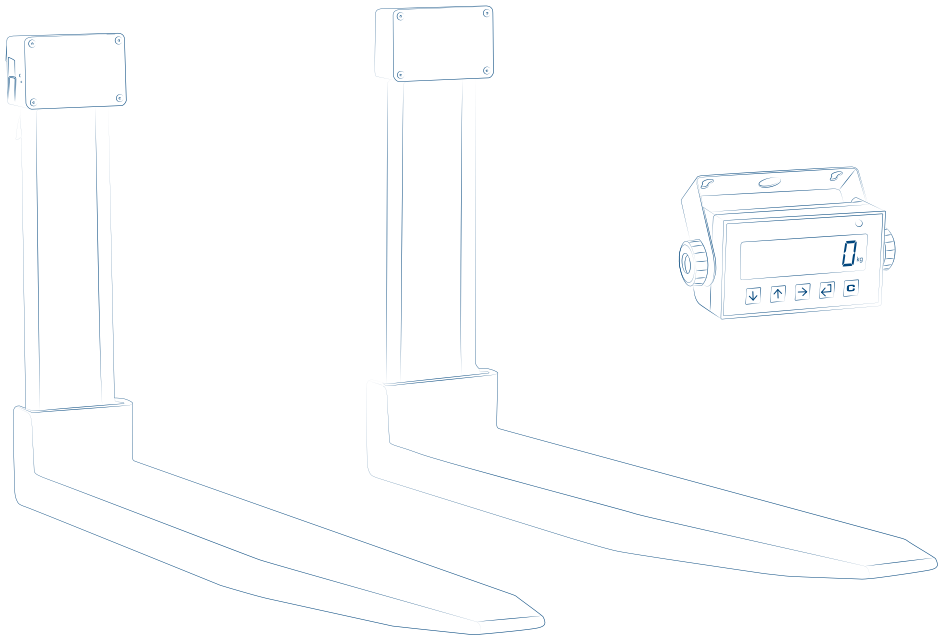
DINI ARGEO
Scales - Weighing systems
A RICE LAKE WEIGHING SYSTEMS COMPANY

TWIN FORKS

Wireless weighing forks for forklift

OPERATING INSTRUCTIONS **ENGLISH**



www.diniargeo.com

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Introduction

Dear Customer,
Thank you for purchasing a DINI ARGEO product.

This manual explains the usage of the weighing system with forks for forklifts.
In particular, zero, tare and all the weighing electronic functions are described to assist the forklift driver during use.

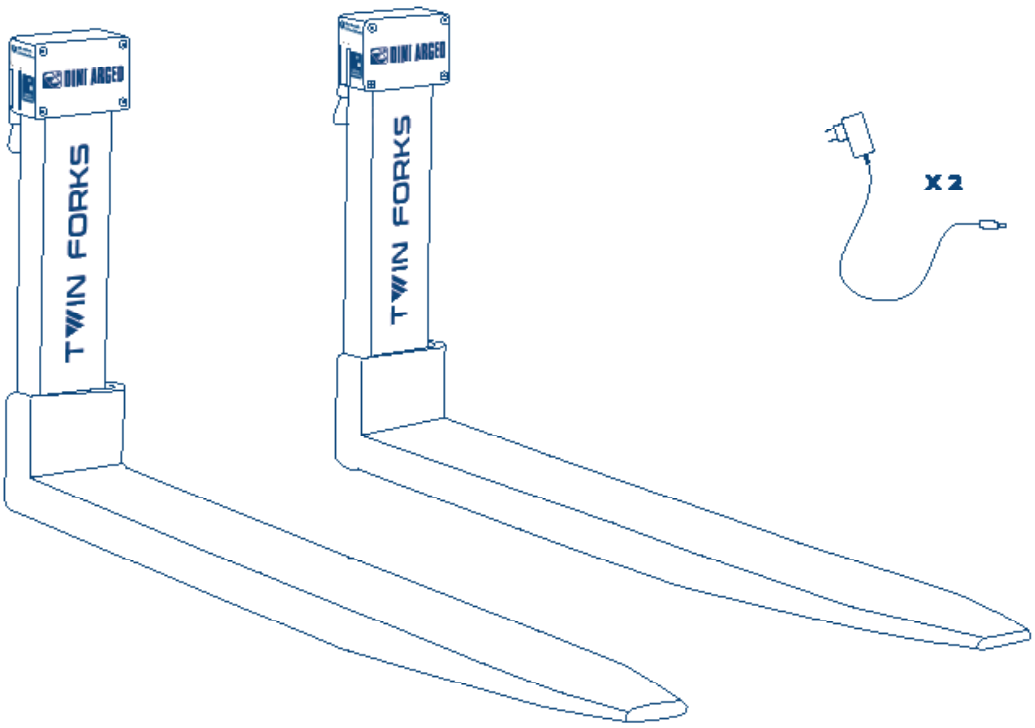
For any additional information or specific requests, please contact your local dealer.
This publication is optimised for A4 printing.

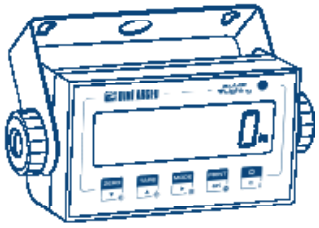
Warnings and installation

- The weighing system does not change the safety regulations normally applied to the forklift.
- Before weighing, make sure that the forklift is stationary, on a flat surface and that there are no people in the area around the load.
- 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.

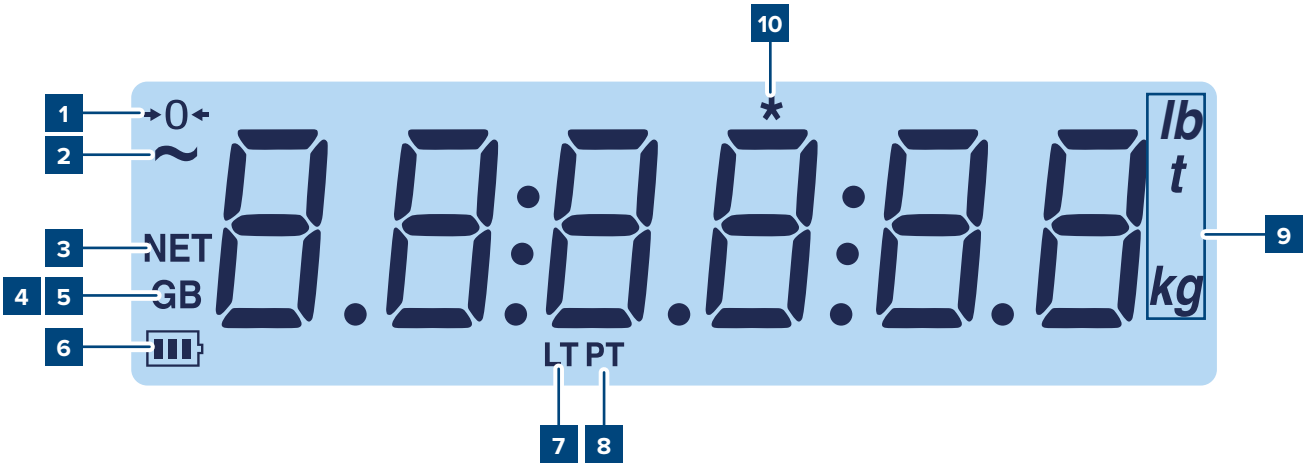
WARNING
Installation must be carried out by specialised technical personnel. Follow the instructions in the technical manual carefully.

