

QUICK-REFERENCE INSTALLATION GUIDE



SNOW SWITCH[®] MODEL LCD-8

AUTOMATIC SNOW/ICE MELTING SYSTEM CONTROLLER

PACKING LIST

QTY.	PART NO.	DESCRIPTION
1	24619	LCD-8 AERIAL SNOW CONTROLLER, 100 - 240 VAC
1	24801	ACCESSORY KIT
1	24783	LCD-8 Installation Sheet (this document)

NOTE:

The Snow Switch Model LCD-8 Aerial Snow Controller is permanently connected equipment and does not have an internal disconnect device. A readily accessible disconnect device, short circuit, and current protection shall be provided and are not supplied by Environmental Technology, Inc. When power is applied, the system will start.

PRIOR TO INSTALLATION

1. Install & service this device only if a qualified electrician trained to perform such work.
2. Before beginning installation, lay out the required components in their approximate location on the site to help visualize and evaluate exact component and conduit body/junction box placement.
3. It is recommended to read these installation instructions prior to beginning installation.

Install in accordance with the requirements of all applicable electrical and building codes and regulations.



Ensure that all conduit and cable terminations are watertight.

Assurez-vous que toutes les terminaisons de conduit et de câble sont étanches.

NEC Article 426.28 requires Equipment Ground Fault Protection (GFEP) for Ice and Snow Melting Equipment.



This functionality is not provided as part of this controller and shall be provided as part of the overall system.

L'article 426.28 de la NEC exige la protection des défaillances au sol de l'équipement (GFEP) pour l'équipement de fonte des glaces et des neiges. Cette fonctionnalité n'est pas fournie dans le cadre de ce contrôleur et doit être fournie dans le cadre du système global.

QUICK-REFERENCE INSTALLATION GUIDE

INSTALLATION

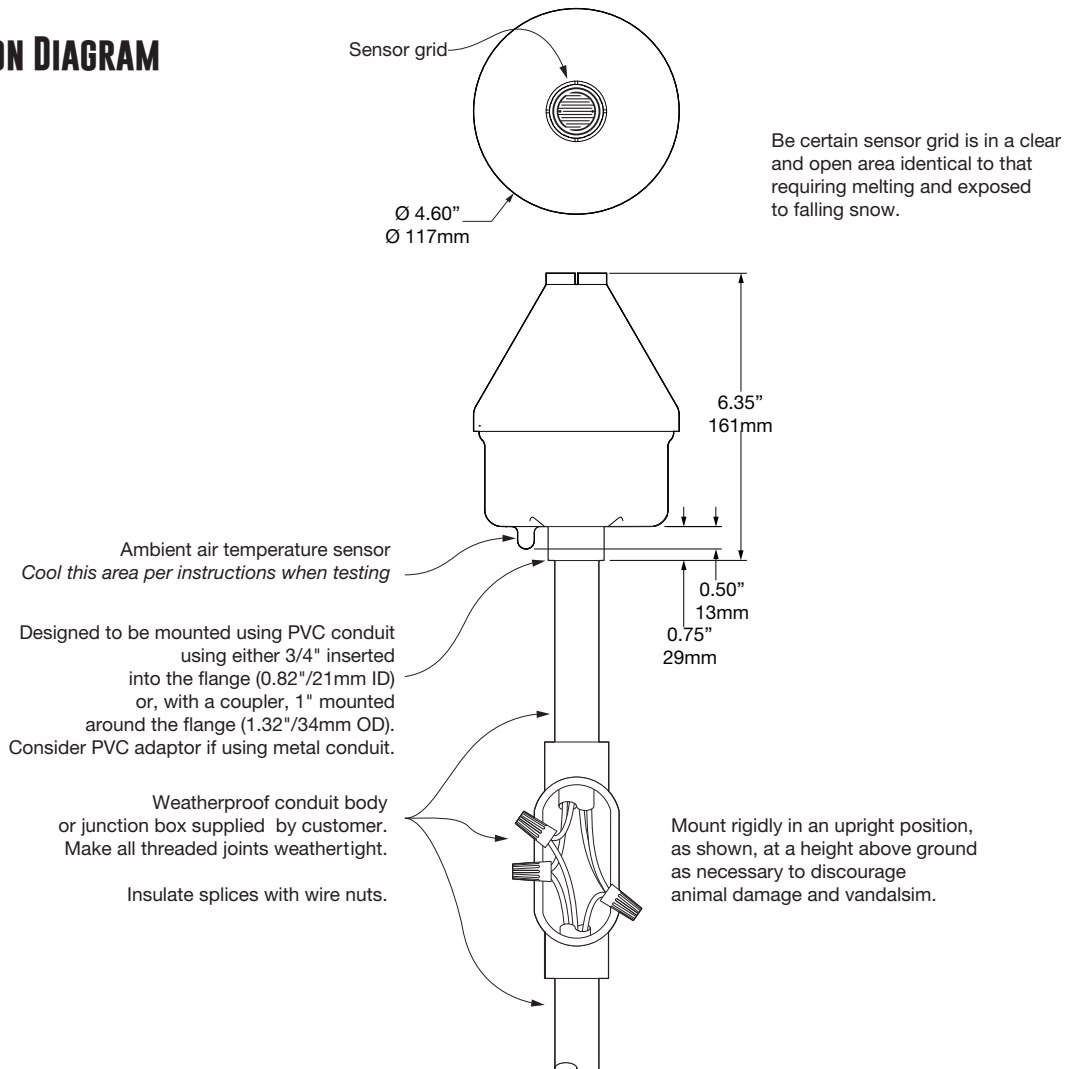
Note: During installation, leave all mounting hardware loose enough to allow for slight adjustments to component placement. Once all components have been installed, then, as the final step in installation, fully tighten all mounting hardware and weather-tight fittings. Make sure all connections and fittings are snug, air-tight, and water-tight.

