CONTENTS

1. Introduction

This manual contains installation and operation instructions for the JWQ Series weighing indicator. Please read the manual completely before installation and operation.

2. Precautions

◎ Place the scale on a flat and stable surface.

◎ Verify that the input voltage and the plug type matches the local AC power supply (Refer to Section 4-3).

◎ Warm up the scale for 15 minutes before using it for the first time.

◎ Make sure power cord won't cause a potential obstacle or tripping hazard.

◎ Keep the scale away from EMI noise, strong wind and vibration, which might cause incorrect reading.

◎ Avoid sudden temperature changes (suitable operating temperature is 0℃~ 40℃.)

◎ Do not drop loads on the platform.

◎ Disconnect the power supply while cleaning the scale.

◎ Do not immerse the scale in water or other liquids.

◎ Over 2 years without using the scale for the first time, please charging fully before utility.

◎ Please cut off the charging power after the battery is fully charged.

◎ If the charge indicator indicates red light (24 hours or more) when the battery is charged, please check the scale or replace a new battery.

◎ Service should be performed by authorized personnel only.

3. Before Using the Product

3-1 Unpacking and Checking

Open the package and check the instrument for transport damage. Immediately inform your dealer if you have complaints or if parts are missing. The package should contain:

- Scale body
- Weighing pan
- Adaptor
- User manual

3-2 Installing Components

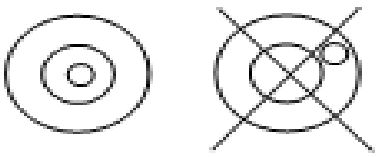
1) Before using the scale, remove the delivery protection screw (rotate counterclockwise), which located underneath the scale, and cork the plug buckle.

Note: the JWN-30K model is shipped without the shipping protection screw.

2) Cover the weighing pans on the scale body properly.

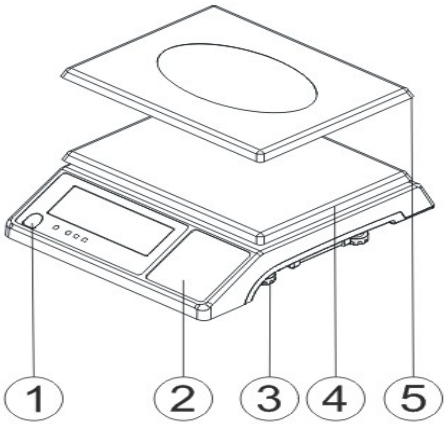
3-3 Leveling the Scale

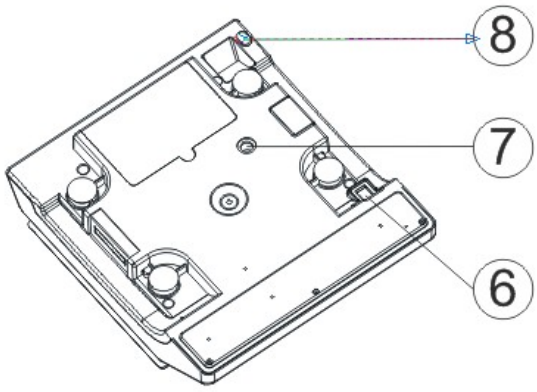
To compensate for small irregularities or inclinations at the location, the scale can be leveled. The scale is equipped with a level indicator at the front panel .Adjust the leveling feet until the air bubble in the indicator is centered as shown.



Note: The scale should be leveled each time once its location is changed.

