

# CLOSE RANGE WEAPON

## MP7 A1

CALIBER 4.6 MM X 30

### OPERATORS MANUAL




Before handling the Close Range Weapon, read and mind the safety instructions



GLOSSARY

---

	<b>SAFETY INSTRUCTIONS</b> .....	3
	<b>PRELIMINARY OBSERVATIONS</b> .....	5
<b>1.</b>	<b>MP7 A1 GENERAL</b> .....	6
<b>2.</b>	<b>TECHNICAL DATA</b> .....	8
<b>3.</b>	<b>EXTERIOR VIEW OF MP7 A1 WITH PARTS DESIGNATION</b> .....	9
3.1	MP7 A1, View of the Left Side.....	9
3.2	MP7 A1, View of the Right Side.....	10
<b>4.</b>	<b>HANDLING AND OPERATION</b> .....	11
4.1	Stock removal and insertion .....	11
4.2	Unfold and fold down the folding handle.....	12
4.3	Safety Lever .....	13
4.4	Cocking of the Bolt .....	14
4.5	Operation of the magazine catch .....	15
4.6	Bolt catch/release lever .....	16
4.7	Loading and unloading the magazine .....	17
4.8	Operation of the bolt .....	19
4.9	Carrying Sling .....	20
<b>5.</b>	<b>DISASSEMBLY FOR CLEANING MP7 A1</b> .....	21
5.1	Dismantling in assembly groups .....	21
5.2	Exploded view of the closure system with recoil spring .....	22
5.3	Magazine Breakdown .....	23
<b>6.</b>	<b>CLEANING AND CONSERVATION</b> .....	24
<b>7.</b>	<b>CLEANING SCHEDULE</b> .....	26
<b>8.</b>	<b>REASSEMBLY OF MP7 A1</b> .....	28
8.1	Reassembly of the bolt .....	28
8.2	Reassembly of the receiver, backplate with butt stock and bolt .....	28
8.3	Reassembly of the front cover on the receiver.....	29
8.4	Reassembly of the Magazine .....	29
<b>9.</b>	<b>FUNCTION CHECKS</b> .....	30
<b>10.</b>	<b>MECHANICAL SIGHT ADJUSTMENTS</b> .....	32
<b>11.</b>	<b>TROUBLE SHOOTING</b> .....	33
<b>12.</b>	<b>ACCESSORIES</b> .....	35
<b>13.</b>	<b>ROUNDS FIRED</b> .....	36



## **SAFETY INSTRUCTIONS**

---

**Read these instructions carefully before using the MP7 A1 Submachine Gun. Do not use the weapon before you have fully understood what is stated in this instruction manual.**

**Also take into account all the instructions related to the handling and handling of the weapon. Failure to observe may result in a risk of injury or even death.**

- While handling the MP7 A1 Submachine Gun, care must be taken since due to the compact construction of the weapon the position and direction of orientation of the weapon can be easily altered.
- Never use the weapon while you are unwell, for example after taking alcohol, medication or drugs.
- Before using the weapon, as well as in the event of failures and breakdowns and before cleaning, should be checked, if
  - the Submachine Gun is unloaded (chamber empty) and if the safety is on, - there is no foreign body in the barrel and
  - the magazine is empty.

(As for the relationship presented here, these are secondary indications that also find application in the case of failures and breakdowns).
- At the time of delivery or receipt of the weapon, the loading status of the weapon must be known; The weapon must have the safety on and the muzzle must be facing a safe direction.
- Whenever the loading status of the weapon is not known, it should be treated as if it were loaded and ready to fire.
- Never point it at people during handling, handling or during exercises with the weapon. In principle, no person should ever be in front of the weapon, that is, it must always be oriented towards a safe point.
- Never touch the trigger of the weapon when loading, unloading, cocking, aiming or during any other manipulation of the weapon. The trigger finger must always be applied to the outside of the receiver. The trigger should only be activated when the weapon is aimed at the target and when the safety lever is in a clearly defined position.
- Do not apply any violence during handling, dismantling, cleaning and assembly of the weapon.
- The dismantling or dismantling of the weapon should only be carried out to the extent described in this instruction manual.
- During shooting you must always wear hearing protection as well as the protective equipment described!



## **SAFETY INSTRUCTIONS**

---

- It is essential to take into account that at no time can any of the people present be affected. Therefore, you should only shoot when these people are also wearing this type of hearing protection.
- Only use undamaged and officially issued cartridges, namely 4.6 mm x 30 caliber.
- In order to avoid injuries, during shooting the weapon must be held in your hands, so that your fingers are not in the area of the closure path, nor in the case ejection opening or in the mouth of the gun. Canyon
- Keep in mind that during the tests only shoot at targets made of a material that prevents the ricochet of projectiles, which can thus produce "Through Hits".
- Careful! Only use the weapon with a flash suppressor on, to avoid accidental access to the muzzle. Before firing, the fixed seat of the flame arrester must be checked.
- During shooting, the area in front of the muzzle must always be kept free. This is especially applicable when shooting with the weapon rested.
- Extraordinary stresses or loads, such as hard knocks and falls, can affect safety. In these extraordinary cases, the weapon must be inspected by the manufacturer or by expert technical personnel in firearms, respectively.-
- Only use accessories authorized by the manufacturer.
- This operating instructions manual is part of the scope of delivery of the Submachine Gun.

**Heckler & Koch will not assume any responsibility in cases of incidents that are due to incorrect handling and/or handling of the weapon. It is essential to observe the instructions set out in this instruction manual for handling. A slight lack of knowledge, carelessness or lack of attention is enough to cause serious damage and accidents, for which Heckler & Koch will not be held responsible in any way.**

## PRELIMINARY OBSERVATIONS

---

1. Perfect operation and a long useful life of the weapon can only be guaranteed by proper handling, handling and care, as well as taking into account the instructions set out in this manual.
2. The indications and observations “right”, “left”, “front” and “behind” that appear in the text always refer to the position of the weapon seen in the direction of fire.
3. Each of the descriptions of individual pieces and each work is generally presented only once, therefore, depending on the length of the text, it will refer to a description of parts of the weapon and works that already exist in other chapters.
4. As long as no special assembly instructions are indicated, assembly and assembly will always be carried out analogously but in reverse of what is indicated for dismantling or disassembly, respectively.
5. **Only use original HK spare parts.**  
If other parts are used, the warranty claim is consequently lost. When ordering spare parts, always indicate the drawing number and reference number, as well as the clear text designation of the required parts.
6. We reserve the right to make technical modifications. The figures illustrated may vary from the appearance of the weapon described in this instruction manual.
7. In case of any suggestion or request for modification or additions, respectively, to these instructions, please pass them on to the manufacturer.

