AEON SCOPES USA

Aeon Scopes - USA has an exclusive relationship with Aeon Optical Inc which is a company known for being an innovative leader in its field. Aeon Optical believes in the pursuit of excellence and the ability to create perfect imaging. They carry a wide-range of products including riflescopes, binoculars, thermal imagers, medical imaging instruments, and much more. The quality of an Aeon Optical product is unparalleled.

Aeon Scopes - USA will work directly with Aeon Optical Inc to help distribute their exceptional inventory to vendors in the United States. This will help ensure hunters, tactical shooters, and airgun enthusiasts alike have access to highest quality scopes for the money available in the market today.

Hunters and tactical shooters need scopes with good low-light performance. For a scope to perform well at dawn and dusk, it needs good light transmission. AEON has fully multi-coated optics for maximum light transmission. The scopes are constructed from a single piece of aluminum for a lifetime of use.

AEON SCOPE MODELS

3 – 12 X 50 Classic 30mm RETAIL - \$265.00

Rifle Scope 3-12x Magnification 50mm objective lens (adjustable objective) 30mm tube ¹/₄ MOA (1/4" click value @ 10-0 yards) 10 meters to infinity parallax adjustment 20 feet to 4.2 feet field of view 3.3" to 5.5" eye relief 26 ounces 13.75" long Includes flip-up lens cap Sun Shade is optional Reticules include: Trajectory – Mil-Dot

6-24 X 50 Classic 30mm RETAIL - \$285.00

Rifle Scope 6-24x Magnification 50mm objective lens (adjustable objective) 30mm tube ¹/₄ MOA (1/4" click value @ 10-0 yards)
10 meters to infinity parallax adjustment
16 feet to 4.2 feet field of view
3.0" to 4.25" eye relief
26 ounces
13.75" long
Includes flip-up lens cap
Sun Shade is optional
Reticules include: Trajectory – Mil-Dot

8-32 X 50 Classic 30mm RETAIL - \$295.00

Rifle Scope 8-32x Magnification 50mm objective lens (adjustable objective) 30mm tube ¼ MOA (1/4" click value @ 10-0 yards) 10 meters to infinity parallax adjustment 13 feet to 3.25 feet field of view 3.2" to 4.7" eye relief 26 ounces 13.75" long Includes flip-up lens cap Sun Shade is optional Reticules include: Trajectory – Mil-Dot – Target – Field Target

10-40 X 56 Classic 30mm RETAIL - \$315.00

Rifle Scope 10-40x Magnification 50mm objective lens (adjustable objective) 30mm tube ¹/₄ MOA (1/4" click value @ 10-0 yards) 10 meters to infinity parallax adjustment 10.80 feet to 2.90 feet field of view 3.0" to 5.0" eye relief 31 ounces 13.75" long Includes flip-up lens cap Sun Shade is optional Reticules include: Trajectory – Target

INSTRUCTIONS

Introduction

Congratulations on your purchase of this fine scope! We hope you are as pleased with it as other customers have been. This document has been written by one of those very satisfied customers in hopes that it will ease your path to very beneficial use of your scope. I purchased mine for a spring powered air rifle to be used principally for Bench Rest competition. So there will be some bias in my remarks and instructions. I also will occasionally be doing some Field Target shooting and the necessities of that will occasionally be mentioned. To help all our customers the following instructions assume you have never done this before and need full instructions. One other point: as the AEON scopes were developed by and for pellet gun shooters all the below instructions are pointed at them. If you have purchased your AEON scope for a firearm congratulations on your inventive thinking and please adjust the yardage distances for your particular weapon.

