

Instruction Manual

BJ Steel GT and BJ Steel F1



BJ

SIMRACING

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General Information

Welcome to the BJ Simracing family, your new BJ Steel GT / F1 pedals will transport you to a more realistic level of immersion in all your simulations.

We at BJ Simracing hope that you will enjoy your professional simulation pedal board for many years to come.

BJ Steel GT / F1 pedals have been designed and manufactured in Spain, promoting local trade and making direct assistance available to our customers.

This is the manual for your new pedals, we strongly urge you to read it to get the best performance from your BJ Steel GT / F1.

Prior warning

This manual contains essential and important information for the use and operation of your new pedal board, so you should refer to this manual in case of doubt and always have it accessible.

The pedals purchased must be used for the purpose for which they were conceived, driving simulation, any use outside this purpose may be dangerous and in no case is the manufacturer's responsibility for damages caused by improper use of them, as well as, for non-compliance with the instructions contained in this manual.

It is necessary to follow the instructions in this manual for the correct operation of the pedals, as well as to be able to claim the guarantee on them.

Contact

- Email: Support@pagnianimports.com.au
- Phone: 1300 262 574

Parts list

- Throttle pedal
- Brake pedal
- Clutch pedal (GT version only)
- BJ universal base
- 12 M6 square neck bolts (8 in F1 version)
- 12 nuts M6 blinds (8 in F1 version)
- USB cable
- 2 M6 stainless steel screws for fastening

Safety instructions

Make sure that no USB cable is connected to the computer before performing any maintenance or cleaning on or near the pedals.

In case of fire there is the possibility that some components such as plastics or lubricants emit toxic fumes.

Preparation For use

Unpacking

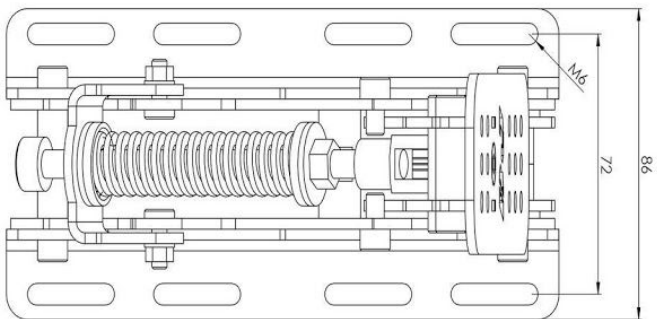
When receiving the pedals, it is necessary to check the condition of the packaging, in this way we will know if it has suffered any damage during transport. If you notice any damage suffered during transport, do not connect the pedals and contact us.

Mounting

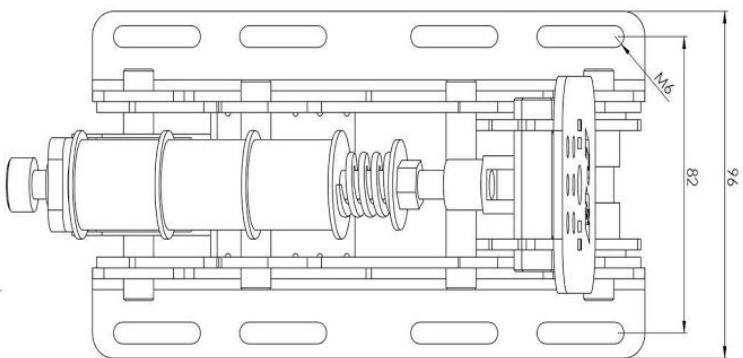
The BJ Steel GT / F1 pedals can be equipped with an 8 mm thick metal base if they have been purchased that way, either with or without the base, the mounting of the pedal board must be done on a surface that supports the weight of the pedal. itself, as well as the efforts that are generated when using the pedal board. Anchoring on a sufficiently rigid metal frame is recommended.

Below are images with the dimensions (mm) and position of the BJ Simracing universal base anchors and each of the pedals.

