

## M91 SEMI-AUTOMATIC SNIPER RIFLE







## **IMPORTANT! READ THIS MANUAL BEORE USING FIREARM!**



#### PLEASE READ CAREFULLY FOLLOWING PRECAUTIONS BEFORE TAKING YOUR FIREARM OUT OF ITS PACKAGE!

SAFE FIREARM HANDLING OF IS YOUR SOLE RESPONSIBILITY AT ALL TIMES!

WARNING: ALWAYS KEEP AND CARRY YOUR FIREARM EMPTY TO AVOID ACCIDENTAL DISCHARGE!

WARNING: USE OF IMPROPER AMMUNITION CAN DESTROY YOUR FIREARMS

FOLLOW THE LAW! OBEY ALL LOCAL STATE AND FEDERAL LAWS REGARDING TRANSPORTING, STORAGE AND OPERATING YOUR FIREARM!

DO NOT USE YOUR FIREARM BEFORE YOU GET FAMILIAR WITH USING THIS FIREARM, SEEK PROPER TRAINING BEFORE USING IT FIRST!

WARNING: IF CARELESSLY OR IMPROPERLY HANDLED, UNINTENTIONAL FIREARM DISCHARGE COULD POTENTIALLY CAUSE INJURY, DEATH, OR DAMAGE TO PROPERTY.

WARNING: CLEANING AND DISCHARGING FIREARMS IN POORLY VENTILATED ARES MAY RESULT IN EXPOSURE TO LEAD!

DO NOT ALTER YOUR FIREARM!

This firearm was assembled and tested to function properly in its original condition.

Altering of your firearm voids the manufacturer's warranty.

THIS MANUAL SHOULD ALWAYS ACCOMPANY THIS FIREARM, AND BE TRANSFERED WITH IT UPON CHANGE OF OWNERSHIP!



ZASTAVA ARMS name on the weapon that you now own represents quality, reliability and gunsmith tradition since 1853. Your weapon was made in accordance with strict requirements and standards. Only materials of the highest quality have been used for this type of products and tested by our quality control. This owner's manual is designed to assist you in learning how to use and care for your Zastava Arms ® firearm properly. We want you to enjoy and practice safe shooting with your ZASTAVA weapon. You may be an experienced shooter, already familiar with the procedures in this Instruction manual, but we urge you to read this entire Instruction manual carefully. You must follow the safety instructions for your safety and the safety of others. Digital copy of this manual can be obtained from Zastava Arms USA website.

Thank you for choosing our product!

## STATE-BY-STATE WARNINGS

Certain US states require by law their own specified warning notices, in larger than normal type be conspicuously included by the manufacturer, distributor, or retail dealer with firearms sold in that state. Zastava Arms sells its products in compliance with applicable laws and regulations. Because our products may be sold in these states, we include the following:

#### **CALIFORNIA:**

"Children are attracted to and can operate firearms that can cause severe injuries or death. Prevent child access by always keeping guns locked away and unloaded when not in use. If you keep a loaded firearm where a child obtains and improperly uses it, you may be fined or sent to prison."

### **ADVERTENCIA:**

""A los niños atraen las armas de fuego y las pueden hacer funcionar. Ellos pueden causarse lesions graves y la muerte. Evite que los niños tengan accesso a las armas de fuego guardándolas siepre con llave y descargadas cuando no las esté utilizando. Si usted tiene una arma de fuego cargada en un lugar en que un niño tiene accesso a ella y la usa indebidamente, le pueden dar una multa o enviarlo a la carcel."

#### CONNECTICUT:

"UNLAWFUL STORAGE OF A LOADED FIREARM MAY RESULT IN IMPRISONMENT OR FINE!"

#### FLORIDA:

"IT IS UNLAWFUL, AND PUNISHABLE BY IMPRISON-MENT AND FINE, FOR ANY ADULT TO STORE OR LEAVE A FIREARM IN ANY PLACE WITHIN THE REACH OR EASY ACCESS OF A MINOR UNDER 18 YEARS OF AGE OR TO KNOWINGLY SELL OR OTHERWISE TRANSFER OWN-ERSHIP OR POSSESSION OF A FIREARM TO A MINOR OR A PERSON OF UNSOUND MIND."

#### MAINE:

"ENDANGERING THE WELFARE OF A CHILD IS A CRIME. IF YOU LEAVE A FIREARM AND AMMUNITION WITHIN EASY ACCESS OF A CHILD, YOU MAY BE SUBJECT TO FINE, IM-PRISONMENT OR BOTH. KEEP FIREARMS AND AMMUNITION SEPARATE. KEEP FIREARMS AND AMMUNITION LOCKED UP. USE TRIGGER LOCKS."

#### **MARYLAND:**

"WARNING: Children can operate firearms which may cause death or serious injury. It is a crime to store or leave a loaded firearm in any location where an individual knew or should have known that an unsupervised minor would gain access to the firearm. Store your firearm responsibly!"

