

AE ADAM

Adam Equipment

AZ_{plus} SERIES

Software rev.: 1.27

ADAM EQUIPMENT CO. LTD.
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Manual revision A	Nov. 2003	New manual
Manual revision B	Dec. 2003	New section 3.8 on Auto sleep function
Manual revision B2	Mar. 2004	Scale dimensions corrected New Declaration of Conformity incorporated
Manual revision B3	Mar. 2004	Modified the table on Specifications, section 1.2
Manual revision B4	Mar. 2004	In section 2.3 mentioned about the availability of Display Panel in other languages.

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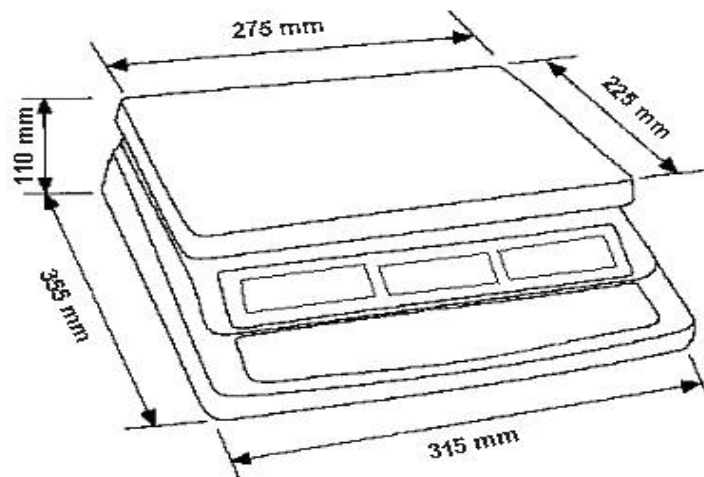
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1.0 INTRODUCTION

The **AZplus** series of digital price-computing scales are EC Type approved. These scales provide an accurate, fast and versatile method of computing price by weight.

1.1 FEATURES

- Stainless steel weighing platform
- Level indicator with adjustable levelling feet
- Colour coded, sealed keypad
- Large liquid crystal displays
- Displays for **Weight, Unit Price** and **Total Price**
- Price per 100g and per kilogram
- Displays on both front and back panels (Optional user display on pillar)
- Auto-sleep function
- Battery operated for portability
- 70+ hours battery life when fully charged
- 43 Prices (PLU) stored for easy access



1.2 SPECIFICATIONS

	AZplus 6	AZplus 15	AZplus 30
Capacity Max.=	6 kg	15 kg	30 kg
Resolution d=e=	2 g	5 g	10 g
Tare T=	-6 kg	-15 kg	-30 kg
Working Temperature	-10°C to 40°C		
Platform	225 x 275 mm / 8.9 x 10.8"		
Overall	315 x 355 x 110 mm / 12.4" x 14" x 4.3"		
Battery Life	70+ hours typical*		
Power	9Vdc, 800mA from external adapter		
Gross Weight	3.8 kg / 8.4 lb		

*Battery Life is less when the backlight is used.

2.0 INSTALLATION

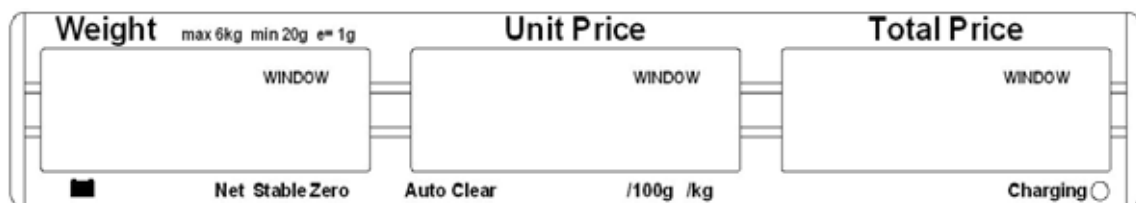
2.1 GENERAL INSTALLATION

- Avoid unsuitable tables. The table or floor must be rigid and not vibrate. Do not place near vibrating machinery.
- Avoid unstable power sources while charging the battery. Do not use the scale near any large user of electricity such as welding equipment or large motors.
- Avoid high humidity that might cause condensation. Avoid direct contact with water. Do not spray or immerse the scales in water.
- Keep the weighing area clean.
- Do not stack material on the scale when not in use.
- **Protect the scale from extreme temperatures, vibration and dust.**

2.2 PREPARATION FOR USE

- The scales come with a stainless steel platform, packed separately.
- Place the platform in the receptacles on the top cover.
- Do not press with excessive force as that could damage the load cell inside.
- If an optional scoop has been supplied, place it on top of the platform.
- Level the scale by adjusting the four feet. The scale should be adjusted such that the bubble in the spirit level is in the centre of the level and the scale is supported by all four feet.
- Turn the power ON using the switch located on the right side of the base.
- The unit will display the software revision number in the **Weight** window and count down to zero while performing a self-test.
- When ready all three displays will show zero.

