## **Barcode Label Scale**

RLS1000 Software User Manual

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### 1 Software user manual

#### 1.1 Software installation

Firstly, put the CD into PC driver. Then, open the document, double click the installation package with the logo **\_\_\_\_\_RLS\_NeutralSetup\_V1.129**, and then appear following image: Image

1.0:



Image 1.0

Select the language to use during the installation, click the "OK", and then appear following image: Image 1.1:



Image 1.1

Click "next" to select default installation path of program Files of C drive, or select "browse" to choose self-definition installation path. Such as installed to G drive, and then appear Image 1.2:

etup - RLS1000		
Select Destination Location Where should RLS1000 be installed?		
Setup will install RLS1000 into t	he following folder.	
To continue, click Next. If you would lik D:\RLS\RLS1000-N	e to select a different fold	er, click Browse.
D. (RE3 (RE31000-11		biowse
At least 20.2 MB of free disk space is re	quired.	
At least 20.2 MB of free disk space is re	quired.	

Image 1.2

Click "next", and then appear Image 1.3:

🛃 Setup - RLS1000	-		×
Select Start Menu Folder Where should Setup place the program's shortcuts?			
Setup will create the program's shortcuts in the following To continue, click Next. If you would like to select a different folde			
RLS1000-N	Brow		
< Back N	ext >	Cance	el

Image 1.3

Click "Next", then appear Image 1.4:

Back       Next         Select the additional tasks you would like Setup to perform while instatthen click Next.         Additional icons:         Create a Quick Launch icon         Image 1.4         "Next", then appear Image 1.5:         etup - RLS1000         Beady to Install         Setup is now ready to begin installing RLS1000 on your computer.         Click Install to continue with the installation, or click Back if you want change any settings.         Destination location:         D:\RLS\RLS1000-EN         Start Menu folder:         RLS1000-N	
Select the additional tasks you would like Setup to perform while instatten click Next.         Additional icons:         Create a Quick Launch icon            Back         Next         Image 1.4         c"Next", then appear Image 1.5:         stup - RLS1000         Ready to Install         Setup is now ready to begin installing RLS1000 on your computer.         Click Install to continue with the installation, or click Back if you want change any settings.         Destination location:         D:\RLS\RLS1000-EN         Start Menu folder:         RLS1000-N	
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change any settings.  Destination location: D:\RLS\RLS1000-EN  Start Menu folder: RLS1000-N	
change any settings.  Destination location: D:\RLS\RLS1000-EN  Start Menu folder: RLS1000-N	
Destination location: D:\RLS\RLS1000-EN Start Menu folder: RLS1000-N	to review or
D:\RLS\RLS1000-EN Start Menu folder: RLS1000-N	
Start Menu folder: RLS1000-N	~
RLS1000-N	
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ć	
<	~
	>

Image 1.5

click "Install" to continue next step, then start to install. the interface after finishing installation is as below:



Image 1.6

After finishing, can choose to operate RLS1000 or not.

#### 1.2 Use RLS1000

- RLS1000 Main function:
  - a. Download program
  - b. Download Character Font
  - c. Download PLU
  - d. Download Label
  - e. Download hotkey
  - f. Download function parameter
- Creat Connection

	000											/	
<u>F</u> ile		nunication	and second of		elp	<b></b>							
numbe	-					scale id/scale i	plabel(D0)	label(D1	PLU file	PLU Update file	hotkey file 🛕		^
1 2	•	test A	B	test C		192.168.2.87 D	rtlabel_e E	F	rtPLU_EN	Н		12x24.fnt 16H16.fnt 16x16.fnt	I
3			- 1									16x32.fnt	

On above image:

- A, input the name of label scale department
- B, double click to select
- C, input the name of Label scale
- D, input the IP add. of label scale
- E, Click D0 label column, double click to select label in I area.

- F, Click D1 column, double click to select label in I area.
- G, (\*.TXP)click PLU column, double to select PLU in I area.
- H, (\*.TXU)click PLU updated column ,double click to select PLU in I area.
- I, (\*.KEY) click hotkey column, double click to select hotkey in I area.

#### operation process:

- a, download program:
- set up connection first, network → update software (choose \*.hex file) b, download Character Font :

set up connection first, network  $\implies$  Download data, choose single byte character font and check box before double byte fresh common character font

- c, PLU download PLU:
  - set up connection first, network  $\Longrightarrow$  download PLU
- d, download label:

set up connection first, network  $\implies$  Download data, choose D0, check box

before D1, then confirm.

e, download hotkey:

set up connection first, network  $\implies$  Download hotkey.

f, download function parameter:
 set up connection first, network ⇒ Download data, select check box on front of function set key, then set

other:

update PLU: set up connection first, network ⇒ Update PLU

(F)File

	<u>N</u> ew	new connection
	Open F3	open existed connection
8	Save Ctrl+S	save
2	<u>A</u> saves	build new file to save
	<u>F</u> Setting	additional funciton set, as picture parameter option
	set function F6	function parameter set , as picture set function
S	display change	change RLS1000 chartlet
13	Font	set font
-	Check the lfcode	Chenc the lf code
8	Print Ifcode	Print lf code
	XExit	exit RLS 1000

parameter option foundation set page

		*	
se gb2312 font			
auto download hotkey			
<ul> <li>download</li> </ul>	O dont not down	load	
auto download discount			
<ul> <li>dont not download</li> </ul>	O download		

explanation:

work directory: set default directory (influence area I).
System decimal position: 0, 1, 2. Set PLU decimal digit of PLU manger.
Auto download hotkey: download; Don't download
Auto download discount data: Don't download; download.

• Image [parameter option] weighing unit page

50g		<b>^</b>
<u> </u>	g	
lOg	10g	
100g	100g	
(g	kg	
DZ	oz	
.b	lb	
500g		
500g		~
		- Hannah

explanation:

self-definition;

The unit defined is corresponding with the unit in PLU manager.

