



Yes, you can.®



# Invacare® Spectra Blitz™

## User guide





**ISO 7176 PART 15  
REQUIREMENTS FOR INFORMATION DISCLOSURE,  
DOCUMENTATION AND LABELLING**

**MODEL DESIGNATION: Spectra BLITZ POWERCHAIR**

ISO TEST METHOD	REQUIREMENT	MIN	MAX	ISO TEST METHOD	REQUIREMENT	MIN	MAX
ISO 7176 Pt 5	Overall Length with Legrest	835mm	940mm	ISO 7176 Pt 7	Seat Angle Plane	minus 5.5°	60°
ISO 7176 Pt 5	Overall Width	560mm	560mm	ISO 7176 Pt 7	Effective Seat Depth: 25cm depth 27.5cm depth 30cm depth 32.5cm depth 35cm depth 38cm depth	250mm 275mm 300mm 325mm 350mm 380mm	250mm 275mm 300mm 325mm 350mm 380mm
ISO 7176 Pt 5	Folded Length	780mm	780mm	ISO 7176 Pt 7	Effective Seat Width: 25cm wide 30cm wide 35cm wide	250mm 300mm 350mm	290mm 340mm 390mm
ISO 7176 Pt 5	Folded Width	560mm	560mm	ISO 7176 Pt 7	Seat Surface Height - Front Edge: 45cm (T op of padded seat) 45cm (c/w cushions) 47.5cm (T op of padded seat) 43cm (T op of cushions) 43cm (c/w cushions)	49.5mm 54.5mm 47.5mm 52.5mm	49.5mm 54.5mm 47.5mm 52.5mm
ISO 7176 Pt 5	Folded Height	910mm	910mm	ISO 7176 Pt 7	Backrest Angle	minus 8.5°	60°
ISO 7176 Pt 5	Total Weight	79.5kg	79.5kg	ISO 7176 Pt 7	Backrest Height	370mm	440mm
ISO 7176 Pt 1	Static Stability Downhill	28°	31°	ISO 7176 Pt 7	Footrest to Seat Distance: Adj angle (13cm to 21cm): Top of padded seatboard c/w cushion Adj angle (21cm to 30cm): Top of padded seatboard c/w cushion	140mm 190mm 210mm 260mm	220mm 270mm 300mm 350mm
ISO 7176 Pt 1	Static Stability Uphill	9°	31°	ISO 7176 Pt 7	Leg to Seat Surface Angle	90°	150°
ISO 7176 Pt 1	Static Stability Sideways	25.5°	25.5°	ISO 7176 Pt 7	Armrest to Seat Distance: Top of padded seatboard c/w cushions	180mm 130mm	180mm 130mm
ISO 7176 Pt 2	Dynamic Stability Uphill	3°	10°	ISO 7176 Pt 7	Front armrest to back rest: Cushioned back Tension back	270mm 320mm	270mm 320mm
ISO 7176 Pt 4	Energy Consumption Range	21.5Km	21.5Km	ISO 7176 Pt 7	Horizontal Location of Axle: Cushioned back Tension back	95mm 4.5mm	95mm 4.5mm
ISO 7176 Pt 6	Maximum Speed Forward	6.4Km/h	6.4Km/h	ISO 7176 Pt 5	Minimum Turning Radius	620mm	620mm
ISO 7176 Pt 10	Obstacle Climbing	35mm	50mm	ISO 7176 Pt 5	Turn Around Width Limiting Walls	90mm	900mm
ISO 7176 Pt 2	Minimum Braking Distance	1.06m	1.06m				

Max. User Weight 75kg

*The Wheelchair conforms to the following standards :*

ISO 7176 Pt 8	Static, Impact and Fatigue Strength	<input type="checkbox"/> YES
ISO 7176 Pt 9	Climatic Tests	<input type="checkbox"/> YES
ISO 7176 Pt 14	Power and Controls	<input type="checkbox"/> YES
ISO 7176 Pt 16	Resistance to Ignition	<input type="checkbox"/> YES

# Warranty terms & conditions

## Standard INVACARE Terms

This is to certify that your Spectra Blitz™ Powerchair is warranted by INVACARE Ltd., for a period of 2 years.

1. Only INVACARE chairs purchased at full price are warranted against defective workmanship and materials.
2. If a defect or fault is discovered the INVACARE dealer from whom the appliance was obtained should be notified immediately.
3. The manufacturer will not accept responsibility for damage caused by misuse or non-observance of the instructions set out in the users manual.
4. During the period of the Warranty, any parts that have become defective due to faulty workmanship or materials, will be renewed or repaired without charge by the INVACARE dealer.
5. The Warranty will be forfeited should any unauthorised alteration be made to the equipment.
6. The Purchaser's statutory rights under the Consumer Protection Act are not affected.

## Limitation of liability

This Warranty does not extend to the consequential costs resulting from fault clearance, in particular freight and travel costs, loss of earnings, expenses etc.

- natural wear and tear
- inappropriate or incorrect use
- defective assembly or setting-up by the purchaser or third parties
- defective or neglectful treatment
- use of unsuitable spares

# Contacting Invacare

For questions or support, please contact your authorised INVACARE Dealer. He has the necessary know-how and equipment, plus the special knowledge concerning your wheelchair which enables him to offer you an all-round satisfactory service.

Should you wish to contact us directly, we are at your service under the following addresses and telephone numbers.

## **United Kingdom**

INVACARE Ltd.

South Road · Bridgend Industrial Estate · Bridgend · Mid Glamorgan · CF31-3PY

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INVACARE Poirier SAS

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Tel (Service Après-Vente): 02 47 - 62 64 15 Fax (Service Après-Vente): 02 47 - 62 64 64

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Tel. 0972 - 49 32 00 Fax: 0972 - 49 32 20

## **Italy**

INVACARE Mecc San S.R.L.

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INVACARE PORTUGAL Lda

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# 1 Introduction

**Dear User,**

First of all we wish to thank you for your confidence in our products. We hope you will enjoy your new Powerchair.

**This manual contains important hints and information on:**

- **Safety,**
- **Operation,**
- **Care and maintenance.**

Please familiarise yourself thoroughly before making your first trip.

The information contained in this document is subject to change without notice.

As a manufacturer of wheelchairs, Invacare endeavours to supply a wide variety of wheelchairs to meet many needs of the end user. However, final selection of the type of wheelchair to be used by an individual rests solely with the user and his/her healthcare professional capable of making such a **selection**.

Do not operate this equipment without first reading and understanding this manual. If you are unable to understand the warnings, cautions, and instructions, contact your dealer otherwise injury or damage may result.

The initial set up of this wheelchair must be performed by a qualified technician.

Procedures other than those described in this manual **must** be performed by a qualified technician.



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**NOTE:**

Not all of the components within this manual will necessarily be available with your Spectra Blitz™ power wheelchair. Any references not applicable to your product should be ignored.

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## Intended Use

The Spectra Blitz™ Powerchair is intended for use by children or small adults weighing less than 75kg who may have impaired personal mobility.

The purpose of the Spectra Blitz Powerchair is to provide personal mobility and seated comfort / positioning to the user.

It is important that the user of this product understands the safety advice given within this user guide. Failure to follow the recommended advice within this user guide could lead to personal injury.

The Powerchair can be operated by either a seated user or carer / attendant and is suitable for both indoor and outdoor use in accordance with the instructions given within this user guide.

When prescribing wheelchairs for use by full or partial amputees (above or below knee, single or double) or other condition which affects the users natural centre of gravity. It is imperative that the product prescriber carries out a full stability evaluation to ensure that the user is safe in the use of the wheelchair and the risk of the wheelchair tipping is minimalised.

## 1.1 Important symbols in this manual



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### **WARNING: THIS SYMBOL WARNS YOU OF DANGER!**

- *Follow the instructions to avoid injury to the user or damage to the product!*



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### **NOTE:**

This symbol indicates hints and suggestions which should help make operating the product easier and point out special functions.



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### **Requirements:**

- This symbol indicates a list of the different tools and other requirements you will need to do certain maintenance work.
-

## 1.2 Type Classification and Area of Use

The Spectra Blitz™ is available with only one maximum speed option.

- The 6kmph (4mph) model is a Class 2 / B vehicle.



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**WARNING:**

- *Under no circumstances must the top speed of the Class 2 / B Spectra Blitz™ be increased, to do so will infringe Road Traffic Act Regulations.*
-

## 2.1 Repair or Service Information

Setup of the Electronic Control Unit is to be performed ONLY by individuals certified by Invacare. The final tuning adjustments of the controller may affect other activities of the wheelchair. Damage to the equipment could occur under these circumstances. If non-certified individuals perform any work on these units, the warranty is void.

Refer to the Spectra Blitz™ maintenance manual for detailed service and repair information

## 2.2 General Safety Notes



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### GENERAL WARNINGS

- *Performance adjustments should only be made by professionals of the healthcare field or persons fully conversant with this process and the driver's capabilities. Incorrect settings could cause injury to the driver, bystanders, damage to the chair and to surrounding property.*
- *After the wheelchair has been setup, check to make sure that the wheelchair performs to the specifications entered during the setup procedure. If the wheelchair does NOT perform to specifications, turn the wheelchair OFF immediately and re-enter setup specifications. Repeat this procedure until the wheelchair performs to specifications.*
- *DO NOT climb, go up or down ramps or traverse slopes greater than 6°.*
- *The recommended safe slope is 6° See page 21 - recommended driving position.*
- *DO NOT attempt to move up or down an incline with a water, ice or oil film.*
- *DO NOT attempt to drive over kerbs or obstacles greater than 50mm in height. Doing so may cause your wheelchair to turn over and cause bodily harm or damage to the chair.*

- *Always stop before climbing an obstacle. Approach slowly until castors contact the obstacle. Apply power and drive over the obstacle in a controlled manner.*
- *DO NOT use parts, accessories, or adapters other than those authorized by Invacare.*
- *DO NOT stand on the frame of the wheelchair.*
- *Take care when disengaging automatic brakes if the chair is on a slope.*

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### **TYRE PRESSURE**



- *DO NOT use your wheelchair unless it has the proper tyre pressure. DO NOT over inflate the tyres. Failure to follow these suggestions may cause the tyre to explode and cause bodily harm. The recommended tyre pressure is listed on the side wall of the tyre.*

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### **BATTERIES**



- *The warranty and performance specifications contained in this manual are based on the use of deep cycle gel cell batteries. Invacare strongly recommends their use as the power source for this unit.*
- *Carefully read battery/battery charger information prior to installing, servicing or operating your wheelchair.*

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### **ELECTRICAL**



- *Extreme care should be exercised when using oxygen in close proximity to electrical circuits. Contact your oxygen supplier for instructions in the safe use of oxygen.*
-





### **RAINT TEST**

- *INVACARE has tested its power wheelchairs in accordance with ISO 7176 Part 9 “Rain Test”. This provides the end user or his/her attendant sufficient time to remove his/her power wheelchair from a rain storm and retain wheelchair operation.*
  - *DO NOT leave power wheelchair in a rain storm of any kind.*
  - *DO NOT use power wheelchair in a shower or leave it in a damp bathroom while taking a shower.*
  - *DO NOT leave power wheelchair in a damp area for any length of time.*
  - *Direct exposure to rain or dampness will cause the chair to malfunction electrically and mechanically; may cause the chair to prematurely rust.*
  - *Check to ensure that the battery covers are secured in place.*
  - *DO NOT use the joystick if the boot is torn or cracked. If the joystick boot becomes torn or cracked, replace IMMEDIATELY.*
- 



### **WEIGHT TRAINING**

- *Invacare DOES NOT recommend the use of its wheelchairs as a weight training apparatus. Invacare wheelchairs have NOT been designed or tested as a seat for any kind of weight training. If occupant uses said wheelchair as a weight training apparatus, Invacare shall NOT be liable for bodily injury and the warranty is void.*
- 



### **WEIGHT LIMITATION**

- *The Spectra Blitz™ has a maximum user weight limitation of 75kg (165 lb).*
-

## 2.3 Safety Information on Electromagnetic Interference

This electric vehicle was successfully tested in accordance with international standards as to its compliance with Electromagnetic Interference (EMI) regulations. However, electromagnetic fields, such as those generated by radio and television transmitters, and cellular phones, can influence the functions of electric vehicles. Also, the electronics used in our vehicles can generate a low level of electromagnetic interference, which however will remain within the tolerances permitted by law. For these reasons we ask you to please observe the following precautions:



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**WARNING: DANGER OF MALFUNCTION DUE TO ELECTROMAGNETIC INTERFERENCE!**

- *Do not switch on or operate portable transceivers or communication devices (such as radio transceivers or cellular telephones) when the vehicle is switched on!*
  - *Avoid getting near strong radio and television transmitters!*
  - *In case the vehicle should be set in motion unintentionally or the brakes are released, switch it off immediately!*
  - *Adding electrical accessories and other components or modifying the vehicle in any way can make it susceptible to electromagnetic interference. Keep in mind that there is no sure way to determine the effect such modifications will have on the overall immunity of the electronic system!*
  - *Report all occurrences of unintentional movement of the vehicle, or release of the electronic brakes to the manufacturer!*
-

