

**TOPRO**

**TAURUS E Basic & Premium**

**TOPRO**



NO Bruksanvisning 3–10  
EN User manual 11–18  
DE Bedienungsanleitung 19–27

  
Made in Norway

CE

[www.topromobility.com](http://www.topromobility.com)

**A** 814026



**B** 814647



**C** 814810



**D** 814645



**E** 814646



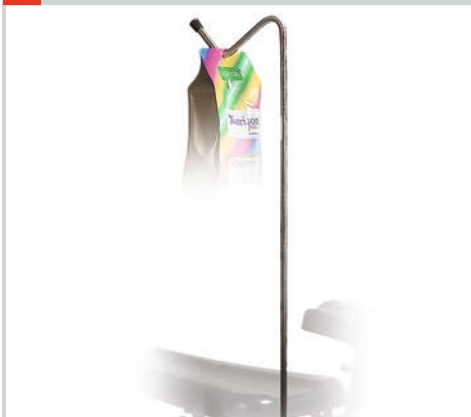
**F** 814085



**G** 814821



**H** 814793



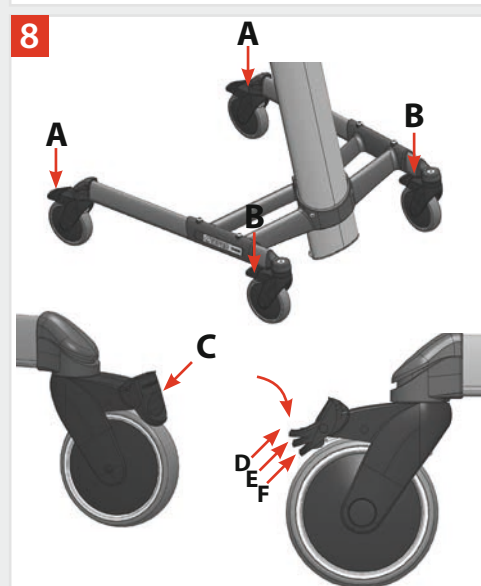