**HECKLER & KOCH GMBH**  
**Heckler & Koch Str. 1**  
**D-78727 Oberndorf / N.**

Telephone: +49(0) 7423 / 79-0  
Fax: +49(0) 7423 / 79-2497  
E-Mail: [hkinfoboard@heckler-koch.de](mailto:hkinfoboard@heckler-koch.de)  
<http://www.heckler-koch.de>

## 1. MP7 A1 GENERAL

---

The MP7 A1 Submachine Gun is an automatic personal defense weapon designed and built according to the latest technical knowledge. The manufacture of the weapon is carried out using proven materials and following the most modern manufacturing methods.

The MP7 A1 allows for shot-by-shot shooting, as well as continuous shooting, up to a maximum combat distance of about 200 m. In this regard, it is recommended to observe a safety area of 4,000 m.

Particular attention has been paid to simple and safe handling of the weapon, as well as unrestricted use for both right-handed and left-handed shooters.

The lightweight and compact design of the MP7A1 permits a permanent carrying of the weapon by the operator.

The possibility of firing the weapon from the hands and from the shoulder allows the use of the weapon both in rooms or places with limited space and in open fields.

Thanks to a slight recoil impulse from the 4.6 mm x 30 ammunition, the weapon allows controlled bursts to be fired. Furthermore, at relatively short distances it is also possible to shoot with one hand.

All figures and illustrations in this operating instructions manual show the MP7 A1 model.



**Fig. 1:** MP7 A1, safety lever with positions (from top to bottom): "Safe", "SEMI-AUTO", "BURST FIRE", marked with pictograms.

**MP7 A1 GENERAL**

---



**Fig. 2:** MP7 A1 with folded handle and retracted stock



**Fig. 3:** MP7 A1 with extended handle and retracted stock



**Fig. 4:** Mp7 A1 with handle extended and stock extended

## 2. TECHNICAL DATA

---

### Weapon and ammunition

Closing system: Drive/ Locked rotary head latch  
propulsion system: Gas intake loading weapon, without manual gas regulation

Shooting modes: SEMI-AUTO/BURST-FIRE (rate of fire approx. 950/min)

Magazine capacity: 20 / 30 / 40 rounds

Rear sight mounting guide universal guides MIL-STD-1913 (Picatinny)

Lifting system: Mechanical lift up to max. 200 m, mounted on a guide. Additionally/as an alternative to the mechanical sighting system, all types of optical aiming systems for daylight and night can be quickly and easily mounted; Quick assembly on the rear sight mounting guide or laterally on universal guides, respectively.

Dimensions: Length: 420 mm (with stock retracted)  
640 mm (with stock extended)  
Height: 172 mm  
Width: 45 mm  
Barrel length: 180 mm

Weight with empty weapon Weapon without approx. 1,8 kg  
magazine:  
Magazine, 20 cartridges aprox. 0,1 kg

### Cartridge:

Caliber: 4,6 mm x 30  
Cartridge length: 38,5 mm  
Cartridge weight: 6,1 g (standard combat cartridge)

### Ballistics:

Inner barrel profile: Sextuple polygonal/right pitch striped  
Barrel length: 180 mm  
Rifling length: 160 mm  
Muzzle Velocity: aprox. 750 m/s  
(Standard combat cartridge; varies depending on type of ammo)

Muzzle Energy: aprox. 447 jules  
(Standard combat cartridge; varies depending on type ammo)

