

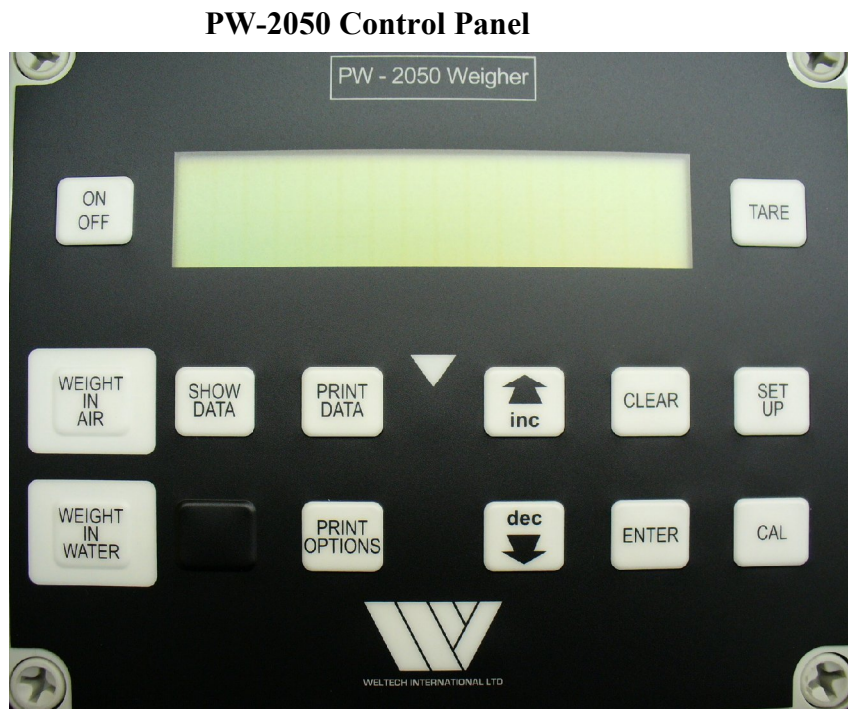
# 1. INTRODUCTION

The PW-2050 weighs potatoes to measure their specific gravity and percentage dry matter. It works by comparing the weight in air with the weight in water of 1.5kgs of potatoes and converts this to specific gravity and dry matter. The PW-2050 is battery operated and will weigh for up to 15 hours between re-charging and will retain all weights even when the batteries are flat.

All information is stored until the **CLEAR** sequence has been completed.

The maximum weight the unit can weigh is 5 kgs (11 lbs).

**NOTE:** If the weight exceeds 5kgs the loadcell will be damaged.



Printer/Computer and Charger sockets are on the side

# 2.1 SAFETY CONSIDERATIONS

The PW-2050 is a rugged unit designed for outdoor use but it should be handled with care. The unit can be cleaned with a damp cloth but under no circumstances be immersed in water.

This unit is fitted with rechargeable batteries and will last for 3-4 years if charged/discharged correctly.

# 2.2 WEIGHT CONDITIONS

## A WEIGHT OF 1KG TO 4KG OF POTATOES MUST BE USED

The PW2050 is fitted with a 5kg loadcell and under no circumstances should the weight of the potatoes and basket exceed this otherwise the loadcell will be damaged and will not be covered by Warranty.

# 2.3 GETTING STARTED

A wire basket or plastic mesh bag large enough to hold 1.5Kg of washed potatoes will be required. The container must be lowered into the container of water until the basket and potatoes are fully submerged.

**IMPORTANT:** The weigher itself must not get wet as this could cause irreparable damage to the board and loadcell inside the weigher.

### 3.1 CALIBRATING THE BASKET

With nothing on the hook check that the display reads zero, and if it does not then press the TARE key.

Place the empty basket onto the hook and press the CAL key, CALIBRATING BASKET will be displayed and then BASKET. Press the WEIGHT IN AIR button, when the weight has been accepted the display will show DRY WEIGHT and the red triangle light will come on. Place the empty basket into the water and press WEIGHT IN WATER, when the weight has been accepted the display will show SAVING NEW SETTINGS, the display will then show READY.

### 3.2 HOW TO WEIGH

A weight of 1KG to 4KG of potatoes must be used. They must be washed before weighing.

Turn the weigher ON with the basket already on the hook. Place the potatoes into the basket and press the WEIGHT IN AIR key. When the weight has been accepted lower the basket into the water and press the WEIGHT IN WATER key. The display will show ACCEPTED.

### 4.1 SETTINGS

Turn the weigher on by pressing the ON/OFF key. The display will show READY. Press the SETUP key and the display will show:

HOUR  
00:00 (DAY MONTH YEAR)

The hour part will be flashing press the inc or dec keys to change the setting to the correct hour. When done press ENTER and the display will move on to minutes. You can then continue through the date settings. After the date settings the display will show the DRY BASKET calibration value and then the WET BASKET value. After this the display will show the TUBER TEMP and then the WATER TEMP. If you are not going to use the tuber and water temperatures then these must be left at 10°C to give a zero correction.

