TREE®
by LW MEASUREMENTS LLC

Professional Weighing Equipment

PIZA Series Bench Weighing Scale

PIZA 12
PIZA 25

Operation Manual

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 conforms to the following standards.

Electronic scale:WPB - High Resolution Balances

USA model

PIZA 12
PIZA 25

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

Signature:

Boon

Boon Lim, R & D Manager

Date: 14. 11. 2012

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Customer Service

USA

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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:

⚠ 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 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.

This scale is designed to be used for weighing edible items, non-perishable items and animals. Scale must be properly cleaned and sanitized if used for more than one use listed above.

Weight Scale

Construction & Functions

The weighing scale consists of the following parts;
- Weight scale body (1)
- The scale-pan (2)
- Foot switch (3)
- Indicator (4)
- The adapters (5)
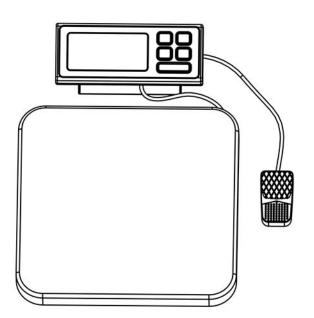- Operating manual

Figure; your scale

Functions

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

Model number	Capacity	Graduation	Platter Size
PIZA 12	**12 lb**	**0.001lb**	**12.4 x 12.7 in**
PIZA 25	**25 lb**	**0.002lb**	**12.4 x 12.7 in**
Net/gross weight	5.6kg(12.4lb)/6.4kg(14.1lb)l		
Package (Standard carton)	1 Unit in one box **20 x 15 x 5 inches**		
Package (Master carton)	4 Units in one box **23 x 21 x 16 inches**		
Operating Temp.	0-40℃ (32-104℉)		
Power source	6 x AA dry cells(not included) or AC/DC Adapter: 9V / 400mA		

Features

- Auto shut off (selectable)
- Auto zero tracking
- Large LCD
- Large weighing platter
- AC Power
- Beeper
- Foot switch
- 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 PIZA series

Power supply:

Adaptor 9v/100mA(optional)

Allowable ambient conditions

Temperature: 0°C - 40°C/32-104 F
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.18)
- 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
Weighing unit body	
Weighing platter	
Power adapter	
Foot Switch	
Indicator	
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:

⚠ DANGER

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 Descriptions

ON/OFF	HOLD
UNIT	ZERO
PRINT	

Display

1. **ON/OFF:** turn the scale power on/off.

2. **HOLD:** Press this key to store weighing value.

3. **UNIT:** Select weighing units:kg/lb/oz/lb:oz

4. **ZERO: (for TARE)** This key is "Zero" feature if load is below 10% of full capacity or a negative value, and is tare function between 10 % to full capacity. It has multiple tare function, but total weight of before and after Tare must be less than its full capacity.

5. **PRINT:** Press once and send weight information once.

6. **Foot Switch:** With the same functions as ZERO key.

Function Settings

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

Settings

- Press and hold **HOLD** key then press **ON/OFF** key to turn on the scale, the display will show A-ON or A-OFF, Press **ZERO** key to select on or off (ON means auto power off function activate, OFF means auto power off function inactivate).
- Press **UNIT** key, the display will show L-ON or L-OFF, press **ZERO** key to select on or off (ON means auto backlight function activate, OFF means auto backlight function inactive).
- Press **UNIT** key, the display will show P-XX. Press **ZERO** key to select OFF, key, con and Stb. (OFF means Rs232 function inactivates, KEY means that output the data by pressing **PRINT** key. (Con means it will output the data continually. Stb means that it will output the data when reading is stable.
- Press **UNIT** key, the display will show J-ON or J-OFF, press **ZERO** key to select ON or OFF. (ON means showing zero when turning on the power, OFF means showing the weight placed when turning on the power).
- Press **UNIT** key, the display will show F-Nor, F-PEA or F-Ani. Press **ZERO** key to select Nor or PEA or Ani. (Nor means normal weighing function activate. PEA means peak hold weighting function activate. Ani means animal weighting function activate (not recommended on or around food preparation).
- Press **UNIT** key, the display will show N-dsp or N-Ind. Press **ZERO** key to select dsp or Ind. (dsp means it can display synchronously as a displayer for another indicator through the RS232 socket. Ind means it is only an indicator for the scale).
- Press **UNIT** key, the display will show Kd 50 or Kd 100 or Kd 200 or Kd400.
  (Press **ZERO** key to select animal scale anti-shock range among 50, 100, 200, or 400)
- Press **UNIT** key, the display will show Fd 0.5 or Fd 3 or Fd 5 or Fd 10. (Press **ZERO** key to select animal scale filter range among 0.5, 3, 5, 10)
- Press **UNIT** key, the display will show Ft 1 or Ft 2 or Ft 3 or Ft 4. (Press **ZERO** key select animal scale filter time among 1,2,3 4)

    NOTE: Kd, Fd Ft works only in F-Ani mode.

