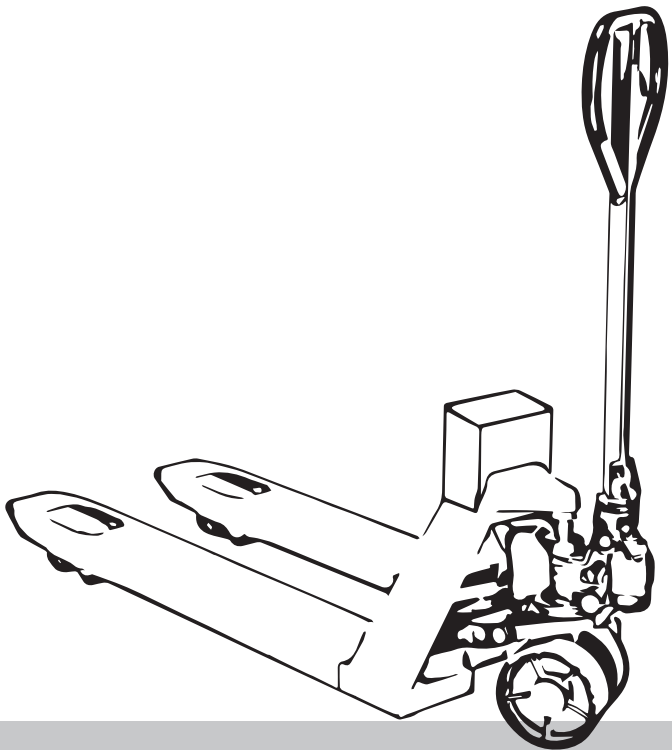
DINI ARGEO
Scales - Weighing systems

TPW

Pallet truck with integrated scale

USER MANUAL

ENGLISH



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Dear Customer, Thank you for choosing a Dini Argeo product.

The manual weighing pallet truck that you have purchased is ideal for handling and weighing pallets or standardised containers directly where they are located, saving you time and money.

It is equipped with high performance weighing electronics, precise and durable, and features a multifunctional program that can help you perform your daily tasks. Before using the instrument, please read this instructions manual carefully in order to be able to use it in complete safety and to learn about all of the functions it offers.

Safety information - Warnings

The safety precautions illustrated in this manual, marked with ⚠ must be observed during all installation, operation, maintenance or repair stages of the weighing system.
Any use other than the one reported in this manual, as well as the failure to follow the safety precautions, shall relieve the manufacturer of any responsibility and void the product warranty.

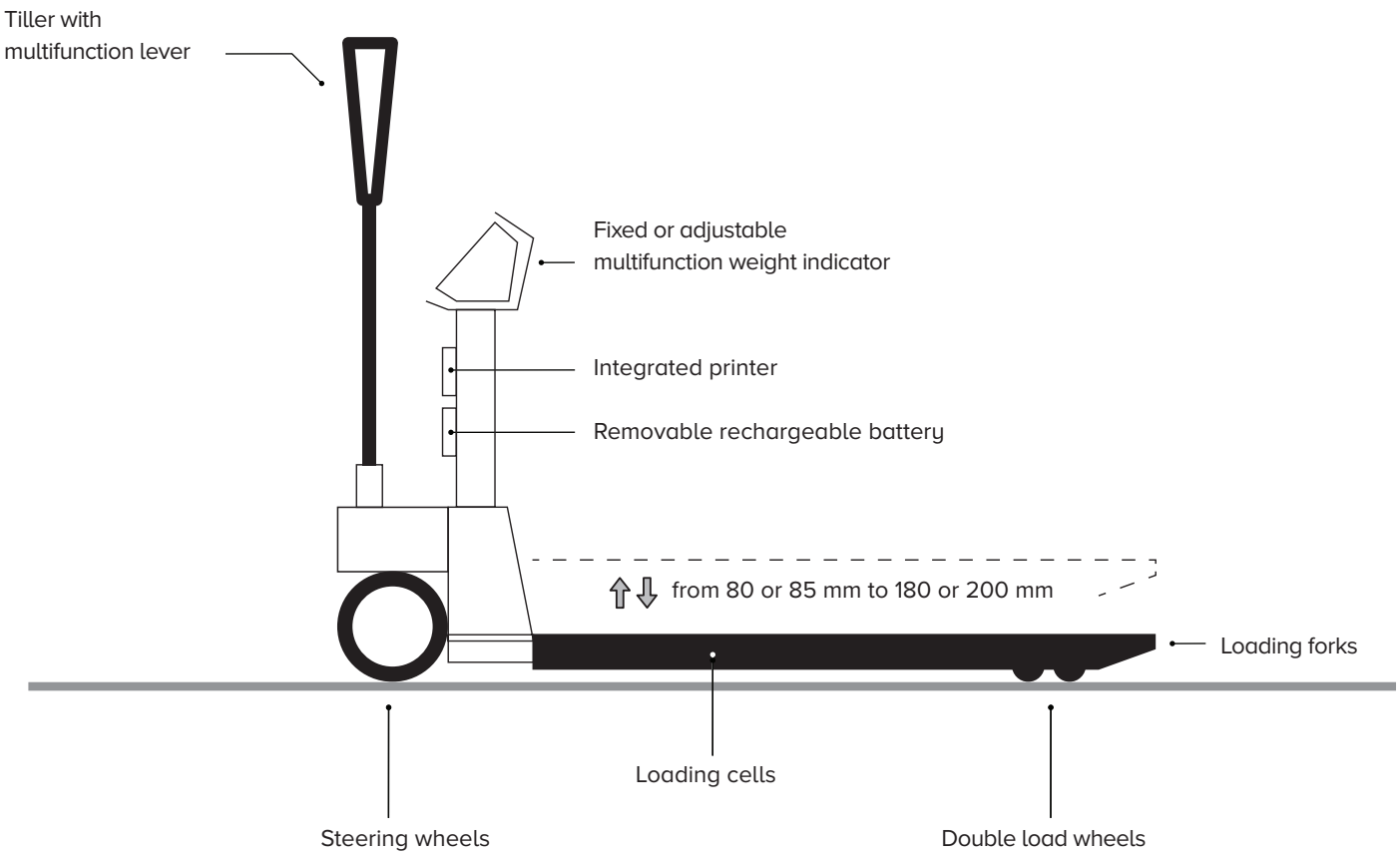
- Read this manual carefully before carrying out any handling operations or lifting any loads.
- This pallet truck is designed to weigh exclusively on standardised pallets.
- With approved scale, you can perform weighing on EUR-EPAL pallet 800x1200mm (ref. Standards UIC 435-2 and UIC 435-4).
- NEVER load the scale beyond the maximum capacity stated on the plate of the weight readout instrument.
- It is forbidden to use the scale in environments where there is the danger of fire or explosion
- Do not load the forks when they are raised, not even partially.
- Before using the pallet truck ensure it is in perfect working order.
- To achieve a correct weighing result the forks need to be raised at least 5-10 cm in order to avoid the frame from rubbing against anything.
- Do not expose the pallet truck to atmospheric agents (sun, rain, etc.).
- Use the pallet truck in non-condensing environments with moderate temperature and humidity levels
- Use the pallet truck where there are no vibrations.
- Carefully read and apply the aforementioned description of the weight indicator.
- To clean the pallet truck, avoid the use of solvents or aggressive substances.
- It is forbidden to make any modifications to the truck if not authorised by the manufacturer.
- It is forbidden to use the pallet truck when it no longer fulfils the safety criteria.
- It is forbidden to use flammable products to clean the truck.
- Except with specific models, it is forbidden to wash the pallet truck with direct jets of water.
- Do not pour liquids on the indicator.
- Anything not specifically described in this manual is considered improper use of the equipment.

- The crossed out wheelie bin symbol on the product shows that it must be brought to appropriate separate waste collection centres at the end of its life cycle or returned to the dealer when purchasing a new equivalent product.
- Proper separate collection to then send the product to recycling contributes to preventing possible negative effects on the environment and to health and promotes recycling. Users who dispose of the product illegally shall face administrative sanctions as provided for by law.

Technical features

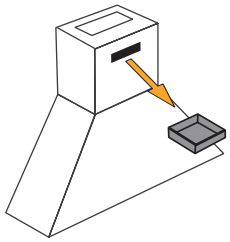
Based on the model:

- Painted steel or stainless steel loading forks.
- Standard length 1150 mm or 1280 mm, special sizes on request.
- Width 550 mm or 680 mm, special widths on request.
- Maximum lifting height of the forks: 180 or 200 mm from the ground.
- Height of completely lowered forks: 80 or 85 mm from the ground.
- Polyurethane or non-staining vulkollan or nylon or antistatic rubber steering wheels.
- Double load wheels for greater stability.
- Painted steel load bearing frame.
- 4 aluminium or stainless steel loading cells with IP67 or IP68 protection rating.
- Tiller with multifunction lever.
- Multifunction fixed or adjustable weight indicator.
- Removable rechargeable battery and set-up for 24/7 continuous use kit or battery operation.
- Integrated printer.



Power supply via battery

If your pallet truck features AA BATTERY power supply, use **4 AA batteries**, either “disposable” or rechargeable.



CHANGING THE BATTERIES:
Pull out the front tray and put the batteries in.

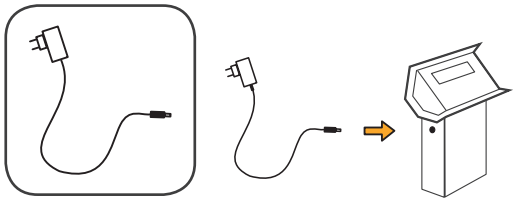
ATTENTION: set the batteries up according to the polarity marked inside the tray.

Power supply via rechargeable battery

Depending on what model you purchased, the weighing pallet truck can be equipped with **A** internal rechargeable or **B** removable battery.

BEFORE TURNING THE INSTRUMENT ON FOR THE FIRST TIME, FULLY CHARGE THE BATTERY (APPROX. 12 HOURS)

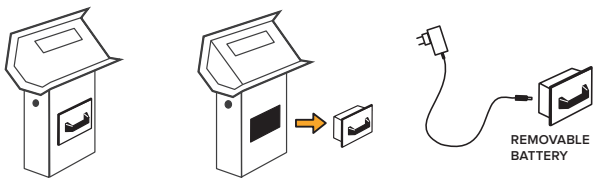
A INTERNAL RECHARGEABLE BATTERY



USE ONLY ORIGINAL CHARGER SUPPLIED

B REMOVABLE BATTERY

1. 2. 3.

