

ClubSport

Universal Hub



Manual

THE "whatever you want" WHEEL RIM



Thank you for choosing
FANATEC[®]

To get the most out of and before using your new Universal Hub, please read this manual for important information regarding your health and how to safely use this product. This manual can also be used as a great tool for future reference.

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 **WARNING!** Photosensitive Seizures

A very small percentage of people may experience a seizure when exposed to certain visual images, including flashing lights or patterns that may appear in video games. Even people who have no history of seizures or epilepsy may have an undiagnosed condition that can cause these „photosensitive epileptic seizures” while watching video games. These seizures may have a variety of symptoms, including light-headedness, altered vision, eye or face twitching, jerking or shaking of arms or legs, disorientation, confusion, or momentary loss of awareness. Seizures may also cause loss of consciousness or convulsions that can lead to injury from falling down or striking nearby objects. Immediately stop playing and consult a doctor if you experience any of these symptoms. Parents should watch for or ask their children about the above symptoms – children and teenagers are more likely than adults to experience these seizures.

The risk of photosensitive epileptic seizures may be reduced by taking the following precautions:

- Sit farther from the TV screen.
- Use a smaller TV screen.
- Play in a well-lit room.
- Do not play when you are drowsy or fatigued.

If you or any of your relatives have a history of seizures or epilepsy, consult a doctor before playing.

 **WARNING!** Musculoskeletal disorders

Use of game controllers, keyboards, mice, or other electronic input devices may be linked to serious injuries or disorders. When playing video games, as with many activities, you may experience occasional discomfort in your hands, arms, shoulders, neck, or other parts of your body. However, if you experience symptoms such as persistent or recurring discomfort, pain, throbbing, aching, tingling, numbness, burning sensation, or stiffness, **DO NOT IGNORE THESE WARNING SIGNS. PROMPTLY SEE A QUALIFIED HEALTH PROFESSIONAL**, even if symptoms occur when you are not playing a video game. Symptoms such as these can be associated with painful and sometimes permanently disabling injuries or disorders of the nerves, muscles, tendons, blood vessels, and other parts of the body. These musculoskeletal disorders (MSDs) include carpal tunnel syndrome, tendonitis, tenosynovitis, vibration syndromes, and other conditions.

While researchers are not yet able to answer many questions about MSDs, there is general agreement that many factors may be linked to their occurrence, including medical and physical conditions, stress and how one copes with it, overall health, and how a person positions and uses their body during work and other activities (including playing a video game). Some studies suggest that the amount of time a person performs an activity may also be a factor. If you have questions about how your own lifestyle, activities, or medical or physical condition may be related to MSDs, see a qualified health professional.

1

GENERAL

 **ATTENTION**

- The device must not be exposed to rain or humidity in order to avoid risk of fire and the danger of electric shock.
- Operating temperature: 15°C – 35°C room temperature
- Long playing may cause health risks. Take a break of 5 minutes every 20 minutes, and do not play for more than 2 hours per day.
- We strongly advise you to not drive a vehicle immediately after using a video game.
- Utilization of the vibration and Force Feedback function may cause damage to your health.
- In case of interference with other wireless 2.4 GHz devices, the interfering devices must be removed or switched off.
- Not intended for children under the age of 6 years. Contains small pieces. Danger of swallowing!
- Do not open the casing of the device when connected to electrical power or connected to wheel base.
- This device contains components that cannot be repaired by the user. Proper handling of product needed for warranty reasons.

 **WARNING!** Electrical Safety

The Universal Hub must be used with ClubSport Wheel Base as an appropriate power source:

- For the used ClubSport Wheel Base use only the power supply and AC power cord that came with your ClubSport Wheel Base or that you received from an authorized repair center.
- For the used ClubSport Wheel Base do not use non-standard power sources, such as generators or inverters, even if the voltage and frequency appear acceptable. Only use AC power provided by a standard wall outlet.
- Find more detailed information about this in the ClubSport Wheel Base user manual or on www.fanatec.com/support

To avoid damaging the Universal Hub:

- Do not expose your Universal Hub to sources of heat.
- When connecting and / or disconnecting the Universal Hub to / from ClubSport Wheel Base take care of the pins inside the quick release.
- Do not try to use the Universal Hub with a wheel base beside the Fanatec ClubSport Wheel Base .
- Do not try to use the Universal Hub with an external power source.
- Unplug the power cord of your ClubSport Wheel Base during storms or when unused for long periods of time to protect also your Universal Hub.
- If the Universal Hub becomes damaged in any way, stop using it immediately and contact Fanatec Customer Support..

2

INTRODUCTION

You have purchased a unique and innovative product which enables you to use real race car steering wheel rims in simracing without losing any functionality.

Select the wheel rim of your choice and make it compatible to your ClubSport Wheel Base unit without sacrificing any buttons or functionality. Even the tuning- and telemetry display is integrated.

Use a wooden rim to drive your classic cars or a big NASCAR style rim for oval racing. What about a round rim without shifter paddles for drifting or a small and open rim for formula racing? Everything is possible!

3

COMPATIBILITY

The ClubSport Universal Hub (CS RUH) can be used with the ClubSport Wheel Base and all other compatible base units from Fanatec.

It can be fitted with many popular original race car steering wheels rims from brands like SPARCO®, OMP® or MOMO® which are used in real race cars.

