

# *Nitro Speed (4PL)*

## MANUAL



### **Warning**

- ✧ Please read the manual before installation and use.
- ✧ Please put the manual together with the machine.



**ACE AMUSEMENT**

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# Introduction

## I. Company Profile

Thank you for choosing the amusement machine produced by our company. We are a comprehensive enterprise integrating development, production, sales, operation and services. “Quality first, users first, services first” is our solemn promise to customers and our action guide.

Please carefully read the manual for correct, appropriate and safe use of the machine. We hope it can help you to succeed!

## II. Introduction to the Product:

Nitro Speed is an indoor redemption machine newly developed by our company and especially designed for any FEC or amusement locations. It is new design racing machine with photo-taking after start the game, which is beautiful appearance, safe and reliable materials, and there is ranking while competition to win more scores that is easy to operate, so it is the most valuable amusement product with a higher coin collecting rate in amusement center.

## III. Features of the Product:




1. Small machinery products;
2. The game play is novel, exciting, highly interactive, and highly entertaining;
3. The appearance design is artistic, the pattern is bright and delicate, and the used materials are solid;
4. Adopt integrated circuit, built-in program, stable working performance, safety and reliability;
5. Adapt to universal tickets;
6. The independent host computer is stable and reliable.

## IV. Note on Safety:

Before use, please note the safety warning stickers on the machine; while reading the manual, please pay special attention to some signs. We divide the safety warnings into 3 categories as follows. They mean different levels of danger.

- **Danger** It means there will be danger of harm to people due to improper operation.
- **Warning** It means there will be possibility of harm to people due to improper operation.
- **Attention** It means there will be possibility of harm to people or the machine due to improper operation.

**Please pay attention to the following signs on the machine:**

High temperature sign	High temperature sign
	
No touching sign	
	

## Specifications and Technical Parameters



1) Operating Voltage: AC 220V - 240V, 50/60 Hz or AC110V  $\pm$  5%, 50/60 Hz

2) Maximum Power: 750W

4) Dimensions:

D137\*W199\*H265 (cm)

5) Weight: 500Kgs

6) Operating Environment: Temperature (indoors): 0°C ~ 35°C;

Humidity:  $\leq$ 90%;

Atmospheric pressure: 86Pa ~ 106Pa.

**Warning:** After turning off the machine, please wait 1 minute if you want to turn it on.



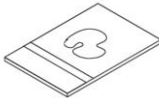


**Attention:** The above technical parameters are subject to change without prior notice.

**Note:** Please refer to the nameplate at the back of game for the voltage of your machine.


## Accessory list

For the normal use of the machine, please open the package and carefully check whether the following items are included.

The accessory list is below:

No.	Name	No. /Specification	QTY	Unit	Picture	Remark
1	Cable	10A/250V-3M	1	Pc		
2	Fuse	Φ5×20mm T5A 250VAC	3	Pc		
3	Manual	English	1	Pc		
4	Key	AA33	2	Pc		
5	Key	AA32	2	Pc		

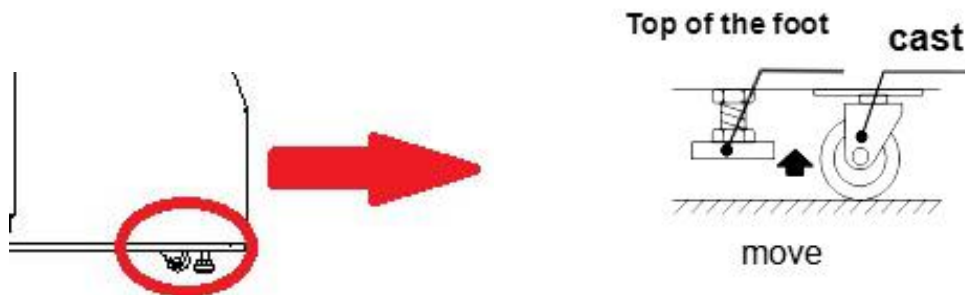
Please open the package and check whether all accessories are included. If not, please contact the distributor of the machine for check.

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# How to Move and Position the Machine

## How to Move the Machine

There are trundles under the machine. When moving the machine for a short distance, you should raise foot to make the trundles touch the ground and push the machine. As there will be danger of overturning when the foot hits obstacle on the ground, you should move the foot up as much as you can and pay attention to obstacles ahead and uneven places when moving the machine along the ground.



When moving the machine for a short distance, you should raise the foot to make the trundles touch the ground and push the machine.

When you move the machine and pass uneven places or place with steps, 4 people or more are needed to lift the machine for safety.



