LP1 BARCODE
PRINTER USER MANUAL

Pinnacle Technology Corp.

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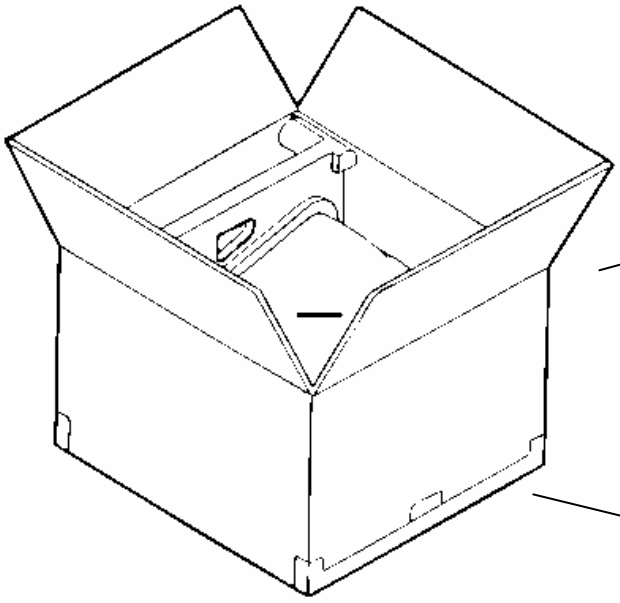
1 UNPACKING THE LP BARCODE PRINTER



LP1 Printer

4P9D Cable

PC Disk

User manual

2 SUMMARIZATION

2.1 Technical Specification

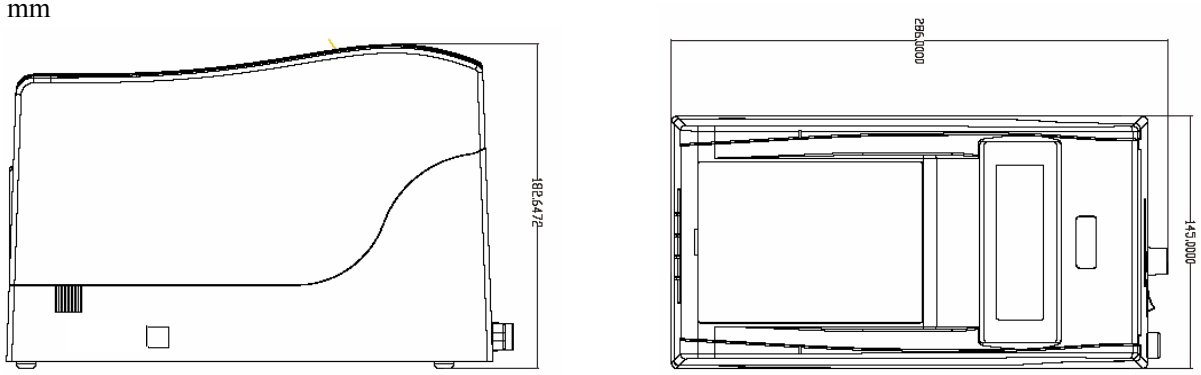
Power supply:	AC18V 1.5A (AC115V/220V/240V 50/60Hz Adaptor)
working environment:	0℃~40℃ ， 5%~90%R.H.
storage environment:	-20℃~50℃ ， 5%~90%R.H.
Printer:	Thermal Printer
Printer head:	56mm width, 203 Dot/in
Print speed:	50mm/s (light printing)
Paper width:	56mm
Weight:	3Kg
Keyboard:	40 membrane keys
Communication port:	PS/2, Ethernet, RS232
NAND Flash capacity:	standard 8Mbit (can change to larger capacity)

2.2 Advanced Features

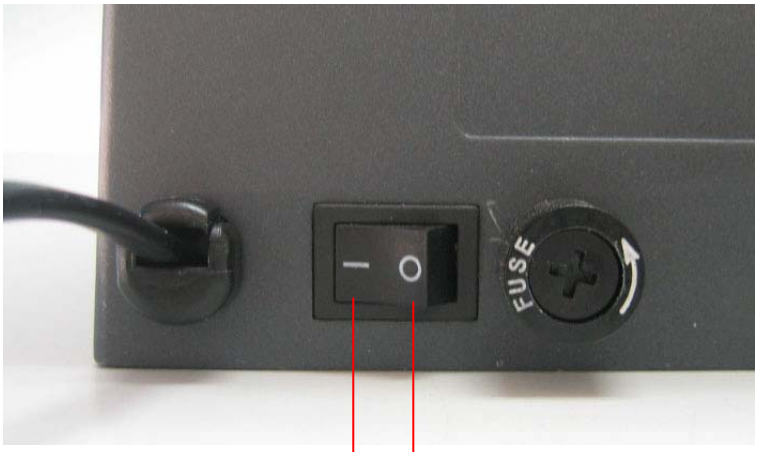
- Provide the label graph edition software for any label design with the scope of 30*30mm～55*60 size.
- With auto label backing re-winder, can continuously printing labels and spit out the next label automatically.
- Integrate an auto-packing system with platform scale (with communication function).
- Support UNICODE and can work with back office s/w based on NT, UNIX, INTERNET.
- Can select any kinds of font and language in PC editor application, and download for printing.
- Printing darkness can be adjusted according to label sensitivity, and with auto compensation of voltage and temperature changes, makes the lifetime of thermal head 2-3 times longer than normal machine's.
- Support 60*40mm paper roll with 1000pcs labels while other competitive printer in the market only can load paper roll with max.
- Capable of printing label, background and PLU name in different language for different countries.
- With 65*132 graphic LCD to display commodity name, price, weight, amount and other details information.

2.3 Dimension

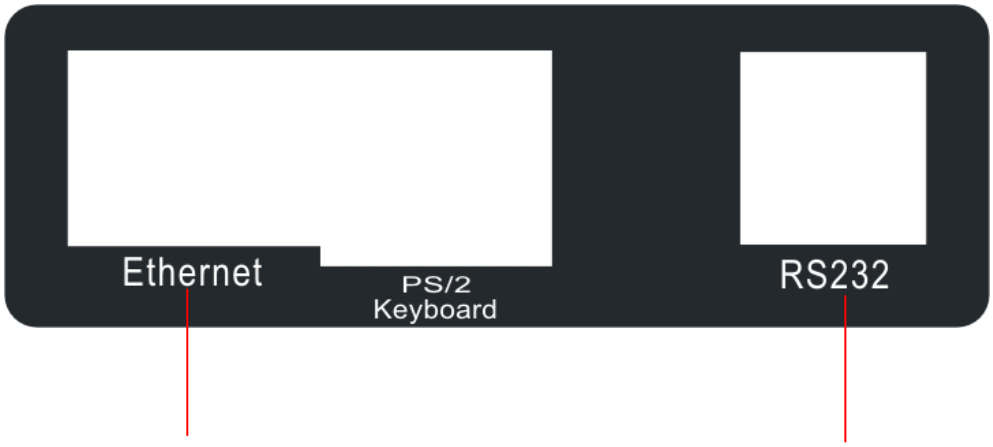
Unit: mm



2.4 Power Switch and Communication Interface



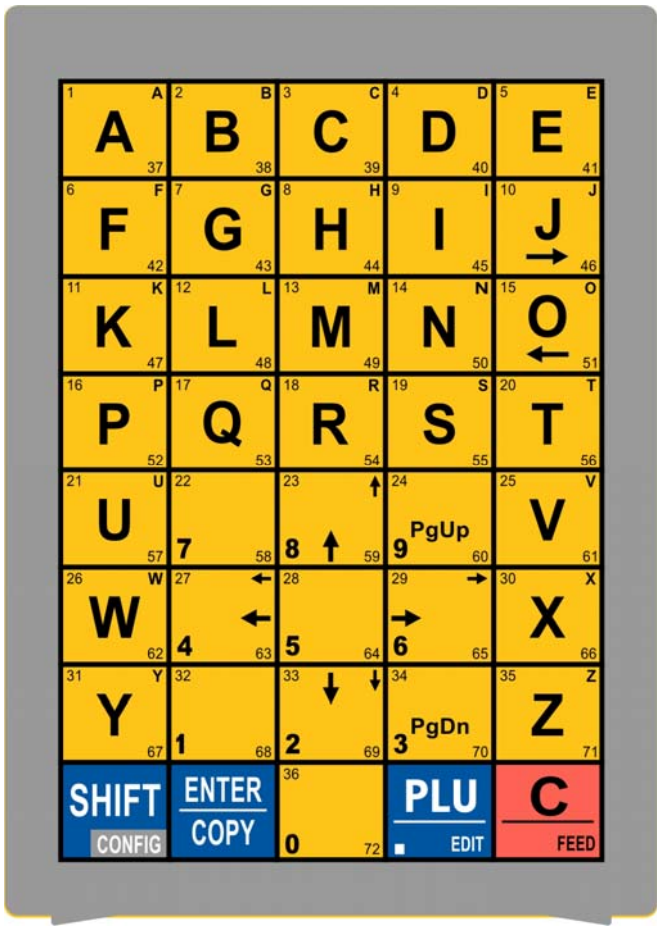
ON OFF



Ethernet port, connect to PC.

