

AKKOtune

BlowBox Module

Setup Instructions

User Guide



AKKOfune BlowBox Module

Setting up a tuning table for accordion, harmonicas, etc.

Sense and purpose of this device

Many “old” tuning tables generate the air flow required for tuning using a bellows. This bellows is moved either by hand or via a foot pedal.

The disadvantages of the bellows are the uneven pressure distribution during movement, the lack of repeatability, the limited air volume and the effort required for handling.

With the AKKOfune BlowBox module you can replace the bellows and create a constant air flow in the push and pull directions.

Setup Instructions

The BlowBox module is available in two versions:

1. As used in the AKKOfune compact tuning table (figure 1)

The air inlet and outlet, each \varnothing 50mm, is in the base plate. For the connection, an HT pipe DN50 can be inserted or glued into the holes.

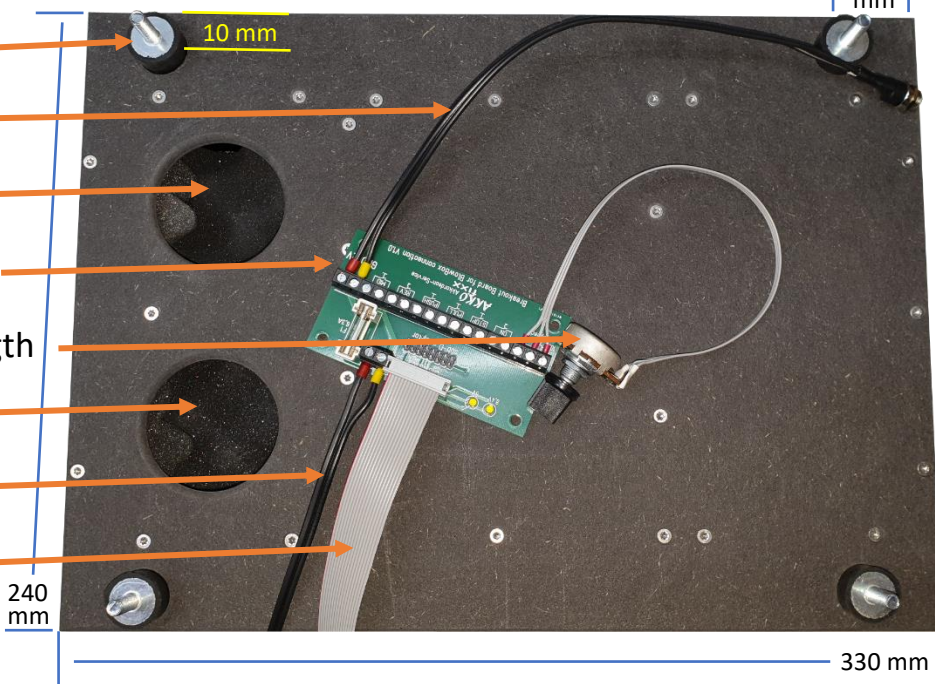


Base plate of the BlowBox Module

(figure 2)

31 mm

1. Silent blocks
2. 12V DC cable
3. Air inlet
4. Connection board
5. Pot for wind strength
6. Air outlet
7. 12V fused
8. Steuerkabel



240 mm

330 mm

Scope of Delivery

- (1) The BlowBox module is supplied with 4 silent blocks (rubber buffers) to attach it to a wall (e.g. in a sound insulation box) without transmitting the structure-borne noise of the blower to the outside.
- (4) The connection board can be mounted in the box or outside.
- (2) The 12V DC cable is 25 cm long and has a socket at the end for the 12V plug of the power supply (included in delivery).
- (5) The potentiometer for adjusting the wind strength is optionally included in the scope of delivery on a 25 cm long cable.
- (7) The cable with the fused 12V DC is approx. 50 cm long and is connected to the terminals on the control board.
- (8) The ribbon cable for controlling the module is approx. 50 cm long and has a header connector on both ends. It can also be lead out under the lid for the control.

