GASDNA

Portable Infrared Thermometer

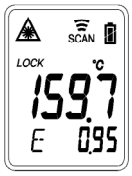
PIR 2400

(Temperature: 200 ~ 2400 ℃)

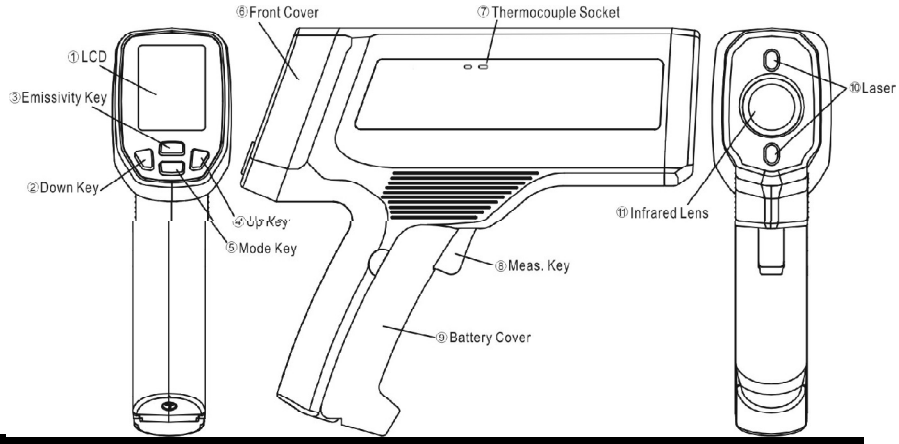
IR2400 Operating Instructions

The non-contact infrared thermometer is the ultimate tool for temperature measurements. It can measure from 200 to 2400 ℃ (392 to 4352 ºF) in the distance of 100:1 DS (Distance to Spot) ratio. Furthermore, the memory mode can record and display the specific measurement with emissivity. There are many mathematical modes for the Infrared function.

* Please remember to keep away from children and don't use it for safety related application.



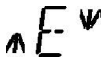
(Default Screen)



Simply aim the thermometer at the measure target with Lens (11) and press Meas. key (8) to display the surface temperature.
The Distance:Spot is 100:1.
The two laser points are the reference for the target spot size. Please make sure the target area is within the field of view.

FUNCTION

Press Emissivity key (3) for setting the emissivity

	Press Emissivity key (3), then press Up key (4) or Down key (2) to set the emissivity, then press Mode key (5) to confirm it. The emissivity can be changed from 0.10 (10E) to 1 (100E).

Press Mode key (5) for scrolling more display function as follows.

	Here will show the emissivity data. (The default emissivity is 0.95.)
	Press Mode key (5) for the Maximum (MAX), Minimum (MIN), Difference between MAX and MIN (DIF) and Average (AVG) modes. During the measurement, the special modes reading will be displayed beside the mode icon
	Press Up key (4) or Down key (2) key to change the High Alarm (HAL) or Lo Alarm (LAL), then press Meas. key (8) to confirm it. When the reading is outside the High Alarm (HAL) or Lo Alarm (LAL) limit. The High or Low icon will flash and you will hear a beep sound.
	Connect the thermocouple with Thermocouple socket (7) and put the probe in/on the target, the thermometer will display the temperature automatically without pressing any button. To see the minimum or maximum data during the probe measurement, please hold down the Up key (4) or Down key (2). ⚠ After measure high temp, the probe may remain HOT for a while
	After taking the temperature, press Mode key (5) for the Memory (M00), then press Meas. key (8) to save the measurement. Under the Memory (M00) , press Up key (4) or Down key (2) key to display the record up to 24 sets. In "Memory" mode, press and hold the Up key (4), then press the Down key (2) for 2 seconds to clear the records

** The thermometer will automatically shut off if left idle for more than 60sec.

ADD VALUE

MAX, MIN, DIF, AVG Mode:	Press Up key (4) for LOCK mode ON/OFF. The lock mode is particularly useful for continuous monitoring of for up to 60 minutes.
	Press Down key (2) for oC or oF transferred.
In all modes: First hold on the Meas. key (8)	and press Lock key (4) for backlight function ON/OFF.
	and press ℃/ ºF key (3) for laser function ON/OFF.

CAUTION

1. WHEN DEVICE IS IN USE, DO NOT LOOK DIRECTLY INTO THE LASER BEAM–PERMANENT EYE DAMAGE MAY RESULT.

2. USE EXTREME CAUTION WHEN OPERATING THE LASER.

3. NEVER POINT THE DEVICE TOWARDS ANYONE'S EYES.

4. KEEP OUT OF REACH OF ALL CHILDREN

STORAGE & CLEANING

It should be stored at room temperature. The sensor lens is the most delicate part of the thermometer. The lens should be kept clean at all times, care should be taken when cleaning the lens using only a soft cloth or cotton swab with water or medical alcohol, allowing the lens to fully dry before using the thermometer. Do not submerge any part of the thermometer.

LCD ERROR MESSAGES

The thermometer incorporates visual diagnostic messages as follows:

'Hi' or 'Lo' is displayed when the temperature being measured is outside of the settings of HAL and LAL.

'Er2' is displayed when the thermometer is exposed to rapid changes in the ambient temperature. 'Er3' is displayed when the ambient temperature exceeds 0℃ (32°F) or +50℃ (122°F). The thermometer should be allowed plenty of time (minimum 30 minutes) to stabilize to the working/room temperature.

Error 5~9, for all other error messages it is necessary to reset the thermometer. To reset it, turn the instrument off, remove the battery and wait for a minimum of one minute, reinsert the battery and turn on. If the error message remains, please contact the Service Department for further assistance

'Hi' or 'Lo' is displayed when the temperature being measured is outside of the measurement range.

BATTERIES

The thermometer incorporates visual low battery indication as follows:

'Battery OK': measurements are possible

'Battery Low': battery needs to be replaced, measurements are still possible

'Battery Exhausted': measurements are not possible

⚠ When the 'Low Battery' icon indicates the battery is low, the battery should be replaced immediately with AA, 1.5V batteries. Please note: It is important to turn the instrument off before replacing the battery otherwise the thermometer may malfunction

⚠ Dispose of used battery promptly and keep away from children.

SPECIFICATION

Item	Non-contact Infrared Scan	function Thermocouple Probe Scan function (K type; a bead wire included.)
Measurement Range	200 ~ 2400℃	K type: -64 ~ +1400℃ Bead: -50 ~ +250℃
Operating Range	0 ~ 50℃	
Accuracy	±2% of reading	±1% of reading or 1℃
Emissivity Range	0.1 ~ 1.0 (Default 0.95)	
Response Time	1 sec	
D:S (Distance:Spot)	100:1	
Memory	Detailed 24 Memories with Temperature & Emissivity	
Battery Life	min 140 hours continuous use (Alkaline, without Laser and Back Light.)	
Dimensions	233.8 x 207.5 x 60.6mm	
Weight	550g including batteries (AA*2pcs)	
Note: Under an electromagnetic field of 3V/m from 700 to 1,000 MHz the maximum error is +/-30°C (54 °F), from 1.4~1.5 GHz the maximum error is +/- 6 ℃ (10.8 °F).		

⚠ **EMC/RFI**: Readings may be affected if the unit is operated within radio frequency electromagnetic field strength of approximately 3 volts per meter, but the performance of the instrument will not be permanently affected.

Best Detectors, Best Service

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