

KK500

SMALL-BORE RIFLE



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KK500 aluminum stock

INSTRUCTION MANUAL

The KK500 small-bore rifle is a product of

Carl Walther GmbH

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Read the instructions and warnings contained in this manual carefully before using the firearm.

1 INTRODUCTION

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Dear Sport Shooter,

Thank you for choosing one of our products. The new KK500 small-bore rifle combines the latest technical innovations with tried-and-tested, advanced functions. We are confident that you have selected an extremely high-quality product that sets the standard for quality and development. Enjoy your new sport firearm, best of luck and "aim true".

Your team at Carl WALTHER

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2 SAFETY INSTRUCTIONS

2.1 About this instruction manual

This instruction manual describes the design, adjustment, handling and maintenance of the KK500 small-bore rifle. The terms “rifle” and “weapon” will also be used in the following.

The instruction manual is part of the rifle and must always be stored with the weapon for reference anytime before using.

2.2.2 Notation and symbols

This instruction manual points out specific hazards associated with the handling of a weapon. Hazard warnings are labeled as follows:

DANGER

This pictogram with the word “**DANGER**” designates a direct hazard with *high risk*, which can result in immediate death or severe bodily injury if not avoided.



► This arrow points to the corresponding measure for averting the direct hazard.

WARNING

This pictogram with the word “**WARNING**” designates a potential hazard with *moderate risk*, which can result in severe bodily injury if not avoided.



► This arrow points to the corresponding measure for averting the potential hazard.

CAUTION

This pictogram with the word “**CAUTION**” designates a hazard with *low risk* which can cause minor or moderate bodily injury if not avoided.



► This arrow points to the corresponding measure for averting the hazard or property damage.

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The locations of instructions and information that are of particular importance as well as tips for making protection easier through the described handling steps are labeled as follows:

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NOTE



The pictogram “NOTE” provides tips and recommendations for use and handling.

2.2 Safety Instructions

The KK500 small-bore rifle was developed with state-of-the-art weapons technology according to recognized guidelines for the safety and protection of the user.

Nevertheless, it is still a weapon and for this reason may only be used by persons who have completely read and understood this instruction manual. It must be used with utmost caution and in compliance with the safety instructions described in this instruction manual as well as government regulations in your country.

MORTAL DANGER

DANGER



Thoughtless actions can result in severe danger to the life of the user and other persons as well as in damage to the surrounding environment.

► Carefully read and observe the following safety instructions during handling.

2.2.1 General safety instructions

- Observe and comply with government regulations in your country for handling weapons and ammunition.
- Thoroughly and completely read the instruction manual before using the rifle.
Only use the weapon if the instructions are absolutely clear.
- Always store this instruction manual with the weapon.
- Also store any supplemental information or additions to this instruction manual with the weapon.
- Be sure to include the instruction manual with any handover of the weapon to another user or owner.
- Only allow persons who have completely read and understood this instruction manual access to the weapon.
- Refrain from shooting or handling the weapon when under the influence of medication, drugs or alcohol.

2.2.2 Safety instructions for handling the weapon

- Always wear hearing protection when shooting. Call to the attention of persons in the area the need for hearing protection.
- Store the weapon and ammunition in compliance with the law. Unauthorized persons (especially children) must not have access to them.
- Do not shoot at flat surfaces like rocks, concrete, walls, doors, glass or even water. The bullet may penetrate or ricochet in an unpredictable direction.
- Before shooting or cleaning and in case of malfunction always ensure that the weapon is not loaded and the barrel is free of foreign bodies.
- Always treat an unloaded weapon as if it were loaded. Hold it in a way that does not endanger yourself or others.
- Always point the weapon in a safe direction.
- **Never** point the weapon at anyone, regardless of whether it is loaded or not. Even the safest weapon can become dangerous to you and others through improper handling.
- Always lay the trigger finger on the external housing. Only pull the trigger if the weapon is aimed at a safe target.
- **Never** use force when operating, inspecting, dismantling, cleaning or assembling. Improper handling impairs the function and safety of the weapon.
- Only dismantle the weapon to the extent shown in the instructions.
- Safety and function are only guaranteed as long as the weapon and bullets are in technically flawless condition.
- The weapon must be inspected by a qualified professional in case of external damage like corrosion or dropping.
- Always wipe away excess grease and oil and ensure that the barrel is clean and free of foreign bodies.
- Do not replace, treat, adapt or adjust any component of the weapon beyond the instructions in this manual.
- Improper adjustments impair the safety and reliability of the weapon and may lead to injury or death.
- Only allow maintenance and service work to be conducted by Carl Walther GmbH or a qualified repair shop.
- **Never** set down, carry around, transport or drop a loaded weapon.