Mounting your AEON Scope

The first task in mounting your AEON scope is to mount your scope rings on your rifle positioning them so that they will only touch the narrowest portion of the tube. They must not touch the "bell" portion of the tube at the front that expands to the Objective lens (the front lens). They must not touch the expansion to the center part of the tube where the controls are. Lastly, they must not touch the expansion that leads to the eyepiece at the back of the scope. If you have shallow holes in the top of your rifle's receiver that are used hold the scope rings in place from recoil of the rifle, I would strenuously advise you to get rings that have the necessary screw in the rear ring and use it. Usually you will have some playing room along the top of the rifle so that you can move the rings back and forth; I did on my rifle.

Next, mount the scope to the rings and do not tighten. Now slide the rings and scope back and forth until the scope picture feels right for you. If you have a spring powered rifle and need to use a hole in the top of the receiver then adjust for that as well. When you have done that make sure that you will have no trouble loading the rifle. (This can become a serious issue with a spring powered rifle with an under lever cocking mechanism.) Most modern rings tighten with an Allen wrench which is a lever so be careful. First, tighten the rings to the receiver snugly. Before tightening the scope in place you need to securely support the rifle so that the barrel is horizontal and the butt of the stock is vertical from side to side. When you have done that take a level in front of the scope, set it up level, and then make the horizontal lines of the reticle parallel to the bottom of the level. If this is a problem you can also use a plumb line and check against the vertical lines of the reticle. Now tighten, again carefully and be sure that you proceed carefully. Tighten each screw little bit and proceed to other screws so that no particular screw is much tighter than any other. Tighten so that the spaces on between the top and bottom parts of all rings are roughly equal. Go back and forth from front to back and vice versa. Proceed slowly and keep checking against the level.

The next task is to focus the eyepiece. To do this, I use a technique I found online. This process makes a lot of sense to me because I have studied vision to some extent. Do this outside where you need two things: something you can see at least 60 yards away and a blank space that is all one color. Aim your AEON scope at the space and defocus it so you see nothing but a single, blurry picture. It helps if you have a sand bag or something that you stably put your rifle on for this whole process. If you must wear glasses then use the ones you intend to shoot with. (In fact, if you change those glasses in the future then redo this process.) Now, look up at your 60 yard object and keep looking at it until you are completely focused in on it. This can take up to 30 seconds. When you are focused at 60 yards then look through the eyepiece and focus it as quickly as possible. This first time will get you fairly close but you are not there yet. Now repeat the process until your quick look through the eyepiece is as sharp as you can get it. The travel on the eyepiece focusing function is just so much. For me, I am aware of the fact that no matter how good your eye doctor is your glasses are only an approximation so, if you can get away without corrective lenses, DO IT. In my case, I found that I could not focus the eyepiece for my right eye; there wasn't enough travel; it looked like I would have to wear my corrective lens. However, I had an alternative. Years ago I learned to shoot a shotgun left handed because I have a left master eye that also sees much better than my right eye. So I made a decision: I could easily focus the scope with my glasses on; or, I could use my still very good left eye. I moved over and focused the AEON scope with my left eye. I now shoot the rifle left handed because I consider the ability to see uncorrected is that important. (I do use uncorrected safety glasses as you should too.) Once your scope is focused you need to sight it in. The following procedure assumes that you are adding your AEON scope to a previously shot rifle and that you have found the pellets that work best in your rifle. If this is not the case you will need to do search out your rifle's favorite pellet at some point in sighting in your new AEON scope on your new rifle.

I would start the sighting in process by centering your controls. Each knob is printed with 15 major divisions numbered from 0 to 14. Each of these divisions is subdivided into 4 parts (the three small lines), each representing ¹/₄ inch at 100 yards. This means that each major division equals 1" at 100 yards. Take each control and turn it all the way in (down and to the left). The nearby table contains information to help you with your centering effort. Select your particular scope from the list and divide the number in the right column by two. That number is the number of major divisions you need to go back on each control to get to the center. If you have a scope sighting tool you should use it instead of the target technique described in the next few sentences. But, please read the read and follow all the rest of the instructions in this paragraph because you do need to find out how far from center you move the scope controls when you are aligning the scope. If you are very fussy, as I am, about accuracy then skip the rest of this paragraph and go to the next one. If not

