

# INSTRUCTIONS

## REHAU SILENT DIAL THERMOSTAT #236477-001

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### Specifications

Control	Microprocessor control.
Measured Temperature Precision	0.1° C ( 0.2° F)
Packaged weight	0.23 lb. (84.4 g), white PVC plastic.
Dimensions	3-1/4" H x 3-1/4" W x 1" D (80 x 80 x 27 mm)
Ambient conditions	Indoor use only, 32 to 122° F (0 to 50° C), < 90% RH non-condensing.
Electrical Protection	Class II – IP30
Power supply	24 V ±10% 60 Hz 15 W max.
Output	TRIAC output 24 VC, 15W max (typical – 4 actuators)
Optional Floor Sensor	NTC thermistor, 10 k Ohms, 10 foot cable ( 3m). Art. 236497-001
Floor Limiting Temperature Range	50° F – 104° F, ( 10° C – 40 °C)

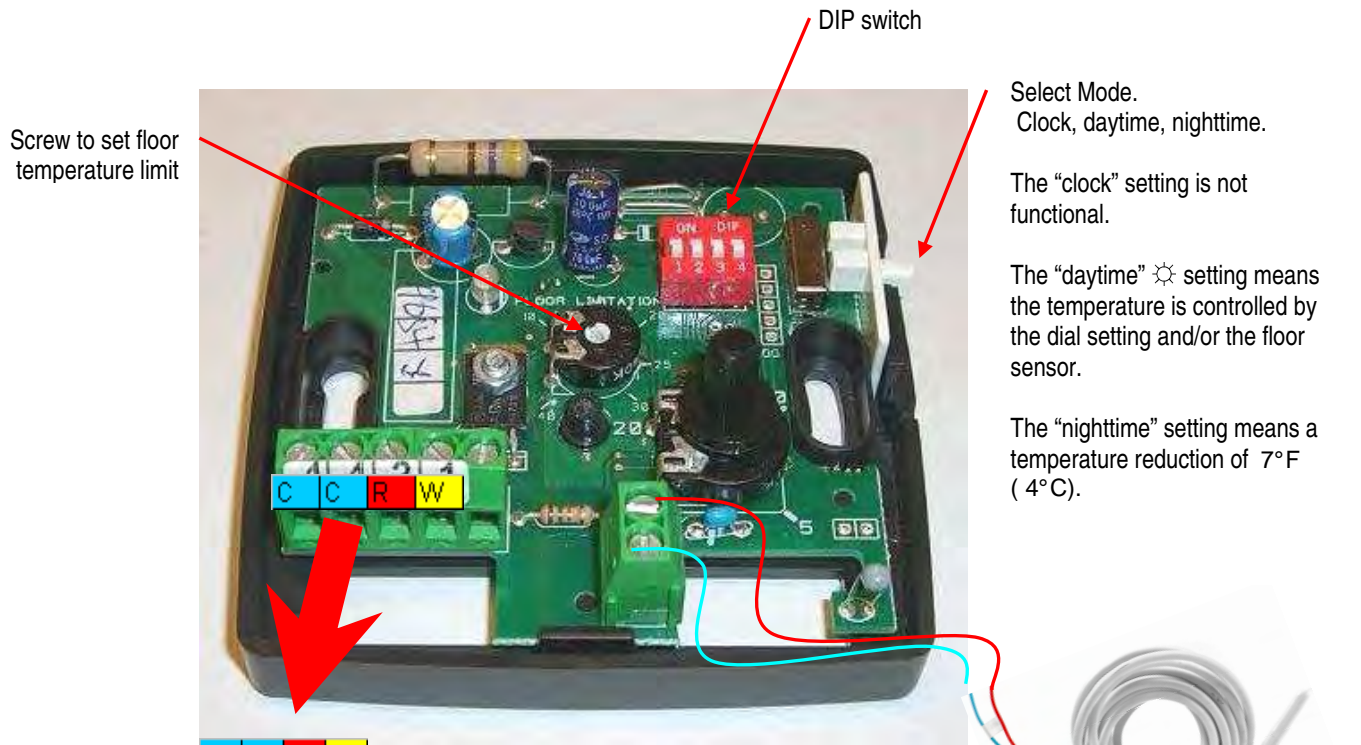


### Overview

This is a 3-wire thermostat. The thermostat display is a simple straight forward dial with a red LED that is light when there is a call for heat. With the optional floor sensor, this thermostat can regulate either the floor or the room temperature or combined in which case the floor sensor is used as a temperature limiter, either high or low limit.

