If your roof snow removal budget seems unmanageable, unpredictable and expensive, the SnowSentry™ system is a simple and powerful solution that will monitor snow loads across large roofs. SnowSentry™ systems report the data in real-time with triggers that can be configured to alert multiple personnel when critical levels are reached.

Don’t just guess – knowing when and where to remove snow will not only save you money, it will give you peace of mind in having made an informed decision to keep your people and property safe.
BEST CASE SCENARIO: SAVE MONEY

Use your own staff to install and monitor the SnowSentry™ network - it’s easy. Schedule targeted snow removal from your rooftops when it becomes truly necessary, rather than as an estimated precaution after a storm.

- **DROP AND GO INSTALLATION**
  Each station can be installed in minutes without the need for experts or tools.

- **SOLAR-POWERED STATIONS**
  SnowSentry™ stations run off long-life batteries, charged by the sun, that run through the night and 60+ cloudy days.

- **WIRELESS COMMUNICATIONS**
  No extra cables to manage and secure data transfer using robust point to point networking.

- **HIGHLY PORTABLE UNITS**
  These lightweight stations can be relocated easily and use GPS for accurate positioning.

SNOWSENTRY™ HAS YOUR BACK

The SnowSentry™ system monitors rooftop snow load conditions 24/7, wirelessly reporting information to your assigned staff through an intuitive web interface and sending alerts directly to e-mail and mobile devices when critical levels are reached.

WORSE CASE SCENARIO: PREVENT ROOF COLLAPSE

According to a survey by Paramount Disaster Recovery, a leading nationwide disaster response and recovery contracting company, “There are over 3,000 roof collapses each year in the U.S., resulting in over 20 deaths and a widespread disruption of many business operations”. Facility managers and their service providers need to know real-time rooftop conditions to make operational decisions about snow removal and building safety.

**The most common unknowns:**
1. When and how much snow should be removed?
2. Where are the most critical areas on the roof?

www.SnowSentry.com
PORTABLE & DURABLE

- Weight: 45 lbs (20.4 kg)
- Base Size: 29"x29"x1.8" (740mmx740mmx46mm)
- Controller & Mast: 58.3" (1481mm)
- Measurement Capacity is 100 PSF (488 kg/m²)
- Wind Tolerant to over 90 MPH (145 km/h)

CONNECTIVITY

- A 900 MHz wireless network connects stations to the Internet Gateway which is connected to the building's internet.
- GPS gives each station an accurate, known position on the roof.

COMMUNICATIONS

- Long-range wireless protocols allows seamless data transfer using the building's internet access.
- Customized alerts can be sent to responsible parties.
- Overloaded stations are identified on a roof map directing snow removal teams to key areas.

OPTIONAL

- **ROOF DRAIN TEMPERATURE SENSING**
  - Identifies freezing conditions around roof drains.
- **CELLULAR CONNECTIVITY**
  - Used when wire-based internet access is unavailable.
- **MAST EXTENSION KIT**
  - Used where the sun is blocked or in extremely deep snow areas.

REMOTELY MONITOR ROOFS/CUSTOMIZE ALERT LEVELS

1. The SnowSentry™ system will help you understand where snow has accumulated on your roof through the winter.
2. Intuitively displayed real-time data from every station help to visualize loading across roofs and identify the important regions to get cleared.
3. Set automatic alerts to be sent out to key personal via phone & e-mail at critical snow load levels.

www.SnowSentry.com
SYSTEM INSTALLATION

Setting up the wireless SnowSentry™ Stations is quick and easy. No tools are required. Place the aluminum mast into the station's base then set the control box on top of the mast, plug in the cable and turn it on. The Internet Gateway (IG) is AC powered and connects to the LAN with a supplied weatherproof cable. The IG can be wall or tripod mounted on the rooftop. In many cases the 900 MHz signal is strong enough so that the IG can be mounted at ground level or inside a building.
Wireless SnowSentry™ stations are placed across the entire roof, though more closely where snow tends to build up near parapets, walls and equipment causing overload conditions. Stations are geo-located in user-defined roof zones configured with a specific alert threshold based upon a roof’s structural capacity. Snow load data is displayed in real-time through the web app and personal are notified by their mobile device or the web app when conditions reach warning and unsafe levels.
Using the SnowSentry™ web app, the administrator or manager identifies the building(s) to be monitored and adds users to be notified when rooftop snow loads trigger an alert. Since buildings often have multiple roofs with different loads, individual roof zones are identified within the web app and assigned a snow load limit value based upon the capacity of the specific roof section.

The graph depicts snow load over time as reported by 3 rooftop stations. This data can be analyzed to better visualize the rooftop snow load throughout the winter. Note the result of the major storm event which triggered an alert warning after which snow was cleared from the roof in the high load areas.
PRODUCT DIMENSIONS

SNOWSENTRY™ STATION

INTERNET GATEWAY

ON BALLASTED TRIPOD

www.SnowSentry.com
# TECHNICAL SPECIFICATIONS

## SNOWSENTRY™ BASE UNIT (110596)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Snow Load Capacity</td>
<td>100 psf (488kg/m²)</td>
</tr>
<tr>
<td>Power Input</td>
<td>No external, solar powered</td>
</tr>
<tr>
<td>Days Between Full Charge</td>
<td>60+ Days</td>
</tr>
<tr>
<td>Weight</td>
<td>45 lbs (20.4 kg)</td>
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<tr>
<td>Dimensions</td>
<td>base only: 29&quot; x 29&quot; x 1.8&quot; (740mm x 740mm x 45mm) w/ controller on mast: 58.3&quot; (1481mm) height</td>
</tr>
<tr>
<td>Waterproof IP Rating</td>
<td>base: IP68, antenna &amp; controller: IP67</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-22° F to +140° F (-30° C to +60° C)</td>
</tr>
<tr>
<td>Wind Tolerance</td>
<td>Over 90 MPH (145 km/h)</td>
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<tr>
<td>Wireless Connectivity</td>
<td>900 MHz</td>
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</table>

## INTERNET GATEWAY (110356)

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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<tbody>
<tr>
<td>Power Input</td>
<td>100-240VAC, &lt;5W</td>
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<tr>
<td>Power Connection</td>
<td>14ft. (4m) Cable with standard power plug (Type B)</td>
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<tr>
<td>Weight</td>
<td>4.9 lbs (2.2 kg)</td>
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<tr>
<td>Dimensions</td>
<td>18.5&quot; x 6.3&quot; x 3.5&quot; (470mm x 160mm x 89mm)</td>
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<tr>
<td>Waterproof IP Rating</td>
<td>IP67</td>
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<tr>
<td>Wireless Connectivity</td>
<td>Wireless, 900 MHz</td>
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<tr>
<td>Ethernet Data Rate</td>
<td>10/100 Mbps (auto-sensing)</td>
</tr>
<tr>
<td>Ethernet Connection</td>
<td>50 ft removable, industrial grade CAT 5e cable with RJ45 connectors</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-22° F to +158° F (-30° C to +70° C)</td>
</tr>
<tr>
<td>Ethernet Isolation</td>
<td>1500 VAC min per IEEE802.3/ANSI X3.263</td>
</tr>
<tr>
<td>Emissions/Immunity</td>
<td>CE, FCC Part 15 (Class A)</td>
</tr>
</tbody>
</table>

www.SnowSentry.com
Our Experience Is Just the Beginning

2KR Systems designs and assembles commercial electromechanical products and offers design services where technical creativity is required.