### ATTENTION

**Please unplug the power socket before moving to prevent accidents and failure.**

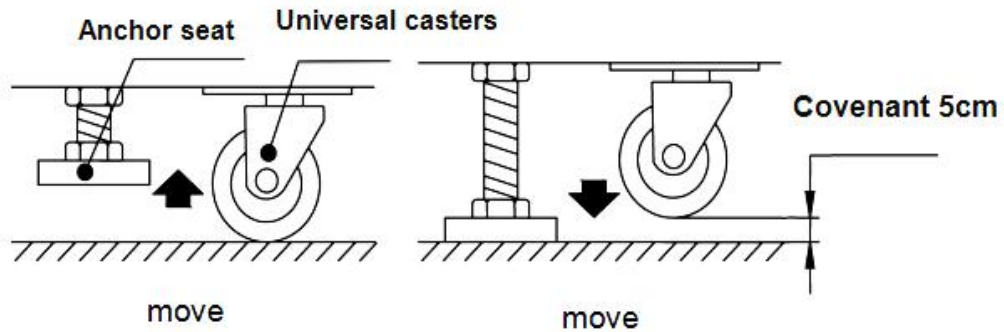
**Please do not damage the cable when moving to prevent accidents and failure.**

**Please move the machine before raising the foot margin as much as you can to prevent accidents and failure.**

**The machine shall be moved by at least two people to prevent injury caused by the accident.**

## How to Position the Machine

- Please place it on flat ground where it won't slide easily;
- Please use the following foot to fix the machine (as shown below)
  - ① Loosen the tightly locked nuts of the foot, tighten the bolts of the foot with a wrench, and keep the trundle approximately 5mm away from the ground.
  - ② Tighten the nuts clockwise and fix them.



## Unsuitable places

- Place in which the machine may have condensate water or with high humidity;
- Place close to high-temperature objects;
- Place close to dangerous substances;
- Smooth or unstable place;
- Place close to equipment that may easily produce sparks;
- Place with heavy vibration;
- Dusty place.

## Where to Place

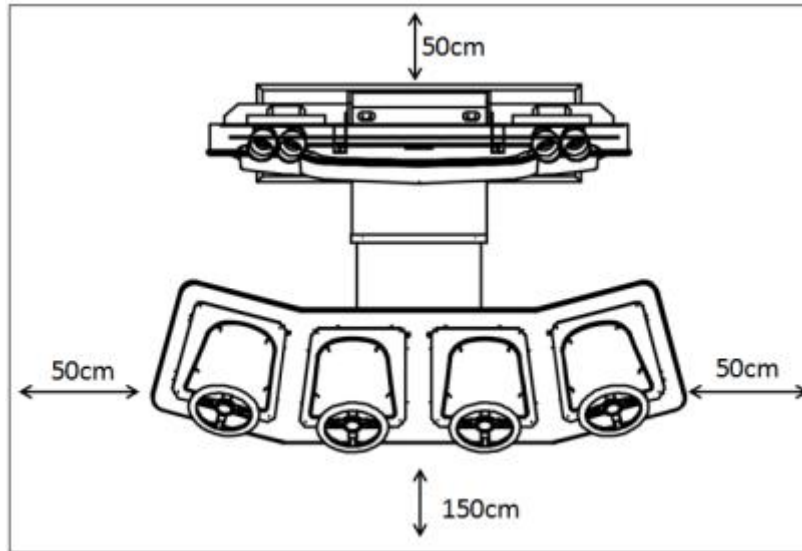
**⚠ Warning:** The machine is only suitable for indoor use, not outdoor use.

**⚠ Warning:** Please do not use the forklift to move the machine, otherwise it may be damaged.



## Installation Location Dimension

The machine should be placed according to the following dimensions for customers' safety and enough space to run the machine.



**⚠ Attention:** The machine should not be placed at inclined place, or there may be an accident.

**⚠ Attention:** The division of the game area should refer to labels of each machine.

## Precautions before Startup

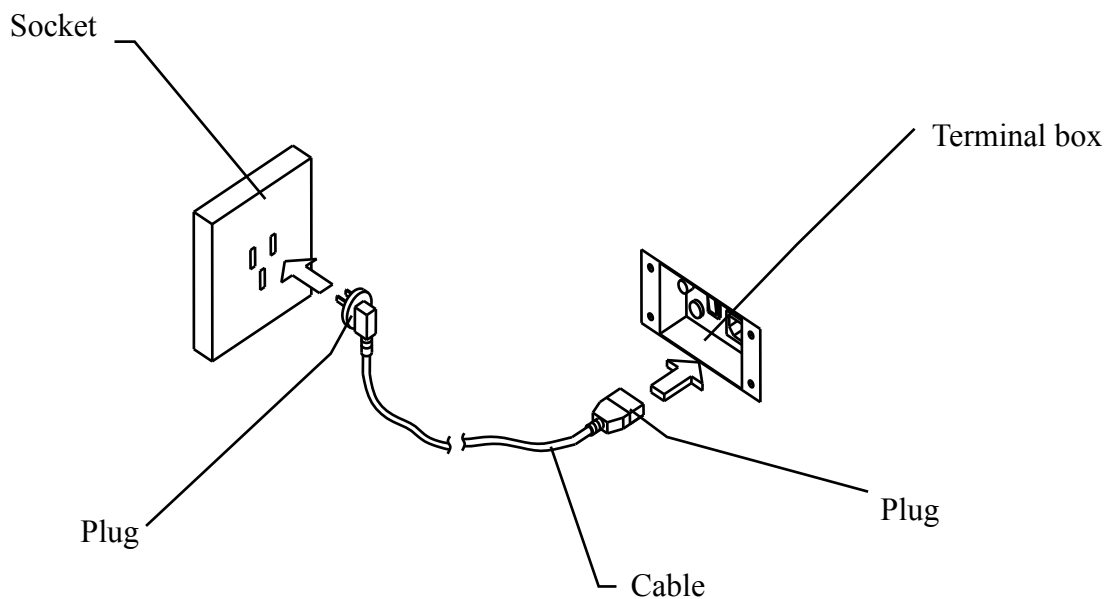
- 1) Check parameters of the power supply. Ensure parameters of the machine meet the requirements, or the machine might be damaged or there might be fire accident.
- 2) Excessive loads on a power socket might cause socket overheat and fire accident.