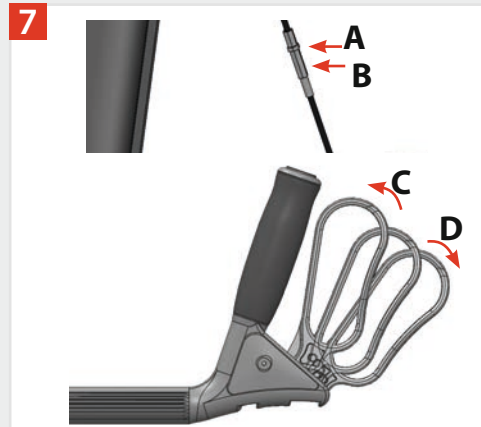
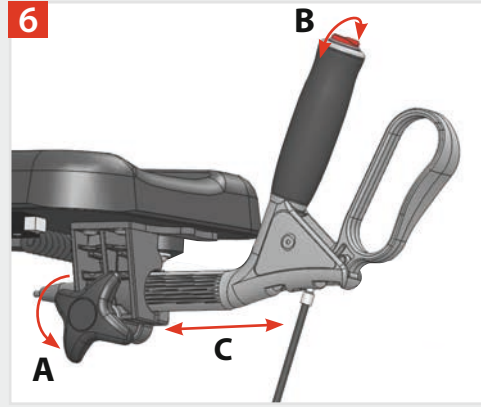
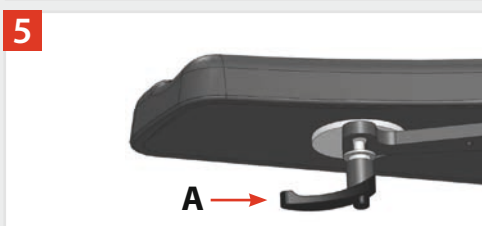
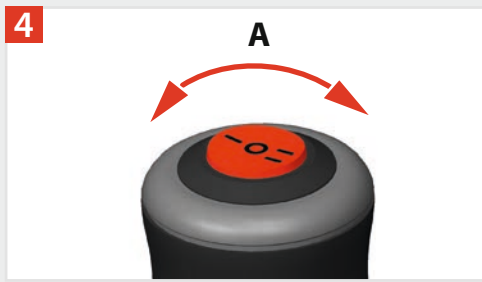
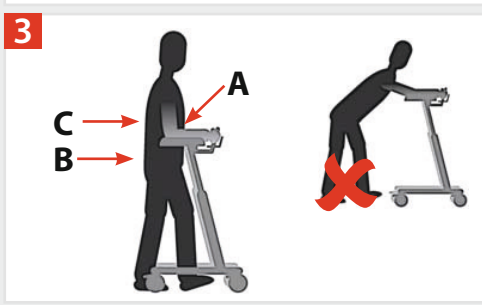
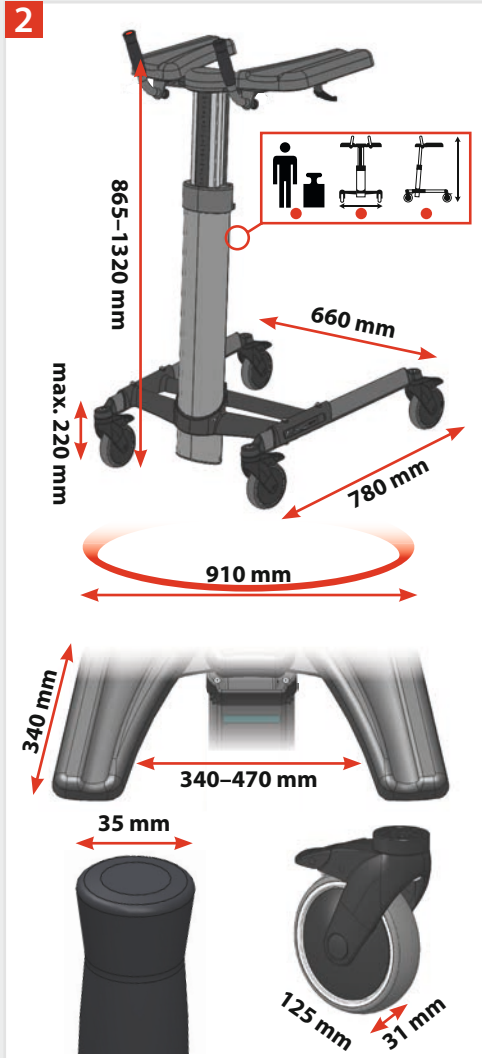
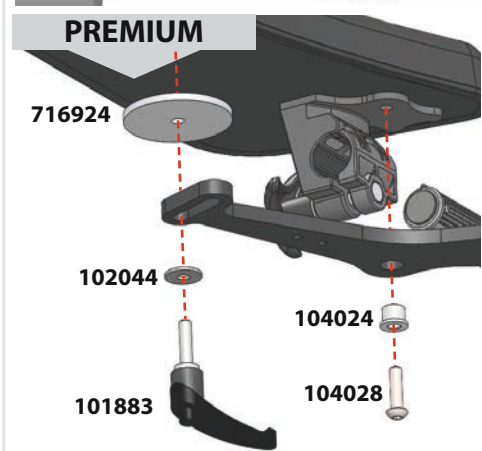
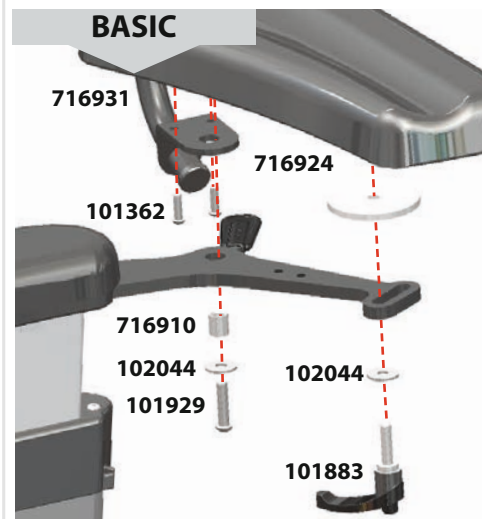
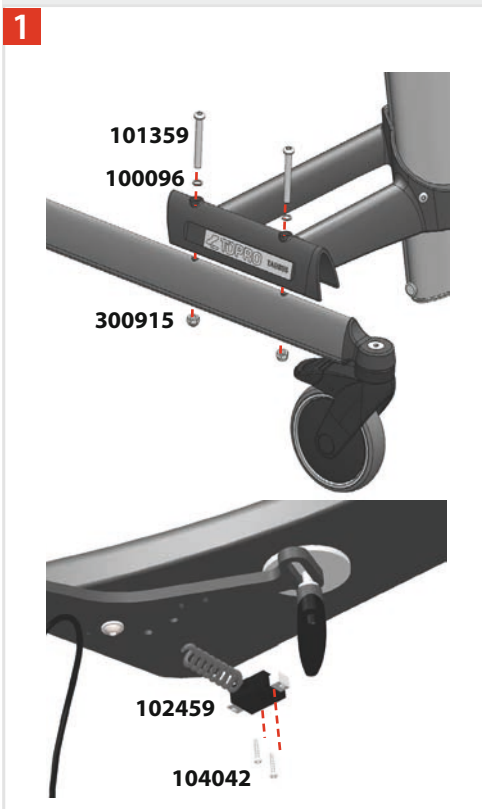
**I** 814034



