

# TEKNA ADVANCE



# TEKNA ADVANCE Version with swing away footplates

User's manual



ENGLISH - rev. 2 - 29/06/2019

# FOR THE DEALER



This manual MUST be handed to the user of this wheelchair.

BEFORE giving the wheelchair to the user, the dealer MUST carry out a general check in all its fixing parts and check its functionality.

After the check, the dealer has to put the company's stamp he/she works for, name, signature and the date on the warranty certificate on the last page.

The user has to keep such certificate.

If the company's stamp and signature on the warranty certificate is missing, the warranty on the product is void.

This product is intended for patients, whose visual, cognition and reading capacities are regular. If the patient is impaired on any or all such capacities, an attendant with suitable such capacities must always be present.

For visually impaired people, this document is also available in PDF format on our web site www.rehateamprogeo.com.

# FOR THE USER



BEFORE using this wheelchair, READ this manual in all its parts and keep it for possible future reference.

Check the warranty certificate is fully filled up by the dealer and keep it with care.

# FOR THE ATTENDANT



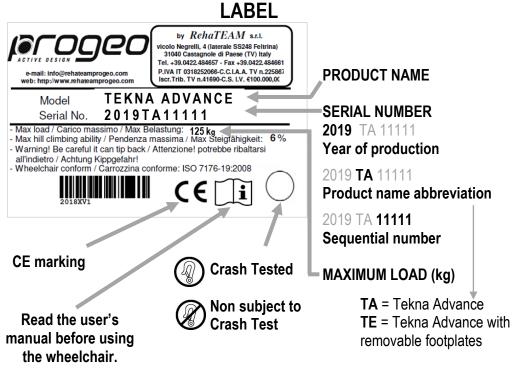
BEFORE using this wheelchair, READ this manual in all its parts and keep it for possible future reference.

Check the warranty certificate is fully filled up by the dealer and keep it with care.

# FIREPROOF PROPERTY

This product has been tested in compliance with the rule EN12183. Such rule includes a flammability test.

Classification of fire resistance of upholstery: M2 and M3



Tekna Advance 3

# INTRODUCTION

At RehaTEAM®, constant research into quality and creativity are the cornerstone of our business.

After many years in the industry, we remain genuinely focused on providing total customer satisfaction while bringing innovative style and design to every one of our high-quality wheelchairs.

We have become industry leaders by making excellence and service our top priorities.

All of our models are built from carefully selected materials and provide multiple configurations allowing full personalization.

We perform continuous, meticulous quality control and testing in order to offer the highest possible quality combined with fast, reliable service. We acknowledge that we owe our success to our clients as well as to those who have believed in us and helped us quality is the best differentiator.

# CONTENTS

CHAPTER	TITLE	PAGE	
1	INTENDED USE AND CONDITION OF USE	5	
2	PUT INTO SERVICE / USE	5	
2.1	Tyre pressure	6	
2.2	Brakes	6	
2.3	Quick release rear wheels	8	
2.4	Folding/unfolding the wheelchair	9	
2.5	Footplate	10	
2.6	Front frame with removable footplate	11	
2.7	Calf strap	12	
2.8	Adjustable backrest upholstery	12	
2.9	Armrests and side guards	13	
2.10	Fasteners	14	
2.11	Wheelchair lifetime	14	
3	SAFETY	15	
3.1	Avoiding accidents	15	

3.2	Movements: getting in and out of the wheelchair	15
3.3	Starting to drive your wheelchair	16
3.4	Dealing with obstacles: stairs and steps	16
3.5	Dealing with slopes or inclines	17
3.6	Ensuring stability	18
4	TRASPORT OF WHEELCHAIR	19
5	GENERAL DESCRIPTION OF PARTS	20
6	ADJUSTMENT	21
7	ACCESSORIES	22
7.1	Transit wheels	22
7.2	Anti-tip wheel	22
7.3	Push handles for attendant	23
7.4	Tipping aid	23
7.5	Crutches support	24
7.6	Folding push handles	24
7.7	Quick release fork	24
7.8	Tetraclip	25
7.9	Pelvic belt and harness	25
7.10	Table	26
7.11	Lumbar support	26
7.12	Headrest	26
7.13	Lateral support	27
7.14	Rear wheels	27
7.15	Hand rims	28
7.16	5 Tyres	28
7.17	One arm drive	29
7.18	Spoke guard	29
7.19	Casters	29
7.20	Side guards	29
8	MAINTENANCE	30
8.1	Replacements of worn parts	30
8.2	Inspection of components	31
8.3	Storage	31
8.4	Disposal/recycling of materials	31
8.5	Trouble shooting guide	31
9	TECHNICAL DATA	32
10	EC CERTIFICATE	33
11	WARRANTY	34

# 1 INTENDED USE AND CONDITION OF USE

The ultra-light wheelchair Progeo® TEKNA ADVANCE is a folding wheelchair with crossbar system.

The wheelchair TEKNA ADVANCE is self-propelled which means that it can be moved manually by using the hand rims on the rear wheels.

It can have both a rehabilitative and active function and it is thus suitable for a daily use by users with different kinds of pathologies.

It is used to guarantee either fully independent or assisted (with an attendant) movement for a person with reduced or fully impaired movement in one or more parts of the body.

As it has such a large range of accessories and configurations, the wheelchair can be used in full safety both inside (at home, at school, etc.) and outside (on the road, pavement, courtyard, etc.) as long as the temperature is within -30°C and +60°C.

Where the user is affected by particularly severe pathologies or with people who are unable to move at all on their own, an attendant is always advisable. We also discourage use over hilly, particularly soft, sandy or uneven ground, slopes exceeding the recommended gradient and acid environments.



In the daily use of the wheelchair, the user may come across situations such as rough or irregular terrains (gravel, cobblestones, holes on the ground, etc.) or slippery terrains (wet, sandy, dusty, oily hard surfaces, etc.). In all such situations and, in general, in all those cases where the use of the wheelchair can be difficult or risky (for the wheelchair and its user), it is always advisable to drive carefully and smoothly with no sudden acceleration or hard braking.

When the difficulty or risk is high, an attendant is always advisable.

The maximum gradeability of the wheelchair, in order to prevent tipping back, is  $3^{\circ}(6\%)$ .

### Maximum load for the model TEKNA ADVANCE: 125 kg.

According to its dimensional and structural characteristics the wheelchair model TEKNA ADVANCE is ideal for use by both teenagers and adults.

# 2 PUT INTO SERVICE / USE



It is important that a general check of all the functional parts of the wheelchair IS CARRIED OUT BY QUALIFIED AND AUTHORISED PERSONNEL ONLY, both to assess its suitability and to provide the user and his/her possible attendant with the correct instruction of use.



Should the user and/or his/her attendant find any malfunctioning of any part of the wheelchair, he/she is bound to contact the dealer to solve the problem.



Neglecting the instructions and information written in this manual may cause malfunctioning and/or damage to the wheelchair and/or to the user and/or to third parties. Rehateam s.r.l is not responsible for any damage to the wheelchair and/or to the user and/or to third parties, caused by or coming from neglecting such instructions and information.



The use of the wheelchair requires that some of its parts be handled. Instructions for correct handling of the components of the wheelchair can be found in the corresponding sections of this document. Therefore, follow these instructions to avoid possible injuries.

# 2.1 Tyre pressure

In order to guarantee consistent, precise running and braking, it is necessary to ensure that the tyres are correctly inflated.

Remove the plastic valve cover on the valve that you can find on the rim of the rear wheel.

Use a compressor or pump with manometer to bring the pressure to the correct level.

Screw up the plastic valve cover.



Weekly check the correct tyre pressure as indicated on the tyre. A correct tyre pressure makes the wheelchair much more fluent and easier to move and control





We suggest inflating the high-pressure tyres within 7 and 8 BAR. Use a compressor or pump with manometer to bring the pressure to the correct level.

Incorrect inflation of the tyres (especially if too low) causes incorrect functioning of the brakes and the wheelchair may not stop.



Do not exceed the pressure indicated on the tyre because you may damage the tyre and the inner tube. Always respect what indicated on the tyre.



The anti-puncture tyres do not require inflation. This type of tyre needs less maintenance and eliminates the costs and inconvenience due to repair or replacement of the inner tube. However, during normal use, they are less fluent than traditional tyres.

# 2.2 Brakes

The parking brakes are a safety device thus, it is necessary to check their efficiency daily.



The brake works by means of a lever that acts directly on the tyre. For such reason the effectiveness of the braking system depends on the tyre being correctly inflated. We highly recommend checking tyre pressures at regular intervals.



The maximum slope you can safely use the parking brakes efficiently adjusted is 3° (6%).



The brake is a safety feature and **you must not use it while the wheelchair is moving** as this could cause the wheelchair to overturn with possible injury to the occupant.

