QUICKIE®

Quickie® Smart Seat
Power Recline / Power Tilt and Recline
User Instruction Manual & Warranty

Quickie® Smart Seat (Asiento Inteligente *Quickie*®)
Reclinado Eléctrico / Inclinación y Reclinado Eléctrico
Manual de Instrucciones y Garantía para el Usuario

Quickie® Smart Seat (Fauteuil Intelligent *Quickie*®)
Inclinaison électrique / basculement-inclinaison électrique
Mode d'Emploi et Garantie

SUNRISE MEDICAL

I. SUNRISE LISTENS

Thank you for choosing a Quickie seating system. We want to hear your questions or comments about this manual, the safety and reliability of your seating system, and the service you receive from your Sunrise supplier. Please feel free to write or call us at the address and telephone number below:

SUNRISE MEDICAL
Customer Service Department
7477 East Dry Creek Parkway
Longmont, Colorado 80503
(303) 218-4500 or (800) 333-4000

Be sure to return your warranty card, and let us know if you change your address. This will allow us to keep you up to date with information about safety, new products and options to increase your use and enjoyment of this seating system.

If you lose your warranty card, call or write, and we will gladly send you a new one.

FOR ANSWERS TO YOUR QUESTIONS

Your authorized supplier knows your seating system best and can answer most of your questions about seating system safety, use and maintenance. For future reference, fill in the following:

Supplier: _____

Address: _____

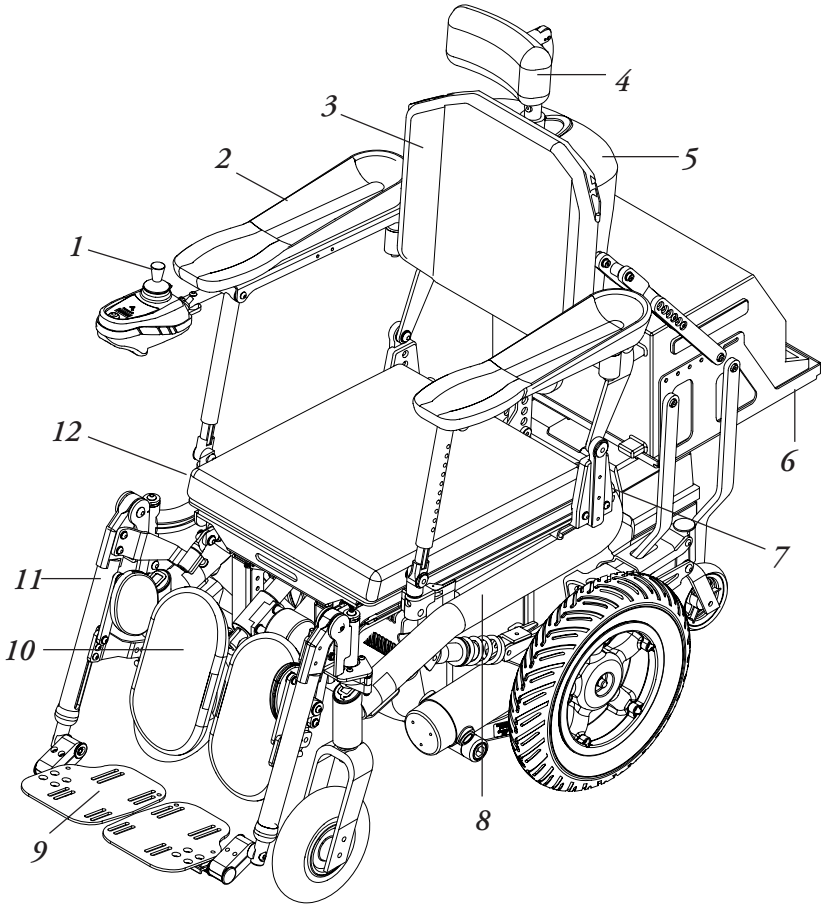
_____

Telephone: _____

Serial #:_____ Date/Purchased: _____

II. TABLE OF CONTENTS

III. YOUR SEATING SYSTEM & ITS PARTS



Quickie Smart Seat

1. Remote Joystick
2. Height Adjustable Armrest
3. Backrest
4. Headrest
5. Back Support Shroud
6. Vent Tray (optional)
7. Backrest Pivot Plate
8. S-626 Power Base
9. Angle Adjustable Foot Plate
10. Calf Pad
11. Elevating Legrest (optional)
12. Seat Pan

QUICKIE SMART SEAT

Joystick
Standard– remote (right-hand or left-hand mount)
Option– Swing-away retractable joystick

Seat Frame Dimensions
Seat frame width– standard: 14"-24"
Seat depth– 14"-22" adjustable
Solid seat back
Aluminum seat pan
Optional cushions: Jay® cushions

CG Tilt: 3° - 50°

Recline: 85° - 175°

Backrest
Standard– Non-folding 18" - 29"

Footrest
Standard– Swing-away with angle-adjustable footplates and heel loops.
Option– elevating legrests, multi-position, power ELR, power ALR

Armrests
Standard– Reclining, height-adjustable, with pad or trough

Swing-Away Lateral Thoracic Supports
Option– Curved or Straight

Headrest
Standard– 8" x 5" or 7" x 4"
Headrest pad

IV. NOTICE– READ BEFORE USE

A. CHOOSE THE RIGHT SEATING SYSTEM & SAFETY OPTIONS

Sunrise provides a number of power seating system styles, sizes and adjustments to meet the needs of the rider. However, final selection of a seating system rests solely with you and your health care professional. Choosing the best seating system for you depends on such things as:

1. Your size, disability, strength, balance and coordination.
2. Your intended use, and your level of activity.
3. The types of hazards you must overcome in daily use (in areas where you are likely to use your seating system).
4. The need for options for your safety and comfort (such as positioning belts).

B. ADJUST SEATING SYSTEM TO YOUR ABILITY

You need to work with your doctor, nurse or therapist, and your supplier, to fit this seating system and adjust the controller settings for your level of function and ability.

C. REVIEW THIS MANUAL OFTEN

Before using this seating system you, and each person who may assist you, should read this entire Manual and make sure to follow all instructions. Review the warnings often, until they are second nature to you.

V. ELECTROMAGNETIC INTERFERENCE (EMI)

A. GENERAL

1. Heed all warnings to reduce the risk of unintended seating system movement.
2. Beware of the danger from hand-held transceivers. Never turn on or use a hand-held transceiver while power to your seating system is on. Use extra care if you believe that such a device may be in use near your seating system.
3. Be aware of nearby radio or TV stations, and avoid coming close to them.
4. If unintended movement occurs, turn your seating system off as soon as it is safe to do so.

B. WHAT IS EMI?

1. EMI means: electromagnetic (EM) interference (I). EMI comes from radio wave sources such as radio transmitters and transceivers. (A "transceiver" is a device that both sends and receives radio wave signals).
2. There are a number of sources of intense EMI in your daily environment. Some of these are obvious and easy to avoid. Others are not, and you may not be able to avoid them.
3. Powered seating systems may be susceptible to electromagnetic interference (EMI) emitted from sources such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones.
4. EMI can also be produced by conducted sources or electro-static discharge (ESD).

C. WHAT EFFECT CAN EMI HAVE?

1. EMI can cause your seating system, without warning, to:
   •Move by itself.
   •Move in unintended directions.
   If either of these occurs, it could result in severe injury to you or others.
2. EMI can damage the control system of your seating system. This could create a safety hazard and lead to costly repairs.