### **⚠ Warning**

- © Do not change or replace parts at your will when assembling the machine to prevent fire disaster or short circuit.

## Wiring and Precautions

- Connect one end of the cable to the terminal box of the machine, and connect the other end to the socket.
- Connect the power supply according to the voltage on the label, or the machine might be damaged.
- Please confirm whether there is grounding in the socket to avoid unnecessary damage.
- If the grounding cannot be done through the socket, please try other methods.



**⚠ Warning:** The working voltage of the machine is 220V. Please connect the power supply according to the label, or the machine might be damaged.

# Installation and Maintenance

## Troubleshooting

### Common Failure

Phenomenon	Main cause	Troubleshooting
After the machine is powered on, (the power supply fan works), but the display is not on.	The screen is not connected to power supply.	Please reconnect the power cable or replace it with new.
	The signal wire of the screen is not connected or damaged	Please reconnect the signal wire or replace it with new.
After the machine is powered on, there is no response and the screen is not on	The power supply is inconsistent with the machine's parameters	Please check whether the power supply is consistent with the machine's parameters
	The fuse is burnt	Please replace the fuse
	The power supply is not connected	Please confirm the 220V power supply is connected and the power switch is on
	The signal wire of the screen is not connected or damaged	The signal wire of the screen is not connected or damaged
The machine is not powered on	Check whether the input of the 220V power supply is right. The short circuit is not allowed.	Please check whether the voltage of the circuit board inside the machine is normal
The control board is not powered on	Check whether the output of 5V, 12V and 24V of the power supply box is normal	Please adjust the cable to the correct position
The display has no raster	The cable of the display might fall off or be loose due to vibration	Please check the power supply circuit or replace the cable
	The display is not on	Turn on the machine manually or with the remote control
The power supply is suddenly cut off	The circuit protector works, while the power switch is off (note: when the abnormal current runs, the circuit protector cuts off the current)	Please turn on the power switch again. When the circuit protector repeatedly works, it means there is something wrong with the machine. Please contact the distributor
After the machine is powered on, the projector shows a white screen without image and sound	The host does not work	Please manually start the host
Phenomenon	Main cause	Troubleshooting
Press the start button, and the game cannot start	The holder of the start button falls off or goes wrong; the switch cable falls off; the switch of the start button goes wrong	The holder of the button is broken or replace it; press and plug the switch cable; the switch of the start button is broken or replace it
The coin collector does not respond	The coin collector is damaged	Replace the coin collector
	The signal wire of the coin collector is loose	Check whether the signal wire of the coin collector is loose
	The IO control board is damaged	Replace the IO control board
Coins are blocked in the coin collector	The sample coin is not placed well	Please check whether the sample coin is placed well, or try another sample coin
	The coin slot is not aligned or deformed	Please check whether the coin slot is aligned or deformed, and adjust it
	The coin collector is not assembled properly. The red braking bar above the coin collector is pressed	Please re-insert it into the coin collector
The coin collector does not score	Check whether there is signal feedback	Please re-connect the coin collector. It will make a sound if there is signal
	The connected target board is not connected to the pull-up resistor	Please connect the pull-up resistor
	Check whether the token in the coin collector is the	Please replace it with proper token

	same with that inserted in the coin collector	
	The gear of the switch (normally on, normally off) is incorrect	Please check whether the gear of the switch (normally on, normally off) is correct
	The socket of the coin connector is in poor contact	Please check whether the socket of the coin connector is in poor contact
The speaker does not make a sound	Whether the circuit board of the power amplifier is powered on	Please turn on the switch of the amplifier circuit board to power on
	The volume is too low	Please turn on the volume
	Whether the audio connection port falls off or is damaged	Please re-connect the audio connection port
	The circuit board of the power amplifier goes wrong	Please replace the circuit board
	The speaker goes wrong	Please replace the speaker
No ticket fed	The ticket machine goes wrong or the switch is turned on wrong	Please replace the ticket machine or set the switch to the factory settings

## Installation and commissioning

- Please check the accessory list to assemble components before installation;
- After installation, plug the cable and turn on the machine to check whether each part runs well. If no, immediately turn off the machine for troubleshooting.

