BASIC OPERATION INSTRUCTIONS

Remote Plus™ Controller

ACN# 088 609 661

Pride Mobility Products Corp.
INFORMATION LABELING

The symbols below are used throughout this owner's manual and on the power chair to identify warnings and important information. It is very important for you to read them and understand them completely.

**WARNING!** Indicates a potentially hazardous condition/situation. Failure to follow designated procedures can cause either personal injury, component damage, or malfunction. On the product, this icon is represented as a black symbol on yellow triangle with black border.

**MANDATORY!** These actions should be performed as specified. Failure to perform mandatory actions can cause personal injury and/or equipment damage. On the product, this icon is represented as a white symbol on a blue dot with a white border.

**PROHIBITED!** These actions are prohibited. These actions should not be performed at any time or in any circumstances. Performing a prohibited action can cause injury to personnel and/or damage to equipment. On the product, this icon is represented as a black symbol with a red circle and a red slash.

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Read and follow the information in the owner's manual.

Avoid exposure to rain, snow, ice, salt, or standing water whenever possible. Maintain and store in a clean and dry condition.

Disposal and recycling - Contact your authorized Pride Provider for information on proper disposal and recycling of your Pride product and its packaging.

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Remote Plus Controller www.pridemobility.com
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INTRODUCTION

WELCOME to Pride Mobility Products Corporation (Pride). The product you have purchased combines state-of-the-art components with safety, comfort, and styling in mind. We are confident that the design features will provide you with the conveniences you expect during your daily activities. Understanding how to safely operate and care for this product should bring you years of trouble free operations and service.

Read and follow all instructions, warnings, and notes in this manual and all other accompanying literature before attempting to operate this product for the first time. In addition, your safety depends upon you, as well as your provider, caretaker, or healthcare professional in using good judgement.

This manual is to be used in addition to the power base owner's manual that came with your power chair. If there is any information in this manual which you do not understand, or if you require additional assistance for setup or operation, please contact your authorized Pride Provider. Failure to follow the instructions, warnings, and notes in this manual and those located on your Pride product can result in personal injury and/or product damage and will void Pride's product warranty.

PURCHASER’S AGREEMENT

By accepting delivery of this product, you promise that you will not change, alter, or modify this product or remove or render inoperable or unsafe any guards, shields, or other safety features of this product; fail, refuse, or neglect to install any retrofit kits from time to time provided by Pride to enhance or preserve the safe use of this product.

INFORMATION EXCHANGE

We want to hear your questions, comments, and suggestions about this manual. We would also like to hear about the safety and reliability of your new Pride product, and about the service you received from your authorized Pride Provider. Please notify us of any change of address, so we can keep you apprised of important information about safety, new products, and new options that can increase your ability to use and enjoy your Pride product.
NOTE: If you ever lose or misplace your product registration card or your copy of this manual, contact us and we will be glad to send you a new one immediately.

My authorized Pride Provider is:

Name: ______________________________________________________

Address: ____________________________________________________

Phone Number: ______________________________________________

Purchase Date: ______________________________________________

REMOTE PLUS CONTROLLER
The Remote Plus Controller is a fully-programmable, modular electronic controller system that allows you to operate your power chair. It is designed to allow the user to have complete control over chair movement and speed.

The controller has been pre-programmed to meet a typical user’s needs. The program is set using either a personal computer with software provided by the controller manufacturer or with a hand-held programmer, also provided by the controller manufacturer.

**WARNING!** The controller program can affect speed, acceleration, deceleration, dynamic stability, and braking. If it is programmed incorrectly or outside of the safe limits as determined by your healthcare professional, it can create a dangerous situation. Only the power chair manufacturer, an authorized representative of the manufacturer, or a trained service technician should program the controller.

PRECAUTIONARY GUIDELINES
Before operating the Remote Plus Controller, please read the following. These guidelines are provided for your benefit and will aid you in the safe operation of the controller system.

- Turn off the power to the controller when transferring to or from your power chair.
- Follow all of the procedures and heed the warnings as explained in your power chair owner’s manual.

