

Stealth Products
®



**Alternative
Drive Controls**



i-Drive Control Harness

Owner's Manual - Maintenance Guide
i-Drive Control Harness



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Stealth Products is committed to 100% customer satisfaction. Your complete satisfaction is important to us. Please contact us with feedback or suggestions to help us improve the quality and usability of our products.

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General

Read and understand all instructions prior to the use of the product. Failure to adhere to instructions and warnings in this document may result in property damage, injury, or death. Product misuse or failure to follow instructions will void the warranty.

Immediately discontinue use if any function is compromised, if parts are missing or loose, or if any component shows signs of excessive wear. Consult with your supplier for repair, adjustment, or replacement.

All persons responsible for fitting, adjustment, and daily use of the devices discussed in these instructions must be familiar with and understand all safety aspects of the devices mentioned. In order for our products to be used successfully, you must read and understand all instructions and warnings, and maintain our products according to our instructions on care and maintenance.

The installation instructions will guide you through this product's options and possibilities.

Instructions are written with the expressed intent of use with standard configurations. They also contain important safety and maintenance information, as well as describe possible problems that can arise during use. For further assistance, or more advanced applications, please contact your supplier or **Stealth Products** at (512) 715-9995 or toll free at (800) 965-9229.

Always keep the operating instructions in a safe place so they may be referenced as necessary.

All information, pictures, illustrations, and specifications are based on the product information that was available at the time of printing. Pictures and illustrations shown in these instructions are representative examples and are not intended to be exact depictions of the various parts of the product.

Important Information



CAUTION

These products are designed to be fitted, applied, and installed exclusively by a healthcare professional trained for these purposes. The fitting, application, and installation by a non-qualified individual could result in serious injury.

Warranty

Our products are designed, manufactured, and produced to the highest of standards. If any defect in material or workmanship is found, **Stealth Products** will repair or replace the product at our discretion. Any implied warranty, including the implied warranties of merchantability and fitness for a particular purpose, shall not extend beyond the duration of this warranty. **Stealth Products** does not warrant damage due to, but not limited to: misuse, abuse, or misapplication of product, and/or modification of product without written approval from **Stealth Products, LLC**. Any alteration or lack of serial number, where applicable, will automatically void all warranty.

Stealth Products, LLC is liable for replacement parts only. **Stealth Products, LLC** is not liable for any incurred labor costs. **Stealth Products** warrants against failure due to defective materials or workmanship:

Covers, Headrest Pads, Cushions: 2 years

Hardware: 5 years

Electronics: 3 years

In the event of a product failure covered by our warranty, please follow the procedures outlined below:

- Call **Stealth Products** at (512) 715-9995 or toll free at (800) 965-9229.
- Request a Return Authorization (RA) form from the Returns Department and follow the documentation instructions.

Additional warranty information may be found by visiting the website at <https://stlpro.site/returns-n-warranty>, or by scanning the *Warranty Information QR code on the back of this manual*. Copies of this manual may be downloaded by accessing the Stealth website (<https://stlpro.site/stealth-docs>) and searching "P132D399" in the search bar, or by scanning the Online User Manual QR code on the back of this manual.

Supplier Reference

Supplier:	
Telephone:	
Address:	
Purchase Date:	
Model:	

Warning Labels

Warnings are included for the safety of the user, client, operator, and property. Please read and understand what the signal words **DANGER**, **WARNING**, **CAUTION**, **NOTICE**, and **SAFETY** mean, and how they could affect the user, those around the user, and property.



DANGER

Identifies an **imminent** situation which, if not avoided, may result in **severe injury, death, and property damage**.



WARNING

Identifies a **potential** situation which, if not avoided, may result in **severe injury, death, and property damage**.



CAUTION

Identifies a **potential** situation which, if not avoided, may result in **minor to moderate injury and property damage**.

NOTICE

Identifies important information not related to injury, but possible **property damage**.

SAFETY

Indicates steps or instructions for safe practices, reminders of safe procedures, or important safety equipment that may be necessary.

Limited Liability

Stealth Products, LLC accepts no liability for personal injury or damage to property that may arise from the failure of the user or other persons to follow the recommendations, warnings, and instructions in this manual.

Stealth Products does not hold responsibility for final integration of final assembly of product to end user. **Stealth Products** is not liable for user death or injury.

Testing

Initial setup and driving should be done in an open area free of obstacles until the user is fully capable of driving safely.

