



User Manual

SR1 BASIC

MERKEL

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1 General

Waidmannsheil!

Thank you for choosing a Merkel product.

The Merkel **SR1 BASIC** semi-automatic rifle is an outstanding precision hunting rifle. You will quickly be familiar with it if you handle the weapon according to this manual.

1.1 How to use this manual

1.1.1 General

Read these instructions carefully before using the weapon. Only use the weapon if you have fully understood this manual.

1.1.2 Signs and Symbols

Symbol	Meaning
 DANGER	Imminent danger! Non-compliance leads to death or most severe injuries.
 WARNING	Possible imminent danger! Non-compliance may lead to death or severe injuries.
 CAUTION	Dangerous situation! Non-compliance may lead to injuries.
ATTENTION	Non-compliance may lead to property damages.
	Additional information about the weapon, its handling or the use of this manual.

1.2 Disclaimer

We assume no liability and provide no warranty for improper use and negligence.

- 1) criminal or negligent use,
- 2) improper or careless handling (forceful use),
- 3) any modifications of the weapon,
- 4) wrong, damaged, improper, self-loaded or reused ammunition,
- 5) insufficient maintenance and cleaning,
- 6) other influences beyond our direct or immediate control,
- 7) gun efficiency of the weapon, if the scope mount was not done appropriately,
- 8) sights provided by the customer himself, etc.

Under no circumstances can we assume liability for accidental or consequential damages like property damages, business loss, loss of income or profit.

For warranty claims the weapon should be returned to the manufacturer or send to an authorized service centre for further proceeding.

1.3 Safety regulations

The following safety regulations are of **utmost importance** and **must be followed unconditionally**.

1.3.1 Safety instructions for the use of firearms

If you are aware of the dangers connected with the use of firearms and will follow the safety instructions in this manual, complete safety is ensured when using the weapon.

Noncompliance, even with only one of these regulations can lead to severe harm, not only for your own person but also for others, and may cause serious damages to the weapon and / or other objects.

10 safety rules for fire arms

- 1.) ALWAYS treat a weapon as if it was loaded.
- 2.) ALWAYS make sure that the barrel is not clogged.
- 3.) Before shooting, ALWAYS make sure that a backstop exists and what lies behind it.
The safety of other people and your own person always comes first.
- 4.) ALWAYS use clean, dry and factory-manufactured original ammunition of the right sort and appropriate caliber.
- 5.) Protect eyes and ears (see below).
- 6.) ALWAYS carry the weapon in such a way that you are in control of the direction in which the muzzle points in case you stumble or fall.
- 7.) ALWAYS make sure that the weapon is put on safe until you actually intend to shoot.
- 8.) Make sure that a loaded weapon is NEVER unattended. Weapons and ammunition are to be kept locked up separately so that children and unauthorized people have no access to them.
- 9.) Never allow an unauthorized person and persons who have not read these safety rules to use your weapon.
- 10.) NEVER point a loaded or unloaded weapon at objects you do not intend to shoot at.

Protect your eyes and ears

Always wear suitable shooting glasses as well as ear plugs or earmuffs when shooting. Always make sure that people in your close vicinity are protected in the same way. Unprotected eyes can be injured by powder gas and powder smoke, lubricants, metal particles, etc. which are occasionally emitted by weapons during normal use. Without hearing protection, persons frequently exposed to shooting noises may suffer a gradual decline or loss of hearing.

1.3.2 Safety mechanism

- 1.) Your weapon is equipped with an efficient and well-constructed safety mechanism.



DANGER

NEVER RELY ENTIRELY ON A SAFETY MECHANISM!

NO safety mechanism is a substitute for cautious, safe handling of the weapon. NO safety mechanism – as well constructed as it may be – can be trusted completely.

Like ANY mechanic device, a safety mechanism can break or fail or be negatively affected by misuse, dirt, corrosion, abrasion, inappropriate assembly, improper adjustment and repair or lack of care. A safety mechanism which is truly “child-proof” or can prevent unintentional discharge due to improper manipulation, carelessness or fooling around does NOT exist. The best safety mechanism is your common sense. USE IT! Always handle your weapon as if you expected the safety mechanism not to work!

