



Art. Nr: TA iQ MWD: 97050 TA iQ RWD: 97060 TA iQ FWD: 97070

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Ver. 1.31 Eng. - 2013

Serial number:

CE

# WARNINGS.

Please read the instructions carefully. They contain important warnings and instructions.

TA iQ power chair is not intended for users with a weight exceeding 140 kg.

TA iQ power chair should always be turned off when getting on or off of the chair and when assisted by a helper, so that the power chair does not accidentally move if the joystick is activated.

Do not reach into or under the power chair when the seat lift or seat tilt is activated, because there is a risk of entrapment of hand and fingers between the mechanical parts.

Check that others, especially children, aren't too close to the power chair when the seat lift or seat tilt is activated.

The power chair is EMC tested. However, it is possible that the power chair can be affected by electromagnetic fields from electronic devices, such as mobile phones. Similarly, it cannot be excluded that the chair can emit electromagnetic fields that can affect the surroundings, such as alarm systems in stores.

Pay particular attention to late run when driving on ramps.

When the power chair's brakes are disengaged, the power chair may roll if it is on a sloping surface.

Slowing down by pressing the On /Off button creates the risk that the user's torso could fall over. This could lead to, the user falling out of the power chair. Slowing down in this manner should be avoided on sloping surfaces and ramps.

When forcing level differences, it is important that the power chair runs perpendicular to the obstacle in order to minimize the risk that the power chair should tilt.

By forcing level differences with the seat tilted or hoisted there is a risk that the power chair can tip over. By forcing level differences, it is therefore important that the seat is elevated as little as possible and is as close to an upright position as possible to minimize this risk.

Driving on steeper slopes should be avoided where possible. This will affect the chairs natural stability and increase the risk of the chair tipping over.

When driving on slopes ensure the following factors are considered

- The seat height should be as low as possible.
- The tilt and/or backrest recline will also affect stability.
- The rear most point of the back cushion on a TA iQ RWD should not be positioned behind the centre of the rear axle/wheels. If in doubt contact TA Service A/S or your distrubutor.
- The speed is suitable and safe for the environment, excessive speed will make the chair more likely to tip.

When the power chair is used as a seat in a car, bus or similar, the power chair must always be secured with an approved car attachment. Using 4 point car attachment the hooks must only be attached in the 4 attachment loops on the power chairs. Fastening the hooks elsewhere will cause a high risk of danger to the user and damage to the power chair. When using a Dahl docking system the instructions from Dahl Engineering must be followed closely. Failure to follow instructions carefully, will cause a high risk of danger to the user and damage to the power chair.

Avoid touching leaking batteries, as the contents can be harmful.

The temperature of some surfaces can increase and get very hot when in direct sunlight. Especially the armrest, joystick controller, back/seat and footplate surface, care should be taken to avoid touching with bare skin.

Repairs and programming of the power chair must be performed by TA Service A/S or a repairer who is authorized by TA Service A/S.

Unauthorized programming can cause the power chair to handle in a way that could cause danger to the user or the surroundings.

Only original parts or parts that are approved by TA Service A/S can be used.

# PREFACE.

TA Services A/S hopes you are satisfied with your new TA iQ power chair.

TA iQ is designed to facilitate your daily movement outdoors and indoors. It has been very important to design the power chair as small and compact as possible, without reducing the power chair's stability and handling.

#### WARNING!

Read the instructions carefully. They contain important warnings and instructions.

The operation of the power chair has been designed to be as simple as possible, however it is important that you read through this manual, so you're sure to get the most out of your TA iQ. Keep this manual so you can use it for reference.

In this manual you will find the information you need to operate the power chair. If you have questions, comments, or suggestions, please feel free to contact us:

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TA Service A/S makes continuous product development and we reserve the right to make changes.

# CE

TA iQ is tested by TÜV, and complies with standard EN 12184:2009.

TA iQ is EMC tested by the accredited test lab Delta following standards EN 12184:2009 section 9.1, PrEN 12184:2011 section 12.1 and ISO 7176-21:2003 section 5.2.

TA iQ is Climate tested by Delta in accordance to EN 12184:2009 section 8.11, PrEN 12184:2011 section 8.4 and ISO 7176-09:2009.

TA iQ is Crash tested by Dahl Engineering in accordance to ISO 10542-5 &7176-19 - 2008.

This handbook has been prepared in accordance with applicable requirements.

## **PRE-SALE INFORMATION**

A) By request the user manual can be made with large font

B) The TA iQ's designed for users with normal visual and cognizance ability. MAX. User weight 140 kg.

C) The TA iQ's designed for use both indoors and outdoors. When you drive indoors, you must be careful in, for example, narrow passages, when going through doors and entrances and when using lifts, ramps, etc.

D) The TA iQ is a Class B wheelchair

E) Dimensions:TA iQ FWD: 630 mm width, 400 mm height without seat, 820 mm length.TA iQ RWD: 630 mm width, 400 mm height without seat, 820 mm length.TA iQ MWD: 630 mm width, 400 mm height without seat, 900mm length.

F) Reversing width all three models: 630 mm

G) Max. safe slope: TA iQ FWD: 10° TA iQ RWD 10° TA iQ MWD: 10°

H) MAX Height of kerbs: TA iQ FWD: 100 mm TA iQ RWD 80 mm TA iQ MWD: 80 mm

I) No removable parts will have an adverse beneficial effect on the wheelchair.

J) Standard options of all three models: electrical lift, electrical tilt and electrical backrest.

K) All three models can be used with air tyres or tires with infill

L) No programmable device is fitted to the chairs. Only authorized technical personal should program the chairs.

N) Theoretical continuous driving distance: 40 km. The distance will be reduced if the wheelchair is used frequently on slopes, rough ground or to climb kerbs etc.

O) The backrest can be folded over the seat plate with tools, if the chairs need to be smaller for transport or storage.

P) The wheelchairs aren't meant to be dismantled.

Q) All three models can be fitted with a "Fly kit" so the batteries don't need to be removed from the chair during air transport e.g.

R) The wheelchair is not intended to be used as a seat in a motor vehicle.