## 2.4 Safety Precautions/Safe Operation



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### IMPORTANT WARNING

- *The day-to-day activities and the more advanced Powerchair techniques depend, on your physical capabilities and your own specific circumstances. Our recommendations may occasionally differ from those of your Therapeutic Adviser or Physician, as they have a better understanding of your abilities. Where this is the case, you **MUST FOLLOW THEIR** advice, they are better placed to tell you what is suitable for you and what is not.*
  - ***DO NOT** use your Powerchair when your driving ability is impaired by medication or alcohol.*
- 



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### CAUTION

- *Avoid using your powerchair on rough ground or in adverse weather conditions (snow or ice), always steer clear of obstacles where possible, ensure your clothing and hands are kept clear of all moving parts, ask for assistance when descending or ascending steep gradients. Never attempt to negotiate stairs. Never use an escalator to move a powerchair between floors. Due to both the weight of a powerchair and its occupant it is not advisable to attempt to be assisted up and down stairs whilst the powerchair is occupied.*
  - *If you are a user with limited mobility we advise that in the case of adverse weather conditions i.e. extreme cold, **DO NOT** attempt a journey without an accompanying attendant. In the event of a power failure you could become stranded in an isolated area, where there is the strong possibility you will be unable to get immediate assistance.*
  - *Braking of your powerchair is dependent on electromagnetic motor brakes. When these are disengaged by declutching the motor gear box drive system, the chair is in freewheel mode, this mode is for emergency use only and motor gear boxes should remain engaged at all other times.*
  - *To avoid the powerchair free-wheeling, special care must be taken to engage motor brakes.*
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## **SAFETY INDOORS**

- *When using your powerchair indoors always consider the following potential hazards:*
  - *Beware of the fact that many of the premises where you are likely to use your powerchair may not have been designed with this consideration in mind. You should therefore have an awareness for safety when encountering the likes of narrow doorways, steps, high surfaces, protruding wall fittings and every day household items such as electrical appliances etc. Take extra care in kitchen environments.*
  - *Consider the fire evacuation procedures for buildings you may be entering. Never put yourself at risk and ensure that you can be easily evacuated in the event of an emergency.*
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## **NOTE**

Powerchairs drive very quietly, generally travel faster than the average walking pace and are low to the ground. Always consider these factors when using your powered wheelchair in busy pedestrian areas.

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## **COPING WITH EVERYDAY OBSTACLES**

- *Coping with the irritation of everyday obstacles can be alleviated somewhat by learning how to manage your wheelchair. Keep in mind your centre of gravity to maintain stability and balance.*
  - *DO NOT attempt to lift the wheelchair by any removable (detachable) parts. Lifting by means of any removable (detachable) parts of a wheelchair may result in injury to the user or damage to the wheelchair.*
  - *Also, be aware of detachable parts such as armrests or legrests. These must NEVER be used for hand-hold or lifting supports, as they may be inadvertently released, resulting in possible injury to the user and/or assistant(s).*
  - *When learning a new assistance technique, have an experienced assistant help you before attempting it alone.*
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## **SAFETY/HANDLING OF WHEELCHAIRS**

- *Use this information only as a “basic” guide. The techniques that are discussed on the following pages have been used successfully by many.*
  - *Individual wheelchair users often develop skills to deal with daily living activities that may differ from those described in this manual. Invacare recognises and encourages each individual to try what works best for him/her in overcoming environmental obstacles that they may encounter, however ALL WARNINGS and CAUTIONS given in this manual MUST be followed. Techniques in this manual are a starting point for all new wheelchair user and assistant with “safety” as the most important consideration for all.*
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## **AMPUTEE STATEMENT FOR PRESCRIBERS**

- *When prescribing wheelchairs for use by full or partial amputees (above or below knee, single or double) it is important to recognize that lower limb amputation will affect the sitting centre of balance of the wheelchair. The impossibility of generalizing the individual ability of a wheelchair user means it is imperative that the product prescriber carries out a full stability evaluation to ensure that the user is safe in the use of the wheelchair and the risk of the wheelchair tipping is minimized.*
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## **RECOMMENDED DRIVING POSITION**

- *INVACARE recommends that when driving your Spectra Blitz during normal operating conditions the following seat and back angles are maintained:*
    - *Seat Angle: - approximately 4°*
    - *Back Angle: - approximately 7°*
  - *Failure to observe the above precautions whilst driving may lead to instability, damage to the chair, user or those around you.*
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## **SURFACES AFFECTED BY HEAT**

- *The wheelchair is made from metal and plastic materials and, as with all products made with such materials, it can absorb heat from the sun when used outdoors or exposed to sunlight through windows etc... This can result in the surfaces of the wheelchair becoming hot, so take care in using it and touching the surfaces if it is left or used in such an environment.*
-

### 3 Some Useful Tips

Before you venture off on your first journey, ensure that everything is adjusted to your specific needs, read this manual to familiarise yourself with the product and its functions. DO NOT attempt to drive without an attendant on hand until you are fully proficient in using and manoeuvring your powerchair.

Ensure power is switched off before entering or leaving your powerchair. Before switching on, check that both motors are engaged, tyres are inflated to the correct pressure and are in good condition. When on the move DO NOT attempt turns at full speed, especially while travelling downhill. Before changing from forward to reverse, and vice versa, you must stop, failure to do so will cause severe damage to the electronics. DO NOT use your powerchair beyond its limitations. Due to both the weight of a powered wheelchair and its occupant it is not advisable to attempt to be assisted up and down stairs whilst seated.



When entering or leaving your powerchair, DO NOT stand on the footplates.

If you have to brake in an emergency, release the joystick. DO NOT switch off power while the powerchair is moving, it would cause an abrupt, sharp stop.



DO NOT use your powerchair beyond the limitations set out in this manual concerning kerb height, gradients, etc.



#### **Stability and Balance**

To ensure stability and safe control of your powerchair you must at all times maintain proper balance. The powerchair is designed to remain stable and

upright during normal use, so long as you do not move your centre of gravity outside the normal seating position.



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### REACHING - BENDING FORWARD

- *Ensure power is OFF. DO NOT lean your body forward out of the powerchair further than the length of the armrests.*
- *DO NOT attempt to pick up objects from the floor by bending forward and reaching between your knees.*
- *DO NOT attempt to reach objects by sliding forward to the edge of the Powerchair seat.*



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### REACHING - BENDING BACKWARDS

- *Again ensure power is switched OFF.*
- *DO NOT reach back any further than your arm will extend without changing your sitting position.*
- *DO NOT lean over the top of the backrest as it will shift the centre of gravity, risking tipping over.*
- *DO NOT hang heavy loads or objects on the backrest. They may make the powerchair unstable, especially on an incline.*



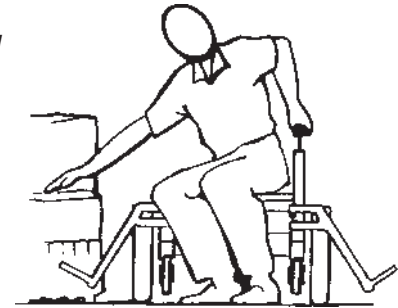




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## TRANSFERRING TO AND FROM OTHER SEATS

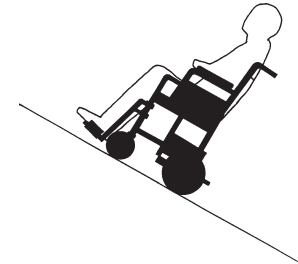
- *ALWAYS turn the wheelchair power OFF and engage the motor locks/clutches to prevent the wheels from moving BEFORE attempting to transfer in or out of the wheelchair. Also, make sure every precaution is taken to reduce the gap distance by turning both rear castors away from the object you are transferring onto.*
- *When transferring, position yourself as far back as possible in the seat. This will prevent broken screws, damaged upholstery and the possibility of the wheelchair tipping forward.*
- *Note: This activity may be performed independently provided you have adequate mobility and upper body strength.*
- *Position the wheelchair as close as possible along side the seat to which you are transferring, with the rear wheels pointing away from it.*
- *Engage motor locks/clutches.*
- *Shift body weight into seat with transfer.*
- *During independent transfer, little or no seat platform will be beneath you. Use transfer board if at all possible.*





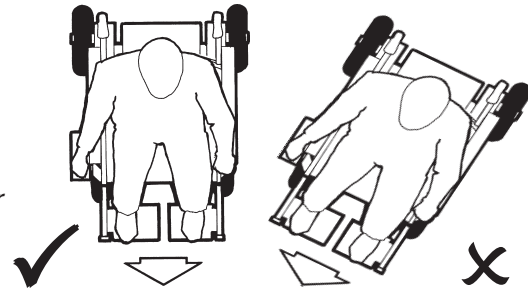
## NEGOTIATING GRADIENTS/SLOPES

- *Never attempt to climb or descend an incline where the surface is rough, wet or slippery (gravel, loose chippings, grass, rain, black ice, snow etc.).*
- *If you are in a situation where by the Powerchair fails to climb a ramp and stalls midway through the manoeuvre, DO NOT attempt to turn the Powerchair to drive back down in a forward facing direction, always reverse slowly in a steady, flowing action and DO NOT brake harshly, as this will upset balance in this situation. If possible, always seek the assistance of an attendant.*



## NEGOTIATING KERBS

- *When approaching kerbs wherever possible mount and dismount pavements via ramps. Always approach the kerb head on, not at an angle.*
- *When approaching a kerb stop approximately 5cm from the kerb edge, then push the joystick firmly forward and continue to climb over the obstacle in one movement. DO NOT pause or attempt to steer during this movement.*
- *NOTE: Take care when mounting or dismounting a kerb as it may be possible to lose drive if the anti-tipping castors contact the ground*



Direction of Travel



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## **YOU, YOUR POWERCHAIR AND OTHERS**

- *Powerchairs are strictly forbidden on motorways and their use is strongly discouraged on high-ways with fast moving traffic.*
  - *On the Pavement, in Pedestrian Zones or in Supermarkets it is obvious that you must show as much consideration and common sense to others as you expect from them.*
  - *When you cross the carriageway of a public road take extra care and allow time to cross, observe the Highway code. Although you are not required by law to hold a driving license, you are responsible and fully liable for proper operation. An important fact to bear in mind is that you must not present a traffic hazard even in the event of a breakdown. The most common cause may be discharged batteries. It is important to keep the batteries in a fully charged condition, we can only repeat this warning at this stage. If you do suffer a breakdown for whatever reason, you should immediately: seek the assistance of a passer-by. Explain where to find the motor disengagement/declutching lever, ask him/her to switch to freewheel, so that the Powerchair can be pushed by hand and moved. When in a safe place always ensure motor gear boxes are re-engaged.*
- 



---

## **SAFEGUARDING OTHERS**

- *We want you to get the most out of your INVACARE Powerchair, ensuring that the safety of yourself and others is never in jeopardy. If you are in any doubt about safe techniques, handling or care of the Powerchair, contact a recognised expert before putting yourself and others at risk.*
-

## 4 Safety Inspection Checklist

Initial adjustments should be made to suit personal body structure/user capability and preference. Thereafter follow these maintenance procedures:

	Initially	inspect/ adjust weekly	inspect/ adjust monthly	inspect/ adjust periodically
<b>General</b> Wheelchair rolls straight (no excessive drag or pull to one side).	X			X
<b>Motor brushes &amp; motor gearbox coupling</b>				X
<b>Clothing guards</b> Ensure all fasteners are secure.	X			X
<b>Arms</b> Secure but easy to release; adjustment handwheels engage properly.	X			X
Adjustable height arms operate and lock securely.	X			X
<b>Armrests</b> Inspect for rips in upholstery.	X			X
Arm rest pad sits flush against arm tube.	X			X

	Initially	inspect/ adjust weekly	inspect/ adjust monthly	inspect/ adjust periodically
<p><b>Seat and back upholstery</b></p> <p>Inspect for rips or sagging.</p>	X			X
<p><b>Drive wheels</b></p> <p>Axle nut and wheel mounting nuts are secure.</p> <p>No excessive side movement or binding when lifted and spun when disengaged (free-wheeling).</p>	X X		X	X
<p><b>Castors</b></p> <p>Inspect wheel/fork assembly for proper tension by spinning castor; castor should come to a gradual stop.</p> <p>Loosen/tighten locknut if wheel wobbles noticeably or binds to a stop.</p> <p>CAUTION: As with any vehicle, the wheels and tyres should be checked periodically for cracks and wear, and should be replaced.</p>	X X	X X		
<p><b>Castor/wheel/fork/head tube</b></p> <p>Ensure all fasteners are secure.</p>	X	X		

	Initially	inspect/ adjust weekly	inspect/ adjust monthly	inspect/ adjust periodically
<b>Tyres</b> Inspect for flat spots and wear. If pneumatic tyres check for proper inflation. <b>CAUTION:</b> As with any vehicle, the wheels and tyres should be checked periodically for cracks and wear, and should be replaced.	X X	X X		
<b>CLEANING</b> Clean upholstery and armrests.	X			X



**NOTE:**

Every six (6) months take your wheelchair to a qualified dealer for a thorough inspection and servicing. Regular cleaning will reveal loose or worn parts and enhance the smooth operation of your wheelchair. To operate properly and safely, your wheelchair must be cared for just like any other vehicle. Routine maintenance will extend the life and efficiency of your wheelchair.

