


omegon
Advanced X152
DOB TeleScopes



omegon Advanced X152 DOB TeleScopes Instruction Manual

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omegon Advanced X152 DOB TeleScopes



Specifications

- **Aperture:** 152/1200, 203/1200, 254/1250, 304/1500 (mm)
- **Focal Length:** 1200mm (for all sizes)
- **Focal Ratio:** f/8, f/6, F/4.9 (varies with aperture size)
- **Finderscope:** 6 x 30, 8 x 50 (varies with aperture size)
- **Focuser:** Crayford 1.25, Crayford 2 (varies with aperture size)
- **Eyepiece Rack:** yes
- **Accessories included:** 35 mm extender, 2/1.25 adapter, 25 mm Ploessel eyepiece

Product Usage Instructions

Assembling the Telescope Base

The telescope base parts include a disc (top and bottom), side panels, handle & screws, feet & screws, side friction kit, wood screws, and azimuth friction kit.

1. Unpack the telescope base parts from the flat cardboard box.
2. Lay out the parts on a clean and flat surface with enough space for assembly.
3. Follow the assembly instructions provided in the manual, adjusting for different telescope sizes if necessary.

Using the Optical Tube

Ensure that the optical tube is equipped with dust caps for the front aperture and focuser to protect against dust and humidity. Store the telescope in a clean and dry place when not in use.

Using the Tension Spring

Attach the tension spring to the nylon cylinders using the provided locking knob to secure it in place. Stretch the spring by pulling the loop and fitting it onto the opposite nylon cylinder on both sides of the bearings.

Installing the Finderscope

- Slide the O-ring to the designated tube mark on the optical tube.
- Secure the finderscope bracket using the thumbscrew and attach the finderscope tube to it.
- Ensure proper alignment of adjustment screws and O-ring for correct installation.

The Omegon® Advanced X Series

Congratulations on the purchase of one of the new Omegon® Advanced X Series telescope. This telescope will give you hours of fun, with its optical precision polished mirrors and huge light gathering capability; it is the ideal companion for the beginner or intermediate amateur. It's simple design and optical quality makes the Advanced X one of the most exciting Dobson telescopes you will ever find in the market.

What's included?

The telescope is shipped in two boxes. The tube box and the base box. To keep box volume to a minimum, the base is supplied disassembled. To assemble the base you only need a screw driver (Philips-type) – not supplied. Assembly takes about 20 minutes and all supplied parts and ware are easily put together. Below you can see the included base parts and ware. Please take a few minutes to familiarize yourself with it.

