

***T-Scale***

**Technical Manual**

**RWP**

**Weighing Indicator**

V1.16

REV:Y1,May 2016



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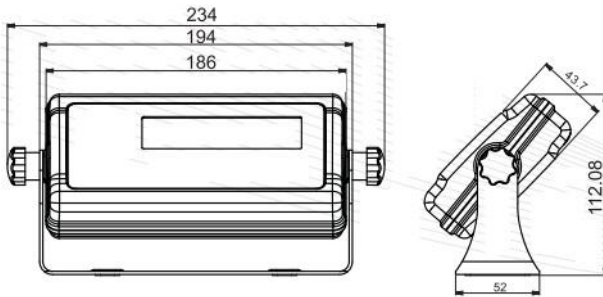
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# 1. SPECIFICATIONS

## Overall View



## Dimensions



<b>Model</b>	<b>RWP</b>
Resolution	1/30,000
Indicator housing	ABS Plastic
Stabilisation Time	1 Seconds typical
Operating Temperature	0°C ~ +40°C / 32°F - 104°F
Power supply (external)	AC Adaptor (12V/500mA) / Ni-MH battery (1.2V/2000mAh x 6)
Calibration	Automatic External
Display	6 digits 22mm LCD display, attached backlight
Interface	RS-232 Output Optional
Zero range	0mV~5mV
Signal input range	0~15mV
ADC	Sigma delta
ADC update	Max 60 times /second
Load cell drive voltage	Max 5V/150mA
Internal counts	600,000

## 2. INTRODUCTION

- The RWP series weighing indicator that amplifies signals from a load cell, converts it to digital data and displays it as a mass value.
- It is suitable for general weighing or more specialized applications such as check weighing, animal weighing and accumulation applications.
- It can connect the indicator to a printer or a PC.
- Large LCD with white LED back light display

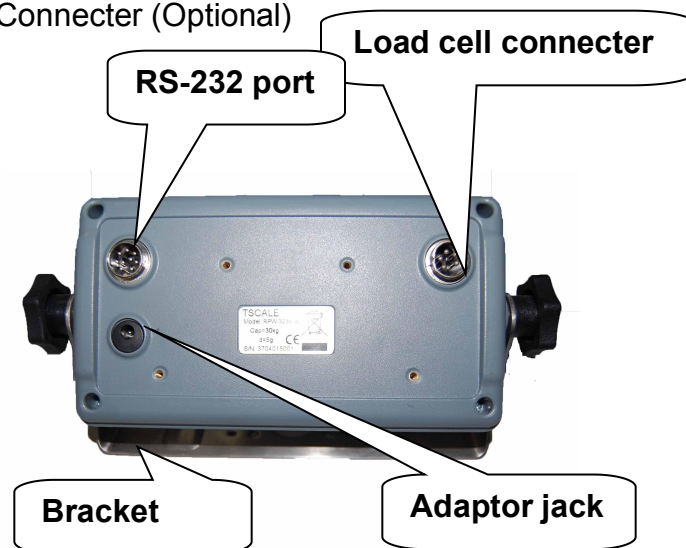
## 3. INSTALLATION

### Unpacking

When you receive the scale, inspect it to make sure that it is not damaged and that all are parts are included:

- Remove the Indicator from the carton.
- Remove the protective covering. Store the packaging and to use if you need to transport the scale later.
- Inspect the indicator for damage.
- Make sure all components are included.
  1. Indicator
  2. Adaptor
  3. Manual
  4. Indicator holder (Optional)
  5. Load cell Output connector (Optional)
  6. RS-232 Output Connector (Optional)

### Installation



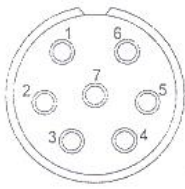
- Place the Indicator on a table or connect with proper stand.
- Connect the plat form load cell cable in to the indicator load cell connector. Load cell connector is locating back side of the indicator.
- Connect the adaptor pin in to the indicator adaptor jack. Adaptor jack is locating, back side of the indicator.
- Adaptor connects into your AC power socket. Pluggable equipment must be installed near an easily accessible socket outlet with a protective ground/ earth contact.
- Turn on the On/Off key. If you want to turn off, press the key again.
- Display will be show the scale capacity and will be starting self-checking.
- After self-checking, display will be come to normal weighing mode.