Intended Use

The i-Drive Control Harness is a secure platform to attach control devices in positions that accommodate users limited in their ability to use traditional joysticks or switch combinations. Smaller switches and joysticks with various input force requirements can be configured to assist users with conditions ranging from paralysis to paraplegia, allowing them the freedom to control devices and mobility platforms with nearly any facial surface.

Features

The i-Drive Control Harness:

- Is lightweight and discreet;
- Is compatible with the mo-Vis Micro and Multi joysticks, as well as Stealth's IDPMP joysticks;
- Is height-, depth-, and angle-adjustable through the use of tracks, swivel mounts, and links;
- Can be fitted easily with Twister switches and fiber optics using Loc-Line as an additional accessory; and,
- Is supplied with a Stealth Positioning body securement belt, which helps to ensure the IDCH remains secure and stable.


Mounting

The i-Drive Control Harness is designed for joysticks to be easily interchangeable and has additional access points for the use of switches and/or fiber optics, if required.

- mo-Vis Multi and Stealth's IDPMP joysticks require the same mounting hardware.
- mo-Vis Micro joystick is mounted by removing the joystick mount used by the Multi and IDPMP joysticks and adding Stealth's joystick strap.
- Track versatility and Loc-Line switch options equate to nearly unlimited positioning possibilities for the user.

IDCH Package

The i-Drive Control Harness part numbers/descriptions are as follows:

Product Description	Part Number	Image
Pediatric i-Drive Control Harness	IDCH-P	
Small i-Drive Control Harness	IDCH-S	
Medium i-Drive Control Harness	IDCH-M	
Large i-Drive Control Harness	IDCH-L	

i-Drive Control Harness Standard Belt	IDCH-SB* (standard for Pediatric, Small and Medium IDCH sizes)
	


i-Drive Control Harness Extra Large Belt	IDCH-XLB* (standard for Large IDCH sizes)
	








* All belts are universal

IDCH Accessories

The IDCH accessories include switches and fiber optics installed on Loc-Line. The part numbers/descriptions are as follows.

Product Description		Part Number	Image
Left Side Single Twister Basic Button on Loc-Line - Specify Color *See colors below		IDCH-A1L	
Right Side Single Twister Basic Button on Loc-Line - Specify Color *See colors below		IDCH-A2R	
Left Side Fiber-Optic on Loc-Line (Requires IC24F-1)		IDCH-AFL	
Right Side Fiber-Optic on Loc-Line (Requires IC24F-1)		IDCH-AFR	

IDM-24	Twister Basic Button - Yellow	
IDM-25	Twister Basic Button - Black	
IDM-26	Twister Basic Button - Red	
IDM-27	Twister Basic Button - Blue	
IDM-28	Twister Basic Button - Green	

IDCH Replacement Parts

Additional/Replacement parts may be ordered if necessary. The part numbers descriptions are as follows:

Product Description	Part Number	Image
Additional Link for Harness	IDCH-A1L	
Replacement Cover for Control Harness	IDCH-PC IDCH-SC IDCH-MC IDCH-LC	
6" Loc-Line for Mounting Accessories to the Control Harness	IDCH-FL6	
Pediatric i-Drive Control Harness Collar Small i-Drive Control Harness Collar Medium i-Drive Control Harness Collar Large i-Drive Control Harness Collar	IDCH-PNC IDCH-SNC IDCH-MNC IDCH-LNC	
Mount for IDM-MULTI-9 & IDPMP-1,9	IDCH-JM01	
Mount for IDM-MICRO-9	IDCH-JM02	

Configuration

i-Drive Control Harness Belt (provided with IDCH order):

- Two sizes are available.
- Standard belt size - 16" x 3 3/4"* (Pediatric, Small and Medium IDCH)
- Extra Large Belt size - 18 1/2" x 4"* (Large IDCH)

NOTICE

Measurements shown include pad sizes only.

- The belt is attached at the front of the collar, via buckles, and provides support along the client's back. The belt helps to prevent the harness from shifting out of position.
- The belt is easily adjustable, side-release, dynamic material.

NOTICE

Webbing may be trimmed to size if necessary.



CAUTION

Do not overtighten belt straps.

Size	Chest Circumference Minimum*	Chest Circumference Maximum*
Pediatric	27"	42"
Small	30"	45"
Medium	33"	48"
Large	36"	66"

Additional Link

An additional link is available for IDCH (**IDCH-LINK**):

- If additional height is required for proper positioning, the IDCH-LINK may be ordered and easily attached.
- An additional link will provide 1-3/4" of additional height.

