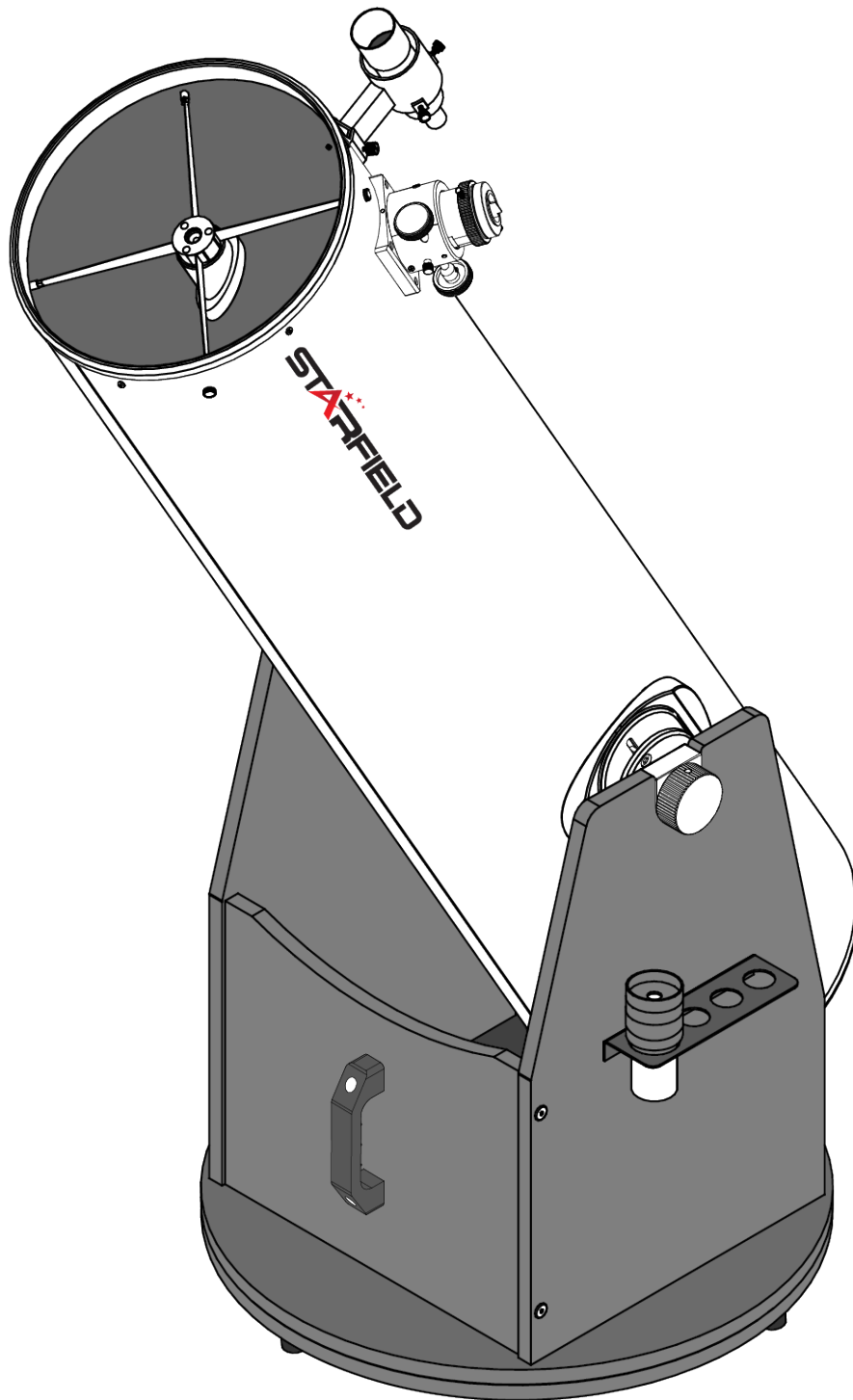


STARFIELD

ASSEMBLY INSTRUCTIONS

STARFIELD DOBSONIAN REFLECTOR TELESCOPE



200mm F/6 OTA

250mm F/5 OTA

300mm F/5 OTA

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THANK YOU

Thank you for your purchase of a Starfield Dobsonian Telescope. Your Starfield Dobsonian is built with the highest-quality optics and materials to provide years of reliable operation and discovery. Starfield telescopes are precision astronomical instruments designed for ease of use and versatility in their application. Proper care should be given when using any telescope. Some technical knowledge of optical properties and stellar movements are helpful to enhance your experience.

