

## PARTS REPLACEMENT

▲ If you remove the gas block, reset the set-screws to 35–40 inch/lbs of torque after applying oil to the threads. Thread-locking adhesives are not recommended because then you will not be able to remove the screws.

The replacement schedule for parts depends on the intensity of use and the intended use. After any parts replacement, give weapons a safety/function check before use.

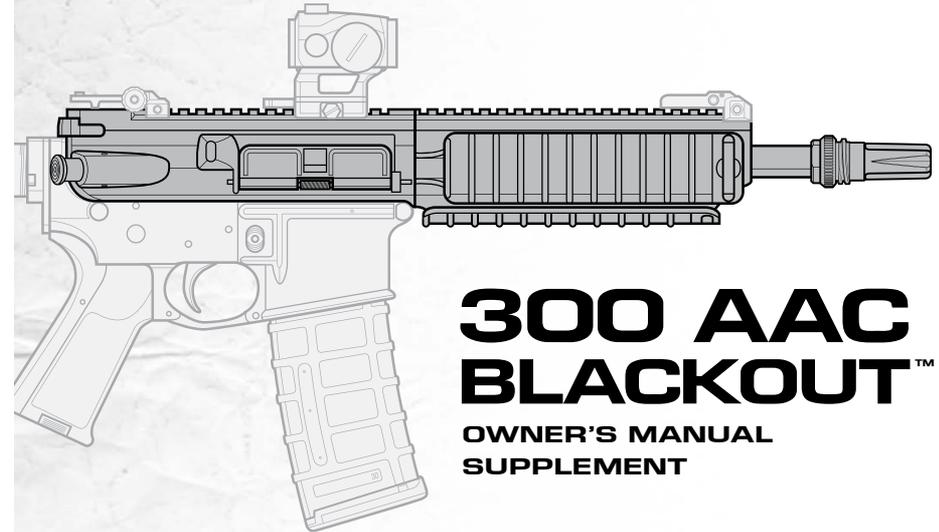
PART	RECREATIONAL USE	HARD USE / COMPETITION	MISSION-CRITICAL USE
Gas Tube	When fails	10,000 rounds	5,000 rounds
Extractor	When fails	10,000 rounds	5,000 rounds
Gas rings	10,000 rounds	5,000 rounds	5,000 rounds
Bolt	When fails	10,000 rounds	5,000 rounds
Extractor spring/insert/o-ring	15,000 rounds	5,000 rounds	5,000 rounds
Ejector spring	15,000 rounds	10,000 rounds	5,000 rounds
Barrel	50,000 rounds	35,000 rounds	20,000 rounds
Action spring	15,000 rounds	10,000 rounds	5,000 rounds

▲ Always check headspace after changing a bolt, barrel, or barrel extension.

## REPLACEMENT PART NUMBERS\*

- Assembly, Bolt, AR, 5.56mm/300 BLK. AAC part #101256
- Assembly, Bolt Carrier, Complete, FA, AR, 5.56mm/300 BLK. AAC part #101261
- Assembly, Barrel, AR, 9", 1.8". Gas System, SCARmor, 300 BLK. AAC part #100903
- 006 Vitton O-ring (MIL-STD). McMaster-Carr part 1201T16
- 3-pack extractor spring/o-ring/bumper. AAC part 101687
- Firing pin retaining pin. Bushmaster part 8448504
- M16\* Chromed Steel Firing Pin. Bushmaster part 8448503
- Extractor pin. Bushmaster part 8448513
- Extractor. Bushmaster part 8448512
- Ejector assembly. Bushmaster part A EJECT ASS
- Cam pin. Bushmaster part 8448502
- Bolt Gas Rings (set of 3). Bushmaster part 8448511K.
- Charging Handle. Bushmaster part 8448617

\*Purchase AAC parts from AAC, Bushmaster parts from Bushmaster, McMaster parts from McMaster.