set up a target some short distance away, say 5 yards away. Make the target at least an 8½ by 11 with a single dot in the center. Take a shot. Mark your shot on the paper and then move the controls trying to get the next shot closer to the dot on the paper. Also you must keep track of how many major divisions you move and in which direction each time you move either control. If you start out moving, say left 3 major divisions then decide you need to come back one remember to subtract the latter movement so your total is 2 left. Continue this process until you either hit the dot or come very close. Then move the target back another 5 yards and start with another sheet of paper and a dot. Repeat this until you get the target out to what you consider will be your longest shot and make your last test.

The reason you need to know how far from center you are is for optical reasons. All lenses are a series of compromises or tradeoffs especially near the edges of the objective (front) lens group. However, any quality lens such as those found on AEON scopes will have the most of the lens functioning very well. Again, I am fussy and need best accuracy (I do shoot bench rest, after all). When I mounted my scope, I did the above; and I was within two major divisions of the end of travel for both controls. While the picture I saw was pretty good there was distortion and my results from a bench rest were sketchy. So knowing about lenses and knowing where I was I set out to fix the problem. To get to the center I needed to go a long way to the left and I was too low in elevation. To fix the problem I used Duck Tape shims, really. I decided to put shims to correct elevation on the rear ring and shims on the front ring to correct windage. The rear ring shims need to be put opposite the direction you want to go. I was too low so I put the shims on the bottom which levered the objective down in the front and raised the line of sight through the optical train up. I corrected the too much left windage with shims on the right of the front ring which levered the objective to the left and shifted the line of sight to the right. This is complicated to say the least so persevere until you understand it. It will help you love your AEON scope all the more. In fact, I consider this process so important that I will recommend that you never move the scope controls as prescribed in the previous paragraph. Rather, simply keep adding the duct tape shims until you get the scope centered as well as possible without moving the controls. Do this and you accomplish two things: First, your target will come down through the dead center of your optical train. Second, for longer shots will, in all likelihood, not take your elevation and windage adjustments into the questionable area of your optical train. Again, this is a function of ALL optical trains, even the most expensive. When you get into those areas it will affect your parallax focusing to some extent, not something you Field Target shooters will want.

If you had to place any shims start your sight in procedure again. When more shims are not or no longer needed, your scope mounting is done and you are ready to shoot unless you have not found your gun's favorite pellet. To do that you will need to collect a bunch of various pellets in quantities of about 5 each. I would also have at least one tin of pellets of a medium weight and a good quality brand. The dealer who sold you the AEON scope and rifle can suggest a good quality brand and specific pellet. Use the tin to get used to shooting your rifle, especially if it is spring powered. You need to get very used to shooting off a rest. I have a fairly complicated media filled rest and a spring powered rifle that has been difficult to learn to shoot reliably from a rest. Once you are confident in your ability to shoot off a rest take a bunch of sheets of paper approximately 4x5 inches and put a dot in the center (precision at this is unnecessary). Label each with the particular pellet name, brand and weight and fire your 5 pellets at it at some convenient distance. (As I am interested in bench rest shooting I use as close to 25 meters as I can get in my back yard.) Choose as windless a day as you can get for this procedure. Smallest group of holes wins. I actually use machinist's calipers to measure the outside distance of the two holes that are farthest apart and subtract the diameter of the pellet. That gives me the center-to-center dimension of my pattern. It is worth doing this bit of arithmetic because all the reading you do on line will refer to pattern sizes with this measurement because it removes the confusing factor of which diameter pellet you used for the test. (That makes it possible to directly compare a .177 grouping with a .22 grouping.)

