



**ACB<sub>plus</sub> SERIES**  
(P.N. 4278, Rev. C2, March 2007)

Software Rev.2.11

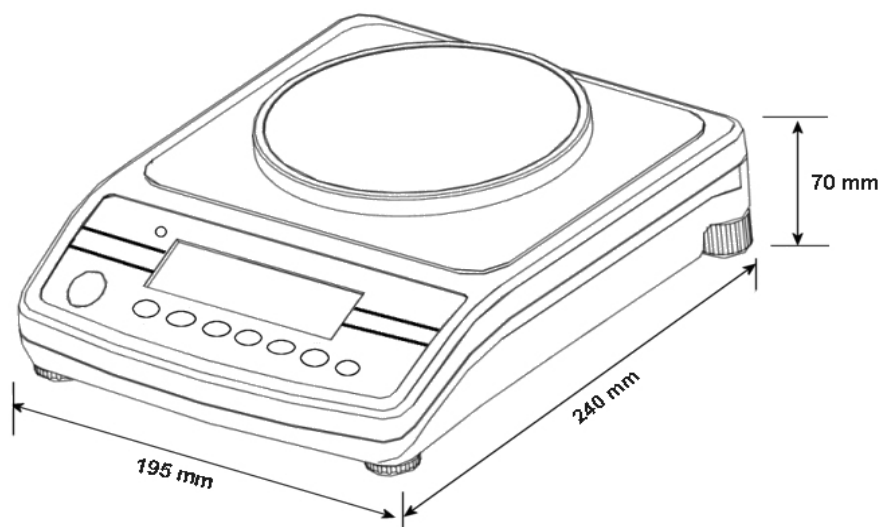


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## 1.0 INTRODUCTION

- The ACB<sub>plus</sub> series of scales are simple and easy to use.
- The scales can be operated with an A.C. adapter or using an internal rechargeable battery.
- The weighing process is fast and accurate, making it suitable for the general purpose weighing applications, parts counting, percentage weighing functions, etc.
- There are 7 models in this series with capacities ranging from 150 grams to 3 kilograms.
- All models include automatic zero tracking, automatic tare, accumulation facility that allows the weight to be stored and recalled as an accumulated total and bi-directional RS-232 interface for communicating with a PC or printer.
- All have stainless steel weighing platforms on an ABS plastic base assembly.
- Keypads are sealed with colour coded membrane switches.
- The scales have a weigh below facility supplied as standard.
- The displays are large, easy to read liquid crystal type displays (LCD). It is provided with a backlight and also a bar-graph at the bottom to display the weight of the item on the pan with respect to the capacity of the scale.
- The LCD normally shows the weight and the units of the weight selected previously (Grams, Carats, Pounds, etc). See section 5.1 for details on Units.



## 2.0 SPECIFICATIONS

### 2.1 TECHNICAL SPECIFICATIONS

	<b>ACB<sub>plus</sub> -150</b>	<b>ACB<sub>plus</sub> -300</b>	<b>ACB<sub>plus</sub> -600</b>	<b>ACB<sub>plus</sub> -600H</b>	<b>ACB<sub>plus</sub> -1000</b>	<b>ACB<sub>plus</sub> -1500</b>	<b>ACB<sub>plus</sub> -3000</b>	
Maximum Capacity	150 g	300 g	600 g	600 g	1000 g	1500 g	3000 g	
Readability	0.005 g	0.01 g	0.02 g	0.01 g	0.01 g	0.05 g	0.1 g	
Tare Range	150 g	300 g	600 g	600 g	1000 g	1500 g	3000 g	
Repeatability (s.d.)	0.005 g	0.01 g	0.02 g	0.01 g	0.01 g	0.05 g	0.1 g	
Linearity ±	0.01 g	0.02 g	0.04 g	0.02 g	0.02 g	0.1 g	0.2 g	
Pan	Φ120 mm (4.7")						124×144 mm (4.9" x 5.7")	
Draught shield	Included as standard							
Units of Measure	g / ct / Lb / OZ / d / GN / OZt / dWt / MM / TL.T / TL.C / TL.t / t / N /g2.							

