TEControl
BCa - Analog Breath Controller
User Guide

For up to date information and documentation, please visit the product page at

https://www.tecontrol.se/products/analog-breath-controller

For general information about products email us at info@tecontrol.se

For technical questions and enquiries email us at support@tecontrol.se

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Correct Disposal of This Product (Applicable in countries with separate collection systems) This product should not be disposed of with other household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this item from other types of waste and recycle it responsibly to promote the sustainable reuse of material resources. Please contact your local government office for details of where and how you can take these items for environmentally safe recycling.

WEEE registration numbers

- Belgium: 948212
- France: 1092827
- Germany: DE74275552
- Italy: IT21070000013240
- Netherlands: RL00039508
- Spain: 7698
- Sweden: SE5590006416
- UK: WEE/AU6409VE

Contents

1 Overview

The BCa is an analog breath controller, designed to be fully compatible with Yamaha's discontinued breath controllers. This means it can be plugged directly into the 3.5 mm "Breath" input jack of any compatible keyboard/synthesizer, for example the Yamaha CS01, Yamaha VL70-m, and several others.

Compared to Yamaha's BC3 breath controller, the BCa contains a modern piezoelectric pressure sensor and a much improved signal conditioning circuit. The sensor is not only more sensitive, but also free from drifts and hysteresis, which plagued the membrane sensor of the BC3; the offset and gain controls are more precise and, unlike the BC3, they are independent from each other: this means that changing gain does not affect offset and vice-versa.

To quickly get an overview of the past and present world of breath and wind controllers, we recommend checking out the following page:

http://www.patchmanmusic.com/WindControllerFAQ.html

1.1 System requirements

The BCa breath controller does not require installation of drivers or software. It is signal compatible with Yamaha's discontinued breath controllers and can be plugged into the 3.5 mm breath controller jack of any keyboard, synthesizer or other device designed to use Yamaha's breath controllers.

2 Getting started

2.1 Deliverables

Your purchase of the BCa breath controller includes:

- BCa device
- Silicone tube
- Flexible, bendable headset with mouthpiece

2.2 Installation

Cut the silicone tube to convenient length and connect one end to the BCa sensor port (which is located below the two adjustment knobs) and the other end to the headset. At the end of the mouthpiece is an adjustable bleed valve which allows you to set the amount of flow passing though the mouthpiece.

Connect the 3.5 mm plug to your sythesizer's breath controller input jack. Many synthesizers do not require any other setting. For those that do, consult your synthesizer's manual to set up the breath controller function.

2.3 Adjustment knobs

The BCa breath controller has two rotary control knobs:

- The Gain control knob controls how hard you need to blow to achieve the maximum output.
- The Offset control knob changes the breath pressure threshold at which the output signal starts activating. Any pressure below this threshold will not result in any output signal.

Unlike the Yamaha BC3 and predecessors, the Gain and Offset knobs are fully independent; adjusting Gain does not change Offset and vice-versa.

2.4   Guidelines for adjustment

With the BCa connected and without blowing, hold down a key on your keyboard and adjust the Offset control up or down until you find the point where the sound switches on/off. Most common setting is to leave the Offset knob just below the point where the sound starts. If you now blow into the mouthpiece, the sound should start.

You can now adjust the Gain knob: by rotating it counterclockwise, more breath pressure will be required to achieve maximum output; clockwise rotation results in less pressure required for achieving maximum output.

The Gain knob is intended to allow you to adjust the required breath pressure to your individual capabilities and playing style.

It is important to realize that settings vary between players, and they sometimes need to be adjusted according to the sound patches you are playing.

In addition you can adjust the bleed valve of the mouthpiece to suit your individual playing style. The bleed valve will allow you to adjust the amount of air moving through the mouthpiece. As a guideline, increasing the amount of bleed will get closer to the feeling of playing a real brass or woodwind instrument and make it easier to perform fluttering and similar articulations.

3 Declaration of conformity

Supplier's Name: **TEControl**

Supplier's Address: **Kalladalsv. 2, 23197 Klagstorp, Sweden**

Supplier's email: info@tecontrol.se

declares that the product **BCa – Analog Breath Controller** conforms to the following

EMC:
    EN 55022:2010
    EN 55024:2010

RoHS:
    EN 50581:2012

The product herewith complies with the requirements of the RoHS Directive 2011/65/EU, the EMC Directive 2004/108/EC and carries the CE marking accordingly.

The product herewith is exempt from the specific technical standards and other requirements contained in Part 15 of the FCC rules, according to FCC 15.103(g).

Trelleborg, 15.07.2018   _____
                                         Owner, TEControl