#### **MASSACHUSETTS:**

This firearm is not equipped with a device that fully blocks use by unauthorized users. More than 200,000 firearms like this one are stolen from their owners every year in the United States. In addition, there are more than a thousand suicides each year by younger children and teenagers who get access to firearms. Hundreds more die from accidental discharge. It is likely that many more children sustain serious wounds, or inflict such wounds accidentally on others.

In order to limit the chance of such misuse, it is imperative that you keep this weapon locked in a secure place and take other steps necessary to limit the possibility of theft or accident. Failure to take reasonable preventative steps may result in innocent lives being lost, and in some circumstances may result in your liability for these deaths."

"IT IS UNLAWFUL TO STORE OR KEEP A FIREARM, RIFLE, SHOTGUN OR MACHINE GUN IN ANY PLACE UNLESS THAT WEAPON IS EQUIPPED WITH A TAMPER RESISTANT SAFETY DEVICE OR IS STORED OR KEPT IN A SECURELY LOCKED CONTAINER. " - FROM THE MASSACHUSETTS ATTORNEY GENERAL"

## **NEW JERSEY:**

"IT IS A CRIMINAL OFFENSE TO LEAVE A LOADED FIRE-ARM WITHIN EASY ACCESS OF A MINOR."

## **NEW YORK CITY, NY:**

"THE USE OF A LOCKING DEVICE OR SAFETY LOCK IS ON-LY ONE ASPECT OF RESPONSIBLE FIREARMS STORAGE. FOR INCREASED SAFETY, FIREARMS SHOULD BE STORED UNLOADED AND LOCKED IN A LOCATION THAT IS BOTH SEP-ARATE FROM THEIR AMMUNITION AND INACCESSIBLE TO CHILDREN AND OTHER UNAUTHORIZED PERSONS."

## **NORTH CAROLINA:**

"Any person who resides in the same premises as a minor, owns or possesses a firearm, and stores or leaves the firearm (i) in a condition that the firearm can be discharged and (ii) in a manner that the person knew or should have known that an unsupervised minor would be able to gain access

to the firearm, is guilty of a Class 1 misdemeanor if a minor gains access to the firearm without the lawful permission of the minor's parents or a person having charge of the minor and the minor:

- (1) Possesses it in violation of G.S. 14-269.2(b)
- (2) Exhibits it in a public place in a careless, angry, or threatening manner; (
- 3) Causes personal injury or death with it not in self defense; or
- (4) Uses it in the commission of a crime.!"

## TEXAS:

"IT IS UNLAWFUL TO STORE, TRANSPORT, OR ABANDON AN UNSECURED FIREARM IN A PLACE WHERE CHILDREN ARE LIKELY TO BE AND CAN OBTAIN ACCESS TO THE FIREARM."

## **WISCONSIN:**

"IF YOU LEAVE A LOADED FIREARM WITHIN THE REACH OR EASY ACCESS OF A CHILD YOU MAY BE FINED OR IMPRISONED OR BOTH IF THE CHILD IMPROPERLY DISCHARGES, POSSESSES, OR EXHIBITS THE FIREARM."

Please check with your licensed retailer, state police, or local police for additional warnings, which may be required by local law or regulation. Such regulations change constantly, and local authorities are in the best position to advise you on such legal matters.

## SECTION 1 SAFETY

#### **SAFETY GUIDES & PRECAUTIONS**

- 1. ALWAYS HANDLE YOUR FIREARM AS IF IT WERE LOADED so that you never accidentally discharge it when you think it is unloaded.
- 2. **NEVER POINT YOUR FIREARM AT ANY UNDESIRED TARGET**, loaded or unloaded, as accidental discharge causing injury, death or damage to property might occur.
- 3. NEVER SQUEEZE THE TRIGGER OR PUT YOUR FINGER IN THE TRIGGER GUARD UNTIL YOU ARE AIMING AT A TARGET AND READY TO SHOOT. This will prevent you from firing the firearm when it is pointing in an unsafe direction.
- 4. ALWAYS KEEP AND CARRY YOUR WEAPON EMPTY AND BLOCKED, EXCEPT WHEN YOU INTEND TO SHOOT, SO THAT IT CANNOT BE FIRED WHEN YOU DO NOT MEAN IT.
- 5. NEVER DRINK ALCOHOLIC BEVERAGES OR TAKE DRUGS BEFORE OR DURING SHOOTING, as your vision and judgment could be seriously impaired making your weapon handling unsafe.
- 6. **NEVER INDULGE IN HORSEPLAY WHILE HOLDING YOUR WEAPON** AS IT MAY BE ACCIDENTALLY DISCHARGED.
- 7. **NEVER** LEAVE YOUR WEAPON READY TO FIRE, SINCE THIS POSITION IS EXTREMELY DANGEROUS BECAUSE OF RISK OF ACCIDENTAL DISCHARGE CAUSING SERIOUS INJURY, DEATH OR DAMAGE TO PROPERTY.
- 8. **NEVER LEAVE A LOADED WEAPON UNATTENDED**. There is always a chance that someone might use it, and causing injury, death or damage to property.