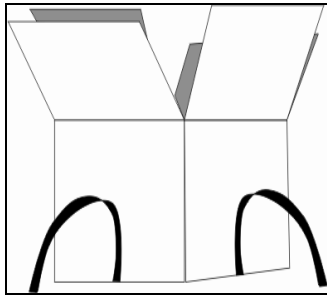
### 2.2 COMMON SPECIFICATIONS

Interface	RS-232, bi-directional
Stabilisation Time	2 Seconds typical
Operating Temperature	0°C - 40°C / 32°F - 104°F
Battery	Internal re-chargeable
Power supply (external)	9 VDC / 800 mA
Calibration	Automatic External
Display	16mm high 6 digits LCD With auto backlight and loading bar graph
Scale Housing	ABS Plastic with Stainless Steel platform
Overall Dimensions (wx dxh)	195 x 240 x 70 mm (7.7" x 9.5" X 2.8")
Net Weight	1.5 kg (3.3 lb.)

## 3.0 INSTALLATION

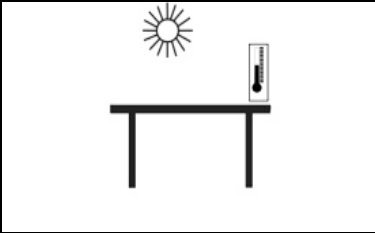
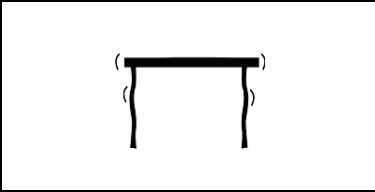
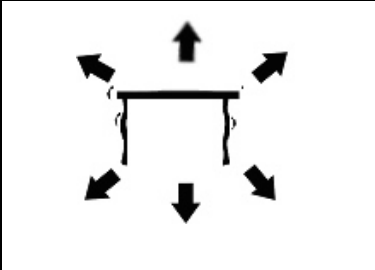
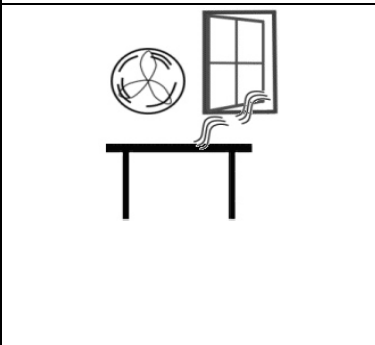
### 3.1 UNPACKING THE SCALE

Remove the scale from the packing carefully. Inside the box you will find everything needed to start using the scale-



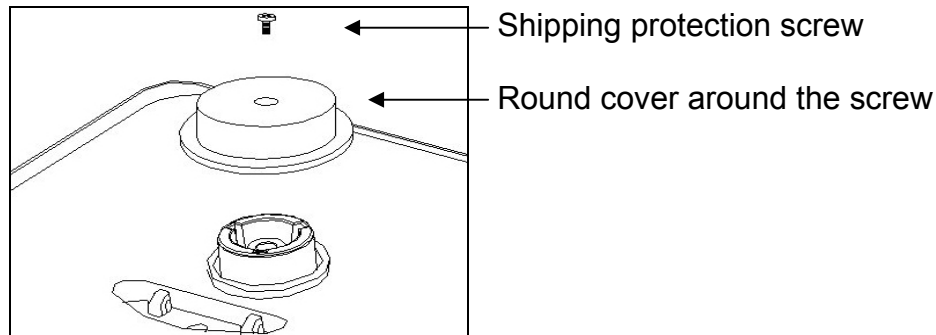
- ✓ AC adapter
- ✓ Pan support
- ✓ Stainless Steel Top Pan
- ✓ Draught shield
- ✓ Allen Key
- ✓ Weigh below hook
- ✓ This User Manual

