



IMPORTANT



Be Sure
to Read this
Manual
Before Use



UNIS TECHNOLOGY

Operation Manual

WE ARE HERE TO ASSIST For parts and service



Have Questions? Contact us!

UNIS SERVICE CENTER

Tel: 972-241-4263

Email: service@unispartsandservice.com

www.unispartsandservice.com

When contacting Service, you will need the following information
and the name of your authorized distributor.

INDOOR MACHINE	
NAME: DYNAMIC ORBS GMP	MAX POWER: 600W
MODEL: A-506	MIN POWER: 200W
S/N:	FREQUENCY: 50/60Hz
VOLTAGE: AC110V~	DATE:
Guangdong UNIS Technology Co.,Ltd.	

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Thank you for purchasing **Dynamic Orbs GMP**. We hope you enjoy the product.

This manual contains valuable information about how to operate and maintain your game machine properly and safely. It is intended for the owner and/or personnel in charge of product operation. Carefully read and understand the instructions.

If you need any help during installation and setup please utilize this manual and troubleshooting guide. If the product fails to function properly, *non-technical personnel should under no circumstance attempt to service the machine*. Contact your distributor or manufacturer for help.

Before use, please read **IMPORTANT SAFETY INSTRUCTIONS**.

IMPORTANT SAFETY INSTRUCTIONS

To ensure the safe usage of this product, carefully read and understand these instructions before operating your game.

Save these instructions for future reference.

Use this product only as described in this manual. Other uses not recommended may cause fire, electric shock or personal injury. Unplug the game from the outlet when not in use, when moving from one location to another, and before cleaning/servicing.

Explanations which require special attention are indicated by signs of warning. Depending on the potential hazardous degree, the terms: **NOTE**, **NOTICE**, and **WARNING** are used.

NOTE: A NOTE indicates useful hints or information about product usage.

NOTICE: A NOTICE indicates potential damage to product and how to avoid the problem.

WARNING: A WARNING indicates a potential for product damage or serious personal injury.

It is important to understand the meaning of the following HAZARD SIGNS before continuing:

High Voltage and Shock Hazard:

High voltage can cause electric shock.
Turn off/unplug power before servicing.



High Temperature Hazard:

This part may cause scalding.
Do not touch. Surface may be hot.



No Touching Hazard:

This part may be hot or can cause electric shock.
Do not touch.



Use the following safety guidelines to help ensure your own personal safety and to help protect your equipment and surrounding environment from potential damage.

⚠️ This product is an indoor game machine. Do not install outdoors.

Avoid installing in the following places to prevent fire, electric shock, injury and/or machine malfunctioning:

- Places subject to rain/moisture, or places subject to high humidity.
- Places subject to direct sunlight, or places subject to extremely hot or cold temperatures to ensure that it is used within the specified operating range.
- Places where inflammable gas may be present or in the vicinity of highly inflammable/volatile chemicals or items that can easily catch fire.
- On unstable or sloped surfaces. The machine may topple or cause unforeseen accidents.
- Vicinity of fire exits, fire extinguishers etc that may block/prevent safety measures.

IMPORTANT NOTE:

ALL REPAIRS MUST BE DONE TO ORIGINAL MANUFACTURER SPECIFICATIONS. FAILURE TO DO SO VOID ALL WARRANTIES AND OPERATOR ASSUMES ALL RISKS.

Note: The contents of this manual may be updated without notice.

1. SPECIFICATIONS

Rated power supply: AC110V 50/60Hz;