2.2.3 Ammunition

Your weapon was designed for ammunition of a special type and caliber. Use only ammunition which corresponds to the caliber of the weapon and which conforms to the provisions of the C.I.P. or SAAMI. The correct caliber is marked on the weapon. When using reloaded ammunition do not exceed the permitted gas/chamber pressure according to C.I.P or SAAMI. Excessive pressure can

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damage or even destroy any firearm. Ammunition with velocities and pressures higher than those for which the weapon was designed will subject the weapon to additional stress, cause excessive wear, and may cause serious damage to the weapon.

Before loading, always wipe off any excess grease and oil and make sure that the bore of the barrel is clean and clear of any obstruction.

Always wear adequate and proper hearing protection and safety glasses specified for firearm use. Also make sure others in the vicinity of where you will be shooting are also wearing adequate and proper hearing protection and safety glasses.

Failure to comply with these instructions shall release the manufacturer from any warranty claims to injury or damage suffered.

A free copy of this instruction manual can be obtained from the following address:

Carl Walther GmbH, P.O. Box 43 25, 89033 Ulm, Germany

2.3 Intended use

The KK500 small-bore rifle is a .22 l.r. weapon for sport shooting at targets in shooting ranges designed and approved for the purpose.

2.4 Liability and guarantee

Carl WALTHER GmbH assumes no liability or warranty for incidents resulting from:

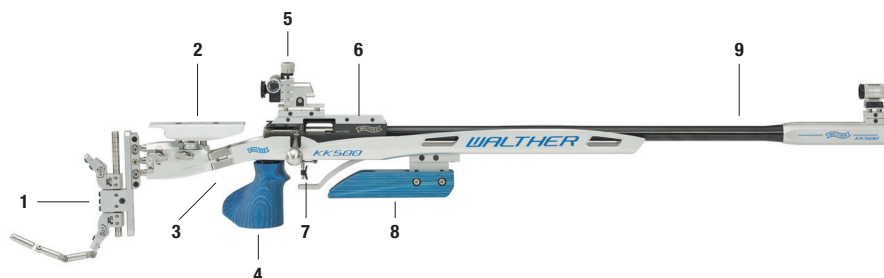
- Failure to observe this instruction manual
- Noncompliance and nonobservance of government regulations for handling weapons and ammunition.
- Incorrect use of the weapon
- Improper handling
- Incorrect storage
- Negligence
- Use of accessories and replacement parts from other manufacturers without the express written consent of Carl WALTHER GmbH or
- Modifications of, attachments to or conversions of the small-bore rifle without the express written consent of Carl WALTHER GmbH.

3 DESCRIPTION

3.1 Construction

The KK500 .22 l.r. small-bore rifle is a single-shot weapon of the highest precision: individually adjustable match trigger, extremely short shot development time, specially designed to cater for sport shooting needs. The large-surface rest and the mounting of the system inside the stock guarantee success.

The components are shown in the following figure.



- 1 Hook butt plate
- 2 Cheek piece
- 3 Lateral displacement
- 4 Grip
- 5 Diopter

- 6 Receiver
- 7 Trigger
- 8 Handrest
- 9 Barrel

3.2 Package contents and standard accessories

3.2.1 Standard equipment and included accessories

- Small-bore rifle in plastic case
- Sights, sight elevation
- Cleaning rod guide
- Various tools
- Instruction manual

NOTE



Package contents, standard equipment and accessories may vary.

3.2.2 Optional accessories

A wide selection of accessories are available for individual modifications (see Chapter 9).

4 HANDLING

Before you use your KK500 small-bore rifle, please familiarize yourself with the handling and functions according to this instruction manual.

WARNING



When handling the rifle the hazard of unintended firing arises. This can result in deadly injury.

