



Basic Operation Instructions



Europa™ Controller

Safety Guidelines



WARNING! A Pride/Quantum Provider or a qualified technician must perform the initial setup of this product and must perform all of the instructions in this manual.

The symbols below are used throughout this owner's manual and on the product 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 a yellow triangle with a 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 personal injury and/or equipment damage. On the product, this icon is represented as a black symbol with a red circle and red slash.

NOTE: *This owner's manual is compiled from the latest specifications and product information available at the time of publication. We reserve the right to make changes as they become necessary. Any changes to our products may cause slight variations between the illustrations and explanations in this manual and the product you have purchased. The latest/current version of this manual is available on our website.*

NOTE: *This product is compliant with WEEE, RoHS, and REACH directives and requirements.*

NOTE: *This product meets IPX4 classification (IEC 60529).*

NOTE: *This product and its components are not made with natural rubber latex. Consult with the manufacturer regarding any after-market accessories.*



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Product Safety Symbols

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.



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 Pride/Quantum Provider for information on proper disposal and recycling of your Quantum product and its packaging.

WELCOME to Pride Mobility Products (Pride)/Quantum. 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 Pride/Quantum Provider. **Failure to follow the instructions, warnings, and notes in this manual and those located on your product can result in personal injury and/or product damage and will void Pride/Quantum'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/Quantum to enhance or preserve the safe use of this product.

NOTE: If you ever lose or misplace your copy of this manual, contact us and we will be glad to send you a new one immediately.

Europa Controller

The Europa 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 Europa Controller, please read the following. These guidelines are provided for your benefit and will aid you in the safe operation of the control 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 effect 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, electricity generators or high power sources and other types of radio transmitters may cause unintended movement of your electrically-powered mobility vehicle due to EMI. 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. Be aware of nearby transmitters, such as radio or TV stations, and avoid coming into close proximity to them.



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/Quantum.

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. Contact Pride or your Pride/Quantum Provider to report the incident.

Europa Controller Features

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

The following functions are available with the Europa 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 seat actuators with the Europa.
- Drive Profile Selection
The user can select one of five available drive profiles.
- Sleep Mode
This feature is designed to preserve battery charge, and can be disabled through programming.
- Out of Neutral at Power Up (OONAPU)
A safety feature designed to prevent the power chair from overheating and causing damage to the motors or controller.

