Owner's Operator And Maintenance Manual

Tilt
Recline
Tilt/Recline
Seating Systems

DEALER: THIS MANUAL MUST BE GIVEN TO THE USER OF THE WHEELCHAIR.

USER: BEFORE USING THIS WHEELCHAIR, READ THIS MANUAL AND SAVE FOR FUTURE REFERENCE.

INVACARE®

WARNING

WARNING

DO NOT OPERATE THIS EQUIPMENT WITHOUT FIRST READING AND UNDERSTANDING THIS MANUAL AND THE MANUAL PROVIDED WITH THE WHEELCHAIR. IF YOU ARE UNABLE TO UNDERSTAND THE WARNINGS AND INSTRUCTIONS, CONTACT A TRAINED INVACARE DEALER OR INVACARE TECHNICAL SUPPORT BEFORE ATTEMPTING TO USE THIS EQUIPMENT - OTHERWISE INJURY OR DAMAGE MAY RESULT.

THIS SEATING SYSTEM HAS BEEN CUSTOM DESIGNED AND WILL BE ASSEMBLED TO THE WHEELCHAIR BASE BEFORE DELIVERY TO THE USER. THE INFORMATION CONTAINED IN THIS MANUAL IS FOR MAINTAINING AND ADJUSTING THE SEATING SYSTEM. PROCEDURES OTHER THAN THOSE DESCRIBED IN THIS MANUAL MUST BE PERFORMED BY A QUALIFIED TECHNICIAN.

SPECIAL NOTES

SPECIAL NOTES

WARNING/CAUTION notices as used in this manual apply to hazards or unsafe practices which may result in personal injury or property damage.

NOTICE

THE INFORMATION CONTAINED IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.

SEATING SYSTEM/WHEELCHAIR USER

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

WHEELCHAIR TIE-DOWN RESTRAINTS AND SEAT POSITIONING STRAPS

Invacare recommends that wheelchair and seating system users NOT be transported in vehicles of any kind while in wheelchairs. As of this date, the Department of Transportation has not approved any tie-down systems for transportation of a user while in a wheelchair, in a moving vehicle of any type.

It is Invacare's position that users of wheelchairs and seating systems should be transferred into appropriate seating in vehicles for transportation and use be made of the restraints made available by the auto industry. Invacare cannot and does not recommend any wheelchair transportation systems.

SAVE THESE INSTRUCTIONS.

TABLE OF CONTENTS

SPECIFICATIONS

NOTE: All specifications apply to Tilt only, Recline only and Tilt/Recline systems except where specified. All specifications are approximate.

NOTE: The procedures in this manual refer to RWD and FWD models except where specified.

NOTE: Refer to the wheelchair owner's manual for complete specifications on base and operation.

Seat Width Range:	16 to 22-inches - In 1-inch increments
Seat Depth Range:	16 to 22-inches - In 1-inch increments
Back Height Range:	
Recline Only and Tilt/Recline:	20 to 26-inches - In 1-inch increments
Tilt Only:	20 to 25-inches - In 1-inch increments
Back Angle Range	
Tilt Only Systems:	90° to 115° - in 5° increments
Tilt Range	
Tilt Only Systems:	0° Seat Angle - 0° to 45° 5° Seat Angle - 5° to 50°
Tilt/Recline Systems:	0° Seat Angle - 0° to 45° 5° Seat Angle - 5° to 50°
Recline Range	
Recline Only and Tilt/Recline Systems:	0° Seat Angle - 90° to 175° 5° Seat Angle - 95° to 175°
Seat-to-Floor:	0° Seat Angle - 18-1/4-inches 5° Seat Angle - 19-3/4-inches
***Overall Width:**	25 to 27-inches
***Overall Height:**	53-inches
***Overall Length:**	48-inches - in upright position
Weight of Seating System:	105 lbs.
Armrests	
Tilt Only:	Flip Back, Adjustable Height (9 to 13-inches) - Desk or Full Length
**Recline Only and Tilt/Recline Systems:	Adjustable Height (11 to 16-inches) - Desk or Full Length
Legrests:	Mechanical Elevating/Genius Legrests Power Legrests
Headrests:	Curved, Contoured, Small or Large

**NOTE: 18 x 18 Tilt/Recline System on Storm Base (short frame) with AT5544 front riggings in minimum position, seat angle of 5°, back height of 24-inches and headrest.*

This Procedure Includes the Following:

Repair or Service Information

Operating Information

Safety/Handling of Wheelchairs

REPAIR OR SERVICE INFORMATION

Setup of the Electronic Control Unit is to be performed ONLY by authorized Invacare dealers. The final tuning adjustments of the controller may affect other activities of the wheelchair. Damage to the equipment could occur under these circumstances. If any individual other than an authorized Invacare dealer performs any work on these units, the warranty is void.

OPERATING INFORMATION

WARNING

Performance adjustments should only be made by professionals of the health care 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 reenter setup specifications. Repeat this procedure until the wheelchair performs to specifications.

To determine and establish your particular safety limits, practice bending, reaching and transferring activities in several combinations in the presence of a qualified health professional BEFORE attempting active use of the seating system/wheelchair.

DO NOT attempt to reach objects if you have to move forward in the seat.

DO NOT attempt to reach objects if you have to pick them up from the floor by reaching down between your knees.

DO NOT lean over the top of the back upholstery to reach objects from behind as this may cause the seating system/wheelchair to tip over.

DO NOT shift your weight or sitting position toward the direction you are reaching as the seating system/wheelchair may tip over.

DO NOT operate the seating system while on an incline.

DO NOT operate the seating system while the wheelchair is moving.

TILT ONLY SYSTEMS - NEVER operate the wheelchair while in any tilted position over 20° RELATIVE TO THE VERTICAL POSITION. If the drive lock-out does not stop the wheelchair from operating in a tilt position 20° RELATIVE TO THE VERTICAL POSITION, DO NOT operate the wheelchair. Have the wheelchair serviced by a dealer or qualified technician.

RECLINE ONLY SYSTEMS - NEVER operate the wheelchair while in any recline/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. If the drive lock-out does not stop the wheelchair from operating in a recline/back angle combination 20° RELATIVE TO THE VERTICAL POSITION, DO NOT operate the wheelchair. Have the wheelchair serviced by a dealer or qualified technician.

TILT/RECLINE SYSTEMS - NEVER operate the wheelchair while in any tilt/recline/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. If the drive lock-out does not stop the wheelchair from operating in a tilt/recline/back angle combination 20° RELATIVE TO THE VERTICAL POSITION, DO NOT operate the wheelchair. Have the wheelchair serviced by a dealer or qualified technician.

GENERAL GUIDELINES

WARNING

Use only TSS, SAC, TRSS and TRCM actuator controls to activate the tilt/recline functions. DO NOT USE any other actuator controls. Such devices may result in excess heating and cause damage to the actuator and associated wiring and could cause a fire, death, physical injury or property damage. If such devices are used, Invacare shall not be liable and the warranty is void.

VENT TRAY - Chairs equipped with vent tray option: Reduced tilt/recline limits apply. See MKIV TRCM operating instructions, part number 1043576.

DO NOT tip the seating system/wheelchair without assistance.

DO NOT use an escalator to move a seating system/wheelchair between floors. Serious bodily injury may occur.

Before attempting to transfer in or out of the seating system/wheelchair, every precaution should be taken to reduce the gap distance. Turn both casters toward the object you are transferring onto. Also be certain the power is OFF and motor locks are engaged to prevent the wheels from moving.

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

DO NOT operate on roads, streets or highways.

DO NOT climb, go up or down ramps or traverse slopes greater than 9°.

DO NOT attempt to move up or down an incline with a water, ice or oil film.

DO NOT attempt to drive over curbs or obstacles. Doing so may cause your seating system/ Wheelchair to turn over and cause bodily harm or damage to the seating system/wheelchair.

DO NOT use parts, accessories, or adapters other than those authorized by Invacare.

DO NOT leave the power ON when entering or exiting your seating system/ wheelchair.

DO NOT attempt to lift the seating system/wheelchair by lifting on any removable (detachable) parts. Lifting by means of any removable (detachable) parts of a seating system/wheelchair may result in injury to the user or damage to the seating system/wheelchair.

DO NOT stand on the frame of the seating system/wheelchair.

Anti-tippers MUST BE attached at all times.

DO NOT use the footplates as a platform. When getting in or out of the seating system/wheelchair, make sure that the footplates are in the upward position or swing footrests towards the outside of the seating system/wheelchair.

ALWAYS wear your seat positioning strap.

Individual user weight may impact the rate of travel for each legrest assembly. If simultaneous operation is desired, select a speed which allows for the most uniform travel. To prevent personal injury, always verify proper positioning of legs and feet prior to use.

WEIGHT TRAINING
Invacare DOES NOT recommend the use of its wheelchairs and seating systems as a weight training apparatus. Invacare wheelchairs and seating systems have NOT been designed or tested as a seat for any kind of weight training. If occupant uses said seating system/ wheelchair as a weight training apparatus, INVACARE SHALL NOT BE LIABLE FOR BODILY INJURY AND THE WARRANTY IS VOID.

CAUTION

WEIGHT LIMITATION
Standard Tilt only, Recline only and Tilt/Recline systems have a weight limitation of 250 lbs. Tilt only, Recline only and Tilt/Recline systems with the heavy duty option have a weight limitation of 350lbs.

Never allow items to become trapped between the legrest assemblies, otherwise damage to the power legrest may occur.

WARNING

CAUTION: IT IS VERY IMPORTANT THAT YOU READ THIS INFORMATION REGARDING THE POSSIBLE EFFECTS OF ELECTROMAGNETIC INTERFERENCE ON YOUR POWERED WHEELCHAIR.

Electromagnetic Interference (EMI) From Radio Wave sources

Powered wheelchairs and motorized scooters (in this text, both will be referred to as powered wheelchairs) may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy (EM) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two way radios, and cellular phones. The interference (from radio wave sources) can cause the powered wheelchair to release its brakes, move by itself, or move in unintended directions. It can also permanently damage the powered wheelchair's control system. The intensity of the interfering EM energy can be measured in volts per meter (V/m). Each powered wheelchair can resist EMI up to a certain intensity. This is called its "immunity level." The higher the immunity level, the greater the protection. At this time, current technology is capable of achieving at least a 20 V/m immunity level, which would provide useful protection from the more common sources of radiated EMI.

There are a number of sources of relatively intense electromagnetic fields in the everyday environment. Some of these sources are obvious and easy to avoid. Others are not apparent and exposure is unavoidable. However, we believe that by following the warnings listed, your risk to EMI will be minimized.

The sources of radiated EMI can be broadly classified into three types:

1) **Hand-held Portable transceivers (transmitters-receivers with the antenna mounted directly on the transmitting unit. Examples include: citizens band (CB) radios, "walkie talkie," security, fire, And police transceivers, cellular telephones, and other personal communication devices. **NOTE: Some cellular telephones and similar devices transmit signals while they are ON, even when not being used;**
2) **Medium-range mobile transceivers, such as those used in police cars, fire trucks, ambulances, and taxis. These usually have the antenna mounted on the outside of the vehicle; and**
3) **Long-range transmitters and transceivers, such as commercial broadcast transmitters (radio and TV broadcast antenna towers) and amateur (HAM) radios.**

GENERAL GUIDELINES

WARNING

NOTE: Other types of hand-held devices, such as cordless phones, laptop computers, AM FM radios, TV sets, CD players, cassette players, and small appliances, such as electric shavers and hair dryers, so far as we know, are not likely to cause EMI problems to your powered wheelchair.

