

Thermal Imaging For Home Inspectors

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Types of Training and Certifications

There is no law in America that requires you to be certified or licensed to use an infrared camera.

CERTIFICATION simply means a school has certified that you have reached a certain level of training.

LICENSE is issued by a government body to practice a professional trade or skill within it's jurisdiction.

Infrared Certifications

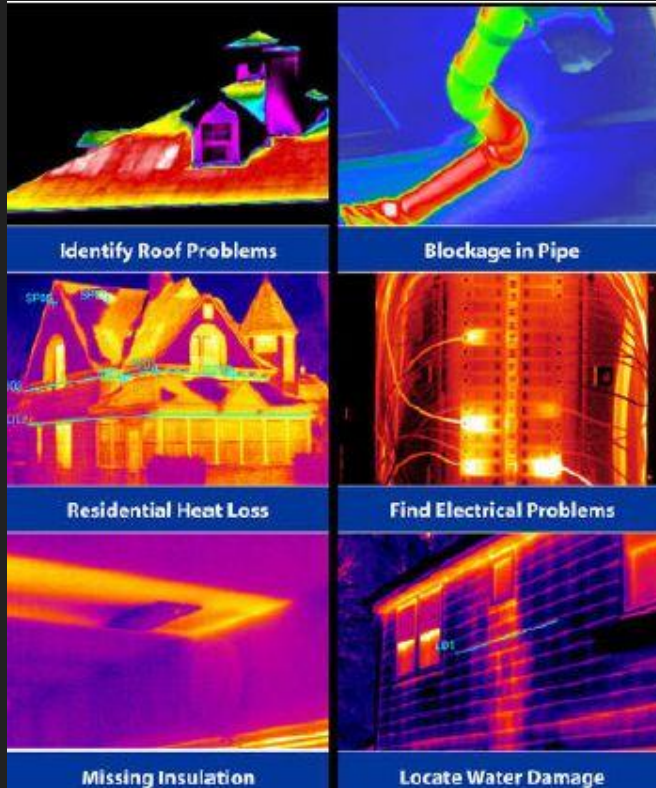
INFRARED CERTIFIED - this certification is issued by InterNACHI and is a federally registered educational designation based on the conditions set forth at...

<http://nachi.org/ir>

Certification Class can be found at

<http://infrared-certified.com> ... John McKenna - teacher.

Infrared Has Wide Variety of Application



What is Level I, II, III ?

These certification classes were set forth by the American Society of Non-Destructive Testing (ASNT) starting in 1992. InterNACHI's infrared class teaches the basic principles of a Level I class, but modifies the application part of the teaching to meet the needs of home inspectors and building contractors, etc... Most will not need a Level I, II, III class unless they are going into high end aspects of commercial and industrial thermal scans.

History of Thermography

A detailed history of thermography can be found at...

<https://www.nachi.org/history-ir.htm> (by John McKenna)

The use of thermography in building systems did not start in earnest until approximately 2005. Manufacturers were not even producing infrared cameras for the building trades at one time, but demand for this application changed that.

Evolution of Infrared Cameras



Figure 29.2 1969: Thermovision Model 661. The camera weighed approximately 25 kg (55 lb.), the oscilloscope 20 kg (44 lb.), and the tripod 15 kg (33 lb.). The operator also needed a 220 VAC generator set, and a 10 L (2.6 US gallon) jar with liquid nitrogen. To the left of the oscilloscope the Polaroid attachment (6 kg/13 lb.) can be seen.



Figure 29.3 2015: FLIR One, an accessory to iPhone and Android mobile phones. Weight: 90 g (3.2 oz.).

First Portable Infrared Camera - \$40,000

Can be seen at the
InterNACHI museum.

