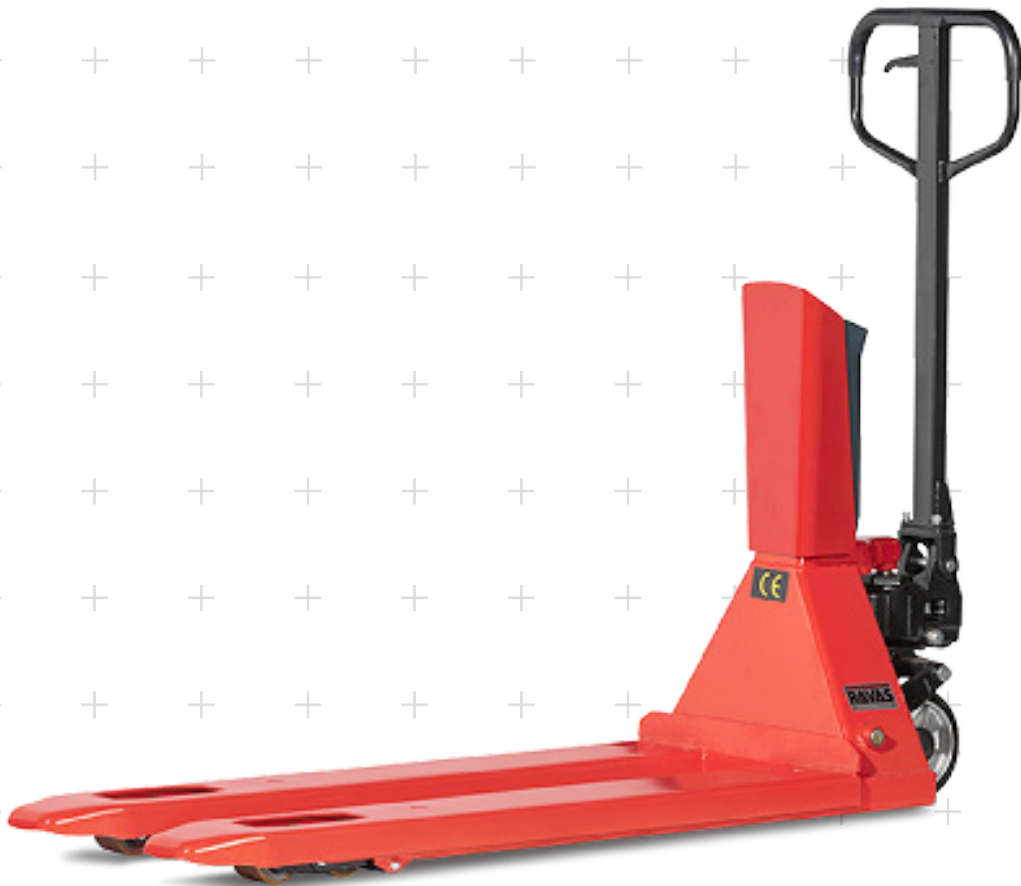


320 Series



Operators Manual

PLEASE RETAIN THESE INSTRUCTIONS FOR FUTURE REFERENCE

If you have any queries concerning the duration and terms of the guarantee, please contact your supplier. We would also refer you to our General Sale and Supply Conditions, which are available on request.

The manufacturer accepts no liability for any damage or injury caused by failure to follow these instructions, or from negligent operation or assembly, even if this is not expressly stated in this instruction manual.

In light of our policy of continuous improvement, it is possible that details of the product may differ from those described in this manual. For this reason, these instructions should only be treated as guidelines for the installation of the relevant product. This manual has been compiled with all due care, but the manufacturer cannot be held responsible for any consequences of errors. All rights are reserved and no part of this manual may be reproduced in any way.



OPERATORS MANUAL 320 Series

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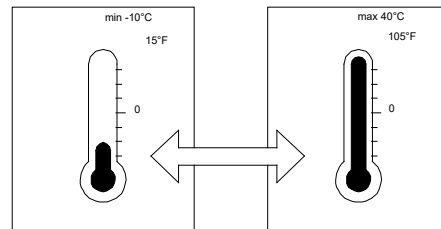
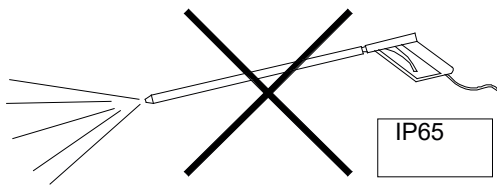
1. Introduction

This manual describes the use of the **320**. Read this manual carefully. The installer must be informed of the contents of this manual. Always do things in the correct order. This manual should be kept on a safe and dry place.

2. Warning & Safety Measures

When using the 320, please observe carefully the instructions and guidelines contained in this manual. Always perform each step in sequence. If any of the instructions are not clear, please contact your scale provider.

- All safety regulations that apply to the pallet truck remain valid and unchanged
- No weighing operations are allowed if any persons or objects are in the vicinity; around, under or close to the load
- Any modifications done to the system must be approved in writing by the supplier, prior to any work being completed
- It is the sole responsibility of the purchaser to train their own employees in the proper use and maintenance of this equipment
- Do not operate this unit unless you have been fully trained in its capabilities
- Check the accuracy of the scale on a regular basis to prevent faulty readings
- Only trained and authorized personnel are allowed to service the scale
- Always follow the operating and maintenance instructions of the pallet truck and ask the supplier when in doubt
- Fairbanks is not responsible for errors that occur due to incorrect weightings or inaccurate scales



Should you have any further questions after reading this manual then you can contact us at:

info@fairbanks.com
800-451-0123

2.1 Lithium Ion Battery (option)

Important Safety Information



DANGER

- Use the specific Li-ion charger and observe the specified charging conditions when charging the battery.
- Avoid influences of high temperature and keep away from fire.
- Do not deform, modify or disassemble the battery.
- Do not connect the (+) and (-) terminals with metal objects.
- Do not put the battery in (sea) water.
- Do not throw with the battery to avoid strong shocks.



WARNING

- When a battery leaks, the battery should directly be wrapped up properly and treated as recyclable resource.
- When, due to leaking from the battery, liquid gets into your eyes, immediately clean the affected area with water without rubbing your eyes, and seek medical advice immediately.
- The charging of the battery will be stopped automatically. When due to what cause the battery is not fully charged after 8 hours (LED of the charger doesn't become green), immediately unplug the battery from the holder to stop charging. Battery or charger does not work properly, exchange battery or charger.
- Storing and/or using the battery outside the given temperature range may have a negative effect on the lifetime and/or the performance of the battery.
- Do not longer use a battery with leakages, deformation or when any other abnormalities occur.
- Battery should be charged in a dry surrounding.



WARNING

Charging can be carried out at any time regardless of the amount of charge remaining, but you should fully charge the battery at the following moments:

- **The battery is not fully charged at the time of delivery!** The battery can be used after fully charging with the specific Li-ion charger. The LED on the battery charger will become green when fully charged. Note: Before using the weighing system, be sure that the battery is fully charged.
- After the battery has become completely empty. An empty battery will break (loss of capacity) when not directly fully charged.

Specifications

Battery	Operating temperature range
Nominal voltage / capacity	BA-3.7V-5.2A: 5.2 Ah (used for iForks) BA-14.8V-5A: 5 Ah (used for hand pallet trucks)
Operating temperature range	During use: -10°C - +50°C During charging: 0°C - +40°C

Operation

- **Normal charging**
 - Charging takes up to 6-7 hours for a full charge (a partially discharged battery will be fully charged sooner).
 - When the battery is fully charged, charger stops automatically.
 - After charging, the battery should be taken out of the charger.
- **Storing the battery**
 - When the weighing system is not used for a longer period, make sure the battery has approximately 70% of the battery capacity remaining. Take care not to let the battery become completely empty by charging it every 6 months.
 - Store the battery separated from the weighing system in an indoor place (approx. +10°C - +20°C) where it is not exposed to direct sunlight or rain.
- **Battery life**

The battery is a consumable item. The battery will gradually lose its capacity for charging after repeated use and after time has passed. If the operating time that the battery can be used becomes shorter and shorter, it has probably reached the end of its life.

Note: For replacement or additional battery pack, contact your distributor.
- **About used batteries**

Lithium ion batteries are recyclable, valuable resources. For recycling of broken or used batteries, follow the local guidelines in your country. If you are not sure, please send back to the distributor for proper way of recycling.



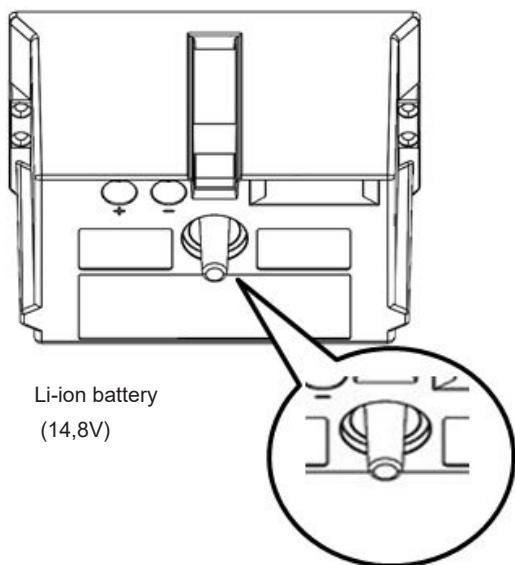
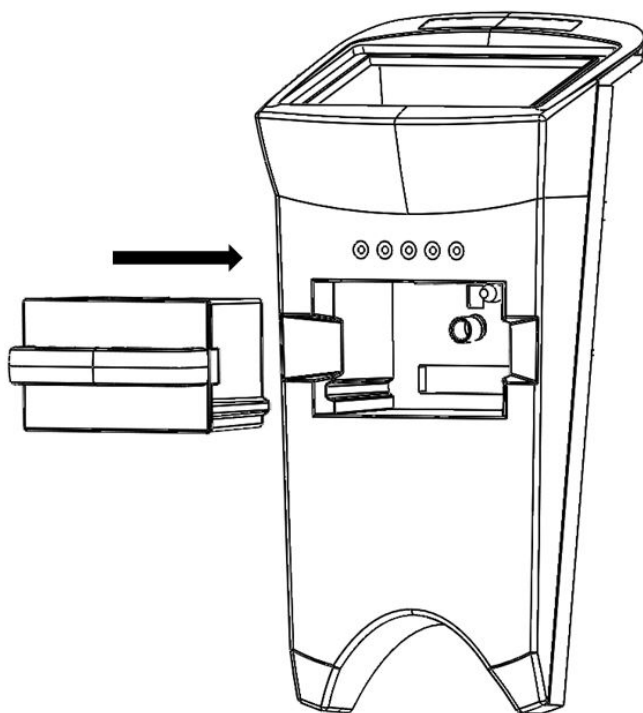
Disposal information for countries outside the European Union

This symbol is only valid within the European Union. Follow local regulations when disposing used batteries. If you are not sure, consult the place of purchase.

