

Rifle basics - AK rev. September 2025

Open Source chocolate-warfare.com



Introduction

The AK rifle series has a significant impact on the world. It has been used in conflicts and insurgencies around the globe, and it has become a symbol of revolution and resistance in many countries. The widespread availability and use of AK rifles has also led to concerns about their use by criminal and terrorist organizations.

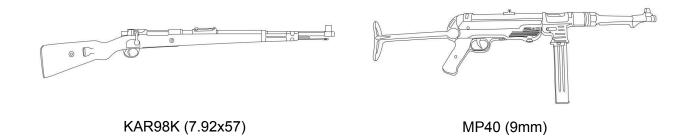
Here is a short list of reasons why the AK is so popular:

- Reliability: The AK rifles are known for their legendary reliability, even in harsh environments and adverse conditions. The rifles can function even if they are dirty, wet, or poorly maintained.
- 2. Durability: The AK rifles are built to be durable and rugged, making them ideal for use in military and police operations, as well as for civilian use.
- 3. Simplicity: The AK rifles are simple to operate and maintain, with fewer parts and components than many other rifles. This simplicity makes them easier to repair and maintain, even in the field.
- 4. Affordability: The AK rifles are generally less expensive than many other rifles of similar caliber and quality, making them accessible to a wide range of users.
- 5. Ease of use: The AK rifles have a simple and intuitive design, with ergonomic controls that are easy to use and understand.
- 6. Availability: The AK rifles are widely available around the world, making them a popular choice for military, police, and civilian use in many countries.

It is estimated that there are over 100 different variants of the AK rifle in existence. For the sake of simplicity, this handbook will stick to Russian-issued AKs. The information and manipulation are similar to most variants.

The intermediate cartridge

The AK is a direct development of the 2nd World War, with the introduction of the intermediate cartridge by the German military in the latter years of the war.

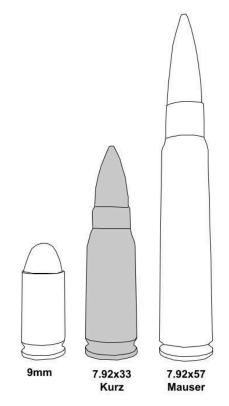


Prior to the start of the Second World War, the German military recognized the need for a new type of ammunition that would bridge the gap between pistol and rifle capabilities.

Most engagements were fought prior to 400 meters, and there was the idea of giving every man a machine gun. Therefore, the military wanted a round that would offer greater range and accuracy than a pistol caliber, but be lighter than a full-size rifle cartridge.

The solution was the 7.92x33mm Kurz. This new round was specifically designed for use in the Sturmgewehr 44, a revolutionary new rifle that combined the firepower of a machine gun with the portability and ease of use of a submachine gun.

The introduction of the intermediate cartridge and the Sturmgewehr 44 marked a major shift in military thinking and tactics. The new rifle and cartridge combination allowed soldiers to engage targets at longer ranges than with a submachine gun, while still maintaining the speed and agility necessary for close-quarters combat.



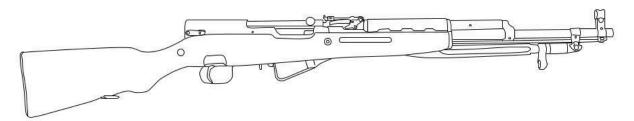


Sturmgewehr 44 chambered in 7.92x33

Development of the AK-47 after WW2

The Soviet Union became interested in the intermediate cartridge and the concept of a selective-fire rifle after the end of the 2nd World War.

To address this concern, Soviet weapon designers began developing a new type of rifle that would fire this new ammunition. However, the first rifle to be adopted by the Soviet Army after the war was the SKS, which was introduced in 1945 and fired the 7.62x39mm cartridge.



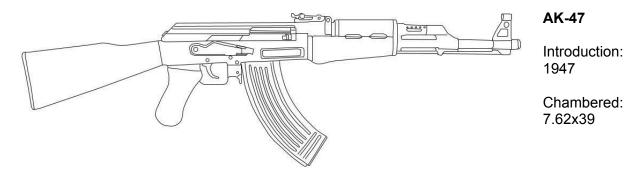
Simonov SKS (7.62x39) introduced in 1945.

