spinfire

Pro 2 Manual

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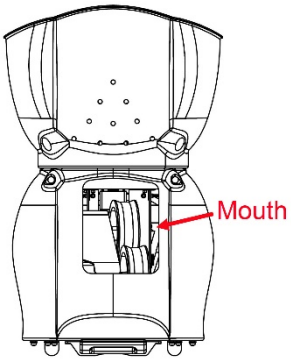
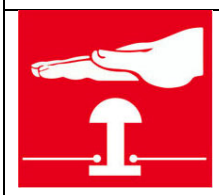
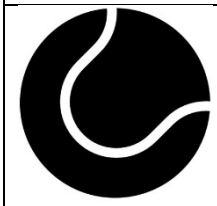
SAFETY WARNINGS

This tennis ball machine is designed and tested to offer safe playing conditions, provided it is operated in strict accordance with the following safety warnings. Failure to comply with the following instructions may result in serious personal injury or property damage.

	WARNING! 	• **Keep clear of the ejection point.** Do not stand in front or near the mouth of the machine. Balls may eject unexpectedly. • **Keep young children away from the machine when turned on.** • **Keep physically and mentally impaired persons away from the machine when turned on.** • **Adult supervision is recommended at all times.**
	MOVING PARTS INSIDE!	• **Do not insert body parts or foreign objects into the mouth of the machine.** In the event of a ball jam, the operator should not put their hand or any foreign object into the machine whilst it is turned on. Injury could occur if hands or clothing are caught in the mechanisms. Always turn the machine off in the event of a jam or machine failure.
	FINGER TRAP!	• **Do not insert your fingers or hand into the carousel area when the machine is on.** The machine must be turned off when touching the carousel as it presents a finger/hair/loose clothing hazard. • **Do not fill or re-fill the machine while it is firing tennis balls.**
	DON'T USE IN WET WEATHER!	• **The machine should not be used in wet conditions.** • **The charger(s) & AC Adaptor are only to be used indoors.**

	ELECTROCUTION!	• **Always use and store the machine in a dry environment.** • **Do not spray with water.** • **If the battery charger or AC adaptor is wet, do not pick it up.** If the battery charger or AC adaptor is picked up when wet, a person could be exposed to hazardous voltages. • **Disconnect the machine from any AC adaptor or battery before making any repairs.** • **If any power cables are damaged, cease using them & arrange a replacement.** • **Connect any charger or AC adaptor to 110 – 250V mains power outlet installed by a qualified electrical contractor with suitable protection such as an RCD.**
	BATTERY!	If your machine has an internal or external battery: • **Keep sparks and flames away from the battery** (i.e. no smoking). • **Keep young children and animals away from the battery.** • **Do not use the battery if it has swollen or expanded.** • **Do not use the battery if any liquid has escaped.** • **Only use a 12V sealed lead acid battery with this machine (or alternative approved by your distributor).** • **When replacing the battery, the terminals should be wrapped with electrical tape or a heat shrink sleeve.**
	HEAVY!	• **Practice correct lifting techniques.** The machine weighs 24 kg / 54 lbs (2 person lift) with an internal battery or 18 kg / 40 lbs (1 person lift) with an external battery. The gross weight of the packing box is 29 kg / 64 lbs (2 person lift).

	FIRE HAZARD!	• **Keep your machine clean.** Contaminants such as dust & leaves inside your machine could present a burn hazard. Please vacuum out your machine from the mouth on a regular basis. • **A multi-purpose/dry chemical extinguisher should be used to extinguish any flames.**
	**EMERGENCY STOP!**	• **The master switch is located under the machine on the right hand side.** This switch should be used to cut off power to your machine in an emergency. Set the rocker switch to position “O” which is the middle selection.
	**TENNIS AND PADEL BALLS ONLY!**	• **Only use tennis or padel balls with this machine.** Low compression & pressureless balls are acceptable too, as long as they are the same size as a standard tennis ball. Using other balls such as cricket balls will damage your machine and will not be covered under warranty.

BEFORE FIRST USE

To protect the machine in transport, the internal pivot plate may have been secured to prevent it from moving. Please remove any bolt(s) or cable tie(s) prior to turning the machine on. You will normally find indicators (tags, stickers or ribbons) helping you locate these before use, although sometimes they are removed by the distributor during testing. If you receive a HCAL error when you first turn on your machine, it is most likely because you have not correctly completed this step. If your pivot plate was secured with a bolt, please keep this with your box in case you need to ship the machine back for repair (it can be re-inserted).

There is also a 3 position master power switch under the machine which is turned off for transport. This will need to be turned on before you can power on the machine (please turn this off after each use). The 3 positions are:

O Off
I Internal Battery
II External Battery or AC Adaptor

ASSEMBLY

To assemble your machine, first simply remove it from the box. To do this, start by removing the hopper, followed by the machine. You can safely pick up the machine by placing one hand inside the mouth at the front and using the handle located at the rear of the machine above the control panel.

You should find this manual, a charger, remote and the carousel in the box. If you have ordered an external battery, AC adaptor or fast charger, they may also be in the box. The carousel is the white 5 fingered device which stirs the balls when they are sitting in the hopper. You need to attach this to the top of the machine on the rod, noting the flat side of the rod needs to align with the hole in the carousel. If you cannot insert the carousel due to an obstruction, you may need to turn the machine on and rotate the rod to find a suitable location to attach the carousel. You can do this by pressing the **Feed Start/Pause** button. Never bend the wire which floats above the drop hole, as

this can result in ball jams. It is also possible that the carousel may already be attached when you receive your machine, so nothing will need to be done.

You can attach the hopper either upright for play mode, or upside down for portability/storage (note you can remove the carousel too if you need to). To attach the hopper, simply align it correctly and then push down on it until it locks into place.

Hopper upside down for portability/storage

Packaging

We recommend you keep your box in case you need to ship your machine back to the supplier at a future point in time.

BATTERY AND CHARGING

Your machine should last between 3-8 hours, depending on the settings you are using.

The machine should arrive to you with some charge in the battery, however, if you have time, we encourage you to charge the machine before its first use.

Internal Battery

If you have an internal battery, simply plug the charger into the charger jack on the rear of the machine (swivel the jack cover to expose it) and plug the other end into a wall socket. Any master switch position will work.