System parts





Display and keyboard



ITEM	ICON	DESCRIPTION
1	→0←	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		This indicates the charge level of the fork batteries:
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.

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Key	Description
	• Resets the weight value on the scale. • If pressed for a long time (2 sec), it allows you to set the brightness of the display.
	• Performs tare on the scale. • If pressed for a long time (2 sec) it allows you to insert a preset tare.
	• Recalls the function specific to the operating mode. • If pressed for a long time (5 sec) it allows you to change the operating mode.
	• Confirm key. • Print the receipt. • If pressed for a long time (5 sec) it allows you to enter the configuration menu.
	• If pressed for 2 seconds, it turns off the instrument. • If pressed for 5 sec it shows the metrological information.

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

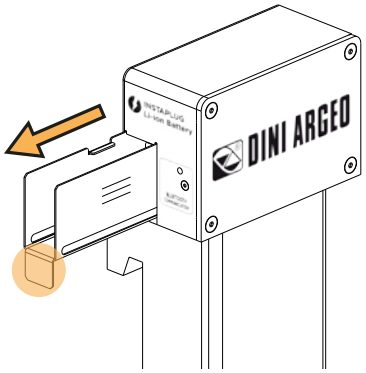
Optimized layout for A4 print.

Charging the batteries

The weight indicator shows the battery charge level through the icon "[▮▮▮]" in real time.
The batteries must be recharged when the weight indicator shows the lowest charge level (symbol [ ]). Charging time is approximately 5 hours.
The message "LOW.bAt" indicates that the forks are completely flat and will automatically switch off within 5 seconds.

Procedure for removing the battery from the fork:
1. Remove the battery tray by pulling it out of the lower bracket.
2. Remove the battery.
3. Reinsert the empty drawer into the fork.

1.



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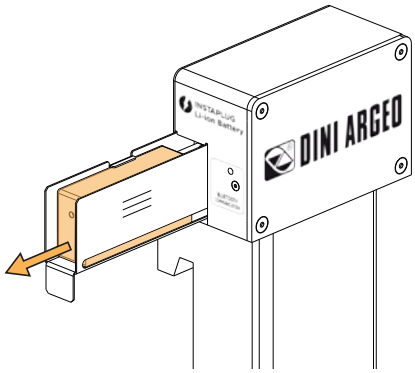
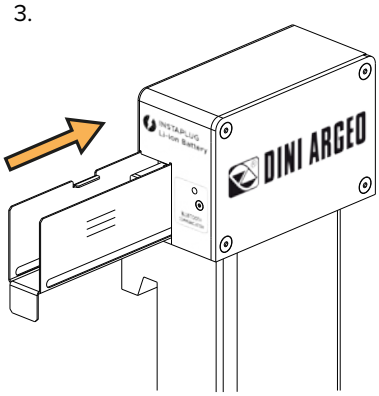


3.



Connect the supplied power supply to the power socket and insert the plug into the battery connector.
The LED on the power supply unit lights up and turns red while charging.
Leave the battery to charge until the LED turns green.
Charging time varies according to the remaining charge level. Contact your dealer if the charging operation is not completed after 6 hours.

WARNING
Use only original Dini Argeo batteries and power supplies.

Energy saving

The board inside the weighing forks is designed to save energy. Therefore various energy saving systems are activated when the system is not used, i.e. there is no movement and no weight variation:

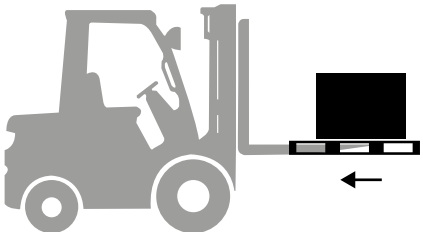
- The forks switch to partial power saving mode after 2 seconds of idleness.
- The indicator in the cab and the forks switch off after 5 minutes of idleness with zero weight.
- The forks switch to sleep mode, from which it is possible to exit by moving the forks, after 20 minutes of idleness in any condition (either with no weight or with load).

Optimized layout for A4 print.

The TWIN FORKS weighing system for forklifts consists of 2 digital forks and an indicator in the cab. There are two load cells in each fork and a board for communicating data to the indicator in the cab via Bluetooth. Each fork is also equipped with a digital accelerometer for tilt control and automatic on / off function based on movement.

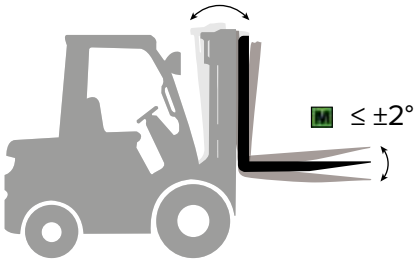
WARNING
Installation must be carried out by specialised technical personnel. Follow the instructions in the technical manual carefully.

Correct use of the system



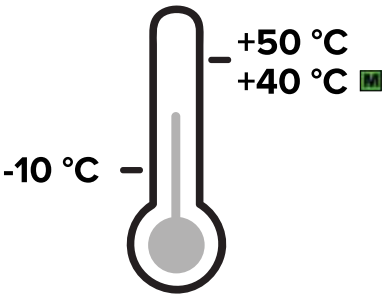
The system was designed for weighing loads on Euro pallets.
For best performance make sure that the load is always well distributed and that its centre of gravity is as close as possible to the centre of the forks.

The weighing operation must be carried out with the forklift stationary and the forks stopped.



Take the weight reading when the forks are in the horizontal position.

On approved models, weighing is only permitted if the tilt of the forks is within ± 2°.



The operating temperature range of the system is -10 / +50 °C (-10 / +40 °C for approved systems).
Using the system outside of this range can result in a significant decrease in accuracy as well as irreversible damage to the batteries.

Failure to do so will also result in voiding the warranty conditions.

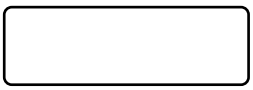
Optimized layout for A4 print.