S) If the chairs are being used as a seat in a motor vehicle the chairs need to be fixed using the 4 point attachments with tie-downs on the chairs or in a "Dahl docking station".

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# **TECHNICAL DATA**

| Power chair Type:       | Class B:  |
|-------------------------|---|
| Dimensions:             | <ul> <li>Width excl. seat: 63 cm</li> <li>Floor clearance: app. 7 cm. (depending on the adjustment of the springs)</li> <li>Length excl. footplate / foot supports (shortest)</li> <li>TA iQ FWD: 82 cm</li> <li>TA iQ RWD: 90 cm</li> <li>TA iQ RWD: 82 cm</li> <li>Seat Mounting Height:</li> <li>38,5 cm (for top plate)</li> <li>40 cm (for seat plate)</li> <li>41 cm (for strop plate)</li> <li>Turning radius:</li> <li>TA iQ FWD: 65 cm</li> <li>TA iQ RWD: 45 cm</li> <li>TA iQ RWD: 65 cm</li> <li>Seat lift: 30 cm.</li> <li>Seat tilt: 40 °</li> <li>The chair's weight with seat: approx. 102 kg depending on configuration</li> </ul> |
| User Weight:            | Maximum user weight: 140 kg   |
| Tires:                  | Tire sizes, steering wheels: 200-50 Recommended pressure: 2.0 bar / 29 psi         Tire sizes, driving wheels: 300 -8 – Recommended pressure: 2,5 bar /36 psi         In the event of puncture, the tube can be repaired the same way as a bicycle tire tube.   |
| Temperature:            | Storage Temperature: -20° C to 50° C<br>Operation Temperature: -20° C to 50° C  |
| Batteries:              | <ul> <li>2 pcs. 12V/63Ah</li> <li>Type: gas-tight lead acid (Recombination battery).</li> <li>Capacity: 63 Ah</li> <li>Maximum charge current: 8 Ah</li> <li>Battery Connection Type: Bolt F-M6</li> <li>Size: <ul> <li>Width: 171 mm</li> <li>Length: 261 mm</li> <li>Height incl. poles: 210 mm</li> <li>Maintenance free</li> </ul> </li> </ul>  |
| Engines:                | 2 pcs. 24V/350 Watt   |
| Driving Data:           | Maximum driving distance (theoretical): 40 km<br>Maximum speed, forward driving: 12,5 km / h<br>Maximum speed, reverse driving: 5 km / h<br>Max. safe slope:<br>TA iQ FWD: 10°<br>TA iQ RWD 10°<br>TA iQ MWD: 10°<br>Max height of kerbs:   |
| Charger Specifications: | TA iQ FWD: 100 mm<br>TA iQ RWD 80 mm<br>TA iQ MWD: 80 mm<br>See user's guide included charger - Aura 24V / 8 A.   |
| - or operations.        |   |

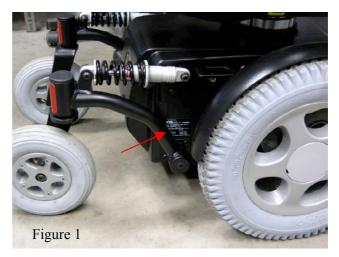
| Electronics:         | Penny and Giles R-Net Drive Control   |  |
|----------------------|---|--|
| Brakes:              | Motor Brake and Electric Brake.   |  |
|                      | Motor brake acts as brake-lock brakes, and is activated when the control stick<br>is released.<br>From when you release the control stick and until the chair stands still there is<br>a small "late run" on the chair. This "late run" can be adjusted depending on<br>whether you want a soft or a sharp slowdown.<br>It is possible to set how fast the chair's slowdown will be. If this change is<br>wanted please contact TA Service A/S. |  |
|                      | Electromagnetic brake is activated when the chair is stationary and serves as a "parking" brake.  |  |
| Working conditions   | Lift actuator: 10 % (1 min. work 9 min rest)  |  |
| electrical functions | Tilt actuator: 10 % (2 min work 18 min rest)  |  |
|                      | Back rest: 10 % (6 min/hour)  |  |
|                      | Leg rests: 10 % (6 min/hour)  |  |

# <u>Serial number</u>

The wheelchair has a unique serial number.

The serial number is located on a label on the right side of the wheelchair.

The label also contains other information about the wheelchair e.g. max user weight and production time Figure 1.



# **OPERATING INSTRUCTIONS.**

## **BEFORE DRIVING:**

#### WARNING!!

#### TA iQ is not intended for users with a weight exceeding 140 kg

#### WARNING!!

TA iQ should be turned off when entering and exiting the power chair and when assisted by a helper, so that the power chair does not accidentally move if the joystick is activated.

#### **CAUTION!**

Smoking or use of open fire, while seated in the power chair, creates a risk of burns to the user or upholstery.

Footplate / foot rests can be locked to facilitate entry and exit.

Before you use TA iQ, check the following:

- The power chair's **speed** is sufficiently low.
- Any footrests are properly mounted and locked so they do not swing out while driving.

- The seat lift is set at the lowest possible level and the seat tilt is as close to horizontal (neutral) position as possible.

#### NB!

When the seat is raised above 6.5 cm, the power chair seat can only tilt 16 °. If the seat is not lifted higher than 6.5 cm, the seat can be tilted fully (40°).

When the seat is tilted more than 15° the seat can only be raised 6.5 cm. If the seat is not tilted more than 15°, the seat can be lifted fully (30 cm)

When the seat is raised more than 6.5 cm or by tilted over 15° the chair speed automatic reduces by 15%.

#### WARNING!!

Do not reach into or under the power chair when the seat lift and seat tilt is activated, because there is a risk of entrapment of hand and fingers between the mechanical parts.

#### WARNING!!

Be aware that others, especially children, aren't too close to the power chair when the seat lift and seat tilt is activated.

#### WARNING!!

When the control box is swung to the side or in to place there is a risk of entrapment in the swing away bracket. Watch out for your own and the fingers of others.

#### **CAUTION!**

Place your feet on the foot rest before lowering the foot rest to avoid risk of entrapment between the foot rests and the power chair.