## 4.1 Troubleshooting - Mechanical

Chair Veers Left/Right	Sluggish Turn/ Performance	Castors flutter	Squeaks and Rattles	Solutions
X	X	X		If pneumatic, check tyres for correct and equal pressure.
X	X X	X	X X	Check for loose stem nuts/bolts. Check that both castors contact ground at the same time.

Looseness In Chair	Chair 3 Wheels	Solutions
X	X	If pneumatic, check tyres for correct and equal pressure. Check for loose stem nuts/bolts.

## 4.2 Troubleshooting - Electrical

Symptom	Probable Cause	Solutions
Batteries draw excessive current when charging.	Battery failure.  Electrical malfunction.	Check batteries for shorted cell. Replace if necessary (see section 10). Contact Dealer/Invacare for Service.
Battery indicator flashes the charge level is low - immediately after recharge.	Battery failure.  Malfunctioning battery charger. Electrical malfunction.	Check batteries for shorted cell. Replace if necessary(see section 10). Contact Dealer/Invacare for Service. Poor connections between charger and wheelchair. Contact Dealer/Invacare.
Battery indicator flashes the charge level is low, too soon after being recharged.	Batteries not charged.  Weak batteries.	Have charger checked.  Replace batteries if necessary. Contact Dealer/Invacare for Service.
Motor “chatters” or runs irregular.	Electrical malfunction.	Contact Dealer/Invacare for Service.



Symptom	Probable Cause	Solutions
Only one (1) drive wheel turns.	Electrical malfunction. One motor lock is disengaged.	Contact Dealer/Invacare for Service. Engage motor lock (See section 11).
Joystick erratic or does not respond as desired.	Damaged motor coupling. Electrical malfunction. Controller programmed improperly.	Contact Dealer/Invacare for Service. Contact Dealer/Invacare for Service. Contact Dealer/Invacare for Service.
Wheelchair does not respond to commands. Power indicator OFF - even after recharging.	Poor battery terminal connection. Electrical malfunction. Blown / Tripped Fuse	Clean terminals (see section 10 ). Contact Dealer/Invacare for Service. Replace / Reset the fuse. (see section 10).




---

**NOTE:**

For additional troubleshooting information and explanation of electrical symptoms, refer to additional sections in this procedure of the manual.

---

### 4.3 Checking Battery Charge Level

The following “Do’s” and “Don’ts” are provided for your convenience and safety.

Don'ts	Do's
Don't perform any installation or maintenance without first reading this manual.	Read and understand this manual and any service information that accompanies a battery and charger before operating the wheelchair.
Don't make it a habit to discharge batteries to the lowest level.	Recharge as frequently as possible to maintain a high charge level and extend battery life.
Don't use randomly chosen batteries or chargers.	Follow recommendations in this manual when selecting a battery or charger.
Don't put new batteries into service before charging.	Fully charge a new battery before its first use.
Don't tap on clamps and terminals with tools.	Push battery clamps on terminals. Spread clamps wider if necessary.
Don't mismatch your battery and chargers.	Use ONLY a GEL charger for a GEL or sealed battery.

## 4.4 Care and maintenance

---



### **NOTE:**

Have your vehicle checked once a year by an authorised Invacare dealer in order to maintain it's driving safety and roadworthiness.

---

### **Cleaning the vehicle**

When cleaning the vehicle, pay attention to the following points:

- Only use a damp cloth and gentle detergent.
- Do not use any scrubbing agents.
- Do not subject the electronic components to any direct contact with water.
- Do not use high-pressure cleaning devices.

## 4.5 Product End of Life

Even though your Powerchair has been designed to provide a long and trouble free life it is inevitable that wear, tear and usage will eventually render the product unusable.

- INVACARE recommends that the average usable life of this product is five years, providing the product has been correctly maintained according to the manufacturers recommendations.

When the time comes to replace your Powerchair please remember to dispose of the product responsibly and recycle any recyclable parts as mentioned in this user guide.

# 5 Legrest Maintenance



---

**WARNING:**

- After ANY adjustments, repair, or service and BEFORE use, make sure that all screws, nuts and bolts are tightened securely - otherwise injury or damage may result.
  - It is important for regular inspection to be carried out on the Armrests for signs of visible damage. If any repairs are required, these should be carried out by an INVACARE dealer.
- 

## 5.1 Installing / Removing Legrests

1. Turn the Legrest to the side (open footplate is perpendicular to wheelchair), locate holes on legrest onto the pins.
2. Rotate the legrest towards the inside of the wheelchair until it locks into place.
3. Ensure the release lever is engaged.



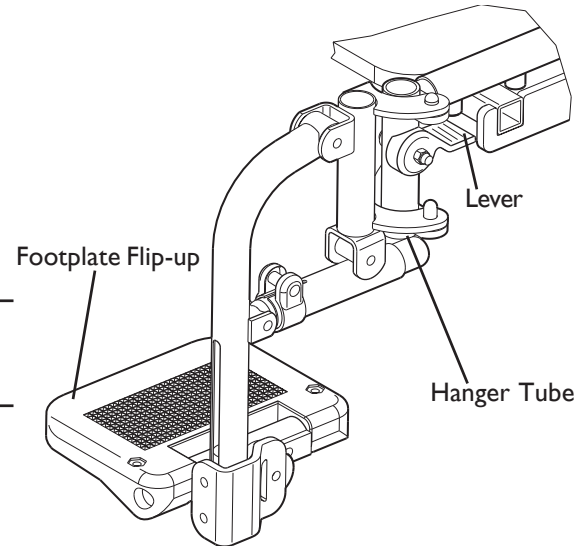
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**NOTE:**

The footplate will be on the inside of the wheelchair when locked in place.

---

4. Repeat STEPS 1-3 for other legrest assembly.



## Removing

1. To remove the legrest, push the release lever either upwards/downwards, rotate legrest outwards and lift upwards.

## 5.2 Legrest height adjustment

1. Remove any accessory from the legrest(s).
2. Remove the legrest from the wheelchair. Refer to INSTALLING/REMOVING LEGRESTS in this section of the manual.



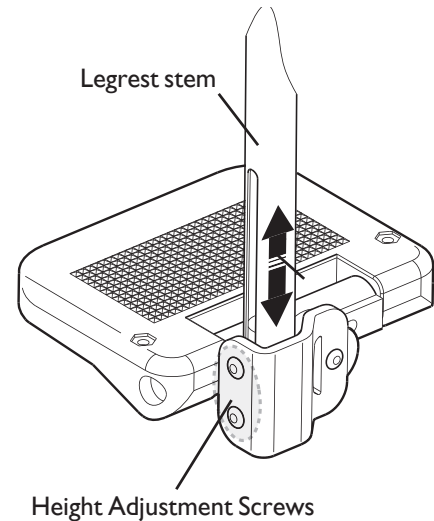
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### NOTE:

Lay the footrest on a flat surface to simplify this procedure.

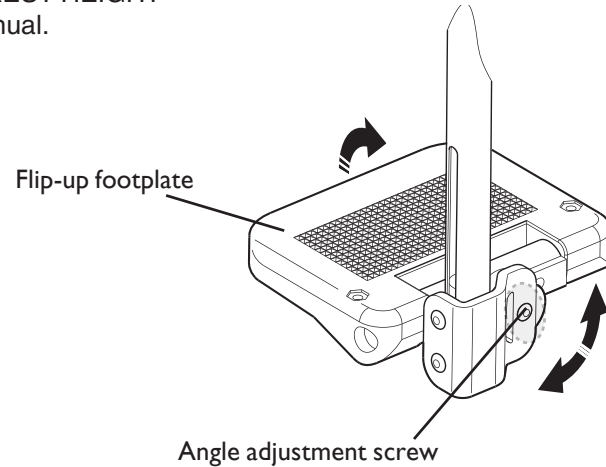
---

3. Loosen the legrest height adjustment screw using a hex-wrench
4. Reposition the lower section (with foot plate) to the desired height.
5. Tighten the legrest height adjustment screws. Ensure the screws are secure.
6. Repeat STEPS 1-5 for the opposite side of the wheelchair legrest, if necessary.
7. Reinstall the legrest(s) onto the wheelchair. Refer to INSTALLING/REMOVING FOOTRESTS in this section of the manual.



## 5.3 Adjusting Angle Adjustable Flip-up Footplates

1. Locate the angle adjusting screw at the bottom of the legrest.
2. Loosen the screw with a hex wrench and adjust the foot plate to the desired angle and position.
3. Tighten the angle adjusting screw.
4. To adjust foot plate height, refer to LEGREST HEIGHT ADJUSTMENT in this section of the manual.



## 5.4 Adjusting / Replacing Foot Plate Heel Strap (if fitted)

### Adjusting

1. Undo the hook and loop fastening strip and separate the two sides.
2. Adjust to the desired position and fasten hook and loop strips back together.

---

#### NOTE:

When adjusting the heel strap be sure to check that your heel does not contact with the wheelchairs front castors.

---

### Replacing

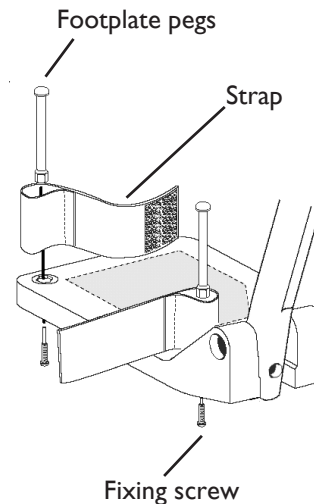
1. Lift heel strap over footplate pegs and remove.
2. Using a screw driver, remove footplate peg fixing screws.
3. Replace with new footplate pegs and heel straps where necessary .

---

#### NOTE:

When replacing heel straps be sure to check that your heels do not contact with the wheelchair's front castors.

---



## 6. Armrests

---



### WARNING

- After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.
  - *It is important for regular inspection to be carried out on the Armrests for signs of visible damage. If any repairs are required, these should be carried out by an INVACARE dealer.*
- 

### 6.1 Installing/Removing Armrests

---



### WARNING

- *Make sure the armrest release and height adjustment handwheels are in the locked position before using the wheelchair.*
- 



### NOTE:

Be sure to fit the correct armrest on the corresponding side of the wheelchair.

---

### Installing

1. Check the armrest removal handwheel is loose and not visible inside armrest socket.
2. Insert bottom of armrest tube into armrest socket and gently push down.
3. Turn armrest removal handwheel until tight and armrest is secure.
4. Repeat STEPS 1-3 for the opposite side armrest.



## Removing

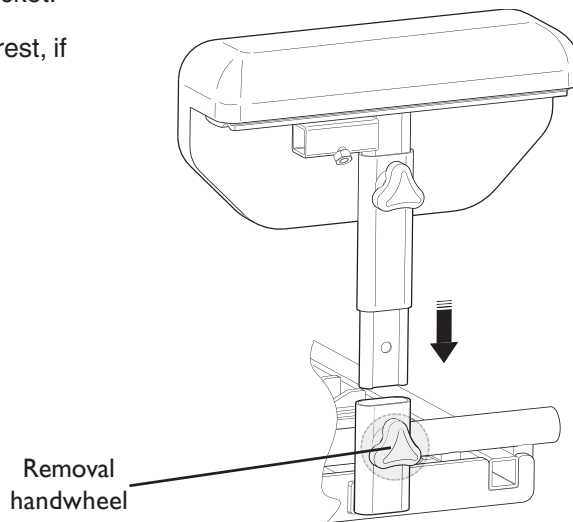


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### WARNING

- *Ensure joystick unit is switched off and unplugged from wheelchair before removing armrest.*
  - *Alternatively, remove joystick mounting arm from the armrest following instructions in section 12.3 JOYSTICK MOUNTING HARDWARE before attempting to remove armrest.*
- 

1. Turn armrest removal handwheel until loose.
2. Lift armrest up and out of the armrest socket.
3. Repeat STEPS 1-2 for the opposite armrest, if necessary.



## 6.2 Adjusting the Armrests



---

### WARNING

- *Make sure the armrest release and height adjustment handwheels are in the locked position before using the wheelchair.*
- 

### Height Adjustment

1. Release the armrest height adjustment handwheel.
- 

### NOTE:

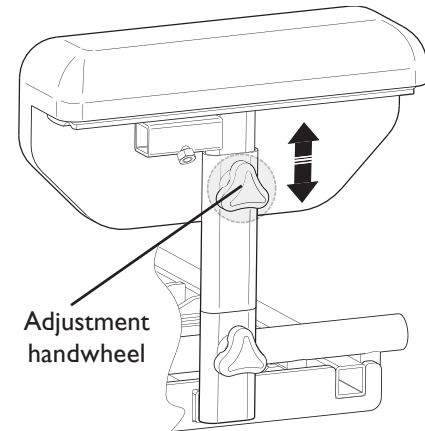
If the handwheel is released a small amount, an audible click can be heard when adjusting the armrest height.

---

2. Slowly pull up or push down on the armrest top until the desired height is achieved.
3. Tighten armrest height adjustment handwheel.
4. Repeat STEPS 1-3 for opposite armrest, if necessary.

