

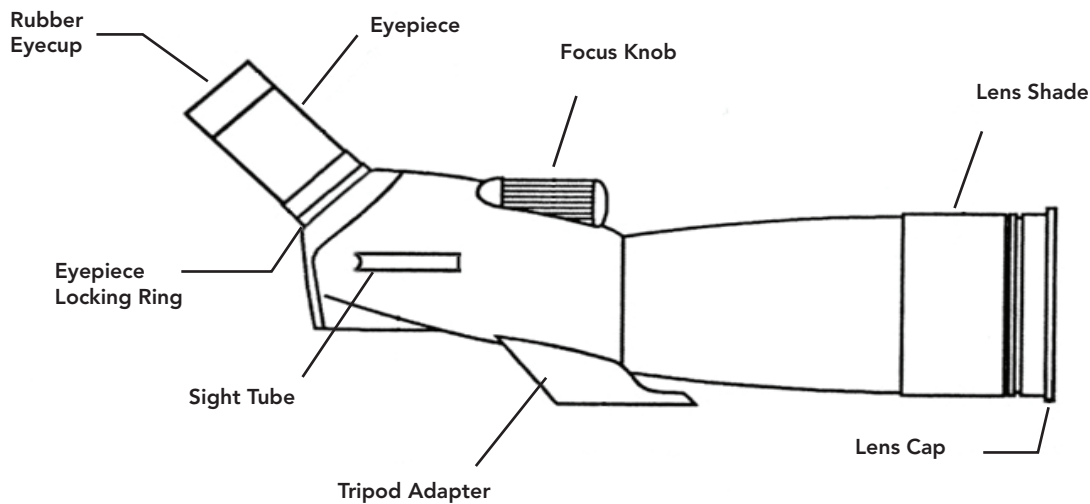
# ULTIMA

## SPOTTING SCOPE

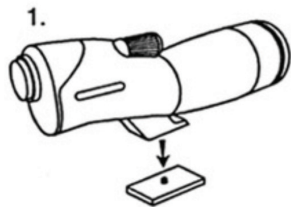
### INSTRUCTION MANUAL

Congratulations on your purchase of a Celestron Ultima Series spotting scope! Whether your interest is in sports, bird watching, nature or wildlife, hunting, or other activities these spotting scopes offer the finest optical quality to allow you years of viewing pleasure.

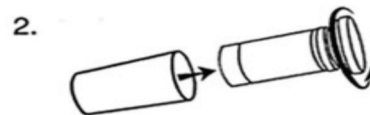
#### ULTIMA SPOTTING SCOPE



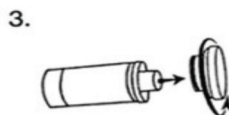
#### ASSEMBLY



1. Attach the tripod adapter to your camera tripod head.



2. Remove the eyepiece from the container by turning the cap counterclockwise.



3. Remove the cap from the eyepiece by turning the cap counterclockwise while holding onto the locking ring.



4. Remove the cover from the eyepiece adapter. Insert the Zoom eyepiece with the power indicator facing up. Secure the eyepiece by turning the locking ring clockwise.

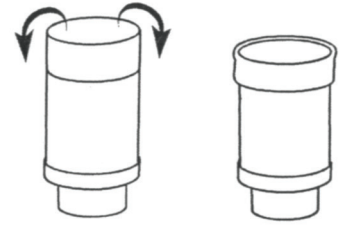
**Warning Note:** Never look directly at the Sun with the naked eye or with your spotting scope. Permanent eye damage may result.

### Before Observing

Attach your spotting scope to a photo/video tripod before trying to observe as the size and power of the spotting scope requires a solid tripod to be able to see sharp and steady views. For the Ultima 100 models a Tripod Balancing Platform should be installed for optimum balancing on a tripod (see information below). Make sure to remove the lens cap prior to observing. You can use the sight tube to locate the object you want to look at and then look through the eyepiece.

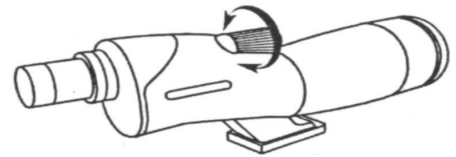
### Using the Rubber Eyecup

The zoom eyepiece includes a soft rubber eyecup for eyeglass wearers. Fold down the rubber eyecups to observe the full field of view when wearing eyeglasses. If you do not use eyeglasses, leave the rubber eyecup in the up position.