#### **CAUTION!**

High speed starts can put people in the surrounding area in danger.

The first drives in TA iQ should be conducted in an area where there is plenty of room, at low speeds.

## **Performance check**

The electronic circuits in your control system have been designed to be extremely safe and reliable. The on-board microcomputer carries out safety checks at up to 100 times per second. To supplement this safety monitoring you should carry out the following periodic checks.

If the control system fails any of these checks, do not use the wheelchair and contact your service agent.

#### **Daily Checks**

Joystick: With the control system switched off, check that the joystick is not bent or damaged and that it returns to the center when you push and release it. If there is a problem do not continue with the safety checks and contact TA Service or your service agent.

#### Weekly Checks

Parking brake: This test should be carried out on a level floor with at least one meter clear space around the wheelchair. Switch on the control system.

Check that the screen remains on after initialization and that the battery gauge is displaying a reasonable amount of charge.

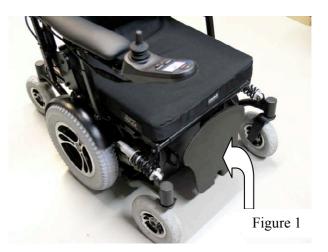
Push the joystick slowly forwards until you hear the parking brakes operate. The chair may start to move. Immediately release the joystick. You must be able to hear each parking brake operate within a few seconds. Repeat the test a further three times, pushing the joystick slowly backwards, left and right.

# Getting in and out of the wheelchair

<u>! Before getting in and out of the wheelchair, make sure that the wheelchair is turned off.</u>

If the user can transfer itself, lower the tilt and the lift to the lowest position.

For transferring from the front tilt the footplate up figure 1



For sideways transfer it is possible to lift the armrest up (both sides can be lifted)

Push on the release button on the bracket to be able lift the armrest – figure 2  $\,$ 



The armrest can be lifted up along the back rest - figure 3

Figure 3

If the user shall be transferred by lift, it is an advantage to tilt the seat and the back to get the pelvis all into the back rest – figure 4



# **WHILE DRIVING:**

TA iQ's driving characteristics including: braking, maximum speed and acceleration can be set to suit the users need. Setting the chair's driving characteristics is performed by TA Services A/S.

TA iQ is switched on by a light pressure on the Power button.

The power chair's speed is increased by pressing the speed-up button.

The power chair's speed is decreased by pressing the speed-down button.



## Braking.

The chair brakes by releasing the control stick, so it returns to the vertical position. It is possible to adjust how fast the chair is slowing down and thus reduce any late run on the chair. This adjustment is carried out by TA Service A/S.

At a short late run, braking will be experienced very sharp.

#### WARNING!!

Pay particular attention to late run when driving on ramps. When driving on ramps let go of the control stick before you reach the ramps leading edge.

## Mechanical disengaging the brakes.

The electric brake can be disengaged if the chair needs to be manually towed.

This is done by twisting the brake handles away from the power chair towards the wheels. Figure 1

When the brakes are disengaged the power chair will "bip" and write "PM Brake error" in the display to warn that the brakes are disengaged while the power chair is ON.



When the electric brake is disengaged the power chair cannot be maneuvered with the control stick. You have to turn the brake handles back towards the power chair, and then turn OFF/ON the power chair.

#### WARNING!!

When the power chair brakes are disengaged, the chair may roll if it is on a sloping surface.

### Emergency brake.

The power chair emergency brakes by pressing the ON / OFF button.

This brake method results in a very abrupt deceleration and should **only** be performed in an emergency and only if the user of the power chair is prepared.

#### WARNING!!

Slowing down by pressing the On /Off button creates the risk that the user's torso could fall over. This could lead to, the user falling out of the power chair. Slowing down in this manner should be avoided on sloping surfaces and ramps.

## Force of obstacles.

TA iQ can climb obstacles, making it able to run over doorsteps and the like.

At very steep increases may inlet and a certain speed be necessary.

In the interest of the power chair's stability by forcing different levels it is important that the seat is elevated as little as possible and is as close to an upright position as possible to minimize this risk.

Never exceed the max of height kerb as described under TECHINCHAL DATA SHEET

#### WARNING!!

By forcing level differences, it is important that the power chair runs perpendicular to the obstacle in order to minimize the risk that the power chair should tilt.

#### WARNING!!

By forcing level differences with the seat tilted or hoisted there is a risk that the power chair can tip over. By forcing level differences, it is highly important that the seat is elevated as little as possible and is as close to an upright position as possible to minimize this risk.

## Driving on slopes.

Driving on sloping surfaces should be carried out forwards and at a slow pace.

Never exceed the max safe slope as described under TECHNICAL DATA SHEET

#### WARNING!!

Driving on slopes should be avoided because a slope to the side can cause the power chair to tip over. When driving on slopes, the seat should not be lifted to keep the power chair stable.

## <u>Surfaces</u>

TA iQ is fitted with a pattern tread on the big drive wheel for best grip. If the tread is worn it will affect the grip on the surface.

When driving on uneven surfaces, pay extra attention (like on sand, ice/show, grass etc.) it can have an affect on the stability and the steering.

If a tyre without a tread pattern is used, it will have the same effect as if the tread is worn.

## Driving in darkness

TA iQ can be acquired with lights as an option. Drive only in darkness when light in the front and back are applied or as per the applicable national regulations.

# AFTER DRIVING.

Always leave the chair off and put on lowest speed.

