Operating Manual
Printing Scale NETS
Ver 1.3

PP

ACOM Inc.

Specifications are subject to change without notice to improve
Vol. No. NO200912

GRATITUTE

We thank you for the choosing our label printing scale NETS, we are always trying to serve you with better quality as a reliable weighing instrument and enhanced features supporting various kinds of applications

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1. SPECIFICATIONS

Model	NETS		
Maximum capacity	6 kg	15 kg	30 kg
Minimum graduation	2g	5g	10g
Maximum Tare	Full Tare		
Internal resolution	1 / 60,000		
A/D Conversion speed	9 ~ 14 times / sec.		
Widths(mm) Paper / Label / printing	60 / 58 / 56		
Available Labels(mm)	35, 40, 60, 80, 100		
Label roll size(mm)	Max. ϕ120(1,200 labels at 40mm length)		
Printing Speed(mm)	80 ~ 100		
Speed PLU keys	60		
PLU memory	Standard Memory(0.5MB) : 1000 labels at 500 characters Extended Memory (1MB)		
Numeric Displays(digit) Message Display	LED Price(8) , Weight (5) , Unit price(7) LCD Graphic 256 x 32 pixels		
Platter size mm(inch)	415(16.3) x 260(10.2)		
Product size mm(inch)	W460(18.1) x D440(17.3) x H470(18.5)		
Power source	AC 100 ~ 240 / 50 , 60 Hz (Free Voltage)		
Power consumption	Printing : Approx. 100W max. Stand by : Approx. 40W		

2. OPTIONS

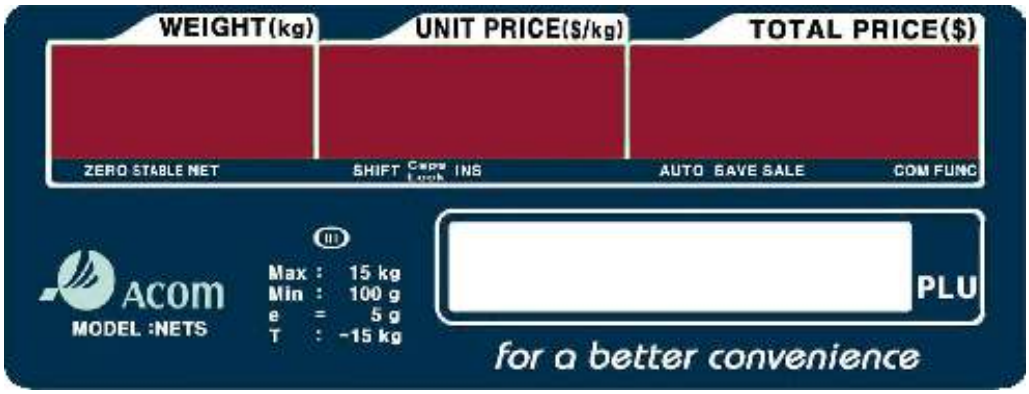
1. Net work Board
   - TCP/IP protocol
2. Extended PLU memory
3. Weight conversion
   - kg ↔ lb conversion

3. PRECAUTIONS

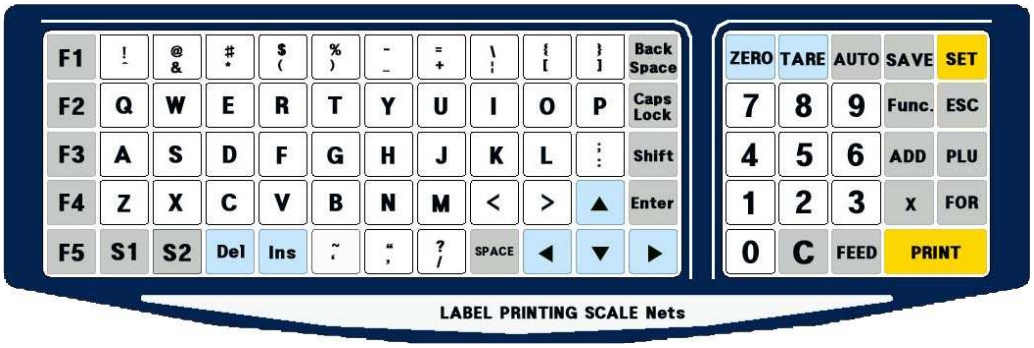
1. Place the scale on a flat and rigid desk that is free of vibrations
2. Place the scale out of direct sunlight
3. Do not use radio devices which emits strong electromagnetic fields near by
4. Do not apply sudden impact to the platter
5. Always level the scale
6. Do not spill the water to the scale
7. Do not use cleaners which includes solvent or sinner
8. Scale should be calibrated by authorized person prior to being to used
9. Turn on the scale 10 minutes before using

4. OVERVIEWS

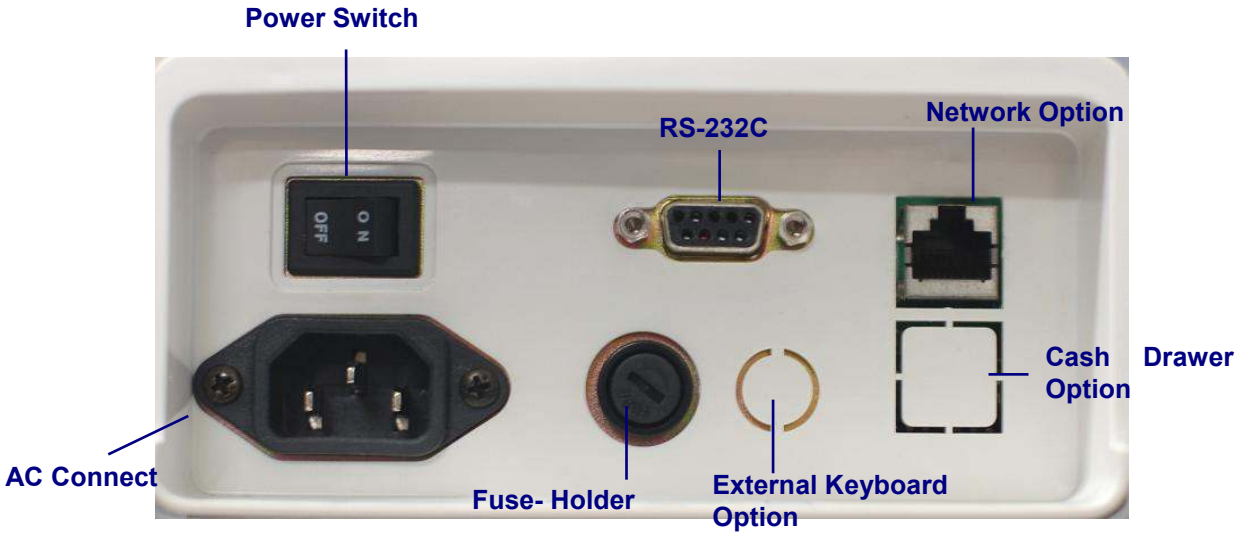
Displays



Key Board



I/O Connections



5. INSTALLATION

1. Place the scale on a flat and rigid desk
2. Insert two display wire connectors between displays and scale
3. Erect the display pole into display bracket
4. Arrange the display wire and block the bottom of bracket with plate
5. Fasten display bracket and plate with 4 x M3 screws
6. Level the scale
7. Turn on the scale

6. KEYBOARD AND FUNCTIONS

Name of Key	Functions
0 ~ 9	Numeric keys, used to enter unit price and programming data
C	Clear key, used to clear unit price and programming data
ZERO	Zero key, used to correct weight display to zero(0.000) when scale has been drifted
TARE	Tare key, used to set or remove tare(container) weight, after tare set scale displays net weight and the designator "**NET**" is turned on
AUTO	Auto key, used to set scale to automatic printing mode, scale prints automatically after weight stable, the designator "**AUTO**" is turned on while this function is activated, key works by toggle
SAVE	Save key, used to save current PLU, the designator "**SAVE**" is turned on while this function is activated, key works by toggle
SET	Set key, used to enter to set mode, toggle key
FUNC	Function key,
ESC	Escape key, used to cancel of previous transaction(s), escape from each menu of the set mode
ADD	Add up key, used to add up of commodities
PLU	PLU key, used to call indirect PLU

Name of Key	Functions
X	Multiple key, used to printing of same labels
FOR	For key, used to selling by number
FEED	Feed key, Used to feeding a label or ticket
PRINT	Print key, Used to printing label or ticket

7. THE DESIGNATORS

Designators	Functions
ZERO	It indicates scale is on center of zero
STABLE	It indicates scale is stable
NET	It indicates tare has been set
SHIFT	It indicates shift function in PLU programming
CAPS LOCK	It indicates function of entering capital letter
INS	It indicates function of insertion
COM	It indicates scale is under communication
AUTO	It indicates automatic printing mode
SAVE	It indicates PLU saving mode
SALE	It indicates sale mode
FUNC	It indicates scale is under function mode

8. SELLING MODE

Selling mode consists of 4 subsidiary mode, refer to the each page for the details

1) SELLING BY WEIGHT → See Page 8

2) SELLING BY COUNT → See Page 9

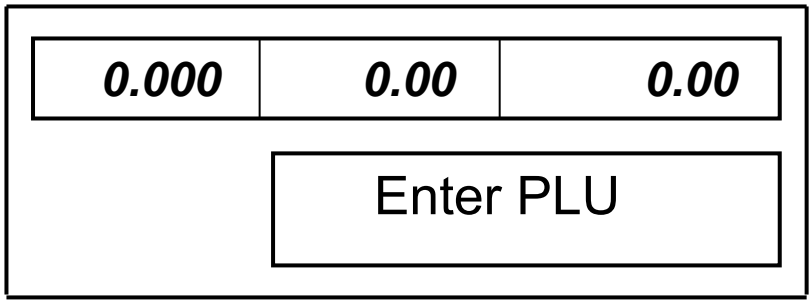
3) PRICE ADD UP → See Page 10

4) MULTIPLE LABELS → See Page 11

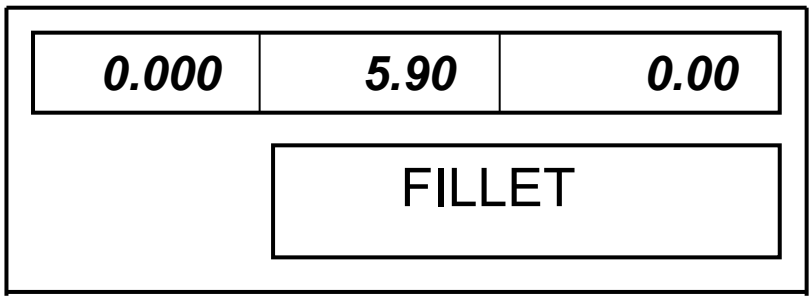
Note : Scale dose not print out any label or ticket unless PLU has been programmed, refer to the EDIT PLU of the SET MODE

1) SELLING BY WEIGHT

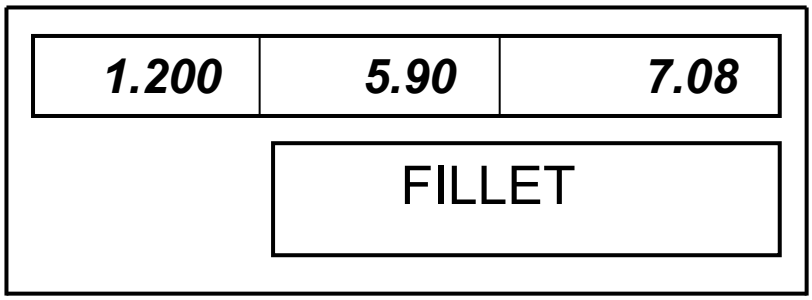
Weighing(normal) mode



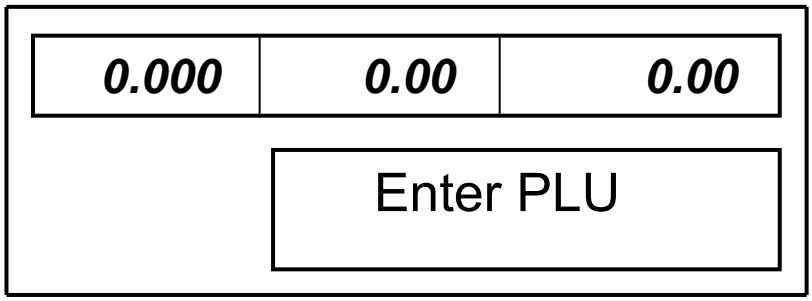
Enter PLU by pressing one of **SPEED** key(direct) or by enter PLU number and press **PLU** key(indirect)



Put commodity(Fillet) on the platter and press **PRINT** key
While the designator **AUTO** is turned on, scale prints automatically

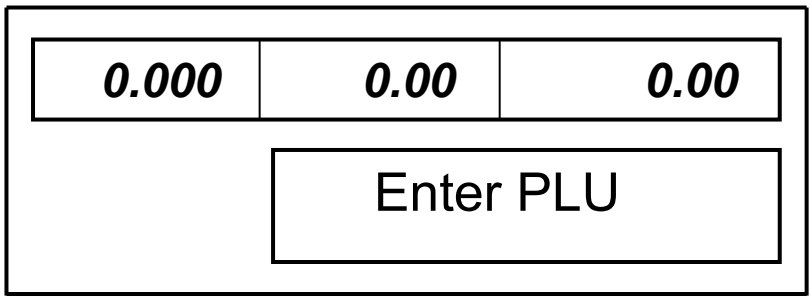


Remove commodity on the platter
While the designator **SAVE** is turned on, scale saves current PLU

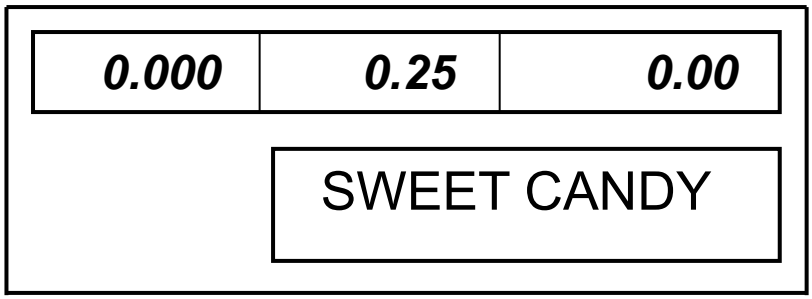


2) SELLING BY COUNT

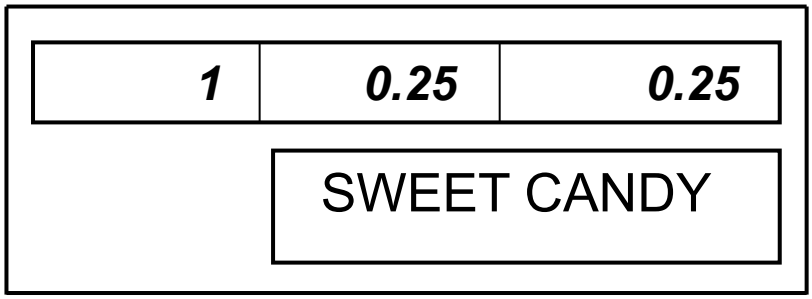
Weighing(normal) mode



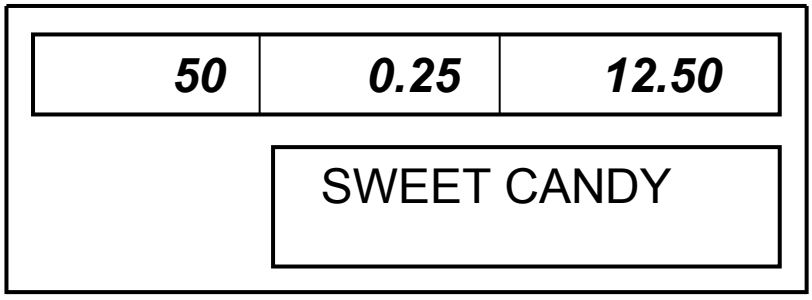
Enter PLU by pressing one of **SPEED** key(direct) or by enter PLU number and press **PLU** key(indirect)