Max Pressure. 4.000 bar

Maximum Shooting Range: 3.000 m

### 3. EXTERIOR VIEW OF MP7 A1 WITH PARTS DESIGNATION

---

#### 3.1 MP7 A1, Left Side

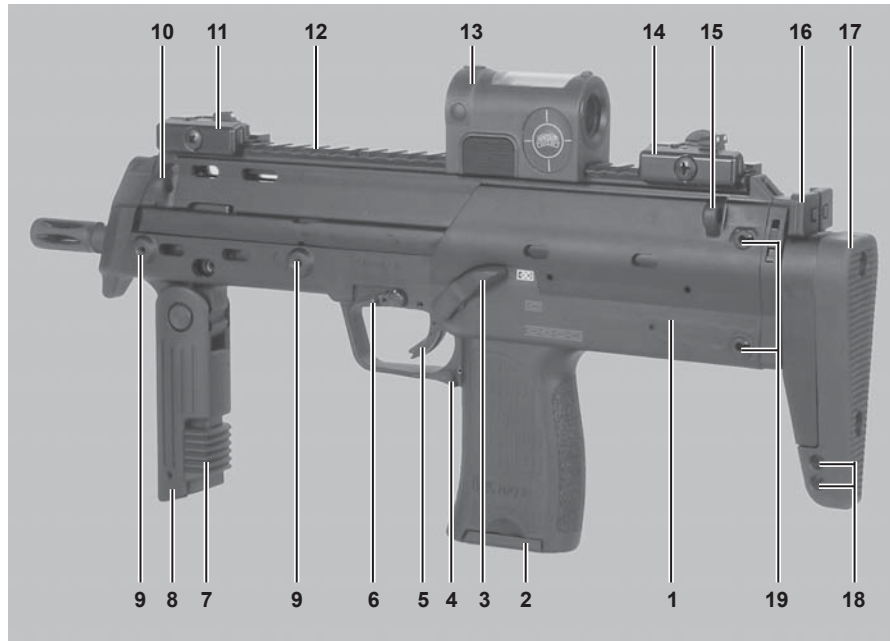


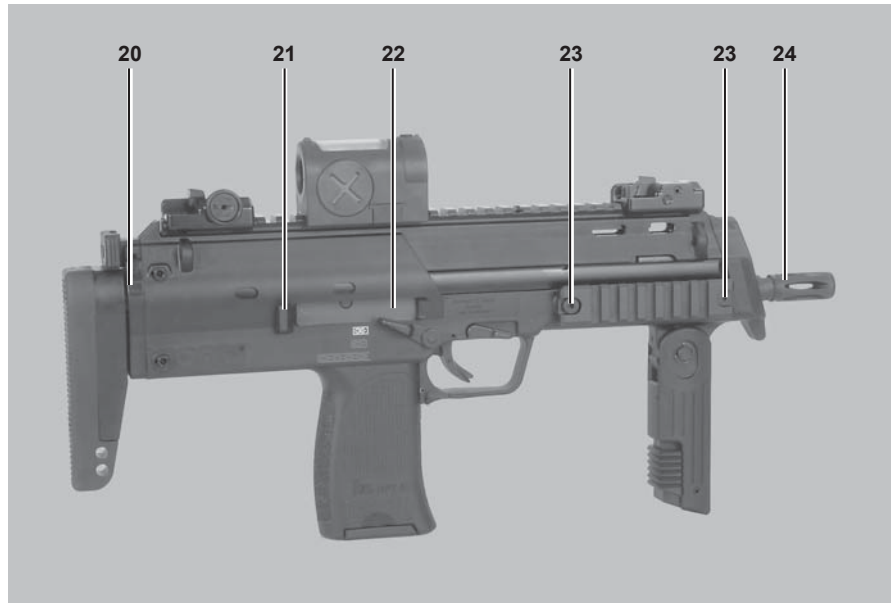
Fig. 5: MP7 A1, View from the left

- 1 Receiver
- 2 Magazine
- 3 Safety/selector lever (ambidextrous)
- 4 Magazine Catch (ambidextrous)
- 5 Trigger with safety latch
- 6 Bolt catch/release (ambidextrous)
- 7 Folding grip, release (ambidextrous)
- 8 Folding grip, extended
- 9 Strong points (Picatinny rail, attachment)
- 10 Eyelets for carrying sling (ambidextrous)
- 11 Mechanical basic front sight
- 12 Picatinny rail (MIL-STD-1913)
- 13 RSA reflex sight
- 14 Mechanical basic rear sight
- 15 Eyelets for carrying sling (ambidextrous)
- 16 Charging handle (ambidextrous)
- 17 Retractable butt stock
- 18 Storage holes for locking pins
- 19 Locking pins

## EXTERIOR VIEW OF MP7 A1 WITH PARTS DESIGNATION

---

### 3.2 MP7 A1, Right Side



**Fig. 6:** MP7 A1, Right side

- 20 Butt stock release lever
- 21 Case deflector
- 22 Ejection Port
- 23 Picatinny rail (MIL-STD-1913)
- 24 Flash hider

#### 4. HANDLING AND OPERATION

---



Before any manipulation of the MP7 A1, it is essential to verify if the weapon has the safety on, if the magazine has been removed, as well as if both the chamber and the barrel are free.

##### 4.1 Stock extension and retraction

The stock automatically locks in the retracted position and in the extended position. To unlock the stock, you must press up on the locking lever located on the back right side of the weapon. To do this, the stock must be inserted until it locks, or extracted until the locking lever clicks into place audibly.



Fig. 7: Unlocking of the retractable butt stock

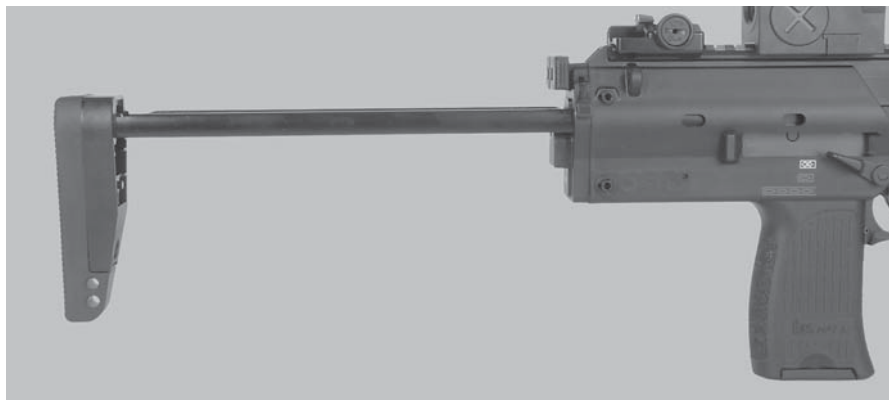


Fig. 8: Butt stock extended

## HANDLING AND OPERATION

---

### 4.2 Folding and extending of the folding grip

The folding handle is slightly locked in its folded position and firmly locked in the extended position. To deploy the folding handle, it is deployed forward until the handle retaining piece engages audibly and noticeably.

To fold it down or fold it, the retaining slide is moved downwards, at the same time turning the handle backwards against the receiver, until the handle is applied to the lower part of the receiver.



**Fig. 9:** Extending of the locking grip



**Fig. 10:** Unlocking of the folding grip release mechanism

### 4.3 Safety/selector lever

The ambidextrous safety/selector lever may be set at "SAFE:", "SEMI-AUTO" AND "BURST-FIRE"



Fig. 11: Safety/selector lever at "SAFE"



Fig. 12: Safety/selector lever at "SEMI-AUTO"



Fig. 13: Safety/selector lever at "BURST-FIRE"



The trigger should only be activated when the safety lever is locked in a clearly defined position.

## HANDLING AND OPERATION

---

### 4.4 Cocking the bolt

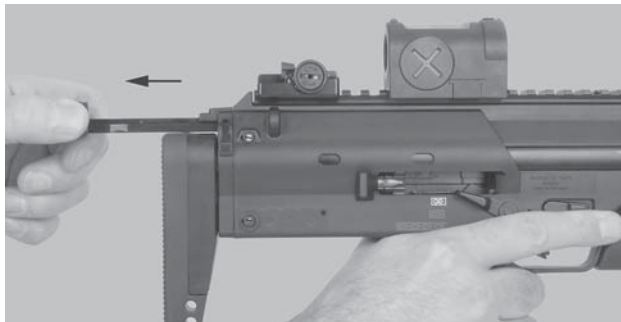
The charging handle is located at the rear of the receiver, above the stock and locks in its inserted position.

For retracting of the bolt, the rear end of the charging handle is pressed between the thumb and index fingers and pulled all the way to the rear. When the charging handle is released and a loaded magazine is inserted, the forward moving bolt feeds a cartridge from the magazine into the chamber.

If the inserted magazine is empty, the forward moving bolt is arrested in its open position by the bolt catch. The charging handle may now be manually pushed to the front to its locked position.

