Volume

1

SERIES 107 POWERED WHEELCHAIR, STANDARD EQUIPMENT

CHIEF 107 SERIES

Owner, Operator & Maintenance Manual

Redman Power Chair

DISTRIBUTED BY MEDI-CHAIR LLC

Manufactured by Chief Power Chair LLC

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Reviewed 2018

Table of Contents

Attention User

Use of the Series 107 power wheelchair without understanding this manual may result in damage to the Series 107 power wheelchair, property and/or injury to the user. Please ensure proper use by following the directions below:

- Before using a Redman Power Chair be sure to fully understand the training representative's instructions, and that you have also received the operation manual and delivery documentation.
- While using your chair, be aware of your current environment and any potential hazards you may encounter.
- Always charge your chair fully before use. A full charge is an overnight charge.
- During the training and delivery period, discuss any fit, function, comfort, or speed and control concerns with your representative.
- Gradually build confidence in your chair and familiarize yourself with your surroundings and the parameters of the wheelchair.
- To ensure your safety, stretch and transfer while being supervised.
- Be attentive to changes in how your chair drives or any new or unfamiliar sounds. Without immediate attention there is a possible risk of injury or malfunction of the chair.
- Never use a chair that you know or suspect has undergone damage. Be aware of changes to the joystick and do not use if damage is evident.

Transport Warning

Do not operate the Series 107 power wheelchair in any kind of vehicle while seated in the power wheelchair.

Only use an approved vehicle for the transportation of your power wheelchair.

When transporting a Series 107 power wheelchair, ensure all restraints are well-anchored and properly secured. Serious damage to the vehicle and/or power wheelchair may occur if these directions are not followed.

General Warning

Do not operate the Series 107 power wheelchair, its options, or its accessories without first reading and understanding this manual. Do not make any adjustments without consent from Redman Power Chair.

If you do not or are unable to understand the warnings, cautions, and instructions in this manual, contact a healthcare professional, a Series 107 power wheelchair dealer, or Redman Power Chair Customer Service personnel before attempting to use the Series 107 power wheelchair. If these directions are not followed your warranty may be voided.

Disclaimer

Redman Power Chair provides custom power wheelchairs. If there is information you need that is not covered in this manual, please call.

The U.S. Department of Transportation has not approved any tie-down systems for the transportation, in a moving vehicle, of a user while in a wheelchair. Seat belts, chest belts, chest harnesses and similar restraints installed on the Series 107 power wheelchair are provided as positioning straps and body restraints while the user is in the Series 107 power wheelchair. Seat belts, chest belts, chest harnesses, and similar restraints installed on the Series 107 power wheelchair are *not* intended to serve as a body restraining system in a moving motor vehicle.

When traveling in a motor vehicle, Redman Power Chair recommends transferring the user to the occupant seating and restraining system approved for that motor vehicle.

Section 1

Introduction

We highly recommend an annual preventive maintenance service. Please call customer service 1 (800) 727- 6684 (ext 2) to make arrangements.

Redman Power Chair has been perfecting the art of standing technology for over 30 years. With our proprietary and patented technology, the Chief 107-ZRx custom tailored standing power wheelchair allows you to stand, recline, tilt, stretch and move like you never thought possible.

Redman Power Chair takes pride in the quality of our product. We are the innovator of standing power wheelchairs for over 30 years. This is not just a standing chair but a life changing body positioning system.

This complete body positioning system goes where you go. The design is based on the needs and wants of the user. We intend to empower and facilitate your every move from daily tasks to social pastimes. Please store this manual safely for future use and reference. This manual as well as other informative documents, are available on the Redman Power Chair website.

Redman Power Chair would like to thank you for your business.

Section 2

Operation

Understanding the basic components of the major operation system can be beneficial when properly handling and maintaining your system. One of the two major components is the joystick controller which is connected to the power module through a communication cable. Always avoid hitting or dropping the joystick and take precaution to not damage any cables. Additionally, be cautioned that extreme conditions such as sun damage or extreme cold can compromise the reliability of your system.

Joystick Buttons

In Figure 1 the buttons are labeled as they appear on your joystick. This includes:

-Power Button

-Hazard Button

-Horn Button

-Lighting Button

-Blinker Indicators

-Increase/ Decrease Speed

-Mode Button

-Profile Button

Additional options must be purchased such as the lighting package or the horn package in order to activate those features. Two important buttons to understand are the Mode and Profile buttons.

Figure 1

Mode

The Mode button may be pressed to go back and forth from the "drive" screen and the "positioning" screen (shown in Figure 2). After pressing the Mode button, you will view the body positioning screens shown in three of the images in Figure 2. Using the joystick, scroll side to side to transition through the three available positions.

Profile

Next, by pressing the Profile button, you will shift through different profiles of speed starting at Profile 1 and escalating to Profile 5. Within each profile you can tailor the speed using the Increase/ Decrease Speed button as shown in Figure 1, and the screen available when doing so is shown in the bottom left of Figure 2.

Safety Switches

There are two safety switches added to the chair to help assure your security. They are the recline safety switch and the docking safety switch. These switches are programed into the chair. If reclined too far back or the legs too far forward, the stand will not work. The same is true if you are already in a standing position; you will not be able to return to a seated position if you are reclined too far back. Again, you may find you will not be able to bring your legs out when you are even at a slight "stand." It may take time to get used to where the chair activates its safety switches. We encourage you take the time to practice in your chair.

Figure 2

Section 3

General Care

This manual includes maintenance and operational directions which mandate your safety and protection. Failure to read and follow the operational instructions in this manual could not only result in injury to yourself and others, but to the product and/ or property as well. Additionally, please note that warranty packages may be revoked due to misuse of the product.

Joystick Care

To prolong the life of the joystick and other components of the electronic control system please perform the following preventative maintenance objectives:

- Avoid extreme weather conditions
- Be sure to avoid knocking your joystick controller against hard objects
- Do not use joystick as a point of support
- Remove and protect the joystick when transporting your chair
- Only use a damp cloth when cleaning your joystick controller or other components of the control system

Daily Checks

Two important daily checks, besides performing a daily visual inspection of your RPC (Redman Power Chair), concern the batteries and joystick. Be sure to:

- Charge your chair's batteries daily. When you are not using your chair it should be plugged into the charger. The complete charge of batteries can take up to eight or nine hours. The charger will not over charge and will automatically turn off.
- The joystick may be on or off when charging.
- Check that the joystick knob has not been bent or damaged and returns to the center when released.

Weekly Checks

Some other inspections recommended for your chair are necessary less often than daily, however these inspections are still encouraged:

- Ensure that all cables and connectors are secure, properly connected, and free from damage.
- Once a week turn on the joystick and after a few seconds, check that the battery level gauge remains on or flashes slowly.
- To ensure brakes on motors are functioning properly, complete the following steps:

  Make sure you are in Profile 1 (the lowest speed)

  - Push the joystick forward then immediately release. You should hear the brake solenoid click as it disengages then reengages the brakes. The chair will move forward.
  - Repeat the test three times, pushing the joystick backwards, left and right respectively. Again, the chair will move slightly during the process.

- If your chair has the Safety Lighting Package, check the operation of the lights.
- Check that the joystick controller is securely mounted to its bracket.
- Visually check the joystick's rubber boot for signs of damage or splitting.

Other Recommended Care & Maintenance

Apart from daily and weekly maintenance there are some recommended service procedures that may be performed based on your discretion and usage as the owner of a Redman Power Chair.

Lubrication Points

The arrows in Figure 3 indicate the lubrication points. Keep your chair clean and free of dirt and debris, paying special attention to moving parts and pivot points. Clean all tubes that slide and pivot points using a damp rag and lubricate frequently (where the arrows indicate) using only silicone based lubrication.

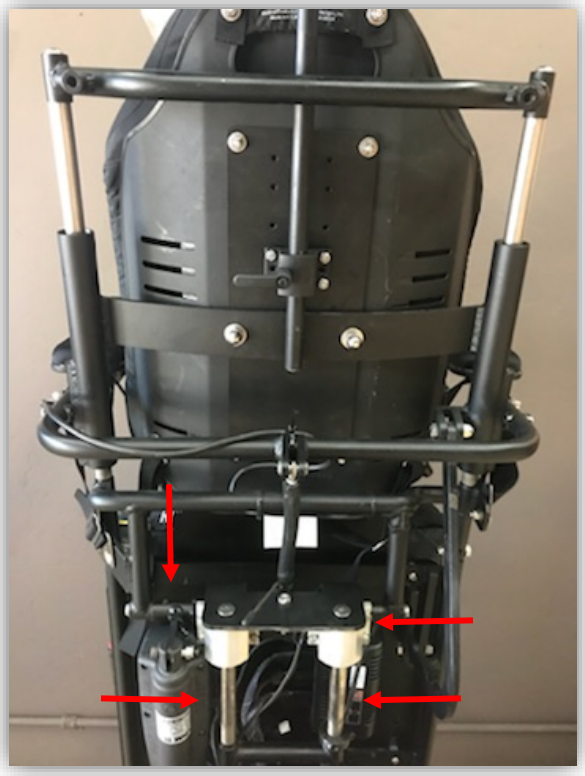


Figure 3

Figure 4

Lubrication points for foot pieces are shown to the left. (Note that the washer may be of a different color)

If your chair has zerk fittings, indicated in Figure 5, apply lubrication to those points. If your chair does not have zerk fittings, lubricate the seams as indicated by the arrows in Figure 5 and clean away the excess. We recommend the use of a grease gun for this procedure.