- ▶ **Never set down a loaded weapon.**
- ▶ **Never carry around a loaded weapon.**
- ▶ **Never drop a loaded weapon.**

This rifle is a weapon and for this reason may only be used by persons who have completely read and understood this instruction manual. It must be used with utmost caution and in compliance with the safety instructions (Chapter 2) described in this instruction manual as well as government regulations in your country.

The rifle has optimized base settings out of the box. However, it can be adapted to the individual requirements of the shooter (e. g. left-handed shooters) (see Chapter 5).

4.1 Initial operation

The rifle comes in a plastic case with the bolt lever removed. Conduct a safety inspection after fitting the bolt lever (see Chapter 4.2).

4.2 Conducting a safety inspection

A safety inspection must be conducted before and after shooting, after a break and in case of malfunction. The inspection serves to confirm that the rifle is not loaded. The inspection must be conducted especially when receiving the rifle from another user or in any other case of uncertainty as to whether it is loaded.

4.3 Shooting

4.3.1 Cocking and loading the rifle

WARNING Firing the rifle can result in severe injury to the user and persons in the vicinity.



- ▶ Observe the safety instructions for handling weapons (Chapter 2.2.2).
 - ▶ Only fire in a safe direction.
-

Swivel and pull the locking lever to its fullest extent, thereby opening the breech and cocking the trigger. Insert a cartridge into the groove, then lock the breech.

4.3.2 Halting shooting operations

If shooting is halted, a safety inspection does not have to take place before shooting again if the safety line has been led through the barrel to ensure the unloaded state of the rifle. The safety line must be removed before commencing with shooting.

4.3.4 Safety

The weapon does not have a mechanical safety.

Ensure that the rifle is unloaded after use (barrel and breech empty).

5 ADJUSTING THE SMALL-BORE RIFLE TO THE USER

The KK500 small-bore rifle can be adjusted to the individual requirements and conditions of the shooter.

When adjusting the rifle, the hazard of unintended firing arises. This can result in deadly injury.

DANGER



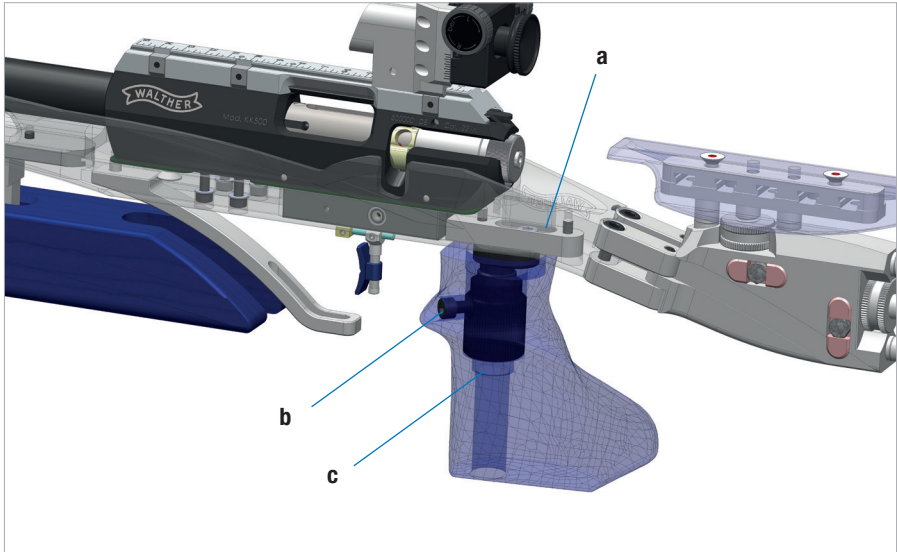
- ▶ Ensure that the rifle is unloaded and uncocked when making adjustments.
- ▶ Only load the rifle once the settings are final.
- ▶ Only fire the rifle in a safe area.

This instruction manual assumes a standard firing position, i.e. with horizontal barrel and downward pointing grip with the barrel pointing forward. Directions like “up”, “down”, “right” and “left” as well as “front” and “back” refer to the sight of a shooter holding the rifle in a standard firing position. The instructions refer to use by right-handed shooters. Left-handed shooters should adjust accordingly.

