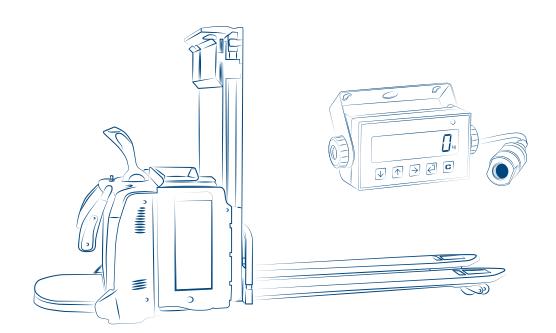


# **ELP**

Hydraulic weighing system for electric pallet stackers and pallet trucks

## **OPERATING INSTRUCTIONS**

**ENGLISH** 





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### Introduction

Dear Customer,

Thank you for purchasing a DINI ARGEO product.

This manual explains the usage of the hydraulic weighing system for electric pallet trucks.

In particular, all the functions of the electronic part of the scale are described to assist the forklift driver during use.

For any additional information or specific requests, please contact your local dealer.

This publication is optimised for A4 printing.

# Warnings

- The weighing system does not change the safety regulations normally applied to the pallet truck.
- Before weighing, make sure that the pallet truck is stationary, on a flat surface and that there are no people in the area around the
- The employee training on the use of the system is the purchaser's responsibility.
- Please read this manual carefully before using the system.
- Assistance must only be carried out by personnel authorised by Dini Argeo.
- · Dini Argeo is not responsible for any weighing errors resulting from improper use of the system.







# Display and keyboard



ITEM	ICON	DESCRIPTION
1	÷0 <b>÷</b>	This indicates that the scale is empty (gross zero).
2	~	This indicates that the weight is unstable.
3	NET	The net weight is displayed.  Note: A tare has been stored.
4/5	G B	The gross weight is displayed.
6	[111]	This indicates the battery level:
7	LT	A tare has been blocked.
8	PT	A manual tare is active.
9	lb kg	This indicates the unit of measure: pounds (lb), tons (t), kilograms (kg), grams (g).
10	*	This indicates that a key has been pressed. In some operating modes, this indicates that a specific function is active.
11		Weight acquisition phase.





Key	Description
*	<ul> <li>For numerical entries, decreases the value.</li> <li>If pressed for a long time (2 sec), it allows you to set the brightness of the display.</li> </ul>
<b>▲</b>	<ul> <li>For numerical entries, increases the value.</li> <li>If pressed for a long time (2 sec) it allows you to insert a preset tare.</li> </ul>
FUNC	<ul> <li>Recalls the function specific to the operating mode.</li> <li>For numerical entries, to change the selected digit</li> <li>If pressed for a long time (5 sec) it allows you to change the operating mode.</li> </ul>
PRINT OK	<ul> <li>Confirm key.</li> <li>Print the receipt.</li> <li>If pressed for a long time (5 sec) it allows you to enter the configuration menu.</li> </ul>
Ů □ i	<ul> <li>If pressed for 2 seconds, it turns off the instrument.</li> <li>If pressed for 5 sec it shows the metrological information.</li> </ul>



### WARNING

For a clearer view and advanced key and mode functions, see the chapter "BASIC FUNCTIONS" and "ADVANCED FUNCTIONS".







## **Accuracy factors**

The system is based on the measurement of the oil pressure contained in the hydraulic lifting circuit by means of a specific sensor. This pressure depends on the load on the forks and the height of the forks, which is why weighing operations must always be carried out at the same height (indicated by the stickers).

The theoretical precision of the ELP system, correctly installed on suitable electric pallet trucks and used under optimal conditions, varies from 0.5% to 5% of the capacity (min. 20 kg).

