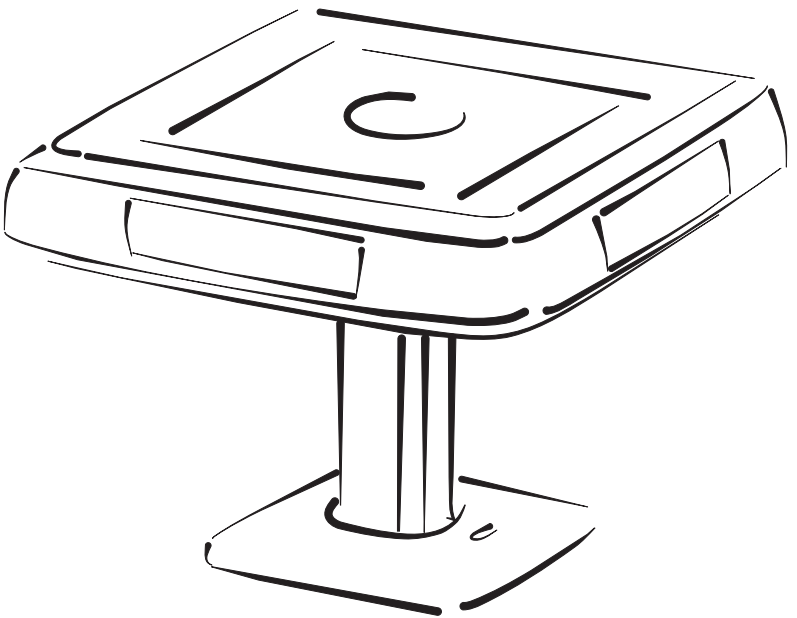
雀友®
TREYO



Treyo Fully Automatic Mahjong Machine (DTS Series)

Operating Instructions

Liability Statement

1 Reading Statement

Thank you for choosing Treyo Fully-Automatic Mahjong machine. Please read the operating instructions thoroughly before installation and operation, which can instruct you to know about and use the product correctly. Due to continuous update of product, Treyo also provide you instructions for accessories. Please read it thoroughly. Our company is not liable for any artificial damage or injury occurred due to failure to read the operating instructions or not read it thoroughly.

2 Copyright Statement

The copyright of the operating instructions belongs to MATSUOKA MECHATRONICS (CHINA) Co., Ltd.. The company reserves all rights. Any part of the publication shall not be duplicated, disseminated, transcribed, or saved in a retrieval system or translated into any language in any form or by any means including electronic, mechanical, magnetic, optical, chemical, and manual or any other means without prior written consent from the company.

3 Disclaimer

● The company makes no warranty or presentation, express or implied, concerning the content hereof and denies any warranty, marketability and adaptability of any special purposes clearly. In addition, the publication contents are subject to revision without notice.

● Text error and omission on technical description may occur in the operating instructions despite of careful proofreading. Proposals, comments and suggestions from customers and peers are highly appreciated, which will be helpful for us to revise the operating instructions.

Safety Tips

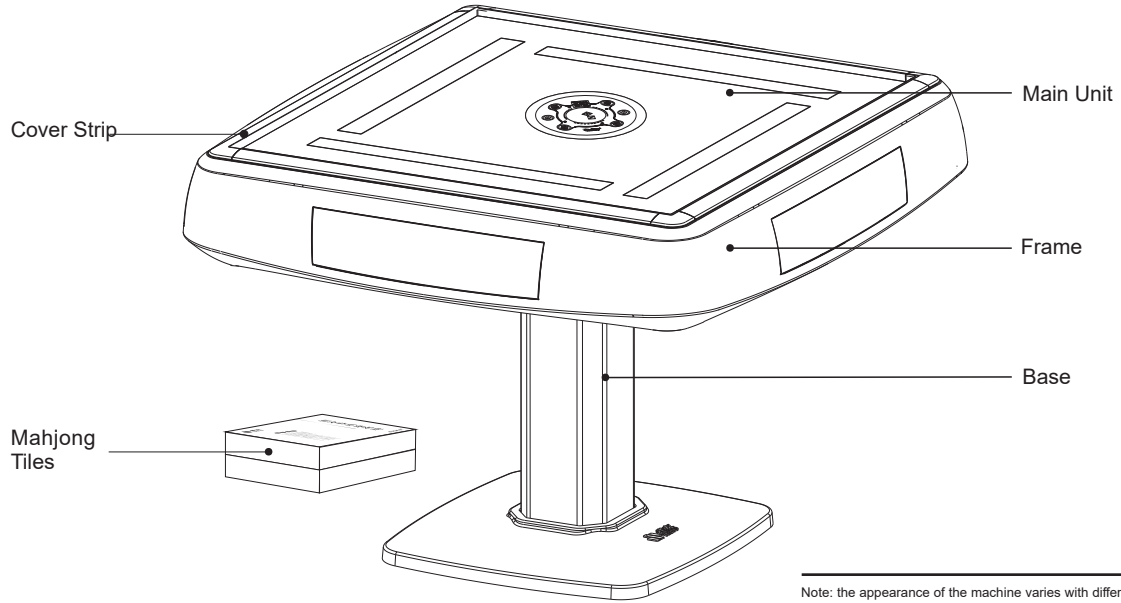
! To ensure a safe operation, the following instructions shall be followed:

