



Table Tennis Robot
Instruction Manual



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Made by Killerspin in China
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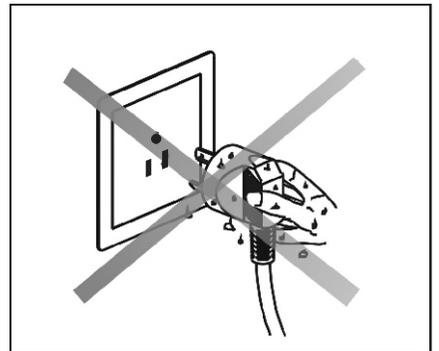
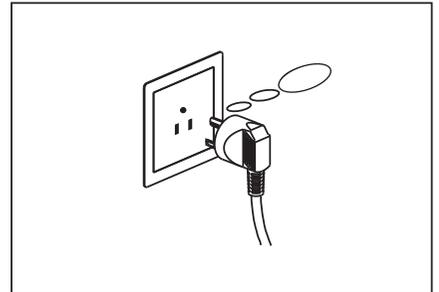
Please read this manual before operation

Statement

1. Please read this manual carefully before you start operation of the robot.
2. If you encounter problems, contact Killerspin at (866) KS-PLAY 1 or CustomerService@Killerspin.com.
3. The company is not liable to any legal responsibility for any failure or damage due to improper use or handling of the robot.
4. The warranty does not cover any failure or damage due to improper operation, disassembling or remodeling of the robot.
5. The manual cannot be copied or downloaded without express written permission.
6. We reserve the right to alter or modify the robot and attachments without further notice.

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 the safety in operation.
- ★ Please disconnect the power supply when robot is not in use .
- ★ If abnormal conditions occur, please disconnect power supply and unplug the power socket of the robot. Contact Killerspin Customer Service to rectify the problem before the robot restarts.



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

Basic Features and Functions of the Throw

- ★ Double Spin Technology ensures different degrees of speed, curve and spin are served. The technology can also set the straight (no spin) serve that other serving machines with a single wheel are unable to provide.
- ★ Both long range and short range serves can be set to land on 1-5 points from right to left on the entire width of the table, for a total of 10 landing points. Press the 'Left' and 'Right' along with the 'Short' and 'Long' buttons on the remote control to select the desired landing point(s).
- ★ Program Mode allows players to set the combination of serves based on the desired level of difficulty.
- ★ There are four mode selections to choose:
 - 1) **Fixed Mode** Various kinds of serves land continuously at one point to be chosen from 1-5 points.
 - 2) **Random Mode** Balls land randomly on 5 possible points on the entire width of the table.
 - 3) **Mixed Random Mode** Balls land randomly on 10 possible landing points (5 long range and 5 short range) on the entire width of the table.
 - 4) **Program Mode** Allows players to set a combination of serves based on the desired level of difficulty.
- ★ Equipped with a remote control to make operation of the robot much easier.
- ★ Equipped with a memory function that can restore the most recent setting for repeat training or use.
- ★ Equipped with a dust filter system to reduce the dust in the ball track and minimize the possibility of a ball jam.
- ★ Ball collection net helps to collect the returned balls into the Throw.

Factory Reset and Recommended Parameters

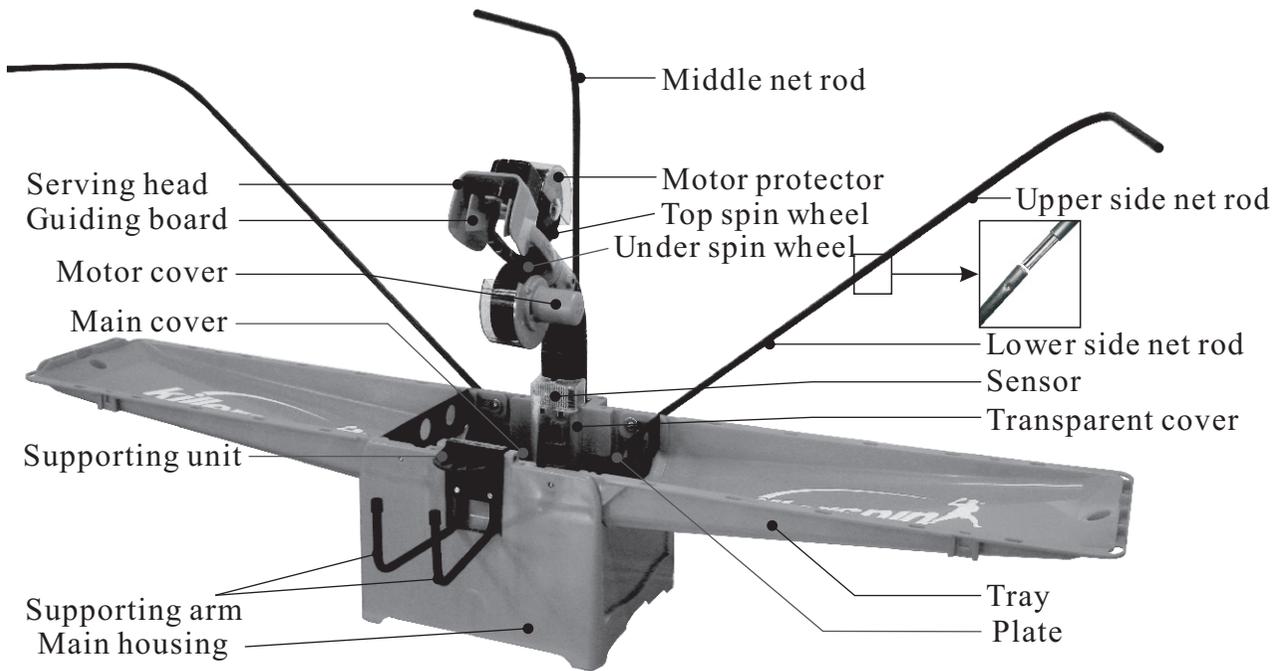
Type of Spin		Level of Spin	Frequency of Serve
Factory reset		4 (top spin)	40
Recommended parameters	Straight (no spin)	3 (top spin)	40-70
	Top spin	4-9	40-70
	Under spin	4-7	30-50
	Random mode	4-9 (top spin)	40-60