To check the efficiency of the brakes, engage them as hereafter indicated according to the model of brakes. Then, with the person sitting on the wheelchair, try to push the wheelchair.

If the rear wheels do not turn or hardly turn, thus, preventing the undeliberate movement of the wheelchair, then the brake are efficient.

Check both brakes.

The necessary force to engagement/release the brake can be different according to the type of brake.

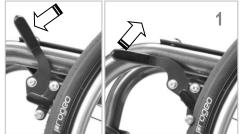
For user with less strength of the upper limbs, it is advisable the brake with extended lever.



Pay attention to your fingers when engaging and releasing the brakes.

### PUSH-TO-LOCK BRAKE

The brake lever can be either "bent" (1) or "straight" (2).



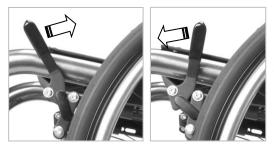


To engage the brake, push the lever forward until it locks.

To release the brake, pull the lever backward. The brake automatically goes back to its resting position.

#### PULL-TO-LOCK BRAKE

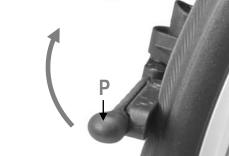
### SPORT BRAKE



To engage the brake, pull the lever backward until it locks.

To release the brake, push the lever frontward. The brake automatically goes back to its resting position.





To engage the brake, turn the lever until it locks.

To release the brake, push the knob **P** forward. The brake goes back to its resting position.

This type of brake reduce the encumbrance of the wheelchair when you remove the rear wheels. It prevents interference with your hand when pushing on the hand rims even with long pushes. On the other hand, in comparison with traditional brakes, its lever in located a lower position and it is less easy to operate. For such reasons, it is not suitable for user with reduced control/movement of the trunk and/or upper limbs and hands.



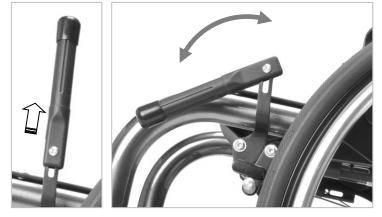
BRAKE WITH EXTENDED LEVER

The brake (push-to-lock and pull-to-lock) with extended lever works in the same manner, but results easier to engage and release.

To prevent the extended lever from standing in the way while the user is moving from or to the wheelchair, it is possible to fold the lever.

In order to do so, pull the lever up first and then fold it forward.

To put it back to the normal using position, turn the lever up and then push it down



### 2.3 Quick release rear wheels

The quick release rear wheels allow for reducing the encumbrance of the wheelchair. This way, it becomes easier to load the wheelchair into the car, or, if it is equipped with the accessory "transit wheels", the wheelchair becomes both shorter and narrower in order to gain access to small rooms such as a lift.

**Check the correct engagement** of the quick release axles of the rear wheels with no person sitting on the wheelchair.

Always release the brake.



Slightly lift the wheelchair form the ground on one side by holding it on the backrest. Now one rear wheel is not touching the ground.

With your hand, take hold of the rear wheel's hub (without pushing the button of quick release axle) paying attention while putting your fingers between the spokes.

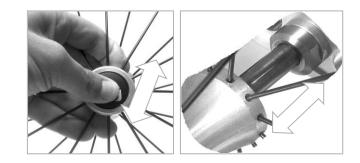
Push and pull the wheel (as indicated by the arrow) to check the correct engagement of the wheel: the wheel must not come off.

Should the wheel come off, it is necessary to adjust the quick release axle. Only qualified and authorized personnel can perform the adjustment.



Checking the quick release axles of the rear wheels is a procedure the user should follow periodically.

If the quick release axles are not correctly placed and fastened they may work loose during normal use and could result in the wheel accidentally coming off, in the wheelchair overbalancing and possibly causing injury.



### To remove the wheel, release the brake first.

Slightly lift the wheelchair form the ground on one side by holding it on the backrest. Now one rear wheel is not touching the ground.

With your hand, take hold of the rear wheel's hub and, with your thumb, press the button of the quick release axle, keep it pressed and pull the wheel off.

### To insert the wheel, release the brake first.

Slightly lift the wheelchair form the ground on one side by holding it on the backrest. Now one rear wheel is not touching the ground.

With your hand, take hold of the rear wheel's hub and, with your thumb, press the button of the quick release axle, keep it pressed and push the wheel in all along the wheel receiver.

Release the button of the quick release axle (a click indicates the correct engagement).



Always release the brake before removing and inserting the rear wheel.

Always check the correct engagement of the quick release axles.

# 2.4 Folding/unfolding the wheelchair

The model TEKNA ADVANCE has a crossbar system foldable seat.

### OPENING

Lean your hands' palms on the seat tubes, positions  ${\bf A}$  and  ${\bf B},$  and push them down until the complete opening of the wheelchair.



After opening the wheelchair, carefully check that the seat tubes are well inserted on the four supports  ${\bf S}.$ 









While opening the wheelchair, be careful not to squeeze your fingers between the seat tube and the supports or between the seat tube and the frame tube. In order to make the operation easier, it is advisable to lift one rear wheel to reduce the friction on the floor. To do so, take hold on the backrest and slightly lift the wheelchair.

Now, with your free hand on the seat tube, position  ${\bf A}$  or  ${\bf B},$  push the seat tube down on the supports  ${\bf S}.$ 

Check that the seat tubes are well inserted on the four supports S.

Lower the footplate (this operation is not necessary if the wheelchair is equipped with an automatic closure footplate).

### CLOSING

Remove the cushion or any other soft or rigid supports from the seat and from the backrest. Raise the footplate (this operation is not necessary if the wheelchair is equipped with an automatic closure footplate).

With both hands, pull the seat canvas up as shown in the picture.







# 2.5 Footplate



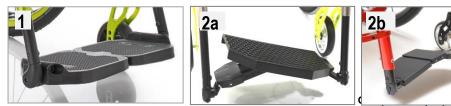
When moving in and out of the wheelchair, we recommend not keeping your feet on the footplate; an excessive weight on the footplate may result in it breaking and could in turn cause harm to the user.



After each operation, check the footplate is always in the correct position (completely open).

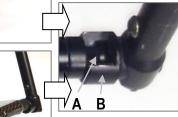
Should the wheelchair be equipped with **double footplate** (1) make sure both plates are totally down before using the wheelchair.

With one-piece **footplate with automatic closure in plastic (2a) or in aluminium (2b)** this check is not necessary because the footplate opens automatically together with the seat.









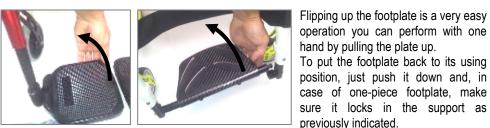
A B

footplate (3), make sure that the locking tooth **A** is properly inserted in the slot of the support **B**.

With one-piece flip-up aluminium footplate (4) or carbon fibre footplate (5), make sure that the locking tooth A is properly inserted in the bed of the support B.

According to the user's need, the wheelchair can be provided with any of the footplates above mentioned.

The one-piece footplates are more rigid than the double and they are recommended for those users who have frequent spasms or exercise a lot of force on the footplate. All footplates, except the footplate with automatic closure, when raised, allows the user to lean his/her feet on the ground more easily, especially during transfer.



### OTHER INFORMATION ON FOOTPLATE

Should the wheelchair be equipped with double footplate, in order to prevent the front frames from widening apart, it is provided with a stretched calf band fixed to the fork support.



	う

<u>Never use the stretched calf band as support for your feet and never remove it</u>. Without it, in fact, the front frame can widen apart so much as to alter the wheelchair's geometry even when driving normally. Rehateam s.r.l. is not responsible for malfunctioning or damage to the wheelchair or to the user if, with double footplate, the wheelchair is used without the stretched calf band.



For the version "with swing" away and removable footplate, the stretched calf band is not necessary.

Carbon fibre footplate can be turned 180°. Such characteristic may be useful either to reduce the encumbrance of the wheelchair or temporarily have a different position of footplate.





To perform such operation, just raise the plate out of its locking support and turn it to the opposite position. Now you can either fold the wheelchair or lock the footplate in its support.



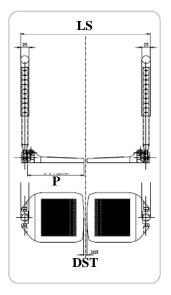
Never use the footplate, being it one-piece or double, as foothold while making transfer.

Tekna Advance 10



The double footplates are less resistant than the one-piece footplates and thus, they are not suitable for those users with strong spasms and/or contractions.

In the order form, according to the type of footplate, you can choose its position (internal, external or intermediate). However, not all footplates have different positioning.



To comply with the rule UNI EN 12183 paragraph 6.1, when double footrests are fitted, it is necessary to maintain the correct distance between the two footrests when lowered:

1) The footrest distance (DIST) must not exceed 35 mm for wheelchairs used by adults.

