

ISW SERIES

PN: 3036613481 Rev. A – October 2017

CONTENTS

1.0	INTRODUCTION	2
2.0	SPECIFICATIONS	3
3.0	INSTALLATION	4
3.1	UNPACKING	4
3.2	LOCATING	4
3.3	SETTING UP	5
4.0	KEYPAD	6
4.1	NUMERIC ENTRY METHOD	6
5.0	DISPLAY	7
6.0	SYMBOLS AND INDICATORS	7
7.0	BATTERY OPERATION	8
8.0	BACKLIGHT	8
9.0	AUTO POWER OFF	8
10.0	OPERATIONS	9
10.1	ZEROING	9
10.2	TARING	9
10.3	WEIGHING	10
10.4	CHECK-WEIGHING	10
10.5	LIMITS STORED IN MEMORY	11
11.0	CALIBRATION	12
12.0	PARAMETER SETTING	13
12.1	CHECK WEIGHING PARAMETERS	13
12.2	SCALE PARAMETERS	14
13.0	ERROR CODES	15
14.0	REPLACEMENT PARTS AND ACCESSORIES	16
15.0	WARRANTY INFORMATION	16

1.0 INTRODUCTION

- The **ISW** range provides accurate, fast and versatile general purpose weighing scales with check-weighing functions.
- All have stainless steel weighing platforms on an ABS plastic base assembly which is sealed to IP 66, making it water-proof.
- All scales have sealed keypads with color coded membrane switches and the displays are large easy to read liquid crystal type displays (LCD) supplied with a backlight.
- The scales include automatic zero tracking, audible alarm for pre-set weights and semi-automatic tare.



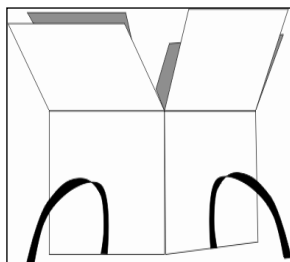
2.0 SPECIFICATIONS

Model	ISW 3	ISW 6	ISW 12
Capacity	3kg/7lb	6kg/13lb	12kg/26lb
Readability	0.0005kg/0.001lb	0.001kg/0.002lb	0.002kg/0.005lb
Repeatability	0.0005kg/0.001lb	0.001kg/0.002lb	0.002kg/0.005lb
Linearity (\pm)	0.001kg/0.002lb	0.002kg/0.004lb	0.004kg/0.01lb
Units of measure	kg, g, lb, oz, lb:oz		
Functions	Weighing, Checkweighing		
Stablization Time	2 seconds typical		
Operating Temp.	-10° to 40°C / 14° to 104°F		
Power Supply	12 VDC, 800 mA AC adapter Internal rechargeable battery ((~ 50 hours operation)		
Calibration	Automatic with external calibration weight		
Display	Backlit 6-digit LCD with 0.8"/ 20mm -high digits		
Housing	IP 66 sealed ABS plastic with stainless steel pan		
Pan Size	8.3" x 6.8"/210 x 173mm		
Overall Dimensions	9.1" x 10.4" x 6"/231 x 265 x 153mm (w x d x h)		
Net Weight	3.3kg/7.3lb		

3.0 INSTALLATION



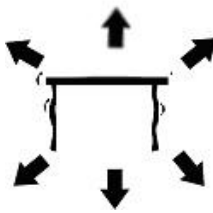
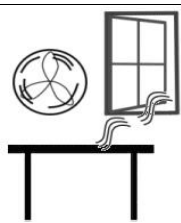
3.1 UNPACKING

Remove the scale from the packing carefully. Inside the box you will find everything needed to start using the scale.



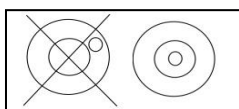
- ✓ Pre-assembled scale
- ✓ Stainless steel top pan
- ✓ Power adapter
- ✓ Operators Manual