The SKS is a semi-automatic rifle that has a fixed 10-round magazine. The SKS saw limited use in the Soviet military, as the AK-47 quickly replaced it in the 50s after its introduction in 1947. However, the SKS was widely given to satellite communist countries and saw combat in the Korean and Vietnam wars. The attached bayonet and fixed box magazine made a rustic weapon that required very little training to be used by any insurgency groups against the West.

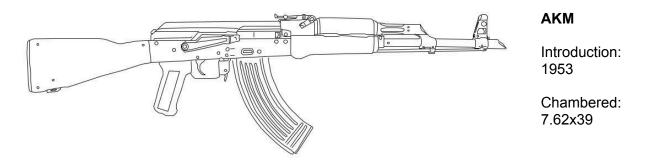
The Soviet army was still in need of its own assault rifle, like the Sturmgewehr 44. Here comes Mickael Kalashnikov, a wounded tank mechanic who started to design firearms after his recovery. With his team, he presented in 1946 the first prototype, which passed the Army trials. From now on, the AK was constantly reiterated:

- 1946: First prototype presented to the Soviet Army trials. Changes to the rifle are requested.
- 1949: Adoption of the rifle under the name AK-47. Large-scale production started, but led to manufacturing issues.
- 1953: After numerous variants, the AK-47 type 4 was accepted under the name AKM, and mass production finally started to replace most weapons in use in the Soviet army.
- 1950s-1970s: Multiple variants are produced by the communist bloc and satellite countries. Squad automatic weapons and sniper variants were developed during this period.
- 1974: saw the introduction of a new caliber, 5.45x39 and the AK was adapted to the new caliber with the designation of AK-74.
 - The 5.45 caliber presented a lot of advantages: higher velocity, lighter weight, lower recoil, better penetration, and reduced barrel wear.
- 1991: The AK-74 is slightly modernized with the use of plastic furniture instead of wood.
 The official name is now AK-74M and is still the most used rifle by the Russian Federation.
- 2011: The Russian army started the soldier modernization program "Ratnik". Within this program, a new AK design was proposed to the Army, which was later adopted in 2018 as the AK-12.

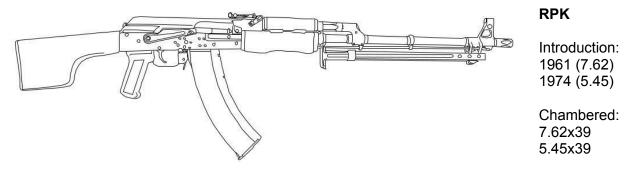
Common Russian AKs



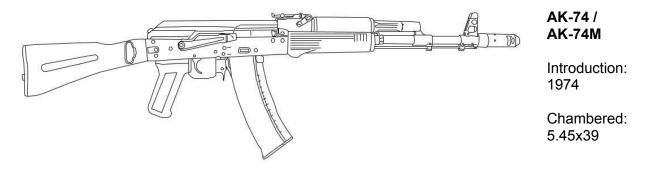
Introduced in 1947, it is the first adopted rifle by the Soviet Army.



An Improved version of the AK-47, which solved a lot of manufacturing issues.



Squad automatic weapon variant.



Current Russian assault rifle

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AKS-74U

Introduction: 1979

Chambered: 5.45x39

Initially intended for vehicle crews and pilots. Extensively used by special forces.



AK-105

Introduction: 2001

Chambered: 5.45x39

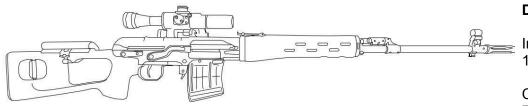
Replacement for the AKS74U.



Newly issued rifle of the Russian Federation.

AK-related firearms

In use by the Russian Federation



Dragonov

Introduction: 1963

Chambered: 7.62x54R

System: Short stroke piston

Designated marksman rifle for targets up to 800m.



VSS Vintorez

Introduction: 1987

Chambered: 9×39mm

System: Striker and long stroke piston

Integrally suppressed sniper for targets up to 400m.



