

# **Operation Manual**

# TVP-B/TVP-P

**Price Computing Scales** 

V1.08

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# 1. INTRODUCTION

- ✓ TVP-B, TVP-P series of economic price computing scales are very compact, reliable, high accuracy and much stable.
- ✓ It use LCD display with white LED back light, with the different back light operation.
- ✓ 10 indirect PLU ,it can store 10 unit price values
- ✓ Accumulation and change function
- ✓ Auto unit price clear operation
- ✓ Weighing units conversion(kg/lb/oz)
- ✓ Standard RS-232 can be connect to receipt and label printer

#### 2. KEY DESCRIPTION

| Keys | Description  |
|------|--|
| ZERO | Returns the display to zero. In parameter settings, to escape from the menu  |
| TARE | Subtracts the tare values, change to gross to net mode and enter parameter settings.   |
| SAVE | Enter to auto clear mode   |
| СН   | Used to do memory recall, give change and memory clear   |
| M+   | Add the current data aggregated. In parameter setting mode, used to scroll up the menu, Used to print out a label or receipt papet |
| UNIT | Used to change unit (lb / oz / kg)   |
| PLU  | Used to store or recall unit price, In parameter setting mode, used to scroll down the menu  |
| С    | Used for canceling the memorized and input data.   |
| 0~9  | Used for setting unit price data.  |
| •    | Decimal Point key is used to set the decimal of the unit price   |
| QTY  | Quantity key, use for without weighing.  |

#### 3. DISPLAY SYMBOLS

| Symbols  | Description  |
|----------|--|
| BATT.    | Battery indicator. When it's illuminated, battery should be recharge |
| NET      | Net Weight   |
| STABLE   | Stable indicator. When it's illuminated, the scale is stable         |
| ZERO     | Zero indicator. When it's illuminated, the scale is in Zero point    |
| lb/oz/kg | Current weighing unit  |

| SAVE   | Save Indicator             |  |
|--------|----------------------------|--|
| CHARGE | Battery charging indicator |  |
| ACC    | Accumulation indicator     |  |
| СН     | Check out indicator        |  |
| РТ     | Pre-tare indicator         |  |

#### 4. GENERAL INSTRUCTION

- 1. When battery goes low, the BATT symbol indicator will be show on automatically. It is the time to charge the battery with the AC power. If scale goes on being used without proper charging, the display window will show "BAT LO" every 5 minutes, and scale would be shut down automatically after 2 hours of warning in order to protect the battery. Please charge the battery immediately, or scale cannot be used. To charge battery, just plug AC adapter or main power cord, scale turn on power is not necessary.
- 2. There is an LED left side of the total price display window to indicate the status of battery charging. If the LED is green the battery has a full charge, and red indicates the battery is being charged, please keep charge battery at least 1 hour after LED turn to green to insure full charge.
- 3. Before starting using scale, please check if the bubble is in the middle of the level; if not, please make appropriate adjustment.

# **5. BASIC OPERATION**

#### 5. 1 Power ON/OFF

Power switch is located below the right side of the scale. Switch on the scale by pressing on/off. The display is switched on and the self test is started. If you want to switch off press again the key.

#### 5. 2 Zero the scale

When there is no item on the scale but reading is not zero, press the **ZERO** key to turn on **ZERO** indicator. When the weight goes over 2% of the full capacity, "read zero" function is obsolete.

#### 5. 3 Tare

Put container on the platter, once the weight reading is stable, press the TARE key, the TARE indicator will be on and the container's weight will be deducted. When it is time to clear the TARE, take off the container, and press TARE key again.

#### 5.3.1 Pre-tare

This method allows you to enter a value for the tare weight from the keypad. This is useful if all containers are the same or if the container is already full but the net weight is required and the weight of the container is known.

- Ensure display is in zero.
- Enter the known tare weight by using numeric keys.
- Press TARE to enter, weight will be stored as tare weight and displayed with minus sign ,the stable ,zero,net and PT indicator will be on.
- Place the container on the platform, net weight will be displayed.