• Image (parameter)label scale font page

Courier New	/ Baltic		-
NORMAL	~	AaBbYyZz	
AaBbYyZz	AaBbYyZz	AaBbYyZ	Z
g <mark>b2312</mark> font			
宋体	✓ NORMAL	AaBbYyZz	
24x24font	AaBbYy2	Zz	

explanation:

Set the font of downloading to label scale

• Image (parameter option)product name update time

update price				
begin at ve	ry d	0 🔺 :	0	
		( contraction of the second se		
Repeat pe	er	60 🐳	minute	
update plu and	d upload sells	data 💦		
🗌 begin at ve	ry d	0 🚔 :	0	
🗌 Repeat pe	٤r	60	minute	
				~

explanation:

set RLS1000 to download and update PLU(set G,H area first)

#### • Image[Setting] (part 1)

base set	
base set 0 v paper type: 0 v barcode type: 1 v date formate: 2 v price formate: 5 v amount preciton set: 0 v nim message2: 2 v hardware select:	6       Iabel type:         1       Image: deviation of pakage:         0       Image: deviation of pakage:         0       Image: deviation of pakage:         2       Image: deviation of pakage:         2       Image: deviation of pakage:         0       Image: deviation of pakage: </th
0	● → barcode type of all ✓ the back ground of print
<ul> <li>print quantity</li> <li>auto update time</li> <li>PLU name auto adjust</li> <li>Lock price</li> </ul>	<ul> <li>✓ use extern hotkey</li> <li>□ print time</li> <li>✓ print the unit of weight</li> <li>□ use the original price in barcode</li> </ul>
<ul> <li>no gap label pager</li> <li>use new saft date</li> <li>Use message1 or message2</li> <li>disable print en13</li> </ul>	<ul> <li>weight filter set</li> <li>maount discount</li> <li>discount plu count to dempartment 23</li> <li>use extern saft date</li> </ul>
<ul> <li>disable print when price change</li> <li>boot default open paper take sensc</li> <li>open amount _price unit</li> </ul>	<ul> <li>can printer when none weight</li> <li>boot default auto print</li> </ul>

common functions:

paper type: 0: label; 1: receipt; 2: no-rewinder.

**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.

**Message2:** 0~197 default message. If PLU data hasn't set message, this PLU data will be the default.

Display: Reserved.

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

Package tolerance:  $1{\sim}20_{\,\circ}$  .

Year format.: 0: YY;1: YYYY.

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

**message1:** 0~197 default message, if PLU data hasn't set message , this PLU data will be the default.

barcode printing format : 0, standard grid2/5; 1, narrow grid 2/5

2, Ean128;

3, narrowEan128

#### • Image[Setting](part 2)

set		
🛃 close		🚺 🗲 🍝 🕃
🗌 disable print en13	🗌 use extern saft o	late 🧧
disable print when price change	🗌 can printer wher	none weight
advance setting		
	0 🚔 print spe	ed.
3 paper align:	0 print dire	
0 soffset of horizontal:	0 🔷 *bill type	
o diset of horizontal.		
	10 👘 *paper a	djust:
Weight unit		
□ 50g 🗹 g 🗆 10g	🗆 100g 🛛 🗹 Kg	🗆 Oz 🛛 Lb
□ 500g □ 600g □ pcs(g)	pcs(Kg) pcs(Oz)	pcs(Lb)
user define barcode 99		
Total price V Number/Weight V	Constant 👻	
Measure way 💙 Barcode chksum 💙	Number/Weight	
safe		
lock set of sytem	1000 passwo	rd:
Lock sells key	1000 passwo	
Lock PLU key	1000 passwo	110
Lock discount key	1000 passwo	
Lock price key	1000 passwo	
Lock tare key	1000 passwo 1000 passwo	
<ul> <li>only can use hotkey</li> </ul>	passwo	ru.
in only can use notkey		

Directions:

Advanced function block:

Printing density: Retain

Paper fine tuning: adjust print location deviation  $-8 \sim +8$ 

Horizontal-shift:Retain

AD (full weight calibration):Retain

Back steps:Retain

Printing speed:0~7. 0 represents the fastest printing speed, while 7 represents the slowest

printing speed. Printing performance is better in slow printing speed, but lifespan of print head is shorter.

Account type:Remain

Correction(full weight calibration):Retain

Safety function blocks:

Set up function of lower machine to lock password

Weight unit

Select weight unit of lower machine

Custom barcode 99:

#### • Set up download function:

Internet $\rightarrow$ download data $\rightarrow$ set up tick function, confirm

Communication	
<u>S</u> set	Non-Ethernet scales retain
DPort test	Non-Ethernet scales retain

#### Internet menu.

<u>N</u> etwork <u>P</u> rogram <u>H</u> elp		
<u>U</u> pdate software		Update program to lower machine
<u>T</u> est port	F12	Test Connection
<u>C</u> ycle test		Retain factory test
<u>R</u> back Test		Retain factory test
<u>B</u> Update all machine		Update program to all lower machine
Download data	5	Download PLU, barcode, function parameters etc.
Download plu	F9	Download PLU
Download hotkey	F2	Download PLU hot keys.
update <mark>p</mark> lu	F8	Update PLU
update price	F7	Update price
Upload sells data		Retain
Upload parameter		Retain
update plu and upload sells da	ata	Retain
gather and check		Retain
upload log		Save Security Log
read the log		Check Security Log

Program menu:

Label editor; Start label editor

PLU management; Start PLU management

Note:

You can view the appropriate files once double click files' name in area of E, F, G,

H, I.

Please do not use functions where there marks "retain". It means these functions are not allowed setting up or just for factory use.

#### 1.3 Create label

Open RTLabel.exe Start→Program→RLS1000→RTlable Or start from RLS1000 program menu→Label editor

Label editor~[D:\RLS\RLS1000_EN\rtlabel_EN.scr]	
File Menu(E) Component Menu View Menu communication Help	
Courier New f 🕶 NORMAL 💌 🗅 📴 🛤 D0 👻 👱 🛃 56x4	0 mm
<u>PLU Name</u>	Set qrcode 鬷 设置二维码
Net Wt         Packed Date         Valid Date           12345kg         07-02-98         09-03-98	Bar Code        13.000     Left (mm)
12345. 67/kg 1234567. 8	28.875 <b>Top (mm)</b> 1.00Height Size
Uint Price TOTAL PRICE	0 V Direction
	Ean-13 Y Type
	Row
5 11 0 1 2 3 4 5 11 6 7 8 9 0 0 11	RowsProp Column
	CN16x16 EN8x16 Font CN12x24 EN8x24 Font 16x32 Font 24x72 Number Font
X = 54.000mm , Y = 14.125mm	

After starting, the program automatically transfers to the default label, as below:

If you want to create a new label, operate as below:

files  $\rightarrow$  new-built, then a tip box appears

nput Width(mm)		
56		

Input paper width of label in millimeters, maximum width is 56mm. Then click OK button, another tip box appears.

InputHeig	h(mm):		
40	n (n mn).		-

Input paper height of label in millimeters, then click OK.

\*\*\*If you need to change the size of label, click files  $\rightarrow$  modify label size, then follow the prompt to input width and height.

