EHI-B Indicator Operation Manual

Contents subject to change without notice

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CONTENT

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Thank you for purchasing the EHI-B indicator. Please read all operating instructions carefully before use and keep the following points in mind:

* Avoid lengthy exposure to extreme heat or cold, your scale works best when operated at normal room temperature. Always allow the scale to acclimate to a normal room temperature before use
* Allow sufficient warm up time. Turn the scale on and wait for a few minutes if possible, to give the internal components a chance to stabilize before weighing.
* These electronic scales are precision instruments. Do not operate near an in-use cell phone, radio, computer or other electronic device. These devices emit RF and can cause unstable scale readings. If your scale ever performs poorly, try moving the scale to a different room or location.
* Avoid using in condition of heavy vibration and airflow.
* Read the weight reading in short time after loading. The output signature of load cell and A/D may be little influenced after weighing for a long time.

□. SPECIFICATIONS:

• ***SCALE INDICATOR*:**

1. Input signal range(about): 0mV ～ +30mV
2. Sensitivity: >0.2uV/grad
3. Internal Resolution: Approximately 520,000 counts
4. Display Resolution: can be selected between 500-100,000
5. System Linearity: within 0.01% of FS
6. Loadcell excitation Voltage: +4.4 VDC (MAX current: 55mA)
7. Calibration Method: Software calibration with long-term storage in EEPROM.

• ***SERIAL COMMUNICATIONS:***

1. Mode: Full duplex or only output mode can be selected
2. Baud rate: 1200, 2400, 4800, 9600, or 19200 bps
3. Data format: 8N1, 7E1, 7O1
   8data bits, non parity, 1 stop bit
   7data bits, 1bit even or odd parity, 1 stop bit

4. Protocol: 7selected protocol
5. Output data: gross weight, net weight, tare weight, indicator displaying weight, weighing unit etc.

• ***OPERATION INTERFACE:***

1. Display: 0.65” (17mm) 7-segment LCD, 51/2 digits
2. Keyboard: 3-key push button

• ***POWER:***

1. Alkaline Batteries: 4 x “AAA” size cells
   When all displayed segments of LCD flashed, this indicates the batteries are low below 4.9V and you’d better to replace batteries;
   When “Lo.bAt” displayed, this indicates the batteries are low below 4.7V and you should replace batteries immediately.
2. AC Adapter: 6VDC, 500mA, with central negative: 
3. Work current: ≤25mA
   (when voltage in 5Vdc-8Vdc and not include load cell’s consumption)

• ***OPERATION TEMPERATURE:*** 20℃±15℃
   STORE TEMPERATURE: -10℃-70℃
OPERATION HUMIDITY: ≤95%RH (no condensate)

• ***LOADCELL:***

Because of more than one load cell can be used on a scale, following are required on the load cell set to be used with this indicator,

1. Sensitivity: 0.3mV/V --- 3mV/V (must be fit to >0.2uV/display grad)
2. Input Resistor: ≥80 Ω
3. Output Resistor: <10 KΩ

• ***LOADCELL WIRING:***

PIN 1: *RED, EXCITATION +*
PIN2: *BLACK, EXCITATION –*
PIN3: *GREEN, SIGNAL -*
PIN4: *WHITE, SIGNAL +*

□. KEY FUNCTION:

1. ***FACEPLATE:***

2. ***DISPLAY SYMBOL MEANING:***

2.1 Zero(Z) ◄------The scale is at zero point and the gross weight is 0

2.2 Tare(T) ◄------The display reading is net weight, and the tare weight is not 0.

2.3 ▶ Hold(H) -------The scale is under HOLD mode.

It displays the current live weight when ▶flashed, and the locked reading Will be shown when ▶ does not flash and comes steady.

