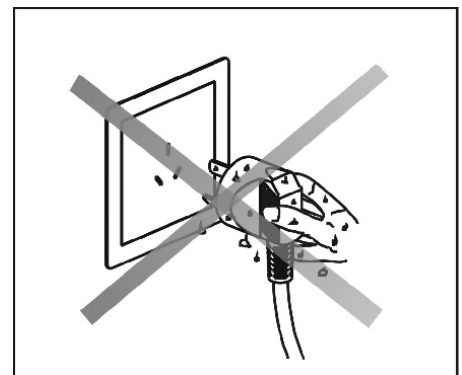
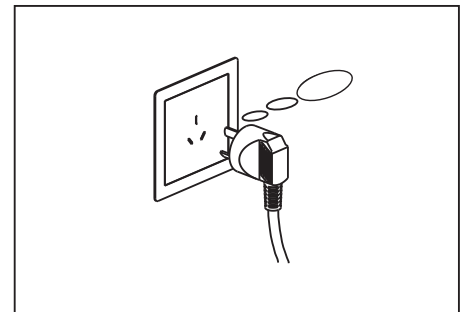


Statement

1. Please read this manual carefully before you start operating the machine.
2. If you encounter problems, contact your supplier or our Product Support Department.
3. The company is not liable for any legal responsibility for any failure or damage due to improper use or handling of the machine.
4. The warranty does not cover any failure or damage due to improper operation, disassembling, or remodeling of the machine.
5. The manual cannot be copied and downloaded without our permission.
6. We reserve the rights to make any changes or modifications to the machine as well as the attachments without further notice.
7. Only 40-mm table tennis balls with international standard of one star or above should be used for the robot.

Warnings

- ★ Make sure the local voltage is:
AC100V~240V,50/60Hz .
- ★ Do not plug in with wet hands as device may short circuit.
- ★ The power plug should be properly grounded to ensure safe operation.
- ★ Please disconnect the power supply when machine is not in use or during unfavorable weather conditions.
- ★ If abnormal conditions occur, please disconnect power supply and unplug the power socket of the machine. Contact your supplier or our product support department to rectify the problem before the machine restarts.
- ★ Please keep away from the serving head when Start/Stop is pressed. Balls served will cause physical damage to your body if you are close to the serving head.



Reminder: Please read the manual carefully prior to any operation to ensure the machine is operated safely, accurately and efficiently.

OK-787 Basic Features And Functions of The Robot

- ★ Double spin technology ensures different degrees of speed, curve and spin are served. The technology can also set straight (no spin) serves that other robots with a single spin wheel are unable to provide.
- ★ Serves can be set to land on 1-9 points from left to right on the entire width of the table. Press the lit up number buttons on the control panel to select the landing point(s) desired.
- ★ The levels of top-wheel speed, bottom-wheel speed and serving frequency are shown on digital display, making the adjustment of serves much easier and more accurate.
- ★ Self programming allows players to set the combination of serves based on the desired level of difficulty. Two Programs are allowed to restore.
- ★ There are 6 mode selections to choose from:
 1. **Fixed mode** Various kinds of serves land continuously at one point to be chosen from 1-9 points.
 2. **Built-in mode** There are 9 built-in serve combinations programmed for the player to choose. Serving parameters can separately be set and adjusted as desired by the player.
 3. **Random mode** Balls land randomly in either long range or short range on 1-9 possible points across the table, with a choice of landings: a) on the entire width of the table (1-9 landing points), b) only the left side (1-5 landing points), or C) only the right side (5-9 landing points).
 4. **Mixed random mode** Both long range and short range balls are served randomly on 1-9 possible points across the entire width of the table, with a choice of landings:
 - a) on the entire width of the table (1-9 landing points),
 - b) only the left side (1-5 landing points),
 - c) only the right side (5-9 landing points).
 5. **Program mode** A combination of various landings can be set on the entire table as desired by the player. Serves will land on the points as set under Program 1 or Program 2.
 6. **Examination mode** Combinations of serves are set in accordance with the 2-level requirements by the Examination Bureau.
- ★ Equipped with a timer and ball counter on a digital display.
- ★ Equipped with a memory function that can restore the most recent setting for repeat training or use.
- ★ Equipped with a reset function that can restore to the factory recommended parameters.
- ★ Enclosed with a ball collection net that helps to collect the returned balls into the collection dish of the robot, saving time and increasing efficiency.

