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Components

1. Mainframe with Motor
2. Rehab Seat
3. Headrest
4. Seat Belt
5. Armrest Set
6. Controller (Joystick)
7. Charger
8. Captain Seat (optional)



Charger

Safety Instructions

Operation of Chair

1. Always ensure that the power is switched off when getting in or out of the power wheelchair. This will eliminate the possibility of accidentally activating the joystick and causing injury to yourself or others.
2. Always check that the drive wheels are engaged (drive mode) before driving.
3. Set the speed control knob according to your driving ability and the environment in which you are going to operate. We recommend that you keep your speed at the slowest position (fully press the deceleration button) until you are familiar with the driving characteristics of the power chair. We also recommend that you use the slowest speed when using your power wheelchair indoors.
4. Always reduce your speed when making sharp turns.
5. Do not switch off the power when the wheelchair is still moving forward. This will bring the chair to an extremely abrupt stop.
6. Avoid jerky stop, start motions as it will result in excessive current draw from the batteries, increased tire wear and the rapid wearing of the gearboxes and motors.
7. To brake in an emergency, simply release the joystick.

Ramps and Curbs

8. When driving up or down ramps, be sure to check that the angle of the slope is less than 10 degrees. Also check that the ramp surface is roughened to prevent slipping. Never drive across a slope or turn sharply on a slope.
9. When driving up curbs, always check the height of the curb to ensure that it does not exceed 1-1 1/2" (40mm) height.

Transfer, Reaching and Bending

10. Transferring on and off the power chair requires a good sense of balance. To eliminate the possibility of injury, we recommend performing the following tasks before attempting a transfer:
 - Position chair so that the distance between your power chair and the object to which you are transferring is close enough for a safe transfer.
 - Turn the power off.
 - Ensure that your power chair is not in freewheel mode.
 - Flip up or remove armrests.
 - Flip up footplate or remove footrests.
 - Turn both caster wheels towards the transfer direction to improve power chair stability during transfer.

11. When reaching, bending or leaning while seated on your power chair, make sure that you maintain a stable center of gravity to keep the power chair from tipping.

General

12. Always use a seat belt, and keep feet on the footplate at all times.
13. For safety reasons, make sure that your weight does not exceed the recommended weight limit of the wheelchair. Consult your dealer for the specified weight limits for your particular model.
14. Do not attempt to lift or move a power chair by any of its removable parts, it may cause personal injury and damage to the power chair.
15. Do not stand on the footplate directly.
16. Never try to use your wheelchair beyond its limitation as described in this manual.
17. Do not operate your power chair if it is not functioning properly.
18. Do not connect any electrical or mechanical device to the vehicle. Failure to obey these instructions may result in injury and will void the warranty.
19. Never use electronic radio transmitters such as CD, walkie-talkies, portable computers or cellular phones while using the power chair. First turn the power chair off.

Use While Under The Influence Of Medication or Alcohol

20. Check with your physician if you are taking any medication that may affect your ability to operate your power wheelchair safely.
21. Do not operate your power chair while you are under the influence of alcohol, as this may impair your ability to operate your power chair in a safe manner.

Electromagnetic interference (EMI) from Radio Wave Sources

The rapid development of electronics, especially in the area of communications, has saturated our environment with electromagnetic (EM) radio waves that are emitted by televisions, radios and communication signals. These EM wave are invisible and their strength increases as one approaches the source. All electrical conductors act as antennas to the EM signals and, to varying degrees, all power wheelchairs are susceptible to electromagnetic interference (EMI). The interference could result in abnormal, unintentional movement and or erratic control of the power chair. The United States food and Drug Administration (FDA) suggests that the following statement be incorporated to the user's manual for all power wheelchairs. Power wheelchairs may be susceptible to electromagnetic interference (EMI), which is interfering electromagnetic energy emitted from sources such as radio stations, TV stations amateur radio transmitter, two-way radios and cellular phones. The interference can cause the powered wheelchair to release its brakes, move by itself or move in unintended directions. It can also permanently damage the power wheelchair control system. The intensity of the EM energy can be measured in volts per meter (V/M) each powered wheelchair can resist EMI up to certain intensity. This is called "immunity level". The higher the immunity level, the great the protection. At this time, current technology is capable of providing at least 20 V/M of immunity level, which would provide useful protection against common sources of radiated EMI.