2.4 Unit = U Tare = T ON/OFF/ZERO = 0

3.Key Definition summary:

KEY	MODE	DEFINITION
U(Unit)	Normal weighing mode	Choose weight units, refer P7, P8, P9, P10 setting and Table3,Table4.
	Setup mode/Calibration mode	Change the digit on flashed position and click this button to add 1.
	Displaying A/D code or input voltage mode	Choose the weight inner code or input working voltage to be displayed.
T(Tare)	Normal weighing mode <3s	Tare the weight
	Normal weighing mode >3s	Go to Show A/D code or input working voltage of indicator mode
	Setup mode/Calibration mode	Confirm the displayed parameters or input data, and go to next step
	Displaying A/D code or input voltage mode	Choose filtered or un-filtered weight A/D data
0（ON/OFF/ ZERO）	Normal weighing mode <3s	Zero function
	Normal weighing mode >3s	Power off the scale.
	Setup mode/Calibration mode/Displaying A/D code or input voltage mode	Exit and back to normal work mode
0（ON/OFF/ ZERO） + U(Unit)	Normal weighing mode (more than 3s)	Enter setup mode
0（ON/OFF/ ZERO） + T(Tare)	Normal weighing mode (more than 3s)	Enter calibration mode

□. CALIBRATION:

Before calibrate the scale, you should prepare a standard weight (more than 25% of FS weight, and the unit is same as P9 setting) for calibration.

1. Move away any weight on scale. When normal weighing mode, press and hold down **T** and **0** buttons to enter calibration mode.
2. When the indicator shows" CAL-?", the scale is ready for calibration. Press **T** to confirm and go to next step, or press **0** to exit the calibration mode.
3. The indicator will display "CAP.--", that means the following data is the full capacity according to your setting of display resolution (P6), display division

value (P7) , location of decimal point-dot in calibration unit (P8) and capacity's unit in calibration (P9). If the setting of FS is more than 199999 (regardless of decimal point and weight unit), the FS capacity will be shown by first four digits and last four digits: "Hxxx" and "Lxxx".

For example, the display resolution is selected to 100000(P6=31), the display division is selected to 5(P7=2), the position of decimal point is selected to one point after zero (P8=1). The calibration unit is chosen as lb (P9=1), so the full capacity 50000.0lb will be shown as H 50 and L000.0 in lb unit. Also, in other modes, the data will be shown as "Hxxx" and "Lxxx" when current display data is larger than 199999 kg/lb (not include decimal point).

Press **T** to go to next step directly; press **0** to exit the calibration mode; or after a few seconds, it will automatically to next step.

4. The scale will automatically display the setting of division. Firstly it will display "d.--", and then the data according to your setting of P7, P8 and P9. You may choose division among these as below:

Table1:

0.0001kg/lb	0.0002kg/lb	0.0005kg/lb
0.001kg/lb	0.002kg/lb	0.005 kg/lb
0.01kg/lb	0.02 kg/lb	0.05 kg/lb
0.1kg/lb	0.2 kg/lb	0.5 kg/lb
1kg/lb	2 kg/lb	5 kg/lb
10kg/lb	20 kg/lb	50 kg/lb

Press **T** to go to next step directly; press **0** to exit the calibration mode; or after a few seconds, it will automatically to next step.

5. When 'CAL.P0' is displayed, that means the scale will begin to calibrate scale's zero-point. Move away any weight on the scale. Press **T** button to confirm, or press **0** to exit this mode.

6. When '**CAL.P1**' is displayed, the scale will be calibrated on second calibration point. The default standard weight is 50%FS, and at the same, you can press **0** to exit the calibration mode. Or load 12.5%-100%FS weight, and use U and T keys to input the loaded weight. If the input data is larger than 199999, it will show as "Hxxx" and "Lxxx". If the triangular symbol on the left bottom of LCD window appears, it means that

the digit being changed is the displayed most significant bit which can only be 0/blank or 1. Press **T** key to confirm your setting and the indicator will flash the input standard weight. Wait till the scale comes steady, and input A/D data as per the standard weight.

The indicator will automatically go to next step, if the second point can be calibrated correctly. If there's an error occurred, the scale will display "CAL. Er" and return back to step 5 for re-calibration.