#### 5. 4 Overload Warning

Please do not add item that is over the maximum capacity.

When reading "—¬L—" and hear beeping sound, remove the item on the platter to avoid damage to the load cell.

#### 5.5 Unit price setting

To trade with your scale, it is necessary to setting a unit price of the goods, scale then uses this unit price to determine how much that goods are on the platter.

When scale displaying the weight of the goods placed on the scale, set the unit price through numeric keys. Set unit price is showed in **UNIT PRICE** window display, **TOTAL PRICE** window display shows the total price of the goods. To cancel the previous unit price, press **C** key.

# 5.6 Change unit

You can use the **UNIT** key to change unit(kg/lb/oz). Press **UNIT** key will change the weighing unit circularly, and the pertinent indicator will on.

# **6. ACCUMULATOR OPERATION**

#### 6. 1 Prepare to accumulate

The scale can be set to accumulate manually by pressing M+ key,

To enable the accumulation function on, see parameters F I Ir5232 > nodE > EP50

Confirm the platter is empty,the current accumulator values is reset to zero, and the weight reading is stable.only when weight more than 20d

#### 6. 2 Accumulative operation

Put the weighing item on platter, wait for the weight reading to be stable, press the M+ key, the window will show **total x**, this is current total value.

#### 6. 3 Account operation

To enable the change function on, see parameters F I2 CHRnGE > on

After do accumulate operate, you can press **CH** key, WEIGHT window will show the summed price, key in paid money by keyboard, this will show on Unit Price window, and the Total Price window will show the return value.

Press **TARE** key to return normal weighing mode and clear memory, if you don't want clear memory, press **ZERO** key to return normal weighing mode.

Note: if you haven't do accumulate operation, you also can use Account function, the summed price is current total price.

#### 7. UNIT PRICE MEMORY

Scale can store 10 sets unit price.

#### 7. 1 Save the unit price

Hold the **PLU** key for 3 seconds after you key in the unit price, it will show "5R L E P D S", press numeric key  $0 \sim 9$  to select which memory location you want to use. After you do, the unit price is stored in the scale.

# 7.2 Load the unit price

If you want to use the unit price stored in the scale, press **PLU** key, scale will shows "LaRd Pa5", press numeric key 0~9 to select which memory location's price you want to use, current unit price will change to the value stored in the memory.

#### 8. OTHER FUNCTION

#### 8.1 Backlight

In normal weighing mode, Press and hold • key until to show the display

Press the **M+** key to change the settings back light display mode to Auto / On /Off.

bLSEL RULo

| Display         | Description                                |
|-----------------|--|
| blset hode Auto | Backlight will be turned on, when start to |
|                 | use or when weight is not in zero.         |
| bLSEt ñodE on   | Backlight will be turned always on         |
| blset hode off  | Backlight function will be turned off      |

# 8.2 Automatic unit price clear

Scale can set automatic unit price clear, when return to zero, scale will clear the unit price automatically.

Press **SAVE** key will turn on / off automatic unit price clear function, when SAVE indicator on, automatic unit price clear disable when SAVE indicator off, automatic unit price clear enable.

# 8.3 Commodities Without Weighing

Using numeric keys to input unit price, Press QTY key to enter QTY mode

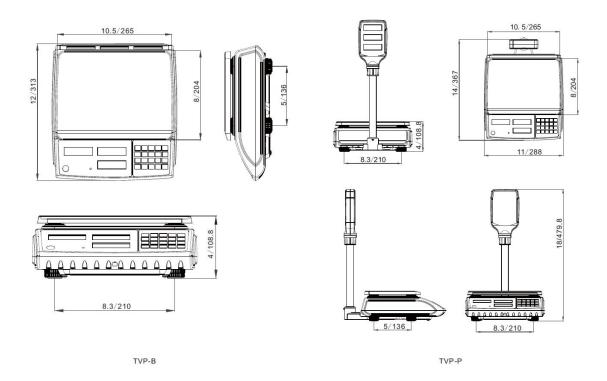
Using numeric keys to input quantity in the weight window, the total price will be show automatically

Press **QTY** key to return normal weighing mode.

