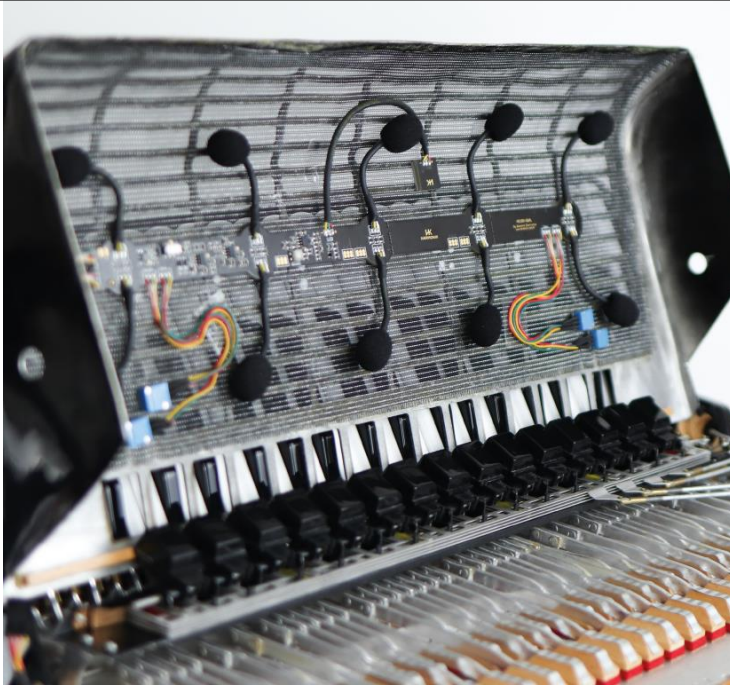


2020

Harmonik installation guide for accordions



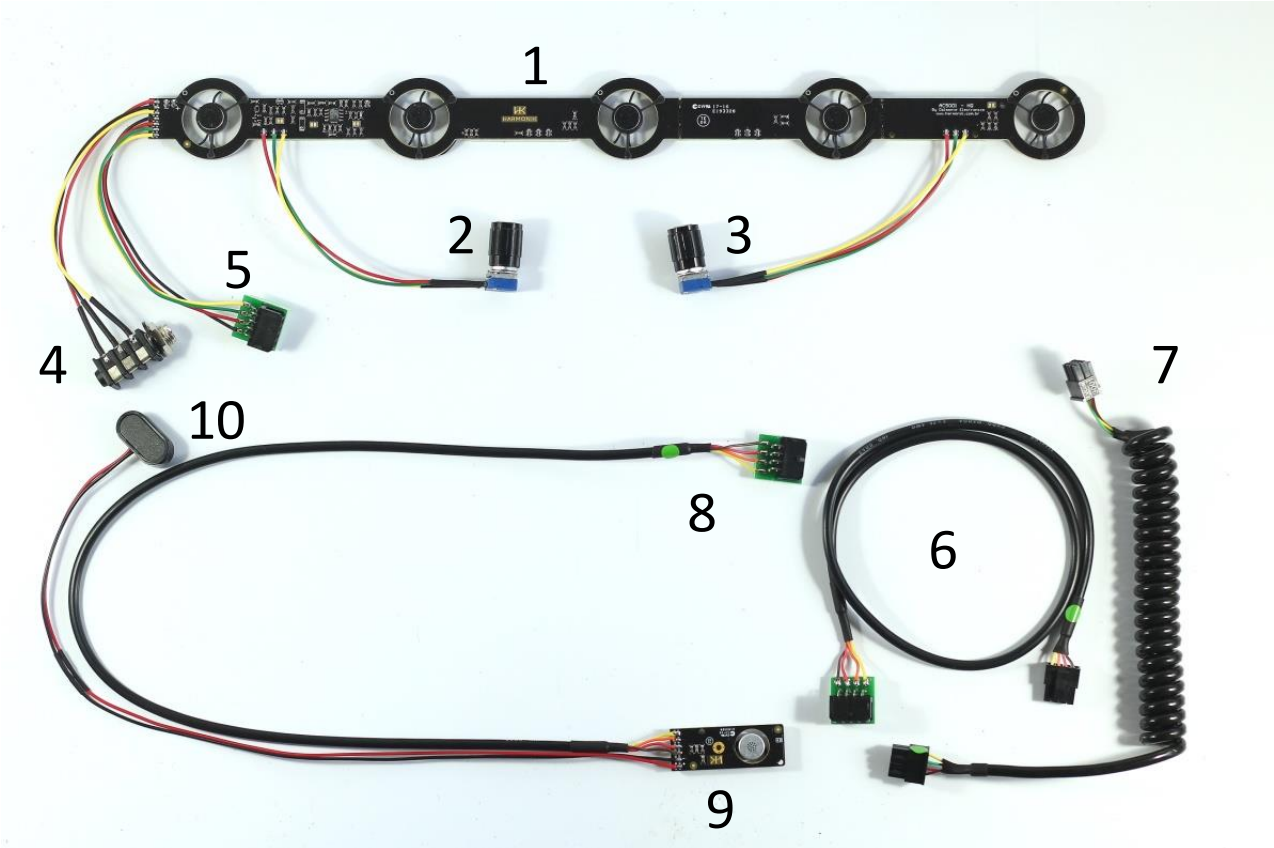
Harmonik Microphones

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1. Identification

The Harmonik accordion microphone systems include:



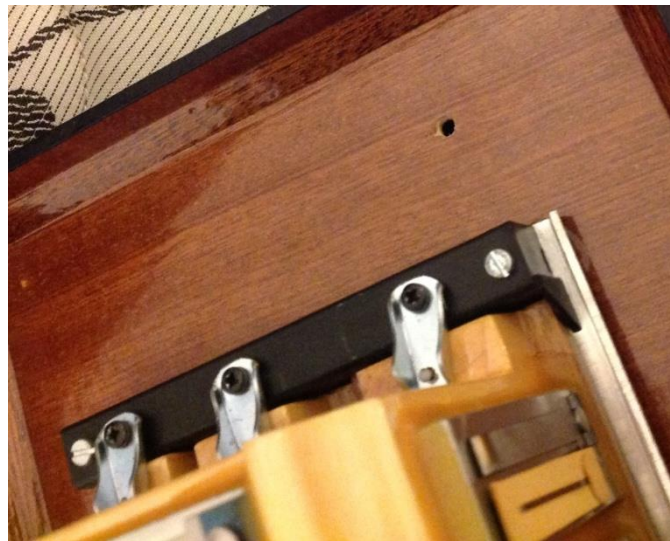
- 1 – Main circuit board with 5 microphones, and *Shock Mount* system. Attached to the cover to capture sound from the right hand.
- 2 – Volume potentiometer for the Bass Section (left hand).
- 3 - Volume potentiometer for the Treble Section (Right hand).
- 4 –P10 1/4" mono jack. (Stereo on demand).