Min. Power consumption: 200W

Max. Power consumption: 600W

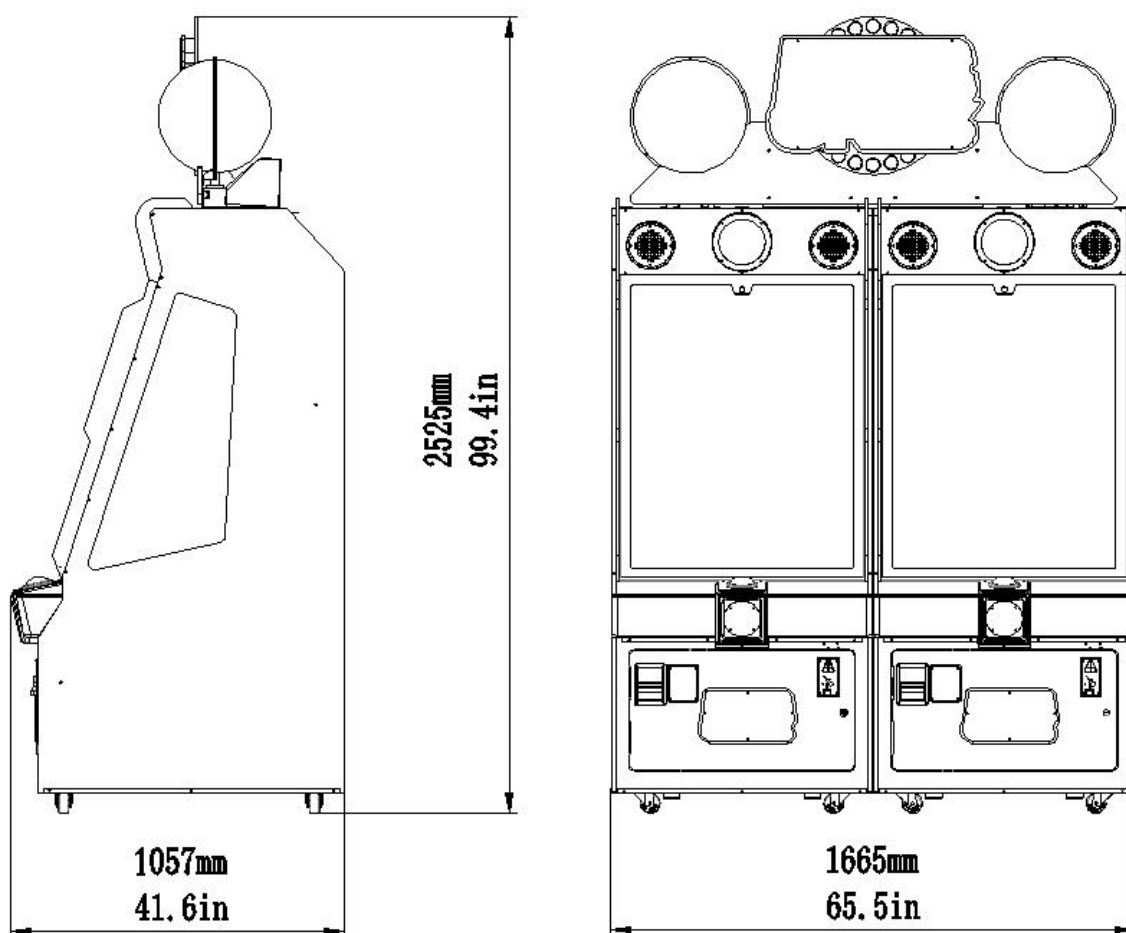
Dimension: H99.4×W65.5×D41.6 in

H2525×W1665 ×D1057 mm

Weight: Approximately 682.00 lb/391 KG

Model No: A-506



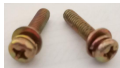
! NOTICE : After turning off the game, please wait at least 1 minute before restarting again.



Note: Game specifications are subject to change without notice.

2. CONTENTS OF THE ACCESSORY KIT

Open the package and make sure all the items are included:

No.	Code No.	Name/SPEC	Picture	Qty
1	2.53.00171002	171A key		2
2	2.53.00172002	171B key		2
3	2.33.01.010020	Power cord 3×16AWG 1.8M		2
4	2.19.01.000030B	Fuse Φ5×20mm T10A 250VAC		2
5	4.14.40000664	Manual		1
6	201.01.900066	Cross recessed hexagon bolt set M6×30		3
7	201.01.020090	Cross recessed pan head screw set M6×20		8
8	201.13.000070	C washer 6×2h		2
9	201.01.020035	Cross recessed pan head screw set M4×12		24
10	201.01.020036	Cross recessed pan head screw set M4×16		24
11	201.04.023007	Cross recessed pan head screw set M6×50		2
12	206.1.1703.021	Blue drop ball wheel φ39.6	/	2
13	201.01.900163	Cross recessed pan head screw set M8×40		18
14	201.02.020011	Flange nut M4		12

NOTE: Part models are subject to change without notice.

3. PART NAME

Key Components



4. SET UP & INSTALLATION

⚠ NOTICE

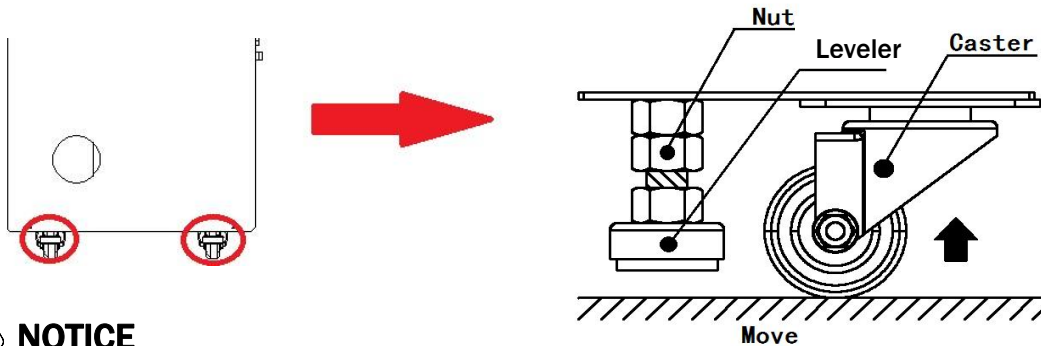
We do not recommend using power tools as they may cause damage.

⚠ This product is an indoor game machine. Do not install outdoors.

- Refer to IMPORTANT SAFETY INSTRUCTIONS (Pg. 3) for places to avoid.
- Place the unit on a dry level surface.
- Ventilation openings in the back of the unit must not be obstructed by objects or by wall.

4.1 Transporting the Game

If you need to move the game, adjust the levelers back to an “up” position.



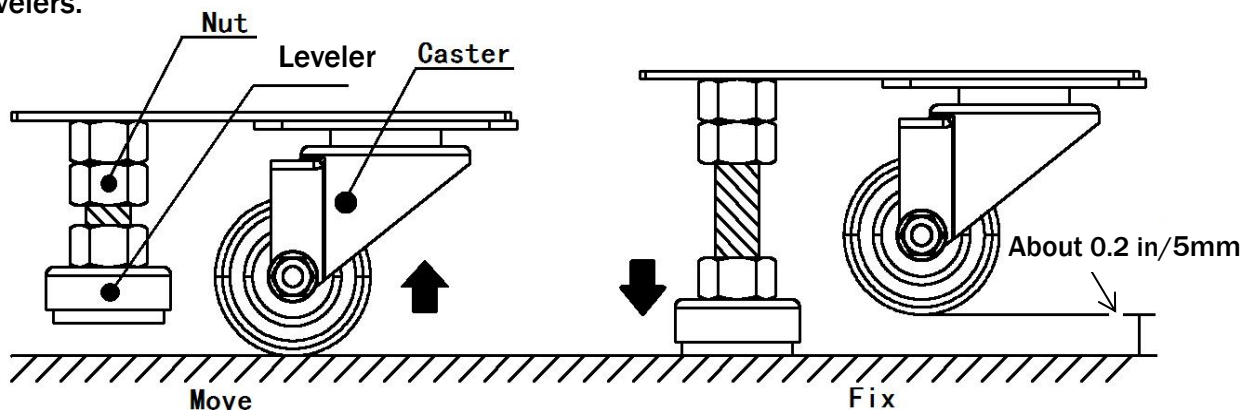
⚠ NOTICE

- Be careful not to damage the machine during transport.
- Always unplug the game before moving.
- Keep the machine in upright position during transport.
- For longer distance transport, package the game properly to prevent damages.

4.2 Level Adjustment

Install this game on a flat surface. If the game is installed on an unsuitable floor, it could cause game malfunction.

To secure the game, loosen the nut, utilize wrench to adjust the leveler down until it touches the floor, lifting the casters off the ground by 0.2 in/5mm. Repeat the same for all levelers.



