

# ALLEY CAT

## INSTRUCTION MANUAL

*Designed and produced by*  
**INDIAN CREEK DESIGN, INC.**  
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(208) 468-0446

**EXCLUSIVELY FOR**



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Indian Creek Design, Inc., warrants the replacement of any original part due to a defect in materials and/or workmanship of this air gun. This warranty will be in effect for twelve (12) months for parts and twelve (12) months for labor following the original date of purchase for the original purchaser. Such warranty service will be provided only if the warranty registration card included with this manual is filled out completely and on file at Indian Creek Design, Inc. All other service will be duly charged for and returned via UPS C.O.D.

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For warranty parts, service or information contact: Indian Creek Design, Inc., 1019 First Street North, Nampa, Idaho 83687 (208) 468-0446

#### OPERATION

Read the entire manual before you prepare your Alley CAT for firing. Safety and safe gun handling are the most important aspects of paintball sports. Please practice each of the following steps with an unloaded gun before attempting to charge your gun with CO2 and paint pellets. Do not load CO2 or paintballs into your Alley CAT until you feel completely confident with your ability to handle your Alley CAT safely.

Keep your finger out of the trigger guard and away from the trigger; always point the muzzle of the gun in a safe direction. Keep the gun in "SAFE" mode until ready to operate. Push the safety button into the safe position. This will prevent the trigger from traveling its full range.

**Never depend entirely upon your mechanical safety! Always keep your Alley CAT pointed in a safe direction. Always use a barrel plug.**

#### CO2 Usage

The Alley CAT uses CO2 as a propellant. The Alley CAT uses industry standard CO2 bottles or cartridge adaptors.

Consult the place where you purchased your Alley CAT, or a recognized and competent airsmith, for instruction in the safe handling of CO2 cylinders before purchasing or connecting one to your Alley CAT.

Before pressurizing your Alley CAT with CO2, check to make sure that you have pulled the cocking lug back until it locks into position. If this is not done, the CO2 might leak or hiss down the barrel. The CO2 tank can now be threaded into the tank adaptor. After screwing in the CO2 bottle, the gun will become pressurized and ready to be fired immediately! To depressurize, unscrew the CO2 bottle from the gun.

#### Firing the Alley Cat

**Always keep your Alley Cat pointed in a safe direction!**

Keep your finger out of the trigger guard and away from the trigger; always point the muzzle of your gun in a safe direction during this process; push the safety button into the "safe" position:

1. Place the empty loader and elbow onto the gun. Be sure that it is securely mounted in place.
2. Pull the cocking lug back until it locks into position.
3. Screw the CO2 bottle into place, pressurizing the gun.
4. Put the paintballs into the loader.
5. Remove the barrel plug.

6. Aim the gun at the target.
7. Remove the safety by pushing the "push to fire" button.
8. Place your finger on the trigger.
9. Pull the trigger with a smooth squeezing motion. **Bang...**

#### Unloading the Alley CAT

Keeping your finger out of the trigger guard and away from the trigger, point the muzzle of your gun in a safe direction during this entire process.

1. Push the safety button into the safe position.
2. Place the barrel plug into the end of the barrel.
3. Remove the CO2 bottle by unscrewing it carefully.
4. Tilt the gun so that the loader is lower than the body of the gun.
5. Remove the paintball loader from the direct-feed tube, turning the elbow in a clockwise direction.
6. Inspect the direct-feed tube to be sure that a ball does not remain inside the breech.

#### MAINTENANCE

**Caution:** Before attempting to do any maintenance operations or any gun disassembly, make sure that all paint pellets and sources of CO2 have been removed from the gun. Insert a barrel plug, push the safety button to the "safe" position and keep the gun in its "safe" mode.

#### Simple Maintenance

Keep your Alley CAT clean and lubricated to eliminate the friction that would prevent reliable operation. Clean and lube the gun before each use, and do not put it away dirty. Do not use petroleum-based lubricants. Teflon or silicon spray lubricants are the recommended types for the lubrication of the Alley CAT.

#### Removing the Bolt Assembly (Field Stripping)

Remove the paint and CO2 from the gun. **The gun cannot be field stripped while it is pressurized with CO2.**

1. With slight resistance on the cocking lug, pull the trigger and allow the bolt to move to the uncocked position.
2. Unscrew the rear plug and remove it, along with the main spring.
3. Pull the bolt back via the cocking lug and remove the cocking lug.
4. Point the barrel upward as if to pour the bolt out of the gun. A slight tap on the back of the gun with the palm of your hand may be required to completely remove the bolt.