The following components can be set and adjusted:

- Grip (Chapter 5.1)
- Cheek piece (Chapter 5.2)
- Butt plate (Chapter 5.3)
- Butt stock (Chapter 5.4)
- Fore-end (Chapter 5.5)
- Sight (Chapter 5.6)
- Conversion of the bolt, right/left (Chapter 5.7)
- Trigger (Chapter 5.8)

5.1 Grip

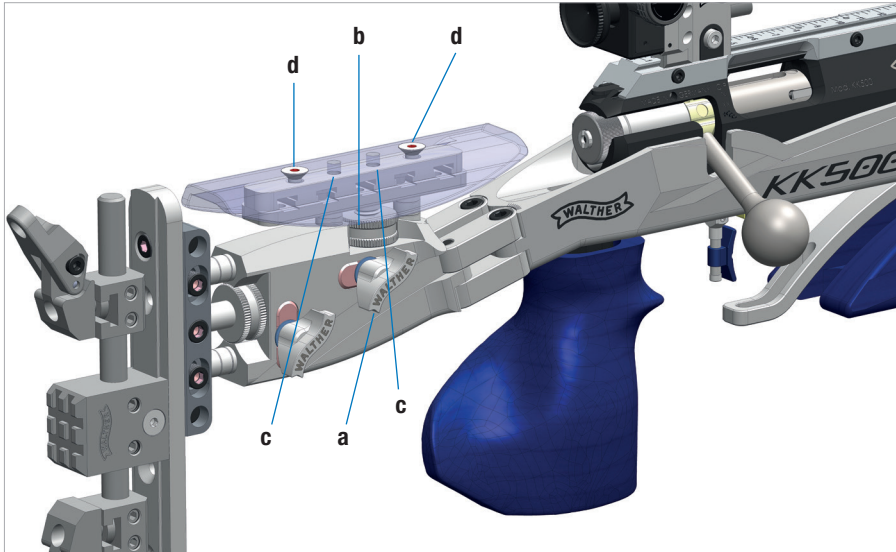


The grip is fastened to a ball-and-socket joint allowing every possible movement about this center point. In addition, the position of the grip can be moved in the longitudinal direction, sideways and in its height. For **longitudinal adjustment and lateral displacement**, undo screw (a) and move the grip to the required longitudinal and lateral position. Then fix this setting using the screw (a). The **height** of the grip can be changed when the clamping screw (b) is undone. Ensure here that the screw (c) is flush with the flat surface of the grip.

The **three-dimensional inclination and rotation out of the middle plane** of the grip is set using the ball-and-socket joint fixed using the screw (c). To alter its setting, undo the screw (c), set the required position of the grip and lock it in this position using the screw (c).

5.2 Adjusting the cheek piece

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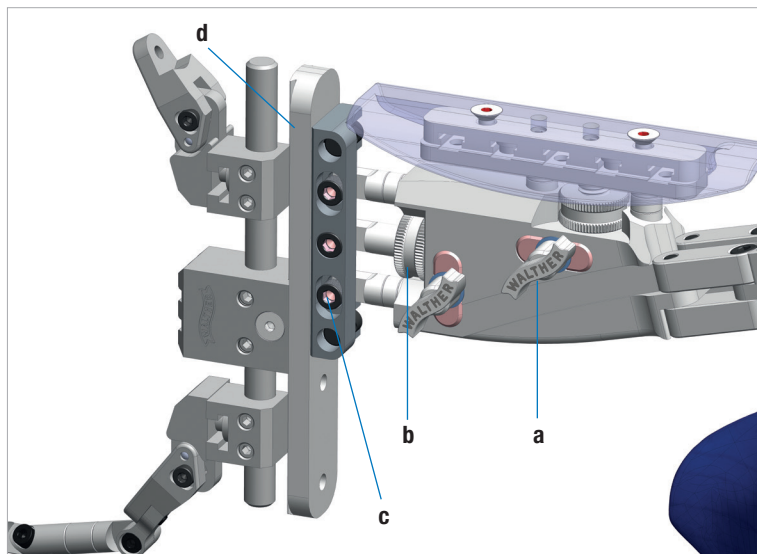
The cheek piece has a wide variety of possible adjustments. To adjust the **cheek piece height**, undo the clamping screw (a), then alter the height of the cheek piece using the setting wheel (b).

