

NOT CHECKED
OR RELEASED

ATX
ACCURACY INTERNATIONAL

USER MANUAL

Part No AI-15662 - Issue 3

INTRODUCTION



Accuracy International was formed in 1978 to design and build tactical rifles.

The original design ethos combined two factors into a unique package, incorporating performance enhancing features learned in Olympic and international target shooting onto a platform exhibiting full military ruggedness.

The current designs faithfully follow this original concept, and benefit from over forty years of continuous improvement. These improvements are not cosmetic; instead, they are driven solely by the user's needs, highly trained military and police units in over 60 countries worldwide. Such units are exposed to 'live' tactical situations daily and in the most demanding environments where first shot accuracy is critical.

All components are manufactured to Accuracy International's designs to ensure they are optimised for maximum performance, which cannot be achieved with a re-purposed sporting rifle.

The AT-X rifle is an evolution built on Accuracy International's established family of highly successful AW and AX rifles. Being a bolt action rifle with a free-floating match grade barrel and a magazine capacity of ten rounds, it fulfils the need for a highly accurate long-range competition rifle.

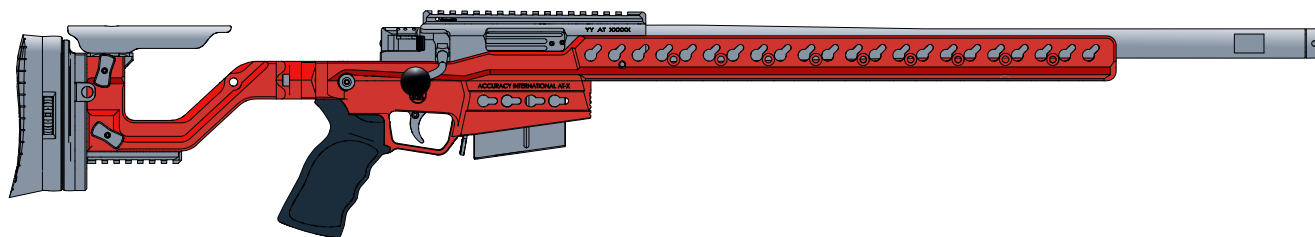
Like the AX series, the AT-X rifle utilizes an aluminium chassis system, ensuring insensitivity to temperature and humidity, thus ensuring a constant zero.

The fore-end design provides multiple mounting points using Keyslot™ technology for accessory rails, sling attachments and bipod mounts.

The AT-X rifle also incorporates an integral RRS compatible dovetail rail for use with a wide range of bipod, tripod and accessory mounts.

The AT-X is easily upgradeable with many accessories and upgrades, available from Accuracy International distributors.

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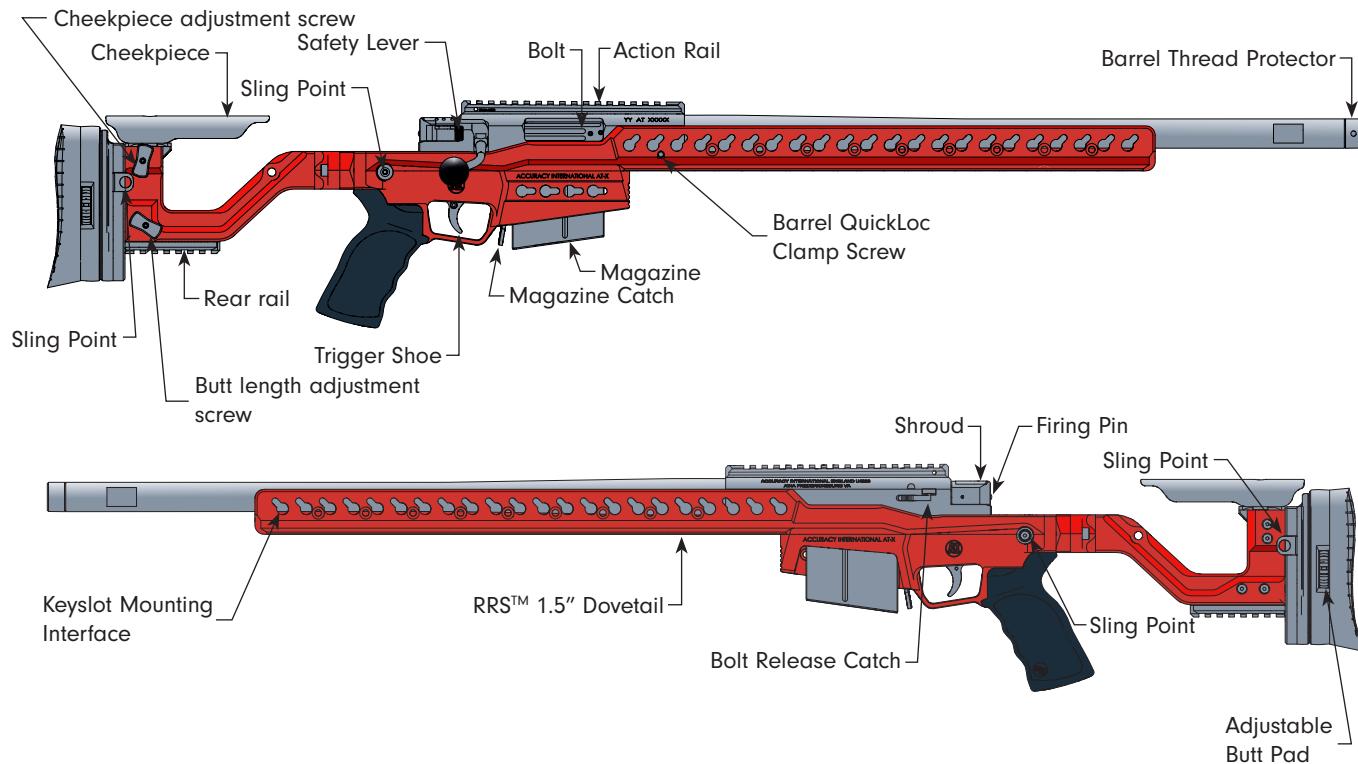
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TECHNICAL SPECIFICATION



Calibre	6.5 Creedmoor.	Optic rail	20MOA STANAG.
Action	Front locking, 6 lugs. QuickLoc barrel clamping system.	Magazine	10 shot, double stack, detachable, box-type magazine.
Bolt	60 degrees opening, 6mm striker fall.	Rail Interface	One 17.5" RRS™ compatible 1.5" Dovetail interface.
Trigger	Competition XTSP two-stage trigger, 2.5 lb pull weight adjustable, 1.5 - 2.75 lbs heavy spring, with adjustable reach trigger blade.	Sling points	Flush cup sling points fitted.
Barrel	Stainless Steel Match-Grade.	Weight	13 lbs/5.9 Kg without magazine.
Safety	3-Position: The safety lever draws back and blocks the firing pin allowing the bolt to be cycled safely.	Length	42.75"/108.5 cm.
Chassis	Fixed chassis, manufactured from 7075 T6 aluminium alloy: The cheekpiece provides height and adjustment. The butt is adjustable for length of pull, height and rotation.	Finish	Hard coat anodize and Cerakote.

PARTS IDENTIFICATION



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1 SAFETY

Before attempting to use or handle the rifle, this manual must be read and understood fully. This manual assumes a basic level of user familiarity with firearms and is not a replacement for user training.



DAMAGE TO PROPERTY, INJURY OR DEATH MAY RESULT IF SAFETY WARNINGS AND INSTRUCTIONS ARE NOT FOLLOWED.

- Always keep the rifle pointed in a safe direction during handling.
- Never leave a rifle unattended.
- Always wear suitable eye and hearing protection when firing the rifle.
- Always check that the barrel and muzzle brake are clear of debris and obstructions before firing.
- Never attempt to clear an obstruction by firing.
- Always use quality factory ammunition of the correct calibre for the rifle.
- Positively identify your target and what is beyond it.
- When the rifle is loaded, always keep your fingers outside of the trigger guard until ready to fire.
- Always show that the rifle is unloaded before handing it to another user.



1.1 SAFETY FEATURES

- The AT-X rifle bolt utilizes six forward locking lugs.
- When the bolt is in the closed position, the bolt head is enclosed and supported within the locking and action body.
- The firing pin cannot protrude from the front of the bolt face unless the bolt lugs are engaged within the locking.
- Dangerous gas leakage from the rear of the action body is minimized by a tight-fitting bolt and shroud assembly that helps deflect hot gas away from the operator.
- The AT-X action incorporates a 3-position safety lever.

1.2 FIRING PIN COCKING INDICATOR

When the rifle is cocked and ready to fire, the firing pin extends past the bolt shroud's rear face.

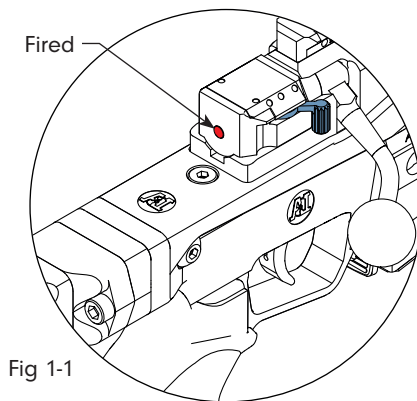


Fig 1-1

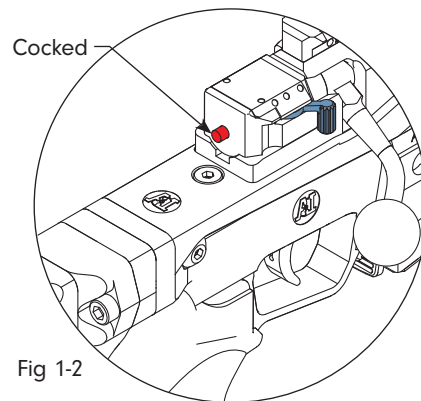


Fig 1-2

1.3 SAFETY FUNCTION

The AT-X rifle is fitted with a 3-position safety lever.

Note: The safety lever only operates when the rifle is 'cocked' and does not block the trigger in any of the three positions.