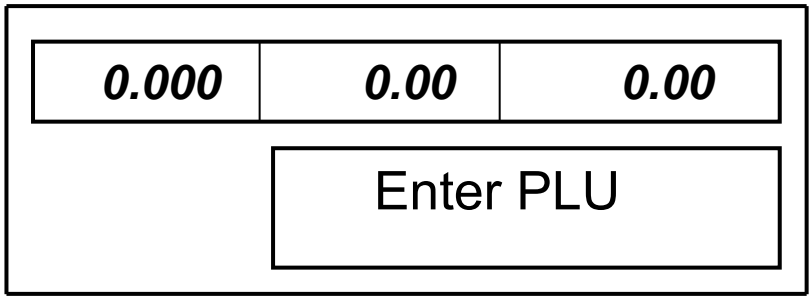
Press **FOR** key



Enter number of commodity(Candy) and **PRINT** key

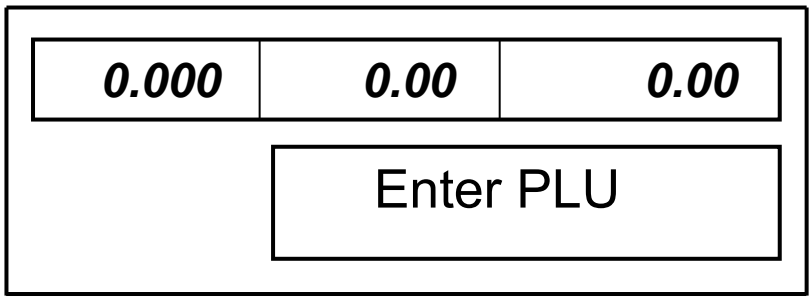


Weighing mode

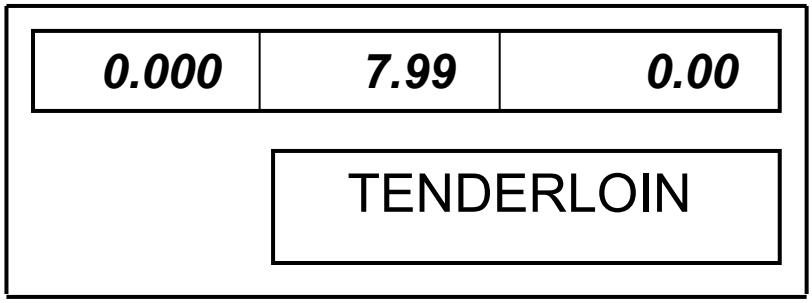


3) PRICE ADD UP

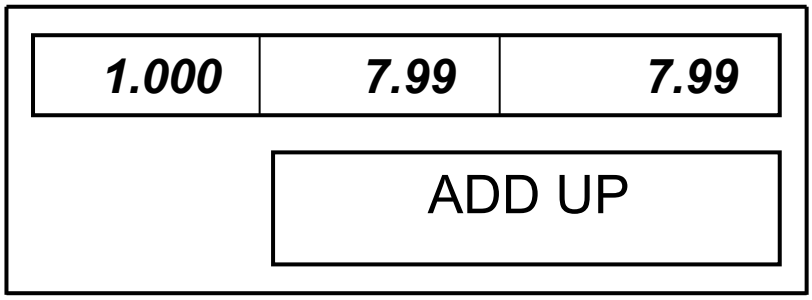
Weighing(normal) mode



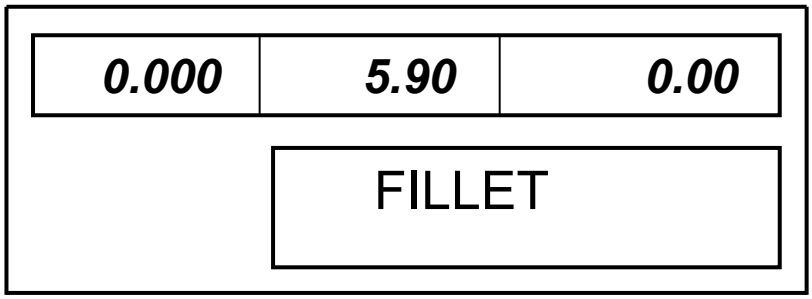
Enter PLU by pressing one of **SPEED** key(direct) or by enter PLU number and press **PLU** key(indirect)



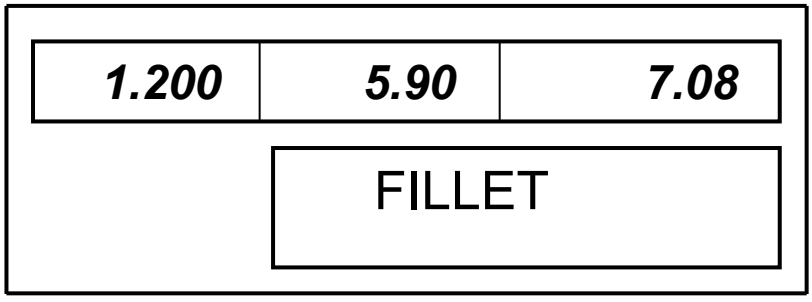
Put commodity(Tenderloin) on the platter and press **ADD** key



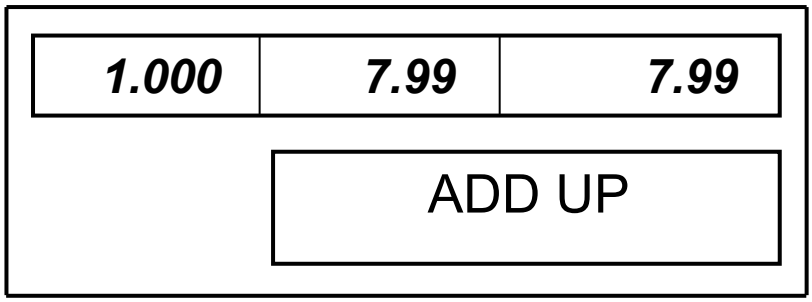
Remove the commodity(Tenderloin) and enter another PLU

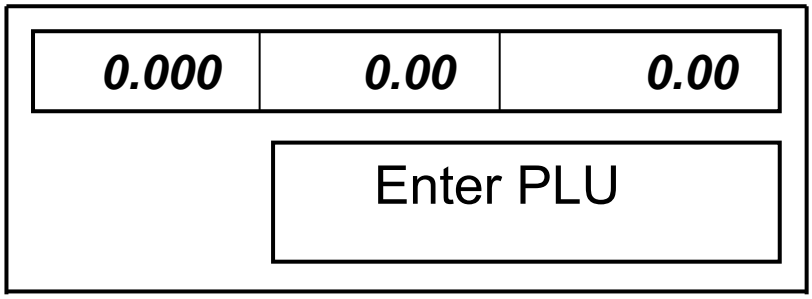


Put the commodity(Fillet) on the platter



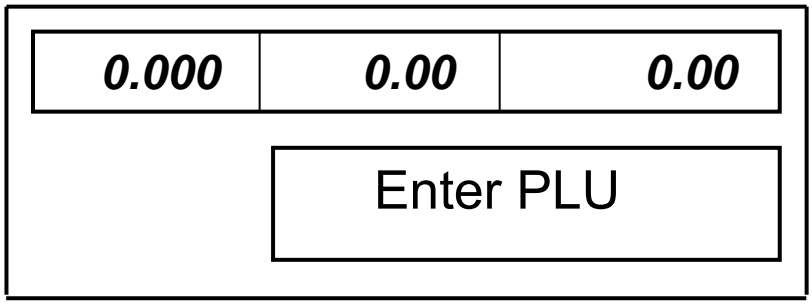
Press **ADD** key,
repeat above steps for add up of commodities or press **PRINT** key to print for sum total price
(Notice: PRICE ADD UP Functions only by manufacturer set the use of ADD Key.)



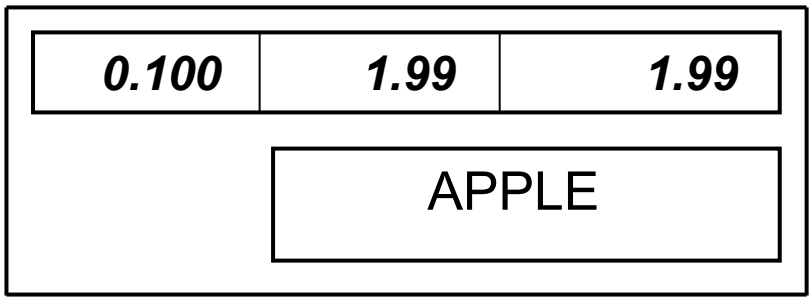


4) MULTIPLE LABELS

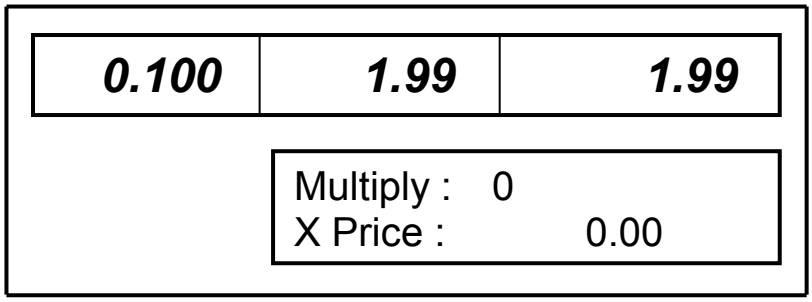
Weighing(normal) mode
Multiple labels function is suppressed on Ticket Printing version



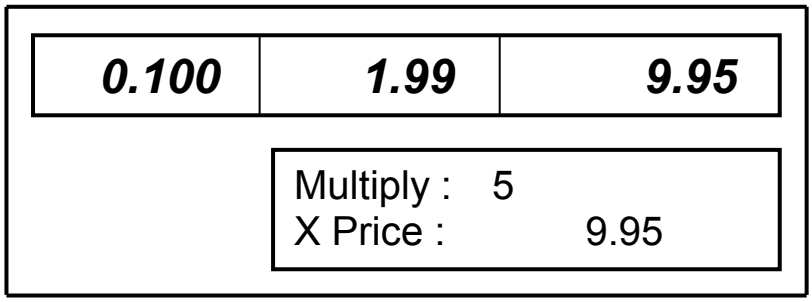
Enter PLU by pressing one of **SPEED** key(direct) or by enter PLU number and press **PLU** key(indirect)



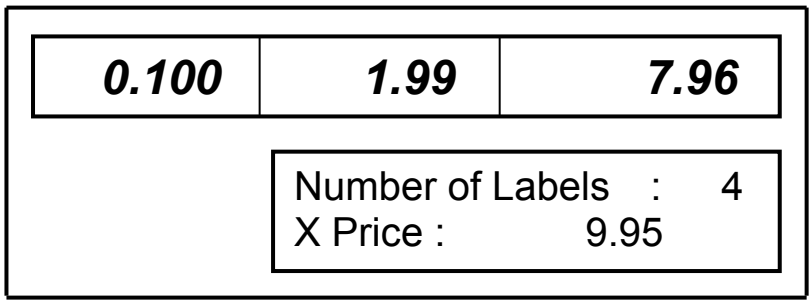
Put commodity(Apple) on the platter and press **X** key

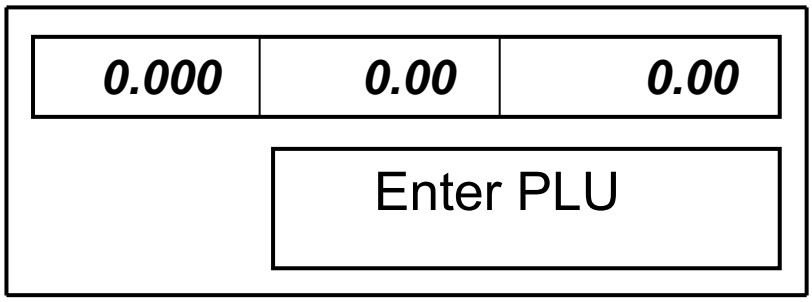


Enter number of labels,
for example 5



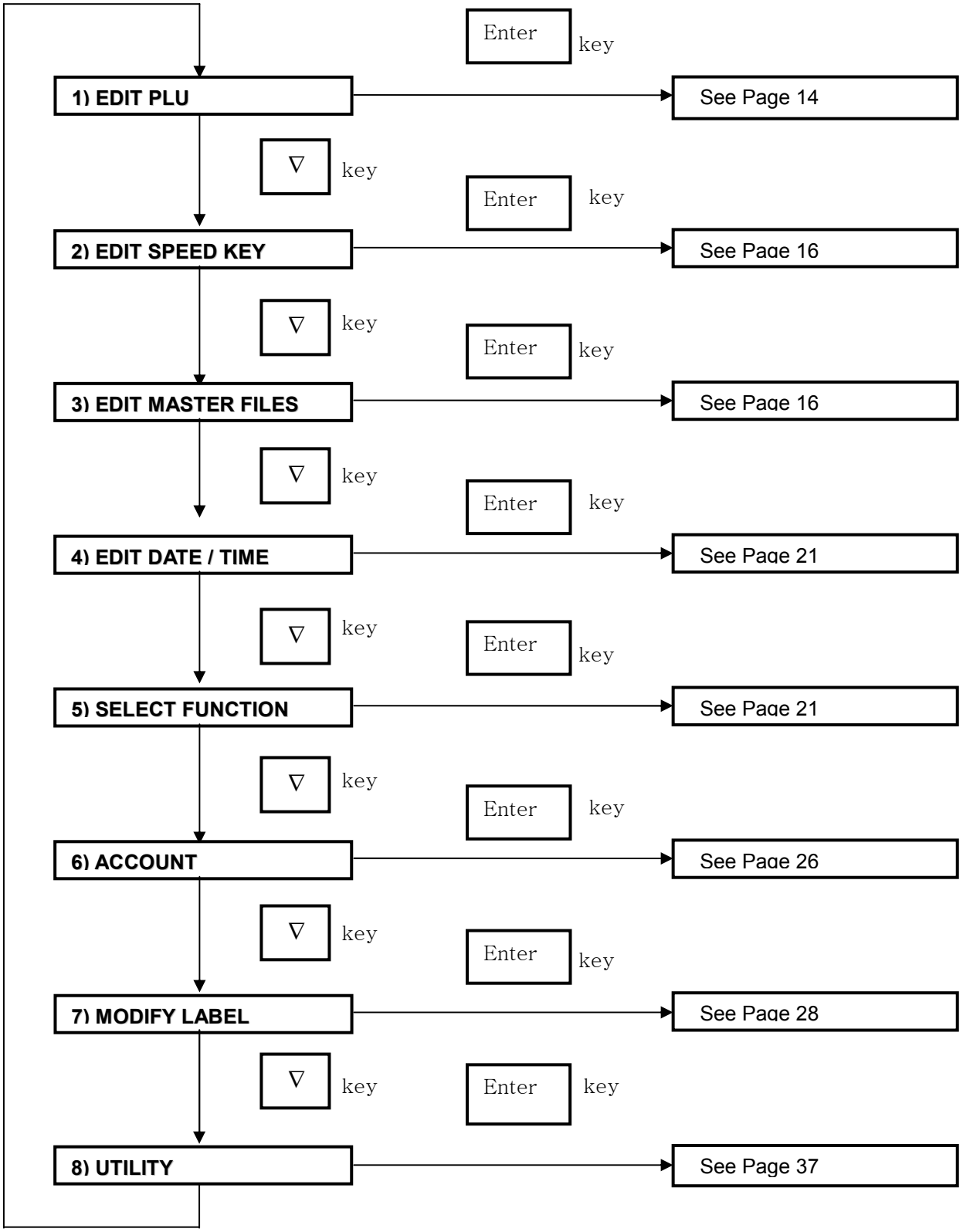
Press **PRINT** key
scale prints a label when each pressing **PRINT** key





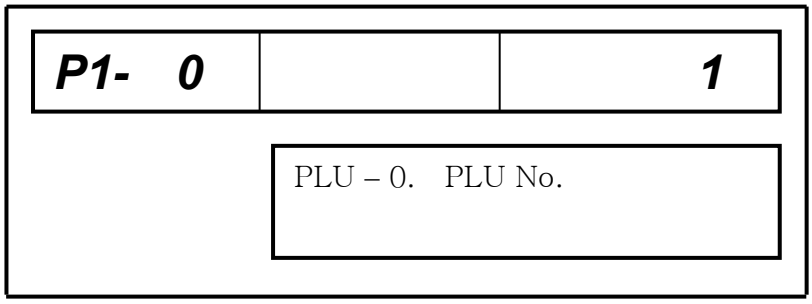
9. SET MODE

Set mode consists of 8 subsidiary mode, in the set mode please take out PLU card in the key board "∇" key is used to move to next mode, **Enter** key is used to entering data, **ESC** key is used to escape of current using mode and **SET** key is used to return to the normal mode
Press **SET** key

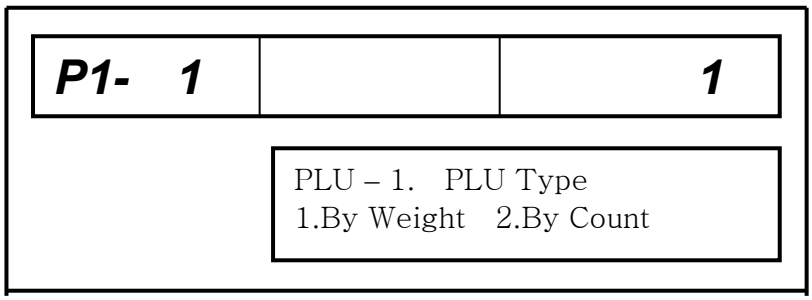


1) EDIT PLU

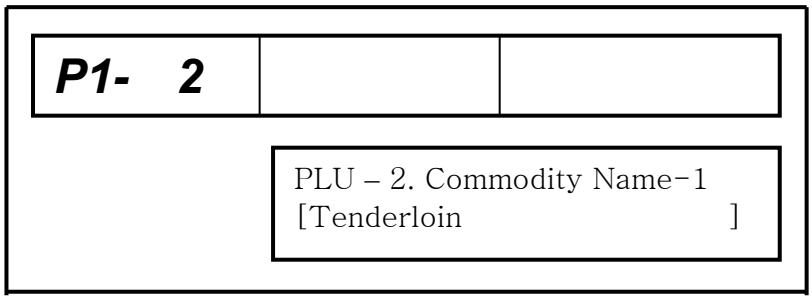
Enter PLU number, available numbers are 0 ~ 999,999 and press **Enter** key



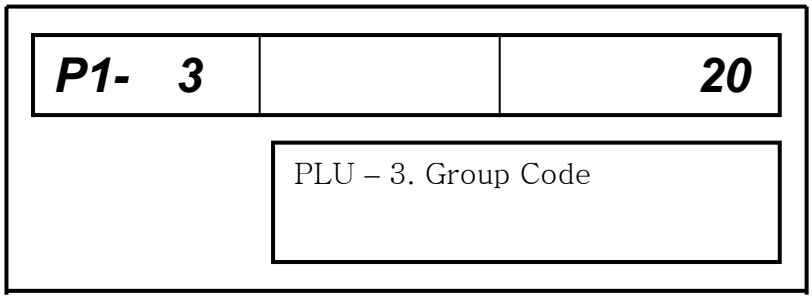
Select 1. By Weight or 2.By Count
And press **Enter** Key



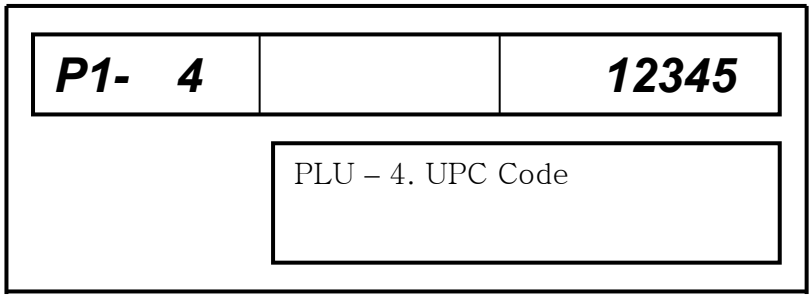
Enter commodity name and press **Enter** key, Max. 56 characters x 2 lines are available, for one line of commodity, press **Enter** key again to skip second line.