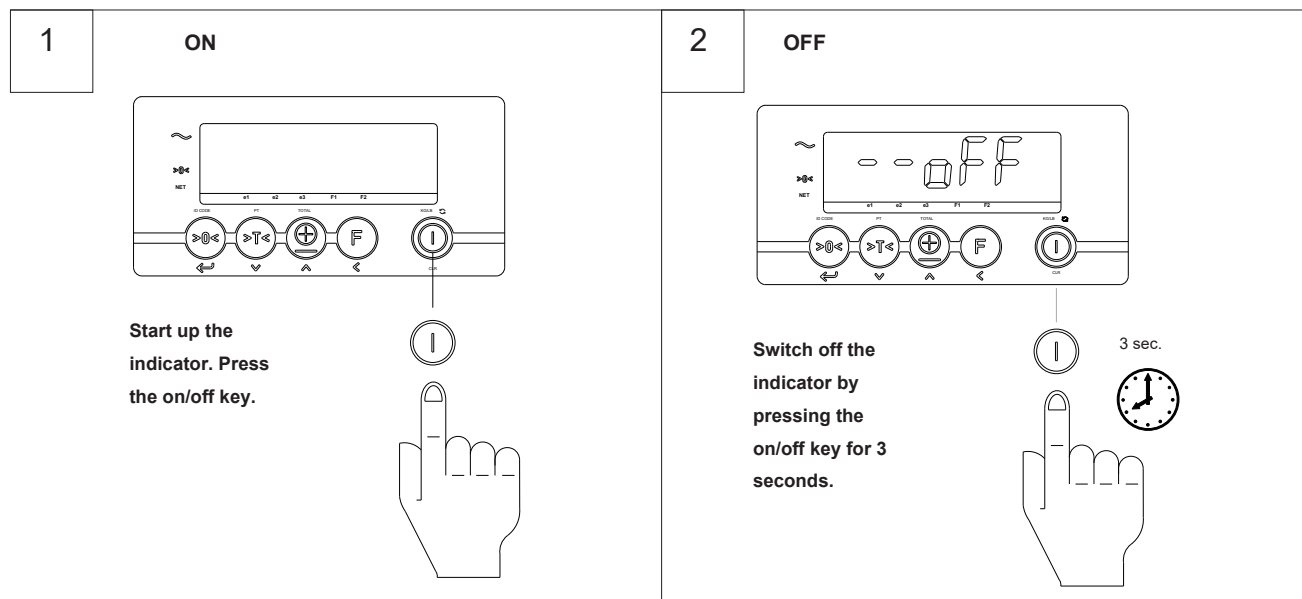
3. System set

3.1 Placing the battery pack in the pallet truck

The power supply to the system takes place through an exchangeable battery pack. With a completely charged battery pack the total weighing time is about 75 hours for a Li-ion battery (for a system without a printer).



3.2 Switching on/off the 320 instrument



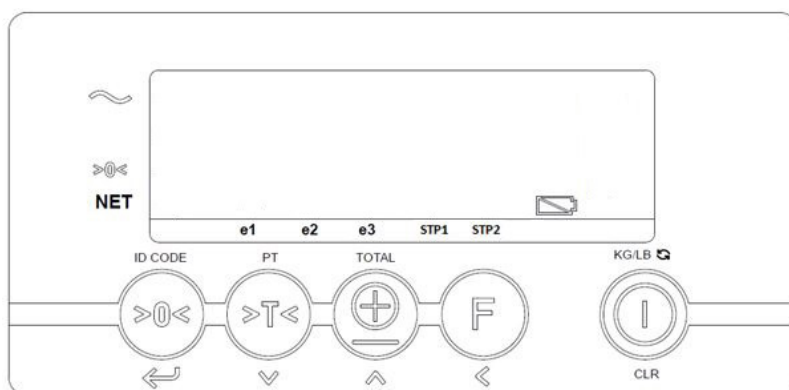
After 5 seconds all electronics are warmed up and you can start weighing.

4. Changing battery

4.1 Low battery indication on the 320 instrument

Exchangeable battery pack supply power to the **320**.

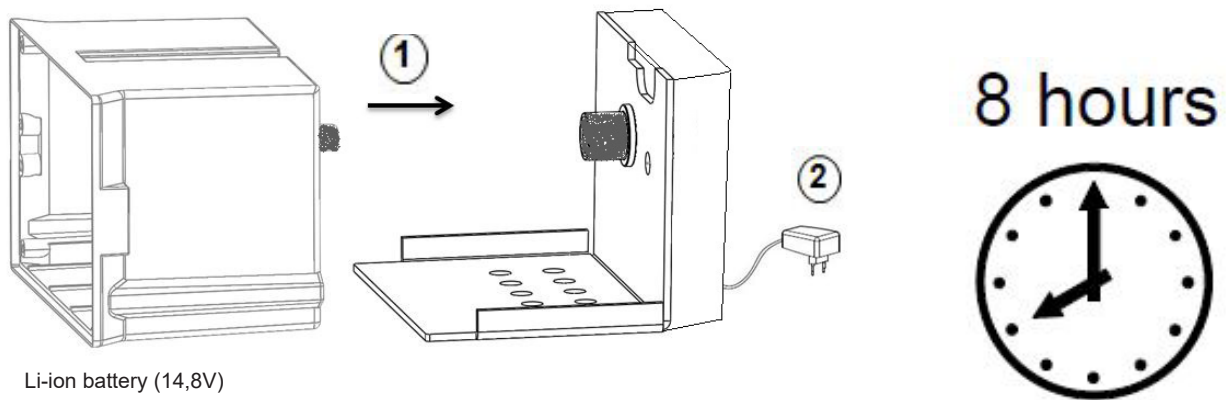
When the voltage level of the battery pack is running low, the low battery indicator will light up. The **320** will switch off automatically after 2 minutes.



4.2 Charging the battery pack of the pallet truck

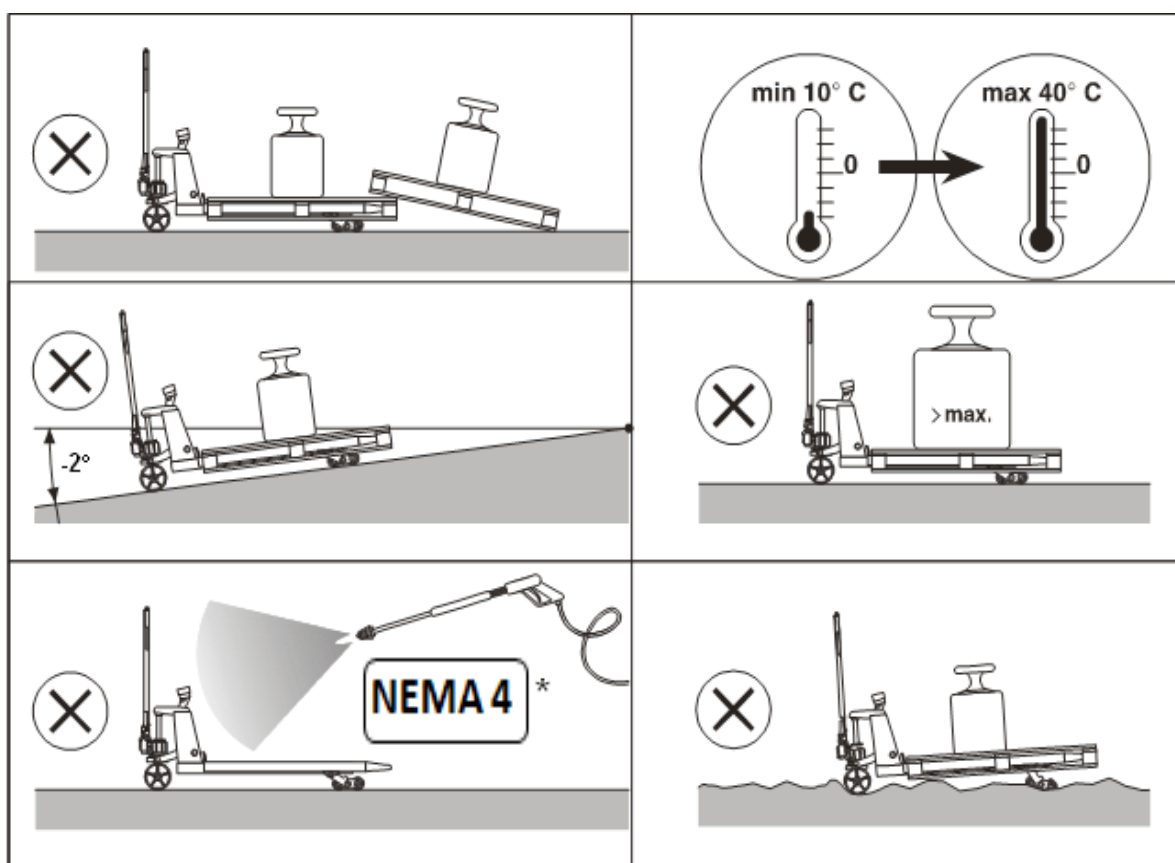
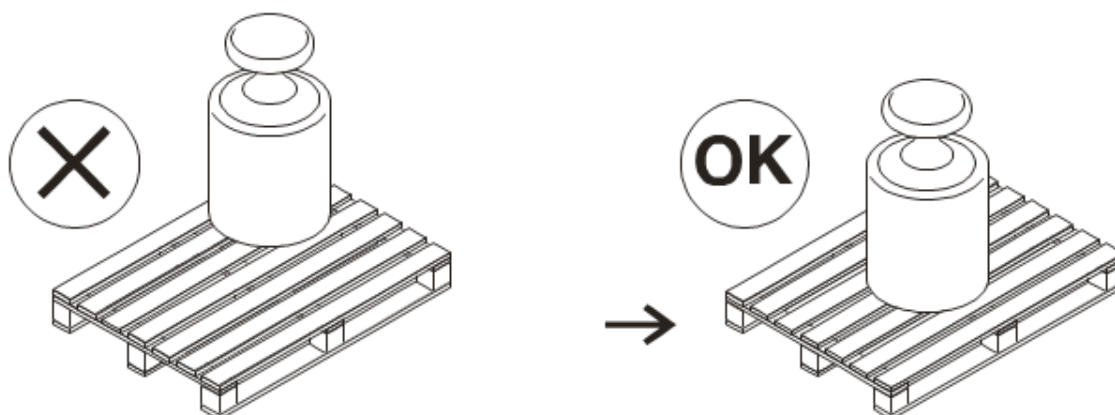
The system is equipped with a rechargeable battery pack and a smart charger. After charging for at least 8 hours, the charger will shut off when the battery pack is completely full. The red LED on the adaptor will change to green once the battery is fully charged.


First position the battery pack inside the charger module (1), then plug the adaptor into the mains voltage (2).

