

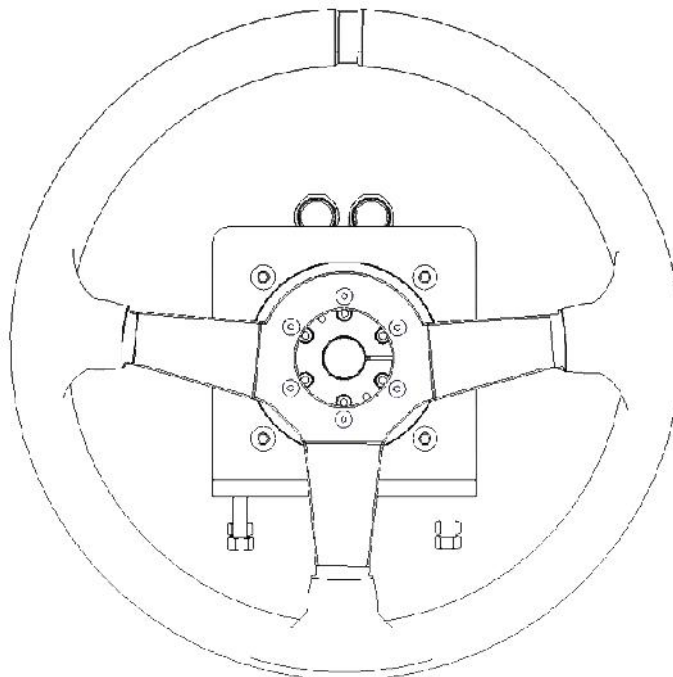
USER MANUAL

INCLUDED IN THE BOX

- Ñ Steering Motor
- Ñ Motor Cables
- Ñ Electronic Control Box
- Ñ Emergency Stop Button
- Ñ 3m USB cable
- Ñ Power Cord (UK, EU or US plug end)

Additional Extras

- Ñ GT Steering Wheel
 - 6 x M5x16 Countersunk screws
 - Centre plate
- Ñ Desk Bracket
 - 4x M8 Bolt 25mm
 - 4x M8 Bolt 45mm
 - 4x M8 Nyloc Nut
 - 4x M8 Wing Nut
 - 4x M8 Washers
 - 4x M8 Spring Washers
 - Protective caps
- Ñ Motor Shaft Clamp Adaptor



WARNING

Before you use this product, please read this documentation carefully.

Electric Shock

- Never unplug any connectors while the system is switched on. This may cause severe injury or even death.
- Store the product in a dry location and do not expose it to dust or direct sunlight.
- Ensure the connectors are inserted into the correct sockets and that the pin alignment is correct.
- Do not twist, pull or force the connectors or cables.
- Do not short-circuit the product.
- Never dismantle the product.
- Do not use any other connectors or cables other than those supplied with the system.
- Do not use any cables if they are split or damaged.
- Unplug the power cable if unused for long periods of time.
- Avoid spilling any liquids on any of the components.

Heat

The surfaces of the motor can be very hot in operation and the surface temperature can exceed 100deg Celsius (212 F). Check the temperature and only handle the motor after it has dropped below 40deg Celsius (104 F).

Air Vents

Ensure that the air vents on the side of the case are not blocked. For optimum ventilation position the case at least 10cm away from any walls or surfaces.