2.3 DISPLAY WINDOWS




The window for the **Weight** has arrows to indicate when the scale is at zero or if the scale is displaying a net weight (if a tare value has been entered). It also indicates when the scale is stable.

The window for the **Unit Price** has arrows to show when the Auto Clear function is active and if the unit price is per 100g or per kilogram.

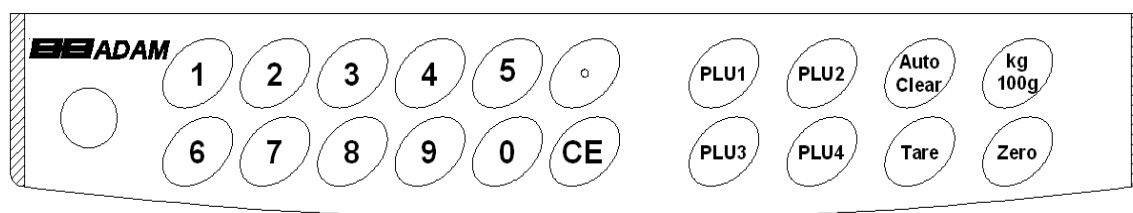
The window for the **Total Price** displays the price of the items on the scale. Below this window is a LED to show the status of the battery charging.

The above display panel is also available in French, German, Italian, Spanish and Dutch.

2.4 BATTERY CHARGING

- The scale has an internal rechargeable lead acid battery. This battery will make the scale operate for more than 70 hours when fully charged or less if the backlight is on.
- When the battery needs charging the arrow above the low battery symbol  under the **Weight** display will be on. The battery should be charged immediately. The scale will still operate for about 10 hours after which it will automatically switch off to protect the battery from getting damaged.
- To charge the battery, simply plug the power supply module into the scale and switch the main power ON. The scale does not need to be turned on.
- The battery should be charged for 12 hours for full capacity.
- Just under the **Total Price** display is an LED to indicate the status of battery charging. When the scale is plugged into the main power, the internal battery will be charged. If the LED is green the battery is fully charged. If it is red the battery is nearly discharged and yellow indicates the battery should be charged longer, preferably overnight.
- If the battery has not been used properly or it is used for a number of years it may eventually fail to hold a full charge. If the battery life becomes unacceptable then contact your distributor or Adam Equipment.

2.5 KEY DESCRIPTIONS



[0-9] keys

Numeric entry keys to set the unit price.

[.] key


The decimal point key is used to enter the whole value. For example, to enter 2 pounds or Euros, press [2] and [.]. The display will show "2.00".

[CE] key


Used to clear an erroneous entry or return to normal operation.

[PLU1] to **[PLU4]** keys

Used to store or recall one of the PLU values. **[PLU1]** to **[PLU3]** are immediately used, **[PLU4]** will also select one of the 39 additional values.

[Tare] or  key

It tares the scale to display zero weight when an empty container is placed on the platform or removed again.

[Zero] or  key

It sets the zero of the scale when the platform is empty and no tare value is entered.

[Auto Clear] key

It enables the user to automatically reset the unit price to zero, when the weight is removed.

[Kg 100g] key

It selects the unit price per kilogram or per 100g.

3.0 OPERATION

3.1 ZEROING THE DISPLAY

- You can press the **[Zero]** key when no tare is entered to set the zero point from which all other weighing is measured. This will usually be necessary when the platform is empty.
- When the zero point is obtained the **Weight** display will show an arrow next to the Zero legend marked under the **Weight** display.
- The scale has an automatic re-zeroing function to account for minor drifting or accumulation of material on the platform. However you may need to press the **[Zero]** key to re-zero the scale if small amounts of weight are shown when the platform is empty.

3.2 TARING

- Taring is used to eliminate the weight of a container so that only the net weight is displayed.
- Zero the scale by pressing **[Zero]** if necessary. The zero indicator will be on.
- Place an empty container on the platform, a value for its weight will be displayed.