4. Product Introduction





① Leveler
② Keypad
③ Adjusting feet
④ Plastic weighing pan
⑤ Stainless Steel weighing pan
⑥ On/Off switch
⑦ Transport protection screws
⑧ Power socket

4-1 Specifications & General Features

Specifications

Model	JWQ-3K	JWQ-6K	JWQ-15K	JWQ-30K
Capacity (Kg)	3	6	15	30
Display	LCD(liquid crystal display), digits 31mm high, with back lighting			
Pan size	294 x 228 x 13.5mm			
Scale Dimensions	330 x 289 x 104mm			
Power Supply	DC9V/400mA or built-in rechargeable battery（6V/4A）			

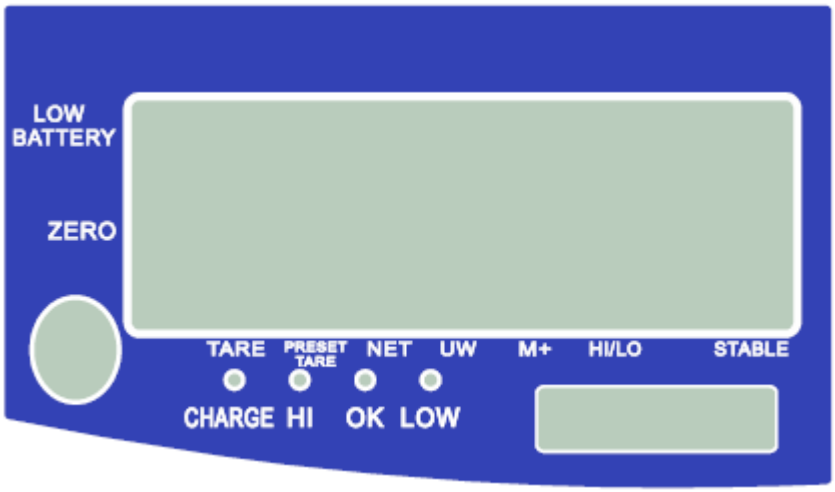
General Features

- Built-in rechargeable batteries or DC alternative
- Multiple functions: tare, preset tare, simple counting, check weighing, accumulation and display for every deal
- Large bright backlit LCD with prominent 31mm high digits and LED backlight
- Software filtering design and adjustable weighing displaying speed according to different environments
- Easy operation with big keys and high weighing resolution

- Single point calibration and linear calibration available
- RS-232 serial communication interface and Relay port optional (PC, printer, relay)

4-2 Display

4-2-1 LCD Display



Low battery indication

Tare or Preset Tare Indication

-0- Center of Zero Indication. The zeroing range is ±2% of weighing capacity.

Auxiliary display (parameter, accumulated number of weighments)

TARE Symbol "▼" points at **"TARE"** when manual Tare action is done.

PRESET TARE Symbol "▼" points at **"Preset Tare"** when preset tare value is set.

"**NET**" Net weight**--**Gross weight minus Tare. Symbol "▼" points at **"NET"** when manual Tare or preset are actions are done.

"UW" Under simple counting mode, Symbol "▼" points at "**UW"** when unit weight is lower than 4/5 of scale division. Unit weight is too small for ensuring accurate quantity calculations.

○ Charge Lamp

CHARGE

Red--- battery is charging

Green---battery is fully charged

HI LAMP ON The weight on the weighing pan is greater than the upper limit.

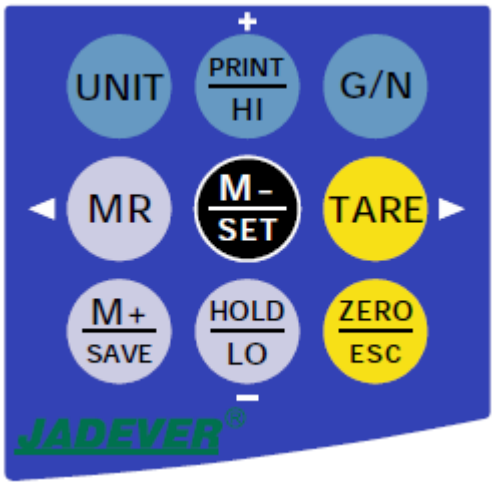
OK LAMP ON The weight on the weighing pan is between upper and lower limits.