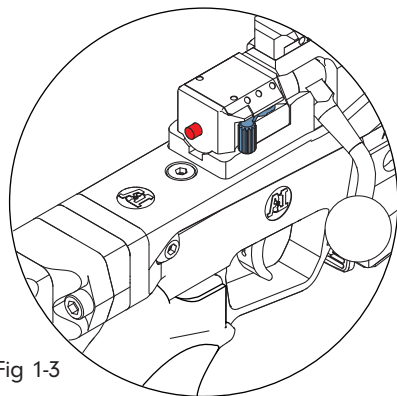


Fig 1-3

The 'SECOND SAFE' position

The safety lever is in the rear position

- The firing pin is drawn back from the trigger mechanism and is physically blocked from moving forward.
- The bolt is locked in the closed position.

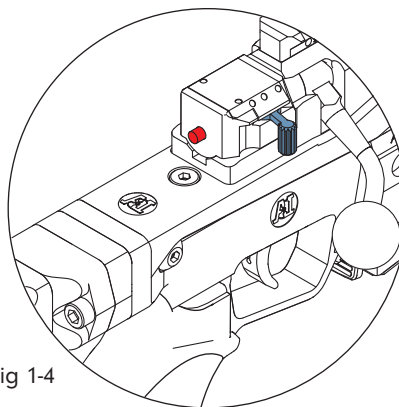


Fig 1-4

The 'FIRST SAFE' position

The Safety lever is in the centre position

- To apply the 'first safe' position, move the lever rearwards to the 'second safe' position, then forward into the 'first safe' position.
- The firing pin is drawn back from the trigger mechanism and is physically blocked from moving forward.
- The bolt is unlocked and may be used to unload cartridges safely.

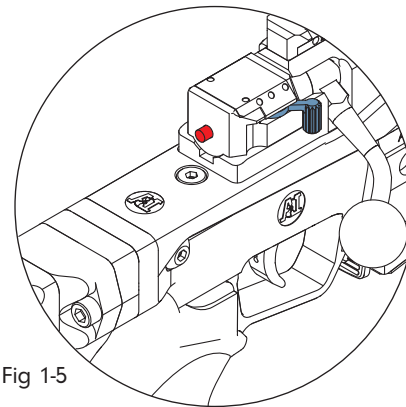


Fig 1-5

The 'FIRE' position

The safety lever is in the forward position

- The bolt is unlocked and can be manipulated.
- The firing pin is not blocked; the rifle can be fired.

1.4 SAFETY PRECAUTIONS

WARNING - Users and personnel responsible for the rifle must comply with the following safety precautions. For health and safety, all warnings and cautions must be observed.

Safety precautions should be carried out:

- On initial receipt of the rifle.
- Before use.
- After use.
- Before maintenance or cleaning procedures.
- Before any inspection procedure.
- Before any non-tactical movements.
- Before the rifle being placed in a transit case or drag bag.
- When the documentation recommends it.

SAFETY PRECAUTIONS

- Hold the rifle securely, do not place your finger inside the trigger guard.
- Point the rifle in a safe direction.
- Remove the magazine (if fitted).
- Check that the safety is in the 'fire' position.
- Orientate the ejection port downwards, open the bolt and slide to the rear.
- Inspect the chamber and bolt face:
For a live cartridge or empty case.
Visual Check - Look through the ejection port.
Physical Check - Use a finger to check the chamber.
- Remove any cartridge or case from the rifle.
- With the bolt left 'open', the rifle is now safe to handle and visibly safe to others.

Where possible, the bolt should be left 'open' to identify to others that it is safe. However, should the bolt be required in the 'closed' position:

- Pull and hold the trigger while closing the bolt.
- Fit an empty magazine, if required.
- The rifle is now safe to handle.



WARNING - DANGER TO LIFE AND LIMB:
IF THE BOLT IS NOT FULLY CLOSED WHEN THE RIFLE IS FIRED, THE COCKING PIECE COULD STRIKE THE BOLT CAUSING POSSIBLE MISFIRES.

- The extractor does not engage the cartridge rim unless the bolt is fully closed.
- Failure to fully close the bolt every time it is manipulated may result in a live round being left in the chamber.
- Attempting to load a second round will result in a stoppage.

1.5 WARNINGS



THE CORRECT FUNCTIONING OF THE TRIGGER, SAFETY MECHANISM, AND THE RIFLE HEADSPACE ARE CRITICAL TO THE SAFE OPERATION OF THE RIFLE AND SHOULD BE REGULARLY CHECKED. SEE SECTIONS 1.6 AND 1.7 FOR DETAILS.

RIFLE STATUS.

When users are not aware of the rifle status, i.e. loaded, unloaded, cocked or fired, the user must assume the rifle is **LOADED** and carry out the **SAFETY PRECAUTIONS** set out in section 1.4

HANDING OVER RIFLES.

Unload the rifle and leave the bolt in the open position before handing it over to another shooter.

TACTICAL MOVEMENTS.

Tactical movements with a loaded rifle must be performed with the safety lever in the 'safe' position.



WARNING - DANGER TO LIFE AND LIMB: THE TRIGGER UNITS FITTED INTO ACCURACY INTERNATIONAL RIFLES ARE DESIGNED AND FACTORY SET AS TWO-STAGE TRIGGERS. THEY MUST NOT BE MODIFIED UNDER ANY CIRCUMSTANCES INTO A SINGLE-STAGE TRIGGER.

FAILURE TO COMPLY WITH THIS WARNING COULD RESULT IN SERIOUS INJURY OR DEATH.

1.6 FIELD SAFETY CHECK



The following procedure should be carried out before the rifle is used to ensure the safety lever is functioning correctly. This procedure does not replace the need to have the safety mechanism routinely tested per the Accuracy International Maintenance Manual.

- Ensure the rifle is unloaded and safe to handle.
- Open, and then close the bolt, leaving it in the cocked position.
- Move the safety lever into the 'FIRST SAFE' position (see section 1.3 on page 3).
- Pull and release the trigger six times, remove your finger from the trigger.
- Push the safety lever fully forward into the 'FIRE' position.
- The firing pin should be retained by the trigger and not be released.
- Pull the trigger to release the firing pin.
- Repeat this process two or three times to confirm that the system is safe.
- If the firing pin is released when the safety lever is moved to the 'FIRE' position, the rifle is deemed unsafe and must be returned to an authorised service centre for adjustment (see 'authorized service centres' on page 42).

1.7 CARTRIDGE HEADSPACE

Cartridge headspace defines the distance between the bolt face and the rear face of the cartridge; it is measured using a gauge between the bolt face and the cartridge datum reference within the chamber when the bolt is closed, as shown in the image below. It is a critical safety feature on all rifles, regardless of manufacturer.

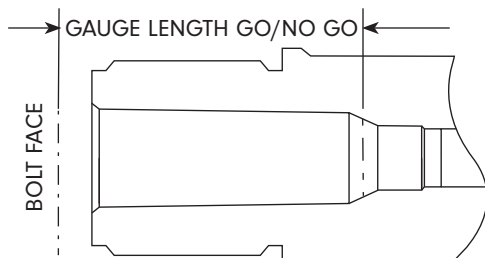


Fig 1-6

The headspace measurement on every AT-X rifle is inspected for the user's safety and maximises cartridge compatibility before leaving the factory.

However, wear to critical components and new barrel fitting may increase the cartridge headspace. If this becomes excessive, it can lead to misfires, a loss of accuracy, and possible damage to the rifle due to a ruptured case.

Therefore, it is essential to check the cartridge headspace using Accuracy International approved gauges periodically, particularly after a new barrel is fitted.



EXCESSIVE HEADSPACE CAN BE HAZARDOUS AND MAY LEAD TO MISFIRES AND CARTRIDGE CASE RUPTURES

Instructions for checking the headspace dimension: Headspace gauges are used to specify a maximum head space for safety purposes using 'GO' and 'NO GO' gauges.

1. Ensure the chamber is clean before inserting the gauge into the chamber through the ejection port. Note: - To prevent damaging the chamber, ensure the gauge is fully inserted into the chamber before attempting to close the bolt.
2. Gently close the bolt handle down to a stop without using excessive force.
3. If the bolt closes fully on the 'GO' gauge, the headspace is acceptable.
4. If the bolt closes fully on the 'NO GO' gauge using a minimum amount of force, the headspace is out of tolerance and indicates that the rifle's accuracy and safety are compromised – a suitably qualified armourer must inspect the rifle before further use.

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2 SETTING UP THE RIFLE



Before handling the rifle or attempting any procedure described in this manual, the user must ensure their safety and that of others by:

Standing behind the rifle.

Ensuring that it is pointing in a safe direction.

Checking it is unloaded and safe to handle.

The AT-X rifle has been designed to be user-configurable and adjustable for:

- Calibre conversion
- Cheekpiece
- Length of pull
- Butt pad height and angle
- Trigger blade position



2.1 HEX WRENCH STORAGE

Many adjustments on the rifle are carried out using a hex key. For the users convenience, a 4mm hex key is stored within the cheekpiece of the rifle.

To remove the hex key:

- Firmly push the hex key out of the cheekpiece.

To replace the hex key:

- Align the hex key to the slot and push it into the recess until the detent engages.

Using the hex key:

- Avoid over-tightening the screws as this may damage the rifle or accessories. It is often possible to achieve an acceptable torque level using the long end of the wrench in the screw and the short end as the lever.

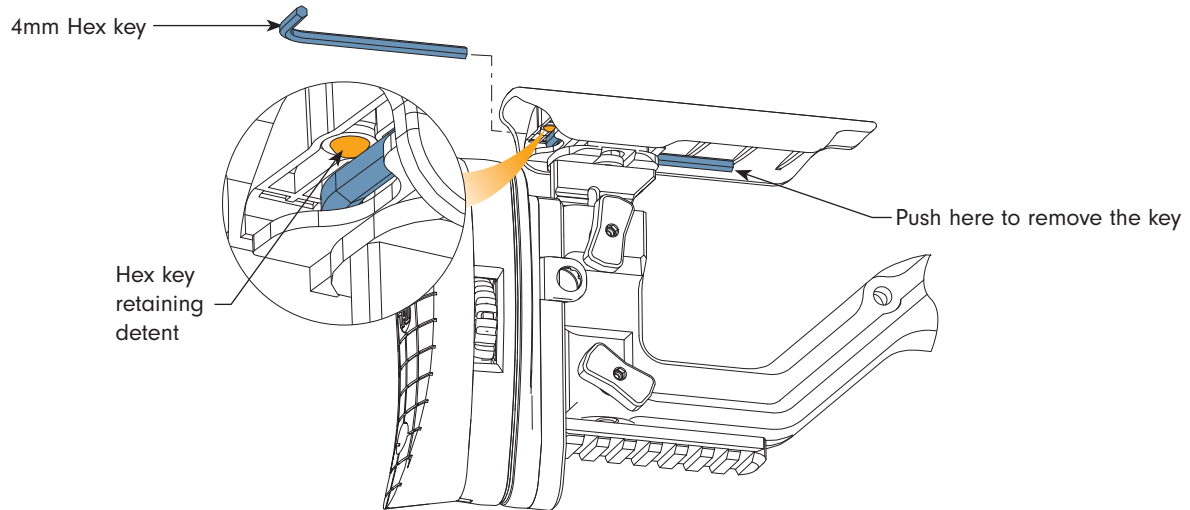


Fig 2-1

2.2 CHANGING THE BARREL

Preparation:

The rifle and magazine (if fitted) must be unloaded and safe to use. The procedure may be completed without removing the scope, however it is strongly recommended that scope covers are used to protect the lenses.

