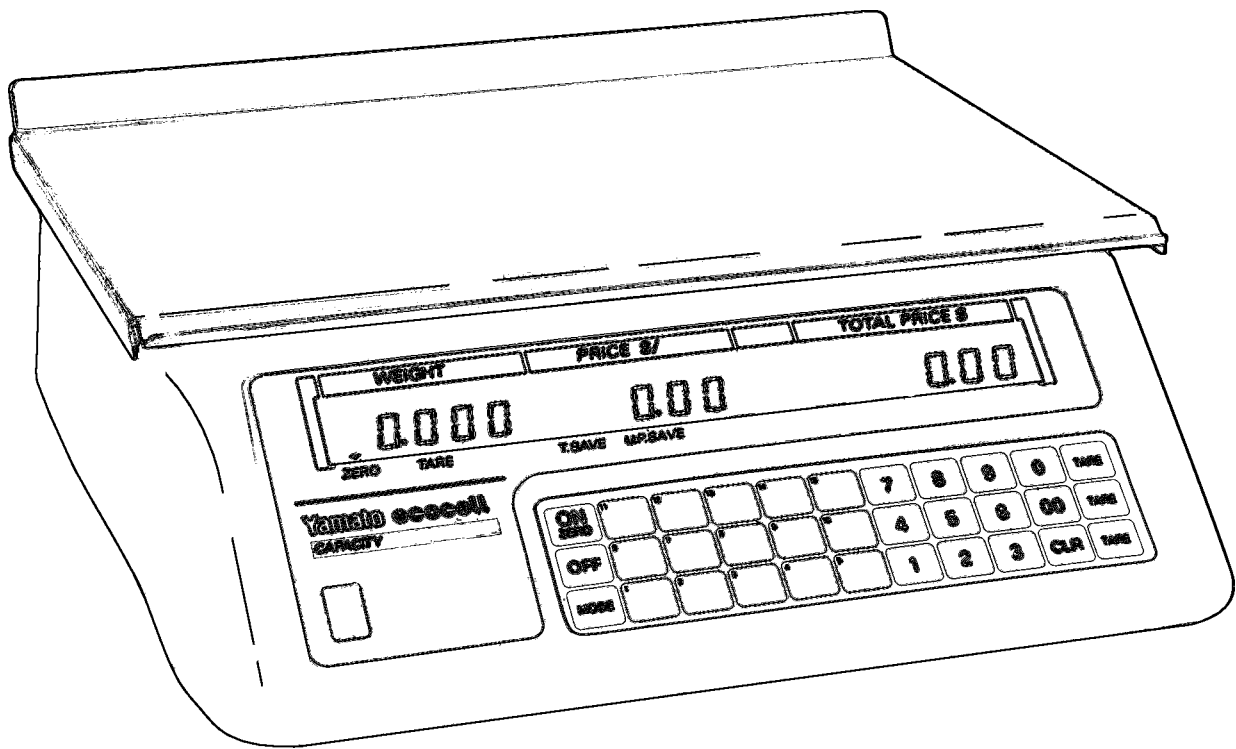


## Price Computing Scale



# Yamato

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## SAFETY INSTRUCTIONS

Before using the scale, carefully read, understand and follow the "Safety Instructions" described in this manual. Observe the advice given in the "Operations" section to ensure proper operation. Keep this operation manual handy for reference.

- 1) This scale is **not** an explosion-proof model. Do not use the scale in an atmosphere containing flammable gases or explosive fumes. A fire or an explosion can result.
- 2) Do not operate the scale if there is smoke or a burned smell coming from the scale. Unplug the scale immediately. After making sure that there is no danger, consult your dealer. Never try to repair the scale by yourself.
- 3) Never step on or sit on the scale. Not only will the scale be damaged, but you may also be injured.
- 4) Place the item to be weighed in the center of the platform. Items placed on the edge of the platform may fall off and cause injury.
- 5) When weighing a heavy, large or unbalanced item, make sure the item is stable on the platform, otherwise, an accident may occur.
- 6) When carrying or moving the scale, be sure to hold it by the bottom of the base with both hands. If you hold it by the platform, the platform or the platform support may become detached causing the scale to fall. This will damage the scale. The platform is designed for easy removal and cleanup.
- 7) Do not insert your finger into the gaps or holes in the scale. You may be injured.

