

# 320 Indicator



**Owner's 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.



# OPERATION MANUAL

## 320 Indicator

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## 1. Introduction

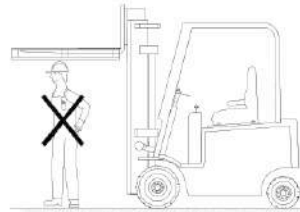
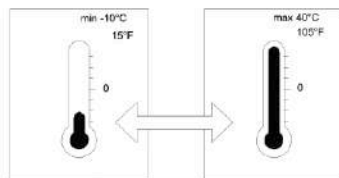
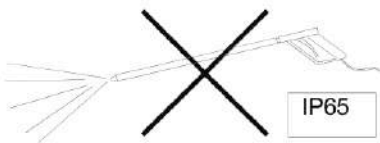
This manual describes the use of the indicator 320. Read this manual carefully. The installer must be informed of the contents of this manual. Always do things in the correct order. This manual should be kept on a safe and dry place. In case of damage or loss the user may request a new copy of the manual from RAVAS.

## 2. Warning & Safety measures

When using the indicator 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 RAVAS.



- All safety regulations that apply to the 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;
- RAVAS is not responsible for any physical harm done to the operator because of the presence of the indicator in the cabin;
- 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 this truck and ask the supplier when in doubt;
- RAVAS 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:

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Twinsburg, OH 44087 USA

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Changes reserved

## 2.1 Lithium Ion Battery (for 320-BLE transmitter modules)

### 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: 14°F - +122°F During charging: 32°F - +104°F

## 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. +50°F - +68°F) 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

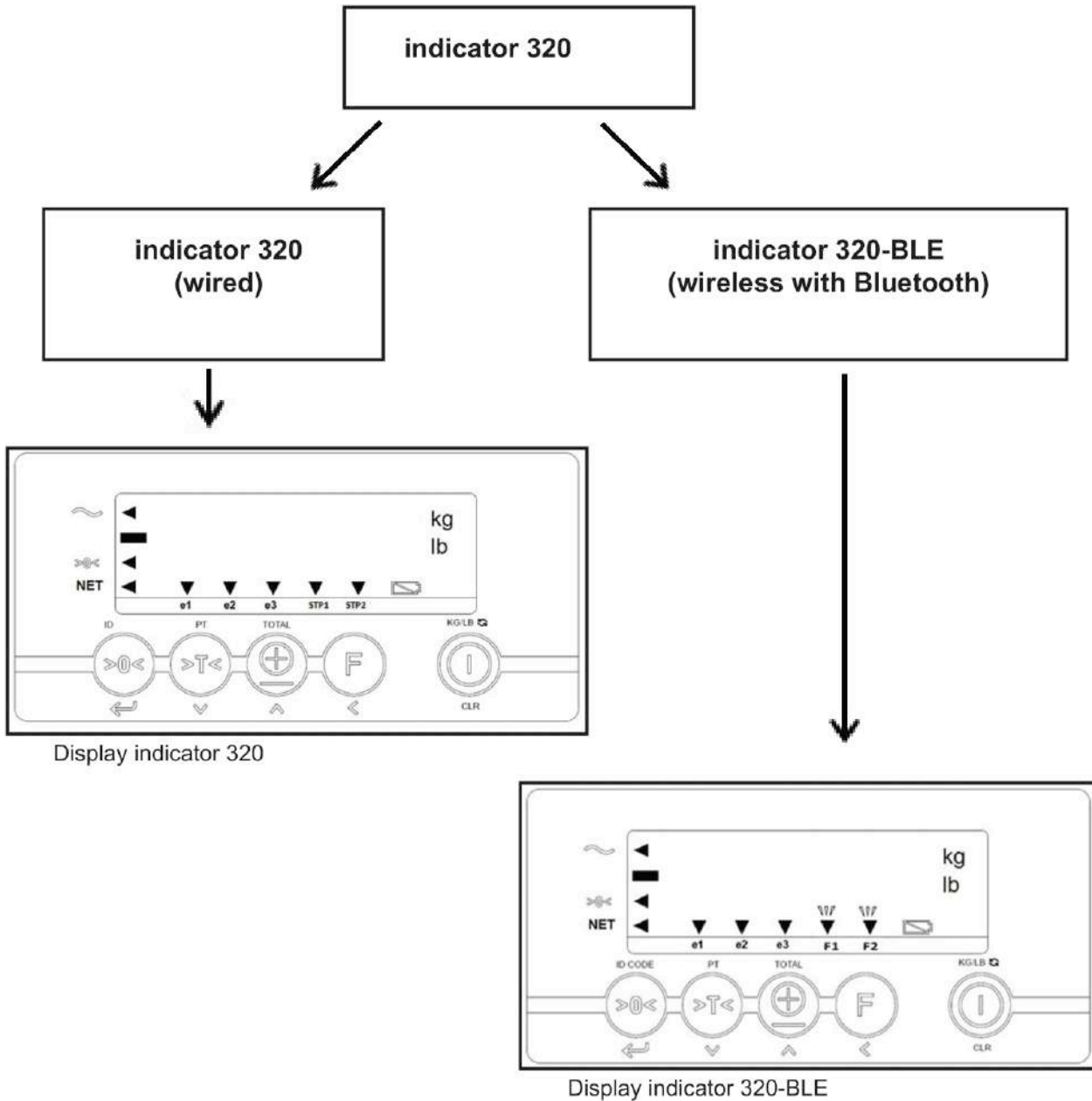
This symbol is only valid within the European Union. Follow local regulations when disposing used batteries. If you are not sure, consult the place of purchase or a RAVAS dealer.

### 3. Schematic overview indicator 320 configurations

The indicator 320 is available in two different configurations.

The configuration applicable for **wired** systems is known as the indicator 320 and can be recognized by 'stp1' and 'stp2' on the display.

The configuration applicable for **wireless** systems is known as the indicator 320-BLE and can be recognized by 'F1' and 'F2' on the display.



## **4. Power supply**

### **4.1 Power supply indicator 320**

The **indicator 320** can be supplied internally by 4x AA batteries or externally using the power supply of the truck or using a 230~V adapter. Standard for forklift truck is the internal power solution. Standard for stacker trucks and electrical pallet trucks is the power supply of the truck. Standard for platforms is a 230~V adapter.

### **4.2 Forklift truck with 6V indicator supply**

The indicator has a low-batt indication symbol on the display in the right lower corner. If this symbol is blinking, it is advised to replace the batteries. You may still finish the actual weighing in this stage since the low-batt indication comes 2 minutes before the indicator actually shuts down. See chapter 6 pag. 12 for changing the batteries.

### **4.3 Forklift truck with converter or stabilizer (option)**

For forklift trucks with a combustion engine, a stabilizer board is required. For electrical forklift trucks a converter board is required. The stabilizer or converter board will be built inside the indicator housing. A label is put on the outside of the indicator housing which defines the power supply ranges that can be branched to the indicator power input. Low-batt indication of the indicator is switched off.

**NOTE: connecting the indicator to the power of the truck may only be done by qualified personnel!**

### **4.4 Stacker truck and electrical pallet truck supply**

Standard the indicators on a stacker truck or electrical pallet truck are powered by the batteries of the truck using a converter board. The converter board is built inside the indicator housing. A label is put on the outside of the indicator housing which defines the power supply ranges that can be branched to the indicator power input. Low-batt indication of the indicator is switched off.

**NOTE: connecting the indicator to the power of the truck may only be done by qualified personnel!**



#### 4.5 Platform with 230~V adapter

Platforms are normally delivered with a 230~V adapter. The adapter can be ordered with the proper connector for each country but will standard be delivered with the EU connector type plug: C or F. Other plug types need to be mentioned at ordering the unit.

Low-batt indication of the indicator is switched off.

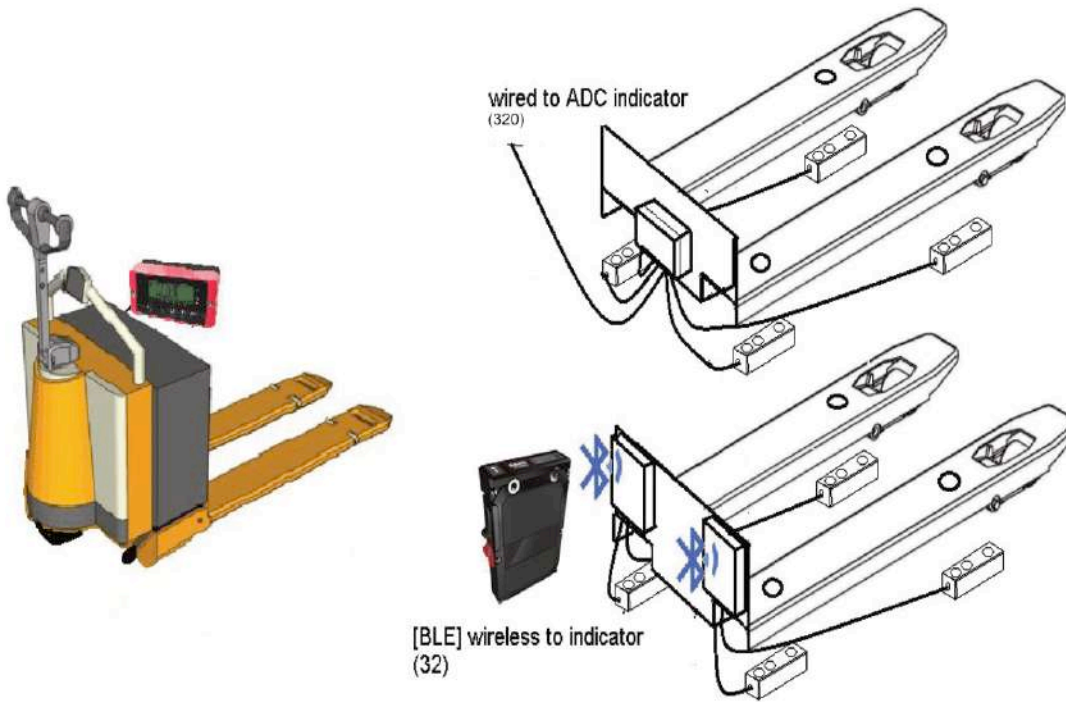
#### 4.6 Power supply transmitter modules (320-BLE only)

Wireless **indicator 320** uses transmitter modules for transmitting the digital signals of the load cells to the indicator. The transmitter modules come with a Li-ion rechargeable battery and a special battery charging station. Low battery of one of the modules can be detected in the indicator display and on the transmitter module itself.