Use to download data from PC or connect to scale

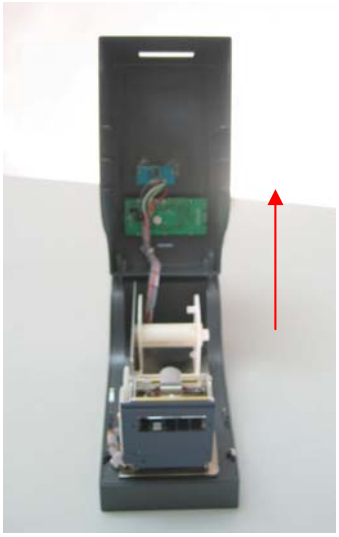
3 KEYBOARD LAYOUT



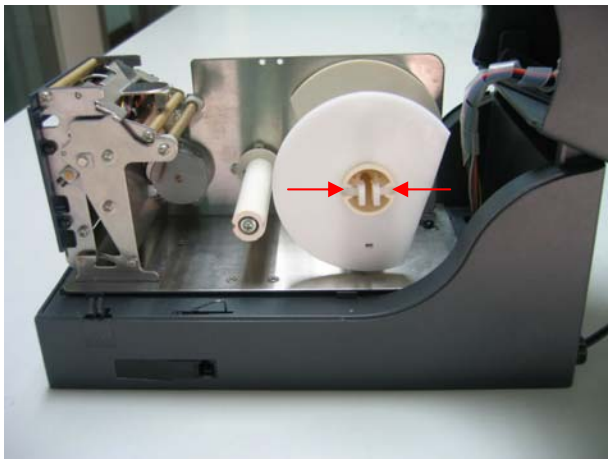
	Shift the key function. Press the key 2 seconds to enter system set mode.
	Confirm key Press key [SHIFT] [COPY] to copy the last label, and stops until you press key [C]
	Decimal point Combine with numerical key shift digits to bar code number
	Clear data

4 HOW TO INSTALL PAPER

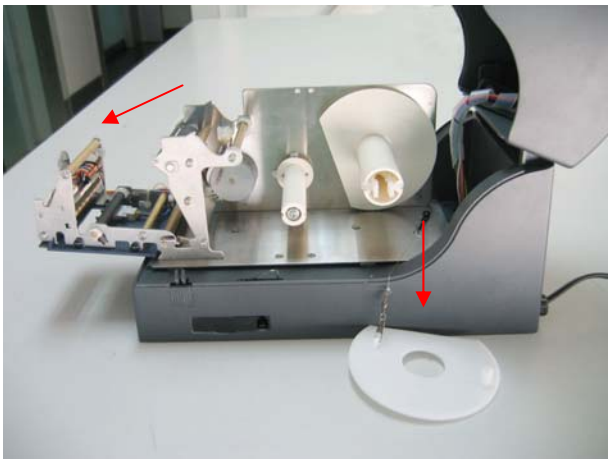
1. Follow the arrowhead direction and push the two side buttons.



2. Open the upper cover

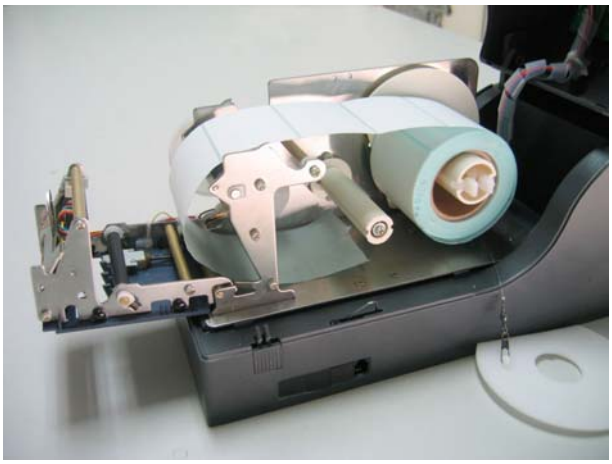


3. Side feature, follow the arrowhead direction and push it

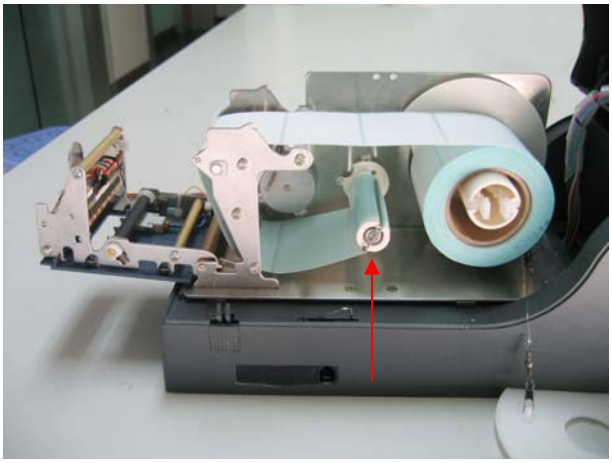


4. Take the slice down, and open the printer head.

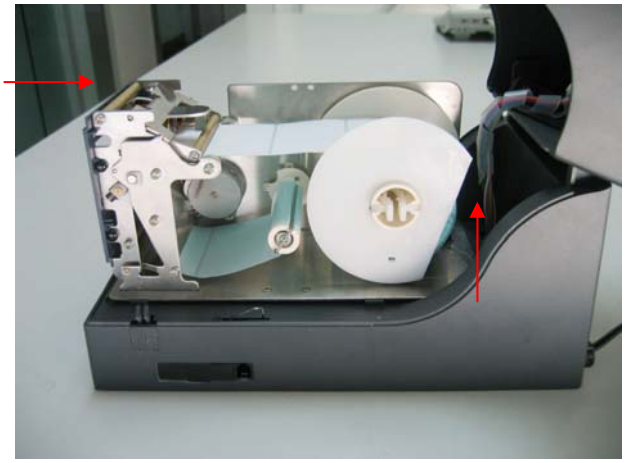
➢ **Label paper installation**



5. Roll paper like the picture shows



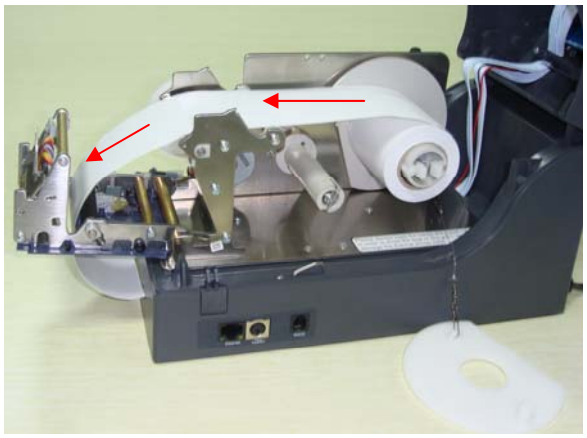
6. Lock the paper edge on the winder



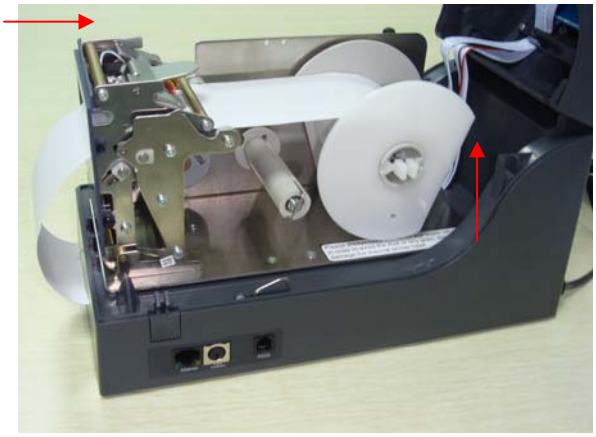
7. Put on the slice and close the printer head

8. Close the cover

➢ **Receipt paper installation**



5. Load the receipt paper like the picture shows.



6. Put on the slice and close the printer head

7. Close the cover

5 OPERATION

5.1 Operator

5.1.1 How to edit Operator

This is to edit operator information.

Method 1:

1) Press key “System set” to find the menu “Edit message” by key “←” and “→”, then press key “Enter”

2) Input 10001 to edit operator, there are totally 8 lines for this message, one operator/line, so, you could edit totally 8 operators. (Max 24 characters for each line)

Note: The Line number is the operator number.

Method 2:

1) Open Link32

2) Open PLU manager table → Press menu “Option” → select “Information”

3) Input the name in "Seller" column and press key "Ok".

4) Press menu Red Arrow to download these operator information to LP1.

5.1.2 Operator Log on

Press key 5 and input the connected Operator code (from 1 to 8).

5.2 Temporary message

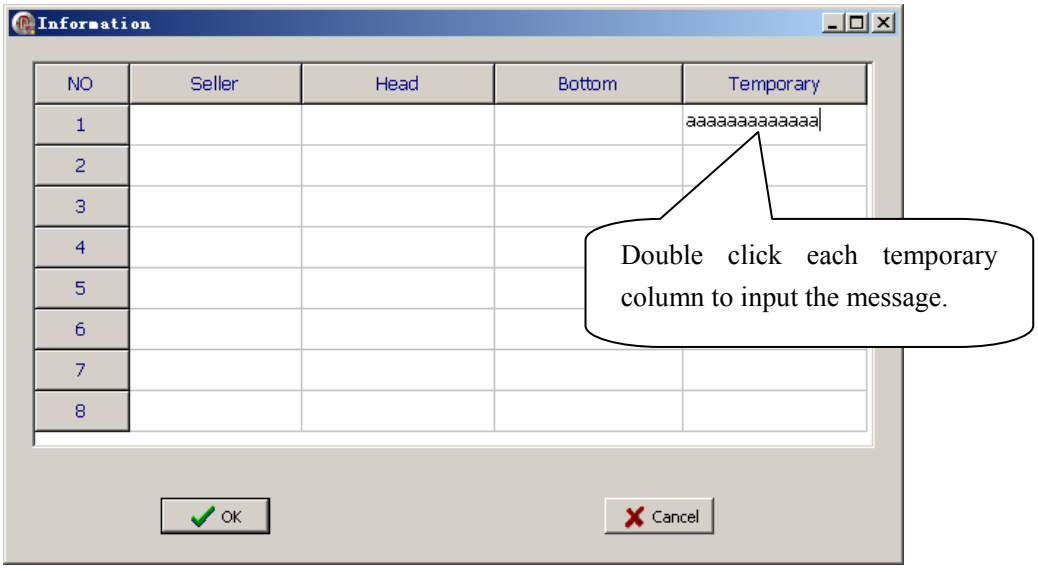
5.2.1 How to Name temporary message

Please follow the operation steps below to name the temporary message:

1) Open Link32

2) Open PLU manager table → Press menu “Option” → select “Information”

3) Input the name in "Temporary" column and press key "Ok".



4) Press Red Arrow in the toolbar to download these temporary messages to LP1.

Note: here you could input 8 different temporary name, but only the front 4 name could be supported by LP1. We will modify LP1 to support more temporary information in the future. Please wait for it.

5.2.2 Program value

Please follow the operations below to program value for each Temporary message:

Press Numeric key 1 and press enter to program value for the first Temporary message

Press Numeric key 2 and press enter to program value for the second Temporary message

Press Numeric key 3 and press enter to program value for the third Temporary message

Press Numeric key 4 and press enter to program value for the fourth Temporary message

Note: 48 characters for each temporary message

5.2.3 Print temporary message

Please follow the operation below on how to print Temporary message on Receipt or Label.