- Warm-up time of 15 minutes stabilizes the measured values after switching on.
- Calibrate with exact calibration weights, minimum 1/3 of the scale capacity want to use for calibration. For calibration see details in parameter.

Then you can start your operation

## Load cell connections

- Connect the load cell cables to the terminal as shown below.




5Pin Connection	
Pin 1	Signal +
Pin 2	Signal -
Pin 3	Shield
Pin 4	Exc -
Pin 5	Exc +

- It can connect four 350 ohm load cells.
- The load cell drive voltage is 5V DC  $\pm 5\%$  between Excitation + and Excitation -.

## Connect Adaptor and Charging

- To charge the battery insert the adaptor pin to jack. Adaptor simply plug into the mains power. The scale no needs to be turned on.
- The battery should be charged 12 hours for full capacity.
- The symbol status of the battery

Battery voltage has dropped 

Low voltage 

Fully charged 

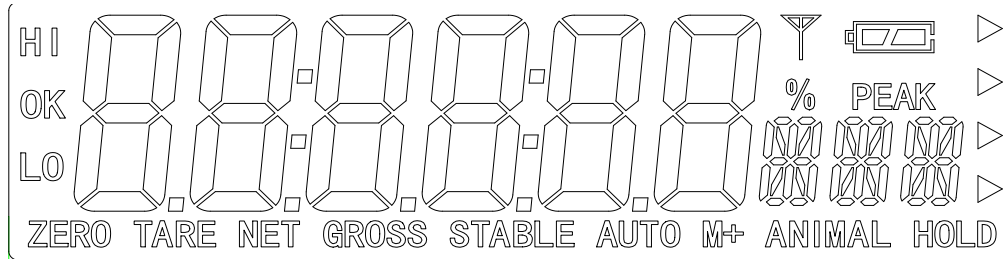
- Do not use any other type of power adaptor than the one supplied with the scale.
- Verify that the AC power socket outlet is properly protected.


**Note: Please charge the battery before using the scale for the first time.**



## 4. DESCRIPTION







### Display



DISPLAY	FUNCTION
HI OK LOW	Check weighing
ZERO	Indicator for Zero display
TARE	Indicator for Tare display
GROSS	Indicator for Gross weight
NET	Indicator for Net weight
STABLE	Indicator for Display stability
AUTO	Indicator for Auto Accumulation
M+	Indicator for Accumulation
ANIMAL	Indicator for Animal Weighing Mode
HOLD	Indicator for Hold/ Lock
	Indicator for Charging status of battery.

## Key Board




KEY	FUNCTION
	Turn the power On/ Off
	Used to reset to Zero. In setting mode can use to confirm entry
	Used to recording tare values and change the value from gross value to net value. In setting mode can use to increase the value and scroll forward in menu.
	When the scale has been tared and display is in gross or net mode. When using the settings mode, can use to move active digits right.
	For print the results, to the PC or printer using the optional RS-232 interface. It also adds the value to the accumulation memory if the accumulation function is not automatic. When using the settings mode,can use to clear active digits
	Switch to unit weight. In setting mode, escape back to menu/ weighing mode. When using the settings mode, can use to move active digits left.

## 5. OPERATION

### Initial Start – Up:

Warm-up time of 15 minutes stabilizes the measured values after switching on.


#### 5.1. Power ON/OFF:

Switch on the balance by pressing  key.


The display is switched on and the test is started and if want to switched off, press again the key.



#### 5.2. Zero

Environmental conditions can lead to the balance exactly zero in spite of the platform not taking any strain. However, you can set the display of

your balance to zero any time by pressing  key and therefore ensure that the weighing starts at zero.

#### 5.3. Tare

The weight of any container can be tared by pressing  button so that with subsequent weighing the net weight of the object being weighed is always displayed.

- Load weight on the platform.
- Press  key. Zero is displayed, and tare is subtracted.
- Remove weight on the platform. Tared weight is displayed. It can set only one tare value. It can display with a minus value.
- Press G/N to change between gross weight and net weight.
- To clear the tare value, remove the load and press  key. Zero is displayed, tare weight is cleared.

