



Shanghai Richer Technology Co., Ltd.

User Manual



6-DOF Racing Simulator



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I. About making this instruction manual

This manual is prepared by Shanghai Ruique Technology Co., Ltd., and contains information you need to install and use six-axis racing. The description is limited to six-axis racing simulators. Software system upgrades and updates will not be described in this manual.

二、statement

This product manual is only applicable to the six-axis racing simulator equipment of our company. Without the written permission of our company, no unit or individual shall use part or all of the contents of this manual without authorization, and shall not be disseminated in any form or used for any commercial or profit purpose.

The contents of this manual may be changed according to the product version upgrade or other reasons. The company reserves the right to modify the contents of this manual without any notice or prompt. This manual is only used as a guide. We try our best to provide accurate information in this manual, but we do not guarantee that the contents of this manual are completely accurate. All statements, information and suggestions in this manual do not constitute any guarantee in any form.

三、overview

1、product features

The simulated driver uses a high-precision electric six-degree-of-freedom dynamic platform, which is truly closely integrated with the game. It can complete dive, climb, tilt, turn, rotate, translate, fall, bump and other high-difficulty thrilling actions, giving users a super-real experience from dynamic, driving control, audio and video, simulation aspects.

Products using low-noise electric cylinder, durable. Multiple online competitions can be held, with extremely high interest, novelty, excitement, shock, entertainment and science popularization, which can achieve a large number of rapid eye-catching effects, allowing customers to have a super advanced entertainment experience.



2、usage scenarios

Playground, cultural and tourism scenic spot, Shangchao business circle, science and technology exhibition hall, etc.

3、working environment

Ambient temperature: 10℃~40℃

Ambient humidity: 30%~70%

Surrounding environment: avoid electromagnetic interference, no vibration, no dust, corrosive gas, flammable gas, oil mist, water vapor, dripping water or salt, etc.

4、security

(1) Risk of site selection

Do not place this equipment in the following locations:

Outdoor location with direct sunlight.

An unstable location, such as a tilt, vibration, etc.

Places that cannot meet the load-bearing requirements, such as booths, glass platforms, etc.

Emergency positions such as emergency exits and fire exits

If it is necessary to change the use site, strictly follow the disassembly order, use the same materials as the original packaging equipment to avoid damage.

Do not use this product in any area where potentially explosive atmospheres are present, such as areas where the air contains high concentrations of flammable chemicals, vapors, or particles such as particles, dust, or metal powders. Expose this product to high concentrations of industrial chemicals, including near vaporizable liquefied gases such as helium.

(2) Safety Reminder

If water is accidentally splashed or infiltrated into the machine, please immediately remove the power supply, contact the company after sale, and use the product after after-sales confirmation.

(3) Risk of electric shock or fire

Do not expose products and accessories to wet environments such as rain and

Do not place containers containing liquids near the product
Do not place this product and accessories near flames or heat sources
Do not expose this product to sunlight.
Do not place foreign objects in the opening of this product, such as vents.
Please turn off the power supply of the product before pulling out the plug.
Do not pull out the plug directly.
Unplug this product before thunderstorm.
When pulling out the plug, pull it from the plug position, do not pull the wire directly.
When connecting to the power supply, please confirm that the socket voltage is the same as the product parameters. If the voltage of the two does not match, it is forbidden to use the power supply.

4) Attention

In case of violation of the above safety warning or illegal operation, the adverse consequences such as personal injury have nothing to do with the company.

You need to pay special attention to this information to avoid any potential security issues.

(5) Health warnings

The following health warnings are updated periodically to ensure accuracy and completeness

Before using the product, you need to read the product manual carefully and set it according to the operation instructions in the text. If it is not set correctly, it may cause discomfort.

Pregnant women, the elderly, special groups with binocular vision abnormalities, psychiatric history, or other serious health conditions such as heart disease are recommended to consult a physician before use.

Due to different physical conditions, in order to avoid discomfort such as dizziness, dizziness or headache, we do not recommend long-term use of this product. If you feel any discomfort, please stop using it immediately and do not engage in any potentially dangerous activities (such as driving) until the symptoms completely disappear. If symptoms persist, do not continue use without consulting your physician.