Hints: Please use the Factory Reset Parameters during initial use. Press Start/Stop on the remote control to confirm and operate. Users can adjust and set the parameters based on their skill level.

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I .Robot Parts



Remote control

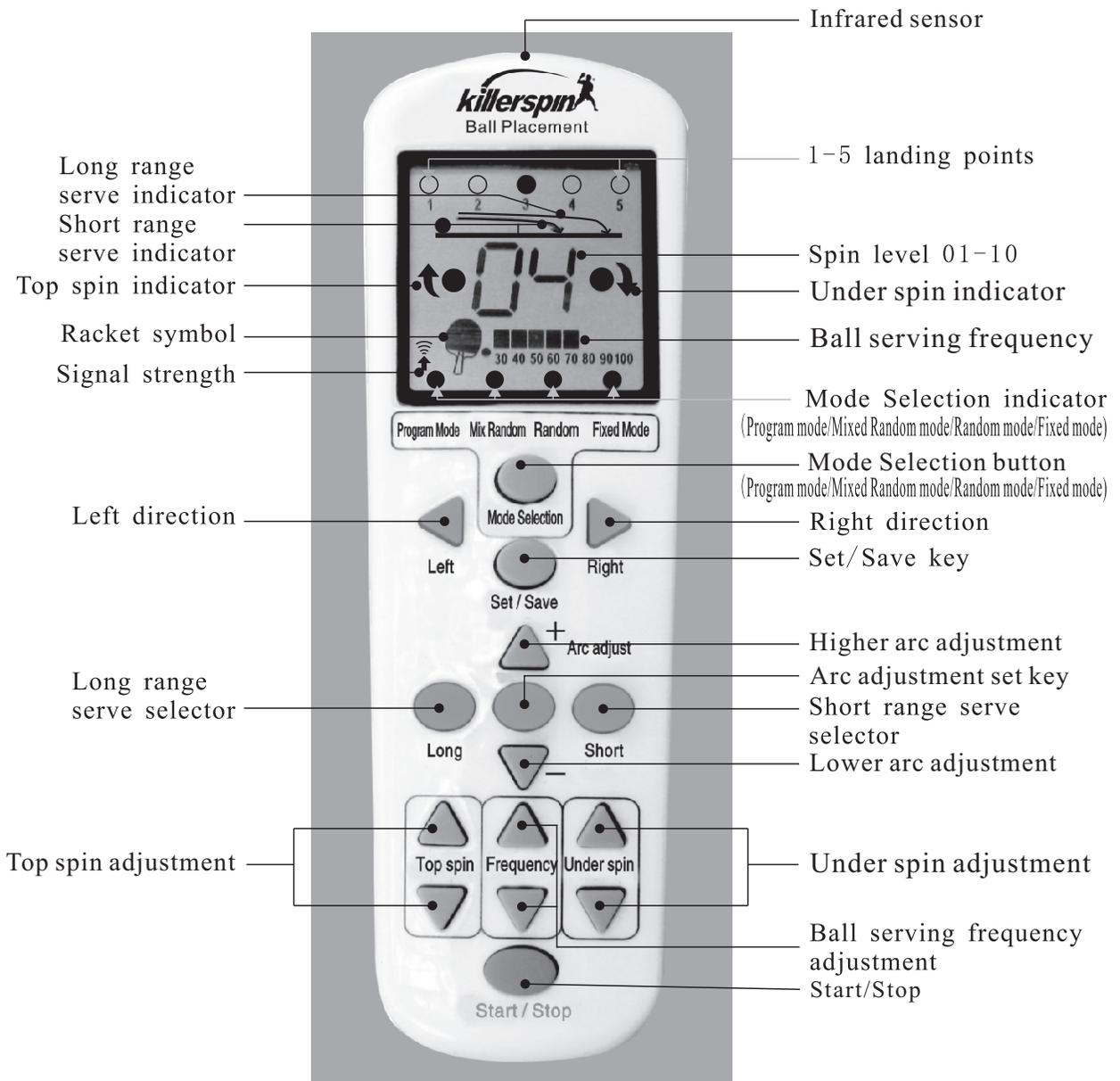


Power socket

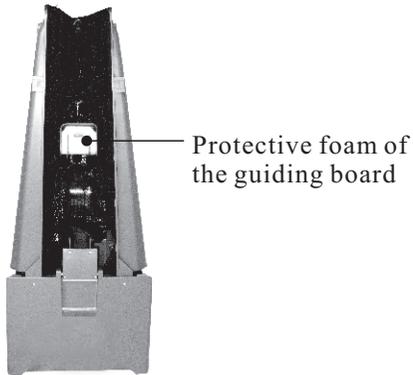


Power cord

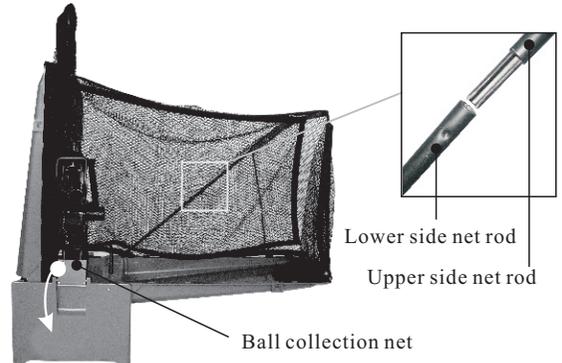
II . Remote Control Functions



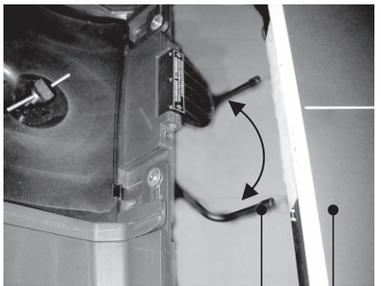
III. Setup



1. Open the carton, remove the cushioning foam and place the robot gently on the ground. Remove the transparent plastic bag and protective foam of the guiding board.



2. Unfold both trays and insert the upper side net rod into the lower side net rod.



Table

3. Hold the supporting arms and pull down the supporting unit. Spread the arms fully then place the robot onto the middle line of the table. Fasten the velcro of the ball collection net to the middle net of the table.



5. Place balls into the serving tray. Connect the power supply. Press Start/Stop on the remote control and the robot is in operation.



4. Insert DC power plug into DC power socket.



Completed installation is shown in the picture above

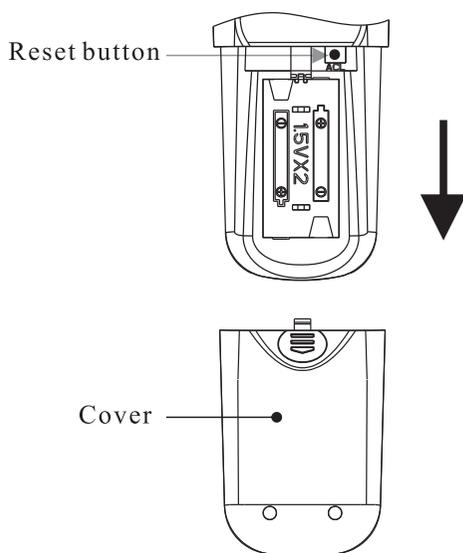
IV. Remote Control Information

- The remote control signal works up to 19 feet away from the robot.
- Please handle the remote control with care. Do not throw or drop the remote control on the ground. Keep the remote control from getting wet.
- Please replace 2 size-AAA batteries if the signal of the remote is getting weak or the screen is dim.
- Place the new batteries at the correct position of +,-.
- When the remote control is not in use for a longer period of time, please remove the batteries. Aged batteries may cause damage to the remote control.
- The remote does not have an Off switch. Please remove the batteries if the remote needs to be turned off.

Hints : Strong light overhead might influence the signal of the remote control.

Replacement of Batteries:

1. Push downward to open the cover of the battery compartment.
2. Place the batteries at the correct position of +,- as the picture shows.
3. Replace the cover.



V. Start and Stop

Reminders

1. Remove the cushioning foam before the robot starts.
2. Insert the DC power plug into the DC socket of the robot.



Racket symbol

Start/Stop

WARNING: When the power supply is connected and the robot is in operation (the **racket symbol** on the remote control will appear on the bottom left of the screen), pressing any key of the remote control will give the robot a signal to start serving. Please keep away from the serving head or balls served might cause physical damage to your body.

1

Connect the power supply. The red power indication light on the robot will illuminate.