- **Print temporary message on Receipt**

1) Press key 'System set' to enter system setting mode, and select an option of 'Print Temporary' through key '←' or '→', then press 'Enter' to select between 'Yes' and 'No'.

Yes --- Print

No --- No print

- **Print temporary message on Label**

1) Open Link32

2) Open Label Editor Table → Put component temporary message on label

3) Download this label to LP1, then the temporary message will be printed out.

5.3 Printer model

There are totally 4 different kind of model for LP1 to print our label or receipt under different format. Please follow the operation below on how to select different model:

Press key 'System set' for 2 or 3 seconds, then through the key '←' or '→' to find out menu 'Print format':

0: label means Label mode, printer will only print Label.

1: plu-wt means Normal Label/Receipt model.

Printer will print label or receipt under one PLU one weight.

2: n(plu-wt) means Multi PLU Receipt model (Products in Column–Different)

Printer could print one receipt with many PLU as described in below way:

1) Put Product on scale to obtain its weight value

2) Enter PLU code to print connected information

3) Repeat step 1) to 2) to print connected information of other PLU

4) After all PLU printed out, please press key "Print" to print out the tail message to finish this operation.

3: plu-nwt means One PLU with Multi-weight receipt model (Products in Column—Same)

Printer could print one receipt with one PLU and many weights as described in below way:

1) Put Product on scale to obtain its weight value

2) Enter PLU code to print connected information

3) Repeat step 1) and press key 6 to print connected weight of the same PLU

4) After all weights printed out, please press key “Print” to print out the tail message to finish this operation.

5.4 Additional points

1. Ticket Number

‘System set → ticket No’ to set Start Ticket Number.

The default Start Number is 1

And the Max Number is 65535.

2. Total Function

‘System set → Prn All Stat. plu (Print receipt) → Input Operator code’

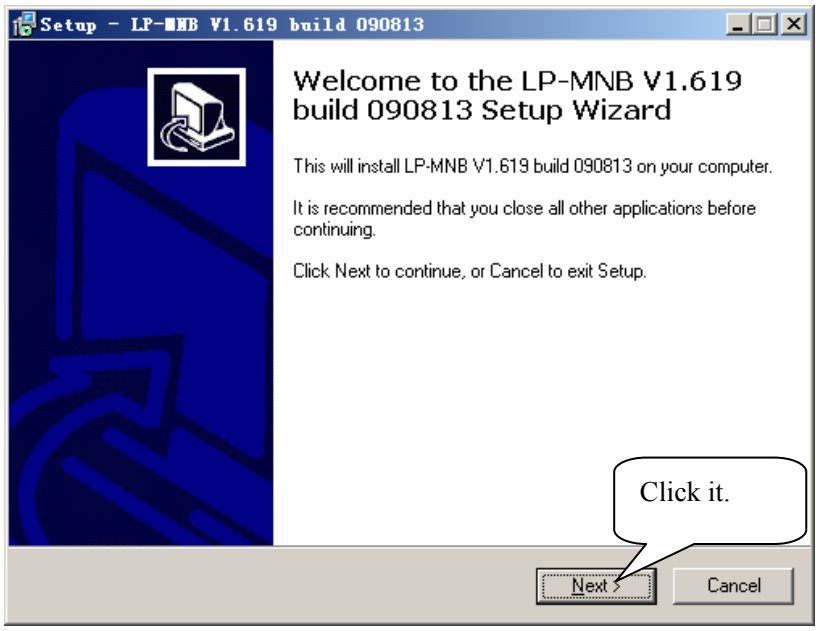
All sales information of this operator will be printed out.

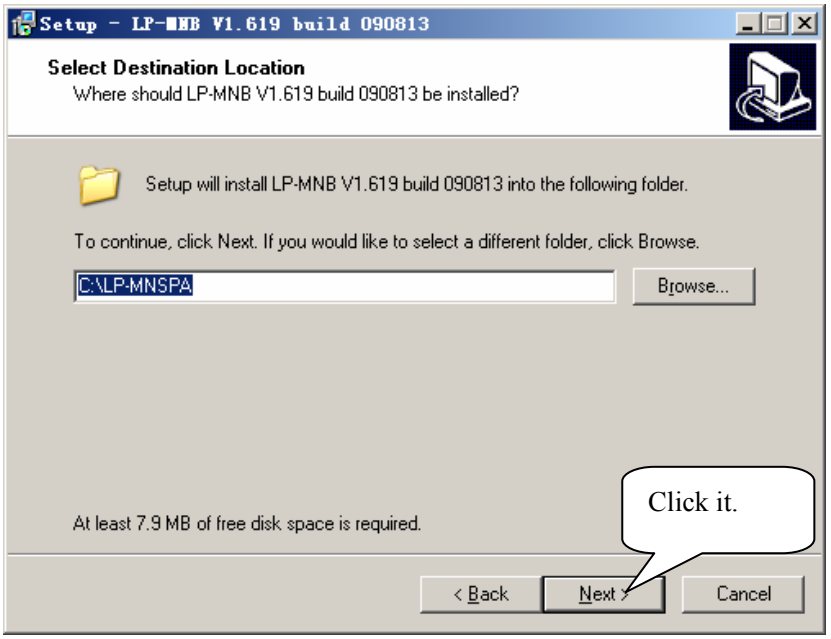
The max capacity which LP1 could store is 30000 weights.

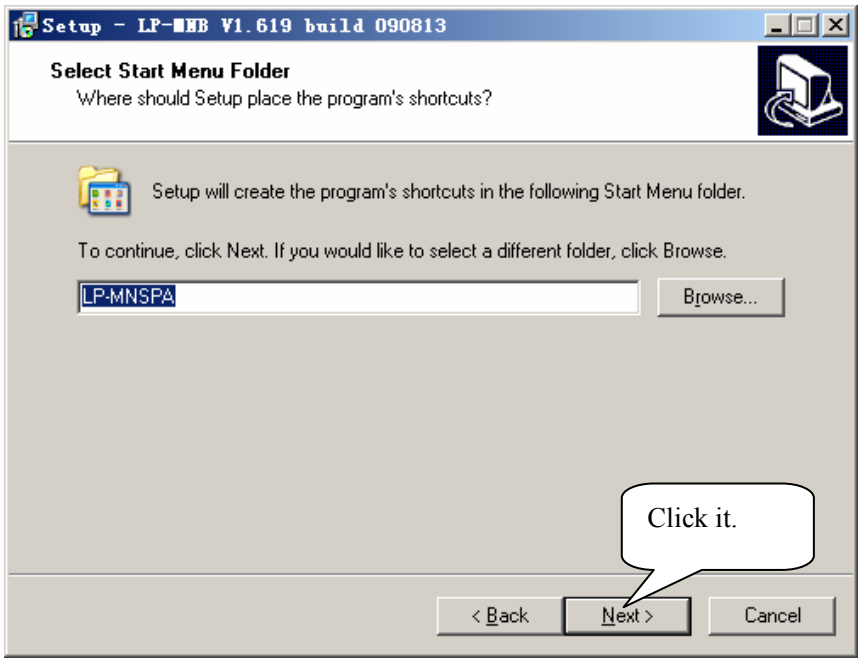
3. Press key “PLU” as Space key when programming message on LP1.

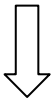
6 PC SOFTWARE INSTALLATION

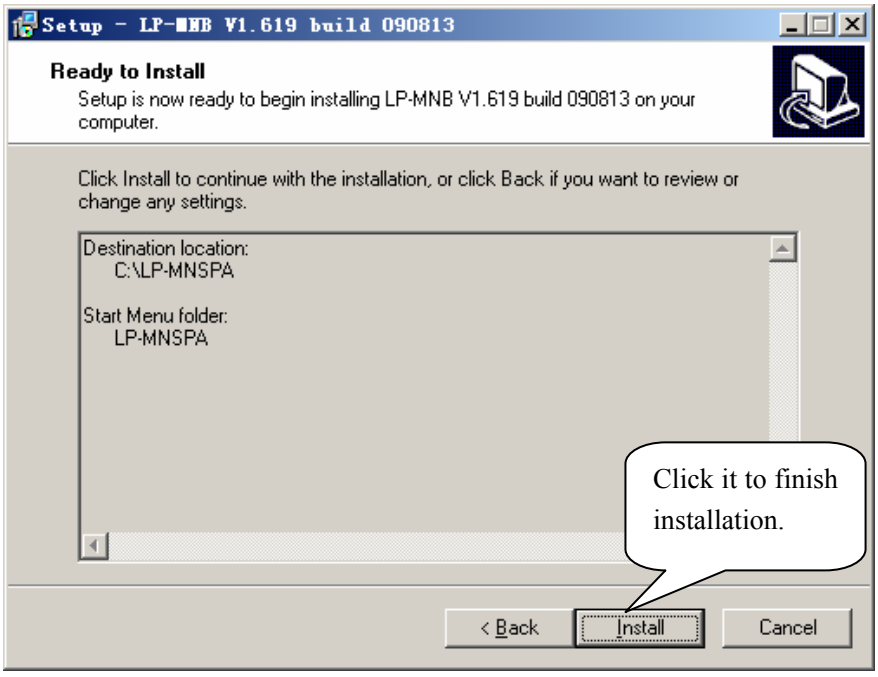
Double click lbmn602b.exe:






Setup - LP-MNB V1.619 build 090813
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
LP-MNSPA
Browse...
Click it.
< Back
Next >
Cancel

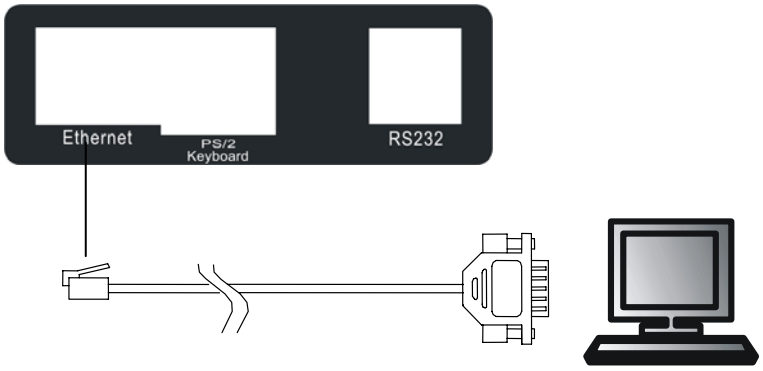



Setup - LP-MNB V1.619 build 090813
Ready to Install
Setup is now ready to begin installing LP-MNB V1.619 build 090813 on your computer.
Click Install to continue with the installation, or click Back if you want to review or change any settings.
Destination location:
C:\LP-MNSPA
Start Menu folder:
LP-MNSPA
Click it to finish installation.
< Back
Install
Cancel