Use the countersunk screws (c) to adjust the **lateral displacement** of the cheek piece. When they are undone, the cheek piece can be pushed towards or away from the face.

To change the surface of the cheek piece from angular to rounded, undo the countersunk screws (d) and turn the cheek piece around. Then retighten the countersunk screws (d).

To reposition the cheek piece forwards or rearwards in the **longitudinal direction**, remove the countersunk screws (d) and move the sliding blocks in the required direction.

5.3 Adjusting the butt plate and stock length



To alter the stock length, undo the clamping screw (a), after which the stock length can be varied by turning the setting wheel (b). Then retighten the clamping screw (a). If the stock length cannot be extended far enough, a longer stock can be obtained by using longer rods (special accessory).

The butt plate inclination can be altered by undoing the clamping screws (c). It may first be necessary to undo the clamping screw (a) and to turn the setting wheel (b) towards the butt plate so that the rods can move freely.

It is also possible to move the butt plate to the side or to angle it. If the butt plate has to be moved, undo the fastening screws (d) to do so. Once the required position has been obtained, retighten the fastening screws.

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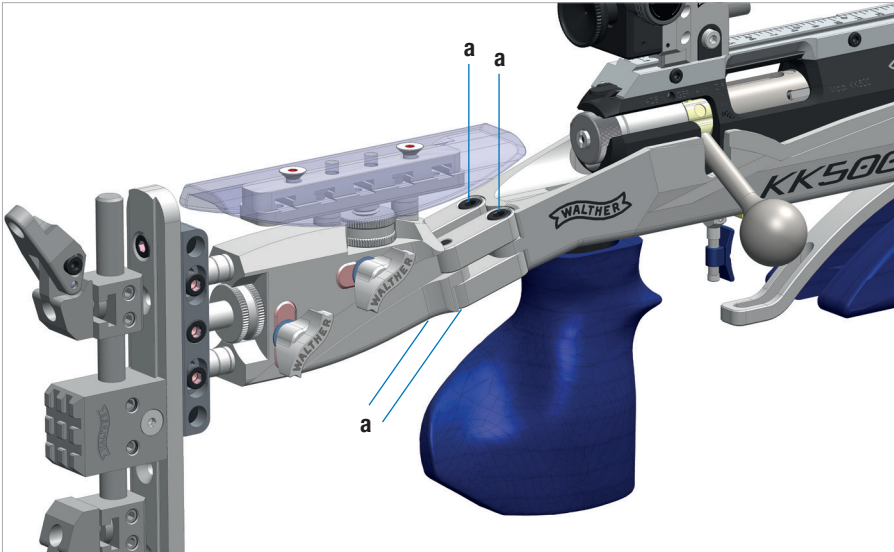
5.4 Displacement of the butt stock

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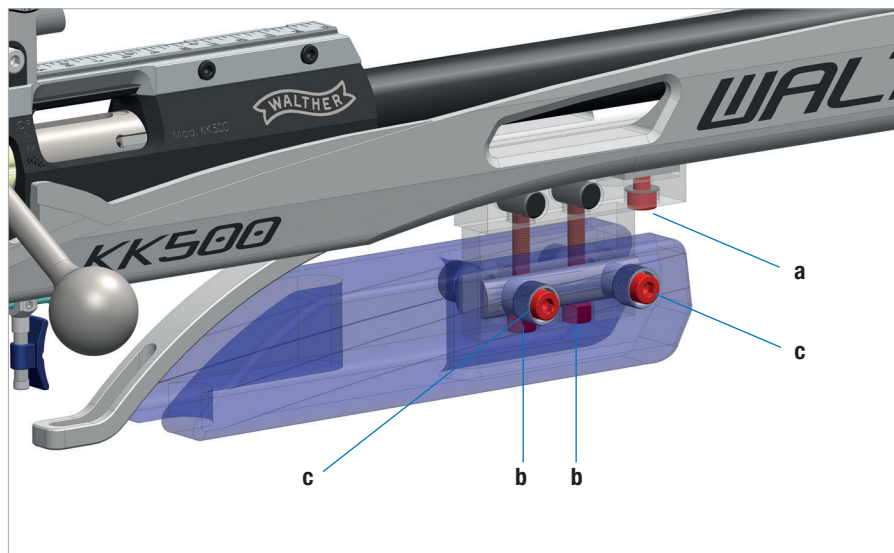
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Open the clamping screws (a) to move the butt stock up or down.