* Measurements are approximate.

Loc-Line with Twister Basic Button/Fiber Optic Switch

- Switches, attached by Loc-Line tubing, may be ordered for the IDCH.
- Approximately 12" of Loc-Line is provided.
- Loc-Line will be secured via M5 x .8 x 25mm SHS & M5 locknuts and share the same track as the swivel mount.
- Fiber optic switches require the IC24F-1.
- The Loc-Line can be easily adjusted and oriented to the client's needs.

Replacement Neck Cover (IDCH-PC, SC, MC, LC)

- Neoprene fabric (standard).

Loc-Line for Mounting Accessories (IDCH-FL6)

- All switches are mounted on 12" of Loc-Line.
- Additional Loc-Line may be ordered in 5-3/4" increments.
- The depth position of the switches can be adjusted on the track by loosening the nut under the track. Slide Loc-Line along the track until you have reached the desired position and tighten.



CAUTION

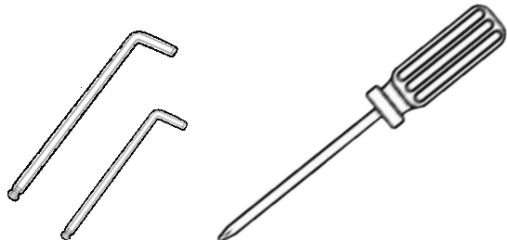
Do not over-tighten the nut, as this can crack or damage the Loc-Line tubing.

NOTICE

When a switch has been installed on the Loc-Line, the length cannot be altered. If there is a possibility that more length for the switch site will be necessary, we advise that additional Loc-Line (IDCH-FL6) be ordered at the time of purchase.

Tools

- 2mm Hex Key
- 3mm Hex Key
- 4mm Hex Key
- Phillips Head Screwdriver





WARNING

The i-Drive Control Harness should be installed **ONLY** by a qualified service technician.

Installation Plan

Set up an installation plan before starting the installation. Based on the user's needs, this plan should specify:

- Which joystick is necessary for the client to operate.
- What height the links should be adjusted to.
- At what angles the links need to be placed.



CAUTION

Use the proper tools to install and adjust the i-Drive Control Harness. The use of improper tools may cause damage to the device.

Joystick Installation

To install the mo-Vis Micro, Multi, or Stealth IDPMP joysticks, follow the instructions in the next section. To program these joysticks, please refer to the user manual that came with the joystick, and carefully follow the instructions:

- Determine the correct height of the links on the collar for the user. If additional height is necessary, links can be purchased.
- Adjust the links to the proper angles and secure the screws.



CAUTION

Tighten the screws firmly, but not excessively. Excessive force may damage the unit.

- The joystick mount on the collar is for mounting the Multi or IDPMP Joystick with the proper screws. To use the Micro Joystick, remove the joystick mount from the collar. Use the mounting strap to mount the Micro Joystick to the links on the IDCH.
- Place IDCH on client and make any final adjustments with the position of the joystick and the angle at which it is mounted for the client.
- Wrap the belt around the back of the client and secure it to the front of the IDCH.



CAUTION

Any connection must always be secured with all delivered screws. Use only the screws provided in the package.

Mounting a Joystick to the Control Harness

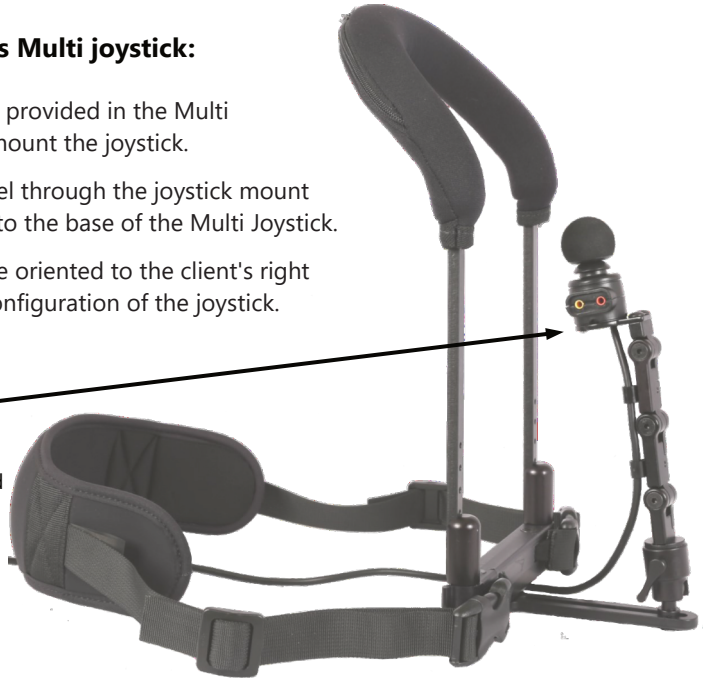
To mount the mo-Vis Multi joystick:

