



# SWITCH-IT



249056 Rev. C

# Switch-It Cool Cube Owner's Manual

Thank you for choosing a Switch-It Product. We want to hear your questions or comments about this manual, the safety and reliability of your system, and the service you receive from your Authorized Dealer. Please feel free to write or call us at the address and telephone number below:

**Sunrise Medical (US) LLC**  
Customer Service Department  
2842 N. Business Park Ave  
Fresno, CA 93727 USA  
(800) 333-4000



[www.sunrisemedical.com/register](http://www.sunrisemedical.com/register)

Be sure to return your warranty card, and let us know if you change your address. This will allow us to keep you up to date with information about safety, new products, and options to increase your use and enjoyment of this base system.

You can also register your product at:  
[www.sunrisemedical.com/register](http://www.sunrisemedical.com/register)

#### **FOR ANSWERS TO YOUR QUESTIONS**

Your Authorized Dealer knows your Switch-It Product best, and can answer most of your questions about system safety, use and maintenance. For future reference, fill in the following:

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

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

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

Serial #: \_\_\_\_\_ Date/Purchased: \_\_\_\_\_



#### **DISPOSAL AND RECYCLING INFORMATION**

When this product reaches the end of its life, please take it to an approved collection or recycling point designated by your local or state government. This product is manufactured using a variety of materials, your product should not be disposed of as ordinary household waste. You should dispose of your system properly, according to local laws and regulations. Most materials that are used in the construction of this product are fully recyclable. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is disposed in a manner that protects the environment.

Ensure you are the legal owner of the product prior to arranging for the product disposal in accordance with the above recommendations.

Dealer signature and stamp

**NOTE:** Check all parts for shipping damage. In case of damage DO NOT use. Contact Carrier/Sunrise Medical for further instructions.

## **WARNING**

**DO NOT** install this equipment without first reading and understanding this manual. If you are unable to understand the Warnings, Cautions, and Instructions, contact a qualified clinician or supplier - otherwise injury or damage may occur.



## **WARNING**



This device can be affected by Electro-Magnetic Interference (EMI) and Radio Frequency Interference (RFI).

- Radio wave sources, such as radio stations, TV stations, amateur radio (HAM) transmitters, two-way radios, and cellular phones can affect powered control.
- If unintended movement or brake release occurs, turn the power wheelchair OFF and do not operate until inspected, repaired, and/or replaced.
- If the power wheelchair acts in an erratic manner, turn the power wheelchair OFF and do not operate until inspected, repaired, and/or replaced.
- If the joystick stem is damaged, it can cause the power wheelchair to operate erratically. Turn the power wheelchair OFF and do not operate until inspected, repaired, and/or replaced.
- If any of the device cabling becomes frayed, cut, or disconnected in any way, turn the power OFF and do not operate until inspected, repaired, and/or replaced.

## **WARNING**

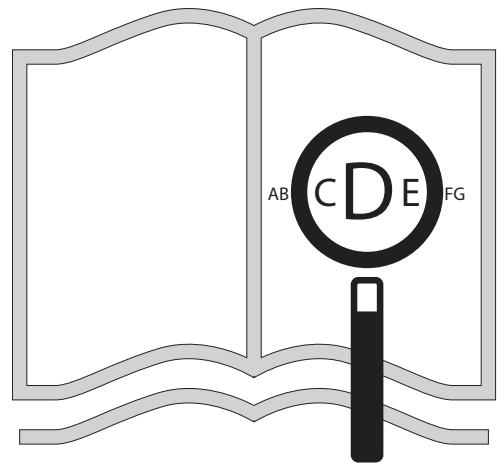
This device is not a life saving device. Proper supervision is required for power wheelchair users. The remote stop switch may not work properly in all environments.

## User information

Congratulations on choosing a Switch-It product. Sunrise Medical's high-quality mobility products are designed to enhance independence and make your everyday life easier.

As a part of our ongoing product improvement initiative, Sunrise Medical reserves the right to change specifications and design without notice.

This user manual will help you to use and maintain your product safely.



If you are visually impaired,  
this document can be viewed  
in PDF format at  
[www.SunriseMedical.com](http://www.SunriseMedical.com)



# **⚠️ WARNING**

Please read these instructions carefully before beginning the installation. Failure to understand and follow installation instructions may result in injury to installer and/or end user and may void the warranty. If you have any questions call Sunrise Medical Technical Support at 800-376-9888.

