



Instructions For Using the Zeiss Rapid-Z® Reticle Ballistic Computer Program.

1. Enter your E-Mail address in the appropriate box.
2. Enter your zip code in the appropriate box.
3. Click

DATA ENTRY

Screen will now show **MAIN DATA FORM**

4. Enter altitude (ft) where you will be zeroing your rifle in Altitude (ft) box and Click . (Every time you enter new data, you must click button).
5. Enter approximate temperature in where you will be zeroing your rifle and click box.
6. If you are using factory ammunition click on **Obtain Factory Ammo Data** link. You will now be on the **CARTRIDGE DATA FORM**.
 - A. Look at , scroll to your chosen brand and type of factory ammunition and click on it, then click on button.
 - B. Look at SELECT CARTRIDGE information and scroll to your chosen load. Click on it and then click on button and wait for data to be updated.
 - C. Click on button (this will take you back to **MAIN DATA FORM**) with your chosen load information entered in appropriate boxes. Skip to step 8 (reticle analysis).
7. If you are using handloaded ammunition, click on **Obtain Bullet Reloading Data** link.
 - A. Now you will be able to select the bullet brand caliber/diameter weight and style. Then click on the button and wait for the new data to appear. Then click on the button.

- B. Once on the [MAIN DATA FORM](#) you will need to enter your Muzzle velocity based upon your handloaded specifications. You can also update any other atmospheric conditions at this time as well.

RETICLE ANALYSIS

8. On the [MAIN DATA FORM](#) click on [Reticle Analysis](#) link (this will transfer you to the [RETICLE ANALYSIS](#) page.)
9. If you know the Rapid-Z® reticle you are using, go to drop down box and scroll to your reticle and click on the reticle from the drop down box. If you do not know which reticle is most suitable for your caliber click on the button, and it will select the correct Rapid-Z® reticle for your application.
10. Look at the and enter into the box the maximum magnification of your Rapid-Z® scope.
11. Click on button. The correct power zoom ring setting (operating power) will be highlighted below the box. This is where the power will be set when zeroing your rifle. If you are hunting in an area with different atmospheric conditions (Altitude/Temp) than where you zeroed your rifle, enter that information on the [MAIN DATA FORM](#) and repeat the reticle analysis calculations and make note of your scopes new power setting. You can change to this power setting when you arrive at your hunting destination.
12. You are now ready to go to the range and zero you rifle. Set zero on center cross-hair at 200 yards. Adjust your zoom ring to the correct power setting. Set a target at 400 yards and shoot a group using the hold over aiming cross hair marked 4 on your scope. Fine tune your zero to be dead on at 400 yards. Your point of impact should now be very close from close range out to the Furthest distance you feel comfortable shooting. Always check your zero out to the longest distance you will be shooting.

TIPS FOR CHOOSING THE BEST LONG RANGE AMMUNITION

For shooting at distances of 300 yards or more, it is best to use ammunition loaded with high ballistic coefficient (B.C.) bullets. The higher the B.C. number the better the bullet is for long range shooting. Bullets with high B.C.'s have more retained energy and less wind drift at long range.

Example: 300 Winchester Magnum Federal Vital Shok

180 Gr. Nosler Accubond	180 Gr. Speer Trophy Bonded Bear Claw
B.C.: .526	B.C.: .361
Velocity: 2960 fps	Velocity: 2960 fps
Energy @ 600 yds: 1,567 ft. lbs.	Energy @ 600 yds: 1,036 ft. lbs.
Wind drift: 10 mph 3 0' clock, 23.9 inches	Wind drift: 10 mph 3 0' clock, 38.5 inches

It is clear that the load with the high B.C. bullet is far superior for long range shooting!

