## INSTRUCTION MANUAL

# Orion® Spotting Scope

 $oldsymbol{\mathsf{C}}$ ongratulations on your purchase of a quality Orion spotting scope. Your spotting scope is a high-quality optical instrument for viewing birds, wildlife, sports events, or anything else you want to see more closely. It will provide many years of enjoyable viewing. Before using your spotting scope, we recommend that you read through the following instructions.

#### **Mounting the Spotting Scope to a Tripod**

Your spotting scope can be attached to a sturdy camera tripod by use of the 1/4"-20 threaded hole located on the bottom of the spotting scope's body. This hole accepts 1/4"-20 mounting studs that are standard on most camera tripods.

#### **Using the Included Compact Tripod**

Your spotting scope is supplied with a compact table-top tripod for convenient stabilization while viewing subjects in a wide range of conditions. The compact tripod includes an adjustable pan-and-tilt head with standard1/4"-20 threaded post, twist-lock handle, and retractable legs for easy storage when not in use. To setup the tripod for use, extend or unfold the legs (depending on specific design). For retractable legs that are hinged at the top of the tripod, gently pull the legs outward until you feel the range stop. For swivel design legs, gently loosen the tension knob at the bottom of the vertical post then adjust the legs to provide a steady footing, and tighten the tension knob to secure. Place the tripod on a level and stable surface. To mount your spotting scope to the tripod, locate the captive 1/4"-20 threaded post at the top of the tripod and match it to the 1/4"-20 threaded female receive on the bottom of your spotting scope's mounting plate, then attach the scope to the tripod head by turning the mounting post knob counter-clockwise until the spotting scope is securely. Be careful to not over-tighten the mounting post as this can cause damage to the post or mounting adapter threads on the spotting scope.

After the spotting scope has been properly mounted to the pan head of the compact tripod, you can adjust the pan head to align the spotting scope with your desired subject. To loosen the pan head, twist the handle counter-clockwise to allow freedom of movement. Once the subject has been located within the field of view, twist the handle in a clockwise direction to tighten and secure the spotting scope position. Be careful to not over-tighten the handle to avoid damage to the pan head or handle threads.

#### **Focusing the Spotting Scope**

Point the spotting scope so that it is aiming in the general direction of an object at least 16 feet away. Turn the focus knob with your fingers until the object comes into sharp focus. On some spotting scope models, the eyepiece twists to adjust focus. If you are using a zoom model, the eyepiece will change the magnifying power but not the focus. Go a little bit beyond sharp focus until the image just starts to blur again, then reverse the rotation of the knob, just to make sure you've hit the exact focus point.

#### **Using the Zoom Eyepiece**

Some spotting scopes have a zoom eyepiece to adjust the magnification. The magnification is adjusted to the desired level by rotating the rubber grip on the zoom eyepiece. The arrow indicator and magnification scale shows the magnification setting. Changing the magnification may also require a slight refocusing of the spotting scope to achieve the sharpest image.

For general use, it's a good idea to start viewing at the lowest magnification until you've acquired your viewing target. Then you can zoom in to a higher magnification to see more detail. Note that as magnification increases, the images will not be as bright as they are at lower powers.

#### **Roll-Down Eyecups**

Your spotting scope features a roll-down eyecup on the eyepiece. This eyecup is usually left in the up position for use without eyeglasses. To use the spotting scope with eyeglasses, simply roll down the eyeguard by folding down one side, then slide your fingers across to the opposite side of the eyepiece.

#### **Care and Maintenance**

Although the spotting scope is durable, it should not be exposed to the elements for extended periods. Keep the spotting scope in its case and indoors when not in use. The spotting scopes are weather resistant, but not water proof. If excessive dew or water accumulates on the spotting scope, leave it to dry before storing it, as this will prevent unwanted water and mold accumulation.

### **Cleaning the Lenses**

The lens surfaces are coated with anti-reflection coatings, which can be damaged with careless handling. Avoid touching lens surfaces with your fingers or any coarse material. Always use lens cleaning tissue and fluid designed specifically for telescope optical coatings. Do not use regular tissue or fluids made for eveglasses or household use. Do not disassemble the spotting scope to clean it.

To clean the lenses, first blow air on the lens with a blower bulb or compressed air to remove any large particles. Then brush the lens with a soft lens brush and blow air again to remove any dislodged particles. Put two drops of lens cleaning fluid on a sheet of lens tissue (never directly on the lens). Wipe the lens gently in a circular motion, taking care to avoid undue pressure or rubbing. Quickly remove the excess fluid by wiping with a clean, dry lens tissue. Microfiber cloth works well, too. On the objective lens, clean only a small area at a time, using a fresh lens tissue on each area.



## One Year Limited Warranty

This Orion product is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Orion Telescopes & Binoculars will repair or replace, at Orion's option, any warranted instrument that proves to be defective, provided it is returned postage paid. Proof of purchase (such as a copy of the original receipt) is required. This warranty is only valid in the country of purchase.

This warranty does not apply if, in Orion's judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights. It is not intended to remove or restrict your other legal rights under applicable local consumer law; your state or national statutory consumer rights governing the sale of consumer goods remain fully applicable.

For further warranty information, please visit www.OrionTelescopes.com/warranty.



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