3.2 LOCATING

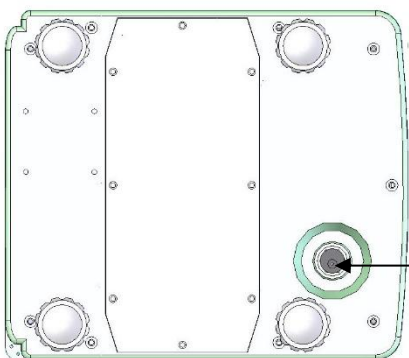
	<ul style="list-style-type: none">• The scales should not be placed in a location that will reduce the accuracy.• Avoid extremes of temperature. Do not place in direct sunlight or near air conditioning vents.
	<ul style="list-style-type: none">• Avoid unsuitable tables. The table or floor must be rigid and not vibrate.• Avoid unstable power sources. Do not use near large users of electricity such as welding equipment or large motors.
	<ul style="list-style-type: none">• Do not place near vibrating machinery.• Avoid air movement such as from fans or opening doors. Do not place near open windows or air-conditioning vents.
	<ul style="list-style-type: none">• Keep the scales clean. Do not stack material on the scales when they are not in use.

3.3 SETTING UP

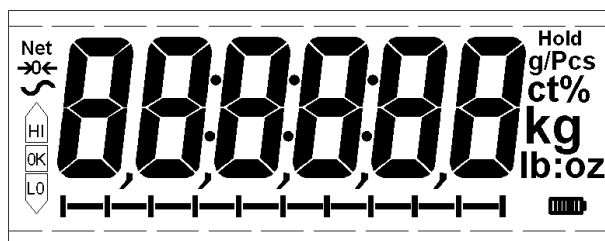
- The scale comes with a stainless steel pan. Place it on the top if not already installed.
- **Do not** press with excessive force as this could damage the load cell inside.
- Level the scale by adjusting the four feet. The scale should be adjusted such that the bubble in the spirit level is in the center of the level and the scale is supported by all four feet.



- Attach the power adapter to the bottom of the scale and plug into an electrical outlet.

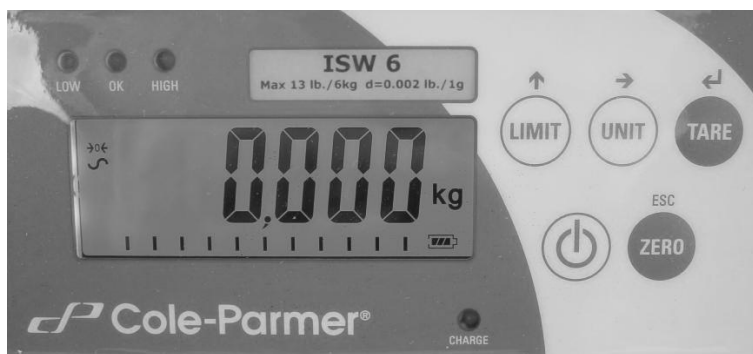


- Press the [O/I] key to start. The scale will first display the software revision, followed by a self-test.



- At the end of the self-test it will display zero weight and the last used weighing unit. The stable wavy line and zero →0← symbol indicators are also displayed.

4.0 KEYPAD



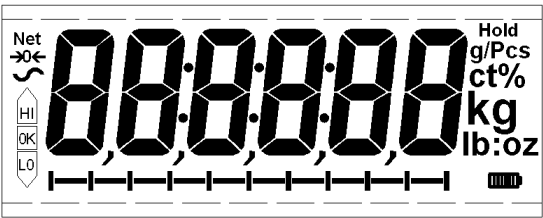
KEYS	PRIMARY FUNCTION	SECONDARY FUNCTION
[O/I]	Switches the scale on or off	
[Zero]	Sets the zero point for all subsequent weighing. The display shows zero.	Escapes from a parameter or an option without changing the value.
[Tare]	Tares the scale and stores the current weight in memory as a tare value, subtracts the tare value from the total weight and shows the results. This is the net weight.	Enters the selected parameter or value for setting.
[Unit]	Selects the weighing units from a preset list of available units.	Shifts the flashing digit to the next digit when entering a value.
[Limit]	Sets the limits for check weighing and allows setting of either the low limit or the high limit or both.	Increments the flashing digit or moves to the next option during setting.

4.1 NUMERIC ENTRY METHOD

To set a value when required, use the keys as given below:

- **[Limit]** key to increase the flashing digit,
- **[Unit]** key to move to the next digit and
- **[Tare]** key to accept the value

5.0 DISPLAY



6.0 SYMBOLS AND INDICATORS

The LCD has unique symbols to indicate the following:

→0←	The display is at Zero
⌒	The scale is Stable
Net	Net weight- The scale has been tared
kg / g / lb / oz / lb:oz	Symbols shown for the weighing units
	Capacity Tracker- A bar graph indicating the proportion of the scale capacity being used by the weight on the pan
bAt LO	Low battery
	Indicates full battery strength. Will show less number of bars for weaker strength.
HI, OK, LO	The scale is in Check weighing mode
:	The colons “:” are used to separate pounds from ounces

Above the LCD to the left, there are three LED’s that indicate when the weight is below, within or over the pre-set limits during check weighing.

