BARCODE LABEL SCALE
USER MANUAL

MODEL: LS2R15，LS2R30

Pinnacle Technology Corp.

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1 SUMMARIZATION

◆ Simple and easy to operate

1. You can use single key to sell PLU quickly. Clerk can operate this scale without training.
2. This scale has 112 direct keys (224 hotkeys can be set) and can set hotkeys for most of the common goods.

◆ Advanced function and endurance

1. Firmware program can be updated through PC in order to keep advanced and up to date.
2. FlashRom protection function assures the security of program and source.
3. Keyboard can be cleaned. It resists dirty with great validity.
4. Printer is designed elaborately and not easily subject to paper jam.
5. Barcode rotation can prolong the life of printer head. Printer core can be adjusted according to label paper.
6. Printer can load 1000 pieces of label paper while other printer can only load 800 pieces of label paper.
7. There are several package methods (fixed weight, and fixed price). Barcode printer is specially designed.
8. Piece together function, which can gather several kinds of commodity as required, such as fruit basket.
9. 12000 pieces of PLU can meet all kinds of demand.
10. Every piece of PLU can be set to use multiple labels.
11. Every piece of PLU can use single barcode format, which resolves the coding problems during selling.
12. Every piece of PLU can use single metric unit.
13. Numeric unit can be defined by user such as block, package and entries.
14. Sufficient PLU message includes barcode format, live commodity Code and package type and so on.
15. Label can be printed in rotated position.
16. Support Ean-13 code and 18 code, and resolve the coding problem of live commodity.
17. Special barcode type for the convenience of live commodity lot management.

◆ Convenient, flexible and powerful software support

1. What you see in label designing is what you get. Label size can be selected. Volume of smallest area can be created according to user. Thus we can decrease cost greatly.
2. International design and supporting worldwide language make it unnecessary to add any accessory.
3. We can adjust the popular commodity at any time and improve the foregrounding working efficiency greatly.
4. Downloading data can be executed in scheduled time.
5. Background discounts fixedly.
6. Discount in different period of time. Ten discount modes can be defined and each mode has five periods of time using different discount rate.
7. It supports broadcast downloading.
8. With the function of FTP and TCP/IP. The software supports Unix system and Internet.
9. We can set POS program parameters on PC.
10. Its management is separated into machine, commodity, and hotkey, which make usage of the scale optimum.
11. We can edit and print keyboard sheet quickly with this software.
12. Locking the POS function key can control its operation such as locking discount key and PLU edit key. Also it offers function to unlock password.
13. It is managed by multi-user and records login information automatically in order to supervision.
14. It offers dynamic link library for the convenience of user's second development.

2 SPECIFICATION

1. Resolve segment

Power:	AC 100V~240V 50/60Hz 1A		
Working temperature:	0℃-40℃		
Precision grade:	Ⅲ		
A/D resolving rate:	30000		
Verification scale interval:	LS2615ER:	0kg~6kg	e=2g
		6kg~15kg	e=5g
	LS215ER:	0kg~15kg	e=5g
	LS21530ER:	0kg~15kg	e=5g
		15kg~30kg	e=10g
Number of verification scale interval:	3000		

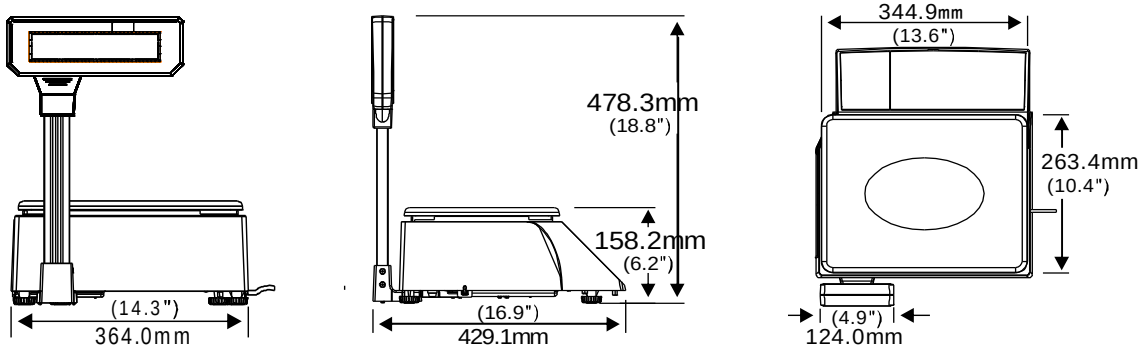
Printer:

Printer driver:	24V
Number of dots/line:	448dots/per line
Dot spacing:	0.125mm

LCD:

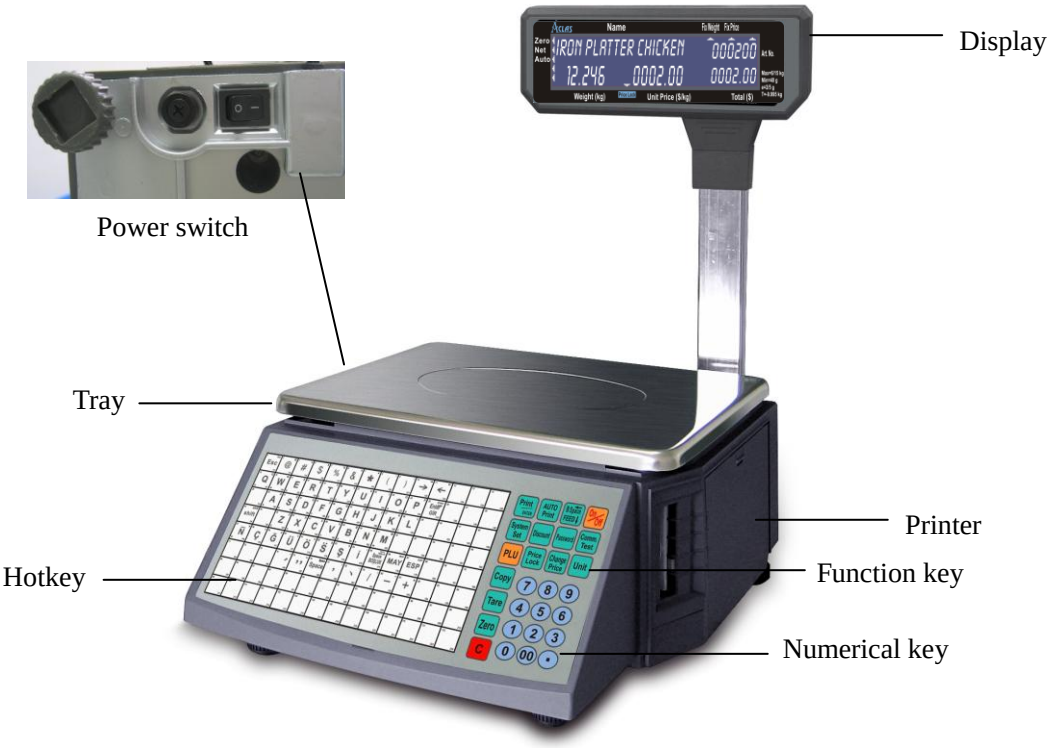
Message/weight:	24×110 dots
Price:	8×110 dots
Total price:	7×110 dots

Dimension:



3 APPEARANCE

Power switch



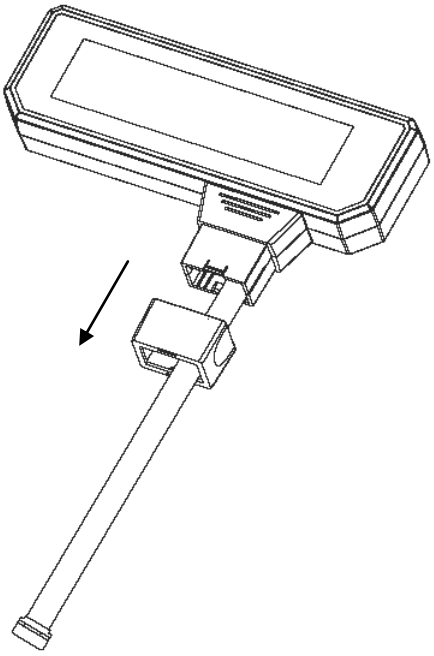
Clearing pen

Note: If the printer head is dirty, clean hot sensor head softly with the cleaning pen attached. The cleaning pen is an alcohol pen; please cover it immediately after you wipe the dirty off.

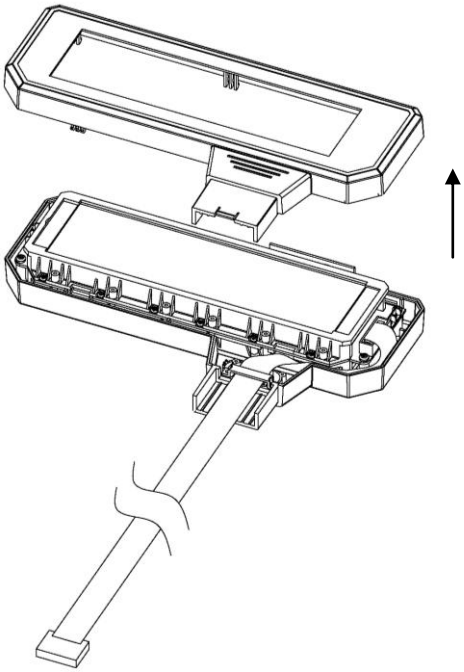
Note: As for cleaning the thermal printer head, please refer to Chapter 10.

4 INSTALLATION

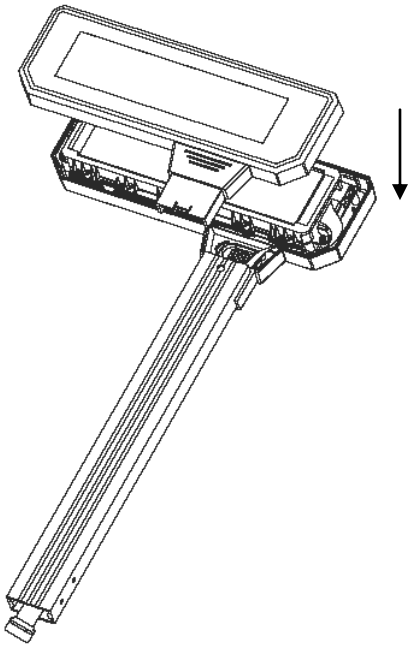
4.1 Install display pole



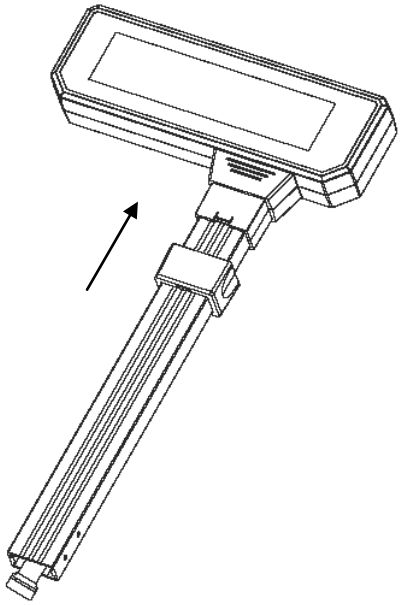
1. Take out the fix set



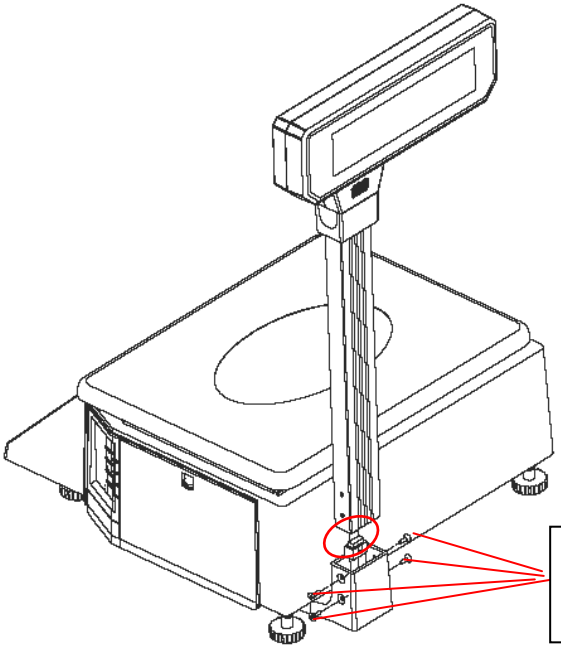
2. Open the LCD cover



3. Mount the display pole



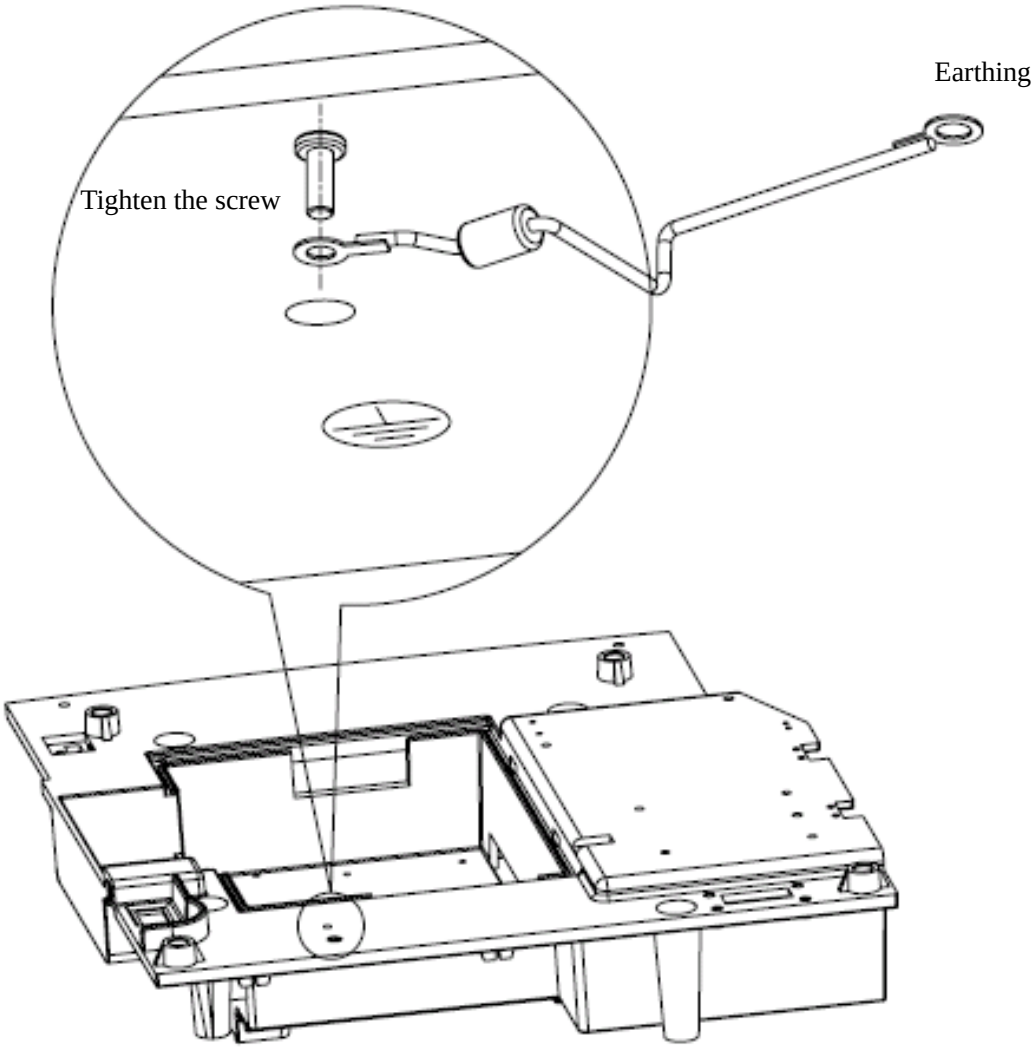
4. Cover the LCD, then put on fix set like the picture shows.



5. Connect the line, and fix the 4 screws.

4.2 Earthing

NOTICE: We suggest you earth the scale in order to make sure the operator's safety. In case of the electricity leak out, the operations on the scale is also safety.



Gradienter, which is on the left bottom of the pole.

Circumvolve the 4 feet to adjust the level of scale, and make the air bladder into the red circle.

4.3 Power on/off

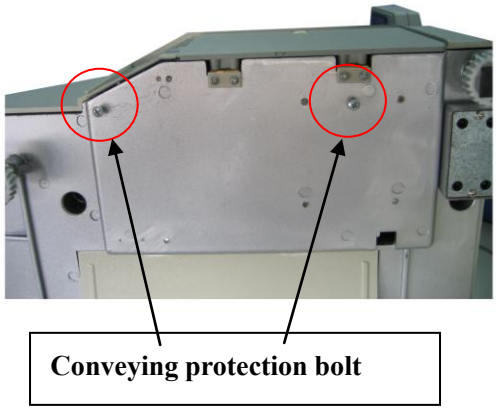
At the first ten seconds after you turn on the scale, the LCD displays from “9” to “0” to enter self-testing. Please wait and do not press any key, system initialization is going on.

“On/Off” key is used to turn on or turn off the scale softly. Press this key and hold it for 2 seconds to turn off the scale, and so as how to turn down it. (**Note: this key takes effect by the condition that the plug has connected and the power switch under the scale is turned on.**)

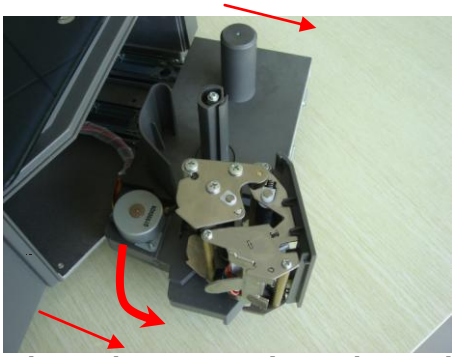
We suggest that you should use On/Off key to turn On/Off the scale, and do not pull out the power plug directly if it hasn’t been softly turned down, especially if the scale is under the conditions of connecting with network or downloading data.

4.4 Paper Installation

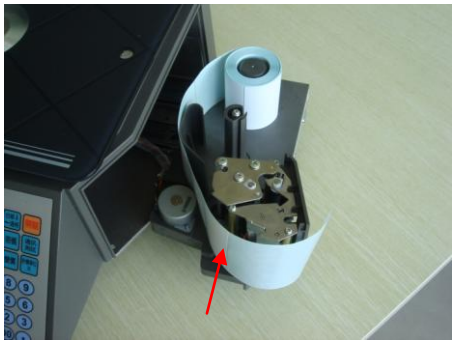
Notice: please take the conveying protection bolt down, when you load the paper for the first time.



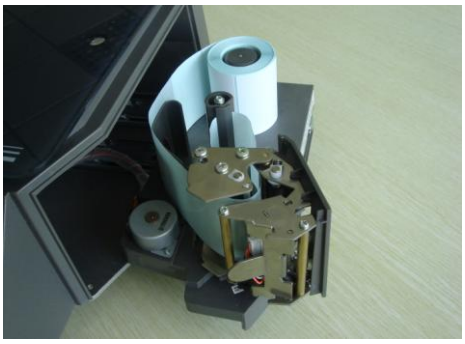
(1) Open the side cover



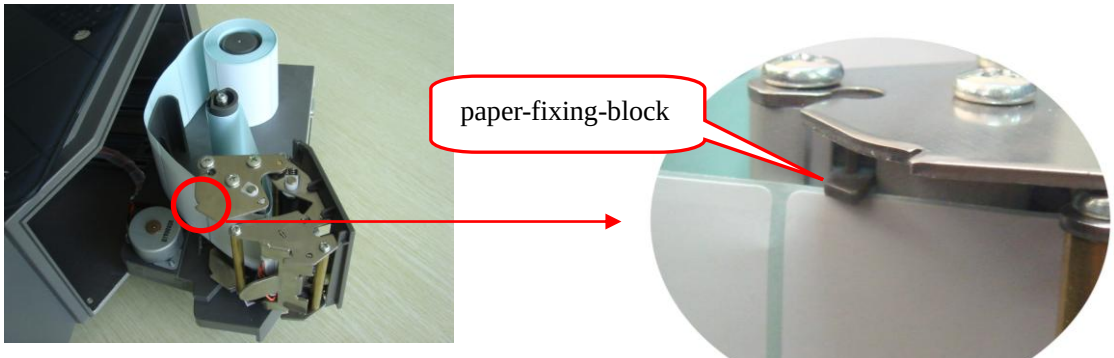
(2) Take out the printer, and open the turnable printing assembly



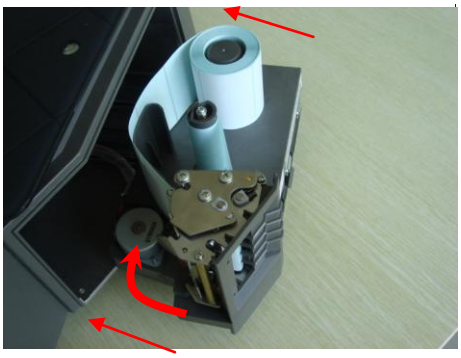
(3) Rip off several labels in the front part of the paper roll



(4) Insert the release paper to the rewinder

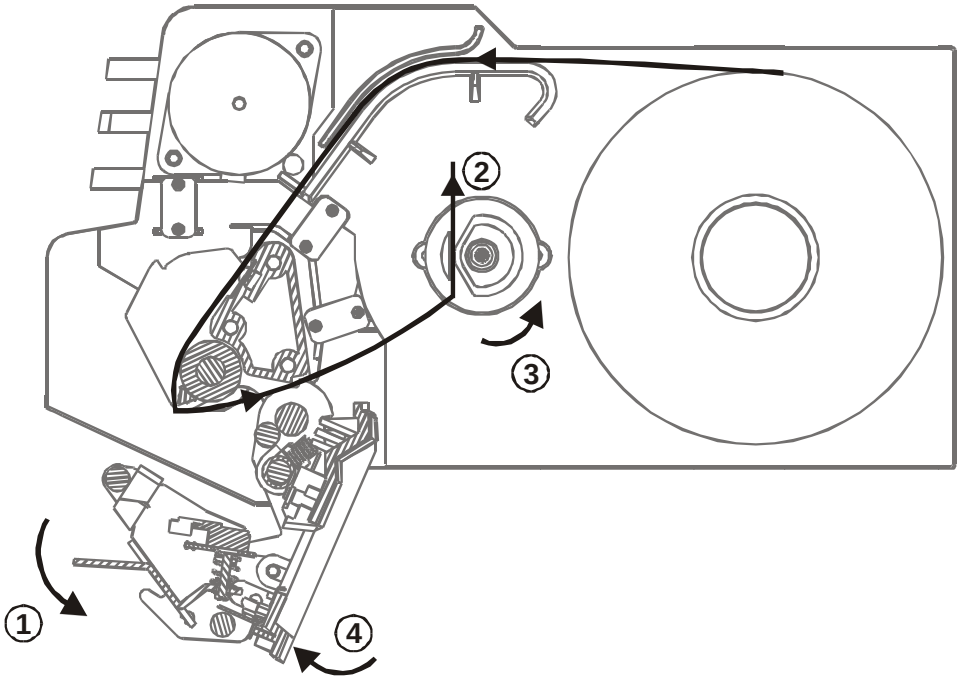


(5) Roll the release paper in the rewinder axis, and adjust the paper-fixing-block to fix the roll paper.

