Current Solutions

INFRARED INSPECTION REPORT

Report	**SAMPLE-001**
Inspected	**October 20, 2026**
Issued	**October 23, 2026**

Prepared for

Sample Property Management

Sample Office Building
100 Sample Street
Denver, CO, 80202

Inspection

Annual infrared inspection

Inspector: Level I Certified Thermographer (Infrared Training Center)

What was inspected

7 pieces of electrical equipment, energized and under load: MSB main switchboard, HP-1 mechanical panel, T-1 step-down transformer, LP-1 level 1 lighting and receptacles, LP-2 level 2 lighting and receptacles, ATS-1 automatic transfer switch, EP-1 emergency panel. Normal weekday load. Panel covers removed by qualified personnel for the inspection.

Conditions at the time of the inspection

Air temperature	72.0 °F (22.2 °C)	Load	Not recorded
Humidity	35%	Load note	Normal weekday load
Wind	Not recorded	Covers removed	Yes
Sky	Not recorded	Energized	Yes

Summary

Serious 1 Intermediate 1 Minor 1

No.	Component	Severity	Picture
1	Panel HP-1, breaker 7-9-11 (Elevator 1)	Serious	Picture 1: Panel HP-1, breaker 7-9-11…
2	Panel LP-2, breaker 7-9 (Server closet AC)	Intermediate	Picture 2: Panel LP-2, breaker 7-9 (Server closet AC)
3	Transformer T-1	Minor	Picture 3: Transformer T-1

Severity is the inspector's judgement of each finding, from the pictures, the measurements and the conditions on site.

Standards this report follows

This report records what NFPA 70B (2023 edition), the national standard for electrical equipment maintenance, lists for an infrared inspection: the date, the thermographer, the camera, the emissivity and reflected temperature used, the ambient temperature and humidity, the load and operating conditions as recorded, the equipment and where it is, the thermal and daylight pictures, the temperature difference of each area of concern against its reference, and a severity and recommended action for each finding.

Temperature differences are compared the two ways that standard describes: against a similar component under similar load, and against the ambient air. Where a guide priority is printed, its ranges are the ones published in the NETA Maintenance Testing Specifications, thermographic survey suggested actions.

NFPA 70B (2023) asks for an infrared inspection at least every 12 months, and every 6 months for equipment in poor condition.

About the temperatures in this report

Temperatures were calculated from the camera's own radiometric data (the raw thermal values and the calibration stored in each picture) by Current Solutions software (Current Solutions radiometry). Each picture page lists the emissivity, reflected temperature and distance used, and says where the inspector changed them from the camera's values.

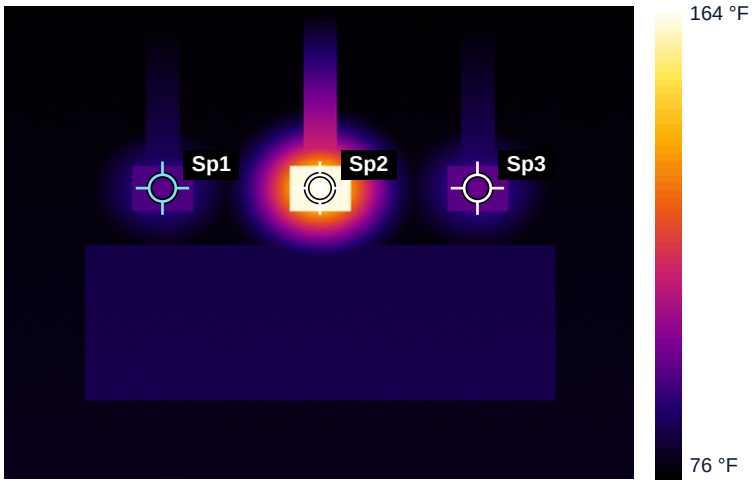
Infrared camera: the inspector compared this software's readings with FLIR Thermal Studio and confirmed they match (October 1, 2026).

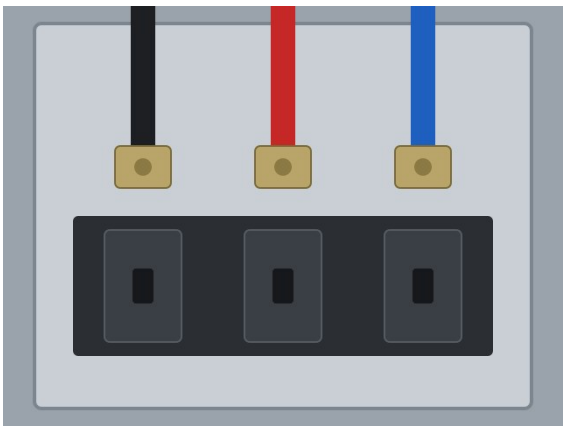
An infrared inspection shows the surface temperatures that could be seen at the time of the scan, under the load that was present. Temperatures change with load, and equipment that could not be seen or was not energized was not assessed.

