

KILOTECH

KWD 750SS

Weighing scale

Operation manual



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***Manuel en Français et en Espagnol
disponible sur www.kilotech.com***

1. Safety warnings

- Disconnect from supply before installation or disassembly.
- Although scale will withstand regular water spills, never submerge the scale and never wash the scale with high pressure device. Electrical adapter must be disconnected when washing scale.
- Do not rest the scale of its platter or sub-platter because it can damage the load cell. When manipulating the device, the scale should rest on its sides, never on its platter.
- Do not drop anything onto the scale platter or sub-platter as this could damage the load cell. This scale is a precision instrument and should be treated as such. It should also only be used for its intended use.
- Before you start using the scale, make sure adapter is well connected and wire is not pinched in any way.

- The scale should only be used under proper environmental conditions and supervision as indicated in this operation manual.
- Do not use this scale in places where there are unstable conditions or danger of explosion.
- Do not place the scale near heat sources or in direct sunlight.
- Keep the scale far away from other electromagnetic sources as these could affect the weighting precision.
- When low-battery advisement appears, the battery should be charged. If the battery remains discharged for on 60 days, the battery deteriorates and could stop working.
- When changing battery, make sure (+) and (-) terminal wires are connected to the same and correct battery terminals.

IMPORTANT!

Inappropriate use of the scale, modification or tampering with the scale or abuse / misuse of the scale will void the warranty of the scale.

2. Features



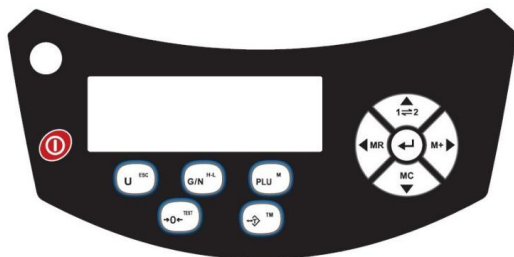
- Liquid crystal display with backlight
- Cross keypad for intuitive menu use
- 4 weighting units.

- IP-65 equivalent protection against liquids and dust.
- 20 numeric tare memory
- 20 limit weights for +/- control memory.
- 50 products memory for piece counting.
- Checking function for Hi/OK/Low with optical and acoustic indication
- Automatic OFF function.

3. Options

- Optional rechargeable battery.
- Double RS-232C data output (PC and printer).
- External Tare input (pedal or button).

4. Keypad and display description



Keypad:



Turn on/off key. Press button to turn it on. To turn it off, press and hold the button for one second.



Change unit key. Press it to change unit. In menu mode, press it to escape from menu and return to normal mode.



Gross/Net key. When using tare mode, press it to show total weight, press it again and it will show net weight. To select “weight limit” mode, press and hold it for a few seconds.



PLU key. Press it to enter menu, it has access to limit memories, piece counting, tare mode and other

utility functions.



Zero key. It adjusts scale to zero, correcting its deviations. Do it always when platter is empty. If you press it longer than a second, it shows display test.



Tare key. Press it to deduct the weight of any container or box placed on scale platter. Keep pressing to access tare memory.



MR and left arrow key. Press it to show accumulated total weight. In menu mode, confirm the selected adjust value, and return to previous menu.



M+ and right arrow key. Press it to save the value shown on the display. In menu mode, it shows the next function.



Up arrow key. In menu mode, it increases the value (number) on display.

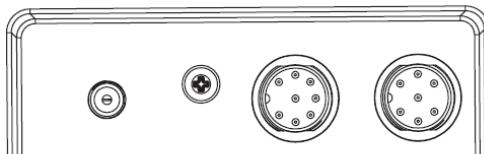


MC and down arrow key. Press it to erase accumulated weight memory. In menu mode, it decreases the value (number) on display.



Enter key. To confirm the selection done in programming mode.

6. Connections



AC/DC: Supply connector.

RS-232C: Double RS-232C data output RS-232C and tare (optional)

C2: External platform connector.

7. Basic function operation

7.1 Zero adjust

When scale platter is empty and it does not show zero value, press Zero key to correct it.