PP19-1 Vityaz

Introduction: 2008

Chambered: 9mm

System: Direct blowback

Submachine gun in 9 mm, mostly used by SWAT teams.

Elements of basic training

Safety

4 Fundamental Firearms Safety Rules

Weapon ⇒ Loaded

Accidents often happen with guns that people thought were empty.

Muzzle ⇒ Aware

Because the firearm is loaded, my muzzle is always in a safe direction.

Finger ⇒ Off

Because I can be surprised, my finger stays off the trigger until I want to fire.

Target ⇒ Responsible

I am sure of my target, the environment around it, and the consequences of my shot.

On the person, the rifle is loaded and ready.

When I put my weapon down (for transport or storage), I unload it because I don't know who might pick it up or what they might do with it.

Manipulation

3 fundamental manipulations

- Press check
- Loading
- Unloading

Keep your firearm ready to fire

- Reload
- Reload with retention
- Immediate action
- Remedial action
- Maintenance

Shooting

Stances

They describe the shooter's body language.

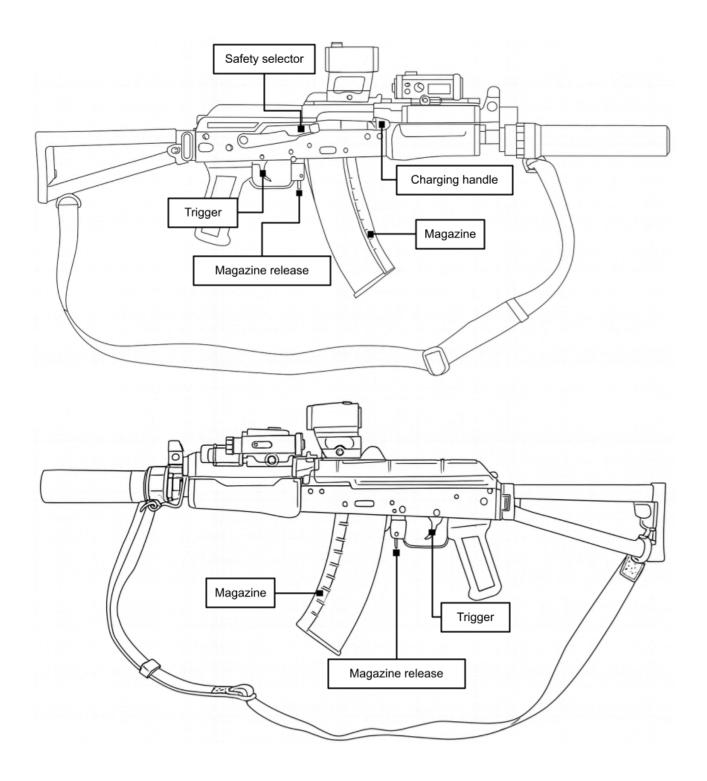
The 5 Fundamental Principles of Shooting

- 1. Grip
- 2. Stance
- 3. Aiming
- 4. Breathing
- 5. Trigger squeeze

7 Chronological steps of shooting

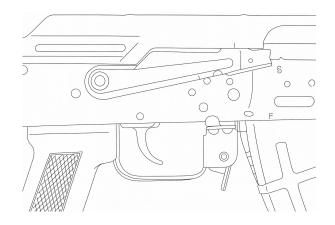
- 1. Positive ID
- 2. Elevation
- 3. Aiming
- 4. Finger-Trigger
- 5. Press
- 6. Analysis
- 7. Scanning

Presentation

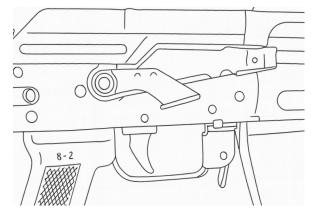


Note: When the safety is engaged (selector in the upward position), the weapon cannot be charged.

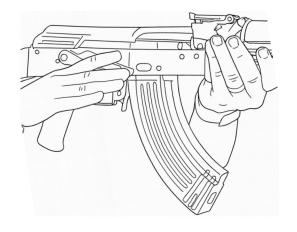
Engage and disengage the safety



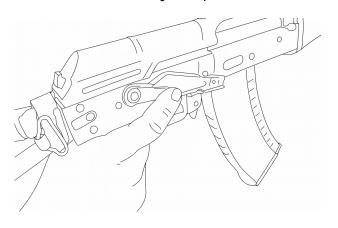
Classic safety, weapon on safe



Enhanced safety, weapon on safe



Disengage the safety with the middle finger.



