

# **AXM SERIES**

## **ELECTRONIC WEIGHING SCALE**

### **OPERATION MANUAL**

PLEASE READ THIS MANUAL VERY CAREFULLY BEFORE  
ATTEMPT TO OPERATE THE SCALE

JUNE 2003 REV 2

*Specifications subject to change without prior notice*

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## CAUTIONS

1. This unit is legal for trade only when it is sealed (and/or stamped) and bearing a serial number. Do not attempt to break the seal (or stamp) affixed to this scale or remove the serial number. Contact your dealer for more information and after sales service.
2. For most accurate weighing result, do not use this scale in where or when the environment condition falls beyond as those listed on **SPECIFICATIONS**.
3. Do not attempt to open this unit or conduct any trouble shootings other than those listed on **TROUBLE SHOOTING**.
4. Do not use this scale for chemical substances or in any environment that contains chemical vapor.
5. Precision measuring instrument, handle with care.
6. Do not open scale. No user serviceable parts inside.

## 1. INSTALLATION

1.1 Check and make sure that the following accessories are included:

Operation Manual x 1

Scale x 1

Plastic platter x 1

Stainless steel cover x 1 (Optional)

Power adaptor x 1

Dust Cover x 1

Contact your dealer if any item is missing.

1.2 Place the stainless steel platter (if purchased) onto the plastic platter.

1.3 Power on the scale

a. Before charging the scale or power on with the adaptor supplied. Please make sure the input voltage listed on the back of the adaptor matches with the local voltage. If not, do not use it and contact your dealer immediately.

b. Before first time use, charge the scale for at least 8 hours to ensure the best performance.

## 2. SPECIFICATIONS

Model No.	Capacity (Max)	Division (e)		
		OIML	Non-OIML	Extended
AXM-1500	1500g	0.5g	0.2g	0.05g
AXM-3000	3000g	1g	0.5g	0.1g
AXM-6000	6000g	2g	1g	0.2g
AXM-15K	15kg	0.005kg	0.002kg	0.0005kg
AXM-30K	30kg	0.01kg	0.005kg	0.001kg
Tare Range	Full Tare Range			
Power-on Zero Range	±10% Max			
Zero Range	±2% Max			
Min. Load	20e*			
Power Source	By Built-in Rechargeable Battery or AD/DC Power Adaptor			
Operating Environment	0°~40°C (32°~104°F), Non-condensed. R.H. ≤85%			

***Specifications subject to change without notice***

\*The minimum load of 1500g and 15kg for Non-OIML application is 25e

### **NOTE 1:**

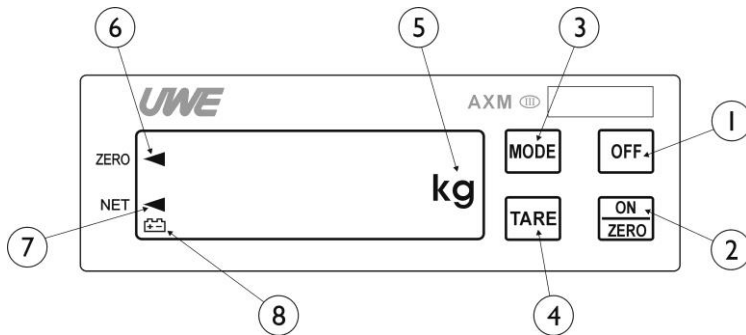
OIML = Legal for trade (1/3000)

Non-OIML = Not legal for trade (1/6000~1/7500)

### **NOTE 2:**

Extended Display Function does not support avoirdupois weight units (lb/lb and lb/oz)

### 3. KEYBOARD LAYOUT AND DESCRIPTION



#### 1. OFF KEY

Press this key to turn scale off

#### 2. ON/ZERO KEY

Press this key to turn scale on or set weight to zero

#### 3. MODE KEY

Press this key to shift among different weight units and/or turn backlight on/off

#### 4. TARE KEY

Press this key to tare off the weight of a container

#### 5. WEIGHT UNIT INDICATOR

This indicator appears to indicate the weighing unit currently engaged, metric (kg/g) or avoirdupois (lb, lb/oz) weight units.