## I. Overview

### A. Preventing Damage to the Scale

- 1) Do not push the indicator or keys with sharp objects. They may break or puncture the switch membrane panel.
- 2) Use the specified power supply and choose a suitable environment. If you do not, the weight readings may be inaccurate and the scale may be damaged.
- 3) The scale is a sensitive weighing instrument. Avoid physical shocks. If you drop something on the scale, step on the platform or drop the scale, you may damage the scale and cause it to be inaccurate.
- 4) If the scale becomes dirty, wipe it with a soft cloth. For stubborn stains, apply a little neutral detergent and then wipe the scale with a dry cloth. Do not use thinner, benzene, hot water, or chemical agents, all of which can cause deformation, discoloration, or deterioration of the scale.
- 5) Never remove the case. The fine adjustment section may be damaged and you may be injured by sharp edges on the internal parts.

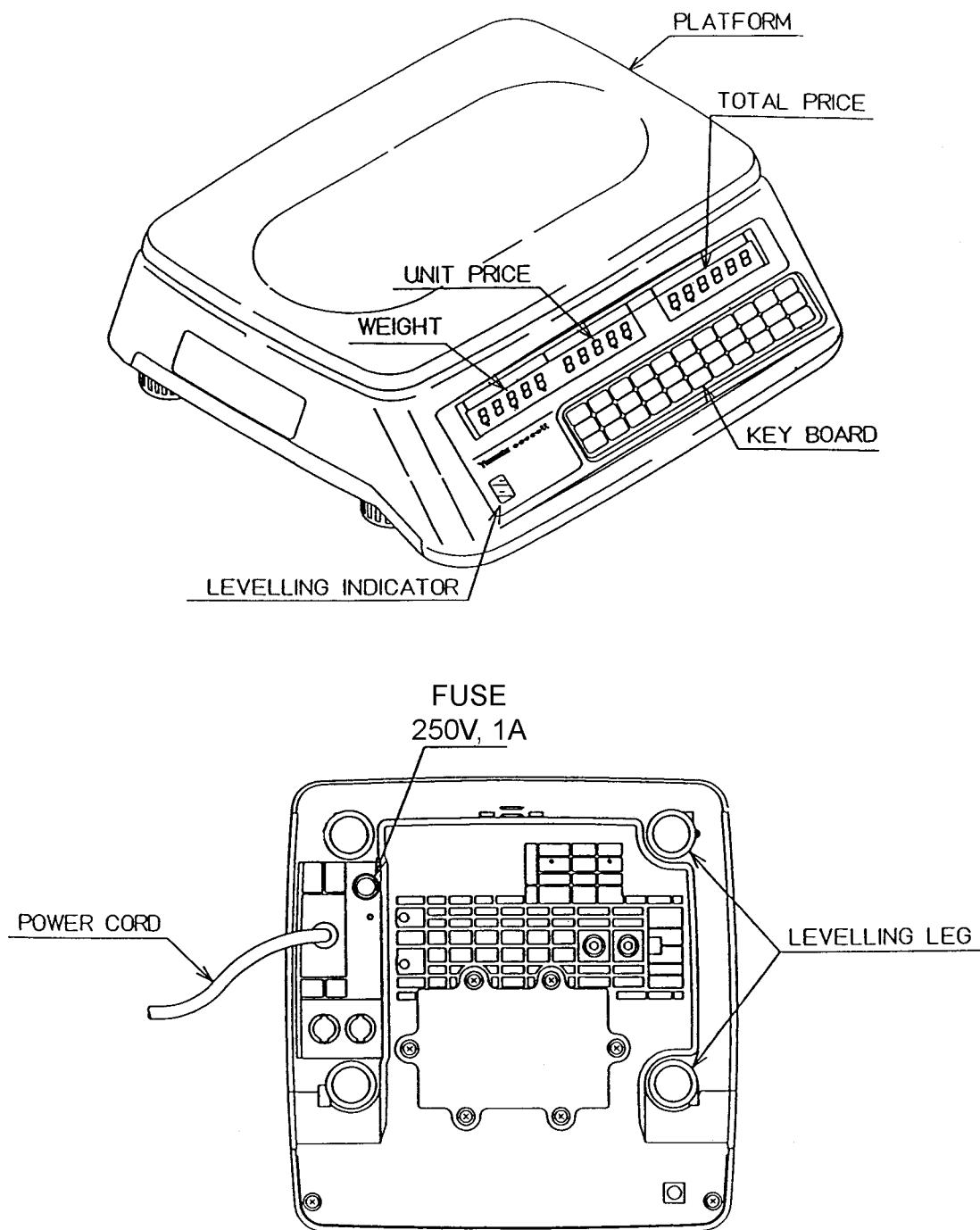
### B. Keeping the Scale Working Efficiently

