





SpeedControl


Installation Instructions




  **IMPORTANT!** These instructions are for SpeedControl installation only. For SpeedControl operation, refer to a current version of the SmartDrive User's Manual, provided with the SmartDrive or downloaded from permobil.com. Contact Customer Support for assistance.


  **WARNING - BEFORE USE:** Read and follow all instructions and safety information provided with the SmartDrive, the wheelchair, and any accessories. If you are unable to perform any tasks described in this manual, seek assistance by contacting your clinician, equipment provider, distributor, or Customer Support.

Notes: SmartDrive MCU firmware version 2.2 or higher is required. With an earlier version of the firmware, the SmartDrive LED will be dimly lit and the SpeedControl dial will function like a SwitchControl or not at all. In the SmartDrive MX2+ wearable app or PushTracker mobile app: see the "About" section to check the firmware version; see the "Wireless Updates" section if a firmware update is needed. Parts shown may differ slightly from your SmartDrive.

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Max Mobility, LLC is part of Permobil.

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 **WARNING** Indicates that not following the specified procedure could lead to potentially hazardous conditions resulting in serious injury.

 **CAUTION** Indicates that not following the specified procedure could lead to potentially hazardous conditions resulting in minor to moderate injury or damage to the equipment or other property.

Supplier: This manual must be given to the user of this product. Operator (Individual or Caregiver): Before using this product, read the instructions and save for future reference.

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PART ONE: Select L/R switch position and rubber insert.

L/R switch selection:

The SpeedControl device is mounted to either the LEFT or RIGHT side of the wheelchair frame, depending on which hand you will use to operate the device.

Before attaching the SpeedControl on the wheelchair, check to make sure that the rubber L/R switch (located on the back of the device) is in the correct position. Switch to “R” for right-hand use. Switch to “L” for left-hand use.

Rubber insert selection:

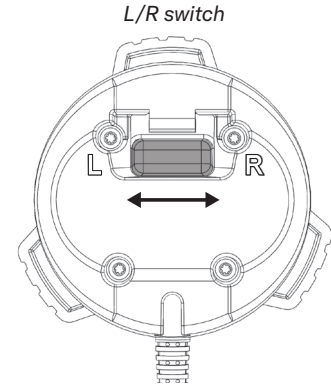
Before installation, select the correct rubber insert based on the diameter of the wheelchair tube. Then follow the instructions in PART TWO.

Note: If needed, use the circumference to determine the diameter of the wheelchair tube. Use a measuring tape, or cut out a strip of paper, and wrap it around the tube. Use the table below.

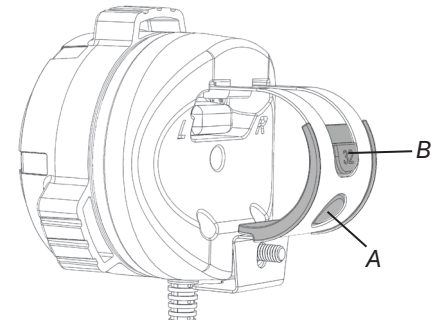
circumference (approximate)	diameter	rubber insert
2¾ in (70mm)	⅞ in (22mm)	#22
3¼ in (80mm)	1 in (25mm)	#25
3½ in (89mm)	1⅛ in (28mm)	#28
4 in (100mm)	1¼ in (32mm)	#32

If the wheelchair tube is not round, use the rubber insert that provides the most secure installation.

Note about rubber insert placement (see PART TWO instructions): During attachment, you will be placing the rubber insert in the clamp. For correct placement, (A) will fit in the round opening of the clamp, and (B) will fit in the cutout.



Rubber insert placement
(See PART TWO instructions.)



PART TWO: Attach to the wheelchair.