**J** 814820



**BASIC** 814790  
**PREMIUM** 814789





















**Important**

This user manual contains important safety instructions and information regarding the use of the product and its accessories. In this manual, the user/patient is the person being supported. The assistant is the person operating the lift support.

	<p><b>Caution! This symbol indicates important information related to safety. Follow these instructions carefully.</b></p>		<p><b>Consult user manual before use! It is important to fully understand the content of the user manual before attempting to use the equipment.</b></p>
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**Product identification**

1. Product label (102256 – TOPRO Taurus E Basic, 102258 – TOPRO Taurus E Premium)
2. Product identifier label (103122-1)












<div style="border: 1px solid black; padding: 5px;"> <p><b>TOPRO</b> TOPRO Taurus E Basic Model no. 814790</p> <p>Gross Weight: 22 kg SWL: 150 kg 24V DC IP22 Duty cycle: 10% Max. T_on: 2 min, Min. T_off: 18 min</p> <div style="display: flex; justify-content: space-around;">    </div> <p>Max. 150 kg    Max 1320 mm    Max 660 mm</p> <p>TOPRO Industri A/S    www.topro.no Rambekkn.1, NO-2816 Gjøvik, Norway</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around;">   </div> <p>IP22</p>  </div>	<div style="border: 1px solid black; padding: 5px;"> <p><b>TOPRO</b> TOPRO Taurus E Premium Model no. 814789</p> <p>Gross Weight: 22 kg SWL: 150 kg 24V DC IP22 Duty cycle: 10% Max. T_on: 2 min, Min. T_off: 18 min</p> <div style="display: flex; justify-content: space-around;">    </div> <p>Max. 150 kg    Max 1320 mm    Max 660 mm</p> <p>TOPRO Industri A/S    www.topro.no Rambekkn.1, NO-2816 Gjøvik, Norway</p> <div style="display: flex; justify-content: space-around;">   </div> <div style="display: flex; justify-content: space-around;">   </div> <p>IP22</p>  </div>	<div style="border: 1px solid black; padding: 5px;"> <p style="text-align: right;"></p> <p>YYYY-MM-DD TOPRO Taurus E Premium</p> <p><b>SN</b> xxxxxxxxxxxx</p> <p><b>GTIN</b> xxxxxxxxxxxx</p>  </div>
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1. Product label

2. Product identifier label

**Warning labels and symbols**

Symbols used on the product, explained in more detail:

Symbol	Description
	CE marking
	Non-ionizing electromagnetic radiation. Equipment includes RF transmitters. Interference may occur in the vicinity of equipment marked with this symbol.
	Class II ME Equipment, double insulated
	Indoor use only
	Do not dispose in general waste
	Operating instructions
	Manufacturer
	Serial number
	Date of manufacture YYYY-MM (year/month)
	Consult operating manual before use
	Caution

## Welcome as a user of a TOPRO PRODUCT

Every TOPRO product is developed, designed and made in Norway. Advanced manufacturing equipment, quality and environmental security give great accuracy and maximum quality in all levels of production.

