

M-LEV Instructions - Scope to Rifle Calibration

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SAFETY WARNING

Before handling, installing, and utilizing any firearm or its component's, insure your firearm is safe and cleared. Perform a safety check and proper clearing procedures before installing any McRees Precision rifle components. After installing your purchased parts, perform a firearms function check to ensure safe weapon operation. Failure to follow these steps may result in bodily harm. Safety first, and take pride in following weapons safety protocols.

1-Scope to Rifle Calibration

Required Tools:

- Large blank sheet of paper (target back side) or a large sighting surface clean enough to place a vertical line on it. Preferred size, 24 inches square
- Plumb Line or 4 foot carpenters level
- Black marker pen, large felt tip preferred
- Rifle support device. Solid enough to bag or secure your rifle in place.
- Tools required to loosen/tighten your scope ring screws

A: Aiming Target Set Up

- Locate the large piece of paper or blank backing board surface at your rifle "Zero" distance.
- Preferred distance is 100 yards. A lesser distance can be used if 100 yards is not available.
- Utilizing the plumb line/level and marker, make a **BOLD** vertical line down the center of the targeting surface.
- This line has to be **bold** enough for you to see thru your rifle optic. Make a **BOLD** aiming point midway down this line or add a horizontal line to establish a good aiming point. This will be important for the next steps.

B: Initial Rifle Set Up

- Loosen your 'scope ring' cap screws just enough to be able to rotate the scope.
- Insure that the screws are loose enough that you do not damage/mark the scope body.
- Align the rifle with the established aiming point on the aiming target. (Step A)
- Secure or lock your rifle into a support device or "Bag the Gun" with sand bags. Allow for room to view the target thru the optic.

C: Calibration Procedure

- While viewing the aiming target thru the optic, notice the Bubble in the M-LEV viewing port. Glance downward and see the bubble position without changing your position on the rifle.
- Adjust the rifle so that the Bubble is centered in the alignment notches and the center of the scope reticle is on the aiming point on the target. (Step A)
- Rotate the scope to align the vertical cross hair with the vertical line on the target while keeping the bubble centered in the viewing port.
- Re-tighten your scope ring screws enough to hold the scope in place, but not final torque.
- Confirm that the M-LEV Bubble is centered in the viewing port and the scope reticle is aligned with the aiming target. Repeat steps above if not aligned.
- Once aligned correctly, your vertical scope reticle is calibrated to your rifle. **Calibration Complete.** Apply final torque to your scope ring caps. Re-confirm "Reticle" alignment and scope 'Zero'; make Windage/Elevation corrections if needed. Repeat required steps.

How Rifle Cant Effects Point Of Impact

Once you have a properly calibrated rifle:

Cant Calibration, Windage and Elevation “Zero” established, the rest is just basics. Let’s prove Cant Effect.

If your rifle is rolled over to the left or right, your round will follow to that side. You will not hit your point of aim.

You can prove this easily by doing just that, aim at a target and roll the rifle until the bubble is one side or the other from center.

Fire a round or a group and it will be off target.

This is how we do it. (-0- wind)

Once we have identified a target, established range to target, made an elevation adjustment, we glance down, without changing our position, and note if the ‘Bubble’ is centered in the M-LEV sight window. We make a slight adjustment to center the “Bubble”, reconfirm cross hair alignment on the target and send the shot.

Sometimes we glance back and forth between the 2 just to make sure before sending the round. It is a very simple habit to establish and once you get used to doing this, your first round hit percentage will dramatically improve!

You can establish good dope for Cant based off of what you see on target as well. We make good notes on our POI versus our POA relative to the M-LEV hash marks. There are times that we can’t get leveled up and still need to take the shot. We use the M-LEV hash marks just as if we are using the reticle for hold off. All things in precision rifle shooting are predictable if you make good notes and use them!

Wind, D/A and other factors will come to play as well; you are better equipped to handle these factors now.

Shoot Well and Shoot Often

Team McRee