ACC COIN COUNTING SCALE

# **Operation** Manual

• <u>ACC-2009-03</u>

#### TABLE OF CONTENTS

I .Precautions before using the scale	2
II .Displays	4
III.Keypad functions	5
IV.Operations	6
( I ) Switch on $\&$ off	6
$(\mathrm{II})$ Display showing when switch on	6
(III) Zeroing the scale	7
(IV) Sampling before counting	7
(V) Subtract container's weight	9
(VI) Store denomination and unit weight in memory	10
(VII) Recall stored denomination and unit weight	
(VIII) Value accumulation in coin counting mode	19
V.User programming functions	25
( I ) User menu	26
1. Auto shut off time span	26
2. Backlight type	26
3. Change unit of measure from kg/g to pound	27
4. Denomination unit setting	28
5. Unit weight recomputing	28
6. Transmit mode setting	29
7. Transmission method in accumulation mode	30
8. Label format setting	30
9. Baud rate setting	31
10.Change the password of setting the denomination and	unit
weight	31
( II ) Service menu	34
1. Zero tracking range	34
2. Zero display range	35
3. Stable class range	35
4. Zero return range	36
VI.Calibration	37
M.Power supply & battery operation	38
W.RS-232 Output	39

# I. Precautions Before Using The Scale

# **Environment**

The scale should always be used in an environment, which is free from excessive air currents, corrosives, vibration, and temperature or humidity extremes. These factors will affect displayed weight reading.

**DO NOT** install the scale :

- Next to open windows or doors causing drafts or rapid temperature changes.
- Near air conditioning or heating vents.
- Near vibrating, rotating or reciprocating equipment.
- Near magnetic fields or equipment that generates magnetic fields.
- On an unstable work surface
- In a dusty environment
- In direct sunlight.

# Protection in the transportation

When the initial use, please refer to the following drawing to take off the protection screw. When the transportation will be made, please install the protection screw on the machine to avoid any damage sensitive components.



# Leveling the Scale

The scale is equipped with a level indicator on the left bottom side of the front panel and four adjustable leveling feet. Adjust the leveling feet until the bubble appears in the center circle of the indicator.

### Turn on Scale

Do not turn on scale with anything on the platform. The switch is located on the right side of the scale. The scale will start to count down from nine to zero and will display the max. capacity of the scale in the WEIGHT display. The scale is then ready for use. Give a warm-up for 15~30 minutes before use.

# II. <u>Displays</u>



# III. Keypad Functions

Keys	Primary function Secondary functio	
0~9	Numeric keys	Addresses for storing unit weight and denomination.
•	Decimal point key	
С	Use this key to clear out the displayed numeric readings.	
ZERO	If there is a minor weight displayed without anything on the pan, press the zero key to clear the display.	
TARE/▼	Performs a tare operation	Move the parameter value downwards in Setting Mode.
SMPL	Use this key to input sample size.	
Memory-A	Long press Preset the denomination and unit weight of coin or token and store them in memory.	Recall the stored information of coin or token.
Memory-B	Long press to preset the denomination and unit weight of coin or token and store them in memory.	Recall the stored information of coin or token.
M+/Exit	Use this key to accumulate weight/quantity measured.	Rejects the current setting on the display and returns to normal operation.
MR/Print	Recall and print the individual accumulation	Long press to recall the total accumulated data.

	data and total data.	
Mode/Enter	Change the coin counting mode to normal counting mode.	Accepts the current setting on the display. Long press to enter the parameter setting.

# IV. Operations

# (I) Switch on & off

Push the ON/OFF switch to "I "position to turn on the scale & to "**O** "position to turn off the scale.

# (II) Display showing when switch on

 If there is no information in memory, when switch on, the scale will automatically change to normal counting mode, then the Count indicator will be on. The display will show as below;



 If there are data in memory, when switch on, the scale will enter into coin counting mode, the unit of denomination chosen in parameter setting will be on, (please refer to Section4 in parameters setting, P28).Take cent for instance. then the display shows as below;



If the value exceeds the display range in value window, it will automatically delete one or two zeros after the decimal point.