Filling label:

Click "place component" on the left, then component bar, after that click label again. It's allowed to put the component on the label, click and hold component on the label, then it can be dragged to any position. Place tail information component, if tail information is blank (that is to say not setting tail information content), it will be replaced by machine number once label

print out. If tail information is not blank (that is to say tail information is being setting), then the setting

Lab File N Cour	/lenu(	E)	Com	pone	ent Me	enu	-	w Me	nu	<u>c</u> omi D0	20120000	Carl Line		elp 🚺	56	x4(	) mr	n
uent		NAME	¥kg ₫	<b>P</b>	¥	15	<b>.</b>	U (j	2 🚍	9 🔽	) 🛛	¥8.8	8.8 //G	S20 CODE	BOX	•	☆	
Background Component	A	В	С	D	Ε	F	G	Н	Ι	J	K	L	М	Ν				

content will be printed out while printing label.

A, Barcode B, Nane C, Unit Price D, Weight E, Total price F, Period of validityG, Packaging date H, information 1 I,information2 J,Fresh Commodity Code K, Headerinformation L, Tail information M, Total price discount

#### N, Unit price discount

Click "edit background" on the left, then function component bar, after that set up font etc. It's allowed to edit character, line, background etc. As below:



A, Select B, Eraser C, Pencil D, Character E, Filling F, Straight lin
G, Rectangle H, Filled rectangle I, Rounded-square J, Filled rounded-square
K, Circle L, Filled circle

a, Line thickness b,Fill Type c,Character font d,Character size c,Bold f,Italic g,Underline Paste Custom BMP graphics

Edit $\rightarrow$  paste from, select BMP graphics, then "open". After that the graphics can be dragged to any position

D0, D1: means label format stored in the machine, it needs to be selected upload or download. Save files.

Files→Save, input non-space name, then "save"

Remark: Image and character can be dragged to any position through using "select". It will be saved as image format every time leaving location of character editing.

#### 1.4 Create PLU data

Open PLU manager

RUU manager (D) RIS RIS 1000 EN stoly EN typ

Start→Program→RLS1000→RTPLU

Or start from RLS1000 program menu  $\rightarrow$  PLU manager

1	1	1 🗄 📥 📋	3 4	🖪 🕹 📩 🖞	L 🗐		Name	~		~									
UM	Hotkey	Name	LFCode	Code Barcode Ty	pe Unit Pri	iceUnit	WeighUni	it Amoun	Departmen	PT Weigh	tShelf Time	Pack Type	Tare	Error(%)	Message	Message?	Label	Discount/Tab	Account
1	1	Chinese cabbage	100001	1000 48	0.90	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
2	2	Celery	100002	1000(48	1.40	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
3	3	Lettuce	100003	1000(48	4.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
4	4	Mao Qin	100004	1000(48	2.40	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
5	5	Scoop dishes	100005	1000(48	0.50	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
6	6	Lettuce	100006	1000/32	3.60	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
7	7	Cole	100007	1000 32	2.10	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
8	8	Lettuce	100008	1000:32	2.30	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
9	9	Parsley	100009	1000 32	1.70	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
10	10	Spinach	100010	1000 32	1.10	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
11	11	Chinese dish	100011	1000 32	0.60	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
12	12	Spinach	100012	1000 32	9.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
13	13	Cabbage	100013	1000 32	2.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
14	14	Chinese cabbage	100014	1000 32	1.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
15	15	Parsley	100015	1000:32	3.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
16	16	Qinggeng vegetab	100016	1000 32	2.40	Kg	0		0	0.000	15	Normal	0.000	0	0	-	0	0	0
17	17	Apple	100017	1000 32	10.00	Kg	0		0	0.000	15	Normal	0.000	0	0		0	0	0
18	18	Watermelon	100018	1000:32	3.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
19	19	Papaya	100019	1000 32	18.50	Kg	0		0	0.000	15	Normal	0.000	0	0	12	0	0	0
20	20	Melon	100020	1000:32	3.90	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
21	21	Crab apples	100021	1000:32	2.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0
22	22	Cherry tomatoes	100022	1000:32	3.40	Kg	0		0	0.000	15	Normal	0.000	0	0		0	0	0
23	23	Pear	100023	1000.32	1.60	Kg	0		0	0.000	15		0.000	-	0	-	0	0	0
24	24	Cantaloupe	100024	1000:32	8.00	Kg	0		0	0.000	15	Normal	0.000	0	0	-	0	0	0
25	25	Strawberry	100025	1000:32	5.00	Kg	0		0	0.000	15	Normal	0.000	0	0		0	0	0
26	26	Jiashi melon	100026	1000:32	4.00	Kg	0		0	0.000	15	Normal	0.000	0	0	0	0	0	0

-, PLU table basic fields are explained as follows:

Hotkey  $\rightarrow$  input hotkey (1-112\*2)

PLU Name→input PLU name within 36 characters

Fresh Commodity Code $\rightarrow$ input number within 6-figure which means Fresh Commodity Code, do not repeat

PLU item no. (Code)  $\rightarrow$  input number within 10-figure which means PLU item no.

Barcode Type $\rightarrow$ input barcode type(0-99)

Unit Price→input unit price

Weight Unit→press space, then select required weight unit

Quantity unit ( PCS Type)  $\rightarrow$  input unit of quantity(0-15), pls set the unit of quantity in RLS1000.

Department →Input a two-digit to represent department

Tare  $\rightarrow$  Input tare weight, within 15kg after logic conversion.

Shelf time  $\rightarrow$  Input shelf time (0~365)

Two ways for Shelf time unit, (0~365) means unit is day; (-365~0) means unit is hour.

Package Type  $\rightarrow$  press space bar to select the packing type.

Package Weight →Input package weight, within 15kg after logic conversion.

Package Tolerance  $\rightarrow$ Input package tolerance in percentage(0-20).

Message 1  $\rightarrow$ Input the selected message No. (0~197) use this message

Message2  $\rightarrow$  Input the selected message No. (0~197) use this message

Multi Label  $\rightarrow$ Select label type, can choose variety of label type at the same time. A0: unable to modify the unit price on the label scales.

D0, D1: set the two user-defined labels in Label Editor.

Discount  $\rightarrow$ Input the discount rate. Range of discount (-10~125) : -1~-10 for model1~model 10 in discount schedule models. 0-125 for discount rate, such as 80 means 20% off. 120 means, 20% up.

Account  $\rightarrow$  Account is the sales amount of the single item when uploading the PLU.