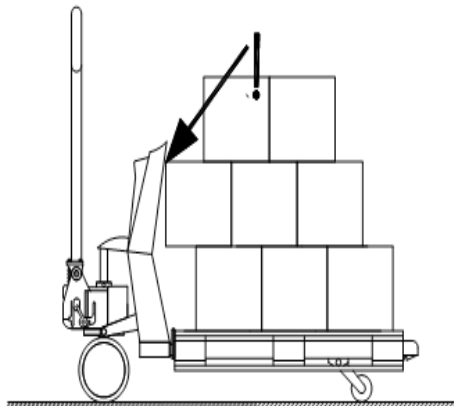


5. Use

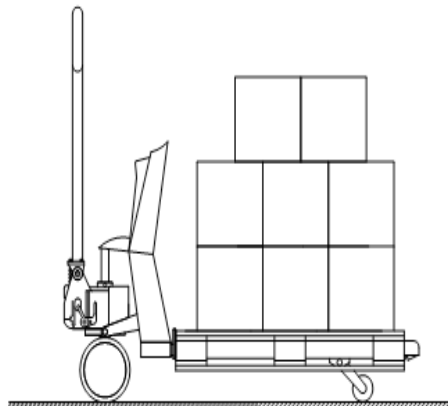
5.1 Use (accurate weighing)



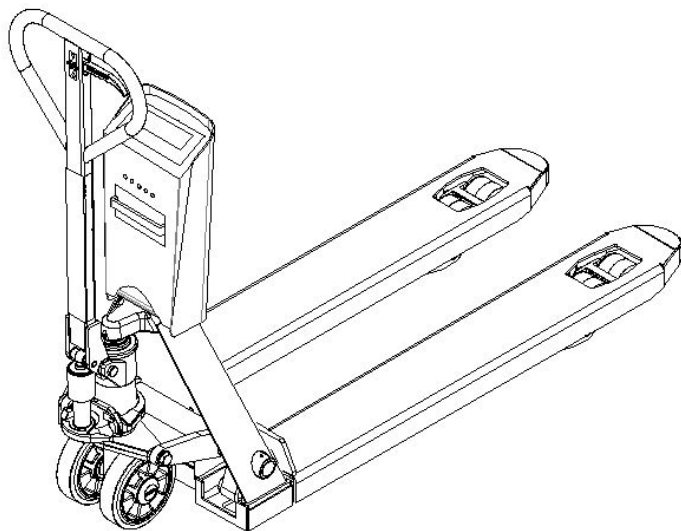
* excl. 



Wrong way of lifting the load



Correct way of lifting the load

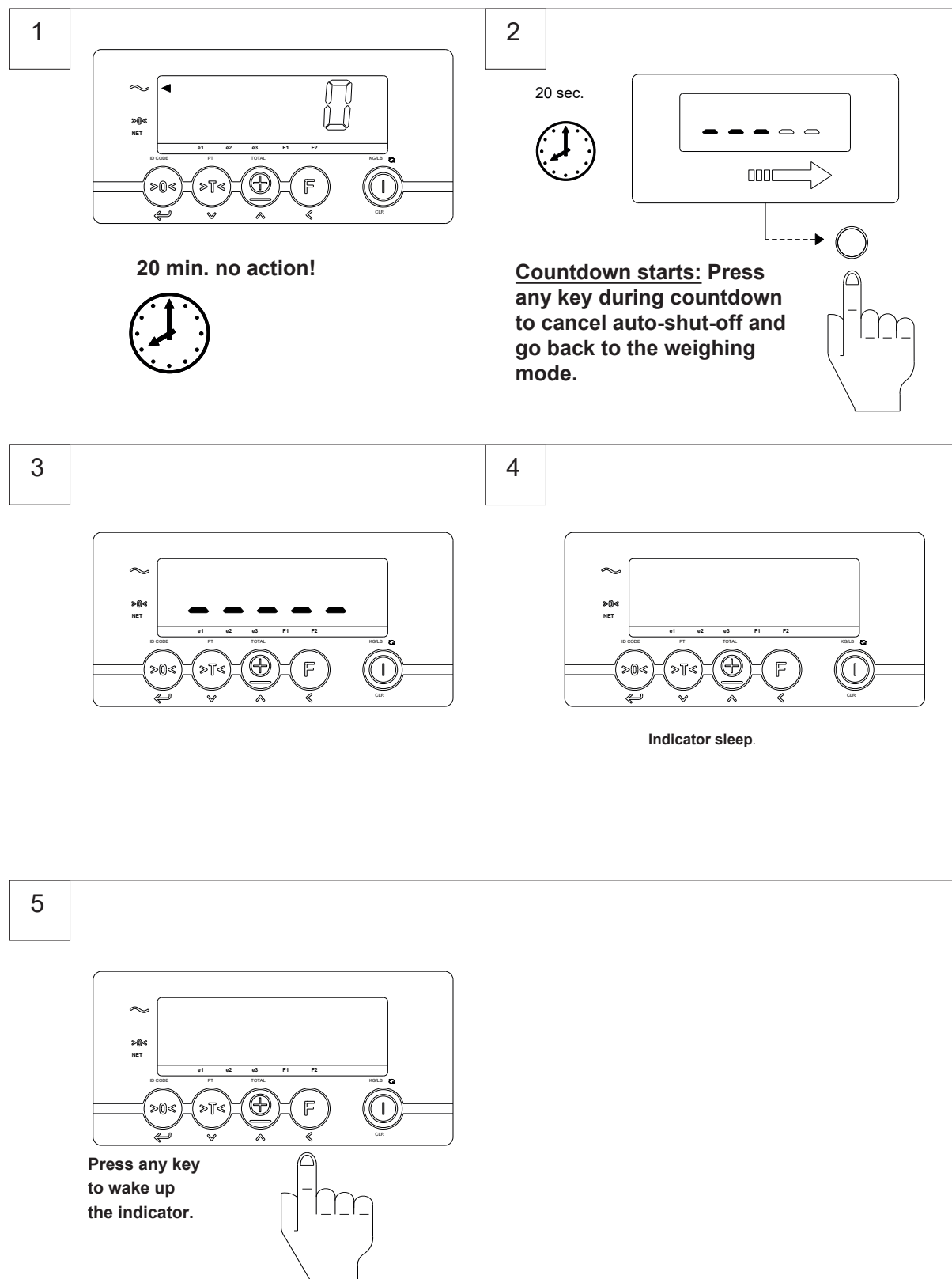


Check the zero reading before each weighing!

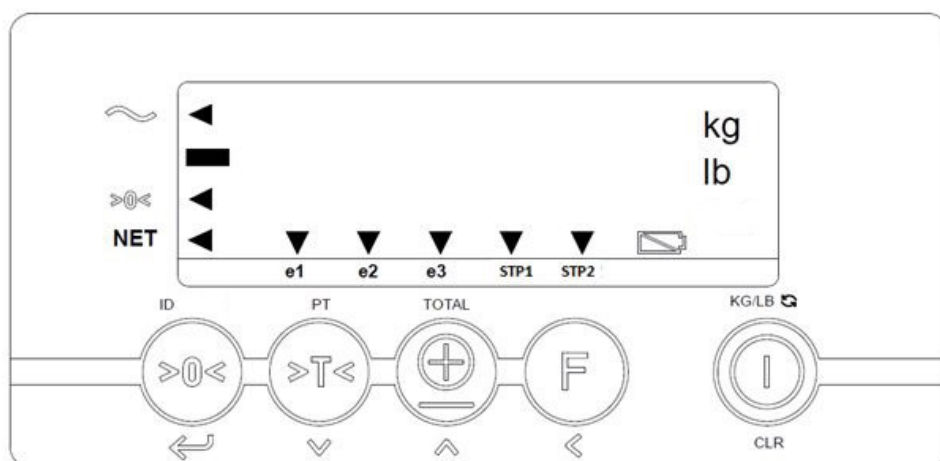
Before each weighing it is necessary to check whether the system is unloaded and free.

If the indicator does not determine the zero point automatically, it must be done manually using the >0< key.

5.2 Auto shut-off indicator / Sleep mode



5.3 Instrument functions



The weighing system (including load) is stable



The weight shown is negative

>0<



The weight shown is within the zero range

NET



The display is showing the net weight

e1



Displayed weight is in range 1 (option multi range)

e2



Displayed weight is in range 2 (option multi range)

e3



Displayed weight is in range 3 (option multi range)

stp1



Setpoint 1 active (option function key activated)

stp2



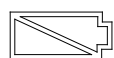
Setpoint 2 active (option function key activated)

kg

Displayed weight is in kilograms

lb

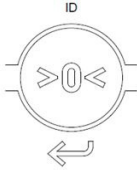
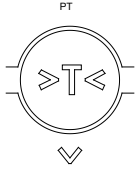
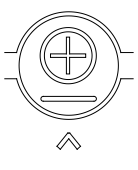

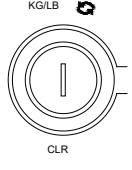
Displayed weight is in pounds



Low bat indicator

Key functions

Each key has 2 operational and one entry function.


Standard function (short key press)	Key	Special function (long key press)	Value entering function (entry mode)
Zero setting		code entry	enter
automatic tare		pre-set tare	decrease the value of the digit flashing
print weight and add to the total		check subtotal and print/reset total	increase the value of the digit flashing
start special function if active		no function	shift to the next digit on the left
On switch And change to lb and kg		Off switch	clear entry

Important

Operation of a key is not accepted unless the weighing system is stable (and the “load stable” pointer lights up). This means that the indicator only executes commands with a stable load.

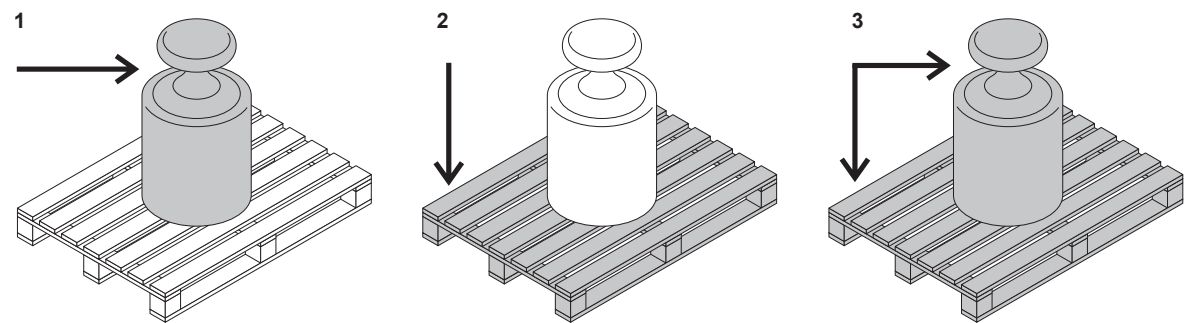
5.4 Error messages

ERROR MESSAGES

Display	Meaning	Out of error mode
Err01	Load cell signal is unstable	Automatic
Err02	Overload on full scale	Automatic after removing weight
Err03	Gross negative. This action is not allowed	Automatic
Err04	Out of zero range	Press any key
Err06	Input signal too high	Automatic after correcting input
Err08	Calibration out of range (negative)	Automatic
Err09	Calibration out of range (signal too low)	Automatic
Err10	Calibration count 2nd (3rd) point lower than count 1st (2nd) point	Automatic
Err14	Setpoint value 2 < setpoint value 1. This is not allowed Legal for	Automatic
CAL-J	trade version: action not allowed	When action is intended, remove jumper JP1 (attention: after this action a complete new calibration and stamping of the system is necessary)
Err98	Calibration point must be higher than previous one Action only	Automatic
Err99	allowed in start-up units	Automatic
----	Loadcell signal negative	Lift up the forks from the ground
Err_L	Pallet truck is out of level (only legal-for-trade version)	Put the pallet truck into horizontal position
	Battery of indicator is empty	Charge the battery pack
OimL	action not allowed (only legal for trade version)	automatic
ntEP	action not allowed (only legal for trade version)	automatic
SCALL	audit trail number out of range	Contact your scale provider
ESoFt	Wrong combination of firmwares	Contact your scale provider
EConF	P96 not set	Contact your scale provider

