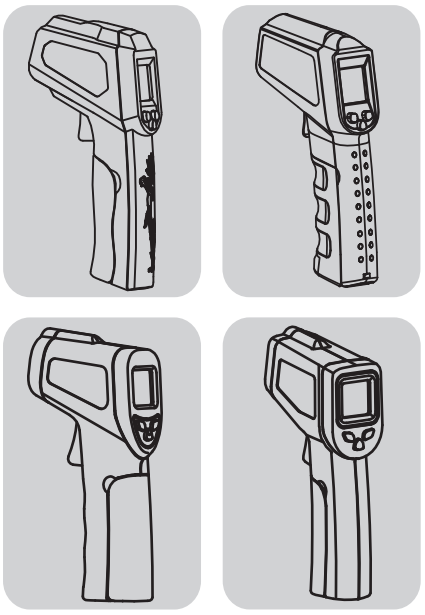
MATADOR

SURFACE INFRARED THERMOMETER



INSTRUCTION MANUAL

Specifications

Product category	Infrared Thermometer
Accuracy	≥100°C, ±2%/≤100°C, ±2°C
Response time	0.5S
Emissivity	Adjustable, 0.1 to 1.0
Distance to spot ratio	12 : 1
Storage temperature	-20 to 50°C (-4~122°F)
Operating temperature	0 to 50°C (32~122°F)
Power/Power life	2 x AAA batteries/about 9 hours

Warning

Do not point laser directly or indirectly (through reflective surfaces) at eye.

Operation

Turn on

Install the battery and press the measurement button, the thermometer turns on and shows the temperature reading automatically.

LCD display

The LCD displays the signals of functions. (as diagram 2 shows)

Measurement

Aim to target article with thermometer head and press the measurement button (trigger), and release the button (need to press the button for at least 0.5 second) to show current temperature reading, or press the button all the time for continuous testing with more temperature reading results.

Turn off

The thermometer will turn off automatically after 15 seconds without any operation.

Distance Spot Ratio

Farther the target, larger the test spot area, it means: As the distance from thermometer to the object increases, the spot size of measuring area becomes larget, (as Diagram 1) it is named as "D:S" (Distance Spot Ratio). The diameter of the target spot area is 3.0cm when you test from distance 36cm, and the thermometers will show the average temperature of target spot area with diameter 3.0cm.

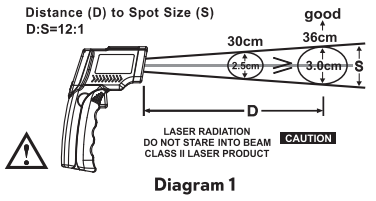


Diagram 1

Emissivity

Most organic materials, painted or oxdized surfaces have an emissivity of 0.95 (per-set in the unit). Inaccurate readings will result from measuring shiny or polished metal surfaces (for example, stainless steel or aluminium). To make better accuracy, cover the surface to be measured with masking tape or flat black paint.
Measure the tape or painted surface when the tape or painted reach the same temperature of the material underneath.
Please kindly note: Thermometer can not test the temperature of target objects through across the glass. And steam, dust, smog will lower the accracy of testing.

Function Diagram

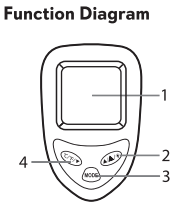
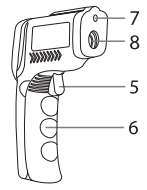


Diagram 2



1. LCD
2. Laser/Backlight/Up button
3. Function button
4. °C/°F/Down button
5. Measurement Trigger
6. Battery Compartment
7. Laser Hole
8. Infrared Sensor

Diagram 3

①. Low battery symbol
②. Laser signal
③. Backlight sign
④. Keep scanning
⑤. °C/°F Symbol
⑥. Current temperature
⑦. MAX temperature
Emissivity reading
⑧. MAX temperature sign
⑨. Adjustable emissivity sign

Auxiliary function

1. After power on: Press button 4, switch the °C and °F.
2. After power on: Press button 2, test with laser.
3. After power on: Press button 3 to get into the emissivity-adjust, and then press button 2 or button 4 to adjust emissivity.
4. After power on: Press and keep to hold button 5 and then at the same time press button 2 to turn on or turn off backlight.