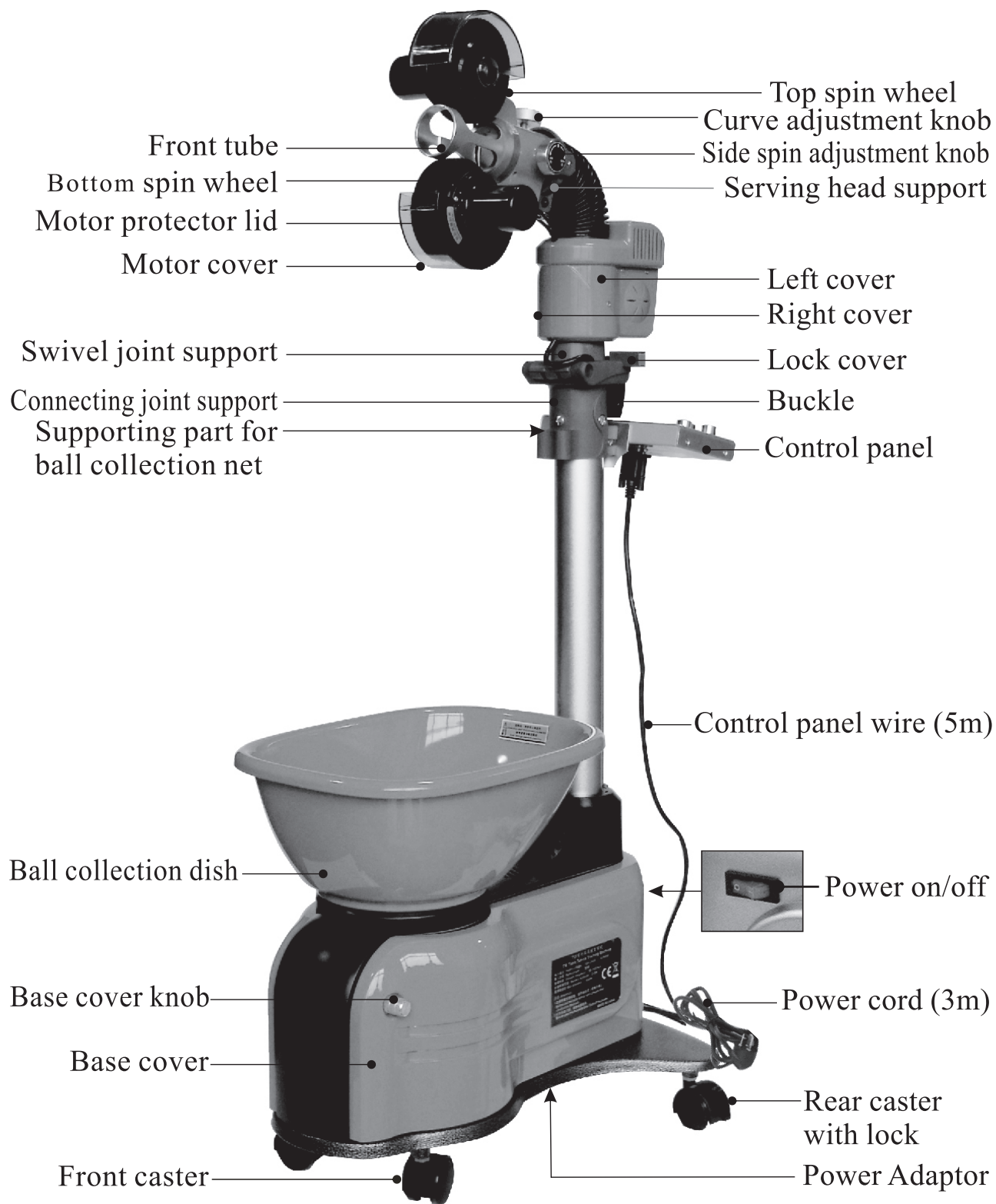
Factory Reset And Recommended Parameters

Type of Spin		Top-wheel speed	Bottom-wheel speed	Serving Frequency (Balls/Min)	Remarks
Factory Reset	No Spin	3.5	3.0	50	Default
	Top Spin	5.0	1.0	50	
	Under Spin	0.7	5.2	50	
Recommended Parameters	Top Spin	4.0~9.0	0.5~2.0	50~80	
	Side Top Spin	4.0~9.0	0.5~2.0	50~80	
	Under Spin	0.5~1.0	4.0~9.0	35~60	
	Side Under spin	0.5~1.0	4.0~9.0	35~60	

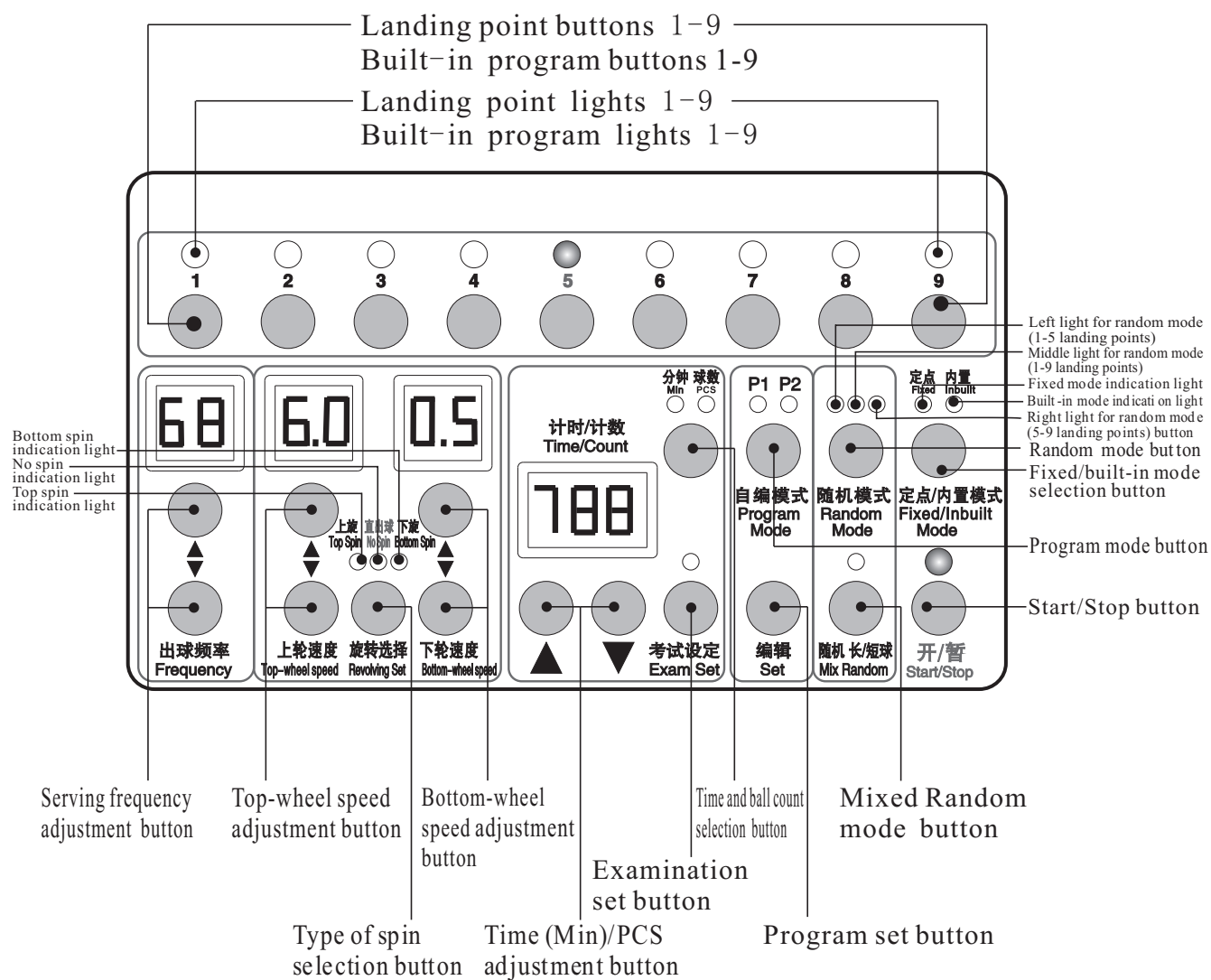
Hints: Please use the Factory Reset Parameters when using the robot for the first time. Press Start/Stop to confirm and operate. Users can adjust and set the parameters based on their level of technique.

