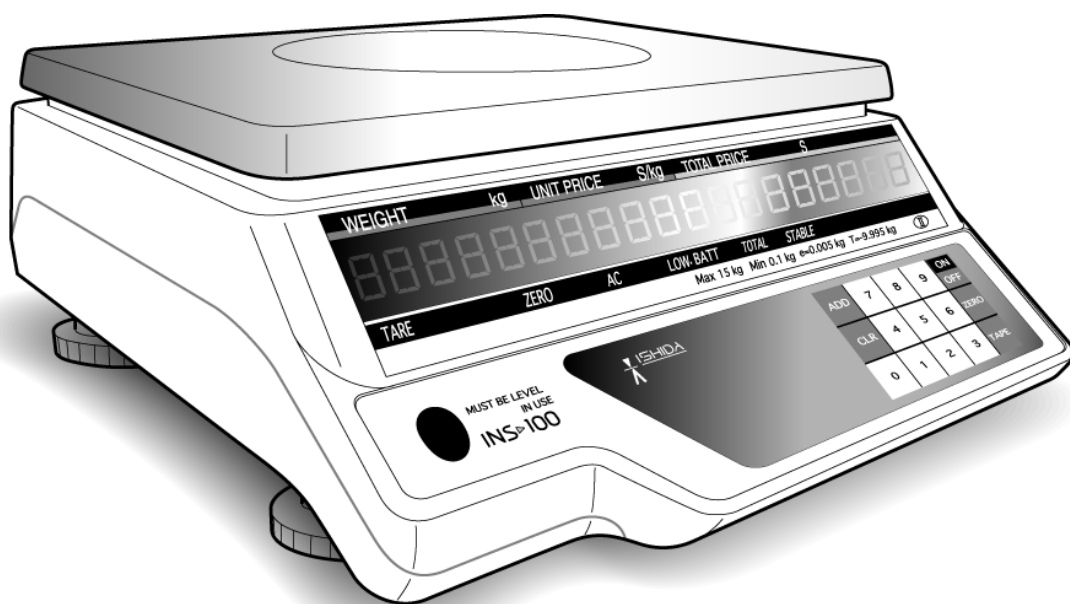




**BATTERY DRIVEN SCALE**

**INS-100**

**Operator's Manual**



### IMPORTANT

- Do not carry out installation, operation, service, or maintenance until thoroughly understanding the contents of this manual.
- Keep this manual available at all times for installation, operation, service, and maintenance.

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## SAFETY CONSIDERATIONS

To ensure safe operation of this machine, the general safety considerations below must be followed:

### **Grounding (when using AC power)**

This instrument requires protective grounding for safe operation.

To avoid potential shock hazards, a protective grounding conductor for the instrument must be securely connected to the main grounding provision by qualified service personnel.

### **Disconnect power supply before servicing (when using AC power)**

To ensure your personal safety, disconnect the power supply before servicing.

### **Do not remove covers or enclosures**

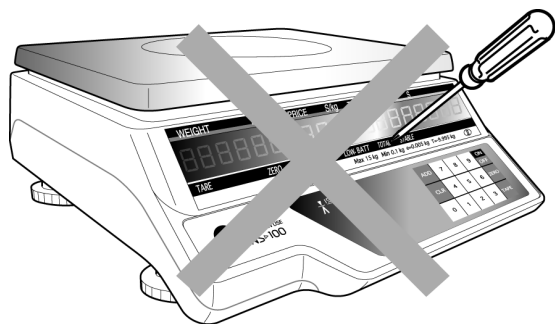
To avoid personal injury and shock, do not open or remove any covers or enclosures of the instrument unless specified in the manual.

### **Do not perform unspecified maintenance**

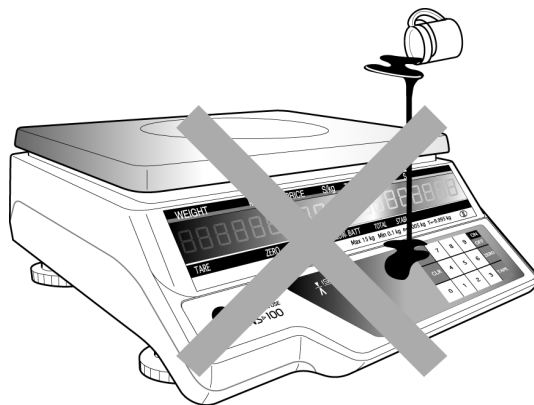
For your own personal safety, do not perform any maintenance procedures which are not specified in the manual.



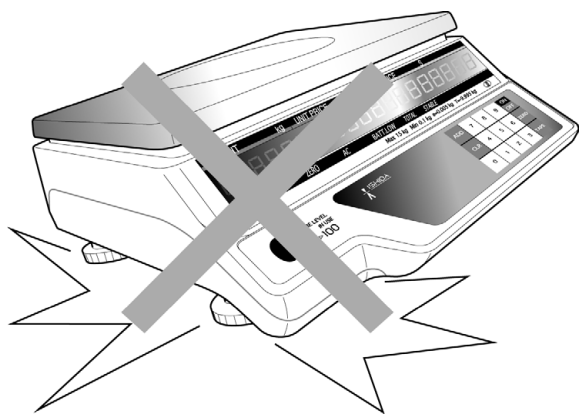
## CAUTIONS FOR USE



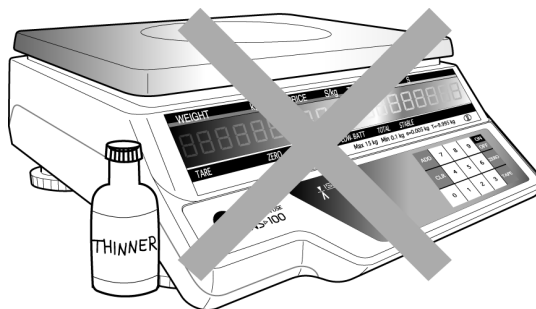
- ▶ Do not disassemble the machine.