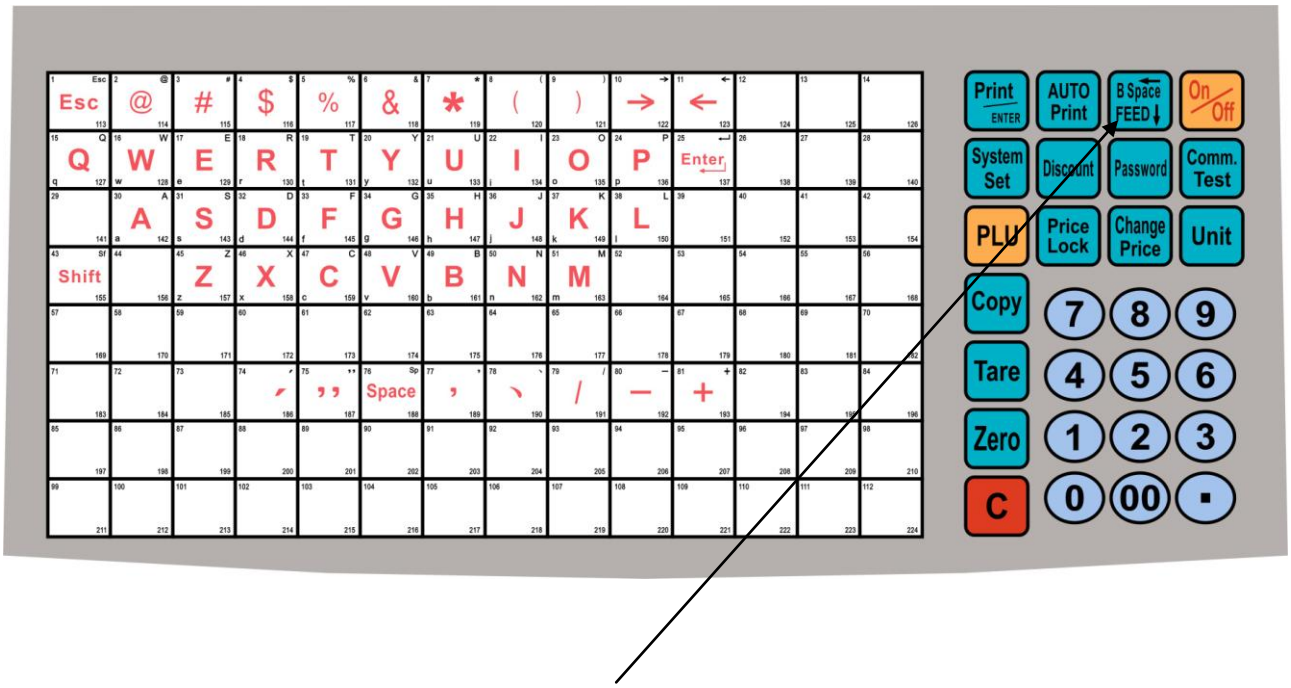


(6) Close the turnable printing assembly.

(7) Close the side cover



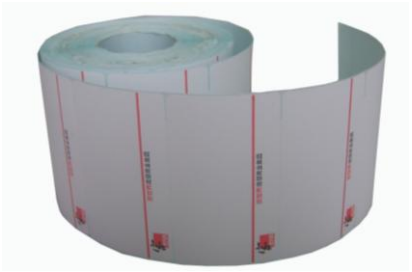
1. **Turn the bar out wards, open the turnable printing assembly in the direction shown as the arrowhead ①**
2. **Please rip off several labels in the front part of the paper roll, load paper in the direction shown as the arrowhead ②, roll the paper in the paper axis in the direction shown as the arrowhead ③.**
3. **Push the turnable printing assembly to the right position in the direction shown as the arrowhead ④.**
4. **When every five-paper roll is used up, or the labels print unclearly, please clean the printing head by using cotton dipping cleaning oil or alcohol.**



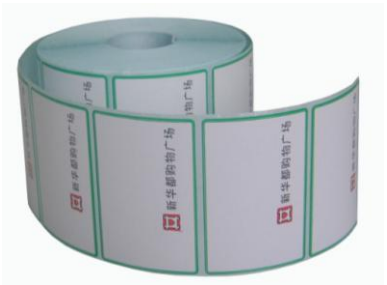
Press this key for 2 seconds; the scale will adjust the paper's position automatically; you yourself can also press it to adjust the paper minitrimly.

- Label Paper

We have two types of label paper: no-gap paper and gap paper



No-gap paper



Gap paper（2mm）

The label paper we produced is very suitable for label scale. It is a kind of environment protecting material has suitable thickness, high sensitivity and low price. We can produce any kind of specification label paper to match your request. Order easily, dial 86-592-5710087 or log on our company website www.aclas.com

5 PRINTER REPLACEMENT

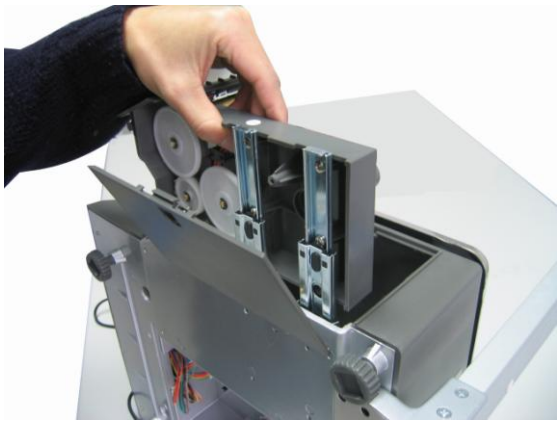
If the printer is damaged, you can follow the steps below to replace a new one.

Precaution:

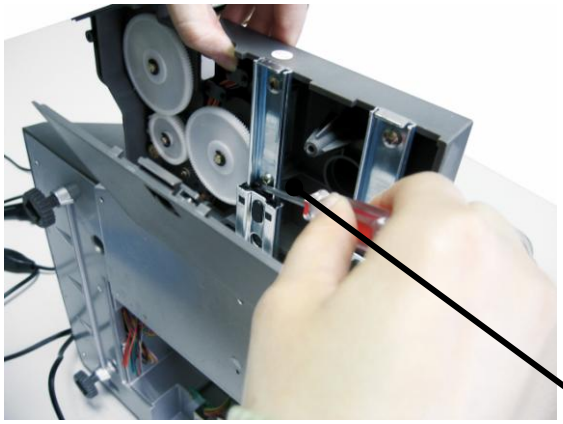
- **Before you do the following operations, please cut the power supply first.**
- **Do not disassemble, assemble or adjust the printer if it is operating satisfactorily. In particular, do not carelessly loosen the screws holding various parts in place.**
- **When servicing, be sure not to leave used parts or screws, etc.**

1. Demount the damaged printer

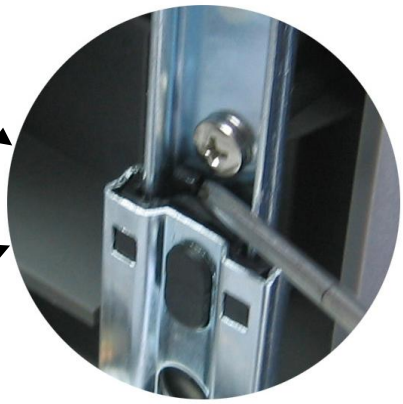
Open the printer cover.

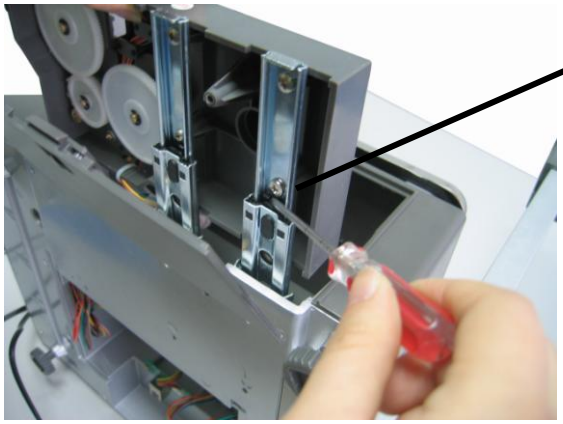


Pull out the printer

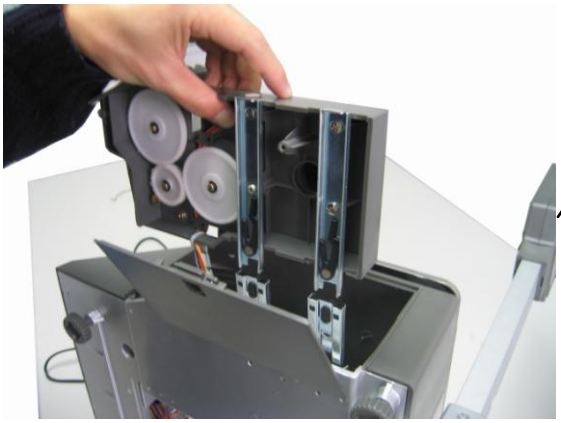


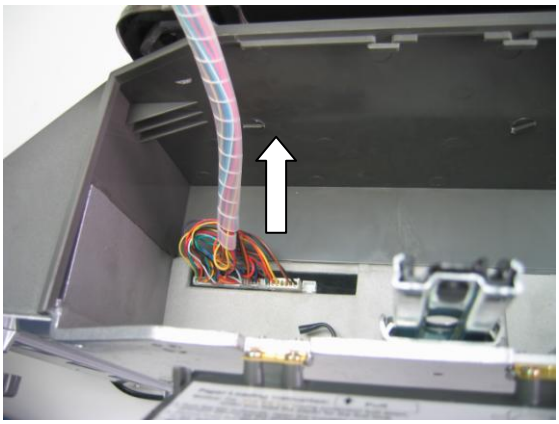
Use a screwdriver to push the latch to the left side.





Lift up the printer





Pull out the cable

2. Install a new one

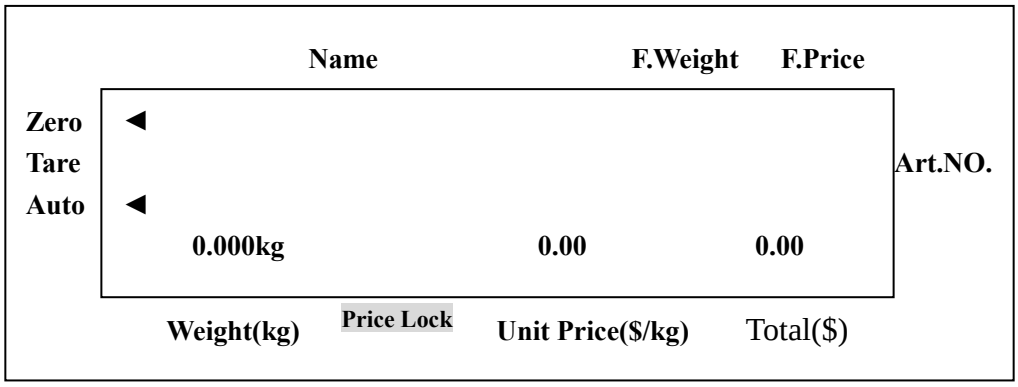
Install new printer by following the demount procedure in reverse order.

6 SALES OPERATION

6.1 Calculate by Weight

There are three kinds of operation. If PLU data is downloaded by background server PC or pre-edited in the scale, operation follows method 1 or method 2. Otherwise the operation follows method 3.

Picture 1 can help you understand the operation.



(Picture 1)

Notes:

1. **AUTO state:** On the condition that the weight and the unit are nonzero and after the weight is steady, a label will be printed. When power on, "AUTO" signal is lighted, which means the scale is in "AUTO" state. Press "AUTO" key to switch off the state. Suggest making "AUTO" state as default state.
2. **ZERO state:** There is nothing on the pan. Press "ZERO" key to let the weight zero and the "ZERO" signal will be on.
3. **Usage of Print key:** All of the following operations including weighing and price-calculating, tare package, granular price-calculating, and discount and changing price are in the "Auto" state. If the default state is not "Auto" state, the Auto arrow on the LCD won't be lightening, you must press Print key in order to print the label.

METHOD 1: HOTKEY OPERATION

Trade example: Some onions weighing 2.000kg are sold . Its hotkey is 01, and price is 0.500$/kg.

OPERATION STEP	KEY	ARROW		DISPLAY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Press "ZERO" key to let the scale return to zero	Zero	◄		0.000	0.00	0.00	Ignore this step if the scale is in "ZERO" status.
2. Put the onions 2.000kg on the pan.				2.000	0.00	0.00	
3. Input the hotkey 01 of the onions through PLU keyboard	0 1			2.000	0.50	1.00	

*4. Cancel “AUTO” state	Auto			2.000	0.50	1.00	This step is optional. If you want to switch off the “Auto” state, do this step.
*5. Set “AUTO” state	Auto		◄	2.000	0.50	1.00	Only after you take the above step 4 and want to set “Auto” state, take this step.

NOTES:

1) **There are 224 hotkey. These hotkeys can be changed randomly and be printed in a sheet quickly by the background PC.**
2) **The above opreation is for the hotkeys from 1 to112. As to hotkeys from 113 to 224, the above operation step 3 should be changed as follows: Press “PLU” key and press the hotkey no. of the commodity. Other steps are the same.**

METHOD 2: General operation step

Trade example: Some onions weighing 2.000kg are sold. Their LFCODE is 10, unit price is 1.500$/kg.

OPERATION STEP	KEY	ARROW		DISPLAY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Press “ZERO” key to make the scale return to zero.	ZERO	◄	◄	0.000	0.00	0.00	Ignore this step if the scale is in “ZERO” status.
2. Put the onions weighing 2.000kg on the pan.			◄	2.000	0.00	0.00	
3. Press “PLU” key	PLU		◄	Input PLU index	No set	0.00	
4. Input LFCODE 10 of the onions through small keyboard.	1 0		◄	Input PLU index	10.00	0.0	
5. Press PLU key.	PLU		◄	2.000	1.50	3.00	Ignore this step if the LFCODE has 6 digits.

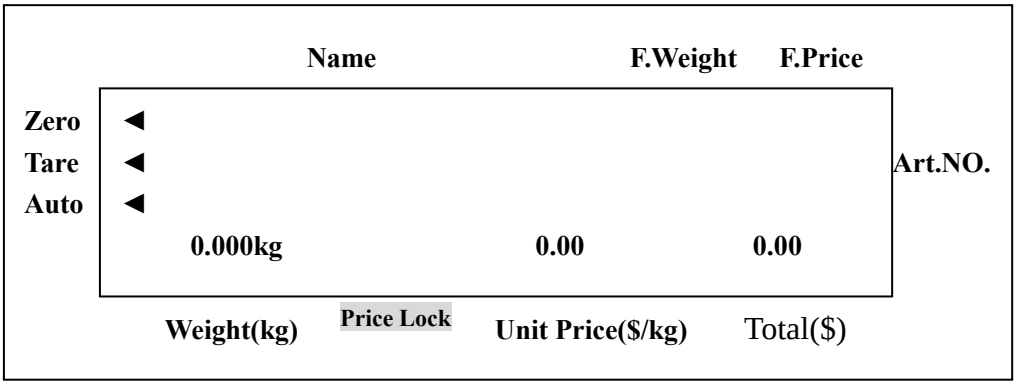
METHOD 3: operation for PLU without settings.

OPERATION SETP	KEY	ARROW		DISPLAY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Press “ZERO” key to make the scale return to zero state.	Zero	◄	◄	0.000	0.00	0.00	Ignore this step if the scale is in “ZERO” status.
2. Input unit price 2.00 through the small keyboard.	2 0 0		◄	0.000	2.00	2.00	
3. Put on the commodity weighing 1.0kg.			◄	1.000	2.00	2.00	
4. Press key “Print”.	Print		◄	1.000	2.00	2.00	

6.2 **Tare Operation**

It is only applicable to the commodity packed in package or container such as eggs, beans or fruit and so on. There are two kinds of operation including commodity separated or not separated from package or container.

Please refer to picture 2.



(Picture 2)

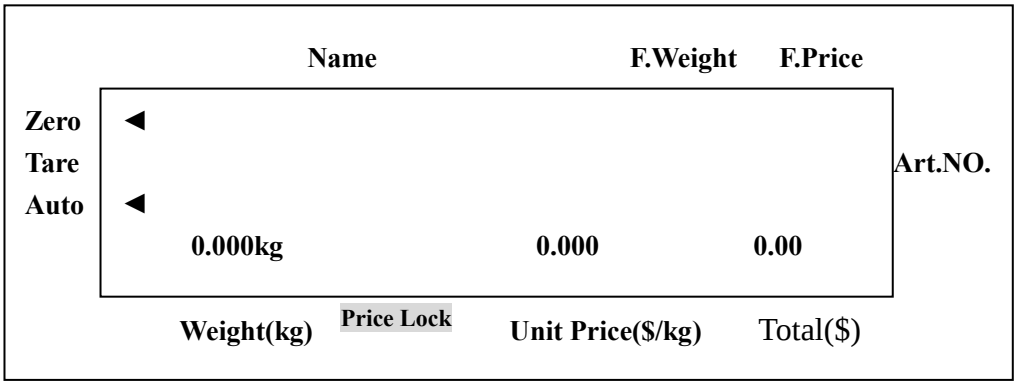
MOTHOD: Operation for commodity separated from container or package.

Trade example: A package of apples is sold. The hotkey of apples is 05, the net weight is 2.000kg and unit price is 6.000$/kg.

OPERATION	KEY	ARRPW			DISPLAY			REMARK
		Zero	Auto	Tare	Weight	Unit price	Total	
1. Put the container or package weighing 1.000 kg on the pan.			◄		1.000	0.00	0.00	
2. Press "TARE" key.	Tare	◄	◄	◄	0.000	0.00	0.00	The "TARE" signal flashing means the scale is in the weight-deducting state.
3. Put a page of apples weighing 2.000kg on the pan.			◄	◄	2.000	0.00	0.00	
4. Key in the hotkey 05 of apple through PLU keyboard.	05		◄	◄	2.000	6.00	12.00	
5. Take away the container and the apples on the tray, then press "TARE' key.	Tare		◄		0.000	0.00	0.00	This step is to leave the weight-deducting state. The arrow of "tare" disappears.

6.3 Calculate by Piece

There are three kinds of operation methods. The following operation of method 1 and method 2 is suitable for PLU already downloaded by background sever or pre-edited on the scale. And method 3 is for PLU not pre-edited. The main picture is like picture 3.



(Picture 3)

Note: Before you taking these two operations, please make sure the PLU is pre-edited with piece calculation. (You can refer to chapter 11.3.5).

METHOD 1: Hotkey operation step

Trade example: Ten pieces of cake are sold. The hotkey of cake is 05. **The unit must be set as PCS.**

OPERATION	KEY	ARROW		DISPLAY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Input the number of the commodity through small keyboard. For example 10.	1 0	◄	◄	0.000	0.10	0.10	
2. Press "UNIT" key.	Unit	◄	◄	0.000	0.00	0.00	The LCD returns to initial state after "unit" key is pressed.
3. Press the corresponding hotkey 05 of the cake through PLU keyboard.	05	◄	◄	10kg	3.00	30.00	

METHOD 2: general operation step

Trade example: Ten pieces of cakes are sold and the LFCODE of the cake is 12. **The unit must be set as PCS.**

OPERATION	KEY	ARROW		DISPLAY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Input the number of the cake 10 through small keyboard.	1 0	◄	◄	0.000	0.10	0.10	

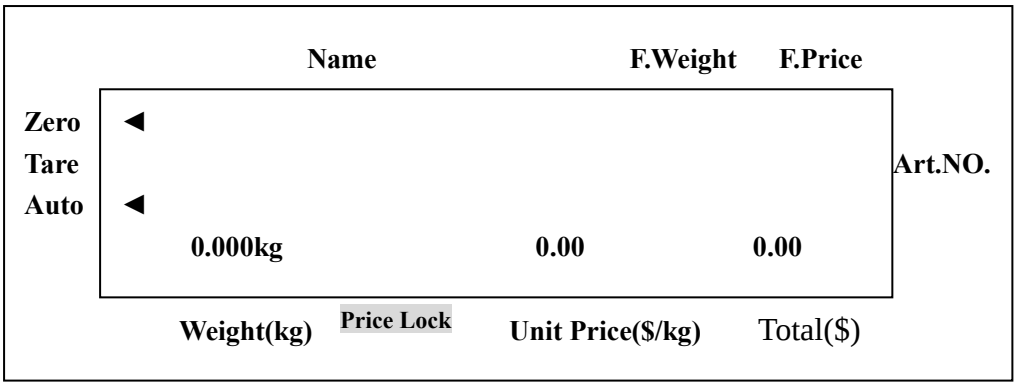
2. Press “UNIT” key.	UNIT	◄	◄	10	0.00t	0.00	
3. Input LFCODE of the cake 12 through small keyboard.	1 2		◄	Input PLU index	12.00	0.00	
4. Press “PLU” key	PLU	◄	◄	10kg	2.50	25.00	Ignore this step if the LFCODE has 6 digits.

METHOD 3: operation for PLU without pre-edited.

OPREATION	**KEY**	**ARROW**		**DISPLAY**			**REMARK**
		Zero	**Auto**	weight	Unit price	Total	
1. Input the number of the commodity through numeric keyboard. For example 10.	1 0	◄	◄	0.000	0.10	0.10	
2. Press “unit” key.	**Unit**	◄	◄	10	0.00	0.00	
3. Input unit price through the numeric keyboard. For example 2.0.	2 0 0	◄	◄	10	2.00	2.00	
4. Press key “Print”.	**Print**	◄	◄	10	2.00	20.00	

6.4 Discount

Discount function can be locked by password which is set and can be randomly changed by background sever PC. Please refer to picture 4.



(Picture 4)

METHOD: operation for proportional discount.

Trade example: some peaches give a discount of 95. Its unit is 8.0$/kg and hotkey is 12.

OPERATION	KEY	ARROW		DISPLAY			REMARK
		Zero	Auto	weight	Unit price	Total	
1. Input discount proportion of the commodity 9 5 through numeric keyboard.	9 5	◄	◄	0.000	0.95	1.00	
2. Press Discount key.	Discount	◄	◄	0.000	0.00	0.00	The LCD returns to initial state after DISCOUNT key is pressed.
3. Put the commodity weighing 1.000kg on the pan.			◄	1.000	0.00	0.00	
4. Key in the corresponding hotkey of the peaches e.g. 12.	12		◄	1.000	8.00	7.60	

Notes:

As for step 3 and 4, please refer to the operation of 'calculate by weight'. You can choose other kinds of operation such as normal operation or operation for pre-edited PLU to proceed with the above operation.

6.5 Change Price

Change the unit price of a commodity. There are two methods to change the unit price of a commodity, they are permanently change price and temporarily change price.

Please refer to Picture 4 in DISCOUNT for the display interface.

6.5.1 Permanently Change Price

METHOD 1:

Trade example: The unit price of the apples 4.000$/kg. After changing price, its unit price is 3.000$/kg and the hotkey is 05.

OPERATION	KEY	ARROW		DISPLAY		
		Zero	Auto	Weight	Unit price	Total
1. Key the hotkey 05 of the apples via PLU keyboard.	05	◄	◄	0.000kg	4.00	0.00
2. Press Change price key.	Change Price	◄	◄	Input new price	0.00	0.00
3. Key in the new price 3.000$/kg.	3 0 0	◄	◄	Input new price	3.00	0.00
4. Press Enter key.	Enter		◄	0.000kg	0.00	0.00
5. Proceed with the normal operation of weighing or granular price calculating.						

METHOD 2:

Trade example: Some apples are sold. The unit price of the apple is 4.000$/kg, and LFCODE is 15. After change the unit price, the unit price of the apple is 3.000$/kg.

OPERATION	KEY	ARROW		DISAPLY		
		Zero	Auto	Weight	Unit price	Total
1. Press Change price key.	Change Price	◄	◄	Input LFCODE index	0.00	0.00
2. Key in the LFCODE 15 of the apples through small keyboard.	1 5	◄	◄	Input LFCODE index	15.00	0.00
3. Press Enter key.	Enter	◄	◄	Input new price	0.00	0.00
4. Key in the price changed 3.000.	3 0 0		◄	Input new price	3.00	0.00
5. Press Enter key.	Enter		◄	0.000kg	0.00	0.00
6. Proceed with the normal operation of 'calculate by weight' or 'calculate by piece'.						

6.5.2 Temporarily Change Price

METHOD 1: temporarily change the price of cherry（its original price is 24.0$/PCS(g)）.

Trade Example： Sell 10 cases of the cherry, temporarily change the price as 30.0$/PCS(g), and its hotkey is 11. When finish this dealing, it will recover to the original price 24.0$/PCS(g).

OPERATION	KEY	ARROW		DISAPLY			REMARK
		Zero	Auto	**Weight**	**Unit price**	**Total**	
1. Key in 10 (10 cases) via the numeric key.	1 0	◄	◄	0. 000	0. 10	0. 00	
2. Press Unit key.	Unit	◄	◄	0. 000	0. 00	0. 00	Display is back to the initial status.
3. key in the new price 30$/PCS(g)	3 0		◄	Input new price	30. 00	0.00	Begin with this step if sell the commodity by unit.
4. Press Comm. Test key	Comm. Test		◄	0. 000	0. 00	0. 00	
5. Key the hotkey 11 of the cherry via PLU keyboard.	1 1	◄	◄	10kg	30. 00	300. 00	

METHOD 2:

Trade Example： The unit price of the cheese is 4.000$/ PCS(g), and LFCODE is 15. Change the unit price of the cheese as 3.000$/kg. When finish this dealing, it will recover to the original price 4.000$/PCS(g).