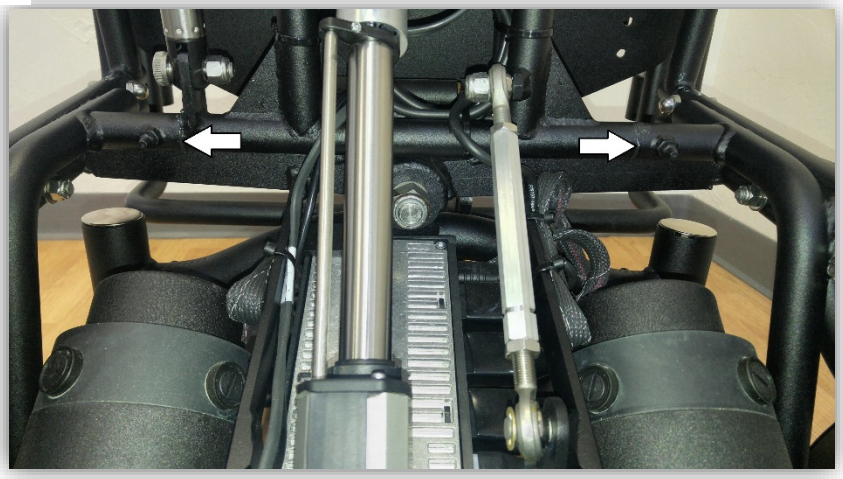


Figure 5

Figure 6

Bearings on Front Wheel Fork

The bearing assembly needs periodic lubrication with a moly or lithium grease, and in time may need an adjustment if you experience wheel chatter/flutter. Periodic adjustment of tipper fork bearings is recommended but not pictured as a part of this maintenance manual. Please contact Redman Power Chair for further instructions on how to complete this task.

Section 4

Tires

If your chair is equipped with inflatable tires, check tire pressure monthly to confirm that tires are inflated to the proper pressure. Keep the following points in mind:

- 12" x 3" drive tires, not to exceed 35 psi.
- 12" x 4" drive tires, inflate to 40 psi, not to exceed 50 psi.
- Both tires should have equal pressure to ensure that the power wheelchair will drive and turn correctly. Tires with uneven pressures will affect drive quality

Figure 7

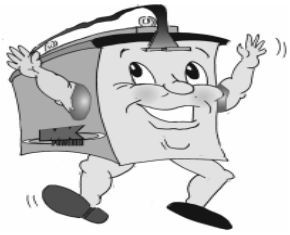
Section

5

Batteries

- Redman Power Wheelchairs are installed with MK sealed VRLA gel batteries. All information necessary for troubleshooting the batteries can be found on the MK website (http://www.mkbattery.com) and at http://www.mkbattery.com/documents/5646MK_HME_BCG_v7r3.pdf for the Battery Care Maintenance Guide.
- The following are steps encouraged/recommended by MK Battery to safely use, maintain, charge, and care for your batteries:

1



Battery Installation

- Always have your batteries installed by a properly trained wheelchair or scooter technician. They have the necessary training and tools to do the job safely and correctly.
- Wheelchairs and scooters typically require two batteries with a 24-volt series connection. Never mix and match different battery manufacturers or technologies, or use batteries that do not have similar date codes. Never mix Gel batteries with AGM batteries.
- Always fully charge batteries prior to use.
- Follow installation and start-up instructions provided by the mobility equipment manufacturer.

2

Break-In Period

Active users of power wheelchairs cycle their batteries daily (deep cycling). This stringent application requires a unique battery design that will sometimes compromise initial capacity in return for longer battery life. Gel battery performance improves once the battery has been cycled (discharged and recharged) 15-20 times. This break-in period is necessary to fully activate the battery for maximum performance and longevity. Thus, range and running time of your mobility device will initially increase with use.

"Battery Care and Maintenance Guide." *www.mkbattery.com*, sales@mkbattery.com. Accessed 2018.

3

This sticker is available through your local power mobility retailer.

When to Charge?

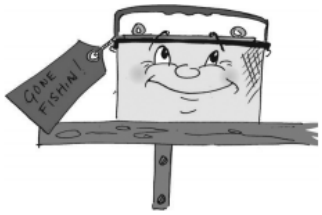
- Charge daily and for as long as possible, even on days with low usage.
- The charger supplied with your mobility device should fully charge your batteries overnight. Overcharging is not a problem with today's smart chargers as they are voltage limited and shut off automatically. Sealed VRLA Gel and AGM batteries do not exhibit a "use it or lose it" capacity-robbing effect known as "memory."
- Chronic undercharging is a common cause of premature battery failure. Charging for a minimum of 8 hours each night is the standard recommendation for proper battery function. To further enhance battery life, it is recommended that a 12-hour charge be performed at least once or twice each month.

4

Proper Charging Guidelines

- Use the equipment manufacturer's automatic charger for all routine charging.
- Never use an automotive or wet-type charger on Sealed VRLA Gel or AGM batteries as doing so will damage your battery.
- Depth of discharge affects cycle life. The harder a battery has to work, the shorter its life expectancy. Longer use typically means longer recharge times.
- Avoid ultra-deep discharges and never drain your batteries completely.
- Do not leave your batteries in a low state of charge for an extended length of time. Charge a discharged battery as soon as possible.
- Do not cycle your batteries at a low state of charge without regularly recharging them fully.

5



Storage and Maintenance

- Always store your batteries FULLY CHARGED.
- Check all stored batteries once a month and recharge as needed.
- Fully charged Sealed VRLA Gel and AGM batteries can hold a charge for up to 6 months, however, they should always be charged before use.
- When storing a power chair or scooter for more than 2 weeks, charge the batteries first and then disconnect them for storage.
- Avoid hot and cold extremes when storing.
- Sealed VRLA Gel and AGM batteries require no watering. Any performance related issues should be handled by a properly trained wheelchair or scooter technician.

6

Safety

Batteries can be hazardous.

- Dropping a tool or touching a watch or bracelet across the terminals can result in an electrical shock, sparks, smoke, fire and even an explosion. Use extreme caution around exposed battery terminals.
- Battery posts, terminals and related accessories contain lead and lead compounds, and other chemicals known to the state of California to cause cancer and birth defects or other reproductive harm. Wash hands after handling.
- BE CAREFUL! Batteries produce explosive gases. Keep sparks, flames and cigarettes away from batteries at all times. ALWAYS wear safety glasses and a face shield when working on or near batteries. Ventilate well. Do not install in an airtight container.
- DO NOT ATTEMPT TO OPEN VENTS.
- All old batteries are considered "hazardous material" and must be recycled through an approved agency to prevent improper disposal. Lead-acid batteries are virtually 100% recyclable. Be sure to return your used lead-acid batteries to a retailer. In most areas it is illegal to discard such a battery in the trash.

"Battery Care and Maintenance Guide." *www.mkbattery.com*, sales@mkbattery.com. Accessed 2018.

Battery Box Location & Removal

Redman Power Wheelchairs are equipped with standard 12 volt group 22 batteries. Reference Figure 8 for the placement of batteries on a Redman Power Wheelchair.

Figure 8

Figure 9

The image to the left (Figure 9) references the battery box screw locations. Both the right and left sides of the box have two screws on the bottom of the box. The front center bottom of the box under the breaker has a screw. Do *not* remove this center screw, only loosen. Use the appropriate screw driver needed for removal of the four side screws.

Battery Wiring

This section will describe the battery wiring of a Redman Power Chair. It is designed to accommodate technicians and customers changing out batteries. We recommend focus on one battery at a time. These adjustments are provided only as a reference for an authorized technician and should not be performed without prior approval from Redman Power Chair.

Figure 10 demonstrates the battery connectivity expanded to make the major components visible. The power module is the main connector for a positive and negative terminal that is connected to each battery. The circuit breaker is another main connector for the remaining positive and negative terminal connected to each of the batteries.

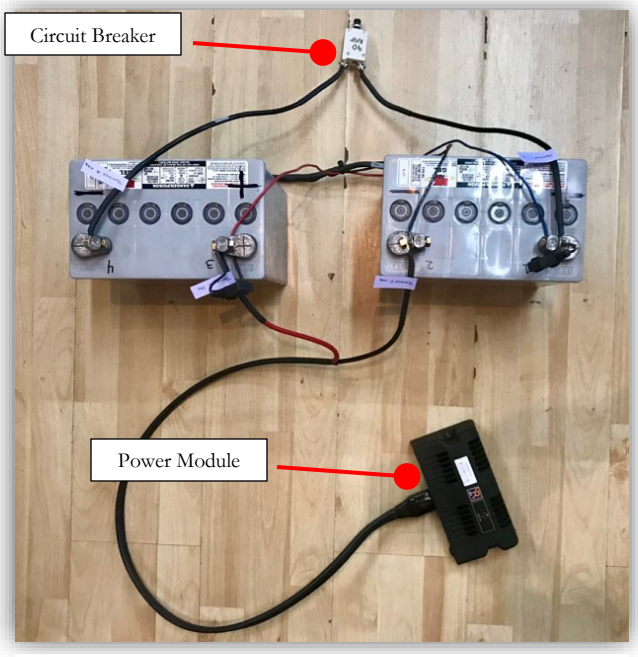


Figure 10

When adjusting or exposing the batteries within the battery box it is paramount that the circuit breaker be switched to a disengaged state. View Figure 11 which shows the normal, engaged state of the circuit breaker. Next, observe Figure 12 which shows a "pulled" or disengaged state.

Figure 11

Figure 12

It is highly recommended to label and/or take a "before" picture before adjusting terminals to help return to the standard setup with ease. A negative and positive terminal will always be connected to each battery.

