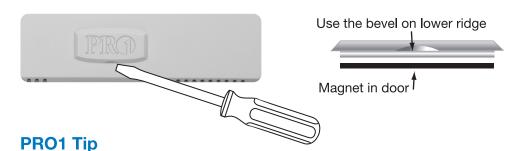


Caution:

When the battery icon appears replace your AA batteries immediately. Failure to do so may result in your heating & cooling system becoming inoperable.

- 3 Fan Switch:
 Select ON or AUTO. ON will run the fan continuously. AUTO will cycle the fan on only when the heating or cooling system is on.
- 4 System Switch:
 Selects the operation mode of your
 HVAC system. Selecting HEAT turns
 on the heat mode. Selecting COOL
 turns on the air conditioning mode.
 Selecting OFF turns both the heating
 and cooling off.
- 5 Easy Change Battery Door:
 Use the finger bevel on the lower portion of the side of the thermostat to open the easy access battery door.
- 6 Universal Private Label Badge: This label identifies the manufacturer or the installing HVAC company.

Removing the private label badge



Gently slide a screwdriver into the bottom edge of the badge. Gently turn the screwdriver counter clockwise. The badge is held on by a magnet in the well of the battery door. The badge should pry off easily. **Do not use force.**

All Pro1 thermostats use the same universal magnetic badge. Visit our website at www.pro1iag.com to learn more about our free private label program.

SUBBASE INSTALLATION



Caution: Electrical Hazard

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.



Mercury Notice:

All of Pro1's products are mercury free. However, if the product you are replacing contains mercury, dispose of it properly. Your local waste management authority can give you instructions on recycling and proper disposal.

For vertical mount put one screw top and one screw bottom. Vertical mount For horizontal mount put one screw left and one screw right. 回 Horizontal mount G 00 Horizontal mount Ы Vertical mount



Caution: Electrical Hazard

Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.



Warning:

All components of the control system and the thermostat installation must conform to Class II circuits per the NEC Code.

Wiring

- 1. If you are replacing a thermostat, make note of the terminal connections on the thermostat that is being replaced. In some cases the wiring connections will not be color coded. For example, the green wire may not be connected to the **G** terminal.
- Loosen the terminal block screws. Insert wires then retighten terminal block screws.
- Place nonflammable insulation into wall opening to prevent drafts.

Terminal Designations

- W Heat relay
- Y Compressor relay
- G Fan relay
- Heat pump changeover valve energized in cooling
- **RC** Transformer power for cooling

RH Transformer power for heating

- B Heat pump changeover valve energized in heating
- C Common wire from secondary side of cooling system transformer or for heat only system transformer

PRO1 Tips:

RH & RC terminals

For single transformer systems, leave the jumper wire in place between RH and RC. Remove jumper wire for two transformer systems.

Heat pump systems

If wiring to a heat pump, use a small piece of wire (not supplied) to connect terminals W and Y.

C terminal

The C (common wire) terminal does not have to be connected when the thermostat is powered by batteries.

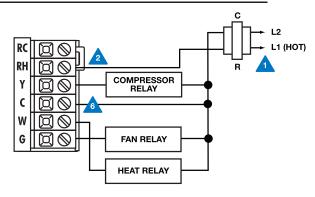
Wire specifications

Use shielded or non-shielded 18 - 22 gauge thermostat wire.

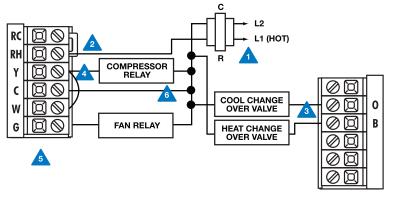
WIRING

- Power supply
- A Factory-installed jumper. Remove only when installing on 2-transformer systems.
- Use either O or B terminals for changeover valve.
- Use a small piece of wire (not supplied) to connect W and Y terminals.
- Set fan operation switch to electric.
- Optional 24 VAC common connection when thermostat is used in battery power mode.