### 3.2 LOCATING THE SCALE

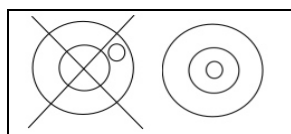
	<ul style="list-style-type: none"><li>• The scale should not be placed in a location that will reduce the accuracy.</li><li>• Avoid extremes of temperature. Do not place in direct sunlight or near air conditioning vents.</li></ul>
	<ul style="list-style-type: none"><li>• Avoid unsuitable tables. The table or floor must be rigid and not vibrate.</li></ul>
	<ul style="list-style-type: none"><li>• Avoid unstable power sources. Do not use near large users of electricity such as welding equipment or large motors.</li><li>• Do not place near vibrating machinery.</li></ul>
	<ul style="list-style-type: none"><li>• Avoid high humidity that might cause condensation. Avoid direct contact with water. Do not spray or immerse the balances in water.</li><li>• Avoid air movement such as from fans or opening doors. Do not place near open windows or air-conditioning vents.</li><li>• Keep the scale clean. Do not stack material on the balances when they are not in use.</li></ul>

### 3.3 SETTING UP THE SCALE

- Remove the shipping protection screw and round cover as shown below using the Allen key supplied in the box. (It is advisable to keep the shipping protection screw and the round cover along with the packing box for using during shipping to another location in future).



- The scale comes with a plastic pan support and a stainless steel pan, packed separately.
- Place the pan support in the receptacles on the top cover and fit the pan around it.
- Do not press with excessive force- it could damage the load cell inside.
- 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.

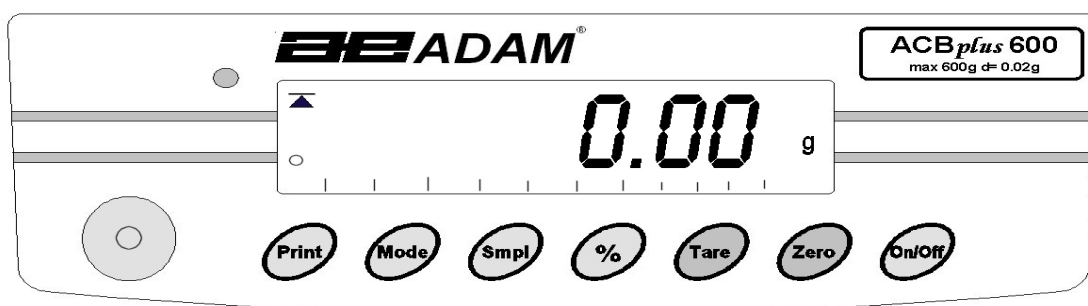


- Attach the AC Adapter cable to the connector on the rear of the balance. Plug the power supply module into the mains.
- Turn the power on by pressing the **[On/Off]** switch.
- The unit will display the model number, the software revision number and the input voltage for a while and then will count down performing a self-test.
- When ready the display will show zero along with the weighing unit selected during the last operation.

### 3.4 BATTERY CHARGING

- The scales can be operated from the internal rechargeable battery or using the A.C. Adapter. The battery life is approximately 24 hours depending on the usage of the backlight.
- The LED indicator on the left of the display will show when the battery needs to be charged. To charge the battery, plug in the AC adapter at the back of the scale and attach it to the main power supply. The charging indicator at the left top corner of the LCD will be on.

### 3.5 DISPLAY



### 3.6 INDICATORS

The LCD has unique symbols to indicate the following:

→0←	Zero
	Stable
Net	Net weight
	A bar graph indicating the proportion of the scale capacity being used by the weight on the pan
	Low battery
g / ct / Lb / OZ / d / GN / OZt / dWt / MM / TL.T / TL.C / TL.t / t / N /g2	Symbols shown for the units



### 3.7 KEY DESCRIPTIONS

KEYS	PRIMARY FUNCTION	SECONDARY FUNCTION
[On/Off]	To turn the scale On or Off.	----
[Zero]	Sets the zero point for all subsequent weighing. The display shows zero.	A secondary function is of " <b>Enter</b> " key for setting parameters or other functions.
[Tare]	Tares the scale. Stores the current weight in memory as a tare value, subtracts the tare value from the weight and shows the results. This is the net weight.	Pressing [ <b>Tare</b> ] again will cancel the tare value.
[%]	Enters the percent weighing function.	When in percentage mode, press [%] key to return to normal weighing mode.
[SmpI]	Use this key to enter counting mode from the normal weighing mode,	A secondary function allows the user to return to normal weighing mode while in counting mode. It also clears the accumulated value from the memory when pressed during recalling the total.
[Mode]	Pressing this key will cycle through the weighing units which are enabled. It also scrolls through the options during setting up a parameter.	Displays the <b>unit weight</b> , <b>total weight</b> and <b>the count</b> when in the parts counting mode.
[Print]	To print the results to a PC or printer using RS-232 (A USB interface will be available shortly). It also adds the value to the accumulated memory if the accumulation function is not set to automatic.	Secondary function is to return to normal operation when the scale is in a parameter setting mode.