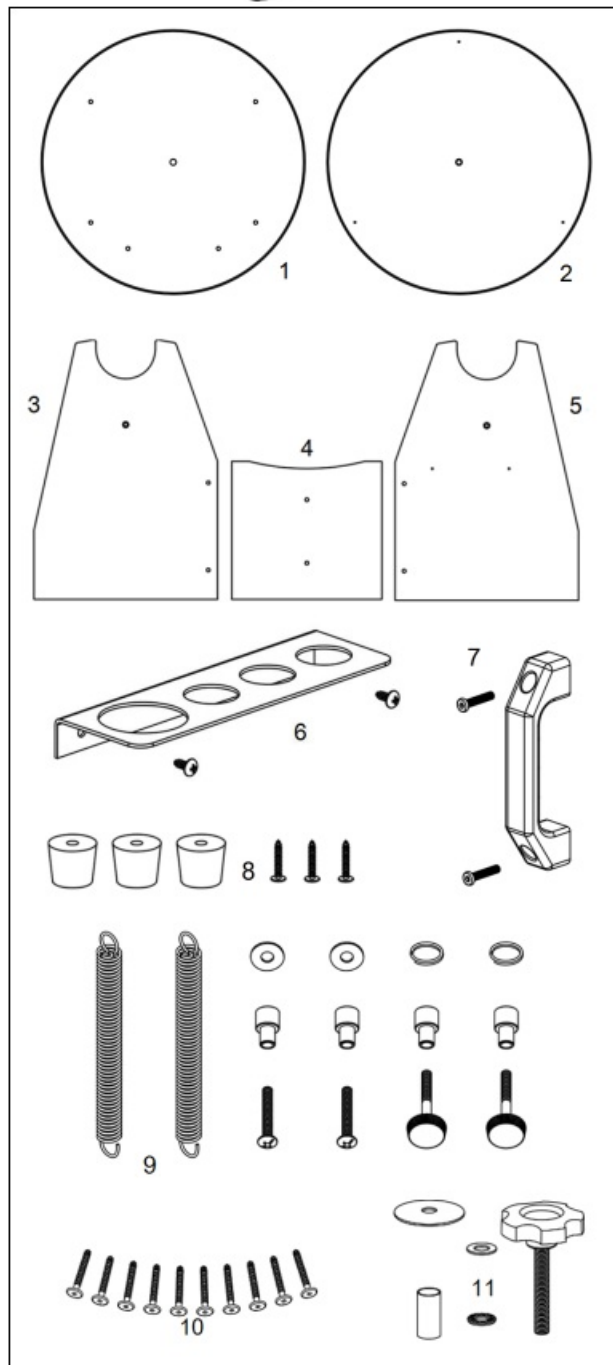
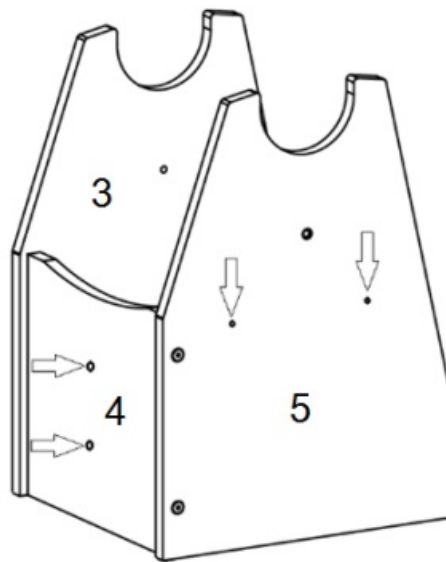
Telescope base parts

1. Disc (top);
2. Disc (bottom);
3. Side panel (right);
4. Front panel;
5. Side panel (left);
6. Eyepiece Rack & screws;
7. Handle & screws;
8. Feet & screws;
9. Side friction kit;
10. Wood screws;
11. Azimuth friction kit.

Assembling the telescope base.

The telescope base is shipped in a flat cardboard box. Please provide a clean and flat surface where you can lay the parts and enough space to assemble it.

1. **Step 1 – Assembling the side and front panels.** Identify parts #3, #4 and #5. Used the supplied Allen wrench and 4x of the wood screws #10. Please notice that the side panels #3 and #5 are slightly different. Panel #5 has two additional holes to fix the eyepiece rack #6. The front panel #4 has two sides. Make sure that the metal washers are not visible from the outside. When Step 1 is finished make sure that the side panel (right) #3 is on the right side of this assembly and the front panel washer (plated) do not show to the outside – marked with arrows – below.



These instructions apply to telescopes of different sizes. Therefore, the parts may have slightly different proportions than shown above. Part 10: Only with Advanced X 304, 10 pieces, otherwise 8 pieces.

2. **Step 2 – Fixing the Disc (top).** Please use another 6x wood screws #10. Use the Allen wrench to tighten the

screws. Please notice that the Disc (top) #1 has two sides. A side with circles cut in the wood's surface to hide the screw heads. Tighten the screws from this side.

