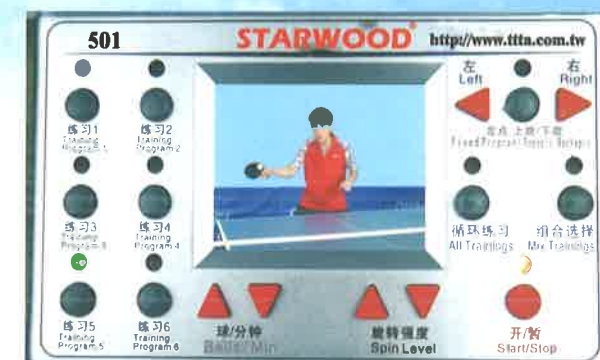


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乒乓球发球机 Serving For Table Tennis 使用手册 Instruction Manual

STARWOOD[®] 501



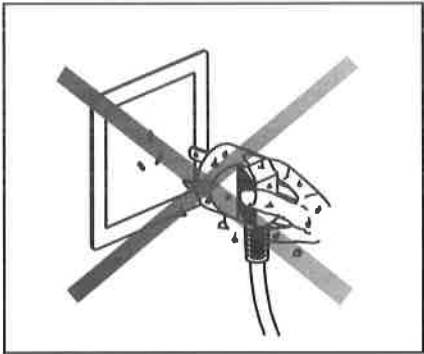
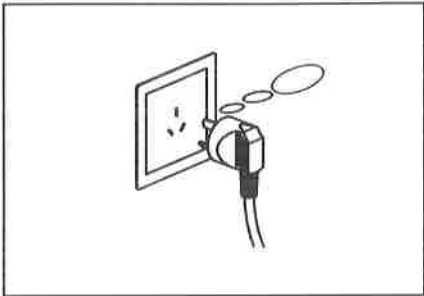
使用前请阅读此手册
Please read this manual before operation

声 明

- 1. 在使用本发球机前，请详阅本使用手册；
- 2. 若遇到问题，请联系经销商或售后服务部；
- 3. 由于错误使用本机，而引起的故障和损害，本公司将不负任何法律上的责任；
- 4. 由于错误操作或自行拆卸、改装引起的故障，将不享有保修服务；
- 5. 本使用手册未经许可，不得转载和复制；
- 6. 本机（包括附件），可能因需要而更改，本公司不另行通知；
- 7. 本机必须使用国标 $\phi 40+$ 一星或以上的新材料乒乓球。（提示：踩、压凹的乒乓球禁止用开水泡后继续使用。）

警 告

- ★ 使用前请确认电源适配器输入电压AC100V~AC240V，50/60Hz。
- ★ 请勿在手潮湿时插拔电源插头，否则可能会引致电击。
- ★ 为了保证发球机使用安全，发球机的电源插座必须要有可靠的接地线。
- ★ 当停止使用本机或雷雨天气，请将本机电源线插头从插座拔开。
- ★ 如果发生异常故障请立即关掉电源开关，从电源插座拔下电源线插头。与经销商或厂家维修服务中心联系。排除故障方可通电使用。
- ★ 按下操作盒上的《开/暂》键后，身体任何部位不要靠近机头出球口，否则打出的球可能会伤及身体。



温馨提示 在使用本新产品前，请仔细阅读此使用手册，以保证您安全、正确、高效地使用发球机！

发球机的基本特征和功能

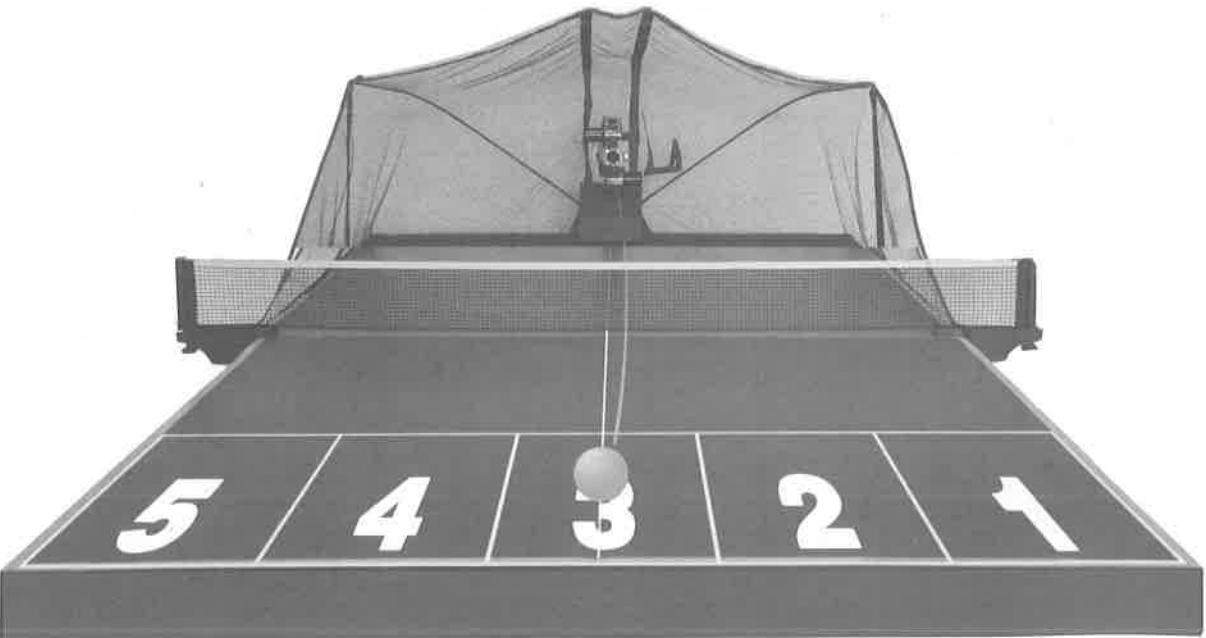
- ★ 控制盒采用彩色液晶屏，定点程式彩图显示落球点位置，练习程式1~6以及循环练习、组合练习的发球程式均实时显示落点位置并同步视图演示练习动作。
- ★ 单机头双发球轮实现上旋、下旋的旋转转换发球。
- ★ 全台横向设置5个落点。
- ★ 旋转强度设有8档，彩屏数字显示。
- ★ 设有6组练习程式，可进行多种的组合练习打球方法。
 - 1) 单组程式练习 选择其中一组练习程式循环发球。
 - 2) 1-6组练习程式顺序循环发球。
 - 3) 在1-6组程式中选择其中2-6组程式组合循环发球。

发球机推荐使用参数

程 式		旋 转 强 度	发 球 频 率 (球/分钟)	备 注
推 荐 使 用 参 数	定 点 上/下 旋	3	40	机 头 弧 线 旋 钮 达 到 最 佳 落 点 情 况 适 当 调 整
	练 习 1	3	40	
	练 习 2	3	40	
	练 习 3	3	40	
	练 习 4	4	45	
	练 习 5	5	50	
	练 习 6	6	60	
	循 环 练 习	5	50	
组 合 练 习		5	50	

使用参数提示：首次开机前，首先请按出厂设置参数，然后再按“开/暂”键进行练习，以后再根据自己的实际水平调整旋转强度及发球频率达到个人所要求。

程式	练习内容	旋转及落点位置	备注
定点	定点练习	上旋全台 ① - ⑤ 点	适合初级练习者
练习1	正手攻球或拉球练习	上旋 ②	适合初级练习者
练习2	反手推球或快拨练习	上旋 ④	适合初级练习者
练习3	左推右攻或正反手拉球练习	上旋 ① ④	适合中级练习者
练习4	反手搓球正手拉球或正反手拉球练习	下旋 ⑤ ④ ②	适合中级练习者
练习5	正手搓球正反手拉球推档练习	下旋 ③ 上旋 ① ④ ② ⑤	适合高级练习者
练习6	下旋短球拧拉正反手拉球推档练习	下旋 ② 上旋 ⑤ ① ④ ① ②	适合高级练习者
循环练习	连续循环练习1~练习6	全台 ① ~ ⑤ 点	适合高级球手
组合选择	连续循环组合练习	全台 ① ~ ⑤ 点	适合高级球手