This thermostat includes a “Select Mode” switch which allows the used to select a night reduction (automatically reduces the temperature by 7° F ( 4° C)).

This thermostat has a 4x DIP switches which allows for limited ‘programming’ and system configuration to include setting floor high & low temperature limits and allowing the thermostat to operated as a simple on/off switch or with PWM anticipation logic.



Select Mode.  
Clock, daytime, nighttime.

The “clock” setting is not functional.

The “daytime” ☀ setting means the temperature is controlled by the dial setting and/or the floor sensor.

The “nighttime” setting means a temperature reduction of 7°F (4°C).

C	C	R	W
24 V com	24Vc	TT ( power )	TT ( switch )
Blue	24Vc	24V	Brown
24V out C	Th (left)	Th (right)	
24V out C	R	W	
24V out C	T "R" right	T left side	
#1 of zone	T "R" right	T left side	
24V out C	T "R" right	T left side	

Thermostat C, R and W connections would typically be wired to the REHAU electronic controls (Speed zone, ZoneMaster, ZVC, SR , etc. which would subsequent activate zone valves, pumps and so forth.

Optional Floor Sensor  
Art. No. 236497-001

Blue	24Vc	24V	Brown	260166	Zone Valve Actuator	24Vac power must be provided to Thermostat C /R terminal. 15 watt max output (typical for up to 4 REHAU actuators)
24V out C	Th (left)	Th (right)		243047	SpeedZone (old) blue box	SpeedZone (old) blue box
24V out C	R	W		243047	SpeedZone (new) grey box (polarity sensitive) R of thermostat must connect to "R" of terminal strip & W to "W"	SpeedZone (new) grey box (polarity sensitive) R of thermostat must connect to "R" of terminal strip & W to "W"
24V out C	T "R" right	T left side		243067 & 077	ZoneMaster 4 & 6 -Zone (polarity sensitive) R of thermostat must connect to RIGHT side of TT	ZoneMaster 4 & 6 -Zone (polarity sensitive) R of thermostat must connect to RIGHT side of TT
#1 of zone	T "R" right	T left side		281711-001	ZVC-404-EXP (polarity sensitive) R of thermostat must connect to RIGHT side of TT	ZVC-404-EXP (polarity sensitive) R of thermostat must connect to RIGHT side of TT
24V out C	T "R" right	T left side		281721-001	SR-504-EXP (polarity sensitive) R of thermostat must connect to RIGHT side of TT	SR-504-EXP (polarity sensitive) R of thermostat must connect to RIGHT side of TT

## Mounting Location

See the illustration No. 1 for considering the mounting location. Select a position out of direct sunlight or shade.

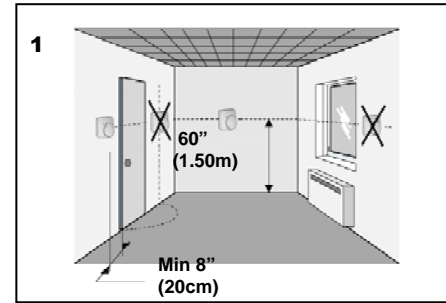


Illustration No. 2 shows the removal of the dial via the #1 Phillips screw.

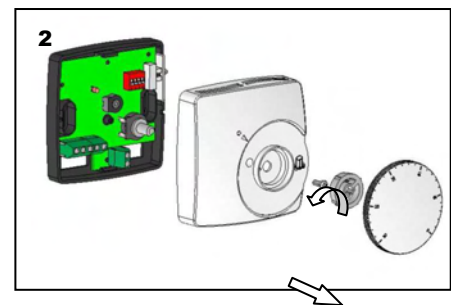
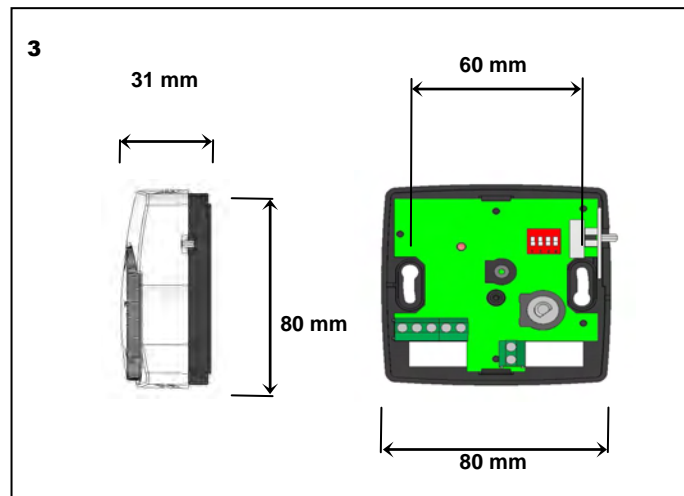