7 COMMUNICATION

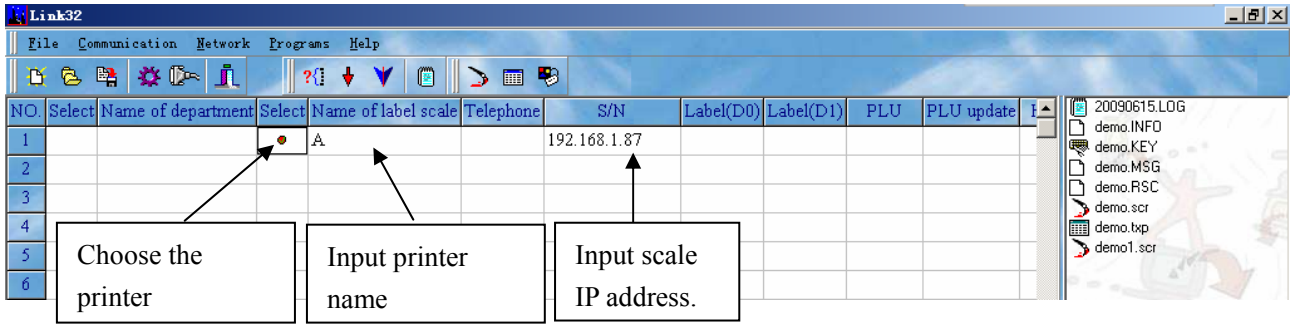
Before you download data or driver, you need to test the communication.

7.1 Connect LP to PC

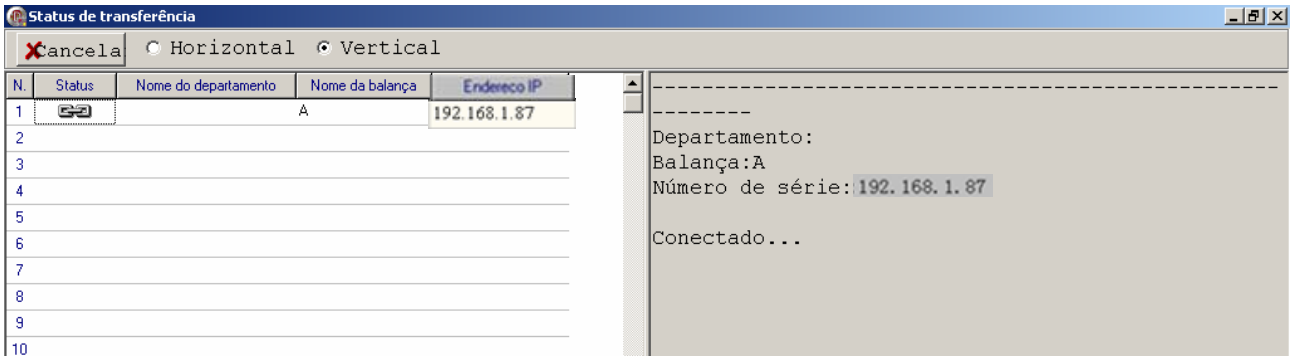


7.2 Communication Test

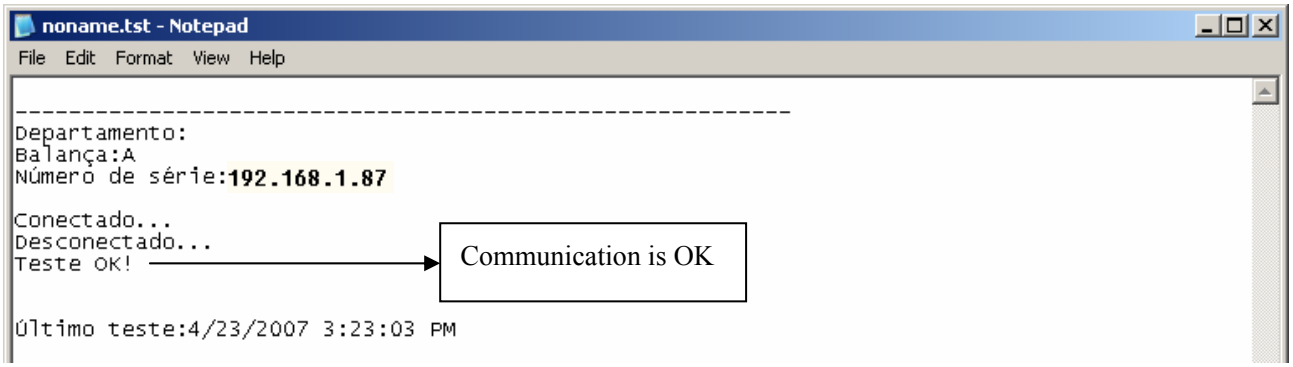
1. Open attached PC software LB-MNB, and choose ‘Link32’.
2. Input scale information



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



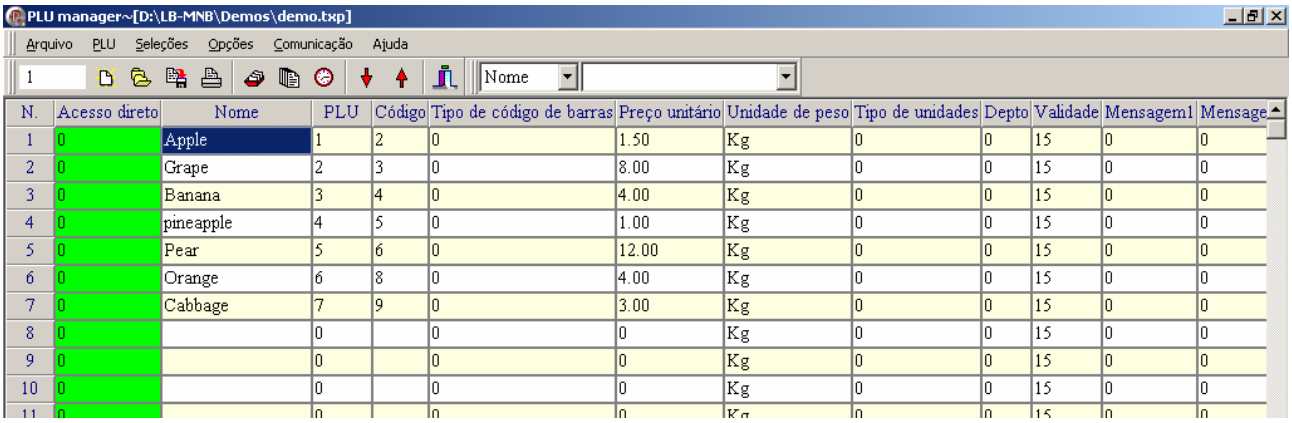
<Communicating>


noname.tst - Notepad
File Edit Format View Help
Departamento:
Balança:A
Número de série:192.168.1.87
Conectado...
Desconectado...
Teste OK!
Communication is OK
Último teste:4/23/2007 3:23:03 PM

<Result>

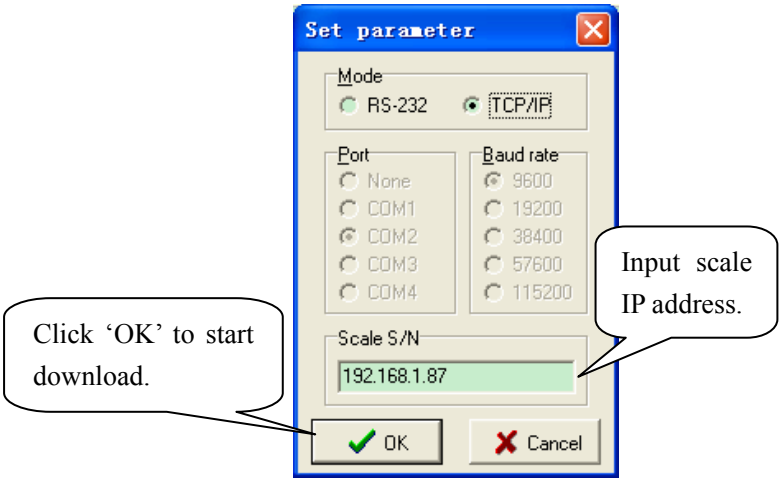
8 HOW TO CREATE PLU DATA

1. Click open “PLU manager” and edit PLU information.

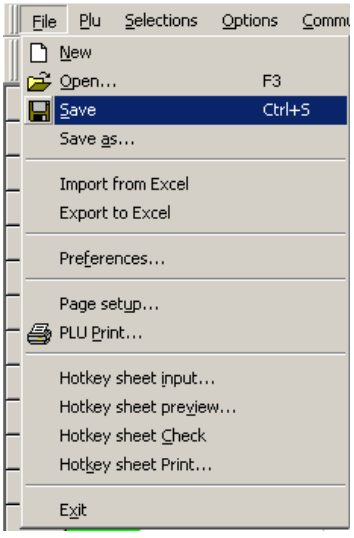


N.	Acesso direto	Nome	PLU	Código	Tipo de código de barras	Preço unitário	Unidade de peso	Tipo de unidades	Depto	Validade	Mensagem1	Mensage
1	0	Apple	1	2	0	1.50	Kg	0	0	15	0	0
2	0	Grape	2	3	0	8.00	Kg	0	0	15	0	0
3	0	Banana	3	4	0	4.00	Kg	0	0	15	0	0
4	0	pineapple	4	5	0	1.00	Kg	0	0	15	0	0
5	0	Pear	5	6	0	12.00	Kg	0	0	15	0	0
6	0	Orange	6	8	0	4.00	Kg	0	0	15	0	0
7	0	Cabbage	7	9	0	3.00	Kg	0	0	15	0	0
8	0		0		0	0	Kg	0	0	15	0	0
9	0		0		0	0	Kg	0	0	15	0	0
10	0		0		0	0	Kg	0	0	15	0	0