#### (III) Zero the scale

Press **Zero** key to return the display to zero in case there is any zero drifting while unloaded.

# (IV) Sampling before counting

1. Press Mode/Enter key to change to normal counting mode

if it is in coin counting mode.

2. Place a few pieces of item to be counted on the pan.





5. The sampling operation is completed while stable display appears as below:



★ The larger sample size, the more accurate unit weight.

★ Press Samp. key to recomputing unit weight during counting process.

# (V) Subtract container's weight

1. Place a container on the pan.





Stable	•
Net	

3. The scale will enter into counting mode while stable

display appears as below.



#### Eliminate TARE

Remove all on the pan & the weight display will show a negative (-) container's weight. Pressing **Tare/▼** key at this moment will bring the weight display to zero and NET triangular annunciator (◀) will disappear. Note;

Tare operation can also be done in coin counting mode, but the three display windows don't change much. Only

press Tare key, the NET triangular in Value window will appear.

#### (VI) Presetting denomination and unit weight

There are two keys for storing denomination and unit weight,

**Memory-A** and **Memory-B**. If you want to store in **Memory-A**, then please press **Memory-A**. The same as **Memory-B**.

 Give a long press of Memory-A or Memory-B to enter into presetting coin or token information. The display shows as below,







#### Unit weight known

Use 0-9 numerical keys and decimal key to key in the known unit weight.

Unit weight unknown

There are two methods to get unit weight.

- ★ Before enter into the presetting mode, use sampling function to get unit weight and it will automatically appear in the value window.
- ★ After enter into the presetting mode, press Samp key, the scale will back to normal counting mode, after finish the sampling operation, the scale return to setting mode and the unit weight will automatically appear in the value window.

	Denomination/Weight(kg)		Quantity pcs
С		Add	
\$	Unit	Battery Low	wWt
Count		U.W. lack	



Press **Mode/Enter** key to confirm, and enter into the next setting.

**Note:** If the Value window is blank, press **Mode/Enter** key to confirm means to clear all information in this address and it will jump to the last step, display show 'next'.



Press **Tare/▼** key to change the unit and press **Mode/Enter** key to confirm. The default setting depends on the denomination unit you chosen in parameter setting. (Please



refer to section 4 in parameters setting, P28)



The Quantity window shows the deno. unit you chosen in the last step. Use numerical keys and the decimal key to key in the denomination.



At the same time, the address codes will blinker in denomination and quantity window. Key in the target address (0-9). If there has stored information in the target address, the display will show;

Net



Press **Mode/Enter** key to confirm, then the former stored data is updated. If no need to update it, press **M+/Exit** to exit this mode, key in another address and confirm.

 After key in the address, saving procedure is finished. The display shows as below;





The denomination and Quantity windows will display the address without data. Value window displays next. When all the addresses have been used, the display will show.



information, please press **Mode/Enter** key to confirm and back to the second step to set another coin or token information.

 Press M+/Exit key. The display shows'-----End', blinker twice and back to normal mode.



# (VII) Recall the stored denomination and unit weight

★ If you stored coin or token information in Memory-A, please key in the address code, and press Memory-A to recall the information. The same way to recall information stored in Memory-B.



Stable Net

4

Note; In coin counting mode, If only one memory be used, then there is no need to press the memory key, only to key in the address code to recall the stored information. But in normal counting mode, you have to press the memory key, otherwise the keyed in address will be regarded as unit weight.

#### Check the stored denomination and unit weight.

Give a long press of **Memory-A** or **Memory-B**, when the display shows as below;



Press enter key without entering any number to check the

denominations and unit weight in Memory-A or Memory-B.





Press **Tare**/▼ key to check the other information. Press **M+/Exit** key to return to normal mode.

