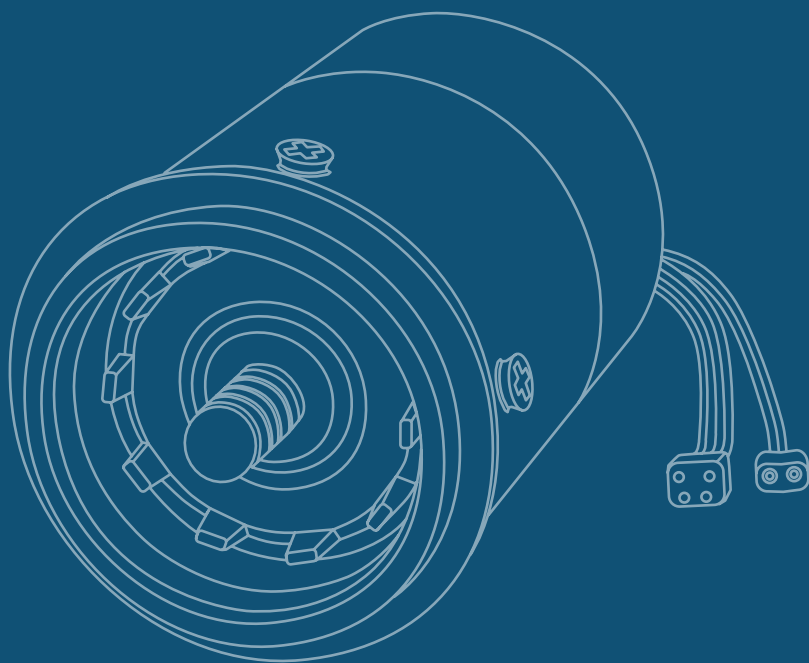


MC ProWrist Rotator

Prosthetist Manual



Fillauer[®]
Motion Control

Special Precautions



Risk Management

To minimize the risk of device damage or injury to the user while maximizing the functions of this device, follow the instructions for installation, and use this device as described in this manual.



The ProWrist should not be used in situations where inadvertent movement or lack of intended motion may cause injury to the user or others such as, driving, operating heavy equipment, use of power tools or handling hot liquids.



Do not use the ProWrist in environments where it may be subjected to greater than 50 lbs/22.7 kg of force.



When removing the ProWrist from the lamination collar, use care to not damage the wires and connectors.



The ProWrist should be adjusted to the patient via the Motion Control User Interface by a qualified prosthetist. Factory default settings are not necessarily the best settings for all patients.



The o-rings on the mounting screws and the o-ring on the rotator provide a waterproof seal for use with the MC Waterproof Collar for Quick Disconnect Wrist (PN#3011020) and the MC Waterproof Collar on the TASKA Hand. These o-rings must be in place for the wrist to be waterproof.



Serious Incidents

In the unlikely event a serious incident occurs in relation to the use of the device, users should seek immediate medical help and contact their prosthetist at the earliest possible convenience. Clinicians should contact Motion Control immediately in the event of any device failure.

MC ProWrist Rotator

Prosthetist Manual

Introduction

The Motion Control ProWrist (Figure 1) provides powered wrist rotation with an on-board microprocessor. This controller provides Proportional Control and switching of function between the terminal device and wrist rotation. The ProWrist is to be used in cases of transradial and higher-level amputation. The ProWrist may also be used with body-powered elbows and some other manufacturers' externally-powered elbows for transhumeral and higher-level amputations. When using a powered elbow, the MC Standard version of the wrist rotator should be used.

Equipped with an industry-standard quick disconnect wrist unit and coaxial plug, the ProWrist is compatible with almost all available powered terminal devices. The optional Wrist Disable Switch (p/n 3010846, Figure 3) allows disabling of Hand/Wrist switching for times when the patient desires only the terminal device to be operational.

