

*Electronic Weighing Indicator & Platform scale*

# **Operation Manual**

**(Model:SPW)**

• SPW-PRIS-2014-12

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# 1. Precaution 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

## Leveling the platform

The platform is equipped with a level indicator and four adjustable leveling feet. Adjust the leveling feet until the bubble appears in the center circle of the indicator.

## Turn on the scale

Please remove shipping protection screw from the bottom of the platform before turning on!

**Note:** Do not turn on scale with anything on the platform.

**Give a warm-up time for 15~30 minutes before use.**

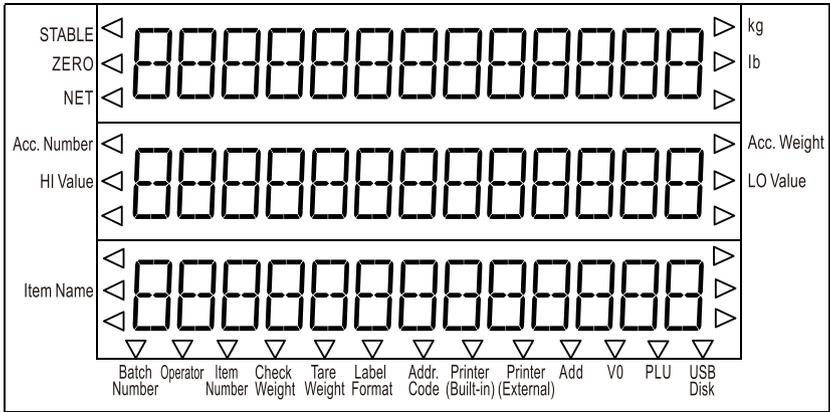
## 2. Introduction

The scale offers:

- Internal resolution: 600,000
- 35 keys embossed membrane keyboard, 30 shortcuts keys (Touch Switch)
- 152\*73mm high 13-digit LCD display, with LED backlight
- Simple User Management System
- 1000 memory cells for Material Information
- Weighing Data Summarizing
- Weight accumulation
- Inbuilt relay for 3-section Check Alarm
- Standard inbuilt Label Printer, Micro-printer etc (Optional)
- Standard RS-232 interface to connect with PC and Printer
- Standard USB interface to output Weighing data or input Material Info.
- Weighing up to 1:100000 divisions
- Real-time Date and Time display
- Unit of weight can be switched between kg and lb

### 3. Specifications

#### 3.1 Display



#### 3.2 Keypad Function

**PLU**: To recall the Item Info. in weighing mode (input the Address Code or Item No.)

**V0**: To enter into code "0" Item Info. editing or weighing mode (a special address code for some temporary Items, whenever exit this mode, the temporary Item information will be cleared automatically)

**BN**: To check and edit the current Batch Number

**View**: To check the current Item Info. in use (if no Item information in use, only Tare Weight and Check Limit Value can be checked)

**Edit**: To enter into Item information editing (can switch to Item Info. deleting or Item Info. Export) in weighing mode, key in the address code and edit the corresponding Item Info.

**Set/▲**: To enter into User Setting Mode in weighing mode.

To page up the setting menu in Setting or Editing mode.

**Store/▼**: To input the Item Info. stored in U-disk into the scale in

weighing mode.

To page down the setting menu in setting or editing mode.

**D/T/◀**: To check the current date and time in weighing mode.

To move forward the setting options in setting mode or move the active digit to left in editing mode.

**SUM/▶**: To count the classified weighing data (Numbers and total Weights) during a period of time (classified by material Info. or non-material Info).

In normal weighing mode, give a long press to count all the weighing data.

**Ch.W**: To enter into check limits set-up in normal weighing mode.

**Tare**: To subtract the container's weight in normal weighing mode.

Give a long press to preset a tare weight.

**Zero**: To return the display to zero.

**Add**: To add the current display weighing data (If ACC Print is on, the data will be printed simultaneously)

**Total**: To check and print the total accumulated data.

**Print**: To print the current display data (Stable).

**P.F**: To feed the paper manually.

**1-35**: To recall the Material (Item) Info. stored in Address Code 1-30.

**A-Z**: To input Characters in Set-up or Editing mode.

**27/-**: To be the hyphen in Set-up or Editing mode.

**28/\_**: To be Space in Set-up or Editing mode.

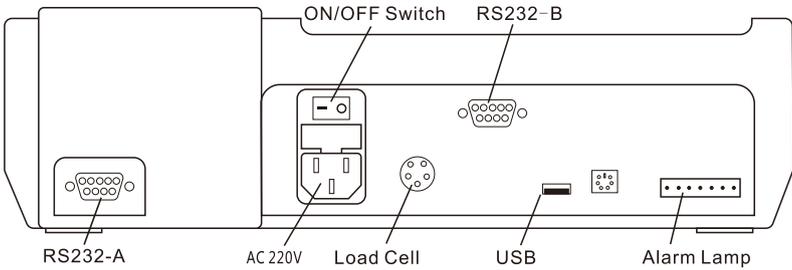
**0-9**: Numeric key

**.**: Decimal point.

To switch the Built-in printer and External Printer.

**C**: To clear the active Characters or Info. in Set-up or Editing mode.

### 3.3 Ports and Cable



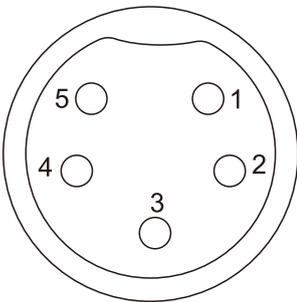
**Note:**

RS232-A is used for External printer (LP-50, BP-DT-4 etc.), or connection with PC to download Label format for the Inbuilt printer.

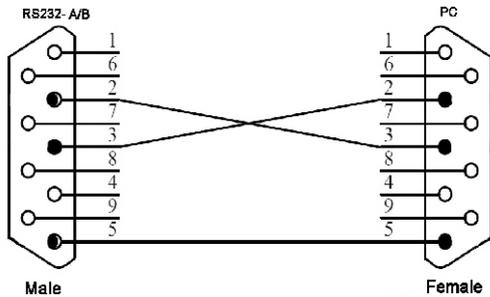
RS232-B is used for connection with PC to output data.

Some of the ports can be equipped according to the customer's requirement.

Load Cell Connection



- 1—+EXC
- 2—GND
- 3—+SIGNAL
- 4—-SIGNAL
- 5—-EXC



The cable for the connection with PC will be standard accessories together with the Indicator.

## 4. User Management

The SPW Indicator have been equipped with a set of simple Management system, which can help the user to easily use and regulate this instrument.

Power on the indicator and during the self-test time input the Factory Administrator Password “123456” to enter into the Management Interface.

**Note:** If the User has changed the Administrator Password, please input the new password to enter.

1. Once the Login mode have been selected to be, the user need to select a user name and input a corresponding password to enter into weighing mode after power on.
2. If the users don't need use the system, please shut off the Login Mode in the setting of the Management system. And start to use the indicator directly after power on.

So to get more information about the Management system, please check page 46 **Appendix1: User Management System.**

## 5. Weighing Operation

### 5.1 Zero the Display

Press **Zero** key to return the display to zero in case there is any zero drifting ( $\leq 2\%F.C$ ) while unloaded.

