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The Binocular-Specialists!

**STEINER** ®  
G E R M A N Y



Nothing escapes these eyes.

Instruction Manual

The Binocular-Specialists!

**STEINER** ®  
G E R M A N Y

USA, Canada & Caribbean





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A scenic mountain landscape with snow-capped peaks, evergreen trees, and a calm lake reflecting the scene. The text is overlaid on the image.

Congratulations,  
You have purchased one of the finest binoculars in the world.  
Designed into this product are six decades of experience in manufacturing binoculars for the highest demands as well as years of dedicated research. This manual will provide you with all the necessary instructions and tips to ensure you the maximum use and enjoyment of your new STEINERs.

DEAR NATURE AND OUTDOOR ENTHUSIAST,

Forests, plains, deserts and mountains all have their secrets. Those who are looking to unlock these secrets, for adventure or to just enjoy nature have a need to know what is out there. This is what it takes to make your hike, birding adventure or hunt an unforgettable experience. The eye is the key: We can act to only what we see.

STEINER has been producing binoculars for over 60 years in Bayreuth, Germany. Founded by my father Karl Steiner in 1947, STEINER has become the largest manufacturer of binoculars in Europe. Today, I continue my father's tradition of excellence by maintaining the company focus on producing only binoculars. This focus has made STEINER binoculars synonymous with the highest standard of quality worldwide. STEINER's goal is to continue building the toughest and most weather resistant binocular available. We deliver unsurpassed brightness and clarity using space age materials and the latest in optical technology.

However, we at STEINER are convinced that it is more than technical excellence and high optical performance that is

required to build a truly optimal binocular for our customers. You need to know the user specific requirements as well as the unique environmental characteristics of where the binoculars will be used. Binoculars need to be customized to the situation, whether there are birds flying or animals hidden in cover, which are almost invisible to the eye, or whether glistening sunlight distorts the colors of nature.



*Carl Steiner President & Owner*

STEINER is passionately committed to the user's requirements. We have combined six decades of experience and research and development, for professionals and amateurs alike with a deep understanding of their needs.

That's why fellow hunters, hikers, bird watchers and naturalists can be confident when having a Steiner binocular in their hands.

For STEINER Optik and all its employees I want to thank you for your trust in our binoculars.

Carl Steiner

## ADJUSTING AND USING YOUR BINOCULARS

Adjusting the binoculars begins by setting the interpupillary distance. This is the distance between the pupils of your eyes. The binocular tubes pivot on a hinge, moving the tubes closer or further apart. Pivot the binocular tubes until you see a single image when looking through the binoculars. When you don't require glasses in your daily life (or wear contact lenses), the binocular is now ready for use. All STEINER binoculars are suited for wearers of glasses. Please refer to the following pages for detailed instructions.



## HOW TO USE THE SPORTS AUTO-FOCUS

All our individual focus models feature Sports Auto-Focus. The advantage to this feature is that - once set to your eyes - it allows you to view images from 20 yards to infinity without having to refocus for different distances. Higher power models (10x or more) will be in focus from 30-40

yards to infinity. The proper way to focus the Sports Auto-Focus is:

- Choose an image, sign or a tree at least 100 yards away to view.
  - Cover one of the objective lenses with your hand or the objective cover. Look through the binocular with both eyes open.
  - On the side not covered, turn the ocular's diopter setting ring until the image appears clear and sharp.
  - Now repeat the procedure with the opposite lens.
  - When viewing through both lenses, all images from 20 yards to infinity will be bright, clear and in focus. Higher power models (10x-20x) may require higher initial focus distance.
- Make note of your diopter setting, as it can be unique to each user. Some models feature the new Memory Ocular, a device that saves your individual setting. See the following section for detailed instructions.



## Important!

*Never look directly into the sun with your binoculars or any optical instrument.*

### HOW TO USE THE MEMORY OCULARS

Some models, such as the Commander XP, feature Sports Auto-Focus along with the Memory Oculars. Use the previously described steps to focus the binocular for your eyes. Follow the steps below to set the memory on the eyepieces:

- Press the two tabs on the lower side of the focus ring while gently pulling up on the eyepiece.