- 1) Place the scale on a flat stable surface that will support the scale and the load.
- 2) Do not place the scale in an area exposed to direct sunlight or to wind currents (i.e. - from an air conditioner, ventilator, etc.) otherwise, the readings will not be accurate.
- 3) Do not place the scale near machines that create vibrations or electromagnetic disturbance, such as microwave ovens, portable phones or large motors. This will affect the accuracy of the scale.
- 4) The operating temperature range is from  $-10^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$  ( $14^{\circ}\text{F}$  to  $108^{\circ}\text{F}$ ). Do not subject the scale to sudden temperature changes; allow the scale to adjust to the new temperature before use.
- 5) This scale is not waterproof or dustproof. Do not expose the scale to splashing water. Do not use or store the scale in an extremely humid or dusty environment.
- 6) If the scale is sealed, do not break the seal. If you break the seal, the scale will not be considered legal for trade. In this case, contact your dealer.
- 7) Do not disassemble or modify the scale, you will void the warranty. Modified scales will not be legal for trade.







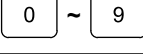

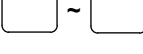
### C. Specifications

Weighing system	Strain gauge load cell
Capacity	40 lb (20 kg) single range
Weighing range	0.01 lb to 40 lb (100 g to 20 kg)
Increment	0.01 lb (5 g)
Maximum tare	9kg
Display	Fluorescent display tubes, 5 digits for weight, 5 digits for unit price, 6 digits for price
Preset key	Max. 15 preset keys,
Memory	15 kinds of PLU's and 8 kinds of tares, depending on the parameter selection
Rated voltage	115 V AC $\pm$ 10 %, 50/60 Hz
Power consumption	10 W
Temperature range	- 10 $^{\circ}\text{C}$ to + 40 $^{\circ}\text{C}$ for operation
Net weight	Approx. 11 lb (5 kg)
Accessories	Insect repellent ring (4) and 1A fuse (1)


## D. External View

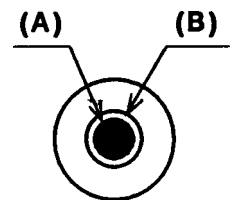


## E. Name and Function of Operating Keys

Operating Key	Name	Function
	ON/ZERO Key	This turns the scale on and resets the scale to zero..
	OFF Key	This turns the display off.
	MODE Key	This is used for switching modes.
	Tare Save Key	When this key is pressed the T. Save indicator lights and the tare value remains, even after the transaction. To cancel the tare value, press this key again.
	Unit price save key	When this key is pressed the U.P. Save indicator lights and the unit price remains, even after the transaction. To cancel the unit price, press this key again.
	TARE key	This is used to tare.
	Numeric Keypad	These are used to input a number such as a unit price.
	CLEAR key	This is used to clear the entered value.
	DIRECT key	These are used to recall a stored unit price or tare.