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A. Parts



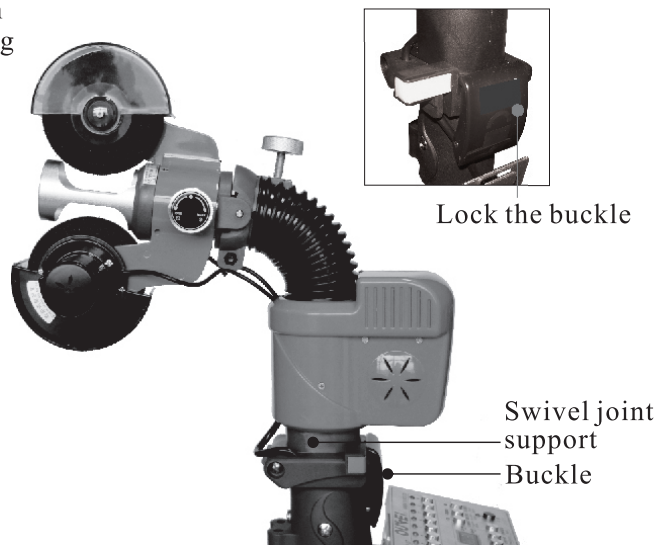
B. Functions of The Control Panel



C. Installation

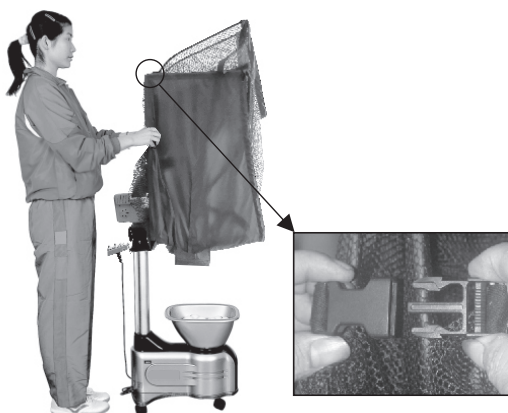


1. Open the carton, remove the cushioning foam and place the robot gently on the ground. Remove the transparent plastic bag and the cushioning foam for the connecting joint.

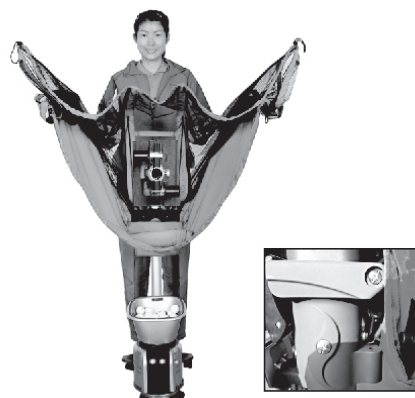


2. Gently lift the serving head all the way until it is automatically locked. While lifting the serving head a little bit further, flip and lift the buckle against the swivel joint support and press downward to have the serving head completely locked.

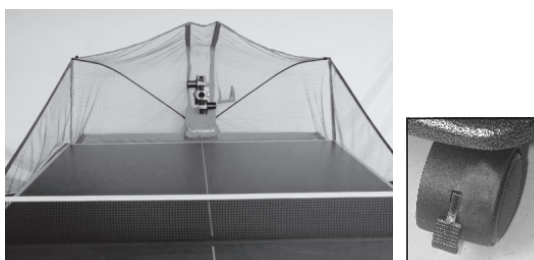
D. Installation of The Ball Collection Net



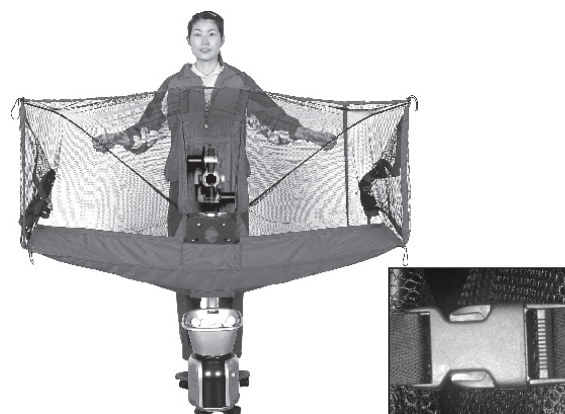
1. Unlock the buckle of the ball connection net.