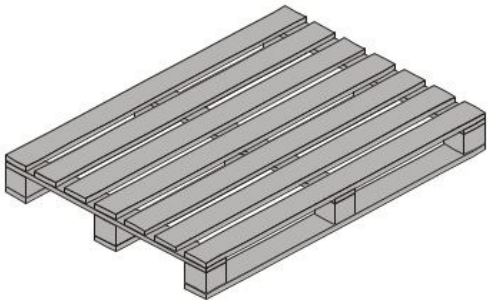
5.5 Net / Tare / Gross weight

EXPLANATION: $Net(1) + Tare(2) = Gross(3)$

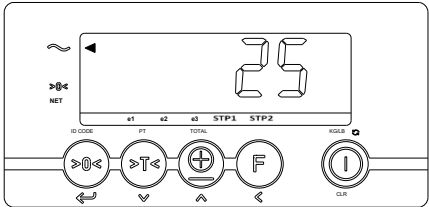


5.5.1 Net weighing: automatic tare

1



2



3

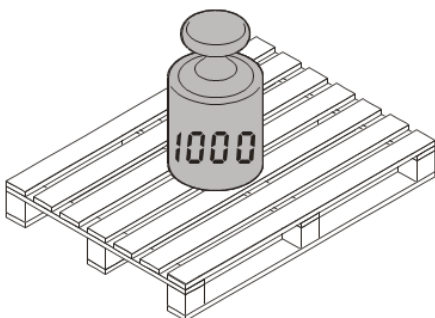


4

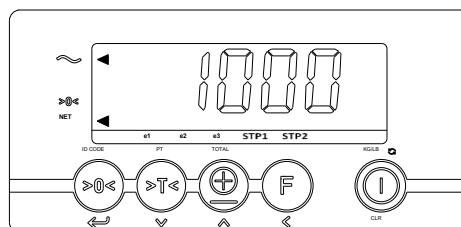


The indicator is set to zero. The “NET” pointer shows that the tare weight is activated.

5

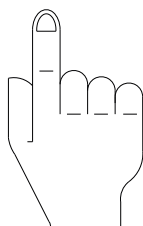
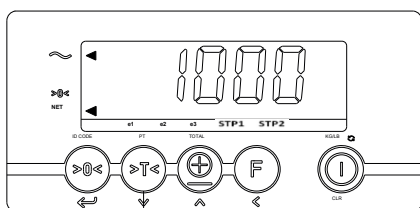


6

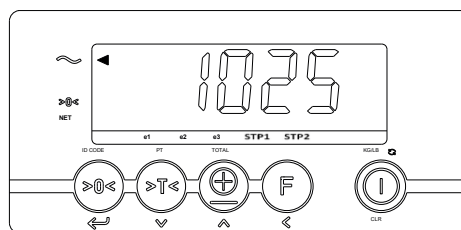


The display shows the net value of the weighed load.

7

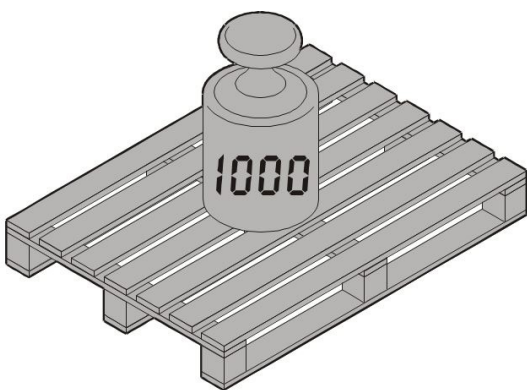


8



The gross weight is displayed again.

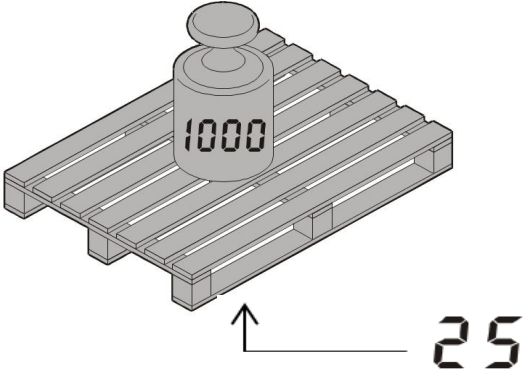
9



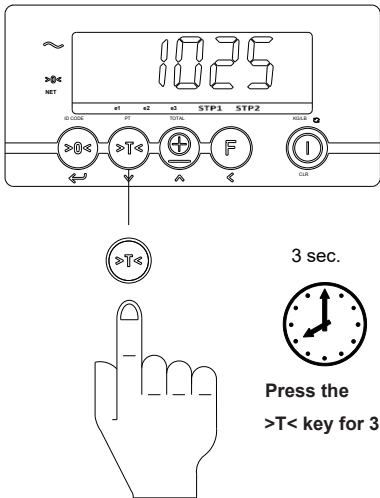
NOTE: For the NTEP approved 320 the tare will be erased automatically when the weight returns to gross zero! For the next weighing the tare must be activated again.

5.5.2 Net weighing: manual tare (PT)

1



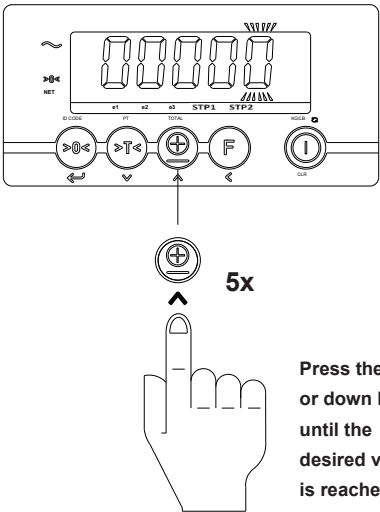
2



3 sec.

Press the >T< key for 3 seconds.

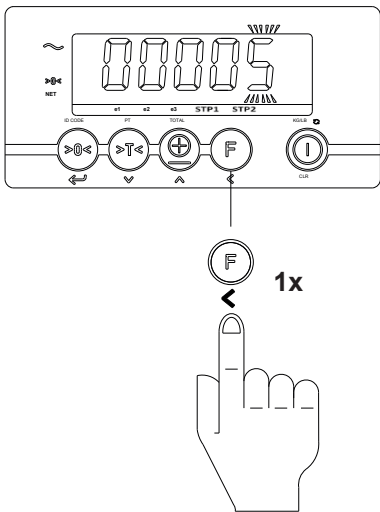
3



5x

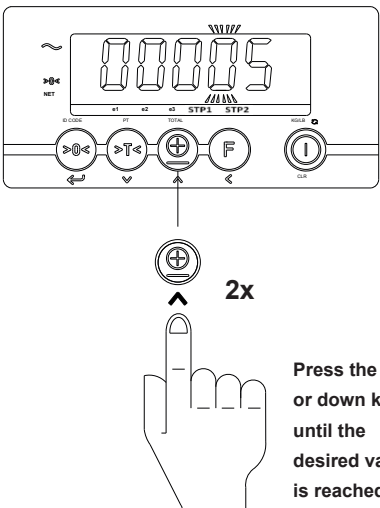
Press the up or down key until the desired value is reached.

4



1x

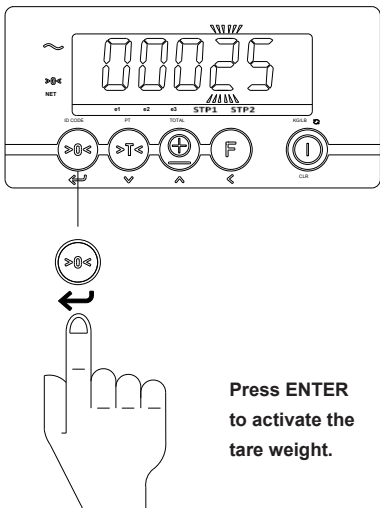
5



2x

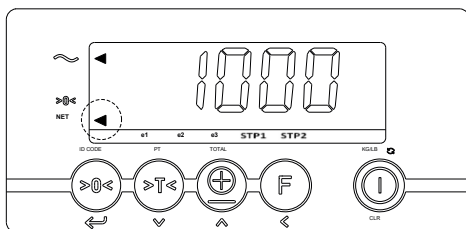
Press the up or down key until the desired value is reached.

6



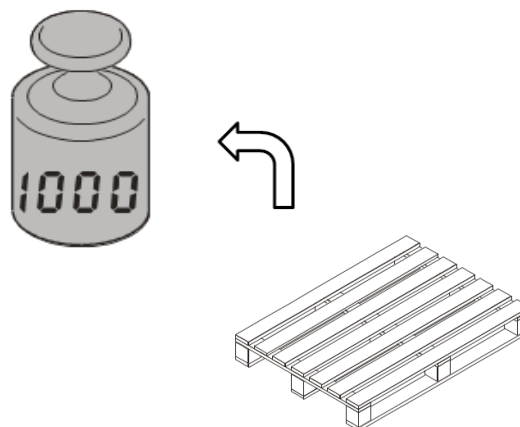
Press ENTER to activate the tare weight.

7

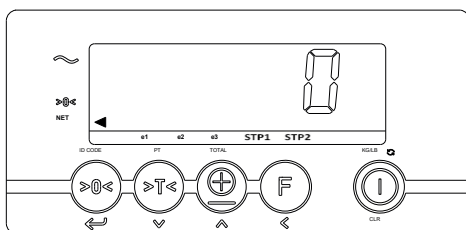


The "NET" pointer lights up.

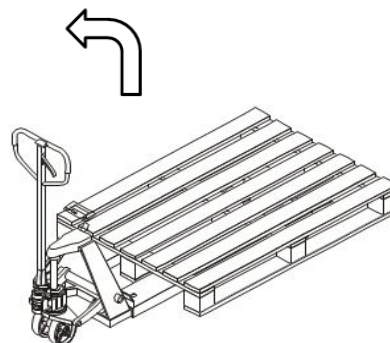
8



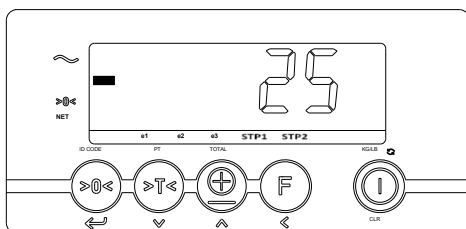
9



10



11



When the pallet wagon is completely unloaded, the tare value is displayed negatively.

