MEASURETEK
QUALITY SCALES

EHW-CM

User/Technical Manual

Contents subject to change without notice

Version 1.0
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CONTENTS

1. INTRODUCTION

General and Safety Information

- For use in dry environments only.
- This product uses 4xAA batteries. Dispose of according to local laws and regulations.
- Read and understand all operating instructions before using this product. Keep this manual for future reference.

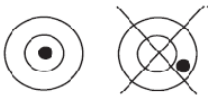
- Allow sufficient warm up time. Turn the scale on and allow up to 10 minutes for internal components to stabilize before weighing.
- Record the weight shortly after placing a load on the platter. Leaving loads in place for extended periods may vary the load cell's output signature and may result in a less accurate reading.
- Avoid extended exposure to extreme heat or cold. Optimum operation is at normal room temperature. See operating temperature range in the specifications table. Allow the scale to acclimate to room temperature before using.
- When storing the scale for extended periods, the battery must be charged every 90 days to avoid premature performance degradation. Over time, the operating time per charge will degrade. If the operating time is no longer acceptable even after recharging, the battery must be replaced.
- Electronic scales are precision instruments. Do not operate near cell phones, radios, computers or other electronic devices that emit radio frequencies that may cause unstable readings.

Specifications

Model	EHW-CM-03	EHW-CM-06	EHW-CM-15	EHW-CM-20
Max. Capacity	3 kg (6 lb)	6 kg (12 lb)	15 kg (30 lb)	20 kg (40 lb)
Readability	0.5 g (0.001 lb)	1 g (0.002 lb)	2 g (0.005 lb)	10 g (0.02 lb)
Display Resolution	1:6000	1:6000	1:7500	1:2000
Min. Recommended Weight	10 g (0.1 lb)	20 g (0.1 lb)	40 g (0.1 lb)	200 g (0.4 lb)
Construction	Stainless steel pan, plastic housing			
Weighing Units	kg / lb / g / oz / lb:oz			
Calibration unit	kg / lb			
Modes	Weighing			
Weight Display	1-Window backlit LCD display, 17.5mm (0.68") high, 5 1/2 digits, 7-segment			
Zero Range	Power-on zero range: calibration zero point±20%FS; ZERO key range: power-on zero±5%FS			
Tare Range	Up to 100%FS			
Stabilization Time	<3 seconds			
Operating Temperature	5° to 35°C (41°F to 95°F)			
Humidity Range	<90% relative humidity, non-condensing			
Power Supply	4*AA batteries or AC power adapter (9Vdc/600mA with central positive)			
Safe Overload Capacity	150% of capacity			
Platter Dimensions (L x W)	215 x 245 mm; 9.65" x 8.46"			
Scale Dimensions(L x W x H)	255 x 308 x 110 mm; 10.04" x 12.13" x 4.33"			

2. Unpacking and Setup

- Remove the scale from the box and place it on a firm, level surface. Avoid locations with rapid temperature changes, excessive dust, moisture, air currents, vibrations, electromagnetic fields, heat or direct sunlight.
- Adjust the leveling feet until the bubble is centered in the circle of the level indicator (located on the front panel).
  NOTE: Ensure that the scale is level each time its location is changed.



- The internal rechargeable battery should be fully charged for up to 12 hours before using the scale for the first time.
- Connect the supplied AC adapter to the power input receptacle underneath the scale. Plug the AC adapter into a properly grounded power outlet. The battery will begin charging.
- If the scale will be stored or transported in the future, save the packaging material to ensure the best possible protection for the scale.

Contents

- Scale
- 9Vdc/600mA adapter (optional)
- Manual
- 4 x AA batteries (optional)

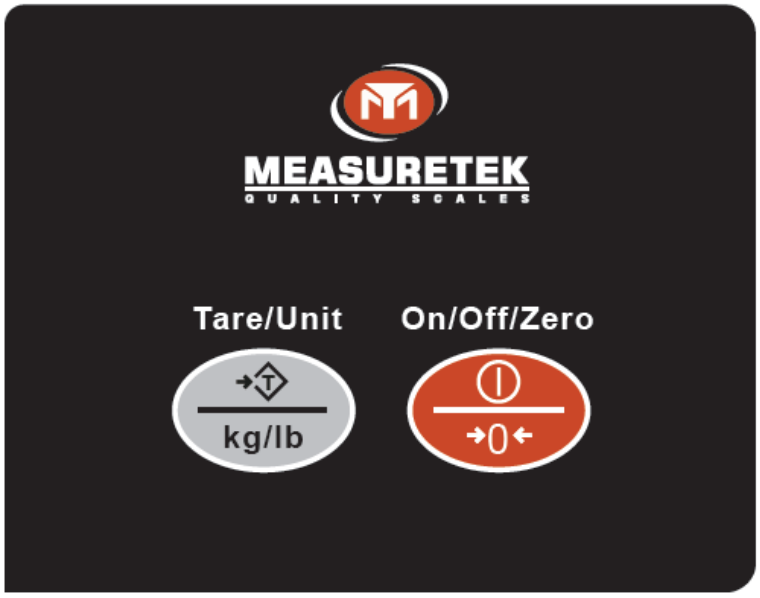
3. OVERVIEW OF CONTROLS AND FUNCTIONS

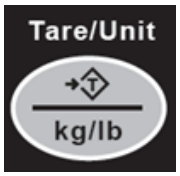
3.1 Front Display

3.2 Indicator Display Character Definitions

ASCII	LCD/LED Show	ASCII	LCD/LED Show	ASCII	LCD/LED Show
0		A		N	
1		B		O	
2		C		P	
3		D		Q	
4		E		R	
5		F		S	
6		G		T	
7		H		U	
8		I		V	
9		J		W	
		K		X	
		L		Y	
		M		Z	

3.3 Key Functions



Button	Functions	
	Short Press: (when off) (when on) Long Press: (when on)	Power on the scale Sets display to zero Power off the scale
	Short Press: Long Press:	Tare a weight Switch between unit of measure

4. OPERATIONS

4.1 Power on / Power off scale

Place the scale on a flat, stable surface. Level the scale using the leveling bubble at the lower left side of the display.