- 2.) Never point your weapon at a part of your own or anybody else’s body. If you keep this rule in mind, no injury can be caused in case of an unintentional discharge.
- 3.) Leave the weapon “on safe“ until you are ready to shoot and the weapon is aimed at the target.
- 4.) Always take your finger off the trigger and point the muzzle in a safe direction when you activate or deactivate the safety mechanism.
- 5.) When you activate the safety mechanism, make sure that it engages completely.
- 6.) Never carry a weapon around unsecured when a cartridge is in the chamber.

1.3.3 Ammunition

- 1.) Use only, high-quality, original factory-made ammunition. DO NOT use cartridges which are dirty, wet, corroded, dented or damaged.
Never spray aerosol-type lubricants, oils, preserving or cleaning agents directly onto cartridges or onto parts of the weapon from which surplus spray can run off onto cartridges. Lubricants or other foreign agents on cartridges can, under certain circumstances, cause dangerous malfunction of the cartridge.
- 2.) Use only ammunition of the appropriate caliber for your weapon. The right caliber is engraved on the barrel. Never attempt to use ammunition of a different caliber.
- 3.) The use of reloaded, "modified", "remodeled", self-reloaded or any other kind of non-standard ammunition results in the termination of all warranty claims.
Reloading is a science in itself and improperly loaded ammunition can be extremely dangerous. Always use ammunition which corresponds to industrial standards.
- 4.) Due to excessive pressures which can occur inside the barrel when shooting, the weapon can be heavily damaged and the shooter (or other people nearby) can be severely hurt. Excessive pressure can arise due to blockage of the barrel, too great a propellant load, or the use of wrong or incorrectly loaded cartridges etc. Apart from that, when you are using dirty, corroded or damaged cartridges the cartridge housing can explode, the weapon can be damaged or people can get hurt due to sudden release of high-pressure propellant gas.
- 5.) Shooting must be stopped immediately and the barrel must be checked for potential clogging if:
 - you have difficulties inserting a cartridge into the chamber or you feel an unusual resistance,
 - a cartridge misfires (the bullet does not leave the barrel),
 - the bolt mechanism does not extract and eject an empty casing,
 - unburned grains of propellant are found dispersed in the bolt mechanism, or
 - a shot sounds weak or abnormal.In those cases, the bullet could be stuck somewhere in the barrel. Firing off another round into the blocked barrel can destroy the weapon and cause severe injuries to the shooter or other people nearby.
- 6.) Bullets can get stuck in the barrel if:
 - the cartridge has been improperly loaded; without powder or if the powder does not ignite, (while ignition of the primer will merely propel the bullet out of the cartridge casing it usually does not produce enough energy to propel the bullet completely out of the barrel),
 - the bullet has not been fixed tightly and correctly in the casing. If such a round is removed from the chamber without being fired, the bullet may remain in the barrel at the point where the rifling begins. Chambering another round can push the first bullet even farther into the barrel.

- 7.) If you have reason to assume that the bullet is stuck in the barrel, the weapon must be unloaded immediately and the barrel must be inspected visually. A mere glance into the chamber of the barrel does not suffice. The bullet can be stuck somewhere in the barrel where you may not easily see it. If it is possible to remove the bullet with the aid of a cleaning rod; then the bore, chamber and bolt mechanism must be cleaned from unburned powder grains before shooting the weapon again. However, if the bullet cannot be removed like that, the weapon must be sent to an authorized, specialized dealer or back to our company.
- 8.) Dirt, corrosion, or other alien substances on the cartridges may prevent their proper insertion into the chamber which may result in the explosion of the casing when trying to shoot. The same holds true for damaged or dented cartridges.
- 9.) Cartridges must not be oiled. In any case, clean the chamber of the barrel of any oil or preservative substances before shooting. Oil has a negative effect on the friction between cartridge casing and chamber wall which is essential for the safe functioning and produces a strain on the weapon that is similar to the one caused by excessive pressure.
- 10.) Lubricants are to be used sparingly on the movable parts of your weapon. Refrain from excessive use of aerosol products, especially where they can come into contact with ammunition. All kinds of lubricants – especially aerosol products – can penetrate the priming compound of the round and thereby cause misfires. A few types of easily penetrating lubricants may even reach inside the casing and ruin the propellant; this can cause the propellant not to ignite, with the possible result that the bullet gets stuck in the barrel.