- Please use the original and supporting products from Treyo. Don't use the modified or non-professionally manufactured parts.
- Don't dismantle and modify the mahjong machine by yourself without authorization.
- Please use 220V single-phase three-pin AC socket and it shall be reliably grounded.
- Don't use any external power supply above 235V or under 198V. A voltage regulator is preferred in case of an unstable power supply.
- After the game, the mahjong tiles shall be taken out from the machine and the machine must be powered off.
- The machine must kept horizontal during transport and handling. Inversion is prohibited.
- Don't wash the surface and chamber of machine with water or clean the mahjong tiles with detergent.
- Don't leave foreign objects such lighter or cigarette in the machine. Such objects inside may cause damage to the machine.
- Don't use any sharp object to scratch or scrape the surfaces of main machine and mahjong tiles.
- Treyo fully-automatic mahjong machine is for indoor use only and shall be kept away from direct sunshine or humid environment.
- The machine must be powered off during maintenance.
- For protecting your personal safety, only the manufacturer or professional maintenance personnel appointed by the manufacture can carry out the maintenance in case of worn or damaged power supply cable.

About Treyo Fully-Automatic Mahjong Machine

1 Product profile

The machine consists of main unit, frame assembly, and base together with 2 sets of mahjong tiles, as shown in the diagram below:



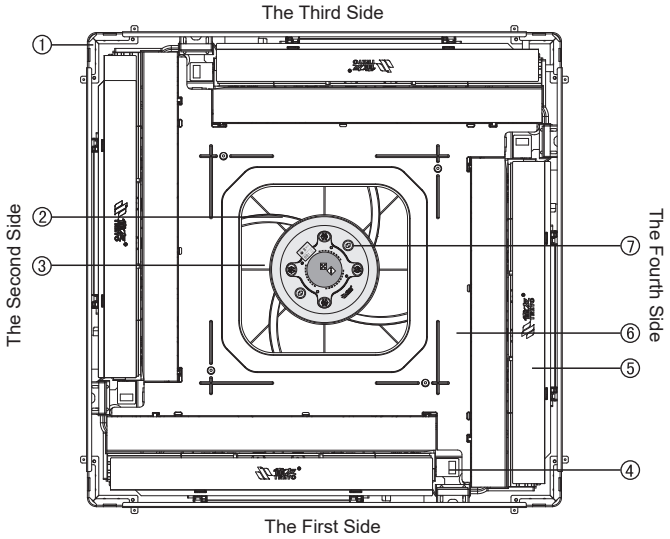
Note: the appearance of the machine varies with different series and types, which shall be subject to the real product.

About Treyo Fully-Automatic Mahjong Machine

2 About main unit

The main unit is the most important part of the machine, which consists of electronic control system and mechanical system according to its working principle (as shown in the vertical-view diagram below). The parts most frequently touched by the users include frame assembly, panel assembly (concealed in the diagram below), tile pushing assembly, baffle plate assembly, shuffling tray assembly and dice tray assembly.

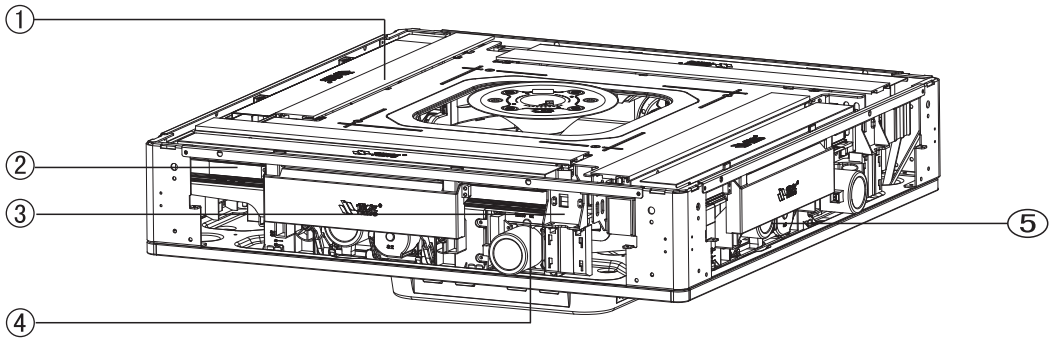
1 Vertical-view diagram of main unit



① Panel Supporting Frame
② Turbo Driving Lever
③ Shuffling Tray
④ Stacking-Pushing Assembly
⑤ Lifting Assembly
⑥ Conveying Assembly
⑦ Dice Tray Assembly

About Treyo Fully-Automatic Mahjong Machine

2 Tile Pushing Assembly Conveying Assembly

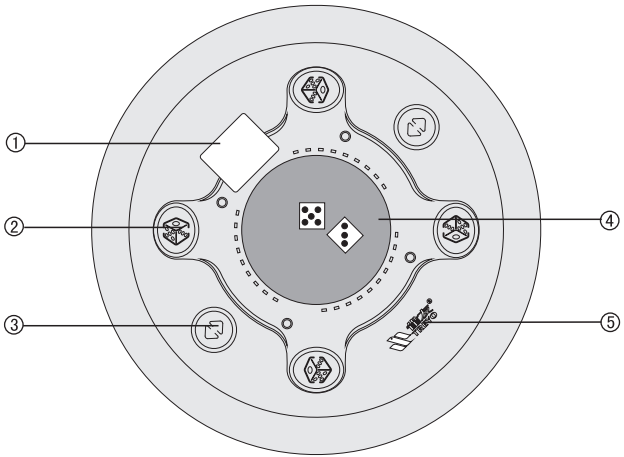


① Aluminum Plate
② Tile Pushing Bar
③ Photoelectric Sensor
④ Stacking-Pushing Assembly
⑤ Horizontal-Pushing Motor

Note: the style and structure of machine may be different, which shall be subject to the real product.