If the user has a history of epilepsy or photosensitivity epilepsy, consult your physician before viewing flashing lights, rapid image sequences, etc.

Children should use our products with a guardian to ensure that they do not experience any of the discomfort described above. Since the visual system of children under the age of 13 is not fully developed, guardians need to control the use time of children within 15 minutes at a time.

Do not use this product for too long (within a few minutes). After adapting to the virtual reality situation, the usage time can be gradually increased. A comfortable VR experience requires an unimpaired sense of motion and balance. Do



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not use our products under fatigue, alcohol, anxiety, headache or drug effects.

You may feel discomfort in your hands, arms, wrists, shoulders, neck, or other body parts when repeatedly performing the same action on this product (e. g. , stepping, turning). If you feel discomfort, stop using the machine and consult your physician.

This equipment is not suitable for use in activities where failure of the equipment could result in death, personal injury or significant environmental damage.

四、product specifications

product specifications			
game type	racing game	specifications	2130*2100*1850mm
weight	800kg	load	300kg
display	43 inch HD metal toughened explosion-proof screen	Single screen resolution	1920*1080
content	4	number of experienced	single/double
power requirements	220V/4500W	Recommended site size	3000*3000*2400mm
peak power of equipment	6KW	range of motion	2950*2950*2250

五、Structural characteristics and working principle

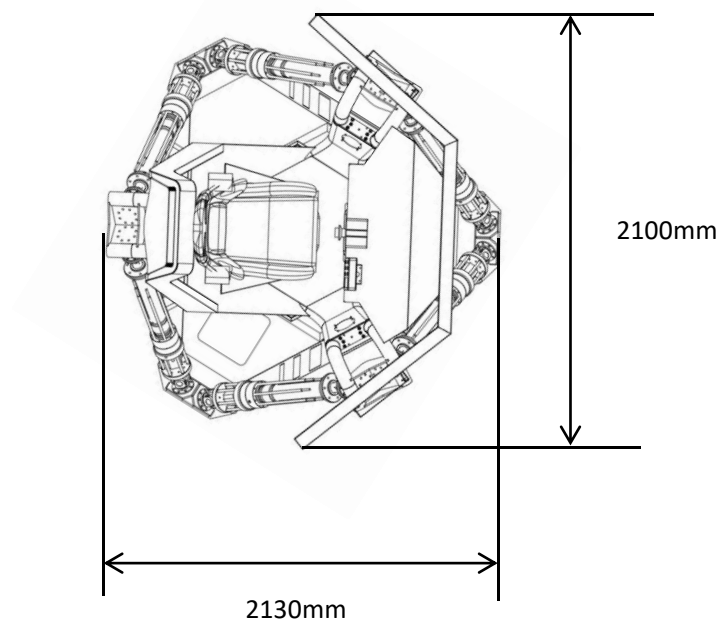
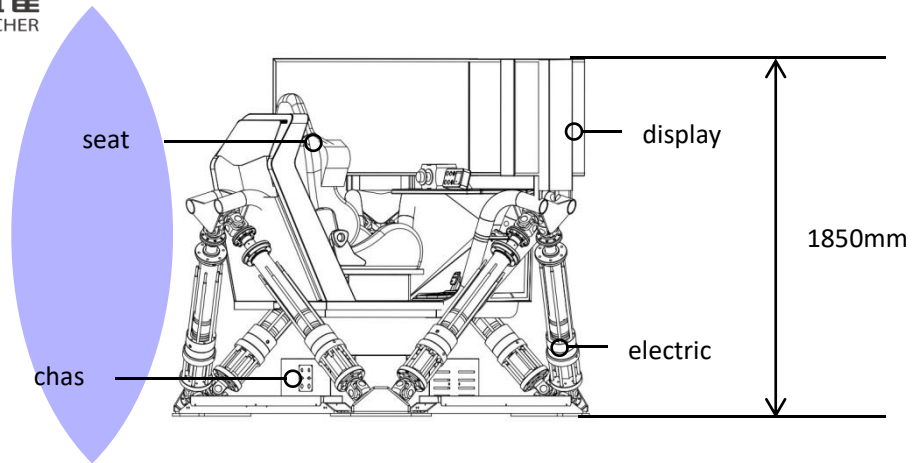
1、Overall structure and working principle