For releasing of the bolt, remove the empty magazine, pull the charging handle all the way to the rear and release. The bolt will be released and snaps forward with the charging handle.

The bolt which is arrested in the open position may also be released by means of the ambidextrous bolt catch/release lever, no matter whether a magazine is inserted or not.



**Fig. 16:** Retracting the charging handle

#### 4.5 Operation of the magazine catch

For release of the magazine the ambidextrous magazine catch is pushed down with the index finger of the hand holding the pistol grip

Before inserting a loaded magazine the bolt is preferably arrested in its open position as this facilitates the final insertion of the magazine. For reinserting the magazine push it all the way into the magazine well until the magazine catch engages.



**Fig. 14:**  
Actuation of the magazine catch for removing the magazine



**Fig. 15:**  
Insertion of the magazine

**Attention:**

Before inserting a loaded magazine the bolt is preferably arrested in its open position as this facilitates the final insertion of the magazine.

Do not slam loaded 40 round magazines violently into the feed chute, and do not strike the loaded magazines at the bottom, as this bears the risks that;



- the top cartridge in the magazine is ejected from the magazine lips
- the magazine lips get deformed which makes the magazine unserviceable

#### 4.6 Bolt catch/release lever

When firing the bolt is arrested in its open position after the last round in the magazine has been fired

For continuing firing after the magazine has been exchanged the open bolt is released by pressing the ambidextrous bolt catch/release lever all the way down to the bottom with the index finger. In this way it is possible to quickly rearm the weapon without the need to retract and release the charging handle and without the shooter having to leave his aiming position.



**Fig. 17:** Release of the bolt by actuating the bolt catch/release lever

For arresting of the bolt in its open position when the magazine is removed, pull back the charging handle all the way, lift and hold the bolt catch/release lever to the top and release the charging handle.

The bolt will be arrested in the open position and the charging handle can be manually pushed forward to its locked position.



**Fig. 17:** Arresting the bolt in the open position

#### 4.7 Loading and unloading the magazine

For loading the staggered magazine the cartridges are pushed alternatively underneath the left or the right magazine lip. Mind that the cartridge tips and the cartridge bases do not protrude the magazine housing.

The loaded magazine is preferably inserted into the weapon magazine well in the grip with the bolt in the open position, as this facilitates the final magazine insertion.



Fig. 19: Loading the magazine



Only 20/30/40 resp. should be inserted into the magazine. 40 cartridges maximum.  
The last cartridge is applied next to the right lip of the magazine (see loading the magazine)

To unload the magazine, the cartridges are removed by pressing them forward with the thumb along the lips of the magazine. Repeat the operation until the magazine is completely empty. Collect the removed cartridges.



Fig. 20: Unloading the magazine

## HANDLING AND OPERATION

---

### **Loading and unloading the MP7A1**

All described operations as insertion of the magazine into the MP7A1, operation of the charging handle and the unloading process must only be carried out with the MP7A1 set at "SAFE"

On principle the safety of the MP7A1 must only be unset shortly before the weapon is to be fired.

For loading and making the weapon read-to-fire the following sequence of operations has to be carried out.

#### **Alternative 1**

- Set the MP7A1 at "SAFE"
- Insert a loaded magazine
- Retract the charging handle all the way and release

#### **Alternative 2**

- Set the MP7A1 at "SAFE"
- Retract the charging handle all the way, lift the bolt catch/release lever all the way to the top and push the charging handle all the way to the front
- Insert a loaded magazine
- Press the bolt catch/release lever all the way to the bottom.

The MP7A1 is now set at "SAFE", round in the chamber and cocked.

For firing the weapon is aimed at the target, the safety/selector lever is set at "SEMI AUTO" or "BURST FIRE" and the trigger is pulled.

When firing is finished, the weapon must be immediately set at "SAFE" again

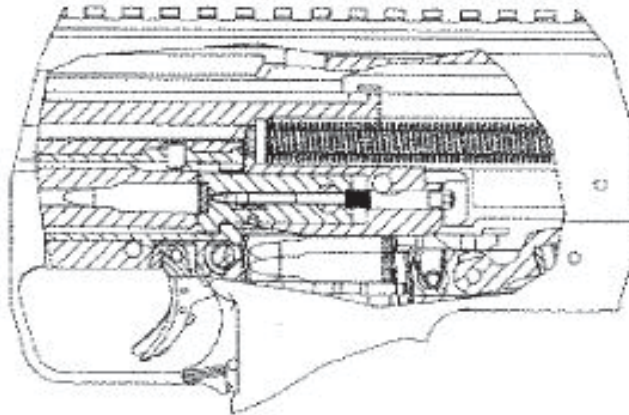
In case the MP7A1 is taken away from the operator it must be unloaded i.e. the magazine has to be removed, the bolt must be retracted all the way and it must be made sure that there is no cartridge in the chamber and that the barrel bore is clear!

## OPERATION OF THE BOLT

---

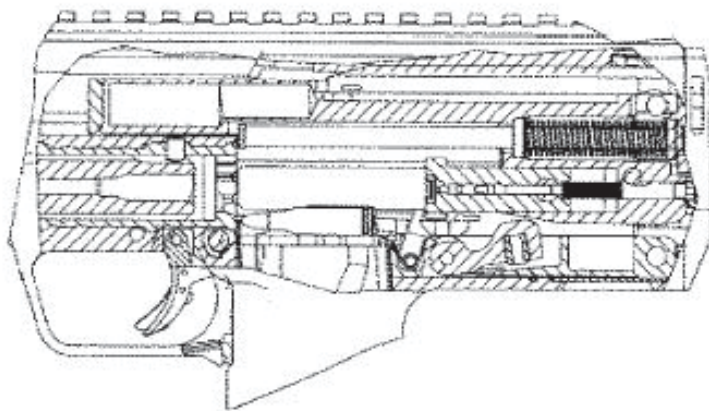
### 4.8 Bolt locked, cartridge chambered, hammer cocked

When the safety is unset and the trigger is pulled, the hammer strikes the firing pin which ignites the primer and the propellant inside the cartridge. The generated gas pressure accelerates the projectile in the barrel. The cartridge case seals the chamber to the rear and is supported by the bolt which locks with 6 locking lugs in the barrel extension.