落点示意图

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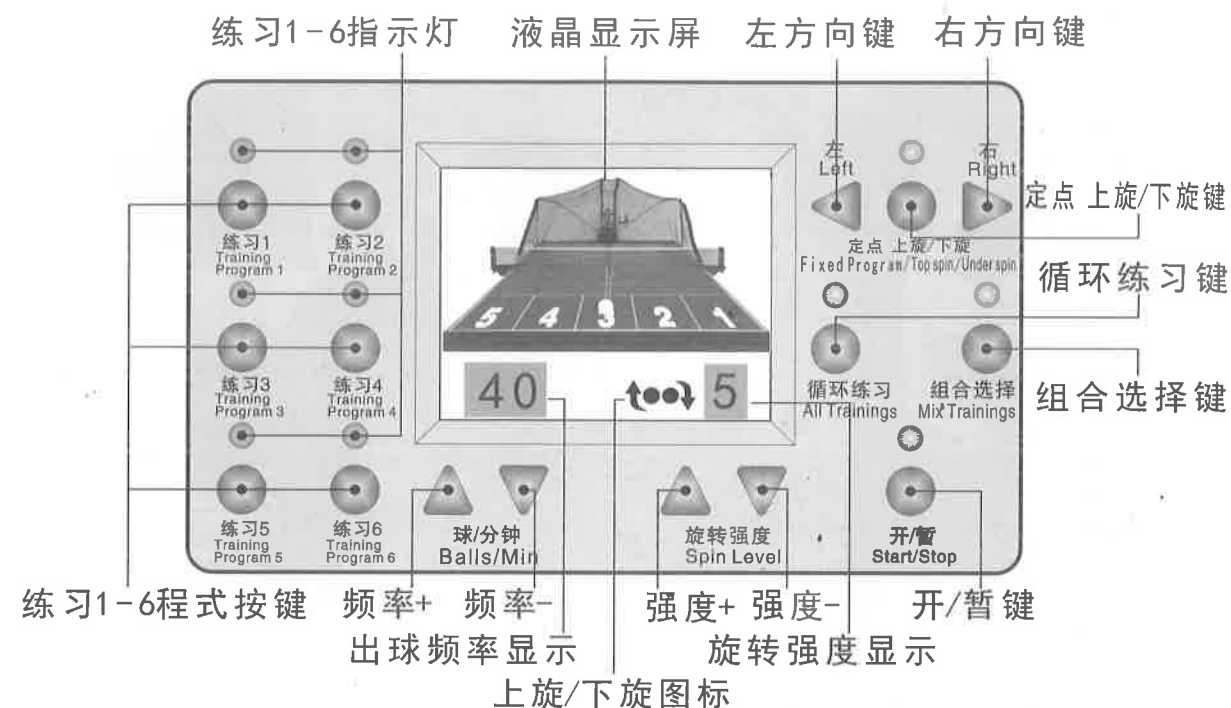
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A、发球机各部分名称



B、操作盒各功能名称

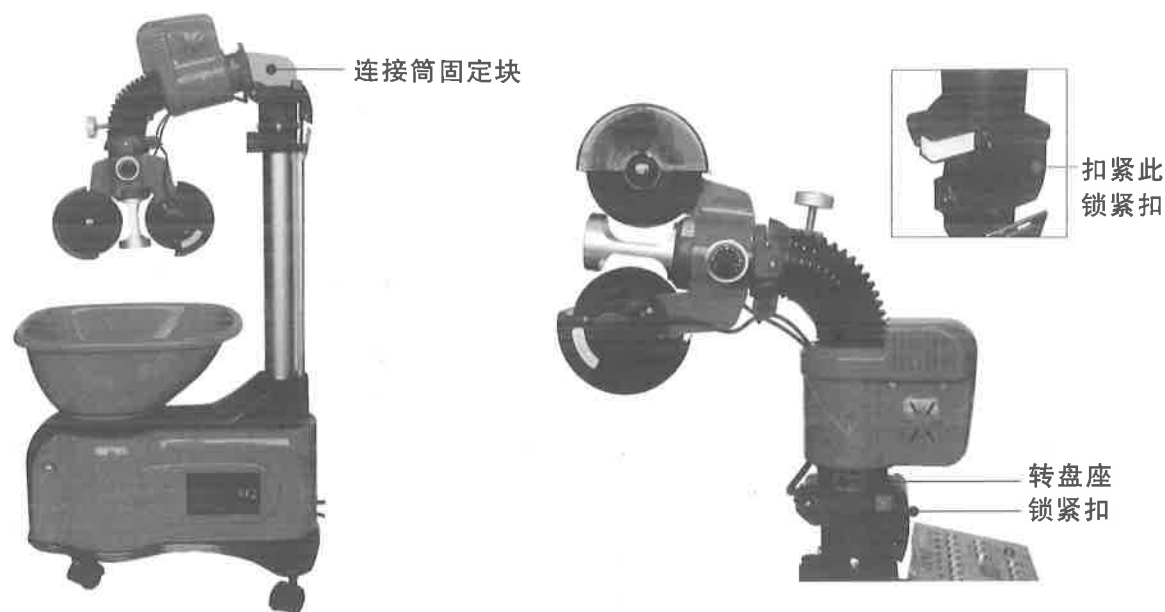


定点程式板面示意图



练习程式板面示意图

C、发球机的安装方法



1. 打开包装箱，取出包装泡沫，把发球机拿出后轻放在地板上；取出透明胶袋、连接筒固定块。

2. 用手向上托起机头，到安装位置时，把锁紧扣扣住转盘座后向下压，锁紧机头。完成发球机的安装。

机头的折叠



滑销盖

①. 打开滑销盖。



锁紧扣

②. 用手轻抬机头，打开锁紧扣。



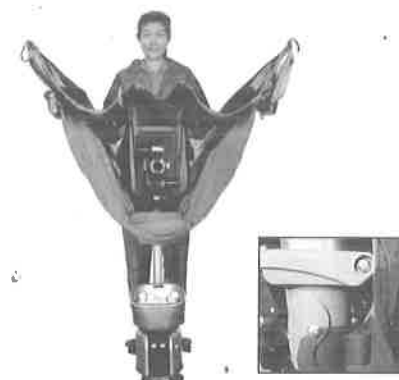
安全销

③. 用手托起机头，往左拨动安全销（红色处），然后慢慢将机头放下。

D、集球网的使用方法



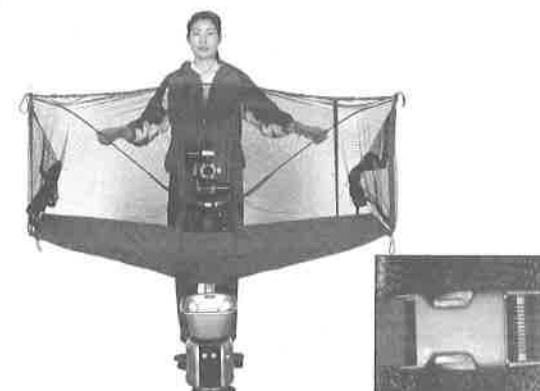
1. 将集球网的锁扣打开。



2. 将集球网略分开，网的圆孔套进发球机的机头，然后将集球网插入发球机的连接座插孔上。



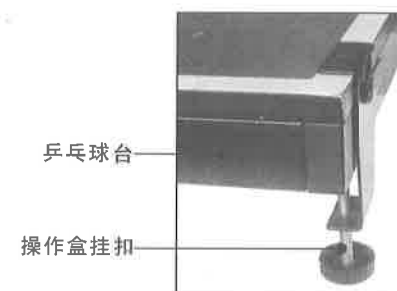
3. 将发球机移至球台边，把脚轮锁紧器关闭，把两侧栏网橡胶扣到球台网柱上。



4. 训练结束，将集球网按原来程序收叠，将锁扣扣好，移放在任何位置。



安装完成效果图



乒乓球台

操作盒挂扣

★ 操作盒挂扣可安装在乒乓球台边缘的任何位置，把操作盒放置在挂扣上，便于操作。

E、发球机的启动与停止



1 插上电源插头，开启机体上的电源开关，电源开关指示灯亮。

2 发球机电源开关开启后，操作盒上的<开/暂>指示灯亮（显示红色），同时显示发球机的使用参数、程式和液晶屏视图显示状态（均记忆显示上一次关机前的状态参数）。
首次使用发球机请参照“推荐使用参数”按下《开/暂》键，指示灯变绿色，即开始发球。