The batteries have labels for the positive and negative end which is depicted in Figure 13. Be sure the black or negative terminal is always fit snug to the negative end of the batteries and vice versa with the positive terminal.

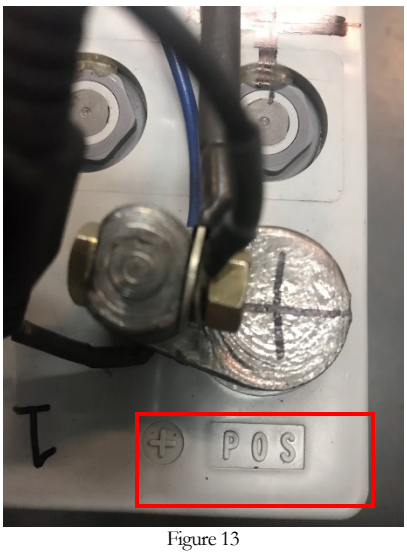


Figure 13

Always use a the included charger to charge your chair's batteries.

Section

6

Troubleshooting

Hard Reset

The Redman Power Wheelchair is equipped with a master circuit breaker located on the front of the battery box. The 90 amp circuit breaker can be manually reset by following the directions below:

- Pull the black circular breaker button (marked with the number 90 to the "OUT" position). When popped out a "white ring" will show.
- Wait approximately five minutes.
- Press the popped out button back to the "IN" position.

Figure 14

When the master circuit breaker is in the "IN" position, the batteries are connected to the rest of the electronic control system. When the master circuit breaker is in the "OUT" position, the batteries are disconnected from the rest of the electronic control system.

In the image to the left the 90 amp circuit breaker is pictured. Pull this button out for a "hard reset" (Figure 14).

The yellow fuse is 20 amps.
The red fuse is 10 amps.

Optional accessories, such as an automotive horn and 12-volt auxiliary outlet are connected to the batteries with separately fused circuits. Please check the fuses if you are experiencing any problems with these accessories. The fuses are located on the exterior of the battery box along with the circuit breaker.

Mechanical Troubleshooting

What's Wrong	What to Check
Power wheelchair veers left or right	Check for correct and *equal* tire pressure
Power wheelchair has sluggish turn performance	Adjust turn acceleration. Get into on board programming. Check for correct and equal tire pressure. Requires a technician.
Front fork casters/ back tipper wheels flutter	Check for loose front/back stem nut (s)
One side of your chair is "active" and the other is not	Check that your motors are both engaged. Reference Section 7
Roho cushion is losing air (not on all chairs)	Check that inlet valve is not over tightened

Body Positioning Troubleshooting

Body positioning control components are located under the power chair. (In the event of a motor power failure, check to make sure connections are tight). The ISM (Intelligent Seating Mechanism) controls the actuators for positioning of your chair. If the chair will not stand or positioning systems fail, try a hard reset by disconnecting the main power at the circuit breaker. Leave the circuit breaker pulled out for five minutes before pushing back in (reference Troubleshooting- Hard Reset). If the component is not functioning and the chair will not move to a standing position to access the ISM, the seat pan may be removed for easier access.

Use Figure 15 to the right to reference the positioning of the cables to your control system.

Figure 15

Joystick Wiring

The following pictures are intended to show the locations of a loose-fitting cable that could lead to error messages or a malfunction. Use Figure 16 to reference the positioning of the joystick cable. This cable can be followed from the joystick down to the ISM. If necessary, also check the connection of the second cable from the ISM to the power module as shown in Figure 17.

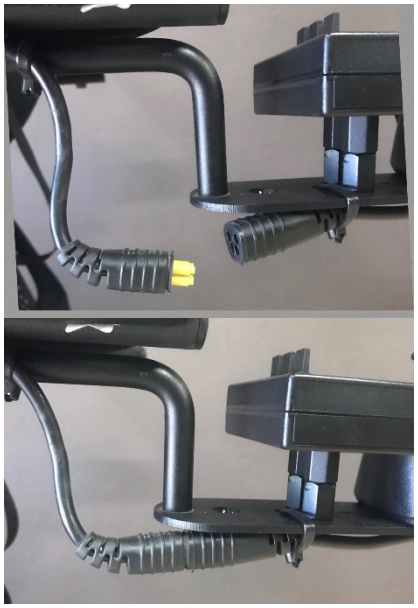


Figure 16

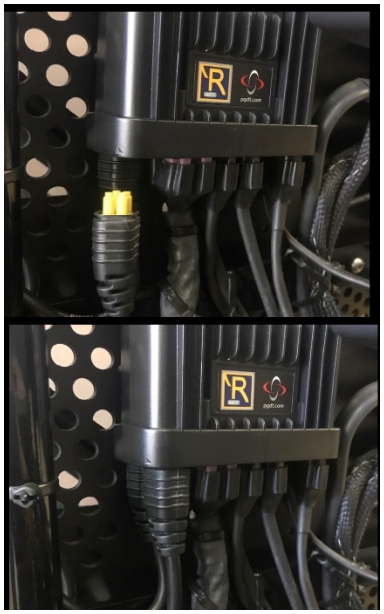


Figure 17

Section

7

Power Module

The power module location varies depending on the size of each individual chair. The ISM, motors, batteries, and stand actuator safety switch are all plugged into this device.

Figure 18

As numbered left to right: 1. ISM, 2. Left motor, 3. Batteries, 4. Right motor, 5. Stand actuator safety switch

Section

8

Motors

Your power wheelchair can be free-wheeled by turning the yellow motor levers. It will be easier to reach the levers if the chair is placed in standing a position.

- If the levers are vertical, the motors are engaged (Figure 19)
- If the levers are horizontal, motors are disengaged and the chair can now be free-wheeled (Figure 20)

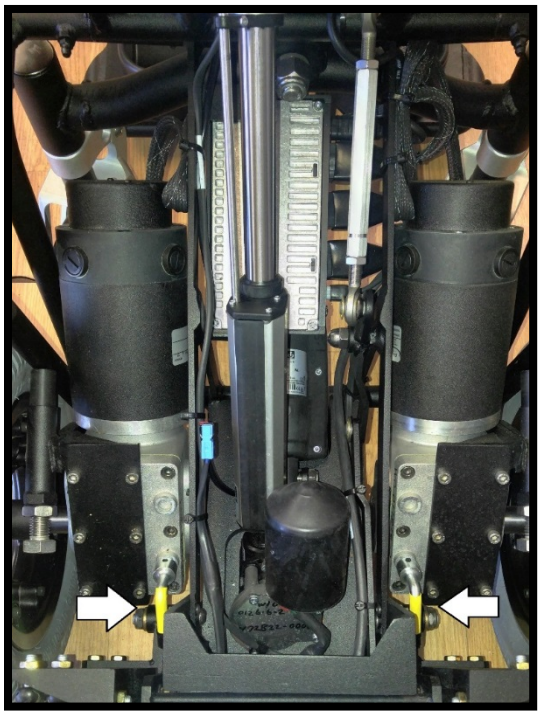


Figure 19 – Engaged Motors

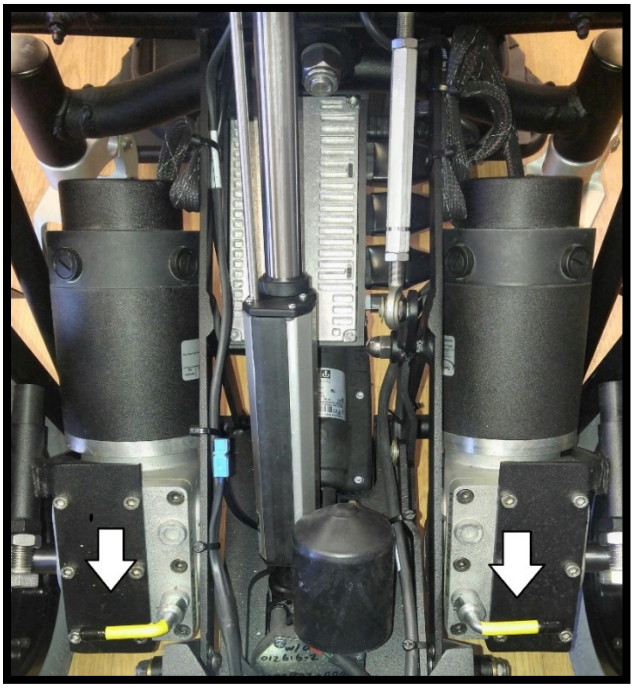


Figure 20 - Disengaged Motors

Disengaging the motors can be helpful in situations with troubleshooting. Always feel free to call the customer service line for information on the correct way to solve the issue.

Section

9

Adjustments

Do not make any adjustments without consent from Redman Power Chair. Any damage due to unauthorized adjustments will cause a void in your warranty. These adjustments are provided only as a reference for an authorized service technician and should not be performed without prior approval from Redman Power Chair.

The 107 Series power wheelchair is custom built to fit each individual and to accommodate their specific clinical and lifestyle needs. Changing any of the adjustable features on the chair may cause harm to the user and/or damage to the power wheelchair.

Arm Rest Height Adjustments

For adjustments to the chair's arm hoop, please reference Figure 21 to the right. Use the predrilled holes to adjust the arm hoop higher or lower. This adjustment must be performed on both sides of the chair. Use of a hex key (sizes may vary) is required.