NB! Leaving the chair turned on will draw power from batteries, with reduced remaining driving distance to follow.

| <u>Control box</u>                      |  |
|---|--|
|   | <ol> <li>Power button</li> <li>Horn</li> <li>Display</li> <li>Driving Profile</li> <li>Speed up button.</li> <li>Switching between driving and menu</li> <li>Speed down button.</li> </ol> |
| Display                                 | 1 Detters indicator  |
| 14:35                                   | 1 - Battery indicator  |
| 1.55mph                                 | 2 - Main Screen  |
| Indoor-Drive                            | 3 - Profile indicator  |
|   | Battery indicator – figure A   |
| Figure A                                | All 10 bar lights (red, yellow and green): The power chair is fully charged  |
|   | 7 bar lights (red and yellow): The power chair must be recharged as soon as possible   |
|   | <b>3 bar lights or blinks slowly</b> (red): The power chair must be recharged immediately to avoid destroying the batteries.   |
| 000000000000000000000000000000000000000 | Speed Display  |
| 3.0 Km/t                                | Shows with graphs and numbers the current speed.   |
| 5.0 KIII/t                              | Tortoise shows that the power chair is limited. – figure B   |
|   | When the seat is lifted above 6.5 cm, the seat can be tilted max $15^{\circ}$ .<br>When the seat is tilted more than $15^{\circ}$ the seat can max lift 6.5 cm.                            |
| Figure B                                | By seat lift more than 6.5 cm or by seat tilt more than $15^{\circ}$ reduces the power chair speed automatic with $15\%$ .   |
|   | If the seat is not lifted higher than 6.5 cm, the seat can be tilted fully $(40^\circ)$ .<br>If the seat is not tilted more than 15°, the seat can be lifted fully $(30 \text{ cm})$       |

| Electric back – figure C | Electrical functions – figure C<br>Pressing the "Mode" button to get into the menu from which electrical<br>functions can be operated with a joystick. You select function by flipping the<br>pages with the joystick, and activate the feature by taking the control stick<br>forward or backward.   |
|--------------------------|---|
| Figure D                 | Joystick activated – figure D<br>If you activate the joystick before or just when you turn on, the symbol will<br>blink.<br>Release and center the joystick to use the chair.<br>If the joystick is not released and centered within 5 seconds, the power chair<br>will not run, even though the joystick is released. Turn on and off the power<br>chair again to make it run. |
| <b>1</b><br>Figure E     | Driving Profile – figure E<br>The power chair can be programmed for different driving profiles. Contact TA<br>Service A/S for further instruction and programming   |

#### <mark>WARNING!!</mark>

The power chair is EMC tested. However, it is possible that the power chair can be affected by electromagnetic fields from mobile phones for example. Similarly, it cannot be excluded that the power chair can emit electromagnetic fields that can affect the surroundings, such as alarm systems in stores.

#### DANGER!!!

Programming of the power chair must be performed by TA Service A/S or repairer who is authorized by TA Service A/S.

Unauthorized programming can cause that the power chair will handle in a way that could cause danger to the user or the surroundings.

5. The power chair is now unlocked - the symbol disappears.

#### Locking the system: Figure 1 When the power chair is on, press and hold the "Power" button. 1. After 1 second the power chair beeps, release "On-Off" 2. Press the joystick forward until a beep appears 3. Press the joystick back until a beep appears 4. Release the joystick, there is now a long beep 5. The power chair is now locked. - Symbol is shown in display - figure 1 In case of lock this symbol appears in Unlocking the system: display 1. If the power chair is off, turn on the power chair 2. Press the joystick forward until a beep appears 3. Press the joystick back until a beep appears 4. Release the joystick, there is now a long beep

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# **SETTING MENU**

Figure 1

In the setting menu it is possible to change the clock,  $\bigcirc$ brightness, backlight and color, and odometer. 5 To get into the options menu you must hold both buttons speed up and speed down simultaneously. See arrow A - Figure 1 MODE PROFILE The following points are then displayed in the menu: Set time: (figure B) Adjust the time. Press the control stick right to set the time. **Բ** Select exit at the bottom of the menu to come back. Set Time **Display time: Display Time** 24hr> Selecting time format to display. Distance Features: 12h, 24h, Off Backlight <100%> Background <Blue> **Backlight:** Backlight. Exit Features: 0% to 100% in increments of 10% **Background:** Figure B Background. Here you can choose background color . Blue = blue light in all profiles White = White background in all profiles -(The display is more visible with a white background in bright sunlight) Auto = The power chair can be programmed to display different backgrounds at different profiles. Contact TA Service for special adaptation. Figure C **Distance - following submenu appears:** (figure c) 門 Total distance: total distance power module has been running **Total Distance** 0012345 Trip distance: Trip odometer - can be reset. **Trip Distance** 0000123 **Display Distance** <Trip> Display distance: option on the trip or total to be shown in **Clear Trip Distance** display Exit Clear Trip distance: Resetting the trip odometer Exit: Exit the menu.

## **SETTING THE POWER FUNCTIONS**

The power chair may depending on model have the following power functions:

- Seat lift
- Seat tilt
- Back
- Right legsupport
- Left legsupport



The functions are activated by pressing the "Mode" button on the control box, then there's a picture of power features (figure 1). Find the function to be used by flipping the pages of the control stick. When the feature is found, activate it by taking control stick forward or backward, depending on which way the function should run.

#### Note:

When the seat is raised above 6.5 cm, the seat can tilt max 15 °. When the seat is tilted more than  $6.5^{\circ}$  the seat can max be lifted 15 cm.

By seat lift more than 8 cm or by seat tilt more than  $6.5^{\circ}$  reduces chair speed automatic with 15%.

#### Note:

To avoid over heating the actuators for electric functions they must only work 10 % and then rest 90 %.

Lift actuator: 10 % (1 min. work 9 min rest) Tilt actuator: 10 % (2 min work 18 min rest) Back rest: 10 % (6 min/hour) Leg rests: 10 % (6 min/hour)

#### WARNING!!

Do not reach into the chair when the seat lift and seat tilt is activated because there is a risk of entrapment between the mechanical parts.

#### WARNING!!

Check that others, especially children, aren't too close to the power chair when the seat lift or seat tilt is activated.

#### **CAUTION!**

Place your feet on the foot rest before lowering the foot rest to avoid risk of entrapment between the foot rests and the power chair.