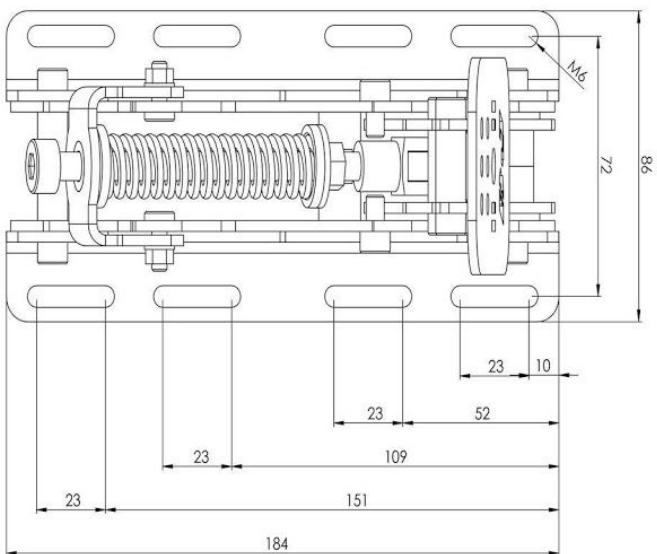
Throttle

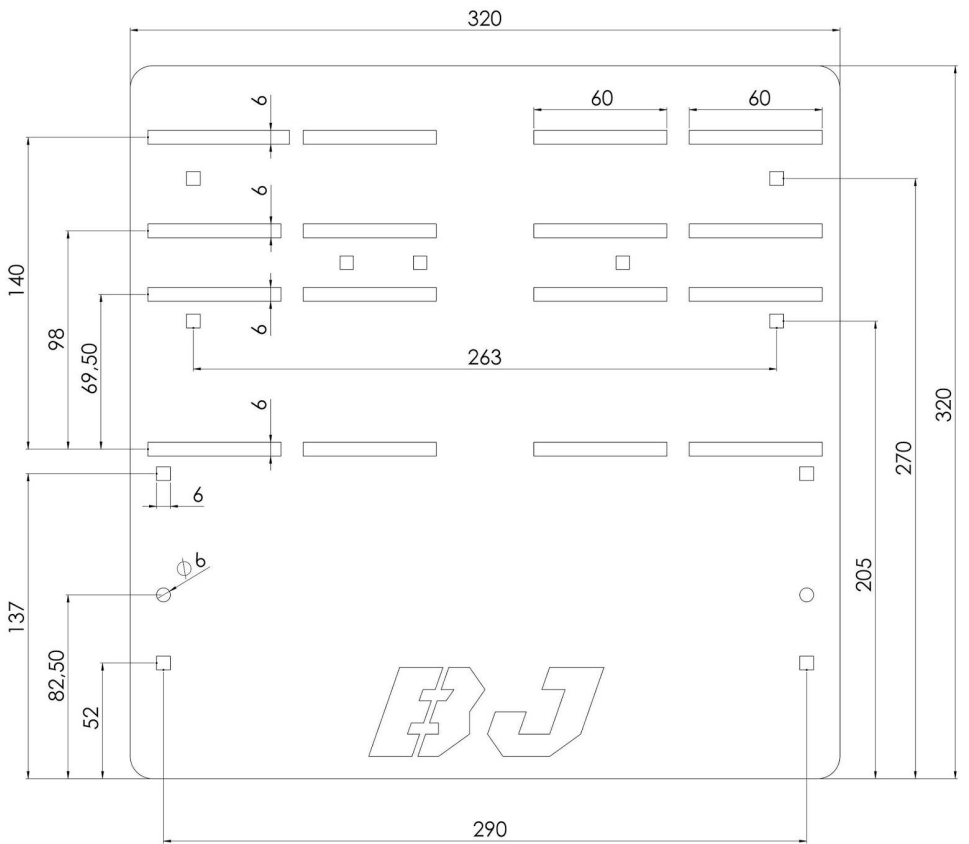


Brake



Clutch





Connections

The pedal board has an electronics box where the following connections are found:

- GX connector for the accelerator
- GX connector for the clutch (in the F1 model this connection will be free)
- USB type B connector for connection to the pc

The power supply of the pedals (5v) is obtained via the USB socket with the computer. For this they need a stable supply. Poor power such as a faulty cable or a bad USB hub can cause malfunction or even deterioration of the pedalboard's electrical components.

Avoid putting the USB cable in passageways where it can be stepped on, bumped, or pulled from its connection.