2) The footrest distance (DIST) must not exceed 25 mm for wheelchairs used by children.

Here below the correct footrest sizes based on seat width are detailed. Model: TEKNA ADVANCE

Seat width (LS)	TEKNA ADVANCE
	Plate (P)
36	150 x 160
39	170 x 160
42	170 x 160
45	200 x 160
48	200 x 160

2.6 Front frame with removable footplate

One of the characteristics of the model TEKNA ADVANCE consists of a particular footplate front frame that you can swing away or completely remove. These functions have the purpose of reducing the encumbrance and the weight of the wheelchair as well as helping the user to get closer to objects such as a bed or a table. It is also convenient for amputees for whom the footplate is useless.

Check the footplate frame is securely locked to its support. With one hand, take hold of the footplate frame and try to move it clock and anticlockwise. If it is securely locked, the footplate frame will not rotate, but you should notice just a little play.



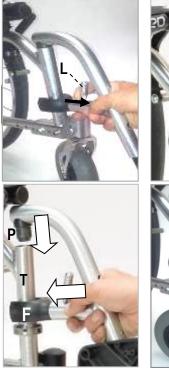


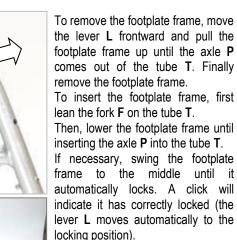
To swing the footplate frame externally, move the lever L sideward to same direction and turn the footplate frame.

To swing the footplate frame internally, move the lever L sideward to same direction and turn the footplate frame.

To lock the footplate frame to the using position, just swing it to the middle until it automatically locks. A click will indicate it has correctly locked.

Make a check as previously mentioned.





Should the wheelchair be equipped with double footplate, it is necessary to raise it only if you swing the footplate frame internally.

Should the wheelchair be equipped with double footplate, it is necessary to raise it only if you swing the footplate frame internally.

Tekna Advance 11

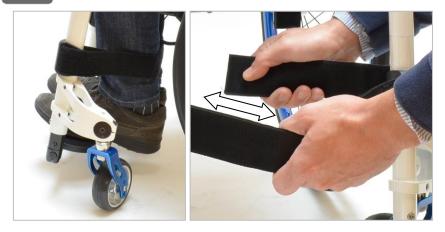
# 2.7 Calf strap

In some cases, according to the caster's size and to the wheelchair's width, the caster, while turning on the fork's axle, may touch the user's talon.

In order to prevent such contact that may lead to overbalancing, the wheelchair is provided with a calf strap. The calf strap has to be adjusted in such a way that the user's feet never touch the casters.



You can easily adjust the calf strap via Velcro straps.



### 2.8 Adjustable backrest upholstery

The backrest can be adjusted to the user requirements by tensioning or slackening the two special Velcro straps hidden within the backrest itself.

To carry out the adjustment, lift or remove the upholstery, tighten or slacken the Velcro straps as required and place the upholstery back.



# 2.9 Armrest and side guards

The model TEKNA ADVANCE can be equipped with TUBULAR ARMRESTS or REMOVABLE ARMRESTS.

The armrests are considered as an accessory and they have to be ordered separately. They are particularly useful for people with reduced mobility of their hands or arms and for those with limited upper body movement who require better stability once seated in the wheelchair.



Do not use the armrest as hand hold to raise the wheelchair; this may cause the armrests to come off from their supports and in turn cause harm to the user and to the wheelchair

Do not use the armrest as supports when making transfer. We indeed recommend swinging the armrest away on the side of the transfer to help the operation.

You can swing this type of armrest away on the side and remove it to make transfer easier.



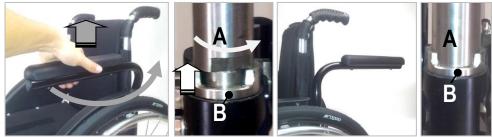
Always check the armrests are locked when they are in their position for use (facing forwards and parallel with the sides of the wheelchair).

In all other positions (except when locked in their backward position), they are free to turn and for this reason, always ensure that they are correctly positioned before using the wheelchair.

If this instruction is ignored the wheelchair or the user may overbalance.

In order to check the correct position of use, with one hand, take hold of the armrest and try to move it clock and anticlockwise. If correctly locked, the armrest does not turn but it will allow just a little play.

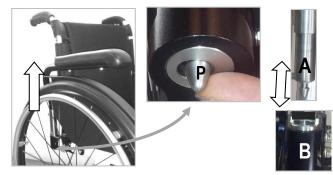




To make transfer easier, you can swing the armrest away on the side.

Raise it by approximately 1 cm (the part **A** of the support moves away from the part **B**, but it will not come off) and swing it away. If you wish, you can swing the armrest away until it locks in its opposite position (the part **A** locks in the part **B**).

To put it back to its using position, swing it in until it locks (if it was locked in its opposite position, raise it by approximately 1 cm first).



The steel support (made out of the parts **A** and **B**), does not allow the armrest to come off unintentionally. When you pull the armrest up by approximately 1 cm, it should stop at that point. In that position, as above mentioned, you can swing the armrest away.

In order to remove the armrest, with one finger, you have to move the pin  ${\bf P}$  to the hole and then pull the armrest up.

To insert the armrest; insert the part  ${\bf A}$  of the support into the hole of the part  ${\bf B}$  and turn the armrest until it locks as above-mentioned.



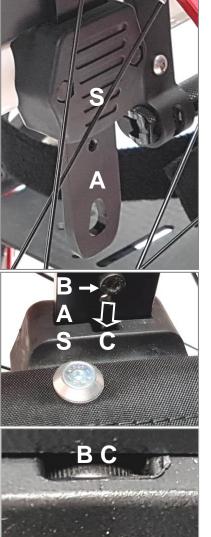
Since the supports **A** and **B** are precise, inserting and removing the armrest, is possible only if the movement is vertical.

### **REMOVABLE ARMRESTS**

This type of armrest is quite practical. You can remove it to make transfer easier. The removable armrest includes a skirt guard.

The correct position of use is when the bayonet-like support A, once it is inserted through the support S, stops when the bolt B goes into the cavity C.





To remove the armrest, just pull it up. To insert the armrest, insert the bayonet-like support **A** through the slot **D** of the support **S** and let it slide down to its correct position as above mentioned.

#### **REMOVABLE SIDE GUARDS**

The removable side guards, mudguards or straight, use the same system of the removable armrests.

### 2.9 Fasteners

When delivered to the user, the wheelchair is checked by the retailer who, thus, ensure it is in perfect condition.

However, the daily use of the wheelchair may cause bolts and nuts to loosen.



We recommend checking that all hardware is correctly tightened at least once a month.

If necessary consult an authorized  $\ensuremath{\mathsf{PROGE0}}\xspace^{\ensuremath{\scriptscriptstyle \bullet}}$  . dealer or technician.



For each maintenance cycle ensure that all nuts, bolts and screws are correctly tightened.

Rehateam s.r.l. is in no way responsible for any damage caused to the user, to third persons or to the wheelchair due to neglecting such warning.

### 2.10 Wheelchair lifetime

The PROGEO<sup>®</sup> wheelchairs are daily used and consequently they undergo continuous stress that causes an inevitable wearing out of the parts.

Under normal daily use the PROGEO® wheelchair has a lifetime of 5 years provided that it receives careful maintenance at the correct intervals.

The lifetime will considerably increase if the wheelchair is used only indoors or not on a daily basis.

# 3 SAFETY



The Progeo® wheelchair is a medical device and therefore it MUST NOT BE LENT NOR GIVEN TO OTHER USERS even for short period.

It is forbidden to make any unauthorised modifications or using un-approved parts may change the wheelchair structure and create unsafe condition as well as possible harm to the chair and occupant.



REHATEAM S.R.L. WILL ACCEPT NO RESPONSIBILITY IN CASES OF NON-COMPLIANCE WITH THE INSTRUCTIONS OR RECOMMENDATIONS AS SET OUT IN THIS MANUAL AND ANY SUCH ACTIVITY WILL RESULT IN THE IMMEDIATE CANCELLATION OF THE MANUFACTURER'S WARRANTY.

BURN HAZARD! The components of the wheelchair may heat up if they are exposed to strong solar radiation

# 3.1 Avoiding accidents

### MOVEMENTS

Avoid sudden, jerky movements during use of the wheelchair as this could cause it to overbalance. If obstacles are run into, avoid sudden movements (such as abrupt braking).

The risk of skidding increases on irregular or damp ground.

Going over obstacles as steps and ramps has to be done carefully (ask an assistant for help). For greater safety, when moving across inclined or potentially dangerous terrains it is recommended the presence of an attendant behind the wheelchair.

### SPEED

Always adjust your speed with relation to the type of terrain and conditions. As a general rule, we advise a constant, regular speed avoiding sudden accelerations or changes indirection.