#### 9. SPECIFICATION

| MODEL                      |       | TVP-12B/TVP-12P   | TVP-30B/TVP-30P              | TVP-60B/TVP-60P          |  |
|----------------------------|-------|---|------------------------------|--------------------------|--|
| Capacity                   |       | 12lb / 6kg / 160oz  | 30lb / 12kg /480oz           | 60lb / 30kg / 960oz      |  |
| Readability                |       | 0.002lb / 0.001kg / 0.05oz                                | 0.005lb / 0.002kg / 0.1oz    | 0.01lb / 0.005kg / 0.2oz |  |
| Max. Divisions             |       | 6000e   |                              |                          |  |
| Weighing Units             |       | lb / oz / kg  |                              |                          |  |
| Display                    |       | 0.59inch /15mm digits LC                                  | CD Display with white LEI    | D back Light             |  |
| Platter size               |       | 8 x 10.5inch / 204 x 265r                                 | nm                           |                          |  |
| Housing                    |       | ABS Plastic and Stainless Steel pan                       |                              |                          |  |
| Interface                  |       | RS232 Output standard                                     |                              |                          |  |
| Operation Temperature      |       | 14°F - 104°F / -10°C - + 40°C                             |                              |                          |  |
| Power                      |       | AC Adaptor 12V/500mA , Rechargeable Battery 6V/3.2Ah      |                              |                          |  |
| Battery life Approx.60 Hou |       | Approx.60 Hours LCD (n                                    | .60 Hours LCD (no backlight) |                          |  |
| Keypad                     |       | 20 membrane keys  |                              |                          |  |
| Dimensions                 | Bench | 10.5 (W) x 12 (D) x 4 (H) / 265 (W) x 313 (D) x 108.8 (H) |                              |                          |  |
| (inch/mm) Pole             |       | 11 (W) x 14 (D) x 18 (H) / 288 (W) x 367 (D) x 479.8 (H)  |                              |                          |  |
| Cross weight               | Bench | 9lb (4.1kg)   |                              |                          |  |
| Gross weight               | Pole  | 9.9lb (4.5kg)   |                              |                          |  |
| Approvals                  |       | NTEP: Certificate No.19-038                               |                              |                          |  |

# 10. DIMENSIONS (inch/mm)



# 11. ERROR MESSAGE

| Error Message | Description            | Solution  |
|---------------|------------------------|---|
| Err 4         | Zero setting error     | Zero setting range exceeded due to switching on. Make sure platform empty.                      |
| Err 6         | A/D value out of range | Make sure platform empty and check the pan is installed proper. Check the load cell connectors. |
| Err 15        | Enter gravity error    | Gravity rang(0.9~1.0)   |
| Err 19        | Initialize zero error  | Calibration the scale.  |
| aL            | Over range             | Remove the load.<br>Re calibrate  |
| FA , L        | Calibration Error      | Re calibrate  |
| ья Lo         | Battery low            | Re charge battery, check the voltages.  |

# **12.SELECTING THE PRINTER**

For printer setting, it need to enter the parameters settings to select F11> RS232 > mode > EP50/LP50, use M+ key to select options

| Options | Description   |
|---------|---|
| EPS0    | Press M+ key to send data to DEP-50 receipt printer |
| LPS0    | Press M+ key to send data to DLP-50 label printer   |

# **13. RS232 OUTPUT**

The TVP-B& TVP-P Series of scales can be ordered with a standard RS-232 output. It can be connected to DEP-50 receipt printer & DLP-50 label printer

