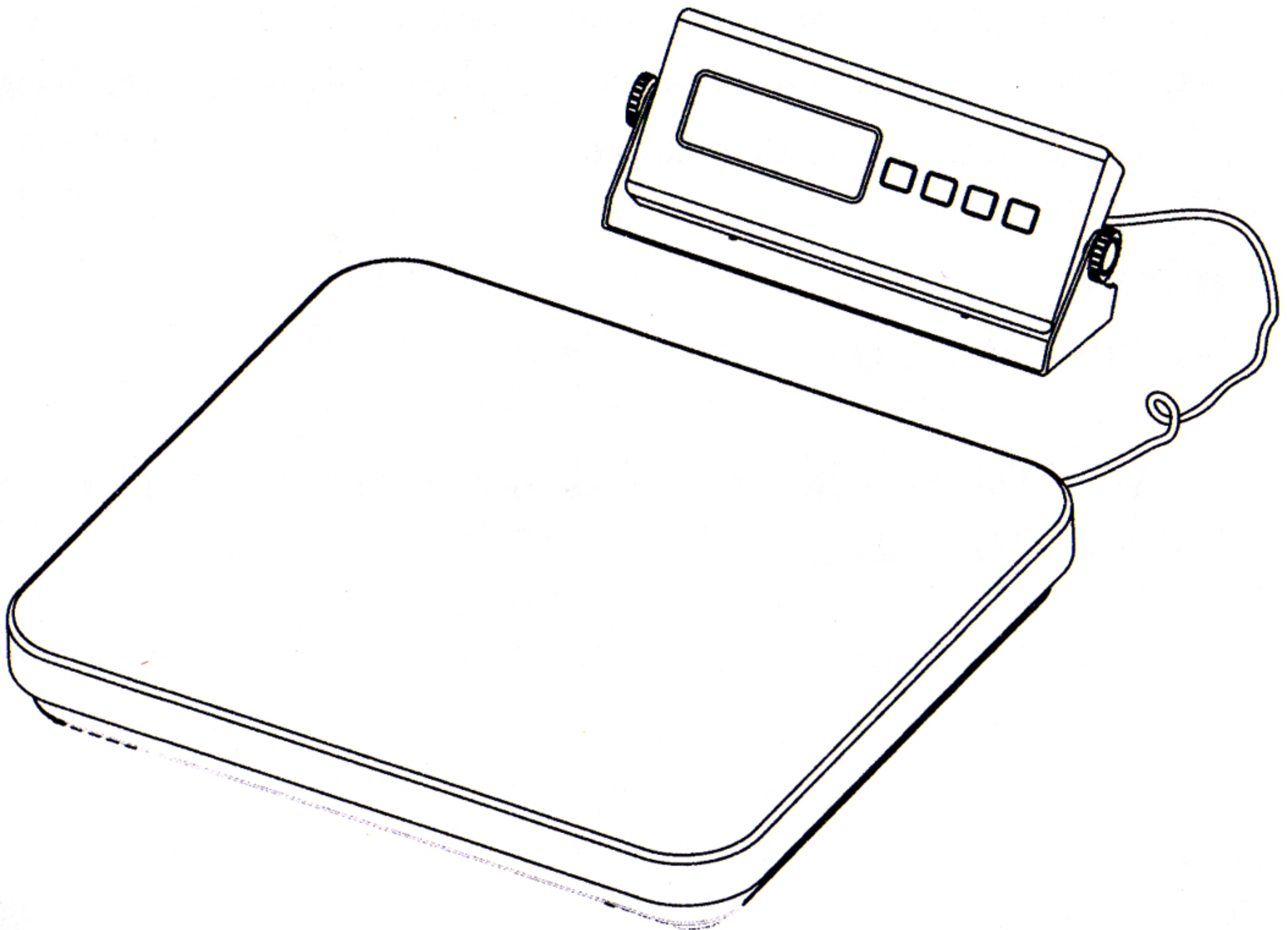


HDCS SCALE

INSTRUCTION MANUAL



KEY DESCRIPTIONS:

ZERO	UNITS	TARE	HOLD
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1. ZERO/:

This key is “Zero” feature if load is below 4% of full capacity or a negative value

2. UNITS:

A. Select weigh units: kg . lb or oz .

3. TARE:

A. When there’s load on the scale , press this key to return to zero.

B. Put a container on the scale, press this key to tare the weight, and the tarred value is stored.

4. HOLD:

A. Press this key to store weight value

5. POWER SWITCH :when the scale is used or not used ,please turn the power on or the power off.

THE MEANING OF FUNCTION SETTING

1. **AOFF**: Time for auto off (120s / 180s / 240s / 360s / off)
2. **bL** : Back Light (15 / 30 / / off)
3. **Unit** Weight units (kg / lb/oz)
4. **CAP**: Capacity (3/6/15/30/60/150/...../2800kg)
5. **OvL**: Over load (2.5/3;5/6...1000/1500;2500/2800)
6. **CAL**: Calibration weight
7. **trAn**: Transfer (On/Off)
8. **t.b.r.**: Transfer band rate (4800/9600)
9. **GrAv**: Gravity(On/Off)
10. **trd**: Transfer mode (On/Off)