The product is declared to be in conformity with the Medical Device Directive 93/42/EEC. It is tested and approved according to EN ISO 11199-3:2005, IEC 60601-1: 2005 + A1:2012, IEC 60601-1-6:2010 + A1:2013, IEC 62366: 2007 + A1:2014, 60601-1-11:2015, IEC 60601-1-2:2014.

On receipt of the goods, please check your product. If you have any queries, please contact your place of purchase immediately. The same applies if you have general questions about the product. If you have problems reading this user manual, an electronic version is available on [www.topromobility.com](http://www.topromobility.com).

## Warranty // Expected life span of the product

TOPRO TAURUS is guaranteed free for faults and defects for 2 years. Damage caused by incorrect use or parts that are exposed to natural wear and tear (such as e.g. battery, brakes, wheels and handles) are exempt from the 2-year warranty. For repairs in the warranty period, please refer to your local mobility shop or dealer. The warranty is void if unauthorised spare parts and accessories have been or are being used on the product.

The expected life span of the product is estimated to be 10 years, provided that it is used in the correct manner according to this user manual and its safety and maintenance instructions.

**The red numbered squares below refer to the numbered illustrations on the inside of the cover.**

## Assembling and adjusting FIG. 1

TOPRO TAURUS E Basic and TOPRO TAURUS E Premium need some assembling, see illustration 1. Adjust the forearm supports and handles, see figure 5 and 6. The battery must be charged, see figure 10.

## Measurements FIG. 2

**A** The label on the rear side of the column shows the product name/model and

- Maximum weight of user
- Maximum width of walker
- Maximum height of walker

A separate label on the column indicates the serial number (SN) and production year and month.

### Measurements and weights

Maximum weight of user	150 kg
Recommended user height	140-210 cm
Height of forearm supports	865-1360 mm
Width between forearm supports	340-470 mm
Length forearm supports	340 mm
Maximum product length	780 mm
Maximum product width	660 mm
Diameter turning circle	910 mm
Diameter wheels	125 mm
Width wheels	31 mm
Diameter handles	35 mm
Grip distance brake levers	74 mm
Product weight	22 kg

### Material and other specifications

Frame	Aluminium
Push handles	PA6 and TPE
Brake handles	PA6
Forearm supports	PU-foam
IP degree and definition	IP22 Solid particle protection: >12.5 mm (Fingers or similar objects.) Liquid ingress protection: Vertically dripping water shall have no harmful effect when the enclosure is tilted at an angle of 15° from its normal position.
IP degree and definition for Battery Charger	IP4X Solid particle protection: >1 mm Most wires, slender screws, large ants etc. Liquid ingress protection: X = no protection.

**For technical details on the electrical components, see the last section of the user manual**

## TOPRO TAURUS E is delivered with two levels of equipment

**Basic (814790)** Adjustable arm pads and brakes on all wheels.

**Premium (814789)** In addition to adjustable arm pads and brakes on all wheels it has adjustable handles and driving and parking brake on the handles. The rear wheels have a lock for swing (directional block). TOPRO TAURUS E Premium will require assembling.

### Intention

The TOPRO TAURUS is a walker, which shall give support to users with reduced balance and/or reduced walking ability. The model TOPRO TAURUS E Premium might also serve as raising support. The intended user is an adult. The walker is developed for pushing, not pulling.

The main user of the product is the patient him-/herself; however, the walker can also be operated by an assistant. The walker is not suitable for persons with low strength in arms and legs, with very poor balance, or with considerable cognitive disabilities. The product is designed and approved for indoor use on plain foundation. We advise caution when using the TOPRO Taurus in private homes with narrow doorways, as the maximum width of the walker is 660 mm.



### Important to know about safety and use FIG. 3

- The walker must be adjusted to the recommended height for right support and safe walking: Stand with relaxed shoulders and have your elbow at a 90 degree angle **A**). Hold the walker as close to your body to maintain the correct support and a safe walk **B**). The easiest way to keep your balance is to walk straight, look forward and hold your backside in **C**).
- Do not push the walker too far from your body as this can cause unnecessary strain and you could fall.
- Do not push the walker forward if the front wheels have stopped at an obstacle. The walker may tilt and cause an accident.
- Do not use the walker on stairs. Be careful when descending thresholds etc.
- Maximum user weight is 150 kg. Maximum user height is 210 cm.
- Do not let children play with the walker.
- Some parts of the walker might feel very hot or cold when exposed to extreme temperatures.
- Do not put your fingers or any loose objects in the gap between the brake lever and the handle so that you do not hurt your fingers.
- Be aware: TOPRO TAURUS E must not be used in a damp environment.
- Do not alter the product as this might put your safety at risk and the guarantee will not be valid.