Option 1: Using the original hole pattern

If the rim has a 70mm diameter pattern with 6 holes or 50mm diameter with 3 holes as shown in the drawing page 14, then you can directly attach the rim to the Universal Hub.

Option 2: Drilling holes

Specialty rims with a smaller diameter are delivered with no holes at all.

If you print out page 14 (A4) you can use the drawing as drilling template.

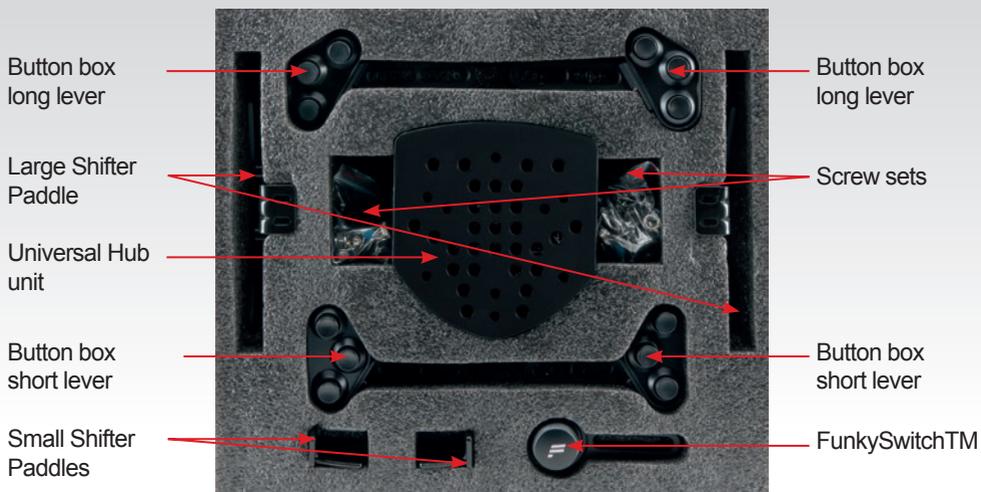
Option 3: Using an adapter

There are many adapters on the market to make almost any steering wheel rim compatible to the popular 70 mm 6-hole pattern. Please ask the vendor of the steering wheel rim.

4

PREPARATION

4.1 Package contents



4.2 Tools

Allen key 3 mm

Allen key 1,5 mm

Wrench 8 mm

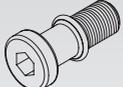
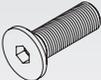
Allen key 2,5 mm

Wrench 10 mm

Screwdriver , Philips 0x50

Required tools are not included!

4.3 Part list

Part number	Part name	usage	Picture	Description
S1	Screw M5 x 11 mm	5		Screw for button box and FunkySwitch™ lever
S2	Non-standard screw M4	1		Screw
S3	Screw M5 x 16 mm	6		Screw for third party rim assembly
S4	Screw M3 x 6.0 mm	4		Screws for shifter paddles
N1	Nut M5 x 7.8 mm x 4.7 mm	5		Nut for tightening screw S1
W1	Spare washer 13.5 mm x 2.5 mm	4		Spare replacing lever for button boxes and FunkySwitch™
W2	Washer M3 x 8.0 mm x 0.8 mm	4		Washer for shifter paddles screws S4

4.4 Firmware and driver update

The ClubSport Wheel Base unit must be updated to the latest firmware version which is available on our website www.fanatec.com/support.

You must also use the latest driver version in order to use the ClubSport Wheel Base unit and Universal Hub on a PC.

⚠ IMPORTANT: The ClubSport Universal Hub will not be detected without these updates and will not work at all!

Please install these updates before first use of the ClubSport Universal Hub!

5

ASSEMBLY

5.1 Plan your wheel

You can operate the Universal Hub without using any of the additional buttons or paddle shifter units. Just bolt on a wheel rim and you are ready to go.

Even on the PlayStation 3® you can fully operate the wheel by using the buttons on top of the hub. For a classic wooden rim this would perhaps be the most stylish solution.

You get more functionality and better ergonomics if you install the additional button boxes and/or the FunkySwitch™.

In both PlayStation 3® and PC mode, the additional button boxes are mapped with the same buttons you find on the top side of the hub (rubber keys). On PlayStation 3® additional buttons are not supported and on PC it makes it easier to change wheel rims during gameplay without changing the mapping in-game.

If you own two Universal Hubs you might have a spare button box you can use on the other hub so you can connect a fifth button box. This would add additional buttons on PC but not all games support so many buttons.

After you purchase a compatible wheel rim you should make the following decisions:

- Number and positions of the button boxes.
- How to mount the button boxes: Long or short lever, which side to connect the lever with the button boxes (depending on wheel rim to be used)
- Position of the FunkySwitch™
- Optional: Position of the smartphone to show telemetry data (smartphone and smartphone holder are not included)

5.2 Mounting FunkySwitch™ and button boxes

Open the case of the hub by loosening the four screws on the backside.



Mechanical:

The button boxes and FunkySwitch™ must be mounted between the main body front plate and the wheel rim.

In case you only install a single button box on one side you need to use washer W1 (13.5 mm x 2.5 mm) between the wheel rim and the hub base in order to avoid the rim being slanted.