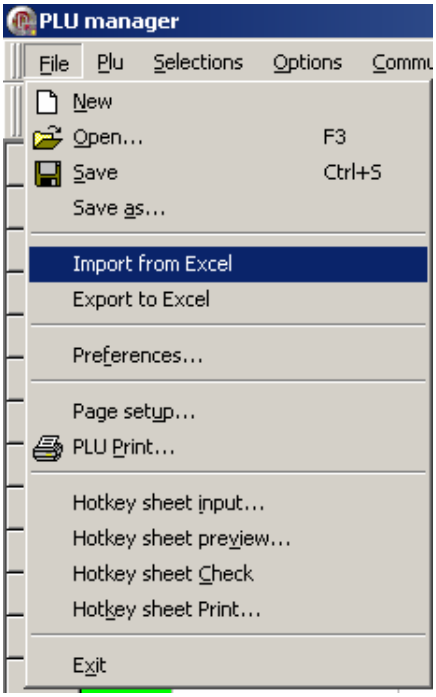
2. Click button



3. Save the PLU data



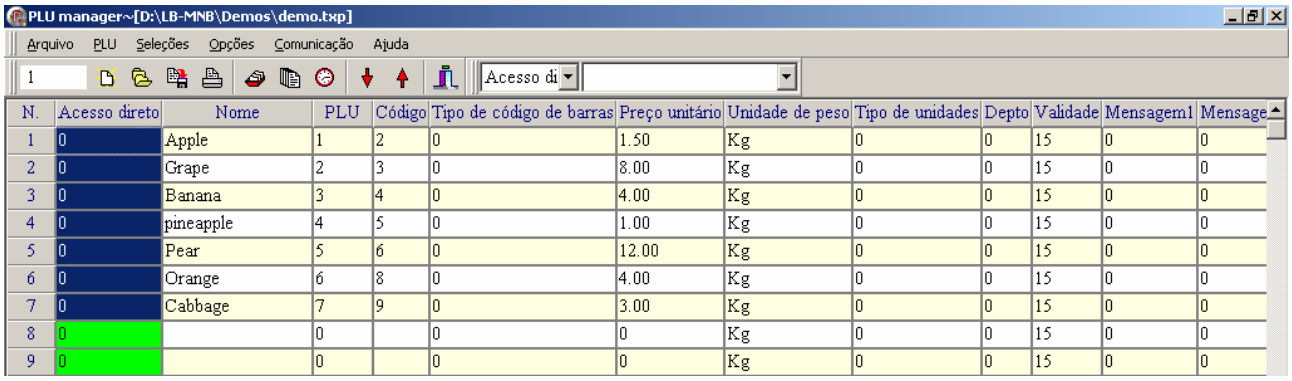
- You can also import PLU data from excel file



9 HOW TO CREATE HOTKEY

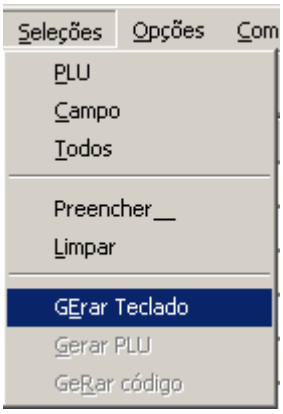
- Method1: (mainly used in the case that the hot sell PLU are arranged in the front)

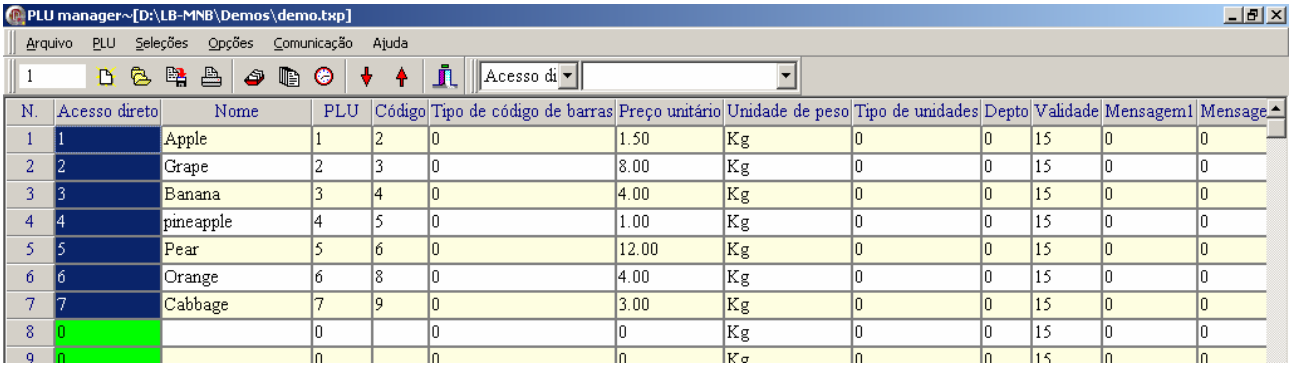
1. Choose hotkey area



N.	Acesso direto	Nome	PLU	Código	Tipo de código de barras	Preço unitário	Unidade de peso	Tipo de unidades	Depto	Validade	Mensagem1	Mensage
1	0	Apple	1	2	0	1.50	Kg	0	0	15	0	0
2	0	Grape	2	3	0	8.00	Kg	0	0	15	0	0
3	0	Banana	3	4	0	4.00	Kg	0	0	15	0	0
4	0	pineapple	4	5	0	1.00	Kg	0	0	15	0	0
5	0	Pear	5	6	0	12.00	Kg	0	0	15	0	0
6	0	Orange	6	8	0	4.00	Kg	0	0	15	0	0
7	0	Cabbage	7	9	0	3.00	Kg	0	0	15	0	0
8	0		0		0	0	Kg	0	0	15	0	0
9	0		0		0	0	Kg	0	0	15	0	0

2. Chick “generate hotkey”





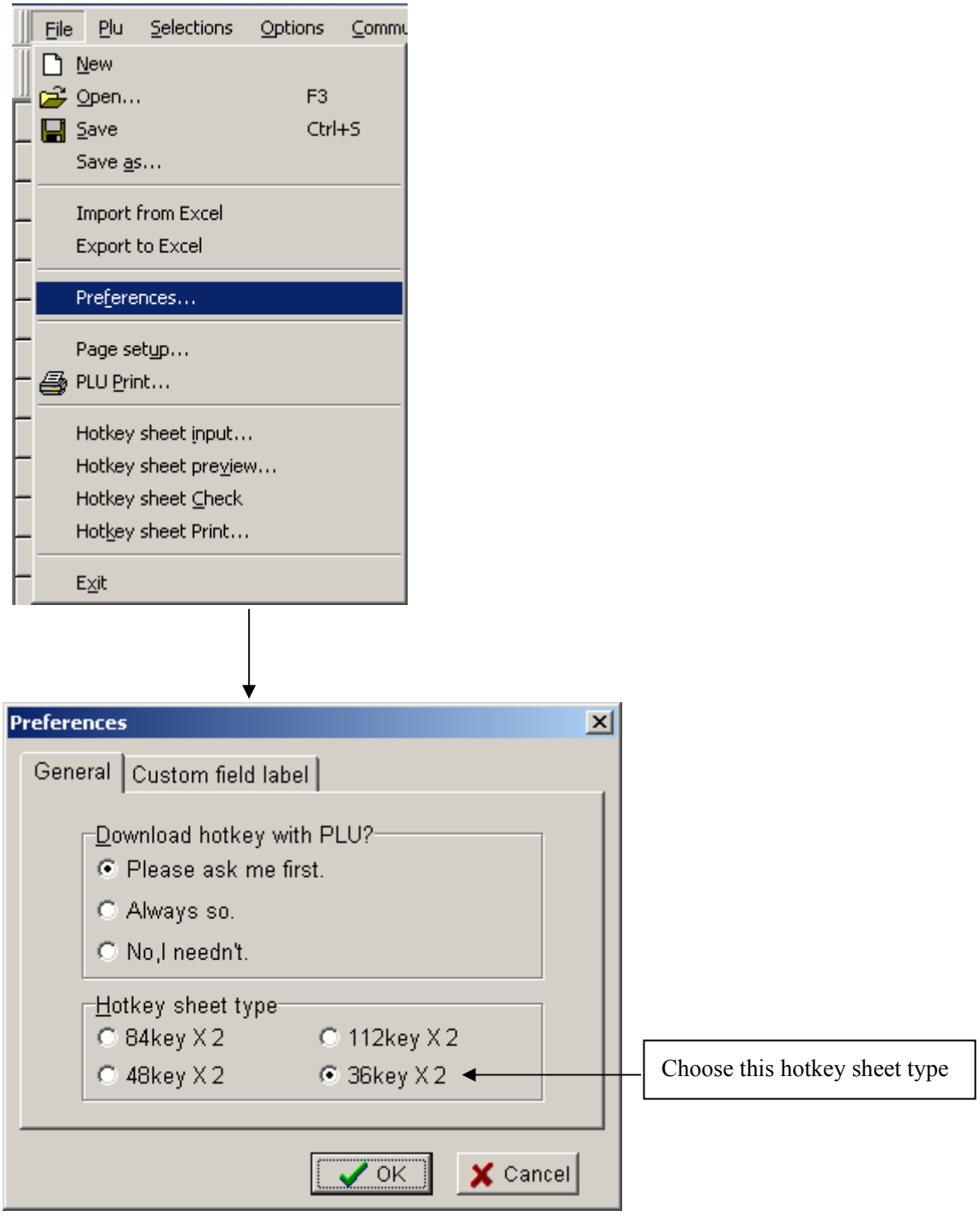
N.	Acesso direto	Nome	PLU	Código	Tipo de código de barras	Preço unitário	Unidade de peso	Tipo de unidades	Depto	Validade	Mensagem1	Mensage
1	1	Apple	1	2	0	1.50	Kg	0	0	15	0	0
2	2	Grape	2	3	0	8.00	Kg	0	0	15	0	0
3	3	Banana	3	4	0	4.00	Kg	0	0	15	0	0
4	4	pineapple	4	5	0	1.00	Kg	0	0	15	0	0
5	5	Pear	5	6	0	12.00	Kg	0	0	15	0	0
6	6	Orange	6	8	0	4.00	Kg	0	0	15	0	0
7	7	Cabbage	7	9	0	3.00	Kg	0	0	15	0	0
8	0		0		0	0	Kg	0	0	15	0	0

- Method 2: (mainly used in the case that the PLU arrangement is random)

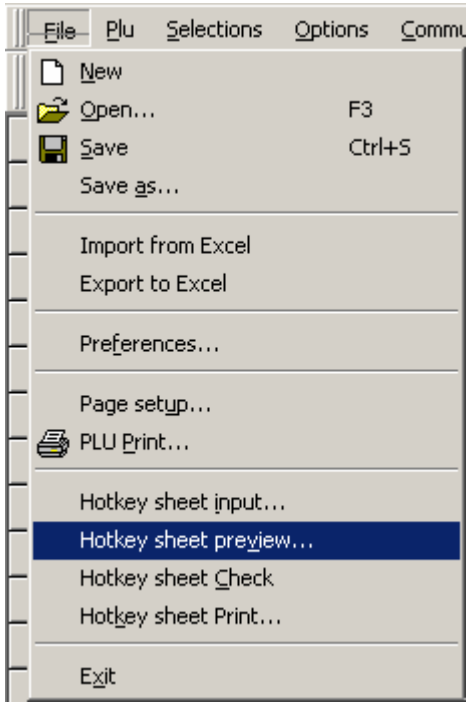
Choose the corresponding hotkey area, and input the hotkey number directly.