### Height adjustment (electric) FIG. 4

Press the button **A** on top of the handle to the left or to the right to regulate the height. The markings on the button refers to its three positions where:



### Adjusting the forearm supports FIG. 5

The forearm supports are adjusted individually. Unscrew the lock underneath the forearm support **A** until the cushion is moveable. Place at the required position and tighten the screw. NB: If the lever sticks out, it can be dangerous. Pull it down and rotate it away to be hidden.

### Handle adjustment (TOPRO TAURUS E Premium) FIG. 6

Unscrew the locking wheel **A** until you can move the handle **B** forward and backward. Adjust the handle to the required angle. After adjusting the handle to the desired position, the locking knob must be tightened again.

**NB.** Be careful when unscrewing/tightening the lock wheel so that you do not hurt you fingers.

### Hand brakes (TOPRO TAURUS E Premium) FIG. 7

#### Adjusting/controlling the brakes:

Unscrew the nut **A**. Tighten / loosen the brake wire with the adjusting screw **B**. Ensure that the brakes are working properly and only touching the wheels when in use. Adjust the brakes evenly on both sides.


**Important information:**

Ensure that the brakes work properly before each trip. Inspect the brakes frequently by following the information above. The walker wheels are made of a soft rubber, which gives an optimal braking capacity on slippery floor. Wrong use can cause unsafe situations and damage to the walker: The walker must not be driven or pushed with force when the parking brakes are on or when the wheels are partly locked using the brakes. This indicates incorrect use and can cause wear and tear, which makes the tires and brake quality weaker.

**Using the parking brakes:**

Push the brake levers forwards **D**) to activate the parking brakes. Be aware that the lever has some resistance before it stops and locks the rear wheel. Pull the brake levers back to release the parking brakes

**Using the driving brakes:**

Pull the brake levers towards you **C**) to reduce speed. It is a two-handed braking system, which means that you will brake the rear wheel that is located on the same side as the brake lever. If you apply only one of the brakes, the walker will turn to that side. When the lever is released, the braking will stop. Do not use the brakes continuously while the walker is in motion.

**Using the foot brakes // Using the directional block (Premium models) FIG. 8**
**TOPRO Taurus E Basic – all wheels / TOPRO Taurus E Premium – front wheels:**

Step on the foot brakes on the rear wheels **A**) or when required also on the front wheels **B**) until you hear a clicking sound. The wheels are now in a locked position **C**). To release the wheels, step on the top of the foot brake pedal for it to rise again.

**TOPRO TAURUS E Premium – rear wheels:**

Step on the foot brakes on the rear wheels **A**) once until you hear a clicking sound. The wheels are now in a directional blocked position **E**). Step on the foot brakes one more time until you hear a second click. The wheels are now locked **F**). To release the wheels, step on the top of the foot brake pedal for it to rise again **D**).

**Charging the battery FIG. 9**

It is important to charge the battery on a regular basis to prolong the battery life. We recommend charging the battery every 24 hours. Regular charging will improve the performance of the battery. Please note: If the walker is not used over a long period of time, then the battery should be taken out and placed in the charger otherwise it will lose power and efficiency. It takes approximately 2 hours to fully charge the battery. *Do not charge batteries at too high or too low temperatures.*