12

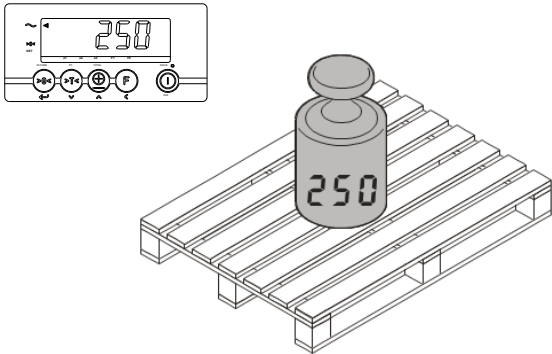
NOTE

For the NTEP approved 320 the tare will be erased automatically when the weight returns to gross zero! For the next weighing the tare must be activated again.

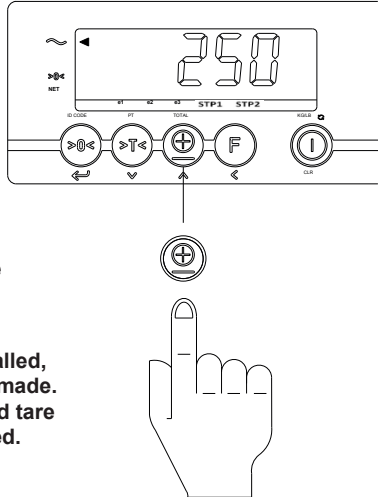
The last used preset tare value will remain in the preset tare memory. For re-using preset tare value hold the >T< key for 3 seconds than press Enter.

5.6 Adding & reset

1



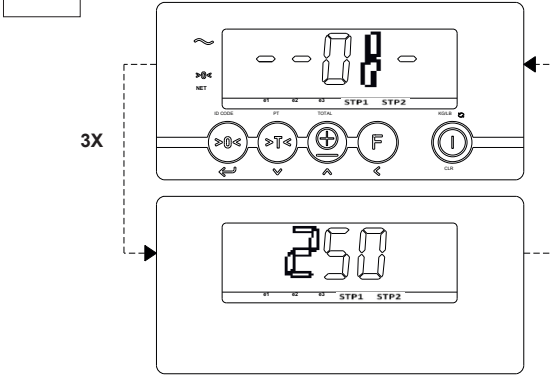
2



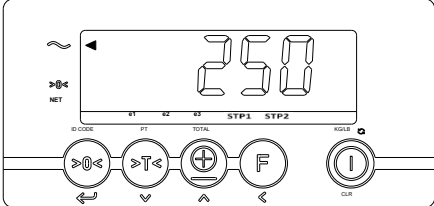
Press the **TOTAL** key to add the weight load to the total weight.

If a printer is installed, a printout will be made. The gross, net and tare weights are printed.

3

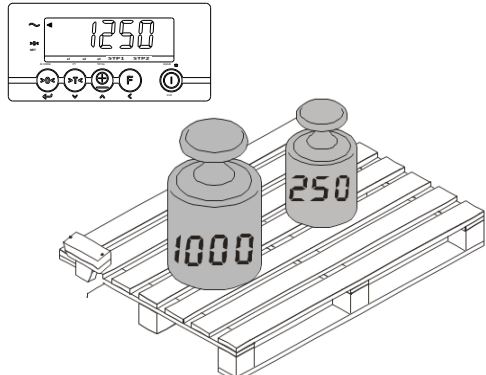


4

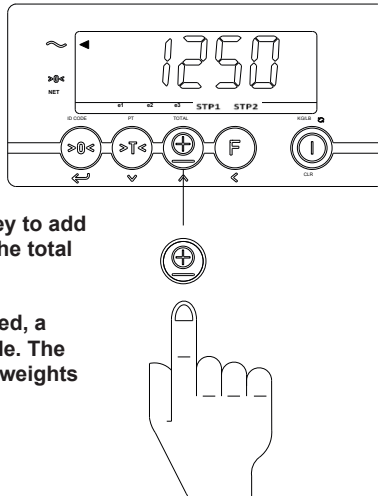


The display returns to the weighing mode automatically.

5



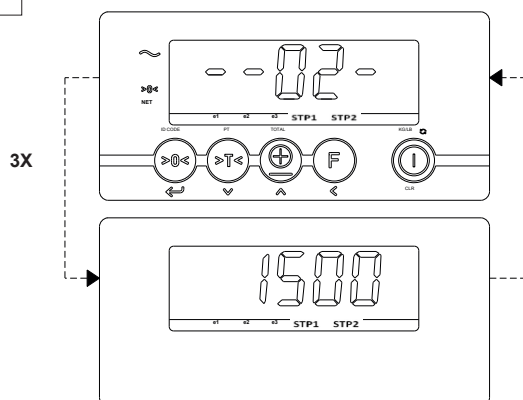
6



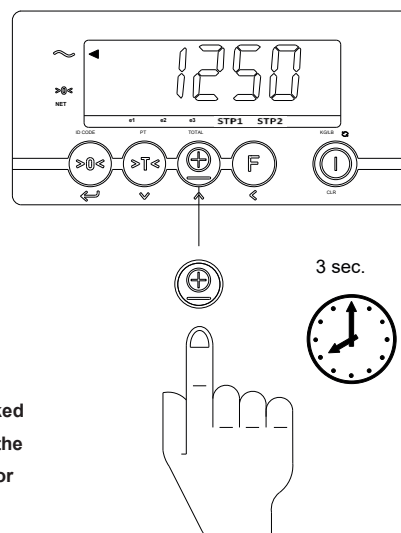
Press the **TOTAL** key to add the load weight to the total weight.

If a printer is installed, a printout will be made. The gross, net and tare weights are printed.

7

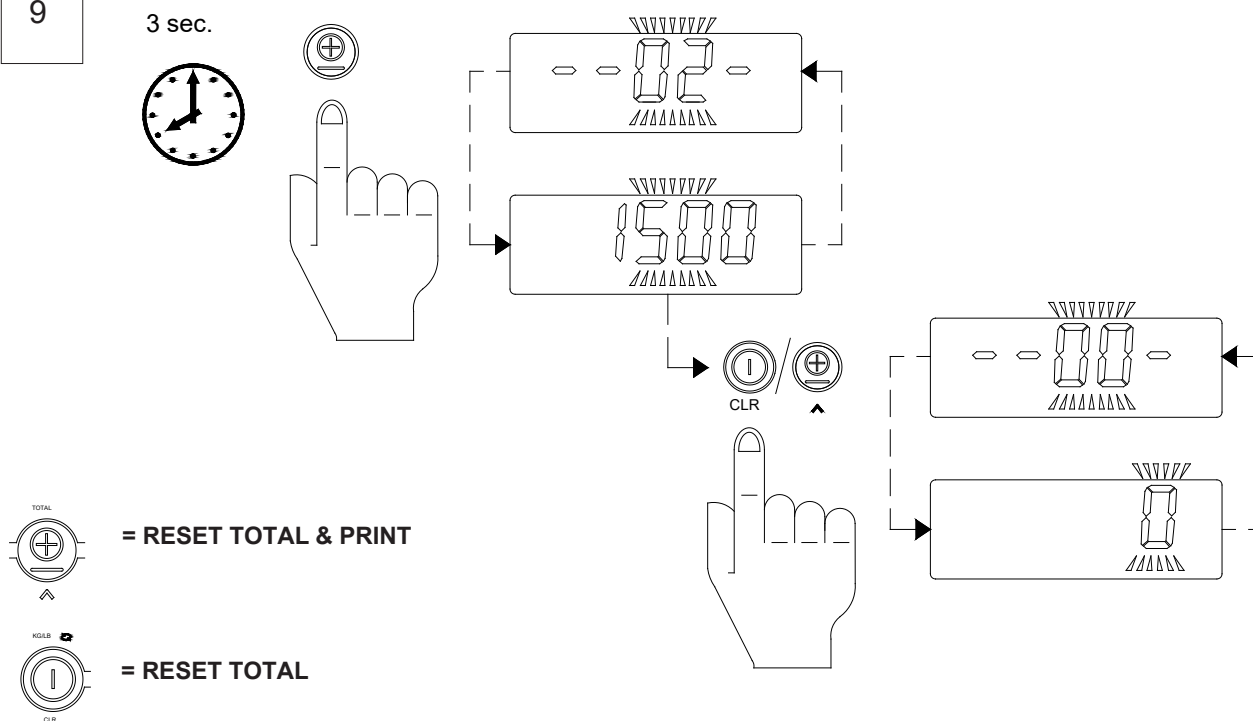


8



The subtotal
can be checked
by pressing the
TOTAL key for
3 sec.

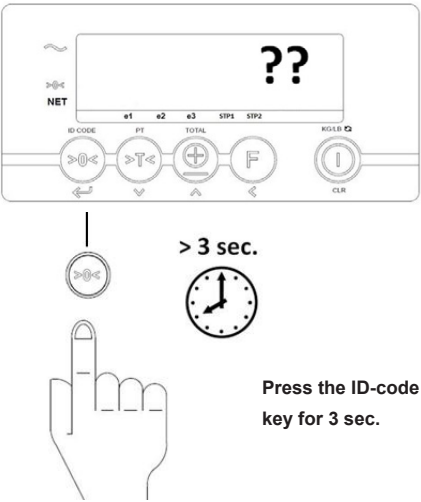
9



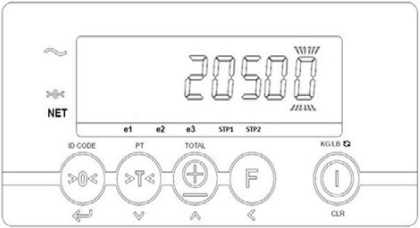
NOTE: In case the total is not manually used or reset, the system will do this automatically as soon as the total number has reached 99 or as soon as the total weight has reached a value of 99999 kg.

5.7 Entering ID-Code

1

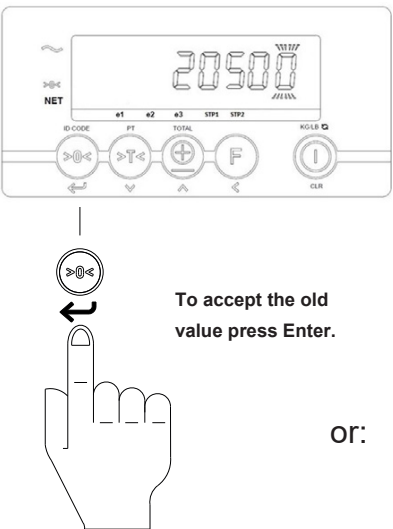


2

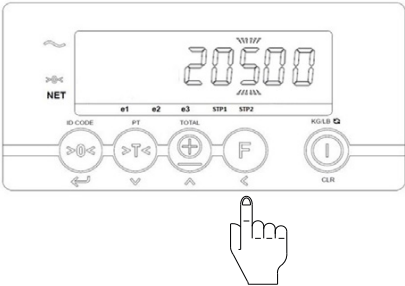


Last used code is shown (e.g. 20500). Right digit is flashing.

