



# Owner's Manual

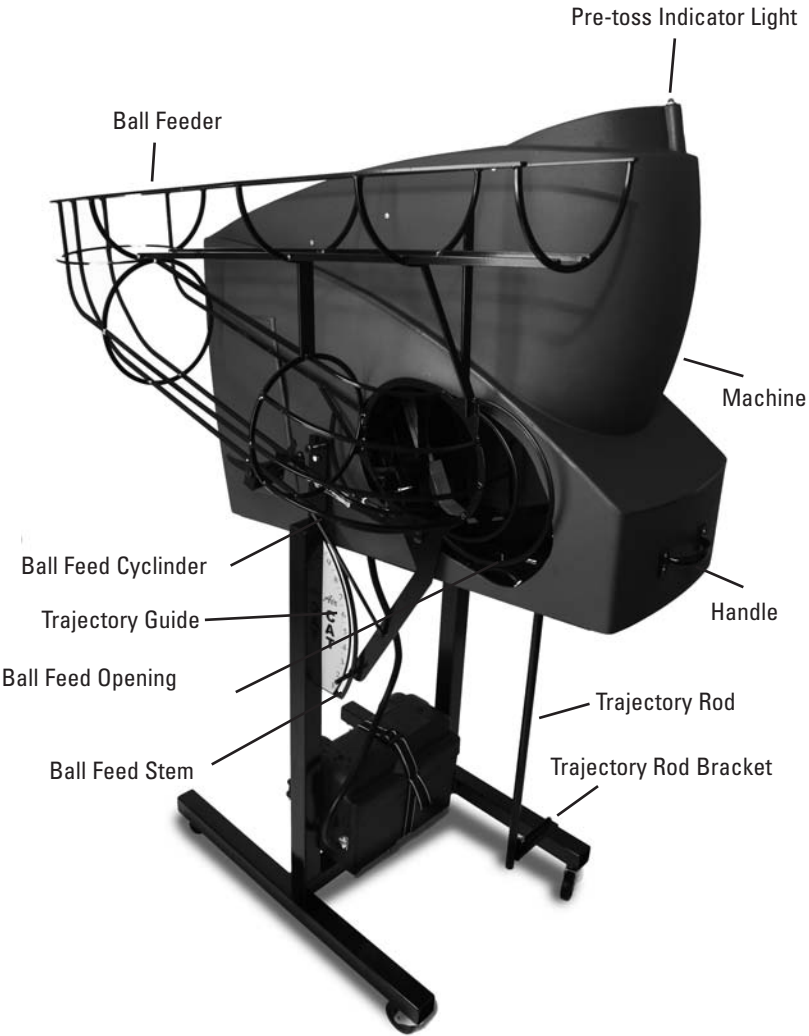
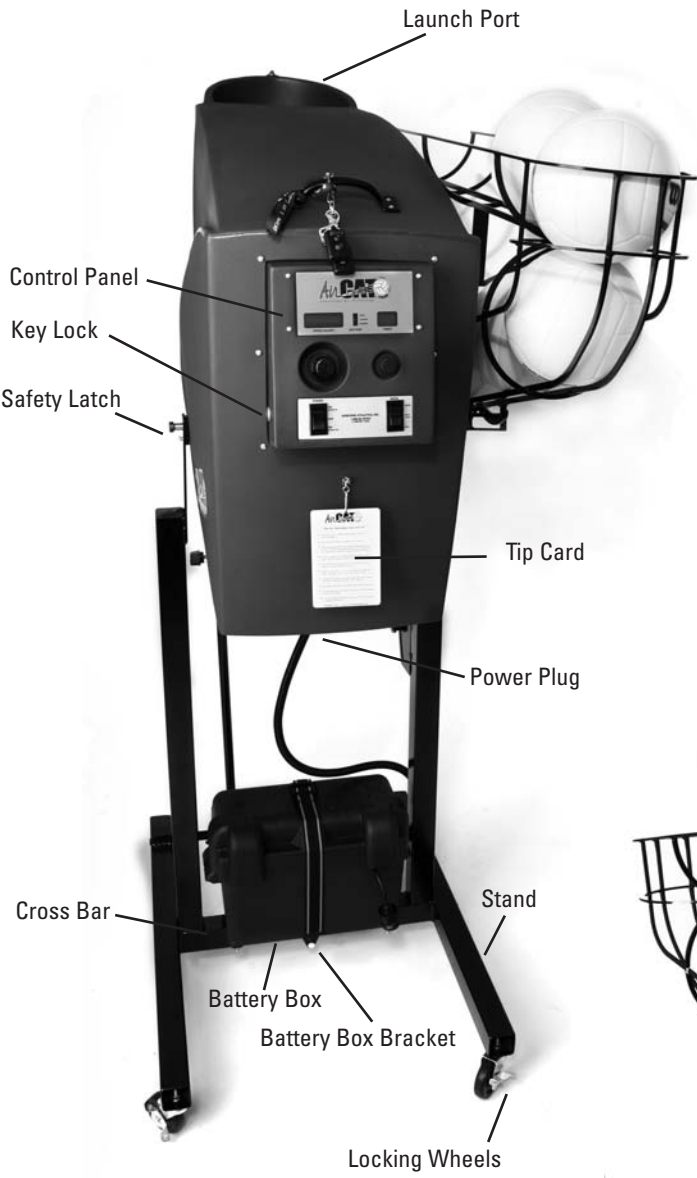