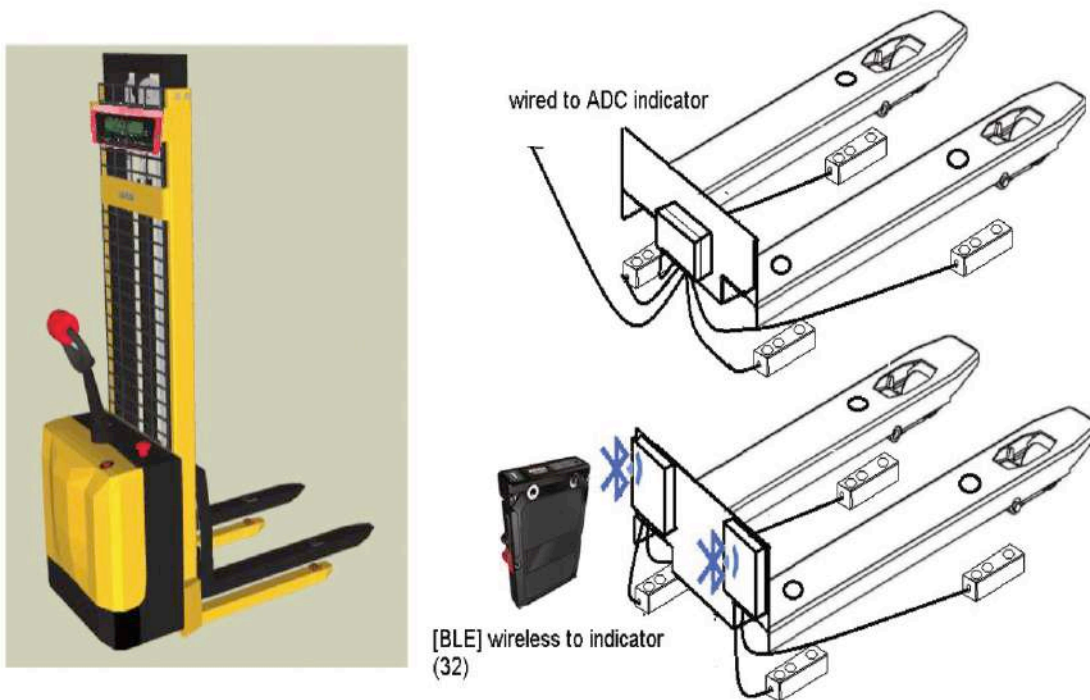
After an indication of low battery the transmitter module will automatically be switched off after 8 hours. It is recommended to recharge the battery before this period of time has elapsed to prevent unexpected shut down of the system. For changing the batteries and recharging them see chapter 6.

## 5. Configurations of different systems with indicator 320

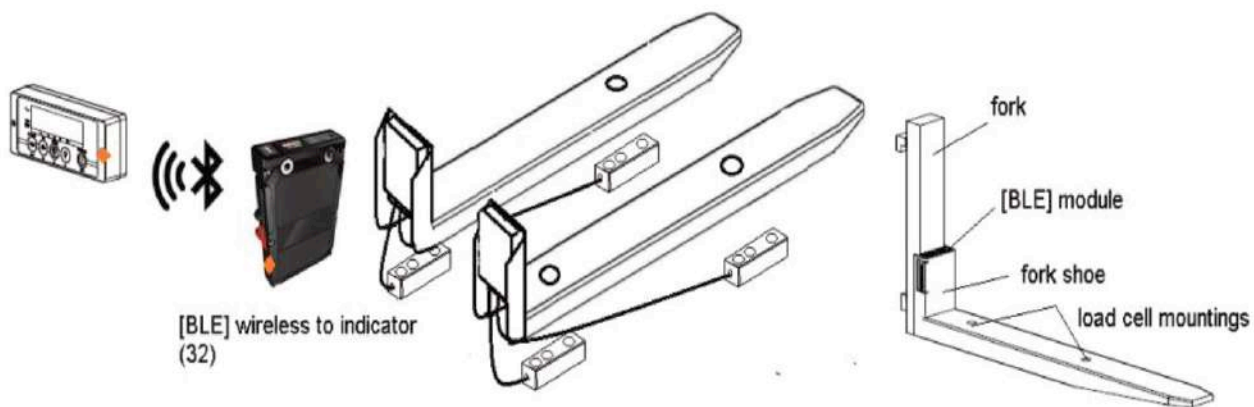
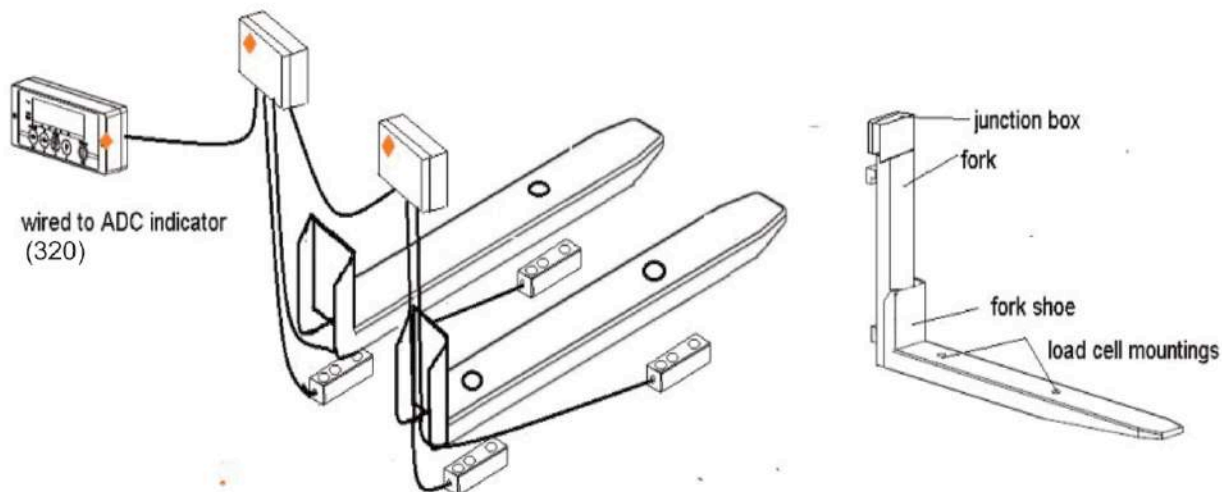
### 5.1 Electrical pallet truck



### 5.2 Stacker truck



### 5.3 Forklift Truck

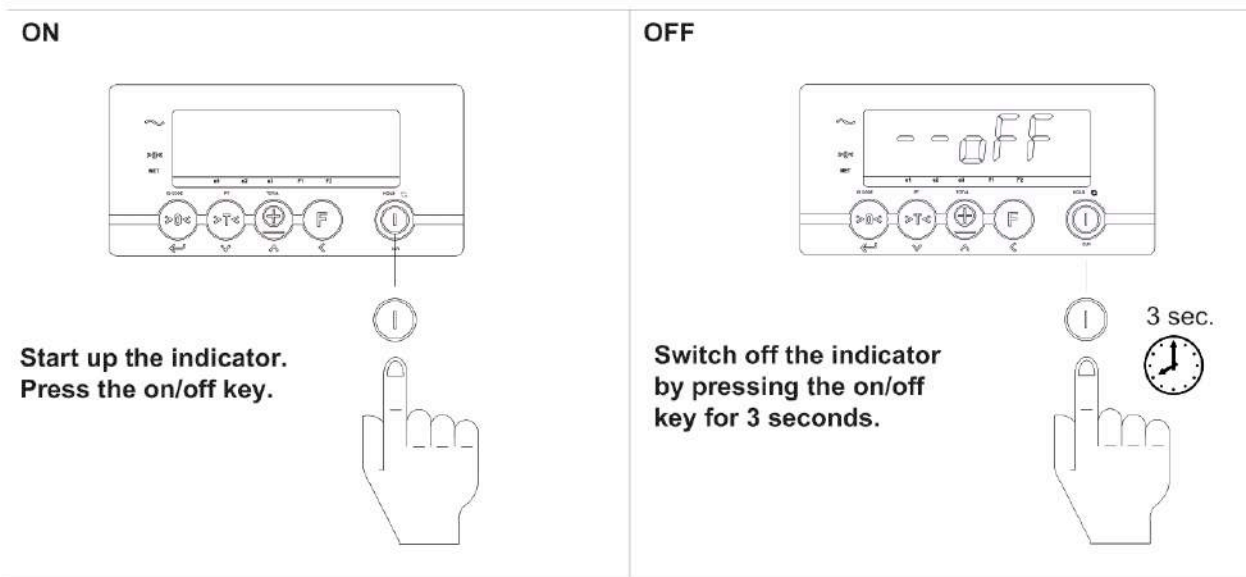


### 5.4 Platforms

All platforms are delivered with an **indicator 320**. It is not possible to purchase the platform with an **indicator 320-BLE**.

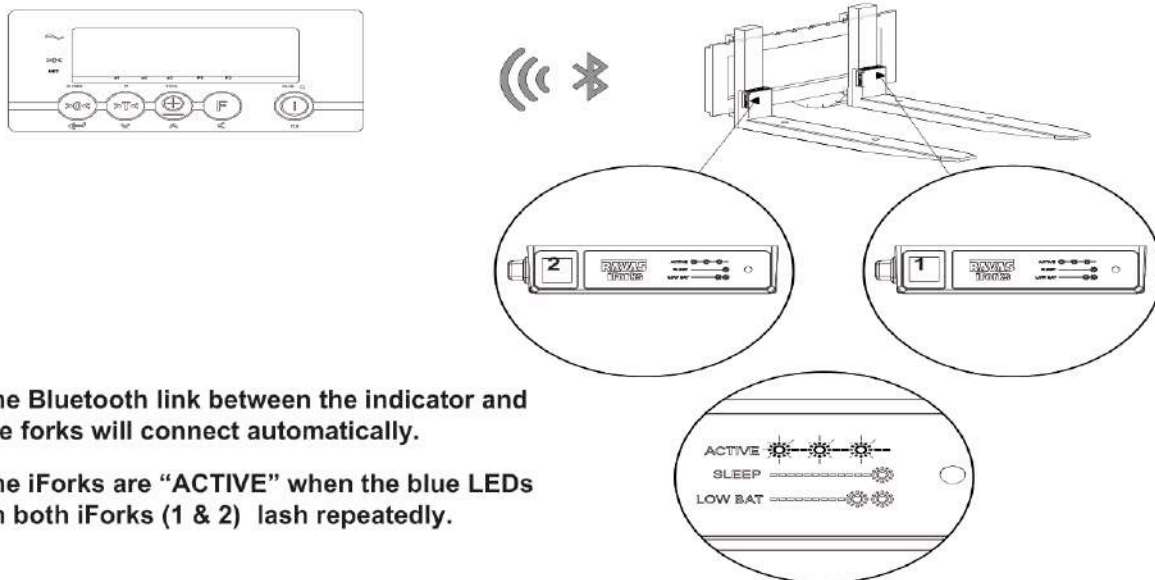
## 6 System startup

### 6.1 Switching on/off the indicator 320



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

\*1: For **indicator 320-BLE** the transmitter modules need to be activated as well. Activating the transmitter modules can be done by lifting the forks up and down, or by moving the truck forward and backward. The movement switch will activate the modules. The modules are also being activated upon replacing the batteries. The blinking blue LED indicates if the modules are active or not.