- 5 – Connection board.
- 6 – Treble Section to bellows connection cable.
- 7 – Spiral cable for bellows.
- 8 – Bellows to Bass Section connection cable.
- 9 – Bass microphone and circuit board.
- 10 – Battery clip.

2. Materials

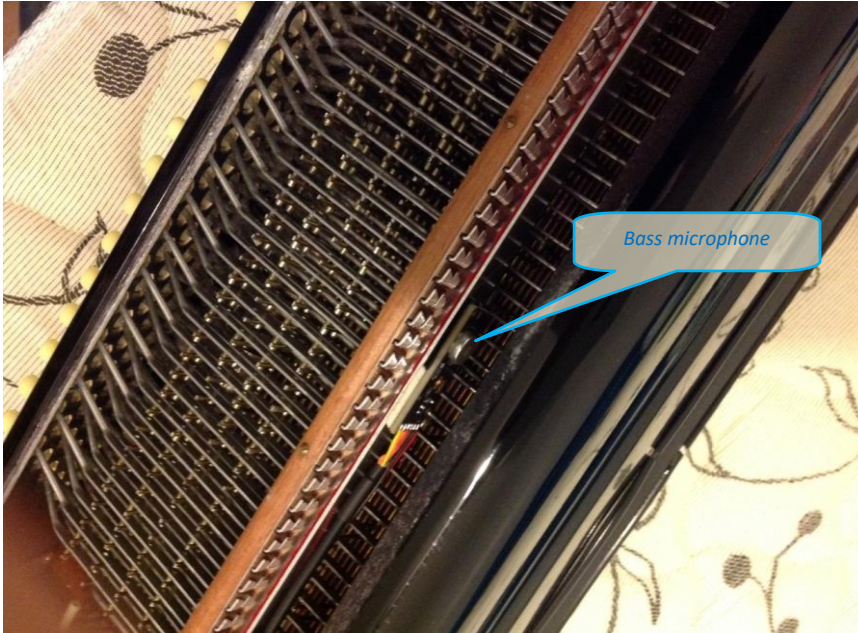
- **Drilling machine**
- **4 mm drill bit (cable hole)**
- **7mm drill bit (potentiometers hole)**
- **9.5 mm drill bit (Jack hole)**
- **Contact adhesive (or other sealing glue)**
- **Double-sided tape (cable fixing)**
- **Insulating tape**
- **Fine-end soldering iron (30W or 40W)**
- **Tin (prefer orange packaging as it melts easier)**