LOW LAMP ON The weight on the weighing pan is smaller than lower limit.

pcs % 斤 兩 lb oz kg Units of measure

Stable indication

4-2-2 Keyboard



UNIT	Short press steps through activated weighing units, release on desired one.
G/N	Displays gross and net weight by turns
TARE	1. Tares the weight of the container or accepts the keypad tare entries 2. Preset Tare and Cancel the tare 3. Select the later parameter in the same level 4. Select the later record when checking the accumulation record 5. Shift keys rightwards
ZERO ESC	1. Zeros the display (within 2% of max.capacity) 2. Exits from certain operation without save
M- SET	1. Long press to enter function setting 2. Deletes accumulation records 3. Delete the present accumulation record for the sake of wrong accumulation operation under the accumulation mode.
M+ SAVE	1. Adds the indicated weight into accumulation memory 2. During editing, save and return to the higher option
MR	1. Select the former parameter in the same level 2. Select the former record when checking the accumulation record 3. Shift keys leftwards
PRINT HI	1. During setting value, add 1 to the current value 2. Set the upper limit of the check weighing 3. Print

	1. During setting value, deduct 1 to the current value 2. Set the lower limit of the check weighing 3. Hold function

4-3 Power supply

Please verify the local power source before plugging into the power outlet, and use the individual power socket and original adaptor.

Alternative power supply

1) (9V/400mA) adaptor
2) (6V/4A) Internal Rechargeable Battery

Power Consumption

About 300mW without backlight
About 380mW with backlight

Low Battery Warning

When  appears in the upper left corner of the weight window, the battery requires recharging. The charge lamp turns green from red when the recharging is completed (which takes about 8 hours). Disconnect the scale from power supply when it is fully charged.

5 Function Setting and Description of Parameter Values

5-1 Function Setting

1. Press and hold ***M-/SET*** while powering on or long press ***M-/SET*** under normal weighing mode to enter function setting. The window displays ***"check***". Setting item "***P00***" displays momentarily at the left bottom
2. Press ***◄/MR*** or ***TARE/►*** to shift between the functions
3. Press ***M-/SET*** to enter the parameter setting
4. Press ***◄/MR*** or ***TARE/►*** to shift between the function parameters
5. Press ***M+/SAVE*** to save and return
6. Press ***ZERO/ESC*** to exit without saving and return to the normal weighing model

5-2 Description of Parameter Values

1. **P00:**  **Offset value**

   Displays the offset value and the keypad testing can be conducted

2. **P01:**  **Backlight mode**

   Off : No backlight

   Auto: Auto on once get a stable weigh data or any key is pressed. But auto off after N

seconds (N=2s, 5s, 10s, 20s, ever) with no action. Ever= It is always on when the weights over 9e

On: Backlight on

3. **P02: Unit current using units setting**

   Init: Press key ***Unit*** to select the default unit when powering on the scale**:** pcs, 斤, lb. oz, g, kg, final .(final=keep the final being used unit when power off)

   Use: Press key ***Unit*** to select the weighing unit. **On**: Enable the unit. **off**: Disable the unit

4. **P03: ZEro zero range setting: d0, d1, d2, d3, d4, d5.**

   d0 (one division), d1 (2 divisions), d2 (3 divisions), d3 (4 divisions), d4 (5 divisions) and d5 (6 divisions)

5. **P04: HoLd Hold function**

   HoLd 0： no hold function

   HoLd 1： Peak hold. Press ***M-/SET*** key to release, and ***+/PRINT/HI*** key to print out the HOLD value

   HoLd 2： Hold after stable. Press any key to release

   HoLd 3：Hold after stable. Release after moving away the article. The hold value is based on the current value and its range could be set in sub menu. Accumulation hold function is available, that is you could add article after hold the first value

   HoLd 4： Press key ***HOLD/LO/-*** to hold. Press any key to release

   Sub menu for Hold 3: INF (default: infinity) /10 /20 /50 /100 /200 /500 /1000 2000 /5000 /10000 /20000 /50000

   H=current hold value, R=hold value range, d= division, W= actual weight

   Keep to hold the value when |W-H|<=R*d, or the scale will exit the hold function. The scale will cancel the hold function when empty the weighing pan, if choose INF setting

6. **P05: CHn whether to save the upper & lower limit of quantity checking: on, off**

   OFF = previously set quantity checking values are not retained when the unit is turned on.