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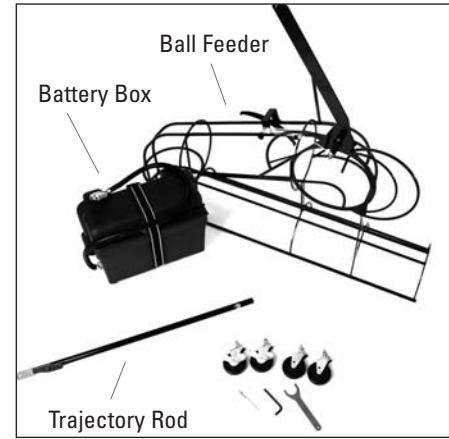
# Parts of the AirCAT



## Assembling the AirCAT

Tools needed to assemble the AirCAT:

- (2) 9/16 wrenches
- (1) 7/16 wrench
- (1) 1/4" Allen wrench (provided)
- (1) Wheel wrench (provided)



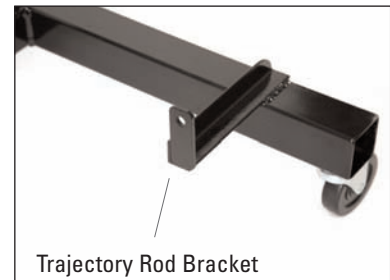
### Attaching the wheels to the stand

Tools needed:

- 9/16" wrench
- Wheel wrench (provided)
- 4 wheels with attached washers and nuts (provided)

#### Step 1

Locate trajectory rod bracket on the stand, this is the front of your stand. The locking wheels are to be attached on the front of the stand and the non-locking wheels are to be attached on the back.



#### Step 2

Remove the washers and nuts from the wheels and slip the wheel stems through the pre-drilled holes in the bottom of the stand.



#### Step 3

Inside the stand, slip the lock washers over the stem of the wheels. Thread the nuts on and tighten securely.