**Charging:** Connect the charger to the power grid without the battery. The LED (light emitting diode) will be yellow before the fast charge starts. To remove the battery, hold the battery, turn it 45 degrees and lift it out of the control box of the walker **A**). Please check that the contact surfaces are clean. Put the battery in the battery charger; check that one of the arrows on the battery **B**) points towards the white and blue mark/eye **C**). The LED (light emitting diode) will be yellow before the fast charge starts and the LED changes to orange. When the battery is fully charged and the voltage drops because of the -dV signal from the battery, the charger will go into a top-off charge mode before it goes over to trickle charge mode. During top-off charge, the LED will be green with a short intermittent yellow light. When the top-off charge is completed, the charger will go into trickle charge mode and the LED will be green. The charge current is now reduced to a safe level, which allows the charger to stay connected to the battery without damaging the battery. However, we recommend that you finish the trickle charge as quickly as possible and at least within 24 hours. If a new battery is to be connected; the charger must idle for approx. 15 sec. to make sure all parameters in the microprocessor have been reset. When the charger has been reset the LED changes to yellow, and a new charge cycle can begin. To mount the battery on the walker again put the battery back in the control box on the column. Check that one arrow points towards the white and blue mark/eye and the other arrow points straight back **D**).

## Charge cycle and LED indications

LED	MODE
YELLOW	Battery not connected
YELLOW	Battery initialization and analysis
ORANGE	Fast charge
GREEN with intermittent YELLOW flash	Top.Off Charge
GREEN	Trickle Charge
Alternating ORANGE-GREEN	ERROR



**Be aware: When the battery level is very low, it might only be possible to adjust the height of the walker down, not up. The battery has to be reset if this occurs. Take the battery out of the control box and press the red height adjustment button on the handle (see illustration 4) until you hear a beep.**

### Different beep signals:

**Short "beep...beep"** from the control box every 24th second = low battery level. Charge the battery.

**Long "beeeeeep"** when the battery is put in the control box = good connection

**Short "beep...beep"** when the walker is being raised and lowered = low voltage. The battery should be replaced. If recharged, the battery will still give power but only for a limited time.

**Long "beeeeeep"** when the Taurus is being raised and lowered = battery voltage lower than 17.6 V. It will only be possible to lower it, not raise it.

**Short "beep...beep...beep...beep"** means too high temperature inside the control box. Stop using until the control box has cooled down.

## Transport

The walker can be transported either in vertical or horizontal position. The walker should be set in the lowest height position, to save space and ease the handling. Ensure that the foot brakes are on. Be careful when loading the walker into a vehicle, giving attention to securing of the item.

## Storage

The walker should be stored indoors and in an upright position.

The maximum storage temperature is 50 °C. The walker must cool down for one hour at 25 °C before use.

The minimum storage temperature is –20 °C. The walker must warm up three hours at 25 °C before use.

## Material // Recycling

The walker is made of plastic coated aluminium pipe, plastic couplings and material of plastic and polyester. The forearm cushions are of polyurethane. Most parts can be recycled. Dispose the walker according to the applicable regulations in your country. For information, please contact your public authorities.

The battery contains NiMH (nickel). Do not dispose the battery in ordinary household waste, some communities offer recycling or collection of batteries.

## Allergic Reactions

No known allergic reactions.

## Cleaning

The walker can be cleaned with mild household detergents. Running liquids should be avoided. Do not use scrub detergents, steam- or high-pressure cleaners. The walker cannot be hosed because of the electric motor.

In case of multiple patients using the walker, it is necessary to clean and disinfect the walker and its accessories before use by another patient. Remove the battery from the walker before the disinfection/cleaning process begins.

Allow the walker to dry in room temperature before use. Do not store below 0°C before walker is completely dry.

Cleaning is done manually in use areas without mechanical units (e.g., ultrasonic cleaners or washer-disinfectors).

*No further use of products in the case of water penetration.*

## Disinfection

Disinfection by wiping generally accessible surfaces with disinfectant. Disinfection must only be carried out by authorized personnel and by wearing sufficient protective equipment. The surface must be cleaned with a disinfectant that contains 70–80 % ethanol. We advise against disinfection containing chlorine and phenol. Running liquids should be avoided. The battery of the walker must be removed before the disinfection process takes place. Before use, allow the Walker to air-dry in room temperature until there is no more superficial moisture on the product. *The manufacturer cannot be held responsible for any damage or wounds that might occur by the use of harmful disinfection or disinfection carried out by unauthorized personnel.*



### Inspection // Maintenance // Re-use

*Do not service and maintain this Medical Electrical Equipment while in use!*

The wheel bearings are sealed and maintenance-free. The other parts do not need to be lubricated. It is recommended that general inspection and maintenance is carried out and that the items below are checked on a regular basis, and at least once a year (how frequent is determined by how and how often the walker is used): Tubes, frame and screws, cables, handles and forearm supports, brakes, wheels and accessories. This also applies when the walker is to be prepared for re-use. Please see detailed instructions in this user manual about maintenance of the brakes and cleaning and disinfection of the walker.