## Visual inspection

To safely use the machine, please check the following before startup:

- Whether the warning sign is intact, visible and stuck correctly.
- Whether parameters of power supply are consistent with the machine's.
- Whether screws of each component and components of the steering wheel are loose.
- Whether the connectors and terminals are loose.
- Whether the machine is placed stably; whether the adjustment of the trundle and the top foot is proper.
- Whether the machine is placed properly.

## Operation inspection

- Whether the speaker works normally.
- Whether the daylight lamp and the button light are on.
- Whether the image is clear and normal.

## Maintenance

- Before operation, confirm the machine runs normally and then use it;
- When there is dirt on the machine, wipe it with a soft cotton cloth with detergent;
- After the new machine has been used for one month, check whether each part runs normally;
- Check the machine monthly.

## Error Code



1. Cause: Disconnection with the IO board
2. Solution: Restart the machine, and press the reset button on the IO board (there is only one button on the board)



1. Cause: The memory of the host is insufficient
2. Solution: Plug out the memory of the host, and then plug it in again.



1. Cause: No enough tickets; the ticket machine is damaged
2. Solution: Replenish tickets; replace the ticket machine

# Instructions on Game

## Game interface:



1. UI interface of the player's status
2. The player's front sight to aim at the target
3. The current task bar
4. Game props to increase the shooting power

## Characteristics of the machine:

- ☆ The scene map of the game is divided into three backgrounds.
- ☆ There are some hidden props which can produce very powerful damage.
- ☆ The player will feel exciting while playing the games with different items .

## Game Scenes

### 1.City



### 2.Desert



### 3.Snow

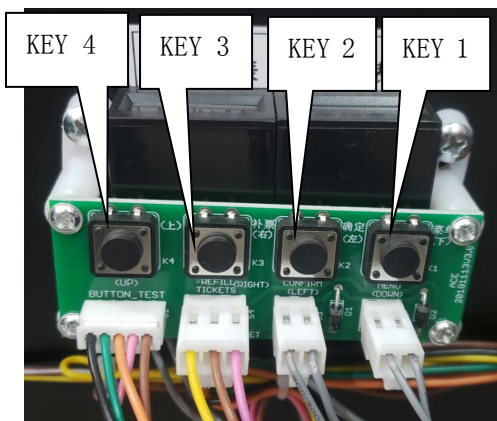




## Game Result:



## Adjustment of the Game Program Setting



KEY	KEY 1	Test (Choose)
	KEY 2	Confirm (modify)
	KEY 3	Confirm (replenish ticket)
	KEY 4	UP



## **Main Menu**

1. Basic setting: Enter the basic setting interface
2. Adjustment setting: Enter the adjustment setting interface
3. Input test: Enter the input test interface
4. Output test: Enter the output test interface
5. Game reset: Enter the game reset interface
6. Date/time setting: Enter the date/time setting interface
7. Language: Switch languages
8. Revenue record: Enter the revenue record interface
9. Daily report: Enter the daily report interface
10. Back to game: Exit the back end and go back to the game interface

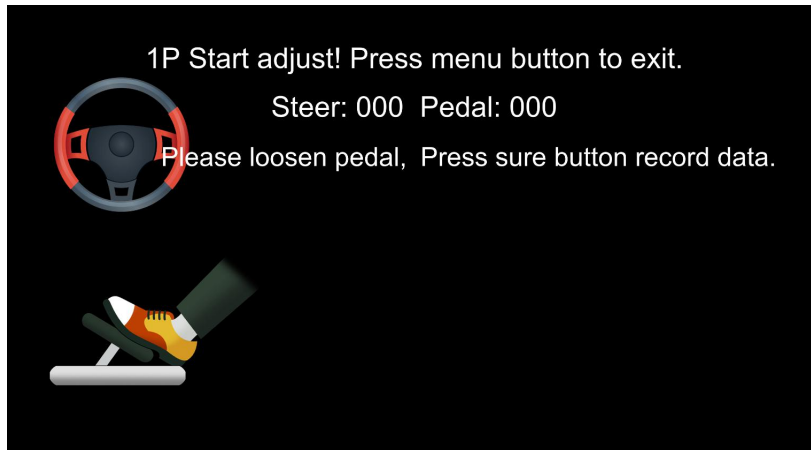
## **Basic Setting**

1. Play for free:  
Turn off: The player needs to insert coins  
Turn on: Press to start for free
2. Whether shows blank in the game:  
Turn off: No  
Turn on: Yes
2. Volume setting  
Setting: 0%~100%
3. Demo Audio setting  
Setting: 0%~100%
5. The number of coins inserted in one game: Set the number of coins needed for one game  
Scope: 1-99
6. Ticket out or not:  
Yes: ticket out  
No: no ticket out
7. Exchange tickets with scores: Set the number of scores exchanged with 1 ticket  
0~30000Scope: 0-30000
- 8.Return: Return to the previous menu directly

## **Adjustment Setting**

1. 1P Potentiometer adjustment: Adjust the 1P potentiometer
2. 2P Potentiometer adjustment: Adjust the 2P potentiometer
- 3.Camera correction: Correction to the camera.
4. Return: Return to the previous menu directly

## 1.1P and 2P Potentiometer adjustment



Step 1: Record the AD value of the throttle release.

