

Innovative Measurement Electronics



PT Ltd.

WS2
Weighing Scale
Setup Manual

Rev. 11.08.17

Thank you for purchasing a PT Electronic Digital Scale. In order to use the scale properly, please read this Manual carefully before use. If you have a problem concerning the scale, please contact your supplier.

PT regularly updates and issues new information regarding products, the most up to date information and additional detailed information is located on the PT web site.

www.ptglobal.com

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
2. Preparation

2.1. BEFORE USING THE SCALE

To enable you to use this scale correctly, we suggest that you read this manual carefully.

1. Do not use scale in areas with excessive water and don't spray the scale or indicator with water when cleaning. Remove all water from the scale and indicator with a clean dry cloth.
2. The load placed on the platform must not exceed the maximum weighing capacity of the scale.
3. Keep the scale away from high temperatures and damp conditions.
4. If the scale is not going to be used for some time, please clean it and store it in a plastic bag in dry conditions. A desiccant sachet may be included to prevent moisture build up.
5. If the scale is not going to be used for some time, the internal rechargeable battery should be recharged every three months.
6. Before using the scale after a long period of storage, please ensure that the internal battery is fully charged. NOTE: Care should be taken not to leave the internal battery on charge for too long, as this may decrease the life of battery.

2.2. PREPARING THE SCALE FOR USE

1. Unpack the scale carefully and place it on a firm surface. Lift the platform cover off the scale and remove any packing materials that may be underneath. Replace the platform on to the rubber support pads. The platform has a plastic protection film which can be removed to expose the stainless steel surface or left in place if desired.
2. For accurate weight readings locate the scale on a firm level surface free from vibrations. If the scale platform cover is removed a bubble level can be observed on the lower weigh frame to check the scale is level. The four adjusting feet can be used for levelling the scale. The bubble should be inside the centre black circle.
3. Avoid operating the scale in direct sunlight or drafts of any kind.
4. Remove any weight that might be on the weigh pan before the scale is switched on and avoid leaving weight on the pan for long periods of time.
5. Once the scale has been switched on, it will go through a LCD display test and then re-zero to be ready for use.
6. For best accuracy switch the scale on for 15~20 minutes before use.
7. Please note when the  symbol appears on the screen, the batteries need to be recharged.
8. All goods weighed should be placed in the centre of the weigh pan for accurate weighing. The footprint of the goods being weighed should not overhang the sides of the weigh pan.
9. The acceleration due to gravity varies around the world. The force on the scale is a product of the gravity value and the mass placed on the scale to weigh. As the gravity value can vary in different world locations so can the weight displayed for the same mass. The Scales have been calibrated for a gravity value (acceleration due to gravity) of $g=9.803 \text{ m/s}^2$. Discrepancies in readings at the location of installation could be due to a different gravity value and adjustment on site of the scale calibration may be needed.
10. The calibration access port is in the indicator on the side of the case. To access the LOCK/ADJ switch remove the small rectangular cover.

3. FEATURES AND SPECIFICATIONS

3.1. FEATURES

- **Multi-function operation:** Fast weighing operation; Full range tare; Pre-tare; Net / Gross weight display; Simple counting (pcs); Pre-set weight value and quantity value; Check-weighing configuration.
- **Dual-weighing units:** kilogram (kg) and pound (lb).
- **User-friendly design:** Simple calibration; Large LCD display with built in back light; low battery warning indicator; auto power off; double over-load protection.
- **Dual-power source:** The power source can either be from AC or built in rechargeable batteries.
- Stainless steel pan

3.2. SPECIFICATIONS

Model	Capacity	Division	Resolution	Min. Cap.
WS2U/S/M-30	30kg (60 lb)	5g (0.01 lb)	1/6000	200g
WS2S/M/D/L-60	60kg (120 lb)	10g (0.02 lb)	1/6000	400g
WS2M/D/L-150	150kg (300 lb)	20g (0.05 lb)	1/7500 (1/6000 lb)	1000g
WS2D/L-300	300kg (600 lb)	50g (0.1 lb)	1/6000	2000g
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)			
Power Source	Rechargeable batteries or AC 110V/220V (±10 %)			
Weigh pan Size	380x280 mm (WS2U); 400x300 (WS2S); 520x370 (WS2M) 520x420 (WS2D), 600x460 (WS2L)			

3.3. PRODUCT PACKAGE

- Scale 1 off
- User manual 1 off
- AC power cord 1 off
- Please contact to your supplier, if any of the items described above are missing.


3.4. SELECTABLE WEIGHT UNITS AND PIECE UNIT

Kilogram	(kg)	1 kg = 1000 g
Pound	(lb)	1 lb = 453.59239507 g
Piece	(pcs)	

3.5. BATTERY LIFE

- Normal use, the rechargeable battery can be used up to 200 hours.
- Normal use with backlight, the rechargeable battery can be used for 60 hours approximately.
- Normal use with backlight and RS-232, the rechargeable battery can only be used for 56 hours approximately.