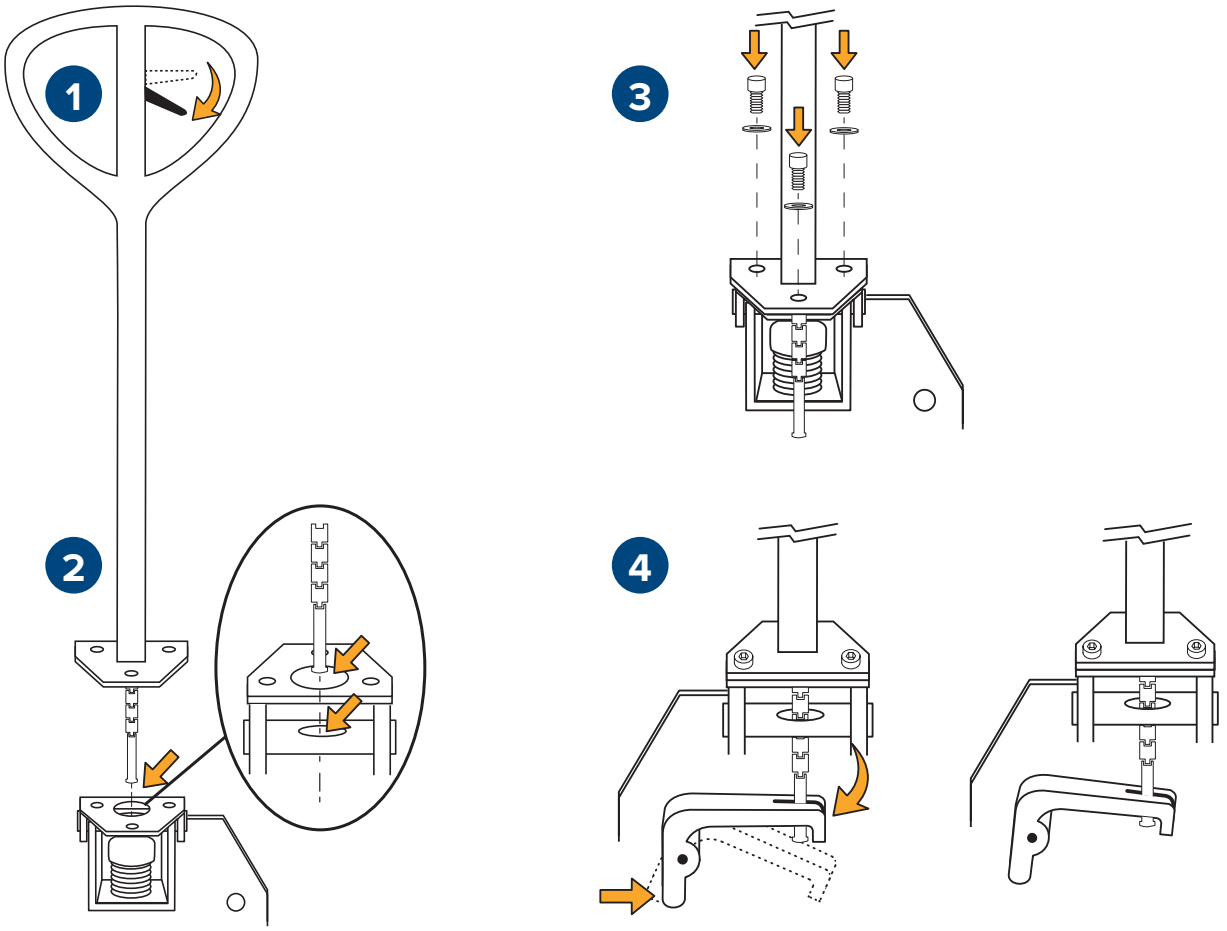


Battery charge level

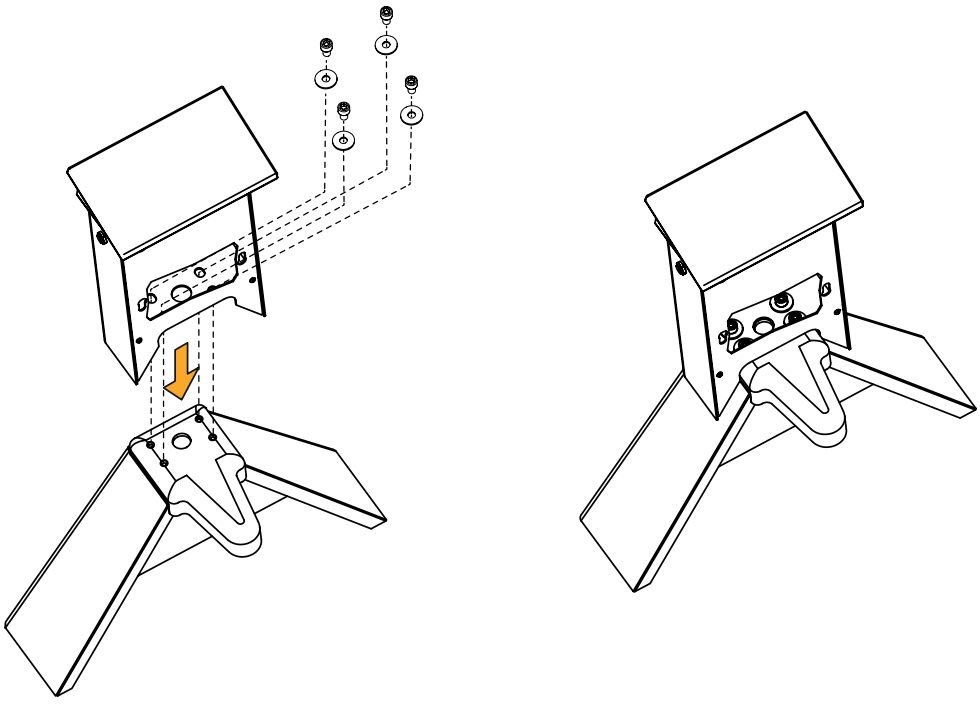
The dedicated symbol on the instrument display tells you the battery level:

- Only use original batteries and battery chargers.
- Under normal conditions of use, we recommend never leaving the battery partially or fully discharged and fully charging it at least once a week.
- In case of prolonged periods of disuse, we recommend removing the battery (in pertaining models) and storing it in a dry place, away from changes in temperature
- Recharge it completely once every 3 months.

A



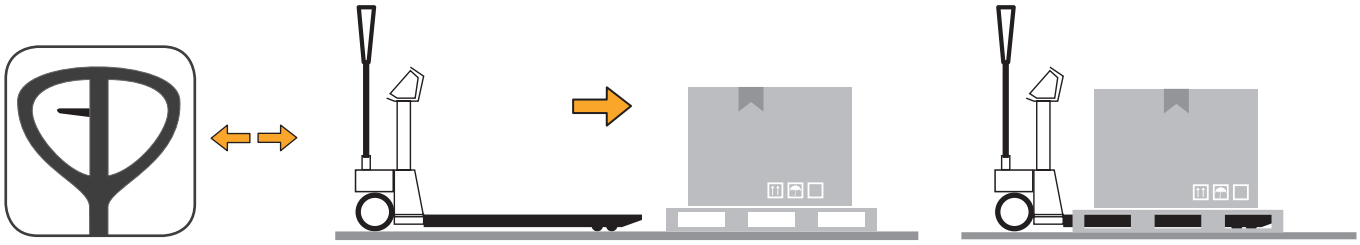
B



The raised load is moved forwards or backwards by the tiller, which controls the steering wheels.

Transport

POS. 1 > central
The tiller is completely free for transport manoeuvres.

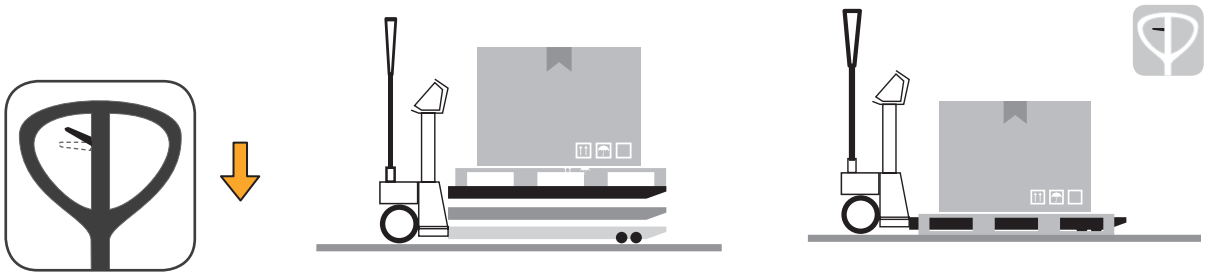


Lifting

POS. 2 > low
Pull the tiller downwards to start up the lifting pump. A return spring places the tiller back in its upright position.

Discesa

POS. 3 > – high
Pull the lever upwards to lower the load. The descent speed is controlled by a special valve that starts up when the lever is firmly pulled to the end of its stroke.



The pallet truck is equipped with a dual-function tiller: traction or manoeuvre and hydraulic lift.
NOTE: raise or lower the truck ONLY when stationary.

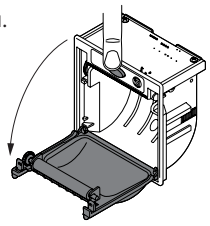
Integrated thermal printer

The printer is usually in STAND-BY and is only powered by the weight indicator when it is time to print in order to ensure the battery holds it charge longer.
When printing is finished, the printer automatically goes back to STAND-BY.

How to turn the printer on manually
Press ZERO ⊕ for 2 seconds

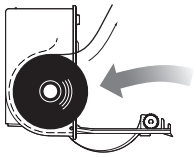
How to replace the roll

a.



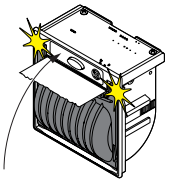
Open the door by pressing the middle button.

b.



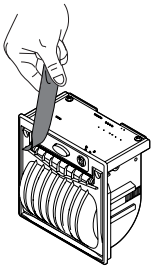
Put the roll in with the thermal side facing outward.

c.



Open the door by pressing both sides.

d.



Remove the excess paper.

Customisable printouts

If the instrument is equipped with a printer, the ticket or label can be customised as shown in the following example.

Customising printouts requires advanced configuration.