Figure 21

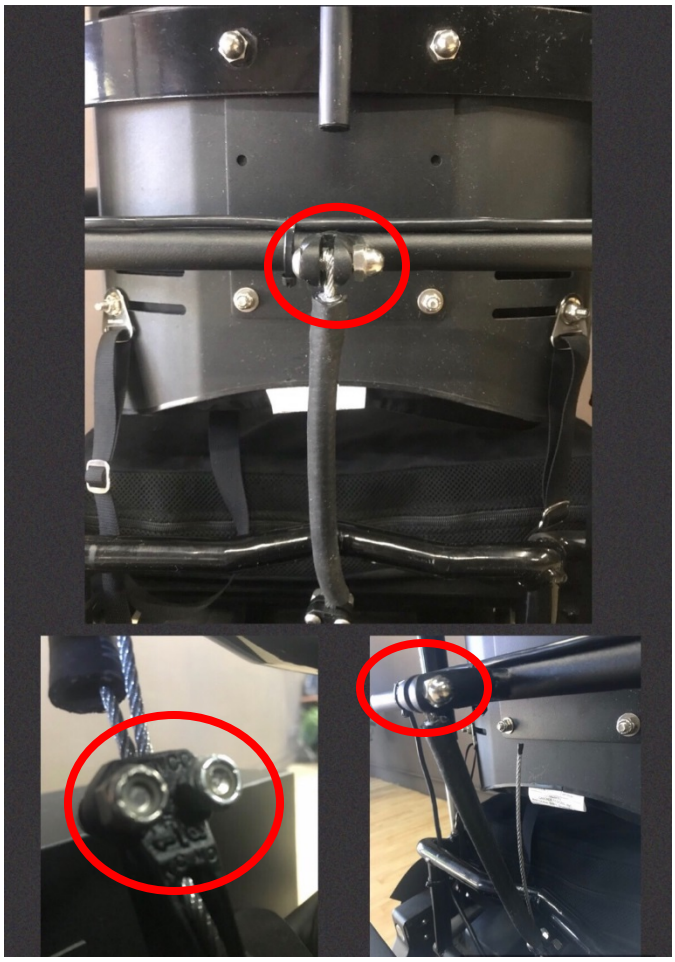


Figure 22

Arm Rest Angle Adjustment

To adjust the angle of the arm rests reference Figure 22. The circled bolts must be loosened to perform the adjustment. Once all bolts are loosened, the "pull string" in the bottom right image can be pulled to the desired angle and the bolts retightened.

Footplate Height Adjustment

To adjust the footplate height, reference Figure 23. Use the appropriate hex key to unscrew the button-head bolts and insert them at the desired height. Must be done for both sides using the predrilled holes. The adjustment height must be the same at both bolts. Tighten bolts securely when the adjustment is complete.

Figure 23

Section

10

Warnings and Precautions

Shoulder Harness Safety Warning

To avoid serious injury, only use the attached shoulder harness in a vertical position (backpack style). The top right strap of the shoulder harness must be buckled straight down to the bottom right strap, and then repeat using the left side straps on the left side of the chair (See Figure 24). Alternatively, the straps can be crossed *behind the neck*. Please refer to Figure 25 for an example.

Please make note to *never* cross the straps across the front of the chest. Please refer to the bottom most picture in Figure 24.

Figure 24 - Correct and incorrect methods of securing straps

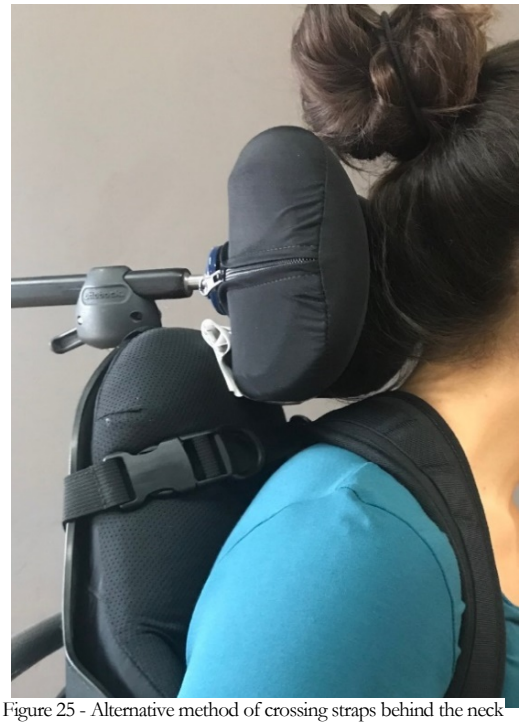


Figure 25 - Alternative method of crossing straps behind the neck

Recline Actuator Warning

When using the recline function on your chair, avoid adjusting the recline position further than recommended by your delivery representative. Doing so could cause significant damage to the chair and/or actuators, resulting in repairs at the owner's expense or possible bodily injury. If you have any limitations, these will be addressed by your representative and those instructions must be followed.

Consider the sequence of body positioning when using your chair. If the chair is reclined to a horizontal position it **will not** go directly into a stand. It is necessary to first dock the chair in a seated position then stand. If the legs are articulated the chair will not go directly into a stand. Again, you will need to dock the chair into a seated position before standing.

Knee Bolster Warning

To avoid serious injury, the knee bolster *must* be removed from the power wheelchair before elevating legs. For removal, lift up on the knee bolster until the side pins are free of the sockets, refer to Figure 26 as shown below.

Figure 26 - Left: removed knee bolster. Right: fully inserted knee bolster pin.

1 Introduction

The relevant contents of this chapter should be included in the wheelchair's operating guide. Further copies are available from PGDT in either written or disk (Adobe PDF) format. Copies should not be made without the express permission of PG Drives Technology.

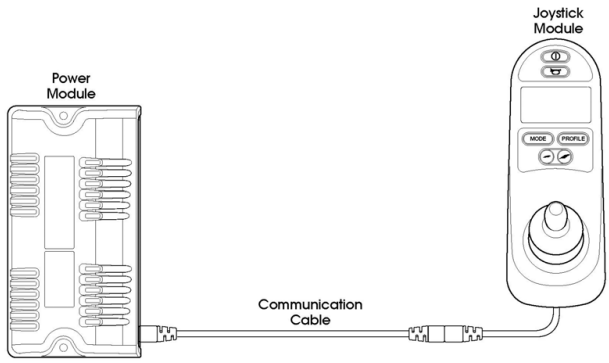
The operation of the R-net varies dependent on programming. This chapter covers all types of operation. It is the responsibility of the wheelchair manufacturer to ensure that only the relevant sections of this chapter are included in the wheelchair's operating manual.

The operation of the R-net wheelchair control system is simple and easy to understand. The control system incorporates state-of- the-art electronics, the result of many years of research, to provide you with ease of use and a very high level of safety. In common with other electronic equipment, correct handling and operation of the unit will ensure maximum reliability.

Please read this chapter carefully - it will help you to keep your wheelchair reliable and safe.

2 General

An R-net control system comprises a minimum of two modules - Joystick Module and Power Module. Because of the modular design, the depth of the control system can be greatly increased. The following diagram shows the basic set-up.



2.1 Handling

Avoid knocking your control system and especially the joystick. Be careful not to strike obstacles with the control system or joystick when you drive. Never drop the control system.

When transporting your wheelchair, make sure that the control system is well protected. Avoid damage to cables.

2.2 Operating Conditions

Your control system uses industrial-grade components throughout, ensuring reliable operation in a wide range of conditions. However, you will improve the reliability of the control system if you keep exposure to extreme conditions to a minimum.

Do not expose your control system or its components to damp for prolonged periods. If the control system becomes contaminated with food or drink clean it off as soon as possible.

2.3 Cleaning

Clean the control system and the joystick with a cloth dampened with diluted detergent. Be careful when cleaning the joystick and screen.

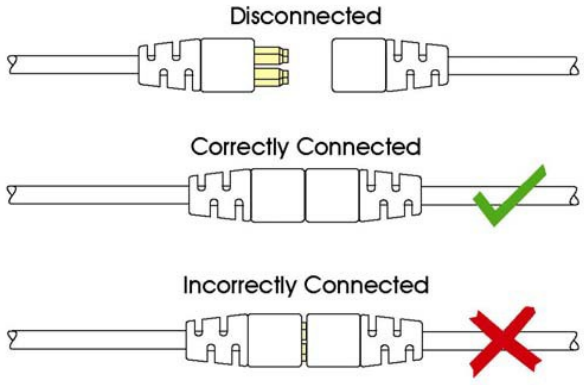
Never use abrasive or spirit-based cleaners.

3 Mating Connectors

To connect the Communication Cables:

3 Holding the connector housing, firmly push the connector into its mate until you can no longer see the yellow plastic.

The connectors are secured using a friction system.



To disconnect the Communication Cables:

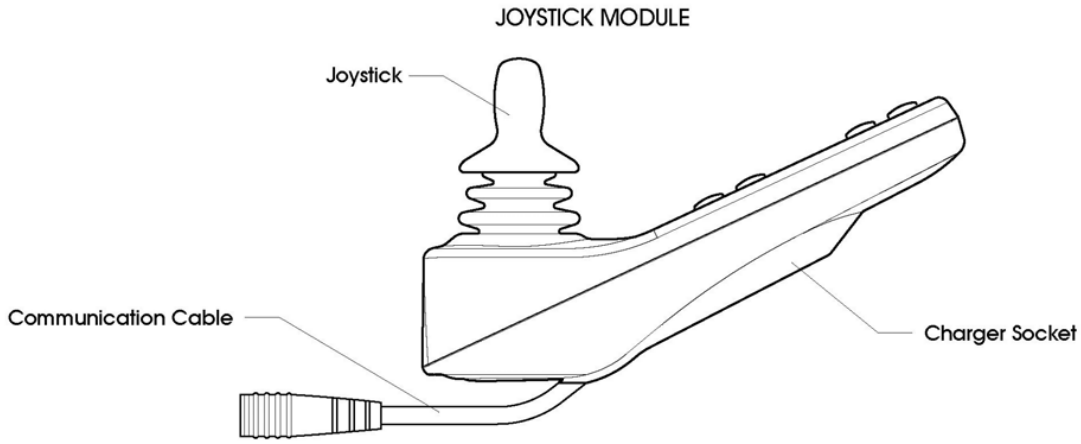
3 Holding the connector housing firmly, pull the connectors apart.