2. Slightly unfold the ball collection net. Place the hole of the net onto the serving head. Insert the ball collection net into the net supporting part at the back of the robot.



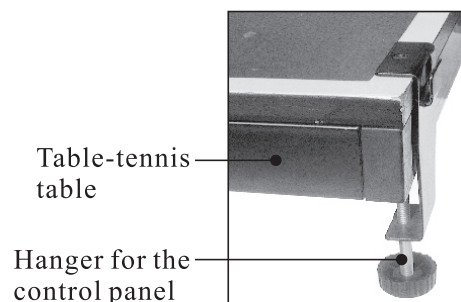
3. Move the robot close to the table and lock the casters. Fasten the velcro of the ball collection net to the middle net of the table.



4. After use, reverse the previous steps to fold the ball collection net. Lock the buckle, release from the robot and store.



Completed installation is shown in the picture above



★ The hanger can be placed anywhere on the side of the table. It is more convenient for the players to get access to the control panel when it is attached to the hanger.

E. Start And Stop for The Robot



1 Insert the plug into the power supply. Switch on the robot.

2 The light for the Start/Stop button on the control panel will turn red. One of the function mode lights and one of the landing point number lights will also illuminate. At this moment, set the spin level and serving frequency according to the factory reset and recommended parameters as shown below. Press the Start/Stop button. The light will turn green and the robot will start. Balls are served in accordance to the parameters set.

Type of spin	Top-wheel speed	Bottom-wheel speed	Serving Frequency
Factory Reset	3.5	3.0	50

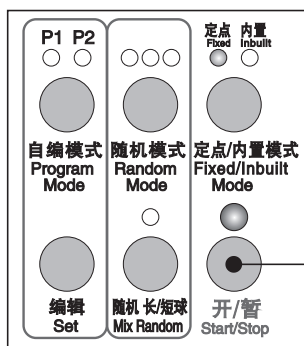
3 Press the Start/Stop button once again. The light for which will turn back to red and the robot will stop.

Caution

1. Please keep away from the serving head when Start/Stop button is pressed. Balls served will cause physical damage to your body if you are close to the serving head.
2. Please disconnect the power supply when the robot is not in use.

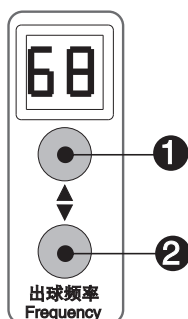
F. Functions And Use of The Control Panel

I. Start And Stop



- 1 Press the **Start/Stop** button once, the light for which will turn from red to green and the robot will start.
- 2 Press the **Start/Stop** button once again, the light for which will turn back to red and the robot will stop.

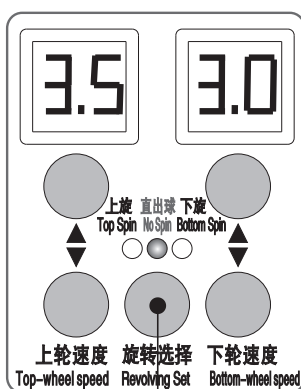
II. Adjustment of Serving Frequency



- 1 Press the ▲ button once, the number on the digital display will be increased by one . One more serve is set per minute. Hold down the ▲ button and the number on the digital display will quickly be increased until 99.
- 2 Press the ▼ button once, the number on the digital display will be decreased by one . One fewer serve is set per minute. Hold down the ▼ button and the number on the digital display will quickly be decreased until 30.

Hints: Adjustment of serving frequency can be made whenever the robot is in operation.

III. Selection of Spin Type and Adjustment of Spin Speed



a) b) c)

1. Selection of Spin Tye

Under the Fixed mode or Random mode,

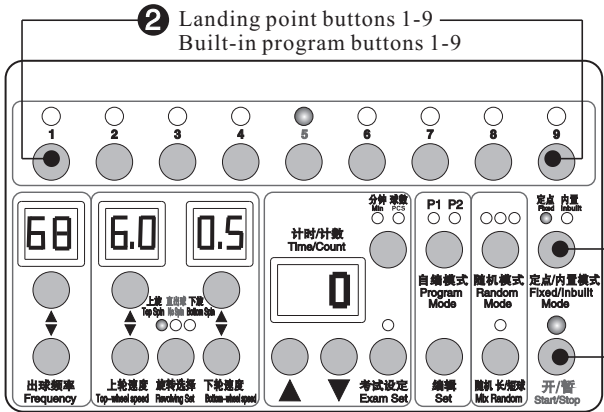
- a)press the **Revolving Set** button until the light for the Top Spin turns on. Top Spin is set and the two numbers displayed denote the levels of the top-wheel speed and bottom-speed last set and used.
- b)press the **Revolving Set** button until the light for the No Spin turns on. No Spin is set, and the Top-wheel speed and Bottom-wheel speed default to 3.5 and 3.0 respectively.
- c)press the **Revolving Set** button until the light for the Bottom Spin turns on. Bottom Spin is set and the two numbers displayed denote the levels of top-wheel speed and bottom-speed last set and used.

2. Adjustment of Spin Speed

Press the ▲ buttons for the Top-wheel speed and bottom-wheel speed to adjust the levels of the spin. The numbers displayed range from 0.5 to 9.9. Hold down the ▲ or ▼ and the number displayed will quickly be increased or decreased respectively. The higher the number, the stronger is the spin speed.

