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# User Manual

## Compact Scales

### PCE-BS 300 / 3000



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## 1. SAFETY PRECAUTIONS

All safety messages are identified by the following the words "**WARNING**" and "**CAUTION**". These words mean the following:

~ <b>WARNING</b>	<b>Important information to alert you to a situation that might cause serious injury and damage to your property if instructions are not followed.</b>
□ <b>CAUTION</b>	Important information that tells how to prevent damage to equipment.

When using the scale/balance, the following safety precautions should always be followed.

### ~ **WARNING**

**Use only the AC adaptor with the scale/balance. Other adaptor may cause damage. (AC adaptor is optional)**

### ~ **CAUTION**

Avoid installing the scale/balance in direct sunlight; this may cause discoloration or malfunctions.

Do not mix the type of batteries. Replace all other batteries at the same time.

If the scale/balance is not to be used for a long period of time, remove all batteries from the battery compartment to avoid leakage which may cause damage to the instrument.

Avoid overloading that could cause damage to the scale/balance.

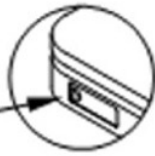
Do not drop water in the scale/balance that is not water-resistant. It causes damage, if inside of the scale/balance is wet.

Matter charged static electricity could influence the weighing. Discharge the static electricity. As example, the method is to use the electrification prevention spray, to spray it to both side of weighing platform.

## 2. PARTS DESCRIPTION

### ▶ LEFT SIDE

AC adaptor  
Socket



### ▶ TOP

#### Weighing platform

The arch face of platform is front.  
Correct the direction of the pan.

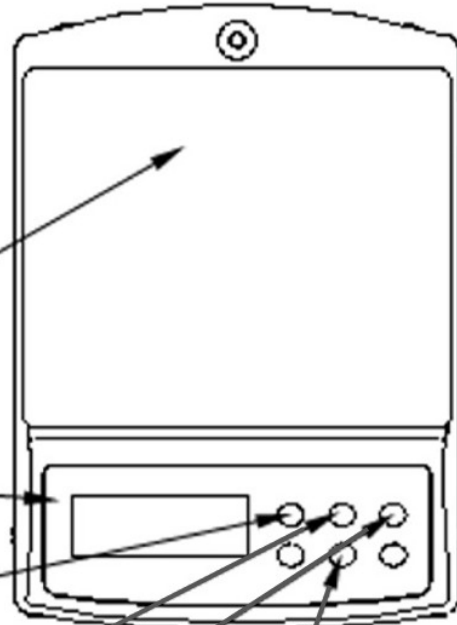
#### Display

**ON / OFF key**  
Turns the scale/balance  
Power on/off

**UNIT key**  
Changes weighing units

**ZERO key**  
Sets display to zero or  
Subtracts weight of a container.

**PCS key:**  
counting mode



### ▶ BOTTOM

Battery compartment

Battery compartment cover

Batteries  
6AA Batteries



### ▶ DISPLAY

**STABLE indicator**  
Indicates when the reading is stable.

Auto backlight function indicator

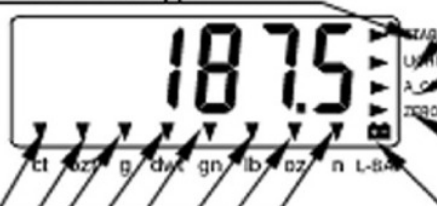
Auto shut off function indicator

**ZERO**

Indicates when the reading is stable

Weighing unit

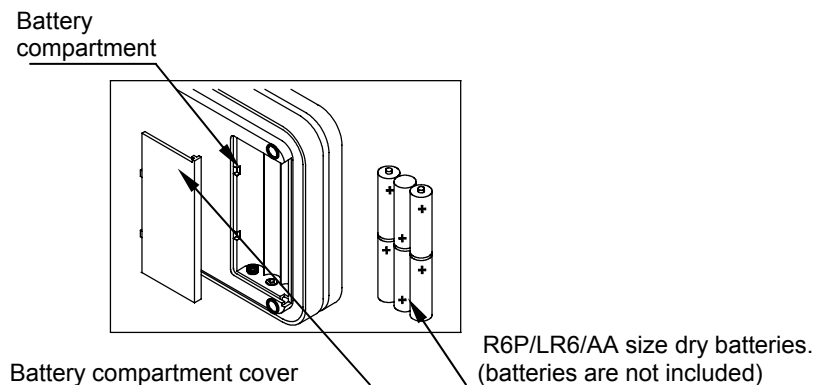
Low battery indicator



### 3. PREPARATION

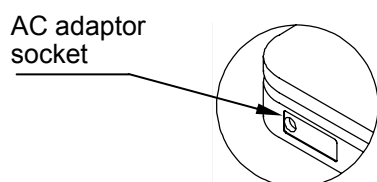
#### 1. Installing batteries/Connecting the AC adaptor

##### Batteries



Remove the battery compartment cover and insert six batteries(R6P/LR6 /AAsize) into the battery compartment, taking extreme care that the polarities plus and minus is observed.

##### AC adapter (optional)



Plug the AC adapter to the AC adapter socket on the side. The AC input requirement could be 110,120,220,230 or 240Volts (50/60Hz) depending on the area where used, so please verify that the adaptor is correct

#### 2. Setting up the scale/balance

##### ⚠ CAUTION!!

Avoid installing the scale/balance in direct sunlight that may cause discoloration or malfunctions. Place your scale/balance on a firm weighing table so that the scale/balance is level. (The scale/balance will not perform accurately when it is not level.)

Place the scale/balance on the firm surface that is flat and level for an accurate weighing.