Action tip: "Please release the throttle, press the KEY 3 confirm button on the back of front door to record the value"

Step 2: Record the AD value under the throttle.

Action tip: "Please floored the gas pedal, the KEY 3 confirm button on the back of front door to record the value"

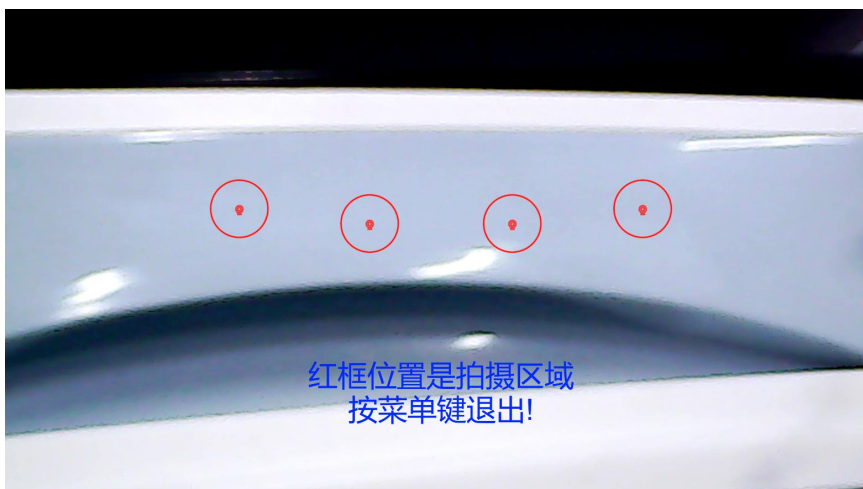
Step 3: Record the left-most AD value of the steering wheel.

Action tip: "Turn the steering wheel to the leftmost, the KEY 3 confirm button on the back of front door to record the value"

Step 4: Record the AD value on the far right of the steering wheel.

Action tip: "Turn the steering wheel to the rightmost, the KEY 3 confirm button on the back of front door to record the value"

## 2.Camera correction



Action tip: "Red circles position is camera area, press menu key to exit"

Description: The red circle is the position where the camera taking photo on the face, and when correcting, make sure that the 4 circles are approximately aligned to the position of the actual machine.

## Input Test

1. Insert coins 1: Test the 1P coin collector  
 Turn off: No inserting coins  
 Turn on: Inserting coins
2. Insert coins 2: Test the 2P coin collector  
 Turn off: No inserting coins  
 Turn on: Inserting coins
3. Insert coins 3: Test the 3P coin collector  
 Turn off: No inserting coins  
 Turn on: Inserting coins
4. Insert coins 4: Test the 4P coin collector  
 Turn off: No inserting coins  
 Turn on: Inserting coins
5. 1P Confirmation button: Test the 1P confirmation button  
 Turn off: No pressing  
 Turn on: Pressing
6. 2P Confirmation button: Test the 2P confirmation button  
 Turn off: No pressing  
 Turn on: Pressing
7. 3P Confirmation button: Test the 3P confirmation button  
 Turn off: No pressing  
 Turn on: Pressing
8. 4P Confirmation button: Test the 4P confirmation button  
 Turn off: No pressing  
 Turn on: Pressing
9. 1P Confirmation potentiometer ( wheel ) : Test the 1P confirmation potentiometer (wheel)  
 Turn off: No pressing  
 Turn on: Pressing
10. 2P Confirmation potentiometer ( wheel ) : Test the 2P confirmation potentiometer (wheel)  
 Turn off: No pressing  
 Turn on: Pressing
11. 3P Confirmation potentiometer ( wheel ) : Test the 3P confirmation potentiometer (wheel)  
 Turn off: No pressing  
 Turn on: Pressing
12. 4P Confirmation potentiometer ( wheel ) : Test the 4P confirmation potentiometer (wheel)  
 Turn off: No pressing  
 Turn on: Pressing
13. 1P Confirmation Accelerator: Test the 1P confirmation Accelerator
14. 2P Confirmation Accelerator: Test the 2P confirmation Accelerator
15. 3P Confirmation Accelerator: Test the 3P confirmation Accelerator
16. 4P Confirmation Accelerator: Test the 4P confirmation Accelerator
- 13.Press the test button to exit: Press the test button to return to the previous menu

## Output Test

1. 1P ticket dispenser test: Test whether the 1P ticket machine works well
2. 2P ticket dispenser test: Test whether the 2P ticket machine works well
3. 3P ticket dispenser test: Test whether the 3P ticket machine works well
4. 4P ticket dispenser test: Test whether the 4P ticket machine works well
5. Top side light : Test whether the Top side Light works well
6. Table light: Test whether the Table lights work well
7. Wheel motor 1: Test whether the Wheel motor 1 works well
8. Wheel motor 2: Test whether the Wheel motor 2 works well
9. Wheel motor 1: Test whether the Wheel motor 1 works well
10. Wheel motor 1: Test whether the Wheel motor 1 works well
11. Return: Return to the previous menu

