LW MEASUREMENTS, LLC

Professional Weighing Equipment

K-Series Scales

Operation Manual

KHR 6000
KHR 502
KHR 3001

KHR 123

Table of Contents

Declaration of Conformity

Declaration of conformity for apparatus with CE mark:

We hereby declare that the product to which this declaration refers to conforms to the following standards.

Electronic scale: K-Series Balances

Imperial version	Metric version
KHR 6000 KHR 502 KHR 3001 KHR 123	KHR 6000 KHR 502 KHR 3001 KHR 123

Mark applied	EU Directive	Standards
CE	2004/108/EC	EN 61326-1: 2006

Signature:

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July 17, 2014

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Introduction

What you should know about this Operation Manual:

Tree® Professional Weighing Equipment products are simple to operate.

Nevertheless, you should read through these operating instructions in their entirety, so that you can make optimum use of the full potential of the weighing scale in your daily work activities.

These operating instructions contain guidance in the form of pictograms and keyboard diagrams, which should help in finding the required information:

For the labeling of potential hazards, please refer to the Safety proportion of this operation manual.

Safety

Representations & Symbols

Note: Important instructions, which involve safety, are highlighted with the appropriate mark:

⚠ DANGER

Safety Recommendations

When using the weighing equipment in surroundings with increased safety requirements, the corresponding regulations must be observed.

The weighing scale may only be used with the power adapter supplied.
Before connecting the power adapter to the scale, the user must ensure that the operating voltage stated on the power adapter is compliant with the mains voltage.
If not, please contact Customer Service at the address above.

If the power adapter or its cable is damaged, the weighing scale must immediately be disconnected from the electricity supply (pull out the power adapter).

If there should be any reason to believe that it is no longer safe to operate the scale, it should be immediately unplugged from the electricity supply (pull out power adapter) and secured against inadvertent operation.

In carrying out maintenance work, it is essential to follow the recommendations in maintenance and service.

The weighing scale must not be operated in an area subject to explosion risks.

Care must be taken when weighing liquids to ensure that no liquid is spilled into the inside of the scale, into connections on the rear of the equipment or the power adapter.
If liquid is spilled on the scale, it must immediately be unplugged from the main electricity supply.

The weighing machine may only be operated again after it has inspected by a service technician.

These operating instructions should read by each user and should be easily accessible at the workplace.

Weight Scale

Construction & Functions

The Scale consist of certain parts;

- Base
- Plastic Platter
- Stainless Steel Platter
- Clear Plastic Bowl
- A/C Adapter
- Operation Manual

Figure 2.1 weight scale

Figure 2.2 Plastic platter

Figure 2.3 Stainless steel platter

Figure 2.4 Clear plastic bowl

Figure 2.5 A/C adapter

Functions of the Scale

The K Series is a high-quality electronic precision weight scale with the following specifications;

Imperial weight unit version

Model number	Capacity	Graduation	Platter Size
KHR 6001	6000 g	1 g	5.75 in x 5.75 in
KHR 3001	3000 g	0.1 g	5.75 in x 5.75 in
KHR 502	500 g	0.01 g	5.75 in x 5.75 in
KHR 123	120g	0.001g	3.85 in
Net/gross weight	1.7 lb / 4 lb		
Package (Standard carton)	11.5 x 9.25 x 5.5 (in^3)		
Operating Temp.	32°F-104°F		
Power source	6 x AA Dry cells (not included) or Auto Sensing Transformer 85-265V AC		

Metric weight unit version

Model number	Capacity	Graduation	Platter Size
KHR-6001	6000 g	1 g	14.5 x 14.5 cm
KHR-3001	3000 g	0.1 g	14.5 x 14.5 cm
KHR 502	500 g	0.01 g	14.5 x 14.5 cm
KRH 123	120g	0.001g	3.85 in
Net/gross weight	920 g / 1300 g		
Package **(Standard carton)**	29 x 23.5 x 14(cm^3)		
Operating Temp.	0-40 ºC		
Power source	6 x AA Dry cells (not included) or Auto Sensing Transformer 85-265V AC		

Scale Features

The Scale consist of the following features:

- Auto shut off (optional)
- Auto zero tracking
- Low battery indication
- 1/2000 & 1/30000 division available
- Large container weighing
- Auto calibration
- Large LCD
- Units of measure; Kg./g./lb./lb:oz./oz. conversion; KHR123 g,mg,dwt,ozt,gn
- Auto backlight (optional)

Application & Conformity

The Following are instructions of how to correctly use the weight scale:

The maximum capacity weight must never be exceeded, otherwise the weight scale may be damaged.