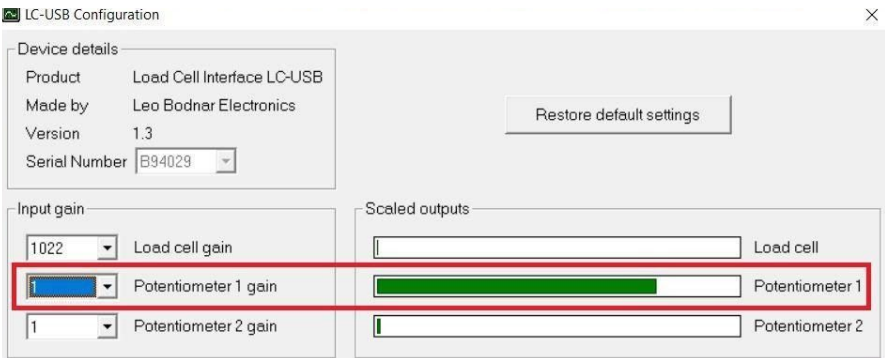
Calibration

Leo Bodnar Calibration

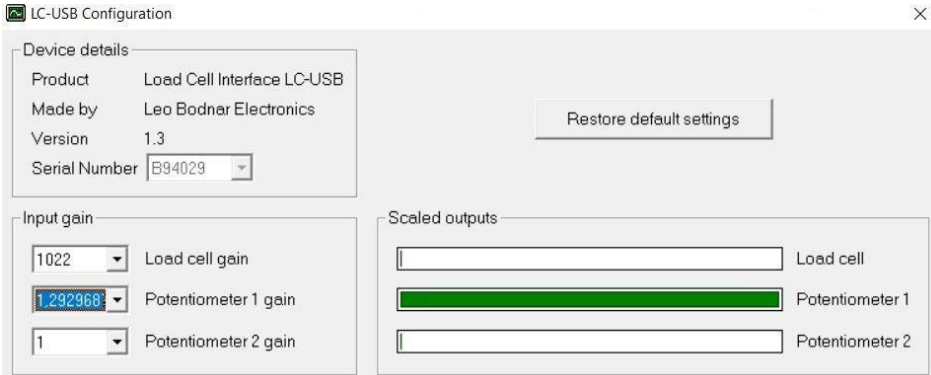
All BJ Steel GT / F1 pedals are equipped with 16-bit electronics from Leo Bodnar. Although all pedalboards are calibrated from the factory, it may be necessary to adjust or calibrate after changing the board, so the process for a correct calibration of the pedalboard is described below. If you do not need to calibrate the Leo bodnar board, skip to the DView calibration step.

1. Download the configuration software from Leo Bodnar's page.
 - a. Your antivirus may detect this software as a threat, please add the necessary permissions to allow it to run.
 - b. Direct download link below.
<http://www.leobodnar.com/files/LC-USB%20Configuration%20v2.exe>
 - c. Download and run the software: LC-USB Configuration v2

2. Throttle and clutch; These pedals are configured by increasing the input gain from the initial "1" value to a value such that with the pedal fully depressed, its response in the green bar graph on the right completely fills the corresponding bar.
Example;
 - a. Clutch pedal fully depressed before increasing gain (initial value '1'). **Bad calibration**, since the corresponding bar does not reach the end



- b. Clutch pedal fully depressed with the gain increased to where it corresponds, **pedal calibrated correctly**



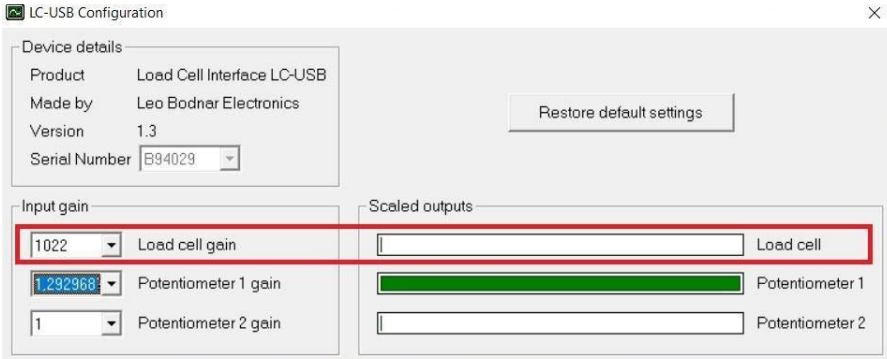
* The value shown in the image is only indicative, different pedals show different values generally between “1.22” and “1.32”