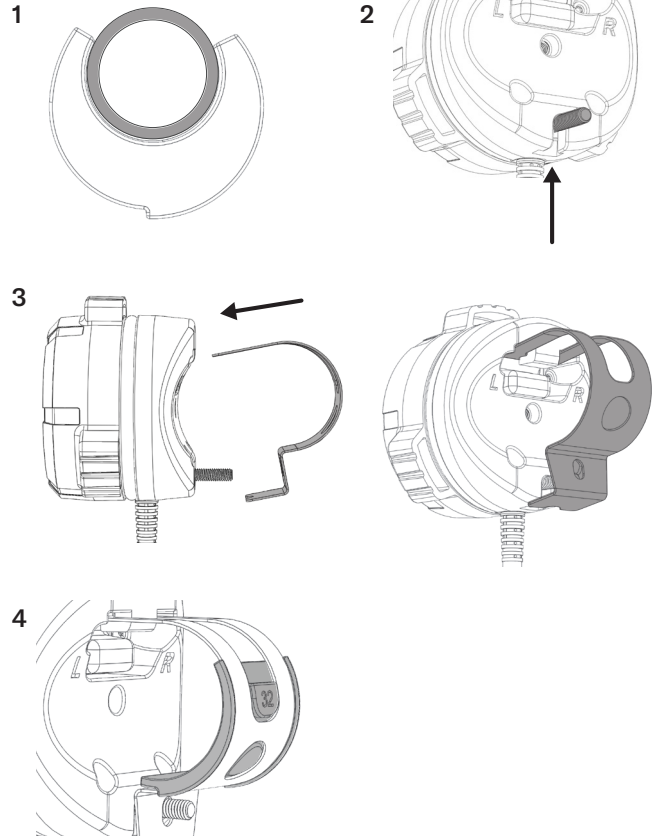
The SpeedControl device is mounted on one side of the wheelchair frame, in a location that ensures that you can operate the dial without having to remove your hands from the handrims.

⚠ WARNING: Installing the SpeedControl dial too far from the handrims may result in having to remove your hands from the handrims during wheelchair operation, which could result in losing control of the wheelchair.

If the wheelchair has screw-down seat upholstery, loosen the screws and feed the clamp under the metal bar (then retighten screws) to allow for the closer positioning of the SpeedControl to the handrims.

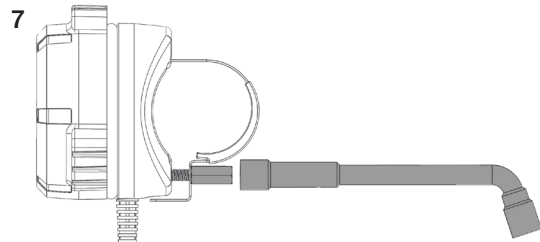
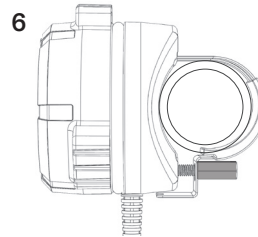
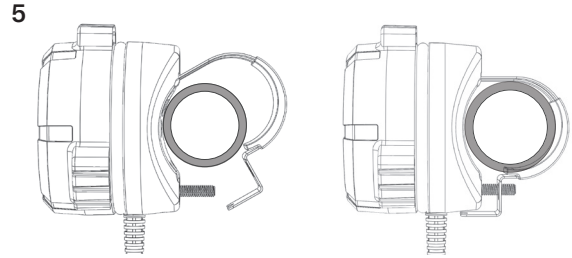
Option A: Direct attachment

1. If using rubber insert #22, #25 or #28, place it onto the frame tube. Otherwise, skip to 2.
2. Slide the square head bolt into the slot on the rear of the housing.
3. Angle the clamp, as shown, and hook the top part of the clamp onto the rear of the housing.
4. If using rubber insert #32, place into the clamp.