3.6. LOW BATTERY WARNING

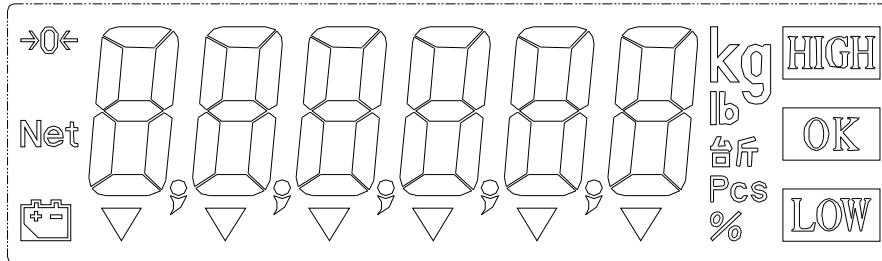
Please note when the  symbol is shown on the display, the internal battery needs to be recharged. The scale will power off automatically without recharging after the low battery symbol has been showing for 20 to 30 hours (3 to 5 hours if the back light is active) on the display. As a recommendation, the scale must be fully recharged before operating the scale again.




3.7. ERROR MESSAGES

- E1** ⇒ Zero is higher than the zero range (10%) when switching the scale on.
- E2** ⇒ Zero is lower than the zero range (10%) when switching the scale on.
- E4** ⇒ Zero range value is unstable.
- E5** ⇒ Zero range value is unstable.
- E6** ⇒ Zero range is too high out of its range during calibration mode.
- E7** ⇒ Zero range is too low out of its range during calibration mode.
- E8** ⇒ Internal resolution is too high out of its range.
- oF** ⇒ A/D value is higher than +31250.
- oL** ⇒ The weight of the object is over the maximum capacity + 9 divisions.
- ErrC** ⇒ After calibration the displayed resolution is greater than the internal resolution.
- ErrS** ⇒ Error setting.
- H** ⇒ The weight value is greater than the zero range, when re-zeroing the scale.
- L** ⇒ The weight value is below the zero range, when re-zeroing the scale.

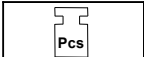

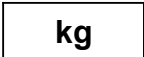
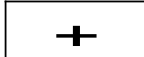

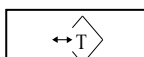
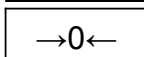
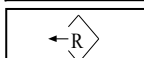

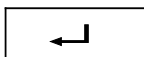
4. DISPLAY and KEYPAD

4.1. DISPLAY




- HIGH** :Preset High Limit Weight Value
- OK** :The range between Low & High Limit Weight Value
- LOW** :Preset Low Limit Weight Value
- kg** :“kg” unit
- lb** :“lb” unit
- Pcs** :“COUNTING” mode indicating the number of pieces
- >0<** :“ZERO” indication and platform stable confirmation
- Net** :“Net Weight ”indication
-  :“Low Battery” indication
- 1st** ● : (STABLE) “Stable” indication
- 2nd** ● : (M+) “Accumulation” mode
- 3rd** ● : () “Sample Too Small” indication
- 4th** ● : () “Piece Weight Too Small” indication

4.2. KEYBOARD

1.  : Sample Key to set the sample quantity.
2.  : Press this key to enter the counting mode.
3.  : Units Key to choose the desired unit weight (kg or lb).
4.  : Accumulation Key to add the displayed value into memory.
5.  : Use the key for data entry or selecting the backlight mode.
6.  : Tare Key to deduct the container weight.
7.  : Zero Key to re-zero the scale.
8.  : Re-call accumulated or preset tare value.
9.  : Clear Key to delete the existing accumulated values.
10.  : Confirmation Key. Print Key to print out the total data.

5. KEYBOARD FUNCTIONS

5.1. DISPLAY BACKLIGHT

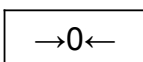
Press the  key to choose the desired display backlight mode:

bL.AUT0 ⇒ “Auto Backlight” mode. When the weight is over 10 divisions or any key is pressed, the display backlight will be switched on. When the weight returns to zero or the weight on platform is less than 10 divisions, the display backlight will switch off after 5 seconds.

bL.ON ⇒ Display backlight is on all the time.

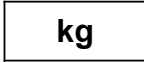
bL.OFF ⇒ Display backlight is off.

5.2. ZERO

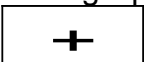
Press the  key to re-zero the display with no load on the weigh pan. When zero is set, the (→0←) symbol will be displayed.

