



LW MEASUREMENTS, LLC

**Professional Weighing
Equipment**

**MRB-S SERIES SCALES
Operation Manual**



MRB-S 512

MRB-S 6000

MRB-S 1201

MRB-S 10000

MRB-S 2201

**NOTE: THIS PRODUCT HAS BEEN
CALIBRATED IN THE FACTORY.
PLEASE REFER TO THE MANUAL
BEFORE RE-CALIBRATING
PRODUCT!**

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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: MRB-S Scales

Model Selection


MRB-S 512

MRB-S 1201

MRB-S 2201

MRB-S 6000

MRB-S 10000

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

Signature:

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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 labelling 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 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;

- The scale body (1)
- The scale-pan (2)
- The adapter (3)
- Operation Manual.

Figure 2.1 Your weighing machine



Functions

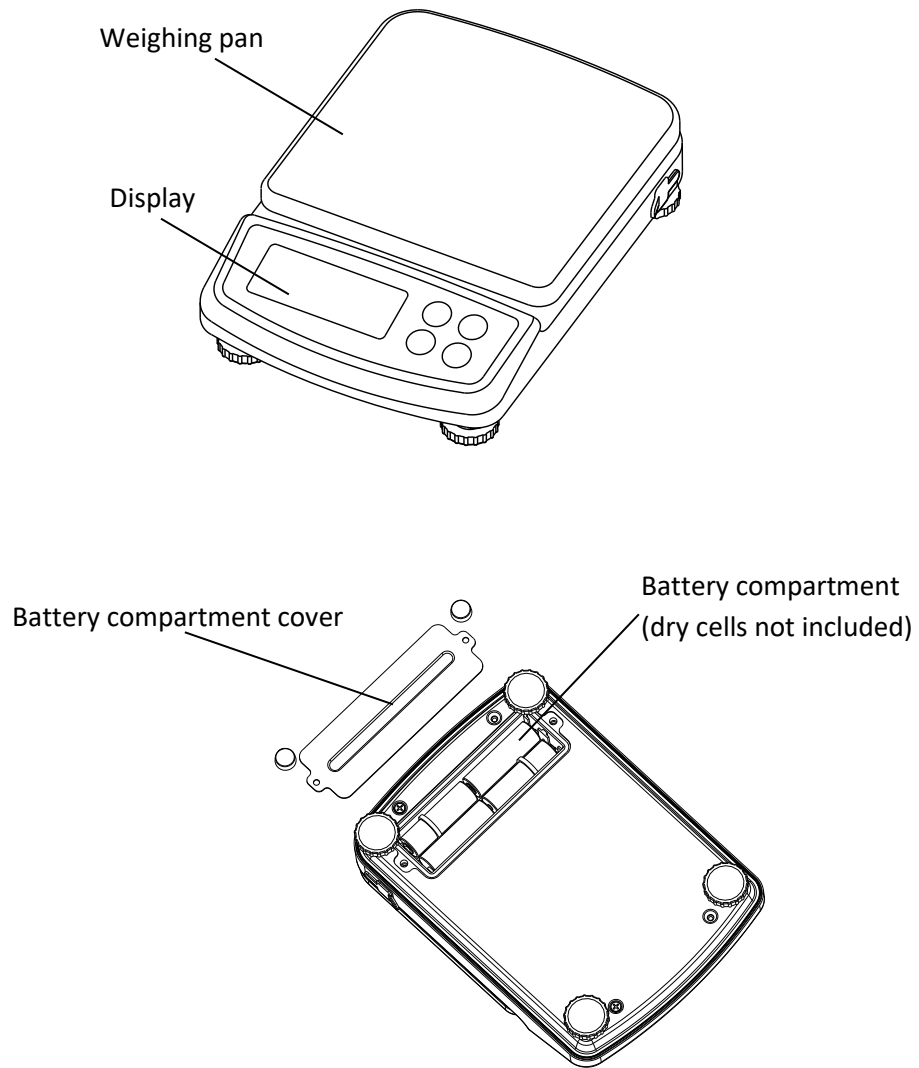
The MRB-S Series are high-quality electronic precision weighing scales designed to function as counting scales and check-weights with the following specifications