The Bluetooth link between the indicator and the forks will connect automatically.

The iForks are "ACTIVE" when the blue LEDs on both iForks (1 & 2) lash repeatedly.

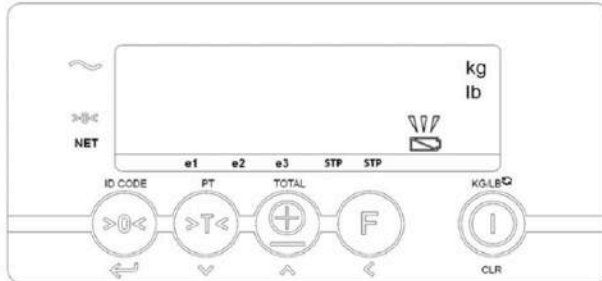
NOTE: the drawing above gives an example of the transmitter modules used in a forklift truck. Other systems like electrical pallet trucks and stacker trucks will look different but the LED functions similar.

## 7. Changing batteries

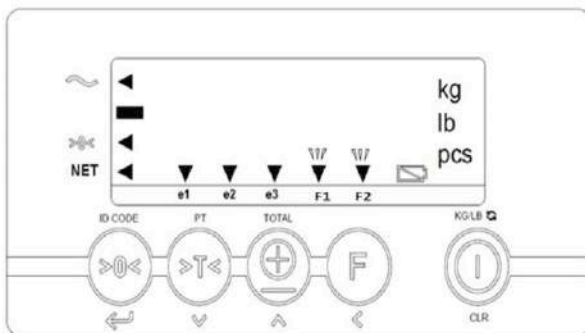
### 7.1 Low battery indication of the indicator

Exchangeable battery packs supply power to the **indicator 320**.

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



### 7.2 Low battery indication transmitter modules indicator 320-BLE



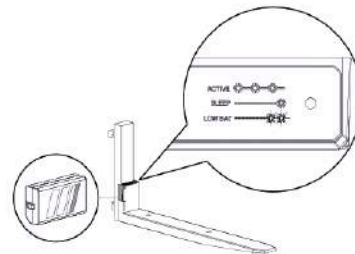
Exchangeable battery packs supply power to the **indicator 320-BLE**.

When the voltage level of the battery packs is running low, the low battery indicator will light up and the pointer of the relating fork - "F1", "F2" or both - will start blinking in the display.

The blue LED (LOW BATTERY) on the relating transmitter module will start blinking very slowly (twice every 10 sec).

The indicator will switch off automatically after 2 minutes. The transmitter module will automatically switch off after 8 hours.

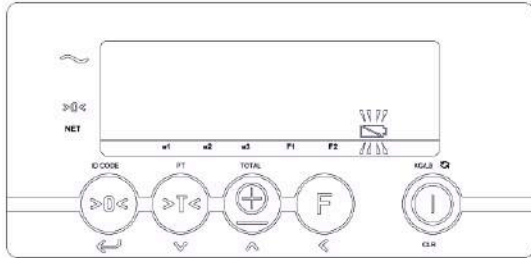
FUNCTIONALITY BLUE LED	
DURING POWERING ON	ON for 5 sec.
FULL BATTERY	Blink time interval
Working mode	Once every 1,5 sec.
Sleep mode	Once every 12 sec.
LOW BATTERY	
Working mode	Twice every 10 sec.
Sleep mode	Twice every 10 sec.



### 7.3 Changing the batteries of the indicator (6V version)

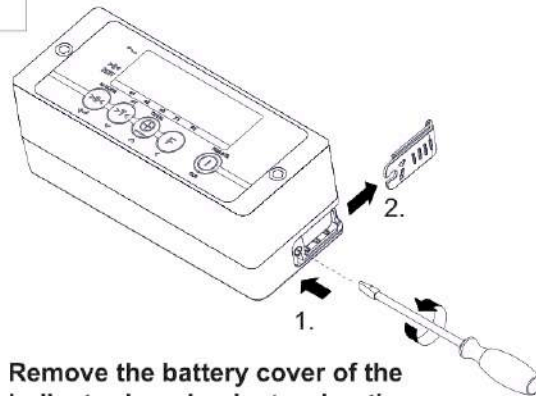
The indicator is equipped with 4 AA batteries.

1



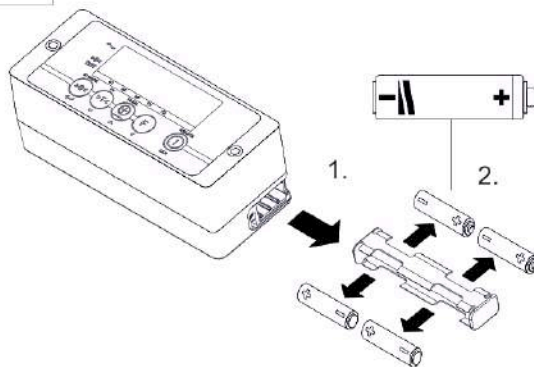
Replace batteries as soon as the low battery indicator starts blinking.

2



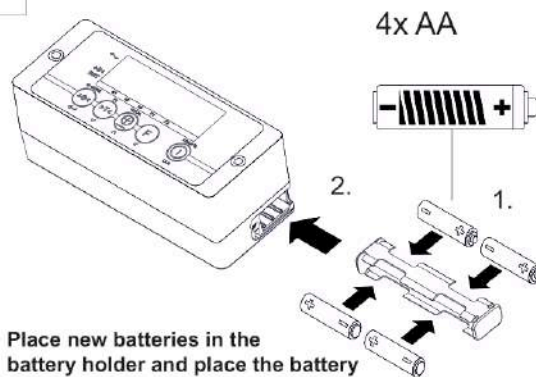
Remove the battery cover of the indicator housing by turning the screw counter-clockwise.

3



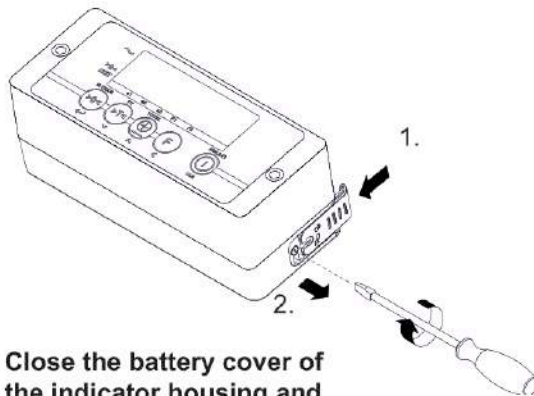
Remove the battery holder and remove the empty batteries.

4



Place new batteries in the battery holder and place the battery holder in the housing. Be sure the batteries are positioned correctly. Check for the polarity!

5

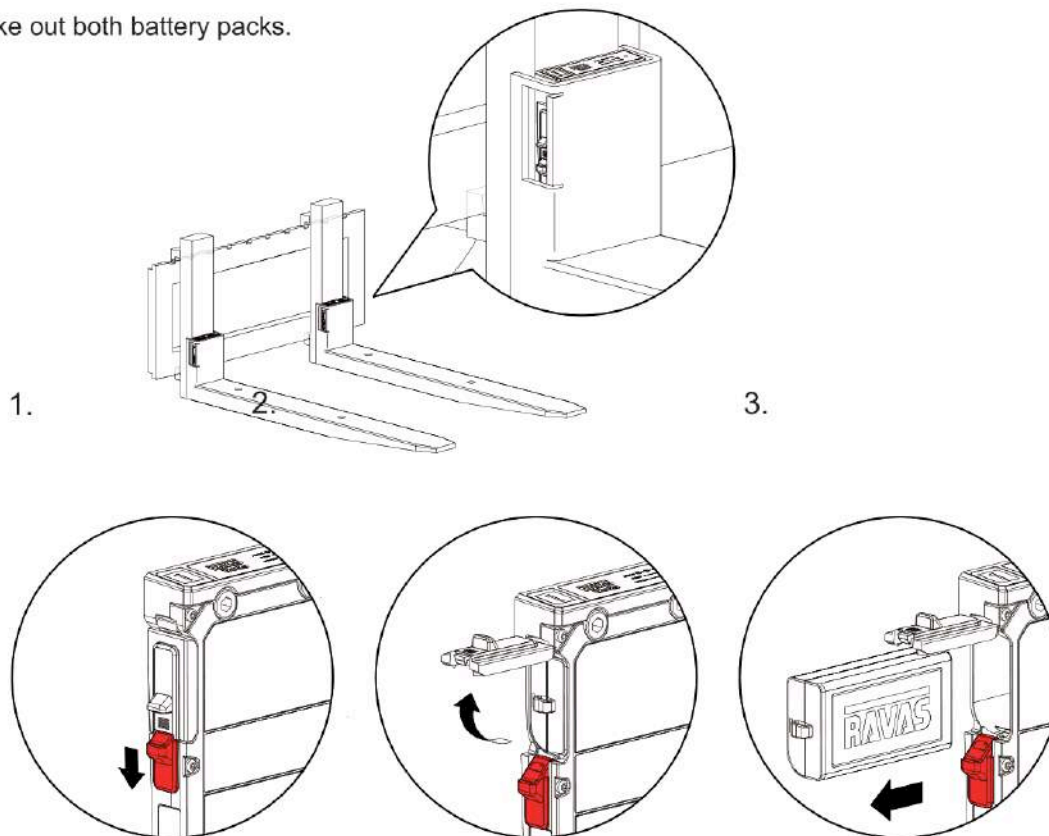


Close the battery cover of the indicator housing and lock by turning the screw clockwise.

## 7.4 Changing the battery packs of the transmitter modules

(indicator 320-BLE only)

Take out both battery packs.



**NOTE:** The drawing above shows the transmitter modules used in a forklift truck. For other systems the removal of the batteries is similar.