Please notice that the FunkySwitch™ cable is bigger in diameter and there is only one of the rubber cable protectors suitable for the FunkySwitch™ cable. It is located on the right hand side as shown on the picture:





First you need to take off the frontplate of the Universal Hub by loosening the four screws on the backside as described above. Then choose the holes where you want to mount a button box or the FunkySwitch™. Please note that the holes with gears must be used for mounting of the rim! Put on the button box lever or FunkySwitch™ lever on the outside of the frontplate. Then use the special screw S1 (M5 x 11 mm) and put it through the lever's hole and then through the chosen hole on the frontplate. Turn on a nut N1 (M5 x 7.8 mm x 4.7 mm) onto the screw gears from the inside of the frontplate. Adjust the lever position according to your favour and to the used rim and then tighten the nut N1 on the screw S1. The position of the button box or FunkySwitch™ is fixed now.

Then connect the cable of the button box or the FunkySwitch™ to the specified socket on the electronics. Please see further description about the sockets at the end of this chapter as well as chapter 7 of this user manual.

After mechanical installation of the FunkySwitch™ you need to make sure that the arrow is located on the top side. If this is not the case you can loosen the small worm screws and turn the FunkySwitch™.



The button boxes can be mounted to short or long levers and on each of the three sides of the button box.

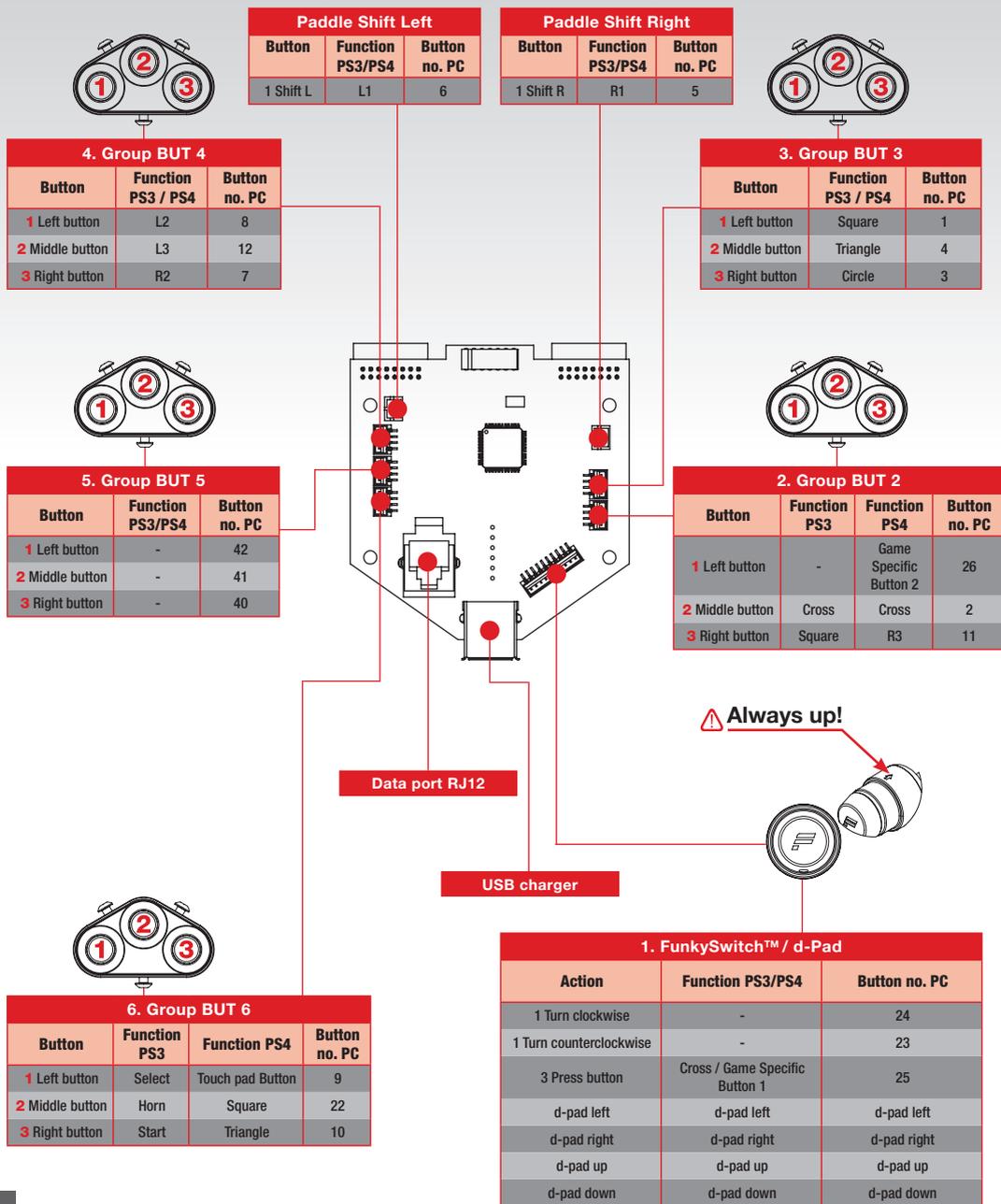


Electrical

The FunkySwitch™ needs to be plugged in at long socket labeled (Funky-Switch™_1). Connect the plug of the button box cable to any of the remaining 5 plugs on the PCB labeled BUT_2 to BUT_6.

⚠ IMPORTANT: Please mind the correct direction of the plug and use no force to connect the plugs!