#### 13.1 Print Format

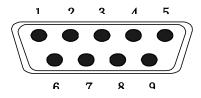
Receipt Format

| =======               | ======             |
|-----------------------|--------------------|
| unit price<br>(\$/lb) | total<br>(\$)      |
| =========             | ======             |
| 1.99                  | 0.60               |
| =======               | =====              |
|                       | 0.60               |
|                       | (\$/lb)<br>======= |

| ======         | =======               | =====         |
|----------------|-----------------------|---------------|
| weight<br>(lb) | unit price<br>(\$/lb) | total<br>(\$) |
| 0.30           | 1.99                  | 0.60          |
| Sum(\$)        |                       | 0.60          |
| Paymer         | nt(\$)                | 1.00          |
| Change(\$)     |                       | 0.40          |

Label Format THANK YOU
Weight: 0.166lb
Unit price:(\$/lb) Total(\$) Price
55.66 9.24

13.2 Diagram: Serial interface



| Pin 2 | RXD | Input  | Receiving data    |
|-------|-----|--------|-------------------|
| Pin 3 | TXD | Output | Transmission data |
| Pin 5 | GND | _      | Signal ground     |

# 9pin D Connecter:

| Scale     | Computer   |
|-----------|------------|
| Pin 2 ——— | ———— Pin 3 |
| Pin 3 ——— | ———— Pin 2 |
| Pin 5 ——— | Pin 5      |

# 14. PARAMETER PARAMETER SETTING

# Enter into the Menu

- Turn on the scale. Press and hold key during the self test.

  Display will show "Pn" briefly PIN is activated. Press the PIN number to get into the parameter menu.
- The default PIN number is "0000"
- Press numeric key 0 four times , display will be shown Pn - -
- Press key to confirm, It will enter into the parameter settings and will to show " ¬E¬U U¬ ¬E ¬F□" .

# **Enter to Selected Menu**

Press , it can confirm which will be shown displayed.

# **Select the Menu**

• Press Press. It can choose menu block one by one.

# **Return to Weighing Mode**

Press escape from the menu and exit to weighing mode

#### **Active Parameter**

| F11 -5232 | ñodE | GodE =  | Protocol Type :GoDEX                    |
|-----------|------|---------|---|
|           |      | PC- 100 | Protocol Type :CAS                      |
|           |      | Pr inEr | The scale RS232 protocol will be        |
|           |      |         | determined by the Baud & Pr settings    |
|           |      | EP50    | Accumulation function enable,and press  |
|           |      |         | M+ key to send data to receipt printer  |
|           |      | LPS0    | Accumulation function enable, and press |
|           |      |         | M+ key to send data to label printer    |
|           |      | Po5     | Protocol Type :POS                      |
|           |      | oFF     | RS232 function disable                  |
|           |      | Cont    | Continues data transmission             |
|           |      | SEC     | Stable data sending continues           |
|           |      | LoLEdo  | Protocol Type 1: Toledo                 |
|           |      | הב וצבר | Protocol Type 2: NCI-ECR                |
|           |      | הב יבבה | Protocol Type 3: NCI-General            |
|           |      | FEC     | Protocol Type 4: TEC                    |
|           |      | ER54    | Protocol Type 5: Easy Weigh             |
|           | 6AUd |         | Set baud rate                           |
|           |      |         | to( 1200/2400/4800/9600/19200/38400/1   |
|           |      |         | 15200)                                  |

|             | Pr   | 8n I            | 8 data bits, no verify, 1 stop bit   |
|-------------|------|-----------------|--------------------------------------|
|             |      | 7E I            | 7 data bits, Even verify, 1 stop bit |
|             |      | 70 1            | 7 data bits, Odd verify, 1 stop bit  |
| F I2 CHAnGE | EHAn | on              | To set change function on            |
|             | GΕ   | <sub>o</sub> FF | To set change function off           |

Press key to choose "lb", "oz " or "kg" unit in the setting mode, capacity will be show in lb, oz or kg values.



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