OPERATION	KEY	ARROW		DISAPLY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Key in the LFCODE 15 of the cheese via small keyboard.	1 5	◄	◄	0. 000	15	0. 00	
2. Press Change price key.	Change Price	◄	◄	0. 000	0. 00	0. 00	Display is back to the initial status.
3. Key in the new price 3.0 **$**/PCS(g).	3 0 0		◄	Input new price	3. 00	0. 00	
4. Press Print key.	Print		◄	0. 000	0. 00	0. 00	

METHOD 3: Temporarily change the PLU whose initial unit price is 0$/kg.

1. Trade Example 1：Suppose the initial price of the cherry is 0$/kg, and now temporarily change it as 30.0$/kg, and its hotkey is 11. when finish this dealing, it will recover to the initial price 0$/kg.

OPERATION	KEY	ARROW		DISAPLY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Put the cherry weighted 1kg onto the scale.			◄	1.000	0.00	0.00	
2. key in the new price 30$/kg	3 0 0 0	◄	◄	1.000	30.00	30.00	
3. Key the hotkey 11 of the cherry via PLU keyboard.	1 1		◄	1.000	30.00	30.00	PLU with its unit price as 0, cannot be sold directly.

2. Trade Example 1：The original unit price of PLU is 0$/kg, sell with LF-code.

Suppose the initial price of the cherry is 0$/kg, and now temporarily change it as 30.0$/kg, and its LF-code is 13. When finish this dealing, it will recover to the initial price 0$/kg.

OPERATION	KEY	ARROW		DISAPLY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Put the cherry weighted 1kg onto the scale.			◄	1. 000	0. 00	0. 00	
2. Key in LF-code 13 via the numeric keypad.	1 3			Input new price	0. 00		PLU with unit price 0$/kg can't be sell directly.
3. Press key PLU	PLU	◄	◄	1. 000	30. 00	30. 00	
4. key in the new price 30$/kg	3 0 0 0		◄	Input new price	30. 00	30. 00	
5. Press Print key.	Print		◄	1.000	30. 00	30. 00	

METHOD 4: Temporarily change the price of the PLU, which is need to weighted.

Trade Example: The unit price of the cabbages is1$/kg, and it should be change price as 2$/PCS in the evening to promote it. When finish this dealing, it will recover to its initial price 1$/kg.

Suppose a cabbage is 3kg, and its hotkey is 13.

OPERATION	KEY	ARROW		DISAPLY			REMARK
		Zero	Auto	Weight	Unit price	Total	
1. Put the cabbage onto the scale.			◄	3.000	0.00	0.00	Sell by PCS now.
2. Key in the new price 2$/PCS.	200		◄	3.000	2.00	6.00	
3. Press Comm.Test key	Comm.Test		◄	3.00	0.00	0.00	Display is back to the initial status.
4. Key the hotkey 13 of the cabbage via PLU keyboard.	1 3		◄	3.00	2.00	2.00	

7 SOME SIMPLE OPERATION

7.1 Normal Package

This is suitable to quickly pack a same commodity (or different commodity with the same unit price) with different weight. (The **Package Type** is set as 'Normal' on the scale software 'PLU manager'.

<table>
<tr><td colspan="2">1. Start up the function of "Auto" and "Price lock" (these two indicator light are lighting)</td></tr>
<tr><td colspan="2">2. Select PLU or input the unit price.</td></tr>
<tr><td colspan="2">3. Put the commodity (to be packed) on the pan and the label will be printed automatically.</td></tr>
<tr><td rowspan="6">Note: the operation of the right is suggested if you want to operate quickly.</td><td>1. Put commodity 1 on the pan</td></tr>
<tr><td>2. After the label is printed automatically put commodity 2 on the pan at the same time, take away commodity 1.</td></tr>
<tr><td>3. Take away the label and stick it on commodity 1. The label of the commodity 2 will be printed out.</td></tr>
<tr><td>4. Put commodity 3 on the pan and take away commodity 2.</td></tr>
<tr><td>5. Take away the label and stick it on commodity 2, the next label will be printed.</td></tr>
<tr><td>6. Repeat as the above steps to overlap the time of waiting for printing label and sticking label.</td></tr>
</table>

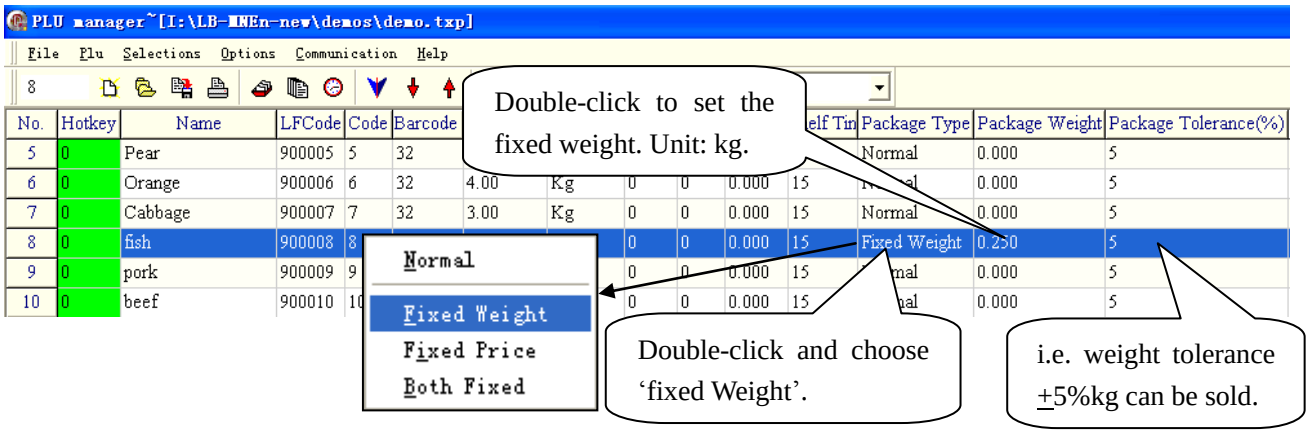
7.2 Package by Fixed weight

Fix weight package, this function is available by setting on PC software first.

For example: pack fish by the fixed weight 0.250kg, and the corresponding hotkey is 38.

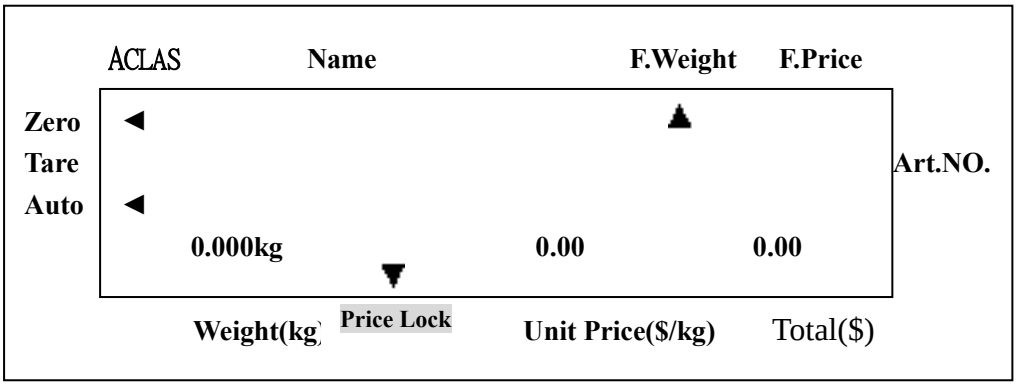
The operation processes are as follows:

1. Open 'Start/Program/LB-MNV/PLU manager' on you PC. Choose 'Fixed weight' in the column 'Package Type'; input 0.250kg in the column 'Package Weight'; input 5% in the column 'Package Tolerance (%)'.



2. After setting, click in the toolbar to download it to the scale.

Note: Before operate on the scale, please press key Price Lock first, and the indicator light for 'price lock' will be lighting. The corresponding display is as Picture 5.



OPERATION	KEY	ARROW			Display			Remark
		Zero	Auto	Fix Weight	Weight	Unit Price	Total	
1. Put the fish on the pan.			◄	◄	0.255	0.00	0.00	
2. Press the hotkey 38 of the fish via PLU keyboard.	3 8		◄	◄	0.255	70.00	17.85	

Attention: The commodity can be sold at the condition that its weight is between the weight tolerance +5%kg while it is in Fixed Weight package mode.

7.3 Package by Fixed Price

Fix price package, this function is available by setting on PC software first. (As for the PC software operation, please refer to **Chapter 7.2** Package by Fixed Weight. And choose the item 'Fixed Price' in the column 'Package Type', input the fixed price in the column 'Unit Price', and input the weight value for the commodity's fixed price in the column 'Package Weight'.)

For example, pack fish by the fixed price $35, and the corresponding hotkey is 38.

Note: 1. After download the setting data to the scale, the indicator light for 'Fixed Price' will be lighting;
2. Before operate on the scale, please press key Price Lock first, and the indicator light for 'price lock' will be lighting.

OPERATION	KEY	ARROW			DISPLAY			REMARK
		Zero	Auto	Fix Price	Weight	Unit Price	Total	
1. Put the fish on the pan.			◄	◄	0.505	0.00	0.00	
2. Press the hotkey 38 of the fish via PLU keyboard.	3 8		◄	◄	0.505	0.00	35.35	

Attention: The commodity can be sold at the condition that its total price is between the package tolerance $+5% while it is in Fixed Price package mode.

7.4 Piece Together Usage

Piece together function is usually used in the aspect, such as pack gift-box and fruit-dish.
This function is available by setting a hotkey 'piece together'on PC software first.

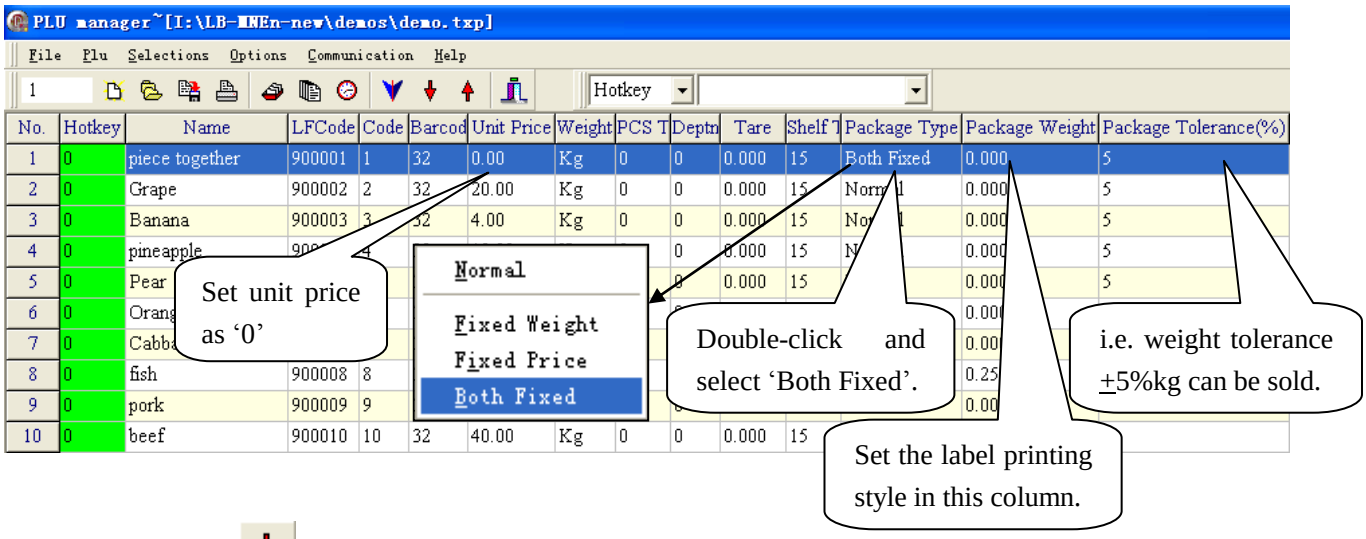
The operation processes are as follows:

1. Open 'Start/Program/LB-MNV/PLU manager' on you PC. And set hotkey 01 as the 'piece together' hotkey.

* Following the operation below to set the 'piece together' hotkey:

Input 'piece together' in the column 'Name'; set unit price as '0' in the column 'Unit Price'; double-click the column 'Package Type' and choose 'both fixed'; input '0.000' in the column 'Package Weight'; input 5% in the column 'Package Tolerance (%)'.

Note: When use piece together function, two label-printing styles are for your option (Set the label-printing style in the column 'Package Weight'). **They are '0.000' and '0.001', where '0.001' stands for: when weighing each item of the fruit-dish (for example), each will print a single label, and at last print the total one; '0.000' stands for: only print the total label.**



2. After setting, click in the toolbar to download it to the scale.

Note: 1. After download the setting data to the scale, the indicator light for 'Fixed Weight' and 'Fixed Price' will be lighting;
2. Before operate on the scale, please press key Price Lock first, and the indicator light for 'price lock' will be lighting.

For example: Package a fruit-dish (apple, grape, and orange)

PLU name: apple	weight unit: kg	unit price: 10.00 $/kg	hotkey 06
PLU name: orange	weight unit: kg	unit price: 4.00 $/kg	hotkey 07
PLU name: grape	weight unit: kg	unit price: 20.00 $/kg	hotkey 08

Suppose each of the three fruits is 1.000kg.

OPERATION	KEY	ARROW			DISPLAY			REMARK
		Zero	Auto	Fix weight Fix price	Weight	Unit Price	Total	
1. Press hotkey 01			◄	◄				
2. Put the apple on the pan, and press hotkey 06	0 6		◄	◄	1.000	10.00	10.00	
3. Put the orange on the pan, and press hotkey 07	0 7		◄	◄	1.000	4.00	4.00	
4. Put the grape on the pan, and press hotkey 08	0 8		◄	◄	1.000	20.00	20.00	
5. Press hotkey 01			◄	◄	3.000		34.00	

8 FUNCTION SET

8.1 PLU Set

Notes: This operation can be locked by password that is set in background PC changed randomly.

◆ **PLU Input**

1.Press PLU key for 2 seconds. The display shows "PLU EDIT", it means the system is in the state of editing PLU.
2. Key in LFCODE when the display prompt "LLFCODE?", and press Enter to confirm. Then the display shows "NAME" and enter editing items: N/L/C/P/U/F/T/B/D/W/Y/M/G/I/R/S, you can use key ← and → to choose the item you want to edit, then press Enter.
3. Press Enter key. Input the corresponding data by sequence. Refer to the following notes.
4. Press S or Enter to save the above operation.

NOTES: the following is the sequence of PLU data input. When one item is input, press Enter to confirm. The system will shift to another item, and press Enter again to enter it. If no contents are inputted, press ESC to exit.

1) N---PLU NAME: Input PLU name not exceeding 36 characters directly through keyboard. And through the numeric keyboard input the code of the input characters. The code is in the word stock table.
2) L---LFCODE: Input Life and Fresh Code within 6 digits.
3) C---PLU CODE: Input PLU code within 10 digits.
4) P---UNIT PRICE: Input PLU price.
5) U---UNIT: Select price unit from g, 10g, 100g, kg, Lb and Oz or PCS (g), PCS (kg), PCS (Lb) and PCS (Oz).
6) F---SHELF: Input the shelf-time of PLU: period from 0 to 365---means its unit is 'day'; period from 1000 to 9999---means its unit is 'hour'. E.g. input 60, which stands for its shelf-time is 60-day; input 1006, which means its shelf-time is 6-hour.
7) T---TARE: Input tare (not exceeding the maximum weight).
8) B---BAR CODE: Select barcode type from 1 to 99.
9) D---DEPARTMENT: Input department code from o to 99.
10) W---PACKING WEIGHT: Input the package weight.
11) Y---Packing Type: Use key "←""→"to select (Normal; fixed weight; fixed price; both) weight and price.
12) M---MESSAGE1: Input the selected message No. (0~12000). 0-no use this message
13) G---MESSAGE2: reserved
14) I---LABEL SELECT (Set label of corresponding PLU) Use key "←""→"to select (DEF, D0, D1,D0D1).
15) R---Set PLU discount (-10~125).
16) S---Save PLU revision.

◆ **PLU Data Revise**

1. Press PLU key for two seconds. The display shows "PLU EDIT", it means the system is in the state of editing PLU.
2. Key in LFCODE when the display prompt "LLFCODE?", and press Enter to confirm. Then the display shows "NAME" and enter editing items: N/L/C/P/U/F/T/B/D/W/Y/M/G/I/R/S, you can use key ← and → to choose the item you want to edit, then press Enter.
3. Key in the corresponding letter of the item to be modified, refer to the above notes, for example, key in N to modify name and P to modify price.
4. Input the new information.
5. Press S key to save the above results. Else they are abandoned.

8.2 System Set

Note: This operation can be locked by password set in background PC server and is changeable as will.

1. Press the System Set for two seconds to enter the system setting state.
2. Use "←" "→" to select the desired items as follows: T/A/L//S/N/J/X/W/K/Y/D/E/F/Y/G/Q/N/W/;/@/V Refer to the following notes.
3. Press Enter key to confirm.

Notes:

1. T---DATE: input date and time, use key "←" "→"to switch the two options. (Before you do it, you need to set the date format)
2. A---ALIGN: Use arrow key to select one of the 17(-8~+8) values to adjust the label to the most suitable printing state.
3. L---LABEL SELECT: Choose label type D0 or D1. (We only have such two label types presently.)
4. S---Paper: Using arrow to select paper type: label, or no recycle.
5. N---DATE FORMAT: Set date format.
6. PRINT WEIGHT UNIT: This function is to set whether print the weight unit in the label.
7. PRINT PRICE UNIT: This function is to set whether print the price unit in the label.
8. J---PRICE FORMAT: Set decimal position for unit price in the label.
9. X---AMOUNT FORMAT: Set decimal position for total price in the label.
10. BARCODE SET: set barcode type; refer to Chapter 12.2 Appendix 2 for the barcode list details.
11. W---Print Time: This is to set whether print time in the label or not.
12. K---ROUND: set rounding; input a digit among 1 ~ 10, round off the last digit.
    - 1: 0 off 1 up
    - 2~4: Reserved
    - 5: 4 off 5 up
    - 6: 5 off 6 up
    - 7: 6 off 7 up
    - 8: 7 off 8 up
    - 9: 8 off 9 up
    - 10: All round off

E.g.: if you input 5, then 2.45 will be rounded to 2.5, while 2.44 will be rounded to 2.4.

13. Y---YEAR FORMAT: Set year format, use key "←" "→"to select 2 digits or 4 digits.
14. D---DENSITY: Select printing density from "0" to "5" with arrow. This scale supports print density class 0 to 5. '0' is the lightest one of all, and '5' is the thickest of all.
15. Q---PRINT DELMARK: This function is to set whether print delete mark in the label or not.
16. G---SOURCE PRICE: This function is to set whether use the original price before discount as the sale price.
17. PRINT ITEM IN WEIGHT ITEM: Two items can be printed in the 'weight column': Weight and PCS. This function is to set whether print Weight or PCS in the 'weight column'.
18. E---MESSAGE 1: This is to set the message no. of MESSAGE 1. Input a number among 0~250. Each number represents different message content.
19. F---MESSAGE 2: This is to set the message no. of MESSAGE 2. Input a number among 0~250. Each number represents different message content.
20. Set 'BARCODE LINE WIDTH': only effective in 18-code barcode. Use arrow key to select width or narrow.
21. ;---ANTI WIND: Select anti-wind state.
22. @---IP: Input the scale IP address directly.

    Note: The scale IP and PC IP should be in the same network segment, namely, the first three fields of scale IP should be accord with PC IP. E.g. my computer's IP is '192.168.1.151', therefore, in the next step, I should set the first three fields of scale IP to match with PC IP, namely, the first three fields of scale IP should be '192.168.1.' and I set scale IP as '192.168.1.101'.
23. V---SPEED: Set print speed. Select print speed from "0" to "7" with arrow. '0' is the fastest one of all, and '7' is the slowest of all.
24. Rebate to 23 department: Whether to set the initial 2-digit department numbers of the discount PLU barcode as 23.
25. R---HOST IP: Input the host IP address directly, and press key [ENTER].
26. stat. mode: Whether to set the system in stat. mode. Use arrow key to select "YES" or "NO".

    If you choose "YES", the system will be in stat. mode, when you use the hotkey, the sale subtotal of this key will be printed on label.

    And if you choose "NO", you can do hotkey operation as normal.
27. stat Warning? : Whether to set the stat. Warning. Use arrow key to select "YES" or "NO".
28. prn Tubtot: Press [Enter] to print the total label.
29. Prn ALL stat. plu: This operation can print stat. data of each hotkey.
30. clr stat.: Press [Enter] to clear stat..
31. Z---LABEL SELECT: This is to choose the label paper type. There are two types of label paper, one is No-gap paper, and the other is gap paper. User key "←" "→" to select 'YES' or 'NO'. 'YES' for No-gap paper, and 'NO' for gap paper. Gap paper is the default label paper type. Only when you install the No-gap paper into the scale, you need to set this item to 'YES'.

8.3 Function Lock

PLU edit, Discount Program and tare functions can be locked by password and password of each function is independent and changeable. Password is set by background PC server and downloaded to every scale.
Operation on the label scale is as followings:
Note: Once you turn on the locked function, this function will be valid until the scale is warmly closed.

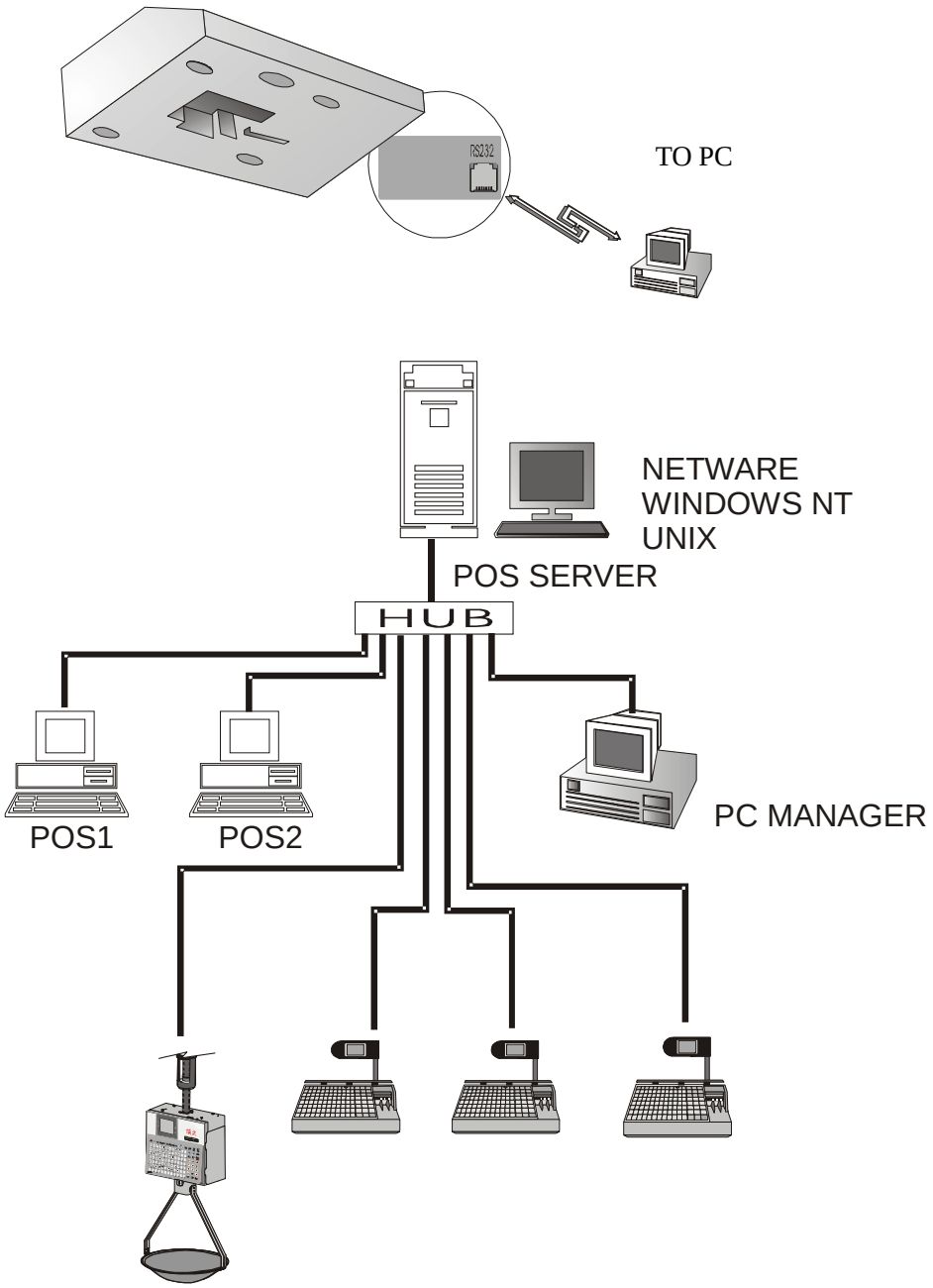
Turn on the locked function	1. Turn on the scale.
	2. Select the desired function key. Press Discount key two seconds to enter discount function, the system prompts to input password, then input the safe password which is set by background PC server. Press PLU key for two second to enter PLU editing state, the system prompts to input password, then input the safe password which is set by background PC server. Press System Set key for one second to enter program setting state, the system prompts to input password, then input the safe password which is set by background PC server. Press Tare key for one second to enter tare state, the system prompts to input password, then input the safe password which is set by background PC server. Press Change Price key for one second to enter change price state, the system prompts to input password, then input the safe password which is set by background PC server.
Lock these functions again.	1. Press On/Off key for two seconds to warmly close the scale.
	2. Press On/Off key to open the scale.