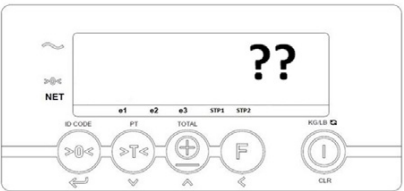
3a



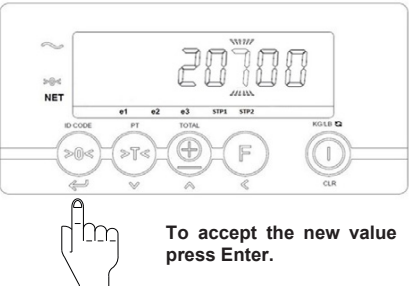
or: →



Press < to scroll through the digits and press the up or down key until the desired value is reached.



To accept the new value press Enter.



To accept the new value press Enter.

The code is activated, the indicator returned to the weighing mode.

Note:
If the code is '00000' it will be ignored and will not be printed on the print out.

5.8 Print out (option)

If the weighing system has been equipped with a printer, obtained and entered weighing data can be printed. Date and time are only printed out with the option board installed.

In the printout a gross weight is indicated with the letters “B/G” and a net weight with the letter “N”. A manually entered tare weight will also be printed and is indicated with the letters “PT”. The total weight is shown with the letters “TOT”.

Standard printout
without code

B/G	1234.5	lb.
T	34.5	lb.
N	1200.0	lb.
*1		
Nr.	1	
10/07/03		17:45

Standard printout with
code

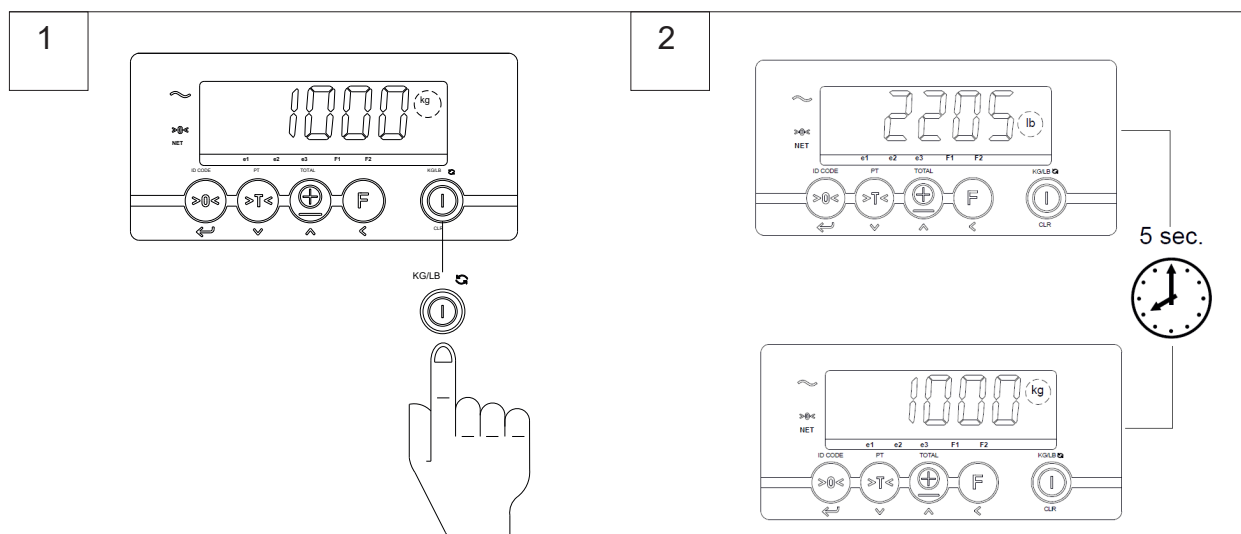
CODE	12345	
B/G	1234.5	lb.
T	34.5	lb.
N	1200.0	lb.
*1		
Nr.		1
10/07/03		17:45

Total printout (always without code)

Tot. B/G	1234.5	Tot. T	lb.
34.5			lb.
Tot. N	1200.0		lb.
*1			
Tot. Nr.		999	
10/07/03			17:45

*1 Note: in case of a legal for trade unit, the alibi number will be printed here.

5.9 KG- LB switch



5.10 Changing the time and date (on the printout)

1

The user menu can be entered by pressing the TOTAL key for 10 sec.

2

Press enter to Select.

3

Select "TIME" in the user menu to change the time.

4

Press enter to change the time.

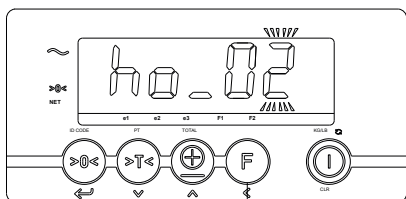
5

The display will show "ho_00" or the previous hour time setting

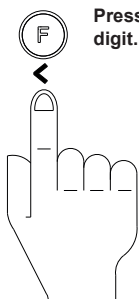
6

Press the up / down key until the desired value is reached.

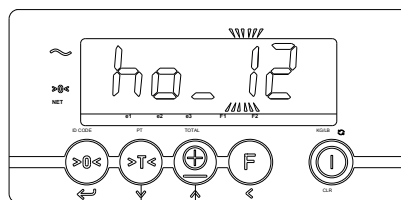
7



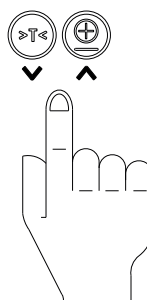
Press < to change the next digit.



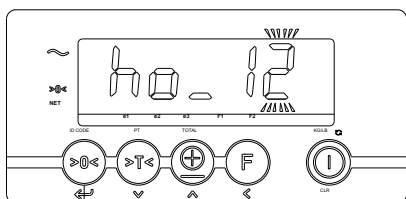
8



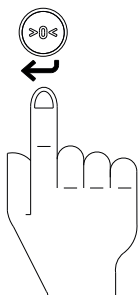
Press the up / down key until the desired value is reached.



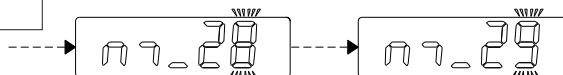
9



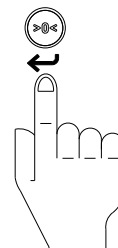
To accept the new value press enter.



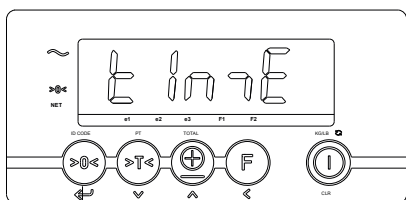
10



Repeat the procedure to accept or change:
- the minute setting "m_00"



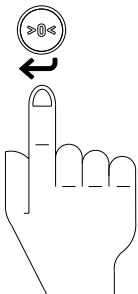
11



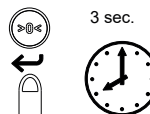
3 sec.



To accept the new setting press enter for 3 sec.



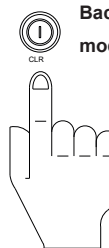
12



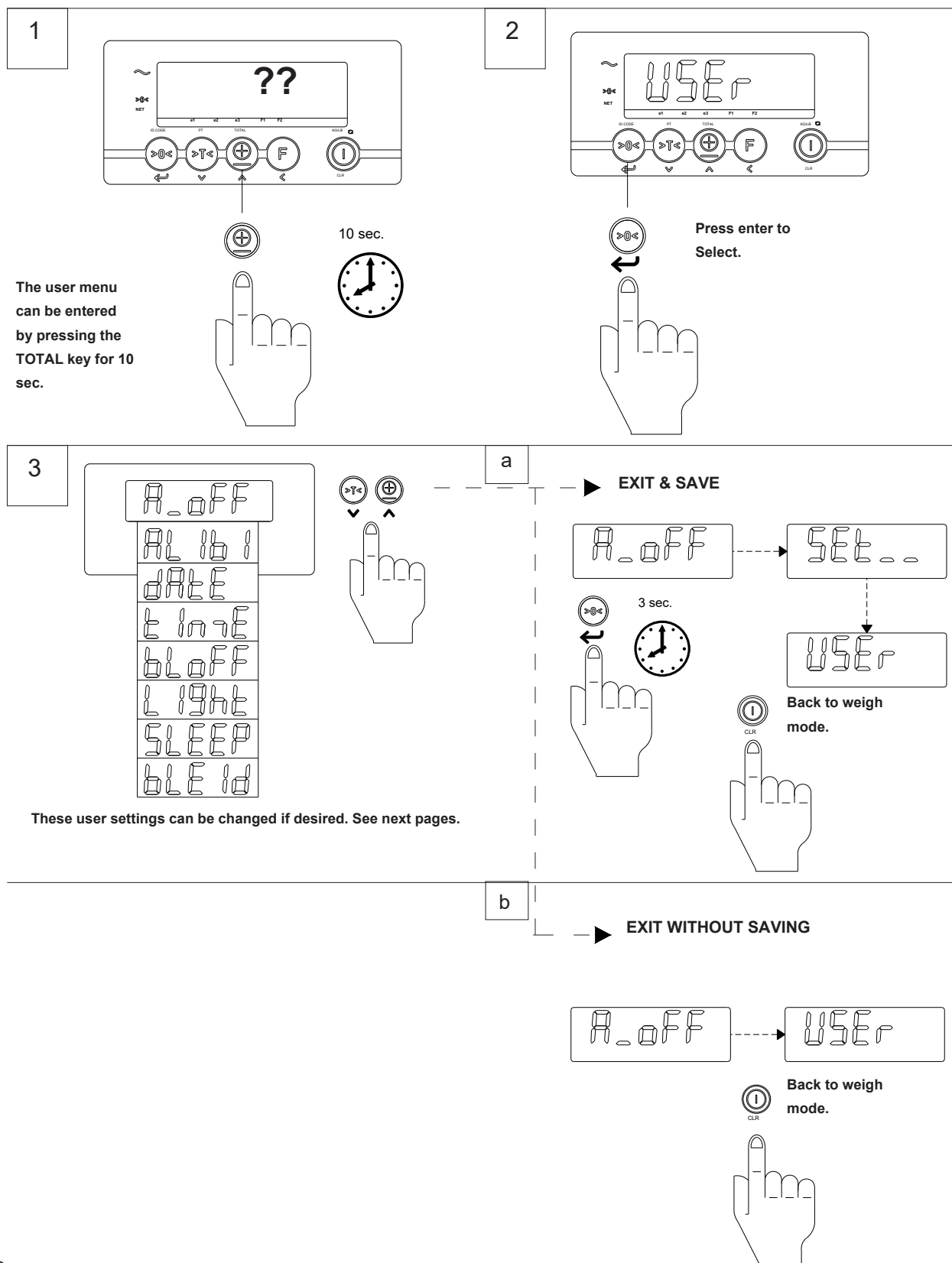
3 sec.



Back to weigh mode.