Example of ticket/label

MARIO ROSSI SRL — Heading
VIA DELL'INDUSTRIA, 20
41042 - FIORANO (MO) - ITALY
WWW.MARIOROSSI.IT

WEIGH NUM. 1 — Progressive weighing ticket (for accumulation modes)

GROSS 15.000 kg
TARE 3.000 kg — Weight data
NET 12.000 kg

TICKET NO. 54321 — Progressive ticket number
05/08/2015 15:39:03 — Date and time

Bar code 39

Example of packing list

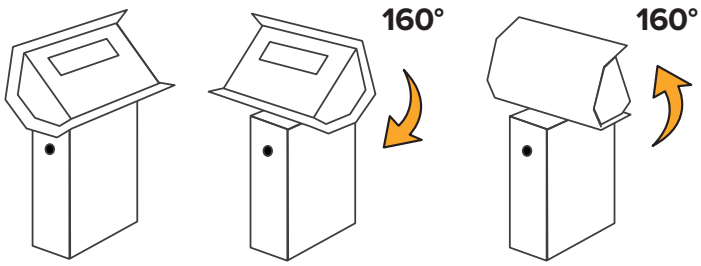
MARIO ROSSI SRL
VIA DELL'INDUSTRIA, 20
41042 - FIORANO (MO) - ITALY
WWW.MARIOROSSI.IT

WEIGH NUM.	00000001
NET	1.000 kg
WEIGH NUM.	00000002
NET	1.000 kg
WEIGH NUM.	00000003
NET	1.000 kg
WEIGH NUM.	00000004
NET	1.000 kg
TOTAL WEIGHS	00000004
TOTAL NET	4.000 kg
TICKET NO.	12345

09/05/06 15:39:03

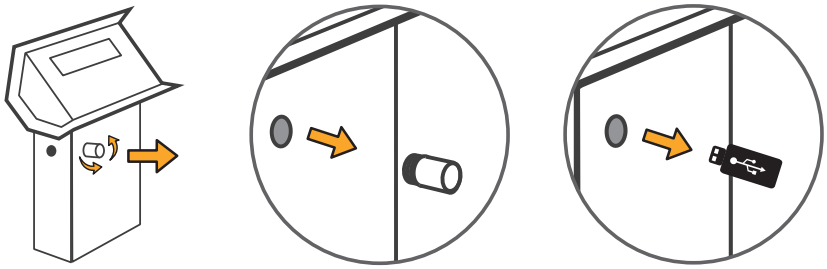
Swivel column (standard with some models)

To ensure maximum display reading comfort.



Usb (depending on model)

USB port to store all completed weighing operations on memory stick.



The tiller has an upright return system: be careful during manoeuvring operations.

Antenna (depending on model)

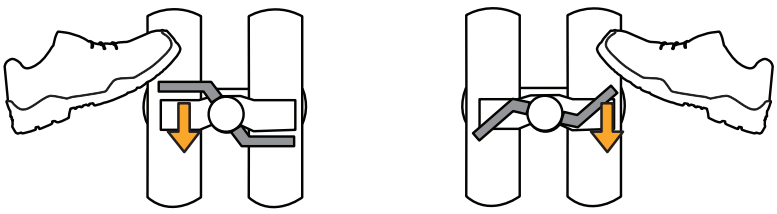
Fixed antenna for wireless data transmission.

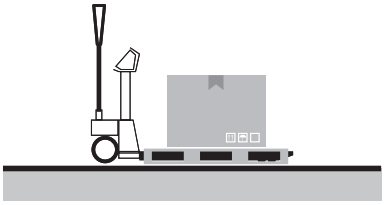
Do not rotate or move the antenna, its correct position is vertical.

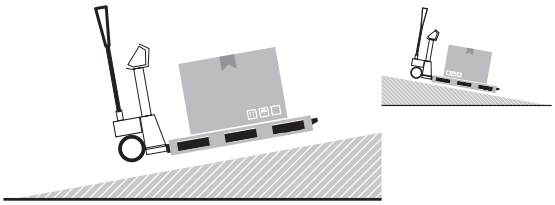
Brake

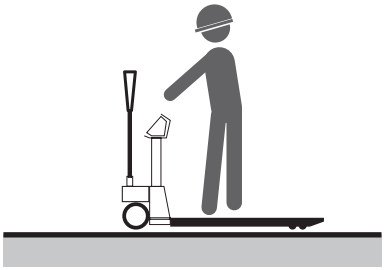
Pedal parking brake unit installed on tiller wheels.

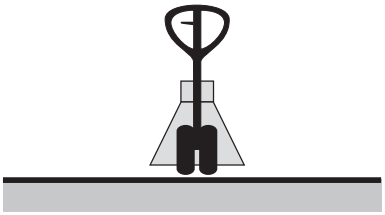
ON OFF



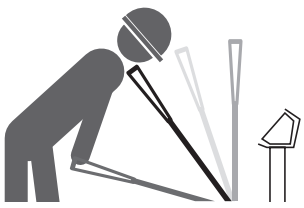


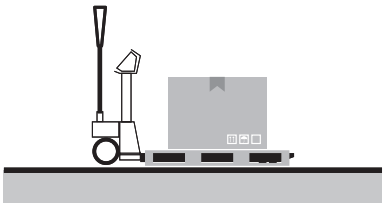


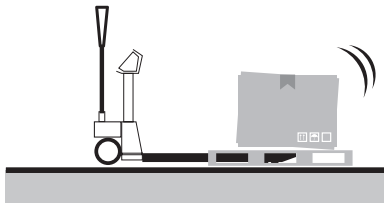


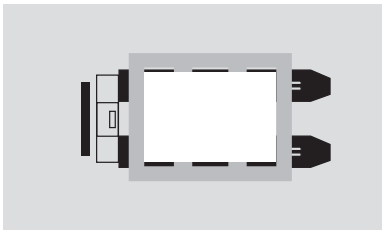


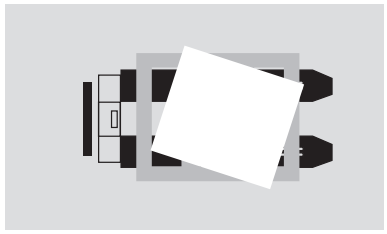
The tiller has an upright return system: be careful during manoeuvring operations.

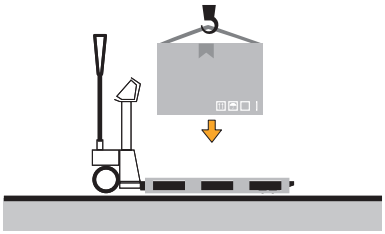


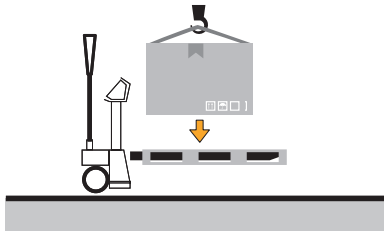


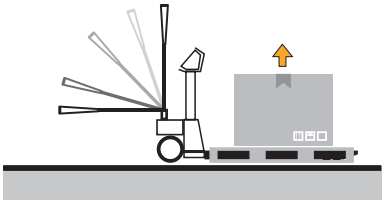




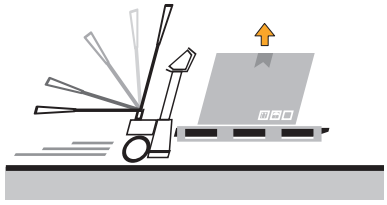








RAISE THE TRUCK ONLY WHEN STATIONARY*

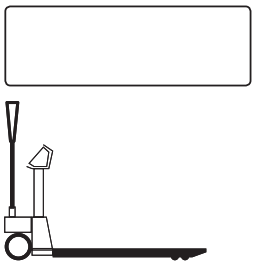


*The pallet truck is equipped with a dual-function tiller: traction or manoeuvre and hydraulic lift.
NOTE: raise or lower the truck ONLY when stationary.

1 Turn on the indicator

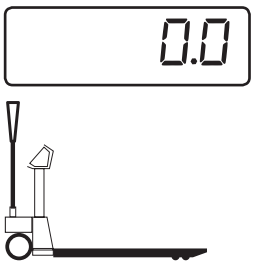
i Unload the pallet truck scale before turning on.

a.

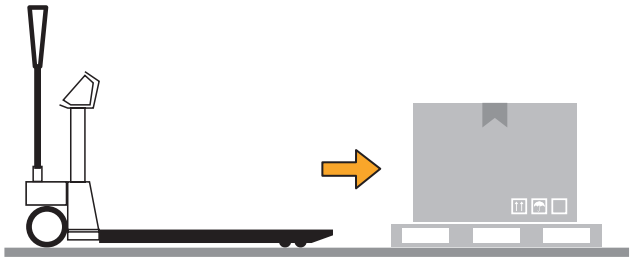


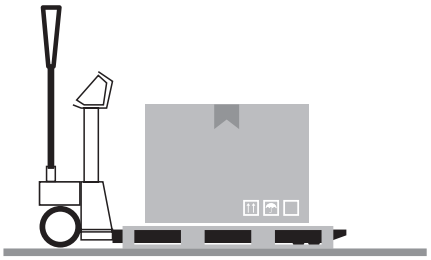
b.

c.



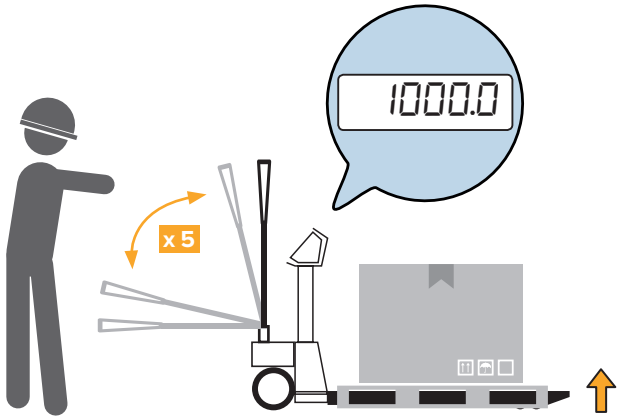
2 Put the pallet truck in position





i With approved scale, you can perform weighing on EUR EPAL pallet 800x1200mm (ref. Standards UIC 435-2 and UIC 435-4).

3 Lift the load and read the weight



Maintenance warnings

- Before proceeding with the maintenance operation ensure that the truck is in safety mode.
- During maintenance operations do not release work residues into the environment.
- Only perform the maintenance operations described herein, any unspecified procedures can pose a serious risk to untrained operators and in any case alter the machine's degree of safety.
- Always and only use original spare parts.
- During operation or maintenance, plates and stickers must NOT be removed, hidden, or made illegible.
- More complex maintenance and/or repairs must be carried out by skilled staff.

Scheduled maintenance

Note that before starting maintenance operations
you have to place the truck on a solid surface.

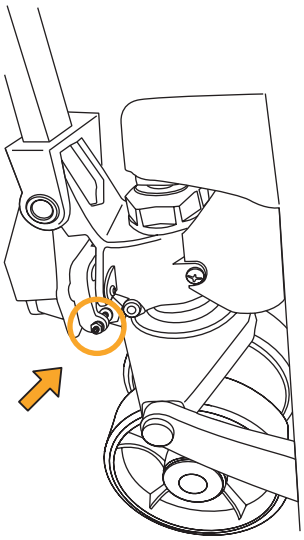
- Ensure that the pallet truck rollers are not obstructed by dirt
- Periodically grease the bearings of the rollers and wheels
- Grease the tiller control lever guide
- Approximately every six months, check the oil level and top up with hydraulic oil IP46 if necessary. For topping up refer to the "OIL LEVEL" paragraph. N.B. When performing complete spent hydraulic oil changes, it must be disposed of in accordance with the regulations in force.
- Replace wheels and rollers when they are worn.
- In any case, for minor repairs and solutions, contact your AUTHORISED TECHNICAL ASSISTANCE

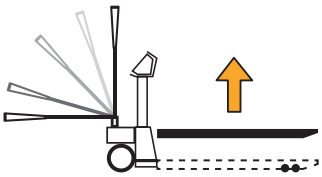
Daily maintenance

Daily truck maintenance
is the responsibility of the worker appointed as pallet truck operator.