**Fig. 17:** Bolt locked, cartridge chambered, hammer cocked

After the bullet has passed the gas port in the barrel, a part of the propellant gases exit into the gas cylinder above the barrel and push the piston to the rear against the bolt head carrier. During its rearward travel the bolt head carrier rotates and unlocks the bolt head which extracts and ejects the cartridge case. During the forward of the bolt a cartridge is fed from the magazine into the chamber and the bolt head is locked.



**Fig. 18:** Bolt unlocked, cartridge case ejected

#### 4.9 Carrying sling

The carrying strap on the MP7 A1 is identical to the carrying strap on the G36 rifle.

The carrying strap is hooked with the two carabiner hooks to the hooking rings that are located on the left or right side, respectively, of the weapon. Here it must be taken into account that the end of the strap, on which the quick release clip (plastic) is located, hooks on the front hooking ring.

With the short, snug strap and the quick release clip engaged, the MP7 A1 can be carried in front of the chest or on the back.



**Fig. 21:** Way of carrying in front of the chest (like a pistol); Interlocking quick release clip (expanded section)

**Fig. 22:** Way of carrying in front of the body (like a pistol); quick release clip unlatched

**Fig. 23:** Mode of carrying suspended in front of the body (like a pistol); quick release clip open

With the long cinched strap and the quick release clip unlocked, the MP7 A1 can be carried suspended at the side next to the hip, thus allowing for a quick one-handed or shoulder-held shooting setup.

**Fig. 24 (Left):** Mode of carrying at the side (as a pistol); quick release clip unlatched

**Fig. 25 (Top Right):** Aiming mode: with two hands and retracted nock

**Fig. 26 (Bottom Right):** Aiming mode: with removed stock and carrying strap



## 5. DISASSEMBLY FOR CLEANING

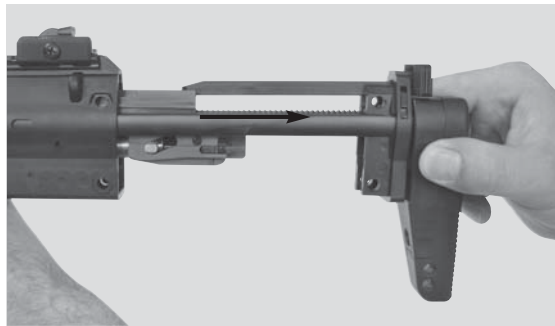
---

### 5.1 Disassembly into the main assembly groups

To dismantle the assembly groups, remove the two retaining pins at the rear of the receiver and insert them into the holes in the stock provided for this purpose.

Remove the butt stock with backplate, charging handle, bolt and recoil spring to the rear from the receiver.

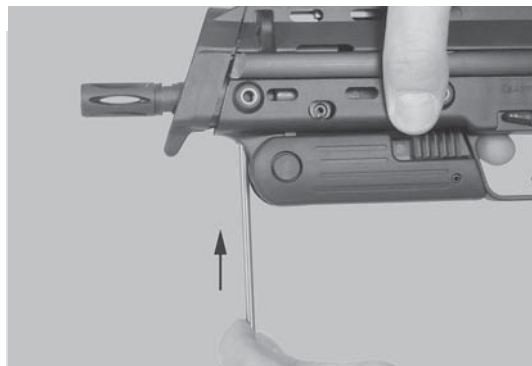
In order to separate the bolt from the stock with the backplate and the reset lever, press the bolt against the force of the recoil spring. In this way, the retaining projection of the reset lever can be disengaged from the guide pin of the closure support.



**Fig. 31:** Remove butt stock, backplate, charging handle, bolt and recoil spring

To remove the receiver front cover:

Press the clip of the front cover into the recess in front of the folding grip and remove the front cover to the front.



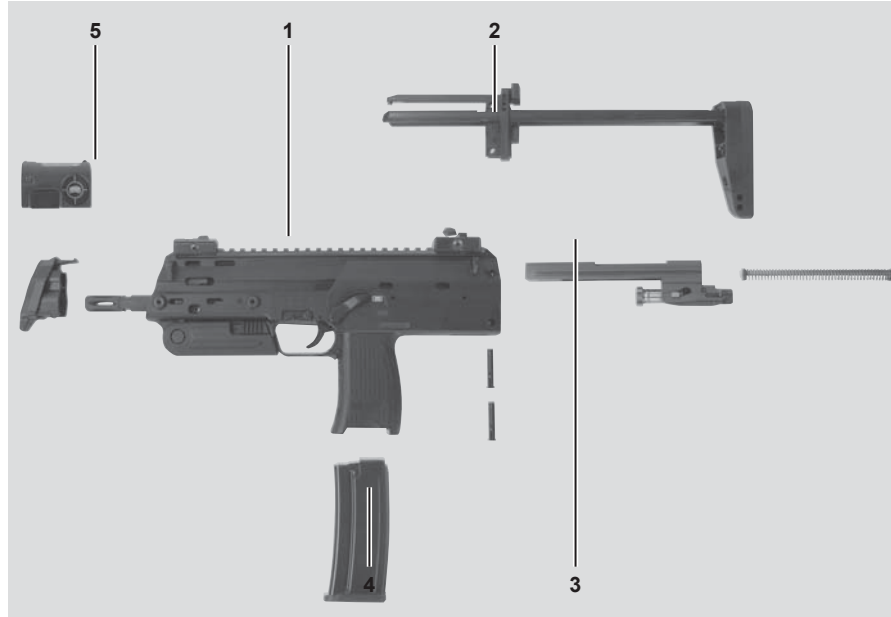
**Fig. 32:** Press the clip into the recess and remove the front cover

## DISASSEMBLY FOR CLEANING

---

### Disassembly into the main assembly groups

After removing the magazine disassembled the MP7 A1 into the main assembly groups



**Fig. 33:** Main assembly groups

1. Receiver with barrel, grip, safety and trigger mechanism
2. Backplate with buffer, charging handle, retractable butt stock and butt stock locking mechanism
3. Bolt with recoil spring and recoil spring guide rod
4. Magazine
5. Red dot system

### 5.2 Bolt complete - Exploded view of the bolt system with recoil spring

1. Bolt head carrier with firing pin safety and anti-rebound mass
2. Locking pin for firing pin
3. Firing pin with firing pin spring
4. Firing Pin Safety
5. Control bolt
6. Bolt head with extractor and ejector