About Treyo Fully-Automatic Mahjong Machine

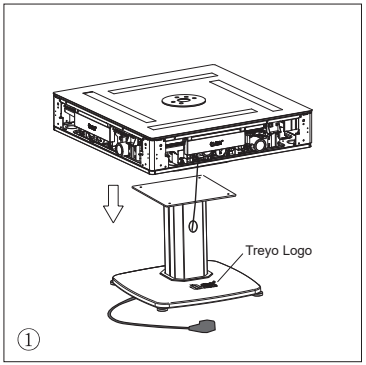
3 Dice Tray Assembly



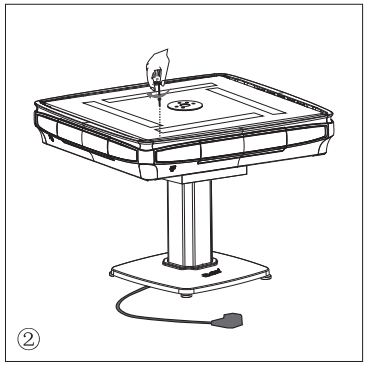
① Digital Display
② Dice Button
③ Lifting Button
④ Glass Window
⑤ Reset Indicator (Logo)

Note: the structure and style of dice tray vary with different models of the machine, if the product purchased by the customer is different from that in the diagram, it shall be subject to the real product.

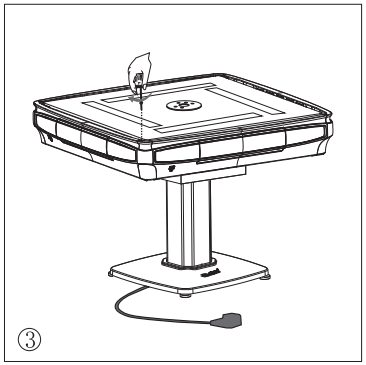
Installation Diagram



1. Installation of main unit and base: insert the power cable into the hole under the bottom of the base, pass it through the round hole on the base, then connect it with the power cable of the main unit. Then, fasten the 4 screws.



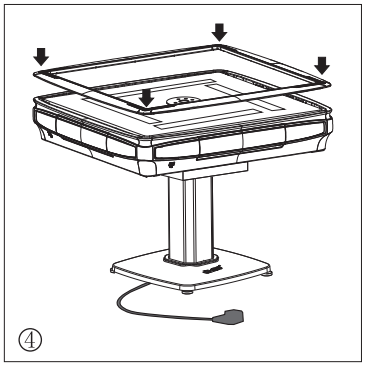
2. Installation of frame: as shown in the diagram, orient the frame installation holes align with the installation holes of the support frame of the main unit and fasten them with 8 PM4X14 screws.



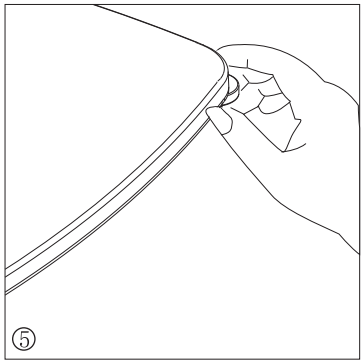
3. Installation of frame 2: as show in the diagram, orient the installation holes on the connected parts between the frames and fasten them with 8 FB4X10 screws.

Note: several styles of frame are available, which shall be subject to the real product you have purchased.

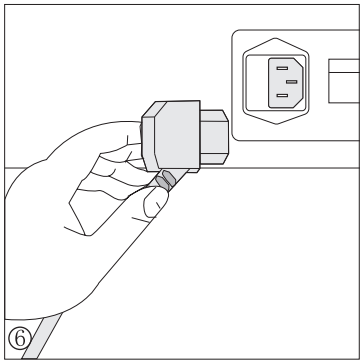
Installation Diagram



4. Installation of cover strip: as shown in the diagram above, orient the cover strip properly and insert it in the space between the frame and the main unit, and press it down with your hands to fix it. (Note: if the strip is too tight, adjust the fixing screws on the frame appropriately.)

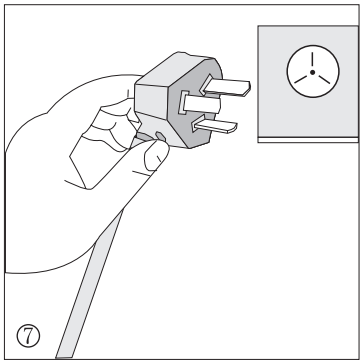


5. Mahjong machine levelness adjustment: adjust the 4 pads under the base to ensure a stable standing of the machine.

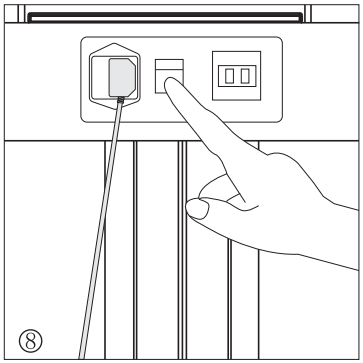


6. Power on 1: as shown in the diagram above, plug the power cable in the three-pin socket on the main machine.

Installation Diagram



7. Power on 2: plug the power cable in the socket as shown in the diagram above. A three-pin socket must be used and shall be grounded properly.