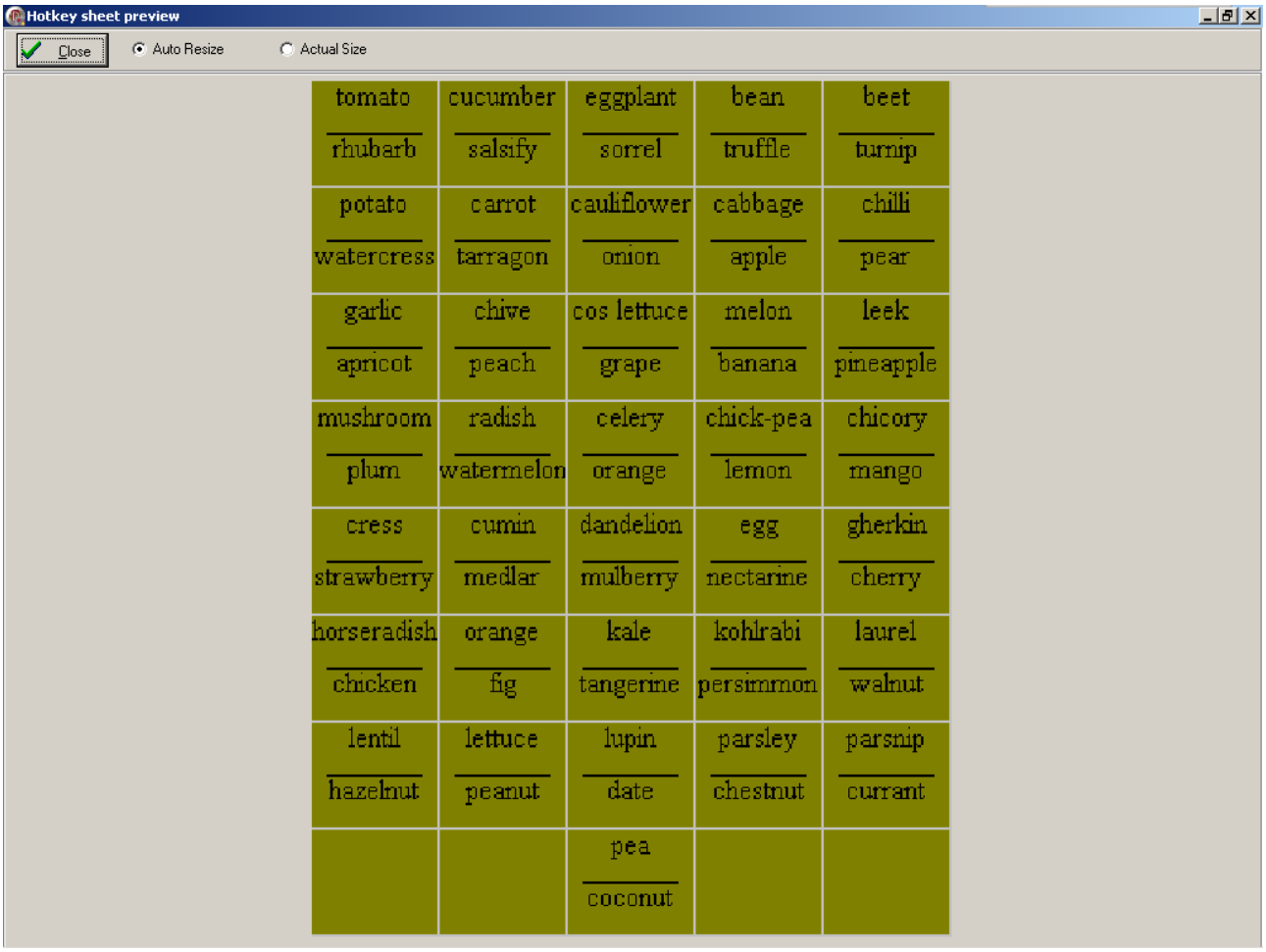
10 HOW TO PRINT HOTKEY

1. Choose preferences

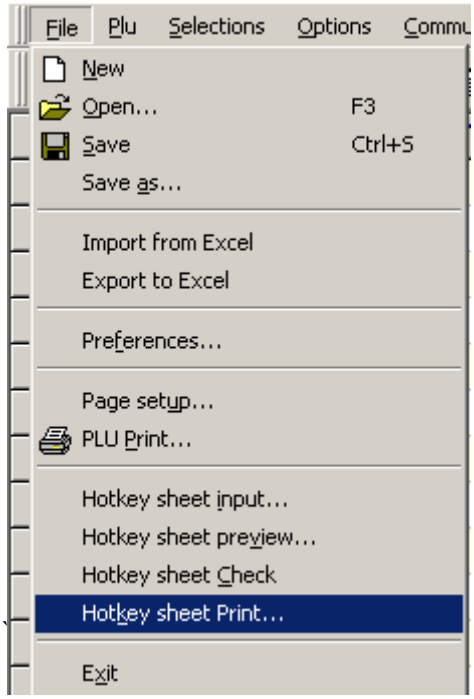


2. Preview hotkey sheet





3. Print the hotkey

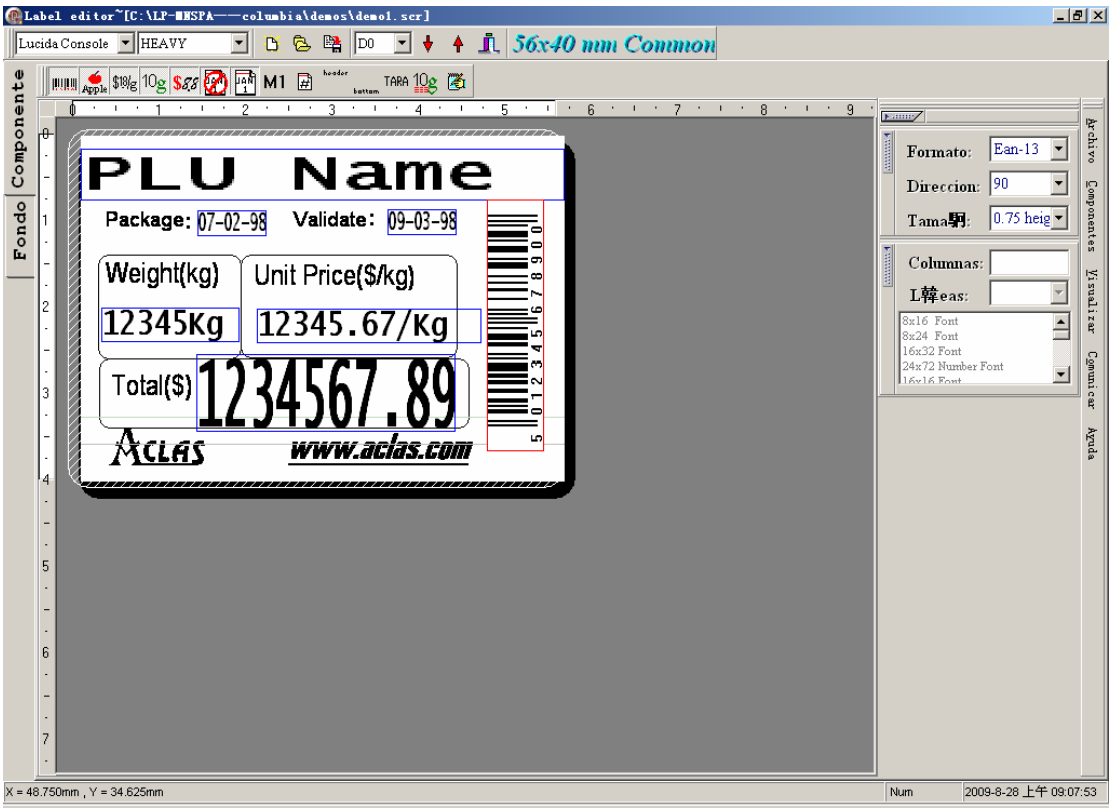


4. Cut a hotkey sheet down and Insert the hotkey sheet into the keyboard

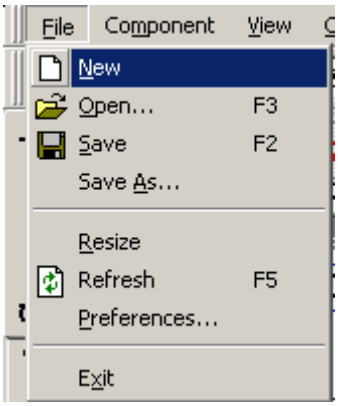
SHIFT
ENTER
COPIAR
PLU
LIMPAR

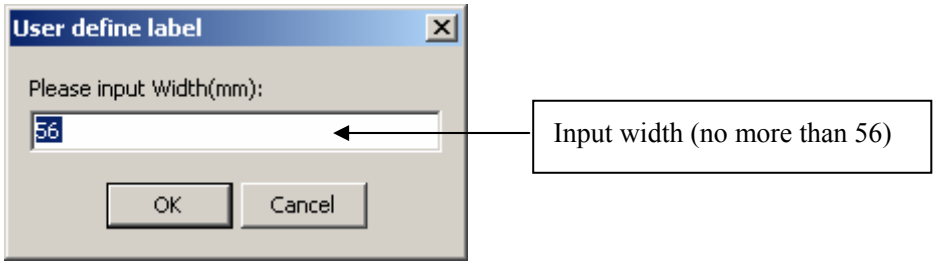
11 LABEL DESIGN

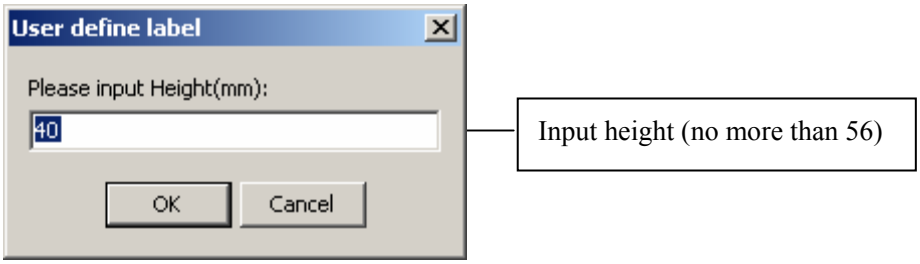
1. Open link32, and Click ‘lab.exe’ to open ‘label editor’.



2. Create a new label:

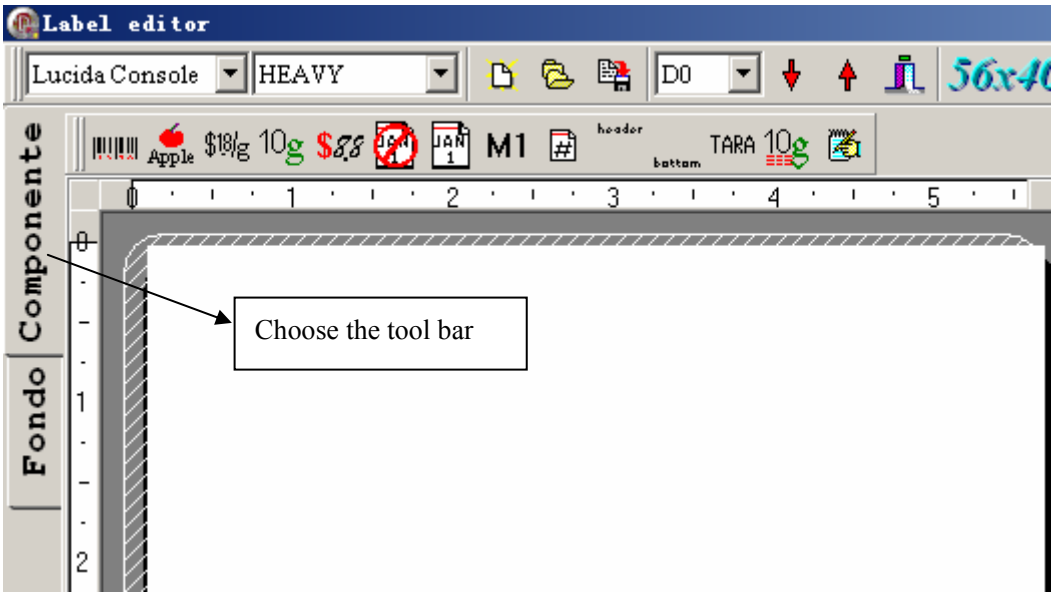




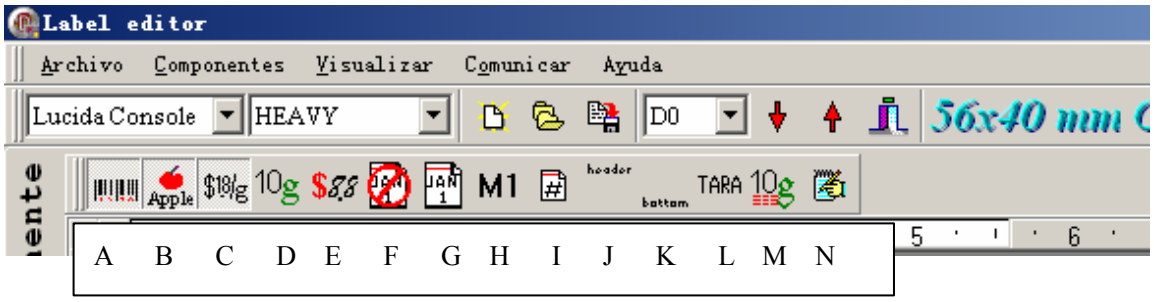


3. Edit the label

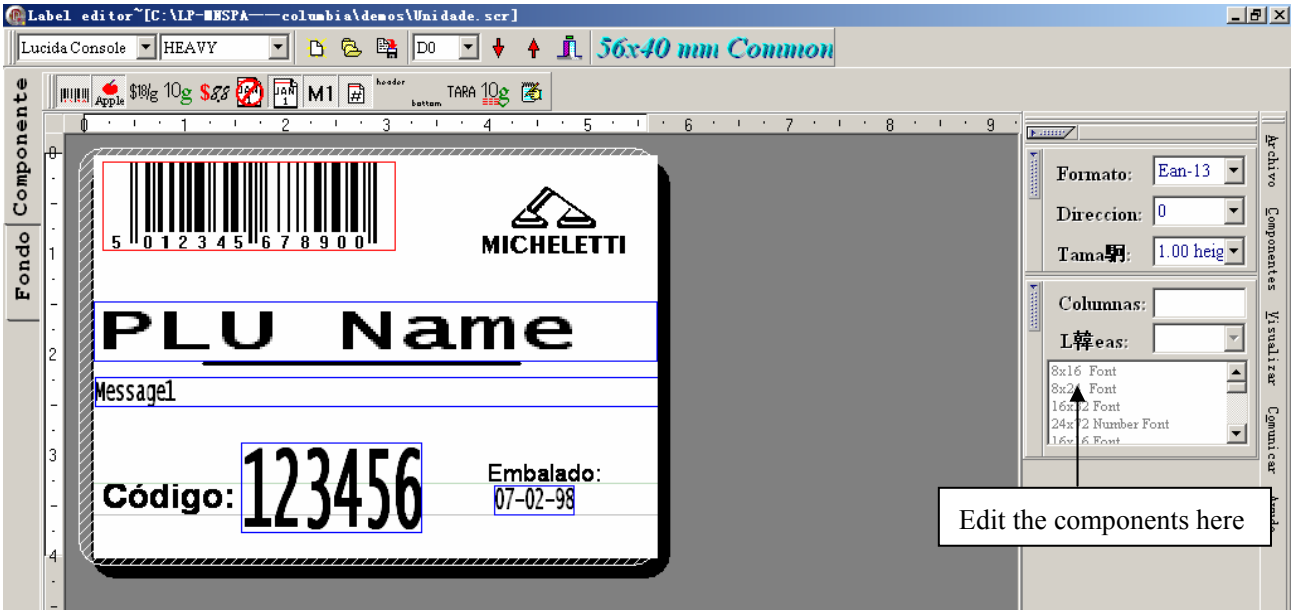
1) Choose 'component' tool bar