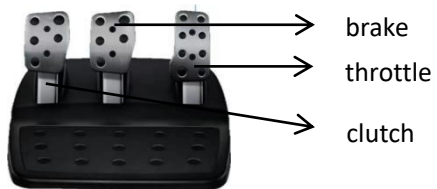
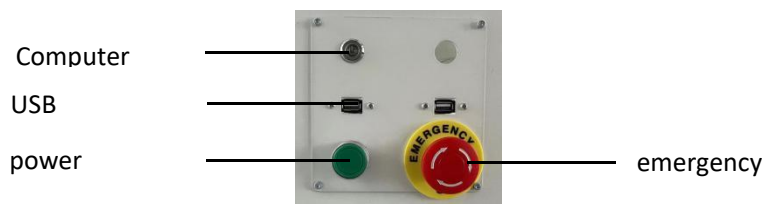
The main components of the equipment are composed of chassis, body, controller, display, lamp box and other parts.



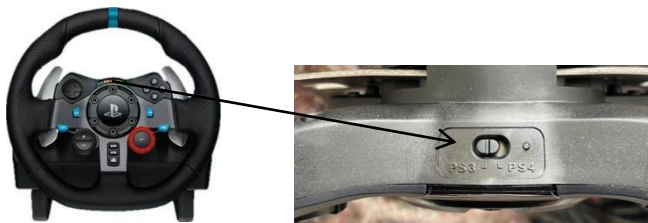


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Note: The accelerator and brake cannot be stepped on at the same time. The accelerator is on the far right and the brake/reverse is on the left.
(Light step on the brake, step on the bottom to reverse)



Note: Turn the button to PS3 mode, otherwise the steering wheel will not work!



六、installation

1. Delivery list

Display *3 units
Car body *1 set
Wireless keyboard and mouse *1
Broadcast control software *1

2. Assembly method

After removing the back plate of the monitor bracket, hang the monitor on the bracket in turn according to the display marking sequence and connect the quick connection power plug of the monitor. Connect the video cable of the monitor according to the marking order, and install the TV backplane. Open the wireless keyboard and plug the USB keyboard signal receiver into the USB interface of the machine control panel.

七、using the operation

1、Preparation and inspection before use

(1) Equipment appearance inspection

Before using the equipment, check whether the appearance of the equipment is intact, whether there are defects such as damage, deformation, fracture, etc., whether there are loose, scattered parts, etc. If there is a problem, repair or replace it in time to ensure the normal use of the equipment.

(2) Internal inspection of equipment

Take out the sponge spacer inside the cabinet, check whether the power switch and electrical circuit of the equipment are normal, ensure that the equipment is reliably grounded, and whether there are potential safety hazards such as illegal parallel connection of circuits and interface leakage. Check lubrication of transmission structure and add lubricant if necessary.

(3) Safety inspection of working environment

Check whether the safety facilities of the equipment are in good condition, such as overload protection, emergency stop switch, etc. If there is any problem, repair or replace it in time to ensure the safe operation and use of the equipment. Whether the ground is flat, whether the light is sufficient, whether there is any odor, etc., to ensure the safety of operators.

(4) Cleaning and hygiene inspection



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Check whether there is foreign matter and dust inside the equipment, so as not to affect the normal use of the equipment, and ensure the health of the operator and the long-term service life of the equipment.

(5) Test run inspection

Ensure that there are no personnel and obstacles within the action range of the equipment, check whether the stability and operation of the equipment are normal, and whether there are abnormal sounds, faults and other undesirable conditions. If there are any problems, handle them in time to ensure the normal operation and use of the equipment.

2. Installation, safety protection and safety standard description in use

(1) Release the emergency stop switch, press the green power supply and then press the computer power button to start up.