5.11 User settings

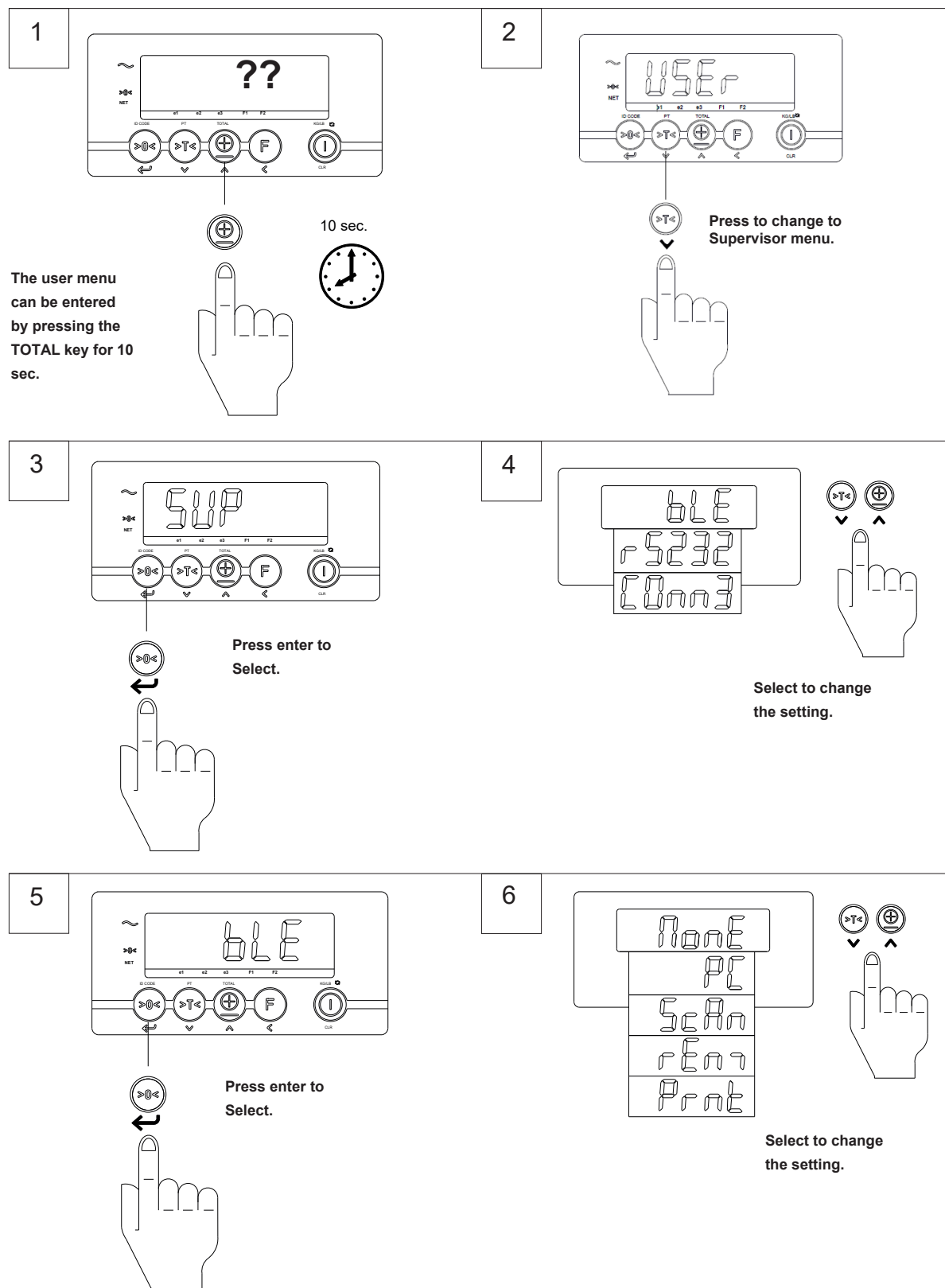


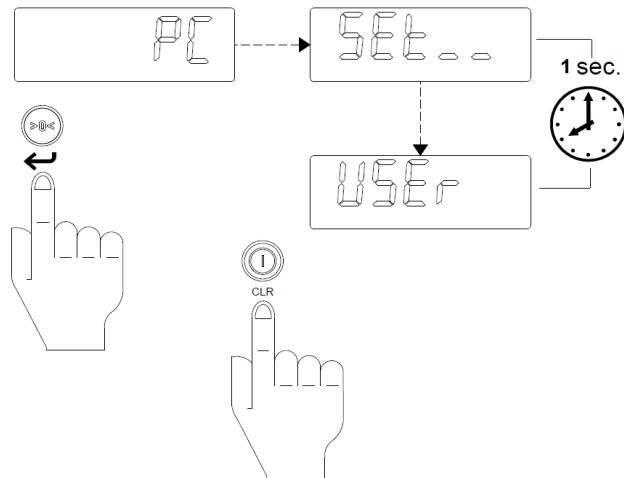
5.11.1 User Menu explanation list

USER menu explanation list				default
User menu	function	remark	settings	1AD
A_OFF	setting of the auto power off function in minutes	setting to 00 means always on (higher power consumption)	00-99	30
BLEId	read out the Bluetooth unique addresses of the slave module on the mainboard or fork module 1/2	scrolling in display when selected	SLAvE/For-1/For-2	SLAvE
Alibi	read out the alibi memory (only for OIML or NTEP systems) by entering the alibi no.	n.a.	n.a.	n.a.
dAtE	setting the date	n.a.	da_xx/m_xx/YE_xx	n.a.
timE	setting the time	n.a.	ho_xx/m_xx	n.a.
bLoFF	selecting the auto off time off the backlight in seconds	setting to 0 means always on (higher power consumption)	0/20/40/80/160/320	20
lIgHt	selecting the backlight brightness in %	setting to 0 means always off	0/25/50/75/100/125/150/175/200	100
SLEEP	setting the sleep time in minutes	setting to 00 means never in sleep mode	00-99	20

5.12 Supervisor menu (password protected *1)

*1 The Supervisor menu is password protected since version 1.01. Earlier versions of the software are not password protected. Please contact your scale provider for the password.











5.12.1 Supervisor menu explanation list

SUP(ervisor) menu explanation list				default
Sup menu	function	remark	settings	1AD
BLE	setting the fuctionality of the Bluetooth port integrated on the mainboard addressed as [SLaVE]	for sub-functions see underneath	PC/ScAn/rEm/Prnt/NonE	PC bidir
rS232	setting the fuctionality of the RS232 port for wired options	for sub-functions see underneath	PC/ScAn/rEm/Prnt/NonE	Prnt Prot-ASCII LF04 LAYou-Std bArcd-NONE SuPPL-Pr_On
COM3	setting the fuctionality of the COM 3 port for stacked options	for sub-functions see underneath	PC/ScAn/rEm/Prnt/NonE	NonE
Sub-functions				
PC	selecting the PC functionality	bidir: select if using PC commands from a host PC/Terminal	bidir/rdc-A/rdc-N	bidir
		rdc-A: select if using the RDC-application with acknowledgement		
		rdc-N: select if using the RDC-app. without acknowledgement		
ScAn	selecting the the scanner functionality	not available. Reserved for future use	n.a.	n.a.
rEm	selecting the remote display functionality	select for continuesly sending of display values to a RAVAS remote display	n.a.	n.a.
Prnt	select the printer functionality	Prot: select if no. off linefeeds need to be changed	0-8	4
		LAYou: select if layout needs to be changed	Std/tot	Std
		bArcd: select if a barcode is required in the print. You may choose to have the net weight, the gross weight or the net and gross weights printed out as a barcode. The values will also be printed out as tekst. After selecting a barcode you need to enter the height of the barcode and the family type	NONE/Net/GroSS/NetGr	NONE
		Height	20- 90	50
		Family: only 2 family types are available > Barcode 128 and Barcode 39. For printer type XTRA select 128-1 or 39--1, for printer type MPP8250 and 7810v select 128-2 or 39--2.	128-1/128-2/39--1/39--2	128-2
		SuPPL: select if the power supply to the printer needs to be changed	Pr_On/Cont	Pr_On
NonE	select no functionality for this port			

5.12.2 Overview power save settings (auto shut-off)

Overview of Auto shut-off and Sleep settings. The settings mentioned below are the standard settings and advised for optimal use. These settings can be changed in the user menu, as described above.

Auto Shut-off & Sleep Settings									
		RPW-EL 320 6v	RPW-EL 320 truck supply	RPW-EL 320 auto on			320	320 Li	
Options -> WiFi / RS / Bluetooth	SLEEP	not possible	0	0	Options -> WiFi / RS / Bluetooth	SLEEP	0	0	
	A_OFF	not possible	0	0		A_OFF	30	30	
	P60	6	FLT	FLT		P60	12	14.8	
No options / Printer 6v	SLEEP	2	30	0	No options	SLEEP	20	20	
	A_OFF	5	0	0		A_OFF	30	30	
									
		iForks 6v	iForks truck supply	iForks auto on			RWV-C truck supply	RWV-C auto on	
Options -> WiFi / RS / Bluetooth	SLEEP	not possible	0	0	Options -> WiFi / RS / Bluetooth	SLEEP	0	0	
	A_OFF	not possible	0	0		A_OFF	0	0	
	P60	6	FLT	FLT		P60	FLT	FLT	
No options / Printer 6v	SLEEP	2	30	0	No options	SLEEP	0	0	
	A_OFF	5	0	0		A_OFF	0	0	
 									
		RPW-ST 320 6v	RPW-ST 320 truck supply	RPW-ST 320 auto on	RPW-ST- BLE 320 6v (no printer)	RPW-ST- BLE 320 truck supply	RPW-ST- BLE 320 auto on		
Options -> WiFi / RS / Bluetooth	SLEEP	not possible	0	0	not possible	0	0		
	A_OFF	not possible	0	0	not possible	0	0		
	P60	6	FLT	FLT	6	FLT	FLT		
No options / Printer 6v	SLEEP	2	30	0	2	30	0		
	A_OFF	5	0	0					
									

5.13 Alibi Memory

The 320 indicator has the possibility of an alibi memory. The alibi memory will only be used when parameter 13 is set for OIML or NTEP. If parameter 13 is set for 'NONE' the alibi memory will remain unused.

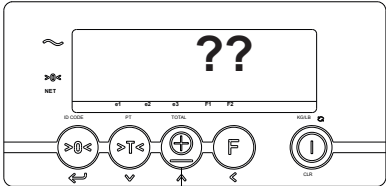
The indicator stores every weighing in its alibi memory and adds a unique number to it. If the alibi memory is activated it will affect the RDC protocol, the PC protocol or the Printer protocol depending on the setting of parameters in the supervisor menu.

