

Echo 1 M16 Rifle

Cortesía de Universo Sniper Airsoft, www.universosniperairsoft.com

TECHNICAL DATA

Magazine Capacity	300 BBs
Power Source	Electric
Muzzle Velocity	350 fps with .2g BBs
Accuracy	150 ft (45.72 m)
Length	3.28 ft (1.00 m)
Battery Charge Time	5 hours



Batteries | [Top](#)

Use the specified battery for the gun, 8.4v, 1300 mah hyper command so type mini battery, avoid use of non-standard or other brand name batteries. This may not allow you to obtain originally designed function. AK and Mini Batties Cannot be used.

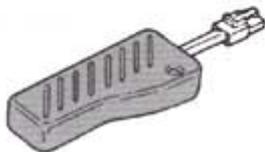
● 8.4V SD TYPE Mini Battery Pack
8.4V SD

● Exclusive Charger for Mini Battery



● Ni-cd Battery Discharger

● Speed charger

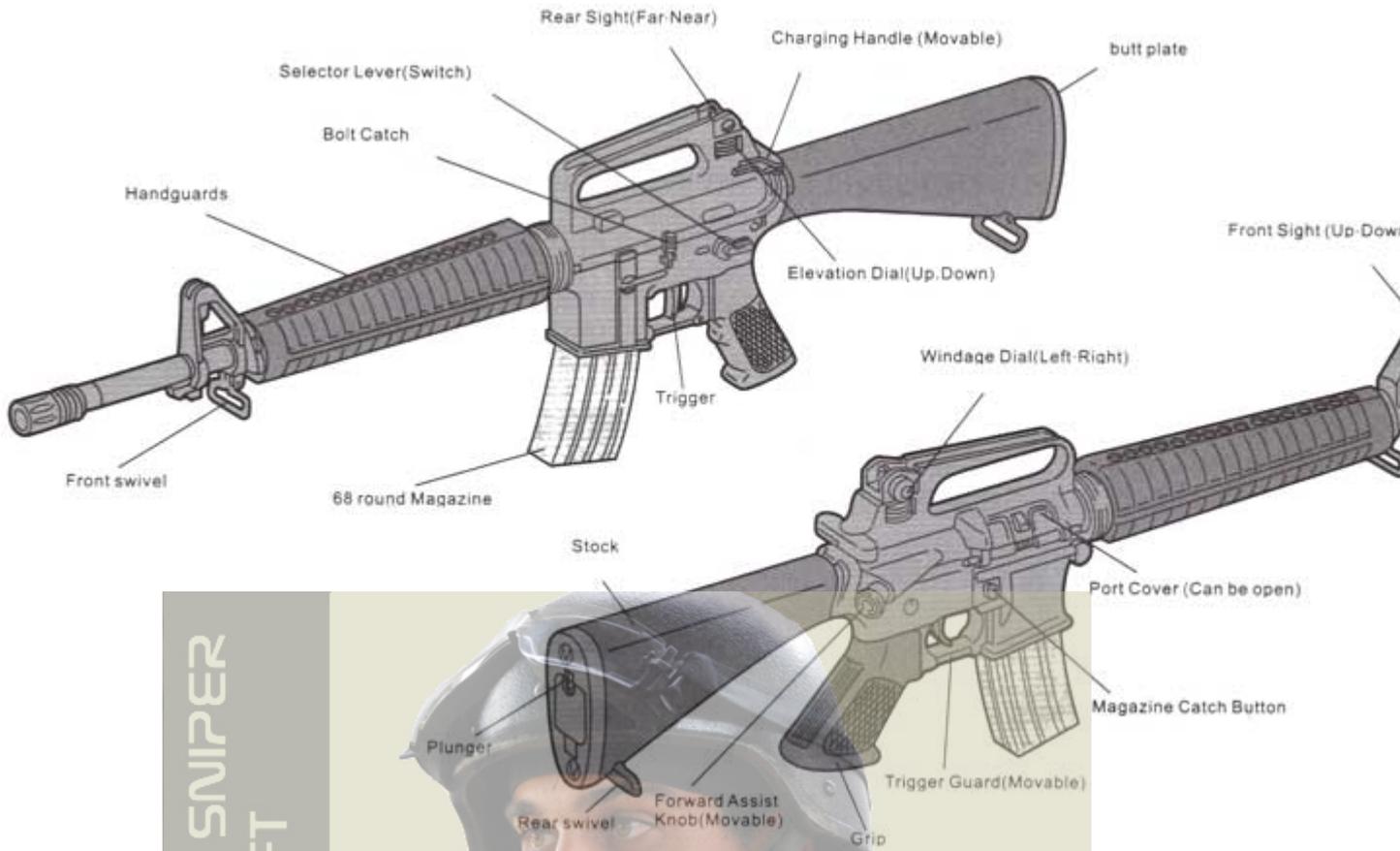


Warning: Do not use undesignated batteries made by other companies. In such a case, it may press the barrel and reduce the speed of shots or lowers hit probability.