- Next turn the memory indicator, which is the small white arrow shape, to the line on the eyepiece. This is your individual setting.
- Gently push the focus ring back down in place and release the tabs.
- Whenever someone else might change the setting, you can now quickly check your focus and reset it to your individual mark if needed.



## CENTER FOCUS INSTRUCTIONS

Especially for close range glassing at distances below 20 yards we recommend our binoculars with Fast-Close-Focus. Just a quick turn of the large center focus wheel and everything is in focus - up to the most minor detail. The proper way to initially set a Fast-Focus binocular to your eyes is:

- Choose an image, sign or a tree at least 100 yards away to view.
- Cover the left objective lens with your hand or the objective cover. Look through the binocular with both eyes open.

- Now cover the right objective lens with your hand or the objective cover. Look through the binocular with both eyes open.
- Turn the center focus wheel to make the image appear clear and sharp.
- Turn the left ocular's diopter setting ring until the image appears clear and sharp.
- With both eyes open you can now use the center focus wheel to focus the binoculars for different distances.



## ERGONOMICALLY CONTOURED EYECUPS

Standard feature to almost every STEINER binocular, these eyecups are especially contoured to eliminate any unwanted sidelight. Your view will be brighter by eliminating sidelight. For maximum comfort these eyecups are made out of soft silicone material. As an additional

benefit, the soft material allows for the ergonomic part to be folded down to form a cylindrical shape. Eyeglass wearers fold the eyecups down all the way to have a full field of view.

## ERGONOMIC TWIST UP / DOWN EYECUPS

Some STEINER models, such as the Peregrine<sub>XP</sub> or Predator C5 lines, are equipped with our newly designed, ergonomic eyecups.

Make note of your diopter setting, as it can be unique to each user. Do not force the diopter wheel or center focus wheel beyond the noticeable stop limits; this can cause internal damage.

## Important!

*Preset the binoculars focus in daylight conditions. That way in darkness they'll be in focus and offer the highest depth of field.*



They play an important part in creating the unique STEINER viewing experience. As twist-up / twist-down eyecups they easily adapt to your individual preferences, whether you wear glasses or not.

#### Eyeglass wearers

Wearing glasses you have already created the necessary distance between the binoculars' oculars and your eyes. Contrary to users without glasses (or with contact lenses) you usually don't need to artificially create this distance and you can use your binoculars with both eyecups fully retracted. To retract the eyecups simply use your thumb and index finger to twist them in the direction indicated by the arrows. Then fold down the sidelight screen. When looking through your binoculars you can put your glasses directly onto the eyecups - the soft silicone material prevents scratching.





Different types of eyeglasses might vary the distance between the eye and the lens and it's possible that your eyes are too close to the ocular. You will see some black areas when looking through the binoculars. In this case you need to increase the distance by slightly twisting the eyecup upwards (usually just a few millimeters) until you see a complete image.

Wearing contact lenses or no eye glasses

You need to create a distance between your eyes and the binoculars' ocular lenses. Use the binoculars only with eyecups in the up position. On both eyecups you will also find small wings that prevent sidelight to enter and increase image clarity. To turn the eyecups simply use your thumb and index finger and twist the eyecups down in the direction indicated by the arrows. To twist them up, turn them in the other direction until you can feel the noticeable stop limit - after that you will only be able to minimally turn the eyecup. This play is necessary to adjust the sidelight screen for different users' interpupillary distances.



## CLICLOC INTERCHANGEABLE EYECUP SYSTEM

The unique STEINER ClicLoc Interchangeable Eyecup System offers you the comfort to customize your binoculars to your personal preferences. Available only with selected models, such as the Commander<sub>XP</sub> and Nighthunter<sub>XP</sub> models, you have a choice of three different eyecup shapes.

Ergonomic eyecups (1) offer maximum protection from sidelight. Cylindrical eyecups (2) for standard use, and (3) eyecups optimized for eyeglass wearers.