Your battery should be charged at least once per month, even if it has not been used. This will maintain the life of the battery.

External Battery

If you've ordered your machine with an external battery, you have the advantage of easily charging the battery separately from the machine (your machine is also 6 kg (13 lbs) lighter than internal battery machines). Your external battery has two plugs, one for connecting to the machine (male) and the other is for connecting to the charger (female). Please do not connect these together and always disconnect the battery from the machine when not in use. There is no need to remove the battery from the bag while charging.

Your battery should be charged at least once per month, even if it has not been used. This will maintain the life of the battery.

When replacing the battery, please wear protective glasses, clothes & gloves. Please also use electrical tape or similar to cover the battery terminals after installation. Do not smoke or keep the battery near a flame source. The battery is completely sealed, but in the event of damage where acid is exposed to the skin or eyes, rinse with water and visit your doctor. Avoid short circuiting the battery so as not to cause a fire.

The external battery cable includes a 32V 15A fuse built into it (note: 32V is correct for our 12V battery). If you are required to replace this, they can be purchased from local electronic stores or your Spinfire distributor.

Standard Charger

Your machine comes with a standard charger which charges the machine safely in 11 hours. This charger is the safest charger to use for your machine and will provide the longest battery life. It is also a “smart” charger, meaning it will not damage your battery if left on for long periods of time.

The charger has a red light when charging and a green light when charging is complete. If after 11 or more hours, your charger light does not turn green, please disconnect the charger and turn on your machine. If the battery bar indicator shows 4 bars, then your machine is charged and ready to play. You can ignore the light on the charger.

If the charger’s light flashes green, this can indicate that the charger itself is faulty. However, we recommend you try charging your battery for 24 hours, leaving the green light flashing. If within this 24 hours the green light stops flashing, you will find it has restored itself and will function normally going forward.

Your charger should only be used in a dry environment. As the charger itself can get hot during charging, we recommend you position the machine and transformer away from combustible items.

Optional Fast Charger

The fast charger can charge your machine in 4 hours and also has the added benefit of allowing you to charge your battery while playing with the machine on court. This means you will have unlimited play time while using your machine and is very similar to running your machine off AC. Please note though that the battery must have at least a small amount of charge in it before plugging in the fast charger if you wish to use it while playing with the machine. The fast charger will not be able to give you extra time if plugged in when the battery is completely flat.

The fast charger is a “smart” charger, meaning it will not damage your battery if left on for long periods of time. However, as a precautionary measure, we recommend you unplug the charger once charging is complete. If after 4 or more hours, your charger light does not turn green, please disconnect the charger and turn on your machine. If the battery bar indicator shows 4 bars, then your machine is charged and ready to play. You can ignore the light on the charger.

Please note, fast chargers reduce the lives of batteries slightly, so it is always recommended to use the standard charger unless you have time constraints.

Your charger should only be used in a dry environment. As the charger itself can get hot during charging, we recommend you position the machine and transformer away from combustible items.

AC ADAPTOR

The AC Adaptor is an optional accessory, but it can be used as your primary power source (you can order a machine without any internal or external battery). Simply plug the AC Adaptor into your machine and turn the master switch to position II.

Note, if you do have an internal battery, the AC Adaptor can still be used. It will not damage the internal battery.

Your AC Adaptor should only be used in a dry environment. The Spinfire AC Adaptor has been tested to work perfectly with our machine and we do not recommend substituting it with a compatible model. Please disconnect it from the machine when not in use.

CUSTOMER CARE

Caution

This machine was designed to be used on a tennis court and in no other circumstances. Only tennis balls must be used, no other balls should be ejected from the machine. Never stand in front of the machine unless you are on the other side of the net (more than 7 meters (8 yards) away). Even when the machine is paused, never stand in front of it as balls can eject at any time. Children should be supervised at all times and taught never to stand in front of the machine.

Do not use the machine in rain and avoid using wet balls. We recommend the use of pressureless balls to give your machine the best performance. Using a combination of new and old balls will give inconsistent results.

Maintenance

You can vacuum out the inside of your machine to remove ball fluff. The outside of the machine can be wiped down with a mild detergent, however, please be careful not to get water inside the machine. The throwing wheels should be wiped down after every use to prevent any buildup of residue from the balls. If you play on a porous surface like clay or en tout cas, we recommend you wipe the insides of your throwing wheels monthly (a build up of clay can cause your wheels to become unbalanced).

Due to vibrations, the screws in the control panel and on the base of the machine can become loose over time, so please check these regularly and tighten them if required. If you do need to purchase replacement control panel screws from the local hardware store, they are 304 Stainless Steel Phillips Head screws, M4 x 10mm with a 9mm head diameter. You can contact your local distributor for spares if you need them.

Storage

We recommend that your machine is stored inside/under cover in a dry environment and preferably in a Spinfire cover to protect it from debris. Do not leave your machine on court even with the protection of a cover as heavy rain may damage your machine. Do not store your machine in direct sunlight or inside a car (unless in shade) and always keep it upright. Safe storage temperatures are -15°C to +50°C (5°F to 122°F). Extreme temperatures can damage the machine circuitry and battery.

TRANSPORTATION

To transport the machine, simply slide out the handle at the front of the machine (underneath). Lift the machine by the handle until it rests on the rear wheels. Make sure that the machine is tilted enough not to drag on the bottom of the machine. Simply pull the machine to your destination. Never move the machine while it is on or if balls are in the hopper.

