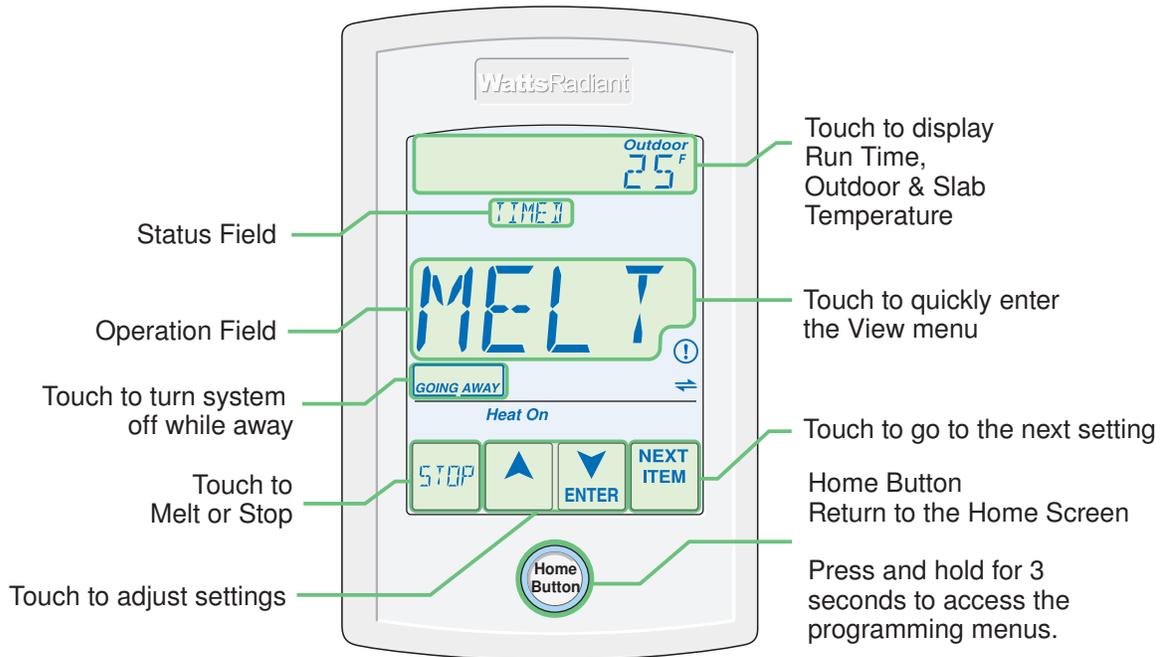


Product Guide

Snow Melting Control 654

This brochure will provide you with the information you need to benefit the most from your snow melting control. Please visit www.WattsRadiant.com for more detailed information on this or any other Watts Radiant product.

Display



Operation Field

MELT	System is melting snow or ice.	STRM	System is in storm operation.
IDLE	System is idling.	OFF	System is off.

Status Field

WWSD	Warm Weather Shut Down. The slab is naturally warm enough to melt snow or ice.	PEND	Pending. The system has detected water but it is too cold to operate or the schedule is in Idle or Off.
CWCO	Cold Weather Cut Out. Too cold to melt.	WAIT	Zone priority in effect. Zone must wait until higher priority zone finishes melting.
TIMED	Timed melting operation. System operates until time has elapsed.	SENSOR	Tandem 090 sensor.
WARM	Slab is warming up to the melting temperature.	TRACK	This zone tracks the melting operation of zone 1.
AWAY	Away scene. No melting until the away scene is exited.		

Symbols

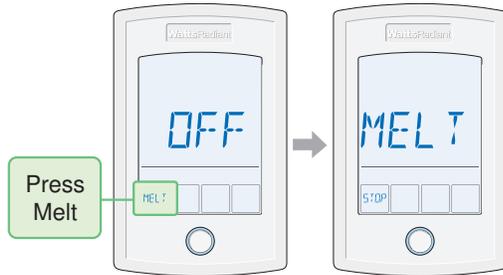
<i>Heat On</i>	HEAT ON Heat is turned on.	!	WARNING SYMBOL Indicates an error is present.
⇌	tekmarNet® Communication is present.	↑ ↓	ARROWS Adjust the displayed setting.