## 4.0 OPERATION

### 4.1 ZEROING THE DISPLAY

- Press the **[Zero]** key when the platform is empty.
- **[Zero]** key may be pressed at any time to set the zero point from which all other weighing and counting is measured.
- When the zero point is obtained the zero indicator will be on in the left bottom corner of the LCD.
- 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.

### 4.2 TARING

- Zero the scale by pressing the **[Zero]** key, if necessary.
- The zero indicator will be on.
- Place a container on the platform, a value for its weight will be displayed.
- Press the **[Tare]** key to tare the scale. The weight that was displayed is stored as the tare value. It is subtracted from the displayed value, leaving zero on the display. The **NET** symbol will be on at the right top corner to indicate that the weight displayed is the net weight.
- As the product is added, only the net weight will be shown.
- The scale could be tared a second time if another type of product was to be added to the first one. Again only the weight that is added after taring will be displayed.
- When the container is removed a negative value will be shown. If the scale was tared just before removing the

container, this value is the gross weight of the container plus all products those were removed.

- The zero indicator will also be on because the platform is back to the same condition as it was when the **[Zero]** key was last pressed.
- To cancel the tare value, press **[Tare]** again.

### 4.3 WEIGHING

- After zeroing the display and taring the container, place the sample in the container to determine the weight of the sample. The weight will also be displayed through a bar-graph at the bottom of the LCD.
- The display will show the weight and the units of weight currently in use. The stable indicator will be on. To change the weighing units, press **[Mode]** to cycle through the options of units those are enabled. See the Parameter section to enable or disable the weighing units.
- The accumulated value in the memory will be cleared when a new weighing unit or during recalling the memory, % weighing or parts counting is selected.

### 4.4 PERCENT WEIGHING

- The scale will allow a sample weight to be shown as 100%. Then any other weight placed on the scale will be displayed as a percentage of the original sample.
- For example is 350g is placed on the scale and the **[%]** key is pressed the display will show 100.00%. Removing the 350g weight and place a 300g weight on the scale. The display will show 85.71% as 300g is 85.71% of 350g.

**Note:** The scale may jump by large numbers unexpectedly if small weights are used to set the 100% level. For example, if only 23.5g is on a scale with 0.5g increments and the scale is set to 100%, the display will show 100.00%. However, a small change of weight will cause the display to jump to

102.13%, as one scale division (0.5g) increase to 24.0g will be equivalent to a 2.13% increase.

- Pressing the [%] key again will return the scale to normal weighing.

#### 4.5 PARTS COUNTING

- When the scale is in normal weighing mode, pressing the [Smpl] key will start the parts counting function.
- Before beginning, tare the weight of any container that will be used, leaving the empty container on the scale.
- Place the number of samples on the scale. The number should match the options for parts counting, 10, 20, 50, 100 or 200 pieces.
- Press the [Smpl] key.
- The scale will initially show "SP 10" asking for a sample size of 10 parts. Press [Mode] to cycle through the options: 10, 20, 50, 100, 200 and back to 10.
- Press [Smpl] again when the number matches the number of parts used for the sample. As more weight is added the display will show the number of parts (PCS) with respect to the chosen sample size.
- Press [Mode] to display unit weight (W/P), total weight (g) or the count (PCS). The total and the unit weight are shown in the current units.
- Press [Smpl] to return to normal weighing.