#### 5.4. Sample weighing

- Place goods to be weighed on the platform.
- Wait few seconds for stability display.
- Read the result.
- Avoid overloading. When display appears “o!” reduce the load or unload.

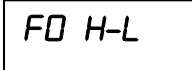
#### 5.5. Check Weighing

It can set an upper or lower limit when weighing with the limits range. During the limit controls dividing the unit will indicate whether a value upper or lower limits with an alarm sound . For details see the parameter F3 OFF.


- **Check mode 1:** No beep sound in the limits. Function turned off.
- **Check mode 2:** When the weight is between the limits. OK will shown and beeper will be sounded.
- **Check mode 3:** When the weight is out of the limits, the beeper will be sounded and OK will shown.


### 5.6. Enter to Menu

In the weighing mode, press  key and  key together.

Display will be appear 



### 5.7. Set limits

Press  key to enter the function.

Press  key to select the limit.

Display will appear  or 



Press  key key to enter, press  key to move active digits.

Press  key to change the value. After enter the value press  key to sure.

Press  key to escape.

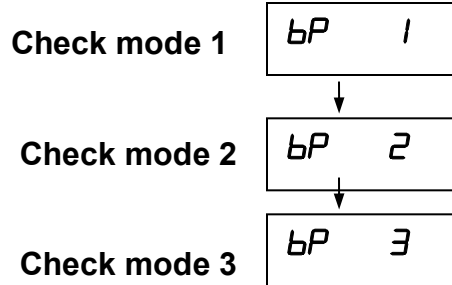
### 5.8. Set check weighing mode.

After entering the settings mode,

Press  key until display will be appear 

Press **ZERO** key to enter, press **TARE** key until display **bEEP**

Press **ZERO** key to enter, press



Select desired setting by pressing **TARE** key and press **ZERO** key to confirm, press **UNIT** key to escape.

**Note: The load weight must greater than 20 scale divisions for the check weighing operations.**

To disable the check weighing function, enter zero into both limits.

### 5.9. Accumulation

To enable accumulation function, select parameter *FS ACC > ACC on*

- Place the goods on the platform to be weigh

Wait few seconds for display stable, then press **PRINT M+** key. The value will be saved and printed (if the printer is connected).

Display will be appear **ACC 1**  
this display will appear two seconds only.

Remove the load and wait few seconds for display return to zero.

- Place the second goods on the platform.


Wait few seconds for display stable. Then press **PRINT M+** key . The value will be saved.

Followed by the total number of weight will be displayed **ACC 2**


It can continue the process until the maximum capacity or value.

Note: When you change the weighing unit this saved values will be clear.


### Accumulated Total


Manually, the scale can be set to accumulation by pressing  key , when an optional printer is connected. See details in *F4 Prt*.

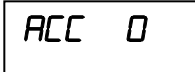
### Memory Recall

When display of Zero, you can see the number of weighing and total weight by pressing  key , display will be shown for two seconds.

### Memory Clear

When display of Zero, you can see the number of weighing and total weight by pressing  key , display will be shown for two seconds.

Press  key during this display. The memory data are deleted and display will be shown



## 5.10. Accumulation Automatically

In this function the individual weighing values are automatically added into the memory. No need to press any keys.

For this function, set to parameter *F4 Prt* and select *P AUTO*.

After select this function, display indicator AUTO will be shown.

- Place the goods on the platform to be weighed  
After the stable, will be follow beep sound twice.
- Unload the goods, the weighing value will be saved automatically and will be follow beep sound once.

It can continue the process until the maximum capacity or value.

## 5.11. Animal Weighing

**RWS** can use for vibrate loads.

For this function, set to parameter *P4 CHt to mode 2*

After select this function, display indicator ANIMAL will be shown.

- Bring the load on to the platform.
- When the load few seconds get stable, the reading will be locked for few seconds and will be follow beep.
- It can add or remove loads also update the weighing locked values.

### 5.12. Peak Hold

**RWS** can operate peak hold function, maximum reading will be hold and will update automatically when adding the goods.

