

Multi-user Sip/Puff Switch

Getting Started and Installation Guide

Origin Instruments Sip/Puff Switch is the leading sip-puff system for individuals with motor disabilities and limited dexterity. The multi-user version of the Sip/Puff Switch provides healthcare institutions, assessment centers, hospitals, etc with a means to support multiple users while eliminating concerns over sanitation. The padded, head-referenced design affords dignity, comfort, and convenience. The disposable mouthpiece includes an in-line aseptic filter to enable hygienic, worry-free use by a succession of users. The Multi-user Sip/Puff Switch is packaged in a compact case for storage and transport.



- Comfortable and adjustable headset
- Five (5) sealed mouthpiece assemblies, each with gloves and instruction sheet
- 6-foot air tube with quick-connects
- Compact Sip-Puff switchbox with integrated “sip” and “puff” push buttons for testing purposes
- Single cable connection to computer
- No AC plug and no batteries
- Optional Swifty™ USB interface
- Packaged in a portable case with foam cushioning

Each disposable mouthpiece is enclosed in a sealed package that includes a pair of latex-free gloves and an instruction sheet. The mouthpiece filter eliminates sanitary concerns on behalf of both the user and the attendant while retaining sip-puff convenience, accuracy, and reliability. The disposable mouthpiece installs in seconds using a snap-fit fastener to the padded headset. After usage, the mouthpiece is discarded and replaced so the system is immediately available for the next user.



The mouthpiece is connected by plastic, latex-free tubing to a small switchbox that converts sips and puffs into electrical signals. The switchbox is connected to the computer or interface device through a single cable.



(a)



(b)

Figure 2: (a) Switchbox electrical connectors and connector sense switch. Stereo cable should be plugged into the center connector. (b) Pneumatic connector.

The switchbox has two connectors for the sip and puff switches and a pneumatic connector for the headset. The electrical connectors are 1/8-inch (3.5mm) microphone connectors and are the type typically used for adaptive switches. The switch contacts are normally open; closure is made with a sip or puff to the tube. The switches are designed for low current and voltage applications.

Two male-to-male mono cables and one stereo cable are included with the Sip/Puff Switch. Connect a stereo cable to the center connector if both sip and puff closures are communicated to the controlled device using one cable.



(a) Mono



(b) Stereo

Figure 1: Mating plugs for Switchbox jacks, 1/8" microphone (3.5mm). (a) Mono plug has switched contact on the tip with the common contact on the sleeve. (b) Stereo plug has switched contacts on tip and ring with the common contact on the sleeve. Stereo cable is ALWAYS plugged into the center connector.

With connector sense switch to the “left” and a stereo cable, a sip will cause a closure between the “TIP” and “SLEEVE” and a puff will cause a closure between the “RING” and “SLEEVE.” The right jack must remain open when using a stereo cable. Slide switch to the right to reverse contacts on the center connector.

For computer mouse emulation, if using a stereo cable a “sip” will generate a left click and a “puff” will generate a right click when the slide switch is to the LEFT.

Directions:

- 1) Plug one end of black connector cable into the Sip/Puff switchbox (a), and the other into the computer or connecting device.
- 2) The air tube is used to attach the mouthpiece to the Sip/Puff switchbox. Plug one end of the air tube into the switchbox (b) and the other into the disposable mouthpiece. Simply slide the halves together and “gently” twist the lock nut. *The nut should not be over tightened.*
- 3) The padded headset is easily adjusted to the user’s head by slipping it over the ears and behind the neck of the user.

The Sip/Puff Switch electrical functionality can be tested by depressing the “sip” and/or “puff” push buttons on the switchbox.

Sip/Puff Switch Declaration of Conformity with European Directives

RoHS



The Sip/Puff Switch contains two passive, normally open, pressure switches. Their contacts are brought out on two 1/8-inch (3.5mm) connectors. The switches are designed for low voltage and low current signal loads. They are not designed or rated for switching power loads. The switches are rated for switching voltages at or below 30-Volts AC/DC, and currents at or below 0.030-Amps.

The Sip/Puff Switch is a Low Voltage Device as defined in the Directive 2006/95/EC of 27 December 2006. It meets the criteria of Article 1 of 2006/95/EC of 27 December 2006 as a Safety Extra Low Voltage (SELV) device. The Sip/Puff Switch does not contain active electronics and Electromagnetic Compatibility (EMC) testing for Radio-electrical interference is not required.

The Sip/Puff Switch conforms to the Restriction of Hazardous Substances (RoHS), and the Waste Electrical and Electronic Equipment (WEEE) Directives.

Application Disclaimer

The Sip/Puff Switch 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 Sip/Puff Switch 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 the Sip/Puff Switch for the intended application. **Origin Instruments will not be responsible for direct or consequential damages associated with any use of the Sip/Puff Switch.**



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