- Use the four screws provided in the Multi Accessory Pack to mount the joystick.
- The screws will travel through the joystick mount on the IDCH and into the base of the Multi Joystick.
- USB ports should be oriented to the client's right side for standard configuration of the joystick.

Standard Configuration

USB ports pointing to the user's right side for forward direction orientation

Joystick is mounted with four screws through the joystick mount.



Mounting the IDPMP joystick:

- Use the two screws provided in the IDCH kit to mount the IDPMP joystick.
- Screws will travel through the base of the mount on the IDCH and into the base of the IDPMP joystick.
- For standard configuration of the joystick, orient the dimple to the front, facing away from the client.

Standard Configuration

Dimple facing the front, away from the user, for forward direction orientation.

Joystick is mounted with four screws through the joystick mount.



Installation Instructions

- Step 1:** Place Multi or IDPMP joystick atop the joystick mount. Match the holes on the base of the joystick to the holes on the mount.
- Step 2:** Secure joystick to mount by inserting the provided screws through the matching holes.
- Step 3:** Secure the power cord to the links via the 1/4" clips.



WARNING

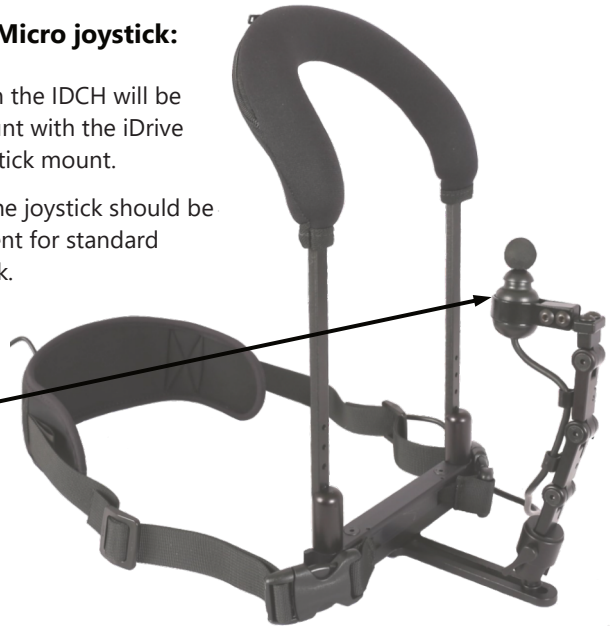
Ensure the joystick power cord is fed through the cutout in the joystick mount, without kinking or splicing.

When mounting a mo-Vis Micro joystick:

- The Multi/IDPMP mount on the IDCH will be removed. Replace the mount with the iDrive Control Harness Micro joystick mount.
- The arrow on the base of the joystick should be pointing away from the client for standard configuration of the joystick.

Standard Configuration

Arrow on the base of the joystick facing away from the user.