### BRAKES

The parking brakes have been designed to hold the wheelchair stable when it is stationary.



For safety reasons we do not recommend using the parking brakes while the wheelchair is in motion.

Wh or t

When using the brakes, a great care should be taken to avoid injury to the hands or fingers.

# 3.2 Movements: getting in and out of the wheelchair

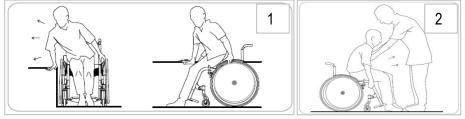


While getting into or out of the wheelchair **do not place your feet on the footplate.** This could result in the wheelchair tipping up, possibly causing harm both to the chair and to the occupant.

Getting in and out of the wheelchair must always be done with extreme care and caution, even by experienced users, and must be performed only after receiving instruction from specialized and fully trained personnel

If getting in and out of the wheelchair is difficult, an attendant should be present. All of these actions should in any case be performed based on your particular pathology and therefore on your own level of independence.

### The general rules to respect while getting in or out of the wheelchair safely are:



Ensure the wheelchair is parked on a solid, flat or regular surface.

Do not get in or out of the wheelchair while on hills or uneven ground which could render the wheelchair unstable and cause the occupant to fall and/or the wheelchair to overbalance. The brakes should be engaged.

Get your feet off the footplate when getting out, and bring them close to the footplate when getting in. If the wheelchair is equipped with flip-up footplate (one-piece or double), raise it to make transfer easier.

Lean on the wheelchair and where possible on a stable object nearby. Use the force of your arms to raise and move your body (1).

In case the occupant is not able to perform this movement alone, or if the movement is to be performed on an uneven surface, an attendant should be present (2).



While getting in or out of the wheelchair never lean or sit on the clothes protector or on the armrest. It could bend or break, possibly resulting in injury.



If your wheelchair is equipped with armrests, the one on the side you get in or out of the wheelchair is recommended to be removed or swung away.

#### 3.3 Starting to drive your wheelchair

### FINDING THE CENTRE OF GRAVITY

Your ability to control and safely tip the wheelchair depends mainly on your seating position and the location of the centre of gravity in respect to the rear wheels.

The correct position of the rear wheels depends on different factors such as the user's weight, type of handicap and the user driving skills.

The manufacturer delivers the wheelchair and the position of the rear wheels (setting) according to what requested in the order form.



Finding the point at which the chair will safely tip back requires the presence of an attendant who must be standing behind the wheelchair ready to prevent it from overbalancing.

In order to find the point at which the chair will tip back easily and consequently to find the range within which it is safe to manoeuvre it, proceed in the following manner:

You are sitting in your wheelchair.

Hold the hand rims on the rear wheels firmly. Then, move the hand rims slightly backwards and while moving your weight backwards, push the hand rims forward with a jerk and the front of the chair will raise.

At this point, by moving your body gently backwards and forwards while moving the rear wheel backwards and forwards using the hand rims, it will be possible to find the centre of gravity and the point at which the chair will safely be controlled.



IN ORDER TO PREVENT THE WHEELCHAIR FROM OVERBALANCING DURING NORMAL USE WE RECOMMEND MOUNTING AN ANTI TIP SYSTEM.

#### Dealing with obstacles: stairs and steps 3.4



While getting over obstacles such as stairs and steps, approach the obstacle at a moderate speed



Never attempt to go over steps or other obstacles that are over 20cm (6

If particularly difficult obstacles are encountered an attendant should always be present at the back of the wheelchair in order to ensure complete safety.



Before attempting to go over a step or over any kind of general obstacle alone (without the presence of an attendant), you will need to have control over your wheelchair and know how to tip it while maintaining your balance over the rear wheels.

### GOING DOWN A STEP ON YOUR OWN

Bring the wheelchair right up to the leading edge of the obstacle. Raise the front wheels by tilting the wheelchair while maintaining balance.

Move the rear wheels carefully down to the obstacle; during this phase hold the handrails to control the descent.

Once the rear wheels have descended the obstacle, tilt the wheelchair forward until the front wheels touch the ground again.



### GOING UP A STEP ALONE

Bring the wheelchair right up to the leading edge of the obstacle.

Raise the front wheels and tip the chair back while maintaining balance

Using the hand rims, carefully move the rear wheels forwards until they touch the edge of the step.

Tip the wheelchair forward until the front wheels are on top of the obstacle.

Lean forward in the chair so that the rear of the chair is lighter.

Hold the hand rims tightly and move the rear wheels forwards bringing them over the top of the obstacle.



#### GOING DOWN STAIRS WITH AN ATTENDANT

Take the wheelchair right up to the obstacle so that the front wheels are as close as possible to it.

Grip the rear handles tightly and push down in order to raise the front of the wheelchair.

Keep the wheelchair in this position and accompany it down the stairs one-step at a time. The occupant seated in the chair can assist the attendant by using the hand rims.

At the end of the descent, tip the chair forward so that the front wheels are once again touching the ground.

> To make raising the front of wheelchair easier for the attendant, it is advisable to equip the wheelchair with the accessory "tipping aid".

#### GOING UP STAIRS WITH AN ATTENDANT

Move backwards towards the step so that the rear wheels of the wheelchair touch it.

Grip the rear handles of the wheelchair tightly and pull hard while keeping the wheelchair tilted (with the front wheels raised in order to prevent the occupant from slipping out of the chair) until the rear wheels are over the step.

Keeping the wheelchair tilted, move it away from the step enough to allow the front wheels to touch the same level ground.

> To make raising the front of wheelchair easier for the attendant, it is advisable to equip the wheelchair with the accessory "tipping aid".

#### Dealing with slopes or inclines 3.5

The maximum gradient that can be attempted in complete safety is 6% (3°).

#### **GOING UPHILL**

Driving up any kind of slope should be done with extreme care. The occupant must move at speed by generating force on the rear wheel while at the same time maintaining control over the wheelchair.

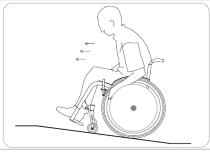


We recommend that occupants who have not yet completely mastered safe use of the chair should mount the anti-tip system, which is useful for preventing the chair from tipping over backwards.

Lean forwards and keep your weight forward in the chair in order to prevent the wheelchair from tipping over backwards.

Hold the hand rims tightly.

Move the wheelchair hard up the slope whilst ensuring that you move smoothly and fluidly. Do not move your upper body backwards and forwards in the chair.



#### **GOING DOWNHILL**

In order to go downhill safely, the occupant has to keep constant, controlled speed and direction over the entire slope.

Approach the slope at a moderate speed.

Keep your weight backwards in the chair to avoid slipping out.

Hold on to the hand rims on the rear wheels and allow them to slide slowly through your hands.

The occupant should be able to stop the wheelchair at any time simply by blocking the motion of the hand rims.









### LEANING OUT TO THE SIDE

# 3.6 Ensuring stability

You will encounter situations, which will require you to lean out of the wheelchair.

These apparently simple movements could, if not performed with care, result in a loss of stability and in possible overbalancing of the chair.

In order to gain the maximum control over your wheelchair the following list of common situations is reported. We ask you to pay particular attention to these guidelines to maintain balance and stability

### LEANING FORWARDS

Ensure that the front wheels of the chair are pointing forwards. In order to do this, move the chair forwards and then backwards.

Put on the brakes in order to prevent the chair from moving suddenly during the movement.

Lean forward in such a way that your upper body does not move beyond the front wheels at any time. Moving the weight of the body excessively forward may cause the wheelchair to tip up onto the front wheels and overbalance possibly causing harm to both the chair and the occupant.

In order to ensure greater stability, the occupant should hold on to the wheelchair with his or her free hand.



Do not lean too far forward; you may fall out of the chair.

Do not move forward by sliding your pelvis across the seat cushion in order to reach objects that are too far away. The chair could overbalance.

182

#### LEANING BACKWARDS

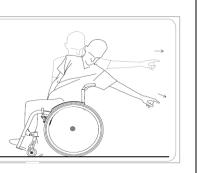
Ensure that the front wheels of the chair are pointing forwards.

In order to do this, move the wheelchair forwards and then backwards.

Do not engage the brakes.

Lean backwards without changing your sitting position.

Do not lean too far back over the backrest, the wheelchair could overbalance.

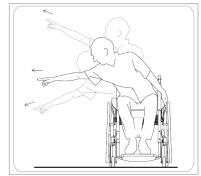


Do not move your upper body beyond the rear wheel as the wheelchair could overbalance.

With your free hand, for greater safety and stability, hold on to the wheelchair.



Do not lean too far out to the side, the wheelchair could overbalance.



# 4 TRASPORT OF THE WHEELCHAIR

There is no single best way to load the wheelchair in a vehicle.