## **6. ZERO INDICATOR**

This indicator appears to indicate a zero weight status

## **7. NET INDICATOR**

This indicator appears to indicate the tare function is in operation and weight displayed is net weight

## **8. LO-BAT INDICATOR**

When this indicator appears, recharge the scale immediately. Failure to do so may cause unrecoverable damage to the rechargeable battery inside scale

### **NOTE:**

The charging indicator is located on the left side of scale and only will light up when charging.

Red color: Recharging battery

Green color: Charging completed

## 4. INITIAL SETUP

### 4.1 PLACING THE SCALE

In order to obtain an accurate weighing result, the scale must be placed on a strong and level surface.

If required, adjust the adjustable feet underneath scale to obtain a level position. Refer to the bubble indicator for leveling condition.

### 4.2 INTERNAL SETTING

#### 4.2.1 Display Segment Check

User can enter this function to check to see if the display and backlight (if purchased) are functioning properly.

- a. Scale is off
- b. Press and hold **TARE**, then press **ON/ZERO**
- c. Scale displays **F.1**
- d. Press **TARE** once
- e. Scale displays **F.2**
- f. Press **MODE** and all segments will light up to allow user to check the condition of display
- g. Press **TARE** for next function setup or **ON/ZERO** to restart the scale



#### 4.2.2 Select Auto Power Off Setting

The scale is equipped with **Auto Power Off Function**. The scale will power off automatically if it is not used for 4 minutes. Follow the below steps to enable/disable **Auto Power Off Function**.

- a. Scale is off
- b. Press and hold **TARE**, then press **ON/ZERO**
- c. Scale displays **F.1**
- d. Press **TARE** three times
- e. Scale displays **F.4**
- f. Press **MODE** to shift between **0.\_OFF** and **4.\_OFF**
  - To enable **Auto Power Off Function**, press **TARE** when **4.\_OFF** appears
  - To disable **Auto Power Off Function**, press **TARE** when **0.\_OFF** appears
- g. Press **ON/ZERO** to restart the scale or **TARE** for next function setup

#### 4.2.3 Select RS-232 Baud Rate & Protocol

This scale is equipped with 3 RS232C output baud rate and 2 transmission protocol settings for user to select.

- a. Scale is off
- b. Press and hold **TARE**, then press **ON/ZERO**
- c. Scale displays **F.1**

- c. Press **TARE** four times
- d. Scale displays **F.5**
- e. Press **MODE** to select baud rate of 4800, 9600 and 19200
- f. Press and hold **MODE** for 2 seconds to enter transmission protocol setup
- g. Press **MODE** to select protocol of N81 or E71
- h. When the preferred transmission protocol shows on display, press **ON/ZERO** to confirm and restart the scale or **TARE** for next function setup

**NOTE:**

The default data output format of the scale is

Baud Rate = 9600

Data Bit = 8

Stop Bit = 1

Parity = None

#### **4.2.4 Select Data Transmission Mode**

This scale provides 2 types of transmission mode depending on the requirement and environment.

- a. Scale is off
- b. Press and hold **TARE**, then press **ON/ZERO**
- c. Scale displays **F.1**

- d. Press **TARE** five times
- e. Scale displays **F.7**
- f. Press **MODE** to select transmission mode "trAn1" or "trAn2"
- g. When the preferred data transmission mode shows on display, press **ON/ZERO** to confirm and restart the scale or **TARE** for next function setup

**NOTE:**

"trAn1" is to transmit data continuously after reading is stabled

"trAn2" is to transmit single data only after reading is stabled. However, scale will not send any data if weight detected is less than the minimum load.

#### **4.2.5 Select Auto Tare Function**

This scale is equipped with auto tare function which tares off the initial weight automatically when this function is engaged. The tare weight is automatically cleared when everything is removed from platter.

