

## Wahoo Pedal Tension Adjustment Guide

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### 1 Introduction

The pedal tension on the Wahoo has been adjusted at the factory to give a firm but smooth feel. In rare cases, the factory tension has been set too tight and the movement of the pedal becomes less smooth than it should be. Also, some users prefer a looser feel to the pedal and may wish to adjust the tension to suit their own personal preference.

This guide describes how to access the hinge of the pedal so that adjustment to the pedal tension can be made.

### 2 Performing the adjustment

The pedal hinge comprises a nut-and-bolt assembly. Simply adjusting the nut will change the tension on the pedal — slackening off the nut will loosen the pedal tension.

However, it is not easy to access the nut and bolt to make an adjustment. So, it is usually necessary to remove the pedal from the Wahoo case to gain access to this.

#### 2.1 Precautions

Standard electro-static-discharge (ESD) precautions should be taken when disassembling the product. The Wahoo contains sensitive electronics that can be damaged by discharge of static electricity. Therefore, use a grounded anti-static wrist-strap to prevent static charge accumulating on your body, and don't wear clothes that generate static electricity (nylon, fleeces, etc.). If possible work on a static-dissipative (ESD mat), or an electrically conducting surface (e.g., a sheet of aluminium foil connected to ground) — plastic surfaces should be avoided.

## 2.2 Accessing the boards

Remove all the screws in the base of the unit to gain access to the inside.

Next, remove all the screws holding the MCU (smaller) and Analogue (larger) boards in position. Also remove the metal screw-ends of the jack sockets (and insulating washers) to allow the Analogue board to be removed.

Now the Analogue and MCU boards can be lifted gently from their seated position and the Analogue board separated from the MCU board by pulling the Analogue board sideways. The Analogue board can now be fully removed to leave the MCU board attached to its cables.