   ON = previously set quantity checking values are retained when the unit is turned on.

7. **P06: CHCL Check weighing function**

   on: Check weighing under the condition that the weight is within the limits and the stable indication appears

   off: Check weighing under the condition that the weight is within the limits

8. **P07: bEEP Check Weighing buzzer beep**

   Hi：There will be a warning sound when the weight of articles exceeds the upper limit, and

the weight is equal or more than 20d

LO: There will be a warning sound when the weight of articles exceeds the lower limit, and the weight is equal or more than 20d

ok：There will be a warning sound when the weight of articles is between the upper and lower limit (including the upper and lower limits), and the weight is equal or more than 20d

out：There will be a warning sound when the weight of articles is beyond the upper or lower limit, and the weight is equal or more than 20d

no.beep： no beep

9. **P08: PEr i External device**

birCH= Birch printer（BP545, TDP643）

GodEX= Godex printer

PEbrA = Zebra printer

LP-50= Self-adhesive printer

GP = Adhesive sticker label printer (paper size 5cmx3cm)

dOtP= Dot matrix printer（SH-24）

Et=Large LED display

PC =Computer

dnS=Connecting the weighing managing system

CX = CX large screen display (version 0.02)

CH= Thermal printer (Chinese available)

tCont=the output format is compatible with Toledo Continuous Mode

Note: Special setting is needed by distributor if you want to print in Chinese.

EXCEL= Work with the function of “Use Serial Keys” in Windows in outputting the data to Excel or others. Reference user manual: http://www.jadever.com.cn/Download.aspx

U.KEY: U.KEY connector works with PC to send the weighing data to computer (WinXP/Win7) in form of Excel and so on.

10. **P09: bAUd RS-232 Serial Transmission Rate**

9600, 4800, 2400

11. **P10: PrtM Print mode**

Contin: Continuous print

Stable: Printing automatically when get a stable weight (more than 20d)

Key: Manual print by pressing the key ***PRINT***

12. **P11: PrtF printing format setting: prt01~prt03**

Use the numeric key to set the format directly.

13. **P12: F iL Filtering setting**: **1**, **2**, **3**, **4**

    Set the filtering level in which the stable indication turns on. The higher the setting, the slower stabilization time

14. **P13 : r-t** Precondition for zeroing or taring setting: **stable, auto, always**

    stable : Taring or zeroing can be not action without stable indication after pressing the key ***TARE*** or ***ZERO***

    always: Taring or zeroing can be action without stable indication after pressing the key ***TARE*** or ***ZERO***

    auto: Press key TARE or ZERO, but it works only when get the stable indication

15. **P14: 0-oFF** Zero-Offset function.

    ON display the previous weight when powering on again

    OFF not display the previous weight when powering on again

16. **P15: rESEt Initialization**

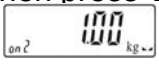
    Press ***M-/SET*** then press ***M+/SAVE*** to start initialization and the window display **RESET.**

6. Calibration

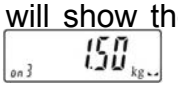
Note: Before calibration, please set the unit first. The unit used in calibration must be the one that has been set before (**P02: Un iL**). During the calibration procedure, press ***ZERO/ESC*** to return to normal weighing mode without saving.

Here we take 3kg/1g as an example

1. Press and hold ***TARE*** while powering on. Do not release it till the window displays "***CAL***".
2. With no load on the weighing pan, press ***TARE*** to start zero point calibration. " on 0 " is blanking at the left bottom.
3. Wait till the window displays the first calibration value. "on 1"appears at the left bottom. 

   Note: The first calibration value is default. With the same capacity, the last first calibration point value can be recorded. If the capacity has been changed, the default value is 1/3 of full load. If you need to change the value, do as the following: Press ***M-/SET***to enter the value setting. Press ***◄/MR*** or ***TARE/►*** to move leftwards or rightwards. Press***+/PRINT/HI*** **or** ***HOLD/LO/-*** to change the value. Press ***M+/SAVE*** to save.
4. Put the corresponding weight on the weighing pan, and then press ***TARE*** to complete the first point calibration. "on 2"appears at the left bottom. 