2 Weapon description and handling

2.1 Short description / specific features

- semi-automatic gas operation with rotary action offering the possibility to fire precision shots in rapid succession
- precision cold-hammered barrel made of special steel for outstanding shooting accuracy
- the SR1 BASIC is equipped with a driven hunt sights as standard
- the tapped holes in the housing allows mounting of different, customary scope mounts incl. the weaver rail (please see *section 4: Sights, Scope mounts!*)
- 2 and 5-shot-magazines are available (depending on the legal situation)

2.2 Components

- 1 housing with barrel, complete
- 2 stock with connecting piece, complete
- 3 forearm, complete
- 4 bolt, complete
- 5 loading lever, complete
- 6 trigger system, complete
- 7 magazine, complete
- 8 pushing rods
- 9 clips
- 10 screw / pin
- 11 retaining screws



2.3 Engaging / Releasing the safety



DANGER

NEVER RELY ENTIRELY ON A SAFETY MECHANISM! (see section 1.3.2)

2.3.1 Engaging safety

- To activate the safety push the safety slide to the right.
The red marking on the left side is hidden.



The trigger system is locked and in safe position.

2.3.2 Releasing safety



DANGER

Follow the safety instructions in section 1.3.2.

- Push the safety slide to the left side.
The red marking on the left side becomes visible.



DANGER

In this state the safety is disengaged.
Only disengage the safety **DIRECTLY** before firing.

2.4 Loading the semi-automatic rifle



DANGER

Follow the safety instructions noted in section 1.3.



DANGER

- Make sure that the muzzle is always pointed in a safe direction!
- Never attempt to load or unload a weapon inside of vehicles, buildings, offices or other closed spaces (the exception are properly established shooting ranges). Closed spaces hardly offer a safe direction in which the weapon can be aimed; an unintentional discharge can always result in serious injuries or damages.
- Before shooting, make sure that there are no alien substances inside the barrel.

ATTENTION

The appropriate caliber is engraved on the barrel.

ATTENTION

Before using the weapon, remove oil and grease residues from the cartridge chamber and the barrel.



WARNING

A loaded weapon is always a potential source of danger. Only load the weapon directly before shooting and unload it immediately afterwards.

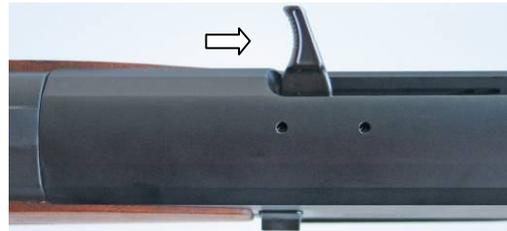
- Push magazine catch and remove magazine.
(French model: magazine tilts out and remains attached to weapon.)



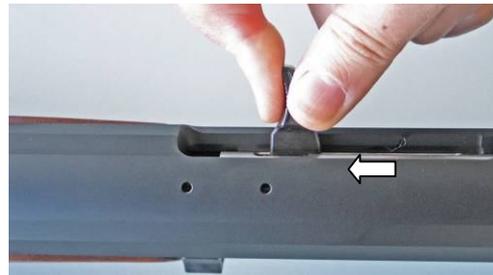
- Insert magazine horizontally. First push the front part of the magazine upwards, then the back part until magazine catch clicks into place.



- Pull the bolt all the way back with the loading lever. Release loading lever. After releasing the loading lever, a cartridge from the magazine is inserted into the chamber.



To minimize the noise caused by normal loading procedures, hold on to the loading lever and return it slowly to the foremost position. The weapon is now ready to be fired!



WARNING

The weapon is now loaded and put on safe!

IMPORTANT:
Bolt must be closed completely. (A certain effort is necessary).



CAUTION

When firing, you must make sure that no body parts are obstructing the travelling loading lever in its movement in order to avoid injuries.

2.5 Firing

2.5.1 Preparation of the rifle for shooting

ATTENTION

Before loading and shooting the barrel must be de-oiled with a dry cleaning wick. Further, it must be checked whether the barrel is free from any alien substances.

2.5.1.1 Functional checks

ATTENTION

Prior to each shooting you should make the following functional checks in order to ensure full functional reliability during shooting.