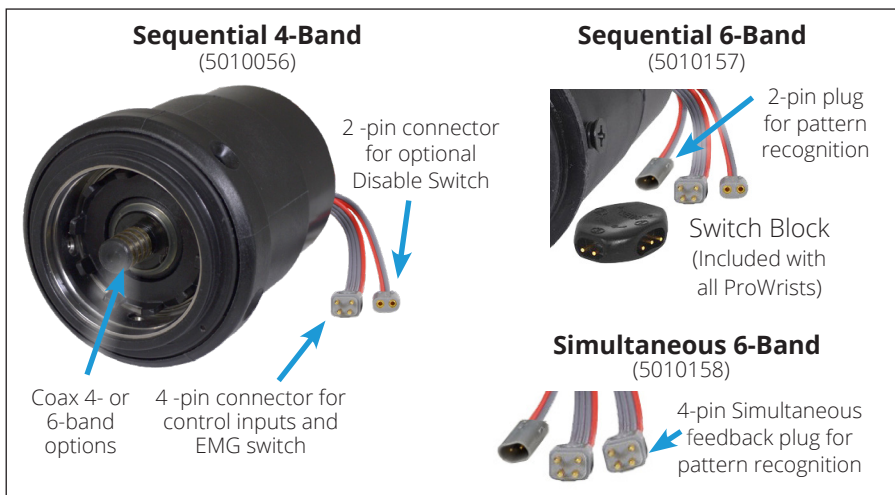


Figure 1

Indications

The ProWrist can be used in almost any case where powered wrist rotation is desired and adequate space is available in the forearm.

Contraindications

- Inadequate space in the forearm such as wrist disarticulation or long transradial amputations.
- Patients for whom the extra weight of an electric wrist rotator is intolerable.
- In cases where the prosthesis is likely to be exposed to high loads (> 50 lbs/22.7 kg).
- Cases in which a controller is “upstream” of the wrist rotator such as the U3, U3+, Motion Arm, E2 Elbow with Coapt™ or IBT™ recognition systems, or other manufacturer elbows. The MC Standard Electric Wrist Rotator is indicated in these situations.

Specifications

Length: 2.75 in/70 mm

Diameter (without lamination collar): 1.85 in/47 mm

Weight: 5.9 oz/168 g

Voltage: 7.2 v

SPL at full speed: 38.5 dB maximum at 1 meter

Speed: 28 rpm @ 7.2 v

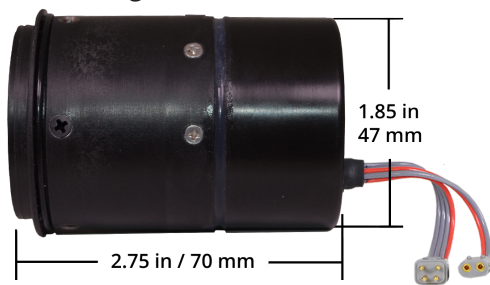
Torque: 15 in-lb @ 7.2 v

Static Load: 50 lbs/22.7 kg

Static Load: 50 lbs/22.7 kg

Device Service Life: 5 Years

Figure 2



Options

Wrist Disable Switch (p/n 3010846)

Disables hand/wrist switching. This switch is useful when a patient wants to operate only the terminal device and prevent all powered wrist function. This would be the case of a patient fearful of inadvertent hand/wrist switching (Figure 3).

Figure 3



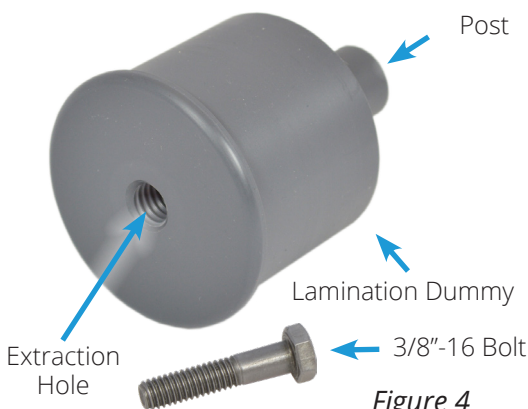
Fabrication

Once a well-fitting evaluation socket is fitted to the patient, a temporary alignment fixture made from PVC pipe can be used to determine optimal alignment of the wrist/terminal device and forearm length. Reinforced with synthetic casting material, this system can be used during trial fitting for short-term training.

1. When optimal alignment is achieved, remove all electronics and replace with appropriate dummies that come with each component.
2. A Wrist Lamination Dummy Kit is required (Figure 4), purchased separately (p/n 3010886). This dummy has an extraction hole that accepts a 3/8"-16 bolt (included).

With this dummy in place of the ProWrist, the entire prosthesis can now be mounted in a vertical transfer fixture (Figure 5).

3. The prosthetic socket is now filled with Plaster of Paris, and alignment is maintained between the wrist unit and the prosthetic socket.