### 5.2 Tare Function

#### Subtract Container's Weight

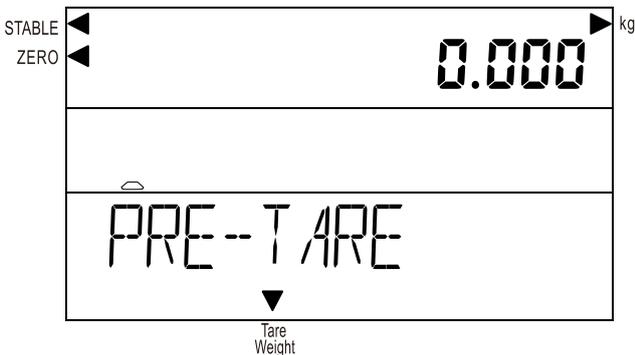
Put an empty container on the platform while the display shows zero.

While the display is stable, press **Tare** key to subtract the container's weight.

Then remove the container from the platform, the display will show the minus weight value.

#### Preset a Tare Weight

While the platform is unloaded, give a long press of **Tare** key to preset a tare weight value.



Input the desired tare weight value (the indicator will omit the spared digits after the decimal point automatically according to display resolution)

Press **Enter** key and the minus tare weight value will be displayed.

## **Erase tare weight**

To erase the tare weight, when the display shows the minus tare weight value, press **Tare** key to return the display to zero (**NET** indication disappears)

**Note:** In Material Information Editing, a preset tare weight value will be stored for further use.

### ★ **Multiple Tare Weights**

The indicator can store 1000 pcs Item information (with preset tare weight) for further use. If another tare weight needs to be used when recalling the Item information (with a preset tare weight), please perform the tare function first and then recall the Item information. And the current tare weights should be the total of the two tare weights. But in printing data, only preset tare weight in Item information will be listed.

### **EX:**

The user wants to recall Apple's information in Address Code 25 (with a tare weight  $T1=1\text{kg}$ ), and before recalling the information, a 1.2kg container should be put on the platform. So perform the tare function first and get  $T2=1.2\text{kg}$ . Then recall the Apple's information, and the current Tare weight= $T1+T2=2.2\text{kg}$ . But only  $T1=1\text{kg}$  will be listed in printing data.

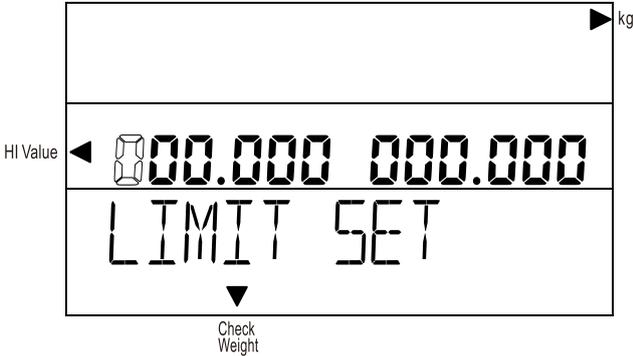
## **5.3 Weight Check Function**

The indicator is equipped with an inside relay, which can be used for 3-section HI-LO Check Alarm. Before the Alarm Device used, the Hi limit value and Low limit value should be preset.

## HI/LO Limit Value Setting

Press **CH.W** key in normal weighing mode to enter into HI/LO limit value setting.

The display shows as below:



Use numeric keys to input the Hi and Lo limit value (**D/T** or **SUM** key shift the flashing digit).

Then press **Enter** key to confirm the Lo limit value and return to normal weighing mode.

The Hi and Lo limit values then will be displayed and the indicator will give corresponding indication or beeps according to the weight on the platform.

### Note:

1. Press **Clear** key to erase the values been inputted and then reset the values.
2. If the Lo limit value has been set to be larger than the Hi limit value, an **“ERROR”** indication will appear when pressing **Enter** key to confirm the values. Then return to reset the value.

To cancel the values, press **C** key to erase and then confirm.

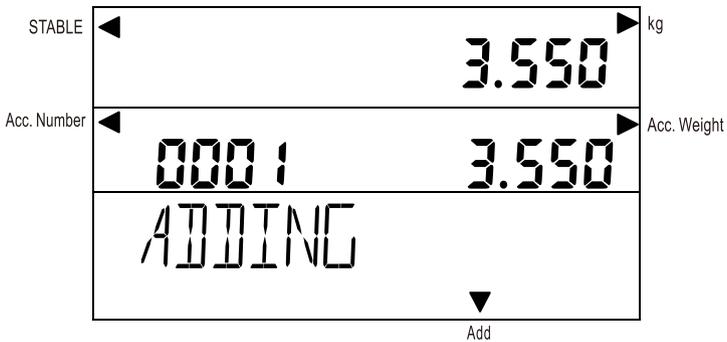
**Note:**

1. If the Check limits have been set in “V0” mode, press **CH.W** key to set or change the limits values directly.
2. In PLU mode, the Check limits can be set or changed only in Material Info. Editing mode.

**5.4 Accumulation**

The indicator is equipped with Accumulation function.

Put some objects to be weighed on the platform, and when the display is stable, press **Add** key and the display will show as below:



(If the Accumulation Print Mode is set to be on in User Menu, the current display data will be printed when pressing the **Add** key)

3 seconds later the display returns to normal. Then remove the weighing object and put other objects to weigh. Press **Add** key to continue to accumulate.

**Note:**

The accumulation function is available every time only after the display returns to zero.

To display the total accumulation data, press **Total** key in normal weighing mode. Then the display will show the total accumulation times and

weights (The data will be printed once the **Total** key is pressed).

3 seconds later, the display returns to normal.

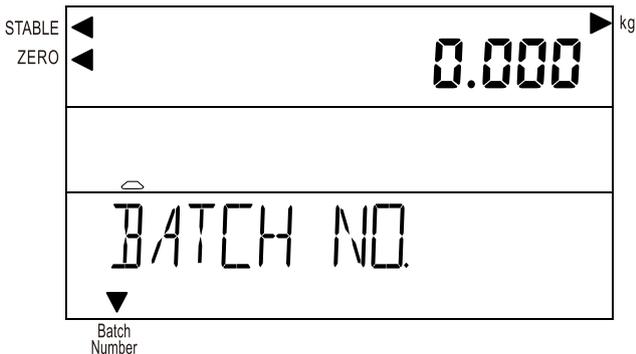
To erase the data, press **C** key when the display shows the total accumulation times and weights.

**Note:**

1. The max accumulation times can reach 9999; and the total weights can reach 8-digit display range.
2. The accumulation function will be ineffective when the loading weight less than 10d.
3. The accumulation data will be erased automatically when power off.

**5.5 Batch Number**

In normal weighing mode, press **BN** key to enter into Batch No. setting directly.



User numeric keys to input the Batch Number, and then press **Enter** key to confirm and return to normal weighing mode.

Once the Batch Number is set, it will be printed out in the print data.

To erase the Batch Number, press **C** key and confirm.

