

S Q U A S H  
**CANNON**

[www.squashcannon.com](http://www.squashcannon.com)

**Touch Panel Instructions V1.1**

**Caution:****Before using the Ball Machine**

**Read this manual and follow all safety rules and operating instructions.**

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**DO NOT THROW AWAY CARTON OR ANY PACKAGING MATERIAL IN CASE THE SQUASH CANNON NEEDS TO BE SHIPPED FOR REPAIR.**

Before using this product, it is essential to read this ENTIRE Operation Manual and ALL installation instructions.

This will help in setting up the equipment quickly and in instructing others on how to use it correctly and safely.

**FCC Warning – Possible Radio / Television Interference**

NOTE: This equipment uses and can radiate radio frequency energy, and if not installed and used in accordance with the operation manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Class SB (Studio): Professional and / or commercial use.



**CAUTION:** Any changes or modifications to this equipment could void the product warranty.

Any service, other than cleaning or user maintenance, must be performed by an authorized service representative. There are no user-serviceable parts.

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## Warranty

### ONE YEAR limited WARRANTY

If this product fails due to a defect in material or workmanship within one year from the date of purchase DSM Enterprises will at its option repair or replace it free of charge.

Shipping to DSM Enterprises LTD. will be the responsibility of the owner/purchaser of the product. Return shipping to owner/purchaser will be the Responsibility of DSM Enterprises LTD.

**CAUTION:** Health-related injuries may result from incorrect or excessive use of exercise equipment. DSM Enterprises Ltd. **STRONGLY** recommends seeing a physician for a complete medical exam before undertaking an exercise program, particularly if the user has a family history of high blood pressure or heart disease, is over the age of 45, smokes, has high cholesterol, is obese, or has not exercised regularly in the past year. If, at any time while exercising, the user experiences faintness, dizziness, pain, or shortness of breath, he or she must stop immediately.



# 1. GETTING STARTED

## 1.1 Important Safety Instructions

Safety is a combination of common sense, staying alert and knowing how to use your ball machine.

To avoid mistakes that could cause serious injury, do not plug the ball machine in, until you have read and understood the following:

- **WARNING:** The safety of the product can be maintained only if it is examined regularly for damage and wear. See Preventive Maintenance section for details.
- **DANGER:** To reduce the risk of electrical shock, always unplug the Squash Cannon before cleaning or attempting any maintenance activity.
- **DANGER:** To reduce the risk of burns, fire, electric shock, or injury, it is imperative to connect the Squash Cannon to a properly grounded electrical outlet. The Squash Cannon is equipped with a 3-prong plug; it must be plugged into a 3-contact electric outlet. The 3rd prong is a ground to provide protection against accidental electric shock. Never remove the 3rd prong on a grounded plug.
- Never operate the Squash Cannon if it has a damaged power cord or electrical plug, or if it has been dropped, damaged, or even partially immersed in water. Contact DSM Enterprises Ltd. Customer Support Services for assistance.
- Keep the power cord away from heated surfaces. Do not pull the equipment by the power cord or use the cord as a handle. If the electrical supply cord is damaged, it must be replaced.
- **AVOID DANGEROUS CONDITIONS. DO NOT** use the ball machine in wet or damp areas.
- **ALWAYS** know who is on the court and ensure that they understand this instruction manual.
- **ALWAYS WEAR EYE PROTECTION.** The ball machine can throw balls unexpectedly. This may cause serious injury and permanent eye damage. Everyone on the court during ball machine use, including coaches must wear safety glasses that comply with ANSI safety standards, not regular eyeglasses. Everyday eyeglasses only have impact-resistant lenses they ARE NOT safety glasses.
- **DO NOT LET ANYONE STAND IN THE FRONT OF THE MACHINE WHILE POWER IS APPLIED.**
- **NEVER LEAVE THE SQUASH BALL MACHINE RUNNING UNATTENDED.** Turn the power off. **DO NOT** leave the machine unattended until it has come to a complete stop.
- **NEVER STAND OR SIT ON THE BALL MACHINE.** Serious injury could result if the machine rolls or tips.
- **MAKE THE SQUASH CANNON CHILD PROOF.** Remove the power cord and store it in a safe place.
- **DRUGS, ALCOHOL, OR MEDICATION. DO NOT** operate the ball machine if you are under the influence of drugs, alcohol, or medication that could affect your ability to use the machine properly.

## 1.1.1 Guidelines for Extension Cords

- **REPAIR OR REPLACE A DAMAGED OR WORN CORD IMMEDIATELY.**
- **Be sure your extension cord is properly wired**, and in good electrical condition. Always replace a damaged extension cord or have it repaired by a qualified person before using it.
- **Protect your extension cords from sharp objects**, excessive heat and damp or wet areas. Ensure the cord does not get pinched under the court door.
- **DO NOT MODIFY THE EXTENSION CORD PLUG PROVIDED.** If it will not fit the receptacle, have the proper receptacle installed by an electrician.
- **USE PROPER EXTENSION CORD.** Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your machine will draw. An undersized cord will cause a drop in line-voltage resulting in loss of power and overheating.