Try to stay with bullets that have B.C.'s in the .45 and higher range. High B.C. bullets are generally in the high weight range for caliber. A few examples of factory ammunition using these types of bullets are:

- Federal Vital Shok, using the following bullets.
 - Sierra Game King BT
 - Barnes XXX
 - Nosler Ballistic Tip
 - Nosler Accubond
 - Nosler Partition
- Hornaday using the following bullets.
 - Interbond
 - Interlock
 - SST
 - A-Max
- Remington using the following bullets.
 - Accutip
 - Scirocco
- Weatherby using the following bullets.
 - Nosler Partition
 - Barnes X
- Winchester using the following bullets.
 - Elite
 - Ballistic Silver Tip
 - Accubond
 - Power Point

TIPS FOR MAXIMIZING ZERO

For many hunting situations you will not be using the longest distance hold over crosshair on your RZ 600 or RZ 800 scope.

Example 1: You are using a 25-06. Shooter ability, the rifle and ammunition have the accuracy and power to cleanly kill a deer at a maximum distance of 400 yards. Zero your scope at 200 yards on the center crosshair. Use the reticle analysis form. In the box below **AUTO PICK RETICLE** marked **BAR NUMBER** change to number 2. In box to the right marked **DISTANCE** change to 400. Click **SUBMIT DATA**; now click **OPTIMIZE POWER**. This will set your maximum shooting distance dead on for 400 yards on hold over crosshair marked 4 in scope.

Example 2: You are using a 300 Winchester Magnum. Shooter ability, the rifle and ammunition have the accuracy and power to cleanly kill an elk at a maximum distance of 500 yards. Zero your scope at 200 yards on the center crosshair. Use the reticle analysis form. In the box below **AUTOPICK RETICLE** marked **BAR NUMBER** change to number 3. In box to the right marked **DISTANCE** change to 500. Click **SUBMIT DATA**; now click **OPTIMIZE POWER**. This will set your maximum shooting distance dead on for 500 yards on hold over crosshair marked five in scope.

BULLET VELOCITIES

If available, use a chronograph to check the velocity of your selected ammunition coming from the rifle. Factory listed velocities are generally taken out of a 24 inch barrel. These velocities can even vary from ammunition by lot number. Barrel length also affects velocity. As an example, if you are using a 26 inch barrel, your velocity could be 25 to 100 feet per second (fps) faster than with the same load out of a 24 inch barrel. If you have a 20 inch barrel instead of a 24 inch barrel you could be losing as much as 120 fps in velocity. This will change your magnification ring power setting.

BALLISTIC PROGRAMS

For users who want to know more about how their rifle will perform, a ballistics program (Exbal) from www.perry-systems.com with calculations for all [Rapid Z reticles](#) should be purchased. You can explore wind effects; get a profile of trajectory, velocity, energy, time of flight, etc... vs. distance to target. It also has an extensive ballistic reticle function to determine the point blank range data for each of the cross-bars or hashmarks on Rapid Z ballistic reticles for a specified target height.

HAVE FUN

Please shoot responsibly and ethically within the means of your ability, and that of your equipment and the conditions encountered. Carl Zeiss Optical, Inc. cannot be held responsible for missed or poorly placed shots. We encourage you to have fun with all the Rapid-Z® reticles. We also encourage you to practice and become familiar with your personal limitations and with the performance of your rifle and the selected bullet. When used properly the Rapid-Z® reticles will help you to become a better marksman and allow you to make ethical shots for clean kills on wild game.

Error Messages

[self explanatory]

- "Bar Number Less than 1"
- "Bar Number greater than X"
- "Sight-in Distance can not exceed 1000"
- "Calibration Power must be between 2 and 60"
- "Operating Power below MIN of ..."
- "Operating Power above MAX of ..."

[input errors]

- "Numeric conversion overflow." (division by very small number)
- "Non numeric input value." (input must be numbers, or ".", or "-")
- "Null input value." (input field is blank)

[trajectory/reticle limitations]

- "Zero Point too close" (distance < 25)
- "Zero Point too far" (distance > 1000)
- "Distance TOO CLOSE for this Bar ***" (Oper Power/Calibration Power > 1)
- "Distance TOO FAR for this Bar ***" (Oper Power/Calibration Power < .25)