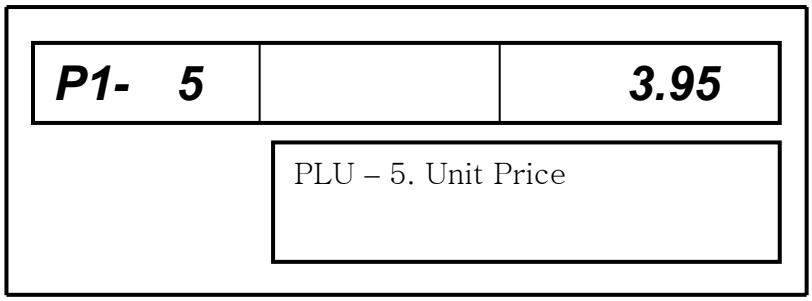
Enter group code and press **Enter** key numbers 0 ~ 99 are available
Group codes are used to grouping PLUs by categories of commodities



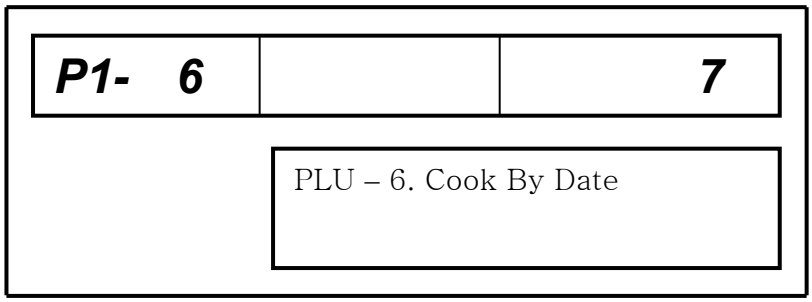
Enter UPC code and press **Enter** key numbers 0 ~ 999,999 are available
UPC code is commodity code of bar code



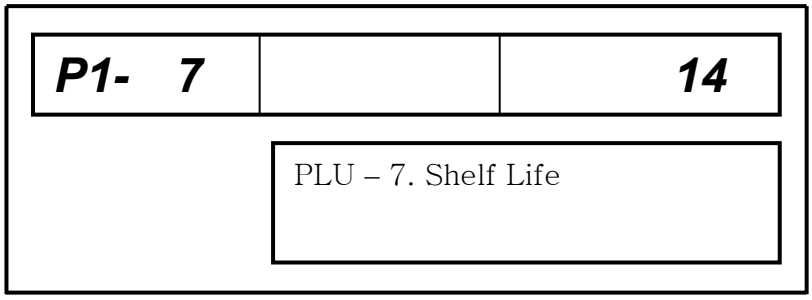
Enter unit price and press **Enter** key



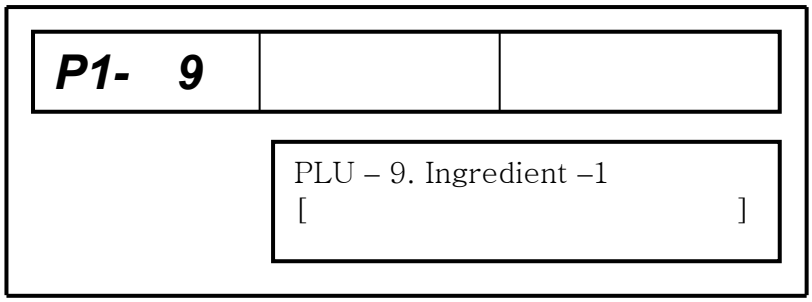
Enter cook by date and press **Enter** key, 0 ~ 366 days are available,



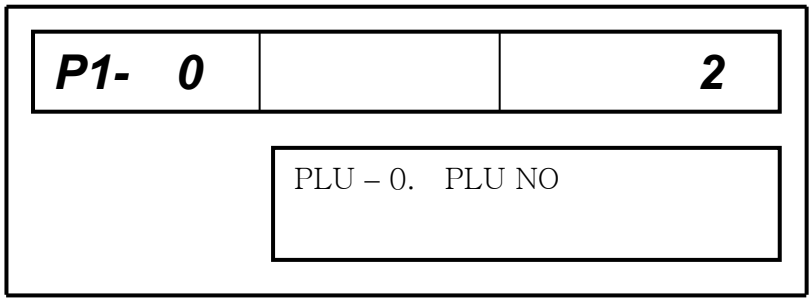
Enter shelf date and press **Enter** key 0 ~ 366 days are available.



Enter ingredients 0 ~ 9 and press **Enter** key at the each ingredient Max. 56 characters x 10 lines are available, ingredient can be printed at the label length 60 mm or longer, *Pressing* **SAVE** *key finishes edit PLU at the any entering of ingredient*

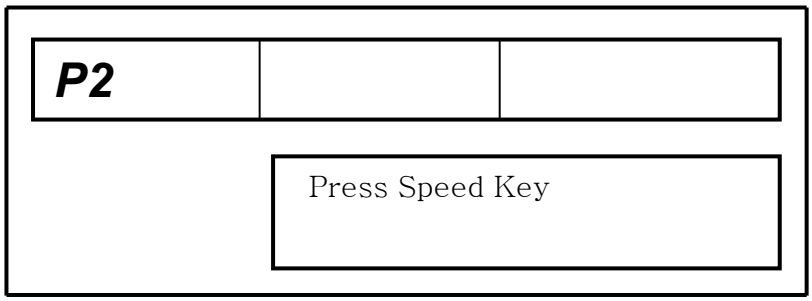


Repeat steps to enter another PLU or press **ESC** key to the next mode *To return to the normal mode, press* **SET** *key*

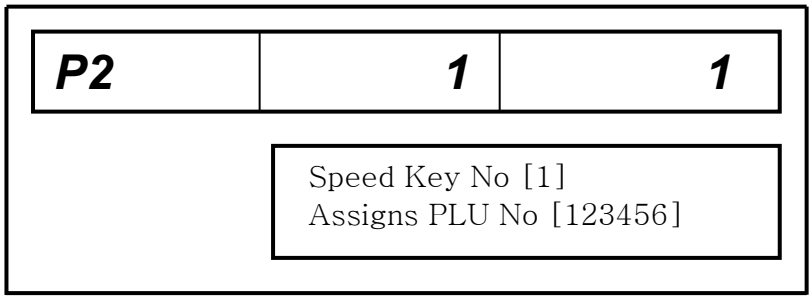


2) EDIT SPEED KEY

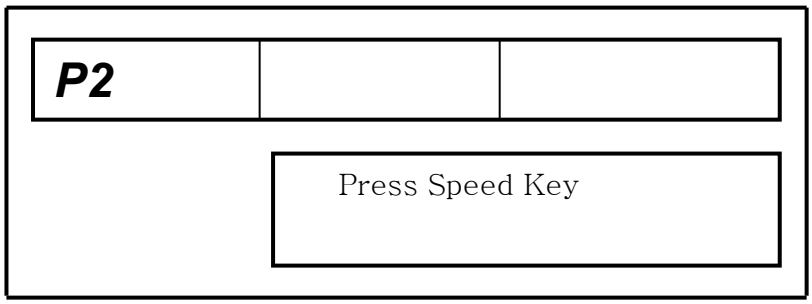
Press **Enter** key



Press one of speed keys,
speed key number is shown on the unit price display and PLU number is shown on the total price display,
enter PLU number which will be assigned



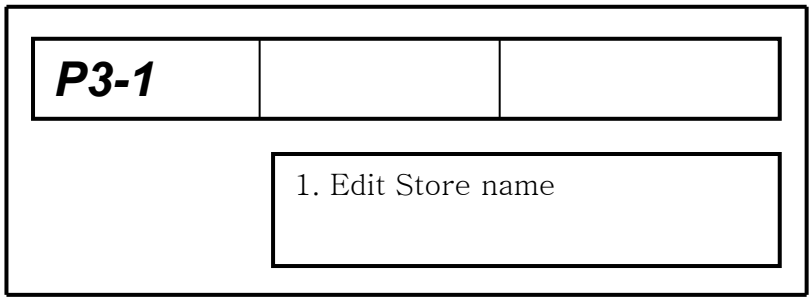
Press **SAVE** key to store, repeat steps to enter other speed keys or press **ESC** key to exit(next mode)



3) EDIT MASTER FILES

3-1 Edit Store Name

Press **Enter** key



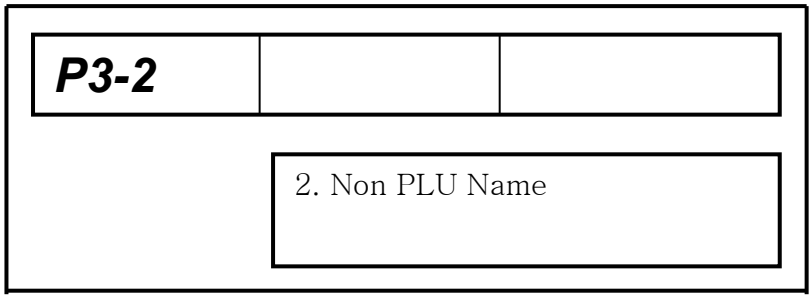
Press **Enter** key and enter store name,
3 lines of store name is available
Max. 56 characters x 3 lines

Press **Enter** key and enter 2nd line of
store name or press **ESC** key
to skip 2nd, 3rd lines of store name

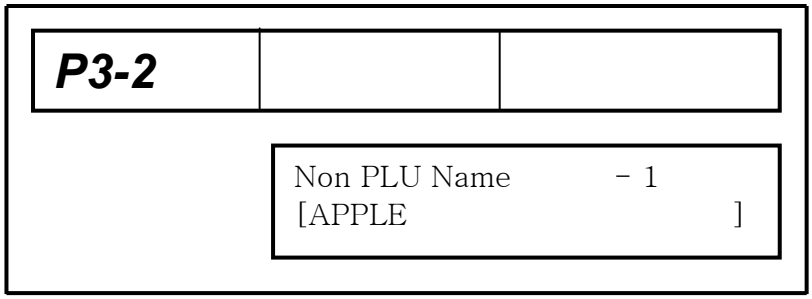
3-2 Non PLU Name

Non PLU Name is used to store commodity name not recorded in PLU.

Press **Enter** key



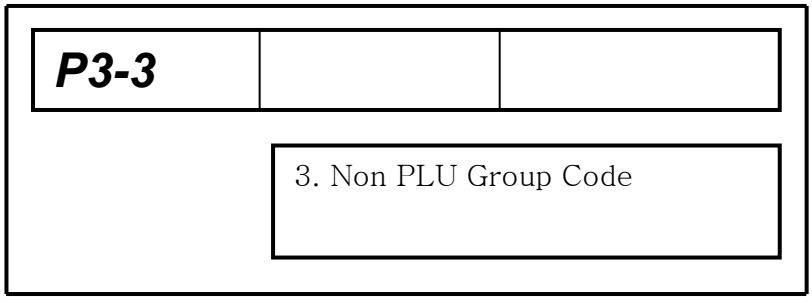
Enter commodity name.
<USE> In sales mode, enter
unit price and put a weight on the
platter, Press **Enter** key



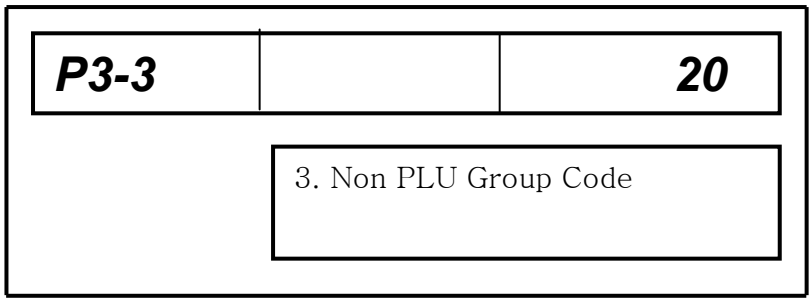
3-3 Non PLU Group Code

Non PLU Group Code is used to store Group Code not recorded in PLU.

Press **Enter** key



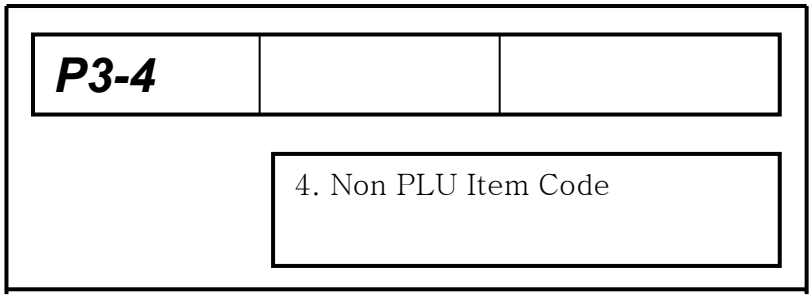
Enter Group Code.
<USE> In sales mode, enter unit price and put a weight on the platter, Press **Enter** key.



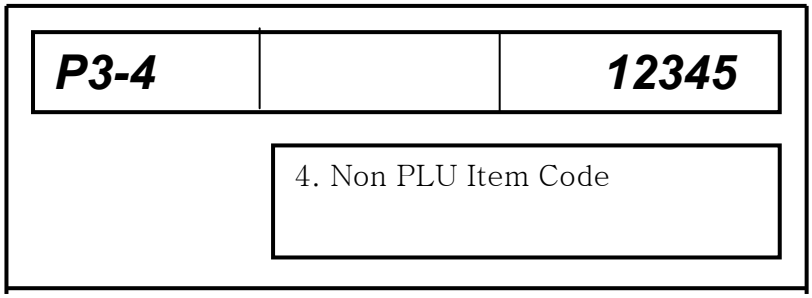
3-4 Non PLU Item Code

Non PLU Item Code is used to store item code not recorded in PLU.

Press **Enter** key



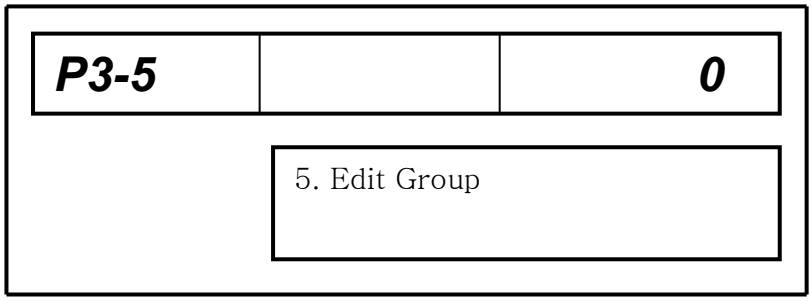
Enter Item Code.
<USE> In sales mode, enter unit price and put a weight on the platter, Press **Enter** key.



