

# Swifty™ User Guide

USB Switch Interface  
Model: SW2



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## Legal Notices

Information in this User Guide is provided “as is” by Origin Instruments, is subject to change without notice, does not represent a commitment on the part of Origin Instruments, and is provided without warranty of any kind, either expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or information storage and retrieval systems, for any purpose other than the purchaser’s personal use, without the express written permission of Origin Instruments.

Origin Instruments is not responsible for any problems caused by unauthorized modification of Swiftly and will not be responsible for direct or consequential damages associated with any use of Swiftly.

## FCC / CE Notice



Products bearing the CE marking have been tested and are declared by Origin Instruments Corporation of 854 Greenview Drive, Grand Prairie, Texas 75050, USA to be in conformity with the following standards or other normative documents and following the provisions of the Electromagnetic Compatibility Directive, 89/336/EEC:

- EN 55022 Class B Emissions (Radiated Emission)
- EN 61000-4-2, Electrostatic Discharge Immunity
- EN 61000-4-3, Radiated Immunity

Origin Instruments Corporation has tested Swiftly and found that it complies with the limits for a Class B digital device, pursuant to

Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

If this product is suspected of causing interference to a radio or television receiver, remove and apply power to the equipment and determine whether it is the cause of the disturbance. If a problem exists, the user is encouraged to try and correct the problem by one of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and the receiver.
3. Reorient the equipment cables.
4. Consult the dealer or Origin Instruments for additional suggestions.

Origin Instruments is not responsible for any problems caused by unauthorized modification of this equipment.

## Application Disclaimer

Swiftly is designed for use by people who have limited or no motor capability enabling them to operate switch activated devices. However, it should not be used in an application where personal injury or property loss could occur if the Swiftly failed for some reason. **Origin Instruments products are *not* authorized for use as surgical aids or as part of a system intended to support or sustain life.** The user assumes full responsibility for determining the suitability of Swiftly for the intended application.

### Introduction

Swifty is a compact USB switch interface. It accepts industry standard 3.5 mm stereo or mono plugs and directly interfaces up to two adaptive switches to a computer. Swifty is powered from the USB host and does not require external power. Swifty uses standard USB Human Interface Device (HID) drivers and works with Windows, Mac and Linux computers, and Android and iOS devices with adapters, and many Alternative and Augmentative Communication (AAC) devices.

#### Swifty Features:

- Extremely Low Latency
- Extremely Low Power
- 3.5-mm (1/8-inch ) Stereo Jack
- Accepts Single or Dual Switches (stereo plug)
- Up to 3 Switch Inputs with Available Beam™
- Wireless Input with Available Beam
- Mouse Button Emulation
- Joystick Button Emulation
- Keyboard Emulation
- Full Speed USB Device
- Supports USB Remote Wakeup
- Uses Standard USB HID Drivers
- Weighs ½-ounce (14-grams)
- 2- by 0.8- by 0.5-inches (51- by 20- by 13-mm)
- Works with Windows, Mac, Linux, and Android and iOS with Adapters
- Origin Instruments Quality, Reliability and Support

Swifty has two status LEDs. Both the red and green LEDs are turned on when Swifty is first connected to a USB port. Both LEDs turn off after the computer recognizes Swifty and USB enumeration is complete. Thereafter, the red LED turns on when a wired switch is actuated, and the green LED turns on when a wireless switch (using Beam) is actuated.

### Questions and Answers

#### How do I connect two adaptive switches to Swifty?

Switch combinations such as Sip/Puff or Left/Right can directly connect using a single stereo cable. This greatly reduces the complexity of cabling. Similarly, if you are integrating two switches into an adaptive mount, we recommend the use of stereo cabling for connection to Swifty.

If you need to connect two switches with independent cables and connectors, use a dual-mono-to-stereo adapter like the one packaged in the Swifty Cable Kit.

For wireless applications, up to three independent adaptive switches can be connected directly to Beam.

The original Swifty required setting DIP Switch 3 to indicate if one or two switches are connected. Later versions of Swifty (Starting with model: SW2) automatically determine when one or two switches are connected.

#### Will Swifty wake up my computer?

Yes, Swifty will wake a host that supports USB Remote Wakeup.

#### Swifty can emulate a mouse, a joystick, or a keyboard. Which should I use?

Built-in USB drivers for all of these devices are packaged with the Microsoft Windows, Apple OSX, and Linux operating systems. So the choice is usually dependent on the requirements of assistive software that you are using with Swifty. Some assistive applications can be set for activation from your choice of device type.

When you have a choice, we recommend joystick emulation. This often eliminates any potential for assistive software to be mistakenly activated by conventional use of the computer's mouse or keyboard. Thus, Swifty's joystick emulation is especially helpful when two people use the same computer, as in student-teacher interaction.

## DIP Switch Settings

Swifty integrates a compact four-position DIP Switch for user options. DIP Switch settings can be readily changed using one end of a paper clip. The factory default settings are all DIP Switches ON.