Powered Wheelchair Electromagnetic Interference (EMI)

Because EM energy rapidly becomes more intense as one moves closer to the transmitting antenna (source), the EM fields from hand-held radio wave sources (transceivers) are of special concern. It is possible to unintentionally bring high levels of EM energy very close to the powered wheelchair's control system while using these devices. This can affect powered wheelchair movement and braking. Therefore, the warnings listed are recommended to prevent possible interference with the control system of the powered wheelchair.

Electromagnetic interference (EMI) from sources such as radio and TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones can affect powered wheelchairs and motorized scooters. Following the warnings listed below should reduce the chance of unintended brake release or powered wheelchair movement which could result in serious injury.

1) **Do not operate hand-held transceivers (transmitters receivers), such as citizens band (CB) radios, or turn ON personal communication devices, such as cellular phones, while the powered wheelchair is turned ON;**
2) **Be aware of nearby transmitters, such as radio or TV stations, and try to avoid coming close to them;**
3) **If unintended movement or brake release occurs, turn the powered wheelchair OFF as soon as it is safe;**
4) **Be aware that adding accessories or components, or modifying the powered wheelchair, may make it more susceptible to EMI (Note: There is no easy way to evaluate their effect on the overall immunity of the powered wheelchair); and**
5) **Report all incidents of unintended movement or brake release to the powered wheelchair manufacturer, and note whether there is a source of EMI nearby.**

Important Information

1) **20 volts per meter (V/m) is a generally achievable and useful immunity level against EMI (as of May 1994) (the higher the level, the greater the protection);**
2) **The immunity level of this product is not known.**

Modification of any kind to the electronics of this wheelchair as manufactured by Invacare may adversely affect the RFI immunity levels.

SAFETY / HANDLING OF SEATING SYSTEMS / WHEELCHAIRS

"Safety and Handling" of the wheelchair requires the close attention of the seating system/wheelchair user as well as the assistant. This manual, as well as the owners manual provided with the wheelchair, points out the most common procedures and techniques involved in the safe operation and maintenance of the seating system/wheelchair. It is important to practice and master these safe techniques until you are comfortable in maneuvering around the frequently encountered architectural barriers.

Use this information only as a "basic" guide. The techniques that are discussed on the following pages have been used successfully by many.

Individual seating system/wheelchair users often develop skills to deal with daily living activities that may differ from those described in this manual. Invacare recognizes and encourages each individual to try what works best for him/her in overcoming architectural 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 new seating system/wheelchair users and assistants with "safety" as the most important consideration for all.

Stability and Balance

WARNING

Always wear your seat positioning strap.

To assure stability and proper operation of your seating system/wheelchair, you must at all times maintain proper balance. Your seating system/wheelchair has been designed to remain upright and stable during normal daily activities as long as you do not move beyond the center of gravity.

DO NOT lean forward out of the seating system/wheelchair any further than the length of the armrests. Make sure the casters are pointing in the forward position whenever you lean forward. This can be achieved by advancing the wheelchair and then reversing it in a straight line.

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 center of gravity to maintain stability and balance.

A Note to Wheelchair Assistants

When assistance to the seating system/wheelchair user is required, remember to use good body mechanics. Keep your back straight and bend your knees.

Also, be aware of any detachable parts. 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.

Percentage of Weight Distribution

WARNING

DO NOT attempt to reach objects if you have to move forward in the seat or pick them up from the floor by reaching down between your knees.

Many activities require the wheelchair owner to reach, bend and transfer in and out of the wheelchair. These movements will cause a change to normal balance, center of gravity, and weight distribution of the wheelchair. To determine and establish your particular safety limits, practice bending, reaching and transferring activities in several combinations in the presence of a qualified health professional BEFORE attempting active use of the wheelchair.

Proper positioning is essential for your safety. When reaching, leaning, bending or bending forward, it is important to use the front casters as a tool to maintain stability and balance.

Transferring To / From Other Seats

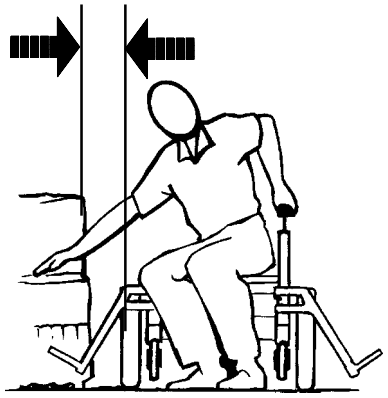
WARNING

BEFORE attempting to transfer in or out of the wheelchair, every precaution should be taken to reduce the gap distance. Turn both casters toward the object you are transferring onto. Also be certain to engage motor locks to help prevent the wheels from moving.

CAUTION

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.

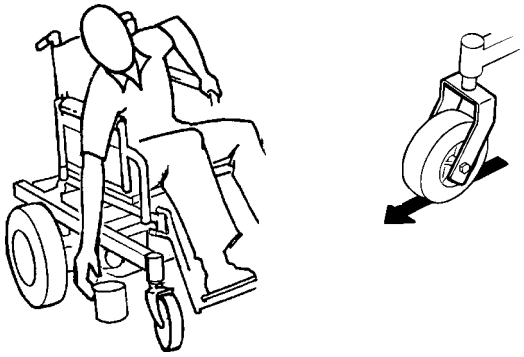


Position the wheelchair as close as possible along side the seat to which you are transferring, with the casters aligned parallel with the object. Engage motor locks. Shift body weight into seat with transfer.

During independent transfer, little or no seat platform will be beneath you. Use a transfer board if at all possible.

Reaching, Leaning, Bending and Bending - Forward

Position the front casters so that they are extended as far forward as possible and engage wheel locks. **DO NOT ATTEMPT TO REACH OBJECTS IF YOU HAVE TO PICK THEM UP FROM THE FLOOR BY REACHING DOWN BETWEEN YOUR KNEES.**



Reaching, Bending - Backwards

WARNING

DO NOT lean over the top of the back upholstery. This will change your center of gravity and may cause you to tip over.

Position wheelchair as close as possible to the desired object. Point front casters forward to create the longest possible wheelbase. Reach back only as far as your arm will extend without changing your sitting position.

This Procedure Includes the Following:
Safety Inspection and Maintenance Checklist
Troubleshooting

SAFETY INSPECTION AND MAINTENANCE CHECKLIST

NOTE: Every six (6) months, take your seating system/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 seating system/wheelchair. To operate properly and safely, your seating system/wheelchair must be cared for just like any other vehicle. Routine maintenance will extend the life and efficiency of your seating system/wheelchair.

Initial adjustments should be made to suit your personal body structure and preference. Thereafter follow these maintenance procedures.

NOTE: Refer to the wheelchair owners manual for a complete safety inspection checklist on the base.

ITEM	INITIALLY	INSPECT/ ADJUST WEEKLY	INSPECT/ ADJUST MONTHLY	INSPECT/ ADJUST PERIODICALLY
ELECTRICAL CONNECTIONS				
● Make sure all electrical connections are secure.	X		X	
● Check limit switch position.	X			X
DRIVE LOCK-OUT				
● Make sure Drive lock-out operates properly.	X		X	
TILT MECHANISM				
● Make sure tilt operates smoothly and properly.	X		X	
RECLINE MECHANISM				
● Make sure recline operates smoothly and properly.	X		X	
CLOTHING GUARDS				
● Ensure all fasteners are secure.	X			X
ARMS				
● Secure but easy to release; adjustment levers engage properly.	X			X
● Adjustable height arms operate and lock securely.	X			X
ARMRESTS				
● Inspect for rips in upholstery.	X			X
● Armrest pad sits flush against arm tube.	X			X
SEAT AND BACK CUSHIONS				
● Inspect for rips.	X			X
CLEANING				
● Clean cushions and armrests.	X			X

TROUBLESHOOTING

NOTE: Refer to wheelchair owner's manual for complete mechanical and electrical troubleshooting guides on base.

NOTE: Refer to the individual CONTROLLER MANUAL supplied with each wheelchair for additional troubleshooting information and explanation of error codes.

SYMPTOM	PROBABLE CAUSE	SOLUTIONS
Wheelchair Power ON but does not drive.	**System tilted beyond drive lock-out angle.**	**Tilt to neutral (upright) position. Contact Dealer/ Invacare for Service.**
Seating system not functioning.	**Low Batteries.**	**Charge batteries.**
	Faulty electrical connection.	**Check all connections. Contact Dealer/Invacare for Service.**
	Blown Fuse.	**Replace fuse. Contact Dealer/Invacare for Service.**

This Procedure Includes the Following:
Operating Tilt Only Systems

OPERATING TILT ONLY SYSTEMS (FIGURE 1)

WARNING

NEVER operate the wheelchair while in any tilt/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. If the drive lock-out does not stop the wheelchair from operating in a tilt/back angle combination 20° RELATIVE TO THE VERTICAL POSITION, DO NOT operate the wheelchair. Have the wheelchair serviced by a dealer or qualified technician.

Use only TSS, SAC, TRSS and TRCM actuator controls to activate the tilt/recline functions. DO NOT USE any other actuator controls. Such devices may result in excess heating and cause damage to the actuator and associated wiring and could cause a fire, death, physical injury or property damage. If such devices are used, Invacare shall not be liable and the warranty is void.

A Note About Drive Lock-Out

Drive lock-out is a feature designed to prevent the wheelchair from being driven while in any recline/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. When the drive lock-out feature has been activated, the LED on the single function toggle switch will light.

NOTE: The tilt angle range is from 0° to 45° with a 0° seat-to- floor angle and 5° to 50° with a 5° seat-to-floor angle.

Single Function Toggle Switch

INCREASING TILT ANGLE.

1. Make sure the wheelchair is on a level surface.
2. Pull single function toggle switch back towards rear of the wheelchair until the desired angle is achieved.

DECREASING TILT ANGLE.

1. Push the single function toggle switch forward towards the front of the wheelchair until the desired angle is achieved.

Optional Four-Way Toggle Switch

INCREASING/DECREASING TILT ANGLE.

