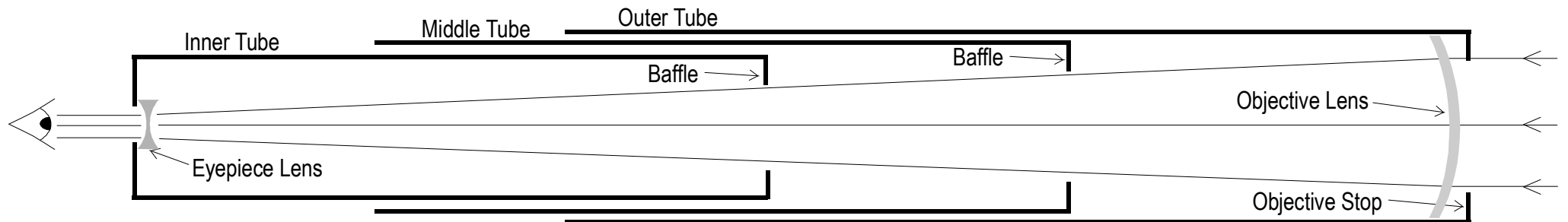




STARWADERS

www.starwaders.com

Galilean Telescope Kit



Instructions

- There are two lenses in the kit. The big one is called the objective lens. The small one is called the eyepiece lens
- You will need scissors and some a quick drying glue such as Pritt For the gluing cardboard baffles to the tubes. Prestik works fine for holding the lenses in place, lasts years and is easy to apply. You are welcome to use a permanent glue but do NOT use *Superglue*.

Fitting the Baffles

- Cut out the black cardboard ring labelled *Middle Tube*. Glue this ring onto the front end of the middle tube with the black side facing the eyepiece end of the telescope. Take care that it does not stick over the outer edge of the tube and can slide freely inside the outer tube. Set aside carefully to dry.
- Cut out the black cardboard ring labelled *Inner Tube*. Glue this ring onto the front end of the inner tube with the black side facing the eyepiece end of the telescope. Take care that it does not stick over the outer edge of the tube and can slide freely inside the middle tube. Set aside carefully to dry.

Fitting the Objective Lens

- Remove any rough edges from the objective lens so that it can fit into the end of the outer tube.
- Remove the inner tube completely and pull the middle tube out of the outer tube and stretch an elastic band over the middle tube at 2cm from the back end and push it back into the outer tube until it is stopped by the elastic band.
- Push the objective lens into the front end of the outer tube with the curved side facing outwards. Push it down until it rests against the middle tube.
- Press some blobs of Prestik between the edge of the lens and the inside surface of the outer tube.

Fitting the Eyepiece Lens

- Select the cardboard disk that has a small 10mm hole in the center. Use blobs of Prestik to fix the small eyepiece lens over the hole on the cardboard disk.

Fitting the Objective Stop

- Cut out the black cardboard ring labelled outer tube. Glue this ring onto the front end of the outer tube. Take care not to mess any glue on the objective lens. Set aside carefully to dry.

Fitting the Eyepiece

- Take the cardboard disk to which the eyepiece lens was glued and glue it onto the back end of the inner tube. Set aside carefully to dry.

Assembly

- Make a light pencil mark on the outside of the middle tube and the inner tube 60mm from the front end
- Having allowed all joints to dry, slide the tubes into one another.

Setup

- Slide the inner tube out of the middle tube until the light pencil mark appears. Draw a line all the way around the inner tube where it meets the middle tube. This line helps to know how far to extend the inner tube out of the middle tube for approximate distant focus.
- Roll an elastic band up the inner tube until it is over the line. This elastic band stops the tube sliding any further into the middle tube during use. It can be rolled further to the back end of the tube when packing the telescope away.
- Slide the middle tube out of the outer tube until the light pencil mark appears. Draw a line all the way around the middle tube where it meets the outer tube. This line together with the line on the inner tube helps to know how far to extend the middle tube out of the outer tube for approximate distant focus.
- Roll an elastic band up the middle tube until it is over the line. This elastic band stops the tube sliding any further into the outer tube during use. It can be rolled further to the back end of the tube when packing the telescope away.

Using the Telescope

- Extend the tubes until the focus lines appear on the inner and middle tubes and roll the elastic bands up to these lines.
- Look through the eyepiece and slowly shorten the telescope until the object being viewed is in focus.
- Note that for more distant objects, reduce the telescope length. For closer objects, extend the telescope length.
See www.starwaders.com for a bit of telescope theory and how to measure distance using the telescope.

DANGER: DO NOT LOOK AT OR NEAR THE SUN !!