# **ALTERNATIVE CONTROLS/FUNCTIONS**

# Control box without display

|   | Joystick buttons<br>1 Power button<br>2 Horn<br>3 Switching between driving and menu<br>4 Driving Profile<br>5 Speed up button.<br>6 Battery indicator<br>7 Function indicator<br>8 Speed down button.   |
|---|--|
|   | ON/OFF switch. Battery indicator lights up when the power chair is on.   |
| Q                                       | Horn switch  |
| MODE                                    | Mode switching between driving and menu Here you can choose between the different electric functions and profiles, depending on your selected functions and programming.   |
| 00000                                   | <u>Speed indicator</u> .   |
|   | Constant light:<br>Shows maximum speed:<br>1 light diode is lowest speed and 5 light diodes is maximum speed.  |
|   | <b>Flashing light diodes</b> : speed is limited for safety reasons.<br>(see under setting the power functions)   |
|   | Light diodes runs up and down:<br>The Joystick has been locked, see "Locking joystick"   |
|   | <b>Profile indicator:</b><br>If a profile has been chosen instead of max speed, the light diodes will show the chosen profile. If fx profile 4 has been chosen <b>only</b> light diode number 4 from the left will light.<br>The system is set up to function as max speed. If profiles (fx 1 slow and 1 quick) are wanted instead, please contact TA Service for different programming. |
|   | Adjusting speed (or choice of profile, depending on setting)   |
| 000000000000000000000000000000000000000 | <b>Battery indicator</b><br>Shows that the power chair is on, plus status of batteries.  |

| Red, yellow and green light (1-10 lights: This indicates all is well.  |  |
|--|--|
| <b>Red and yellow light (1-7 lights):</b> The control system is functioning correctly, but you should charge the battery as soon as possible.  |  |
| <b>Red lights (1-3 lights constant or flashing):</b> The power chair must be charged immediately not to destroy the batteries.   |  |
| <b>Light diodes runs up:</b> The power chair batteries are being charged. You will not be able to drive the power chair until the charger is disconnected and you have switched the control system off and on again.   |  |
| Light diodes run up and down:<br>Release and center joystick to resume normal operation.<br>If you do not release the joystick within 5 seconds, the power chair will not<br>be able to move, even though the joystick is released.  |  |
| 7 light diodes will flash (count from left)<br>Power cycle the power chair again to use the power chair.   |  |
| If another number of light diodes are flashing, it could mean a fault in the system. Please contact TA. Service.   |  |
| Setting the power functions         Push the "Mode" button to choose between driving and setting the power functions.         -When no symbols /back, seat, leg rests) is lighted, the power chair is set for driving.         -When 1 symbol is lighted, the power function can be set.         Push the joystick to one of the sides to choose which function to set.         Push the joystick forwards or backwards to activate, depending on which way the function should go.         Following symbols light up when the function has been chosen: (depending on which functions are available)         Left leg rest: the symbol for left leg rest lights up Right leg rest: both symbols (L and R) lights up Both leg rests: both symbols (L and R) lights up Tilt: the symbol for back rest lights up Tilt: the symbol for seat flashes, back and both leg rests lights up Lift: the symbol for seat flashes, back and both leg rests lights up Note:         When the seat is raised above 6.5 cm, the seat can tilt max 15 °. When the seat is tilted more than 15° the seat can max be lifted 6.5 cm. By seat lift more than 6.5 cm or by seat tilt more than 15° reduces chair speed automatic with 15%. |  |

# **ADJUSTMENTS**

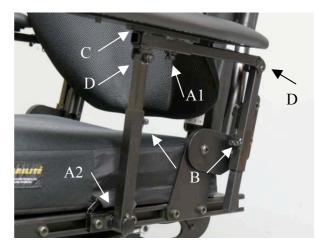
## Setting the armrests.

Armrest cushion position relative to the back is adjusted by loosening the 2 screws under the horizontal tube with a 4 mm Allen key (A1), and the 2 screws in the c-profile with a 6 mm Allen key (A2)

Armrest height is adjustable by loosening screws (B) on the armrest vertical tube with a 4mm Allen key.

Armrest cushion can be moved sideways by screwing out the 2 screws in the armrest cushion with a 4 mm Allen key (C) – The armrest must first be dismounted by loosening the 2 screws (A1) (4 mm Allen key)

If the armrest is too loose or too tight to flip up tighten or loosen the screws (D) with a 4 mm Allen key and a 10 mm spanner



## Swing- away bracket

When entering or leaving the power chair or if you want to get closer to a table, the control box can be swung to the side, parallel with the armrest.

The control box is locket with a ball lock when it is in driving position.

Push on the inside of the control box to push it aside (figure A), and then pull the control box backwards parallel with the armrest cushion (figure B).

The controller is attached to the swing-away bracket by two screws and can be tighten with a 4 mm Allen key. – The swing-away bracket is attached to the armrest with two screws and can be tighten with a 5 mm Allen key.

#### Adjust the swing-away bracket:

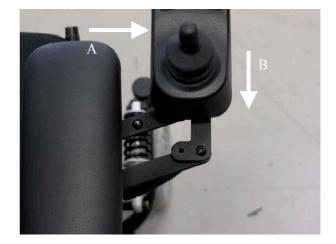
Loosen the adjustment screw (B)

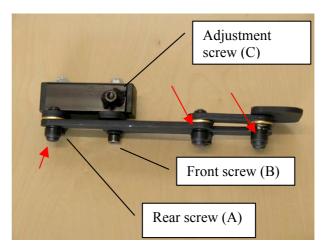
Tighten the rear screw (A) on the tube as thigh as you can. 5 mm Allen key

Tighten the front screw (B) so the bracket can swing away smoothly -5 mm Allen key

Tighten the screw (C) on the tube to prevent the front screw from getting loose. -4 mm. Allen key

Tighten the 5 bolts and nuts with a 4 mm Allen key and a 10 mm spanner, so it can swing away smoothly (red arrow)





## Setting up the leg rest.

The leg rest is mounted on the chairs seat frame.

Leg rest position relative to the seat is adjusted by loosening the 2 bolts on both sides of the power chair with a 6 mm Allen key (A). Pull or push the leg rest and then tighten all 4 bolts again.

The angle of the leg rest is adjusted by loosening 1 bolt on both sides of the leg rest with a 6 mm Allen key (B) **as well as** the bolt on both sides under the leg rest with a 6 mm Allen key and a 13 mm spanner (C). Angle the leg rest and tighten all 4 bolts again.

