

Breeze™

User Guide

USB Sip/Puff Switch



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Legal Notices

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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 Breeze 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.

Application Disclaimer

The Breeze 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 Breeze for the intended application.

Origin Instruments will not be responsible for direct or consequential damages associated with any use of Breeze.

Introduction

Thank you for being a Breeze customer!

Breeze is a USB-interfaced sip/puff switch in an extremely compact package. It offers a Leur quick-connect air port that is easily interfaced to the Sip/Puff Headset or Sip/Puff Gooseneck from Origin Instruments. Breeze is powered from the USB host and does not require external power. Breeze interfaces through standard USB Human Interface Device (HID) drivers and works with Windows, Macintosh and Linux computers, and many AAC devices.

Breeze Features:

- Extremely low latency
- Connectorized ppressure port
- Muse button emulation
- Joystick button emulation
- Real-time pressure level reporting
- 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 OS and Linux
- Uses standard USB HID drivers
- 1-Year limited warranty

Breeze integrates two visible LEDs for visual feedback. Both the red and green LEDs are lighted when Breeze is first connected to a USB port. Both LEDs turn off after the computer recognizes Breeze and USB enumeration is complete. Thereafter, the green LED is lighted for sip events. The red LED is lighted for puff events.

Questions and Answers

How do I connect to the pneumatic port of Breeze?

Origin Instruments offers two optional user interfaces for Breeze.

The Sip/Puff Headset maintains the position of the sip/puff mouthpiece regardless of head position and is thus especially useful in concert with access technologies that depend on head movement, like the Origin Instruments HeadMouse®.

The Sip/Puff Gooseneck places the mouthpiece at a fixed and easily adjustable position in space. It is especially useful for sip/puff applications from a wheelchair, table, or bed.

For air input connections from other devices, we recommend the use of an in-line air filter to keep the Breeze pressure port free from contamination and moisture. Replacement in-line aseptic air filters for Breeze are available from Origin Instruments.

Breeze can emulate a USB mouse or a USB joystick. Which should I use?

Built-in USB drivers for both device types 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 Breeze. Some assistive software applications can be set for activation from either class of device.

When you have a choice, we recommend joystick emulation. This often eliminates the potential for assistive software to be mistakenly activated by conventional use of the computer's mouse. Breeze's joystick emulation can be especially helpful when two people use the same computer, as in student-teacher interaction. With joystick emulation, Breeze can optionally transfer real time pressure level measurements as X and Y joystick positions.

Sip/Puff Headset

The Sip/Puff Headset is an optional user interface for Breeze that can be purchased separately or as a component of the Sip/Puff Breeze with Headset offering.

Sip/Puff Headset is a comfortable, adjustable head frame. The padded headset slips over the ears and behind the head. This head-referenced design maximizes compatibility with other assistive technologies - like HeadMouse® Extreme - that employ head movement to enable a rich interface. A replaceable mouth tube is held in position with an integral stainless steel forming wire. The tube and wire can be bent and cut to adapt to individual needs. A thin, pliable connecting tube interfaces to Breeze with a simple twist connector. The Headset tube is attached to Breeze via a special pneumatic connector. Simply slide the halves together and gently twist the lock nut. *The nut should not be over tightened.*

Product package includes the following:

- Padded headset with attached mouth tube and 6-foot (1.8-meter) tube with pneumatic connector
- Three (3) replacement mouth tubes with integral stainless steel forming wire
- Documentation



Sip/Puff Gooseneck

The Sip/Puff Gooseneck is an optional user interface for Breeze that can be purchased separately or as a component of the Sip/Puff Breeze with Gooseneck offering..

Strong, lightweight and versatile, the Sip/Puff Gooseneck features a universal clamp that securely attaches to tables, beds and wheelchairs. The flexible steel gooseneck and the ball-and-socket mount enable easy and secure mouthpiece positioning. The filtered mouthpiece is replaceable and a thin, pliable connecting tube interfaces to Breeze with a simple twist connector. The Gooseneck tube is attached to Breeze via a special pneumatic connector. Simply slide the halves together and gently twist the lock nut. *The nut should not be over tightened.*

Product package includes the following:

- Gooseneck with universal clamp
- 6-foot (1.8-meter) tube with connectors at both ends
- Four (4) filtered mouthpieces
- Documentation



DIP Switch Settings

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

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

Switch 1	Switch 2	USB Device	Interface Actions
ON	ON	Mouse	Left Click, Right Click
OFF	ON	Joystick	Btn1, Btn2
ON	OFF	(Reserved)	
OFF	OFF	Joystick	Btn1, Btn2, X*, Y*

* Real time gauge pressure is reported in both the X and Y joystick position values for a dynamic pressure range of plus or minus 4 kPa.

Switch 3	Function
ON	Sip is Left Click (or Joystick Button 1)
OFF	Puff is Left Click (or Joystick Button 1)

Switch 4	Function
ON	Standard Sensitivity (3 inches water column)
OFF	High Sensitivity (2 inches with extra hysteresis)

General Care and Replacements

Breeze may be cleaned with a damp cloth, but it should never be soaked with any water or cleaning solution. Do not allow any kind of liquid into the short plastic tube attached directly to Breeze.

Gooseneck:

The Gooseneck and clamp may be cleaned by wiping the exterior with a damp cloth. Do not soak or immerse the Gooseneck. The mouthpiece aseptic filter should eliminate the need to clean the Gooseneck tubing. However, with the mouthpiece removed alcohol may be forced through the plastic tubing using a can of clean, compressed air. The tubing must be allowed to thoroughly dry, otherwise cleaning solution may contaminate the mouthpiece filter or pressure switch.

The Gooseneck mouthpiece is replaced by gently twisting off the old one and twist connecting on a new one in its place.

Headset:

When a Headset mouth tube wears out it is simply slipped off the stainless tube and replaced with a new one. To ease mouth tube installation isopropyl alcohol may be used to wet the mouth tube prior to slipping it onto the metal tube. The inline filter should be replaced as needed.

Replacement mouthpieces, mouth tubes and inline filters are available online from Origin Instruments at: <http://shop.orin.com>

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 or call 972.606.8740.

Warranty Information

Origin Instruments warrants that Breeze 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 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.

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Before returning a product for repair, please send an email to: 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.



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