



Twister Switch

Owner's Manual - Maintenance Guide
mo-Vis Series Mechanical Normal Open Switch



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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.

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: 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.

You can download additional copies of this manual by accessing the Stealth website (<https://stlpro.site/stealth-docs>) and searching "Twister Switch" in the search bar at the top of the page.

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.

Intended Use

The Twister is an Input Control System for a device to be operated by a push button with a 3.5 mm jack connection (e.g. power wheelchair or AAC device). It only requires a light activation force of 30 gr. and offers different mounting options for the different models.

Features

The Twister Switch:

- requires 30 gr of activation force.
- has an activation surface of 18mm and 0.5 mm distance to activation.
- offers tactile and auditory (click) feedback.
- is available in 5 different models. See "Available Twister Switches" on Page 2.
- is easy to mount in different positions, using the mo-Vis Q2M system.
- has a 3.5 mm mono jack plug.
- is available in 5 colors: yellow, green, red, blue, and black.

Specifications

Action	Description
Switch Type	Mechanical, Normally Open
Connection Type	Wired
Activation Type	Pressure
Activation Surface Diameter	.71 in (18 mm)






Action	Description
Travel Before Activation	.02 in (.5 mm)
Activating Force	30 gf (.067 lbf)
Feedback	Auditory Click, Tactile
Plug Size	1/8" (3.5 mm) mono jack



WARNING

An incorrect programming of the wheelchair electronics may cause damage to the devices or injury to the user.

Available Twister Switches

Product Description		Part Number
Twister Basic Cable (Available in 5 colors)		Yellow (IDM-24) Black (IDM-25) Red (IDM-26) Blue (IDM-27) Green (IDM-28)
Twister on Bent Tube, Long Cable (1500 mm)		Red (IDM-34) Black (IDM-35) Yellow (IDM-36) Blue (IDM-37) Green (IDM-38)
Twister on Bent Tube, Short Cable (300 mm)		Black (IDM-41) Red (IDM-42) Yellow (IDM-43) Blue (IDM-44) Green (IDM-45)
Satellite Twister		Red (IDM-17) Black (IDM-18) Yellow (IDM-19) Blue (IDM-20) Green (IDM-21)
Twister Dome Switch		Red (IDM-53) Black (IDM-54) Yellow (IDM-55) Blue (IDM-56) Green (IDM-57)

Preparations

Only a qualified service technician may install the **Twister Switch**.

Use the proper tools to install and adjust the **Twister Switch**. The use of improper tools may cause damage to the device.

Installation Plan

Set up an installation plan before beginning the installation. This plan should take into account:

- Where the **Twister Switch** should be placed on the chair.
- Which functions you would like the **Twister Switch** to perform.
- The positioning of the Basic Twister Switch. Do not place any of the switches where they may be obstructed from performing the functions for which they were intended.

Twister Basic

- The Twister Basic is mounted on a plate of metal/plastic with two screws. A regular Phillips Screwdriver is required to mount screws.
- Two types of screws are supplied:
 - *M2.2 x 6.5 mm (0.087 in x 0.266 in) self-tapping screws for sheet thickness 0.5 mm to 2 mm (0.02 in to 0.079 in)*
 - *M2.2 x 9.5 mm (0.087 in x 0.374 in) self-tapping screws for sheet thickness 3 mm to 4.5 mm (0.118 in to 0.177 in)*
- The screws are self-tapping metal screws (A2 stainless steel).



CAUTION

Any connection must always be secured with all delivered screws. Only use the screws provided in the package.

Twister on Bent Tube

- Diameter of Twister Rod - 6 mm (0.236 in)
- Length of Twister Rod - 100 mm (3.94 in)
- Each Bent Tube is provided with a Quick-to-Mount clamp that splits into two parts in order to allow the cable to run through the switch. It can be mounted on a 6 mm Rod.



Installation

1. Slide Q2M Clamp onto a 6 mm Rod. (Compatible with Power Chin Boom, C-Rod, or S-Rod).
2. Adjust the height of the twister switch by sliding it along the split clamp provided.
3. When the switch is at the desired height, use a 3mm T-Handle to tighten the clamps on the tube.
4. Plug into the power or mode inputs on the joystick or interface.



Satellite Twister

- The Satellite Twister comes with a special All-Round insert. This fits only into the housing of the All-Round/All-Round Lite Joystick.
- Diameter of Satellite Twister rod - 6 mm (0.236 in)
- Length of Satellite Twister rod - 100 mm (3.94 in)

You can mount one or two Satellite Twisters to the All-Round/All-Round Lite Joystick.

1. Define the location of the Satellite Twisters: left, right, or on both sides.
2. Unscrew and remove the cover for the Satellite Twister connection with a Phillips Screwdriver.
3. Place the Satellite Twister firmly in the open slot.
4. Use the screw of the cover to secure the Satellite Twister to the All-Round Joystick.
5. If required, place a second Satellite Twister in the same way.
6. Connect the cabling of the Satellite Twister to the All-Round Joystick.



To adjust the height of the switches:

1. Loosen the set screw on the clamp with a 2.5 mm T-Handle.
2. Adjust the switch to the desired height.
3. Once in position, tighten the set screw to hold the Twister switch in place.

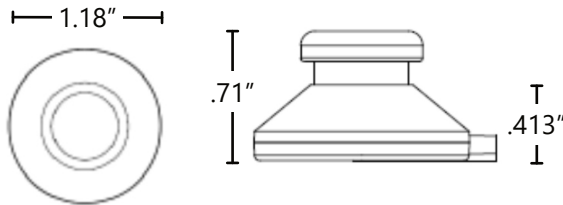


All wheelchair electronics must be switched off.

