



HI96747 · HI96702

## Copper, Low and High Range Portable Photometers

- **CAL Check**
  - Allows for performance verification and calibration of the meter using NIST traceable standards.
- **GLP**
  - Review of the last calibration date.
- **Auto-shut off**
  - Automatic shut off after 10 minutes of non-use when the meter is in measurement mode. Prevents wastage of batteries in the event the meter is accidentally left on.
- **Battery status indicator**
  - Indicates the amount of battery life left.
- **Built-in timer**
  - Display of time remaining before a measurement is taken. Ensures that all readings are taken at the appropriate reaction intervals for the test being performed.
- **Error messages**
  - Messages on display alerting to problems including no cap, high zero, and standard too low.
- **Cooling lamp indicator**
  - To maintain the desirable wavelength to be used for absorbance, it is necessary to ensure components are not overheated from the heat generated by the tungsten lamp. Each photometer is designed to allow a minimal amount of time for components to cool. The cooling lamp indicator is displayed prior to a reading being taken.
- **Units of measure**
  - Appropriate unit of measure is displayed along with reading.

The HI96747 and HI96702 portable photometers are for the measurement of copper in a wide variety of water samples. Hanna's portable photometers feature an advanced optical system; the combination of a special tungsten lamp, a narrow band interference filter, and silicon photodetector ensure accurate photometric readings every time. The Hanna exclusive CAL Check™ feature utilizes ready-made, NIST traceable standards to verify both meter validation and calibration. The exclusive cuvette locking system ensures that the cuvette is inserted into the measurement cell in the same position every time to maintain a consistent path length.

### Significance of Use

Due to its malleability, thermal and electrical conductivity, and corrosion resistance, copper is used in a variety of industrial and technological applications. Copper may also be present in natural water and effluents due to widespread use to control biological growths in reservoirs and distribution pipes.

Specifications	HI96747 Copper, LR	HI96702 Copper, HR
Range	0.000 to 1.500 mg/L (ppm)	0.00 to 5.00 mg/L (ppm)
Resolution	0.001 mg/L	0.01 mg/L (ppm)
Accuracy @ 25°C (77°F)	±0.010 mg/L ±5% of reading	±0.02 mg/L ±4% of reading
Light Source	tungsten lamp	
Light Detector	silicon photocell with narrow band interference filter @ 560 nm	silicon photocell with narrow band interference filter @ 575 nm
Power Supply	9V battery	
Auto-off	after ten minutes of non-use in measurement mode; after one hour of non-use in calibration mode; with last reading reminder	
Environment	0 to 50°C (32 to 122°F); RH max 95% non-condensing	
Dimensions	193 x 104 x 69 mm (7.6 x 4.1 x 2.7")	
Weight	360 g (12.7 oz.)	
Method	adaptation of the USEPA approved bicinchoninate method	adaptation of the USEPA approved bicinchoninate method
Ordering Information	<b>HI96747 and HI96702</b> are supplied with sample cuvettes (2) with caps, 9V battery, instrument quality certificate, and instruction manual. CAL Check™ standards and testing reagents sold separately	
	<b>HI96747C and HI96702C</b> includes photometer, CAL Check™ standards, sample cuvettes (2) with caps, 9V battery, scissors, cuvette wiping cloth, instrument quality certificate, instruction manual and rigid carrying case. Reagents sold separately	
Reagents and Standards	HI96747	<b>HI96747-11</b> CAL Check™ standard cuvettes
		<b>HI95747-01</b> reagents for 100 tests
		<b>HI95747-03</b> reagents for 300 tests
	HI96702	<b>HI96702-11</b> CAL Check™ standard cuvettes
		<b>HI93702-01</b> reagents for 100 tests
		<b>HI93702-03</b> reagents for 300 tests

See page 10.88 for standard reagents; see page 10.89 for CAL Check kits; see page 10.40 for general accessories