Removal:

- Use a 4 mm hex key to loosen the QuickLoc barrel clamping screw located on the right side of the action 1-2 turns.



WARNING - DO NOT REMOVE THE CLAMPING SCREW AND DO NOT TIGHTEN THE CLAMPING SCREW WITH THE BARREL REMOVED.

- Unscrew the barrel from the action body. If tight, use a 19mm (3/4") spanner across the flats located towards the barrel's muzzle end to assist removal.
- Ensure the barrel thread is protected from damage after removal.

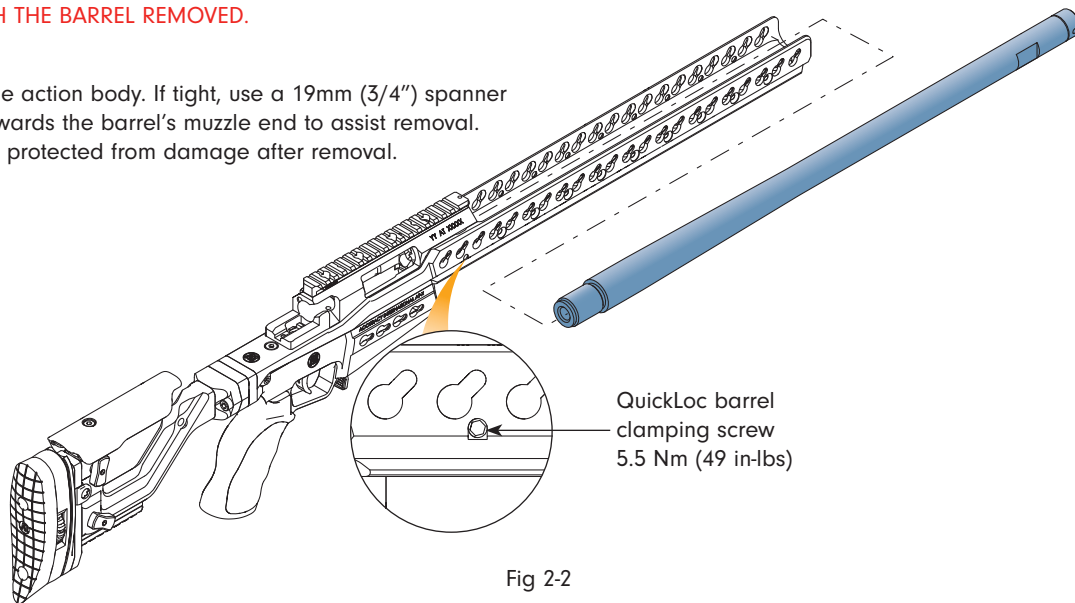


Fig 2-2

2.2 CHANGING THE BARREL (CONTINUED)

Refitting:

- Ensure the barrel, action body and their respective threads are not damaged, obstructed or fouled.
- Ensure mating surfaces of the barrel and action are clean and free from damage.
- Carefully locate the barrel into the action. Screw the barrel into the action body, taking care not to damage the threads.
- Firmly tighten the barrel by hand only.
- Ensure that the barrel is in firm contact with the action body's front face and that no visible gap remains.
- Use a suitable hex key to tighten the barrel release screw, torque to 5.5 Nm (49 in-lbs).
- Test the barrel clamp by attempting to loosen the barrel by hand, do not use a spanner. The barrel should not rotate.
- Where possible, it is strongly recommended to check the cartridge headspace (see section 1.7 on page 7).
- Refit the bolt.
- Refit the magazine.



WARNING - IF, AFTER TIGHTENING THE CLAMPING SCREW, THE BARREL ROTATES, RE-TIGHTEN THE BARREL AND BARREL CLAMPING SCREW AS DESCRIBED ABOVE. IF THIS DOES NOT PROPERLY SECURE THE BARREL, THE RIFLE MUST BE INSPECTED BY A QUALIFIED ARMOURER.



ENSURE THE LOCKRING IS IN PLACE AND IS SECURE BY VIEWING THROUGH THE EJECTION PORT.

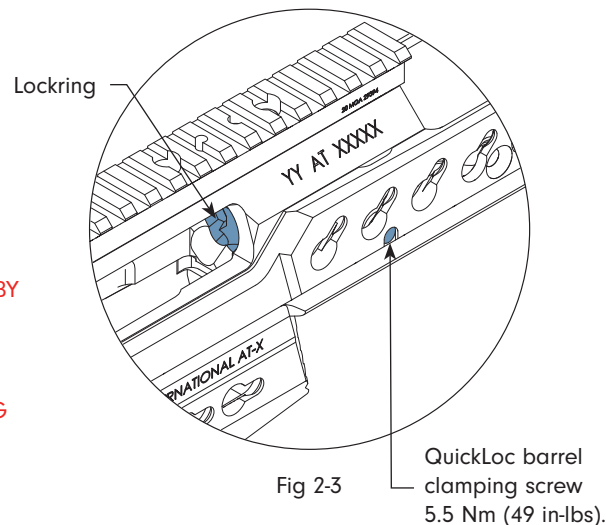


Fig 2-3

2.3 RRS™ DOVETAIL INTERFACES

The AT-X rifle incorporates an RRS™ compatible 1.5" dovetail extending the entire length along the forend underside. This interface provides an easy to use and durable mounting system for a range of bipod mounts, tripods, and other shooting rests. A barricade stop is incorporated in the forward end of the magazine aperture..

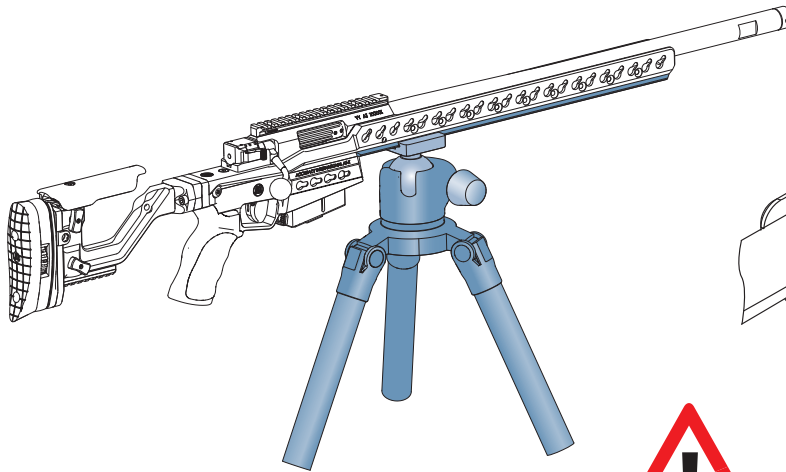


Fig 2-4

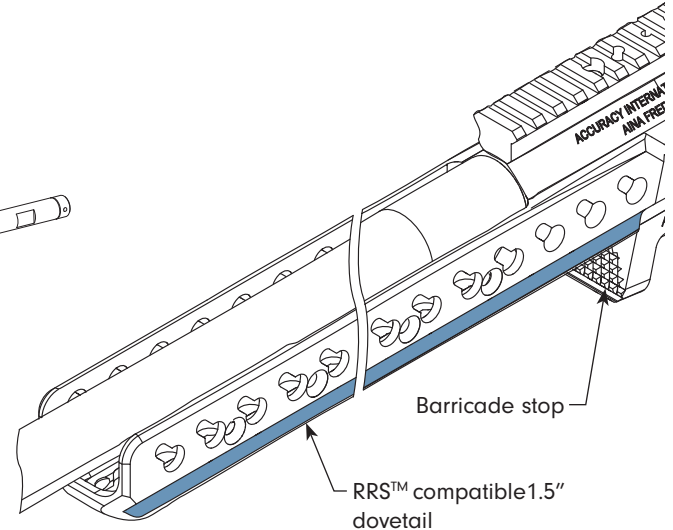


Fig 2-5



CAUTION: Ensure the rifle is unloaded and safe before mounting it onto a tripod

2.4 CHEEKPIECE ADJUSTMENT [HEX KEY]

The AT-X rifle is fitted with a cheekpiece that can be adjusted for height and lateral position.

To adjust the height of the cheekpiece:

- Use a 3 mm or 4 mm hex key to loosen the two adjustment screws (see Fig 2-6).
- Adjust the height of the cheekpiece to the desired position.
- Tighten the screws to lock the cheekpiece.

To adjust the lateral position of the cheekpiece:

- Use the supplied 4 mm hex key to loosen the lateral adjustment screw.
- Adjust the cheekpiece to the left or right as appropriate.
- Tighten the lateral adjustment screw using the 4 mm hex key.