5.3. WEIGHING MODE

5.3.1. Units Selection


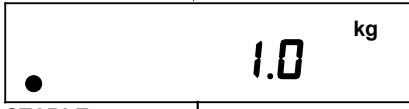

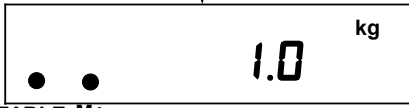
1. Press the  key in the weighing mode to choose the desired weighing unit and the display will show the “kg” or “lb” symbol on the top right of the LCD display.
2. The unit status will be stored when the machine is turned off.

5.3.2. Totalising

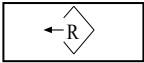
1. The scale allows the next totalising operation, even if the weight value does not return back to zero. The  key is functional, when the weight value changes by more than 10 d. The scale will store the totalised weight value after the weight is stable.
2. The scale can totalise positive or negative weight but not both at the same time. The totalised weight store must be reset to zero before it is possible to select positive or negative totalising mode.

I. Weight Totalising

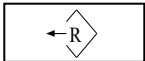

- The totalising function can be used up to a maximum of 9999 times before it must be reset.
- The totalising display is limited to 6 digits maximum.

<u>ACTION</u>	<u>DISPLAY</u>
Place the object onto the scale. The display shows the weight value	
Press the + key	
The display shows the total number of additions	
The total weight totalised shows and the 2 nd "●" flashes on the display	

II. Recall Totalised Weight Values

- Press  the key to display the total number of additions and the totalised weight value. The 2nd "●" symbol located above (M+) icon will flash on the display. The scale will return to the weighing mode after 3 seconds.
- The scale will not display the negative sign "-" for negative totalised weight values when recalling a totalised weight value, but the negative sign "-" will be printed out (transmitted serially) for each negative weight and negative totalised weight.

III. Clear Totalised Weight Values

- Press the  key followed by pressing the  key to clear the totalised weight values.
- All totals will be lost in the following three circumstances:
 1. The mode is changed from weighing to counting or vice versa.
 2. The scale is switched off.
 3. The weight unit is changed.

5.3.3. Deduction of a Container Weight

I. The weight of the container is unknown (Tare)

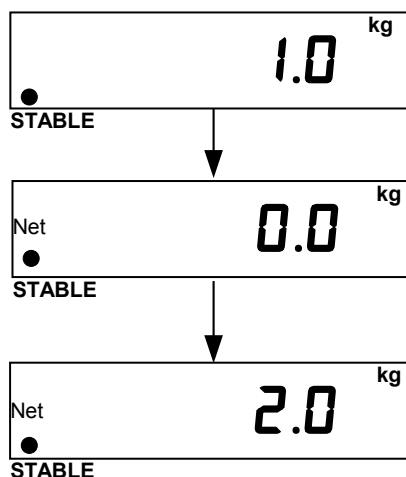
ACTION

Place the container onto the scale. The weight of the container is shown

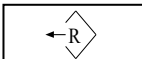
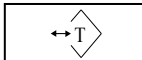
Press the $\overset{\text{T}}{\text{T}}$ key when the weight is stable.
The weight value becomes zero and the (Net) symbol is displayed

Place the object into the container and the display shows the net weight value of the object.

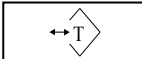
DISPLAY



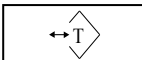
II. Recall the semi-auto tare value

Press the  key followed by pressing the  key \Rightarrow The display shows the tare weight value.

III. Clear the semi-auto tare


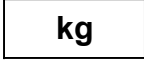
When the container is removed from the scale, the display shows the container weight value with a negative sign. Press the  key to reset the scale to zero, and the (Net) symbol will switch off.

NOTE:

