

E-ACCUSTAT® II Miniature Energy Management System



E-Accustat® II



Timer 7 Day Programmable



Light Sensor



Duct / Outdoor Sensor Remote



Wall Sensor Remote

Features:

Electronic Sensing - Sensor is self contained or uses multiple remote sensors with averaging.

Precise Temperature Control - Adjustable setting with temperature accuracy $\pm 1^\circ\text{F}$.

System Selection - Heat / Auto / Cool

Easy Dead Band Adjustment - Dial your desired selection of 1° , 2° , 3° , 4° or 5°F .

Cycle Rates - Heating and Cooling cycle rates can be set independently.

Intelligent Fan Switching - Auto / On, when control is in un-occupied mode fan operation switches to auto.

Fresh Make-up Air - Pre-determined (user selectable) amount of fresh air is supplied on an hourly basis (on selected models only).

Occupied / Un-occupied Temperature

Settings - Comfort (occupied) temperature is set by a dial adjustment (55° - 85°F). Setback (unoccupied) temperature is also set by a dial adjustment (2° , 4° , 6° , 8° , or 10°F). No complex programming.

Occupied / Un-occupied Selection - Mode selection can be done using remote time, light or motion sensor, burglar alarm, computer or any device that can provide a dry contact closure.

 **PSG Controls, Inc.**
Setting New Standards in Temperature Controls

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E-ACCUSTAT® II Series

Description:

PSG's **E-Accustat® II** series is designed with micro-processor logic. It is very easy to operate, as it uses unique dial-up settings. The sensing and load switching uses advanced electronic circuitry. Wiring is the same as conventional thermostats. **E-Accustat® II** controls are tamper resistant, using the Accustat's locking cover design.

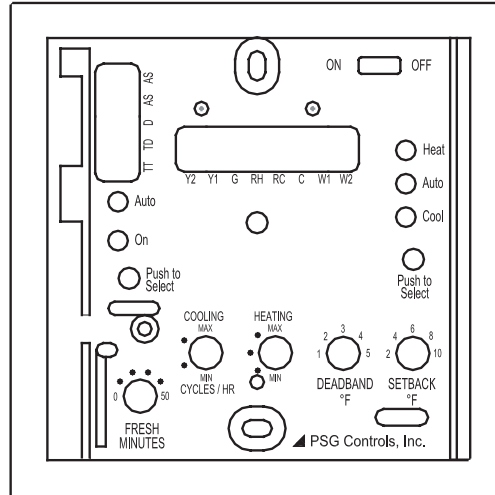
Applications:

Low voltage single or multi-stage heat and cool or heat pump systems - heating can be gas, oil, or central electric heat. Used with make-up and fresh-air systems.

Specifications:

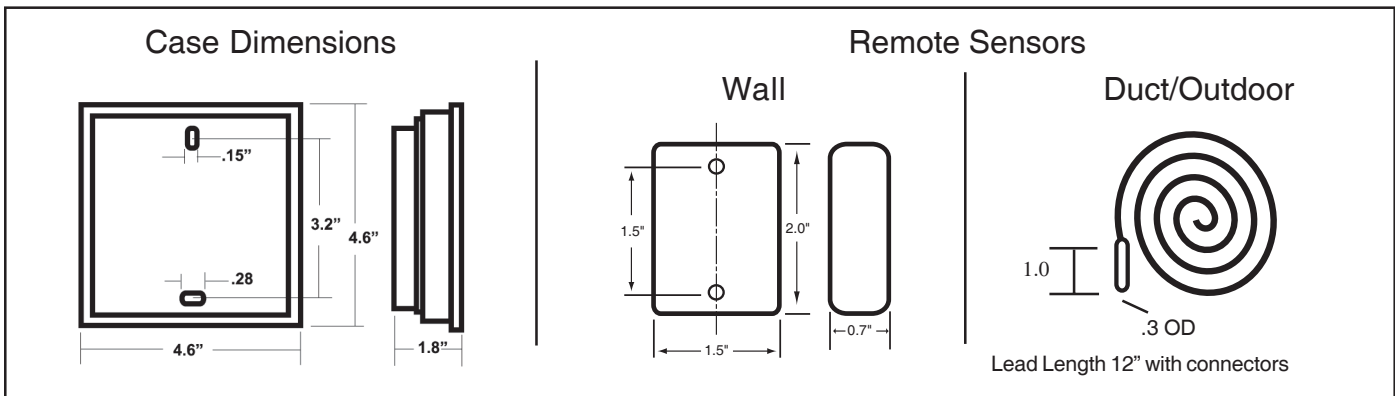
Input voltage:	24 VAC ±10%
Load switching per circuit:	1.5 amps Resistive
Comfort temperature range:	55°F to 85°F
Accuracy:	±1°F
Cycle rate:	Heat 1 to 5 cy/hr Cool 1 to 4 cy/hr
Dead band between Ht/CL:	1°, 2°, 3°, 4°, or 5°F
System stages:	Heat 1 or 2 Cool 1 or 2
Delta "T" between stages:	2°F
Case material:	White Plastic
Tamper resistant:	Locking Cover
Wire connections:	Screw Terminal
LED indicators:	System and Fan

