RAVAS iPT Essential

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creating intelligence

User 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.

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User manual RAVAS iPT Essential

Intelligent pallet truck with RAVAS RedBox and display on the handle

We would like to inform you about the fact that this RAVAS product is 100 % recyclable on the basis that the parts are processed and disposed of in the right manner.
More information can be found on our website www.ravas.com.

1. Introduction

This manual describes the use of the **RAVAS iPT Essential**. 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 **RAVAS iPT Essential**, 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 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;
- RAVAS is not responsible for errors that occur due to incorrect weightings or inaccurate scales.
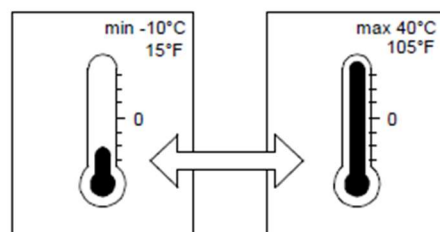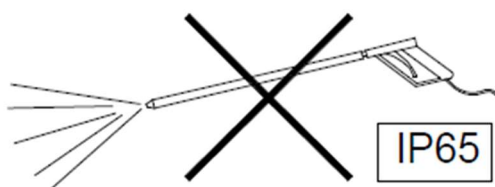
2.1 Lithium-ion battery

The RAVAS Redbox has a permanently built-in Li-Ion battery.

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**

- Do not longer use a battery with leakages, deformation or when any other abnormalities occur. 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.
- When due to what cause the battery is not fully charged after 8 hours (LED of the magnetic charger connector doesn't become green), unplug the cable from the battery to stop charging. Battery or charger does not work properly.
- 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 included charger cable (you must provide the plug). The LED of the magnetic charger plug on the battery 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.

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Specifications

Battery	Operating temperature range
Nominal voltage / capacity	BA-3.7V-5.2A
Battery operating temperature range	During use: -10°C **-** +40°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, you can remove the charger cable from the battery.

- **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.

- **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 of the 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.
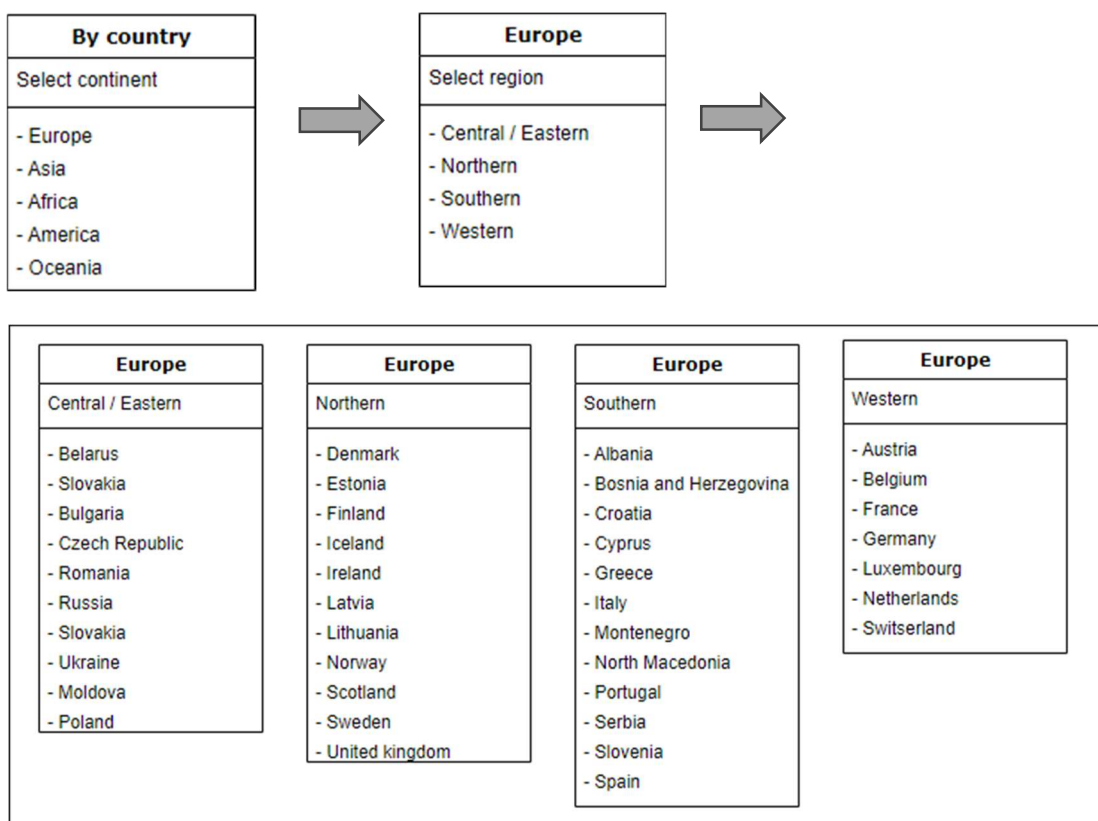
3. System setup