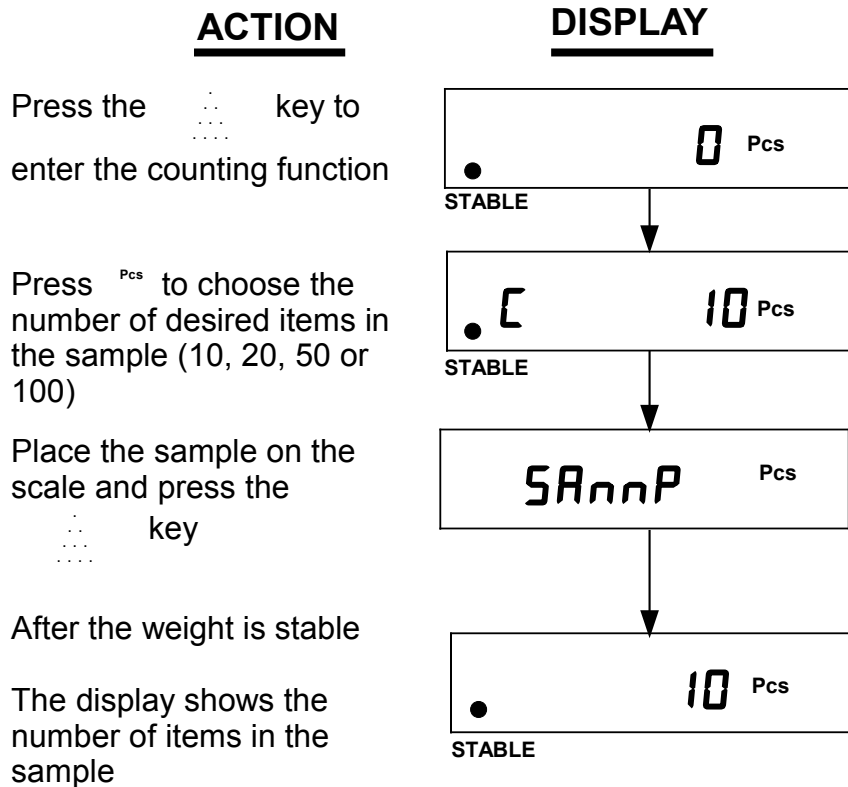
Multiple tare operation \Rightarrow Users can continuously increase or decrease the tare value by pressing the  key.

The total tare value (tare value + pre-set tare value) can equal the full capacity of the scale.

5.3.4.Counting Function


Press the  key to enter the counting function. Press the  key to return back to the weighing mode.


I. Sampling



NOTE:

The larger the sample size, the more accurate the unit weight. (The minimum sample weight = 20d)
 A sample size of 10 pieces gives a typical count accuracy of 95%.
 A sample size of 50 pieces gives a typical count accuracy of 98%.

SAMPLE TOO SMALL () ⇒ Sample is less than 20 divisions.

UNIT WEIGHT TOO SMALL () ⇒ Unit weight is less than 1/5 of a division.


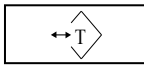

Under such conditions, the scale can still work, but may result in lower count accuracy.