## Game Reset

1. Restore to the factory settings: Restore all data and settings to the factory settings
2. Clear all data records: Restore all data records to the default settings
3. Clear the number of lack tickets: Clear the number of lack tickets
4. Clear unused coins: Clear unused coins
5. Clear unused scores: Clear unused scores
6. Return: Return to the previous menu

## Date/Time Setting

Set the time of the machine

Player	Coins	Tickets	Payout
1	12	0	0.00
2	0	0	0.00
Sum	12	0	0.00

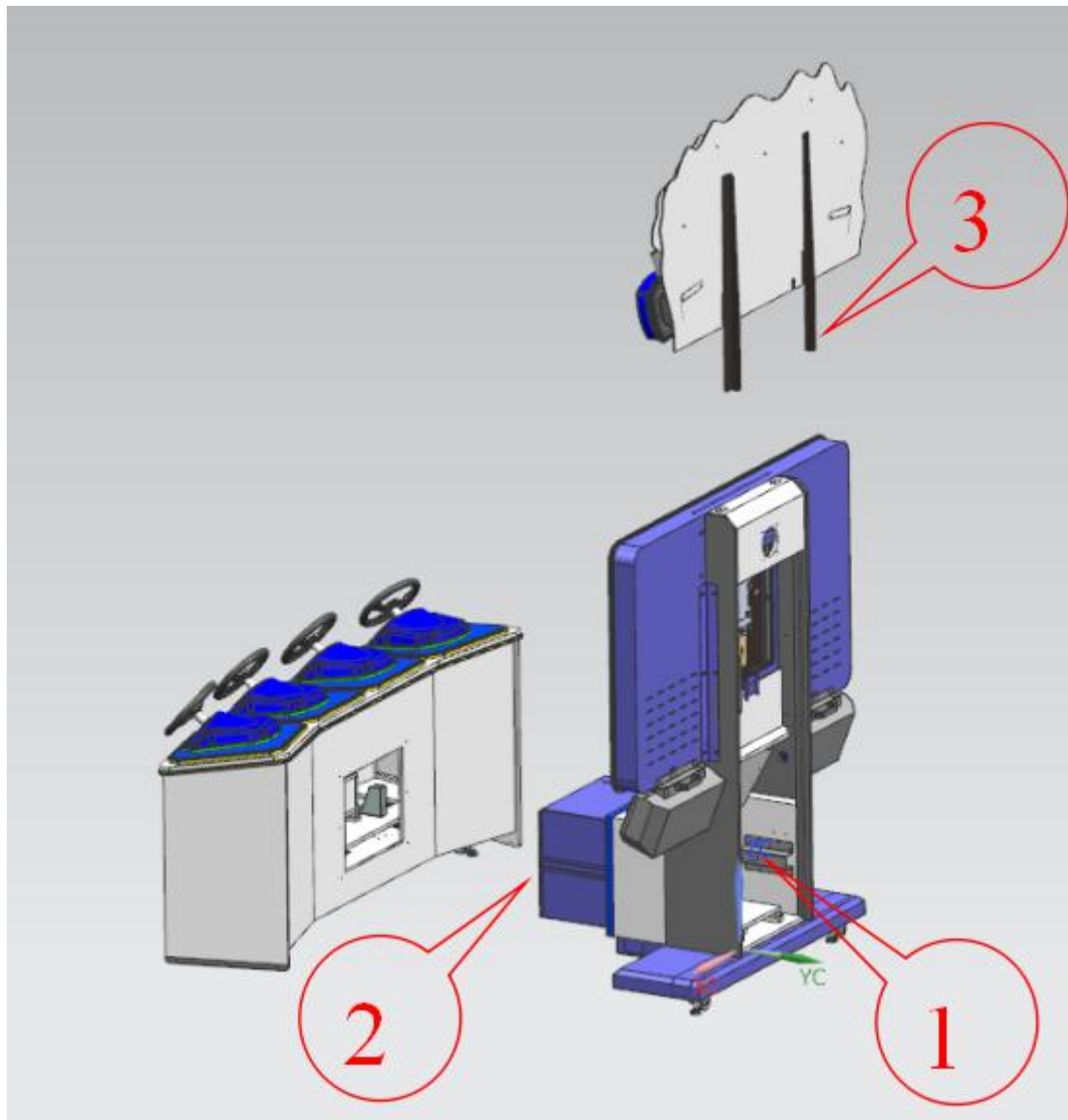
Date and Time: 2017-10-30 16:38:10 Clear  
Back

