

**Stealth Products**



Mounting Hardware

**OWNERS MANUAL**



ST-TWBM480-QL-Q & ST-TWBM480-CJ-Q

Stealth's User and Installation Manual for the  
Flip-Down Hardware with Joystick Mounts

Stealth Products strives for 100% customer satisfaction. Your complete satisfaction is important. Please contact us with feedback or suggested changes that will help improve the quality and usability of our products. You may reach us at:



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30175 Hannover, Germany



## 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 due to failure of the following instructions will void the warranty.

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

## Important Information!

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.
- Maintain our products according to our instruction on care and maintenance.
- Devices should be installed and adjusted by a trained technician.

## Supplier Reference

Supplier: \_\_\_\_\_

Telephone: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Purchase Date: \_\_\_\_\_

Model: \_\_\_\_\_

Before you install or begin using this product, it is important that you read and understand the content of these installation and operating instructions. The installation instructions will guide you through the possibilities with the flip-down joystick mount hardware.

Instructions are written with the expressed intent of use with standard configurations. They also contain important safety and maintenance information. For further assistance, or more advanced applications, please contact your supplier or Stealth Products at (512) 715-9995 or toll free 1-800-965-9229.

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.

## **Ordering Documentation**

You can download additional copies of this Owner's Manual on the Stealth website:

[www.stealthproducts.com](http://www.stealthproducts.com)

Or search:

ST-TWBM480-QL-Q & ST-TWBM480-CJ-Q Owner's Manual

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.

- Misuse, abuse, or misapplication of products.
- Modification of product without written approval from Stealth Products, LLC.
- Any alteration or lack of serial number, where applicable, will automatically void this warranty.
- Stealth Products, LLC is liable for replacement parts only.
- Stealth Products, LLC is not liable for any incurred labor costs.

No person is authorized to alter, extend, or waive the warranties of Stealth Products, LLC.

Stealth Products warrants against failure due to defective materials or workmanship:

Covers: 2 years

Hardware: 5 years

Electronics: 3 years

## **In Case of Product Failure**

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

1. Call Stealth at +1 (512) 715-9995 or toll free +1-800-965-9229.
2. Request the Returns Department or obtain an RA from the Returns Department and follow department or documentation instructions.

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## Warning Labels

### 6.1

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

#### **DANGER**

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

#### **WARNING**

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

#### **CAUTION**

Identifies a **potential** situation which (if not avoided) will 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

### 6.2

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

### 6.3

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

The TWBM480-QL-Q/TWBM480-CJ-Q hardware should be installed and tested following the instructions in this owner's manual.

The following safety precautions should be taken when adjusting the flip-down joystick mount hardware:

 **CAUTION**

Ensure the red flip-down sleeve freely rotates. If the flip-down sleeve does not rotate, the hardware will not work properly.

 **CAUTION**

When tightening screws, turn loosely until the screws stop, then tighten one quarter turn more. Overtightening screws may cause product malfunction and irreversible damage.

**NOTICE**

The sleeve should make an audible 'click' when moved back into the vertical position.

**SAFETY**

Move hands from sleeve area when bringing back to a vertical state. The sleeve could pinch when moving and cause injury.

**NOTICE**

There should be a minimal lateral movement of the hardware once it has been installed.

**SAFETY**

Add Blue Loctite to the set screws on the triangle after adjustment is complete.



## Intended Use

## 8.1

The ST-TWBM480-QL-Q/ST-TWBM480-CJ-Q hardware utilizes Stealth's link style hardware to provide limitless adjustment. Multiple planes of adjustment allow critical adjustment for the joystick mounts. Separate links isolate adjustment planes and angles, while individual link adjustment achieves the most complex support solutions, making the positioning for your joystick simple.

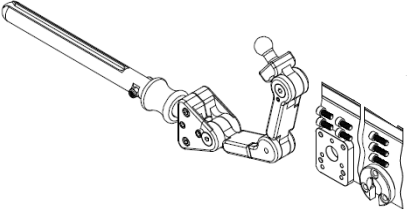
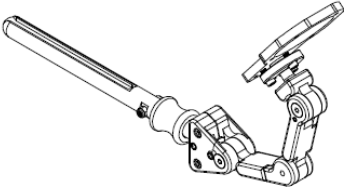
The flip-down style hardware offers a sleek design, strong resistance and an easy flip-down mechanism which allows the joystick to flip away while staying attached to the hardware, eliminating misplacement.