Injuries due to force feedback and repeated movements

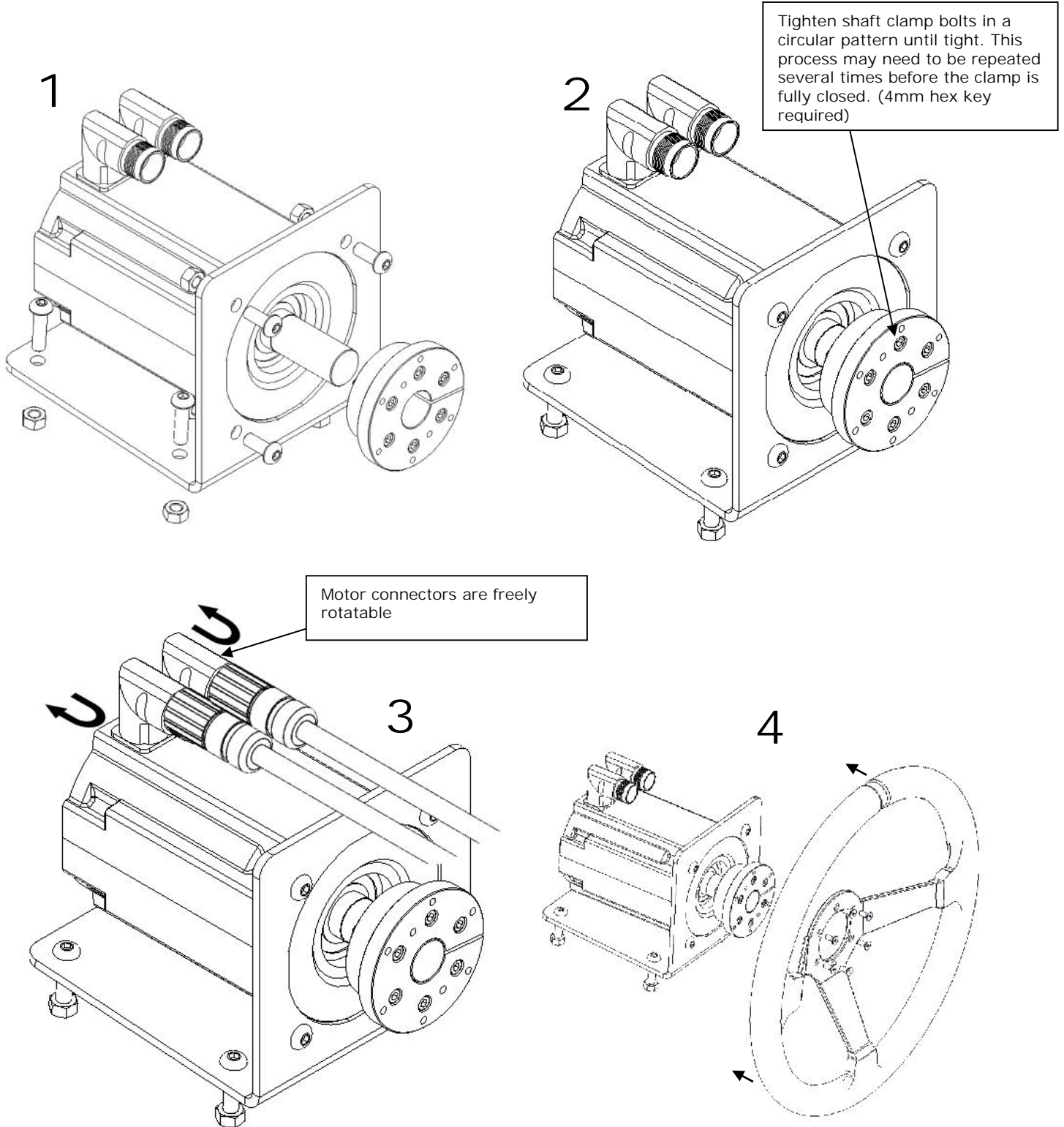
Using a force feedback steering wheel may cause muscular or joint pain. To avoid any issues we recommend the following:

- Avoid lengthy usage.
- Take 10 to 15 minute breaks after each 1 hour of use.
- If you feel any fatigue or pain in the hands, wrists, arms, shoulders or neck, stop use immediately and rest.
- If symptoms reoccur, we advise you to consult your doctor.
- Keep out of reach of children.
- During use always use both hands on the steering wheel as much as possible.
- Never place your hand through the steering wheel at any time.
- Ensure the Emergency Stop Button is plugged in and situated within reach during use.