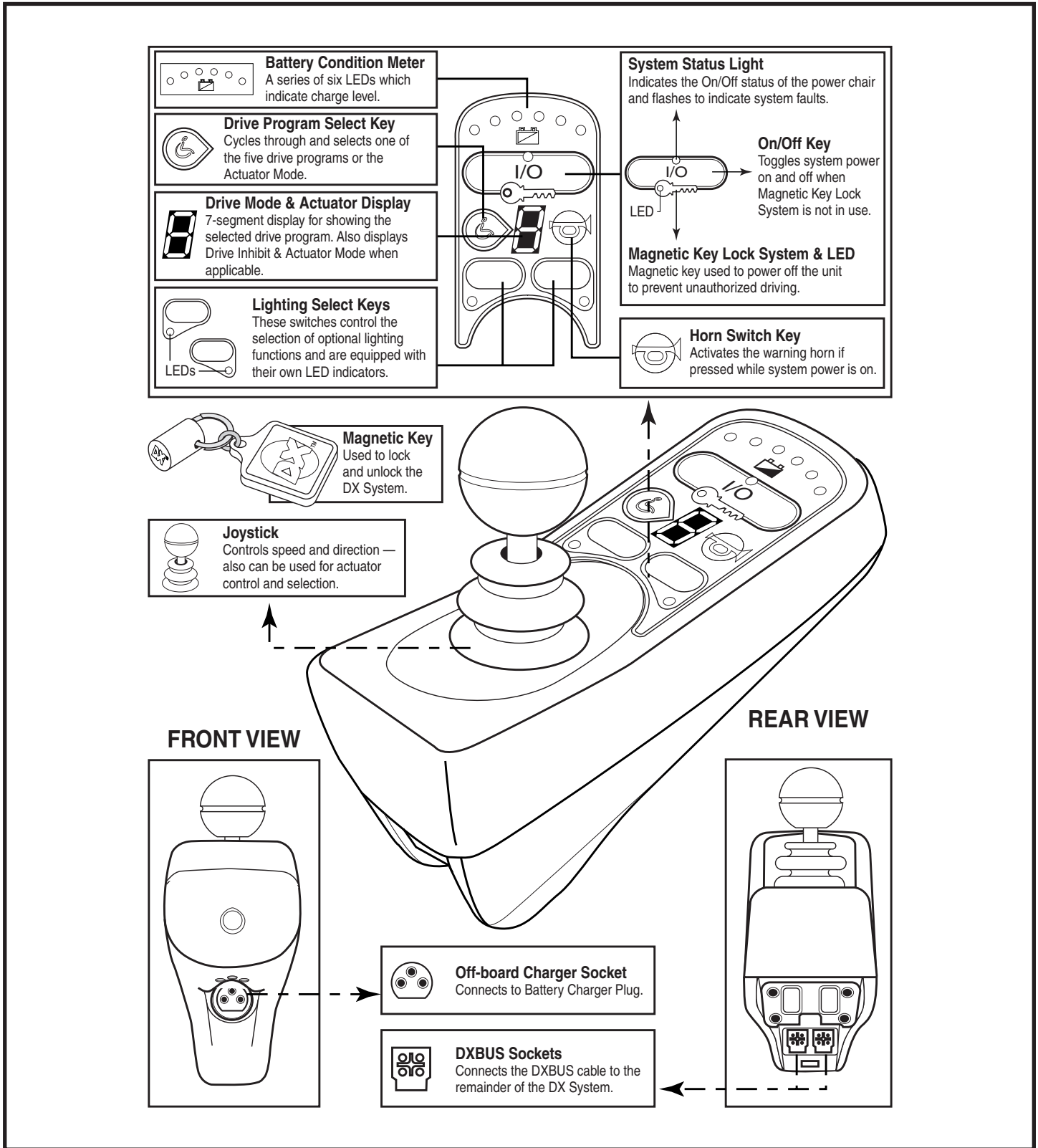


Figure 1. Europa Components and Connections

Operating the Europa Controller

The Europa Controller is used to operate your power chair and all of its components. **See figure 2.**

The Europa controller consists of:

1. joystick
2. keypad
3. controller communications connector
4. 3-pin off-board charger socket

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 figure 3.**

On/Off Key

The on/off key turns the system on and off.



WARNING! When faced with an emergency stop situation, release the joystick, then press on/off to stop the power chair. Use caution. Be advised that pressing the on/off button may cause the power chair to stop abruptly.

WARNING! Always turn the power off when you are stationary to prevent unexpected movement.

NOTE: *If the joystick is not in the neutral (center) position when you turn on the power, you may cause a fault in the system. See “Out Of Neutral At Power Up.”*