# 300 AAC BLACKOUT™

OWNER'S MANUAL  
SUPPLEMENT

Thank you for buying an AAC product. Please read the full owner's manual before use. If you do not have one, please call AAC to get one. This document is not a complete manual but will provide additional information to help you get the best performance from your upper.

The 300 AAC BLACKOUT (300 BLK) cartridge is highly efficient and outperforms 5.56mm when used in a short barrel rifle and comes very close to the energy of 6.8 SPC but with less powder and resulting blast. The included AAC BLACKOUT flash suppressor eliminates all secondary muzzle flash. Compared to subguns like the MP5-SD, it has more accuracy, more penetration, and 165% the energy at 200 meters. These properties make it ideal for personal security.

## AMMO COMPARISONS

- |               |   |
|---------------|---|
| At muzzle:    | 5.56mm, 9 inch barrel, M855, 2570 fps, 909 fpe.<br>300 BLK, 9 inch barrel, 110 grain V-MAX, 2150 fps, 1129 fpe (24% better than 5.56mm).<br>6.8 SPC, 9 inch barrel, SSA 115 SMK, 2173 fps, 1206 fpe (7% better than 300 BLK).   |
| At 300 yards: | 5.56mm, 9 inch barrel, M855, 1873 fps, 483 fpe.<br>300 BLK, 9 inch barrel, 110 grain V-MAX, 1437 fps, 504 fpe (4.3% better than 5.56mm).<br>6.8 SPC, 9 inch barrel, SSA 115 SMK, 1146 fps, 534 fpe (6% better than 300 BLK).<br>300 BLK, 9 inch barrel, 155 SMK, 1329 fps, 601 fpe (13% better than 6.8mm). |

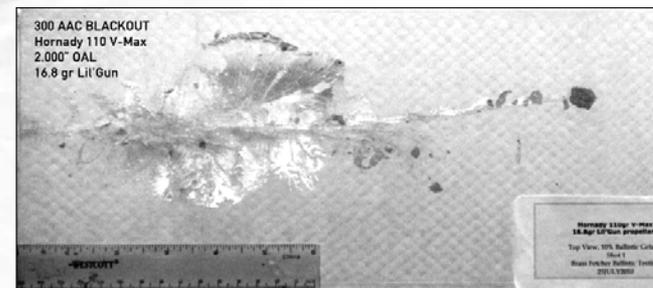


Figure 1:  
Ballistic gelatin test showing  
12.2" of penetration.

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## MAGAZINES

AAC 300 BLACKOUT ammo can feed from standard USGI or Magpul P-Mags. A magazine with the standard MIL-STD 17-7 stainless spring may be stored fully loaded with 30 rounds indefinitely. Note that Chrome Silicon springs will not resist taking a set better than MIL-STD 17-7 magazine springs regardless of how they have been marketed.

## SOUND SUPPRESSORS

The recommended sound suppressor is the AAC 762-SDN-6. This has been tested to provide a good balance between sound level, weight, accuracy, and reliable function. Suppressed SPL with AAC subsonic ammunition is approximately 126 dB both using MIL-STD measurements and at the shooter's ear.

## AMMUNITION

There are two special considerations for the AAC upper – gas port pressure, and reliable feeding from a magazine. 300 AAC BLACKOUT (300 BLK) ammo from Advanced Armament Corp. is designed for reliable function in self-loading firearms.

## HANDLOADING

If you load your own ammo, pay special attention to all of the normal safety practices. Recommended powders for most supersonic loads are Hodgdon H110 and Lil'Gun.

For subsonic, there are special requirements and nearly all published loads are non-optimal for the 300 BLK upper. Many existing loads were developed for Thompson Center® single-shot pistols, or for ARs by people not aware of the magazine limitations. These loads pay no attention to automatic rifle function and should not be used. Look for a load which results in a cyclic rate of 700 rpm or more. AA1680 is recommended because its bulk density matches the case capacity and it will generate enough gas pressure to cycle the weapon.