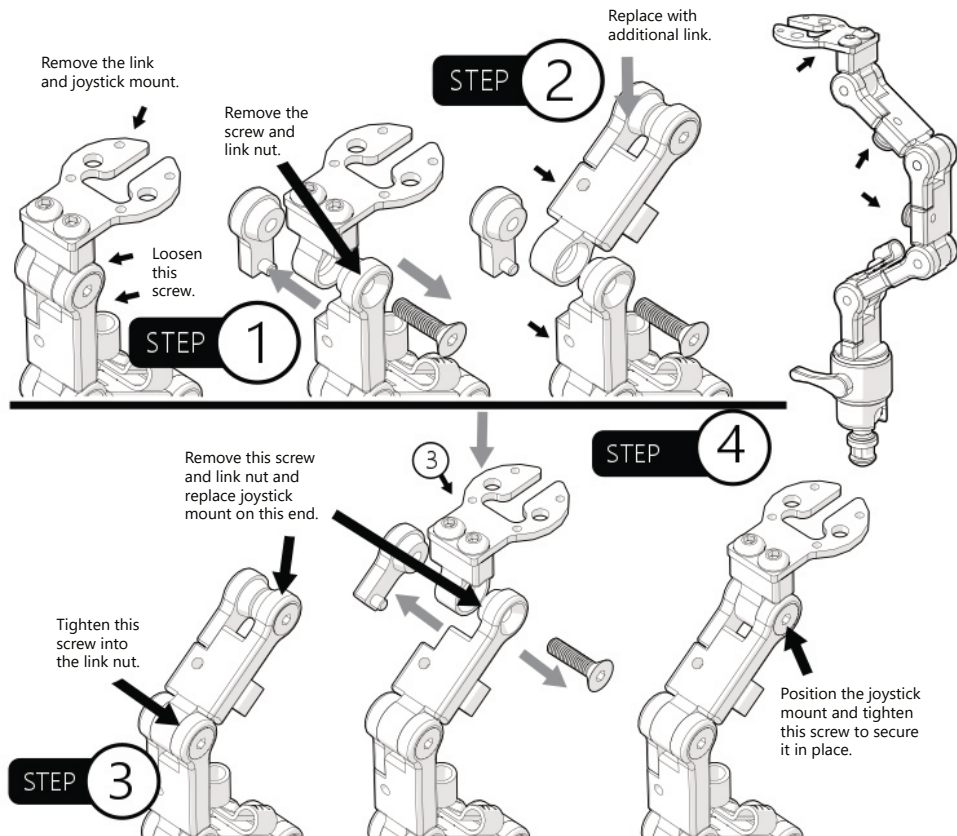
- Step 1:** Loosen and remove screws securing the joystick mount to the Nino Link.
- Step 2:** Remove the joystick mount.
- Step 3:** Slightly loosen M5 x 0.8 x 6mm BHS and position the strap mount around the Micro joystick. Tighten the screws with a 3mm Hex Key.
- Step 4:** Attach the joystick strap mount to the Nino Link with screws and tighten with a 3mm Hex Key.



CAUTION

Use caution around feeding tubes, wounds, or other sensitive areas.

Removal/Addition of Link



If additional height is required:

- Step 1:** Locate the link screw on the top link. Remove the M5 x 0.8 x 20mm FHS from the link detaching the joystick mount and link nut.
- Step 2:** Line up the holes on the new link and add it to the open end. Make sure to align the link nut position on the same side as the other links.
- Step 3:** Insert the link screw and tighten it with a 3mm Hex Key.
- Step 4:** Remove the link screw at the top of the new link.
- Step 5:** Add the joystick mount and link nut, lining up all the holes. Insert the link screw and tighten.



CAUTION

DO NOT OVER-TIGHTEN SCREWS.

This could cause wearing of screws or joystick threads, causing the client to lose efficient control.

Adjustment

The IDCH has multiple points of adjustment.

To determine the size needed, measure the circumference of the client's neck. Refer to the table below for sizing information.

Collar Size

Part Number	Size	Width	Circumference
IDCH-P	Pediatric	3-1/2"	11"
IDCH-S	Small	4-1/2"	14-1/8"
IDCH-M	Medium	5-1/2"	17-1/4"
IDCH-L	Large	6-1/2"	20-1/2"

Arm Lengths

Size	Inches
Pediatric	7"
Small	9"
Medium	10"
Large	11"

Height Adjustment

- The arm lengths are standard to the size of the assembly ordered. The mount can be moved closer to the client by moving the latches up the arms.
- If the distance to the joystick does not meet the client's needs, the arms may be shortened by cutting them.
- To adjust the length of the arms:
 - Loosen the set screws securing the latch to the arms.
 - Slide the arms up or down in the latches to the desired height.
 - Tighten the set screws to secure the arms at the desired height.
 - If the height is adjusted to the point the arms protrude out the bottom of the latch, they should be trimmed to avoid contact that may cause discomfort for or injury to the user.

NOTICE

Cutting the arms should be performed only if necessary.
Cuts on the arms need to be made one inch below the desired mounting position.



CAUTION

After making cuts to the arms, be sure to smooth all sharp edges prior to final assembly.