For this function, select parameter *P4 CH* to *mode 4*

In the normal weighing mode press **TARE** and **ZERO** key together to turn on Peak hold operations, display will be indicate HOLD.

If want to turn off peak function, press **TARE** and **ZERO** key together again

### 5.13. Backlight Setting

In the weighing mode. Press **UNIT** key and **PRINT M+** key to select parameter *F3 OFF >BL*. press **TARE** key to select (*bt AU/bt OFF/bt on*), After select the back light option press **ZERO** key to confirm and press **UNIT** key to escape from the settings.

### 5.14. Auto Power Off Setting

In the weighing mode. Press **UNIT** key and **PRINT M+** key to select parameter *F3 OFF >SEt OF*, press **TARE** key to change auto power off time: 0/3/5/15/30. (*OF 0*: always on, *OF 3*: auto power off after standby xx minutes), press **ZERO** key to sure, press **UNIT** key to escape.

### 5.15 subtraction scale

This is used for hopper scale, you need set auto zero range to 0 (see detail in section 6 and set scale mode to mode 3

Turn on power, scale will show "Err4", then show current total weight on

platform, press **TARE** key, display show 0.00, then remove goods in

hopper, display will show it's weight in "-" mode, press **PRINT M+** key, scale will print out weighing ticket.

## 6. PARAMETERS

### KEYS OPERATIONS INTO THE MENU


#### Enter the menu

---

- In weighing mode, press  key and  key together.

#### Select the menu

---

- Press  key, it can change the menu block one by one.
- Using increase the digit.


#### Enter the selected menu

---

- Press  key , it can confirm, which will be shown displayed.

#### Change the digit

---

- Press  key , it can change the active digit.

#### Return to weighing mode

---

- Press  key , exit from the menu.


#### Enter into Prog



---

When display shows *Prog* , press   and  keys to enter the function




**PARAMETER BLOCK**

Menu	Sub-Menu	Description		
F0 H-L Weighing with set limits	SEt Lo	Lower limit value		
	SEt Hi	Upper limit value.		
F1 toL	to CLr	Clear the accumulation memory with out printout		
	to P-C	Print the total accumulation memory and clear the total memory		
	to Prt	Print the total accumulation and keep all the memory.		
F2 Unt	G	Weighing units. Tj and Hj can't use at the same time.		
	Lb			
	o2			
	tJ			
	HJ			
F3 oFF	SEt oF	0/3/5/ 15/30	To set the auto off time	
	bL	bL on	Display of back light on	
		bL AU	Display of back light on automatically	
		bL oFF	Display of back light off	
	bEEP	bP 1	Beep sound off during the check weighing	
		bP 2	Beeper will be sounded within the check weighing limits	
		bP 3	Beeper will be sounded above the check weighing limits	
F4 Prt	RS 232 mode			
	P Prt	By pressing  key , weighing value will be added to the memory and print the print out		
	P Cont	Send data continuous		
	SE irE	Also send data continuous		
	ASr	Bi- direction , through PC Commands R= Send, T= Tare, Z= Zero		
	P Cont 2	No documented		
	P StAb	Send data of stable weighing values		
	P AUto	Automatic accumulation. Individual weighing values are automatically		

		added
	<i>Wireless</i>	To connect wireless
	<p style="text-align: center;">Set BAUD rate</p> <p>After setting the RS 232 mode, display will be shown current baud rate <i>b XXX</i>. Available baud rate: <i>b600</i>, <i>b1200</i>, <i>b2400</i>, <i>b4800</i> and <i>b9600</i>. If necessary change the baud rate by pressing  key and enter by pressing  key</p>	
	<p style="text-align: center;">Set print out format</p> <p>If enter settings <i>P Prt</i>, <i>P Auto</i>, <i>P Cont</i> and connected optional printer</p>	
	<i>Prt X</i>	M+ format- Date/Time
	<i>Lab X</i>	M+ format – Gross/Accumulation
	<i>Cont 1</i>	Only for <i>P Cont</i> only
	<i>Cont 2</i>	N.A
	<i>Cont 3</i>	N.A
	Set printer type	
	<i>TY-TP</i>	Ticket printer
	<i>TY 711</i>	Label printer
	<i>LP 50</i>	Label printer
<i>FS ACC</i>	<i>on</i>	Accumulation function enable
	<i>off</i>	Accumulation function disable
<i>Prog</i>	<i>Pin</i>	Enter the programming and calibration menus by using password

