

Rifle MR556/HK 416/ M27/HK 416A5 (Airsoft)



**Disassembly and assembly of the
HAO's 416 kit for PTW system**



Rifle MR556/HK 416/ HK 416A5

 **DANGER**

Risk of death from gunshot wounds!
Accidental discharge of weapon may occur when loaded weapon is handled.

- > **Carry out a safety check before working on the weapon.**
- > **Do not perform maintenance work until you have read and understood this manual and the operator's manual for the weapon described here completely.**
- > **Follow the safety instructions when handling the weapon.**





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 **WARNING**

All HAO kits are all precisely machined for SYSTEMA P.T.W specification.

We do not recommend our user to use aftermarket parts on HAO's kit.

Some of aftermarket's cylinder may not fit in HAO's upper due to its locating pin is too wide and too long.

 **BEST COMPATIBLE WITH**

SYSTEMA
PROFESSIONAL TRAINING WEAPON

 **ORGA** made in japan
AIRSOFT



Part I

Assembly of Upper Receiver

Assembly of Upper Receiver:

Upper receiver assembly includes the barrel, Which controls accuracy. Besides your normal collection of tool, make sure specialized tools such as a vice (or preferably the upper receiver clamp) are available

Install Dust Cover:

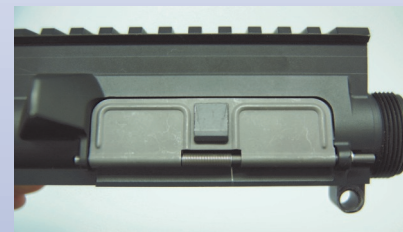
First, set E-Clip over groove on Dust Cover Shaft.



Note

The dust cover's operation is different from the real steel. With the PTW, the dust cover remains closed during firing, and the dust cover spring should be installed so that it will held the dust cover in the "closed" position at all times. Please refer to photo.

Position Dust Cover and Dust Cover Spring over Upper Receiver, then insert Dust Cover Shaft from front end (barrel side) through the upper receiver and dust cover, securing dust cover in place. Note the position of dust cover spring.



2. Install Forward Assist Knob

The forward assist knob has no specific function in the P.T.W (HAO's 416 kit) Forward Assist Knob Set Pin is to simply prevent the Forward Assist Knob from springing out.

For assembly, insert Forward Assist Knob Spring into upper receiver, then insert Forward Assist Knob as shown (note the location of groove).



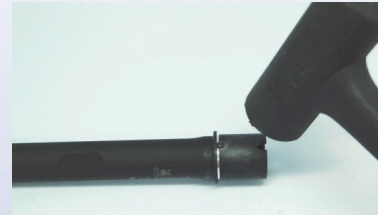


Assembly of Upper Receiver

Once the groove is aligned inside the receiver, insert set pin from below the receiver. The pin is easier to install from below with the receiver upside-down because the receiver sits more securely this way.



3. Install Outer Barrel Knock-Pin to outer barrel, then insert outer barrel to upper receiver.

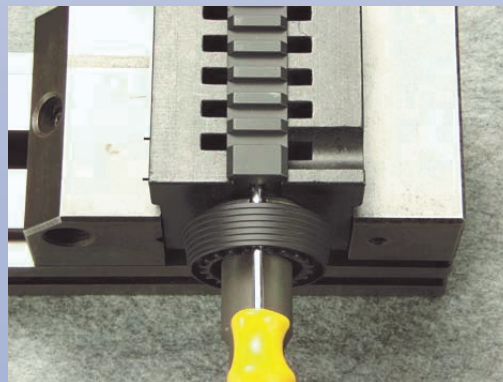


From the front of the outer barrel, screw in Barrel Nut Assembly clockwise and make sure the barrel nut is tight enough.



Tip

To protect the surface finish, the use of an upper receiver clamp is highly recommended.





Assembly of Upper Receiver

4. Install Hand-Guard

Insert Hand-Guard while pressing slide through the barrel nut. Be careful not to get your hand caught as gap of Hand-Guard and Upper receiver.



