



## **INTRODUCING THE LCB & BS+**

The LCB and BS+ systems offer the user tremendous versatility. Designed for portability they offer the ability to accurately weigh most items up to 5 tonnes in weight, regardless of size. With a varying range of specifications available, including options for IP66 sealing, hazardous area use and weights and measures approval. Quality, reliability and performance come as standard.

These scales have really been designed with the end user in mind. The beams can be separated to the required length to suit all given pallet sizes, or can be reduced to weigh items of small size if required. These scales are extremely portable and offer a high accuracy to the user. Because they are so light and portable they can be stored in an upright position out of the way when not in use.

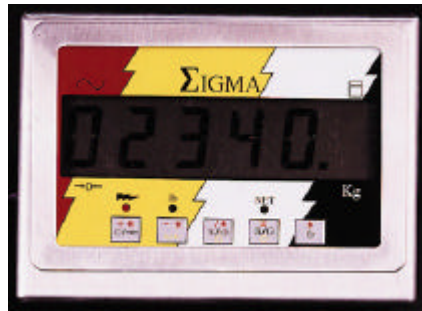
## **USING THE BEAM SCALE FOR THE FIRST TIME**

Please ensure that the beams are properly unwrapped paying particular attention to any packing tape around the legs, make sure that it is removed fully prior to use, as it could result in inaccurate weighing. Locate the display in a safe place where it won't be knocked or damaged. If need be, use the key holes pre-cut into the stand to mount it to the wall. Plug the leads in to the beams and the opposite end to the leads in to the display unit. Then plug the supplied mains adaptor in to the socket on the display and then into a suitable mains outlet. Note that the red light illuminates above the on button, indicating that power is being supplied correctly to the display unit. Always remember to turn the display on without any weight on the scale, this ensures that the display turns on at the correct zero.

Once you are satisfied that all leads are plugged in and routed as far away from walkways, then you are ready to turn the scale on for the first time. Read the instructions on the display functions and buttons and familiarize yourself with them.

**Maximum Load.** The maximum load may not be exceeded. Remember that the Beam Scale is designed for evenly distributed pallet loads etc. If the forks are point loaded to one side, there will be a risk of bending and permanent damage to the scale.

## INTRODUCING THE SIGMA DISPLAY



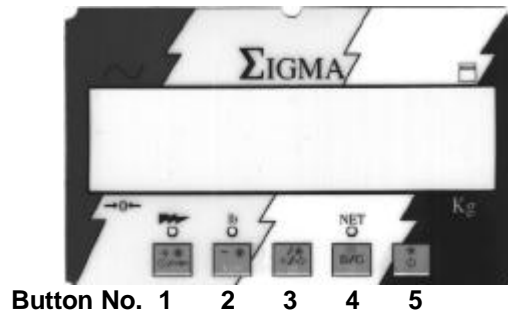
The Sigma scale display is a high quality small sized weighing indicator manufactured using the latest microprocessor technology. It also uses the latest delta-sigma type analogue to digital converter giving fast ultra-linear conversion. All the devices used are Cmos to give a very low current consumption, ideal for battery-powered applications. Calibration is software controlled for ease of installation with both gain adjustment and a dead load offset adjustable via software. This coupled with error checking by the software gives the user a high precision and highly versatile weighing display.

### DISPLAY SPECIFICATIONS

<b>Voltage</b>	8 – 24 volts dc
<b>Current consumption</b>	15-ma approx.
<b>Display type: LCD board 2</b>	6 digit LCD 25.0mm high
<b>Number of scales</b>	1 or 2 Independent
<b>Input sensitivity: Scale 1</b>	4 – 10 MV/v input
<b>Input sensitivity: Scale 2</b>	10,20,40,60 MV/v *
<b>Internal resolution: High</b>	1 part in 450000 *
<b>Internal resolution: Low</b>	1 part in 65000
<b>Display resolution</b>	2,3,4,5,10000 divisions
<b>Display increment</b>	1,2,5
<b>Display Scaling</b>	0.0000, 00.000, 000.00, 0000.0 or 00000
<b>Set points</b>	2 (only available in 1 scale mode)
<b>Serial Port</b>	1 configurable

## OPERATING THE SIGMA DISPLAY

### BUTTON LAYOUT



#### 1. On/Tare/+Print

Looking firstly above this button, you will see an LED which is illuminated when power for the display is available.

Pressing this button will turn the scale on, following which you will see the display give a version number followed by a system self-check. During this period you should see the display count from 1 through to 9 then start weighing.

Pressing this button during weighing mode will re-zero the display. This is ideal if you want to tare out the weight of a pallet for instance.

When a printer is attached to the display this button will also act as a + key for totalizing prints.

**Procedure.** Press and hold Shift (button 4), press and hold +Print (button 1), release Shift, release +Print.

#### 2. Kg/Lb/-Print

This key will do nothing when pressed by itself. However, if you press and hold down the Function key (button 3), press and hold down Kg/Lb (button 2), release Function, release Kg/Lb you will convert kg to lb. When in pounds mode, the L.E.D. will light above this button. To return to kg mode repeat the sequence.

When a printer is attached to the display this button will also act as a - key for totalizing prints.