### Armpad Adjustment

1. Using a cross point screwdriver, loosen the armpad fixing screws (located on underside of armpad).
2. Slide the armpad either forwards or backwards to the desired position



3. Tighten the armpad fixing screws.
4. Repeat STEPS 1-3 for opposite armrest, if necessary.

### Armrest Width Adjustment

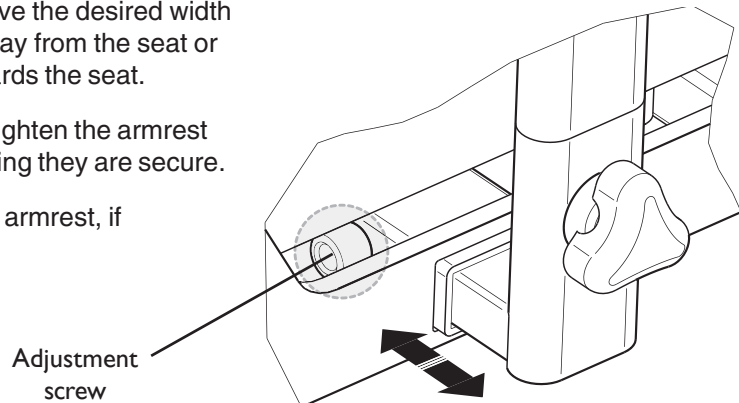


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#### WARNING

- *This adjustment should only be performed when the wheelchair is unoccupied.*
- 

1. Using a hex wrench, loosen the armrest width adjustment screws.
2. Adjust the armrest position to give the desired width by gently pulling the armrest away from the seat or gently pushing the armrest towards the seat.
3. When adjustment is complete, tighten the armrest width adjustment screws, ensuring they are secure.
4. Repeat STEPS 1-3 for opposite armrest, if necessary.



## 7 Backrest



### WARNING

- After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.
- It is important for regular inspection to be carried out on the Backrest for signs of visible damage. If any repairs are required, these should be carried out by an INVACARE dealer.
- It should be noted that under certain conditions and configuration of the wheelchair, i.e. for users with limited / no lateral body control, and with the backrest in the reclined position, there is the potential to create a body trap between the armrest / side panel and the backrest. Suitable accessories are available from Invacare (lateral trunk supports) to eliminate this risk.

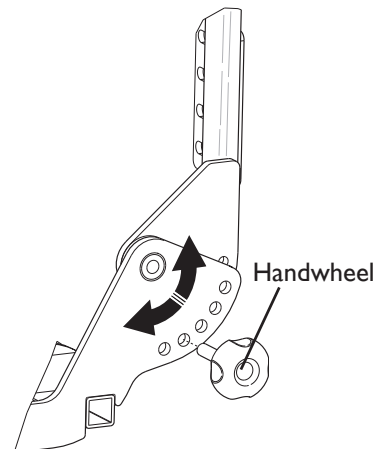
### 7.1 Adjusting Backrest Angle



#### WARNING

- This adjustment should only be performed when the wheelchair is unoccupied.
- Take care not to damage any accessories fitted to the backrest.

1. Remove the safety “R” clip from the end of the adjustment handwheel.
2. Unscrew handwheel from backrest.
3. Repeat steps 1 and 2 for opposite side.



4. Adjust backrest to desired angle.
5. Re-fit the handwheels to the available holes in the backrest. Hand tighten only.
6. Re-fit safety “R” clip.
7. Repeat steps 5 and 6 for opposite side.

## 7.2 Adjusting Backboard Position

---



### **WARNING**

- *This adjustment should only be performed when the wheelchair is unoccupied.*
  - *Take care not to damage any accessories fitted to the backrest.*
- 

The backboard can be adjusted both in height and width (see section 8 Seating). This can be useful if another type of back cushion is to be fitted.

1. Remove the four fixing screws using a cross point screwdriver.
2. Reposition the backboard.
3. Replace and tighten the four fixing screws.



### **NOTE:**

Ensure the backboard is firmly secured before fitting the cushion or using the wheelchair.

---

## 7.3 Adjusting Backpost Support Bracket



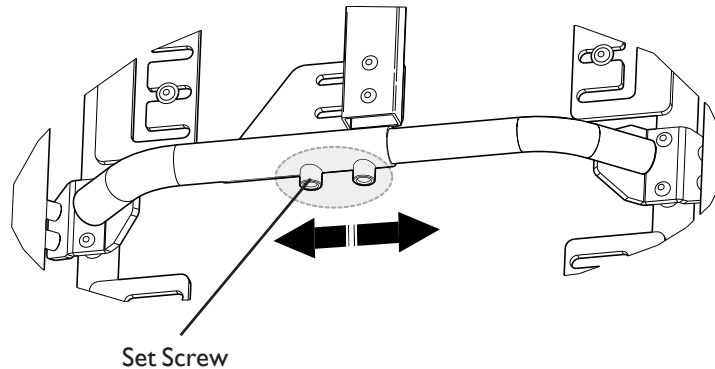
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### CAUTION:

- *This adjustment should only be made by an attendant when the the chair is occupied.*
- 

The backpost support bracket can be adjusted in width. This should be used when adjusting seat and backrest width (see section 8 Seating).

1. Release the set screws using a hex wrench.
2. Slide the seating and backrest to the desired width.
3. Re-tighten the set screws using a hex wrench



## 7.4 Installing / Removing or Adjusting Headrest (if fitted)



### CAUTION:

- *After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result..*

### Installing

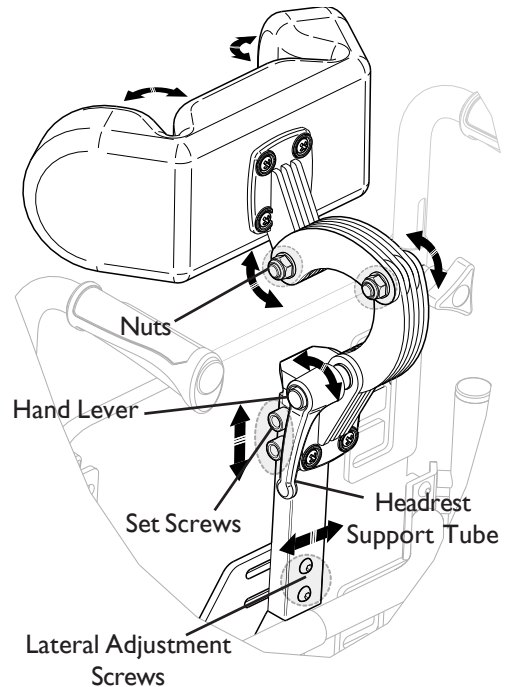
1. Ensure set screws are not protruding into headrest support tube.
2. Insert headrest assembly into headrest support tube.
3. Tighten the set screws using a hex wrench.

### Removal

1. Loosen the set screws using a hex wrench.
2. Remove headrest assembly from headrest support tube.

### Adjusting

1. Loosen the headrest nuts with a spanner.
2. Loosen the hand lever by turning anti-clockwise.
3. Adjust to desired position
4. Re-tighten nuts and hand lever.



The lateral position of the headrest may also be adjusted as follows

1. Loosen the lateral adjustment screws using a hex wrench and spanner.
2. Slide the headrest assembly to the desired position.
3. Re-tighten the lateral adjustment screws.



---

**NOTE:**

Ensure all headrest assembly adjustment screws, nuts and hand levers are tightened before using the wheelchair.

---



## 7.5 Installing / Removing or Adjusting Trunk Supports (if fitted)



### CAUTION:

- *After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result..*

### Installing

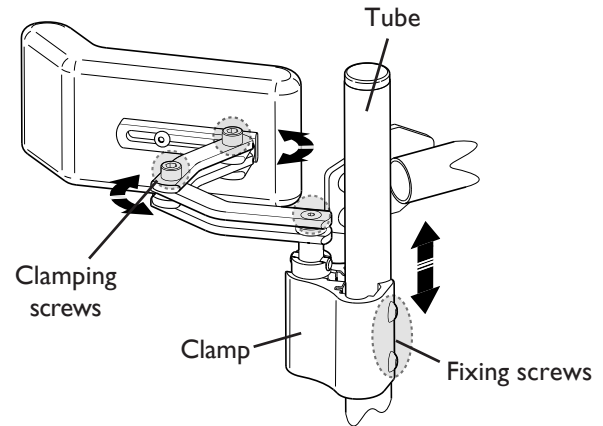
1. Ensure the trunk support fixing screws are loose.
2. Slide the trunk support clamp over the fixing tube and hold at the desired position.
3. Tighten the trunk support fixing screws using a hex wrench.

### Removal

1. Loosen the trunk support fixing screws using a hex wrench and remove the trunk support assembly.

### Adjusting

1. The trunk support height can be adjusted by loosening the fixing screws and sliding the trunk support to the desired location.
2. To adjust the trunk support position laterally, remove the upholstered pad which is fixed using hook and eye fasteners.



3. Loosen the clamping screws using a hex wrench.
4. Adjust to the desired position.
5. Tighten the clamp screws using a hex wrench and replace upholstered pad.

### **Swing away function**

The trunk supports fitted to your Spectra Blitz™ have a swing away function to enable easier access or transfer to and from the wheelchair

1. Firmly grip the trunk support near the fixing tube and pull upwards to disengage the internal spring.
2. Swing the trunk support away from the seat.
3. To replace, swing the trunk support, back towards the seat and ensure it locates into position



---

#### **CAUTION:**

- *Ensure the trunk supports are firmly locked into position before using the wheelchair.*
-

## 7.6 Adjusting Tension Adjustable Back Upholstery (if fitted)



---

**CAUTION:**

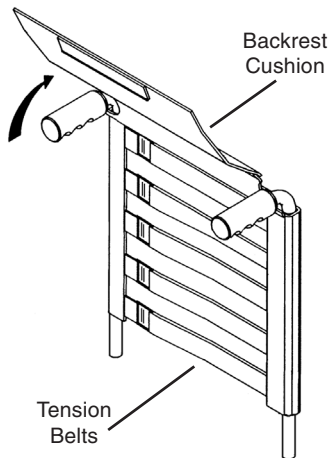
- *This adjustment should only be made when the the chair is unoccupied and the joystick unit switched off.*
- 

1. Remove backrest cushion by releasing the hook and loop fastening strips.
2. Adjust the tension of each belt by releasing the hook and loop fastening strips and repositioning as desired.

**CAUTION:**

- *Be sure that each belt is secured before fitting the back cushion and sitting in the chair.*
- 

3. Re-fit backrest cushion



## 7.7 Installing / Removing Back Cushion

---



### CAUTION:

- *This adjustment should only be made when the the chair is unoccupied and the joystick unit switched off.*
- 

### Installing / Removing

---

### NOTE:

The cushion inner may be removed from the fabric cover by sliding it out from the cover flap on the underside of the cushion.

---



1. Ensure the hook and loop fastener strip on the back is visible (remove covering strip if necessary, or fitted).
2. Position the cushion on the back with the wedge shapes at the bottom and push down to secure.
3. To remove, pull up on cushion to release the hook and loop fastening. Remove cushion from back.

## 7.8 Adjusting Push Handles



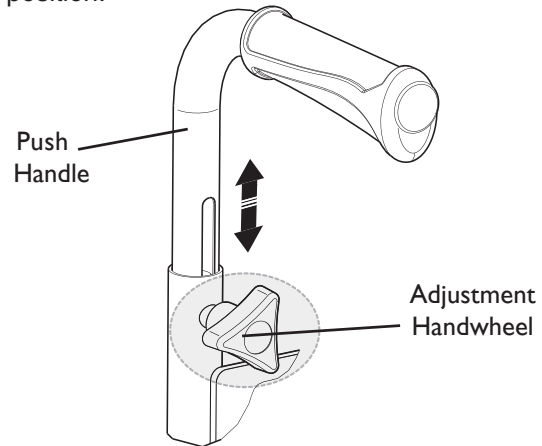
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### CAUTION:

- *After ANY adjustments make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.*
- 

The push handles on your Spectra Blitz™ may be adjusted to a more convenient height to allow an attendant to push or maneuver your Powerchair if required

1. Loosen the adjustment handwheel.
2. Raise or lower the push handles to the desired position.
3. Re-tighten the adjustment handle.



## 8 Seating

---



### WARNING

- *After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.*
  - *It is important for regular inspection to be carried out on the Armrests for signs of visible damage. If any repairs are required, these should be carried out by an INVACARE dealer.*
- 

### 8.1 Installing / Removing Seat Cushion

---



### CAUTION:

- *This adjustment should only be made when the chair is unoccupied and the joystick unit switched off.*
- 

### Installing/Removing

---



### NOTE:

The cushion inner may be removed from the nylon cover by sliding it out from cover flap on the underside of the cushion.

---

1. Ensure the hook and loop fastener strip on the seat is visible (remove covering strip if necessary).
2. Position the cushion on the seat with the wedge shape end at the wheelchair front and push down to secure.
3. To remove, pull up on cushion to release the hook and loop fastening. Remove cushion from seat.

## 8.2 Lapbelt



---

### WARNING

- *The standard lapbelt is NOT intended to be used as a vehicle seat belt.*
- 

A lapbelt is provided for use while seated in the power chair. INVACARE recommends that you keep the lapbelt fastened at all times while seated in the chair. Buckles are fitted to each side of the belt to allow for size adjustment.