- ▶ Do not allow any liquids to come into contact with the machine.



- ▶ Do not drop or apply a strong shock to the machine.



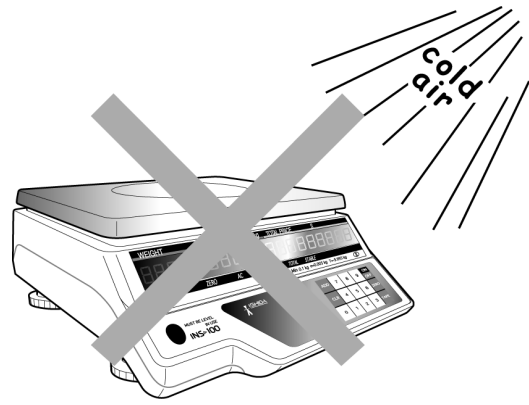
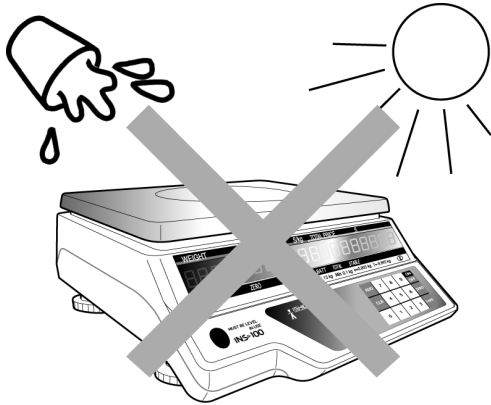
- ▶ When cleaning the machine, only use a soft dry cloth or a cloth wetted with a neutral cleanser. Never use thinner or other volatile liquids.



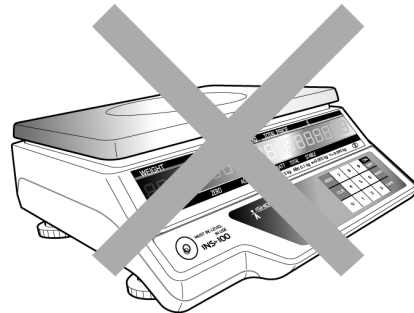
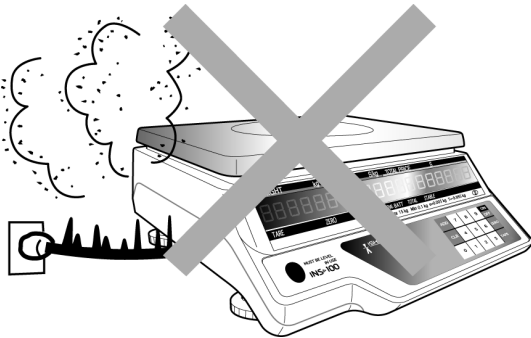
## CAUTIONS FOR INSTALLATION

### Avoid the following areas when installing the machine

- Areas subject to high temperatures or high humidity
- Areas exposed to direct sunlight
- Areas where water or other liquids are easily spilled on the machine
- Areas subject to excessive vibration or unstable surfaces
- Areas exposed to direct cold air
- Areas subject to low temperatures



- Areas subject to a lot of dust or dirt
- Areas with large voltage fluctuations
- Areas where the scale is not level



## ALERT SYMBOLS

The following symbols are used to alert service personnel of potential danger or special circumstances related to the safe and proper servicing of this machine.



Precautions which must be followed to prevent the possibility of death or serious injury.



Precautions which must be followed to prevent the possibility of light or moderately severe injury to personnel or damage to the machine.

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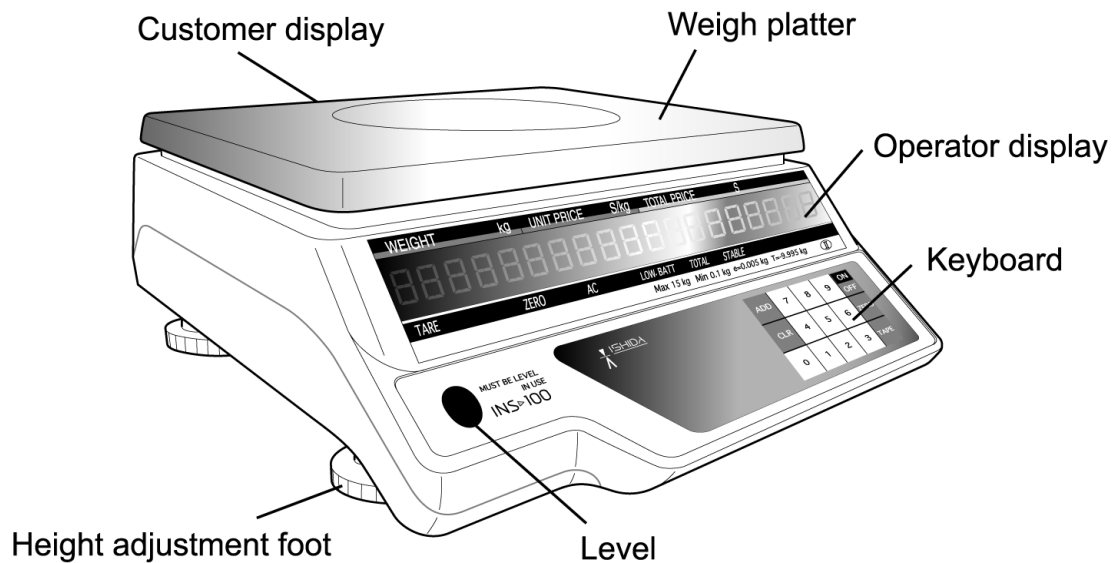