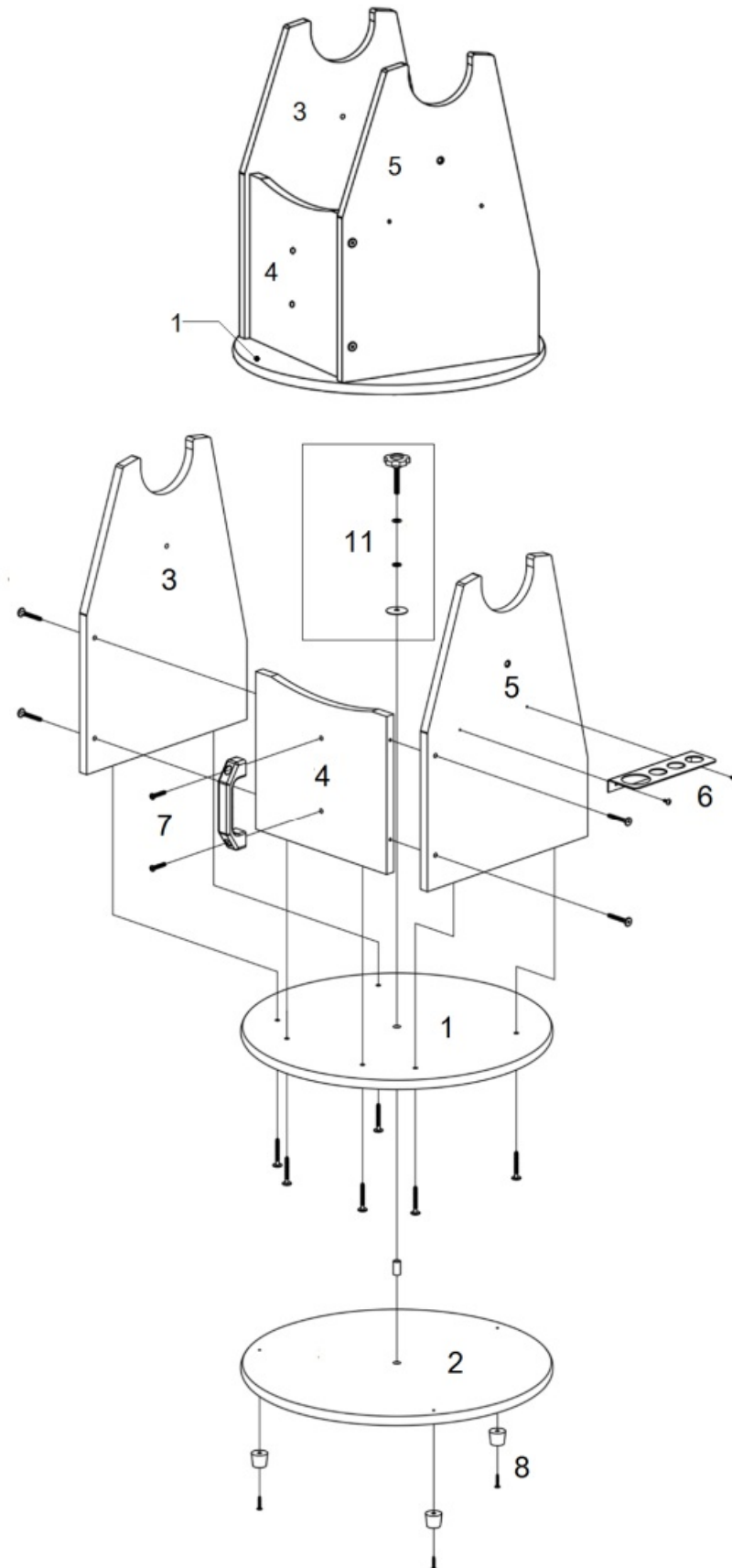
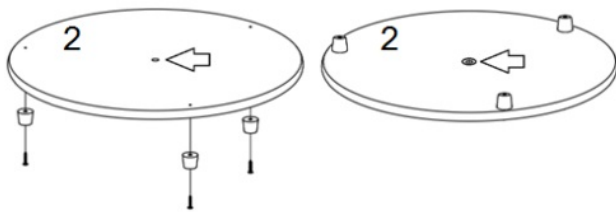


Figure 1. Exploded view of the complete assembly.

3. Step 3 – Setting the feet to the Disc

(bottom). Before proceeding with the assembly, set the 3x feet and screws #8 to the Disc (bottom) #2. Make sure to fix the feet to the side where the metal nut is flush to the disc's surface (arrow below). It is important to identify and fix the feet to the correct side.