7.2 Tare function

Place a container on the platter. Display will show tare value. Press **"TARE"** and it will show "0" value, deducting object weight. Now you can place other objects on the container, and display will show its net weight.

You can see the total value (gross weight) pressing **"G/N"** key. Press it again to return to net weight.



To cancel tare, remove all objects from the platter, and press **"TARE"**. Display will show zero value.

Tips: If there is instable or temperature differences, display may not show 0 value. In this case, press “Zero” key to correct it.

Max tare range: Tare value cannot exceed the maximum scale capacity. The real scale capacity is the sum of maximum capacity minus the tare done.
Real cap. = max cap. – tare.

TARE memory

The scale has 20 numeric tares available. To store tares, follow the procedure below:

Storing a tare

1) Press “**PLU**” key. Display will show “PLUPro”. Press “**RIGHT ARROW**” key several times till display shows “TLUPro”.



2) Press **RIGHT ARROW** key several times till display shows “TLU01”. Press **RIGHT ARROW** key several times till display shows “TLU01” (for instance “ILU 01”). Last digits indicate the memory number.



Once memory position desired is selected, press “**ENTER**” and display will show one number. To modify it and introduce a tare value, use “**UP ARROW**” and “**DOWN ARROW**” to select the desired digit. To go to right

digit, press “**RIGHT ARROW**”, to modify it use “**UP ARROW**” and “**DOWN ARROW**”. To modify any digit on the left, press “**LEFT ARROW**”. Follow the same procedure explained before.

To finish, press “**ENTER**” key and tare will be saved. If we wish to keep saved tares, press again “**ENTER**” and follow the same procedure.

To finish, after confirming the last tare saved, display will show “ILUPro”. Press “**U/ESCAPE**” to escape to weighting mode.

TARE memory use

In weighting mode, with empty platter, press “**TARE**” longer than a second till “TLU XX” is shown, where XX is the last digit of the TARE memory saved. To access another memory position, press “**UP ARROW**” and “**DOWN ARROW**” to surf along the tare memories until you find the desired memory number.



To confirm, press “**ENTER**”. Display will show tare memory value with negative sign. Now you can place the object on the platter, and the tare value will be deducted from weighting value (shows net weight).

You can operate with the object on the platter, then display indicate net weighting value.

7.3 Auto Tare

This function allows tare function with recipient or box to be done automatically, without pressing "TARE" button. Display detects the first weight (recipient or box), then operates tare function (sets to 0), and gets ready to weight the product in the box or recipient. Afterwards, it sets to 0 and you can start again the same procedure repeatedly without pressing any button.

Function activation

To enable Auto Tare, follow this instructions:

1. Press "PLU". Display will show "PLUPro". Press "RIGHT ARROW" several times, still display shows "AUT-t".
2. Press "ENTER". Display will show in the last position one digit, in accordance with the following meaning:
0 – Unable function.
1 – Enabled Function.
3. Press "ENTER" to confirm. Press "U/ESCAPE" to return to weighting mode.



Function use

1. Place the recipient or box on the platter. Scale will operate the tare function and display will show 0 and tare symbol will be on.
2. Place the object or objects inside the recipient or box. Display will show net weight, deducting the tare (recipient/box weight).
3. Remove all objects from the platter. Display will cancel tare and set to 0.

- To weight again, repeat the same operation. You can use it indefinitely without pressing any button.

7.4 Current weighting

Switch on the scale pressing **“ON/OFF”** button.

Display will be on in a few seconds, afterwards it will show zero value. If there is any object on the platter, display will show the object weight, except in the case its weight is very low, then scale will display zero.



Press **“U”** to select desired weighting unit (default unit is “g or kg”, depending on its configuration).

Place the object you desire to weight on the platter. Screen will indicate object weight value, it should be read when **“stable”** symbol is shown at the top left side on the display.



7.5 Accumulation

This function adds up all weighting values accumulated, and shows its total value.

To use it, place the object you desire to weight on the platter. When display show stabilized weight value (stable symbol on), press **“RIGHT ARROW”**. Then, weight value adds to total.



Repeat procedure for every object to add to the total.