Snow Melting Operation

Snow melting operation can be started manually or automatically depending on which sensors are installed. Automatic start and stop operation requires a Snow / Ice Sensor 090. Automatic start with a timed stop requires a Snow Sensor 095.

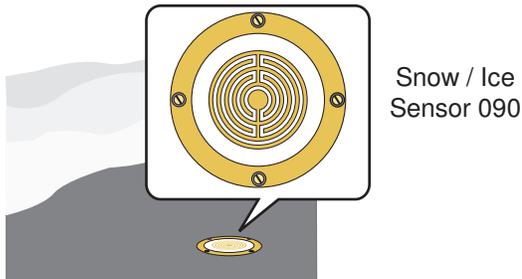
Manual Operation

Touch the Melt key on the control display. The control uses a timer to operate the snow melting system and shuts off when the timer has expired.



Automatic Start and Stop

The system automatically starts as soon as snow or ice is detected and stops when the slab is dry. A Snow / Ice Sensor 090 is required for automatic start and stop operation.



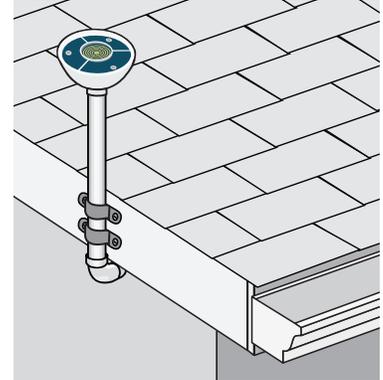
EconoMelt

When a Snow / Ice Sensor is installed, the control has the option to EconoMelt. This allows the snow to be mechanically removed using a plow or shovel and then manually starting the snow melting system to melt the remaining last thin layer of snow or ice. The system operates until the sensor is dry.

Automatic Start and Timed Stop

The system automatically starts as soon as snow or ice is detected and stops when the Manual Melt Run Time counter has elapsed. The Manual Melt Run Time setting is adjustable in the Set Temp menu. A Snow Sensor 095 is required for automatic start and timed operation.

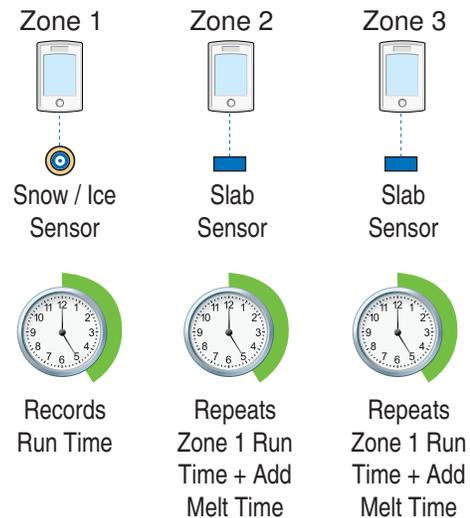
Snow Sensor 095



Tracked Start and Stop

The snow melting system can have multiple zones. Zones without a snow / ice sensor or snow sensor can repeat the run time of zone 1.

Track Melt Start and Stop



Scheduled Start and Stop

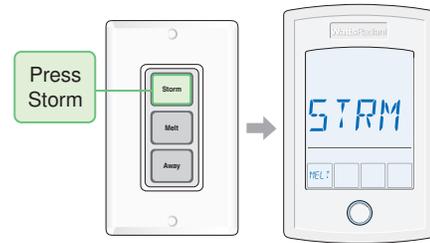
The snow melting system can start and stop based upon a programmable schedule. While the schedule is in Event 1 (wake) or 3 (occupied), the control is in melt operation. When the schedule is in Event 2 (unoccupied) or 4 (sleep) the control is in idle or off operation.