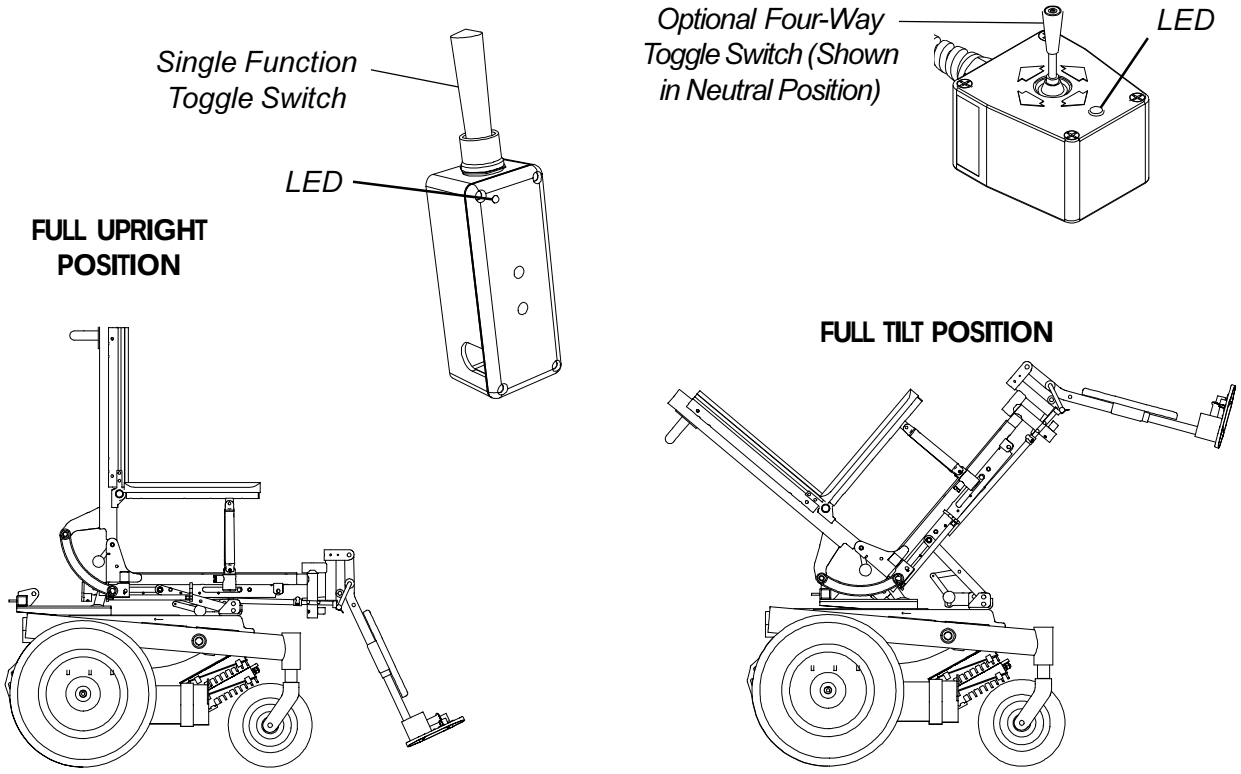
1. Make sure the wheelchair is on a level surface.
2. Push four-way toggle switch forward towards the front of the wheelchair until the desired tilt angle is achieved.

NOTE: If the wheelchair is equipped with switch options, scan to the correct ECU or Auxiliary Mode and activate the control device in the corresponding "forward" direction to operate the tilt function. Refer to the MKIV owner's manual, part number 1043576 for complete switch option operating instructions.

3. Release four-way toggle switch to neutral position.

*NOTE: The four-way toggle switch **will alternate functions** (increase tilt angle, decrease tilt angle) after it has been released to the neutral position for a minimum of one (1) second.*

NOTE: Refer to the MKIV owner's manual, part number 1043576 for complete four-way toggle switch operating instructions.



NOTE: Illustration depicts RWD models. The tilt function operates in the same manner for FWD models.

FIGURE 1 - OPERATING TILT ONLY SYSTEMS

This Procedure Includes the Following:
Operating Recline Only Systems

OPERATING RECLINE ONLY SYSTEMS (FIGURE 1)

WARNING

NEVER operate the wheelchair while in any recline/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. If the drive lock-out does not stop the wheelchair from operating in a recline/back angle combination 20° RELATIVE TO THE VERTICAL POSITION, DO NOT operate the wheelchair. Have the wheelchair serviced by a dealer or qualified technician.

Reduced Recline limits apply with optional vent tray. See MKIV TRCM operating instructions, part number 1043576.

Use only TSS, SAC, TRSS and TRCM actuator controls to activate the tilt/recline functions. DO NOT USE any other actuator controls. Such devices may result in excess heating and cause damage to the actuator and associated wiring and could cause a fire, death, physical injury or property damage. If such devices are used, Invacare shall not be liable and the warranty is void.

A Note About Drive Lock-Out

Drive lock-out is a feature designed to prevent the wheelchair from being driven while in any recline/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. When the drive lock-out feature has been activated, the LED on the four-way toggle switch will light.

Increasing/Decreasing Recline Angle

NOTE: The recline angle range is from 95° to 175° with a 5° seat-to-floor angle. The recline angle range is from 90° to 175° with a 0° seat-to-floor angle.

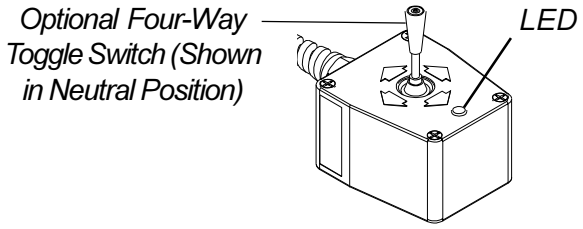
1. Make sure the wheelchair is on a level surface.
2. Pull the four-way toggle switch back towards the rear of the wheelchair until the desired recline angle is achieved.

NOTE: If the wheelchair is equipped with switch options, scan to the correct ECU or Auxiliary Mode, then activate the control device in the corresponding "reverse" direction to operate the recline function. Refer to the MKIV owner's manual, part number 1043576 for complete switch option operating instructions.

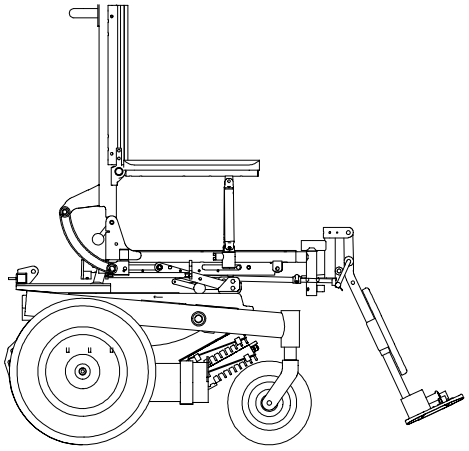
3. Release the four-way toggle switch to the neutral position.

*NOTE: The four-way toggle switch **will alternate functions** (increase recline angle, decrease recline angle) after it has been released to the neutral position for a minimum of one (1) second.*

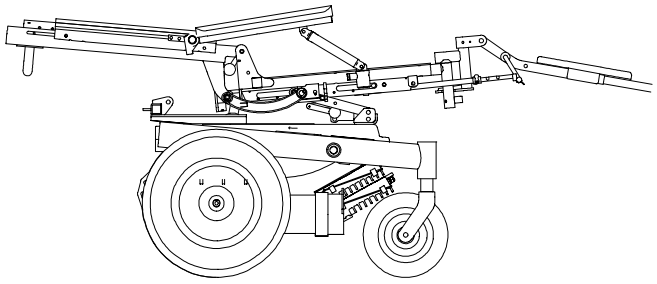
NOTE: Refer to the MKIV owner's manual, part number 1043576 for complete four-way toggle switch operating instructions.



FULL UPRIGHT POSITION



FULL RECLINE POSITION



NOTE: Illustration depicts RWD models. The recline function operates in the same manner for FWD models.

FIGURE 1 - OPERATING RECLINE ONLY SYSTEMS

This Procedure Includes the Following:
Operating Tilt /Recline Systems

OPERATING TILT/RECLINE SYSTEMS (FIGURE 1)

WARNING

NEVER operate the wheelchair while in any tilt/recline/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. If the drive lock-out does not stop the wheelchair from operating in a tilt/recline/back angle combination 20° RELATIVE TO THE VERTICAL POSITION, DO NOT operate the wheelchair. Have the wheelchair serviced by a dealer or qualified technician.

Reduced Tilt and Recline limits apply with optional vent tray. See MKIV TRCM operating instructions, part number 1043576.

Use only TSS, SAC, TRSS and TRCM actuator controls to activate the tilt/recline functions. DO NOT USE any other actuator controls. Such devices may result in excess heating and cause damage to the actuator and associated wiring and could cause a fire, death, physical injury or property damage. If such devices are used, Invacare shall not be liable and the warranty is void.

A Note About Drive Lock-Out

Drive lock-out is a feature designed to prevent the wheelchair from being driven while in any tilt/recline/back angle combination over 20° RELATIVE TO THE VERTICAL POSITION. When the drive lock-out feature has been activated, the LED on the four-way toggle switch will light.

Increasing/Decreasing Tilt Angle

NOTE: The tilt angle range is from 5° to 50° with a 5° seat-to-floor angle. The Tilt angle range is from 0° to 45 ° with a 0° seat-to-floor angle.

1. Make sure the wheelchair is on a level surface.
2. Push four-way toggle switch forward towards the front of the wheelchair until the desired tilt angle is achieved.

NOTE: If the wheelchair is equipped with switch options, scan to the correct ECU or Auxiliary Mode and activate the control device in the corresponding "forward" direction to operate the tilt function. Refer to the MKIV owner's manual, part number 1043576 for complete switch option operating instructions.

3. Release four-way toggle switch to neutral position.

*NOTE: The four-way toggle switch **will alternate functions** (increase tilt angle, decrease tilt angle) after it has been released to the neutral position for a minimum of one (1) second.*

NOTE: Refer to the MKIV owner's manual, part number 1043576 for complete four-way toggle switch operating instructions.

Increasing/Decreasing Recline Angle

NOTE: The recline angle range is from 95° to 175° with a 5° seat-to-floor angle. The recline angle range is from 90° to 175° with a 0° seat-to-floor angle.

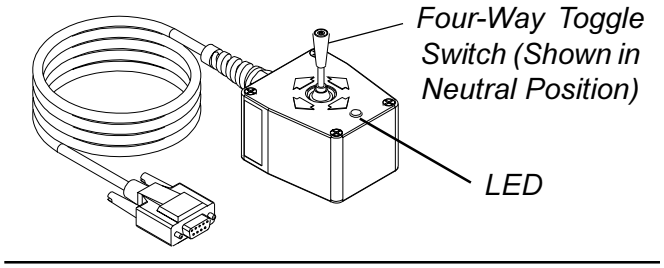
1. Make sure the wheelchair is on a level surface.
2. Pull four-way toggle switch back towards the rear of the wheelchair until desired recline angle is achieved.

NOTE: If the wheelchair is equipped with switch options, scan to the correct ECU or Auxiliary Mode, then activate the control device in the corresponding "reverse" direction to operate the recline function. Refer to the MKIV owner's manual, part number 1043576 for complete switch option operating instructions.

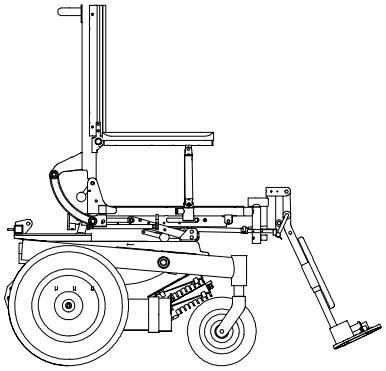
3. Release four-way toggle switch to neutral position.