-Use the specified battery charger which is applicable to the above battery. The charger exculsive type. Battery capacity is increased with the use of the Ni-cd battery Discharger (Sold Separately).

-Use the correct battery and charger according to respective instruction manuals. We will not be held responsible for any accident or damage caused by wrongful operation or usage of non-specified batteries.

Operational Diagram | [Top](#)



1. Selector and Safety Setting | [Top](#)

Always se the safety lever to SAFE until immediately before firing.

Safety Switch ON



SAFETY Setting - The trigger cannot be pulled
When you are not firing the gun or during storage. Always set the selector to the Safe position and attach the protective cap.

Safety Switch OFF



SEMI AUTOMATIC (Single Shot)
The gun will fire one shot each time the trigger is pulled.

Safety Switch OFF



FULLY AUTOMATIC (Automatic Firing)
The gun will fire automatically while the trigger remains pulled.

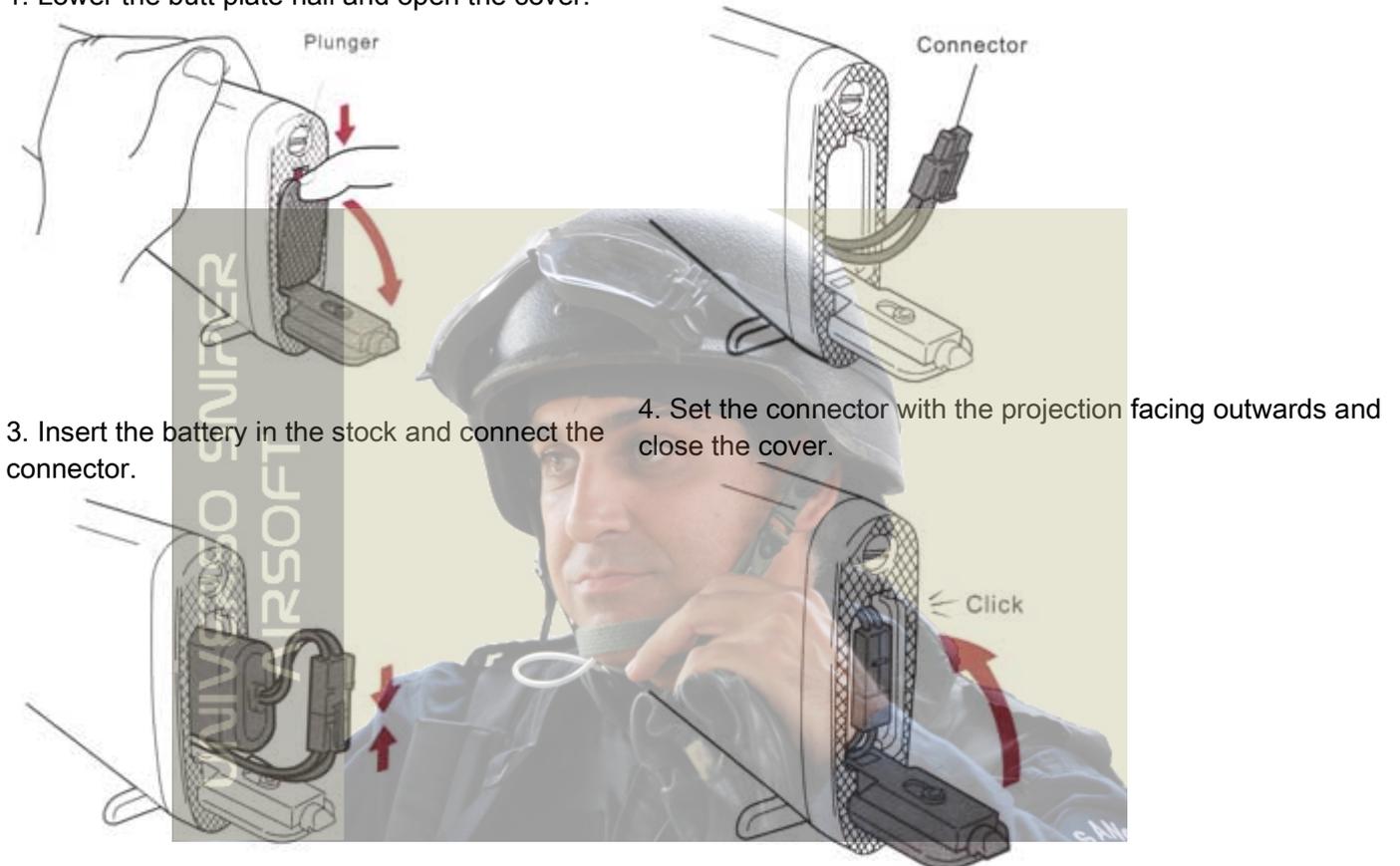
Caution:

- Never operate the selector while pulling the trigger. Otherwise, malfunctions are possible, resulting in accidents.
- Pulling the trigger with the Selector being set to safe may damage the gun.

2. Setting the Battery | [Top](#)

Conduct operations hereafter after charging the battery.

