

4Single Battery




User manual

This manual must always accompany the product


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1. Symbols used in this manual

Warning Symbol Indication of potentially hazardous situation. If not avoided, it can result in serious injury or death.	
Caution Symbol Indication of potentially hazardous situation which may result in minor or moderate injury. It may also be used to alert against unsafe practices.	
Notice Symbol This symbol is used to notify correct use and handling of the product.	

2. General safety

	<p>This manual must be read and understood before use. Always keep this manual in close proximity of the product.</p> <p>The use, installation and service of this product must follow this manual to avoid accidents and serious personal injury.</p> <p>Never use or handle this product in other ways specified in this manual as it can result in personal safety hazards and/or cause damage to the product.</p> <p>Anyone installing and/or using this product either as operator or user should have the necessary safety information and access to this manual. If the supply cord is damaged, it must be replaced by the manufacturer, its service agent, or similarly qualified designated person to avoid a hazard.</p>
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Do not perform repairs, disassembly, or assembly operations, add-ons, re-adjustments, or modification of the product beyond what is described in this manual. These must be carried out by Ropox or Ropox authorized personnel. Do not perform service while in use.

This appliance can be used by children aged from 8 years and above and people with reduced physical, sensory, or mental capabilities, or lack of experience and knowledge if they have been given supervision, or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

Do not use the product if it has defects or has become damaged before being repaired or replaced.
If the control box makes unusual noise, or smells, switch off the mains voltage immediately.

Take care that the cables are not damaged.

Unplug the mains cable on mobile equipment before it is moved.

The products must only be used in an environment that corresponds to their IP protection. The products must not be used in explosion hazard environments.



The information in this manual is based on correct installation in accordance with installation instructions for this product.

Ropox cannot be held liable if the product is used in any way, that differs from stated in this manual and/or installation instruction.

Ropox reserve the right to amend this manual and reference documents without prior notice.

3. General requirements

3.1 Product information

Manufacturer	Ropox A/S Ringstedgade 221, DK-4700 Naestved +45 55 75 05 00 E-mail: Info@ropox.com		
Product models	Part number	Model	Stroke length
	50-47025	Rapid stroke	300 mm / 11.8 in
	50-47026	Heavy load	300 mm / 11.8 in
Maximum load	150kg / 330 lbs. evenly distributed Max. load includes weight of tabletop and other installations		
Heavy load	250kg / 550 lbs. evenly distributed (accessory)		
Operational capacity	30 - 40 lifts when fully charged		
Power supply	220-240V AC / 2A / 50-60Hz		
Battery	Output voltage – 25.2V DC; Output current – 8A Input voltage – 5V DC; Input current – 2.4A		
Charger	Qoltec – 5V DC / 2.4A / 12W (Included)		
Intermittence	Max. 10% = 2min active / 18min pause		
Stroke length	300 mm / 11.8 in		
IP-rating	Control box – IP20		
Usage temperature	+5 °C to +45 °C		
Humidity	5-85% (non-condensing)		
Materials	Steel and misc. plastic parts		
Surface treatment	Powder coating: st. CWS 81283 RAL 7021 mat		

3.2 Product description

4Single battery is an accessory to an electrically adjustable 4Single Frame. By using the battery accessory, the 4Single Frame is freed from bothersome cables.

3.3 Intended use

The purpose of the product is to allow the 4Single Frame to be electrically adjusted to a seated or standing user. This way, they're able to use the table comfortably as a worktop. 4Single has a stroke length of 300mm / 11.8in.

By changing from fixed cabling to a battery, the 4Single achieves greater flexibility and becomes even more transportable.

3.4 Intended population

Anyone who can find use in having a tabletop or workstation with an adjustable height.

3.5 Intended operator

Anyone who has read and understood this manual can use the product. However, children over the age of 8 may only use the product under the supervision of an adult.

3.6 Basic safety

A 4Single Frame can be bought with a safety-strip, which must be mounted on the fascias. This way, collisions, and the danger of entrapment is reduced. It is always recommended to buy a safety-strip.

The safety-strip ensures that any collision with people or objects along the fascias are registered. When the safety-strip registers something, it stops the table, and retracts by 1-2cm / 0.4-0.8in.