16+

For ages
16 and
above

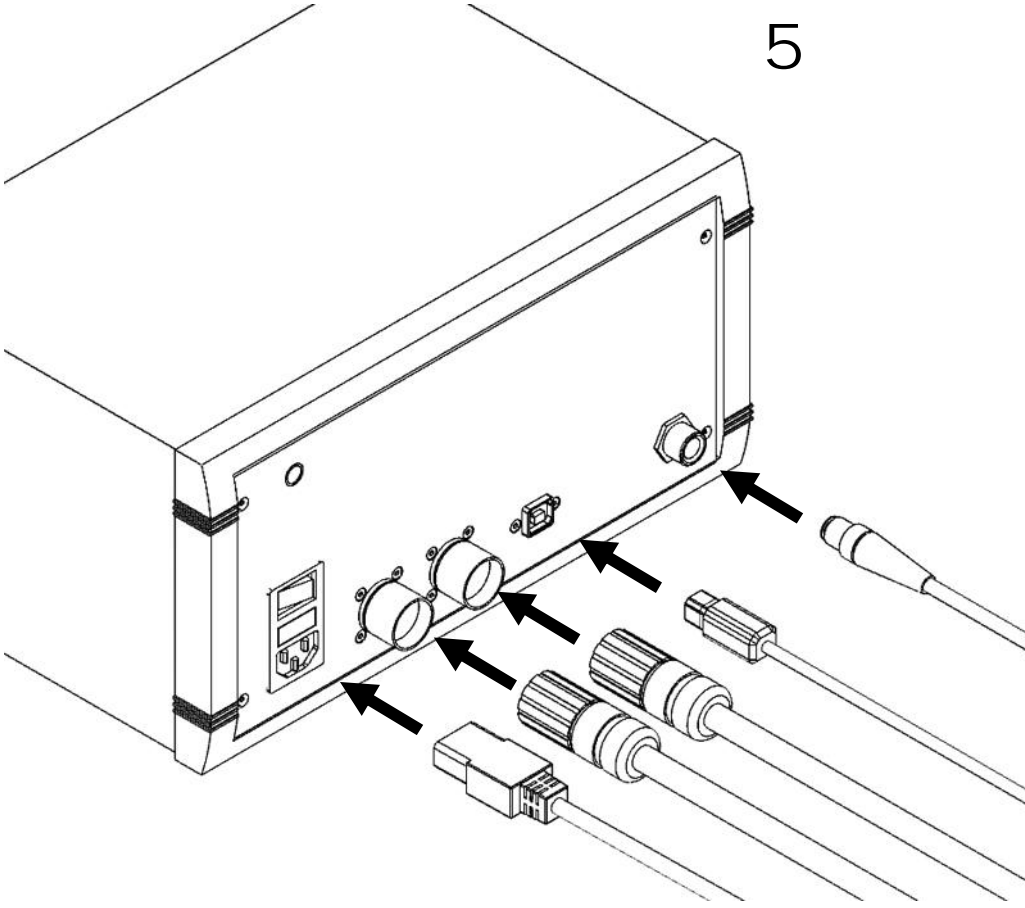
Hardware Setup



Warning – Check the connector pins match before inserting them into the motor. Non matching connectors or misalignment may cause damage to the pins.

Note: Fittings supplied may differ from those pictured

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Warning – Check the connector pins match before inserting them into the electronic control box. Non matching connectors or misalignment may cause damage to the pins. DO NOT USE EXCESSIVE FORCE