#### Print the stored coin or token information

Give a long press of **Memory-A** or **Memory-B**, when the display show enter the password, then press **MR/Print** key to print the stored information in **Memory-A** or **Memory-B**.

#### (VII) Value accumulation in coin counting mode.

Individual accumulation means that when they are of the same denomination and with same unit weight, they can add quantity and value together. But if they are of different denomination or the same denomination with different unit weight, it only adds the value.

1. When the scale is in coin counting mode, place on 300pcs coin with 5 cent.



After 2 seconds, the display will automatically return to coin counting mode.

Place on 200pcs coin with 1 cent.
Denomination/Weight(kg) Quantity pcs



Denomination/Weight(kg) Quantity pcs



3. Place on 300pcs coin with 5 cent.







After two seconds, the display shows as below;





4. Place on 200pcs coin with 5 cent. But the unit weight is





Press MR/Print key to enter into accumulation status mode.
It will automatically show the individual accumulation and





In the display mode, you can press **Tare**/▼ keys to turn

downwards to check the accumulation.

#### **Clear accumulation**

★ Clear total accumulated data

When press **MR/Print** key to check the accumulations, press **Clear** key to clear the total accumulated values.

#### ★ Clear last accumulated information

Press **M+/Exit** key to add the display values in memory. Move the coin or token from the pan, press **Clear** key to subtract the last accumulated data from the memory. It would print out negative accumulated values.

#### ★ Subtract the display values from the memory

Put the coin or token on the pan, press **Clear** key to subtract the displaying values from the total accumulated memory. It would print out negative accumulated values.

# V. Parameters setting

Give a long press of **Mode/Enter** key for appr. 3 seconds to enter into USER PROGRAMMING FUNCTION MODE. Press **Tare**/▼ keys to choose the desired setting and press **Mode/Enter** key for determination. Press **M+/Exit** key to exit from the setting mode and back to normal mode.

The displays will indicate as below eventually.





The parameters setting include two menu; User menu and Services menu.

User menu means the settings are normally be set by user, such as baud rate setting.

Service menu means that adjust the settings will change the scale performance, such as zero tracking range.

#### (I) User Menu

When display window show user menu, press **Mode/Enter** key to confirm and enter into the user menu setting.

#### 1. Auto. Shut off setting





It can be chosen from 'no,yes-2,yes-5,yes-8'. Default setting is 'no'.

#### 2. Backlight type



It can be chosen from 'on, Off, Auto', the default setting is 'Auto.'

• Auto. backlight

Backlight will be on automatically whenever the scale is loaded by objects weighs greater than **<u>10 display</u>** 

**resolution** or any of keys is pressed. And it will be going off also automatically approx. 5 seconds after the scale returns to zero.

Manual backlight

Press (decimal point) key to switch on and off backlight. The backlight can't be closed right after switched on. It can be done only when the Unit Weight has been confirmed and the value in display window stops flickering.

★ Scale will keep the backlight type selected in memory for next use.



#### 3. Change unit of measure from kg/g to Pound

It can be chosen from 'g/kg, Ib'. The default setting depends on the unit you used for calibration.

When Tare, Accumulation or Denomination storing function

are done, this setting is unchangeable.



It can be chosen from 'cent or dollar'. The default setting is 'cent'.

#### 5. Unit weight recomputing



Stable	•
Net	

It can be set to be 'on or off'. The default setting is 'off'.

Note: This function can not change the stored unit weight of coin or token.



It can be chosen from" CLOSE, Stb-p, Stb-L, k.t.-p, K.t.-L,

Series". The default setting is 'CLOSE'.

CLOSE - output disabled

"Stb-p" = auto-transmit

"Stb-L" = auto-transmit (for a label printer, such as: Model

LP-50 from DATECS)

"K.t.-p" = transmit by pressing a key

"K.t.-L" = transmit by pressing a key (for a label printer, such

as: model LP-50 from DATECS)

"Series" = Series transmit



#### 7. Transmission method in accumulation mode

It can be chosen from 'ACP on, ACP off'. The default setting is 'ACP on'.