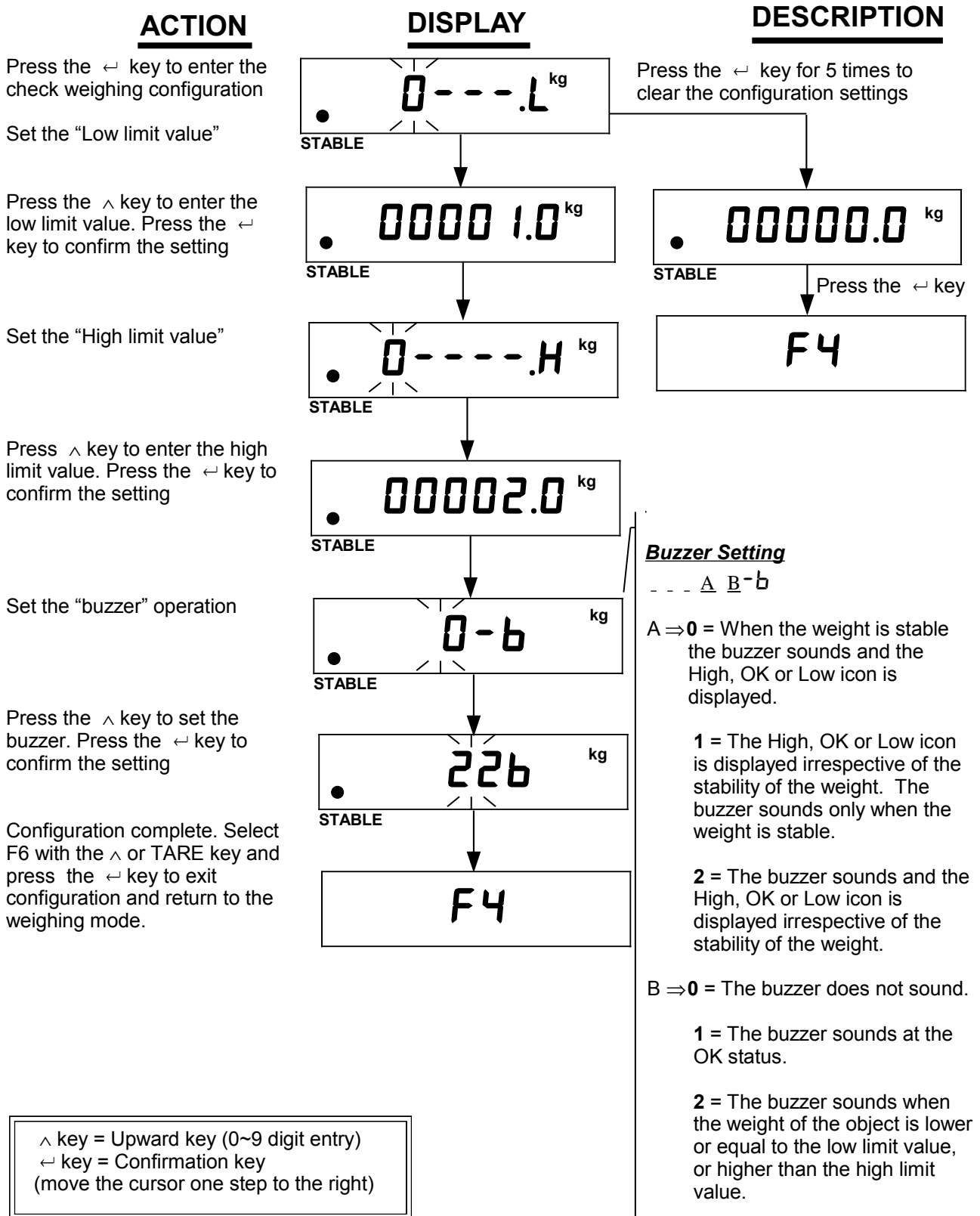
II. Totalising

Refer to the operation of totalising in the weighing function on page 9.

6.1. OPTIONAL CHECK-WEIGHING CONFIGURATION F4


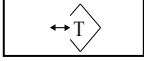
F8 (Hold) affects access to F4. If factory setting F8 is set, access to F4 is denied.

Press the  or  key to select the F4 function ⇒ the display shows F4.
Press the  key to enter the check weighing configuration stage.



6.2. OPTIONAL RS-232 SETTING F5


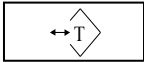
- J1 and J3 on the RS-232 interface are connected together (short), when the RS-232 interface is connected to a computer.
- J2 and J4 on the RS-232 interface are connected together (short), when the RS-232 interface is connected to a printer.

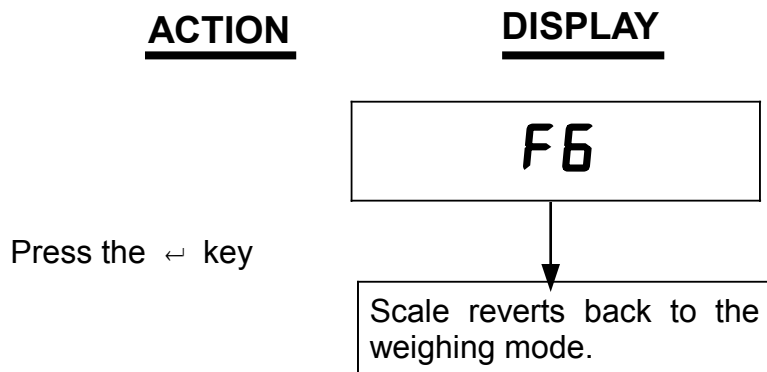
Press the  or  keys to select the **F5** function ⇒ the display shows **F5**.

<u>ACTION</u>	<u>DISPLAY</u>	<u>DESCRIPTION</u>
Press the ↵ key	F5	
Transmission mode	r n P 0	0 ⇒ No transmission
Press the ^ key to set the transmission mode Then press the ↵ key to confirm the setting	r n P 4	1 ⇒ Stable transmission 2 ⇒ Continuous transmission 3 ⇒ Press the ↵ key to transmit (simple mode) 4 ⇒ Press the ↵ key to transmit (complete mode)
Baud rate default setting	2400	5 ⇒ Stable transmission (totalising mode). The format is as same as 3. 6 ⇒ EZ-2 printer mode 7 ⇒ EZ-2 printer mode. The format is as same as 4.
Press the ^ key to set the baud rate (1200, 2400, 4800 or 9600) Then press the ↵ key to confirm the setting	9600	8 ⇒ Press the ↵ key to transmit The format is the same as 1 & 2
Configuration complete. Select F6 with the ^ or TARE key and press the ↵ key to exit configuration and return to the weighing mode.	F5	

- When choosing “EZ-2 printer mode”, the baud rate should be set to 9600 Baud

6.3. EXIT CONFIGURATION SETTINGS F5

Press the  or  key to select the **F6** function⇒the display shows **F5**.



7. RS-232 AND RELAY OUTPUT

7.1. RS-232 OR SERIAL PRINTER OUTPUT

7.1.1. RS-232 Pin Description

WS2 (25 Pin 'D' type) configuration

J1 - J3 SHORT ; J2 - J4 OPEN (default setting)

Pin 2 ⇒ RXD

Pin 3 ⇒ TXD

Pin 7 ⇒ GND

J2 - J4 SHORT ; J1 - J2 OPEN

Pin 2 ⇒ TXD

Pin 3 ⇒ RXD

Pin 7 ⇒ GND

- Please refer to F5 function settings for transmission mode, baud rate setting and data format.