Once the bolt assembly is removed, it is possible to clean the entire upper receiver of the gun, including the breech and feed tube area. Lubricate the rear section of the bolt and the rear-bolt chamber with a light synthetic liquid or spray lubricant before reinstalling the bolt. **Do not use petroleum-based lubricants; do use Teflon or silicon-based lubricant.**

1. Point the barrel downward and push the bolt in until it stops. At this point the bolt will not be completely inside the gun.
2. Apply pressure on the back of the bolt and pull the trigger. At this point, the bolt should slide in all the way.
3. Screw the cocking lug into place.
4. Push the bolt via the cocking lug all the way forward.
5. Replace the main spring and rear plug.

#### STORAGE AND TRANSPORTATION

- Your Alley CAT must be clear of all paint and CO2 when not being used.
- Keep the safety on.
- Put the barrel plug in place.
- Make sure the gun is clean.
- Store your Alley CAT in a clean, cool, dry place.
- Keep your Alley CAT away from children.
- **This air gun is not a toy! To be used by adults only!**

Your Alley CAT must be clear of all paint and CO2 during transportation to and from the playing field. Keep your barrel plug in place. Keep the safety on. Protect your Alley CAT from excessive heat during transportation. Observe and obey all local, state and federal laws concerning the transportation of paintball guns. For information concerning any of the laws in your area, contact the IPPA or your nearby friendly law enforcement agency.

**IMPORTANT:** Never carry your Alley CAT uncased when not on a playing field. The non-playing public and law enforcement personnel may not be able to distinguish between a paint marking device and firearm. For your own safety and to protect the image of the sport, always carry your Alley CAT in a suitable gun case or in the box in which it was shipped.

If you must ship your Alley CAT for any reason, the box in which you purchased the gun is acceptable to all major carriers. Never ship charged CO2 containers.

#### Alley Cat TUNING GUIDE Version 1.2

The Alley CAT has a totally new and innovative valving system that allows the independent control of the projectile velocity and the independent control of the recocking gas flow. This ability to control each system separately allows the operator to tune the gun to its maximum efficiency.

This tuning is accomplished by the mainspring tension adjustment screw and two screw-type adjustments on the side of the gun labeled RECOCK and VELOCITY. Use a 3/16 Allen wrench on the mainspring tension screw and a 5/64 Allen wrench inserted into the recock or velocity screw.

Turning the screw clockwise on the mainspring tension screw increases the mainspring tension and increases the velocity and the recock gas expulsion. Turning the mainspring tension screw counterclockwise decreases the tension on the mainspring and decreases the inertia gained by the hammer. The hammer strikes the poppet valve with less pressure, which decreases the gas flow, which in turn decreases the velocity and/or the recocking action.

Turning the VELOCITY or RECOCK adjustment screws in the clockwise direction restricts the gas flow to either the velocity or recock. Turning the screw counterclockwise increases gas flow, thus increasing the gas used to propel the paintball or the recocking action. These adjustment screws, labeled VELOCITY and RECOCK, are used to balance the use of the gas for doing each particular function. Too much adjustment of one or the other will throw the system out of balance and the gun will not function as it was designed. Remember 3 and 1.

## GETTING STARTED

Start with a full tank of CO2, a chronograph, and the paintball of your choice--and, of course, your goggles on your face:

1. Before installing the paintballs or the tank, push the safety button in to lock the trigger, cock the gun by pulling the cocking lever toward the back of the gun until it clicks into place.
2. Using the 5/64 Allen wrench, close the recocking valve by turning the screw clockwise until it stops. Now turn counterclockwise 1 turn. If you are attempting to use a siphon tank system, start with the recock adjustment screw turned clockwise until it stops (shut-off).
3. Using the 5/64 Allen wrench, close the velocity valve by turning the screw clockwise until it stops. Now turn counterclockwise three turns.
4. Using the 3/16 Allen wrench, back off the mainspring tension screw by turning it counterclockwise until the face of the screw is flush with the face of the end plug.

(This starting position for the adjustment screws is the intermediate position.)

*Remember 3 and 1*

5. With the gun pointed in a safe direction, follow the tank insertion guidelines in the CO2 usage section of this manual and screw the tank into the adaptor.
6. Drop one (1) paintball into the feed tube.
7. Aim the gun over the chronograph.
8. Remove the safety by pushing the "fire" button.

9. Pull the trigger to shoot the paintball, and check the velocity and recock action. Use the mainspring tension screw to achieve the desired velocity by increasing or decreasing the tension of the main spring. Under normal circumstances, the velocity and recocking jets should not have to be further adjusted once Step 2 has been done. Repeat Steps 6-9 until the desired velocity is reached.
10. Push the safety button in to lock the trigger and place your paintball feed system onto the feed tube.