3. Bass microphone and battery support

3.1. Make a hole (4 mm) to pass Bellows to bass-section connection cable (8).



3.2. Attach the bass microphone to underside of bass mechanism. This is the ideal position, however if there is not enough space in your instrument, a metal support can be made and attached using double-sided tape to attach the microphone in the same position.



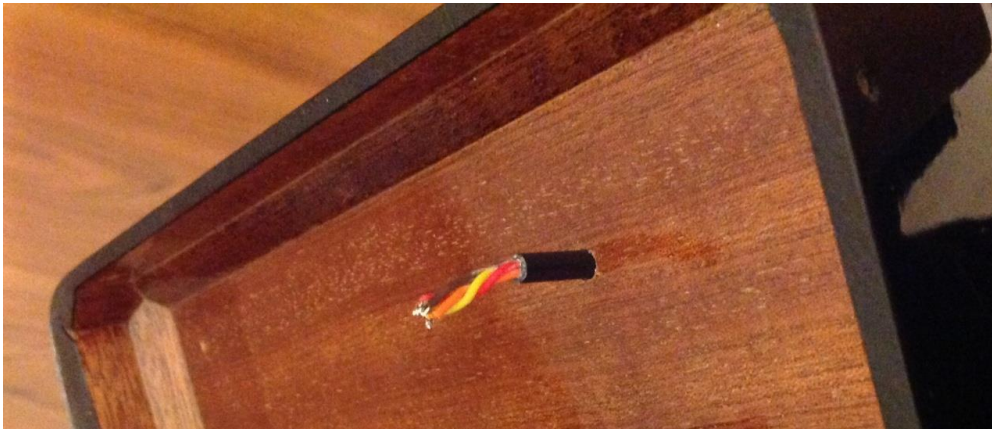
3.3. If there is space to install the battery in the right side, please see the chapter 7.

3.4. Place the battery holder in position. The battery holder is attached with a screw; however, depending on the instrument, it can be attached by using double-sided tape.

NOTE: If there is space, the battery can also be attached to the right side of the accordion.



3.5. Unsolder the connection cables (item 8) and feed the cable through the hole.



3.6. Re-solder the cables to the connection board (in the same order), attaching the cable, then fastening the connection board.

Tip: A fine-point soldering iron should be used, in order to leave the result with a bright finish. It is recommended to use fabric tape or similar to attach the cable to the instrument body.



3.7. Connect the spiral cable to the connection board and attach the spiral cable with a clip **in the first turn of the cable.**

Spiral cable attachment and connector insertion:



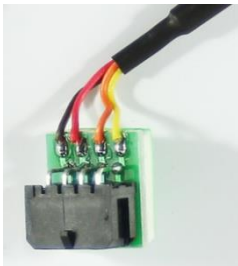
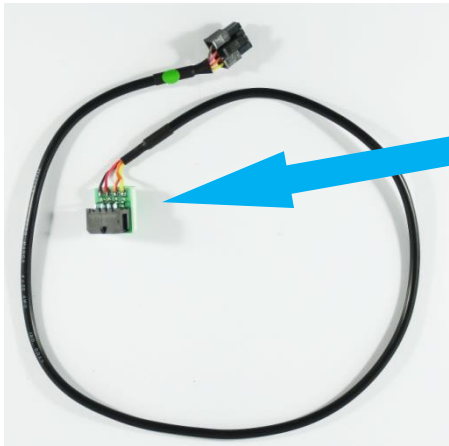
3.8. Sealing of the hole:

The hole can be sealed by using clear, contact glue



4. Keyboard-side installation

4.1. Make a hole (4mm) to feed the cable through, finding a place with the greatest possible space, as this will facilitate feeding through and attaching the cable. To do this, unsolder the connection board cables.