3 若再按下《开/暂》键，<开暂>指示灯会恢复显示红色，则停止发球。

警告

- 1、按下操作盒上的《开/暂》键后，身体任何部位不要靠近机头出球口，否则打出的球可能会伤及身体。
- 2、停止使用发球机时，请断开电源。

F、操作盒功能的使用和操作步骤

一、出球频率的调节

出球频率显示

每按一次《球/分钟》▲键，出球频率增加5个球，液晶屏同时显示出球频率数值。
每按一次《球/分钟》▼键，出球频率减少5个球，液晶屏同时显示出球频率数值。

提示

- ① 出球频率调节范围30-80球/分钟。
- ② 出球频率可在发球机运行或暂停状态下进行调节。

二、旋转强度的调节

旋转强度显示

每按一次《旋转强度》▲键，旋转强度增加1档，液晶屏同时显示旋转强度值。
每按一次《旋转强度》▼键，旋转强度减少1档，液晶屏同时显示旋转强度值。

提示

- ① 旋转强度由1-8共分8档，数值越大表示旋转越强。
- ② 旋转强度可在发球机运行或暂停状态下进行调节。

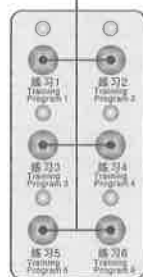
三、定点发球程式的操作步骤和上、下旋球的设定

- ① 按《定点》键，键上指示灯亮，液晶屏显示定点程式板面示意图，发球落点、旋转和旋转强度均记忆显示上一次使用的参数。
- ② 按左方向键◀或右方向▶键可调节选择1-5其中一个落点，液晶屏对应显示落球点位置。
- ③ 重复按《定点》键，上旋球⬆️和下旋球⬆️交替转换显示，选择设定所需上/下旋转。
- ④ 按《开/暂》键，键上指示灯显示绿色，此时的发球程式为对选定的一个落球点连续发球。

提示：发球机在运转状态下可以进行出球频率、上/下旋和旋转强度的调节操作

四、单组练习程式的操作步骤

练习1-6程式键

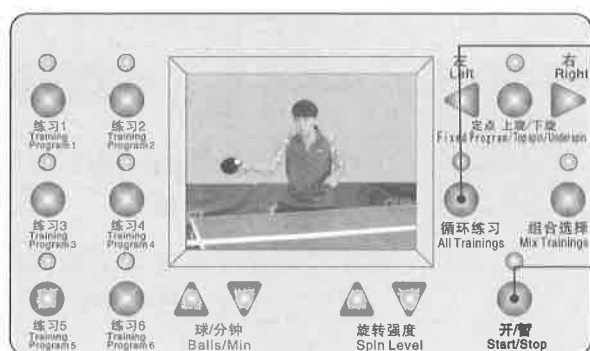


本机共设有6组练习程式,分为练习1~练习6,每组的练习程式在待机状态时,液晶屏定速动图演示该练习程式的练习动作,当开机运转时,液晶屏则实时显示发球落点并同步动图演示练习动作,操作方法如下:

- ① 暂停状态下按下练习1-6其中一个键,选定其中一个练习程式,键上的指示灯亮,液晶屏显示练习程式板面示意图,定速动图演示该练习程式的练习动作。
- ② 按《开/暂》键,键上指示灯显示绿色,发球机运行,液晶屏则实时显示落点位置并同步演示练习动作,为单组练习程式循环发球。

提示:发球机在运转状态下可以进行出球频率和旋转强度的调节操作

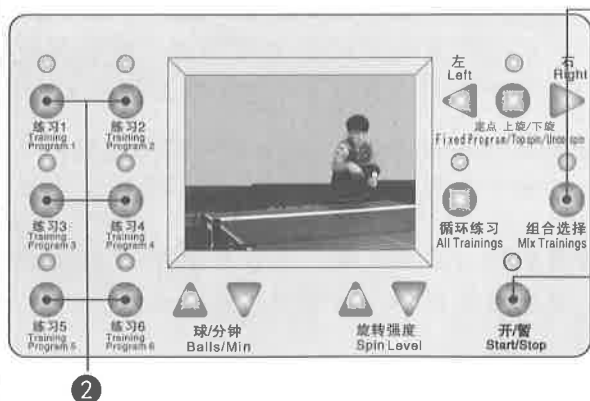
五、6组练习程式顺序循环练习的操作步骤



- ① 暂停状态下按《循环练习》键,键上指示灯和练习1-6程式指示灯全亮,其中正在运行的练习程式指示灯为闪烁显示,液晶屏动图演示该组练习程式的练习动作。
- ② 按《开/暂》键,键上指示灯显示绿色,发球机运行,并按练习1~6顺序不断转换和循环发球,液晶屏同时转换实时显示落球点位置并同时动图演示练习动作。

提示:发球机在出球状态下可以进行出球频率和旋转强度的调节操作

六、6组练习程式的组合选择操作步骤



- ① 暂停状态下按《组合选择》键,键上的指示灯亮,练习1~6程式指示灯记忆显示上次的练习程式组合状态。
- ② 根据你的需要顺次按入2-6组的练习程式例如:按练习5、1、3、4、2组,键上的指示灯亮,第一个按入的练习5指示灯闪烁同时液晶屏动图演示该程式练习动作。
- ③ 按《开/暂》键,键上指示灯显示绿色,发球机开始运行,练习程式按按入顺次不断转换和循环发球,液晶屏同时转换,实时显示落球点位置并同步动图演示练习动作。

提示:发球机在运转状态下可以进行出球频率和旋转强度的调节操作

G、旋转角度的选择

发球机可以发出的旋转球有:上旋球、下旋球、左侧旋球、左侧上旋球、左侧下旋球、右侧旋球、右侧上旋球、右侧下旋球、不旋球,共九种旋转球。各种旋转方式都是通过调节上、下旋转轮转速和旋转架的旋转度数(如右图)来实现的。



H、弧线的调节

调节发球弧线的旋钮位于机头顶上(如右图),向左(逆时针)拧可调低发球弧线,向右(顺时针)拧可调高发球弧线。由于改变发球的速度而导致落网或出界,这时就要调整此旋钮。请参考《出球落网及出界调整方法》。



