

Swifty™



USB Switch Interface

ORIGIN INSTRUMENTS CORP.



ELECTROMAGNETIC INTERFERENCE CONSIDERATIONS

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
- EN 61000-4-4, Fast Transient

Origin Instruments Corporation has tested the Swifty 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. Information in this document is subject to change without notice and does not represent a commitment on the part of Origin Instruments Corporation.

APPLICATION DISCLAIMER

The Swifty is designed to provide excellent performance in most environments. However, it should not be used in an application where personal injury or property loss could occur if the product fails. **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 Swifty for the intended application. **Origin Instruments will not be responsible for direct or consequential damages associated with any use of Swifty.**

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Swifty™

USB Switch Interface

Swifty is an adaptive switch interface in an extremely compact package. 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, Macintosh and Linux computers, and many AAC devices.

Swifty Features:

- Extremely Low Latency
- 3.5-mm (1/8-inch) Stereo Jack
- Accepts Mono or Stereo Plugs
- 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
- USB Powered
- Weighs ½-ounce (14-grams)
- 2- by 0.8- by 0.5-inches (51- by 20- by 13-mm)
- Works with Windows, Mac and Linux
- Uses Standard USB HID Drivers
- Origin Instruments Quality, Reliability and Support

Swifty integrates two visible LEDs for visual feedback. Both the red and green LEDs are lighted 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 is lighted when a wired switch is actuated. The green LED is lighted when a wireless switch is actuated.

Swifty Questions and Answers

How do I connect two adaptive switches to Swifty?

When connecting two switches, set DIP Switch 3 to the OFF position.

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.

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.

Swifty 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 you want Swifty to interface a single adaptive switch. Set DIP Switch 3 to OFF when you want to connect two adaptive switches directly to Swifty using a stereo cable or a mono-to-stereo adapter such as is included with the optional Swifty Cable Kit.

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.

Swiftly Cable Kit

The optional Swiftly 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 Swiftly'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 Swiftly.

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



Beam™

The optional Beam is a wireless transmitter that works with the wireless receiver built into Swifty. 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 Swifty configuration.

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



(Button switch is not included)



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