1. With user-supplied hardware, mount the LCD-8 securely in an upright position (sensor grid at top) in a clear and open area typical of the area to be melted, either above the roof line or removed from the building and exposed to, rather than protected from, falling snow.

- Avoid overhead trees, shrubs, wires, eaves, etc., and falling or blowing debris.
- Avoid vehicle and foot traffic. Do not create a safety hazard.
- Avoid exposure to artificial heat sources and excessive shock and vibration.

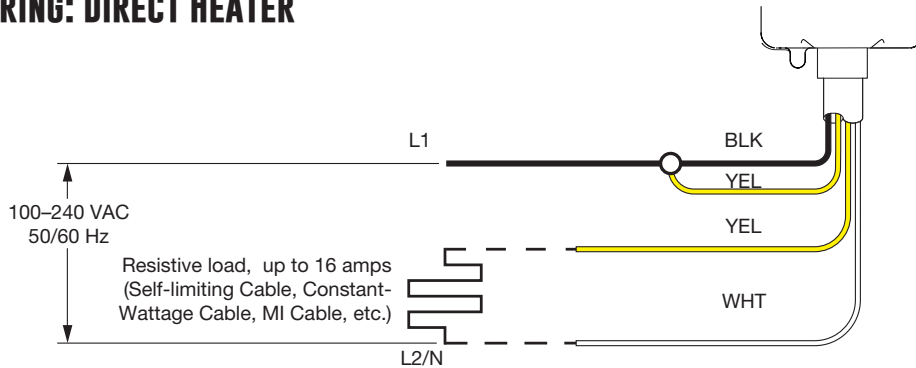
2. The LCD-8 also should be positioned at a height above ground that reduces, eliminates or discourages damage caused by animals or vandals.