- Press **[Tare]** to zero the scale. The weight that was displayed is stored as the tare value and that value is subtracted from the display, leaving zero on the display. The **Net** indicator will be on. As product is added only the weight of the product will be shown.
- When the product and container are removed the weight display will show a negative value. If a different container is to be used, remove this negative tare value by pressing the **[Tare]** once more.

3.3 DETERMINING VALUE OF A PRODUCT BY WEIGHT

- To determine the value of a product sold by weight it is necessary to enter the cost per kilogram using the numeric keys or one of the preset PLU values.
- The **Weight** display will show the net weight, the **Unit Price** display will show the price per kilogram or per 100g as selected by the **[kg 100g]** key. The **Total Price** display will show the computed value for the total price.

Example:

	Display will show		
	Weight in kg.	Unit Price	Total Price
Place a container on the scale and Press [Tare]	<i>0.000</i>	<i>0.00</i>	<i>0.00</i>
Place the items on the platform	<i>1.300</i>	<i>0.00</i>	<i>0.00</i>
Key in the unit price	<i>1.300</i>	<i>5.00</i>	<i>6.50</i>

- Press the **[kg 100g]** key to change the calculation to a price based on the cost per 100g or the cost per kilogram.
- If a different unit price is required either press **[CE]** to reset the unit price to 0.00 or simply enter a new unit price.

3.4 USING A STORED PLU VALUE FOR UNIT PRICE

- The user can store and recall up to 43 PLU values (Price per unit).
- The values stored are used to calculate the price for goods.
- The value is stored as either cost per kilogram or cost per 100g.
- The keys labelled **[PLU1]** to **[PLU3]** are used to immediately recall the most used PLU values and the **[PLU4]** key is used to access up to 40 other values. To recall one of these values the following procedure applies.
 1. To recall PLU number 1, simply press **[PLU1]**.
 2. The same applies to PLU number 2 and PLU number 3.
 3. To recall one of the other PLU values press **[PLU4]**. If during the next second a number is entered between 01 and 39, then that number PLU will be recalled. If a number key is not pressed then the value for PLU4 will be used.

For example:

Press **[PLU4]**.

Within one second Press **[1]** and then **[4]**.

Display will show PLU (14).

Or for example:

Press **[PLU4]**.

Wait for one second.

Then the value for PLU4 (00) will be displayed.

3.5 ENTERING VALUES FOR THE PLU s

To store values into the memory for the PLU s follow the procedure.

Entering values for PLU1 to PLU3 keys

- Enter the unit price value using the keypad, selecting either price/kg or price/100g if needed.
- Press and hold down the key **[PLU1]**, **[PLU2]** or **[PLU3]** for more than 3 seconds. The scale displays **"PLU" " 1" "SAvEd"**

Entering values for the [PLU4] key

- Enter the unit price value using the keypad, selecting either price/kg or price/100g if needed.
- Press and hold down the key **[PLU4]** for more than 3 seconds.
- The scale will show “**SAVE**” “**POS**” ” **00**”
- Enter the 2 digit number for the location desired, for example PLU4 (14) or leave the value at 00 to store a value for the **[PLU4]** key.
- See the description for using the **[PLU4]** key as given in section 3.4.
- The scale will show “**SAVE**” “**POS**” ” **14**”
- Press **[PLU4]** to confirm, The display will show “**PLU**” “**P4 14**” ” **SAVED**”.
- Pressing any other key will abort the process and return to weighing.

3.6 AUTO CLEAR KEY

- The **[Auto Clear]** key will enable the Auto Clear function.
- When this function is active the scale will automatically clear (set to zero) the unit price when the last item to be weighed has been removed from the scale.
- When the Auto Clear is active the Auto Clear indicator (arrow) on the LCD will be ON.
- Pressing the **[Auto Clear]** key will turn off the function and the indicator will disappear. Pressing it will turn the function on again.

3.7 PRICE PER KILOGRAM AND PER 100 GRAM- [Kg 100g] KEY

- The **[kg 100g]** key will change the scale from using a price per kilogram to price per 100g.
- It will also change the arrows under the **Unit Price** display to show the selection.
- This information is also saved for the PLU values that are stored in the memory.

3.8 AUTO SLEEP FUNCTION

This function may be enabled or disabled by the user. If enabled, when the scale is not used for some time (as pre-set by the user under this function) it automatically switches off. To set this parameter,

- During self-checking, press [**kg 100g**] and release at once. The display shows "**SLEEP mode**".
- Press [**PLU4**] key to scroll through the auto sleep values.
 - "0" Auto sleep mode disabled
 - "1" Auto sleep after 1 minute
 - "5" Auto sleep after 5 minutes
 - "30" Auto sleep after 30 minutes
- Press [**Tare**] to set the desired value and the scale returns to zero.