CONNECTORS



BUTTON MAPPING



Button	PC
L1	6
L2	8
L3	12
R1	5
R2	7
R3	11
Select	9
Start	10
Square	1
Triangle	4
Circle	3
X	2

5.3 Wheel rim

After you have installed all the button boxes and the FunkySwitch™ you can install the wheel rim. Make sure you use the washers W1 (13.5 mm x 2.5 mm; included in Universal Hub box) if you are not installing button boxes on all four sides equally.

You need to use M5 screws with a max. length of 16 mm in order to avoid a collision with the PCBA inside the Universal Hub. For third party rim use the screws S3 (M5 x 16 mm) which are included in the Universal Hub box. The FANATEC® wheel rims come with the correct screws.

In case your wheel rim does not have holes yet you can use the drilling template on the next page to drill the correct hole pattern.



5.4 Shifter paddles

The Universal Hub package contains small and large shifter paddles. It is up to your taste which size of paddles you prefer and in which direction you want to mount them. Please use the correct screws S4 (M3 x 8 mm) and washers W2 (M3 x 8.0 mm x 0.8 mm) for the paddles which are also contained in the Universal Hub package.



Different positions for small shifter paddles





Large shifter paddles

Large shifter paddles adjustments



Different positions for large shifter paddles



The large and small shifter paddles are both mounted onto the shifter paddle boxes on the left and right side of the Universal Hub. Even these shifter paddle boxes give the user the opportunity for adjustment: define the distance between wheel rim and shifter paddles according to your individual fondness.

Therefore the Universal Hub has four screw holes on both sides as shown in the picture:



If you use the two screw holes closer to the front side of the Universal Hub the distance to the wheel rim is smaller (depending on used wheel rim):



If you use the two screw holes closer to the back side of the Universal Hub the distance to the wheel rim is bigger (depending on used wheel rim):



The distance between front side holes and backside holes is 10 mm (center to center). The holes have gears for M5 screws which are also contained in the Universal Hub package.

5.5 Mobile phone

You can also use your mobile phone as an additional screen for telemetry data. To charge your mobile phone during playing the Universal Hub has an USB power socket on the bottom side.



Please note that this USB power socket does not handle any data to your mobile device. Use the correct USB cable depending on your mobile phone.

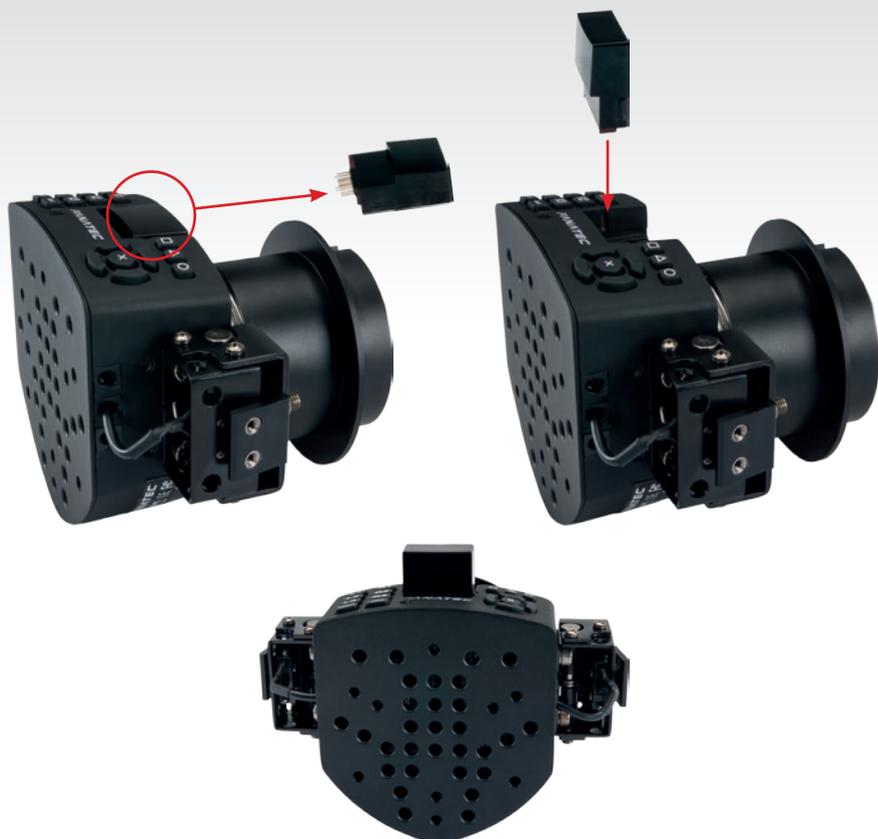


Note: Mobile phone, USB cable and mobile phone holder are not included.

5.6 Tuning display

The tuning display can show telemetry data or is used to change the behavior settings of your ClubSport wheel (e.g. force feedback FF, spring SPR, damper DPR) or for calibration of the H-pattern Fanatec shifters like CSS or CSS SQ.

⚠ ATTENTION: Take care for the pins and make sure they fit properly into the sockets to avoid damage!



The tuning display can be used in horizontal or vertical position. To change position you must pull out the display from the Universal Hub and put it back in the direction you want to use it. Note that it's not possible to turn the LED display when it's inside the display slot of the Universal Hub.

For further information check the FAQ section on our website www.fanatec.com/support

6 ELECTRICAL OPERATION

6.1 Hotkeys

Basically all hotkeys of the ClubSport Wheel Base can be used.