Model number	Capacity	Division	Weighing pan Size
MRB-S 512	512g.	0.01g	145 x 145mm
MRB-S 1201	1200g	0.1g	145 x 145mm
MRB-S 2201	2200g	0.1g	145 x 145mm
MRB-S 6000	6000g	1g	145 x 145mm
MRB-S 10000	10000g	1g	145 x 145mm
Package (Standard carton)	$23 \times 16 \times 7(\text{cm}^3)$		
Package (Master carton)	12 Units in one box: $48 \times 35 \times 28(\text{cm}^3)$		
Operating Temperature	0-40°C(32-104°F)		
Power source	4 x AA dry cells or AC/DC Adapter 6V DC /300mA		

FEATURES

- Auto zero tracking
- Intelligent applications: weight unit conversion
- Low battery indication
- Bright backlit LCD
- Large heavy gauge stainless steel square pan
- Stability indication
- Auto calibration
- Selectable auto back light
- Selectable auto shut off
- Unit switching kg ,g, lb, oz, lb:oz
- Variable kg or lb reference weight calibration software.

Figure 2.2 Details of your weighing machine



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 all MRB-S series weighing scales

Power supply:

Input: 110V or 230V AC (+/-15-20%); 50Hz to 60Hz

Output: 6V DC 300mA

Allowable ambient conditions

Temperature: 0°C - 40°C

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.).
- Read through these operating instruction, before you work with the unit and pay attention to the Safety recommendations (reference Safety)

Delivery

Inspect delivery for completeness immediately on unpacking all components.

Checklist for complete delivery

Component	Component delivered present yes / no
Weighing unit body	
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.
- 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 the AC Adapter

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



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.

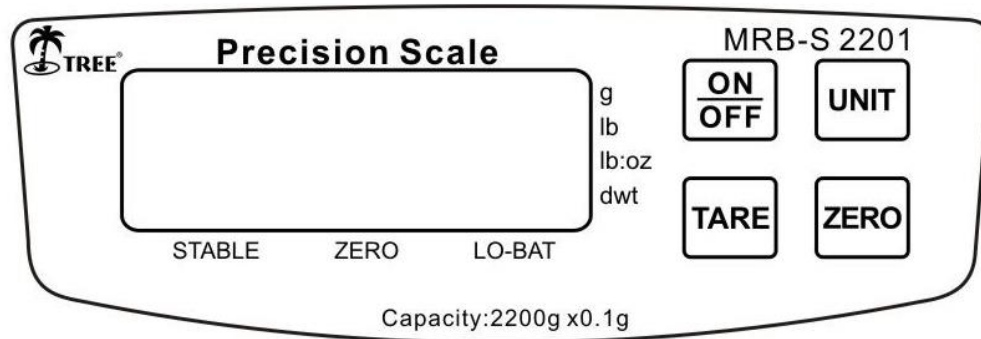
Placement of Scale

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

Application Menu



Display messages & Key functions

Display messages

- The STABLE icon indicates when the readings stabled.
- The ZERO icon indicates when the weights tared to zero.
- The LO-BAT icon indicates when running out of battery.

Key functions

- ON/OFF key turns the weighing scale on or off
- UNIT key changes the weight units, kg, g, lb, lb:oz
- ZERO key sets display to zero
- TARE key is to subtract the weight of a containers

Program Options

Auto shut off setting

Press and hold the “ZERO” key, and then press the “ON/OFF” key to turn on the scale, the display will show A_ON or A_OFF. Press the “ZERO” key to select A_ON (this will activate the auto shut off function) or A_OFF (this will deactivate the auto shut off function). Turn off the scale to confirm the function.

Auto backlight setting

Press and hold the “ZERO” key, and then press the “ON/OFF” key to turn on the scale, the display will show A_ON or A_OFF. Press the “UNIT” key, and the display will show L_ON(Backlight active) or L_OFF(Backlight not active), press the “ZERO” key to select L_ON or L_OFF . Turn off the scale to confirm the function.

Calibration

Using an External Calibration Weight:

Calibration is required when the weighing scale is initially installed or if the scale is moved to a substantial distance from the original location.

- 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.
- 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. The display backlight lights up and returns to weighing mode. Now the calibration is completed.
- Turn off the power, then turn on the power again, place a known weight on the platform to verify if it is accurate.
- If the weight displayed does not correspond with the value of the calibration weight, please repeat above steps.

Maintenance and service

The weighing scale is a precision instrument and 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

Make sure that no liquid spills into the balance while performing maintenance work. If liquid is spilled on the balance, 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 balance 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 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.