Switching on

Lift the forks

A

Display view:



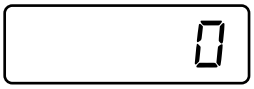
Condition of the forklift:

Move the forks to switch them on

B

C

Display view:

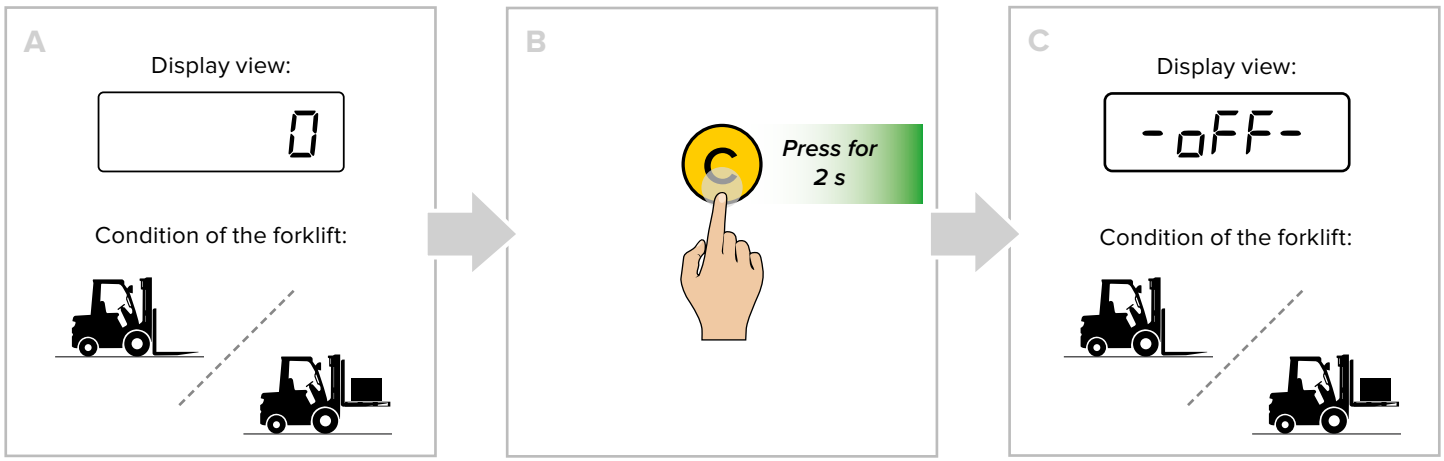


Condition of the forklift:

i The switch-on and coupling cycle can take up to 6 seconds.

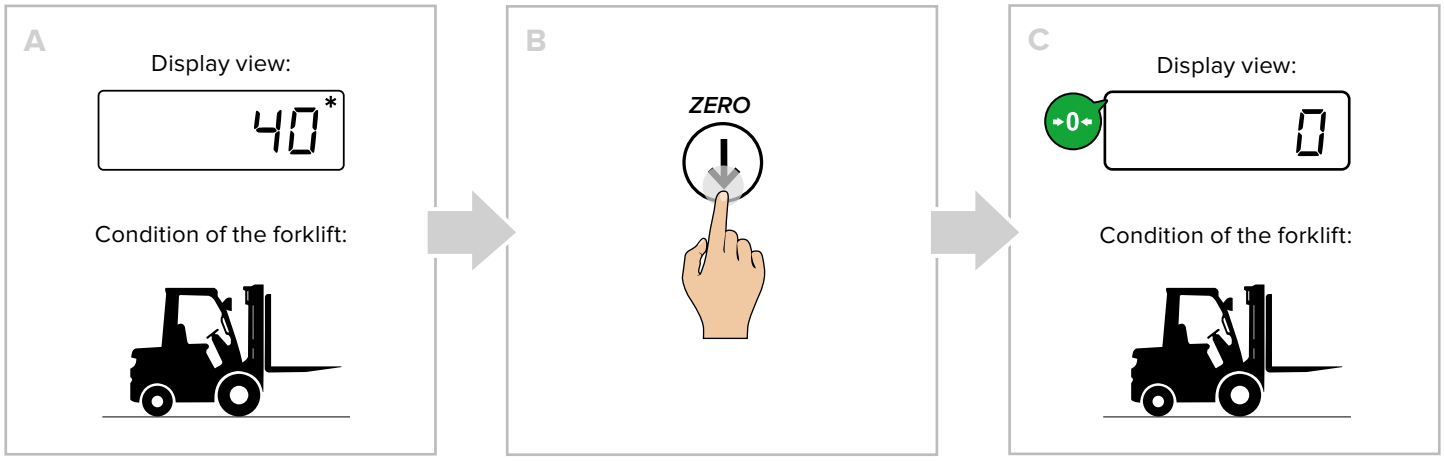
Optimized layout for A4 print.

Switching off



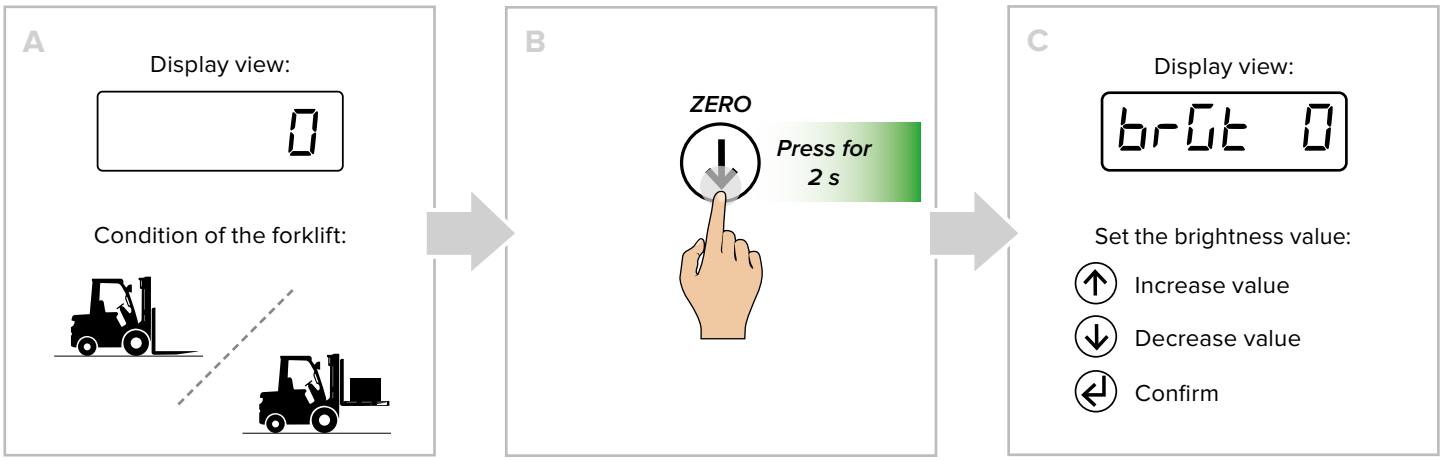
The forks automatically switch to energy saving mode after turning off the indicator.

Zero



(*) The weight value can be reset on the forks up to 2% of the maximum capacity.

Adjusting the display brightness



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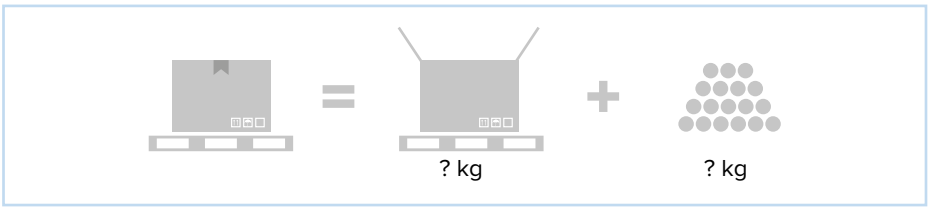
Automatic tare



A

Display view:

50

Condition of the forklift:

B

TARE

C

Display view:

NET

0

LT

Condition of the forklift:

D

Display view:

0

Condition of the forklift:

E

Display view:

200

Condition of the forklift:

Clearing the tare

A

Display view:

-50

Condition of the forklift:

B

TARE

C

Display view:

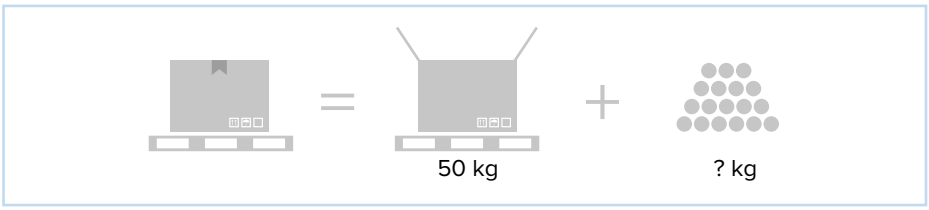
G

0

Condition of the forklift:

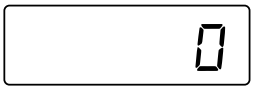
Optimized layout for A4 print.