## 8.3 Adjusting Seat Width



---

### WARNING

- *This adjustment should only be performed when the wheelchair is unoccupied.*
  - *Take care not to damage any accessories fitted to the seat.*
- 

The seat can be adjusted in width. This can be useful if another type of seat cushion is to be fitted, or to better accommodate the user.



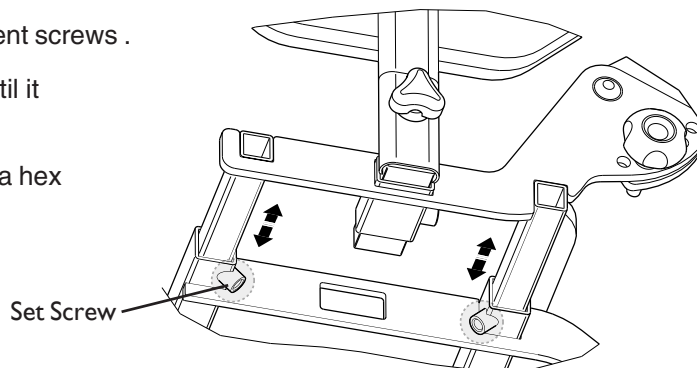
---

### WARNING

- *Before making the following adjustments ensure that the backpost support bracket adjustment screws are loose (see section 7.3), and the backboard is removed (see section 7.2).*
  - *Failure to follow the above may result in damage to your Sectra Blitz™ seat.*
- 

1. Remove the seat cushion (see section 8.1).

2. Using a hex wrench loosen the adjustment screws .
3. Gently pull/push the side of the seat, until it reaches the desired position.
4. Re-tighten the adjustment screws using a hex wrench
5. Repeat for opposite side of chair.
6. Replace the seat cushion



---

**NOTE:**

Ensure the backboard is firmly secured before fitting the cushion or using the wheelchair.

---

## 8.4 Adjusting Seat Depth



---

**WARNING**

- *This adjustment should only be performed when the wheelchair is unoccupied.*
  - *Take care not to damage any accessories fitted to the seat.*
- 

The seat can be adjusted in depth. This can be useful if another type of seat cushion is to be fitted, or to better accommodate the user.

### Seat Frame Adjustment

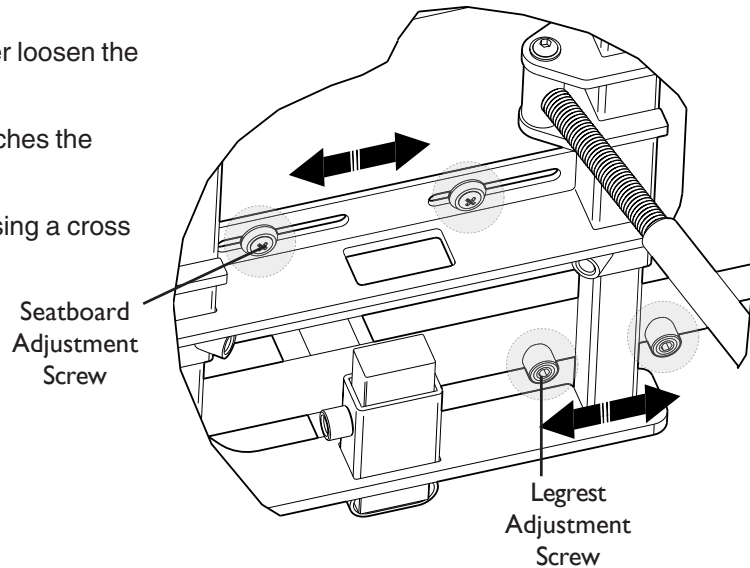
1. Remove the seat cushion (see section 8.1).



2. Using a hex wrench loosen the adjustment screws.
3. Gently pull/push the side of the seat until it reaches the desired position.
4. Re-tighten the adjustment screws using a hex wrench.
5. Repeat for opposite side of chair.

### Seat Board Adjustment

1. Remove the seat cushion (see section 8.1).
2. Using a cross point screwdriver loosen the fixing screws.
3. Slide the seatboard until it reaches the desired position.
4. Re-tighten the fixing screws using a cross point screwdriver.
5. Replace the seat cushion.



## 8.5 Installing / Removing Seat board



---

### WARNING

- *This adjustment should only be performed when the wheelchair is unoccupied.*
  - *Take care not to damage any accessories fitted to the seat board.*
- 

The seat board can be removed from the wheelchair seat frame.

1. Remove the seat cushion (see section 8.1).
  2. Remove the four fixing screws using a cross point screwdriver.
  3. Install / Remove the seat board (if installing ensure that the holes on the under side of the seat board are aligned with the slots in the seat frame).
  4. Replace and tighten the four fixing screws using a cross point screwdriver.
- 



### NOTE:

Ensure the seat board is firmly secured before fitting the cushion or using the wheelchair.

---

## 8.6 Adjusting Seat Angle



---

### WARNING

- *This adjustment should only be performed when the wheelchair is on a flat, and horizontal surface. Under no circumstances should this adjustment be made while the chair is in motion, obstacle climbing or stationary on a slope.*
-

## Electrical Adjustment of Seat Angle

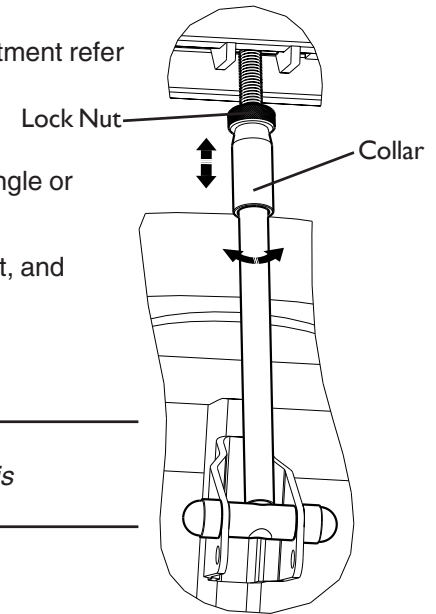
If your Spectra Blitz™ power chair is fitted with an electrical seat angle adjustment refer to section 12 Controls and Operating your Powerchair or see the separate control system user guide

1. Seat angle adjustment is made by operating the control system.

## Manual Adjustment of Seat Angle

If your Spectra Blitz power chair is fitted with a manual seat angle adjustment refer to the following to set the required seat angle:

1. Remove the M10 nut and bolt at the base of the assembly
2. Rotate the female (lower) assembly clockwise to increase the seat angle or counter clockwise to decrease the seat angle
3. Once the desired seat angle is achieved replace the M10 nut and bolt, and tighten the lock nut against the female assembly



---

### WARNING

- *This adjustment should only be performed when the wheelchair is unoccupied.*
-

## 9 Anti Tipping Castors

---



### WARNING

- *After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.*
  - *The Anti Tipping Castors are an important safety feature of the Spectra Blitz™ wheelchair. DO NOT attempt to drive the vehicle if they have been removed or damaged.*
- 



### NOTE

- *Take care when mounting or dis-mounting a kerb. It may be possible to lose drive if the anti-tipping casters contact the ground.*
-

# 10 Batteries

---



## WARNING

- *Make sure power to the wheelchair is OFF before performing this procedure.*
  - *The use of rubber gloves and chemical goggles is recommended when working with batteries.*
  - *Invacare strongly recommends that battery installation and battery replacement always be done by a qualified technician.*
  - *After ANY adjustments, repair or service and BEFORE use, make sure all attaching hardware is tightened securely - otherwise injury or damage may result.*
  - *This procedure MUST be performed while the wheelchair is unoccupied.*
- 

## 10.1 Removing/Installing Batteries

---



### WARNING

- *Each battery can weigh up to 15kg. Use proper lifting techniques (lift with your legs) to avoid injury.*
  - *Failure to use the correct battery size and/or voltage may cause damage to your wheelchair and give you unsatisfactory performance.*
  - *Always use a battery lifting strap when lifting a battery. It also helps to prolong the life of the battery.*
- 

The batteries fitted to your Invare Spectra Blitz™ are NOT designed to be removed frequently and therefore the following procedure should only be carried out during service, repair of the wheelchair.

## Removing

---



### WARNING

- *NEVER allow any of your tools and/or battery cable(s) to contact BOTH battery terminal(s)/ post(s) at the same time. An electrical short may occur and serious personal injury or damage may occur.*
  - *The use of rubber gloves and chemical goggles is recommended when working with batteries.*
- 



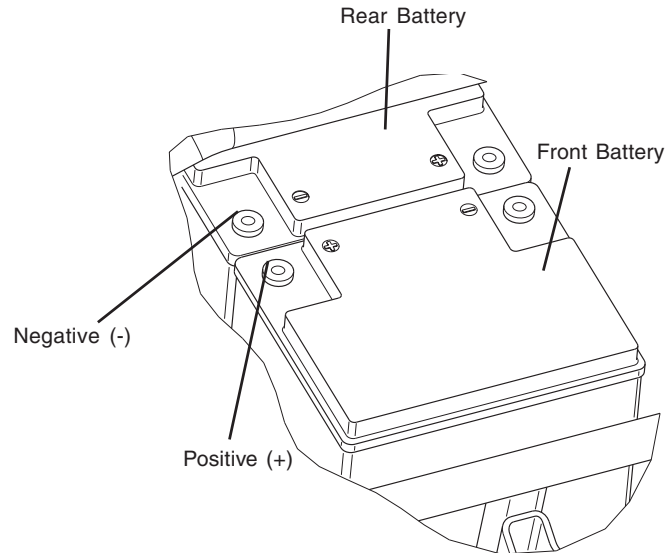
### NOTE:

Perform this procedure on one (1) battery and battery box at a time. Repeat procedure for other battery box.

---

1. Ensure the Joystick is switched off.
2. Remove the Rear Battery Cover.
3. Remove screws from front battery cover.
4. Remove the actuator from the fixing location under the seat.
5. Tilt the seat fully towards the rear of the chair.

6. Remove the front battery cover.
7. Remove all connectors from the controller.
8. Remove the screw that secures the NEGATIVE (-) black battery cable to the negative battery terminal.
9. Remove the screw that secures the POSITIVE (+) red battery cable to the positive battery terminal.
10. Detach the controller assembly from batteries.
11. Remove the battery retaining strap.
12. Carefully remove each battery.



## Installing



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### WARNING

- *NEVER allow any of your tools and/or battery cable(s) to contact BOTH battery terminal(s)/post(s) at the same time. An electrical short may occur and serious personal injury or damage may occur.*
  - *The use of rubber gloves and chemical goggles is recommended when working with batteries.*
- 



### CAUTION

- *When connecting the battery cables to the battery(ies), the battery cable(s) MUST be connected to the battery terminal(s)/post(s) depending on battery type. ALWAYS check the battery top for POSITIVE (+) and NEGATIVE (-) marking symbols before connecting the battery cables.*
- 

1. Carefully place each battery into the tray (see figure).
2. Connect the battery retaining strap.
3. Attach the controller assembly.
4. Connect the battery cables to the battery terminals as follows:
  - Negative (-) BLACK battery cable to the NEGATIVE (-) battery terminal post;
  - Positive (+) RED battery cable to the POSITIVE (+) battery terminal post;
5. Secure the battery cables to the battery terminals, BLACK cable to NEGATIVE (-) and RED to POSITIVE (+) with the provided fasteners. Securely tighten.



6. Connect the motor, joystick and actuator (if fitted) cables to the appropriate controller sockets.
7. Verify all cables are correctly installed and securely tightened.
8. Slide terminal caps onto battery terminals.
9. Attach front cover and fasten with screws provided.
10. Carefully lower the seat and securely fasten the actuator in position using the fasteners supplied.
11. Attach rear cover.



---

**NOTE:**

New Battery(ies) MUST be fully charged BEFORE using, otherwise the life of the battery(ies) will be reduced.

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## 10.2 Batteries and battery charging



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### IMPORTANT WARNINGS

- *The battery charger supplied with your powerchair is for indoor use only, it must be protected from moisture and external heat sources.*
  - *Handle the battery charger with care, if it has been dropped or damaged, do not use it.*
  - *Do not use an extension lead for connection from the mains to the charger unless absolutely necessary. If you do use one ensure it is in good condition.*
  - *Only use the charger supplied with your powerchair.*
  - *Batteries are heavy, if you have to remove them, ensure you adopt the correct lifting posture to avoid injury. Ask for assistance if necessary.*
- 

### Batteries

Your Powerchair is equipped with GEL type batteries (Acid free) which require only regular charging.

To ensure trouble free operation of your Powerchair it is imperative to monitor the battery charge condition continuously and to recharge the batteries in good time.

Intervals at which the batteries may need charging will vary and depend upon the conditions in which the Powerchair is being used, the weight of the user and ambient operating temperature in which the Powerchair is being operated.

New batteries need charging before your first journey and will not perform to their peak until the first six to ten charging cycles have been completed.

To ensure long battery life DO NOT allow your batteries to become totally discharged. If your Powerchair is not used for any length of time the batteries must receive a full charge once a month and remain fully charged during storage.