1

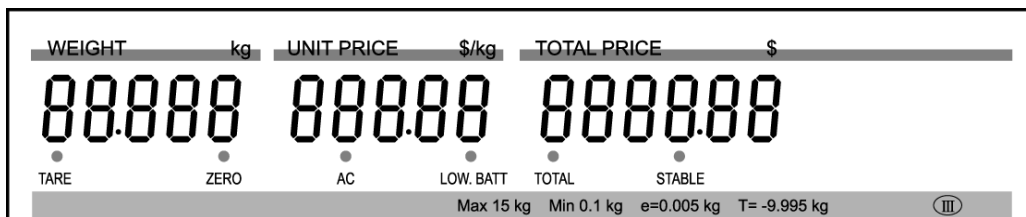
# PRODUCT OVERVIEW

## 1.1 MAIN COMPONENTS & DISPLAY

### 1.1.1 MAIN COMPONENTS



### 1.1.2 DISPLAY



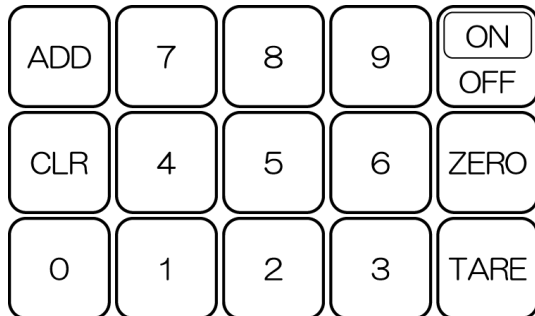
#### Indicators

<b>TARE</b>	Lights when tare weight is memorized.
<b>ZERO</b>	Lights when weight value is zero.
<b>AC</b>	Lights when AC power is supplied.
<b>LOW. BATT</b>	Lights when the battery level becomes low.
<b>TOTAL</b>	Lights when totals are added.
<b>STABLE</b>	Lights when scale is in stable condition.

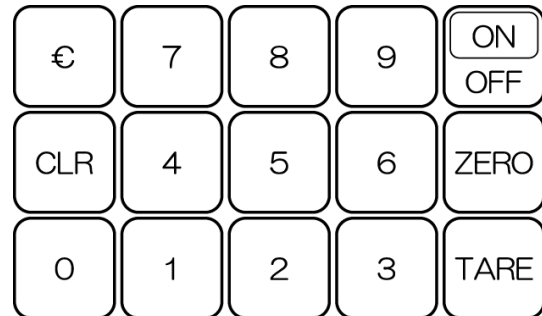
## 1.2 KEYBOARD

### 1.2.1 KEY LAYOUT

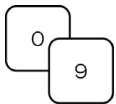
TYPE A



TYPE B



### 1.2.1 KEY FUNCTIONS



**NUMERIC ENTRY**

Used to key in numeric data.



**CLEAR**

Used to clear numeric entries.



**ON/OFF**

Used to turn scale ON/OFF (not electrical power switch).



**ZERO**

Used to adjust scale to zero.



**TARE**

Used to engage/disengage tare subtraction operation.



**ADD**

Used to add totals.



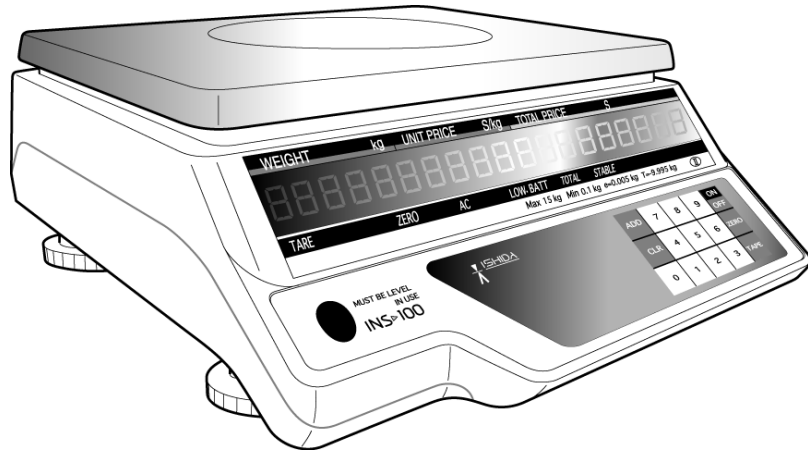
**EURO**

Used to change currency.

## 1.3 POWER SUPPLY

### 1.3.1 DC POWER SUPPLY

This machine can be operated by the built-in rechargeable lead storage battery.

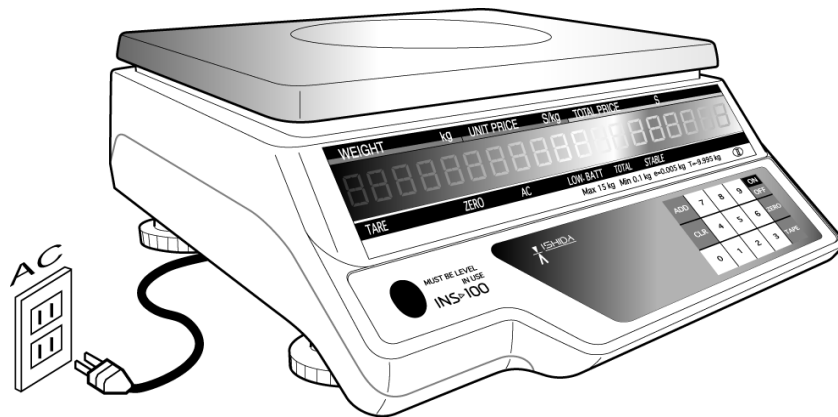


### 1.3.2 AC POWER SUPPLY

This machine can also be operated by AC power supply. Use the specified AC voltage after referring to the specification plate located on the machine. Insert the electrical plug into the same rated AC outlet.