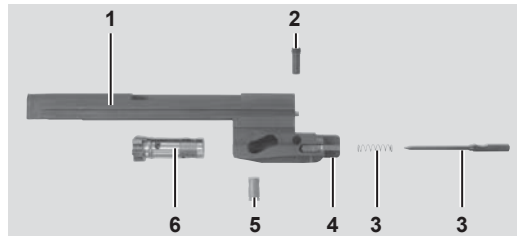


Fig. 34: Bolt parts

For disassembly of the bolt, the locking pin for the firing pin is pushed out to the right of the bolt head carrier by means of a pointed tool  
Subsequently remove the firing pin with firing pin spring, the control bolt and the bolt head

### 5.3 Magazine

The magazine consists of the following parts

1. Magazine housing
2. Follower
3. Magazine locking plate
4. Magazine floor plate
5. Magazine spring

For disassembly of the magazine push the magazine locking plate through the opening in the magazine floor plate to the front (mind the magazine spring pressure)

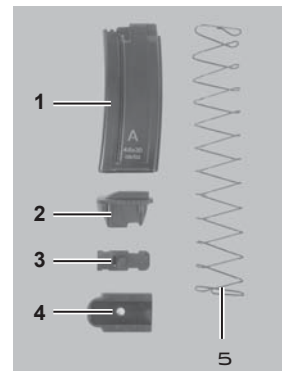


Fig. 35: Magazine Components

Remove magazine locking plate and follower with magazine spring



**Caution: The parts are subject to spring force! At the same time, you have to cover the base of the magazine box with your fingers to prevent the pieces from flying out.**

## **6. CLEANING AND CONSERVATION**

---

### **Generalities**

Proper treatment, care and conservation of the MP7 A1 guarantee fire readiness, prevent premature wear, avoid accidents, saving repair costs and time.

### **Conservation products and devices**

To clean, care and preserve the MP7 A1 you must use:

- Cleaning tool set for the 4.6 mm caliber
- Clean thread wicks for cleaning and cleaning cloths, cleaning rod for barrels and brushes for the chamber.
- Cleaning and conservation agents. (S-761, MIL-L-46000)

Cleaning the MP7 A1 with metal or plastic objects, e.g. nylon, perlon and similar, as well as chemical products such as washing benzine, tetra or similar, is prohibited.

The MP7 A1 must be cleaned:

- After each shooting action and/or when the weapon has been wet or when it is dirty.
- After all cleaning and assembly, the MP7 A1 must be examined for its condition, mobility and perfect functioning.

For Cleaning:

- Disassemble the MP7 A1 as described in chapter 5
- Clean and dry all parts with a cleaning cloth.

**Nota:** Synthetic parts can be cleaned using water or mild soapy water when necessary.

- Remove dirt and foreign bodies with the help of a cleaning cloth.

**Nota:** To clean the barrel, the flash hider should not be unscrewed.

- Pass the oil-moistened bore wiper down the barrel several times with the cleaning ramrod (the first time while the barrel is still slightly warm, that is, directly after shooting).

- Allow the cleaning agent to react for several hours.
- Next, pass a cleaning ramrod through the barrel again.
- Clean the chamber with the chamber wiper lightly moistened with oil.
- Next, pass a cleaning ramrod with a dry wick through the barrel several times, until the wicks are clean when passed.
- Lightly oil the inside of the barrel, the gas intake block and all other metal parts.
- Reassemble the MP7 A1 as described in Chapter 9

## CLEANING AND CONSERVATION

---

### **Handling and operation under adverse weather conditions**

High air humidity, high air temperature and cold temperatures down to approximately minus 25°C do not require any special measures.

At temperatures below 25°C below zero, functional or moving parts must be lubricated with oil, using a special antifreeze oil (e.g. O-157, MIL-L-14107).

Condensation water causes the formation of ice at low temperatures, which can negatively affect the functional safety of the MP7 A1.

In order to avoid the formation of condensation water, the MP7 A1 should not be transported from a cold environment to a hot environment and shortly afterwards back to a cold environment.

As a preventive measure, and in particular, the ejector and extractor must be oiled with antifreeze oil, in order to avoid seizure due to freezing of the condensation water.

Even under intense heat and high dust concentrations, all sliding paths on the MP7 A1 should be lubricated using a suitable lubricant (e.g. S-761, MIL-L-46000).

## 7. CLEANING SCHEDULE

### Care, conservation and maintenance of the MP7 A1

We recommend lubricating with oil after about 500 shots the intersection between the front face of the gas intake and the front face of the closure support.

To do this, the lock (lock support) must be moved back 1 to 2 cm using the reset lever, and both parts must be oiled through the ventilation openings in the receiver. (S-761 or O-158 or MIL-L-46000)

#### Symbols:

- Lubricating point
- Maintenance point/function check
- Cleaning

#### Cleaning Interval:

- p** Prior to firing
- a** After firing/After usage
- h** Half-yearly

Cons. No	Check point/designation	Symbol/location no.	Check/Activity	Device/Lubricant	Interval
1.	MP7 A1 incl. accessories	<input type="checkbox"/>	Checking, cleaning, lubricating	Cleaning kit, weapon oil S-761 or O-158	a, h
2.	Barrel	<input type="checkbox"/>	Oil Removal	Cleaning kit	p
	Cartridge chamber	<input type="checkbox"/>	Cleaning, lubricating	Cleaning kit, weapon oil S-761 or O-158	a
		<input type="radio"/>	Cleaning, lubricating	Cleaning brush, cleaning rod, weapon oil S-761 or O-158	p, h
	Gas port	<input type="triangle"/>	Cleaning, lubricating	Weapon oil S-761 or O-158	h
3.	Receiver	<input type="checkbox"/>	Cleaning, lubricating	Cleaning cloth, weapon oil S-761 or O-158	a
	Bolt Path	<input type="radio"/>	Lubricating	Weapon oil S-761 or O-158	p
	Interlocking piece	<input type="radio"/>	Checking, lubricating	Cleaning brush/rod weapon oil S-761 or O-158	a, h
	Bolt catch/release lever		Function		p
	Safety Mechanism	<input type="checkbox"/>	Function		p
	Trigger	<input type="checkbox"/>	Function		p

