Wahl
HEAT SPY®

HSICBB-P
Wahl Heat Spy® Portable Calibration Black Body

User Manual

WD1042 Rev D
Revised 8/4/20

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1. Application

The Wahl HSICBB-P is a portable ambient temperature black body used for single point calibration and checking of Infrared Thermal Imaging Cameras and Point Infrared Thermometers. It is housed in a watertight IP67 carrying case.

2. User Controls

Scale switch – front panel switch is used to select between °F and °C scale. Changing the switch position will result in a change of the scale and displayed temperature on the next display update cycle.
Power switch – front panel switch is used to power on or off the HSICBB-P.

3. Operation

1. Open enclosure by pulling up on the two side latches.
2. Set scale switch to desired scale.
3. Set power switch to on position, indicated by “I”.
4. Unit will go through self-check and momentarily display all display segments.
5. Unit will momentarily blank the display followed by displaying the blackbody’s current temperature.
6. The unit will update the black body temperature at approximately ten-second intervals.

4. Typical Calibration Technique and procedure

Stabilization – It is important that both the IR measuring device (Unit Under Test - UUT) being calibrated and the HSICBB-P Calibration Black Body are thermally stable. They should be in a stable (± 4°F) ambient temperature for a minimum period of 30 minutes. This will result in a more accurate calibration check.

1) Turn on IR imager or thermometer and HSICBB-P and allow them to stabilize 30 minutes minimum.
2) Make certain that if the UUT has variable emissivity, it should be set to .95.
2) Aim the UUT at the blackbody target at a distance so that it fills the spot size or measurement area of the UUT.
3) Compare and record the Blackbody's display reading to the UUT reading.
4) Document readings as required.

5. Error Codes

Cbl1, Cbl2, Cbl3 and Cbl4 indicate open cable or open sensor.
Low Batt – Icon in bottom right corner of display indicates battery voltage is low. Replace battery with Wahl p/n DSA3060.
" ---- " Indicates battery below level for reliable reading.
Replace battery. For S/N prior to 37105.xxx, use DSA3062 "C" size battery.
For S/N after 37105.xxx, use battery #12234-03, "AA" size battery.

6. Specifications

Radiator	3" diameter concentric rings with integral 4-wire RTD sensor
Meter	4-wire RTD thermometer
Operating Range	-40°to 158°F (-40°to 70°C)
System Accuracy	± 0.3°F or ± 0.2°C over entire range
Scale	°F or °C user selectable
Display	4-digit 1" high LCD
Display Resolution	0.1°
Display Update Rate	10 seconds
Repeatability	0.1°F or C
Heating Method	None, assumes the ambient temperature
Emissivity	0.95 or ± 0.02
Power	1 – 3.6 volt Lithium Thionyl Chloride Battery, size "AA"
Battery Life	Approximately 3 years, with "Low Bat" indicator (turning off unit when not in use will extend battery life)
Case/ Case Rating	Pelican∨ 1150 / IP67 (1 meter submersion for 30 minutes) with case closed
Size / Weight	9.12" x 7.56" x 4.32" (23.2 x 19.2 x 11.1 cm) / 2.85 lbs. (1.29 kg)
Included	User Manual

NIST Certificate of Conformance available as an option.

7. Service

For calibration, service or technical support, contact:

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TWO YEAR 2 WARRANTY