D. SOURCES OF EMI

The sources of EMI fall into two broad types:

1. Hand-Held Transceivers:

The antenna is usually mounted directly on the unit. These include:
•Citizens band (CB) radios
•"Walkie-talkies"
•Security, fire and police radios
•Cellular phones
•Lap-top computers with phone or fax
•Other personal communication devices

NOTE– These devices can transmit signals while they are on, even if not in use. Transceivers: these include two-way radios used in police cars, ambulances and taxicabs. The antenna is usually mounted on the outside of the vehicle.

2. Long-range Transceivers:

These include commercial radio and TV broadcast antenna towers and amateur (HAM) radios.

NOTE– The following are not likely to cause EMI problems: Lap-top computers (without phone or fax), cordless phones, TV sets or AM/FM radios, CD or tape players.

E. DISTANCE FROM THE SOURCE

EM energy rapidly becomes more intense as you get closer to the source. For this reason, EMI from hand-held devices is of special concern. (See C:1 above) A person using one of these devices can bring high levels of EM energy very close to your seating system without you knowing it.

F. IMMUNITY LEVEL

The level of EM energy is measured in volts per meter (V/m). Every power seating system can resist EMI up to a certain level. This is called its “immunity level”.

The higher the immunity level, the less the risk of EMI. It is believed that a 20 V/m immunity level will protect the power seating system user from the more common sources of radio waves.

The configuration tested and found to be immune to at least 20 V/m is: Quickie S-626 power seating system with a right hand mounted QTRONIX remote joystick system, 20" seat width, 18" seat depth, dual-post height adjustable armrests, elevating legrests and GP 24 gel cell batteries.

The following specialty input devices were not tested with the above listed power chair configuration; therefore, their immunity level is unknown. These items include:

- Breath Control
- Heavy Duty Switched Joystick
- Proportional Head Control
- Wafer Board
- Tri-Switch Head Array
- Proportional Mini-Joystick/Chin Control
- Proximity Head Array
- Zero Touch Switch
- 4-Zero Touch Switch
- 5-Zero Touch Switch
- Treadle Switch
- Ribbon Switch
- Disc Switch
- Buddy Button
- Micro Light
- Star Board
- Penta Switch
- Plate Switch
- Soft Switch
- Grasp Switch
- Wobble Switch
- 5-Switch Toggle

Individuals with physical limitations requiring the use of a specialty control input device known not to be immune to 20 V/m, or not known, should exercise extra care around known sources of EMI.

There is no way to know the effect on EMI if you add accessories or modify this seating system.

Any change to your seating system may increase the risk of EMI. Parts from other suppliers have unknown EMI properties.

G. REPORT ALL SUSPECTED EMI INCIDENTS

You should promptly report any unintended movement or brake release. Be sure to indicate whether there was a radio wave source near your seating system at the time.
Contact: Sunrise Medical Customer Service Department at (800) 333-4000.

VI. SAFETY INSTRUCTIONS

A. INSTRUCTION

Your dealer is responsible for instructing you in the safe operation of the seating system. If you do not feel that you have received adequate instruction, or if you have any questions relating to the system, call your dealer. If you feel that your dealer is not answering any of your questions to your satisfaction, call Sunrise Medical at (303) 218-4500 or (800) 333-4000.

B. SAFETY CHECKLIST

Before each use of this seating system:

- Make sure the seating system operates smoothly. Check for noise, vibration, or a change in ease of use. (They may indicate loose fasteners, or damage to your seating system).
- If you detect a problem, make sure to repair or adjust the seating system. Deferring repair or adjustment could increase the risk for injury. Your supplier can help you find and correct the problem.

C. NOTICE TO RIDER

1. Before using this seating system, you should be trained in its safe use by your health care professional.
2. Every seating system is different. Take the time to learn the feel of this seating system before you begin riding.
3. Be aware that you must develop your own methods for the safe use of this seating system that are best suited to your level of function and ability.
4. Have someone help you practice bending, reaching and transferring until you learn how to do them safely.
5. Never try a new maneuver on your own unless you are sure it is safe.
6. Get to know the areas where you plan to use your seating system. Look for hazards and learn how to avoid them.

D. NOTICE TO ATTENDANTS

Make sure you heed all warnings and follow all instructions in each section of this manual.
(Be aware that warnings that apply to the rider also apply to you).

E. OPERATION

In order to ensure safe operation of your seating system...

- Never transfer when power is on.
- Never use the controller as a handhold or point of support.
- Always check your surroundings to ensure that there are no obstructions to the motion of the seating system.
- Never use the seat frame or components as a tie-down point in a vehicle.
- Never exceed the 250 lbs. (113kg)-weight capacity of the seating system.
- Never place hands, feet or any foreign object into the seating system mechanisms.
- Always follow the safety instructions of your seating system.
- Always keep your seating system clean and free of foreign objects.

If you have question or concerns about the operation of your seating system please call your dealer or call Sunrise Medical at (303) 218-4500 or (800) 333-4000.

F. ENVIRONMENTAL CONDITIONS

Your seating system is not designed for use in a heavy rainstorm, or in snowy or icy conditions.

1. Contact with water or excessive moisture can cause an electrical malfunction. The frame, actuators and other seating system parts are not watertight and may rust or corrode from the inside. To avoid a seating system failure:
   - Minimize exposure of your seating system to a rainstorm, or very wet conditions.
   - Do not use your seating system in fresh or salt water (such as at the edge of a stream, lake, or ocean).
   - Make sure all electrical connections are secure.
   - Dry the seating system as soon as you can if it gets wet, or if you use water to clean it.
2. When not in use, keep your seating system in a clean, dry place. Extra caution should be used when employing the disc switch or the proximity head array as control devices. These two devices are susceptible to malfunction when wet.

G. WEIGHT LIMIT

1. Never exceed a total weight of 250 lbs, for the rider plus carried items. The weight capacity of your seating system is identified by a label located on the inside cover of the battery compartment door on the power base.
2. Never use this seating system for weight training if the total weight (rider plus weights lifted) exceeds the indicated weight capacity of the seating system.
3. Exceeding the weight limit is likely to damage the seat, frame or fasteners and may cause severe injury to you or others from seating system failure.
4. Exceeding the weight limit will void the warranty.

H. UPHOLSTERY FABRIC

1. Replace worn or torn fabric of seat cushion and seat back as soon as you can. Worn fabrics may increase the potential for a fire hazard.
2. Be aware that washing may reduce flame retardation of the fabric.

I. POSITIONING BELTS (OPTIONAL)

1. Use a positioning belt only to help support your posture. Improper use of such belts may cause severe injury or death.
2. Make sure you are not at risk to slide down in the seating system seat. If this occurs, you may suffer chest compression or suffocate due to pressure from the belt.
3. A pelvic wedge or a similar device can help keep you from sliding down in the seat. Consult your health care professional to find out if you need such a device.
4. The belt must be snug, but must not be so tight that it interferes with breathing. You should be able to slide your open hand, flat, between the belt and your stomach.
5. Make sure you can easily remove the belt in an emergency.
6. Never use a positioning belt:
   - In place of a motor vehicle seat belt. In an accident or sudden stop you may be thrown from the seating system. A positioning belt will not prevent this, and further injury may result from the belt.
   - As a restraint. A restraint requires a doctor's order.
   - On a rider who is comatose or agitated.