BELOW ARE THE CHECKS TO BE CARRIED OUT TO ENSURE OPTIMAL WEIGHING AND HANDLING PERFORMANCE:

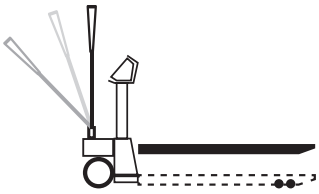
- Roller and wheel integrity check
- Visual check of the state of the truck frame
- Weight indicator operation check
- Integrated printer operation check (where applicable)
- Pump operation check



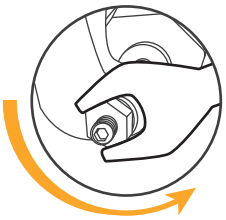


a. Place the forks at the maximum height.

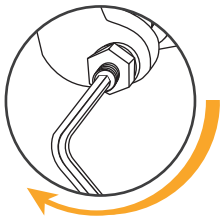
b. Place the tiller control lever in POS. 1 (centre).



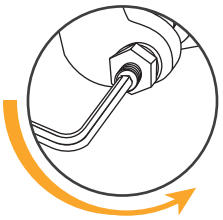
c. Make sure the tiller is in the upright position.



d. Unscrew the locknut, to unlock the adjustment screw.

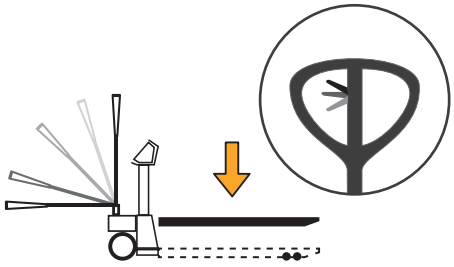


e. Slowly turn the adjustment screw clockwise until the forks start moving downwards.



f. As soon as the forks start lowering, turn the adjustment screw one and a half turns anti-clockwise.

g. Tighten the locknut, to lock the adjustment screw.



h. Using the control lever, the downwards movement can be carried out from any tiller position.

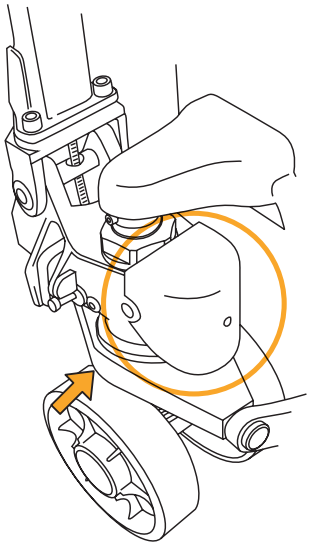
Make sure that with the tiller in its transport position, it is not possible to raise the forks. Otherwise you will need to:

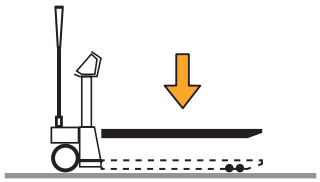
- unlock the lock nut,
- turn it half a turn clockwise,
- tighten the locknut back up again.

Oil level

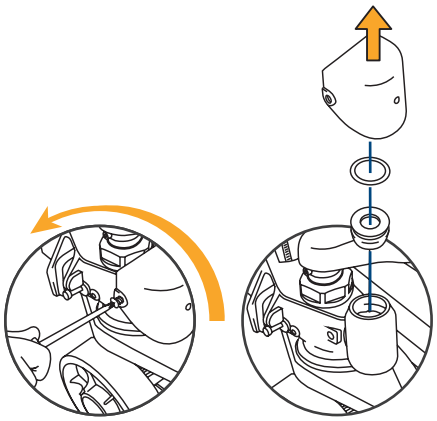
Check the oil level **EVERY 6 MONTHS**.
Only use hydraulic oil, not motor or brake oil.

OIL VISCOSITY
30 CST A 40°C
TOTAL VOLUME
0,3 LT

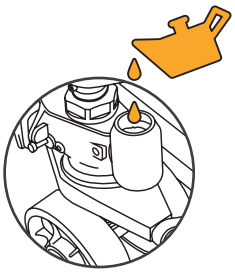




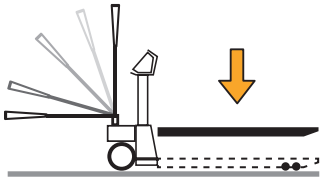
a. Lower the forks all the way.



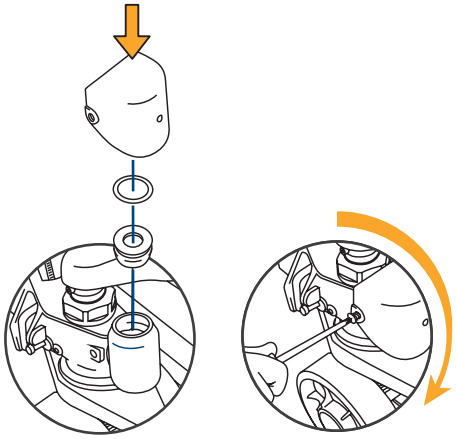
b. Remove the protective casing, the seal and the cap.



c. If necessary, add up to 20 mm from the top edge of the tank.

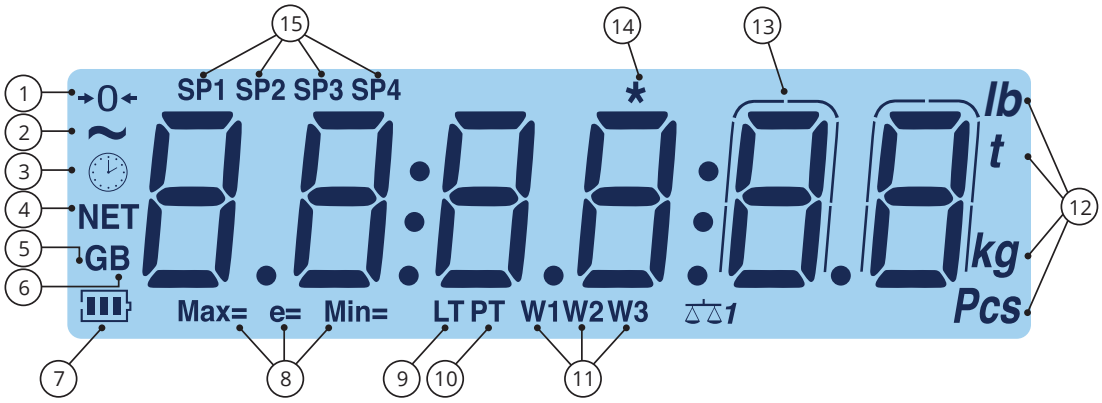


d. Operate the pump several times to release any air from the hydraulic circuit, then lower the forks completely.



e. Put the cap, the seal and the protective casing back on.

The display



Number	Symbol	Description
(1)	→0←	The scale is unloaded and at zero (gross).
(2)	~	The weight is unstable.
(3)	🕒	The time is being shown on the display.
(4)	NET	The weight displayed is net. There is a saved tare.
(5,6)	G B	The weight displayed is gross.
(7)	🔋	Battery level.
(8)	Max= Min= e=	Metrics are being displayed.
(9)	LT	A locked tare is active.
(10)	PT	A manual tare is active.
(11)	W1 W2 W3	Indicate the range of active weighing.
(12)	lb ··· Pcs	Units of measurement - Pounds (lb), tonnes (t), kilograms (kg), grams (g), number of pieces (Pcs).
(13)	⎍	The weight is being displayed in high resolution.
(14)	*	This means a key is pressed. In some operating modes, it means that a specific function is active.
(15)	SP1... SP4	These indicate the active relay ports (only with the optional board).

LETTERS:

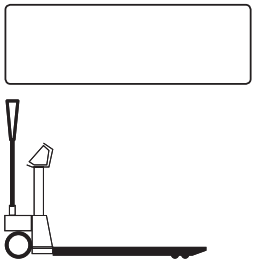
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
A	b	C	d	E	F	G	h	ı	J	K	L	M	n	o	P	q	r	S	t	u	U	W	H	y	Z

NUMBERS:

0	1	2	3	4	5	6	7	8	9
0	1	2	3	4	5	6	7	8	9

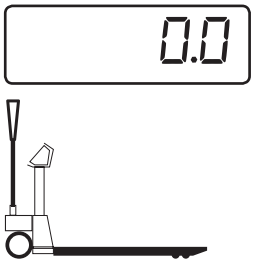
On

a.



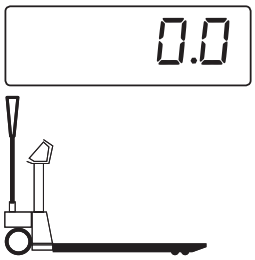
b.

c.

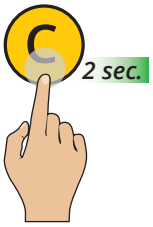


Off

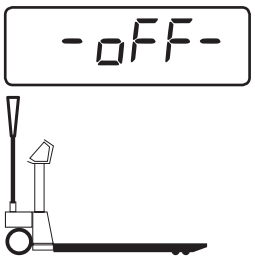
a.



b.

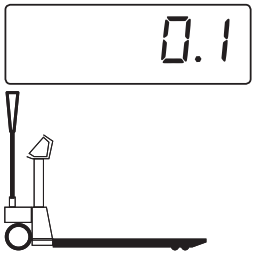


c.



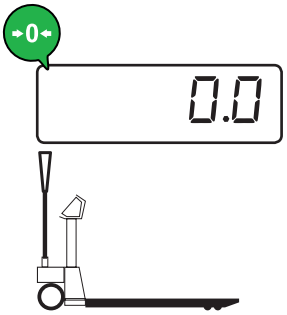
Zero

a.

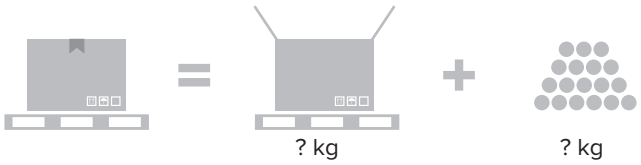


b.

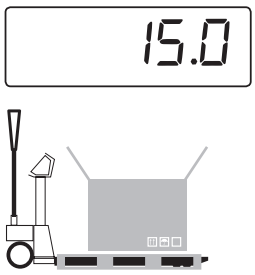
c.