J、集球盆的容量

集球盆的容量:40MM球约90个,放球时不能超过集球盆内侧标签所示黑线位。



注意:不能将其他杂物也倒入集球盆内,否则会损坏机内的零件并影响发球机的正常工作。

K、发球机的保养

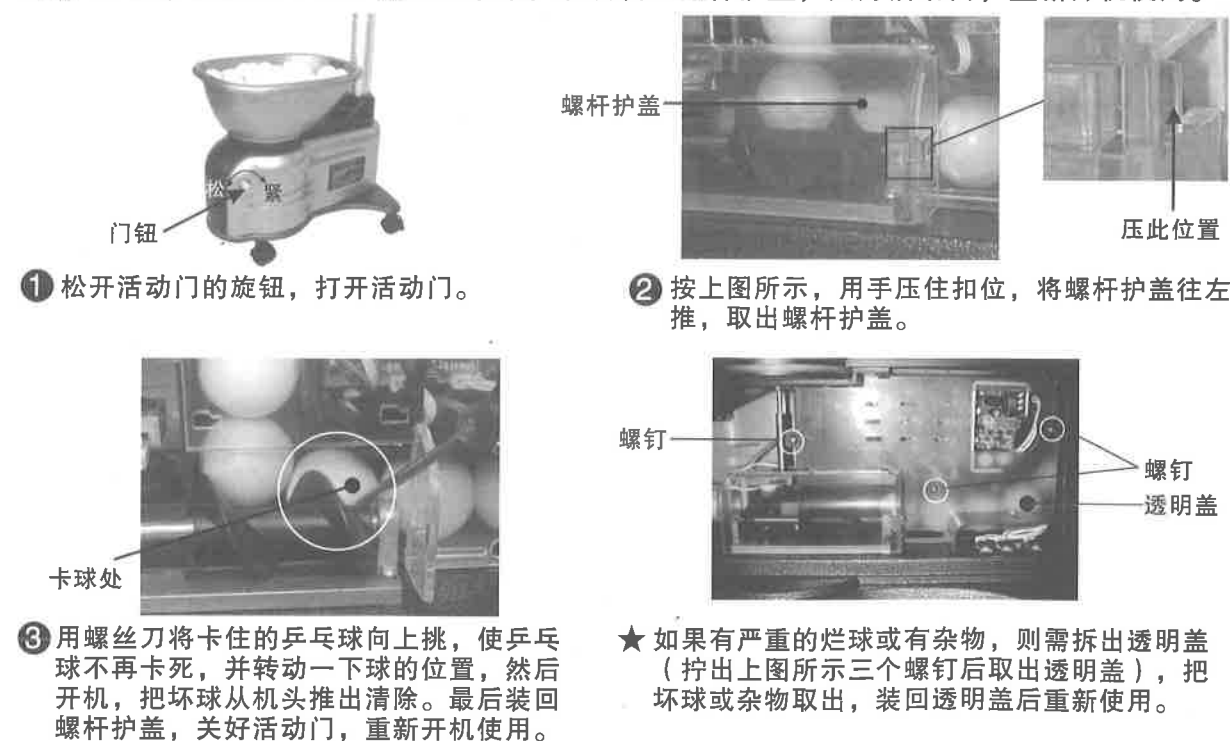
- 1、本产品的电器部份主要由主板和操作盒组成,是发球机的指挥系统,应防止受到强烈震荡,任何液体都不能洒落在上面,以免短路或者漏电损坏内部零件。
- 2、旋转轮经长期使用因磨损可能导致落球点不准和出球力度不够,此时可调整旋转轮的轮距,请参照《调整旋转轮的方法》。
- 3、发球机使用1~2个月后,球道内会聚积粉尘、杂物,这时应把乒乓球全部倒出,然后在出球口和入球口处喷洒少许车板蜡(喷雾式)进入球道内。
- 4、长时间闲置发球机,应拔开电源插头,并用布或胶袋盖好。

L、故障及排除方法与处理

故障	故障原因	排除方法
主机不工作	1. 操作盒指示灯不亮	· 检查电源插头是否正确插入插座
		· 检查AC开关是否为“ON”状态
		· 检查操作盒连接插头是否有正确插紧
	2. 指示灯亮, 所有电机不工作。	· 关闭电源, 检查机底架主机板保险管(3.15A)是否熔断(P11)
		· 检查操作盒是否有按下“开/暂键”(灯显示绿色)
	3. 操作盒面板有指示灯闪烁和液晶屏有警示图标。	· 关闭电源, 检查机底架主机板保险管(3.15A)是否熔断(P11)
		· 检查各插头是否有正确插紧
		· 关闭电源, 打开开合门, 检查是否卡球。(P9) (注意: 不要让坏球进入球道内)
操作盒失灵	1. 操作盒指示灯闪烁	· 发球机使用一段时间后, 球道内会积聚粉尘、杂物等而影响球在球道内的移动, 可将球道内的球全部倒出, 然后在出球口和入球口处喷洒少许清洁用的车板蜡(喷雾式)进入球道管内。
	2. 开/暂键失控	· 关闭电源, 待10秒后重新启动。
如未能排除故障, 请与经销商或维修服务中心联系。		

M、卡球的处理

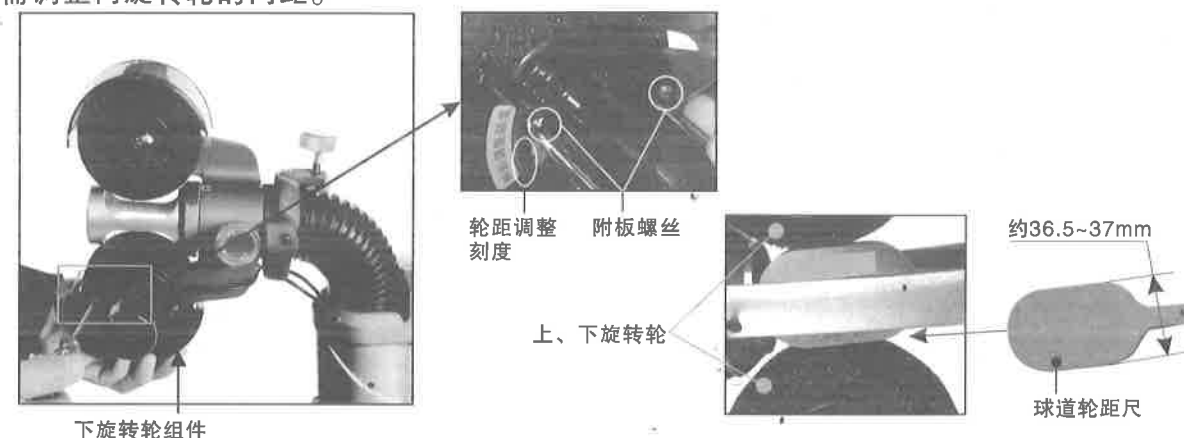
卡球可能是坏球混入球道内而引起的, 如发生卡球现象, 请先断开电源, 打开活动门, 拆出螺杆护盖, 然后按下图步骤处理卡球。最后装回螺杆护盖, 关好活动门, 重新开机使用。



N、调整及更换旋转轮的方法

一、调整旋转轮方法

当发球机使用时间较长时, 两旋转轮可能会发生磨损, 导致出球力度减弱, 此时需调整两旋转轮的间距。



断开电源, 用十字螺丝刀把附板电机的两颗螺丝轻轻拧松(图一), 把下旋转轮组件向上抬高2~3毫米(约一格)左右(也可以用球道轮距尺放入两轮之间作开口基准, 图二), 然后拧紧螺丝。开机试发球, 观察落点是否准确及力度是否符合要求。

注意: 旋转轮的调整范围是比较大的, 一般调整后可继续使用; 在直径磨损至70mm时可更换。

二、更换旋转轮方法

1. 断开电源, 用附送的十字螺丝刀将下旋电机面罩的三颗螺丝卸下, 拆去下旋电机面罩。
2. 用内六角匙卸下上、下两旋转轮, 先将定位管装到加长轴上(如图1), 然后用附送的两旋转轮装到上、下两附板电机上, 用内六角匙装紧两旋转轮, 固定好旋转轮上的内六角螺丝(如图2), 稍微拧松附板螺丝, 再用一个乒乓球夹紧在两旋转轮之间, 使两旋转轮之间的距离大约为36.5~37毫米, 然后固定好附板螺丝。
3. 重新装上下旋电机面罩后开机, 试发球, 观察落点及力度。



注意: ①当落点及力度不适合时, 可适当同时调整上、下两旋转轮的间距来达到要求。
②当磨损比较严重需更换时, 请与当地经销商联系, 在其指导下进行。

P、更换保险管的方法

当需要更换保险管时，请断开电源，打开活动门，在透明盖开口处。如图所示，拔出保险管盖，取出坏保险管，再装上同规格合格的保险管(3.15A)及保险管盖。

保险管



Q、出球落网或出界调整方法

当发球机发出的球落网或出界时，首先参考使用手册中的《发球机出厂设定及推荐使用参数》调整好上旋速度和下旋速度。

1. 出球落网，将机头上的弧线旋钮往上调整；出球出界，将机头上的弧线旋钮往下调整。(如图所示)
2. 本机为双旋转轮发球机，可跟据自己的技术水准，先调节所需的上旋球/下旋球和旋转强度，然后跟据发球落点调节发球弧线旋钮。