New	Establish PLU data, open new file
Open F3	Open PLU file
Save Ctrl+S	Save revised PLU file
Save As	save as revised PLU file
From Excel Input PLU	Import PLU data from excel file, refer to Picture <b>[Excel]</b> in below.
PLU Export to Excel	Export PLU data from Excel file, refer to Picture references.
Choose Parameter	Refer to Picture [Preferences]
Page Set	Refer to [page setting]
Print PLU Font	Refer to [Print PLU]
Professional Contraction of Marcola and Contraction	Refer to [font selection of label scales]
Preview Hotkey Card	Check hotkey sheet
Print Hotkey Card	Select to print hotkey p sheet
Exit	Exit PLU manager

 $\Box$ , Explanation of file menu:

• figure Excel

🔏 Import Rule	🛛 🛛
Set Import PLU	
✓ Name ✓ LFCode ✓ Code	<ul> <li>✓ Barcode Type</li> <li>✓ Unit Price</li> <li>✓ Unit Weight</li> </ul>
Excel Start List:	\$A 💌
Excel Start Line to : Form: 1 🚑 to:	32 Start: 1
ОК	Cancel

Explaination:

The following function requires Microsoft Excel 2000 or later to install and run. Choose which fields to establish corresponding relationship to Excel column. Choose which column to start from and which column to end in Ecxel Choose the beginning of PLU manager.

• figure [preferences 1]

Hotkey Dov		h PLU	
O Downloa			
O Cancel I	oad		
<b>—</b>	e 1 is 1.00		

Auto download hotkey

ask me first. (When downloading, a prompt frame will appear.) Always yes. (When downloading there is not prompt frame appear.) No, thanks, Don't download hotkey hotkey sheet type Pls choose 112\*2

• figure [Preferences]

NUM	NUM	1
Hotkey	Hotkey	-
Name	Name	
LFCode	LFCode	
Code	Code	
Barcode Type	Barcode Type	
Unit Price	Unit Price	
Unit Weight	Unit Weight	
Unit Amount	Unit Amount	
Department	Department	~

Explanation: Self-define PLU field name. figure [page setting1]

Page set(mr	n)				
Left:	15	*	Right	15	*
Head:	25	A V	Bottom:	25	<b></b>
Header/Foo	ter				
Header:	10	×	Footer:	20	A. V

Explanation: PLU print-out page setting figure [page setting2]

	Unit Amount
☑ Hotkey ☑ Name	Department
☑ Name ☑ LFCode	PT Weight     Shelf Time
✓ Code	Pack Type
✓ Code ✓ Barcode Type	
✓ Unit Price	$\Box$ Error(%)
Unit Weight	Message 1
<]	>

Explanation: choose to print the content of PLU file figure [Page setting3]

Page Set	D
Page Width set PLU Attribute Set Header/Footer set	
Header: PLU List	
Footer	
🗹 Page Num 🔲 Date	
OK 🗙 Cancel 🛃 Opti	on

#### Explanation

PLU print-out header and footer setting

#### Figure [Page setting]

Name:	80mm Series Printer	Properties
Status:	Ready	
Type:	80	
Where:	USB PORT:	
Comment	:	
Paper		Orientation
Size:	Printer 80(72.1) x 210 mm	
Source:	Automatically Select	

#### Explanation

Press Options to select Printer and Paper:

There are two levels of Fresh Commodity Codes on each hotkey. Two lines up and down. Note:

when use the second level on the hotkey table, the hotkey of 113-224 is below the horizontal line.

roperties															
First Page		Chinese cabbage	Celery	Lettuce	Mao Qin	Scoop dishes	Lettuce	Cole	le Lettuce	Parsley	Spinach	Chinese dish	Spinach	Cabbage	Chinese cabbage
Name	Chinese cabbage	coodge									10				coologe
Price	0.9		_					$\equiv$			$\equiv$				
BackColor	clWindow	Parslev	Qinggeng		Apple Watermelon	D COLOR			Cherry	Pear		Strawberry	Jiashi melon	Blueberry	
Font	MS Sans Serif	Parsiey	vegetables	Appie		Papaya	Melon	Crab apples	tomatoes	Pear	Pear Cantaloupe	Strawberry	Jiashi melon	Blueberry	Strawberry
LfCode	100001						$\square$			$\underline{\qquad}$		$\square$			
		Fig	Pear	Dan Gross	Jujube	Shakya fruit	Grapefruit	Granadilla	Citrus	Buddhist music orange	Kiwi	Plum	Litchi	Grapes	Grapefruit
□ SeCond I	Page		$\square$				$\square$	$\equiv$	$\equiv$	$\equiv$	$\square$	$\square$	$\square$		<u> </u>
Nane		Macadamia	Hazelnut	Pine nuts	Lotus seeds	Ginkgo	Chestnut	Candied	Sunflower	Dried longan	Pistachios	Peanuts	Jujube	Dried apricots	Grapes
Price	0	3								2003					
BackColor	clWindow			_			_	$\equiv$	_	8	_	_			$\equiv$
Font	MS Sans Serif	8	1					1 1 2 2 2					1		
LfCode	White see	White seeds	Chestnuts	Walnuts	Torreya	Cucumber	Almond	Walnut	Almonds	Pigeon	Chicken	Duck	Lamb	Beef	Donkey
				$\equiv$					$\equiv$				$\equiv$		
		Dictyophora	Fungus	Cordyceps	Mushroom	Mushroom	Coprinus	Mushrooms	Crab flavor mushrooms	Mushroom	Ganoderma	Bisporus	Matsutake	Chaxingu	Squid
		Striped bass	Grouper	Carp	Eel	Blackfish	Perch	Salmon	Loach	Carp	Grass carp	Butterfish	Saury	Mandarin	Corn
		Salad oil	Sesame oil	Flour	Sesame	Red beans	Green beans	Broad bean	Rice	Huangmi	Soybean meal	Peanuts	Starch	Peanut	Oat

#### Fifure [hotkey sheet preview]

#### Explanation

Preview the hotkey sheet after seting, adjust the character's font until it's suitable.

PLU menu explanation:

🖇 PLU m	anager	PLU manager
File(F)	PLU Select Option	
1 NUM Ha	Cut Ctrl+X Copy Ctrl+C Paste Ctrl+V Move to Ctrl+M	Normal setting when edit PLU files
2 2 3 3	Insert Ins Delete Ctrl+Del	Insert and Delet
4 4 5 5 6 6 7 7	Sort by Name Sort by LF Code Sort by Code	Sort by name Sort by LFCode Sort by item No.

<u>Select</u> Option <u>C</u> omm Me Select Line	choose single PLU file
Select Piece or list	choose single column (eg. Hotkey cloumn
Select All	choose all the files
Fill	fill the same content in the single column
Clear	clear the selected image.
Create Hotkey Create LF Code Create Code Generate Message ID	Incremental automatically generate hotkey .Select the hotkey then click New hotkey can "create hot key". Same way to "create LF-code", "create item number".