7. When 'CAL.P2' is displayed, the scale will be calibrated on third calibration point. When xxxxxx kg (or lb) is displayed (100% FS is default), you can press **0** to exit the calibration mode or Place a standard weight (must be in the range of 25%-100% FS, and equal or larger than that for the second calibration point; this is also the range of your input number) on the scale. Use **U** and **T** key to input the standard weight's value. Use **T** key to confirm the standard weight and input number are correct. If the calibration weight for third point is same with that for second point and the calibration weight is more than 25%FS, input the standard calibration weight same as second point calibration and press **T** key to confirm the setting. The indicator will flash the input weight. If the indicator get reasonable data (the input weight is correct, and the calibration weight of third calibration is more than equal to the calibration weight of second calibration), it will go to next step automatically. If there's an error occurred, the scale will display "CAL. Er" and return back to step 5 for re-calibration.

8. When '**CAL.P0**' is shown again, that means the scale will calibrate scale's zero-point again. Now, you can press **0** to exit the calibration mode; or Move away any weight on the scale, press **T** key to confirm; the displayed data will blink. If the indicator gets reasonable data, it will calculate and store all parameters in EEPROM. And then it will auto-reset and display all segments of LCD, full capacity… like power on again. If there's an error occurred in calibration, the scale will display "**CAL.Er**" and try to repeat from step5. The scale will return to normal weighing mode.

□. DISPLAY ADC CODE OR INPUT WORKING VOLTAGE VALUE

1. In normal weighing mode, press and hold down **T** key more than 3s, until '**codE**' is shown, this means you have been in display inner code mode; but first, the indicator will show the firmware version "xx.xx.xx". In this mode, you can examine the inner working voltage, the stability of weighing system, the variety value of A/D data as per the loaded weight.

   NOTE:

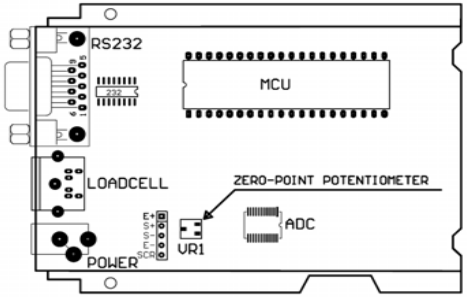
   1) The increment of A/D code for FS weight must be larger or equal to 2 times of selected display division-n; otherwise, the calibration cannot be properly completed. Eg. The display division is 0.1kg. Load 100kg standard weight on the platform, the increment of A/D code is at least 2x 100kg/0.1kg= 2x1000=2000. In this case, the scale can be calibrated. Otherwise, smaller division needs to be chosen.
   2) The data should be stable; otherwise, the calibration cannot properly complete.

2. In this mode, you can calculate the proper ADC data at zero point by examining the A/D data for loaded weight. If the ADC increase for full capacity is NFS, the power-on zero range is set to Zp% FS (P11 setting) and zero key range is set to Zk% FS (P12 setting). Then proper ADC data of zero point is larger than (Zp%+ Zk%) x NFS.

   ADC increase for full capacity (NFS) can be making out by: Load the weight W on the platform, and the ADC increase for W weight is Nw. The ADC increase for full capacity WFS is (NFS)= (Nw)x (WFS)/W .

   Negative value may be displayed because of error connect of loadcell or error position of the zero-point potentiometer on PCB; however, the software only deals with positive value. So, is you are the position of zero-point potentiometer is error; adjust potentiometer's position to make the ADC data will be positive value and larger than (Zp%+ Zk%) x NFS. Normally the indicator is factory-calibrated, and end users do not need this operation.

   Below is the drawing of position of the zero-point potentiometer on PCB for conference, decrease ADC data by rotating clockwise, and increase ADC data by rotating counter-clockwise.



3. Press **U** key to select displaying weight inner code or input the inner working voltage value. When the "U x.xx" is displayed, the display digit is voltage value, and the unit is V. The proper working power voltage is between 5V and 8V.
4. Press **T** key to display filtered or un-filtered weight A/D data; when ▶ is on, the data is filtered.
5. Press **0** key to exit this mode and return to normal weighing mode.

