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My Weigh Balances

iBalance401

(LCD Display)

Operation Manual

Note: This manual is subject to revision or correction. We suggest you check the most updated version of this manual which is posted on our website at www.myweigh.com.

In case you find an error in this manual or a required correction we encourage you to contact and inform us so that other users can benefit from the correction or note.

KD-UBCD-myweigh-en, V5.0-2008

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I. Attention Notes


To help use this scale accurately, we ask you to read these instructions carefully before operation.

1. Do not get the scale wet. If it gets wet, please wipe it with a dry cloth. Any damage caused due to water will void your warranty.
2. Do not drop or shock the scale and do not drop any item onto the scale or tray. It may cause permanent damage. Only operate the scale gently and place items on the tray gently. Overloading the balance will damage the weighing sensor and void your warranty.
3. Extreme temperature/humidity fluctuations, shocks and vibrations should be avoided at all times.
4. If the scale will not be used for a long time, please remove or unplug the battery, clean the scale and store in a non-static polybag.
5. Matter charged with static electricity can affect accuracy. Discharge all static electricity. For example, one method is to use a Static-Guard spray, and spray it on both sides of the weighing platform.

II. Transport Protection

Before the initial use, please refer to the included drawings to remove the protection screw. Please re-install the protection screw before transport to help avoid possible load cell damage.

III. Precautions Before Using the Balance

1. The balance must be in a precise horizontal (flat) position in order to achieve accurate measurement results.
2. Please use an independent power outlet to avoid interference by other electrical appliances.
3. In order to bring the balance into a horizontal position, the adjustable feet are turned either clockwise or counter-clockwise until the level bubble goes to the center of the marked circle.
4. Don't put any objects on the scale before powering on.
5. When possible please allow the scale to warm up for several minutes before use.
6. Items should always be placed on the center of the platform when being weighed.
7. When the Power-LOW indicator "  " shows on the top right corner of the screen means, the NI-MH batteries need to be recharged.
8. Operating temperature range : 10°C ~ 30°C.
9. For optimum accuracy, recalibrate before each use.

IV. Specification

| | |
|----------------------------|---|
| model | IBalance401 |
| Maximum capacity | 400g |
| Display scale interval (d) | 0.005g |
| Pan size | Ø116mm |
| Power source | DC 6V/1.5Ah NI-MH batteries or 7.4v 0.4A AC/DC adaptor |

V. Explanation of display symbols



VI. Keypad functions



: ON/OFF power switch.



: For weight unit selection.



: This key is used for sampling & counting.





: This key is used to deduct the weight of an Item or container. Press tare again to exit the tare mode (when empty).





: Zero key, press this key to return the display to zero if a small weight reading is left while unloaded/empty.

VII. Operations


● **Sampling**

1. Press the  key, the display will show "**Cnr10pcs**" (means sample size is 10 pcs)
- 2.. Press the  key again and again, 10 · 20 · 50 · 100 pcs will




appear in succession. Stop at the one you want to use.

- Put the exact quantity of samples as desired on the pan and press , the determined sample size will be shown.
- Keep adding objects to be counted on the pan, the total number of the objects will be displayed. If the unit weight is too small (less than 0.8d) for the counting resolution, "Err PCS" will be shown. And then return to normal counting mode after 2s.
- In counting mode, press  key will turn to weighing mode.

● Weight units


Press  key choose the needed unit, and the unit indicator will be shown. There are thirteen units—g, ct, oz, ozt, lb, dr, GN, dwt, MM, tl.J, tl.T, tl.H, t, 1/8 ounce and 1/4 ounce.

● Tare function

Put a container on the pan and press  when the display reading is stable. The tare weight will be stored into memory and display will be brought to zero. Indication "" in the display will appear. The weight will be displayed as net weight. To cancel the tare mode, press  when no load on the weighing pan.

※ Tare range : Up to balance's maximum capacity.

● Zero function

Press  to return the display to the center of zero if the zero Shifts during operation (ie if the scale shows 0.005).

※ Zero range : $\pm 5\%$ of max. capacity

VIII. Error messages

If the display shows "•••••", this means the scale is overloaded. Please remove the object from the pan immediately so as to avoid damage to the load sensor inside the scale. Overloading the scale will void your warranty.

****SPECIAL WARNING****

Cell-Phones, Cordless-Phones, and any radio-frequency device can cause temporary interference and cause the scale to temporarily not work properly. Please do not use any electronic device near the scale. Just like in an Airplane, do not use your cell-phone near the scale when it is in use. While there is NO risk of permanent damage to the scale, interference can cause an incorrect calibration or incorrect weight readings.

IX. Data transmission – series RS-232 interface

(only for communication)

1. iBalance 0232C's UART signal

2. Format

- (1) Baud rate : 1200 bps 2400 bps 4800bps 9600 bps
- (2) Data bits : 8 bits
- (3) Parity bit : none
- (4) Stop bit : 1 bit
- (5) Code ASCII

DATA FORMAT :

| HEAD1 | HEAD2 | DATA | UNIT | CR |
|-------------|----------------|-------|-------------|-------|
| 1 2 3 4 5 6 | 7 8 9 10 11 12 | 13 14 | 15 16 17 18 | 19 20 |

HEAD1 (2BYTES)

HEAD2 (2BYTES)

OL - overload

NT - net weight mode

ST - stable

GS - gross weight mode

US - unstable

DATA(8BYTE)

