

Instructions for Installing PM-2B

Remote Snow/Ice Sensor

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

⚠ WARNING: General Safety Instructions

1. **THIS UNIT SHOULD BE INSTALLED ONLY BY QUALIFIED PERSONNEL!**
2. Disconnect all power from the control, or any associated equipment, before opening the front cover plate.
3. Confirm power selection jumpers are properly set prior to applying power.
4. To avoid fire hazard, replace fuse **only** with 2 Amp 32 V or 250 V 3AG fast acting fuse.
5. 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.
6. Ensure front cover gasket is properly installed when replacing cover.

Installation

The PM-2B 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.

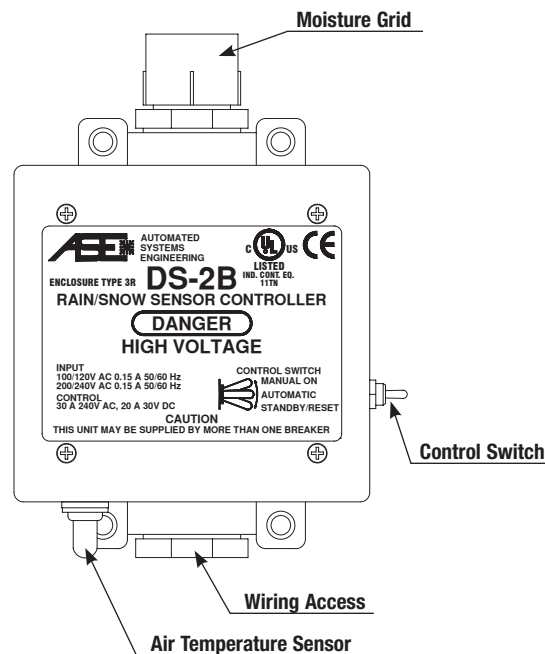
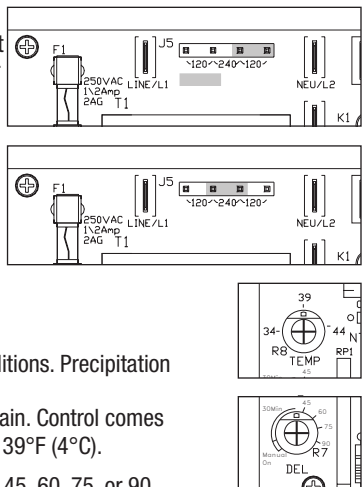
Mount the PM-2B outdoors, away from furnace vents, dryer vents, and other sources of heat. The PM-2B can be mounted to a free-standing conduit or by using the mounting holes in each corner of the enclosure. Do not drill holes in the enclosure.

Wire the controller in accordance to the provided schematics.

Operation

Before installing and wiring the PM-2B sensor, it is important to set all power and control settings prior to wiring or mounting.

1. Set the voltage jumpers to correspond with the supplied power. Place jumpers on the outside two posts for 120 VAC and a single jumper on the inside two posts for 240 VAC.
2. Set the Temp Adjust control for desired melting conditions. Precipitation below this temperature is assumed to be snow, above rain. Control comes with the Temp Adjust dial set to 39°F (4°C).
3. Set the Delay (DEL) time for 30, 45, 60, 75, or 90 minutes. 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.



PM-2B provides integrated air and moisture detection within a rainproof and ice-resistant enclosure.

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.**

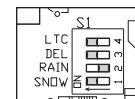
LTC: The control will operate in Low Temperature Cutoff mode, preventing operation when Ambient Temperatures (AT) fall below 15°F (9.5°C). **Recommended: ON (for systems with limited heat output).**

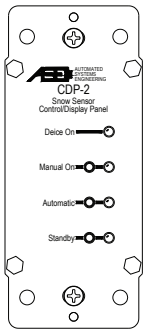
Power must be cycled for switch changes to take effect.

