

APPENDIX A: DEFINITIONS

Manual Wheelchairs (MWC):

Adult manual wheelchairs are those which have a seat width and a seat depth of 15” or greater, and the wheels must be large enough and positioned such that the wheelchair could be propelled by the user. In addition, the specific codes are defined by the following characteristics:

Standard wheelchair

- Weight: Greater than 36 lbs.
- Seat Height: 19” or greater
- Weight capacity: 250 pounds or less

Standard hemi (low seat) wheelchair

- Weight: Greater than 36 lbs
- Seat Height: Less than 19”
- Weight capacity: 250 pounds or less

Lightweight wheelchair

- Weight: 34-36 lbs
- Weight capacity: 250 pounds or less

High strength, lightweight wheelchair

- Weight: Less than 34 lbs
- Lifetime Warranty on side frames and cross braces

Ultra-lightweight wheelchair

- Weight: Less than 30 lbs
- Adjustable rear axle position
- Lifetime Warranty on side frames and cross braces

Heavy duty wheelchair

- Weight capacity: Greater than 250 pounds

Extra heavy duty wheelchair

- Weight capacity: Greater than 300 pounds

Adult tilt-in-space wheelchair

- Ability to tilt the frame of the wheelchair greater than or equal to 45 degrees from horizontal while maintaining the same back to seat angle.
- Lifetime Warranty: On side frames and cross braces

A Pediatric wheelchair is a manual wheelchair with a seat width and/or depth of 14” or less.

Lightweight, high strength lightweight, ultra-lightweight, heavy duty, extra heavy duty and tilt in space wheelchairs include any seat height.

Wheelchair "poundage" (lbs.) represents the weight of the usual configuration of the wheelchair with a seat and back but without front riggings.

(Source: Article A25311, Manual Wheelchair Policy Article, NHIC Corp. effective October 2009.)

Power Wheelchairs (PWC):

Basic Equipment Package - Each power wheelchair code is required to include all these items on initial issue (i.e., no separate billing/payment at the time of initial issue, unless otherwise noted). The statement that an item may be separately billed does not necessarily indicate coverage.

- Lap belt or safety belt. Shoulder harness/straps or chest straps/vest may be billed separately.
- Battery charger, single mode.
- Complete set of tires and casters, any type.
- Leg rests. There is no separate billing/payment if fixed, swing-away, or detachable non-elevating leg rests with or without calf pad are provided. Elevating leg rests may be billed separately.
- Footrests/foot platform. There is no separate billing/payment if fixed, swing-away, or detachable footrests or a foot platform without angle adjustment are provided. There is no separate billing for angle adjustable footplates with Group 1 or 2 PWCs. Angle adjustable footplates may be billed separately with Group 3, 4 and 5 PWCs.
- Armrests. There is no separate billing/ payment if fixed, swing-away, or detachable non-adjustable height armrests with arm pad are provided. Adjustable height armrests may be billed separately.
- Any weight specific components (braces, bars, upholstery, brackets, motors, gears, etc.) as required by patient weight capacity.
- Any seat width and depth. Exception: For Group 3 and 4 PWCs with a sling/solid seat/back, the following may be billed separately:
 - * For Standard Duty, seat width and/or depth greater than 20 inches;
 - * For Heavy Duty, seat width and/or depth greater than 22 inches;
 - * For Very Heavy Duty, seat width and/or depth greater than 24 inches;
 - * For Extra Heavy Duty, no separate billing.
- Any back width. Exception: For Group 3 and 4 PWCs with a sling/solid seat/back, the following may be billed separately:
 - * For Standard Duty, back width greater than 20 inches;
 - * For Heavy Duty, back width greater than 22 inches;
 - * For Very Heavy Duty, back width greater than 24 inches;
 - * For Extra Heavy Duty, no separate billing.
- Controller and Input Device. There is no separate billing/payment if a non-expandable controller and a standard proportional joystick (integrated or remote) is provided. An expandable controller, a nonstandard joystick (i.e., non-proportional or mini, compact or short throw proportional), or other alternative control device may be billed separately.

Code Specific Requirements:

All Group 1 PWCs must meet the following requirements:

- Standard integrated or remote proportional joystick
- Non-expandable controller
- Incapable of upgrade to expandable controller
- Incapable of upgrade to alternative control devices
- May have cross brace construction
- Accommodates non-powered options and seating systems (e.g., recline-only backs, manually elevating leg rests) (except captain's chairs)
- Length - less than or equal to 40 inches
- Width - less than or equal to 24 inches
- Minimum Top End Speed - 3 MPH
- Minimum Range - 5 miles
- Minimum Obstacle Climb - 20 mm [.78 inches]
- Dynamic Stability Incline - 6 degrees [1:10 slope]

For **Group 1 portable PWCs**, the largest single component may not exceed 55 pounds.