R. 包装参数表

毛重	20 Kg
净重	11 Kg
包装体积	97X55X42cm

温馨提示：液晶屏休眠保护功能

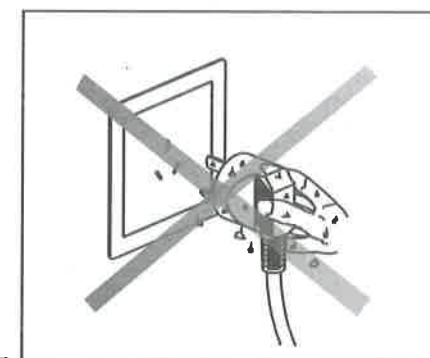
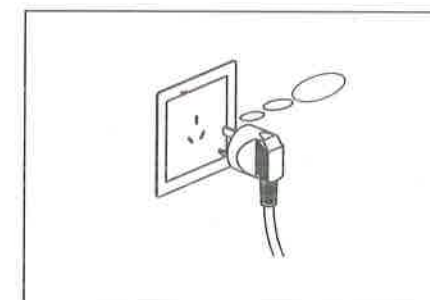
发球机在待机状态下超过10分钟，液晶屏自动启动进入休眠状态(关闭亮度即无显示)；当按下操作盒上的任意其中一个键时，液晶屏恢复显示原来的使用状态，然后可进行调节和操作。若发球机长时间暂停使用或离开时请关闭电源。

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. (Reminder: Do not reuse the bad balls that are inflated by hot water trying to resume their original shape.)

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.



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

P、更换保险管的方法

当需要更换保险管时，请断开电源，打开活动门，在透明盖开口处。如图所示，拔出保险管盖，取出坏保险管，再装上同规格合格的保险管(3.15A)及保险管盖。

保险管



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温馨提示：液晶屏休眠保护功能

发球机在待机状态下超过10分钟，液晶屏自动启动进入休眠状态(关闭亮度即无显示)；当按下操作盒上的任意其中一个键时，液晶屏恢复显示原来的使用状态，然后可进行调节和操作。若发球机长时间暂停使用或离开时请关闭电源。

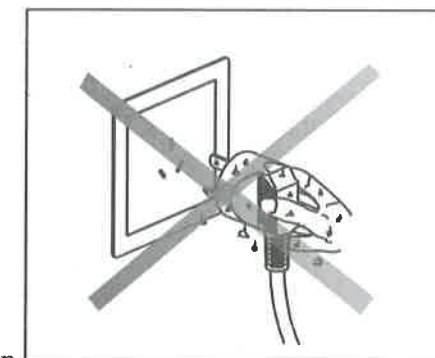
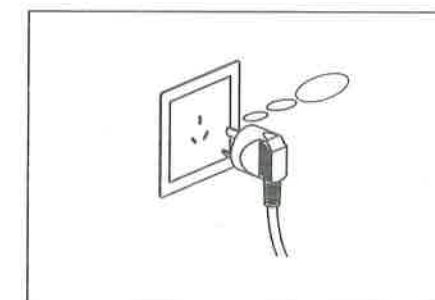
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Basic Features and Functions of The Robot

- * The robot is equipped with a color LCD screen on the control panel. The screen shows the landing position of the serves under each program along with a form demonstration of the player's stroke technique to make an individual return. The actions displayed on the screen are synchronized with the balls actually served by the robot.
- * Top and backspin serves are delivered simultaneously in some of the training programs.
- * Serves can be set landing on 1-5 points from left to right on the entire width of the table.
- * 8 levels of spin are provided and displayed on the screen for your selection.
- * There are 6 training programs to choose with 3 ways to play:
 1. Select single program to play;
 2. Combine all 6 programs into one to play.
 3. Select as desired 2 to 6 programs to be grouped together as a new program to play.

Factory Reset And Recommended Parameters

	Program	Spin Levels	Serving Frequency (Balls/Min)	Remarks
Recommended Parameters	Fixed Program	3	40	Use the Curve Adjustment knob at the top of the serving head to adjust the curve of serves for the best landing position of the ball as you desire.
	Training Program 1	3	40	
	Training Program 2	3	40	
	Training Program 3	3	40	
	Training Program 4	4	45	
	Training Program 5	5	50	
	Training Program 6	6	60	
	All Trainings Program	5	50	
	Mix Trainings Program	5	50	

Hints.: Please use the Factory Reset Parameters to have the robot start at the time of initial use. Press Start/Stop button to confirm and operate. Users can adjust and set the parameters based on their level of technique.

Program	Description	Spin Type(s) /Landing Point(s)	Suitable for
Fixed	Practice of strokes against serves landing at one point	Top or backspin/ landing points ① - ⑤	Beginners
Training P1	Practice of forehand drive	Top spin/ ②	Beginners
Training P2	Practice of backhand drive	Top spin/ ④	Beginners
Training P3	Practice of forehand & backhand drives	Top spin/ ① ④	Intermediate players
Training P4	Practice of backhand push and forehand loop at backhand & forehand sides	Backspin/ ⑤ ④ ②	Intermediate players
Training P5	Practice of forehand push for a short play and forehand & backhand drives	Backspin/ ③ Topspin/ ① ④ ② ⑤	Advanced players
Training P6	Practice of a) backhand flick to return a short serve at forehand side; b) backhand & forehand drives	Backspin/ ② Topspin/ ⑤ ① ④ ① ②	Advanced players
All Trainings	Programs 1-6 are in sequence to be grouped together to form a new training program.	Top and back spins/entire width of table ① - ⑤ landing points	Professional players
Mixed Trainings	2 to 6 programs can be grouped together as desired to form a mixed training program	Top and back spins/entire width of table ① - ⑤ landing points	Professional players