To disconnect the power supply, remove the electrical plug from the electrical outlet.



## 1.4 SPECIFICATIONS

Product Model	INS-100
Weighing Capacity	15kg / 6kg
Accuracy	1/3000
Display	Weight: 5 digits, Price: 5 digits, Total price: 6 digits
Max. Tare Weight	-9.995kg (for weighing capacity 15kg) -3.998kg (for weighing capacity 6kg)
Power Supply	Rechargeable Sealed Lead-Acid Battery or AC220V (+10%, -15%), 50Hz
Operating Temperature	-10°C ~ 40°C
Size	335 (L) x 310 (W) x 120 (H) mm 372 (L) x 310 (W) x 402 (H) mm with pole display
Weight	Approx. 3.5kg (excluding Battery) Approx. 4.7kg (excluding Battery) with pole display

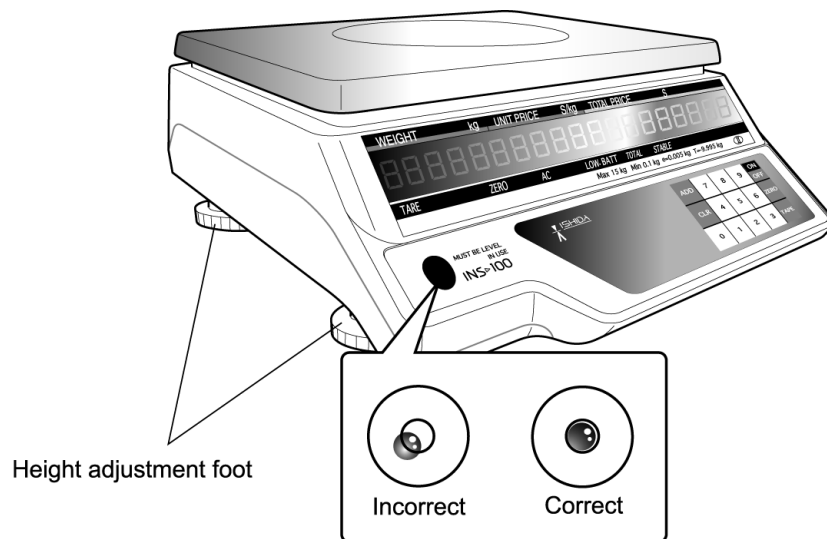


**2**

# **WEIGHING OPERATIONS**

## 2.1 LEVEL ADJUSTMENT

Place the scale on a stable counter top or other flat surface. Rotate the four adjustment feet until the level's bubble is aligned in the center of the circle. This indicates that the machine is level.





## 2.2 POWER ON/OFF

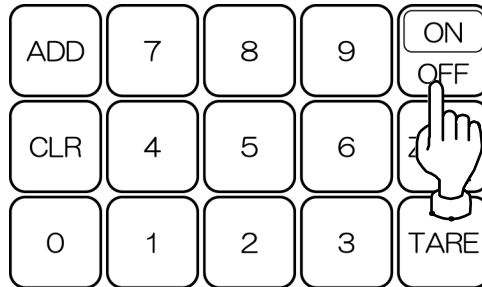
### 2.2.1 POWER ON

Press the [ON/OFF] key to turn ON the machine.

Ensure that the initial display appears and the “ZERO” indicator is lit after all digits flashes on the display for a while.

*Note 1: If the “ZERO” indicator is not lit, press the [ZERO] key to turn on the indicator.*

*Note 2: The “AC” indicator is lit when an AC power is used.*



#### When using AC power

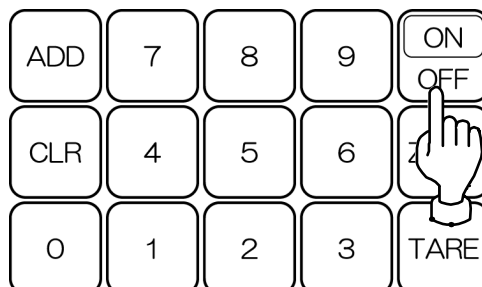


#### When using DC power



### 2.2.2 POWER OFF

To turn OFF the machine, press the [ON/OFF] key.



## 2.3 TARE SUBTRACTION

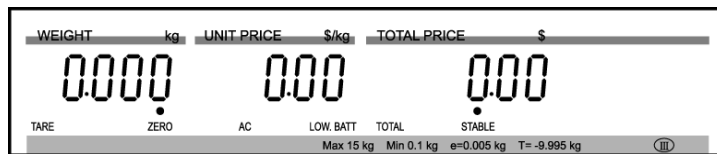
Tare weight can be registered in a specific PLU. When not registered, either place the tare on the weigh platter or key in the tare weight if the tare weight is fixed.

### 2.3.1 WEIGHING TARE

#### 1 Initial Display

Confirm that the initial display appears, and the “ZERO” and “STABLE” indicators light up.

*Note: The scale should display “ZERO” with nothing on the weigh platter. Should the scale does not display “ZERO”, press the [ZERO] key to perform zero adjustment.*



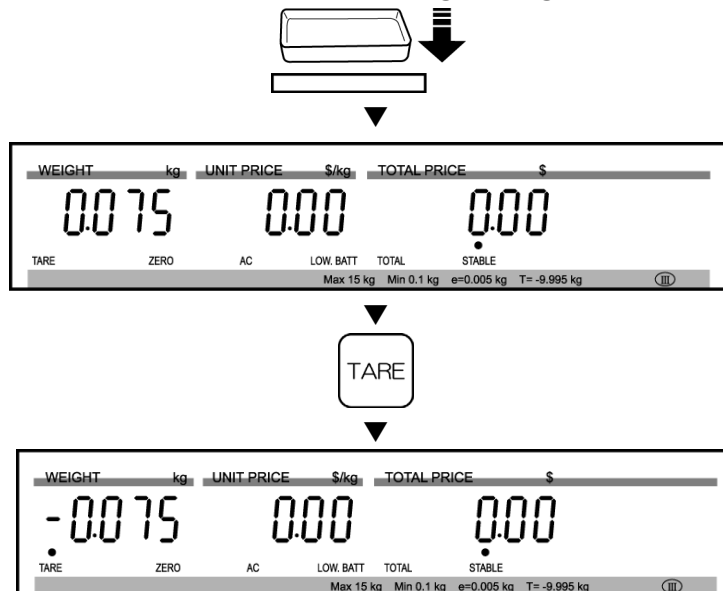
#### 2 Loading Actual Tare

Place a tare on the weigh platter and press the [TARE] key to save tare setting.