- a. Scale is off
- b. Press and hold **TARE**, then press **ON/ZERO**
- c. Scale displays **F.1**
- d. Press **TARE** six times

- e. Scale displays **F.9**
- f. Press **MODE** to select between "Tr\_on" or "TroFF"
  - To enable **Auto Tare Function**, press **TARE** when **Tr\_on** appears
  - To disable **Auto Tare Function**, press **TARE** when **TroFF** appears
- g. Press **ON/ZERO** to confirm and restart the scale or **TARE** for next function setup

## 5. INSTRUCTION FOR USE

### 5.1 BEFORE WEIGHING

Make sure that:

- a. The plastic platter is placed correctly on top of load receptor and the stainless steel platter cover is placed on the plastic platter.
- b. The scale is placed on a level and strong surface.
- c. The scale is turned on.
- d. The **ZERO INDICATOR** is on. If not, press **ON/ZERO** to set display to zero.

### 5.2 WEIGHING

- a. Always place an object onto the platter gently. Excessive force applied to platter may cause damages to sensor inside scale.
- b. The weight of the object would be displayed automatically.
- c. It is a good practice to remove all loads from platter after weighing. It would prolong the lifetime of scale.

### 5.3 SELECT WEIGHT UNIT

Press **MODE** to shift between metric or avoirdupois weight units. The weight unit used before power off would be employed when the scale is turned on again.

#### **NOTE:**

To comply with the law of certain countries and certain approval requirements, the avoirdupois weight units may be disabled. Contact your dealer for more information.

### 5.4 SET BACKLIGHT

Follow the below steps to turn on and off backlight (if purchased).

- a. Scale is on
- b. Press and hold **ON/ZERO** until backlight is activated; or press **MODE** to shift between metric and avoirdupois weight to turn on and off backlight

### 5.5 SMART POWER SAVING FUNCTION

The backlight function will turn off when constant/zero weight is detected and remains stable for about 20/10 seconds.

Backlight will be automatically turned on again when a new weight is detected.

## **5.6 SET DISPLAYED VALUE TO ZERO WHEN UNLOADED**

By pressing **ON/ZERO**, a positive or negative weight displayed will be set to zero and **ZERO INDICATOR** appears.

Refer to **SPECIFICATIONS** for maximum zero range.

### **NOTE:**

-When scale is set at OIML and application is legal for trade. User only needs to press **ON/ZERO** once when setting the value to zero. The re-zero function will take place when reading is stabled

-When scale is set at Non-OIML and application is not legal for trade. User can set the value to zero at anytime when pressing **ON/ZERO**

## **5.7 TARE OFF THE WEIGHT OF A CONTAINER**

When a container is used, follow the below steps to manually tare off the weight of container and get the net weight.

- a. Remove all loads away from platter
- b. Make sure that the **ZERO INDICATOR** is on
- c. Place the container on the platter
- d. Press **TARE**

After **TARE** is pressed, the **NET INDICATOR** would appear.

Refer to **5.2** for weighing procedures. Weight displayed under is the net weight of the subject matter. Refer to **SPECIFICATIONS** for maximum tare range.

**NOTE:**

- When scale is set at OIML and application is legal for trade. User only needs to press **TARE** once when tare off a weight. The tare function will take place when reading is stabled

- When scale is set at Non-OIML and application is not legal for trade. User can tare off the weight anytime when pressing **TARE**

**5.8 CLEAR THE TARE FUNCTION**

a. Remove all loads from platter

b. The tare effect will be cancelled:

-Automatically if automatic tare function is employed, or

-By pressing **TARE**

c. After **TARE** is pressed, the **NET INDICATOR** would disappear.



## 5.9 EXTENDED DISPLAY

This scale is equipped with extended display function for reference purpose only. To activate the function, press and hold **MODE** for 2 seconds and display will flash the extended digit for 5 seconds before return to normal.

## 5.10 RECHARGE THE SCALE

The scale is equipped with a built-in rechargeable battery. When the **LO-BAT INDICATOR** appears, recharge the scale immediately. Failure to do so may cause unrecoverable damage to the rechargeable battery. Charging is completed when the color of the **IN-CHARGE INDICATOR** turns to green.

## 6. TROUBLE SHOOTING

**Syndrome**      **Scale cannot be turned on**

**Check:**            Is the scale charged?

**Action:**            Recharge the scale for at least 8 hours before first time use or plug in the power adaptor before power on the scale.