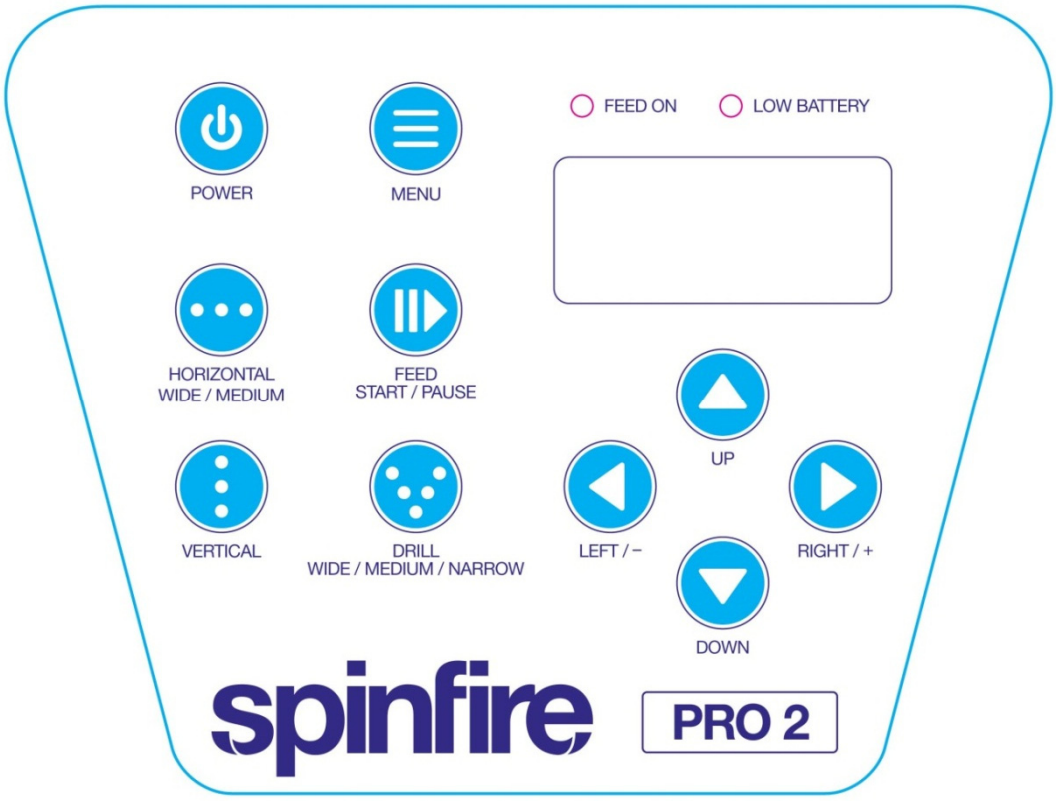
To transport in your car, you may need to remove the carousel. Please make sure the machine is always kept upright. Laying it on its side can cause internal damage and void your warranty. Do not store the machine in your car when external temperatures exceed 30 degrees Celsius (86 degrees Fahrenheit). The machine weighs 24 kg (53lbs) (or 18 kg (40lbs) with an external battery) and should be lifted carefully with the use of the handles. We recommend removing the hopper before lifting the machine and gripping it by the top of the mouth and the handle at the rear (above the control panel).

To assist with transporting your machine, you can purchase a Spinfire Carry Case which has handles and pockets for storing your charger, remote control and accessories.

USAGE

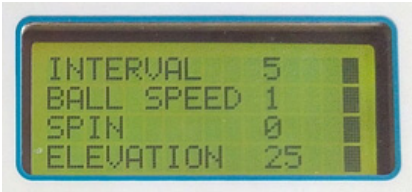
The machine should be placed on the baseline of the court, preferably in the center, however you can place it in varying locations if you wish (note features like oscillation may not work as well when the machine is not positioned in the center). Please add the balls into the hopper before you begin, do not add them while the carousel is turning as this can cause ball jams. The maximum capacity is 200 balls. Please do not overfill the hopper as the excess weight can damage the feeder motor.

CONTROL PANEL



Power:

Press this button to start the machine (hold it for 3 seconds). **Please note** that there is a main power switch underneath the machine. Please make sure this is on before operating your machine (I = internal battery, II = external battery or AC Adaptor). The main power switch should be switched off when transporting or storing the machine.



Menu:

To adjust the *interval*, *ball speed*, or *spin* you need to press the **menu** button. Once pressed, a menu option will begin to flash (it will stop flashing after 30 seconds if no selection is made). You can move between the 3 top menu items by using the **up** and **down** buttons. You can adjust the settings of each item by pressing the **left** and **right** buttons. Note: you cannot adjust the *elevation* from within the menu. Once you have finished making your adjustments, press the **menu** button again to complete your selection.

Interval:

This sets how often the balls are ejected from the machine. It can be adjusted from 0 – 20 with 20

being the fastest (approximately 1 ball every 2-3 seconds). The maximum interval during the “2 line drill - wide” setting is 17. Note that the balls will not start ejecting from the machine until you press the **feed (start/stop)** button.

Ball Speed: This sets the speed at which the balls are propelled. It can be set from 0 – 20 with 20 being the fastest speed (approximately 80mph or 130km/h) and 0 being the slowest (approximately 20mph or 32km/h). Note, slower speeds can be achieved by adding spin.

Spin: Using this setting, you can add topspin or slice to each ball. It can be set from -10 to +10. When set to -10 you will achieve the highest level of slice. When set to 0 you will have flat balls while +10 represents the highest level of topspin. You can also set mild levels of spin.

Elevation: By pressing the **up** and **down** buttons you can adjust the level of elevation. It can be set from 0 – 200 with the highest elevation being 200 (use this setting for lobs). Note: you can only adjust the *elevation* when the menu is not flashing.

Horizontal Angle: You can vary the horizontal angle that balls are ejected to by pressing the **left** and **right** buttons. Note: you can only adjust the *horizontal angle* when the menu is not flashing.

Feed start/stop: This allows you to start and stop the feeding of balls from the machine.

Single Spot: If you simply wish to fire balls to a single location repeatedly, you start by setting your desired interval, speed & spin, horizontal angle and also the elevation height. Then you press the **feed (start/stop)** button to begin. We suggest you fire one ball to begin with and then press **feed (start/stop)** again to pause the machine. If you are happy with the first ball you fired, then you may begin practice. Otherwise, you may like to refine your settings and fire another test ball until you are happy with the result. You can then press **feed (start/stop)** to start balls firing and begin play.

Vertical Oscillation: Once pressed, the machine will internally oscillate up and down approximately 4 degrees causing the depth of each ball to vary. At the highest and lowest points of the oscillation, a random pause length of up to 2 seconds ensures balls are fired out at varying depths. Press this button again to cancel the *vertical oscillation*.

Note: to use this properly, you must set your machine to fire short balls first (eg, service line), and then activate vertical oscillation. Balls will then oscillate deeper into the court and then back to their original short position. If you try to activate this setting when balls are already firing deep into the court, you will find that the balls will fire outside the baseline.