Automatic tare

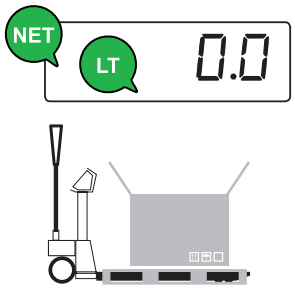


a.

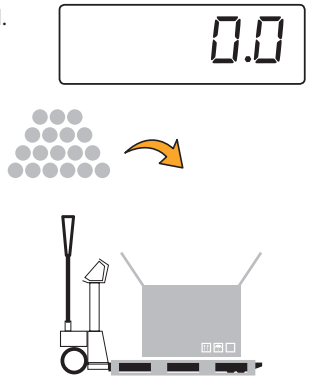


b.

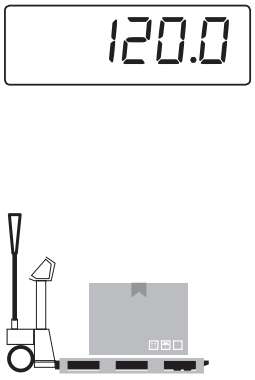
c.



d.

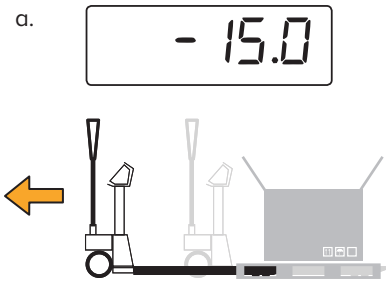


e.



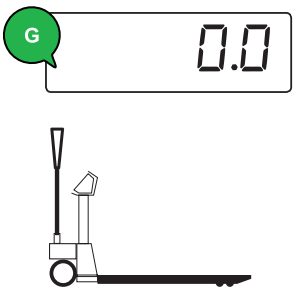
Tare deletion

a.



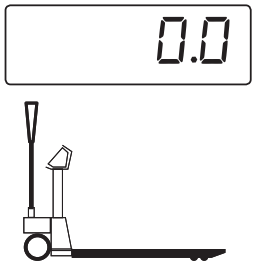
b.

c.



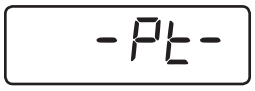
Presettable tare (pt)

a.



b.

c.



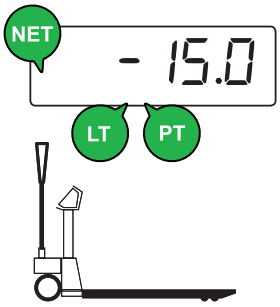
d.

Setting the tare value

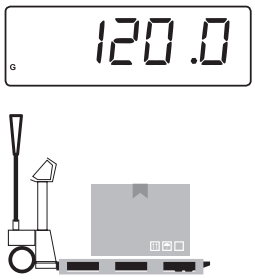
How to set the value

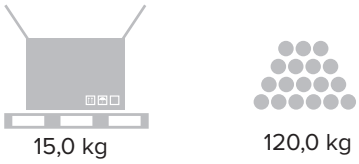
e.

f.



g.

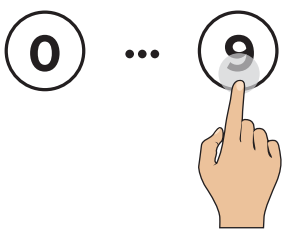




i

If the pallet truck has a number keypad, it is possible to enter the tare quickly:

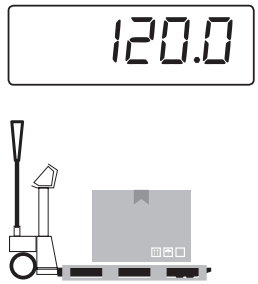
a. Enter the tare value



b.

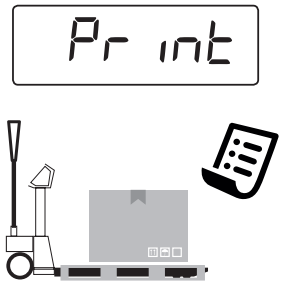
Print (and reprint of the last ticket)

a.



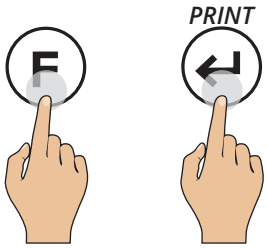
b.

c.

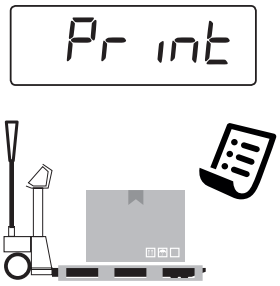


To reprint the last ticket

a.

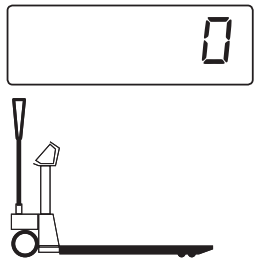


b.



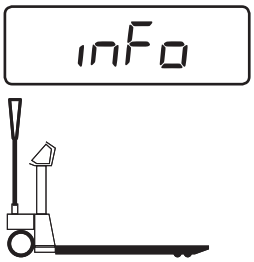
Metrics

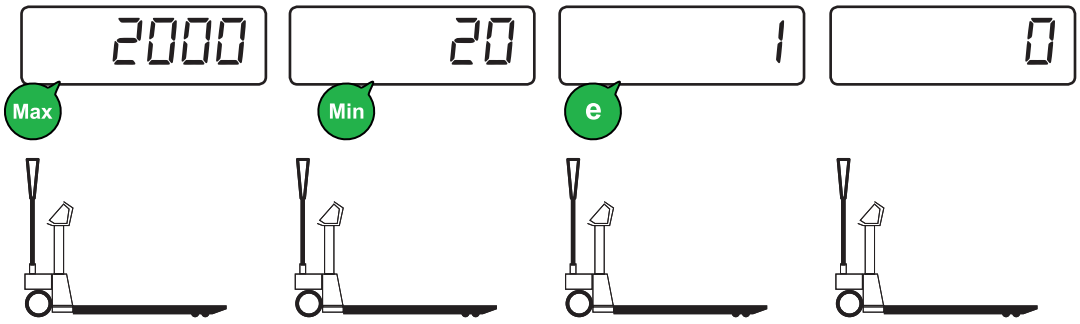
a.



b.

c.





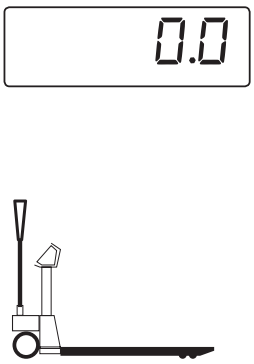
30-tare log

This memorises the most commonly used tares (up to 30), to simplify retrieval with quick selection.

Example

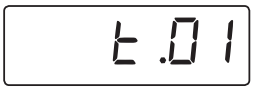
How to store a tare

a.



b.

c.



Select the memory.

How to set the value

d.

e.

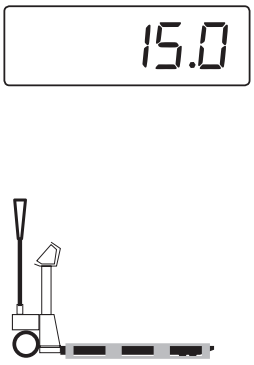
Enter the tare value

How to set the value

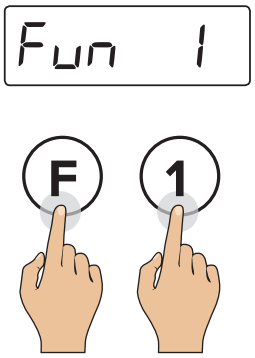
f.

How to retrieve a stored tare

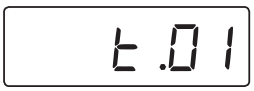
a.



b.



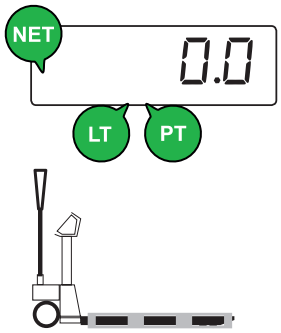
c.



Select the memory.

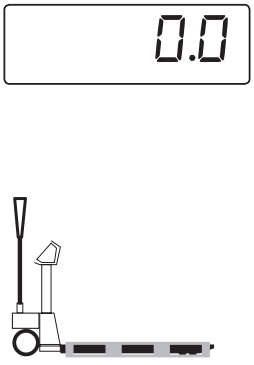
How to set the value

d.

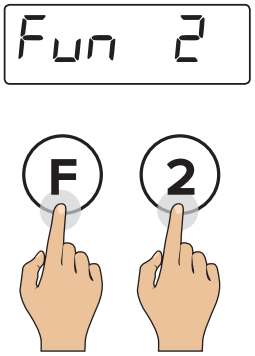


Automatic tare deletion

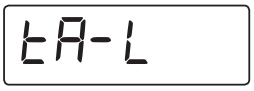
a.



b.



c.



Automatic deletion disabled

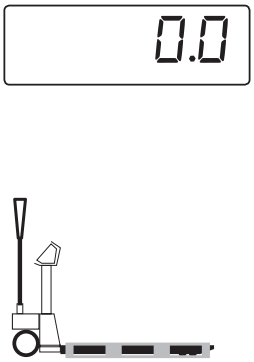
Automatic deletion enabled: the tare will be deleted automatically when the pallet truck is completely unloaded.

Number IDs

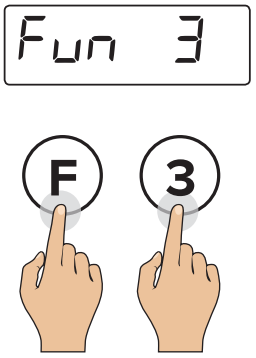
The instrument is fitted with two memories for the temporary registration of numerical codes that can be used to identify the product, the operator, the lot etc... These codes, if entered, will be present in the ticket when printing.

How to enter the ID

a.



b.



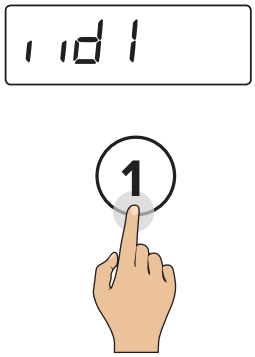
c.

Select the memory.

How to set the value

1 *or* 2

d.



e.