□. WORKING PARAMETER SETUP:

1. When scale is in normal weighing mode, press and hold down **0** and **U** key until '**SEtUP**' is shown, that means the scale is in SETUP mode.
2. This indictor has 18 kinds of parameters to be selected and setup by this function.
3. During SETUP mode, press **U** key to change the flashed digits, and **T** key to confirm the flashed digits. Press **0** key to exit this mode.
4. Display
   1) P A.B: Item A parameters and one digit can be input.
   2) P A.BC: Item A parameters and two digits can be input
   3) PAB.C: Item AB parameters and one digit can be input
   4) PAB.CD: Item AB parameters and two digits can be input

5. Parameters setting summary:

Para-meter	x/xy	Setting
P1.xy	00-15	Auto-off time: no auto-off; 01-15 minutes auto-off time
P2.xy	0,1,2 3-50	0=no hold function; 1=hold lager weight reading; 2=auto release hold function when weight is below 10d and auto-hold new stable weight (more than 10d); 3-50=unchangeable reading when the variety is within ±3~50d
P3.x	0,1… 5	0=no RS232 function; 1=continuously output display data; 2= continuously output gross, tare and net weight; 3=output display data one time when scale is stable; 4=output gross, tare and net weight one time when scale become stable; 5=Bio-RS232
P4.x	0, 1, 2, 3, 4	Baud rate for RS232: 0=1200bps, 1=2400bps, 2=4800bps, 3=9600bps, 4=19200bps
P5.x	0, 1, 2	RS232 format: 0=8N1, 1=7O1, 2=7E1
P6.xy	00-31	Resolution select: 500,600,750,800,1000,1200, 1500,2000,2400,2500, 3000, 3500, 4000, 5000, 6000, 7000, 7500, 8000, 10000, 12000, 15000, 20000, 25000, 30000, 35000, 40000, 50000, 60000,70000,75000,80000,100000
P7.x	0,1, 2	Division select: 0=1, 1=2, 2=5
P8.x	0,1,2,3,4, 5	Decimal point in calibration: 0= x1, 1= x0.1, 2= x0.01; 3= x0.001; 4= x0.0001; 5= x10
P9.x	0, 1	Calibration unit: 0=kg, 1=lb
P10.x	0, 1, 2, 3, 4, 5, 6	Weighing units enable: 0=only kg; 1=only lb; 2=only lb:oz; 3=kg or lb; 4=kg or lb:oz; 5=lb or lb:oz; 6=kg, lb, or lb:oz
P11.x	0, 1, 2, 3, 4, 5, 6, 7,	Power-on zero-point range: 0=calibration zero -point ±1%FS; 1=calibration zero -point ±2%FS; 2=calibration zero-point ±5%FS; 3=calibration zero-point +10%FS; 4=calibration zero-point ±20%FS; 5=calibration zero-point ±50%FS; 6=calibration zero-point ±100%FS; 7=No limitation

P12.x	0,1…9	Zero range for [0] button: 0= Power-on zero-point ±1%FS; 1= Power-on zero-point ±2%FS; 2= Power-on zero-point ±3%FS; 3= Power-on zero-point ±4%FS; 4= Power-on zero-point ±5%FS; 5= Power-on zero-point ±10%FS; 6= Power-on zero-point ±20%FS; 7= Power-on zero-point ±50%FS; 8= Power-on zero-point ±100%FS; 9= No limitation
P13.x	0, 1, 2	Weight signal within power-on zero point range, Choose which data as current power-on zero point; 0= current weight ; 1= calibration zero-point; 2=switch-off zero-point
P14.x	0, 1, 2	Weight signal not within power-on zero point range, Choose which data as current power-on zero point; 0= current weight ; 1= calibration zero-point; 2=switch-off zero-point; 3=continuously display "0 – – – –"
P15.x	0, 1, 2, 3, 4, 5, 6,7,8	Zero tracking range: 0=0d, no tracking; 1=±0.25d; 2= ±0.5d; 3=±1d; 4=±1.5d; 5=±2d; 6=±3d; 7= ±4d; 8=±5d
P16.x	0, 1, 2, 3	Data filter intensity: 0=very weak, 1=weak, 2=middle, 3=strong
P17.x	0, 1….9	Check weight stability range: 0=±0.5d; 1=±1d ; 2=±1.5d; 3=±2d; 4=±3d; 5=±4d ; 6=±5d ; 7=±6d ; 8=±7d; 9=±8d
P18.x	0, 1….9	Overload limit range: 0=FS+0d; 1=FS+9d; 2=101%FS; 3=102%FS; 4=105%FS; 5=110%FS; 6=120%FS; 7=150%FS; 8=200%FS; 9=No limitation