Software

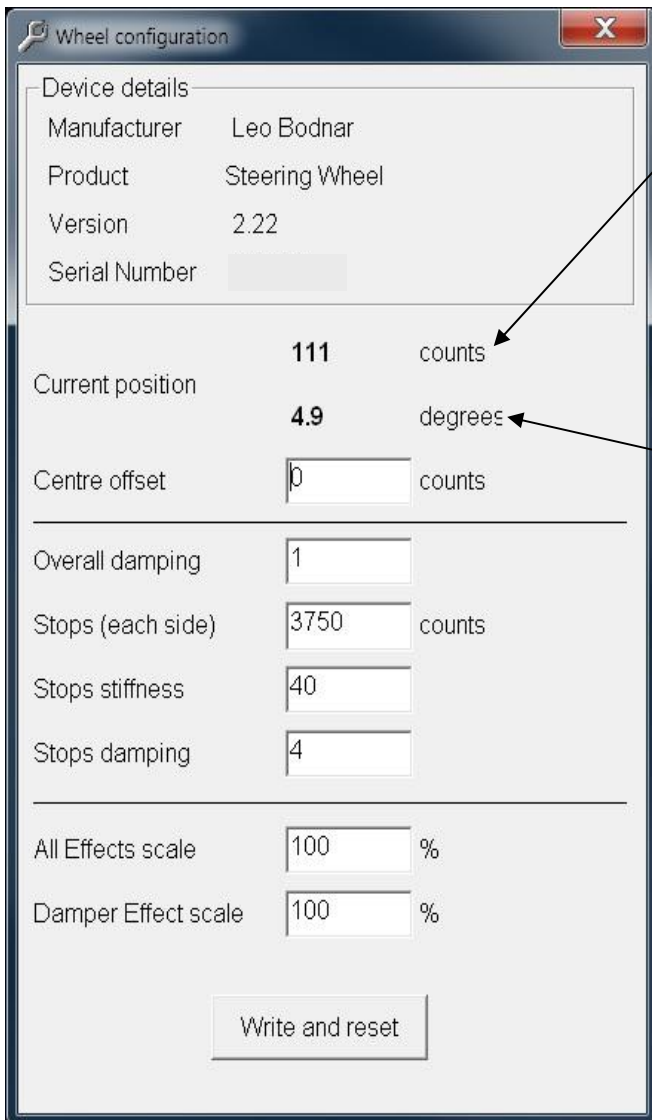
The steering system configuration software is available to download from:
<http://www.simsteering.com/downloads.html>

The FFB Config software controls the settings on the FFB board inside the steering electronics. These settings are saved permanently therefore it can be set up on one PC and the settings will still be the same on another PC.

This software does not change any of the Windows settings so calibration must be performed by using the standard Windows Calibration utility or other 3Rd party software such as DXTweak however we recommend using DiView. Instructions are at the end of this document.

FFB Config Instructions

Ensure the system is connected to the PC with the USB cable and the power switch is on. Double click the FFB Wheel Adjust.exe icon to open the software.



Hold the wheel in the centre position and take note of the number of counts the wheel alignment is out by (if any). Then place this value in the Centre Offset field. This can be a positive or negative value.

The Overall Damping value can vary depending on different hardware setups and also software and is used to reduce oscillation. SUGGESTED RANGE 0-5

The Stops (each side) value relates to the number of counts for each full turn of the wheel per side. 10,000 counts is equal to one complete revolution (-360 deg to +360 deg). See the next page for more info. You can also turn the wheel to the desired position and then enter the current position counts displayed at the top into the stops field. The number of degrees is also displayed towards the top of this Window. MAX: 32000

The stops stiffness and damping values relate to the forces felt when the wheel reaches the electronic stops specified in the field above. This generally does not need to be altered from the defaults shown here.

The All Effects Scale is overall percentage of all force effects strength. This can be very useful to limit the strength in certain software eg. 100% shown in software would actually be 50% if changed here.
NOTE: We recommend setting this value low to begin with. The system is very strong and may take getting used to before increasing the strength.

The Damper Effect Scale was added to overcome an issue with damping on a particular piece of software (iRacing) however a patch released by the developers overcame the issue. It can almost be considered redundant but may be useful in some instances.
NOTE: The Overall Damping field should be used to adjust damping.

FFB Config Recommended Values

Centre Offset	0
Overall Damping	3
Stops (each side)	(see reference table below)
Stops Stiffness	40
Stops Damping	4
All Effects Scale	50%
Damper Effects Scale	100%

Stops Reference Guide

10,000 Counts = 360deg Each Side

$(10000/360) * \text{Angle required each side} = \text{Stops (each side) Value}$

Commonly used Stops Values

Counts	Steering Angle (each side)	Steering Angle (Both Sides)	Number of turns (Lock to Lock)
2500	90	180	0.50 – ½
3750	135	270	0.75 - ¾
4166	150	300	0.83
5000	180	360	1
7500	270	540	1.5
10000	360	720	2
11000	396	792	2.2
12500	450	900	2.5
15000	540	1080	3
20000	720	1440	4
25000	900	1800	5
MAX 32000	1152	2304	6.4

