

Applicability – This document outlines the equipment and installation requirements for a smart thermostat. Installation must follow manufacturer’s specifications and meet local building, electrical and mechanical codes. The Tacoma Power Smart Thermostat Specifications are required in addition to the manufacturer specifications and code requirements.

1. EQUIPMENT SELECTION

- a. Smart Thermostat must meet BPA’s standards and be listed on [BPA’s Qualified Products](#) (QPL) list.
- b. Smart Thermostat must, at a minimum, include the following features:
 - 7-day programmable or learning-based scheduling
 - Wi-Fi enabled, with remote access
 - Occupancy detection (e.g., motion sensor, geo-locating) which results in automatic HVAC reduction when home is unoccupied
 - Heat pump auxiliary heat control and optimization
- c. Must be compatible with heating system

2. INSTALLATION

- a. Occupancy detection must be set to “on.”
- b. Installations with a central heat pump:
 - *Compressor controls* - If a “low-ambient temperature compressor cutout option” is installed, it must be configured NOT to cut out the compressor at temperatures above 5^oF.
 - *Auxiliary heat* - must be configured so it does NOT engage when the outdoor air temperature is above 35^oF, except when supplemental heating is required during a defrost cycle or when emergency heating is required during a refrigeration cycle failure.
 - *Constant speed systems with multiple stages of compression and supply air temperature sensor control* - auxiliary heat shall be configured so it does NOT engage when the supply air temperature is above 85^oF.
 - *Outdoor compressor temperature* – recommended temperature for outdoor compressor lockout is 5^oF.

- *Recommended minimum temperature difference* – to operate at optimal efficiency and avoid short cycling, the **recommended minimum** difference in temperature before heat is engaged should be as follows:

$$((Current\ Temperature) - (Set\ Temperature)) \geq 2^{\circ}$$

3. CUSTOMER EDUCATION

- Refer to the manual during operation walk-through/training.
- Demonstrate how to set and operate the thermostat.
- Provide homeowner the manufacturer's operation manual or online website.