The “TARE” indicator will light up.

*Note: Items weighing less than previous tare setting cannot be calculated. In that case, it is necessary to reset tare value by pressing the [TARE] key with nothing on the weigh platter.*

#### Example: Tare weight “75g”



## 2.3.2 KEYBOARD TARE

### 1 Initial Display

Confirm that the initial display appears, and the “ZERO” and “STABLE” indicators light up.

*Note: The scale should display “ZERO” with nothing on the weigh platter. Should the scale does not display “ZERO”, press the [ZERO] key to perform zero adjustment.*

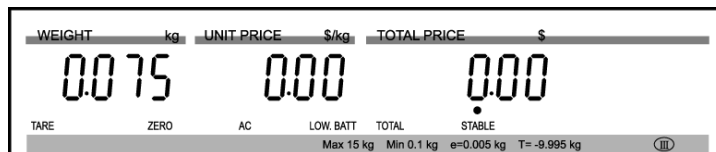


### 2 Keyboard Tare

With nothing loaded on the weigh platter, use numeric keys to enter data, and press the [TARE] key to save tare setting. The “TARE” indicator will light up.

*Note: Keyboard tare operation may be prohibited in some countries due to Weights and Measures Regulations.*

#### Example: Tare weight “75g”



## 2.4 WEIGHING SINGLE COMMODITY

### 1 Initial Display

Confirm that the initial display appears, and the “ZERO” and “STABLE” indicators light up.

*Note: The scale should display “ZERO” with nothing on the weigh platter. Should the scale does not display “ZERO”, press the [ZERO] key to perform zero adjustment.*



### 2 Unit Price

Key in the unit price using the numeric keys.

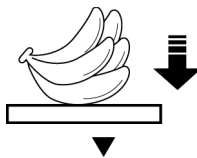
**Example: Unit price “\$4.50”**



### 3 Placing Commodity

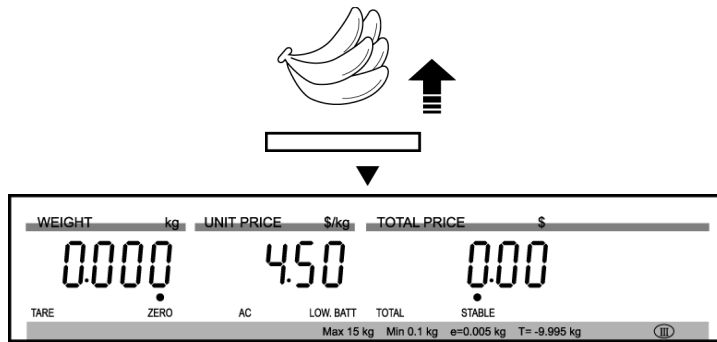
Place a commodity on the weigh platter. The weight and price will appear on the display.

**Example: Commodity weight “275g”**



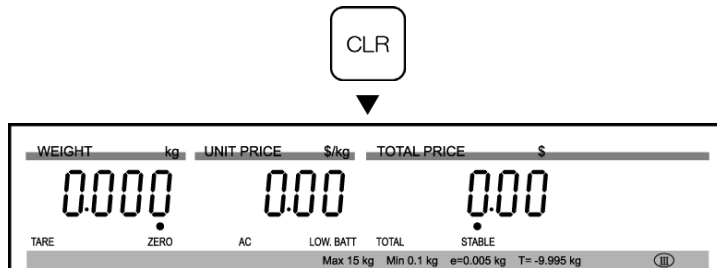
## 4 Removing Commodity

Remove the commodity from the weigh platter. The unit price is stored until a new value is keyed in.



## 5 Clearing Unit Price

To clear the unit price, press the [CLEAR] key.



## 2.5 WEIGHING SINGLE COMMODITY WITH TARE

### 1 Initial Display

Confirm that the initial display appears, and the “ZERO” and “STABLE” indicators light up.

*Note: The scale should display “ZERO” with nothing on the weigh platter. Should the scale does not display “ZERO”, press the [ZERO] key to perform zero adjustment.*



### 2 Saving Tare Weight

Use either “Weighing Tare” or “Keyboard Tare” to save tare setting. (Refer to Section 2.3)

The “TARE” indicator will light up.



### 3 Unit Price

Key in the unit price using the numeric keys.

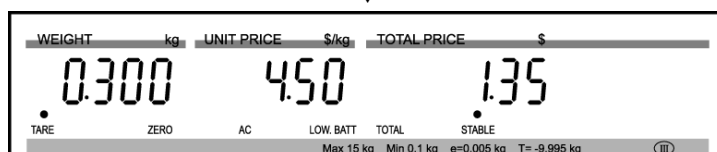
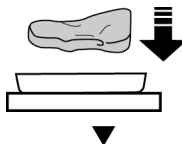
**Example: Unit price “\$4.50”**



### 4 Placing Commodity

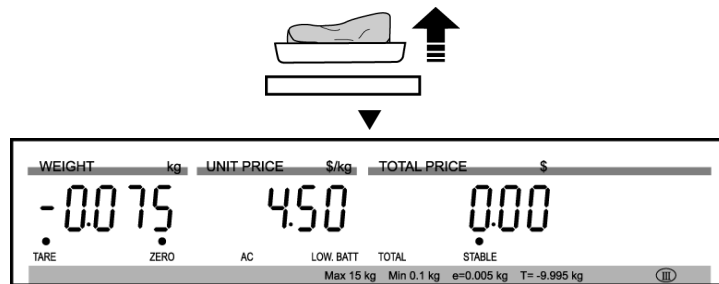
Place a commodity on the weigh platter. The weight and price will appear on the display.