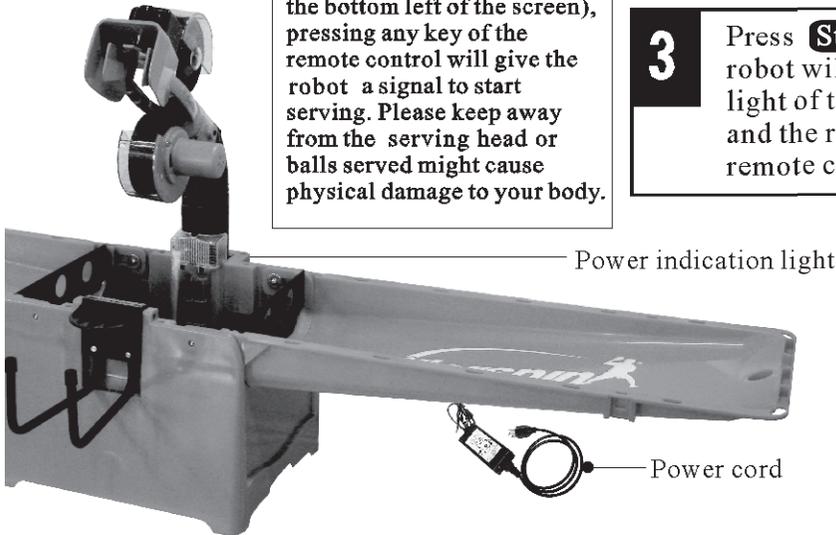
2

Use the remote control to adjust the spin level and serve frequency to the factory recommended parameters, as shown below. With the remote control pointing at the robot, press **Start/Stop** and the robot will start. (The robot will make a 'beep' sound and the blue power indication light will turn on. The racket symbol,  on the remote control will also appear on the bottom left of the screen). Balls are served in accordance to the parameters set.

Recommended	Type of Spin	Level of Spin	Frequency of Serve
	Top spin	4	40

3

Press **Start/Stop** again and the robot will stop. The power indication light of the robot will turn back to red and the racket symbol,  on the remote control will disappear.



Power indication light

Power cord



DC power socket

WARNING

Please keep away from the serving head when **Start/Stop** is pressed. Balls served may cause bodily harm if standing too close to the serving head.

VI. Robot Operation

(1) Start/Stop



Start/Stop

Press **Start/Stop** and the robot is in operation. The symbol,  is displayed at the bottom left of the screen and the power indication light on the robot will turn blue. Press **Start/Stop** again and the robot will power down. The symbol,  disappears and the power indication light on the robot will turn red.

(2) Serving Frequency



Frequency level

Frequency adjustment ▲ ▼

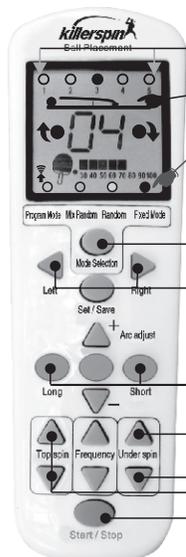
Press ▲ or ▼ of Frequency once,

Condition	Key is pressed	Level indicated	Frequency Result
Low Frequency	Press ▲ once		10 more serves/min
	Press ▲ twice		Additional 10 more/min
High Frequency	Press ▼ once		10 fewer serves/min
	Press ▼ twice		Another 10 fewer/min

Hints

1. Range of frequency is 25-105 serves/min.
2. Frequency can be adjusted whenever the Throw is in operation.

(3) Fixed Mode



1-5 landing points

Long or short range serve indicator

Black circle for Fixed Mode

When the 'Mode Selection' key is pressed, a mode is shifted to the other in the order as follows:

Program Mode ← Mix Random Mode ← Random Mode ← Fixed Mode ←

- 1 Press **Mode Selection** until the black circle moves to the position for Fixed Mode.
- 2 Press **Left** ◀ or **Right** ▶ to select the landing point desired. A black circle will appear on the screen in one of five positions, from left to right, indicating the landing point chosen.
- 3 Press **Long** or **Short** key to select the long range or short range serves. Corresponding indication line will appear on the screen.
- 4 Press **Top spin** ▲ ▼ or **Under spin** ▲ ▼ to adjust the level of the spin. Corresponding type of spin will appear on the screen. The level of spin is displayed on the screen; the higher the number, the stronger the spin.
- 5 Press **Start/ Stop** to run Fixed mode. Balls will continuously land on the point you have selected above.

Note: There is a 'beep' sound from the robot indicating the robot has received the signal from the remote control.

(4) Random Mode



Long or short range serve indicator

Black circle for Random Mode
When the 'Mode Selection' key is pressed, a mode is shifted to the other in the order as follows:

Program Mode ← Mix Random Mode ← Random Mode ← Fixed Mode ←

- 1 Press **Mode Selection** until the black circle moves to the position for Random Mode.
- 2 Press **Long** or **Short** to select long range or short range serves. Corresponding indication line will appear on the screen.
- 3 Press **Start/Stop** to run Random Mode. Either long range or short range balls are served randomly at one of five points on the entire table in accordance with the setting of step 2, above.