The kind and level of the patient disability (his/her ability to control his/her upper body, arm and hand movements), physical strength (for an old person or a child the operation may result too hard) and the kind of vehicle that will be used are all factors.

It is clear that all these factors are too many to give a single precise procedure to fit all cases, therefore this information has to be taken as general advices.



Perform all car loading activities with extreme care and only after receiving instruction from specialised service personnel with our authorised dealers.

If these procedures seem to be unsafe or difficult, we recommend asking an attendant for help.

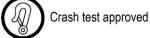


<u>Never transport in a vehicle an occupant sitted on the wheelchair unless the</u> <u>wheelchair is certified and predisposed according to requirements of</u> ISO 7176-19:2008.

If the occupant has to be transported while seated on the wheelchair you are reminded that the wheelchairs are not supplied with seatbelts. Any safety belts for vehicle transport must be installed only by companies that are specialized in vehicles transformations.

### TRASPORT OF THE OCCUPIED WHEELCHAIR

Always make sure the wheelchair is suitable to transporting the user in a vehicle. The symbols on the product label indicate if the wheelchair is or not crash tested and as such, if it can be used for the transport of the user on a motor vehicle.





### TRANSPORT WITH AN ATTENDANT

In cases where the physical limitations of the occupant prevent him/her from moving and loading the wheelchair into the car on his/her own, the help of an attendant will be required.

The lightness and reducibility of this model are very important because they allow the wheelchair to be moved easily even by those with limited physical strength.



Release the brakes and remove the rear wheels.

Fold the wheelchair.

Take hold of the chair with one hand on the front frame and the other hand on the backrest handle to balance the weight of the wheelchair and make lifting it easier

Load the wheelchair into the car and then the rear wheels. Thanks to its reduced encumbrance when folded, the wheelchair can be loaded in the boot of the car or between the front and rear seats.



### LOADING THE WHEELCHAIR WITHOUT ASSISTANCE

The following actions are intended for people with good control of their upper body, arms and hands as well as sufficient strength to perform the movements in complete safety.

Open the door on the side where you will get into the car from (eg. the driver's door), after that move the chair as close as possible to the seat.

Engage the brakes and get into the car.

Once you are inside the car, release the wheelchair brakes and pull out the rear wheels.

Fold the wheelchair and, with one hand on the front frame and the other hand on the backrest handle to balance the weight of the wheelchair and make lifting it easier, load it into the car.

Finally load the rear wheels.





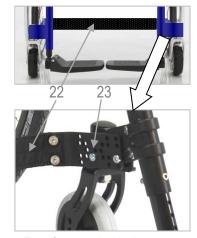
# 5 GENERAL DESCRIPTION OF PARTS



16



21



TEKNA ADVANCE version with swing away and removable footplate

Front frame anti-widening band (necessary only with double footplate on Tekna Advance)

1	Frame
1 a	Footplate frame
2	Backrest upholstery + Velcro straps for adjustment
3	Brake and side guard aluminium support
4	Side guard fixing/adjustment ring
5	Brake
6	Backrest tube with handle
7	Seat canvas
8	Side guard
9	Hand rim
10	Backrest support
11	Rear wheel
12	Quick relese axle
13	Rear wheel adjustment plate
14	Туге
15	Fork
16	Caster
17	Fork support
18	Crossbar
19	Footplate
20	Footplate tube
21	Calf strap
22	Front frame anti-widening band
23	Support for front frame anti-widening band

# 6 ADJUSTMENTS

The PROGEO® TEKNA ADVANCE wheelchair is a medical device based on the patient detailed specifications that are reported on the original order form filled in by qualified personnel.



# We strongly advise users against lending the wheelchair to other users even for brief periods.

The wheelchair measurements have been set after a careful study of the requirements of the user who originally purchased it and the features of manoeuvrability, stability and durability are guaranteed only for that user.



Lending your wheelchair to others could cause it to function unsafely and tip over with potentially serious consequences both for the wheelchair and for the user.

The wheelchair supplied by RehaTEAM® is tested and set up to ensure optimum performance.

The possible adjustments that are design for the TEKNA ADVANCE are hereafter listed.



ANY ADJUSTMENT CAN BE CARRIED OUT EXCLUSIVELY BY QUALIFIED AND AUTHORIZED BY REHATEAM® PERSONNEL.

IT IS FORBIDDEN TO CARRY OUT ANY MODIFICATIONS, EVEN WHEN POSSIBLE, TO THE ORIGINAL DESIGN.

Any adjustments and/or any modification that is carried out by non-authorized personnel will immediately void the warranty on the product and it relieves RehaTEAM® from any responsibility on any malfunctioning and/or damage due to such adjustments/modifications.



Always contact RehaTEAM® and its technicians for any non-standard requirements or modifications to allow them to evaluate such modifications and verify that they will not compromise the normal and safe use of the wheelchair.

Any modification of the original parameters and set up could seriously compromise the safe operation of the wheelchair causing damage to both the user and the wheelchair itself.



After every adjustment made to the wheelchair, check carefully that all parts are correctly fixed. Check that all screws and nuts are tightened and that all moving parts are functioning correctly.



After any adjustment, always test the wheelchair before normal use, possibly assisted by an attendant or a technician.

### POSSIBLE ADJUSTMENTS

- Rear height
- Front height
- Setting (point of balance)
- Fork angle (necessary when changing the seat inclination)
- Backrest height
- Backrest angle
- Footplate distance
- Footplate position
- Footplate inclination
- Brakes
- Convergence (necessary when the rear wheels are cambered)
- Some accessory

The instructions to properly carry out the adjustments, are included in the SERVICE MANUAL TEKNA ADVANCE that is available on the web site <u>www.rehateamprogeo.com</u>

# 7 ACCESSORIES

This model can be equipped with different accessories that should be evaluated according to the user's and/or his/her attendant's needs.

# 7.1 Transit wheels

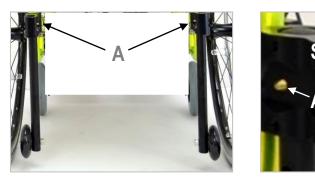
This accessory becomes necessary when the dimensions of the wheelchair impede getting in or through narrow rooms such as a door or a lift.

To use this accessory you have to remove the rear wheels.

This way, the wheelchair becomes narrower and shorter.

You can remove the transit wheel from its support. Press the pin  ${\bf A}$  that holds it and slide the tube off the support  ${\bf S}.$ 

To put on the transit wheel, insert the tube in the support **S** until the pin **A** touches the same support. Then, press the pin and slide the tube in until the pin locks in the hole of the support.





For a correct assembly of the transit wheel, you have to remember that when inserting it into the support, the pin  ${\bf A}$  should always face toward the inside of the wheelchair

You have to remember that while using the transit wheels (with the rear wheels removed), the parking brakes will not work at all.

# 7.2 Anti-tip wheel

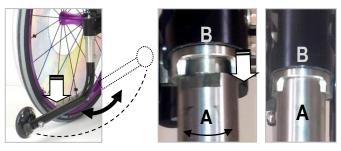
This accessory is designed to prevent the wheelchair from tipping back. To be efficient, it is fixed at approximately 2-3 cm from the ground. You can have the anti-tip wheel on one or, for more safety, on both side of the wheelchair.



In order to check the correct position of use, with one hand, take hold of the tube and try to move it right and left: the tube should not turn (there may be a little play). Then, push the tube downward: the tube goes down by approximately 1 cm but it must not come off.

After this check, verify the efficiency of the system with an attendant. It is necessary to raise the front of the wheelchair until the anti-tip wheel touches the ground and prevent the wheelchair from tipping. Take great care when performing this operation.

You can remove or swing in the anti-tip wheel when, for instance, you have to go over a step.



To swing the anti-tip wheel, push it down by approximately 1 cm (the part  $\bf{A}$  of the support moves away from the part  $\bf{B}$  without coming off) and turn it sideward.

When you turn the anti-tip wheel by  $180^{\circ}$  (opposite position), the support automatically locks (the part **A** locks in the part **B**).



To remove the anti-tip wheel, push the pin **P** that is located in the upper side of the support **S** and push the tube down.

To put the anti-tip wheel on, insert the part  $\bf{A}$  of the support in the hole of the part  $\bf{B}$  and turn the tube until the two parts locks together.



Due to the precision of the supports **A** and **B**, inserting and removing the anti-tip wheel is possible only with vertical movement.





## 7.3 Push handles for attendant

You can assemble these push handles only on a "sport" backrest tubes that have with no handles.

You can height adjust them in order to offer a better handhold and a better pushing position to the attendant.

The attendant and/or the user can easily adjust them and remove them.

To adjust them in height, unscrew the lever L, slide the tube up or down to the desired height, position the handle backward and finally screw the lever L tightly.

To remove the push handle, unscrew the lever  ${\bf L}$  and slide the tube off the support.

To put on the push handle, insert it and let it go through the support and adjust its height as above mentioned.