⚠ NOTICE

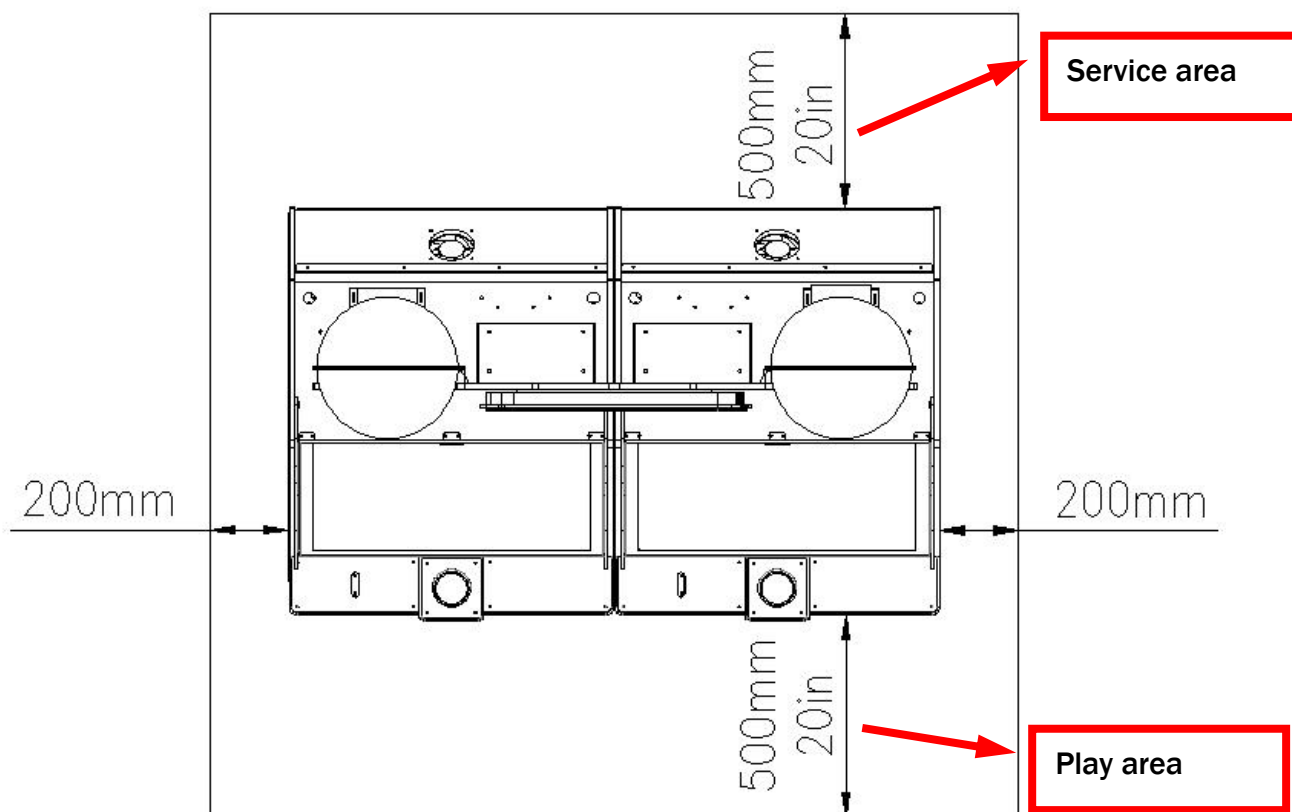
Make sure the machine is level.

4.3 Play Zone

This machine requires space for playing and for maintenance as shown below.

Leave space around the game upon installation:

Service area: 20 in

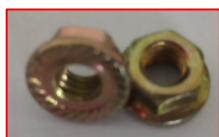
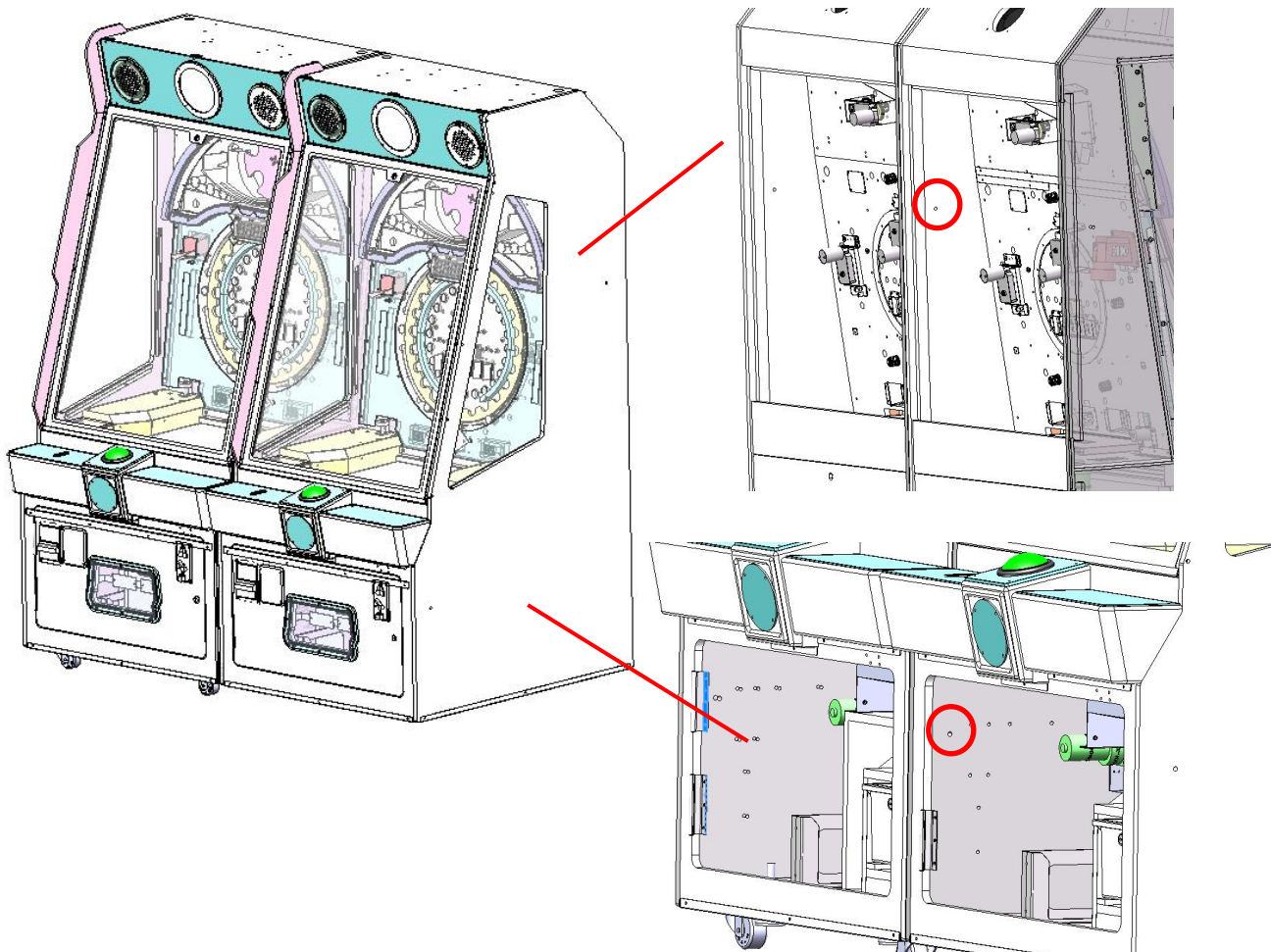