## 5.6 Item Information

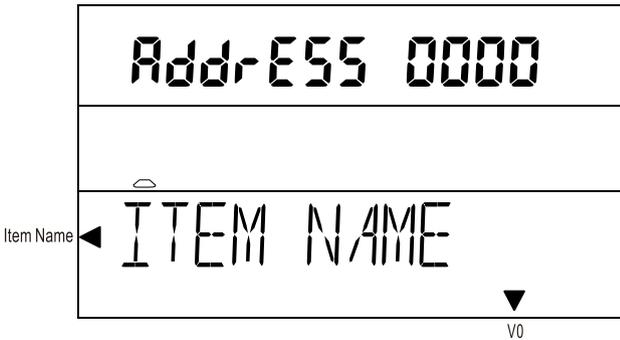
The Material (Item) information can be divided into two parts: Permanent information and temporary information (V0)

The information includes: Item Name, Item No. Check Limits, Tare Weight, Label Format and some other extended information.

### 5.6.1 Item Information in V0

The V0 information indicates that the Item information stored in Address code 0000 temporarily. Once the V0 information is used and switch to other mode, the V0 information will be erased.

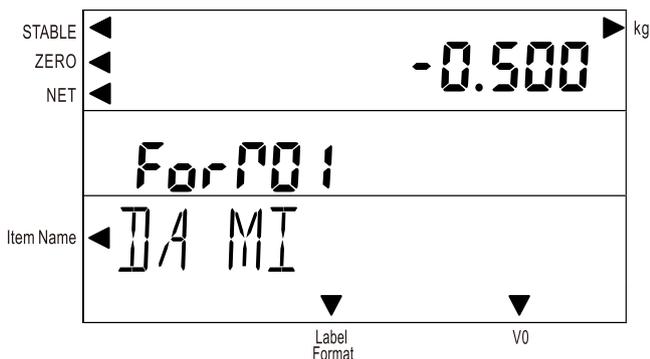
In weighing mode, press **V0** key to set information for V0:



Use numeric or letter keys to set the Item Name, Item Number, Check limits, Tare weight, Label Format and the extended information, then press **Enter** key to confirm and return to weighing mode.

**Note:** During setting the check limits and tare weight, the Weight Unit indication will be on (The current Unit before the setting). When using the information, the Unit will be switched to the unit automatically.

If the check limits or tare weight is not set correctly, pressing **Enter** key will not move to next setting.



The setting information can be checked by pressing **View** key.

Put the corresponding object on the platform for weighing. If the user need to weigh other object, press **ESC** key to return to normal weighing mode or press **PLU** key to recall other Item information.

**Note:** The V0 information has been erased once returning to normal weighing mode or recalling other Item information, but the weighing information in V0 can be checked in Summarized Data (Refer to section 5.8)

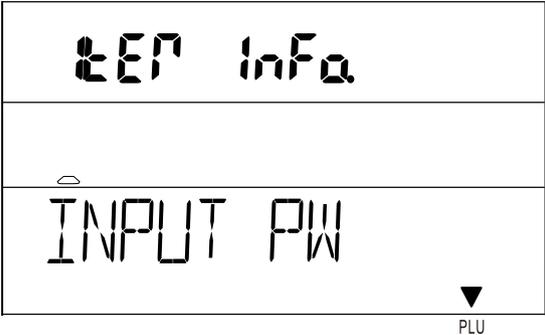
## 5.6.2 PLU Information

The indicator is equipped with 1000pcs Address Code to store the PLU information. The PLU information can be stored permanently unless the User deletes them.

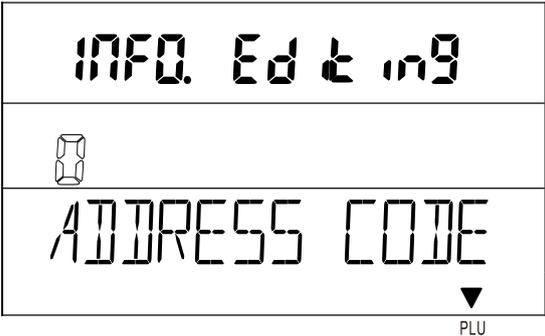
### 5.6.2.1 To edit and store the Information

In normal weighing mode or V0 mode, press **Edit** key to enter into the Information Editing Interface (Press **Set** or **Store** key to move to “Deleting the Information” or “Item Information Output”).

**Note:** If the User is Administrator or A Rank Operator, pressing **Edit** key will enter into the Editing Interface directly; if the User is B Rank Operator, the Administrator Password need to be inputted to enter into Editing Interface. If the User Login mode is off, the Factory password or Administrator password will need to be inputted.



Use numeric keys to input the correct password and press **Enter** key to enter into Information Editing.



User numeric keys to input the Address Code, and press **Enter** key to edit the information in the inputted Address Code (Press **ESC** key to return to normal weighing mode).

Use numeric or letter keys to set the Item Name, Item Number, Check limits, Tare weight, Label Format and the extended information, then press **Enter** key to confirm and move to next address code.

**Note:**

1. During setting the check limits and tare weight, the Weight Unit indication will be on (The current Unit before the setting). When using the information, the Unit will be switched to the unit automatically.
2. If the check limits or tare weight is not set correctly, pressing **Enter** key will not move to next setting.

**5.6.2.2 To recall the stored information**

In weighing mode, press **PLU** key to enter into Information Recalling Interface.

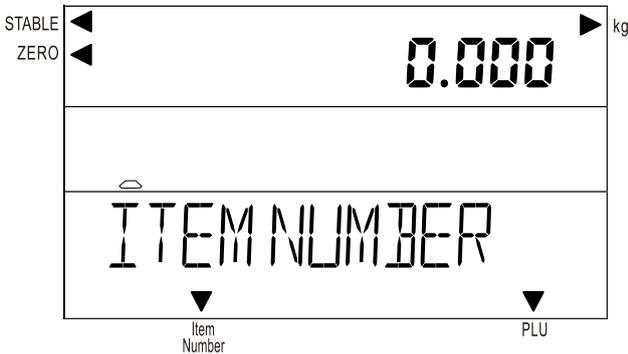
Input the Address Code and press **Enter** key to recall the information stored in the Code. (Press **Set** or **Store** key to switch to “Item Number Recalling”)

**Note:** If the Address Code is less than 35, press **1-35** key to recall the information directly.

Once the information being recalled, put the object on the platform, the indicator will give corresponding indication according to the check limits or tare weight.

**Note:** When in recalling mode, the Item Name will be display all the time (if no Item Name, it will be blank); and the other information can be checked by press **View** key.

★ **To recall the Item Information through Item Number**



Input the Item Number, and then press **Enter** key to start searching.

Once the Item Number being found, the information will be recalled automatically.

**Note:**

If the inputted Item Number does not exist, the display will return when the searching process is finished.

**5.6.2.3 To delete the Item Information**

Press **Edit** key and then press **Set** or **Store** key to move to Item Information Editing Interface.

Input the Address Code and press **Enter** key to delete the information stored in the Code. Then the display will return for input other Codes when the information is deleted.

**Note:** To delete all Item Information, input "A" (indicates "ALL", only letter A is available here) and press **Enter** key to delete all information.

When all information is deleted, the display will return to Item Information Editing Interface.

