

## Axle Clamp Mounting Instructions

*NOTE: Refer to the separate directions provided for a folding frame wheelchair.*

### Clamp Mounting

The SmartDrive adaptive axle clamp is designed to permanently mount to the axle tube of a rigid wheelchair while presenting a simple means of attaching/removing the drive unit.

First, verify that the proper clamp is being used based on the wheelchair rear wheel size. This is noted on the front / back of protrusions (Fig. A). Refer to the chart below for proper clamp usage:

22" (501) Wheel / Tire	Use 24 clamp
24" (540) Wheel / Tire	Use 24 clamp
25" (559) Wheel / Tire	Use 25 clamp
26" (590) Wheel / Tire	Use 26 clamp

There are 2 different styles of clamps, standard tube [less than 1.4" (36 mm)] and large tube [greater than 1.5" (38 mm)]. Slide the provided hard rubber inserts over the axle receiving tube to accommodate smaller tube diameters (see chart below for sizing). Dots on the side of the rubber inserts are used to identify the tube size they fit:

Standard Tube Diameters	
No Inserts	36 mm
No Dots	1.35"/1.375" or 35 mm
•	1.25" or 32 mm
••	1.125" or 30 mm
•••	1.0" or 25 mm
Large Tube Diameters	
No Dots	2" or 50.8 mm
•	1.77" or 45 mm
••	1.5" or 38 mm

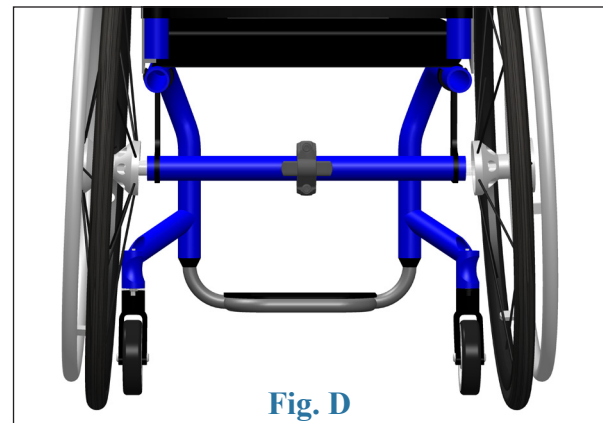
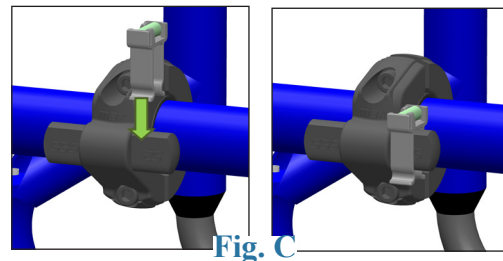
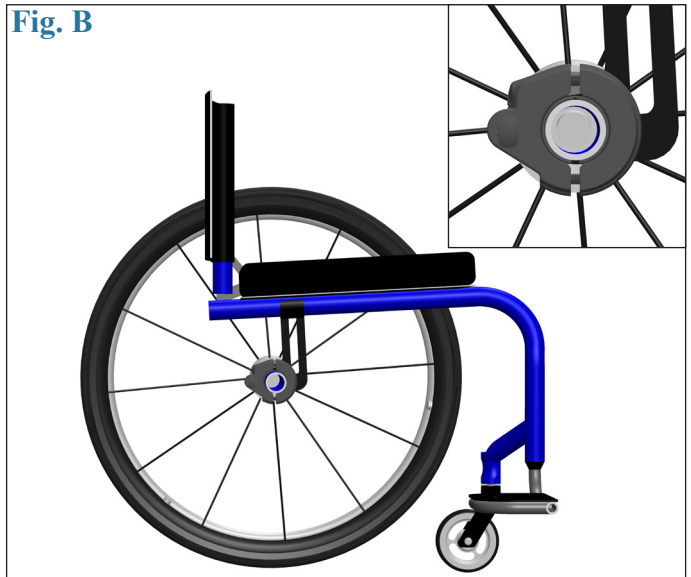
Use a 5 mm allen wrench to tighten the two (2) screws to mount the clamp to the axle receiving tube. The position and orientation outlined below are *critical* to the proper function of SmartDrive and must be heeded.