Horizontal Oscillation: Once pressed, the machine will internally oscillate from side to side in its ***wide*** setting, firing balls to any horizontal angle on the court randomly (within the singles lines). Press this button a second time to enter the ***medium*** setting which provides the same random feature with less width (making it easier). Press this button a 3rd time to cancel the *horizontal oscillation* and the machine will automatically return to the center of the court. Once you press this button, a message will display on the LCD to let you know whether you are in ***wide, medium*** or ***off*** mode. To achieve random deliveries, a varying pause length of up to 2 seconds is included in the horizontal oscillation motion.

Random Oscillation: To achieve totally random deliveries of varying depths and widths, simply activate both the horizontal and vertical oscillations one after the other. It does not matter which order you choose. For example, press the horizontal button and then press the vertical button, so that both are active.

2 Line Drill: By pressing this button once you will enter the *2 line drill* ***narrow*** mode which will alternate between hitting you a narrow forehand then a narrow backhand. If you press it again, you will enter the *2 line drill* ***medium*** mode which alternates between a medium forehand and a medium backhand (slightly more difficult). Pressing the button a 3rd time will enter the *2 line drill* ***wide*** mode which alternates between a wide forehand and wide backhand (the most difficult). Press this button a 4th time to turn off the *2 line drill*. Note that the maximum interval setting when using the "*2 line drill – wide"* is 17, it can be set up to 20 for the "*2 line drill – narrow and medium*"

Feed On: When illuminated, the machine is currently feeding balls (ie, more caution should be used when standing in front of the machine). If no balls are fired from the machine for approximately 25 seconds (can be up to 45 seconds), the feeder will pause as a safety precaution. This safety feature

can be turned off if required, please see the troubleshooting section.

Low Battery: The low battery light will illuminate when the battery's charge is getting low. You will have limited time left once this illuminates and you should charge your battery. You also have the 4 bar battery indicator on the right hand side of the LCD. Note, the battery should be charged after **every** use.

REMOTE CONTROL

The remote control has been designed to be as small as possible to fit easily into your pocket.

FEED	Feed on/off
SLEEP	Sleep mode to conserve battery while collecting balls
UP	Elevation Up
DOWN	Elevation Down
LEFT	Swivel Left
RIGHT	Swivel Right
RESET	Cancels oscillations (horizontal, vertical & 2 line drill) and returns the horizontal alignment to the center. It does not affect the spin, speed, interval or elevation settings.
INTERVAL	Increase or decrease the frequency of deliveries
SPEED	Increase or decrease the speed of deliveries
SPIN	Increase or decrease the spin level
HORIZONTAL	Horizontal Oscillation (1 = wide, 2 = medium, 3 = off)
VERTICAL	Vertical Oscillation
DRILL	2 line drill (1 = narrow, 2 = medium, 3 = wide, 4 = off).

The remote control uses a radio frequency of 434Mhz to communicate with the machine. It has been designed to work from a range that easily extends the length of a tennis court. If you are experiencing issues with the range of

your remote, please try replacing the battery (battery size is a CR 2025 3V). The main cause of range issues (other than battery) is interference from other radio frequencies in the area. If you are able to try another public court at the facility, you may find improved results.

Note, by default, your remote control will work with multiple machines (ie, one remote will control all machines in its proximity), however, it is possible to pair your remote specifically to your machine. This is useful for coaches or environments where more than one machine will be used at a time. To do this, you will need a specific “pairable” remote and software version 3.5.0 or greater. Please contact your local distributor for more information.

EXAMPLE SETTINGS

When first using your machine, it can take a while to get used to the settings. By adjusting one setting, you may find you need to adjust others to compensate. We recommend reducing the *interval* setting while you are experimenting. You can speed it back up again once you have found the settings that you like. To help get you started, here are some example settings that you might like (please note, you will most likely need to adjust them slightly to suit your machine).

With your machine placed just behind the base line in the center, please enter the four settings of your choice into your control panel:

	Interval	Speed	Spin	Elevation
Beginner topspin	9	6	+4	55
Beginner flat	9	4	0	53
Beginner slice	9	6	-3	40
Beginner lob	13	1	0	183
I/mediate topspin	13	12	+4	34
Intermediate flat	13	9	0	25
Intermediate slice	13	11	-5	16
Intermediate lob	13	3	-2	200
Advanced topspin	16	18	+6	20
Advanced flat	16	16	0	5
Advanced slice	16	16	-6	9
Advanced lob	13	6	-5	200

*Settings may vary slightly between machines, please alter accordingly. This also assumed the machine is set up at the baseline in the centre of the court.

Your machine can shoot balls to a single spot on the court, or you can add oscillations (horizontal, vertical or two line drill) to add more variation.

TENNIS BALLS

Your machine can hold 200 balls. Whilst the hopper can possibly take a larger quantity than this, we recommend you restrict it to 200 balls, which puts less weight on the carousel motor.

We strongly recommend the use of pressureless balls, preferably from a reputable brand. Balls can contain an oily coating in the felt which can cause damage to the throwing wheels rendering them useless. Please choose

carefully when determining which balls to use in your machine. We recommend the use of Spinfire Juice balls or a brand thoroughly tested and recommended by your distributor (we do not recommend mixing brands).

Pressureless balls will also allow your machine to perform at its best. Each ball will have a consistent bounce allowing you to consistently hit the spots on the court that you want. Normal pressurized balls go flat quickly when used in conjunction with a ball machine.

Low Compression Balls

Our machine can handle both orange (stage 2) and green (stage 3) low compression balls. It cannot work with red (stage 1) balls due to their larger size.

HIDDEN FEATURES

Manual Mode

If you experience any alignment (eg, shooting too far to the right) or initialization (HCAL or VCAL errors) issues, it is likely you can resolve them by starting the machine in manual mode. To do this, please follow these 3 steps:

1. Make sure your machine is turned off (you may need to use the master switch under your machine).
2. Manually move the internal mechanism of your machine to the **lowest** possible elevation and to the **center** of the opening.
3. With the master switch on, hold both the ***power*** and ***menu*** buttons at the same time for 5 seconds to turn on your machine. The LCD should display a message to let you know you have entered “manual mode”.