## 1.1.2 Grounding Instructions

- **IN THE EVENT OF A MALFUNCTION OR BREAKDOWN**, grounding provides the path of least resistance for electric current and reduces the risk of electric shock. The Squash Cannon is equipped with a 15-amp circuit breaker and an electric cord that has an equipment grounding conductor and a grounding plug. The plug **MUST** be plugged into a matching receptacle that is properly installed and grounded in accordance with ALL local codes and ordinances. A surge protector is recommended to protect the electronics.
- **IMPROPER CONNECTION** of the equipment grounding conductor can result in risk of electric shock.
- **CHECK** with a qualified electrician or service personnel if you do not completely understand the grounding instructions or if you are not sure the ball machine is properly grounded.
- **USE ONLY 3-WIRE EXTENSION CORDS THAT HAVE 3-PRONG GROUNDING PLUGS AND 3-POLE RECEPTACLES THAT ACCEPT THE BALL MACHINE'S PLUG.**

## 1.1.3 Location

- Position this product so that the power cord plug is accessible to the user.
- Use this appliance only for its intended use as described in this manual. Do not use attachments that have not been recommended by the manufacturer.
- Do not use the Squash Cannon outdoors, near swimming pools, or in areas of high humidity.
- **DO NOT STAND IN FRONT OF THE SQUASH CANNON, WHEN STARTING IT.** There is always a possibility that a ball from your last training session is still lodged in the machine, which may be thrown out when the Cannon comes to full speed.
- **AVOID MOVING IN FRONT OF THE SQUASH CANNON WHILE IT IS IN OPERATION.** Design drills that prevent moving in front of the machine.

## 1.1.4 Operation

- To avoid electrical hazards, fire hazards, or damage to the machine, use proper circuit protection. Always use three (3) prong, grounded, ground fault interrupter AC outlets.

- **ALWAYS WEAR EYE PROTECTION.** The ball machine can throw balls unexpectedly. This may cause serious injury and permanent eye damage. **ALWAYS** wear safety glasses (not eye glasses) that comply with ANSI safety standards. Everyday eyeglasses have impact-resistant lenses only they **ARE NOT** safety glasses.
- Everyone on the court while using the ball machine must wear eye protection even if they are not participating in the drill or work out.
- Before starting the machine ensure that there are no balls inside the machine enclosure. It is possible for a ball to rebound back into the Squash Cannon enclosure. If this occurs the machine can jam and/or the heater can burn out. Unplug the machine immediately and remove the ball.
- **DO NOT STICK OBJECTS SUCH AS RACKETS, STICKS, BROOM HANDLES OR ANY OTHER FOREIGN MATERIAL INTO THE CANNON.** The Squash Cannon has moving parts that travel at high velocities. Serious and permanent physical injury could result if they come in contact with any foreign material. If an object should drop inside, carefully retrieve it while the unit is not in use. If the object cannot be reached, contact DSM Enterprises Ltd. Customer Support Services.
- **DO NOT ATTEMPT TO UN-JAM THE SQUASH CANNON WHILE THE MACHINE IS PLUGGED IN AND TURNED ON.** Follow operating procedures for un-jamming methods.
- Never place liquids of any type directly on the unit. Specifically on the touch panel Screen.
- Be very careful not to allow other people to interfere in any way with the user or equipment while their exercise routine is in progress.
- Keep all loose clothing, shoelaces, and towels away from moving parts.
- Do not reach into, or underneath, the unit or tip it on its side during operation.
- **USE ONLY RECOMMENDED SQUASH BALLS.** The Squash Cannon is designed for use with standard soft balls only (1.5", 38mm). Using improper squash balls can be hazardous and may damage the machine and void warranty.
- **HARD BALLS MAY NOT BE USED.** The Squash Cannon was not designed for the use of hard balls. If they are used, serious damage will occur and the warranty will be void.
- **NEVER AIM THE SQUASH CANNON AT PEOPLE.** Due to the high velocity of the balls shooting out of the Squash Cannon, serious injury could result.
- **NEVER LOOK INTO THE SQUASH CANNON.** Balls may fire unexpectedly, even if the machine has been turned off. Serious, permanent eye damage could result.
- If your Squash Cannon is equipped with a laser, avoid direct eye exposure. Wavelength: 400-690nm, 5mW Maximum Output, Class IIIa Laser product.
- **NEVER LET CHILDREN UNDER THE AGE OF 15 USE THE SQUASH CANNON WITHOUT ADULT SUPERVISION.** The Squash Cannon is a high performance machine, which may cause serious injury, if used improperly.
- NEVER USE THE SQUASH CANNON IF IT HAS BEEN DAMAGED.
- If the Squash Cannon is transported on its side or back while it is loaded with balls, balls may jam in the internal ball tray and may cause difficulty during operation. For best results do not transport with balls in the machine.
- Always follow these instructions for proper operation.