5.5 Adjusting the fore-end



5.5.1 Fore-end elevation for shooting in the standing position

The fore-end elevation for shooting in the standing position can be adjusted in the longitudinal direction, in its height and in its inclination. It can also be swiveled about the barrel axis and laterally displaced.

For removal or movement of the fore-end elevation in the longitudinal direction, undo the countersunk screws (a) to unclamp the holding rail. The fore-end height, the inclination angle and the swivel about the barrel axis are adjusted using the clamping screws (b). Slightly undo all screws (b), set the required height and inclination, then retighten the screws (b). The fore-end is swiveled transversely to the direction of shooting by undoing the screws (c). After positioning, retighten the screws (c).

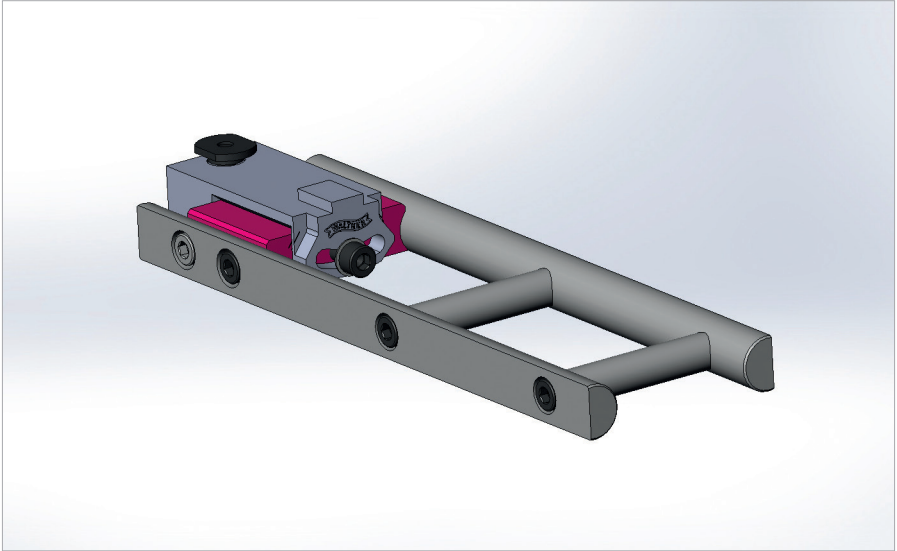
5.5.2 Fore-end for shooting from a rest

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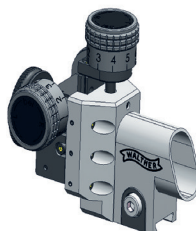


The SMART mounting bracket, which is available as a special accessory, allows you to use the KK500 for shooting from a rest. Insert the mounting bracket from the front into the T-slot guide of the fore-end and lock it in place. Bear in mind that the maximum permissible length of the rest is 850 mm as measured from the rear end of the receiver.

5.6 Adjusting the sight

5.6.1 Mounting the diopter

Push the diopter onto the dovetail rail and tighten it hand-tight at the required distance. Avoid overtightening.



"Insight-Out" diopter

5.6.2 Height and windage adjustment

Use the two knobs to make adjustments. One click moves the impact point by 1.4 mm at 10 m distance.

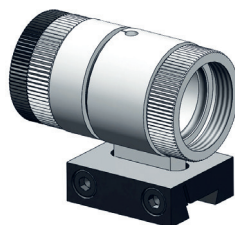
Elevation adjustment

- >> If shots group high, turn the knob clockwise.
- >> If shots group low, turn the knob counterclockwise.

Windage adjustment

- >> If shots group to the right, turn the knob clockwise.
- >> If shots group to the left, turn the knob counterclockwise.

Push the foresight tunnel onto the dovetail rail and tighten it hand-tight at the required distance. To change the foresight, open the rear knurled screw, remove the foresight, put in the new one and retighten the screw.