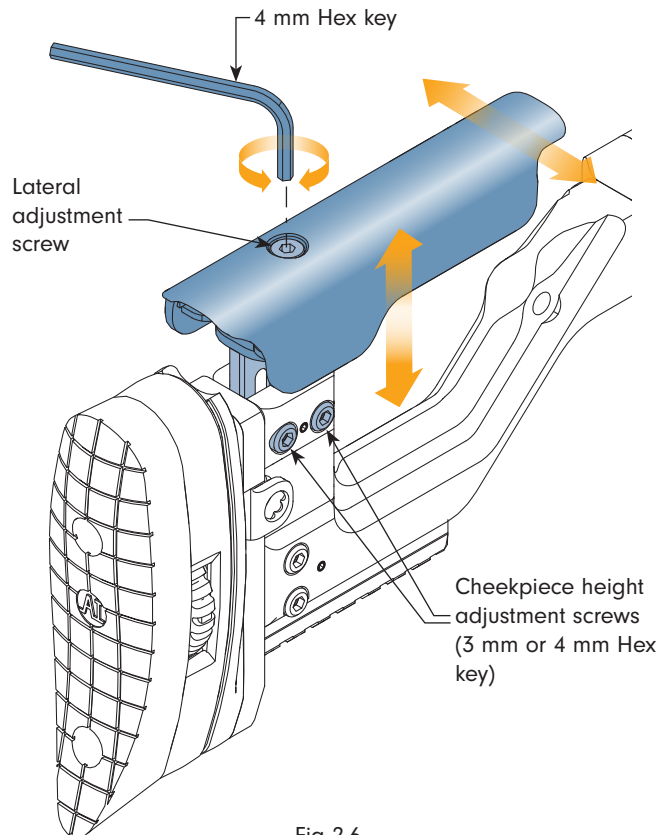


Fig 2-6

2.5 CHEEKPIECE ADJUSTMENT [THUMB SCREW]

The AT-X rifle is fitted with a cheekpiece that can be adjusted for height and lateral position.

To adjust the height of the cheekpiece:

- Loosen the upper thumb screw (see Fig 2-7).
- Adjust the height of the cheekpiece to the desired position.
- Tighten the thumb screw to lock the cheekpiece, ensuring that the clamping mechanism locates correctly in the nearest available detent position.

To adjust the lateral position of the cheekpiece:

- Use the supplied 4 mm hex key to loosen the lateral adjustment screw.
- Adjust the cheekpiece to the left or right as appropriate.
- Tighten the lateral adjustment screw using the 4 mm hex key.

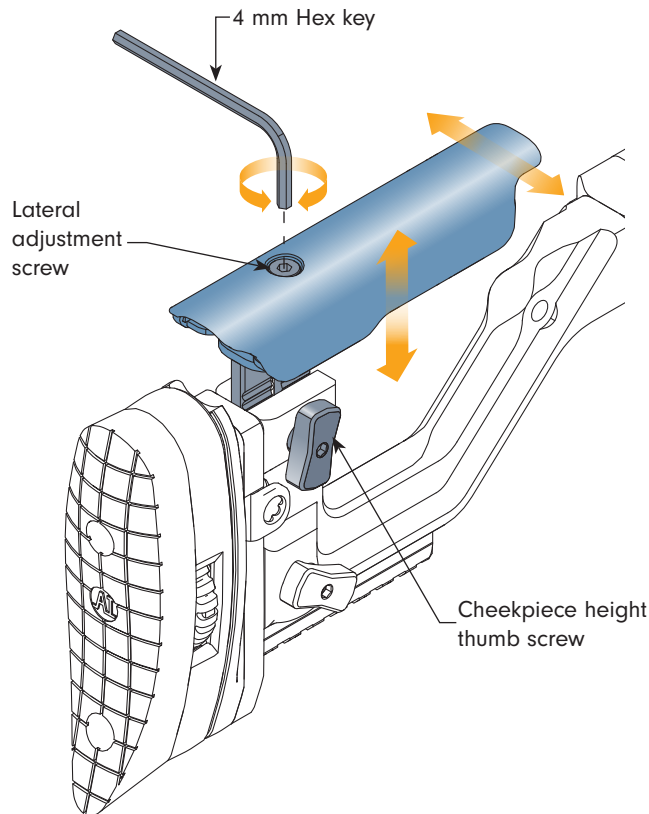


Fig 2-7

2.6 LENGTH OF PULL ADJUSTMENT [HEX KEY]

To adjust the length of pull.

- Using a 3 mm or 4 mm hex key, slacken the two butt locking screws located on the lower rear chassis right-hand side (see Fig 2-8).
- Undo the two screws evenly until the butt slider can be adjusted.
- Adjust the butt to the desired length of pull and re-tighten the screws, ensuring that the clamping mechanism locates correctly in the nearest available detent position..

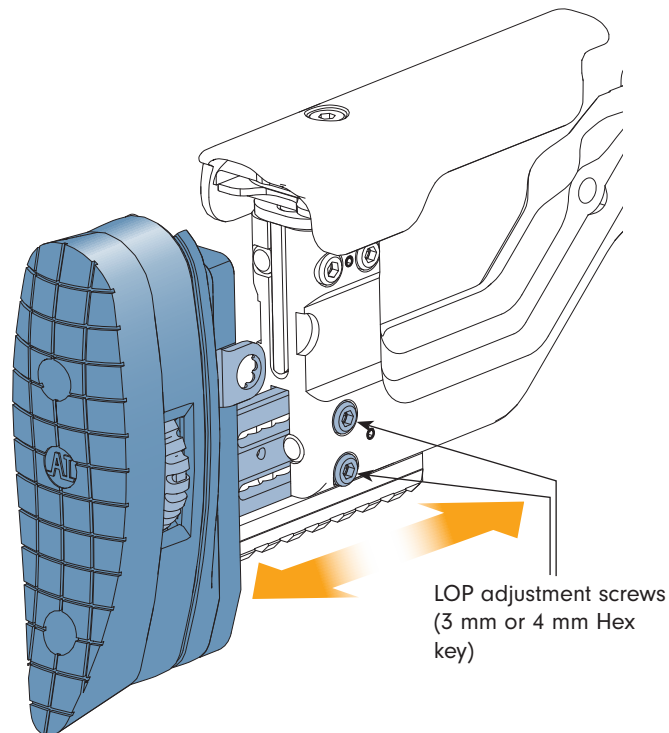


Fig 2-8

2.7 LENGTH OF PULL ADJUSTMENT [THUMB SCREW]

To adjust the length of pull.

- Loosen the lower butt length of pull (LOP) thumb screw located on the rear chassis right-hand side (see Fig 2-9).
- Adjust the butt to the desired length of pull and re-tighten the thumb screw, ensuring that the clamping mechanism locates correctly in the nearest available detent position.

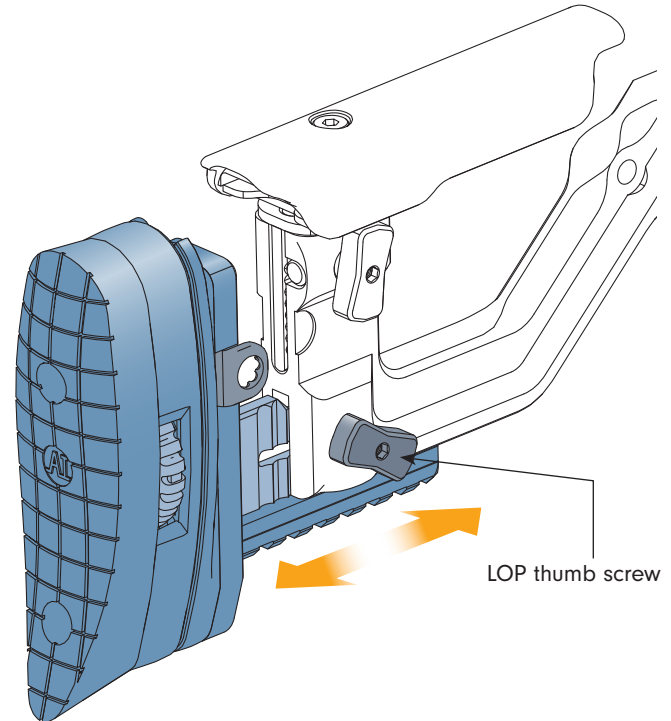


Fig 2-9

2.8 BUTT PAD ADJUSTMENTS

To adjust the butt pad height and angle:

- Loosen the butt pad adjustment thumbwheel.
- The butt pad can be raised, lowered or rotated, once the desired position has been achieved, re-tighten the adjustment thumbwheel.

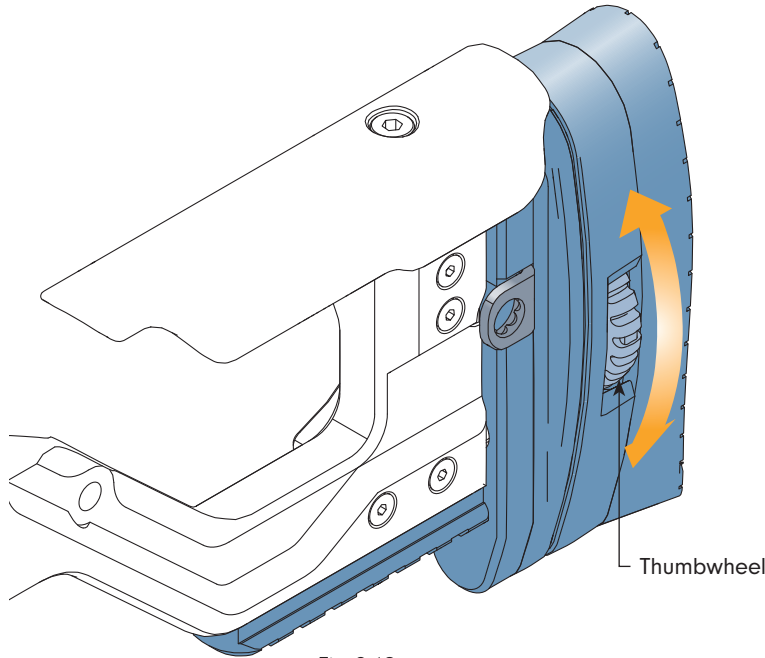


Fig 2-10

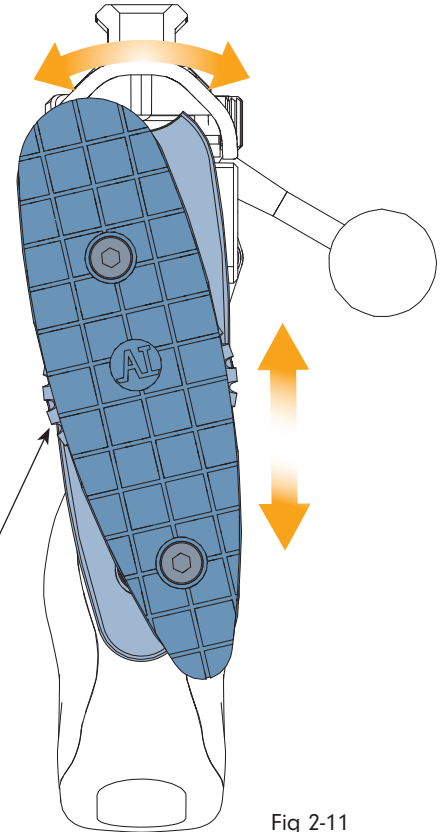


Fig 2-11

2.9 TRIGGER REACH ADJUSTMENT

To adjust the trigger blade position:

- Loosen the trigger blade clamping screw using a 2.5mm hex wrench.
- Slide the trigger blade to the desired position.
- Tighten the screw.
- Note: The trigger blade clamp must remain in complete contact with the trigger shoe (see Fig 2-13 and Fig 2-14).