Setting a known tare value (PT)



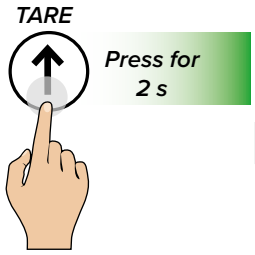
A

Display view:



Condition of the forklift:

B



C

Display view:

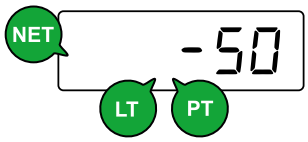
Setting the tare value:

Increase / decrease the value

D

E

Display view:

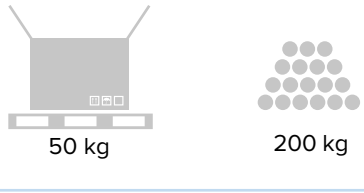


Condition of the forklift:

F

Display view:

Condition of the forklift:



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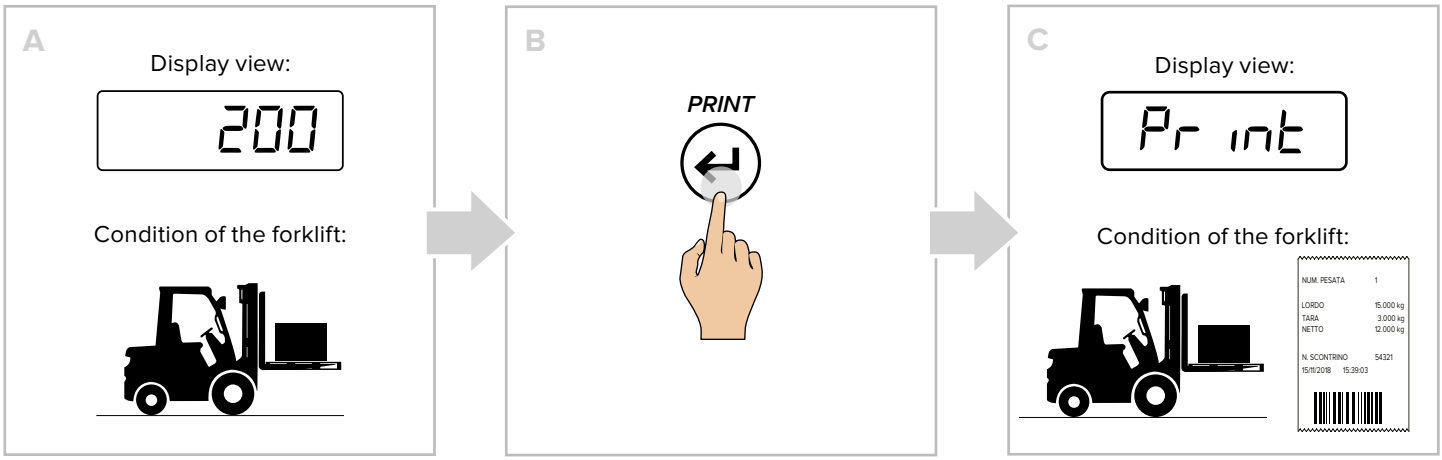
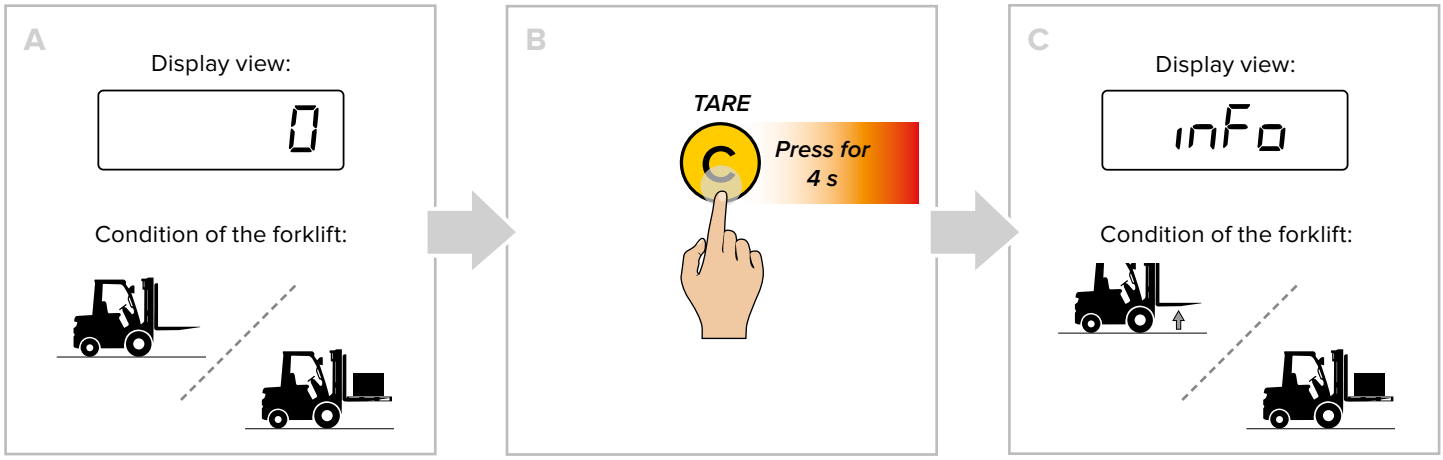
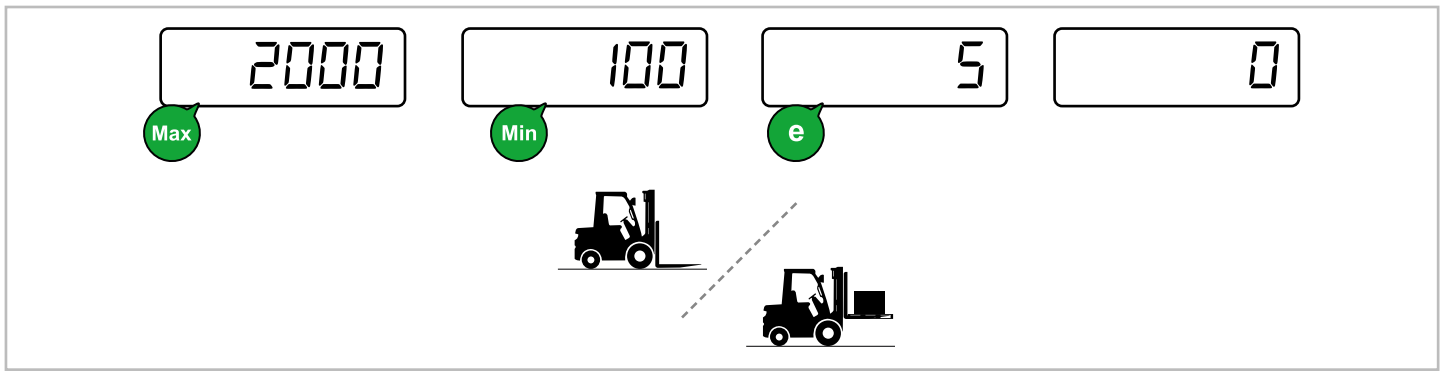
Optimized layout for A4 print.