#### 4.6 ACCUMULATION

- When the scale is set for automatic accumulation, the weight will be added to the memory when the scale becomes stable. **The scale must return to zero before another weight is added.**

- When the scale is set to manual accumulation (See the Parameter Section) the weight displayed will be stored in memory when the **[Print]** key is pressed and the weight is stable.
- The display will show **"ACC 1"** followed by the total value in the memory for 2 seconds before returning to displaying the weight of the item on the scale.
- The weight will be output to a printer or PC.
- Remove the weight, allowing the scale to return to zero and put a second weight on.
- Press **[Print]**, the display will show **"ACC 2"** followed by the new total in the memory for 2 seconds before returning to displaying the weight of the item on the scale.
- Continue until all weights have been added.
- To view the totals in memory press the **[Print]** key when the scale is at zero. The display will show **"ACC xx"** (where **"xx"** is the total number of readings) and the total weight, before returning to zero.
- The total will also be printed via the RS-232 interface.
- To clear the memory, press **[Smpl]** immediately after pressing **[Print]**.

## 5.0 PARAMETERS

- The scale has 5 parameters that can be chosen by the user to set the scale.
- To set the parameters press the **[Mode]** key during self-checking test.
- After a few seconds, the display will show the first function **"F1 UNT"**.

- To view the current settings of each parameter, press the **[Zero]** key.
- Press the **[Zero]** key again to cycle through the other parameters along with their current settings. For example, if “**oFF**” is displayed with the weighing unit Pounds, the user will not be able to use this unit while weighing a sample.
- Press **[Mode]** to change the settings of a particular parameter. For example, to enable the weighing unit pounds change the setting to “**on**” by pressing **[Mode]** now.
- Use the **[Print]** key to leave a parameter unchanged.

The following parameters are available:

<b>FUNCTION</b>	<b>DESCRIPTION</b>
<b>F1 UNT</b>	Sets the units to be used (See section 5.1) g / ct / Lb / OZ / d / GN / OZt / dWt / MM / TL.T / TL.C / TL.t / t / N /g2.
<b>F2 EL</b>	Sets the backlight (See section 5.2) <b>EL on:</b> backlight always on <b>EL oFF:</b> backlight always off <b>EL AU:</b> backlight automatically turns on when a key is pressed
<b>F3 SEr</b>	Sets the print parameters (See section 5.3)
<b>F4 oFF</b>	Sets the auto switch-off parameter (See section 5.4)
<b>tECH</b>	Pressing <b>[Zero]</b> will allow the user to enter the technical parameters setting mode. It is recommended not to proceed with the settings of these parameters as those are set up at the factory.

## 5.1 SELECTING THE UNITS

- When “**F1 Unt**” is displayed, press the **[Zero]** key to view the current settings of each unit.
- Press **[Zero]** again to cycle through the other units along with their current settings. For example, if “**oFF**” is displayed with the weighing unit Carats, the user will not be able to use this unit while weighing.
- Press **[Mode]** to change the settings of a particular unit. For example, to enable the weighing unit Carats, change the setting to “**on**” by pressing **[Mode]** now.

- Use the **[Print]** key to leave a parameter unchanged.
- While weighing a sample, the display will show the weight and the units of weight currently in use. To view the weight in other units (which are enabled), press **[Mode]**.
- The following table shows different units which are available to the user and the conversion factors for each.

Sl. No.	Name of the Units	Description	Conversion Factor	Display Symbol
01	Grams	A standard metric unit	1.0	g
02	Carats	Used for weighing jewellery and gems, etc.	5.0	ct
03	Pounds	Standard weighing unit in UK/USA.	0.002205	Lb
04	Ounce	Avoirdupois ounce. 16 ounces make a pound.	0.03528	OZ
05	Drams	An ancient unit of weight. Equals to 1/16 <sup>th</sup> of an ounce.	0.5645	d
06	Grains	A basic weighing unit in the imperial system. Used to weigh gun powder.	15.432	GN
07	Ounce Troy	Troy ounce- used for weighing gold, silver and in pharmacy.	0.03216	OZt
08	Penny-weight	Pennyweight was the weight of a silver penny in medieval England. Equals to 1/20 <sup>th</sup> of an Ounce Troy.	0.6432	dWt
09	Mommes	A weighing unit used in Japan to weigh pearls.	0.26667	MM
10	Taels Hk.	Hongkong Taels- used to weigh coral, pearls, etc.	0.02675	TL.T
11	Taels S.	Singapore Taels	0.02646	TL.C
12	Taels T.	Taiwan Taels	0.02675	TL.t
13	Tical	An Asian weighing unit	0.08576	t
14	Newtons	Used to measure force	0.009808	N
15	Grams	Grams with last digit suppressed	1.0	g2