*NOTE: The four-way toggle switch **will alternate functions** (increase recline angle, decrease recline angle) after it has been released to the neutral position for a minimum of one (1) second.*

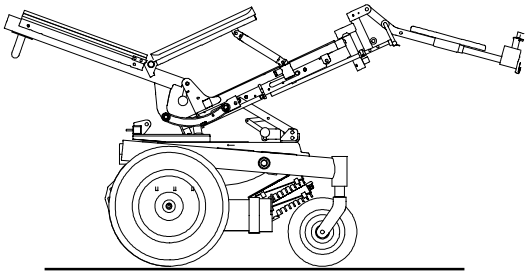
NOTE: Refer to the MKIV owner's manual, part number 1043576 for complete four-way toggle switch operating instructions.



FULL UPRIGHT POSITION



TILT/RECLINE COMBINATION



NOTE: Illustration depicts RWD models. The tilt/recline function operates in the same manner for FWD models.

FIGURE 1 - OPERATING TILT/RECLINE SYSTEMS

This Procedure Includes the Following:
Using the Optional Ventilator Tray

NOTE: Extended Active Anti-tippers are standard when chair is equipped with vent tray. Refer to PROCEDURE 11 for anti-tipper adjustment if necessary.

USING THE OPTIONAL VENTILATOR TRAY (FIGURE 1)

WARNING

Maximum weight capacity for the vent tray is 40 lbs. Otherwise, injury or damage may occur.

CAUTION

This ventilator tray was designed to hold a ventilator that is approximately 13-inches long, 14-1/2-inches wide, and 9-3/4-inches high. Use of ventilators larger than the above specifications may result in damage to the ventilator.

1. Position straps to the outside of the ventilator tray and battery tray.
2. Position the ventilator (not shown) on the ventilator tray.
3. Secure strap around the the ventilator and clip together.
4. Position the ventilator battery box in the battery tray.
5. Secure strap around the battery box and clip together.
6. Securely tighten the straps around the battery box and ventilator by pulling the ends of the strap through the rear portion of each buckle. Refer to DETAIL "A".

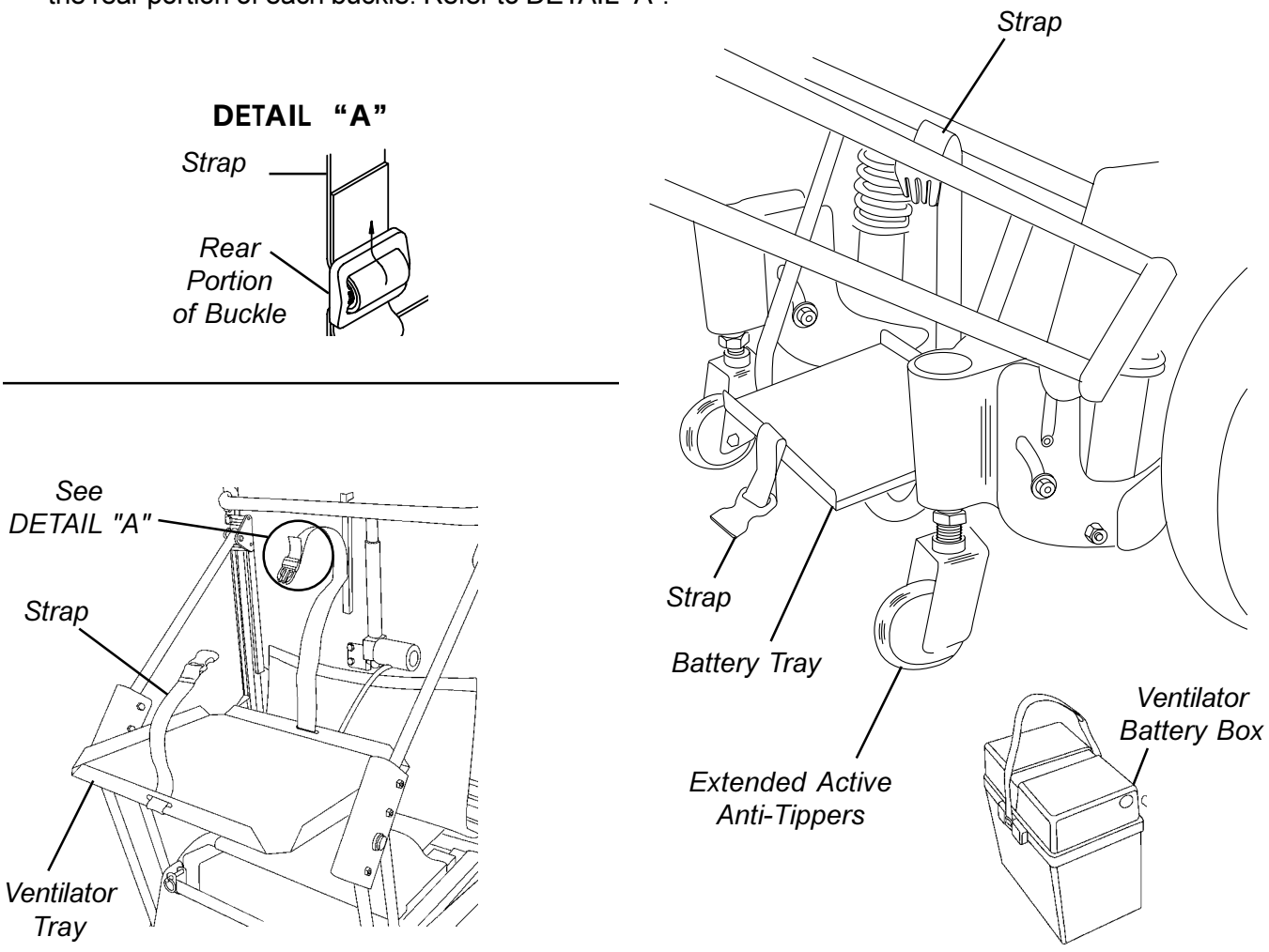


FIGURE 1 - USING THE OPTIONAL VENTILATOR TRAY

This Procedure Includes the Following:
Optional Vernier Shear Reduction

OPTIONAL VERNIER SHEAR REDUCTION

About Vernier Shear Reduction (VSR)

WARNING

The relationship between Vernier Shear Reduction (VSR) and the recline function of the seating system is dependant on the needs of the user and MUST be set and adjusted by a trained authorized Invacare Dealer.

Have the relationship between Vernier Shear Reduction (VSR) and the recline function of the seating system periodically inspected to maintain proper setting for the user. Otherwise, injury to the user may result.

Vernier Shear Reduction (VSR) moves the back of the seating system along with the recline function. VSR reduces shear between the user and the seating system as the seating system reclines.

NOTE: VSR is electronically linked to the recline function of the seating system and operating the recline function automatically activates VSR.

VSR function can also be used independently from the recline function to allow for a change in seating position or access to additional seating system options. Refer to USING VERNIER SHEAR REDUCTION (VSR) INDEPENDENTLY OF RECLINE FUNCTION in this procedure of the manual.

Using Vernier Shear Reduction (VSR) Independently of Recline Function (FIGURE 1)

WARNING

The back of the seating system MUST be returned to original position BEFORE the degree of recline is changed (increased or decreased). Otherwise, the relationship between Vernier Shear Reduction (VSR) and the recline function of the seating system will change, possibly resulting in injury to the user.

1. Make sure the wheelchair is on a level surface.
2. Note the current position of the back.
3. Push four-way toggle switch towards the left of the wheelchair until the desired VSR is achieved.

NOTE: Left and right is determined by sitting in the wheelchair.

*NOTE: The four-way toggle switch **will alternate functions** (move VSR actuator UP, move VSR actuator DOWN) after it has been released to the neutral position for a minimum of one (1) second.*

NOTE: If the wheelchair is equipped with switch options, scan to the correct ECU or Auxiliary Mode and activate the control device in the corresponding "left" direction to operate the VSR function. Refer to the MKIV owner's manual, part number 1043576 for complete switch option operating instructions.

4. Return the back to the position noted in STEP 2 BEFORE changing the degree of recline.

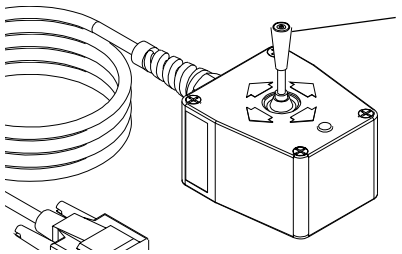


FIGURE 1 - USING OPTIONAL VERNIER SHEAR REDUCTION INDEPENDENTLY OF RECLINE FUNCTION

This Procedure Includes the Following:
Mechanical Elevating/Genius Legrests
Installing Power Legrests
Adjusting Power Legrests
Articulation Adjustment

WARNING

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

NOTE: Tilt ONLY - For complete operating information on Invacare footrests and elevating legrests, refer to the owner's manual supplied for the base of the wheelchair.

MECHANICAL ELEVATING/ GENIUS LEGRESTS

CAUTION

DO NOT operate the recline function of the seating system if one (1) or both of the mechanical elevating legrest push rods is bent. Damage to the seating system may occur.

NOTE: Mechanical elevating legrests are linked to the recline function of the seating system. Operating the recline function automatically operates elevating legrests.

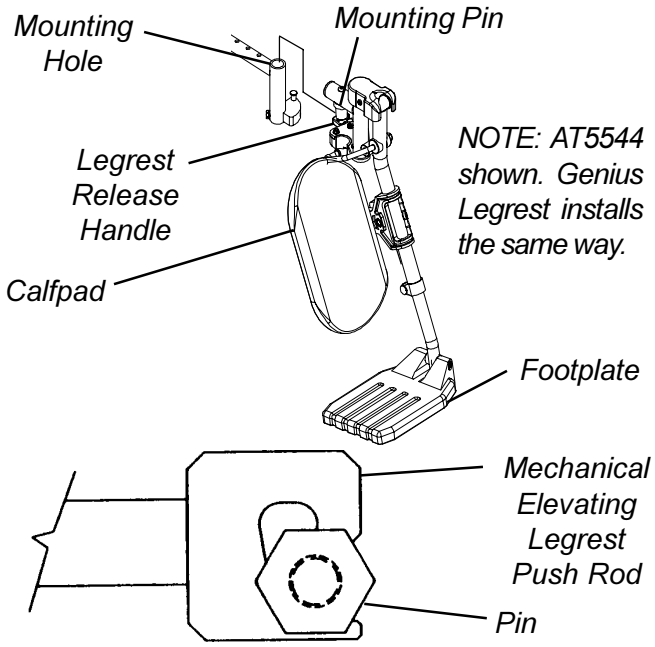


FIGURE 1 - INSTALLING/REMOVING MECHANICAL ELEVATING/GENIUS LEGRESTS

Installing/Removing Mechanical Elevating/Genius Legrests (FIGURE 1)

INSTALLING.

1. Turn elevating legrest to side (open footplate is perpendicular to wheelchair) and position the mounting pin on the legrest mounting holes on the seat frame.
2. Insert the mounting pin into the mounting hole.

NOTE: Make sure the legrest sits flush on the seat frame.