Note：detailed explanation

P3.x: RS232 mode setting

x=0: No RS232 function. It will not transmit or receive any data although the scale is with RS232 hardware. RS232 function can be only activated when scale is in normal weighing mode.

x=1: Continuously output of the current displayed reading and unit, and it does not receive any data.The output format is as below:
<LF>< reading, minus, decimal point, weight unit><CR><EXT>

x=2: Continuously output of the current gross weight, tare weight and net weight reading data including unit, and not accept any data. The format is as follows:

<LF><Gross: reading, minus, decimal point, unit><CR><EXT>
<LF> <Tare: reading, decimal point, unit><CR><EXT>
<LF> <Net: reading, minus, decimal point, unit><CR><EXT>
The number of position used: weight reading ---7;
Minus ---1;
Decimal point ---1;
Weight unit ---2 or 4;

x=3: When the scale is stable, it will output the current displayed weight reading automatically one time including unit, and not accept data. The output format is same as x=1.

x=4: When the scale is stable, it will output the current gross weight, tare weight and net weight data including unit automatically one time, and not accept data. The output format is same as x=2.

x=5: Bio-RS232 data output.

P6.xy: calibration resolution

xy	calibration resolution	xy	calibration resolution
00	500	16	7500
01	600	17	8000
02	750	18	10000
03	800	19	12000
04	1000	20	15000
05	1200	21	20000
06	1500	22	25000
07	2000	23	30000
08	2400	24	35000
09	2500	25	40000
10	3000	26	50000
11	3500	27	60000
12	4000	28	70000
13	5000	29	75000
14	6000	30	80000
15	7000	31	100000

P9.x: Calibration unit

As per the setting of P8, P9 and P10, following table is listed,

Kg calibration unit:

Calibration division value	Display division value in different weight unit that can be used		
	kg	lb	Lb:oz (oz)
0.0001kg	0.0001kg	0.0002lb	Not available
0.001kg	0.001kg	0.002lb	Not available
0.01kg	0.01kg	0.02lb	0.5oz
0.1kg	0.1kg	0.2lb	5 oz
1kg	1kg	2lb	Not available
10kg	10kg	20 lb	Not available
0.0002kg	0.0002kg	0.0005 lb	Not available
0.002kg	0.002kg	0.005 lb	0.1 oz
0.02kg	0.02kg	0.05 lb	1 oz
0.2kg	0.2kg	0.5 lb	Not available
2kg	2kg	5 lb	Not available
20kg	20kg	50 lb	Not available
0.0005kg	0.0005kg	0.001 lb	Not available
0.005kg	0.005kg	0.01 lb	0.2 oz
0.05kg	0.05kg	0.1 lb	2oz
0.5kg	0.5kg	1 lb	Not available
5kg	5kg	10 lb	Not available
50kg	50kg	Not available	Not available

Lb calibration unit:

Calibration division value	Display division value in different weight unit that can be used		
	kg	lb	Lb:oz (oz)
0.0001lb	Not available	0.0001lb	Not available
0.001 lb	0.0005 kg	0.001 lb	Not available
0.01 lb	0.005 kg	0.01 lb	0.2 oz
0.1 lb	0.05 kg	0.1 lb	2 oz
1 lb	0.5 kg	1 lb	Not available
10 lb	5 kg	10 lb	Not available