## **A. Product Description:**

A smart switch box allowing the user to have mechanical switches, electronic sensors, and Pro Spot proportional switches to control a powered wheelchair. The device has 6 ports that are labeled, forward, reverse, left, right, off and mode.

## **B. Key Features:**

- Allows a variety of switches to control drive input.
- With the Pro Spot proportional switches attached the ability to have proportional switch drive input.

## **C. Compatibility:**

1. Penny and Giles R-Net - Omni is required
2. Curtis Electronics Enable 50 - Enhanced Display is required
3. Dynamic Controls - DX-ACC4B Switch Interface module from wheelchair manufacturer is required for switched drive controls.
4. For use with Invacare powerchair with Mark VI electronics, Sip-N-Puff/Digital Interface module (P/N: SNPM6) is required from wheelchair manufacturer

## **SET-UP GUIDE**

### **Cool Cube Owner's Manual**

#### **GENERAL SET UP**

1. Attach the Cool Cube to the Omni by the DB9 cable.
2. Attach the various switches to be used with the device.
3. Have the Dealer program the Cool Cube for the number of switches attached.



## **GENERAL USE**

### **4 Switch Driving**

1. Activate the switch plugged into the forward port to send the powerchair forward.
2. Activate the switch plugged into the reverse port to send the powerchair backwards or reverse.
3. Activate the switch plugged into the left port to turn the powerchair left.
4. Activate the switch plugged into the right port to turn the powerchair to the right.
5. Activate the right or left port and forward or reverse port to move the chair in a diagonal movement.  
\*NOTE: refer to the picture above for the port order. Starting to the far left, the first port is for the right direction, followed by the left, reverse and the forward direction on the far right.

### **3 Switch Driving**

1. Activate the switch plugged into the left port to turn the powerchair to the left.
2. Activate the switch plugged into the right port to turn the powerchair to the right.
3. Activate the switch plugged into the forward port to move the powerchair forward.
4. Tap switch plugged into the forward port to switch the mode from driving forward to driving in reverse and then push the switch plug into the forward port to move the powerchair in reverse.
5. With Pro Spot switches press one of the switch plugs into either left or right port while pressing the switch plugged into the forward port to move the chair in a diagonal direction.

## 2 Switch Driving

1. Activate the switch plugged into the left port to turn the powerchair to the left.
2. Activate the switch plugged into the right port to turn the powerchair to the right.
3. Activate both switches to move the powerchair forward.
4. Tap both switches to switch the mode from driving forward to driving in reverse and then push both switches to move the powerchair in reverse.
5. With Pro Spot switches press one switch harder than the other to move the chair in a diagonal direction.

## Pro Spot switch

1. To activate the switch, place the body part on the top of the switch. With very little to slight contact, the switch will start to activate.
2. To increase the input, increase the force on the switch up to the max force.

## Zero Touch Sensor

1. To activate the sensor, place the body part near the sensor. It is ok to touch the sensor but not necessary to activate it.

## Suggested Positioning

1. Place Cool Cube up high on the chair on the back so it is out of the way but high enough for the user to be able to hear the audible sounds from the device.
2. Place Pro Spot or other switches in a position that is easy for the user to access but at the same time can be securely attached to the powerchair.
3. Place Pro Spot or other switches in a manner that is intuitive and easy for the user to use.
4. Route the cables from the switches to Cool Cube so that they are secure but also not in danger of being snagged or pinched as the chair moves around and changes position.
5. Make sure that the switch cables match the port that they are plugged into.

# TROUBLESHOOTING

Problem Number	Problem	Possible Cause	Solution
1	None of the switches respond	Cool Cube connection to Omni is disconnected.	Verify the DB9 (Serial) connection to the Omni is fully connected.
		Cool Cube switch engage when powerchair is turned on.	Ensure that no switches are pressed or otherwise engage when powerchair is turned on.
2	Single switch not responding.	Ensure that the switch connection to Cool Cube is not disconnected.	Fully plug in the switch into the appropriate port.
		Power chair is not equipped with correct version of CxSM	Ensure your power chair is equipped with a CxSM with a Customer Software Version greater than 4.42

## Calibration mode

If under flat and straight driving conditions, the chair begins to veer left or right you can re-calibrate the driving parameters to improve drivability. Calibration may need to be done over time as the chair begins to wear down over prolonged use.