Manual Override Switch

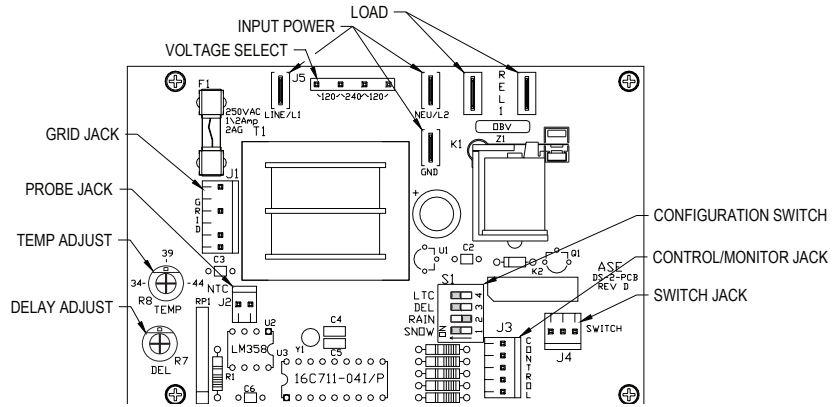
An override switch is mounted on the side for testing and special operational requirements. Placing the switch in the "Automatic" position will allow the sensor to operate normally. "Manual On" will activate the control and will stay activated for a maximum of 40 hours before returning to "Automatic" 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.





Indoor monitoring and control of the PM 2B is available with the optional PM DP snow melt sensor remote control. For more information see the PM DP submittal or installation instructions.



Product Amp Rating	Minimum Lead Wire Gauge	Maximum Allowable Distance
0-14 amps	14 ga	50 ft. (15.24 m)
15+ amps	10 ga	50 ft. (15.24 m)

Specifications

Supply Voltage	100 - 120 VAC 200 - 240 VAC
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
Low Temperature Cutoff (LTC)	Prevents system operation when Ambient Temperature (AT) is below 15°F (9.5°C)
Operation Modes	Automatic Standby/Reset Manual

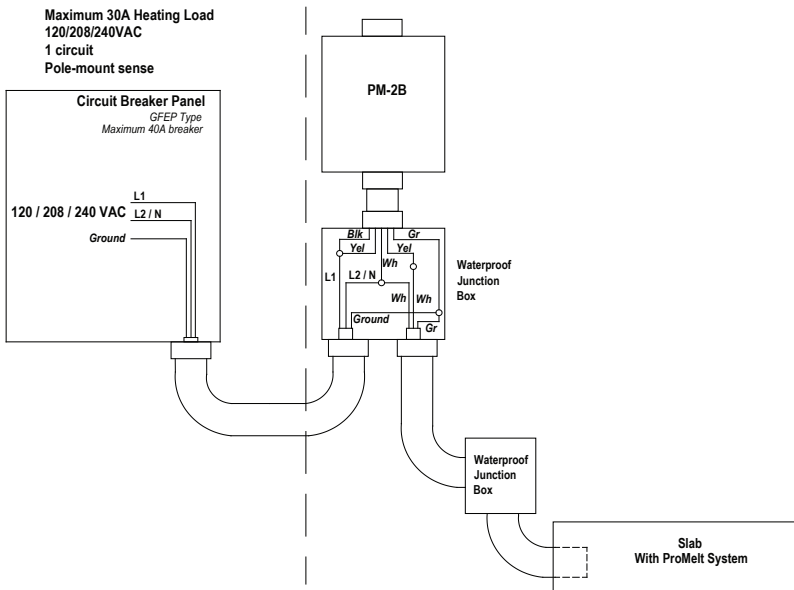
Recommended Switch Settings

Function	Trigger	LTC	DEL	RAIN	SNOW
Snow sensor w/o LTC	TT>AT	OFF	OFF	OFF	ON
Snow sensor w/LTC	TT>AT>15°F (9.5°C)	ON	OFF	OFF	ON
Snow controller w/o LTC	TT>AT	OFF	ON	OFF	ON
Snow controller w/LTC	TT>AT>15°F (9.5°C)	ON	ON	OFF	ON

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

Sensor Maintenance

At least once every four months the PM 2B 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.



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