Thermovision

Released: 1972



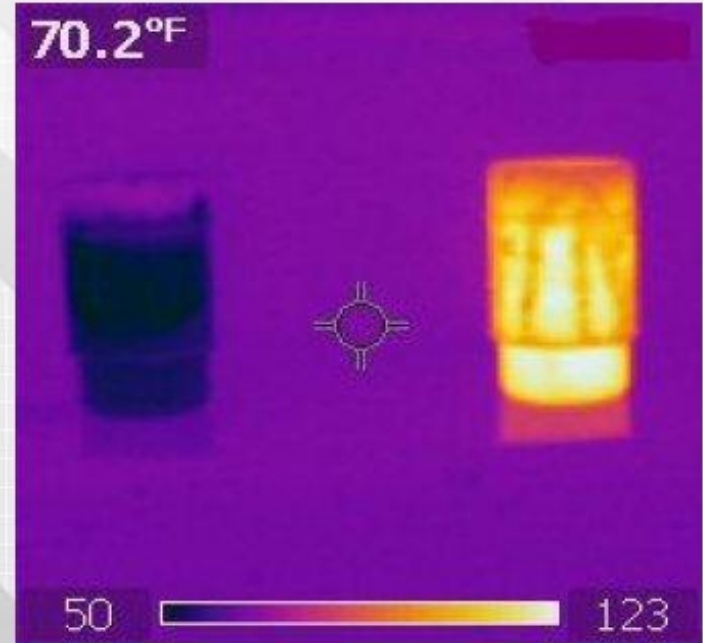
Get Training Before You Buy an IR Camera!

What type of infrared camera do I need? (Casual or Pro?)

INFRASPECTION (oldest school of thermography in north American) and RESNET have both released a standards of practice that says the minimum level of camera for building inspections and energy evaluations should have at least 120x120 resolution, with no more than a 100mk rating.

<https://www.nachi.org/infrared-insp-bldg-envelope-sop.htm>

What Happen to The Steps? (No Delta-T)