All these values can be changed by using the inc and dec keys and the menus are stepped through using the ENTER key.

### 4.2 CLEARING THE MEMORY

To clear the memory press the CLEAR key and the display will show CLEAR MEMORY [ENTER]=YES. Press the ENTER key and the display will say ARE YOU SURE? [SETUP]=YES. Press the SETUP key and the display will show CLEARING MEMORY FOR NEW DATA

## 5.1 SHOW DATA

Press the SHOW DATA key and the display will show STORE with the time and date. Press ENTER and the display will show DRY MATTER and SPEC GRAVITY. Press ENTER and the display will show DRY WEIGHT and WET WEIGHT. Press ENTER and the display will show DRY BASKET and WET BASKET. Press ENTER and the display will show TUBER TEMP and WATER TEMP. (The standard setting 10°C for both gives 0 correction). Press ENTER and the display will show the next stored weight.

## 5.2 PRINT OPTIONS

- 1.PRINT EACH BATCH This can be switched ON and OFF using the inc and dec buttons. When ON the weigher will print via the serial port as each weight is done.
- 2.REPORT STYLE This can be selected between SUMMARY and DETAILED using the inc and dec buttons. SUMMARY just prints the results. DETAILED prints all the dry and wet weights.
- 3.DISPLAY STYLE This can be selected between SPEC GRAV and DRY MATTER to be displayed using the inc and dec buttons. The selected display setting will be the one that gets printed on a SUMMARY print.
- 4.WRITE TO USB This can be switched ON and OFF using the inc and dec keys. WRITE TO USB is an option and can only be used if the weigher has a USB socket.

## 5.3 USING THE USB STICK SOCKET

Select the WRITE TO USB under the print options. Turn on the WRITE TO USB using the inc or dec key and put in the USB stick. Press the PRINT DATA key and the display will show WRITING TO USB. When the weigher has finished the display will flash up FILE WRITTEN OK and the display will go back to the standard weighing display. The USB stick can now be removed and used on a computer.

If there is no USB stick in the weigher when you try to write to the USB the display will show WRITING TO USB followed by NO STICK FOUND. IF the USB stick is faulty or removed before the file is written the display will show WRITING TO USB followed by ERROR WRITING.

## 6 PRINTER OUTPUT

### PRINT EACH BATCH

If switched ON the weigher prints the weights as they are done.

### REPORT STYLE

#### SUMMARY

Prints the basic summary report showing the results.

#### DETAILED

Prints the detailed report showing the details of the dry and wet weights

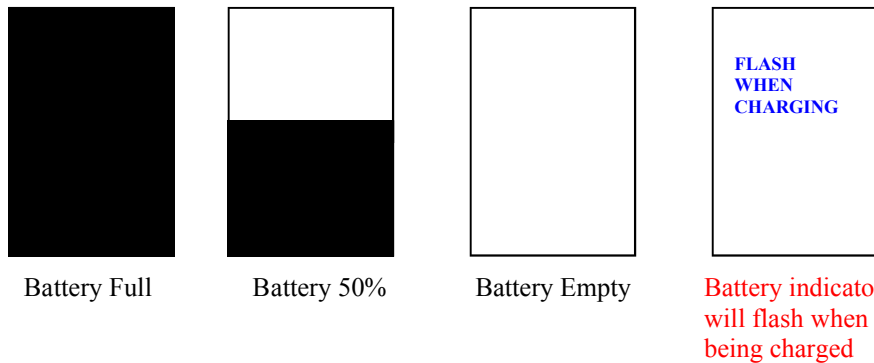
<b>WELTECH INTERNATINAL</b>			
<b>PW2050</b>	<b>1.04</b>	<b>*1921</b>	
<b>SUMMARY REPORT</b>			
<b>Ref</b>	<b>Date</b>	<b>Time</b>	<b>Sp Gr</b>
<b>1</b>	<b>08 DEC</b>	<b>14:08</b>	<b>1.112</b>
<b>Printed 08 DEC 08 14:33</b>			

<b>WELTECH INTERNATINAL</b>			
<b>PW2050</b>	<b>1.04</b>	<b>*1921</b>	
<b>SUMMARY REPORT</b>			
<b>Store number 1</b>			
<b>Dry Matter</b>	<b>%</b>	<b>26.92</b>	
<b>Specific gravity</b>		<b>1.112</b>	
<b>Dry weight</b>	<b>GMS</b>	<b>2443</b>	
<b>Wet weight</b>	<b>GMS</b>	<b>485</b>	
<b>Dry Basket</b>	<b>GMS</b>	<b>364</b>	
<b>Wet basket</b>	<b>GMS</b>	<b>276</b>	
<b>Tuber temp</b>	<b>degC</b>	<b>10</b>	
<b>Tuber temp</b>	<b>degC</b>	<b>10</b>	
<b>Date</b>	<b>08 DEC 08</b>	<b>14:08</b>	
<b>Ref</b>	<b>Date</b>	<b>Time</b>	<b>Sp Gr</b>
<b>1</b>	<b>08 DEC</b>	<b>14:08</b>	<b>1.112</b>
<b>Printed 08 DEC 08 14:34</b>			

## 7 CHARGING

The charging socket and Serial RS232 output connector is situated on the side of the weigher.