**Check**              Is the power adaptor inserted properly into both the electricity outlet and the DC inlet of scale.

**Action:**            Secure both ends of the power adaptor and try again.

**Syndrome**      **Scale turned off automatically**

**Check**              Is **Auto Power Off Function** employed?

**Action**              Refer to **4.2.2** to disable **Auto Power Off Function**.

**Check**              Is the **LO-BAT INDICATOR** on?

**Action**              Apply the power adaptor.

**Syndrome**      **Rated capacity cannot be reached**

**Check**            Is the **NET INDICATOR** on?

**Action:**          Turn the scale off. Remove all loads from platter and turn on again.

**Check**            Is there anything obstructing the platter?

**Action**            Remove all obstacles.

**Syndrome**      **Weighing result is not accurate**

**Check**            Is the scale placed in a level condition?

**Action**            Adjust the adjustable feet to a level condition.

**Check**            Is the scale affected by airflow, vibration or RFI?

**Action:**          Place the scale away from all disturbances.

**Check**            Is the scale calibrated correctly?

**Action**            Contact your dealer.

**Check**            Is the correct weight unit employed?

**Action**            Refer to **5.3** for weight unit setting and usage.

**Syndrome**      **Display shows 00000 after counting down**

**Check**            Is the load applied to platter excess the rated capacity of scale?

**Action**            Remove all loads from platter and try again.

## 7. DAILY CARE AND MAINTENANCE

- 7.1 Clean the scale with a soft and damp cloth. If necessary, apply a mild detergent.
- 7.2 Do not use any harsh, abrasive material, acetone, volatile solvent, thinner or alcohol for cleaning.
- 7.3 Verify the accuracy of scale periodically. Re-calibrate the scale if necessary.

**NOTE:** In some countries, calibration requires authorized/qualified agent. Contact your dealer for more information.

- 7.4 It is a good practice to apply the dust cover when operating the scale.
- 7.5 The scale must be placed horizontally during transportation or long time storage.
- 7.6 Remove platter from scale before transportation or long time storage.
- 7.7 Store scale in a dry and clean place.



KONFORMITÄTSERKLÄRUNG  
*Declaration of conformity*  
Déclaration de conformité

Die ichtselbsttätigen Waage



*The non-automatic weighing instrument*

L'instrument de pesage à fonctionnement non automatique

Hersteller: <i>Manufacturer:</i> Fabricant	Universal Weight Enterprise Co., Ltd.
Typ/Modell: <i>Type/Model:</i> Type/modèle:	AXM
Nr. der EG-Bauartzulassung (gegebenen falls): <i>No of the EC type-approval certificate (where applicable):</i> N° du certificat d'approbation CE de type (le cas échéant):	T6155

entspricht dem in der Bescheinigung über die Bauartzulassung beschriebenen Baumuster, sowie den Anforderungen der EG-Richtlinie 90/384/EWG in der jeweils geltenden Fassung und den Anforderungen folgender EG-Richtlinien:

*corresponds to the production model described in the EC type-approval certificate and to the requirements of the Council Directive 90/384/EEC as amended and to the requirements of the following EC directives:*

correspond au modèle décrit dans le certificat d'approbation CE de type, aux exigences de la directive 90/384/CEE modifiée et aux exigences des directives CE suivantes:

\*Diese Erklärung gilt nur in Verbindung mit einer Konformitätsbescheinigung einer benannten Stelle.

*\*This Declaration of conformity is only valid with a certificate of conformity issued by a notified body*

\*Cette déclaration est valide seulement avec une attestation de conformité d'un organisme notifié.

Anmerkung 1: Der mit \* gekennzeichnete Satz entfällt, wenn die nichtselbsttätige Waage vom Hersteller geeicht wurde.

*Note 1: The sentence marked with \* does not apply, if the non-automatic weighing instrument was verified by the manufacturer.*

Note 1: La phrase marquée avec \* ne s'applique pas au cas où l'instrument de pesage à fonctionnement non automatique a été vérifié par le fabricant.

Unterschrift

Signature

Signature

Datum

Date

Date

Apr. 23. 2003