For replacement batteries contact your local INVACARE supplier/dealer in order to ensure that the new batteries are of the correct type and specification and are correctly installed and connected.

### **WHEN TO CHARGE**

Keep an eye on the battery charge indicator on the joystick box at full charge all six lights will be on (from right to left: green, amber, red). As the battery charge drops during Powerchair operation successive lights will extinguish until eventually only the two red lights will be on. It means that you must charge the batteries without delay. We strongly advise you, however, not to wait until this critical point has been reached but to charge the batteries as early and as often as possible after you have used your Powerchair. If you ignore the warning (only two red lights on), and the battery charge drops further to a level where it is no longer sufficient to allow safe driving, the controller will automatically cut the power supply to the motors, so that the Powerchair comes to an abrupt halt, and you may find yourself stranded in an unpleasant situation.

Also, if you run down the batteries to such a low charge, you will have greatly reduced their potential service life.

Except in emergencies, NEVER drive on discharged batteries, this will add strain to them and reduce their life.

We recommend batteries should be charged every time the Powerchair is used, independent of the depth of discharge. Depending on this and their capacity, a full charge on completely discharged batteries can take up to approximately eight hours.

## CHARGING PROCEDURES

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### IMPORTANT

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- *Before you attempt charging, ensure you read and understand the instruction manual supplied with the Battery Charger.*
- 

#### **To Charge Batteries:**

- Check that the ventilation slots on the charger are clean and unobstructed.
- Plug the charger output lead into the socket on the joystick control box.

When charging is complete switch off and disconnect from the mains.

If required, the charger can be left connected to the Powerchair and to the mains. This will keep the batteries 100% charged and compensate for self-discharging over a long period. (You cannot overcharge your batteries).

If you experience charging difficulties or require further advice, do not hesitate to contact your local INVACARE supplier/dealer.

- Connect the charger power supply cable to the mains socket and switch the power on. The “Mains ON” and the “Charging” lights on the charger will come on.
- It is recommended the charger is left connected as described until the “Full Charge” light illuminates to obtain optimum performance of the batteries.
- When the “Charge Complete” light illuminates, the batteries are fully charged and ready for use.



---

**NOTE**

An "Overvoltage" condition may occur temporarily while you are descending a steep gradient with fully charged batteries, when the motors virtually have the effect of a dynamo, adding to the batteries.

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**WARNING**

When you replace worn out batteries, fit the type recommended by the wheelchair manufacturer. If you use another type the battery gauge may be inaccurate.

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### 10.3 Disposing and Recycling of Used Batteries



You can help preserve our environment by returning your used rechargeable batteries to the collection and recycling location nearest to you.

This product has been supplied from an environmentally aware manufacturer that complies with the Waste Electrical and Electronic Equipment (WEEE) Directive 2002/96/CE.

This product may contain substances that could be harmful to the environment if disposed of in places (landfills) that are not appropriate according to legislation.

The 'crossed out wheelee bin' symbol is placed on this product to encourage you to recycle wherever possible.

Please be environmentally responsible and recycle this product through your recycling facility at its end of life.



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**NOTE**

For further information on the location of your nearest battery recycling facility please contact your local government authority.

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# 11 Motor locks, Wheels and Brakes



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## WARNING

- *After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.*
- 



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## CAUTION

- *As with any vehicle, the wheels and tyres should be checked periodically for cracks and wear, and should be replaced.*
- 

## 11.1 Disengaging/Engaging Motor Lock Levers



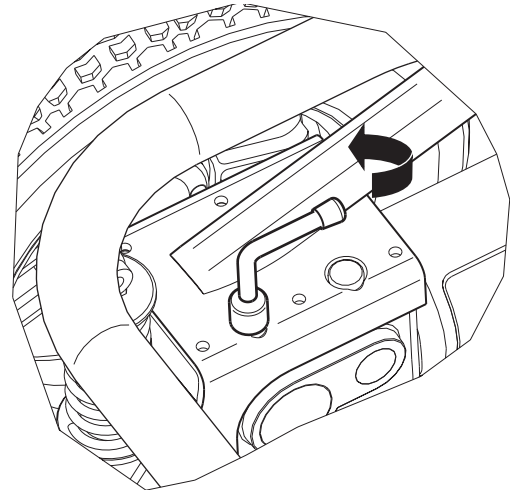
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### WARNING

- *DO NOT engage or disengage motor locks until the power switch is in the OFF position.*
- 

1. Perform one (1) of the following:

- Engage (PUSH) - turn motor lock levers towards the rear wheels.
- Disengage (DRIVE) - turn motor lock levers so they are in line with wheel chair frame.





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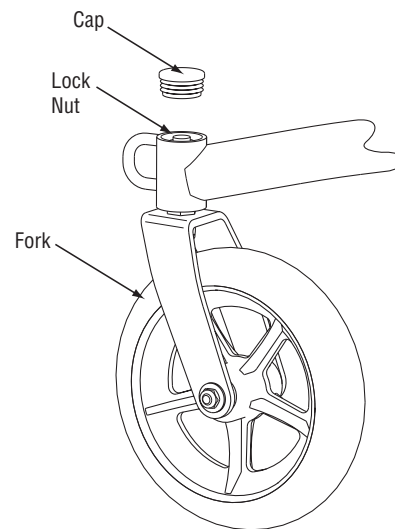
**NOTE:**

Motor lock disengagement/engagement allows free wheeling or joystick controlled operation. Free wheeling allows an assistant to manoeuvre the wheelchair without power.

---

## 11.2 Adjusting Front Castors

1. Remove the headtube cover from the castor headtube.
2. To properly tighten castor journal system and guard against flutter, perform the following check:
  - Tip back the wheelchair to floor.
  - Pivot both forks and castors to top of their arc simultaneously.
  - Let castors drop to bottom of arc (wheels should swing once to one-side, then immediately rest in a straight downward position).
  - Adjust locknuts according to freedom of castor swing.
3. Test wheelchair for manoeuvrability.
4. Readjust locknuts if necessary, and repeat STEPS 1-3 until correct.
5. Snap headtube cover into the castor headtube.



## 11.3 Drive Wheels

### Inflation.

1. Locate air valve and remove air cap.
2. Check the pressure rating marked on the side of the tyre and inflate as necessary.



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#### NOTE:

The recommended inflation pressure is 40 PSI / 280 KPA / 2.8 Bar.

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#### CAUTION

- *Do not over inflate tyres. As with any vehicle, the wheels and tyres should be checked periodically for wear.*
- 

#### Removal.

1. Release and remove the central screw using a hex wrench.
  2. Pull the wheel away from the chair. It may be necessary to use some force.
- 



#### CAUTION

- *If the wheel rim is to be spilt to change a tyre, it is important that the bolts holding the rim are not released if the tyre is pneumatic and inflated.*
- 





## 11.4 Manual Parking Brakes

### To Activate Brake.

1. Locate the brake grip handle.
2. Push the brake handle towards the rear of the chair until it engages
3. Repeat for opposite side of chair.

### To De-Activate Brake.

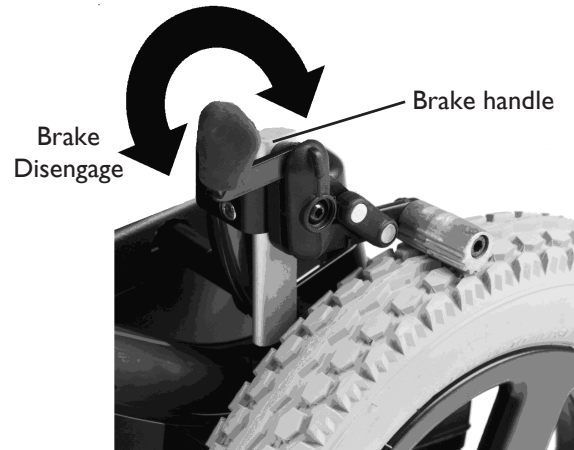
1. Locate the brake grip handle.
2. Pull the brake handle towards the front of the chair until it disengages
3. Repeat for opposite side of chair.



---

### CAUTION

- *Tyres must be correctly inflated for maximum brake efficiency.*
- 



## 12 Controls and operating your powerchair



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### NOTE

*Before you start using your Powerchair you must boost the battery charge by carrying out charging procedures as described in "Battery Charging" and always check the following:*

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1. Freewheel is engaged in drive Position.
  2. Adjustments have been made to suit your individual needs and fasteners securely tightened.
  3. Tyres are in good condition and correctly inflated. Or as specified on the Tyre Side Walls.
- 



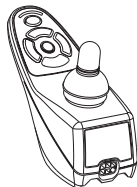
### CAUTION

*DO NOT use your Powerchair if the joystick boot shows any visible signs of damage. Please refer to your INVACARE dealer regarding repairs.*

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### 12.1 Types of User Controller

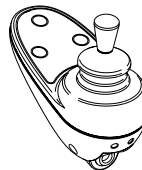
Your Spectra Blitz™ Powerchair will be fitted with one of the controllers shown below. Please refer to the relevant section of this user guide for basic operational instructions.



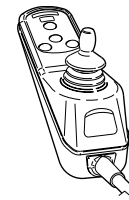
Shark



REM24SD



Pilot +



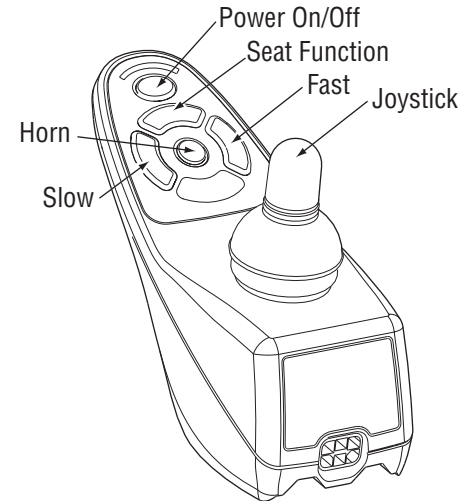
VSI

## 12.2 Shark Operation

Seated in your Powerchair. Press the ON/OFF Switch. All battery gauge indicators will light briefly, then either the current battery charge or lock mode will be indicated. The user can adjust the chair's top speed to suit their preferences and environment. The currently selected top speed is shown on the Speedometer and can be adjusted using the "Increased Speed" (Hare) and "Decrease Speed" (Tortoise) buttons. As already indicated, the electronic controller of your powerchair is programmable. It means the way in which the Powerchair behaves can be changed and adjusted according to your requirements and wishes. Contact your INVACARE supplier/dealer for programming requirements

### Freewheel Operation (see 11.1)

To push the Powerchair by hand in the event of a fault or battery failure, or simply to move it WITH NO OCCUPANT in it, the two motor/gearbox units can be declutched from the rear wheels. First ensure that power is switched OFF on the joystick box.



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### CAUTION

- *Freewheel operation is only intended for short-term use in SPECIAL CIRCUMSTANCES, NOT as a regular or permanent mode of Powerchair movement. In freewheel mode the Powerchair is NOT secured by the electromagnetic brakes, as both brake systems are out of action during this time.*
-

## 12.3 Shark Controller Functions

The SHARK controller fitted to your Spectra Blitz™ power chair has several features and functions. The following procedure shows how to use these.

### **Horn Button**

Press the button once to sound the integrated horn.

### **LOCK Function**

To lock the SHARK and prevent unauthorised use of your power chair perform the following.

1. Whilst power is on, press and hold the power button for four (4) seconds.
2. The display will turn off immediately
3. After four (4) seconds all LED's will flash briefly and the horn will sound a short beep. The power chair will then turn off.

### **UNLOCK Function**

1. Press the On button to turn the powerchair on.
2. All LED's will flash briefly. The LED's will then perform a slow right to left chase.
3. Press the Horn button twice before the LED chase is completed (approximately 10 seconds).
4. The battery charge level will then be displayed and the powerchair may now be operated normally.

## **Adjusting Driving Speed**

There are five pre-set speeds already programmed into the Shark control. To change speed, press the tortoise button to go slower or the hare button to go faster. The current speed is indicated in the speedometer display.

## **Actuator Adjustment**

To adjust the seat angle of your Powerchair press the seat function button once. The number 1 LED will illuminate, move your joystick forward or backward to adjust seat angle. Once the desired seat angle has been achieved press the seat function button twice to return to drive mode.

## **Using the Speedometer**

The Speedometer is used to gauge the relative speed of the chair in comparison to the maximum speed possible. The right-most LED indicates current maximum speed, which can be adjusted using the Increase (Decrease) Speed button. Using the joystick, as the speed of the chair increases, the LED's will fill in until maximum speed (as displayed) is reached.

## **Battery Gauge**

The battery gauge is used to indicate power and can also display the controller status shown in the table. It displays battery charge, fault and status information from the SHARK controller.