- 9. ALWAYS KEEP YOUR HANDS AWAY FROM THE BARREL AND EXTERNAL MOVING PARTS OF THE WEAPON WHILE OPERATING, AS YOU CAN GET HURT.
- 10. ALWAYS BE SURE THAT BARREL INTERIOR IS CLEAN AND THAT THE BORE AND THE MUZZLE ARE CLEAR OF OBSTRUCTIONS. Clean a fouled weapon immediately, so that it will function correctly and safely.
- 11. ALWAYS WEAR AND ENCOURAGE OTHERS TO **WEAR EAR PROTECTION WHEN SHOOTING**, especially on a range. Without ear protection the noise from your weapon and other weapon close to you, could leave ringing in the ears for some time after firing, while the cumulative long term effect could be permanent hearing loss.
- 12. ALWAYS WEAR PROTECTIVE-SHOOTING GLASSES. There's always a chance that gun powder, gas, carbon residue, lubricant, metallic particles, or other debris that may blow back and injure eyes of the shooter. Injury in such circumstances can be severe, including the possible loss of vision. ENCOURAGE OTHERS TO WEAR SAFETY GLASSES TOO!
- 13. ALWAYS USE ONLY COMMERCIALLY MANUFACTURED AMMUNITION IN GOOD CONDITION (CLEAN, DRY, ORIGINAL, HIGH GRADE), WHICH IS APPROPRIATE TO THE CALIBER OF YOUR WEAPON.
- 14. NEVER USE AMMUNITION NOT SPECIFICALLY DESIGNATED FOR USE IN YOUR FIREARM. FAILURE TO USE THE CORRECT TYPE OR CALIBER OF AMMUNITION MAY CAUSE THE FIREARM TO JAM, OR FAIL TO FIRE, OR MAY GENERATE EXCESSIVE PRESSURE WHICH CAN DAMAGE OR EVEN RUPTURE YOUR FIREARM, CAUSING PERSONAL INJURY OR DEATH TO YOU OR BYSTANDERS.

- 15. **NEVER SHOOT AT A HARD SURFACE OR AT WATER.** A bullet may ricochet and travel in any direction to strike you, or an object you cannot see, causing injury, death or damage to property.
- 16. **NEVER** TAKE ANYONE'S WORD THAT A WEAPON IS UN-LOADED! Check it for yourself first, pointed in a safe direction.
- 17. **NEVER FIRE YOUR WEAPON NEAR AN ANIMAL** UNLESS IT IS TRAINED TO ACCEPT THE NOISE; an animal's startled reaction could injure it or cause an accident.
- 18. ALWAYS BE SURE YOUR BACKSTOP IS ADEQUATE TO STOP AND CONTAIN BULLETS BEFORE BEGINNING TARGET PRACTICE, SO THAT YOU DO NOT HIT ANYTHING OUTSIDE THE RANGE SHOOTING AREA.
- 19. ALWAYS BE ABSOLUTELY SURE OF YOUR TARGET AND THE AREA BEHIND IT BEFORE YOU SQUEEZE THE TRIGGER. A bullet could travel through or past our target.
- 20. **NEVER USE YOUR WEAPON IF IT FAILS TO FUNCTION PROP- ERLY,** AND NEVER FORCE A JAMMED ACTION, AS A ROUND MAY
  EXPLODE CAUSING SEVERE DAMAGE TO YOUR WEAPON, SERIOUS INJURY OR POSSIBLE DEATH.
- 21. **KEEP THE WEAPON POINTING TOWARDS THE BACKSTOP** WHEN LOADING, FIRING AND UNLOADING, TO ELIMINATE THE RISK OF INJURY, DEATH OR DAMAGE TO PROPERTY.
- 22. ALWAYS INSTRUCT CHILDREN TO RESPECT FIREARMS. Keep your weapon out of reach of children. The training of all, including children (age determined by law), should be performed by authorized people in institutions equipped and authorized for that kind of activity.

- 23. ALWAYS MAKE SURE YOUR WEAPON IS NOT LOADED BEFORE CLEANING, STORING OR TRAVELING, MAGAZINE REMOVED FROM IT, BEFORE YOU STORE IT OR TRANSFER IT TO SOMEBODY ELSE, SO THAT IT CANNOT FIRE ACCIDENTALLY.
- 24. ALWAYS KEEP AND STORE YOUR WEAPON AND AMMUNITION IN SEPARATE LOCKED RECEPTACLES, OUT OF REACH AND SIGHT OF CHILDREN AND UNTRAINED PEOPLE.
- 25. THE SHOOTER (AND ALL BYSTANDERS) MUST BE OUT OF THE LINE OF FIRE at all times and safe distance away from other shooters, since they may be struck by a ricochet, or by ejected cases from firearms.
- **IN CASE OF MISFIRE:** When the weapon fails to fire, keep holding it pointed toward the target or a safe open area and wait at least 60 seconds. If a hang fire (slow ignition) has occurred, round will fire within 60 seconds. If round does not fire, remove magazine eject round, and examine primer. If firing pin indent on primer is light, off center, or non-existent, have the firearm examined by a competent gunsmith. If firing pin indent on primer appears normal (in comparison with similar previously fired rounds) assume faulty ammunition. Segregate misfired round from other live ammunition and empty cases, reload and carry on firing.