This accuracy is adversely affected by the following factors:

	Type and state of wear of the pallet truck.
- +50° C	Ambient temperature: the temperature range of the sensor is from - 10° C to + 50° C.
	Mechanical friction: keep sliding parts clean and lubricated.
	Oil leaks.
	<b>Load position on the forks:</b> the gravity centre of the load must be positioned in the centre of the forks.
SLOW FAST	Lifting speed: lift the load at a constant speed and without sudden dashes so as to avoid jolts.
	Position of the sensor inside the hydraulic circuit. Refer to the technical manual for sensor installation.
	Type of oil in the hydraulic circuit: use oils with low viscosity and suitable for a wide temperature range.



A PALLET MUST ALWAYS BE USED DURING WEIGHING OPERATIONS





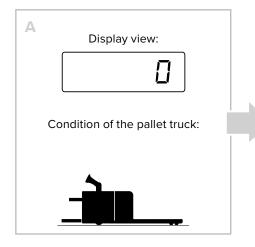


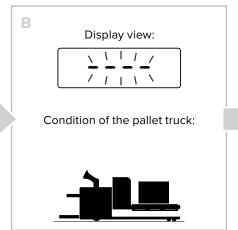
# **Weight reading**

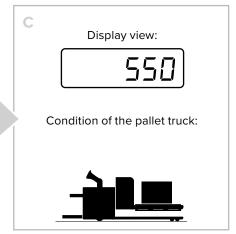
Before turning on the weight indicator, make some lifting with empty forks (at least 5) to heat the oil inside the hydraulic circuit.

With the forks down, turn on the weight indicator and wait for it to zero.

During load acquisition the display shows: ---- At the end of the acquisition, the weight is shown.





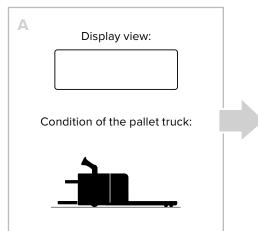


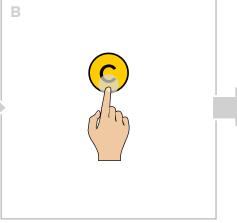


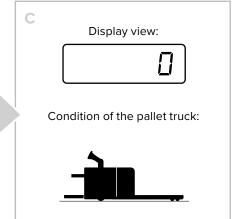
Between weighing operations, the weight must return to 0 by lowering the forks completely.

### **Basic functions**

# **Switching on**



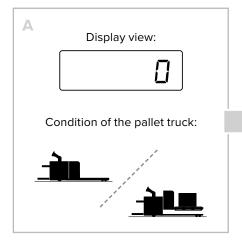


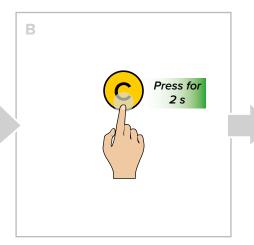


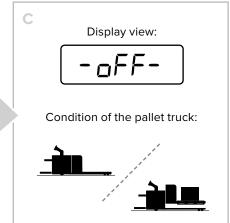




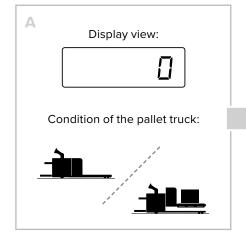
# **Switching off**

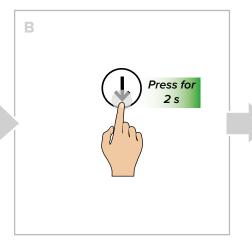


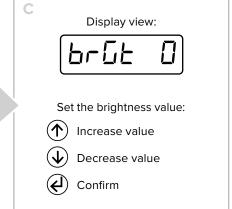




# Adjusting the display brightness



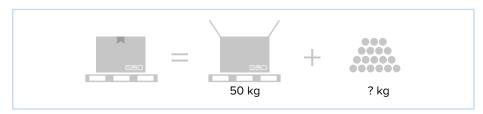


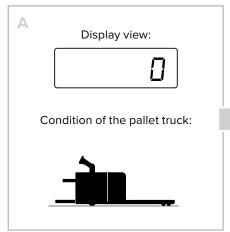


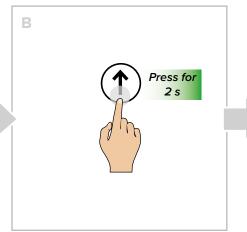


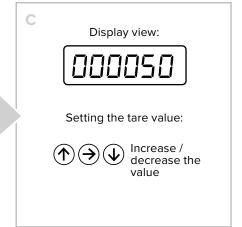


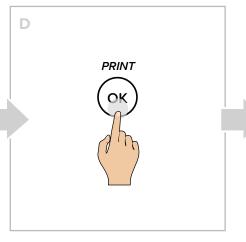
# Setting a known tare value (PT)