The **RAVAS iPT Essential** is an intelligent hand pallet truck. The system is powered by an internal Li-ion battery pack for the RAVAS RedBox and 2 AA-batteries for the display. After power on keep the truck level and make sure system displays zero Kg or Lb.

3.1. First time use

The weighing scale will arrive in transport mode. In order for the scale to exit the transport mode press any of the 3 buttons at the top of the indicator to start the scale.

The gravity setting is by default set to The Netherlands. If another country applies, either your reseller has already set the gravity to your own country (select *'last chosen option'*), or you can set it yourself (select *'By country'*). After selecting the country, the selection menu is self-explanatory.

By country
Select continent
- Europe
- Asia
- Africa
- America
- Oceania

Europe
Select region
- Central / Eastern
- Northern
- Southern
- Western

Europe Central / Eastern	**Europe** Northern	**Europe** Southern	**Europe** Western
- Belarus	- Denmark	- Albania	- Austria
- Slovakia	- Estonia	- Bosnia and Herzegovina	- Belgium
- Bulgaria	- Finland	- Croatia	- France
- Czech Republic	- Iceland	- Cyprus	- Germany
- Romania	- Ireland	- Greece	- Luxembourg
- Russia	- Latvia	- Italy	- Netherlands
- Slovakia	- Lithuania	- Montenegro	- Switserland
- Ukraine	- Norway	- North Macedonia	
- Moldova	- Scotland	- Portugal	
- Poland	- Sweden	- Serbia	
	- United kingdom	- Slovenia	
		- Spain	

Once you have set the country of origin the indicator will connect to the RAVAS RedBox via wireless technology.
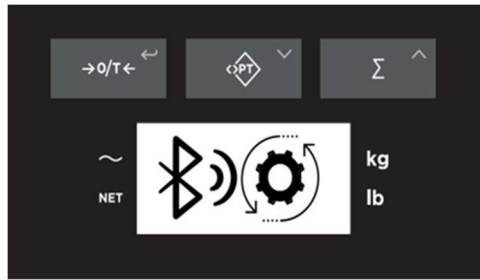
3.2. Charging the RAVAS RedBox

In order to charge the RAVAS RedBox in the A-frame a magnetic USB cable and plug are supplied.
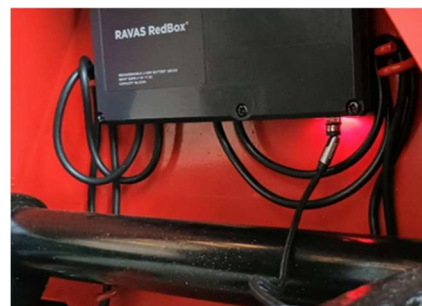
1. Move the magnetic, round charging connector close to the bottom right of the box, indicated in the picture by the yellow triangle. The USB cable will snap into place.
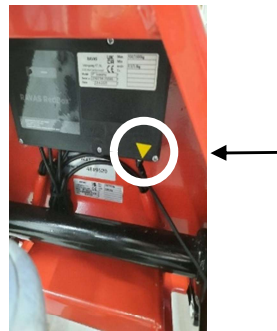
2. Plug the USB charger into an outlet and the device will start charging (a **red** light is shown around the charging plug).

⚠️ **Charging the RAVAS RedBox can take up to 8 hours.**

3. Once the charging is finished a **green** light will turn on.

4. Charger cable can now be removed from the RAVAS RedBox.

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3.3. Replacing the display batteries

The display on the handle runs on 2 AA batteries. The display is supplied with 2 batteries already installed in the display.