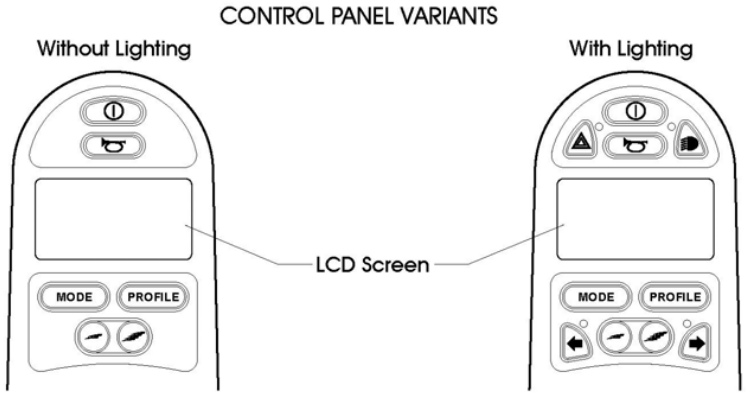
Do not hold or pull on the cable. Always grip the connector when connecting and disconnecting.

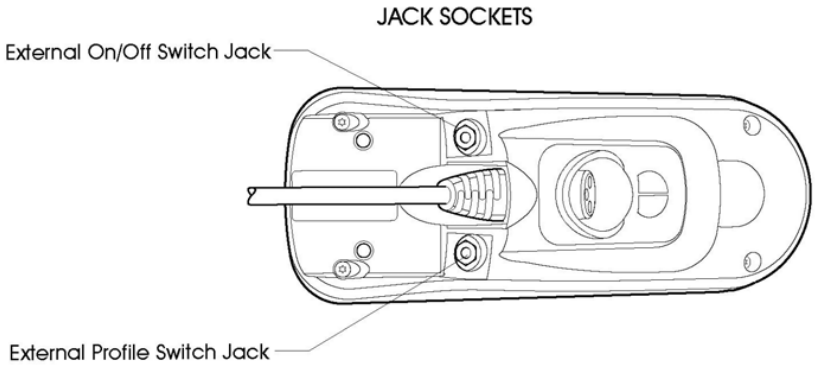
When the control system is first switched on after a connection, or system component change the Timer will be displayed whilst the system checks itself and then the Re-start icon will be displayed. Switch the control system off and on again to operate.

4 Controls

The R-net control system has two versions of Joystick Module – with and without lighting control. Most of the controls are common to both however, the lighting buttons are only included on Joystick Module with lighting control. Each of the controls is explained within this section.





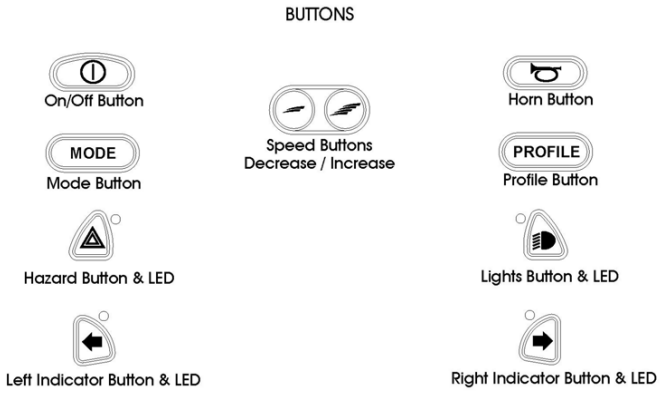


4.1 Joystick

The primary function of the joystick is to control the speed and direction of the wheelchair. The further you push the joystick from the center position the faster the wheelchair will move. When you release the joystick the brakes are automatically applied.

If the wheelchair is fitted with actuators, the joystick can also be used to move and select actuators, refer to section 5.5 for more details.

4.2 Buttons



4.2.1 On/Off Button

The On/Off button applies power to the control system electronics, which in turn supply power to the wheelchair's motors. Do not use the On/Off button to stop the wheelchair unless there is an emergency. (If you do, you may shorten the life of the wheelchair drive components).

4.2.2 Horn Button

The Horn will sound while this button is depressed.

4.2.3 Speed Decrease Button

This button decreases the maximum speed setting.

Depending on the way the control system has been programmed a momentary screen may be displayed when the button is pressed.

Refer to section 5 for details of the momentary screen Refer to chapter 3 - Programming for details.

4.2.4 Speed Increase Button

This button increases the maximum speed setting.

Depending on the way the control system has been programmed a momentary screen may be displayed when the button is pressed.

Refer to section 5 for details of the momentary screen

Refer to Chapter 3 - Programming for details.

4.2.5 Mode Button

The Mode button allows the user to navigate through the available operating Modes for the control system. The available modes are dependent on programming and the range of auxiliary output devices connected to the control system.

Refer to Chapter 3 - Programming for details.

4.2.6 Profile Button

The Profile button allows the user to navigate through the available Profiles for the control system. The number of available Profiles is dependent on how the control system is programmed.

Depending on the way the control system has been programmed a momentary screen may be displayed when the button is pressed.

Refer to section 5 for details of the momentary screen.

Refer to Chapter 3 - Programming for details.

4.2.7 Hazard Warning Button and LED

This button activates and de-activates the wheelchair's hazard lights. Depress the button to turn the hazards on and depress the button again to turn them off.

When activated the hazard LED and the indicator LEDs will flash in sync with the wheelchair's indicators.

4.2.8 Lights Button and LED

This button activates and de-activates the wheelchair's lights. Depress the button to turn the lights on and depress the button again to turn them off.

When activated the lights LED will illuminate.

4.2.9Left Indicator Button and LED

This button activates and de-activates the wheelchair's left indicator. Depress the button to turn the indicator on and depress the button again to turn it off.

When activated the left indicator LED will flash in sync with the wheelchair's indicator(s).

4.2.10 Right Indicator Button and LED

This button activates and de-activates the wheelchair's right indicator. Depress the button to turn the indicator on and depress the button again to turn it off.

When activated the right indicator LED will flash in sync with the wheelchair's indicator(s).

4.2.11 External On/Off Switch Jack

This allows the user to turn the control system on and off using an external device, such as a buddy button.

4.2.12 External Profile Switch Jack

This allows the user to select Profiles using an external device, such as a buddy button. To change the Profile whilst driving simply press the button.

If the control system is set to latched drive or actuator control operation, then the polarity of the jack input is reversed to effect a fail safe system; meaning this input will provide an External Profile Switch function and an Emergency Stop Switch function.

The Joystick Module is supplied with rubber bungs that must be inserted into the Jack Socket when no external device is connected.

4.3 LCD Screen

The status of the control system can be understood by observing the LCD screen. The control system is on when the screen is backlit.

Refer to section 5 for details on screen symbols.

4.4 Charger Socket

This socket should only be used for charging or locking the wheelchair. Do not connect any type of programming cable into this socket.

Refer to section 12 for more details on charging.

This socket should not be used as a power supply for any other electrical device. Connection of other electrical devices may damage the control system or affect the E.M.C. performance of the wheelchair.

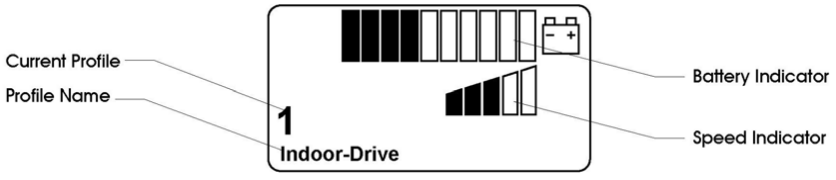
The control system's warranty will be voided if any device other than a battery charger supplied, with the wheelchair, or the lock key is connected into this socket.

5 LCD Screen - Monochrome

The status of the control system can be understood by observing the LCD screen.

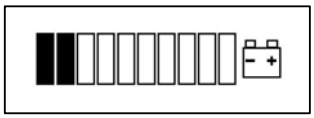
5.1 Screen Symbols

The Drive screen for the R-net has common components, which will always appear, and components that will only appear under certain conditions. Below is a view of a typical Drive screen in Profile 1.



5.1.1 Battery Indicator

This displays the charge available in the battery and can be used to alert the user to the status of the battery.



Steady

This indicates that all is well.

Flashing Slowly

The control system is functioning correctly, but you should charge the battery as soon as possible.

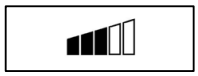
Stepping Up

The wheelchair batteries are being charged. You will not be able to drive the wheelchair until the charger is disconnected and you have switched the control system off and on again.

Refer to section 11 for a description of how to read the Battery Gauge.

5.1.2 Speed Indicator

This displays the current speed setting.



The speed setting is adjusted using the Speed Buttons.

5.1.3 Current Profile

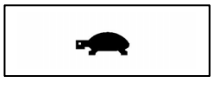
The Profile Number describes which Profile the control system is currently operating in.

