

Stealth Products[®]



Power Tilts



Stealth Power i-Tilt

Owner's Manual



General Information

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.

You may reach us at:

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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 **Stealth Products** at (512) 715-9995 or toll free at (800) 965-9229, or your supplier.

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:

1. Call **Stealth Products** at (512) 715-9995 or toll free at (800) 965-9229.
2. 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 “Power i-Tilt” 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.

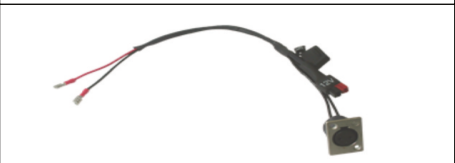
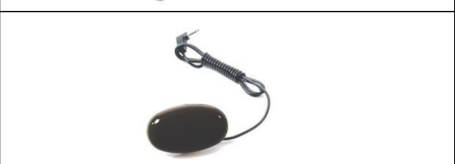
Testing

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

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Parts Included

Parts Included	
Actuator (350/200/150/100) mm	
Battery Box	
Battery	
Power Interface	
Control Box	
Battery Charger	
Egg Switch	

Intended Use

Stealth Products' Power Tilt system provides an electrically controlled independent tilt function to manual "tilt-in-space" chairs. It provides the capability for individuals to tilt their own chair without the need of an attendant.

Features

- System can run off of 12V or 24V. Minimum threshold is 11V. If the voltage drops below 11V the on-board regulator is disabled. The system will not function.
- The 'Input' port is for mechanical switch inputs.
- The mechanical switch input port supports either one or two inputs, depending on how the selection switch (1-SW mode/2-SW mode) is set.
- 'Merc Switch' is for the mercury switch only. The mercury switch input adds a global disable option to the unit. The unit will provide tilt functionality with or without it.

Control Box Layout



Control Box Front



2-SW Mode: For use with two activation switches. This requires a stereo splitter.

1-SW Mode: For use with a single activation switch

Input: Activation switches go here. (Ex: Egg Switch)

Mercury Switch: Mercury switch plugs in here. This port is ONLY for a Mercury Switch.

Motor: Yellow & White connector will plug into Actuator from the Motor Port.

Switch Active Indicator: Lights up when "input" switch closure occurs.

Power LED: A green light will appear when the system is powered on.

Power Cable: Red & Black connector will plug into the battery box.

NOTICE

The 'Merc Switch' is for mercury switch only. The mercury switch input adds a global disable option to the unit; the unit will provide tilt functionality with or without a mercury switch installed.

Tilting

Tilting can be achieved in two separate modes. This is done with a mechanical switch plugged into the 'Input' port. The button or switch will provide a simple, single button toggle control of tilt. The mechanical switch 'input' port supports either one or two inputs, depending on how the selection switch (1-SW Mode/2 SW Mode) is set. If set to two switch mode, a stereo splitter is required to be plugged into 'Input'.

1-Switch Mode

In 1-Switch mode, the single egg switch will provide a simple single button toggle control of the tilt.

To engage the tilt process:

- Press and hold the switch to tilt one direction then release when in desired position.
- Press and hold again to go the opposite direction.

2-Switch Mode

In 2-Switch mode, two egg switches will control the tilt,. One egg switch will only tilt the chair back.

To engage the tilt process:

- Press and hold the button and the chair will begin moving then release when in the desired position.

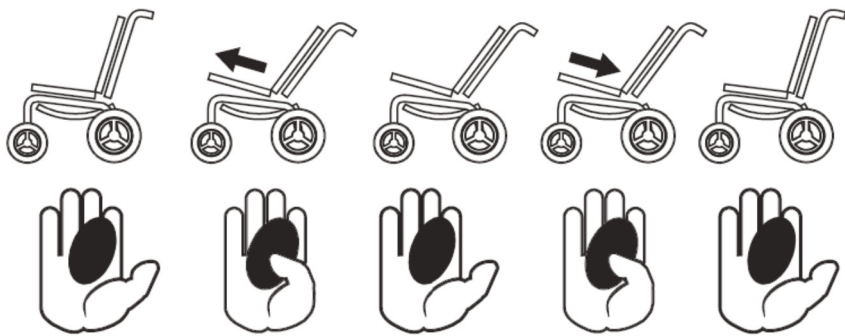
A second switch will only tilt the chair forward.