(1) Check bolt for mobility and function / loading procedure

- Open the bolt.
- Insert dummy cartridge into weapon.
- Close the bolt.

The weapon must close without any difficulties.

(2) Safety mechanism

- Open the bolt.
- Close the bolt.
- Engage safety (see section 2.3.1)
- Pull trigger.

A shot must not be released.

- Disengage safety.
- Pull trigger.

A shot must be released.



DANGER

Follow the safety regulations in section 1.3.



DANGER

- Always point the muzzle in a safe direction and take your finger off the trigger when cocking a weapon.
- Never carry around a loaded, unsecured weapon; nor leave it unattended. As soon as a weapon is unsecured, some light pressure onto the trigger suffices to cause a discharge. An unintentional discharge can happen when you stumble or fall, when you drop the weapon, or if the weapon is hit by something or set off by somebody else.
- Never fire a weapon as soon as a finger, hand, face or another part of the body is close to the ejection port or when one could be hit by the reverse movement of the bolt action.
- Make sure that nobody is standing on that side where they could be hit by ejected cartridge casings. The casing is hot and can be ejected at a speed which suffices to produce a burn or cut, or injure the unprotected eye. Consequently, make sure that there is sufficient room for the safe ejection of cartridge casings. Do not forget that the casing can bounce off any object nearby and hit you or another person.
- As soon as ANY mechanical failure or jamming of the weapon occurs while shooting, if it "spits out" powder gas, if the cartridge casings are dented or cracked, or if the muzzle blast does not appear to be right, STOP SHOOTING AT ONCE! Further shooting can be dangerous. UNLOAD THE WEAPON and DO NOT attempt to fire off another shot.
Have the weapon and the ammunition checked by an authorized gunsmith or by our company.
- Incidents in which the barrel swells near the muzzle or bursts are surprisingly frequent. In practically all cases this is the result of careless handling, when soil, snow or plant remains get into the barrel and clog up the bore. As soon as the barrel of your weapon comes into contact with soil or when you have reason to believe that foreign substances are in the barrel, you must unload the weapon and look into the barrel. It is not enough to glance into the muzzle, because dirt, snow, etc. may have gotten farther into the barrel where it is not easy to determine.
As soon as there is anything inside the barrel that could potentially cause malfunction, it must be thoroughly cleaned before trying to shoot. Never attempt to shoot such foreign substances out! Shooting a weapon with a clogged bore can cause the barrel to explode and hurt you or other persons nearby.

2.5.2 Firing a shot

Load the weapon according to section 2.4.



The weapon is now loaded, locked, cocked and put on safe.



DANGER

Take aim of your target and make sure that you know what is around and behind it. This way you can prevent dangers of any kind.

- After taking aim of your target you can disengage the safety of the weapon as described in section 2.3.
- By pulling the trigger you can fire a precise shot.



WARNING

The weapon's recoil can cause serious injuries.

- Pull the weapon firmly into your shoulder when firing.
- Keep your eye at least 6 cm away from the scope when firing.



WARNING

After firing a shot the weapon will be cocked automatically. Therefore, hold the weapon in such a way that your hands are not close to the bolt (loading lever) in order to avoid injuries.

- After the final round is fired the bolt remains in its rearmost position. After pushing the bolt block arresting lever the bolt block is released.



2.6 Unloading the weapon

2.7



DANGER

- Make sure that the muzzle is ALWAYS pointed in a safe direction!
- Do not forget to check the chamber whether the weapon is indeed unloaded.
- NEVER assume that your rifle is unloaded unless you have convinced yourself of it.

- Engage safety!
- Remove magazine after pushing magazine catch.
- Pull back the bolt and tilt the weapon sideways so that a cartridge that is in the chamber may drop out of the ejection opening into your hand.



The weapon is now on safe, cocked and not loaded.

- In order to uncock the weapon, press the bolt block arresting lever on the left side of the weapon.
- Release the safety mechanism.
- By pulling the trigger the weapon will be uncocked.



3 Disassembly / Assembly of the weapon

3.1 Disassembly



DANGER

Before disassembly, the weapon must be put on safe and unloaded.



CAUTION

Only disassemble the weapon to the extent described in this manual.