Following the warnings listed below should reduce the chance of unintended brake release or powered wheelchair movement that could result in serious injury:

1. Do not turn on hand-held personal communication devices such as citizens band (CB) radios and cellular phones while the powered wheelchair is turned on.
2. Be aware of nearby transmitters such as radio or TV stations and try to avoid coming close to them.
3. If unintended movement or brake release occurs, turn the powered wheelchair off as soon as it is safe.
4. Be aware that adding accessories or components, or modifying the powered wheelchair, may make it more susceptible to interference from radio wave sources (Note: It is difficult to evaluate the effect on the overall immunity of the powered wheelchair)
5. Report all incidents of unintended movement or brake release to the powered wheelchair manufacturer, and not whether there is a radio wave source nearby.

TURN OFF YOUR POWERED WHEELCHAIR AS SOON AS POSSIBLE WHEN EXPERIENCING THE FOLLOWING:

- Unintentional motions.
- Unintended or uncontrollable direction.
- Unexpected brake release.

The FDA has written to the manufacturers of power wheelchairs asking them to test new products to be sure they provide a reasonable degree of immunity against EMI. The FDA requires that a powered wheelchair should have an immunity level of at least 20 V/M, which provides a reasonable degree of protection against more common sources of EMI. The higher the immunity level, the greater the protection. Your powered wheelchair has an immunity level of 20 V/M which should protect against common sources of EMI.

Environmental Conditions

Environmental conditions may affect the safety and performance of your power wheelchair. Water and extreme temperatures are the main elements that can cause damage and affect performance.

A) Rain, and Snow

If exposed to water, your power wheelchair is susceptible to damage to electronic or mechanical components. Water can cause electronic malfunction or promote premature corrosion of electrical components and frame.

B) Temperature

Some of the parts of the power wheelchair are susceptible to change in temperature. The controller can only operate in temperatures that range between -8C - 40C.

At extreme low temperatures, the batteries may freeze, and your power wheelchair may not be able to operate. In extreme high temperatures, it may operate at slower speeds due to a safety feature of the controller that prevents damage to the motors and other electrical components.

Operation

The power wheelchair is simple to operate. However, we recommend that you read carefully the following instructions to become familiarized with your new power wheelchair.

A Word of Caution:

Before you turn the power on, always be aware of the environment that surrounds you to select your desired speed. For indoor environments we recommend that you select the slowest speed setting. For outdoor operation of your power wheelchair we recommend that you select a speed that is comfortable for you to control its safely.



Driving:

1. **Controller ON/OFF Switch**
Press the ON/OFF buttons (I/O) switch located in front of the joystick to activate your power wheelchair. The battery condition meter will light up to indicate the current charge of your battery. Pressing the ON/OFF button again will deactivate the controller.
2. **Speed Control**
The speed control buttons allow you to set the forward speed to your desired setting. Pressing the speed increasing button will set the speed at the faster settings while the speed will slow down if you press the speed decreasing button. The controller sets the reverse speed, acceleration and deceleration proportionally and automatically for your safety.
3. **Joystick**
The joystick controls the direction, speed, and tilt degree of your power wheelchair, pointing the joystick away from the neutral position (center), will move the vehicle in the direction where the joystick is pointing. The farther away (forward/backward) the joystick is from the neutral position, the faster the power chair will go. The farther away to the right/left the joystick is pointing, the sharper the turn of the vehicle will be. The farther away to the front/back the

joystick is pointing, the tilt angle of the seat of the power wheelchair will be. To operate the power chair by pushing gently the joystick in the direction you want to go. Returning the joystick to its neutral position (center) will reduce the speed and stop the vehicle by automatically applying the electromagnetic brakes.