**Note:** Use the 9/16" wrench to tighten the nuts and wheel wrench to hold the swivel nut on the wheels.

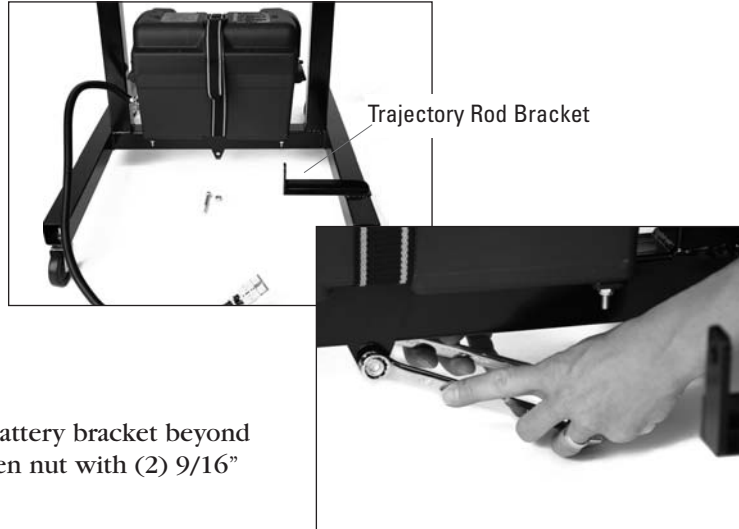


### Attaching the battery box to the stand

Tools needed:  
(2) 9/16" wrenches

#### Step 1

The battery box contains a bracket on the bottom which fits over the crossbar on the stand. Place the battery box on the base of the stand with the 40" power cord wrapped in black conduit on the same side as the trajectory guide.



#### Step 2

Insert the 3" bolt through the holes of the battery bracket beyond the base of the stand. Attach 3/8" nut. Tighten nut with (2) 9/16" wrenches.

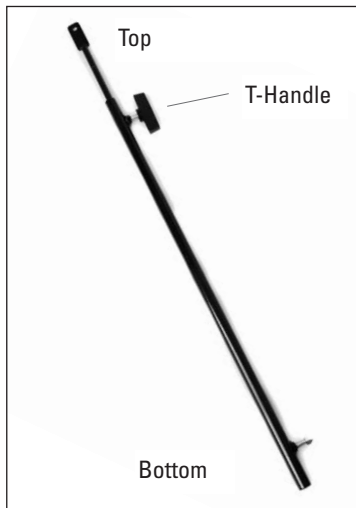
### Attaching trajectory rod to the stand

Tools needed:  
9/16" wrench

#### Step 1

Remove nut from the bolt on the trajectory rod. Attach the bottom of the trajectory adjustment rod to the stand by running the bolt at the end of the rod through the hole on the stand and tighten until snug, then loosen 1/2 turn. **Note:** Do not over tighten. The rod end must be free to pivot.

**Note:** We will be attaching the other end of the trajectory rod after the machine is in place. Allow trajectory rod to lie on top of battery box.



## Attaching the AirCAT machine to the stand

Tools needed:  
7/16" wrench



### Step 1

Remove the two bolts from the locking flat attached to the AirCAT machine.

### Step 2

The AirCAT balances and swivels on the two bolts extending from the sides of the machine. Place the AirCAT in the top slots of the stand with the trajectory guide on the same side as the ball feed opening of the AirCAT. The locking flat should be on the inside of the stand, closest to the AirCAT machine.

### Step 3

Secure the AirCAT to the stand by inserting the bolts that were removed from the locking flat through the slot on the stand and into the locking flat. Tighten with a 7/16" wrench.

### Step 4

Take hold of the handle on the front of your machine and push front of machine down so the bottom is visible. You will find a 3/8" nylock attached to a bolt inside the rectangular trajectory slot on the bottom of your machine. Loosen the t-handle on the trajectory rod and pull trajectory rod out, insert through the trajectory slot and slide over the bolt. Tighten the t-handle to stabilize machine. Place the nut on the bolt and tighten until snug, then loosen half turn.

**Note:** Do not over tighten. The rod must be free to pivot.



Step 1



Step 2



Step 3



Step 4

## Connecting the battery cable

On your battery box you will find a long power cord wrapped in black conduit. Take this plug and insert it into the power plug on the bottom of your AirCAT machine.