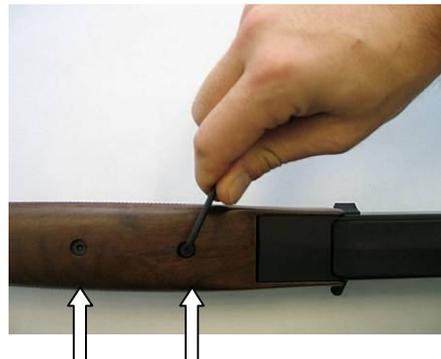
ATTENTION

Disassemble the weapon very carefully and accurately, because the tolerances and fittings are very narrow.

During normal use, light oiling of the exterior metal parts and the barrel bore is sufficient for general maintenance. However, in case of heavy fouling or moisture a detailed cleaning of the weapon is required and the rifle should be disassembled for thorough cleaning as follows:

1. Removing forearm:

- Unscrew both hexagon socket screws and remove them from the forearm.
- Remove forearm from the system in a forward motion.



2. Cleaning gas cylinder:

- After the forearm has been removed, pull the bolt all the way back and pull the gas cylinder as far as possible out of its case.
- The gas cylinder can now be cleaned.



- After cleaning the gas cylinder the bolt must be closed.



3. Removing stock:

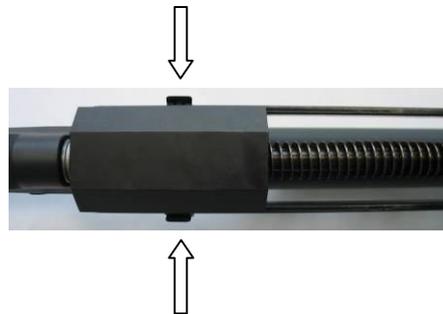
ATTENTION

First you have to remove the forearm from the barrel.

- First unscrew the screws at the back of the housing and remove pin.
- Remove stock with connecting piece.
- Remove trigger group from housing.



- Remove both clips.
- Remove both pushing rods from the pins.



4. Removing bolt carrier:

- Push both pushing rods to the back together with the bolt carrier system.
- Position coverage as shown.
- Lift handle for loading lever by using a screw driver and take off loading lever to the front.
- Remove bolt carrier system with pushing rods from housing.



5. Disassembling bolt carrier:

- Take off retaining clip and push out the pin.



- Remove firing pin.
- Remove the control bolt.
- Remove the coverage.
- Remove bolt head.



3.2 Assembly

1. Mounting bolt carrier:

- Insert bolt head into the bolt carrier as shown.
Please make sure that the extractor is placed in this position!



- Place the coverage onto the bolt head carrier.



- Insert the control bolt.



- Insert the firing pin.



- Push in the pin and secure it with retaining clip.



2. Insert bolt head carrier:

- Insert both pushing rods into the housing as shown.
- Place bolt carrier on top and insert into the housing together with pushing rods until bolt head locks.



While inserting, the control bolt must be in foremost position.

- Place the pushing rods on both sides of the drive and secure with retaining clips.



- Place the bolt head carrier as shown and insert the loading lever into the slot and pull all the way back until it clicks into place.





You must hold on to the bolt head carrier when inserting the loading lever.

3. Mounting forearm:

- Insert forearm from the front and secure it with the hexagon socket screws. Make sure that the barrel is in the centre of the forearm.



4. Mounting stock and trigger group

- Insert trigger group and stock together with the connecting piece. Then click both parts into the housing.
- Insert bolt and secure it with the screw.

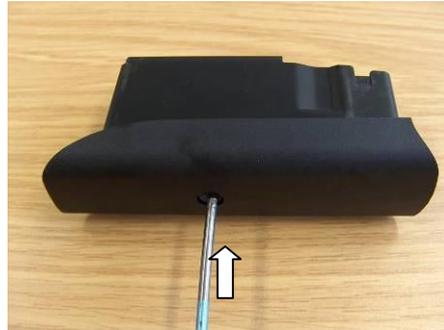


The assembly of the weapon is completed.

3.3 Assembly / Disassembly of the magazine

Disassembly of magazine:

- Press the pin of the magazine inlay with a small screwdriver or punch tool (see right).
- Detach magazine bottom. Be careful that magazine spring does not "pop out".
- Remove magazine spring and follower.



Assembly of magazine:

- Insert the follower, magazine spring, and magazine inlay into the magazine body.