INSTALLATION DIAGRAM

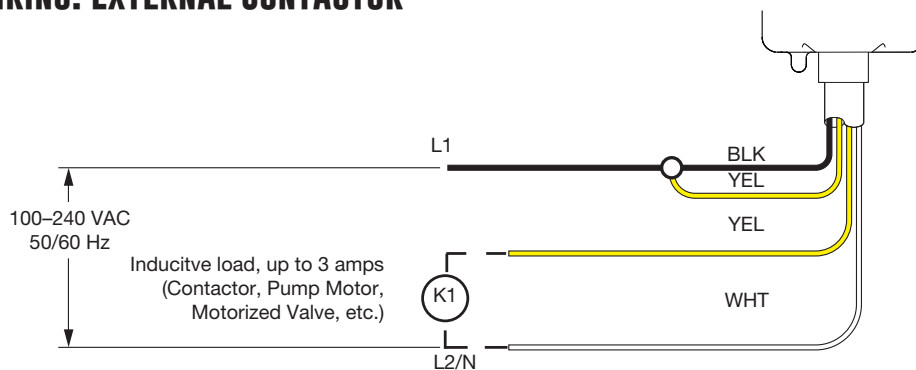


QUICK-REFERENCE INSTALLATION GUIDE

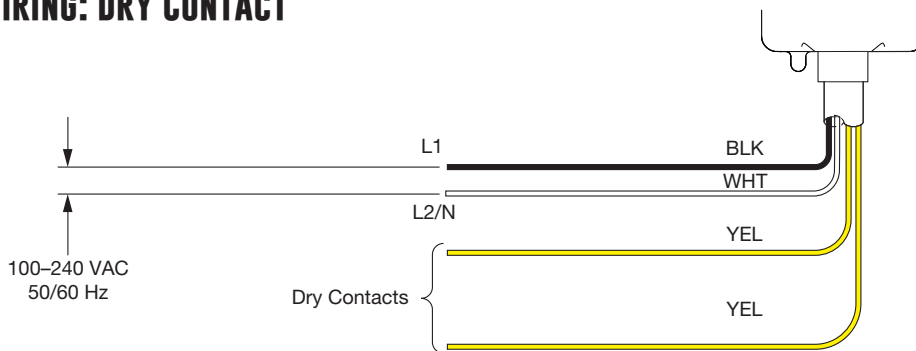
WIRING: DIRECT HEATER



WIRING: EXTERNAL CONTACTOR



WIRING: DRY CONTACT



POST-INSTALLATION LCD-8 TESTS

Most problems result from installation errors. Before testing, verify that unit is properly installed.

1. Connect power to snow melting system. Wait 15 seconds; system should not actuate.
2. Using ice water or other cooling agent, cool ambient air temperature sensor to below 38°F (3.3°C); system should not actuate. Apply moisture to moisture sensing grid. System should actuate in less than 15 seconds.
3. Dry moisture sensing grid. Disconnect power to snow melting system. Wait 1 minute, then reconnect power. If system actuates, ensure sensing grid is dry and ambient air temperature is above 38°F (3.3°C), then repeat this step.

QUICK-REFERENCE INSTALLATION GUIDE

LCD-8 MAGNETIC REED SWITCH

The LCD-8 uses an internal magnetic reed switch (Figure 1), approximately located just below the conical top and above the green LED. The user swipes a magnet (Figure 2) externally across this switch (Figure 3) to start a hold-on cycle or to terminate a running hold-on cycle. The magnetic switch determines whether the user's action "swipes" or "holds" the magnet during LCD -8 configuration.

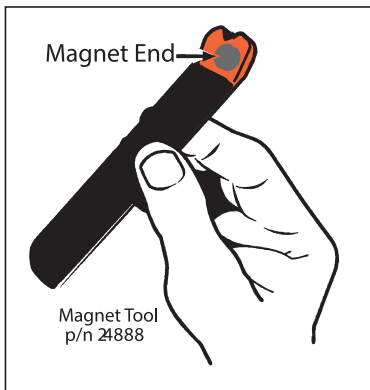


FIGURE 2. Magnet (external) similar to one at the end of the Magnet Tool, p/n 24888

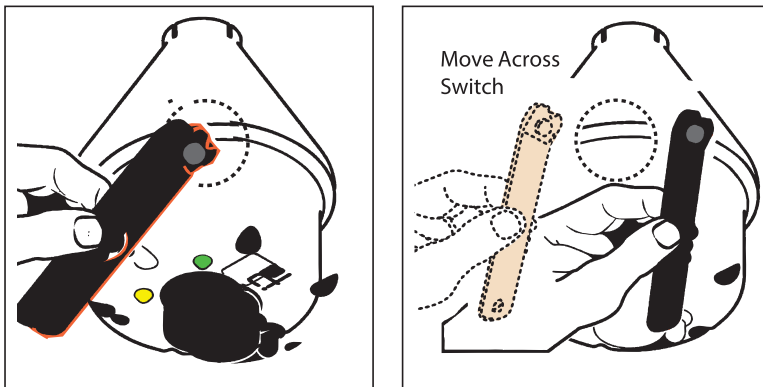
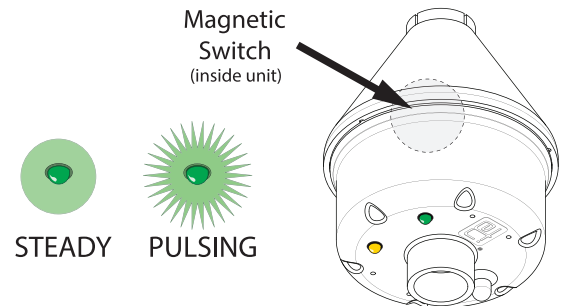


FIGURE 3. Positioning (left) and swiping (right) the Magnet over the internal Magnetic Reed Switch

FIGURE 1. Magnetic Reed Switch (internal)



