



AUTOMATION AND CONTROLS

# TA156/TB156/TE156 Installation Instructions

## DESCRIPTION

1. The T156 control features a snap in place panel mounting cover. The cover will facilitate a range of panel thickness from .020" to .065". The panel opening for the T156 installation should be 4.52 ± .015" by 2.770 ± .015".
2. Dependant upon specific installation configuration the wiring may be done prior to or after installation of the T156 into the enclosure. The installer should determine this prior to installation.
3. Checkout: After wiring and installation are complete, energize the system and check the operation. Adjust the thermostat as necessary to complete at least one cycle. Be sure the thermostat and all other equipment are functioning correctly.

## WIRING CONNECTIONS

WIRE COLOR	FUNCTION
WHITE WITH ORANGE STRIPE	FAN SPEED, HIGH
WHITE WITH RED STRIPE	FAN SPEED, MEDIUM
WHITE WITH BROWN STRIPE	FAN SPEED, LOW
RED	HEAT OUTPUT
BLUE	COOL OUTPUT
BLACK	L1 (HOT)
YELLOW	L2 or NEUTRAL
BROWN	REMOTE PROBE (2 LEADS, NO POLARITY)
PURPLE	FAN SUPPLY
ORANGE	SWITCHED POWER

## CAUTION

- Use Copper wire only, insulate or wire nut all unused leads.
- Any wiring, including the remote probe, may carry the full operating voltage of the thermostat.

## FAN & SYSTEM SWITCHES

FAN AND SYSTEM SWITCHES					
Voltage Rating	Inductive		Resistive Amps	Pilot Duty	Thermostatic Switching
	FLA	LRA			
24 VAC	N.A.	N.A.	N.A.	24 VA	10 VA
120VAC	5.8	34.8	6.0	125 VA	20VA
240VAC	2.9	17.4	5.0	125 VA	20VA
277VAC	2.4	14.4	4.2	125 VA	20VA

## WARNING

- READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THIS THERMOSTAT.
- Failure to observe safety information and comply with instructions could result in PERSONAL INJURY, DEATH AND/OR PROPERTY DAMAGE.
- To avoid electrical shock or damage to equipment, disconnect power before installing or servicing.
- To avoid electric shock or damage to equipment, use only wiring with insulation rated for full thermostat operating voltage.
- To avoid potential fire and/ or explosion do not use in potentially flammable or explosive atmospheres.
- Retain these instructions for future reference. This product, when installed, will be part of an engineered system whose specifications and performance characteristics are not designed or controlled by PECO, Inc. You must review your application and national and local codes to assure that your installation will be functional and safe.

## THERMOSTAT OPERATION

Temperature Range: 50°F - 90°F

TA156: A HEAT-OFF-COOL system switch manually selects heating or cooling mode. In the HEAT position, only the heat output cycles with demand. In the COOL position, only the cool output cycles with demand. In the OFF position heating and cooling outputs are off. Units with a two position system switch or without a system switch must use a load transfer switch when both heating and cooling outputs are used to prevent control failure and equipment damage caused by direct cycling between loads.

TB156: An ON-OFF system switch enables auto-changeover of heating and cooling mode. In the ON position the thermostat activates heating or cooling outputs dependant upon the relationship between the set point and the ambient temperature. Heat on to cool on dead band is 4°F. In the OFF position, heating and cooling outputs are off. Units without a system switch cycle directly between heating and cooling with a 4°F dead band.

TE156: The TE156 act as a switching device and has no thermostat function. By user switch selection, input power is switched to corresponding outputs. Standard switch configurations is ON-OFF. In the OFF position all outputs are OFF. In the ON position power is switched to the switched power output.

On units that have fan switching the switched power output may be internally wired to the fan supply. Depending upon configuration the user may need to make this connection.

FAN: Some units have a switch for manual selection of fan speed. Fan operation may be internally wired for fan continuous operation or a fan supply connection may be available. When internally wired for fan continuous operation, the fan will be off when the system switch is off. On units with a fan supply lead, the fan operation is dependant upon external connections. Dependant upon these connections the fan may not be off with the system switch in the off position.