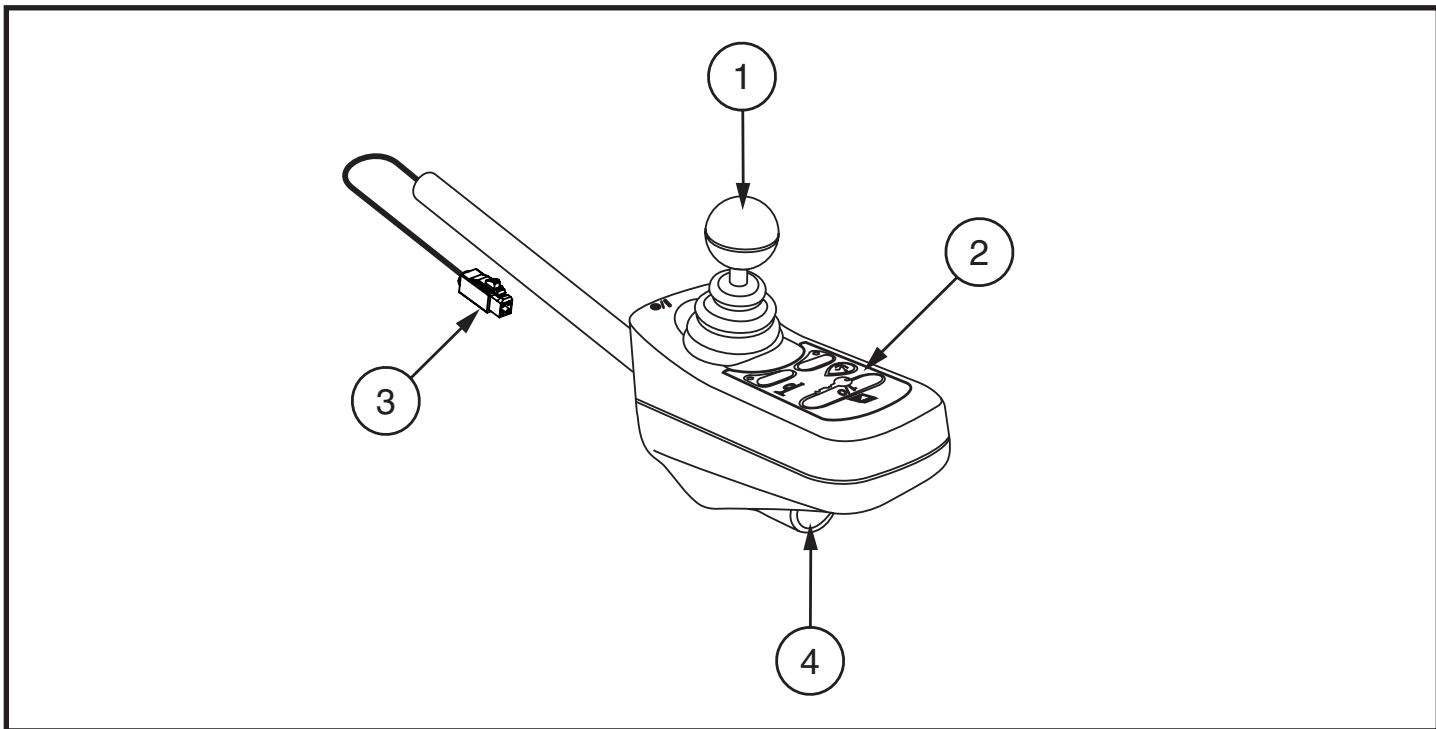


Figure 2. Europa Controller

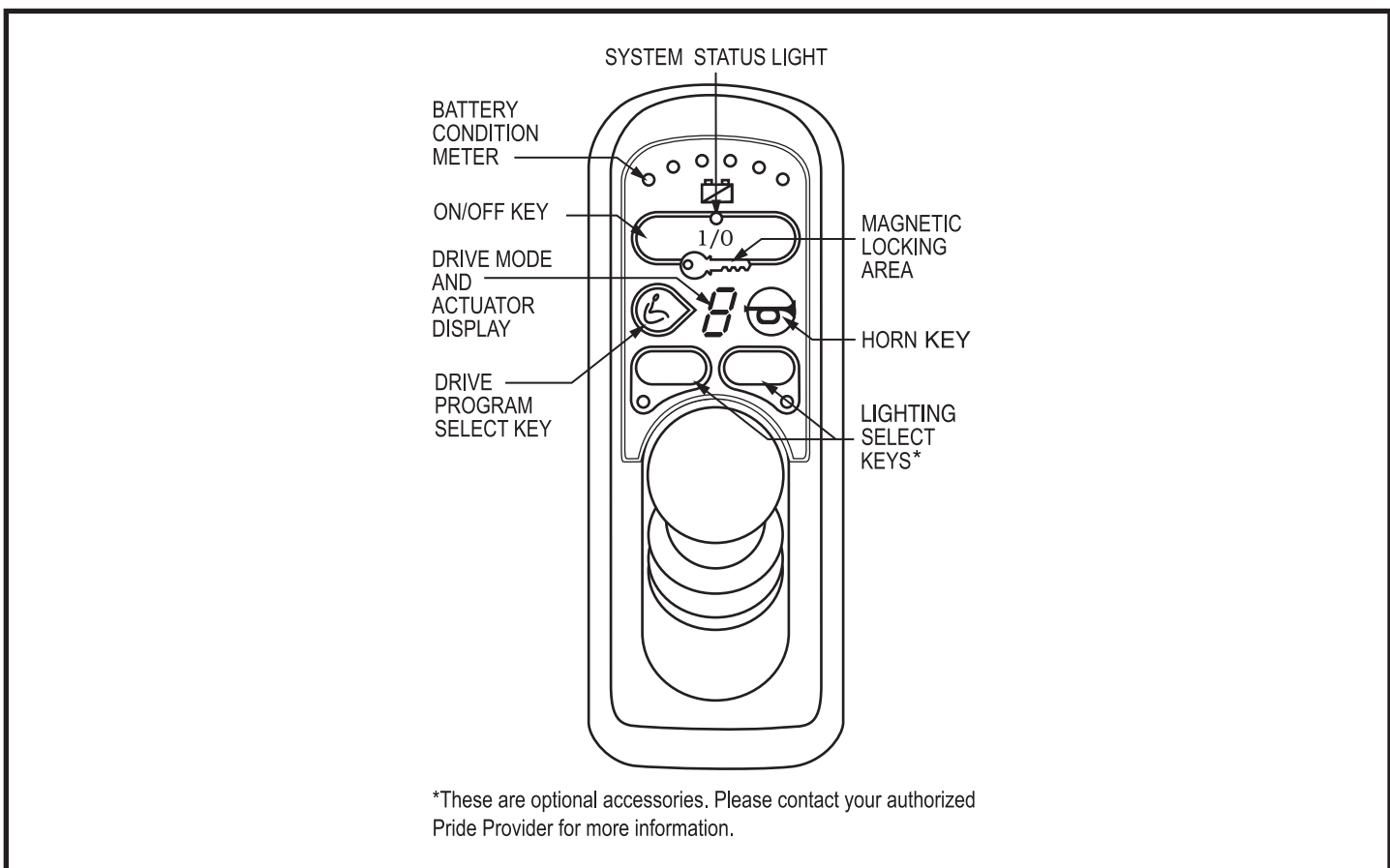


Figure 3. Europa Keypad

System Status Light

The system status light is normally on when the system is powered up, and off when the system is powered down. This light will flash if there is an internal fault, or if an OONAPU fault has occurred. See “Out Of Neutral At Power Up.”

Magnetic Locking Area

Your power chair is equipped with a feature that enables you to “lock out” unauthorized users. For this function, you will need the magnetic key supplied with your power chair. If you lose this key, contact your Pride/Quantum Provider.

To enable the lockout system:

1. Hold the magnetic key on or near the key symbol. The system will beep and automatically turn off.

NOTE: None of the remote lights should be lit.

2. Press the on/off key to turn on the power chair. The key symbol will flash, but you will not be able to drive your power chair. This means that it is still locked.
3. Hold the magnetic key on or near the key symbol again to unlock the system. When the key symbol stops flashing, you may turn on the power chair.

NOTE: If you turn on the power chair while it is locked and do not unlock it after one minute, the power chair will automatically turn off itself.

Battery Condition Meter

The battery condition meter consists of six lights arranged in an arc over the battery icon. From left to right, the first two are red, the second two are orange, and the last two are green. These lights give you an accurate indication of your usable battery capacity. If the battery has at least 85% of its rated capacity, all of the lights will be on. As the battery voltage drops, the number of lights reduces from right to left. When the battery capacity drops to 10% or below, all of the lights will flash once every second.

NOTE: When the battery capacity drops to below 21V (typically two lights), the controller will reduce power chair performance to conserve battery power.

Drive Program Select Key

The drive program select key enables you to select a drive program and a power accessory mode. Your Europa Controller was preprogrammed for five drive programs—1 (slowest) to 5 (fastest). The drive mode is indicated by a number in the center of the keypad (drive mode and actuator display).