**Important warning for the attendant**: the push handle tubes are safe only when the two lever **L** are tightly screwed, in fact, this condition prevent the tubes from sliding up or down or even coming off accidentally.

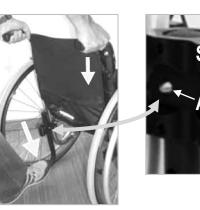
Before pushing the wheelchair, **make sure the two tubes are safely locked**. Rehateam s.r.l. cannot be responsible for any damage or injury due to neglecting this warning.



# 7.4 Tipping aid

This accessory has been designed to enable the assistant to tip back the wheelchair without a great effort in order to go over small steps easily. With one foot, press down on the plastic support while, at the same time, applying downward force onto the push handles.





You can remove the tipping aid by pressing the pin  ${\bf A}$  that hold it in positon and sliding the tube from the support  ${\bf S}.$ 

To insert the tipping aid, slide the tube in the support **S** until the pin **A** touches the support. Then, press the pin and let the tube in until the pin locks through the hole of the support.

## 7.5 Crutches support

This accessory holds the crutches on the wheelchair without creating interference with the normal use of wheelchair.

Put the ends of the crutches into the cap  $\bf{A}$  and fix their upper part using the belt  $\bf{B}$  that is fixed to the backrest tube.

You can easily remove the tube with the cap: press the pin  ${\bf P}$  and slide the tube off the support.

To put on the tube with the cap, insert the tube in the support **S** until the pin **P** touches the same support. Then, press the pin and slide the tube in until the pin locks in the hole of the support.

# 7.6 Folding push handles

These push handles, when folded down (1), reduce the encumbrance of the wheelchair and they get away from a possible interference with the user's arms while self-propelling the wheelchair.

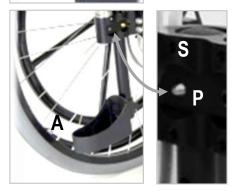
When folded up (2), they are just like normal handles.

Press the pin  $\mathbf{P}$  from the inner side of the handle and swing the handle up down until the pin automatically locks in the other position.



When the attendant moves the wheelchair with the patient on the wheelchair, make sure the push handles are safely locked in their using position.





# 7.7 Quick release fork

This accessory allows for further reduction of the wheelchair encumbrance.

With a double pair of forks, this accessory can be useful if the user needs to exchange the size of the casters to drive along different surfaces.



Try to pull the fork off to make sure the fork is securely engaged. The fork must not come off. There may be a just little play.

To remove the fork, take hold of it as shown in the picture, press the pin **P** that is located on the lower side of the axle **A** and slide the fork off. To put it on, press and hold the pin **P** and let the axle **A** go through the hole of bearing to full stroke. Finally, release the pin.



## 7.8 Tetraclip

This is a special quick release axle with a ring lever. It simplifies the wheel removal operation for users who have particular problems with their hands and fingers.

The axle words by turning the ring lever by 90°

When the rear wheel in inserted, the ring lever must be like in picture 1, that is turned 90° with respect to the axle's axis.

To remove the wheel, turn the ring lever like in picture 2, that is in line with the axle's axis. Then, take the wheel off.

To insert the wheel, the ring lever must be like in picture 2. Insert the wheel and turn the ring lever by 90° like in picture 1.



Checking the quick release axles of the rear wheels is a procedure the user should follow periodically.

If the quick release axles are not correctly placed and fastened they may work loose during normal use and could result in the wheel accidentally coming off, in the wheelchair overbalancing and possibly causing injury.

See also chapter "quick release rear wheels"

### 7.9 Pelvic belt and harness

Both the pelvic belt and the harness are accessories to this model and must therefore be ordered separately. Both of these belt systems are designed to offer greater security and stability to the occupant while seated in the chair.



Both the pelvic belt and harness system are of particular use for occupants with little control of their upper body and who require extra support in order to be held securely in the seat during use.

#### PELVIC BELT

It holds the occupant in the chair around the waist and leaves the upper body free for movement. The pelvic belt is fastened to the wheelchair with two anchorage points at the rear of the frame.



#### HARNESS

It holds the occupant in the seat at his/her waist and shoulder. The entire upper body of the occupant is secured to the seat. It is intended for use by occupants with particularly limited mobility in the upper body.

The harness system is fastened to the wheelchair with four anchorage points: two at the rear of the frame and two on the backrest tubes.



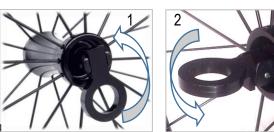


Using the pelvic belt and harness system is fairly simple.

Before the occupant sits in the wheelchair, he/she or his/her attendant should open the buckles by pressing on both sides of the locking buckle and pull the two parts open.

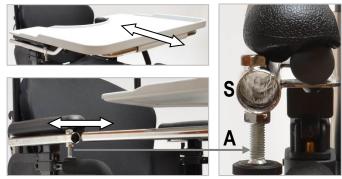
Once seated in the chair with the belt or harness in place the occupant can close the buckles by fastening the two parts together.

Both belts can be easily adjusted by pulling the extremities of their bands.



# 7.10 Table

This accessory can be assembled only if the wheelchair is equipped with armrests.



To insert the table, loosen the bolt **A** of the support **S** on each side of the wheelchair until the hole is free to let the tube go through.

Insert the tubes parallel into the supports and slide the table to the desired depth. Finally, tighten the bolt  ${\bf A}$  of both support  ${\bf S}$ .

	Δ	
	Т	
<u> </u>		

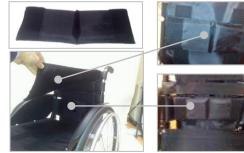
Before using the table, make sure it is firmly fixed. Try to move it to-and-fro: if it does not move, it is in condition of use.

To remove the table, loosen the bolt  ${\bf A}$  of the support  ${\bf S}$  on each side of the wheelchair and slide it off.

### 7.11 Lumbar support

It is a pad that offers better support to the lumbar area.

To position the lumbar support, raise the backrest upholstery on its front side. Via Velcro present on the parts, attach the lumbar support either to the backrest upholstery or to the backrest bands at the necessary height. Finally, put the backrest upholstery back to its normal position.



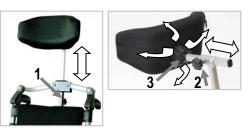
# 7.12 Headrest

This accessory is designed to give support to the head. It is suitable for folding wheelchairs; in fact, this type of headrest has a folding structure.

When you unfold the wheelchair, the headrest unfolds, too. To put the headrest in its using position, pull its structure up until the two tubes A are tilted downward starting from the central unit B.

Before folding the wheelchair, you have to push the central unit  ${\bf B}$  down.

The user or the attendant can easily adjust the position of the headrest according to the user's need.



After unscrewing the knob **1**, you can adjust the height.

After loosening the know **2**, you can adjust the depth.

After loosening the knob **3**, you can adjust the pad by turning it up/down/right/left.



After each adjustment, screw the knob and make sure the system is stable. Always make a check; in fact, if the system is unstable, it may be cause risky situations.



After loosening the knob of each adjustment, you can also remove the corresponding parts.

# 7.13 Lateral support

This accessory is designed to give support to the user's trunk.

This lateral support is of the type "swing-away", thus, you can swing it back.

Turn the lever  $\mathbf{A}$  by 90° and swing the lateral to the opposite position where it will automatically lock.



Make sure the system is stable. Always make a check, in fact, if the system is not stable, it may result risky to the user.



# 7.14 Rear wheels

According to the functional and/or aesthetical needs, you can choose among different rear wheels available for this model.



On these rear wheels, it is possible to assemble different types of hand rims.



SPINERGY FLEX RIM This type of wheel integrates an aluminium and flexible rubber tape that sensibly increases the hand grip.



OFF ROAD WHEELS\* These wheels are designed to offer a better fluency and comfort along off-road and rough surfaces. They are provided only with Offroad tyre and aluminium hand rim.



RUOTE FAT WHEEL\* These wheels allow the wheelchair to be used over more difficult surfaces. They are provided with their own tyre and aluminium hand rim.

\*You can choose this type of wheel as additional kit to the main rear wheels you choose for the wheelchair. In this case, the wheels are interchangeable and, thus, you just have to remove one pair and put the other on.

# 7.15 Hand rims

For this model of PROGEO wheelchair, special hand rims are available. These hand rims with special features ensure improved grip, and therefore a more efficient pushing motion, especially for users with limited strength or mobility of the hands and fingers.







TITANIUM Light, efficient, it can be re-brushed.



MAX GREPP Soft rubber suitable for guadriplegics



**ERGO PARA** Aluminium hand rim with a wide and ergonomic rubber band, suitable for quadriplegic



"Captain's wheel" hand rim, hand's palm push, suitable for quadriplegics.

