



Crafting the World's Finest Astronomical Instruments

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Thank you for choosing a William Optics ZENITHSTAR 66 high-quality short tube refractor. This simple step-by-step instruction manual is designed to provide Zenithstar owners with a better understanding of how to operate their new telescope by providing precise, updated information.

These instructions will also guide you through how to properly maintain the Zenithstar, and how to operate it at its maximum capabilities.

Please carefully familiarize yourself with your telescope's parts and functions before operating it for the first time.

WARNING!

DO NOT USE THIS TELESCOPE UNDER ANY CIRCUMSTANCES TO DIRECTLY VIEW THE SUN.

It could easily cause instant blindness or serious damage to your eyes. To view the sun, use only appropriately designed solar filters that will reject 99.96% of the sun light and heat. Educate your family on how to use this telescope properly during day and night time observations. For further information please contact your local dealer.

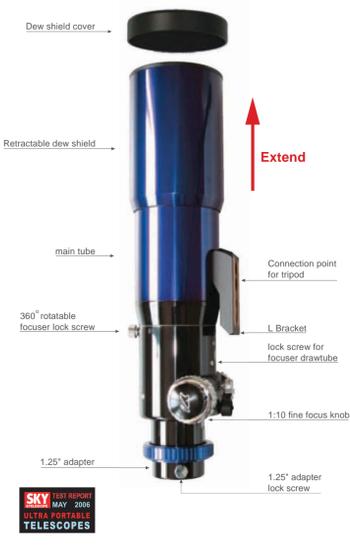


CAUTION!!

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Getting to know your telescope



ZenithStar 66 SD Doublet APO Specifications

Aperture	66 mm
Focal Ratio	F / 5.9
Focal Length	388 mm (15.3")
Objective Type	Doublet, Air Spaced, Fully Multi-Coated, STM coating
Resolving Power	1.78"
Limiting Magnitude	10.8
Lens Shade	Retractable
Focuser	40.6 mm (1.6") Crayford Focuser with 1:10 dual-speed microfocuser 63 mm (2.4") Focuser Travel Length 360° Rotatable Design
1.25" Adapter	Brass Compression Ring
L-type Mount	L Bracket
Field Stops	10 Baffles
Tube Diameter	75 mm (2.95")
Tube Length	300 mm (11.8") Fully Retracted 360 mm (14.2") Fully Extended
Tube Weight	3.5 lbs. (1.7 kg)
Case	Aluminum Case (Standard)
Case Dimensions (WxHxD)	38.5 cm x 24.5 cm x 16.5 cm (15" x 9.6" x 6.5") (Water Resistant)
Case Weight	3.7 mm (1.6")

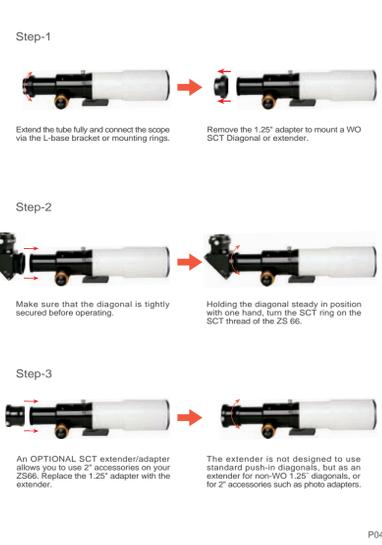
ZenithStar 66 Accessories Chart



Above diagram is only for future connectivity purposes. Please contact your Authorized Dealer for accessories purchase.

Connection Instructions

(2" SCT Diagonal & Optional SCT Adapter)



Connection Instructions

(Red Dot Finder)



Connection Instructions

(Aligning R.D.F.)



Usage

The Zenithstar series is designed to work with SCT-thread Diagonals, for both daytime and nighttime viewing, as an outstanding travel scope. We recommend purchasing a WO 2" star diagonal to make the most of these little telescopes.