Disengage the safety with the index finger.



Weapon on safe



Rifle shouldered = Safety off

Stances



Patrol



Weapon in hand



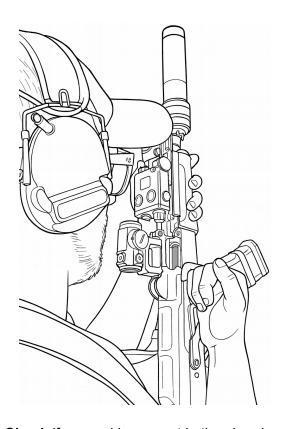
High ready



Shooting

3 fundamental manipulations

1 Press check



Check if a round is present in the chamber.



Inspect the magazine.

2 Loading

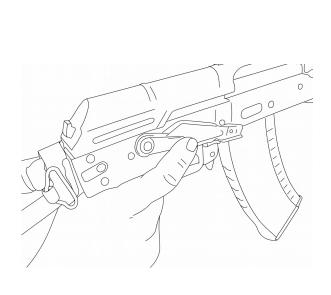


Grab a magazine.



Insert the magazine firmly.

Check that it is locked in place by applying a counter-pull.



Disengage the safety.



Cycle the bolt.

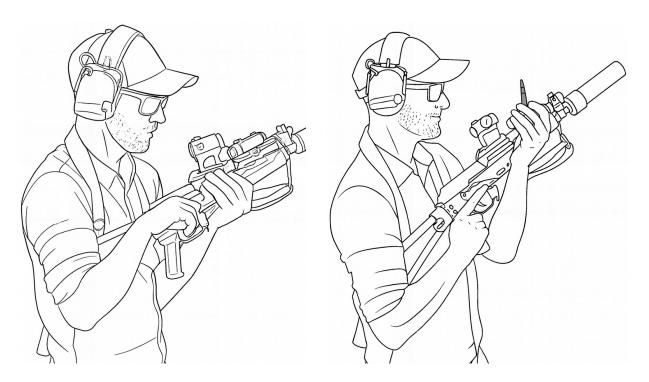
3 Unloading



Remove the magazine.



Disengage the safety.+ Place your hand under the magazine well and cover the ejection port with your fingers.



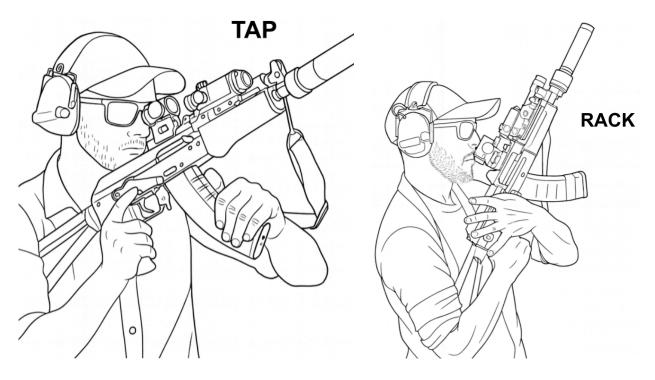
Open the bolt and **let the round drop** into your hand.

Important note: Perform a press check after removing the cartridges to ensure that the chamber is empty and the magazine has been removed from the weapon.

Immediate action



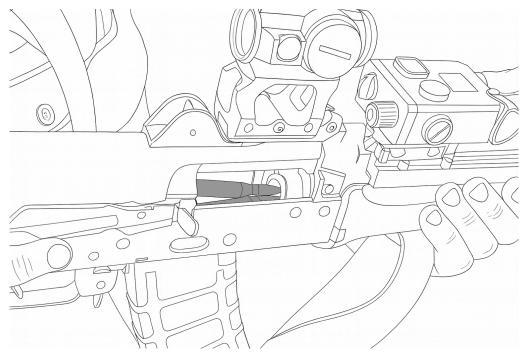
The firearm fails to fire.