1. Selection of auto backlight mode.  
When the balance enter function setting menu. Press **[UNIT]** key, the display will show **L\_ON** or **L\_OFF**, press **[ZERO]**, selection display **L\_ON**, this means auto backlight function active, press **[ZERO]** again, the display will show **L\_OFF**, this means auto backlight function inactive, i.e. shut off backlight function.
2. Selection of auto shut off mode.  
When the balance enter function setting menu. Press **[UNIT]** key, the display will show **A\_ON** or **A\_OFF**, press **[ZERO]**, selection display **A\_ON**, this means auto shut off function active. Press **[ZERO]** again, the display will show **A\_OFF**, this means auto shut off function inactive.
3. Return to weighing mode.  
Press **[ON/OFF]** to turn the power off, press **[ON/OFF]** again to turn on the power and the scale return to the weighing mode.

##### Counting procedures

###### 1.Press **[ON/OFF]** to turn on the scale.

Wait for "0" to appear on the display.

###### 2.Start the Count Procedure

If necessary, press **[ZERO]** key to set the display to "0".

3. Place a given number of samples of an item on the pan (the Sample Size should be either 10 20 50 or 100 pieces). The weight of these samples will show on the display.
4. Press the **[PCS]** key several times to put the scale in PCS mode.
5. Select the sample size (the same as you chose above) by pressing the **[PCS]** key. (press it as many times as necessary to put it in the correct sample size ,the sample size is the same as in step three =10 20 50or100.
6. Press the **[UNIT]** key, the display will show "selected pcs", then the scale will remember the sample size you selected and show the starting sample size on the display  
(you can now remove the samples if you want to return the scale to 0)
7. Place the items that you want counted onto the tray and the total number of items will show on the display.
8. Presses the "PCS" key to exit the counting function and return to normal weighing or you can press ON/OFF to turn the scale off to exit .

NOTE: the weight of unit sample > 10e.


## 4. WEIGHING

### Before weighing

Whenever possible, please allow the balance to warm up for 10 minutes after first turning to power on, so that the balance will function. Properly and accurately.

### Error messages

EEEE: Overload

: Low battery

Calibration may be required before weighing.

Read "CALIBRATION" first and if necessary, calibrate your scale/balance for accurate weighing.

### Weighing procedures

#### 1. Press **[ON/OFF]** to turn on the scale/balance.

When power is turned on, all display segments appear on LCD for a few seconds and finally "0" will appear on the display.

#### 2. Select the weighing unit with **[UNIT]**.

Press **[UNIT]** to select a weighing unit, eg. "g" " ct " " oz "□" dwt "□"ozt"□"gn"□"lb"□"n". Once the unit has been selected, the selected unit will be displayed to the weight value.

#### 3. Start weighing

##### → If you do not use a container for weighing,

Verify the reading is "0". If not, press **[ZERO]** to display "0". Place objects on the weighing platform to weigh. When the reading becomes stable, the stable indicator is displayed.

##### → If you use a container for weighing,

Place an empty container on the platform.

Wait for the stability indicator to be displayed and press **[ZERO]**.

Place the objects to be weighed in the container.

When the reading becomes stable, the stable indicator is displayed.

## 5. CALIBRATION

### When to calibrate:

When first installing the balance, the factory will still be valid, of course. However, if it is exposed to severe environmental conditions such as dust, contamination, high humidity, a re-calibration can be made. The common calibration intervals should also be adhered to (e.g. annual re-calibration according to ISO).

### How to calibrate:

1. The scale must be turned off.
2. Press and hold the [Unit] key and at the same time press the [ON/OFF] key. The scale will now enter calibration mode and display a random number such as 0247581811, which is the indication of A/D converter (the signal of the weighing cell). When loading the scale, this number should increase and when removing the load, it should decrease and stabilise. Now press [UNIT] key to confirm the zero point. The weighing platform should be free from any load. The display will show "00SAVE" for a short time and go to the first calibration point "2000.0" (PCE-BS 3000) or "200.00" (PCE-BS 300). Now load the scale with the 2000 g weight. Then press the [Unit] key again. The display will show "00SAVE" again and then go to the second calibration point "3000.0". You can either cancel the calibration by pressing the [ON/OFF] key or load the scale with a 3000 g weight and press the [Unit] key again. "00SAVE" will be displayed for a short time. The two-point calibration is now completed and the display will again show the signal of the A/D converter.

.....K JH UD79!6G" \$\$zcb`mUg]b[ `Y!dc]bhWU]VfUH]cb fBS\$ [ L]g'dcgg]VY`

- ..... . Turn off the balance and turn it back on by pressing the [ON/OFF] key. Carry out a few weighings. In case you believe there are still some deviations, repeat the calibration procedure. If you prefer so, you can also contact PCE Instruments for professional calibration at the calibration laboratory.

The calibration is complete.

## 6. FEATURES

- Auto shut off (optional)
- Auto zero tracking
- Low battery indication
- Large LCD (6digits 15 mm high)
- Large square weighing pan
- Auto calibration
- Auto backlight (optional)
- g/oz/lb/ozt/gn/dwt/ct/n
- Net weight/stability indication

## 7. SPECIFICATIONS

Model number	Capacity	Division
PCE-BS 300	300 g	0.01 g
PCE-BS 3000	3000 g	0.1 g
Weighing platform	Ø 95 mm	160 x 135 mm
Operating temperature	0 ... 40 °C (32 ... 104 °F)	
Power source	6 x AA Size Batteries	
	Adapter 9V / 100 mA	

### FUNCTION SETTINGS

Enter function setting mode.

Press [ON/OFF] to turn the power off. Press [ZERO] first, then press [ON/OFF], while keeping [ZERO] pressed, the display will show A\_ON or A\_OFF.

NOTE: This instrument doesn't have ATEX protection, so it should not be used in potentially explosive atmospheres (powder, flammable gases).