

Instructions for Using the Thermal Leak Detector



SAMPLE THERMAL LEAK DETECTOR USES:

- Scan an attic door to see if you need to add insulation.
- Scan along window and door sills to see where to add weatherstripping.
- Scan around a light fixture to determine if ceiling insulation was removed during installation.
- Scan where a wall and the floor meet to find drafts that should be caulked.
- Check your refrigerator and freezer settings.

HOW TO USE:



- Hold the unit as shown in the photos on the left and aim near the location you want to scan for a draft or thermal leak. This initial aim point will be your reference target.
- Turn on the power by pressing the ON/OFF button.
- Keep the unit aimed at the reference target until the green light shines on the target and a Reference Temperature appears on the screen.
- Slowly scan the Thermal Leak Detector across the area of interest. If the scanned temperature is hotter than the reference temperature by more than the threshold (see the next bullet below for the detector's three threshold settings), the light will turn from green to red. If the scanned temperature is colder than the reference temperature by more than the threshold, the light will turn from green to blue.
- TIPS for setting the temperature threshold for color change—For detecting small temperature changes of 1° F, move the slider to the 1° mark on the back of the detector. Move the slider to the 5° mark for medium temperature changes of 5° F, and move the slider to the 10° mark for large temperature changes of more than 10° F. If you do not want the LED spot to change color, move the slider to the top position where the color spots are X-ed out. You can change the threshold setting while you are scanning. If the color is changing erratically, try increasing the threshold. If you see a temperature difference on the screen, but the light is not changing color, try reducing the threshold.
- Press the ON/OFF button a second time to turn the unit off. The detector will automatically turn off after 10 minutes.

NOTES:

- Shiny or polished surfaces can give inaccurate readings. To compensate for this, cover the surface with masking tape or flat colored paint. When the tape or paint reaches the same temperature as the target underneath, measure the temperature of the item.
- The thermometer cannot measure through transparent surfaces such as glass or plastic. It will measure the surface temperature of the glass or plastic instead.
- Steam, dust, smoke, and other optical obstructions can prevent accurate measurement. Hold the thermometer back and at an angle for an accurate measurement.

CAUTION:

- This Thermal Leak Detector is like a “gun”—just point and “shoot.” However, it is a tool, not a toy. A word of caution. Like any gun, be careful. No shooting at people, especially no pointing at their eyes.
- Do not operate the Thermal Leak Detector in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust.
- Use only with the designated batteries—9-volt alkaline. Use of any other batteries may create a fire risk.
- Do not use for medical purposes.
- Do not use to determine if meat is cooked enough to eat.

Field of View

The Thermal Leak Detector measures temperature over an area that may be larger than the LED spot, especially if you are far away from the surface you are measuring. The diameter of the measured area is $1/6$ the distance from the Detector. In other words, if you are 6 inches from the target, the Detector will measure the average temperature over a circle 1-inch in diameter. The farther the distance from the target, the larger the measured area.

If you are just looking for hot and cold areas, it's OK if the scanned area is larger than your target. However, if you want to accurately measure the temperature of an object, move the Detector close so that the scanned area is about half the size of the object you want to measure.