Option Comm Menu	Edit the header and footer of the label. The label header is use as slogan on the
Message	LCD.
Discount Table	Edit message. Refers to figure message
Edit Message	Edit the discount schedule. Refers to the figure [schedule]
Fnot	Set the character's font of PLU manager

#### Figure [edit message]

_ine_No.	1	2	3	
Line 1				
Line 2				
Line 3				
Line 4				
Line 5				
Line 6				
Line 7				
Line 8				
(				

Explanation:

our hardware can support 197 kind of message( pls contact us if you need more capacity.) After editing the file, click save to automatic generation \*MSG file.

Note:

Edit the message in MSG file, open the PLU can automatically transfer to it.

Message code is corresponding to the column; input the message in the message column.

#### figure discount schedule

Discount Tab	Date		×
Timel: Timell: TimellI: TimelV: TimeV:	$0  \begin{array}{c} \bullet \\ \bullet \\ \bullet \\ \end{array} :  0  \begin{array}{c} \bullet \\ \bullet \\ \bullet \\ \end{array} \\ 0  \begin{array}{c} \bullet \\ \bullet \\ \bullet \\ \bullet \\ \end{array} :  0  \begin{array}{c} \bullet \\ \bullet \\ \bullet \\ \bullet \\ \bullet \\ \bullet \\ \end{array} \\ Discount: \\ 0  \begin{array}{c} \bullet \\ \bullet \\ \bullet \\ \bullet \\ \bullet \\ \bullet \\ \end{array} \\ Discount: \\ 0  \begin{array}{c} \bullet \\ \end{array} \\ Discount: \\ 0  \begin{array}{c} \bullet \\ \bullet $	0     *     %       0     *     %       0     *     %       0     *     %       0     *     %       0     *     %	
 \Mode1 {	Mode2 (Mode3 (Mode4 (Mode5 (	Mode6 (Mode7 (Mode8 (Mode9 (Mode10 /	

#### Explanation

10 kinds of discount models in total, five periods of each model, the label sales will automatically transfers to discount for sale.

Note:

Input -1~-10 in PLU manage can corresponding to model 1~model 10.

#### Explanation of communication menu.

<u>C</u> omm Menu <u>H</u> elp	
Download PLU	Download PLU
Update PLU Upload PLU	Update PLU Upload PLU
Clear Account Item	Maintain the function

#### Explanation for the tooltip

Choose PLU No.		Choose the hotkey, item name, LFCode and item
Input the number and	_	number, input the number in the this box, then click
click Enter.	H	Enter The cursor will located in corresponding position
NUM Key Name LFCode Code	4 Barci	e e la

## 2 Connection manual

#### 2.1 RLS1000 suite interface overview:

1 what's daily tasks need to perform?

2, Adopt what way to activate a task?

3, use what means to exchange data with the supermarket management system?

\*\*\*\*

#### First: Daily tasks need to perform mainly as the following four:

1,Download PLU: download current PLU file to label scale, it is coverage scale operation, will cover original PLU data in label scale.

2,update PLU: Refer to the current changes in PLU file to change the date of label scale, including add, modify and delete, due to just need to download change PLU. It is fast to do this action.

3, update price: Refer to the current changes in PLU file to change label scale PLU price, provide a quick change price method, as only change price, speed is faster more than update PLU several times.

4,update PLU and upload laundry list: RLS1000 upload scale's laundry list first, then perform update PLU operation.

Second: Mainly activation tasks as below:

1, Manual activation: activate task by personal operating

2, Supermarket management system invoke RLS1000: Supermarket management system can invoke RLS1000, and through comment set and interaction to activate task. Advantage is management system can according to the need to activate task management system, also can be invoked directly by dynamic link library( DLL) to manage the PLU date download.

3, Scheduling : activate task can be set every time of every day and can set activate task repetition interval, once enter the time, system will activate task automatically.

Three: There are seven method to exchange data with supermarket management system:

1, sharing mode of working directory: RLS1000 can specify the working directory, namely PLU file data storage path ( it could be a network image), RLS1000 set PLU file for each scale relative to the working directory. For example, management system will generated PLU date in a directory. working directory of RLS1000 will be designed same as the directory. So once RLS1000 upload PLU file, it is the latest data of the management system.

2, invoke user programs: before activate a task, RLS1000 can invoke specified programs first, after completion of the program execution, can continue to perform task. such as: user wrote a background database procedures to generated PLU file.

Can be set to execute the procedures to create PLU date before activate a task. And then upload data to the label scale.

3, FTP mode: before activate a task, RLS1000 can grab PLU data file from backend via FTP( maybe other operating system, such as: UNIX), Then continue to perform a task.

4, TCP/IP mode: RLS1000 via TCP/IP protocol and management system interactive to this mode, this mode only suitable for update PLU file and upload the laundry list (may run on other platforms, such as UNIX)

5, Dynamic link libraries: We also provide a dynamic link library to carry out PLU data file transmission function, so the management system can realized management function of label scale, please see the details introduction as below.

6. Exchange data between Excel file: given the general user could easily transfer the background database to Excel table, we offer a crawling PLU data directly from Excel table function that crawling PLU data via dynamic data exchange (DDE) between PLU manager and Excel table, based on user defined reflection rules.

7. Text format on other scales: some users had use other brands label scales and have the program which generated the label scales' PLU. In this case, we can transfer the text format files to other scales (eg. Taihang, Yamato etc.) to minimize the workload for users. For the unsupported text format, they can be added at any time to meet user's need by us.

#### 2.2 RLS1000 based on TCP / IP protocol interface specification

RLS1000 supports to exchange data with background via using the TCP/IP protocol, any background as long as compliance with the appended handshake protocol and command can realize the data exchange functions on RLS1000: upload running account, update the relate command explanation of PLU to RLS1000, and configuring RLS1000 to support TCP/IP protocol:

1. List all weighing scales in the label configuration table, configuring the relate updated files in scale array based on PLU update field: for example, label scale groups to be 20, then the corresponding updating file named 20.txu and then also mark a check-mark in the front of the relate label scale.

2. Most of commands under the Network menu perform operations corresponding to the scale which with a checked mark, in which the function of "Update PLU & upload account" is upload the selected sale running account of checked scale to current working directory then download the updated PLU data to the checked scale.