J. CONTROLLER SETTINGS

Be aware that you may need to adjust the controller settings of your seating system to reduce the risk of fall or tip-over.

1. Check and adjust the settings every six to twelve months (or more often, if needed).
2. Consult your supplier to adjust the control settings immediately if you notice any change in your ability to hold your torso erect.

K. TILTING, RECLINING, ELEVATING LEGRESTS

⚠WARNING

To prevent damage and personal injury, avoid operating these power functions near objects such as walls, tables or chairs. To avoid injury, ensure other people, especially children, are clear of the system. If using a swing-away abductor, be sure not to tilt with the abductor swung away. Otherwise, the abductor may collide with the tilt actuator when returning to the untilted position.

L. CHANGES AND ADJUSTMENTS

⚠WARNING

Never use non-Quickie parts or make changes to your chair unless authorized by Sunrise. (Doing so will void the warranty and may create a safety hazard.)

1. If you modify or adjust this chair it may increase the risk of fall or tip-over.
2. Modifications unauthorized by Sunrise constitute remanufacturing of the wheelchair. This voids the warranty. The rider then assumes all future liability for the wheelchair.

VII. SET-UP PROCEDURE

A. GENERAL

Heed all instructions in the order in which they are listed to insure proper function and maximum benefit of seating system is achieved.

B. STEP BY STEP SET-UP PROCEDURE

⚠WARNING

Do not seat end user in seating system until indicated in step 4.

1. Have documented results of a Range of Motion (ROM) mat evaluation performed by a trained healthcare professional. Knowledge of ROM at hip joints, knee joints and ankles is critical to the proper set up of this seating system. Lack of knowledge of the ROM of the end user could result in serious injury if the seating system limits are not set appropriately.
2. Using the QMAC Pendant Programmer operate "System Configuration Reset Chair" feature (described in section VII: C: Configure Profile: System: d). Operating System Configuration Reset Chair will return all configurable parameters to factory settings and will forward you automatically into the "Re-Home Seat" mode (described in section VII: C: Configure Profile: System: c). Follow the display's instructions to "Re-Home" actuators by pressing and holding enter. The Re-Home process will move all actuators and could take up to one minute to complete.
3. Configure seating system using the QMAC Pendant Programmer as appropriate for end user (see section VII: C: Configure Profile). Use results of ROM evaluation to determine appropriate settings for all angles.
   a. Recline: Enable, Maximum and Minimum Angle – or Disable. Enable Enhanced Recline with appropriate angle and threshold – or Disable. (If so equipped)
   b. Tilt: Enable, Minimum and Maximum Angle – or Disable. (If so equipped)
   c. Left Legrest: Enable, Minimum and Maximum Angle – or Disable. (If so equipped)
   d. Right Legrest: Enable, Minimum and Maximum Angle – or Disable. (If so equipped)
   e. System: Enable Input Latched – or Disable. Set Drive Lockout, Drive Creep and Back Rest Limit angles appropriately.

NOTE– Double checking the maximum and minimum angles of all functions using a goniometer to insure accuracy is recommended.

4. Make all necessary mechanical adjustments to the seating system as appropriate to fit the end user. These may include:
   a. Seat Depth– see section IX: J
   b. Back Pivot Point– see section IX: K
   c. Back Height– see section IX: H
   d. Headrest Position– see section IX: D
   e. Lateral Trunk Supports Position– see section IX: C
   f. Armrest Position– see section IX: E and F
   g. Legrest Position– see section IX: C
   h. Other support devices
5. Transfer end user into seating system using safe transfer procedure.
6. Check and adjust, as needed, any configuration limits, as well as support surfaces and devices.
7. Using the QMAC Pendant Programmer operate the Shear Reduction Program (see section VII: C: Shear Program).
8. Operate all actuators through input device(s) to verify appropriate limits and shear reduction are set as intended. (See section VIII: A, B, C)
9. Instruct end user on safe operation of all actuator functions.

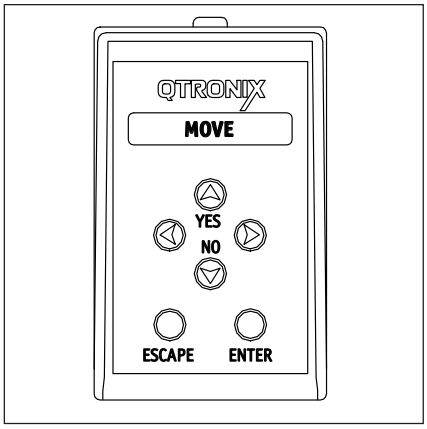
C. PROGRAMMING USING THE QMAC PENDANT PROGRAMMER

1. Insert connector into programmer port on front of QMAC– see section XIII.
2. Press "Enter" to access menus:
   i. Move
   ii. Configure
   iii. Shear Program

MOVE PROFILE

Activates motion profiles independent of user input activation (i.e. joystick or specialty input).

NOTE– The move profile is used primarily to test programmed configuration.



Navigating the Move Menu with the QMAC Pendant Programmer:

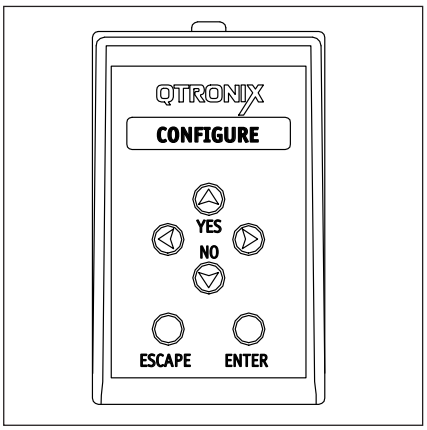
1. Up "▲" and Down "▼" arrow keys operate individual function displayed
2. Left "◀" and Right "▶" arrow keys move between motion profiles
3. Enter key moves one step down in menu
4. Escape key moves one step up menu

There are five options under "Move".

1. Recline – Moves back only. May also move legrests – if so equipped and configured to do so.
2. Tilt – Moves Seat and Back simultaneously – if so equipped.
3. Left ELR – Moves left legrest – if so equipped.
4. Right ELR – Moves right legrest – if so equipped.
5. Dual ELR – Moves both legrests simultaneously.

CONFIGURE PROFILE

Allows seating system to be configured based on the needs, disability and range of motion of end user.



Navigating the Configure Menu with the QMAC Pendant Programmer

1. Up "▲" and Down "▼" arrow keys change numerical values and select yes/no.
2. Left "◀" and Right "▶" arrow keys move between function options
3. Enter key moves one step down in menu
4. Escape key saves the current parameter and moves one step up menu

The following options are under "Configure":

Recline– Allows Recline profile to be configured. The Recline profile can simply enable the recline function, or it can enable recline while activating the Dual Elevating Legrests. Enhanced Recline, when enabled, elevates the seat to a preset angle before coming up out of a reclined position.

Tilt– Allows Tilt function to be configured.

Left Legrest– Allows Left Elevating Legrest to be configured.

Right Legrest– Allows Right Elevating Legrest to be configured.

System– Allows Configuration of various aspects of system. These include:

a. Switched Input Latched – allows "latching" of 5-switch control device for one touch operation. See section VIII: B on 5-switch control.