3. Rotate the elevating legrest toward the inside of the wheelchair until it locks in place.

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

4. Lift the elevating legrest UP and position the mechanical elevating legrest push rod around the pin on the legrest as shown in FIGURE 1.
5. Press DOWN on mechanical elevating legrest push rod until there is an audible "click".
6. Repeat STEPS 1-5 for the opposite elevating legrest.
7. If necessary, adjust elevating legrests. Refer to one of the following:
   A. ADJUSTING MECHANICAL ELEVATING LEGRESTS in this procedure of the manual.
   B. ADJUSTING GENIUS LEGRESTS in this procedure of the manual.

REMOVING.

1. Lift UP on the mechanical elevating legrest push rod and remove from the pin on the legrest as shown in FIGURE 1.
2. Push elevating legrest release handle toward the opposite side of the wheelchair and swing legrest to the outside of the wheelchair.
3. Lift UP on elevating legrest and remove from wheelchair.
4. Repeat STEPS 1-3 for opposite side of wheelchair.

Adjusting Mechanical Elevating Legrests

CALFPADS (FIGURE 2).

1. Turn the calfpad towards the outside of the wheelchair.
2. Slide calfpad up or down until desired position is obtained.
3. Turn the calfpad towards the inside of the wheelchair.

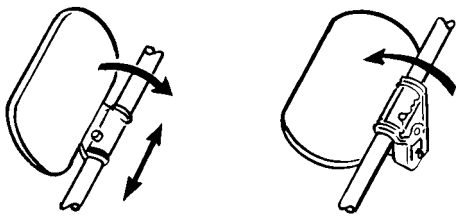


FIGURE 2 - ADJUSTING MECHANICAL ELEVATING LEGRESTS - CALFPADS

FOOTPLATE HEIGHT (FIGURE 3).
NOTE: The following procedure should be performed with the user in the wheelchair.

1. Loosen, but do not remove the bolt and locknut that secure the lower legrest assembly to the upper legrest assembly.
2. Move the lower legrest assembly to the desired position for the user.
3. While holding the lower legrest in position, tighten the bolt and locknut securely.
4. Repeat STEPS 1-4 for opposite legrest if necessary.

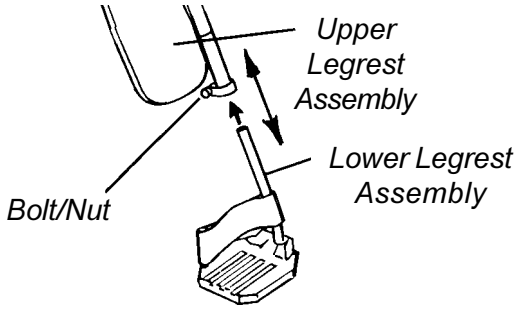


FIGURE 3 - ADJUSTING MECHANICAL ELEVATING LEGRESTS - FOOTPLATE HEIGHT

SPEED / HEIGHT.
NOTE: Mechanical Elevating Legrest speed and height cannot be adjusted independently of the recline function of the wheelchair. If the mechanical elevating legrests are not operating as desired, have the wheelchair serviced by an Invacare dealer or technician.

Adjusting Genius Legrests

FOOTPLATE HEIGHT (FIGURE 4).
1. Note the angle of the footplate in relation to the legrest as shown in FIGURE 1.
2. Loosen, but do not remove the three (3) hex bolts and locknuts that secure the footplate to the legrest.
3. Adjust the fooplate to the desired height.
4. Line up the footplate to the angle noted in STEP 1.
5. While holding the footplate, tighten the three (3) hex bolts and locknuts securely.

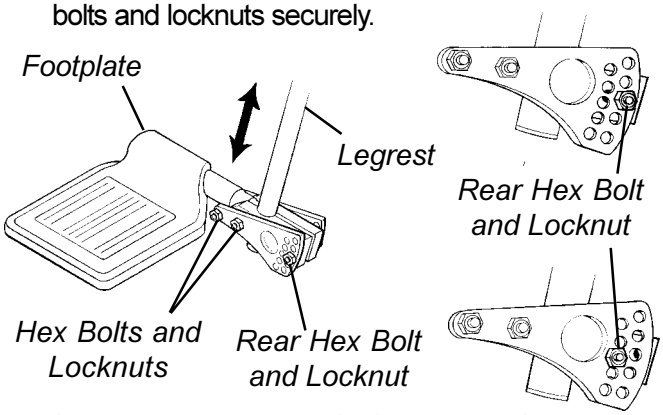


FIGURE 4 - ADJUSTING GENIUS LEGRESTS - FOOTPLATE HEIGHT/ANGLE

FOOTPLATE ANGLE (FIGURE 4).
1. Note the angle of the footplate in relation to the legrest as shown in FIGURE 1.
2. Remove the rear hex bolt and locknut that secure the footplate to the legrest.
3. Move the footplate to the desired angle.
4. Install the hex bolt through the mounting holes that correspond to the desired footplate angle.
5. Install the locknut onto the hex bolt.
6. Line up the footplate to the angle noted in STEP 1.
7. While holding the footplate, tighten the hex bolt and locknut securely.

CALFPAD HEIGHT (FIGURE 5).
1. Turn the calfpad towards the outside of the wheelchair.
2. Slide calfpad up or down until desired position is obtained.
3. Turn the calfpad towards the inside of the wheelchair.

CALFPAD DEPTH (FIGURE 5).
1. Remove the hex bolt and locknut that secure the calfpad and spacer to the adjustment bracket.
2. Move the legrest to one (1) of three (3) positions.
3. Reinstall the hex bolt through the spacer and calfpad.

NOTE: Make sure hex bolt sits flush adjustment bracket channel.

4. Reinstall locknut onto the hex bolt and tighten securely.

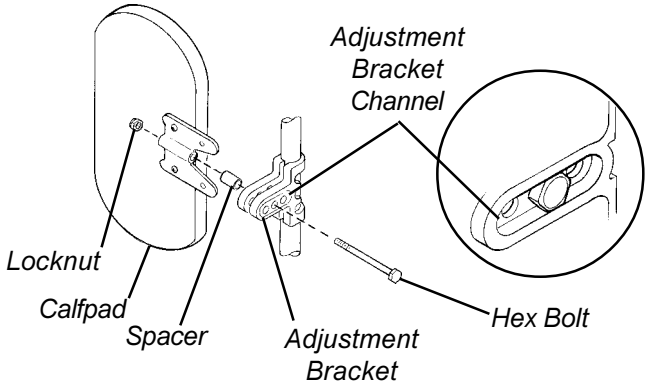


FIGURE 5 - ADJUSTING GENIUS LEGRESTS - CALFPAD HEIGHT/DEPTH

LEGREST HEIGHT (FIGURE 6).
1. Remove the button screw that secures the adjustment link and two (2) washers to the legrest support.
2. Move adjustment link to one (1) of three (3) positions.
3. Line up the two (2) washers and adjustment link with the mounting hole in the legrest support.
4. Install the button screw and tighten securely.

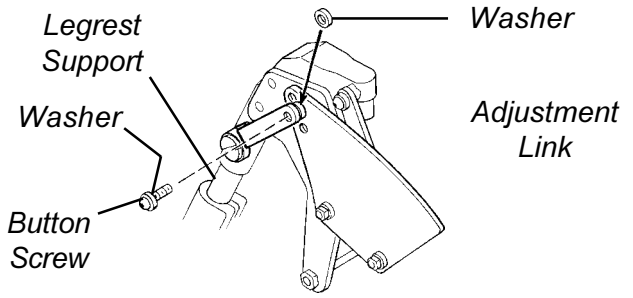


FIGURE 6 - ADJUSTING GENIUS LEGRESTS - LEGREST HEIGHT/DEPTH

INSTALLING/REMOVING THE POWER LEGRESTS (FIGURE 7)

NOTE: Power legrests are linked to the recline function of the seating system. Operating the recline function automatically operates power legs. Power Legrests can also be operated independently of the recline function.

WARNING

To prevent personal injury, always verify proper positioning of legs and feet prior to use. Individual user weight may impact the rate of travel for each legrest assembly. If simultaneous operation is desired, select a speed which allows for the most uniform travel.

DO NOT insert fingers between legrest components, otherwise personal injury may occur.

CAUTION

Never allow items to become trapped between the legrest assemblies, otherwise damage to the power legrests may occur.

Ensure that all parts of both power legrests are clear of any obstructions before raising and lowering, otherwise damage to the power legrests may occur.

Installing the Power Legrests

1. Turn power legrest to side (open footplate is perpendicular to wheelchair) and position the mounting pin on the legrest with mounting holes on the seat frame (DETAIL"A").
2. Insert the mounting pin of power legrest into the mounting hole of the seat frame (DETAIL"A").

NOTE: Make sure the legrest sits flush on the seat frame.

3. Rotate the power legs toward the inside of the wheelchair until it locks in place.

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

4. Repeat STEPS 1-3 for the opposite legrest.
5. Connect power legrest connector to jumper cable (DETAIL"B").
6. If necessary, adjust powered legs. Refer to ADJUSTING POWER LEGRESTS in this instruction sheet.

Removing the Power Legrests

1. Disconnect power legrests from jumper cable.
2. Push powered legrest release handle toward the opposite side of the wheelchair and swing legrest to the outside of the wheelchair.
3. Lift UP on powered legrest and remove from wheelchair.
4. Repeat STEPS 1-3 for opposite power legrest.

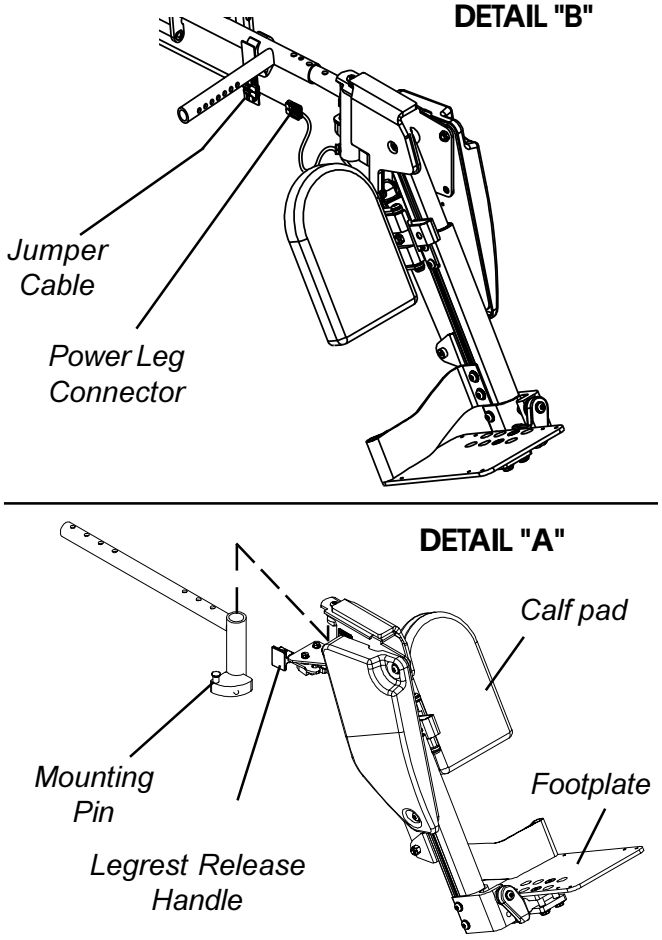


FIGURE 7 - INSTALLING/REMOVING POWER LEGRESTS

ADJUSTING THE POWER LEGRESTS

NOTE: The speed of the power legs MUST be adjusted to the following specifications otherwise the legs will not work properly. For assistance in speed adjustment contact an Invacare Dealer.