#### 5.6.2.4 To input and output Item Information (USB Disk)

##### To input Item Information

The Item Information can be edited through the corresponding Weighing Software, and then these information can be transmitted to SPW directly or these information can be stored in USB disk ("1.txt") and transmit to SPW.

##### Import from USB disk

Insert the USB disk, the display will give corresponding indication if the USB disk matches the Indicator.

Press **Store** key to start transmitting the Item Information from USB disk to the Indicator.

When the transmission is finished, the display will show "TRANS FINISH" for 2s and return to weighing mode.

Then remove the USB disk, the display will show "USB REMOVED".

##### Note:

1. During the transmission, both weighing operation and setting are not available.
2. The transmission process will be shut off when power off suddenly, but the Item Information have been imported will be effective.
3. If the display shows "TRANS ERROR", it indicates that the Item Information is USB disk is lost or incorrect. Please remove the USB disk and check the data in it.

## To output Item Information

To check or edit most or even all Item Information stored in the Indicator, it will be difficult and take a lot of time to do this through the Indicator. So the User can output all the Item Information to PC or USB disk, and then check or edit the information through the corresponding Weighing Software.

### Output to USB disk

When the USB disk is connected, press **Edit** key and then press **Set** or **Store** key to move to “Item Information Output”.

Press **Enter** key to start outputting all the Item Information stored in the indicator.

The display will return to normal weighing mode once the outputting process is finished.

### Output to PC

Connect the indicator to PC, and then choose the address code which the user wants to output the information, press **Receive** key to output the corresponding information.

## 5.7 To Store Weighing Data to USB Disk

Insert the USB disk, the display will give corresponding indication if the USB disk matches the Indicator.

If the “USB DATA” is set to be on (refer to Section 6.18), all the stable Weighing Data will be stored into the USB disk automatically (2.txt).

**Note:** The data in 2.TXT can be used through the Weighing Software.

## 5.8 To Summarize the Weighing Data

If the “Summarizing” function is set to be on (refer to Section “6.19”), the indicator will record all the stable Weighing Data automatically.

All the recorded Data can be summarized, and then displayed and printed out.

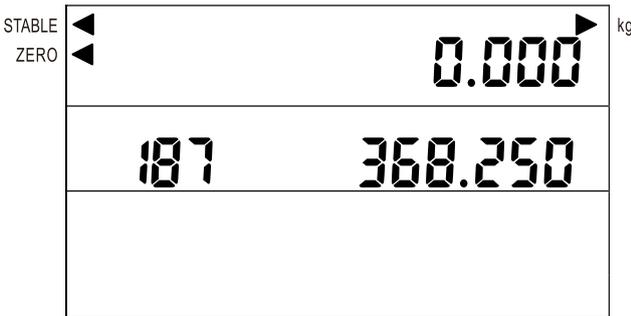
**Note:** The stable weighing data will be recorded automatically only after the display returns to zero.

### To summarize the Weighing Data in different weighing mode

In different weighing mode, press **SUM** key to summarize the weighing data respectively in normal, V0 and Item Info. Recalling weighing mode.

**EX:**

In normal weighing mode, press **SUM** key to summarize all the weighing data in this mode.



The display shows the total weighing times and total weights.

### To summarize the total weighing data for all modes

Insert a USB disk or connect PC with the indicator. In normal weighing

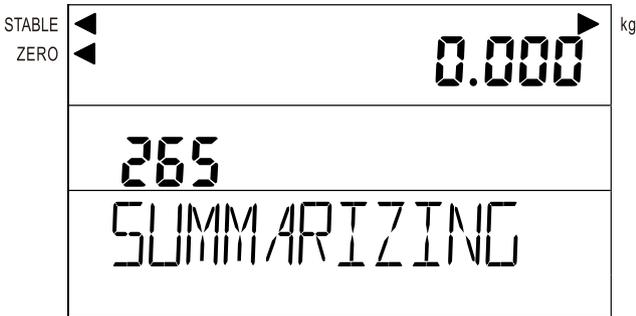
mode, give a long press of **SUM** key to summarize all the weighing data in all modes.

If a USB disk is inserted, the total weighing data will be stored into USB disk with a file name 3.txt.

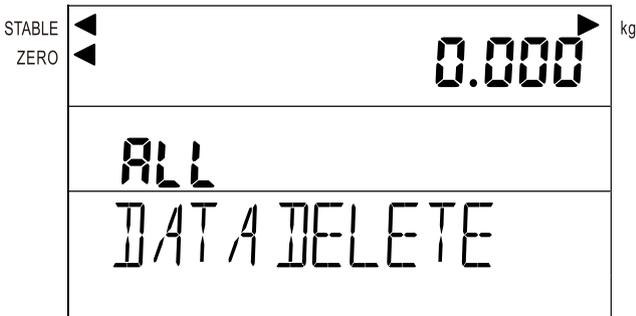
If a PC is connected with the indicator, the data will be transmitted to the PC and displayed in catalogue.

**Note:**

1. It will take time to summarize and transmit the data to PC.
2. The data in 3.TXT can be viewed through the Weighing Software.



Once all the data is transmitted, the user needs to decide to delete all the data in the indicator or not.



Press **Enter** key to confirm and delete all the data; press **ESC** key to return to normal weighing mode.

When all the data is deleted, the display returns to normal weighing mode.

The indicator will start to record new weighing data.

## **5.9 Data Transmission and Print**

The weighing data can be transmitted to PC or printed by kinds of printer (Built-in and External).

### **5.9.1 Data transmission to PC**

Connect the indicator to PC through RS232-B Interface, the weighing data will be transmitted automatically or manually to PC according the setting in the “User Menu Setting” (refer to Section 6.9).

### **5.9.2 Data print**

The weighing data can be printed by the built-in printer, beside an external printer can also be connected for printing.

In the “User Menu Setting”, the user can set the built-in or external printer to be available or not (refer to Section 6.11 and 6.12).

The printer can be switched for print when “P—P” mode has been chosen (Section 6.11). Press Decimal Point “.” to switch the two available printers.

#### **Note:**

1. The RS232A and RS232B are independent for data transmission and printing.

2. If the Label printer is equipped as built-in printer, before the printer can be used for printing, the “PC--P” mode should be chosen first for downloading and storing the “Label Format” to the printer.

### **5.10 Date and Time**

In weighing mode, press **D/T** key to check the current date and time. The display will last for 3 seconds and return to weighing mode. (Refer to Section 6.1 and 6.2 for date and time setting)

### **5.11 Standby**

The indicator can enter into “Standby” mode once the platform is at “no-load” state and without any other operation (If the standby mode is set to be on in Section 6.4).

To exit from standby mode, pressing any key or touching the platform will be effective.

**Note:** If in User Login mode, the user needs re-login.

## 6. User Menu Setting

In weighing mode, press **Set** key to enter into User Menu Setting (The B rank User needs to input the password).