SETTING THE ACCELERATION TO GRAVITY MODE

1. Press **[TARE]** and **[UNITS]** first, then turn the power on, while keeping **[TARE]** and **[UNITS]** pressed, the display will show "SEt", then press the **[UNITS]** several times until the display show "GrAv" press **[TARE]** the display show "on" press the **[HOLD]** the display show "OFF" .When the display show "ON" means acceleration to gravity is actived. When the display show "OFF" means acceleration to gravity is inactived.
2. When acceleration to gravity is actived turn the power off, then turn the power on, then press **[UNITS]** key 3 seconds enter to acceleration to gravity mode .1). when the display show "C9.○ 00" (○ for flash digit) first setting the local gravity.2). press **[TARE]** key again, rightward flash digit, 3).press **[HOLD]** key, increase digit input the gravity value, press **[UNITS]** the display enter to another local acceleration to gravity mode.
3. When the display show "U9.○ 00" (○ for flash digit) repeat the steps 1)-3) .press **[UNITS]** the display will return the normal weighing mode.

Features:

1. Compact Dimensions: 355×405×60 / Base: 553mm x 470mm x 130mm
2. Material: Aluminum Housing / SUS 304 Base Cover
3. Display options: 5 digital LCD
4. Capacity/Division/ Calibration Weight

Table 1

CAPACITY	DIVISION1	DIVISION2	DIVISION3
2.5/3kg	0.5g	1g	2g
5/6kg	1g	2g	5g
10/15kg	0.002kg	0.005kg	0.01kg
25/30kg	0.005kg	0.01kg	0.02kg
50/60kg	0.01kg	0.02kg	0.05kg
100/150kg	0.02kg	0.05kg	0.1kg
250/300kg	0.05kg	0.1kg	0.2kg
500/600kg	0.1kg	0.2kg	0.5kg
1000/1500kg	0.2kg	0.5kg	1kg
2500/2800kg	0.5kg	1kg	2kg

5. Power: AC adapter 9V 100mA
6. Auto back light (option)
7. Power saving (auto shut-off timing selectable :
120seconds/180seconds/240seconds/300seconds/Off)
8. Operating Temperature: 5~35°C
9. Operating Humidity: 25%~95%RH
10. 4Keys: ZERO, UNITS, TARE, HOLD

ZERO

ZERO the weight

UNITS

Toggle among KG , LB or OZ unit

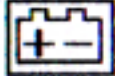
TARE

Tare the weight

HOLD

Press this key to store weight value

11. Zero Range (4% to full capacity)
12. Tare Range (100% to full capacity)
13. Error Message indication:

EEEEEE	Ovrload
ErrL	Power on zero count too low
ErrH	Power on zero count too high
ErrE	Eeprom Error
	Low battery indication
14. Three calibration weight units : kg , lb,oz.
15. Open calibration capacity
16. Power on zero-setting range: $\pm 10\%$
17. Zero range: $\pm 4\%$ of full capacity
18. Three modes : Normal mode / Setting mode /Internal Auto Calibration mode.
19. RS232 function

When to calibrate

Calibration may be required when it is initially installed, if the scale/balance is moved to a substantial distance.

This is necessary because the weight of a mass in one location is not necessarily the same in another location. Also, with time and use, mechanical deviations may occur.

Calibration Weight

1. Turn the power off. Press [UNITS] and [ZERO] first, then turn the power on., while keeping pressing [UNITS] and [ZERO], the display will show the "CAL ukg".
2. Press [ZERO] key, the display will show AD value, press [ZERO] key, the display will show "SAVE", and then show calibration value, place the calibration value, press [ZERO] key, the display will show "SAVE", and then return to AD value.
3. Now calibration weight is complete.

interface:

1: signal interface: (microphone socket)

Pin 1 (red) -----→E+ (positive source)

Pin 2 (blue) -----→S+ (positive signal)

Pin 3 (black) -----→E- (negative source)

Pin 4 (white)-----→S- (negative signal)

Pin 5 (no)

no sign -----→GND

2: AC/DC socket:

AC/DC 9V-----inner negative ,external positive

3: RS232 interface: DB9

RS232 TRANSMIT FUNCTION

1. When the function **trAn** set **ON**, The RS232 is actived

2. Baud rate is selected 4800 or 9600 when the function **t.b.r.** set 4800 or 9600 .

3. RS232 Transmission Agreement:

● Mode: Simplex Asynchronous Serial

● Baud rate: 4800 or 9600

● Data Bit: 8

● Parity Bit: NONE

● Stop Bit: 1

● Data Format: ASCII

4. Transmission Information Format: 16 Byte , blank=20H

<STX><Status><+/-><D><D><D><D><D><D><D><U><U><U><

U><U><ETX>

5. Transmission Information Format show:

STX: Start of Transmission=02H

Status: Status bit

Example : *(2AH)=Stable weight,

~(7EH)=Unstable Weight

+/-: +=(2BH)=Positive Weight , -=(2Dh)=Negat Weight

DDDDDDD: Value of Weight , 7 ASCII Code

UUUUU: 4 ASCII Code Weight Units: kg or LB

ETX: Stop of Transmission =03H

TABLE 2