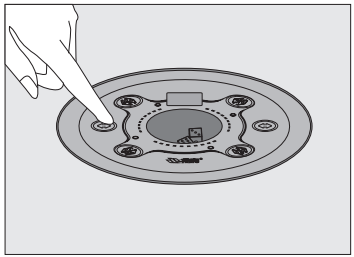
8. Startup and operation of mahjong machine: as shown in the diagram above, the indicator of power switch is on with a beeping after the power switch installed on the base box of the machine is turned on and the dice tray begins self-inspection. After the reset indicator is on, the mahjong machine starts up for games.

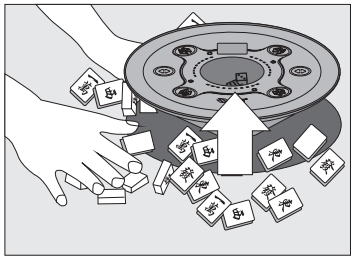
Operating Instructions

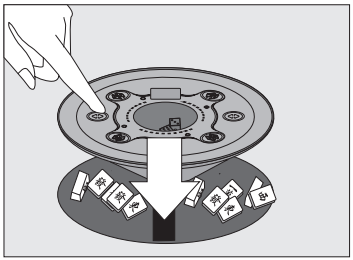
1 Fundamental operating instructions

- The indicator is on after the power switch is turned on. Then, press 2 buttons on the shift switch at the same time for 3 seconds and release the buttons after the displayed digits begin to flash. At this time, the shift switch is unlocked. Press the “+” and “-” shift adjusting buttons to achieve your desired the shift according to the table of the number of stacks.
- Press the lifting button on the dice tray and the dice tray will lift automatically. Put the first set of mahjong tiles into the machine and press the lifting button again, then the dice tray will descend. The machine begins to shuffle the tiles. After shuffling, the reset indicator will be on. Press the lifting button again to lift the dice tray. Put the second set of mahjong tiles into the machine and press the lifting button again to descend the dice tray. The first set of mahjong tiles will come out from the machine for games. The machine begins to shuffle the second set of mahjong tiles.

Operating diagrams:





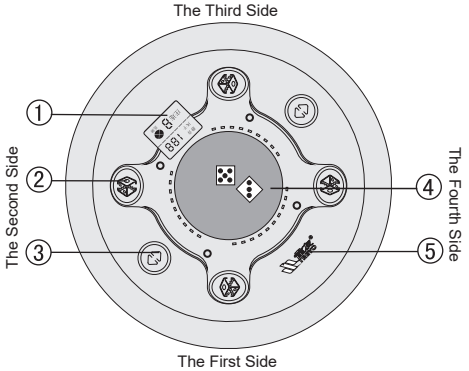


Note: ① when the reset indicator is on, just press any of the lifting buttons to lift the dice tray.
② if you want to lift the dice tray during the machine is shuffling the tiles, press 2 lifting buttons at the same time.

Operating Instructions

2 Dice Rolling

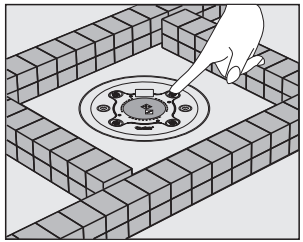
- The name of each component of the dice tray is shown in the diagram below:



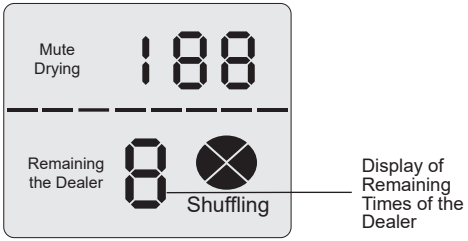
① Digital Display
② Dice Button
③ Lifting Button
④ Dice Box
⑤ Reset Indicator (Logo)

Note: the styles of dice tray may be different, which shall be subject to the real product.

- When you press the dice button, the dices in the tray will roll automatically. At the same time, the indicator of dealer is on. In case of remaining the dealer, the remaining times will be displayed. Maximum 9 remaining times can be displayed.



Operating diagram



Operating Instructions

The table of the number of tiles corresponding to the shift switch is shown as below:

Shift	Number of tiles	Number of square stacks				Shift	Number of tiles	Number of square stacks				Shift	Number of tiles	Number of square stacks			
0	Manual Test					14	84	14	14	14	0	28	102	13	13	13	12
1	144	18	18	18	18	15	84	12	10	10	10	29	96	12	12	12	12
2	140	17	18	17	18	16	84	10	11	10	11	30	54	9	9	9	0
3	136	17	17	17	17	17	40	10	0	10	0	31	36	9	0	9	0
4	128	16	16	16	16	18	20	10	0	0	0	32	18	9	0	0	0
5	120	15	15	15	15	19	72	9	9	9	9 user defined shift	33	54	7	7	7	6
6	112	14	14	14	14	20	148	18	19	18	19	34	36	6	6	6	0
7	108	13	14	13	14	21	142	18	18	18	17	35	40	5	5	5	5
8	100	12	13	12	13	22	108	18	18	18	0	36	138	17	17	17	18
9	72	12	12	12	0	23	132	16	17	16	17	37	56	9	8	9	2
10	152	19	19	19	19	24	96	16	16	16	0	38	108	17	17	17	3
11	138	17	17	17	18	25	124	15	16	15	16	39	108	14	13	14	13
12	116	14	15	14	15	26	126	16	16	16	15	40	137	17	17	17	17.5
13	110	14	14	14	13	27	104	13	13	13	13						

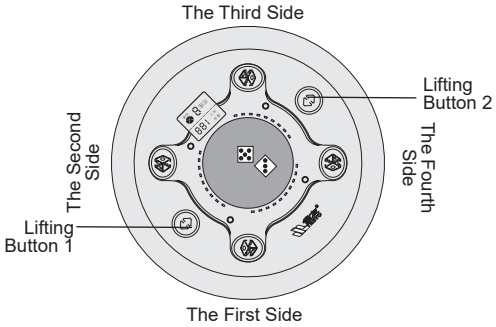
Note: only shifts 9, 19, 29 and 39 are user defined. The remaining shifts are not adjustable.