With the weighing platter empty, press the ON/OFF/ZERO key to power on the scale. The self-check will run, show the version number "-02", display full capacity e.g. "F15.000kg" , at last, the scale will display a zero reading.
(Note: the proper (power-on zero-point) range is: (calibration zero-point) ±20% FS).

To power off the scale, press and hold ON/OFF/ZERO key.

4.2 Zeroing the display

You can press the ON/OFF/ZERO key at any time to set the zero point from which all other weighing is measured. When the zero point is obtained, the display will show the indicator for zero.

ZERO key range is (power-on zero-point) ±5% FS. ZERO function is only activated when the scale is in steady weighing mode and this also clear the recorded tare weight, the ZERO indicator will be lighted on, NET indicator will be off. ZERO function will be not activated when the current weight is not in the range of (power-on zero-point) ±5% FS, and it will display "0------" or "0_____", then back to previous weight reading.

4.3 Normal Weighing Mode

When scale is powered on and back to 0, place the weighing objects on the platform. The display will show the weight and the units of weight currently in use.

4.4 Taring

Zero the scale by pressing the ON/OFF/ZERO key if necessary when reading is stable. The zero indicator will be on.

Place a container on the platform, a value for its weight will be displayed.

Press the TARE/UNIT key to tare the scale. The weight that was displayed is stored as the tare value and that value is subtracted from the display, leaving zero on the display. The "NET" indicator will be on. As product is added only the weight of the product will be shown. The scale could be tared a second time if another type of product was to be added to the first one. Again only the weight that is added after taring will be displayed.

When the container is removed a negative value will be shown. If the scale was tared just before removing the container this value is the gross weight of the container plus all product that was removed. The zero indicator will also be on because the platform is back to the same condition it was when the ON/OFF/ZERO key was last pressed.

Note: TARE range for this scale is up to 100%FS.

4.5 Switching measuring unit

In normal weighing mode, press and hold Tare/Unit key to switching the measuring units between lb, kg, g, oz, lb:oz.

5. Calibration

1. Prepare standard weights, and make the scale with no load.
2. When the scale is off, press and hold down TARE/UNIT button, and then press ON/OFF/ZERO button at the same time till CAL -0 appears. Release the two buttons.
3. Be sure no weight on the scale, and press ON/OFF/ZERO button, 0 in CAL-0 will be flashed;
4. When CAL -F is displayed, press and hold TARE/UNIT button to choose the unit (kg or lb) of standard weight in calibration; load full capacity weight on the platter. Then press ON/OFF/ZERO button, F in CAL -F will be flashed;
5. When CAL -0 appears again, remove the weight from the platter, and then press ON/OFF/ZERO button. "0" in "CAL -0" will be flashed.
6. When calibration has been completed properly, the scale will reset to normal working mode. If CAL.Er is display, that means there is an error in calibration, and need being re-calibrated
7. In step3 to step5, press and hold ON/OFF/ZERO to exit during the calibration mode.

6. AUTO-OFF setting and BACKLIGHT setting function

When the scale is on, press and hold TARE/UNIT and ON/OFF/ZERO buttons till SETUP is displayed, then the "A.oFF.xx" is displayed (xx=0,1…9: means when the scale has no weight changing and no key pressed for 1…9 minutes, the scale will auto power off to save battery power, when x=0, means no auto-power off function); Now, press TARE/UNIT button to choose the auto-off time and press ON/OFF/ZERO button to confirm and save the setting.

The scale will display "BLT.X" (x=0, 1, 2. 0 means backlight always off, 1 means backlight always on, 2 means backlight will be on when any button is pressed or reading changes). ow, press TARE/UNIT button to choose the backlight mode and press ON/OFF/ZERO button to confirm and save the setting.

7. Display symbol meaning

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0 : Power-on zero-point is over (calibration zero-point) +20%FS) when scale is turned on, or the reading weight is over (power-on zero-point) +5%FS when pressing ZERO button;

0_____: Power-on zero-point is below (calibration zero-point) -20%FS) when scale is turned on, or the reading weight is + (power-on zero-point) -5%FS when pressing ZERO button;

: The current weight is over 100% FS+9d;

CAL -0: Zero point at calibration;

CAL -F: Full capacity at calibration;

CAL -Er: Calibration error;

EEP. Er: EEPROM accessing error or data in EEPROM is error or not in their normal range;

Lo.bAt: The voltage of internal working is below 5.7V(+0.1V)

8. Troubleshooting

8.1 Troubleshooting

SYMPTOM	PROBABLE CAUSE	REMEDY
Will not power on	Power cord not plugged in or properly connected. Power outlet not supplying electricity. Battery is low. Other failure.	Check power cord connections. Make sure power cord is plugged into the power outlet. Check power source. Replace batteries. Or service required.
Unable to zero the display or will not zero when turned on	Load on scale exceeds allowable limits. Load on scale is not stable. Load cell damage.	Remove load on scale. Wait for load to become stable. Service required.
Lo.bAt is shown	Battery is low	Replace new batteries