Adjustment Instructions

Lateral Adjustment & Depth Adjustment

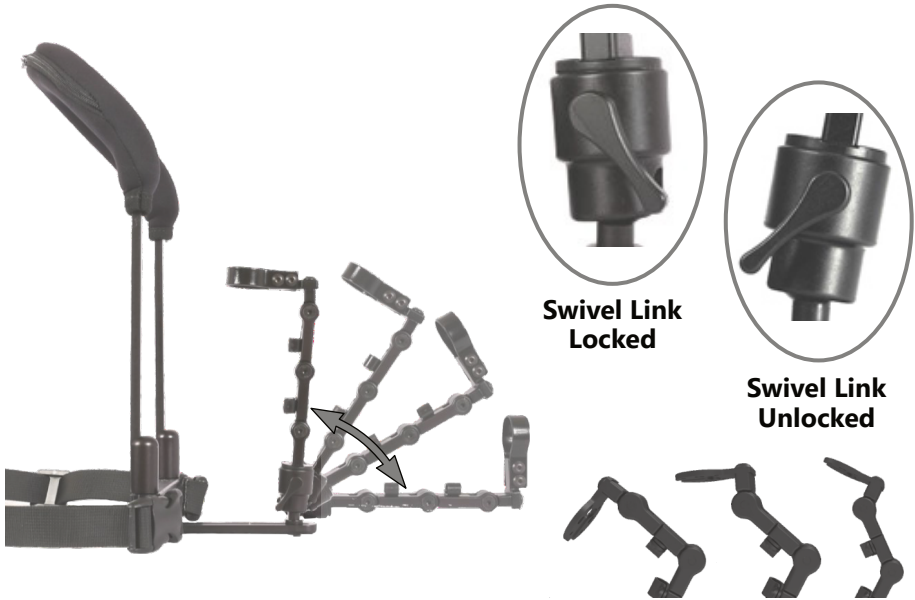
- Lateral adjustment of the track and joystick mount is determined by the size of the collar.
- 3 1/4" of depth adjustment is available for all harnesses.



Size	Inches of Lateral Adjustment
Pediatric	3"
Small	4"
Medium	5"
Large	6"

Angle and Link Adjustment

- The swivel link, located at the base of the joystick mount, offers 360° of adjustment for the user.
- 90° of adjustment forward and backward provides the client with the ability to move the joystick as close to them as necessary.
- A quarter-turn in a downward direction will release the locking mechanism and allow the client to adjust the swivel mount. A quarter-turn in an upward direction locks the swivel mount.



- The links and joystick mounts can be adjusted to various angles to best fit the client's needs.

To adjust the angle of the joystick mount:

Step 1: Turn the handle of the swivel link

Step 2: With a 3mm Hex Key, loosen the screw at the base of the link beneath the joystick mount.

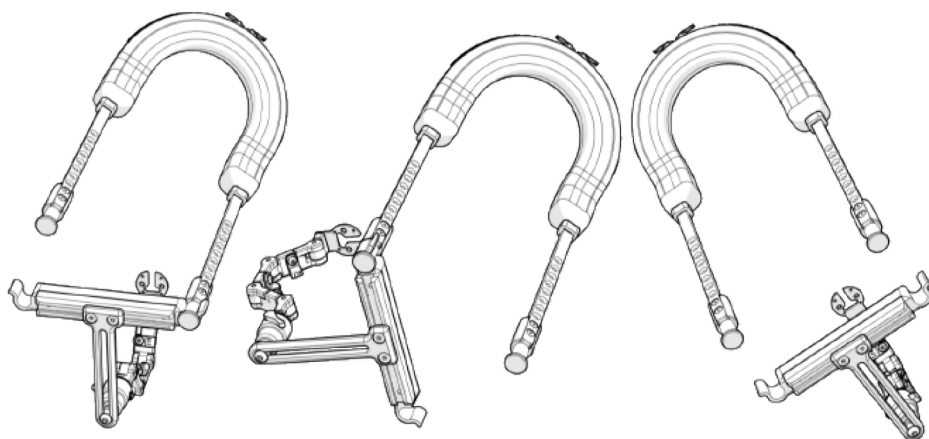
Step 3: Rotate the joystick mount to the desired angle.

Step 4: Tighten the screw with the 3mm Hex Key to secure the desired joystick adjustment.

Removing the Collar

The track may be released from the collar (illustrated from the client's perspective).