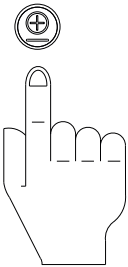
The data stored in the alibi memory are:

1. Date > this is the date in format dd\mm\yy (EU) or mm\dd\yy (US).
2. Time > this is the time in format hh:mm.
3. Gross weight > this number always consists of 5 digits, a possible decimal point (as part of the 5 digits), the unit (kg or lb) and the positive or negative sign.
For example: +0233.5kg or -00136.lb.
4. Net weight > this number always consists of 5 digits, a possible decimal point (as part of the 5 digits), the unit (kg or lb), the positive or negative sign and whether it was a calculated net or a measured net.
For example: +0233.5kgC or -00136.lb_. The 'C' stands for calculated and is sent along when a preset tare value was active. If there is no preset tare value active a blank (space) is put behind the kg (or lb).
5. Tare weight > this number always consists of 5 digits, a possible decimal point (as part of the 5 digits), the unit (kg or lb), the positive or negative sign and whether it was a preset tare or a measured tare.
For example: +0233.5kgP or -00136.lb_. The 'P' stands for preset tare and is sent along when a preset tare value was active. If there is no preset tare value active a blank (space) is put behind the kg (or lb).
6. Code > this is the 5-digit code that can be entered by keying in. If no code is activated it will show '0'.
7. Alibi number > this is a 4 digit number which is generated by the indicator itself. It will start at '0001' and increase with every weighing up to '9999'. When this number is reached it will start at '0001' again.


The alibi memory is 1Mbit in size. It can contain about 7000 weighings. The alibi memory works with FIFO (first in first out). When it becomes full the oldest data will be first overwritten.

For reading out the data saved in the alibi memory please follow next steps:

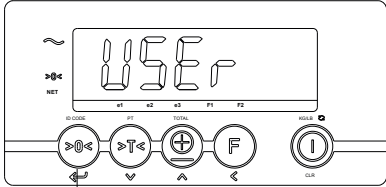
1


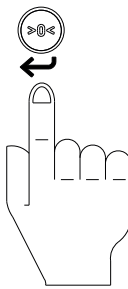


> 10 sec.

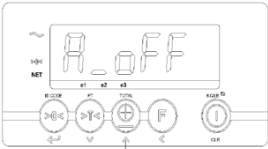



The user menu can be entered by pressing the TOTAL key for at least 10 sec.

2


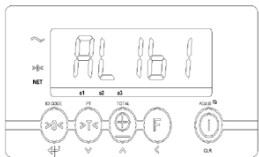



Press enter to Select.

3


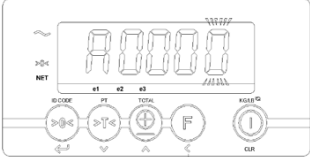



Press the up /down key until the display shows the user setting 'ALibi'.


4


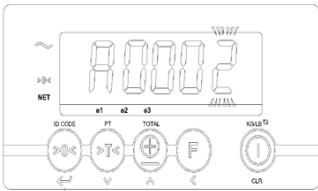



Press enter to confirm.

5






6




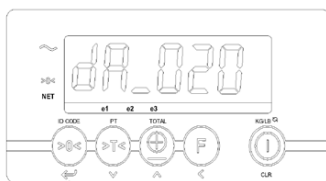
Press enter to confirm.

Enter the requested alibi number by using the up and down keys and the shift key. In this example we enter alibi number 2'.

51638

32

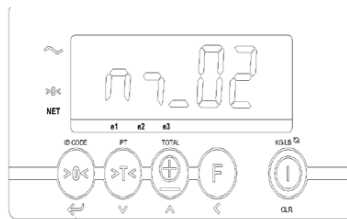
7



The display now shows the date (first day, then month and year) and the time (first hours, then minutes) of the weighing with alibi number 02.

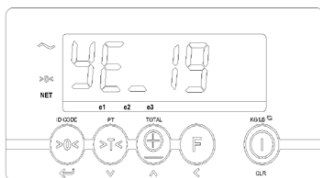
Press enter to continue to the month.

8



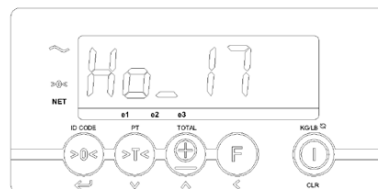
Press enter to continue to the year.

9



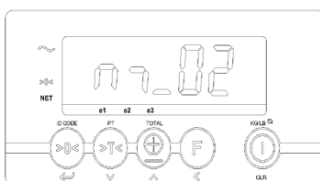
Press enter to continue to the hour.

10



Press enter to continue to the minute.

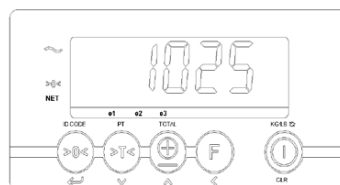
11



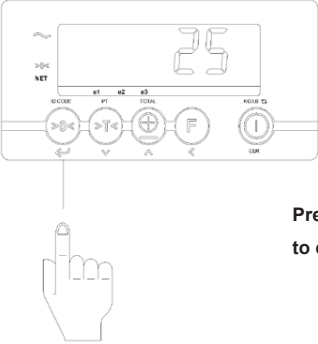
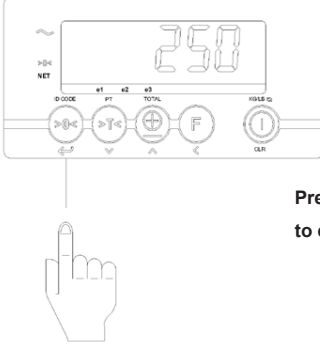
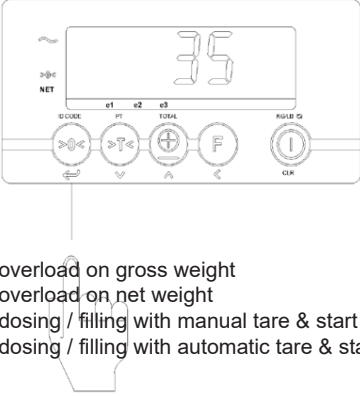
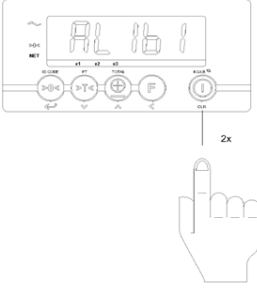
Press enter to continue.

12

For 0,5 sec the display shows the text 'Gross'.
Next the display shows the gross weight.



Press enter to continue.

<p>13 For 0,5 sec the display shows the text 'Net' or 'Net_C'. Next the display shows the net weight. <i>Net: weight is measured.</i> <i>Net_C: weight is calculated.</i></p>  <p>Press enter to continue.</p>	<p>14 For 0,5 sec the display shows the text 'tArE' or 'PtArE'. Next the display shows the tare weight. <i>tare: weight is measured.</i> <i>Ptare: weight is keyed in.</i></p>  <p>Press enter to continue.</p>
<p>15 For 0,5 sec the display shows the text 'Code'. Next the display shows the code used. If no code was used the display shows '0'.</p>  <ul style="list-style-type: none"> • overload on gross weight • overload on net weight • dosing / filling with manual tare & start • dosing / filling with automatic tare & start 	<p>16</p>  <p>Press enter to search for another weighing or press 'CLR' 2x to return to the normal weighing mode.</p>

5.14 Relay function - optional

The 320 indicator has the possibility to setup limit values for relay settings.

For the setup and activation of the relay settings please contact your service provider.

6. Maintenance

The maintenance guidelines for normal pallet trucks apply to the chassis of the mobile weighing system. From experience we know that the integrated weighing system still functions when the chassis is damaged by overloading

Main guidelines:

- Because the steering wheels are mounted in the front, pulling of the pallet truck is preferred above pushing it.
- When the lifting mechanism is not used, the handle should be kept in the neutral, middle position. This prolongs the life span of the sealings.
- The weighing system meets up to the protection class IP65. This means that dust or moisture (rain or water beam from all sides), will not influence the operation of the electronics. However, high-pressure cleansing in combination with warm water or chemical cleansers will lead to the entry of moisture and therefore negatively influence the operation of the system.
- Only specialists may undertake any welding. This is to avoid damage to electronics and load cells.
- The bearings of the wheels (non-polyurethane) and the pivoting points of the levelling bar of the loading wheels must be cleansed and greased regularly.
- All safety regulations that apply to the pallet truck remain valid and unchanged;
- No weighing operations are allowed if any persons or objects are in the vicinity; around, under or close to the load;
- Any modifications done to the system must be approved in writing by the supplier, prior to any work being completed;
- It is the sole responsibility of the purchaser to train their own employees in the proper use and maintenance of this equipment;
- Do not operate this unit unless you have been fully trained in its capabilities;
- Check the accuracy of the scale on a regular basis to prevent faulty readings;
- Only trained and authorized personnel are allowed to service the scale;
- Always follow the operating, maintenance and repair instructions of the pallet truck and ask the supplier when in doubt;
- Fairbanks is not responsible for errors that occur due to incorrect weightings or inaccurate scales.

Maintenance

The pallet truck is largely maintenance free.

6.1. Oil

Please check the oil level every six months. The oil can be hydraulic oil: ISO VG32, its viscosity should be 30cST at 400 C, total volume is about 0.4lt.

6.2. To Remove Air from the Pump

Air may come into the hydraulic oil during transportation or if the pump has been turned upside down. It can cause the forks not to elevate while pumping in the raise position. The air can be removed in the following way: put the control handle (117) to the lower position, then move the draw-bar up and down several times.

6.3. Daily Check and Maintenance

Daily check of the pallet truck with scale can limit wear as much as possible. Special attention should be paid to the wheels, the axles, as thread, rags, etc. may block the wheels. The forks should be unloaded and lowered in the lowest position when the job is over.

6.4. Lubrication

All bearings and shafts are provided with long-life grease at the factory. You only need and long-life grease at monthly intervals or after each time the lubrication points of the truck are cleaned thoroughly.

6.5. Battery Replacement

- A) Remove the screw (238-7) and the battery cover (238-8).
- B) Use 4 new "AA" batteries (238-9) to replace the old ones.
- C) Replace the battery cover (238-8) and tighten the screw (238-7) securely.

6.6. Maintenance of Display Unit

The weighing system meets up to the protection class IP65. This means that dust or moisture (rain or water beam from all sides), will not influence the operation of the electronics. However, high-pressure cleansing in combination with warm water or chemical cleansers will lead to the entry of moisture and therefore negatively influence the operation of the system

7. Addition

7.1 WeightsApp - applicable for the 320

With the WeightsApp you can read the data from your mobile weighing system directly from your smartphone or tablet.

The app not only displays the weight in large digits on a smartphone or tablet, it also stores the weighed gross weights, tare weight, product code, date & time and the ID of the device or operator. The data can be sent to any email address as a CSV file, after which it can be imported in a spreadsheet program on a PC.



From the app you can:

- enter the ID of an operator or device
- enter tares (automatically or manually)
- zero the weighing system

Date and time are automatically generated. If your Android device has an integrated barcode scanner, you can use it to enter product IDs.

In addition the app makes it possible to download a log file from the 320 instrument and send it for technical analysis as a CSV file in the event of malfunctioning.

The WeightsApp can be downloaded for free from Google Play and the Apple Store.

For instructions for the use of the WeightsApp see