Print



Metric information



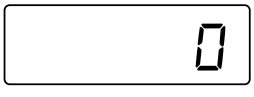


Optimized layout for A4 print.

How to enter the functions menu

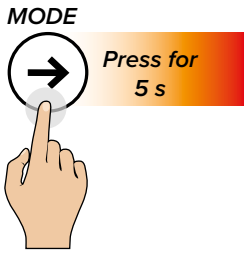
A

Display view:



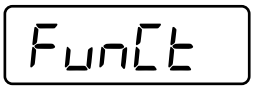
Condition of the forklift:

B



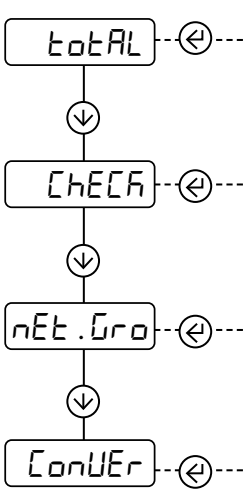
C

Display view:



The indicator is in the function menu: the currently active function appears.

D



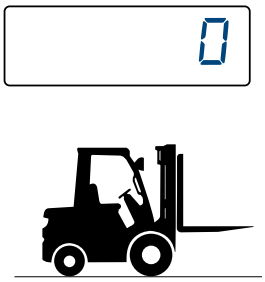
Horizontal weight totalisation
Sum of the weight of multiple objects to determine the total weight

Weight control
Weight check compared to a reference sample weight.

Exchange net weight / gross weight

Unit of measure conversion

The scale goes back to weighing mode after selecting the function.



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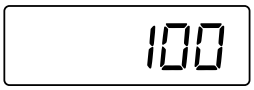
Horizontal weight totalisation

HOW TO SUM THE WEIGHS

A

Display view:



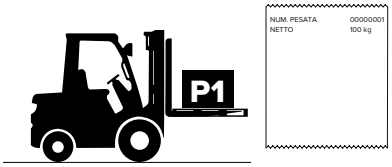
Condition of the forklift:

B

C

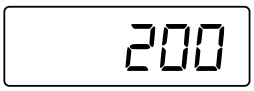
Display view:

Condition of the forklift:



D

Display view:

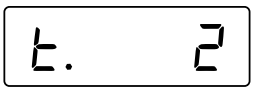


Condition of the forklift:

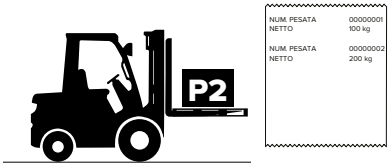
E

F

Display view:

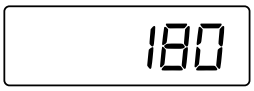


Condition of the forklift:



G

Display view:

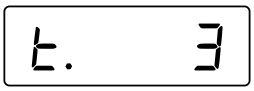


Condition of the forklift:

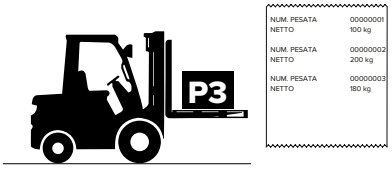
H

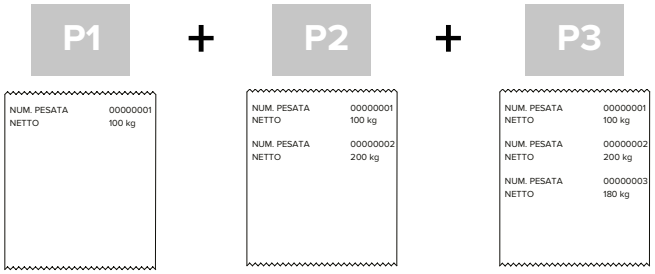
I

Display view:



Condition of the forklift:





Optimized layout for A4 print.

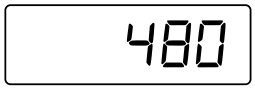
HOW TO MOMENTARILY READ THE TOTAL

A

B

Display view:

Number of weighs



Total weight

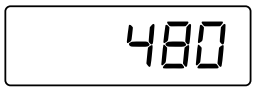
HOW TO END WEIGHT TOTALISATION AND RESET THE TOTAL

A

B

Display view:

Number of weighs



Total weight

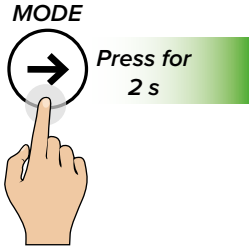
C

NUM. PESATA	00000001
NETTO	100 kg
NUM. PESATA	00000002
NETTO	200 kg
NUM. PESATA	00000003
NETTO	180 kg
TOTALE PESATE	00000003
TOTALE NETTO	480 kg
15/11/2018 9:23:03	

If this PRINTER is present

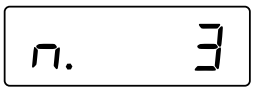
HOW TO PRINT AND RESET THE GRAND TOTAL

A

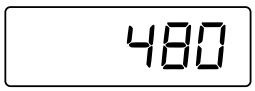


B

Display view:



Number of weighs



Total weight

C

NUM. PESATA	00000001
NETTO	100 kg
NUM. PESATA	00000002
NETTO	200 kg
NUM. PESATA	00000003
NETTO	180 kg
TOTALE PESATE	00000003
TOTALE NETTO	480 kg
15/11/2018 9:23:03	

If this PRINTER is present

Optimized layout for A4 print.

Weight control

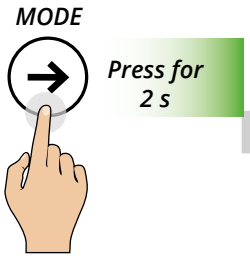
HOW TO START THE CHECK WITH KNOWN REFERENCE WEIGHT

A

Display view:

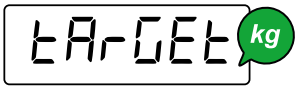
Condition of the pallet truck:

B



C

Display view:



D

Display view:

Set the value manually

Increase / decrease the value

E

F

Display view:

Enter the lower tolerance:

Increase / decrease the value

G

H

Display view:

Enter the higher tolerance:

Increase / decrease the value

I

Example 1:	**Example 2:**
To check a weight of 1000 g with +/- 5 g tolerance (that is, between 995 g and 1005 g), set: t0 1000 L00005 h00005	To check a weight of 500 g with + 10 g / - 20 g tolerance (that is, between 480 g and 510 g), set: t00500 L00020 h000 10

Optimized layout for A4 print.