**PROGRAM PARAMETERS**

Menu	Sub Menu	Description	
P1 rEF	R2n 0	oFF	Auto zero point settings
		0.5d	
		1d	
		2d	
		4d	
	0 - AUto	P1 0	Zero setting range. When the display is turn on the scale is set to zero
		P1 2	
		P1 4	
		P1 10	
		P1 20	
		P1 50	
	0 - rAnGE	P 2 2	Manually zero setting range, by pressing 
		P 2 4	
		P 2 10	
		P 2 20	
		P 2 50	
P 2 100			
SPEED	S 7.5	Set A/D speed	
	S 15		
	S 30		
	S 60		
P 2 CAL	S iGr A	dEC ,	Decimal point settings
		C	
		0	
		C	
		0. 0	
		C	
		0. 00	
	C		
	0. 000		
	C0. 000		
0			
inC		1	Increment settings
		2	
		5	
		10	
		20	
		50	
CAP		00000	Enter the scale capacity

		<i>CAL</i>	<i>L inEAR</i>	Linear calibration	
			<i>nonL in</i>	Normal calibration	
			<i>CrPCAL</i>	Creep calibration	
<i>dUA rA</i>	For Dual Range Settings				
	<i>dEC 1</i>			Decimal point settings	
	<i>inC</i>	<i>d iu 1</i>		Set the scale first increment	
		<i>d iu 2</i>		Set the scale second increment	
	<i>CAP</i>	<i>CAP 1</i>		Enter the scale first capacity	
		<i>CAP 2</i>		Enter the scale second capacity	
	<i>CAL</i>	<i>L inEAR</i>		Linear calibration	
		<i>nonL in</i>		Normal calibration	
		<i>CrPCAL</i>		Creep calibration	
	<i>dUA in</i>	For Dual Interval Settings			
		<i>dEC 1</i>			Decimal point settings
		<i>inC</i>	<i>d iu 1</i>		Set the scale first increment
<i>d iu 2</i>				Set the scale second increment	
<i>CAP</i>		<i>CAP 1</i>		Enter the scale first capacity	
		<i>CAP 2</i>		Enter the scale second capacity	
<i>CAL</i>		<i>L inEAR</i>		Linear calibration	
		<i>nonL in</i>		Normal calibration	
		<i>CrPCAL</i>		Creep calibration	
<i>P3 Pro</i>		<i>CoUnt</i>	This display will show XXXXX for indicating the internal counts.		
		<i>rESEt</i>	Factory default settings		
		<i>GrA</i>	Set the local gravity		
<i>P4 CHt</i>	<i>mode 1</i>	Normal weighing mode. (check weighing, accumulation)			
	<i>mode 2</i>	Animal weighing mode. (scale can lock reading, when little unstable)			
	<i>mode 3</i>	This is a subtraction scale (print out “-“ weight)			
	<i>mode 4</i>	Peak Hold mode. (Scale can hold maximum reading)			

## 7. CALIBRATION

- In weighing mode, press **UNIT** key and **PRINT M+** key together. Fo H-L
- Press **TARE** key continuous until display will be shown. Prog
- Press **ZERO** key, display will be shown. P in
- Enter the password. Press **G/N**, **UNIT** and **ZERO** keys  
Display will be shown P1 rEF
- Press **TARE** key, display will be shown. P 2 CAL
- Enter the function by pressing **ZERO**, display will be shown S iG rA
- Select option S iG rA or dUA rA or dUA in
- Enter the function by pressing **ZERO**
- Press **TARE** continuous until display will be shown. CAL
- Enter the function by pressing **ZERO**, display will be shown nonL in

**Normal Calibration:**

*nonL in*

- Enter the function by pressing **ZERO** key, display will be shown UnLoAd
- Make sure there are no loads on the platform and wait few seconds for stable indicator on.