PICTURE 1 OF 3

Panel HP-1, breaker 7-9-11 (Elevator 1)

Line-side lug, phase B. Spots: Sp1 phase A, Sp2 phase B, Sp3 phase C.
Kind of equipment: Panelboard · Ambient air at the equipment, as recorded by the inspector: 72.0 °F (22.2 °C)





Daylight photo from the camera

Measurement	Type	Reading	Against the reference
Sp1	Spot	96.0 °F (35.6 °C)	Reference
Sp2	Spot	164.0 °F (73.3 °C)	**+68.0 °F (37.8 °C)**
Sp3	Spot	98.0 °F (36.7 °C)	**+2.0 °F (1.1 °C)**
Whole picture	Highest	164.0 °F (73.3 °C) Lowest 75.6 °F (24.2 °C); average 82.0 °F (27.8 °C)	

Emissivity 0.95 (set by the inspector) · Reflected 72.0 °F (22.2 °C) (set by the inspector) · Distance 3.0 ft (set by the inspector) · Air 72.0 °F (22.2 °C) · Humidity 35%

IR_1047.jpg · Infrared camera · taken 2026-10-20 09:12 · SHA-256 0899cd856fba9b13

Finding 1: Panel HP-1, breaker 7-9-11 (Elevator 1)

Serious

Where: Sample Office Building, line-side lug, phase B; load about 60% of the breaker rating.

The phase B lug is 66 °F warmer than phases A and C, which carry a similar load. The pattern is consistent with a loose or high-resistance connection.

Recommended

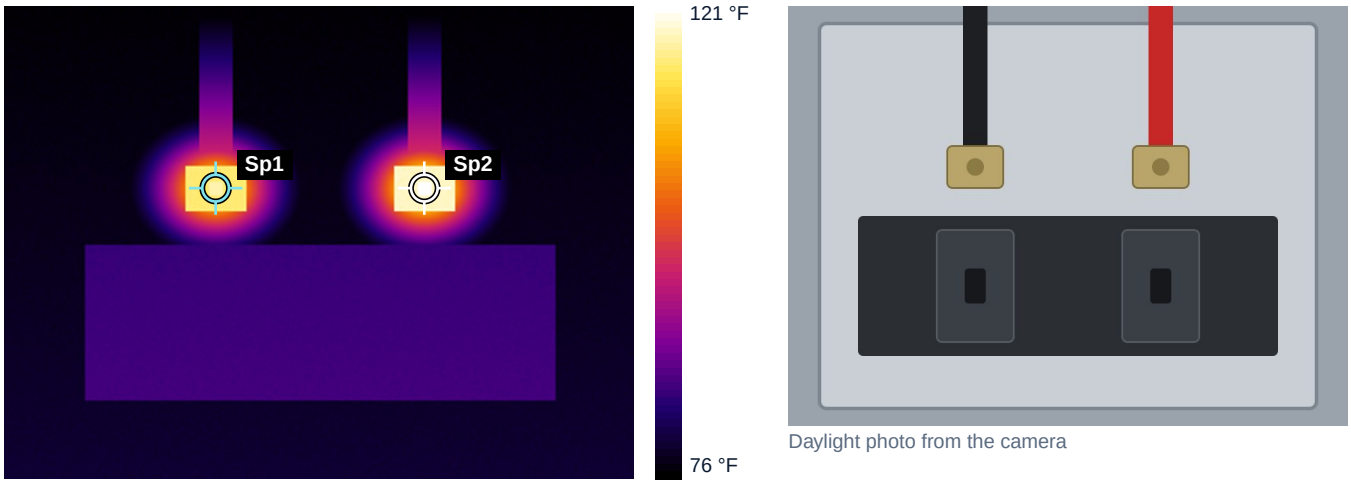
De-energize following lockout/tagout, inspect the lug and conductor for damage, re-torque the termination to the manufacturer's value, then scan again under load.

PICTURE 2 OF 3

Panel LP-2, breaker 7-9 (Server closet AC)

Breaker body. Spots: Sp1 phase A, Sp2 phase B.