Three (3) different options are available to remove the arms from the latch:



Left Release

(Swings to client's right side)

Right Release

(Swings to client's left side)

Full Release

- Step 1:** For your safety, unbuckle the belt from the collar.
- Step 2:** Choose the direction to release the arms from the latch.
- Step 3:** Place a firm hold on the latch and arm.
- Step 4:** Pull latch away from client.
- Step 5:** Secure and turn latch.
- Step 6:** Remove from around the neck.

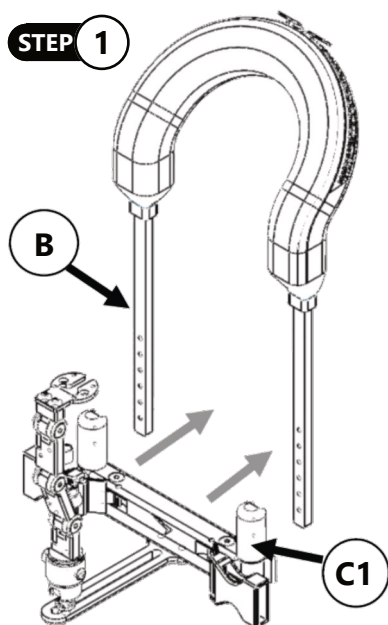


WARNING

Discontinue use if any product's function becomes compromised, loose, shows signs of excessive wear, missing parts, or does not function as intended.

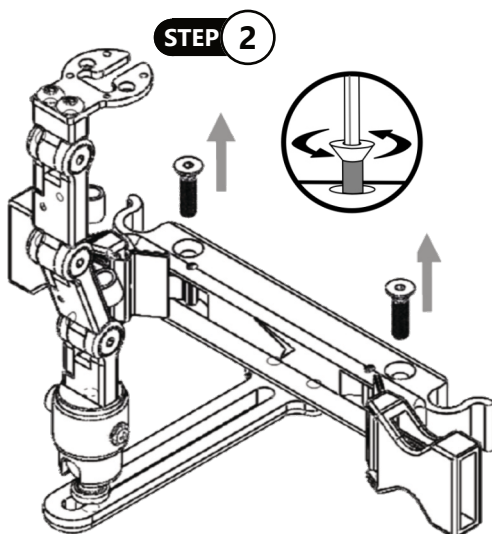
Replacing the IDCH Belt

STEP 1

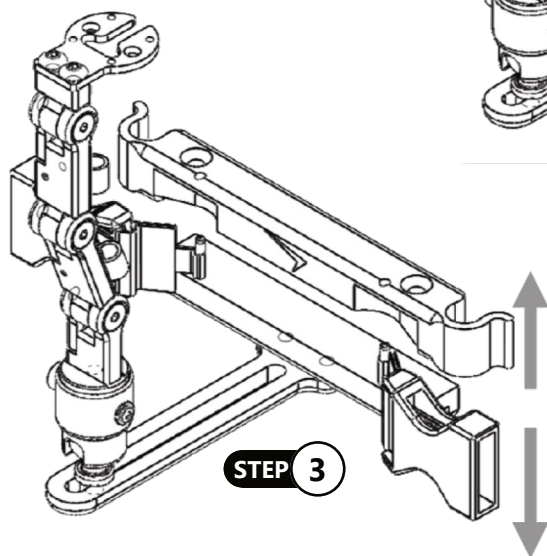


Step 1: With the 2mm hex key, unscrew and remove the M3 x 0.5 x 12mm flat head screws. Separate the arms (B) from the latch (C1).

STEP 2

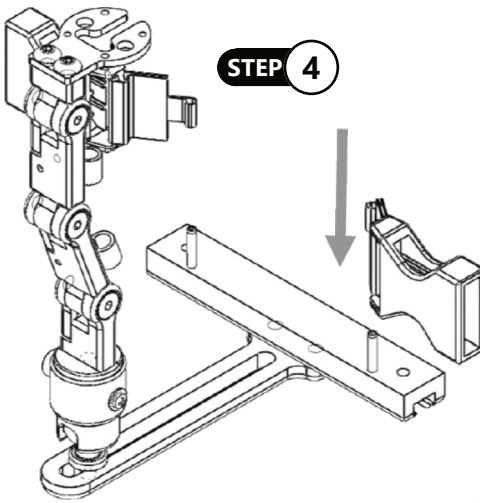


Step 2: Loosen and remove the M5 x 0.8 x 20mm FHS (2) from the i-Drive latch (top).