NOTICE

Your unit must be leveled to operate properly.

4.4 Machine Installation

Step 1 Place 2 cabinet together. Open back upper door and Front bottom door. Utilize screws to secure 2 cabinets.

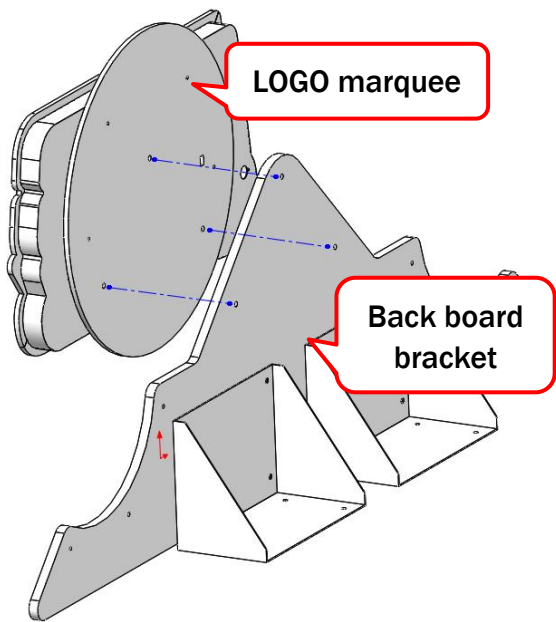


Name	Hexagon nut
Spec.	M6
Qty	2



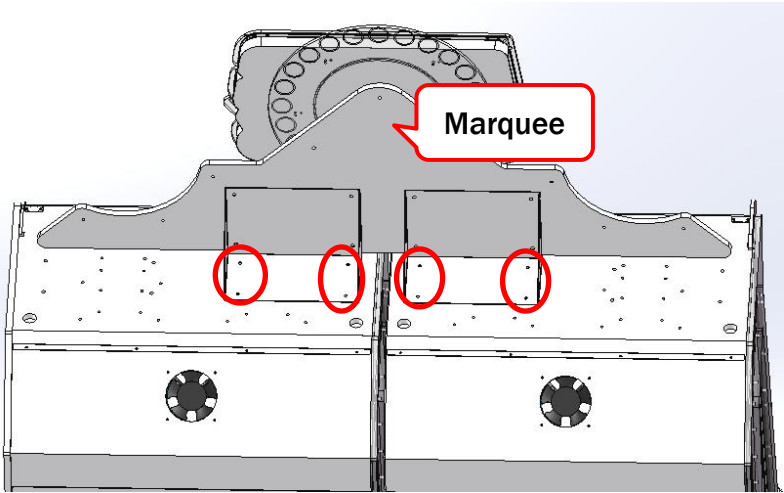
Name	Cross recess hexagon bolt set
Spec.	M6×45
Qty	2

Step 2 Install LOGO marquee to the back board bracket. Utilize screws to secure.