**--SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE--**

## 1.2 Features



### FEATURES ON THE SQUASH CANNON INCLUDE:

- 1. Ball Chute:** Load balls here.
- 2. Handle:** Use this handle to lift machine.
- 3. Touch Panel Display (TP):** This integrated TP allows all functions of the Cannon to be easily monitored and controlled and to quickly set up drills. It also allows players to monitor their progress as their abilities improve. The TP allows easy user input. There are no complicated steps to setting up a drill—simply choose a workout, enter values and get started.
- 4. Circuit breakers:** The circuit breakers protect the machine from overloading and shut it down if there is a ball jam.
- 5. Power Receptacle:** The power receptacle allows you to remove the power cord when not in use.
- 6. Power on Switch:** The power switch allows you to conveniently turn the power off without disconnecting the power cord.
- 7. Remote Control (optional):** The remote control allows control of many features of the Cannon without being near the machine. The remote unit allows the user to pause a drill and it allows the user to shoot a ball with the push of a button.

- 8. **Laser Targeting (optional):** Whenever the elevation is adjusted a laser line is projected on the wall indicating where the Cannon is aimed allowing for quick targeting and to demonstrate to students the angles required for certain shots.
- 9. **Digital Temperature Monitoring:** Allows the user to choose the required ball temperature and the computer controls the temperature inside the Cannon.

## 1.3 Setup

*Read the entire Operation Manual before setting up the Squash Cannon.*

**After unpacking the machine please SAVE the packaging carton.** You can use it again if you have any problems and need to send it back to our authorized warranty service center.

### ELECTRICAL POWER REQUIREMENTS

Your Squash Cannon is wired at the factory for 110 VAC or 230 VAC operation depending on the country of purchase.

To avoid shock or fire, replace power cord immediately if it is worn, cut or damaged in any way.

**It is advisable to use a surge protector, specifically in countries with questionable power sources. Not using a surge suppressor may void the warranty.**

The Squash Cannon ball machine requires an AC power supply according to the electrical configurations listed in the chart below. Each supply voltage is dependant on the model purchased and supply voltage is not interchangeable between 110 VAC and 230 VAC.

Supply Voltage (VAC)	Frequency (Hz)	Rated Current (amps)
110	60	15
230	50	10

**NOTE:** Do not modify the plug provided with this product. If the plug does not fit into an available electrical outlet, have a proper outlet installed by a qualified electrician or Contact DSM Enterprises Ltd. Customer Support Services.

**Fused Circuitry:** The Squash Cannon monitors for jams and quickly shuts down if a ball happens to bounce back into the machine and jam the mechanisms. The ball jam circuit breaker is marked with the number 5. If the Cannon happens to short circuit the master fuse will blow. This fuse is marked with the number 15.

**Removable Cord:** The power cord on the Squash Cannon is removable in order to prevent unauthorized use.



# 2. THE TOUCH PANEL DISPLAY (TP)

## 2.1 Control Overview

The computerized control of the Squash Cannon ball machine allows the user to tailor a work out to personal abilities and goals. With the easy-to-use TP, the user can track fitness improvement from one workout to the next by recording the Cannon's settings.

The TP control consists of four Screens:

1. Initialization Screen;
2. Warm-up Screen; Ball pre-warming
3. Home Screen; Drill Selection Screen
4. Drill Setup Screens; Parameter settings

## 2.2 Control Descriptions

This section lists and describes the information displayed on the TP and the inputs available to the user on the Squash Cannon ball machine.

### 2.2.1 Initialization Screen



The initialization screen is temporarily displayed while the machine starts-up. If there is any problems found with the machine they will be indicated on this screen. **Holding the initialization screen allows the user to re-calibrate the TP.**

## 2.2.2 Warm-up Screen



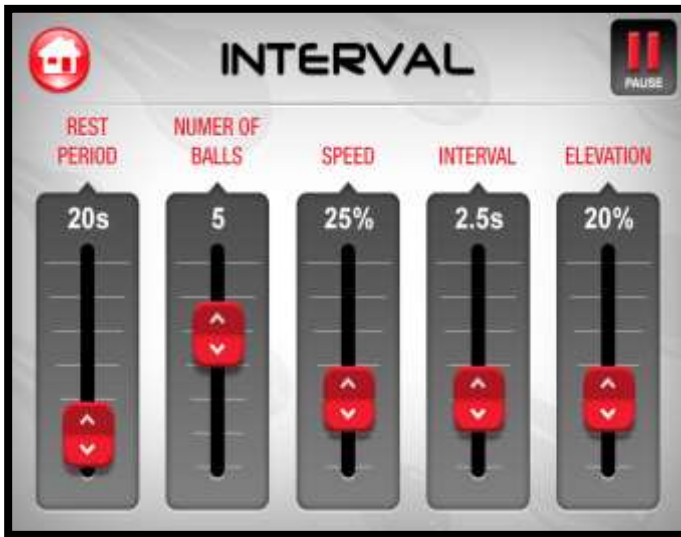
The Warm Up screen is set to pre-warm the balls before a work out. After 3 minutes the home screen will automatically appear. If warm up is not required it can be cancelled at any time by touching the screen or by pressing pause on the remote. **If Pause on the remote is press the machine automatically jumps to manual training.**