0.0002 lb	0.0001 kg	0.0002 lb	Not available
0.002 lb	0.001 kg	0.002 lb	Not available
0.02 lb	0.01 kg	0.02 lb	0.5 oz
0.2 lb	0.1 kg	0.2 lb	5 oz
2 lb	1 kg	2 lb	Not available
20 lb	10 kg	20 lb	Not available
0.0005 lb	0.0002 kg	0.0005 lb	Not available
0.005 lb	0.002 kg	0.005 lb	0.1 oz
0.05 lb	0.02 kg	0.05 lb	1 oz
0.5 lb	0.2 kg	0.5 lb	Not available
5 lb	2 kg	5 lb	Not available
50 lb	20 kg	50 lb	Not available

P10.x: select the weighing unit that may be chosen by pressing UNIT

P12.x: Zero range for **0** button after switch on

If zero key can be activated, it can clear the tare weight. If zero point is above the setting range, the indicator will show "0- - - -", and if zero point is below the setting range, "0_ _ _ _" will be shown.

P15.x: Zero tracking range

Choose the zero tracking range as per the stability of weighing system, accuracy and weight excursion. The normal setting is ±0.5d ~ ±3d.

P16.x: Data filter intensity

The larger the chosen digit is, data filter intensity is stronger, and the speed of data updating is lower.

P17.x: Range of weight stability checking

If the variety of weight reading is within the setting range continuously for several times, the scale is recognized as stable. The normal setting is ±1d ~ ±3d.

P18.x: Overload range that can be displayed (when weight is lager than range, " - - - - - "will be shown):

Ⅵ. The detail about RS232:

1. RS-232 connects between scale and Host:

Scale ----------Cable----------Host

(DB9 female)--------(DB9 male)----(DB9 female)--------(DB9 male)

TXD 2 ---------- 2 ---------- 2 ----------2 RXD

RXD 3 ---------- 3 ---------- 3 ----------3 TXD

GND 5 ---------- 5 ---------- 5 ----------5 GND

DSR 4 ---------- 4 ---------- 4 ----------4 DTR

DTR 6 ---------- 6 ---------- 6 ----------6 DSR

CTS 7 ---------- 7 ---------- 7 ----------7 RTS

RTS 8 ---------- 8 ---------- 8 ----------8 CTS

NC 1 ---------- 1 ---------- 1 ----------1

NC 9 ---------- 9 ---------- 9 ----------9

Note: The indicator DB9 female's pin4 and pin6 is shorted, pin7 and pin8 is shorted!

2. When P3 is set to 5::

2.1) The baud rate and data format is fixed as per P4 and P5 setting. Responses to serial commands will be immediate, or within one weight measure cycle of the scale. One second should be more than adequate for use as a time-out value by remote (controlling) device.

2.2) The length of the weight field will be 7 digit weight data, one for minus sign, one for decimal point, two for measure unit (e.g. "lb", "kg"). If the unit is lb:oz, another two for "lb" and one for a space (<sp>) after lb. Units of measure abbreviations are always lower case.

a) If the weight is overcapacity, the scale will return nine '^' characters (the field of minus sign, decimal point, weight data is filled by '^').
If the weight is under capacity, it will return nine '_' characters (the field of minus sign, decimal point, and weight data is filled by '_').
If the zero point is error, it will return nine '_' characters.

b) The character will be '-' for negative weight or a space character for positive weight. Minus sign follows after the first digit.

c) Useless leading zero before digits is suppressed.

2.3) Key to symbols used

<LF> Line Feed character (hex 0AH)

<CR> Carriage Return character (hex 0DH)

<ETX> End of Text character (hex 03)

<SP> Space (hex 20H)

H1H2H3 Three status bytes

<p> Polarity character including minus sign for negative weight and a pace character for positive weight

W1-W7 weight data

<dp> decimal point

U1U2: measure units, kg, lb, or oz

2.4) Commands and response

(1) Command: W<CR> (57h 0dh)

Response:

①<LF>^^^^^^^^^u1u2<CR><LF>H1H2H3<CR><ETX>---over capacity

②<LF>_____u1u2<CR><LF> H1H2H3 <CR><ETX>---under capacity

③<LF>---------u1u2<CR><LF> H1H2H3<CR><ETX>---zero-point error

Note: If the weight unit is lb: oz, U1U2= oz in above item ①②③.