In the centre of the display is the battery charge indicator. When full the box will go completely black and as power is used the box will start to go clear. This is only a rough guide based on the battery voltage and does not show how much capacity is in the batteries.



If the battery should go flat while weighing a LOW BATTERY warning will flash in the display and the weigher will eventually turn off. Data already stored in the weigher will remain in memory even if the unit automatically turns off.

**To recharge the batteries fully, leave on charge over night.**

**To check the battery voltage or charging voltage.**

Hold the SET UP button down and turn ON, the display will show WELTECH SET UP then MODEM RATE, press CLEAR and then the inc key.

If the inc or dec key is pushed the display will show the date, time and battery charge. By pushing the dec key while the weigher is on mains charge the display will show the charging rate from the charger.

## 8 KEY PAD



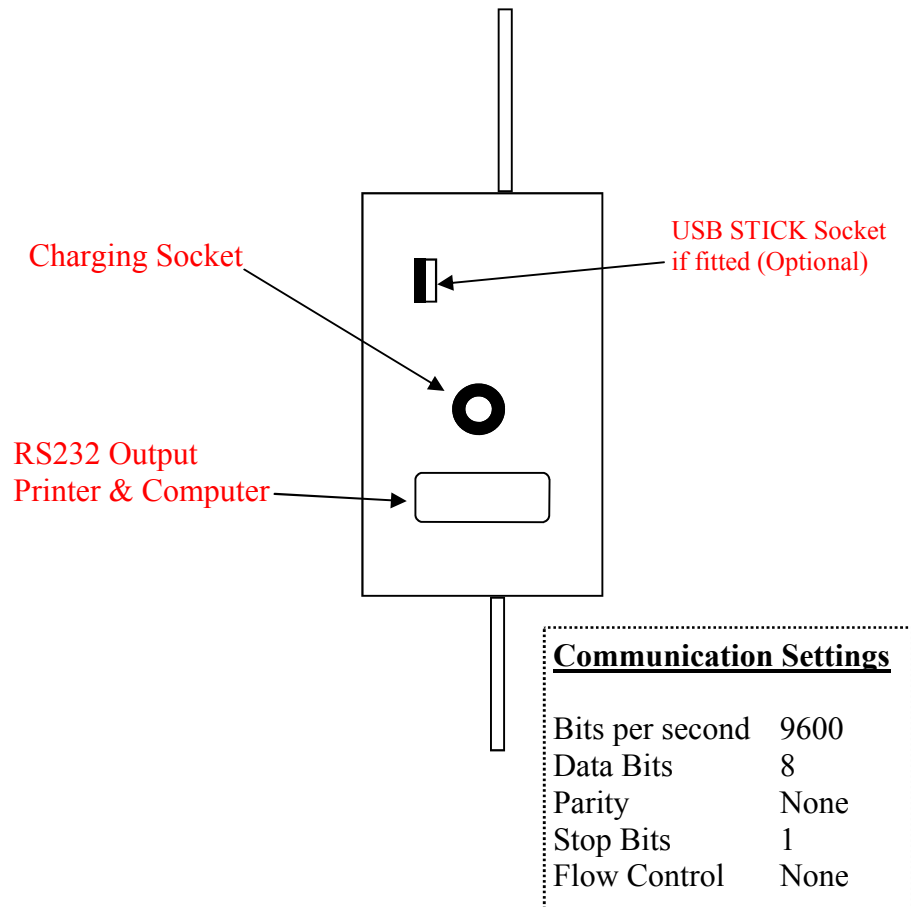
	Turns unit ON and OFF		Clears data stored
	Tares weight on the hook		Settings
	Stores the weight in air measurement		Stores the weight in water measurement
	Displays data stored		Set type of printout. Print each batch Report style Display style
	Prints data stored		Steps through menus
	Increase settings		Basket calibration
	Decrease settings		

## 10 REMOTE COMMANDS

The following commands are accepted at the serial port.

## PC OPERATION

A PC may be connected to the RS232 connector to output the data. Once the computer is connected and the software is ready to accept data, then press the PRINT DATA to output the data.



ID?	Sends weigher type and version
SER?	Sends serial number
PAN?	Sends weight being displayed
EACH	Turns on the print each batch print
EAOFF	Turns off the print each batch print
STON	Selects the summary print
STOFF	Selects the detailed print
DATE?	Sends the date ddmmyy
TIME?	Sends the time hhmm
DATE,ddmmyy	To set the date ddmmyy
TIME,hhmm	To set the time hhmm
CLEAR	Clears memory
PRINT	Prints the selected report
SETTS	Prints settings report
RESET	Restarts the processor
OFF	Turns the weigher off

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**Weltech International Limited manufacture the PW-2050 to the highest specification and our aim is to continue to improve its operation and reliability and give our customers a product that suits their requirements.**

## **SERVICE.**

For service and repairs contact your local agent.

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