**Failure to heed the above warnings can result in personal injury and/or equipment damage.**
Electromagnetic and Radio Frequency Interference (EMI/RFI)

WARNING! Laboratory tests have shown that electromagnetic and radio frequency waves can have an adverse affect on the performance of electrically-powered mobility vehicles.

Electromagnetic and Radio Frequency Interference can come from sources such as cellular phones, mobile two-way radios (such as walkie-talkies), radio stations, TV stations, amateur radio (HAM) transmitters, wireless computer links, microwave signals, paging transmitters, and medium-range mobile transceivers used by emergency vehicles. In some cases, these waves can cause unintended movement or damage to the control system. Every electrically-powered mobility vehicle has an immunity (or resistance) to EMI. The higher the immunity level, the greater the protection against EMI. This product has been tested and has passed at an immunity level of 20 V/m.

WARNING! Be aware that cell phones, two-way radios, laptops, and other types of radio transmitters may cause unintended movement of your electrically-powered mobility vehicle due to EMI. Exercise caution when using any of these items while operating your mobility vehicle and avoid coming into close proximity of radio and TV stations.

WARNING! The addition of accessories or components to the electrically-powered mobility vehicle can increase the susceptibility of the vehicle to EMI. Do not modify your power chair in any way not authorized by Pride.

WARNING! The electrically-powered mobility vehicle itself can disturb the performance of other electrical devices located nearby, such as alarm systems.

NOTE: For further information on EMI/RFI, go to the Resource Center on www.pridemobility.com. If unintended motion or brake release occurs, turn your controller off as soon as it is safe to do so. Call Pride or your authorized Pride Provider to report the incident.
Remote Plus Controller Features

Figure 1 provides information on the Remote Plus components and connections. Use this diagram to familiarize yourself with the function and location of each component before using the Remote Plus Controller.

The following functions are available with the Remote Plus Controller:

- **Joystick Control**
  The joystick is used to control the direction and speed of the power chair.

- **Actuator Adjustment**
  The user can control positioning of power accessory actuators with the Remote Plus.

- **Drive Profile Selection**
  The user can select one of five available drive profiles.

- **Speed Adjustment**
  The user can increase or decrease the maximum speed of the power chair.

- **Sleep Mode**
  This feature is designed to preserve battery charge, and can be disabled through programming.

- **Thermal Rollback**
  This is a safety feature designed to prevent the power chair from overheating and causing damage to the motors or controller.

**NOTE:** The Remote Plus can be programmed to have up to five drive profiles or one drive profile and five speed adjustments.
Figure 1. Remote Plus Components and Connections (3-Key Shown)
OPERATING THE REMOTE PLUS CONTROLLER
The Remote Plus Controller is used to operate your power chair and all of its components.

The Remote Plus controller consists of (see figure 2):
1. joystick
2. keypad
3. controller communications connector
4. 3-pin off-board charger/programming socket
5. power module
6. intermediate harness with charger connection

Joystick Control
The joystick controls the direction and speed of your power chair. When you move the joystick from the neutral (center) position, the electromagnetic brakes release and allow your power chair to move. The farther you push the joystick from its neutral position, the faster your power chair moves. When you release the joystick and allow it to return to the neutral position, you engage the electromagnetic brakes. This causes your power chair to decelerate and come to a complete stop.

Keypad
The keypad is located directly in front of the joystick. It contains keys that you will use to control your power chair. See figures 3 and 4.

On/Off Key
The on/off key turns the system on and off.

WARNING! Unless faced with an emergency situation, do not use the on/off key to stop the chair. This will cause the power chair to stop abruptly.

WARNING! Always turn the power off when you are stationary to prevent unexpected movement.
Figure 2. Remote Plus Controller

Figure 3. 3-Key Controller Keypad

Figure 4. 7-Key Controller Keypad

*These are optional accessories. Please contact your authorized Pride Provider for more information.
Mode Key (Speed Settings)
The mode key controls the speed settings. The Remote Plus speed settings range from 1 to 5. Typically, the slowest speed setting is 1 and the fastest speed setting is 5. The settings are indicated by the number of lights that are lit on the speed setting indicator.