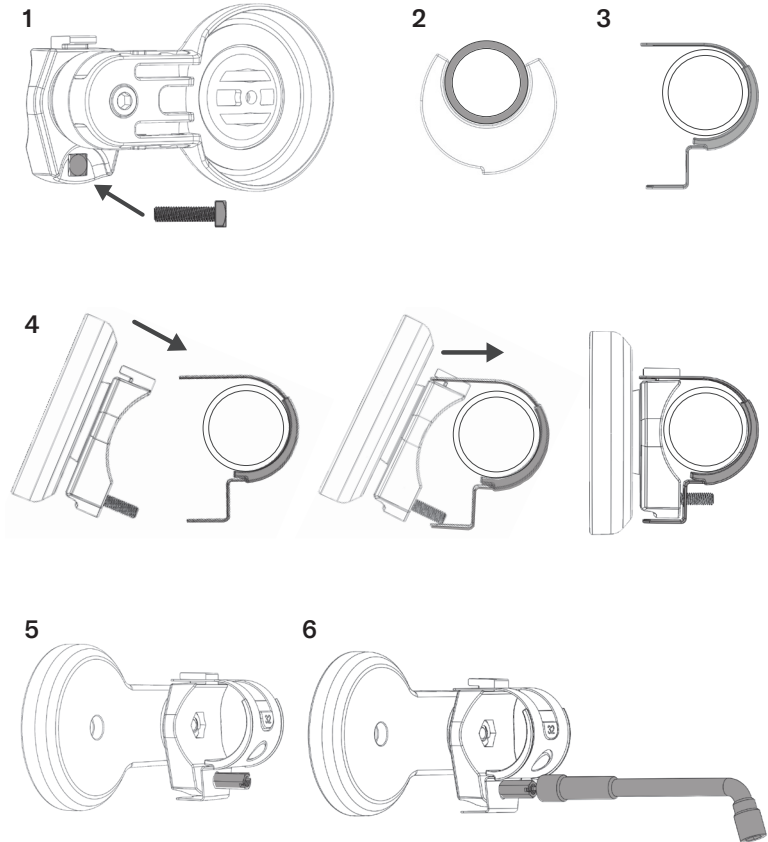
5. Widen the clamp opening to fit over the wheelchair frame tube. Pinch the clamp and housing together to force the bolt through the hole in the clamp.
6. Finger-tighten the hex nut onto the bolt.
7. Tighten until secure, using the provided external hex wrench tool or a flathead screwdriver. When properly secured, the SpeedControl will not rotate.
8. Route the cable under the seat upholstery and out the back of the wheelchair. Use the supplied hook and loop fastener strips and zip ties to secure the cable to the wheelchair frame and seat upholstery. Refer to the routing examples on the last page of this manual.

⚠ CAUTION: Check to make sure that the cable doesn't protrude from the wheelchair, where it could get caught and be damaged.



Option B: Attachment with arm

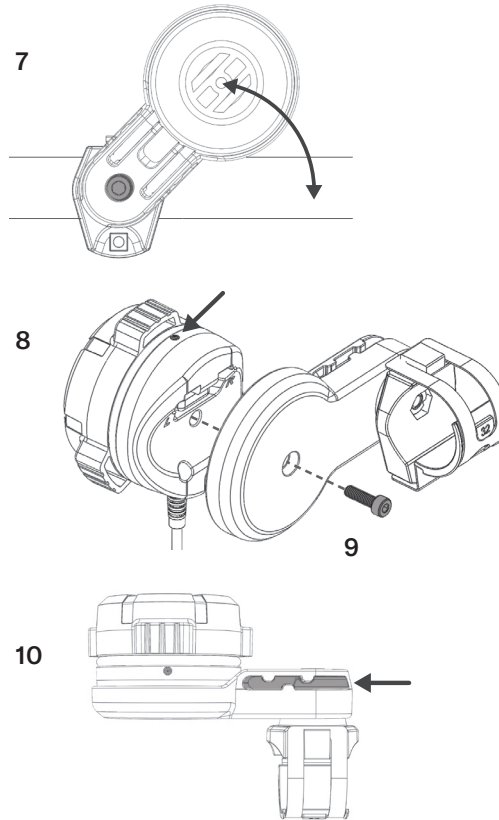
1. Slide the square head bolt through the hole in the arm attachment bracket.
2. If using rubber insert #22, #25 or #28, place the rubber insert onto the frame tube and place the clamp onto the rubber insert. Then skip to 4.
3. If using rubber insert #32, place into the clamp. Hold in place onto the tube.
4. Hook the top of the arm assembly onto the clamp. Pinch the clamp and housing together to force the clamp over the bolt end.
5. Finger tighten the hex nut onto the bolt.
6. Tighten until the arm assembly is secure, using the provided external hex wrench tool or a flathead screwdriver. When properly secured, the arm assembly will not rotate.