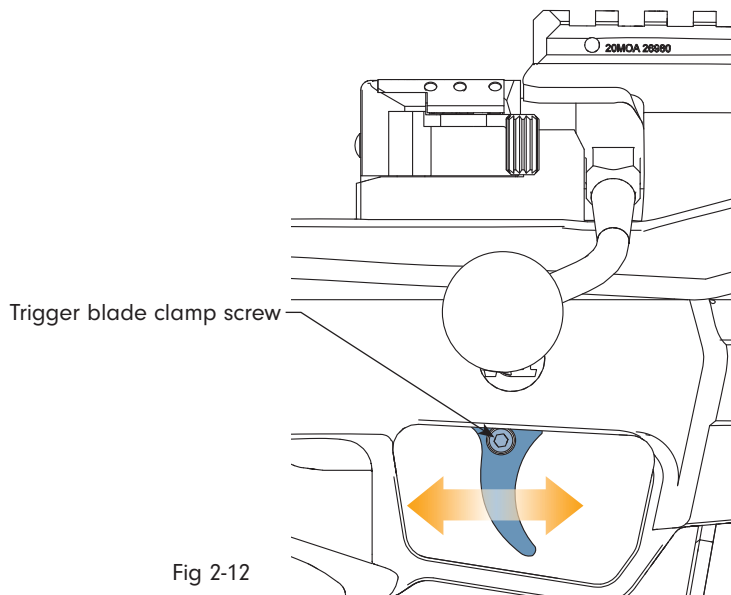


Fig 2-12

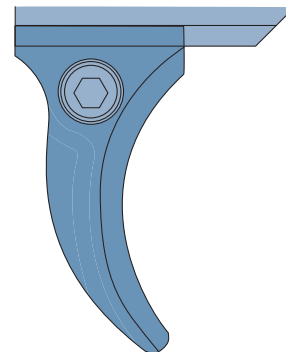


Fig 2-13

Maximum trigger blade rearward position

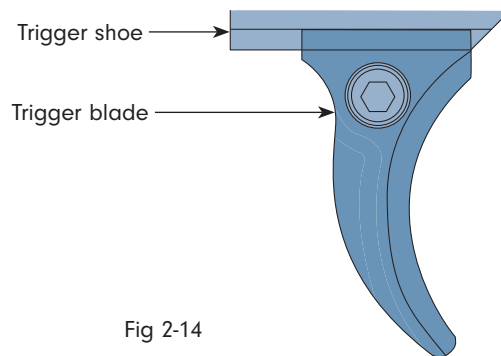


Fig 2-14

Maximum trigger blade forward position

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3 FIELD STRIPPING

- Field stripping
- Bolt assembly
- Magazine



3.1 FIELD STRIPPING

Before stripping the rifle, carry out the safety precautions as described in section 1.4 on page 4.

To field strip the rifle:

- Depress the magazine catch and remove the magazine (if fitted).
- Cover the lenses of the telescopic sight.
- Remove the sling (if fitted).
- Remove the cheekpiece (see section 2.4 on page 14).
- Open the bolt.
- Press and hold the bolt release catch, rotate the bolt handle to the position shown and slide the bolt rearward to remove.
- Remove the bipod if required.

To reassemble after stripping:

- Check that the bore is free from any obstruction.
- Position the bolt body up to the action body and press and hold the bolt release catch.
- Insert the bolt into the action body and push forward. Release the bolt catch and rotate the bolt body to its working orientation.
- Cycle the bolt entirely several times to ensure correct fitting and operation.
- Refit the cheekpiece.
- Refit the sling.
- Refit an empty magazine.

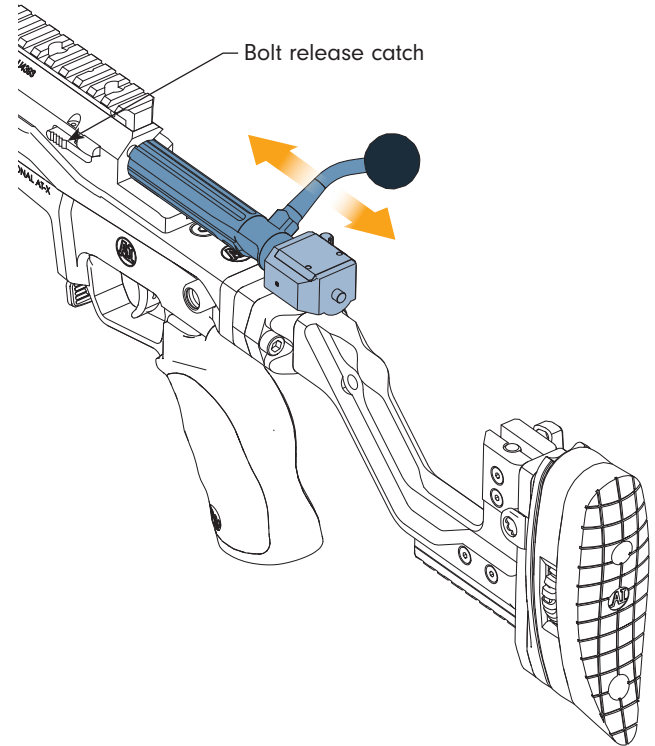


Fig 3-1

3.2 STRIPPING THE BOLT ASSEMBLY

To strip the bolt assembly:

- To remove the shroud assembly from the bolt body, grasp the bolt body firmly in the right hand and the shroud assembly in the left.
- Depress the bolt location pin with the right thumb and rotate the shroud assembly as shown in Fig 3-2 until the shroud assembly can be withdrawn.
- Remove the shroud assembly from the bolt body.

To reassemble the bolt assembly

- To reassemble the bolt, insert the shroud assembly into the bolt body, aligning the shroud retaining lug with the corresponding opening in the bolt body (see Fig 3-3).
- Holding the shroud assembly in the left hand and the bolt body in the right, push the shroud assembly against the bolt body to compress the firing pin spring.
- When the firing pin spring is compressed, rotate the shroud assembly until the location pin engages with the bolt body just before the fire position (see Fig 3-4).

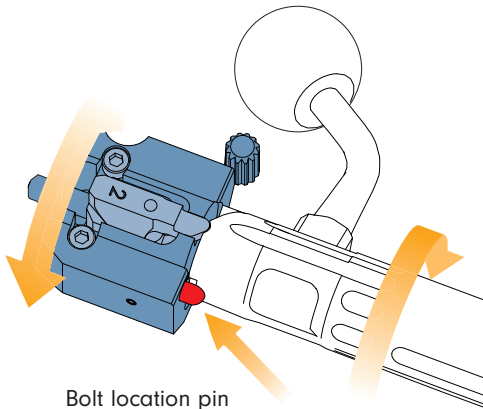


Fig 3-2

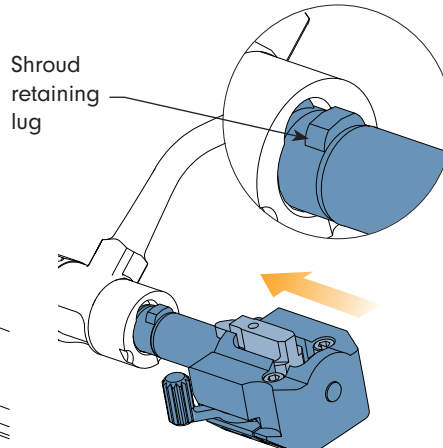


Fig 3-3

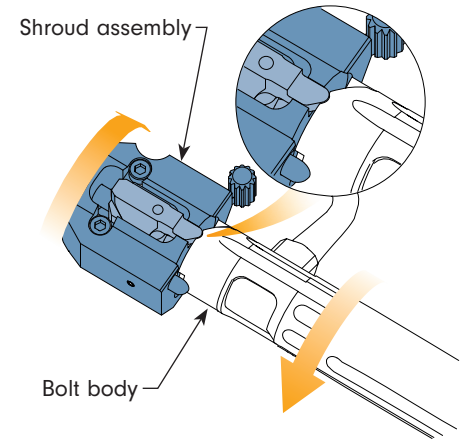


Fig 3-4

3.3 STRIPPING THE MAGAZINE

Stripping the magazine:

- Press down and push forward on the rear of the magazine follower. The front lug on the follower should clear the body (see Fig 3-5).
- Hold the front of the magazine follower/spring assembly with the other hand and twist the follower anti-clockwise through approximately 45 degrees, as illustrated in Fig 3-6.
- Keeping the magazine follower/spring assembly twisted, pull the follower forward until it clears the magazine lips, and remove it from the body.
- The magazine spring is riveted to the follower and must not be separated for any maintenance activities.

Re-assembly:

- Hold the front of the follower and insert the assembly into the magazine body, ensuring that the bottom fold of the spring lays flat in the base of the magazine.
- Twist the follower clockwise by approximately 45 degrees and slide the follower rearward into the magazine body.
- Press the follower fully into the magazine body and release it several times to ensure that the follower and spring move correctly and freely.