4. Charging the battery

Battery status can be checked by pressing the status-button. The LEDs will turn on, and the greater the charge, the greater the number of LEDs will turn on.

Battery status

Batter status button is pressed.
LEDs light up for 3 seconds.

- | | |
|-------------|----------------|
| ➤ 100 - 76% | 4 LEDs on |
| ➤ 75 - 51% | 3 LEDs on |
| ➤ 50 - 26% | 2 LEDs on |
| ➤ 25 - 11% | 1 LED on |
| ➤ 10 - 0% | 1 LED flashing |



If the buzzer on the battery sounds twice for 0.5 seconds, when the status-button is pressed, it means that the battery has less than 25% charge. At this point, it is recommended to recharge the battery. The battery should be charged about once every 14 days, depending on usage, with heavy loads and frequent use typically requiring more frequent charging.

A charger is included with the battery as standard, with the following properties:

- Micro-USB type B
- 5 V DC / 2.4A / 12W



Warning!

Charging during a thunderstorm, or other power surges, you risk serious injury or potentially death, due to electric shock.
Charging the battery with an incompatible charger can lead to serious injury or potentially death, due to the fire hazard of overheating.

4.1 Recharging procedure

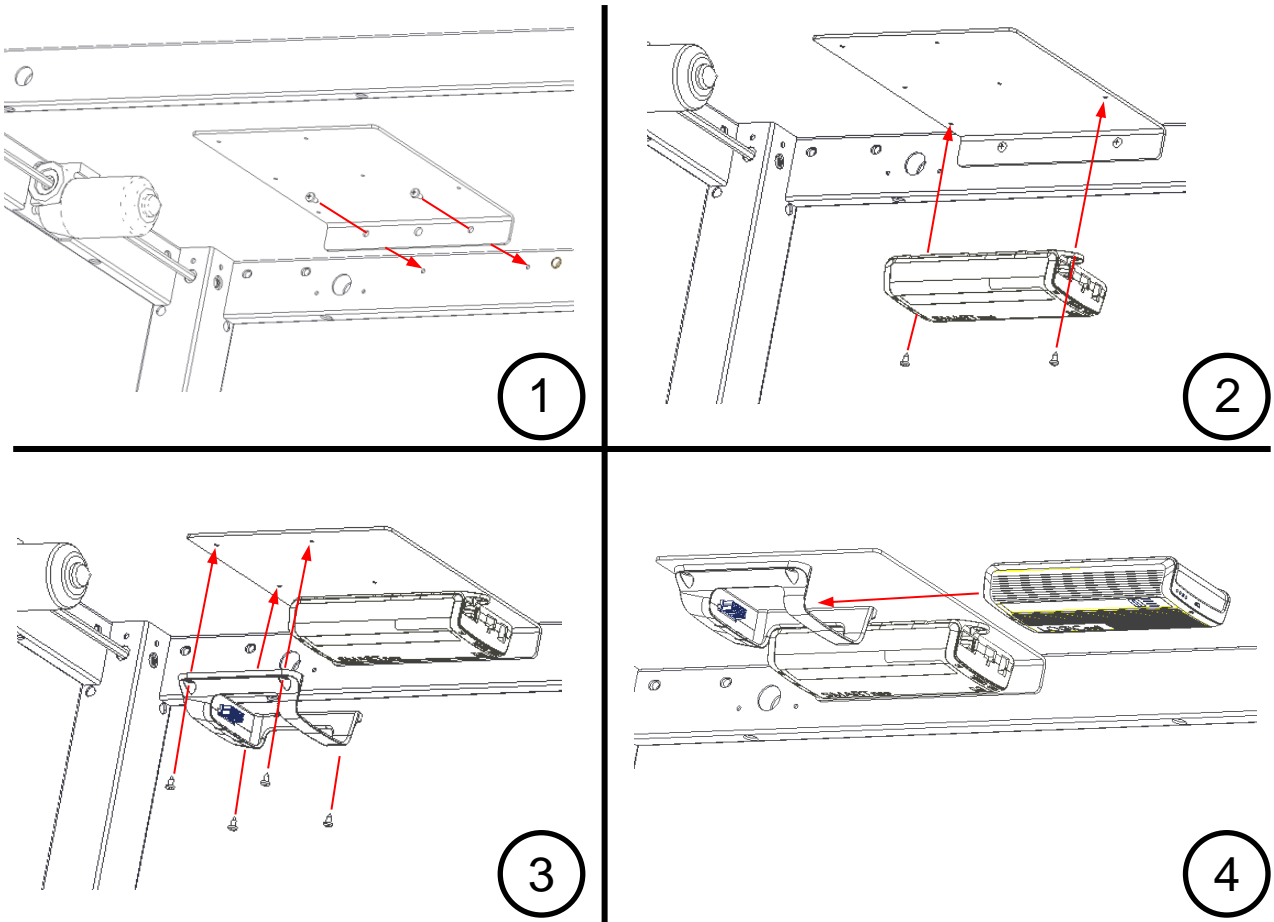
- a) Unplug the battery from the docking bay.
- b) Plug the charger into the battery. Check to see if the LEDs are on.
If the next LED starts to flash, the battery is recharging. If all the LEDs are on, but turn off after 3 seconds, the charger is incompatible.
- c) Wait 8-10 hours until all the 4 LEDs are on without flashing. The battery will sound the buzzer for 3 seconds when it is fully charged. If you have any doubts whether the battery is fully charged, and 4 LEDs are on, unplug the charger. The battery must not charge for more than 10 hours at a time.
- d) Unplug the charger.