Center calibration: If a center calibration is needed when using the Universal Hub you need to enter the tuning menu by using the small black button on top of the Universal Hub as shown on the picture:



When tuning menu is active then press the buttons **start** + **X** at the same time to calibrate the wheel center.

ATTENTION: When initialisation and auto calibration of the ClubSport Wheel Base is in progress never touch the Universal Hub or wheel rim in order to avoid injuries or incorrect calibration!

PS3 Mode: Initially the ClubSport Wheel Base is in PC mode. For use on PlayStation 3 the ClubSport Wheel Base must be switched to PS3 mode by pressing the buttons **select** + **O** at the same time right after auto calibration of the ClubSport Wheel Base is completed. The tuning display of your Universal Hub shows a red dot when PS3 mode is active as shown on the picture on the right hand side.



Shifter Calibration Mode: To enter the H-pattern shifter calibration mode press <START> + <tuning menu> at the same time: Put the H-pattern shifter into the position shown on the LED display and acknowledge each single position by pressing <START> to get to the next one:



	.....	neutral position
	.....	rear
	.....	1 st gear
	.....	2 nd gear
	.....	3 rd gear
	.....	4 th gear
	.....	5 th gear
	.....	6 th gear
	.....	7 th gear

If your shifter has no 7th gear just acknowledge it by pressing <START> when the shifter is physically in position of 6th gear. After all gears are calibrated the LED display shows S_1 and the shifter is ready for use.