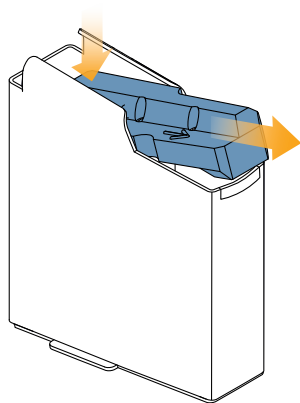


Fig 3-5

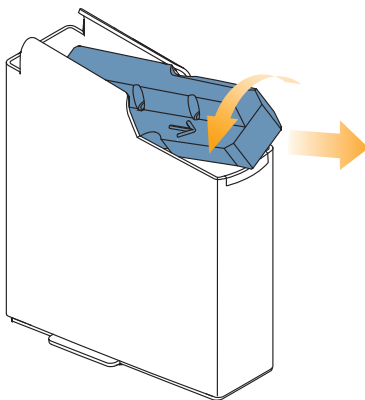


Fig 3-6

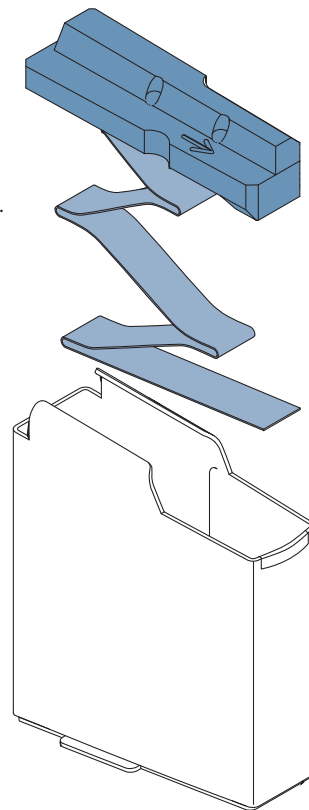


Fig 3-7

4 PREPARING AND FIRING THE RIFLE

- Magazine loading.
- Loading the rifle.
- Firing and operating.
- Unloading the rifle.
- Stoppages and troubleshooting.



4.1 MAGAZINE LOADING

The AT-X rifle is supplied with a 10 round, double-stack magazine.

To load a magazine:

- Put the first round onto the top of the empty magazine (see Fig 4-1).
- Push the round down until it is caught by the magazine feed lips and follower (see Fig 4-2).
- Push the round fully rearward.
- Repeat for the next round, again pushing it fully rearward.
- Load a total of 10 rounds.

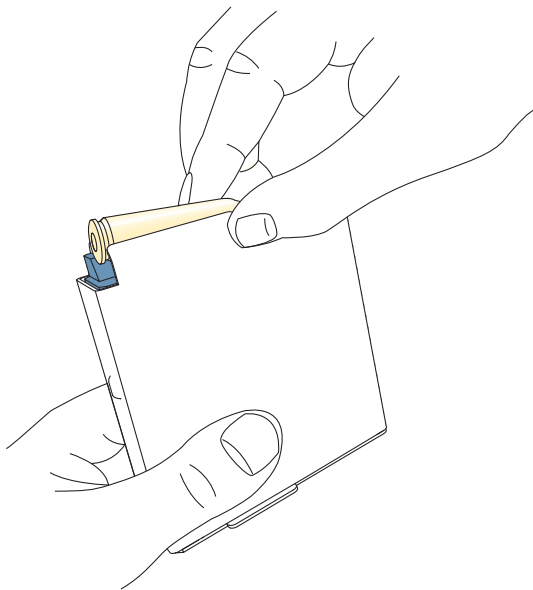


Fig 4-1

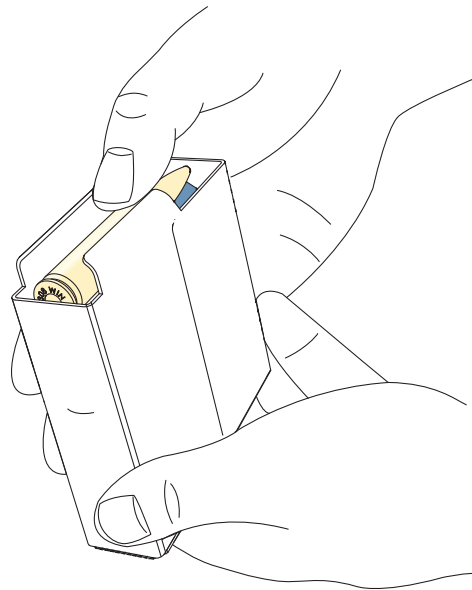


Fig 4-2

4.2 LOADING THE RIFLE

To load the rifle:

- Move the safety lever positively rearward into the 'safe' position.
- Point the rifle in a safe direction.
- Open the bolt by raising the bolt lever and pulling the bolt fully rearward.
- Put the front of the loaded magazine up to the magazine housing's front angled face and ensure that the front magazine retaining tab has engaged in the corresponding feature within the magazine housing.
- Lift the magazine upwards at the rear until the magazine catch engages on the back of the magazine.
- Pull firmly downwards on the magazine to ensure it is securely retained.
- Feed a round from the magazine into the chamber by sliding the bolt fully forward and closing the bolt lever fully.
- The cocking indicator protrudes prominently from the rear face of the shroud (see section 1.2 on page 2).

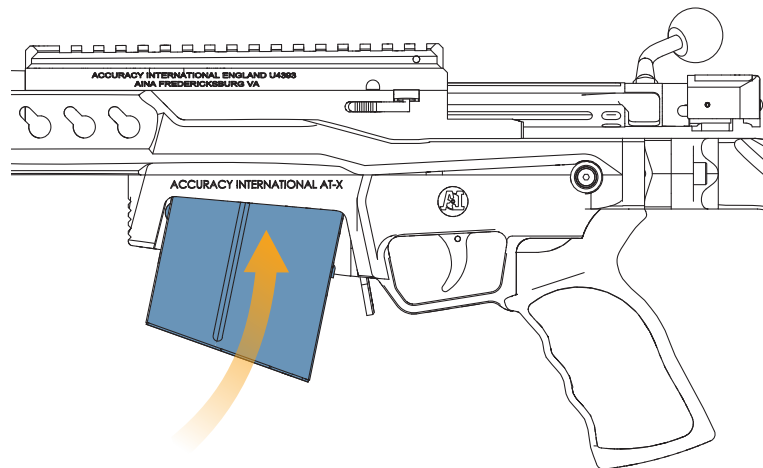


Fig 4-3



WARNING: ALWAYS CLOSE THE BOLT FULLY. FAILURE TO FULLY CLOSE THE BOLT EACH TIME IT IS MANIPULATED COULD RESULT IN A LIVE ROUND LEFT IN THE CHAMBER.

Notes:

The extractor does not engage on the cartridge rim unless the bolt is fully closed.

When the magazine is full, the magazine catch is always harder to engage with the bolt closed. The first round is also more difficult to feed into the chamber than subsequent rounds. Where possible, change the magazine with the bolt open.

4.3 FIRING AND OPERATING THE RIFLE

Use the following sequence when firing and operating the rifle:

- Move the safety lever positively rearward into the 'safe' position.
- Get into a comfortable and stable fire position.
- Push the safety lever fully forward to the 'fire' position.
- Ensure the rifle is pointing at the intended target, take up the first stage and pull the trigger.
- Follow through and observe the target.
- Open the bolt.
- Pull the bolt FULLY rearward to eject the fired case and to pick up the next round.
- Push the bolt firmly forward to feed the next round into the chamber. Close the bolt handle fully.
- Repeat the sequence for each round as required.

To reload the rifle:

- Move the safety lever positively rearward into the 'safe' position.
- Press the magazine catch and remove the magazine.
- Install a loaded magazine (see section 4.2 on page 27).
- Pull the bolt FULLY rearward before re-closing the bolt fully to chamber a new cartridge.
- Apply the safety lever where necessary.
- The rifle is now reloaded and ready to continue firing.

4.4 UNLOADING

Note the position of the Firing Pin Cocking Indicator (see section 1.2). If fired, use drill 1; If cocked, use drill 2.

Drill 1: Unloading the rifle after firing (Firing Pin Cocking Indicator shows 'fired').

- Point the rifle in a safe direction.
- Hold the rifle securely, do not place a finger inside the trigger guard.
- Remove the magazine (if fitted).
- Open the bolt and fully slide to the rear, ejecting the fired case.
- Inspect the chamber to ensure it is empty.
- Visual Check - Look through the ejection port.
- Physical Check - Use a finger to check the chamber and bolt face.
- Remove any cartridge or case from the rifle.
- With the bolt left 'open', the rifle is now safe to handle.
- Where possible, the bolt should be left 'open' to identify to others that it is safe. However, should the bolt be required in the 'closed' position:
 - Push the safety lever fully forward into the 'Fire' position.
 - Pull and hold the trigger while closing the bolt.
 - Fit an EMPTY magazine, if required - the rifle is now safe to handle.

Drill 2: Unloading a live cartridge (firing pin cocking indicator shows 'cocked').

- Move the safety lever positively rearward into the 'First Safe' position.
- Point the rifle in a safe direction.
- Hold the rifle securely, do not place a finger inside the trigger guard.
- Remove the magazine.
- Slowly cycle the bolt to unload the live cartridge from the chamber.
- Capture the live round during ejection.
- Inspect the chamber to ensure it is empty.
- Visual Check - Look through the ejection port.
- Physical Check - Use a finger to check the chamber and bolt face.
- Remove any remaining cartridges from the rifle.
- With the bolt left 'open', the rifle is now safe to handle.
- Where possible, the bolt should be left 'open' to identify to others that it is safe. However, should the bolt be required in the 'closed' position:
 - Push the safety lever fully forward into the 'Fire' position.
 - Pull and hold the trigger while closing the bolt.
 - Fit an EMPTY magazine if required.
 - The rifle is now safe to handle.

4.5 STOPPAGES

If the rifle, magazines and ammunition are kept clean and maintained correctly, few stoppages should occur. However, if the rifle does fail to fire or operate as expected, the following drills must be carried out.



FAILURE TO FIRE: IF THE RIFLE FAILS TO FIRE, MAINTAIN AIM IN A SAFE DIRECTION FOR AT LEAST 30 SECONDS BEFORE ATTEMPTING TO OPEN THE BOLT. THE CARTRIDGE'S PRIMER MAY BE BURNING SLOWLY AND MAY CAUSE THE RIFLE TO FIRE UNEXPECTEDLY. FAILURE TO FIRE CAN BE CAUSED BY A SLOW-BURNING PRIMER, A LIGHT STRIKE OR A ROUND NOT BEING LOADED INTO THE CHAMBER. IN ANY CIRCUMSTANCES, CARE MUST BE TAKEN WHEN THE BOLT IS OPENED - A FAULTY ROUND MAY STILL FIRE.

A Master Stoppage drill should be carried out to determine the nature of the stoppage.