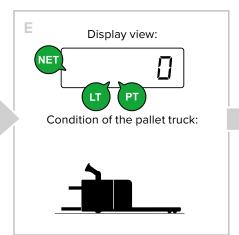


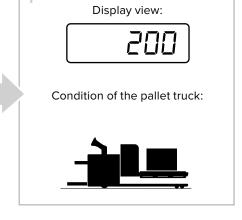


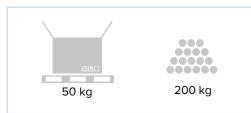




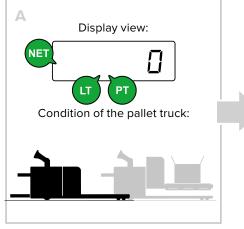


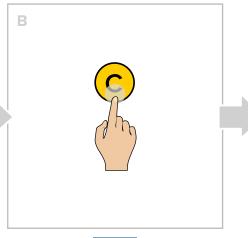


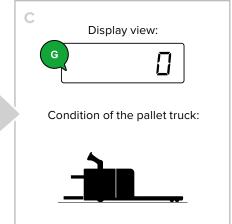




# **Clearing the tare**



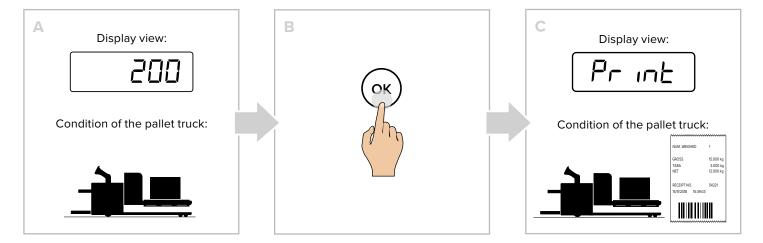




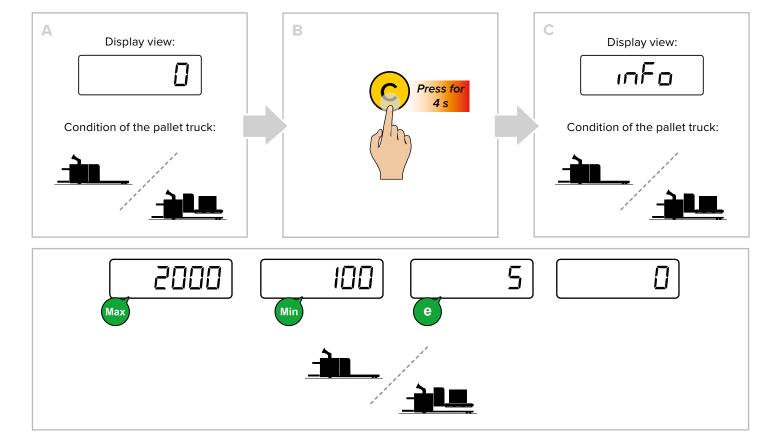




## **Print**

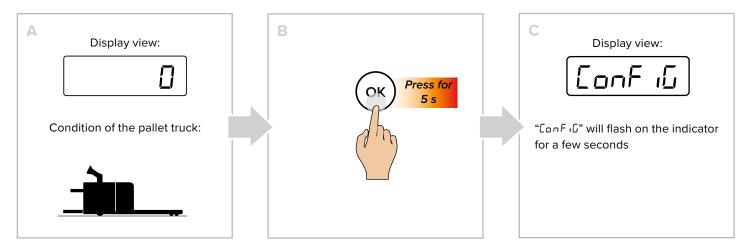


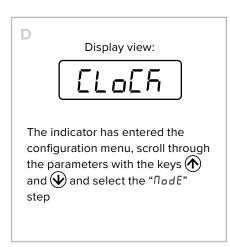
# **Metric information**

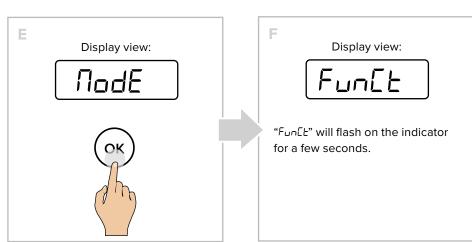