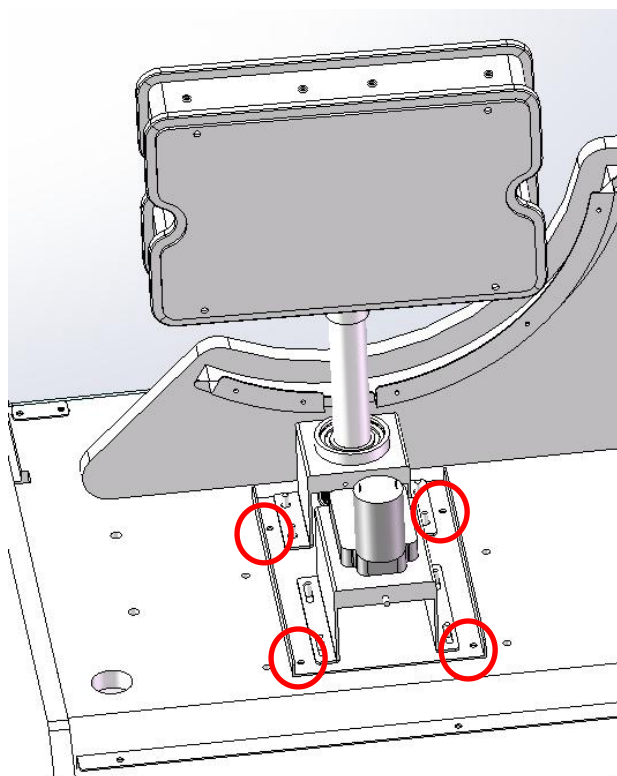
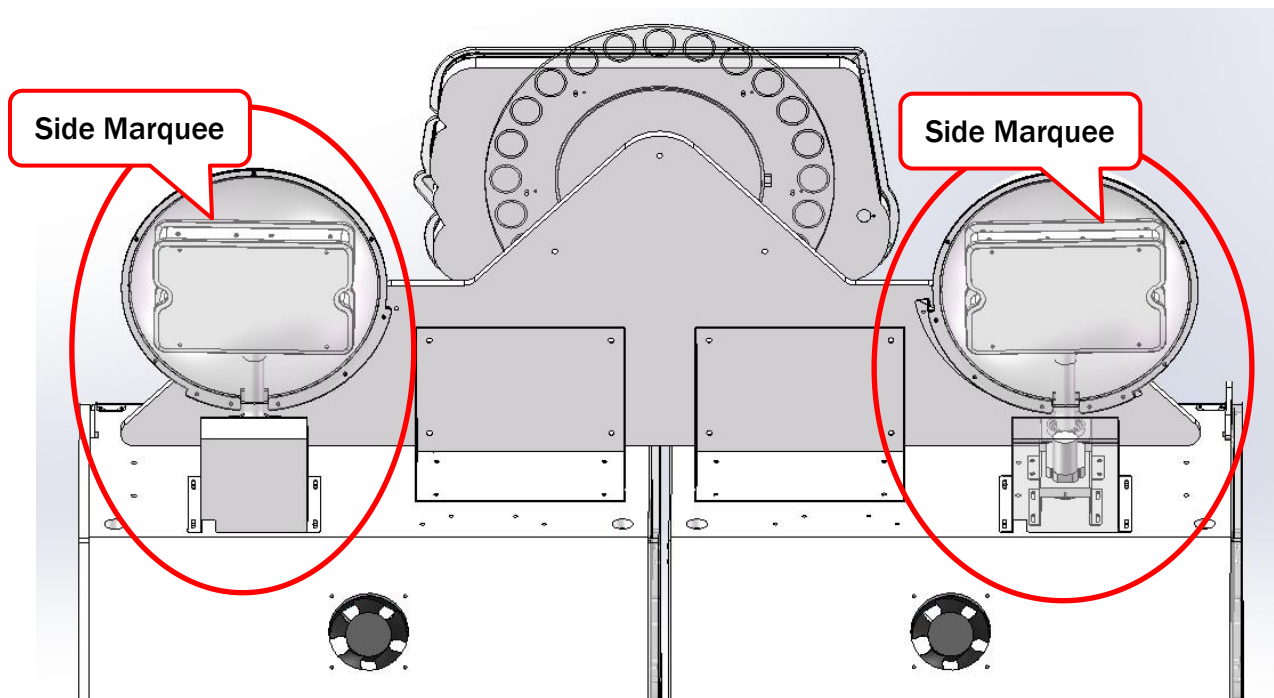
Name	Cross recess hexagon bolt set
Spec.	M6×30
Qty	3

Step 3 Install Marquee to the top of the cabinet. Connect the connectors. Utilize screws to secure



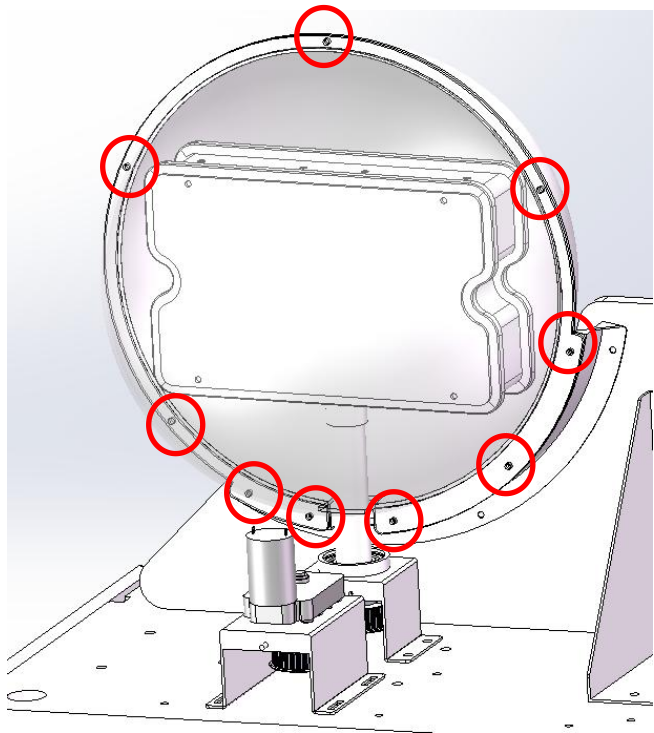
Name	Cross recess hexagon bolt set
Spec.	M6×20
Qty	8

Step 4 Install L&R side marquee. Connect the connectors. Utilize screws to secure.



Name	Cross recess screw set
Spec.	M4×16
Qty	4

Step 5 Install Side round plastic. Utilize screws to secure.

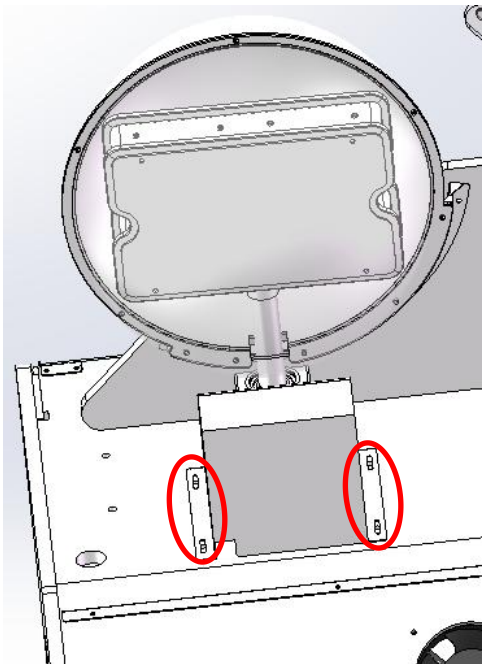


Name	Cross recess screw set
Spec.	M4×12
Qty	9



Name	Flange nut
Spec.	M4
Qty	4

Step 6 Install Side motor cover plate. Utilize screws to secure.



Name	Cross recess screw set
Spec.	M4×16
Qty	4

Finish!