4.2 Connection procedure

After the battery has been removed from the docking bay, it is important to follow the correct procedure for reconnecting the battery to the system, as otherwise, the system might not activate.

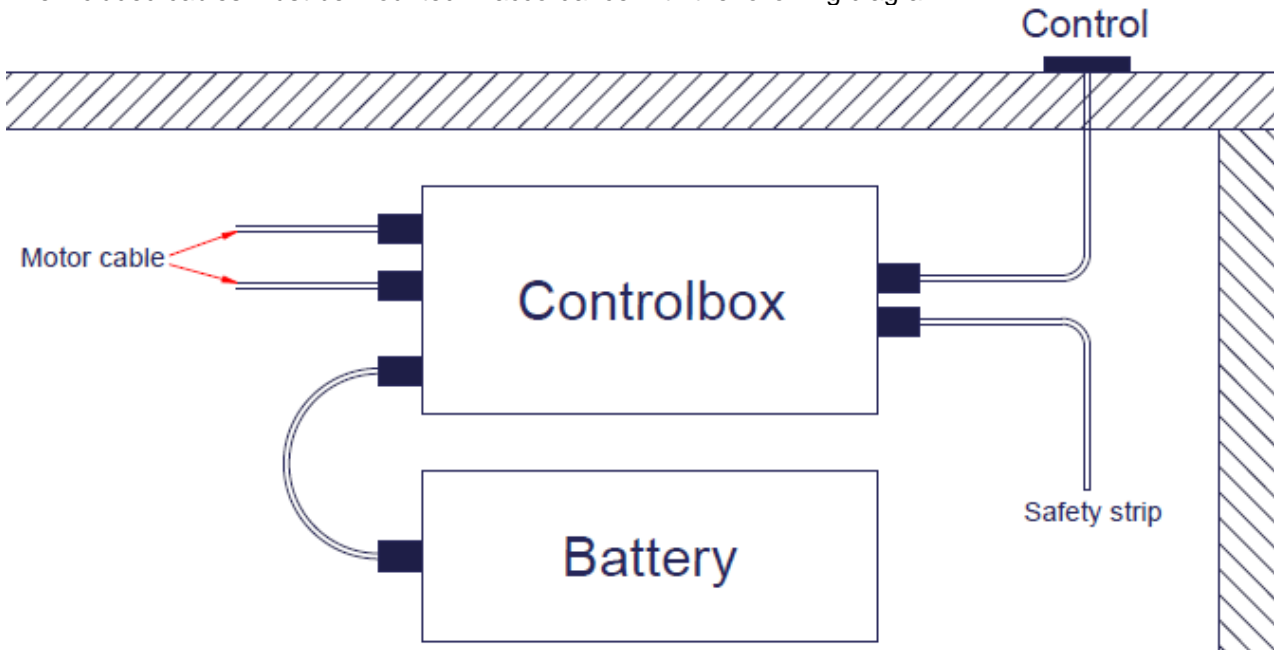
- a) Make sure that all the cables are connected, and that the safety-strip hasn't been activated.
- b) Plug the battery into the docking bay.
- c) Press the battery status button to activate the battery, and thereby the system.