## Attaching the ball feeder

Tools needed:

1/4" Allen wrench (provided)

### Step 1

Remove plastic tie attached to the ball feeder bolt.

### Step 2

Slightly angle the machine by using the trajectory rod.

### Step 3

Hold ball feeder up to ball feed opening and line up shoulder bolt. Screw ball feeder bolt into the machine and tighten with 1/4" allen wrench.

### Step 4

Insert the stem of the ball feeder into the trajectory guide on the stand.

### Step 5

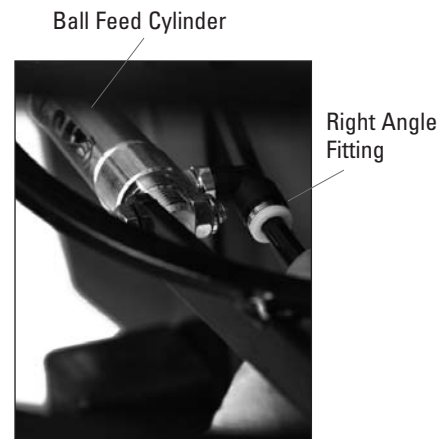
Locate 14" piece of black hose located inside ball feed opening and attach the air hose to the right angle fitting on the ball feed cylinder of your ball feeder. Firmly push the tubing into the fitting.



Step 3



Step 4



Step 5



## Using the AirCAT

### 1. Turn on the AirCAT

Locate your remote and keys attached to the back handle of your AirCAT. Insert the key into the key lock on the side of your control panel. Push in and turn counterclockwise. Turn AirCAT on by using the power switch. You can select Power On with Sound or Power On without Sound.

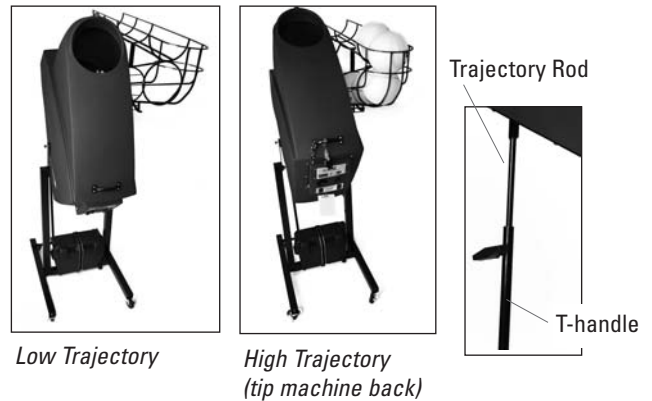
### 2. Load the ball feeder

To load balls, simply place the balls (up to ten) in the rack. Do not force a ball into the AirCAT; it will automatically feed a ball into the machine before launching.

**WARNING:** Do not put balls into the machine from the launch port or force a ball directly into the machine from the ball rack. The AirCAT is equipped with an optical sensor to look for a ball in the launcher. If not present, it automatically feeds one from the ball feeder.

### 3. Adjust Trajectory

To adjust the path that the ball will take, you will need to adjust the trajectory by loosening the t-handle on the trajectory rod and raising the machine for lower trajectory (for digging drills). Lower the machine for a higher trajectory (for hitting drills). Tighten t-handle after adjustment.



### 4. Select Speed

Pull the speed adjustment knob out to adjust the speed.

To **increase** the ball speed, turn the knob **clockwise**.

To **decrease** the speed, turn the knob **counterclockwise**.

**Important:** When decreasing the ball speed, turn the speed adjustment knob counterclockwise one more bar than the desired speed. Then turn the knob clockwise one bar to “seal” up the release of air. This will prevent air from continuously being released and from affecting the ball flight.

### 5. Select Mode

**Remote Mode:** Turn the Mode Selection Switch to Remote Mode. Press the top button on the remote to throw a ball each time.