**CLEANING SCHEDULE**

Cons. No	Check point/ designation	Symbol/ location no.	Check/ Activity	Device/Lubricant	Interval
4.	Flash Hider	<input type="checkbox"/>	Tightt Fit		p
		<input type="checkbox"/>	Clearing	Cleaning Cloth	a
5.	Gas Piston	△	Cleaning, lubricating	Cleaning kit, cleaning cloth, weapon oil S-761 or O-158	h
6.	Magazine Release lever	<input type="checkbox"/>	Function		p
7.	Magazine well	<input type="checkbox"/>	Condition		p, a
8.	Bolt	<input type="checkbox"/>	Function		p
		<input type="checkbox"/>	Cleaning, lubricating	Cleaning kit, weapon oil S-761 or O-158	p, a
	Extractor	<input type="checkbox"/>	Function		p, a
	Ejector	<input type="checkbox"/>	Function		p
	Charging Handle	<input type="checkbox"/>	Function of locking mechanism		p
	Recoil Spring	<input type="checkbox"/>	Function		p
9.	Backplate	<input type="checkbox"/>	Cleaning, lubricatiing	Cleaning kit, weapon oil S-761 or O-158	a
	Butt stock	<input type="checkbox"/>	Condition, tight fit		p, a
	Interlocking	<input type="checkbox"/>	Function		p
10.	Front Cover	<input type="checkbox"/>	Condition, tight fit		p
11.	Magazine	<input type="checkbox"/>	Condition		p, a
		<input type="checkbox"/>	Cleanning, ubricating	Cleaning cloth, weapon oil S-761 or O-158	a
	Follower, magazine spring	<input type="checkbox"/>	Smooth operation		a

## 8. REASSEMBLY

---

### 8.1 Reassembly of the bolt

- Insert the bolt head from the front with the extractor to the right into the bolt head carrier.
- Insert the control bolt from the left through the guide cam of the bolt head carrier into the bolt head. Mind that the even surfaces on the control bolt protrude at the left side of the bolt head carrier and that they are parallel to the longitudinal axis of the bolt..
- Insert the firing pin with the firing pin spring from the rear all the way into the bolt head carrier, through the bolt head and the control bolt and hold it. Mind that the cutout section at the rear of the firing pin points to the top of the bolt head carrier. Insert the firing pin locking pin from the right all the way into the bolt head carrier

### 8.2 Reassembly of the receiver, backplate with butt stock and bolt

1. Insert the recoil spring with recoil spring guide rod from the rear into the bolt head carrier.
2. Slide the bolt with recoil spring half-way from the rear into the receiver and hold it.
3. Slide butt stock with backplate and charging handle from the rear into the receiver and engage the stud on the bottom of the charging handle into the groove on top of the bolt head carrier.
4. Insert the bolt group and the butt stock with backplate and charging handle all the way into the receiver and lock with the locking pin
5. It is essential to observe the sequential order of assembly operations! When inserting into the receiver, first insert the stock fork and then the guide grooves of the stock bracket into the corresponding guide tracks in the receiver.



**When inserting the bolt group into the receiver, the hammer of the trigger mechanism must be cocked.**



**Fig. 36:** Assembly of receiver, backplate with butt stock and bolt

## REASSEMBLY

---

### 8.3 Attaching the front cover on the receiver

- Slide the front cover from the front onto the receiver until the clip of the front cover clicks into the recess in front of the foldable grip



Fig. 37: Slide the front cover onto the receiver

### 8.4 Reassembly of the Magazine

- Insert the follower with magazine spring from the bottom into the magazine housing and press in the spring until it is even with the bottom of the housing
- Push the magazine locking plate with its protruding stud to the outside onto the bottom of the magazine spring.
- Slide the magazine floor plate from the front with its guide rails on the protrusions at the bottom of the magazine housing until the magazine locking plate engages with its protruding stud into the hole on the magazine floor plate.



Fig. 38: Reassembly of the magazine

## 9. FUNCTION CHECKS

---

Once the MP7 A1 has been completely assembled, a functional check must be carried out, during which the following points must be checked:

1. Operation of the bolt with the magazine removed
2. Operation when set at "SAFE", "SEMI AUTO" and "BURST FIRE"
3. Operation of the bolt catch with an empty magazine inserted
4. Operation of the bolt catch/release lever

### 1. Operation of the bolt with the magazine removed

Remove the magazine, retract the charging handle all the way and release. The bolt must slide all the way to the front and lock. When the safety is unset and the trigger is pulled, the hammer must be released

### 2. Operation when set at "SAFE", "SEMI AUTO" and "BURST FIRE"

#### Safety/selector lever set at "SAFE"

- Remove the magazine,
  - Retract the charging handle all the way and release;
- ⇒ It must not be possible to pull the trigger, the hammer must not be released

#### Safety/selector lever set at "SEMI AUTO"

- Remove the magazine,
  - Retract the charging handle all the way and release;
- ⇒ When the trigger is pulled, the hammer must be released. When the trigger remains pulled and the bolt is retracted and has moved forward and locked, the hammer must be released when the trigger is released and pulled again

#### Safety/selector lever set at "BURST FIRE"

⇒ When you activate the trigger, the hammer movement must be activated. If the trigger is held down and the weapon is repeatedly rearmed, the activation of the hammer movement must be repeated until the trigger is released. When the trigger is released, the hammer must remain in the cocked position, after the hammer has been thrown forward again.

### 3. Operation of the bolt catch with an empty magazine inserted

- Insert an empty magazine into the MP7 A1
  - Retract the bolt all the way and release;
- ⇒ The bolt must be caught in the open position by the bolt catch.

## FUNCTION CHECKS

---

### 4. Operation of the bolt catch/release lever.

- Insert an empty magazine into the MP7 A1
- Retract the bolt all the way and release
- The bolt must be caught in the open position by the bolt catch. When the bolt catch/  
release lever is pressed down, the bolt must be released.
- Remove the magazine
- Retract the bolt all the way and release
- Push and hold the bolt catch/release lever upward and release the charging handle.
- The bolt must be caught in the open position by the bolt catch/release lever.
- When the bolt catch/release lever is pressed down, the bolt must be released.

## 10. MECHANICAL SIGHT ADJUSTMENTS

---

### Folding Mechanical Sights

If a correction of the center of impact is necessary, a new sight adjustment must be made, which is possible without the need for tools.

The mechanical elevation has been set at the factory to 100m. At a distance of 25m, the average impact point is approx. 20mm below the target point.

#### Height correction through the front sight adjustment nut:

Missing Low: Turn the height adjustment screw in the "UP" direction.