ALLUMINIUM SOFT TOUCH Light and with better grip



**CRHOMED STEEL** Excellent grip, more resistant, heavier.



SURGE LT Oval aluminium hand rim with a rubber tape for more grip.



Hard rubber suitable for quadriplegics



To be applied over the aluminium hand rim, suitable for quadriplegics

# 7.16 Tyres

Different type of tyres are available. The compatibility with the rear wheel depends on the wheel's size.

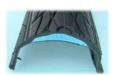


High pressure tyre Light and reliable, suitable for most environments.



Light and reliable, more suitable for rough surfaces.

Marathon Plus With anti puncture protection, suitable for most environments.



### Solid tyre KIK MAKO

Suitable for most environments, it does not need inflation, but it is less fluent, it has a little less grip especially over smooth and wet surfaces.

### 7.17 One arm drive

This accessory allows the user to push and control the wheelchair using only one rear wheel. In fact, such wheel is provided with two independent hand rims: the larger controls the wheel of that side whereas the smaller controls, thanks to the connection  $\bf{A}$ , the opposite wheel.

When you need to fold the wheelchair, first, you have to remove the connection bar **A**. To do so, pull one the two extremities of the bar **A** to compress it (there is a spring inside) until you can detach it from the wheel's axle and remove it completely.

To put the connection bar **A** on, insert one of its two extremities on the wheel's axle, then, pull the bar to compress it as much as necessary to be able to insert the other extremity on the other wheel's axle.





Often check the two knobs **B**. These should not allow play, but, at the same time, they should allow the connection bar to compress and extend. This condition is the ideal while driving as well as for inserting and removing the bar **A**.

### 7.18 Spoke guard

These have principally a cosmetic function but also prevent the user from accidentally inserting their fingers in the rear wheel spokes.



### 7.19 Casters

According to the functional and/or aesthetical needs, you can choose the type and size of the casters available for this model.

Generally, with larger diameter and width of the wheel, driving along rough surfaces and going over small obstacles such as pebbles, little steps (1 cm), etc. will be easier. The "soft" caster is more comfortable then the "active" (hard) caster. The pneumatic caster is the most comfortable, but it often needs to be inflated.







4" soft





3" sport

3" active soft

4" active sport

4" active soft





5" active soft



6" soft or pneumatic

### 7.20 Side guards

The side guards can be in plastic or, much more resistant, in carbon fibre. They can be of the type "mudguards" or "straight".



Should the side guard be of the type "mudguard", these are originally fixed with its edge at approximately 5 mm above the tyre to prevent the user from inserting his/her fingers between tyre and mudguard.

# 8 MAINTENANCE

Periodic inspection of the wheelchair is vital to guarantee maximum performance and a long life. A careful check, repeated at regular intervals, along with an appropriate use of the wheelchair will ensure that your wheelchair will last for many years.

To clean the aluminium or carbon fibre parts (frame, hand rims, brakes etc.), the backrest and the seat, we recommend using only a **soft**, **damp cloth**.



Within 6 months from purchase, we recommend going to an authorized PROGEO dealer for a complete check-up of your wheelchair. The manufacturer will accept no responsibility in case of noncompliance with the instructions or recommendations as set out in this manual and any such activity will result in the immediate cancellation of the manufacturer's warranty.



We recommend paying particular attention to the cleaning of the hand rims of the rear wheels, which become dirty very easily because of their constant use and nearness to the ground. Careful cleaning the hand rims will ensure optimum grip and therefore safer operation.



When cleaning the wheelchair, do not use abrasive cleaning agents or degreasing substances, which could cause damage.



Sand and seawater may damage the wheel bearings. Check the bearings carefully if contact is suspected. Lubricate with a non-resin based light bicycle oil.



Tighten firmly all screws and replace lock nuts that are used frequently. In fact, with frequent loosening and tightening they tend to lose their effectiveness.



Have a complete check of the wheelchair carried out (at least every three months) by qualified personnel authorized for maintenance on PROGEO® products.

For any questions relating to the adjustment and maintenance of your PROGEO wheelchair, the experienced technical staff at RehaTEAM are at the complete disposal of all our clients. You can contact us directly at the address below:

### RehaTEAM<sup>®</sup> s.r.l vicolo Negrelli, 5 - 31040 Castagnole di Paese (TV) Italy Tel. +39.0422.484657 - Fax +39.0422.484661 http://www.rehateamprogeo.com email: info@rehateamprogeo.com

# 8.1 Replacements of worn parts

With its use, any wheelchair will require, in addition to the routine maintenance, further "unscheduled" intervention due to the normal wear and tear of components. This maintenance is closely linked to amount and type of use the wheelchair is subjected (e.g. use over rough terrain, in coastal areas with more airborne salt etc.).

#### Repairing a puncture

In the event of a puncture, remove the wheel and Remove the tyre using bicycle tyre levers. Remove the inner tube and repair it using a standard puncture repair kit and the same procedure used for repairing a normal bicycle inner tube.

If repair is not possible then you will need to replace the inner tube.

The rear wheel tyres should be replaced whenever excessive or irregular wear is noticed since this results in reducing the performance of the wheelchair.

To re-fit an inner tube and tyre onto the wheel rim it is necessary to inflate the inner tube partially. Next, insert the valve into the hole on the rim and, using both hands and bicycle tyre levers, insert the inner tube into the tyre and work the edge of the tyre over the wheel rim. While re-fitting the tyre, be careful not to pinch the inner tube and make sure the tyre is evenly fixed all around the wheel rim. Finally, inflate to the correct pressure.

When worn out, solid tyres should be replaced with new ones.

#### Spare parts

For the replacement of parts due to wear and tear or breakage (or simply for the purchase of accessories) all the necessary spare parts to keep your wheelchair in perfect working order will remain readily available.



All spare parts can be ordered through our authorized dealers.

### 8.2 Inspection of components

As a daily check, we recommend the following operations:

- Check the tyre pressure
- Check the quick release axles
- Check the folding system
- Check the footplate
- Check the parking brakes
- General check of all screws

# 8.3 Storage

If the wheelchair is not used for a medium-long period (over 4 months), it is advisable to store it clean in a dry and covered place and inside a box (preferably that of the original packaging).

At the time of re-use, it is necessary to carry out a general check of the wheelchair following the same points of paragraph 8.2.

Before the patient can use the wheelchair, carry out driving tests of the wheelchair to check that there are no anomalies.

In case of malfunctions, anomalies or broken parts, consult an authorized dealer for the necessary repair.

# 8.4 Disposal/recycling of materials

When the wheelchair is to be disposed of (end of life of the product), it is necessary to consider any local regulations in force for waste disposal or recycling.

This includes cleaning or disinfecting the wheelchair before disposal. Below, a description of the materials used.

• <u>Aluminum</u>: frame, forks, wheels, backrest tubes



- Titanium: frame, backrest tubes
- <u>Steel</u>: bolts and nuts, quick release axle
- <u>Plastic:</u> footplates, side guards
- <u>Rubber/PU</u>: grips, tyres, wheels
- Carbon fiber: frame, side guards, footplates
- Upholstery: textile with expanded foam
- Packaging: plastic bags made of soft polyethylene, cardboard

Contact your authorized disposal center for disposal or recycling. Alternatively, the wheelchair can be returned to the retailer for disposal.

# 8.5 Trouble shooting guide

With constant and prolonged use of the wheelchair, or after the adjustment of any part, you may encounter a number of "defects" which can easily be eliminated by qualified personnel, or, in some case, indicated with the symbol **a**, even by the user or by his/her attendant. We recommend that you always have your wheelchair adjusted by qualified personnel.

Problem	Cause of the problem	Solution
	The front forks are not perpendicular to the ground.	Check front wheel angle
	The front wheels have not the same height.	Check front wheels height
The wheelchair does no go straight.	The tyres pressure is not correct	Inflate the tyres at the same pressure
	The spokes are broken or loosen.	Change the damaged spokes or tighten the loosened one.
	The front wheels bearings are	Clean the bearings
	dirty or damaged.	Change the bearings
The wheelchair tips up	The rear wheels are adjusted to get a too active setting.	Adjust the rear wheels in a more backward position
easily.	The wheelchair is too inclined	Increase the rear height or decrease the front height.
The brakes do not work	The tyre pressure is not correct	Check the pressure of tyres.
properly.	Bad adjustment of brake position	Check brake adjustment
The wheelchair results	The tyre pressure is not correct	Check the pressure of tyres.
difficult to propel.	Tyres are worn out	Change tyres. 🖻
The wheelchair is hard to open.	The backrest bands are too tightened.	Slacken the backrest bands.