**Note:** If no ball is in the launcher, but a ball is in the ball feeder, pressing the remote once will load a ball into the machine. Pressing the remote a second time will launch the ball.

**Timer Mode:** Turn the Mode Selection Switch to “Reset/Adjust”. Using the Timer Adjustment Knob, select the desired amount of time (1 to 20 seconds) between each ball. Turn the Mode Selection Switch to Timer to begin.

**Note:** If you run out of balls during Timer Mode, the AirCAT will go into sleep mode and you will have to move the Mode Selection Switch to “Reset/Adjust” and the back to Timer Mode.

## Control Panel Parts and Functions

The control panel controls the AirCAT's operations.

**Ball Speed Indicator** - shows speed setting

**Timer Indicator** - shows time between balls

### Speed Adjustment Knob

The Speed adjustment knob controls how hard the launcher sends out the ball.

Turn the Speed adjustment knob clockwise to increase speed/height/distance and counterclockwise to decrease speed/height/distance of the ball.

**Note:** The Speed adjustment knob must be pulled out to adjust.

**Important:** When decreasing the ball speed, turn the Speed adjustment knob counterclockwise one more bar than the desired speed then clockwise one bar to "seal" up the release of air. This will prevent air from continuously being released and from affecting the ball flight.

### Power Switch – Sound On/Off

The Power Switch controls the operation of the AirCAT. There are 3 modes:

#### On – Sound On

The AirCAT can operate with a "beeper" to alert the player when a ball is launched. Two quick beeps in conjunction with the pre-toss indicator light will let the player(s) know when a ball is being launched.

#### Off

The off position completely shuts off power to the AirCAT.

#### On – Sound Off

The AirCAT can operate without the beeper prior to the toss of the ball.

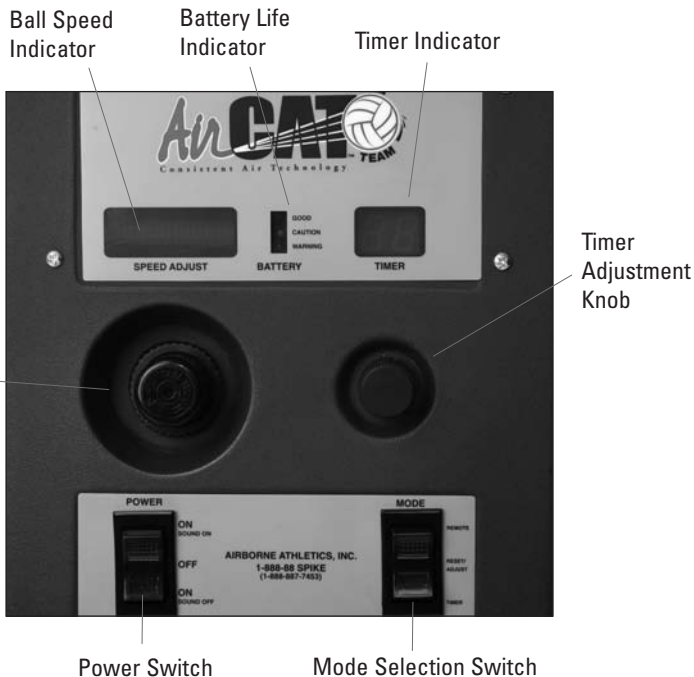
The pre-toss indicator light will still flash to alert the player(s) the ball is being launched.

### Battery Life Indicator Lights

Green - good

Yellow - caution

Red - needs charging



### Timer Adjustment Knob

Adjusts the amount of time between balls thrown. Can be adjusted between 1 and 20 seconds.

### Mode Selection Switch

A light on the Mode switch indicates active status. If the light goes off, your AirCAT has gone into reset mode or sleep mode. To return to active status, flip the switch to the “Reset/Adjust” position (middle), then back to the desired mode.

