





## QUICK START GUIDE

### PACKAGING






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- ① 1 x 220 V/7.5 V DC 1 A mains adapter.
  - ⊕ Accompanying documentation.
  - ② 1 x Z3 Display.
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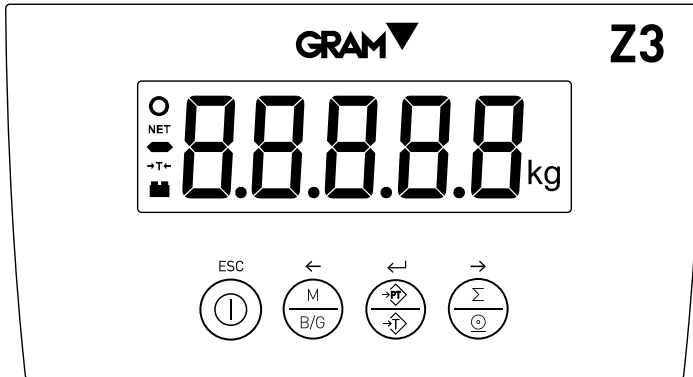
## BUTTON FUNCTIONS

	PRESS ONCE	PRESS TWICE	PRESS AND HOLD
	<p>"Clear": Clears the tare, cancels "hold" mode and resets the total accumulated weight.</p>		<p>Switches the display on/off.</p>
	<p>Tare: This may be "normal tare" or "preset tare" depending on the operating mode selected.</p> <p>If the reading is less than five divisions, the display will automatically be set to zero instead of a tare.</p> <p>If there is a preset tare in the memory and there is nothing on the platform, pressing this button deactivates the tare.</p>	<p>This switches the tare mode from "preset tare" to "normal tare".</p> <p>The default operating mode is "preset tare".</p>	
	<p>When the tare function is activated, this switches the display from net weight to gross weight every time the button is pressed. When net weight mode is switched on, "NET" will appear on the LCD display.</p>	<p>HOLD mode activated/deactivated.</p>	<p>Access to the options and default settings menu.</p>
	<p>Prints the weight indicated on the LCD display.</p>	<p>Prints the weight indicated on the display and adds it to the total.</p>	<p>Prints the total accumulated weight and resets the reading to zero.</p>

## DISPLAY COMPONENTS

	<p>Shows the weight of the object(s) on the platform of the weighing device.</p> <p>In HOLD mode, the reading flashes to indicate the last stable weight recorded and not the actual weight on the platform.</p>
<p>kg g</p>	<p>Measurement unit used to indicate the weight.</p>
	<p>Stable weight reading. This indicates that the weight on the platform is not fluctuating.</p> <p>It flashes to indicate that there is movement on the platform.</p>
<p>NET</p>	<p>Indicates net weight.</p> <p>The net weight is the actual weight on the platform, minus the tare.</p> <p>It is only displayed if a tare has been used.</p>
	<p>Negative sign.</p> <p>This reading may be negative if a tare is activated (in "preset tare" mode) or to indicate a problem when setting it to zero.</p>
	<p>Tare activated.</p> <p>The reading flashes to indicate that "normal tare" mode has been activated.</p> <p>A "preset tare" is retained even after the weight is removed from the platform of the weighing device.</p>
	<p>Battery mode. Not connected to the mains.</p>

# KEYBOARD AND DISPLAY



## BASIC FUNCTIONS



### Switches the device on/off.

If the button is held down for more than 2 seconds, it acts as an off/on switch.



### Tare a container or object

Place an object or container on the platform and wait until the display indicates a stable reading.

Press the tare key and check that tare is shown on the display; the reading will be "0".

If a "preset tare" (1) is being used, the reading will be negative when the object is removed from the platform.



### Printing a simple ticket

Place an object on the platform and wait until the display indicates a stable reading.

Press the print key to print out a ticket showing the gross and net weights and the tare (2).



### Printing a ticket with an accumulated total

Place an object on the platform and wait until the display indicates a stable reading.

Press the print key twice to print the reading shown on the display and add it to the accumulated weight (2).