To know accumulated sum value, press "LEFT ARROW" and display will show total accumulated value.

To erase memory, press "DOWN ARROW" and accumulated value will be deleted.

7.6 Piece counting function

The use of this mode is to count pieces of **homogeneous weight**. After doing a simple sampling, scale saves the piece weight, and indicate the number of pieces placed on the platter.

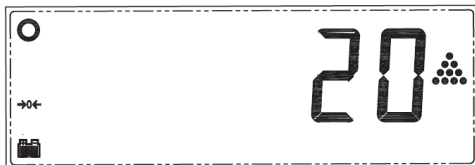
Sampling

To do the sampling, when scale shows 0 and platter is empty, press and hold for longer than one second the "U" button until display shows "10" or other flashing value..

This value is the quantity of pieces you can place on the platter as sampling.

If pieces are small, to increase the precision of counting it is recommended to place a number larger than 10. To do it, press **"UP ARROW"**, then increase the sampling value to 20, 30, 50 or 100. To decrease, press **"DOWN ARROW"**.

REMEMBER THAT THE GREATER THE SAMPLE QUANTITY, THE MORE THE MORE YOU ELIMINATE THE CHANCES OF ERROR.



Once desired value is selected, count the number of pieces indicated on the display, place them on the platter and press **"ENTER"**. Display will stop flashing and will show sampling value.

Counting



Place the pieces you desire to count (it should be the same unitary weight from the sampling) on the weighting platter. It can be counted inside a recipient, if tare has been done before (check Tare Use chapter)

Display will show the total quantity of pieces.

To return to Weight mode in the standard weight unit, press **"U"**.

If you desire to return to piece counting mode using the same unitary weight than last time, press **"U"** several times still display shows **"PCS"** symbol.

7.7 Piece Counting Preset (Saving a piece average weight)

When display on piece counting mode (“PCS” on) and the stable symbol on, press “M”.

Press “RIGHT ARROW” once, and display will show “CLUPro”.

The two digits on the right are the 100 memory position available (from 00 to 99).

Use “UP ARROW” and “DOWN ARROW” to set the target value in the flashing digit, use “RIGHT ARROW” and “LEFT ARROW” to set the other digit. Use “UP ARROW” and “DOWN ARROW” to set the desired memory position value, and confirm by pressing “ENTER”.



Display will show again “CLUPro”. Press “U” to escape to counting mode.



To access to memory database and change one position, press and hold “G/N”. Scale will show “CLU XX”, where XX is the memory position.



Use “UP ARROW” and “DOWN ARROW” to increase and decrease the flashing digit, use “LEFT ARROW” and “RIGHT ARROW” to move the digit on the right or the left. When setting desired memory position, press “ENTER” to confirm it. Scale from now will be programmed with the set piece counting memory.

You can start piece counting by placing pieces on the platter or in a recipient if we use tare function.

7.8 Weight limit function (+/-) (HI/LO)

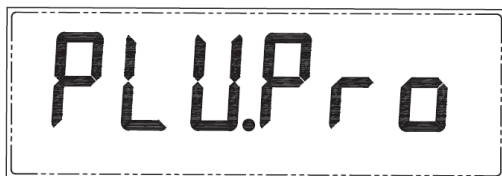
This function is suitable to classify a list of products by weight, ruling out those that are under or on the desired min or max weight. Scale shows a bar with negative left extreme, and positive right extreme, and in the center the accepted products.

This figure indicates if each product is in the desired range set. It uses a beep as acoustic signaling. We offer a relay card to connect external Hi/Lo or control devices.

Scale has 20 memories available for this function.

7.9 Weight limit saving and reply mode.

- 1) Press “PLU”. Scale will show “PLUPro”. Press “ENTER” to confirm, and display will show at right the function memory position number.



- 2) To access to desired memory position, use **"UP ARROW"** and **"DOWN ARROW"** to increase and decrease position number and set the desired one.
- 3) To confirm, press **"ENTER"**.