Unsolder the wires from the board to insert the cable.

4.2. Feed the cable through the hole.



4.3. **Re-solder the cables to the connection board in the same order,** using a fine-point soldering iron and adjusting the wire length to facilitate easy removal of the cover. Internally attach the connection board to the topside of a reed-block or outside of tone chamber (pictured).

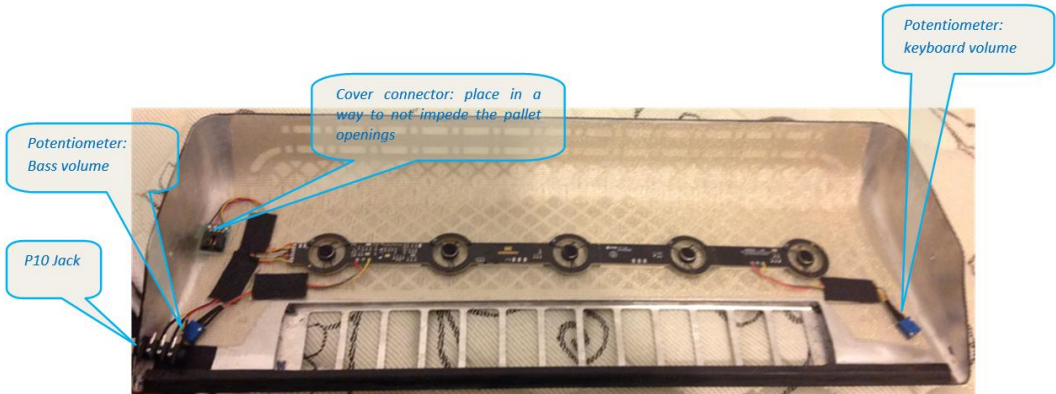




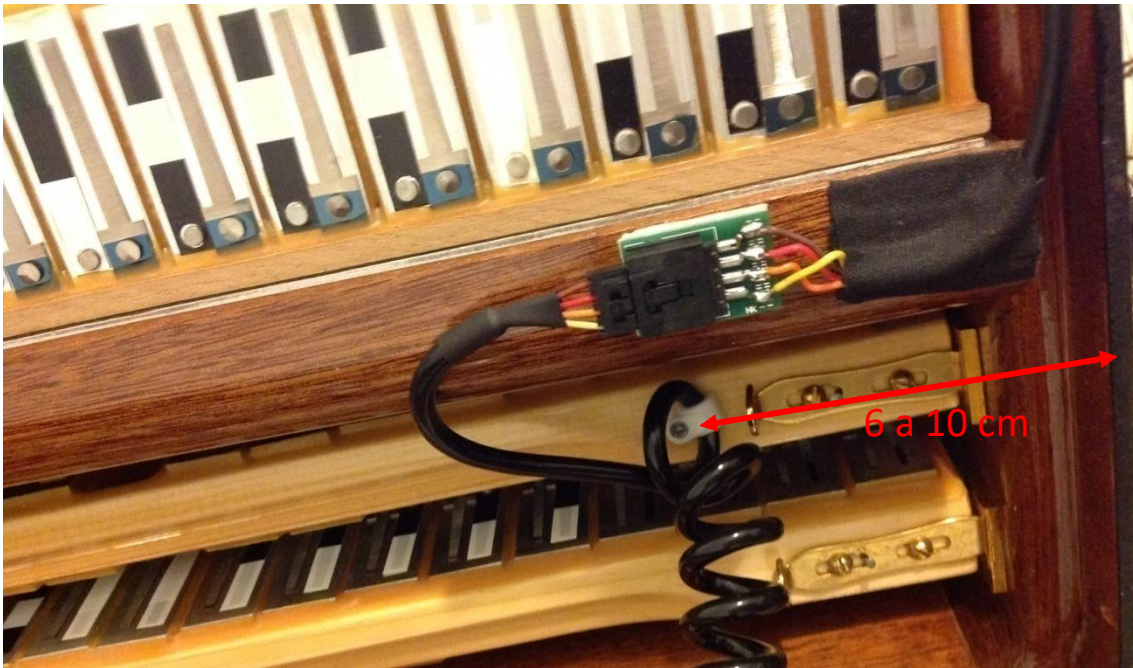
4.4. Make necessary holes in the grill to insert the potentiometers and the 1/4" jack, be sure that no key levers or mechanisms are in the way of electronic components:



4.5. Attach the board provisionally on the cover, placing the potentiometers and the jack in their respective holes. The board should be placed so that the microphones are aligned between key valve openings and centered under the grill. **It is important that the microphones to be centered underneath the grill.** Test the sound to ensure that all notes and registers are captured evenly and, if so, attach the board permanently. **Do not attach the back part of the microphones!** Do not seal or coat the internal part of the accordion cover with any type of material.



- 4.6. Replace the cover and test (by playing all the keys) for any mechanical interference.
- 4.7. Connect the spiral cable to the connection board and reinforce the spiral cable with a cable clip **in the first turn**. At this point the system can now be connected to amplification to verify that it is functioning correctly. (Before testing, be sure to check that all connections are correct, and that the battery is connected).



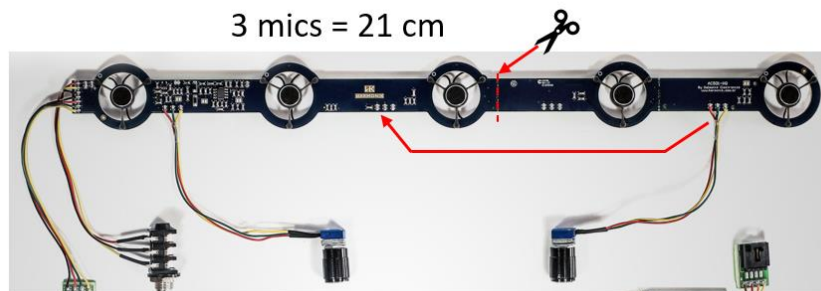
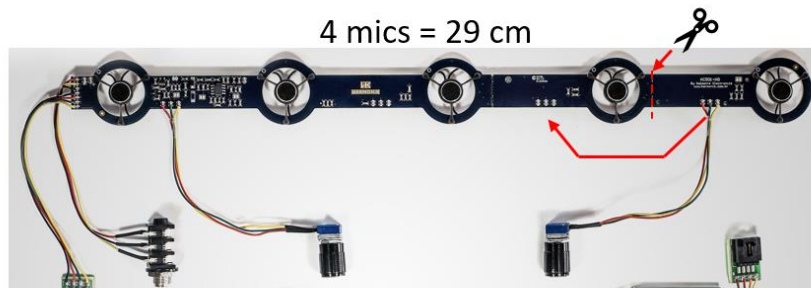
- 4.8. When testing the functionality, check that the keyboard sound comes out evenly. If not, reposition the board.
- 4.9. Final attachment of the board.
- 4.10. Coat the hole with clear all-purpose glue, or other appropriate material.

These images are illustrative, and depending on each instrument, the Luthier installer should use specific techniques for an appropriate

5. Installation for 80 to 8 basses

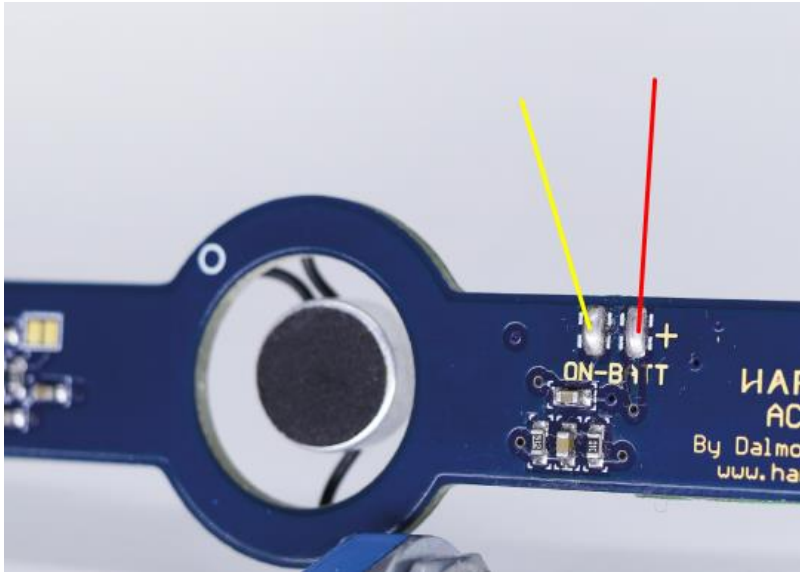
The Harmonik systems can be reduced in size for installation in small accordions.