5. HOW TO PLAY

5.1 Time the Rotating light on the big wheel and tap the button to drop balls.



5.2 If ball passes "STOP" win prize based on the position of the rotating light on the big wheel.



5.3 When you win prize orbs on the big wheel. The top Bonus wheel will be activated!



5.4 Bonus Party Time: Double tickets and increase rewards on the big wheel.



6. IO SETTING

6.1 U3 Board

Input:					
INPUT	Content	INPUT	Content	INPUT	Content
IN1		IN9	Send big ball sensor	IN17	Turntable 1# sensor
IN2		IN10	Small ball drop detect	IN18	Bonus plate reset sensor
IN3		IN11	Send small ball sensor	IN19	Bonus plate turning sensor
IN4		IN12	Turntable drop ball sensor	IN20	Bonus plate prizing sensor
IN5		IN13	Turntable 5# sensor		
IN6	Marquee turning reset sensor	IN14	Turntable 4# sensor		
IN7	Full big ball sensor	IN15	Turntable 3# sensor		
IN8	Big ball drop sensor	IN16	Turntable 2# sensor		
Note: IN1 - IN20 is standard input(IN1 - 4&SW3"5 - 8" use same); IN21 - IN28 is fixed input					

Output:					
OUTPUT	Content	OUTPUT	Content	OUTPUT	Content
OUT1	Bonus plate lighting	OUT9	Push plate motor	OUT17	Turntable 5# light
OUT2	Bonus plate digital light	OUT10	Control panel side light	OUT18	Turntable 4# light
OUT3	Bonus plate motor	OUT11	Prize out light	OUT19	Turntable 3# light
OUT4	Bonus plate ball out	OUT12	Top light	OUT20	Turntable 2# light
OUT5	Bonus plate hole light	OUT13	Marquee turning motor	OUT21	Turntable 1# light
OUT6	Turntable light R	OUT14	Spiral track light	OUT22	Start button light
OUT7	Turntable light G	OUT15	Control panel bottom light	OUT23	Out of tik light
OUT8	Turntable light B	OUT16	Swing motor	OUT24	
Note: OUT1 - OUT16 is for NCE3010 output (5A) ,				OUT25	
OUT17 - OUT32 is for ULN2803 output (0.5A) ; OUT26 - OUT32 is fixed output					
Turntable 1-5# light and sensor is counting from right to left(on machine front side)					

Fixed (input/output) part:		
Item	Content	Content
CION(J22)	(O32)C_LK2	
	(IN24)C_IN2	DBV signal
	GND	GND
	(O31)C_LK1	Lock coin signal
	(IN23)C_IN1	Coin signal
	12V	12V
TICK (J20)	(O26)T2_OUT	
	(IN22)T2_IN	Start button
	12V	
	GND	
	(O27)T1_OUT	Tik drive
	(IN21)T1_IN	Tik feedback
	12V	12V
	GND	GND
CNT(J21)	(O28)CNT1	Coin counter
	(O29)CNT2	Tik counter
	(O30)CNT3	
	GND	
	GND	GND
	(IN25)KEY1	Settings
	(IN26)KEY2	Test
	(IN27)KEY3	Reset
	(IN28)KEY4	Testing
	12V	12V

ADC part		
Item	Content	Content
AD1-2 (J4)	3.3V	
	AD1	
	AD2	
	GND	
	GND	
AD3-5 (J3)	3.3V	
	AD3	Tilt alarm
	AD4	
	AD5	
	GND	
	GND	GND

Stand-alone part:		
Item	Content	Content
PE8-15 (J6)	5V	
	PE8	
	PE9	
	PE10	
	PE11	
	PE12	
	PE13	
	PE14	
	PE15	
	GND	
PWM (J7)	12V	12V
	12V	
	PWM1	Lattice LAT
	PWM2	Lattice CLK
	PWM3	Lattice DATA
	PWM4	Turntable light
	PWM5	
	GND	GND
I ² C(J5)	GND	E
	3.3V	
	SCL	
SPI(J5)	SDA	
	NSS	
	SCK	
	MISO	
	MOSI	
	GND	

Communication:		
Item	Content	Content
485(J14)	B	Big ball reader A
	A	Big ball reader B
	GND	
	B	
	A	
	GND	
USART(J11) (MCU)	RX	
	TX	
	GND	
USART(J12) (232)	RX	Motor drive board TX
	TX	Motor drive board RX
	GND	
USART(J13) (232)	RX	
	TX	
	GND	
USART(J8) (232)	RX	
	TX	
	GND	
	GND	
USB		

6.2 16 Road Extension Board IO Chart

Output: J3、J4、J5、J6、J7			
OUTPUT	Content	OUTPUT	Content
OUT1	Bonus light 1	OUT9	
OUT2	Bonus light 2	OUT10	
OUT3	Bonus light 3	OUT11	
OUT4	Bonus light 4	OUT12	
OUT5	Bonus light 5	OUT13	
OUT6	Bonus light 6	OUT14	
OUT7		OUT15	
OUT8		OUT16	
The smallest font size (6) indicates that it is reserved for temporary use			

Item	Content	Content
J1 (INPUT)	12V	12V
	GND	GND
	LAT	U3 signal
	CLK	U3 signal
	DATA	U3 signal
	GND	GND
J8 (OUTPUT)	12V	12V
	GND	GND
	LAT	LAT
	CLK	CLK
	DATA	DATA
	GND	GND

Big ball reader Dial SW:



1、2、3、4 is OFF
5、6 is ON

Machine settings: Long press "Settings" button to enter. Press "Settings" button to select, Press "Test" +, Press "Reset" -.					
Settings button	Instructions		Default	Test/Reset	
A0	Game version	1:chinese; 2: GMP	2	Fixed	Press Settings↓
A1	Coins/Game	0-5, 0 is free play	1	±1	Press Settings↓
A2	Coins/Round	1-10	2	±1	Press Settings↓
A3	Game Time	3-20	10s	±1	Press Settings↓
A4	Demo Music Time	0-250, 0 is no demo music	120s	±10	Press Settings↓
A5	Party Time	10-50	20s	±1	Press Settings↓
A6	Tickets/Round	1-50, 0 is no ticket	10	±1	Press Settings↓
A7	Balls Prize Worth(Tickets)	0-2000, 0 is no ball out	300	±50	Press Settings↓
A8	Turntable running base light	1-7	7	±1	Press Settings↓
A9	Turntable running light	1-7	1	±1	Press Settings↓
AA	Turntable running prizing light	1-7	4	±1	Press Settings↓
Ab	Clear Game Round	0 is no, 1 is yes(The Settings return to 0 after exit)	0	±1	Press Settings↓
AC	Clear Owned Ticket	0 is no, 1 is yes(The Settings return to 0 after exit)	0	±1	Press Settings↓
Ad	Clear Owned Prize	0 is no, 1 is yes(The Settings return to 0 after exit)	0	±1	Press Settings↓
AE	Memory Save	0 is no, 1 is yes	1	±1	Press Settings↓
AF	Clear All Data	10: Clear	0	±1	Press Settings↓
b0	Factory reset	10: Reset	0	±1	Press Settings↓
FF	Back To Game	Wait 3 seconds to exit. Click to return A0.			Press Settings↓