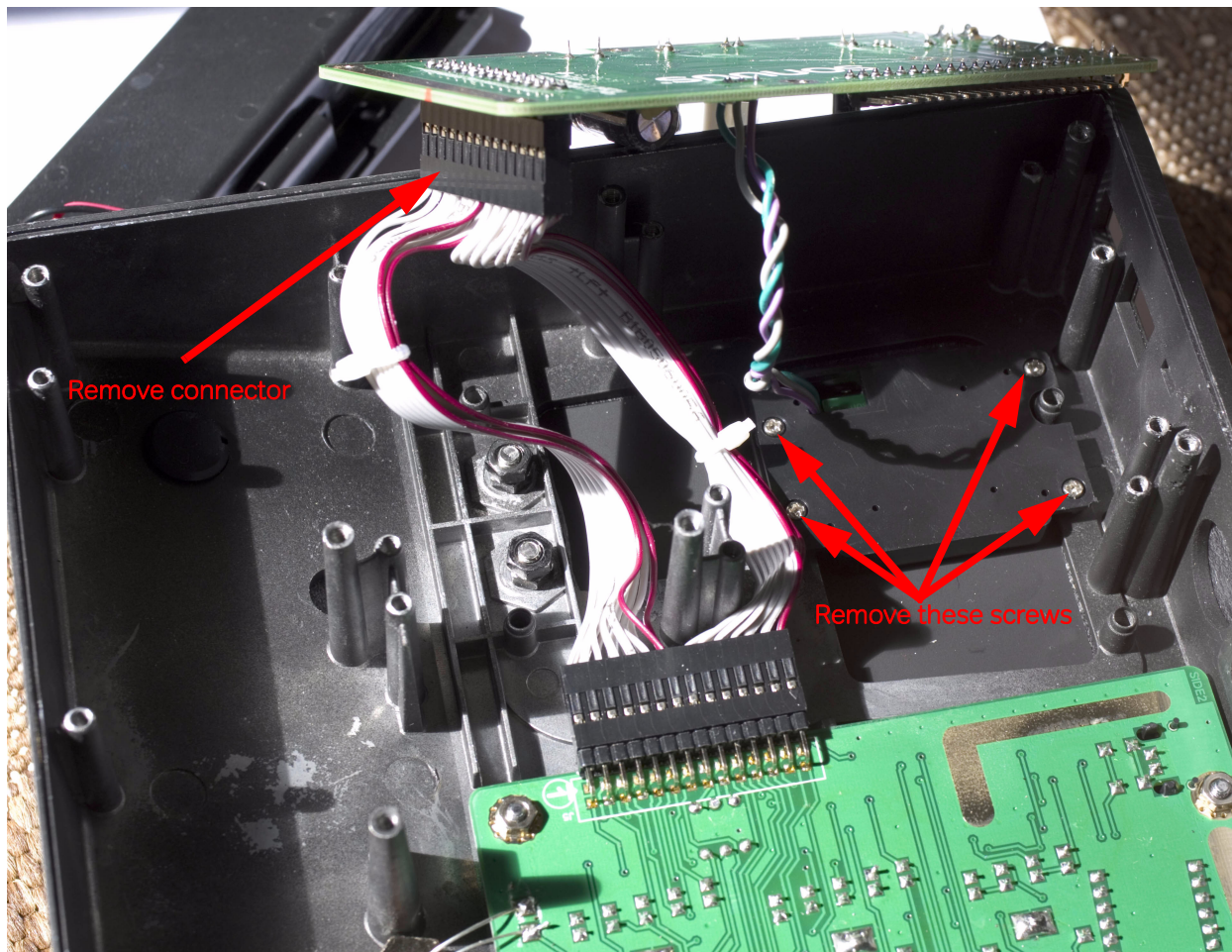


## 2.3 Disconnecting the MCU board to remove it

The MCU board is connected to three other parts: (1) the control panel; (2) the battery box; and (3) the pedal sensor.

To remove the MCU board, disconnect the wire harness that connects it to the control panel. Also, unscrew the pedal sensor from the case. This allows the MCU board to be removed together with the battery box and the pedal sensor.

Note that it may be possible to remove the pedal assembly without disconnecting the MCU board, but we have found it is easier and safer to remove this board to prevent accidental damage to it or its connecting wires.