- Follow the 30-second rule above.
- Open the bolt and slowly pull it to the rear; a live round may be ejected.
- Inspect inside the action body and chamber as the next step depends on what is seen inside the action body.

Rounds in the Magazine

If there are rounds in the magazine but no round in the chamber, the magazine may be incorrectly fitted or, the bolt may not have been cycled correctly.

- Check that the magazine is correctly fitted; if necessary, remove and refit.
- Pull the bolt fully rearward, then push forward and close.
- Continue firing.

No rounds in the magazine

- Remove the empty magazine.
- Fit a loaded magazine into the rifle.
- Pull the bolt fully rearward, then push forward and close.
- Continue firing.

Obstruction in the action body—failure to eject

If there is a live round or empty case present, this must be removed.

- Remove the magazine.
- Carefully remove the obstruction.
- Check that the chamber is clear.
- Refit the magazine.
- Pull the bolt fully rearward, then push forward and close.
- Continue firing.

The operator should check for component damage or obstructions that may impede the ejection of the rifle. Persistent failures to eject should be investigated by an Accuracy International qualified armourer.

4.5 STOPPAGES (CONTINUED)

Obstruction in the chamber—failure to extract:

If a live round or empty case is present in the chamber, this must be removed.

- Remove the magazine.
- Move the safety lever positively rearward into the 'safe' position.
- Close the bolt fully.
- Open the bolt to clear the obstruction.
- Check that the chamber is clear.
- Refit the magazine.
- Pull the bolt fully rearward, then push forward and close.
- Push the safety fully forward into the 'Fire' position.
- Continue firing.

Should the above drill not clear the obstruction, check the bolt and extractor for damage. Persistent failures to extract should be investigated by an Accuracy International qualified armourer. A cleaning rod may be used to remove an EMPTY case only by carefully inserting it into the bore from the muzzle end of the barrel.



ENSURE THE CLEANING ROD IS REMOVED FROM THE BARREL BEFORE CONTINUING TO FIRE.

Slow-burning primer/hang fire:

If the round does not fire after 30 seconds, eject the round and inspect it. If the primer strike looks positive, the round must not be used and be disposed of safely. Persistent problems must be investigated, and the ammunition batch should not be used until examined further.

Light Strike:

Light strikes can indicate that the bolt was not fully closed. Ensure that the bolt is closed fully each time a cartridge is chambered. The bolt may also require cleaning and light lubrication. If the problem continues, stop using the rifle and have it checked by an Accuracy International qualified armourer.

'Pierced' or 'Blanked' Primer:

Should the ejected empty case have a 'pierced' or 'blanked' primer, the user should inspect the firing pin tip for damage. If the firing pin is damaged or the problem persists, have the rifle examined by an Accuracy International qualified armourer.

Hard Extraction:

Several factors can cause hard extractions. A heavily 'fouled' barrel or chamber is a common cause. The rifle should therefore be cleaned regularly, as set out in the Maintenance section of this manual. The user should also inspect the bolt head and extractor for cleanliness and or damage. Prolonged 'rapid' firing may also cause hard extractions. If this is the case, allowing the rifle to cool more frequently, if practical, may ease the problem. An Accuracy International qualified armourer must investigate any other problems.

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5 USER MAINTENANCE

- Cleaning and lubrication before firing.
- Cleaning and lubrication after firing.
- General rifle cleaning.
- Cleaning the barrel.
- Recommendations.
- Removing carbon and copper fouling.
- Barrel break-in procedure.



5.1 USER MAINTENANCE

Regular maintenance and servicing are necessary to ensure the AT-X rifle is kept in good condition. This section covers the recommended cleaning and lubrication procedures that the user should perform to maintain the rifles safe and accurate functioning.

Safety precautions:

- Before handling or attempting any cleaning or maintenance operations with the rifle, ensure that the rifle is unloaded and safe by carrying out the safety precautions (see section 1.4 on page 4).
- To ensure the rifle is not damaged while being cleaned and lubricated, only the recommended tools, cleaning materials and lubricants should be used when following these instructions.
- No abrasive material should be used on any part of the rifle.

Recommended lubricants

Lubricant	Description	Uses
Break free CLP 16 OX24	Lubricant and preservative	General lubrication of the action and rifle exterior
WD40, GT85	Light penetrating oil	Light preservative and lubrication of the trigger
Grease XG 279	General purpose lubricating grease	Hinge, adjustable butt mechanism

Recommended bore cleaners

Cleaner	Uses
Shooters choice bore cleaner	Copper solvent
Forest bore cleaning foam	Copper solvent
KG1	Bore carbon remover
KG12	Big bore copper remover
KG SF112	Combined carbon and copper remover
Robla Solo MIL	Combined carbon and copper remover
Bore Tech C ₄ Carbon Remover™	Carbon remover
Bore Tech Cu ⁺² Copper Remover™	Copper remover
Bore Tech Eliminator™	Bore cleaner

5.2 CLEANING (GENERAL)

Cleaning and lubricating before firing:

Before firing the rifle, it must be cleaned and lubricated as detailed in the table on the right.

Cleaning and lubricating after firing:

The barrel should be cleaned upon completion of shooting, using the "Cleaning The Barrel" procedure described in the next section.

As a minimum, we recommend that the barrel should be cleaned at the intervals listed in the table on the right.

The bolt body should be cleaned and lubricated regularly, i.e. daily when operational or when 100 rounds have been fired.

General rifle cleaning:

- The action body should be brushed clean to remove any brass particles or dirt.
- The exterior of the rifle should be wiped or brushed down until clean.
- Ancillary items such as magazines and bipods should be brushed clean and lightly oiled if required (do not use oil inside the magazines).
- If working in a wet environment or the rifle is to be put into storage, parts should be lightly oiled using CLP or similar.

Part	Lubrication status
Barrel - Exterior	N/A - leave dry
Barrel - Interior (bore and chamber)	Clean and leave dry, see section on "cleaning the barrel"
Bolt - Front face	Clean and leave dry
Bolt - remaining surfaces	Clean and lightly lubricate with CLP oil or similar
Chassis	N/A - leave dry
Action Body	Clean and lightly lubricate the inside surfaces with CLP oil or similar

Cleaning intervals	
7.62 x 51mm/.308win	
Match Grade	Clean after every 100 rounds
6.5 Creedmoor.	
Match Grade	Clean after every 60 rounds

Note:

In very dusty or harsh environments, more frequent cleaning is recommended.

5.3 CLEANING THE BARREL

Recommendations:

- The bore and chamber are easier to clean after firing while the barrel is still warm.
- Use a cleaning rod and rod guide when cleaning the barrel. Using a rod guide ensures that the cleaning rod is held in the centre of the bore, reducing the possibility of damage to the chamber and bore during cleaning and preventing solvent and debris from entering the action.
- Use Bore Snake's or pull through's for emergency cleaning only. Pull from the chamber to the muzzle, ensuring the cord is pulled centrally from the front of the barrel to avoid damaging the crown. Clean the Bore Snake regularly to remove grit and debris that could damage the bore of the barrel.
- Use a vice or cradle to secure the rifle and prevent damage.
- Use the correct size brush or jag.
- When using bore solvents, allow the cleaning fluid to soak in the barrel for ten to fifteen minutes to penetrate the fouling more effectively.
- Work from chamber to muzzle, do not pull patches or brushes back through the muzzle.



Do not use triangle patches with non tapered brushes (see Fig 6-1 on page 38) these should be used with Boresmith tapered brushes only. If Boresmith products are not available use the patch with a jag.



Refer to the Bore Solvent Manufacturer's instructions for relevant Health and Safety precautions. Solvents must be used sparingly; any excess spillage outside of the barrel must be removed immediately.



After cleaning and before firing the rifle again, always check the barrel for obstructions.

5.3 CLEANING THE BARREL (CONTINUED)

Barrel cleaning procedure:

- Unload the rifle and carry out safety precautions (see 1.4 on page 4).
- Remove the magazine if fitted.
- Securely hold the rifle horizontally by a suitable means, ideally between the protected jaws of a bench vice, where available.
- Fold the Chassis.
- Remove the Bolt.
- Insert a rod guide into the action body, ensuring it has engaged with the bolt catch.
- Ensure the rod is clean before fitting a clean patch to the correct size spear point jag.
- Soak the patch with Bore Solvent and push it once through the barrel to wet the bore.
- Remove the patch from the jag. DO NOT attempt to pull the patch back through the bore. Repeat several times to wet the bore thoroughly.
- Remove the jag from the cleaning rod and refit with the correct sized jag brush.
- While the bore is still wet, moisten the brush with solvent and pass it entirely through the bore several times. Repeat with fresh solvent if necessary.

- Fit a triangle patch onto the jag brush and pass through to dry the bore and chamber (see Fig 6-1 on page 38).
- Remove the patch at the muzzle: DO NOT pull it back through the bore.
- Repeat this operation until a new solvent moistened patch can be passed through the bore clean (a light grey smudge is acceptable).
- Pass a clean, dry patch through the bore.

Note: Where the rifle is stored for a lengthy period or in a corrosive atmosphere, apply a thin smear of oil to the bore:

- Moisten a patch with CLP oil and pass it once through the bore.
This oil must be removed before shooting.

The chamber can be cleaned using a chamber cleaning brush or a screw-on chamber brush and a cleaning rod. Always pass a dry patch through the bore after cleaning the chamber to remove debris or cleaning product residue.

Wipe away all surplus solvents from inside the action body and from the muzzle brake.

5.3 CLEANING THE BARREL (CONTINUED)

Removing heavy carbon and copper fouling:

- Heavy copper fouling can occur as a copper coloured residue; carbon fouling can occur as a black residue between the lands, usually within 12" (300mm) of the chamber.
- Carbon and copper fouling in the barrel often shows as a coloured residue on cleaning patches. This colour varies from one cleaning product to the next, e.g. heavy copper fouling may show as blue on the patch, heavy carbon fouling may show as grey on the patch. Check your specific cleaning product for guidance and repeat the cleaning procedure as necessary until the patches come out clean.
- It is essential to remove fouling deposits as it increases the pressure within the barrel resulting in hard extractions, loss of accuracy, and potentially making the rifle unsafe to use.
- For optimal results, we recommend that a copper solvent and a carbon remover is used alternately to clean a heavily fouled barrel.
- Refer to the copper/carbon solvent manufacturer's instructions to determine how long the solvent should be left to penetrate before using the brush.
- Use the previously described cleaning procedure to clean the bore after the recommended time.
- If alternating between carbon and copper solvents, repeat the cleaning procedure with the alternative product, again, leaving it to penetrate the fouling for the recommended time.