In setting mode:

Use numeric or letter keys to input or change the setting data;

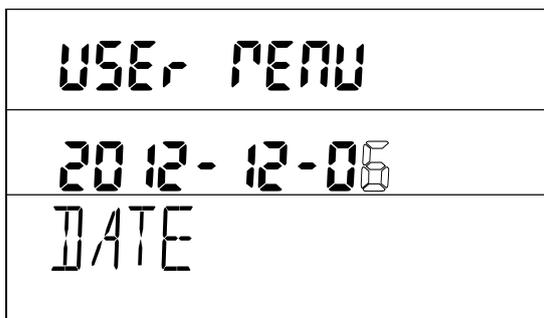
Use **D/T** or **SUM** key to move the flashing digit or select the setting option;

Use **Enter** key to confirm the setting and move to next setting;

Use **Set** or **Store** key to move the setting menu (without confirmation).

### 6.1 Date Setting

The display is as below:



Press **D/T** or **SUM** key to move the flashing digit; use numeric keys to set the date.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.2 Time Setting

The display is as below:

USER MENU
15:12:35
TIME

Press **D/T** or **SUM** key to move the flashing digit; use numeric keys to set the time.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.3 Backlight Type

The display is as below:

USER MENU
AU
BACKLIGHT

Press **D/T** or **SUM** key to select the backlight type: ON, OFF or AU. (Default: AU)

ON--The backlight will be always on.

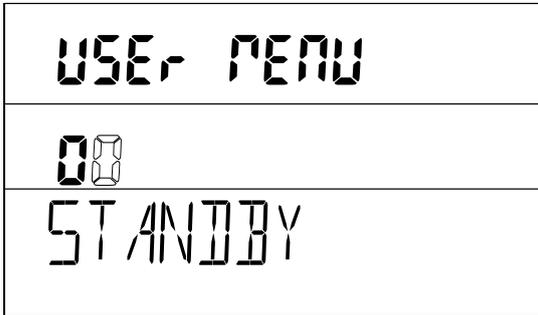
OFF--The backlight is off.

AU---The backlight will be on once any key is pressed or the platform is loaded (weight greater than 9d); it will be off automatically approx. 8 seconds after the display returns to zero (without any operation).

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.4 Standby Mode

The display is as below:



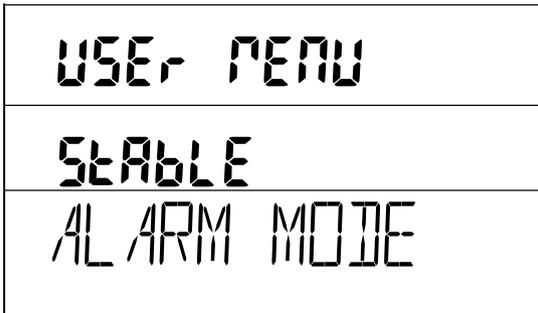
Press **D/T** or **SUM** key to move the flashing digit; use numeric keys to set the standby time (0-59 minutes).

0—The standby mode is off. (Default)

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.5 Check Alarm mode

The display is as below:



Press **D/T** or **SUM** key to select: Stable or Unstable. (Default: Unstable)

Stable---Only when the display data is stable, the alarm will sound beep.

Unstable---The alarm will sound beep even the display is unstable.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.6 Check Alarm Type

The display is as below:

USE- MENU
IN
ALARM TYPE

Press **D/T** or **SUM** key to select: IN or OUT. (Default: IN)

IN— The alarm will sound beep when the weight is between the check limits.

OUT— The alarm will sound beep when the weight is beyond the check limits (Hi or Lo).

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.7 Alarm Beep

The display is as below:

USE- MENU
ON
ALARM BEEP

Press **D/T** or **SUM** key to select: ON or OFF. (Default: ON)

ON— The alarm function is available for check weighing.

OFF— The alarm function is available for check weighing.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.8 Acc. Print

The display is as below:



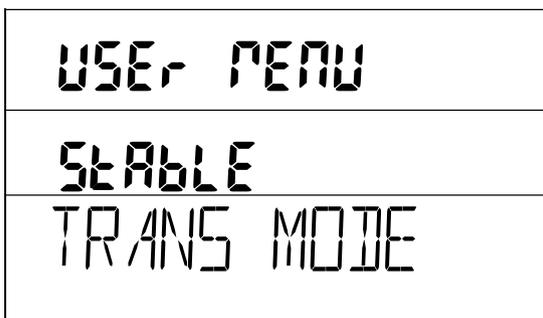
Press **D/T** or **SUM** key to select: ON or OFF. (Default: OFF)

ON— Press **Add** key to accumulate the weighing data and print it.

OFF— Press **Add** key to accumulate the weighing data only.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.9 Transmitting Mode (for PC)



Press **D/T** or **SUM** key to select: Stable, P cont, Manual, Item Info. or OFF.  
(Default: Stable)

**Stable:** The weighing data will be transmitted when the display is stable.

**P cont:** The weighing data will be transmitted continuously.

**Manual:** The weighing data will be transmitted by press a key.

**Item Info:** To transmit the Item Info. from (or to) PC through the corresponding Weighing Software.

Select Item Info., and press **Enter** key to enter into Info. Transmission. Use the **Send Current** or **Send ALL** button to transmit the Item Info. to the indicator; or use the **Receive** button to transmit the Item Info. to the PC.

**OFF:** The data transmission is unavailable.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

### 6.10 Baud Rate (for PC)

The display shows as below:



Press **D/T** or **SUM** key to select: 1200, 2400, 4800 or 9600. (Default: 9600)

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.11 Language selection

The display shows as below:

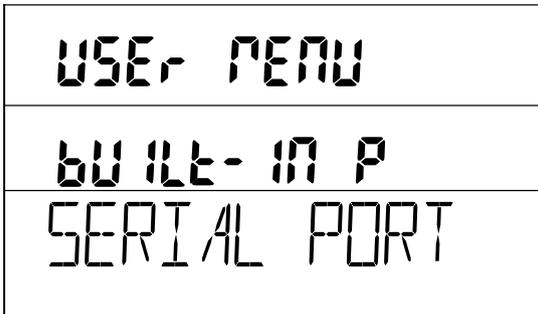


Press **D/T** or **SUM** key to select: Chinese or English. (Default: English)

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.12 Serial Port (for Printer)

The display shows as below:



Press **D/T** or **SUM** key to select: Built-in P, External P, P--P, PC-P or OFF.

(Default: Built-in P)

Built-in P: Only the built-in printer can be available.

External-P: Only the external printer can be available.

P--P: Both the built-in printer and external printer can be available, and

pressing decimal point key will switch the two printers.

PC---P: Connect the built-in printer with PC to store or download the Label format, etc

OFF: Neither the built-in printer or external printer are available.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

Note: Once "OFF" is selected, the Printer setting (6.12) will be unavailable.

### 6.13 Printer Setting

The display shows as below:

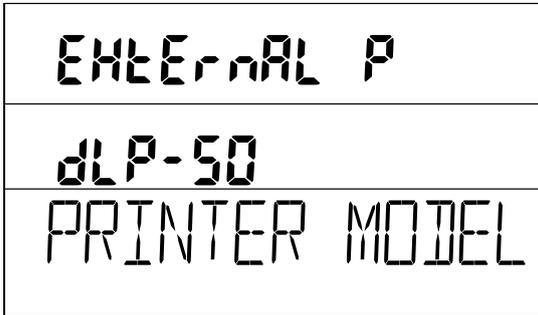


Press **D/T** or **SUM** key to select the printer type for setting: Built-in or External. (Default: Built-in)

Press **Enter** key to confirm and start printer setting; press **ESC** key to return to weighing mode.