Emissivity, Transmission and Reflection

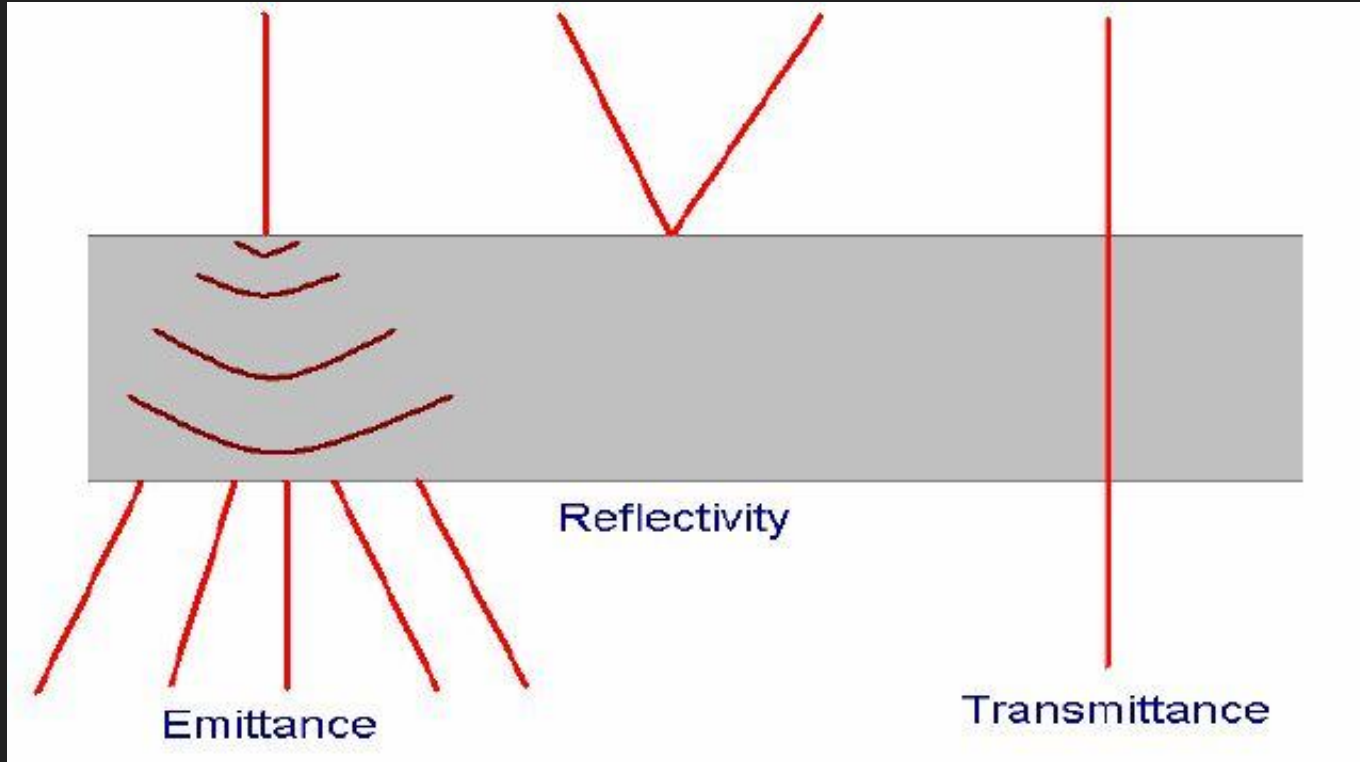
