

# INFRARED IMAGING

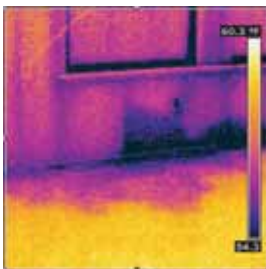
USING HEAT INFORMATION TO SEE THE TRUE COLOR OF YOUR HOME

Infrared imaging, sometimes called thermography, combines technical knowledge with specialized equipment as part of a home inspection to help identify problems "trapped" in the walls, ceilings or floors.

## The Benefits of Infrared

Temperature changes across surfaces are "read" by the infrared camera and interpreted by the inspector along with other clues can indicate:

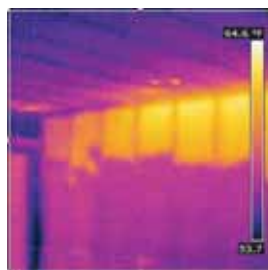
- Water Damage
- Missing Insulation
- Hot Spots in Electrical Wiring
- Framing Defects
- Air Leaks in Ductwork
- Drafts Around Doors and Windows.



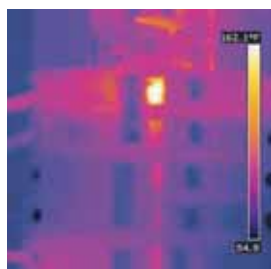
Above - Water intrusion into a bedroom due to a leaking gutter and downspout.

Moisture leaking through a section of roof or from bad plumbing, can leave a "cooler" spot on the camera imaging allowing the inspector to alert you to smaller issues before they become bigger problems.

Areas of missing or reduced insulation may be identified for repair or replacement. Utilities payments are a big-budget item when it comes to owning a home. Significant savings are possible when insulation levels are analyzed which doesn't happen with the naked eye. With an infrared camera, areas of reduced or missing insulation appear as a different color on the surface of a wall. Repairs or replacement can reduce the cost of heating or cooling the home.



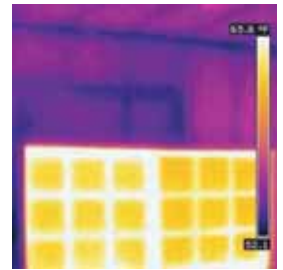
Above - Insulation has settled or was not properly installed in the stud bays.



Above - A defective electrical breaker is over heating - creating a potential hazard.

Temperature differentials point to "hot spots" in electrical wiring or breakers in the panel. These potential hazards can then be addressed for overall safety.

Infrared cameras have been called "expensive stud finders", but the truth is they can help identify flaws in framing such as over doors and windows where proper headers are required to prevent sagging and provide proper structural support.



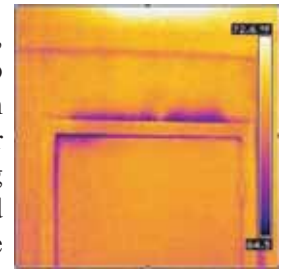
Above - Proper header framing is not installed over the top of the window.



Above - Leaking ductwork is heating up the framing around the area.

When analyzing ductwork with an infrared camera, areas around leaking ductwork will be heated or cooled showing up lighter or darker than the surrounding areas allowing repairs to be made to maximize efficiency of the HVAC system.

With the increasing cost of energy, infrared imaging can be used to identify points of air infiltration around doors with missing or poorly installed weather stripping and windows not properly sealed which results in increased expense in heating and cooling the home.



Above - Air intrusion from around the door framing and weather stripping.

## How Thermal Imaging Works

Thermal imaging uses a specially designed camera to scan the surfaces of a home for temperature changes. The camera converts the information into a digital image with heat changes depicted in various colors which are interpreted by the inspector to provide the home owner, or buyer with additional information. For more details on the technology, possible benefits and types of inspections offered, please call NPI today.



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