Because the Zenithstar 66 are well suited to viewing nebulae, clusters, large galaxies and comets, we recommend the use of high quality wide-angle eyepieces. The WO SWAN and UWAN series eyepieces are available in a variety of focal lengths, viewing the moon and planets is also impressive at magnifications of 120X when seeing conditions permit.

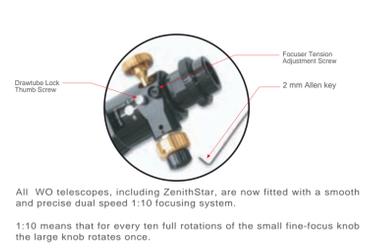
To calculate the magnification of your telescope and eyepiece combination, divide the telescope focal length in mm by the eyepiece focal length in mm.

Keep in mind that the atmosphere plays an important role in seeing conditions, and only the best seeing conditions will support high power viewing. Additional power under less than ideal seeing conditions will not result in an increase in viewable details, and lower powered eyepieces should there be used under those conditions. It's easiest to locate objects using low power eyepieces (20X magnification) and then zoom in by switching to higher powered eyepieces. The largest field of view will be seen using a 12x low power-wide field of view eyepiece.

A stable tripod or mount is recommended for optimal viewing. This includes high quality photography tripods, and German Equatorial mounts, which are designed for astronomical use and include precise tracking of celestial objects. Optional accessories from WO include mounting rings and plates, super high quality 2" Quartz star diagonals which provide for superior viewing and high quality images.

The Zenithstar telescopes are suitable for large-field astrophotography. Please see our website for examples of photos taken with these telescopes. The Accessories Chart on page 03 provides additional details on photographic accessories for various CCD, digital and film cameras.

Never aim your telescope or finderscope at the Sun without proper Solar filters installed on the front of the telescope. Doing so for even a moment may permanently damage your vision. Proper Solar filters consist of a filters made by reputable manufacturers, designed to fit tightly over the front of the dew shield. Solar eyepiece filters are not considered safe, and should not be used. With proper front mounted Solar filters, the telescope will not be harmed by viewing the Sun. Contact your Authorized Dealer for further information on the brands, sizes, and prices of proper solar filters.



All WO telescopes, including ZenithStar, are now fitted with a smooth and precise dual speed 1:10 focusing system.

1:10 means that for every ten full rotations of the small fine-focus knob the large knob rotates once.

The focuser drawtube tension can be adjusted using a 2mm Allen key on the screw protruding from the black hollow ring.

Tension should be adjusted only when necessary by progressively tightening the screw until you reach the desired tension.

Make sure that the black ring is always tight against the focuser.

Storage and Cleaning

- Suggested placing all accessories inside an airtight container with desiccative control. Secondly, remember to store the telescope in a non-humid environment, never leave it be build up.
- Be particularly careful after a night observation that the lens has no dew on it before storing the telescope away.
- In case the lens surface becomes dusty, smeared, or gets fingerprints or fungus build-up on it, first of all, remove any surface particle by using an air blower, then carefully proceed to wiping the lens gently with a lint-free proper soft cloth. Use a lens liquid cleaner to get the best cleaning result. Make sure you change your cloth to a new one from time to time.
- The above-mentioned indications are not necessary if you carefully protect your telescope.
- The beautiful finish of ZenithStar 66 is not easy to ruin. Nonetheless take care of the exterior body tube by wiping it down with a slightly damp soft cloth from time to time. Water should be enough to do the job. Please do not use any organic solvent on your telescope, for example alcohol, benzene and other hazardous chemical as this might ruin it.