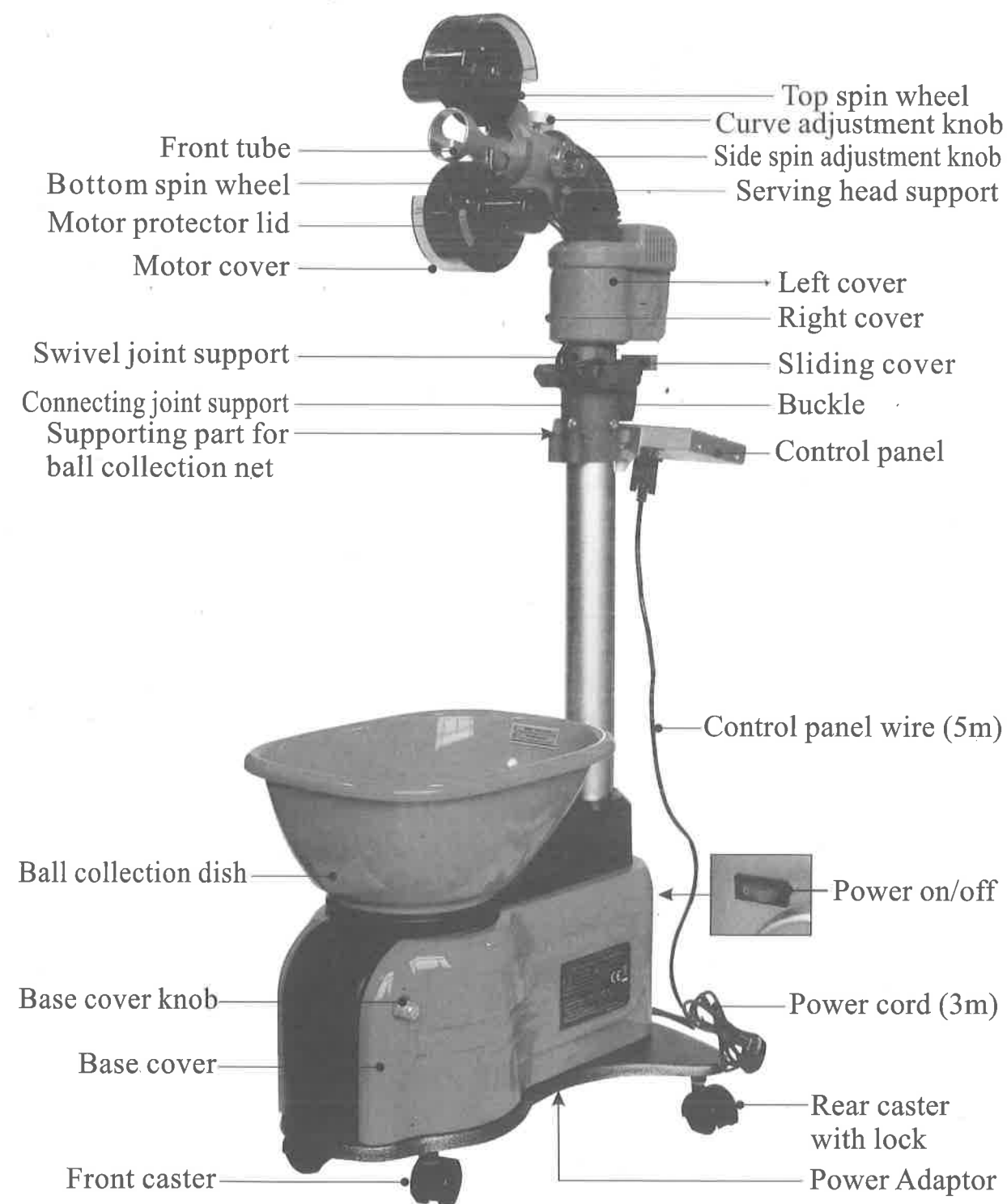
Demonstration of landing point for a serve

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A. Parts



B. Functions of The Control Panel

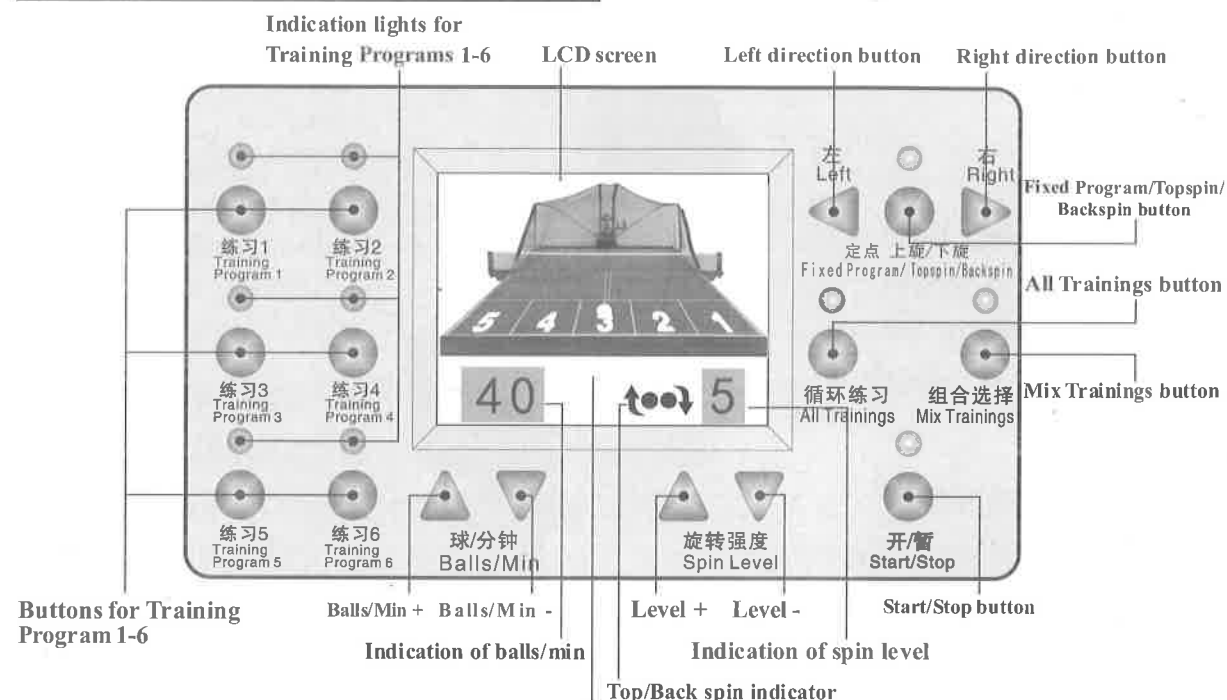
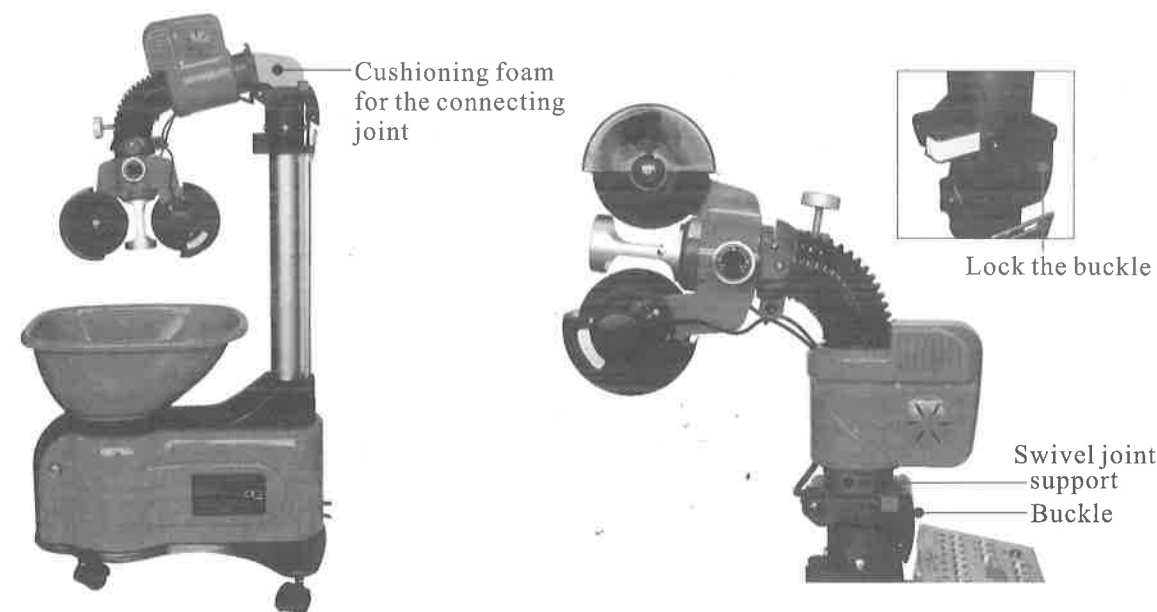


Image of Fixed Program on Display



Image of Training Program on Display

C. Installation



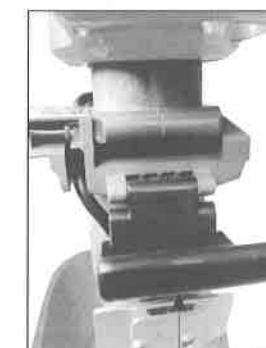
1. Open the carton, remove the cushioning foam and place the robot gently on the ground. Remove the transparent plastic bag and the cushioning foam for the connecting joint.

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.

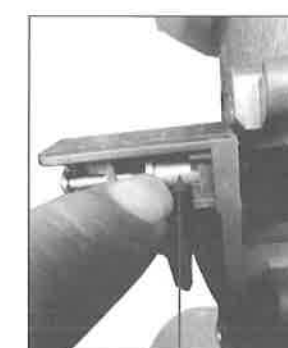
(2). Folding of The Serving Head



(1). Slide to open.