- 4) Select nominal value, use **"UP ARROW"** and **"DOWN ARROW"** to increase and decrease position to find the desired one. Use **"LEFT ARROW"** and **"RIGHT ARROW"** to move to right or left digit. Once you find the desired nominal value, press **"ENTER"** to confirm.
- 5) Now we should introduce superior increase value for each display segment. We do the selection using the previous procedure. To confirm, press **"ENTER"**
- 6) Do the same operation for the lower increase, which normally is

the same as the superior one, but in some cases could be different, then it should be introduced.

Hi/Lo mode selection

Hi/Lo mode should be programmed for limit function. Scale indicates by a “BEEP” if weight is in or out the set limits. It can be programmed in two different ways:

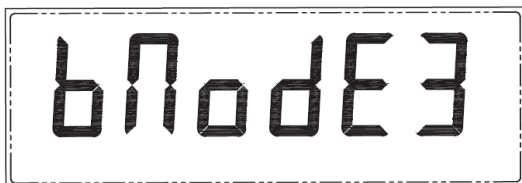


- 1- Advise when weight is within the set limits.
- 2- Advise when weight is outside of the set limits.

Use “UP ARROW” and “DOWN ARROW” to select the desired set limit (value), and use “ENTER” to confirm.

Type of Hi/Lo selection

Hi/Lo mode could be either a continuous beep, or just a one time beep. To set it, use “UP ARROW” and “DOWN ARROW” to select the desired value, and to confirm press “ENTER”.



- 1- No sound.

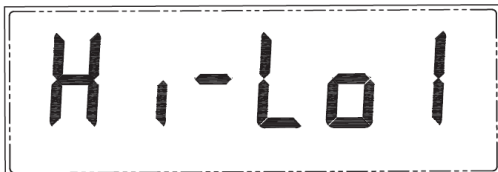
- 2- One-time “BEEP”
- 3- One continuous “BEEEEEEP”.

Press “ENTER” to confirm introduced data, escape using “U”.

Scale returns to normal use mode

Limit function activation(+/-)

- 1) Press and hold “G/N” still it shows “Hi-Lo X”, where “X” indicates if function is enabled or disabled.



To enable, use “UP ARROW” and “DOWN ARROW”, select one out of the two following options.

- 0- Limit function disabled.
 - 1- Limit function enabled.
- 2) Press “ENTER” to confirm. Display will show “PLU XX” where XX is the memory position.
 - 3) Select one of the positions, use “UP ARROW” and “DOWN ARROW” to modify the flashing value, and also “LEFT ARROW” and “RIGHT ARROW”



- 3) Confirm the selection with “ENTER”, and press “LEFT ARROW” to

escape.

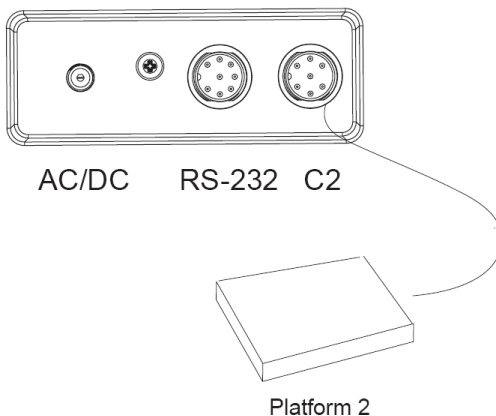
- 4) Place the object on the platter, and scale will show one part of the bar on, depending on its weighting value and weight limits saved, it will show (+) or (-) symbols. In case weighting is in the limits, it will show a central value in the bar on.



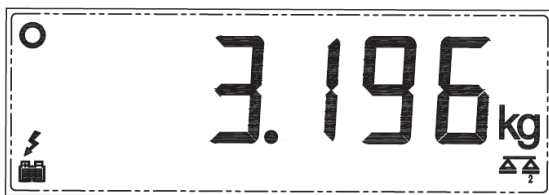
8. Secondary platform (available only on selected models)

Scale models which have external weighting platform let scale platter and another accessory external platform work at the same time.

External platform should be connected to scale C2 connector.



To change from scale platter to external platform 2, you should press **“UP ARROW”**, also shown as changing platform symbol.



Place the object you desire to weight on the platter indicated on the pictograph at the right bottom part of the display. Scale will show the weight in that platform.