QUICK-REFERENCE INSTALLATION GUIDE

SAFETY & WARNINGS

1. Make all electrical connections in compliance with the National Electrical Code (NFPA 70) and local electrical code. If you have questions concerning the installation or application, contact Customer Service.
2. **Abnormal Odor or Smoke** : In the event of smoke or a burning or abnormal odor, immediately interrupt power to the unit by unplugging the unit or by turning off the circuit breaker protecting the unit.
3. **Electrical Shock/Fire Hazard**: Even when the snow melting elements are disconnected, as long as the circuit breaker is on and power is running to the unit, voltage is still being applied to the system's yellow leads. Therefore, never touch the ends of the yellow leads or let the two leads touch each other. Do not let the two yellow leads contact any component inside the unit.
4. Any installation involving electric heater wiring must be grounded to earth to protect against shock and fire hazard. Suitable ground fault detection and interrupting systems must be in use at all times to reduce shock and fire hazard and to protect equipment.
5. Electric wiring to heating elements must be installed in accordance with National Electrical Code (NEC) requirements and all other local and applicable electrical codes and any third party standards. Follow the installation instructions contained herein and those provided by the heater manufacturer.
6. Use a GFEP (Ground Fault Equipment Protection) circuit breaker on each branch circuit connected to the ice melting system. Clearly label each circuit breaker with its function. This is vitally important when there is more than a single point of disconnect.
7. Size the circuit breaker in accordance with the size of the expected load. The maximum current load for the LCD-8 is 16 Amp resistive. This product is intended for use in residential or light commercial applications.
8. Make certain that the heater shield is properly grounded. Failure to do so may result in damage to the equipment or fire.
9. Following installation and prior to beginning system operation, refer to and perform the Post-Installation Tests.

SÉCURITÉ ET AVERTISSEMENTS

1. Effectuez toutes les connexions électriques en conformité avec le Code national de l'électricité (NFPA 70) et le code électrique local. Si vous avez des questions concernant l'installation ou l'application, contactez le service à la clientèle.
2. **Odeur ou fumée anormale** : En cas de fumée ou d'odeur brûlante ou anormale, interrompez immédiatement l'alimentation de l'appareil en débranchant l'appareil ou en éteignant le disjoncteur protégeant l'appareil.
3. **Choc électrique /risque d'incendie** : Même lorsque les éléments de fonte des neiges sont déconnectés, tant que le disjoncteur est allumé et que la puissance est en marche jusqu'à l'unité, la tension est toujours appliquée aux fils jaunes du système. Par conséquent, ne jamais toucher les extrémités des fils jaunes ou laisser les deux fils se toucher. Ne laissez pas les deux fils jaunes contacter un composant à l'intérieur de l'appareil.
4. Toute installation impliquant le câblage de chauffage électrique doit être clouée au sol sur terre pour se protéger contre les risques de choc et d'incendie. Des systèmes appropriés de détection et d'interruption des défaillances au sol doivent être utilisés en tout temps pour réduire les risques de choc et d'incendie et pour protéger l'équipement.
5. Le câblage électrique aux éléments de chauffage doit être installé conformément aux exigences du Code national de l'électricité (CNO) et à tous les autres codes électriques locaux et applicables et aux normes tierces. Suivez les instructions d'installation contenues dans les présentes et celles fournies par le fabricant de chauffage.
6. Utilisez un disjoncteur GFEP (Ground Fault Equipment Protection) sur chaque circuit de branche relié au système de fonte des glaces. Étiquetez clairement chaque disjoncteur avec sa fonction. Ceci est d'une importance vitale lorsqu'il y a plus qu'un seul point de déconnexion.
7. Taillez le disjoncteur en fonction de la taille de la charge prévue. La charge de courant maximale pour l'ÉCRAN LCD-8 est de 16 Amp résistant. Ce produit est destiné à être utilisé dans des applications commerciales résidentielles ou légères.
8. Assurez-vous que le bouclier de chauffage est correctement cloué à la terre. Le défaut de le faire peut endommager l'équipement ou l'incendie..
9. Après l'installation et avant le début du fonctionnement du système, consultez et effectuez les essais post-installation.

CONTACTING CUSTOMER SERVICE

For technical help, questions or comments concerning this product or any ETI product contact Customer Service 8:00 a.m. - 5:00 p.m. EST.

Email: info@networketi.com

Web: networketi.com

Mail: ETI
1850 North Sheridan Street
South Bend, IN 46628

LIMITED WARRANTY

ETI's two year limited warranty covering defects in workmanship and materials applies. Contact Customer Service for complete warranty information.

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