**Example: Commodity weight “300g”**



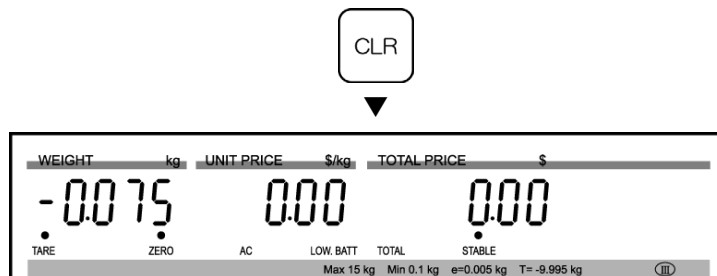
## 5 Removing Commodity

Remove the commodity from the weigh platter. The unit price and tare weight are stored until new values are keyed in.



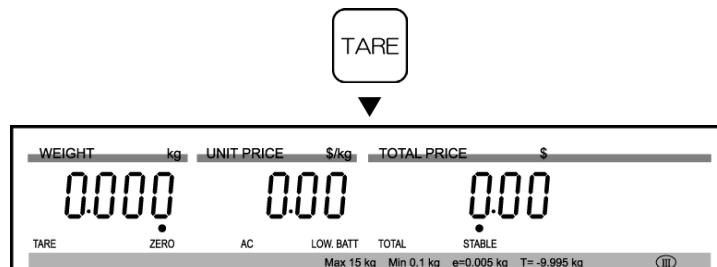
## 6 Clearing Unit Price

To clear the unit price, press the [CLEAR] key.



## 7 Clearing Tare Weight

To clear the tare weight, press the [TARE] key. The "TARE" indicator will disappear.



## 2.6 RANDOM WEIGHING ADDITIONS

The availability of this operation varies according to country.

### 1 Initial Display

Confirm that the initial display appears, and the “ZERO” and “STABLE” indicators light up.

*Note: The scale should display “ZERO” with nothing on the weigh platter. Should the scale does not display “ZERO”, press the [ZERO] key to perform zero adjustment.*



### 2 Unit Price

Key in the unit price using the numeric keys.

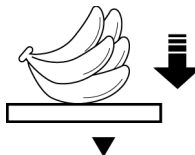
**Example: Unit price “\$4.50”**



### 3 Placing Commodity

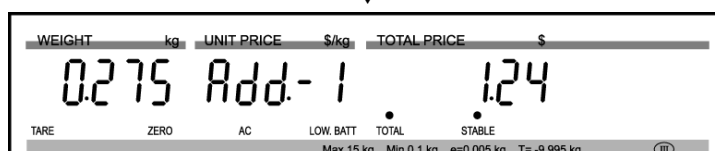
Place a commodity on the weigh platter. The weight and price will appear on the display.

**Example: Commodity weight “275g”**



### 4 Adding Totals

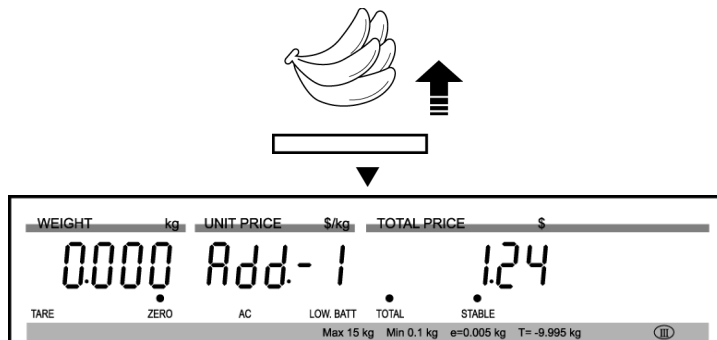
Press the [ADD] key to add totals. The “TOTAL” indicator will light up.





## 5 Removing Commodity

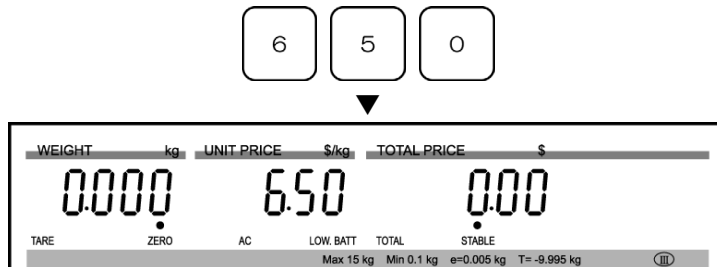
Remove the commodity from the weigh platter.



## 6 Unit Price

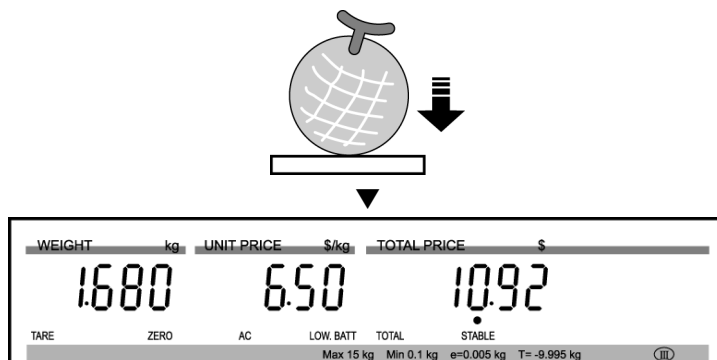
Key in the unit price for the next commodity using the numeric keys.

