# Surface Patrol™

## Mobile Infrared Pavement Temperature Sensor

## Overview

The Surface Patrol is a mobile temperature sensor used to detect possible freezing temperatures on the pavement. It features a non-contact infrared sensor for measuring pavement temperature, and also measures air temperature. The easy-to-use Surface Patrol is valuable for large agencies, such as Departments of Transportation, all the way down to smaller companies with only a few trucks.

The Surface Patrol pavement sensor is mounted outside your vehicle and continuously monitors road surface temperatures, providing instant feedback on road surface conditions. The Surface Patrol has a separate air temperature sensor and cabling so that it can be placed away from direct sunlight for accurate readings. The data retrieved from the Surface Patrol is accurate and real-time, making it a reliable method for collecting pavement information.

The Surface Patrol can be calibrated in the field, ensuring you are always getting the most accurate readings. In addition, the pavement probe features a cone design to protect the sensor from spray and winter elements that can decrease the accuracy of the readings.

## Benefits

- Mobile sensor provides pavement data for your entire route
- Real-time pavement and air temperature readings
- Inexpensive compared to other pavement monitoring methods


## Applications

- Departments of Transportation/Ministries of Transportation
- City, County, and Township street maintenance departments
- Airport ground equipment
- Snow plows and snow removal contractors
- Other fleet vehicles to increase your AVL network

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## Mobile Infrared Pavement Temperature Sensor

## Features

- Measures both air and pavement temperatures
- Easy-to-read, dash-mounted digital display
- Patented cone design to protect sensor lens
- Separate air sensor for improved accuracy
- Quick and easy to install
- Unit can be calibrated in the field as opposed to returning it to the manufacturer
- Integrates with other vehicle equipment such as spreaders or distance measuring instruments
- Optional RS-232 output to connect to a computer or analog output for other applications

## Key Specifications

| | |
|---|---|
| Accuracy | ±0.5°F (0.28°C) at 32°F (0°C) |
| Shock | 50 Gs |
| Vibration | 10 Gs in any axis |
| Input Voltage | 12 or 24 VDC unregulated |
| Field Calibration | Adjustable ±5.0°F (17.5°C) at 32°F (0°C) |
| Optics | Precision crystal (germanium lens) |
| Air Temperature Cable Length | 18 feet (5.5 meters) standard |
| Operating Air Temperature | -40°F to +160°F (-40°C to +71.1°C) |
| Dual Digital Meter | High brightness red LED, showing both air and pavement temperature |
| RF Hardened | Withstands external radio frequency effects caused by mobile radios |
| Digital Output* | RS-232; ASCII output |
| Analog Output* | 4 to 20 mA; 1 to 5 V |
| CE Compliant | Directive 2004/104/EC |

*Optional

Marlin Controls Inc.
*Weather Related Sensing Instruments*

**Distributed by:**

Marlin Controls Inc.
980 Quaker Highway
Uxbridge, MA 01569
Phone : 508-278-0446
Fax : 508-278-0446

www.marlin-controls.com