Idle Operation

Idle operation pre-heats the slab whenever the slab is below freezing. This allows the slab to quickly warm up to the melting temperature in case snow or ice is detected. Idling requires a large amount of energy and is recommended for commercial or institutional installations where safety concerns are paramount.

Storm Operation

If a User Switch has been installed, press the 'Storm' button to pre-heat the slab in the event of a snow fall warning. If no snow is detected or the system is not manually started during the pre-set time, the system will shut off. If snow is detected, the slab temperature will be increased to provide snow melting. A Snow / Ice Sensor 090 or a Slab Sensor 072 is required for Storm operation.

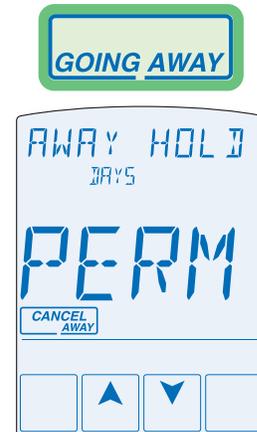


Away Key

This control includes an Away Key to quickly disable the snow melting system, and when connected to a tekmarNet® system, can also turn down the heating temperature on all thermostats and suspend heating the domestic hot water tank to maximize energy savings. To turn on the Away Key, go to the Scene menu.

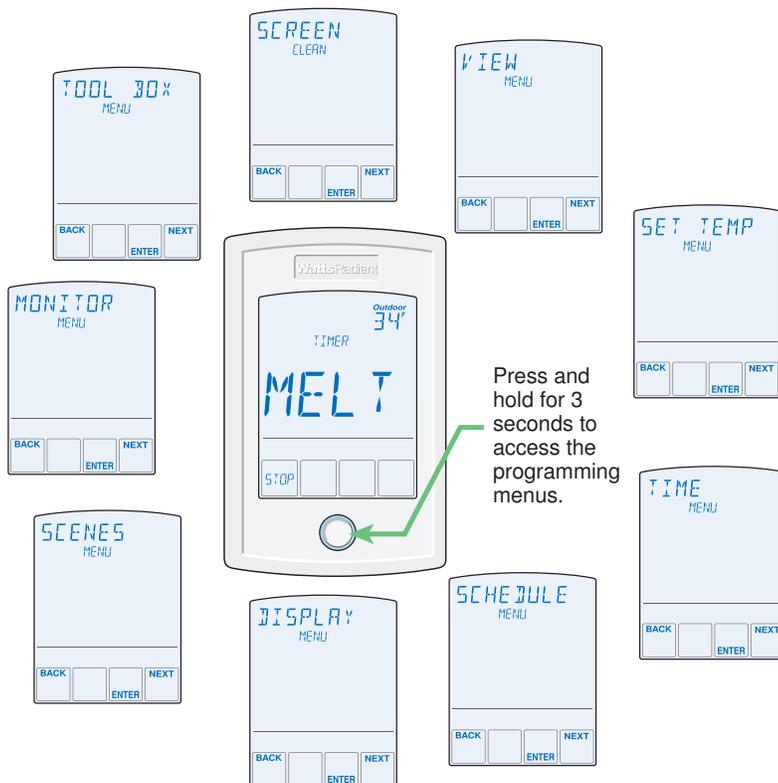
To activate the Away scene, touch "Going Away" on the screen.

- Select PERM (permanent) or a number of days using the ▲ or ▼ arrow. Range is 1 to 180 days.
- Press the home button to accept the setting or leave the screen untouched for several seconds.
- "Scene Away" is displayed on the home screen until the number of days expires.
- Touch "Cancel Away" to cancel at any time.



Programming Menus

Press and hold the Home button for 3 seconds to enter the programming menus. The control returns to the last programming menu previously used.