Weight	LED	LCD
Below the low limit	Red	LO
Within the limits	Green	OK
Above the high limit	Amber	HI

7.0 BATTERY OPERATION

- The scale can be operated from the battery, if desired. The battery life is approximately 50 hours.
- When the battery needs charging a symbol on the display will turn on. The battery should be charged when the symbol is on. The scale will still operate for about 20 minutes after which it will automatically switch off to protect the battery.
- To charge the battery, simply attach the power adapter to the scale and plug in. The scale does not need to be turned on.
- The battery should be charged for 12 hours for full capacity.
- Below the display is an LED to indicate the status of battery charging. When the scale is plugged into the power outlet the internal battery will be charged. If the LED is green the battery is being charged. If it is red it is nearly discharged and yellow indicates the battery is increasing the charge level. Continue to charge overnight for a complete re-charge.

8.0 BACKLIGHT

The backlight for the LCD can be set by the user to always off, always on or automatic (on only when the scale is in use or a key is pressed). See setting of the parameter “**S2 bl**” in section 12.2.

9.0 AUTO POWER OFF

The auto power off can be set by the user to disable the feature or to a pre-set time interval. See setting of the parameter “**S3 Aof**” in section 12.2.

10.0 OPERATIONS

10.1 ZEROING

- You can press the **[Zero]** key at any time to set the zero point from which all other weighing and counting is measured. This will usually be necessary when the platform is empty. When the zero point is obtained the display will show the zero indicator.



- The scale has an automatic re-zeroing function to account for minor drifting or accumulation of material on the platform. However you may need to press **[Zero]** to re-zero the scale if small amount of weight is still shown when the platform is empty.

10.2 TARING

- Zero the scale by pressing **[Zero]**. The zero indicator will be on. Place a container on the pan and its weight will be displayed.
- Press **[Tare]** when the reading is stable. The weight that was displayed is stored as the tare value and it is subtracted from the display, leaving zero on the display. The stable and **Net** indicator will be on.



- As a product is added only the weight of the product will be shown. The scale can be tared a second time if another type of product was to be added to the first one. Again only the weight that is added after taring will be displayed.



NOTE:

When the container is removed a negative value will be shown. If the scale was tared just before removing the container, this value is the gross weight of the container plus all products which were removed. The zero indicator will also be on as the platform is back to the same condition it was when **[Zero]** was pressed last.

Press **[Tare]** or **[Zero]** to remove the tare value and display zero. The **Net** indicator will disappear.

10.3 WEIGHING

To determine the weight of a sample, first tare an empty container if used, then place the sample in the container. The display will show the weight and the unit of weight currently in use.






To change the weighing unit press the **[Unit]** key. The available weighing units are the ones enabled in the parameters section. See section 12.2.

10.4 CHECK-WEIGHING

Check-weighing is a procedure to show a display or cause a beeper to sound when the weight on the scale meets or exceeds weight limit values stored in memory. The memory holds values for a high limit and a low limit. Either or both of the limits can be used.

NOTE:

1. The beeper and the LEDs can each be set to OFF (See section 12.1). The LCD display will indicate whenever the weight is within or exceeds the limits by showing '**OK**', '**HI**' or '**LO**'.

	Weight on the scale is above the high limit
	Weight is between the limits
	Weight is below the low limit

2. The limits can be locked for security. A Limit Password must be used to change the limits or recall other limits from memory.
3. If a Limit Password is enabled then enter the password which will allow access to the limits or operation of the beeper or bargraph.

Setting up Check-weighing

- Press the **[Limit]** key. It will show the last used high limit.
- The user will be asked for the password if the current check-weighing password is anything other than "0000". See the parameter "**F4 PS**" in section 12.1. Enter the correct password using the numeric entry method as mentioned in section 4.1. If the password is "0000" it will display the last used high limit. The "HI" symbol will appear on the display.
- Press **[Tare]** to accept the displayed high limit or enter the new high limit using the numeric entry method (see section 4.1). When the desired value is entered press **[Tare]** to accept the value. The "LO" symbol will be on. Display will show the last used low limit. Set the low limit in the same way the high limit was set.
- Pressing the **[Tare]** key will return the scale to weighing, with the Check-weighing function enabled.