"ACP on": When pressing M+/Exit key, the current weight/count will be transmitted. And press the MR/Print key to transmit the total accumulation

values.

"ACP of": When pressing M+/Exit key, the current weight/count will not be transmitted. And press MR/Print key to transmit the total accumulation values only.





It can be chose from'0-9'. The default setting is '0'.

#### 9. Baud rate setting



The baud rate can be chosen from 1200, 2400, 4800 or 9600'. The default setting is '9600'.

#### 10. Change the password of setting the denomination and

#### unit weight.

The default setting is "no".



#### Do not change the password

When the Value window shows 'no', press **Mode/Enter** key for determination and return to normal mode.

#### Change the password

Press **Tare**/**▼** key when the value window shows ' yes', and then press **Mode/Enter** key to confirm to enter into the changing mode.





If a wrong password be keyed in, the display will show:



You have three chances to key in the password, if you haven't key in the right password for three times, the scale will automatically exit this mode and return to normal mode.

• Key in the new password





Key in the desired password, and press **Mode/Enter** key to confirm.

• Key in the same new password for confirmation.





Value(\$)/Unit Weight(g)

Zero		
Stable	•	
Net		Update

Press Mode/Enter key to confirm and enter in the service menu setting.

### (II) Service Menu



Press **Mode/Enter** key to confirm. If you want to exit, please press **M+/Exit** key to return to normal mode.

#### 1. Zero Tracking Range



Count	◀ U.W. lack	
		Value(\$)/Unit Weight(g)
	Zero	
	Stable	•
	Net	0

The zero tracking range can be set to be (0, 1, 2, 3, 4).

#### (Default setting: 2)

The larger number selected the wider range.

#### 2. Zero display range



Zero display range can be chosen from (0, 1, 2, 3, 4).

#### (Default setting: 3).

The larger number selected, the wider range.



The stable class range can be chosen from (0, 1, 2, 3, 4,

#### 5). (Default setting: 1).

The smaller number selected, the shorter time for display stability.

#### 4. Zero return range



Zero return range can be chosen from (0, 1, 2, 3, 4, 5).

#### (Default setting: 0)

The larger number selected, the more stable zero point.

# VI. Calibration (can only be done in kg)

- 1. Turn on the scale and be sure it is zeroed.
- 2. Keep pressing **Zero** key until the following displays appear. (Take 6kg scale for instance)



Count 4	U.W. lack	
		Value(\$)/Unit Weight(g)
	Zero	
	Stable	•
	Net	6.0000

3. Put a weight same as what exactly shown in the Value display window on the pan.

The displayed reading in the UNIT WEIGHT window starts blinking. The scale will stop blinking and return to normal counting mode.

Required weight (6 kg) for calibration

Calibration is now completed.

- ★ Required weight for calibration can be changed by using numeric keys while in step 2 above.
- ★ Press ZERO key to escape from calibration mode at any time.
- ★ After entering the second step, press MR/Print key. Use numeric keys to input a calibration value (0.80000~1.20000). Press MR/Print key to confirm, then the calibration is finished.

# VII. Power supply & battery operation

#### POWER SUPPLY

- AC 220V
- DC 9V/700 mA

#### BATTERY OPERATION

The scale can be operated from the battery if desired. The battery life is approximately 60 hours.

When the battery needs charging a symbol "Battery low" on the Quantity display will be on. The battery should be charged when the symbol is on. The scale will still operate for about 10 hours after which it will automatically switch off to protect the battery.

To charge the battery, simply attach the power supply module to the scale and plug in. The scale does not need to be turned on.

The battery should be charged for 12 hours for full capacity.

There is an LED to indicate the status of battery charging on the right of display. When the scale is plugged into the mains power the internal battery will be charged. If the LED is **Green** the battery has been charged. If it is **Red** the battery is nearly discharged and **Yellow** indicates the battery is increasing the charge level.