5.1. Cut the board in the indicated pointed line and move the potentiometer for the left position.

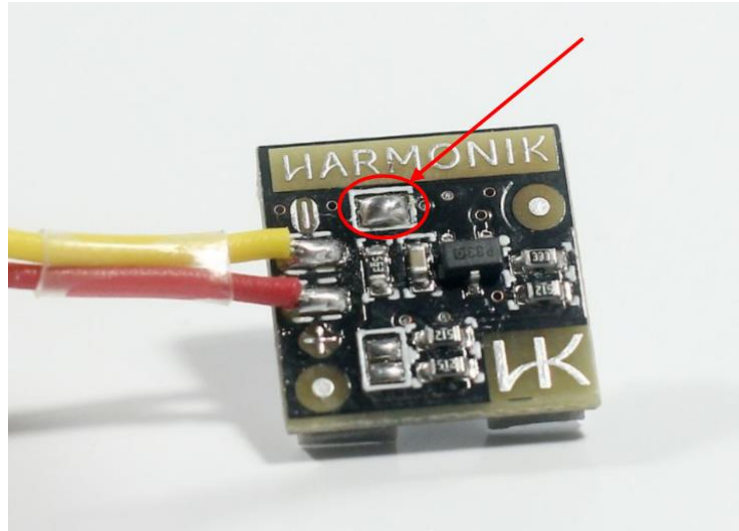


6. ON-BATT installation (for AC501 line)

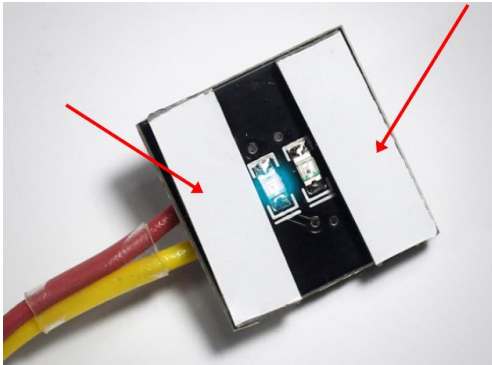
6.1. Solder the wires from the LED on the print, see the picture below.



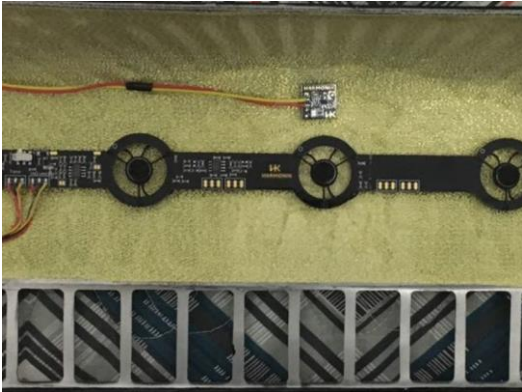
6.2. If you want to disable the blue led (ON), just remove the solder indicated below.