Hints

Change of serving modes or adjustment of serving parameters can be made whenever the Throw is in operation.

(5) Mixed Random Mode



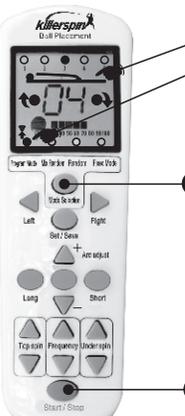
Long or short range serve indicator

Black circle for Mix Random Mode
When the 'Mode Selection' key is pressed, a mode is shifted to the other in the order as follows:

Program Mode ← Mix Random Mode ← Random Mode ← Fixed Mode ←

- 1 Press **Mode Selection** until the black circle moves to the position for Mix Random Mode.
- 2 Press **Start/Stop** to run Mix Random Mode. Both long range and short range balls are served randomly at one of ten points on the entire table.

(6) Program Mode



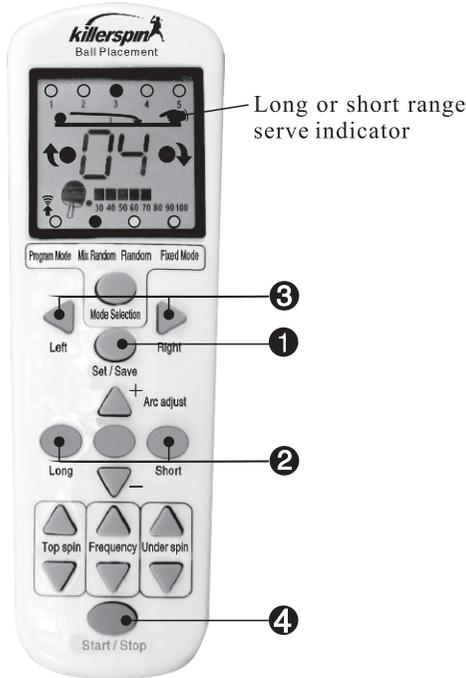
Long or short range serve indicator

Black circle for Self Program Mode
When the 'Mode Selection' key is pressed, a mode is shifted to the other in the order as follows:

Program Mode ← Mix Random Mode ← Random Mode ← Fixed Mode ←

- 1 Press **Mode Selection** until the black circle moves to the position for Program Mode.
- 2 Press **Start/Stop** to run Program Mode. Serves will land on the points as last programmed.

(7) Serving Combinations



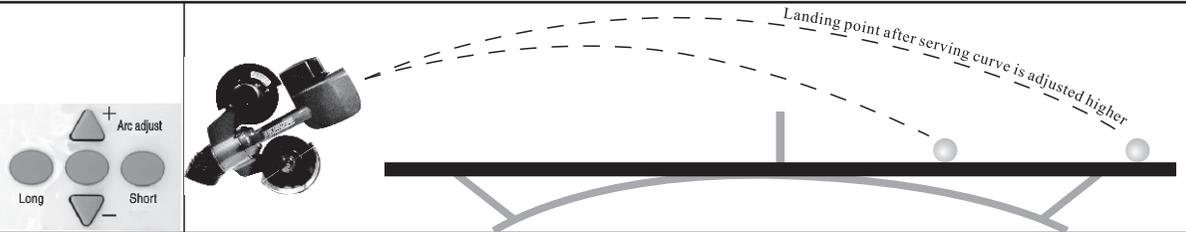
- 1 Press **Set/Save** . The black circles for Program Mode, the landing points, and **---** will all blink. (If Set/Save is pressed during serving operation, the robot will stop and enter into the Program Mode.)
- 2 Press **Long** or **Short** to select Long range or short range serves. Corresponding indication line will appear on the screen.
- 3 Press **Left** ◀ or **right** ▶ and the black circle on the top of the screen will move from left(1)to right(5) or right to left for you to set a landing point in your program. Press **Set/Save** to activate the setting of the landing point. **01** will be displayed and blink at the center of the screen. Repeat step 2 and the above procedures of this section to set the 2nd, 3rd, 4th landing points. **02, 03, 04** will be displayed and blink respectively.
Up to 32 landing points can be set in a program. There is no restriction for repeating a landing point already set.
- 4 Press **Start/Stop** to activate the operation of the mode. The black circle is displayed at the position for the Program Mode. (The current setting will override the previous one.)

Hints

1. During the process of program setting, if there have been no instructions given for 2 minutes the Program Mode will automatically be withdrawn.
2. In the process of program setting, types and level of spin, frequency of serve and the serving curve cannot be adjusted.
3. Adjustment of serving parameters can be made whenever the robot is in operation.