## If the product does not work properly

**1** = Possible reason

**2** = Action

### Brakes

- |                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><b>1</b> Worn out / defect wheel</li> <li><b>1</b> Not braking effectively</li> <li><b>1</b> Worn out / defect brake mechanism on wheel</li> <li><b>1</b> Worn out / defect brake handle</li> <li><b>1</b> Worn out / damaged brake wire</li> </ul> | <ul style="list-style-type: none"> <li><b>2</b> Change the complete wheel</li> <li><b>2</b> Adjust the brake wire</li> <li><b>2</b> Change the entire back wheel section</li> <li><b>2</b> Change the complete brake handle</li> <li><b>2</b> Change the brake wire</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### Height adjustment

- |                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><b>1</b> Battery is flat/does not work</li> <li><b>1</b> The height adjustment does not work<br/>It only goes down, not up</li> <li><b>1</b> The battery is not correctly mounted</li> <li><b>1</b> Loose cable contact</li> <li><b>1</b> Damage on the cable</li> <li><b>1</b> Defect switch</li> <li><b>1</b> Defect height adjusting panel (accessory)</li> </ul> | <ul style="list-style-type: none"> <li><b>2</b> Charge or change the battery.<br/>See point 9; charging the battery</li> <li><b>2</b> See point 9; charging the battery</li> <li><b>2</b> Check that the battery is clean and correctly mounted</li> <li><b>2</b> Check that all contacts are properly in place and tightly fitted</li> <li><b>2</b> Check all cables and replace any damaged one(s)</li> <li><b>2</b> Change the switch</li> <li><b>2</b> Change the height adjusting panel</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**In the event that all of the above has been checked and the product is still not operating correctly, then the cause may be damage to the control box or actuator. Please contact your supplier.**

## Accessories

For pictures and TOPRO article numbers please see the inside of the cover. Accessories mounted on the walker may influence stability, we therefore advise you to use them carefully.

- |                                                                                                                                                                                                                        |                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li><b>A</b> One handed brake</li> <li><b>B</b> Forearm side support (pair)</li> <li><b>C</b> Tray</li> <li><b>D</b> Footplate</li> <li><b>E</b> Height adjustment panel</li> </ul> | <ul style="list-style-type: none"> <li><b>F</b> Wall mount for battery charger</li> <li><b>G</b> Small basket</li> <li><b>H</b> Infusion stand</li> <li><b>I</b> Stand for body fluid-boxes</li> <li><b>J</b> Holder for oxygen</li> </ul> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The accessories are to be ordered separately to give the possibility to compose a TOPRO TAURUS that suits the individual users need. Contact your mobility shop, dealer or TOPRO for an updated overview of the accessories, or visit our homepage [www.topromobility.com](http://www.topromobility.com).

**In case of questions or product faults, please contact your mobility shop or dealer.**

## Technical details electrical components

Controller box: C3con1-x, manufacturer Concens AS, Denmark  
 Actuator: Con 5, manufacturer Concens AS, Denmark  
 Battery: C3 NiMH 24V – 1400 mAh, manufacturer Concens AS, DK  
 Battery charger: C3-CHG-05-XX-00, consists of Mascot NiCd/NiMH charger, type 2215 with IP4X, manufactured by Mascot Electronics AS and Battery Case type C4-947-01-0000-00-00, manufactured by Concens AS. The Overall IP for the charger system (C3-CHG-05-XX-00) is IP4X. The C4-947-01-0000-00-00 battery case can be only used with type 2215 Mascot NiCd/NiMH charger.  
 Duty Cycle: 10% maximum activation (on) time 2 minutes and the minimum deactivation (off) time 18 minutes.  
 Input voltage: 100–240VAC