6.3. Remove the two stickers from the ON-BATT.

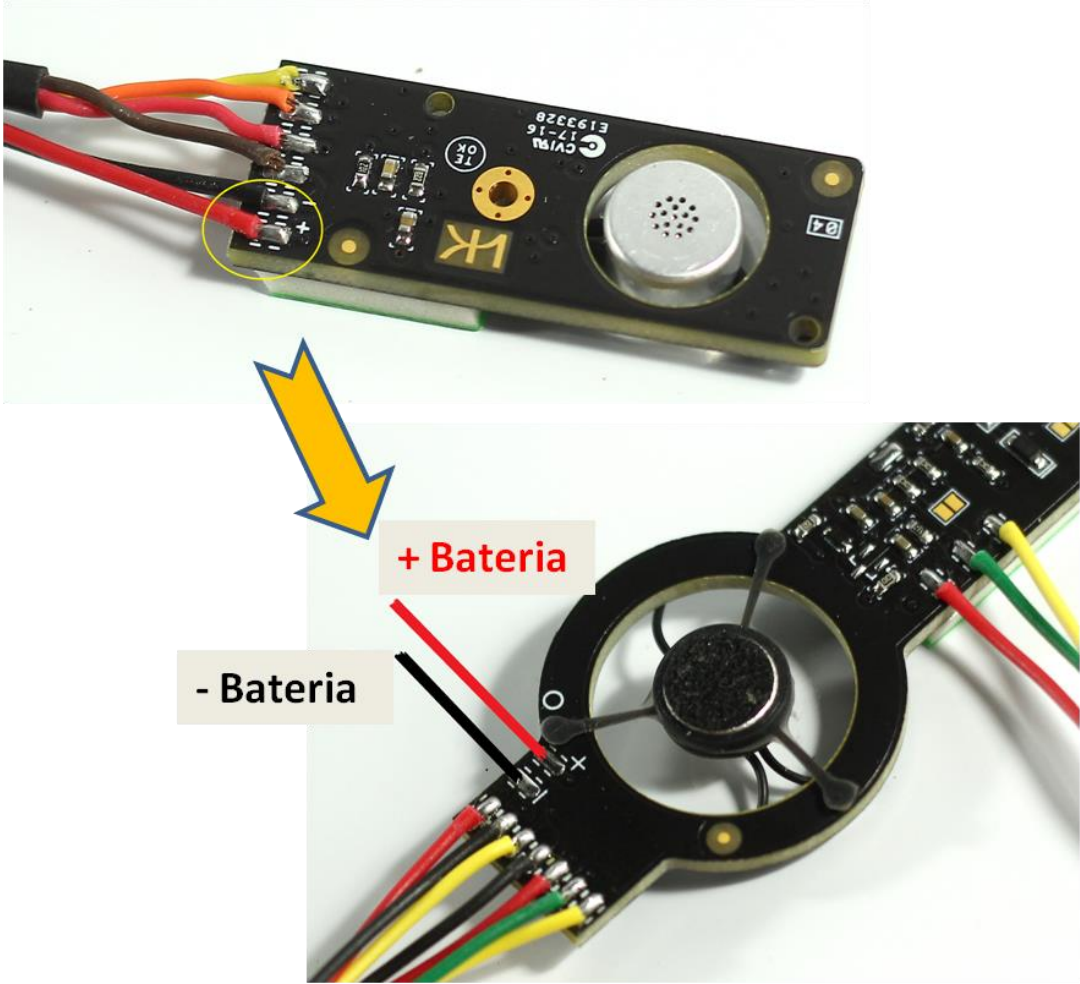


6.4. Fix it in an open place of the accordion grill so that the LEDs can be seen from the outside of the grill. When plugging the cable, the blue LED should light up.



7. Battery in the treble side.

To install the battery on the side of the keyboard, the battery cables that are soldered to the bass microphone board should be unsoldered, then soldered to the right-hand microphone board, paying attention to the polarity and color, in position according to the following figures:

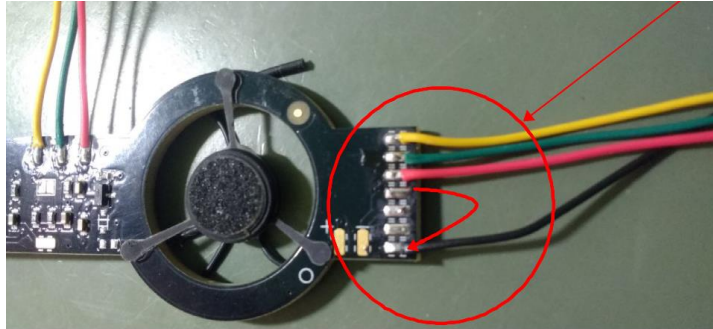


TIP: Take care when applying this modification, as the positive pole soldering pad is located very close to the microphone Shock Mount. If the soldering iron touches the Shock Mount, it may cause damage.