The above steps can be seen in this video: https://goo.gl/C6zB3J

If this resolves your problem, then you can continue to use your machine this way until a permanent solution can be obtained from your Spinfire dealer. Please note that this solution relies on you performing step 2 above correctly. If you do not set the machine to the correct position before turning on the machine, you will find that the calibration may be off target. You will either need to turn the machine off to try again, or physically point your machine in a direction that will achieve the desired results.

45 Second Safety (Feeder)

By default, your feeder is designed to turn off automatically after approximately 25 seconds (can be up to 45 seconds) if no balls are fired. This is to prevent balls firing unexpectedly at the user. However, sometimes this feature can cause the feeder to stop, even when balls are firing. The solution is to simply disable this feature, which you can do by following these steps:

1. Start with your machine off
2. Turn it on by pressing “power” and “down” simultaneously
3. You can now toggle this setting by pressing “up”.
4. Press “menu” to save the new setting.

Your machine will remember this setting for all future uses (until changed again).

Feeder Speed Calibration

Please note, these instructions only apply to interval mode 1. Please see the next heading “Interval Mode 1 and 2” to understand the difference.

Your machine should be able to fire one ball every 2 seconds at the fastest interval. If you feel that it is not calibrated correctly, you can recalibrate it by following these steps:

1. Start with the machine turned off
2. Turn it on by pressing “power” and “up” at the same time for 3-5 seconds.
3. You will see a screen showing "Interval 20" and "Feed Base 50" (settings may vary).
4. You can adjust the feed base from 20 (slower) to 120 (faster) by using the left and right arrow keys. This will alter the default speed when the interval is set to 20 (the ideal setting is 30 balls per minute – one carousel revolution in 10 seconds).
5. To save the new setting, simply press "menu".
6. Once saved, you can turn off the machine with the power button (then turn it back on again).

Warning, if you increase this base speed too much, the throwing wheels will not be able to recover quickly enough before a 2nd ball is fired when the interval is at 20. This can cause speed problems and also issues with your 2 line drill WIDE settings. Please only alter this setting if it is necessary and consult your dealer if you are unsure.

The 2 line drill WIDE is restricted to a maximum interval of 12 (on interval mode 1). By adjusting this feed base rate, you will also affect the lower intervals too.

Interval Mode 1 and 2

By default, all machines from March 2017 are set with Interval Mode 2. Earlier machines had Interval Mode 1 as the default.

Interval Mode 1: The feeder motor will constantly spin, varying its speed based on the interval setting.
Interval Mode 2: The feeder motor will pause after each ball is fired. Adjusting the interval setting will increase/decrease the length of the pause.

To switch between interval modes, simply turn on the machine by pressing "power + right". You will then see a menu where you can change the default setting.

Please note, the maximum interval setting on 2 line drill wide is 12 for Interval Mode 1 and 17 for Interval Mode 2.

We do not recommend changing to Interval Mode 1 unless you've consulted with Spinfire support (your local distributor) and been advised to do so. It can be useful to overcome issues when ball ejections are not being detected.

Paddle Software

Paddle software (used in Spain and countries where Paddle Tennis is played) can now be activated by simply pressing POWER + DOWN + RIGHT when turning on the machine. Once activated, a 2nd vertical oscillation is added, ranging from 70 to 190.

Ball Counter

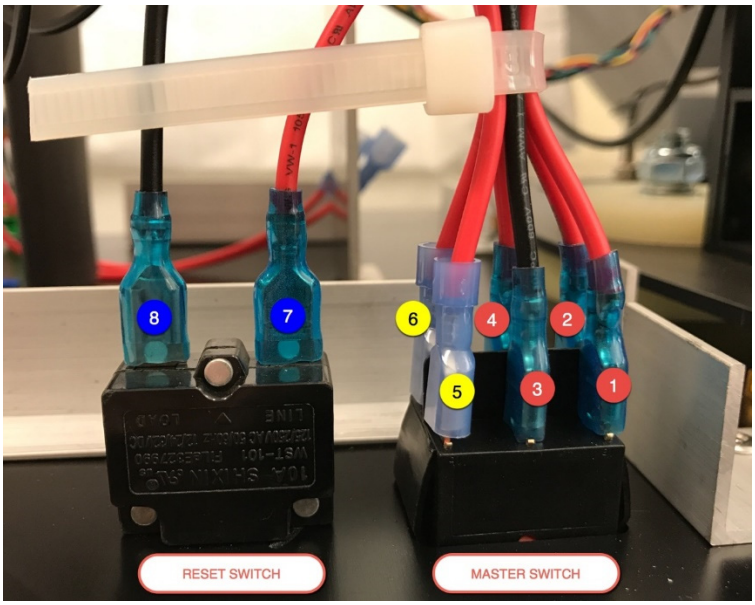
The machine has a counter (similar to a car's odometer) which can tell you how many balls have been fired. This can help you understand the amount of usage your machine has had. To view the count figure, simply turn on the machine by pressing the "power" button and "feed" button at the same time for 3 seconds. This data can be lost when upgrading software or replacing a motherboard.

TROUBLESHOOTING

Machine won't turn on

Please check that the master switch has been turned on under the machine (I = internal battery, II = external battery or AC adaptor) and that you are holding the "power" button for at least 5 seconds. If it still won't turn on, please try charging it for at least 1 hour before testing it again (ideally a full 11 hour charge would be desirable).

If you feel confident to check your wiring inside your machine, please visit our website at www.spinfiresport.com/support/videos and watch the video explaining how to safely remove your cover. Next, please check that all 6 wires (4 on older machines) are securely connected to the master switch and that both the two wires are connected to the reset switch.



If you are using an external battery, you should also check if the fuse in the external battery cable has blown. For further trouble shooting, please contact your local distributor.

Machine fails to initialize (VCAL or HCAL error)

If you experience a failure when turning on your machine, please check for a ball jam (remove if one exists) and then try pressing the “reset” switch under your machine (next to the master power switch). If you feel the reset switch “click”, then this will most likely resolve the issue. If it does not click, then there may be a problem with a sensor inside your machine. As a short term fix, please try starting your machine in “manual mode” (as described earlier in this manual under “hidden features”). It is likely that your machine will operate perfectly in manual mode which you may continue to use until you can obtain support to fix this issue.