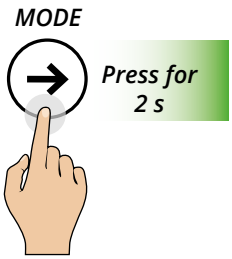
HOW TO START THE CHECK WITH AUTOMATIC TARGET ACQUISITION

A

Display view:

Condition of the pallet truck:

B



C

Display view:

Enter the lower tolerance:

Increase / decrease the value

D

E

Display view:

Enter the higher tolerance:

Increase / decrease the value

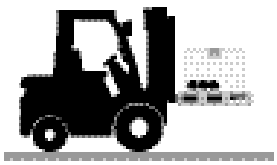
F

HOW TO CHECK THE WEIGHT

A

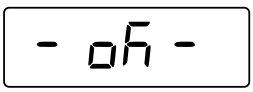
Display view:

Condition of the pallet truck:



B

Display view:



Condition of the pallet truck:

C

Display view:

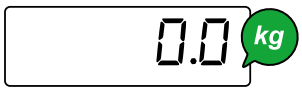
Condition of the pallet truck:

Optimized layout for A4 print.

HOW TO UPDATE THE NOMINAL WEIGHT WITH KNOWN REFERENCE WEIGHT

A

Display view:

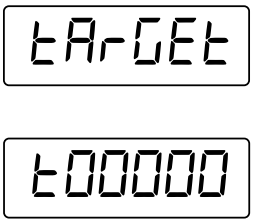


Condition of the pallet truck:

B

C

Display view:



HOW TO UPDATE THE NOMINAL WEIGHT WITH AUTOMATIC TARGET ACQUISITION

A

Display view:

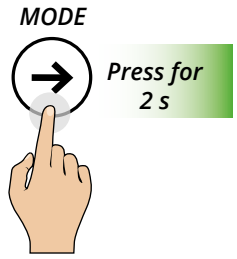
Condition of the pallet truck:

B

Optimized layout for A4 print.

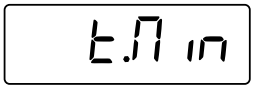
HOW TO EDIT THE CHECK THRESHOLDS

A



B

Display view:

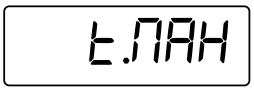


C

Display view:

D

Display view:



E

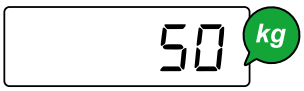
Display view:

Optimized layout for A4 print.

Exchange between net weight and gross weight

A

Display view:

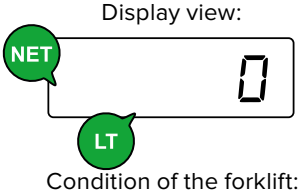


Condition of the forklift:

B

C

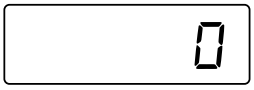
Display view:



Condition of the forklift:

D

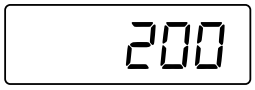
Display view:



Condition of the forklift:

E

Display view:



Condition of the forklift:

F

Display view:

Condition of the forklift:

G

H

Display view:

Condition of the forklift:

By pressing MODE at any time, you can change from net to gross weight.

Optimized layout for A4 print.

Unit of measure conversion

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

A

Display view:

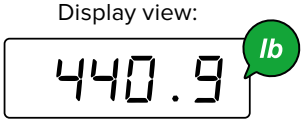
Condition of the forklift:

B

MODE

C

Display view:



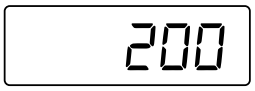
Condition of the forklift:

i By pressing MODE 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

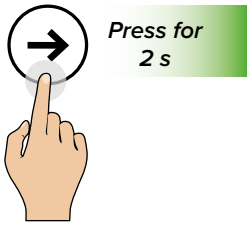
A

Display view:



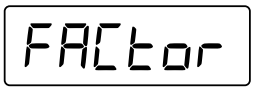
B

MODE



C

Display view:



D

Display view:

Enter the conversion factor:

Increase / decrease the value

Examples:

Pounds (lb)	1 g = 0.00220
Ounces (oz)	1 g = 0.03527
Stone (st)	1 g = 0.00016
Carats (kt)	1 g = 5.00000
Grains (gr)	1 g = 15.43240

Any conversion factor is multiplied by weight.

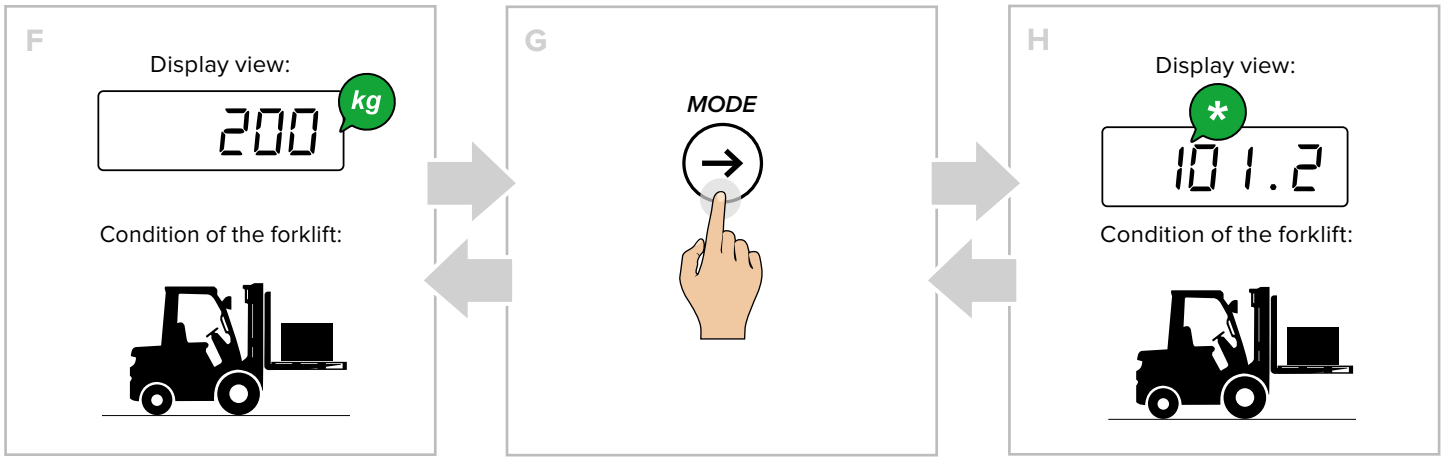
E

PRINT

proceed →

DINI ARGEO Scales - Weighing systems

Optimized layout for A4 print.



By pressing MODE at any time, the unit of measurement can be converted with a free conversion factor.

Optimized layout for A4 print.