Module Dimensions

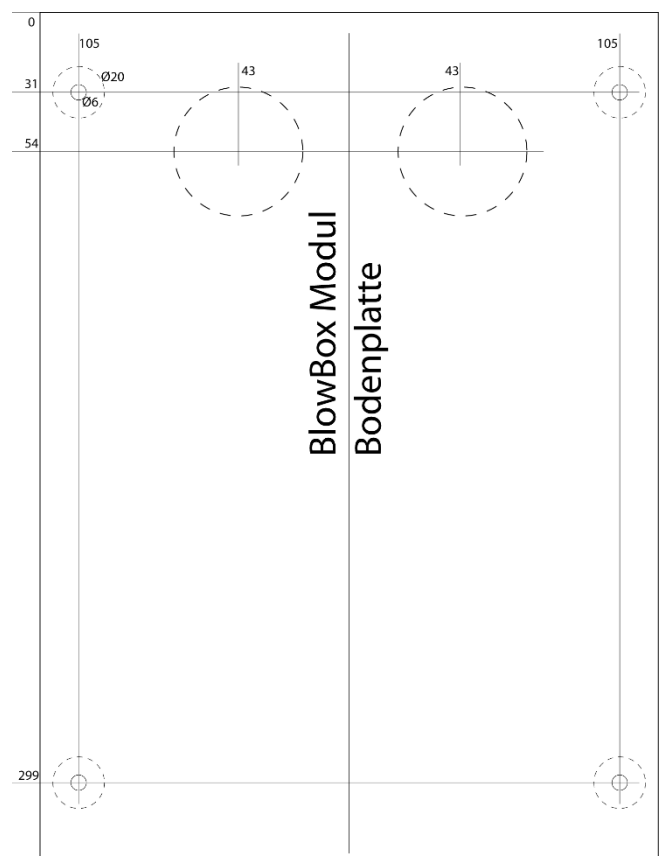
The module itself has a height of 82 mm (+ 3mm lid) and a width of 180mm. There is also a base plate with a thickness of 8 mm and a width of 240 mm. Both are 330 mm long.

The base plate is either closed or has two air holes. The positions of the mounting holes for the silent blocks are 105 mm from the center line and 31 mm from the end faces of the base plate.

The hole spacing of the mounting holes is therefore 268 x 210 mm. Accuracy is ± 1 mm.

The two optional $\varnothing 50$ mm air holes are each 43 mm from the center line and 55 mm from the face.

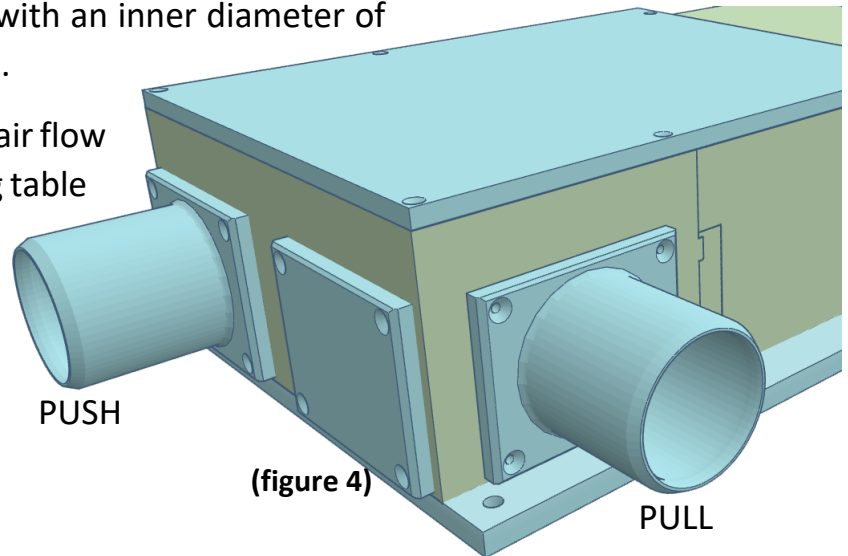
(figure 3)



2. For use in its own noise attenuation housing.

The air inlet and outlet is provided on the side or at the front, the bottom is closed throughout. The flexibly positionable air flanges have an outer diameter of 50mm. You can slide a suction hose with an inner diameter of 50mm (pond hose, 2") over it.

