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Manual
HVAC Meter

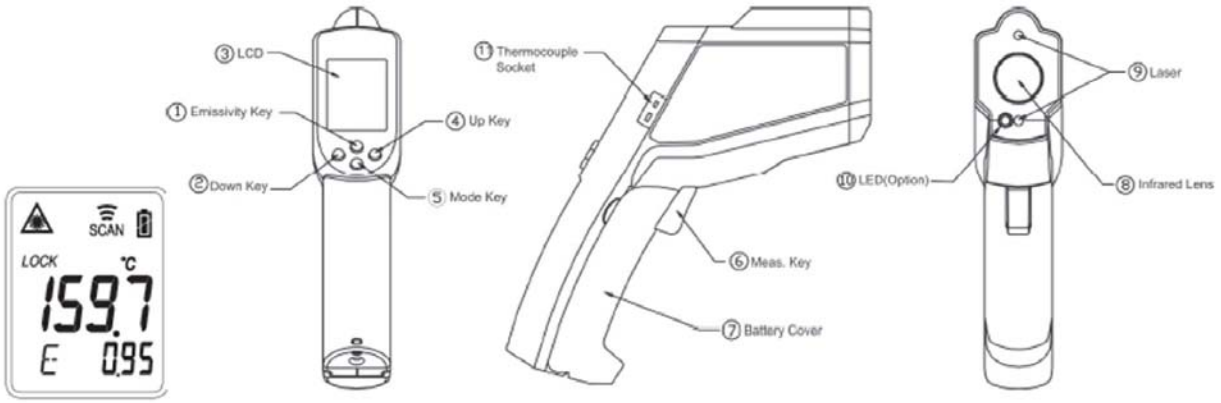
PCE-IR 425



PCE-IR 425 (with white LED Flashlight) Thermometer Operating Instructions

For Model with thermocouple socket

The thermometer is a non-contact infrared thermometer. There are many mathematical modes for the Infrared function. Please remember to keep away from children and don't use it for safety related applications.



(Default Screen)

Simply aim the thermometer at the measure target with Lens (⑧) and press Meas. key (⑥) to display the surface temperature. The Distance:Spot is 50:1. 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 (①) for setting the emissivity

E	Press Emissivity key (①), 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.

E	Here will show the emissivity data. (The default emissivity is 0.95.)
MAX MIN dIF AVG	Press Mode key (⑤) for the **Maximum (MAX), Minimum (MIN), Different between MAX and MIN (DIF) and Average (AVG) modes. During the measurement, the special modes reading will be displayed beside the mode icon.**
HAL LAL	Press Up key (④) or Down key (②) key to change the **High Alarm (HAL)** or **Lo Alarm (LAL)**, then press Meas. key (⑥) to confirm it. For example: When the reading 26.9°C < LAL 27 °C, the Low icon will flash and you will hear a beep sound.
PRB	Connect the thermocouple with Thermocouple socket (⑪) 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.

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

In MAX, MIN, DIF, AVG mode:	Press Up key (④) for **LOCK mode** ON/OFF. The lock mode is particularly useful for continuous monitoring of temperatures for up to 60 minutes.
	Press Down key (②) for **°C** or **°F transferred.**
In all modes: First hold on the Meas. key (⑥)	and press Up key (④) for **backlight function** ON/OFF.
	and press Down key (②) for **laser function** ON/OFF. (With flash light be turned on in the same time as laser)

⚠ **CAUTION**

1. WHEN DEVICE IS IN USE, DO NOT LOOK DIRECTLY INTO THE TWO LASER BEAMS–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 **The thermometer should be stored at room temperature between –20 to +65 °C (-4~149°F).**
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°C (32°F) or +50°C (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, wait for auto power 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 AAA, 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; probe not included.)
Measurement Range	-60 to +1000 °C (-76 to +1832 °F)	-64 to +1400°C (-83.2 to +2552°F)
Operating Range	0 to +50°C (32 to +122°F)	
Accuracy (Tobj=15~35°C, Tamb=25°C)	±1.0°C (1.8°F)	+/-1% of reading or 1°C (1.8°F) whichever is greater (Test under Tamb=23±6°C)
Accuracy (Tobj=-33~1000°C, Tamb=23±3°C)	±2% of reading or 2°C (4°F) whichever is greater	
Emissivity Range	0.95 default – adjustable 0.1 to 1 step .01	
Resolution (-9.9~199.9°C)	0.1°C/0.1°F at -83.2 to 999.9 (°C/°F), otherwise 1°C/°F.	
Response Time (90%)	1sec	
Distance:Spot	50:1	
Battery Life	Typ.180, min 140 hours continuous use (Alkaline, without Laser and Back Light.)	
Dimensions	47.0 x 197.0 x 203.3mm(1.8×7.7×8.0 inch)	
Weight	386.1 grams(13.62 oz) including batteries (AAA*2pcs)	
Note: Under the electromagnetic field of 3V/m from 200 to 600 MHz, the maximum error is 10 °C (18 °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.