## 2.2.3 Home Screen



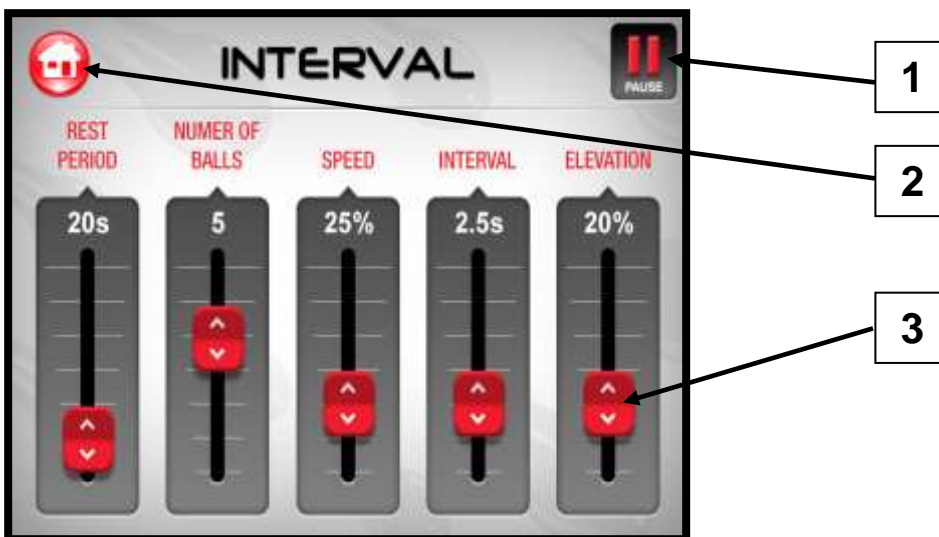
The home screen allows you to choose a drill between Manual, Lob Drop, Decay, Random, Interval or Heater Set Up.

## 2.2.4 Drill Setup Screens



The setup screens are accessed automatically upon drill selection. They allow the user to enter values for the rest period, number of balls per cycle, ball speed, interval elevation, and ball temperature. These screens vary depending on the drill selected.

## 2.3 Drill Setup Screen



1. The pause key and play key pause or start the current drill.



2. The Home key allows the user to go back to the drill selection screen.
3. The sliders are used to enter values during drill setup. Tapping the top or bottom of the slider will index the parameter by one unit.

## 2.4 Re-Calibrating the Touch Panel

To re-calibrate the touch panel, during the initialization screen press and hold the TP. A calibration screen will appear.



Follow the directions on the TP and press the red dots in the corners of the TP. This will recalibrate the TP.

## 2.5 The Remote Control (Optional)



**NOTE: If the Pause button on the remote is pressed while the warm up screen is displayed the Squash Cannon will immediately start to run in Manual Mode.**

The remote does not need to be pointed at the Cannon to work effectively.

1. **INTERVAL** – the **MORE** or **LESS** buttons on the remote increase or decrease the time between ball firings. For the RANDOM DRILL mode, difficulty will increase or decrease when the buttons are depressed.
2. **VELOCITY**– the **FAST** and **SLOW** buttons on the remote increase or decrease the ball velocity.
3. **ELEVATION** – the **UP** and **DOWN** buttons on the remote increase or decrease the ball trajectory.
4. **TRIGGER** – the **SHOOT** button allows the user to fire a ball whenever the button is pressed.
5. The **PAUSE** button allows the user to pause the workout currently in progress. Pressing PAUSE a second time will resume the current workout. The Pause button can also be used to skip the warm-up period when the machine is first turned on.

## 2.6 Laser Sighting (Optional)

**If your Squash Cannon is equipped with a laser, avoid direct eye exposure. Wavelength: 400-690nm, 5mW Maximum Output, Class IIIa Laser product.**

If the Cannon is equipped with the optional laser targeting nothing is required of the user. The laser will automatically indicate where the Cannon is aimed whenever the elevation is adjusted. A vertical laser line is projected on the wall the Cannon is aimed at. The laser **will not** project a line when the Cannon's elevation is under computer control as in the LOB/DROP drill.

# 3. THE WORKOUTS

Position the machine at the 'T' and angle it towards the side wall. (As you become more familiar with the Cannon's operation place the machine anywhere on the court to develop special coaching setups).

**Do not stand in front of the machine.**

## 3.1 Workout Overview

This section lists the Squash Cannons program modes.