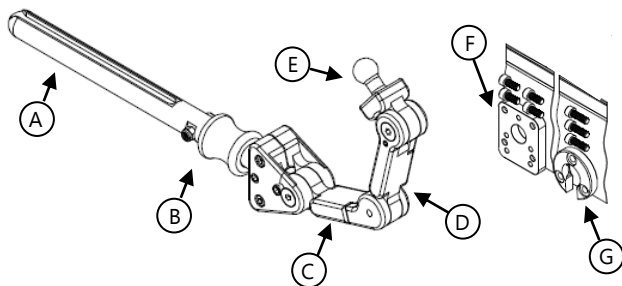
The ST-TWB480-QL-Q is to be used with:

- NE/NE+ Joysticks
- Q Logic Joysticks

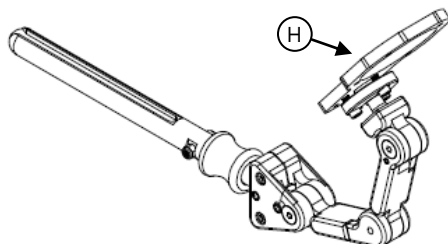
The ST-TWB480-CJ-Q is to be used with:

- Compact Joysticks

Part Number	Description
ST-TWB480-QL-Q	
ST-TWB480-CJ-Q	

**ST-TWBM480-QL-Q/ST-TWBM480-CJ-Q****9.1****ST-TWBM480-QL-Q**

	Part Number	Description
<b>A</b>	FDM380	3/4" Diameter Flip-Down Rod
<b>B</b>	FDM Sleeve	Flip-Down Sleeve
<b>C</b>	Offset Link	3" Offset Link
<b>D</b>	Inline Link	3" Inline Link
<b>E</b>	Ball Mount	17mm Headrest Ball
<b>F</b>	Q-Logic Plate	Q-Logic Interface Plate
<b>G</b>	3 Hole Ring	3 Hole Ring
<b>H</b>	Interface Plate	Curtis Joystick Interface Plate

**ST-TWBM480-CJ-Q**

\* The ST-TWBM480-CJ-Q includes the same components as the ST-TWBM480-QL-Q.

## Tools

## 9.2



Hardware	Description
2.5mm T-Handle	Set screws on links
5/32 T-Handle	All screws on triangle & links
3/16 T-Handle	Cane clamp screws

Tools, anti-seize, and Blue Medium Strength Liquid Loctite Series 242 are not provided.

## Torque Specs

## 9.3

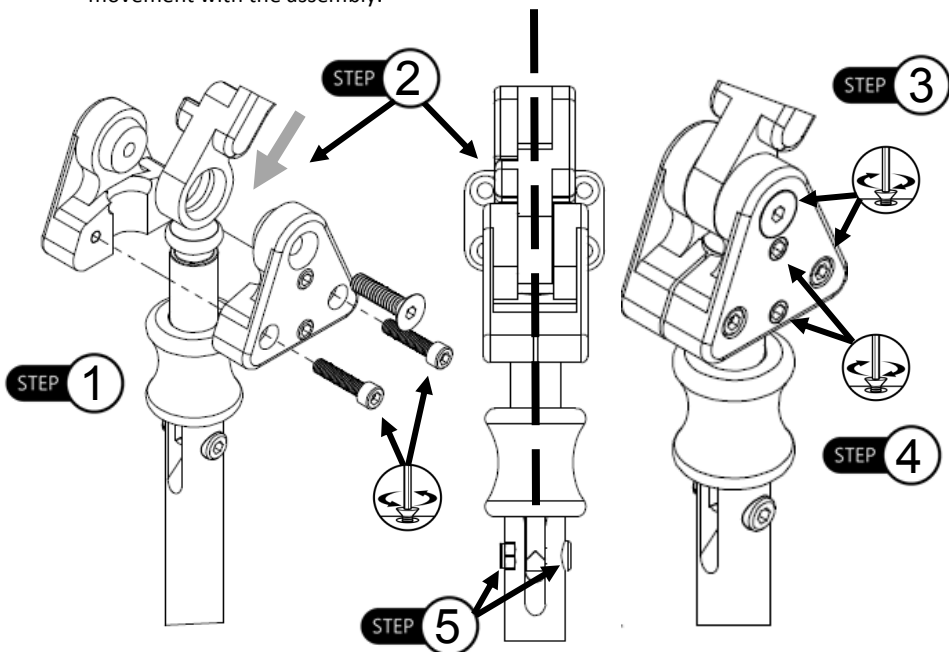
Screws	Torque Specification
1/4 x 20 x 1" FHS	140in-lbs
10-32 x 1/4" SS	40in-lbs
10-32 x 5/8" SHS	90in-lbs
M5 Shoulder Screw	6.9nM

\*Torque specifications for ST-TWBM480-QL-Q & ST-TWBM480-CJ-Q are the same.

