Price Computing Scale

AP-x series

Operation Manual

ACLS

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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.

1. Do not let the scale get wet and do not place it in a environment with extreme temperature or humidity.

2. Do not shock the scale and do not exceed the capacity. Permanent damage can occur.

3. If the power is low or the scale automatically power off, please charge the battery for a full 12 hours before use. Incomplete charging can damage the battery.

4. If the scale will not work for a long time, Please true power off and recharge the battery for three monthes once.

Leveling the Scale

The scale is equipped with a level indicator on the left bottom side 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 power switch is located on the right side of the scale. Push the switch to "1" position, and the scale will self-test. The scale will start to count down from 9 to 0 and then enter the weighing mode. Give a warm-up for 15~30 minutes before use.

II. Explanation of display symbols

Display Windows

● Weight Display —-Totals 6 digits.

● Unit Price Display –

Totals 6 digits for unit price or times of price accumulated.

● Total Price Display –

Totals 6 digits for amount accumulated or price for item being weighed on the pan.

Indicated Symbols

→〈T〉 : Scale is in TARE mode.

→0← : Scale is in ZERO mode.

M+ : Scale is in ACCUMULATION mode.

[+−] : Battery low voltage situation, scale needs to be fully recharged for accurate measurement and proper operation.

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III. Keypad Functions

$\boxed{0}$ ~ $\boxed{9}$: Numeric keys

- The entered numbers will be automatically cleared if the time interval between numbers being entered is larger than a few seconds.   A re-entry of unit price is necessary.

$\boxed{C}$: Use this key to clear the unit price readings entered.

$\otimes$: If there is a minor weight displayed without anything on the pan, press the zero key to clear the display.

$\otimes$: Use this key to subtract the container's weight. Indicates that the current weight reading is net weight. And the tare indicator will be shown.

(M+) : Use this key to accumulate price amount calculated.

$\boxed{\cdot}$: Decimal point key. Concrete operations : Input the part of integer firstly, then press this key   to input the part of decimal fraction.

(PRICE) : When having inputted the unit price, press this key to preset unit price storing. Or else press this key to turn on or off the backlight, when you preset the way of backlight is "HAND".
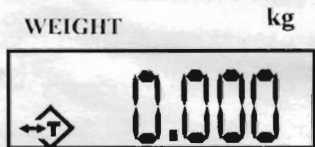
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IV. Operations

(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) Zero the scale

Press (→0←) key to return the display to zero in case there is any zero drifting while unloaded.