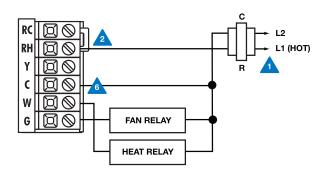
Typical 1H/1C system: 1 transformer



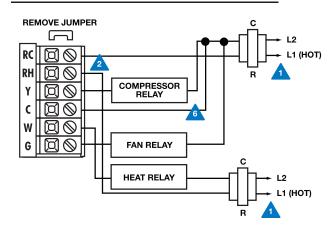
Typical 1H/1C heat pump system



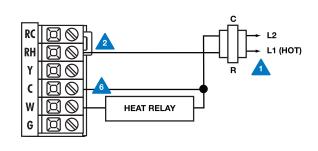
Typical heat-only system with fan



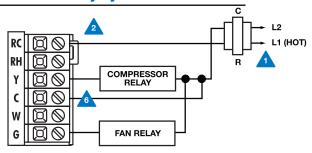
Typical 1H/1C system: 2 transformer



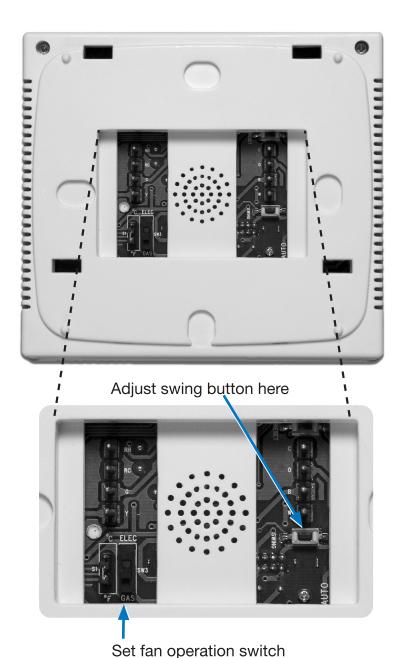
Typical heat-only system



Typical cool-only system



TECHNICIAN SETUP MENU



Gas or Electric Setup

Gas: For systems that control the fan during a call for heat, put the fan operation switch to the **GAS** position.

Electric: The thermostat operation switch should be put in the ELEC position. This setting allows the thermostat to operate the fan when the fan relay is connected to the G terminal.

Adjusting Temperature Swing

The swing or differential is adjustable to suit your specific application. To adjust the swing, put the thermostat system switch in **HEAT** or **COOL** and press the **SWING** button found on the back of the thermostat. A smaller **SWING** setting will cause shorter cycles and a larger **SWING** setting will cause longer cycles.

NOTE: There is a separate swing adjustment for heating and for cooling.





The **RESET** button must be pressed after changing any switch or jumper pin setting. Batteries must be installed for this operation.

PRO1 Tip

Temperature swing, sometimes called differetial or cycle rate, can be customized for this individual application. For most applications choose a swing setting that is as long as possible without making the occupants uncomfortable.

MOUNT THERMOSTAT & BATTERY INSTALLATION

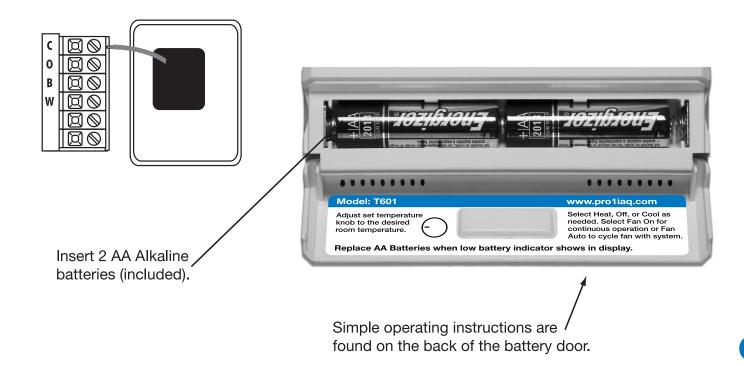
Mount Thermostat

Align the 4 tabs on the subbase with corresponding slots on the back of the thermostat, then push gently until the thermostat snaps in place.



Battery Installation

Battery installation is optional if thermostat is hardwired (C terminal connected).



SPECIFICATIONS & CONTACT INFORMATION

Specifications

The display range of temperature	41°F to 95°F (5°C to 35°C)
The control range of temperature	50°F to 90°F (10°C to 32°C)
Load rating	1 amp per terminal, 1.5 amp maximum all terminals combined
Display accuracy	± 1°F
Swing (cycle rate or differential)	Heating is adjustable from 0.4°F to 2.0°F
	Cooling is adjustable from 0.4°F to 2.0°F
Power source	18 to 30 VAC, NEC Class II, 50/60 Hz for hardwire (common wire)
	Battery power from 2 AA Alkaline Energizer batteries
Operating ambient	
Operating humidity	
Dimensions of thermostat	4.7"W x 4.4"H x 1.1"D

Contact Us

Pro1 IAQ Inc.

1111 S. Glenstone Suite 2-100 Springfield, MO 65804

Toll-free: 1-888-Pro1iaq (776-1427)

Toll Number (Outside the USA): 330-821-3600

Web: http://www.pro1iaq.com

Hours of Operation: Monday - Friday 9 AM - 6 PM Eastern