4. Remove the temporary alignment fixture.

Pay attention to the post on the proximal portion of the Lamination Dummy, indicating the length of the ProWrist. Reserve space to this length for the wrist component. (see "Post", Figure 4)

5. Apply adequate parting agent to the inside of the lamination collar and any surfaces not to be bonded to the outer lamination.
6. Use electrical tape to wrap the screw holes in the lamination collar.

Do not apply parting agent to the outer surface of the lamination collar proximal to the retention screw collar. This area provides the bonding surface to the outer forearm lamination.

Laminate the outer socket using the materials and technique of choice.

7. After lamination, remove the excess plastic from the distal surface of the wrist unit and thread a 3/8-16 bolt into the extraction hole. (see "Extraction Hole", Figure 4) Firmly pull to remove the Wrist Lamination Dummy.

8. Carefully cut the lamination proximal to the retention screw collar and remove the lamination to expose the screw holes.

Assembly

1. Install the battery and charging port in the socket following the instructions for the battery system.

2. Install the signal input system.

3. Insert the lamination collar into the socket wrist.

4. Attach appropriate connectors (Figure 6).

5. Connect the charging port to the to the switch block (included).

6. Connect the battery to the charging port.

7. Connect the input device (e.g. preamps) into the Switch Block.

8. Connect the ProWrist to the switch block. Input 1 corresponds to Channel A on the switch; Input 2 corresponds to Channel B.

9. Secure the battery and preamps/input system to the inside wall of the socket with self-adhesive Velcro or tape.

10. Slide the ProWrist into the lamination collar being careful not to pinch any wiring.

11. Align the ProWrist screw holes with the holes in the lamination collar, insert the forearm screws and tighten.



Figure 5. Vertical Transfer

Fixture with temporary alignment
fixture fabricated from PVC.

Socket Wiring Diagram

Figure 6

ProWrist/Terminal Device Input Options

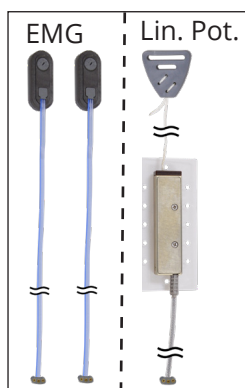
Triad Preamp Sets
Dual Ch. (3010784)
Single Ch. (3010785)

Available Battery Cable Adapters:

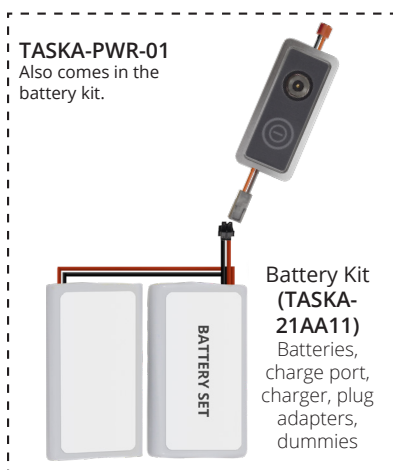
3010945 - Cable Adapter Switch
Control, battery input

3010946 - Battery Splitter 2-pin
connector

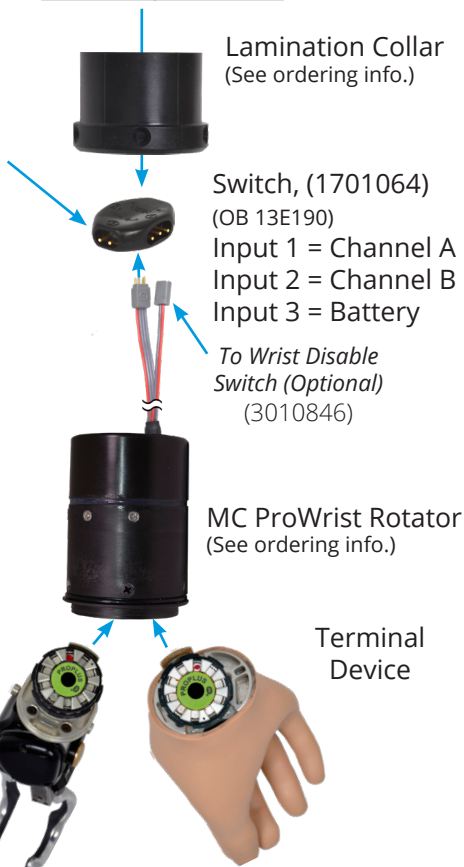
There are also 2-pin and 4-pin
extension wires available depend-
ing on your needs. See the Fillauer
website.