Enter the required ID (up to 10 digits)

How to set the value

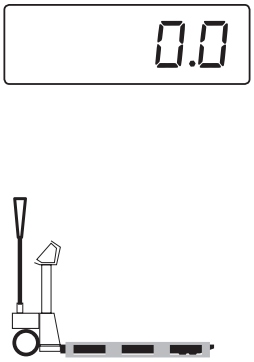
or

0 ... 9

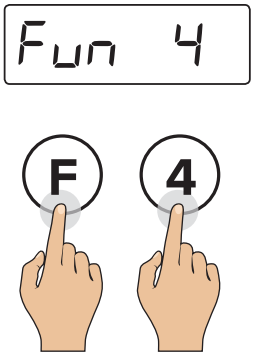
f.

How to enable automatic ID deletion

a.



b.



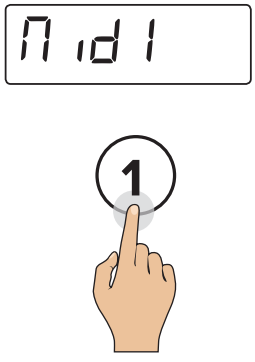
c.

Select the memory.

How to set the value

1 *o* 2

d.



e.

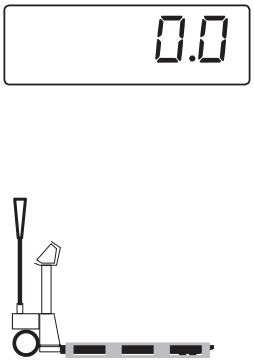
Automatic deletion disabled.

Automatic deletion enabled: the entered ID will be deleted automatically when the pallet truck is completely unloaded.

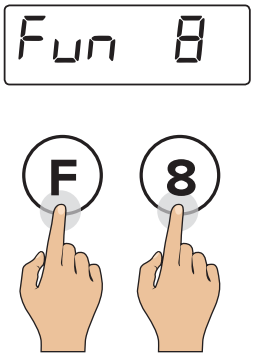
i The numerical IDs zero automatically when turning off the scale.

Date and time

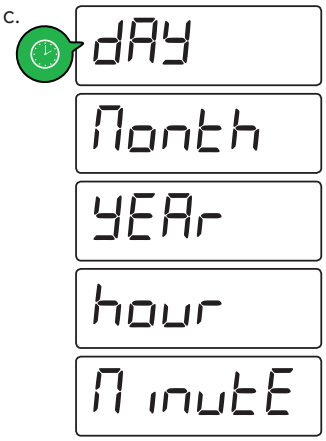
a.



b.



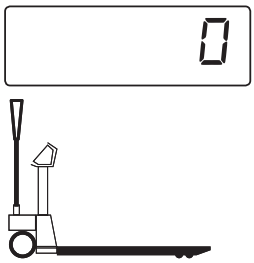
c.



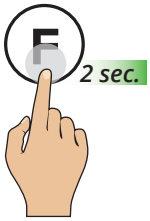
i Only if the option date and hour is present.

Regulation of the display brightness

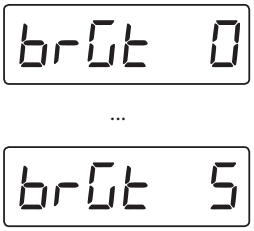
a.



b.



c.



Set the brightness

How to set the value

The scale features the following modes of operation

- Horizontal totalization
- Mixing several components
- Pieces counting
- Alibi memory
- Weight check
- Exchange between net weight and gross weight
- Percentage weighing
- High resolution weight display
- Unit of measurement conversion

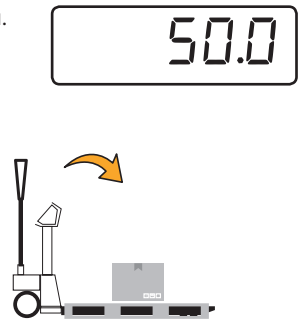
i

Enabling operating modes requires advanced configuration.

Horizontal totalization

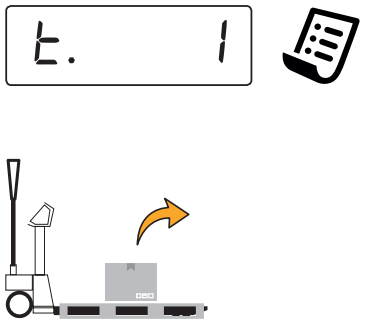
How to sum the weighs

a.

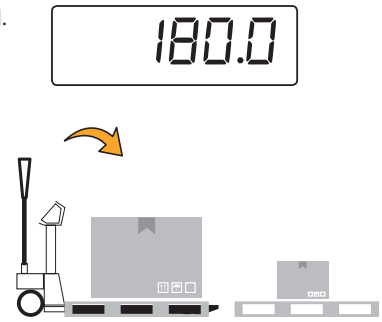


b.

c.

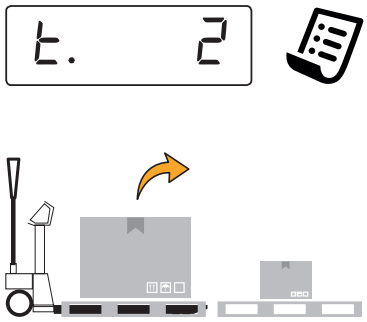


d.



e.

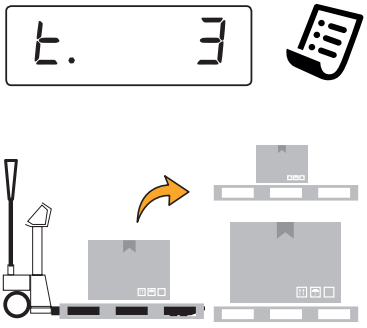
f.



g.

h.

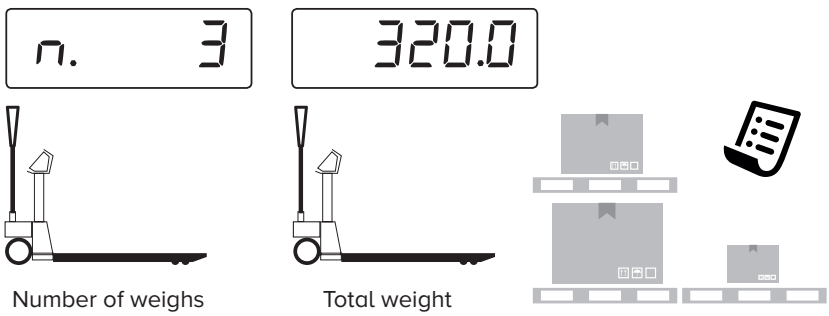
i.



How to read, print and reset the total

a.

b.



Number of weighs

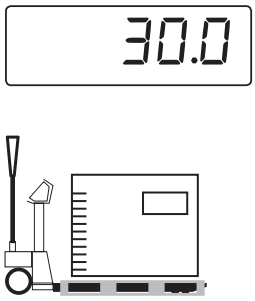
Total weight

i With number keyboard, the combination of (F) keys + (7) displays the current total without printing it/resetting it.

Mixing several components

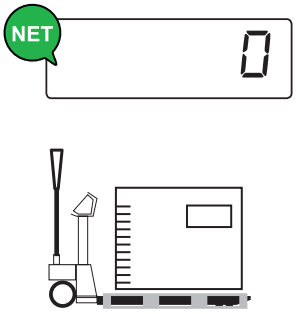
How to sum the weighs

a.

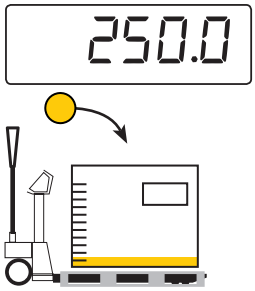


b.

c.

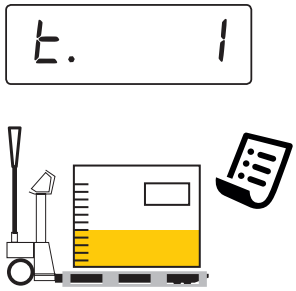


d.

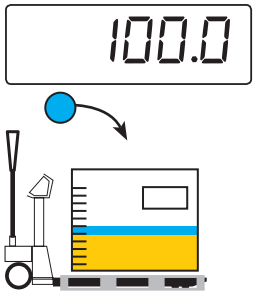


e.

f.

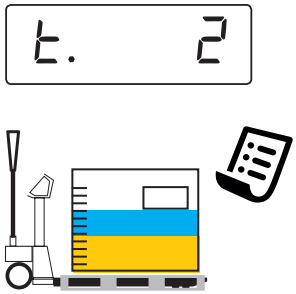


g.



h.

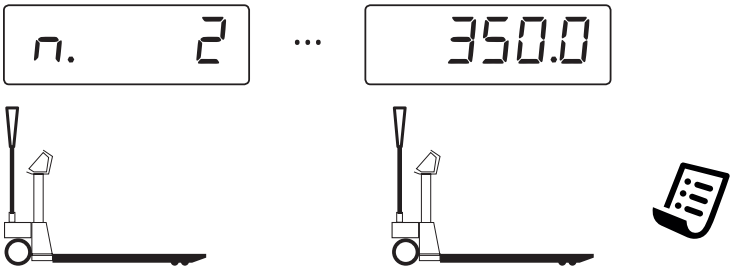
i.



How to read, print and reset the total

a.

b.



Number of weighs

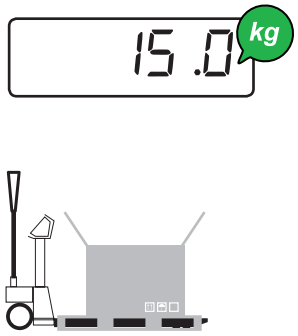
Total weight

i With number keyboard, the combination of (F) keys + (7) displays the current total without printing it/resetting it.

Pieces counting

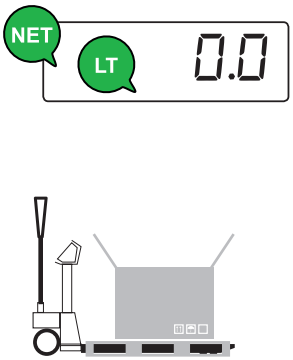
How to sample and count

a.

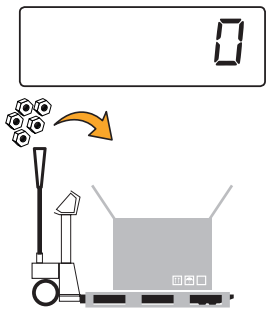


b.

c.

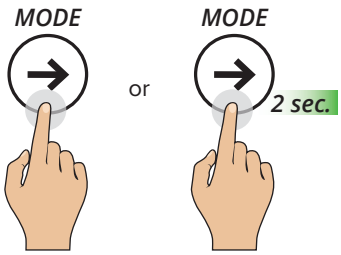


d.



Load the desired reference quantity (e.g. 5 pieces).
For a correct sampling, the reference quantity must have a weight of at least 0.1% of the maximum scale capacity.

e.



**If the pallet truck scale is already in counting mode (active sampling), in order to sample again press the → key for 2 seconds. With the numerical keyboard, the combination of the F + 5 keys allows to type the desired quantity (in any amount).*

f.