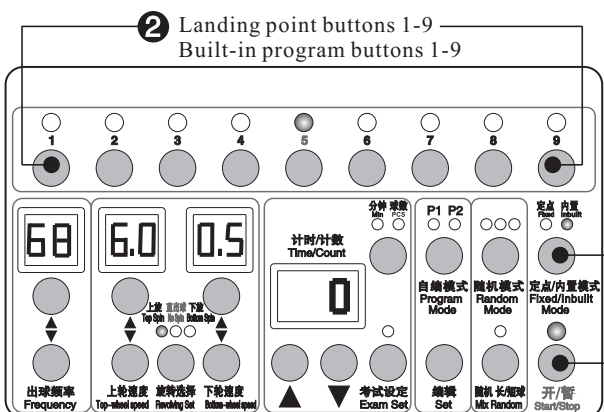
Hints: The adjustment can be made when the robot is in operation or under the Stop mode.

IV. The Setting of Fixed Mode



- 1 Press the **Fixed/Inbuilt Mode** button until the light for 'Fixed' turns on.
- 2 Select and press **one of the buttons for the 1-9** landing points you desire. The corresponding light will turn on.
- 3 Press the **Start/Stop** button, the light for which will turn from red to green. Balls will continuously land on the point that you have selected.

V. The Setting of Inbuilt Mode



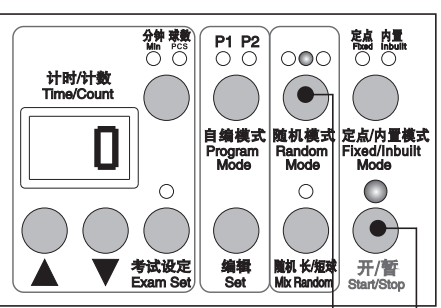
- 1 Press the **Fixed/Inbuilt Mode** button until the light for 'Inbuilt' turns on.
- 2 Select and press **one of the buttons for Built-in programs 1-9** you desire. The corresponding light will turn on.
- 3 Press the **Start/Stop** button, the light for which will turn from red to green. The Inbuilt Mode is activated.

Hints: All serving parameters can be adjusted during the operation of the mode. When serves fall out of bounds or into the net, adjustment of serving curve is required.

Notes:

- Combinations ① ③ Consist of topspin serves designed for training of forehand drives at left and right sides of the table along with the footwork practice.
- Combinations ② ④ Consist of backspin serves designed for training of forehand and backhand drives using the technique of the loop shot.
- Combinations ⑤ ⑥ Consist of topspin serves designed for training of forehand and backhand drives, and all forehand drives at left and right sides of the table along with the technique of a) side to side footwork and b) cross-over footwork.
- Combinations ⑧ ⑨ Consist of topspin serves falling at 1-9 landing points on the entire width of the table. They are designed for the players to upgrade their offensive and defensive ability.

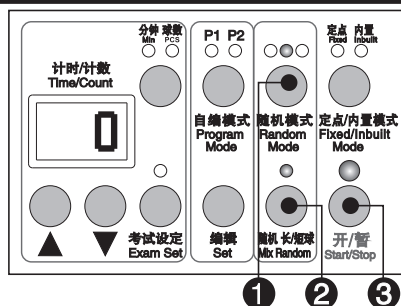
VI. The Setting of Random Mode



- 1 Press the **Random Mode** button once. The middle light for the mode will turn on green. Balls served will land randomly on 1-9 points across the entire width of the table.
- 2 Press the **Random Mode** button once again. The right light for the mode will turn on red. Balls served will land randomly on 5-9 points at the right side of the court only.
- 3 Press the **Random Mode** button once again. The left light for the mode will turn on red. Balls served will land randomly on 1-5 points at the left side of the court only.
- 4 Press the **Start/Stop** button and the random mode is activated in accordance with the above step ① ② or ③ selected.

Hints: Change of function mode can be made whenever the robot is in operation.

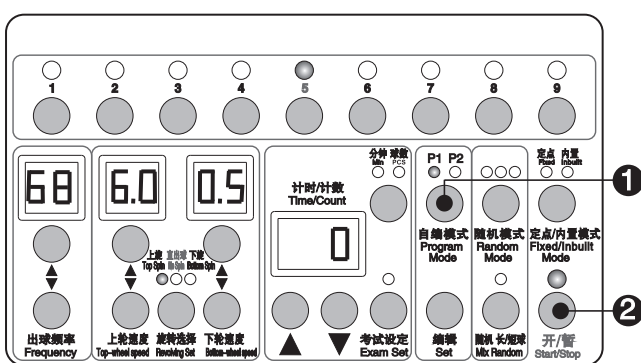
VII. The Setting of Mixed Random Mode



- 1 Refer to the above section VI to select as you desire the setting of serves landing randomly on 1-9 points across the entire width of the table, on 5-9 points at the right side of the table only, or on 1-5 points at the left side of the table only.
- 2 Press the **Mix Random Mode** button, the light for which will turn on.
- 3 Press the **Start/Stop** button to activate the mode. Both long range and short range balls are served randomly on the table in accordance to the setting of step 1 above.

Hints: 1. Change of function mode can be made whenever the robot is in operation.
2. When serves fall out of bounds or into the net, adjustment of serving curve is required.

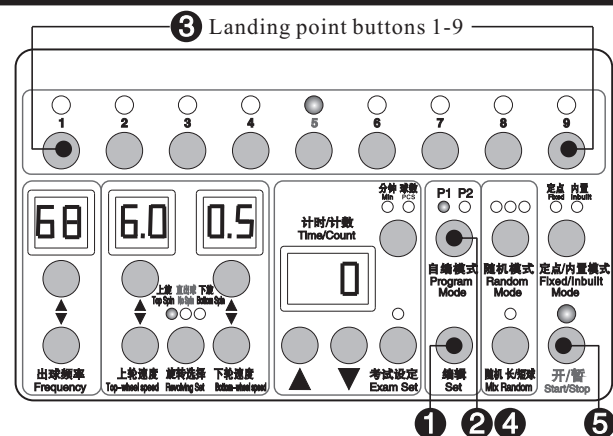
VIII. The Setting of Program Mode



- 1 Press the **Program Mode** button until the light for P1 (program 1) or P2 (program 2) that you desire and select turns on.
- 2 Press the **Start/Stop** button, the light for which will turn from red to green. The P1 or P2 is activated.