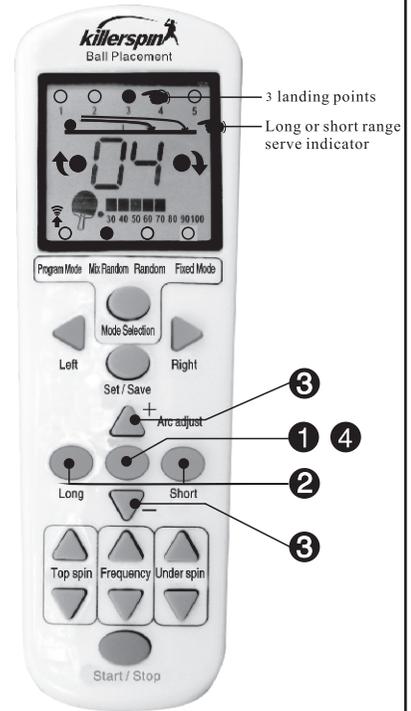
(8)Serving Arc Adjustment

Serving arc adjustment is required when : 1) changing serving spin level or spin type, causing balls to fall out of bounds or into the net, or 2) setting the longer or shorter landing positions for long or short range serves.



1.Serving Arc Adjustment for Long Range Serves (Robot in working condition)

- ❶ Press Arc adjust set key and symbols **L ±** and  will blink (the system defaults to landing point at 3 and frequency of serve at 30).
- ❷ Press **Long** key and the long range serve indicator is displayed.
- ❸ Press **▲+** to get the higher arc and the symbol **L+** is displayed.
By pressing the **▲+** once, the arc will be adjusted a little higher and the landing point will move outward and get closer to the bound.
Press **▼-** to get the lower arc and the symbol **L-** is displayed.
By pressing the **▼-** once, the arc will be adjusted a little lower and the landing point will move inward and get closer to the net.
- ❹ When the landing point is adjusted to the position desired, press the Arc adjust set key again to confirm the above adjustments. Serves will land to the position as adjusted and the robot will resume its previous parameters and settings.



2. Serving Arc Adjustment for Short Range Serves (Robot in working condition)

- ❶ Press Arc adjust set key and symbols **L ±** and  will blink (the system defaults to landing point at 3 and frequency of serve at 30).
- ❷ Press **Short** key and the short range serve indicator is displayed.
- ❸ Press **▲+** to get the higher arc and the symbol **C+** is displayed.
By pressing the **▲+** once, the arc will be adjusted a little higher and the landing point will move outward from the net.
Press **▼-** to get the lower arc and the symbol **C-** is displayed.
By pressing the **▼-** once, the arc will be adjusted a little lower and the landing point will move inward and get closer to the net.
- ❹ When the landing point is adjusted to the position desired, press the Arc adjust set key again to confirm the above adjustments. Serves will land to the position as adjusted and the robot will resume its previous parameters and settings.

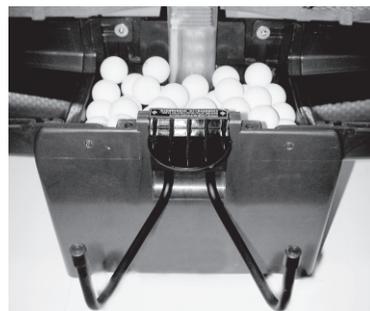
VII. Correcting Irregular Serves

When the guiding board of the serving head receives external interference such as strong contact by returned balls or by hands the serves may land irregularly. Power off the robot and restart after 10 seconds. The robot will automatically correct the problem and resume its previous setting.

VIII. Ball Collection Dish

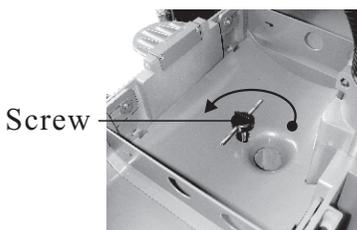
Capacity: 120 PCS of 40MM-ball.

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

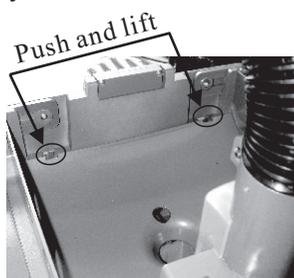


IX. Fuse Replacement

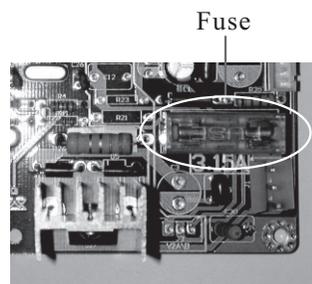
Disconnect the power supply before the fuse is replaced.



1 Remove all the balls in the dish. Remove the screw by turning counter-clockwise.



2 While using fingers to push and release the lock, pull and lift the main cover.



3 Open the cover, pull out the fuse cover, and replace the bad fuse with a qualified one of the same standard. Replace the fuse cover, main cover and screw.