Press the print button twice to add and print each of the next weights. At the end of each detail sum, the total accumulated sum appears in the display.

If the print key is held down for more than 2 seconds, the accumulated total is printed and the ticket stops printing. This completes the accumulated total operation and deletes the accumulated total from the memory. The display is ready to start another ticket.



### Hold mode

Press the key twice to activate hold mode.

Once an object has been weighed and removed from the platform, the previous reading flashes on the display.

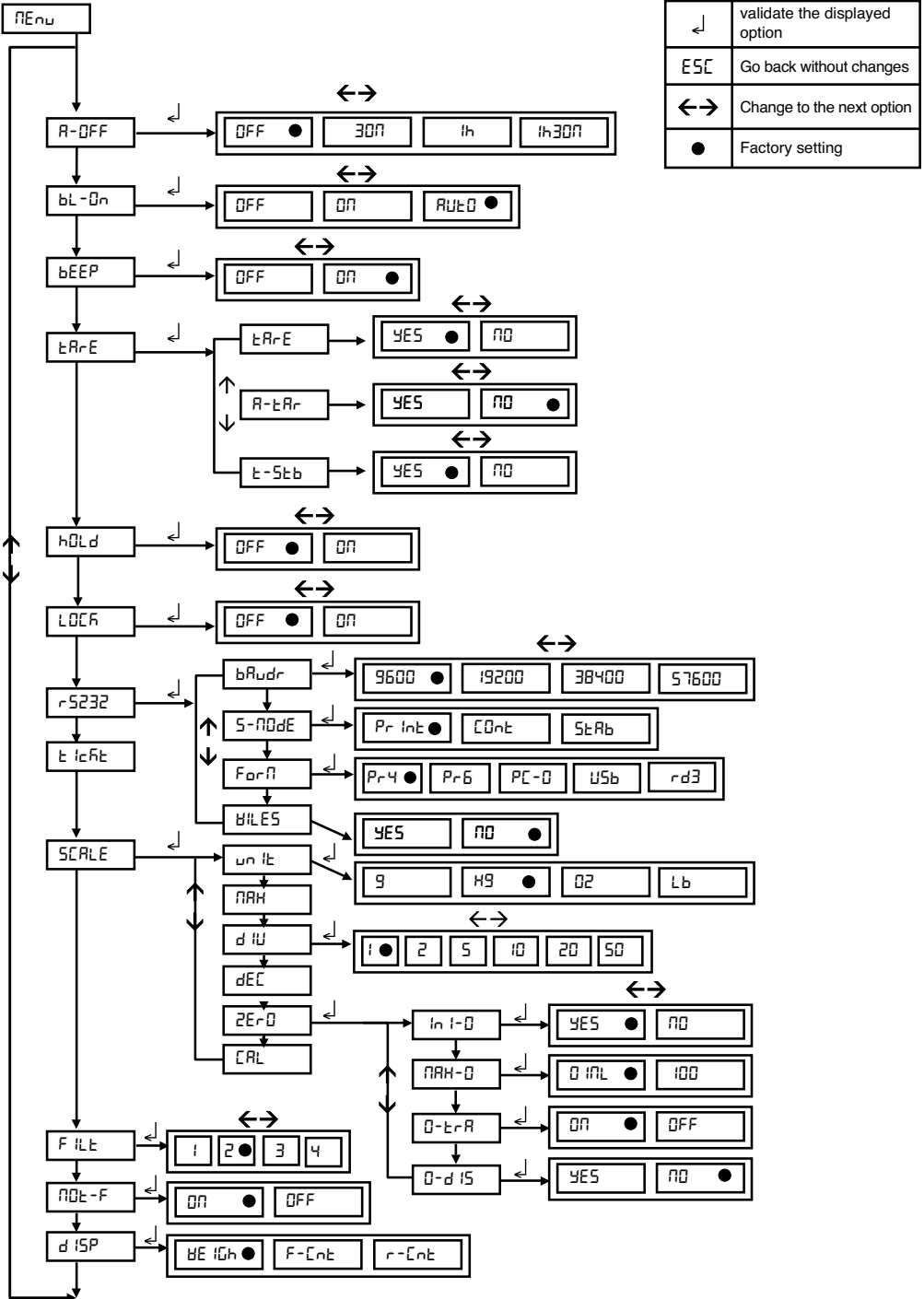
If another object is placed on the platform, the display will show the new reading in the same way.