Hints: All serving parameters can be adjusted during the operation of the mode. When serves fall out of bounds or into the net, adjustment of serving curve is required.

IX. The Setting of Combinations of Serves

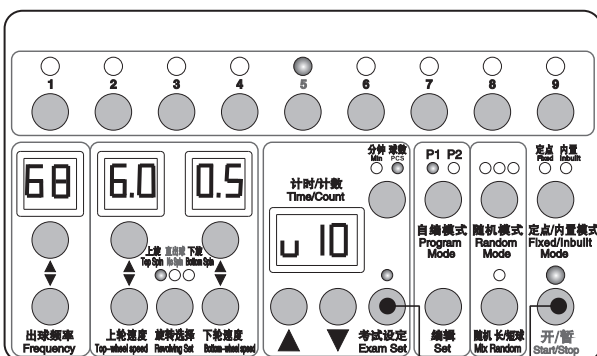


Two combinations of serves can be programmed and restored. Before the programs are set, top-wheel speed, bottom-wheel speed, serving frequency and serving curve should be adjusted and set as you desire under the Fixed mode.

- 1 Press the **Set** button. The indication light for P1 and one of the lights for landing points 1-9 will blink.
- 2 Press **Program Mode** button to select P1 or P2. The corresponding light for P1 or P2 will blink.

- 3 Press **one of the numbered** buttons to select the landing point desired. The corresponding light for the landing point selected will turn on. The first serve is set and saved. Follow the same procedure to set the 2nd, 3rd.....up to the maximum 32nd serve (there is no limit to repeatedly set the same number of the landing point).
- 4 Press the **Program Mode** button. The light for P1 or P2 that you selected will stop blinking and stay lit. All the above settings mentioned in this section will be saved. The current settings will override the last program previously set. (This step can be skipped and direct go to the following step 5 if you want to run the combination immediately upon the completion of the program.)
- 5 Press the **Start/Stop** button. P1 or P2 is now activated. The corresponding light for P1 or P2 will turn on. Balls are served in accordance to the settings under the selected P1 or P2.

X. The Setting of Examination Mode

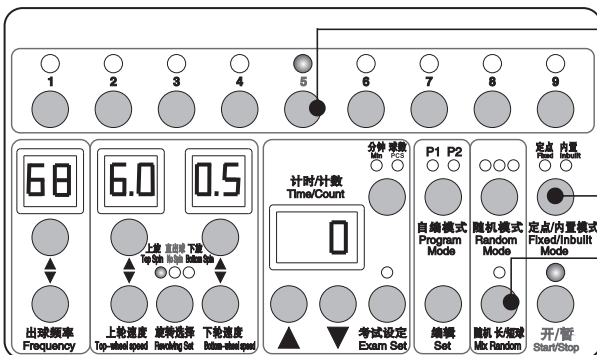


The settings of this mode are based on the contents and time of each course as required by the Examination Bureau. Two course levels can be set. First level consists of P1(10 serves) and P1(30 seconds). Second level consists of P2(10 serves) and P2(30 seconds). The mode is run repeatedly in the order of P1 (10 serves)→P1 (30 seconds)→P2 (10 serves)→P2 (30 seconds). The requirements of both levels must first be set and saved in P1 and P2 under the Setting of Combinations of Serves as described in the above section IX.

- ① Press the **Exam Set** button. The lights for Exam Set, PCS and P1 are all illuminated. The symbol 10 is shown on the digital display at the same time.
- ② Press **Start/Stop** button to activate the mode. 10 balls will be served as programmed under P1. The robot will automatically stop when the displayed number counts down to 00. The digital display will then turn and show 30. The light for Min turns on and the light for P1 remains lit.
- ③ Press the **Start/Stop** button. Balls will be served as programmed under P1 for 30 seconds. The robot will automatically stop when the displayed number counts down to 00. The digital display will then turn and show 10. The lights for PCS and P2 will also turn on.
- ④ Press the **Start/Stop** button. 10 Balls will be served as programmed under P2. The robot will automatically stop when the displayed number counts down to 00. The digital display will then turn and show 30. The light for Min turns on and the light for P2 remains lit.
- ⑤ Press the **Start/Stop** button. Balls will be served as programmed under P2 for 30 seconds. The robot will automatically stop when the displayed number counts down to 00. The settings will then be reversed to that of step ② and the operation can be done repeatedly through the steps ② to ⑤.

Hints: All the serving parameters cannot be adjusted during the operation of the mode. Adjustment of serving parameters should be done under the Program Mode before the Exam mode is set.

XI. Reset of Factory Recommended Parameters



Landing point button 5

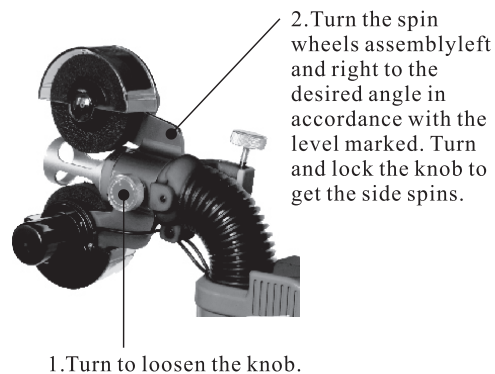
Fixed/Inbuilt mode button

Mixed Random mode button

Press and hold the above 3 buttons simultaneously for 2 seconds. The factory recommended parameters are reset and restored.

