



Professional Weighing Equipment

LSS Series Intelligent Weighing Scale

**HIGH RESOLUTION BALANCE
WITH COUNTING FUNCTION**



LSS Scale

Operation Manual

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Declaration of Conformity

Declaration of conformity for apparatus with CE mark

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


Electronic scale:WPB - High Resolution Balances

USA model

UK (Europe) model

LSS 200

LSS 400

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

Signature:



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Date: 14. 11. 2012

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Introduction

What you should know about these Operating Instructions:

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 and the diverse possibilities of the weighing scale in your daily work.

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

For the labeling of potential hazards and advice, please see Safety below.

Safety

Representations and symbols

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



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 set out in maintenance and servicing.

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 or 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 (pull out power adapter).

The weighing scale may be operated after it has first been inspected by a service technician.

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

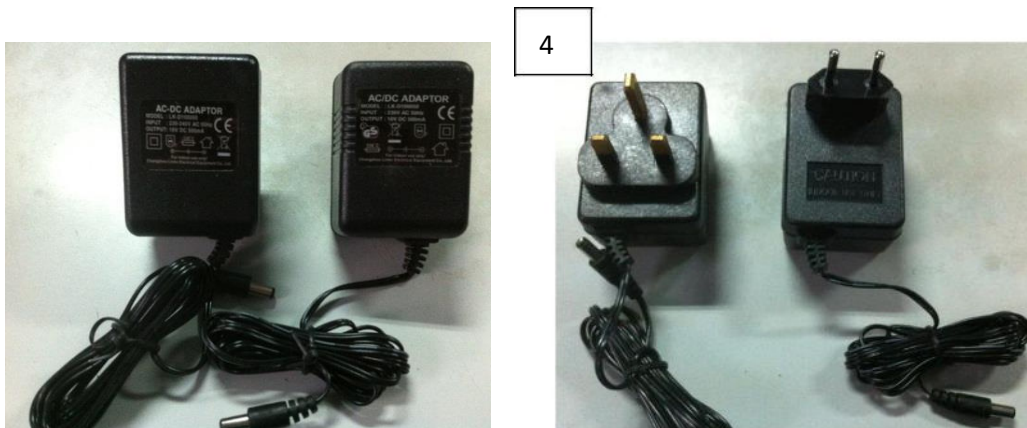
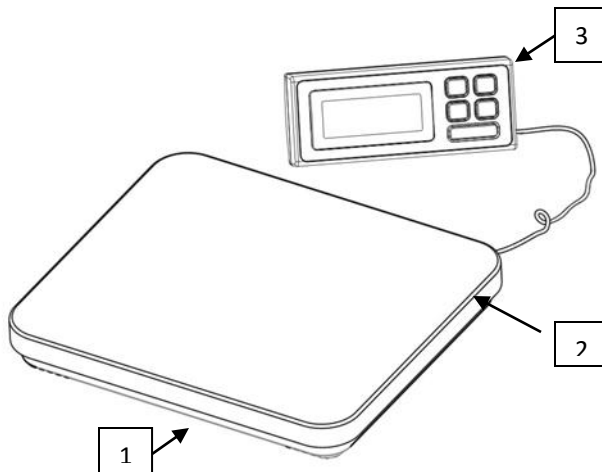
Weight Scale

Construction & Functions

The weighing scale consists of the following parts;

- Weight scale body (1)
- The scale-pan (2)
- Indicator (3)
- The adapters (4)
- Operating manual

Figure; your scale



Functions

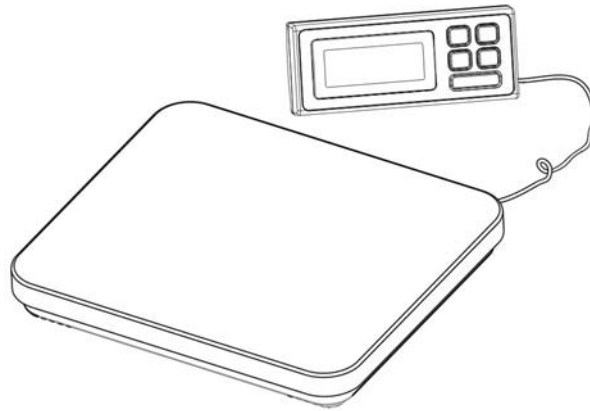
The HRB Series are high-quality electronic precision weighing scales with counting function and the following specifications