To deactivate this function, press the same key twice.

(1) See reference manual to modify this tare function.


(2) Optional printer; not included with the device.

# MENU MAP OF SCALE CONFIGURATION



## SETUP MENU OPTIONS AND SETTINGS

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For enter the setup menu hold for 2 seconds the key . The display will show the message **MENU** for half a second indicating that the display will show the menu options for setup the scale behaviour. In mode "menu", the indicator buttons act as navigation keys. The function for each key is shown on top of each button: **ESC**, **←**, **↵**, **→**.



Back to the previous menu level without save changes. Being at the main menu level, exit the mode "menu" and backs to the weight indicator's mode.



Moves to the next menu option on left direction. While editing a value, changes between the different input values to choose.



Shows the current value for a parameter setting. While editing a setting, moves to the next possible value. Since we change the parameter value by using keys **←** and **→**, clicking the **↵** key, we validate the new value. When in "edition" mode (manual input, digit by digit, of a numeric value), one click on **↵** moves to the next digit position. For validate the whole input value, double click the **↵** key or hold the key pressed for 2 seconds.



Moves to the next menu option on right direction. While editing a value, changes between the different input values to choose.

## SCALE SETTINGS MENU -SCALE-

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In this menu, you will find the options that allow you to parameterize and perform the adjustment of the scale.

**unit** Unit : g, kg, oz, lb.

**MAX** Max capacity of the scale. Enter the value including the decimal digits.

**DIU** Division: The scale interval, or difference between two consecutive indicated values. Possible choices are 1,2,5,10,20 o 50.

**DEC** Decimal dot position.

**ZERO** Settings for Zero function.

**In 1-0** Initial zero setting at start (select Yes / Not).

**MAX-0** Allows to select the limits of the semi-automatic zero setting device. Possible options are: MAX (allows zero setting for any load under max capacity); OIML (follows OIML R76 rules).



**0-trA** Zero tracking ON / OFF.

**0-d IS** Shows zero indication into the display (Yes/Not).

**CAL** Menu options to perform the scale adjustment.

## Scale adjustment -CAL-

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You can access this menu right after power on the indicator by clicking at once keys  and  (a short pulse, not a sustained pulse) while is running the LCD test displaying all the segments.

**CAL 1b** Perform the adjustment using a known weight. This function automatically sets the initial zero and the slope factor for the scale span by using a known weight.

**G-SEt** Gravity adjustment depending on geographic location of the scale:

**G-COr** Correction ON / OFF (you can decide whether activate the geographical adjustment).

**OFSEt** Geographic location code (see table below).

**OFSEt** Manual input (keyboard) of the initial zero (ADC counts).

**SPAN** Manual input of the scale span slope, 5 digits.

**PrCAL** Prints (or sends) a ticket with the current settings.

**rESEt** Reset to factory settings..

**AdCAL** ADC span pre-adjustment. Only to be used at factory time using the correct load cell reference.

## Scale adjustment -CAL Ib-

1. Empty the load receptor, then choose "CAL Ib" option.
2. The display will show the message "CAL 0" blinking, telling that the initial zero value acquisition is in process.
3. One time the initial zero value acquisition is done, put onto the load receptor the adjustment weight (the indicator suggests a mass value for that weight, but you can put any weight with a known mass).
4. Input the weight value. Use the cursor keys for enter a value on each display digit and to move to the next or previous position.
5. Once you enter the weight value, double click on key  $\leftarrow$  to validate. The display will show the message "-CAL -" blinking while acquiring the adjustment value for the span slope of the scale.
6. Last, it will show the message "GEO" for a couple seconds, asking for the code of the geographical location where you did the scale adjustment. The geographical location code is a numeric value from 0 (equator) to 31 (North / South pole). Choose the needed value from the table below. Use the arrow keys  $\leftarrow$  and  $\rightarrow$  for change the value, validate by clicking the  $\leftarrow$  key.
7. Finally, it will show the message "SCALE" indicating that the scale adjustment is done and already recorded into the non-volatile flash memory. The indicator exit the setup menu and go back to the weight indicator mode, displaying the weight onto the load receptor.