5. Install Flash Hider (Option)

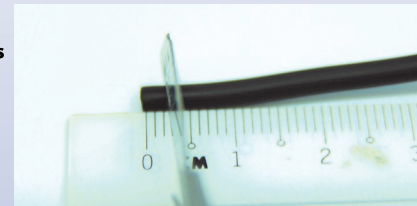
Slide the Flash hider ring then tighten the flash hider clockwise (1/2 28RH) / counter clock wise (CCW 14mm).



6. Install Receivers Stabilizer

HAO's 416kit have perfectly clone 416A5/417's latest feature on its upper receiver which can eliminate the most wobble on your weapon.

First, precisely cut the tube at 2mm each by cutter knife. Second, drive them hard into the sockets which is precisely drilled 1.8mm. Third, adjust the length of stabilizer to match your weapon.



Notice

You may skip Receiver Stabilizer installation if your receivers is tight enough.

Part II

Assembly of Lower Receiver



Assembly of Lower Receiver

Assembly of Lower Receiver:
HAO's 416 kit is precisely machined by CNC machine center from extremely strong 6061/7075-T6 alloy billet. Just make sure you won't fall your weapon on the ground to make a WMD (Weapon of Massive Destruction) explosion.

1. Install Trigger Guard Assembly (Option)

First, refer to right photo and insert Trigger Guard Assembly to lower receiver, using the spring-loaded Trigger Guard Stopper Pin to held it in place.



Next, press-fit Trigger Guard Set Pin.



2. Install Magazine Latch (Option)

First, insert Magazine-Catch from left side of lower receiver. Next, place Magazine-Catch Spring over magazine-catch shaft from the right side. Then, screw Magazine-Catch Button into the receiver until the magazine-catch sticks out from the left. Rotate the magazine catch clock wise several turns (as shown), then rest it into its original hole.



3. Glue Dummy Pin

There are total 6 pins to be glued: Trigger Dummy Pin and Hammer Dummy Pin, and Full-Auto Sheer Dummy-Pin. We recommend using Loctite 403, but any adhesive that does not leave any residual/coloration will be fine. To glue the pins, dip a toothpick into the adhesive and use the toothpick to apply a very small amount of glue into the middle of each groove. Then place each dummy pin into their corresponding groove, and apply pressure until adhesive sets.



4. Glue Selector Cap

Using the same adhesive, apply small amount of glue into the ledge of the Selector-Cap, and place it into its inside-out respective groove on the receiver. If needed, use a small plastic hammer to set it in place.



5. Assemble Pivot-Pin

Insert Pivot-Pin Spring and then Pivot-Pin Stopper-Pin into the corresponding hole from the front of the receiver. While holding both parts inside the hole, insert Pivot-Pin through the lower receiver as shown.

6. Install Motor (Option)

The trick to install motor correctly is to always remember this: Positive terminal at the front. If you look at the bottom of the motor, you should see a red mark over one of its terminal. That is the positive terminal. After the motor is installed, the red terminal should be facing for front (muzzle-end) of the gun. To install motor, insert motor perpendicular to the lower receiver, and rotate it 90 degrees (as shown) to lock it in place. Remember the positive *red) terminal should be facing front; pay attention to it when you insert/ rotate the motor.



Once the motor is in-place, insert the Motor Fixing Pins. If the pin do not fit in smoothly and tapping/hammering is required, make sure the motor is properly and evenly supported first. A piece of board under the motor to distribute the pressure would work. This is important because the motor is a structural part of the PTW, and it must not be deformed.



Part III

Assembly of Slide-Stock

Assembly Slide-Stock (Option)

In this section we will be assembling the slide stock. Since the stock bears a great amount of force during operation, it is important that it is assembled securely and professionally. Properly apply torque in various tools are key to making the slide stock rock-solid.



1. Install Stock-Tube (Option)

Prepare stock tube by installing Stock Tube Nut onto the Stock Tube with the four notches facing the rear. Thereafter, insert Stock Set Plate over the threaded part of stock tube.