Notes:

- After pressing the controller ON/OFF switch, allows two seconds to elapse before engaging the joystick. This is a safety feature to prevent sudden start.
- Gentle operation of the joystick will result in smoother transition in speed and direction, while sharp operation of the joystick will result in drastic transition in direction and velocity.
- When the wheelchair is in operation, the surface of the charger will become slightly hot.
- In case of emergency, let go of the joystick and the chair will come to a stop.
- There is a safety design called inhabit switch device on the power wheelchair. The drive power will be off automatically when the user sits on the vehicle and uses the tilt function exceed a cert angle.

Warning: The tilt angle adjustment range is from 0 to 45 for your power wheelchair. Never stop tilting if you keep the joystick far away until it has reached maximum degree. Only adjust the comfortable angle when you use tilt function then stop for safety.

A. Controller Display

The controller display is a multifunction visual display. It can provide five types of information's: 1) ON/OFF status, 2) Battery Condition Meter, 3) Horn, 4) Acceleration, 5) Deceleration Buttons, 6) Tilt Function.

1. ON/OFF Status

When the power is on, the controller's LED will be lit up. If the LED is not lit, the controller is OFF.

2. Battery Condition Meter

The battery condition meter is composed of 10 segments (three of red, four of yellow, and three of green). It enables you to monitor battery charge. The battery condition meter indicates the approximate amount of battery charge left.

- Red, yellow and green LEDs indicate that the batteries are fully charged
- Red and yellow LEDs indicate that you should charge the batteries if possible
- Red LEDs indicate that you should charge the batteries as soon as possible, because low battery voltage may cause your power wheelchair to become inoperative.

B. Controller Position Adjustment

You can adjust the controller position easily by rotating the controller supporter.



C. Free-Wheeling:

Because the motors are designed to engage the electromagnetic brakes when the power wheelchair is not in use or when the power is OFF, they also have a manual feature that allows them to “free-wheel”. Free-wheeling is accomplished by turning the free-wheeling levers to the freewheeling position.



Warning!

- Never free-wheel your power wheelchair on a slope.
- Never free-wheel the motors while operating your power wheelchair.
- Always remember to engage the motors before turning the power back ON.

Note: The free-wheeling lever is designed by special construction to operate when you want to disengage the electromagnetic brakes. Please press the end cap and rotate the lever when disengage.

D. Electromagnetic Brakes:

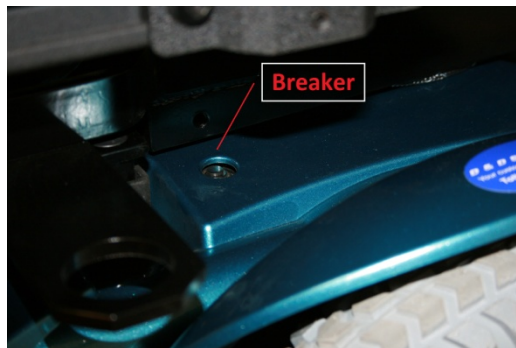
Your power wheelchair comes with an Electromagnetic Brakes, i.e. an automatic magnetic disc safety brake which is also known as Fail-Safe brakes. The Electromagnetic Brakes are automatic and work when the power wheelchair is ON but in a steady state (e.i. Joystick is released to the neutral position), even when the chair is on a slope. The electromagnetic Brakes will also be set whenever the power wheelchair is OFF, but the motor levers are in the engaged (vertical) position.

Note: Please refer to the section titled to check brakes in the Maintenance & Repair section to make sure your brakes are in good condition.

E. Thermal Protection:

Your Power wheelchair controller is equipped with a safety system called thermal rollback. A built-in circuit monitors the temperature of the controller and motors; the controller reduces the motor voltage and speed of the power wheelchair. The reduction of the speed allows the electrical components to cool down. Although your power wheelchair will resume its normal speed when the temperature returns to a safe level, we recommend that you turn the power off and wait for 5 minutes before restarting to allow the components to cool down if you find that you have lost speed suddenly.