Choose the loaded reference amount (5, 10, 20, ... 200 pieces)

How to set the value

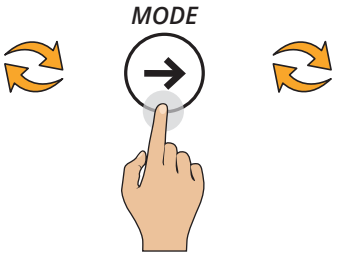
g.

h.

Sampling, please wait...
**With the numerical keyboard, the combination of the F + 7 keys allows to modify the sampling time. The more the time, the more the sampling precision.*

i.

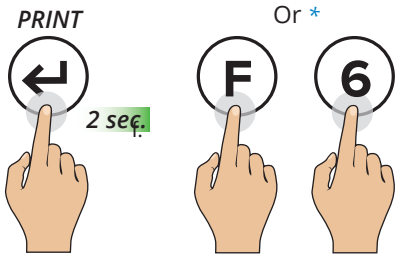
How to switch from piece to weight display and vice versa



You can go from counting to weighing at any time

How to enter the average unit weight (PMU)

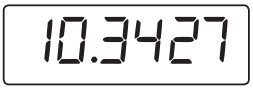
a.



** With the numerical keyboard, it is possible to use the rapid combination* (F) + (6)

b.

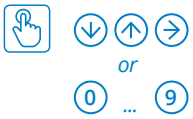
c.



Enter the average unit weight

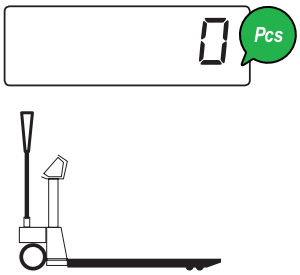
e.g. = = 10,3427g

How to set the value

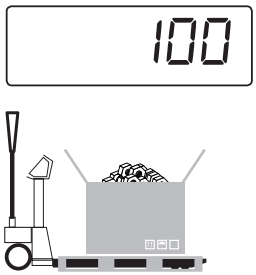


d.

e.



f.

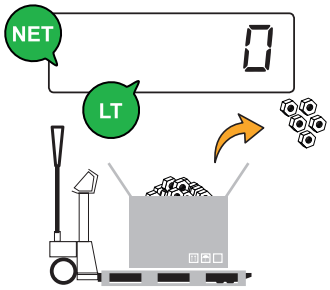


For correct counting, you must set the known tare value (see page 21) or tare the empty container and fill it with the pieces to count.

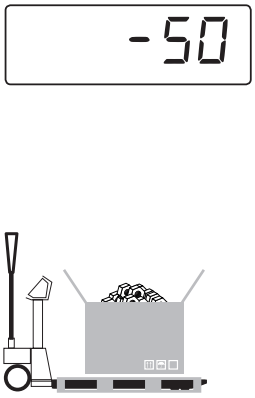
Total load count

a. Run a tare of the overall load

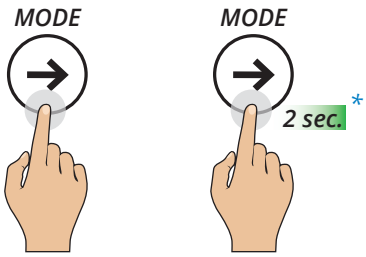
b. Pick up the sampling pieces (5, 10, 20, 30, 40, 50, 60, 75, 100, 200 pieces).



c.



d.



** If the pallet truck is already in count mode (sampling enabled), press the MODE button for two seconds for re-sampling.*

e.

Select the desired reference quantity (5, 10, 20, ... 200 pieces)

How to set the value

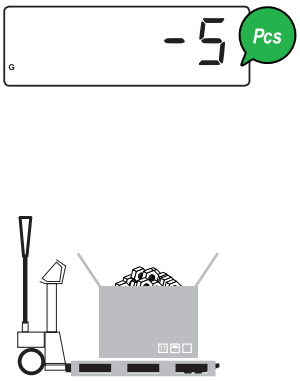
Using the number keyboard, pressing F (or Fn) + 5 allows you to type in any amount.

f.

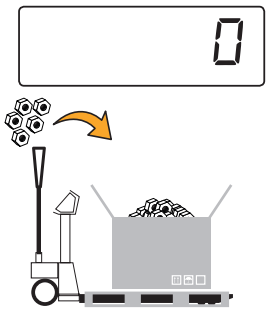
g.

Sampling, please wait...
** With the numerical keyboard, the combination of the (F) + (7) keys allows to modify the sampling time. The more the time, the more the sampling precision.*

h.



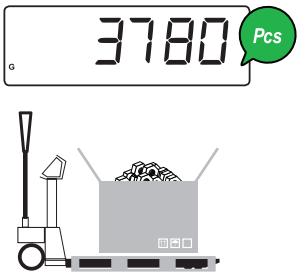
i. Load the selected reference quantity



j. Delete the temporary tare

k. Manually set the tare value (pallet + container)

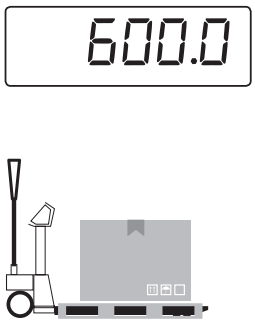
l.



Alibi memory

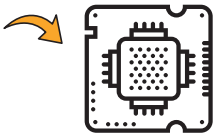
How to record a weighing operation in the alibi memory

a.



b.

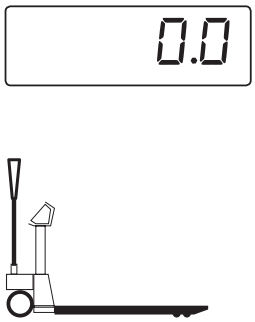
c.



Saving a weighing operation in alibi memory.

Alibi memory reading

a.



b.

c.

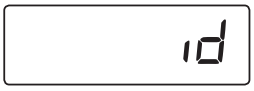
Enter the re-write number

d.

How to set the value

e.

f.



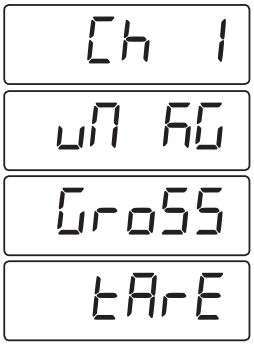
Enter the weighing operation identification number

g.

How to set the value

h.

i.



Reading channel

Unit of measure

Gross weight

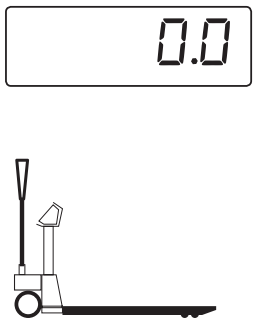
Tare

i Only if the optional card is present.

Weight check

How to start the check with known reference weight

a.



b.

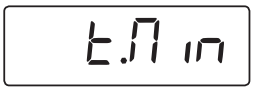
c.

d.

How to set the value

e.

f.



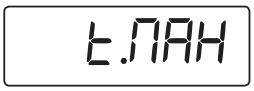
Enter the lower tolerance

g.

How to set the value

h.

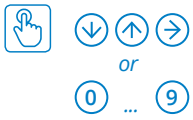
i.



Enter the higher tolerance

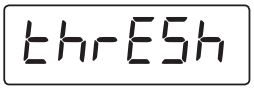
j.

How to set the value



k.

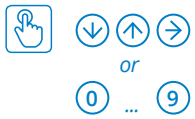
l.



Enter the minimum weight above which the control is triggered

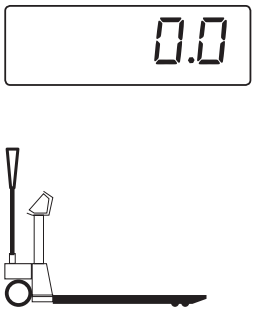
m.

How to set the value



n.

o.



Example 1

To check a weight of 1000 kg with +/- 5 kg tolerance (that is, between 995 kg and 1005 kg), set:

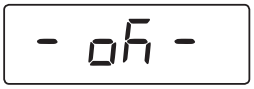
tArGEt = 1000.0
t.Min = 5.0
t.MAH = 5.0

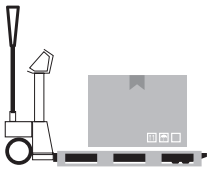
Example 2

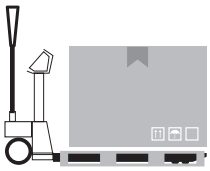
To check a weight of 500 kg with +10 kg / - 20 kg tolerance (that is, between 480 kg and 510 kg), set:

tArGEt = 500.0
t.Min = 20.0
t.MAH = 10.0

How to check the weight

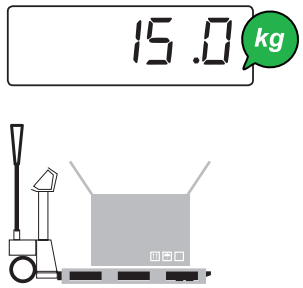






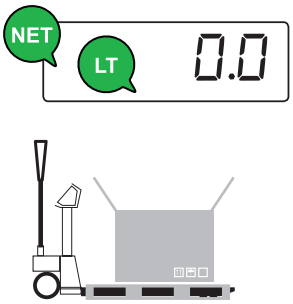
Exchange between net weight and gross weight

a.

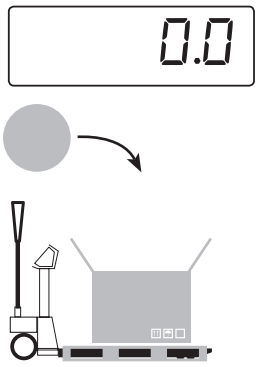


b.

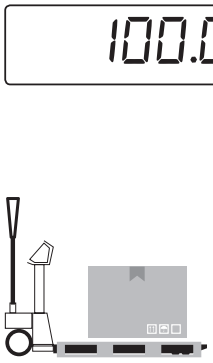
c.



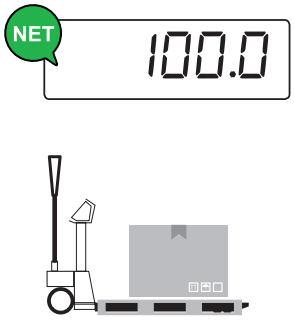
d.

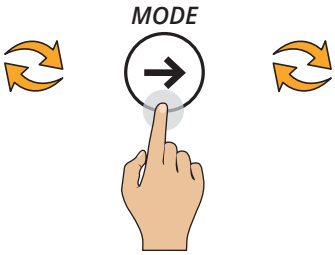


e.

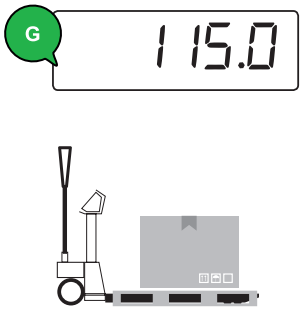


f.