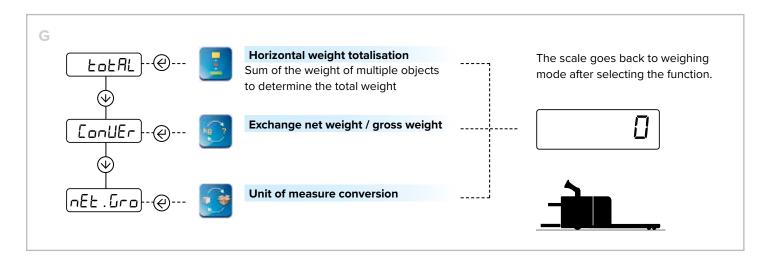


### How to enter the functions menu





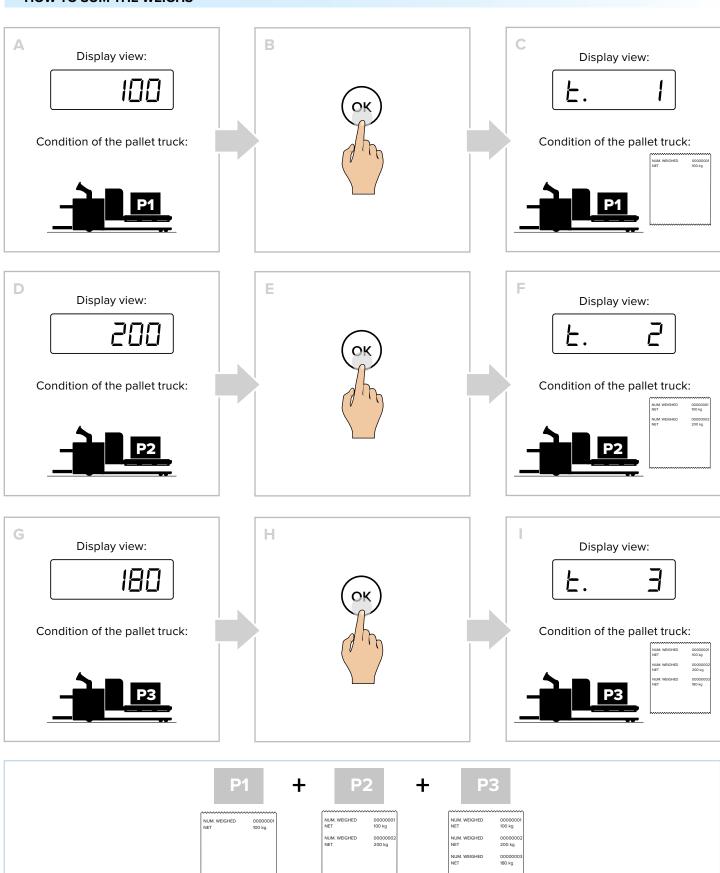






# Horizontal weight totalisation

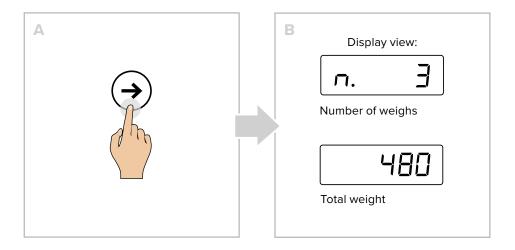
### **HOW TO SUM THE WEIGHS**



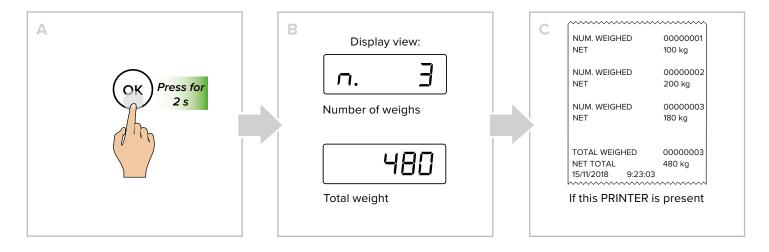
13



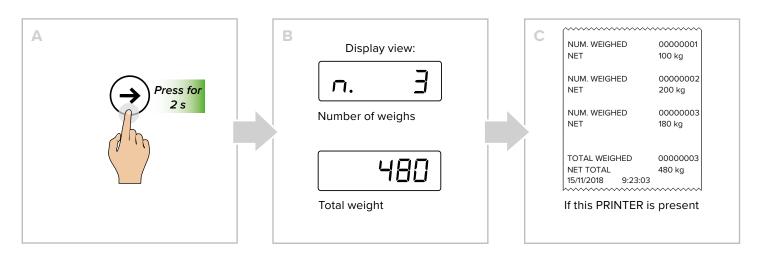
### **HOW TO MOMENTARILY READ THE TOTAL**



#### HOW TO END WEIGHT TOTALISATION AND ZERO THE TOTAL



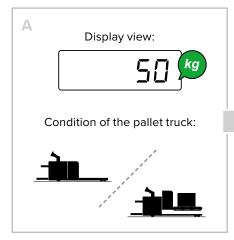