All Group 2 PWCs must meet the following requirements:

- Standard integrated or remote proportional joystick
- May have cross brace construction

- Accommodates seating and positioning items (e.g., seat and back cushions, headrests, lateral trunk supports, lateral hip supports, medial thigh supports) (except captains chairs) - Length - less than or equal to 48 inches
- Width - less than or equal to 34 inches
- Minimum Top End Speed - 3 MPH
- Minimum Range - 7 miles
- Minimum Obstacle Climb - 40 mm [1.57 inches]
- Dynamic Stability Incline - 6 degrees [1:10 slope]

For **Group 2 portable PWCs**, the largest single component may not exceed 55 pounds.

Group 2 no power option PWCs must have the specified components and meet the following requirements:

- Non-expandable controller
- Incapable of upgrade to expandable controller
- Incapable of upgrade to alternative control devices
- Incapable of accommodating a power tilt, recline, seat elevation, standing system
- Accommodates non-power options and seating systems (eg recline-only backs, manually elevating legrests) (except captain's chair) or power elevating legrests only.

Group 2 seat elevator PWCs must have the specified components and meet the following requirements:

- Non-expandable controller
- Incapable of upgrade to expandable controller
- Incapable of upgrade to alternative control devices
- Accommodates only a power seat elevating system.

Group 2 single power option PWCs must have the specified components and meet the following requirements:

- Non-expandable controller
- Capable of upgrade to expandable controller
- Capable of upgrade to alternative control devices
- Capable of accommodating a power tilt or power recline but not both; it may be able to accommodate power elevating legrests, seat elevator and/or standing system in combination with a power tilt or power recline.

Group 2 multiple power option PWCs must have the specified components and meet the following requirements:

- Non-expandable controller
- Capable of upgrade to expandable controller
- Capable of upgrade to alternative control devices
- Capable of accommodating a combination power tilt and power recline seating system; it may be able to accommodate power elevating legrests, seat elevator and/or standing system in combination with a power tilt and power recline.
- Accommodates a ventilator.

All Group 3 PWCs must meet the following requirements:

- Standard integrated or remote proportional joystick
- Non-expandable controller
- Capable of upgrade to expandable controller
- Capable of upgrade to alternative control devices
- May not have cross brace construction

- Accommodates seating and positioning items (e.g., seat and back cushions, headrests, lateral trunk supports, lateral hip supports, medial thigh supports) (except captains chairs) - Drive wheel suspension to reduce vibration
- Length - less than or equal to 48 inches
- Width - less than or equal to 34 inches
- Minimum Top End Speed - 4.5 MPH
- Minimum Range - 12 miles
- Minimum Obstacle Climb - 60 mm [2.36 inches]
- Dynamic Stability Incline - 7.5 degrees [1:8 slope]

All Group 4 PWCs must meet the following requirements:

- Standard integrated or remote proportional joystick
- Non-expandable controller
- Capable of upgrade to expandable controller
- Capable of upgrade to alternative control devices
- May not have crossbrace construction
- Accommodates seating and positioning items (e.g., seat and back cushions, headrests, lateral trunk supports, lateral hip supports, medial thigh supports) (except captains chairs) - Drive wheel suspension to reduce vibration
- Length - less than or equal to 48 inches
- Width - less than or equal to 34 inches
- Minimum Top End Speed - 6 MPH
- Minimum Range - 16 miles
- Minimum Obstacle Climb - 75 mm [2.95 inches]
- Dynamic Stability Incline - 9 degrees [1:6 slope]

Group 3 and 4 no power option PWCs must have the specified components and meet the following requirements:

- Incapable of accommodating a power tilt, recline, seat elevation, standing system
- Accommodates non-power options and seating systems (eg recline-only backs, manually elevating legrests).

Group 3 and 4 single power option PWCs must have the specified components and meet the following requirements:

- Capable of accommodating a power tilt or power recline but not both; it may be able to accommodate power elevating legrests, seat elevator and/or standing system in combination with a power tilt or power recline.

Group 3 and 4 multiple power option PWCs must have the specified components and meet the following requirements:

- Capable of accommodating a combination power tilt and power recline seating system; it may be able to accommodate power elevating legrests, seat elevator and/or standing system in combination with a power tilt and power recline.
- Accommodates a ventilator.

All Group 5 PWCs must have the specified components and meet the following requirements:

- Standard integrated or remote proportional joystick
- Non-expandable controller
- Capable of upgrade to expandable controller
- Capable of upgrade to alternative control devices...
- Accommodates non-powered options and seating systems

- Accommodates seating and positioning items (e.g., seat and back cushions, headrests, lateral trunk supports, lateral hip supports, medial thigh supports)
- Adjustability for growth (minimum of 3 inches for width, depth and back height adjustment)
- Drive wheel suspension to reduce vibration
- Length – less than or equal to 48 inches
- Width – less than or equal to 34 inches
- Minimum Top End Speed – 4 mph
- Minimum range – 12 miles
- Minimum Obstacle Climb – 60 mm [2.36 inches]
- Dynamic Stability Incline – 9 degrees [1:6 slope]
- Crash testing – passed

Group 5 single power option PWCs must have the specified components and meet the following requirements:

- Capable of accommodating a power tilt or power recline but not both; it may be able to accommodate power elevating legrests, seat elevator and/or standing system in combination with a power tilt or power recline.