F. Main Circuit Breaker:



The main circuit breaker monitors the electric current drawn from the battery. It is a safety feature built in your power wheelchair for your extra safety. When the batteries and motors are heavily strained (e.g., from excessive loads), the main circuit breaker will trip to prevent damage to the motors and the electronics. If the circuit breaker trips, wait for approximately one minute and then depress the button to reset it. Then turn on the controller power, and continue normal operation. If the main circuit breaker continues to trip repeatedly, contract your authorized dealer.

Batteries & Charger

Battery

We recommend that you use deep-cycle batteries that are sealed and maintenance free for your power wheelchair. Both sealed lead-acid (SLA) and gel cell are deep-cycle batteries and are similar in performance. Deep-cycle batteries are specifically designated to provide power, drain down, and then accept a relatively quick recharge. Lead-acid batteries should be charged as often as possible.

Specification of the battery that we recommend as:

Type: Deep-cycle sealed lead-acid or gel cell

Size: 50AH, 80AM

Voltage: 12V each

Depending on the use, terrain and driving condition, the batteries will provide a range of 40 miles of travel. However, even if the power chair is not in use, we recommend that the batteries are charged periodically.

Note:

- Do not use any automotive batteries. They are not designed to handle a long, deep discharge and also are unsafe for use in power chairs.
- The useful life of a battery is quite often a reflection of the care it receives.

Charger

The battery charger takes the standard wall outlet voltage (alternating current) and converts it into VDC (direct current). The batteries use direct current to run your power chair. When the batteries are fully charged, the amperage from the charger is almost zero. This is how the charger maintains a charge but does not over charge the battery.

Note: The batteries cannot be charged after they are discharged to nearly zero voltage.

Charging Instruction

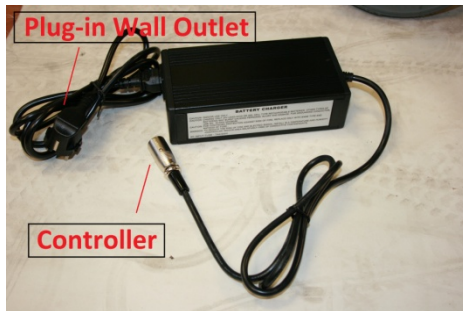
To recharge the batteries, follow the steps below:

- Place your power wheelchair close to a standard electrical wall outlet.
- Turn the controller power OFF
- Plug the charger power cord (Round Head) into the controller

- Plug the charger power cord into a standard wall outlet. A red and a yellow (if battery charge is low) LED's will illuminate
- When charging is completed, the yellow LED will turn green
- Disconnect the charger power cord from the wall outlet when the batteries are fully charged.

Important!

Do not use for voltage input unless specified. Make sure your present voltage input (110V or 220V) and adjust manually.



Note:

- Always charge your batteries in well ventilated areas.
- The charger is intended for indoor use only. Protect from moisture.
- For maximum performance, it is recommended that you replace both batteries at the same time if the batteries are weak.
- If the chair will not be used for a long period of time, arrange to have the batteries fully charged for the least once every month.

According to the battery type and condition of the batteries, they usually can be fully charged in 4-10 hours. This will be indicated when the status light in the battery charger side panel turns green. Charging the battery longer than necessary will not harm the battery. We recommend that you charge the batteries for 8-10hours after daily use. Do not charge the batteries for more than 24 hours.

Maintenance & Repair

Your power wheelchair is designed for minimal maintenance. However, like any motorized vehicle it requires routine maintenance. To keep your power chair for years of trouble-free operation, we recommend you follow the maintenance checks as scheduled.

Daily Checks

1. With the controller turned OFF, perform a joystick check. Make sure it is not bent or damaged and that it returns to center when you release it. Visually inspect the rubber boot around the base of the joystick for damage. Do not handle or try to repair it.
2. Visually inspect the controller harnesses. Make sure that they are not frayed, cut or have any exposed wires.
3. Inspect the battery condition meter on the controller to determine if batteries need to be charged.