⚠WARNING

When using latched mode to control seeating system, user must maintain access to input device to insure ability to limit movement as desired.

b. Configure 5 Switch Functions– Indicates assignment of the five switches to the corresponding function and allows option of reassignment of all switches as appropriate.

c. Re-Home Seat – resets actuators to initial "home" position. As display indicates, press and hold the enter button. Continue to hold enter for three to four seconds after all actuators have ceased moving.

⚠WARNING

User should never be seated in seating system when Re-Home is being used.

d. System Config. Reset Chair – resets parameters to factory presets

NOTE– Use of this feature will cause loss of all individually programmed parameters. Compare to a Control-Alt-Delete type reset. This function automatically leads into the Re-Home Seat function, which should always follow the System Config. Reset Chair function.

e. Drive Lock-out Settings– Allows access to two sub menu items:
   - Drive Lock-out Angle– angle of the backrest during recline or tilt operation at which the drive function is temporarily disabled. To resume driving, user must bring back angle to more upright position.
   - Drive Creep Angle– set just prior to drive lock-out, Creep setting reduces available speed to a minimum.

f. Back Rest Limit– Sets maximum backrest angle relative to horizontal.

⚠WARNING

Changing the Back Rest Limit, Creep and Drive Lock-Out limits can effect the stability of the seating system, especially on an incline. Make adjustments to these parameters with care.

In the Configure Menu each function has the following options:

Enable– Allows the motion profile to be enabled or disabled
Maximum Angle– Sets maximum angle of the motion profile
Minimum Angle– Sets minimum angle of the motion profile
Speed Up– Adjusts speed of actuator extending
Speed Down– Adjusts speed of actuator retracting
Acceleration– Sets the rate of acceleration of the moving actuator
Deceleration– Sets the rate of deceleration of the moving actuator
Set Current Limit– Available for functions Recline, Tilt, L ELR, and R ELR only. Sets a force limit for the actuator to reduce the possibility of an injury. For example, if a legrest requires one amp to raise the user's leg, the current limit should be set to 20% above one amp (1.2 amps). Then, should the legrest encounter an immovable obstacle it will stop operating until the joystick is released. To set the current limits, start with setting at a low value and step it up until the desired motion is obtained. Increase that determined value by 20% (x 1.2) and set current limits accordingly.

The Configure Recline menu has these additional options:

Recline with Legrest– Allows dual legrests to operate in conjunction with the Recline function.
Enhanced Recline– Enables a post-recline auto tilt to help maintain position and reduce shear forces. Enhanced recline re-establishes the pre-recline seat to back angle in space prior to returning user to upright position. Options under enhanced recline include:
   a. Enhanced Recline Seat Angle– Sets the maximum angle of the post-recline auto tilt.
   b. Enhanced Recline Back Threshold– Sets a threshold of recline angle beyond which Enhanced Recline is engaged.

SHEAR PROGRAM PROFILE

Allows seating system to be configured for shear reduction during the operation of the recline mechanism.

Navigating the Shear Program Menu with the QMAC Pendant Programmer

a. Up "▲" arrow drives the sliding back rest up
b. Down "▼" arrow drives sliding back rest down
c. Left "◀" arrow operates recline going down
d. Right "▶" arrow operates recline going up
e. Enter key moves one step down in menu (or returns to upright position as specifically instructed by display)
f. Escape key exits the current parameter and moves one step up menu

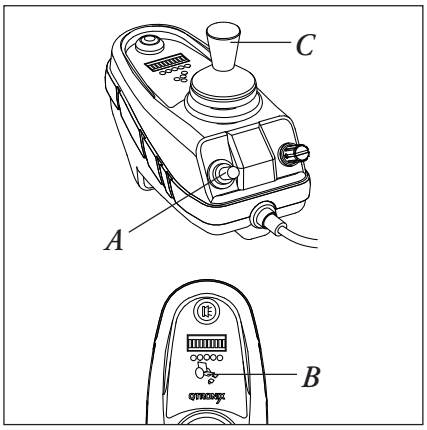
To operate the Shear Program for shear reduction:

a. Using the QMAC Pendant Programmer, activate the Shear Program. Press "Enter".
b. Display reads "Put Backrest in Initial Position". Move backrest up, left and right using arrows to user's most upright position. Ideal is to have shear plate in most upright position. Press "Enter".

c. Make any necessary adjustments to headrest, armrests, laterals and footplates.
d. Establish "landmarks", i.e. adjacent reference points on headrest and user's head– for example, headrest cover seam and top of user's ear.
e. Display reads: "Begin Recline– Adjust Shear...". Begin recline by pressing and holding left arrow. (It is recommended that programmer stand on the right side of chair.) Press and release down arrow intermittently to compensate for shearing effect, maintaining adjacent positions of established landmarks throughout entire recline operation.
f. When maximum reclined position is reached, press "Enter". (You may consider checking the armrest height in this fully reclined position as it may require adjustment to the angle for best fit.)
g. Display reads: "Shear Complete– hold enter to return...". Press and hold "Enter", as instructed, to return backrest to upright position.
h. Press "Escape" to exit Shear Program.

VIII. OPERATING INSTRUCTIONS– ELECTRONIC

NOTE– When the seating system is reclined or tilted, the anti-tips are locked down and no longer have any shock absorbing capability. This important function maintains chair stability.



A. TO OPERATE THE SMART SEAT THROUGH THE REMOTE JOYSTICK

1. From the "off" position
   Push the on/off mode select toggle (A) switch down once to turn chair "on".
2. Push the on/off mode select toggle switch up twice to light index (B) to Smart Seat functions. Push joystick (C) left or right to toggle between options:
   a. Tilt (noted by lit back and seat)
      Adjusts the position of the seat and back in unison.
   b. Recline (noted by lit back only)
      Adjusts the angle of the back
   c. Left Legrest (noted by lit left footplate only)
      Elevates the left legrest
   d. Right Legrest (noted by lit right footplate only)
      Elevates the right legrest
   e. Dual Legrest (noted by lit left and right footplates)
      Elevates both legrests
3. Forward and Reverse commands on joystick (C) will activate the indicated functions in opposite directions.

B. TO OPERATE THE SMART SEAT USING A 5-SWITCH CONTROL DEVICE

1. Locate 5-Switch input on front right of QMAC - located below seat pan.
2. Plug in 5-Switch control device.
3. The five available input choices will operate each seat function. Pressing a switch will operate an associated function in one direction. Release and press again to reverse direction.

NOTE– Functions can be assigned to the five input choices using the QMAC Pendant Programmer. See section VIII: C: Configure 5 Switch Functions.

C. TO OPERATE THE SMART SEAT THROUGH SPECIALTY DRIVE CONTROLS

Please refer to your Qtronix USCM User Instruction Manual

IX. OPERATING INSTRUCTIONS– MECHANICAL

A. NOTES

Work Surface For Set-Up:

Use a flat surface, such as a table, to assemble, adjust and check your seating system. This makes the steps easier and helps ensure a correct set-up.

