

LIGHTTELLS Corporation Limited
Coffee Roast Degree Analyzer

CM-100

User Manual



Coffee Laboratory
589 Rappahannock Drive White Stone Va 22578
TEL (866) 244-1578



Product Introduction

The CM-100 portableRoast degree meter is designed to help you measuring the roast degree for both whole bean and ground coffee. It is portable, user-friendly, accurate and easy to use. It quickly provides you accurate SCAA Gourmet numericscales result and also display a variety of name terminology corresponding to the result (Light, City, Italian, etc). The results are automatically stored in the CM-100 internal memory and can be easily re-check on the display.

Package Contents

- CM-100 x 1
- 5V Power Adapter x 1
- micro USB Power cable x 1
- Detachable Sample Dish x 2
- Measuring Spoon x 1
- Straightedge x 1
- Reference Gray Card (for calibration use) x 1
- User Manual with Limited Warranty Page x 1

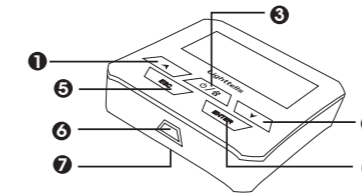
Major Function

- Fast and easy calibration for better accurate measurement
- Results in SCAA Gourmet scale
- Historical measuring record
- Embedded SCAA and Common Roast Names
- Calendar and Time settings
- Auto Power Saving
- Quick measuring key

⚠ WARNING: NEVER LOOK AT THE LEDS WHILE THE CM-100 IS POWERED ON

CM-100 Hardware

• Button names



- ① ▲ [Up] Function select/Last record
- ② ▼ [Down] Function select/Next record
- ③ ⏻/🏠 [Power/Home] Long press for 2 seconds to Power ON/OFF CM-100 Short press to jump back to main menu
- ④ ENTER [Enter] OK function
- ⑤ ESC [ESC] Press the [ESC]key to exit current screen
- ⑥ 📏 [Measure] Press the [Measure] key to start measuring Coffee Bean or Ground Coffee at any page
- ⑦ [System Reset] Press the System Reset button by paperclip or pen point to reset system in case the system is crashed

• Power ON/OFF

Presson the [Power button] for two seconds to power on CM-100. A warm-up process (60 seconds) will start before CM-100 is ready to work. You may skip the warm-up process by pressing the [ESC button], but it is recommended DO NOT skip the warm-up process in order to get better accuracy of the roasting degree.

• Charging

Plug the power adapter to an AC 110/220 outlet, connect the micro USB cable between the power adapter and the microUSB port of CM-100. It takes around 3 hours for fully charge from a drained battery. After full charged, the CM-100 could be able to continuous working up to 6 hours.

⚠ CM-100 might not be able to powering on when the battery is completely drained. Please connect the charger to CM-100 for few minutes in order to power on CM-100.

CM-100 User Interface

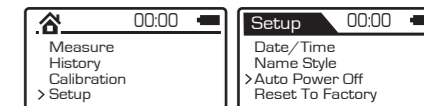
• Measure

Before measuring Ground Coffee/Whole Beans, please get the DUT (device under test) ready in the sample dish and use the straight edge to keep the DUT flat surface is level with the edge of the dish. Put the CM-100 unit on top of the dish properly, enter the <Measure> menu, select the DUT type (whole bean or ground), short click on the [Measure button] or [ENTER button] to start measuring. A short beep sound will notify you when the measurement is done. The Gourmet numericscales result and terminology name will be shown on the screen.

⚠ After you have chosen the DUT type (whole bean or ground) by press [ENTER] button for measurement, CM-100 measures the type you have chosen at any time in any manual.

• Calibration

Place the Reference Gray Card on table with labeled SN side down, put the CM-100 on top of the Reference Gray Card, click[ENTER button]to start calibration. A short beep sound will notify you after the calibration is done. If the calibration results <Error>, please make sure the gray card is covered properly beforeredo a calibration.



• Setup

<Auto Power Off>
 CM-100 will automatically turn off the power after idling a period of time. Selection: 5 min, 10 min, 30 min and Disable. Default setting :10 min.



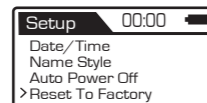
<Date and Time>
 Setup Calendar and Time

⚠ CM-100 would turn off the power anytime in order to protect the battery when the power is in low battery status when the Auto Power Off function is disabled

• Roast name display type

You can choose Common or SCAA roast names. (see Table)

SCAA Gourmet Result	Common	SCAA Names
91<= Gourmet# < 100	Light	Extremely Light
81<= Gourmet# <90	Cinnamon	Very Light
71<= Gourmet# <80	Medium	Light
61<= Gourmet# <70	High	Medium Light
51<= Gourmet# <60	City	Medium
41<= Gourmet# <50	Full City	Medium Dark
31<= Gourmet# <40	French	Dark
0<= Gourmet# <=30	Italian	Very Dark



<Reset To Factory>
 Reset all the settings to factory default setting.

⚠ Warning: All the history records will be erased, the calendar/time will be reset to default setting.

• History

Each measurement is automatically stored in CM-100. CM-100 can store up to 100 measurement records from the most recent to the oldest. Please use Up/Down button for record review.

Specification

Display	2.6" OLED Panel
Battery	Li-polymer 1150 mAhBattery
Light	Infra-red LED
Sensor	Infra-red Sensor
Log	100 records
Weight (Main unit)	230 g
Dimension (Main unit)	H: 114.8mm
	L:79.6mm
	W: 79.6mm
Working Temp.	0 - 45°C
Storage Temperature	-10 - 70°C
AC Adapter	110 - 240V, 50/60Hz
Charging input	5V, 0.5A
Certification	CE, FCC

• Warranty Information

This Limited Warranty applies to LIGHTTELLS product model name CM-100 purchased from an authorized LIGHTTELLS dealer by the original purchaser for normal use and not for resale. LIGHTTELLS warrants that a CM-100 product is free from defects in materials and workmanship, with the exceptions stated below.

This limited warranty lasts for 1 year from date of purchase, depending on when and where it was originally purchased. A valid proof of purchase may be required to prove eligibility. If you do not have a valid proof of purchase, the limited warranty period will be measured from the date of sale from LIGHTTELLS to the authorized distributor.

The limited warranty does not cover damage resulting from improper or unreasonable use or maintenance, misuse, accident, modification or alteration to hardware or software, tampering, unsuitable physical or operating environment beyond product specifications, or failure caused by a product for which LIGHTTELLS is not responsible. There is no warranty of uninterrupted or error-free operation. There is no warranty for product with removed or altered identification labels. LIGHTTELLS DOES NOT PROVIDE ANY OTHER WARRANTIES OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OF IMPLIED WARRANTIES, SO THIS LIMITATION MAY NOT APPLY TO YOU. LIGHTTELLS is not responsible for returning to you product which is not covered by this limited warranty.

Limited Warranty Card

Model Name: CM-100 Coffee Roast degree Analyzer

Serial Number: _____

Date of Purchase: _____ YY
 _____ MM _____ DD

Customer Name: _____

Customer Address: _____

Authorized Dealer Name / Stamp _____