If using the scale with other devices including devices produced by other manufacturers, the appropriate regulations for the safe use of the devices and their application in accordance with their relevant operational instructions must be observed.

The scale has been manufactured and tested in accordance with the standards and recommendations set out in the declaration of conformity.

The power adapter supplied for the scale complies with the appropriate electrical protection class.

Technical Data

The following applies to the KMR series

Power supply:

- Input: The AC input requirement is 85V-265 V (50Hz to 60Hz AC (+/-15-20%);
- Output: 9V DC 100mA

Allowable ambient conditions

Temperature: 0°C - 40°C, 32°F - 104°F
Relative humidity: 25% - 85%, non-condensing

If you have any questions on the technical data or require detailed technical information on your scale, please contact your technical representative.

Getting Started

The machine is packaged in an environmentally-friendly carton, which provides optimum protection for the machine during transportation.

We suggest that you keep the original packaging in order to avoid damage if you are shipping or transporting the scale to a different location. It is also the best way to keep it in the best conditions if it will not be used for an extended period of time.

In order to avoid damage, please follow the instructions provided below, when unpacking the scale:

- Unpack the scale carefully.
- When outside temperatures are very low, the scale should be stored for a couple hours and kept in its box in a dry room at normal temperature, so that no condensation settles on the unit when opening the box.
- Check the scale immediately after unpacking for any external visual damage. If there is any damage on scale, contact customer service immediately.
- If the scale is not to be used immediately after purchase, it should be stored in a dry place where fluctuations in temperature are low. (Reference pg.).
- Read through these operating instruction, before you work with the unit and pay attention to the Safety recommendations (reference Safety pg. 6).

Delivery

Inspect delivery for completeness immediately on unpacking all components

Checklist for complete delivery

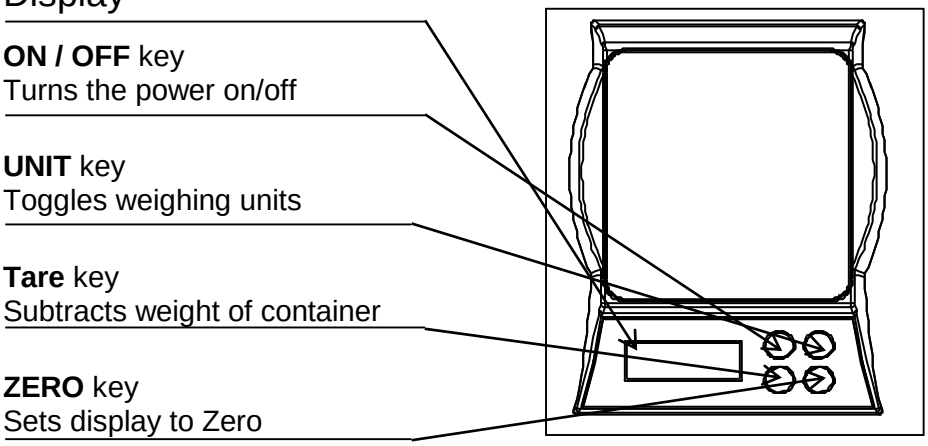
Component	**Component delivered present** yes / no
Weighing Machine	
Stainless Steel Platter	
Plastic Platter	
Plastic Bowl	
Power adapter	
Operating manual	

Parts Description

LEFT SIDE

AC adaptor socket

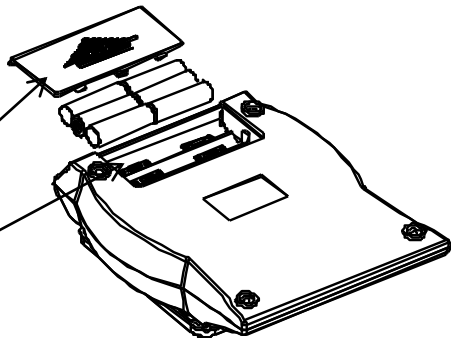
TOP



BOTTOM

Battery compartment cover
(Batteries not included)

Battery compartment



Assembly & Installation

The weighing machine is delivered in partly dismantled condition. Assemble the individual components in the following sequence:

- Place your machine on a level, clean, and dry surface to obtain accurate readings.
- Place the plastic platter on top of the scale, flat side facing up so the platter sits firmly on the machine with the four “legs” inserted into the corresponding four receptacles.
- Place the stainless steel platter on top of the plastic platter with the flat side facing up.
- Unwrap and place the clear plastic bowl, open side facing up, on top of the stainless platter.