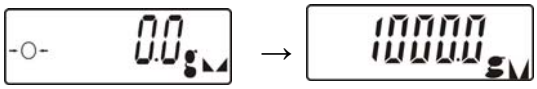
Note: After the first point calibration, the window can display the weight value. If no need for the other point calibration, move to step 6 to finish the calibration procedure.

5. Add another mass to the current weight. The window will show the total weight. Press ***TARE*** to complete. "on 3"appears at the left bottom. 
6. Press ***M+/SAVE*** to save. After the window displays "PASS", it will return to normal weighing mode.

7. Operation

7-1 Weighing

Begin with no load on the scale, the display reads zero. Place item(s) to be weighed on the scale. The display shown is 1000.0g, gross weight.（The desired weighing unit should be selected before weighing, refer to section 7-5.）

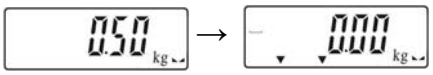


7-2 Manual Tare & Preset Tare

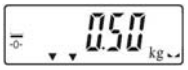
When weighing a sample that must be held in a container, tare and store the container weight into memory.

Manual Tare

1) Under the weighing mode, place the container on the weighing pan, wait till stable symbol appears, and press the key ***TARE***. The container is tared.



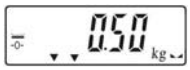
2) Place the item(s) to be weighed into the container. The weight displayed is the net weight.

3) Remove all items from the weighing pan; the screen displays the tare value. 

4) To clear tare with an empty pan, Press down key ***TARE*** or key ***ZERO/ESC.***

Preset Tare

1) Long press key ***TARE*** for 3 seconds. The scale is now in Digital inputting mode with the left-most digit blinking. 

2) Press ***◄/MR*** **or** ***TARE/►*** to move leftwards or rightwards. Press***+/PRINT/HI*** **or** ***HOLD/LO/-*** to change the value. Press ***M+/SAVE*** to save and return to weighing mode.  

3) Put the load on the container, the scale will automatically deduct the value of the container from the total value.

NOTE: Press Key ***G/N*** to display gross and net weight by turns.

4) Clear the load on the container, and press ***TARE/►*** or ***ZERO/ESC*** to cancel the pre-tare.

7-3 Check Weighing

Lower limit setting

1. Begin by pressing down key ***HOLD/LO/-***. The scale is now in digital inputting mode with the right-most digit blinking. 
2. To set the value of lower limit, press key ***◄/MR*** to shift leftwards, key ***TARE/►*** to shift rightwards, key ***+/PRINT/HI*** to increase setting values and key ***HOLD/LO/-*** to decrease setting value. Key ***M-/SET*** to enable or disable the weighing checking function.

3. To save the Lower limit and return to weighing mode, Press key ***M+/SAVE***

Upper limit setting

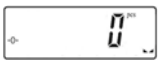
1. Begin by pressing down key ***+/PRINT/HI***. The scale is now in digital inputting mode with the right-most digit blinking. 
2. To set the value of upper limit, press key ***◄/MR*** to shift leftwards, key ***TARE/►*** to shift rightwards, key ***+/PRINT/HI*** to increase setting values and key ***HOLD/LO/-*** to decrease setting value. 
3. To save the upper limit and return to weighing mode, press key ***M+/SAVE***

Note:

Place the sample on the weighing pan, if the sample weight is under the lower weight range while over or equal 20d, the LOW lamp will light up. If the sample is within the lower and upper weight range while over or equal 20d, the OK lamp will light up. If the sample is over the upper weight range while over or equal 20d, the HI lamp will light up.

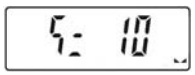
When changing the Hi-Lo value, the scale will activate the weighing checking function automatically. If the Lo value is higher than Hi value, then the Hi value will become the same value as Lo data.

