

## Narrow Range Blackbody Calibration Source

- ✓ Calibrates from +34 to 44°C (+93 to 111°F)
- ✓ Calibrates Thermal Imaging Systems & IR Pyrometers
- ✓ High Accuracy ±0.1°C (±0.2°F)
- ✓ Portable Rugged Design
- ✓ Operates on 100-240 Vac
- ✓ Built in RTD Reference Probe
- ✓ Ethernet Connection
- ✓ NIST Traceable Calibration Certificate Included with Three Data Points

**\$2495**

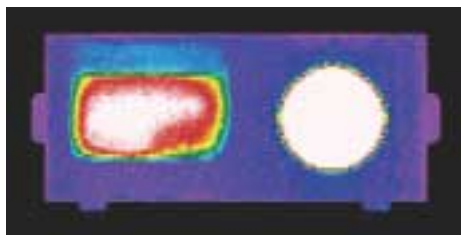


The **OMEGA® BB702-S** is a highly accurate and stable black body reference source, designed for precise calibration of infrared pyrometers and thermal imaging instruments within a narrow temperature span of 34-44°C (93-111°F).

Operators can easily adjust the setpoint up or down in 0.1° increments by simply pushing the **▲ UP** or **▼ Down** buttons. When the operator changes a setpoint, the instrument's sophisticated PID control quickly brings the black body reference to a stable temperature.

In real world applications, to better calibrate this black body reference to targets with varying emissivity, the instrument features a unique programmable offset. To prevent unauthorized changes or tampering in the field, it also features a programmable lockout.

When changing degrees from °C to °F the controller will automatically change the setpoint value to °C or °F as well.



BB702-S from a thermal imaging camera

The **BB702-S** includes a built-in Ethernet port to enable remote control and data logging. The unit can be easily connected to a single PC, or an Ethernet network. The instrument can be assigned an IP address and serve web pages over a network and the Internet.

The **BB702-S** can be controlled locally or remotely with no special software other than a standard web browser.

The larger of the two LED displays indicates the actual temperature of the black body disk. The big 21mm (0.83") ultrabright LED digits are visible from more than 50 meters as well as through a thermal imaging camera. Compatible remote LED displays with digits of up to 102mm (4") can be connected to the Ethernet port or placed anywhere on an Ethernet network.

The smaller LED digits display the set point temperature. Under normal conditions both displays are green. The temperature display will change to red on the larger LED if the actual black body temperature deviates from the set point by 0.2° or more. This provides a visual alert for the operator.

Temperature is measured with a high precision Class A, 100 ohm three-wire platinum RTD. A second reference platinum RTD is embedded in the aluminum black body disk and

connected to an external jack on the enclosure for easy connection to a separate calibration meter.

This portable and rugged unit operates worldwide on virtually any international AC line voltage from 100 to 240 Vac and 50 or 60 Hz. The universal switching power supply adjusts automatically without changing jumpers or switches. It operates in ambient temperatures of 5 to 45°C (41 to 113°F)

### SPECIFICATIONS

**Black Body Disk Temperature Range:** 34 to 44°C (93 to 111°F)

**Disk Diameter:** 63.5mm (2.5")

**Accuracy:** ±0.1° C, ±0.25% rdg (±0.2° F, ±0.25% rdg)

**Stability:** ± 0.1°C (± 0.2°F)

**Ambient Environmental Conditions:** Temperature: 5 to 45°C (41 to 113°F)

**Humidity:** 0 to 90% RH, Non-condensing.

**Cavity Emissivity:** 0.95 to 0.96

**Internal Control Sensor:** Platinum RTD, Class A, Alpha = 0.00385

**Reference Sensor:** Platinum RTD, Class A, Alpha = 0.00385

**Thermal circuit breaker safety switch:** which resets at 90°C ( 194°F)

**Power:** 100 to 240 Vac~, 50/60 Hz, 75Watts.

**Dimensions:** 152 x 305 x 280mm (6 H x 12 W x 11" L)

**Weight:** 7.2kg (16 lbs)

**Installation Category II**

**2 Year Warranty**

### To Order (\*Specify Model No.)

Model Number	Description	Price
BB702-S	Blackbody Calibration Source	2495