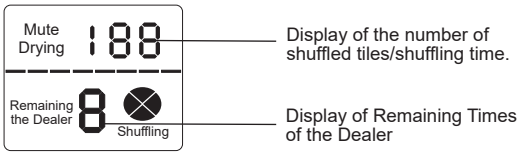
Manual Test

1 Introduction to functions

The manual test function is to help the user understand the internal structure of the main unit and to know about the operation process of each function of the mahjong machine, which can help the user to test the machine and clear some simple and small troubles.

2 Diagram of dice button





3 Instructions on testing procedure

Turn on the power switch and the indicator is on. Press 2 buttons of the shift switch at the same time for 3 seconds and release them after the digits begin to flash. At this moment, the shift switch has been unlocked. Press “+” and “-” buttons of the shift switch to adjust to shift 0 according to the table of the number of tiles. After entering the manual test shift, press the buttons on the dice tray to enter various test modes such test for lifting of 4 sides, test for conveying assembly, test for big tray, and test for central lifting. Press the lifting button if you want to change the test mode. The test mode is displayed by the digital screen for displaying remaining times of the dealer. The dice button is for the purpose of functional operation. The detailed corresponding relationship is shown as below:

Manual Test

Test Mode	Digital Display	Operating method and functions
Test for central lifting motor	0	Press the dice button to start the test for central lifting or descending.
Test for tray motor	1	Press the dice button and the motor of tray changes from slow rotation to pause and to fast rotation repeatedly.
Test for conveying motors at four sides	2	The dices will roll clockwise when the dice button at the corresponding side is pressed once and will roll counterclockwise when it is pressed again, which can be done in such way repeatedly. At this moment, when press any of the dice buttons for 5 seconds and the reset indicator is on, it means that the stacks of tiles at this side move backward and then stops intermittently when the shuffling finishes. When the reset indicator is off, it means such function is canceled (the stacks of tiles are moving backward continuously).
Test for stacking-pushing motors at four sides	3	When press the dice button, the stacking-pushing motor will simulate the stacking and pushing actions.
Test for lifting motors at four sides	4	When press the dice button, the lifting motor will work for one cycle. If press this button during the lifting process, the listing will pause.
Test for synchronization of lifting motors at four sides.	5	When press any of the dice buttons, the lifting mechanisms at four sides will start lifting at the same time. If press the button again during lifting process, the lifting will pause.
Test for photoelectric sensors at four sides.	6	Place a mahjong tile before the photoelectric sensor, the dice indicator at the corresponding side will turn on when the sensor has detected the tile, which means the sensor is effective. .

Notes: 1. the reset indicator points at the motor head of the first side.
2. the functional operations may be modified without prior notice.

Manual Test

Instructions on free shift definition

To satisfy various requirements of users for tile shuffling modes, we specially design free shifts 9, 19, 29 and 39 on the main unit of the automatic mahjong machine (which are not configured for the rest of the shifts).

1. Turn the shift switch to the corresponding shift and define the corresponding shift accordingly. Press the 4 dice buttons (North, South, East and West) simultaneously for 5 seconds. If entering the setting successfully, all the indicators of dice buttons 1, 2, 3, 4 on the dice tray will be on after a beeping.
2. The indicators will be on for 3 seconds. Before all the indicators are off, release the 4 dice buttons (North, South, East and West).
3. At this time, the system will turn on the indicator of dice button and the indicator of the number of stacks at the first side. If you use this function for the first time, the system will display the default value defined at ex-factory.
4. The LED displays “188” stacks. Please note that at this moment, the number here refers to the number of stacks.
5. The indicators at the 4 sides refers to the indicators of dice buttons 1, 2, 3 and 4.
6. Our company defines the number of stacks at each side as followings: Minimum 0 stacks, maximum 20 stacks (i.e. 40 tiles). For details, please refer to the following instructions.
7. When entering the setting for number of stacks, the definition of button is as followings: press any of the dice buttons 1, 2, 3, and 4 to add the number, press once for adding one stack, meanwhile, number on the screen will add “1”. When the number is increased to 20 stacks, if you press the button again, it will skip to the minimum number 0 at the current side; Press any of the lifting button to confirm. If you have set the number of stacks correctly at one side, and press the lifting button, the system will skip to the setting for the next side, at this moment, the corresponding indicator at the next side will change accordingly.
8. To ensure you can set the number of stacks correctly, before power off, you can see the current setting of number of stacks by pressing 2 lifting buttons repeatedly.
9. Exit from the system. When you think the number of stacks has been set correctly, please turn off the power supply. When you turn on the power supply again, you can play games according to the number of stacks you have set.