**Caution:** Once the timer mode is selected, the timer becomes active and will deliver a ball.

### Timer Operation

To use this mode:

1. Move the mode selection switch to the “Reset/Adjust” position.
2. Adjust the number of seconds a ball will be thrown, by turning the Timer Adjustment Knob, located directly above the Mode selection switch. The timer can be set from 1 to 20 seconds in increments of 1 second. It is displayed on the digital readout above the adjustment knob.
3. When the number of seconds is selected, switch the mode selection switch to the “Timer” mode.

The AirCAT will be activated and the count down will begin. After the first ball is tossed, the timer automatically resets and begins the count down again.

If you run out of balls during timer mode, the system will go into sleep mode and you will have to move the Mode Selection Switch to the “Reset/Adjust” position and then back to Timer mode.

### Reset/Adjust Mode

Set the Timer in this mode.

If the system “goes to sleep” from being idle for a period of time or if you run out of balls while in timer mode, move the Mode Switch to the “Reset/Adjust” position, then back to desired mode.

### Remote Control Operation

When in remote mode, pressing the top, bigger button on the remote will launch a ball.

If no ball is in the launcher but a ball is in the ball feeder, pressing the remote once will load the ball. Pressing the remote a second time will launch the ball.

**Note:** It is not necessary to point the remote at the AirCAT. The remote will work within 200 feet of the AirCAT.

In addition to using the remote to deliver a ball, the remote can also be used to pause and restart in timer mode. This provides the coach even more control over the ball entry and allows them to stop and “coach” and then resume operation without having to physically go over to the machine.



The bottom button on remote can be used to test the remote battery. If the light on the remote lights up the battery is good. If the light doesn't come on, the battery needs to be replaced.

## **AirCAT Features**

### **Consistent Air Technology (CAT)**

Balls are launched using the precise power of air. The AirCAT is the fully-automatic drill machine. The AirCAT can be used for digging, spiking, setting, tipping, serving, passing and blocking depending on the trajectory and placement of the machine.

### **Pre-Toss Indicator Light**

The pre-toss indicator light is a safety device to let players know there is a ball being tossed. The pre-toss indicator light will flash twice to alert a player that a ball is coming.

### **Beeper**

The AirCAT has an optional beeper to alert players when a ball is coming. Two quick beeps in conjunction with the pre-toss indicator light alert the player before a ball is tossed.

### **Mobile Stand**

AirCAT is on wheels, you can move it anywhere on the court. It is not normally necessary to lock the wheels, but it is available if needed. To lock the wheels, press down on the "ON" position of the lock until it is in the down position. To unlock, press down on the "OFF" position of the lock.

## Battery Operation/Charging

The built-in battery charger will not overcharge the battery, so it is always best to have it plugged in when the machine is not in use. The battery charger plug-in is a standard AC cord. The plug is located on the side of the battery box.

**Note:** The AirCAT can be operated while the unit is plugged in. Be careful of any electrical cords on the court - they are a tripping hazard.



## Storage

The AirCAT can be stored for an extended period of time but **MUST** have the battery charger plugged in. The charger will not overcharge the battery.

Before turning the AirCAT off, it is recommended to turn the speed adjustment knob all the way down to reduce the amount of condensation in the system.

## Tips for operation

- When not in use or during extended storage, always have the AirCAT plugged in.
- The key must be turned on to operate your AirCAT.
- When reducing ball speed, turn the Speed Adjustment knob to the left. To ensure consistent ball delivery, turn the Speed/Adjustment knob down one speed bar more than your desired setting and then turn it back up one speed bar.
- If “HI” or “LO” appears in the Timer indicator, the speed is set too high or too low. Adjust the speed accordingly.
- To set the Timer, move the mode selection switch to the “Reset/Adjust” position then turn the Timer adjustment knob.
- While in Timer mode, use the remote to pause and restart the Timer. Press once to pause and a second time to restart.
- To adjust the ball trajectory, loosen the t-handle then raise or lower the AirCAT. Tighten the t-handle to hold in place.