3.9 BACKLIGHT OPERATION

The backlight may be enabled or disabled by the user. If the backlight is disabled the battery life will be maximised. With the backlight in operation the battery life will be less depending on the extent at which the scale is used.

To set the backlight

- Press and hold the [**Auto Clear**] key for 4 seconds.
- Press the [**PLU4**] key to change the operation:

"EL"	"	AU"	Automatic control of the backlight
"EL"	"	On"	Backlight on full time
"EL"	"	Off"	Backlight turned off.
- Press [**Tare**] to store the setting.

Backlight operation

When the backlight is set from automatic control-

- It will only turn on when the scale is being used.
- It will be on when a weight is on the platform or when a key is pressed.
- It will turn off automatically after a few seconds when the weight is zero or after a while, the last key was pressed.

4.0 CALIBRATION

WARNING: CALIBRATION OF THE SCALES MAY MAKE IT ILLEGAL TO USE THE SCALES FOR SALES OF GOODS. CONTACT YOUR TRADING STANDARDS OFFICE FOR FURTHER ASSISTANCE.

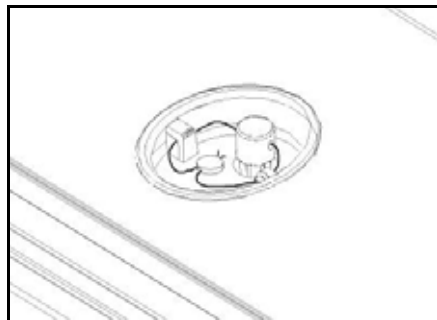
- The calibration of the *AZ_{plus}* scale is accomplished by breaking the seals to gain access to the circuit boards inside.
- The procedure for calibration should only be used when the calibration is not correct.
- When the scale is used in a trade application it will be necessary to follow the requirements of the trading authorities to have the scale certified for use.
- If it is still impossible to calibrate the scale, it is possible that the load cells or circuit boards have been damaged and will need servicing by a qualified technician.
- Contact Adam Equipment or your supplier for more details.

4.1 CALIBRATION PROCEDURE

- The scales are sealed to prevent unauthorised calibration.
- Contact Adam Equipment or your Dealer for further information.

4.2 SECURITY SEAL

- It is important to ensure that the scales are sealed for security.
- If the scale is to be sealed using a wire seal after calibration, the method is as shown below.
- The base has a metal pin that protrudes through the cover.
- The security seal may be threaded through this metal pin, making it impossible to remove the cover without damaging either the security seal or the enclosure.
- The scale should be labelled as required by the Trading Standards Officials.





ADAM EQUIPMENT, BOND AVENUE, DENBIGH EAST INDUSTRIAL ESTATE,
MILTON KEYNES, MK1 1SW, U.K.

Tel: (01908) 274545 Fax: (01908) 641339
Intl Tel: -44 1908 -274545 Intl Fax: -44 1908 641339
E-Mail Address: info@Adamequipment.co.uk

CE	Declaration of Conformity Konformitätserklärung Déclaration de Conformité	Verklaring van overeenstemming Dichiarazione di Conformità Declaración de Conformidad
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The non-automatic weighing instrument
Die nichtselbsttätigen Waage
L'instrument de pesage à fonctionnement non automatique

Het niet-automatische weegwerktuig
Strumento per pesatura non automatico
Instrumento para pesaje non automatico



Manufacturer :	Adam Equipment Co. Ltd.
Type:	AZplus.
No of the EC type-approval certificate:	T6320
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:	
73/23/EEC	Electrical equipment for use within certain voltage limits (Low Voltage Directive)
89/336/EEC	Electromagnetic compatibility
This declaration is only valid when accompanied by a Certificate of Conformity issued by a Notified Body.	