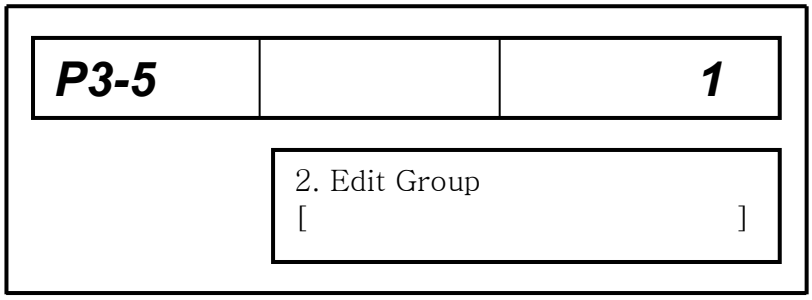
3-5 Edit Group

Group is used to managing PLUs by categories of commodities, for examples, meet, fruit and vegetable

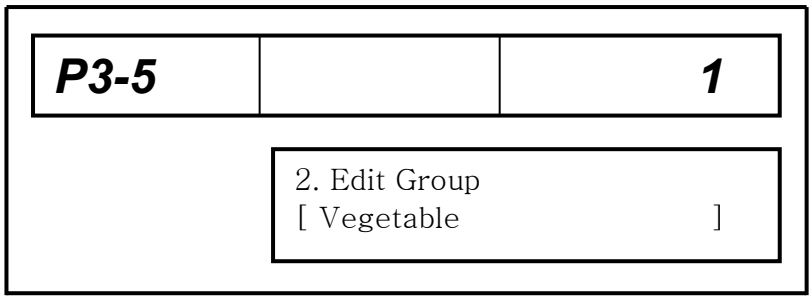
Press Enter key



Enter group code and press **Enter** key

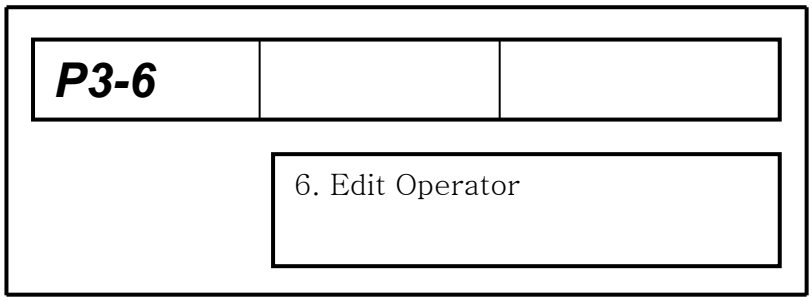


Enter group name and press **Enter** key
repeat steps to entering another group
or press **ESC** key twice to exit

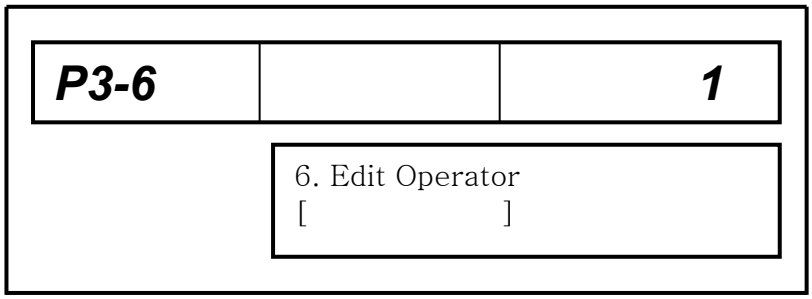


3-6 Edit Operator(Registration)

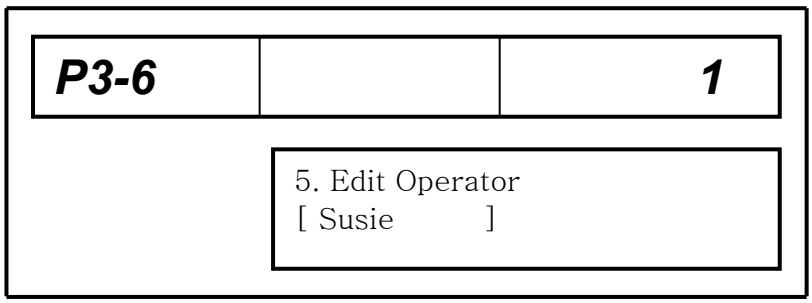
Press **Enter** key



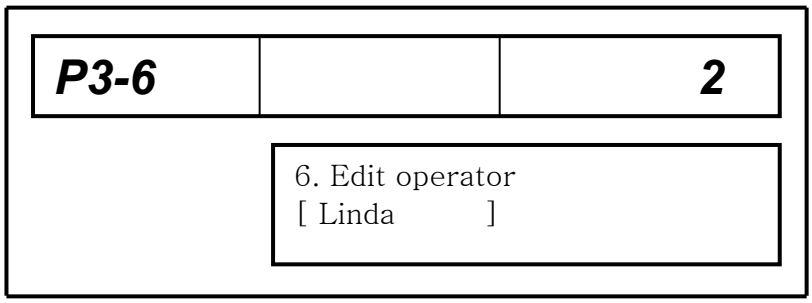
Enter operator code and press **Enter** key



Enter name of operator and press **Enter** key,
Max. 10 characters x 32 operators



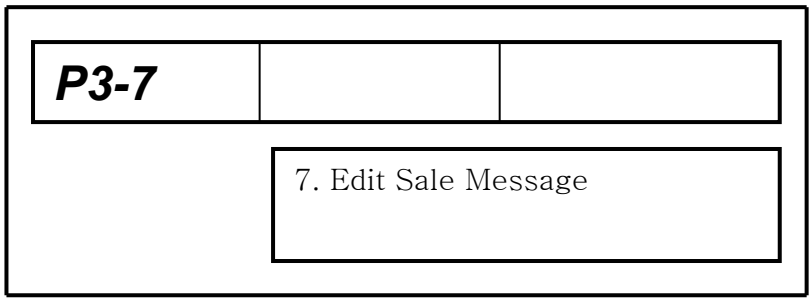
Repeat steps to enter another operator
or press **ESC** key twice to the next



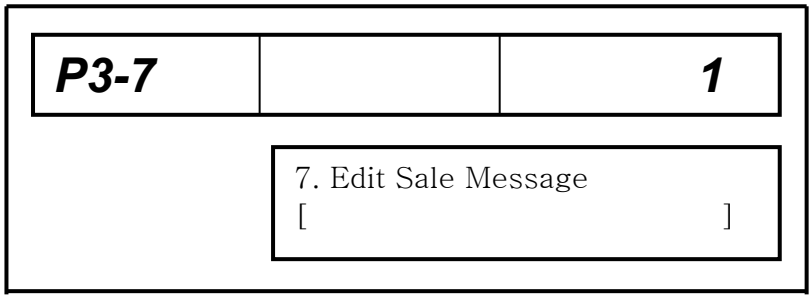
3-7 Edit Sale Message(Registration)

Sale message is an advertising which can be displayed on the message display

Press **Enter** key



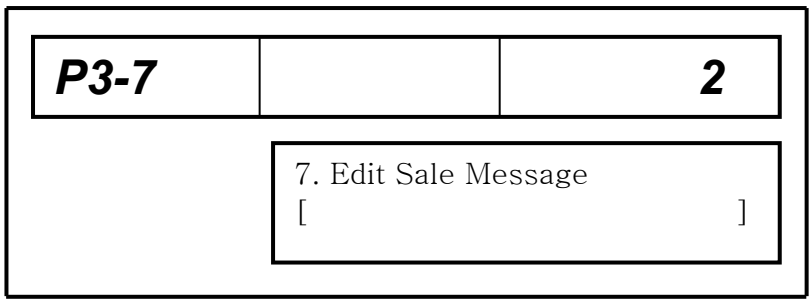
Enter sale message code and press **Enter** key



Enter sale message and press **Enter** key

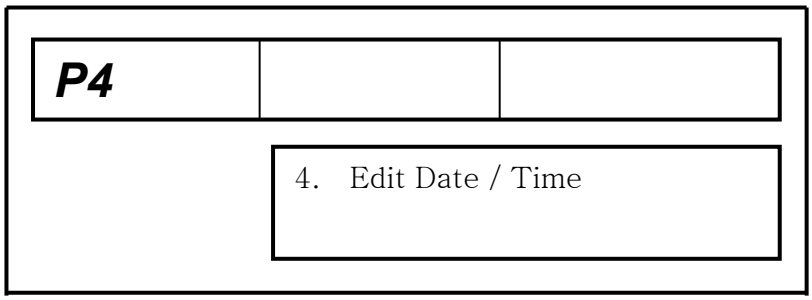
Repeat steps to enter another sale message, or press **ESC** key twice to the next mode

Pressing SET key enables to return to the normal mode at here

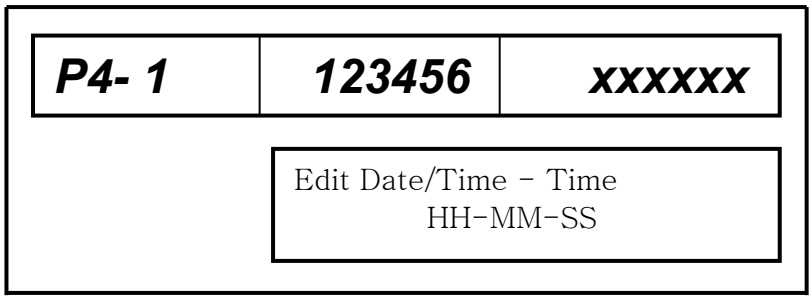


4) EDIT DATE / TIME

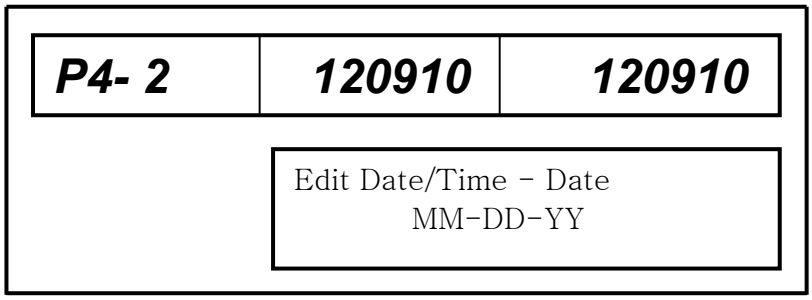
Press **Enter** key



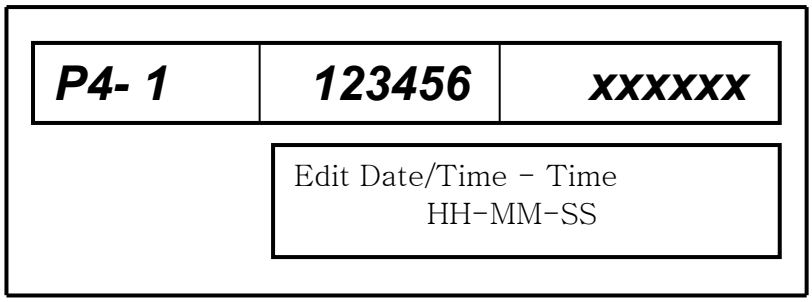
Enter time and press **Enter** key,
time format should be HH-MM-SS
at this step



Enter date by format YY-MM-DD
and press **Enter** key,
formats DD-MM-YY and
MM-DD-YY are available in normal
operation mode



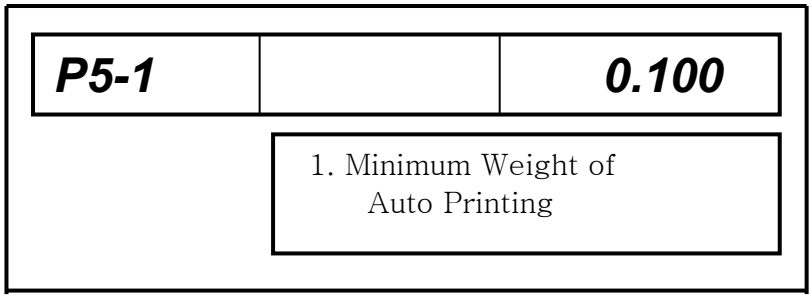
Press **ESC** key twice to the next



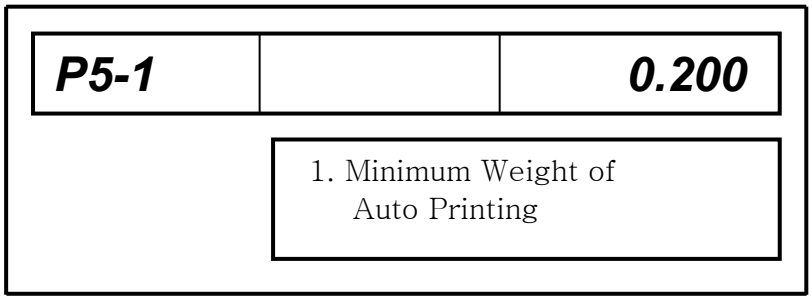
5) SELECT FUNCTION

5-1 Minimum Weight of Auto Printing

Press **Enter** key

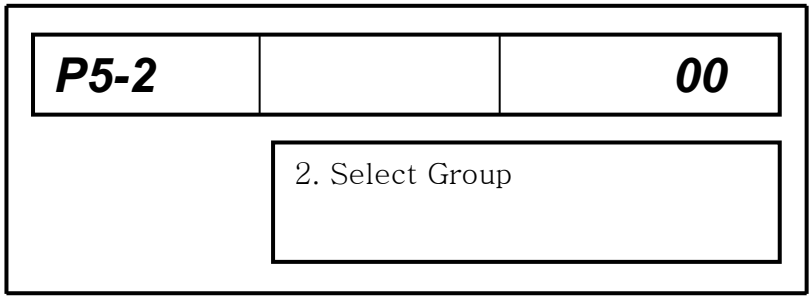


Enter motion band of auto printing and press **Enter** key,

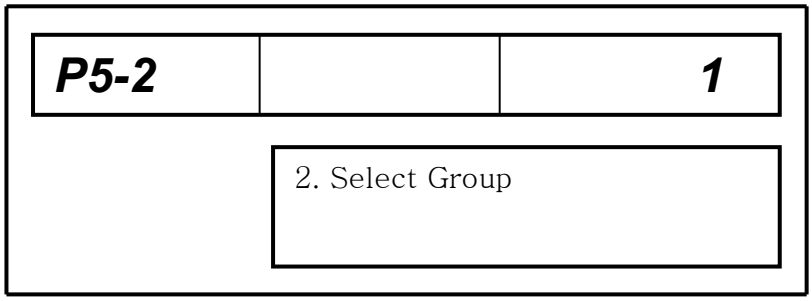


5-2 Select Group

Press **Enter** key

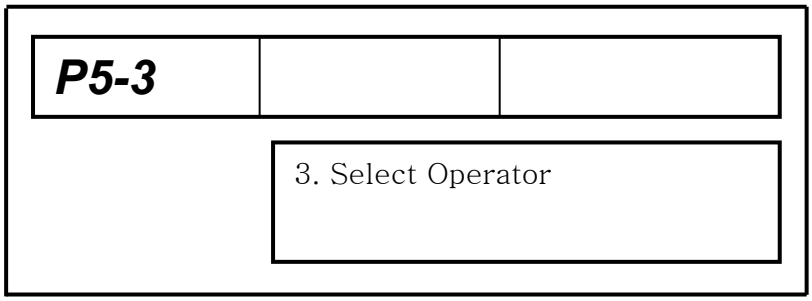


Select group code and press **Enter** key codes 0 ~ 99 are available,

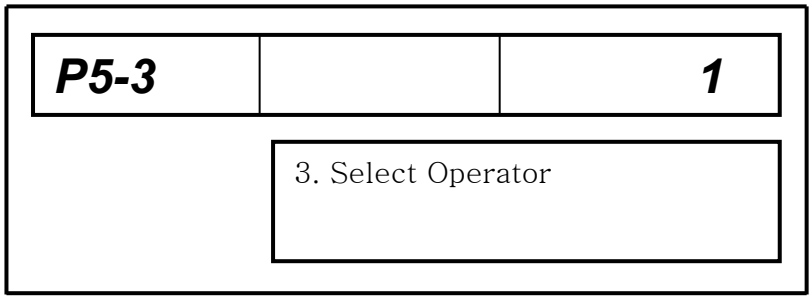


5-3 Select Operator

Press **Enter** key

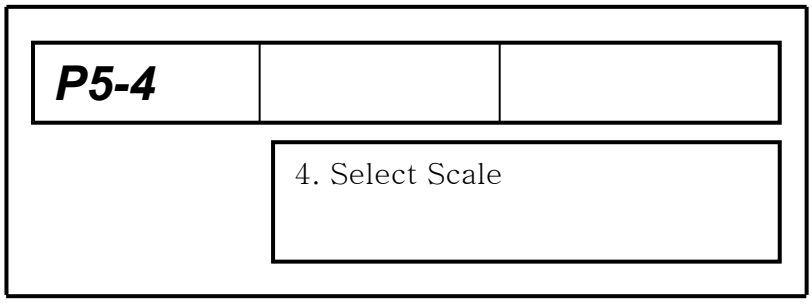


Select operator code and press **Enter** Key, codes 0 ~ 99 are available,

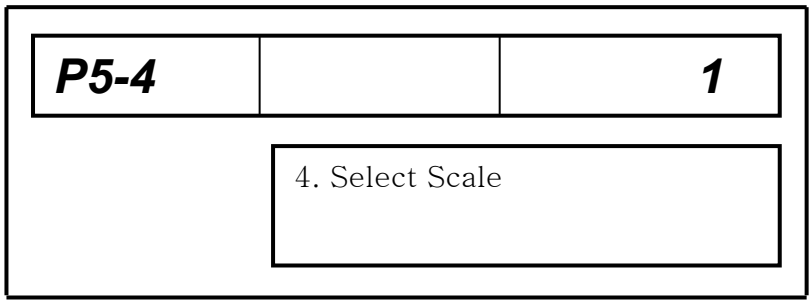


5-4 Select Scale

Press **Enter** key



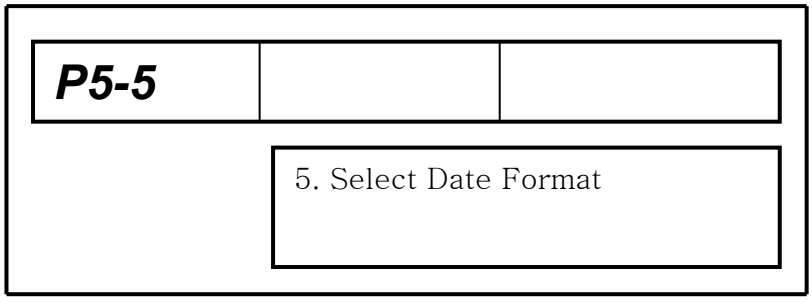
Select scale code and press **Enter** key
codes 0 ~ 99 are available,