SPECIFICATIONS FOR YOUR STARFIELD DOBSONIAN TELESCOPE

SPECIFICATIONS	200mm F/6 OTA	250mm F/5 OTA	300mm F/5 OTA
Aperture	8" (203mm)	10" (254mm)	12" (305mm)
Focal Length	1200mm	1250mm	1500mm
Focal Ratio	6	5	5
Magnification (with included eyepieces)	40x (30mm), 133x (9mm)	42x (30mm), 139x (9mm)	50x (30mm), 167x (9mm)
Limiting Magnitude	14	14.5	14.9
Lowest Useful Magnification	29x	36x	43x
Highest Theoretical Magnification	400x	500x	600x
Optical Tube Weight	38 lbs	53 lbs	66 lbs
Assembled Weight	54 lbs	60 lbs	75 lbs

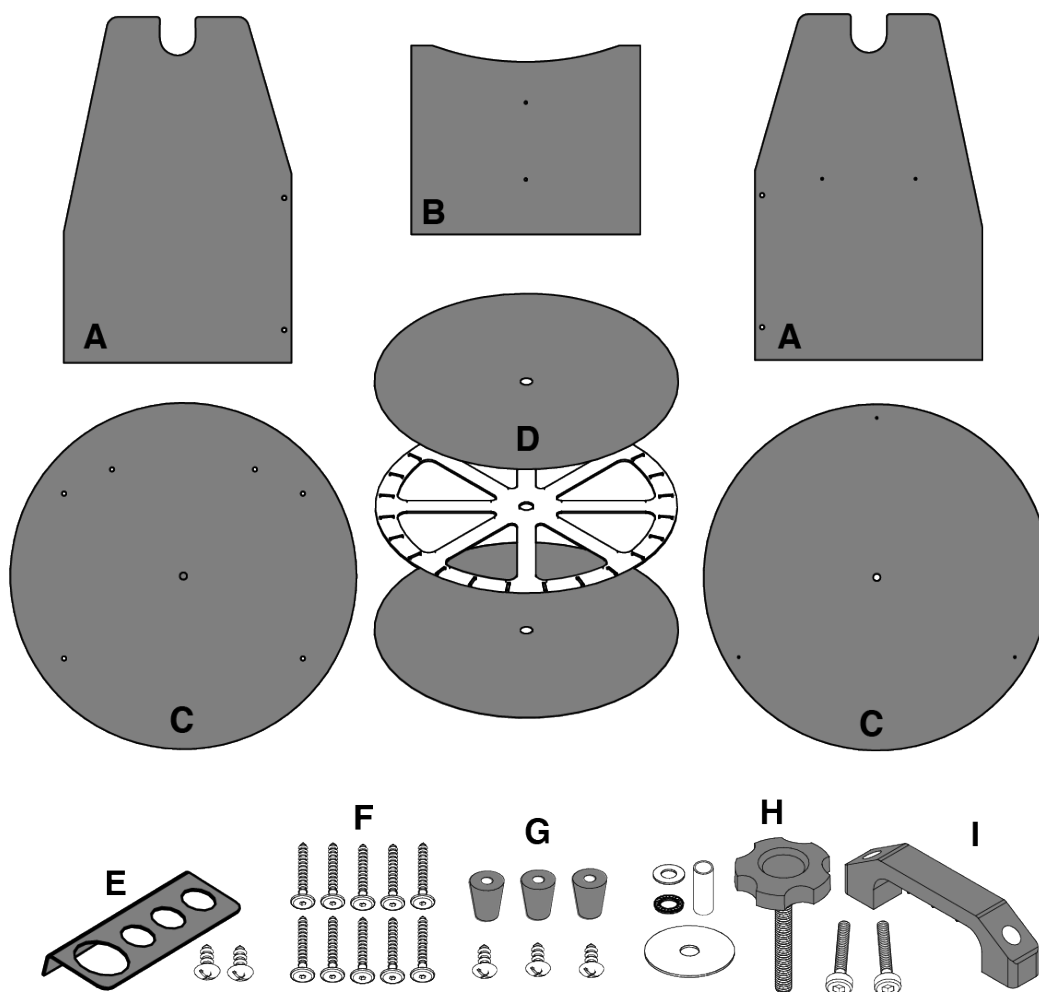
WARNING

- Do not use telescope or finderscope to look at the sun without an appropriate solar filter. Doing so will cause permanent and irreversible eye damage.
 - Never use an eyepiece filter as a solar filter. Only solar filters will completely cover the opening of the optical tube and provide proper eye protection.
 - Ensure proper tightening of screw before beginning operation of the telescope.
 - Do not drop or shake your telescope as doing so will damage the optics, harm you or the people around you.
 - Please use caution when loosening the adjustment knobs to ensure no damage is caused to the optical tube assembly.
-

TELESCOPE BASE PARTS & ASSEMBLY

PARTS

- A. Base Sides (2)
 - B. Base Front
 - C. Base Plates (2)
 - D. Bearing Plates (3)
 - E. Eyepiece Tray (and (2) black Philips screws)
 - F. Long Black Allen Screws (10)
 - G. Feet (3)