The hose is used to direct the air flow to the underside of the tuning table to a flange under the blow hole, or into a box that replaces the previous bellows.



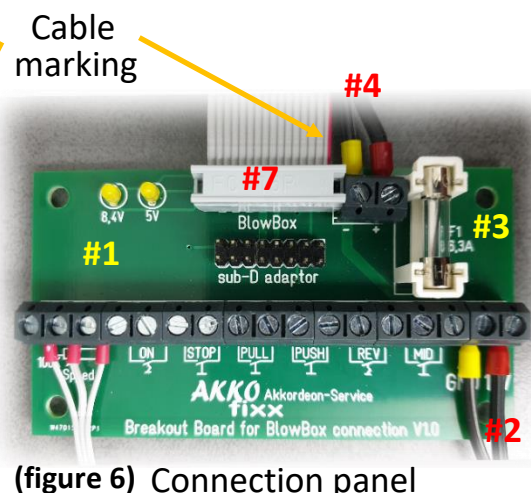
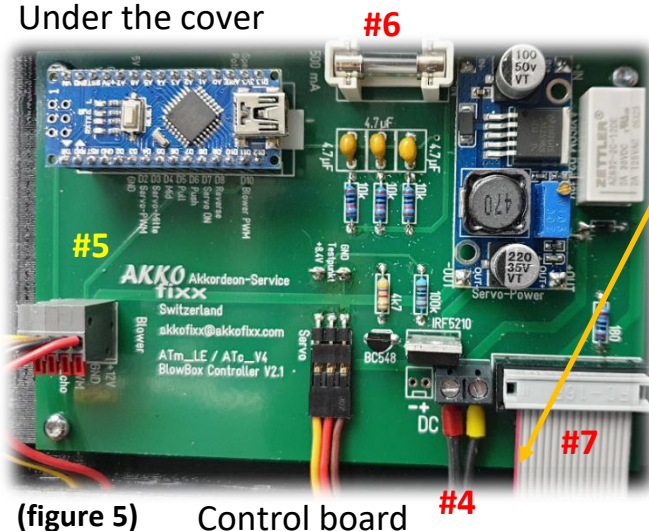
Module Controls

The module is equipped with an electronic control. This controls both the speed of the blower and the positions of the air valves. The circuit board under the cover of the module carries a microcontroller that converts the control commands given via the connection panel into precise movements.

The system is powered with 12V DC from a 60W power supply. To do this, the power supply is plugged into the socket that is connected to the connection panel via cable (#2). On the connection panel (#1) there is a fuse (6.3A/#3) which protects the current that is passed on to the control board (#4).

There is another fuse (500mA/#6) on the control board (#5) that protects the 5V control voltage generated by the microcontroller. The connection panel and control board are connected with an approx. 50 cm long ribbon cable (#7).