**LEAD WARNING:** CLEANING AND DISCHARGING FIREARMS in poorly ventilated areas may result in exposure to lead and other substances known to cause birth defects, reproductive harm and other serious injuries. Have adequate ventilation at all times when shooting. Wash hands thoroughly after exposure.

# M91 SEMIAUTOMATIC SNIPER RIFLE PURPOSE, DESCRIPTION AND HANDLING

#### 1. PURPOSE AND CHARACTERISTICS

Semiautomatic sniper rifle M91 (Fig. 1) is intended for de-struction of targets at larger distances. Most successful firing at night is achieved at distances up to 400 m.

M91 sniper rifle, uses 7.62x54 mm R or 7.62x51 mm cartridge, from all reputable manufacturers. For firing, mechanical and optical sights are used. Aiming distance for firing with mechanical sight is up to 1000 m, with optical sight up to 1200 m.

Sniper rifle is fed by a 10 round magazine, and combat rate of fire is up to 30 rounds per minute.



Figl. 1 - Semiautomatic sniper rifle M91 (the model of optical sight can vary depending on the customer's request)

## 2. TECHNICAL DATA

caliber	7.62 x 54 mm R	7.62 x 51 mm
barrel length	620 mm	620 mm
rifle length	1200 mm	1200 mm
weight of rifle with empty magazine, without optical sight	4.86 kg	4.86 kg
weight of rifle with empty magazine, with optical sight	5.49 kg	5.49 kg
magazine capacity	10 rounds	10 rounds
twist rate / number of grooves	240 mm / 4	254 / 6
firing mode	semi-automatic	
operation	gas operated	
locking type	rotating bolt	

#### 3. DESCRIPTION OF PARTS

Semiautomatic sniper rifle M91 consists of the following parts (Fig. 2): barrel with gas disperser, gas chamber with gas flow regulator, receiver, receiver cover, gas cylinder, triggering mech-anism, bolt with carrier and piston, bolt recoil mechanism, hand guard, stock with handgrip and cheek rest, sights, magazine.

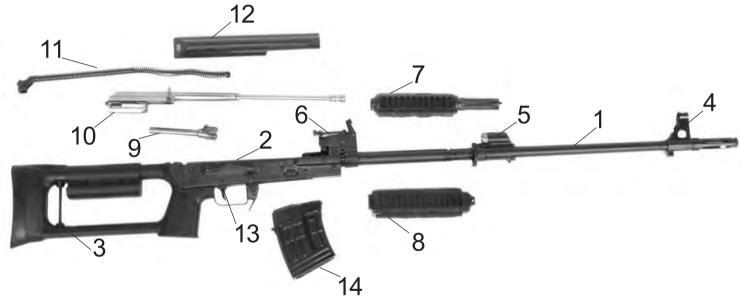


Fig. 2 – Main parts of sniper rifle M91

1. Barrel, 2.Receiver, 3. Stock with handgrip and cheek rest, 4.Front sight, 5. Gas chamber with gas flow regulator, 6. Rear sight, 7. Gas cylinder with hand guard, 8. Lower hand guard, 9. Bolt body, 10. Bolt carrier with piston, 11. Bolt recoil mechanism, 12. Cover, 13. Trigger mechanism, 14. Maga-zine;



Fig. 4 - Safety on



Fig. 5 - Safety off

#### 5. RIFLE SAFETY

For safety reasons, sniper rifle must have the safety at all times, except when it is fired.

When the safety lever is set to upper position (mark S) the safety is on (Fig. 4). Then:

- the trigger is blocked
- the bolt cannot be moved to rear position, so the cartridge case cannot be ejected and a new cartridge cannot be fed,

When the safety lever is set to lower position (mark F) – the safety is off (Fig. 5).

#### 6. FIRING

When the magazine is loaded, pull the bolt lever to the rear position energetically and release it. The weapon is ready to fire. When the trigger is pulled, the bullet is fired. To fire again, it is necessary to release the trigger and pull it again. This cycle can be repeated as long as there are cartridges in the magazine.

When there is no ammunition left in the magazine, the bolt carrier and the bolt remain in rear – open position. When the magazine is taken out of the rifle the bolt is released and it returns to the front – closed position, together with the carrier.

#### 7. GAS FLOW REGULATOR

Gas flow regulator can be placed into one of 3 positions which determines the flow of gases. The position of the regulator is determined by the securing pin that enters into a slot on the regulator (on the left side of the marking). The change of position can be achieved in two ways:

- By disassembling the weapon and placing the regulator into desired position;
- By lifting the spring securing pin and rotating the regulator into desired position (this mode should be used only in exceptional circumstances) (Fig. 6).