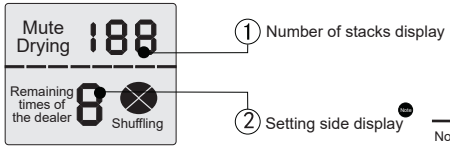


Diagram of the dice tray display screen

Note: numbers 1, 2, 3 and 4 at the setting sides stand for 4 directions, if number “1” prompts, it means setting for the first side and meanwhile, the indicator of the dice button at the first side turns on.

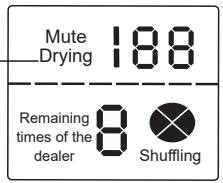
Dehumidifying and Ventilation Function

Ventilation/drying function

Treyo mahjong machines are equipped with PTC ventilating and drying function/air circulating drying function to address issues such as jammed tiles and slow loading speed (the configuration of ventilation function is subject to the real product you have purchased).

- Working principle: a DC fan is installed to ventilate and keep the mechanisms inside dry, which can significantly reduce the failures caused by humid weather.
- Working principle: a safe PTC ceramic heater is installed to maintain the mechanisms inside dry and warm, which can significantly reduce the failures caused by humid weather.
- Use method: during shuffling, the intelligent ventilation fan runs automatically. If you want to close the fan manually or restart it, just press any of the lifting buttons for 3 seconds, after a peeping, the ventilation fan is turned on/off. (Note: the ventilation fan starts up with the shuffling simultaneously).

When the LCD screen of the shift displays air drying, it means the fan starts to work.



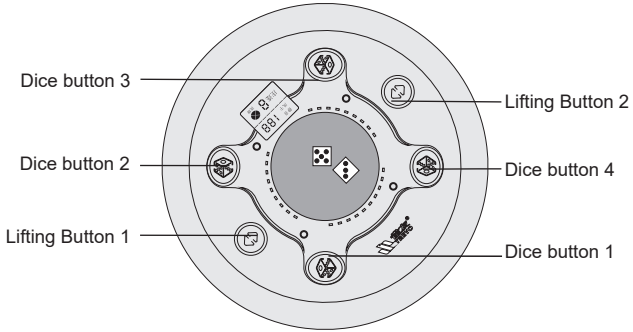
Note: the Treyo series products may have or have not ventilation system, or it may be different, so it shall be subject to the real product.

Tiles Containing Function

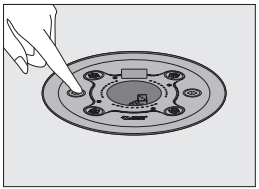
Introduction to functions

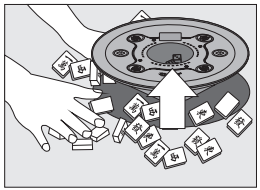
This function is to store 2 sets of tiles in the machine at the same time while will not cause mixing. This function is for purpose of cleaning the desk during the game.

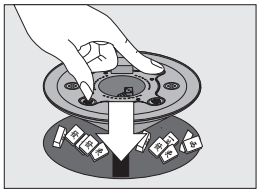
Operational procedure: when the reset indicator is on, press lifting button 1 or button 2 to lift the dice tray, push the tiles into the shuffling chamber, press the 2 buttons opposite to each other (1and 3, or 2 and 4) for 3 seconds, the dice tray will descend automatically, a beeping refers to the completion of containing tiles. At this moment, the machine has returned to the normal working state. When press the lifting button 1 or 2 again, the machine will lift the tiles.

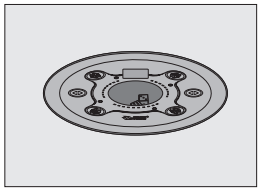


Operating diagrams:


Enter the tiles containing function.


When the second set of tiles is pushed into the shuffling chamber,

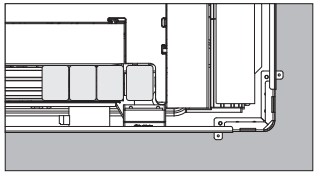

Press the corresponding dice button, the dice tray will descend.


the 2 sets of tiles have been contained in the machine.

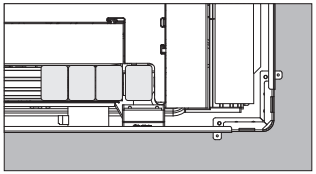
Power-off Memory

Introduction to functions

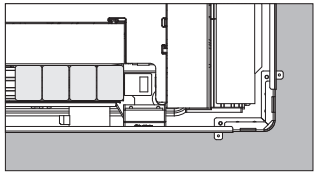
The power-off memory means in case of a sudden power cut, the machine can remember its original working state and will not cause tiles jammed in the machine after the machine is reset. This function has been written in the control microchip, so manual operation is unnecessary.



1. The machine is running at the normal state.



2. In case of a sudden power cut, the machine will stop working and enter the power-off memory mode automatically. The original working state will be saved in the control microchip automatically.



3. After powered on, regardless of how long it takes, the machine will read the original working state saved in the microchip and continue the original working action.

Note Forced Reset

This function is used to stop shuffling during shuffling (in case of abnormal running). Press the 2 dice buttons opposite to each other for 3 seconds and after a beeping, the program is forced reset automatically, which makes it unnecessary to turn on/off the power switch.

Note: to ensure normal running of the machine, don't turn on/off the power switch frequently.

Intelligent Alarming

1 Introduction to functions

The intelligent alarming function of Treyo mahjong machine is realized through the indicators on the dice tray. The different functions correspond to different indicators, which makes the alarming simple and observable. This function is helpful for the user to clear the troubles by himself/herself and describe the failures of machine during warranty maintenance.