## Replacing the FDM380

### 10.1

- Step 1:** Loosen the set screws on the triangle mount but do not remove. Loosen the socket screws from the triangle, allowing the thru triangle to be released from the mount.
- Step 2:** Place the headrest hardware links in line with the thru and threaded triangles. The link attachment points must be aligned with the flip-down slot on the FDM380 bar to ensure correct movement of the flip-down sleeve.
- Step 3:** Align triangles and tighten the socket head screws back into place.
- Step 4:** Tighten the set screws. Ensure they are snug but do not overtighten. Add Blue Loctite to set screws to prevent loosening.
- Step 5:** Tighten the screw and locknut on the vertical bar. There should be minimum lateral movement with the assembly.



\*Instructions for replacing FDM380 are the same for the ST-TWBM480-QL-Q & ST-TWBM480-CJ-Q

### **CAUTION**

Ensure that all screws are tightened evenly on the hardware. Threads can strip out and cause damage to the hardware if not tightened properly.

### **NOTICE**

Tighten the set screws with the client in the chair and make any final adjustments necessary.

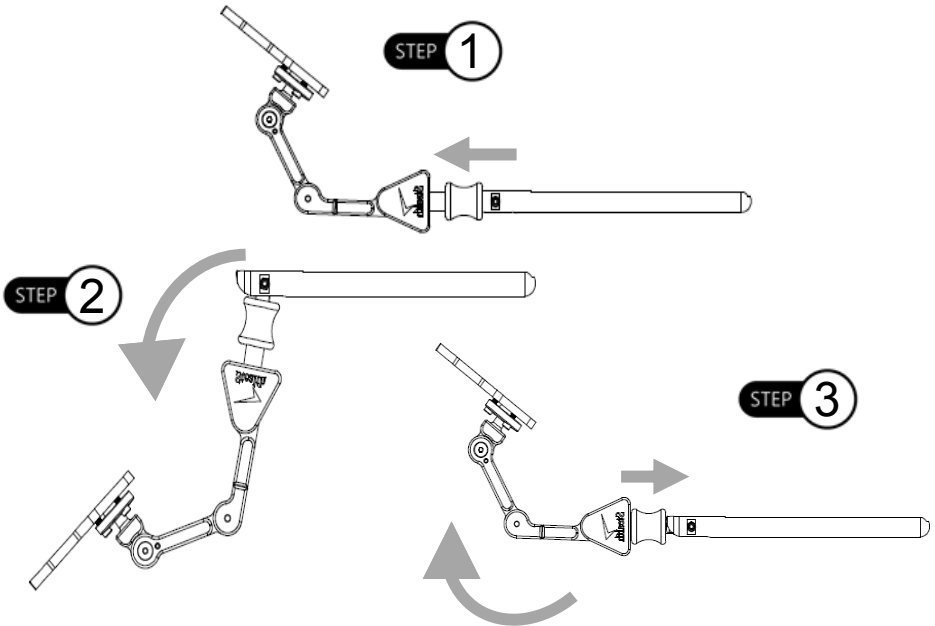
## Flip-Down Mount

## 10.2

**Step 1:** To flip the hardware down and away, slide the red flip-down sleeve up.

**Step 2:** Swing away the hardware in conjunction with the flip-down sleeve being pushed up.

**Step 3:** To bring hardware back to the upright position, move the links and joystick mount back to a parallel position with the ground. An audible 'click' should occur, indicating that the hardware is locked back into place.



\* ST-TWBM480-CJ-Q shown. Follow the same instructions for the ST-TWBM480-QL-Q.

### ⚠ CAUTION

Ensure the red flip-down sleeve freely rotates 360°. If the flip-down sleeve does not rotate, the hardware will not work properly.

⚠ **CAUTION** Ensure the flip-down mount is fully engaged before use.

### SAFETY

Move hands from the flip-down sleeve area when bringing it back to a vertical state. The sleeve could pinch when moving and could cause injury.