Using the jag brush and triangle patch

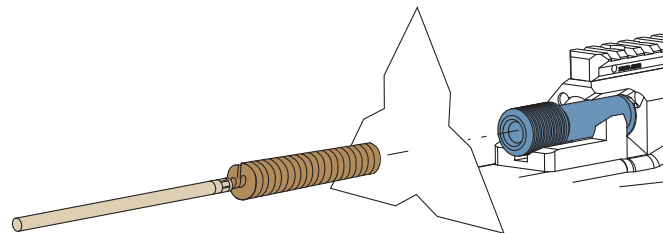


Fig 6-1

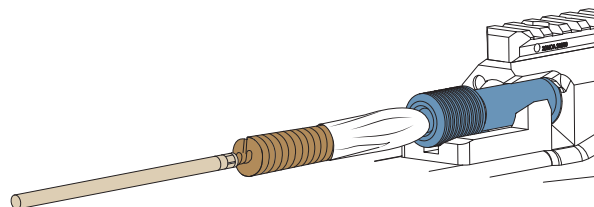


Fig 6-2

Note: When using triangle patches as illustrated, a Boresmith tapered Phosphor bronze brush should be used. Using a parallel brush risks the patch and brush to jam in the bore.

5.4 BARREL BREAK-IN PROCEDURE

A barrel break-in procedure conditions the barrel surface and reduces the effect of copper fouling in new barrels, reducing the likelihood of damage to the surface of the barrel. It brings the barrel up to its optimum performance as quickly as possible.

When breaking in the barrel, the throat and lead (just forward of the chamber) become polished, and metallic fouling is far less likely to occur at any time later in the life of the barrel.

The Accuracy International barrel process from new is as follows:

- Clean the barrel to remove any dirt and debris that might occur from the painting process.
- Two overpressure rounds are fired in the barrel to complete the barrel proof test (this is a legal requirement in the UK).
- The barrel is then thoroughly cleaned by passing a patch soaked with a good copper bore solvent through the barrel from breech to muzzle.
- A phosphor bronze bore brush with copper bore solvent is passed through the bore 8 times.
- Two dry patches are pushed through to clean and dry the bore.
- Two 5-shot groups are fired to test the rifle for function and accuracy. The barrel is then thoroughly cleaned again.

If a customer wishes to continue a breaking-in procedure on receipt of a rifle, we would recommend the following, using standard ball ammunition.

Shoot 3 shots and clean as above

Shoot 5 shots and clean as above

Shoot 5 shots and clean as above

Shoot 10 shots and clean as above

Once the barrel has been broken in, it is essential to maintain a proper cleaning regime for the rifle's life, as detailed in this manual.

TORQUE SETTINGS (REAR CHASSIS)

No	Feature	Torque	Loctite
1	M5 Butt pad screws 2 posn	3.5 Nm/31 in lbs	
2	M6 Butt plate screws 2 posn	3.5 Nm/31 in lbs	243
3	M6 Cheek piece screw	3.0 Nm/33.6 in lbs	
4	M6 Male chassis interface screws 2 posn	5.0 Nm/44.3 in lbs	
5	M5 Male interface to rear chassis screw	5.0 Nm/44.3 in lbs	243

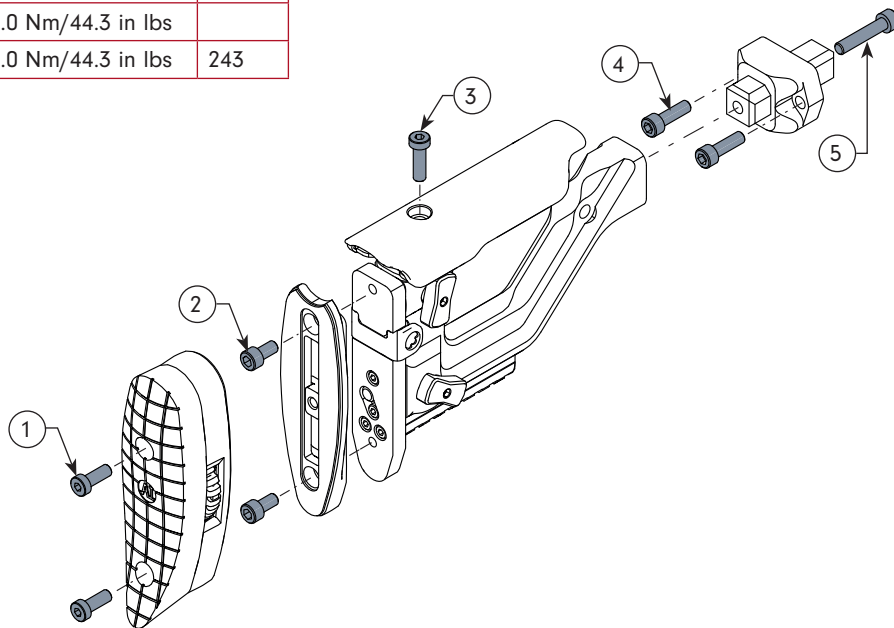


Fig 6-3

TORQUE SETTINGS (FRONT CHASSIS)

No	Feature	Torque	Loctite
1	M5 Female interface to lower chassis screws 4 posn	4.0 Nm/35.4 in lbs	243
2	M4 Female flush cup screw	1.0 Nm/8.85 in lbs	243
3	1/4-28 Grip screw	3.5 Nm/31 in lbs	
4	M6 Rear chassis assembly screw	5.0 Nm/44.3 in lbs	
5	M5 Front chassis assembly screw	5.0 Nm/44.3 in lbs	
6	M5 Rear action screws 2 posn	4.0 Nm/35.4 in lbs	
7	M5 Front action screws 2 posn	4.0 Nm/35.4 in lbs	
8	M5 Trigger screws 2 posn	3.5 Nm/31 in lbs	
9	M3 Trigger blade screw	0.8 Nm/7 in lbs	
10	M5 Barrel clamp screw	5.5 Nm/49 in lbs	

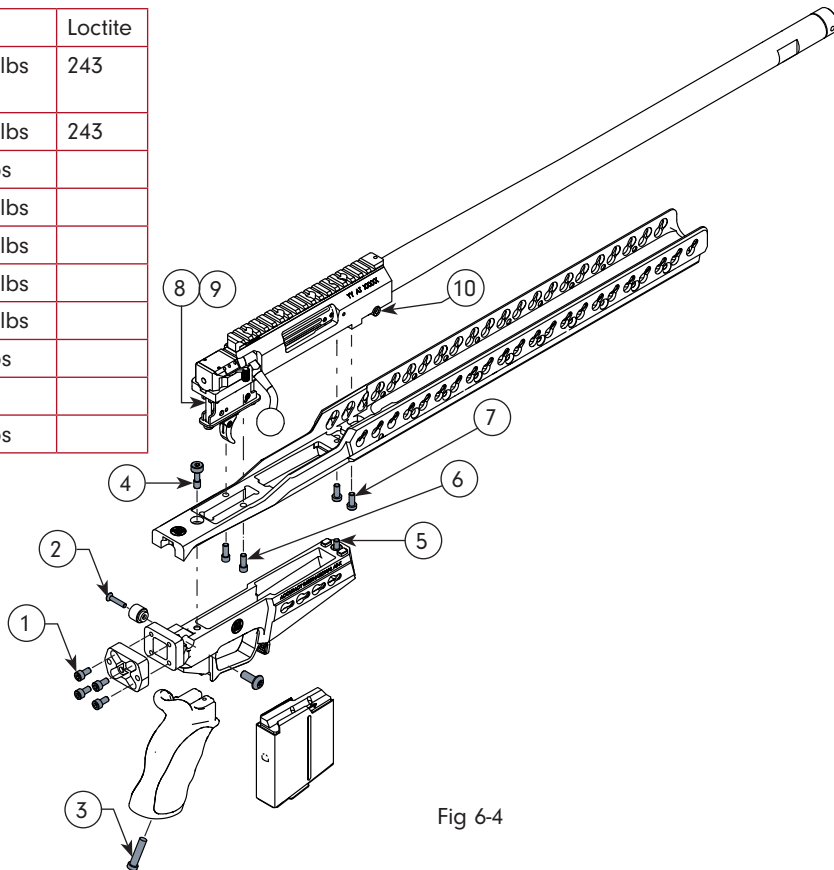


Fig 6-4

AUTHORISED SERVICE CENTRES

USA	<p>MILE HIGH SHOOTING ACCESSORIES 5831 Ideal Drive Frederick, Colorado 80516. Phone: 1.303.255.9999 Fax: 1.303.254.6572 E: info@milehighshooting.com</p>
UK	<p>VALKYRIE RIFLES Rotherham, S63 5DE Phone: 07889 388378 E: info@valkyrierifles.net</p>
CANADA	<p>WOLVERINE SUPPLIES Box 729, #1 River Valley Road North Virden MB. ROM 2CO Phone: 204-748-2454 Fax: 204-748-1805 E: warranty@wolverinesupplies.com</p>
AUSTRALIA	<p>DELTA TACTICAL PO BOX 421, South Morang, Victoria 3752 Phone: (+61) 0448 410 447 E: danny@deltatactical.com.au</p>

ACCESSORIES

A range of accessories can be fitted to the AX-T rifle. These are available from:

Accuracy International retail distributors. (<http://www.accuracyinternational.com/contacts.html>)

Authorised service centres (see opposite).

The AI store (<https://www.accuracyinternationalstore.com>)

Win Tactical LLC (<https://wintactical.us/>)

3730 California Road

Orchard Park

NY 14127, USA.

Walls & Irwin Ltd (<http://wallsandirwin.com/>)

Unit G Ash grove

Bognor,

West Sussex

PO22 9SL.

AMENDMENT RECORD

AMENDMENT RECORD			
ISSUE	AFFECTED PAGES	DATE	NOTES
A	ALL		PRELIMINARY NOT RELEASED
1	ALL	28/06/21	FIRST RELEASE
2	ALL	19/07/21	MINOR IMAGE ADJUSTMENTS

NOTES

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