#### HOW TO PRINT AND ZERO THE GRAND TOTAL

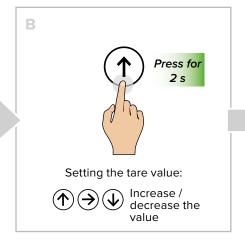


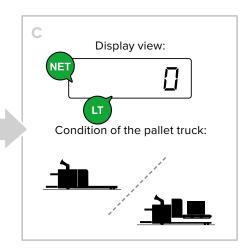


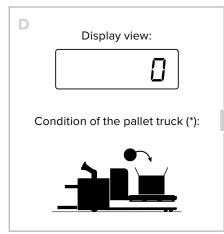


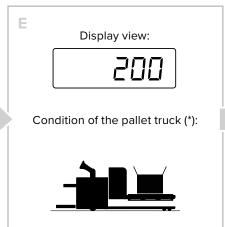
# Exchange between net weight and gross weight

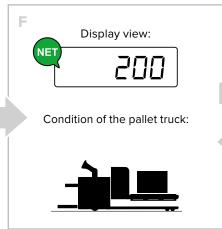


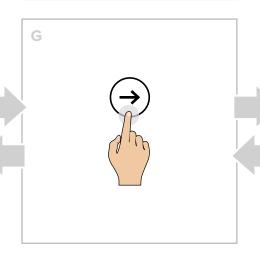


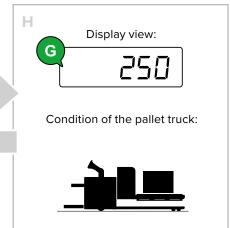


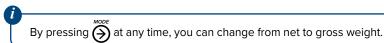












The forks must always be fully lowered and raised to acquire a new weight.