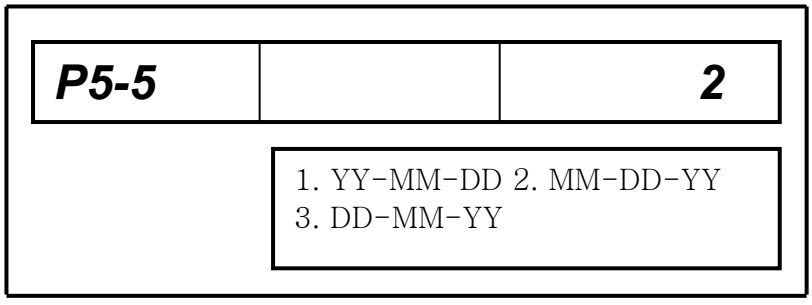
`

5-5 Select Date Format

Press **Enter** key



Select date format and press **Enter** key



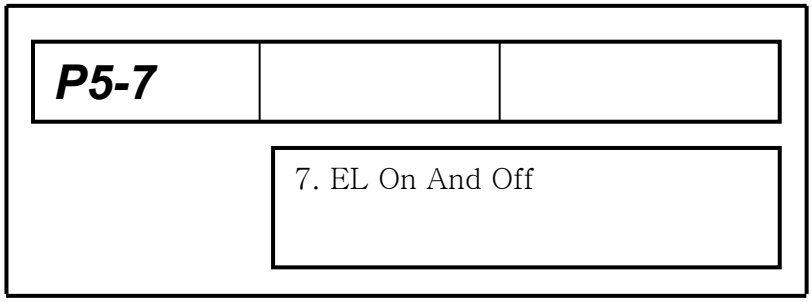
5-6 Select Sale Message

Press **Enter** key

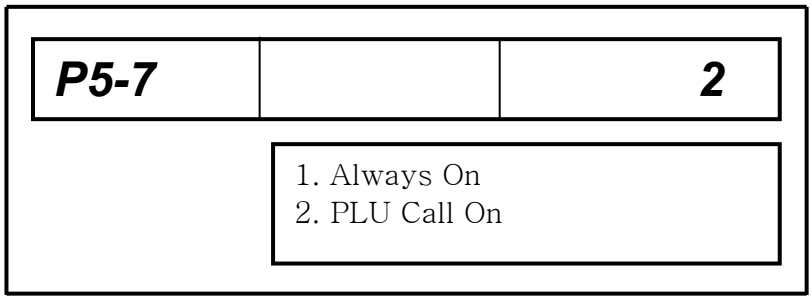
Select sale message code and press **Enter** key,
codes 0~99 are available

5-7 Select EL On And Off

Press **Enter** key

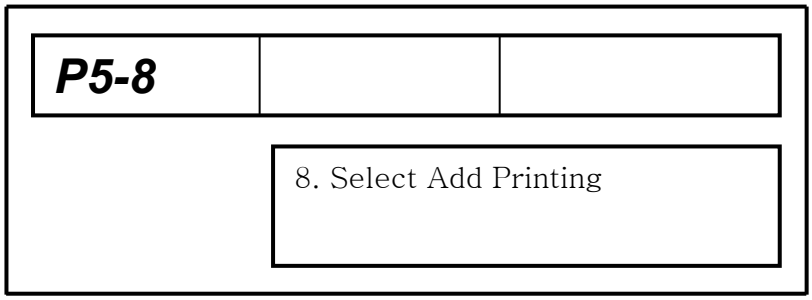


Select 1 or 2, default setting is 2 and press **Enter** key

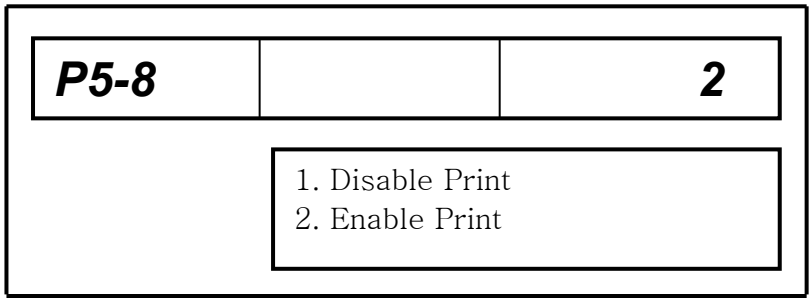


5-8 Select Add Printing

Press **Enter** key



Select 1 or 2, default setting is 2 and press **Enter** key

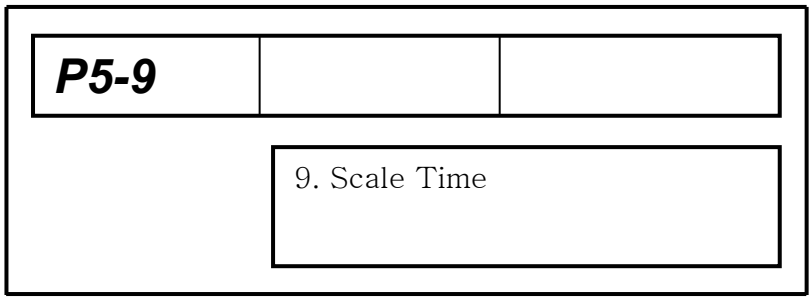


5-9 Scale Time

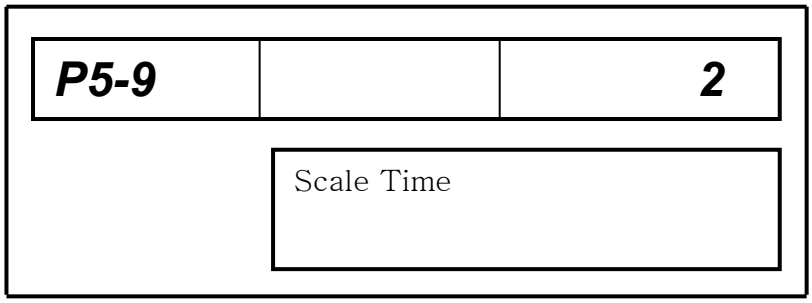
The time entered will be add to the current time and the added time will be printed.

<Notice> P7-9-15 Current time must be set "Y"

Press **Enter** key

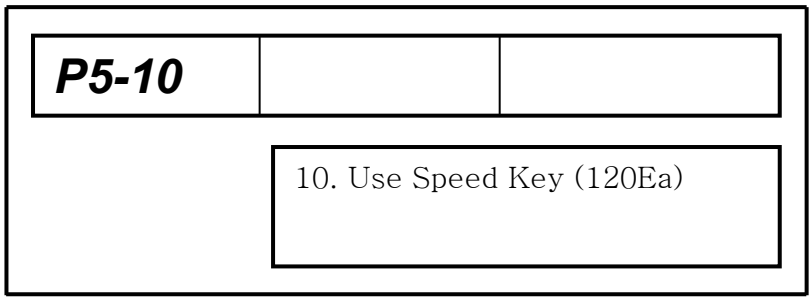


Select scale time and press **Enter** key, codes 0~24 are available

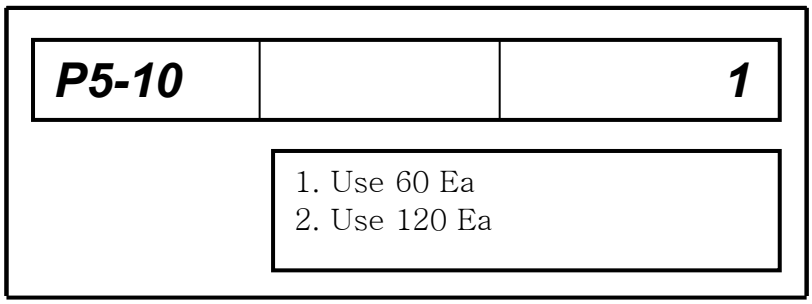


5-10 Use Speed Key(120Ea)

Press **Enter** key

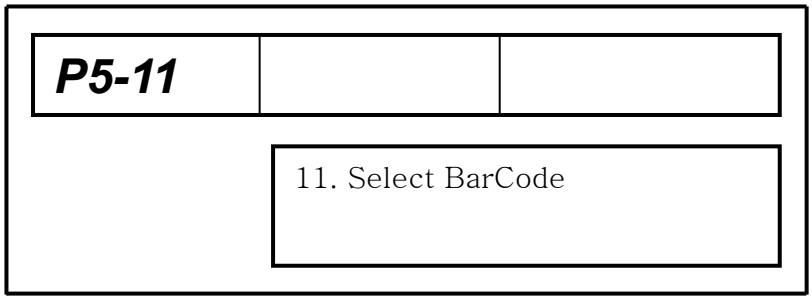


Select 1 or 2, default setting is 1 and press **Enter** key

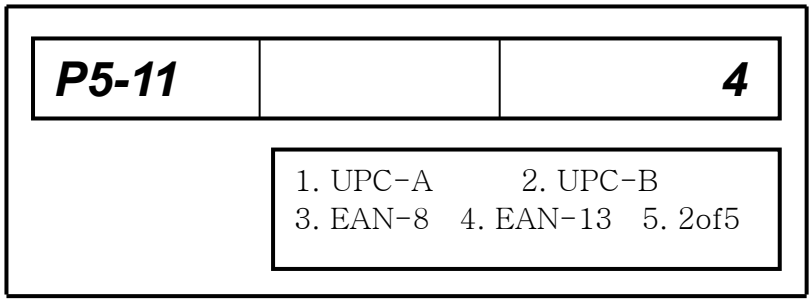


5-8 Select Bar Code

Press **Enter** key

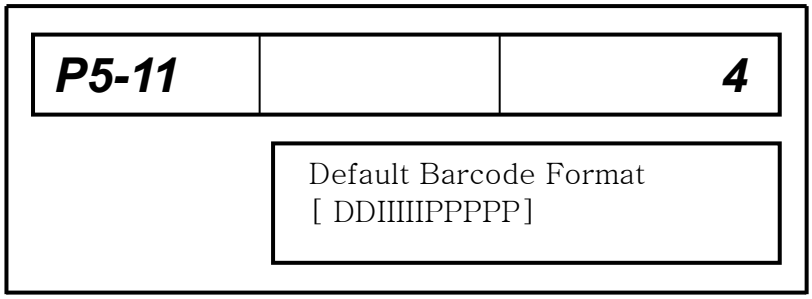


Select barcode and press **Enter** key



A default format of EAN-A consists of group code DD(2 digit), item code IIIII(5 digit) and price PPPPP(5 digit), item code can be varied within 6 digit and price can be varied within 7 digit, if price is greater than the digit of price set then "0" will be printed on the price column
Ex. 1 ; 7 digit price DD III PPPPPPP or D IIII PPPPPPP or IIIII PPPPPPP
Ex. 2 ; 6 digit price DD IIII PPPPPP or D IIIII PPPPPP or IIIIII PPPPPP
Ex. 3 ; Printing weight instead of price on the bar code DD IIIII WWWWW

Enter barcode format and press **Enter** key

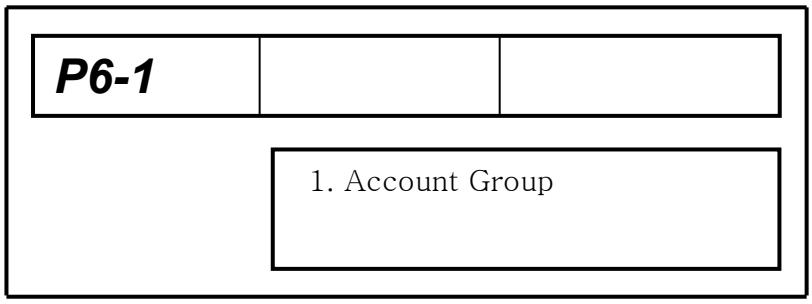


Press **ESC** key to exit

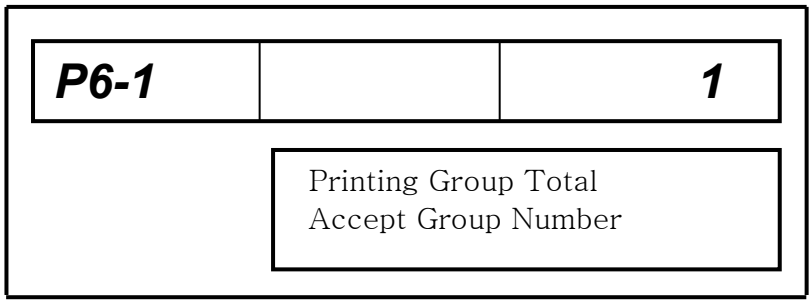
6) ACCOUNT

6-1 Account Group

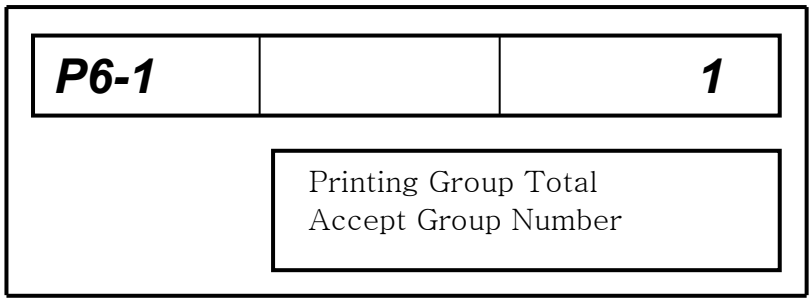
Press **Enter** key



Enter group number and press **Enter** key, group total is printed

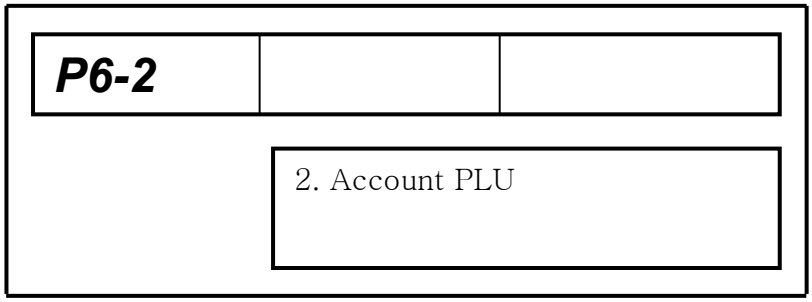


Repeat steps to print another group or press **ESC** key to exit

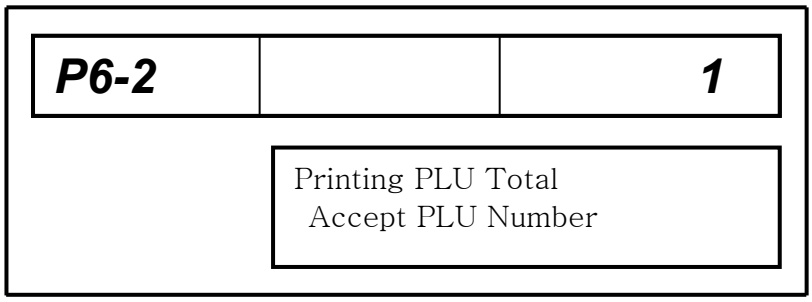


6-2 Account PLU

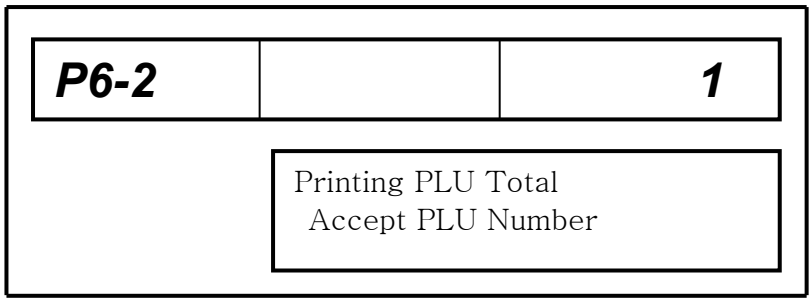
Press **Enter** key



Enter PLU number and press **Enter** key, PLU total is printed

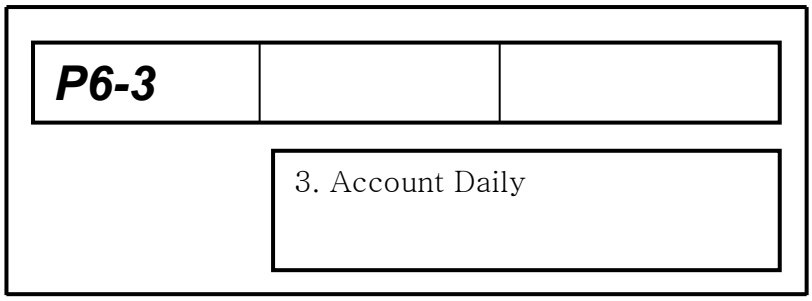


Repeat steps to print another PLU or press **ESC** key to exit

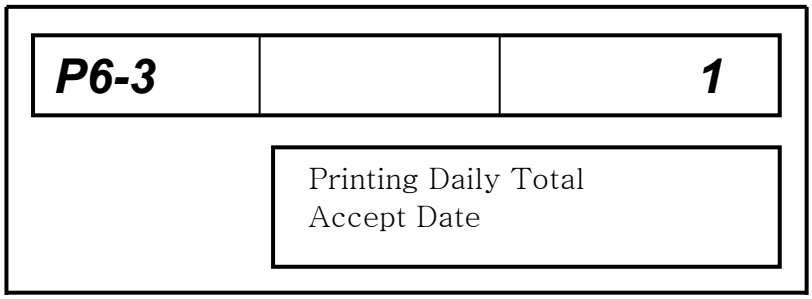


6-3 Account Daily

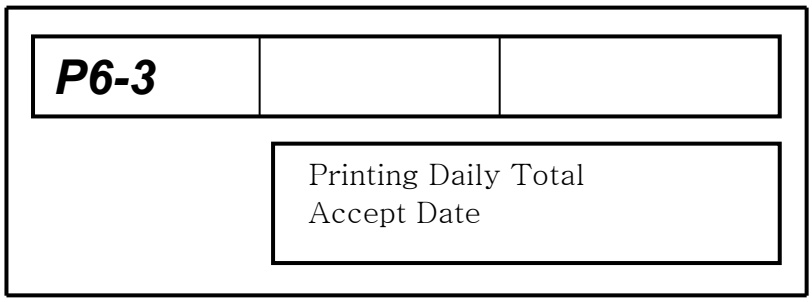
Press **Ente**r key



Enter a date which will be printed and press **Enter** key



Repeat steps to get another daily total or press **ESC** to exit



7) MODIFY LABEL

7-1 Select Label or Ticket

Press **Enter** key

Enter number 1 for label printing or 2 for ticket printing and press **Enter** key
For the ticket printing, remove the label bobbin on the cartridge and fit the ticket paper roll