7.1.2. How to Connect the RS232 to a PC

Step 1. WS2 RS232 (DB 25 Pin) Default Pin Assignment as above.

Step 2. Set the F5 RS232 or Serial Printer Output

Refer to F5 RS232 or Serial Printer Output for the setting procedures.

Step 3. Connect the WS2 to the PC with a correct cable orientation

PC configuration

(9 Pin 'D' type)

Pin 2 ⇒ RXD

Pin 3 ⇒ TXD

Pin 5 ⇒ GND

(25 Pin 'D' type)

Pin 2 ⇒ TXD

Pin 3 ⇒ RXD

Pin 7 ⇒ GND

The cable should connect :

GND on the WS2 to GND on the PC.

RXD on the WS2 to TXD on the PC.

TXD on the WS2 to RXD on the PC.

Step 4. Set the Computer (Windows) System

1. START
2. Program
3. Accessories
4. Communications
5. Hyper Terminal
6. After entering to "Hyper Terminal" click twice
7. The screen display "Hyper Terminal"
 - a. Click "Hypertm" twice for display
 - b. A box will ask for your name
 - c. Enter you name
 - d. Click "OK"
 - e. Another box will display
 - f. Then select on User connection "COM 1" (Max. has COM1, COM 2, COM 3, COM 4)
 - g. Click "OK"
8. COM 1 context
 - a. Setting Connection:
 - b. Baud rate: 2400
 - c. Data: 8
 - d. Parity bit: None
 - e. Controler: Hardware
9. Click "OK"
10. Put something on the plate for weighing
11. Press "M+" for printing
12. The data will show in the computer screen

7.1.3. How to Connect Printer to Scale

Step 1. Printer Pin Assignment

Refer to the printer manual and pin configuration for the WS2 on the previous page. For the WS2 default pin configuration connect the printer as per the table.

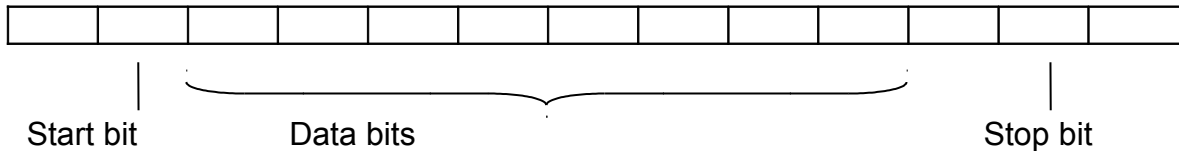
The cable should connect :
 GND on the WS2 to GND on the Printer.
 RXD on the WS2 to TXD on the Printer.
 TXD on the WS2 to RXD on the Printer.

7.1.4. RS-232 Interface Format

Mode : EIA-RS232 C's

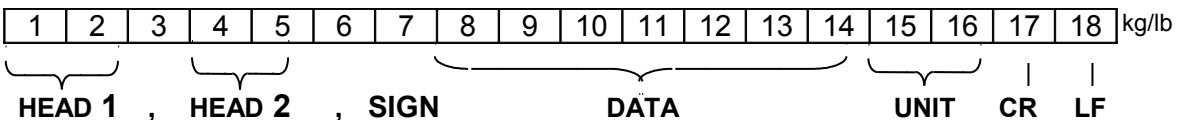
Format :

1. Baud rate: 1200, 2400, 4800 or 9600
2. Data bits: 8 BITS
3. Parity bit: None
4. Stop bits: 1 BIT
5. Code: ASC



7.1.5. Data Format

For transmission modes Stable transmission ($r_nP t$), Continuous transmission ($r_nP \bar{t}$), Press the \downarrow key to transmit ($r_nP \bar{B}$). All characters ASCII, CRLF terminated string. Data is padded with leading spaces. Hexadecimal numbers for the ascii characters (preceded by 0x) are shown in brackets.



HEAD 1 (2 BYTES)	COMMA	HEAD 2 (2 BYTES)	COMMA	SIGN
OL - Overload , Under load (0x4F4C)	, (0x2C)	TR - TARE Mode (0x5452)	, (0x2C)	+ (0x2B)
ST - Display is Stable (0x5354)		NT - NET Mode (0x4E54)		- (0x2D)
US - Display is Unstable (0x5553)		GS - GROSS Mode (0x4753)		

DATA (8 or 9 BYTES)	UNIT (2, 3 or 4 BYTES)	CRLF (2 BYTES)
Sp - Space (0x20)	kg (0x6B67)	(0x0D0A)
. - Decimal (0x2E)	lb (0x6C62)	
0-9 - Digits 0 to 9 (0x30 0x31 0x32 0x33 0x34 0x35 0x36 0x37 0x38 0x39)	tl.T (0x746C2E54)	
	hkg (0x686B67)	