**Example: Unit price "\$6.50"**



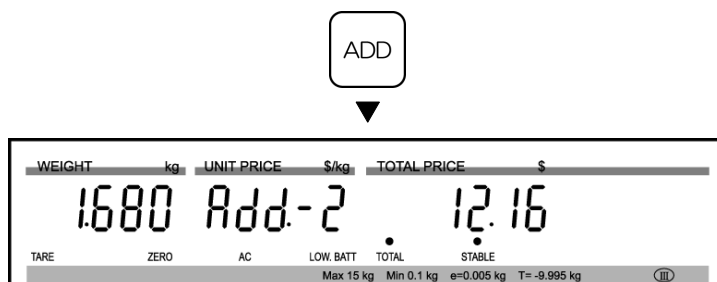
## 7 Placing Next Commodity

Place the next commodity on the weigh platter. The weight and price will appear on the display.



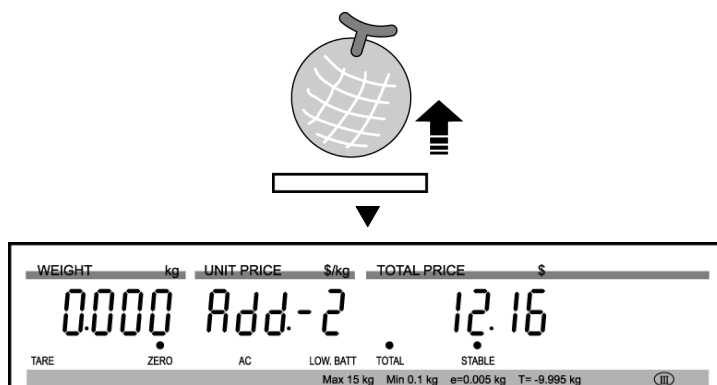
## 8 Adding Totals

Press the [ADD] key to add totals. The “TOTAL” indicator will light up and the total price for two commodities will appear on the display.



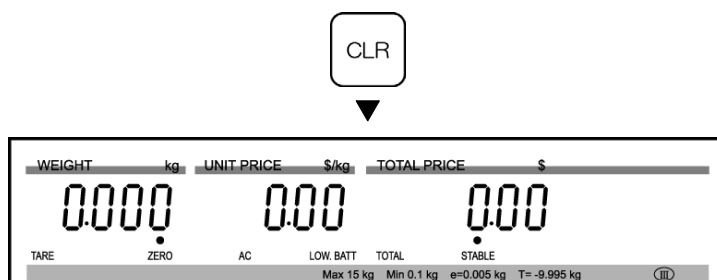
## 9 Removing Commodity

Remove the commodity from the weigh platter.



## 10 Clearing Totals

To clear totals, press the [CLEAR] key. The “TOTAL” indicator will disappear and the initial display appears.



## 2.7 RANDOM WEIGHING ADDITIONS WITH TARE

The availability of this operation varies according to country.

### 1 Initial Display

Confirm that the initial display appears, and “ZERO” and “STABLE” indicators light up.

*Note: The scale should display “ZERO” with nothing on the weigh platter. Should the scale does not display “ZERO”, press the [ZERO] key to perform zero adjustment.*



### 2 Saving Tare Weight

Use either “Weighing Tare” or “Keyboard Tare” to save tare setting. (Refer to Section 2.3)

The “TARE” indicator will light up.



### 3 Unit Price

Key in the unit price using the numeric keys.

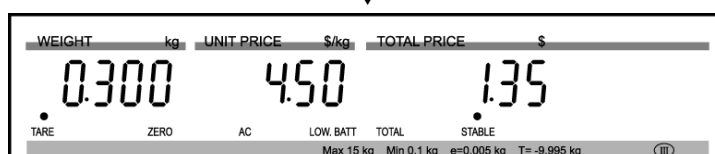
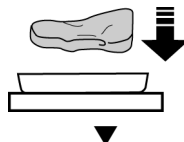
**Example: Unit price “\$4.50”**



### 4 Placing Commodity

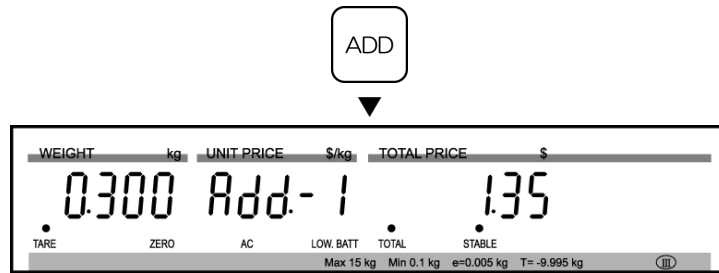
Place a commodity on the weigh platter. The weight and price will appear on the display.

**Example: Commodity weight “300g”**



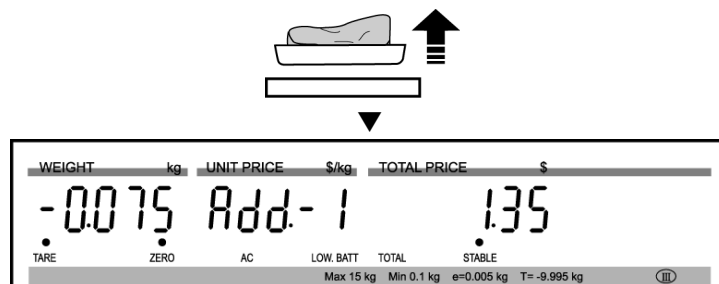
## 5 Adding Totals

Press the [ADD] key to add totals. The “TOTAL” indicator will light up.