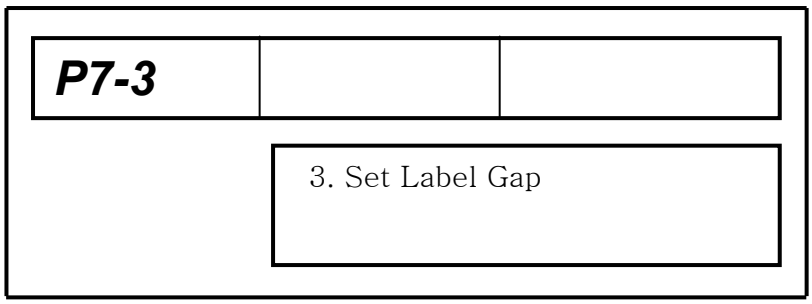
7-2 Setting Label Length

Press **Enter** key

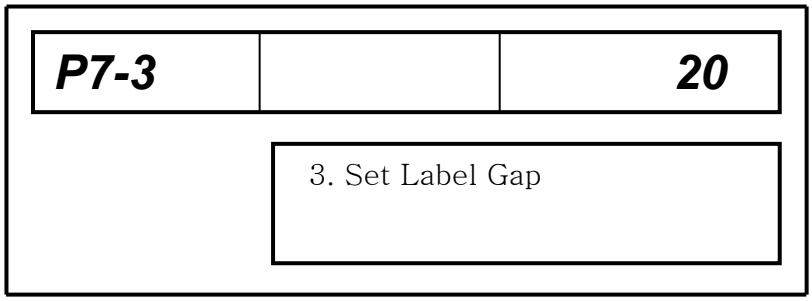
Enter label length and press **Enter** key
Available label lengths
30mm, 35mm, 40mm, 60mm,
80mm, 100mm

7-3 Setting Label Gap

Press **Enter** key
Label gap is a clearance of labels,
a reference value is 20 for a label gap
2 mm

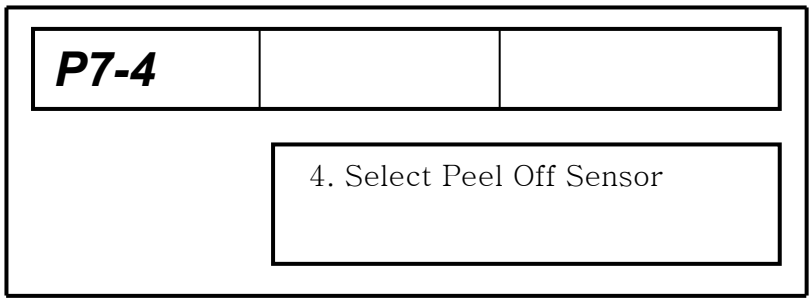


Enter gap value of labels and press **Enter** key, values 0 ~ 99 are available,

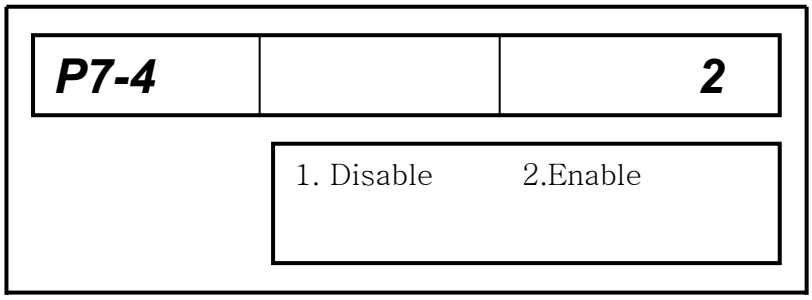


7-4 Select Peel Off Sensor

Peel off sensor detects a label peeled or remained on the peel off bar, after enabling, scale dose not print label to prevent labels jammed
Press **Enter** key



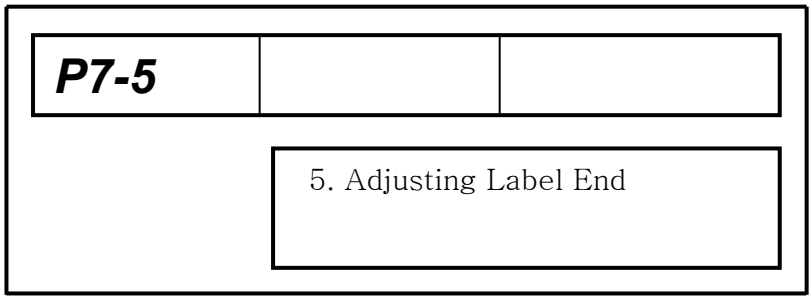
Select disable or enable and press **Enter** key



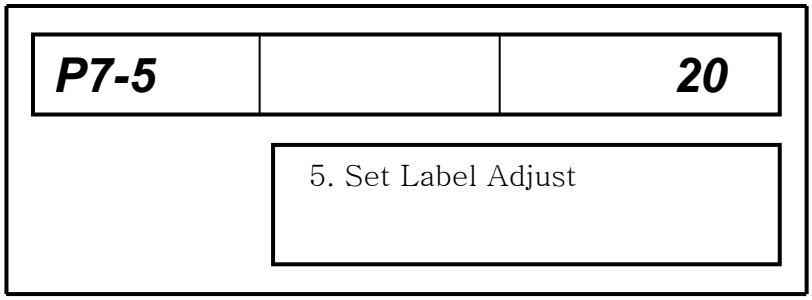
7-5 Adjusting Label End

Adjustment of label end adjusts the attaching surface of the label on the peel off bar properly, a wide surface makes not easy to label taken, a lacked surface gives easy falling down of the label, while adjusting label end, printing position is also adjusted on the label

Press **Enter** key



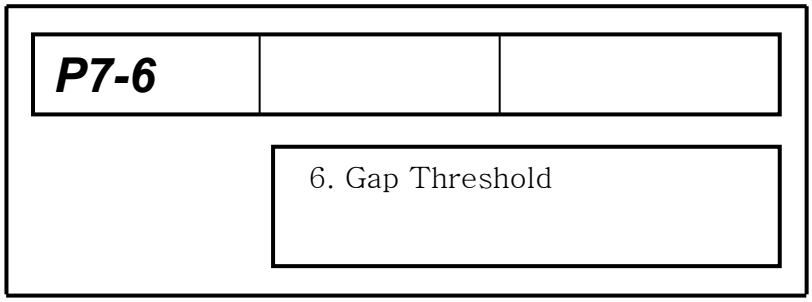
Enter adjusting value and press **Enter** key, values 0 ~ 99 are available,



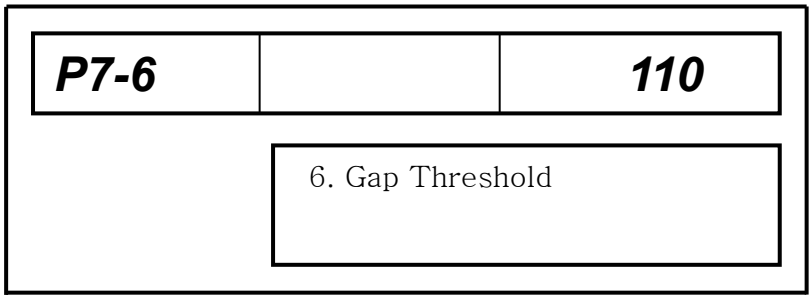
7-6 Gap Sensor Threshold Level (Manual Setting)

Sensor calibration written in 8-7.Utility Sensor calibration calibrates gap sensor and peel off sensor automatically, but this setting gives a manual calibration by entering threshold level. Prior to setting, the min. & max. levels must be read in 2-6 Self Test / Sensor Test

Press **Enter** key

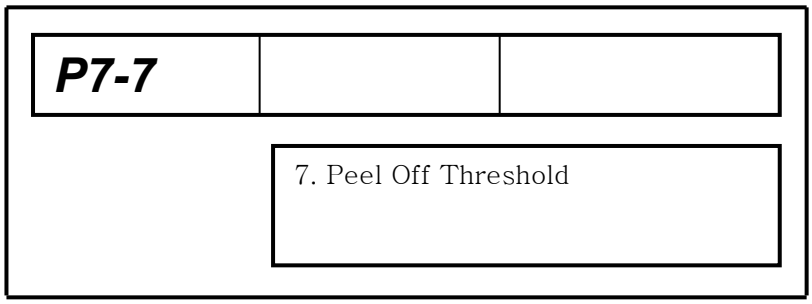


Enter threshold level(middle level) and press **Enter** key

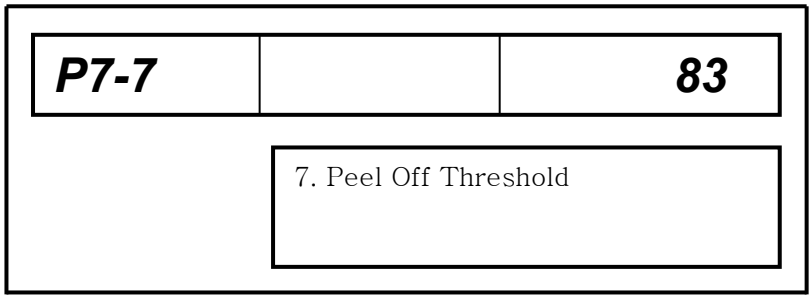


7-7 Peel Off Sensor Threshold Level (Manual Setting)

Press **Enter** key, *Same as 7-6*



Enter threshold level and press **Enter** key, levels 0 ~ 255 are available,



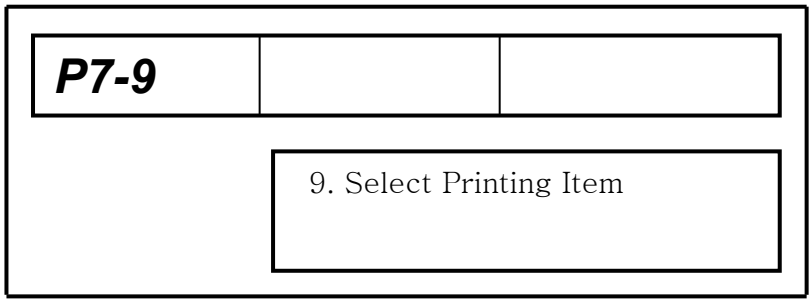
7-8 Select Label Format

Press **Enter** key

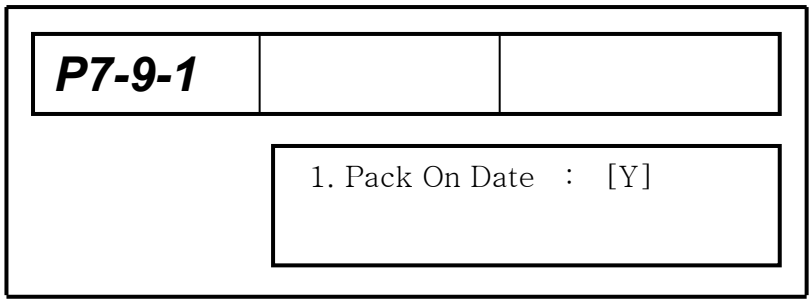
Select label format and press **Enter** key, refer to the APPENDIX

7-9 Select Printing Item

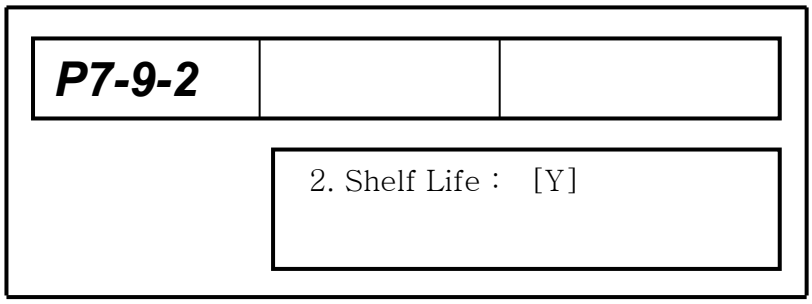
Press **Enter** key



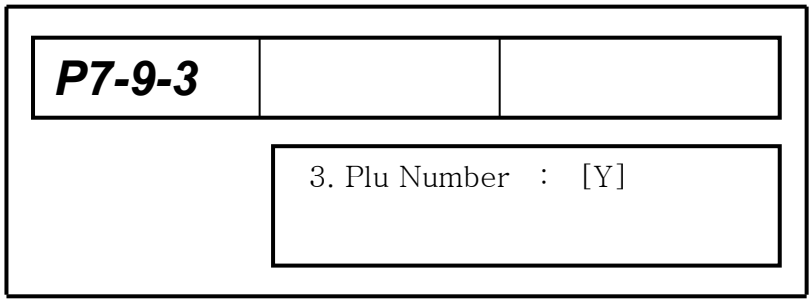
Enter yes(Y) or no(N)



Enter yes(Y) or no(N)

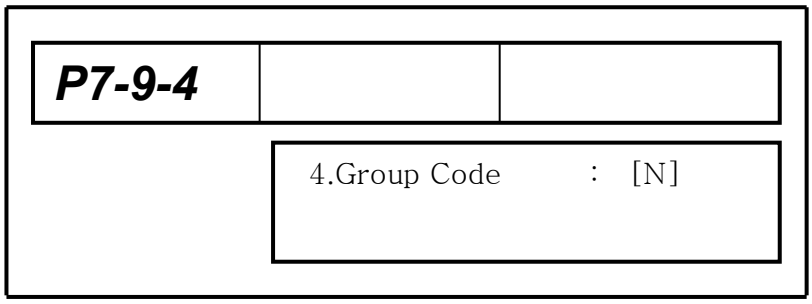


Enter yes(Y) or no(N)

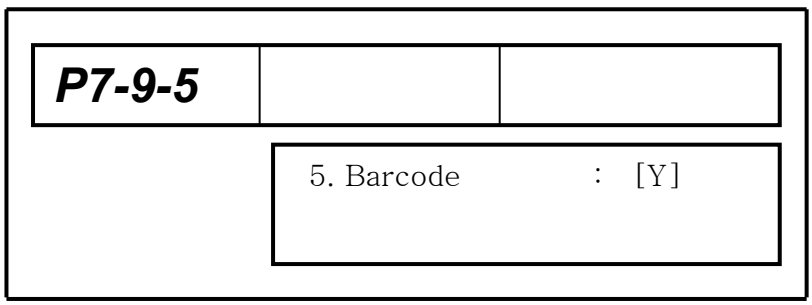


After group code is set to Y each group code of PLU is printed individually, group code is set to N a common group code is printed which has been set in 5-2 Select Function / Select group code

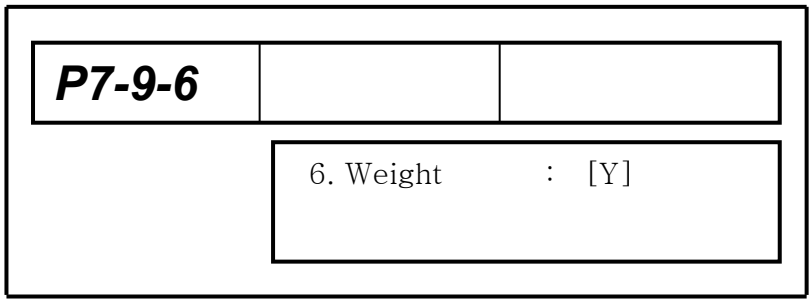
Enter yes(Y) or no(N)



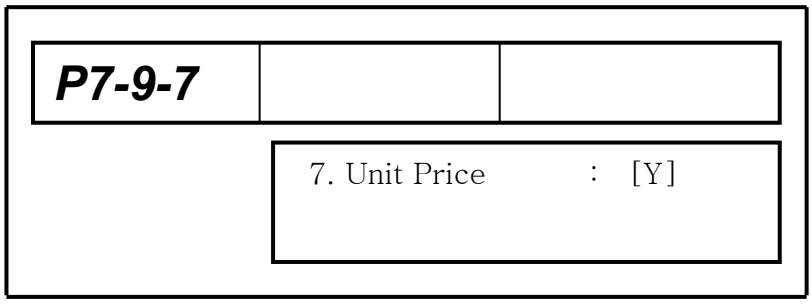
Enter yes(Y) or no(N)



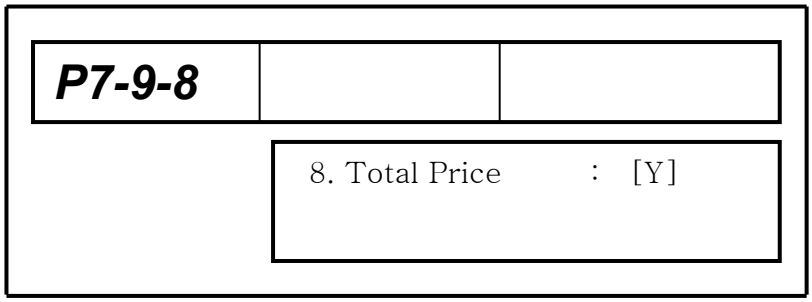
Enter yes(Y) or no(N)



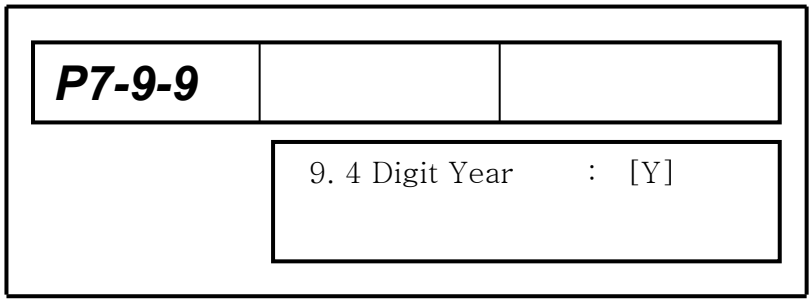
Enter yes(Y) or no(N)