Ensure the magazine is fully seated.

Point the ejection port toward the ground. **Cycle** the bolt.

Remedial Action



Example of a double feed:
Two cartridges are blocking the chamber.



Hold the bolt to the rear.



Rip out the magazine.

The magazine is probably the cause of the malfunction.

It's best to get rid of it.

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3 x RACK



Point the ejection port toward the ground. **Rack** 3 times (fully releasing each time).

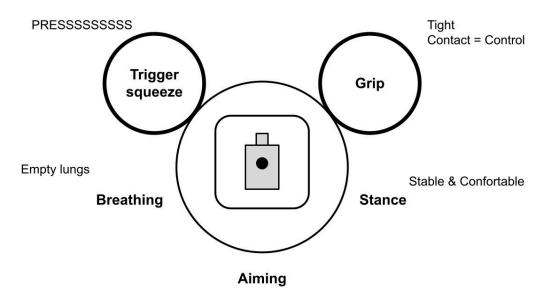


Insert a new magazine



Load.

The 5 Fundamental Principles of Shooting



Irons sights: Front sight is sharp Red dots: Both eyes opened Scope: no shadow



Example of a correct firearm grip.

7 Chronological steps of shooting

1. Positive ID	Friend or Foe? Rules of engagement
2. Elevation	Sights to the eyes Safety off
3. Aiming	Distance Speed Point of aim
4. Finger-Trigger	Prep the trigger
5. Shoot	P-R-E-S-S-S
6. Analysis	Have I succeeded? No? Send again
7. Scanning	- Foes? - Friends? - Chief? - Status?

The 7 Skills to Train

Acronym: The 7D

Decide	Decide to engage with your firearm or with other means.	
Discuss	Communicate with the opponent.	
	De-escalate a situation.	
Distance	Create distance from the opponent.	
	Engage from afar.	
Duck	Use cover or concealment.	
Deploy	Fire while moving.	
Defend	React to an opponent's attempt to seize your weapon.	
Distribute	Fight multiple opponents at once.	

Contribution

If you want to contribute or access the original document, please reach out to us at:

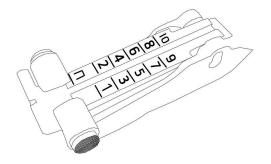
https://chocolate-warfare.com

info@chocolate-warfare.com

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Annexe 1 - AK sights and zero

Sights



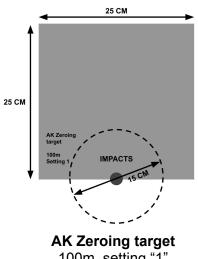
The sights are expressed in hundreds of meters.

The "point-blank range" battle zero setting "Π" standing for постоянная (constant).

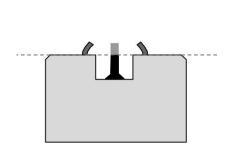
The holds are:

7.62x39 AKM: 18m/240m 5.45x39 AK74: 25m/400m 5.45x39 AK74U: ?/350m

How to zero

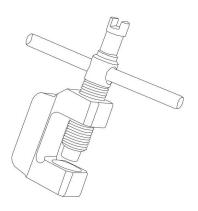


100m, setting "1" 5 shots group



Sight picture at 100m target width = front sight width

Point of aim: base of the target



AK Sight tool Screw/unscrew the front sight for elevation

Push right/left the front sight for derive

Alternative Zero method

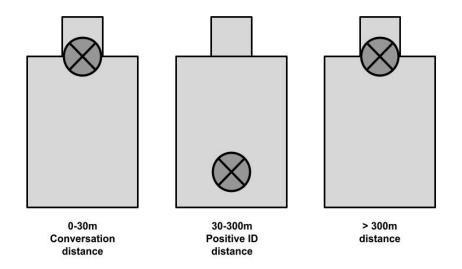
7.62x39 AKM

Use the setting "Π" at 18m, and the point of aim should coincide with the point of impact. Confirm at 100m with setting 1.

5.45x39 AK74

Use the setting "Π" at 25m, and the point of aim should coincide with the point of impact. Confirm at 100m with setting 1.