NOTE: The limits are displayed in the weighing unit in use. The decimal point is fixed at the position that is used for the current weighing unit. If the weighing unit is pounds:ounces, the limits are entered in pounds and decimal parts of pounds. i.e. 6.0125 lb.

10.5 LIMITS STORED IN MEMORY

If the scale is turned off it stores the last high and low limits in the memory along with information about the weighing unit in use when the limits were stored. The limits and weighing unit will be active when the scale is turned on.

11.0 CALIBRATION

The scales are calibrated using metric weights when the weighing unit selected is either kilograms or grams and using pound weights when the weighing unit selected is either pounds, ounces or pounds:ounces.

- To start calibration turn the scale off and then turn it on again. Press **[Tare]** during the self-test. The scale will show “P- - - “. Enter code number “**0000**” using the numeric entry method (see section 4.1) and press **[Tare]**. This will take you directly to the calibration section.
- Display will show “**UnLoAd**”.
- Remove all weight from the pan and then press the **[Tare]** key when the scale is stable.
- After the Zero point is set, the display will show “**Ld xx**”. Place the suggested calibration weight on the pan. It is best to use a weight close to the full capacity of the scale. If the weight is different from the displayed value, enter the value of the weight in whole numbers using the numeric entry method (see section 4.1). The kg or the lb symbol will be on to show the active unit.
- Press the **[Tare]** key when the stable indicator is on.
- The scale will calibrate to the weight and then return to weighing.
- Remove the calibration weight as soon as calibration is complete.

NOTE: If an error message “**FAIL H**” or “**FAIL L**” is shown during calibration, re-check the calibration and repeat, if necessary. If the error cannot be corrected contact your supplier for advice.

12.0 PARAMETER SETTING

This section allows the user to access the parameters for customizing the scale. The parameters are split into 2 groups: Check weighing parameters and Scale parameters

In the following sections use the **[Limit]** key to scroll through the options, the **[Tare]** key to accept the option and the **[Zero]** key to return to weighing. Wherever numeric values are required to be entered, use the **[Limit]** and **[Unit]** keys to increment the flashing digits as explained in section 4.1.

12.1 CHECK WEIGHING PARAMETERS

To enter this section press and hold the **[Limit]** key for 4 seconds. You will be asked for the password if the current check-weighing password is anything other than “0000”. See the parameter “**F4 PS**” in this section. Enter the correct password using the numeric entry method as mentioned in section 4.1. If the password is “0000” it will go directly to “**F1 LLK**”.

Parameter	Description	Options	Factory Setting
F1 LLK	Limit Lock will prevent changing the check weighing limits. To change the limits, this parameter must be disabled by setting it to off or entering the password.	on off	off
F2 LED	Setting the LED	on off	on
F3 bEP	This parameter sets the Beeper to off or on. If set to on, the beeper can further be set to sound when the weighing result is within or outside the check-weighing limits.	bP off - Off bP inL - Within limits bP otL - Outside limits (>20d)	bP inL
F4 PS	This parameter allows setting of a new check weighing password, If the old parameter is “0000” enter the new password twice when “ P1 ___ ” & “ P2 ___ ” are displayed. When complete, it will display “ done ”. If the old parameter is other than “0000”, enter the old one when “ P ____ ” is displayed and then enter the new password twice when asked. When complete, it will display “ done ”.	To be entered manually.	0000

12.2 SCALE PARAMETERS

To enter this section press and hold the **[Unit]** key for 4 seconds. The display will go directly to “**S1 Un**”.

These parameters are used to control the operation of the scale.

Parameter	Description	Options	Factory Setting
S1 Un	Enable or disable weighing units, will not allow to disable all units, at least one has to be enabled.	kg g lb oz lb:oz	kg
S2 bl	Backlight set to always on, always off or automatic on whenever a weight is placed or a key is pressed.	EL off EL on EL AU	EL AU
S3 AoF	Auto Off- Disable or set time increment to turn off scale.	SLP 0 SLP 1 SLP 5 SLP 10	SLP 0
S4 diS	Display all weights or only when stable	ALL StAb	ALL
S5 Fi	Filter setting to slow, normal or fast	Slow nor FASt	nor
S6 AZr	Auto Zero range	0.5d 1.0d 1.5d	0.5d

13.0 ERROR CODES

During the initial power-on testing or during operation, the scale may show an error message. The meaning of the error messages are described below.