 - H. Adjustment knob (with (2) washers, (1) ball bearing, and (1) silver sleeve bearing)
 - I. Handle (and (2) silver Allen screws)
 - J. Allen Wrench (Not Pictured)
 - K. 8x50 Finder Scope (Not Pictured)
- Not Included:
• Philips Screwdriver
- All holes have been predrilled



ASSEMBLY

See image following step by step instruction for more detail.

STEP 1: Attach the handle onto the Base Front using the (2) pre-drilled holes on the front and the 2 Allen screws.

STEP 2: Connect the Base Front to the Left Base Side using the pre-drilled holes in the Base Front and (2) Long black Allen screws.

STEP 3: Repeat with the Right Base Side to complete the box. Be sure that all three sides are rigidly attached.

STEP 4: Attach the Eyepiece Tray to the Right Base using the (2) pre-drilled holes and (2) black Philips screws.

STEP 5: Assemble the Base Plate. First, to attach the feet to the Base Plate, choose the base plate with the centre hole and (3) holes around the outside edge. With the wider side facing the board, attach all three feet to the holes around the outside of the base plate using (3) medium silver Philips screws.

STEP 6: Choose the Base Plate with the centre hole and (6) holes around the edge. Flip the completed base housing upside-down and align the six pre-drilled holes with the base plate.

STEP 7: Be sure the side with recessed holes is facing away from the base housing. Screw (6) long black Allen screws into these holes until they are flush with the surface.