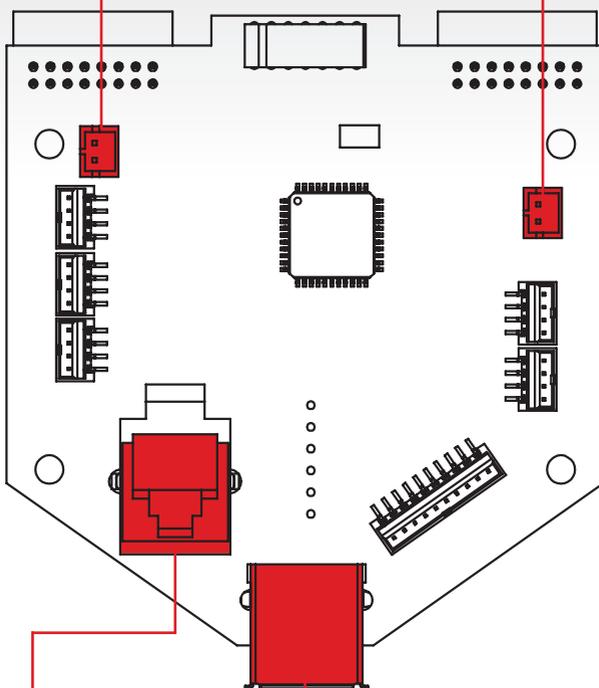
7 ELECTRONIC CONNECTORS

Paddle Shift Left

Button	Function PS3/PS4	Button no. PC
1 Shift L	L1	6

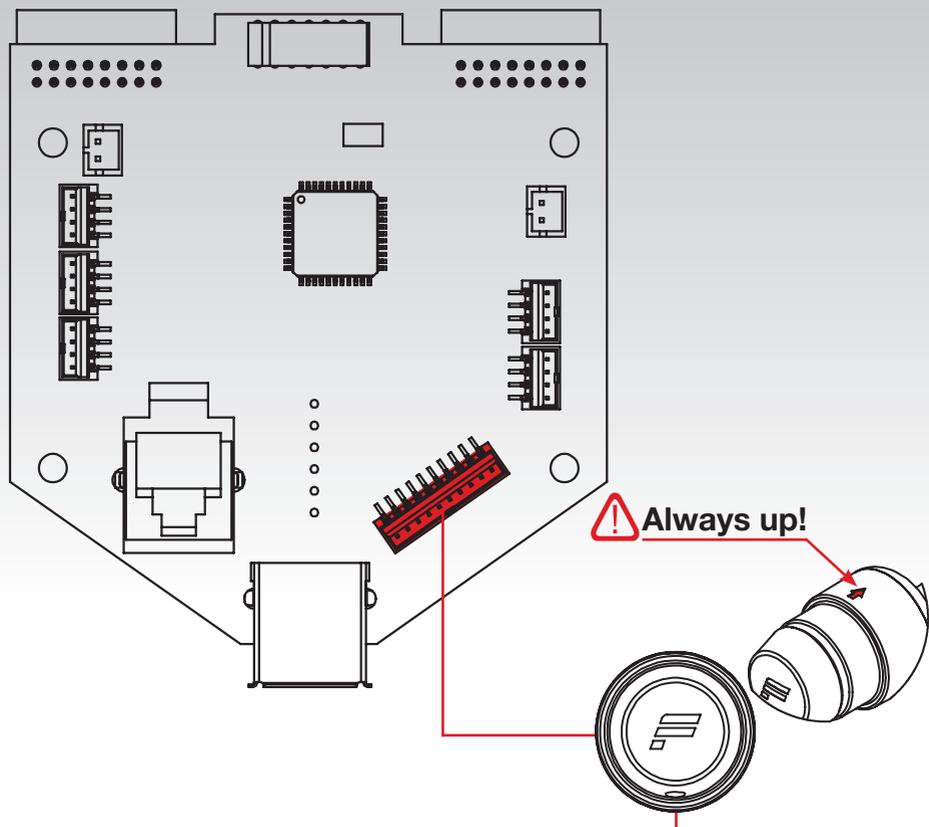
Paddle Shift Right

Button	Function PS3/PS4	Button no. PC
1 Shift R	R1	5



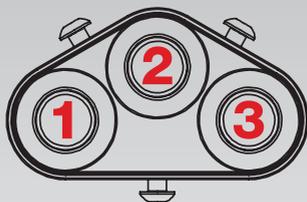
Data port RJ12

USB charger



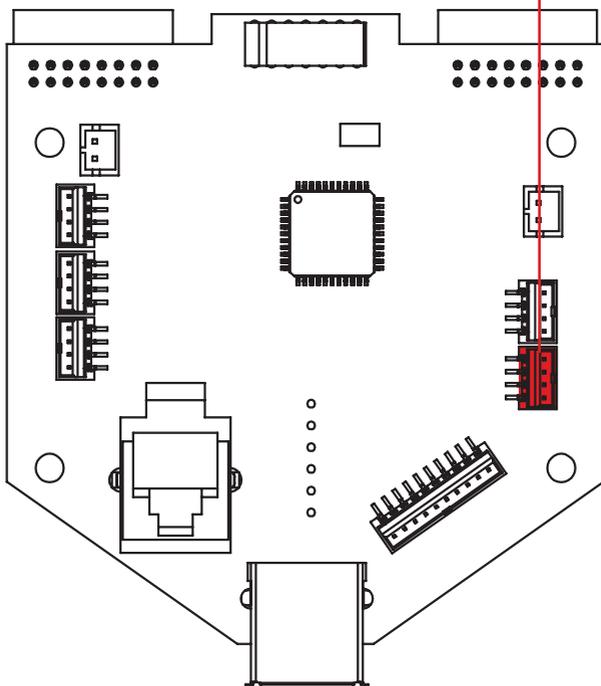
1. FunkySwitch™ / d-Pad

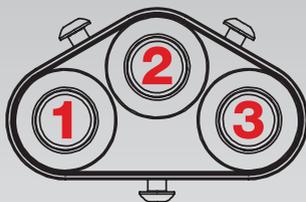
Action	Function PS3/PS4	Button no. PC
1 Turn clockwise	-	24
1 Turn counterclockwise	-	23
3 Press button	Cross / Game Specific Button 1	25
d-pad left	d-pad left	d-pad left
d-pad right	d-pad right	d-pad right
d-pad up	d-pad up	d-pad up
d-pad down	d-pad down	d-pad down



2. Group BUT 2

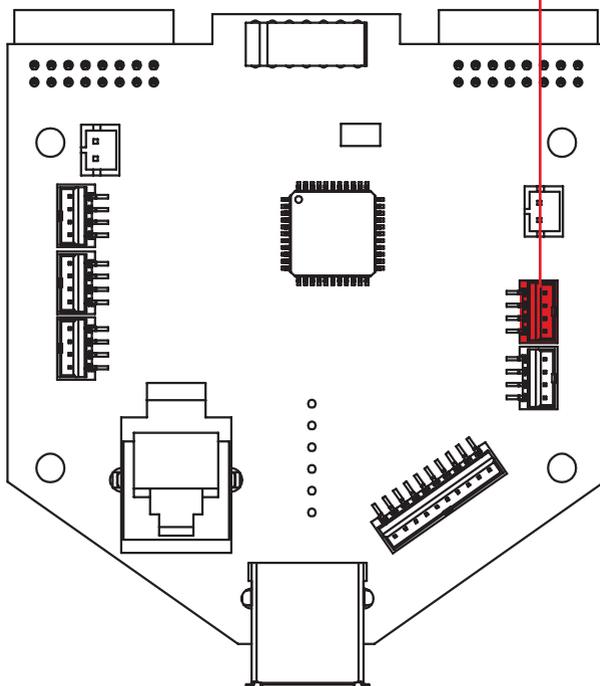
Button	Function PS3	Function PS4	Button no. PC
1 Left button	-	Game Specific Button 2	26
2 Middle button	Cross	Cross	2
3 Right button	Square	R3	11

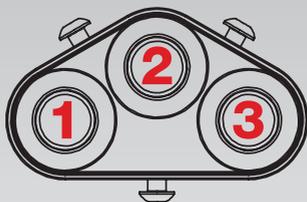




3. Group BUT 3

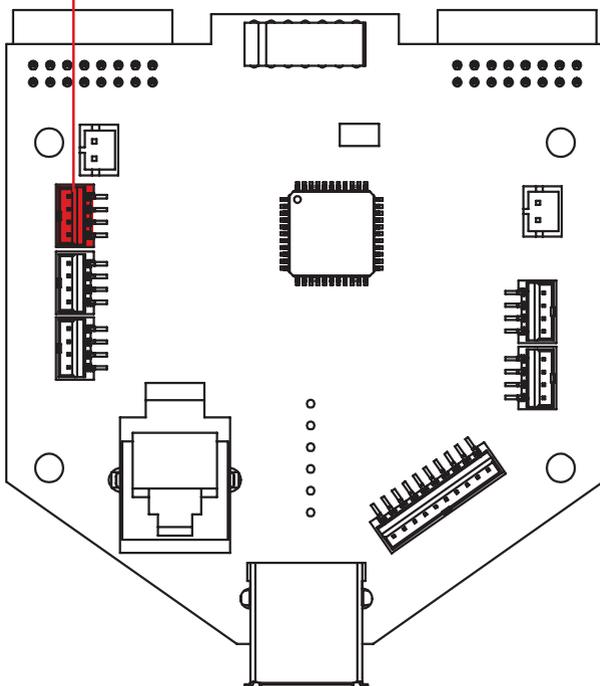
Button	Function PS3 / PS4	Button no. PC
1 Left button	Square	1
2 Middle button	Triangle	4
3 Right button	Circle	3

