

Brannan instruction manual

HEAVY DUTY LIGHT METER (13/492/0)



Please read this manual carefully
and keep it for reference before operating
the wind speed meter.



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Measurement for life.



1. Safety

Read all safety information and instructions for use before using the product. Use the product only as specified.

Do not use the product around explosive gas, vapor, or in damp or wet environments.

Environment conditions:

- Operating/storage humidity: $\leq 90\%RH$ (non-condensation)
- Operating/storage temperature: -20 to $60^{\circ}C/F$

Maintenance

Repairs or servicing not covered in this manual should only be performed by qualified personnel.
Wipe the unit with a dry soft cloth. Do not use abrasives or solvents on this instrument.

2. Introduction

This light meter is designed to meet the measurement requirements of safety engineers, health, industrial safety offices and light quality control in various environments like factory, school, construction, etc.

3. Features

- 2.8" color LCD display
- Green-Yellow-red LED light indication
- Audible and visible alarm
- Selectable measuring units: Lux or Fc
- Measurement of temperature, humidity and light
- MAX/MIN/AVG/HOLD functions
- Low battery indication
- Auto power off

Measurement for life.



4. Specification

Light level:	
Measuring range:	Auto ranges: 0 to 400KLux, 0 to 40KFc Manual ranges: 0 to 400Lux, 400Lux to 4KLux, 4KLux to 40KLux, 40KLux to 400KLux
Display resolution:	0 to 999.9Lux: 0.1 1000 to 9999Lux: 1.0 Above 10KLux: 0.1
Accuracy:	$\pm 3\%$ rdg ± 8 dgts. ($<10,000$ Lux) $\pm 4\%$ rdg ± 10 dgts. ($>10,000$ Lux)
Spectral response:	CIE photopic (CIE human eye response curve)
Photo detector:	Silicon photo-diode with spectral response filter
Light overloading display:	Displays "LO"
Spectral accuracy:	CIE V λ function $f_1' \leq 6\%$
Cosine response:	$f_2' \leq 2\%$
3 colour LED alarm:	Green: <500 Lux: Yellow: 500-1000Lux Red: >1000 Lux Note: The alarm value can be set by user.
Alarm:	The alarm will sound for 20 secs, pause for 1 min, then sound for 20 secs again. This will repeat. Alarm value can be changed by user. See section 5.7.

Temperature:	
Measurement range:	-20 to $60^{\circ}C$ (-4 to $140^{\circ}F$)
Accuracy:	$\pm 1.0^{\circ}C$ ($1.8^{\circ}F$)
Resolution:	0.1
Overloading display:	Displays "LO" below range and "HI" above range

Humidity:	
Measurement range:	10 to 100%RH
Accuracy:	35 to 75%RH: $\pm 5\%RH$, otherwise: $\pm 7\%RH$
Resolution:	1.0

General:	
Alarm:	Preset to ON mode. Can be turned on or off.
Sampling time	2 times/sec
Auto power off:	After 15 mins inactivity.
Power supply:	3 x AA or USB cable with type C connect
Battery life:	Approx 30 hours
Operating condition:	-20 to $60^{\circ}C$ (-4 to $140^{\circ}F$) / 10 to 95%RH
Storage condition	-20 to $60^{\circ}C$ (-4 to $140^{\circ}F$) / $< 85\%RH$
Weight / dimensions:	255.5g / 225 x 68 x 30mm

5. Operating Instructions

1. Open battery compartment cover and install 3 x AA batteries.
2. Replace the battery cover and lock the screw.
3. Power the meter on.

Notes:

When the low battery icon  appears, replace the meter's battery.

5.1 Power ON/OFF

Turn the meter on by pressing button  for 1 second.

Turn the meter off by pressing and holding  for at least 3 seconds

5.2 Disable auto power off

When the meter is turned on, short press  button to enable or disable the auto-power-off function. When the function is enabled, the  icon appears on LCD.

5.3 Range level selection

Press [MODE] key to select desired range level.

Manual range: 0 to 400Lux / 400 to 4KLux; 4 to 40 KLux / 40 400KLux

AUTO range: 0 to 400KLux;

5.4 Unit conversion

Press [UNITS] key to switch Lux/FC. Press and hold for 3 seconds to switch between °C and °F.

5.5 HOLD/AVERAGE functions

In measuring mode, press [HOLD] to enter into data hold mode. Press it again to enter into AVG mode. Press third time to return to normal measurement mode. The average value is the average of the last 10 values in measurement.