(2) After booting, automatically enter the game broadcast control interface, press the direction machine to select the game, press the OK key to enter the game.

(3) After opening the game, play the game according to the game operation.

3. shutdown operation methods and precautions

After the end of the game, return to the broadcast control interface. After the broadcast control exits, press the correct shutdown process to turn off the computer. After the computer is turned off, press the emergency stop switch.

Safety and safety protection in use, safety standards and instructions

During operation, the device will simulate the real posture in the game. At this time, the internal motor will be in a high speed operation state.

No one should stand on the six-axle racing table, let alone put their feet or hands into any crevices to avoid mechanical human body.

Hurt!

You need to pay special attention to this information to avoid any potential security issues.

八、Fault handling and safety protection devices

Note: All troubleshooting must be done at the end of machine action and power failure.

1、Fault performance and troubleshooting

(1) The lamp belt is not bright: check whether the lamp belt power cord is loose or damaged.

(2) The equipment makes abnormal noise during use. Please check whether the screws are loose after shutdown and ensure that the screws are tightened. Check once

(3) Steering wheel out of control (take Logitech G29 as an example): steering wheel gear error, PS4 gear to PS3.

2、 Safety protection devices and precautions

(1) Emergency stop switch: in case of emergency or equipment failure, press the emergency stop switch to stop the machine and power off.

(2) Seat belt: fasten the seat belt when using the equipment.

九、 Maintenance, repair

1、 Daily maintenance

(1) The main contents of maintenance include: cleaning, lubrication, adjustment, fastening and corrosion prevention.

(2) The inside and outside of the equipment should be cleaned. The dust on the platform can be wiped lightly with a soft cloth. Plastic parts should not be wiped with abrasives or solvents.

(3) All lubricated surfaces, such as screw rods, should be free of oil stains and uneven places, and all parts should be free of oil leakage, water leakage and steam leakage (gas).

(4) The equipment needs lubrication, and its lubricating surface and lubricating point should be refueled and changed on time, and the oil quality meets the requirements.

(5) Check the parts of the equipment that need to be fastened and connected frequently. If loose, tighten them in time to ensure the safe operation of the equipment. The external and internal parts of the equipment in contact with various chemical media should be frequently treated with rust removal, painting, etc. to improve the corrosion resistance of the equipment and prolong the service life of the equipment.

(6) Avoid direct sunlight, especially electronic standards, which will be vulnerable.

(7) Please put the equipment in a clean and dry environment.

(8) Use the equipment according to the operation instructions, and it is forbidden to overload the equipment.



2. Maintenance cycle

- (1) Paint: wax once every 2-3 months.
- (2) Electric cylinder: When working 24 hours a day, grease should be added once every 2-3 months (recommended: grease GB7324-1994 general lithium grease No. 3).
- (3) Equipment interior: every six months of operation, it is necessary to check the operating status of hardware equipment, clean the dust inside the computer host, check the cooling glue of fans and heat sinks, and check and calibrate the display. Clean the exterior, check power and data cable connections, replace aging or damaged components. Check whether the internal wiring of the equipment has aging and falling off.
- (4) Accessories: such as steering gear, clutch, brake, hand brake, throttle, etc. Mechanical connectors pay attention to check the lubrication situation, and immediately supplement lubricating oil when dry conditions occur.
- (5) Fixed screws need to be checked for looseness every 3 months.

3. Maintenance and maintenance during long-term shutdown

- (1) Cleaning equipment: thoroughly clean equipment before shutdown, including fuselage, electrical equipment, etc., remove debris and dirt, and ensure that the surface of the equipment is dry and clean.
- (2) Evacuation and power failure: Evacuation and power failure operation is to avoid unnecessary damage and interference to equipment during shutdown.
- (3) Seal the equipment: package the equipment carefully and wrap the equipment with moisture-proof and dustproof materials to avoid moisture and dust erosion.
- (4) Regular inspection: Check the equipment regularly to ensure that there is no damage or movement. Pay special attention to whether the wiring of electrical components and cables is normal, and check whether the parts are aging.
- (5) Cleaning and anti-corrosion: clean the equipment regularly to remove dirt and dust from the surface. Use appropriate cleaning agents, but be careful to use environmentally friendly and non-corrosive cleaning agents. At the same time, apply rust inhibitor on the equipment to prevent rust on the surface of the equipment.
- (6) Lubrication equipment: long-term shutdown equipment is easy to dry oil seal, poor lubrication, shutdown equipment before the equipment should be lubricated.