2 Details of intelligent alarming

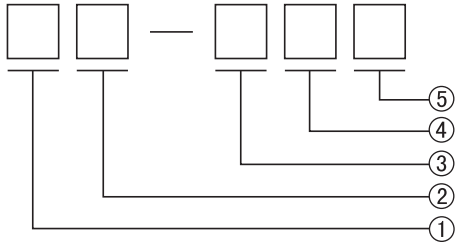
State Display	Root Cause	Trouble Shooting
The digital screen displays 1. The four dealer's indicators are on at the same time	Incorrect shift and number of stacks Inadequate number of stacks Overlong shuffling time	Adjust the shift switch Add the stacks Check the driving lever of shuffling tray
The indicator of power switch failure	The power plug is not in place. Fuse burned Indicator failure	Please insert the power supply plug properly Replace the fuse Replace the power supply switch
The digital scree displays 2. The four dealer's indicators are on at the same time	K1K2 sensor failure, or the central lifting door can't ascend or descend	Clear the failure of K1K2 sensor or lifting motor
The digital scree displays 3 or 7. The dealer's indicator is on at the side of 1(2, 3, 4)	Motor head failure at the side of 1 (2, 3, 4) or K5K6 failure	Clear the motor head failure at the side of 1 (2, 3, 4) or the K5K6 magnetic control failure
The digital scree displays 4. The dealer's indicator is on at the side of 1(2, 3, 4)	Lifting failure at the side of 1 (2, 3, 4)	Clear the sensor failure at the side of 1 (2, 3, 4) or lifting motor failure
The digital scree displays 5. The four dealer's indicators are on at the same time	Motor over-current or short circuit	Please contact the professional personnel for inspection and maintenance.

Technical Parameters

Rated Power Supply Voltage	Fusing Current	Rated Power	Applicable Countries/Regions
AC220V/50Hz	2A	200W	China mainland/Hong Kong/Macao/Australia
AC220V/50Hz	3A	320W	China mainland/Hong Kong/Macao/Australia
AC220V/60Hz	2A	200W	South Korea
AC110V/60Hz	5A	200W	US/Canada/China Taiwan

Working Environment	Temperature	Humidity	Altitude
	0～35℃	<80%	<4000m

Notes: 1. to avoid purchasing a product that can't be used at your local place, please know about the local AC voltage before purchasing the product.
2. the configurations of the product is only for your reference. If a specific model of machine is not consistent with the configurations in the operating instructions, it shall be subject to the configurations of specific type of machine.



① Machine Code
expressed by Chinese Pinying LP.

② Specification No.
The specification No. of the machine is expressed by the maximum vertical height of the tile and maximum number of stacks. e.g. if the maximum vertical height of the tile is 40mm and the maximum number of stacks is 18, the specification No. will be 4018.

③ Machine Structure No.
According to the number of output ports of the shuffling chamber, the machine is classified into:
A. single-port machine (unnecessary to label);
B. multiple-port machine (expressed by Chinese Pinying D).

④ Code of Automatic Extent
According to automatic extent, the machine is classified into:
A. fully automatic mahjong machine (don't need to label);
B. semi-automatic mahjong machine (expressed by Chinese Pinying B).

⑤ Factory Design Serial No.
expressed by Arabic numbers or English letters.

Maintenance Tips

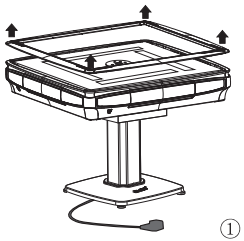
1 Warranty Period

- For the stable running of machine and saving cost, within the first 3 months from the date of purchase, maintenance personnel or users shall carry out routine maintenance (such as cleaning dirt on the suede surface and mahjong tiles) on the machine.
- Since the date of installation, maintenance personnel or users shall maintain the whole machine (cleaning dirt on the suede surface, and frame, and cleaning the large tray by vacuum cleaner, etc.) quarterly. It is recommended to maintain the whole machine not less than 3 times within a year.

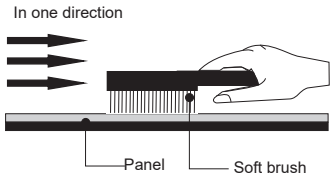
2 Details of Maintenance

1 Maintenance for suede surface

- Remove the cover strip and brush the suede surface gently in one direction with a soft brush until the dirt is cleaned.



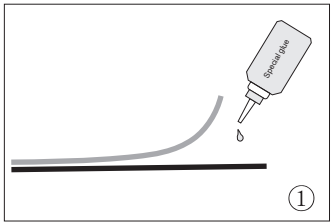
①

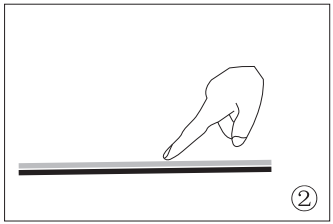


②

Maintenance Tips

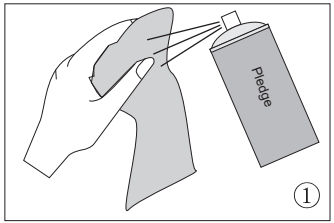
- If the angle of suede surface is crimped, stick it with special glue. Prevent deterioration of crimp or shedding

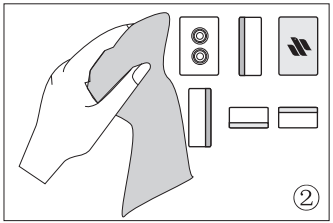




2 Maintenance method for mahjong tiles

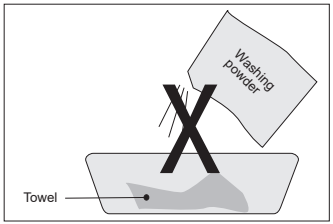
- Lift the mahjong tiles from the machine and place them orderly on the table. A clean towel sprayed with the special Pledge detergent from Treyo is recommended to wipe the six sides of the mahjong tiles in turns to remove hand dirt and oil stains on the surfaces. To save the time and cost, you can turn over one surface of all mahjong tiles at a time.





