

Important Notes for Specific Pistol & Rifle Cartridges

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Notes for .40 Glock, .380 Bodyguard and Beretta F9

In the Glock .40 cal., the S&W Bodyguard .380 and some variants of the Beretta F9, our laser cartridges may hit from ½" to as much as 2" above POA (point of aim).

The issue is caused by the undercut or "unsupported" chamber the manufacturers use in these models, as shown in the S&W Bodyguard photo at right. Unfortunately, the relieved area is exactly where the rear ring of the cartridge would engage the chamber – leaving it unsupported and tipping the point of aim upward. The relief cut seems to be deeper in older Glock models.



A Google search on Glock 40 S&W Unsupported Chamber will provide further information. There is discussion on several sites as to whether it is safe to shoot +P loads in those models, and reloaders also discuss concerns about pressure issues.

An ad-hoc fix that allows the cartridge to hit point-of-aim in affected models is to remove the rear neoprene ring and wrap a single layer of transparent tape (not overlapped) even with the top of the cartridge.

.38 Special Note

We and our customers have noticed that .38 Spc laser cartridges may hit from ½" to as much as 1" or more below POA (point of aim) in individual revolvers. Since most defensive shooters are accustomed to adjusting POA to some degree for variations in elevation between their own guns, the consensus was that this can be accommodated.

After trying them in several of our own revolvers - and our customers in their own guns - we agreed that the issue is usually in the vertical axis only, and varies from one gun to another. The error is not due to any fault in the cartridges, but varies between gun models, and even between individual guns.

We build 1911's and gunsmith semi-autos, but not revolvers, so we had to do some research to learn how this is happening. The Kuhnhausen Shop Manual, the bible for S&W revolver gunsmithing, discusses axial alignment between the cylinder and the barrel (not referring to indexing), which is the issue here. The problem appears to be a two-fold issue of the alignment of the barrel to both the crane and the gun's frame. These are discussed at length in various sites and on YouTube.



Brownell's Yoke/Crane Alignment Tool

It appears that the cylinders on most revolvers are typically not in perfect alignment with the barrel - nor, consequently, with the sights. In most cases a miniscule error here may have zero effect a gun's accuracy. But any cylinder error, no matter how slight, will profoundly affect a laser's point of aim. And the error is grossly amplified due to the short length of the cylinder, since the barrel cannot correct it.

Notes for Ruger SR9 & Kahr PM9

The Ruger SR9 and Kahr PM9 use chamber configurations that do not conform to the SAAMI (Sporting Arms and Ammunition Manufacturers' Institute) standard on which virtually ALL commercial ammo is based.

In the Ruger, for whatever reason, there is no shoulder in the chamber against which the cartridge would normally rest, so it goes in beyond reach of the firing pin. As many owners know, Ruger had huge problems with this design and had to replace thousands of firing pins. The gun works great now but, to use any laser cartridge with it you must wrap a few turns of sewing thread below the shoulder of the cartridge to support it within reach of the firing pin. This only takes a few seconds, so you can easily add or remove it to use the cartridge with other pistols.

The Kahr, on the other hand, has a constriction in the chamber that that prevents full insertion of the cartridge (see picture at right).

If you own one of these models, you can probably expect to experience the problems described.



Walther CCP Note

The Walther CCP is another gun that employs an unusual design feature. Unlike most pistols, the firing pin does not retract after striking the primer. The laser therefore remain illuminated until the slide is racked. The batteries are normally adequate for thousands of millisecond flashes, but will not survive longer intervals for long. If you have this model, be prepared to rack the slide immediately after firing the laser.

.223 Cartridge Note

Most AR-15 owners zero their guns in at 100 yards. This involves adjusting the sights somewhat higher to compensate for bullet drop over that distance. See the graphic below.

You will probably not be able to see the flash from any laser cartridge at 100 yards. But in my NRA Instructor training we were able to see clearly the flash from a laser at 25 yards during the day in an outdoor (but shaded) range. So, if your gun is zeroed at 100 yards and you practice at 25, you can expect the laser to hit about 1" above POA.