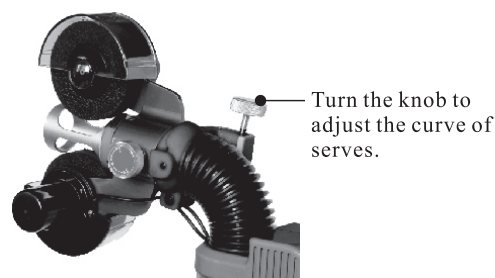
G. Choice of Spin Types

There are 9 spin modes to choose from: top spin, under spin, left side spin, left side top spin, left side under spin, right side spin, right side top spin, right side under spin and no spin (straight). Each type of spin can be obtained from the selection of top-wheel speed, bottom-wheel speed and/or from adjustment for the angle of the spin wheels assembly (as the picture on the right shows).



H. Serving Curve Adjustment

Use the knob at the top of the serving head (as the picture on the right shows) to adjust the curve of serves. Turn the knob counter-clockwise to lower the curve. Turn the knob clockwise to get a higher curve. When changing serving spin level causes serving balls to fall out of bounds or into the net, adjustment of the curve is required. Please also see chapter Q.



J. Capacity of Ball Collection Dish

Capacity: 90 pcs of 40mm-ball. Balls put in the dish should not exceed the black line on the inside of the dish.

Note: nothing other than table tennis balls should be placed in the dish. Otherwise, it may cause machine failure or damage to the parts.



K. Maintenance

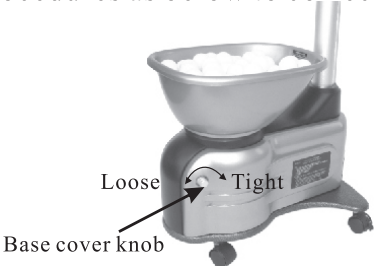
1. The robot and the control panel should be prevented from strong vibration and from getting wet. Failure to do so will cause short circuit or electricity leakage resulting in damage to the electrical and electronic components.
2. After a period of use, there will be wear and tear on the spin wheels, causing slower serving speeds than usual. Adjust the distance between the two wheels to resume the effectiveness of the serves. Please see chapter N.
3. After use for 1 to 2 months, dust and dirt might gather in the ball running track. Remove all balls from the ball running track. Clean the track with a wet cloth and spray some car cleansing wax (spray type) in the track from the ball entrance and exit.
4. When the robot is not in use for a longer period of time, please disconnect the power supply and cover the robot with cloth or a plastic bag.

L. Troubleshooting

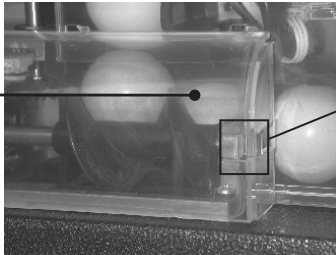
Problem	Characteristic	Solution
The robot doesn't work	1. Lights on the control panel are not lit.	Check if the power plug is properly connected.
		Check if the power on/off is switched to 'On'.
		Check if the plug of the control panel wire is completely connected to the control panel.
		Disconnect the power supply. Check if the fuse (3.15A) connected to the computer board is broken. See P.13
	2. Lights on the control panel are lit but all motors don't work.	Check if the On/Off button on the control panel is pressed to switch on (corresponding light is green) .
		Disconnect the power supply. Check if the fuse (3.15A) connected to the computer board is broken. See P.13
	3. Lights for 3 function modes and Start/Stop on the control panel all blink.	Check all plugs for control panel and computer board are completely connected.
		Disconnect power supply. Check if there is a jam. See the same page below (Note: Please don't let damaged balls come into the ball running track).
		After use for 1 to 2 months, dust and dirt might gather in the ball running track causing unusual ball movement. Remove all balls from the ball running track. Clean the track with a wet cloth and spray some car cleansing wax (spray type) in the track from the ball entrance and exit.
Control panel doesn't work	1. Lights on the control panel blink.	Disconnect the power supply. Restart the robot after 10 seconds.
	2. Start/Stop button is out of order.	Disconnect the power supply. Check if the plug at the back of the control panel is loosened. Restart the robot.
If the above can't solve the problems, please contact your supplier or our Product Support Department.		

M. Fixing A Jam

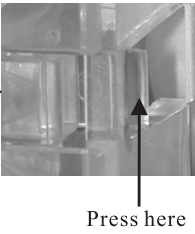
A ball getting stuck is mainly attributable to damaged balls or other items that may be blocking the ball running track. If the problem occurs, disconnect the power supply and follow the procedures as below to correct:

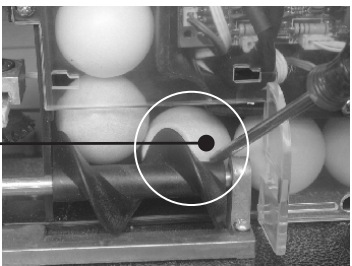
- 

Base cover knob

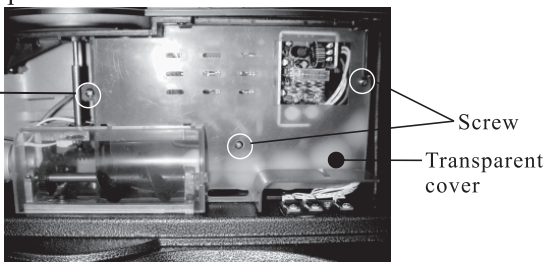


Pushing rod cover



Press here
- 1 Turn and loosen the knob to open the base cover.
 - 2 Press the lock for the pushing rod cover and release the cover by pushing it to the left as the above picture shows.
- 

Ball getting stuck



Screw

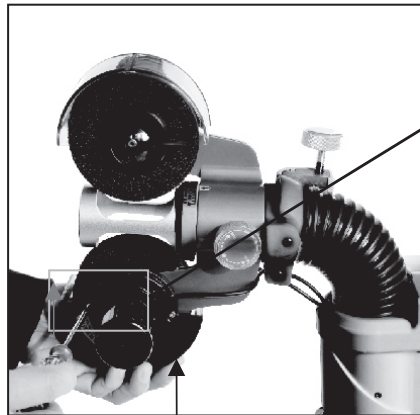
Transparent cover

Screw
- 3 Use a screw driver to lift the stuck ball so that it won't cause a jam. Rotate and push forward the pushing rod a little to make sure it is movable. Replace the pushing rod cover and close the base cover. Restart the robot.
- ★ If the procedures above don't solve the problem, remove the transparent cover by loosening the 3 screws as the above picture shows. Take away the bad balls or other objects. Replace the transparent cover and restart the robot.