- 1. MANUAL TRAINING** is a workout in which the drill parameters do not change automatically. All control is left up to the user. This workout is used when the user wants all balls to repeat with a steady timing rate. If the Pause button is pressed at any time during the warm up period the machine will default to manual training mode. **NOTE:** if balls do not fire, press the home button and re-enter manual mode to clear issue.
- 2. LOB/DROP DRILL** is a workout in which two different elevations and two corresponding speeds can be chosen. This allows you to set the minimum elevation and minimum speed to form a drop shot and the maximum elevation and maximum speed to form a lob shot. The Squash Cannon will automatically change between the settings. This mode can also be used to vary shots in volley drills. Using a high volley and a low volley can be a great training tool.
- 3. DECAY TRAINING** is a pressure type workout. The number of balls in each cycle, the initial or maximum interval and the final or minimum interval are selected by the user. The Squash Cannon will then shoot the selected balls per cycle at the maximum interval. The interval is then reduced by 0.5 seconds. The selected balls per cycle is again fired at the reduced interval. This continues until the minimum interval has been reached. Once the selected number of balls has been fired at the minimum interval there is a 5 second rest period and then the workout cycles back to the maximum interval and starts over.
- 4. RANDOM DRILL** is a workout where the Squash Cannon randomly selects the interval between balls. The maximum and minimum intervals are selected by the user and the Cannon will randomly select an interval between this maximum and minimum.
- 5. INTERVAL DRILL** is a workout in which there is a specified rest period after a specified number of balls have fired. The rest period can be selected between 15 and 60 seconds and the number of balls can be selected between 1 and 20.

## 3.2 Using the Workouts



### **NEVER STAND IN FRONT OF THE SQUASH CANNON!**

Different workouts require different setup steps. This section provides details on the steps themselves.

**NOTE:** A new Squash Cannon ball machine may emit a slight smell during extreme operation as the rubber on squash balls may melt slightly as they heat up. If the smell persists, contact customer service.

## 3.2.1 Beginning a Workout

**ENSURE THAT THERE ARE NO BALLS INSIDE THE MACHINE THAT HAVE BOUNCED BACK IN THE MACHINE OPENING!**

Load up to 60 balls in the ball chute. Balls may be continually loaded at any time during machine operation. Using oversized balls will jam the machine and void warranty.

After the Squash Cannon is turned on it enters a short calibration cycle and then starts a 3 minute warm-up. After the 3 minute warm up the Cannon will automatically adjust to the last temperature the user had it set to.

The 3 minute warm-up can be cancelled at any time by touching the screen or by pressing Pause on the remote.

### 3.2.1.1 Quick Start

Turn on the power and the Cannon will initialize and calibrate and go through a 3 minute warm up. The warm up can be cancelled at any time by the screen or by pressing the Pause button on the remote.



Once warmed up the LCD displays the following screen and is ready to use.



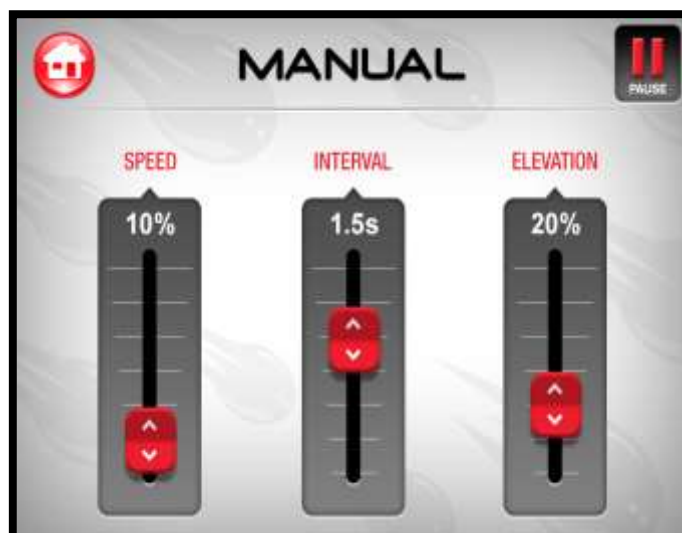
## 3.2.2 ENTERING WORKOUT VALUES

### 3.2.2.1 Selecting a Workout

Once a work-out has been selected the TP displays the parameters needed for setting up that work out.

If a different mode is required use the home button to go back to the home screen and select a different work out.

1. For **MANUAL TRAINING** upon pressing the manual button, the following screen will appear.



Use the Sliders to select each parameter. (Tap top or bottom of slider to index one unit)

The speed, interval and elevation can all be adjusted with the sliders. All parameters can be readjusted during the workout. Tap the slider once on the top or bottom to index the parameter by one unit.