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

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

UNIT (4 byte)

g= 20 (HEX) ; 20 (HEX) ; 20 (HEX) ; 67 (HEX)

ct= 20 (HEX) ; 20 (HEX) ; 63 (HEX) ; 74 (HEX)

oz= 20 (HEX) ; 20 (HEX) ; 6F (HEX) ; 7A (HEX)

ozt= 20 (HEX) ; 6F (HEX) ; 7A (HEX) ; 74 (HEX)

CR= OD (HEX) ; OA (HEX)

Transmission example

Ex. : stable net + 0.168 g

HEAD1 , HEAD2 , DATA

UNIT CR

ST , NT , +0.168

g OD, OA

X. Power Supply and Recharging the battery


Alternative Power Supplies

1. DC 6V/1.5Ah NI-MH batteries.
2. Power adaptor(Input : AC 100V~240V, 50Hz/60Hz;
Output: DC 7.4V , 0.4A)

Consume Current

- ① In use (backlight off): About 40mA
- ② In use (backlight on): 90~100mA

Low voltage indication


When the Power-LOW indicator "  " shows on the top right corner of the screen, the batteries should be recharged. The balance will automatically shut off if the power voltage goes down to $5.2V \pm 0.15V$. Low voltage may also cause inaccuracy or instability. When either the scale panels "In Charge" LED or the adapter's LED turn green when recharging, this means the batteries are fully charged.

XI. Settings of parameters

● Calibration – a 300g Weight is needed to calibrate






IMPORTANT: This scale was professionally factory calibrated before shipment. It usually does NOT need to be recalibrated before use. However advanced users who seek optimum accuracy may wish to calibrate the scale periodically to maintain perfect accuracy. Incorrect calibration can occur if you do not follow the steps exactly. **You will need an accurate calibration weight to calibrate this scale.** (the default calibration weight is 300g)

NOTE: if you do not have access to a 300g weight you can purchase one at your local store or in emergency situations you can use coins or weights (ie 60 US Nickels=300g) as a calibration weight.


Press and hold  to power on through the end of self-test. The display will show "CA 0 g", then show the weight(unit: g) to be calibrated when a "chime" is heard. Place the correct calibration weight(s) on the pan according to the display (default is 300g). The calibration is completed when the "chime" is heard again.










Note: The weight placed on the pan is not correct if the display shows "Err g".

● Weight response speed and Division








Press and hold  to power on through the end of the self-test. The display will show "nb0" or "nb1" or "nb2" or "nb3" or "nb4" or "nb5" or "nb6" or "nb7", then press  to select (nb0: slowest , nb7: fastest), press  to confirm. The display will show the current division value, such as "d 0.01" , press  to select the division value and press  to confirm.



● Single-double range and unit setting

Press and hold  to power on through the end of self-test. The display will show "Sln" or "dbl" (Sln: single range, dbl:

double Range), press  to change/revolve and choose "SIn" or "dbl" and press  to confirm. Then the display will show "On x" or "OFF x" ("x" is unit); "On" means "enable", "OFF" means "disable". There are fifteen units preset, press  to change/revolve and choose unit; press  to change/revolve and choose "On" or "OFF" and press  to confirm. Then display will show "init X" ("X" is unit), press  to change/revolve and choose initial unit; press  to confirm. Then display will show "A.OFF X" ("x" is the auto power-off time; Time unit: minute; "0" means auto power-off disabled); In stable weighing status, the scale will auto power-off when the time is reached. Press  to change/revolve and choose auto power-off time; press  to confirm.

● The range of zero track and zero display

Press and hold  to power on through the end of self-test. The display will show "0.0d" or "0.5d" or "1.0d" or "1.5d" or "2.0d" or "3.0d", press  to select the range of zero tracking, press  to confirm. Then it will display "ZErO-S" or "ZErO-L", press  to select the zero display range (ZErO-S mean 0 divisions, ZErO-L mean ± 3.0 divisions). press  to confirm, then choose the baud. Press  to change/revolve and choose "bAUd12" or "bAUd24" or "bAUd48" or "bAUd96", press  to confirm.

Next, select the Communication method by pressing the  Key (Co: send in succession; St: send steadily) , press  to confirm, now the scale will return to the normal weighing state.

XII. Table of unit conversions

| | | | |
|--------|--------------------------|---|------------------|
| 1 ct | [MET.CARAT] | = | 0.2 g |
| 1 lb | [AVOIRDUPOIS POUND] | = | 453.59237 g |
| 1 oz | [AVOIRDUPOIS OUNCE] | = | 28.349523125 g |
| 1 dr | [AVOIRDUPOIS DRAM] | = | 1.7718451 g |
| 1 GN | [GRAIN](U.K) | = | 0.06479891 g |
| 1 ozt | [TROY OUNTCE] | = | 31.1034768 g |
| 1 dwt | [PENNY WEIGHT] | = | 1.55517384 g |
| 1 MM | [MOMME] (JPN) | = | 3.749996 g |
| 1 tl.J | [HONG KONG JEWELRY TAEI] | = | 37.4290018 g |
| 1 tl.T | [TAEI](TWN) | = | 37.49995 g |
| 1 tl.H | [HONG KONG TAER] | = | 37.799375 g |
| 1 t | [TOLA](INDIA) | = | 11.6638038 g |
| 1 1/8 | 1/8 OUNCE | = | 3.543690390625 g |
| 1 1/4 | 1/4 OUNCE | = | 7.08738078125 g |