## Caution

- Never place hands, arms or any other body part into the AirCAT. Injury will result from placing hands in the ball feed port or the launching port.
- If using the machine while under battery charger power, remember to place the electrical cord where it is not a tripping hazard.
- The AirCAT is an electrical device. Follow all normal electrical safety procedures.
- Do not attempt to disassemble launcher.

## AirCAT Drills

### Tipping

The AirCAT can be adjusted to consistently overpass the volleyball. This allows the setter or hitters to practice controlling their tip.

**AirCAT Location:** Place the AirCAT on or behind the 10 foot line facing the net so that the balls are passed up to the net without going over the net.

**Player Location:** Setters and front row players should be in their normal attack position on the same side of the net as the AirCAT. The setter or another front row player can practice tipping the ball over the net or adjusting their set to set it back to the other hitters. Additional player/players can be stationed on the other side of the net to practice hitting or blocking the overpass or digging the tip.

### Setting

The AirCAT may be utilized to consistently pass the ball to the setter so they may master the various sets listed below by practicing through repetition. The AirCAT helps build a setter's concentration through drills such as alternating a front set with a back set or running a combination of the following sets.

- Jump
- Back
- Back Row
- Quick
- Shoot
- High Outside
- Middle
- Slide

**AirCAT Location:** The AirCAT can inbound the ball to the setter from any position. The AirCAT can also be adjusted to pass the ball to the back row player who passes to the setter who then can practice the various sets.

**Player Location:** The setter can remain in a stationary position in order to practice the mechanics of the different sets in a repetitive manner. They can also line up in a variety of court locations in order to practice getting to the ball and setting the ball in a game situation. Additional players may be used to hit the balls that are set or targets may be set up for the setter to set into.

## **Blocking**

The AirCAT can be adjusted to discharge the ball to the top of the net allowing blocking drills. The AirCAT may also be used for hitting drills with blockers posted on the opposite side of the net practicing blocks on actual hits. Blocking of tips and drives can also be practiced in combination with other drills that are run.

**AirCAT Location:** The AirCAT should be placed on or just behind the 10 foot line to simulate a back row or off-the-net attack. The ball release angle can be adjusted so that the ball clears the top of the net by several inches at a speed and angle consistent to a back row attack.

**Player Location:** Players should be lined up on the opposite side of the net from the AirCAT in blocking positions. Additional players can be lined up to cover missed or touch blocks.

## **Serve Receive**

The AirCAT may be used to serve a powerful floater serve. This drill allows for the training of receiving/passing to the setter for combination passing, setting and/or hitting drills. The AirCAT can be easily adjusted, resulting in serves to various locations on the court requiring receivers to read the serve and react quickly.

**AirCAT Location:** The AirCAT can be placed on the service line and can be set to serve to any area of the court. The angle of the AirCAT may be changed while in operation.

**Player Location:** Players should be lined up in serve receive position on the opposite side of the net from the AirCAT. Allow players to pass the ball to the setter several times before rotating the players. After all players have handled the serve, adjust the AirCAT to serve to a different location at a different speed.

## **Hitting**

The AirCAT can be adjusted to accurately and consistently set for middle hits, shoots, high outsides or slides allowing hitters to focus on their technique and form. The ability to either set the timer or use the wireless remote allows a hitter to practice on their own.

- Middle
- Shoots
- High Outsides
- Back Row Attacks
- Slides

**AirCAT Location:** Position the AirCAT wherever your setter is normally positioned to set in game situations. The angle of the AirCAT and the speed can be adjusted to any of the above sets.

**Player Location:** Position players according to which attack you are practicing. The AirCAT can substitute for your setter in almost any hitting drill.

## **Hitting Using a Setter**

The AirCAT may be used to inbound the ball to the setter so that your hitters can concentrate on their approach, vertical and swing rather than on tossing the ball to the setter.