## 7.5 Charging the rechargeable battery packs

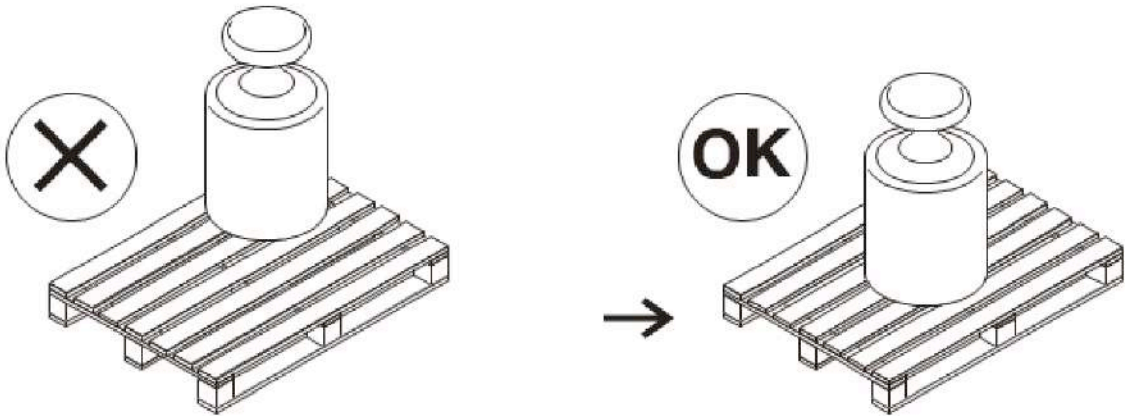
The system is equipped with rechargeable battery packs and a smart charger. After charging for at least 8 hours, the charger will shut off when the battery packs are completely full. The red LED on the adapter will change to green once the batteries are fully charged.

**NOTE:** It is not necessary to charge both batteries simultaneously. If one battery is charged at a time, the charging time will be shorter.

First position the battery packs inside the charger module, then plug the adaptors into the mains voltage.

8. Use

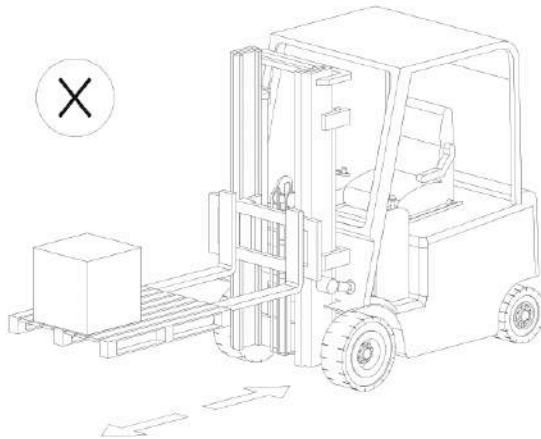
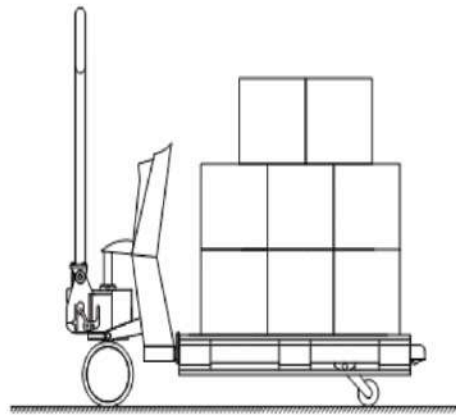
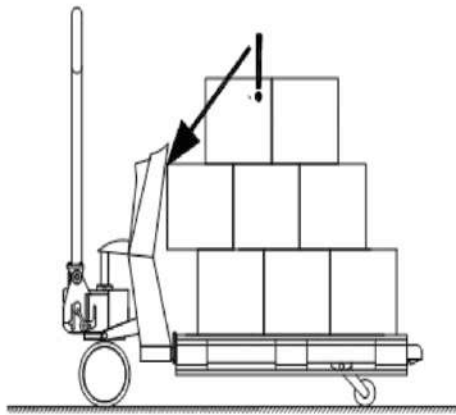
8.1 Use (accurate weighing)



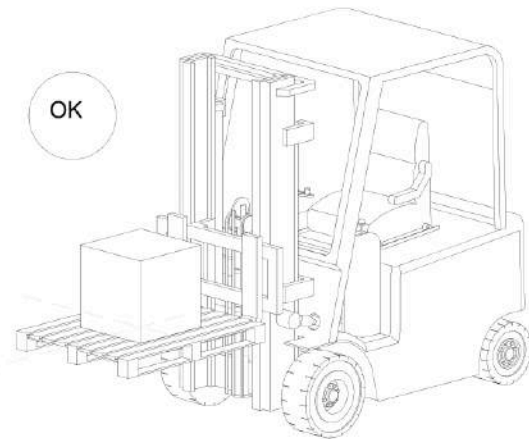
<p>A forklift is shown carrying a pallet with two weights. The pallet is tilted on an uneven surface. A circled 'X' is next to the illustration.</p>	<p>Two thermometers are shown. The left one is labeled 'min 10° C' and the right one is labeled 'max 40° C'. An arrow points from the left thermometer to the right one, indicating the operating temperature range.</p>
<p>A forklift is shown carrying a pallet with a weight on a downward slope. The angle of the slope is labeled as -2°. A circled 'X' is next to the illustration.</p>	<p>A forklift is shown carrying a pallet with a weight labeled '&gt; max.'. A circled 'X' is next to the illustration.</p>
<p>A forklift is shown carrying a pallet with a weight. A spray gun is directed at the weight, with a label 'IP65*' next to it. A circled 'X' is next to the illustration.</p>	<p>A forklift is shown carrying a pallet with a weight on a wet surface. A circled 'X' is next to the illustration.</p>

\* excl.





**Wrong way of lifting the load**



**Correct way of lifting the load**

---

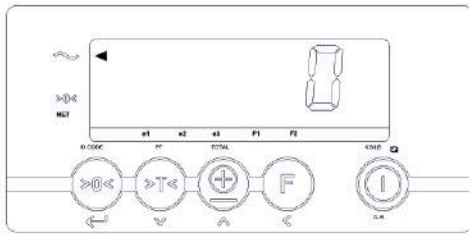
**Check the zero reading before each weighing!**

Before each weighing it is necessary to check whether the system is unloaded and free. For forklift trucks and stacker trucks it is important to check whether the forks are lifted and not touching the floor before performing a new zero. If the forks are on the floor the indicator will show [-----] in the display with red backlight active.

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

## 8.2 Auto shut-off indicator / Sleep mode

1

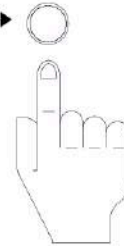
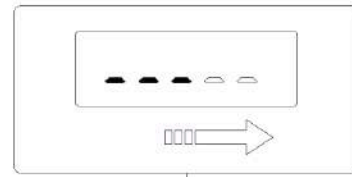


20Min. action!



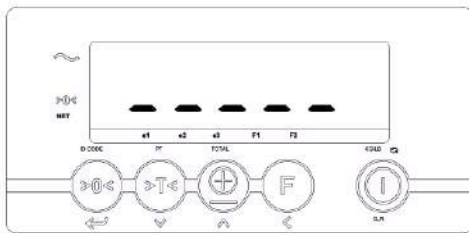
2

20 sec.

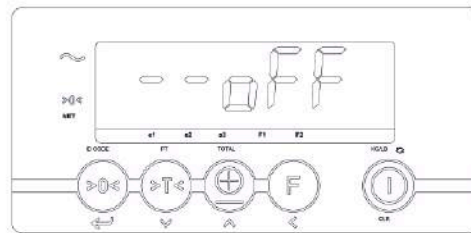


**Countdown starts:**  
Press any key during  
countdown to cancel auto-  
shut-off and go back to the  
weighing mode.

3

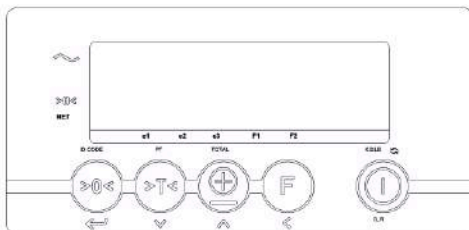


4



Indicator sleep

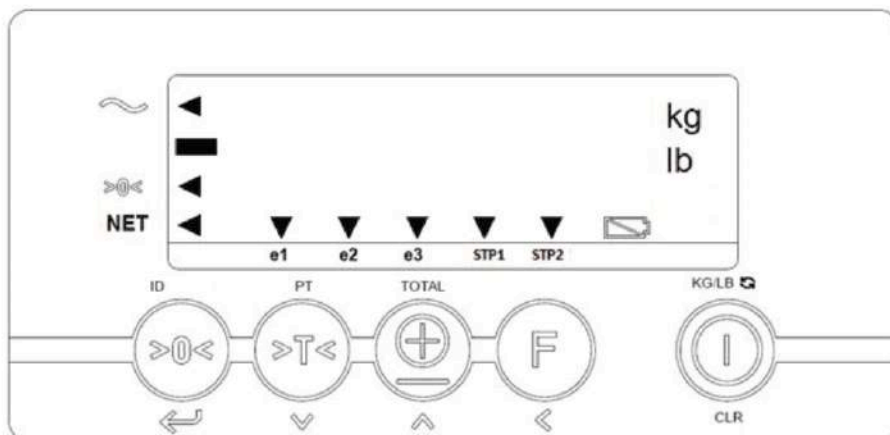
5



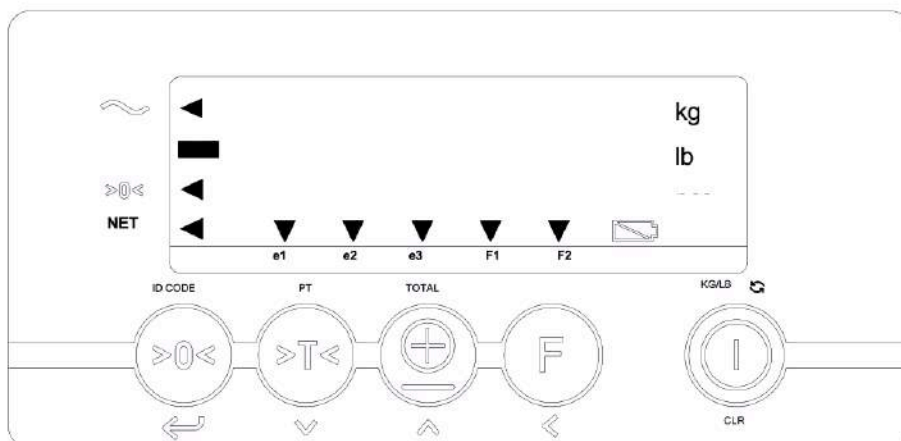
Press any key to wake up  
the indicator.