## 5.2 SETTING OF THE BACKLIGHT

- The backlight may be enabled or disabled by the user.
- If the backlight is disabled, the battery life will be maximised.
- The following settings are available:

<b>EL AU</b>	Sets the backlight to operate automatically when a weight is placed on the scale or a key is pressed.
<b>EL Off</b>	Sets the backlight to be off.
<b>EL On</b>	Sets the backlight to be on for full time.

- When “**F2 EL**” is displayed, press the [**Zero**] key to view the current setting for the backlight.
- Press [**Mode**] to scroll through other settings.
- Press [**Zero**] to store a particular setting.
- Use the [**Print**] key to leave a parameter unchanged.

### 5.3 SETTING THE PRINTING PARAMETERS

When “**F3 SEr**” is displayed, press [**Zero**] to view the first printing parameter.

#### 5.3.1 Selecting the communication port

- The selected port, for example “**5 232**” will be displayed.
- Press [**Mode**] to cycle through the other options. The user can select “**5 232**” or “**5 USb**” as the communication port. Currently, only RS-232 interface is available and the scale is set with this port only.
- Press [**Zero**], to view the next printing parameter.

#### 5.3.2 Setting the print mode

- The current setting of the print mode is displayed,
- Press [**Mode**] to cycle through the other options.
- The following options are available:

<b>P1 Prt</b>	The scale sends the accumulated weights to the communication port, whenever the [ <b>Print</b> ] key is pressed.
<b>P2 Con</b>	It will set the RS-232 interface to print the weights continuously and the accumulation function is disabled.
<b>P3 AUT</b>	The weighing results will be sent to the communication port automatically whenever a weight is placed on the platform.

- Press [**Zero**], to view the next printing parameter.



### 5.3.3 Setting the baud rate

- The current baud rate setting will be displayed.
- Press **[Mode]** to cycle through the other options.
- The following settings are available:

<b>b 600</b>
<b>b 1200</b>
<b>b 2400</b>
<b>b 4800</b> (default value)
<b>b 9600</b>

- Press **[Zero]** to view the next printing parameter.

### 5.3.4 Parity settings

- The current Parity setting will be displayed.
- Press **[Mode]** to cycle through the other options.
- The following settings are available:

<b>8 n 1</b>	8 data bits, no parity
<b>7 E 1</b>	7 data bits, even parity
<b>7 O 1</b>	7 data bits, odd parity

- Press **[Zero]**, the display will go back showing “**F3 SEr**”.
- Press **[Mode]** to go to the next parameter which is “**F4 oFF**”.

## 5.4 SETTING OF AUTO-SWITCH-OFF

- The Auto switch-off time may be set up by the user.
- When “**F4 oFF**” is displayed, press the **[Zero]** key to view the current setting.

- Press **[Mode]** to scroll through other settings (0, 5, 10, 20 and 30 minutes).
- Press **[Zero]** to store a particular setting.
- Use the **[Print]** key to leave a parameter unchanged.

## 5.5 TECHNICAL PARAMETERS

- Next parameter is “**tECH**”. This allows the user to enter the Technical Parameters section.

**Note:** It is recommended not to proceed with the settings of the Technical Parameters which are set up at the factory and are often referred to as Service Parameters. Check the Service Manuals for more details.

- Press **[Print]** to return to weighing. The scale will run the self-test before displaying the zero along with the last selected unit.

## 6.0 CALIBRATION

- This parameter allows the user to calibrate the scale any time during the operation.
- Switch the scale off and then on it again by pressing **[On/Off]**. During the self-test press **[Smpl]** and **[Print]** together.
- Display will show “**unLoAd**”. Remove all weights from the pan.
- Wait for the stability indicator to be on and then press **[Zero]**.
- The display will then show the first calibration weight request.
- Press **[Mode]** to scroll through the other calibration weights.
- Press **[Zero]** to select calibration weight. The display will show “**LoAd**”.