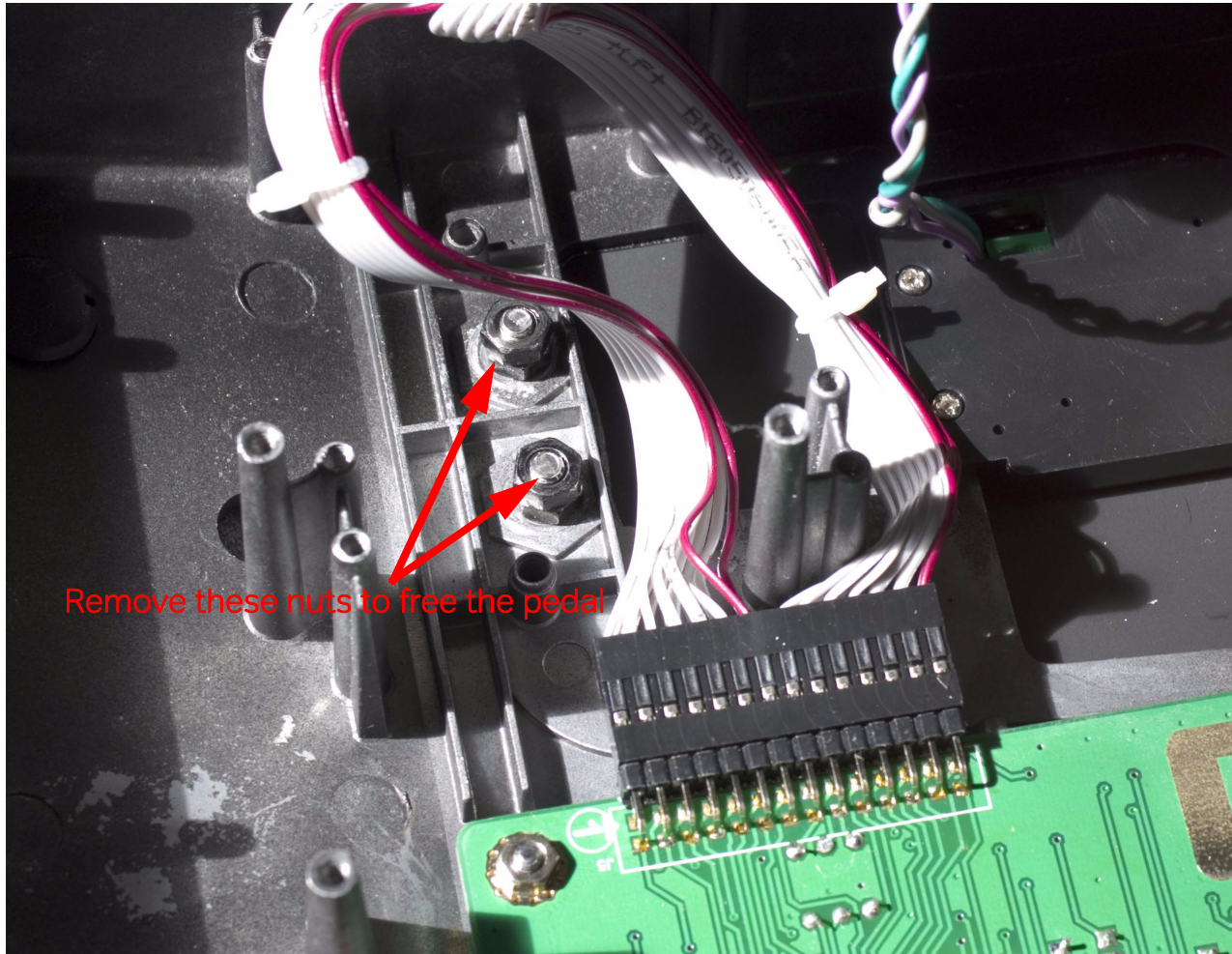




## 2.4 Detaching the pedal from the case

The pedal is attached to the case with two bolts, each secured with a double nut. To remove the pedal, these nuts have to be removed and the pedal will then fall free from the case.