NOTE: The drive mode settings are preset at the factory. If your Pride/Quantum Provider changes these settings, please make note of these changes.

To change the drive program:

1. Press the drive program select key until your desired drive program is displayed.
2. Use the joystick to operate your power chair.

Drive Mode and Actuator Display (also status display)

This is a 7-segment light that displays the drive program. It also displays a drive inhibit and actuator mode (if applicable), when they occur.

Actuator Select Keys with Lights

If your power chair is equipped with power accessories such as a power seat or power elevating leg rests, you can operate them through the keypad. Refer to “Power Accessory Control.”

Horn Key

The horn key activates a warning horn.

Controller Communications Connector

This connects the Europa to the power chair’s batteries, motors, and motor brakes.

Off-Board Charger Socket

You may use an off-board charger to charge the power chair batteries through the 3-pin socket located on the front of the Europa (**see figure 1**). If you use an off-board charger, the charger current should not exceed 8 amps. Contact your Pride/Quantum Provider for more information.

Power Accessory Control

The Europa can support the control of up to five power accessory actuators once the actuator control module is correctly configured. Power accessory actuators are selected and controlled using the joystick.

To select a power accessory actuator:

1. Press the drive program select key until the 7-segment display displays “A.”

NOTE: The power chair will not drive in this mode.

2. Move the joystick left or right to move through the available actuators. Release the joystick to select the desired actuator.

NOTE: The actuators are represented on the 7-segment display as a mixture of uppercase and lowercase letters, which follow the sequential order of the actuators, e.g., Actuator 1 is represented as “A” and Actuator 5 as “E.” If your controller was programmed to operate a lighting package, a sixth option “L” will be displayed.

