MERLIN™ LAZER Low-E Coating Detector

DUAL PURPOSE SINGLE / DOUBLE

Low-E Glass is a vital component of energy-efficient windows. It has a virtually invisible coating which this detector is designed to detect. The coating itself works as follows:

- It allows heat from the sun in the form of shortwave radiation to enter the building through the glazing.
- This solar energy, along with any heating system, will warm up the room; this in turn gives off long wavelength heat radiation.
- A large proportion of this longwave radiation would disappear through windows made of ordinary glass. However, the Low-E coating reflects this heat back into the room making it more energy efficient.

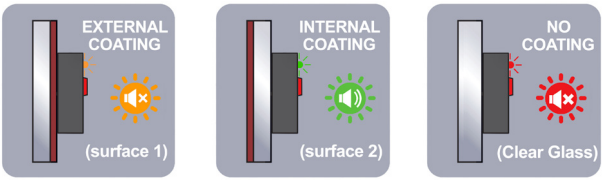
Single Sheet Glass

During the manufacture, it is important to know on which surface of the glass the Low-E coating is present.

To determine the presence of a Low-E coating and its location simply place the Low-E Detector flat on the glass and press the red button.

Once pressed, one of the three LED bulbs will be illuminated to indicate the result, as shown in the diagrams below.

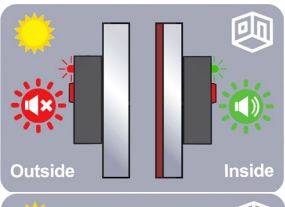
DO NOT PRESS THE RED BUTTON FOR LONGER THAN 10 SECONDS *



Double Glazed Units

The Merlin Lazer Low-E Detector can also be used to check for the presence of a Low-E coating in double glazed units and whether the unit is orientated correctly. The examples below show what readings you can expect when the detector is placed on opposite sides of the unit.

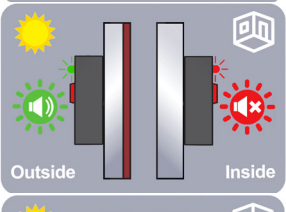
DO NOT PRESS THE RED BUTTON FOR LONGER THAN 10 SECONDS *



Correct Installation Example

With the Low-E detector placed against the internal surface of the unit, the GREEN LED will be illuminated and, the buzzer will sound.

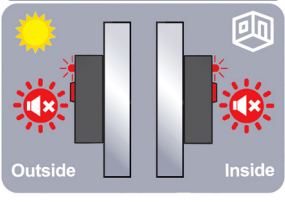
When placed against the exterior surface of the unit only the RED LED will be illuminated.



Incorrect Installation Example

With the Low-E detector placed against the internal surface of the unit, the RED LED will be illuminated.

When placed against the exterior surface of the unit the, GREEN LED will be illuminated and, the buzzer will sound.



Non-Coating Installation Example

With the Low-E detector placed against the internal surface of the unit, only the RED LED will be illuminated.

When placed against the exterior surface of the unit, only the RED LED will be illuminated.

Batteries

The unit is fitted with a 9 Volt PP3 type battery which should be changed periodically.

When the battery level is beginning to reach a low level, the LED indicator light will flash when taking a reading. You can continue using the tool, but it is recommended that the battery is changed as soon as possible.

When the battery level falls to a level where the accuracy of the unit can no longer be guaranteed, then all three LED's will be illuminated at the same time. When this happens, you must replace the battery to continue to take measurements.

Merlin Lazer Technical Helpline

If you require any further information on this or any other of our products, please ring our technical helpline on +44(0)1892 654141 between 9.00am & 5.00pm Monday to Friday or email your query to sales@merlinlazer.com

Care and Maintenance

The Merlin Low-E Coating detector requires minimal maintenance, and there are no user serviceable parts.
Do not expose the units to extremes of temperature or humidity.
Do not severely jolt the unit.
The case may need cleaning occasionally. This is best done with a soft, damp, not wet cloth. Do not use petroleum or solvent-based cleaners.
Do not attempt to open the main housing other than the battery compartment, as this will result in damage to the internal components.

Limitations and Exclusions

Merlin Lazer shall not be responsible for incidental or consequential damages resulting from the use or misuse of this product or arising out of breach of warranty. The liability of Merlin Lazer Ltd is limited solely to the repair and replacement of the product. Whilst Merlin Lazer Ltd will do everything possible to make sure that this product is fit for purpose, no liability is accepted for any type of misuse, wrong indication, or other erroneous results as the operator must use the equipment at their discretion.

- **Do not place your hand behind the glass being tested, as this may lead to incorrect readings.**
- **When testing double glazed units, we recommend you stay at least 5cm away from the edge of the glass to avoid interference from the spacer bar.**
- **We recommend multiple readings are taken over the area of the glass being tested to ensure the most accurate results. If you obtain different results during this process, we recommend you seek further clarification from the glass supplier.**
- **Please ensure that the glass being tested is clean and free from dust & dirt to avoid the detector causing any damage to a coating.**
- **This device is not designed for use on self-cleaning glass such as Pilkington ACTIV or SGG Bioclean.**
- ***DO NOT PRESS & HOLD THE RED BUTTON FOR LONGER THAN 10 SECONDS, AS THIS WILL RESULT IN THE UNIT CALIBRATION SETTINGS BEING CLEARED. AS A RESULT, YOU WILL NEED TO RETURN THE DEVICE TO US FOR CALIBRATION, WHICH WOULD BE A CHARGEABLE SERVICE**.

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