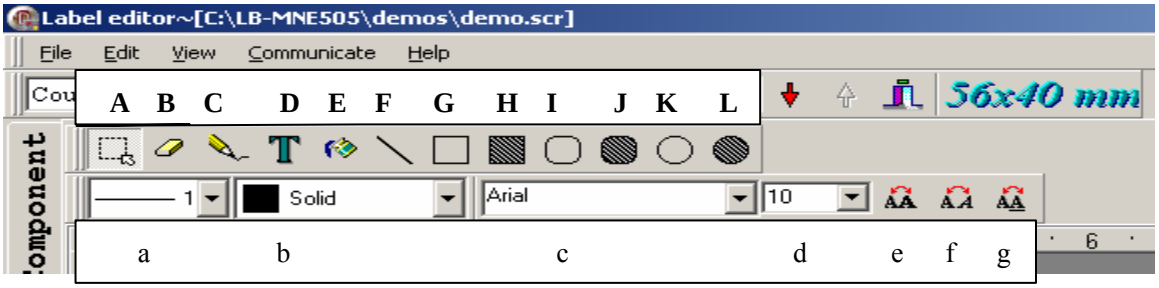
2) Choose the components and edit them.



A，barcode；B，PLU name；C，unite price；D，weight；E，total price；F，period of validity；G，package date；H，info 1；I，fresh code；J，head message；K，foot message；L, tare；M，gross weight；N，temporary information.

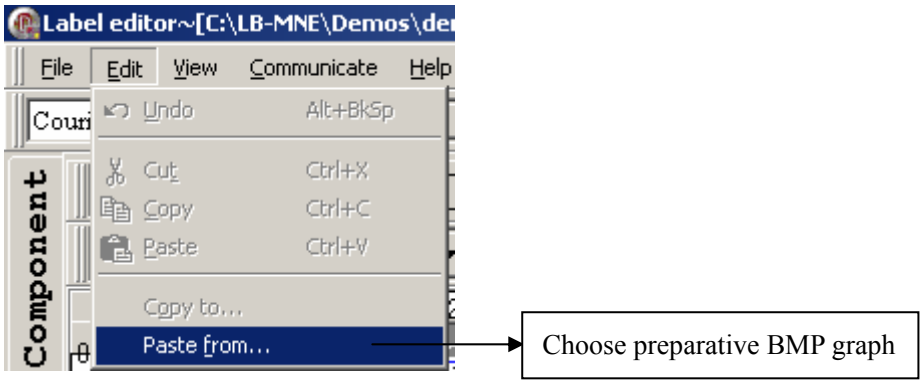


3) Edit background picture



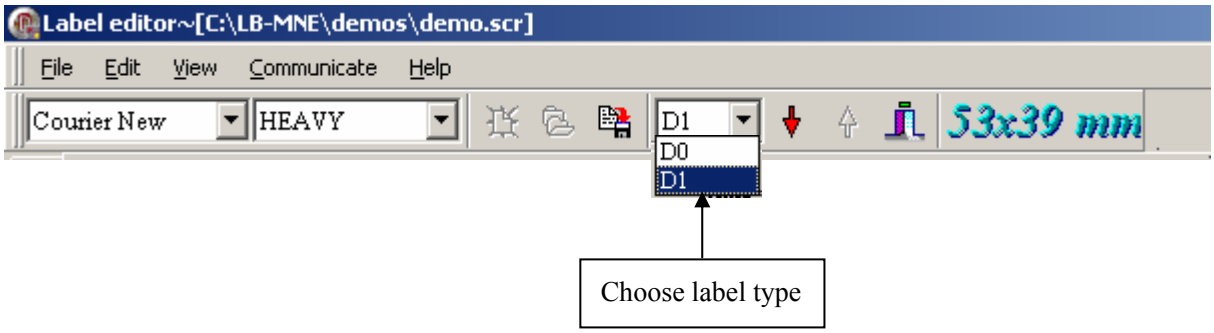
A. Select; B. rubber; C. pencil; D. Text; E. fill in; F. beeline; G. rectangle
H. Fill in rectangle; I. round angle; J. fill in round angle rectangle; K. round; L. fill in round
a. Line thickness; b. fill in type; c. word font; d. word size; e. bold font f. italic g. underline

4) You can also paste a preparative BMP graph as the label background picture.