7.1.6. Transmission examples

F5 settings *rnP1*, *rnP2*, *rnP8*

1. The gross weight (+0.876kg) shows as below, after stable: (In GROSS mode)

S	T	,	G	S	,	+			0	.	8	7	6	k	g	0D	0A
HEAD 1			HEAD 2			DATA							UNIT		CR	LF	

2. The net weight (-1.568lb) shows as below without weight stability: (In NET mode)

U	S	,	N	T	,	-			1	.	5	6	8	l	b	0D	0A
HEAD 1			HEAD 2			DATA							UNIT		CR	LF	

3. The net weight (+0.876kg) shows as below, after stable: (In TARE mode)

S	T	,	T	R	,	+			0	.	8	7	6	k	g	0D	0A
HEAD 1			HEAD 2			DATA							UNIT		CR	LF	

F5 settings *rnP3* Pressing the ↵ key to transmit (simple mode)

S/N WT/UNIT (kg / lb)

0001	1.0000	Press the ↵ key or the + key
0002	1.0000	Press the ↵ key or the + key
0003	1.0000	Press the ↵ key or the + key
0004	1.0000	Press the ↵ key or the + key
0005	1.0000	Press the ↵ key or the + key

0005	5.0000	Press the ↵ key for 2 times to printout the total

F5 settings *rnP5* Stable transmission (totalising mode)

S/N WT/UNIT (kg / lb)

0001	1.0000	scale stable, transmitting
0002	1.0000	scale stable, transmitting
0003	1.0000	scale stable, transmitting
0004	1.0000	scale stable, transmitting
0005	1.0000	scale stable, transmitting

0005	5.0000	Press the ↵ key for 2 times to printout the total

F5 settings *rnP7* EZ-2 printer mode, press the ↵ key to transmit
 (Baud rate must be set at 9600, only prints out the "weight value". The proportion of the printed typeface ⇒ Height : Width = 3:2)

+100.0 kg

F5 settings rnP5 EZ-2 printing mode, press the ↵ key to transmit
F5 settings rnP4 Pressing the ↵ key to transmit (complete mode)
(Baud rate must be set to 9600)

TICKET NO .0001 Press the ↵ key or the + key
G 1.000kg
T 0.000kg
PT 0.000kg
N 1.000kg
(Blank line x 3)

TICKET NO .0002 Press the ↵ key or the + key
G 1.000kg
T 0.000kg
PT 0.000kg
N 1.000kg
(Blank line x 3)

TICKET NO .0003 Press the ↵ key or the + key
G 1.000kg
T 0.000kg
PT 0.000kg
N 1.000kg
(Blank line x 3)

TOTAL NUMBER Press the ↵ key twice to print out the total
OF TICKETS 0003
TOTAL
NET 3.000 kg
(Blank line x 3)

<Remarks> : G = GROSS T = TARE PT = PRE-TARE N = NET

7.2. RELAY OUTPUT

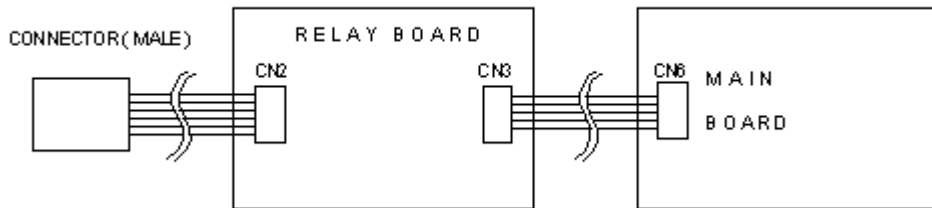
7.2.1. Relay Output

The relays act as signal output in the check-weighing mode. When an object's weight value reaches one of the setting points (HI, OK, LOW), the relay outputs a signal through PIN 1, PIN2, or PIN 3. Set the check-weighing values by entering the check-weighing configuration (please refer to 6.1 for operation). The relays are recommended for switching up to 24V AC/DC 2A.

7.2.2. Relay Pin Description

PCB Pin CN2	Function	9 Pin Connector pin No.	Remarks
1	OK output	5	
2	High Output	6	
3	Low Output	3	
4	VDD	2	Used for external relay power
5	GND	1	Used for external relay power
6	Common	4	Common for relay connection

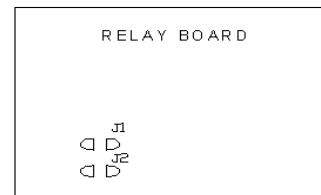
7.2.3. Connection Illustration



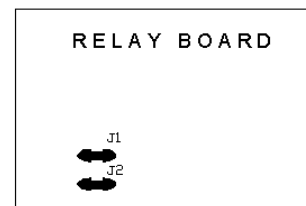
7.2.4. Power Source Illustration

The relay circuit board can be supplied either by the external AC power or internal DC power.