Using Your AEON Scope

Your AEON scope is equipped with a Side focus wheel which helps with parallax. Parallax comes into play because the line of sight through scope is offset from the line of the barrel. To correct this problem, the designers made a focus mechanism and optical element that can be used to alleviate the situation. By rotating the side focus wheel and bringing the target into sharp focus you can read off the distance to the target which is a very useful thing to know. When you finally have your scope sighted in you actually have a range of elevation values for the various distances. You probably noticed that at some distance (say 25 yards) you actually had the elevation knob at its lowest point. At say 10 yards you actually had to raise or use UP elevation to hit the black aiming dot! This was due to parallax. Beyond our supposed minimum elevation reading at say 25 yards you again will have to add more up elevation to keep hitting the target dot. This is not due to as much to parallax but more to pellet drop. (Please note that if you are using a firearm the distances will be vastly different from my examples but the same principals apply.) The most practical way to use the side wheel focusing feature you need to have the large wheel and find some opaque (preferably white in color) sticky backed tape that you can put on the smooth part of the wheel. While the focuser does not rotate a full 360 degrees this tape should also go completely around the wheel. Set your rifle on a sturdy rest and do not move it throughout the following. Get a long measuring tape and a target with printing on it. Start with the wheel in the shortest focus position and move the target out till it just comes into focus and measure the distance from the end of your barrel or the front of the scope. It probably doesn't matter which but be consistent with the measuring point. From here on you are going to be writing on the tape you put on the wheel so you need to locate a place on the scope that you can remember in the future that when the, say, 20 yard line on the wheel lines up that point you are actually 20 yards from the target. If your first

measurement is less than 10 yards make a line and note the distance on the scope and move the target out to 10 yards and mark that on the scope. You may use any increment you wish after this. But, if you are intending this for pellet rifle Field Target use, make a labeled mark for every yard out to about 30 yards. Thereafter, every 5 yards will work. Such units will also work for Silhouette Target shooting. I personally will add a line for 25 M and 50 Yards where I will be shooting bench rest distances.

Once you have the distances you can set your target at these distances and find the point mentioned above where the up elevation is at its minimum. Then working backward or forward you can make a chart of how many clicks up it takes to be on target at that distance. Also, please do your best to do these latter tests on a calm day because the wind with or against you will alter the results.

The reticle on your AEON scope has vertical and horizontal lines that contain lines or dots at evenly spaced intervals. Those are there to help you with "Kentucky Windage" adjustments but there is a catch. When they design scopes they place the reticle at one of two points. Each of these points is at a place where the image is actually in focus. (That is why you went to so much trouble above to focus the reticle.) These two points are called the front and rear points. Most of the scopes you are likely to encounter use the rear focus point as does your AEON scope. So, what does that mean? Your AEON scope allows you to vary the power that you are using. As you look through the scope and vary the power you will note that the size of the reticle does not vary. What does that mean to you? It means that as you vary the power the amount of windage of each mark on the reticle also varies. For field target work where distances to the target go from 10 yards to 55 yards you should pick a power and stay with it in most instances. What that does for you is simplify the arithmetic. The following is purely an example with no basis in reality. Suppose that at the power you have chosen one hash mark equals one inch at 24 yards. At 48 yards the same hash mark will represent 2 inches of windage. At 12 yards it will equal ¹/₂ inch. If, like me, you do not like the arithmetic approach you can pick a calm day and go shoot to work out the windage amount at each of the divisions on your side wheel. I prefer this approach because in the heat of competition it is easy to make mental mistakes. So make and have your chart handy.

So what power should you choose? Here are some guidelines: If field target is your preference then you probably bought an 8-32 or 10-40. Most people will use the maximum power but before you do that consider this. At some of the competitions you will be shooting into shadows with possible a dark colored target in those shadows on a cloudy day. This means that at full power for your scope the exit pupil will be at its smallest and you will get the dimmest image possible. I am 76 and I have tentatively chosen 24X on my 8-32 for my hash mark testing. I do this because I want the 2.1 exit pupil for my older eyes. (The formula for finding exit pupil is to divide 50 (the size of your objective lens on the AEON scopes) by the power you are at.) This is complicated by the fact that

occasionally you are forced to use the offhand position on some shots. Holding the rifle steady enough to get a reasonably steady picture in the offhand position at say 32X is extremely difficult. So, choose something much lower, say 12X and repeat the mark evaluation test. AND DO NOT LOSE YOUR RESULTS CARD, IN FACT, COVER IT IN PLASTIC.

