

MKL H



Easy Reference:

Model name of the scale:	
Serial number of the unit:	
Software revision number (Displayed when power is first turned on):	
Date of Purchase:	
Name of the supplier and place:	

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P.N. 3.02.6.6.15556, Rev A1, July 2020

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WARNING:



Please read carefully following instructions for installation and use before starting your work with a new balance. Failure to use the balance in accordance with the advice in the user manual could mean that the product gives incorrect readings.

1.0 INTRODUCTION

- The MKL H models are supplied with a power supply adapter, to charge the internal rechargeable battery.
- Four models: 3 kg x 0.1g
6 kg x 0.2g
15 kg x 0.5g
30 kg x 1g
- Large LCD with backlight
- 5 weighing units: kg, g, lb, oz, and lb:oz
- Check-weighing
- Indicators for Stable, zero, net weight, and low battery functions
- Stainless steel pan with ABS case and pan support
- Sealed Membrane keypad
- Overload Protection
- Spirit level and leveling feet
- Auto calibration, zero tracking and tare

2.0 SPECIFICATIONS


Model	MKL 3H	MKL 6H	MKL 15H	MKL 30H
Capacity	3Kg	6Kg	15Kg	30Kg
Readability	0.1g	0.2g	0.5g	1g
Repeatability	0.2g	0.4g	1g	2g
Linearity \pm	0.2g	0.4g	1g	2g
Units	kg / g / lb / oz / lb:oz			
Stabilization time	2 seconds			
Operating temperature	0°C to 40°C 32°F to 104°F			
Power supply	5VDC @ 800mA adapter 4V4.5Ah rechargeable battery Typical battery life expectancy: 240 hours			
Calibration	External calibration			
Calibration Weights	1kg,2kg,3kg	2kg,4kg,6kg	5kg,10kg,15Kg	10kg,20kg,30kg
Display	6 digits 24mm LCD			

3.0 SAFETY PRECAUTIONS

Caution:

Please use only the original DC adapter supplied with the scale. Other cords or adapters may damage the scale.

Notice:

- Avoid extremes of temperature, do not place in direct sunlight or near air conditioning vents.
- Battery should be removed if the scale is not used for a long period of time.
- Do not stack material on the scale when it is not in use.
- Avoid high humidity that might cause condensation and keep away from direct contact with water.
- Static may influence the weighing result, to reduce the static wipe the pan and the scale with anti-static wipes.
- When the battery is lower than 3.7v, the battery symbol  will flash to indicate the low battery; when it is lower than 3.4v, the scale will turn off automatically.

4.0 SET UP

4.1 ASSEMBLING OF SCALE

- Put the scale on a stable and even table.
- Adjust the height of the feet to level the scale; the spirit level bubble should be in the centre of the spirit level.
- Put the pan support in place, inserting the pan support pins into the holes on top of the scale. Place the stainless steel pan on the support.
- Avoid excess force to weighing pan or the load cell could be damaged.

5.0 WEIGHING

5.1 BEFORE WEIGHING

Check the setting of the auto shut off function, see section 6.2. If the auto shut off function is on, the scale will shut off after a period of time if the scale is not used and it has a stable reading.

5.2 WEIGHING

- Press [On/Off] to turn on the scale. The display will show the software revision then show the model "CAP XX". Then it will begin its self-checking test from 0 to 9. When reading is stable, the display will show "0.0", stable symbol, zero symbol, and the weighing unit used the last time the scale was used.
- Press [UNITS/→] to select units from "g" / "kg" / "lb" / "oz"/"lb:oz". Only the weighing units enabled will be displayed, See section 6.8.
- Check if the reading is "0.0", if not, press [Zero]. "0.0" and the zero symbol will be displayed.
- Put the item to be weighed on the pan. When the reading is stable, the gross weight will be shown.

If a container is used, put the container on the pan and press the [Tare/←] key when the reading is stable. The display will show "0.0", the zero symbol and 'NET'. Load the container or remove material from the container, the scale will show the net weight of the material added or removed.

5.3 USER FUNCTIONS

The parts counting, percent weighing and calibration functions can be accessed using the [FUNC/↑] key, if the functions have been enabled as described in section 6.0.

If the function is turned off the function will not be available. Only functions that have been turned on can be accessed.