Model LEMS2-AH22AS-RD shown



Engineering Specifications:

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 relay contacts. Dial-up setting shall be used in setting temperatures, cycle rates, etc. The control shall have push button system and fan selection with LED indicators. In addition to accurate temperature control of ±1°F, selected models must be capable of operating dampers to bring in fresh air on an hourly basis to meet the fresh air requirements.



E-ACCŪSTAT® II Series Operation:

System -

Selectable system push button with LED indicator; Heat/Auto/Cool. When control is placed in Auto, heating or cooling will automatically activate to maintain the temperatures selected. If Heat or Cool is selected the system will only heat or cool. Flashing LED indicates that the system is activated.

Fan -

Selectable mode Auto/On. When Auto is selected fan will only activate when system is operating, When placed in On fan will run continuously, except with the programmable models; when in un-occupied mode fan operation becomes Auto.

Cycle Rate -

Heat or cool cycle rates can be set independently. Based upon cycle rate, control will only allow the heat or cool to function specific amount of cycle per hour. A cycle is on / off / on.

Dead Band -

Selectable dead band setting of 1°, 2°, 3°, 4° or 5°F can be set. Dead band is the temperature spread between heat and cool.

Fresh-Air Function -

Depending upon model this feature allows for fresh air to be brought into the building. Based upon your selection, the damper will open for a specific amount of time. Control monitors the heat and cool run time. Damper is opened when the heat or cool is activated. If the heat or cool is not activated for a sufficient amount of time, the damper will be opened and the fan will be activated, bringing in the required amount of fresh air. Fresh air is supplied on an hourly basis 24 hours a day.

Setback Function -

Depending on model this feature allows the control to maintain an Occupied or Un-occupied building temperature as selected. Any type of mechanism that provides a closed dry contact on the “AS” terminals places the control in the setback (un-occupied) temperature mode.

Setback (Un-occupied) Temperature Setting -

By adjusting the setback dial (2°, 4°, 6°, 8°, or 10° F) it offsets the comfort setting by the number of setback degrees selected. For example, with a comfort setting of 70° F and a setback degree setting of 10° F, when the control is in the setback (un-occupied) mode the heat will be set at 60° F and the cool at 80° F.

Heat Pump Models -

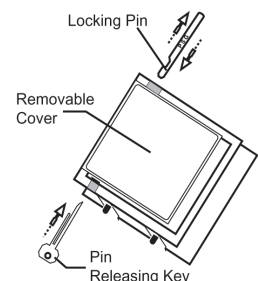
Heat pumps can be placed in “O” Cool or “B” Heat mode. All heat pump models have an auxiliary heat mode that activates when the compressor is unable to keep up with the demand. They also have an emergency heat (EMH) mode that can be manually activated to override the compressor.

Remote Sensing -

All models have an internal sensor. If remote sensing is desired, the internal sensor is re-set and remote sensors can be connected. Up to 3 remote sensors may be added, using parallel wiring. Temperature is monitored and, based upon the average temperature of the sensors, control will operate the heat/cool systems.

Tamper Resistant -

A locking pin is inserted into the cover that secures the cover to the case, preventing anyone from opening the case. The special key provided must be inserted in order to remove the locking pin that secures the cover to the case.