When viewing Swifty's DIP Switch rotated such that Swifty's USB connector extends to the left, any switches pushed up are ON and switches pushed down are OFF. After you modify DIP Switch settings, un-plug and re-plug Swifty to enable the new settings.

| Switch 1 | Switch 2 | USB Device | Interface Actions    |
|----------|----------|------------|----------------------|
| ON       | ON       | Mouse      | Left, Right, Middle* |
| OFF      | ON       | Joystick   | Btn1, Btn2, Btn3*    |
| ON       | OFF      | Keyboard   | Enter, Space, Tab*   |
| OFF      | OFF      | Keyboard   | 1, 2, 3*             |

\* Up to two switches can be directly connected to Swifty and up to three switches can be wirelessly interfaced with the optional Beam transmitter.

| Switch 3 | Function          |
|----------|-------------------|
| ON       | Mono Connector*   |
| OFF      | Stereo Connector* |

\* Set DIP Switch 3 to ON when using a single switch. Set Switch 3 to OFF when connecting two switches using a stereo cable or a mono-to-stereo adapter such as is included in the Swifty Cable Kit. **Starting with Model SW2, Swifty automatically determines if one or two switches are connected, and Switch 3 can be on or off.**

| Switch 4 | Function           |
|----------|--------------------|
| ON       | Wireless Enabled   |
| OFF      | Wireless Disabled* |

\* Wireless Disabled can be useful when two or more Swifty units are operating in the same room and you want only one Swifty to be controlled by the optional Beam transmitter.

## Optional Cable Kit

The optional Swifty Cable Kit enables connections for special installations. It includes a 2.5-foot (760-mm) USB extender cable, a 1-foot (300-mm) 3.5-mm stereo extender cable, and a mono-to-stereo plug adapter. The USB extender allows Swifty's built-in wireless receiver to be positioned for best performance. The mono-to-stereo adapter allows two independent switches with mono plugs to be connected to Swifty.

The Swifty Cable Kit can also be used with other switch-connecting devices, like HeadMouse®



## Connecting Wirelessly with Beam™

The optional Beam is a wireless transmitter that works with the wireless receiver built into Swiftly. Wireless communication is performed using invisible infrared light. This form of wireless communication can be operated in regulatory environments all over the world. Beam transmits wireless signals for up to three adaptive switches that are then presented to the computer as mouse buttons, joystick buttons, or keyboard keys based on the Swiftly configuration.



(Button switch is not included)

### Features:

- Standard 1/8-inch Connectors for up to Three Switches
- 3.75 by 2.5 by 1.1 inches (95-mm x 64-mm x 28-mm)
- Powered by Standard AA Alkaline Batteries
- Origin Instruments Quality, Reliability and Support

## General Care and Maintenance

1. Do not force Swiftly into a USB port.
2. Do not bend Swiftly while plugged into a USB port, it will damage the Swiftly or the host device.
3. Swiftly may be cleaned with a damp cloth using any household cleaner.
4. Do not allow liquid to enter Swiftly.

## Customer Support

Customer support is provided by Origin Instruments during the hours of 8:30 a.m. to 5:30 p.m. Central Standard Time (CST), Monday through Friday.

Please email [support@orin.com](mailto:support@orin.com) or call 972.606.8740.

## Warranty Information

Origin Instruments warrants that Swiftly will be free from defects in materials and workmanship for a period of one (1) year from the date of shipment. If the product proves defective during this warranty period, Origin Instruments will, at its option, repair or replace the defective product.

In order to obtain service under the foregoing warranties, the Customer must notify Origin Instruments of the defect prior to the expiration of the warranty period.

The foregoing warranties will not apply to any defect, failure, or damage caused by improper use, or improper or inadequate maintenance and care. Origin Instruments will not be obligated to furnish service under these warranties (a) to repair damage resulting from attempts by unauthorized personnel to install,

repair, or service the product; (b) to repair damage resulting from improper use or connection to incompatible equipment; or (c) to

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service a product that has been modified or integrated with other products when the effect of such modification or integration increases the time or difficulty of servicing the product.

The foregoing warranties are given by Origin Instruments with respect to company products in lieu of any other warranties, expressed or implied. Origin Instruments disclaims any implied warranties of merchantability or fitness for a particular purpose. Origin Instruments' responsibility to repair or replace defective products is the sole and exclusive remedy provided to the customer for breach of any of these warranties. Origin Instruments will not be liable for any indirect, special, incidental or consequential damages irrespective of whether Origin Instruments has advance notice of the possibility of such damage.

Products no longer covered by warranty may be suitable for repair. Contact Origin Instruments for an estimated repair fee.

**Before returning a product for repair, please send an email to: [support@orin.com](mailto:support@orin.com) or call 972.606.8740 to request a Return Materials Authorization (RMA) Number.** Once RMA number is assigned, product must be returned postage pre-paid with all components to:

Origin Instruments Corporation  
ATTN: Customer Service – RMA (insert your number)  
854 Greenview Drive  
Grand Prairie, TX 75050-2438 USA

For repairs during the warranty period, Origin Instruments will pay for the return of the product to the Customer if the shipment is to a location within the United States. For non-warranty repairs and for warranty repairs outside of the United States, the Customer will be responsible for paying all shipping charges, duties, taxes, and any other charges associated with the return of the product.



Origin Instruments Corporation  
854 Greenview Dr.  
Grand Prairie, TX 75050  
USA

**Voice:** 972-606-8740  
**Fax:** 972-606-8741  
**Email:** [support@orin.com](mailto:support@orin.com)  
**Web:** [www.orin.com](http://www.orin.com)  
**Shop:** <http://shop.orin.com>

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