A. ***For TRCM Version 2.2 and earlier, TAC 1.1 and earlier**: Leg up speed MUST to be set at 70% or higher and Leg Down speed MUST be set at 50% or higher.*

B. ***For TRCM version 2.3 or higher, TAC version 1.11 or higher**: Leg up speed MUST be set at 40% or higher and Leg Down speed MUST be seat at 35% or higher.*

Adjusting the Footplate

WARNING

DO NOT remove heel loops without providing some other adequate means of support, otherwise personal injury may occur.

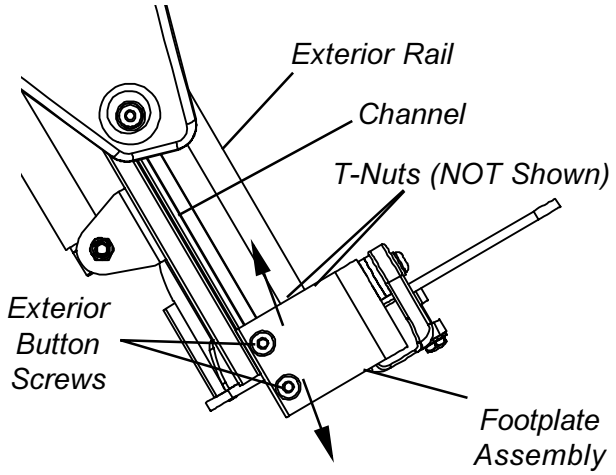
ADJUSTING THE FOOTPLATE HEIGHT (FIGURE 8).

NOTE: The following procedure should be performed with the user in the wheelchair.

NOTE: T-nuts ride in the channels of the exterior/interior rails of the power legrests. Refer to FIGURE 8.

1. Loosen, but do not remove the two (2) interior button screws that secure the footplate assembly to the T-nuts.
2. Loosen, but do not remove the two (2) exterior button screws that secure the footplate assembly to the T-nuts.
3. Loosen, but do not remove the two (2) button screws that secure the heel loop to the T-nuts.
4. Slide footplate assembly up or down, until desired height is achieved.
5. While holding footplate assembly in position, tighten all six (6) button screws that were loosened in STEPS 1-3.
6. Repeat STEPS 1-3 for opposite footplate if necessary.

OUTSIDE VIEW OF POWERED LEGS



INSIDE VIEW OF POWERED LEGS

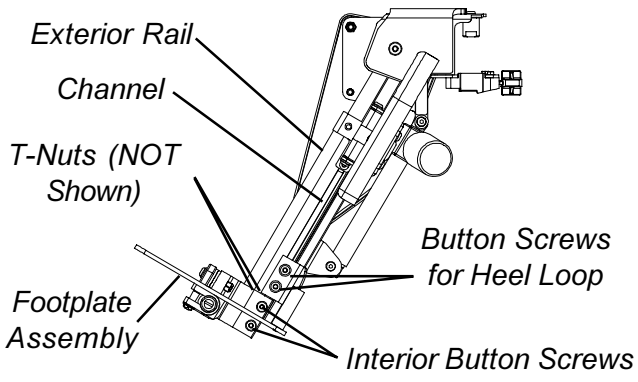


FIGURE 8 - ADJUSTING THE FOOTPLATE HEIGHT

ADJUSTING THE FOOTPLATE DEPTH (FIGURE 9).

1. Remove the two (2) flat head screws and the two (2) barrel nuts that secure the footplate to the footplate clamp.
2. Reposition the footplate on the footplate clamp.
3. Align the depth holes on the footplate to the mounting holes on the footplate clamp.
4. Insert the (2) barrel nuts through the bottom of the footplate clamp.
5. Install the two (2) flat head screws through the footplate and footplate clamp.
6. Securely tighten with two (2) barrel nuts.
7. Repeat STEPS 1-6 for opposite footplate if necessary.

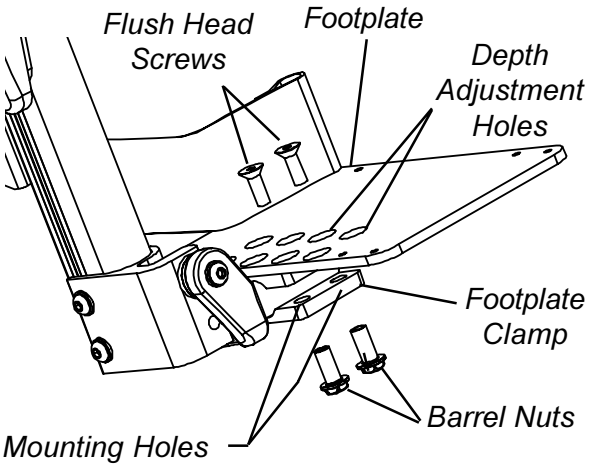


FIGURE 9- ADJUSTING THE FOOTPLATE DEPTH

ADJUSTING THE FOOTPLATE ANGLE (FIGURES 10).

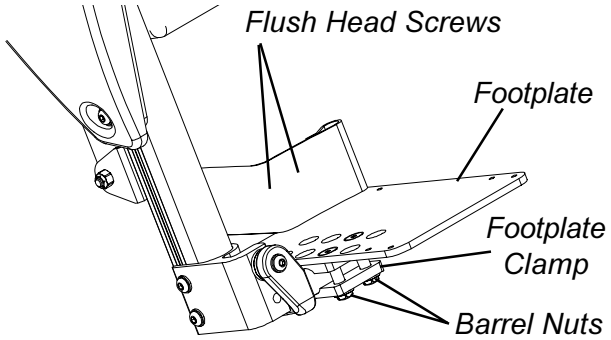
1. Loosen, but do not remove the two (2) flat head screws and the two (2) barrel nuts that secure the footplate to the footplate clamp. Refer to DETAIL "A" in FIGURE 7.
2. Rotate the footplate clamp on the pivot hinge until the desired angle is achieved. Refer to DETAIL "B" FIGURE 10.
3. Securely tighten footplate to footplate clamp and hinge pivot with the two (2) flat head screws and barrel nuts.
4. Repeat STEPS 1-3 for opposite side if necessary.
5. For additional angle adjustment, perform the following (FIGURE 11):

   A. Loosen the set screw.

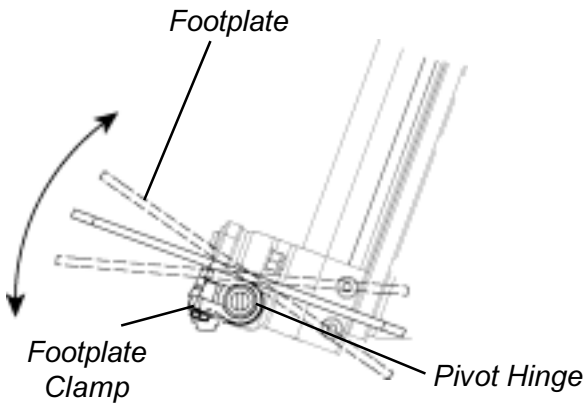
   B. Rotate footplate up or down to desired position.

   C. Retighten set screw.

DETAIL "A"



DETAIL "B"



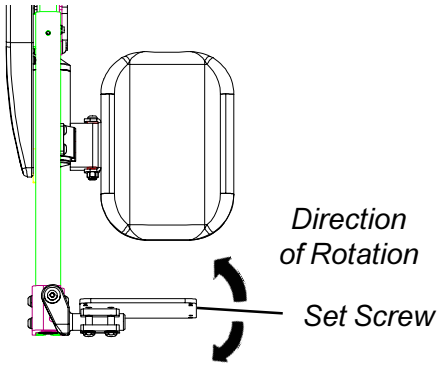


FIGURE 10 - ADJUSTING THE FOOTPLATE ANGLE

Adjusting the Calf Pad

ADJUSTING THE CALF PAD WIDTH (FIGURE 11).

1. Remove the two (2) button head screws from the calf pad and calf pad bracket.
2. Reposition calf pad to calf pad bracket to desired mounting position.
3. Align button head screws to mounting holes on calf pad and calf pad bracket.
4. Install button head screws into calf pad bracket and calf pad. Securely tighten.
5. Repeat STEPS 1-4 for opposite side, if necessary.

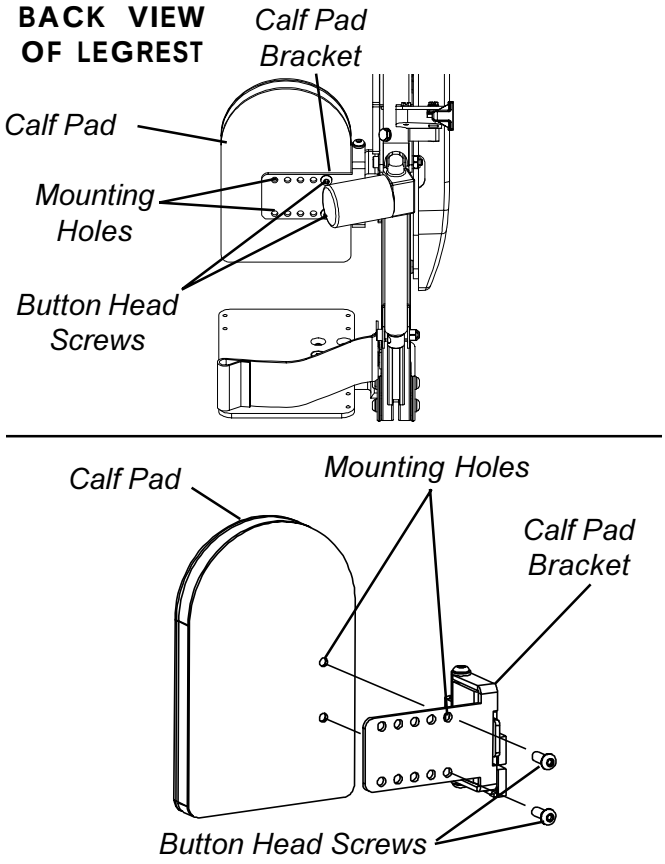
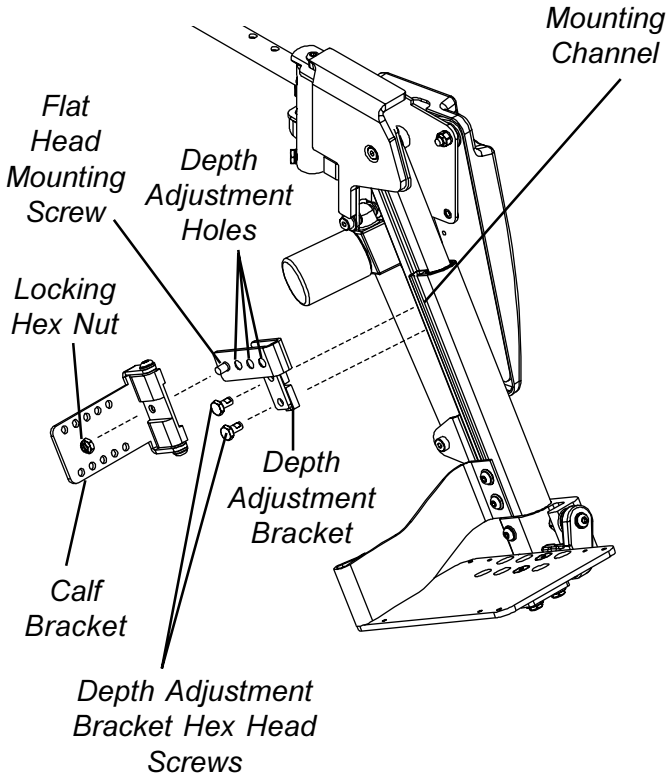


FIGURE 11 - ADJUSTING THE CALF PAD WIDTH

ADJUSTING THE CALF PAD DEPTH (FIGURE 12).