The height of the leg rest is adjusted by loosening the bolt (D) with a 4 mm Allen key, adjusting the height and tightening the bolt again.

The angle of the footplate relative to the leg rest is adjusted by pushing the angle of the footplate up or down and adjusting the pinol screw (E) with a 5 mm Allen key.



## <u>Mounting of hipbelt.</u>

It is possible to mount a hip belt on TA iQ.

TA Service A/S recommends that the hip belt is attached by the back bracket (A) or on the bracket of the seats C-profile. Use a 6 mm Allen key



## Suspension.

The suspension and the tightening of the springs are adjusted by TA-Service or the dealer – Do NOT adjust the spring.

Secure that the springs are intact and the bolts are tighten (A)

Once a day check that the suspension and spring is clean and works. The suspension can be cleaned with a cloth dampened in household detergent.



# TRANSPORTATION BY CAR.

TA iQ is crash tested with 4 point car attachment and Dahl Docking System (accessories), so it can be used as a seat in a car, bus or similar.

The user can use the TA iQ during transport by a car, bus or similar, if the TA iQ is equipped with TA 4 point car attachment and/or Dahl Docking system.

#### DANGER!!!

When the power chair is used as a seat in a car, bus or similar, it must always be attached with an approved car attachment.

#### The seat and lift must always be in the lowest position when transported by car.

If a belt is mounted on the power chair, it will not replace the cars seat belt. The cars seat belt must always be used.

### 4 point car attachment.

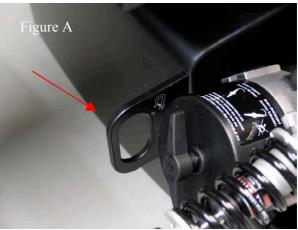
The power chair is mounted with 4 attachment loops, which can be used together with an approved 4 point car attachment system.

These loops are marked with a hook symbol (figure a and b)



#### DANGER!!!

Using 4 point car attachment the hooks must only be attached to the 4 attachment loops on the power chairs. Fastening the hooks elsewhere will cause a high risk of danger to the user and damage to the power chair.

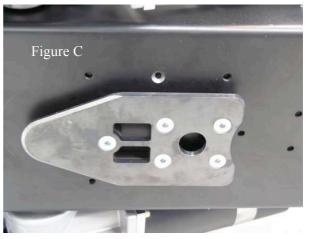






If the Dahl docking system is to be used, a plate will be mounted to the bottom of the power chair which will lock into the docking system. (figure C)

If using the Dahl docking system the instructions from Dahl Engineering must be followed closely. Failure to follow instructions carefully will cause a high risk of danger to the user and damage to the power chair.



# CHARGING.

TA iQ is equipped with a battery level indicator at the top of the control box - the long series of LEDs.

As the power chair is used the battery level falls and the LEDs turn off. See the following explanation:

|             | Battery indicator: (figure 1)   |                               |  |
|-------------|---|-------------------------------|--|
|             | All 10 bar lights   |                               |  |
| Figure 1    | (Red, yellow and green): The chair is fully charged   |                               |  |
|             | <b>7 bar lights</b> (red and yellow):<br>The power chair must be recharged as soon as possible                              |                               |  |
|             | <b>3 bar lights</b> or blinks slowly (red):<br>The power chair must be charged up immediately not to destroy the batteries. |                               |  |
| A           | The charging plug from the charger (A) is connected to TA front of the control box in the charger socket (B)                | A iQ in the                   |  |
|             | The charger is switched on at the socket on the wall.   | Dpladning<br>påbegyndt        |  |
|             | The bars on the battery icon start to go up as the power chair is charged   | Opladning<br>80%<br>Opladning |  |
| POWENCHARGE | When the bars on the battery icon on the  | 100%                          |  |
|             | charger is not going up anymore, and is<br>completely filled, the power chair is fully                                      | Batterifejl                   |  |
|             |   | Fejlpolarise-<br>ring         |  |
|             |   | Over-<br>ophedning            |  |
|             |   | Feji                          |  |

TA iQ should be turned off when batteries are charging.

#### **RECOMMENDATION!**

It's a good idea to charge the power chair when not in use e.g. every night, this will ensure that the batteries are always fully charged. When charging is finished the charger automatically turns off, this means there is no risk that the battery will be damaged by over charging.

See also BATTERTY under MAINTENANCE AND SERVICE section.

#### **RECOMMENDATION!**

TA Services A/S recommends that batteries be recycled.

WARNING!! Avoid touching leaking batteries, as the contents can be harmful.

## **DISPOSAL.**



TA iQ must be disposed as electrical scrap, which means that the product cannot be disposed with ordinary waste. It has to be disposed of in an environmentally correct way.

The product can be delivered to TA Service or local dealer which will see that it is disposed of in an environmentally correct way.

The batteries cannot be disposed with ordinary waste, contact your local dealer or TA Service, who will make sure they are disposed correct.

## **RESISTANCE TO IGNITION**

| Part                        | Level of resistance to ignition     |  |
|-----------------------------|-------------------------------------|--|
| VL Icon back system         | ISO 7176-16, ISO 8191-1, ISO 8181-2 |  |
| VI Ecolution PSV cushion    | ISO 7176-16, ISO 8191-1, ISO 8181-2 |  |
| Shield - ABS                | ISO UL94                            |  |
| Protection for battery pole | V-O classified, ISO UL94            |  |

## WARRANTY.

There is 2 year warranty on TA iQ. Valid from date of purchase. Any warranty repairs will be performed free of charge with regard to working hours and spare parts. The warranty period on batteries and supplied by TA. Service A/S is 1 year from purchase date.

Warranty repairs must be performed by TA Service A/S.

The warranty is voided if the used battery charger is not approved by TA Service A/S, or if the batteries are run down.

If there is doubt about whether a particular battery charger can be used contact TA Services A/S.

## PACKING AND SHIPPING

If the wheelchair needs to go to the dealer or TA Service contact the local dealer who will arrange the transport to the dealer or TA Service.