8.4 Lock Scale

You can lock the scale by password, so that other people can't do any operation on the scale.
Lock scale as the following method:

Lock the scale	1. Press Password key until the word "PASSW" appears on the LCD display.
	2. Input the eight-digit password by numeric keyboard.
	3. Press Password key and after hearing a "beep" sound to show the password has been set.
Turn on the lock casually	1. Turn on the scale.
	2. The LCD display "PASSW".
	3. Input the eight-digit password, then press Password key to turn on the lock.
Turn on the lock timelessly	1. Turn on the scale.
	2. Press C key.
	3. Press Password key for two seconds until the word "PASSW" appears on the LCD display.
	4. Input the eight-digit password, then press Password key to turn on the lock.

9 COMMUNICATION SETUP



9.1 Interface Criterion of Link 32 based on TCP/IP Protocol

Link32 can exchange source including uploading PLU and updating PLU with background by TCP/IP protocol if only the background obeys the attached handshaking protocol. Following is the explanation of Link32 and configuration of Link32 to support TCP/IP protocol:

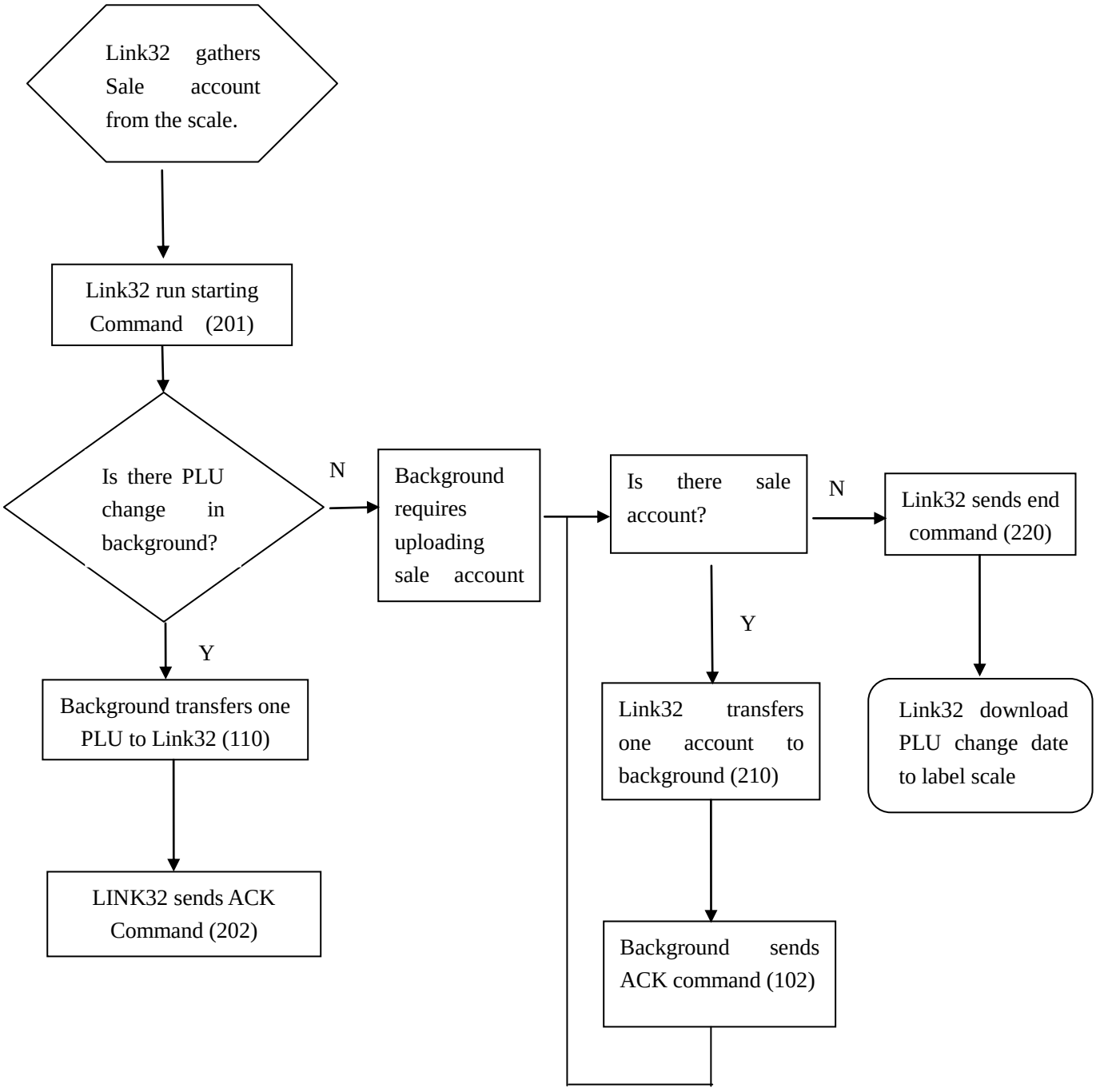
1. List all the scales in scale configuration table and configure corresponding updating file in PLU update column according to scale group. For example: the corresponding updating file name is 20.txu if the scale group is 20,Mrk the selected sign before the scale.
2. Most commands in Network function list valid to the scale with selected mark. Command Update PLU & upload account uploads the waste book of the selected scale to current working directory and then download PLU updating source to the selected scale.
3. Configure TCP/IP. Run file\Preferences to enter to view window of Link32 select TCP/IP to configure TCP/IP:

- Address: IP address of background such as 192.168.0.1
- Port: Link32 connects with background by port, which had better be greater than 1024 in order not to conflict with other service.
- Use TCP/IP to exchange data with other program. Click this item to start TCP/IP Function.

After finishing TCP/IP configuration Link32 exchanges source with background through TCP/IP while running command Update PLU & upload account.

- Start up schedule to execute a task automatically, run command File\Preferences and enter Link 32 option window, select Schedule, schedule Update PLU & upload account function.
- Set time to start a task everyday, mark it with selected sign.
- Set interval to repeat a task, mark it with selected sign. After scheduling Link32 will run command Update PLU & upload account automatically in scheduled time everyday.
- After scheduling Link32 will run command Update PLU & upload account automatically in scheduled time everyday. Transfer the sales account to background and download the latest PLU change file to the selected scale.

9.2 Handshaking Flowchart of Label Scale and Background



Record package format:

One record package includes three aspects:

1. Package length 4Byte
2. Command 4Byte
3. Record uncertain length

Example:

Starting command: 00080201

Package length: 0008

Command: 0201

Record: no

ACK command: 00220102100000010000

Package length: 022

Command: 0102

Source: 02100000010000

From command list we can see responding command includes three aspects:

Command: 0210 which means responding to command 0210

LFCode: 000001

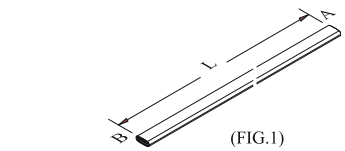
Error code: 0000 which means no error

Command list:

Link32->background				
Code	Description	Type	Length	Remark
0201	Starting command	Number	4	
0202	ACK command	Number	4	
	Command code	Number	4	
	LFCode	Number	6	
	Error code	Number	4	
0210	Link32 sends sale records command	Number	4	
	Scale number	Number	8	
	User ID	Number	6	
	LFCode	Number	6	
	Unit price	Number	8	No decimal fraction mode
	Weighing unit	Number	1	Hexadecimal system
	Total price	Number	10	No decimal fraction mode
	Weight	Number	6	Within 15kg after logic conversion
	Sell time	Number	14	YYYYMMDDHH (24) NNSS
	Discount	Number	1	0:common, 1:change unit price, 2:change total price
	Last connect time	Number	14	YYYYMMDDHH (24) NNSS
0220	Sales records sending over	Number	4	

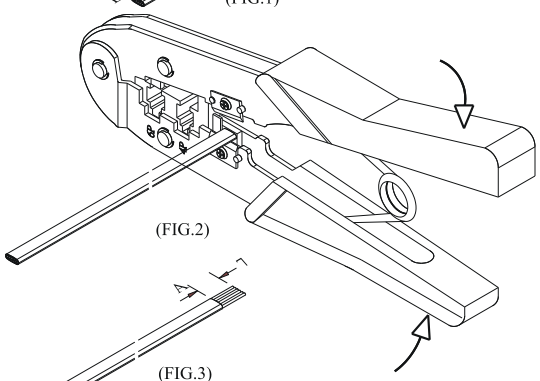
9.3 Making procedure of connector

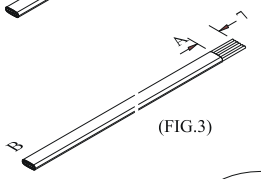
(1) Select a connector wire (8 pin) by length of L.



(FIG.1)

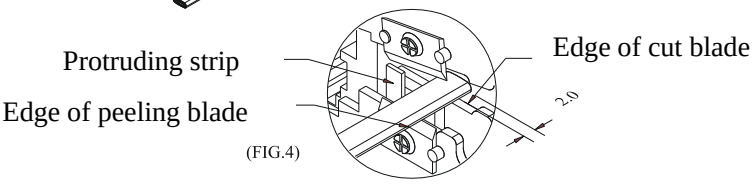
(2) Put A end of the connector wire at the edge of blade of pliers horizontally (note: point against the baffle to ensure 12mm peeling length), press the pliers and pull out the wire and the peeling length is about 12mm.


(FIG.2)



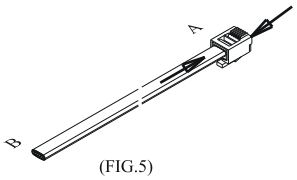
(FIG.3)

1.Connection order:
green/white, green, orange/white, blue, blue/white orange, brown/white, white.
2. line Connection order:
orange/white, orange, green/white, blue, blue/white, green, brown/white, white.



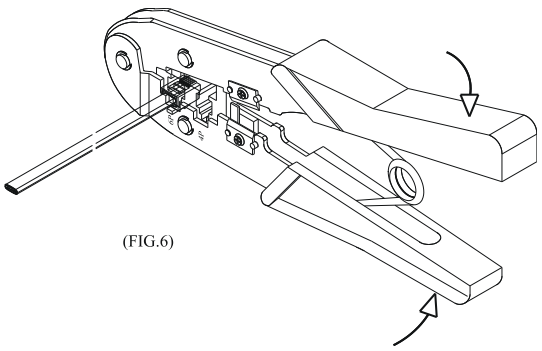
(FIG.4)

(3) Plug peeling end (A) into 8 PIN PHONE connector as either Connection order above.
Make sure to plug to the end.

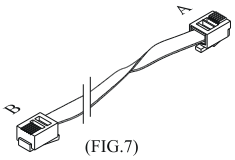


(FIG.5)

(4) Plug wire connector with 8 pin into the position with logo 8P of pliers gently, then press the pliers forcefully.


(FIG.6)

(5) When process end B of connecting wire, don't twist wire and keep the wire with same color in the same position.



(FIG.7)

10 TROUBLESHOOTING

The scale breaks down:

1. There is no sound and no display but backlight when power is on.

Reason: Electric sparkle caused by power plugging in and pulling out destroys the ROM program in the main board.

Treatment: Change main board, reset sequence number and download all records.

2. There is no sound and displaying 'UPDATE' when power is on.

Reason: The same as the above.

Treatment: Download POS program to the scale again.

3. Buzzer sounds continuously and the displaying characters bounce.

Reason: The same as the above.

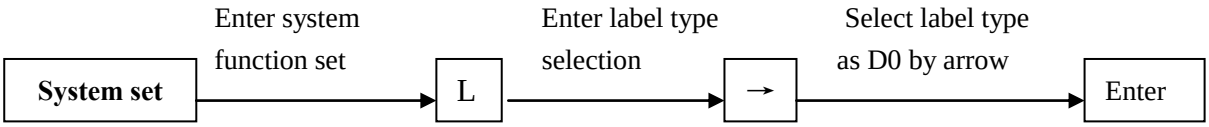
Treatment: The same as the above.

Question about print:

1. Paper location is normal but the printed out label is blank.

Reason: Label type sets error. It is required label type printed out by the scale should be consistent with which downloaded from PC. Otherwise the label printed out will be blank.

Treatment: a. Adjust the scale according to the following sequence.



b. Also we can adjust the software with PC. Open Link 32, input serial number of the scale, run command function set and download this function set to the scale.

2. Printer spits out half paper or one and a half papers and paper locates abnormally.

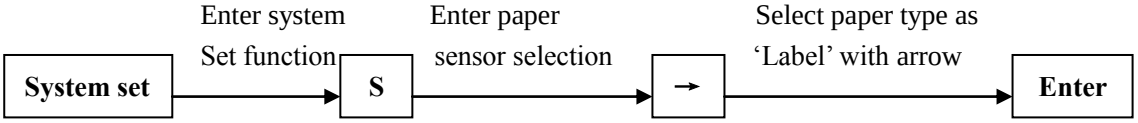
Reason: a. Paper type sensor set error

b. Printer back photoelectric group is in wrong direction or covered by dust.

c. Photoelectric board is bad.

d. Photoelectric group of back photoelectric is bad.

Treatment: a. According to the following sequence, adjust the scale.



We can also make software adjustment on computer. Open 'Link32', set paper type as 'Label' in function set; download the set to the scale.

b. Check whether the back photoelectric group is gradient or covered by dust.

c. If it can't be resolved yet it is necessary to exchange back photoelectric group, which had better be handled by the professional of our company.

3. Label out of printer is obscure and not dark enough.

Reason: a. Printer header is not put well.

b. Hot sensor head is dirty.

c. It is necessary to carry on voltage learning.

Treatment: a. Place printer header in suitable position

b. Clean hot sensor head softly with soft cloth dipped in alcohol.

4. Label printed out is half clear and half blur even blank.

Reason: a. Printer header is not put well.

b. Hot sensor header is dirty.

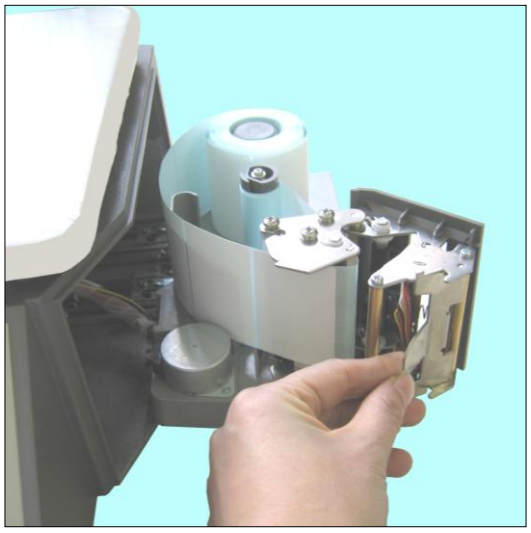
c. Printer header is distorted.

Treatment: a. Place printer header in suitable position.

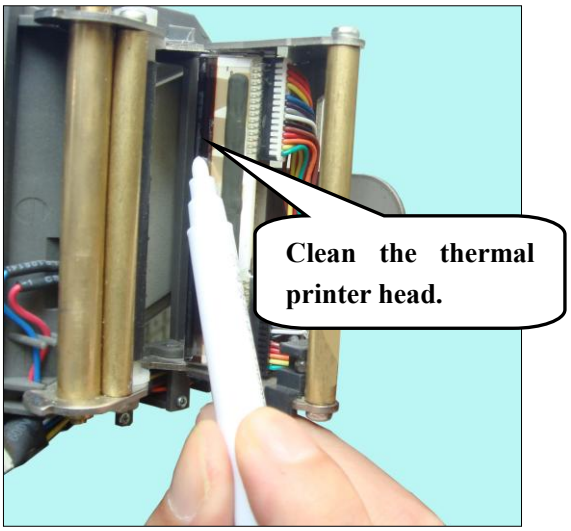
b. Clean thermal printer with the cleaning pen attached. The cleaning pen is an alcohol pen; please cover it immediately after you wipe the dirty off.（Please refer to the demonstration below.）

c. If this problem can't be resolved yet it is necessary to change the printer. The bad printer had better to be handled by professional of our company.

➢ **Demonstration for cleaning the thermal printer head:**

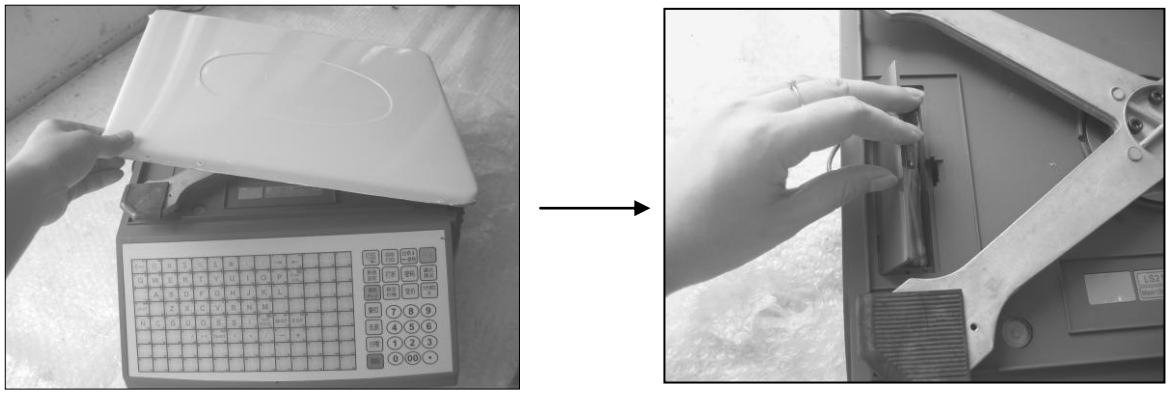


① **Open the thermal printer head**



② **Clean the thermal printer head.**

[Note]：The alcohol cleaning pen is with the scale when it leave factory. Please take it out as the picture shows below.



5. There is strange letter on the label.

Reason: LFZK has not been downloaded.

Treatment: Download LFZK again.

Questions about keyboard:

1. Display is normal but keyboard sounds continuously.

Reason: There is a short circuit in keyboard.

Treatment: change keyboard circuit.

2. Key doesn't sound.

Reason: a. Key wire is not inserted well.

b. Electric rubber of key press circuit board is not installed well.

c. The replaced kit is bad.

Treatment: a. Check key wire and insert it again.

b. Remove the electric rubber of key press and another location with rubber strip install again.

c. If the problem can't be resolved yet, the selected kit is bad.

Questions about weighing:

1. The scale can't weigh correctly.

Reason: a. Rubber pad, which sustains the scale pan, touched the shell (upper cover).

b. Humidity or component aging or area difference makes the scale weigh incorrectly.

c. Sensor is damaged by over loading.

Treatment: a. Check whether the upper covers are buckled well. If they still knock each other, install sensor sustainer again.

b. Study zero weight and full weight again. If it is still no use, change main board, OP board or even the sensor.

c. Change sensor and sustainer.

Note: OP board and sensor should be returned to our company in principal if they can't be used.

2. Zero state is not stable.

Reason: a. It is affected by environment such as vibration, or magnetic field interference, or wind.

b. Weighing circuit is affected with damp.

Treatment: a. Remove interference.

b. Change main board.

c. If the problem can't be resolved. Return the whole scale to our company to repair.

3. The scale can't weigh.

Reason: Main board or OP board or sensor is bad.

Treatment: a. Change main board.

b. Check whether OP board is abnormal. Return the whole scale to our company.

Questions about communication:

1. The scale can't communicate.

Reason: a. Communication port set error.

b. Serial number of the scale has not been set.

c. Connecting head is not used correctly or Netware wire is obstructed.

d. There is some wrong with power board or main board.

Treatment: a. Confirm the correct communication port.

b. Confirm number set in Link32 is consistent with the number in the scale.

c. Confirm the Netware wire is smooth and communication connecting header is used correctly. There are two types of communication port RS-232 which uses 9-pin or 25-pin connecting port attached with the scale and RS-422 which uses RST-11A connecting head.

d. If the above are right, detect whether main board or power board is wrong and change the wrong main board or power board.

2. Downloading is stopped at 1/N (n represents some number) and computer shows message "communicate error!"

Reason: Main board is error, which may be caused by chip damage.

Treatment: Change main board or chip (ROM).

Question about display:

Display can't show all characters or even a character.

Reason: a. Display pole has not been installed well, which causes the display and the machine in bad contact.

b. Water flows into the base seat of display pole which makes link board short-circuit or rotten.

c. Display is damaged.

Treatment: a. Install display pole and fix the bolt.

b. Change link board or display pole.

c. Change display pole.

Other question:

Roll paper can't be driven by print.

Reason: maybe roll paper doesn't get well along with rotating axis. Or there is some matter with rotating axis.

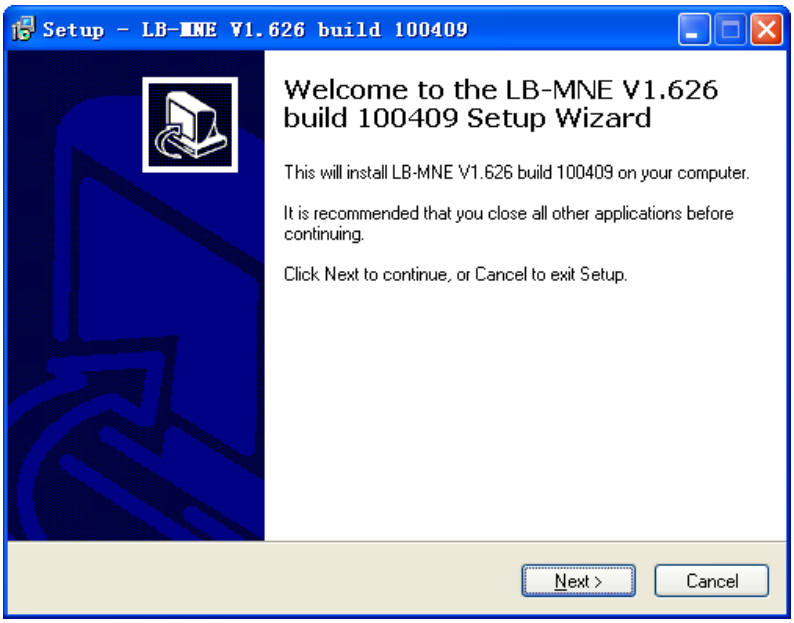
Reason: Maybe roll paper doesn't get well along with rotating axis. Or there is some matter with rotating axis.

Treatment: Install the printer again which had better be processed by our company.