The Profile Text is the name or description of the Profile the control system is currently operating in.

5.1.4 In Focus

When the control system contains more than one method of direct control, such as a secondary Joystick Module or a Dual Attendant Module, then the Module that has control of the wheelchair will display the In Focus symbol.

5.1.5 Speed Limit



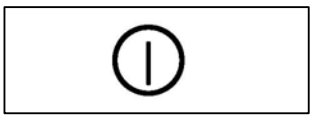
If the speed of the wheelchair is being limited, for example by a raised seat, then this symbol will be displayed.

If the wheelchair is being inhibited from driving, then the symbol will flash.

5.1.6 Latched

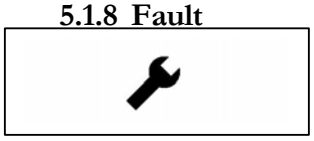
When the control system is operating in a latched condition this symbol will be displayed

5.1.7 Restart



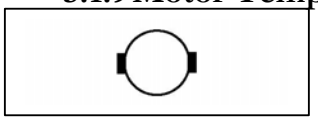
When the control system requires a reboot; for example, after a module re-configuration, this symbol will be flashed.

5.1.8 Fault



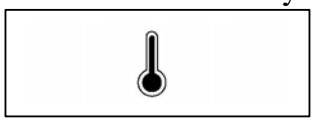
The control system can detect a wide variety of errors. When the system has detected an error that is not severe enough to cause the system to trip, then this symbol will be displayed.

5.1.9 Motor Temperature



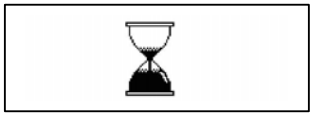
This symbol is displayed when the control system has intentionally reduced the power to the motors, in order to protect them against heat damage.

5.1.10 Control System Temperature



This symbol is displayed when the control system has intentionally reduced its own power, in order to protect itself against heat damage.

5.1.11 Timer



This symbol is displayed when the control system is changing between different states. An example would be entering into Programming Mode. The symbol is animated to show the sands falling.

5.1.12 E-Stop

If the control system is programmed for latched drive or actuator operation, then it is normal for an Emergency Stop Switch to be connected into the External Profile Switch Jack.

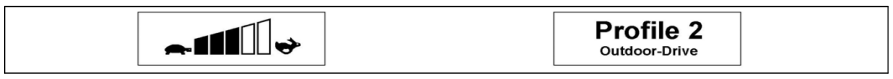
If the Emergency Stop Switch is operated or disconnected, this symbol will be displayed.

5.1.13 Bluetooth

When Bluetooth Mode is entered the screen will display the following icon.

5.2 Momentary Screens

If the momentary screens are programmed to be displayed then pressing the Speed or Profile Buttons will display screens such as below.

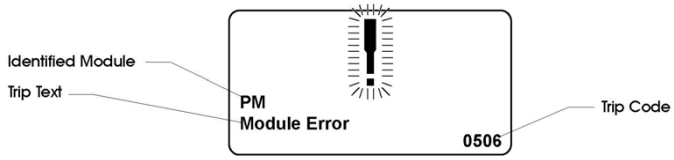


Speed Momentary Screen Profile Momentary Screen

5.3 Diagnostic Screen

When the control system safety circuits have operated and the control system has been prevented from moving the wheelchair a diagnostics screen will be displayed.

This indicates a system trip, i.e. the R-net has detected a problem somewhere in the wheelchair's electrical system.



If the error is in a non-active module, for example in the ISM but with a drive Profile is selected, then drive will still be possible, however, the diagnostic screen will appear intermittently.

.3.1 Identified Module

This identifies which module of the control system has registered the problem, such:

PM Power Module

JSM Joystick Module

ISM Intelligent Seating/lighting Module

.3.2 Trip Text

The Trip Text gives a brief description of the trip type.

.3.3 Trip Code

The 4 digit code displayed gives the exact trip that has been recorded.

.3.4 Diagnostic Procedure

Please follow this procedure:

- Read and note the Trip Text displayed, the identified Module and the Trip Code.
- Switch off the control system.

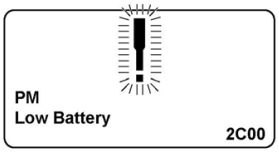
- Make sure that all connectors on the listed Module and the wheelchair are mated securely.
- Check the condition of the battery.
- Note the Trip Text description, and take the required action.
- Switch on the control system again and try to drive the wheelchair. If the safety circuits operate again, switch off and do not try to use the wheelchair. Contact your service agent.

Example:

Identified Module Power Module.

Trip Text Low Battery

Trip Code 2C00



This means the battery needs charging or there is a bad connection to the battery.

- Check the connections to the battery. If the connections are good, try charging the battery.

.3 Locking the Control System

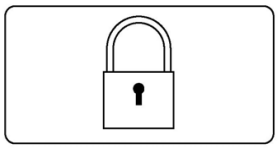
The Control System can be locked in one of two ways. Either using a button sequence on the keypad or with a physical Key. How the Control System is locked depends on how the wheelchair manufacturer has programmed the system.

.3.1 Keypad Locking

To lock the wheelchair using the keypad;

- While the control system is switched on, depress and hold the On/Off button.
- After 1 second the control system will beep. Now release the On/Off button
- Deflect the joystick forwards until the control system beeps.
- Deflect the joystick in reverse until the control system beeps.
- Release the joystick, there will be a long beep.
- The wheelchair is now locked.

The following screen will be displayed, the next time the Control System is switched on.



If an LED Joystick Module is fitted the Speed Indicator LEDs will ripple from left to right. Refer to Chapter 4.

To unlock the wheelchair:

- If the control system has switched off, press the On/Off button.
- Deflect the joystick forwards until the control system beeps.
- Deflect the joystick in reverse until the control system beeps.
- Release the joystick, there will be a long beep.
- The wheelchair is now unlocked.

5.4.2 **Key Locking**

To lock the wheelchair with a key;

- With the Control System switched on, insert and remove a PGDT supplied key into the Charger Socket on the Joystick Module. A short beep will be heard.
- The wheelchair is now locked.

The following screen will be displayed, the next time the Control System is switched on.

To unlock the wheelchair;

- If the control system has switched off, press the On/Off button.
- Insert and remove a PGDT supplied key into the Charger Socket on the Joystick Module. A short beep will be heard.
- The wheelchair is now unlocked.

5.5 Actuator Selection Screen

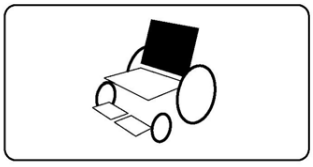
To adjust the seat position the actuator screen must be visible.

Depress the Mode Button to scroll through the Mode screens until you reach the actuator screen, displayed below.

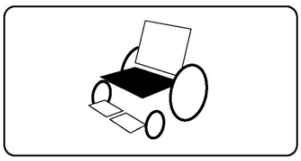
Actuator adjustment is achieved as follows.

- **Move the Joystick sideways to select the desired axis.**

(This is indicated by the section of the wheelchair that is highlighted)



- Move the joystick forwards and backwards to move the actuator.



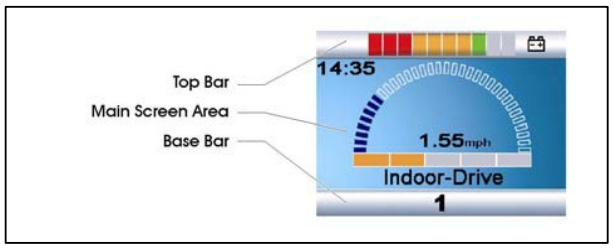
- Repeat these steps for each actuator that requires adjustment.

To drive again depress the Mode button until the Drive screen is reached or, in the case of the LED joystick module, until the Speed Indicator returns to its normal state.

6 LCD Screen - Color

This section covers those Joystick Modules that are fitted with a color LCD screen.

The color LCD screen is split into 3 areas of information. The Top Bar, the Base Bar and the Main Screen Area.



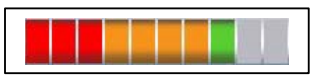
Each area is covered separately within this section.

6.1 Top Bar

6.1.1 Battery Indicator

This displays the charge available in the battery and can be used to alert the user to the status of the battery.

Steady: This indicates that all is well.



Flashing Slowly: The control system is functioning correctly, but you should charge the battery as soon as possible.

Stepping Up : The wheelchair batteries are being charged. You will not be able to drive the wheelchair until the charger is disconnected and you have switched the control system off and on again.

Refer to section 11 for a description of how to read the Battery Gauge.

6.1.2 Focus

When the control system contains more than one method of direct control, such as a secondary Joystick Module or a Dual Attendant Module, then the Module that has control of the wheelchair will display the In Focus symbol.

6.2 Base Bar

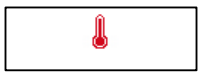
6.2.1 Current Profile

The currently selected Profile is shown in numeric form.

6.2.2 Motor Temperature

This symbol is displayed when the control system has intentionally reduced the power to the motors, in order to protect them against heat damage.

6.2.3 Control System Temperature



This symbol is displayed when the control system has intentionally reduced its own power, in order to protect itself against heat damage.

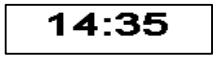
6.3 Main Screen Area

:: Drive Screen ::

6.3.1 Profile Name

This is a text string that displays the name of the currently selected Profile. The name is programmable. Refer to the programming section for details.