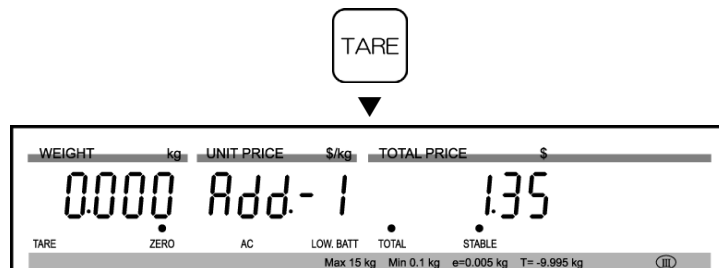
## 6 Removing Commodity

Remove the commodity from the weigh platter.



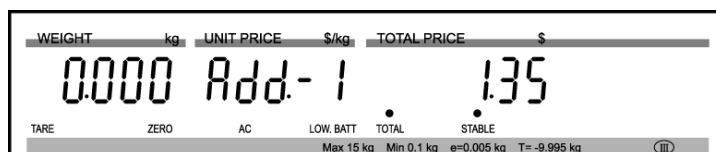
## 7 Clearing Tare Weight

To clear tare weight, press the [TARE] key. The “TARE” indicator will disappear.



## 8 Saving Tare Weight

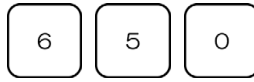
Use either “Weighing Tare” or “Keyboard Tare” to save tare setting. (Refer to Section 2.3)  
The “TARE” indicator will light up.



## 9 Unit Price

Key in the unit price for the next commodity using the numeric keys.

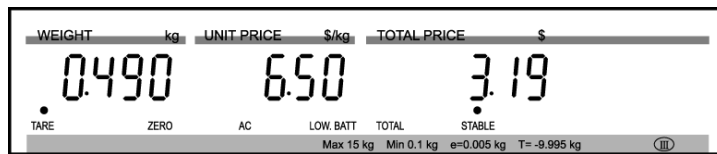
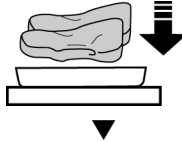
**Example: Unit price “\$6.50”**



## 10 Placing Next Commodity

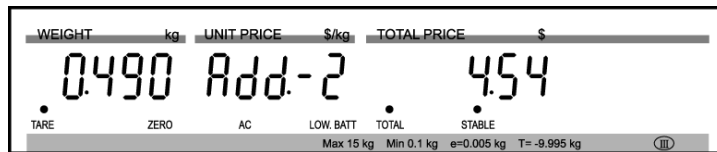
Place the next commodity on the weigh platter. The weight and price will appear on the display.

**Example: Commodity weight “490g”**



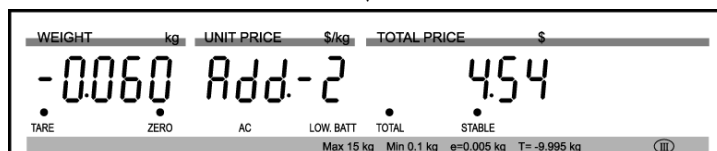
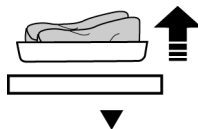
## 11 Adding Totals

Press the [ADD] key to add totals. The “TOTAL” indicator will light up and the total price for two commodities will appear on the display.



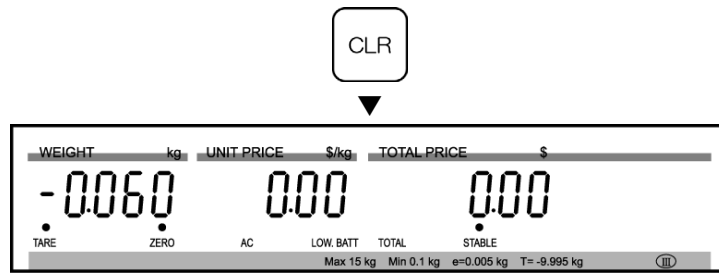
## 12 Removing Commodity

Remove the commodity from the weigh platter.



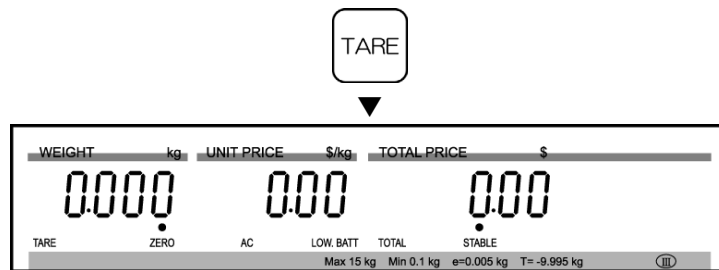
## 13 Clearing Totals

To clear total price, press the [CLEAR] key. The “TOTAL” indicator will disappear. The tare weight is stored until a new value is keyed in.



## 14 Clearing Tare Weight

To clear the tare weight, press the [TARE] key. The “TARE” indicator will disappear.



## 2.8 TROUBLE SHOOTING

PROBLEM	SOLUTION
Cannot enter a tare weight through the keyboard.	Tare weight must end in the smallest division of scale weight.
After turning on the scale there are no displays and no beeps.	<ul style="list-style-type: none"><li>• Check scale is plugged in to a live outlet.</li><li>• Unplug scale from outlet and check main fuse.</li></ul>
After turning on the scale there are no displays but buzzer sounds continuously.	<ul style="list-style-type: none"><li>• Check the weigh platter is mounted on scale correctly.</li><li>• Check that no objects are touching the weigh platter from above, side, or below.</li><li>• Scale is out of calibration due to overload or shock load-contact service representative.</li></ul>
Reading weight is unstable.	<ul style="list-style-type: none"><li>• Check that no objects are touching the weigh platter from above, side, or below.</li><li>• Check that scale is level.</li><li>• Check for air currents, vibration, or unstable mounting surface.</li></ul>



Design and specifications are subject to change without notice.

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