3. Configure TCP/IP to execute File>Options Menu command to enter RLS1000 option windows, then option TCP/IP tab to configure TCP/IP (as below):

A Setting	
Imathina font setting     auto update time     ICP/IP     EIP     exter       Imathina font setting     IP     127.0.0.1       port:     5001	<ul> <li>←Mark tick for this option to activate the TCP/IP function</li> <li>←Background computer IP address</li> <li>← RLS1000 and background computer identify the service via this marks. ≤had better to over 1024 to avoid conflicts with other services.</li> </ul>
Confirm Cancel	

After the completion of TCP/IP configuration, when execute "Network>update PLU and upload running account" command, RLS1000 will exchange data with background via TCP/IP protocol.

4. Activate schedule to achieve tasks automatically execution File>Options menu command to enter RLS1000 options window, select scheduling tab to update PLU and upload running account function to configure schedule:

mathina font setting auto update time ICP/IP FTP exter         update price         begin at very c       0 \$\vee\$ : 0 \$\vee\$         Repeat per       60 \$\vee\$ minute         update plu and upload sells data         begin at very c       0 \$\vee\$ : 0 \$\vee\$         Repeat per       60 \$\vee\$ minute         Repeat per       60 \$\vee\$ minute	<ul> <li>← Set the time for everyday starting the task and mark check-mark.</li> <li>← Set the interval to repeat execution and then mark check-mark.</li> </ul>
Confirm Cancel	

Upon completion schedule configuration, RLS1000 label scale will automatically execute to update PLU and upload running account command at the schedule set time everyday.

5. After all the configurations are correctly set, RLS1000 label scale at the daily schedule set time will automatically execute "update PLU and upload running account" command to transfer sales running account of the selected scale to background computer and then get the lastest PLU data from background computer to distribute to every selected scale.

#### 2.3 Label scale and background handshake flowchart



#### 2.4 Data packet format:

A data packet consists of there domains:

- 1. Packet length 4Byte
- 2. Command 4Byte
- 3. Data Length unlimited

For example: Start command: 00080201 Packet Length: 0008 Command: 0201 Information: None Response Command: 0022010202100000010000 Packet Length: 0022 Command: 0102

Information: 0210000010000

Checking command table: you can see the response command data domain consisted of contains three domains:

Command Code: 0210 indicates a response to 0210

Fresh code: 000001

Error code: 0000 indicates on error.

Command table:

	RLS1000->background							
			By					
Code	Description	Туре	tes	Remark				
0201	Start command	Number	4					
0202	Response (ACK) command	Number	4					
	Command code	Number	4					
	Fresh code	Number	6					
	Error code	Number	4					
	RLS1000 transfers sales							
0210	records command	Number	4					
	Scale No.	Number	8					
	User ID	Number	6					
	Fresh code	Number	6					
	Unit price	Number	8	No decimal mode				
	Weighing unit	Number	1	hexadecimal (HEX)				
	Total amount	Number	10	No decimal mode				
	Weight	Number	6	Logic conversion within 15kg				
	Date	Number	14	YYYYMMDDHH(24)NNSS				
				0:common,1: change unit price,2: change total				
	Discount	Number	1	amount				
	Final online time	Number	14	YYYYMMDDHH(24)NNSS				
0220	Sales records transfer end	Number	4					

	Back stage->RLS1000						
Code	Desp	Туре	Length	Remark			
0102	Response for demand(ACK)	digit	4				
	Order code	digit	4				
	Fresh food code	digit	6				
	Error code	digit	4				
0110	PLU back stage sending	digit	4				
	Operate	digit	1	I: Update D: Delete			
	Rank	digit	2	Rank No.			
	Name	digit	36				
	Fresh food code	digit	6				
	Art. No.	digit	10				
	Barcode type	digit	2	Refer to barcode format			
	Unit price	digit	8	Non-decimals pattern			
	Weighing unit	digit	1	0:50g,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)			
	Dept.	digit	2	Refer to barcode format			
	Tare weight	digit	6	Within 15kg after logic conversion			
	Saving period	digit		0-365			
	Packing type	digit	1	0: normal,1: fixed weight,2: fixed price,3: barcode printer			
	Packing weight	digit	6	Within 15kg after logic conversion			
	Packing error	digit	2	0-20, error for fixed weight or fixed price			
	Message 1	digit	3	0-197			
	Message 2	digit		0-197			
	Multi-barcode	digit		0-255			
	Discount	digit	3	0-99			
	Sales mark	digit	1				
	Discount mark	digit	1				
0120	Request demand for sale record uploading	digit	4				

#### 2.5 Message mechanism interaction for RLS1000

Hereinafter, it's using example of Delphi, and reference for other developing environment. Activate RLS1000 Use WinExec function WinExec('XX\bin\RLS1000.exe DEMO.L32', SW SHOWNORMAL); Thereinto: XX is the installing catalogue, DEMO.L32 is the RLS1000 file for customer using. Completely covered way Send "Download plu" demand to RLS1000 program (send F9). Handle:=FindWindow('TRLS1000Form',0); PostMessage(Handle,WM KeyDown,VK F9,1); Change the downloading way Send "Update plu" demand to RLS100program(send F8). Handle:=FindWindow('TRLS1000Form',0); PostMessage(Handle,WM KeyDown,VK F8,1); Notification message After command executed, RLS1000 program will send a message to all top windows. Hereinafter, the executed statement of RLS1000 RLS1000Message:=RegisterWindowMessage('RLS1000'); register one message

PostMessage(HWND\_BROADCAST,RLS1000Message,0,0); send this message to all top windows For supermarket manage system, use below structure to intercept this message: First, the register message RLS1000Message:=RegisterWindowMessage('RLS1000'); Inject processing to the message case RLS1000Message: begin

end

## Appendix I . TXP(TXU) file

TXP(TXU) is a PLU text file within RLS1000 software. They are totally same file format for different purpose with different extensions. TXP file contains all PLU information and supply cover and download for RLS1000. TXU file contain PLU edit information (add, modify and delete), and supply PLU updating for RLS1000. Every PLU contain below context:

Name	Chinese Name	Width	Default	Data range & function description		
PLU No.	流水号	4		Retain for compatibility, no meaning		
Name	品名	36				
LFCode	生鲜码	6		unique identification kind of fresh food, using for imputing PLU		
Code	货号	10		see detail in barcode format		
Barcode Type	条形码类型	2		0~99, see detail in barcode format		
Unit Price	单价	8		Non-decimal pattern. e.g. 12.34 will show as 1234(=12.34*100)		
Weight Unit	称重单位	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)		
Deptment	部门	2		0~99, see detail in barcode format		
Tare	皮重	6	0	Tare weight, within 15 kg after Logic conversion.		
Shelf Time	保存期	3	15	0~365, when it appear to 364 no printing validity period. 365 no printing validity period & packing date.		
Package Type	包装类型	1	0	<ul><li>0: normal pattern ( weight-linited pattern) 1: weight set packing, 2: price set packing,</li><li>3: barcode printing pattern</li></ul>		
Package Weight	包装重量	6	0	within 15 kg after Logic conversion		
Package Tolerance	包装误差	2	5	0~20, error range for weight set packing and price set packing		
Message1	信息1	3	0	0~197, 0 for nonuse infromation		
Message2	信息 2	3	0	0~197		
Account	会计信息	10	0	Non-decimal pattern. See details in unit price explaination		
Multi Label	多标签	3	0	0~255, one byte. 8 bit for 8 labels		
Rebate	单价折扣	3	0	-10~100, -1~-10 for different discount pattern in different time.		
PCS Type	数量类型	2	0	0~15, for good counting via unit. There are 15 unit of quanlity in RLS1000. E.g. piece, bag and chunk etc.		