## F. Preparations for Use

- Adjust the four leveling legs by turning them so that the air bubble is centered in the black circle when you view the spirit level device. All legs should be touching the table.
- Connect the power cord.
- Press .




### NOTE 1:

When turning on the power, if there is something on the platform heavier than the allowable zero range, the “Unit price” and the “Total price” displays will go off and “----H” is displayed on the “Weight” window.

Remove the item from the platform, and press  again. When “000” is displayed and center zero indicator is lit, the scale is ready for weighing.

## II. Zero Adjustment


- If weight display does not show "0.00", press .

Weight display will change to "0.00" and ZERO indicator will light.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.02	0.00	0.00
ZERO TARE	T SAVE UP SAVE	
WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.00	0.00	0.00
ZERO TARE	T SAVE UP SAVE	

## III. Push Button Tare

- Place empty container on platform.  
(Example container weighs 0.08 lb.)


- Press .

Weight will zero and TARE indicator will light.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.08	0.00	0.00
ZERO TARE	T SAVE UP SAVE	
WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.00	0.00	0.00
ZERO TARE	T SAVE UP SAVE	

## IV. Cancellation of Tare

- Remove empty container from platform.

- Press .

Weight will zero and ZERO indicator will light.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
-0.08	0.00	0.00
ZERO TARE	T SAVE UP SAVE	
WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.00	0.00	0.00
ZERO TARE	T SAVE UP SAVE	

## V. Entering Unit Price

- Enter Unit Price using numeric key pad.  
(Example: For \$1.25, press [1], [2] and [5].)

- Place the item on the platform.  
Item Weight and Total Price will display.

Note: Scale will operate in reverse order, Step 2 then Step 1.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.00	1.25	0.00
ZERO TARE	T SAVE UP SAVE	
WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
3.09	1.25	3.86
ZERO TARE	T SAVE UP SAVE	

## VI. Registering a PLU

**IMPORTANT:** Please read the following or you will NOT understand.

\* **Registering a PLU or Tare is a two step process. You must do Steps A & B.**

Designating a Price Look Up (PLU) or a Tare to a Recall Key is a two step process. First, the value is assigned a PLU Memory Number 1 ~ 15 or a Tare Memory Number 1 ~ 8, then the Memory Number is assigned a Recall Key 1 ~ 15. There are 15 PLU Memory Numbers and 8 Tare Memory Numbers which share 15 Recall Keys.

**Note:** All PLU and Tare Memory Numbers can not be assigned a Recall Key, because there are only 15 Recall Keys and a total of 23 memory numbers. Also, please understand that Memory Numbers are not numerically related to Recall Keys. For instance, Memory Number 6 is not related to Recall Key 6. Any Memory Number can be stored to any Key.

### A. Assigning a PLU a Memory Number

1. Press  , enter Password 1 using numeric keypad (default Password 1 is  ), then press  again. PLU Memory Number (PLUno) "1" is displayed.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
<i>PLU NO</i>		<i>1</i>
ZERO TARE	TSAVE UP SAVE	

2. Enter desired PLU Memory Number using the numeric keypad.  
(Example: Press  and  for PLU Memory Number "13".)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
<i>PLU NO</i>		<i>13</i>
ZERO TARE	TSAVE UP SAVE	

3. Press  then using the keypad select:  
 for weighed item (i.e. deli meat, etc.)  
or  
 for non-weighed item (i.e. can of soda, etc.)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
<i>PLU 6</i>		<i>0</i>
ZERO TARE	TSAVE UP SAVE	

4. Press  , then using the keypad enter the unit price (UP).  
(Example: For \$4.95, press  ,  and  .)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
<i>UP</i>		<i>4.95</i>
ZERO TARE	TSAVE UP SAVE	