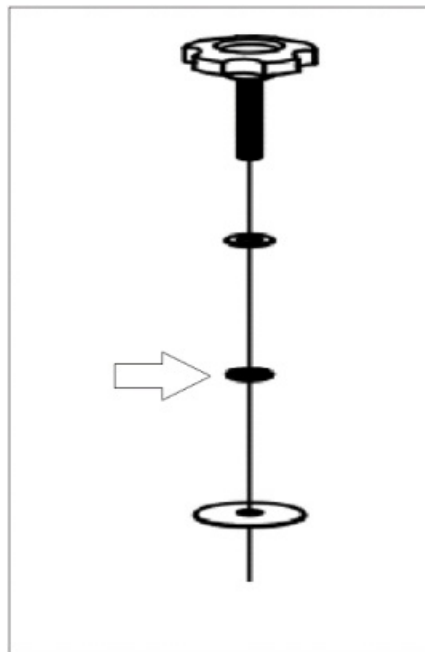
Parts 1 and 4 are only directly connected with Advanced X 304.

Solar Warning! Do not point the telescope to the Sun, concentrated light will cause irreversible eye damage and even blindness!

4. Step 5 – Fixing the Disc (bottom) #2 to the pre-assembled wood parts. Please proceed as shown. The handknob allows adjusting pressure to the Teflon© pads increasing/decreasing friction.

Did you know? The Hand knob adjusts the friction of the azimuth movement. If you feel that the movement on this axis is too smooth, just give a quarter of turn and tighten the central hand knob. This will visibly increase the friction making the movement stiffer. If on the contrary the movement is too stiff release the hand knob for a smoother movement.

5. **Step 6 – Setting the Handle #7** and eyepiece rack #6. Use the supplied screws to fix both the Handle and eyepiece rack as shown in figure 1 and figure 2.



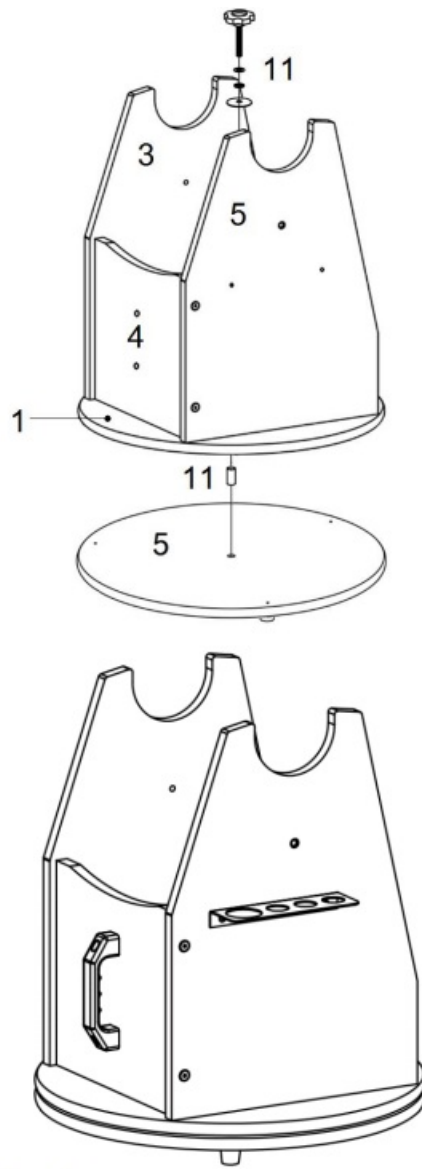


Figure 2.

The one time assembly of the telescope base is now completed. It can be easily carried with one hand using the handle. The eyepiece rack can be used to store eyepieces and Barlow (not included) during observations. The optical tube is the other main part of this telescope. It already comes pre-assembled.

Its side bearings sit on the base's Teflon® pads. Depending on the weight of eyepiece, Barlow or finderscope the tube may tilt to the front or the back during observation. To avoid this inconvenient problem we have included a unique side friction kit #12 that allows increasing the friction between the Teflon pads and the side bearings. Please look at the main features of the optical tube and how to assemble the side friction kit #12.

The optical tube.

Please look at the main features of the optical tube in the figure below.