1. Lower the butt plate nail and open the cover.
2. Pull out the connector. (Do not pull out the fuse box.)



3. Insert the battery in the stock and connect the connector.

4. Set the connector with the projection facing outwards and close the cover.

Warning: Always attach the protective cap and disconnect the magazine to avoid sudden operation upon connecting the connector battery.

3. Setting the Open Sight | [Top](#)

Front Sight - Setting the bullet hitting point.

Cover the front sight with the adjustment tool and turn.

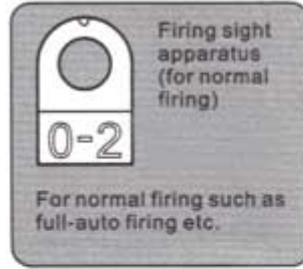
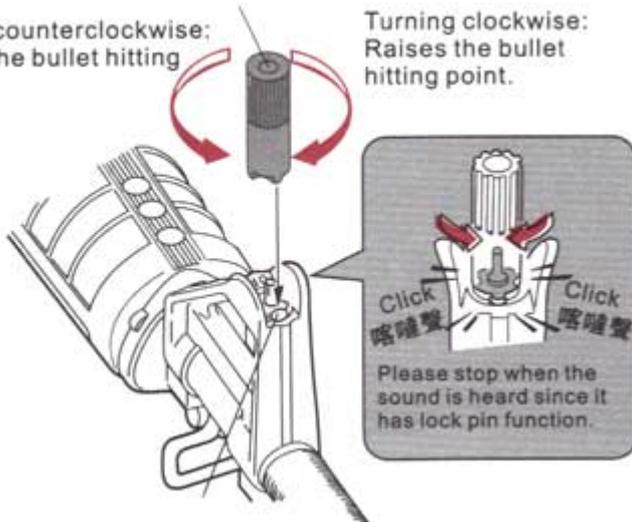
Rear Sight 1 - For left-right adjustment

Turning the windage adjustment dial will move the point to the left or right.

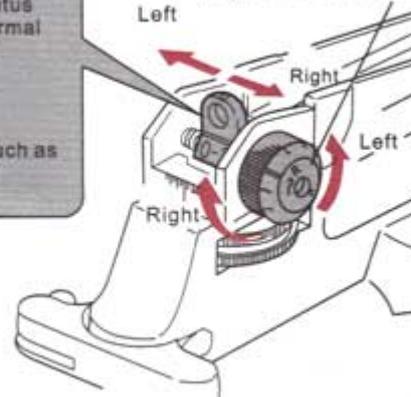
Calibrating tools

Turning counterclockwise:
Lowers the bullet hitting point.

Turning clockwise:
Raises the bullet hitting point.



Wind force adjust (right and left) dial



Turning clockwise: Raises the bullet hitting point.

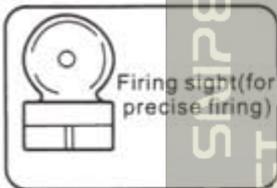
Turning counterclockwise: Lowers the bullet hitting point.

Rear Sight 3 - For up-down adjustment

Turning the windage adjustment dial will move the bullet hitting point to the left or right.

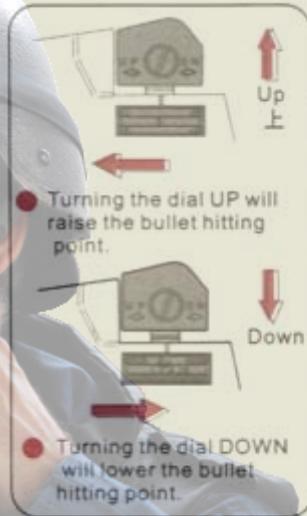
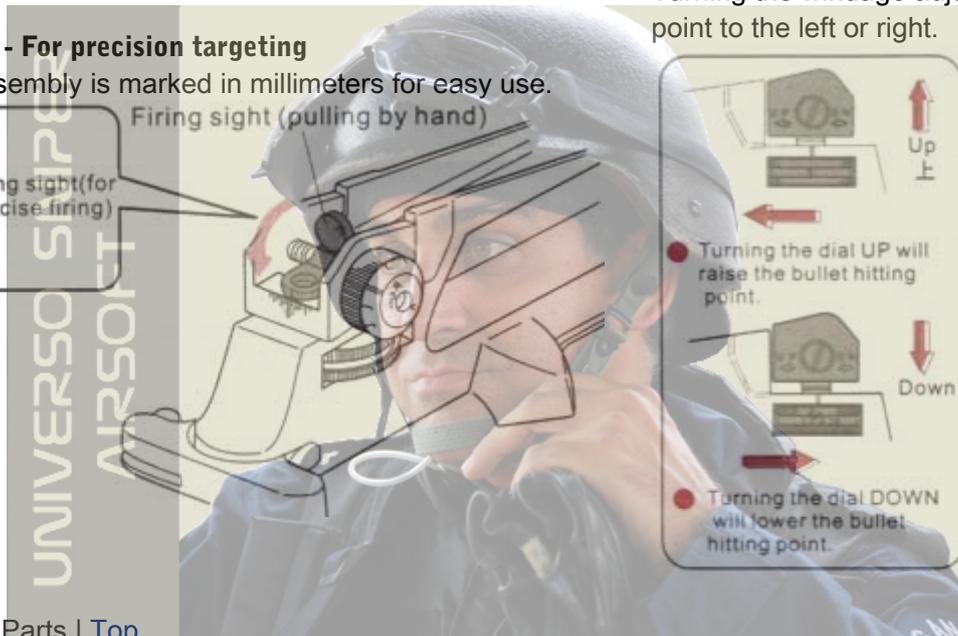
Rear Sight 2 - For precision targeting

The sight assembly is marked in millimeters for easy use.