Caution for Safety

- **Caution! Never directly view the sun light with your telescope.** Do not aim your ZenithStar 66 at the Sun because this might impair your Loss of eyesight can occur when your telescope is not properly protected by solar viewing filter. (Solar filters can be easily purchased through your WO Authorized Dealers).
- Always place the optical telescope assembly (OTA) on a completely flat surface, unstable placement of telescope may cause it to fall, and if handled without caution, it may easily injure yourself and others.
- Never use your telescope under rainy conditions: this telescope is not designed to be water-proof. If your telescope accidentally gets caught in rain, please wipe down the water with a dry clean cloth, but if the lens gets totally soaked by water, please contact your WO Authorized Dealer right away for a service solution.
- Do not disassemble or attempt repairing your telescope without a written authorization from William Optics Corp.: this violates the warranty terms under the limited product warranty section and invalids any guarantee. Always consult with your local WO Authorized Dealer or with William Optics Corp. for details on how to service your telescope.

Optional Equipment

In order to operate your ZenithStar 66 you will need the following minimum equipment.

A sturdy tripod for astronomical or birding usage or a mount (equatorial or ALT-AZ).

A mirror diagonal or erecting prism (The WO 2" SCT Dielectric Diagonal is strongly recommended for better results in star observation and digital photography. A top-quality Dielectric Quartz model is also available now).

At least one or two good eyepieces (9 to 40 mm wide-field depending) depending on the application.

Other accessories according on application.

Also available from WO:

- WO. 2" SCT extender / adapter.
- Red dot finder.
- WO. 2" Star Mirror Diagonals.
- WO. 2" and 1.25" 45° Erecting prisms.
- Ultra wide angle UWAN Eyepieces, 1.25" or 2" versions.
- Diagonizing adapter: universal adapter for any type of digital camera.

Bundle Equipment

1. Stylish soft carrying case, with custom fitted foam, water resistant, carry-on size, aluminum case for ZenithStar 66 SD Doublet APO.
2. L-bracket base.
3. Dew shield cover.
4. 2" to 1.25" Adapter.

Recommended Products

Diagonal Mirrors



Dielectric Diagonals
William Optics excellent Dielectric Diagonals are the ideal for the discerning observer who wants only the best for his telescope.

Flattener



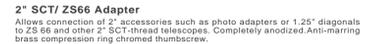
SCT Field Flattener/0.8x Reducer
This 360° rotatable air reducer with SCT thread is especially recommended for users who want to do astrophotography with their ZS66 SD APO. A version without the 0.8x lens is available for use as a photo adapter with SCT thread, for example with the ZS 66 Petzval ED.

2" SCT Extender Adapter



2" SCT/ ZS66 Adapter
Allows connection of accessories such as photo adapters or 1.25" diagonals to ZS 66 and other 2" SCT-thread telescopes. Completely anodized Anti-marring brass compression ring chromed thumbscrew.

EasyTouch Alt-Az Mount Head



EasyTouch Alt-Az Mount Head
This line of 72 deg. eyepieces work with extremely well corrected F.O.V. even with very fast optical systems. The ideal solution for those who want to pay only for performance, not for "brand mark-up". Available in: 9, 15, 20, 25, 33, 40mm

W.O. UWAN
82 deg. eyepieces are ideal in SCT and reflectors. Ideal for wide field casual observations. Available in: 9, 15, 20, 25, 33, 40mm

W.O. SWAN
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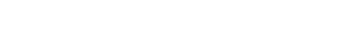
W.O. S.P.L.
NEW Planetary eyepieces, boasts very long eye-relief, and a very sharp and well corrected field which makes them ideal for high-power observations of the Moon, planets, and DSOs. Available in: 3, 4, 6, 12, 15mm

Erecting Prisms



45° Erecting Prisms
Perfect both for astronomical and terrestrial observations. Revolutionary and sophisticated design, extra-smooth feet.

R.D.F. & Bracket



Red dot finder (r.d.f.)
This very practical r.d.f. comes with a handy, quick-release bracket included in the price. Centering your objects in the sky has never been easier!

Guiding Rings



Guiding Rings
Allows connection of accessories such as photo adapters or 1.25" diagonals to ZS 66 and other 2" SCT-thread telescopes. Completely anodized Anti-marring brass compression ring chromed thumbscrew.

UWAN Eyepieces



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