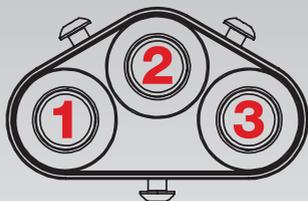




4. Group BUT 4

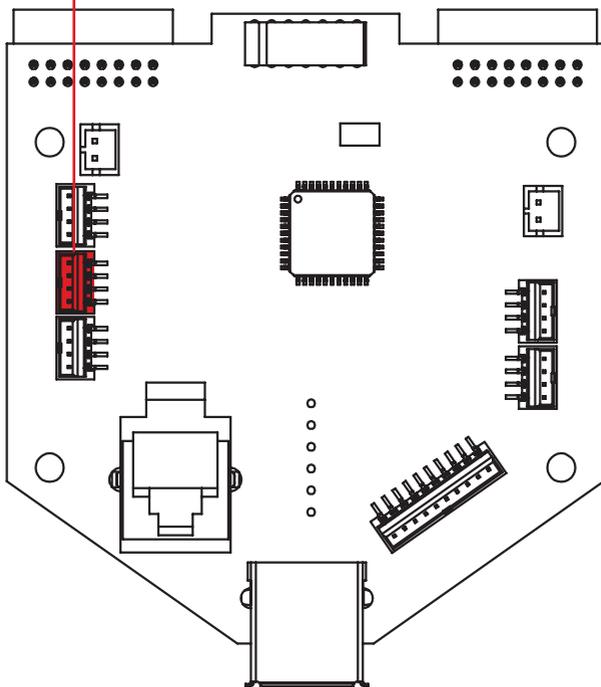
Button	Function PS3 / PS4	Button no. PC
1 Left button	L2	8
2 Middle button	L3	12
3 Right button	R2	7

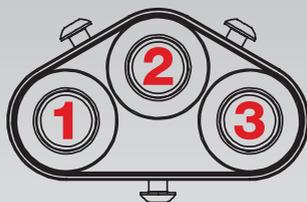




5. Group BUT 5

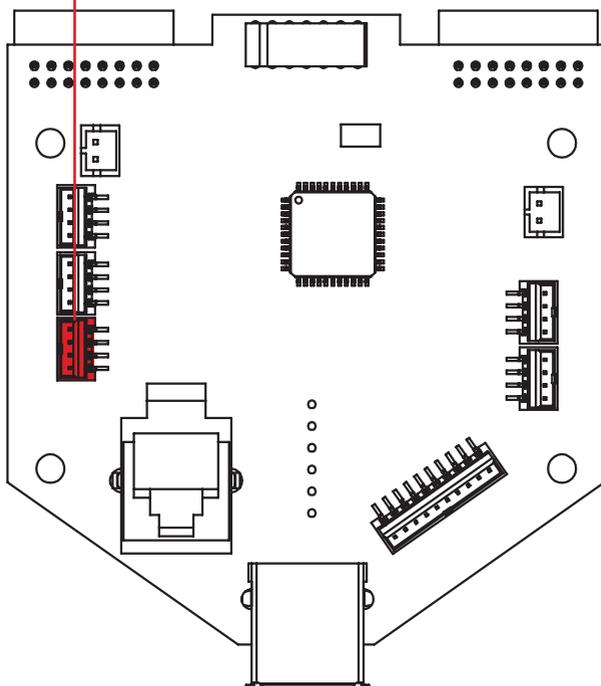
Button	Function PS3/PS4	Button no. PC
1 Left button	-	42
2 Middle button	-	41
3 Right button	-	40





6. Group BUT 6

Button	Function PS3	Function PS4	Button no. PC
1 Left button	Select	Touch pad Button	9
2 Middle button	Horn	Square	22
3 Right button	Start	Triangle	10



8

CLEANING

Clean only with a dry or slightly damp cloth. Using cleaning solutions may damage your Universal Hub.

9

TROUBLESHOOTING

The Universal Hub must not be modified differently than described in this manual. Endor® AG expressly prohibits analysis and utilization of the electronics, hardware, software and firmware contained in the controller. In case difficulties occur in connection with utilization of the Universal Hub, please use the following guide for elimination of errors. On the website www.fanatec.com/support you will find further details and contact data.

