



Heat Spy® News

palmerwahl.com

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Key Points from Steve Santangelo, President:

Wahl has been a major player in infrared handheld thermometers for 40+ years. Our Heat Spy® Infrared series of products have always been the model for quality and performance. Our new Heat Spy® Imagers have features not seen in any other cameras such as:

- When looking at an image you can determine the temperature of every point on the screen. In fact, you can identify two points on the screen, and the camera will indicate the temperature of each point, PLUS the differential temperature. This is a big advantage in diagnosing problems.
- The "Heat Spy®" function will automatically locate the hottest and coldest points

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Palmer Wahl President,
Steve Santangelo

Palmer Wahl Introduces the HSI3000 Thermal Imaging Camera

Palmer Wahl Instrumentation Group announces the addition of the HSI3000 to its line of Wahl Heat Spy® Thermal Imaging Cameras. The low cost, ergonomically designed HSI3000 is an easy-to-use, light, compact, hand held thermal imaging camera. It is used as a detection and diagnostic tool for condition monitoring of electrical and mechanical systems, and building diagnostics such as detecting moisture damage, pest infestation, insulation integrity. It is also useful for energy audits.

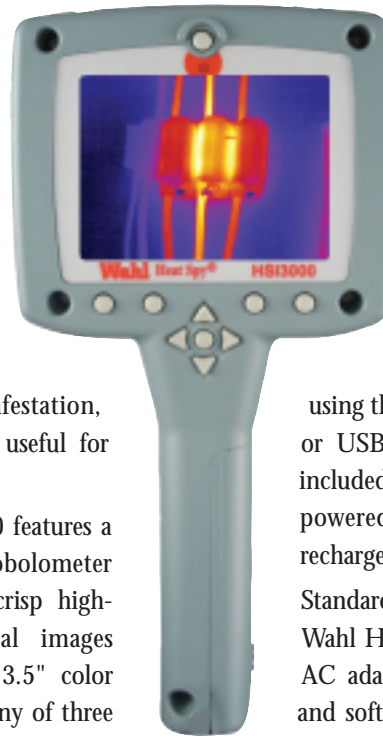
The Wahl Heat Spy® HSI3000 features a 160 x 120, uncooled microbolometer array, capable of producing crisp high-resolution real time thermal images displayed on a large, bright 3.5" color LCD with LED backlight in any of three user selectable color palettes plus grayscale. Two measurement cursors, movable anywhere on the image, provide temperature readings at

each cursor location, and indicate real-time differential temperature measurement between the two points anywhere along the

14°F to 482°F (-10°C to +250°C) range. A trigger activated Class II laser, will precisely identify problem hot spots shown on the marked center of the display. Over 1000 images can be stored on-board for recall and post analysis, and images can also be downloaded to a PC

using the supplied memory card reader or USB connection for use with the included software. The HSI3000 is powered by a long life LI-ion rechargeable battery.

Standard accessories included with the Wahl Heat Spy® HSI3000 are: battery, AC adapter, USB Cable, user manual and software CD, wrist strap, memory card and reader, and a rugged, foam-lined, lockable, waterproof carrying case.



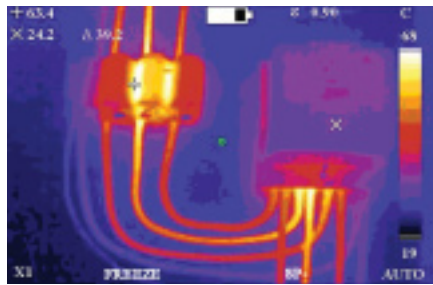
*"Buy it you'll like it guarantee!"
Money back guarantee. Wahl believes that you will be so satisfied with our new thermal imager that we offer you this special guarantee.*



ISO9001:2000
Certified

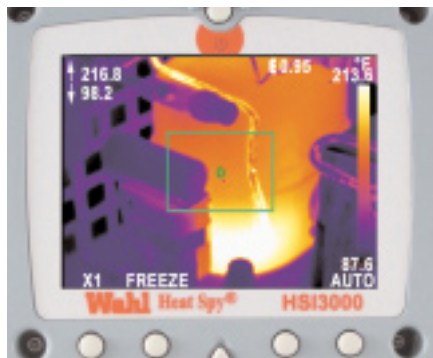
Powerful Features of the HSI3000 include:

Two moveable temperature cursors and deltaT. Heat Spy® mode automatically locates Hot & Cold Spots!



Heat Spy® Imager uses a state of the art uncooled 160 x 120 microbolometer detector. All of the 19,200 pixels are capable of indicating temperatures on the screen. Simply **move the + and x cursors to any location** on the screen and the temperatures and differential (deltaT) temperature are displayed.

Reduced Area mode helps to evaluate the Hot Spot!



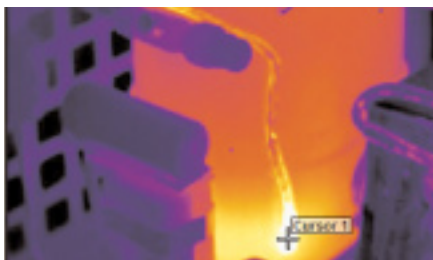
Each cursor can be put into "Heat Spy®" mode to **automatically find the hottest and coldest temperature in the image**. Easier than ever to find a hot spot and be able to identify it by using the laser pointer when aligned with circle in middle of screen. Choose an area rectangle screen and **only the temperatures inside the rectangle will be displayed**. Surrounding temperatures can be seen on the screen but are ignored so you can focus in on your target. This feature is most useful in distance applications or small targets.

Unlimited Storage!



Removable **256 MB** memory card stores over 1000 images. Larger MB memory cards or additional cards store an **unlimited number of thermal images!** Thus you can keep working in the field without having to take the camera to the office to download images. Picture shows socket for AC power supply and USB cable connector to connect with a PC.