Optical tube features

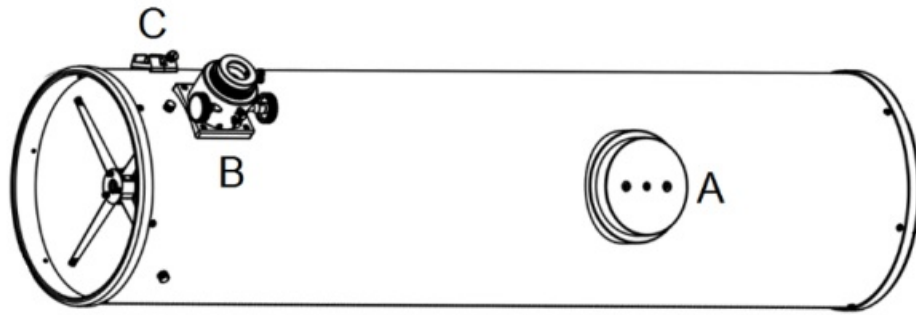
- A – Side bearing
- B – Focuser
- C – Finderscope base

Optical tube features

A – Side bearing

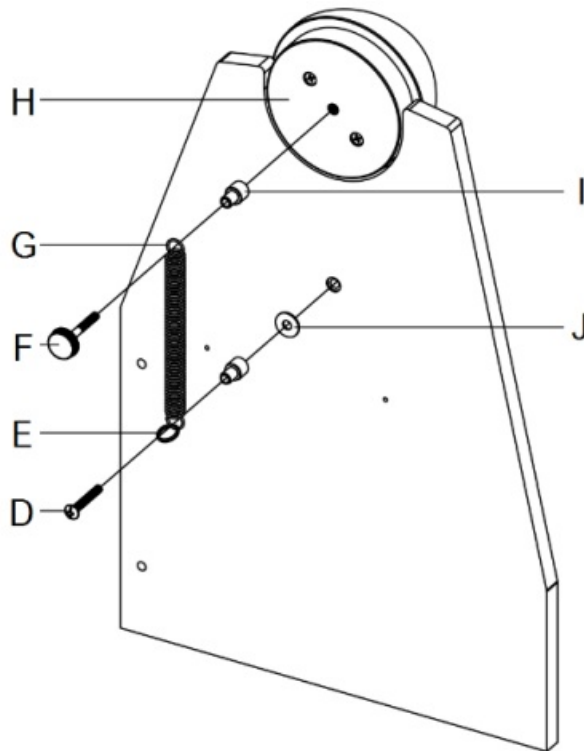
B – Focuser

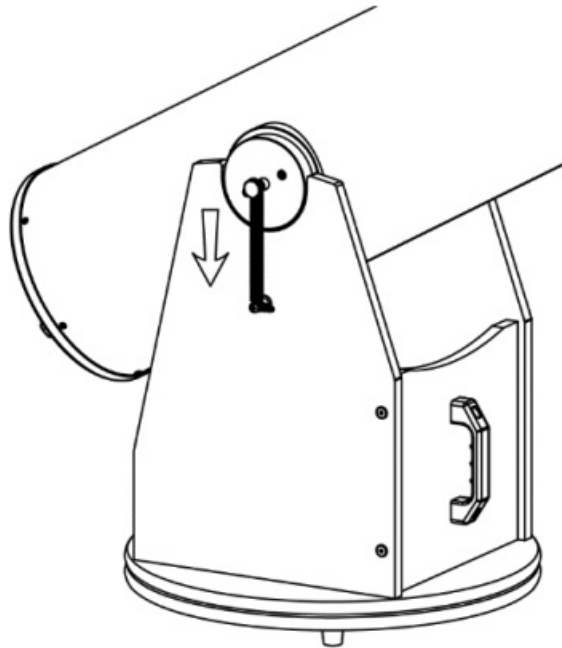
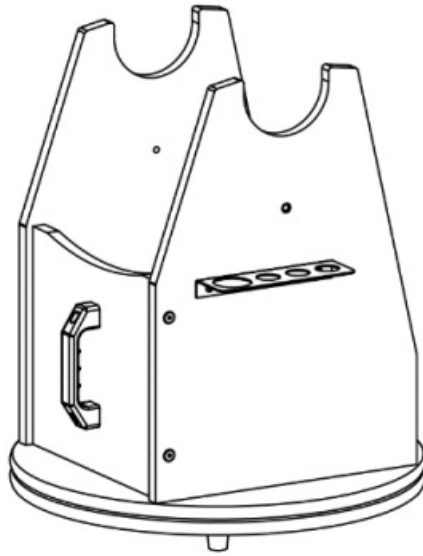
C – Finderscope base



A dust cap for the front aperture and for the focuser are also included. Please make sure to use it to protect the telescope from dust and humidity. The telescope should always be stored in a clean and dry place.

