

ACCUSTAT® *Independence*

A new generation of Accustat®

Standard Features:

- Tamper resistant locking case
- Mercury free
- Precise temperature control using Independence preset plug-in setpoints (ordered separately)

Optional Features:

- Auto-changeover system control (ES-U model only)
- Two temperature settings with hi/lo switch (on ES-A2, ES-H2, & ES-AH22 models only)

Applications:

Equipment: gas, oil, electric or heat pump unitary packaged HVAC equipment

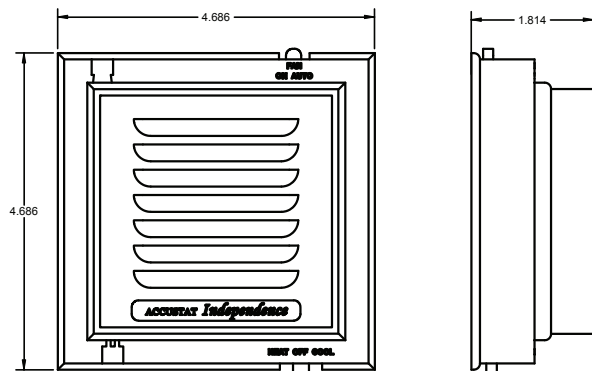
Building Types: restaurants, warehouses, retail, industrial, common areas, etc.

Installation Considerations: For installation on any interior wall surface with good air circulation and free from drafts, approximately 5 feet above the floor. Relative humidity should be less than 95% and the atmosphere non-condensing.

Specifications:

Input voltage:	20 VAC - 32 VAC
Load rating:	1 amp max per circuit, 80mA min. for energy harvesting
Common wire:	Optional
Delay:	5 minutes on startup
Temperature range:	Determined by plug-in setpoint
Accuracy:	±1.0°F
Plug-in setpoint accuracy:	±0.5°F
Sampling rate:	Every 30 seconds
Cycle rate:	6 cycles per hour
System stages:	Single or multi stage, depending on model
Case material:	High impact styrene, white
Tamper resistant:	Locking Cover, key required

Dimensions:



Review Stamp:



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Descriptive Specification:

The HVAC temperature control shall be tamper resistant having an integral locking cover. It shall be a digital control without any display. The sensor shall be electronic sensing. The switching of the load shall be done with solid state devices. Insertable setpoints shall be used in setting temperature, with DIP style slide switches to control equipment type (conventional or heat pump), if heat pump the reversing valve type (O or B), the fan activity in heating (fossil or electric) and the differential (0.5° or 1.0°F), depending on model. The control shall have a slide on/off system switch, a slide switch for fan operation (Auto or On), a slide switch for the mode (Heat/Auto/Cool), and a slide switch for setpoint selection depending on the model. The 24 VAC load rating shall be 1.0 ampere per load. The ability for energy harvesting shall be available.

Wiring:

Model shown: ES-AH11 (Conventional System, single transformer)

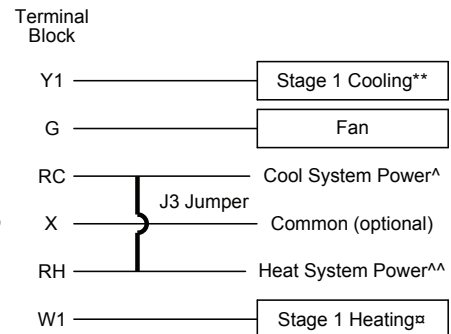
Notes:

** For Y1 to be active, plug-in setpoint is required in C1 position.

^ If dual transformers are used, the J3 jumper must be cut.

^^ Only required if dual transformers are used. For single transformer applications, it is not necessary to connect RH. The J3 jumper must be connected.

⊠ For H1 to be active, a plug-in setpoint is required in H1 position.



Energy Harvesting (an explanation):

The Independence thermostats are designed to operate as energy harvesting controls. A common wire is optional*. If using a common wire, the Energy Harvesting switch must be placed in the OFF position. If not, the switch should be placed in the ON position. Upon first power up or following a power failure, it may take the thermostat 7-20 minutes for the energy harvesting circuitry to charge. Battery terminals are provided on the sensor board to allow the use of a 9V battery during installation.

*If the thermostat is connected directly to a logic board at the equipment, in order for it to function, it may be necessary to use a common wire.

Model Selection:

Model #	Stages	# Setpoints Required*	Comments	Replaces Original Accustat® Model
<input type="checkbox"/> ES-A1	1 CL	1		LA-1
<input type="checkbox"/> ES-H1	1 HT	1		LH-1
<input type="checkbox"/> ES-AH11	1 CL/1 HT	2	Manual changeover	LAH-11, LAH-11E
<input type="checkbox"/> ES-A2	1 CL	2	Two temperature settings w/ hi/lo switch	LA-2
<input type="checkbox"/> ES-H2	1 HT	2	Two temperature settings w/ hi/lo switch	LH-2
<input type="checkbox"/> ES-AH22	1 CL/1 HT	4	Two temperature settings w/ hi/lo switch; manual changeover	LAH-22
<input type="checkbox"/> ES-U	Universal	up to 4	Single stage, multi stage (up to 2 Cl/2 Ht), or heat pump; auto changeover	LMS-AH11, LMS-A2, LMS-H2, LMS-AH21, LMS-AH22, LMS-AH22IF, LHP-AH22

*Setpoints must be ordered separately - see Accessories below.

Accessories:

- T-xx preset plug-in setpoint ('xx' represents desired setpoint temperature - 40, 45, 50, 55, 60, 62, 64, 65, 66, 68, 70, 72, 74, 75, 76, 78, 80)
- CP-012I - Replacement cover CP-013 - Replacement locking pin CP-014 - Replacement key

Warranty:

Accustat® Independence controls have a 1 year limited warranty against defects in workmanship and materials. (Contact PSG for full detailed warranty policy.)