- Enter the function by pressing **ZERO** key, display will be shown **05 000**  
Currently adjustment

- If want to change by using the keys **PRINT M+**, **G/N**, **TARE** keys to select the required setting

- Enter the selected setting by pressing **ZERO** key, display will be shown. **LoAd**

- Load the calibration mass weight on the platform and wait few seconds for display stability.

- After the stable indicator on press **ZERO** key, display will be shown. **PASS**

After the calibration the display will start a self test. Remove the load from platform during the test. Display will come to weighing mode automatically.

If display will be shown any error or incorrect value, repeat the procedure again.

### Linear Calibration **L inERr**

The linearity deviation caused by the performance of the weighing unit. The digital linearization function can reduce the linearity deviation using weighing points during the zero and capacity. Up to three weighing points can be specified.


- Press **TARE** continuous until display will be shown. **L inERr**

- Enter the function by pressing **ZERO** key, display will be shown **LoAd 0**


- Make sure there are no loads on the platform and wait few seconds for stable indicator on.

- Enter the function by pressing **ZERO** key, display will be shown **LoAd 1**


- Load the first calibration mass weight on the platform (mass weight should be 1/3 of the max capacity) and wait few seconds for display stability.

- Then press  key , display will be shown *LoAd 2*

- Load the second calibration mass weight on the platform (mass weight should be 2/3 of the max capacity) and wait few seconds for display stability.

- Then press  key ,display will be shown *LoAd 3*

- Load the third calibration mass weight on the platform (mass weight should be 3/3 of the max capacity) and wait few seconds for display stability.

- Then press  key ,display will be shown *PASS*

After the calibration the display will start a self test. Remove the load from platform during the test. Display will come to weighing mode automatically.



### Creep Calibration

- Enter the function by pressing  , display will be shown *UnLoAd*

- Make sure there are no loads on the platform and wait few seconds for stable indicator on.

- Enter the function by pressing  , display will be shown *LoAd F*

- Load the calibration mass weight on the platform (mass weight should be the max capacity) and wait few seconds for display stability.

- Then press  ,display will be shown *CrEEP* 

- Remove the weight ,display will be shown *CrEEP ok*

After the calibration the display will start a self test. And come to weighing mode automatically

If display will be shown any error or incorrect value, repeat the procedure again.

## 8. RS-232 OUTPUT

**RWP** series scales can take out data through RS 232 output.

**Specifications:**

RS-232 output of weighing data  
 Code : ASCII  
 Data bits : 8 data bits  
 Parity : No Parity  
 Baud rate : 600bps to 9600bps selectable

**RS-232 (9pin connector)**

Pin 2	RXD	Input	Receiving data
Pin 3	TXD	Output	Transmission data
Pin 5	GND	—	Signal ground

**9pin Air Connector:**

<b>Indicator</b>	<b>Computer / Printer</b>
Pin 2:	Pin 3
Pin 3:	Pin 2
Pin 5:	Pin 5

**Note:** If data not getting in to PC, want to inter-change the Pin 2 and Pin 3 connections from one of the connector.

**Continuously output protocol**

Weighing Mode;