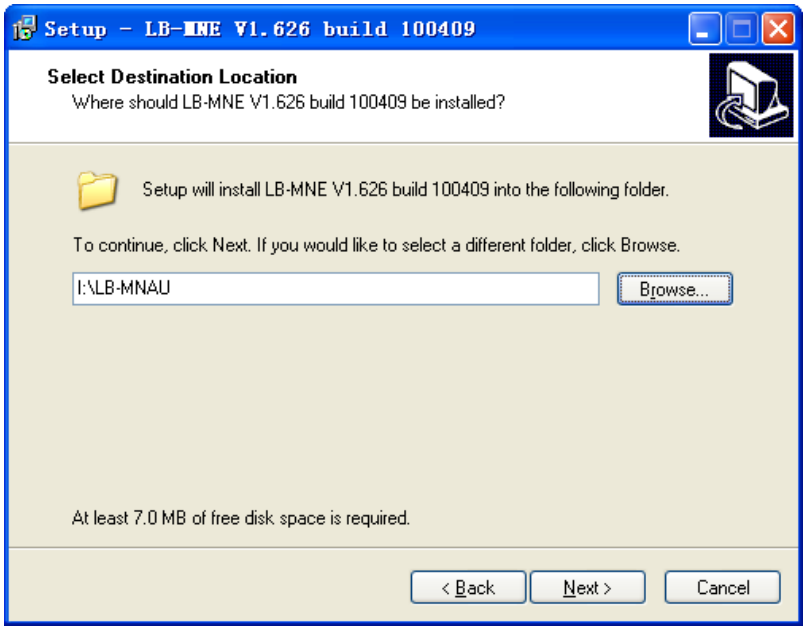
11 SOFTWARE DESCRIPTION

11.1 Software installation

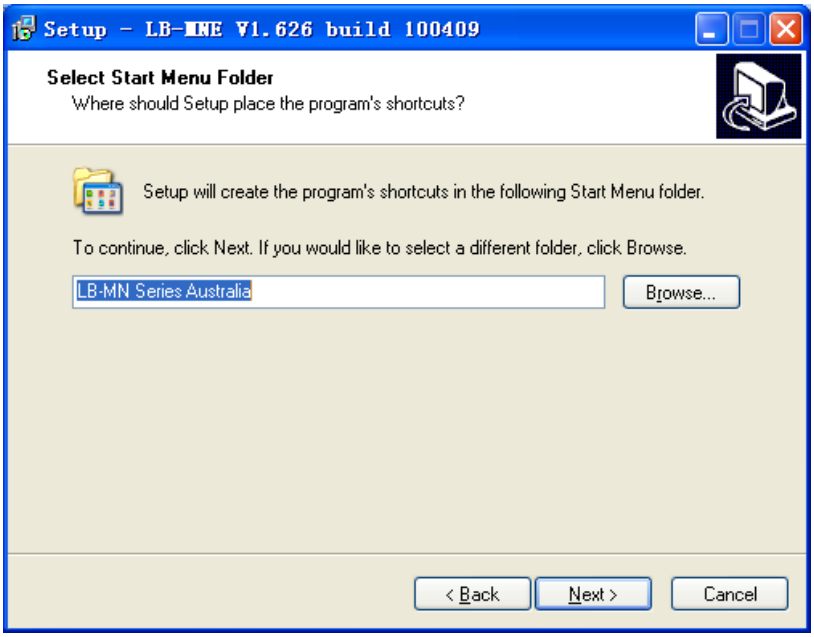
Double click ‘lbmn1.626Au.exe’, and then appear:



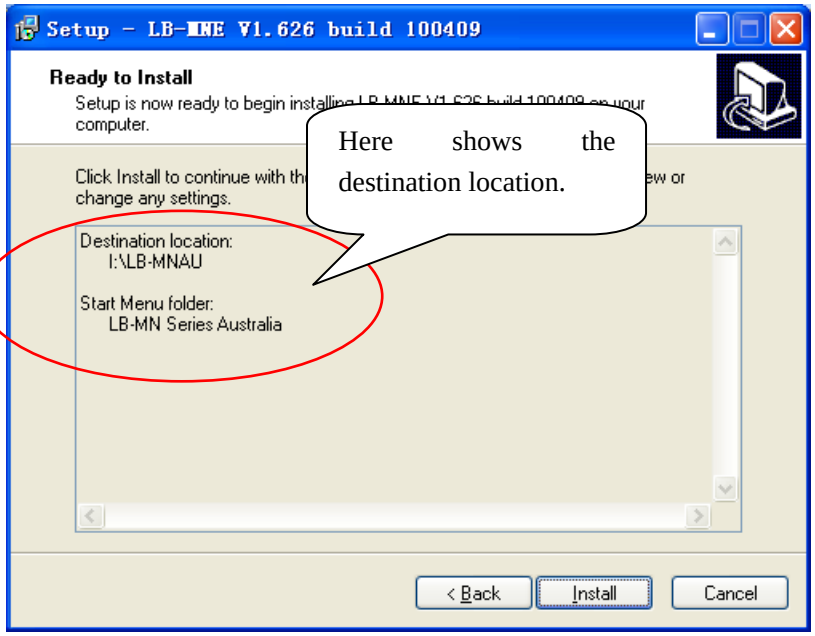
Select next, and then appear:



Select installation catalog, then select next, then appear:



select Next， then appear:



Select Install.

Finally, select ‘Finish’ to end installation.

11.2 Use Link32

11.2.1 Communication Test

Before you use link 32, you need to test the communication:

1. Connect LS to PC: Via Ethernet port
2. Communication Test

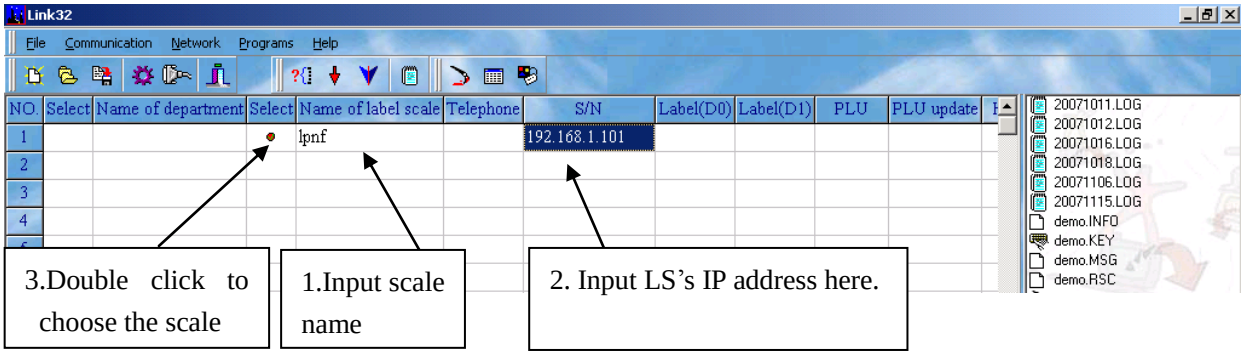
a) Set scale IP address, or query the scale IP (the scale IP displays on the LCD screen when turn on the scale.

Note: ① Please refer to Chapter 8.2 No.22 for the detail of 'set scale IP'.

② Query the scale IP: enter 'System Set', and then press '@' to refer to the scale IP.

b) Open the attached PC software LB-MNEn on the CD-disk, and choose 'Link32'.

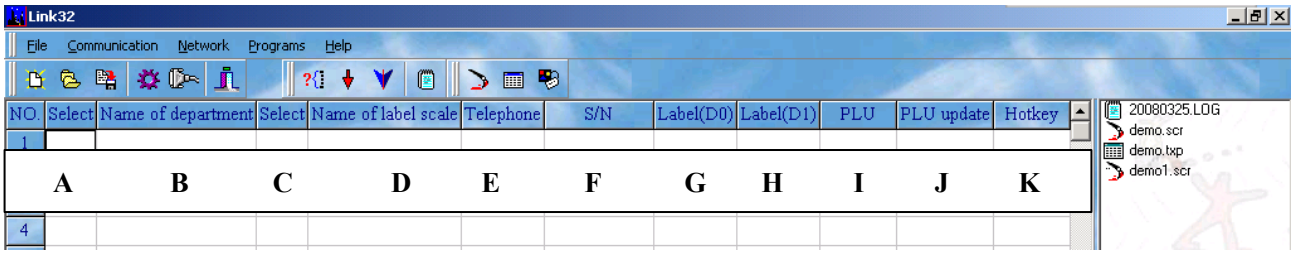
c) Input scale information, we suggest you connect LS to PC via Ethernet port.



d) Choose the button and click it, then, start to test communication.

<Result>

11.2.2 Main table explanation



A: Select the department name

B: Input the department name

C: Double click to select the scale name

D: Enter Scale name

E: This field is for communicating with other scales or PC by phone line (Modem).

F: Enter Scale IP address for Ethernet communication, or input machine no. for COM communication.

G&H: Set up new label format and download the label format to the scale.

1) Set up new label format: double click the column, input the filename in the popup window, click OK, then double click the filename to edit label and save it.

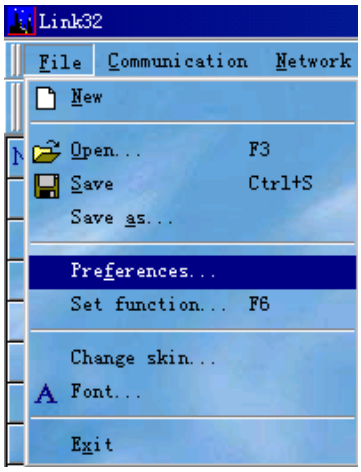
2) Download the label format to the scale: choose the column, double click the file on right.

I: Set up new PLU file.

J: Update PLU.

K: Download the hotkeys to the scale. The operation is introduced in Chapter 11.3.12.

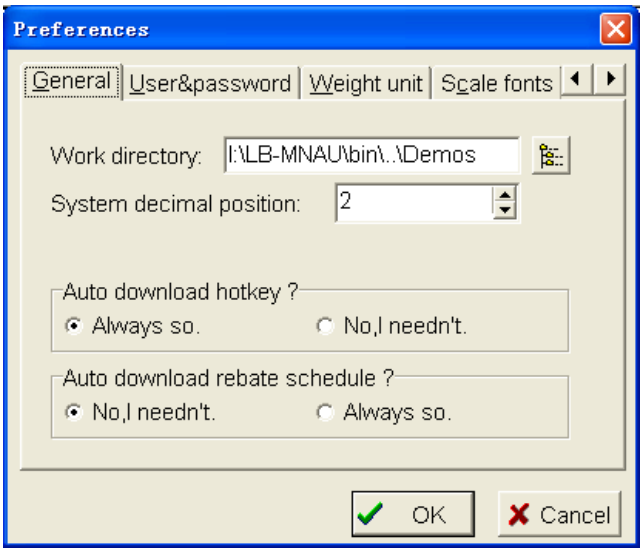
- **File menu**



1) Set preferences

Click ‘File/Preferences’ to set the following options:

Figure option 1



Explanation：

Work directory：set default work directory（influence area I ）.

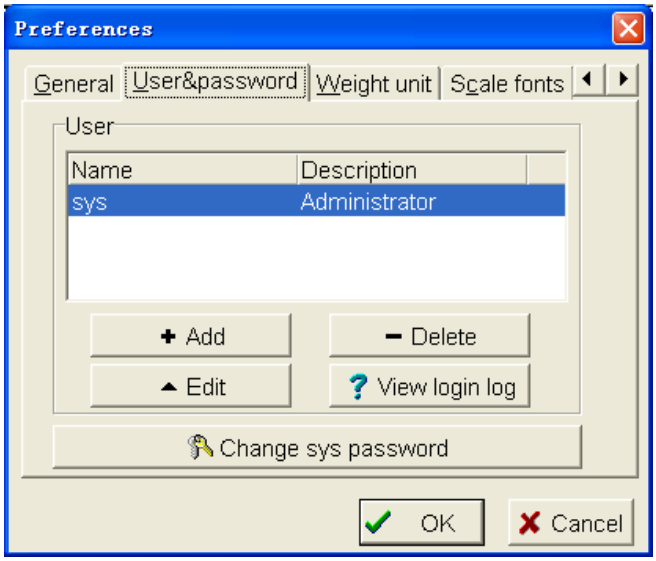
System decimal position：0，1，2. Set PLU decimal digit of PLU manager.

Auto download hotkey：Always so: Download hotkey with PLU.

No, I needn’t: Don’t download hotkey.

Auto download rebate schedule: See PLU manager part.

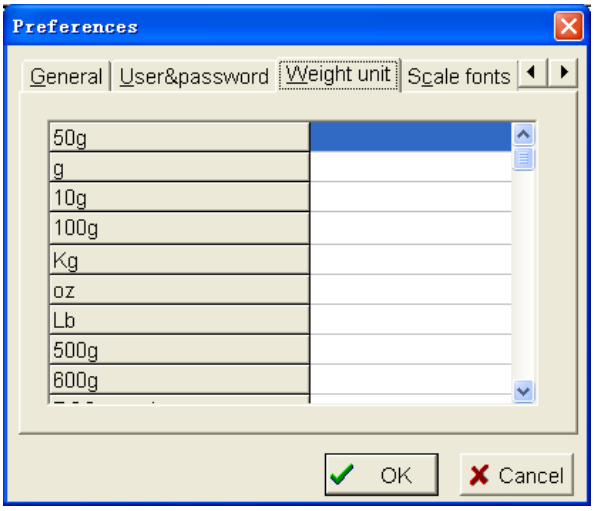
Figure option 2



Explanation：

set Link32 user name， user password;

Figure option 3



Explanation：

This defined unit, the setting is corresponding to PLU manager's weight unit.

Figure option 4

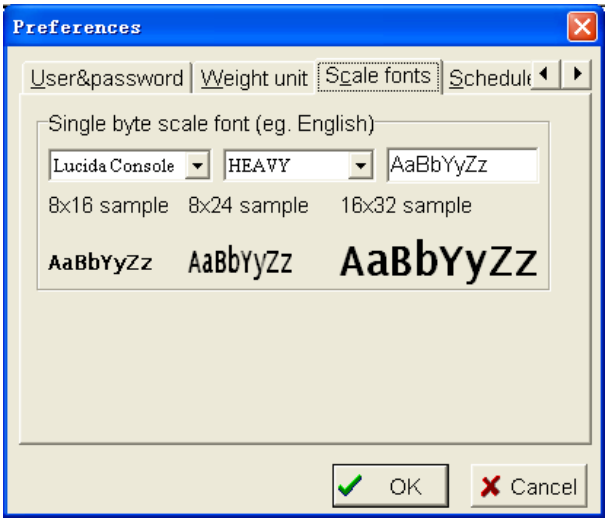
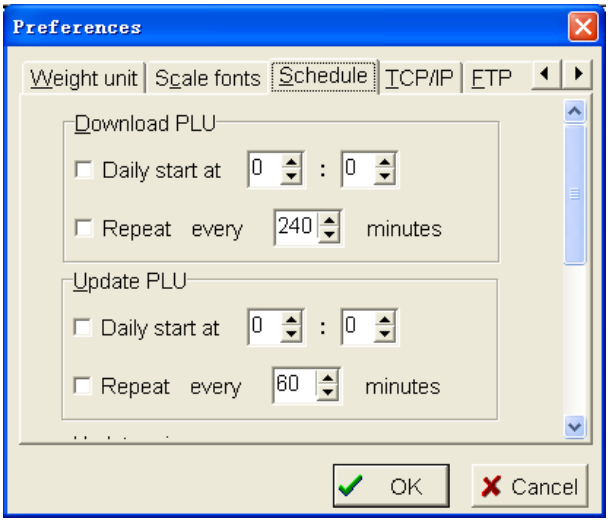


Figure option 5



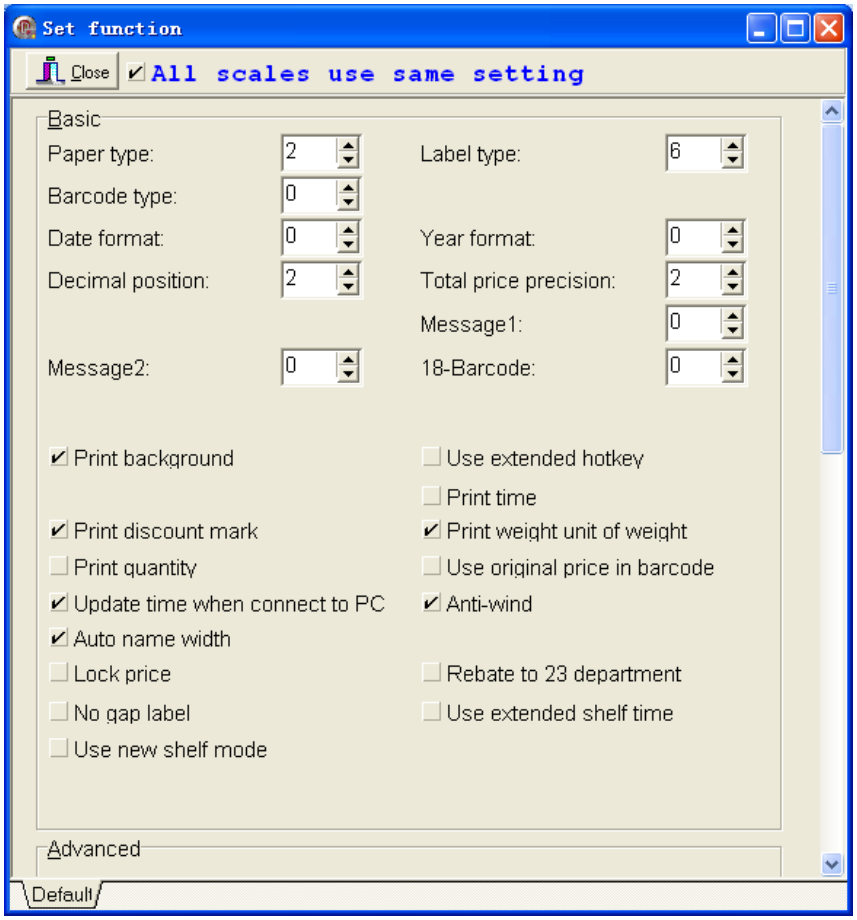
Explanation：

Set Link32 download PLU and update PLU automatically (set I, J area firstly).

2) Set function

Click 'File/set function' to set the following options:

Figure function setting (part 1)



Explanation:

All scales use same setting: When Link32 connects with several scales at the same time, if select this option, it will download these parameters to all connected scales; if not, it will list all connected scale IP at the bottom of dialog box. Select a scale IP, then you can set the scale separately.

➢ Basic functions explanation:

Paper type: 0:label; 1:reserved ; 2: no-rewinder. 0 is the default.

Barcode type: 0~99 (refer to barcode type table).

Date format: 0: DDMMYY; 1: MMDDYY; 2: YYMMDD (D, date; M, month; Y, year).

Decimal position: 0, 1, 2; Set price decimal digit.

Rounding: Set round carry digit.

Message 2: 0~12000 default message. If PLU data hasn't set message1 or message2, this PLU data will be the default.

Display darkness: Reserved.

Label type: 6: D0; 7: D1; 0~5: Reserved.

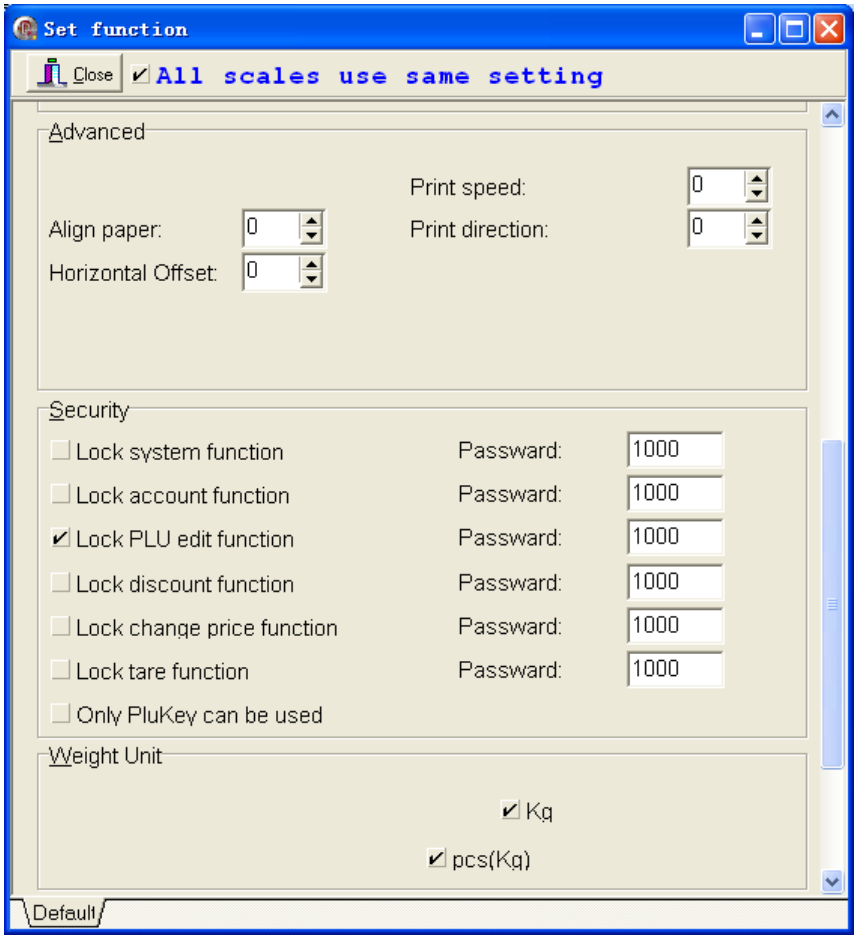
Year format: 0: YY; 1: YYYY.

Total price precision: 1: N.N0; 2: N.NN; 3: N.N.

Message 1: 0~12000 message. If PLU data hasn't set message1 or message2, this PLU data will be the default.

18 -barcode: 0, width 2/5; 1, narrow width 2/5; 2, EAN 128; 3, narrow EAN 128.

Figure function setting (part 2)



➢ Advanced functions explanation:

Align paper：-8~8 adjust print position.

Horizontal Offset：Reserved.

Print speed：0~7; 0: the fastest speed; 7 the slowest speed

The lower the speed is, the better the printing impression is.

(Note: don't set too low speed, or the lifetime of the print head will be shortened)

Print direction： 0-0 ° (horizontal), 1-90 ° (vertical), 2-180 ° (converse). This is to set all the label's print direction. **Note: If you want to set a single label's print direction, please refer to Page 61 'print direction' on label editing.**

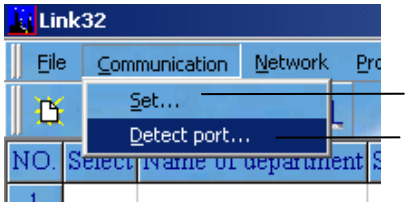
➢ Security functions explanation：

Set the password of the scale lock function.

➢ Weight unit：

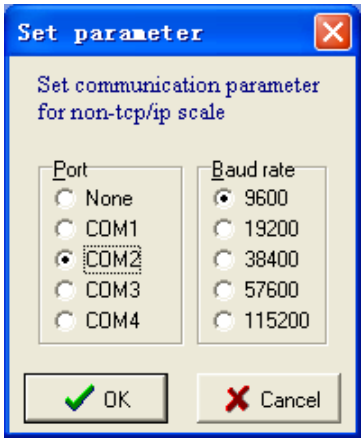
Set the unit of calculating price.

- **Communication menu**



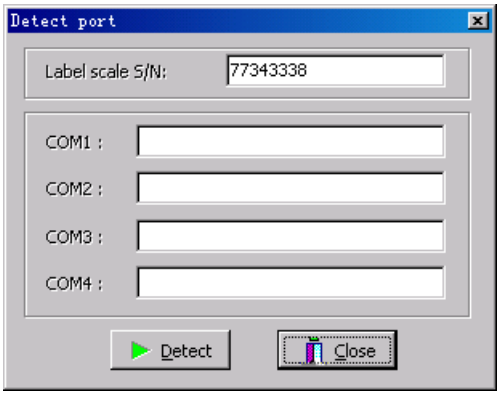
1) Set

In this popup window, you can set communication parameter for non-TCP/IP scale.