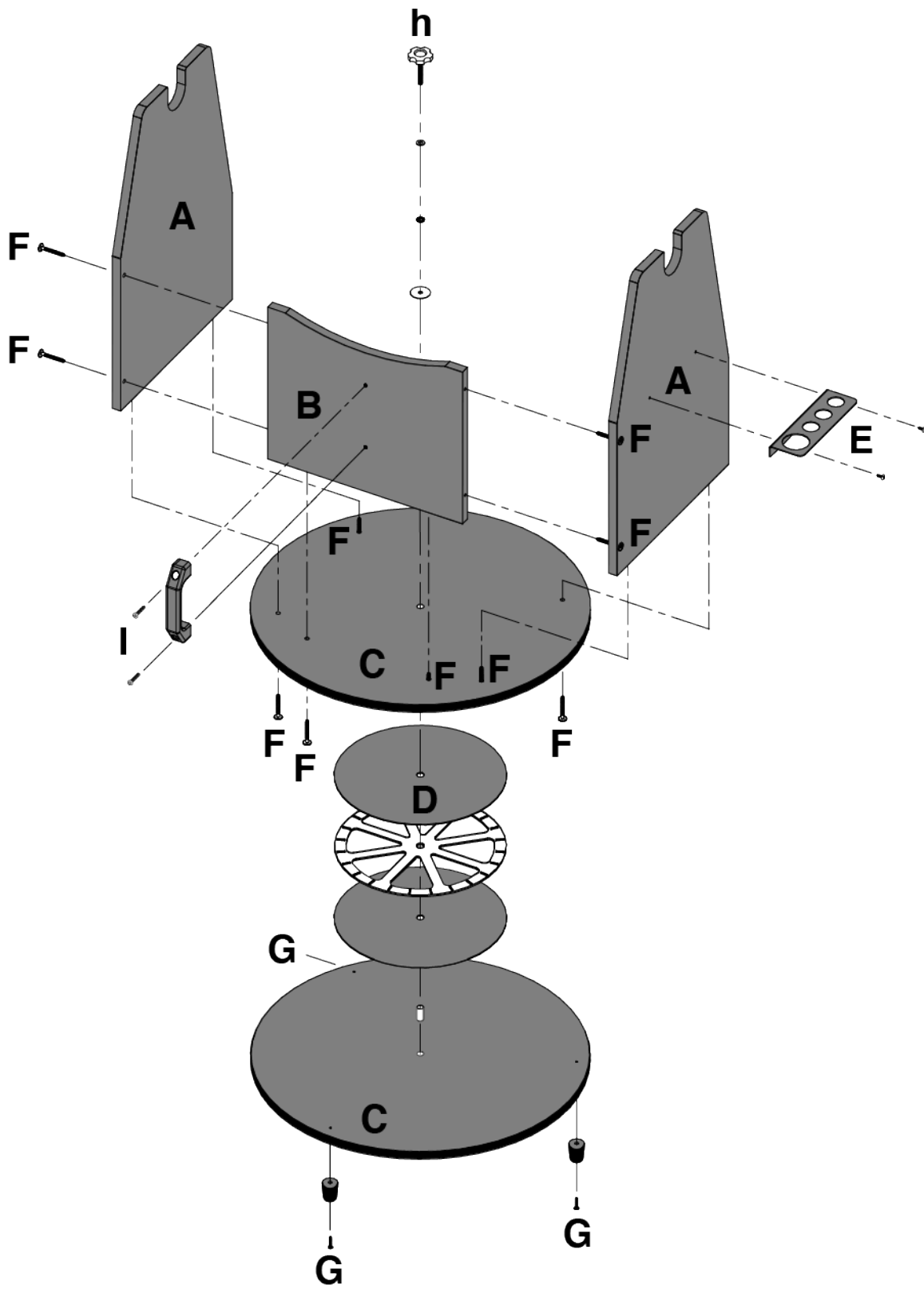
STEP 8: Assemble the Adjustment Knob. Place the Small Washer, Ball Bearing and Large Washer, in that order, on the threaded bolt with the small washer closest to the plastic knob. Set aside.

STEP 9: Place the Base Plate with feet on level ground, feet facing downward. Insert the Silver Sleeve Bearing into the centre hole.

STEP 10: Arrange the 3 Bearing Plates with the "wagon wheel" plate between the two light blue plates and place onto the Silver Sleeve Bearing centred on the Base Plate. Check that it rotates smoothly.

STEP 11: Pick up the Base Plate and Base Housing assembly and place it on top of the Base Plate and Bearing Plate Assembly, aligning the centre hole with the Silver Sleeve Bearing. The top assembly should now rotate freely over the bottom Base Plate.

STEP 12: Screw the Adjustment Knob (with washers and ball bearing) into the Silver Sleeve Bearing, through all the assembled base parts. This will be your means to rotate and secure your Dobsonian.