Exchanging the ClicLoc Interchangeable Eyecups  
With the help of the small U-shaped changing tool (included) you can exchange the different eyecup designs

within seconds.

The proper way to exchange the eyecups is:

- Firmly slide in the thin slice of the tool between the rubber eyecup and the firm part of the ocular until all round parts touch the eyecup.
- To lift off the eyecup use all fingers to lift the tool. The eyecup will easily snap off (4).
- Place the eyecup of your choice on top of the ocular.
- Using thumbs and index fingers of both hands apply even pressure to the eyecup - push it in until you hear the snap sound.
- Once snapped in, gently pull on the eyecup to make sure it is properly attached.

## Comfort-Balance® Grip

The innovative grip areas of the Peregrine<sub>XP</sub> series combine maximum grip with state-of-the-art ergonomic comfort. Especially during long glassing sessions the Gel-Pad Grips relieve pressure from your hands and thumbs and enable an optimal balance of your binocular.



Serial number:

Every STEINER binocular has a serial number. This allows us to track when your binoculars were produced and allows you a way

to identify your binoculars in case of loss or theft.

NPS (Nitrogen-Pressure-System):

Many STEINER binoculars feature a Nitrogen-Pressure-System. This internal dry-nitrogen filling prevents internal fogging in case of extreme temperature changes. Only STEINER's two-valve technology provides a filling process that is gentle to all seals and reduces the oxygen content within the binoculars to an absolute minimum.



Lens Caps

The lens caps will protect your binocular from moisture and prevent dirt from collecting on the objective lenses. Using the caps will result in less frequent cleaning of the lenses.



Rubber Armoring:

All STEINER binoculars come standard with rhino tough rubber armor. Not only does this protect the binoculars from shock and damage, but it is also soft and comfortable

in your hands. Premium models feature STEINER's innovative NBR Longlife Armor formula, initially developed for increased durability under extreme conditions at sea and military applications. Clean all rubber armor only with damp cloth.



NANO Protection Optics® Protects the optical lenses especially from environmental impacts. It is highly water-repellent (hydrophobic) and allows for maximum visibility even in the worst weather conditions. Dirty binocular lenses belong to the past. Featured on all XP models.

#### Rain and Dust Protection Cover

To prevent rainwater or dirt to collect on the oculars in adverse weather conditions most STEINER binoculars are equipped with a removable rainguard (1). All Peregrine<sub>XP</sub> models feature our innovative water-repellent Neoprene Rainguard (2). Installing the rainguard will also increase your binoculars' protection when stored.

The rainguard should be installed before installing the strap to the binocular. Simply thread the strap through the attachments on the rainguard and then attach the strap.



The closed loop on one side will prevent loss of the part. To install the Neoprene Rainguard on the Peregrine<sub>XP</sub>, slip the cover over the ocular side of your binoculars. As you attach the carrying strap make sure that it goes through the rainguard's loop (3). This way you can carry the strap around your neck and keep the oculars dry. Once you want to use the binoculars just open one of the rainguard's buttons and slip the cover off the binoculars. The rainguard is still attached to the carrying strap on the other side and will prevent you from losing it by accident.

## Carrying Strap:

Your binocular is equipped with a carrying strap that might vary between our different model series. Please refer to your respective type analog to the images shown here:



ClicLoc System (1+2) for fast removal and reattachment: To install the strap insert the clip - with the little nose pointing away from the binocular - into the side attachment right next to the ocular until you feel it positively click. The strap will hold firmly. To remove the strap push the circular shaped button or the ribbed release button. While pushing the button firmly pull the strap insert out of the attachment. The same technique is used to remove the lens caps on many models (3). Use the strap slider to fasten the caps when removed from the lenses (4+5).

Without ClicLoc System (6-7): Place the binocular on a firm, level surface with the two slits in the rubber armoring facing you. Now thread one side of the strap through the buckle, then through the top of the binocular body and out through the bottom (8). Now loop the strap upwards toward the buckle and thread the loose end through the back of the buckle (9).