1. Loosen, but do not remove, depth adjustment bracket mounting screws and slide calf pad assembly up and out of the mounting channel.
2. Remove the flat head socket screw, and locking hex nut that secure the calf bracket to the depth adjustment bracket.
3. Reposition the calf bracket on the depth adjustment bracket to desired position
4. Install the flat head socket screw through the calf bracket, depth adjustment bracket and locking hex nut.
5. Tighten locking hex nut to screw until snug. Do not overtighten nut or calf pad will not pivot properly.
6. Align the two (2) T-nuts on depth adjustment bracket assembly with channel on legrest. Slide calf pad assembly to desired height. Tighten the two (2) hex mounting screws securely.
7. Repeat STEPS 1-6 for opposite side.



NOTE: Calf pad not shown for clarification purposes only.

FIGURE 12 - ADJUSTING THE CALF PAD DEPTH

ADJUSTING THE CALF PAD HEIGHT (FIGURE 13)

1. Loosen, but DO NOT remove, the two (2) hex head screws that secure depth adjustment bracket to the T-nuts.
2. Slide the calf pad assembly with T-nuts up or down in the channel to desired position.
3. Holding the calf pad assembly into position, tightly secure the hex screws to the T-nuts.
4. Repeat STEPS 1-3 for opposite side, if necessary.

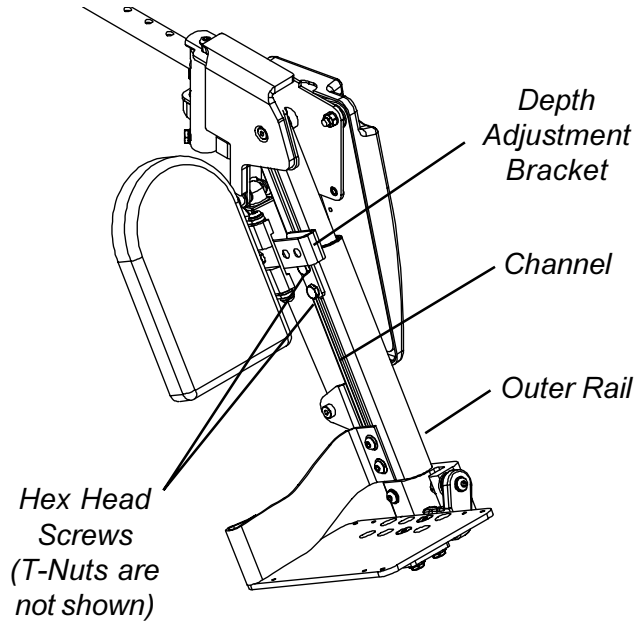
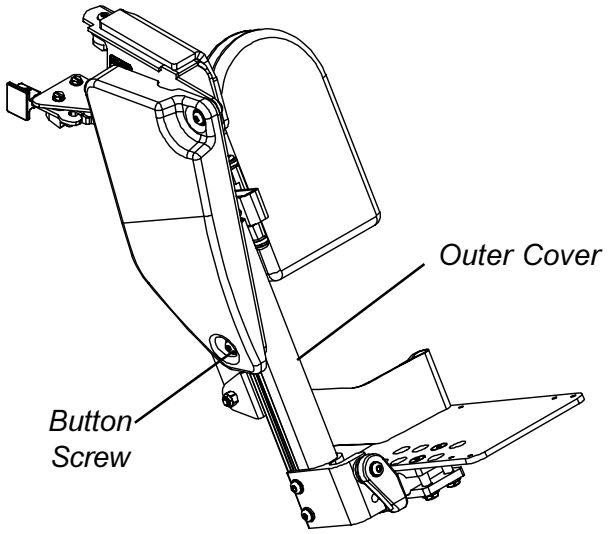


FIGURE 13 - ADJUSTING THE CALF PAD HEIGHT

Adjusting the Length for Power Legrest (FIGURE 14)

1. Loosen, but do not remove, the length adjustment button screw (screw also secures lower end of shroud).
2. Slide footplate with outer cover up or down to desired position.
3. Securely tighten length adjustment button screw.
4. Repeat STEPS 1-3 for remaining legrest.



NOTE: Length adjustment screw is from 15-1/2-inches to 20-inches.

FIGURE 14 - ADJUSTING THE LENGTH FOR POWER LEGREST

This Procedure Includes the Following:
Reclining Armrests

WARNING

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

Make sure armrests are locked securely in place BEFORE using the wheelchair.

Pinch points exist on the armrests.

NOTE: For complete operating information on Non-Reclining Armrests, refer to the owner's manual supplied for the base of the wheelchair.

RECLINING ARMRESTS

Removing Armrests (FIGURE 1)

1. Lift the armrest release lever at the front of the wheelchair to the unlocked (horizontal) position.
2. Lift UP on the armrest and remove from the front arm socket.
3. Press the release button at the rear of the armrest IN.
4. While holding the release button IN, remove the armrest from the seat frame.

Installing Armrests (FIGURE 1)

1. Position the armrest on the seat frame as shown in FIGURE 1.
2. Press the release button at the rear of the armrest IN.
3. While holding the release button IN, slide the armrest onto the seat frame.

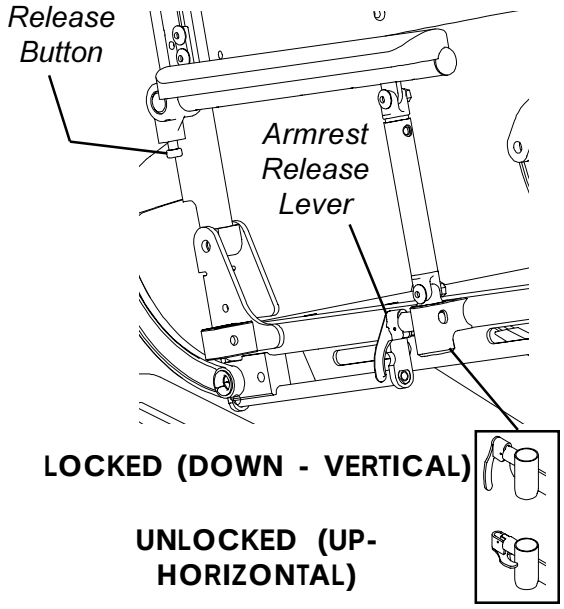


FIGURE 1 - REMOVING/INSTALLING ARMRESTS

4. Make sure the armrest release lever is in the unlocked (horizontal) position.
5. Install the armrest into the front socket.
6. Push the armrest release lever down into the locked (vertical) position.

Adjusting Armrest Height (FIGURE 2)

1. Make sure the seating system is in the full upright position. Refer to OPERATING RECLINE ONLY SYSTEMS in PROCEDURE 4 of this manual or OPERATING TILT/RECLINE SYSTEMS in PROCEDURE 5 of this manual.
2. Remove the socket bolt and locknut that secure the front of the upper armrest to the lower armrest.
3. Loosen, but do not remove the two (2) socket screws and T-nuts that secure the rear of the recliner armrest to the back cane.
4. Refer to the chart below and adjust the armrest to the desired height for the user.

✪ HOLE #:	1	2	3	4	5	6
Armrest Height (in inches)	11	12	13	14	15	16

✪ Front armrest mounting holes are numbered from bottom to top for reference only. (There are no numbers on the armrests.)

NOTE: The armrests can be at different heights to accommodate the user.

5. Reinstall the socket bolt through the mounting hole determined in STEP 4.
6. Reinstall the locknut and tighten securely.
7. While holding the armrest level, tighten the two (2) socket screws and T-nuts securely.
8. Repeat STEPS 2-7 for the opposite side if necessary.

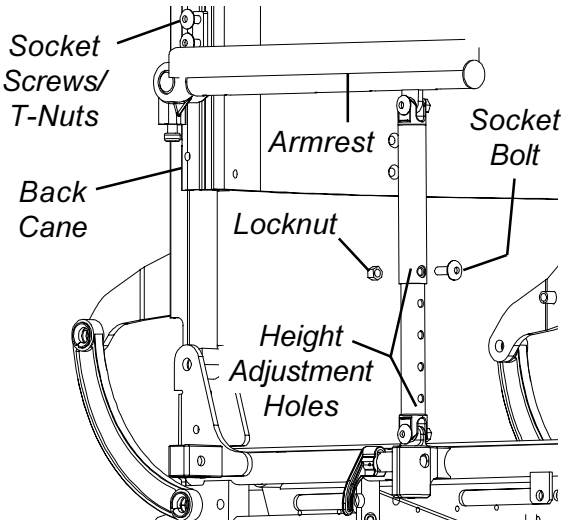


FIGURE 2 - ADJUSTING ARMREST HEIGHT

This Procedure Includes the Following:
Removing/Installing/Adjusting Headrest
Replacing Headrest

WARNING

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

REMOVING / INSTALLING / ADJUSTING HEADREST (FIGURE 1)

Removing

1. Loosen, but do not remove, the thumb screw that secures the headrest to the headrest mounting bracket.
2. Remove the headrest from the headrest mounting bracket.

Installing

1. Make sure thumb screw is loose.
2. Install the headrest until the headrest stop sits on the headrest mounting bracket.
3. If necessary, adjust the height, depth or direction of the headrest. Refer to ADJUSTING HEADREST HEIGHT or ADJUSTING HEADREST DEPTH/DIRECTION in this procedure of the manual.