Cautions

Infrared thermometer should be protected in the following:
- EMF (electro-magnetic fields) from arc welders, induction heaters.
- Thermal shock (caused by large or abrupt ambient temperature changes, it allows 30, omites for unit to stabilize before use.)
- Do not leave the unit on or near objects of high temperature.

Maintenance

1. Lens cleaning: Use the clean compressed air to blow off loose particles, use the soft brush to remove the debris away, at last clean it with wet cotton cloth.
2. Case cleaning: Clean the case with a damp sponge/cloth and mild soap.

NOTE

1. Do not use solvent to clean lens.
2. Do not submerge the unit in water.

Emissivity Of Articles

Material	Feature	Emissivity	Material	Feature	Emissivity
Aluminium	Oxidized	0. 20-0. 40	Human skin		0. 98
	Polished	0. 02-0. 04	Graphite	Oxidized	0. 20-0. 60
Brass	Oxidized	0.40-0.80	Plastic	Transparency >0.5mm	0. 95
	Polished	0. 02-0. 05	Rubber		0. 95
Gold		0. 01-0. 10	Plastic cement		0. 85-0. 95
Iron	Oxidized	0. 60-0. 90	Concrete		0. 95
Steel	Oxidized	0. 70-0. 90	Cement		0. 96
Asbestos		0. 95	Soil		0. 90-0. 98
Plaster		0. 80-0. 90	Mortar		0. 89-0. 91
Asphalt		0. 95	Brick		0. 90-0. 96
Rock		0.70	Marble		0. 94
Wood		0. 90-0. 95	Textile	All kinds	0. 90
Charcoal	powdered	0. 96	Paper	With color	0.95
Carbon		0. 85	Sand		0. 90
Lacquerwork	lackluster	0. 97	Clay		0. 92-0. 96
Carbon Cement		0. 90	Gravel	Tableware	0.95
Soap Bubble		0. 75-0. 80	Glass		0. 85-0. 92
Water		0. 93	Textile		0. 95
Snow		0. 83-0. 90	Heated food		0. 95
Ice		0. 96-0. 98	Plastic		0. 95
Frozen Foods		0. 95	Oil		0. 94
Ceramics		0. 95	Steel and iron		0. 80
Limestone		0. 98	Wool	Natural	0. 94
Paint		0. 93	Lead	Oxidized	0.50

MATADOR

PRODUCT WARRANTY

Thank you for purchasing one of our quality Matador products.

Please keep your receipt as proof of purchase, as this will authenticate your warranty. Any claim under this warranty must be made within 12 months of the date of purchase of the product. To make a claim under the warranty, take the product (with proof of purchase) to any Bunnings store (see www.bunnings.com.au or www.bunnings.co.nz for store locations) or contact Adeval Group Pty Ltd. Adeval Group Pty Ltd bears reasonable, direct expenses of claiming under the warranty. You may submit details and proof to Adeval Group Pty Ltd for consideration. The warranty covers manufacturer defects in materials, workmanship and finish under normal use. This warranty is provided in addition to other rights and remedies you may have under law: our goods come with guarantees which cannot be excluded under the Australian Consumer Law or Consumer guarantees Act 1993. You are entitled to replacement or refund for a major failure and to compensation for other reasonably foreseeable loss or damage.

You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The warranty excludes damage resulting from product misuse or product neglect. The warranty covers domestic use only and does not apply to commercial applications.

This warranty is given by

Adeval Group Pty Ltd
276 Proximity Drive, Sunshine West Vic 3020 Australia.
T: 1800 427 841 (Aus) 0800 357 050 (NZ)
E: info@garth.com.au

Garth New Zealand Ltd
T: 0800 357 050 E: info@garth.com.au