### important!

*Always keep the rainguard attached to the strap in order to prevent losing it by accident.*

## HOW TO USE THE RANGE RETICLE:

Many STEINER marine binoculars feature a precision reticle that helps users to determine the distance to objects. If you know the height or length of what you are glassing it's easy to determine the range. Two examples demonstrate how fast and easy it functions

*Example:* While boating, another boat is crossing your course. How far away is it? If you estimate the mast height of that boat to be 50 feet and the vertical scale reads 25, the distance results from the actual height (50) divided by the scale height (25) multiplied by 1000:  $50/25 = 2 \times 1000 = 2000$  feet.

*Another Example:* You're making a landfall on an island at night. You see the high point of the island in the moonlight, which reads 1200 feet on your chart. In your reticle the height reads 20. Range:  $1200/20 = 60 \times 1000$  making it 60,000 feet or approximately 11.4 miles away. Be certain that the initial point of reference is lined up at sea level to assure accurate measurement.



## HOW TO USE THE COMPASS:

Not only did STEINER invent the compass binocular, our Commander<sub>XP</sub> models are the most advanced marine binoculars in the world. All 7x50 compass models feature the largest compass currently available in marine binoculars (Ø 40 mm) as well as illumination. This allows reading bearings even under extreme conditions. Your compass is pre-set for the magnetic field in the northern hemisphere (zone 2).

To read a bearing line up the object to which you would like to get the bearing on the vertical scale and read from the compass scale beneath. The bearing is illuminated

by daylight and can be illuminated by a touch of the button on the side of the compass at night.

Wearing a hat while using the compass binocular might cover the illumina-



Compass & Reticle



tion window of the compass and can obstruct reading the bearing. Just push the illumination button and you will instantly be able to read your current bearing.

Your illuminated compass runs on power provided by batteries. The battery housing is waterproof, robust and easy to open without tools. To open the compartment use a coin and turn the cap counter clockwise. You can now remove old batteries and replace them with new ones. Always make sure to insert batteries the correct way - refer to the housing cap for specific information.

### Formula for Reticle:

Distance:

$$\frac{\text{actual height}}{\text{scale height}} \times 1000$$

Actual Height:

$$\frac{\text{distance} \times \text{scale height}}{1000}$$



### 7x50 models

Quantity: 2 Alkaline watch-type batteries

Voltage: 1.55 V

Type: V350 / SR42

Please dispose of the used batteries properly.

### 7x30 models

1 Lithium Photo battery

3.00 V

Li CR1225

### WHAT REALLY MATTERS:

One of the most important parameters of a high-performance binocular is its light transmission, which means the amount of light that ultimately reaches the human eye.

In low light conditions such as in rain, dusk or dawn a higher light transmission can make a decisive difference. However, light transmission does not always equal brightness. Each binocular has many different values for light transmission, depending upon the wavelength of light (color). Conventional binoculars tend to deliver limited peak values only at a certain wavelength (for example: blue) but lose other colors' transmission (for example: red) of up to 30%. The result of such transmission peaks, are color distortions - therefore high peak values will not improve your binoculars but are actually counterproductive for a true bright color image.



However behind this relatively simple sounding issue lies a substantial challenge. Optical lens coatings deliver high transmission values only for a very specific wavelength. At the same time, however, it can have adverse effects at other wavelengths on light transmission, image sharpness and depth of field. This is why higher quality binoculars require multiple layers of lens coating that together result in good performance for the most important colors.

## REVOLUTIONARY $\chi$ P TECHNOLOGY:

With our new  $\chi$ P Technology - the result of many years of research - STEINER solved the puzzle. It allows for the first time to bring all key optical performance parameters to maximum levels at the same time, without compromise. To produce these complex optical coating systems our engineers have developed a new production process and developed a unique high-vacuum, broad band coating chamber. The end result is a true optical revolution - which you can now see.

Unique in light transmission and color fidelity:

The  $\chi$ P Technology's unique High Definition (HD) coating formula allows for light transmission that remains equally

high over the entire visible light range. This assures outstanding light transmission, high image contrast and truest color rendition. These are advantages that you will instantly see with your STEINER  $\chi$ P Binoculars.