The machine comes with two sensors, one for horizontal movement calibration (HCAL) and the other is for vertical movement calibration (VCAL). There are two type of errors you can receive for each sensor:

"HCAL Error 1, try manual mode" - This error refers to when the horizontal sensor cannot detect the datum.

"HCAL Error 2, try manual mode" - This error refers to when the horizontal sensor is constantly sending a signal to suggest it has found the datum, even though it hasn't.

"VCAL Error 1, try manual mode" - This error refers to when the vertical sensor cannot detect the datum.

"VCAL Error 2, try manual mode" - This error refers to when the vertical sensor is constantly sending a signal to suggest it has found the datum, even though it hasn't.

*Note, the datum is an object the sensor is searching for in the machine. For current machines, the horizontal datum is a magnet and the vertical sensor is a strip of aluminium.

For “Error 1”, you will most likely need to replace the sensor or the magnet.

For “Error 2”, it’s possible your sensor has simply become unplugged. You will either need to plug it back in, or replace the sensor.

Replacing the sensor can be done quite easily and you can watch the video of how to do this on our website here (note, please watch how to remove the cover first): http://www.spinfiresport.com/support/videos/. You will need to contact your local distributor to ask for a replacement sensor to be posted to you, or ask them to replace it for you.

Clearing Ball Jams

If you find that a ball gets stuck behind the two throwing wheels, the machine may shut down to prevent damage to the circuit board. Please turn the machine off at the master switch under the machine, remove the carousel

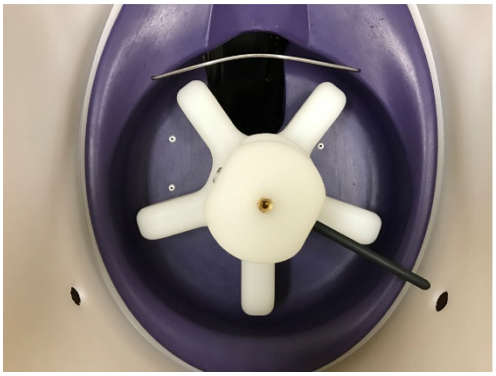
(never bend the wire to remove the carousel unless necessary and be sure to bend it back after you have finished) and clear the ball jam. Once the machine is clear again, please check the reset switch next to the master switch on the base of the machine. If the switch is solid, please press it, then turn on the master switch and turn your machine back on.

If you find that the throwing wheels don't turn, it is because the reset switch under the machine has not been pressed. Once pressed the wheels will start turning again.

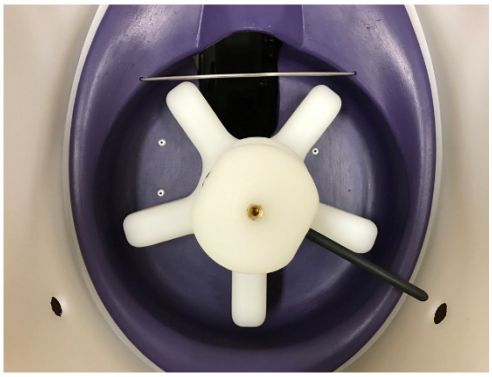
Balls are jamming too regularly

If you are finding regular jamming, please check the wire that hovers above the drop hole (the 5 fingers of the carousel pass underneath it). This wire should prevent more than one ball falling down the chute at any time. Over time, sometimes this wire bends towards the front of the machine, allowing multiple balls to drop into the hole which will cause ball jams. Simply bend this wire back towards the center of the carousel and check that it adequately prevents balls falling into the drop hole.

Incorrect



Correct



If this is not the issue, then please consider the tennis balls that you are using. We strongly recommend the use of Spinfire Juice which we know are trouble free. Old balls and inexpensive balls are more prone to jamming and could be the cause of your problem. Some balls can also make the throwing wheels slippery, so please check if the throwing wheels have the necessary grip to eject the balls. If you feel they are too slippery, you may need to contact your distributor for assistance (the wheels may need to be replaced).

Throwing wheels aren't spinning

Please see the heading "Clearing Ball Jams" for information on how to resolve this.

Balls inside the machine

If you find balls inside your machine, please do not attempt to retrieve them while the machine is on. Turn your machine off at the control panel and then at the master switch under the machine. Manually swivel the internal firing mechanism to either side to allow access so that you can reach inside and retrieve the ball(s).

Battery does not last 3 hours

If the battery is fully charged, your machine should last a minimum of 3 hours (and can last up to 8 hours on basic settings). If you are not achieving 3 hours, it may be time to replace the battery. Please contact your local dealer for instructions on how to open the machine casing or watch the instructional video on our website here: http://www.spinfiresport.com/support/videos/. Our batteries come with a 6 month warranty. The battery specifications are 12V, 20AH, 181.5mm (L) x 77mm (W) x 167mm (H). The weight should be approximately 6 kg (10 lbs) and the terminal type is T3. These are a common battery and should be available locally.

The feeder keeps pausing during play

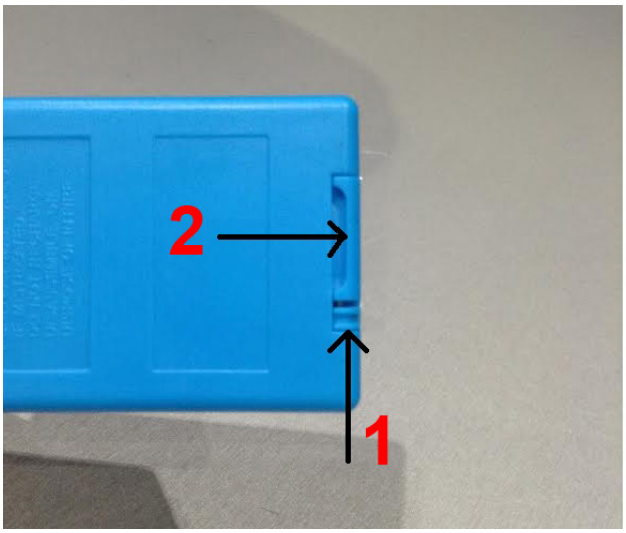
By default, your feeder is designed to turn off automatically after 25 seconds (can be up to 45 seconds) if no balls are fired. This is to prevent balls firing unexpectedly at the user. However, sometimes this feature can cause the feeder to stop, even when balls are firing. The solution is to simply disable this feature, which you can do by:

