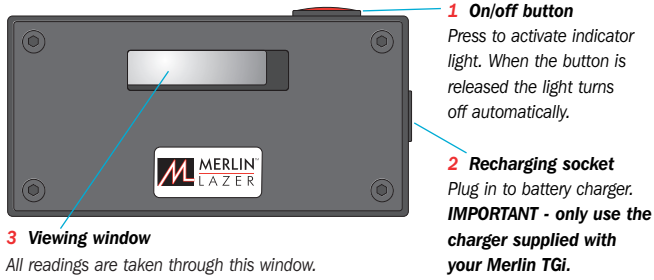


The Merlin TGi indicates whether or not glass has been toughened  
- quickly, easily and from one side only.



### USING THE MERLIN TGi

Whatever type of glass is being tested, ensure that the Merlin Lazer TGi is placed flat against the glass at eye level. Viewing the window slightly from the right, the following will be observed when the 'ON' button is pressed.

**Single skin** Two vertical lines. **Double glazed** Four vertical lines.

#### Example 1: Single skin

When single skin glass is tested, two vertical lines will be visible in the viewing window.



**Line A** represents the surface on which the Merlin TGi is placed.

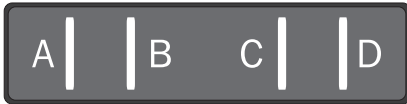
**Line B** represents the rear glass surface.

To determine whether the glass has been toughened, slide the TGi over the surface, while continuing to observe both lines in the viewing window.

- If both lines remain the same colour, this indicates that the glass has not been toughened.
- If Line B changes colour this indicates that the glass has been toughened.

#### Example 2: Double glazed unit

When a double glazed unit is tested four vertical lines will be visible in the viewing window.



**Line A** represents the outer surface on which the Merlin TGi is placed.

**Line B** represents the inside surface of the first piece of glass.

**Line C** represents the inside surface of the second piece of glass.

**Line D** represents the outer surface of the second piece of glass furthest away from the Merlin TGi.

To determine whether the glass has been toughened, slide the TGi over the surface, while continuing to observe the four lines in the viewing window.




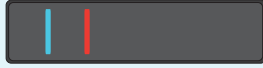



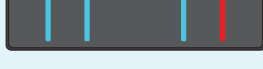

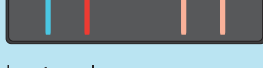

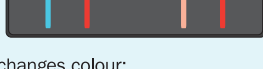
#### First pane (lines A and B)

- If both lines remain the same colour, this indicates that the glass has not been toughened.
- If Line B changes colour this indicates that the glass has been toughened.

#### Second pane (lines C and D)

- If both lines C and D stay the same colour this indicates that the second pane has not been toughened.
- If both lines change colour **together** this will also indicate that the second pane has not been toughened.
- If line C stays the same colour and line D changes colour this indicates that the second pane has been toughened.
- If line C changes colour, but line D changes colour **independently** of line C, this shows again that the second pane has been toughened.

Alternatively, if access to both sides of the double glazed unit is possible, you may also take one reading from each side of the double glazed unit, using only the results of lines A and B in each case.

<b>1 Single skin normal</b>		
Both lines A and B remain blue		
<b>2 Single skin toughened</b>		
Line A remains blue, line B changes colour		
<b>3 Double glazed - both panes normal</b>		
Lines A, B, C and D remain blue		
<b>4 Double glazed - first pane normal, second pane toughened</b>		
Lines A, B and C remain blue; line D changes colour		
<b>5 Double glazed - first pane toughened, second pane normal</b>		
Line A remains blue; line B changes colour; lines C and D change colour together ( <b>not</b> independently of each other)		
<b>6 Double glazed - both panes toughened</b>		
Line A remains blue; line B changes colour; lines C and D change colour separately (ie, <b>independently</b> of each other)		

The Merlin Lazer TGi will identify whether or not the glass being tested has been subject to a toughening process. It does not guarantee that glass indicated as being toughened meets BSI standards.

### RECHARGING THE MERLIN TGi

Simply connect the TGi to the charger and leave overnight. Normal charge time is 10 - 14 hours depending on battery condition.

To avoid the risk of damaging internal components, only use the charger supplied with your Merlin TGi.

Disconnect from mains when not in use.

For indoor use only - do not expose to extremes of temperature or humidity.

Do not cover when in use.

Warning, dangerous voltages - no user serviceable parts.

### THE MERLIN TGi HELPLINE

If you require any further information please ring the Merlin TGi Helpline on +44 (0) 1892 654141 between 9.00am and 5.00pm Monday to Friday.

### CARE AND MAINTENANCE

- The Merlin TGi 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 remove or adjust the lighting circuitry.

**WARRANTY AND REPAIR** In the event of defect in materials or workmanship, Merlin Lazer Products 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: Merlin Lazer Products, Weald House, High Broom Lane, Crowborough, East Sussex TN6 3SP The warranty does not cover deterioration or damage due to misuse. The warranty is extended only to the original purchaser. Please enclose a description of the problem. We recommend you insure the return package as we cannot accept responsibility for items lost or damaged in transit.

**LIMITATIONS AND EXCLUSIONS** Merlin Lazer Products 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 Products is limited solely to the repair or replacement of the product.

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