- ① Relay powered by external AC power
PIN4 and PIN5 are connected with AC power source; J1 and J2 OPEN. (Not recommended)



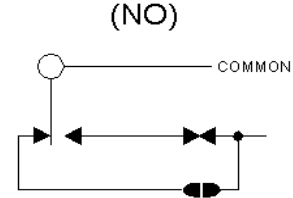
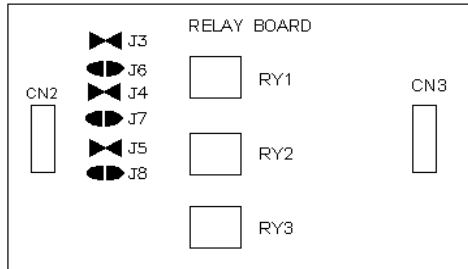
- ② Relay powered by internal DC power (Default)
No power source input to PIN4 and PIN5; J1 and J2 SHORT



7.2.5.Connection Setting

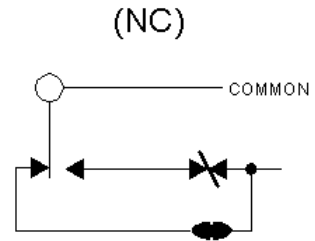
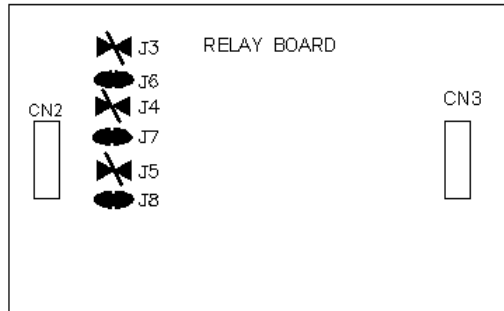
OK, High, Low can be set at **NO** (normally open status) or **NC** (normally closed status) respectively.

① OK, High, Low at **NO** (normally open status) ⇒ default setting



② OK, High, Low set at **NC**(normally closed status)

Please use a knife to cut the J3, J4 and J5 so they are not connected (open) and solder the J6, J7 and J8 so they are connected.



7.2.6. Relay Output Connection

The outputs from the relays are via a nine pin connector in the back of the WS2 case corresponding to the table in para 7.2.2 above. The pin number is marked in fine writing next to the pin and a magnifier may be required. Take care to identify the correct pin.

For an internally powered relay board (default connection), simply connect one side of device power to the common, connect the output from the OK, LO or HI connections to the device, and the other side of the device is connected to the other side of device power.

8. Calibration

- Before calibrating, please adjust the mini jumper SWA1 located through an opening in the side of the case to “ADJ” position.
- After finish the calibration, please re-adjust the mini jumper SWA1 to “LOCK” position.

Press \wedge key or  key to select **F0** \Rightarrow The screen displays **F0**.

ACTIONS

DISPLAY

NOTE

Press \leftarrow

F5

Press \leftarrow

2Err0

Press \wedge or \leftarrow to input the “calibration weight”* value. For this example 3.00

0 0 kg

Press \leftarrow

003.00 kg

Put the calibration weight on the scale, press


3.000 kg

Scale stable, buzzer “beep”

LowBat

3.000 kg

Key Functions:

- \wedge key: Upward key (from 0 to 9)
- \leftarrow key: Confirmation key
-  key: Cancel and return to **F0** mode

Calibrated Unit:

The calibrated unit could be “kg” or “lb” depending on the model or the weight unit. When the scale has “kg” and “lb” units switch function, use the kg key to switch calibrated unit between “kg” and “lb”.

F0 calibration is finished and you may return to the weighing mode. Select **F6** to exit setup.

Calibration Weight:**

Any value between 0 and full capacity can be used as the calibration weight. We strongly recommend the calibration weight should be over 1/3 of full capacity.

9. Addendum

9.1. LOAD CELL CONNECTION.

At times it may be necessary to calibrate with a load cell simulator or repair a connection to the scale base. The load cell connection to the round 5 pin connector in the back of the WS2 case is as below.

The pin number is marked in fine writing next to the pin and a magnifier may be required. Take care to identify the correct pin.

9.1.1. Load Cell Connector Pin Description

Main PCB Connection	Function	5 Pin Connector pin No.	Remarks
V+	Excitation +	1	
V-	Excitation -	2	
S+	Signal +	3	
S-	Signal -	4	
Sen+	Sense +	N/C	Not connected to 5 pin Connector
Sen-	Sense -	N/C	Not connected to 5 pin Connector
	Ground	5	Connect to screen