



Hygromaster L

BLD7750L & BLD7751L









INSTRUCTION MANUAL

Amphenol
Advanced Sensors

INS7750L/51L-EN Rev D
Sep 2024

Quick Start Guide

Hygromaster L has 6 keys / buttons which will help turn ON and OFF the unit as well as to navigate between different modes and settings.

1. **Power/ Enter Key** :
 - a. Press once to switch ON the unit.
 - b. Press and hold for more than 3sec to switch OFF the unit.
 - c. To select parameter / save option in settings screen.
2. **Settings Key** : Any time the user wishes to setup the device, can press this key to go to settings menu.
3. **Up Key**  & **Down Key** :
 - a. To navigate between Dewpoint and Mixing ratio in the Measurement screen.
 - b. To navigate between different parameters and options in the settings screen.
4. **Right / Pause Key** : Press to freeze / unfreeze reading in the measurement screen.
5. **Back Key** : to get back to the previous or main screen.

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1. Introduction

The Protimeter Hygromaster L is a versatile thermo-hygrometer. This product is used to measure relative humidity, air temperature and dew point.

2. Safety considerations

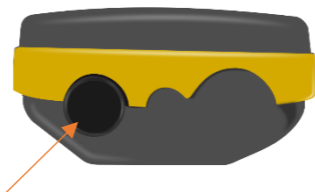
▶ **Battery:** Do not charge the battery as the supplied battery is a primary alkaline cell. Also dispose the batteries considering the norms.

▶ **Calibration:** The accuracy specifications for the product are valid for one year from the date of calibration, and the product requires recalibration after this period. User need to be cautioned

▶ **Battery replacement:** Use same specification battery or as recommended when replaced.

3. Product components and accessories:

Protimeter Hygromaster L uses analog or digital sensors to measure RH and temperature. All Protimeter RH and temperature sensors with this interface can be connected to Hygromaster L.




Hygrostick and Quikstick interface

The Hygrostick (POL4750), Quikstick (POL8750), Short Quikstick (POL8751) and 30cm humidity probes (BLD8755) measure relative humidity (%RH) and ambient air temperature in rooms. They can be connected to the Hygromaster L instrument either directly or by means of the extension lead.


4. Starting with the device (Turning ON and OFF):

Prior to initial use ensure that the 9V battery is installed properly in to the device.

Note: The battery status is indicated by an icon on the display. When the low battery message appears, replace the battery.

To switch ON, Press the power button  momentarily.

Note: The Hygromaster L switches OFF automatically after a set time (can be set till 6 min) if no activity is observed. (see instruction for setting the Auto OFF time)

To switch the instrument OFF immediately, press  and hold for at least 3 seconds and release.

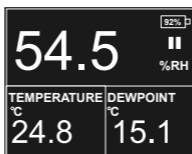
Whenever the battery voltage falls below the threshold value, the battery symbol starts blinking. If the battery voltage falls below the operating level, the instrument prompts with the message “low battery - Switching off the device” and turns OFF automatically.



5. “Hygromaster L” modes

The Protimeter Hygromaster L primarily measures air temperature and relative humidity.

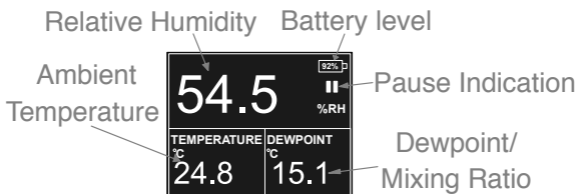
5.1 Measurement mode:

The default mode while the device is turned ON is measurement mode. The device will turn ON with the measurement screen as below.




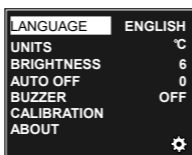
There are three values displayed on the measurement screen. First display value is the primary value which is the relative humidity. Second display is Ambient temperature and the third can be switched between dewpoint and mixing ratio. Third measurement can be changed according to the need of the customer using  or  key.




The representations in the measurement mode is as in the next picture.







5.2 Settings

Hygromaster L provides option to change parameters for the measured value through the settings mode. At any point of time when the unit is turned ON, if the  button is pressed, unit will get in to the settings mode as below.






If any setting needs to be changed or adjusted, then the function / parameter can be selected by scrolling through the menu using  or  and then pressing .





5.2.1 Changing Language

In the settings menu, select LANGUAGE by navigating with  or  key. Press  to select the language the unit should display. Press  to confirm and exit edit mode.