As the battery is used it may fail to hold a full charge. If the battery life becomes unacceptable then contact your distributor.

**Note:** The battery should be recharged every 3 months if the scale is not used for long time.

### **₩.RS-232 OUTPUT**

The scale can be ordered with as optional RS-232 output.

1. Mode E1A-RS 232C's UART signal

2. Format:

Baud rate:	1200~	9600 BPS
Data bits:	8	BITS
Stop bit:	1	BIT



3. Transmit Format, when it is in Accumulation model;

3.1 Set RS-232 transmission method in accumulation mode to

be ' ACP on' (please refer to section 7 of parameters setting)

and transmit by pressing the following keys:

Press the M+/Exit key

PLU A1

Record#01

Deno.; 5 C

Quantity; 500 pcs

Value; 25.00 \$

Press the M+/Exit key again

PLU A2

Record#02

Deno.; 1 C

Quantity; 200 pcs

Value; 2.00 \$

Press the M+/Exit key again

PLU A3

Record#03

Deno.; 5 C

Quantity; 300 pcs

Value; 15.00 \$

Press the M+/Exit key again

PLU A1

Record#04

Deno.; 5 C

Quantity; 400 pcs

Value; 20.00 \$

#### Press the MR/Print key

Deno.	Quantity	Value
5C (A1)	900 pcs	45.00 \$
<u>1C (A2)</u>	200 pcs	2.00 \$
<u>5C (A3)</u>	300 pcs	15.00 \$

Total	; 1400 p	ocs 62.0	0\$
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3.2 When it to be 'ACP off', press M+ key only add the current display data, not to transmit it. Then press MR/Print key to transmit the total accumulated data.

#### Press the **MR/Print** key

Deno.	Quantity	Value	
<u>5C (A1)</u>	900 pcs	45.00 <u>\$</u>	
<u>1C (A2)</u>	200 pcs	2.00 \$	
<u>5C (A3)</u>	300 pcs	15.00 \$	
Total;	1400 pcs	62.00 \$	

Format of transmit by pressing M+/Exit key, when it is not in accumulation mode.

Deno.;	5 C
Quantity;	300 pcs
Value;	15.00 \$

#### 5. Series transmit format

5.1 When it is in stable mode.

Deno.;	5 C
Quantity;	300 pcs
Value;	15.00 \$

5.2 When it is in unstable mode.

Deno.;	5 C			
quantity;	300 pcs			
value;	15.00 \$			
Deno.=Denomination				
Quantity=Stable Quantity		Value=Stable Value		
Quantity=Unstable quantity		value=Unstable value		

6. Variables (The prompt character) used in scale also in label printer.

Variable Name	Specifications	Size
REC	Recorded Accumulation times	2 byte
ADR	Address code	2 byte
DNA	Denomination	7 byte
DNB	Denomination(no dot)	8 byte

VLA	Value	7 byte
VLB	Value(no dot)	8 byte
NWA	Net weight	7 byte
NWB	Net weight(no dot)	8 byte
AVA	Accumulated value of the same address	7 byte
AVB	Accumulated value of the same address(no dot)	8 byte
TVA	Total value	7 byte
TVB	Total value (no dot)	8 byte
TNA	Total net weight	7 byte
TNB	Total net weight(no dot)	8 byte
UWA	Unit weight	7 byte
UWB	Unit weight (no dot)	8 byte
QUA	Quantity	7 byte
QUB	Quantity (no dot)	8 byte
AQA	Accumulated quantity of the same address	7 byte
AQB	Accumulated quantity of the same address(no dot)	8 byte
TQA	Total Quantity	7 byte
TQB	Total Quantity (no dot)	8 byte
UNT	Weighing Unit	2 byte
DUT	Denomination Unit	1 byte

**Note:** 1) Capital Letters are allowed for the Variable Name only. Users are not supposed to change them; otherwise they won't be supported in transmitting process.

2) Please refer to the manual operation of the label printer for exact use.