Fig. 6 - Lifting the spring securing pin

Position "1" of the gas regulator is used at extremely high temperatures.

Position "2" of the gas regulator is used in normal conditions:

Position "3" of the gas regulator is used:

- · At extremely low temperatures;
- When parts of the weapon are very dirty (this should be avoided, if possible).
- When first 200 rounds are fired from the rifle.



Fig. 7 - Regulator in position 2 - normal conditions

#### 7. DIVISIONS ON THE REAR SIGHT

Rear sight has the division ranging from 1 to 10. Depending on the distance to the target, the position of the slide is chosen: each number represents a hundred meters of distance to the target (the slide is set to position 3 when the selected target is 300 m away) (Fig. 8).

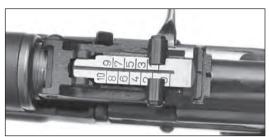


Fig. 8 - Slide on position 3 - distance to the target is 300 m

#### 8. STOCK

The stock is made from one part, together with the handgrip. On the upper side of the stock there is a cheek rest that can be set into upper position for aiming with optical sight and into lower position for aiming with iron sight, in sequence shown in figure 9 and in the same manner for positioning into lower position (fig. 9). On the stock, there is a sling tube with an axle, which serves to connect the end part of the sling to the rifle.

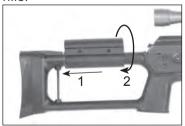




Fig. 9 - Stock

## 9. STRIPPING AND ASSEMBLY OF THE SEMIAUTO-MATIC SNIPER RIFLE

Semiautomatic sniper rifle is stripped for cleaning, inspection and lubrication. Frequent stripping is harmful, because it causes wearing out of parts, which decreases service life of the rifle.

Before the stripping, it is necessary to check whether the weapon is empty.

This is checked after the magazine is separated; pull the bolt carrier to the rear position and visually check whether a cartridge is in the chamber. Bolt carrier is then released and it will return to the front position under the effect of the spring.

Partial stripping and assembly include: separation of optical sight, magazine, receiver cover, recoil mechanism, bolt with carrier and piston, gas cylinder, gas flow regulator and hand guard.

In stripping and assembly of the rifle, the following must be observed:

- Stripping and assembly in a room should be done on a table or a bench, while for field stripping a clean rag should be used.
- It is not allowed to apply force in stripping and assembling of parts. The rifle and parts should be handled with care; one should follow the order and use appropriate tools.

- Stripped parts of the rifle should be put aside in order of their stripping, which provides quicker work, decreases the possibility of their loss or switching with parts of another rifle.
- During the assembly the numbers on gas cylinder, bolt carrier, bolt body and receiver cover match with the numbers on the receiver of the rifle.

To separate the optical sight with the carrier from the receiver turn the sight carrier lock pin lever, than pull sight carrier backward until it is separated from the base on the receiver.



Fig. 10- Stripping of the optical sight;

To remove the magazine press the magazine catch wing and pull the rear part of the magazine downwards and separate it from the rifle.

Stripping of the reciver cover - firstly turn the rear sight upwards and then press the reciver cover catch and lift and separate cover from the receiver.



Fig. 11- Stripping of the magazine;



Fig. 12 - Stripping of receiver cover;

To separate the recoil mechanism, push the rear part of the guide forward, take out the recoil mechanism from the longitudinal groove of the bolt carrier. To strip the recoil mechanism, put the rod into the recoil mechanism guide, and recoil mechanism is set vertically, leaning the rod onto the hard object. After that, take the recoil spring and press it onto the guide, separate the spring lock from the spindle and gradually release the spring to stretch and separate the spindle from the guide.



Fig. 13 - Taking out of the bolt recoil mechanism from the receiver;



Fig.14 - Separation of bolt with carrier and piston from the receiver:

To separate the bolt carrier with bolt - pull the bolt handle to the rear, take the rear part of the bolt carrier, pull it upward and separate the bolt with the carrier and piston from the receiver.

To separate bolt with carrier and piston, pull the bolt carrier backwards and turn it around its longer axis to the right, so that the profiled outlet for turning of the bolt comes out from the profiled groove on the bolt carrier. After that, take out the bolt body from the lower longitudinal opening of the bolt carrier, pushing it forward.



Fig.15 - Stripping of bolt with carrier and piston:

To separate gas cylinder - by the slot on the accessories box rotate the wing of gas cylinder catch in vertical position and after that lift the upper handguard with cylinder and separate it from gas chamber. After that, separate the gas flow regulator (by turning it by 180° and pulling it backwards).



Fig.16 - Stripping of gas cylinder:

To separate the lower handguard - lift

the lever of the swivel catch by drift from accessories box and rotate forward it by 180 degrees and move the swivel forward towards the gas block. Carefully pull the lower handguard forward until its lug comes out of the slot on the receiver and until the handguard casing comes out of its seat in the front part of the receiver. After that, separate the handguard from the barrel. **Assembly** is done by the opposite sequence of actions.