5.2.2 Changing the unit of measurement

UNITS to be used can be changed by selecting and getting in to the edit mode. Pressing  or  key at this mode will change the units between °C or °F. To apply the setting and exit the edit mode, press .



5.2.3 Changing brightness:

The backlight brightness can be increased or decreased by selecting the Brightness menu and pressing . Brightness can be changed in 10 levels using  or  key after getting in to the edit mode. To apply the setting and exit the edit mode, press .

5.2.4 Setting Auto Off time:

User can set the time to auto turn OFF the device in idle condition. This can be set in minutes. A maximum of 6 minutes can be set for the device to turn off in idle condition. Get in to the edit mode as mentioned earlier and then use  or  key to change the Auto OFF time.

5.2.5 Buzzer ON-OFF:

User can set the buzzer ON of OFF based on the need. If the user need an audible indication for each key press or during different functionality switching, the buzzer should be turned ON. This can be done getting in to the edit mode and then using  or  key.


5.2.6 Calibration:

User should not be accessing this menu to ensure no accidental loss of calibration data. This is purely a factory calibration menu

5.2.7 About

The About screen gives information related to the device like checking the device calibration status, probe serial numbers etc. The screen will look like below.

MODEL	BLD7750L
BUILD	0.03
B.DATE	08-11-2018
STATUS	CALIBRATED
PROBE	QUIKSTICK
	342F38782866



6. Care and maintenance

The Protimeter Hygromaster L is a precision-built electronic instrument that will provide many years of reliable service if the following points are observed:

▶ When not in use, keep the Hygromaster L instrument and its accessories in the pouch. Store the pouch in a stable, dust-free environment and keep it out of direct sunlight

▶ If the instrument is to be stored for more than four weeks or if the low battery power symbol appears on the display, remove the battery from the instrument.

▶ Check the condition of the Hygromaster L accessories on a regular basis and replace them if they become worn or damaged.

▶ To preserve the calibration characteristics, Hygrostick probes shouldn't be exposed to saturated environments. If this is unavoidable Hygrostick probes should be replaced on a regular basis and their calibration should be checked frequently.

7. Technical Specifications:

7.1 Operating Conditions

Temperature - 0°C to 50°C

RH - 0 to 95% non-condensing

7.2 Measurement specifications:

7.2.a Hygrostick Data (Nominal)

Relative Humidity

Range: 30% to 40% RH – Accuracy: $\pm 3\%$ RH at 68°F (20°C)

Range: 41% to 98% RH – Accuracy: $\pm 2\%$ RH at 68°F (20°C)

Temperature

Range: 14°F to 122°F (-10°C to 50°C)–Accuracy: $\pm 0.6^\circ\text{F}$ ($\pm 0.3^\circ\text{C}$)

7.2.b Short Quikstick Data (Nominal)

Relative Humidity

Range: 0% to 10% RH, Accuracy: $\pm 3\%$ RH at 77°F (25°C)

Range: 10% to 70% RH, Accuracy: $\pm 2\%$ RH at 77°F (25°C)

Range: 70% to 99% RH, Accuracy: $\pm 3\%$ RH at 77°F (25°C)

Temperature Range

Range: 32°F to 122°F (0°C to 50°C), Accuracy: $\pm 0.9^\circ\text{F}$ ($\pm 0.5^\circ\text{C}$)

7.3 Physical specifications:

7.3.a Power

Battery:

9V Alkaline $\geq 550\text{mAH}$

Battery life visual indication on display.

7.3.b Size (HXWXD)

6.9 in X 3.2 in X 1.5 in (17.7 cm X 8.0 cm X 3.8 cm)

7.3.c Gross weight

Instrument only: 6.42 oz (182 g)

7.4 Regulatory Compliance

CE, RoHS, ETL

7.5 User interface

7.5.a Display

Graphical LCD

Size: 2"

Resolution: 176 X 220

Backlight (with adjustable brightness)

7.5.b User application profiles

Sticky memory last used application settings

Customer support Centers

U.S.A.

Amphenol Thermometrics, Inc.
967 Windfall Road
St. Marys, Pennsylvania 15857, USA
T: +1 814-834-9140

U.K

Amphenol Thermometrics (U.K.)
Limited
Crown Industrial Estate Priorswood
Road
Taunton, TA2 8QY, UK
T: +44 1823 335 200

www.protimer.com

www.amphenol-sensors.com

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