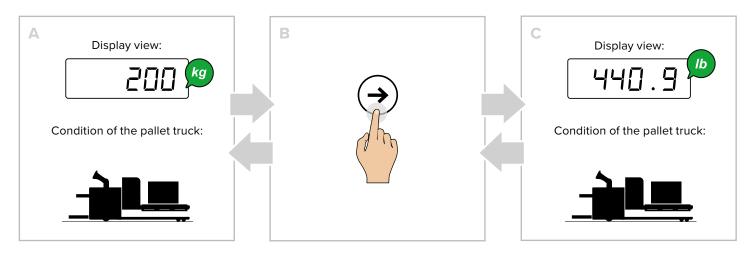






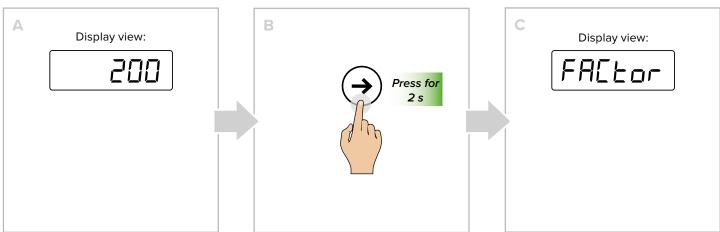
## **Unit of measure conversion**

### HOW TO CONVERT THE UNIT OF MEASUREMENT TO POUNDS (STANDARD MODE)



By pressing (a) at any time you can switch from weight in kg to weight in pounds.

#### HOW TO CONVERT THE UNIT OF MEASURE WITH FREE CONVERSION FACTOR



D Display view:

Enter the conversion factor:

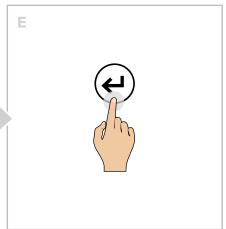
Increase / decrease the value

**Examples:** 

1 g = 0.00220 Pounds (lb) Ounces (oz) 1g = 0.03527Stone (st) 1 g = 0.000161g = 5.00000Carats (kt) 1 g = 15.43240 Grains (gr)

16

Any conversion factor is multiplied by weight.

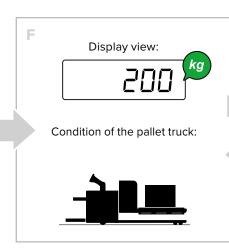


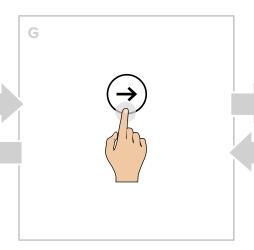
proceed -

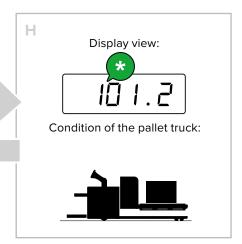












By pressing  $\bigoplus_{i=1}^{MODE}$  at any time, the unit of measurement can be converted with a free conversion factor.







How to enter 5 Sec.

 $\Theta$ 

How to browse



FAULOFF E L IFICES

5 N mute

4 hour

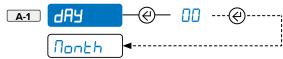
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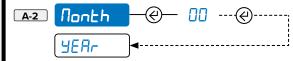
MUNHHP OF

### ELOER - DATE AND TIME

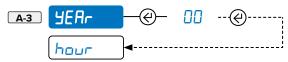
Day



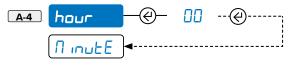
Month



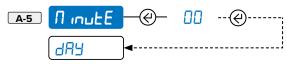
Year



Hour



Minute









How to enter

1. 5 Sec.

(4)

How to browse



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ACLOCK

Bdynypr

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H NAH.BGE

#### dԿո . ենե - SENSOR FINE TUNING

Advanced configuration parameters. For use by the installer.

**B-1** d ₁U.2∏F

B-2 d ill.unF

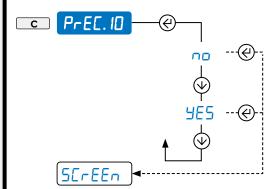
B-3 Hut.unF

B-4 L IN.AUG

Refer to the technical manual for more information.

#### PrEE. 10 - HIGH RESOLUTION READING DIVISION

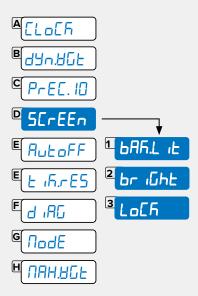
This functions allows you to display the weight with ten times greater resolution. For use by technical staff.