### 8.3 Indicator functions

#### Indicator 320



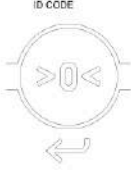




#### Indicator 320-BLE



- |      |   |   |        |   |
|------|---|---|--------|---|
|      | ◀ | the weighing system (including load) is stable      |        |   |
|      |   | the weight shown is negative                        | stp/F1 | ▼ setpoint 1 active (option function key activated) |
| ZERO | ◀ | the weight shown is within the zero range           | stp/F2 | ▼ setpoint 2 active (option function key activated) |
| NET  | ◀ | the display is showing the net weight               | kg     | displayed weight is in kilograms                    |
| e1   | ▼ | displayed weight is in range 1 (option multi range) | lb     | displayed weight is in pounds                       |
| e2   | ▼ | displayed weight is in range 2 (option multi range) |        | low bat indicator                                   |
| e3   | ▼ | displayed weight is in range 3 (option multi range) |        |   |

## 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.

## 8.4 Error messages

### ERROR MESSAGES INDICATOR 320

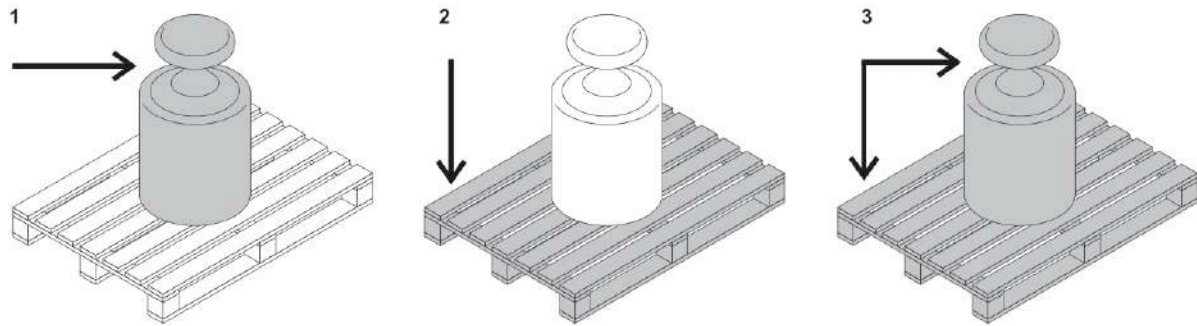
Display	Meaning	Out of error mode
Err98	Calibration point must be higher than previous one Action only allowed in start-up units	new calibration and stamping of the system is necessary ) Automatic
Err99	Loadcell signal negative	Automatic
---		Lift up the forks from the ground
Err_L	Pallet truck is out 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 no out of range	Contact RAVAS Service department
ESoFt	Wrong combination of firmwares	Contact your dealer
EConF	P96 not set	Contact your dealer

### ERROR MESSAGES RELATED TO INDICATOR 320-BLE ONLY

Display	Meaning	Out of error mode
ErrF1	Problem with transmitter module 1 (no communication)	Indicator will try to reconnect for 30 sec. Restart indicator. Restart transmitter module and indicator.
ErrF2	Problem with transmitter module 2 (no communication)	Indicator will try to reconnect for 30 sec. Restart indicator. Restart transmitter module and indicator.
Er_F1	too few samples for measurement	Wait for improvement of the Bluetooth connection (by moving the mast to lower position)
Er_F2	too few samples for measurement	Wait for improvement of the Bluetooth connection (by moving the mast to lower position)
tiP	too large load on the tip of forks	Replace load
SidE	too large load on one fork	Replace load
 +F1	battery of transmitter module 1 is empty	Replace the Li-ion pack or recharge
 +F2	battery of transmitter module 2 is empty	Replace the Li-ion pack or recharge
LobaF	Fork batteries are empty (appears after three times start-up with empty batteries)	Replace the Li-ion pack or recharge charge the fork batteries

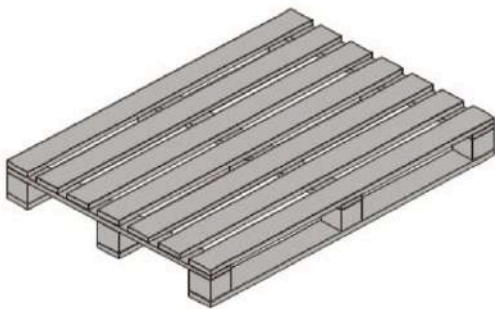
## 8.5 Net / Tare / Gross weight

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

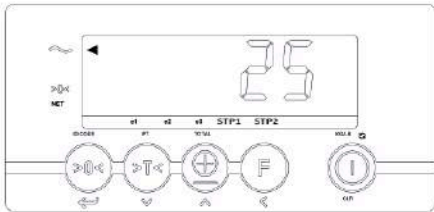


### 8.5.1 Net weighing: automatic tare

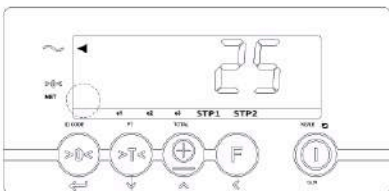
1



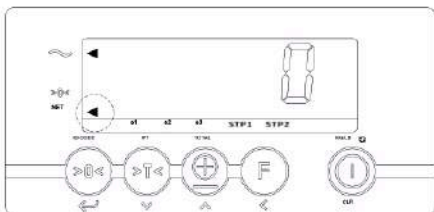
2



3

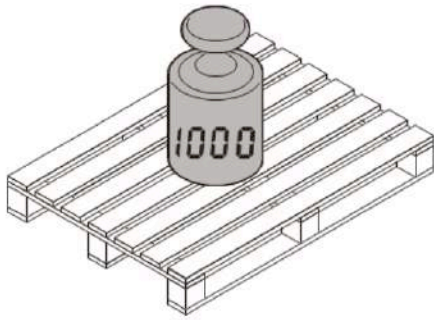


4

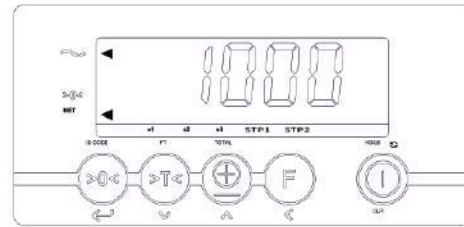


The indicator is set to zero. The "NET" pointer shows that the tare weight is activated.

5

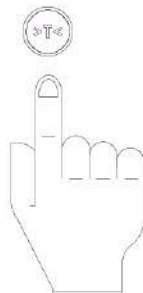
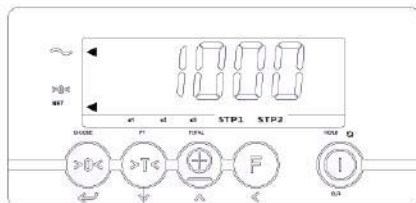


6

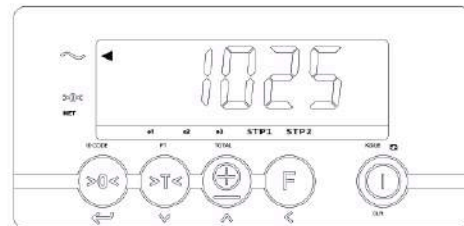


The display shows the net value of the weighed load.

7

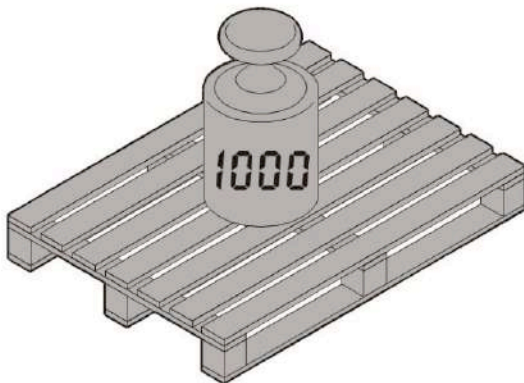


8



The gross weight is displayed again.

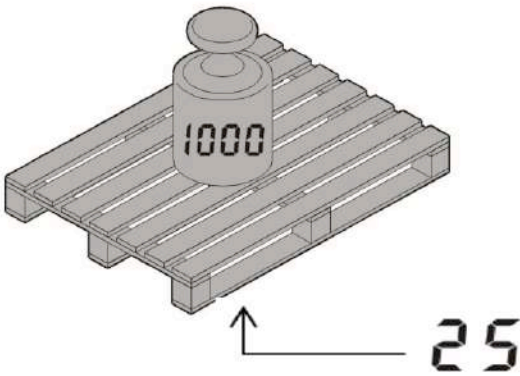
9



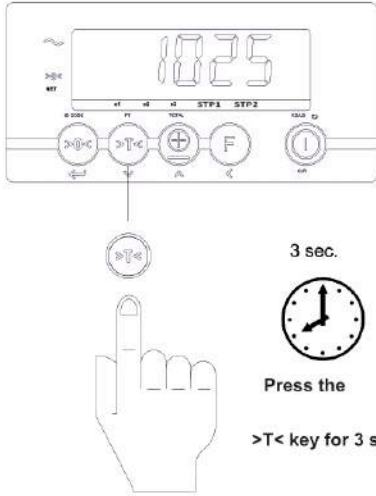
**NOTE:** for OIML approved RAVAS 320 the tare will be erased automatically when the weight returns to gross zero! For the next weighing the tare must be activated again.

## 8.5.2 Net weighing: manual tare (PT)


**1**



**2**

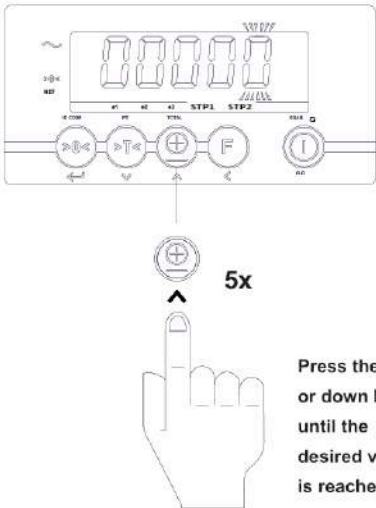


3 sec.



Press the  
>T< key for 3 seconds.