(2). Slightly lift the serving head and unlock the buckle.

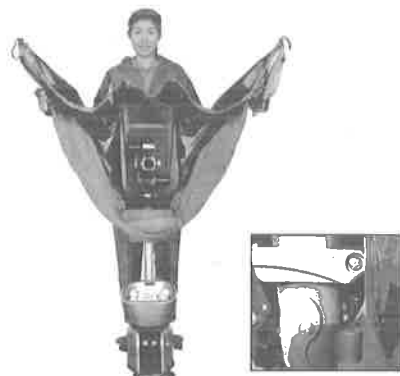


(3). While slightly holding up the serving head, release the safety lock (in red) by moving it to the left. Slowly let go the serving head, which will automatically be lower and stopped.

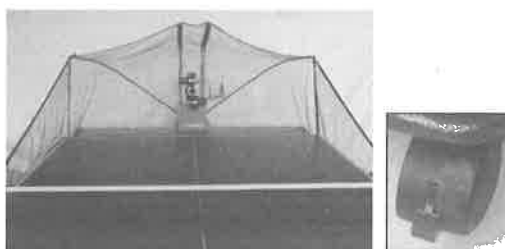
D. Installation of The Ball Collection Net



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.



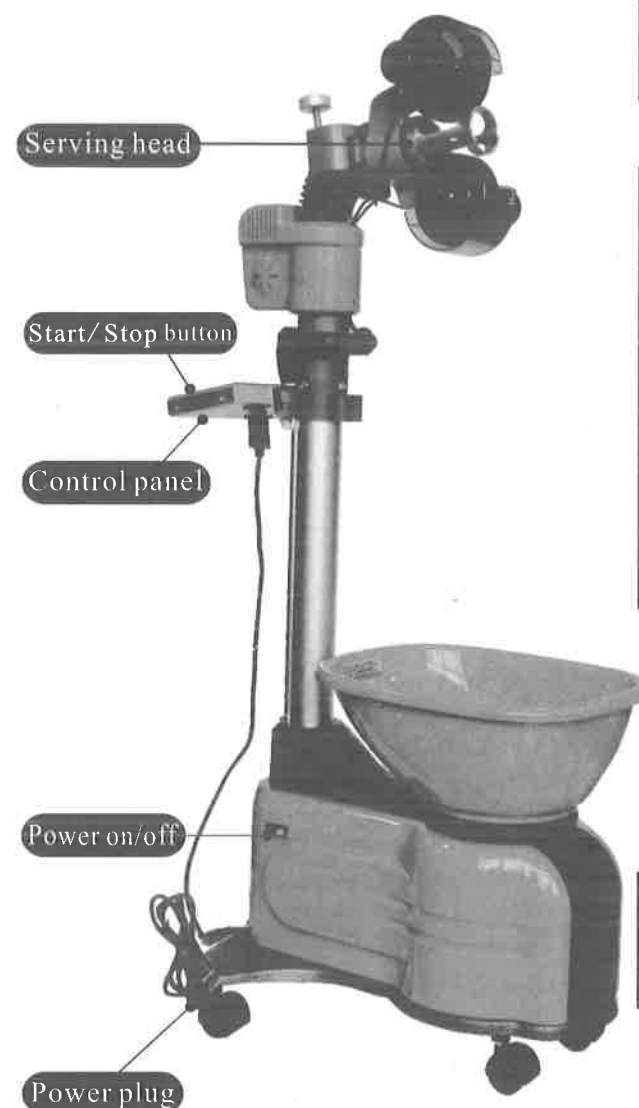
Completed installation is shown in the picture above

Table-tennis table

Hanger for the control panel

★ 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 and the power indication light will turn on.

2 The light for the Start/Stop button on the control panel will turn red. The serving parameters and one of the training programs will be displayed on the screen (the settings last used before the robot powers off will be restored and displayed). Set the spin level and serving frequency according to the factory recommended parameters when the robot is used at the first time. Press the Start/Stop button, the light for which turns green and the robot will start.

3 Press the Start/Stop button once again, the light for which turns 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. Adjustment of Serving Frequency

Indication of balls/minute

Hints

1. The range of the serving frequency is 30-80 balls per minute.
2. Adjustment of serving frequency can be made when the robot is in Start or Stop mode.

Press the ▲ button once, 5 more serves are set per minute and the adjusted number of serves is displayed on the screen.

Press the ▼ button once, 5 fewer serves are set per minute and the adjusted number of serves is displayed on the screen.

II. Adjustment of Spin Level

Indication of spin level

Hints

1. There are 8 levels of spin; the higher the number, the stronger the spin.
2. Adjustment of spin level can be made when the robot is in Start or Stop mode.

Press the ▲ button once, one stronger level of spin is set and the adjusted number of spin level is displayed on the screen.

Press the ▼ button once, one weaker level of spin is set and the adjusted number of spin level is displayed on the screen.

III. The Setting of Fixed Program And Selection of Spin Type

- 1 Press the **Fixed Program** button. The corresponding light will turn on and the image of the Fixed Program will be displayed on the screen as the picture shown on the left. Last settings of landing point, serving frequency, spin type and spin level are restored and displayed on the screen.
- 2 Press the **Left** or **Right** button to select one of the landing points 1-5 as desired. A ball will be displayed on the screen at the landing point just selected.
- 3 Press the **Fixed Program** button again. The symbol of top Spin and back spin will appear on the screen respectively. Press the **Fixed Program** button until the type of the spin you want is selected and displayed on the screen.
- 4 Press the **Start/Stop** button to activate the Fixed Program. Balls will continuously land on the point you have selected above.

Hints: Change of spin type and adjustment for serving frequency and spin level can be made when the robot is in operation.

IV. The Setting of Single Training Program

There are 6 training programs to choose from.

Buttons for training programs 1-6

- 1 Under the Stop mode, press one of the training programs 1-6 to select the program you want. The corresponding light for the program will turn on. The movement of a player returning the combination of serves preset under the program will be displayed constantly on the screen.
- 2 Press the **Start/Stop** button to activate the program. The corresponding light for the button will turn from red to green. Balls are served as preset under the program. The actions displayed on the screen are synchronized with the balls actually served by the robot.

Hints: Adjustment for serving frequency and spin level can be made whenever the robot is in operation.

V. The Setting of All Trainings Program

- 1 Under the Stop mode, press the **All Trainings** button. The lights for **All Trainings** and **Programs 1-6** illuminate. 6 Training programs are individually run in the sequence of Training Program 1 to 6 and auto reversed. The light for the training program being run will blink. No balls are served during this process. The actions displayed on the screen correspond to what strokes are introduced to return the serves, which are preset under the training programs.
- 2 Press the **Start/Stop** button, the light for which turns from red to green. The All Trainings Program is activated. Balls are served in the same way as step 1 above. The actions displayed on the screen are synchronized with the balls actually served by the robot.

Hints: Adjustment for serving frequency and spin level can be made whenever the robot is in operation.

VI. The Setting of Mix Trainings Program

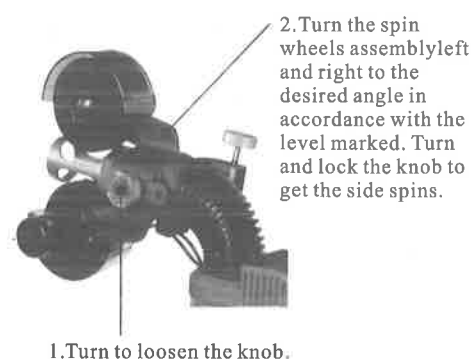
- 1 Under the Stop mode, press the **Mix Trainings** button, the light for which turns on. The lights for the training programs last selected will illuminate.
- 2 2 to 6 training programs can be selected as desired to form the Mix trainings Program. For example, press the buttons for Training Programs 6, 1, 3, 4 and 2. The indication lights for the 5 programs selected will illuminate. The light for Training Program 6 first selected will blink at the same time. The movement of a player demonstrating his stroke technique of returning the combination of serves preset under the Training Program 6 will be displayed constantly on the screen.
- 3 Press the **Start/Stop** button, the light for which turns to green. The Mix Trainings Program is activated. Balls are served as preset under each training program.