Model number	Capacity	Graduation	Weighing Pan Size 14 x16in / 355 x 405 mm
LSS 200	200lb	0.05lb	
LSS 400	400lb	0.1lb	14 x16in / 355 x 405 mm
Net/gross weight	2.8 kg/4.2 kg		
Package (Standard carton)	25.2 x 22.1 x 19.1 in 120.9 x 17.7 x 4.5 in		
Package (Master carton)	5 Units in one box: 640x560x485 (mm ³) 530x450x115 mm		
Operating Temp.	15-30°C (62-90°F)		
Power source	6 x AA dry cells(not included) or AC/DC		
	Adapter: 9V / 100mA		

Features

- Auto shut off (selectable)
- Auto zero tracking
- Large LCD
- Large square weighing pan
- AC Power
- Hold function
- Auto calibration (AnyCal Software)
- Auto backlight (selectable)

Details of your weighing scale



Application & Conformity

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

The weighing scale may only be used for the weighing of solid-materials and of liquids filled into secure containers.

The maximum capacity load of the weighing scale must never be exceeded, otherwise the weighing scale may be damaged.

In using the weighing scale in combination with other devices as well as with devices produced by other manufacturers, the appropriate regulations for the safe use of the relevant attachments and their application in accordance with instructions must be observed.

The weighing 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 weighing scale complies with the appropriate electrical protection class.

The following applies to LSS series

Power supply:

Adaptor 9V / 100m A

Allowable ambient conditions

Temperature: 15°C - 30°C (62-90F)

Relative humidity: 25% - 85%, non-condensing

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

Getting started

The scale is packaged in an environmentally-friendly carton, which provides optimum protection for the balance 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.17).
- 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 delivered present yes / no
Indicator w/base	
Weighing pan	
Power adapter	
Operating manual	

Assembly & Installation

The weighing scale is delivered in a 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.

Connecting the AC Adapter

The following Safety recommendations must be observed when connecting the scale:



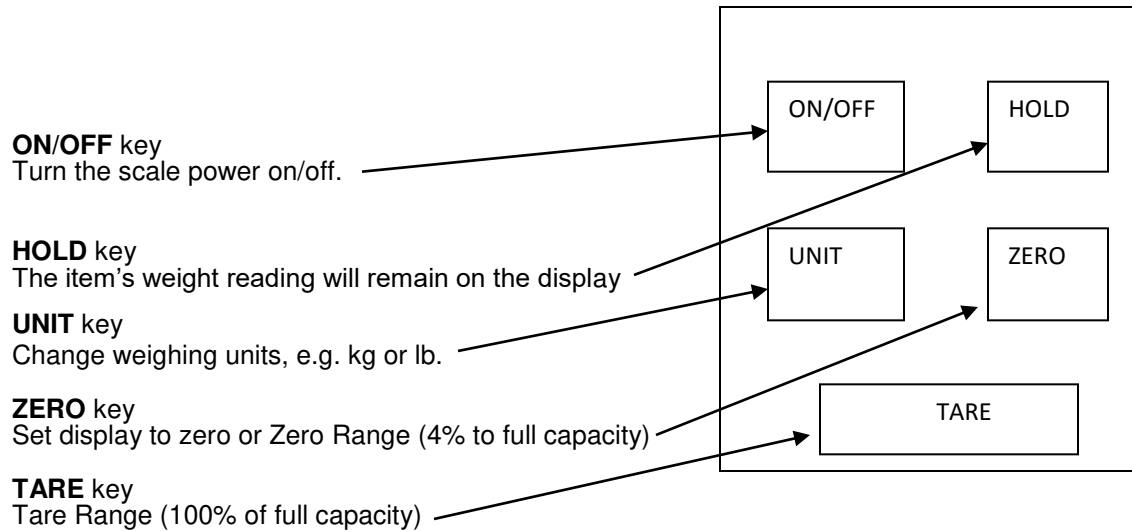
The Scale should only be connected to the mains voltage socket with the power adapter supplied. Check before connecting the power adapter to the mains socket, that the operating voltage stated on the power adapter complies with the local mains voltage. If the operating voltage is not the same as the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

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.