*Note 1: This gun was not designed to be a jack-hammer. The lighter the mainspring tension is, the more reliable and more consistent the gun will be--not to mention the longer life that will be obtained on all the parts of the gun. High mainspring tension, coupled with the VELOCITY jet being screwed in or all the way out, and the RECOCK jet screwed all the way out, will result in the premature deterioration of the gun, poor performance and efficiency, and a very disappointing day. Remember. You are shooting gelatin capsules filled with paint--not shattering concrete or driving 16-penny nails!*

*Note 2: Under normal circumstances, the RECOCK valve should never be adjusted more than 1/2 of a turn from being all the way in!*

*Remember 3 and 1*

*Note 3: This gun is not designed to shoot above the safety limits established by industry standards.*

## GENERAL NOTES

1. Once the velocity adjustment screw is turned clockwise all the way, it only functions for four turns in the counterclockwise direction. Although it may turn more than six revolutions, it only functions for the first four revolutions.

*Remember 3 and 1*

2. Once the recock adjustment screw is turned clockwise all the way, it only functions for one and one-half (1-1/2) turns maximum in the counterclockwise direction. Although it may turn more than one and one-half revolutions, it only functions for the first one and one-half revolutions. Under normal circumstances, the RECOCK valve should never be adjusted more than 1/2 of a turn from being all the way in!

If either of the screws protrudes out of the side of the gun, they have been turned out too far and have lost their ability to affect the performance of the gun, and it is possible that they could fall out of the gun. If the velocity jet and the RECOCK jet are screwed all the way out, then your mainspring tension adjustment is probably screwed all the way in. This will result in the premature deterioration of the gun, poor performance and efficiency (if it works at all), and a very disappointing day. Go back to GETTING STARTED. Remember. You are shooting gelatin capsules filled with paint--not shattering concrete or driving 16-penny nails!

If opening the jets all the way is the only way that you can make the gun function—something is wrong! Call Indian Creek Design, Inc., at (208)888-6130 before proceeding further.

## TROUBLE SHOOTING

### Recocking Related Problems

- 1. The gun does not recock when you pull the trigger; it shoots and sticks forward.**
  - a. The pressure in the tank is low.
  - b. The pressure in the tank may be too high.
  - c. Needs lubrication in the hammer-slide chamber.
  - d. Open the recock valve, 1/4 turn at a time—but *never more than 1 1/2 total turns*.
  - e. The hammer/bolt assembly is dragging and the inertia that it takes to open the poppet valve is lost.
- 2. The gun does not recock when you pull the trigger; it shoots and pounds down (does not come back all the way).**
  - a. The pressure in the tank is low. A freshly filled CO2 tank that is cold or frozen will give this result.
  - b. Needs lubrication in the hammer-slide chamber.
  - c. Open the recock valve, 1/4 turn at a time—but *never more than 1 1/2 total turns*. Close the Velocity valve screw 1/2 turn at a time.
  - d. The hammer/bolt assembly is dragging and the inertia that it takes to open the poppet valve is lost.
  - e. Main spring tension may be too high. Back it off and re-tune the gun per GETTING STARTED.
- 3. The gun does recock, but, when you pull the trigger, it shoots and bounces (double fires) before recocking (breaks paintballs in the breech and sends paint back up into the feed tube).**
  - a. Too much gas is being expelled to the recock chamber. This is often the case, especially when using a siphon tank system. If using a siphon tank, turn the RECOCK screw all the way in (shut off).
  - b. The pressure in the tank is high or the pressure may be too low to operate the gun.
  - c. Close the recock valve and reopen the recock valve, 1/4 turn at a time—but *never more than 1 1/2 total turns*.
  - d. Hammer and sear contact points may have worn and may need replacing.
  - e. Main spring tension may be too high. Back it off and re-tune the gun per GETTING STARTED.

