



We Manage Heat®

February, 2003



SIT-6E
Pavement Sensor

for the upcoming heating season. This starts with a detailed forecast for each product based upon its sales during the past heating season and a number of judgment factors.

The production plan spans the entire heating season which allows us to change plant capacity well in advance. It takes up to six months, and sometimes longer, to train new workers. Since training is a very important element in the quality equation, it is one of the tools that we use to produce and maintain industry leading quality.

We avoid hiring and firing seasonally since this complicates maintaining high quality. A production plan that spans the entire heating season makes stable employment possible. Thus, manufacturing for our seven month season continues throughout the year.

Planning helps control costs since this permits long range contracts for materials. These contracts lock in prices and assure timely material availability.

In large part, this planning cycle is responsible for our excellent stock position and stable prices in recent years. So, this process directly benefits you.

SIT-6E Pavement Mounted Sensor

SIT-6E deliveries started in early November with current deliveries from stock. Data sheets are scheduled for mid-February.

Accessories planned include low cost three-color extension wire available on 100, 250, and, 500 foot spools along with Pavement Mounted junction boxes the same size as the SIT-6E.

New Pricing System Update

We are delaying the introduction of the new pricing system until early April to become effective on July 1. This gives time for fine tuning before the next heating season begins.

The Seasonal Planning Cycle at ETI

Planning for the next heating season began on January 2, and will continue until implementation begins April 1. In this issue, we discuss the vitally important area of production scheduling.

One of the most important tasks is setting the production schedule and stock levels

SCANNING THE ISSUE

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the heating cable. If the temperature fails to reach a critical limit or falls below it in the allotted time, the HFD-1R declares a heater failure by operating the SPST low voltage ALARM relay and red ALARM indicator.

Programmable temperature limits are selected in either degrees Celsius or Fahrenheit. The temperature ranges from 30 to 65 degrees in 5 degree Celsius steps or from 80 to 150 degrees in 10 degree Fahrenheit steps. The temperature limits and calibration are selected via the 8-pole DIP switch.

The programmable delay timer allows enough time for the heater to come up to its operating temperature thus preventing false alarms. The timer range is from 2 to 16 minutes in two minute steps as set by the 8-pole DIP switch.

The factory installed HFD-1R mounts in the low voltage wiring compartment of an APS-3B, APS-4, and, SC-40 products. A calibrated temperature sensor is included.

Deliveries will begin this spring. Although we have not set the exact price for the HFD-1R, it will be 15 to 20 percent of the price of an APS-4.

New Product Announcement

This month we are introducing the new computerized HFD-1R Heater Monitor as an accessory for the APS-3B, APS-4, and, SC-40 products. The HFD-1R detects failures in mission-critical applications by measuring the far-end temperature of

A Matter of Priority

We manufacture products for world wide application in satellite earth stations and terrestrial microwave communications systems. In recent years, an increasing percentage of our sales have been going, directly and indirectly, for military applications around the world.

The declaration of war against terrorism gives the U.S. military the power by law to give its procurement needs priority over civilian orders. The two top military procurement priorities are DO and DX. A DO order has priority over all civilian purchases while a DX order has priority over all civilian and military orders.

Our excellent stock position, combined with increased production, makes delays in product shipments unlikely. If this situation changes, we will publish details immediately on www.networketi.com and in the Interface.

SNO-TALK

When is Snow Melting Complete?

In two previous issues of the Interface, we discussed the need to hold the snow melting heaters on for a period of time after snow stops falling. Now we will present the compelling need to complete the pavement snow melting task.

Complete melting requires not only the removal of all snow and ice but also the

elimination of melt water. The end result must be damp to dry pavement. Failure to meet this objective can create a situation that is as bad as if no attempt had been made to remove the snow and ice. If the heaters turn off too soon, remaining slush and melt water can refreeze thus creating a hazard. With asphalt pavement, refrozen melt water can create a situation similar to black ice which, under certain lighting conditions, can be invisible.

Clearing melt water by draining and evaporation is essential and often neglected. Draining is the best choice since this is both quick and energy efficient. However, no matter how effective the drainage is, evaporation using the snow melting heaters is always required. Puddles of melt water will collect in low areas. Unless the pavement mounted sensor is located in the low area, the heaters will turn off before melt water evaporation is complete. Once again, the hold-on timer is essential.

In summary, snow melting is not complete until the pavement is damp or dry. The vital hold-on timer is the key to ensuring complete melting after the snow event. It accommodates variations between snow events and the physical characteristics of the installation.

CODE CORNER

The previous article touched on continuous rating. To better understand its application, the load, conductors, and overcurrent protection are defined. The National Electrical Code Article 100 defines Continuous Load as, a load

where the maximum current is expected to continue for three hours or more. A continuous load is found primarily in a branch circuit. Article 100 defines branch circuit as, the conductors between the final overcurrent device protecting the circuit and the outlet(s). This identifies the load and where it is expected to be found. The National Electrical Code completes its instruction by detailing how to size the conductors and overcurrent protector. Article 210.19(A) (1) (Branch Circuits Not More Than 600 Volts) states that General Branch-circuit conductors shall have an ampacity not less than the maximum load to be served. Where a branch circuit supplies continuous loads, it shall have an allowable ampacity not less than the non-continuous load plus 125 percent of the continuous load. Finally, the overcurrent protection is explained in Article 210.20(A) Continuous and Non-Continuous Loads. Where a branch circuit supplies continuous loads or any combination of continuous and non-continuous loads, the rating of the overcurrent device shall be not less than the non-continuous load plus 125 percent of the continuous load.

The circuit design consists of protection and conductors. These are the only two consistent elements in every electrical circuit. The code has provided for sizing and protection when the load is continuous.



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