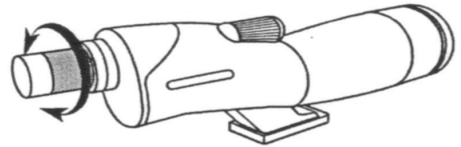
### Focusing

To focus slowly rotate the focus knob until the image in the eyepiece is clear and sharp. Refocusing is usually required if the power is changed. If you feel the focus knob no longer moves any further (in either direction), then you have reached the end of the travel range -- don't try to force it to go further but you should refocus by turning in the opposite direction. Once an image is in focus, turn the knob clockwise to focus on a closer object and counterclockwise for a more distant object.



### Changing the Magnification (Power)

Rotate the magnification ring around the zoom eyepiece to change the power level of the spotting scope. Refocus as needed. The brightest and widest field of view will always be at the lowest power.

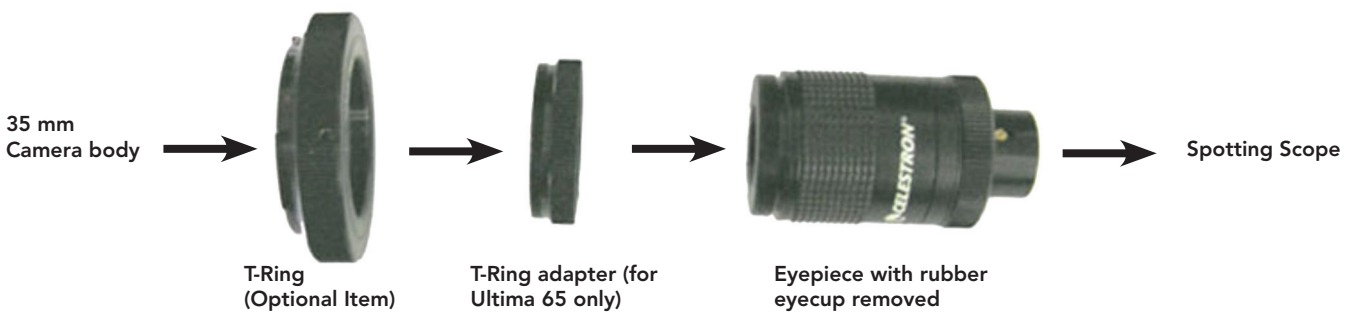


### Photography

#### With 35 mm SLR Cameras:

To use your spotting scope as a telephoto lens, remove the rubber eyecup from the top of the eyepiece. You will shoot through the spotting scope with the eyepiece attached. Thread an optional T-Ring for your make and model of 35 mm camera onto the T-threads located at the top of the eyepiece. For Ultima 65 models, thread the T-ring adapter (included with your model) onto the eyepiece threads, then you thread a T-Ring onto the eyepiece. Attach your 35 mm camera body to the T-Ring. Ultima spotting scopes have fixed apertures and, as a result, fixed f/ratios. To properly expose your subjects photographically, you need to set your shutter speed accordingly. Most 35 mm SLR cameras offer through-the-lens metering which lets you know if your picture is under or overexposed. Adjustments for proper exposures are made by changing the shutter speed. Consult your camera manual for specific information on metering and changing shutter speeds.

*Hint: Most photos will be the sharpest and brightest when using the lowest power on the zoom eyepiece.*