Enter yes(Y) or no(N)

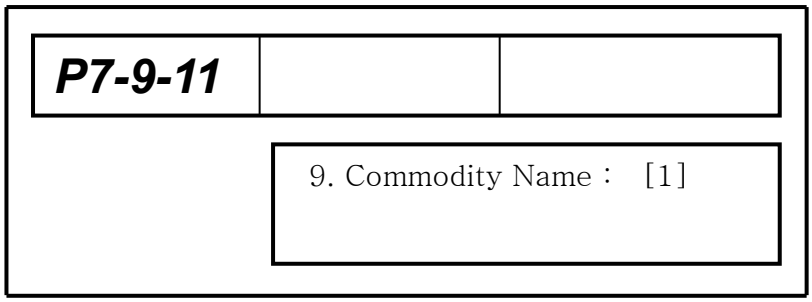


Enter yes(Y) or no(N)

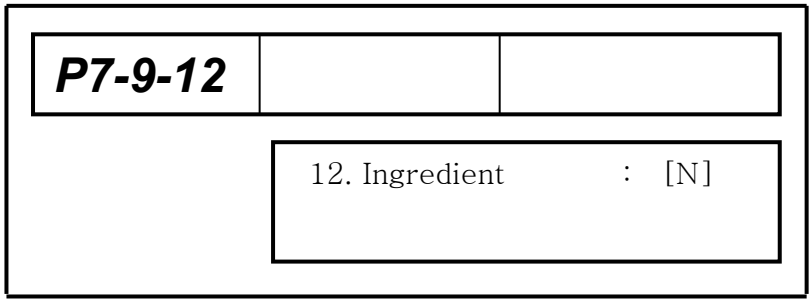


Enter number 1 or 2,
1 ; Printing 1 line of store name
2 : Printing 2 lines of store name
0 : No store name

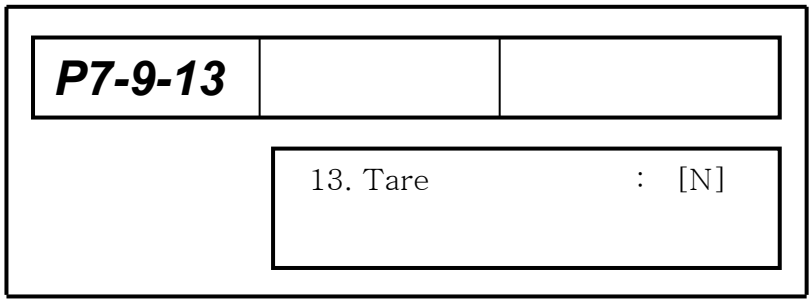
Enter 1 or 2
1 : 1 line of commodity name
2 : 2 lines of commodity name



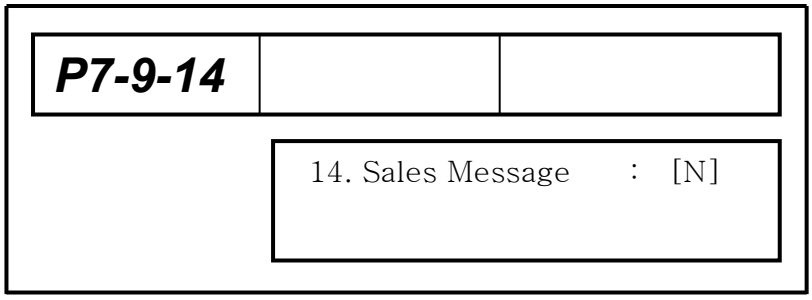
Enter yes(Y) or no(N)
Ingredients



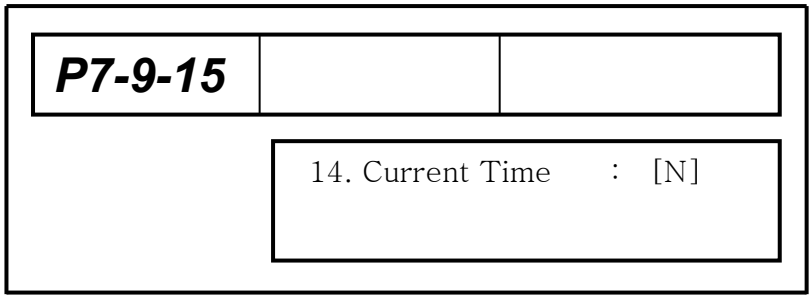
Enter yes(Y) or no(N)



Enter yes(Y) or no(N) and
press **Enter** key

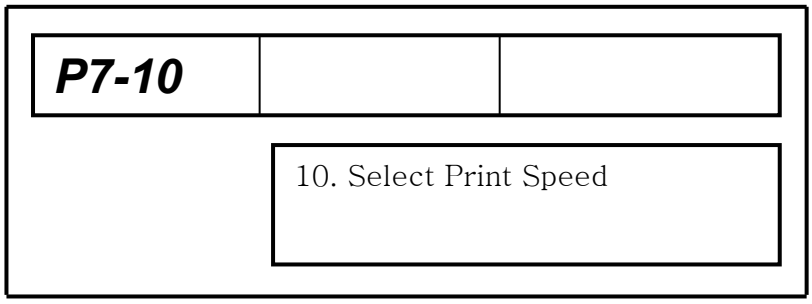


Enter yes(Y) or no(N) and
press **Enter** key

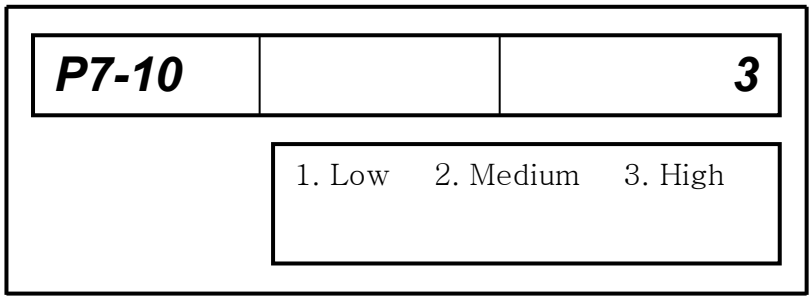


7-10 Select Printing Speed

Press **Enter** key

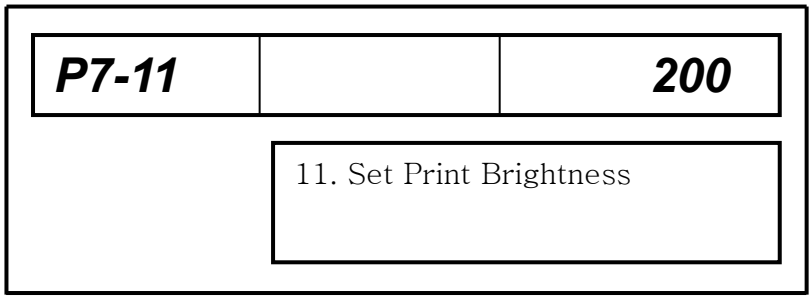


Select printing speed
1 = 60mm/sec, 2 = 80mm/sec
3 = 100 mm/sec and press **Enter** key



7-11 Set Printing Contrast

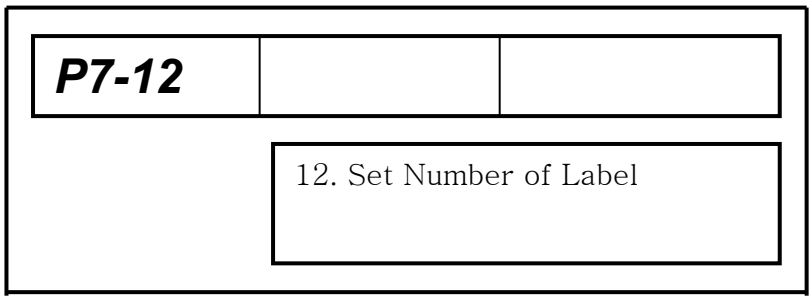
Enter value between 0 ~ 400 and press **Enter** key, bigger? value has a higher contrast, a value 45 is fixed at high speed



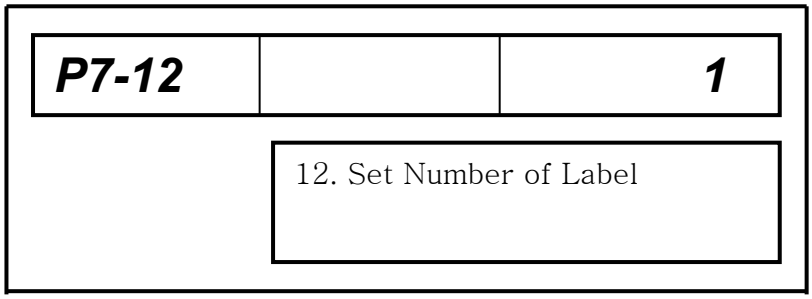
Press **ESC** key to exit

7-12 Set Number of Label

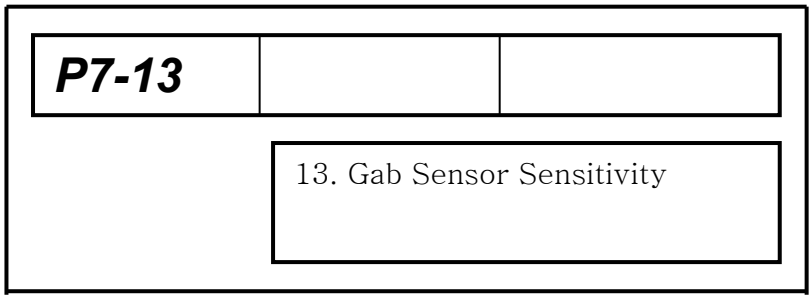
Press **Enter** key



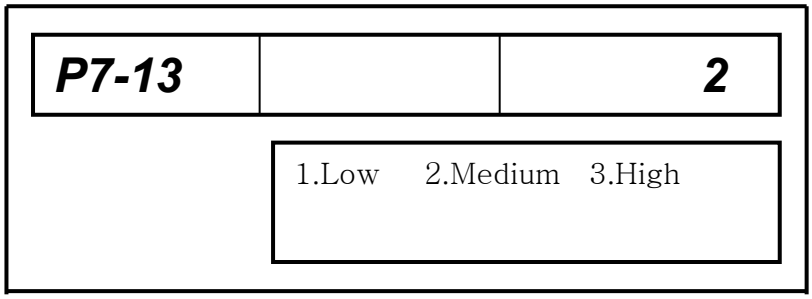
Enter value between 1 ~ 5 and press **Enter** key.



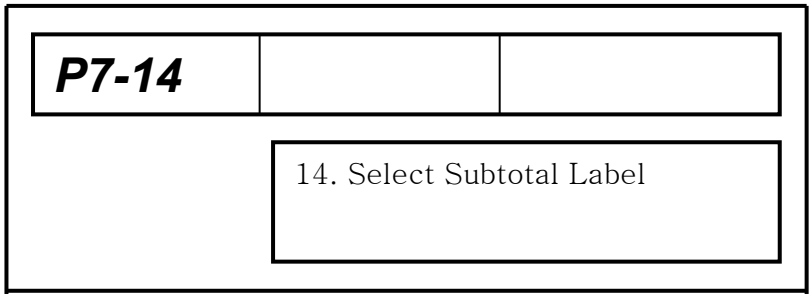
7-13 Gab Sensor Sensitivity
Press **Enter** key



Select
1. Low, 2. Medium
3.High and press **Enter** key

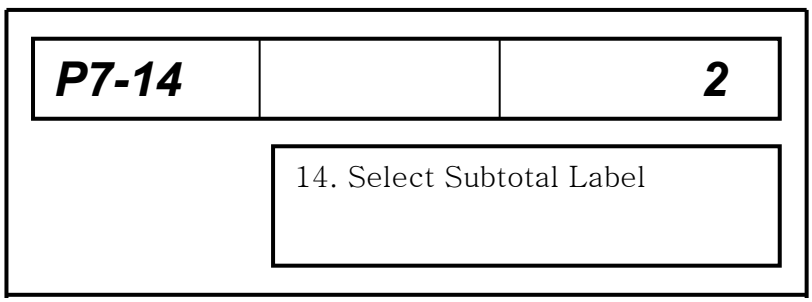


7-14 Select Subtotal Label
Press **Enter** key



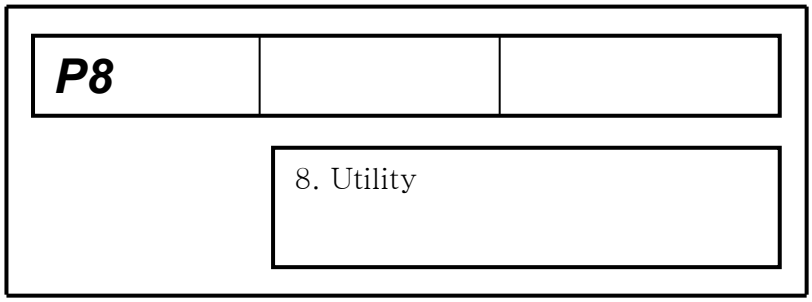
Select Subtotal Label

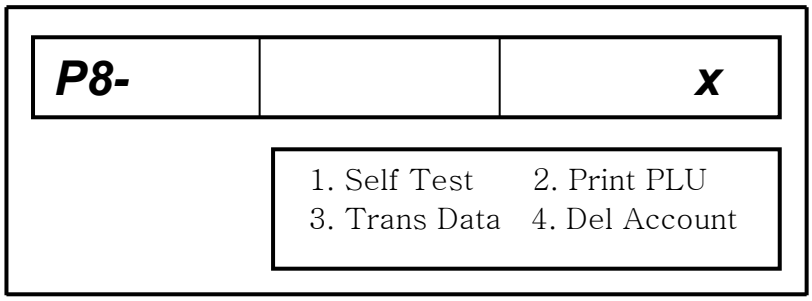
Press **ESC** key to exit



8) UTILITY

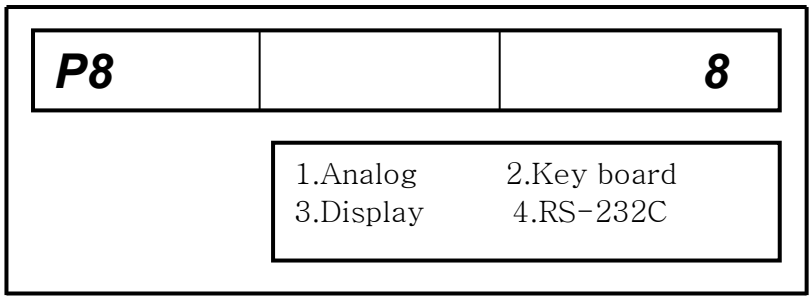
Press **Enter** key

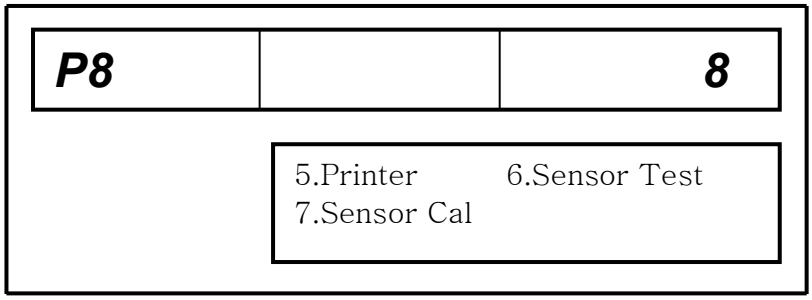




8-1 Self Test

Press ∆,∇ key to switch the menus



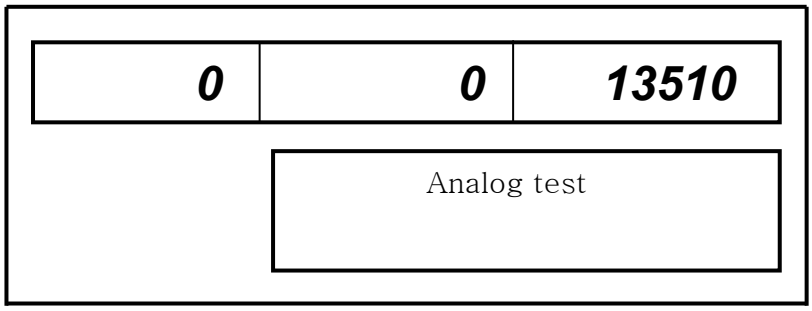


8-1-1 Analog

A/D count is displayed, a calibrated count is displayed on the weight display, a raw count is displayed on the unit price display, zero value is displayed on the price display

In the Analog test, zero value, span value and stability of the A/D converter are tested, the zero value on the price display is recommend 7,000 ~ 20,000 counts, higher or lower counts is a mainly load cell defective, but rarely Analog board on the main board may be affected, when zero count is an out of range of 7,000 ~ 20,000 firstly replace the load cell and then Analog board may be replaced.

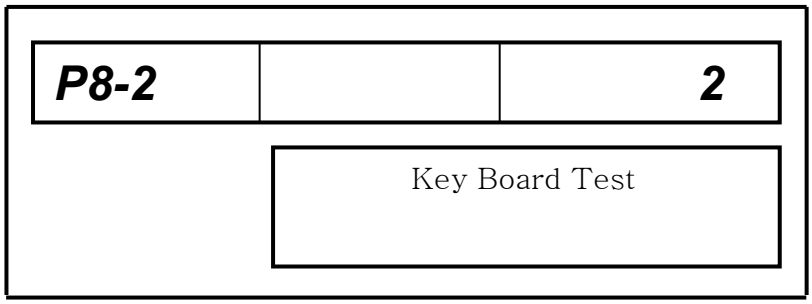
And a stable A/D count is recommended + / – 2 count at an indicated value as a stable A/D reading, if count is unstable or fluctuated, replace the Analog board first and then load cell.