2) Detect port

You can detect port in this operation: input IP address of the label scale, and then press the "Detect" button



- **Network menu**

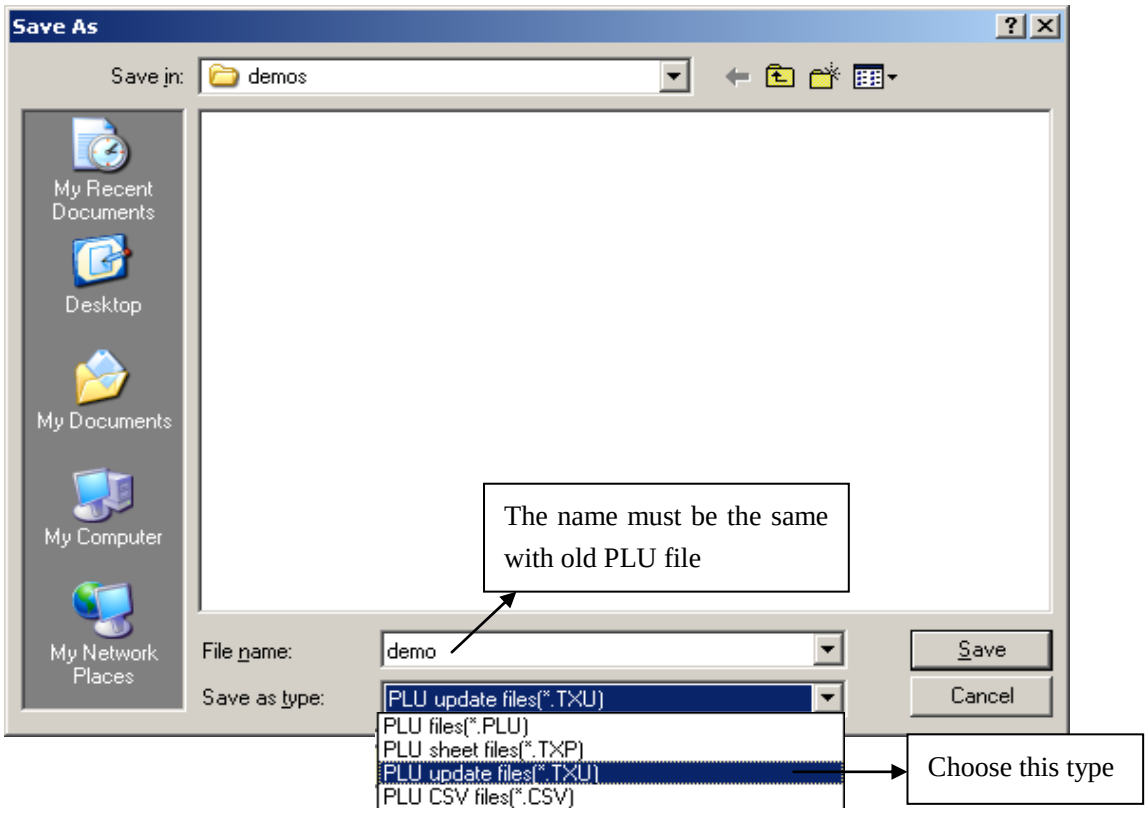
Update software.
Check connection.
Factory checking, reserved.
Download PLU，label，function parameter etc.
Download PLU.
Download PLU hotkey.
Update PLU.
Reserved.
Upload account.
Upload parameter.
Update PLU & upload account.
Sale report.
Reserved.
View daily log.

1) downloading program：
   Set up connection first. Network →update program (select *.hex file)
2) downloading PLU：
   Set up connection first. Network →downloading PLU.
3) downloading label：
   Set up connection first. Network →downloading data, select label (D0) and label (D1), confirm finally.
4) downloading hotkey：
   Set up connection firstly. Network →downloading hotkey.
5) downloading function parameter：
   Set up connection firstly. Network →downloading data, select function setting, confirm finally.

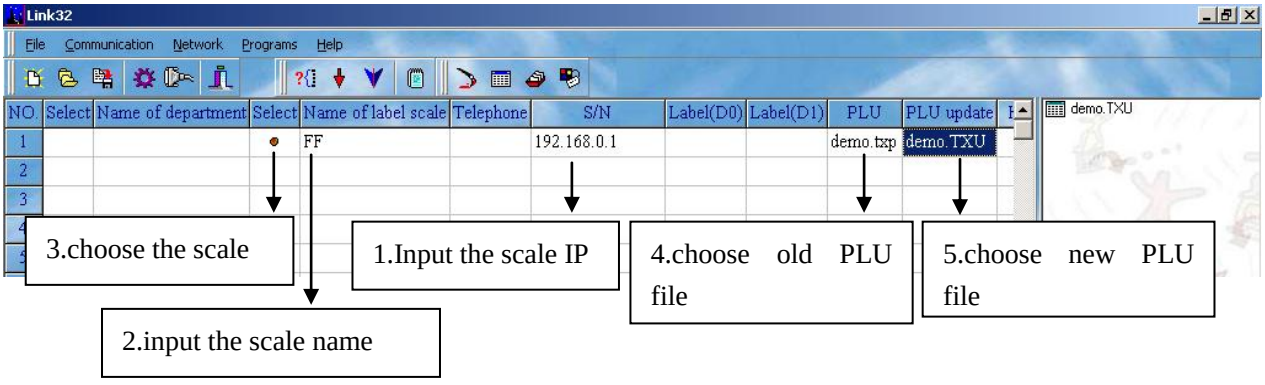
6) Updating PLU information：

Follow the steps to update PLU information:

a) Save the new PLU information as *.txu file.



b) Open link32

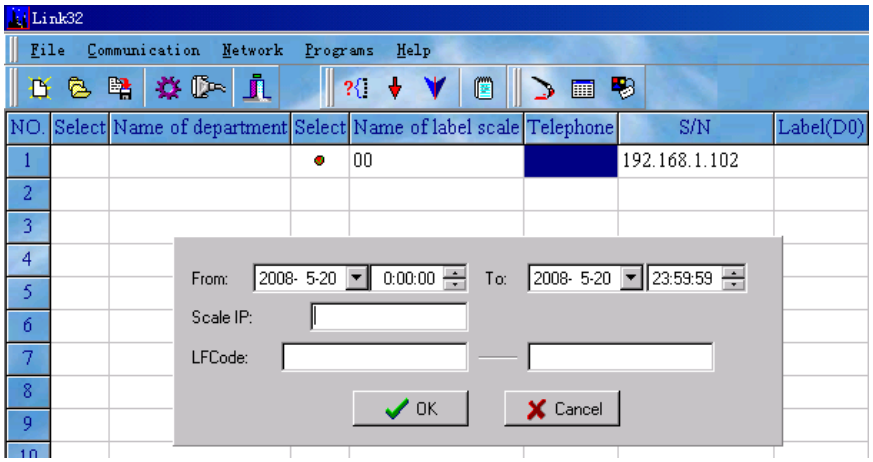


c) Click ‘network’, choose ‘update PLU’ item.

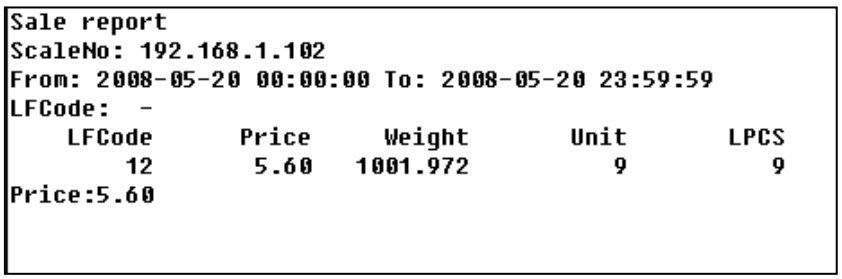
7) Upload account & sale report：

Set up connection firstly. Network →upload account.

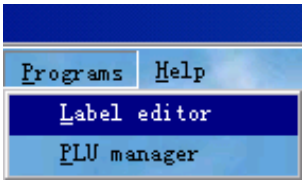
After uploading account, choose the “sale report” item, you can see a popup window as follow:



Input the period of time you want to query, input the scale IP and corresponding LFCode, then click “OK”. The sale report shows as follow:



- **Programs menu**

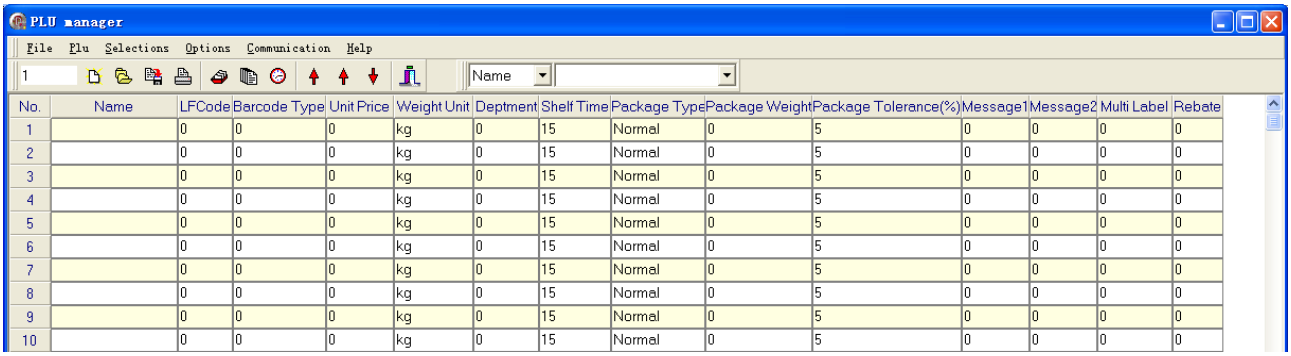


Open label editor (Please refer to Chapter 11.3)

Open PLU manager (Please refer to Chapter 11.4)

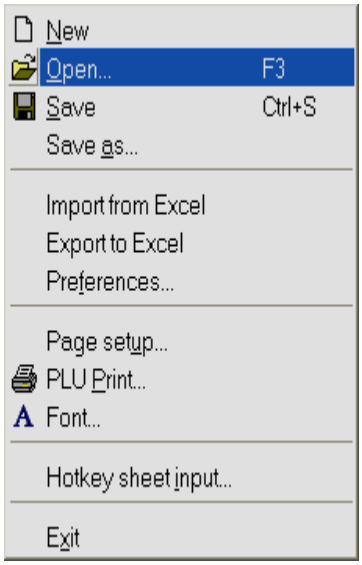
11.3 Programming PLU Information

Open PLU manager: ‘Programs’→‘PLU manager’



No.	Name	LFCode	Barcode Type	Unit Price	Weight Unit	Deptment	Shelf Time	Package Type	Package Weight	Package Tolerance(%)	Message1	Message2	Multi Label	Rebate
1		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
2		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
3		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
4		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
5		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
6		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
7		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
8		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
9		0	0	0	kg	0	15	Normal	0	5	0	0	0	0
10		0	0	0	kg	0	15	Normal	0	5	0	0	0	0

Explanation of file menu：



Establish PLU data, open new file

Open PLU file

Save changed PLU file

Save as changed PLU file

Import PLU data from excel file, refer to Picture excel in below.

Export PLU data from excel file, refer to Picture references.

Preferences

Refer to page setting

Refer to print PLU

Refer to font setting

Refer to input hotkey page

Exit PLU manager.

11.3.1 Programming Barcode

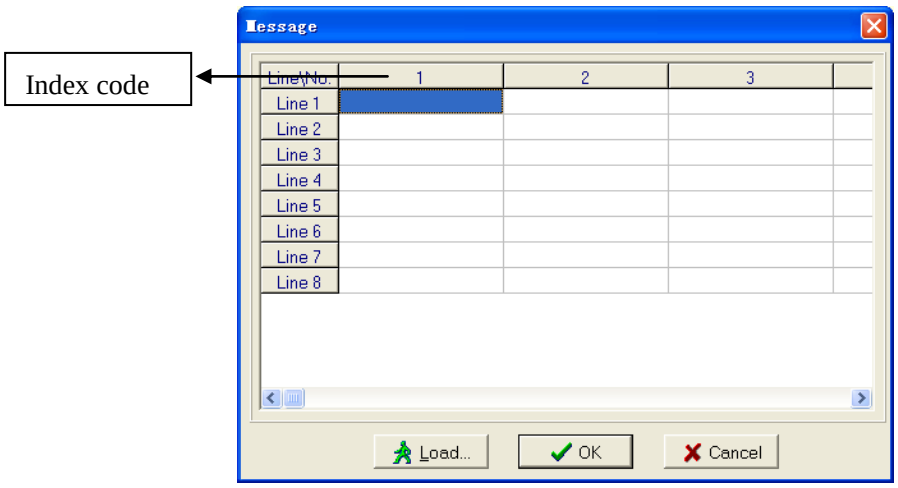
Please refer to the explanation of barcode makeup (Appendix 2 in User manual).

Step: Open ‘PLU manager’→input ‘barcode type’ →input ‘department’ →input ‘code’ or ‘LF code’.

11.3.2 Programming Message

Step: Open ‘PLU manager’→‘Options’→‘Edit message’→input message.

Or directly press .



Note: 1. You should only input index code in the message edit field under PLU manager table.

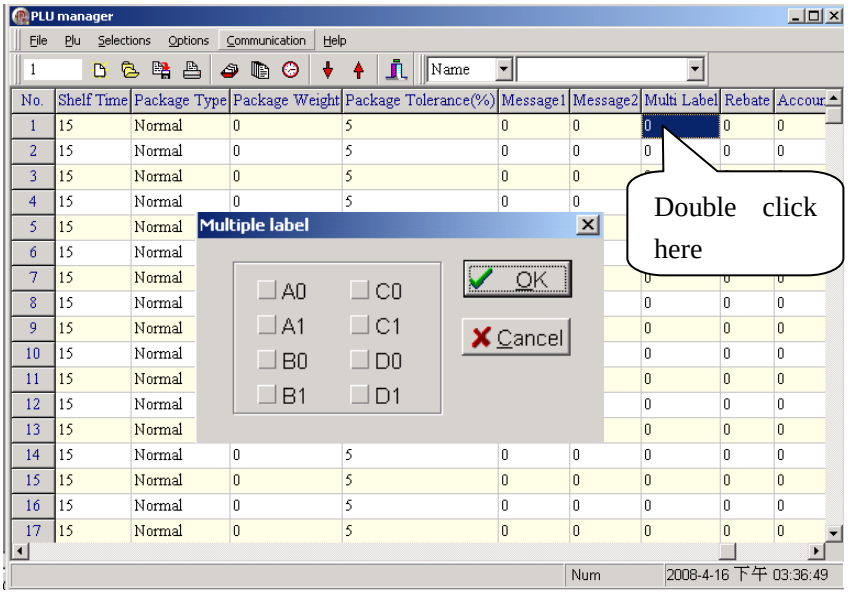
2. Every PLU message is corresponding with the Index code entered.

3. You could edit 8 lines messages for each PLU.

11.3.3 Programming Multi Label

In this operation, you can set Label type for each PLU.

Step: Double click ‘Multi Label’, it appears prompt box, select label type and click OK.



Note: 1. If you using this method to set the label type for PLU, the function ‘choose label type’ on scale will lose action.

2. The choice of “Multi Label” is just an index code. PLU will transfer the corresponding Multi Label by index code automatically, if the Multi Label was downloaded.

11.3.4 Programming Rebate

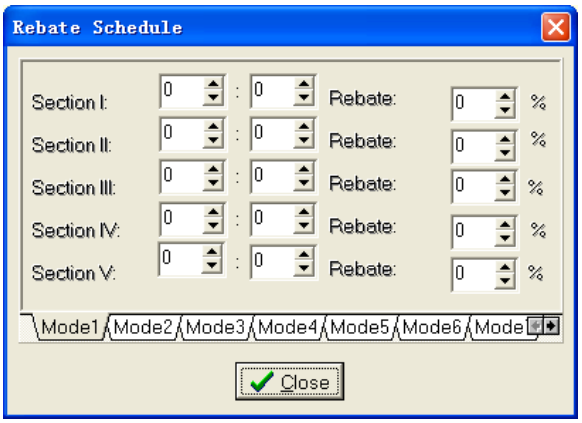
In this operation, you can input plus number to rebate directly, or input negative to denote the index code of rebate in each period of time.

Input plus number: for example, you want to sell something at a discount of 50%. Please double click 'Rebate', then input '50'.

Input negative: Open 'PLU manager'→Options→Rebate Schedule.

Or directly press .

It appears as follow:

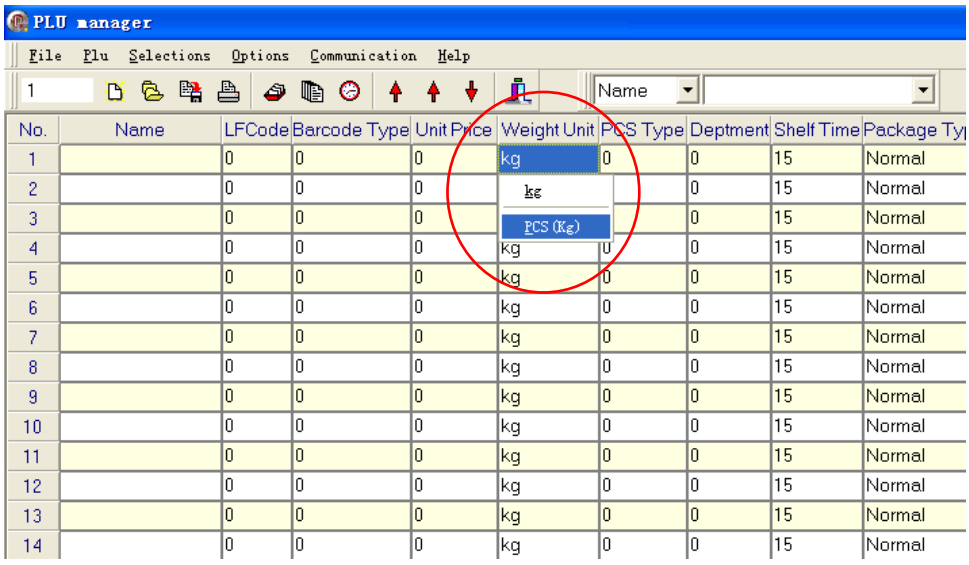


The number from –1 to –10 is corresponding to the ten types of mode (from Mode 1 to Mode 10) respectively. Press the key 'Close' when you finish setting.

Note: At present, you could set five period of rebate time at most. The end time of the first period should be the beginning of the second time.

11.3.5 Weight Unit Setting

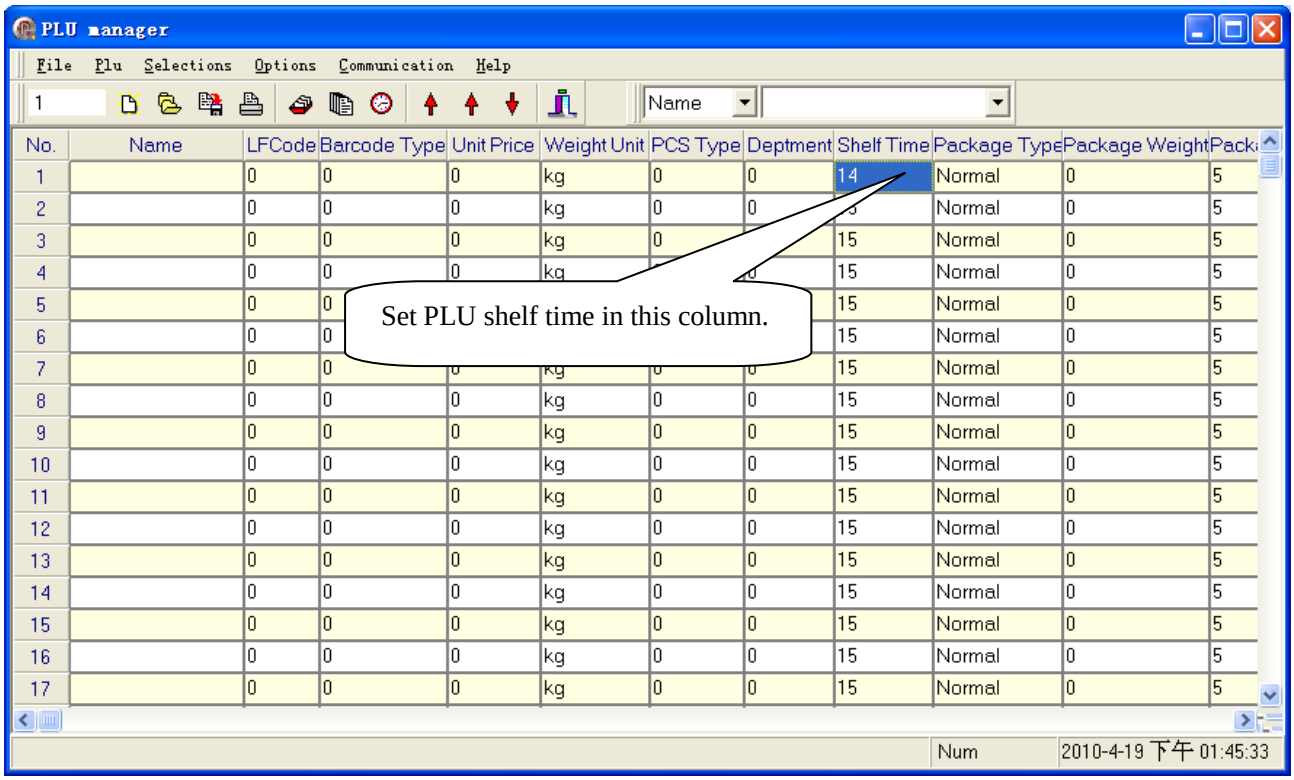
Open 'PLU manager', double click 'Weight Unit' to choose.



11.3.6 Shelf Time Setting

You can set shelf life for the PLU if necessary.

Open ‘PLU manager’ to enter following interface:



No.	Name	LFCode	Barcode Type	Unit Price	Weight Unit	PCS Type	Deptment	Shelf Time	Package Type	Package Weight	Pack
1		0	0	0	kg	0	0	14	Normal	0	5
2		0	0	0	kg	0	0		Normal	0	5
3		0	0	0	kg	0		15	Normal	0	5
4		0	0	0	kg			15	Normal	0	5
5		0	0					15	Normal	0	5
6		0	0					15	Normal	0	5
7		0	0					15	Normal	0	5
8		0	0	0	kg	0	0	15	Normal	0	5
9		0	0	0	kg	0	0	15	Normal	0	5
10		0	0	0	kg	0	0	15	Normal	0	5
11		0	0	0	kg	0	0	15	Normal	0	5
12		0	0	0	kg	0	0	15	Normal	0	5
13		0	0	0	kg	0	0	15	Normal	0	5
14		0	0	0	kg	0	0	15	Normal	0	5
15		0	0	0	kg	0	0	15	Normal	0	5
16		0	0	0	kg	0	0	15	Normal	0	5
17		0	0	0	kg	0	0	15	Normal	0	5

Note: The shelf time can be day or hour. If you want to set day, the number you input here should be positive number (range from 0 to 365); if you want to set hour, the number you input here should be negative number (range from -24 to 0).

For example: if the shelf time of a PLU is 15 days, you should input ‘15’ in the column ‘Shelf Time’;

if the shelf time of a PLU is 12 hours, you should input ‘-12’ in the column ‘Shelf Time’.