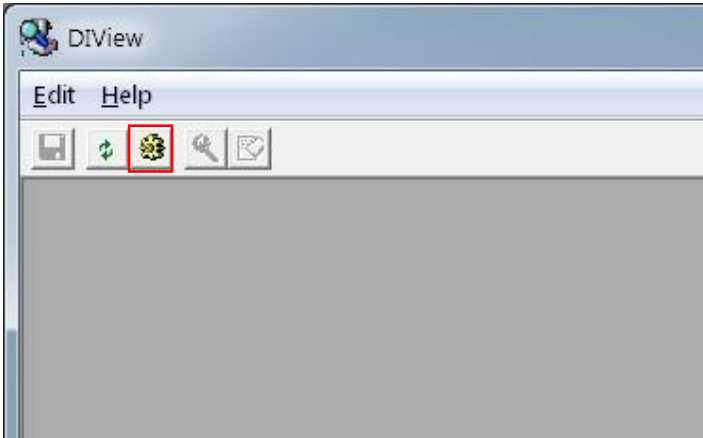
NOTE: The stops value in the FFB Config Software only adjusts the steering system hardware. You must also calibrate Windows to recognise the change. This can be done with the standard Windows Calibration utility or other 3Rd party software such as DXTweak however we recommend using DiView.

DiView Setup Instructions

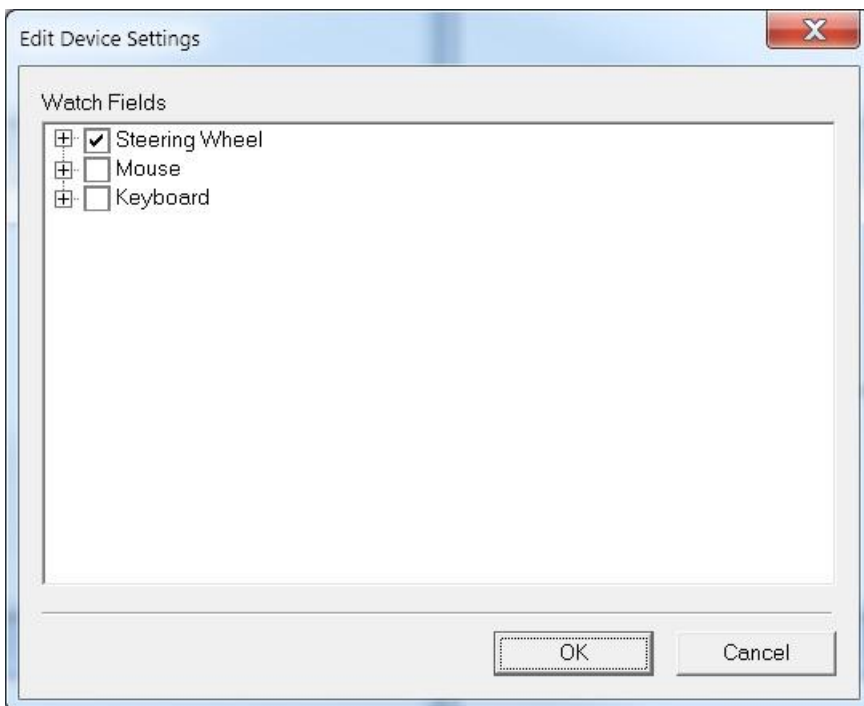
DiView is not created by SimSteering or Leo Bodnar however it is available to download from our website: <http://www.simsteering.com/downloads.html>

Ensure the system is connected to the PC with the USB cable and the power switch is on.