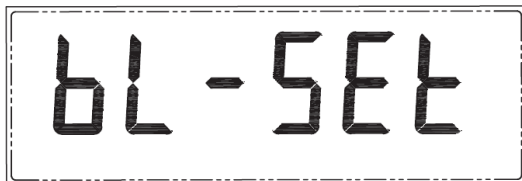
To see again the weight on the scale's platter, press again **"UP ARROW"**.

9. Advanced functions

To access function menu, press **"PLU"**, and display will show **"PLU XX"**.

9.1 Backlight activation

After following the last instructions, press **"RIGHT ARROW"** several times, still display shows **"bL-SET"**.



Use **"UP ARROW"** and **"DOWN ARROW"** to select the desired option between the following ones:

- No - Backlight always on.
- Off - Backlight always off.
- Auto - Auto backlight, it turns off after scale stable symbol turns on for 5 seconds.



Press **“ENTER”** to confirm function. To escape, press **“U”**.

9.2 Auto Hold Mode Function

To access function menu, press **“PLU”**, and display will show **“PLU XX”**.

Press **“RIGHT ARROW”** still display shows **“Hold X”**. X is the saved option.

To change it, press **“UP ARROW”** or **“DOWN AROW”**, according to the following values:



- 0- Inactive function.
- 1- Show top value (peak value)
- 2- Holds weighting value. Press **“TARE”** to unable.
- 3- Holds display weighting value still the object is removed.
- 4- Holds display value still another object is placed on the platter, indicating second object weight.

Press **“ENTER”** to confirm function, and **“U”** to escape.

9.3 Auto Power off

To access function menu, press “**PLU**”, display will show “PLU XX”.

Press “**RIGHT ARROW**” still display shows “AUt-0”. Confirm pressing “**ENTER**”. Display will show one digit at the right, according to the following table:

- 0- No automatic power off
- 1- Automatic power off after 1 minutes without use.
- 2- Automatic power off after 2 minutes without use.
- 3- Automatic power off after 3 minutes without use.
- 4- Automatic power off after 4 minutes without use.
- 5- Automatic power off after 5 minutes without use.



To change it, press “**UP ARROW**” or “**DOWN ARROW**”.

Confirm pressing “**ENTER**”.

To escape, press “**U**”.

9.4 Auto Tare

Function activation

This function does automatic tare. It tares the recipient without pressing any button, and shows net weight of objects placed afterwards.

To enable function, press “**PLU**” and then press “**RIGHT ARROW**” several times still it shows “AUt-t 0”.

Use “**UP ARROW**” to modify the value at the right of “1” to enable function.

Confirm pressing “ENTER” and escape pressing “U”.

Auto Tare Function

When display is showing zero and without any object on the platter, place the empty recipient or box on the platter.

Scale will show zero and automatically will operate Tare function, showing “0” value and turning on scale tare symbol on display.

Place the object in the box, and scale will show net weight. (object weight).

If you remove all from the platter, scale will cancel tare and indicate again “0”.

Now, we can do the same operation again with no limit. Scale will always operates tare automatically still we unable this function.

9.5 Stable Filter

In adverse environmental conditions, or when scale is used in instable weightings, you can increase the weighting stable with filters.

To access this function, press “PLU” and display will show “PLU XX”. Press “RIGHT ARROW” still display shows “FiLTeR”. Press “ENTER” to confirm, and display will show a digit on the right, in accordance with the following table:

- Filter 0- Originally programmed in Factory (Do not use if you do not know)
- Filter 1- Stable environments (fast response)
- Filter 2- Not really stable environments (medium response speed)
- Filter 3- Instable environments (low response speed)
- Filter 4- Very instable environments (slow response speed)
- Filter 5- Strongly instable environments (very slow response speed)

To change it, press “UP ARROW” or “DOWN AROW”.

Confirm pressing “ENTER”.

To escape, press “U”.

9.6 Sound activation

Keypad produces a sound when pressing keys. This sound can be disabled if you desire to. To disable, press “M” and then press “RIGHT ARROW” still display shows “bEEP” on display.