HEADER1: ST=STABLE, US=UNSTABLE

HEADER2: NT=NET, GS=GROSS



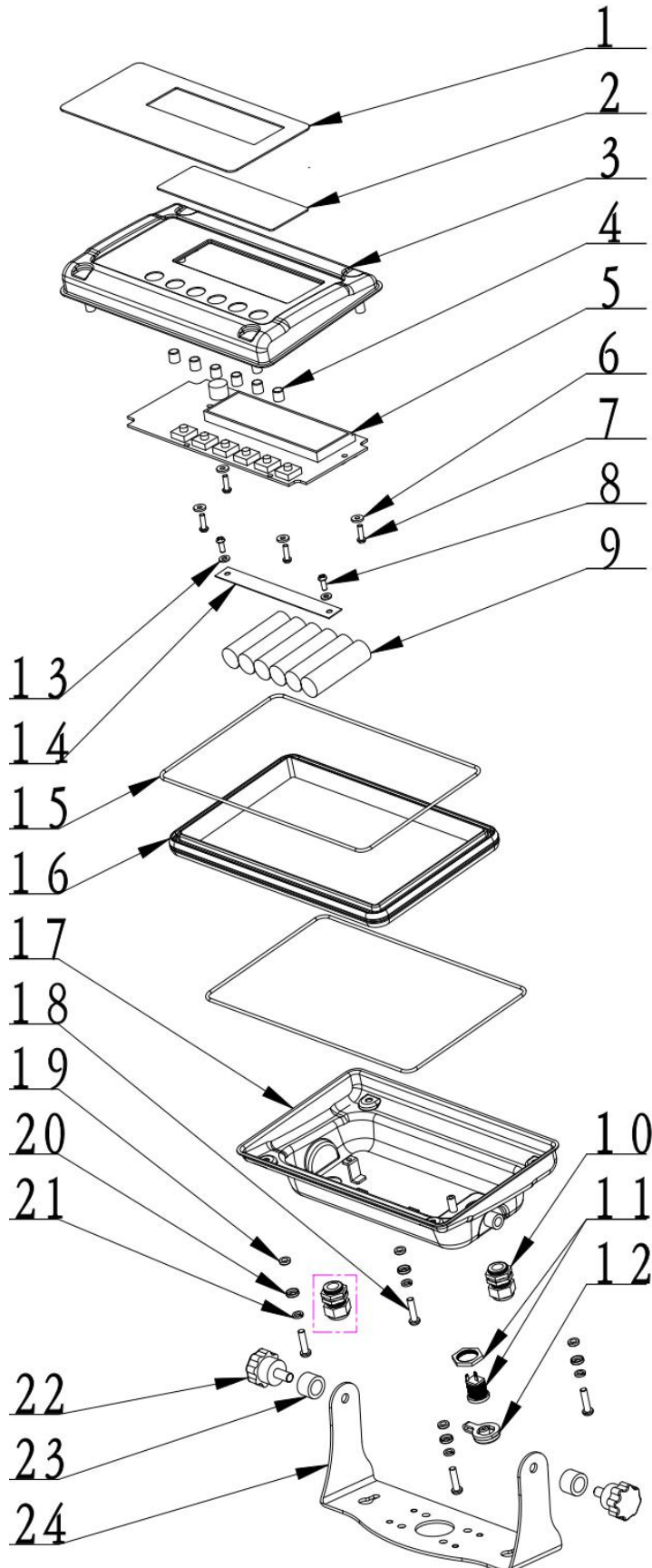
**Print Out Formats**

**Note: Lab 0 & 2 for English and Lab 1 & 3 for Chinese Language**

<b>Lab Pr</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>3</b>
<b>0</b>	2011/12/30 11:11 <b>WEIGHT: 1.00kg</b>		<b>WEIGHT: 1.00kg</b>	
<b>1</b>	2011/12/30 11:11 <b>WEIGHT: 1.00kg</b> <b>TOTAL: 1.00kg</b>		<b>WEIGHT: 1.00kg</b> <b>TOTAL: 1.00kg</b>	
<b>2</b>	2011/12/30 11:11 NET: 1.00kg GROSS: 1.00kg TARE: 0.00kg		NET: 1.00kg GROSS: 1.00kg TARE: 0.00kg	
<b>3</b>	2011/12/30 11:11 NET: 1.00kg GROSS: 1.00kg TARE: 0.00kg TOTAL: 10.00kg		NET: 1.00kg GROSS: 1.00kg TARE: 0.00kg TOTAL: 10.00kg	
<b>4</b>	2011/12/30 11:11 <b>S/NO: 10</b> <b>WEIGHT: 1.00kg</b>		<b>S/NO: 10</b> <b>WEIGHT: 1.00kg</b>	
<b>5</b>	2011/12/30 11:11 S/NO: 10 WEIGHT: 1.00kg TOTAL: 10.00kg		S/NO: 10 WEIGHT: 1.00kg TOTAL: 10.00kg	

<p><b>6</b></p>	<p>2011/12/30 11:11</p> <p>S/NO: 10  NET: 1.00kg  GROSS: 1.00kg  TARE: 0.00kg</p>		<p>S/NO: 10  NET: 1.00kg  GROSS: 1.00kg  TARE: 0.00kg</p>	
<p><b>7</b></p>	<p>2011/12/30 11:11</p> <p>S/NO: 10  NET: 1.00kg  GROSS: 1.00kg  TARE: 0.00kg  TOTAL: 10.00kg</p>		<p>S/NO: 10  NET: 1.00kg  GROSS: 1.00kg  TARE: 0.00kg  TOTAL: 10.00kg</p>	