Twister Dome Switch

Included in each Twister Dome Switch Package:

- A pair of 3M Dual Lock interlocking self-adhesive fasteners 25 mm x 2 mm (0.866 in X 0.078 in)
- One self-adhesive rubber pad 28 mm x 2 mm (1.102 in x 0.078 in)
- Two types of self-tapping screws:
 - *M2.2 x 6.5 mm (0.087 in x 0.266 in) self-tapping screws for sheet thickness 0.5 mm to 2 mm (0.02 in to 0.079 in)*
 - *M2.2 x 9.5 mm (0.087 in x 0.374 in) self-tapping screws for sheet thickness 3 mm to 4.5 mm (0.118 in to 0.177 in)*



To replace the Twister button:

1. Feed the top of the casing from the end of the Twister Switch cord up to the base of the Twister Switch button. *See Figure 1.*
2. The button should rest along the top cut-out of the casing. *See Figure 2.*
3. Ensure the Twister Switch cable is placed along the cable cutout area in the casing.
4. Align the Twister Switch holes on the top of the dome casing with the Twister Switch button and with the pre-drilled holes on the base of the casing.
5. Tighten and secure the casing along the base with the four provided screws. The two inner screws will hold the button in place. The two outer screws will secure the casing.

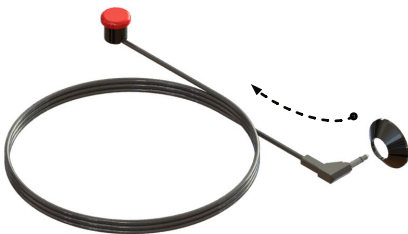


Figure 1



Figure 2

NOTICE

The dome switch casing cannot be replaced.

To use the interlocking self-adhesive fasteners:

1. Remove the adhesive backing on one of the self-adhesive fasteners and place on the bottom of the Dome Switch casing.
2. Remove adhesive backing on the second fastener and place adhesive side down on flat surface.
3. Place the Dome Switch casing with the fastener on top of the fastener secured to the flat surface. Press down until you hear a clicking sound indicating the fasteners are secured to each other.

To adhere the rubber pad to the Dome Switch casing:

1. Remove the adhesive backing from the rubber pad and place on the base of the Dome Switch casing.
2. Rubber pad with Dome Switch is not permanently secured to the surface. The placement can be changed when necessary.



Operating the Twister

The **Twister Switch** is a single, mechanical, normally-open switch. It will activate when pressed down.

To activate your **Twister Switch**, simply press anywhere on the top of the activation surface. You will feel and hear a clear and audible “click”.

Twister Safety

- Do not use if the **Twister Switch** handle is damaged, the top is cracked, or missing.
- Do not use if the **Twister Switch** does not properly make an audible noise when applying pressure
- Do not use if the **Twister Switch** does not move when applying pressure.

Safe Driving

It is mandatory to have a wheelchair power on/off switch, which immediately shuts down the wheelchair power and electronics, within easy reach of the user while driving. This allows the wheelchair to instantly stop in case of problems or an emergency.

In case the wheelchair responds in an unexpected way, the user must immediately release the power switch.



WARNING

Make sure that cabling is mounted in such a way that excessive wear and tear is avoided.



WARNING

The on/off switch must be available to the user at all times.

After installation of the **Twister Switch**, execute the following tests before the wheelchair is delivered or put into service.

Check that the **Twister Switch**:

- *Is not bent or damaged.*
- *Housing, cabling, and all connectors are not damaged.*
- *Makes an audible “clicking” noise and returns back to its original position.*

Operational Test

1. Activate the wheelchair operating system.
2. Check for any error messages.
3. By pressing the desired switch, the programming functions should either turn on or off, or highlight through chair functions.
4. Repeat the previous steps a few times in order to confirm the switches are functioning correctly.



WARNING

The on/off switch must be available to the user at all times.



CAUTION

Before inserting a connector, remove the protective cover. Keep the protective cover in case connections are not used.

Test Drive

- *Perform a test drive with the wheelchair.*
- *Check whether the wheelchair and all of its options are fully functioning in all positions the user may require with the selected joystick and **Twister Switch**.*
- *Check that no cabling or parts could at risk of damage or hindrance in any possible position of the wheelchair.*

Stop Test

- *Drive at full speed and shut down the wheelchair with the power On/Off switch.*
- *The wheelchair should not suddenly stop, but must slow to a gradual stop.*

Dealer Assistance

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

User Testing

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

- Explain and show the customer how you have executed the installation, and explain the function of every (new) button.
- Have the user test all positions of the **Twister Switch**.
- Is the switch within easy reach?
- Can the user safely operate the wheelchair with the least effort?
- Is the placement of the **Twister Switch** in all available positions optimal for the user?

If needed, adjust the position of the joystick so it and the **Twister Switch** are in a better position for the client to operate.

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

Conditions of Use

The **Twister Switch** 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 a qualified service technician to avoid excessive wear and tear or unintended damage.

Cleaning

To keep the **Twister Switch** functioning properly:

- *Disconnect the **Twister Switch** and wipe it clean with a damp cloth.*
- *Use only non-aggressive disinfectant cleaning agents. Cleaning solutions that contain bleach, ammonia, chlorine, etc. should not be used. (Dish washing cleaners are acceptable.)*



WARNING

Do not pull or wrap the cable around the **Twister Switch** or boom. Do not attempt to open or disassemble the **Twister Switch** enclosure.

Monthly

Monthly or when needed, check whether:

- *All bolts and screws are still firmly tightened.*
- *There is no damage to any wiring.*
- *There is no excessive wear to any parts.*



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Warranty Information



Home Page



Online User Manual



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