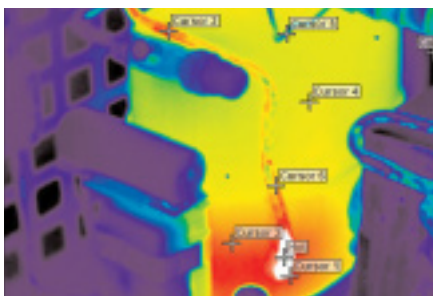
Sharper Images on a Bigger Display!



More pixels provide a higher resolution thermal image and allows **identification of smaller detail** in the image and consequently more accurate temperature measuring.

Better sensitivity (0.15°C) **detects the smallest temperature difference** from pixel to pixel resulting in a sharper image on a big 3-1/2" display.

Powerful Post Analysis Software!



Software is included so you can download and manipulate, analyze and store thermal images. Includes hot and cold spot cursors that will identify the high and low temperatures in the thermal image. Other features include histogram, 2D profiles, dual isotherms and the **ability to add multiple temperature points anywhere on the scene**.



170 Years of Continued Innovation

Heat Spy® News

Specifications: HSI3000

Note: Complete specifications can be found at www.palmerwahl.com.

Price:
HSI3000- \$5,995.00



Included Accessories:

- Rugged Waterproof Carrying Case
- Wrist Strap
- Battery
- AC Adapter
- User Manual and Software CD
- USB Cable
- Memory Card and Reader

Plus! Free Wahl Heat Spy® Infrared Thermometer



FREE!

Temperature Range	14° to 482°F (-10° to 250°C)
Field of View	20° x 15°
Focus	Manual; Minimum Focus Approximately. 11.8 inches (30 cm)
Spectral Response	8 to 14 microns
Thermal Sensitivity	150 mK @ 25°C Scene Temperature
Detector	High resolution 160 x 120 pixels uncooled microbolometer
Image Storage	Over 1000 images on supplied memory card
Software	Powerful ability to manipulate and analyze
Accuracy	The greater of ±2% of reading or ±2°C
Display	3-1/2" Color LCD with LED Backlight and 3 Color Palettes and Grayscale
Languages	English, French, German, Italian and Spanish included
Laser Pointer	Built in Class II Laser highlights the central measurement area
Radiometry	Two moveable cursors, delta temperature measurement
Emissivity Correction	User selectable 0.2 to 1.0 in steps of 0.01 with reflected ambient temperature compensation
Operating Range	5° to 113°F (-15° to 45°C); Storage Range : -4° to 150°F (-20° to 70°C)
Humidity	10% to 90% Non-Condensing
Power	Lithium-ion field rechargeable, replaceable batteries
AC Operation	AC Adapter included
Interfaces	USB type B
Housing	Impact Resistant Plastic
Dimensions	9.05 x 4.72 x 4.33 inches (230 x 120 x 110 mm); Weight 1.65 lbs (0.75 kg) including Battery
Mounting	Handheld and Tripod Mounting
Warranty	One Year

Applications Include:

ELECTRICAL

Most electrical problems exhibit a gradual rise in temperature prior to their failure. These problems can relate to problems such as:

- Loose or over tight connections.
- Shorted or overloaded circuits
- Load imbalances.
- Components which have failed or are fatigued such as fuses, circuit breakers, transformers, etc.

BUILDING INSPECTION

Help reduce heating and cooling energy costs. Find areas of moisture intrusion in roof and walls. Identify conditions conducive to mold or pest problems.

- Detect improper or missing insulation.
- Detect energy losses due to air leakage or conductive losses through walls.
- Check central heating/cooling and underfloor heating systems.

MECHANICAL

Excessive heating of mechanical devices can signify problems such as:

- Improper lubrication of bearings and motors.
- Misalignments in rotating equipment.
- Improper tension in drive belts and pulleys.

OTHER USES

- Refractory Condition Monitoring.
- Process Monitoring
- Quality Control.
- Product Development & Testing.
- And many more....

PALMER Wahl
INSTRUMENTATION GROUP

*170 Years of
Continued Innovation*

Wahl's Heat Spy® Imager
OUT PERFORMS Flir's E45
and Fluke's Ti30, for **thousands**
of dollars less!



Visit us at palmerwahl.com to see our entire line of products!

Key Points from Steve Santangelo, President *Continued from Page 1*

on the screen. This is an enormous time saver compared to finding these points manually on competitors' cameras.

- Selection of the "Area" option inserts a small visible rectangle, centered on the screen, which concentrates on a smaller area of the display. Max and min temperatures are indicated inside that rectangle only, simplifying the viewing of defined area hot or cold spots. This information is useful for future reference when downloaded on your computer.

- The memory card allows you to store an almost unlimited number of images. No more running to a PC to download pictures. This maximizes your productivity... after all, time is money.
- Finally, no other camera gives you a 160 x 120 array at a price under \$6,000.

There are many other great features that we know you will love about this camera, including our Money Back Guarantee! Give this high resolution camera a try, and the performance will amaze

you! If you are not completely satisfied, simply return the camera for a complete refund.

Save money, save time, and be more effective than ever when performing preventative and predictive maintenance and other tasks. When you're in the market for a thermal imaging camera, think about how the Wahl Heat Spy Imager will save you time and money... **¡Ka-Ching!**

—Steve Santangelo

The World's Finest Manufacturers of Industrial Temperature, Pressure, Humidity, Test and Calibration Instruments.

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We're on the Web at:
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Coming Soon! Thermal Imaging Cameras for Long Distance and High Temperature



DHS135XEL

DHS115XEL

DHS85XL

HSI1000