



VARIABLE MASS OPERATING SYSTEM LARGE FRAME ALUMINUM

CAUTION: REMOVE MAGAZINE AND VISUALLY CHECK CHAMBER TO ENSURE THAT FIREARM IS UNLOADED.

This aluminum Variable Mass Operating System (VMOS™) bolt carrier is a “race gun” part designed for competitive shooting applications where minimizing the impulse of the rifle caused by reciprocating mass results in a competitive edge. The addition of the reciprocating weights of the VMOS platform allows for additional reliability and deadblow with a minimal weight investment. Like our Silent Captured Spring, these weights can be reconfigured to suit your particular rifle. Alternate masses and disassembly instructions are available on our website. **This carrier should not be run stripped (i.e., without masses).**

The JPBC-8 should not be used in law enforcement or duty rifles due to its emphasis on performance over strict reliability.

REQUIREMENTS AND RECOMMENDATIONS

This carrier can be used in right-handed receivers of either the DPMS or Armalite pattern but requires use of JP or DPMS subcomponents including the firing pin, cam pin, firing pin retainer pin and bolt assembly. Use of non-compatible subcomponents may cause dangerous malfunctions such as slamfiring. For use in an Armalite-pattern receiver, we also recommend using a JP or DPMS barrel and extension. In any case, headspace should always be checked by a gunsmith prior to use.

VMOS™ carriers will only function with a JP Silent Captured Spring. The standard buffer retainer plunger must be removed from your rifle as it will prevent the carrier from cycling. You will also see best results and lowest recoil with this aluminum version of the VMOS™ with a lighter spring in your Silent Captured Spring.

For optimal function, this carrier comes packaged with our JP Enhanced Gas Rings, which ensures perfect bore-to-gas seal fitment and minimized friction to enhance reliability when fouled. The included titanium firing pin eliminates the possibility of slamfire at the higher bolt velocities. Use of both is recommended.

As an aluminum carrier, the JPBC-8 will not have the lifespan of a steel carrier, but 10,000 or more rounds is achievable. For the longest service life, this carrier should be run with a mid or longer gas system. Additionally, ***the JPBC-8 should only be run extremely well lubricated.*** As John Paul says, if you don't have oil spraying on your shooting glasses, you need more oil. This carrier should also be run with an adjustable gas system to minimize stress on the entire bolt carrier assembly.

Be aware that cosmetic impact wear in the anodizing on both the front corners and cocking pad of the carrier will be noticeable after some use. This is normal break-in wear and not a warranty issue. While not a cause for concern, to minimize the wear on the cocking pad, use a JP Speed Hammer or other hammer with a radiused leading edge. Hammers with sharp corners like the Mil-spec hammer will create the most wear on the cocking pad.

CARRIER ASSEMBLY

1. Install the bolt assembly into the front of the carrier with the extractor facing to the ejection port side until the cam pin hole in the bolt aligns with the rearmost section of the cam pin hole in the carrier. The extractor will be to the right at ~45° when looking at the carrier from the rear.
2. Insert the cam pin in the carrier and into the bolt assembly. Unlike a small frame carrier, the firing pin bore in the cam pin can be aligned with the firing pin bore in the bolt and carrier and does not need to be rotated after insertion.
3. Insert the firing pin from the rear of the carrier until it drops all the way into the center of the bolt. The firing pin should protrude from the face of the bolt when the bolt is in its rear most position.
4. Insert the firing pin retaining pin into the bore from the left side of the carrier until it protrudes from the right side of the carrier.

At this point, the firing pin should move back and forth within the bolt so that it sits proud of the bolt face when pushed forward but is completely below the bolt face when pulled to the rear. The firing pin should move freely within the bolt and carrier with almost zero resistance. If the pin does not move freely, recheck your installation. If problem persists please contact JP before using this bolt carrier group in your rifle.

CARRIER INSTALLATION

1. Ensure that the bolt assembly is pushed to its forward most position. The cam pin should be centered on the top of the carrier, directly below the carrier gas key.
2. Make sure that the top charge handle is in position. Top charging handles must be inserted and slid partially forward prior to installing the carrier group. If you are using a JP side-charge upper (LRP-07™ or PSC-12™), the side-charge handle must be installed and pushed fully forward before the BCG is inserted.
3. Slide the bolt carrier group into the bore of the upper receiver until it locks into place in the barrel extension. The rear of the carrier should be flush or slightly below the rearmost surface of the upper receiver. Ensure that any charging handles are in their forward most position and locked in place.
4. Reassemble the upper and lower receivers as normal.

Check for smooth function using the charging handle. Ensure that the bolt locks back when the bolt catch is depressed or an empty magazine is inserted and the charging handle is pulled. Use the bolt release to let the bolt forward without interference from the charging handle and ensure that it travels fully forward into battery.

THANKS FOR YOUR BUSINESS!