- c. Repeat the same procedure for the accelerator

3. Brake pedal:

- a. If your brake works with a load cell, follow these instructions (Note: if your brake is hydraulic, skip to the next point for calibration);

For a correct calibration of your load cell brake, you should only increase the gain from the initial value “1” to the maximum value “1022” in the row named “Load cell gain”.



b. Hydraulic brake calibration;

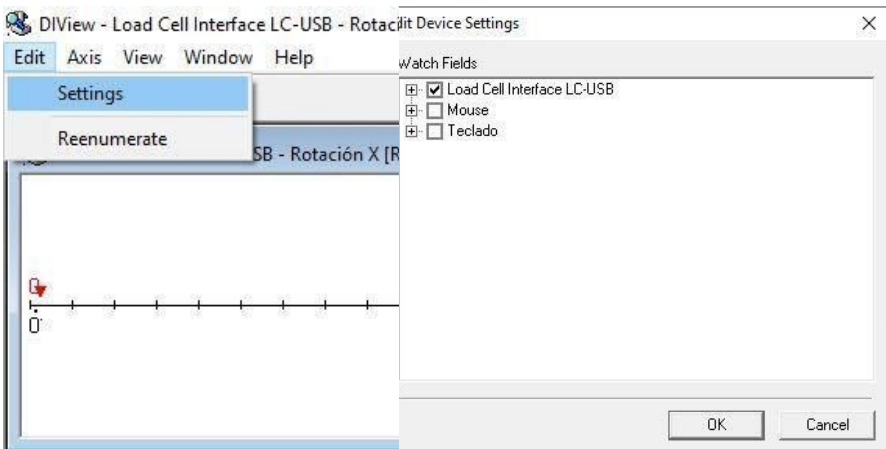
The hydraulic brake on your BJ Steel Hydraulic has a very wide operating range. Because of this it is necessary to calibrate the maximum braking pressure to the user's preference. To perform this calibration you must follow the following steps:

- i. Press and hold the brake pedal with the force you want to have as the maximum braking force.
- ii. With the pedal pressed and keeping it pressed, increase the value of the gain from the initial value "1" in the first row (Load cell gain) to the value that makes the bar on the right turn solid green.
- iii. After this, the brake will be calibrated and reflects the maximum value at the exact point where it is established according to your pressure preference.

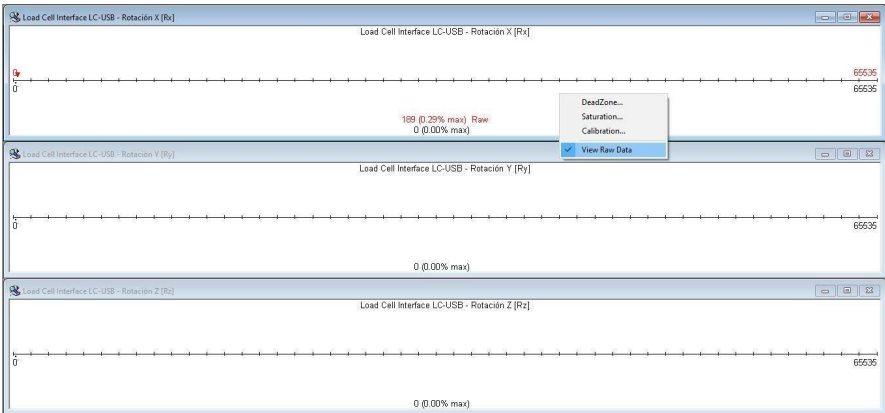
DIView calibration

Now we must assign the workspace of the BJ Steel GT / F1 pedals to the values that the computer assigns to the travel between 0% to 100%, for this we will use the DIView program by following the following steps:

1. You can download the software DIView from the following link:
 - a. Direct download link:
http://www.leobodnar.com/shop/index.php?main_page=page&id=12
 - b. Extract the compressed file and execute the file
 - c. Clicking on " settings " within the " edit " tab, the window " edit device settings " will appear, as shown in In the following images we must make sure that only the display of the board " load cell interface LC-USB " is marked



2. By clicking the right button of the mouse we must activate the view of raw data, it is shown in red. After activating it in the bars you will see something like the following image.