You can go from net weight to gross weight at any time.

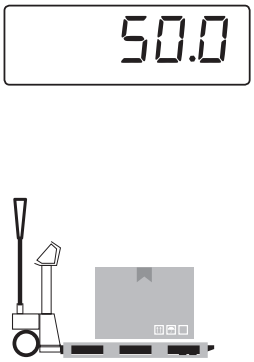


Percentage weighing

Percentage check

I. How to set the reference percentage

a.



b.

c.

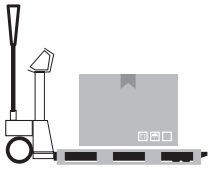
How to set the value

d.

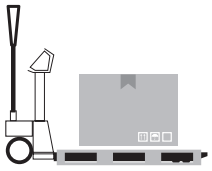
e.

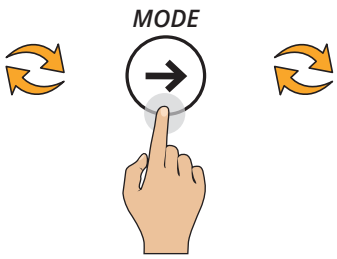
Sampling, please wait...
** With the numerical keyboard, the combination of the (F) + (7) keys allows to modify the sampling time. The more the time, the more the sampling precision.*

f.

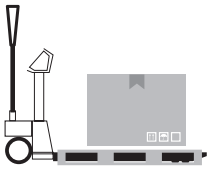


g.

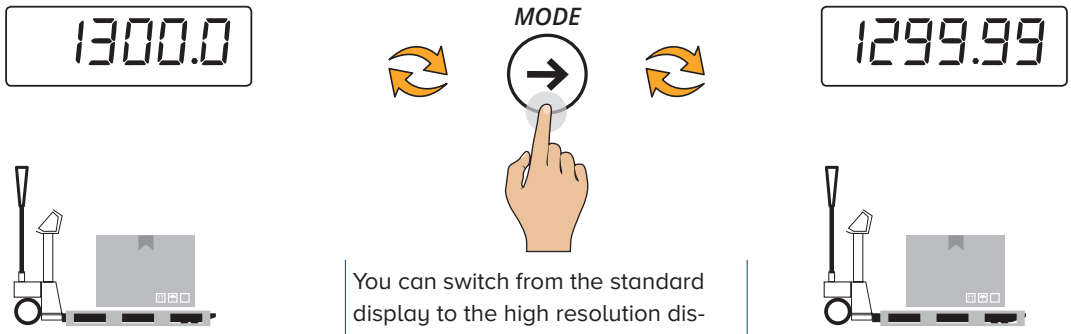




You can switch from the % display to the weight display at any time.



High resolution weight display



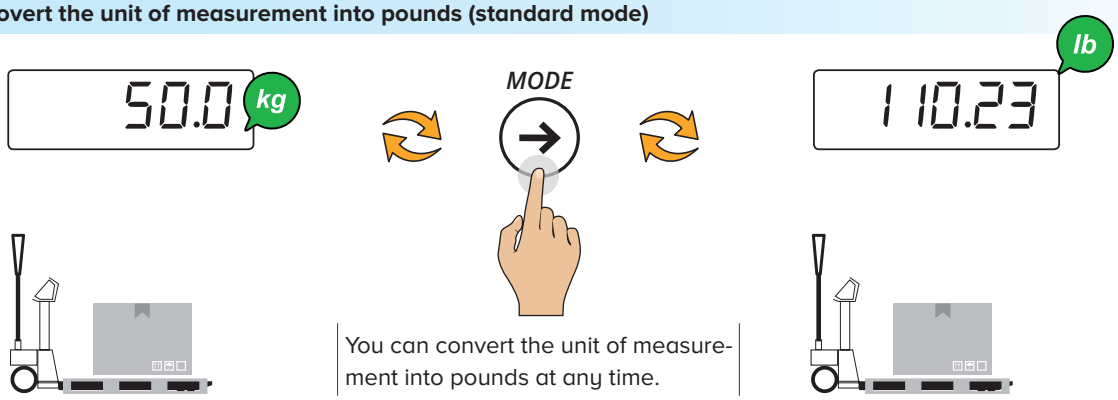
You can switch from the standard display to the high resolution display at any time.

i

If the pallet truck is approved for use in relation to third parties, the high resolution display lasts for 5 seconds, and is then disabled automatically.

Unit of measurement conversion

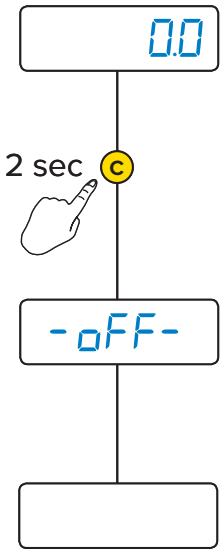
How to covert the unit of measurement into pounds (standard mode)



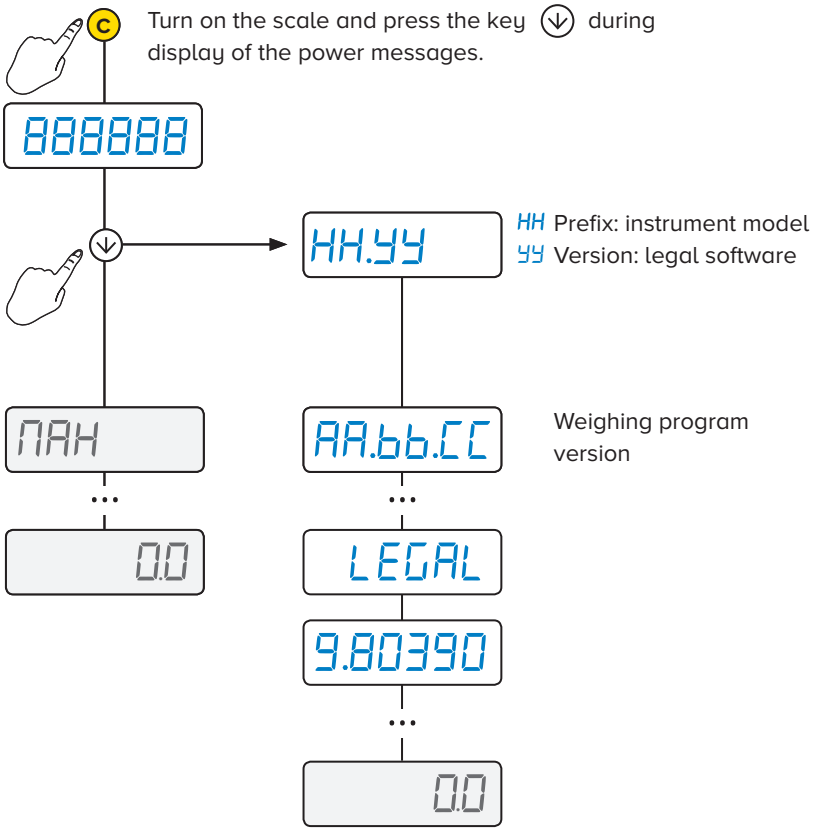
You can convert the unit of measurement into pounds at any time.

Identification of the metrological software

1. Turn off the scale



2. Follow the procedure:



Print

The scale does not print

- Another printout is already in progress (bUSY)
- Make sure there is a roll in the printer
- The printer does not switch on
- The weight is unstable (UnStAb)
- The net or gross weight is negative or insufficient for printing (LoW)
- Underload or overload (_____ or ¯¯¯¯¯¯) (Un.oUEr)
- The scale was not unloaded after the last printing (no.0.uns)
- You are trying to print a non-approved weight

Totalization

The scale does not accumulate

- Make sure there is a roll in the printer
- The printer does not switch on
- The weight is unstable (UnStAb)
- The net or gross weight is negative (LoW)
- Underload or overload (_____ or ¯¯¯¯¯¯) (Un.oUEr)
- The scale was not unloaded after the last printing (no.0.uns)
- The weight is too low for the weighing operation (LoW)
  - less than 10 divisions for the accumulator modes
  - less than “Min” for the approved products (shown on the measuring plate)

The sale has lost the total

- Switching off the scale causes the accumulated totals to be lost

Tare

The scale does not tare

- The weight is unstable (UnStAb)
- The gross weight is negative (LoW)
- The weight is insufficient
- The weight exceeds the maximum capacity
- The tare function has been deactivated
- In the event of manual tare, the value exceeds the maximum capacity

Weighing

The scale does not switch on

- Make sure the power cable is connected properly
- Connect the battery charger and try again. If the instrument continues to malfunction, contact the dealer.

The scale switches off suddenly

- Automatic switching off active
- Low battery
- Battery failure
- Power supply line failure

The scale is not reactive

- One of the available energy saving modes has been activated
- An unsuitable weighing filter has been selected

The scale display switches off and displays a dot

- Stand-by mode is active: press a key to reactivate weighing.
- Energy saving mode is active: contact the dealer for further details.

The scale displays a permanent "2Ero" message

- The scale is unable to automatically reset the weight because it exceeds the maximum resettable weight at switch-on.
- Unload the scale and try again. If the scale continues to have the same problem even when there is nothing on it, contact the dealer.

The weight is unstable

- Check whether the weighing filter is active.
- If the support surface is subjected to vibrations from machinery or moving vehicles, move the scale onto another surface and try again.

Pieces counting

The scale does not carry out sampling

- The weight is unstable (Err .not)
- The weight is insufficient, add more pieces and try again (Error)

MESSAGE	DESCRIPTION	SOLUTION
buSY	Another printout is already in progress	Wait for the printout in progress to be finished and try again.
unStAb	The weight is unstable	Check the weighing filter. If the support surface is subjected to vibrations from machinery or moving vehicles, move the scale onto another surface and try again.
LoW	e net or gross weight is negative or insufficient for printing	Add weight and try again.
un.oVEr	Underload or overload (_____ o ------)	Completely unload the scale, making sure Δ lights up. Load the weight on again and try again.
no.0.uns	The scale was not unloaded after the last printing	Completely unload the scale, making sure →0← lights up. Load the weight on again and try again.
Err.Not	The weight is unstable	Wait for stability (the ~ light) and try again.
Error	In pieces counting mode, the weight is insufficient for proper sampling.	Add more pieces and try again.
t iLt	Angle error.	Move the pallet truck to a flat surface and try again.

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The individual in charge of pallet truck operation must ensure that all safety regulations in force in the country of use are applied, ensuring that the appliance is used in accordance with the purpose it is intended for and to avoid any danger for the user.

The Manufacturer declines any liability arising from any weighing operation errors.

DINI ARGEO
Scales - Weighing systems

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The official technical data is available in the updated version on the **www.diniargeo.com** website or by contacting the Dini Argeo Customer Service.