*NOTE:* The speed settings are preset at the factory. If your authorized Pride Provider changes the order of these settings, please make note of these changes. Contact your authorized Pride Provider for more information.

*NOTE:* Profiled joysticks function differently than those without profiles. If your power chair was programmed with more than one drive profile, contact your authorized Pride Provider for more information regarding operation.

Horn Key
The horn key activates a warning horn.

Battery Condition Meter
The battery condition meter is a 10-segment illuminated display located in front of the joystick. When the lights are on, it indicates that there is power to the Remote Plus. The lights also indicate battery status, Remote Plus operational status, and electrical system status.

- **Red, yellow, and green lights lit:** Batteries charged; controller and electrical system OK.
- **Red and yellow lights lit:** Charge batteries if possible; controller and electrical system OK.
- **Red lights only lit or slow flash:** Charge batteries as soon as possible; controller and electrical system OK.
- **Rapid flash of lights:** The Remote Plus has detected a problem in the electrical system and power chair drive operation is inhibited. Refer to “Fault Codes.”
- **Ripple up and down of lights:** The joystick was not in the neutral position when the controller was turned on. If you get “ripple up and down of lights,” turn off the controller and allow the joystick to return to the neutral position, then turn on the controller.
NOTE: If you still get “ripple up and down of lights,” contact your authorized Pride Provider.

NOTE: When the batteries approach a discharged state, the red lights will begin to slowly flash, reminding you the batteries need to be charged immediately!

Right/Left Turn Indicator Keys (For Optional Equipment)
The right/left turn indicator keys toggle either the left or right turn indicators. Press once to turn on and press again to turn off. You can also turn off the selected turn indicator by pressing the opposite indicator key or the hazard key.

Light Key (For Optional Equipment)
The light key turns the headlights/tailights on and off independent of other indicators.

Hazard Key (For Optional Equipment)
The hazard key activates both turn indicators at the same time. You can only cancel this by pressing the hazard key again.

Power Accessory Indicator (For Optional Equipment)
Indicates the selected power accessory. This is for optional accessories only.

NOTE: If your power chair is equipped with power accessories such as a power elevating seat or power elevating leg rests, you can operate them through the keypad and joystick. Refer to “Actuator Adjustment.”

3-PIN OFF-BOARD CHARGER/PROGRAMMING SOCKET
You may use an off-board charger to charge your power chair batteries through the 3-pin socket located on the front of the Remote Plus. See figure 5. If you use an off-board charger, the charger current should not exceed 8 amps. Contact your authorized Pride Provider for more information.
ACTUATOR ADJUSTMENT
The Remote Plus Controller can control five actuators using the mode key and the joystick. The active actuator is indicated by an illuminated actuator LED. See figure 6.

To select and adjust an actuator:
1. Press the on/off key to power on the controller.
2. Press the mode key twice to select Actuator Adjustment Mode.
3. Push the joystick to the right to cycle through the available actuators. The actuator indicators will display which actuator is activated. See figure 6.
4. When the desired actuator is selected, give a forward command to the joystick to raise the actuator or give a reverse command to the joystick to lower the actuator.
5. Press the mode key again to return to the Drive Mode.

WARNING! Only chargers with Neutrik NC3MX plugs should be connected to the 3-pin off-board charger/programming socket. See your authorized Pride Provider for more information.

NOTE: Changes to the programming can only be made by an authorized Pride Provider.

CONTROLLER COMMUNICATIONS CONNECTOR
The controller communications connector provides the Remote Plus with a connection to the power module via an intermediate harness equipped with an onboard/off-board charger connector.

ACTUATOR ADJUSTMENT
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To select and adjust an actuator:
1. Press the on/off key to power on the controller.
2. Press the mode key twice to select Actuator Adjustment Mode.
3. Push the joystick to the right to cycle through the available actuators. The actuator indicators will display which actuator is activated. See figure 6.
4. When the desired actuator is selected, give a forward command to the joystick to raise the actuator or give a reverse command to the joystick to lower the actuator.
5. Press the mode key again to return to the Drive Mode.