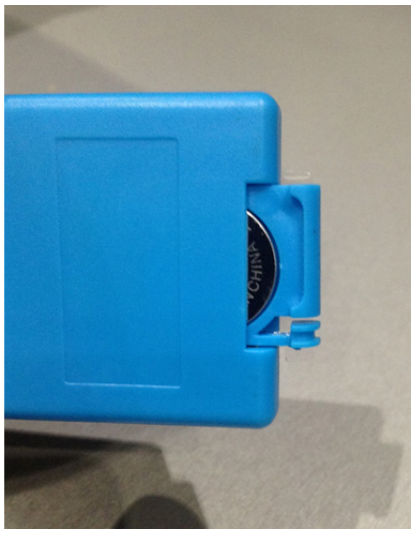
1. Start with your machine off.
2. Turn it on by pressing “power” and “down” simultaneously.
3. You can now toggle this setting by pressing “up”.
4. Press “menu” to save the new setting.

Your machine will remember this setting for all future uses (until changed again).

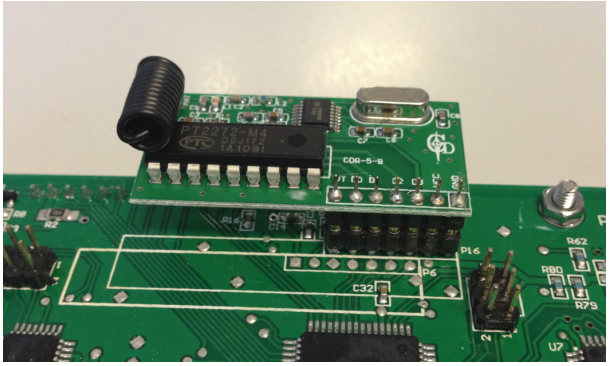
The remote control does not work

Please try inserting a new battery (battery size is CR 2025 3V) and confirm that the remote LED is illuminating when buttons are pressed. To remove the battery, please follow these steps:





If the machine is still not reacting to the remote, it is likely that the remote control receiver chip has fallen off the motherboard. This can happen due to vibrations over time. Please undo the 4 screws on the control panel and gently pull the control panel off the back of the machine. Check your motherboard to see if the receiver chip is still plugged in, it looks like this (note, the coiled antenna may be different on varying machines):



If it is not present, you may find it loose at the bottom of your machine. Please see if you can locate it and then plug it back on to the motherboard.

The two line drill won't work or will only fire to one side

In order for the two line drill to move from side to side, it needs to detect that a ball has been fired (so please ensure you are testing this feature while firing balls). It does this by measuring the change in electrical current. However, sometimes this current change cannot be detected. Often it is due to very slow settings or perhaps soft/flat tennis balls being used. Please try increasing the speed or using new tennis balls.

If you have the main software version 4.1.2 or later, you can adjust the sensitivity of this detection which will most likely resolve the issue. With your machine off, start by turning on the machine by holding POWER + LEFT + RIGHT for several seconds. The default setting is 4, and the range is 1-10. Higher values should be used if the machine fails to detect a ball being fired. Lower values should be used if the carousel stops intermittently when a ball has not fired.

If this does not resolve the problem, please contact your local dealer and they may need to send you a replacement motherboard (which you can change yourself). Please be sure to provide your dealer with the serial number of your machine (located on the base) as they will need to make sure the software installed on the motherboard matches your machine.

Top or bottom wheel motor error

With the machine off and elevation at its lowest, please do the following:

- Check to see if there are any obstructions to the wheels.
- Make sure that the wheels can spin freely (try turning them by hand to see if they are rubbing on anything).
- Check the reset switch under your machine (next to the master power switch) and press it (if it doesn't click, then this was not the problem).
- Check each of the tyres on the throwing wheels to see if they are in good condition. If they get damaged, they can throw out the balance of the wheels which will cause a throwing motor error. Check to see if the tyre is coming away from the core of the wheel (see if you can pry it away on both sides).

If this does not help you, please contact your local distributor with your serial number (on the base of your machine) so that they can assist you with the repair. Note, this error message was introduced in the main software version 3.6.2.

Top or bottom wheel motor makes a squeaking noise

Please check if the wheel is rubbing against the motor housing. There should be approximately 1-2mm of gap between the inside of the wheel and the motor housing. If there is not, please loosen the grub screw inside the throwing wheel (securing it to the axle) and then slide the wheel 1-2mm away from the housing, before re-tightening it. Please note, you need a 3mm hex key to loosen and tighten the grub screw. You also need to ensure you tighten the grew into the flat section of the axle. You can watch these videos for more information:

Removing the top wheel: https://goo.gl/NF6nDo
Installing the top wheel: https://goo.gl/Axreo9
Removing the bottom wheel: https://goo.gl/ZaJQhW
Installing the top wheel: https://goo.gl/hzbBFp

If this is not the problem, then the bearing inside the motor may be causing this noise. It is not advisable to apply any oil or grease. In many cases, the noise will not affect the performance of the machine and can only be heard at low speeds. This can happen during normal wear. If it needs to be corrected, replacing the motor is the best option, so please call your local distributor for further information.

Example settings in this manual don’t work well for me

All of our machines are slightly different due to manufacturing tolerances and therefore the correct settings on one machine may be slightly different on another. Please try adjusting your settings a little bit until the balls are landing where you want them to.

