

# Breeze™

# User Guide

USB Sip/Puff Switch  
Model: BZ2



[www.orin.com](http://www.orin.com)

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

### 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

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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

Breeze 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 Breeze 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 Breeze for the intended application.

# Introduction

Breeze is a compact Sip/Puff Switch with integral USB interface. It accepts a pneumatic connector and directly interfaces sip and puff events as two adaptive switches to a computer. Breeze is powered from the USB host and does not require external power. Breeze 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.

### Breeze Features:

- Extremely Low Latency
- Extremely Low Power
- Standard Headset and Gooseneck are Available
- Pneumatic Connector for Custom Integrations
- Two Sensitivity Settings
- Sanitary Filter
- Mouse Button Emulation
- Joystick Button Emulation
- Keyboard Emulation
- Apple Switch Control (iOS7) Events
- Full Speed USB Device
- 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

Breeze has two status LEDs. Both the red and green LEDs are turned on in sequence 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 red LED turns on with a Puff, and the green LED turns on with a Sip to the tube.

# Questions and Answers

### **What if I prefer Puff to be the Left mouse button?**

Use mode switch 3 (three) to select a Sip or a Puff as the left (primary) mouse button.

Mode switch 3 also interchanges the Joystick and Keyboard buttons that are associated with Sip and Puff events.

### **Can I use Breeze with an Apple iOS Device?**

Yes, with Breeze configured to emulate a keyboard it can be used as two external switches with Apple Switch Control. Either a 30-pin dock or Lightning Camera Adapter is required.

### **Breeze 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 Breeze. Some assistive applications can be set for activation from your choice of mouse, joystick or keyboard.

When you have a choice, we recommend joystick emulation. This often eliminates interference between assistive software and conventional use of the computer's mouse or keyboard. Thus, Breeze's joystick emulation is especially helpful when two people use the same computer, as in student-teacher interaction.

### **Is there a saliva trap?**

Breeze uses, connectorized in-line filters to restrict saliva, bacteria and other foreign matter entering Breeze. These filters are inexpensive and should be changed as required.

### **How does a user position and hold the mouth tube?**

We have available Headset and Gooseneck devices for holding and positioning the mouth tube. You may also develop your own method using our connectorized 6-foot (1.8-meter) tubing.

## **DIP Switch Settings**

Breeze 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 Breeze's DIP Switch, such that Breeze's USB connector extends to the left, any switches pushed up are ON and switches pushed down are OFF. After modifying DIP Switches one and two, un-plug and re-plug Breeze to enable the new settings.

<b>Switch 1</b>	<b>Switch 2</b>	<b>USB Device</b>	<b>Interface Actions</b>
ON	ON	Mouse	Left, Right
OFF	ON	Joystick	Btn1, Btn2
ON	OFF	Keyboard	Space, Enter
OFF	OFF	Joystick	Btn1, Btn2, X*, Y*

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

<b>Switch 3</b>	<b>Function*</b>
ON	SIP is Left, Btn1 or Space
OFF	PUFF is Left, Btn1 or Space

\* Used to select whether a SIP or PUFF is used to actuate the first Interface Action. For example, if you select Mouse mode and prefer SIP as the Left mouse button leave switch 3 ON. If you prefer PUFF as the Left mouse button turn Switch 3 OFF.

<b>Switch 4</b>	<b>Function</b>
ON	Standard Sensitivity (3-inches water column)
OFF	High Sensitivity (2-inches water column with extra hysteresis)

### 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

### General Care and Maintenance

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

### 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 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

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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.

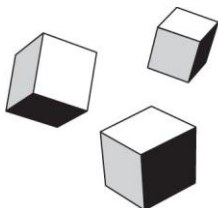
The foregoing warranties are given by Origin Instruments with respect to company products in lieu of any other warranties, expressed or implied. Origin Instruments disclaims any implied warranties of merchantability or fitness for a particular purpose. Origin Instruments' responsibility to repair or 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

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