



# SUNEARTH INC.

## DIFFERENTIAL TEMPERATURE CONTROL

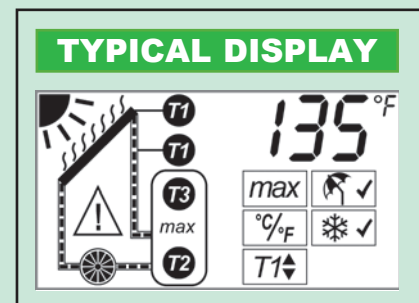
SIMPLE • RELIABLE • VERSATILE



### SUNEARTH MODEL SETR 0301 U SOLAR WATER HEATING SYSTEM CONTROL

#### FEATURES:

- **Digital Accuracy**
- **LCD Provides Real Time Operating Temperatures At Up To Three Locations**
- **Animated Representation of System Operation**
- **Sophisticated Monitoring and Fault Diagnostics**
- **Fused Output Protection For Pump Circuit**
- **Varistor High Voltage Spike Protection**
- **RTD Type 1K Sensors**
- **Adjustable On/Off Differential and High Limit**
- **Evacuated Tube & Freeze Recirculation Functions**
- **Vacation Overheat Protection**
- **Accessible Side-Mounted On, Off, Auto Switch**
- **Three Temperature Sensor Inputs/One 120 VAC Output**



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The Sunearth model **SETR 0301 U** differential temperature control provides for the automatic, safe, and reliable operation of domestic solar water heating systems. The control output is wired to a pump that circulates the heat transfer fluid between the solar thermal collectors and the storage tank during the course of the day. This microprocessor-based control utilizes two RTD type sensors to monitor collector and tank temperatures with digital accuracy.

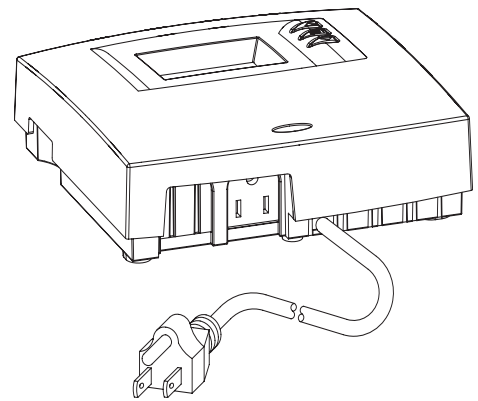
The LCD gives the homeowner a variety of real time information including system temperatures at up to three separate locations. The consistent use of simple pictograms ensures ease of operation and troubleshooting. In addition to the primary function of turning the circulating pump on and off during the day, the SETR 0301 U provides important diagnostic and safety functions. For example, the LCD pictograms will indicate fault conditions such as sensor shorts or pump failure. The installation manual also clearly describes the fault symptoms, possible causes and remedies.

The control features a total of three inputs and one 120 VAC output for the circulating pump. Varistors protect the sensor inputs against high voltage spikes. The load side is fuse protected.

The control package includes two RTD type (resistance temperature detector) sensors, a seven foot line cord and a spare fuse. An optional third sensor displays the upper tank temperature and eliminates the need for an analog thermometer and fittings.

The numerous additional features of the SETR 0301 U include an adjustable on/off differential (8 - 20° F) and high limit (32° F - 205° F), an evacuated tube collector function, vacation overheat protection to minimize collector stagnation, and a freeze-recirculation option. Temperatures can be displayed in either Fahrenheit (F°) or Celsius (C°).

<b>SETR 0301 U Technical Specifications</b>	
Dimensions	(H)6.18" X (W)6.3" X (D)1.85"
Operating Voltage	120VAC/60HZ
Line Cord	7', 18 AWG Rated At 221° F
Control Power Consumption	≤ 1 Watt
Inputs – 3 For Temperature Sensors, Varistor Protected	PT1000-Probe, PT1000-Lug
Output – 1 For Circulating Pump, Fuse Protected	Max Load At 120VAC Is 0.5 HP (Littelfuse 215.004)
Temperature Sensors 2 X PT1000-Probe (-40 F To +356 F)	RTD Type 4.2' Silicone Cable With Probe
Graphic Display	Animated LCD Display, 2 Color Background
Protection Class	IP 20/Din 40050
Ambient Temperature Operating Range	32° F - 113° F
Installation	Wall Mounted With Screw
Weight	1lb. 5 oz.
Case	Recyclable 3-Piece Plastic



Manufactured for SunEarth Inc. by



**A World Leader in Solar Electronics. Steca GmbH, Memmingen, Germany. [www.stecasolar.com](http://www.stecasolar.com)**

Due to SunEarth's policy of continuous product improvement, specifications are subject to change without notice.

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