- Place this weight on the platform and press **[Zero]** when the stability indicator will be on to show the value is stable.
- If the calibration is complete, the scale will show “**PASS**” and will return to normal weighing counting back to zero. Remove the calibration weight at this stage.
- If the wrong calibration weight is used, the scale will show “**FAIL H**” (when the weight is higher) or “**FAIL L**” (when the weight is lower). Repeat the process using the correct calibration weight.

Calibration weights:

Model #	ACB <sub>plus</sub> 150	ACB <sub>plus</sub> 300	ACB <sub>plus</sub> 600	ACB <sub>plus</sub> 600H	ACB <sub>plus</sub> 1000	ACB <sub>plus</sub> 1500	ACB <sub>plus</sub> 3000
Weight 1	50g	100g	200g	200g	500g	500g	1000g
Weight 2	100g	200g	400g	400g	1000g	1000g	2000g
Weight 3	150g	300g	600g	600g	-	1500g	3000g

## 7.0 COMMUNICATION WITH A COMPUTER/PRINTER

The ACB<sub>plus</sub> scales come with a bi-directional RS-232 interface.

**The standard Interface parameters are:**      **Connection details are:**

RS-232 output of weighing data  
 ASCII code  
 4800 Baud  
 8 data bits  
 No Parity

Connector: 9 pin d-subminiature socket  
 Pin 3    Output  
 Pin 2    Input  
 Pin 5    Signal Ground

Data Format for normal weighing operations, parts counting or recalling of totals from memory will all be different.

**Normal Output:**    **G S \_ X X X \_ X X u u u**

GS	123.45g	GS for Gross Weight, NT for Net Weight and u for unit of weight
No.	1	This number increments every time a new value is stored in memory
Total	123.45g	The total value stored in memory
<lf>		Includes 2 line feeds
<lf>		

### Input commands format:

The scale can be controlled with the following commands. The commands must be sent in upper case letters, i.e. "T" not "t".

<b>T&lt;cr&gt;&lt;lf&gt;</b>	Tares the scale to display the net weight. This is the same as pressing <b>[Tare]</b> key.
<b>Z&lt;cr&gt;&lt;lf&gt;</b>	Sets the zero point for all subsequent weighing. Display shows zero.
<b>T5.345&lt;cr&gt;&lt;lf&gt;</b>	Place a weight on the pan and then enter the pre-set Tare value.
<b>P&lt;cr&gt;&lt;lf&gt;</b>	Prints the results to a PC or printer using the RS-232 interface. It also adds the value to the accumulation memory if the accumulation function is not set to automatic.

## **8.0 ERROR MESSAGES**

During the initial power-on testing or during operation it is possible that the scale may show an error message. The meaning of the error messages is described below.

<b>ERROR CODE</b>	<b>DESCRIPTION</b>	<b>POSSIBLE CAUSES</b>
<b>Err 4</b>	Initial Zero is greater than allowed (4% of maximum capacity) when power is turned on or when the <b>[Zero]</b> key is pressed,	<ul style="list-style-type: none"><li>• Weight on the pan when turning on.</li><li>• Excessive weight on the pan when zeroing the scale.</li><li>• Improper calibration of the scale.</li><li>• Damaged load cell.</li><li>• Damaged Electronics.</li></ul>
<b>Err 5</b>	Keyboard Error.	<ul style="list-style-type: none"><li>• Improper operation of the scale.</li></ul>
<b>Err 6</b>	A/D count is not correct when turning the scale on	<ul style="list-style-type: none"><li>• Load cell damaged.</li><li>• Electronics damaged.</li></ul>
<b>Err 9</b>	A/D count is not stable when turning the scale on	<ul style="list-style-type: none"><li>• Initial instability during turning on which will get adjusted automatically</li><li>• There may be movement, vibration or dirt on scale during turning on.</li></ul>

If an error message is shown, repeat the procedure that caused the message such as turning the scale on, calibration or any other functions. If the error message is still shown, contact your dealer for further support.