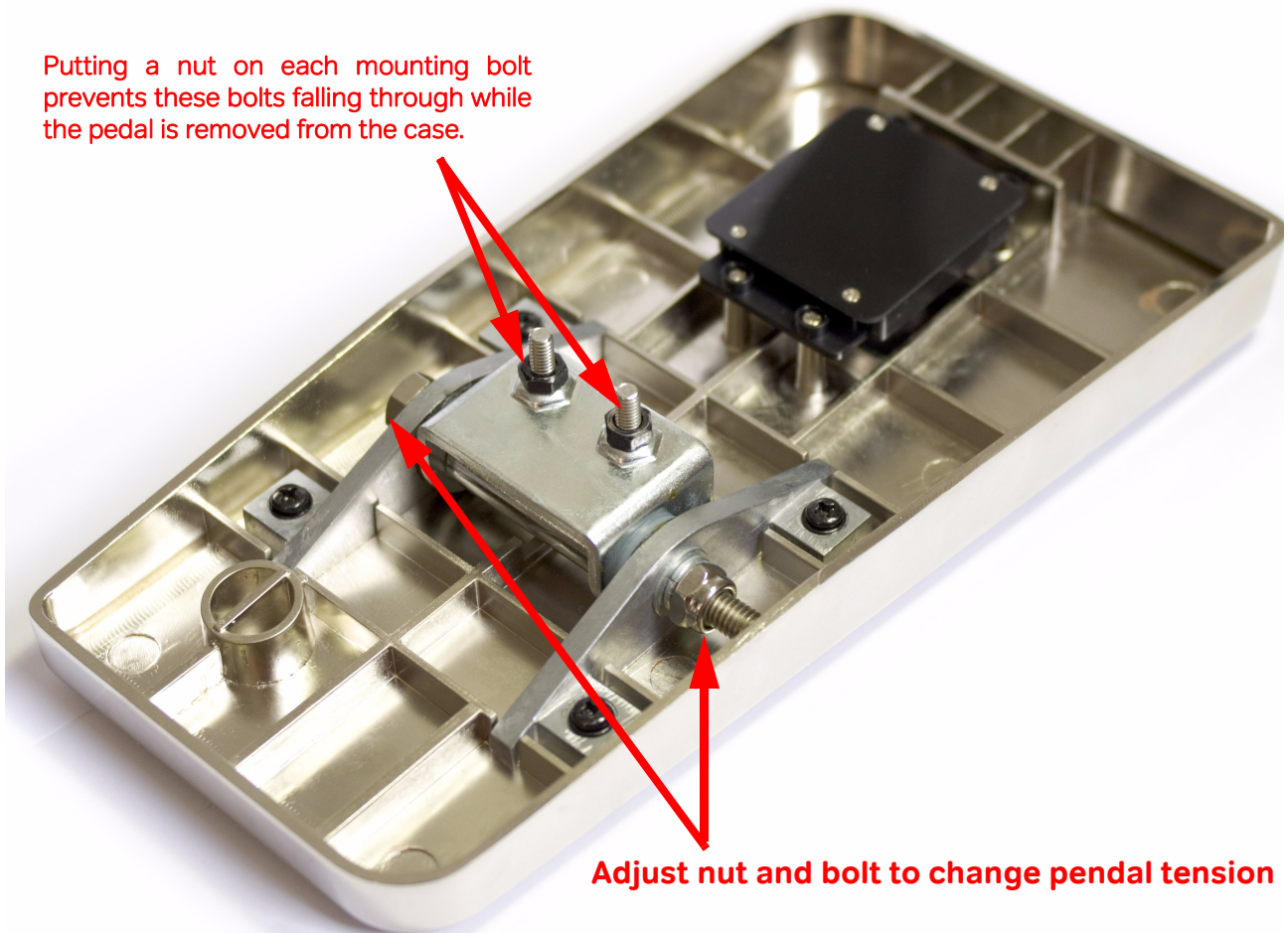
TIP: Once the pedal has been removed from the case, it is convenient to fit a nut to each of these bolts on the pedal mounting bracket. This prevents these bolts from falling out of the bracket, thus making reassembly simpler.



## 2.5 Adjusting the pedal tension

The pedal tension is adjusted simply by tightening, or loosening the nut on the pedal hinges bolt using two 10mm wrenches. Only small adjustments will be required to achieve a significant change in the tension.

Putting a nut on each mounting bolt prevents these bolts falling through while the pedal is removed from the case.



## 3 Reassembly

Reassembly is simply the reverse of the disassembly process. When the pedal is reattached to the case, care must be taken to ensure this is done correctly.

### 3.1 Reattaching the pedal to the case

Firstly, position the pedal onto the case and insert the pedal mounting bolts into their matching holes (you need to remove any nuts that have been fitted temporarily onto these bolts). Fit one nut to each bolt and tighten these enough to ensure there is no movement between the pedal mounting plate and the case. However, do not overtighten these nuts — they only need to be tight enough to prevent movement of the pedal mounting bracket.

This is now a good opportunity to verify that the pedal tension is correct. If more adjustment is required, remove from the case and re-adjust as described above.

With the pedal now securely attached to the case, the second nuts can be fitted to the pedal mounting bolts. These nuts should be tightened more than the first set of nuts (again do not over-tighten them). This combination of two nuts forms a lock which won't loosen by itself.

### 3.2 Final Steps

After reassembly, the pedal should be calibrated following the procedure in the Wahoo Operator's Manual.