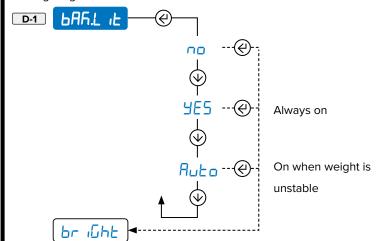


# • MENU

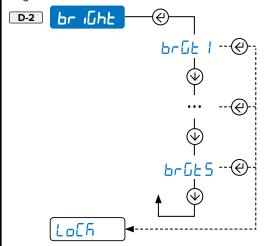


### 55 r EEn - ADJUSTING THE DISPLAY

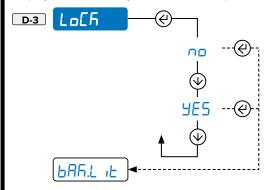
Backlighting



Brightness



Display lock (for use by the manufacturer)









How to enter

1. 5 Sec.



ACLOCK.

B dyn.yūŁ

C PrEC. 10

SCrEEn

E Autoff

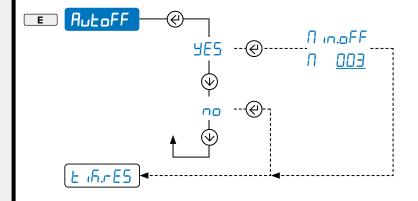
E F IEVES

E d AG

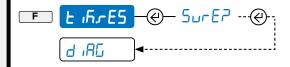
GUODE

₩ NAH.BGE

### Ruboff - AUTOMATIC SWITCH-OFF



### £ 15. rE5 - TICKET NUMBER RESET



### d AG - DIAGNOSTICS

Reserved for technical staff.









How to enter

1. 5 Sec.

์ (⊕)



A CLOCK

B dyn.yGE

C PrEC. 10

□ SErEEn

E Autoff

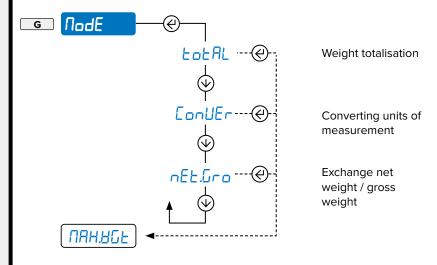
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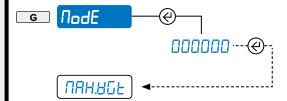
<sup>G</sup> NodE

H NAHHEL

#### **FlodE** - INDICATOR FUNCTIONS



#### MAH. HGE - SETPOINT ON GROSS WEIGHT



*When the gross weight exceeds the set threshold, the message "allEr" appears on the indicator accompanied by an acoustic signal.* 







### Maintenance

The results of the weighing system depend on the condition of the various parts of the pallet truck.

The weighing system does not require any special maintenance, but a poor condition of the various parts of the pallet truck can negatively affect the accuracy.

For this reason, it is advisable to:

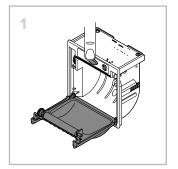
- · Lubricate the chains and the mast in such a way as to reduce friction between the two components as much as possible.
- Regularly clean the pallet truck so that it operates under almost constant conditions.
- · Observe the IP protection rating of the instrument when cleaning the system.

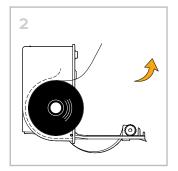
**Note:** It is recommended to recalibrate the weight indicator every 3 months.

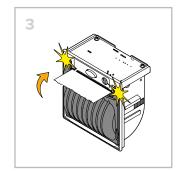
## Replacing the printer paper roll

To replace the roll of the **OBTPRELP** integrated thermal printer (if applicable), proceed as follows:

- 1. Open the door by pressing the centre key.
- 2. Insert the roll with the thermal surface facing outwards.
- 3. Close the door by pressing on both sides.
- 4. Remove excess paper.























**USER\_MAN\_ENG\_ELP**Rev. 30.08.2021



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www.diniargeo.com

Stamp of the authorised service centre