STEP 3

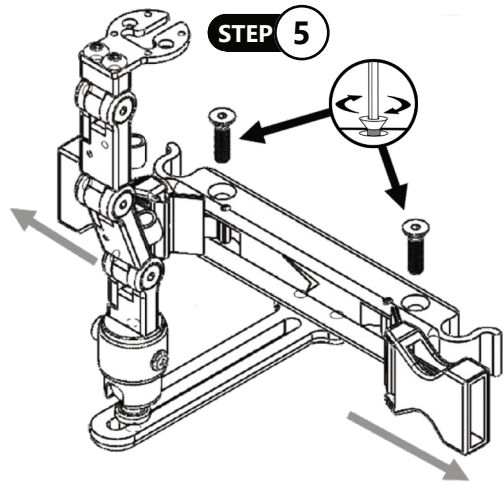
Step 3: Pull straight upward on the latch to separate it from the track.



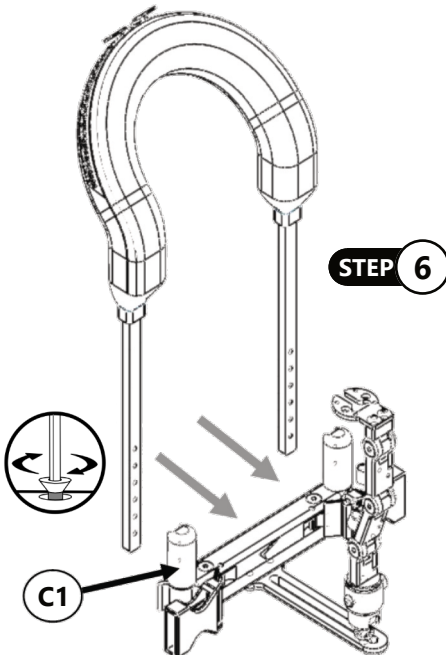
STEP 4

Step 4: Remove the buckles from the pins. Replace new buckles by sliding the 3/8" webbing onto the pins. Match the holes of the track to the holes of the latch, and snap it back together again.

Step 5: Give a slight tug to the female buckles to ensure the webbing is hooked onto the slotted spring pins. Insert a M5 x 0.8 x 20mm flat head screw and tighten.



STEP 5



STEP 6

Step 6: Snap the arms back into the latch (C1). Using the 2mm hex key, tighten the M3 x 0.5 x 12mm flat head screws back into place.

Dealer Assistance

During first time use by the client, it is advised that the dealer or service technician assists and explains the different drive configurations to the customer (the user and/or the attendant). If needed the dealer can make final adjustments.

User Testing

It is important that the customer is fully aware of the installation of the **i-Drive Control Harness**, how to use it, and what can be adjusted in order to gain as much mobility as possible. As a dealer, proceed as follows:

Have the user test all positions and functions of the **i-Drive Control Harness**:

- Is the joystick within easy reach?
- Can the user operate the joystick and all other functions of the harness with minimal effort?
- Are all wires routed to avoid pinching, crushing, or stretching during normal operation?
- Is the placement of the **i-Drive Control Harness** in the optimal position for user?

If needed, adjust the **i-Drive Control Harness** and joysticks and retest until it is in the optimal position and functions properly.

Explain to the customer the possible problems and how to address them.

Conditions of Use

The **i-Drive Control Harness** is intended for use as installed by the dealer, in accordance with instructions in this manual.

- The foreseen conditions of use are communicated by the dealer or service technician to the user and/or attendant during the first time use.
- If the conditions of use change significantly, please contact your dealer or qualified service technician to avoid excessive wear and tear or unintended damage.



Failure to comply with these warnings could result in serious bodily harm.

Care and Maintenance

We recommend that all products be checked for wear and function on a periodic basis and replaced, if necessary, by a wheelchair professional.

- Repairs should be done with genuine Stealth parts, fasteners, or items appropriate for the service needed.
- Discontinue use after identifying loose or broken components.
- Check and tighten all fasteners according to the installation instructions.

SAFETY

Repair or replace parts as needed.

Cleaning

- Surfaces may be wiped clean with a damp cloth and a mild, non-abrasive cleaner.
- Ensure all cleaners are approved for finished steel, aluminum, plastic, and upholstered surfaces.
- The belt may be machine washed, warm water (40°C), Permanent Press Cycle, Gentle Process.



WARNING

DO NOT Bleach. DO NOT Tumble Dry.
Dry Flat. DO NOT Iron.



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Warranty Information



Home Page



Online User Manual



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