Fasteners:

- Many of the screws and bolts on this seating system are special high-strength (Grade 8) fasteners and may have special coatings.
- Many nuts are of the Nylock type. They have a plastic insert to help prevent loosening.
- Only use screws, bolts and nuts provided by Sunrise.

a. Use of improper fasteners may cause the seating system to fail.
b. Over- or under-tightened fasteners may fail or cause damage to seating system parts.
c. If bolts or screws become loose, tighten them as soon as you can. Loose bolts or screws can cause damage to other seating system parts causing them to fail.
d. Washers & Spacers:
   - Note the position of washers and spacers before disassembly.
   - To avoid damage to the frame, replace all washers and spacers when you reassemble parts.
e. Torque Settings:
   - A torque setting is the optimal tightening for a particular fastener. Use a torque wrench that measures inch-pounds to secure screws, nuts and bolts on this seating system.
   - **NOTE–** Unless otherwise noted, use a torque setting of 120 inch-pounds for all fasteners.
f. Persons who help a rider do one of the following tasks should review and heed the warnings “Notice to Attendants” and all warnings in this Manual for that task.
g. The “Tips” that follow are suggestions only. Be aware that you will need to learn safe methods best suited to the rider and to your abilities. Consult your health care professional for instructions.

B. TOOLS YOU WILL NEED

Basic Tool Kit:

To set-up, adjust and maintain your seating system you will need the following tools:

- 7/16" socket wrench
- 1/2" box and open-end wrench
- 3/4" box and socket wrench
- 5/32" hex wrench
- 3/16" hex wrench
- 3mm hex wrench
- Phillips screwdriver #2
- Custom axle wrench (or a 1/2" open-end wrench)

You can obtain a multi-purpose tool kit from Sunrise, or buy the tools you need from a hardware store.

Torque Wrench:

If you plan to adjust and maintain this seating system yourself, Sunrise recommends that you use a torque wrench.

NOTE– The wrench must measure inch-pounds. You can buy a torque wrench and proper sockets from a hardware store.

C. LATERAL THORACIC SUPPORTS

1. To adjust the height of the lateral support mount, loosen the adjustment screw until the receiver slides freely on the back posts. Tighten the adjustment screw when the proper height is determined.
2. Assess and fit the lateral thoracic supports. Assess client for proper positioning of the lateral thoracic supports. Each support is independent and may be adjusted for your client's clinical need.

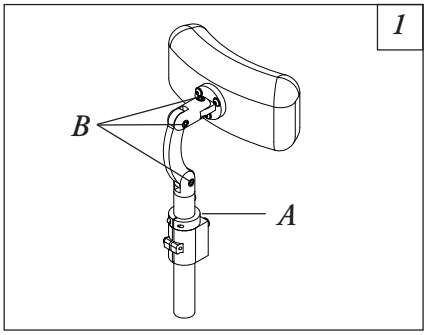
⚠WARNING

A minimum of 1" (2.5cm) of clearance should exist between the top of the lateral support and the user's armpit.

a. To adjust the height, angle, or width of the lateral thoracic support pads, loosen the top bolts and slide to correct width. Tighten bolt to bolt plate. If more adjustment is necessary, loosen the internally mounted bolts, and slide in the track to the desired height and width. The angle is obtained by tilting the bracket as needed. Tighten the bolts.
b. To adjust the depth of the lateral thoracic pads, turn the middle bracket so that the slots are on side. Adjust to desired depth. Re-tighten the bolts.

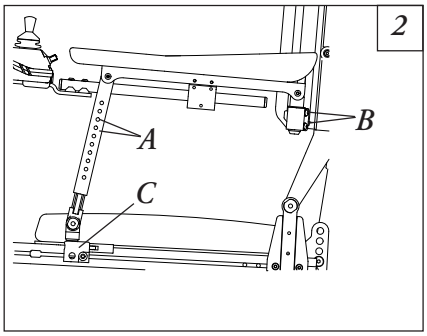
D. HEADREST (Fig. 1)

Headrest adjusts up and down by setting a holding ring (A) in place and tightening. Insure that the aligning pin drops into the hole in the top of the headrest bracket to insure specific positioning. The headrest can then be moved up from that point, but cannot be rotated or moved down. The top of the Headrest can also be positioned forward and back and has set screws (B) for holding.



E. ARMREST HEIGHT (Fig. 2)

Armrest height can be adjusted up and down in the front and rear. The front adjusts using a 5/32 hex wrench to remove and replace the two 1/4 -28 button head screws (A). The rear adjusts using a 5/32 hex wrench to loosen and reposition the two 1/4-28 flat head screws (B) in the dovetail track.



F. ARMREST ANGLE

Armrest angle in the full reclined position is affected by the fore and aft mounting of the front armrest receiver (C). A position biased forward of center will maintain hands more level with elbows. A position biased rearward will elevate hands relative to elbows.

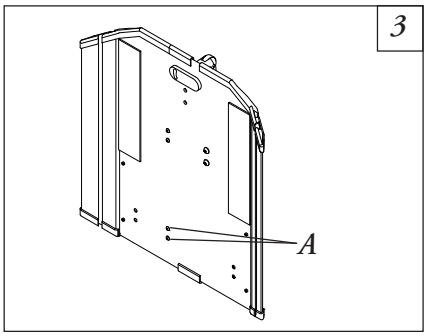
G. ARM TROUGHS (optional)

The Arm troughs can be adjusted forward and back using a 3mm hex wrench to loosen and reposition the button head screws on the underside of the trough.

H. JAY® SOLID BACKREST– HEIGHT ADJUSTMENT (Fig. 3)

a. Remove backrest foam from shell.
b. Adjust positions of the two 1/4-20 button head screws (A) using a 5/32 hex and 7/16 wrench.

NOTE– For easy access to rear fasteners, operate recline down until nuts on rear of back are accessible.



I. FOAM BACK

Secure the foam and cover to the shell. To secure the back foam and cover on the Solid Seat Back, slide the top edge of the cover over the top lip of the shell. Press the back in place against the shell.

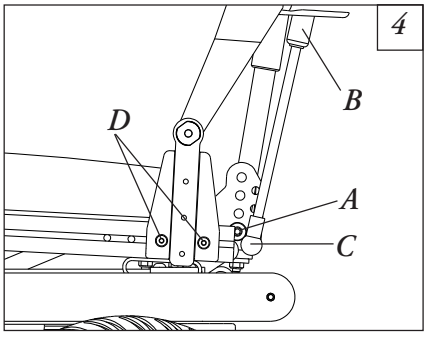
J. SEAT DEPTH (Figs. 4 & 5)

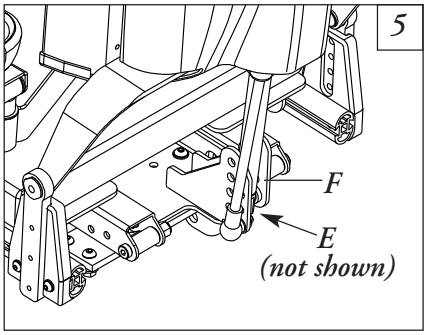
The seat depth can be adjusted in one-inch increments along the seat rail. Use holes in rail, viewed through side channel as a guide.

NOTE– If you intend to adjust the seat depth and the backrest pivot point (see section K) you will save time by reviewing both sets of instructions and logically combining the steps.