1. **Installing the optical tube to the telescope base.** The tube fits to the assembled base as shown. For convenient transportation, both tube and base should set apart after each observation.
2. **Installing the side friction kit.** To increase the friction on the tube bearings a system of tensioning springs is used. This avoids the inconvenient tilt of unbalanced telescope tubes.

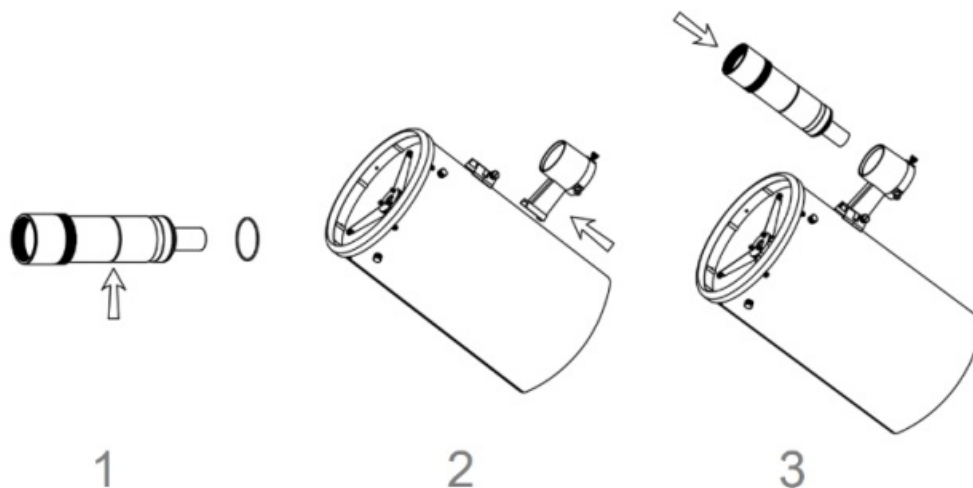




Please identify the different components and assemble it as shown. Make sure to loop the cord through one hook of the spring.

How to use the tension spring? Pass one hook #G to the nylon cylinder #I and use the locking knob #F to fix it in place. The spring will be loose. The opposite spring loop should be laced with the cord E. Stretch the spring pulling the loop and fitting it the other nylon cylinder #D. Do this to both side bearings.

3. **Installing the Finderscope.** Start by sliding the supplied O-ring to the tube mark (arrow below). Next, slide the finderscope bracket and use the thumbscrew to tighten it in place. The finderscope tube can be fitted to the finderscope bracket. Make sure that the adjustment screws sit on the finderscope tube recess and the O-Ring on the front.



Specifications

Specifications	152/1200	203/1200	254/1250	304/1500
Aperture	152 mm	203 mm	254 mm	304 mm
Focal length	1200 mm	1200 mm	1250 mm	1500 mm
Focal ratio	f/8	f/6	F/4,9	F/4,9
Finderscope	6 x 30	8 x 50	8 x 50	8 x 50
Focuser	Crayford 1.25"	Crayford 2"		

- **Eyepiece rack** yes
- **Accessories included** 35 mm extender, 2"/1,25" adapter, 25 mm Ploessel eyepiece

FAQ


Q: Can I point the telescope to the Sun?

A: No, pointing the telescope to the Sun can cause irreversible eye damage and blindness due to concentrated light exposure.

Q: How do I adjust the friction of azimuth movement?

A: Use the hand knob to adjust the friction. Tighten for stiffer movement and loosen for smoother movement.

Documents / Resources

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References

- [User Manual](#)

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