Replacing the printer roll

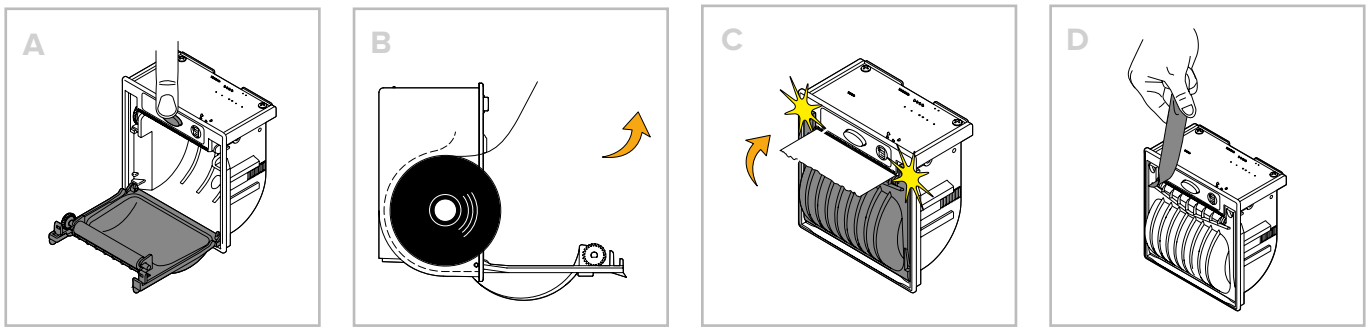
To replace the roll of the thermal printer (if applicable), proceed as follows:

A. Open the door by pressing the centre key.

B. Insert the roll with the thermal surface facing outwards.

C. Close the door by pressing on both sides.

D. Remove excess paper.



Optimized layout for A4 print.

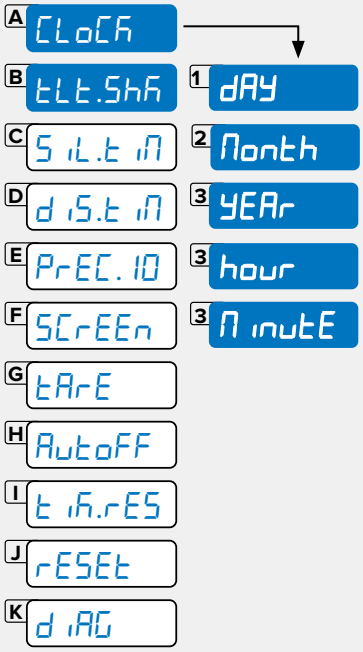
MENU

Enter

1. ↵ *5 Sec.*

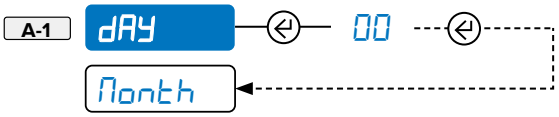
Browse

↑ = ↑
↓ = ↓
→ = ↵
← = C

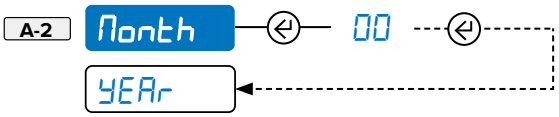


CLOCK - DATE AND TIME

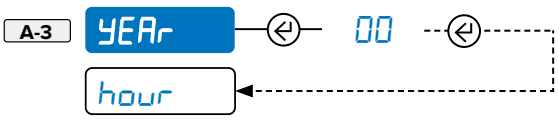
Day



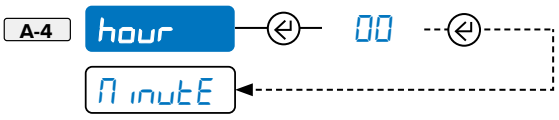
Month



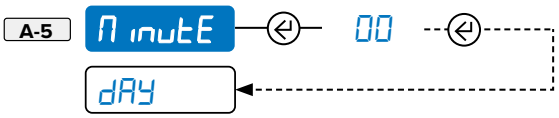
Year



Hour

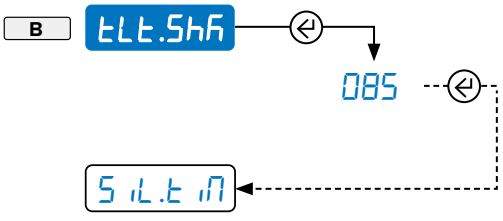


Minute



tLt.ShA - FORK SWITCH-ON SENSITIVITY

Enter the fork switch-on threshold value (from 0 to 255, default = 85).
A low value causes the forks to switch on more easily.
A high value causes more movement to be needed to switch them back on.



MENU

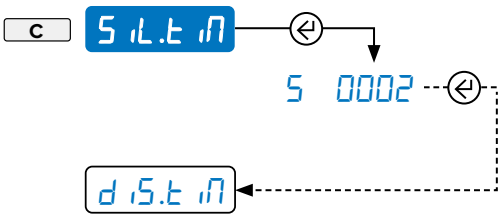
1. ↵ *5 Sec.*

↑ = ↑
↓ = ↓
→ = ↵
← = C

A CLOCK
B TLT.SHK
C SILENT
D DIST
E PREC.10
F SCREEN
G TARE
H AUTOFF
I T.RES
J RESET
K DIAG

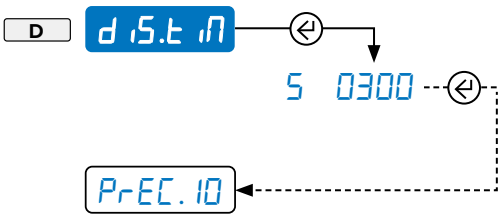
SILENT - ENERGY SAVING ADJUSTMENT

Enter the idle time (in s) after which the forks switch to partial energy saving mode (see "Energy saving" chapter).



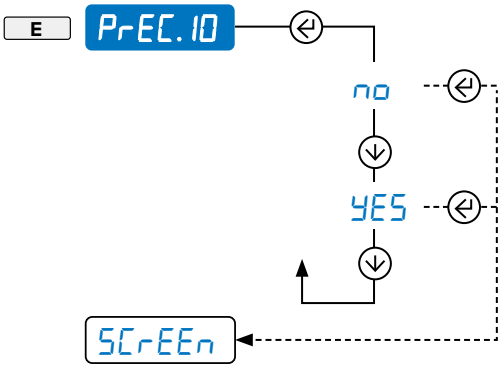
DIST - FORK AUTO SWITCH-OFF

Enter the idle time (in s) after which the forks automatically switch off. Move the forks to switch them back on.



PREC.10 - HIGH RESOLUTION READING DIVISION

This functions allows you to display the weight with ten times greater resolution.



DINI ARGEO Scales - Weighing systems
Optimized layout for A4 print.