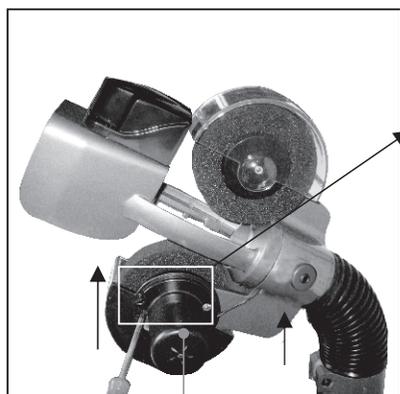
X. Maintenance

1. The robot and the remote control should be protected from strong vibrations and getting wet. Failure to do so may cause a short circuit resulting in damage to the electrical 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 P.11 for further detail.
3. After use for 1 to 2 months dust and dirt may gather in the ball running track. Clean the ball running track with a wet cloth.
4. When the robot is not in use for a long period of time please disconnect the power supply and cover the robot with cloth or a plastic bag.

XI. Adjustment and Replacement of Spin Wheel

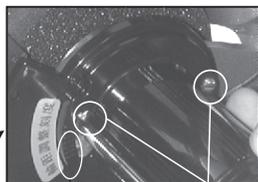
(1) Adjustment of Spin Wheel

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.



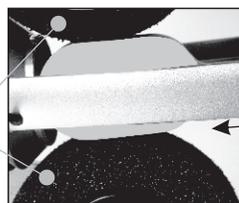
Under Spin wheel assembly

Picture 1



Scale mark for distance between wheels
Motor Screws

Top and Under spin wheel



About 36.5–37mm

Gauge for standard distance between wheels

Picture 2

Disconnect the power supply. Use the screwdriver to unscrew the 2 motor screws as picture 1 shows. Lift the Under spin wheel assembly up about 2-3 mm. (one level of the scale mark) or lift to an extent that the gauge fits in perfectly as picture 2 shows. Tighten the screws and the robot is ready for operation.

Note: Within a range of wear and tear serves still work properly through the above adjustment. It is recommended that the wheel should be replaced when the diameter of the wheel is reduced to 70mm due to wear and tear.

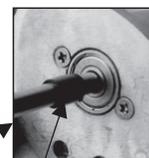
(2) Replacement of Spin Wheels

1. Disconnect the power supply. Remove the wheel cover of the Under spin wheel by using the screwdriver 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 that separates the wheel and the motor (See picture 1). Install the new wheel onto the axis of the motor. Use the allen wrench to tighten the screw of the wheel (See picture 2). Loosen the 2 motor screws to adjust the distance between the 2 wheels to about 36.5-37mm in which the gauge for standard distance between wheels can perfectly fit. Tighten the screws.
3. Reinstall the wheel cover of the Under spin wheel and the replacement is completed.

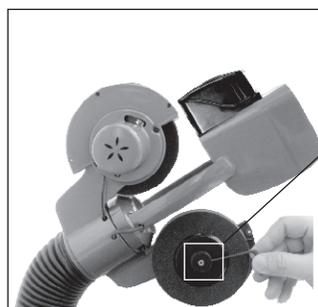
Repeat the three steps above if the Top spin wheel needs to be replaced.



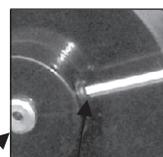
Picture 1



Blocking sleeve



Picture 2

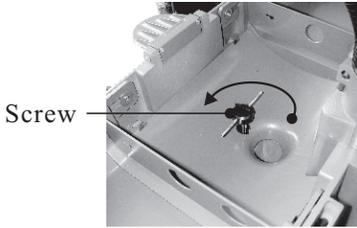


allen wrench

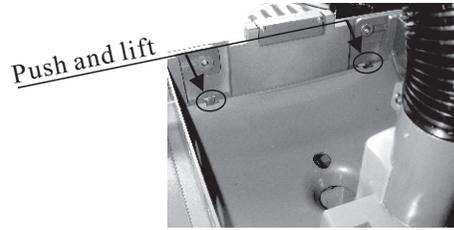
Note: When the landing points and speed of serves do not meet requirements, adjust the distance between wheels to get the best results.

XII. Fixing a Jam

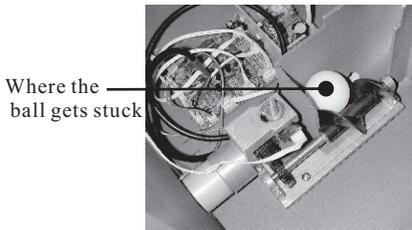
A ball getting stuck is mainly attributable to damaged balls or other items that may be blocking the ball running track. If the problem occurs, disconnect the power supply and follow the procedures as below to correct:



- 1 Remove all the balls in the dish. Remove the screw by turning counter-clockwise.



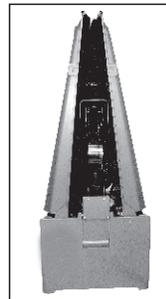
- 2 While using fingers to push and release the lock, pull and lift the main cover.



- 3 Remove the stuck ball or object. Reinstall the main cover and the screw.

XIII. Storage

The robot is easy to disassemble. It can be stored almost anywhere because of its small size. To remove, first disconnect the power supply. Pull out both the upper side net rods and insert into the two holes at the back of the robot. Fold back the supporting unit and both trays. Put the robot in the backpack.