**AirCAT Location:** Position the AirCAT anywhere on the court to simulate a pass to your setter.

**Player Location:** Position your setter and hitters in appropriate locations for whichever set and attack you wish to practice.



**Digging**

Set the AirCAT to spike the ball to receivers for passing drills.

**AirCAT and Player Location:** The AirCAT and player should be on the same side of the court. The AirCAT speed and angle should be adjusted to obtain desired spike speed and trajectory. Additional players can be used to receive the pass or targets can be set up for the player to aim for.

**Versatility and Conditioning**

The AirCAT allows team players to combine drills while the coach watches and evaluates rather than tossing balls to begin drills.

The AirCAT can be adjusted in timing the release of volleyballs by using the wireless remote control or timer. The speed of the ball can be adjusted for various degrees of difficulty.

A rapid succession of sets from the AirCAT will help with individual and team conditioning. The timer function allows discharge of up to 1,200 balls per hour.

The AirCAT can be used to combine the above drills.

## Maintenance

Keep your AirCAT plugged in when not in use to prevent the battery from going completely dead. Once the battery goes completely dead it will not hold a charge and will have to be replaced.

## Service

Problem	Solution	Call Service
<p>No power</p> <p>Lb (L6) on timer display (indicates low battery)</p>	<ul style="list-style-type: none"> <li>• Check plug coming up from battery box to bottom of AirCAT container. Make sure plug is in all the way.</li> <li>• Check lights on battery charger               <ul style="list-style-type: none"> <li>Green - charged</li> <li>Green and Red - charging</li> <li>Red - charging</li> </ul> </li> <li>• If Red LED is on, plug machine in overnight.</li> <li>• If no charger lights are on, check outlet and extension cord.</li> <li>• If no charger lights are on and outlet box and extension cord are okay, check cylinder fuse attached to positive charger wire.               <ul style="list-style-type: none"> <li>Located inside the battery box connected to the positive wire of the battery charger.</li> </ul> </li> </ul>	<p>888-899-7377</p>
<p>Balls will not launch or stop launching during play</p>	<ul style="list-style-type: none"> <li>• Adjust ball speed, if HI or LO appears on the timer display - adjust speed until you receive double dashes on remote mode or numbers on the timer mode.</li> <li>• Check that the mode selection button is on selected function.</li> <li>• Press remote button down, if light is dim, replace the remote battery. The remote battery is a #27A.</li> </ul>	<p>888-899-7377</p>
<p>Balls sticking in feeder</p>	<ul style="list-style-type: none"> <li>• Tighten shoulder bolt on ball feeder</li> </ul>	<p>888-899-7377</p>
<p>Ball Feed issues</p>	<ul style="list-style-type: none"> <li>• Check 310 valve located inside ball feeder hole of the machine. Valve is rectangular in shape with a red button. Push the red button 20 - 25 times quickly.</li> <li>• If the valve continues to leak air from the exhaust, call for a replacement valve.</li> </ul>	<p>888-899-7377</p>
<p>Feeder arm stuck</p>	<ul style="list-style-type: none"> <li>• Check piston rod in cylinder attached to ball feeder, if this does not move freely, add lubrication.</li> </ul>	<p>888-899-7377</p>
<p>Orange fluid</p>	<ul style="list-style-type: none"> <li>• This is not a concern. Condensation happens when air is compressed.</li> </ul>	<p>888-899-7377</p>



**AirCAT Warranty**

The AirCAT comes with a lifetime warranty on the frame and three years on parts for the original purchaser only. The three year warranty is on parts only and does not include shipping costs.

This warranty covers all parts excluding the battery, which is covered by a separate one year warranty.

Vandalism or other damage to the equipment which is not of normal use, is excluded from the warranty.

Serial Number \_\_\_\_\_

Date of Purchase \_\_\_\_\_

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[www.aircatvolleyball.com](http://www.aircatvolleyball.com)**