Press **ESC** key to exit

8-1-2 Key board

Each code of the key matrix is displayed, refer to below table



PLU KEY CODE

311	256	257	258	259	260	261	262	263	264	265	266
312	267	268	269	270	271	272	273	274	275	276	277
313	278	279	280	281	282	283	284	285	286	287	288
314	289	290	291	292	293	294	295	296	297	298	299
315	300	301	302	303	304	305	306	307	308	309	310

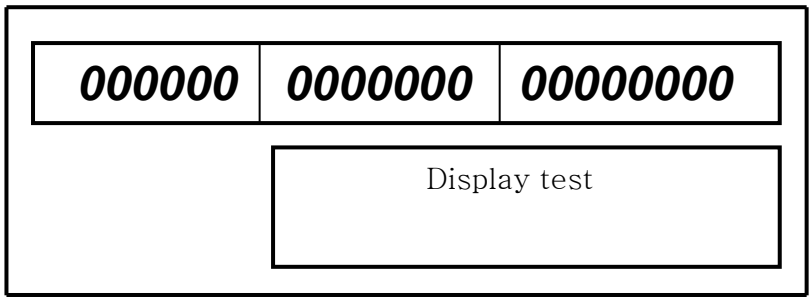
NUMERIC KEY CODE

12	13	14	19	23
7	8	9	18	22
4	5	6	17	21
1	2	3	16	20
0	10	11	15	

Press “**ESC**” key to exit

8-1-3 Display

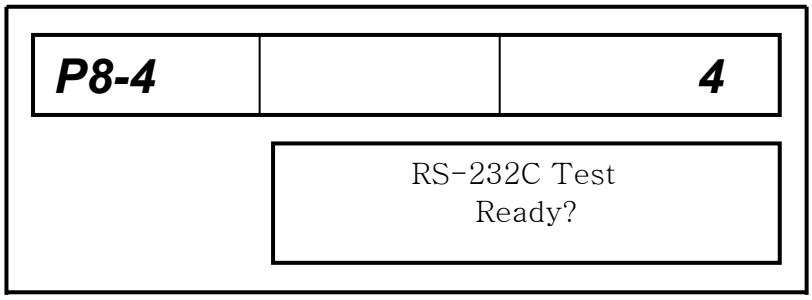
All numeric displays are checked by counting “00000” ~ “99999” continuously,



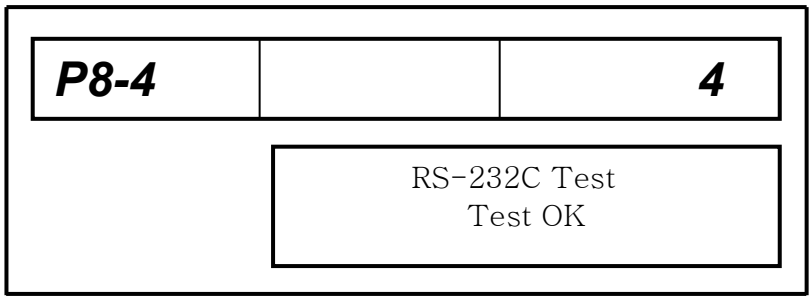
Press “**ZERO**” key to exit

8-1-4 RS-232C

Connect pin 2 & pin 3 of the RS-232C connector located on the power panel, RS-232C interface circuit of the scale is checked, press "**Y**" key



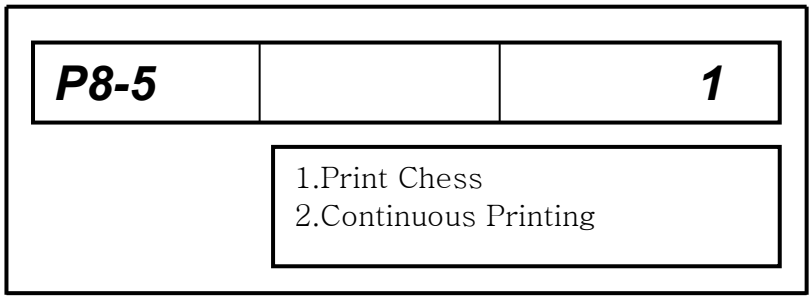
"Test OK" is displayed when RS-232C works properly otherwise "Connection Error" is displayed when an error occurred



Press **ESC** key to exit

8-1-5 Printer

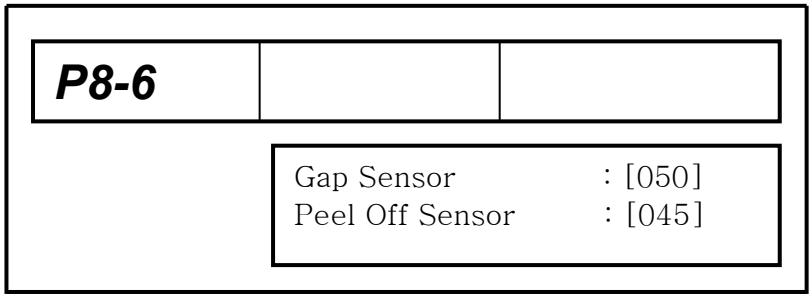
Press **1** for a chess printing and **2** for a continuous printing, in continuous printing pressing "**C**" key stops the printing



Press **ESC** key to exit.

8-1-6 Sensor Test

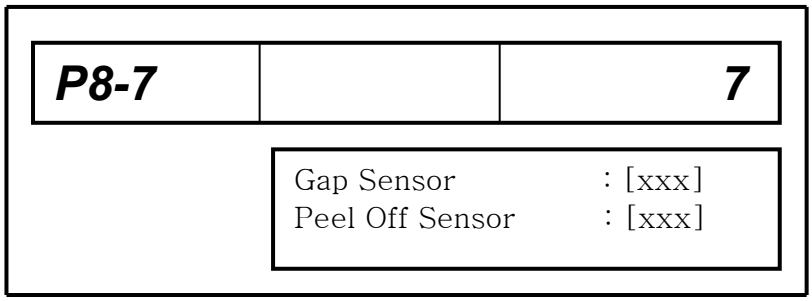
The outputs of the sensors are indicated, peel off sensor indicates a high value when a label blocks the sensor, a low value when no label at the front of the peel off sensor.
Gap sensor indicates a high value when a label with backing paper stand in the gap sensor, a low value is indicated at gap of a labels(between label and label)
Recommended sensor indications
Peel off sensor ; No label -> more than 200 / With label -> less than 70
Gap sensor ; In gap -> less than 60 / Out of gap -> more than 120



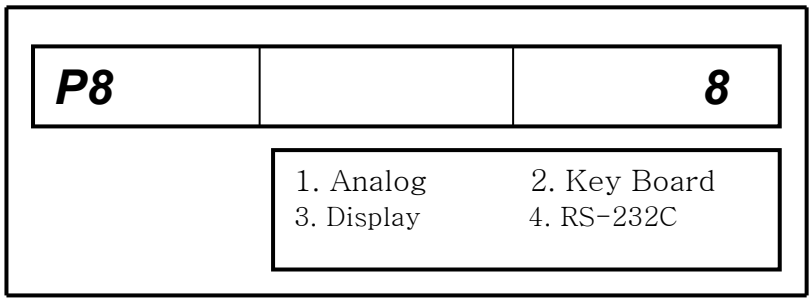
Press **ESC** key to exit

8-1-7 Sensor Cal

The levels of the gap sensor and the peel off sensor are calibrated automatically
Press number **3** key, scale feeds labels and displays medium values

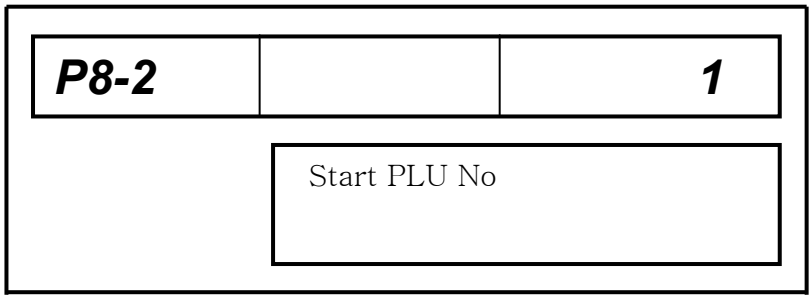


Press **ESC** key to exit

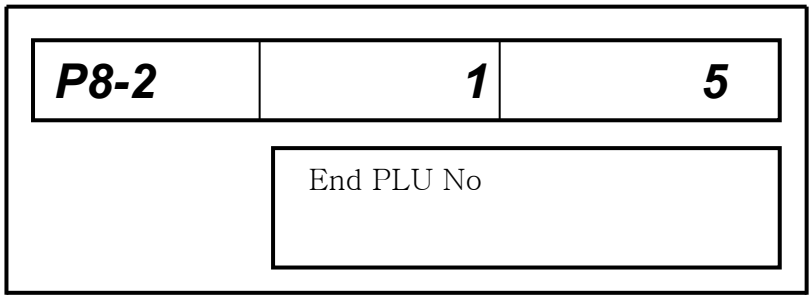


8-2 Print PLU

PLUs which assigned in starting No to End No are printed
Enter starting PLU No and press **Enter** key

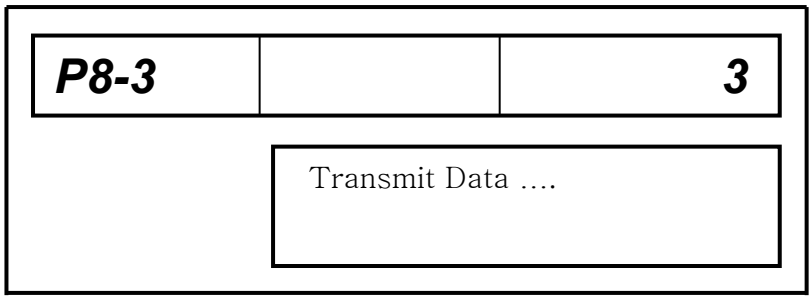


Enter end PLU No and press **Enter** key



8-3 Trans data

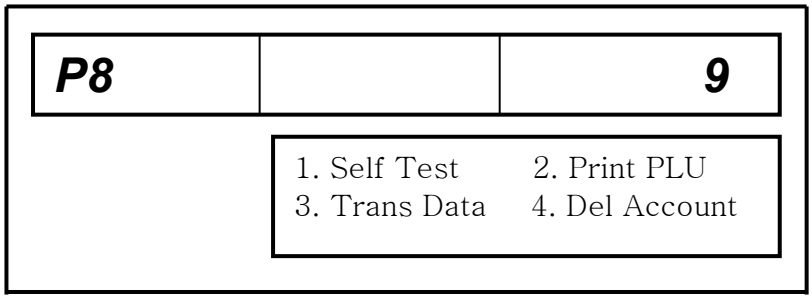
PLU data of the scale is transfer to the other scale (Scale to Scale)
Connect RS-232C cable between two scales and press **Enter** key to transfer



Press **ESC** key to exit

8-4 Del Account

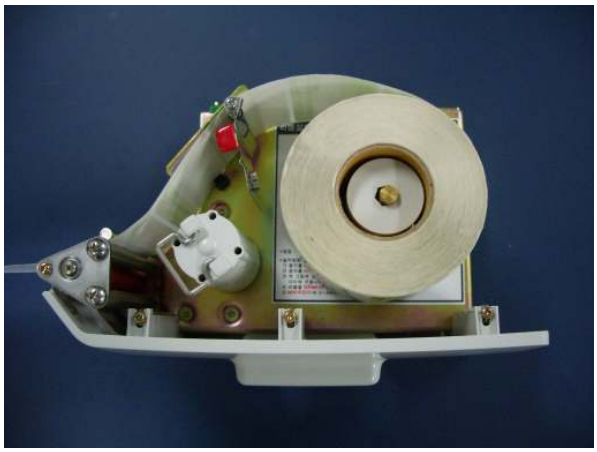
Press **Enter** key, account data is deleted / display

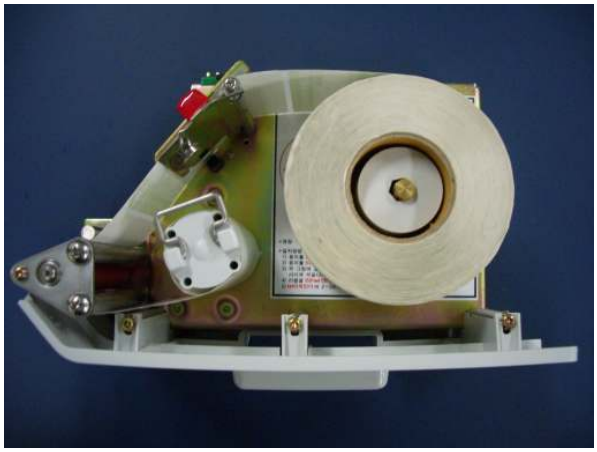


Press **ESC** key to exit

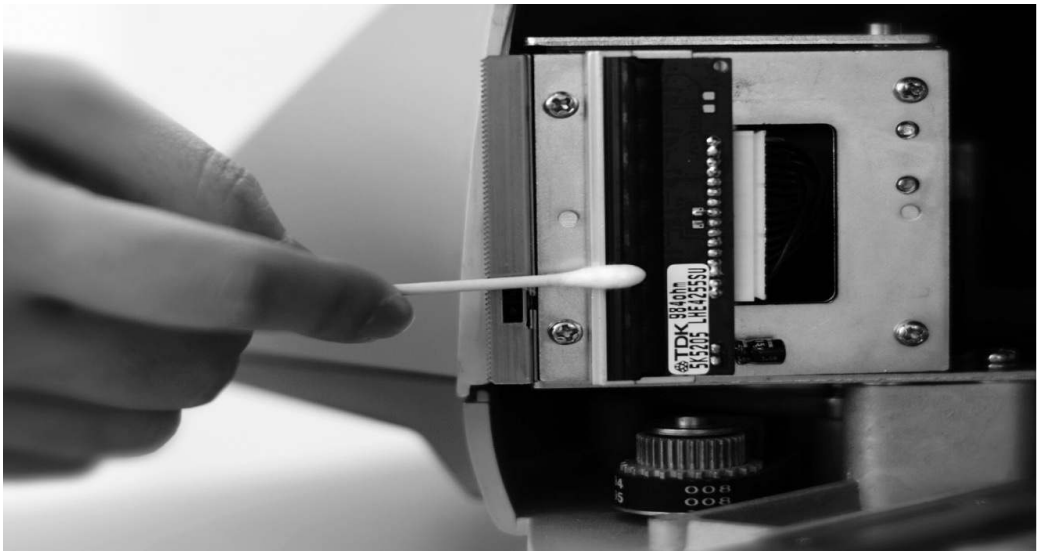
10. THE OTHERS

1) CAHNGEING LABEL ROLL





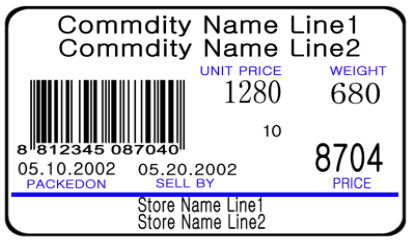
2) CLEANING THERMAL PRINT HEAD



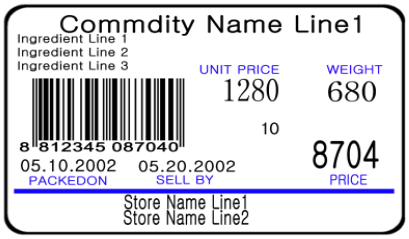
11. SAMPLE LABEL FORMAT

58*30 Format Number:30

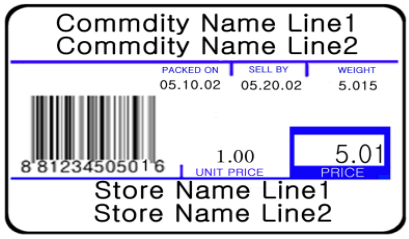
58*40 Format Number:40 or 1



58*40 Format Number:42



58*40 Format Number:43



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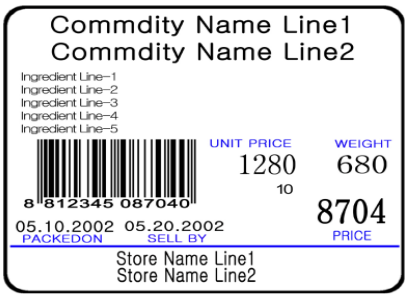
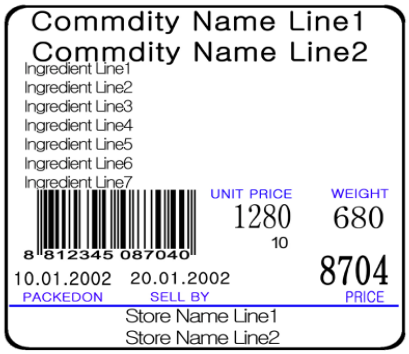
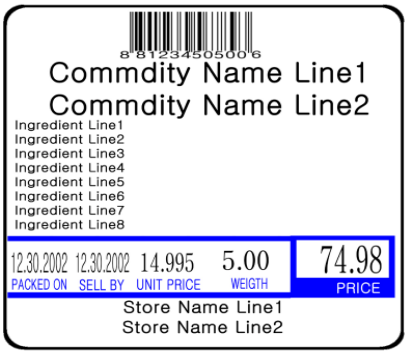


58*60 Format Number:60



58*60 Format Number:61



58*70 Format Number:70

ACOM Inc.

Head Office & Factory ;
679-1 Yugyo-ri, Gunnae-myun, Pocheon-si, Kyunggi-do, 487-872, Korea
Tel ; +82 31 531 2205 Fax ; +82 31 531 9199
Internet ; www.acominc.co.kr e-mail ; sale@acominc.co.kr

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