Next, insert Take-Down Pin into the lower receiver. Then from behind the receiver, insert Take Down Pin Stopper Pin and then the Take Down Pin Stopper Pin Spring into their insertion hole, as illustrated.



Finally, screw stock tube into lower receiver. Pay attention to the positioning; the front end of the stock tube should not protrude from the lower receiver. If the stock tube is too far forward, the receivers won't close. Typically the front of the stock tube should still be about 2mm recessed.

Once the stock tube is in position, use a stock tube wrench to loosely tighten the stock tube nut. Do not fully tighten the nut yet because you may need to loosen it and re-adjust the stock tube front/aft in the next step.



Part IV

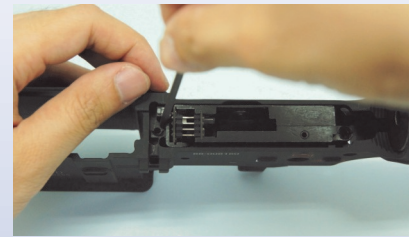
Installation of Electrical Components

1. Install Gearbox (Option)

Insert motor as shown. Make sure the motor stays perpendicular to the gearbox at all times, and do not left out the selector rack gear (the silver piece). Also pay attention to not pinch any of the control wires.



Once the gearbox is fully seated into the lower receiver, secure the gearbox by fastening two Set Screws for Gear Box through the mounting holes of the gearbox, onto the lower receiver.



2. Install Selector Lever (Option)

First ensure the selector rack gear is at the forward (SAFE) position. Use a small pin punch or tooth pick to make sure it is pushed forward fully.

Then slightly grease the Selector Lever shaft, and then insert it into the opening, while orienting it to the "SAFE" position (Selector lever pointing the front/nuzzle end of the gun). Once fully inserted, rotate it from SAFE to AUTO to ensure full range of movement.



Finally, insert Selector Click Ball and then Selector Click Ball Spring through the small, threaded opening at the top of the gearbox. Then fasten Selector Click Ball Screw over the hole. Slowly tighten the screw until resistant is felt. The selector lever's resistant is adjustable by how tight you fasten the selector click ball screw.



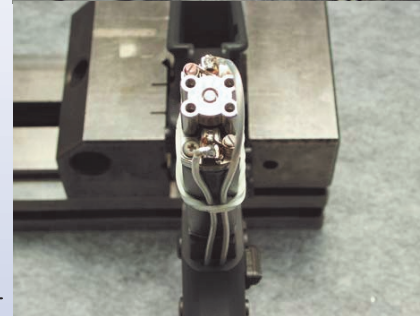
3. Install Bolt Stop (Option)

Insert Bolt Stop Spring into the corresponding hole in the lower receiver. Then position the Bolt Stop over the bolt stop spring, aligning the hole with the retention pin holes on the lower receiver. Finally insert Set Pin for Bolt Stop through the corresponding hole from the rear (butt stock side) of the receiver, with the knurled end facing the rear. Use a pin punch to secure the pin in place.



4. Solder Motor Wires (Option)

Use a rubber band or electrical tape to temporarily secure the motor wire in-place. Then solder the wire as shown. Note the longer wire is positive which should be connected to the brush case next to the brush spring post painted red, and the shorter wire is the negative which is to be connected to the other brush case.



5. Install Grip and Grip End (Option)

Gently slide the Grip over the motor ensuring the motor wires do not get squeezed or pinched between the grip and the motor.

Once the grip is fully inserted, through the opening at the bottom make sure the positive motor wire is routed towards the side of the motor's bottom mount point. There is a small notch on either side of the grip end for the wire to rest. If the wire do not rest in said groove, it will be damage.

Next, place Grip End over the bottom opening of the grip with the correct orientation and fasten the grip end to the motor by using the 4 Group End Screw.

Finally install Rotor Adjust Screw in the center opening of the grip end, but do not tighten. The newer motor that comes with the kit does not require adjustment anymore, and the rotor adjust screw is just there to cover the hole. Fasten the screw until the top of the screw is flush with the top of the hole.





Memo



Memo



No Compromise

Quality . Innovation . Service . Safety