8. Installing the jack on the bass side

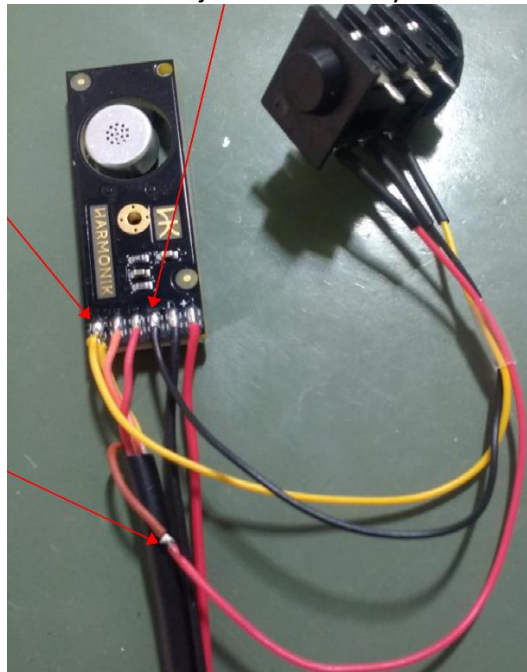
8.1. Carefully unplug the keyboard board jack (keep the cables soldered to the jack)

8.2. Solder the black wire where the red wire of the jack was originally, as shown below:



8.3. On the bass part, solder the jack according to the figure below:

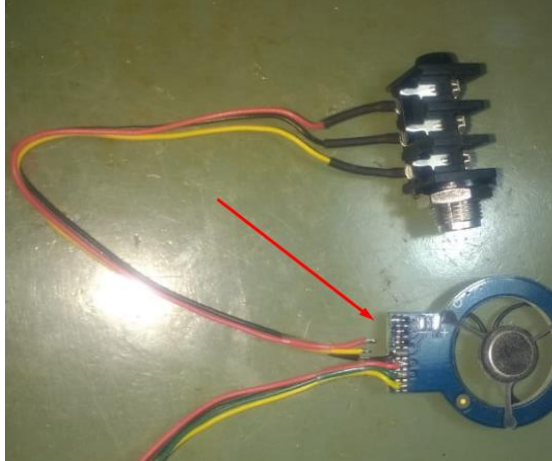
- 8.3.1. Unsolder the brown wire of the bass board and connect to the red wire of the jack;
- 8.3.2. Solder the black wire of the jack in the place where the brown wire was in the bass board.
- 8.3.3. Solder the yellow wire of the jack next to the yellow bass board wire.



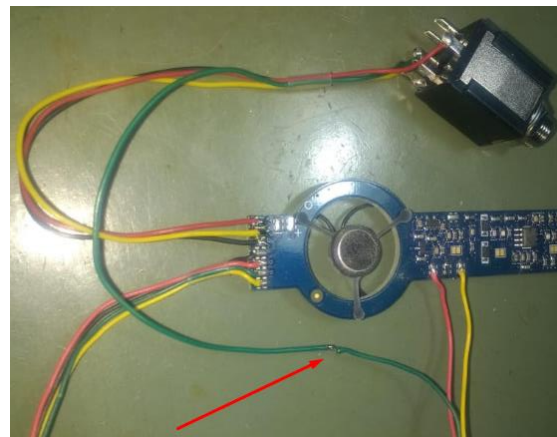
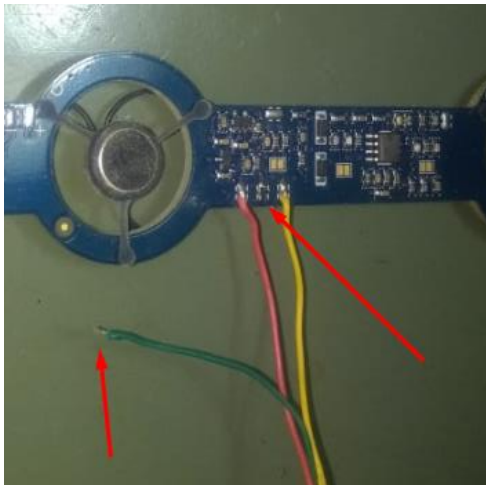
9. Mono to stereo modification

To make this modification you will need a special stereo jack (same used in the PLUS models)

9.1. Unsolder the mono jack from the main board (including the wires)



9.2. Unsolder the middle wire (green) of the bass potentiometer from the board and solder the wires of the stereo jack in the board in the same position and colors.



10. Stereo jack in the bass side

To make this modification is necessary to have the 5 wires kit. Please contact your dealer.

10.1. Remove the jack from the treble board and make the connections according to the picture bellow.



10.2. In the bass microphone make the follow connections:

- Black(jack) – Black (board)
- Yellow (cable)– yellow (board)
- Black (cable) – Red (jack)
- Blue (cable) – Green(jack)