MENU

Enter

1. ↵ *5 Sec.*

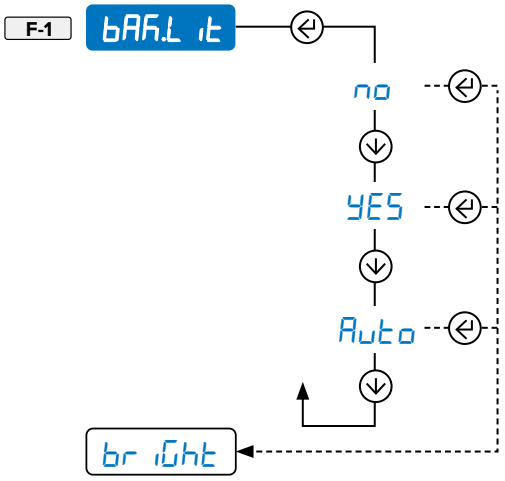
Browse

↑ = ↑
↓ = ↓
→ = ↵
← = C

- A CLOCK
- B TLT.SHA
- C SILENT
- D DIST.IN
- E PREC.10
- F SCREEN
  - 1 BRIGHT
  - 2 BRIGHT
  - 3 LOCK
- G TARE
- H AUTOFF
- I T.HRES
- J RESET
- K DIAG

SCREEN - ADJUSTING THE DISPLAY

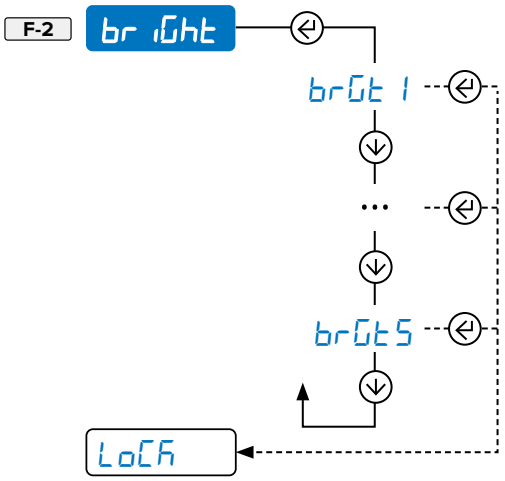
Backlighting



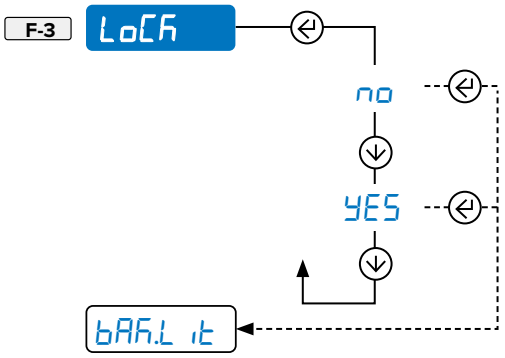
Always on

On when weight is unstable

Brightness



Display lock (for use by the manufacturer)



MENU

Enter

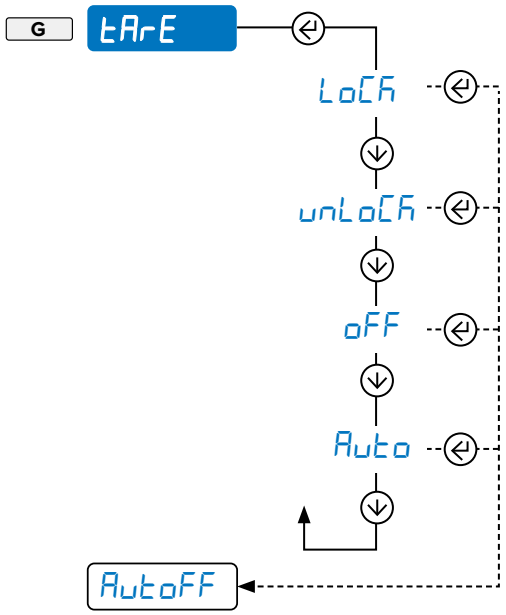
1. ↵ *5 Sec.*

Browse

↑ = ↑
↓ = ↓
→ = ↵
← = C

A CLOCK
B tLt.ShR
C S iL.t iM
D d iS.t iM
E PrEC.10
F SCrEEn
G tArE
H AutoFF
I t iR.rES
J rESEt
K d iAG

tArE - TARE



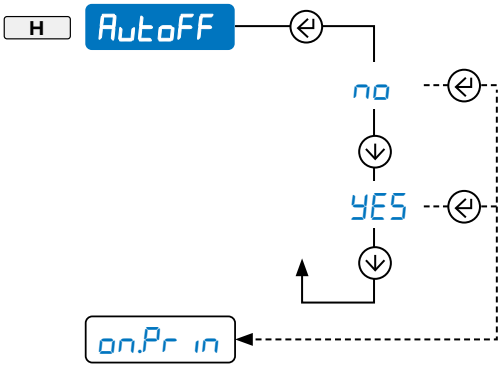
The tare is stored. Manual deletion.

Tare automatically deleted when scale is unloaded.

Tare functions inhibited.

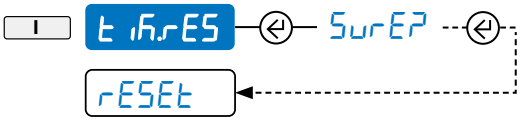
Tare automatically carried out when weight is stable.

AutoFF - AUTOMATIC SWITCH-OFF



Enter the number of minutes after which the indicator will switch off automatically.
Default = 5

t iR.rES - TICKET NUMBER RESET



DINI ARGEO Scales - Weighing systems

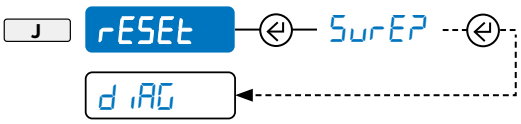
Optimized layout for A4 print.

MENU

Enter	Browse
1. ↵ 5 Sec.	↑ = ↑ ↓ = ↓ → = ↵ ← = C

A CLOCK
B tLt.ShR
C S iL.t iM
D d iS.t iM
E PrEC.10
F SCrEEn
G tArE
H AutoFF
I t iM.rES
J rESEt
K d iAG

rESEt - FACTORY CONFIGURATION RESET



d iAG - DIAGNOSTICS

Reserved for technical staff.

Error messages

MESSAGE	DESCRIPTION	SOLUTION
WA i.bt	Waiting for Bluetooth connection	Check that the forks are switched on (battery inserted)
WA i.For	Waiting for fork movement	Check that the forks are on (battery inserted) and perform a movement.
t iLt	Tilt errors	Move the forks and bring them into a perfectly horizontal position. Move the forklift to a flat surface.
buSy	Another printing operation is already in progress	Wait for the printing operation in progress to be finished and try again.
unStAb	The weight is unstable	If the supporting surface is affected by vibration from moving machinery or equipment, move the scale to another surface and try again.
LoW	The net or gross weight is negative or insufficient for printing	Add weight and try again.
un.oUEr	Underload o overload (_____ or ¯¯¯¯¯)	Restore a valid weight condition. If the problem persists, contact customer service.
no.0.unS	The scale was not unloaded after the last printing	Completely unload the scale, making sure the warning light →0← comes on. Reload the weight and try again.
Err.Not	The weight is unstable	Wait for stability (the warning light ~) and try again.

Optimized layout for A4 print.

Notes

DINI ARGEO
Scales - Weighing systems
A RICE LAKE WEIGHING SYSTEMS COMPANY

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Stamp of the authorised service centre

The information in this document is approximate and can be subject to variations without prior notice by Dini Argeo, in compliance with the norms in force.
The official technical data are available in the updated version on the following website www.diniargeo.com or by contacting Dini Argeo Customer Service.