Fig.17 - Stripping of lower handquard

#### 10. KEEPING AND MAINTENANCE

The following means are used for degreasing and lubrication of the rifle:

- -detergent for washing of metal parts
- -naphtha derivatives
- -basic benzine (B-67)
- -petroleum (PO)
- -diesel fuel (D2)

General-purpose protective oil is used for lubrication of metal parts of a rifle.

#### **MAINTENANCE**

**Barrel** is cleaned by wiping the interior 8 to 10 times with detergent solvent and leaving it there 10 to 15 minutes. After that, using the same brush, clean the barrel with a cloth (hemp) soaked in solvent as long as there are traces of burnt gunpowder. The cloth can be put on a rod or the cleaning rope. After the dirt is removed, clean the barrel with a clean dry cloth.

**Piston of the bolt carrier** is exposed to intensive blast of the gunpowder gases and settling of soot, so the cleaning of this part is especially important. Piston should be soaked into detergent or in one of the solvents and soot should be removed with a cloth or brush.

Use the regulator cleaner to clean holes on the gas flow regulator. All other metal parts are degreased and cleaned with one of the above mentioned means, and afterwards they are oiled with general purpose oil (in a thin layer).

## 11. ACCURACY AND PRECISION OF THE SNIPER RIFLE - CONDITIONS AND SETTINGS

The accuracy of the sniper rifle is checked at the distance of 100m. The accuracy is checked with the rear sight slide set on position 3 (300m). The shooter shoots at the target (figure 18), and aims at the aiming point (AP). The aiming point is located 16 cm below the control point. The rifle is checked with steel core ammunition made by renowned manufacturers.

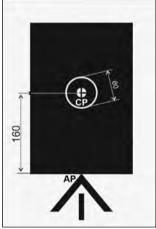


Fig. 18 - Target

Sniper rifle should meet the following requirements:

- 5 fired rounds should be placed within a circle with the diameter of 8 cm.
- Mean hit of 5 fired cartridges should be placed within a circle with the diameter of 6 cm, with the center in control point (CP). If these conditions are fulfilled, the rifle is checked and it can be fired at all distances, but it is necessary to set the distance to the aim on the slide and aim at the center of the target (at stationary targets).

If the mean shot is not within a circle (6 cm, center in control point), the correction is made in the following manner:

- to lift the mean hit, tighten the front sight post (fig. 19)
- to lower the mean hit, it is necessary to loosen the front sight post (one full turn lowers or lifts the mean shot by 16 cm)
- to move the mean hit to the side, push the front sight post carrier to the opposite direction (figure 20) (carrier moved by 1 mm to the side moves the mean hit by 7 cm to the opposite side)

After the front sight post position have been corrected, check the accuracy of the weapon, as described above.



Fig. 19 - Loosening - tightening of the front sight post



Fig. 20 - Moving the front sight post carrier

#### 12. OPTICAL SIGHT POSP 4X24M

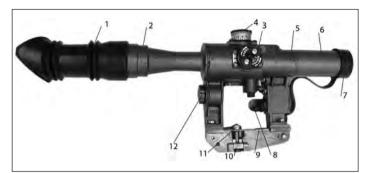


Fig. 21 - Parts of the optical sight
1) rubber eyeguard, 2) eyepiece, 3) screws, 4) drum, 5) body,
6) objective, 7) objective cover, 8) illumination switch, 9) fixing handle,
10) nut, 11) screw, 12) power supply cover

#### Technical characteristics:

- magnification	4x
- field of view (°)	6
- outlet pupil distance (mm)	68.2
- outlet pupil diameter (mm)	6
- sight weight (kg)	0,75
- dimensions (mm)	343 x 185 x 79
- power supply (2 batteries)	type AG13

Optical sight **POSP 4X24M** (Fig. 18) is intended for aiming during shooting at single and well covered targets during day and at dusk. It enables great accuracy when shooting at small targets in bad light conditions. Thanks to illuminated reticle, it can be used in dusk and during night with good visibility. Optical sight, by its reticle and the mechanism for its moving, enables the following:

- distance measuring, on the basis of known height (1.8 m) and width (0.5 m) of the target, within the range of 200-1000 m, determining distance in the range of 0-1200m, taking of side adjustments (left and right) in the range of 0-20 miliradian: with drum up to 0-10 and with reticle up to 0-10 in each side.

Division on the distance drum for corresponding distance

Distance	Division on the drum	
100	1.5	
200	2	
300	3	
400	4	
500	5	
600	6.5	
700	8	
800	9.5	
900	11.5	
1000	14	
1100	16.5	
1200	19.5	

for sniper cartridge 7.62 mm with standard bullet and brass case (V0 = 790 m/s, m = 11.8 g) is given in the table. For the ammunition with different characteristics, another table is drawn.