Display	This means.....	Notes
All LEDs are off	Power is off	
All LEDs are on and steady	Power is on	Less LEDs imply a reduced battery charge
Left RED LED is flashing	Battery charge is low	The batteries should be charged as soon as possible
Left to right LED chase alternating with steady display	Charging or programming mode	The steady LEDs indicate the current charge level of the batteries.
All LEDs flashing slowly	Out of neutral at power up detected.	Release joystick back to neutral
Service indicator LED flashing quickly	Fault mode, abnormal condition on the chair	Contact your INVACARE supplier/dealer for assistance

## 12.4 REM24SD Operation

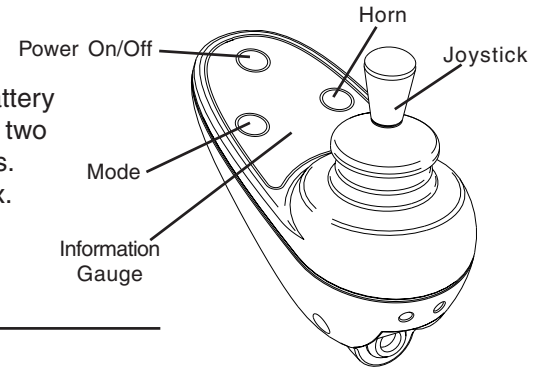
See separate user guide for detailed REM24SD operation.

## 12.5 Pilot + Operation

Seated in your Powerchair. Press the ON/OFF Switch. The battery gauge will blink then turn on after second. Check the maximum speed control is set to a level which suits you. Push the joystick to control the speed and direction of the wheelchair. Please note that if you push the joystick before or just after you switch the control system on, the battery gauge will ripple up and down and the wheelchair will not be allowed to move. You must release the joystick to resume normal operation. If you do not release the joystick within five seconds the wheelchair will not be able to move, even if you release the joystick and push it again. The battery gauge will then flash rapidly. You can reset this condition by switching the control system off and on again. If you do not push the joystick as you switch the wheelchair on and the battery gauge flashes rapidly, then there may be a fault.

### Freewheel Operation (see 11.1)

To push the Powerchair by hand in the event of a fault or battery failure, or simply to move it WITH NO OCCUPANT in it, the two motor/gearbox units can be declutched from the rear wheels. First ensure that power is switched OFF on the joystick box.



### CAUTION

- *Freewheel operation is only intended for short-term use in SPECIAL CIRCUMSTANCES, NOT as a regular or permanent mode of Powerchair movement. In freewheel mode the Powerchair is NOT secured by the electromagnetic brakes, as both brake systems are out of action during this time.*

## 12.6 Pilot + Controller Functions

The Pilot + controller fitted to your Spectra Blitz™ power chair has several features and functions. The following procedure shows how to use these.

### Horn Button

Press the button once to sound the intergrated horn.

### Mode Button

Use the mode button to make speed adjustments or actuator movements as follows:

- Speed adjustment - Press mode button once, the speed display LEDs will flash. Push the joystick left or right to increase or decrease the speed program (There are five speed settings, Speed 1 is the lowest speed with one LED lit, Speed 5 is the highest speed with five LEDs lit). When the desired speed has been selected either press the mode button twice or move the joystick forward or backward to return to standard drive mode.
- Actuator adjustment - Press the mode button twice until the display shows the actuator LED to be operated. Move the joystick forward or backward to operate the actuator. Once the desired position has been acheived press the mode button once to return to drive mode.

### Battery Gauge

If the battery gauge shows RED, YELLOW and GREEN, the batteries are charged. If the battery gauges show just RED and YELLOW, then you should charge the batteries as soon as you can. If the battery gauge shows just RED, either steady or flashing slowly, then you should charge the batteries immediately.



## System Status Indication

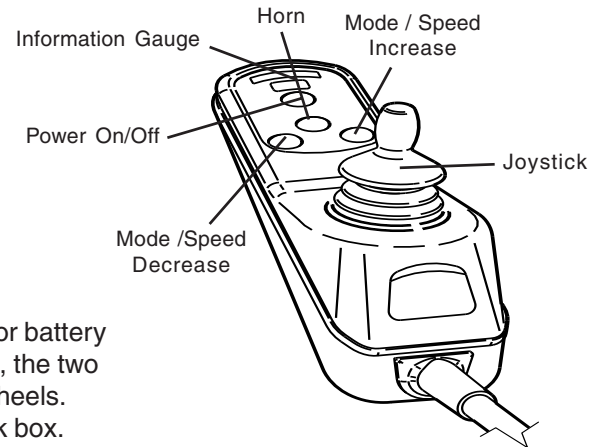
The system status indication is the primary source of user feedback. It displays battery charge, fault and status information from the Pilot + controller.

The speed indicator is made up of five LEDs which indicate the programmed speed of the wheelchair.

Display	This means.....	Notes
All LEDs are off	Power is off	
LEDs are on and steady (battery gauge)	Power is on	Less battery gauge LEDs imply a reduced battery charge
Battery gauge LEDs flash slowly	Battery charge is low	The batteries should be charged as soon as possible
Battery gauge LEDs step up	Charging or programming mode	The steady LEDs indicate the current charge level of the batteries.
Battery gauge flashed once every 2.5 seconds	Control system has entered sleep mode a period of inactivity.	Turn off then turn back on again.
Battery gauge flashes rapidly	Fault mode, abnormal condition on the chair	Contact your INVACARE supplier/dealer for assistance

## 12.7 VSI Operation

Seated in your Powerchair. Press the ON/OFF Switch. The battery gauge will blink then turn on after second. Check the maximum speed control is set to a level which suits you. Push the joystick to control the speed and direction of the wheelchair. Please note that if you push the joystick before or just after you switch the control system on, the battery gauge will ripple up and down and the wheelchair will not be allowed to move. You must release the joystick to resume normal operation. If you do not release the joystick within five seconds the wheelchair will not be able to move, even if you release the joystick and push it again. The battery gauge will then flash rapidly. You can reset this condition by switching the control system off and on again. If you do not push the joystick as you switch the wheelchair on and the battery gauge flashes rapidly, then there may be a fault.



### **Freewheel Operation (see 11.1)**

To push the Powerchair by hand in the event of a fault or battery failure, or simply to move it WITH NO OCCUPANT in it, the two motor/gearbox units can be declutched from the rear wheels. First ensure that power is switched OFF on the joystick box.



---

**CAUTION**

- *Freewheel operation is only intended for short-term use in SPECIAL CIRCUMSTANCES, NOT as a regular or permanent mode of Powerchair movement. In freewheel mode the Powerchair is NOT secured by the electromagnetic brakes, as both brake systems are out of action during this time.*
- 

## 12.8 VSI Controller Functions

The VSI controller fitted to your Spectra Blitz™ power chair has several features and functions. The following procedure shows how to use these.

### **Horn Button**

Press the button once to sound the intergrated horn.

### **LOCK Function**

To lock the VSI and prevent unauthorised use of your Powerchair perform the following.

1. Whilst power is on, press and hold the power button. After one (1) second the system will beep, now release the power button.
2. Move the joystick forward until the system beeps, then move the joystick backward until the system beeps.
3. Now release the joystick, there will be a long beep. The wheelchair is now locked.

## **UNLOCK Function**

1. Use the power button to switch the control system on. The speed indicator will be rippling up and down.
2. Move the joystick forward until the joystick beeps, then move the joystick backward until the control system beeps.
3. Release the joystick, the control system will beep. The control system is now unlocked.

## **Adjusting Driving Speed**

There are five pre-set speeds already programmed into the VSI control. To change speed, press the Speed Decrease button to go slower or the Speed Increase button to go faster. The current speed is indicated in the speed profile display.

## **Actuator Adjustment**

To adjust the seat angle of your Powerchair press the actuator mode button once. The LED indicator will illuminate, move your joystick forward or backward to adjust seat angle. Once the desired seat angle has been achieved press the seat function button once to return to drive mode.

## **Battery Gauge**

The battery gauge is used to indicate power and can also display the controller status shown in the table. It displays battery charge, fault and status information from the VSI controller. If the battery gauge shows RED, YELLOW and GREEN, the batteries are charged. If the battery gauges show just RED and YELLOW, then you should charge the batteries as soon as you can. If the battery gauge shows just RED, either steady or flashing slowly, then you should charge the batteries immediately.

Display	This means.....	Notes
All LEDs are off	Power is off	
LEDs are on and steady (battery gauge)	Power is on	Less battery gauge LEDs imply a reduced battery charge
Battery gauge LEDs flash slowly	Battery charge is low	The batteries should be charged as soon as possible
Battery gauge LEDs step up	Charging or programming mode	The steady LEDs indicate the current charge level of the batteries.
Battery gauge flashed once every 2.5 seconds	Control system has entered sleep mode a period of inactivity.	Turn off then turn back on again.
Battery gauge flashes rapidly	Fault mode, abnormal condition on the chair	Contact your INVACARE supplier/dealer for assistance

## 12.9 Driving practice

With the joystick you now control speed and direction of the Powerchair. The more you move it forward, the faster you travel. To reverse, pull the joystick backward. By moving the joystick left or right (while the Powerchair is moving forward or backward) you steer the Powerchair. Push the joystick full left or right, and the Powerchair will turn around within its smallest turning circle. To slow down, guide the joystick towards its centre (neutral) position. If you have to stop in an emergency, simply release the joystick. It will automatically snap back to neutral and the Powerchair will come to a smooth halt. As a last resort **ONLY** press the On/Off switch which will serve as an emergency off switch. Once at a standstill, the Powerchair is instantly locked by the electromagnetic parking brakes, so that it is perfectly safe while it is stationary, even on an incline.

## 12.10 Types of Attendant Controller

Your Spectra Blitz™ Powerchair may be fitted with one of the controllers shown below. Please refer to the relevant section of this user guide for basic operational instructions.

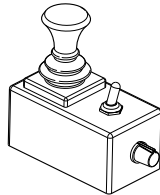


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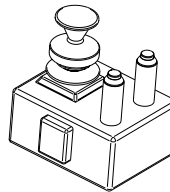
### NOTE

*The REM24SD and the Shark joysticks may also be mounted as an attendant controls. Please refer to the separate REM24SD user guide for details or section 12.2 Shark Operation.*

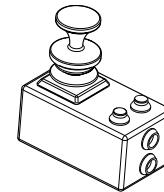
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ACS Dual  
Control



Pilot +  
Attendant  
Control



Pilot + Dual  
Control

## 12.11 ACS Dual Control Operation

The Powerchair may be controlled by the user or by an attendant. Press the ON/OFF Switch on the user control. All battery gauge indicators will light briefly, then either the current battery charge. The Powerchair can then be switched between attendant or user control using the switch located on the attendant control. The attendant can adjust the chairs speed using the speed dial and control direction using the joystick. As already indicated, the electronic controller of your powerchair is programmable. It means the way in which the Powerchair behaves can be changed and adjusted according to your requirements and wishes. Contact your INVACARE supplier/dealer for programming requirements



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### NOTE

*Actuator can only adjusted from the user control.*

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### Freewheel Operation (see 11.1)

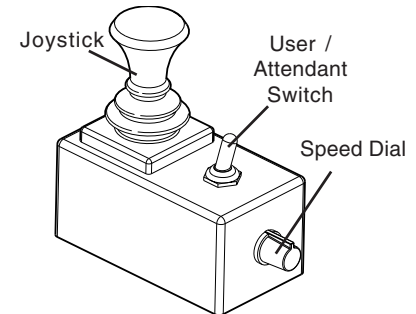
To push the Powerchair by hand in the event of a fault or battery failure, or simply to move it WITH NO OCCUPANT in it, the two motor/gearbox units can be declutched from the rear wheels. First ensure that power is switched OFF on the joystick box.



---

### CAUTION

- Freewheel operation is only intended for short-term use in SPECIAL CIRCUMSTANCES, NOT as a regular or permanent mode of Powerchair movement. In freewheel mode the Powerchair is NOT secured by the electromagnetic brakes, as both brake systems are out of action during this time.*
- 



## 12.12 Pilot + Dual Control Operation

The Powerchair may be controlled by the user or by an attendant. Press the ON/OFF Switch on the user control. Battery gauge indicators will light briefly, then either the current battery charge. The Powerchair can then be switched between attendant or user control using the push button located on the attendant control (mode is indicated by LED). The attendant can adjust the chairs speed using the speed button and control direction using the joystick. As already indicated, the electronic controller of your powerchair is programmable. It means the way in which the Powerchair behaves can be changed and adjusted according to your requirements and wishes. Contact your INVACARE supplier/dealer for programming requirements



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### NOTE

*Actuator can only adjusted from the user control.*

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### Freewheel Operation (see 11.1)

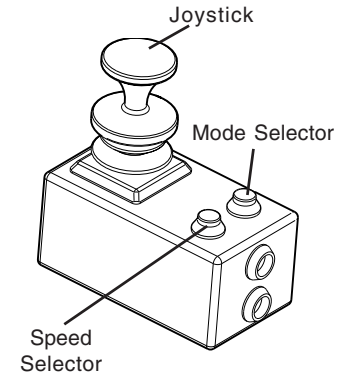
To push the Powerchair by hand in the event of a fault or battery failure, or simply to move it WITH NO OCCUPANT in it, the two motor/gearbox units can be declutched from the rear wheels. First ensure that power is switched OFF on the joystick box.