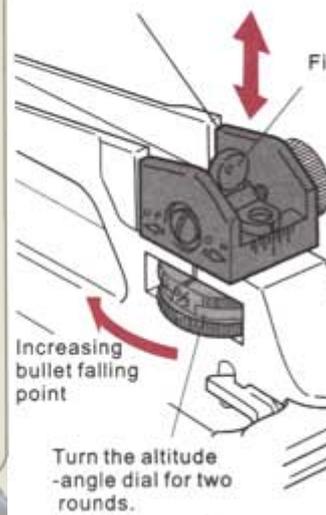


Firing sight (pulling by hand)

Firing sight (for precise firing)

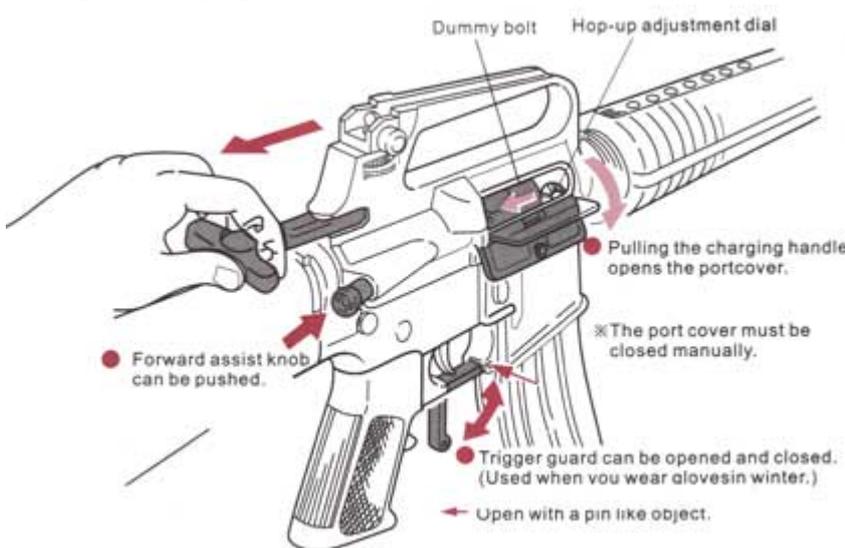


Sight assembly



4. Moveable Parts | Top

Pulling the charging handle will expose the hop up adjustment dial in the port cover.



Caution:

- Forcing the port cover closed when the charging handle is not properly in place will damage it.
- Be careful not to catch your finger in the dummy bolt as it will close quickly when the charging handle is released.
- When closing the portcover, make sure the charging handle has returned fully into position, otherwise the port cover will not close.

5. Setting the Magazine | [Top](#)

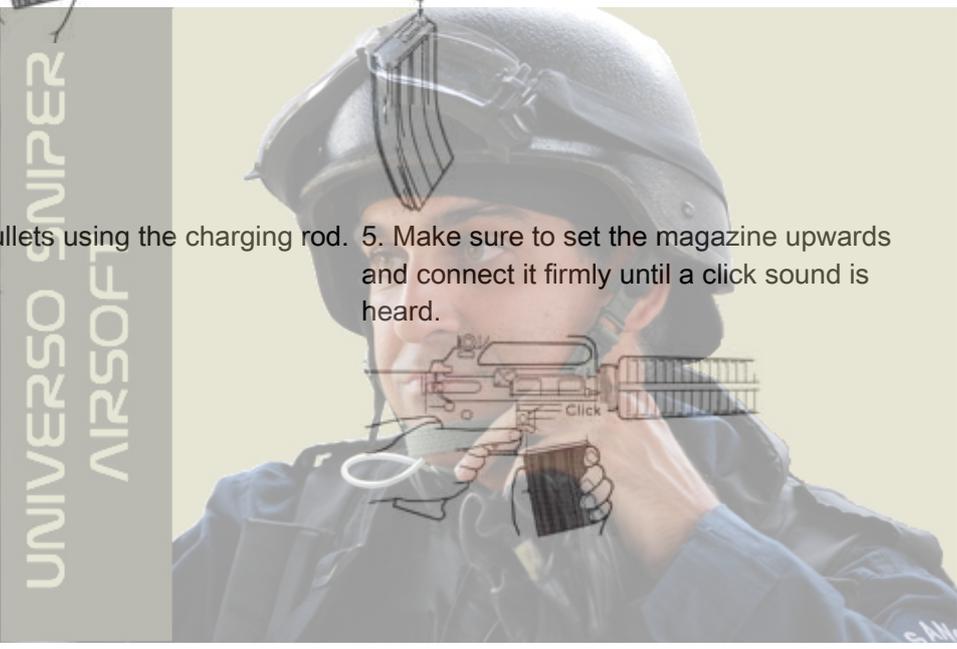
1. Press the magazine release to remove the magazine. (Support the magazine as it may drop.)
2. Insert 6mm BB bullets supplied by Marui into the charger. (70 bullets can be inserted.)
3. Insert the charger into the magazine.



