IR Imaging Reveals Electrical Defects

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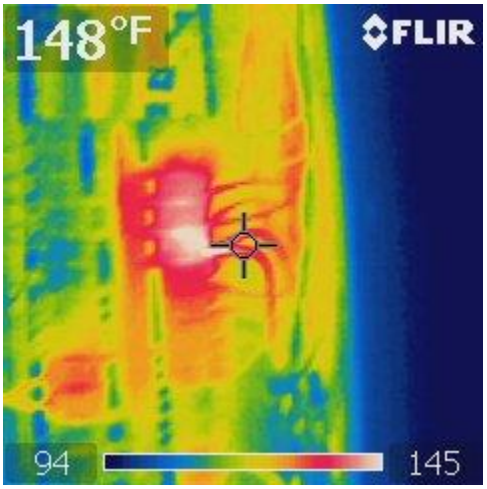
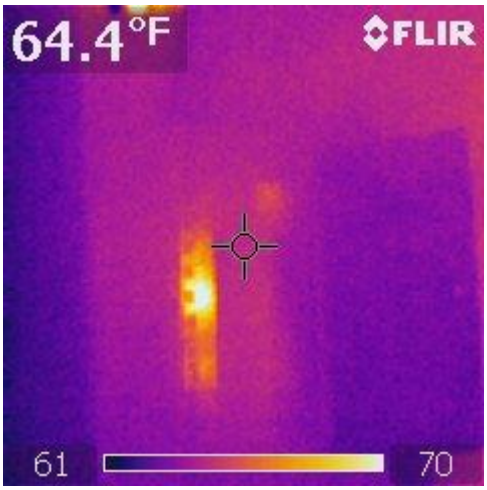
A common defect I find in commercial buildings is over heated electrical devices, especially in older buildings. Overheating may come from an overloaded circuit, corrosion, loose connections, defective or worn out devices. Electrical fires are common and expensive in terms of actual damage and lost productivity, as well as endangering the health and lives of workers and customers.

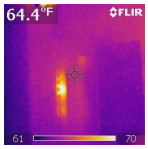
Infrared imagery can identify problems areas without disrupting daily activities or shutting down power. Infrared imagery measures the surface temperature of many materials and can be used to identify problems before they escalate to lost productivity or disaster.

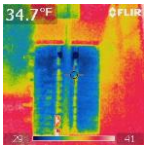


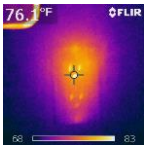
This image came from a restaurant during lunch hour. The surface temperature of the breaker box was as high as 148° F. The temperature of the wiring and the breakers internally was higher. The two hottest breakers are white. You can see that the top, hot breaker has two wires attached to it. This is called double tapping and is a fire hazard as you can see. The breaker below is even hotter and has three wires attached where only one was meant to be. Enough heat is being generated that a fire could start at any time. The breakers at the bottom left are also overheating.

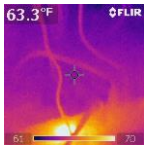
The images below show various electrical components overheating. Most are not yet fire hazards and can be repaired with little expense.


64.4°F
FLIR
61
70

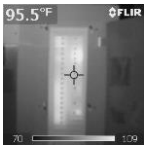

64.4°F
FLIR

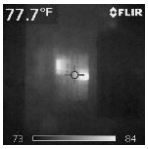

34.7°F
FLIR

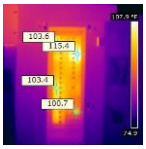

FLIR


63.3°F
FLIR

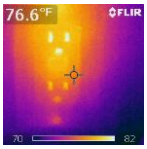

117°F
FLIR

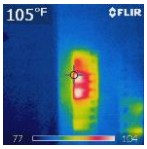

95.5°F
FLIR

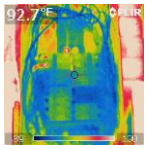

77.7°F
FLIR

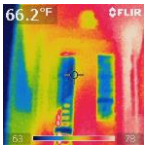

103.5
115.4
103.4
100.7

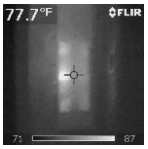

163°F
FLIR


76.6°F
FLIR


105°F
FLIR


92.7°F


66.2°F
FLIR


77.7°F
FLIR


123°F
FLIR