If an error message is shown, repeat the step that caused the message. If the error message is still shown then contact your supplier for support.

ERROR CODE	DESCRIPTION	POSSIBLE CAUSES
Err 4	Initial Zero is greater than allowed (4% of maximum capacity) when power is turned on or when [Zero] is pressed.	Weight on the pan when turning the scale on. Excessive weight on the pan when zeroing the scale. Platform is not installed. Improper calibration of the scale. Damaged load cell. Damaged electronics.
Err 6	Internal weight signal is not correct when turning the scale on.	Load cell is damaged. Electronics is damaged.
Err 8	High limit input error	Low limit is set first, then the high limit is set lower than the low limit and high limit not equal to zero.
Err 9	Low limit input error	High limit is set first, then the low limit is set higher than the high limit and low limit not equal to zero.
FAIL H or FAIL L	Calibration error	Improper calibration (should be within $\pm 10\%$ of the factory calibration). The old calibration data will be retained until the calibration process is complete.

14.0 REPLACEMENT PARTS AND ACCESSORIES

If you need to order any spare parts and accessories, contact your supplier. A partial list of such items is as follows:

- Power Supply Module
- Replacement Battery
- Stainless Steel Pan

15.0 WARRANTY INFORMATION

The scale is covered by a Limited Warranty (Parts and Labor) for any components that fail due to defects in materials or workmanship. Warranty starts from the date of delivery.

During the warranty period, should any repairs be necessary, the purchaser must inform its supplier. The company or its authorized Technician reserves the right to repair or replace the components at any of its workshops at no additional cost, depending on the severity of the problems.

The warranty will cease to operate if the equipment is not returned in the original packaging and with correct documentation for a claim to be processed.

This warranty does not cover equipment where defects or poor performance is due to misuse, accidental damage, exposure to radioactive or corrosive materials, negligence, faulty installation, unauthorized modifications or attempted repair, or failure to observe the requirements and recommendations as given in this User Manual.

This product may include a rechargeable battery that is designed to be removed and replaced by the user. The supplier will provide a replacement battery if the battery manifests a defect in materials or workmanship during the initial period of use of the product in which the battery is installed.

As with all batteries, the maximum capacity of any battery included in the product will decrease with time or use, and battery cycle life will vary depending on product model, configuration, features, use, and power management settings. A decrease in maximum battery capacity or battery cycle life is not a defect in materials or workmanship, and is not covered by this Limited Warranty.

Repairs carried out under the warranty do not extend the warranty period. Components removed during warranty repairs become company property.

The statutory rights of the purchaser are not affected by this warranty.



Manufacturer's Declaration of Conformity

This product has been manufactured in accordance with the harmonized European standards, following the provisions of the below stated directives:

Electro Magnetic Compatibility Directive 2004/108/EC

Low Voltage Directive 2006/95/EC

WEEE 2012/19/EU



This device may not be disposed of in domestic waste. This also applies to countries outside the EU, per their specific requirements. Disposal of batteries (if fitted) must conform to local laws and restrictions.

Cet appareil ne peut être éliminé avec les déchets ménagers. L'élimination de la batterie doit être effectuée conformément aux lois et restrictions locales.

Dieses Gerät nicht mit dem Hausmüll entsorgt.

Dispositivo no puede ser desechado junto con los residuos domésticos

Dispositivo non può essere smaltito nei rifiuti domestici.

FCC / IC CLASS A DIGITAL DEVICE EMC VERIFICATION STATEMENT

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules and Canadian ICES-003/NMB-003 regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his/her own expense.

CALIFORNIA PROPOSITION 65 - MANDATORY STATEMENT

WARNING: This product includes a sealed lead-acid battery which contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.



This product has been tested with, and is supplied with power adaptors which meet all legal requirements for the intended country or region of operation, including electrical safety, interference and energy efficiency. As we often update adaptor products to meet changing legislation it is not possible to refer to the exact model in this manual. Please contact us if you need specifications or safety information for your particular item. Do not attempt to connect or use an adaptor not supplied by us.