11.3.7 Import from Excel and Export to Excel

Import from Excel

Open the Excel file you want to import to Link32 first and make sure it's the only Excel file opened in your PC. Suppose below is the main table of the opened excel file:

Microsoft Excel - tmpExcel.xls

文件(F) 编辑(E) 视图(V) 插入(I) 格式(O) 工具(T) 数据(D) 窗口(W) 帮助(H) Adobe PDF(B)

宋体 12

A1 Name

	A	B	C	D	E	F	G	H	I	J
1	Name	LFCode	Code	BarCode	UnitPrice	WeightUni	Deptment	WeightUni	Tare	ShlefTime
2	tomato	950001	950001	40	3	4	2	2	15	0
3	cucumber	950002	950002	22	10	4	2	2	15	0
4	eggplant	950003	950003	22	12	4	2	2	15	0
5	bean	950004	950004	22	13	4	2	2	15	0
6	potato	950005	950005	22	14	4	2	2	15	0
7	carrot	950006	950006	22	15	4	2	2	15	0
8	cabbage	950007	950007	22	16	4	2	2	15	0
9	chilli	950008	950008	22	17	4	2	2	15	0
10	garlic	950009	950009	22	18	4	2	2	15	0
11	melon	950010	950010	22	19	4	2	2	15	0

Define:

PLU "name" is in the column "A"

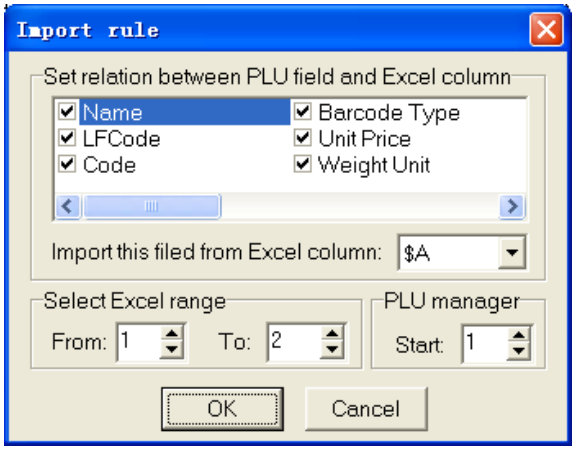
"LFcode" is in column "B"

"Code" is in column "C"

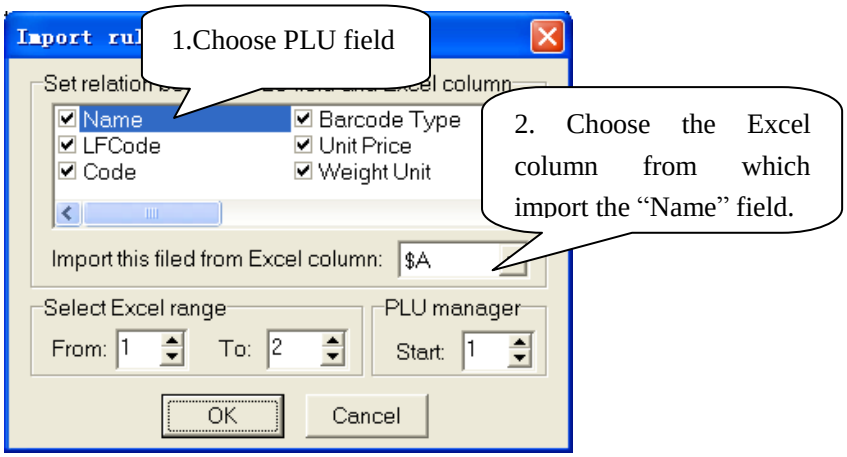
"Barcode type" is in column "D"

"Unit price" is in column "E"

Open 'PLU manager'→'File'→'Import from Excel', the following interface will be opened:

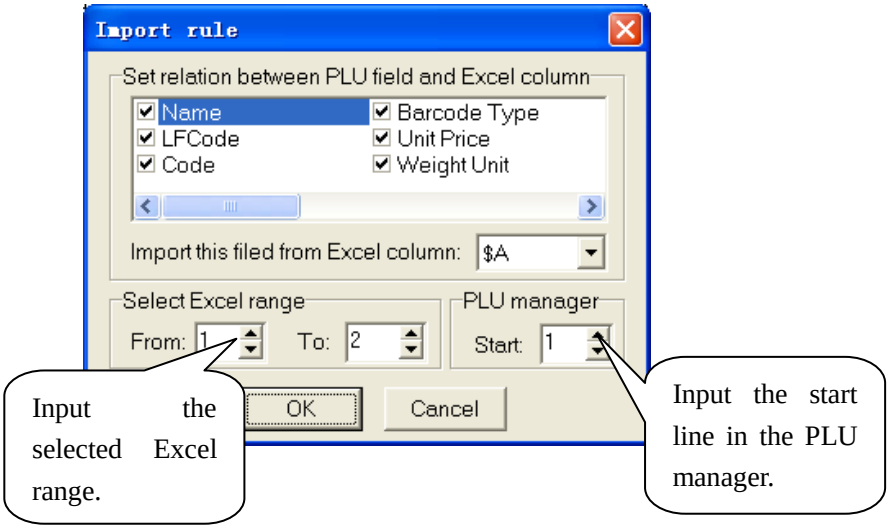


Then set the relation between PLU field and Excel column as following:



Follow the above instructions, and set the relations between Excel columns and all PLU Fields you want to import from the Excel.

After you set all the relations, the following interface will appear:



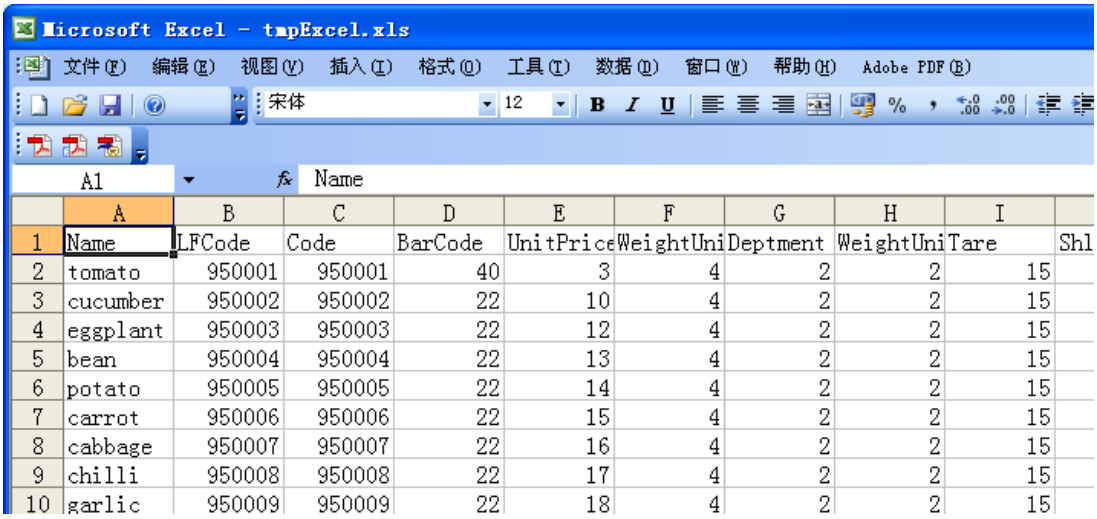
After the above setting, click 'OK' to import the PLU data to the PLU manager. The following interface will appear:

PLU manager~[I:\LB-MNAU\demos\demo.txp]

File Plu Selections Options Communication Help

No.	Name	LFCode	Barcode Type	Unit Price	Weight Unit	PCS Type	Deptment	Shelf Time	Package Type	Package Weight	Package
1	tomato	950001	40	3.00	kg	0	2	15	Normal	0.000	5
2	cucumber	950002	22	10.00	kg	0	2	15	Normal	0.000	5
3	eggplant	950003	22	12.00	kg	0	2	15	Normal	0.000	5
4	bean	950004	22	13.00	kg	0	2	15	Normal	0.000	5
5	potato	950005	22	14.00	kg	0	2	15	Normal	0.000	5
6	carrot	950006	22	15.00	kg	0	2	15	Normal	0.000	5
7	cabbage	950007	22	16.00	kg	0	2	15	Normal	0.000	5
8	chilli	950008	22	17.00	kg	0	2	15	Normal	0.000	5
9	garlic	950009	22	18.00	kg	0	2	15	Normal	0.000	5
10	melon	950010	22	19.00	kg	0	2	15	Normal	0.000	5

Then open ‘file’→select ‘Export to Excel’, an Excel file will pop up automatically:



Microsoft Excel - tmpExcel.xls

文件(F) 编辑(E) 视图(V) 插入(I) 格式(O) 工具(T) 数据(D) 窗口(W) 帮助(H) Adobe PDF(B)

宋体 12

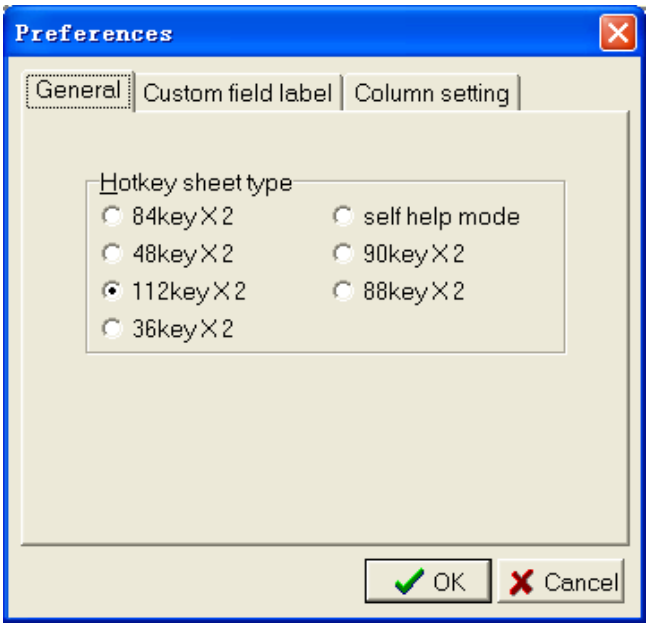
A1 Name

	A	B	C	D	E	F	G	H	I	
1	Name	LFCode	Code	BarCode	UnitPrice	WeightUni	Deptment	WeightUni	Tare	Shl
2	tomato	950001	950001	40	3	4	2	2	15	
3	cucumber	950002	950002	22	10	4	2	2	15	
4	eggplant	950003	950003	22	12	4	2	2	15	
5	bean	950004	950004	22	13	4	2	2	15	
6	potato	950005	950005	22	14	4	2	2	15	
7	carrot	950006	950006	22	15	4	2	2	15	
8	cabbage	950007	950007	22	16	4	2	2	15	
9	chilli	950008	950008	22	17	4	2	2	15	
10	garlic	950009	950009	22	18	4	2	2	15	

11.3.8 Preferences

Open ‘PLU manager’→‘File’→‘Preferences’, you can see the popup window:

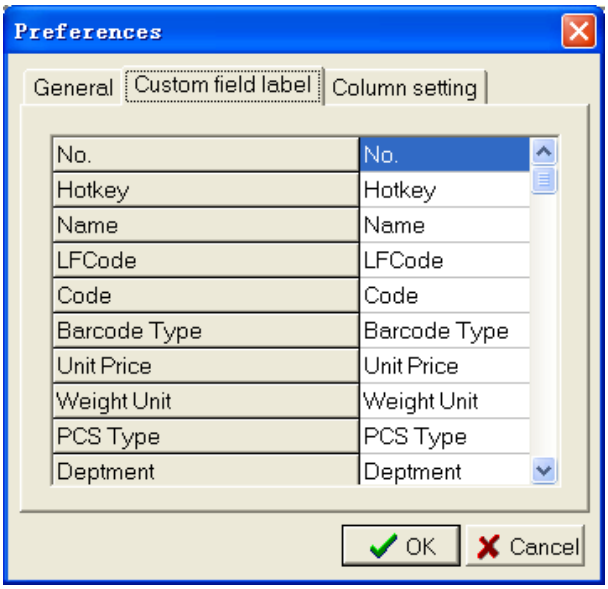
Picture references/general:



Hotkey sheet type:

Please select 112key × 2 on model LS serial scale.

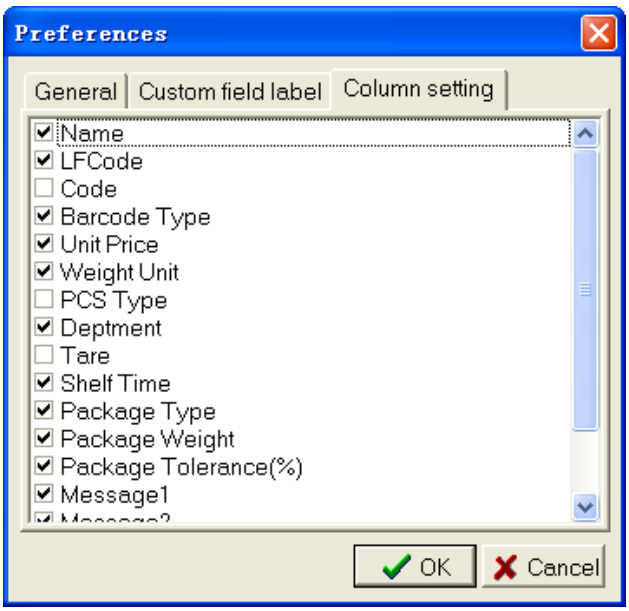
Picture references/customer field label:



Explanation:

Self-define PLU field name.

Picture references/column setting:



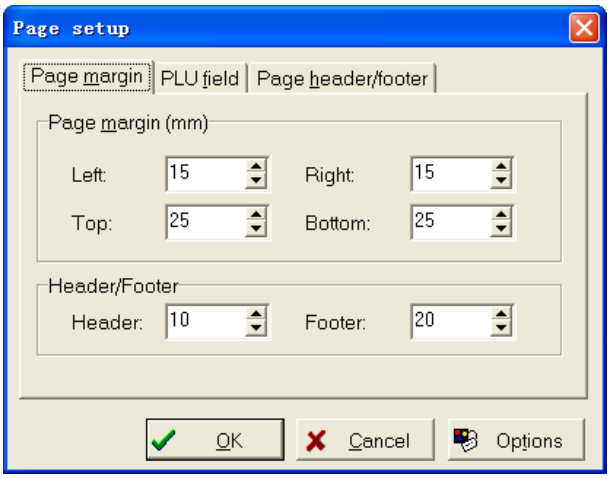
Explanation:

This refers to colomn setting of ‘PLU manager’ . tick the item, if you want to use it in ‘PLU manager’.

11.3.9 Page setup

Open 'PLU manager'→'File'→'Page setup', you can see the popup window:

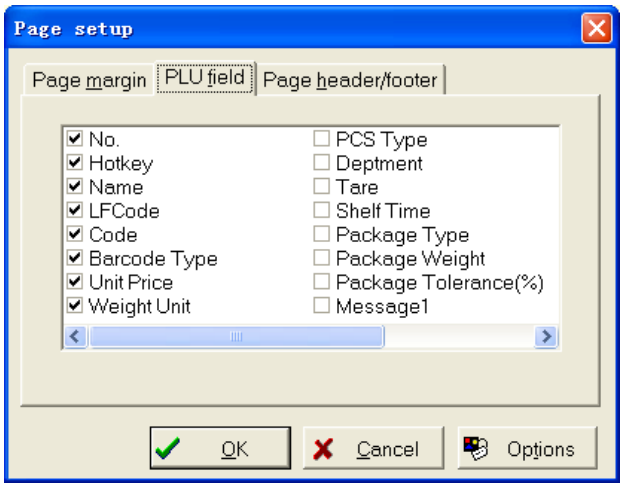
Picture page setting1:



Explanation:

PLU print-out page margin setting.

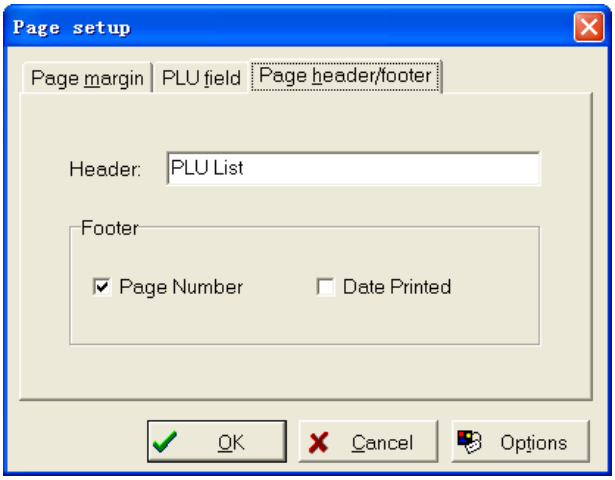
Picture page setting 2:



Explanation:

Select the PLU field on PLU print-out.

Picture page setting 3:

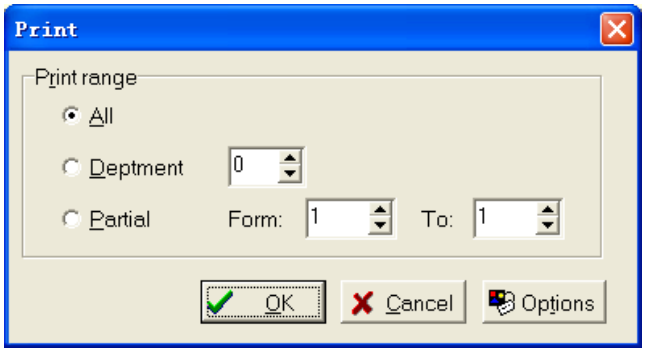


Explanation:

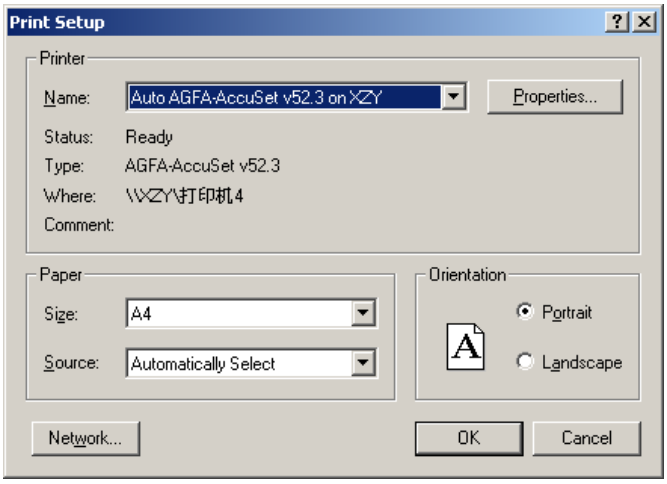
PLU print-out header and footer setting.

11.3.10 PLU Print

Open ‘PLU manager’→‘File’→‘PLU Print’.
You can see the popup window:



Press Options to select Printer and Paper:

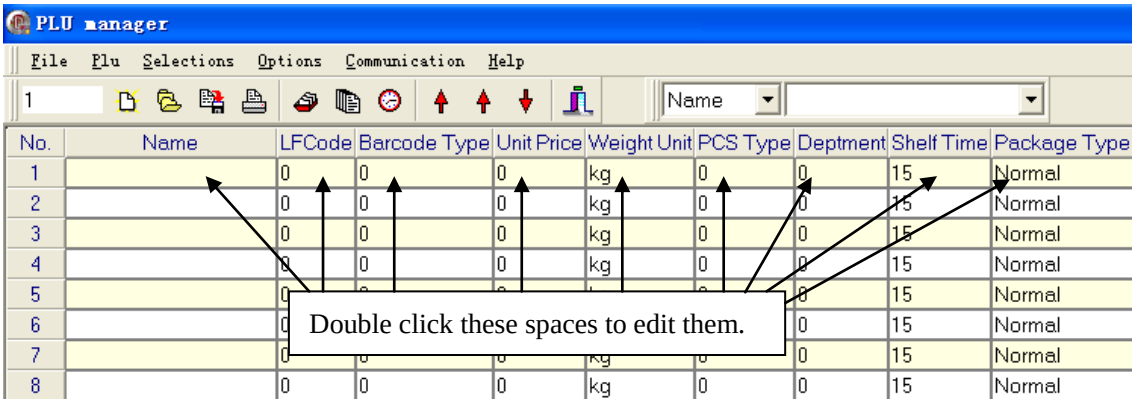


11.3.11 Programming PLU information

You can input number directly to distribute PLU information, or distribute the information by "PLU manager".

Method 1:

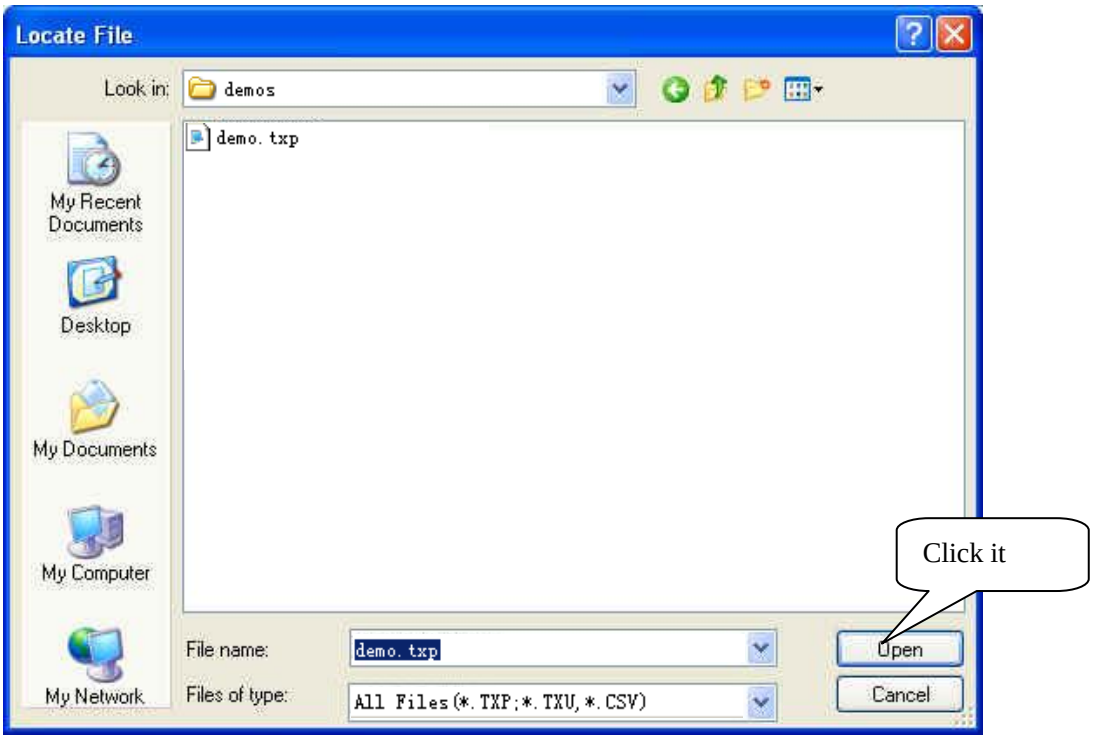
1) Open 'PLU manager', double click each column to edit it, and then click to save. You can revise PLU information in the same way.



Method 2:

1) Download a PLU file:

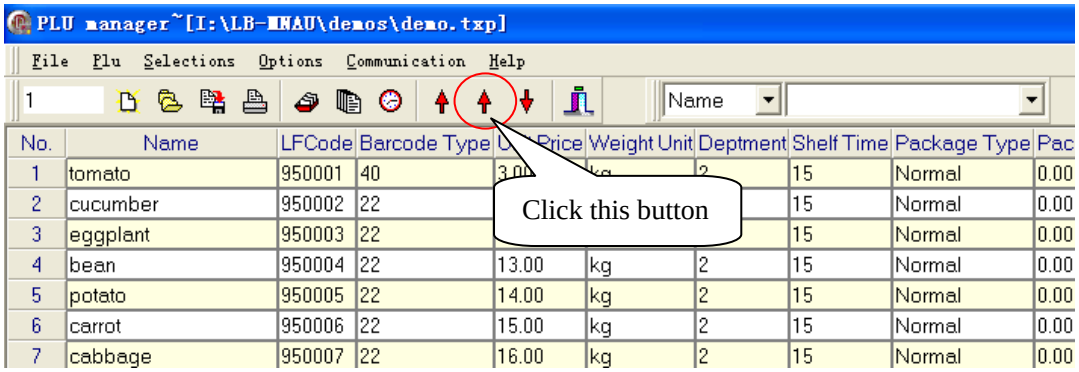
Click , select a PLU file, and click "open" to download it.



11.3.12 Download PLU

- Download PLU information

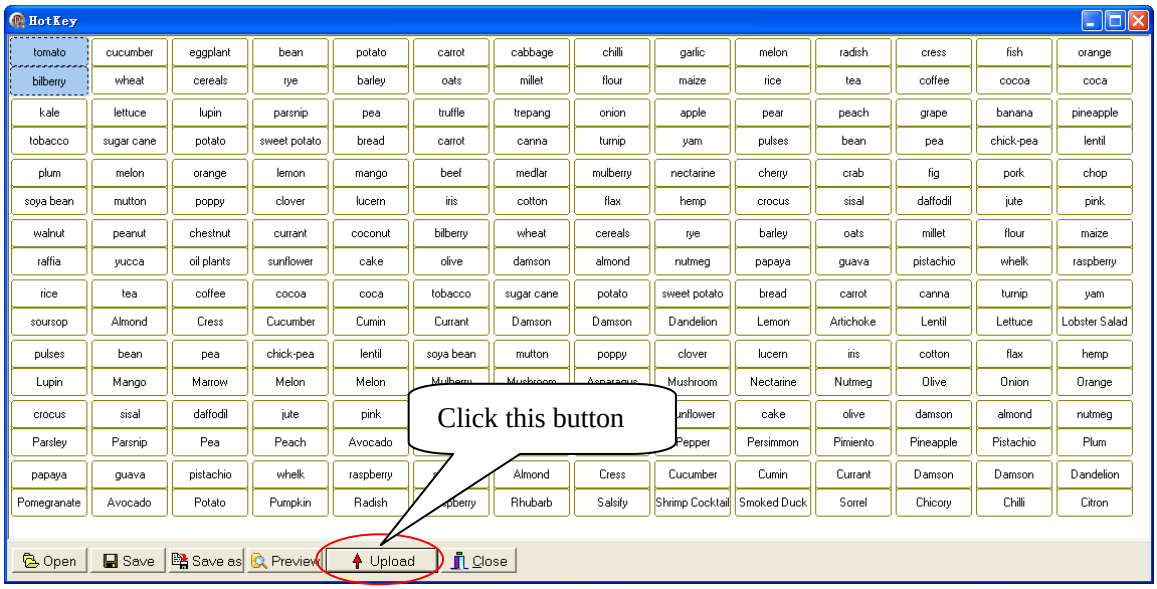
After programming PLU information (please refer to Chapter 11.3.11 to know how to program PLU information), click key to download it to the scale.