5) Save the label

A kind of PLU can edit two types of label, before you download the label, you need to choose label type. So, before saving, you should choose label type.



12 SYSTEM SET MODE

Press key

for about 2 seconds to enter system set mode.

Use key

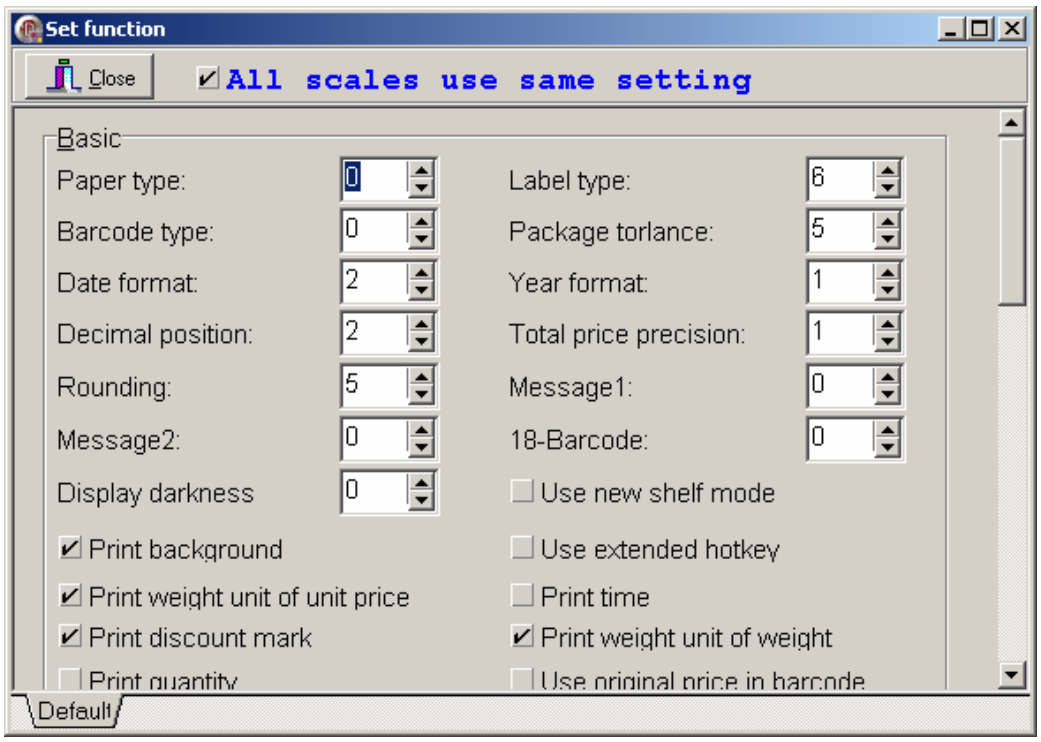
or

to select system set items:

Hotkey	System set	Description
	<DATE>	Set date and time
A	<ALIGN>	Use arrow key to select one of the 17(-8~+8) different kinds of the excursion and to adjust the paper to the most suitable initial state.
L	LABEL SELECT	Choose label type D0 or D1
S	PAPER	Using arrow to select paper type: label or no rewind
N	DATE FORMAT	Set date format.
	PRINT WEIGHT UNIT	Whether print weight unit
	PRICE FORMAT	Set price format
X	AMOUNT FORMAT	Set decimal point for total price.
	BARCODE SET	Set barcode type
W	PRINT TIME	Set whether print time or not.
K	ROUND	Set round input a digit range from 0 to 10
Y	YEAR FORMAT	Set year format (2 or 4 digit).
D	DENSITY	Select printing density from “-1” to “5” with arrow.
E	MESSAGE 1	Set MESSAGE1 value.
F	MESSAGE 2	Set MESSAGE2 value.
	BARCODE LINE WIDTH	Set barcode width in label
	ANTI WIND	Open anti wind function
V	SPEED	Set print speed
	STAT. MODE	Enter statistics mode
	STAT. WARNNING?	Whether giving a warning when statistics data full
	PRN TUBTOT	Print summation label
	PRN ALL STAT. PLU	Print statistics data by PLU
	CLR STAT.	Clear statistics data

- Set parameters in PC software

Open link32, and click ,


Set function
Close
All scales use same setting
Basic
Paper type:
0
Label type:
6
Barcode type:
0
Package torlance:
5
Date format:
2
Year format:
1
Decimal position:
2
Total price precision:
1
Rounding:
5
Message1:
0
Message2:
0
18-Barcode:
0
Display darkness
0
Use new shelf mode
Print background
Use extended hotkey
Print weight unit of unit price
Print time
Print discount mark
Print weight unit of weight
Print quantity
Use original price in barcode
Default

13 PRINT BARCODE LABEL

The printer supports 2000 kinds of PLU barcode label printing. You can set 72 kinds of them to hotkey.

PLU	Method	Example
PLU which hotkey number is in the range of 1-36	Press the hotkey number directly	Sell PLU which hotkey number is 20
PLU which hotkey number is in the range of 37-72	Press key and hotkey number	Sell PLU which hotkey number is 56 +
PLU without hotkey	Press key and the PLU LFcode	Sell PLU which LFcode is 69025, and has no hotkey number + [69025]

14 COMMUNICATION PROTOCOL

1. Interface = RS232C
2. Connector = D-SUB 9 (pin2 = TXD; pin3 = RXD; pin 7 = Masa)
3. Baud rate = 9600
4. Bits = 8
5. Stop bit = 1
6. Parity = NONE
7. data format = ASC Ⅱ
8. Command definition: “TABLE” = 09h

Data format:

<COMMAND>VALUE TABLE <COMMAND>VALUE TABLE…<PRINT COMMAND>

COMMAND AS BELOW:

Net weight
Tare
Gross weight
Date 1
Date 2
Product code
Product name
Barcode type
Pieces weight
Quantity
Print

VALUE:

IS VALUE OF ASC Ⅱ FORMAT. Such as 1.235,2007-2-3

Sample:

<Net weight> 1.550# <Tare> 1.000# <Gross weight> 2.550# <Date 1> 2007-2-3# <DATE2> 2008-2-3# <Product code> 123456# <Product name> Apple# <Barcode type> 13# <Pieces weight> 0.000# <Quantity> 1.000# <Print> 1#

Notes: # is “TABLE” (09h)

15 APPENDIX

15.1 Special character synopsis

On the table below, the special characters No.1~ No.14 are for Portuguese and Spanish, No.15~ No.20 are only for Spanish, and No.21~ No.42 are for Portuguese only.

It's no problem in having all the special characters on the keyboard at the same time. Please don't worry.

Lastly, please note, remember don't unlash the "Shift" key until you pressed the corresponding key.

No.	Spanish	Portuguese	Description	Key
1	Á	Á	Capital A-acute	Shift F5
2	á	á	owercase a-acute	F5
3	É	É	Capital E-acute	Shift F6
4	é	é	Lowercase e-acute	F6
5	Í	Í	Capital I-acute	Shift F7
6	í	í	Lowercase i-acute	F7
7	Ó	Ó	Capital O-acute	Shift F8
8	ó	ó	Lowercase o-acute	F8
9	Ú	Ú	Capital U-acute	Shift F9
10	ú	ú	Lowercase u-acute	F9
11	Ü	Ü	U-umlaut	Shift F10
12	ü	ü	Lowercase u-umlaut	F10
13	?	?	Question mark	?
14	!	!	Exclamation point	!
15	¿		Inverted question mark	Ctrl F4
16	¡		Inverted exclamation point	Alt F4
17	Ñ		Capital N-tilde	Ctrl F3
18	ñ		Lowercase n-tilde	Alt F3
19	«		Left angle quotes	Ctrl F2

20	»		Right angle quotes	Ctrl F2
21		Ç	Upper case c-cedilla	Ctrl F1
22		ç	Lower case c-cedilla	Alt+F1
23		À	Upper case a-grave	Shift F11
24		à	Lower case a-grave	F11
25		È	Upper case e-grave	Shift F12
26		è	Lower case e-grave	F12
27		Ì	Upper case i-grave	Ctrl F12
28		í	Lower case i-grave	Alt F12
29		Ò	Upper case o-grave	Ctrl F6
30		ò	Lower case o-grave	Alt F6
31		Ù	Upper case u-grave	Ctrl F11
32		ù	Lower case u-grave	Alt F11
33		Â	Upper case a-circumflex	Ctrl F5
34		â	Lower case a-circumflex	Alt F5
35		Ê	Upper case e-circumflex	Ctrl F10
36		ê	Lower case e-circumflex	Alt F10
37		Ô	Upper case o-circumflex	Ctrl F7
38		ô	Lower case o-circumflex	Alt F7
39		Ã	Upper case a-tilde	Ctrl F8
40		ã	Lower case a-tilde	Alt F8
41		Õ	Upper case o-tilde	Ctrl F9
42		õ	Lower case o-tilde	Alt F9