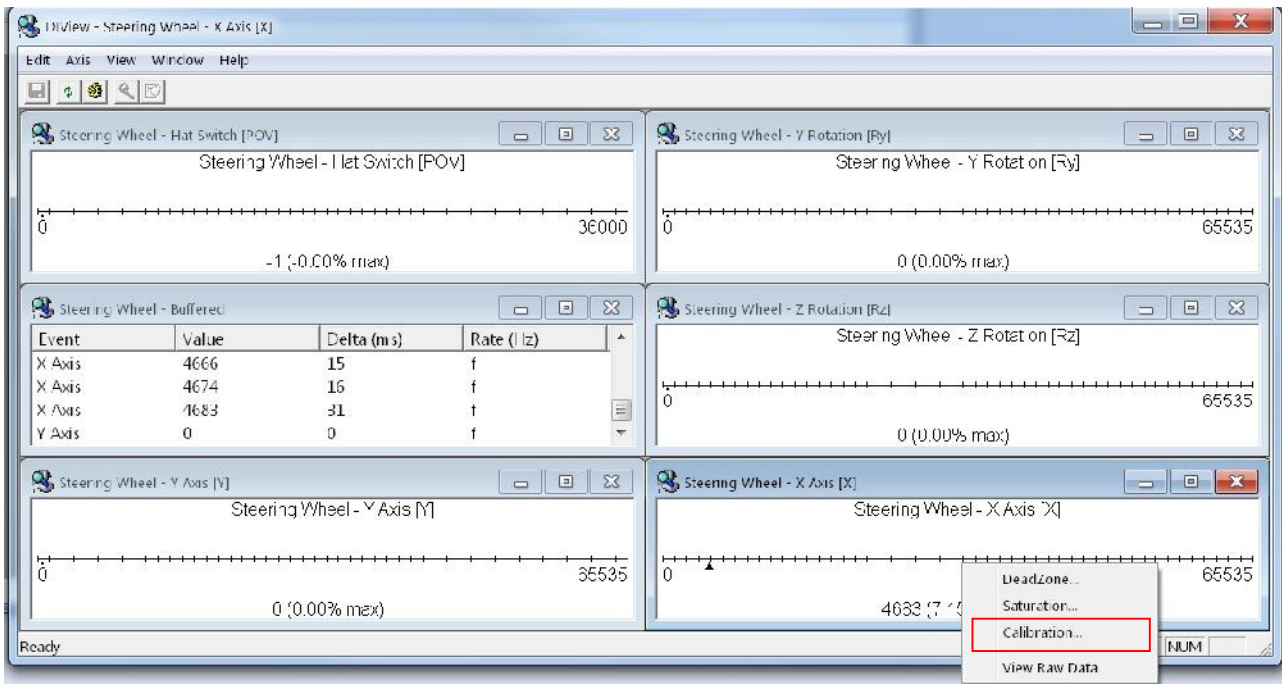
Open DiView.exe and click the yellow cog icon at the top left of the screen highlighted below.



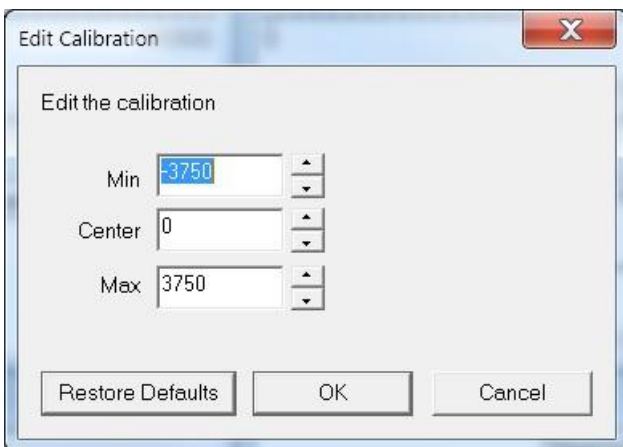
Tick the Steering Wheel check box and deselect all others.



Right click on the Window of the X-Axis and select Calibration.



Enter the stops count value you specified in the FFB Config software here in the Max field and the negative of this value in the Min field. Click OK to finish.



The program can now be closed and the settings are automatically stored in the Windows registry. This procedure should be repeated only after adjusting the stops value in the FFB Config software.

The system should now be set up and ready to use with your simulation software.