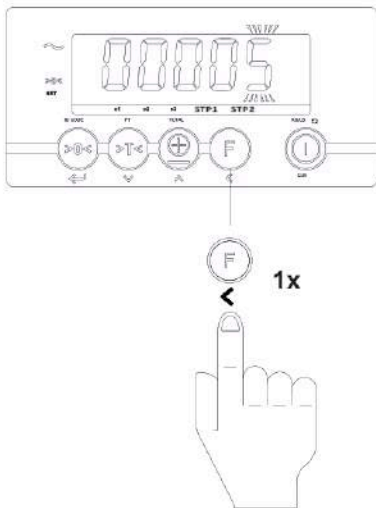
**3**



5x

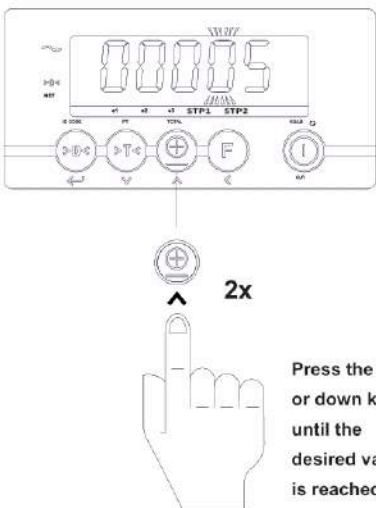
Press the up  
or down key  
until the  
desired value  
is reached.

**4**



1x

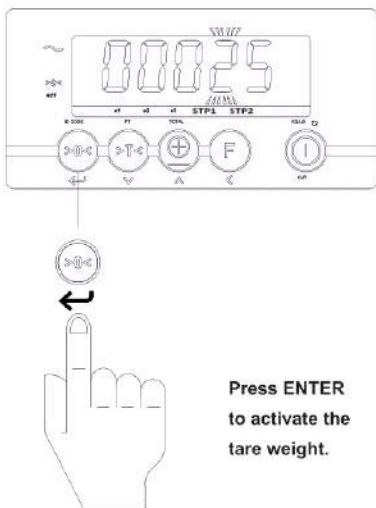
**5**



2x

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

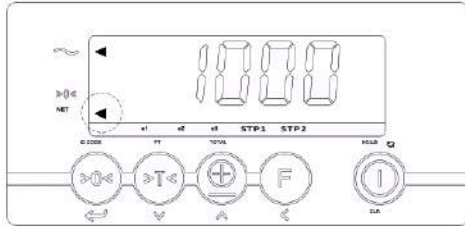
**6**



Press ENTER  
to activate the  
tare weight.

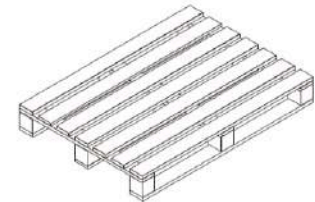


7

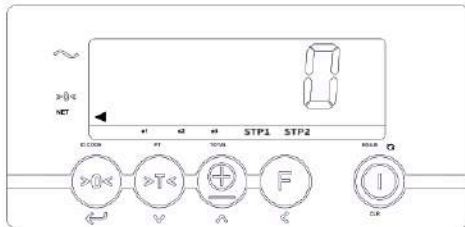


The "NET" pointer lights up.

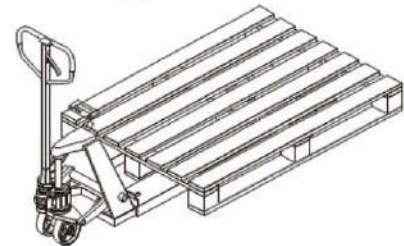
8



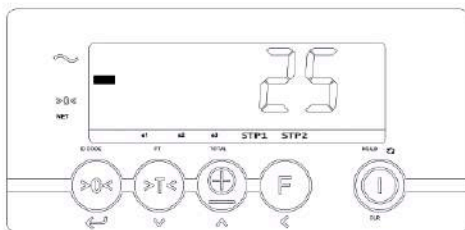
9



10



11



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

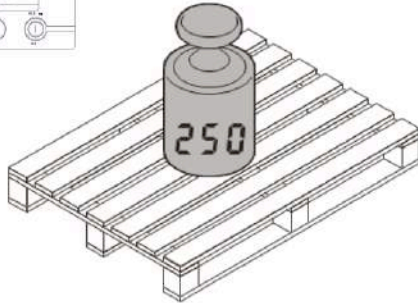
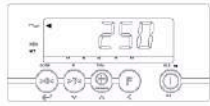
12

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

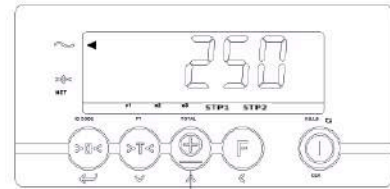
Press >T< and then Enter only when tare value is the same.

## 8.6 Adding & reset

1



2

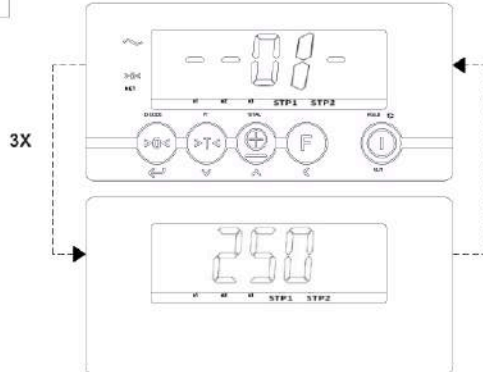


Press the **TOTAL** key to add the weight load to the total weight.

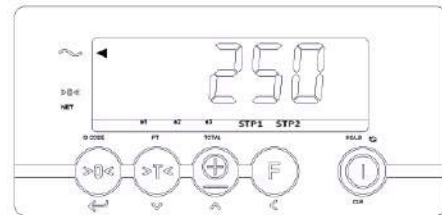
If a printer is installed, a printout will be made. The gross, net and tare weights are printed.



3

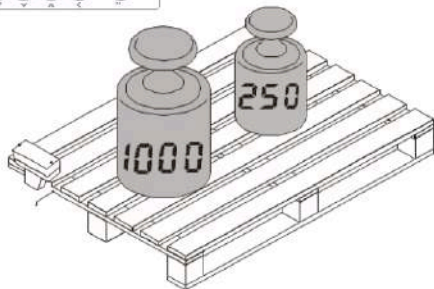


4



The display returns to the weighing mode automatically.

5

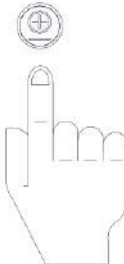


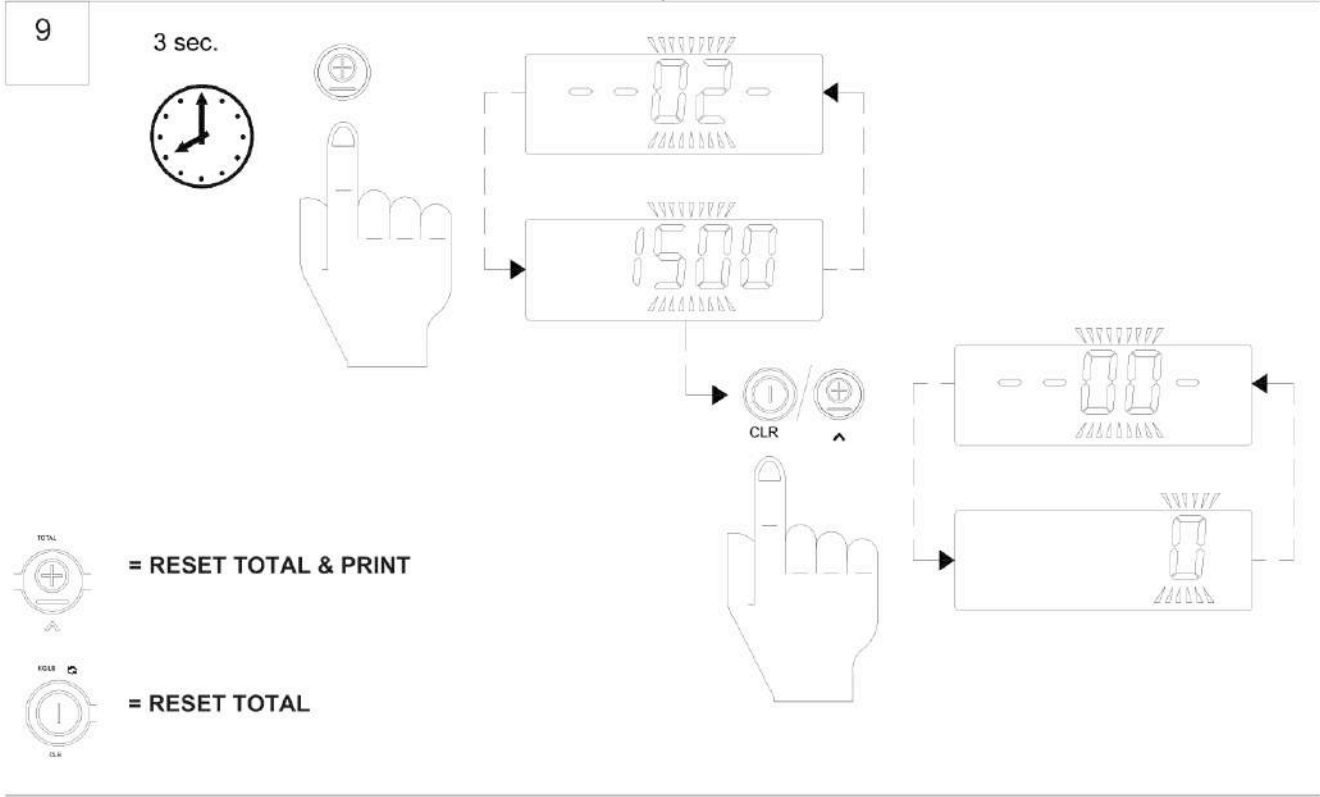
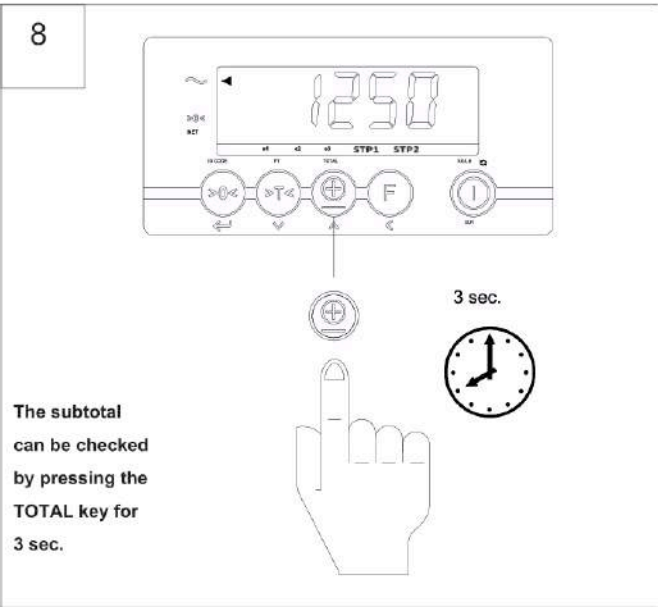
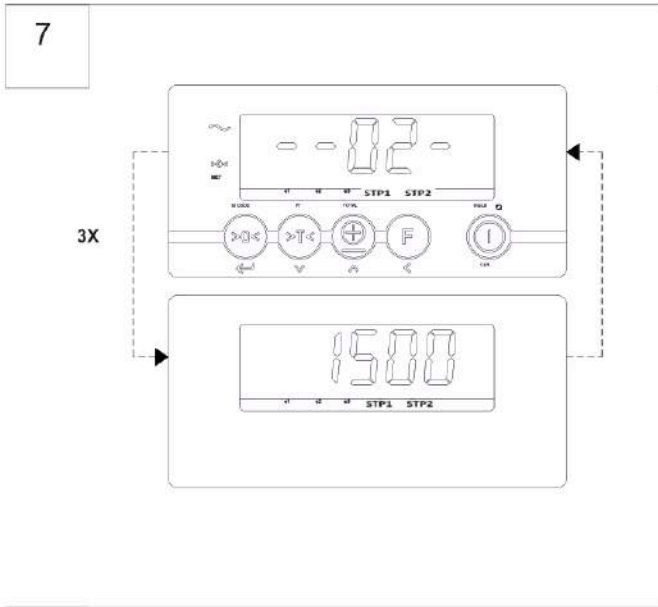
6