Optical sight consists of mechanical and optical assemblies.

Mechanical assemblies include: distance mechanism, direction mechanism, system for illumination of the reticle, movable shade and rubber eyeguard.

Optical assemblies include: objec-

tive, reticle, reversing system of lenses, eyepiece, and ultraviolet filter

Distance mechanism is intended for determining distance to the target (table angles) and it consists of distance drum with ball and knurled wheel with screws.

On distance drum there is a scale with the division of 0-20 and its purpose is taking shooting from 0 to 1200m.

By moving the knurled wheel with the distance drum, reticle carrier is moved in the direction of axis of the distance mechanism, and the table angle, is determined, suitable to the value of taken distance. Direction of the turning of the wheel is shown by arrows on the upper side of the knurled wheel during input of necessary adjustments of taken values (down -mean hit - up). By turning the knurled wheel in the direction of the shooter, the reticle is moved in the direction of the mean hit MH (up or down). On the upper side of the knurled wheel, there are two screws which are intended for direction rectification.

Direction mechanism is intended for taking of side adjustments, which removes factors affecting the path of the bullet in horizontal plane. It consists of direction drum with ball and knurled wheel with screws.

A scale with even divisions is placed on the direction drum. The value of the scale is 0 - 10 (in both sides). On the upper side of the knurled wheel, arrows show the direction of moving of

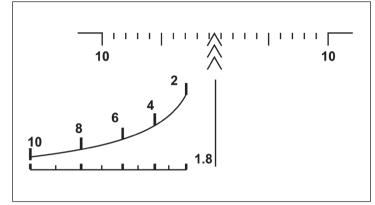


Fig. 22 - Optical sight reticle and its parts

the wheel in taking the necessary adjustments of certain values (right - MH - left). By turning the knurled wheel in direction of the arrow, the reticle is moved in direction of the mean hit (MH). On the upper side of the knurled wheel, there are two screws intended for rectification of optical sight by direction.

System for illumination of the reticle is intended for illumination of the scale and marks on the reticle of the optical sight, during its use in the conditions of low visibility, at dusk and visible night.

The system consists of energy source (battery), light bulb and a switch.

Replacing batteries: unscrew the cover, insert new batteries (2

batteries type AG13), taking care of marked polarity and tighten the screws of the cover.

Rubber eyeguard is intended for proper and more comfortable aiming. It protects the lens of eyepiece from dirt and mechanical damages.

The objective is intended for getting the minimised and turned image of a target. It consists of two lenses pasted together.

The reticle (Fig. 22) is intended for aiming and measuring of distance. Aiming arrow, side adjustments scale and distance measuring scale are placed on it. Last arrows on the side adjustments scale are marked with number 10, which means that the value of the scale, measured from the arrow, is 10 miliradian in (0 - 10) in each side. The value (reading accuracy) from line to line is one miliradian (0 - 01). Distance measuring scale is engraved for the height of a target of 1,8 m and width of a target of 0,5 m. Distance from 200 to 1000m can be measured with it.

Reversed system of lenses is intended to rectify reversed image of a target and the reticle. It consists of two pairs of lenses pasted together.

The eyepiece is intended for observing and magnification of rectified image of target and reticle. It consists of two pairs of lenses pasted together.

**POSP 4X24M** optical sight carrier and the base on the rifle receiver fix the optical sight to the rifle. There are a lever with a screw, securing lock and abutment on the carrier, which is placed at the end of the groove and constitutes an integral part of the carrier.

Carrier body puts all parts of the carrier into one whole. It has a longitudinal groove for placing of the optical sight carrier on the base on the left side of the rifle receiver. On the middle lower part of the carrier body there is a lever with a securing lock and a nut, by which the carrier body is fixed and secured on the base.

Lever with screw and safety lock enables the adjustment of clamping of carrier body to the rifle receiver.