To replace the batteries simply unscrew the 2 small bolts on the backside of the display. The battery compartment now opens up and the batteries can be replaced.
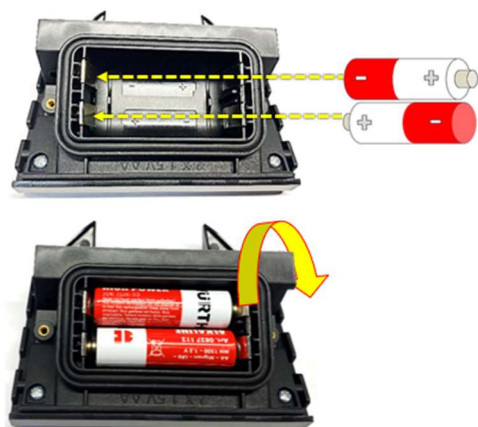
⚠️ **Note: Batteries can only be changed when indicator is in transport mode or when the indicator shows that batteries must be replaced.**

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4. Use

4.1. Indicator functions

 weighing system (including load) is stable

 display is showing the net weight

 displayed weight is in kilograms

 displayed weight is in pounds

e=**1.0** displayed weight is in range of **1.0** of weight unit

4.1.1. Key functions
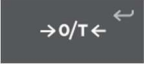
Standard function (short key press)	Key	Special function (long key press)	Value entering
Zero / tare setting	→0/T← ↵	No function	Enter
Preset tare	‹›PT ∨	No function	Decrease the value of the current digit
Totalise	Σ ∧	Finish totalising	Increase the value of the current digit

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4.1.2. Zero / net weighing automatic tare

Zero scale
If the current weight is inside the zero range the system will zero the scale.

Automatic tare
1. Lift load
2. When weight is stable and outside the zero range press ▢ →0/T←↵
   a. The indicator is set to zero
   b. The "NET" pointer shows that a tare weight is activated.
3. Place or remove the net load
   a. The indicator shows the net value of the weighed load
   b. When removing the load, this will a negative value

By pressing again the ▢ →0/T←↵ button the tare weight is removed. System will return to the standard weighing mode.

4.1.3. Manual tare entry

1. Press the ▢ ‹›PT ⌄ button to enter the manual tare entry screen
2. The following screen appears:
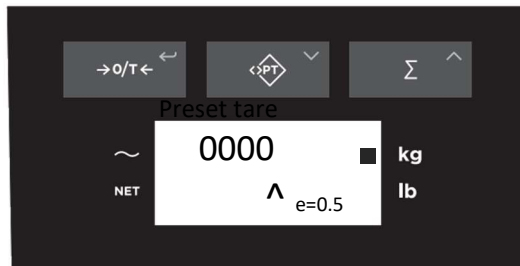
3. With the up / down button select the right value.
4. By one short press on the ▢ →0/T←↵ button the selected digit is moved to the left
5. By a long press on the ▢ →0/T←↵ button the entered value will be used as manual tare value.