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.

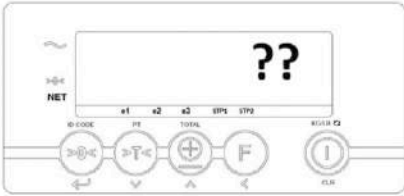





**NOTE:** In case the total is not manually used or reset, the system will do this automatically as soon as the total number has reached 99 or as soon as the total weight has reached a value of 99999 kg.

## 8.7 Entering ID-Code

**1**




> 3 sec.



**Press the ID-code key for 3 sec.**


**2**




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

---

**3a**




To accept the old value press Enter.



or: →

**3b**

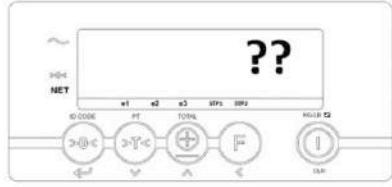


Press < to scroll through the digits and press the up or down key until the desired value is reached.

↓


---

**4**




**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.



To accept the new value press Enter.



## 8.8 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

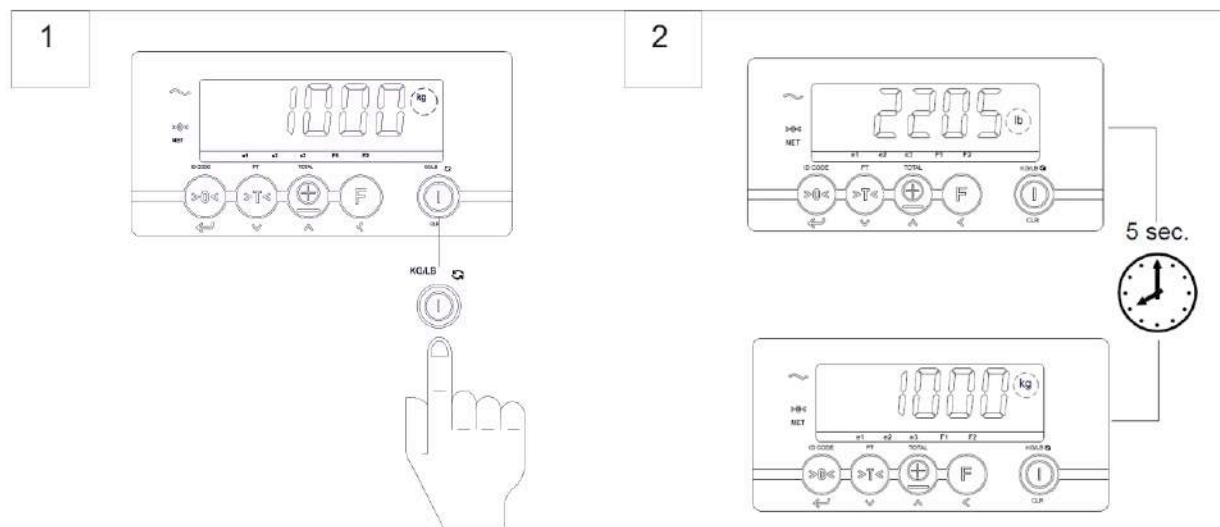
CODE	12345	
B/G	1234.5	lb.
T	34.5	lb.
N	1200.0	lb.
*1		
Nr.	1	
10/07/03	17:45	

Total printout (always without code)

Tot. B/G	1234.5	lb.
Tot. T	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.

## 8.9 KG- LB switch



## 8.10 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.

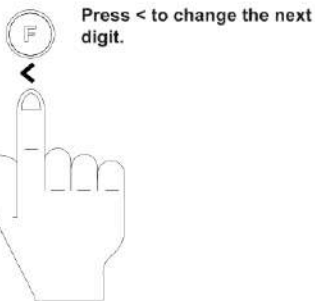
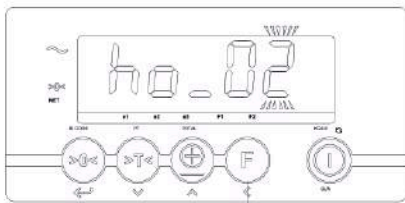
**5**

The display will show "ho\_00" or the previous hour time setting

**6**

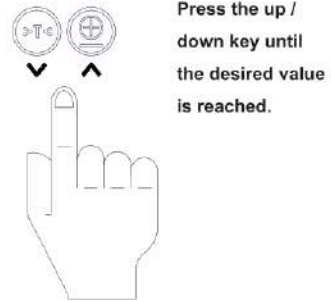
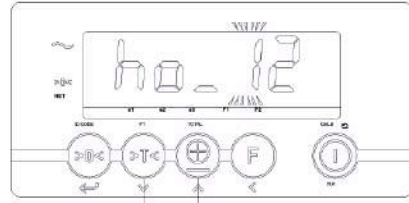
Press the up / down key until the desired value is reached.

7



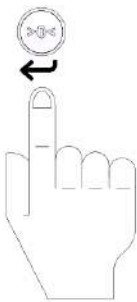
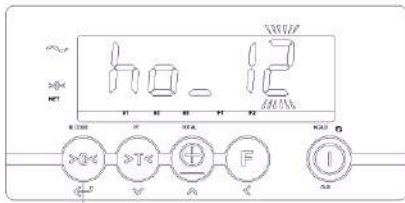
Press < to change the next digit.

8



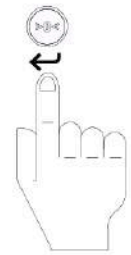
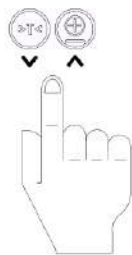
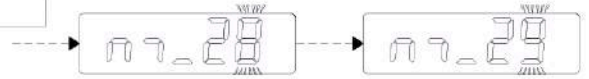
Press the up / down key until the desired value is reached.

9



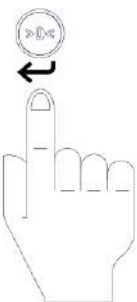
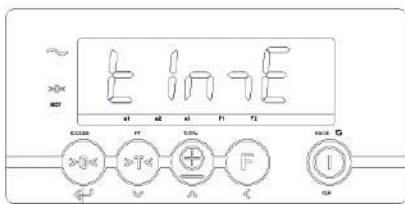
To accept the new value press enter.

10



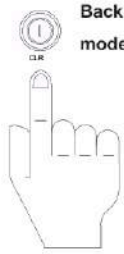
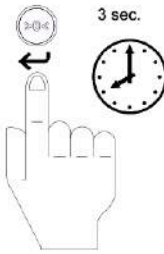
Repeat the procedure to accept or change: - the minute setting "m\_00"

11



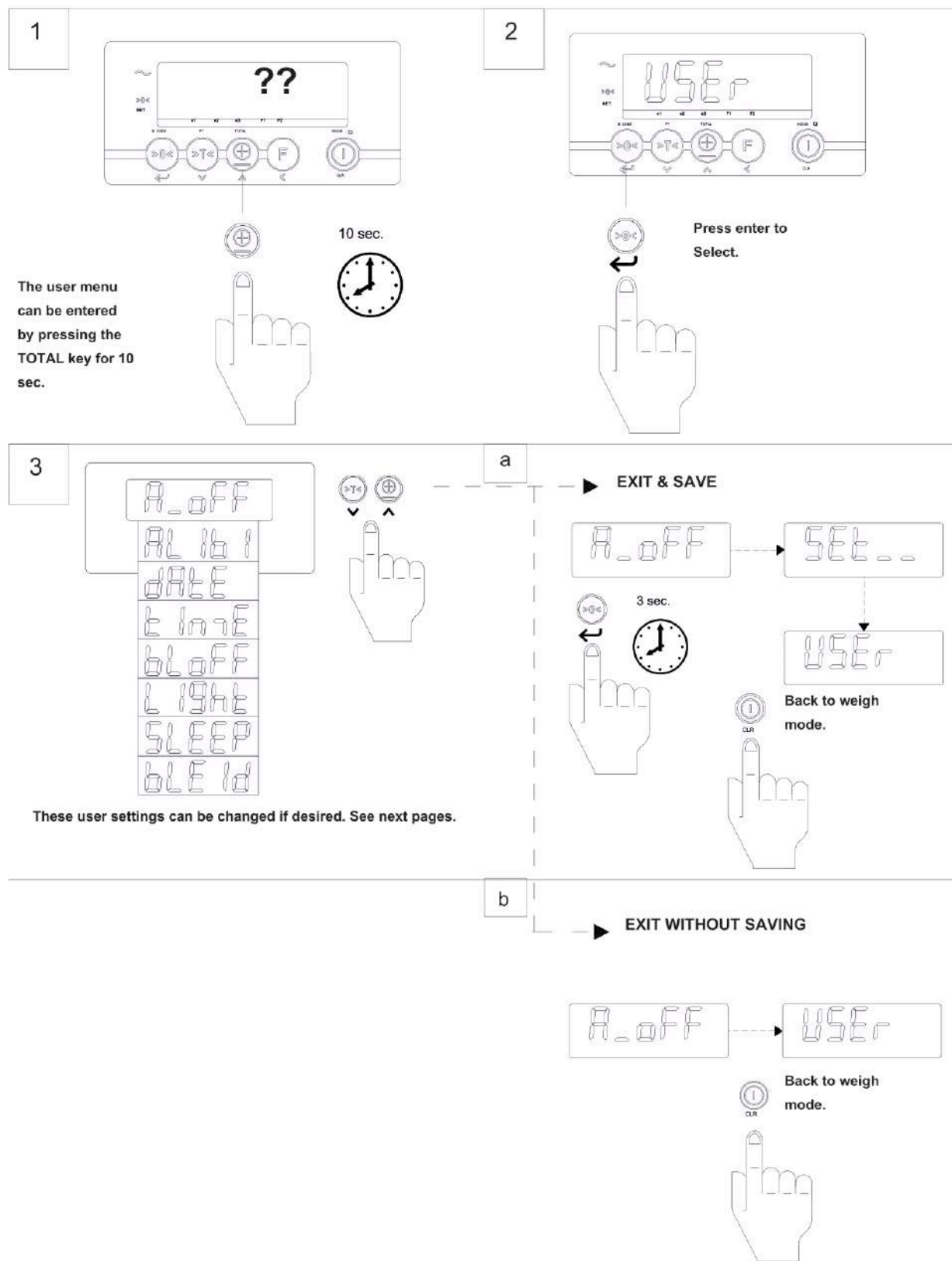
To accept the new setting press enter for 3 sec.

