# A Thermography Success Story



## What is Thermography?

Infrared "thermographic" scans are non-contact, non-destructive examinations of a building's electrical service panels and subpanels. These scans find abnormal thermal (heat) patterns or temperature differentials within the service panels. These thermal abnormalities may be an indication of a loose connection, overloaded circuit or phases, deteriorated or damaged insulation, or friction within the service panels.

A highly-sensitive infrared camera is used to scan the service panels. The camera used by our business partner, HSB, is the latest high definition FLIR infrared imaging system.

# These photos illustrate how an infrared thermographic image will look.





# How and why do we use thermography?

The goal of an infrared thermographic scan is to proactively identify problems in an electrical system BEFORE there's a failure. Business owners can plan for repairs rather than scrambling after a failure. It's considered "best practice" to have a scan conducted on key electrical service systems every two to three years.

We look to use infrared thermographic scans for our customers who have a high electrical demand on the electrical system from production equipment and where a failure in the electrical system will lead to a significant interruption to business operations.

Scans are coordinated by West Bend's Loss Control team. The scan is conducted by our business partners at HSB and their specialized thermography technicians. Our customer is required to have a "qualified" electrician participate in the scan to open service panels and disconnect panels for everyone's safety. The cost of the electrical contractor is paid by the customer.

### A Success Story

During an infrared scan at Daniels Sentry Foods, HSB Thermography identified that an industrial circuit breaker in the main breaker panel was operating at an excessively high temperature. The store had electricians onsite during the scan who planned to order a replacement immediately. However, it was discovered that the specific circuit breaker required for the 25-year-old panel was discontinued.

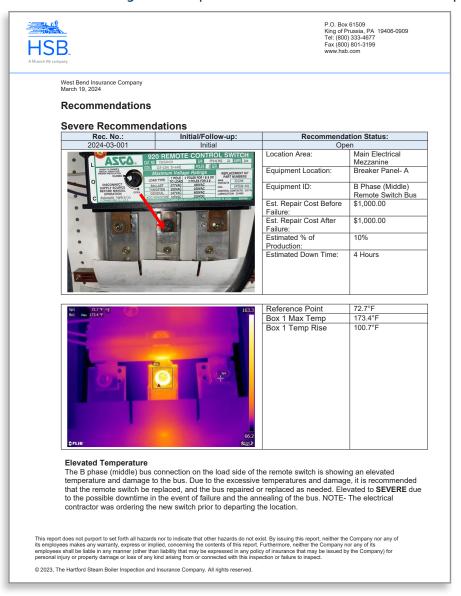
Unfortunately, it took the onsite electricians several weeks to identify alternative solutions. When they were unable to find a suitable option, management reached out to a larger electrical contractor, and they confirmed that while replacement circuit breakers for the panel weren't an option, they knew of a vendor that specialized in rebuilding obsolete circuit breakers.

The process of rebuilding and replacing the circuit breaker took about a month. As a grocery retailer, open seven days a week, downtime is not an option. If HSB Thermography had not detected the issue during the scan and the circuit breaker had failed completely, the store would have faced a critical situation. Finding a replacement or arranging for a rebuild after a failure would have been far more time-consuming, leaving the store potentially without power. The cost and impact on store operations—and ability to serve the community—would have been substantial.

Thanks to the proactive identification of the problem, management was able to address the issue before it became a crisis. Now, there's a clear plan for handling similar replacements in the future. The cost to repair the circuit breaker was \$2,134.

- Bill Melson Store Manager at Daniels Sentry Foods

### Below is the image that captured the main disconnect switch problem.



HSB has many resources available to assist in loss control efforts.

For more information, go to: <a href="https://www.munichre.com/hsb/en.html">https://www.munichre.com/hsb/en.html</a>.

Sign up for HSB's Equipment Breakdown Blog which automatically provides updates on various property and equipment breakdown loss prevention topics via email.

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