Hersteller :	Adam Equipment Co. Ltd.
Typ:	AZplus.
Nr. de EG-Bauartzulassung:	T6320
Entspricht dem in der Bescheinigung über die Bauartzulassung beschriebenen Baumuster, sowie den Anforderungen der EG-Richtlinie 90/384/EEG in der jeweils geltenden Fassung und den Anforderungen folgender EG-Richtlinien:	
73/23/EEG	Elektrische Betriebsmittel zur Verwendung innerhalb bestimmter (Niederspannungsrichtlinie)
89/336/EEG	Elektromagnetische Verträglichkeit
Diese Erklärung gilt nur in Verbindung mit einer Konformitätsbescheinigung einer benannten Stelle	

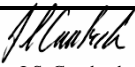
Fabricant :	Adam Equipment Co. Ltd.
Type:	AZplus.
N° du certificate d'approbation CE de type:	T6320
Correspond au modèle décrit dans le certificat d'approbation CE de type, aux exigences de la directive 90/384/CEE modifiée et aux exigences des directives CE suivantes:	
73/23/CEE	Matériel électrique pour utilisation dans des limites de tension définies (Directive Basse Tension)
89/336/CEE	Compatibilité électromagnétique
Cette déclaration est seulement valide quand elle est accompagnée par une Attestation de Conformité délivrée par un Organisme Notifié.	

Fabrikant :	Adam Equipment Co. Ltd.
Type:	AZplus.
Nummer van de Verklaring van EG-typegoedkeuring	T6320
Conform met het model beschreven in de verklaring van EG-typegoedkeuring en met de voorschriften van EG richtlijn 90/384/EEC zoals gewijzigd en met de volgende EG richtlijnen:	
73/23/EEC	Laagspanning richtlijn
89/336/EEC	EMC richtlijn
Deze verklaring is alleen geldig samen met een certificaat van overeenstemming afgegeven door een bevoegde instantie.	

Produttore	Adam Equipment Co. Ltd.
Modello:	AZplus.
N. di certificato di approvazione di tipo CE	T6320
Conforme al modello di produzione descritto nel certificato di approvazione di tipo CE e secondo le richieste CE direttivo 90/384/CEE come modificato e secondo le richieste della seguente direttiva CE	
73/23/EEG	Strumenti elettrici per uso entro certi limiti di voltaggio (Direttivo di voltaggio basso)
89/336/EEG	Compatibilità elettromagnetica
Questa dichiarazione è valida solamente se accompagnato da un certificato di conformità rilasciato da un ente riconosciuto.	

Fabricante	Adam Equipment Co. Ltd.
Tipo:	AZplus.
Numero del certificado de aprobacion de tipo CE:	T6320
Conforme al modelo de producción descrito nel certificado di aprobación del tipo CE e según los requisitos del CE directiva 90/384/CEE como modificado e según los requisitos della siguiente directiva CE	
73/23/CEE	Instrumentos eléctricos para uso dentro ciertos límites del voltaje (Directivo de voltaje bajo)
89/336/CEE	Compatibilidad electromagnética
Esta declaración es válida solamente si acompañado a un certificado de conformidad emitida por un organismo notificado.	

Signature
Unterschrift
Signature
Handtekening
Firma
Firma


J.S. Cumbach
Technical Manager

Date
Datum
Date
Datum
Date
Date
Fache

27 January 2004

ADAM EQUIPMENT is an ISO 9001:2002 certified global organisation with more than 30 years experience in the production and sale of electronic weighing equipments. Products are sold through a world wide distributor network -supported from our company locations in the UK, USA and SOUTH AFRICA. The company and their distributors offer a full range of Technical Services such as on site and workshop repair, preventative maintenance and calibration facilities.

ADAM's products are predominantly designed for the Laboratory, Educational, Medical and Industrial Segments. The product range can be classified as follows:

- Analytical and Precision Laboratory Balances
- Top Loading Balances for Educational establishments
- Counting Scales for Industrial and Warehouse applications
- Digital Weighing/Check-weighing Scales
- High performance Platform Scales with extensive software features including parts counting, percent weighing etc.
- Digital Electronic Scales for Medical use
- Retail Scales for price computing

<p>Adam Equipment Co. Ltd. Bond Avenue Milton Keynes MK1 1SW UK</p> <p>Phone: +44 (0)1908 274545 Fax: +44 (0)1908 641339</p> <p>e-mail: sales@adamequipment.co.uk</p>	<p>Adam Equipment Inc. 26, Commerce Drive Danbury, CT 06810 USA</p> <p>Phone: +1 203 790 4774 Fax: +1 203 792 3406</p> <p>e-mail: sales@adamequipment.com</p>	<p>Adam Equipment S.A. (Pty) Ltd. P.O. Box 1422 Kempton Park 1620 Johannesburg Republic of South Africa</p> <p>Phone +27 (0)11 974 9745 Fax: +27 (0)11 392 2587</p> <p>e-mail: sales@adamequipment.co.za</p>
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