7. Rotate the arm to a position that is comfortable. If preferred, lock the arm into position by tightening the outside screw, using the 5mm hex wrench.
8. Place the SpeedControl device in the arm "pocket". Position the device so you can see the LED from a seated position.
9. Secure the device to the arm with the M4 screw and the provided 3mm hex wrench.
10. Route the cable through the slot on the arm.

⚠ CAUTION: Check to make sure that the cable doesn't protrude from the wheelchair, where it could get caught and be damaged.

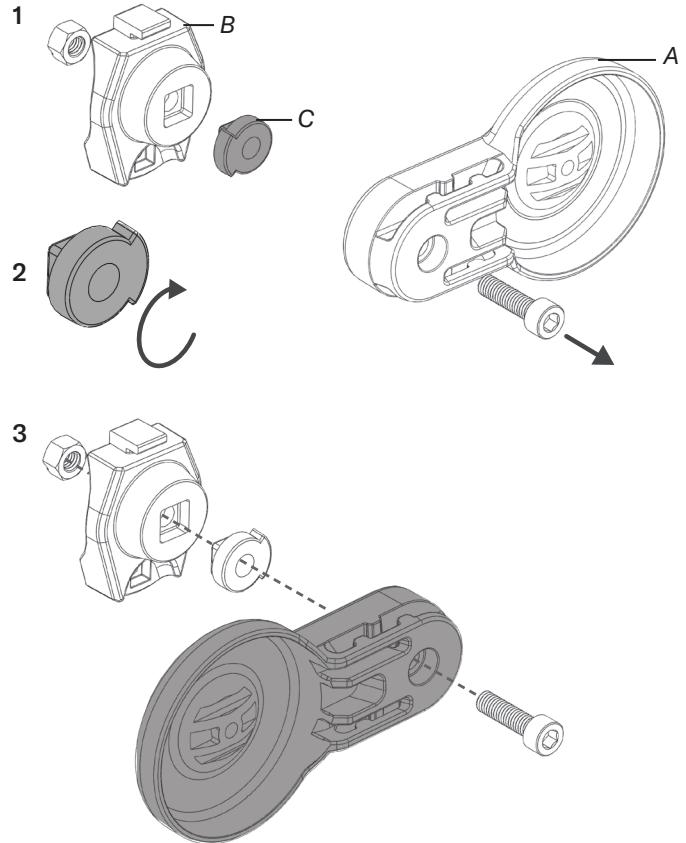
Note: Refer to the routing examples on the last page of this manual.



Attachment Arm: Rotational Adjustment

Follow these instructions if mounting the attachment arm on the left side of the wheelchair, or if a different operational range of the arm is desired.

1. Remove the M6 bolt using the provided 5mm hex wrench. Pull the attachment arm (A) away from the mounting bracket assembly (B).
2. Remove the arm stop piece (C) from the mounting bracket assembly (B).
 - For left-side mounting, rotate the arm stop piece to 180 degrees.
 - You can rotate the arm stop piece in a different orientation if you would like the rotation of the arm to differ from the out-of-the-box adjustment setting.
3. Once you have the desired rotation, reassemble all components, and fasten with the bolt. Tighten the bolt to achieve the amount of force that you want in the arm adjustment.



Magnetic Holder for Cable Connector

When the cable connector is not connected to the SmartDrive, it can be secured to the wheelchair with the provided magnetic holder. This magnetic holder is attached to the SmartDrive adaptive axle clamp.

⚠ WARNING: Installing the magnetic holder will affect the installation of the SmartDrive adaptive axle clamp. The attachment, position and orientation of the clamp is **critical** to the correct function of the SmartDrive. When performing the steps below, read and follow the “Axle Clamp Mounting Instructions” to ensure the SmartDrive functions safely and as intended.

To install the magnetic holder:

1. Position the magnetic holder (A) between the front and back parts of the adaptive axle clamp (B).
2. Feed the top clamp screw (C) through the hole in the holder, and securely tighten.
3. Tighten the bottom clamp screw.

Note: To prevent rattle, tighten the top clamp screw first, and then tighten the bottom clamp screw.