Machine Test: Long press "Settings" button to enter. Press "Settings" button to select, Press "Test" +, Press "Reset" -.			
Settings button	Press "Test" +, Press "Reset" -.		
P0	Display Test	0-9 Loops	Press Settings↓
P1	Input Test	The corresponding input value is displayed according to IO	Press Settings↓
P2	Bonus Plate Test	Displays the corresponding Bonus output value	Press Settings↓
P3	IO Output Test	Displays the corresponding output value according to IO	Press Settings↓
P4	Drive Board Motor Test	01: Small ball up motor 02: Big ball up motor 03、04、05: None 06: Turntable motor 07: Big ball motor	Press Settings↓
P5	Fill Balls to push plate(Auto)	Set to 10 to start filling, the display shows the number of filled balls remaining.	Press Settings↓
P6	Music Test	Display displays value is the corresponding number of music	Press Settings↓
P7	Refill big ball to spiral tube	Press settings once, 1 big ball out	Press Settings↓
P8	Refill big ball to push plate	Press settings once, 1 big ball out	Press Settings↓
P9	Ticket Test	Ticket out	Press Settings↓
PA	Clear spiral tube big ball	Set 10 to clear	Press Settings↓
99	Quick Ticket Dispensing	When there are a lot of tickets lacking, you can set up a quick ticket from here. 1. If the number of ticket lacking is 2000, set 2000, and the number of ticket lacking after exit is 0. 1. If the number of ticket lacking is 2580, set 2000, and the number of ticket lacking after exit is 580.	Press Settings↓
FF	Back To Game	Wait 3 seconds to exit. Press to return A0.	Press Settings↓

Error Code:	
Er01:	Samll ball up motor/Sensor is faulty
Er06:	Turntable motor/Turntable sending sensor is faulty
Er07:	Turntable sensor is faulty
Er08:	Bonus plate reset failed
Er09:	Bonus plate turning sensor is faulty
Er10:	Bonus plate prizing sensor is faulty
Er11:	U3 board& Motor drive board communication is faulty
Er12:	U3 board&Reader communication is faulty
Er13:	Identify balls repeatedly
Er14:	Big ball up motor/Sensor is faulty
Er15:	Big ball sending motor/Sensor is faulty
ErFF:	Tilt alarm

7. TROUBLESHOOTINGS

7.1 Common Problem

Please confirm that all connectors fit tightly.

Symptom	Possible Cause	Recommended action
Game will not start	Frame assembly connector is loose.	Check connector.
	Frame assembly fault	Contact with UNIS Service.
Power off	Circuit protector make power SW in off state.	Turn on power SW again. If appeared again and again, machine has anomaly. Please contact with UNIS Service.
Card reader not working	The connector is loose.	Check connector.
	Card reader fault.	Check with card reader manufacturer.
No ticket dispensing	Out of ticket.	Add ticket and press reset button
	Ticket jamming.	Remove the jammed tickets and press reset button.
	The connector is loose.	Plug the connector tightly.
No sound	Low volume	Raise the volume.
	Connector loose.	Check connector.
	Speaker fault.	Check speaker.
	POT installation error.	Install POT correctly.
	POT fault.	Change POT.
	Audio cable problem.	Reconnect the audio cable or change it.

8. MAINTENANCE & INSPECTION

8.1 Safety Check

Check the points listed before operating the machine. These checks are necessary for safe machine operation:

1. Test game before operation each day.
2. Conduct monthly routine checks of game components to ensure good working condition.
3. Check the machine regularly for dust and clean when necessary.

Note: Parts and components require preventative maintenance to maintain proper operation.

8.2 Handling Precautions

When installing or inspecting the machine, be very careful and pay attention to ensure that the player can enjoy the game safely.

