Instructions for Installing PM-5C

A WARNING



Read this Manual BEFORE using this equipment.

Failure to read and follow all safety and use information can result in death,

serious personal injury, property damage, or damage to the equipment.

Keep this Manual for future reference.

Snow & Ice Sensor Control

These instructions are intended to provide specific application information for installing the PM-5C snow and ice sensor control with the ProMelt snow melt products.

Please refer to the full instruction manual given with the product for further installation, Caution, and operation instruction.

The PM-5C is a multi-voltage, self contained temperature, snow and ice sensor control. Each PM-5C can be set to operate with either 120, 208, 240, or 277 VAC and can provide up to 60 amps of service to the load (2 circuits 30 amps each). The integrated snow sensor is heated to allow for snow, ice, or freezing rain to melt, allowing proper detection of environmental conditions.

⚠ WARNING



- 1. THIS UNIT SHOULD BE INSTALLED ONLY BY QUALIFIED PERSONNEL!
- To prevent the risk of electric shock, disconnect all power from the control and associated equipment before opening the front cover plate.
- Do not drill holes through the electrical enclosure for mounting.

Mount the control to a free-standing conduit or via the pre-determined mounting holes.

4. Ensure front cover gasket is properly installed when replacing cover.

Installation

The PM-5C must be installed in a location that exposes the moisture grid to a clear view of the sky and any precipitation. The unit should not be mounted directly under eaves, overhangs, or other obstructions that can block precipitation from reaching the moisture grid.

Do not install the sensor close to the ground, or any other location, that can cause the sensor to be buried in snow.

Mount the PM-5C outdoors, away from furnace vents, dryer vents, and other sources of heat. The PM-5C can be mounted to a free-standing conduit or by using the mounting holes in each corner of the enclosure. Do not drill holes in the enclosure.

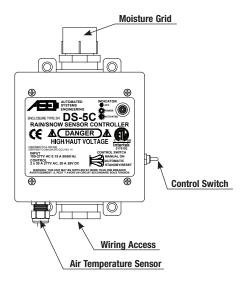
Wire the controller in accordance to the provided schematics

Setting Configuration

Before turning power on to the PM-5C sensor, it is important to set all control modes and settings.

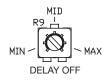
- Place the control in Standby/Reset with the switch mounted on the side before making configuration switch changes. Remember to return it to Automatic mode when finished.
- 2. Set the Trigger Temperature by adjusting the TRIG TEMP control for desired melting conditions. Precipitation below this temperature is assumed to be snow, above this is rain.Control comes with the TRIG TEMP dial set to 39°F (4°C).





PM-5C provides integrated air and moisture detection within a rainproof and ice-resistant enclosure.

3. Set the DELAY OFF time for 30 to 90 minutes (LD Off) or 2 to 6 hours (LD On). The Delay function will allow the snow melt system to run for the set time frame after moisture is no longer detected (once snowfall has stopped). This is to help prevent "black ice" from forming.



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4. Determine how the sensor operates by setting the toggles located at S1.

Snow: The control will operate when precipitation is detected below the Temp Adjust setting.

Recommended ON.

Rain: The control will operate when precipitation is detected above the Temp Adjust setting. Required OFF.

DEL: The control will operate with a Delay Off time. If this function is set to Off, the control will operate with a 2 minute delay to prevent short-cycling of external components.

Recommended ON.

heat output).

LTC: The control will operate in Low Temperature Cutoff mode, preventing operation when Ambient Temperatures (AT) fall below 15°F (9.5°C).

Recommended: ON (for systems with limited)

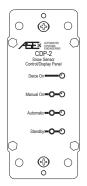
LD: This Long Delay switch determines the time span of the Delay Off drying cycle. Either 30-90 minutes (LD Off) or 2-6 hours (LD On). Recommended OFF.

 Set the precipitation SENSITIVITY to reduce nuisance triggering. MORE to trigger immediately upon detection. LESS to trigger with up to 120 seconds of detection.
 Recommended MORE to begin, then adjust as needed.

Power must be cycled for switch changes to take effect.

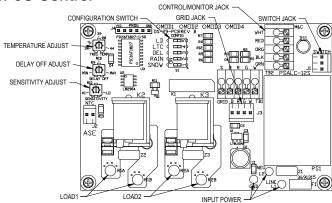


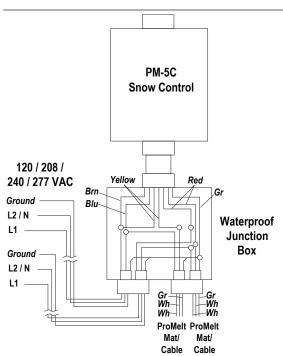
ProMelt Display Panel



Indoor monitoring
and control of the PM 5
is available with
the optional PM DP
snow melt sensor
remote control.
For more information see
the PM DP submittal or
installation instructions.

PM-5C Control





necommended Switch Settings								
Function	Trigger	LTC	DEL	RAIN	SNOW	LD OFF	LD ON	
Snow sensor w/o LTC	TT>AT	0FF	0FF	0FF	ON	2 Min	2 Min	
Snow sensor w/LTC	TT>AT>15°F (9.5°C)	ON	0FF	0FF	ON	2 Min	2 Min	
Snow controller w/o LTC	TT>AT	0FF	ON	0FF	ON	30-90 Min	2-6 Hr	
Snow controller w/LTC	TT>AT>15°F (9.5°C)	ON	ON	0FF	ON	30-90 Min	2-6 Hr	

Do Not set the Rain switch to "ON". Possible overheating of the snow melt cables may result.

Specifications					
Supply Voltage	100 - 277 VAC				
Maximum Amperage	2 x 30A				
Trigger Temperature Range (TT)	34°F to 44°F (1°C to 6.5°C)				
Configuration Modes	Snow Only Rain Only Snow or Rain				
Delay Settings (post melting)	30 to 90 minutes 2 to 6 hours				
Low Temperature Cutoff (LTC)	Prevents system operation when Ambient Temperature (AT) is below 5°F (-15°C)				
Operation Modes	Automatic Standby/Reset Manual				

Sensor Maintenance

At least once every four months the PM 5 should be powered down and the sensor grid be wiped clean with clear water. Heavy deposits left behind by evaporated water may be removed by gently scrubbing with a non-metallic scouring pad.

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

Manual Override Switch

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An override switch is mounted on the side for testing and special operational requirements. Placing the switch in the "Automatic" position will allow the sensor to operate normally. "Manual On" will activate the control and will stay activated for a maximum of 40 hours before returning to "Automatic" mode. The "Stand-by/Reset" position will clear any current snow melt call or delay activity.

If the Manual Override Switch is moved to Manual On for less than 2 seconds and then back to Automatic the sensor will execute one delay off cycle. This can be used to clear frost, hail, drifting snow, or other conditions. Stand-by/Reset will clear this setting.

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