### 6.13.1 Printer model

The display shows as below:



Press **D/T** or **SUM** key to select the printer model: DEP-50, DLP-50, Micro-P and DT. (Default: DLP-50)

Press **Enter** key to confirm and move to printing mode setting; press **ESC** key to return to printer type selection.

**Note:** 1. For this setting, it is only available for external printer, because the built-in printer is fixed for each SPW scale. 2. When DEP-50 or Micro-P is selected, the label format setting (6.12.3) will be unavailable.

### 6.13.2 Printing mode

The display shows as below:



Press **D/T** or **SUM** key to select printing mode: Auto, Manual or Alarm Data. (Default: Auto)

Auto: The current weighing data will be printed automatically.

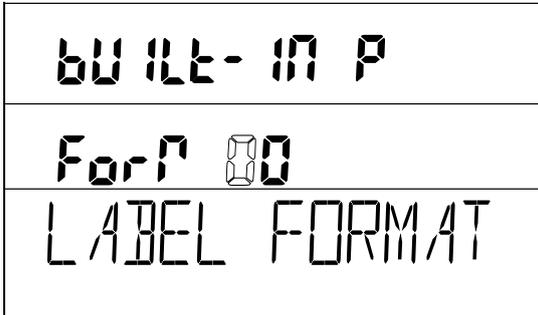
Manual: The data will be printed by press a key.

Alarm Data: The qualified alarm data will be printed automatically.

Press **Enter** key to confirm and move to label format setting; press **ESC** key to return to printer type selection.

### 6.13.3 Label format

The display shows as below:

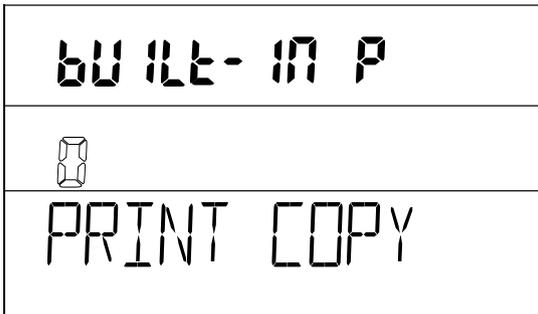


Press **D/T** or **SUM** key to move the flashing digit; use numeric key to input the format No.: 00~99. (Default: 00)

Press **Enter** key to confirm and move to printing copy setting; press **ESC** key to return to printer type selection.

### 6.13.4 Print Copy

The display shows as below:



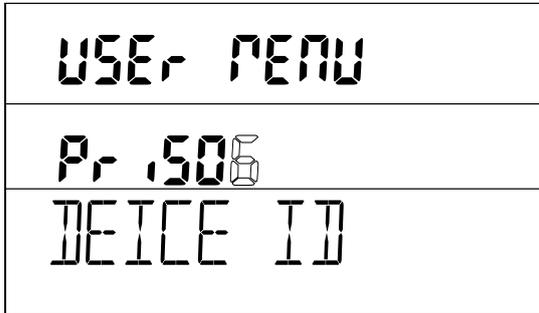
Use numeric keys to input the copy No.: 1~9. (Default: 1)

1-9: indicates the print copies that printing once will get.

Press **Enter** key to confirm and return to printer type selection; press **ESC** key to return to printer type selection.

### 6.14 Device ID

The display shows as below:



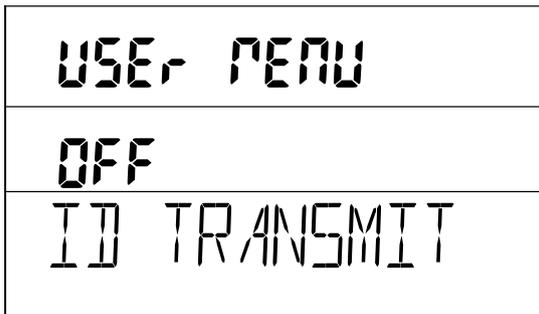
Use numeric or letter keys to input a Device ID (6 digits only).

(Default: 000000)

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

### 6.15 ID Transmission

The display shows as below:



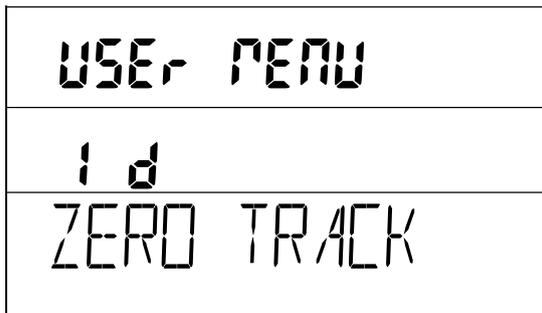
Press **D/T** or **SUM** key to select: ON or OFF. (Default: OFF)

ON: The ID will be transmitted or printed.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

### 6.16 Zero Tracking Range

The display shows as below:

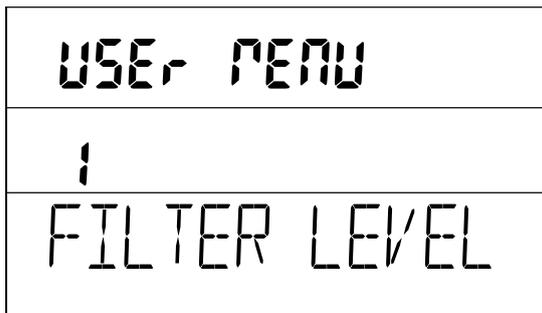


Press **D/T** or **SUM** key to select: 0, 0.5d, 1d, 2d or 3d. (Default: 1d)

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

### 6.17 Stable Class Range

The display shows as below:



Press **D/T** or **SUM** key to select: 0, 0.05d, 0.15d, 0.25d, 0.35d or 0.45d. (Default: 0.15d)

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.18 Units

The display shows as below:

USER MENU
19
UNIT

Press **D/T** or **SUM** key to select: kg or lb. (Default: kg)

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.19 Weighing Data Storage (to USB disk)

The display shows as below:

USER MENU
OFF
USB DATA

Press **D/T** or **SUM** key to select: ON or OFF. (Default: OFF)

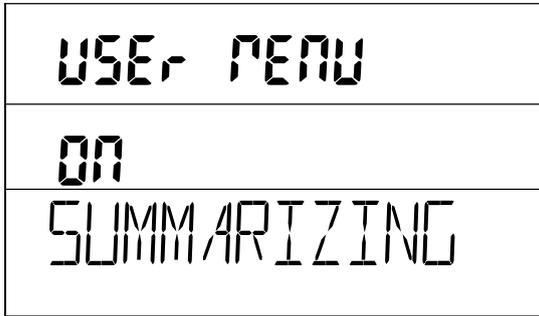
ON: Once the USB disk is connected, the weighing data will be transmitted and store in USB disk automatically.

OFF: The weighing data will not be transmitted.