Connecting AC Adapter & Installing Batteries

Remove the battery compartment cover and insert six (6) AA batteries (not included) into the battery compartment, pay special attention to the polarities (+ / -) when installing.

Insert the power adapter cable plug into the socket on the side of the machine

NOTE: the AC input requirement could be 110, 120, 220, 230 or 240 Volts (50/60 Hz) depending on the area where used, so please verify that the adapter is correct.

Placement of Scale

The location in which the scale is placed is very important in order for the scale to work to its full potential. Certain conditions can affect the capabilities of the scale, conditions like: the presence of air flow, variations in temperature, and direct sunlight. Please follow the recommendations given below in choosing a location to place your scale.

- Place the scale on a solid, firm and preferably vibration-proof, horizontal base
- Make sure that the weighing machine cannot be shaken or knocked over
- Protect from direct solar radiation
- Avoid drafts and excessive temperature fluctuations
- Avoid placing the scale near or on any magnetic surfaces.

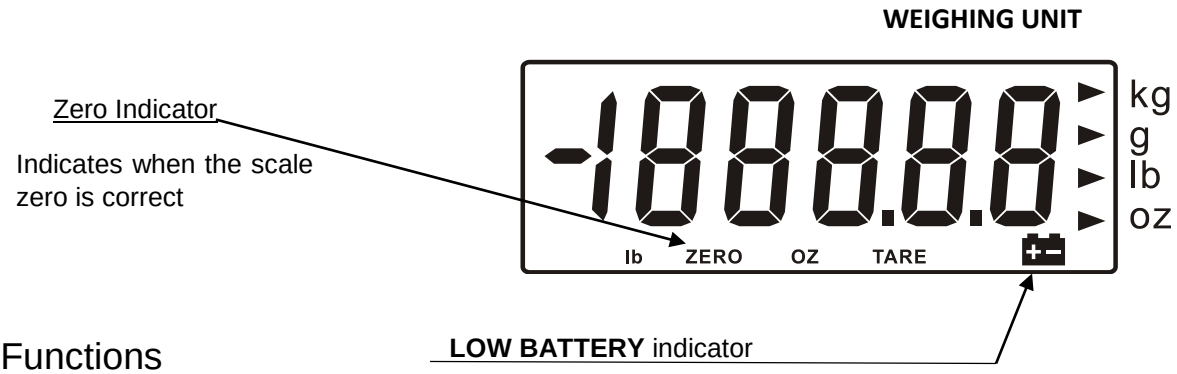
Mains Voltage Safety

The following Safety recommendations should observed when connecting the balance to the mains voltage socket.

The Scale should only be connected to the mains voltage socket with the power adapter supplied. Check before connecting the power adapter to the mains socket, that the operating voltage stated on the power adapter complies with the local mains voltage. If the operating voltage is not the same as the mains voltage, the power adapter must not be connected to the mains socket and contact customer service.

Application Menu

Display



Key Functions

- The ON/OFF key is to turn the Scale On or Off
- The UNIT key is to toggle between different weight units.
- The ZERO key sets the display to Zero.
- The TARE key is to subtract the weight of a containers

Functions

To set these functions the scale should be off

Auto Shut Off Mode

- Press and hold the “Zero” key simultaneously with the “On/Off” key.
- The display will show A-On (Auto Shut off active) or A-Off (Auto Shut off deactivated)
- Press the “Zero” key to toggle between A-On and A-Off.

Setting the Backlight

- Press the “Unit” key and the display will show L – On (Backlight active) or L-Off (Backlight not active)
- Press the “Zero” key to toggle between L-On and L-Off
- Press the “On/Off” key to two times to return to normal operation.

Weighing Procedures

- Press the “On/Off” key to turn on the scale.
- Press the “Unit” key to select a unit of measure (kg, g, lb., oz, lb:oz).Once the unit has been selected, the selected unit will be displayed next to the weight value.
- If you do not use a container (or the supplied bowl), verify the reading is “0”
  If the display does not show “0”, press the “Zero” key to display “0”
  Place your item (s) to be weighed on the platform.
- If you do use a container (or the supplied bowl):
  Place an empty container (or the supplied bowl) on the platform
  Wait for the weighing value to stabilize
  Press the “Tare” key to display “0” with tare
  Place your item (s) to be weighed in the container or bowl, the display will show the net weight of the item (s) to be weighed.
- Once finished take the item (s) and container off the scale and press the “Tare” or “Zero” key to return to zero.