Centra "Score" foresight tunnel

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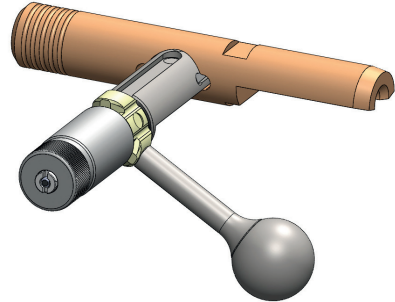
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5.7 Conversion for left-handed use

5.7.1 Conversion of the bolt from right to left

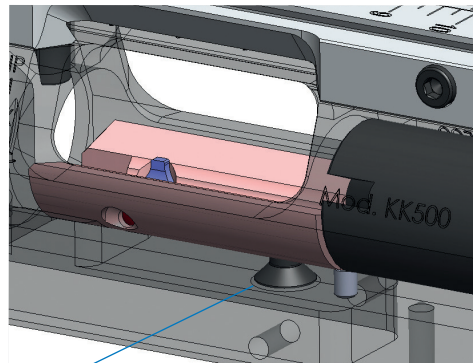
Push the conversion aid / cleaning rod guide onto the bolt and rotate the bolt lever to the left by two notches. This converts the bolt for left-handed use. The conversion aid / cleaning rod guide can also be used to cock the bolt outside of the housing.



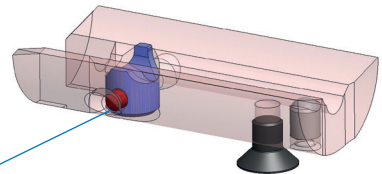
5.7.2 Conversion of the ejector from right to left

If the weapon is always to be used by a left-hander, we recommend converting the cartridge ejector for ejection to the left. This should be done by a qualified gunsmith.

1. Undo the attachment screws on the receiver and remove the receiver from the stock.
2. Remove the bolt from the receiver.
3. Remove the trigger from the receiver (take out both attachment pins).
4. Undo locking screw (a) on the guide element and remove the element, making sure you do not lose the cartridge lifter and its spring.
5. Push out locking pin (b), rotate the ejector by 180° and reattach it with the locking pin.
6. Replace the guide element and attach it with the countersunk screw.
7. Put the trigger back in and then insert the receiver into the housing.



a



b

5.8 Adjusting the trigger

The trigger settings have been optimized by the manufacturer. They should not be changed unless there is a good reason. The trigger still offers a number of versatile settings for individual adjustment. Heed the following warnings when adjusting it.

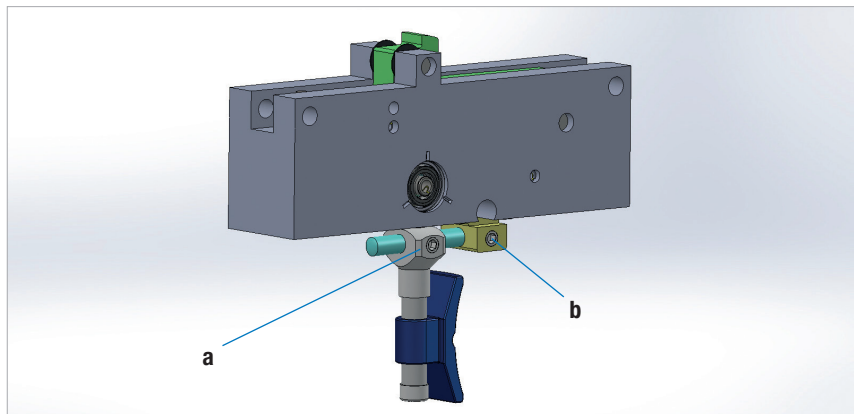
Changes to the factory settings can lead to damages and inability of the weapon to function. Furthermore, the light touch of the trigger, shaking or other handling pose the risk of unintended firing.