Remote Timer - 7 Day Programmable

This timer is available in 24 VAC or 120 VAC input. The user can easily program groups of days or individual days at a time. The timer can be manually placed in Occupied/Un-occupied/Auto modes, with up to 8 events per day. This timer can be used with any E-Accustat® that has the "AS" prefix.

Specifications:

Display:	LCD
Input Voltage:	24 VAC or 120 VAC
Load Rating:	15 amps Class 2 supply
Wiring Length:	Up to 250 ft. Shielded cable
Connections:	Screw Terminals
Econ./Comf. Events:	8 each
Programming:	7 days
Dimensions:	2.6" W x 3.8" H x 1.5" D

Model #	Stages	System	Connections	Comments*
LEMS2-AH11	1 CL/1 HT	Heat/Auto/Cool	Y,G,Rh,Rc,C,W	NP
LEMS2-AH11-R	1 CL/1 HT	Heat/Auto/Cool	Y,G,Rh,Rc,C,W,TT,TD	NP,RS***
LEMS2-AH11AS-RD	1 CL/1 HT	Heat/Auto/Cool	Y,G,Rh,Rc,C,W,TT,TD,AS,AS,D1	RS***,SC**,D
LEMS2-AH22	2 CL/2 HT	Heat/Auto/Cool	Y2,Y1,G,Rh,Rc,C,W1,W2	NP
LEMS2-AH22-R	2 CL/2 HT	Heat/Auto/Cool	Y2,Y1,G,Rh,Rc,C,W1,W2, TT,TD	NP,RS***
LEMS2-AH22AS-RD	2 CL/2 HT	Heat/Auto/Cool	Y2,Y1,G,Rh,Rc,C,W1,W2, TT,TD,AS,AS,D1	RS***,SC**,D
Heat Pump				
LEHP2-AH12	1 CL/2 HT	EmH/Heat/Auto/Cool	Y,G,Rh,Rc,C,O/B,W2,EH	NP
LEHP2-AH12AS-RD	1 CL/2 HT	EmH/Heat/Auto/Cool	Y,G,Rh,Rc,C,O/B,W2,EH,TT, TD,AS,AS,D1	RS***,SC**,D
LEHP2-AH23	2 CL/3 HT	EmH/Heat/Auto/Cool	Y2,Y1,G,Rh,Rc,C,O/B,W3,EH	NP
LEHP2-AH23AS-RD	2 CL/3 HT	EmH/Heat/Auto/Cool	Y2,Y1,G,Rh,Rc,C,O/B,W3, EH,TT,TD,AS,AS,D1	RS***,SC**,D

Comments:
 * NP=Non-Programmable, RS=Remote Sensing, SC=Setback Compatible, D=Damper
 ** Setback compatible E-ACCÛSTAT® II models must be used with an external timer or other device that can provide dry contacts to the "AS" terminals to utilize setback feature. See E-ACCÛSTAT® II Accessories below.
 *** Remote sensing models require additional sensors which need to be ordered separately. See E-ACCÛSTAT® II Accessories below.

Accessories:

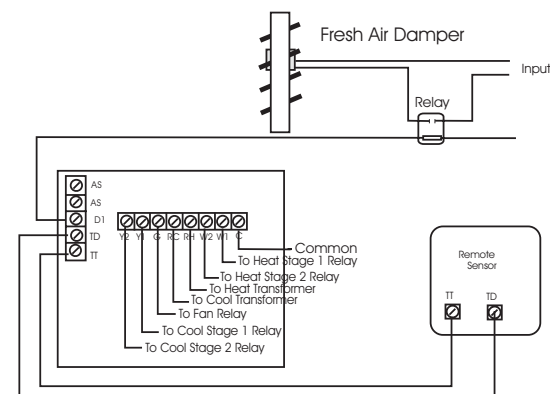
T24-7	Timer 7 Day - 24 VAC
T120-7	Timer 7 Day - 120 VAC
L24-1	Light Sensor
SRT-3	Remote Sensor Wall mounting
SRT-OD4	Remote Sensor Duct/Outdoor

Warranty:

The E-Accustat has a 1 year limited warranty against defects in workmanship and materials (See PSG for full detailed warranty policy)

Wiring:

With Fresh Air Damper & Remote Sensor



With Remote Timer or any other Device