To adjust seat depth:

1. Remove armrests from chair.
2. Note the specific hole positions of the actuator extension tube and the gas spring ball socket so they can be duplicated later.
3. Remove 3/8 hex bolts (A) holding actuator extension tube into rear support plate. **IMPORTANT NOTE–** there will be significant forward pressure from the back support suspension gas spring (B). Allow this pressure to extend the gas spring to its maximum, moving the backrest forward. Once extended fully, remove the 5/16 nut securing the ball socket (C) to the lower end of the gas spring.
4. Allow back to rotate forward and rest on seat.
5. Loosen the two 1/4-28 screws (D) on the outside of both backrest pivot plates.
6. Reposition the backrest to the desired location, insuring that the rear 1/4-28 screw is properly aligned with a guide hole in the seat rail. **NOTE–** Only the rear screw aligns with a guide hole. Retighten screws on both backrest pivot plates.
7. When the backrest is moved horizontally, the rear actuator support plate must be moved as well. Remove the two 5/16 bolts (E) that secure the plate and reposition in a 1:1 ratio as it relates the movement of the backrest pivot plates. Reverse orientation of the rear actuator support plate is necessary for 14" and 15" seat depths on the standard length frame and for 18" and 19" seat depths on the long frame.
8. Rotate backrest rearward to align the gas spring with its mount, replacing the ball socket in its previous position and securing with the 5/16 nut.
9. Using rearward pressure against the backrest, rotate the backrest to align the actuator extension tube with its previous mounting position and reinstall 3/8 hex bolts. **NOTE–** this step may require assistance to complete.



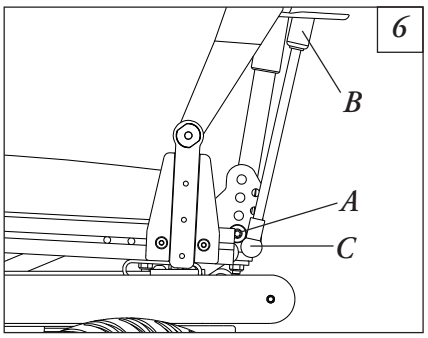


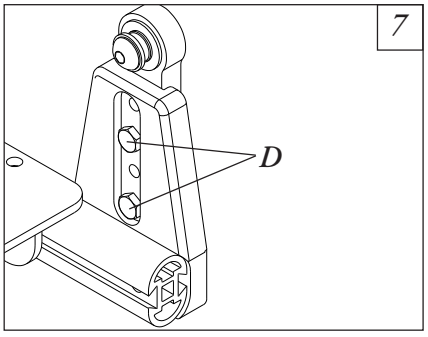
K. BACKREST PIVOT POINT (Figs. 6 & 7)

The backrest pivot point can be adjusted vertically for varying cushion thickness and body types. There are three positions available in 3/4" increments.

To adjust:

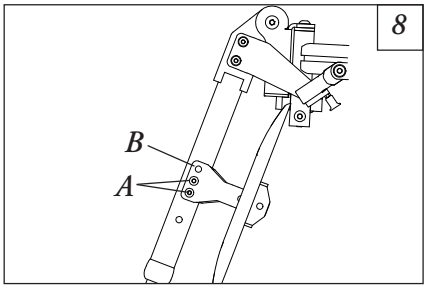
1. Remove armrests from chair.
2. Note specifically the current and intended bolt positions of the actuator and gas spring fasteners. Your goal is to reposition both fasteners in a 1:1 ratio with the vertical movement of the pivot point.
3. Remove 3/8 hex bolts (A) holding actuator extension tube into rear support plate. **IMPORTANT NOTE–** there will be significant forward pressure from the back support suspension gas spring (B). Allow this pressure to extend the gas spring to its maximum, moving the backrest forward. Once extended fully, remove the 5/16 nut securing the ball socket (C) to the lower end of the gas spring.
4. Allow back to rotate forward and rest on seat.
5. Using a 7/16 socket, remove hex bolts (D) and reposition assembly up or down for desired affect.
6. Rotate backrest rearward to align the gas spring with its mount, replacing the ball socket in the appropriate position (review step 2) and securing with the 5/16 nut.
7. Using rearward pressure against the backrest, rotate the backrest to align the actuator extension tube with its corresponding mounting position and reinstall 3/8 hex bolts. **NOTE–** this step may require assistance to complete.

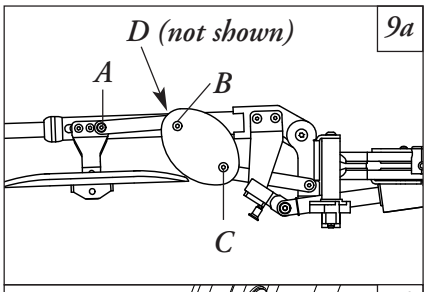


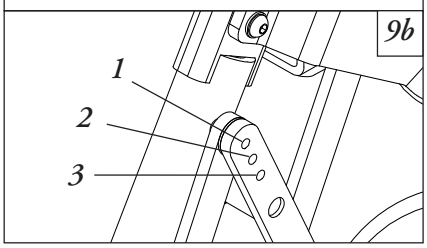


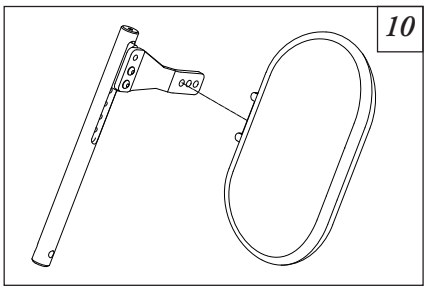
L. LEGREST (Figs. 8, 9, 10, 11)

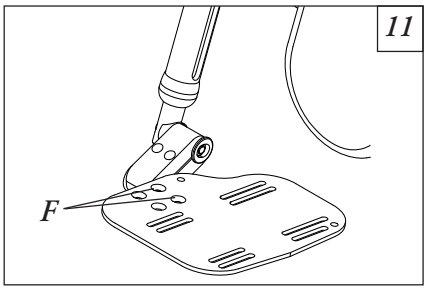
1. Legrest Length is adjusted in 5/8" increments (**Fig. 8**).
   Remove Legrest from chair. Using a 5/32 hex wrench, remove the lower two 1/4-28 screws (A). Loosen, but do not remove the upper 1/4 -20 screw (B) until the extension tube will slide within hanger. Reposition and reinstall screws.
2. Legrest Articulation (if so equipped) (**Figs. 9a & 9b**)
   The amount of articulation in the legrest may be adjusted from 1.5 to 2.5 inches.
   To adjust:
   a. Remove knee plate padding.
   b. Remove screw A.
   c. Remove top 1/4-20 screw (B) as shown.
   d. Loosen screw C so knee plate rotates.
   e. Rotate linkage so forward screw (D) is accessible beneath legrest.
   f. Remove screw D and reposition linkage.
   g. Note linkage extension positions: 1=2.5"; 2=2"; 3=1.5". (**Fig. 9b**)
3. Calf Pad (**Fig. 10**)
   Calf pad can be moved forward and rearward by repositioning it in different mounting holes.
4. Footplate (**Fig. 11**)
   Footplate may by angled or repositioned by loosening the 1/4-28 flathead screws (F) located on the top of the footplate.

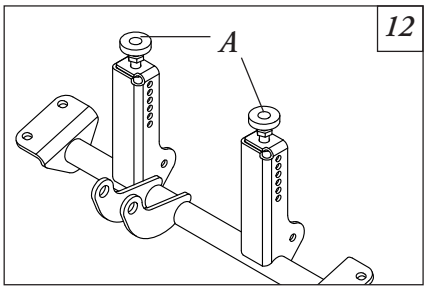












M. SEAT FRAME TILT STOP PADS (Fig. 12)

The position of the tilt stop pads (A) are adjustable vertically by loosening the jam nuts and rotating the stop pads counter clockwise to raise (or clockwise to lower). The stop pads should be positioned to support the seat frame at its lowest front position when the user prefers a pre-tilted driving position. Once position is established, use jam nut to hold position of stop pads on tower. “Re-home”-ing of seating system is required after adjustment of stop pads (see section XI: E).