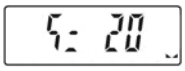
7-4 Simple Counting

1. Press key ***UNIT*** to select the unit “PCS”. 

   Note: Ensure to activate the unit “pcs” before operating, see the setting of **P02:** 

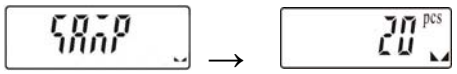
2. Long press key ***G/N***, the ex-factory default sample quantity (10 pcs) is displayed.



3. Use key ***+/PRINT/HI*** or ***HOLD/LO/-*** to choose the sampling amount. Available options are10, 20, 50, 100, 200, 500, 1000(pieces) . 

4. Put the corresponding samples on the weighing pan, and then press key ***TARE/►***.

"  " is displayed momentarily before the display reverts to the sample quantity.



5. Remove the samples and put the load on, the scale calculates the amount of the load.

6. To go back to the normal weighing mode, remove the load and press key ***UNIT*** to select the proper weighing unit.

Note:

1. The larger the sample size, the more accurate unit weight.
2. Symbol "▼" points at "UW" when calculated unit weight is lower than 4 / 5 of scale division.

7-5 Accumulation, Accumulation Display and Accumulation clear

Accumulation

Under the weighing mode, put the item on the weighing pan. Press key ***M+/SAVE*** at the appearance of "◣◢". "  " is displayed momentarily before the display reverts to the weight of the item.

Remove the item and the display goes back to zero before the next accumulation can register.

（The maximum is 99 pieces, display the latest 10 accumulation events in details ）

Accumulation Display

Press key ***◄/MR*** to display the accumulation data.

Press key ***◄/MR*** or ***TARE/►*** to check a total accumulation event and each accumulation event in detail.

The number of accumulated weight is indicated at the left bottom.

 XX= total accumulation event；  XX= the single accumulation

Accumulation Clear

To clear accumulation data (total accumulation data or one of the latest 10 accumulation events), press key ***◄/MR*** to display the accumulation data needed and press key

M-/SET to clear data chosen. When clear total accumulation data, the accumulation signal " ▼ " will disappear and back to normal weighing mode. If need to exit without clearing data and return to normal weighing mode, press key ***ZERO/ESC***.

7-6 Printer initialization by the indicator operation

1. Press ***M-/SET*** while powering on to enter parameter setting. Use key ***◄/MR*** or ***TARE/►*** to shift to P09 
2. Press ***M-/SET*** to enter the external device setting. Press ***◄/MR*** or ***TARE/►*** to choose the printer model
3. After choosing one printer model, press ***M-/SET*** and the window will show "UNSUP" or "INIT?"
   - "UNSUP" means the printer can't be initialized by scale. Press ***ZERO/ESC*** to return.
   - "init?" means the printer is should be initialized. Press ***MR/SAVE*** to initialize the printer. When the initialization is finished, the window will show "ok". And then displays the printer model. Press ***ZERO/ESC*** to return.

7-7 Input commands

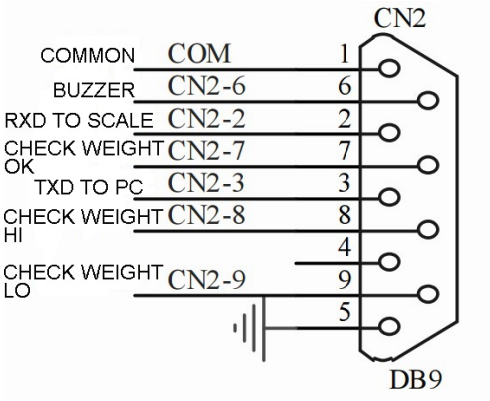
Connect the scale to computer. Run serial port debugging program on the computer. Input the capital number "Z", "T", "R" ,"C","P" in the sending area, and the indicator can conduct the corresponding actions.
Z=zero
T=tare
C=cancel tare
R/P=reading / print

8. Serial Interface

If external interface is needed, please select the proper RS 232 board or Relay port firstly, and only when this board is adopted, the functions can be enabled.