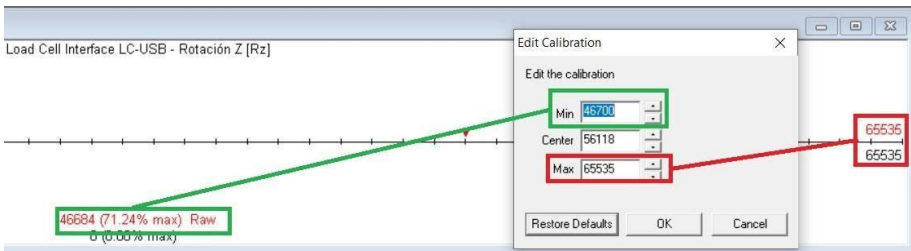


3. To adjust the pedals we must enter the “calibration” menu by right-clicking. In this menu we will assign the values according to what is indicated below:

- a. Accelerator and clutch;

- The “ max ” value must be the maximum 65535, if your pedal, while pressed to the maximum, does not reach this value, you must increase the gain in the leo bodnar calibration of the previous section. (marked in red in the next screenshot)
- The “ Min ” value must be about 20 steps higher than the value that appears when the pedal is not pressed (marked in green in the next screenshot)

- The "center" value corresponds to the average value between the previous values, with this you get a linear curve, you can experiment with other values of "center" for different curves.



b. On brake;

- The "max" value must be the one that appears in red when we press the pedal with the maximum force we want.
- The "Min" value must be about 20 steps higher than the value that appears in red when the pedal is not pressed, this value depends on the preload applied to the spring.
- The value "center" corresponds to the mean value between the previous values, with this a linear curve is obtained, you can experiment with other values of "center" for different curves.

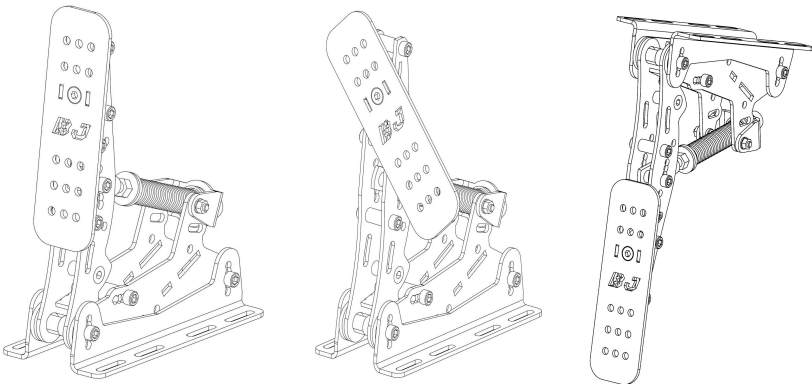
After completing the calibration, you will be able to see the output data of your pedals in black. These data are interpreted by the simulator when driving and must move between 0% and 100%. If you detect any errors or want to change the settings, repeat the procedure.

Mechanical adjustment of the pedals

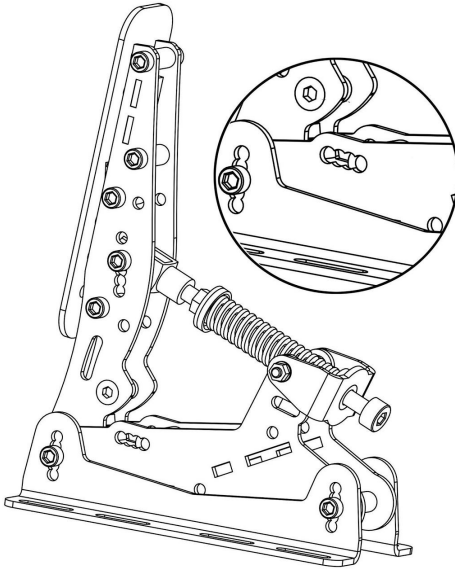
Adjusting the pedals to reverse them

Your BJ Steel GT / F1 pedals have the possibility of being mounted in an inverted way, for this you must follow these instructions. If you purchase the version with hydraulic brake, **DO NOT ASSEMBLE THEM REVERSED** without consulting us first, as it requires specific modifications.