N. CHECK-OUT

Once the seating system is assembled and adjusted, it should operate smoothly and easily. All accessories should also perform smoothly.

After the seating system has been set up and programmed be sure the seating system performs to your specified operational settings (see Operating Instructions: Electronic Controls). If the seating system does not perform to specifications, turn the seating system OFF and reprogram operational specifications using the QMAC Pendant Programmer.

Repeat this procedure until the seating system performs to specifications before attempting active use of the seating system.

If you have any problems, follow these procedures:

1. Review the set-up, check-out, operating and troubleshooting sections to make sure seating system was properly prepared.
2. If your problem persists, contact your authorized supplier. If you still have a problem after contacting your authorized supplier, contact Sunrise customer service. See the introduction page for details on how to contact your authorized supplier or Sunrise customer service.

X. OPERATING INSTRUCTIONS– USE

A. SWING-AWAY FOOTRESTS (Figs. 13 & 14)

1. Installation

a. Place swing-away pivot pin (A) into the locating hole (B) on top of the hanger mount with the footrest facing outward from frame.
b. Rotate the footrest inward until latch plate (C) locks into place on locking bolt.

2. Removal

a. To remove footrest, press quick-release lever (D).
b. Rotate footrest outward and lift.

3. Height Adjustment

a. Remove both screws (E) from hanger.
b. Reposition footrest height.
c. Retighten both screws into insert.

B. POWER ELEVATING AND ARTICULATING LEGREST (optional) (Fig. 15)

1. Installation

To install ELR/ALR see instructions for Swing-Away Footrest above.
In addition, once ELR/ALR is latched in place:

a. Manually elevate legrest.
b. Align tapered actuator pin (B) with legrest socket (A).
c. Allow legrest to descend as socket and pin couple together.

NOTE– Actuator latch engages automatically during coupling.

2. Removal

a. To remove, pull down lightly on actuator latch release (C) as you manually elevate legrest, allowing legrest and actuator to decouple.
b. Press quick-release lever on legrest (D).
c. Rotate footrest outward and lift.

C. ARMREST (Fig. 16)

Installation

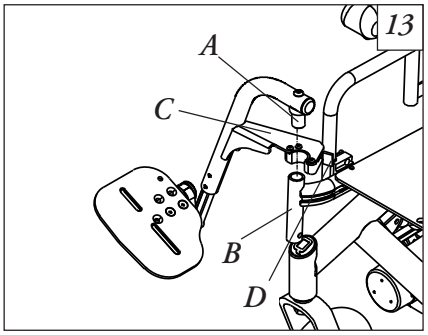
a. Insert rear arm post into rear receiver (A), insuring that latch engages
b. Open latch on front receiver (B)
c. Insert front arm post into front receiver
d. Close latch to engage

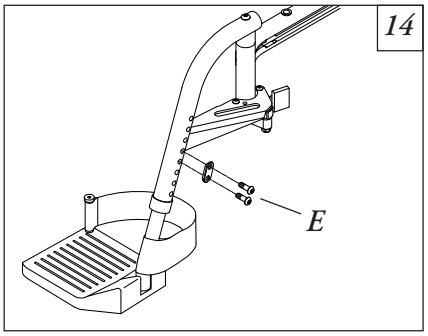
Removal

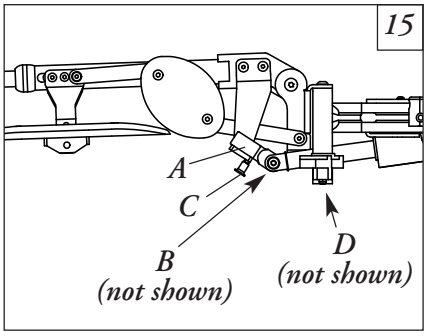
a. Open latch on front receiver (B)
b. Lift front of armrest

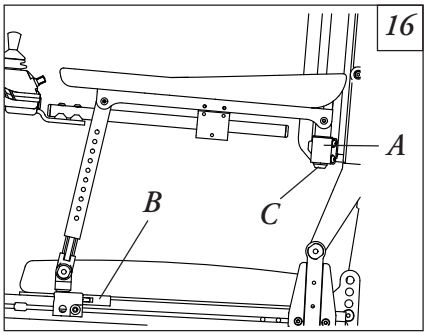
NOTE– Arm can now rotate and be allowed to hang at side of chair

c. To remove, release latch (C) on rear arm post and lift









XI. MAINTENANCE

A. NOTES

1. Proper maintenance will improve performance and extend the useful life of your seating system.
2. Clean your seating system regularly. This will help you find loose or worn parts and will make your seating system easier to use.
3. To protect your investment, have all major service and repair work done by your supplier.

B. CLEANING

1. Paint Finish:
   - •Clean the paint finish with mild soapy water monthly.
   - •Protect the paint with a coat of non-abrasive auto wax every three months.

NOTE– You do not need to grease or oil the chair.

2. Upholstery:
   - •Hand-wash only as needed. Machine washing may damage fabric.
   - •Drip-dry only. Heat from a dryer may damage fabric.

NOTE– Washing the fabric may decrease fire retardant properties.

C. STORAGE TIPS

1. Store your seating system in a clean, dry area. If you fail to do so, parts may rust or corrode.
2. Before using your seating system, make sure it is in proper working order. Inspect and service all items on the "Maintenance Chart" (See section XI: F).
3. If you store this seating system for more than three months, have it inspected by a supplier before use.

D. ORDERING PARTS

When you order parts, provide the following:

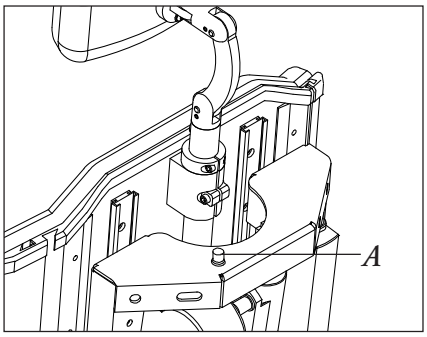
1. Model of chair
2. Serial number of chair– located on power base
3. Left hand or right hand control
4. Part number, description and quantity of parts you need.
5. State reason for replacement.

E. RE-HOME SEAT FUNCTION

⚠WARNING

User should never be seated in seating system when operating Re-Home function.

For convenience, a Re-Home Seat button (A) is located under the back plate shroud. To re-home seating system, press and hold the button, continuing to hold button down for three to four seconds after all actuators have ceased movement. This is recommended as quarterly maintenance to keep system calibrated.



F. MAINTENANCE CHART

You should check the items on this chart at the indicated intervals. If any of the items are loose, worn, bent or distorted, immediately have them checked and/or repaired by your authorized Sunrise supplier. Frequent maintenance and servicing will improve performance, extend seating system life, and help prevent injuries.