5. Mounting instructions



5.1 Electrical component diagram

The included cables must be mounted in accordance with the following diagram.

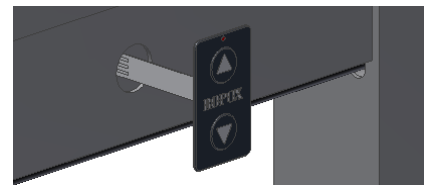


Notice!

Remember to activate the battery after mounting it in the docking bay, by pressing the battery status button.

5.2 Mounting the control

- Pull cable through hole in fascia and connect the control, via the control cable, to the control box
- Carefully remove the protection paper, on the back of the press pad, while keeping your finger between the cable-ribbon and the adhesive, as these mustn't stick to each other
- Place the press pad on the fascia



Notice!

If the cable-ribbon sticks to the adhesive, the control may be destroyed.

5.3 Testing

After mounting the battery on the 4Single Frame, and before putting it into use, the frame must be tested to ensure that it functions properly, and that the safety is upheld.

Afterwards, it is recommended to test the function of the 4Single Frame at least once a year, by qualified personnel.

5.3.1 Before testing the frame

- a) Ensure the battery has been mounted according to the mounting instructions
- b) Check that all bolt connections are fastened tightly
- c) Check that all the cables are mounted correctly, and the plugs are pushed in fully
- d) Remove any objects from on top of the tabletop, so that there is no load on the frame
- e) Make sure that the table can drive unhindered upwards and downwards, without the table hitting any objects

5.3.2 Testing the frame

- a) Press the DOWN button on the control, until the table is in its bottom position. Let go of the button and press DOWN again for 5 seconds. The legs should move below the bottom position. This resets the control box. Check if the movement is even and controlled.
- b) Press the UP button on the control, until the table is in its top position. Check if the movement is even and controlled.

5.3.3 Testing the safety-strip

- a) If a safety-strip has been mounted under the fascias, press the DOWN button on the control, let the table drive 2-5cm / 0.8-2in, then press the safety-strip. The table should retract 1-2cm / 0.4-0.8in, then stop completely.

If all the items have been checked, and the table functions properly, it can be put into use.


6. Troubleshooting

The frame cannot be height adjusted	<ul style="list-style-type: none"> ➤ Check the battery status. If the battery status drops below 25%, and the table is driven, the buzzer will sound twice for 0.5 seconds. It is recommended to recharge the battery. ➤ Check the battery status. If the battery status drops below 10%, and the table is driven, the buzzer will sound continuously for 0.5 seconds. It is recommended to recharge the battery. ➤ Make sure the cables are connected correctly between the control box and the motors ➤ Make sure the cables are connected correctly between the control box and the control ➤ If a safety-strip is mounted, make sure it is not activated
Battery doesn't work	<ul style="list-style-type: none"> ➤ Check the battery status. If the battery status button is pressed, and none of the LEDs turn on, the battery must be fully charged. If the battery still doesn't work after a full charge, it must be replaced. ➤ If the battery shows more than 1 active LED, either flashing or static, during recharging, the battery is usable. Plug the battery into the docking bay and remember to activate the battery by pressing the battery status button.
Charging the battery doesn't work	<ul style="list-style-type: none"> ➤ Remember to unplug the battery from the docking bay before recharging ➤ If the battery is plugged into an incompatible charger, the LEDs will turn on for 3 seconds, then turn off. Find an alternate charger, see 4. ➤ If the buzzer sounds continuously for 2 seconds at a time, the battery is overheating. Unplug the charger and wait a couple of hours. Remember, the battery may only charge 10 hours at a time. If the buzzer keeps playing this sound, the battery or the charger may be faulty. Try another charger. ➤ The battery may be damaged. Plug the charger into the battery. If the buzzer sounds 5 times for 0.5 seconds, the battery needs to be fully charged, before it can be used again.
The frame is lopsided	<ul style="list-style-type: none"> ➤ The frame must be reset, see 8.1

7. Cleaning

The frame can be cleaned with lukewarm water and a suitable all-purpose cleaning agent. Use a cloth or soft sponge to wash the product. Dry the product off with a wrung cloth.