## Link Adjustment

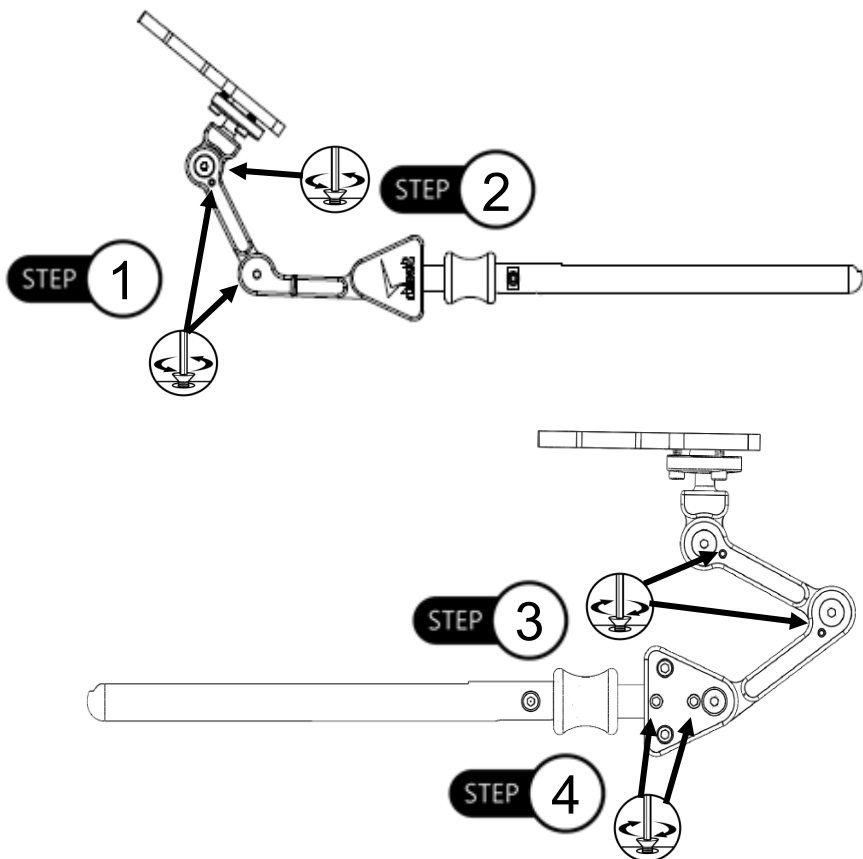
## 10.3

**Step 1:** Loosen the set screw on the offset link with a 4mm T-Handle, but do not remove. Loosen the flat head screw from the offset link with a 4mm T-Handle.

**Step 2:** Make any adjustments to the links necessary. Tighten all flat head screws and ensure all the links are in the desired position.

**Step 3:** Before tightening the set screws, add Blue Loctite to prevent any loosening.

**Step 4:** Add Blue Loctite to the set screws on the triangle to prevent loosening. Tighten the set screws. Ensure they are snug but do not overtighten.



## Dealer Assistance

### 11.1

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

## User Testing

### 11.2

It is important that the customer is fully aware of the installation and how the hardware can be adjusted in order to gain the best positioning possible. As a dealer, proceed as follows:

- Explain and show the customer how you have executed the installation, and explain the function.

Have the user test the position of the ST-TWBM480-QL-Q/ST-TWBM480-CJ-Q hardware:

- Is the hardware in the proper position for the client?
- Can the user safely operate the chair?

If needed, adjust the hardware to the proper position.

Explain to the customer any possible issues and how to address them.

## Conditions of Use

### 11.3

The ST-TWBM480-QL-Q/ST-TWBM480-CJ-Q is intended for use as installed by the dealer, in accordance to the installation 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.

## Maintenance

### 12.1

- All parts should be checked on a regular basis and repaired, if necessary, by a service technician.
- Discontinue use after identifying loose or broken components.
- Periodically check the flip-down sleeve. Test that it engages properly and makes an audible 'click' when back in position.
- Check that the joystick mount is secure.
- Check the M5 bolt on the FDM bar. Tighten if it has become loose.
- To prevent screws from seizing, reapply copper anti-seize if necessary.
- If you are experiencing excessive lateral movement with the hardware, refer to Step 5 on page 4.
- If you are experiencing difficulty adjusting the links, turn to the *Link Adjustment* section.

## Cleaning

### 12.2

- Wipe hardware clean with a damp cloth and mild, non-abrasive cleaner.
- Ensure any cleaners used to disinfect are approved for cleaning aluminum surfaces.

#### **DANGER**

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











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