6. System is now switched to 'NET' mode.

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4.1.4. Totalise

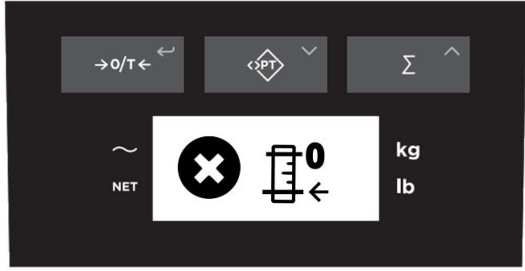|	
With a lifted load simply press the totalise button to start totalising.	The total weight and the amount of weighings is shown in the bottom-left corner of the screen.
In order to continue totalising the scale will have to be unloaded.	With a new load press the totalise button again to add the weight to the total.
The weight has been added to the total and the weighing counter has been increased. The total weight will follow the highest weighing graduation.	
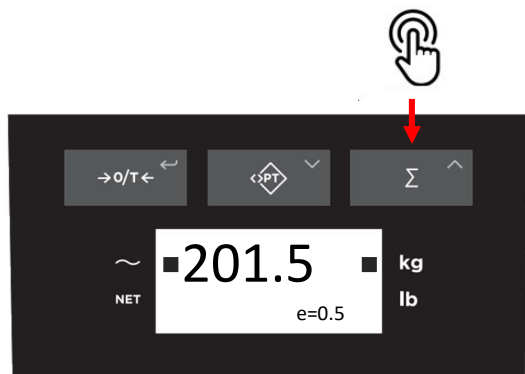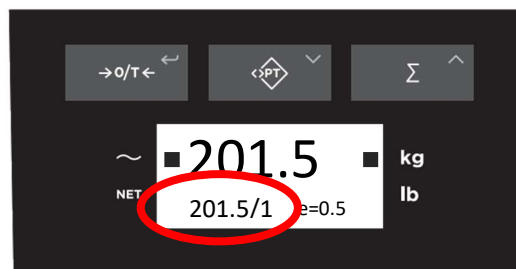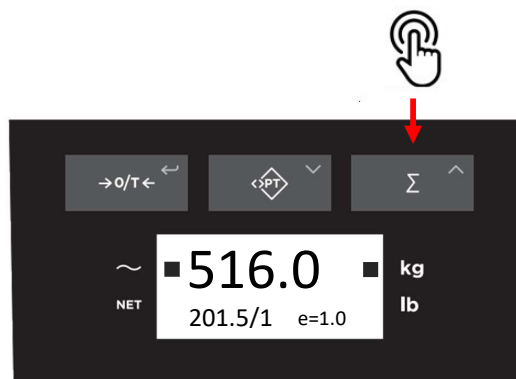
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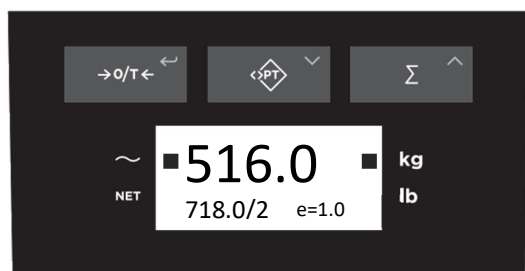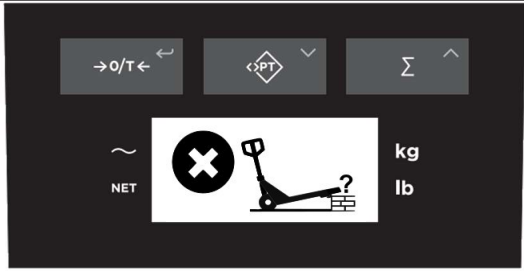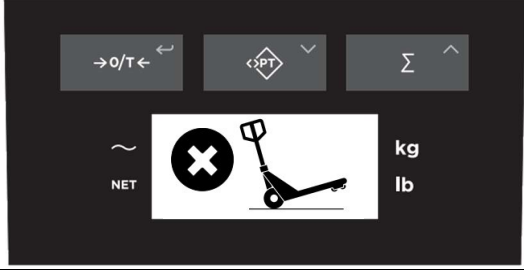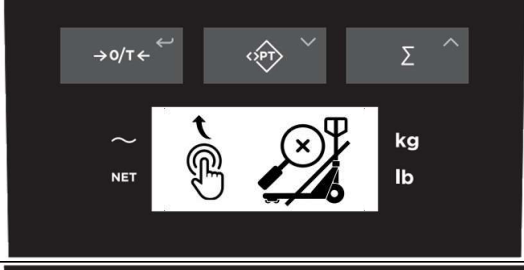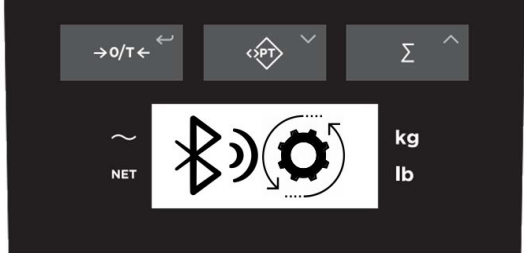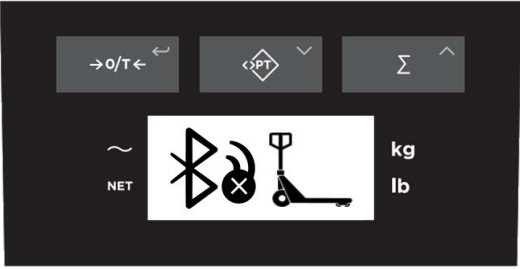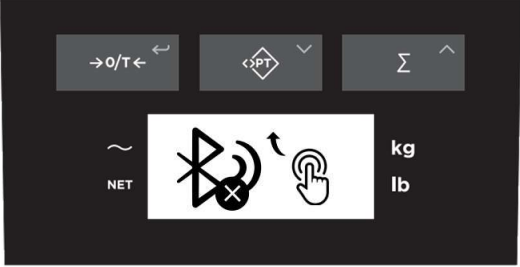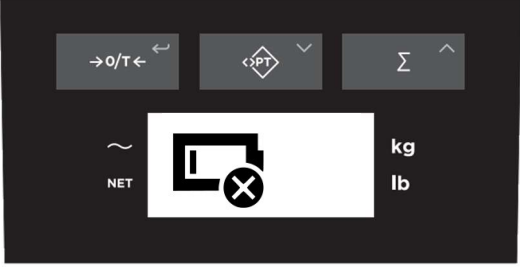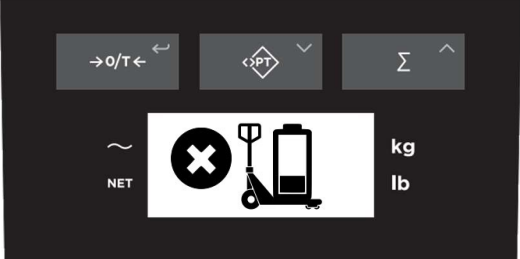
4.2. System messages