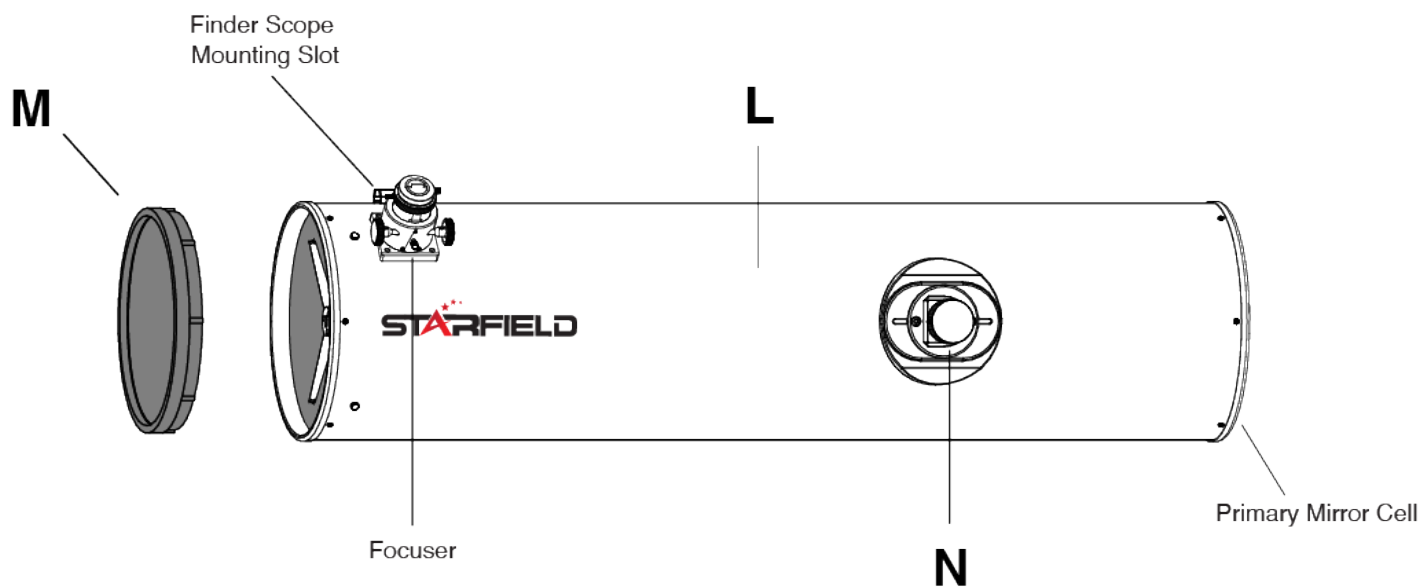
OPTICAL TUBE PARTS & ASSEMBLY

PARTS

L. Dobsonian Optical Tube
M. Plastic Dust Cover for Tube
N. Silver Side Bearings (2)
O. Cooling Fan with Battery Pack - not pictured
P. 32 mm eyepiece (2-inch format) - not pictured