### Check Game Data

Date	Weekday	RunTime	Coins	Tickets	Payout
2017-10-30	MON	00:02	0	0	0

Date and Time: 2017-10-30 16:38:21 Clear  
Back

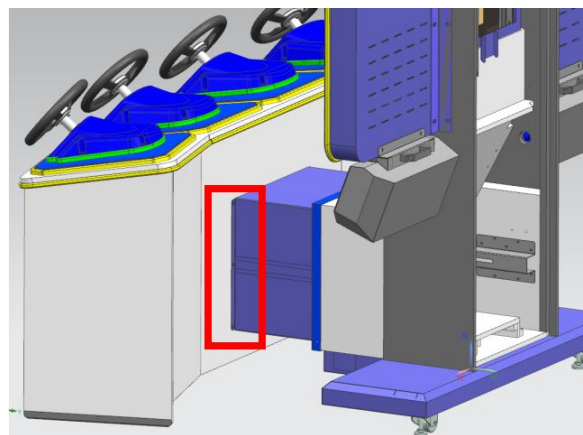
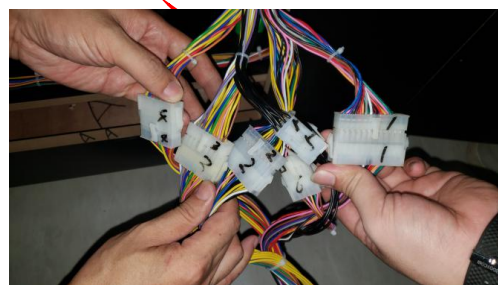
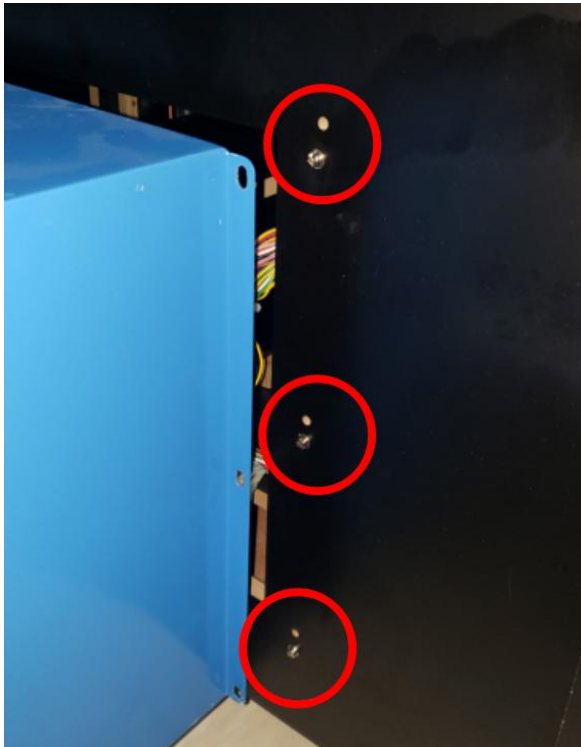
## Installation Figures and Steps



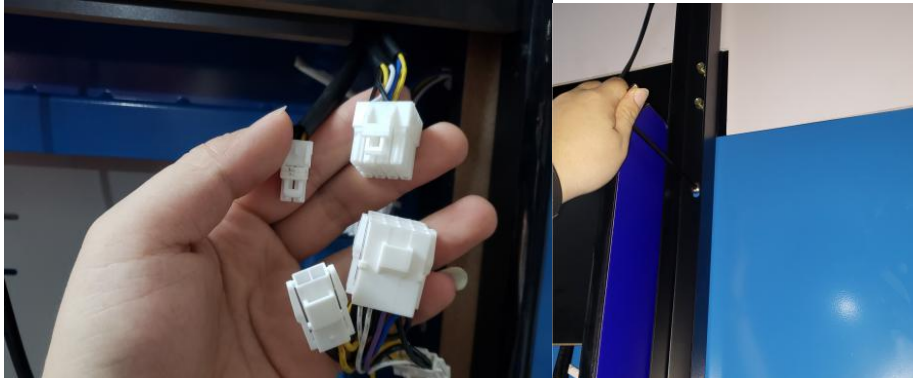
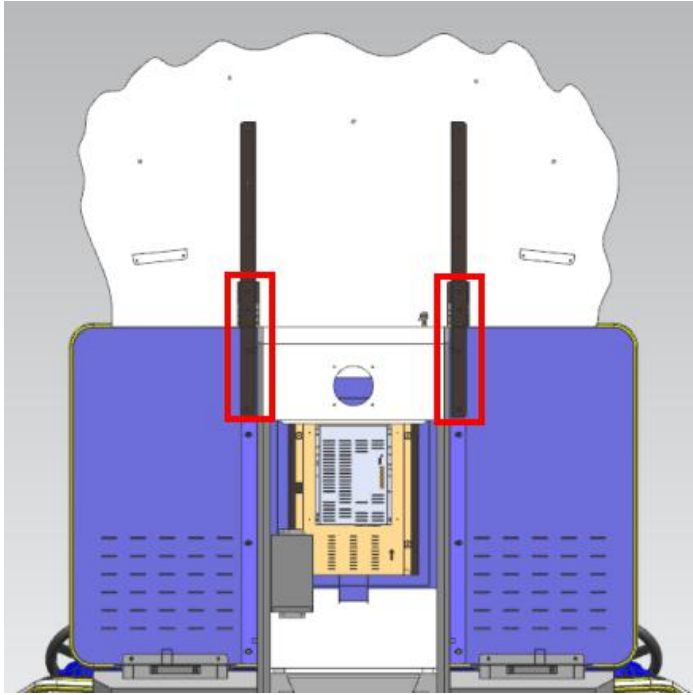
Step 1: Pull out the telescopic frame in the display and secure it with screws, please follow in the following image below.