Calibration

In order to ensure exact measurements, it is recommended that the balance should be calibrated regularly using a known external calibration weight, as with time and use, mechanical deviations may occur.

Calibration may also be required when the scale is initially installed. Follow the procedures below to calibrate.

- Press and hold the “Unit” key and at the same time press the “On/Off” key. The display will show CALu=. The scale is now in Calibration Mode.
- Press the “Unit” key to toggle between setting units (For KHR-500, KHR-3001, KHR-6000 are kg, g, lb, oz. For KHR-123 is g, mg, dwt, ozt, gn).
- Press the “Zero” key to initiate the calibration process.
- Enter the weight of your calibration weight by using the “Unit” key to toggle between digits, and use the “Tare” key to increase each digit until the display flashes your test weight amount.
- Press the “Zero” key and the display will now show CAL then AD value. Then press the “Unit” key and the display will show the flashing calibration weight.
- Place your test weight on the platter. Wait for the Stable Indicator to be displayed. Press the “Unit” key and the display will return to the AD value.
- Take the calibration weight off the platter and press the “On/Off” key to turn off the scale. The calibration is now complete
- Turn the scale back on. The scale will now be in Weighing Mode. Place the weight on the platter to ensure the scale is weighing correctly. If not, turn the scale off and repeat the calibration process again

Maintenance & Service

For maintenance-work, the balance must be disconnected from the power supply (remove power adapter plug from socket). Also ensure that the balance cannot be connected to the power supply during the work by a third party.

Make sure that no liquid spills into the scale while performing maintenance work. If liquid is spilled on the scale, it must be inspected by a service technician.

Regularly perform maintenance to the weighing pan and the weighing pan holder by removing any dirt or dust from under the weighing pan and on the weighing scale housing. Use a soft brush or a soft, lint-free cloth, moistened with a mild soap solution.

⚠ CAUTION

Never use solvents, acids, alkalis, paint thinners, scouring powders or other aggressive or corrosive chemicals for cleaning; these substances can cause damage to the surfaces of the scale housing.

Transportation & Storage

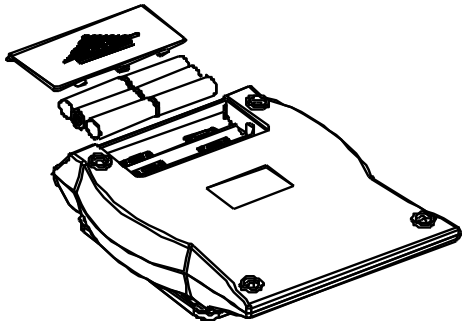
Your weighing machine is a precision instrument, treat it carefully. Avoid shaking, severe impacts and vibration during the transportation. Make sure that there are no marked temperature fluctuations during the transportation and that the weighing machine does not become damp (condensation).

If you would like to take the weighing machine out of service for an extended period, disconnect it from the electricity supply, clean it thoroughly (refer to Maintenance & Service) and store it in a place which meets the following conditions:

- No violent shaking, no vibrations
- Minimum temperature fluctuations
- No direct solar radiation
- Minimum moisture

Replacing the batteries

Replace all batteries at the same time. Do not replace only a portion of the six batteries as this may cause a malfunction. If the scale is not to be used for a long period of time, remove all batteries from the battery compartment to avoid leakage, which may cause damage.



Warranty

The products are under warranty against factory defects for a period of two (2) years from the date of shipment.

For Customers within the lower 48 states of the continental United States. LW Measurements will pay for fright both ways for the first 30 days after purchase. After 30 days expire the customer is responsible for shipping the product back to us. After the product is received we will inspect it and as necessary we will repair or replace and will ship the product back to the customer at our expense.

Any new scales returned for warranty must be properly packaged in the original box. If they are not properly packed an in the original box, the customer pays for shipping cost. If we determine there is a factory defect, we will pay for the shipping back. If we determine that it is not a factory defect, the customer will pay shipping.

For Customers outside the lower 48 States, including Mexico, Canada, Puerto Rico, Hawaii, Alaska and all other countries, customers must pay for shipping.

Our warranty does not cover misuse or neglect including but not limited to battery or water damage, overloading, and chewed or cut wires. If the product is found to have been misused or damaged by the customer, LW measurements is not responsible for the cost of return.

For warranty claims please go online to lwmeasurements.com and fill out the warranty submission form or call your customer service representative.