No.	Name	LFCode	Barcode Type	Price	Weight Unit	Deptment	Shelf Time	Package Type	Pac
1	tomato	950001	40	3.00		2	15	Normal	0.00
2	cucumber	950002	22				15	Normal	0.00
3	eggplant	950003	22				15	Normal	0.00
4	bean	950004	22	13.00	kg	2	15	Normal	0.00
5	potato	950005	22	14.00	kg	2	15	Normal	0.00
6	carrot	950006	22	15.00	kg	2	15	Normal	0.00
7	cabbage	950007	22	16.00	kg	2	15	Normal	0.00

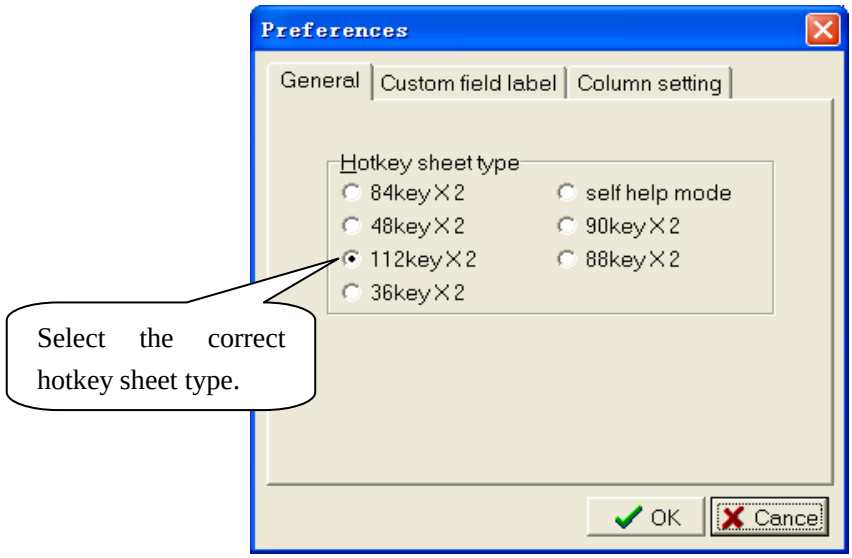
- Download PLU hotkey

After programming PLU hotkey (please refer to Chapter 11.3.13 to kown how to make PLU hotkey), click key to download it to the scale.

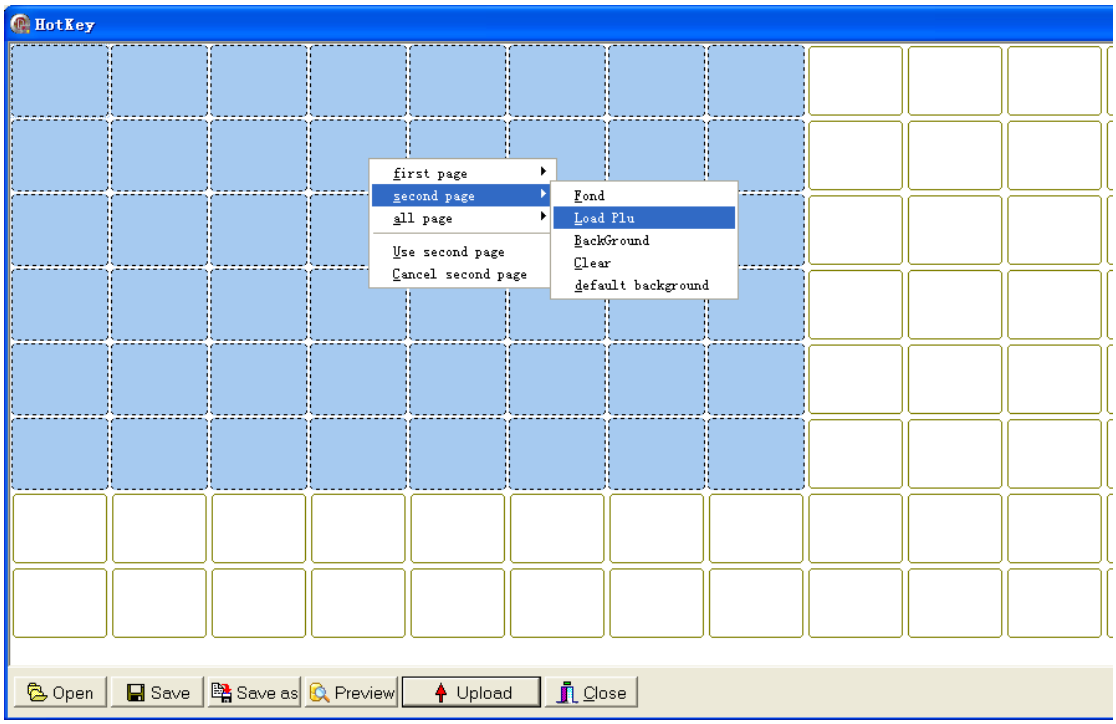


11.3.13 Make PLU hotkey sheet

1) Click ‘File/Preferences’ to enter the following setting interface:



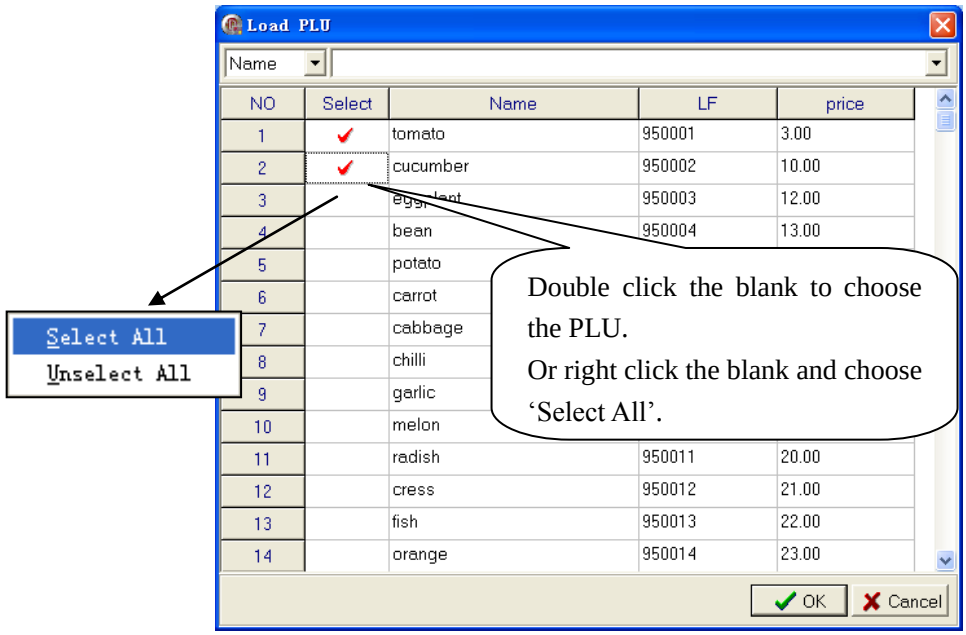
2) Click ‘File/Hotkey sheet input’ to set the hotkey table in the following interface:



Explaination:

first page: Font --- set the characters’ font on hotkey table.

Load Plu --- click this item, you can choose the PLU in the pop-up window:



BackGround --- set background color for the hotkey table.

Clear --- clear all messages on the hot key table.

default background --- set the default background color of the hotkey table.

second page: you can set two levels of each hotkey. This item is to set the second level on hotkey table. It is similar to the item 'first page'.

all page: Font --- set the characters' font on hotkey table.

Clear --- clear all messages on the hot key table.

default Font --- set the characters' default font on hotkey table.

Price Visible --- set whether to show the price of each PLU on the hotkey table.

Load Image --- set image for the corresponding PLU.

Delete Image --- delete the selected image.

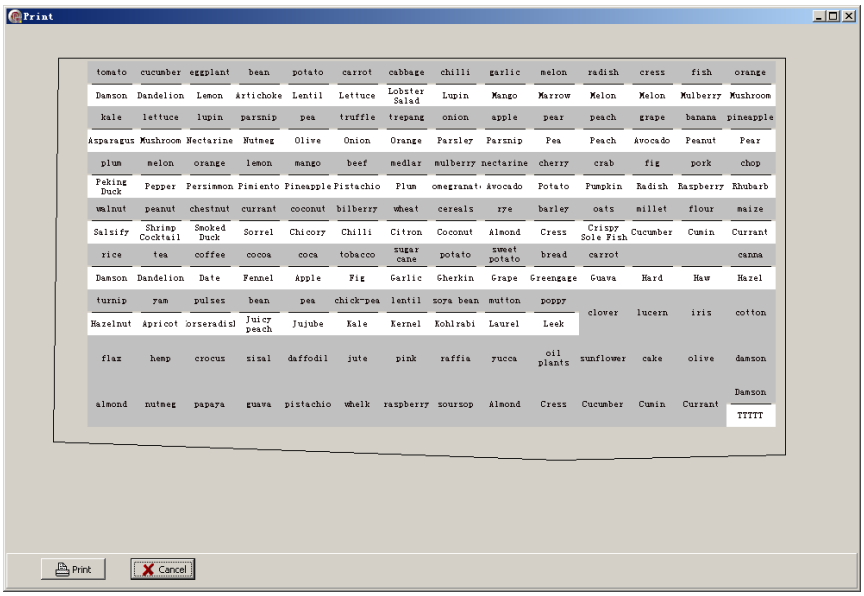
Use second page: choose this item to use the second level on hotkey table.

Cancel second page: this is to cancel all messages of the second level on hotkey table.

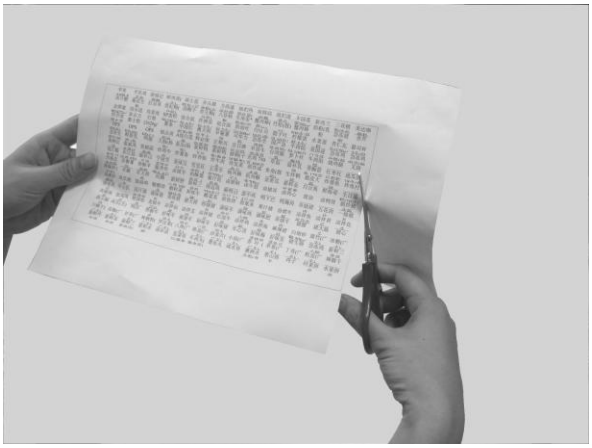
Note:

1. **If you want to sell the PLU by using second page hotkey, please press key [PLU] and then enter hotkey number. For example: use hotkey 113. Press key [PLU][113].**

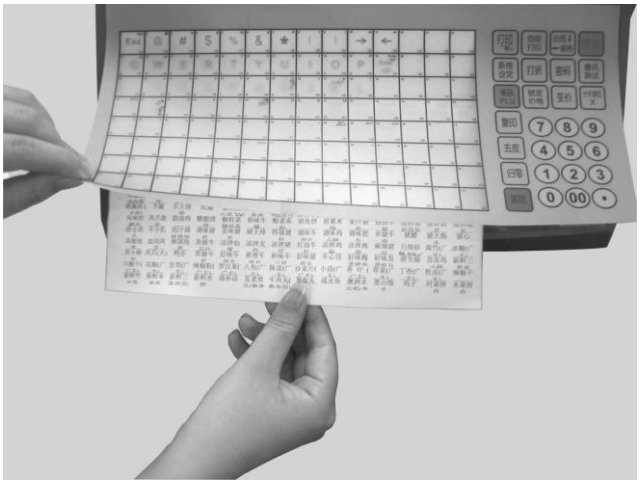
3) Click ‘Preview’ to preview the hotkey table:



4) Click ‘Print’ to print the hotkey table and cut it down:

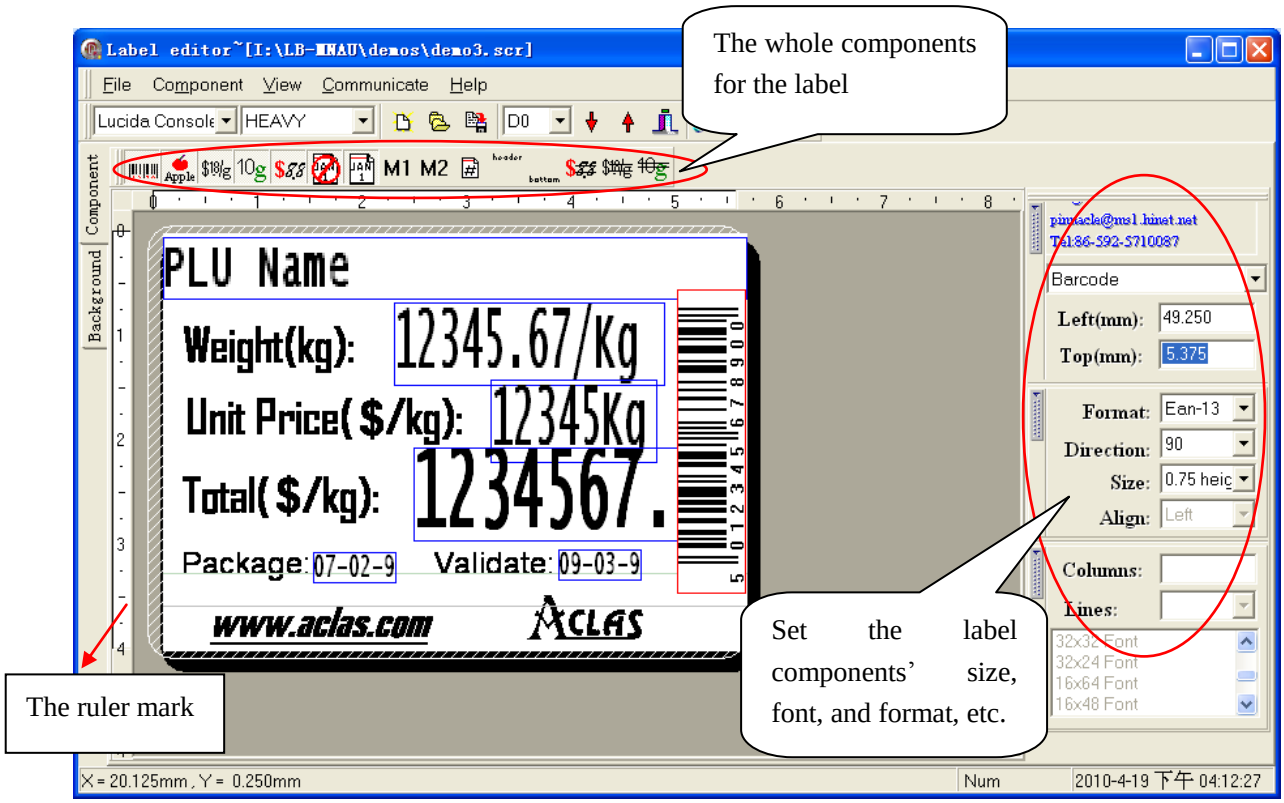


5) Insert the hotkey sheet into the scale:



11.4 Programming label

Open link32, and Click to open “label editor”, there is a default label appearing automatically, such as:



12 APPENDIX

12.1 Appendix 1: TXP (XU) File Format

TXP (or TXU) file is the text storage format of PLU table in Link32. TXP file and TXU file are totally same except their usage purpose is different. So their suffixed names are different. Generally speaking, TXP file contains all PLU message of a scale which is mainly used by Link32 to overcast and download while TXU file contains PLU varying message (such as adding, modifying and deleting PLU) which is mainly used by Link32 to update PLU. Every PLU contains the following columns:

English name	Width	Default	Value range and function description
PLU No.	4		It is reserved to be compatible with old version and has no real meaning
Name	36		
LFCode	6		Uniquely to identify every life commodity and used to input indirect PLU
Code	10		Refer to barcode coding list
Barcode Type	2		0~99, refer to barcode coding lost
Unit Price	8		No decimal mode that is to multiply 10 when its decimal digit is 1 and to multiply 100 hen its decimal digit is 2.Example: 12.34 is expressed as 1234 (=12.34*100)
Weight Unit	1		1:g, 2:10g, 3:100g, 4:kg, 5:oz, 6:lb, 7:500g, 8:600g, 9: PCS (g), A: PCS (Kg), B: PCS (oz), C: PCS (Lb)
Department	2		0~99, Refer to barcode coding list
Tare	6	0	Container weight for weighing, within 15kg after logic conversion.
Shelf Time	3	15	0~365, note: 364-no print valid date; 365-o print valid date and package date.
Package Type	1	0	0:normal mode (common weighing mode),1:fixed weight mode,2:fixed price mode,3: piece together function (both fixed).
Package Weight	6	0	Within 15kg after login conversion.
Package Tolerance	2	5	0~20, error tolerance in fixed eight package or fixed price package.
Message1	3	0	0~12000 [0-no use this message]
Message2	3	0	Reserved
Multi Label	3	0	0~255, every 8 bit corresponds to 8 labels.
Rebate	3	0	-10~100, -1~-10means to use corresponding period of time to discount
PCS Type	2	0	0~15, number unit used by commodity sold according to entries. User can set 15kg kinds of number unit such as bag, block in Link32.

Notes:

1. One space is added after every column and columns are right aligned.
2. Return (0xd) and new line (0xa) are added after every PLU as separator.

Example: one example is demo.txp, which is installed in the subdirectory Demos and can be opened by notepad.

12.2 Appendix 2: Barcode Coding List

Barcode type	Department	Commodity number	Total price	Weight	Checksum
00~09: Ean13 code, the front two codes represent department code:					
00	DD (2)	IIIIIIIII (10)	X	X	C
01	DD (2)	IIIIII (6)	PPPP (4)	X	C
02	DD (2)	IIIII (5)	PPPPP (5)	X	C
03	DD (2)	IIII (4)	PPPPPP (6)	X	C
04	DD (2)	III (3)	PPPPPPP (7)	X	C
05	DD (2)	IIIIII (6)	X	Q.QQQ (4)	C
06	DD (2)	IIIIII (6)	X	QQ.QQ (4)	C
07	DD (2)	IIIII (5)	X	QQ.QQQ (5)	C
08	DD (2)	IIIII (5)	X	QQQQ.Q (5)	C
09	DD (2)	IIIII (5)	X	QQQQQ (5)	C
10~19: Ean13code, the front two codes represent fixed code:					
10	20(2)	IIIIIIIII (10)	X	X	C
11	21(2)	IIIIII (6)	PPPP (4)	X	C
12	22(2)	IIIII (5)	PPPPP (5)	X	C
13	23(2)	IIII (4)	PPPPPP (6)	X	C
14	24(2)	III (3)	PPPPPPP (7)	X	C
15	25(2)	IIIIII (6)	X	Q.QQQ (4)	C
16	26(2)	IIIIII (6)	X	QQ.QQ (4)	C
17	27(2)	IIIII (5)	X	QQ.QQQ (5)	C
18	28(2)	IIIII (5)	X	QQQQ.Q (5)	C
19	29(2)	IIIII (5)	X	QQQQQ (5)	C
20: no print barcode					
21~29: Ean13 code, the front one code represents department code:					
21	D (1)	IIIIIII (7)	PPPP (4)	X	C
22	D (1)	IIIIII (6)	PPPPP (5)	X	C
23	D (1)	IIIII (5)	PPPPPP (6)	X	C
24	D (1)	IIII (4)	PPPPPPP (7)	X	C
25	D (1)	IIIIIII (7)	X	Q.QQQ (4)	C
26	D (1)	IIIIIII (7)	X	QQ.QQ (4)	C
27	D (1)	IIIIII (6)	X	QQ.QQQ (5)	C
28	D (1)	IIIIII (6)	X	QQQQ.Q (5)	C
29	D (1)	IIIIII (6)	X	QQQQQ (5)	C
30~35,40~45: 18code, the front one code represents department code					
30&33	D (1)	IIIIII (6)	PPPPP (5)	QQ.QQQ (5)	C
31&34	D (1)	IIIIII (6)	PPPPP (5)	QQQQ.Q (5)	C
32&35	D (1)	IIIIII (6)	PPPPP (5)	QQQQQ (5)	C
50~52: 8 code					
50	X	IIIIIII (7)	X	X	C
51	D (1)	IIIIII (6)	X	X	C

52	DD (2)	IIIII (5)	X	X	C
36-38: 18code, the front one code represents department code, which is particular for the batch management of live commodity.					
36	D (1)	LLLLLL (6)	IIII (4)	RR (2)	QQ.QQQ (5)
37	D (1)	LLLLLL (6)	IIII (4)	RR (2)	QQQQ.Q (5)
38	D (1)	LLLLLL (6)	IIII (4)	RR (2)	QQQQQ (5)

Meaning of characters in the above list:

C: CHECKSUM

D: Department code

2: Fixed number

I: commodity number

L: Live code

P: price

R: discount

Q: weight

X: no this item

Notes:

1. Ean 13= DEPMENT+CODE+[TOTAL PRICE]+[WEIGHT]+C
   Items with [] mean no this item in some coding system.
2. Usually Ean13 adopts 2 or 22 as its price barcode type while 7 or 77 as its weight barcode type.
3. CHECKSUM is calculated by the scale automatically and it is not necessary for user to input in PLU manager.
4. The difference between 30-32 and 33-35 is the method to calculate checksum.
5. The difference between 40-45 and 30-35 is that the price in 30-35 is total price while in 40-45 is unit price.
6. 36-38 is barcode type, which can be accessed by live batch management. Commodity batch number takes up commodity number column and commodity number takes up live code column.

12.3 Appendix 3: Main difference between LB scale and LP scale:

Main difference between scale with pole and scale without pole:

LB serial Scale (with pole)	**LP Serial scale (without pole)**
System set option： R/T/D/B/P/A/L/H/O/M/S/I/J/X/K/E/F/C/Y/G/Q/N/U/V/W/Z/,/./	System set option： R/T/D/B/P/A/L/H/O/M/S/I/J/X/K/E/F/C
Two select key ← (hotkey 11), → (hotkey 10).	Only one select key → (47key)
Switch key between Chinese character and English character (73)	Switch hotkey between Chinese character and English character (5)
Label editing key (key between on/off and change	Press change for one minute
Confirmation key Enter (hotkey 10)	Confirmation key Enter (hotkey 48)

12.4 Appendix 4: Live Commodity Batch Management

Merits of live commodity batch management:

It can check every batch separately, take different discount in different period within self time, show warning message when the commodity is going to be overdue (degenerative or even decayed), find out the overdue batch and process in time.

General flow chart of live commodity batch management:

Batch number is created when the live commodity is bought. Its forma is: Year (1) + Week of year (2) + day of week (1), four number totally. At the same time, name, code, batch number of the commodity are put into the batch commodity in order for the packing person to identify the commodity correctly. Commodity code + batch number is used to identify the batch of the commodity in the following task flow chart.

Our company has already complete batch management function currently which can be realized by adding three kinds of bar code. When user calls this kind of PLU, the scale will show a prompt for the user to input batch number. These three kinds of bar code type is as following:

Bar code type	Department	Live LFD code	Commodity number	Discount	Weight
36-38: 18 code, the former code prints department code which is special for live commodity batch management.					
36	D (1)	LLLLLL (6)	IIII (4)	R (2)	QQ.QQQ (5)
37	D (1)	LLLLLL (6)	IIII (4)	R (2)	QQQQ.Q (5)
38	D (1)	LLLLLL (6)	IIII (4)	R (2)	QQQQQ (5)

Meaning of the characters in the above tables:

D: department code L: live code

I: commodity number P: price

R: discount Q: weight

Notes:

1. Live code corresponds to background management system commodity code and commodity number corresponds to background management system batch number.
2. Commodities requiring batch management is those packed background. Bach management is not used to the commodity sold and weighed in the spot.
3. How Cash register makes a difference between batch number and non-batch number when it decodes. Thee are two methods: (1) Set different department code, for example: Set the department code 2 which doesn’t require batch management and 3 which does require batch management. (2) Live code can be resolved out because the live code position and length of two kind of 18 code are same. And then distinguish between batch commodity and non-batch commodity according to live code.
4. Using step; Screen shows the prompt to input batch number when calling PLU. Input four-digit code and put on weight.