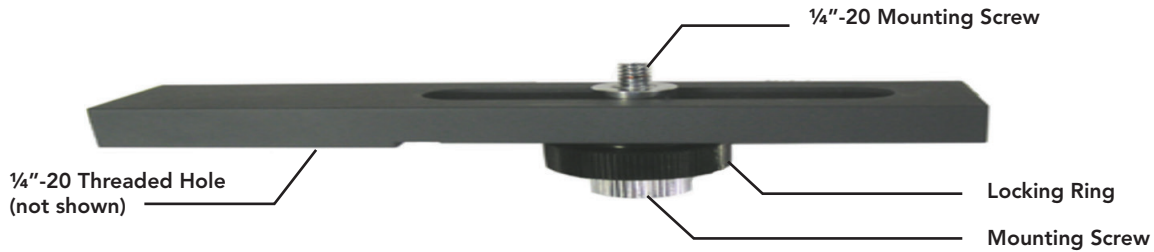


#### With Digital Cameras:

Since digital cameras (not digital SLR cameras) do not use the T-system to mount cameras to lenses, spotting scopes, telescopes, etc. you need a different way to be able to use them to take photos. Celestron offers a Universal Digital Camera Adapter (Model # 93626) which makes it easy to attach a digital camera to your Ultima spotting scope.

### Tripod Balancing Platform (for Ultima 100 models)

This is used on Ultima 100 models to properly balance your spotting scope on top of a photo/video tripod.



To use the tripod balancing platform:

Mount the platform to the top of your photo tripod using the 1/4"-20 threaded hole on the bottom side of the platform.

Attach your spotting scope to the platform using the 1/4"-20 mounting screw located on the top side of the platform. Thread the mounting screw in as far as it will go. Slide the attached spotting scope along the slotted cutout until your spotting scope is balanced on the tripod.

Tighten the locking ring to hold the spotting scope in place.

### Maintenance

To protect your spotting scope when not being used, put on all lens covers and the lens cap to keep the optics clean and then put the scope in the soft carrying case. If your optics could use cleaning, use an optics cleaning kit and follow the instructions.

Specifications						
Model	52248	52249	52250	52254	52252	52257
Description	Ultima 65	Ultima 65	Ultima 80	Ultima 80	Ultima 100	Ultima 100
Viewing Position	45° Angled	Straight	45° Angled	Straight	45° Angled	Straight
Aperture - mm	65	65	80	80	100	100
Focal Length - mm	386	386	480	480	540	540
Magnification	18x-55x	18x-55x	20x-60x	20x-60x	22x-66x	22x-66x
Eyepiece - Zoom	7-21 mm	7-21 mm	8-24 mm	8-24 mm	8-24 mm	8-24 mm
Angular Field of View	1.7° @ 18x	1.7° @ 18x	2.0° @ 20x	2.0° @ 20x	1.8° @ 22x	1.8° @ 22x
	0.7° @ 55x	0.7° @ 55x	1.0° @ 60x	1.0° @ 60x	1.0° @ 66x	1.0° @ 66x
Linear Field of View	89 @ 18x	89 @ 18x	105 @ 20x	105 @ 20x	95 @ 22x	95 @ 22x
- feet @ 1000 yds.	38 @ 55x	38 @ 55x	53 @ 60x	53 @ 60x	53 @ 66x	53 @ 66x
Eye Relief	18 mm @ 18x	18 mm @ 18x	18 mm @ 20x	18 mm @ 20x	18 mm @ 22x	18 mm @ 22x
Near Focus	20 ft @ 18x	20 ft @ 18x	27 ft @ 20x	27 ft @ 20x	33 ft @ 22x	33 ft @ 22x
	6.1 m @ 18x	6.1 m @ 18x	8.2 m @ 20x	8.2 m @ 20x	10.0 m @ 22x	10.0 m @ 22x
Prisms - BaK - 4	Yes	Yes	Yes	Yes	Yes	Yes
Optical Coatings	Multi-Coated	Multi-Coated	Multi-Coated	Multi-Coated	Multi-Coated	Multi-Coated
Waterproof	Yes	Yes	Yes	Yes	Yes	Yes
Length	13" - 330 mm	16" - 406 mm	16" - 406 mm	19" - 483 mm	19" - 483 mm	22" - 559 mm
Weight	37 oz. - 1.1kg	37 oz. - 1.1kg	57 oz. - 1.6 kg	57 oz. - 1.6 kg	72 oz. - 2.0 kg	72 oz. - 2.0 kg

Note: All specifications are subject to change without notice.

### Warranty

Ultima Spotting Scopes have the Celestron Limited Lifetime Warranty for the U.S.A. and Canadian customers. For complete details of eligibility and for warranty information on customers in other countries visit the Celestron website.