Press “ENTER” to confirm, use “UP ARROW” to select the right digit in accordance with the following options:

- 0- Sound off
- 1- Sound on

9.7 AD converter verification function.

This function shows the value of Analogical/Digital converter to verify the proper working of the whole scale including weight cells.

It is useful for our Technical Assistants to do checkings and to identify eventual scale failures without having to send your scale to our Technical Assistant Department.

To see converter value, press “PLU”, afterwards press “RIGHT ARROW” still it shows “ICouNT”. Press “ENTER” to confirm, and display will show a 6 digit number which normally will be changing, not stable.

To escape this function, press “ENTER” and then press “U”.

9.8 RS-232C data output configuration (optional)

Out of the two data outputs, one can be configured, and can be used to connect to a PC or other accessories.

To access configuration, press “PLU” and then press “RIGHT ARROW” still it shows “UArT”.

Press “ENTER” to confirm, it will show the following speed transmission data options:

001 – 1200 bauds
002 – 2400 bauds
004 – 4800 bauds
009 – 9600 bauds
019 – 19200 bauds
038 – 38400 bauds
057 – 56800 bauds
058 – 115000 bauds

Use “**UP ARROW**” and “**DOWN ARROW**”, select the desired option, and confirm pressing “**ENTER**”.

It will show “dbit 8” message. Is an option which cannot be modified and means that length is 8 bit. Confirm pressing “**ENTER**”.

Afterwards, it will show “PArI 0”, which is also an option which cannot be modified and means parity. Confirm pressing “**ENTER**” and escape pressing “**U**”.

9.9 Print Format

Printer data output can be configured with 5 different print formats, in accordance with the following versions:

Format 1

Weighing Number:	#00002
Net:	0.000kg
Tare:	0.000kg

Format 2

Weighing Number:	#00002
Net:	0.000kg
Tare:	0.000kg
Gross:	0.000kg

Format 3

Weighing Number:	#0000 3
Unit W:	0.000kg
Tare:	0.000kg
Gross:	0.000kg
Net:	0.000kg
Quantity:	

Format 4

Weighing Number:	#0000 4
Unit W:	0.000kg
Gross:	0.000kg
Net:	0.000kg
Quantity:	0.000kg

Format 5

Weighing Number:	#0000 5
Target weight:	664.224
Actual weight:	0.000kg
Deviation:	-664.224

To select the desired format, with the scale in weighing mode, press “PLU”. It will show “PLUPro”. Press “M+” still display indicates “PrnFrn”.

Press “ENTER” to modify print format, from 1 to 5, in accordance with the shown models. To use one of them, select the number with “UP” and “DOWN” keys.

Press “ENTER” to confirm function. Display will show “LFn” followed with two digits. Its function is to select the number of empty lines you desire to

print after data block. If you set the value to 1 or 0, printer will not let empty space between data blocks, if you set a high value (10), printer will let 10

empty lines after printing.

Select the desired value using **“UP”** and **“DOWN”** and arrows **“RIGHT”** or **“LEFT”** to modify the next digit. Confirm the final value with **“ENTER”**.

Display will show **“Lan”** message followed by a number, which is the print language. This digit has to be set according to the following table:

- | | |
|---|---------|
| 0 | English |
| 1 | Spanish |
| 2 | French |
| 3 | German |

Press **“UP”** and **“DOWN”** to select the desired language, to save it press **“ENTER”**.

Display will show **“COM”** message followed by a number, in accordance with the following description:

- COM 0 TTL Series Printer Output (internal use)
- COM 1 RS-232C Printer Output (LP-3 model)

Use **“UP”** and **“DOWN”** to select the desired option, press **“ENTER”** to confirm.

Normally the set value will be option 1 to use GRAM printer LP-3 model or compatible.

Press **“U”** to escape from menu.

In weighting mode, press **“ENTER”**, scale will send weighting value in the print format indicated.

In the weighting format, it is numbered from **“#00001”** value to **“#99999#”**. To

set it to zero, press “**DOWN ARROW**” in weighting mode.

Important: Data output to print is compatible with LP-3. If you use another type of printer, we cannot guarantee its appropriate working.