Control panel buttons are not responding properly

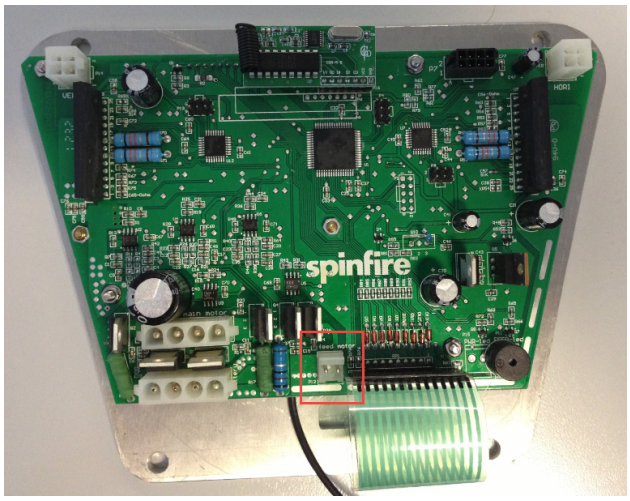
Please check that your remote control is not accidentally sending signals without you knowing (try removing the battery). If this is not the case, please unscrew the 4 screws on the control panel and gently pull it outwards (wiggling it from side to side as you do). Check the flat ribbon cable to see that it is connected properly to the motherboard (try disconnecting it and blowing on it). Also check that the flat ribbon cable wasn’t crimped when fixed to the machine. Carefully replace the control panel, making sure not to crimp any cables in the process. If this does not resolve your issue, please contact your local dealer for support.

The machine is not accurate or consistent enough

To achieve the most accurate results, you must use “pressureless balls” with your machine. You cannot mix brands or ball types. All balls must be identical to achieve the highest level of consistency. Factors such as wind can also reduce the accuracy.

The feeder motor is not working

The feeder motor is the motor which turns the carousel to stir the balls and feed them into the throwing wheels. To begin with, please ensure your interval setting is on 20 when testing this function. The most common cause for the feeder motor not working is if the cable has detached from the motherboard. This can happen due to vibrations over time. Simply undo the 4 screws on your control panel and gently remove the control panel. You should find a two wire (black and red) cable hanging from the feeder motor. Please make sure it is firmly connected to the motherboard on the connector shown below:



If this does not resolve the problem and you are confident using a multimeter, you may wish to test the two pins shown in the photo above. When the PLAY/PAUSE button is turned on, you should detect between 4V to 11V depending on the interval setting and interval mode. If you do not detect any voltage, then it's likely your motherboard is faulty (please confirm the PLAY button is on when taking your reading and ideally the interval should be set to 20).

SUBMITTING A SUPPORT REQUEST

When contacting us or any of our dealers for support, please be sure to provide us with the serial number which is located on the base of your machine.

Furthermore, any video footage you can supply showing the problem will greatly assist us in resolving your issue.

If you can hear any unusual noises, please be sure to notify us of these and where you believe they are originating from.

WARRANTY

Should any part fail due to defective workmanship or faulty materials within the warranty period, Fry Developments Pty Ltd (trading as Spinfire) or its distributor will repair or, (at distributor's option), replace the defective part free of charge. The warranty period is country specific, please contact the Spinfire distributor in your country or the place of purchase for details. The battery is only warranted for 6 months from the date of purchase.

Warranty Administration

Warranty is administered by your country's authorized Spinfire distributor. Please visit our website www.spinfiresport.com/distributors/ for the contact details of your country's Spinfire distributor.

To ensure speedy processing of your warranty service claim, ensure that you inform us of all specific details about your machine including the serial number, model & software version as well as a detailed description of the fault. Any videos you can provide us are considered very helpful.

Not Covered

Exposure of the ball machine to the elements should be minimized. Upon completion of play, please store the machine under cover. Damage caused to your machine from being exposed to the elements is not covered under warranty.

This warranty does not cover the purchaser or any other person for damage, malfunction or loss due to the following:

- Lack of maintenance, abuse, neglect, misuse, accident or improper usage of this appliance.
- Scratches, dents, corrosion or general wear & tear on the machine.
- Exposure to the elements, insects, weather or hail.
- Unauthorized repairs during the warranty period.
- Acts of God.
- Use on power voltages other than that specified for your machine.

Servicing of this nature is chargeable.

Under no circumstances will Fry Developments Pty Ltd (trading as Spinfire) or their authorized distributors be liable to the Customer or any other person for incidental or consequential damages of any nature, including but not limited to, damage for personal injury or damages to property.

Conditions of Warranty

1. The machine is to be delivered to the Spinfire distributor's service department or authorized service agent and freight charges both ways are paid by the owner. No liability is accepted for loss or damage during transit.
2. The machine must always be operated and maintained in accordance with the instructions supplied.
3. No alterations or repairs have been carried out without obtaining the distributor's prior consent. Such repair or any replacement does not extend the warranty period.
4. Proof of purchase must be provided to verify purchase date and establish the warranty period. Only the original purchaser is covered under this warranty.
5. The warranty period is calculated from the date of purchase only.
6. Where this warranty is inconsistent with any state laws, the statutory rights of the purchaser shall prevail.

7. Parts installed from other manufacturers' products will void this warranty.

EC DECLARATION OF CONFORMITY

We confirm that as at the 7th November 2018, the Spinfire Pro 1 and Pro 2 machines both conform with the Low Voltage Directive 2014/35/EU, Machinery Directive 2006/42/EC and the Radio Equipment Directive 2014/53/EU. All essential products test suites have been carried out by Shenzhen LCS Compliance Testing Laboratory Ltd.

Test standards	Report number
Low Voltage Directive 2014/35/EU: EN 60335-1:2012 + A13:2017 EN 62233:2008	LCS180907024CS
Machinery Directive 2006/42/EC EN 60204-1:2006 + A1:2009 + AC:2010 EN ISO 12100:2010	LCS180907007CS
Radio Equipment Directive 2014/53/EU RETSI EN 301 489-1 v2.1.1 (2017-02) ETSI EN 300 220-1 V3.1.1 (2017-02) ETSI EN 300 220-2 V3.1.1 (2017-02) EN 62479:2010 EN 60950-1:2006 + A1:2009 + A1:2010 +A12:2011 + A2:2013	LCS180907091AS LCS180907090AEC LCS180907090AEB LCS180907090AFA

FCC & ISED RSS WARNING:

FCC Statement

Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation.

ISED RSS Warning:

This device complies with Innovation, Science and Economic Development Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.

MANUFACTURER DETAILS

The Spinfire Pro series of ball machines are manufactured in Nantong, China for and on behalf of:

Fry Developments Pty Ltd
200 Alexandra Parade,
Fitzroy, Victoria 3065,
Australia
+61394267359