3. Push the joystick full forward or full reverse to control the actuator adjustment.

NOTE: When using the Europa in conjunction with a TRx Seating System, give a reverse command to extend the actuator, release the joystick, then give another reverse command to retract the actuator. The reverse command toggles between extend and retract only for TRx units. If you experience any problems with the operation of your TRx Seating System or your power chair, contact your Pride/Quantum Provider.

4. Resume driving by moving the joystick back to neutral and selecting a drive program.

Battery Saver Feature

When the battery capacity drops to below 21V (typically two lights), the controller will reduce power chair performance to conserve battery power.

Sleep Mode (If Enabled)

The power chair 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, turn your power chair on.

Out of Neutral at Power Up (OONAPU)

Your power chair joystick is equipped with Out Of Neutral At Power Up (OONAPU). If you power up the system and the joystick is not in the neutral position, the system status light flashes rapidly for either as long as the joystick is out of the neutral position or five seconds. If this has happened and all of the battery condition meter lights are flashing, you may have set an error code. See “Error Codes.”

Error Codes

The system status light is displayed within the on/off key. This light is lit if the system is turned on. It also flashes in groups called error codes to indicate system faults. If your keypad displays one of these codes (**see Table 1**), contact your Pride/Quantum Provider.

NOTE: You must turn the controller off and then on again to reset the controller, even if the source of the error is removed/corrected.

In the event of an error, the system status light displays diagnostic indications. Errors are encoded as follows: one (DX Module fault) to twelve (module mismatch) and are displayed by the light flashing the number of times prescribed by the error code. The flash sequence (one to twelve) is followed by a long off period (2 seconds). If more than one error exists, then the error having the highest priority is indicated. The controller must be turned off and then on again even if the source of the error is removed. If you cannot resolve the problem, contact your Pride/Quantum Provider.

Error Code	Fault	Diagnosis	Solution
1	DX Module Fault	An auto download has occurred. The Europa is not correctly programmed. The connection between the power module and the joystick module may be faulty.	See your Pride/Quantum Provider.
2	DX Accessory Fault	The accessory module (CLAM) has a fault.	See your Pride/Quantum Provider.
3	Left Motor (or connection) Fault	The connection between the power module and the left motor is either open or is shorted or the motor itself is shorted.	Check left motor wiring.
4	Right Motor (or connection) Fault	The connection between the power module and the right motor is either open or is shorted or the motor itself is shorted.	Check right motor wiring.
5	Left Park Brake (or connection) Fault	The connection between the power module and the left park brake is either open or shorted or the motor brake itself is shorted.	Check motor/brake wiring.
6	Right Park Brake (or connection) Fault	The connection between the power module and the right motor brake is either open or shorted or the motor brake itself is shorted.	Check motor/brake wiring.
7	Low Battery Fault	Battery voltage has fallen below 17VDC.	Check that the battery wiring is secure.
8	Over-voltage Fault	The battery voltage has exceeded 32VDC.	Check that the battery wiring is secure.
9	CANL Fault	The DX Bus cable has a short or an open.	See your Pride/Quantum Provider.
10	CANH Fault	The DX Bus cable has a short or an open.	See your Pride/Quantum Provider.
11	Stall Timeout	The motor has been close to or at the programmed current limit.	Turn unit off, then on.
12	Module Mismatch	There is an incompatibility between the DX modules in the system.	See your Pride/Quantum Provider.

Table 1. Error Codes

Care and Maintenance

Refer to your power chair owner's manual for proper cleaning and disposal instructions.

Warranty

Refer to your power chair owner's manual for specific information on controller warranty.



USA – Quantum

401 York Avenue
Duryea, PA 18642

USA – Pride Mobility Products Corp.

182 Susquehanna Avenue
Exeter, PA 18643-2694

Canada

5096 South Service Road
Beamsville, Ontario L0R 1B3

UK

32 Wedgwood Road
Bicester, Oxfordshire OX26 4UL
www.quantumrehab.co.uk

Australia

20-24 Apollo Drive
Hallam, Victoria 3803
www.quantumrehab.com.au

New Zealand

38 Lansford Crescent
Avondale
Auckland, New Zealand 1007
www.pridemobility.co.nz

Italy

Via del Progresso, ang. Via del Lavoro
Loc. Prato della Corte
00065 Fiano Romano (RM)
www.quantumrehab-italia.it

B.V.

Castricummer Werf 26
1901 RW Castricum
The Netherlands
www.quantumrehab.eu

www.quantumrehab.com