2. Insert 6mm BB bullets supplied by Marui into the charger. (70 bullets can be inserted.)

3. Insert the charger into the magazine.

4. Press in bullets using the charging rod.
5. Make sure to set the magazine upwards and connect it firmly until a click sound is heard.



Caution:

- Always use the proper BBs for this airgun.
- Confirm that the safety lever is set to the safety position and don't place your finger on the trigger.

6. Firing | [Top](#)

Confirm safety sufficiently before beginning firing.

- Simply remove the protective cap, set the selector lever to Semi or Full Auto, and pull the trigger.

Cautions on Motor and Battery:

- Charge the battery if the firing cycle becomes slow.
- Give the air gun a rest for 5 to 10 minutes after firing about 500 rounds, in order to ensure long service lives of the motor and battery.

When Bullets are clogged:

- If bullets are clogged, remove them and apply a few drops of silicone oil into the chamber from the magazine entrances or spray silicone oil for .5 to 1 second, to obtain smooth continuous firing.

After Operation:

- Remove the magazine and dry fire the gun in the semi auto mode directing the muzzle to a safe direction. (Otherwise, the spring may be weakened.) Set the selector to the safe position.
- Always disconnect the battery and attach the protective cap whenever you do not operate the air gun. Bullets may remain in the chamber even if the magazine contains no bullets (or if the magazine is not connected).

General Cautions:

- There are possible cases of non firing occirng after pulling the trigger in the semi auto mode. In this case, do not pull the trigger furiously. Fire 5 to 6 shots in the full auto mode and then return to the semi auto operation.
- Smell may be generated from the motor for a while when a new air gun is operated, this is the normal operation of the gun.
- The hopping up operation may be unstable for 200 to 300 rounds after using silicone oil, this is the normal operation of the gun.

7. Variable Hop Up System | [Top](#)

By producing a back-spin on the BB bullets, this system allows for straighter and longer distance shooting than normal air guns. Unlike the fixed type, the variable hop up system permits one-touch adjustments using the dial and lever, making it an ideal hop up system.

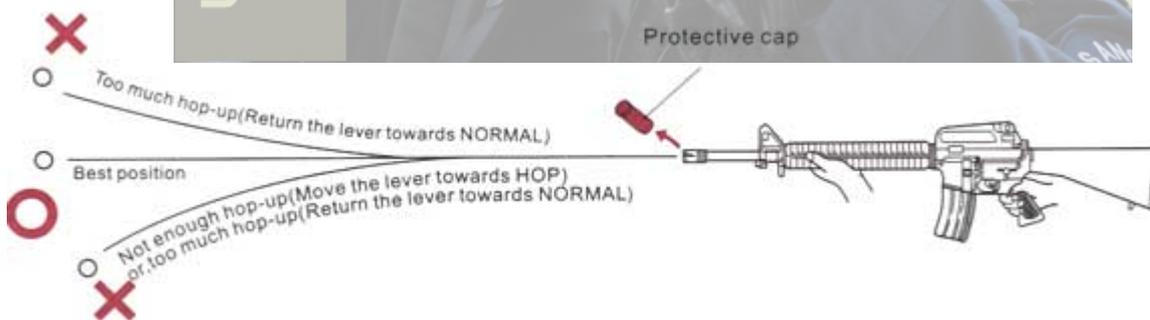
- Adjustment Procedure (Adjust by carrying out trial firing)

Don't let go of the charging handle when adjusting the hop up.

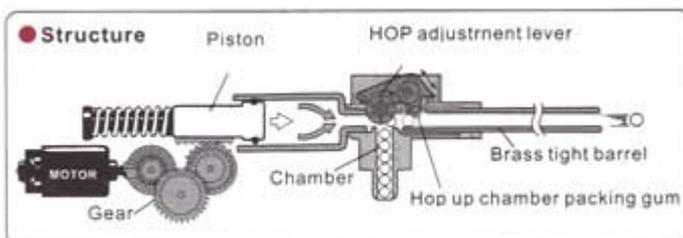
Protective cap

- Keep pulling the charging handle while adjusting the
- Turning excesively adversely affects the trajectory. S
- turning the hop adjustment lever when bullets fly horiz
- The hop up dial can only be turned a certain amount
- too much will damage it.

- The best position is where the bullets fly horizontally, and the longest flying distance is obtained.