- Press the magazine inlay far enough into the magazine body, so that the magazine bottom can be remounted.
-
- Position the magazine pin in the hole in the magazine bottom.



4 Open sights, scope mounts for optical sights

Driven hunt sights

The basic model of the SR1 BASIC is equipped with a driven hunt sights as standard. This contains the driven hunt sight and a adjustable luminous front sight.

Scope mounts

The upper housing of the SR1 BASIC is prepared with threaded holes for screwing on scope mounts. The following mounting types are possible:

- customary swing mount SLB 2000+
- customary PSG-tilt up mount with Weaver-Prism

The scope mounts have to be attached according to the instructions by the manufacturer. (Mounting bases and mounting rails must be securely glued to the housing!)

5 Shooting performance

We produce our barrels according to most modern manufacturing techniques using high-strength steel. But the accuracy depends on and may be influenced by a number of factors.

The **most important** influencing factor is the **ammunition** you use.



Principally, use the sort of ammunition given in the gun–passport for checking the accuracy of your weapon. In case this ammunition is not available, substantial differences concerning the shooting performance are possible. Also, ammunition of equal brand and equal filling can show a differing accuracy and point of impact from weapon to weapon.

Another important factor which has a strong influence on the accuracy of your weapon is the scope you choose. Therefore, you should have the same high demands on the quality of the scope and scope mount as on the quality of the weapon itself.



If a scope is mounted later on (not by the manufacturer) the weapon has to be newly adjusted and test fired again.

Only when you are using optimal ammunition, scope and a suitable scope mount we guarantee excellent shooting performance of our weapons.

Complaints concerning the accuracy of the weapon have to be sent in written form within 1 month after purchase. If a complaint turns out to be unwarranted, we reserve the right to charge you for any extra costs incurred.



Ask our customer service for a special firing and cooling rhythm which is necessary for certain kinds of our weapons.

6 Maintenance and cleaning of the weapon



CAUTION

Only disassemble the weapon to the extent described in this manual.



DANGER

Before disassembling the weapon **MUST** be uncocked and unloaded.

ATTENTION

- Inappropriate cleaning agents can damage the weapon. When cleaning the weapon, use only cleaning and preservative agents which are suitable for weapons. They are available in specialized retail shops.
- Do not use any metallic objects nor any plastics (nylon, etc.) to clean the weapon.

All weapons require regular maintenance, cleaning and inspection, which may lead to the necessity of readjustment or repair. Have the weapon inspected regularly by an authorised dealer or the manufacturer even if it seems to be in best shape. Broken parts, insufficient function, excessive strain or corrosion of some parts are not necessarily obvious during an external check. In case of ANY mechanical failure do not use the weapon anymore. **UNLOAD** the weapon and send it to an authorised dealer or to the manufacturer immediately.

ATTENTION

- The barrels have to be cleaned immediately after using the weapon to remove all burning residues of the gun powder. Oil the inside of the barrel lightly.
- All exterior steel parts have to be dried and oiled lightly.
- Particular attention has to be paid to all sliding parts.

6.1 Storage



DANGER

Follow the national regulations for the storage of weapons and ammunition.

ATTENTION

Never store a loaded weapon.

7 Warranty

The MERKEL GmbH meets the highest quality requirements. That is why we extend the warranty period for the first purchaser of the weapon to **3 years** from purchase date including the legal warranty period. After expiration of legal warranty we can further guarantee for all metal and plastic parts of the weapon which show deficiencies due to material or processing defects. This guarantee will only be fulfilled due to legal regulations for rectification works.

Conditions for acceptance of warranty claims are:

- report of defect within one month after its detection
- receipt of the warranty certificate which is attached to this manual **within 14 days after purchase**
- qualified assessment and decision by the manufacturer.

We reserve the right to charge for any ensuing cost should the warranty claim prove to be unjustified.

8 Packaging / Shipping

Falls Sie Ihre Waffe versenden wollen bzw. müssen, verpacken Sie die Waffe in einer geeigneten Verpackung. Diese erhalten Sie bei Bedarf bei Ihrem Fachhandel oder beim Hersteller.



WARNING

Before shipping the weapon, make absolutely sure that the weapon is unloaded.



Always ship weapon and ammunition separately. Follow national regulations for the shipping of weapons and ammunition.

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