If you want to install the pedals upside down and your chassis allows it, you just have to anchor the pedals (or the universal BJ base if you have it) in the desired place, making sure that it is a rigid position and supports the efforts. After this you only have to turn the pedals (pedal plate) to do so, proceed as follows. Loosen the single screw holding the pedal until this allows to unlatch and rotate it. Then fit the pedal again and tighten the screw.



Adjusting the pedal travel



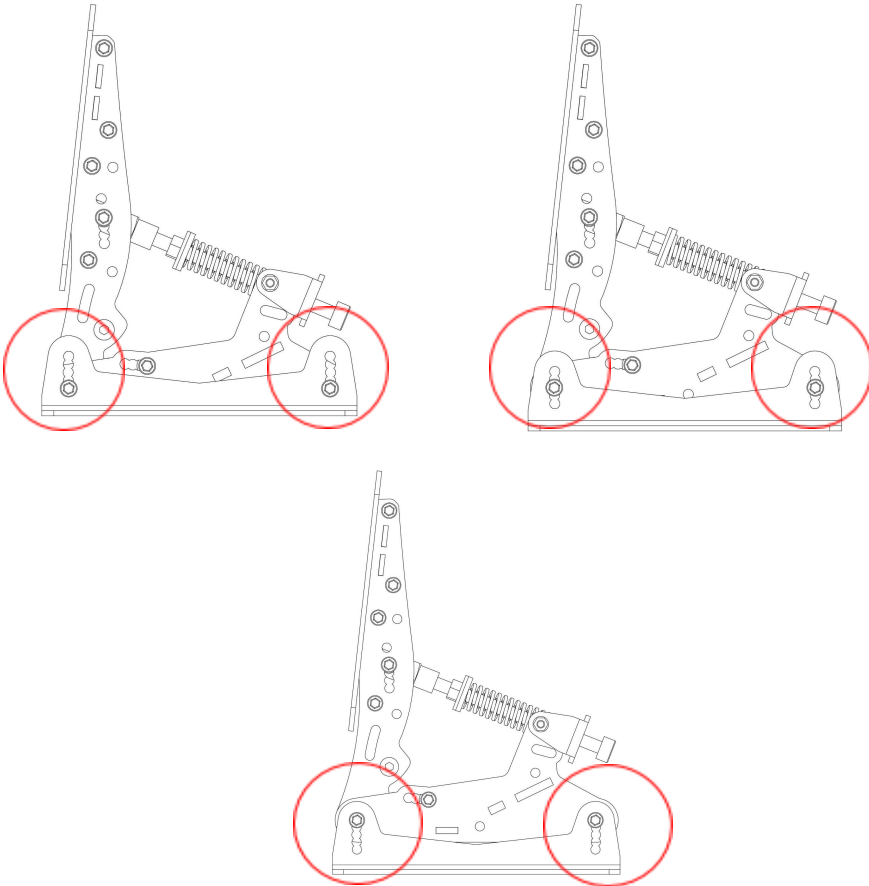
The BJ Steel pedals have 4 positions to regulate the amount of travel available. The pedals are shipped in the P4 position, which allows the most travel. If you want to change the position, the adjustment is carried out by moving the blue stop within the four available positions, to do this you must perform the following operations:

1. Unscrew the two screws that hold the blue stop
2. Move the support to the desired position. The 4 available positions are described below.
 - a. Position 1, allows 12° of travel and corresponds to 40mm
 - b. Position 2, allows 16° of travel and corresponds to 58mm
 - c. Position 3, allows 19° of travel and corresponds to 70mm
 - d. Position 4, allows 23° of travel and corresponds to 82mm
3. Back to tighten the two screws that hold the blue stop.