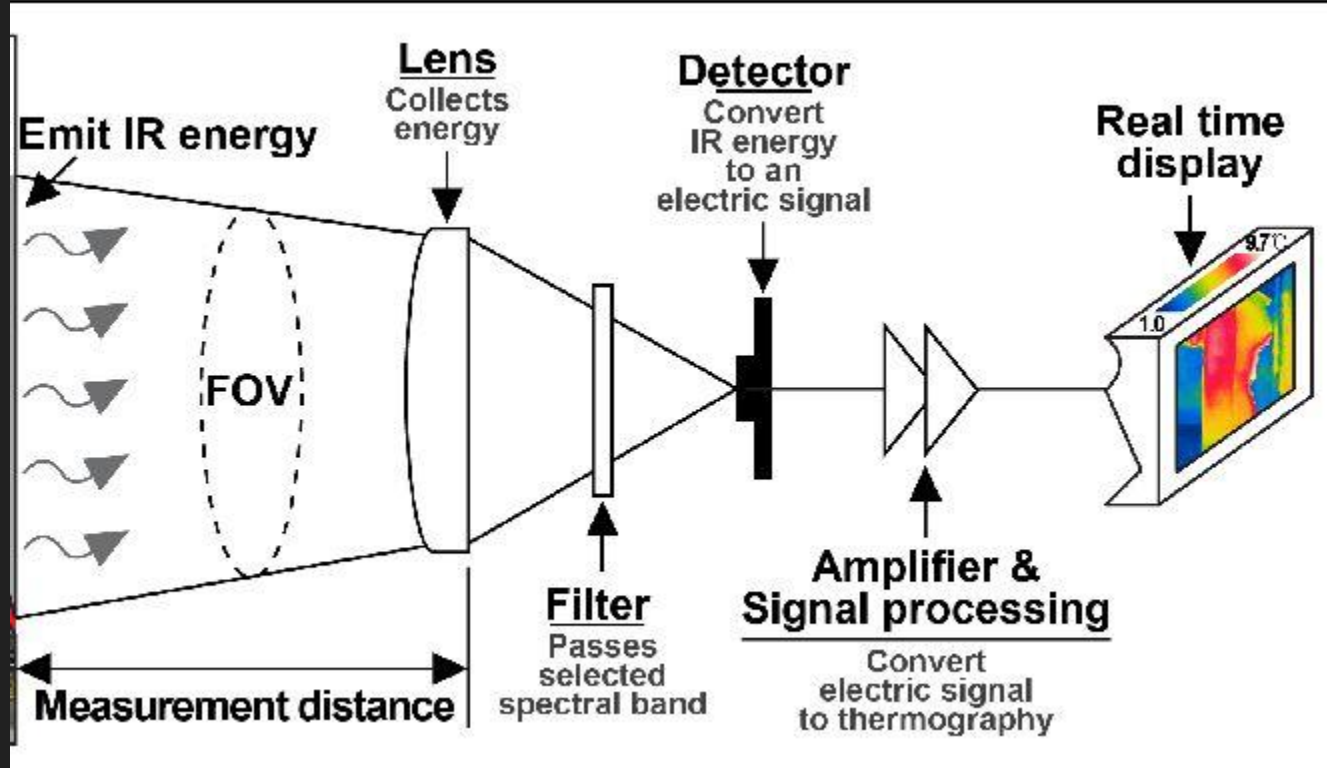
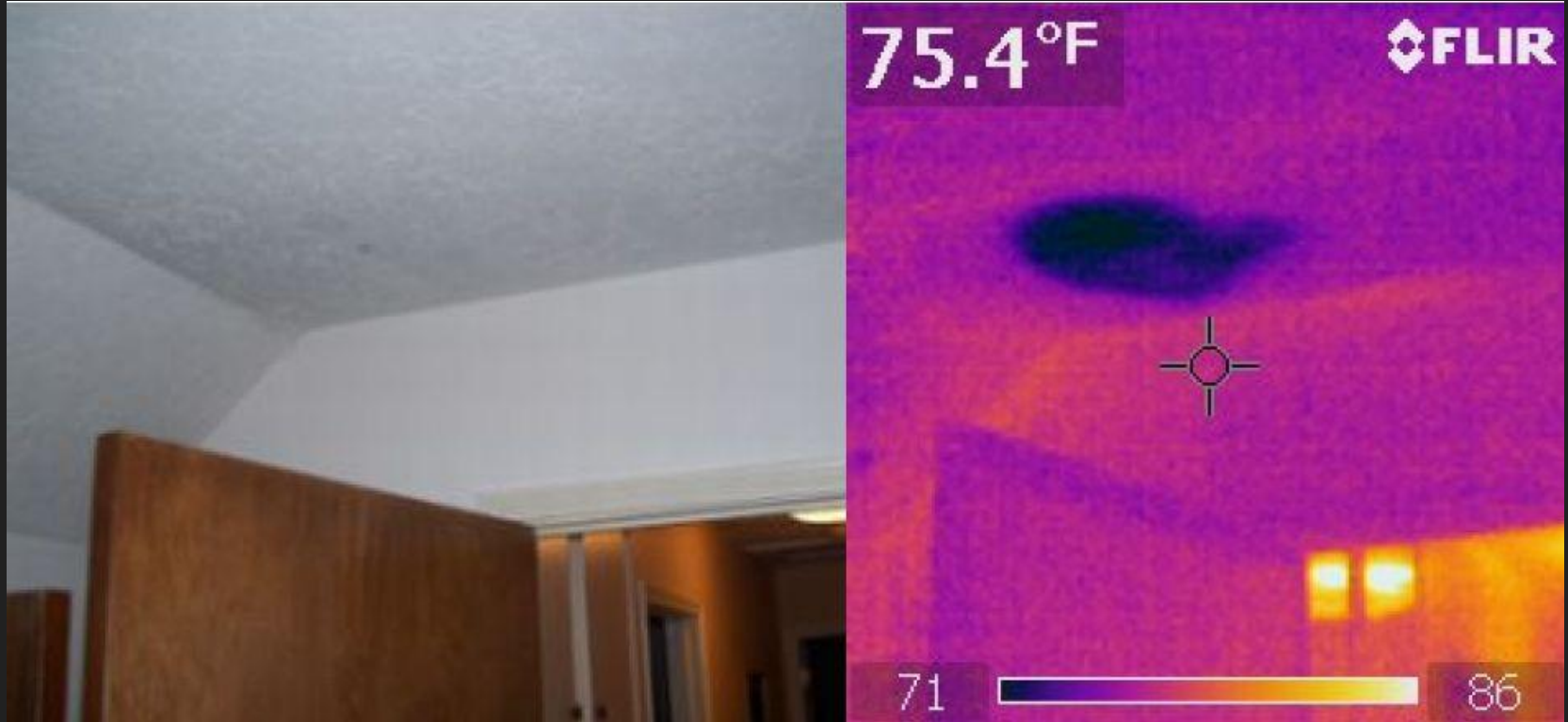