Kind of equipment: Panelboard · Ambient air at the equipment, as recorded by the inspector: 72.0 °F (22.2 °C)



Daylight photo from the camera

Measurement	Type	Reading	Against the reference
Sp1	Spot	118.0 °F (47.8 °C)	Reference
Sp2	Spot	121.0 °F (49.4 °C)	**+3.0 °F (1.7 °C)**
Whole picture	Highest	121.0 °F (49.4 °C) Lowest 75.6 °F (24.2 °C); average 80.9 °F (27.2 °C)	

Emissivity 0.95 (set by the inspector) · Reflected 72.0 °F (22.2 °C) (set by the inspector) · Distance 3.0 ft (set by the inspector) · Air 72.0 °F (22.2 °C) · Humidity 35%

IR_1054.jpg · Infrared camera · taken 2026-10-20 10:21 · SHA-256 2be9fec91c2c7e4b

Finding 2: Panel LP-2, breaker 7-9 (Server closet AC)

Intermediate

Where: Sample Office Building, breaker body; load about 85% of the breaker rating.

Both poles of the breaker run warmer than the breakers beside it. The circuit is carrying a high, continuous load.

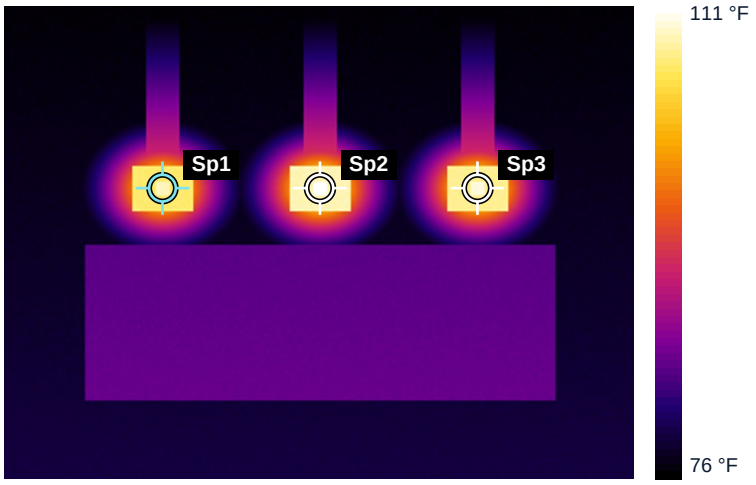
Recommended

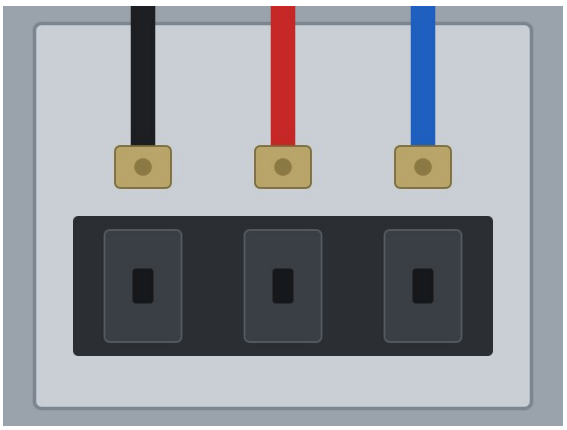
Measure the continuous current. If it stays above 80% of the breaker rating, have the circuit and the equipment load reviewed.

PICTURE 3 OF 3

Transformer T-1

Secondary terminations. Spots: Sp1 phase A, Sp2 phase B, Sp3 phase C.
Kind of equipment: Transformer · Ambient air at the equipment, as recorded by the inspector: 72.0 °F (22.2 °C)





Daylight photo from the camera

Measurement	Type	Reading	Against the reference
Sp1	Spot	109.0 °F (42.8 °C)	Reference
Sp2	Spot	111.0 °F (43.9 °C)	**+2.0 °F (1.1 °C)**
Sp3	Spot	110.0 °F (43.3 °C)	**+1.0 °F (0.6 °C)**
Whole picture	Highest	111.0 °F (43.9 °C) Lowest 75.6 °F (24.2 °C); average 81.1 °F (27.3 °C)	

Emissivity 0.95 (set by the inspector) · Reflected 72.0 °F (22.2 °C) (set by the inspector) · Distance 3.0 ft (set by the inspector) · Air 72.0 °F (22.2 °C) · Humidity 35%

IR_1061.jpg · Infrared camera · taken 2026-10-20 11:30 · SHA-256 73014671303fd823

Finding 3: Transformer T-1

Minor

Where: Sample Office Building, secondary terminations; load about 50% of the transformer rating.

A small, even temperature rise across all three secondary lugs. Consistent with normal loading.

Recommended
No repair needed. Compare at the next scheduled inspection.