Q. 9 mm eyepiece (1.25-inch format) - not pictured

Not Included:
• AA Batteries



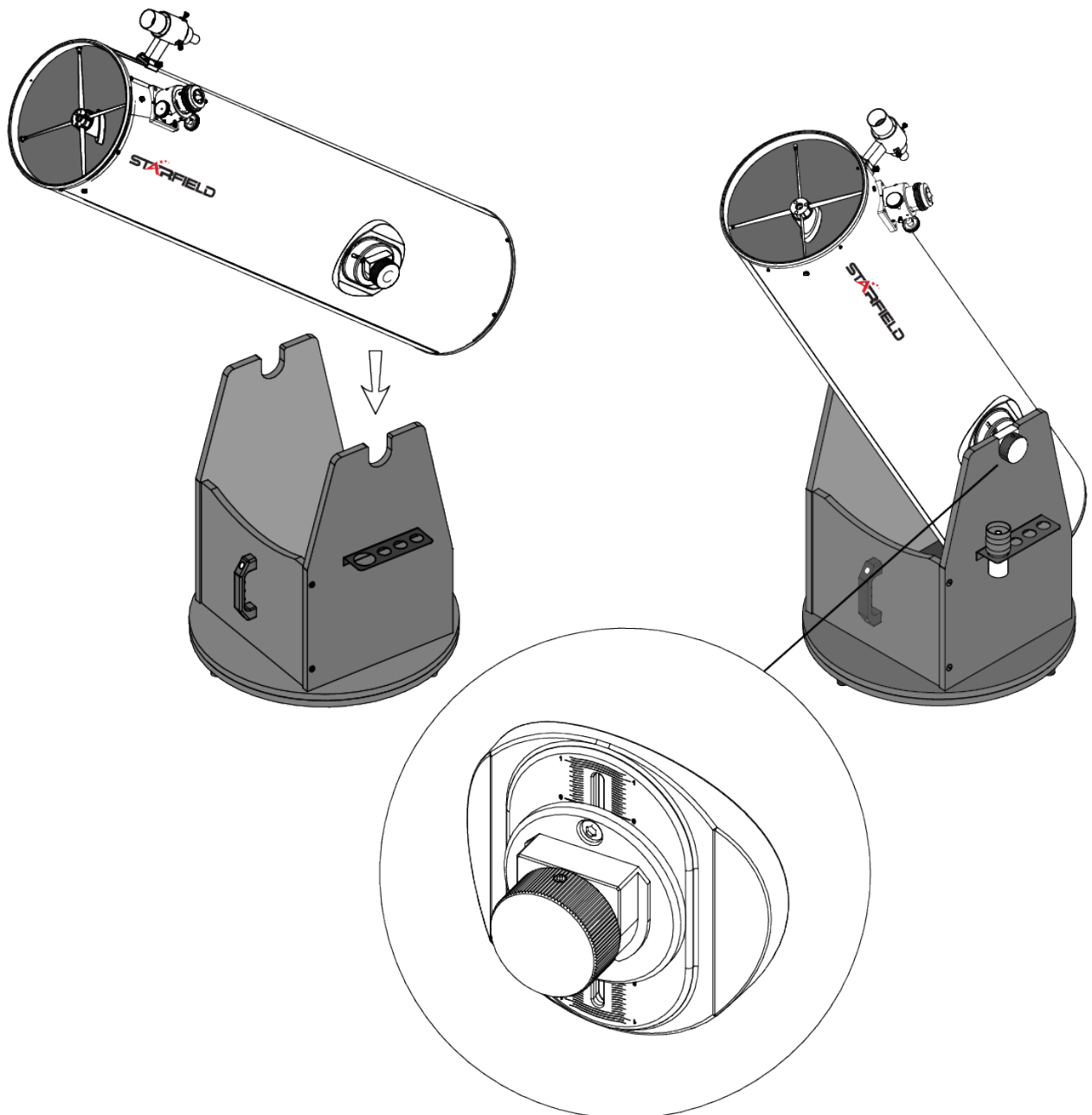
ASSEMBLY

See image following step by step instruction for more detail.

STEP 1: Remove the (2) bolts found on the opening on one side of the Optical Tube Assembly (OTA). To connect the Silver Side Bearing, align the bearing (top bolt first) and tighten into place. Repeat on the other side of the OTA.

STEP 2: Place the OTA onto the Base Assembly. The indentations on the Base Assembly will perfectly fit the Silver Side Bearings on the OTA.

STEP 3: Locate the Finderscope Bracket on the OTA. Loosen the thumbscrew on the bracket with your fingers and slide the Finderscope into place. Tighten the screw so that the Finderscope is secure.



YOU ARE NOW READY TO INSERT AN EYEPiece AND BEGIN USING YOUR STARFIELD DOBSONIAN TELESCOPE

COOLING FAN OPERATION:

1. Insert 8 AA batteries into the battery adapter.
2. Locate the cooling fan at the bottom of the OTA.
3. Plug in the battery adapter to the telescope, the cooling fan will begin running.
4. When you are finished using the telescope, unplug the battery adapter, take out batteries, and store.

TRANSPORTATION:

1. IMPORTANT - Do not transport both the base and OTA as a single unit. Gently lift the OTA off the base and secure in a telescope case for transportation. Move the base separately, as a single unit, and handle with care.
2. Be sure that the OTA does not roll or move around at all during travel, as this will affect the telescope alignment. Pad and secure your telescope accordingly.

CHECKING AND ALIGNING YOUR FINDERSCOPE:

Follow these steps to properly set up and align your finderscope.