6.3.2 Clock



This displays the current time in a numeric format. The clock is user adjustable. Adjustable options are:

- Visibility, whether the clock is displayed on screen.
- The display format, 12 or 24 hour.
- The time, the user can adjust the time.

These adjustments are made within the Settings Menu. Refer to section 8 for details.

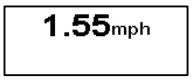
6.3.3 Speed Display

This gives a proportional display of the wheelchairs speed. The Arc begins at 0% and has a programmable maximum. The programmable parameter is Max Displayed Speed. Refer to the Programming Chapter.

6.3.4 **Maximum Speed Indicator**

This displays the current maximum speed setting.

6.3.5 Digital Speed Display



This displays the actual speed of the wheelchair derived from the motors. The display can be set to mph or km/h.

These adjustments can be made in the OBP Menu.

6.3.6 Latched

When the control system is operating in a latched condition this symbol will be displayed.

6.3.7 Inhibit

If the speed of the wheelchair is being limited; for example, by a raised seat, then this orange symbol will be displayed.

If the wheelchair is being inhibited from driving, then this red symbol will be flashing.

:: Mode Screens ::

6.3.8 Actuator Mode

Displays the sections of the chair currently selected for movement, the name given to the selection and a direction arrow showing what sort of movement is available.

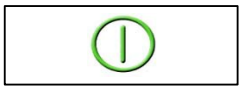
6.3.9 Bluetooth Mode

When Bluetooth Mode is entered the following screen will be displayed.

6.4 Message Window

The R-net displays warning icons and informational messages, in a dedicated message window.

6.4.1 Restart



When the control system requires a reboot; for example, after a module re-configuration, this symbol will be flashed.

6.4.2 Timer

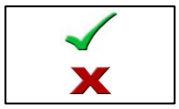
This symbol is displayed when the control system is changing between different states. An example would be entering into Programming Mode. The symbol is animated to show the sands falling.

6.4.3 Sleep

This symbol will be displayed for a short time before the R-net enters into a sleep state.

6.4.4 Cross & Tick

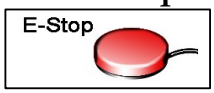
These symbols will be displayed during configuration procedures.



Process completed correctly.

Process not completed correctly.

6.4.5 E-stop



If the External Profile Switch is activated during drive, or actuator operation, this symbol will be displayed.

6.4.6 Joystick Displaced

If you operate the Joystick before or just after you switch the control system on, the screen will flash the joystick displaced screen.

You must release and center the Joystick to resume normal operation. If you do not release the Joystick within five seconds the wheelchair will not be able to move, even if you release the Joystick and operate it again. The screen will display a diagnostic screen at this time. You can reset this condition by switching the control system off and on again.

6.4.7 Control System Locked

The Control System can be locked in one of two ways. Either using a sequence of deflections and presses with a Joystick or with a physical Key. How the Control System is locked depends on how the wheelchair manufacturer has programmed it.

Refer to Section 5 for a detailed description of the Locking and Unlocking procedures.

6.4.8 Diagnostic Screen

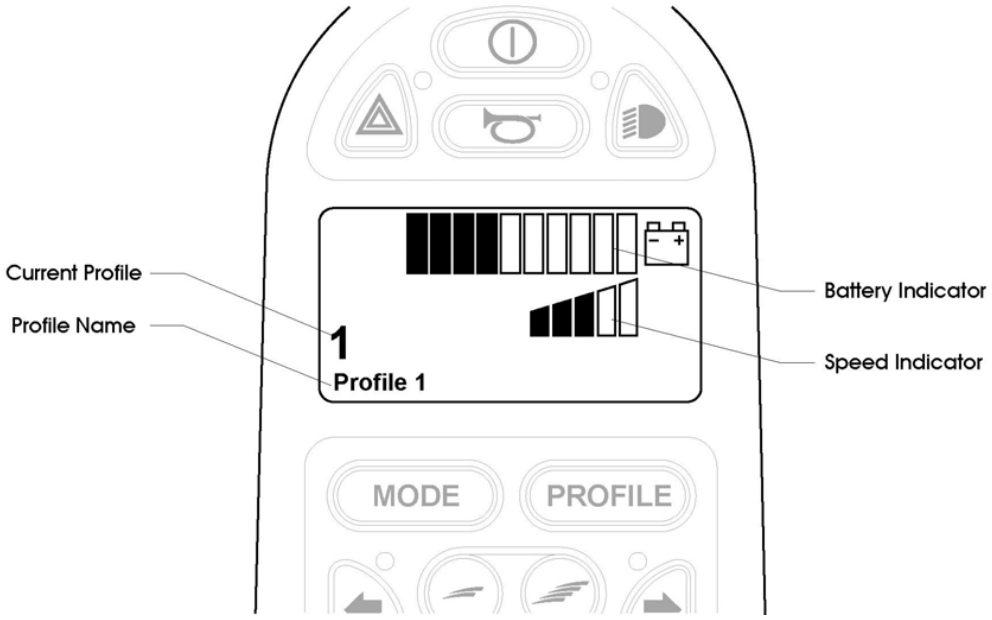
When the control system safety circuits have operated and the control system has been prevented from moving the wheelchair a diagnostics screen will be displayed.

This indicates a system trip, i.e. the R-net has detected a problem somewhere in the wheelchair's electrical system.

Refer to section 5 for a detailed description of Diagnostic screen and procedure. Refer to Chapter 5 Diagnostics for a complete description of the Trip Texts.

7 Getting Ready to Drive

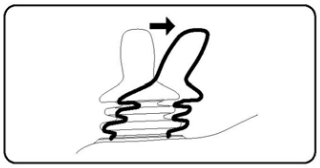
7 Operate the On/Off switch. The screen will go through an initializing process then show the base screen as follows. In the case on an LED Joystick Module the battery gauge will illuminate.



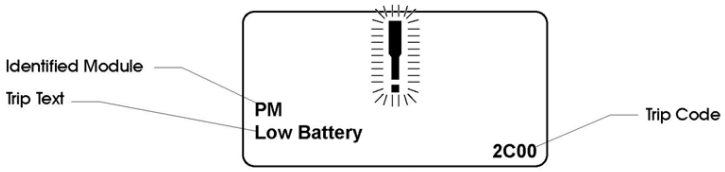
8 Check that the Speed Setting is at a level that suits you.

9 Push the joystick to control the speed and direction of the wheelchair.

If you push the joystick before or just after you switch the control system on, the screen will flash the joystick displaced screen. You must release and center the joystick to resume normal operation. If you do not release the joystick within five seconds the wheelchair will not be able to move, even if you release the joystick and push it again. The screen will display the diagnostic screen at this time. You can reset this condition by switching the control system off and on again.



If you do not push the joystick as you switch the wheelchair on and the diagnostic screen is displayed, as in the following diagram, then the R-net has detected a problem somewhere in the wheelchair's electrical system.



8 Settings Menu

The Settings Menu allows the user to adjust the CJSM display in terms of clock adjustment and display format, the brightness of the backlight, the background color and the behavior of the odometer. The menu is accessed by depressing the Speed Down and Speed Up buttons simultaneously. A typical Settings Menu display would be as below

Each of the menu items are described in the following sections.

8.1 Set Time

A right joystick deflection will enter a clock adjustment screen in which further joystick deflections are used to set the time.

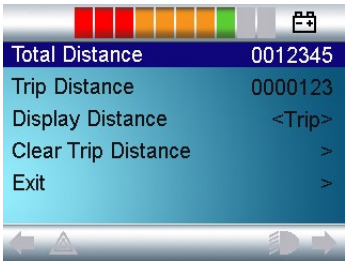
8.2 Display Time

This sets the format of the time display or turns it off.

The options are 12hr, 24hr or Off. Left and right joystick deflections are used to change between the options.

8.3 Distance

This sets the functionality of the odometer and a screen as below will appear.



Total Distance: This is a value held in the Power Module and relates to the total distance driven using that Power Module.

Trip Distance: This is a value held in the CJSM and relates to the total distance driven since the last reset.

Display Distance: Sets whether Total Distance or Trip Distance appears as the odometer display on the CJSM.
Clear Trip Distance: A right joystick deflection will clear the Trip Distance value.

Exit: A right joystick deflection will retune to the Settings Menu.

8.4 Backlight

This sets the intensity of the LCD backlight.

The adjustable range is 0% to 100% in steps of 10%. Adjustments are made with left and right joystick deflections.

8.5 Background

This sets the color of the screen background. Blue is the standard, but in very bright sunlight then a white background will make the display more visible.

The options are Blue, White and Auto. Left and right joystick deflections are used to change between the options.

Blue means the background will be blue in all Profiles.

White means the background will be white in all Profiles.

Auto means the color will be set by the programmable parameter, Background, which can be set to be different across the Profiles. For example, blue for the slower Profiles that are for indoor use and white for the faster Profiles intended for outdoor use. For more details of the parameter, Background, refer to the relevant section in the Programming chapter.

8.6 Exit

Exits the Settings Menu back to normal operation.

9 Tips for Using Your Control System

9.1 Driving - General

Make sure that the control system is mounted securely and that the joystick position is correct. The hand or limb you use to operate the joystick should be supported, for example by the wheelchair arm pad. Do not use the joystick as the sole support for your hand or limb - wheelchair movements and bumps could upset your control.

9.2 Driving Technique

The control system interprets your joystick movements and produces appropriate movements of your wheelchair. You will need very little concentration to control the wheelchair, which is especially useful if you are inexperienced. One popular technique is to simply point the joystick in the direction you want to go. The wheelchair will "home-in" on the direction you push the joystick.