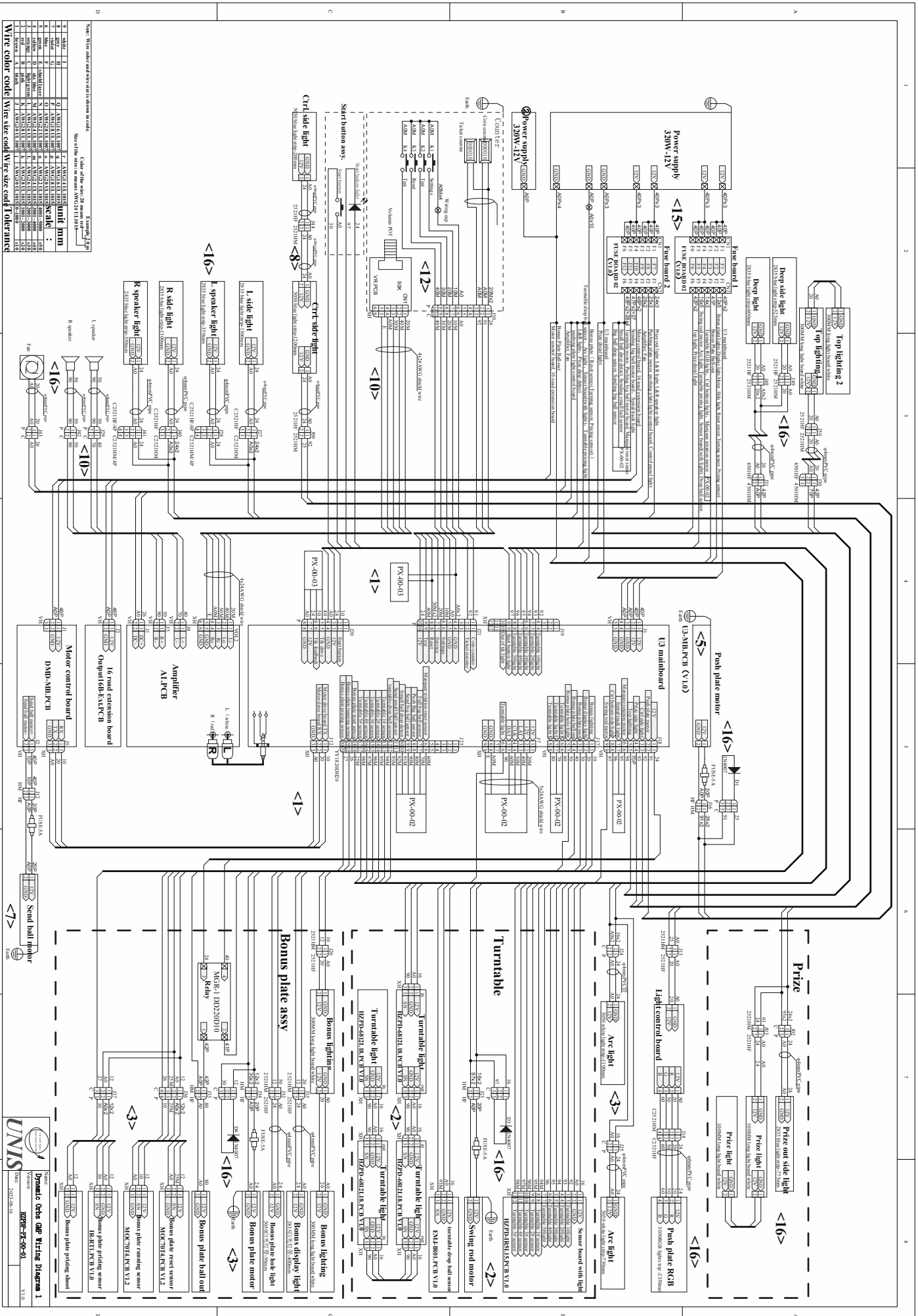
Inappropriate handling running counter to the cautionary matters can cause personal injury or damage to the machine.

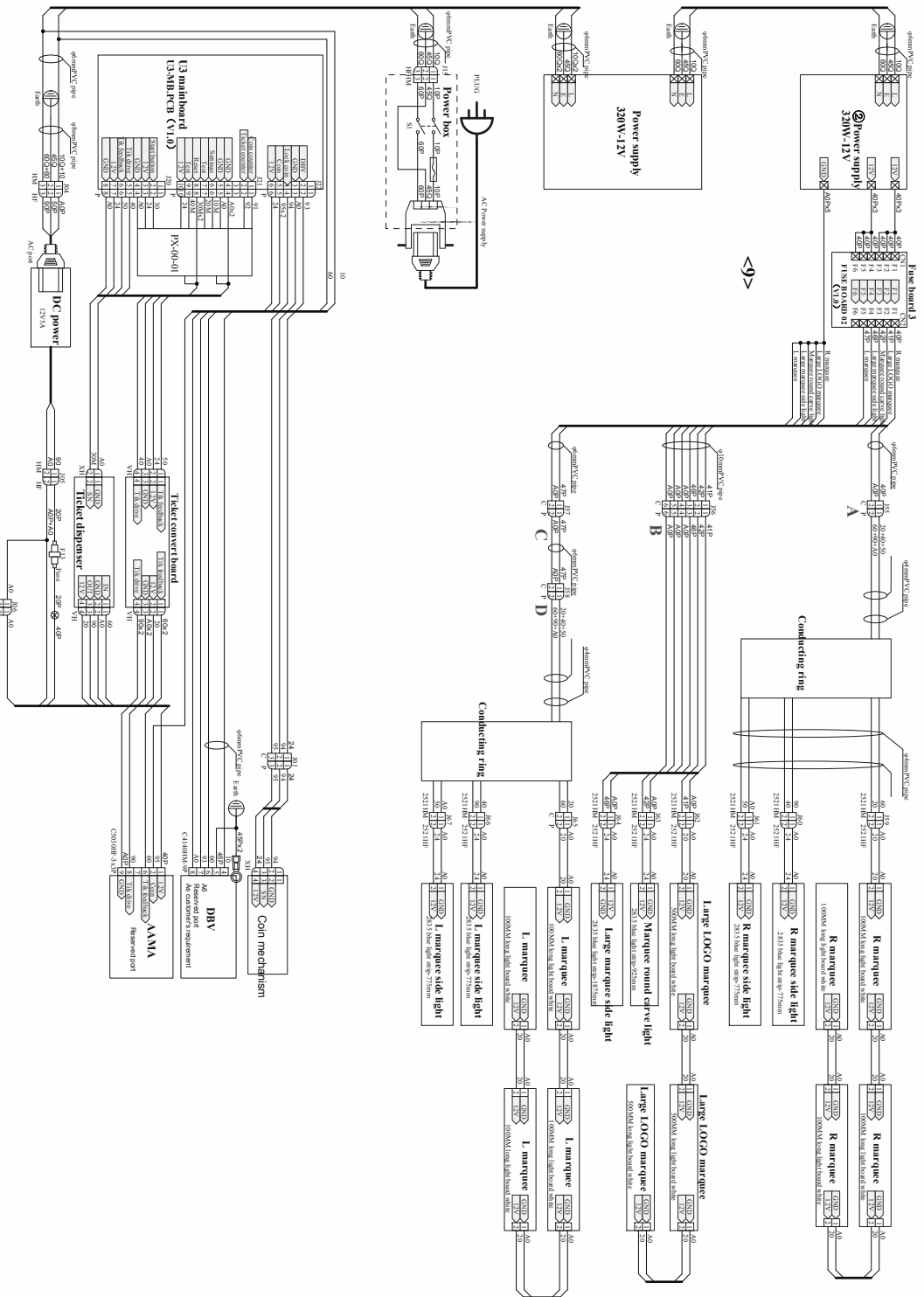


NOTICE

We do not recommend using power tools as they may cause damage.

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Name: Wire color and size of the wire in code. Example: 2.5mm

Size of the wire: 2.5mm

Wire color and size of the wire in code:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Wire color code: Wire size code: Wire size code: 1 tolerance