• Type a space after very bit name. The paragraph is flush right.

• Type Enter (0xd) and line feed (0xa) after very PLU as separate

• e.g., demo.txp under Demos subdirectory after install, it can be open via notepad.exe

Bar code type	depart ment	Item no.	Total price	weight	Check sum			
• 1		e first two code	are department co	de.				
00 09: Lan	DD(2)	IIIIIIII(10)		X	С			
01	DD(2)	IIIIII(10)	PPPP(4)	X	<u>с</u> С			
01	DD(2)	IIIII(0) IIIII(5)	PPPPP(5)	X	C			
02	DD(2) DD(2)	IIII(3) IIII(4)	PPPPPP(6)	X	C			
03	DD(2)	III(4)	PPPPPPP(7)	X	C			
04	DD(2)	IIIIII(6)	X	W.WWW(4)	C			
05	DD(2)	IIIII(6)	X	WW.WW(4)	C			
00	DD(2)	IIIII(0) IIIII(5)	X	WW.WWW(5)	C			
07		IIII(5)	X	WWWW.W(5)	C			
08	DD(2) DD(2)	IIII(5)		WWWW(5)	C			
					C			
10~19: Ean13code,the first two code are fix code:								
10	20(2)	IIIIIIII(10)		X	<u> </u>			
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	С			
14	24(2)	III(3)	PPPPPPP(7)	X	С			
15	25(2)	IIIIII(6)	X	W.WWW(4)	С			
16	26(2)	IIIIII(6)	X	WW.WW(4)	С			
17	27(2)	IIIII(5)	X	WW.WWW(5)	С			
18	28(2)	IIIII(5)	X	WWWW.W(5)	С			
19	29(2)	IIIII(5)	X	WWWWW(5)	С			
20: without b	oar code							
21~29: Ean1	3code,the	e first code is de	partment code:					
21	D(1)	IIIIII(7)	PPPP(4)	X	С			
22	D(1)	IIIIII(6)	PPPPP(5)	X	С			
23	D(1)	IIIII(5)	PPPPPP(6)	X	С			
24	D(1)	IIII(4)	PPPPPPP(7)	X	С			
25	D(1)	IIIIII(7)	X	W.WWW(4)	С			
26	D(1)	IIIIII(7)	X	WW.WW(4)	С			
27	D(1)	IIIIII(6)	X	WW.WWW(5)	C			
28	D(1)	IIIIII(6)	X	WWWW.W(5)	C			
29	D(1)	IIIII(6)	X	WWWWW(5)	C			
			s department code		~			
30&33	D(1)	IIIII(6)	PPPPP(5)	WW.WWW(5)	С			
31&34	D(1)	IIIII(6)	PPPPP(5)	WWWW.W(5)	C			
32&35	D(1)	IIIII(6)	PPPPP(5)	WWWW(5)	C			
Bar code	departm		Total price	weight	Check sum			
Dar coue	ucpartin	num no.	Total price	weight	CHECK SUIII			

## Appendix II . Barcode coding table

typ	e ent				
39, 46	~49: 18code				
39	DD(2)	IIIIII(6)	PPPPP(5)	WWWWW(5)	
46	DD(2)	IIIIII(6)	PPPPP(5)	WWWWW(5)	
47	DD(2)	IIIIII(6)	PPPPP(5)	WWWWW(5)	
48	DD(2)	IIIIII(6)	PPPPP(5)	WWWWW(5)	
49	DD(2)	IIIIII(6)	PPPPP(5)	WWWWW(5)	
50~55:	8code				
50	Х	IIIIIII(7)	X	X	С
51	D(1)	IIIIII(6)	X	X	С
52	DD(2)	IIIII(5)	X	X	С
53	X	IIIIIII(8)	X	X	Х
54	D(1)	IIIIII(7)	X	X	Х
55	DD(2)	) IIIIII(6)	X	X	Х

Bar code type	depart	LFcode	Batch code	rebate	weight			
	ment							
36-38: 18code,	36-38: 18code, the first code is department code, specialized for the LF code and batch							
code managemen	nt							
36	D(1)	LLLLLL(6)	BBBB(4)	RR(2)	WW.WWW(5)			
37	D(1)	LLLLLL(6)	BBBB(4)	RR(2)	WWWW.W(5)			
38	D(1)	LLLLLL(6)	BBBB(4)	RR(2)	WWWWW(5)			

Bar code	departm	LF code	code Batch rebate		weight	Check		
type	ent		code			sum		
66~68: 180	66~68: 18code, specialized for the LF code and batch code management							
66	D(1)	LLLLL(5)	BBBB(4)	RR(2)	WW.WWW(5)	С		
67	D(1)	LLLLL(5)	BBBB(4)	RR(2)	WWWW.W(5)	С		
68	D(1)	LLLLL(5)	BBBB(4)	RR(2)	WWWWW(5)	С		

Bar code	depart	Item no.	Total/unit	weight	Check sum		
type	ment		price				
60~65: ISBN	60~65: ISBN code, one of 18 code						
60	D(1)	IIIIII(6)	PPPPP(5)	WW.WWW(5)	С		
61	D(1)	IIIIII(6)	PPPPP(5)	WWWW. $W(5)$	С		
62	D(1)	IIIIII(6)	PPPPP(5)	WWWWW(5)	С		
63	D(1)	IIIIII(6)	UUUUU(5)	WW.WWW(5)	С		
64	D(1)	IIIIII(6)	UUUUU(5)	WWWW. $W(5)$	С		
65	D(1)	IIIIII(6)	UUUUU(5)	WWWWW(5)	С		