The further you push the joystick away from the rest position, the faster the wheelchair will go. Releasing the joystick will stop the wheelchair.

The intelligent speed control system minimizes the effects of slopes and different types of terrain.

The wheelchair user must be capable of driving a wheelchair safely. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

9.3 Slow or sluggish movement

If the wheelchair does not travel at full speed or does not respond quickly enough, and the battery condition is good, check the maximum speed setting. If adjusting the speed setting does not remedy the problem then there may be a non-hazardous fault. Contact your service agent.

10 Precautions for Use

In the event of the wheelchair moving in an unexpected way RELEASE THE JOYSTICK. This action will stop the wheelchair under any circumstances.

10.1 Hazard

Do not drive the wheelchair:

- Beyond restrictions indicated in your wheelchair user manual, for example maximum inclines, curb height etc.
- In places or on surfaces where a loss of wheel grip could be hazardous, for example on wet grassy slopes.
- If you know that the control system or other crucial components require repair.

Although the R-net control system is designed to be extremely reliable and each unit is rigorously tested during manufacture, the possibility of a system malfunction always exists (however small the probability). Under some conditions of system malfunction the control system must (for safety reasons) stop the chair instantaneously. If there is any possibility of the user falling out of the chair as a result of a sudden braking action, it is imperative that a restraining device such as a seat belt is supplied with the wheelchair and that it is in use at all times when the wheelchair is in motion. PGDT accepts no liability for losses of any kind arising from the unexpected stopping of the wheelchair, or arising from the improper use of the wheelchair or control system.

Do not operate the control system if the chair behaves erratically, or shows abnormal signs of heating, sparks or smoke. Turn the control system off at once and consult your service agent. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

Electronic equipment can be affected by Electro Magnetic Interference (EMI). Such interference may be generated by radio stations, TV stations, other radio transmitters and cellular phones. If the chair exhibits erratic behavior due to EMI, turn the control system off immediately and consult your service agent. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

It is the responsibility of the chair manufacturer to ensure that the wheelchair complies with appropriate National and International EMC legislation. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

The wheelchair user must comply with all wheelchair safety warnings. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

11 Safety Checks

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

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

11.1 Daily Checks

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

11.2 Weekly Checks

Parking brake: This test should be carried out on a level floor with at least one meter clear space around the wheelchair.
Switch on the control system.
Check that the screen remains on after initialization and that the battery gauge is displaying a reasonable amount of charge.
Push the joystick slowly forwards until you hear the parking brakes operate. The chair move.
Immediately release the joystick. You must be able to hear each parking brake operate within a few seconds.
Repeat the test a further three times, pushing the joystick slowly backwards, left and

Connectors: Make sure that all connectors are securely mated.

Cables: Check the condition of all cables and connectors for damage.

Joystick gaiter: Check the thin rubber gaiter or boot, around the base of the joystick shaft, for damage or splitting, check visually only, do not handle the gaiter.

Mounting: Make sure that all the components of the control system are securely mounted. Do not any securing screws.

11.3 Servicing

To ensure continued satisfactory service, we suggest you have your wheelchair and control system inspected by your service agent after a period of 1 year from commencement of service. Contact your service agent for details when the inspection is due.

12 Battery Gauge

The battery gauge is included to let you know how much charge is left in your batteries. The best way for you to use the gauge is to learn how it behaves as you drive the wheelchair. Like the fuel gauge in a car, it is not completely accurate, but it will help you avoid running out of "fuel".

The battery gauge works in the following way:

When you switch on the control system, the battery gauge shows an estimate of the remaining battery charge. The battery gauge gives you a more accurate reading about a minute after you start driving the wheelchair.

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

The amount of charge in your batteries depends on a number of factors, including the way you use your wheelchair, the temperature of the batteries, their age and the way they are made. These factors will affect the distance you can travel in your wheelchair. All wheelchair batteries will gradually lose their capacity as they age.

The most important factor that reduces the life of your batteries is the amount of charge you take from the batteries before you recharge them. Battery life is also reduced by the number of times you charge and discharge the batteries.

To make your batteries last longer, do not allow them to become completely flat. Always recharge your batteries promptly after they are discharged.

If your battery gauge reading seems to fall more quickly than usual, your batteries may be worn out.

12.1 How to Read a Battery Gauge

If the battery gauge shows red, yellow and green, the batteries are charged. (Bars 1 – 10)

If the battery gauge shows just red and yellow, then you should charge the batteries as soon as you can. (Bars 1 – 7)

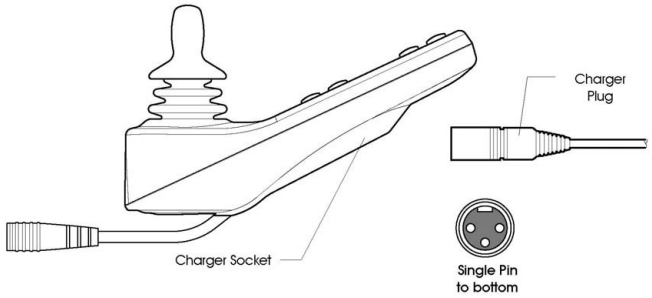
If the battery gauge shows just red, either steady or flashing slowly, then you should charge the batteries immediately. (Bars 1 – 3)

Do not operate the control system if the battery is nearly discharged. Failure to comply with this condition may leave the user stranded in an unsafe position, such as in the middle of a road. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

13 Battery Charging

To charge the wheelchair batteries connect the charger plug into the battery charger socket on the R-net JSM. You will not be able to drive the wheelchair when the charger is connected.

To connect the charger plug, ensure the single pin is at the bottom, as shown in the following illustration, then offer the charger plug to the R-net in a horizontal orientation. The molded guide on the R-net will help you to locate the plug. Ensure the plug is pushed fully in position.



Do not exceed the maximum charging current of 12Arms. Always use an off-board charger fitted with a Neutrik NC3MX plug. Failure to observe these conditions could result in poor contact resistance in the charger connector resulting in overheating of the charger plugs. This presents a potential burn hazard for the user. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

Ensure that the charger plug pins are of the correct polarity to be compatible with the pin polarity shown on the control system's specific data sheet. Failure to observe this condition could result in a burn hazard or fire hazard. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

Do not disconnect batteries or open-circuit the circuit breaker while charging is in progress. Failure to observe this condition could result in a burns hazard or fire hazard. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

Only use the battery charger that has been supplied with your wheelchair. The use of incorrect chargers could damage the batteries, wheelchair, control system or charger itself, or may result in parts overheating creating the potential for burns or even fire. PGDT accepts no liability for losses of any kind if the charger is incompatible with the control system (see Chapter 2, section 7) or any other part of the wheelchair system.

14 Programming

The control system can be programmed to meet your needs. Programming can be performed using the OBP (On-board Programming) feature or the specialist R-net software and Dongle or the Diagnostic Test Toll (DTT).

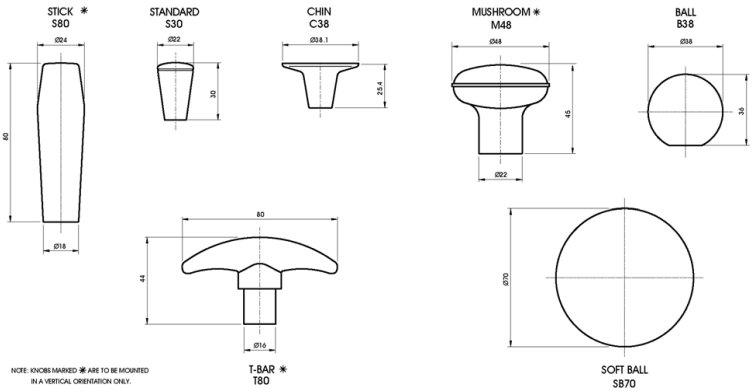
If you re-program your control system, make sure that you observe any restrictions given in your wheelchair user manual. Note any changes you make for future reference.

Programming should only be conducted by healthcare professionals with in-depth knowledge of PGDT electronic control systems. Incorrect programming could result in an unsafe set-up of a wheelchair for a user. PGDT accepts no liability for losses of any kind if the programming of the control system is altered from factory preset values.

15 Joystick Knobs

The knob fitted to your joystick is suitable for most applications. If you would prefer another type, there is a range of alternatives available. Please contact your wheelchair distributor or manufacturer for advice. Do not replace the joystick knob with any unauthorized item - it may cause hazardous operation.

Do not replace the joystick knob with any unauthorized item It may cause hazardous operation. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.



16 Servicing

All repairs and servicing must be carried out by authorized service personnel. Opening or making any unauthorized adjustments or modifications to the control system or its components will invalidate any warranty and may result in hazards to yourself or other people, and is strictly forbidden.

PGDT accept no liability for losses of any kind arising from unauthorized opening, adjustment or modifications to the R-net control system.

If the control system is damaged in any way, or if internal damage may have occurred through impact or dropping, have the product checked by qualified personnel before operating. PGDT accepts no liability for losses of any kind arising from failure to comply with this condition.

17 Warranty

The R-net control system is covered by a warranty period defined by the wheelchair manufacturer. For details of the warranty period, please contact your service agent.

The warranty will be void if the R-net control system has:

a. Not been used in accordance with the R-net control system Technical Manual, SK77981.
b. Been subject to misuse or abuse.
c. Been modified or repaired by non-authorized persons.

The warranty will be void if the R-net has not been used in accordance with Technical Manual SK79668, the R-net has been subject to misuse or abuse, or if the R-net has been modified or repaired by unauthorized persons.