If the Universal Hub is not working properly:

Problem description	Solution
After switching on the ClubSport Wheel Base with attached Universal Hub the auto calibration is not working properly.	<p>Make sure that you have updated your ClubSport Wheel Base to the latest firmware version which can be downloaded from www.fanatec.com/support.</p> <p>Try to use another rim like the RFormula or RBMW. If the auto calibration is not working properly with this rims the ClubSport Wheel Base might be damaged.</p>
The driver window does not show the attached rim.	<p>Make sure that you have updated your ClubSport Wheel Base to the latest firmware version which can be downloaded from www.fanatec.com/support.</p> <p>Check the pins inside the quickrelease of the Universal Hub, these must not be bent or damaged.</p> <p>Try to use another rim like the RFormula or RBMW. If this is also not detected the ClubSport Wheel Base might be damaged.</p>

Problem description	Solution
In driver window the button mapping seems to be wrong as button boxes are not shown.	The buttons of the button boxes are mirrored from the buttons on the top side of the Universal Hub. For more detailed description please see chapter 7 (Electronic connectors) of this user manual.
It is not possible to flip the tuning display of the Universal Hub.	Due to the design it is not possible to flip the tuning display, it must be pulled out and pushed back in to the position you want to use it. See chapter 5.6 (tuning display) of this user manual for more detailed description.
The tuning display does not show anything or is not working partially.	<p>Pull out the tuning display from the Universal Hub and check if all pins are there and not bent or broken.</p> <p>Check the pins inside the quickrelease of the Universal Hub, these must not be bent or damaged.</p>
Center calibration is not working because of missing d-pad / sticks.	For the Universal Hub there is a different button combination. See description in chapter 6.1 (Hotkeys) of this user manual.
The USB port on the Universal Hub bottom side does not send data to your mobile phone.	This USB port is only used for charging your mobile phone while playing. Apps and data transfer from games to the apps are responsibility of the app developer / provider.
The USB port does not charge your mobile device.	<p>Make sure you use the USB connector cable which came with your mobile phone or a USB cable which is made especially for your mobile phone.</p> <p>If you want to charge a tablet instead of a mobile phone please note that some models of tablets may need a stronger power source for charging than the USB port.</p>

10

TRADEMARKS

“PlayStation®”, “PlayStation 3®” and “PS3®” is a trademark of Sony Computer Entertainment Inc. All rights reserved.

“SPARCO®” is a registered trademarks of SPARCO Italy. All rights reserved.

“MOMO®” is a registered trademarks of MOMO Srl., Italy. All rights reserved.

“OMP®” is a registered trademarks of OMP Racing Spa, Italy. All rights reserved.

“FANATEC®” and “Endor®” are registered trademarks of Endor® AG/Germany. All rights reserved.

11

ECOLOGY ADVICE

In the European Union: At the end of its working life, this product should not be disposed of with standard household waste, but rather dropped off at a collection point for the disposal of Waste Electrical and Electronic Equipment (WEEE) for recycling.



Depending on their characteristics, the materials may be recycled. Through recycling and other forms of processing Waste Electrical and Electronic Equipment, you can make a significant contribution towards helping to protect the environment.



Please contact your local authorities for information on the collection point nearest you.

For all other countries: Please adhere to local recycling laws for electrical and electronic equipment.

Retain this information. Colours and decorations may vary.

In the European Union: The packaging materials can be depolluted for recycling according to the legal regulations depending on the country responsible for the corresponding law.



For all other countries: Please adhere to local recycling laws for packaging materials.

12

FCC COMPLIANCE

This device complies with part 15 of the FCC rules. The operation of this device is subject to the following two conditions:



- This device may not cause harmful interference, and must accept any interference received, including interference that may cause undesired operation.
- This device was not modified different than described explicitly in this user manual.

Note: This device was tested and approved to the limitations for class B of digital devices according to part 15 of the FCC rules. This limitations should ensure an adequate protection against harming interferences in residential areas. However, a warranty for not-occurring of interferences is not assumed.

Do not modify the device different than described explicitly in this user manual. Nevertheless, if you do modifications different from the described in this manual you can be determined to stop the operation of the device.

13

CE COMPLIANCE

This device complies with the European product regulations according to CE regulations.



The CE regulations contain basic requirements for safe usage of technical products.

14

WARRANTY

Please check the FAQ database at www.fanatec.com/support to see if your problem can be solved there. Normally, the warranty period is one year. However, this may differ depending on the respective state.

1) Endor® AG grants for the hardware product – as extension of shorter national warranty regulations, if applicable a one- year warranty for material and manufacturing defects. The warranty does not include defects that are due to commercial use of the product and/or normal wear and tear and/or damaging by third parties and/or improper utilization or treatment and/or utilization of the product contrary + to the operating and maintenance instructions and/or not intended installation and/or non-compliance with the local safety standards and/or the results of an intervention by a third party or a not authorized opening of the device including any measures for modification, adjustment and/or adaptation measures (also in case of professional execution). Warranty applies as of the date of purchase when the final customer purchased the product, and is exclusively limited to the rights as of 2), as far as this does not limit any further legal warranty claims on the basis of various national laws. Warranty is subject to return of the defective product with carriage paid, within the warranty period, including the original receipt that must include date of purchase as well as the company stamp/company print of the first dealer.

2) The warranty covers – at the choice of Endor® AG – either gratis repair or replacement of the device or components of the device. With defects that are not covered by the warranty and/or that are excluded from warranty (see above), possibilities for repair are to be requested with the local customer service or the local dealer. As far as permitted by law, any further liability - with the exception of intent and gross negligence – is excluded for any indirect or direct damages and consequential damages, regardless of whatsoever basis of claim.

This applies in particular to damages with other property, damages to persons, data losses as well as financial losses like loss of profit as well as transport damages in connection with returns to Endor® AG. As far as liability limitations are not legally allowed or effective in certain states or certain regions, the limitations are to be effective to such extent that exclusions of liability. This gaming device is designed to withstand approximately one hour of use per day during the course of the warranty period of one year.



Fanatec® is a registered trademark of Endor AG
Designed and developed by Endor AG in Germany
04/2016