N. Adjustment And Replacement of Spin Wheel

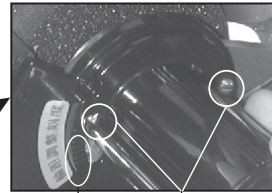
I. Adjustment of spin wheel

After a period of use, there will be wear and tear on the spin wheels causing slower serving speeds than usual. Adjust the distance between the two wheels to resume the effectiveness of the serves.



Under spin wheel assembly

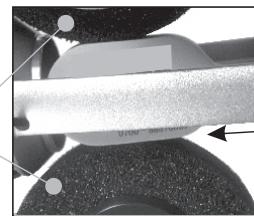
Picture1



Scale mark
for the distance
between wheels

Motor
screw

Top and under
spin wheels



About 36.5-37mm

Gauge for standard
distance between
wheels

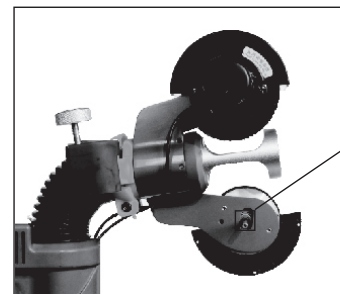
Picture2

Disconnect the power supply. Use the screwdriver to loosen the 2 motor screws a little (see picture 1). Lift the under wheel assembly up about 2-3 mm (one level of the scale mark), or lift until the gauge fits in perfectly (see picture 2). Tighten the screws and the robot is ready for operation.

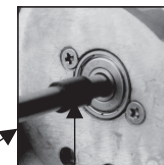
Note: The above adjustments will allow the robot to continue to serve properly, within a certain range of wear and tear. It is recommended that the wheel should be replaced when the diameter of the wheel reduces to 70mm due to wear and tear.

II. Replacement of spin wheels

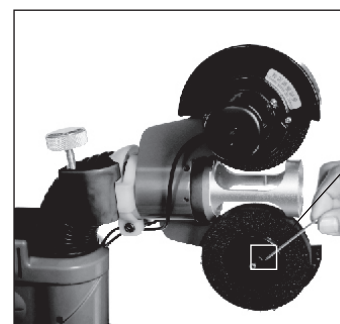
1. Disconnect the power supply. Remove the wheel cover of the under spin wheel by using the screwdriver which is enclosed with the package to unscrew the 3 screws of the cover.
2. Use the allen wrench to remove the under spin wheel. While removing the wheel, make sure the small blocking sleeve (see picture 1) that separates the wheel and the motor is still on the axis of the motor. Install the new wheel onto the axis of the motor. Use the allen wrench to tighten the screw of the wheel (see picture 2). Slightly loosen the 2 motor screws to adjust the distance between the 2 wheels to about 36.5 -37 mm in which the gauge for standard distance between wheels can perfectly fit. Tighten the screws.
3. Reinstall the wheel cover of the spin wheel and the replacement is completed. Repeat the above 3 procedures if the top spin wheel needs to be replaced.



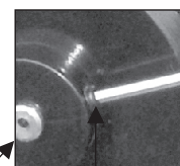
Picture1



Blocking sleeve



Picture2



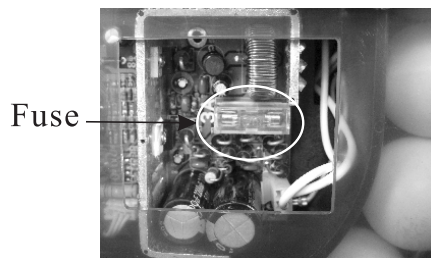
Allen wrench

Notes

1. When the landing points and speed of serves do not meet the standard, adjust the distance between wheels to get the best result.
2. Please replace the spin wheel under the supervision of your local supplier.

P. Fuse Replacement

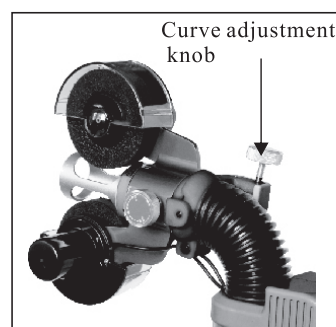
Disconnect the power supply before the fuse is replaced. Open the base cover. At the window of the transparent cover, pull out the fuse cover. Replace the bad fuse with a qualified one of the same standard (3.15A). Replace the fuse cover.



Q. Correction for Serves Falling out of Bounds Or into The Net

When serves fall out of bounds or into the net, adjust the top and under spin levels according to the factory reset and recommended parameters as described in the instruction manual.

1. When serves fall out of bounds, turn the curve adjustment knob counter-clockwise to lower the curve.
2. When serves fall into the net, turn the curve adjustment knob clockwise to get a higher curve.



R. Packaging Information

Gross weight	20 Kg
Net weight	11 Kg
Dimensions	97X55X41 cm

We reserve the rights to make any changes or modifications to the machine as well as the attachments without further notice.