If the automatic correction of the weight regarding to the geographical latitude and height ("G-COr" option) is set to ON, the next time you power on the indicator, it will display the message "GEO" blinking, and the user will be asked to enter the value corresponding to the geographical area where the scale is to be used. Once the user inputs the value for the geographical area where the scale is placed, this value is recorded into the non-volatile memory and the user will not be asked for it again.

The geographical area where the scale is located can be changed later by entering the setup menu **MENU**  $\rightarrow$  **SCALE**  $\rightarrow$  **CAL**  $\rightarrow$  **G-SEt**  $\rightarrow$  **GEO**  $\rightarrow$  **G nn** (where nn {0-31})

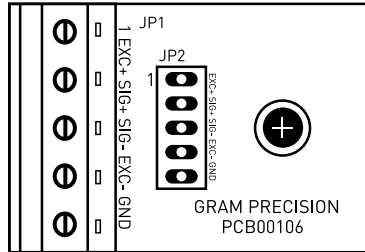
The automatic correction for gravity adjustment can be disable by entering to the setup menu **MENU**  $\rightarrow$  **SCALE**  $\rightarrow$  **CAL**  $\rightarrow$  **G-SEt**  $\rightarrow$  **G-COr**  $\rightarrow$  **OFF**

# TABLE OF GEOGRAPHICAL ADJUSTMENT VALUES

Geographical latitude in the northern or southern hemisphere in degrees and minutes	Elevation above sea level in meters											
	0	325	650	975	1300	1625	1950	2275	2600	2925	3250	
	325	650	975	1300	1625	1950	2275	2600	2925	3250	3575	
	Elevation above sea level in feet											
0	1060	2130	3200	4260	5330	6400	7460	8530	9600	10660	11730	
1060	2130	3200	4260	5330	6400	7460	8530	9600	10660	11730		
00°00' - 05°46'	5	4	4	3	3	2	2	1	1	0	0	
05°46' - 09°52'	5	5	4	4	3	3	2	2	1	1	0	
09°52' - 12°44'	6	5	5	4	4	3	3	2	2	1	1	
12°44' - 15°06'	6	6	5	5	4	4	3	3	2	2	1	
15° 06' - 17°10'	7	6	6	5	5	4	4	3	3	2	2	
17°10' - 19°02'	7	7	6	6	5	5	4	4	3	3	2	
19°02' - 20°45'	8	7	7	6	6	5	5	4	4	3	3	
20°45' - 22°22'	8	8	7	7	6	6	5	5	4	4	3	
22°22' - 23°54'	9	8	8	7	7	6	6	5	5	4	4	
23°54' - 25°21'	9	9	8	8	7	7	6	6	5	5	4	
25°21' - 26°45'	10	9	9	8	8	7	7	6	6	5	5	
26°45' - 28°06'	10	10	9	9	8	8	7	7	6	6	5	
28°06' - 29°25'	11	10	10	9	9	8	8	7	7	6	6	
29°25' - 30°41'	11	11	10	10	9	9	8	8	7	7	6	
30°41' - 31°56'	12	11	11	10	10	9	9	8	8	7	7	
31°56' - 33°09'	12	12	11	11	10	10	9	9	8	8	7	
33°09' - 34°21'	13	12	12	11	11	10	10	9	9	8	8	
34°21' - 35°31'	13	13	12	12	11	11	10	10	9	9	8	
35°31' - 36°41'	14	13	13	12	12	11	11	10	10	9	9	
36°41' - 37°50'	14	14	13	13	12	12	11	11	10	10	9	