(III) Subtract container's weight

1. Place a container on the pan.

2. Press (↔T) key

3. The Weight display will show as below:

WEIGHT   **kg**

```
↔T    0.000
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(LCD display)

Then the tare indicator is shown.

➡ Eliminate TARE

Remove all on the pan & the weight display will show a negative (-) container's weight.   Pressing (→0←) key at this moment will bring the weight display to zero and TARE indicator will extinguish.

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(IV) External parameter operation

In normal weighing mode, press ⊷0⊷ key + ⊷T key to preset the external parameters. You can preset the parameter such as: decimal point of unit price, decimal point of total price, filter parameter, single or double range, baud parameter, sending way. Press │ • │ key to circularly select main menu, press ⊷T to enter corresponding submenu and then press this key to preset parameter, press ⊷0⊷ key to confirm the selected parameter. If you want to exit the menu to return normal weighing mode and save those parameter you having preset, please press ⊷0⊷ key in main menu. Else if you want to exit the menu to return normal weighing mode NOT change any parameter, please press │ C │ key in main menu.

(1) Setting of decimal point of unit price(the unit price window will show "DEC_P"): Press ⊷T to enter the submenu to set the decimal point of unit price. The weight window displays "DEC_P", the unit price window shows"0"(none cimal), "0.0"(one ecimal), "0.00"(two ecimal), "0.000"(there decimal) to select.

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Can press (↔T) key to select and press (→0←) key to return main menu.

(2) Setting of decimal point of total price(the unit price window will show "DEC_T"): Press (↔T) key to enter the submenu to set the decimal point of total price. The weight window displays "DEC_T", the unit price window shows "0"(none decimal), "0.0"(one decimal),"0.5"(one decimal, but the decimal part just show zero or five) ,"0.00"(two decimal), "0.000"(there decimal) to select. Can press (↔T) key to select and press (→0←) key to return main menu.

(3) Setting of filter (the unit price window will show "FILTER"): Press (↔T) key to enter the submenu to set the filter parameter. The weight window displays "FILTER" , the unit price window shows nb0~nb5(0~5 is the filtering grade). Can press (→0←) key to select and press (↔T) key to return main menu.

(4) Single or double range setting (the unit price window will show "SIN_DB"): Press (↔T) key to enter the submenu to set single or double range. The weight window displays

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"SIN_DB", the unit price window shows "SIN" (single range) or "DBL" (double range). Can press ⟨↔T⟩ key to select and press ⟨→0←⟩ key to return main menu.

(5) The backlight way setting (the unit price will show "B_LGHT"): Press ⟨→0←⟩ key to enter the submenu to set backlight way. The weight window displays "B_LGHT", the unit price window shows "AUTO" (automatically delight the backlight), "OFF" (turn off the backlight), "ON" (turn on the backlight) or "HAND" (manual backlight). Can press ⟨↔T⟩ key to select and press ⟨→0←⟩ key to return main menu.

(6) Baud parameter setting (the unit price window will show "BAUD"): Press ⟨↔T⟩ key to enter the submenu to set baud parameter. The weight window displays "BAUD", the unit price window shows "2400", "4800" or "9600". Can press ⟨↔T⟩ key to select and press ⟨→0←⟩ key to return main menu.

(7) Sending way setting (the unit price window will show "SERIES"): Press ⟨↔T⟩ key to enter the submenu to set sending way. The weight window

shows "SERIES", the unit price window shows "CO"(continuously send), "ST"(stably send) or "off"(turn off communication). Can press (↔T) key to select and press (→0←) key to return main menu.

(V) Price amount accumulation

(M+) Key use to accumulate either needful weighing goods or NOT weighing goods.

When the total price isn't zero (weight * unit price ≠ 0.0), press (M+) key to accumulate needful weighing goods. When the total price is zero and the unit price isn't zero, press (M+) key to accumulate NOT weighing goods. If hereinbefore two condition dissatisfy, press (M+) to look over the accumulative total .

Into the accumulative mode, the weight window shows "-XXX-" (XXX: mains the item), the unit price window shows "ALL", and the total price window will show accumulative total. After a few second it will automatically return normal weighing mode.

(VI) Deleting Function

When having inputted the unit price, press C key to delete this unit price. Or else press this key to delete the accumulation if there is accumulation.

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(Ⅶ) Handle backlight function (only use in handle backlight condition)

When having not inputted the unit price, press (PRICE ☼) key turn on or off the backlight, if you preset the way of backlight is "HAND".

(Ⅷ) Preset & recall unit price

Reset unit price

Firstly, input the unit price which you want to save. And then press (PRICE ☼) key. The weight window will show "SAVE", the unit price will flash "0". Now, press arbitrary numerical key 0~9 to save the unit price to relevant location. And return normal weighing mode.

Recall unit price

When having not inputted unit price, press [•] key to recall one unit price. The weight window will show "RECALL", the unit price will flash "0". Now press numerical key 0~9 to recall relevant unit price. And return normal weighing mode.

V. Power supply & battery recharging

Power supply

● AC220V　50HZ　or　AC110V　50HZ

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- DC 6V / 4Ah rechargeable battery

Low voltage indication

When the battery voltage is low, a [+⎓] indicator will show. If you continue to use, the scale will automatically turn off when the voltage is too low.

Recharging the battery

Connect the power wire supplementary to AC power for charging. A "In charge" LED indicator on the panel will go orange in the process of charging the battery. It will take approx. 8 hours to fully charge the battery. The LED will turn RED while fully charged. Please disconnect the power once red light is on. To ensure the power is in full, we recommend charging 12 hours.

VII. Communication Format(optional)

1. RS232 communication
2. Format
   (1) Baud rate: 2400,4800,9600bps
   (2) Data bits: 8bits
   (3) Parity bit: none
   (4) Stop bit: 1 bit
   (5) Code: ASCII

3. Data Transmission Format

state1	state2	data type 1	data1	unit	newline
0 ~ 2	3 ~ 5	6 ~ 8	9 ~ 16	17 ~ 22	23~24

space	data type 2	data1	newline
25~31	32~ 34	35 ~ 42	43~44

space	data type 2	data1	end sign
45~51	52~ 54	55 ~ 62	63~64

Status 1 (2 bytes)　　　　**Status 2 (2 bytes)**

ST: Stable　　　　　　　　　　NT: Net weight mode

US: Unstable　　　　　　　　　GS: Gross weight mode

Data type (2 bytes)

Data type 1: Wt—weight

Data type 2: Ut—unit weight

Data type 3: Tt—total price

Data(8 bytes)

Data 1——the value of weight

2D (HEX) ="-" (negative sign)　　20 (HEX) =" " (blank)

2E (HEX) ="." (decimal point)　　2B (HEX) ="+" (plus sign)

Data 2——the value of unit price

2E (HEX) ="." (decimal point)　　20 (HEX) =" " (blank)

Data 3——the value of total price

2E (HEX) ="." (decimal point)　　20 (HEX) =" " (blank)

6F 4C (HEX) ="0L" (overflow)

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Uuit（4bytes）

"g"=20（HEX）；20（HEX）；20（HEX）；67（HEX）

"kg"=20（HEX）；20（HEX）；6B（HEX）；67（HEX）

"lb"=20（HEX）；20（HEX）；6C（HEX）；62（HEX）

"OZ"=20（HEX）；20（HEX）；6F（HEX）；7A（HEX）

"CR"=0d（HEX）；0a（HEX）

EXAMPLE： （stable net weight +2.000kg， unit price 10.00）

state 1	state 2	data type 1	data 1	unit
ST,	NT,	Wt:	+2.000	kg (g or lb/oz)
		data type 2	data 2	
		Ut:	10.00	
		data type 3	data3	
		Tt:	20.00	