Press **Enter** key to confirm and move to next setting; press **ESC** key to return to weighing mode.

## 6.20 Summarizing

The display shows as below:



Press **D/T** or **SUM** key to select: ON or OFF. (Default: OFF)

ON: The SUM function is available. The weighing data will be stored for summarizing.

OFF: The SUM function is unavailable.

Press **Enter** key to confirm and return to weighing mode; press **ESC** key to return to weighing mode.

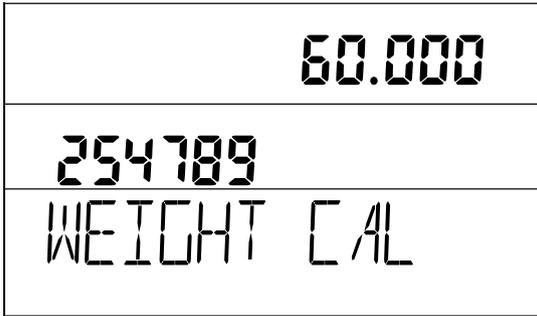
## 7. Calibration

Give a long press of **Zero** key in weighing mode to enter into Simple Calibration.

Two calibration methods can be available: Weight Calibration and Ratio Calibration.

### 7.1 Weight Calibration

The display shows as below:



The full capacity value will be displayed. Put corresponding weights on the platform and press **Enter** key when the display is stable. Then it starts to calibrate automatically (value flashing) until the indicator sounds a beep, the calibration process is finished.

The calibration value can be erased by press **C** key and input a new weight value (exceeds 1/3 of full capacity).

**Note:** The simple Calibration will be unavailable if a tare weight exists in weighing mode.

## 7.2 Ratio Calibration

Press **Set** or **Store** key in weight calibration to move to Ratio Calibration.

The display shows as below:



Use numeric keys to input the ratio value (0.80000~1.20000). Press **Enter** key to confirm and return to weighing mode.

$$\text{Ratio} = \frac{\text{Actual weight value}}{\text{Displayed weight value}}$$

### Note:

1. Press **ESC** key to return to weighing mode at any time.
2. If the calculated ratio value is beyond 0.80000~1.20000, please use Weight Calibration.
3. The Simple Calibration will be unavailable once the LFD mode in Calibration has been set to be on.

## 8. Data Transmission and Printing

The indicator is equipped with two bi-directional RS232 interfaces (for PC and Printer).

### 8.1 Format:

Baud Rate	1200 / 2400 / 4800 / 9600	BPS
Data Bit	8	BITS
Stop Bit	1	BIT
Code	ASCII	

Connector: 9 Pin Socket

Pin2            Input    (RXD)

Pin3            Output   (TXD)

Pin5            Signal Ground

### 8.2 Transmission Data Formats

#### 8.2.1 Normal weighing mode

Scale is in stable state

ID: 000123

NET: 30.4 kg

TARE: 2.0 kg

OPERATOR: PRIS

DATE/TIME: 2012/12/02 16: 30

Scale is in accumulation mode

Press **Add** key

ID: 000123

ACC. NO.: 01

NET: 5.3kg

OPERATOR: PRIS

DATE/TIME: 2012/12/02 16: 50

Press **Total** key

ID: 000123

ACC. NO.: 05

TOTAL NET: 35.5kg

OPERATOR: PRIS

DATE/TIME: 2012/12/02 16: 55

## 8.2.2 Item Information recalling mode

Scale is in stable state

ID: 000123

ITEM NO.: 00012

ITEM NAME: APPLE

NET: 12.4 kg

TARE: 2.0 kg

OPERATOR: ADMIN

DATE/TIME: 2012/12/03 08: 30

Scale is in accumulation mode

Press **Add** key

ID: 000123

ITEM NO.: 00012

ITEM NAME: APPLE

ACC. NO.: 03

NET: 3.8kg

OPERATOR: ADMIN

DATE/TIME: 2012/12/03 10: 50

Press **Total** key

ID: 000123

ITEM NO.: 00012

ITEM NAME: APPLE

ACC. NO.: 15

TOTAL NET: 86.5kg

OPERATOR: PRIS

DATE/TIME: 2012/12/03 11: 03

**8.3 Variables** (The prompt character) used for scale as well as for the label printer

Variable Name		Specifications	Size
DT	DLP-50		
V0	SER	Accumulated times (Weight)	4 byte
V1	NWA	Net weight	7 byte
V2	NWB	Net weight(no dot)	6 byte
V3	TWA	Tare weight	7 byte
V4	TWB	Tare weight (no dot)	6 byte
V5	GWA	Gross weight	7 byte
V6	GWB	Gross weight (no dot)	6 byte
V7	TNA	Total net weight	7 byte
V8	TNB	Total net weight(no dot)	6 byte
V9	IN	Item Number	13 byte
V10	INA	Item Name	13 byte
V11	OP	Operator	13 byte
V12	BN	Batch Number	13 byte
V13	UNT	Weighing Unit	2 byte
V14	AN	Address number	4 byte
V15	SN	Series number	6 byte
V16	DT	Date	10byte
V17	TT	Time	8byte
V18	VA0-VA4	Extended Variables	50byte

**Note:**

Capital Letters are allowed for the Variable Name only. Users are not supposed to change them; otherwise transmitting will be unavailable.

## 9. Error Message

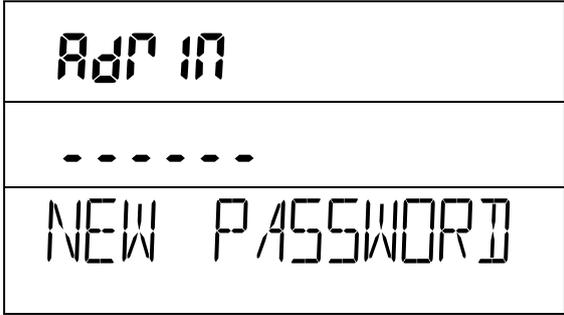
<b>Error Codes</b>	<b>Possible Causes</b>	<b>Handling</b>
<b>E1</b>	EPROM data lose	Recalibrate
<b>E2</b>	The initial Zero is out of range	Recalibrate
<b>OL</b>	Overload	Remove the overload object
<b>-----</b>	The system is busy	Wait a moment
<b>WR-ERROR</b>	RAM is damaged (24C512)	Replace it
<b>OVER RANGE</b>	Some of the Material information has been set out of range	Reset the information
<b>CAL ERROR</b>	The CAL weight is incorrect	Recalibrate
<b>RATIO ERROR</b>	The ratio for Ratio Calibration is out of range	Re-input the correct ratio

If the trouble is still not solved, please contact your dealer for further solution.

# Appendix 1: User Management System

## Administrator Password

The display is as below:

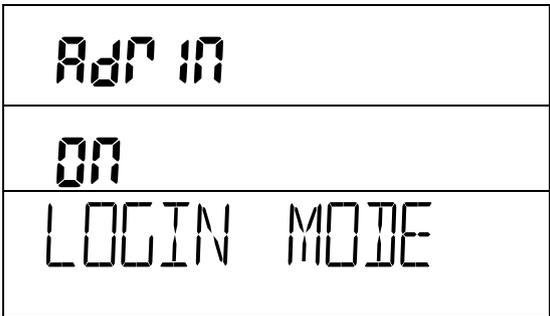


Press **C** key to erase the current password, and then input the new password (not exceed 6 digits combination of numbers). And the password needs to be inputted twice for confirmation.