Select a Programming Menu

- Touch "NEXT" to advance (clockwise in illustration) to the next menu.
- Touch "BACK" to go backwards (counterclockwise in illustration) through the menus.
- Touch "ENTER" to enter a menu.

Setting Items

Touch ▲ or ▼ arrow to adjust the setting if required.

- Touch "NEXT ITEM" to advance to the next item within the menu.
- Touch "BACK ITEM" to go backwards to the previous item within the menu.
- To return to the parent menu after changing a setting, press and release the Home button.
- To return to the Home screen, press and release the Home button twice or wait 30 seconds to automatically return to the Home screen.

Programming Menus

View Menu

Displays current operating temperatures and status information of the system.

Snow Zone - The snow melt zone number on the tekmarNet® system.

Outdoor - Current outdoor air temperature as measured by the outdoor sensor.

Slab - Current slab temperature as measured by the control.

Water Sensor - Current status of the water detection sensor.

Heat Relay - Current status of the heat relay.

System Pump Relay - Current status of the system pump relay.

Alert Relay - Current status of the alert relay.

Manual Melt Run Time - The remaining run time before shutting off.

Additional Melt Time - The remaining run time after the sensor is dry when using automatic operation.

Set Temp Menu

The Set Temp menu items select the operating temperatures of the snow melt system.

Melting - Select the desired surface temperature of the snow melt surface when melting. The factory default is 36°F or 2.0°C.

Manual Melt Run Time - Select the amount of running time when manually starting the system.

Time Menu

The control has a built-in time clock to allow the control to operate on a schedule. A battery-less backup allows the control to keep time for up to 4 hours without power. The time clock supports automatic adjustment for Daylight Saving Time (DST) once the day, month and year are entered. Use the Time menu to set the correct time, day, month and year.

Schedule Menu

This control can operate on a programmable schedule. During Event 1 or 3 the system is in Melt operation. During Event 2 or 4 the system is in Idle or Off operation.

Options include:

- Turning off the schedule (OFF)
- Operate a schedule that applies only to the snow melt system operated by this control (ZONE)

- The ability to operate one of the four system-wide schedules as a master (Schedule Master 1 through 4*)
- Join one of the four system-wide schedules as a member (Schedule Member 1 through 4*)

*Requires the control to be connected to a tekmarNet® system.

Once the type of schedule has been selected, the control can support schedules that have either 2 or 4 events per day.

Display Menu

Units - Select temperature units in degrees Fahrenheit or Celsius.

Backlight Options - Select how the display backlight operates.

- ON = Always on.
- ON MELT = On when melting, off when not melting. This provides a visual indicator to indicate that the snow melting system is currently melting.
- OFF = Always off.

Scene Menu

Scenes - Scenes provide system-wide overrides to save energy. Select whether scenes are not used (none) or if the away scene is available.

Away Key - If scenes are available, select if the away key is available or not.

Monitor Menu

Heat Hours - Records the number of running hours since the item was last reset. Touch the number and then the ENTER key to reset to zero.

System Pump Hours - Records the system pump running hours since the item was last reset. Touch the number and then the ENTER key to reset to zero.

Toolbox Menu

Access - Change the access level on the thermostat.

Software Version and Type Number - Display the software "SW" and the "TYPE" number.

Screen Clean

Entering the Screen Clean menu provides 30 seconds to clean the thermostat and display with a moist cloth. Do not use solvents to clean the thermostat.

More Information

This Product Guide contains standard information on how to make adjustments to an installed product. More detailed information can be found in this product's Installation and Operation Manual (IOM-WR-Snow_Melting_Control-654) at www.WattsRadiant.com

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. For more information: www.watts.com/prop65

WattsRadiant™

A Watts Water Technologies Company

USA: Springfield, MO • Tel. (800) 276-2419 • Fax: (417) 864-8161 • www.wattsradiant.com
Canada: Burlington, ONT. • Tel. (905) 332-4090 • Fax: (905) 332-7068 • www.watts.ca