5.3.1 PARTS COUNTING FUNCTION

- In normal weighing mode, press [FUNC/↑] until the display shows “SAP 10”.
- Press the [UNITS/→] key to go through the preset sample piece values of 10, 20, 50, 100 or 200 pieces. For example, if you selected SAP-20pcs, hand count out 20 pieces and put them on the scale.
- Press the [Tare/↵] key once the stability indicator comes on to confirm the entered value. The display will show the number of pieces placed on the pan.
- If more items are put on the pan, the increased count value will be shown.
- Press [FUNC/↑] to exit and go back to the normal weighing mode.

5.3.2 PERCENTAGE WEIGHING

- In the weighing mode, press [FUNC/↑] until the display shows “PER”.
- Press the [Tare/↵] key to set the reference sample value, the display will show “SET”.
- Place the item to be set at 100% on the pan and press the [Tare/↵] Key when the stability indicator comes on.
- The display will show “100.0%”.
- When another item with a different weight value is put on the pan, the relative % value would be shown against the initial reference sample value.
- Press the [FUNC/↑] key to exit and go back to weighing mode.

5.3.3 CHECK WEIGHING

- When in normal mode, press [FUNC/↑] until the display shows “CHECK”.
- Press [Tare/↵] to set the high limits. The display will show the “000000” with one digit flashing and the ‘HI’ LED lit.
- Press [FUNC/↑] to increase the flashing digits;
- Press [UNITS/→] to select the digit;
- Press [Tare/↵] to accept the value and move to set the low limits. The display will show “000000” with one digit flashing and the ‘LO’ LED lit.
- Use the same method the set the low limits and press [Tare/↵] to enter the buzzer setting section,

- Press [FUNC/↑] to change the display to “BP INT” or “BP OUT” or “BP OFF” to have beeper sound when the weight is outside the limits, between the limits or off.
- Press [Tare/↵] to start the check weighing.
- Put the item on the pan, if the weight is below the low limits set, the scale will show “xxxxx.x” with the ‘LO’ LED lit; if it is higher than the high limits set, the scale will show “xxxxx.x” with the ‘HI’ LED lit. Otherwise the scale will show “xxxxx.x” with the ‘OK’ LED lit.
- Press the [FUNC/↑] key to exit and go back to weighing mode.

5.3.4 HOLD FUNCTION

- When in weighing mode, press [FUNC/↑] until the display shows “X Hod”
- Press the [UNITS/→] key to go through the holding time of 5,10,20,30, AUTO or Manual.
- If AUTO is selected the weight will be automatically held (locked on the display) when stable until all weight is removed from the scale and the [HOLD] key is pressed.
If a numeric value is selected the weight will be held only when the [HOLD] key is pressed and it will be held for the number of seconds selected.
- For example, if you selected 5 the display will lock for 5 seconds after the [HOLD] key is pressed. If you selected AUTO, the scale will lock when stable and hold the value until you press the [HOLD] key.
- If Manual is selected the [HOLD] key will toggle the display to hold or release the value when it is pressed.
- Press [FUNC/↑] to confirm the value and start hold weighing function.

6.0 FUNCTION SETTING

6.1 ENTERING THE FUNCTION SETTING MODE

- Press [On/Off] to shut off the power.
- Press [FUNC/↑] after press [On/Off] to turn the scale on.
- The display will show "SLP 0". Press the [Tare/↵] key to go through the backlight, g, lb, oz, lb:oz, bk au, pcs, per, chk.

6.2 SETTING OF AUTO SHUT OFF FUNCTION

- Press [FUNC/↑] to change the setting of this function then press [Tare/↵] to confirm the change.
- "SLP 0" means that the function is disabled.
- "SLP X" means that the auto off function is on. The number is the time in minutes before the scale will shut off automatically.
- To continue to other function settings, press [Tare/↵] to confirm the current setting and show the next mode.
- The display will then show "BK Off", "BK AU", or "BK on" these are the backlight function settings.

6.3 BACKLIGHT SETTING MODE

- Press the [FUNC/↑] key to change the state of backlight.
- "BK Off": the backlight is off all the time.
- "BK AU": auto backlight, backlight will come on if the display moves off of zero.
- "BK on": backlight will be on all the time.
- Press [Tare/↵] to confirm and move to the next setting. When you enter **Hold** function mode, it will show "PCS on" or "PCS off".

6.4 PARTS COUNTING FUNCTION

- Press [FUNC/↑] to switch on or off the part counting function.
- "PCS of": part counting function is off.
- "PCS on": part counting function is enabled.
- Press the [Tare/↵] key to confirm the setting and move to the next setting. The percentage weighing function has been entered when "PER on" or "PER of" is displayed.