In order to enter calibration mode to change any veering from straight:

1. Hold down **Left** and **Right**, then press and let go of **Mode**. A short multi-tone jingle will indicate entering **Calibration Mode**.
2. When in **Calibration Mode**, the **Left** and **Right** buttons can be pressed one or multiple times to change the veering offset in that direction. A three tone jingle will play with each press.
3. To reset the veering offset back to zero, hold down **Left** and **Right**, then press and let go of **Forward**. A longer jingle will play indicating the reset and exiting **Calibration Mode**.
4. Once satisfied, press **Mode** to exit **Calibration Mode**. A short multi-tone jingle will indicate the exit of **Calibration Mode**.

## **PREVENTATIVE MAINTENANCE**

1. Ensure that the Cool Cube and associated switches are protected from prolong exposure to water.
2. Cleaning procedure:
  - a. Power down wheelchair and unplug Cool Cube, switches and sensors.
  - b. Use clean lint free cloth and mild soap to gently wipe down surfaces of Cool Cube, switches, and sensors.
  - c. Once wiped down use a dry lint free wipe and remove any moisture from surface of Cool Cube, switches, and sensors.

## **⚠️ WARNING**

Mounting and Cable routing procedure:

## **⚠️ WARNING**

1. Ensure Cool Cube is firmly mounted to powerchair using Velcro or double sided adhesive.
2. Cool Cube should be mounted out of the way of the movement of the seat actuators.
3. Ensure all cable routing is held securely to the powerchair. This can be accomplished using cable ties.
4. There should not be any loose cabling. The loose cable could get caught on an object while moving causing the device to become unplugged resulting in a failure to control your powerchair.

Audible Feedback and Mounting:

## **⚠️ WARNING**

1. If user requires audible feedback while using the Cool Cube ensure Cool Cube hub is mounted where the user can hear the speaker, such as closer to the user's ear.

**Port Usage:**

## **⚠️ WARNING**

1. A switch or sensor must be plugged into the port for it to operate.
2. Label on Cool Cube describing port functionality may be difficult to read in direct sunlight or may become bleached by the sun over time. Use this document's figures to appropriately identify the port functionality.
3. If a switch or sensor comes unplugged it will cease to operate.
4. There are 6 ports on the Cool Cube:
  - a. Forward - Used for forward movement of the wheelchair.
  - b. Reverse - Used for reverse movement of the wheelchair.
  - c. Right - Used for right movement of the wheelchair.
  - d. Left - Used for left movement of the wheelchair.
  - e. Mode - Used for mode changes of the wheelchair.
  - f. Off - Used for the off function of the wheelchair.
5. While in 2 Switch Driving or 3 Switch Driving, there will be a slight delay in the Forward(Reverse) command before the chair will start to move. This is to allow the possibility of tap to change direction of movement.

## **⚠️ WARNING**

**Flammability:**

1. Do not allow Cool Cube, switches, or sensors to come into contact with an open flame. This could cause devices to malfunction or degrade in usability.

**General Warnings:**

## **⚠️ WARNING**

1. Do not rest any objects on the device.
2. Ensure wheelchair is powered off when in a vehicle or during patient transfer.
3. Ensure wheelchair is powered off when changing switches or sensors.
4. Do not use in inclement weather, i.e. rain, snow or hail.
5. If the wheelchair or Switch It device behaves erratically, please contact your local dealer or Switch-It rep.

## **WARRANTY**

Each Switch-It device is carefully inspected and tested to provide peak performance. Every Switch-It device is covered under a limited, express warranty.

- All **electronic components** are covered under warranty for twelve (12) months from the date of first consumer purchase, provided normal use.
- All **mounting hardware** is covered under warranty for twelve (12) months from the date of shipment, provided normal use.
- All **wearable items** (covers, pads, etc.) are covered under warranty for three (3) months from the date of shipment, provided normal use.

Warranty claims should be processed through the nearest authorized supplier or dealer. A Return Authorization number must be obtained prior to returning the item for evaluation, along with details of the issue.

Items returned for warranty claim must be evaluated by Switch-It before warranty determination is made. Should a defect in materials or workmanship occur during the warranty period, and the item has not been modified or damaged, Switch-It will, at its option, rework or replace it without charge.

Except for express warranties made herein, all other warranties, including implied warranties of merchantability and warranties of fitness for a particular purpose are excluded. There is no implied warranty beyond what is contained herein. Remedies for breach of express warranties herein are limited to rework or replacement of the goods. In no event shall damages for breach of any warranty include any consequential damages or exceed the cost of non-conforming goods sold.







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