Diagram of Infrared Camera



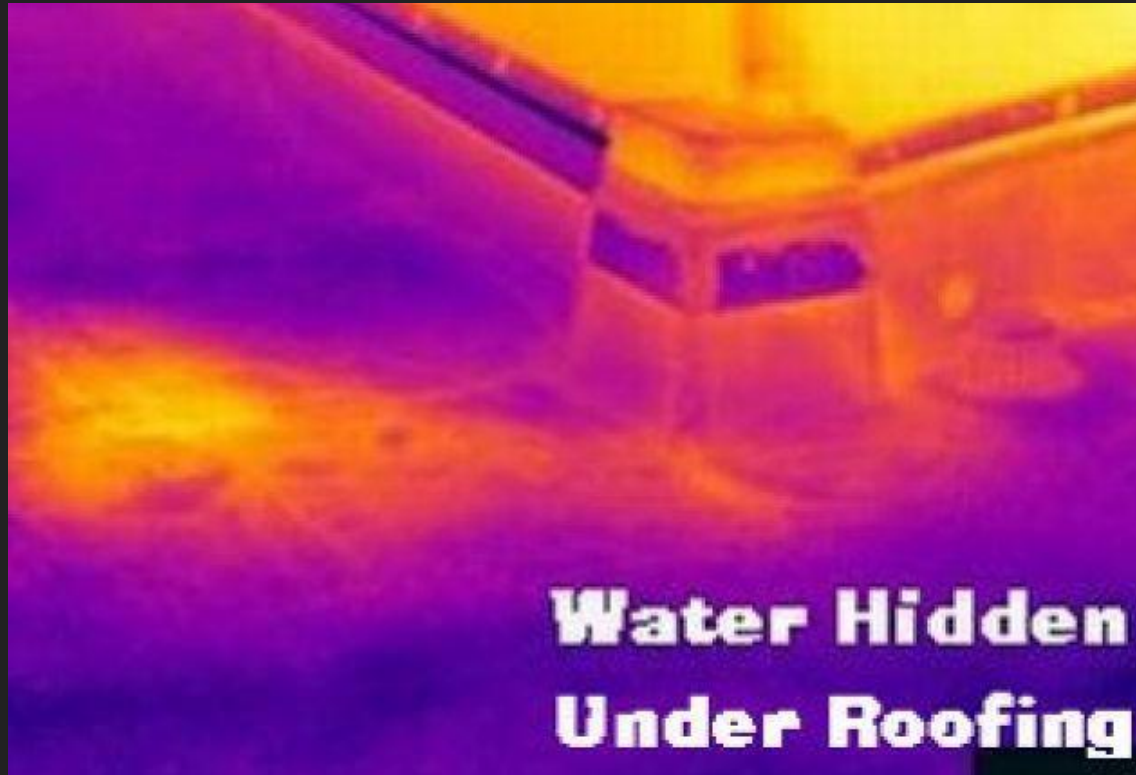
Bring to The Surface Hidden Defects (Delta-T)



