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 surface 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 long wave 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.

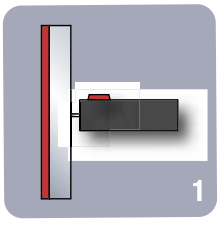
Single Sheet Glass

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

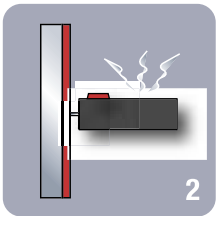
Simply place the two metallic sensors against the glass as shown below.

Note: There is no need to press the red button as the sensors are self activated.

Position 1



When the sensors are not in contact with the low-e coating no audible tone will be heard.

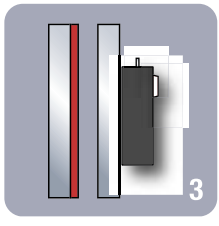


When the sensors are in contact with the low-e coating an audible tone will be emitted from the detector to indicate its presence.

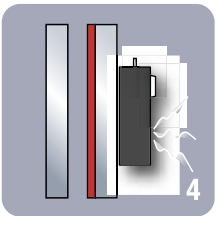
Double Glazed Units

To check the presence of a low-E coating in a double glazed unit simply place the tool flat onto the glass as shown below and press the red button.

Position 2



If the tool does not detect the presence of a low-e coating on the piece of glass that the tool is touching no audible tone will be emitted. If no tone is emitted simply repeat this procedure on the opposite side of the unit as shown below.



If the tool detects the presence of a low-e coating on the piece of glass that the tool is touching an audible tone will be emitted to indicate this.

If you wish to check that a double glazed unit has been manufactured correctly and that the coating is correctly orientated towards the air-space simply follow the procedure to detect which piece of glass has the low-e coating as shown in figs **3&4** above.

Once you have done this simply touch the two metallic sensors against the glass as shown in figs **1&2.** The Coating should always be facing towards the airspace and not exposed to the outside where it can become damaged, therefore no audible tone should be heard during this part of the test.

Batteries.

This unit is fitted with a 9 Volt PP3 type battery which should be changed periodically or when the low battery indicator light below the switch becomes illuminated.

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 **technical@merlinlazer.com**

Care and maintenance

The Merlin Low-E coating detector requires minimal maintenance, there are no user serviceable parts.

Do not expose the unit to extremes of temperature or humidity.

Do not severely jolt the unit.

The case may need cleaning occasionally and this is best done with a soft, damp, not wet cloth. Do not use petroleum or solvent based cleaners.

Do not attempt to open main housing other that battery enclosure as this will result in damage to internal components.

Warranty and Repair

In the event of defect in materials or workmanship, Merlin Lazer Limited will repair or replace this product free of charge for a period of 12 Months from the date of purchase. Proof of date of original purchase is required. In such an event return the product to the address below. The warranty is extended only to the original purchaser. Please enclose a description of the problem. We recommend that you insure the return package as we cannot accept responsibility for items lost or damaged in transit.

Limitations And Exclusions

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

This unit is designed as a indicator only. If you are in any doubt about the validity of the result we strongly recommend you seek clarification from the glass supplier.

Do not place your hand or any object behind the glass being tested as this may lead to incorrect readings.

Australian Distributor:

GSR Laser Tools

Unit 10 / 7 Prindiville Drive, Wangara WA 6065, Ph: 08 9409 4058

sales@gsrlasertools.com.au **www.gsrlasertools.com.au**

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