Strictly observe the following cautions:



- Moving the lever too much towards Hop causes bullets to clog. Pulling the trigger with clogged bullets damages the pistons and gears.
- If bullet clogging occurs, immediately stop firing the gun, return the hop adjustment lever to the Normal position and remove clogging bullets using the cleaning rod.
- Make sure to return the hop adjustment lever to the Normal position when removing clogged bullets or cleaning. (Otherwise, the chamber packing is damaged.)
- Never use used and dirty bullets.
- When about 10, 000 rounds are fired, spray silicone oil to the chamber for .5 to 1 sec. The hopping up operation may then be unstable for 200 to 300 rounds.
- Do not disassemble or modify.

Upwards flying bullets and short flying bullets can be caused by too much hop setting. Simply lower the hop setting in this case. If dirt or oil is contaminating the hop packing fire 4 to five rounds and clean the chamber using the cleaning rod.

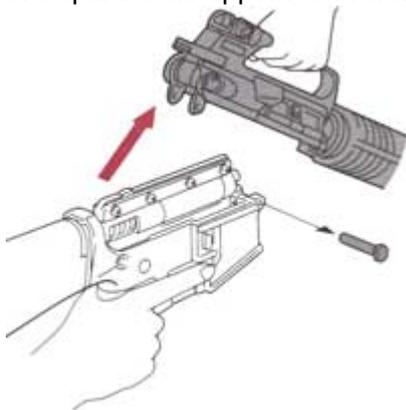
8. Normal Disassembly for Overhaul (Take down) and Maintenance Procedures | [Top](#)

Caution: After removing the magazine, fire the rifle in semi-automatic once to move the piston forward for easy disassembly.

1. The upper receiver can be removed. Remove the frame pin by 2. The barrel can be removed. Stop here for barrel screw driver and pull open the upper receiver by the carrying handle. The pin by the hand guard is the pivot point - dont overpull.



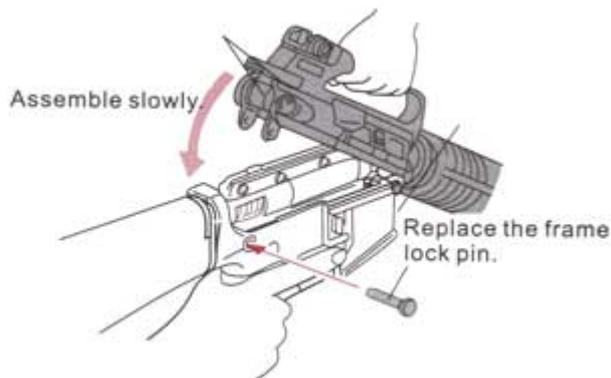
3. Separate the upper receiver from the body.



Caution:

- Do not disassemble past this point.
- Do not pull the charging handle or the dummy bolt disassembled. Doing so will damage the gun.
- Make sure no dirt gets into the M16A2 meca box open.

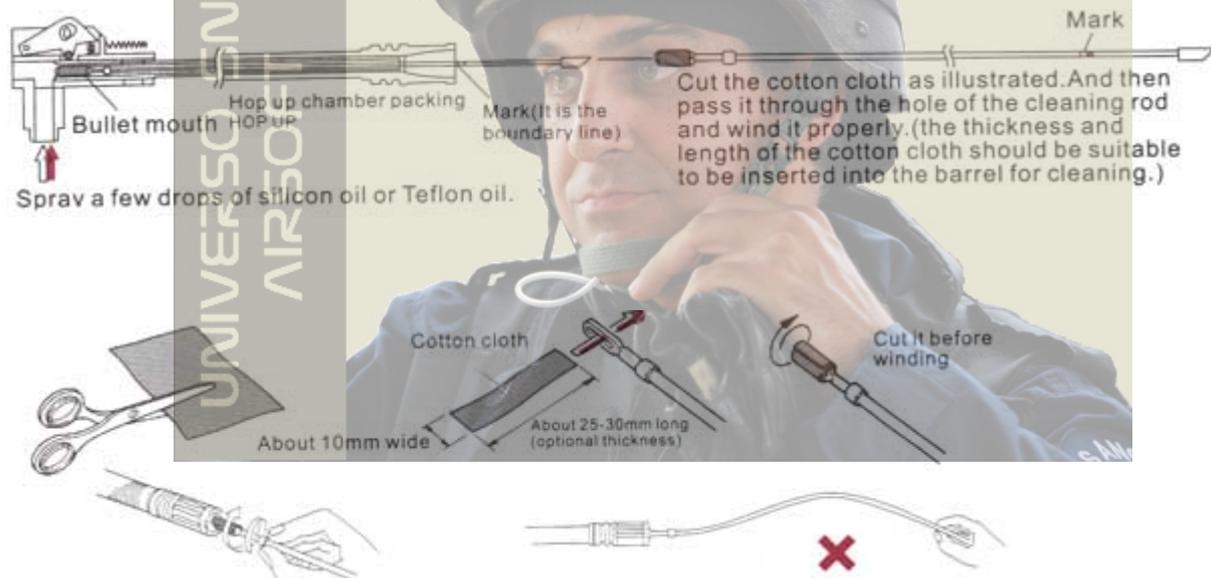
Assembly:



- The frame pin will fit in smoothly if the upper receiver and lower receiver are joined properly. The frame lock pin guides will be damaged if the upper receiver is closed quickly. Check to see they are aligned properly. make sure not to cause damage.