④<LF><p>w1w2w3w4w5w6<dp>w7u1u2<CR><LF>H1H2H3<CR><ETX>

--- Scale is stable, and the current weight unit is kg or lb. With or without decimal point and the position is as per the P9 setting and current unit.

⑤<LF><p>w1w2w3w4w5lb<sp>w6w7<o><z><CR>H1H2H3<CR><ETX>

Or <LF><p>w1w2w3w4lb<sp> w5w6<dp>w7oz<CR>H1H2H3<CR><ETX>

----The current unit is lb: oz.

(2) Command: **S<CR>** (53h 0dh)

Response: <LF> H1H2H3<CR><ETX>

(3) Command: **Z<CR>** (5ah 0dh)

Response: Zero function is activated and it returns to current scale status. just like pressing **ZERO** button:

<LF> H1H2H3<CR><ETX>

If ZERO function cannot be activated, it will return to current scale status.

(4) Command: **T<CR>** (54h 0dh)

Response: TARE function is activated, and then returns scale status. just like pressing **T** button:

<LF> H1H2H3<CR><ETX>

If TARE function cannot be activated, it will return to current scale status.

(5) Command: **U<CR>** (55h 0dh)

Response: Changes units of measure and return scale status with new units, just like pressing **U** button. The new measure unit should be allowed to use as per P10 setting.

<LF>u1u2<CR><LF> H1H2H3<CR><ETX>

If the weight unit is lb:oz, U1U2= lb oz

(6) Command: **X<CR>** (58h 0dh)

Response: power off the scale, just like press down the **0** key to turn off the scale.

(7) Command: all others

Response: Unrecognized command

<LF>? <CR><ETX>

2.5) Output status bit meaning:

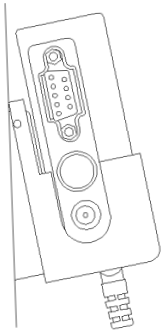
Bit	Byte 1 (H1)	Byte 2 (H2)	Byte 3 (H3)
0	0=stable	0= not under capacity	01=normal work mode 10= hold work mode 00=not define 11= not define
	1= not stable	1= under capacity	
1	0= not at zero point	0= not over capacity	
	1= at zero point	1= over capacity	
2	always 0	always 0	0= gross weight
			1= net weight
3	0= eeprom OK	always 0	always 0
	1= eeprom error		
4	always 1	always 1	always 1
5	always 1	always 1	always 1
6	always 0	always 1	always 0
7	parity	Parity	parity

□. The meaning of some displayed symbols:

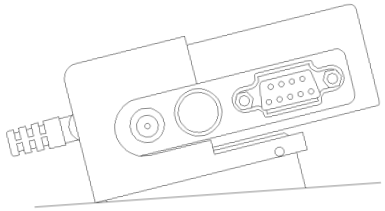
1. 0⁻ ⁻ ⁻ ---------- zero point is over the setting range
2. 0_ _ _ _ ---------- zero is below the setting range
3. Ad⁻ ⁻ ⁻ ---------- ADC is over max. range;
4. Ad _ _ _ --------- ADC is below min. range;
5. ⁻ ⁻ ⁻ ⁻ ⁻ ---------- weight signal is too large
6. _ _ _ _ _ ------- weight signal is too small
7. EEP.E0 -------- the EEPROM can't be accessed;
8. **EEP.E1**---------The parameters are not same with backup data;
9. **EEP.E2**---------The setting parameter(s) is not in normal range;.
10. **CAL-Px** --------scale's calibration point;
11. **CAL.Er** ---------there is an error in calibration
12. ▶ **Hold(H)** ----------hold function is active.
13. **TARE** ◀---------- The display reading is net weight
14. **Zero** ◀----------The scale is at zero point
15. CAP.-- ----------The the setting full capacity will be displayed
16. d.-- ----------The division will be displayed
17. Px.y ---------- The No. x parameter is set to y.
18. Lo.bAt ----------The voltage of batteries or input power is below 4.7V

□. The direction of indicator with bracket

The display is supplied with ABS plastic bracket, wall mounting vertically or bench mounting horizontally to read the weight display as following drawings.



(1) Placed vertically



(2) Placed horizontally