In cases where the dealer decide not to pick the wheelchair up, and the transport shall be carried out by a transport company, the wheelchair must be securely fastened to a pallet and protected with cardboard or plastic. The wheelchair must be switched off and the brakes engaged.

# TROUBLESHOOTING.

| Problem:   | Cause:  | Solution:   |
|--|---|---|
| The power chair cannot run   | 1. Charging connector is<br>connected to the control box.   | Remove the charging plug.   |
|  | 2. Motor brake is disengaged.   | Connect the motor brakes.   |
|  | 3. Other cause.   | Contact authorized service center.  |
| The chair drives slowly.   | 1. Speed is being limited because of lifted and/or tilted seat.   | Lower the seat and /or tilt the seat<br>back to nearly horizontal.  |
| Symbol appears in display  | 2. Other cause.   | Contact authorized service center.  |
| Symbol appears in display  | 1. The control system has<br>intentionally reduced the power to<br>the motors to protect them against<br>heat damage. | Stop running and let the engines<br>cool.<br>The engines were overloaded and<br>exposed to more load than they<br>are intended for.   |
|  | 2. Other cause  | Contact authorized service center.  |
| Symbol appears in display  | 1. Control system was too hot and has reduced the impact.   | Turn of the power chair and let it cool off.  |
|  | 2. Other cause  | Contact authorized service center.  |
| Symbol appears in display  | 1. The control system has   | Contact authorized service center.  |
| PM<br>Low Battery  | generated an error and displays a<br>text, module and an error code.  |   |
| Symbol appears in display  | 1. Joystick activated   | Release and center joystick to  |
|  | If you operate the joystick before<br>or just after you switch the system<br>on, the symbol will blink.               | resume normal operation.<br>If you do not release the joystick<br>within 5 seconds, the power chair<br>will not be able to move, even<br>though the joystick is released.<br>Power cycle the power chair again<br>to use the power chair. |
| Symbol appears in display  | 1. joystick is locked.  | See "lockdown joysticks" to<br>unlock the joystick.   |
| The power chair "bips" and writes<br>"PM Brake error" in the display | 1. The brake has been disengaged.   | Connect the brake; see<br>Mechanically disengaging the<br>brakes, page 17.  |
|  | 2. Bad connection to brake.   | Check that the motor/brake cable<br>is properly connected to the<br>power module on the power chair.  |
|  |   | Contact authorized service center.  |
| CHARGER:   | See supplied user manual  |   |

# TROUBLESHOOTING - CONTROL BOX WITHOUT DISPLAY

If a system failure should occur, you can find the cause by counting the number of light diodes  $\underline{\text{flashing}} - \text{If}$  light diodes lights constant – see Control box without display, page 17.

| Number of light diodes <u>flashing</u> : | Cause:  | Solution:   |
|--|---|---|
| 1 LED                                    | 1. Batteries need charging.   | Charge the power chair.   |
| •  | 2. Bad connection to the batteries.   | Check the connection to the batteries.  |
| 2 LED                                    | Bad connection to the left* motor.  | Check connection to the motor.  |
| 3 LED                                    | The left* motor has a short-circuit to a battery connection.  | Contact authorized repairer.  |
| 4 LED                                    | Bad connection to the right* motor.   | Check connection to the motor.  |
| 5 LED                                    | The right* motor has a short-<br>circuit to a battery connection.   | Contact authorized repairer.  |
| 6 LED                                    | The power chair has been<br>prevented from driving, by an<br>external signal. Fx a special<br>contact solution. | Cause is depending on the special<br>contact solution. Contact TA.<br>Service or your supplier.   |
| 7 LED                                    | 1 Joystick is not centered.   | Turn OFF the power chair, center<br>the joystick and turn ON again.   |
| •  | 2. Joystick error.  | Contact authorized repairer.  |
| 8 LED                                    | 1. System error.  | Check all connections.  |
| 9 LED                                    | 1. Brake are mechanically disengaged  | Connect the brake; see Mechanical disengaging the brakes, page 17.  |
| + control box "bips"                     | 2. Bad connection to brake.   | Check that the motor/brake cable<br>is properly connected to the power<br>module on the power chair.<br>Contact authorized service center.      |
| 10 LED                                   | Too much voltage has occurred in the control system.  | This is normally caused by a bad<br>connection to the batteries. Check<br>the connection to the batteries.                                      |
| 7 LED+ S                                 | 1. Bad connection in the cables.  | Check cable connections between<br>the control box, seat module and<br>power module.  |
|  | 2. Broken cable.  | Change the cable.   |
| Actuator Flash                           | Power module failure.   | Test if one of the electric functions<br>doesn't work. Check if one of the<br>connections from the electonics to<br>the actuators doesn't work. |

\* If there has been switch in the program, it could be the opposite motor.

# **SERVICE AND MAINTENANCE**

A service manual is available for dealers and service agents – contact TA. Service for more information

TA Service recommends that the wheelchair get service at a Dealer or at the factory of TA Service.

! Maintenance and service that are not listed under SERVICE AND MAINTENANCE and ADJUSTMET shall be done by the service agent, dealer or TA Service.

All programming must be performed by the Dealer or TA Service.

Incorrect program settings or wrong service and maintenance could result in us danger situations where the wheelchair is uncontrollable or dangerous for the user and the surroundings. This will void the warranty of the wheelchair.

Only original parts or parts that are approved by TA Service A/S can be used.

## <u>Maintenance</u>

When you use the wheelchair it gets loose and worn by use. Therefore is it important that you inspect and maintain the wheelchair regularly. Especially the armrest, legrest and seat will get loose by movement over time.

Check regularly, approximately once per month that the screws are intact and tighten. See section **ADJUSTMENT** 

#### Tools:

For general maintenance Allen keys and 8, 10, 13 mm spanners and screwdrivers shall be used.

! Certain repairs can require other tools than the listed tools.

## Cleaning.

**Coated metal:** Wash coated metal surfaces with a cloth soaked in detergent water, rinse and dry

#### **Plastic:**

TA iQ shield can be cleaned with a cloth dampened in household detergent. Do not use solvents on the shield.