Robot backpack

XIV. Troubleshooting

Problem	Solution
1. The power indication light is not lit and the robot is not in operation.	<ul style="list-style-type: none"> • Check if the plug is properly connected. • Replace the fuse. Refer to item IX on page 10 for detail.
2. Balls get stuck	<ul style="list-style-type: none"> • The robot will make 'beep' sounds continuously. Refer to item XII on page 12 to solve.
3. Data on the display of the remote control are incorrect	<ul style="list-style-type: none"> • Open the cover of the battery compartment. Use a ball pen to press the reset button once. The remote will revert to its original settings.
If problems still occur, please contact our Customer Service Dept. Tel: (866)KS-PLAY1 or CustomerService@Killerspin.com	

REMINDER: When the Remote Control is out of order or lost the robot can still be started by pushing the emergency button at the bottom of the robot.

XV. Features and Parameters

Description		Features/Parameter	
FUNCTIONS	Voltage (V)	100~240	
	Rated power (W)	50	
	Rated frequency (Hz)	50/60	
	Serving spin	Top spin, under spin and no spin	
	Serving frequency (balls/min)	25 ~ 105	
	Serving speed	4-40 m/s or 9-90 mph	
	Landing point	10 landing points on the entire width of the court; 1-5 points for long range serves and 1-5 points for short range serves.	
	Combination of serves	Combination of serves can be programmed based on your desired level of difficulty.	
	Memory	Can restore to the most recent setting for repeat training or use.	
	Four Serving Modes	Fixed Mode	Various kinds of serves land continuously at one point to be chosen from five possible points.
		Random Mode	Balls land randomly on five possible points on the entire width of the court.
		Mix Random Mode	Both long range and short range balls land randomly on 10 possible points on the entire width of the court.
		Program Mode	Allow players to set the combination of serves. Up to 32 landing points can be set in a program.
Remote control	Operation of the robot.		
Automatic ball recovery	The main cover automatically feeds returned balls back into the robot, saving time and increasing efficiency.		
Package	Gross weight	13kg / 29 lbs	
	Net weight	8kg / 17 lbs	
	Dimensions	92X42X43 cm / 36X16.5X17 inches	

Note: If the parameters of this table vary from what is marked on the robot, the parameters on the robot prevail.

XVI Killerspin Warranty and Returns Policy**DAMAGED OR DEFECTIVE ITEMS**

If there is extensive damage to the product packaging upon delivery of your product, you **MUST REFUSE** the shipment from delivery person. Then please contact Customer Service immediately at 312-441-0124. Once acceptance of a product is taken, it becomes your responsibility to pay for the return of such extensively damaged products for an exchange.

If you receive a damaged or defective item, contact Customer Service within 10 days of delivery at 312-441-0124. Please be ready to supply the order number from the label on your shipment along with date ordered, name and address. More information may be required depending on date and products ordered.

WARRANTY

This and all Killerspin products have a 30 day warranty against factory defect, with the exception of tables which have a one-year limited warranty. This warranty does not cover misuse or customer inflicted damage to a product. Any products that require assembly, such as blades and rubbers are taken "as is" unless damage occurred due to shipping. Repair parts may be available from Killerspin for certain products, including tables.

RETURNS

Proof of purchase and authorization must be made by Killerspin via e-mail or phone prior to the return of any and all merchandise. Any returned product must be returned in its original packaging and in saleable condition. Returned goods must be shipped with freight prepaid via US Postal Service. Refunds will not be given for the shipping costs. If the returned merchandise is found to be factory defective the original shipping charges will be credited to your account. Returns and refunds of new equipment are subject to a 20% restocking fee that can be charged for all returned items, unless that product was damaged or defective upon delivery.

Our Standard Return policies do not apply to all items. Exceptions to our policies appear below.

Clothing may be exchanged in the case of an error in sized ordered, but shipping will be charged for the original item shipped and the new item shipped. Customer is responsible for the return shipping costs and care. Clothing must not appear to be worn or damaged in any way. Killerspin is not responsible for customer damage or fading to clothing due to washing. No exchanges may be made for customer inflicted damage. Tables and robots may be returned but all shipping costs will be charged to the customer, as well as a 25% restocking fee.

Certain items, listed below, must be unopened, and in their original packaging for any exchange or return to be processed:

- Balls
- Rubber
- Glue
- Rackets

- Media products such as DVD's must still be in their original clear shrink wrap packaging.
- When a request was made for a Killerspin employee to assemble products (such as custom made Blades and Rubbers) prior to delivery, Killerspin will not make a refund.

Products will NOT be accepted for return, exchange, or refund if, in the opinion of Killerspin they appear to have been damaged by the customer. A customer requesting the return of the damaged product which was sent to and received by Killerspin will require all shipping charges to be charged to the customer for the return of such product or products.

The above rules and prices are subject to change without prior notice.

TAXES

IL and WA residents add sales tax, presently of 9.25% in IL and varies in WA based on the shipping address/zip code.

Any and all questions can be answered by Killerspin Customer Service.