

How can I true my solution for a .22 Long Rifle using a Kestrel 5700 Elite?

Because a .22 Long Rifle fires at or near subsonic speeds, calibrating the muzzle velocity (MV) can look a little different compared to the process for supersonic rounds. Follow the steps below when truing a 22LR profile.

1. Build a gun profile for your 22LR rifle and ammunition. Use a chronograph to find a good initial value to enter for your MV. If available, select the AB Custom Drag Models from the bullet library in your KLB app. If no AB Custom Drag Model is available for your bullet, choose the G1 option.
2. Zero your 22LR at about 50 yards. Other distances can be used but 50 yds is typically suitable.
3. Find a target at about 200 yards and use the MV Calibration tool to true your data. Use a good LRF, GPS or other method to confirm the exact distance between your scope turrets and the target and don't forget to update target direction, environmental and wind inputs before truing.
Note: Because the natural dispersion for 22LR ammo can be higher than typical match ammo, make sure to fire enough rounds to accurately identify your point of impact. Calibrating on paper or large, freshly painted targets is also helpful.
4. Confirm your MV calibration on shorter range targets, (75-100 yards).
5. Find targets beyond 200 yards and confirm that your DOPE is still accurate at 250, 300 yards etc. If your holds are accurate, no further action is needed.
6. If you do discover longer range inaccuracies use the DSF tool to add new calibration points to calibrate your DOPE at distances beyond your MV calibration. Remember to add DSF points moving from near to far as the addition of a closer range cal point will erase any further range cal points.

Note: Because 22LR starts near subsonic speeds, the DSF tool can be used without first using the MV Calibration tool. An alternate method to the steps listed above is to skip the MV Calibration and instead enter more, close range DSF calibration points. When the DSF tool is used without first using the MV Cal tool, the DSF calibration will “bend the curve” forwards and backwards towards the shooter, altering shorter range holds and making them inaccurate. If no MV calibration is used, a single “anchor” DSF point should be added at the furthest known accurate distance before adding any corrective DSF calibration points.