5. Press  to save entry and advance to next PLU Memory Number.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
<i>PLU NO</i>		<i>14</i>
ZERO TARE	TSAVE UP SAVE	

6. Continue Steps 2 ~ 5 until all desired PLUs are assigned a Memory Number.

7. Continue with Step B or to return to operation mode press .

## B. Assigning a PLU Memory Number a Recall Key

- If display shows "PLU<sub>no</sub>", then press **T.SAVE** twice.  
-- or --  
If in operation mode press **MODE**, enter Password 1 using numeric keypad (default Password 1 is **1**), press **MODE** again, then press **T.SAVE** twice.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	d-PLU	
ZERO TARE	T SAVE UP SAVE	

- Using the numeric keypad, enter desired PLU Memory Number.  
(Example: For "13", press **1** and **3**).

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	d-PLU	13
ZERO TARE	T SAVE UP SAVE	

- Press desired Recall Key **1** ~ **15**.  
(Example: To designate PLU Memory Number 13 to Recall Key 6, press **6**).

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	d-PLU	13
ZERO TARE	T SAVE UP SAVE	

- Continue steps 2 ~ 3 until all desired PLU Memory Numbers are assigned a Recall Key.

- To return to operation mode press **MODE**.

NOTE: Track PLU Memory Numbers in the tracking chart on page 10. Blank adhesive tabs for the Recall Keys are included with the scale.

## VII. Registering a Tare

### A. Assigning a Tare Value a Memory Number

- Press **MODE**, enter Password 1 using numeric keypad (default Password 1 is **1**), then press **MODE** again.  
Press **T.SAVE**. Setup Tare is displayed, "TAR0".

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.00	TAR0	0.00
ZERO TARE	T SAVE UP SAVE	

Note: "TAR0" must remain "0.00", unless a default tare value is required.

- Press **U.P.SAVE** to advance to desired Tare Memory Number 1 ~ 8.  
(Example: For Memory Number 7, press **U.P.SAVE** seven times.)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.00	TAR7	0.00
ZERO TARE	T SAVE UP SAVE	

- Place empty container on platform and press **TARE**.  
Tare value is displayed under "WEIGHT" and re-recorded value is displayed under "TOTAL PRICE".

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.13	TAR7	0.13
ZERO TARE	T SAVE UP SAVE	

4. Continue steps 2 ~ 3 until all desired Tare Values are assigned a Tare Memory Number.
5. Continue with Step B or to return to operation mode press MODE.

## B. Assigning a Tare Memory Number a Recall Key

1. If display shows "TAR\_", press T.SAVE then U.P.SAVE.  
 -- or --  
 If in operation mode press MODE, enter Password 1 using numeric keypad (default Password 1 is 1), press MODE again, press T.SAVE twice then U.P.SAVE.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
d-TAR		
ZERO	TARE	TSAVE UPSAVE

2. Using the numeric keypad, enter desired Tare Memory Number.  
 (Example: For "7", press 7.)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
d-TAR		7
ZERO	TARE	TSAVE UPSAVE

3. Press desired Recall Key 1 ~ 15.  
 (Example: To designate Tare Memory Number 7 to Recall Key 4, press 4.)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
d-TAR		7
ZERO	TARE	TSAVE UPSAVE

4. Continue steps 2 ~ 3 until all desired Tare Memory Numbers are assigned a Recall Key.
5. To return to operation mode press MODE.

## VIII. Using Recall Keys to Recall Memory

1. In operation mode, press desired Recall Key 1 ~ 15.

Examples:

- To recall PLU stored under Recall Key 6, press 6.  
 -- or --  
 To recall Tare stored under Recall Key 4, press 4.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
0.00	4.95	0.00
ZERO	TARE	TSAVE UPSAVE

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
-0.13	0.00	
ZERO	TARE	TSAVE UPSAVE

## IX. User Mode

### A. Setting User Keyword Parameters

- Press  , enter Password 2 using numeric keypad (default password is  ), then press  again.  
  