Maintenance Tips

- Maintenance of the front surface of mahjong tile: because there are grooves on the front surface, such as carvings, calligraphy, and paint, most of the hand dirt is accumulated in such places. Use a wet toothbrush to clean such places, but do not brush forcefully to avoid wiping off the paint in the grooves.
- Mahjong tiles must be cleaned and wiped with Pledge detergent. Don't use any liquid cleaning agents containing chemicals such as washing powders and detergents to wash the tiles, otherwise the paint on the front surface may fall off and the magnetism may be weakened. Pledge detergent can keep the surfaces of mahjong tiles smooth and form a protective film. Use an air blower to dry the tiles after cleaning.



3 Maintenance of internal parts of machine

- The internal parts of machine shall be kept clean. Use a vacuum cleaner or a soft brush to clean the dirt on the surface of the central rotary tray in machine.
- The principle of maintenance: don't move or move the electrical and mechanical parts as little as possible. The main maintenance work include keeping the contact area of the mahjong tiles clean and lubricating the sliding parts. High quality lubricants shall be used. Inferior lubricants or inferior Pledge will cause frequent the machine failures. Treyo Pledge is recommended for cleaning the tile passageways.

Limited Warranty

1

- The warranty period of all series of Treyo product is 1 year since the date of sale. After the warranty period, all the services required by the customers will be charged.
- The customer shall fill out the warranty registration cards (in duplicate) at the date of purchase, and maintain the “Copy for Customer”. To confirm the machine is still in the warranty period, please show the warranty registration card during maintenance
- We provide free maintenance services for the customer during the warranty period. Please find your local after-sale service provider and bring the purchase voucher and warranty registration card with you in case of any failures due to quality of the machine.
- If the warranty period can’t be identified due loss of the warranty registration card, the warranty period will be determined from the date of ex-factory.
- Any service offered after the warranty period will be charged. The charged services include maintenance fee and cost of accessories.
- As mahjong tiles, frame and suede cloth are consumables, repairing or replacing them will be charged.

2 The following situations are not included in the warranty scope and will be charged:

- beyond the warranty period.
- the content in the warranty registration card is inconsistent with the machine under maintenance or it has been altered.
- the machine No. has been altered or removed.
- any damage due to the customer’s improper handling, installation, use, maintenance and storage.
- any damage due to the repair and modification conducted by the customer, or dismantle and repair conducted by the unauthorized person.
- any damage or loss due to factors that can’t be controlled by our company such as the operation environments (e.g. power supply, temperature and humidity, etc.).
- any damage caused by force majeure.

Note: the technical parameters in the operating instructions may be modified without prior notice.

Annexes

! Please recognize the Treyo trademark to avoid buying counterfeits!

The registered trademarks of MATSUOKA MECHATRONICS (CHINA) Co., Ltd. are shown as below:

雀 友®
QUE YOU

®
MATSUOKA

雀友®
TREYO

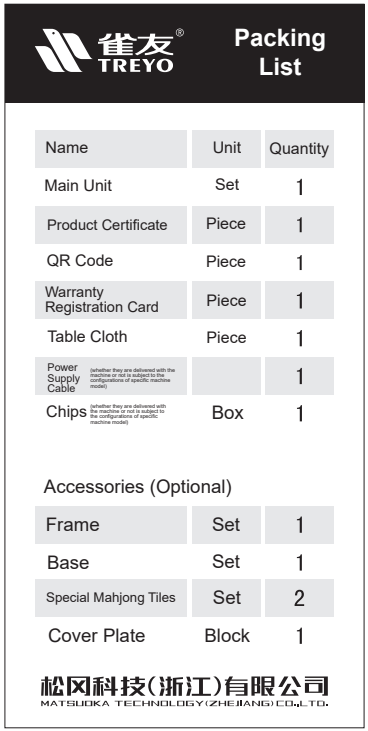
®

雀友®

TREYO®

Note: as the registered trademarks may be updated and revised from time to time, please contact our legal affairs department in case of any questions.

Annexes



雀友 TREYO

Packing List

Name	Unit	Quantity
Main Unit	Set	1
Product Certificate	Piece	1
QR Code	Piece	1
Warranty Registration Card	Piece	1
Table Cloth	Piece	1
Power Supply Cable (whether they are delivered with the machine or not is subject to the configurations of specific machine model)		1
Chips (whether they are delivered with the machine or not is subject to the configurations of specific machine model)	Box	1

Accessories (Optional)

Frame	Set	1
Base	Set	1
Special Mahjong Tiles	Set	2
Cover Plate	Block	1

松冈科技(浙江)有限公司
MATSUOKA TECHNOLOGY(ZHEJIANG)CO.,LTD.

◆ ISO14001 Environmental Management System Certified

◆ ISO9001 Quality Management System Certified

◆ Executive Standard: QB/T 4102-2010

松冈科技(浙江)有限公司

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