Bar code	departm	Item no.	Quantity/weigh	Total price	Unit price	Check sum
type	ent		t			
90~95: 18code, the first two code are department code:						
90	DD(2)	IIIII(6)	WW.WWW		UUUU(4)	С
91	DD(2)	IIIII(6)	WWWW.W		UUUU(4)	С
Bar code	departm	Item no.	Quantity/weigh	Total price	Unit price	Check sum
type	ent		t			
92	DD(2)	IIIII(6)	WWWWW		UUUU(4)	С
93	D(1)	IIIII(6)		PPP.PP(5)	UUU.UU(5)	С
94	DD(2)	IIIII(5)	WWW.WW	PPP.PP(5)		С
95	DD(2)	IIIIII(6)	WWWWW		UUUU(4)	С

Letter meaning in form are as follows:

C: CHECKSUM	D: Department No.
2: fixed No."2"	I : PLU No.
L: LFcode	P: Total price
U: Unit price	R: Discount
W: Weight	X: NA

- Ean13 code= DEPMENT+ CODE+ [TOTAL PRICE]+ [WEIGHT]+C Among: take [] said without this in some encoding.
- For Ean13 code, if price barcode, barcode type often choose 2 or 22, but if weight barcode, barcode type often choose 7 or 27
- CHECKSUM is calculated by scale automatically, user don't need to input in PLU manager
- The difference between 30-32 and 33-35 format is calculation method of CHECKSUM
- The difference between 40-45 and 30-35 format is in 30-35, price is total price, but in 40-45, price is unit price
- 36-38, 66~68 barcode types can be used for fresh batch management, Batch No. write in PLU No. field, PLU No. write in LFcode field
- 60-65 are ISBN code
- The calculation method of check code Z in EAN13 code:
  - 1. (even digits sum\* 3) +odd digits sum+ Z = 10 multiple
  - 2. (barcode type: 30-32, 40-42)
- Two calculation methods of check code Z in EAN18 code:
  - 1. The same as EAN13 code
  - (add digits sum\*3) +even digits sum+ Z=10 multiple
     (barcode type: 33-35, 43-45)

## Appendix III . Fresh commodities batch management

The advantages of fresh batch management:

Tracking fresh commodities of each batch, check stock of each batch alone, use different discount based on different storage time within quality guarantee period, warned while commodities is about to expire(metamorphism and even corruption), it is convenient to find out expired batch and deal with timely.

The base process of fresh commodities batch management is as follows:

Generate a batch No. for fresh commodities with batch management, format: year(1) + which week(2) + which day in a week(1), total four digits, meanwhile, print out commodity name, No., batch No., and put in this batch, then packing persons can recognize this commodity correctly. In following process, commodity No. + Batch No. is unique to recognize this commodity in this batch. So far, label printing scale has already performed batch management function, the method is to add three kinds of barcode type, if user call this type PLU, scale will remind him to input batch No., three kinds of barcode type are as follows:

Barcode	Department	LFcode	Batch	Discount	Weight			
type			No.					
36-38: 18	36-38: 18 code, front code is department code, unique for fresh batch management							
36	D(1)	LLLLL(6)	BBBB(4)	R(2)	WW.WWW(5)			
37	D(1)	LLLLL(6)	BBBB(4)	R(2)	WWWW. $W(5)$			
38	D(1)	LLLLLL(6)	BBBB(4)	R(2)	WWWWW(5)			

Barcode	Department	LFcode	Batch	Discount	Weight	Checksum			
type			No.						
66~68: 18 code, unique for fresh batch management									
66	D(1)	LLLLL(5)	BBBB(4)	RR(2)	WW.WWW(5)	С			
67	D(1)	LLLLL(5)	BBBB(4)	RR(2)	WWWW.W(5)	С			
68	D(1)	LLLL(5)	BBBB(4)	RR(2)	WWWWW(5)	С			

Letter meaning in form are as follows:

D: Department No.	P: Total price
I: PLU No.	R: Discount
L: LFcode	W: Weight

Note:

- 1. LFcode is corresponding to commodity code in backstage management system, PLU No. is corresponding to batch No. in backstage management system
- 2. Batch management is majorly for commodity packing in backstage, not real-time selling.
- 3. When cash register decode, how to distinguish batch or non-batch commodity, there are two methods:
- (1) set different department No., for example: the department No. of commodity without

batch management is 2, and with batch management is 3

(2) because the position and length of LFcode in two kinds of 18 code is same, decode LFcode first, then distinguish batch commodity or not according to LFcode

Using method: Call PLU, screen will display to input batch No., input four digits code, put on weight, OK.

# Appendix IV . Revised table of gravity acceleration in China's major cities

		A/D revised			A/D revised
No.	Region	value of gravity	No.	Region	value of gravity
		acceleration			acceleration
1	Mohe	72	38	Benghu	21
2	Hailar	60	39	Nanjing	20
3	Qiqihar	60	40	Pukou	20
4	Jiamusi	59	41	Tongguan	20
5	Harbin	55	42	Shanghai	19
6	Hohhot	55	43	Hefei	19
7	Mudanjiang	51	44	Xian	18
8	Changchun	50	45	Wuhu	18
9	Jilin	50	46	Wuhan	16
10	Shenyang	46	47	Hangzhou	16
11	Fuxin	45	48	Anging	16
12	Jinzhou	44	49	Wuhan	16
13	Turfan	43	50	Baoji	15
14	Shanghaiguan	41	51	Yichang	15
15	Dandong	41	52	Lanzhou	13
16	Beijing	40	53	Jiujiang	13
17	Chengde	40	54	Yueyang	13
18	Urumqi	40	55	Nanchang	11
19	Tianjin	39	56	Wenzhou	10
20	Dalian	39	57	Chongqing	9
21	Hami	37	58	Chengdu	9
22	Baoding	36	59	Changsha	9
23	Zhangjiakou	35	60	Zhuzhou	9
24	Shijiazhuang	34	61	Xining	8
25	Dezhou	34	62	Mianyang	8
26	Yinchuan	34	63	Hengyang	7
27	Wulanliha	33	64	Fuzhou	2
28	Jinan	32	65	Shenzhen	0
29	Qingdao	31	66	Liuzhou	0
30	Baotou	31	67	Guangzhou	-1
31	Datong	30	68	Huiyang	-1
32	Taiyuan	26	69	Nanning	-2
33	Zhengzhou	25	70	Guiyang	-5
34	Kaifeng	25	71	Zhanjiang	-6
35	Xuzhou	25	72	Haikou	-7
36	Luoyang	23	73	Kunming	-15
37	Yanan	21	74	Lasha	-26

• The gravitational acceleration value listed above are belong to China's major cities, other cities interpolation conversion according to latitude

<sup>•</sup> Only RONGTA staff or distributor can adjust gravitational acceleration val