Many of the system's device, warning and error messages are shown by an image. For the most common messages the icons in chapter 4.2.1 will be shown.
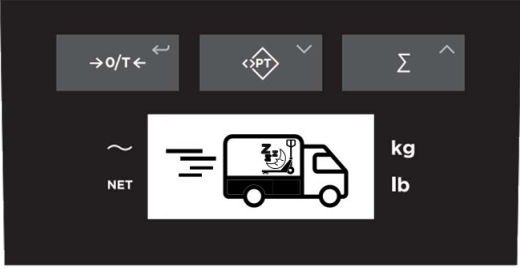
4.2.1. System icons

Display	Meaning	Required actions
	Weight underload	Add weight
	(Preset) tare value below zero	Add weight
	Weight not stable	Wait until the stable icon is on the screen
	Weight must be removed before totalizing	Remove the weight

Display	Meaning	Required actions
	Underload. This occurs when current weight is lower than -10kg.	Check if there is no object underneath the pallet truck.
	Truck angle exceeded	Return the pallet truck to a position where it is level
	Overload	Remove the weight
	Scanning for wireless devices	None
	No compatible devices found during discovery	Check if the RedBox is turned on and press any button on the display to search again. Make sure the battery is charged.
	Setting up wireless connection	None

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Display	Meaning	Required actions
	Wireless connection is lost	This screen is shown when system is going into sleep mode. You can wake the system by pressing one of the buttons.
	No wireless connection possible	Press any button to retry. When this fails, check if there is no charger plugged in or restart the indicator (see chapter 4.3.4).
	System in sleep mode, waiting for motion wakeup	Force wakeup by pressing any button
	System in transport mode	Press any button to wake up the system
	Display battery level critical, no operation possible	Replace the two AA batteries in the display
	Weighing module battery level critical	Charge the weighing unit battery. *See 3.2*

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4.3. Device settings

To enter the device settings press and hold the →0/T← and ◇PT buttons for 3 seconds.

4.3.1. Unpair / re-scan

The Unpair / re-scan option allows for the unpairing or re-pairing of the display to a RedBox. After selecting this option, a scan of nearby available devices will follow.

4.3.2. Service menu

This menu is used for setting up the scale and debug information. This menu is only available when connected to the Ravas RedBox. This menu is recommended for trained personnel only.

4.3.3. User settings

Invert BG color: Inverts the background color.
Enable transport mode: Enables a mode where the system will only wake up by pressing a button.
Change indicator symbol: Switches between a square or triangle as an indication on the main screen.
Change gravity: You can change the country of origin for the gravity settings (see chapter 3.1).
Back: Go back to the Settings menu.

4.3.4. Restart indicator

Restarts the display. Can be used in case of any non-specified errors.

4.3.5. Back

Exits the Device settings menu.

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