# 9. DRAWING



24	Support Frame	1	SUS304	Surface Electropolishing
23	Support Frame Plastic mat	2	Nylon	
22	Hand tighten screws	2	Nylon+M6 Stainless steel Screws	Black;
21	M4 Spring Washer	4	SUS304	
20	Cover Gasket	4	SUS304	
19	Seal Gasket	4	NBR	Black;
18	Gross Round screws	4	SUS304	M4*16
17	Bottom Case	1	SUS304	Electropolishing
16	Plastic Decoration	1	ABS+20%GF	Black;
15	Seal Ring	2	EVA	
14	Battery layering	1	PC	104*12*0.5;
13	Flat Gasket	2	20Mn	M3 6.8*3.2*0.8;
12	Adapter Rubber Stuff	1	NBR	Black;
11	Round adapter Base component	1	Nylon	
10	Metal Waterproof Threading Head Component	2	Copper Alloy	Nickel plated
9	Three Alliance Ni-MH battery	2		
8	Gross Round screws	2	20Mn	White zinc-plated; M3*8
7	Gross Round screws	4	20Mn	White zinc-plated; M3*10
6	M3 Insulation Gasket	4	EPDM	7.8*3.1*1.2; Red
5	Mainboard	1		22mmLCD
4	Key Little Red Hat	6	PE	Red;
3	Up Cover	1	SUS304	Electropolishing
2	Display Acrylic board	1	PMMA	105.5*34.5*1;
1	Display overlay	1	PC/PET	6 keys, Punch; 3M Waterproof adhesive
No	Parts Name	Qty	Material	Note

## 10. ERROR CODES

<b>Error Message</b>	<b>Description</b>	<b>Solution</b>
-----	Maximum load exceeded	Unload or reduce weight
<i>Err 1</i>	Incorrect date	Enter the date by using format "yy;mm:dd"
<i>Err 2</i>	Incorrect time	Enter the time by using format "hh:mm:ss"
<i>Err 4</i>	Zero setting error	Zero setting range exceeded due to switching on.(4%max) Make sure platform empty.
<i>Err 5</i>	Key board error	Check the keys and connector.
<i>Err 6</i>	A/D value out of range	Make sure platform empty and check the pan is installed proper. Check the load cell connectors.
<i>Err 7</i>	Percentage error	Value should be (0.01% weight must > 0.5d)
<i>Err 9</i>	Unstable Reading	Check any air variation, vibration, RF noise and touching some where. Check the load cell and connectors.
<i>Err 10</i>	Communication error	No data (RS-232, continuous communication)
<i>Err 15</i>	Enter gravity error	Gravity rang(0.9~1.0)
<i>Err 17</i>	Tare out of range	Remove the load and restart scale again.
<i>Err 19</i>	Initialize zero error	Calibration the scale.
--oL--	Over range	Remove the load. Re calibrate
<i>FA, L H / FA, L L</i>	Calibration Error	Re calibrate
<i>Err P</i>	Printer error	Check the printer and settings
<i>bA Lo / Lo bA</i>	Battery low	Re charge battery, check the voltages.



The company was founded in Taiwan in 1967 as Taiwan Scale Mfg Co., Ltd in order to produce Mechanical Weighing Instrument. Today, this privately owned company is recognized worldwide as a leading Electronic Weighing Scale Manufacturer. The core business of TSCALE is the development, manufacture, worldwide sales/marketing and service of electronic weighing instruments.

#### The TSCALE products

- Medical Scale
- Counting Scale
- Tabletop Scale
- Retail Scale
- Precision Scale
- Pallet Scale
- Weighing Indicator
- Crane Scale
- Floor and Pallet Scale
- Accessory
- Software

TSCALE has its manufacturing unit in Kunshan, China, ISO 9001 certified company, **OEM/ODM** partner, more than 20 products have **OIML** certifications from Holland's NMI and Denmark's Delta.

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