Make sure the "max" on the front of the clamp is right-side up. Use the provided bubble level and attach to one of the posts to assist you in getting the clamp level (Fig. C). The protrusions coming from the side of the clamp are to be positioned rearward with the extrusion flats perpendicular to the ground when the chair [with the user in it] is on a level plane.

The clamp must be positioned midway between the two rear wheels of the wheelchair on the axle receiving tube (Fig. D). The two (2) screws should be tightened to 4 ft-lbs (5.4 N-m), fixing it in this position and orientation. Failure to do this could cause the wheelchair to not drive/ride straight and/or the clamp to move during use causing the SmartDrive to not function properly.



**CAUTION:** The front and back of the clamp will not mate even when the screws are sufficiently tight. As shown in the graphic below (Fig. B), there should be a gap between the two parts. Over-tightening of the screws [more than 4 ft-lbs (5.4 N-m)] could cause the parts to break during installation.



**Adjustments made to the wheelchair set-up could affect the orientation of the SmartDrive clamp. Adjust the clamp whenever changes are made to the chair.**

## Axle Clamp Mounting Instructions (continued)

### Drive Unit Attachment

Making sure the wristband is off, power on the drive unit by flipping the toggle switch to the on position prior to attachment. “On” is pushing the toggle away from the front of the drive unit (Fig. E). You will get a loud beep and the blue LEDs will illuminate as indication.

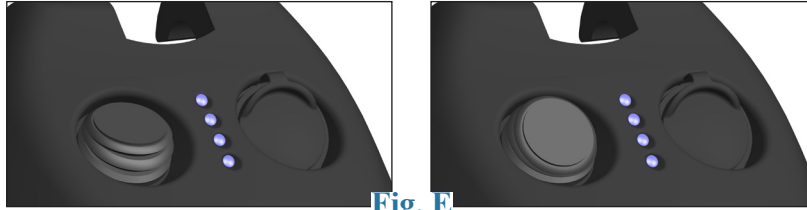


Fig. E

1. The drive unit attaches to the wheelchair by aligning the flats in the clamp with the receiving slots on the front, underside of the unit body. The unit body is then lowered over the clamp rods (Fig. F) and rotated downward to pivotally attach the drive unit to the clamp, and consequently the wheelchair (Fig. G). Under the weight of the drive unit, the omni-wheel end rests on the ground between the rear wheelchair wheels (Fig. H).

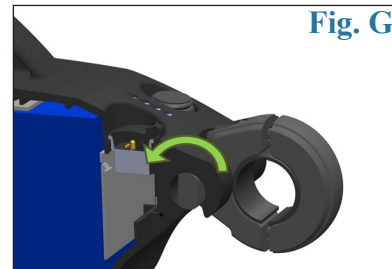
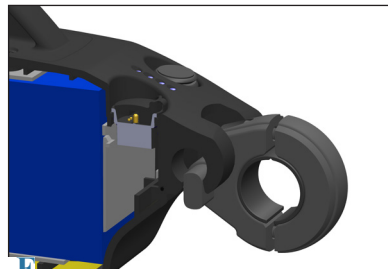
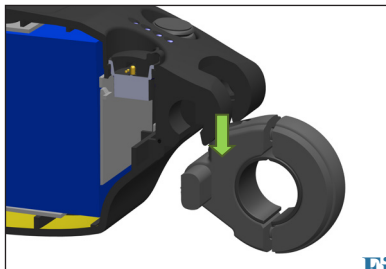


Fig. F

Fig. G



Fig. H

2. If buttons were purchased, refer to their separate instructions for mounting directions. The buttons plug into to the drive unit using the magnetic connector that snaps into the receptacle on the drive unit housing (Fig. I).

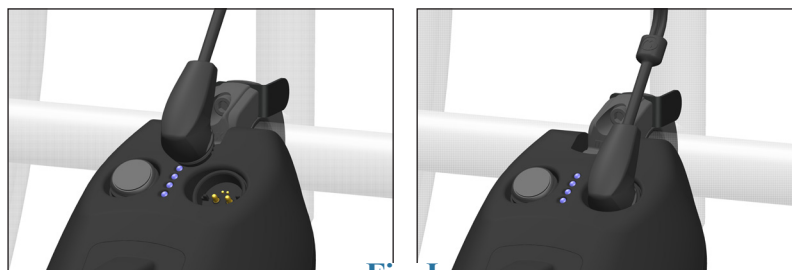


Fig. I

Refer to the User's Manual for SmartDrive operation.