Electrical components, including the battery, may only be wiped down with a dry cloth and must always be disconnected from the mains power before cleaning of the frame can commence.

	<p>Notice!</p> <p>Do not use cleaning agents containing abrasives e.g. scouring powder, steel wool, scouring sponge.</p> <p>This product is not designed to be sterilized. Autoclaving and sterilization beyond normal cleaning may possibly change the product safety and function.</p>
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8. Maintenance

8.1 Periodic maintenance of the frame

It is recommended to test the function of the frame at least once a year, for operational and safety reasons. See 5.3.

Likewise, once a year, it's recommended to do a check-up of the frame by doing the following:

- Check that all bolt connections are fastened tightly
- Check that the table can move unhindered from bottom to top position. Check if the movement is even and controlled.
- Check that all the cables are mounted correctly and hasn't suffered any damage.
- Reset the frame – Press the DOWN button on the control, until the table is in its bottom position. Let go of the button and press DOWN again for 5 seconds. The legs should move below the bottom position. This resets the control box.

8.2 Periodic maintenance of the battery


The battery isn't maintenance-free and will discharge itself over time. For this reason, it is recommended to recharge the battery regularly, approximately once every 14 days.

Likewise, the battery should be kept at above 25% charge, as the buzzer will go off otherwise during the driving of the table.

In addition, the battery should be maintained at least once every 4 months, doing the following:

- Clean/wipe off dust from the battery
- Check the battery for cracks or other mechanical damage
- Discharge the battery fully, then recharge it to full charge. This extends the lifetime of the battery

9. Component part list

	Notice! Ropox will make part lists available for extraordinary maintenance and repair beyond what is described in this manual. Repair beyond what is described in this manual may only be done by Ropox designated service personnel.
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Parts included



1x Control box SMARTneo-Pro
96000545



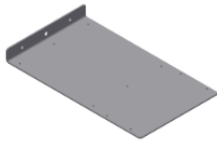
1x Battery
96000546



1x Docking bay
96000543



1x Charger
96000820



1x Mount for control box and battery
97701-850



6x Screw \varnothing 4,8x13
95091012



1x Control – 6x3cm
30-67840



2x Adapter cable
96000557

9.1 Accessories, component part list



1x Connection – Safety-strip and Battery
50-47027

10. Environmental protection

The equipment must be disposed of in accordance with national legislation. It's recommended to dismantle the product as much as possible before disposal. Never attempt to dismantle the battery.

10.1 Packaging, transport, and storage

The battery must be packaged and transported according to the current regulations for lithium-ion batteries. These are also applicable when the product is re-packaged in case of a return delivery.

10.1.1 Packaging

The packaging must be labelled with a UN3480 lithium-ion battery label as shown. If packaged with other components, the LOGICcell must remain in its primary packaging. In this scenario, the battery label must be placed on the external packaging.



10.1.2 Transport

Regulations for transporting lithium-ion batteries are set for road transport (ADR), air transport (IATA) and sea transport (IMDG). The Battery Pack must be handled with care to minimize the risk of malfunction, damage, and injuries. IATA rules, as of April 2016, that lithium batteries may only be charged to a max. 30% if they are to be transported by air (passenger and freight aircraft).

10.1.3 Storage

It is important that batteries meant for long duration storage regularly are charged, with the time between charging varying between different storage conditions. Batteries that arrive by air must be charged prior to storage. In ideal storage conditions, the batteries must be recharged once every 4 months. Depending on temperature, the time between charging may be more frequent.

Temperature	Maximum time between charging
0 °C to +25 °C	4 months
+26 °C to +50 °C	3 months
+51 °C to +60 °C	< 1 month