1. Maintenance when Bullet Speed Becomes Low

1. Drop a few drops of silicone oil or Teflon oil from the bullet entrance. Insert BB bullets into the magazine and fire bullets equivalent to 1 or 2 magazines.
2. To complete the cleaning, use the cleaning rod (with cotton) as shown below, to remove excess oil.



Hold the cleaning rod and turn. After cleaning the barrel replace it.

2. Removing Clogged Bullets

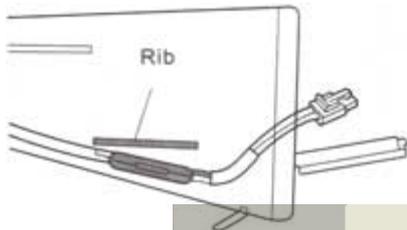
1. Remove the magazine and then the barrel assembly.
2. Return the hop up dial to the Normal position and insert the cleaning rod from the lead edge of the barrel.
3. Be careful so that the angled part of the cleaning rod faces down, and remove clogged bullets.

3. Fuse Replacement Procedure

1. The fuse is pulled out when the battery connector is pulled out from inside the pat plate.

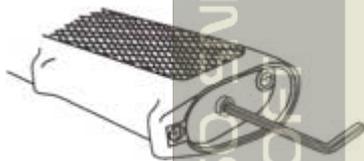


2. Open the fuse box and change the fuse. Place the fuse box back under the rib as shown.



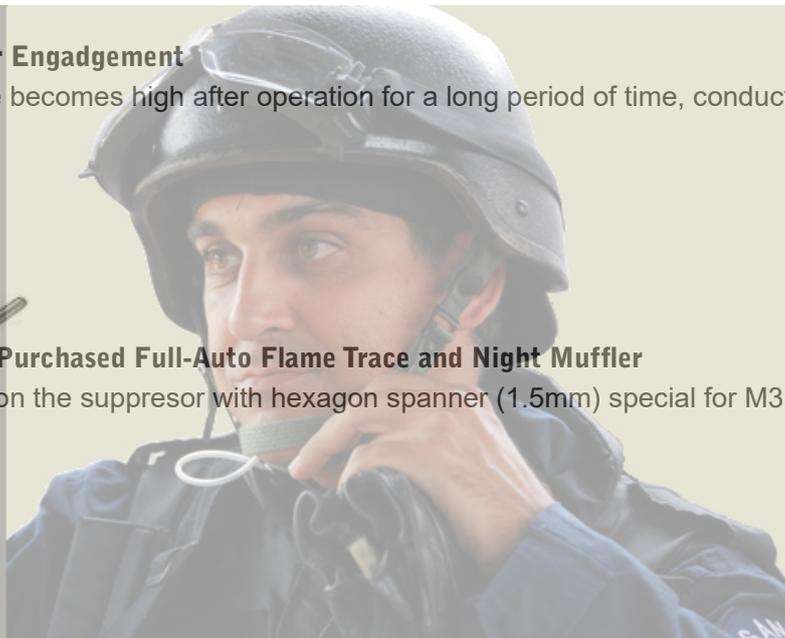
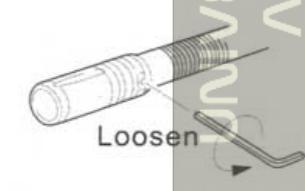
4. Fine Adjustment of Gear Engadgement

Only when the motor noise becomes high after operation for a long period of time, conduct the fine adjustment as shown.

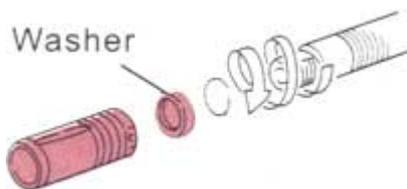


Installation of Separately-Purchased Full-Auto Flame Trace and Night Muffler

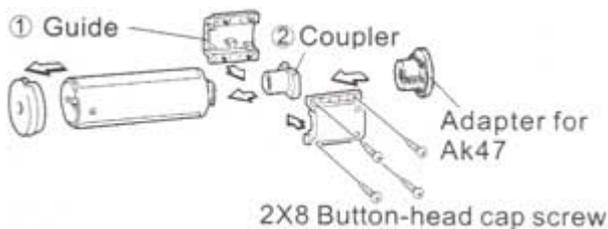
1. Loosen the fixed screw on the suppressor with hexagon spanner (1.5mm) special for M3 fixed screw.



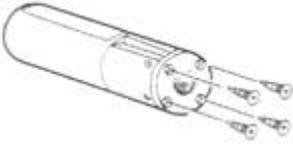
2. Remove the suppressor.