WARNING

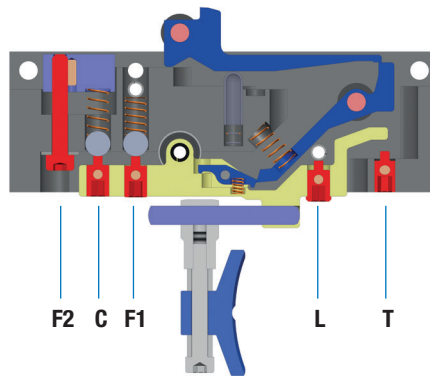


- Do not make changes to the trigger settings in the absence of extensive experience and knowledge (experts, gunsmiths, experienced shooters).
-

5.8.1 Adjusting the trigger position



Change the position of the trigger by loosening the screw (a) on one of the two sides. The trigger carrier can be moved by loosening the screw (b).



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5.8.2 Changing the first-stage travel (L) and first-stage trigger weight (F1)

Turn screw (L) clockwise to reduce the first-stage travel. Turn screw (L) counterclockwise to increase it.

Turn screw (F1) clockwise to increase the first-stage weight. Turn screw (F1) counterclockwise to reduce it.

5.8.3 Setting the trigger stop

Turn screw (T) clockwise to reduce the overtravel. Turn it counterclockwise to increase the overtravel.

5.8.4 Setting the sear engagement

Turn screw (C) clockwise for a slow trigger pull. Turn it clockwise for a crisp trigger let-off point.

5.8.5 Setting the second-stage trigger weight

Turn screw (F2) clockwise to increase the second-stage trigger weight: Turn it counterclockwise to reduce the second-stage trigger weight.

6 CARE

The metal parts must be treated occasionally for moisture with an acid-free gun oil. The wooden parts do not need any particular care; it is sufficient to wipe them down occasionally with a dry cloth.

After shooting, the barrel should always be cleared of residues using cleaning wicks. Clean the breech and loading tap of residues using a soft cloth. If the rifle is not used for a lengthy period, the barrel should be lightly oiled and rubbed down on the outside using an oily cloth, like the other metal parts. Do not use oil on these parts. Before resuming shooting, the barrel must be de-oiled using cleaning wicks, and the action wiped down with a clean, dry cloth.

Please ensure that the barrel is cleaned with the pullthroughs only in the direction of the shot. When cleaning the rifle, always ensure that the trigger unit is not soiled; spraying with gun oil is not advisable. If necessary, a tiny drop of oil on the moving parts, such as the axes, is absolutely sufficient. Excessive oiling leads to unnecessary powder smoke deposits and other residues. Always use high-quality, resin-free and acid-free gun oil.

Lightly oil the bolt and locking mechanism from time to time to ensure clean, easy operation.

Have your sports gun maintained regularly by a specialist to guarantee long-term flawless functioning.

6.1 Barrel cleaning

Push the Perlon cord (wide end) from the opened loading tap through the barrel, then attach 5 wicks to the loop one after the other and pull them through the barrel (always in the direction of the shot). Repeat the cleaning operation until the wick no longer shows any lead or grease residues.

6.2 Cleaning rod guide

The conversion aid for the bolt lever also serves as a cleaning rod guide (see 5.7). It is inserted into the housing after the bolt is removed.

7 STORAGE AND TRANSPORT

Store weapons in a safe, dry, dust-free location and always observe the legal regulations in your-country for storage and transport.

- Make sure that your weapon does not fall into the hands of unauthorized persons.
- Always store weapons and ammunition separately.
- Avoid exposing the weapon to large temperature fluctuations. This prevents condensation of moisture on firearm components.
- Apply a thin coat of oil to the weapon as protection against corrosion.

8 TECHNICAL DATA

Caliber	.22 l.r.
Total length	1120 mm (44.095"), shortest
Barrel length	690 mm (27.17"), standard 650 mm (25.59")
Weight	5960 grams (with raised parts, no additional weights, etc.)

9 OPTIONAL ACCESSORIES

Accessories

280 39 09	EXPERT hook butt plate
281 46 41	ECONOMY hook butt plate
281 28 27	Centra STABILIZER ECO weight bar
275 31 38	30 g weight for STABILIZER ECO weight bar
281 28 35	Interchangeable E-trigger (electronic)
280 97 02	Interchangeable M-trigger (mechanical)
281 28 51	Chest rest
281 28 60	Interchangeable plate assy. with rods
281 28 78	Interchangeable cheek piece assy. with rods