#### MOST COMMON STOPPAGES AND HOW TO ELIMINATE THEM

Stoppage	Cause	Remedy
1. The bolt does not go to the front position, on its way does not push the cartridge from the magazine. The cartridge is stuck between the bolt and the barrel or touches the rear section of the barrel with its top.	<ul> <li>broken or weakened recoil spring, thickened lubricant and dirt in the receiver,</li> <li>magazine follower spring broken or jammed,</li> <li>thickened lubricant and dirt in the magazine make proper functioning of the follower spring impossible,</li> <li>deformed magazine body or just its lips,</li> <li>magazine is not fully pushed into the opening or it does not enter the receiver opening or it is loose,</li> <li>worn out cartridge pusher</li> </ul>	- pull the bolt rearward and eject deformed or dirty cartridge, - clean the grooves of the receiver for the locking of the bolt, - inspect the bolt and if it is deformed, send the rifle to the workshop.
2. The cartridge does not rest in the cartridge chamber. The bolt does not lock and the gun cannot fire.	- deformed and dirty cartridge, - dirty cartridge chamber, - broken or deformed outlet on the bolt, which is intended for its locking in the receiver insert.	- pull the bolt rearward and eject deformed or dirty cartridge, - clean the grooves of the receiver for the locking of the bolt, - inspect the bolt and if it is deformed, send the weapon to the workshop.
3. Misfire	<ul> <li>incorrect round (wet primer and gun powder),</li> <li>dirty firing pin seat,</li> <li>broken firing pin,</li> <li>weakened or broken hammer spring,</li> <li>broken hammer.</li> </ul>	-pull the bolt backward and eliminate the incorrect round and proceed with firing. If misfiring recurs unload the weapon, separate bolt body from the carrier, inspect the pin, hammer spring and hammer. If any of the parts are incorrect, sent the weapon to the workshop.
4. Cases are not extracted and ejected, so the following round is jammed.	Broken case extractor, broken or weakened extractor spring. Broken, deformed or worn out ejector.	- unload the rifle and eject the case with the rod, - strip the rifle and find the cause of the stoppage. If the extractor or its spring are free and if the ejector is deformed, send the rifle to the workshop.
5. Last round fired, the magazine does not keep the bolt in the rear position but the bolt partially moves forward.	Cartridge follower does not retain the bolt, but, under its pressure, it twists forward.	Pull the bolt rearward and keep it with hand, take out the magazine and correct the follower.
6. Short bursts of 2-3 rounds.	Sear catch insufficiently catches the bolt	Send the weapon to the workshop

#### TRANSPORTATION AND STORAGE

WARNING: ALWAYS CHECK TO ENSURE THAT YOUR FIREARM IS NOT LOADED BEFORE TRANSPORTING, OR PUTTING IT AWAY FOR STORAGE.

PREVENT UNAUTHORIZED ACCESS: For increased safety, firearms should be stored unloaded and locked in a SECURE, hidden location, separate from the ammunition for the same rifle. Out of reach of children and unauthorized persons!

WHEN STORED IN AN IRRESPONSIBLE AND UNSAFE MANNER, FIREARMS CAN BE DANGEROUS, POSING A HUGE RISK OF POTENTIAL SERIOUS OR FATAL INJURIES TO CHILDREN AND OTHER UNQUALIFIED PERSONS.

NEVER ASSUME THAT STORING A FIREARM AT A "SE-CRET HIDING" PLACE IS A SECURE STORAGE METH-OD. Others may get sooner or later get aware of your storage location by chance.

The most suitable place for keeping firearms is a safely locked cabinet. *Use the locking device with this firearm for storage.* The use of a locking device or safety lock is only one aspect of responsible firearms storage.

## WARNING: NEVER LOAD A LOCKED FIREARM! NEVER LOCK A LOADED FIREARM!

When transporting your rifle, ALWAYS keep it unloaded for your own, and safety of others.

By purchasing this firearm, you have accepted the responsibility of safely securing the firearm at all times and preventing its unauthorized use.

GET FAMILIAR WITH YOUR STATE'S "SAFE AND SECURE STORAGE OF FIREARMS AND AMMUNITION" GUN LAWS AND REGULATIONS, THE MOST IMPORTANT LAW!

#### DRUGS & ALCOHOL WARNING: DO NOT TRANS-PORT OR HANDLE FIREARM WHILE UNDER THE INFLUENCE!

Alcohol, certain drugs and illegal supstances can impare your judgement, physical coordination, and you actions.

### LIMITED PARTS REPLACEMENT WARRANTY

The enclosed firearm is warranted to be free of manufacturing defects for a period of one year from the original date of purchase from a federally licensed firearms retailer. The warranty only applies to the first retail purchaser and is not transferable or assignable. Proof of purchase must be presented at the time any warranty claim is made. This is a one year warranty limited to replacement of improperly manufactured parts.

Any alternations, modifications, abuse, misuse or discharge of poor quality, corrosive or defective ammunition voids the warranty. If your weapon needs servicing, apply to one of the service shops authorized by your dealer. Do not send your weapon directly to the manufacturer!

## **REGISTER ONLINE TODAY!**

To activate your warranty, please register your firearm online at www.zastavaarmsusa.com after purchase.

DO NOT ALTER YOUR FIREARM!
This firearm was assembled and tested to function properly in its original condition. Altering your firearm voids the manufacturer's warranty!

#### DISCLAIMER OF LIABILITY

The manufacturer shall not be responsible for injury, death, or damage to property resulting from either intentional or accidental discharge of this firearm, or from its function when used for purposes or subjected to treatment for which it was not designed. The manufacturer also will not honor claims involving this firearm which result from careless or improper handling, unauthorized adjustment or parts replacement, corrosion, neglect, or the use of wrong caliber ammunition, or the use of ammunition other than original high quality commercially manufactured ammunition in good condition, or any combination thereof.

#### **RETURN AUTHORIZATION**

To obtain warranty service, please contact us at warranty@ zastavaarmsusa.com. Please note that a return authorization must be obtained prior to returning the firearm.

## **ZASTAVA ARMS USA**

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