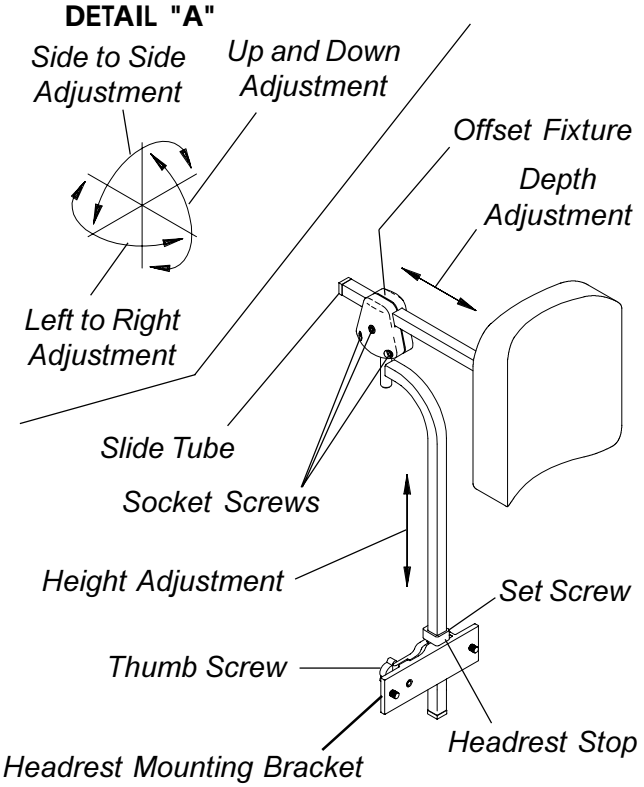


FIGURE 1 - REMOVING/INSTALLING/ ADJUSTING HEADREST

Adjusting Headrest Height

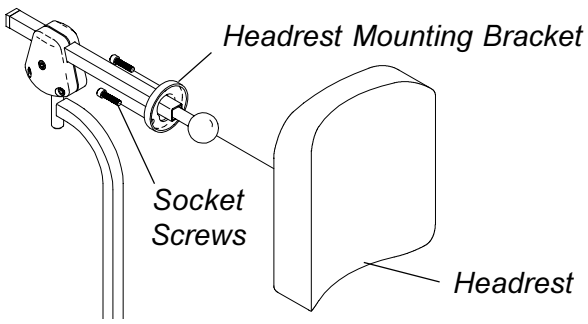
1. Loosen the set screw on the headrest stop.
2. Loosen, but do not remove, the thumb screw that secures the headrest to the headrest mounting bracket.
3. Position the headrest to the desired height.
4. Tighten the thumb screw that secures the headrest to the headrest mounting bracket.
5. Tighten the set screw on the headrest stop.
6. If necessary, adjust the depth or direction of the headrest . Refer to ADJUSTING HEADREST DEPTH/DIRECTION in this procedure of the manual.

Adjusting Headrest Depth / Direction

1. Loosen, but do not remove, the three (3) socket screws that secure the offset fixture to the slide tube.
2. If necessary, reposition the headrest to the desired depth by sliding the headrest towards the front of the wheelchair or towards the rear of the wheelchair.
3. If necessary, reposition the headrest to the desired position (headrest will move in any direction). Refer to DETAIL "A".
4. While holding the headrest in the desired position, securely tighten the three (3) socket screws.
5. If necessary, adjust the height of the headrest . Refer to ADJUSTING HEADREST HEIGHT in this procedure of the manual.

REPLACING HEADREST (FIGURE 2)

1. Remove the three (3) socket screws that secure the headrest to the headrest mounting bracket.
2. Position the new headrest on the headrest mounting bracket and secure with the existing three (3) socket screws.
3. If necessary, adjust the height, depth or direction of the headrest. Refer to ADJUSTING HEADREST HEIGHT or ADJUSTING HEADREST DEPTH/DIRECTION in this procedure of the manual.



NOTE: One (1) style of headrest shown for clarity. Both styles of headrest attach the same way.

FIGURE 2 - REPLACING HEADREST

This Procedure Includes the Following:
Using the Extended Active Anti-Tippers

ADJUSTING THE EXTENDED ACTIVE ANTI-TIPPERS (FIGURE 1)

NOTE: Extended Active Anti-tippers are standard when chair is equipped with vent tray.

WARNING

Power chairs equipped with ventilator tray MUST have extended active anti-tippers installed, otherwise, injury or damage may occur.

Power chairs that are NOT equipped with optional ventilator tray MUST have either the standard anti-tippers or the the optional extended active anti-tippers installed, otherwise, injury or damage may occur. See DETAIL "A" in FIGURE 1.

NOTE: The recommended height requirement for the anti-tippers, which is factory preset, is 1/4-inch off of the ground.

1. Loosen locknut C, B, and A.
2. Lift anti-tipper place 1/4-inch block underneath wheel.
3. Tighten locknut A upward against bearing.
4. Tighten locknut B upward against locknut A.
5. Tighten locknut C downward against bearing inside anti-tip assembly.
6. Remove 1/4-inch block.
7. Repeat procedure for remaining anti-tip assembly.
8. Install dust cover on each anti-tip assembly.

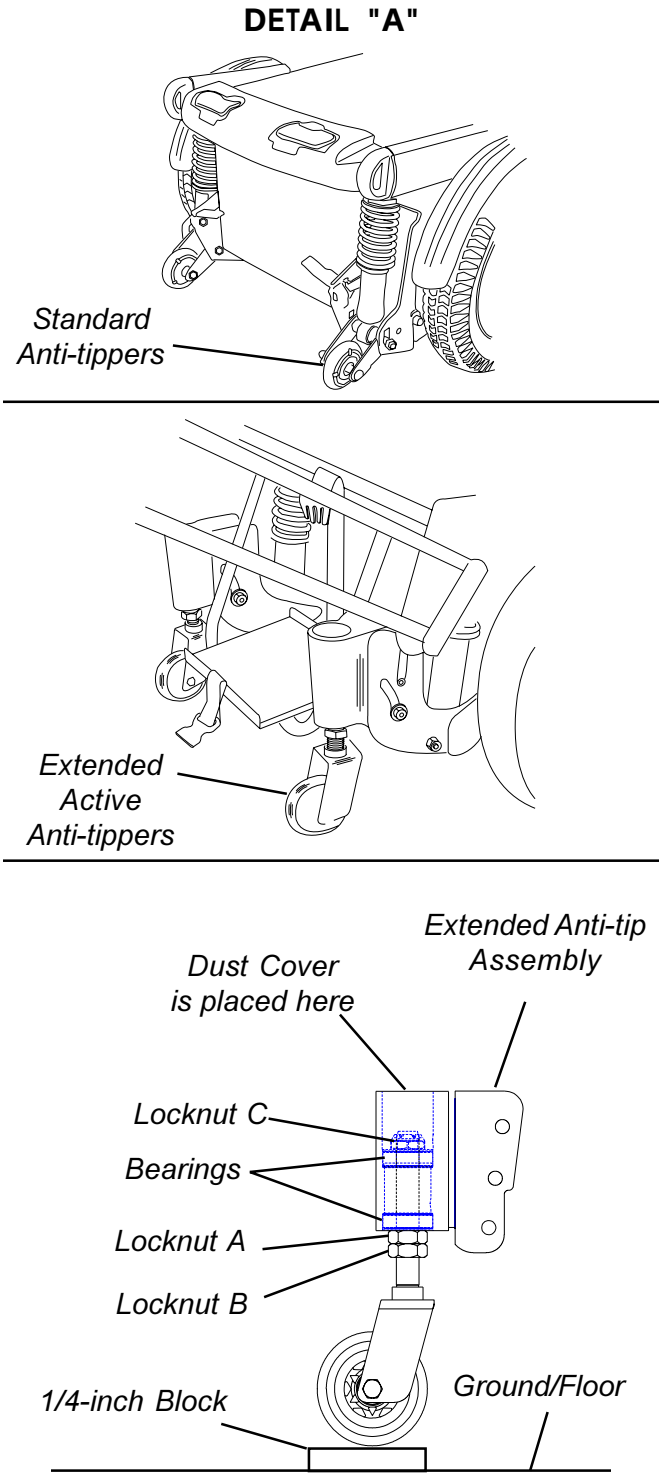


FIGURE 1 - ADJUSTING THE EXTENDED ACTIVE ANTI-TIPPERS

LIMITED WARRANTY

PLEASE NOTE: THE WARRANTY BELOW HAS BEEN DRAFTED TO COMPLY WITH FEDERAL LAW APPLICABLE TO PRODUCTS MANUFACTURED AFTER JULY 4, 1975.

This warranty is extended only to the original purchaser/user of our products.

This warranty gives you specific legal rights and you may also have other legal rights which vary from state to state.

Invacare warrants this product to be free from defects in materials and workmanship for a period of one (1) year from date of purchase. If within such warranty period any such product shall be proven to be defective, such product shall be repaired or replaced, at Invacare's option. This warranty does not include any labor or shipping charges incurred in replacement part installation or repair of any such product. Invacare's sole obligation and your exclusive remedy under this warranty shall be limited to such repair and/or replacement.

For warranty service, please contact the dealer from whom you purchased your Invacare product. In the event you do not receive satisfactory warranty service, please write directly to Invacare at the address at the bottom of the page. Provide dealer's name, address, date of purchase, indicate nature of the defect and, if the product is serialized, indicate the serial number. Do not return products to our factory without our prior consent.

LIMITATIONS AND EXCLUSIONS: THE FOREGOING WARRANTY SHALL NOT APPLY TO SERIAL NUMBERED PRODUCTS IF THE SERIAL NUMBER HAS BEEN REMOVED OR DEFACED, PRODUCTS SUBJECTED TO NEGLIGENCE, ACCIDENT, IMPROPER OPERATION, MAINTENANCE OR STORAGE, COMMERCIAL OR INSTITUTIONAL USE, PRODUCTS MODIFIED WITHOUT INVACARE'S EXPRESS WRITTEN CONSENT INCLUDING, BUT NOT LIMITED TO, MODIFICATION THROUGH THE USE OF UNAUTHORIZED PARTS OR ATTACHMENTS; PRODUCTS DAMAGED BY REASON OF REPAIRS MADE TO ANY COMPONENT WITHOUT THE SPECIFIC CONSENT OF INVACARE, OR TO A PRODUCT DAMAGED BY CIRCUMSTANCES BEYOND INVACARE'S CONTROL, AND SUCH EVALUATION WILL BE SOLELY DETERMINED BY INVACARE. THE WARRANTY SHALL NOT APPLY TO PROBLEMS ARISING FROM NORMAL WEAR OR FAILURE TO ADHERE TO THESE INSTRUCTIONS.

THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IN LIEU OF ANY OTHER WARRANTIES WHATSOEVER, WHETHER EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND THE SOLE REMEDY FOR VIOLATIONS OF ANY WARRANTY WHATSOEVER, SHALL BE LIMITED TO REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT PURSUANT TO THE TERMS CONTAINED HEREIN. THE APPLICATION OF ANY IMPLIED WARRANTY WHATSOEVER SHALL NOT EXTEND BEYOND THE DURATION OF THE EXPRESS WARRANTY PROVIDED HEREIN. INVACARE SHALL NOT BE LIABLE FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES WHATSOEVER.

THIS WARRANTY SHALL BE EXTENDED TO COMPLY WITH STATE/PROVINCIAL LAWS AND REQUIREMENTS.

NOTES

Invacare Corporation www.invacare.com

USA
One Invacare Way
Elyria, Ohio USA
44036-2125
800-333-6900

Canada
570 Matheson Blvd E.
Unit 8 Mississauga, Ontario
L4Z 4G4, Canada
800-668-5324

Part No. 1090207 Rev 1 - 04/03