37°50' - 38°58'	15	14	14	13	13	12	12	11	11	10	10	
38°58' - 40°05'	15	15	14	14	13	13	12	12	11	11	10	
40°05' - 41°12'	16	15	15	14	14	13	13	12	12	11	11	
41°12' - 42°19'	16	16	15	15	14	14	13	13	12	12	11	
42°19' - 43°26'	17	16	16	15	15	14	14	13	13	12	12	
43°26' - 44°32'	17	17	16	16	15	15	14	14	13	13	12	
44°32' - 45°38'	18	17	17	16	16	15	15	14	14	13	13	
45°38' - 46°45'	18	18	17	17	16	16	15	15	14	14	13	
46°45' - 47°51'	19	18	18	17	17	16	16	15	15	14	14	
47°51' - 48°58'	19	19	18	18	17	17	16	16	15	15	14	
48°58' - 50°06'	20	19	19	18	18	17	17	16	16	15	15	
50°06' - 51° 13'	20	20	19	19	18	18	17	17	16	16	15	
51°13' - 52°22'	21	20	20	19	19	18	18	17	17	16	16	
52°22' - 53°31'	21	21	20	20	19	19	18	18	17	17	16	
53°31' - 54°41'	22	21	21	20	20	19	19	18	18	17	17	
54°41' - 55°52'	22	22	21	21	20	20	19	19	18	18	17	
55°52' - 57°04'	23	22	22	21	21	20	20	19	19	18	18	
57°04' - 58°17'	23	23	22	22	21	21	20	20	19	19	18	
58°17' - 59°32'	24	23	23	22	22	21	21	20	20	19	19	
59°32' - 60°49'	24	24	23	23	22	22	21	21	20	20	19	
60°49' - 62°09'	25	24	24	23	23	22	22	21	21	20	20	
62°09' - 63°30'	25	25	24	24	23	23	22	22	21	21	20	
63°30' - 64°55'	26	25	25	24	24	23	23	22	22	21	21	
64°55' - 66°24'	26	26	25	25	24	24	23	23	22	22	21	
66°24' - 67°57'	27	26	26	25	25	24	24	23	23	22	22	
67°57' - 69°35'	27	27	26	26	25	25	24	24	23	23	22	
69°35' - 71°21'	28	27	27	26	26	25	25	24	24	23	23	
71°21' - 73°16'	28	28	27	27	26	26	25	25	24	24	23	
73°16' - 75°24'	29	28	28	27	27	26	26	25	25	24	24	
75°24' - 77°52'	29	29	28	28	27	27	26	26	25	25	24	
77°52' - 80°56'	30	29	29	28	28	27	27	26	26	25	25	
80°56' - 85°45'	30	30	29	29	28	28	27	27	26	26	25	
85°45' - 90°00'	31	30	30	29	29	28	28	27	27	26	26	

# LOAD CELL CONNECTION

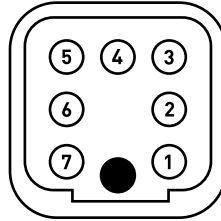
## Option 1 : Indicator with direct cable connection



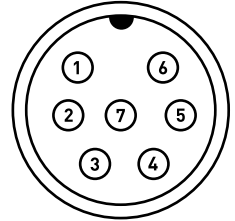
## Option 2: Indicator with connectors

Nº PIN	SIGNAL
PIN 1	SIG -
PIN 2	SIG +
PIN 3	MALLA
PIN 4	EXC -
PIN 5	SENSE -
PIN 6	EXC +
PIN 7	SENSE +

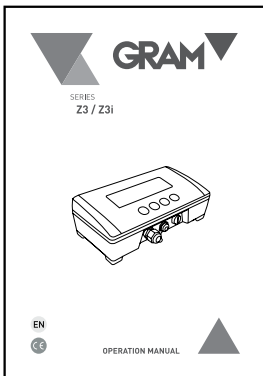
7 PIN HARTING MALE



7 MULTI-PIN MOBILE MALE



## MORE INFORMATION



Download the full manual from the following link:



[http://gram-group.com/wp-content/uploads/2016/12/MANUAL\\_Z3\\_2016\\_ENG\\_001.pdf](http://gram-group.com/wp-content/uploads/2016/12/MANUAL_Z3_2016_ENG_001.pdf)

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