Weekly Checks

1. Inspect the connection by disconnecting the controller and charger harnesses from the electronics connector housing. Look for signs of corrosion.
2. Ensure that all parts of the controller system are securely fastened to your power wheelchair. Do not over tighten any screws.
3. Check for proper tire inflation. Your power wheelchair comes with standard flat-free solid tires. If your power wheelchair comes with option air tires, make sure to maintain the pressure of the tires between 30-35psi.
4. Check the brakes. This test should be carried out on a level surface with at least three feet of clearance around your power wheelchair.

To check the brakes (your power wheelchair may move slightly when performing this test)

- Turn on the controller and turn down the speed and response adjustment knob.
- After one second, check that the battery condition meter remains on condition.
- Slowly push the joystick forward until you hear the parking brakes operates within a few seconds of joystick release.
- Repeat this test of the brake for the back, left and right joystick positions.

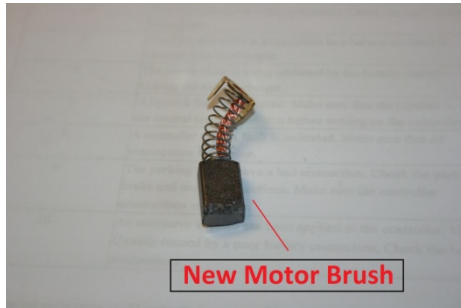
Semi-Annual Checks

1. Check the motor brushes. We recommend that your authorized dealer inspects the bushes every six months or sooner if your power wheelchair is not operating smoothly. If inspection determines excessive wear on the brushes, they must be replaced or motor damage will result.

Warning! Failure to maintain the brushes could void the power wheelchair warranty.

To inspect or replace the motor brushes:

1. Unscrew the motor brush caps.
2. Remove the brushes.
3. Inspect the brushes for wear.
4. Replace the brushes if necessary.



1. Inspect the state of the battery terminals every six months. Make sure that they are not corroded and the connections are tight. Periodically apply a thin film of petroleum jelly on the surface of the terminals to guard against corrosion.

Periodical Checks

1. Make sure to keep the controller clean while protecting it from rain or water. Never hose off your power wheelchair or place it in direct contact with water.
2. Keep wheels free from lint, hair, sand and carpet fibers.
3. Visually inspect the tire tread. If it's less than 1/32", please have your tires replaced by your local dealer.
4. All upholstery can be washed with warm water and mild soap. Occasionally check the seat and back for sagging, cuts, tears and replace if necessary. Do not store your chair in damp conditions as this will lead to mildew and rapid deterioration of the upholstery parts.
5. All moving mechanism will benefit from simple lubrication and inspection. Lubricate using petroleum jelly or light oil. Do not use too much oil, otherwise small drips could stain and damage carpets and furnishings etc. Always perform a general inspection of the tightness of all nuts and bolts.

If you get one of these error codes, contact your local dealer:

Flashing Lights:

Diagnosis and Solutions:

- 1 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.
- 2 The left motor has a bad connection. Check the left motor connection.

- 3 The left motor has a short circuit to a battery connection. Contact your local dealer.
- 4 The right motor has a bad connection. Check the right motor connection.
- 5 The right motor has a short circuit to a battery connection. Contact your local dealer.
- 6 The power chair is being inhibited by the battery charger. Unplug the battery charger.
- 7 A joystick fault is indicated. Make sure that the joystick is in the center position before turning on the controller.
- 8 A controller system fault is indicated. Make sure that all connections are secure.
- 9 The parking brakes have a bad connection. Check the parking brake and motor connections. Make sure the controller connections are secure.
- 10 An excessive voltage has been applied to the controller. This is usually caused by a poor battery connection. Check the battery connections.