3-pin Linear
Potentiometer
(3010988)



For questions about the
wiring configurations, please
contact Fillauer Motion Control:
motioninfo@fillauer.com,
801-326-3434



Motion Arm Wiring Diagram

1. Unscrew the elbow End Cap and remove.
2. Unplug the A/B splitter cable from the blue labeled wire.
3. Attach the Motion Arm wiring to the ProWrist. See Figure 7, 8 or 9 for configurations.
4. Insert the wrist rotator into the arm. No lamination collar is needed it can go directly into the arm. Be careful to not pinch any wires.
5. Align the screw holes and fasten the screws. No adhesive necessary.

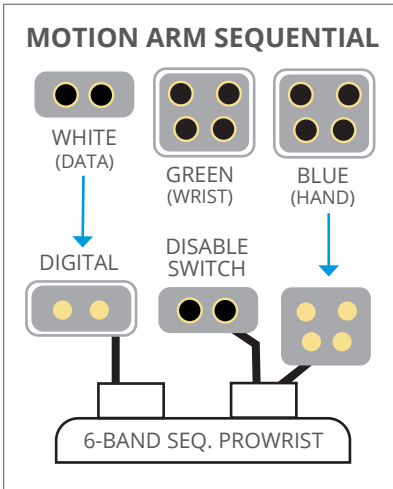


Figure 7. 6-Band ProWrist wiring.

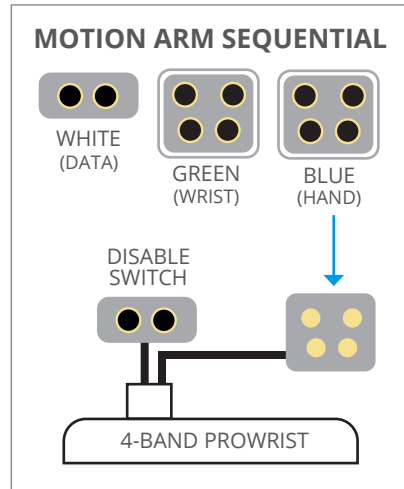


Figure 8. 4-Band ProWrist wiring.

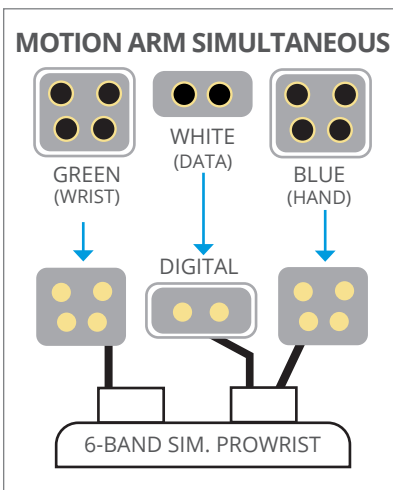
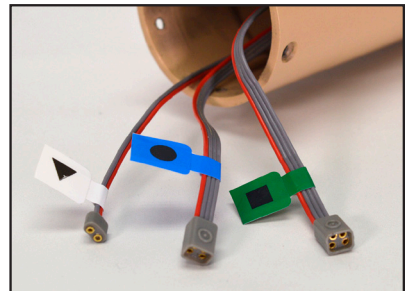


Figure 9. Wearer uses 4 electrodes (two sets) or implantable electrodes. This is for a pattern recognition feedback channel (not common use).

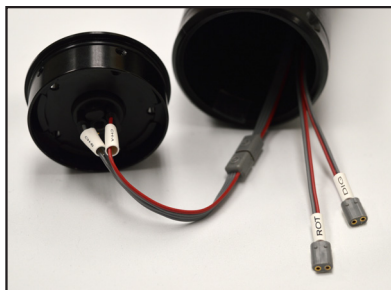


Motion Arm wiring with labels.

Other Wiring Configurations

The ProWrist is compatible with the E2 Elbow using standard inputs. Please follow the instructions in the E2 Elbow manual for correct wiring configuration with this wrist. You will need to purchase a lamination collar.

Note that a Motor Direct Wrist Rotator is required for compatibility with an E2 using pattern recognition.



E2 Elbow wiring configuration.

Other ProWrist compatible elbows include the Ottobock Ergo and Steeper Classic, along with other devices. Please see the documentation that comes with those products for proper wiring configurations with the ProWrist.

Disassembly

The ProWrist will fit very snugly into the lamination collar. Attach a terminal device to the wrist, remove the five screws and then firmly pull on the terminal device. The ProWrist will slide out of the lamination collar. Carefully disconnect all the wire connections.