- Missing high: Turn the height adjustment screw in the opposite direction of "UP".



Crosshair height correction

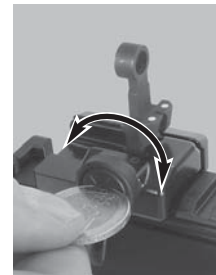


A turn of one notch of the height adjustment nut on the front sight modifies the center of impact by approx. 12mm (shooting distance: 25m).

#### Lateral correction via lateral adjustment screw in the notch/diopter:

Missing right: Turn the adjustment screw laterally (with a coin or a screwdriver) in the L (left) direction.

Missing left: Turn the adjustment screw side (with a coin or screwdriver) in the R (right) direction.



Lateral sight correction



One turn of the lateral adjustment screw changes the center of impact on one side by approx. 6mm (shooting distance: 25m).



## 1 1. TROUBLE SHOOTING

---

Problem	Check for	What to do
Cartridge fails to fire	Defective ammunition	Unload, mind that the barrel bore is clear.
	Firing pin damaged or broken	See your armourer
	Hammer spring damaged or broke	See your armourer
<b>Bolt did not open after firing</b>	Case jams in the chamber due to deformed case or fould chamber	Unload, retract bolt and eject the case. Mind that the barrel bore is clear. Clean.
<b>Case not extracted or ejected</b>	Chamber fouled	Clean chamber, mind that the barrel bore is clear
	Extractor or extractor spring damaged or broekn	See your armourer
	Ejector or ejector spring damaged	See youro armourer
	Insufficient bolt recoil	Unload, retract bolt and remove case, mind that the barrel bore is clear. Check bolt for smooth operation, clean chamber if required.
	Base of case ruptured	Drift case with cleaning rod out to the rear
<b>Bolt fails to feed cartridge</b>	Magazine not properly inserted	Insert magazine properly
	Magazine loose	Check magazine catch and engagement stud on the magazine, see your armourer if required..
	Magazine spring lame	Change magazine, send damaged magazine to your armourer
	Magazine lips damaged	Change magazine, send damaged magazine to your armourer



## TROUBLE SHOOTING

Problem	Check for	What to do
<b>Bolt not fully closed, cartridge not fully chambered</b>	Chamber or Bolt Guideway fouled	Clean chamber or guideways
	Cartridge damaged	Unload, mind that the barrel bore is clear
	Recoil spring lame	Send it to your armourer
<b>Bolt is not arrested in its open position</b>	Magazine spring lame	Change magazine and send damaged magazine to your armourer
	Bolt lock damaged	See your armourer
<b>Cocked hammer does not release</b>	Trigger bar broken	See your armourer
<b>Magazine jams in magazine well</b>	Magazine damaged	Change magazine and send damaged magazine to your armourer
	Magazine catch damaged	See your armourer
	Charger housing and/or charger are dirty	Clean the charger housing and/or charger
<b>The layout of the impacts has been altered to one side</b>	Mechanical rear sight system (notch) out of adjustment	Reset the notch
<b>The arrangement of impacts at height has been altered</b>	Mechanical rear sight system (aim point) out of adjustment	Readjust the aiming point
<b>The arrangement of impacts in height and/or to the side has been altered</b>	Different ammunition is being used	The firing tests of the weapon must be carried out again and the rear sight system corrected in height and laterally

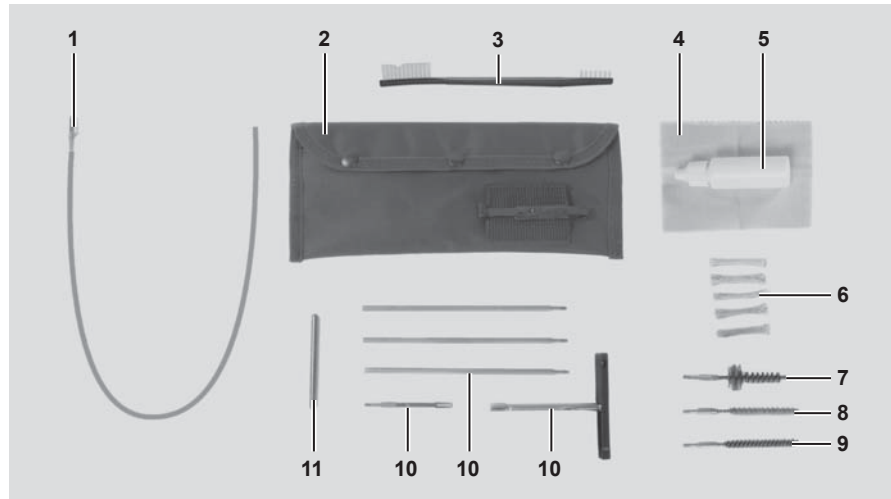


The elimination of faults and defects of a serious nature should only be carried out by a specialized weapons technician (gunsmith mechanic).

## 12. ACCESORIES

---

### Cleaning Kit

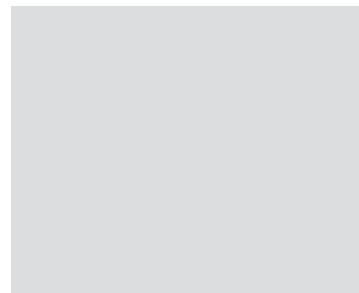


1. Flexible Cleaning Rod
2. Equipment Case
3. Cleaning Brush
4. Cleaning Cloth
5. Oil Clean
6. Cleaning wads
7. Chamber cleaning brush
8. Bore cleaning brush
9. Bore cleaning brush, brass
10. Cleaning rod with foldable grip, extensions and cleaning wad holder
11. Cross pin for cleaning rod grip

### Flash Hider

The flash hider is screwed onto the muzzle and also provides protection against gripping the hand over the muzzle

The flash hider is tightened with a 11mm fork wrench. The recess on the flash hider permits the quick firing of a silencer









**HECKLER & KOCH GMBH**  
**Heckler & Koch Str. 1**  
**D-78727 Oberndorf / N.**

Telephone: +49(0) 7423 / 79-0  
Fax: +49(0) 7423 / 79-2497  
E-Mail: [hkinfoboard@heckler-koch.de](mailto:hkinfoboard@heckler-koch.de)  
<http://www.heckler-koch.de>

© Copyright 2006

Id #. 978 491  
HK1 – 0506 JLK  
Printed in Germany  
**OD 0906**