**Note:** If the user would not change the password, press **Set** or **Store** key to move to next set-up interface.

## User Login Mode

The display shows as below:



Press **D/T** or **SUM** key to select the User Login Mode to be on or off.  
ON--When power on the indicator, the display will shows a login interface.

The user needs to select the login user name and input corresponding password to enter the Weighing Mode.

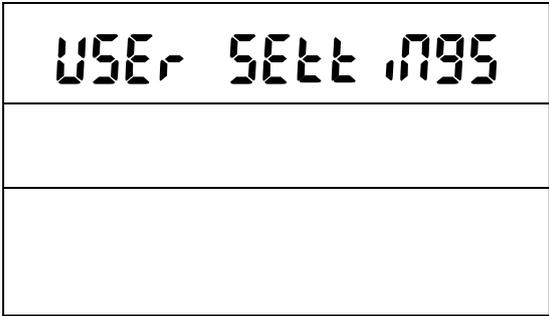
OFF—When power on the indicator, it will enter the Weighing Mode directly.

**Note:** If the User Login Mode has been selected to be on, press **Enter** key to start User Info. Set-up.

**User Info. Setup and View**

**User Info. Setup**

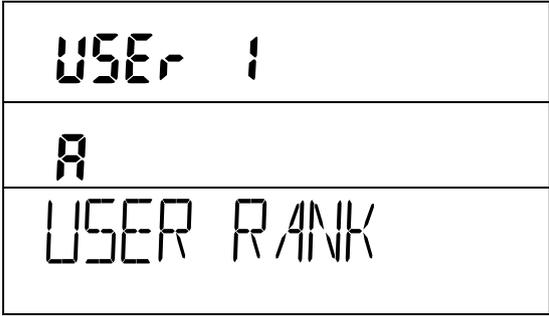
The display shows as below:



Press **Enter** key to start User Information setting:

**User Rank**

The display shows as below:



Press **D/T** or **Sum** key to select the Rank A or B for the current User.

A—Be available for Weighing Operation, Material Information Set-up, User Menu Setting etc. (except the User Management)

B—Only Weighing Operation is available

Press **Enter** key to move to User Name setting.

### **User Name**

Use the Numeric keys or Letter keys to enter a User Name.

Press **Enter** key to move to Password setting.

### **User Login Password**

The display shows as below:

User Numeric keys to set a password. (Not exceed 6 digits)

Then press **Enter** key to move to set above information for next User.

Press **ESC** key to return to “User Settings” interface (The User information been set will be available for use).

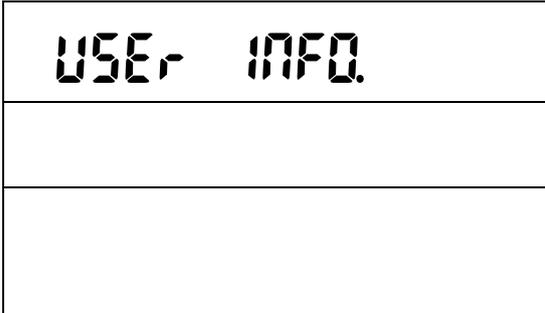
### **Note:**

1. Pressing **Set** or **Store** key can also move the information setting, but the setting information will not be stored.
2. Pressing **ESC** key during setting process will cause the current setting information incomplete.
3. All the User Information has to be complete (Rank, User Name and Password) for further use.
4. The users' password cannot be set to be the same. Once press **Enter** key to confirm the password, the indicator will check if the same password has existed. (If the password has existed, the display will shows “PW REPEATED” and please reset the password)

### User Info. View

When the display shows “User Settings”, press **Set** or **Store** key to move to “User Info. View”.

The display shows as below:



Press **Enter** key to start to view the User information.

Press **Set** or **Store** to view other Users' information

Press **ESC** key to return “User Info.” interface and press **ESC** one more time to return to User Login Mode set-up.

### User Login

Power on the indicator and the display shows as below:



The User Login Mode is on and the User information has been set.

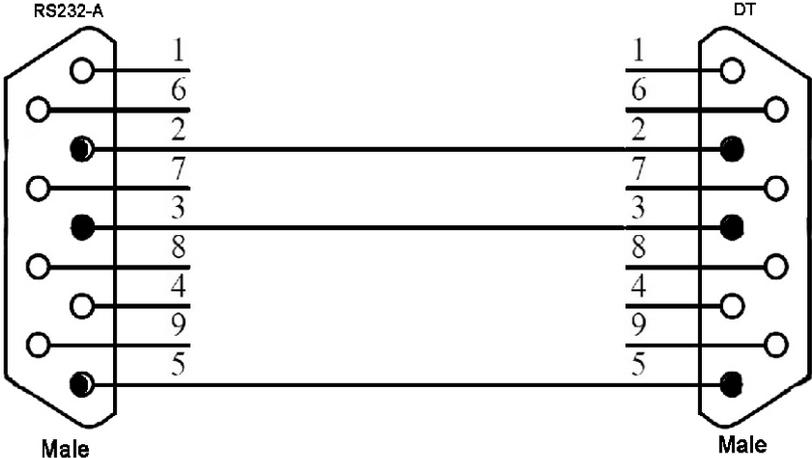
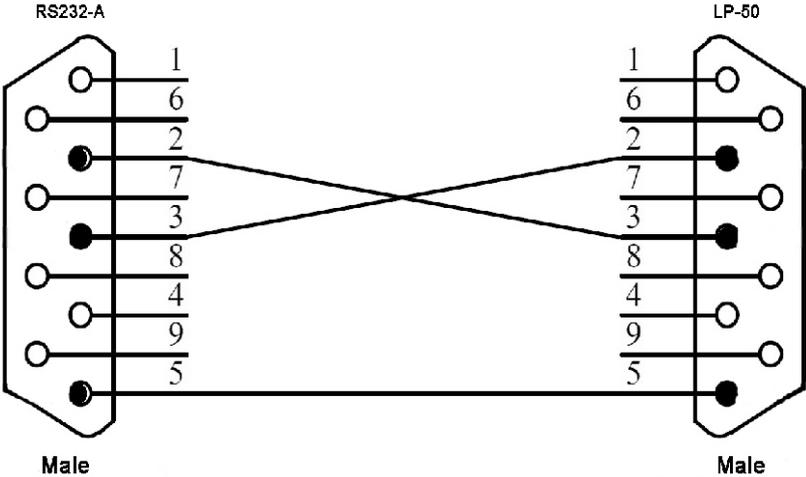
If the User Login Mode is off, the indicator will enter normal weighing mode directly.

The User Name flickers and it can be changed by pressing **Set** or **Store** key.

Then input corresponding password and press **Enter** key to enter into weighing mode.

**Note:** If the password is incorrect, the display will show “PW ERROR” and the buzzer will sound beep, then re-input the password.

**Appendix 2: Connection cable for external LP-50 and BP-DT-4 printer**



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