- Press and hold the switch and the chair will begin moving. Release when in the desired position.

NOTICE

If a mercury switch is installed, this will add a global inhibit. Once tripped, the mercury switch will not allow for movement in either direction of travel. It is important to learn where this point is to avoid becoming stuck in that position.

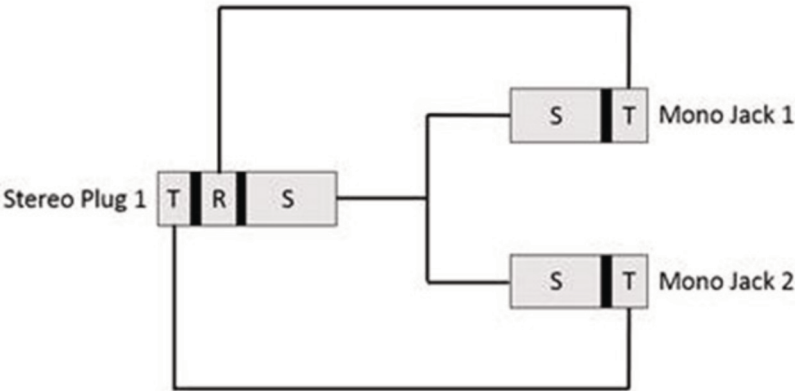
Tilting with Mechanical Switch



WARNING

If the unit is placed into 2-SW mode with a single mono-switch egg switch in the 'input' port, the sleeve of the plug will short out the contact between ground and the switch 2 input causing it to register a valid input and continue driving the actuator.

A splitter for the two-switch mode should be configured as follows:



T: TIP
R: RING
S: SLEEVE

Limit Switch Adjustment

In the event that the actuator touches or impinges the frame, discontinue use of the tilt function and contact your dealer for limit switch adjustment.

SAFETY

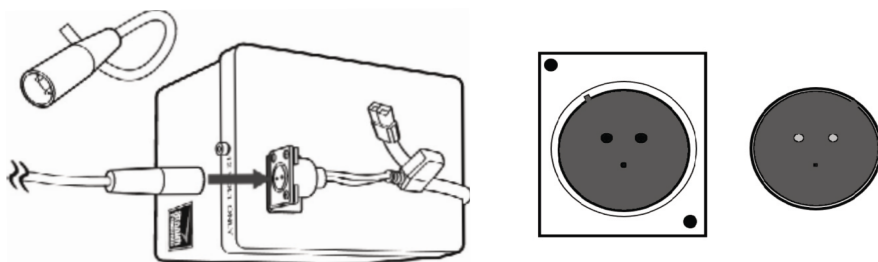
Limit switch adjustment should only be performed by a trained technician.

Charging the Battery

1. Connect the battery charger to the charger socket on the battery box.
2. Plug the battery charger into the wall and wait until the charging process is complete.
3. When the battery is completely charged, disconnect the battery charger from the power interface and unplug from the wall. Never leave the battery charger plugged into the wall when not charging the battery.

NOTICE

The system can run on 12V or 24V. The minimum threshold is 11V. If the voltage drops below 11V, the on-board regulator is disabled and the system will not function.



NOTICE

The two-pronged plug on the battery charger that plugs into the power interface has a groove machined into its top-right corner. This groove is meant to correspond to a raised track on the top-left corner of the power interface input. When plugging in the device, always ensure that the track of the power interface input is fitted into the groove of the two-pronged battery charger plug. This will ensure the plug

SAFETY

Do not operate power tilt while the battery is charging.