Step 2: Link the display to the control panel, connect the corresponding wires in the connector order before installation, and the area circled in the figure below will be secured by screws, please follow in the following image below.



Step 3: Install the light box, fix the light box above the rear of the display as shown in the figure below, and connect the wires in the light box to the wires in the display before installing the light box. Secure the light box with screws to the identification area below.



# Nitro Speed (4PL)

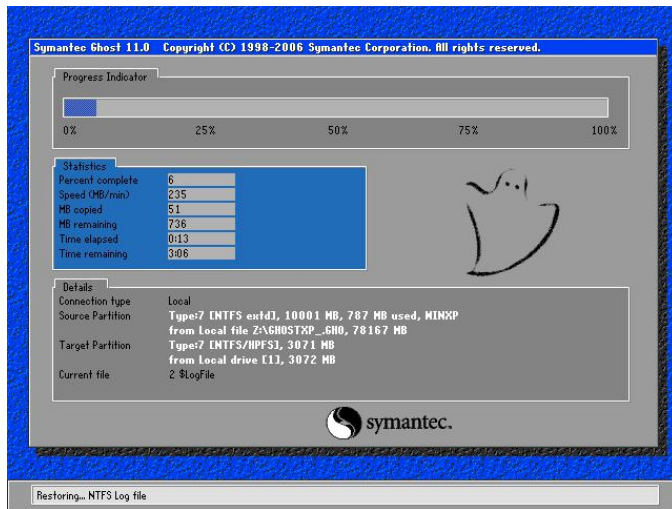
## I/O Table

### V1.0

Nitro Speed IO V1.0					
<b>Input:</b>					
INPUT	Content	INPUT	Content	INPUT	Content
IN1		IN9	3P Coin	IN17	
IN2		IN10	4P Coin	IN18	
IN3		IN11	1P Ticket return	IN19	
IN4		IN12	2P Ticket return	IN20	
IN5		IN13	3P Ticket return	K1	Menu button
IN6		IN14	4P Ticket return	K2	Sure button
IN7	1P Coin	IN15		K3	Ticket button
IN8	2P Coin	IN16		K4	Up button
<b>Output:</b>					
OUTPUT	Content	OUTPUT	Content	OUTPUT	Content
OUT1	1P Ticket out	OUT9	1P DesktopLight	OUT17	1P Steer Motor DI
OUT2	2P Ticket out	OUT10	2P DesktopLight	OUT18	1P Steer Motor PU
OUT3	3P Ticket out	OUT11	3P DesktopLight	OUT19	2P Steer Motor DI
OUT4	4P Ticket out	OUT12	4P DesktopLight	OUT20	2P Steer Motor PU
OUT5	Box Light 1	OUT13		OUT21	3P Steer Motor DI
OUT6	Box Light 2	OUT14		OUT22	3P Steer Motor PU
OUT7	Coin counter	OUT15		OUT23	4P Steer Motor DI
OUT8	Ticket counter	OUT16		OUT24	4P Steer Motor PU
<b>ADC:</b>					
		Content	Content		
AD1-2 (J3)	+3.3V				
	AD1		1P Steer AD		
	AD2		2P Steer AD		
AD3-4 (J4)	+3.3V				
	AD3		3P Steer AD		
	AD4		4P Steer AD		
AD5-6 (J5)	+3.3V				
	AD5		1P Pedal AD		
	AD6		2P Pedal AD		
AD7-8 (J6)	+3.3V				
	AD7		3P Pedal AD		
	AD8		4P Pedal AD		
<b>Uart:</b>					
		Content			
COM1					
USB					
RF					
<b>Serial:</b>					
		Content	Content		
COM1 (J12)		GND			
		S1	1P Steer Motor EN		
		S2	2P Steer Motor EN		
COM2 (J13)		S3	3P Steer Motor EN		
		S4	4P Steer Motor EN		
		S5			
		5V			
		12V			



# Instructions on Restoring U Disk



When the machine is turned off, plug the U disk into the USB port behind the host, and the U disk will restore after the machine restarts. As shown in the figure, the system is restoring, and it needs about 20 minutes.

Complete prompt. The system restoring is completed as shown in the left figure, and you can unplug the U disk.



The system restoring needs about 20 minutes. Please do not cut off the power supply and wait patiently! Please forgive if there is any inconvenience!



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