## 9.0 REPLACEMENT PARTS AND ACCESSORIES

If you need to order any spare parts and accessories, contact your supplier or Adam Equipment. A partial list of such items is as follows-

- Power Supply Module
- Stainless Steel top Pan
- Below Balance Hanger
- Dust Cover
- Printers, etc.
- Printer cable

## 10.0 SERVICE INFORMATION

This manual covers the details of operation. If you have a problem with the scale that is not directly addressed by this manual then contact your supplier for assistance. In order to provide further assistance, the supplier will need the following information which should be kept ready:

### A. Details of your company

- Name of your company:
- Contact person's name:
- Contact telephone, e-mail, fax or any other methods:

### B. Details of the unit purchased

(This part of information should always be available for any future correspondence. We suggest you to fill in this form as soon as the unit is received and keep a print-out in your record for ready reference.)

<b>Model name of the scale:</b>	<b>ACB<sub>plus</sub></b> _____
<b>Serial number of the unit:</b>	
<b>Software revision number (Displayed when power is first turned on):</b>	
<b>Date of Purchase:</b>	
<b>Name of the supplier and place:</b>	

### C. Brief description of the problem

Include any recent history of the unit. For example:

- Has it been working since it's delivered
- Has it been in contact with water
- Damaged from a fire
- Electrical Storms in the area
- Dropped on the floor, etc.

## **WARRANTY INFORMATION**

**Adam Equipment offers Limited Warranty (Parts and Labour) for the components failed due to defects in materials or workmanship. Warranty starts from the date of delivery.**

**During the warranty period, should any repairs be necessary, the purchaser must inform its supplier or Adam Equipment Company. The company or its authorised Technician reserves the right to repair or replace the components at any of its workshops depending on the severity of the problems. However, any freight involved in sending the faulty units or parts to the service centre should be borne by the purchaser.**

**The warranty will cease to operate if the equipment is not returned in the original packaging and with correct documentation for a claim to be processed. All claims are at the sole discretion of Adam Equipment.**

**This warranty does not cover equipment where defects or poor performance is due to misuse, accidental damage, exposure to radioactive or corrosive materials, negligence, faulty installation, unauthorised modifications or attempted repair or failure to observe the requirements and recommendations as given in this User Manual.**

**Repairs carried out under the warranty does not extend the warranty period. Components removed during the warranty repairs become the company property.**

**The statutory right of the purchaser is not affected by this warranty. The terms of this warranty is governed by the UK law. For complete details on Warranty Information, see the terms and conditions of sale available on our web-site.**



### Manufacturer's Declaration of Conformity

This product has been manufactured in accordance with the harmonised European standards, following the provisions of the below stated directives:

Electro Magnetic Compatibility Directive 89/336/EEC

Low Voltage Directive 73/23/EEC

Adam Equipment Co. Ltd.  
Bond Avenue, Denbigh East  
Milton Keynes, MK1 1SW  
United Kingdom

### **FCC COMPLIANCE**

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. The equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Shielded interconnect cables must be employed with this equipment to insure compliance with the pertinent RF emission limits governing this device.

Changes or modifications not expressly approved by Adam Equipment could void the user's authority to operate the equipment.

### **WEEE COMPLIANCE**



Sealed Lead Acid  
Battery  
Must be recycled  
Properly

Any Electrical or Electronic Equipment (EEE) component or assembly of parts intended to be incorporated into EEE devices as defined by European Directive 2002/95/EEC must be recycled or disposed using techniques that do not introduce hazardous substances harmful to our health or the environment as listed in Directive 2002/95/EC or amending legislation. Battery disposal in Landfill Sites is more regulated since July 2002 by regulation 9 of the Landfill (England and Wales) Regulations 2002 and Hazardous Waste Regulations 2005. Battery recycling has become topical and the Waste Electrical and Electronic Equipment (WEEE) Regulations are set to impose targets for recycling.

**ADAM EQUIPMENT** is an ISO 9001:2000 certified global organisation with more than 30 years experience in the production and sale of electronic weighing equipment. Products are sold through a world wide distributor network supported from our company locations in the UK, USA, SOUTH AFRICA and AUSTRALIA.

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

- Analytical and Precision Laboratory Balances
- 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.
- Crane scales for heavy-duty industrial weighing
- Digital Electronic Scales for Medical use
- Retail Scales for Price computing

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