Indicator Description



Display



Key Functions:

- The On/Off key is to turn the Balance On or Off (Note: it has an On/Off hard switch at the bottom).
- The Zero key allows the user to subtract the container value multiple times within the capacity weight, and is used to set or re-adjust the weighing scale in correct zero position.
- The Print key is to send data to external device through RS232 connector.
- The Unit key is to toggle between different units of measurement.
- The PCS key is for piece counting

Function Settings

Please see our web-site at <http://lwmeasurements.com> for practical demonstrations of application usage.

Function Settings

- Enter function setting mode. Press **ON/OFF** to turn the power off, press **HOLD** first, and then press **ON/OFF**, while keeping **HOLD** pressed, the display will show **A_OFF**.
- Selection of auto shut off mode. When the scales enters function setting menu, the display will show **A_OFF**. Press **ZERO** to choose ON or OFF: selection display **ON**, this means auto shut off function active. Press **ZERO** again, the display will show **OFF**, this means auto shut off function inactive.
- Selection of auto backlight mode. When the scale enters function setting menu, press **HOLD** key, the display will show **L-ON (or OFF)**. Press **ZERO** to choose ON or OFF: selection display **ON**, this means auto backlight function active, press **ZERO**, again, the display will show **OFF**, this means auto backlight function inactive, i.e. shut off back light function.
- Selectin of auto **HOLD** mode. Press **HOLD** key, the display will show **H-ON** or **H-OFF**, press **ZERO** selection display **H-ON**, this means **AUTO-HOLD** function active, press **ZERO** again, the display will show **H-OFF**, this means **AUTO-HOLD** function inactive.
- Return to weighing mode. Press **ON/OFF** to turn the power off, press **ON/OFF** again to turn on the power and the scale return to the weighing mode.

Scale Settings

HOLD FUNCTION

- 1) Place the item on the scale platform.
- 2) Wait for the weights to be displayed.
- 3) Press the HOLD key. The “.” hold indicator will turn on.
- 4) Remove the item from the scale platform. The item's weight reading will remain on the display. You can now also convert this to other measures (i.e. lb to kg) by pressing the UNIT key.
- 5) Quit hold function: Once an item is weighed and the hold function is enabled; you want to quit to hold function, press the HOLD key again to cancel the “.” hold indicator and return the scale to weight mode.

WEIGHING

Before weighing;

Whenever possible, please allow the scale to warm up for several seconds after turning the power on, so that the scale will function properly and accurately.

Error Messages

EEEE Overload

 Low battery

Err-Z Exceed zero track range when turning on the power

Err-S The scale is unstable when turning on the power

Err-C Forgot to input calibration weight when calibrating or the AD value is too low.

Weighing procedures

1. **Press ON/OFF to turn on the scale.** When the power is turned on, all display segments appear for a few seconds and “0” will appear on the display.
2. **Select the weighing unit with UNIT.** Press UNIT to select a weighing unit “kg”, “lb”. Once the unit has been selected, the selected unit will be displayed next to the weight value.
3. **Start weighing – if you do not use a container for weighing:** Verify the reading is “0”, if not, press ZERO to display “0”. Place the item to be weighed on the platform.
Start weighing – if you do use a container for weighing: Place an empty container on the platform. Wait for the stability weighing to be displayed and press TARE. Place the items to be weighed in the container.

Calibration

- When to calibrate – **Calibration is almost never required.** If the scale is inaccurate, calibration may be desired when the scale is first set up for use, or if the scale is moved to a different altitude or gravitation. This is necessary because the weight of a mass in one location is not necessarily the same in another location. Also, with time and use, mechanical deviations can occur.

How to calibrate

Note: calibration value must be more than 2/3 of the capacity value that you have set.

- Press and keep ZERO key, then press ON/OFF key to turn on the scale, the display will show XXX.XX kg.
- Press the UNIT key to select setting unit between kg and lb, press HOLD key to move flash digit to the right, press ZERO key to increase flash digit. Press TARE key, the display will show CAL and AD value. Press UNIT key, the display will show flashed calibration weight. Place the shown weight then press UNIT key, the display will show ----- then AD value. Take off calibration weight then turn off the scale.
- Calibration is finished.

If calibration is repeatedly incorrect then:

1. Replace the batteries
2. Try a more stable surface or vibration and interference free location.

Maintenance & Service

The weighing scale is a precision instrument, it must be treated carefully and cleaned regularly



DANGER

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.

Transport & 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

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 freight 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.