# 9 TECHNICAL DATA model TEKNA ADVANCE

SEAT WIDTH	360 390 420 450 480 mm
SEAT DEPTH	350 375 400 425 450 475 mm
FOOTPLATE DISTANCE	from 350 to 540 mm (adjustable)
BACKREST HEIGHT	from 245 to 470 mm (adjustable)
BACKREST ANGLE	84° 90° 96° (adjustable)
CAMBER	0° 2° 4°
FRONT HEIGHT	from 400 to 580 mm (adjustable)
REAR HEIGHT	from 380 to 460 mm (adjustable)
SETTING (point of balance)	prudential – standard – active (adjustable)
FRONT FRAME ANGLE	90° 100°
TOTAL WIDTH	Seat width + 170 mm (with 0° camber)
TOTAL LENGTH (lightest configuration)	850 mm approx.
WHEELCHAIR WEIGHT (lightest configuration)	Starting from 10.2 kg approx.
WEIGHT WITHOUT REAR WHEELS (lightest configuration)	Starting from 7.6 kg approx.
WEIGHT OF REAR WHEELS (pair)	3.2 kg
WEIGHT OF ARMRESTS (pair)	1 - 2 kg (according to model)
MAXIMUM LOAD	125 kg
ENCUMBRANCE (folded wheelchair)	28 cm approx. (with 0° camber)

# TECHNICAL DATA model TEKNA ADVANCE version with swing away footplates

SEAT WIDTH	360 390 420 450 480 mm
SEAT DEPTH	350 375 400 425 450 475 mm
FOOTPLATE DISTANCE	from 350 to 540 mm (adjustable)
BACKREST HEIGHT	from 245 to 470 mm (adjustable)
BACKREST ANGLE	84° 90° 96° (adjustable)
CAMBER	0° 2° 4°
FRONT HEIGHT	from 400 to 580 mm (adjustable)
REAR HEIGHT	from 380 to 460 mm (adjustable)
SETTING (point of balance)	prudential – standard – active (adjustable)
FRONT FRAME ANGLE	95° 110° 120°
TOTAL WIDTH	Seat width + 170 mm (with 0° camber)
TOTAL LENGTH (lightest configuration)	850 mm approx.
WHEELCHAIR WEIGHT (lightest configuration)	Starting from da 10.2 kg approx.
WEIGHT WITHOUT REAR WHEELS (lightest configuration)	Starting from da 7.6 kg approx.
WEIGHT OF REAR WHEELS (pair)	3.2 kg
WEIGHT OF REMOVABLE FOOTPLATES (pair)	1.5 kg
WEIGHT OF ARMRESTS (pair)	1 - 2 kg (according to model)
MAXIMUM LOAD	125 kg
ENCUMBRANCE (folded wheelchair)	28 cm approx. (with 0° camber)

# 10 EC CERTIFICATE TEKNA ADVANCE



The manufacturer **REHATEAM s.r.l.** 

based in Vicolo Negrelli, 4 – 31040 Castagnole di Paese (TV) Italy

declares that the product defined as

WHEELCHAIR FOR DISABLED PEOPLE, PROGEO SERIES,

### TEKNA ADVANCE

# AND THAT THE PRODUCT DEFINED AS PROGEO ACCESSORIES FOR WHEELCHAIRS

which this declaration refers to,

are in conformity with the guidelines as laid down by the Council Directive 93/42/EEC concerning medical devices.

The manufacturer has classified the above mentioned product as

#### **CLASS I Medical Device**

based on provisions as set out addendum IX of the Council Directive 93/42/EEC

Made in compliance with the following harmonized standard(s): UNI EN 12183:2009

Castagnole di Paese (TV)

Direttore Responsabile Rehateam s.r.l. Sig. Luciano Nosella

01 september 2010

**TEKNA ADVANCE** version with swing away footplates

# jerogeo

ŀ

ŀ

R



막고 먹고 먹

### **EC Declaration of Conformity**

The manufacturer **REHATEAM s.r.l.** 

based in Vicolo Negrelli, 4 - 31040 Castagnole di Paese (TV) Italy

declares that the product defined as

#### WHEELCHAIR FOR DISABLED PEOPLE, PROGEO SERIES,

#### **TEKNA ADVANCE Version with swing away footplates**

# AND THAT THE PRODUCT DEFINED AS PROGEO ACCESSORIES FOR WHEELCHAIRS

which this declaration refers to,

are in conformity with the guidelines as laid down by the Council Directive 93/42/EEC concerning medical devices.

The manufacturer has classified the above mentioned product as

CLASS I Medical Device based on provisions as set out addendum IX of the Council Directive 93/42/EEC

Made in compliance with the following harmonized standard(s): UNI EN 12183:2009

Castagnole di Paese (TV)

Direttore Responsabile Rehateam s.r.l. Sig. Luciano Nosella G

G

C

01 september 2015

# 11 WARRANTY

The warranty agreement exists only between RehaTEAM® s.r.l. and its authorised dealers. For this reason the client may not make warranty claims directly to RehaTEAM® s.r.l.. The following conditions of warranty are therefore reproduced solely for information purposes.

### General conditions of the warranty

RehaTEAM® s.r.l. provides assistance on its products on the condition that they have been used correctly and that adequate maintenance has been carried out on all parts of the wheelchair. The warranty covers all defects in material and production provided that such defects can be shown to have been caused prior to distribution of the product to the authorised dealer.

### How to validate your rights under the warranty

In order to validate all rights covered under the warranty (on all our products) the authorised dealer must carry out an inspection, within 7 days of the date of delivery, on all products received, in order to identify eventual production defects, and secondly, that if any such production defects are noticed, that they confirm the same to RehaTEAM® s.r.l. in writing immediately.

RehaTEAM® s.r.l. should also be notified in writing of any defect, which, despite careful inspection, is identified only after the expiry of the abovementioned period.

### Warranty period

On this model of wheelchair RehaTEAM® s.r.l. provides a guarantee of 5 years on the frame, and 2 years on all other components and accessories, starting from the date of delivery, excluding those components that are subject to normal wear and tear during everyday use.

### Repair of defects and replacement

The guarantee on defects on contact parts is at the complete discretion of RehaTEAM® s.r.l., either for the repair of the defect or for the replacement of the part itself. The authorised distributor in cases of simple repairs may take action independently to eliminate the defect or bring the defect to the attention of RehaTEAM® s.r.l. in specific cases.

With reference to our production line that is labelled with the marks PROGEO and PHYSIO, being these products manufactured to measure and with artisanal and not industrial procedures, minor imperfections, minor imprecisions on colours and carbon fibre weaves are not to be considered as defects.

### Limits of the warranty

The RehaTEAM® s.r.l. warranty does not cover additional costs (e.g. repair, packing, labour costs, incidental costs etc...). The following are not covered by the warranty:

- Damage caused during transportation, not communicated to the transport company at the moment of delivery.
- Repairs carried out by unauthorised dealers or personnel.
- Parts subject to wear and tear.
- Damage to property or injury to persons caused during use of our products.
- Damage caused maliciously or where the buyer is at fault, or resulting from incorrect or improper use of the product.
- Damage caused to the wheelchair, to objects and to persons resulting from any device or object, which is mounted/added to the wheelchair without written authorization from RehaTEAM® s.r.l...

Excluded from the warranty is any pretext for indemnity except those expressly mentioned in the preceding paragraphs of this chapter.

RehaTEAM® s.r.l. does not accept any responsibility for failure to respect or carry out the conditions agreed in individual contracts, if the following circumstances have impeded and/or have made it impossible to respect the terms of the contract itself: embargos, import and export bans imposed on contract products, legal rulings, strikes, lack of raw materials, accidents, major force or other forces beyond our control.

RehaTEAM® s.r.l. reserves the right to carry out technical modifications to its products, which it deems necessary without prior notification.



CERTIFIED

www.tuv.com ID 9105021998 By RehaTEAM® Srl

Vicolo Negrelli, 5 – 31040 Castagnole di Paese (TV) Italy

Tel. +39 0422 484657 ra Fax +39 0422 484661 http://www.rehateamprogeo.com progeo@rehateamprogeo.com

Medical device <b>Class 1</b> directive 93/42/EEC s.m.i.	WARRANTY CERTIFICATE
ULTRALIGHT WHEELCHAIR	Place of production: Castagnole di Paese (TV) - ITALY
	Date of production:
TEKNA ADVANCE (TA)	Date of shipment:
	Serial number:
TEKNA ADVANCE (TE) VERSIONE WITH SWING-AWAY FOOTPLATES	STAMP OF DISTRIBUTOR/DEALER
	STAMP OF MANUFACTURER RehaTEAM® Srl Vicolo Negrelli, 5 – 31040 Castagnole di Paese (TV) Italy Tel. +39 0422 484657 ra Fax +39 0422 484661 http://www.rehateamprogeo.com progeo@rehateamprogeo.com
Management System ISO 9001:2008 Certified company TÜV Rheinland directive UN Rehateam® s.r.l. reserves the right to carry ou	NI/EN/ISO/9001 t modification and/or improvements to its products without prior notice.

Total or partial reproduction of this manual is forbidden without written authorization from Rehateam® s.r.l..