- Suggested subsonic load:
- R-P 300 AAC BLACKOUT brass
  - Remington 7.5 primers
  - 11.2 grains of AA 1680 powder
  - Sierra 220 MK loaded to 2.089 OAL (this length is optimal for reliable feeding from USGI magazines)
  - Chamber pressure 21,100 psi.

**▲ Existing AR magazines have a rib which normally contacts the 5.56mm case-neck. With 300 BLK ammo, the contact is on the bullet. Because the bullet is a larger diameter, the rib will push the cartridges out of alignment, and can lead to binding potentially resulting in Failures to Feed. For this reason, it is important to load ammunition so that the contact point with the magazine rib is on the bullet ogive in an area of about 0.250 inch diameter. Here are some suggested OAL for popular bullets:**

- Hornady 110 V-Max, OAL: 2.000
- 110 TSX, 2.015 OAL
- Sierra 155 Palma, 2.150 OAL
- Sierra 220, 2.089 OAL
- Lapua B416 200 grain, 1.960 OAL
- Hornady 150 FMJ-BT 3037, 2.065 OAL
- Nosler Ballistic Tip 125 grain, OAL: 2.085
- Remington AccuTip 125 grain, OAL: 2.085
- Hornady 130 SP #3020, OAL: 2.010
- Sierra H2120 125 ProHunter, OAL: 1.950
- Speer TNT 125 1986, OAL: 2.010

## USER MODIFICATIONS

The gas-port diameter was selected after thousands of rounds of function testing and high-speed video analysis. We do not recommend you enlarge your gas-port to aid subsonic function because then supersonic ammunition will hyper-cycle the upper which will reduce the reliability and part life durability of the system. AAC has developed subsonic and supersonic ammo that both function reliably (with and without an AAC 762-SDN-6 sound suppressor) without the need for an adjustable gas block.

If your subsonic ammunition is not cycling the upper, consider using a powder which generates more gas-port pressure. AA1680 seems ideal for this use.

## BARREL LIFE

The barrel of the AAC BLACKOUT upper is made from 4150 CMV and specially processed to have up to 60% more life than a chrome-lined barrel and without the potential loss in accuracy from uneven coating. This processing also results in extreme corrosion resistance.

## ACTION SPRING/BUFFER

Use either the standard USGI M4 or the HK 416 spring. For buffers, select a 4.6 oz (130 gm) H2 or an HK-416 buffer-though a 5.5 oz (155 gm) H3 buffer may be a good choice if you don't intend to shoot subsonic without a sound suppressor or typically shoot supersonic ammo. Do not use a solid 9mm buffer as it may cause bolt bounce.

## EXTRACTOR SPRINGS

We have 5.56mm test data for the Bushmaster '4 coil' extractor spring with a blue insert and an o-ring. Four uppers completed a 12,000 round test with no extractor spring related failures. Two uppers completed an 18,000 round test with no extractor spring related failures.

We do not recommend using extra-power extractor springs because they are under higher stress and will likely break sooner. The included o-ring adds the desired extra extractor force without requiring a spring which would have more force and hence more stress. Also, extra-power springs, when combined with an o-ring, may make the extractor harder to snap over the case rim and may lead to function problems. If you do use such a spring, please don't use an o-ring and change the spring every 1500 rounds for mission-critical use.

Note that, again per our spring discussion, Chrome Silicon springs do not resist taking a set better than ASTM A228 certified music wire when used at temperatures below 250 degrees F.

## CLEANING/LUBE

Recent US Army testing has shown that ARs work best with heavy lubrication. This is even true when used in a sandy environment. While many have said to avoid heavy lube to keep sand from sticking to the parts, this has been proven to be incorrect. Lube keeps the sand in suspension and allows the gun to function. Even if you do not have time to clean the weapon, add lube (such as CLP) every 300-500 rounds. Shooting with a suppressor requires more frequent lubrication.