Adjustment

See the software interface setup and training information. Factory default settings are not necessarily the best to use for all patients.

Maintenance

The Motion Control ProWrist does not require any routine maintenance. Avoid using any lubricants, liquids, or cleaners on any surfaces of the ProWrist.

The coaxial plug may require cleaning periodically. This is accomplished with a Q-tip and a very small amount of rubbing alcohol.

Follow up visits should be made to the Prosthetist at least yearly to ensure the User Interface settings do not require readjustment.

Single Patient Use

Each amputee is unique. The shape of their residual limb, the control signals each generates and the tasks an amputee performs during the day require specialized design and adjustment of the prosthesis. Motion Control products are manufactured to be fit to one individual.

Disposal/Waste Handling

This device, including any associated electronics and batteries should be disposed of in accordance with applicable local laws and regulations. This includes laws and regulations regarding bacterial or infectious agents, if necessary.

Limited Warranty

Seller warrants to Buyer that the equipment delivered hereunder will be free from defects in materials and manufacturing workmanship, that it will be of the kind and quality described and that it will perform as specified in Seller's written quotation. The limited warranties shall apply only to failures to meet said warranties that appear within the effective period of this Agreement. The effective period shall be two years (24 months*) from the date of delivery to the fitting center that has purchased the components. Refer to the shipping receipt for the date of shipment. *24 Months applies to devices purchased after 1/1/2026

Return Policy

Returns are accepted for a full refund up to 90 days from date of shipment as long as the item is in resalable condition. Beyond 90 days, returns are not accepted.

Declaration of Conformity

The product herewith complies with Medical Device Regulation 2017/745 and is registered with the United States Food and Drug Administration. (Registration No. 1723997)



iOS User Interface

The ProPlus Wrist underwent a core upgrade in mid 2025. Devices purchased before this date use the Motion Control User Interface (MCUI) App for configuration. Models purchased after that time will require use of the Motion Arm User Interface (MAUI) for setup. Both are available for free from the Apple Store, android devices aren't supported. Please refer to your specific device and the Quick Setup Guides at the end of the manual.

Suggested LCodes

Description	Feature	LCODE
MC Electric Wrist Rotator	Electric Wrist Rotator	L7259
	Hi-Speed, Hi-Torque Motor Drive	L7499*
MC ProWrist Controller	Microprocessor Control (use above codes plus):	L6882
	Proportional Control	L7499*

*Contact Motion Control for MSRP regarding L7499 codes

MCUI User Interface for iOS

Quick Setup Guide*



Motion Control User Interface for Apple® iOS (MCUI)

1. From the Apple® App Store  download and install the MCUI.
2. Enter the Prosthetist Code: **PR-MCAK**. *Patients do not require a code.*
3. Open the App and follow the Tutorial.
4. Go to the Connect screen  and tap Scan. 
5. Input the Pairing Key. *This key should be kept in the Patient's record.*
6. The device is now connected to the MCUI.
7. To disconnect, tap the Connect icon in the lower left corner,  then tap Disconnect. 

System Requirements

Apple® App Store account, and any of the following devices:

- iPad, iPhone, or iPod Touch running iOS 11 or later.

Troubleshooting

- Make sure the battery on the device is fully charged
- Check connection of the device in the quick disconnect wrist
- Confirm the device is turned on
- Verify that you are not in "Tutorial Mode" by double tapping the Home key, then swiping MCUI off the screen, and reopening MCUI
- Bluetooth® must be turned on in Settings  on the iOS device
- The Information icon  provides information about a function
- To repeat the tutorial, go to  and tap Reset on Reset Guided Tutorial

*For configuring devices before mid 2025. See your specific device.

MAUI App for iOS



Quick Setup Guide*

- From the Apple® App Store  download the MAUI app.
- Enter the Prosthetist Code: **PR-MCAK**. *Patients do not require a code.*
- Open the App and follow the Tutorial.
- Go to the Connect screen  and tap Scan. 
- Input the Pairing Key that came with the device. *This key should be kept in the Patient's record.*
- The device is now connected to the MAUI.
- To disconnect, tap the Connect icon in the lower left corner,  then tap Disconnect. 