6.5 PERCENTAGE WEIGHING FUNCTION

- Press [FUNC/↑] key to switch on or off this function.
- "PER of ": percentage function is off.
- "PER on": percentage function is enabled.
- Press the [Tare/↵] key to confirm the setting and move to the next setting. The check weighing function has been entered when "CHK on" or "CHK of" is displayed.

6.6 CHECK WEIGHING FUNCTION

- Press [FUNC/↑] to switch on or off this function.
- "CHK of" : check weighing function is off.
- "CHK on" : check weighing function is enabled.
- Press the [Tare/↵] key to confirm and move to the next setting. The calibration mode has been entered when "HOD on" or "HOD of" is displayed.

6.7 HOLD FUNCTION MODE

- Press [FUNC/↑] to change the state of the function.
- "HOD of" : Hold function is off all the time and not available to the user to set as in section 5.3.4.
- "HOD on": Hold function is enabled.
- Press [Tare/↵] to confirm and move to the next setting.
- The selection of weighing units setting has been entered when "On g " or "OFF g" is displayed.

6.8 SELECTION OF WEIGHING UNITS

Each weighing unit can be set to be either on or off. If it is on it is available when the user presses the [UNITS/→] key during normal weighing. If it is off the weighing unit is not available during normal use. The kilograms unit is always on.

- Press the [FUNC/↑] key to change the unit from on to off.
- On: the unit is enabled.
- Off: the unit is disabled.
- The units will be in the following sequence: "g"/ "lb" / "oz"/"LB: OZ".
- Press the [Tare/↵] key to confirm and move back to the first setting.

Press [ZERO] to escape the function menu and enter the normal weighing mode to save the changes you made.

7.0 CALIBRATION

- Calibration before use is recommended for best accuracy. It is suggested that the scale be calibrated when first installed and any time the scale is moved to a different environment.
- Ensure weights are ready before calibrating, the weight should be of a known accuracy, for example OIML class M1 or Class 4 of ASTM E617.
- Do not calibrate the scale if a proper calibration weight is not available.

7.1 AUTOMATIC EXTERNAL CALIBRATION

In the weighing mode, press [FUNC/↑] several times until the display shows 'CAL' to access calibration mode.


- Press the [Tare/↵] key, The display will show "Pin".
- Press the [FUNC/↑] key, [Tare/↵] key and [UNIT/→] key to enter calibration 'Pin'
- The display will show "CAL 0" and when the stable symbol is displayed press the [Tare/↵] key to confirm.
- The display will now show the calibration mass expected. "CAL 01 kg" (or "CAL 01 Lb"). Press the [FUNC/↑] key to change the calibration values if necessary. Each model has 3 different kg and lb calibration selection values.

Calibration selectable values for all model:

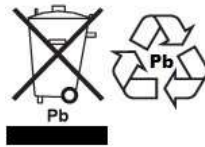
MKL 3H	MKL 6H	MKL 15H	MKL 30H
1Kg/2kg/3kg	2Kg/4kg/6kg	5Kg/10kg/15kg	10Kg/20kg/30kg

- Press the [Tare/↵] key to accept calibration mass, add the selected calibration mass value as displayed to the pan.
- After the calibration mass is added, wait for the stable symbol to come on and then press the [Tare/↵] key, the display will show "PASS", and then return to normal weighing after 3 seconds.
- If it is outside of the previous calibration value by more than 5%, it will show "FAIL L" or "FAIL H" indicating the new calibration weight was too low (FAIL L) or too high (FAIL H) in respect to the previous calibration value.

8.0 ERROR MESSAGE

--AdO	A/D counts are too high
--AdL	A/D counts are too low
BEEP 15	Wrong operation
--OL--	Overload 9d
 and "BATTLO"	Low battery indication
-- Err -	Over zero key range

WEEE 2012/19/EU



This device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements. Disposal of batteries (if fitted) must conform to local laws and restrictions.

Cet appareil ne peut être éliminé avec les déchets ménagers. L'élimination de la batterie doit être effectuée conformément aux lois et restrictions locales.

Dieses Gerät nicht mit dem Hausmüll entsorgt.

Dispositivo no puede ser desechado junto con los residuos domésticos

Dispositivo non può essere smaltito nei rifiuti domestici.