"П" setting usage



Ballistic charts

From Soviet manuals:

AKM 7.62x39 with 122gr. M43 lead-core								
Setting	100m	200m	300m	400m	500m	600m	700m	800m
1	0	-20cm	-	-	-	-	-	-
2	+10cm	0	-45cm	-	-	-	-	-
3	+25cm	+30cm	0	-77cm	1	-	-	-
4	+44cm	+69cm	+57cm	0	-1.23m	-	-	-
5	+68cm	+1.16m	+1.29m	+95cm	0	-1.87m	-	-
6	+99cm	+1.8m	+2.8m	+2.1m	+1.4m	0	-2.7m	-6.4m
7	+1.3m	+2.5m	+3.3m	+3.6m	+3.3m	+2.1m	0	-3.5m
8	+1.8m	+3.4m	+4.6m	+5.4m	+5.5m	+4.7m	+3m	0

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AK74 5.45x39 with 52gr 7N6M								
Setting	100m	200m	300m	400m	500m	600m	700m	800m
1	0	-10cm	-	-	1	-	-	-
2	+5cm	0	-25cm	-	ı	-	-	-
3	+13cm	+16cm	0	-43cm	-	-	-	-
4	+24cm	+38cm	+32cm	0	-65cm	-	-	-
5	+37cm	+64cm	+71cm	+52cm	0	-98cm	-	-
6	+54cm	+97cm	+1.2m	+1.2m	+82cm	0	-1.5m	-3.7m
7	+75cm	+1.4m	+1.8m	+2m	+1.9m	+1.3m	0	-2.1m
8	+1m	+1.9m	+2.7m	+3.1m	+3.2m	+2.9m	+1.9m	0

Annexe 2 - AK manufacturer ID1

3. REAR SIGHT MARKS

Sight Mark	Country	
D	Albania	
П	Bulgaria	
D	China	
N	Germany (GDR)	
Α	Hungary	
□	North Korea	
S	Poland	
Р	Romania	
П	Russia	
0	Yugoslavia	

2. FIRE SELECTOR MARKS

Upper	Lower	Country
А	1	Albania
L	D	Albania
АВ	ЕД	Bulgaria
连	单	China
L	D	China
آك	فردی	Egypt
D	E	Germany (GDR)
∞	1	Hungary
ص	Lo	Iraq
렫	므	North Korea
С	Р	Poland
Z	0	Poland
1	3	Romania
Α	R	Romania
АВ	ОД	Russia
R	J	Yugoslavia

4. FACTORY IDENTIFYING MARKS

Factory Mark	Country		
100	Bulgaria		
she ×63	Czechoslovakia / Czech Republic (proof; date		
▲ 五六式	China (Type 56 model)		
▲56式	China (Type 56 model)		
<u>66</u> 56-I	China (Type 56-1 model)		
<u></u> 66568-2	China (Type 56-2 model)		
۹٧٢ Φ ١.١٢٣.٤	Egypt (date:1972; proof mark; serial numb		
\Diamond	Germany (GDR)		
K 3	Germany (GDR)		
3	Germany (GDR)		
ф.	Germany (GDR)		
© 6	Germany (GDR)		

Factory Mark	Country	
	Iraq	
تنوك 🔊 عيار ٢٠.٢٧٪ ٢٩ملم	Iraq (calibre; model: Tabuk; proof mark)	
À	Iraq	
₩	North Korea	
₩	North Korea	
☆ 58 △I	North Korea (Type 58 model)	
☎ 68년4	North Korea (Type 68 model)	
11)	Poland	
\triangle	Romania (Cugir factory)	
\triangle	Russia (Izhevsk factory)	
\triangle	Russia (Izhevsk factory)	
₩	Russia (Molot factory)	
☆	Russia (Tula factory)	
ZASTAVA-KRAGUJEVAC	Yugoslavia / Serbia (Zastava factory)	
©	Yugoslavia / Serbia (Zastava factory)	
M.70.AB2	Yugoslavia / Serbia (M70 B2 model)	

¹ https://www.thefirearmblog.com/blog/2014/12/04/field-guide-reading-kalashnikov-markings/