Group 5 multiple power option PWCs must have the specified components and meet the following requirements:

- Capable of accommodating a combination power tilt and power recline seating system; it may be able to accommodate power elevating legrests, seat elevator and/or standing system in combination with a power tilt and power recline.
- Accommodates a ventilator.

Power Operated Vehicle (POV)

Basic Equipment Package - Each POV is to include all these items on initial issue (i.e., no separate billing/payment at the time of initial issue):

- Battery or batteries required for operation
- Battery charger, single mode
- Weight appropriate upholstery and seating system
- Tiller steering
- Non-expandable controller with proportional response to input
- Complete set of tires
- All accessories needed for safe operation.”

Code Specific Requirements:

Group 1 POVs must meet the following requirements:

- Length less than or equal to 48 inches
- Width: less than or equal to 28 inches
- Minimum top End Speed- 3 mph
- Minimum range – 5 miles
- Minimum Obstacle Climb – 20 mm [.78 inches]
- Radius Pivot Turn – less than or equal to 54 inches
- Dynamic Stability Incline – 6 degrees [1:10 slope]

Group 2 POVs must meet the following requirements:

- Length less than or equal to 48 inches
- Width: less than or equal to 28 inches
- Minimum top End Speed - 4 mph
- Minimum range – 10 miles
- Minimum Obstacle Climb – 50 mm [1.97 inches]
- Radius Pivot Turn – less than or equal to 54 inches
- Dynamic Stability Incline – 7.5 degrees [1:8 slope]

(Source: Article for Power Mobility Devices (A36239), NHIC Corp. effective October 1 2009)

Additional Definitions:

Power Options:

- No power option: incapable of accommodating a power tilt, recline, seat elevation, or standing system, although it can accept power elevating leg rests
- Single power option: the capability to accept and operate a power tilt or power recline or power standing or, for groups 3, 4, and 5, a power seat elevation system, but not a combination power tilt and recline system. It may be able to accommodate power elevating leg rests, seat elevator, and/or standing system in combination with a power tilt or power recline.
- Multiple power options: the capability to accept and operate a combination power tilt and recline. It may also be able to accommodate power elevating leg rests, a power seat elevator, and/or a power standing system

(Source: Article for Power Mobility Devices (A36239), NHIC Corp. effective October 1 2009)

Power Wheelchair Drive Control Systems:

Interfaces: “The mechanism for controlling the movement of a power wheelchair. Examples include...joystick, sip and puff, chin control, etc.” This device is alternately called a Control Input device.

- Non-proportional Interface: “one which involves a number of switches. Selecting a particular switch determines the direction of the wheelchair, but the speed is preprogrammed. One example of a non-proportional interface is a sip-and-puff mechanism.”
- Proportional Interface: “the direction and amount of movement by the patient controls the direction and speed of the wheelchair. One example...is a standard joystick.”
- Compact proportional joystick: “one which has a maximum excursion of about 15 mm...but requires ...340 grams of force to activate. It can only be used with an expandable controller.”
- Mini-proportional joystick: “one which can be activated by a very low force (...25 grams) and which has a very short displacement (...5 mm...). It can only be used with an expandable controller.
- Remote Joystick: “the joystick is in one box that is typically mounted on the arm of the wheelchair and the controller electronics are located in a different box that is typically located under the seat of the wheelchair. The joystick is connected to the controller through a low power wire harness. A remote joystick may be used for either hand control, chin control, or attendant control.”
- Standard proportional remote joystick: “requires 340 grams of force to activate and which has an excursion ...of ...25 mm.... It can be used with a non-expandable or an expandable controller.”
- Touchpad: “an interface similar to [a] mouse.”

Controllers: “the microprocessor and other related electronics that receive and interpret input from the [interface] and convert that input into power output which controls speed and direction. A high power wire harness connects the controller to the motor and gears.”

- Non-expandable controller: “may have the ability to control up to 2 power seating actuators (for example, seat elevator and single actuator power elevating leg rests). Can accommodate only an integral joystick or a standard proportional remote joystick...”

- Expandable controller: “capable of accommodating one or more of the following additional functions: other types of proportional input devices (e.g. mini-proportional or compact joysticks, touch pads, chin control, head control, etc.), non-proportional [interfaces] (e.g. sip-and-puff, head array, etc); operate 3 or more powered seating actuators through the drive control;...may also be able to operate one or more of the following: a separate display (i.e. for alternate control devices; other electronic devices (e.g. control of an augmentative speech device or computer through the chair’s drive control)....”

Other electronics:

- Harness: “all of the wires, fuse boxes, fuses, circuits, switches, etc that are required for the operation of an expandable controller. It also includes all the necessary fasteners, connectors, and mounting hardware.”
- Integrated proportional joystick and controller: “joystick and controller electronics are in a single box, which is mounted on the arm of the wheelchair.”
- Switch: “electronic device which turns power to a particular function either “on” or “off”.