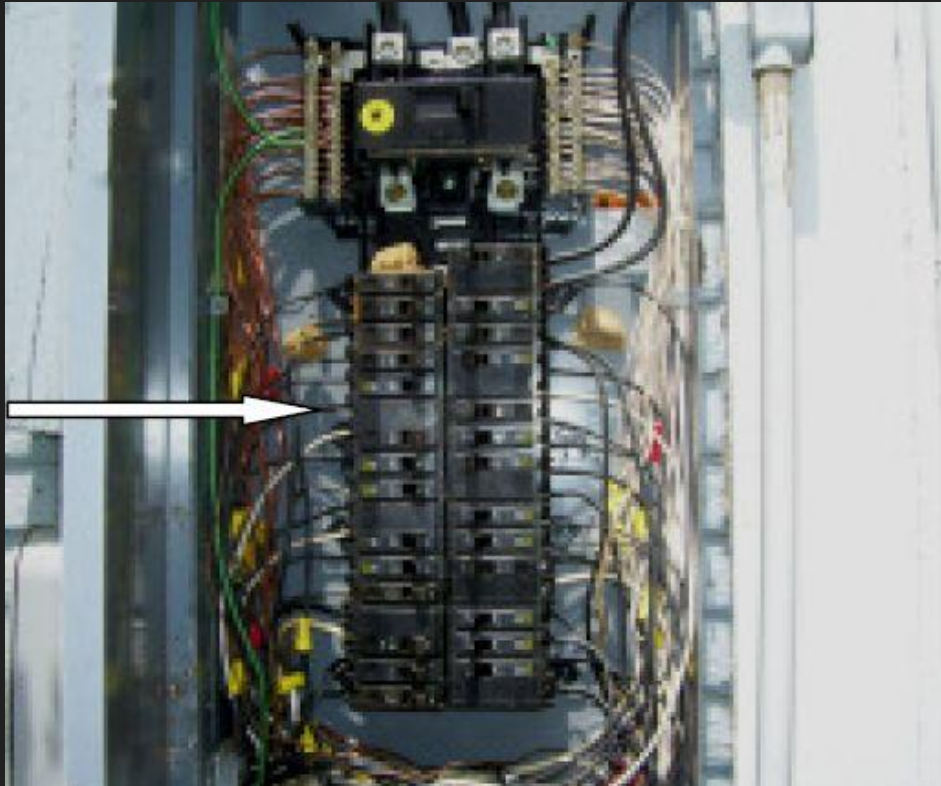
Exterior IR Scans (Delta-T & Thermal Mass)



Humidity, Sunlight, Wind, Distance, Focus, etc...



IR Scans of Electrical, HVAC, Energy, and More...



Energy Issues and Moisture Detection (Big Demand)



Reports (Compose, Significance, Surprises)

Unseen Moisture



Liability, Professional IR Camera, Verification, X-Ray



Income Streams With Thermal Imaging

BIG MONEY - Commercial and Industrial (repeat business). Electrical qualifications required. Level II required on electrical scans. Flat Roofs pays BIG MONEY. Also moisture, energy, government buildings, etc...

MOISTURE DETECTION - fastest growing demand. (related issues... mold, decay, WDI, electrical). Storm damage, insurance companies, local contractors.

ENERGY EVALUATIONS - Money can be made for the inspection and weatherization upgrades (this is not a home inspection). Realtors and Sellers seeking this as well. Clients at the lumber yard? Banks? Networking tips.

HOME INSPECTIONS - increases volume and credibility.& increase prices.

John McKenna - InterNACHI's Infrared Teacher

2 Day Infrared Class Online and Also at Various Locations

<https://infrared-certified.com> (our web page has the most current listings)

A live video thumbnail featuring John McKenna, a man with glasses and a plaid shirt, smiling. A yellow 'LIVE' badge is in the top right corner. The bottom of the thumbnail has a dark grey overlay with white text.

LIVE

Thermal Imaging and Building Science
February 1st -2nd, 2017, 8:00am - 5:00pm MT (each day)