Keyword "01" is displayed.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	U40	01-002
ZERO TARE	TSAVE UP SAVE	

- Press  to advance to desired Keyword.  
Note: See User Keyword Parameter Chart (page 9):  
(Example: For Keyword 11, press  five times.)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	U40	11-002
ZERO TARE	TSAVE UP SAVE	

- Change Keyword's Parameter using numeric keypad.  
(Example: To change Keyword 11's Parameter value to "001", press  ,  , &  .)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	U40	11-001
ZERO TARE	TSAVE UP SAVE	

- Press  to save entry and advance to next Keyword.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	U40	12-000
ZERO TARE	TSAVE UP SAVE	

- Continue steps 2 ~ 4 until all desired Keyword Parameter values are changed.

- To return to operation mode press  .

### B. Setting Password 1

- Press  , enter Password 2 using numeric keypad (default password is  ), then press  again.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	U40	01-002
ZERO TARE	TSAVE UP SAVE	

- Press  , then enter new password using numeric keypad.  
(Example: For "1234", press  ,  ,  , &  .)

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
	PR551	1234
ZERO TARE	TSAVE UP SAVE	

- Press  then  to save entry and return to operation mode.

**Note: Password 2 can only be set by a certified scale technician.**

## C. Clearing Memory

**Caution:** The below steps will permanently clear all PLUs and Tares currently stored in memory.

1. Press **MODE**, enter Password 2 using numeric keypad (default password is **2**), then press **MODE**.

2. Press **T.SAVE** twice, then press **CLR** to clear memory.

3. To return to operation mode press **MODE**.

WEIGHT lb	PRICE \$/lb	TOTAL PRICE \$
<i>E2PCr</i>		
ZERO TARE	TSAVE UP SAVE	

## X. User Keyword Parameter Chart

Key word No.	Item	Set value	Function
01	Use of RS232C	000	No function
		001	Output to a printer (iDP3110)
		002	Output to a computer
02	Baud rate	000	4800 bps (Recommended)
		001	1200 bps
		002	2400 bps
		003	4800 bps
		004	9600 bps
03	Character length	000	8 bits (Recommended)
		001	7 bits
04	Parity	000	NON (Recommended)
		001	ODD
		002	EVEN
07	Automatic shutoff time	000	Not automatic shutoff
		001~060	Automatic shutoff after required time (minutes)
11	Date format	000	YY/MM/DD
		001	DD/MM/YY
		002	MM/DD/YY
12	Total price indication time	000	Continuous indication
		000~030	Return to the weighing mode after required time
13	Automatic unit price clear	000	Disabled
		001	Enabled
14	Automatic tare clear	000	Disabled
		001	Enabled
15	Type of a printer	000	iDP3110
		001	Other than the iDP3110
16	24 digits printer	000	24 digits (0 for the iDP3110)
		001	24 or more digits
17	Printer paper feed	000~015	Line numbers
18	Number of times to send data to a computer	000	3 times
		001	1 time
		002	2 times
		003	3 times
19	Select "00" or "," key function	000	Work as a "00" key
		001	Work as a "." key

## R-220 Memory Number / Recall Key Tracking Chart

Memory Number	Recall Key	Unit Price/ Tare Value	ItemDescription
PLU Ex.	6	\$4.95	Honey Smoked Ham
PLU 1			
PLU 2			
PLU 3			
PLU 4			
PLU 5			
PLU 6			
PLU 7			
PLU 8			
PLU 9			
PLU 10			
PLU 11			
PLU 12			
PLU 13			
PLU 14			
PLU 15			
Tare Ex.	4	0.13 lb	Medium Container
Tare 1			
Tare 2			
Tare 3			
Tare 4			
Tare 5			
Tare 6			
Tare 7			
Tare 8			