All the 5 training programs are run one by one in the sequence of selection made under step 2 above and auto reversed. The actions displayed on the screen are synchronized with the balls actually served by the robot.

Hints: Adjustment for serving frequency and spin level can be made whenever the robot is in operation.

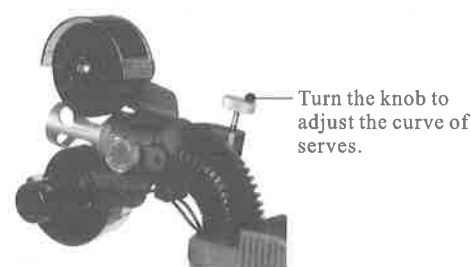
G. Choice of Spin Types

There are 9 spin modes to choose from: top spin, back spin, left side spin, left side top spin, left side back spin, right side spin, right side top spin, right side back spin and no spin (straight). Each type of spin can be obtained from the selection of top spin or back spin 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.

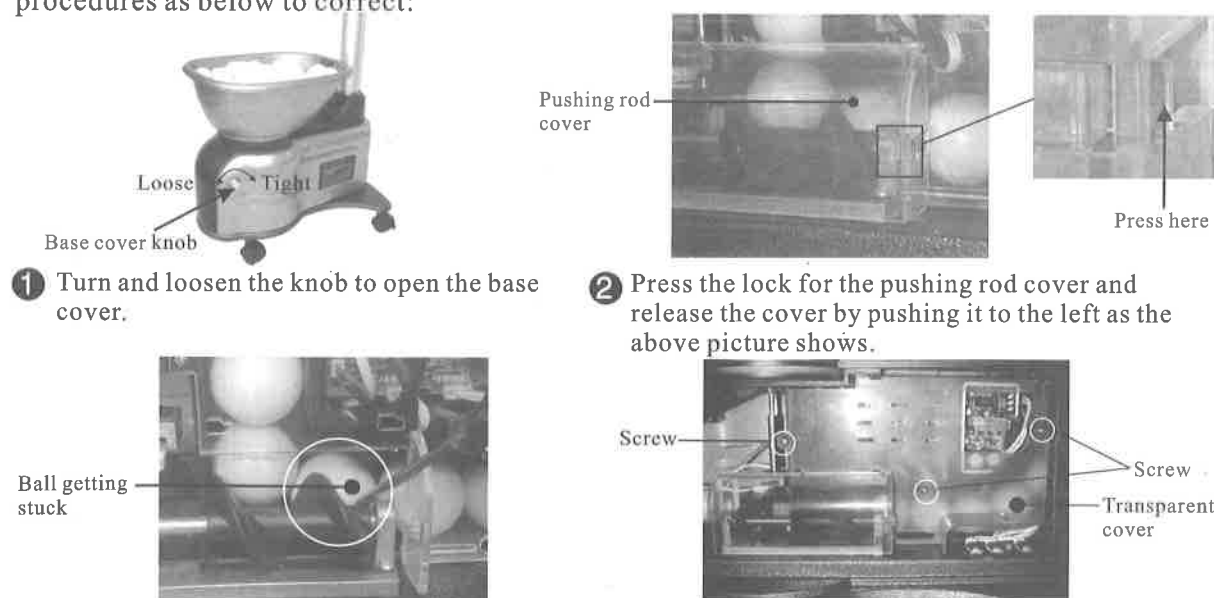
L. Troubleshooting

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.
The robot doesn't work	2. Lights on the control panel are lit but all motors don't work.	Disconnect the power supply. Check if the fuse (3.15A) connected to the computer board is broken. See P.11
		Check if the Start/Stop 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.11
The robot doesn't work	3. The light for Start/Stop on the control panel blinks and a warning signal, ! will appear on the screen.	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. 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:



- 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.

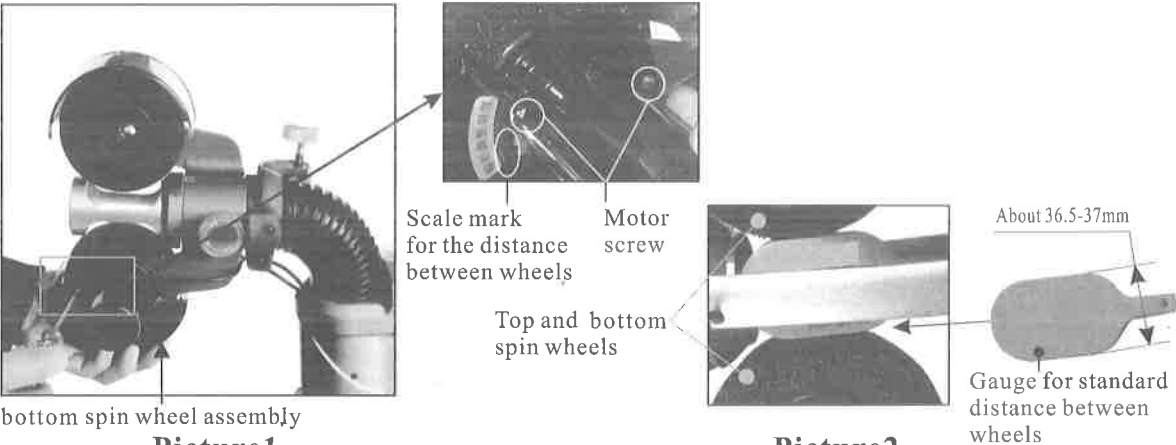
- 3 Use a screw driver to lift the stuck ball so that it won't cause a jam. Rotate and push forward the pushing rod a little to make sure it is movable. Replace the pushing rod cover and close the base cover. Restart the robot.

- ★ 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.



Picture1

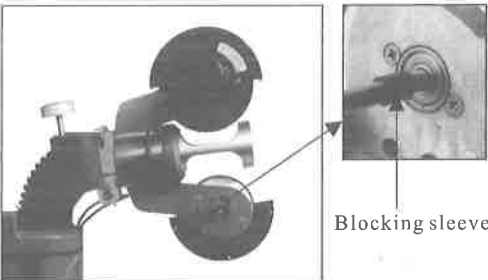
Picture2

Disconnect the power supply. Use the screwdriver to loosen the 2 motor screws a little (see picture 1). Lift the bottom 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.

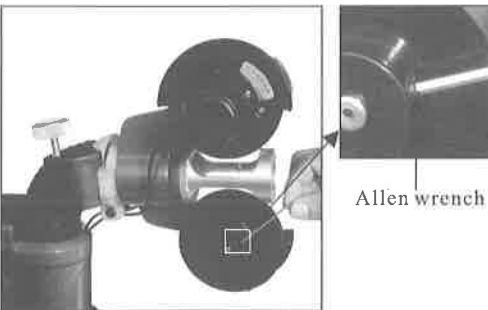
Note: The above adjustments will allow the robot to continue to serve properly, within a certain range of wear and tear. It is recommended that the wheel should be replaced when the diameter of the wheel reduces to 70mm due to wear and tear.

II. Replacement of spin wheels

1. Disconnect the power supply. Remove the wheel cover of the bottom 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 bottom 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



Picture2

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.

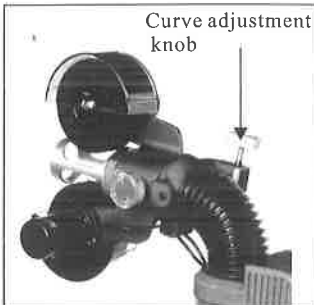
Fuse



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 back 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	97X55X42cm

When the robot is not in operation for more than 15 minutes, the LCD screen will automatically enter into the sleep mode. Once any button on the control panel is pressed, the screen will turn back to its normal operation

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