#### WARNING!!

TA iQ or parts of it will not withstand immersion in water. Please note that all electrical components do not tolerate water. TA iQ cannot be washed with a pressure washer TA iQ cannot be washed with a water hose. The Wheelchair must always be shut off while cleaning.

## <u>Fuse</u>

On the side of the lifting column, on top of the shield is an overload protection (Fig. 1). Fuse cuts power if the power chairs maximum consumption exceeds 80A

The fuse is a circuit breaker that switches off when overloaded. To reconnected, press the fuse button which is located at the top of the shield (Red arrow)

Figure 1



## **Batteries:**

The batteries are motive power batteries in gel technology and therefore maintenance-free. (no topping up)

It is recommended that only the dealer or TA service replaces the batteries, they will also take care of the disposal.

If the batteries run out of current the wheelchair can be pushed, see section: **MECHANICAL DISENGAGING THE BRAKES.** 

About recycling of used batteries see section **DISPOSAL** 

! A battery drains on its own, a discharged battery will be damaged and should never be discharged under 10,5V.

#### **Storage:**

If the wheelchair is stored without being used the batteries should always be charged once per month.

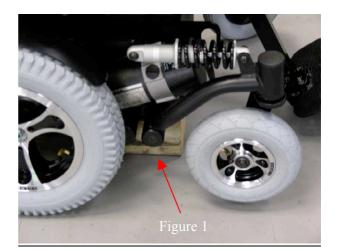
See also under CHARGING section for recharging.

WARNING!! Avoid touching leaky batteries, as the contents can be harmful.

## **Tyre punctures:**

Start by lifting the wheelchairs wheel free from the ground, either by using a lift or by putting something stable between the bottom frame and the ground. Figure 1

! Tilt or lift only the wheelchair when the user is <u>not</u> in the wheelchair

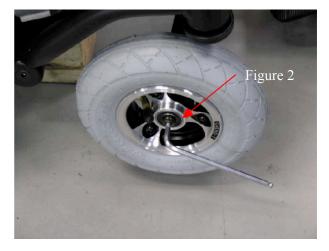




Screw the bolt in the center, off the wheel with a 5 mm Allen key – figure 2

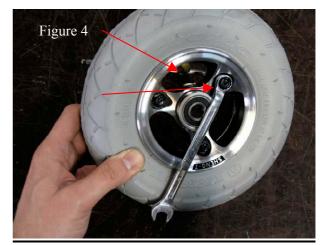
Take the wheel off the shaft.

Before splitting the rim, let the air out of the tube, by pressing on the valve – figure 3





Split the rim, by screwing the 3 bolts and nuts off with a 5 mm Allen key on the one side and a 10 mm spanner on the other side. – figure 4



Repair or replace the tube with a new one, and assemble the wheel again

It's recommended to Inflate the wheel to 2.0 bar / 30 psi.

! Be aware not to squeeze the tube between the two rim parts when assembling.

! Notice the way of the valve before assembling the rim. The valve fits in the cut-out of the rim, and shall point away from the rim with the cut-out. – figure 5

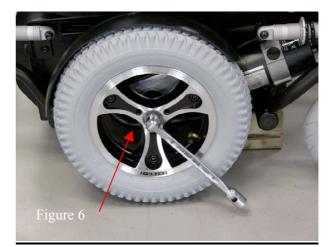
! Never inflate to more than the tyre is marked.

#### **Drive wheel**

Lift the wheelchair – see introduction and figure 1

Loosen the bolt in the center of the wheel with a 19 mm spanner and pull off the wheel from the shaft. Figure 6

Figure 5



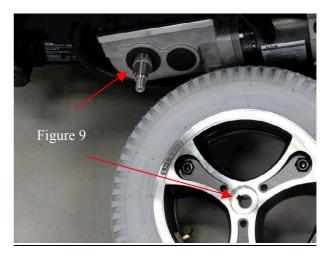
Before splitting the rim, let the air out of the tube, by pressing on the valve – figure 7



Screw the 3 bolt out of the rim with an 8 mm Allen key – figure 8

Figure 8

Figure 9



Repair or replace the tube with a new one, and assemble the wheel again

It's recommended to Inflate the wheel to 2.5 bar

! Be aware not to squeeze the tube between the two rim parts when assembling.

! Notice the way of the valve before assembling the rim. The valve fits in the cut-out of the rim, and shall point the same way as the rim with the cut-out.
– figure 9

! Never inflate to more than the tyre is marked.

When putting the wheel on the shaft again, be aware that the keyway on the rim shall fit at the keyway on the shaft. Figure 10

## **ACCESSORIES AND SPAREPARTS**

TA Service is constantly developing various accessories. For more information about accessories and spare parts contact the local dealer or TA Service.

# **DECLARATION OF CONFORMITY**

# CE

Manufacturer:

TA. Service A/S Ømarksgården Orupgade 32 B DK – 4640 Faxe E-mail: <u>ta-service@ta-service.dk</u> VAT. DK16068985

Product: ISO classification: Art.nr.: TA iQ power chair ISO 12 23 06 TA iQ MWD: 97050 TA iQ RWD: 97060 TA iQ FWD: 97070

The above aid is hereby declared to be designed and constructed in accordance with the essential requirements of Council Directive 93/42/EEC of 14 June 1993. See the Interior and Health Ministry Order No. 409 on medical equipment of 27 May 2003.

TA iQ is tested by TÛV, and complies with standard EN 12184:2009. TA iQ is EMC tested at Delta in Them in accordance with EN 12184:2009 section 9.1, PrEN 12184:2011 section 12.1 and ISO 7176-21:2003 section 5.2. TA iQ is Climate tested at Delta in Hørsholm in accordance to EN 12184:2009 section 8.11, PrEN 12184:2011 section 8.4 and ISO 7176-09:2009.

TA Indoor Wave is crash tested by Dahl Engineering in accordance to ISO 10542-5 &7176-19 – 2008.

Faxe 2013

Torben Andersen

Managing Director