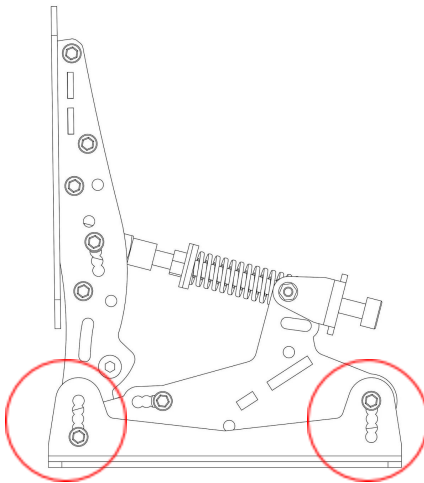
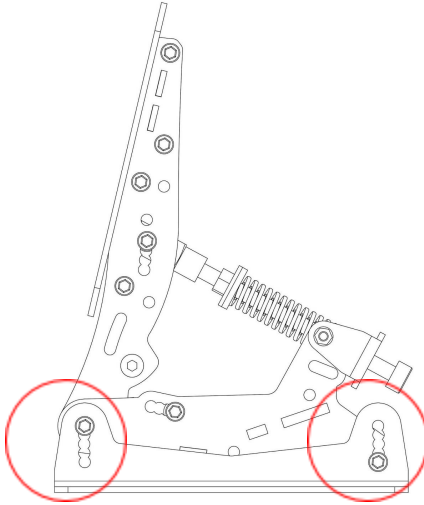
Height and inclination adjustment

In order to be able to adjust the pedals to the desired height and inclination, the BJ Steel pedals have 5 positions on their riser to be able to adjust them.

The height adjustment allows an adjustment of 20 mm divided into 5 positions.

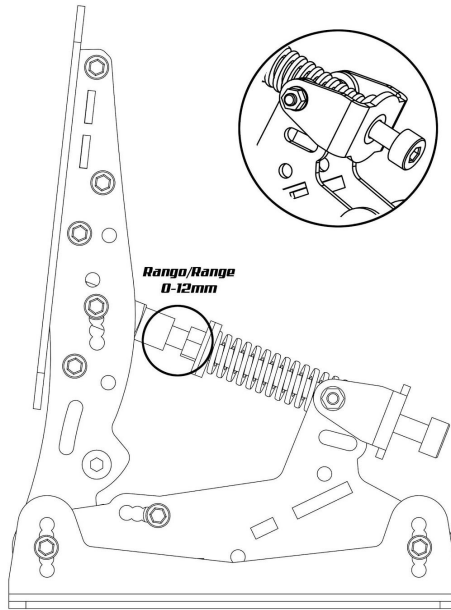


The same 5 adjustment positions allow you to adjust the inclination of your pedals by a total of 20 degrees between the extreme positions. These positions are shown in the 2 charts below.



Adjusting the springs

The preload can be adjusted on both the throttle and the clutch using the following procedure:



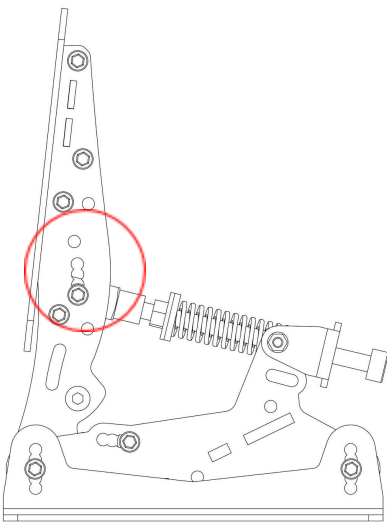
1. Locate the head of the M8 screw that goes inside the spring (you can see it highlighted in the image)
2. If you turn it clockwise decreases spring preload
3. If you rotates counterclockwise increases spring preload
4. Make sure to check that the screw is within the range indicated in the image on top, if the gap is above 12mm there is a risk of The fork bolt comes out, damaging the threads of both parts

Adjusting the throttle stiffness

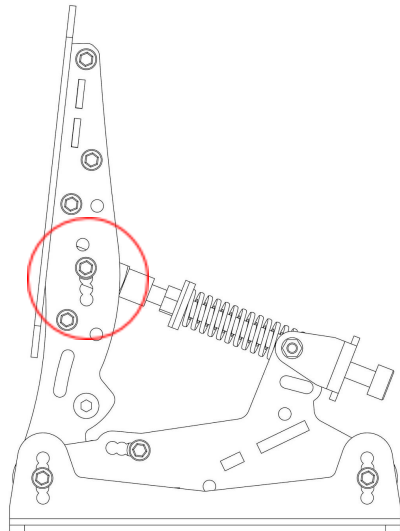
The BJ Steel throttle has 4 positions to adjust the stiffness of the spring. To adjust it, proceed as follows:

1. Unscrew and remove both M6 screws
2. Move the fork to the desired position of the 4 available
3. Place and re-tighten the 2 M6 screws that secure the fork

Softer position



Harder position



Maintenance

Cleaning

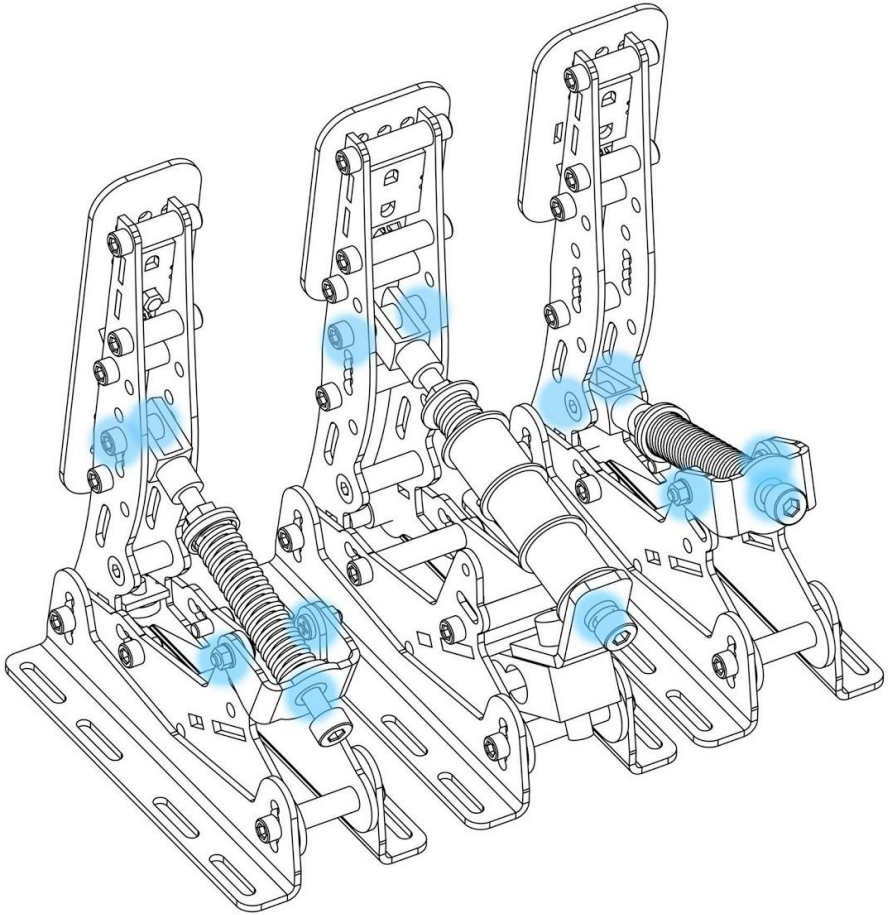
Before carrying out any cleaning or maintenance operations, make sure that the pedal board is completely disconnected from the computer (if you have installed a vibration kit, disconnect this also, both from the computer and from the power supply).

Proper cleaning ensures performance and increases component life, cleaning dust regularly.

Do not use cleaning fluids near any of the electronic items as this could damage them.

Lubrication

The BJ Steel GT / F1 pedals are designed to produce minimal wear and noise. Most of the moving parts have self-lubricating bearings to avoid maintenance tasks, however it is recommended to grease the points listed below if you perceive that it is necessary or hear any noise. Correct lubrication prolongs the life of the pedals. The recommended lubricant is Teflon grease spray. Make sure not to use lubricants that can attack plastic or rubber parts.



Handling the pedals

Before performing any task make sure that your pedals are disconnected from any electrical current including the USB connection.

If it is necessary to replace any element or if you want to apply an improvement, you should contact the technical service, since the replacement of any element must be done in the technical service or with its telematic assistance to guarantee the compatibility and correct installation of the components.

Guarantee

BJ Simracing guarantees the correct operation of the pedals as well as the replacement of components in the event of a manufacturing defect.

This guarantee is subject to the fact that the pedals have not been tampered with or their normal operation has been altered. The replacement of any tampered or mistreated component is out of warranty.

The warranty lasts for 1 year from the date of purchase that appears on the invoice, electrical components and parts that normally wear out are exempt from this.