**Procedure.** Press and hold Shift (button 4), press and hold -Print (button 2), release Shift, release -Print.

### **3. Pre-set Tare/Set-point/Function/Sub-Total Print**

By pressing this button you will be presented with a pre-set Tare facility, where you can select what your Tare weight will be. Press button 3, "tare01" will be displayed. Press on (button 1), XXXXXX will be displayed with right hand digit flashing. Repeatedly press button 1 to increment flashing number from 0 – 9, press button 5 to move flashing digit from right to left. When desired tare weight is displayed press button 3 twice to revert to weighing. Pressing this button, followed by the "Off" (button 5) will take you to setpoint 1. Pressing button 5 again goes on to setpoint 2. This works in the same sequence now as the tare input facility and can be configured to the user's requirements.

When pressing this button and holding it down, it will have the use of being a "Function" key. This will allow you to do lbs/kg conversion explained above in **2.**

When a printer is attached to the display this button will also act as a sub-total key for totalizing prints.

**Procedure.** Press and hold Shift (button 4), press and hold Sub-Total (button 3), release Shift, release Sub-Total.

### **4. Net/Gross/Shift**

Pressing this key once will allow you to alternate between the pre-set tare weight and gross weight. When you display Net weight, the LED will illuminate above this key. Its second function is as a Shift key for easy access to the print commands.

### **5. Standby/Total Print**

By pressing this button once you will switch the display off and it will enter stand-by mode. When a printer is attached to the display this button will also act as a total key for totalizing prints.

**Procedure.** Press and hold Shift (button 4), press and hold Total (button 5), release Shift, release Total.

## **LOOKING AFTER YOUR NEW SCALE**

### **Cleaning the Sigma Display**

When cleaning the Sigma display unit, be careful not to use harsh abrasives or cleansing agents that are solvent based or that are alkaline. Care should be taken around the display area. Using a clean cloth, moistened with water and a small amount of washing liquid is fine.

### **TROUBLESHOOTING GUIDE**

<b>Error</b>	<b>Description</b>	<b>Solution</b>
The display reads uuuuuu	Connection fault  The scale is below acceptable level for zero range	Check to see if leads are connected correctly, or if continuity has been disrupted (e.g. cable broken)  Make sure nothing is obscuring free movement of the load-cell in the weighing platform
The display reads nnnnnn	Connection fault  The scale is above acceptable level for full scale or overload	Check to see if leads are connected correctly, or if continuity has been disrupted (e.g. cable broken)  Check to make sure the scale is not overloaded or above capacity.
Display turns itself off	Battery fault	Check to make sure the battery is fully charged and is suitable for use
Display is unstable or does not read correctly	Lead fault  Battery fault	Check to see if leads are connected correctly, or if continuity has been disrupted (e.g. cable broken)  Check to make sure the battery is fully charged and is suitable for use

## STANDARD SPECIFICATIONS

<b>Length</b>	1200mm	<b>Display</b>	25.4mm LCD
<b>Total Width</b>	Up to 3 Metres	<b>Controls</b>	Multi-Function
<b>Width of fork</b>	120mm	<b>Battery</b>	N/A
<b>Height</b>	LCB - 55mm BS+ - 75mm	<b>Battery charger</b>	N/A
<b>Load cells</b>	1000kg capacity, sealed IP65	<b>Accuracy</b>	+/- 0.1% F. S.
<b>Weight</b>	20kg	<b>Resolution</b>	0.1, 0.2, 0.5 or 1kg

## OPTIONS PACKAGES – weighing system

<b>LCBC</b>	2000kg Capacity x 0.1kg increment, keyboard to allow Tare weight entry, Piece weight or Sample quantity for parts counting, 20 memory stores of Tare and/or Piece weight, nett/gross weight display and lbs/kgs conversion
<b>BS+C</b>	Up to 5000kg Capacity, keyboard to allow Tare weight entry, Piece weight or Sample quantity for parts counting, 20 memory stores of Tare and/or Piece weight, nett/gross weight display and lbs/kgs conversion
<b>LCBP</b>	Same specification as BS+ with Sigma5 display and added tally roll or label printer providing record of Gross weight, Nett weight, Date & Time, Barcode and User definable banner 2 lines of up to 12 characters each line.
<b>BS+P</b>	Same specification as BS+ with Sigma5 display and added tally roll or label printer providing record of Gross weight, Nett weight, Date & Time, Barcode and User definable banner 2 lines of up to 12 characters each line.
<b>LCBW&amp;M</b>	Weights and Measures approved Beam scale, 1500kg x 1kg approval
<b>BS+W&amp;M</b>	Weights and Measures approved Beam scale, Up to 4000 x 1kg approval
<b>LCBSS</b>	Stainless Steel version of standard LCB, loadcells sealed to IP67 (5 year warranty on loadcells), display to IP65
<b>BS+SS</b>	Stainless Steel version of standard BS+, loadcells sealed to IP67 (5 year warranty on loadcells), display to IP65
<b>LCBGALV</b>	Galvanized version of standard LCB, loadcells sealed to IP67 (5 year warranty on loadcells), display to IP65



## Declaration of Conformity

Manufacturer	Palway Ltd.
Display Type	Sigma5

Corresponds to the following EC directives:

EMC Directive	89/336/EEC
Low Voltage Directive	73/23/EEC
Applicable Harmonised Standards	EN 50 081-1 EN 50 082-1 EN 60 0950

Please note that Palway Ltd reserve the right to alter the above specification in the pursuit of product development