十、Transport, handling, storage

1. Precautions for loading and unloading and transportation

(1) Check whether the box is intact, and repair it immediately if damaged. If the goods cannot be placed sideways or upside down, they must be clearly marked on the outside of the equipment wooden case, and there must be relevant signs such as "upward" on all sides. In the process of handling, loading and unloading, storage and transportation, the goods must be handled and disposed of in strict accordance with the arrow marks on the outer package.

(2) loading and unloading: fork loading equipment, should make the two fork load balance, not inclined, one side of the equipment should be close to the shelf, fork load weight should comply with the load regulations. When lifting equipment, select appropriate lifting equipment and tools according to the weight, size and lifting conditions of the box. Know the center of gravity position of the box to ensure the balance of the box during lifting. Check the use condition of lifting equipment and accessories to ensure their safety and reliability. Fix the box lifting equipment and tools firmly. Violent loading and unloading is prohibited.

(3) Transportation: Fix the equipment firmly with the vehicle body. Drive at a constant speed to avoid collisions and violent vibrations to avoid damage to equipment. Transportation of equipment in rainy and windy weather is strictly prohibited, and special precautions must be taken under special circumstances.

2. Storage conditions and precautions

(1) Storage environment

The equipment shall be stored in a dry, well-ventilated, pollution-free and temperature-stable place. Storage should be kept away from fire, explosives and flammable materials, such as direct sunlight, rain, dust accumulation, etc.

Temperature: The temperature of the equipment storage environment is not higher than 35°C, and it needs to be relatively stable to reduce the impact of temperature changes on the equipment.

Humidity: The environmental humidity of equipment storage should be controlled under relatively stable conditions, generally not exceeding 60%RH. Too high humidity is easy to cause rust inside mechanical equipment due to moisture, such as being placed in an excessively humid environment for a long time, which may affect the service life and safety of mechanical equipment.

Light: Mechanical equipment needs to avoid prolonged exposure to sunlight, otherwise it will affect the paint and plastic parts of the equipment, and even damage some photosensitive parts, thus affecting the performance and stability of mechanical equipment.

(2) Storage method



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Ground: The equipment needs to be stored on a flat, dry and dust-free ground so as not to affect the operation and service life of the equipment.

Security: Store equipment in a secure location to avoid unnecessary damage or theft. For larger mechanical equipment, it is possible to reinforce or disassemble the equipment before storage and place boards or other supports on it to prevent tipping or sliding.

(3) **Space:** sufficient space should be reserved for equipment storage, which is conducive to maintenance, maintenance and overhaul of operators.

十一、after-sales service

1、factory warranty

We shall ensure the supply of brand new and high quality products that fully comply with the quality, specifications and intended performance requirements specified in the contract and ensure satisfactory performance of the equipment during its service life under correct installation, normal operation and maintenance conditions. During the warranty period, we are responsible for failures due to defects in design, workmanship or materials. Thus affecting the performance and stability of mechanical equipment.

2、After-sales service precautions

- (1) Service tenet: fast, decisive, accurate, thoughtful and thorough
- (2) Service principle: product warranty period of 1 year, after-sales service, maintenance to provide 7*24 hours of service response, response within 2 hours after receiving notice, within the warranty period, the supplier will repair and replace parts damaged due to quality reasons free of charge, parts damaged outside the warranty period, provided accessories only charge cost. by the demander Equipment damage caused by factors, repair or parts provided by the supplier shall be calculated at cost price.
- (3) We provide the following services: remote guidance installation, commissioning, maintenance, if you need home service, technical services, travel expenses, accommodation and other expenses borne by the buyer. Technical training.



Shanghai Richer Technology Co., Ltd.

3. Contact information

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