2. For the **LOB/DROP DRILL** upon pressing the Lob Drop button, the following screen will appear.



Set the Minimum Speed with the slider. (Tap top or bottom of slider to index one unit)

Set the Maximum Speed with the slider. (Tap top or bottom of slider to index one unit)

Set the Minimum Elevation with the slider. (Tap top or bottom of slider to index one unit)

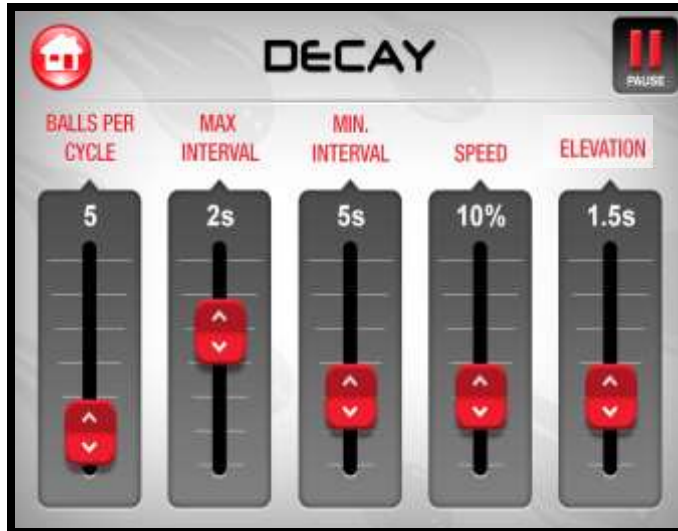
Set the Maximum Elevation with the slider. (Tap top or bottom of slider to index one unit)

When selecting the maximum speed or maximum elevation the computer will force the minimum values to be below or equal to the maximum values. Tapping the top or bottom of the slider will index the parameter by one unit.

The minimum interval for the lob drop drill is restricted by the time it takes for the Cannon to adjust the speed and elevation set by the user. If an interval is set that is faster than the machine can react to maximum and minimum values the computer will shoot a ball as soon as it is in position.

**IMPORTANT NOTE: During this drill the motors must speed up and slow down to meet the user inputs. This response is limited by the physics of the machine. With shorter intervals the Cannon will not be able to respond quickly enough to match the required speeds. For better results use small changes in speed or longer intervals.**

3. For **DECAY TRAINING** upon pressing the Decay button the following screen will appear.

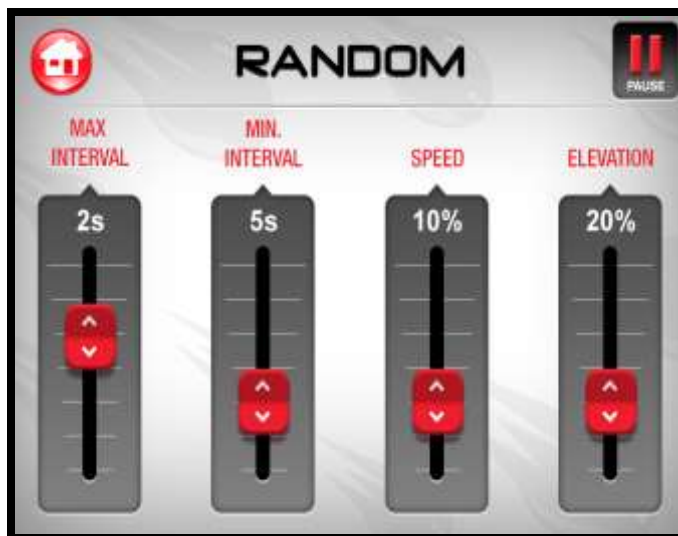


Use the Sliders to select each parameter. (Tap top or bottom of slider to index one unit)

The initial interval will start with the maximum interval selected. The machine will fire the number of balls indicated on the Balls Per Cycle slider before reducing the interval. Each interval will be reduced by 0.5 seconds. The number of balls indicated will be shot at each successive interval until the minimum interval has been reached.

After the minimum interval has been reached there will be a short 5 second rest period and the drill will start over using the maximum interval again. This will continue as long as there are balls in the machine.

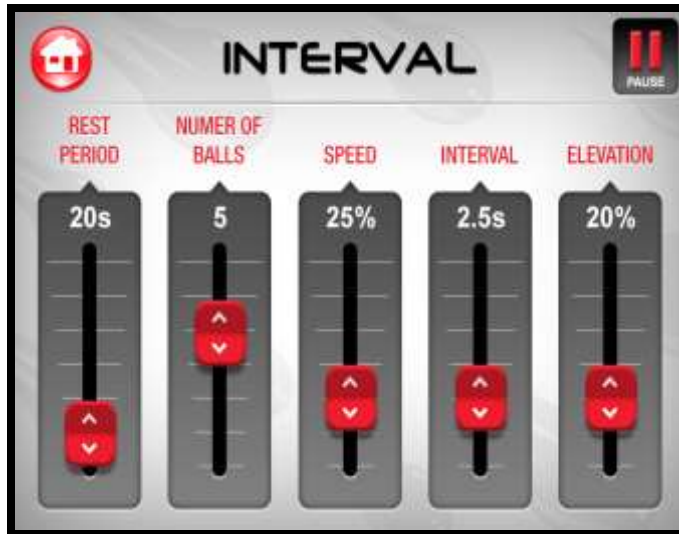
4. For the **RANDOM DRILL** upon pressing the Random Button the following screen will appear.



Use the Sliders to adjust each parameter. (Tap top or bottom of slider to index one unit)

In Random the Cannon will randomly select an interval between the minimum interval and the Maximum interval. The maximum interval must be larger than the minimum interval. A reduction in the maximum increases the difficulty of the drill. All parameters can be readjusted during the workout.