Illustration No. 3 shows the mounting holes for the attaching screws. 2-5/16" (60mm) apart.



## DIP Switch Configuration

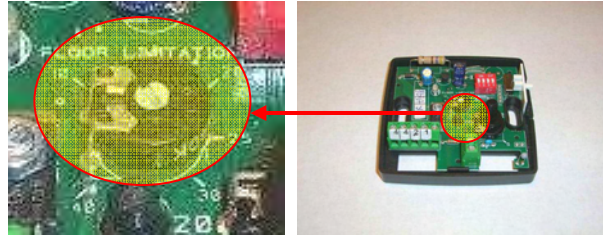
The DIP switch "tells" the thermostat how to operate.

DIP 1 tells the thermostat what kind of actuators are being used. REHAU PRO-BALANCE actuators are Normally Closed (NC) actuators and #1 should be correctly positioned in the "ON" position.



## Setting the Floor Limit Temperature

The floor limit temperature is set by the turning of the plastic screw (arrowhead) in the center of the thermostat. Align the arrowhead with the very small temperatures printed on the circuit board ( in °C only). See the illustration below.



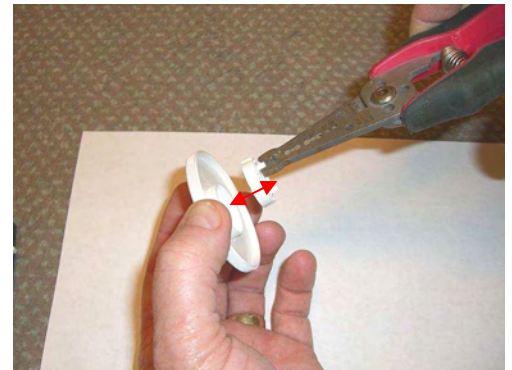
## LED Indicator

Red:	Call for heat
Red Blinking:	0.5 second cycle -> Internal & external sensor failures 1 second cycle -> Internal sensor failure 2 second cycle -> External sensor failure

## Calibration

Calibration is not normally required, however should it become necessary, simply remove the dial from the thermostat.

Using another and trusted thermometer, check the room temperature. Remove the inner sleeve assembly from the dial and insert it onto the keyed shaft coming out of the thermostat. Carefully, position the dial such that the correct temperature is at the notch and rotate the dial accordingly and hand press back onto the keyed shaft. See the illustration below.

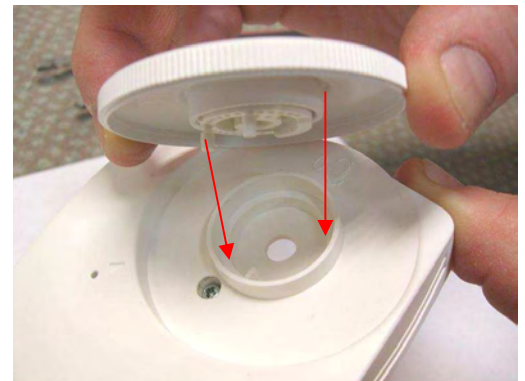


## Setting an Upper and Lower Limit to the Thermostat Dial

This thermostat has the ability to position "pins" such that the dial physically will not turn beyond certain limits.

Remove the dial and the pins from the inner circle. Reposition the pins onto the outer circle in the area where you wish to prevent further movement.

Re-position the dial back onto the keyed shaft and verify that the limits are at the intended temperatures. Repeat as necessary until you achieve the desired upper and lower temperature limits.



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