Crystal clear image and outstanding depth of field: At the same time this new optical system delivers a crystal clear, sharp image. The innovative lens design results in the highest depth of field ever seen in a roof-prism binocular. The benefit is less focusing.

Our revolutionary  $\chi$ P Optics are available with selected models only, such as the Peregrine  $\chi$ P, Commander  $\chi$ P, or Nighthunter  $\chi$ P.



## GETTING THE MOST FROM YOUR STEINERS

Several factors determine the optical performance of a binocular. They perform to the maximum only when all these parameters are optimally calibrated and in harmony with each other.

### Magnification

The value indicates how much closer an object appears through the binocular. The higher the magnification, the closer the object appears. However, similar to a photographic zoom lens, a higher magnification narrows the field of view. With an 8x44 binocular, objects will appear to be eight times closer than with your naked eyes.

### Objective lens diameter

This number affects the objective lens surface area through which light enters the binocular. The larger the objective lens, the more light that is able to get into the binocular. Your image will be brighter in low light conditions. With an 8x44 binocular the objective lens diameter is 44 millimeters.

### Field of view

The size of a binocular's field of view is stated in feet or as an angle and uses the value of reference at 1,000 yards. If your binoculars offer you a field of view of 390, then you will be able to see a 390 feet wide image at the distance of 1,000 yards.

### Exit pupil

Look through your binoculars and then move it about 12 inches away from your eyes. You will see a bright circle within the oculars. This dictates how much light that gets to your eye. The exit pupil is measured in millimeters (mm) and is a crucial indicator for low-light performance of a binocular. A human pupil can open up to 7 mm in low light and accordingly, binoculars that are used in low-light conditions should offer a large exit pupil.

#### **Formula for Exit pupil:**

$$\text{Exit pupil} = \frac{\text{Objective lens Diameter}}{\text{Magnification}}$$

### Storage

When not using your STEINER binoculars you should store them in a cool dry spot. Avoid storage in spaces exposed to direct sunlight (i.e. in a car) or with extreme temperature changes.

### Cleaning

Clean your binoculars by wiping the rubber armoring with a damp cloth. More stubborn dirt may require a light soap and water solution on a damp cloth. Clean the lenses of your binocular only when necessary and never use any acid based cleaning solutions. The NANO Protection Optics® of your XP binoculars repels dirt or water to form on the lenses - simply rinse with water or wipe the objective or ocular lenses gently with the cleaning cloth that came in the original box.



STEINER binoculars, guaranteed to satisfy:

The trust of our customers confirms the precision, robustness and functionality of our products. The 10/30 year limited warranty is valid for the worldwide use of our products and begins with the delivery of the binocular on the day of purchase.

- The Warranty registration card must be completed and filled in at the time of purchase. Keep your original sales receipt as proof of purchase.

**important!**

*Keep your original sales receipt as proof of purchase.*

- For binocular repairs or for warranty service, please go to [www.steiner-binoculars.com/service/service.html](http://www.steiner-binoculars.com/service/service.html) or call (800) 257-7742 for specific return instructions. The binoculars should be shipped to:  
**Pioneer Research**  
**Attn: STEINER Service Department**  
**97 Foster Road, Suite 5**  
**Moorestown, NJ 08057 · USA**
- Please understand that we cannot guarantee basic “wear and tear” and for expendable parts like rubber armoring, eyecups, carrying straps, bags or lens caps.

**The following models feature**

**a 10-year warranty:**



- Predator® (8x30, 12x40, 8x22, 10x26, 10x40)
- Merlin®
- Rallye®
- Safari®
- Military/Marine®
- BigHorn®
- Police
- Marine
- Navigator® Pro
- Observer

**The following models feature**

**a 30-year warranty:**



- Peregrine®<sub>XP</sub>
- Peregrine®
- Commander®<sub>XP</sub>
- Commander®<sub>V</sub>
- Nighthunter®<sub>XP</sub>
- Predator® (10x50, 12x50)
- Predator® C5
- Wildlife Pro®