Input frequency: 50–60Hz  
 No load Output voltage: 41.0V  
 Maximum Output current: 900mA  
 Maximum Power rating: 66VA  
 Mean Power rating: 20VA  
 Working ambient temperature for actuator: –5 °C to +40 °C  
 Working ambient temperature for controller and battery charger: +5 °C to +40 °C  
 Humidity: 15–70 %  
 Transport and storing ambient temperature for actuator, controller and battery charger: –20 °C to +50 °C  
 Humidity: 20–80 %

### Guidance and manufacturer's declaration

#### Electromagnetic EMISSIONS for all ME EQUIPMENT and ME SYSTEMS

The TOPRO TAURUS walking aid is intended for use in the electromagnetic environment specified below. The customer or the user of the TOPRO TAURUS walking aid should assure that it is used in such an environment.		
Emissions test	Compliance	Electromagnetic environment – guidance
RF emissions CISPR 11	Group 1	The TOPRO TAURUS walking aid uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF emissions CISPR 11	Class B	The TOPRO TAURUS walking aid is suitable for use in all establishments, including domestic establishments and those directly connected to the public low voltage power supply network that supplies buildings used for domestic purposes.
Harmonic emissions IEC 61000-3-2	Complies	
Voltage fluctuations/ flicker emissions IEC 61000-3-3	Complies	

### Guidance and manufacturer's declaration

#### Electromagnetic IMMUNITY for all ME EQUIPMENT and ME SYSTEMS

The TOPRO TAURUS is intended for use in the electromagnetic environment specified below. The customer or the user of the TOPRO TAURUS should assure that it is used in such an environment.			
IMMUNITY test	IEC 60601 test level	Compliance level	Electromagnetic environment – guidance
Electrostatic discharge (ESD) IEC 61000-4-2	± 6 kV contact ± 8 kV air		Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %.
Electrical fast transient/burst IEC 61000-4-4	± 2 kV for power supply lines ± 1 kV for input/output lines		Main power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	± 1 kV line(s) to line(s) ± 2 kV line(s) to earth		Main power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	<5 % UT (>95 % dip in UT) for 0,5 cycle 40 % UT (60 % dip in UT) for 5 cycles 70 % UT (30 % dip in UT) for 25 cycles <5 % UT (>95 % dip in UT) for 5 s		Main power quality should be that of a typical commercial or hospital environment. If the user of the TOPRO TAURUS requires continued operation during power mains interruptions, it is recommended that the TOPRO TAURUS be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC 61000-4-8	3 A/m		Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
NOTE: UT is the a.c. mains voltage prior to application of the test level.			

**Guidance and manufacturer's declaration**

**Electromagnetic IMMUNITY for ME EQUIPMENT and ME SYSTEMS that are not LIFE-SUPPORTING**

The TOPRO TAURUS is intended for use in the electromagnetic environment specified below.  
The customer or the user of the TOPRO TAURUS should assure that it is used in such an environment.

IMMUNITY test	IEC 60601 TEST LEVEL	Compliance level	Electromagnetic environment – guidance
Conducted RF IEC 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 V	Portable and mobile RF communications equipment should be used no closer to any part of the TOPRO TAURUS, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.  Recommended separation distance $d=1,16\sqrt{P}$ $d=1,16\sqrt{P}$ 80 MHz – 800 MHz $d=2,33\sqrt{P}$ 800 MHz – 2,5 GHz
Radiated RF IEC 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey a), should be less than the compliance level in each frequency range b).  Interference may occur in the vicinity of equipment marked with the following symbol:



NOTE 1 At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the TOPRO TAURUS is used exceeds the applicable RF compliance level above, the TOPRO TAURUS should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the TOPRO TAURUS.

b) Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

**Recommended separation distances between portable and mobile RF communications equipment and the ME EQUIPMENT or ME SYSTEM for ME EQUIPMENT and ME SYSTEMS that are not LIFE-SUPPORTING**

The TOPRO TAURUS is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the TOPRO TAURUS can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the TOPRO TAURUS as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz – 80 MHz $d=1,16\sqrt{P}$	80 MHz – 800 MHz $d=1,16\sqrt{P}$	800 MHz – 2,5 GHz $d=2,33\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,37	0,37	0,74
1	1,16	1,16	2,33
10	3,67	3,67	7,37
100	11,6	11,6	23,3

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.