Note: RTC is unavailable.

8-1 RS-232 Diagram



9. Troubleshooting and Error Message

Error Message	Problem	shootings
ERR0	Exceed the zero range	The item should be within 2% of full load
ERR2	Exceed the initial zero point	1. Check whether there are other alien articles on the scale pan, remove those articles. 2. LOAD CELL failure, which requires to be changed or to contact our Service.
ERR3	Exceed the A/D resolution range	1. Check whether it is A/D failure, if yes, please replace AD. 2. LOAD CELL failure, replacement is required or contact our Service.
ERR4	EEPROM failure	Re-sold EEPROM or contact our Service.
ERR5	Overload condition	Remove weight that is greater than the scale capacity from the pan.
ERR6	Exceeds the display range	----------
ERR7	Accumulated number of weights exceeds the display range	Delete the exceeding weights
ERR8	Weight limit value is higher than the full load value	Reset the weight limit value.
ERR9	Exceed tare or pre-tare range	The tare value should be over zero and less than or equal to full load.
ERR10	Wrong calibration weights	Place the right weights(the calibration value ≤ full load)

Appendix 1： Printing format (Optional)

Printing Device	Format	Sample
PC	**prt-01**	**1. 000 kg**

	prt-02	G.W.: 1. 500 kg T.W.: 0. 500 kg N.W.: 1. 000 kg
	prt-03	1. 000 kg
	prt-04	ST GW + 100.00 kg UT GW + 100.00 kg UT NW - 200.00 kg ST NW - 200.00 kg ST: stable; UT: unstable; NW: net weight; GW: gross weight
	prt-05	ST,GS,+ 100.00kg US,GS,+ 100.00kg US,NT,- 200.00kg ST，NT，- 200.00kg ST: stable; UT: unstable; NW: net weight; GW: gross weight
	prt-06	ST,+ 100.00kg ST,- 100.00kg "ST," is the prefix
	prt-07	+ 1. 000 kg - 1. 000 kg
	prt-08	02 + mark + data (6 digits without decimal point) + decimal place + XOR checksum high + XOR checksum low + 03

	prt-09	:=801.000 Note：0.108
	prt-10	US NT 0000.201
	prt-11	FF 45 09 99 00 00 (0.9990) 1. The starting byte: 0xFF. 2. The status byte: D0-D2 decimal digits; D3, D4 current mode; (00:weight, 01:counting, 10:percent); D5 is positive and negative values (negative:1 positive:0); D6 stable marking (stable: 1, instability:0); D7 weight overflow (overflow:1, not overflow: 0). 3. Showing the lowest numerical bytes: 09 4. Display middle value of the bytes: 99 5. Shows the highest byte value: 00 6. End byte: 0x00
BIRCH/GODEX/ZEBRA/GP /CK	**prt-01**	**1. 000 kg**
	prt-02	**G.W.: 1. 500 kg** **T.W.: 0. 500 kg** **N.W.: 1. 000 kg**
CK(Chinese)	**prt-02**	**毛重:** **1.48 kg** **扣重:** **0.00 kg** **净重:** **1.48 kg**
DMP	**prt-01**	**1. 000 kg**
	prt-02	G.W.: 100.00 kg T.W.: 0.00 kg N.W.: 100.00 kg

	When A03 appear under display of accumulation, press key PRINT to the print out.	(01) 1.765 kg (02) 1.760 kg (03) 1.760 kg ---------- (03) 5.285 kg
ET	**prt-01**	EtOut： 1. 00 kg
U-key	**prt-01**	0.985
	prt-02	0.985 kg

NOTE:

The printing sample could be of different kinds of formats. When there is specific demand about the format, conduct as follows

1) As for **BRICH/GODEX/ZEBRA/GP** printers, the factory designs the format as planned and email to the user. Add the format into the previous format file via computer. Then it is successful to add the new format and able to print the new format.
2) As for **DMP/CK** printer, it needs to change the scale design