Troubleshooting

- Make sure the battery on the device is fully charged
- Confirm the device is turned on
- Verify that you are not in "Simulation Mode" by double tapping the Home key, then swiping MAUI off the screen, and reopening the app
- Bluetooth® must be turned on in Settings  on the iOS device
- The Information icon  provides information about a function
- To repeat the tutorial, go to  and tap **Reset** on Reset Guided Tutorial

System Requirements

- iPad, iPhone, or iPod Touch running iOS 11 or later.



Download the
MAUI software on
the Apple Store.

*For configuring devices released after mid 2025. See your specific device.

WHICH WRIST ROTATOR DO I NEED?

Wrist Configuration	Coaxial Plug	Has Processor	Usage	Required Items	Compatible Elbow Systems and Devices
Motor Direct Part: 5010045	4-band Sequential	NO	Pattern Recognition, powered elbows, devices with other upstream configurations. 4-band used with most dual site systems, any device that operates open/close.	50mm Lamination collar: Smooth (device) or Slotted (socket). Lamination Dummy.	Coapt, Glide, Utah Arm, E2 Elbow pattern system, Ottobock Dynamic Arm or Dynamic Arm Plus, Steeper Espire Pro
Motor Direct 6-Band Part: 5010159	6-Band Sequential	NO	Pattern Recognition, feedback devices, powered elbows, devices with other upstream configurations.	50mm Lamination collar: Smooth (device) or Slotted (socket). Lamination Dummy.	Coapt, Glide, Utah Arm, E2 Elbow pattern system, Ottobock Dynamic Arm or Dynamic Arm Plus, Steeper Espire Pro.
ProWrist Part: 5010056	4-band Sequential, 2 channel	YES	Dual Site TransRadial System. 4-band used with most dual site systems.	50mm Lamination collar: Smooth (device) or Slotted (socket). Lamination Dummy. Optional: ProWrist Disable Switch.	Motion Arm, E2 Elbow standard input, hybrid elbows, Ottobock Ergoarm, Steeper Espire Hybrid, Classic and Classic Plus.
ProWrist 6-Band Seq. Part: 5010157	6-Band Sequential, 2 channel	YES	Dual Site TransRadial System. 6-band needed for vibration feedback.	50mm Lamination collar: Smooth (device) or Slotted (socket). Lamination Dummy. Optional: ProWrist Disable Switch.	Motion Arm, E2 Elbow standard input, hybrid elbows, Ottobock Ergoarm, Steeper Espire Hybrid, Classic and Classic Plus.
ProWrist 6-Band Sim. Part: 5010158	6-Band Simultaneous, 4 channel	YES	Wearer uses 4 electrodes (two sets) or implantable electrodes (not common use). Must use multiple inputs. 6-band needed for vibration feedback.	50mm Lamination collar: Smooth (device) or Slotted (socket). Lamination Dummy.	Motion Arm, hybrid elbows, Ottobock Ergoarm Hybrid Plus and Electronic Plus (50mm), Steeper Espire Hybrid, Classic and Classic Plus.

Fillaueer, #1910134, 08/10/26

Ordering Information

Description	Tan	Brown	Jet Black
MC Motor Direct Wrist Rotator, 4-Band Sequential			5010045
MC Motor Direct Wrist Rotator, 6-Band Sequential			5010159
MC ProWrist Rotator, 4-Band Sequential — 2-channel			5010056
MC ProWrist Rotator, 6-Band Sequential — 2-channel			5010157
MC ProWrist Rotator, 6-Band Simultaneous — 4-channel			5010158
ProWrist Disable Switch			3010846
Lamination Collar for MC Wrist	1100292	1100296	1100288
Lamination Collar for MC Wrist for Hosmer Prefab (Large), Boston or AFB	1100295	1100299	1100291
Forearm Endcap			3010758

Use a Motor Direct Wrist Rotator for these elbows:

Utah Arm (U3/U3+), E2 Elbow with pattern recognition, Ottobock Dynamic Arms, Steeper Espire, other manufacturer's powered elbows. Devices using Coapt and Glide Systems in most configurations.

Use a ProWrist Rotator for these elbows:

Motion Arm Hybrid, E2 Elbow standard inputs. Ottobock Ergo, Steeper Classic, etc.

4-Band Terminal Devices:

TD's running open/close dual site systems, ilimb Quantum, Adams Hand, Vincent, bebionic, MC Motor Direct and ProPlus TD's, other manufacturer TD's.

6-Band Terminal Devices:

Taska, Zeus, Covvii, Psyonic, Esper, feedback devices.

Customer Support

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