The following symptoms could indicate serious problems with your power wheelchair. Contact your local dealer if any of the following arises:

1. Motor noise
2. Frayed harnesses
3. Cracked or broken connectors
4. Uneven wear on any tires
5. Jerky motion
6. Pulling to one side
7. Bent or broken wheel assemblies Does not power up
8. Powers up, but does not move

Care and Maintenance

Storage

- Your power chair should be stored in a dry place, free from extreme temperature. When storing, disconnect the batteries from the power chair.
- If you fail to store the unit properly, the frame can rust and the electronics can be damaged.
- Batteries that are regularly and deeply discharged, infrequently charged, stored in extreme temperatures, or stored without a full charge may be permanently damaged, causing unreliable performance and limited service life. It is recommended that you charge the batteries periodically throughout periods of prolonged storage to ensure proper performance.
- You may wish to place several boards under the frame of your power chair to raise it off of the ground during periods of prolonged storage.

Disposal of your Power Chair

- Your power chair must be disposed of according to applicable local and national statutory regulations. Contact your local waste disposal agency or authorized dealer for information on proper disposal of power chair packaging, metal frame components, plastic components, electronics, batteries, neoprene, silicone, and polyurethane materials.

Cleaning and Disinfection

- Use a damp cloth and mild, non-abrasive cleaners to clean the plastic and metal parts of your power chair. Avoid using products that may scratch the surface of your power chair.
- If necessary, clean your product with an approved disinfectant. Make sure the disinfectant is safe for use on your product before application.
- Follow all safety instructions for the proper use of the disinfectant and/or cleaning agent before applying it to your product. Failure to comply may result in skin irritation or premature deterioration of upholstery and/or power chair finish.

Wheel Replacement

- If you have pneumatic tires and you have a flat tire, replace the tube. If your chair is equipped with a solid tire insert, then you must replace the whole wheel assembly. Replacement tires, tubes, and wheel assemblies are readily available through your authorized dealer. The wheels on your power chair should only be serviced or replaced by an authorized dealer. Be sure that the power to controller is turned off and the power chair is not in freewheel mode before performing this procedure. When changing a tire, remove only the center lug nut and washer then remove the wheel. If any further disassembly is required, deflate the tire completely or it may explode.

Battery Replacement

- A battery wiring diagram is printed on a decal located on the power base.
- Battery posts, terminals, and related accessories contain lead and lead compounds. The batteries in your power chair should only be serviced or replaced by a qualified technician.
- Do not replace batteries when seat is occupied.
- Do not mix old and new batteries. Always replace both batteries at the same time.
- Keep tools and other metal objects far away from the battery terminals. Contact with tools can cause electrical shock.

When to Contract your Authorized Dealer for Service

The following symptoms could indicate a serious problem with your power chair. If necessary, contact your authorized dealer. When calling, have the model number, serial number, nature of the problem, and the error code if available.

- Motor noise
- Frayed harnesses
- Cracked or broken connectors
- Uneven wear on any of the tires
- Jerky motion
- Pulling to one side
- Bent or broken assemblies
- Does not power up
- Powers up, but does not move.

Corrective Maintenance

If the battery condition meter does not light up when you turn on the power:

- Check the harness connections. Make sure they are tight.
- Check the circuit breaker. Reset it if necessary.
- Check the battery connections.

If the above conditions prove normal, you can load test the batteries with a battery load tester. These testers are available to automotive parts stores. Disconnect both batteries before load testing and follow the directions that come with the load tester. If either one of the batteries fails the load test, replace both of them. If your power chair still does not power up, contact your authorized dealer.

Product Specifications

Model:	G2 Chinook
Weight Capacity:	350lbs (160kgs)
Seat: Type/Size	Rehab Seat: 16" - 22"
Drive Wheels:	14" x 3"
Front Caster (Wheel):	6" x 2"
Rear Caster (Anti-Tipper):	6" x 2"
Max Speed:	10km
Battery Specifications:	12V 50Ah
Battery Range:	18miles
Charger Type:	5Amp, Off Board 120/240 Volts
Controller Type:	VR2 90AMP R-Net
Motor Type:	5100RPM 500W
Weight: w/Battery	Rehab w/ Tilt: 277 lbs
Turning Radius:	19.6"
Suspension:	Drive Wheel / Front Caster
Length:	36.5"
Width:	23.5"
Height:	43"
Seat Height:	Rehab w/Tilt: 20.5" Low 18.5"