Mercury Switch Installation/Adjustment

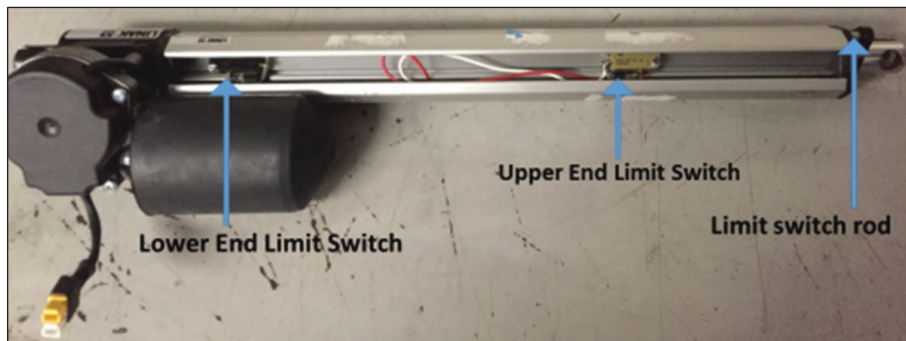
1. The mercury switch is installed at the top of the left cane of the chair.
2. Recline all the way back and tilt as far back as possible without interference.
3. Tap the switch to initiate the tilt back. If the chair does not move, adjust the mercury switch until the chair begins to move again.
4. Lock the switch in position.

NOTICE

Plugging the switch into the mercury input accidentally will not damage the board or cause any malfunction. The dedicated mercury switch port will drive a ***

Actuator Limit Switches

1. Remove the rubber strip on the silver sleeve of the actuator to access the limit switches.
2. The lower end limit switch limits the chair to tilt less.
3. The limit switch rod allows the chair to tilt more.



SAFETY

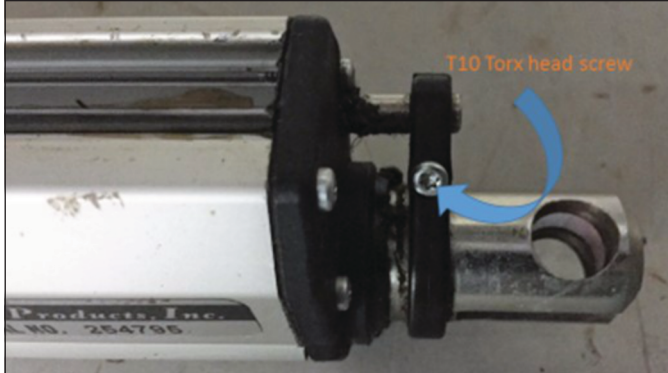
The limit switches are preset at the factory to prevent damage to the chair.

To adjust the actuator:

1. Set the tilt all the way forward
2. Loosen the upper end limit switch. Slide it towards the end of the actuator until the switch engages with the rod. Lock it down in that position.
3. Tilt the chair to full tilt position.
4. Loosen the lower end limit switch. Slide it towards the motor until it disengages from the rod. Slide it back until it engages again. Lock it down in that position.

SAFETY

The actuator is preset to prevent damage to the chair.



Symptom	Check	Remedy(s)
Actuator not responding	Power LED off	- Make sure all plugs and cords are in good condition and properly connected. - Check fuse in power interface. Replace with 15 Amp fuse if necessary - Open battery box and ensure there is no corrosion accumulation in battery poles. Disconnect battery and clean poles if necessary.
	Power LED On	Switch Active indicator on If the LED lights up when switch is activated: - Check the actuator limit switches - Check the mercury switch, if equipped with one. Ensure that it is mounted correctly and has not been damaged or tampered with. - Check the cable for the mercury switch for damage.
	Switch Active Indicator Off	If LED does not light up when active: - Check the switch, cable, connection and splitter if used. - Remove splitter and try using single switch. If it works, you have a bad splitter.