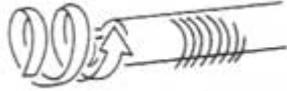
3. Remove the cover of the flashing unit and then screw the (1) guide and (2) coupler as illustrated.



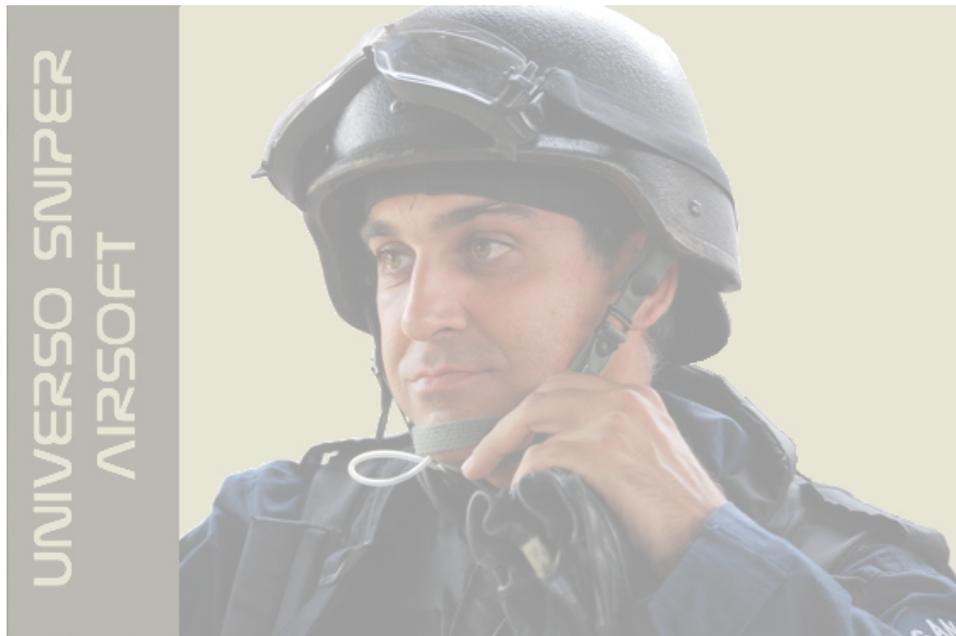
4. Fix it with 4 2x10 socket head cap screw.



5. Install the tracer.



9. Trouble Clinic | [Top](#)



Symptom	Cause	Action	Symptom	Cause	Action
Impossible semi-auto operation (single shot)	Insufficient battery power	Charge the battery.	Selector lever is set to safety.	Battery is not charged	Set the selector lever to Semi or Full Auto.
	Poor electrical connection	Consult your dealer or us for overhaul maintenance or repair.			Charge the battery.
Automatic firing cycles become long	Insufficient battery power	Charge the battery.	Battery connector is disconnected.	The + and - of battery connector are reverse	Connect the connector.
	Worn or damaged chamber packing	Consult your dealer or us for overhaul maintenance or repair. Replace the chamber packing and piston assembly.			Connect the connector correctly (check the fuse).
Shooting distance becomes shorter	Worn or damaged piston packing (O-ring)	Replace the piston packing and piston assembly.	Fuse is blown out	Expired motor life or poor electrical connection	Replace the fuse (see Maintenance --> Fuse Replacement)
	Deteriorated piston spring	Replace the piston spring.			Replace the motor or check and repair the contacts.
	Faulty BB bullets (too small or heavy)	Use the Marui genuine BB bullet.			Insert the charging rod into the magazine and move up and down a few times to remove clogged bullets.
	Shortage of silicon oil	Drop a few drops of silicon oil from under the chamber.			Remove clogged bullets using the cleaning rod
	Gear problem caused by too much blank firing	Replace the gear.			Purchase the replacement gear from your dealer or us and repair.
Too loud operating noise	Worn or damaged gear	Consult your dealer or us for overhaul maintenance, part replacement (gear, etc.) or repair.	Although motor is revolving no bullets jump out	Bullets are clogged in the chamber	Remove clogged bullets using the cleaning rod
	Gear problem caused by too much blank firing	Replace the gear.			Remove clogged bullets using the cleaning rod
Bullets begin falling out from barrel end	Worn or damaged chamber packing	Replace the chamber packing.	Impossible full-auto operation (automatic firing)	Insufficient battery power	Purchase the replacement gear from your dealer or us and repair.
	Faulty BB bullets (too small)	Use the genuine BB bullet.			Charge the battery.
Being wet or dropped into water (rain)	Stop operation immediately, disconnect the battery, wipe off water from inside the main body and the battery, and, after completely dry, carry out the trial firing. If no operation or malfunction is detected, consult your dealer or us for repair.		Faulty bullet feed of		Repair clogging of the

magazine

magazine.

Poor electrical
connection

Consult your dealer
or us for overhaul
maintenance or
repair.

Impossible semi-
auto operation
(single shot)

Deviation in gear
timing

Set to semi auto after
firing 5 to 6 rounds in
full auto.