    Peak Hold Mode:
    1. In Function Setting 5, if you choose F-PEA, it means peack hold weighting function activated.
    2. Before weighing, please press **HOLD** key.

HOLD FUNCTION

- Place the item on the scale platter.
- Wait for the stable weight to be displayed.
- Press the **HOLD** key. The "₀" hold indicator will turn on.
- Remove the item from scale platter, the item's weight reading will remain on the display. Now you can also select units by pressing **UNIT** key.
- Quit **HOLD** function: Once an item is weighed and hold function is enabled, you want to quit **HOLD** function, press the **HOLD** key again to cancel the "₀" hold indicator and return the scale to weighing mode.

RS232 Data interface

Connector: DB9

	BALANCE		PC	
RXD	2		2	RXD
TXD	3		3	TXD
GND	5		5	GND

Transmissions Settings

Mode: Simplex Asynchronous Serial		Baud Rate: 9600
Data Bit: 8		Parity Bit: None
Stop Bit: 1		Data Format: ASCII

3. Transmission Information Format : 20 Byte , blank=20H

1~2	3	4~13	14~18
'W:'	P	DATA	UNIT

W:	Start of Data Transmission=57H+3AH
P :	Polarity '+' = 2BH = Positive '-' = 2DH =Negative
DATA:	' 12.345'= 20H+20H+20H+20H+31H+32H+2EH+33H+34H+35H
UNIT:	'g' =67H+20H+20H+20H+20H
	'oz ' =6FH+7AH+20H+20H+20H
	'lb' =6CH+62H+20H+20H+20H
	'dwt' =64H+77H+74H+20H+20H
	'ozt ' =6FH+7AH+74H+20H+20H
	'ct ' =63H+74H+20H+20H+20H
	'tl.T' =74H+6CH+2EH+54H+20H
	'tl.H' =74H+6CH+2EH+48H+20H
	'tl.J ' =74H+6CH+2EH+4AH+20H
	'GN' =47H+4EH+20H+20H+20H
	'dr' =64H+72H+20H+20H+20H
	'MM' =4DH+4DH+20H+20H+20H
	'tola' =74H+6FH+6CH+61H+20H
	'gsm' =67H+73H+6DH+20H+20H
	'T/A/R' =54H+2FH+41H+2FH+52H
	'T/M/R' =54H+2FH+4DH+2FH+52H
	'pcs' =50H+43H+53H+20H+20H
CR:	= 0DH
LF:	= 0AH

Calibration

Using an External Calibration Weight

Calibration is done at the time it is manufactured. Do not re-calibrate unless the scale is not weighing accurately.

- Press and hold **ZERO** key then press **ON/OFF**, the display will show **"CAPU="**, press **HOLD** key twice, the key display will show **CALU=**, press **UNIT** key select calibration unit kg or lb, it will have a small triangle on the right to indicate kg or lb, press **HOLD** key to confirm the selection.
- Press **HOLD** key again, the display will show **CAL**, press **UNIT** key to calibration weight. Press **UNIT** key to move the flash digit to right, then press **ZERO** key to increase the flash digit, press **HOLD** key to confirm the selection (the calibration weight should be more than **2/3** of full capacity), it will show CAL.
- Press **PRINT**, it will show CAL and AD value.
- Press **UNIT** key, the display will show the flash calibration weight, place the shown weight on the platform, press **UNIT** key when the stable indicator brightens up, the display will show "------", then AD value. Restart the scale and calibration has done.
- Turn on the scale, place tested weight to check whether it is correct, if not, please repeat above steps.

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

LW Measurements products are under warranty against factory defects for a period of two (2) years from the date of shipment for Customers in the continental United States.

LW Measurements will pay for freight both ways within the first 30 days of purchase if technical support is required. (Determined by our certified Technical Support Team) In the event technical support is needed the customer is responsible for shipping the product back to us after the 30 day period has expired. Once the product is received, the technical support team will inspect and as necessary repair or replace the scale. LW Measurements 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 in the original box, the customer is responsible for the shipping cost. If we determine there is a factory defect, we will provide a replacement and accept responsibility for shipping back to customer. If we determine that it is not a factory defect, the customer will be responsible for shipping fees incurred.

For Customers outside the lower 48 States, including Mexico, Canada, Puerto Rico, Hawaii, Alaska and all other countries are responsible for all shipping fees incurred.

Our warranty does not cover misuse or neglect including but not limited to battery or water damage, overloading, and chewed or cut wires, keypad damage (punctures), scratched platforms, dented platforms unless caused by shipping (Must report/return within 30 days). 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 call your customer service representative.