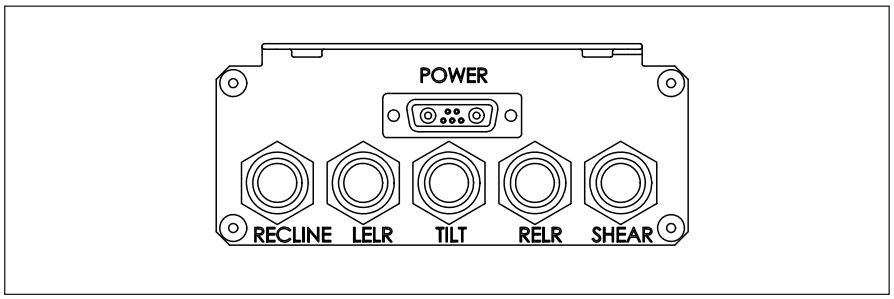
NOTE– Check weekly, and use a clean dry cloth or compressed air as needed to keep glide bearings free of debris.

Check...	Weekly	Monthly	Quarterly	Annually
Glide bearings free of debris	✓			
Check plugs and connectors for proper connections		✓		
Check all moving parts for wear			✓	
Inspect actuator shafts for cleanliness and wear			✓	
Inspect all nuts, bolts and fasteners for looseness or wear				✓
Inspect upholstery for wear			✓	
Operate seating systems re-home seat function			✓	
Servicing by authorized Supplier				✓

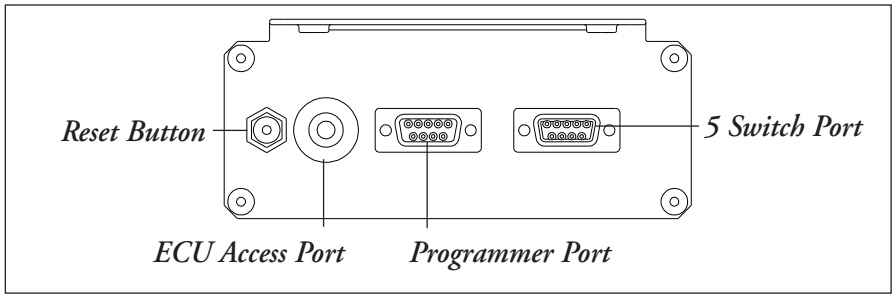
XII. TROUBLESHOOTING

PROBLEM	SOLUTION
The seating system does not respond to joystick commands OR any time power is removed or batteries are unplugged.	Reapply power if it has been removed and wait 2 minutes. Push “Reset” button on front of the QMAC Controller– located under the seat pan.
The seating actuators are moved with power off, or a seating system element no longer moves within its desired range	Home the seating system. (Refer to section XI: E)
You detect a significant increase in the noise level during operation.	Check for loose fasteners.
An actuator stops moving or moves intermittently.	Check for damaged wires or loose connectors. Also check to see if all components are free to move - insure actuator is not binding.
Detect noise of anti-tip lockout actuator during recline/tilt activation and return.	No problem– this is a normal and necessary part of operation. See note under Section VIII.

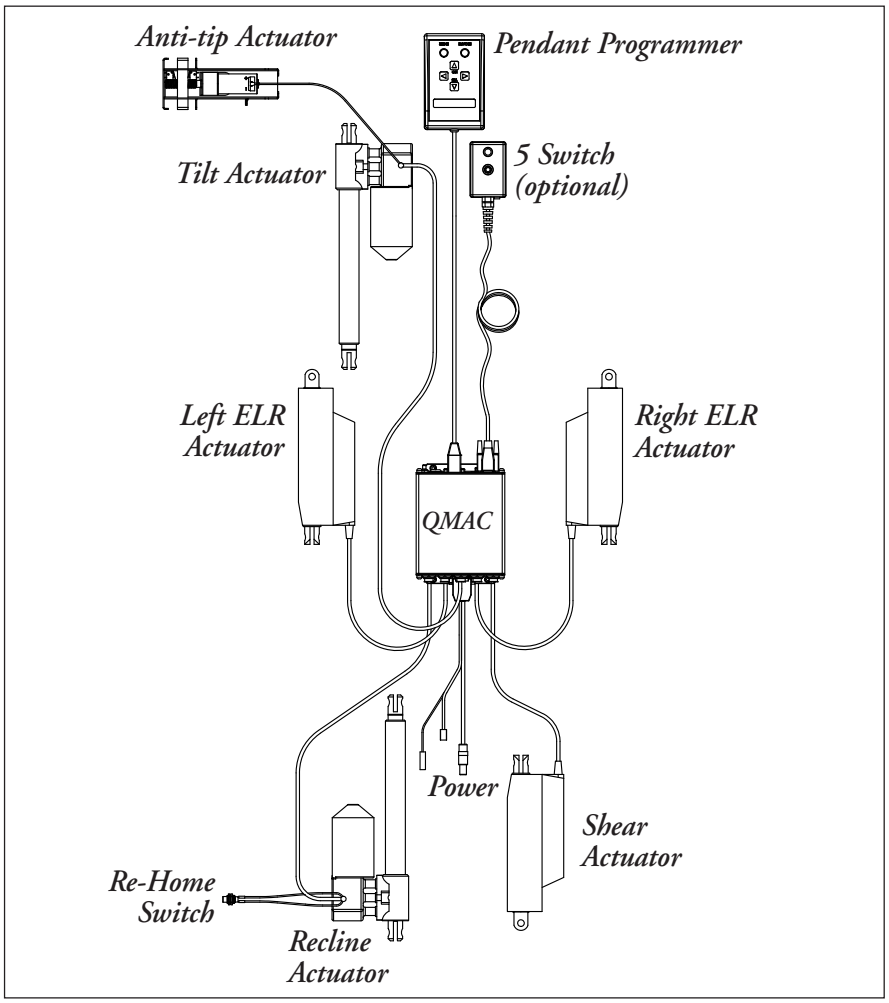
XIII. DIAGRAMS



Quickie Multi-Actuator Controller "QMAC" (Rear View)



Quickie Multi-Actuator Controller "QMAC" (Front View)



Wiring Diagram

XIV. SUNRISE LIMITED WARRANTY

1. FOR THREE (3) YEARS

We warrant the Quickie Smart Seat seat frame, sub-base frame, actuator and structural components of this wheelchair against defects in materials and workmanship for three (3) years from the date of first consumer purchase.

2. FOR ONE (1) YEAR

We warrant the QMAC controller for one (1) year from the date of the first consumer purchase.

2. ADDITIONAL WARRANTY

We warrant all other original components (such as upholstery, plastic, rubber parts and painted surfaces) for three (3) months from the date of first consumer purchase.

4. LIMITATIONS

a. We do not warrant damage due to:
   - Neglect, misuse, or improper installation or repair.
   - Use of parts or changes not authorized by Sunrise.
   - Exceeding the weight limit of 250 pounds.

b. This warranty is void if the original seating system serial number tag is removed or altered.

c. This warranty applies in the USA only. Check with your supplier to find out if international warranties apply.

5. WHAT WE WILL DO

Our sole liability is to repair or replace covered parts. This is your only remedy for consequential damages.

6. WHAT YOU MUST DO

a. Return the warranty card.

b. Obtain from us, while this warranty is in effect, prior approval for return or repair of covered parts.

c. Return the seating system or part(s), freight pre-paid, to Sunrise Mobility Products Division at: 2842 Business Park Ave., Fresno, CA 93727-1328.

d. Pay the cost of labor to install or repair parts.

7. NOTICE TO CONSUMER

There are no other express warranties. To the extent permitted by law, any implied warranty (including a warranty of merchantability or fitness for a particular purpose) is limited to:

a. One (1) year from the first consumer purchase, and

b. Repair or replacement of the defective part only.

This warranty gives you certain legal rights. You may also have other rights that vary from state to state.