5.6 MAX/MIN functions

In measuring mode, press [MAX], "MAX" icon and current maximum reading will appear on the LCD. To view min reading, press the button again, "MIN" and current minimum reading will appear on the LCD. Press the key a third time to exit MAX/MIN mode.

To clear all MAX/MIN records, press and hold key for 3 seconds, "MAX/MIN" icon will appear and all MAX/MIN data will be cleared.

5.7 Alarm value set

The default alarm value for yellow light is 500Lux. To change value

1. In measuring mode, hold [SET] for 3 seconds to enter into yellow light set mode, the yellow LED light and main reading value will flash.
2. Press [HOLD] to decrease the value and press [MAX] key to increase the value. Press and hold the keys to decrease or increase the value quickly.

The default alarm value for red light is 1000Lux. To change value

1. In alarm set mode, press [SET] to enter into red light set mode, the red LED light and main reading value will flash.
2. Press [HOLD] to decrease the value and press [MAX] key to increase the value. Press and hold the keys to decrease or increase the value quickly.

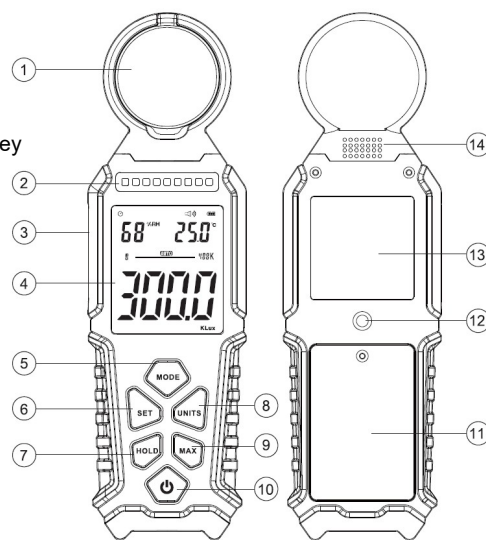
When settings are complete, press [MODE] key to save the data and return to normal measurement mode.

5.8 Alarm function

1. When the measured value is lower than the set yellow light alarm value, the three green lights remain on.
2. When the measured value is higher than the set yellow light alarm value and lower than the set red light alarm value, the three green lights will remain on. Three yellow lights light up sequentially (one light per second) along with the audible sound. The audible alarm sound frequency is 1 time/second).
3. When the measured value is higher than the red light alarm value, three green lights and three yellow lights will remain on. The three red lights are gradually increasing in intensity (increasing by one light per second), emitting a rapid audible sound by a frequency of 2 times per second.
4. Press [SET] for 1 second to turn audible alarm on and off.

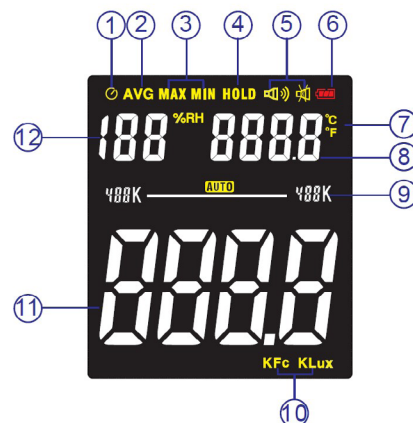
6. Meter description

1. Photo sensor
2. LED indication light
3. LCD display
4. Range level select key
5. SET key
6. HOLD key
7. Unit conversion key
8. MAX/MIN key
9. Power button
10. Battery cover
11. Tripod nut
12. Nameplate
13. Temp & humidity sensor



7. LCD description

1. Auto power off icon
2. AVG icon
3. MAX/MIN icon
4. Data hold icon
5. Alarm ON/OFF icon
6. Battery level icon
7. °C/°F units icon
8. Temperature readings
9. Light range level indication
10. KFc/KLux icon
11. Light readings
12. Humidity readings



8. Notes

1. This meter has already been calibrated before delivery. Do not revise the calibration parameters without professional personnel and device. The recommended calibration period is one year.
2. Repairs or servicing not covered in this manual should only be performed by qualified personnel.
3. Do not store or operate the meter in high temperature or humidity.
4. Remove the battery when meter is to be stored for long periods of time to avoid battery leakage.
5. When the low battery icon appears, the measured value may decrease in accuracy, replace the meter's battery.
6. When using manual range, press the "LEVEL" key to select the desired range. When the LCD displays "LO", it indicates that the selected range is incorrect. Please select a suitable range again.
7. Wipe the unit with a dry soft cloth. Do not use abrasives or solvents on this instruments.

9. Accessories

1. User manual
2. Environmental meter
3. Canvas bag
4. Calibration certificate
5. Type-C charging cable
6. 3 x AA battery