Symptom	Check	Remedy(s)
Actuator will tilt more		• Ensure that the selection switch is set for the correct mode (1-SW or 2-SW). • Check to see if the system is equipped with a mercury switch. - If yes: check the switch is mounted correctly and has not been damaged or tampered with. Check the cable for damage. • Check the lower and end actuator limit switch (closest to the actuator motor). • Ensure the limit switch housing and rod are firmly attached and the rod travels with the end of the actuator.
Actuator will tilt less		• Ensure that the selection switch is set for the correct mode (1-SW or 2-SW) • Check the upper end actuator limit switch (farthest from the actuator motor). • Ensure the limit switch housing and rod are firmly attached and the rod travels with the end of the actuator.
Actuator runs on its own	Check selection switch position	If the unit is placed into 2-SW mode with a single mono-switch egg switch in the 'input' port, the sleeve of the plug will short the contact between ground and the switch 2 input, causing it to register a valid input and continue driving the actuator.

Dealer Assistance

During first-time use by the client, it is advised that the dealer or service technician not only configure and assemble the product, but also explain the configurations to the customer (i.e. 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 power tilt, how to use it, and how it can be adjusted to fit the client comfortably. As a dealer, proceed as follows:

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

Have the user test the tilt.

- Is the control or mechanical switch within easy reach?
- Can the user safely operate the tilt with minimal effort?

Conditions of Use

Stealth's Power i-Tilt 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.



CAUTION

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

Cleaning

- Positioning accessories can be wiped clean with a damp cloth and mild, nonabrasive cleaner.
- Ensure all cleaners are approved for finished steel, aluminum, plastic, and upholstered surfaces.
- Surfaces can be wiped clean with an approved disinfecting product.
- Ensure the disinfectant is approved for finished steel, aluminum, plastic, and upholstered surfaces.

Direct Water Contact

- Disconnect the charger if plugged in.
- Thoroughly dry power interface connections.
- Allow up to 12 hours for dry time in a warm area to allow for unseen moisture to evaporate.
- Check that the power tilt operates to specifications before beginning use again.
- If there are changes in operation or performance, contact your supplier.



CAUTION

Do not immerse in water or rinse with a water hose.

Maintenance Check

When needed, surfaces can be wiped with an approved disinfecting product.

- Check all fasteners/connectors and tighten as necessary.
- Check that the mechanical condition as well as other functions are operating properly.
- Disconnect and thoroughly check your power tilt, all parts, cords, and plugs for any type of wear, tear, or damage.
- Check for changes in the power tilt operation or performance.



CAUTION

Do not overtighten screws



WARNING

Discontinue use if any component stops functioning.

Safety

Discontinue use if any component stops functioning correctly or as necessary. Disconnect the power tilt from charger and/or turn off control box when cleaning, disinfecting, maintaining, repairing, or servicing the unit.



WARNING

Never overtighten clamps or fasteners. Overtightening will damage components or fasteners.



WARNING

Repairs or replacements should be performed by a trained technician.

Environment Safety

- Always operate below temperatures of 122°F (50°C).
- Do not leave the battery charger connected to the wall when not charging.
- Do not expose the power tilt to direct contact with water, condensation, icing, or dampness.
- Do not operate in the shower.
- Do not operate or store near open flame, flammable, or combustible products.



CAUTION

Turn off control box, unplug tilt interface and/or battery charger before being seated in the power tilt equipped mobility base.

Moving the Chair



CAUTION

Unplug tilt interface from battery when transporting the wheelchair to prevent unintentional damage.

Center of Gravity

The point where this chair will tip forward, back, or to the side depends on its center of gravity and stability. Please refer to your chair manufacturer's manual for more information.

SAFETY

Anti-tip tubes can help keep your chair from tipping over backward in normal conditions. Please refer to your chair manufacturer's manual for more information on anti-tip tubes.

Battery Safety

Use the correct size and type of battery provided by or specified by the manufacturer of your device.

- Avoid short circuit.
- Do not charge in a sealed container.
- Keep away from sparks and flames.
- Disconnect battery from device when it is not expected to be in use for several months.
- Do not operate power tilt while battery is charging.



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