Caring for your AEON Scope

Dust on the lenses does distort viewing so always keep the covers closed when not using the scope to prevent as much dust as possible. However, a little dust on the optics is not that bad so just leave it there until it builds up a bit. When you elect to clean off the dust be gentle and whatever you do never blow off the dust with your breath. Suffer through the dust rather than blowing it off because your breath delivers more than just air. It also delivers water vapor which has dissolved in it other chemicals that can harm your very necessary lens coatings. You must protect those coatings at all costs because they make viewing so much better. They eliminate internal reflections that you would see as glare and ghost images. They actually enhance the transmission of the image to your eye as well. I purchased a pen-like gadget that has a brush on one end and a very soft device on the other end. The brush is for the dust and you should be very gentle in its use. The soft device is for the occasional spots of stuff that can end up on the lens and does not respond to a soft flick with the brush. Of course, be gentle with the use of that end as well.

Occasionally it is a good idea to check the tightness of screws on your mounts. You may have loosening at first but that probably will go away in time. Still, it doesn't hurt to keep checking.

Warranty Information

AEON Scopes offer a Limited Lifetime Warranty for all new scopes, binoculars and spotting scopes. AEON products is warranted by AEON SCOPES USA to be free from defects in material and workmanship for the lifetime of the products by the original consumer purchaser. During this period if the products are found to have defects in material or workmanship, AEON will replace the product with the same product, or a product of comparable specifications and value.

This Limited Lifetime Warranty does not apply to:

1 Any product that has been subject to abuse, misuse, neglect, alteration, abnormal use or accident.

2. Any defects or damage directly or indirectly caused by the use of unauthorized replacement parts and/or service performed by unauthorized personnel.

3. Any accessory items such as lens caps, straps and cases.

AEON also offers a replacement warranty for all products that have been damaged by the purchaser. For any issues that are not covered by defects in material or workmanship you can return your damaged product to AEON along with a check for \$150 and AEON will send you a replacement product of the same or similar specifications.

Product Warranties. The Warranty Disclosure Schedule sets forth a complete and accurate statement [including all terms and conditions] of all written warranties, warranty policies, service, and maintenance agreements of the Company to any of its services or products. No products previously sold, delivered or leased nor any services performed by the Company are subject to any guarantee, warranty or other indemnity, other than those sold, delivered, leased or performed in accordance with the standard terms and conditions of sale or lease of the Company.

Compliance. Each product manufactured, sold, leased or delivered by AEON and is in compliance [in all material respects] [with all applicable federal, state, local and foreign laws and] with all warranties described in the Warranty Disclosure Schedule.

Claims. The Warranty Disclosure Schedule also indicates all warranty and indemnity claims currently pending against Seller. Other than claims disclosed in the Warranty Disclosure Schedule, the Company has no Knowledge of any threatened claims for any product returns, warranty obligations or product services [that would exceed (a dollar amount) individually or in the aggregate] relating to any of its products or services.

How to file a claim. AEON will not provide any warranty coverage unless claims are made in compliance with all terms of the warranty statement included with your product and you follow the proper return procedure. To request warranty service please email us at info@aeonscopes.com. You will receive a return merchandise approval that you must include with the following:

- 1. The sales receipt and/or other evidence of the date and place of purchase.
- 2. A description of the problem.
- 3. The damaged product carefully packaged and returned.

Send the above items to: AEON Scopes 1556 Keith Road Greenville, GA 30222