5. For the **INTERVAL DRILL** upon pressing the interval button the following screen will appear.

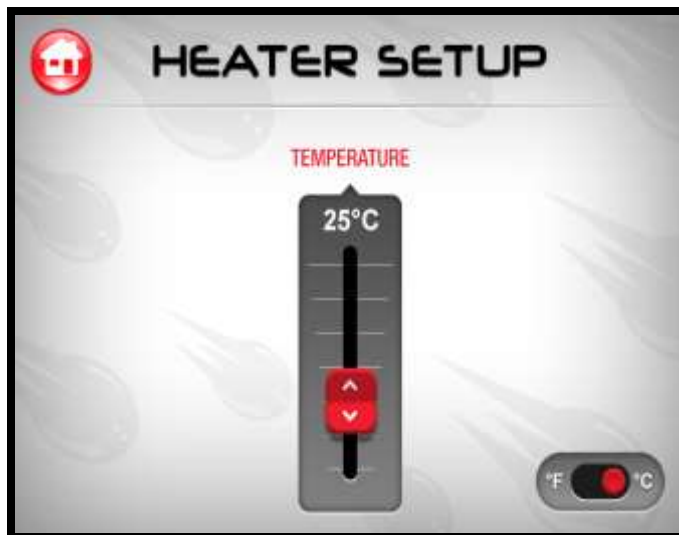


Use the sliders to adjust each parameters. (Tap top or bottom of slider to index one unit)

A rest interval of 15, 30, 45 or 60 seconds can be selected.

Press play to start the drill. After the number of balls indicated has fired the drill will pause for the user specified rest period and then continue to cycle. This will continue as long as there are balls in the machine.

6. For **HEATER SETUP** upon pressing heater set-up you will see the following screen.



Use the Slider to select the required temperature and press home button when complete. (Tap top or bottom of slider to index one unit)

The small toggle slider is used to cycle between Celsius and Fahrenheit. NOTE: Typical game temperature is 40 deg C.

# 4. SERVICE AND TECHNICAL DATA

## 4.1 Preventative Maintenance Tips

The Squash Cannon Ball Machine is backed by the engineering excellence of DSM Enterprises Ltd. and is the most advanced, most rugged and most trouble-free squash ball machine on the market today. DSM Enterprises Ltd. products have proven to be durable in health clubs, colleges, military facilities, and other locations the world over.

**NOTE:** The safety of the equipment can be maintained only if the equipment is examined regularly for damage or wear. If maintenance is required, keep the equipment out of use until defective parts are repaired or replaced. Pay special attention to parts that are subject to wear as outlined in the Preventive Maintenance Schedule.

The following preventive maintenance tips will keep the Squash Cannon Ball Machine operating at peak performance:

- Locate the Squash Cannon in a cool, dry place.
- Use a 100% cotton cloth, lightly moistened with water and mild liquid cleaning product, to clean the Squash Cannon. Other fabrics, including paper towels, may scratch the surface. **Do not use ammonia or acid-based cleaners.**
- **Only use a microfiber cloth to clean the display. Do not use chemicals on the display other than those specifically manufactured for touch panel displays.**
- Never stick a vacuum into the machine while the machine is plugged into a power outlet. Never stick a metal vacuum hose into the machine.

**NOTE:** A non-abrasive cleaner and soft cotton cloth are strongly recommended for cleaning the exterior of the unit. At no time should cleaner be applied directly to any part of the equipment; apply the non-abrasive cleaner on a soft cloth, and then wipe the unit.

## 4.2 Inspecting and Cleaning the Squash Cannon

Follow the schedule below to ensure proper operation of the product.

ITEM	WEEKLY	MONTHLY	BI-ANNUALLY	ANNUALLY
Display		Clean	Inspect	
Body Mounting Bolts			Inspect and tighten	
Body		Clean		
Castor Mounting Bolts			Inspect and tighten	
Drive Wheels	Inspect			Clean rubber off wheels
Interior				Clean with pressurized air
Heater (and interior of machine)			Clean all dust off of heating element and blower with pressurized Air	
Power Cord		Replace if damaged		

## 4.3 Troubleshooting the Squash Cannon

Contact manufacturer before you try to solve any major problems!