12



Back to weigh mode.

## 8.11 User settings





### 8.11.1 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

## 8.12 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. For the password please contact RAVAS Service department.

**1**

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

**2**

Press to change to Supervisor menu.

**3**

Press enter to Select.

**4**

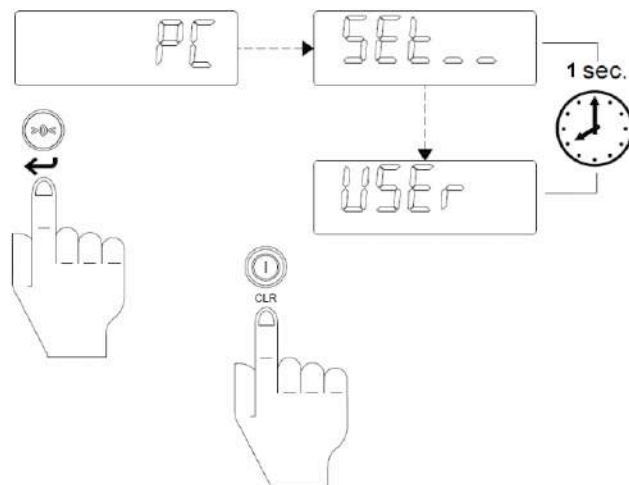
Select to change the setting.

**5**

Press enter to Select.

**6**

Select to change the setting.








### 8.12.1 Supervisor menu explanation list

SUP(ervisor) menu explanation list				
Sup menu	function	remark	settings	default
BLE	setting the functionality 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 functionality 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 functionality of the COM 3 port for stacked options	for sub-functions see underneath	PC/ScAn/rEm/Prnt/NonE	NonE
<b>Sub-functions</b>				
PC	selecting the PC functionality	bidir: select if using PC commands from a host PC/Terminal rdc-A: select if using the RDC-application with acknowledgement rdc-N: select if using the RDC-app. without acknowledgement	bidir/rdc-A/rdc-N	bidir
ScAn	selecting the the scanner functionality	not available. Reserved for future use	n.a.	n.a.
rEm	selecting the remote display functionality	select for continuously 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 LAYou: select if layout needs to be changed 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	0-8 Std/tot NONE/Net/Gross/NETGr	4 Std 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			

## 8.12.2 Overview power settings (auto shut-off)

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

Auto Shut-off & Sleep Settings									
		RPW-EL 3200 6v	RPW-EL 3200 truck supply	RPW-EL 3200 auto on			RAVAS 3200	RAVAS 3200 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	
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	
No options / Printer 6v	SLEEP	2	30	0	No options	SLEEP	0	0	
	A_OFF	5	0	0		A_OFF	0	0	
									
		RPW-ST 3200 6v	RPW-ST 3200 truck supply	RPW-ST 3200 auto on	RPW-ST- BLE 3200 6v (no printer)	RPW-ST- BLE 3200 truck supply	RPW-ST- BLE 3200 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		
No options / Printer 6v	SLEEP	2	30	0	2	30	0		
	A_OFF	5	0	0	5		0		
									

### 8.13 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.

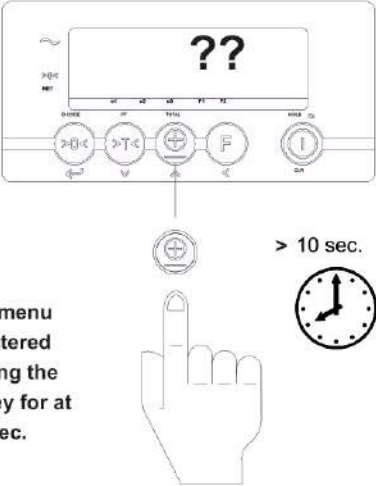
The data stored in the alibi memory are:

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 big. 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.

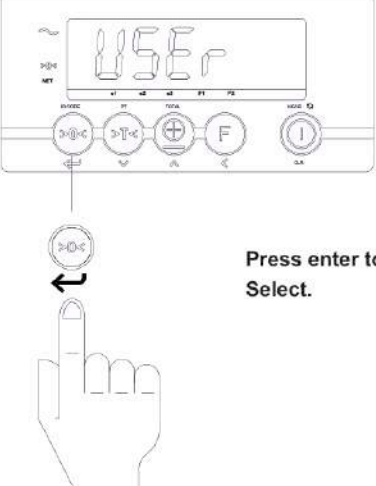
For reading out the data saved in the alibi memory please follow next steps:

1



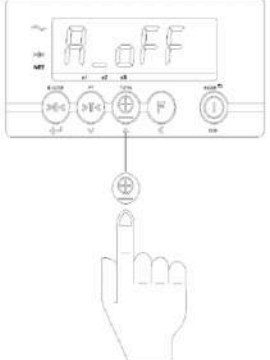
The user menu can be entered by pressing the TOTAL key for at least 10 sec.

2



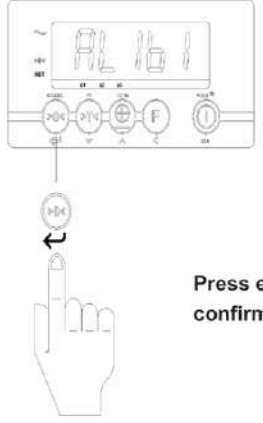
Press enter to Select.

3



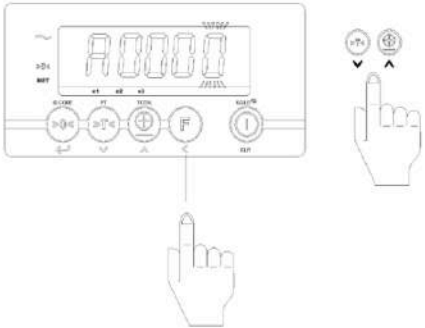
Press the up /down key until the display shows the user setting 'ALibi'.

4



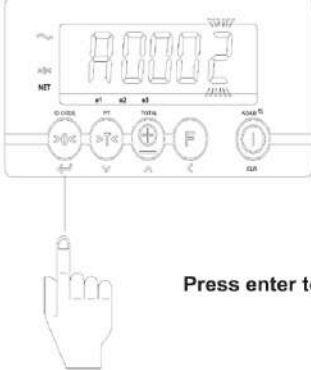
Press enter to confirm.

5



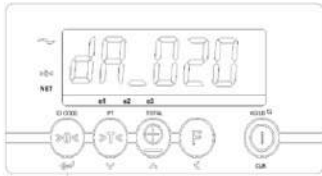
Enter the requested alibi number by using the up and down keys and the shift key. In this example we enter alibi number 2'.

6



Press enter to confirm.

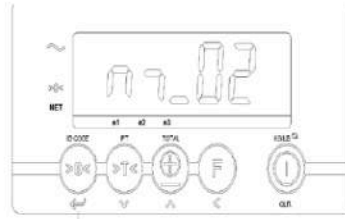
7



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



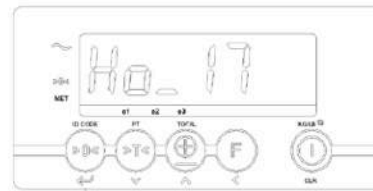
Press enter to continue to the year.

9



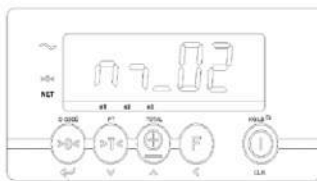
Press enter to continue to the hour.

10



Press enter to continue to the minute.

11



Press enter to continue.

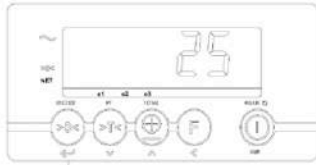
12

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



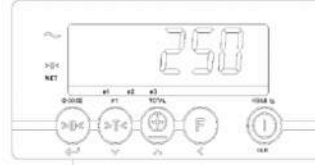
Press enter to continue.

13 For 0,5 sec the display shows the text 'Net' or 'Net\_C'.  
Next the display shows the net weight. *Net: weight is measured.*  
*Net\_C: weight is calculated.*



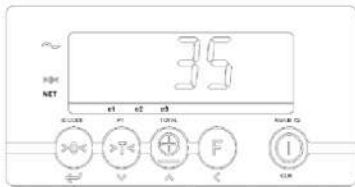
Press enter  
to continue.

14 For 0,5 sec the display shows the text 'tArE' or 'PtArE'.  
Next the display shows the tare weight. *tare: weight is measured.*  
*Ptare: weight is keyed in.*



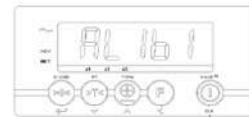
Press enter  
to continue.

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'.



- overload on gross weigh
- overload on net weigh
- dosing / filling with manual tare & star
- dosing / filling with automatic tare & star

16



Press enter to search for another weighing or press 'CLR'  
2x to return to the normal weighing mode.

## 8.14 Relay function - optional

The 320 indicator has the possibility to setup limit values for relay settings. The different options for relay settings are:

For the setup and activation of the relay settings please contact RAVAS Service department.



## 9. RAVAS WeightsApp

With the RAVAS 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 RAVAS indicator and send it for technical analysis as a CSV file in the event of malfunctioning.