Figure 6. Actuator Selection
SPEED ADJUSTMENT/PROFILE SELECT

To select a speed setting:
1. Press the on/off key to power on the controller.
2. Press the mode key once.
3. To increase chair speed, push the joystick to the right. Each time you push the joystick, you will increase the speed setting in the speed setting indicator.
4. To decrease chair speed, push the joystick to the left. Each time you push the joystick, you decrease the speed setting in the speed setting indicator.
5. Once you select the desired speed setting, press the mode key once to keep the setting or push the joystick in the forward or reverse direction. The chair will resume operation at the selected speed.

NOTE: Drive profiles are set by your authorized Pride Provider. Contact your authorized Pride Provider to change a drive profile or change speed settings.

SLEEP MODE
The Remote Plus Controller features a sleep mode. Sleep mode is a built-in circuit that will automatically shut off the main power if the joystick is not moved in any direction for a period of time. This time factor is programmed into the controller. To restore power and continue, push any key on the control panel.

THERMAL ROLLBACK
The Remote Plus Controller is equipped with a thermal rollback circuit which monitors the temperature of the chair’s motors and controller. If either exceeds the safe operating temperature, the controller reduces the output to 50% of full operation level. This reduces the chair’s speed and allows a cool down period. Once the temperature returns to a safe level, the chair will resume normal operation.
**FAULT CODES**

The battery condition meter will flash fault codes when the controller system detects an abnormal condition in the electrical system. All of the battery condition meter LEDs will flash a number of times quickly, then pause, then flash again. The battery condition meter will continue to flash the fault codes until the problem is fixed. The following table identifies the individual fault codes. If you receive any of these fault codes or if you experience any other problems, contact your authorized Pride Provider.

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<th>Fault Code</th>
<th>Probable Cause(s)</th>
<th>Possible Solution</th>
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<tr>
<td>1 Flash</td>
<td>The batteries need charging. There is a bad connection to the batteries.</td>
<td>Check the battery connections. If the battery connections are good, then try charging the batteries.</td>
</tr>
<tr>
<td>2 Flashes</td>
<td>There is a bad connection on the left motor.</td>
<td>Check the left motor connections and wiring harnesses</td>
</tr>
<tr>
<td>3 Flashes</td>
<td>The left motor has a short to a battery connection.</td>
<td>Contact your authorized Pride Provider.</td>
</tr>
<tr>
<td>4 Flashes</td>
<td>There is a bad connection on the right motor.</td>
<td>Check the right motor connections and wiring harnesses</td>
</tr>
<tr>
<td>5 Flashes</td>
<td>The right motor has a short to a battery connection.</td>
<td>Contact your authorized Pride Provider.</td>
</tr>
<tr>
<td>6 Flashes</td>
<td>The charge inhibit has been activated.</td>
<td>Make sure that the battery charger is not connected to the power base.</td>
</tr>
<tr>
<td>7 Flashes</td>
<td>There is a joystick fault.</td>
<td>Make sure the joystick is in the center position; power the unit off and then on again.</td>
</tr>
<tr>
<td>8 Flashes</td>
<td>There is a control system fault.</td>
<td>Check power module and joystick module connections and wiring.</td>
</tr>
<tr>
<td>9 Flashes</td>
<td>The park brakes have a bad connection.</td>
<td>Check the left and right motor connections and wiring.</td>
</tr>
<tr>
<td>10 Flashes</td>
<td>An excessive voltage has been applied to the control system.</td>
<td>Check the battery connections.</td>
</tr>
</tbody>
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NOTES

CARE AND MAINTENANCE
Refer to your power chair owner’s manual for proper cleaning and disposal instructions.

WARRANTY
For two (2) years from the date of purchase, Pride will repair or replace at our option to the original purchaser, free of charge, the controller or any of its components found upon examination by an authorized representative of Pride to be defective in material and/or workmanship.