1. Insert the lowest-power eyepiece into the eyepiece adapter. Focus eyepiece to view an easily recognizable, stationary distant object like a sign or light pole.
2. Look through the finderscope, taking care not to move the telescope. Adjust the finderscope focus by turning the eyepiece of the finderscope back and forth until the image is in focus. Check to see if the object viewed through your telescope eyepiece is lined up at the center of the finderscope crosshairs. If not, re-align the finderscope.
3. Align the finderscope by slightly loosening the thumbscrews on the finderscope bracket. Gently move the finderscope until the crosshairs are centered on your object. Tighten the thumbscrews to secure the finderscope in place. It may take a few tries to get it exactly right, but it will make finding objects much easier when you are ready to use your telescope.

COLLIMATION

Occasionally you may find it necessary to align the optical components of your telescope. This procedure is called collimation. Using a tool like a Cheshire eyepiece, or a Laser Collimator will help in the aid of collimation. These are available through your local telescope dealer.

1. Remove the eyepiece from the eyepiece holder and insert collimation cap into eyepiece holder and secure it by tightening thumbscrew. Be sure that the tool is tight against the eyepiece holder and not at an angle.
2. Point the scope at an evenly illuminated surface, such as a wall. Turn the focus knobs to rack the focuser all the way out and look through the hole in the collimation cap. You should be able to see the entire primary mirror reflected in the secondary mirror. If not, adjust the secondary mirror collimation screws until you can. You will need to alternately loosen one screw, then tighten the other two to keep tension on the secondary mirror.
3. Loosen 3 locking screws on bottom of optical tube (the thin ones that stick farther out from the back of the mirror) and align the primary mirror by adjusting the 3 primary mirror adjustment screws (the thick screws in the back of the mirror). Do not over-turn these screws (max of $\frac{1}{4}$ turn at a time). Adjust until you can see the centre spot on the primary mirror reflected in the centre of the secondary mirror when viewed through the collimation cap.
4. Tighten the 3 locking screws on bottom of optical tube to lock the primary mirror into place

USING YOUR TELESCOPE

When viewing through the telescope, the image will appear to be upside-down and inverted. This is normal and is the result of the optical system design. It can be corrected by using an erecting prism for terrestrial viewing, but not necessary.

Using your finderscope will help you locate celestial objects more quickly as the finderscope is equipped with a wider field of view than your telescope. To simplify focusing while viewing, start with the lowest power magnification and work up to the desired power.

When viewing faint deep-sky objects, images will not show colour. The human eye is not able to distinguish the differences in colour found in such dim images. The lack of colour is due to human anatomy, not any limitations of telescope construction.

CLEANING AND MAINTENANCE

A telescope is carefully aligned during construction, and great care should be taken to maintain this alignment over the life of the telescope. Cleaning should be done as little as possible and then only with a mild soap solution and a soft, lint-free cloth. Do not rub optical elements when cleaning. Blot optical components gently and allow telescope to air-dry. Store your telescope in its box or telescope case when not in use. Do not use pure alcohol or solvents to clean any parts of the telescope. Do not remove optical elements from the telescope as doing so may affect the alignment of optical components when reassembled. If telescope needs realignment, contact Starfield Optics or another professional.

1. Brush telescope optics with camelhair brush or blow off dust with an ear syringe (can be purchased at any pharmacy). Do not use a commercial photographic lens cleaner.
2. Remove organic materials (e.g., fingerprints) with short gentle strokes using soft white tissue paper and a solution of three parts distilled water and one-part isopropyl alcohol. You may also add one drop of biodegradable dish soap to one pint of the homemade solution. Do not use scented tissues as they could damage the optics of your telescope.
3. Wipe down the outside of your telescope with a dry cloth to remove condensation prior to packing up your telescope. Do not wipe any of the optical surfaces. Instead, allow the optics to dry naturally in warm indoor air prior to packing up your telescope.
4. Protect your telescope from excessive heat. For example, do not store your telescope in a sealed car on a warm day. Excessive storage temperatures can damage your telescope.

WARRANTY

Your Starfield Telescope is warranted against manufacturing defects for One-Year from date of purchase.

Starfield Optics reserves the right to replace or repair.

Should you have questions about your Starfield telescope, please visit www.starfieldoptics.com for more information.

STARFIELD OPTICS COMPANY

CALEDON, ONTARIO, CANADA

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