Under the cover



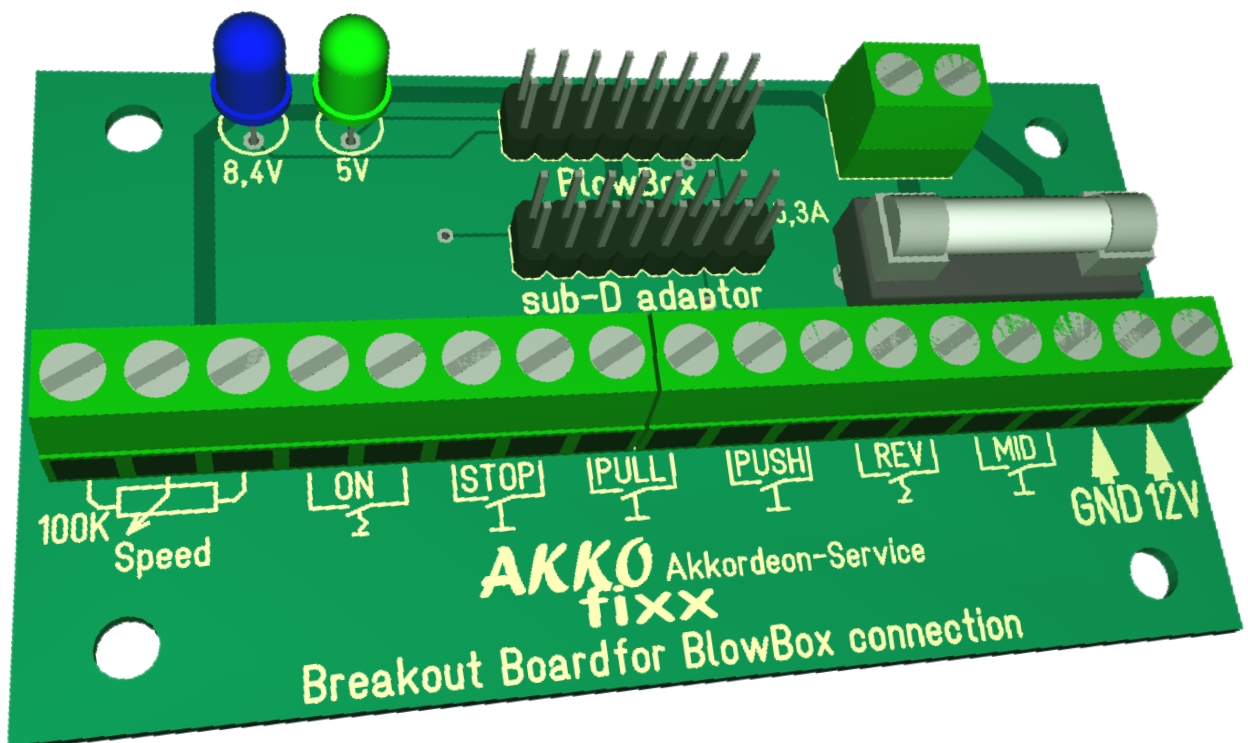
Extension

The second header „subD adaptor“ serves for connecting:

1. A cable (optional) with a subD connector (pins) at the end.
via a subD extension cable you can connect:
 - a. a Control Panel X11 ATmLE1
or
 - b. a Control Panel X12 ATmLE2
or
 - c. a Foot Switch X15 ATmLE2

2. A control panel (optional) with switches, pushbuttons and a rotary knob for adjusting wind strength. This control panel is designed to be positioned flat on the table. The connection is made via a long ribbon cable.

(figure 7)



User Guide

On the connection panel (Figure 7) there are screw terminals for connecting external controls (not included in the scope of delivery). The Selection and attachment/installation of the external controls is the responsibility of the user. We are happy to provide assistance with this.

The switches and buttons are connected as follows:

- | | | |
|----------------------|---------|---------------------------------|
| 1. switch | (ON) | switch system ON |
| 2. switch | (REV) | general wind direction reversal |
| 3. pushbutton | (PUSH) | start the wind for PUSH |
| 4. pushbutton | (PULL) | start the wind for PULL |
| 5. pushbutton | (STOP) | wind stop |
| 6. pushbutton | (MID) | temporary wind stop |
| 7. Pot 100k Ω | (Speed) | adjusting wind strength |
| 8. cable | GND/12V | from power supply unit |

The BlowBox module is switched on using the ON switch - both LEDs on the connection panel light up and the fan starts briefly.

Normal operation (switch REV off):

- The PUSH button starts the fan at the speed set with the potentiometer. The wind comes from the “air outlet”, figure 2.
- PULL reverses the wind direction without changing the wind strength. The wind comes from the “air inlet”, figure 2.
- The MID button stops the wind without stopping the blower; when released, the air valves return to their previous position.
- With REV switch ON, the function of the PUSH and PULL buttons is swapped.
This can be helpful when instead of “breathing” a “halved” instrument you tune a reed block; because then the effect of Push and Pull is reversed.
- Turning the potentiometer to the right increases the wind strength.



AKKOfixx Accordion-Service Thielmann

CHE-155.382.728

Sagigut 9

5036 Oberentfelden

Switzerland

akkofixx@akkofixx.com

Tel.: +41 62 723 38 04

Mob.: +41 76 470 25 65

Mob.: +49 159 02 7979 02