### 4.3.1 Balls not firing

Symptom	Problem	Solution
Drive wheels are turning	Ball(s) are lodged in the ball feed mechanism	Follow un-jamming procedure #2
Loud buzzing sound. Drive wheels not rotating. 5 or 15 amp breaker has tripped.	Balls have jammed motors. TP displays a warning. If this condition persists motors may be damaged and will not be covered by warranty	Turn machine off Immediately. Follow un-jamming procedure #1
TP is on, however drive wheels are not turning.	Balls have jammed motors. TP displays a warning. 5 amp circuit breaker tripped.	Turn machine off Immediately. Follow un-jamming procedure #1.
5 amp breaker continues to trip.	Motors are jammed or motors have shorted out.	Contact DSM Enterprises Ltd. Customer Care
TP indicates "INC MTR ERROR"	Elevation actuator has failed or is unplugged.	Contact DSM Enterprises Ltd. Customer Care

#### Machine has no power

No power to the machine	Power cord not plugged in	Ensure proper connection of power cord.
	Power cord damaged	Contact DSM Enterprises Ltd. Customer Care
	15 Amp fuse on the machine has tripped	Reset fuse on machine. Ensure that Drive Motors are not jammed. If problem persists contact manufacturer.
	Improper/faulty extension cord	Replace extension cord with proper cord as described in owner's manual. Consult electrician if problem persists.
	Receptacle Circuit breaker in main power has tripped.	Ensure that the receptacle being used is rated for 15 AMP operation in North America and to standard size in Europe. Consult electrician if problem persists.
	Improper connection to receptacle	Ensure connection has been made. Consult electrician if problem persists.

### 4.3.2 Heater not operating

Temperature is set however heat is not on.	Machine is not receiving power.	Review previous section of trouble- shooting guide.
Drive wheels are rotating, however, heater is not operating.	Heater has overheated.	Turn heater off, unplug machine, wait several minutes and try operation again. If heater still does not operate Contact DSM Enterprises Ltd. Customer Care
Drive wheels are rotating, however heater is not operating.	Heater has been damaged.	Contact DSM Enterprises Ltd. Customer Care
Fan is operating however there is no heat	Heater has been damaged.	Contact DSM Enterprises Ltd. Customer Care
Heat is on however the fan is not turning	A ball has rebounded back into the machine and has jammed the fan	Immediately turn off the power to the machine and remove the obstruction.
Difficulty keeping balls at game temperature	Balls are sitting on court too long	Use fewer balls so that the balls don't sit on the court for extended periods
Difficulty keeping balls at game temperature	Temperature set to low	Review sec. 3.2 on setting heater temperature

### 4.3.3 Touch Panel not responding as expected

TP Not responding	TP needs to be calibrated	Follow procedure in sec. 2.4
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## 4.4 Procedures to Un-Jam the Squash Cannon

### 4.4.1 Procedure #1

Five (5) amp circuit breaker tripped and drive wheels do not rotate. This problem typically arises from a ball rebounding back into the opening of the Squash Cannon.

**Never stick anything into the Squash Cannon while it is plugged in.**

**Never stick anything into the Squash Cannon while the drive wheels are still turning.**

1. Turn off machine power and unplug the power cord from both the machine and the receptacle.
2. Wait one minute to ensure drive wheels have stopped rotating. Contact with Drive wheels while they are still rotating can cause serious injury.
3. Manually rotate drive wheels to see which wheel does not turn.
4. Identify the reason for the jam and remove obstruction.
5. Reset the 5 amp circuit breaker by pressing it in.

**If the Cannon continues to jam or the 5 amp breaker continues to trip, contact the manufacturer for further advice.**

## 4.4.2 Procedure #2

**Drive Wheels turning however balls do not fire. Drum Not turning**

**Never stick anything into the Squash Cannon while it is plugged in.**

**Never stick anything into the Squash Cannon while the drive wheels are still turning.**

1. Turn off power and remove power cord.
2. Ensure drive wheels have stopped rotating.
3. Inspect Drum inside the machine to ensure no foreign object or oversized ball are jammed in the drum or feed tube.
4. Remove Obstruction.
5. Turn the drum by hand by reaching through the loading hole, if the drum does not turn, contact DSM Enterprises Ltd. Customer Care for instructions.

## 4.5 How to Obtain Product Service

1. Verify the symptom and review the operating instructions. The problem may be unfamiliarity with the product and its features.
2. Locate and document the serial number of the unit. This number consists of eight numbers. The serial number plate is located on the bottom of the unit.
3. Contact DSM Enterprises Ltd. Customer Support Services via the Web at: [www.squashcannon.com](http://www.squashcannon.com), Or call DSM Enterprises Ltd. Support Services group: For Product Service within the United States and Canada:  
Telephone: (+1) 403.519.6222

# 5. SPECIFICATIONS

## Motors:

Two motors	½ HP per Motor
One Motor	¼ hp drum Motor
Volts	120VAC (240V AC European Model)
Hertz	50/60

## Ball capacity

50 balls

## Ball speed

approx 10 to 100 MPH+

## Ball feed rate

1 - 15 sec. Intervals

## Trajectories

FROM Drive to Lob

## Dimensions

L 19"/48cm x W 15.5"/40cm x H 31"/79cm

## Weight

55 Lbs/25 Kg

CSA Approved Special Inspection

\*Specifications subject to change without notice

Designed use: Heavy/Commercial



[www.squashcannon.com](http://www.squashcannon.com)

## SHIPPING DIMENSIONS:

Length 20 inches / 50.8 centimeters

Width 24 inches / 61 centimeters

Height 34 inches / 86 centimeters

Weight 60 pounds / 27 kilograms

DSM Enterprises LTD.

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