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### CAUTION

- *Freewheel operation is only intended for short-term use in SPECIAL CIRCUMSTANCES, NOT as a regular or permanent mode of Powerchair movement. In freewheel mode the Powerchair is NOT secured by the electromagnetic brakes, as both brake systems are out of action during this time.*
- 





## 12.13 Pilot + Attendant Control

Press the ON/OFF Switch. The battery gauge will blink then turn on after second. Check the maximum speed control is set to a level which suits you. Push the joystick to control the speed and direction of the wheelchair. Please note that if you push the joystick before or just after you switch the control system on, the battery gauge will ripple up and down and the wheelchair will not be allowed to move. You must release the joystick to resume normal operation. If you do not release the joystick within five seconds the wheelchair will not be able to move, even if you release the joystick and push it again. The battery gauge will then flash rapidly. You can reset this condition by switching the control system off and on again. If you do not push the joystick as you switch the wheelchair on and the battery gauge flashes rapidly, then there may be a fault.

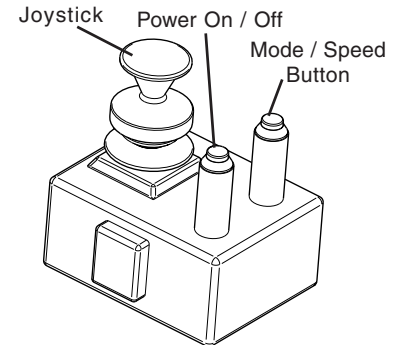
### Freewheel Operation (see 11.1)

To push the Powerchair by hand in the event of a fault or battery failure, or simply to move it WITH NO OCCUPANT in it, the two motor/gearbox units can be declutched from the rear wheels. First ensure that power is switched OFF on the joystick box.



### CAUTION

- *Freewheel operation is only intended for short-term use in SPECIAL CIRCUMSTANCES, NOT as a regular or permanent mode of Powerchair movement. In freewheel mode the Powerchair is NOT secured by the electromagnetic brakes, as both brake systems are out of action during this time.*



## 12.14 Pilot + Attendant Controller Functions

The Pilot + controller fitted to your Spectra Blitz™ power chair has several features and functions. The following procedure shows how to use these.

### Mode Button

Use the mode button to make speed adjustments or actuator movements as follows:

- Speed adjustment - Press mode button once, the speed display LEDs will flash. Push the joystick left or right to increase or decrease the speed program (There are five speed settings, Speed 1 is the lowest speed with one LED lit, Speed 5 is the highest speed with five LEDs lit). When the desired speed has been selected either press the mode button twice or move the joystick forward or backward to return to standard drive mode.
- Actuator adjustment - Press the mode button twice until the display shows the actuator LED to be operated. Move the joystick forward or backward to operate the actuator. Once the desired position has been achieved press the mode button once to return to drive mode.

### Battery Gauge

If the battery gauge shows RED, YELLOW and GREEN, the batteries are charged. If the battery gauges show just RED and YELLOW, then you should charge the batteries as soon as you can. If the battery gauge shows just RED, either steady or flashing slowly, then you should charge the batteries immediately.

## System Status Indication

The system status indication is the primary source of user feedback. It displays battery charge, fault and status information from the Pilot + controller.

The speed indicator is made up of five LEDs which indicate the programmed speed of the wheelchair.

Display	This means.....	Notes
All LEDs are off	Power is off	
LEDs are on and steady (battery gauge)	Power is on	Less battery gauge LEDs imply a reduced battery charge
Battery gauge LEDs flash slowly	Battery charge is low	The batteries should be charged as soon as possible
Battery gauge LEDs step up	Charging or programming mode	The steady LEDs indicate the current charge level of the batteries.
Battery gauge flashed once every 2.5 seconds	Control system has entered sleep mode a period of inactivity.	Turn off then turn back on again.
Battery gauge flashes rapidly	Fault mode, abnormal condition on the chair	Contact your INVACARE supplier/dealer for assistance

## 12.15 User Joystick Mounting Hardware.



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### WARNING

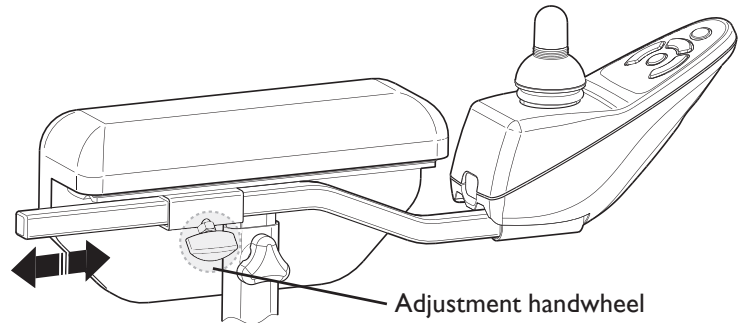
- *After ANY adjustments, repair or service and BEFORE use, make sure that all attaching hardware is tightened securely - otherwise injury or damage may result.*
- 

### Fixed Joystick Mounting Arm.

This type of mounting can move the joystick position either away from, or towards the armpad. This can be set according to comfort and arm length as follows. There is no height adjustment other than to vary the armrest height. See Section 6.2 Adjusting the Armrest.

### Adjustment.

1. Unscrew the small handwheel located on the underside of the armrest.
2. Slide the Joystick to the desired position. Tighten small handwheel.



### **Installing / Removal.**

1. Turn off the controller and unplug the controller communication cable (if applicable)
2. Unscrew the small handwheel located on the underside of the armrest.
3. Slide the joystick mounting arm through / into the clamping tube until it comes away / is at the desired position.
4. If installing re-tighten small handwheel.

# 13 Transportation

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## CAUTION



*INVACARE always advises that a Powerchair secured in a vehicle will not provide the equivalent safety level and security as bespoke seating systems and recommends transfer to the vehicle seating, but also recognises that it is not always practical for the user to be transferred.*

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In cases where transfer is not possible then the Powerchair should only be secured as follows:

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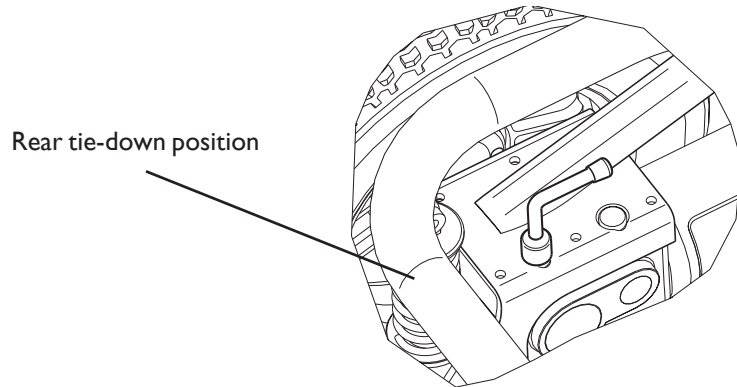
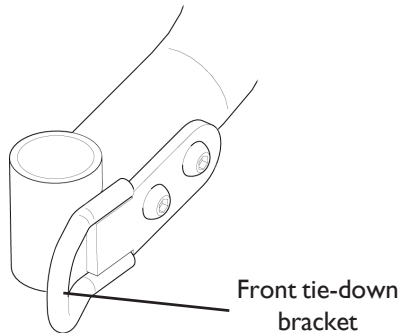
## NOTE

Your safety during transportation, largely depends upon the diligence of the person securing the Tie-downs and passenger restraints, it is your responsibility to ensure that your Powerchair has been secured safely.

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1. The Spectra Blitz™ has been crash tested and has met all pass requirements of ISO 7176 Part 19 and is suitable for transportation with an occupant in a vehicle.
2. Seek confirmation from the transporter that the vehicle is suitably designed, insured and equipped to transport a passenger seated in a Powerchair.
3. Any part of the Powerchair (accessories etc.) that can be easily detached should be removed and stored in the vehicle luggage hold during transportation.
4. The Powerchair should always be transported in a forward facing direction. Rearward facing is only acceptable if your head and back can be supported by a suitable bulkhead.

5. When attaching the tie-downs to the Powerchair, it is imperative they are fixed onto the Tie-Down points only of the Powerchair and not onto any attachments or accessories, as shown below (wheels, castors, footrests, armrests, anti-tipping levers etc.).
6. Your Spectra Blitz™ Powerchair **MUST** be fitted with a headrest and metal buckle lapbelt to be used during transportation. For advice or to purchase these items contact Invacare or your local dealer.
7. During transportation it is **ESSENTIAL** that you are secured by three point lap and diagonal occupant restraint system, which is anchored to the vehicle wall and floor rails. Powerchair lapbelts can be used in addition to the three point restraint system but must not be considered as an alternative to the occupant restraint system.



8. Invacare recommend the Gemini System with 4-Point Heavy Duty Webbing Tie-Down System with Karabiner should be used to secure your chair within the vehicle, these restraints are available from Unwin Safety Systems (based in UK TA12 6EY, Tel: +44(0)1935 827740, <http://www.unwin-safety.com>).

The following system is recommended for use:

4 Point Gemini wheelchair tie down & occupant restraint system:	G2
' D ' Rings:	DR



## 14 Technical Specifications

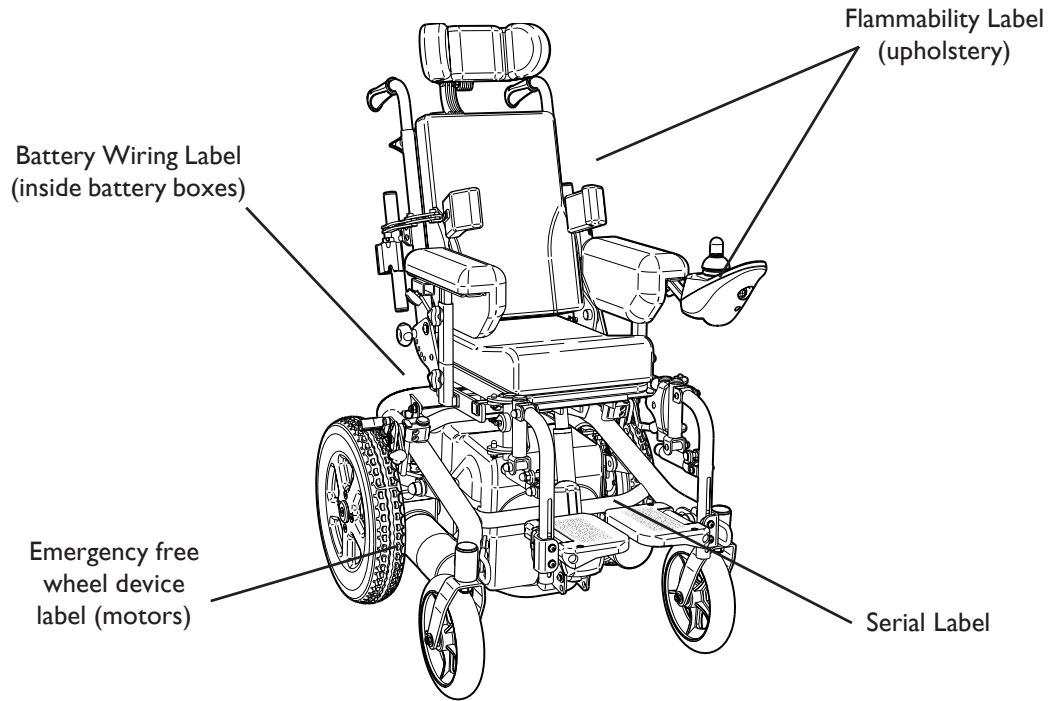
Seat Width Range:	250mm to 390mm
Seat Depth Range:	250mm to 380mm
Back Height Range:	370mm to 440mm
Back Angle Range:	85° to 120°
Seatboard-to-Floor (approx.):	450mm @ 0°
Overall Width of Base:	560mm
Overall Height:	910mm
Overall Length:	940mm
Weight	Complete with Batteries: 79.5kg
Drive Wheels/Tyres:	335mm x 65mm (Foam Filled, Pneumatic or Solid)
Battery Type:	40Ah MK Batteries
Castors w/Precision Sealed Bearings	200mm x 46mm (Solid tyre)

<b>Legrests:</b>	Swing-Away (Std), Angle Adjustment(Opt.), adjustable foot plates (Opt)
<b>Armrests:</b>	Adjustable Height, Removable.
<b>A.S.B.A.* Seat Angle Adjustment:</b>	3° Fixed
<b>A.S.B.A.* Back Angle Adjustment:</b>	9° Fixed (90° to 125°) Optional
<b>A.S.B.A.* Seat Cushion:</b>	Cushion (Optional)
<b>A.S.B.A.* Chair Upholstery Options:</b>	Black Nylon, Two Way Stretch Fabric
<b>A.S.B.A.* Accesories</b>	Headrest (optional) Lateral Supports (Optional)
<b>Operating Temperature:</b>	-20°C to 50°C
<b>Storage Temperature:</b>	-40°C to 65°C
<b>Kerb Climbing:</b>	50mm
<b>Weight Limitations:</b>	75kg (165lbs, 11.8 stone).
<b>Performance Rating: 120kg</b>	Speed up to 6Kmph (4Mph) Range** up to 20Km (12 miles)

\* A.S.B.A. Stands for Adjustable Seat and Back Angle.

\*\*Range will vary with battery conditions, surface, terrain and operator's weight.

# 15 Label locations



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island@invacare.com

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**Blitz-V-01-UK I2/06**

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