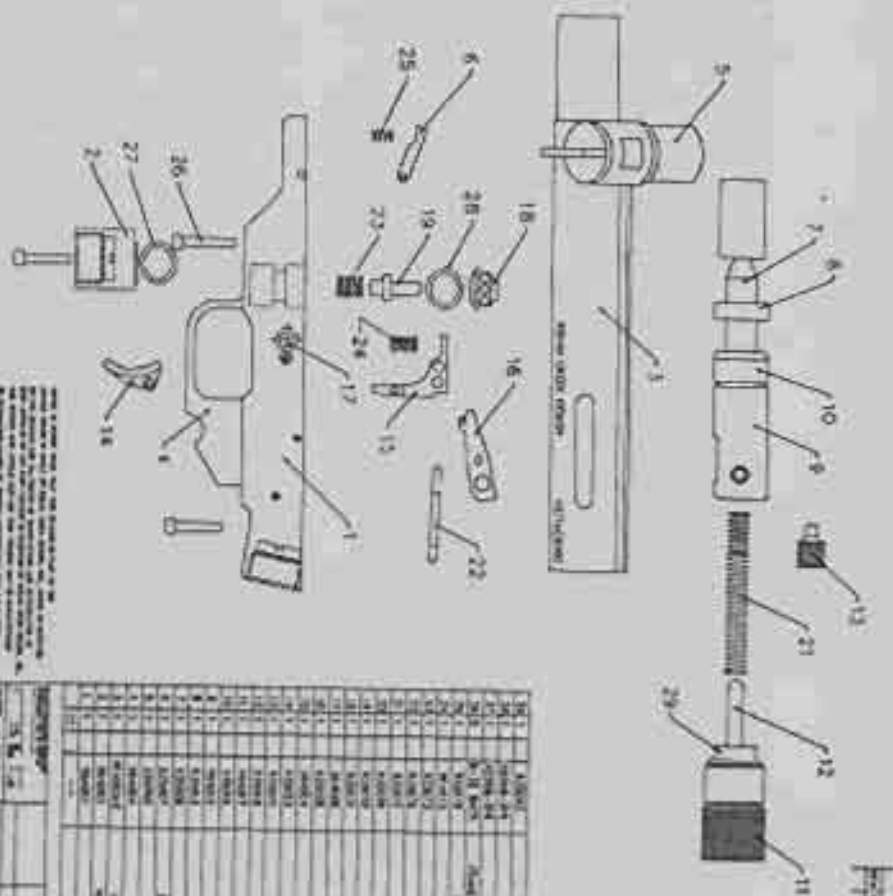
### Leak Related Problems

- 1. The Alley CAT has a leak down the barrel. Reason: CO2 is leaking through or around the valve area.**
  - a. Can you hear the leak when the CO2 is removed? Yes? There is no leak. You hear the ocean.
  - b. The CO2 bottle has no gas left and there is not enough pressure to keep the cup seal closed.
  - c. The cup seal is marred/scratched or worn out or dirt has gotten to it. Replace it.
  - d. The O-ring for the valve seat has been removed and not replaced.
  - e. The sealing surface on the valve seat or seal is scratched or gouged. Replace the valve seat or seal.
  - f. When you rebuilt the gun, you placed the valve pin or the valve seat in upside down.

### Ball Breakage Problems

- 1. The paintballs break in the barrel.**
  - a. Change paintballs. The gelatin that paintballs are made from can lose elasticity with age, making the shell of the paintball brittle and not able to withstand the shock of the blast of CO2 when shot.
  - b. Rebalance your CO2 usage by re-tuning the VELOCITY and RECOCK adjustments. *Remember 3 and 1*
- 2. The ball breaks in the breech.**
  - a. The balls in your loader can bind, messing up your trigger timing. Note the ball drop through your elbow.
  - b. As you run and shoot, you actually unweigh the gravity-fed balls in your loader. This can cause a ball to hesitate in its drop. This affects your trigger timing.
  - c. If the ball retention arm does not move freely, the paintballs will crush against it; or, it may have stuck in the depressed position, allowing double feeding. Check its tension regularly and keep this area as clean as possible.
  - d. If the ball retention arm is too sloppy, the ball will not be held in the proper position. This may allow the next ball to enter the path of the bolt, subjecting it to impact, cracking or shearing. Verify the spring tension.
  - e. Re-balance your CO2 usage by retuning the VELOCITY and RECOCK adjustments. *Remember 3 and 1*

If your gun is out of tune and just will not do anything but break paint, stutter and chatter, go back to GETTING STARTED, Steps 1 through 4.



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NO.	DESCRIPTION	QTY.	REMARKS
1	MARKER BODY	1	
2	COUPLER	1	
3	MARKER BODY	1	
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INDIAN CREEK DESIGN, INC., WARRANTY REGISTRATION CARD

PRODUCT SERIAL # \_\_\_\_\_

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

ZIP \_\_\_\_\_ COUNTRY \_\_\_\_\_

PHONE \_\_\_\_\_

PURCHASED DATE \_\_\_\_\_ AGE \_\_\_\_\_ SEX \_\_\_\_\_

PURCHASED FROM \_\_\_\_\_  
 DEALER  DISTRIBUTOR  MAIL ORDER  OTHER

PRIMARY USE  TOURNAMENTS  WEEKEND FUN  
 OTHER \_\_\_\_\_

FREQUENCY OF USE  EVERY WEEK  TWICE A MONTH  
 ONCE A MONTH  EVERY OTHER MONTH

PERIODICALS READ  ACTION PURSUIT GAMES  
 PCRI  PAINTBALL BIBLE  
 PAINTBALL SPORTS  PAINTBALL NEWS  
 OTHER \_\_\_\_\_

HOW DID YOU LEARN OF THIS PRODUCT  MAGAZINE AD/ARTICLE  
 TRADE SHOW  DEALER  
 WORD OF MOUTH  SAW AT A FIELD

TEAM AFFILIATIONS \_\_\_\_\_

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Please fill out this warranty registration page and mail to:  
 INDIAN CREEK DESIGN, Inc.  
 1019 First Street North  
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