

Orion® SteadyPix™ Quick Smartphone Telescope Photo Adapter

#40003

Introduction

Congratulations on your purchase of the Orion SteadyPix Quick Smartphone Telescope Photo Adapter! It's an improved design that is simple to use, sturdy, and is compatible with even the biggest smartphones on the market today. The SteadyPix Quick securely couples your smartphone to a standard 1.25" telescope eyepiece, enabling the capture of high-magnification digital photographs through the telescope using the smartphone's built-in camera. Use it with telescopes, spotting scopes, binoculars, or even monoculars – in daytime or at night. It holds your phone's camera steady and in exactly the correct position relative to the instrument's eyepiece to give a perfectly framed and focused image shot after shot – which is virtually possible when trying to hold the phone up to the eyepiece by hand.

The SteadyPix Quick also lets you display a live view of the image projected by your telescope on your smartphone screen, which is perfect for sharing real-time views of the Moon or planets with friends and family. The smartphone becomes a mini display monitor!

We hope you have fun taking pictures with your smartphone using the SteadyPix Quick!

Compatibility

The Orion SteadyPix Quick is designed to fit slate style (flat) smartphones measuring up to 3-3/4" in width (including any case or bumper), and of any length. The phone's camera lens should be oriented near the top of the back side for unobstructed alignment with a telescope eyepiece.

The SteadyPix Quick was designed with an adjustable, foam-padded bracket to allow compatibility with most currently available smartphones, including large ones like the iPhone 7 Plus and Samsung Galaxy Note phones.

For best results we recommend removing any case or bumper from the phone before installing it in the SteadyPix Quick. Even if the phone fits with the case left on, it may prevent the phone's camera lens from getting close enough to the telescope eyepiece, which could result in a constricted "keyhole" field of view on the phone screen. When the camera is allowed to get as close as possible to the telescope's eyepiece, the image from the telescope or binocular will fill up much more of the phone's screen.

The SteadyPix Quick can be used with virtually any size or type of telescope – refractor, reflector, or Cassegrain-type – that utilizes a standard 1.25"-diameter telescope eyepiece. The included twist-tight eyepiece turret fits eyepieces with housing diameters from 24mm to 45mm.

Orion® Telescopes & Binoculars

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NOTE: If the eyepiece you're using has a rubber eyecup, it may be necessary to remove it so that it does not interfere with proper clamping and positioning of the eyepiece in the SteadyPix Quick. You can re-attach the eyecup once you're finished using the SteadyPix Quick.

It will also clamp easily onto the eyepiece of many binocular sizes and types, as well as onto spotting scope and monocular eyepieces.

Warning: Never look directly at the Sun through your telescope or binoculars—even for an instant—without a professionally made solar filter that completely covers the front of the instrument, or permanent eye damage could result. Young children should use this telescope only with adult supervision.

Getting Started

The SteadyPix Quick comes pre-assembled. See **Figure 1** to familiarize yourself with its parts.

Before attaching the SteadyPix Quick to your telescope or binocular, you will secure your phone in the SteadyPix Quick itself.

1. Turn the phone clamp knob counterclockwise until the bracket's side rails are wide enough apart to accept your phone (**Figure 1a**).
2. Slide your phone into the bracket with screen facing up (**Figure 2**). Then clamp it in place by turning the phone clamp knob clockwise until the side rails grip the phone firmly. Do not overtighten or you risk damaging your phone! Make sure the side rails do not contact the power or volume buttons on your phone. If they do then slide the phone up or down in the bracket until the buttons are uncovered. The side rails are rubber covered and angled inward to prevent the phone from slipping out, no matter what its orientation.
3. Loosen the lock knob on the back and move the eyepiece turret so that the phone's camera lens is centered under the hole in the turret, when viewed from the back side of the SteadyPix Quick (**Figure 3**). Then tighten the lock knob.

You are now ready to attach the SteadyPix Quick with phone installed to the eyepiece of your instrument.

4. With the back side of the eyepiece turret facing up, turn the turret housing clockwise until the eyepiece clamp pads are opened up as wide as possible (**Figure 4**).
5. Then flip the SteadyPix Quick over and place the turret over the instrument's eyepiece (**Figure 5a**). Rotate the turret's housing clockwise again, this time to tighten the eyepiece clamp pads snugly against the eyepiece (**Figure 5b**). The turret's twist-tight clamping mechanism is self-centering, so it will center the eyepiece directly under the hole in the turret, which you already aligned with your smartphone's camera lens in step 3. (Shown with iPhone 7 Plus.)

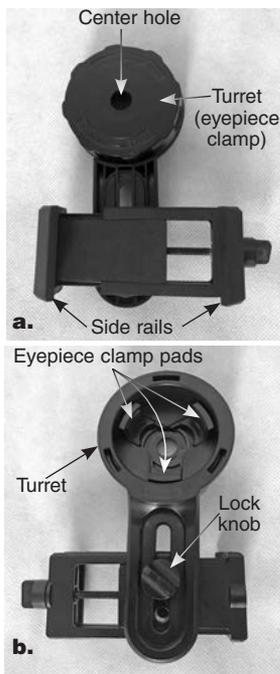


Figure 1. Parts of the SteadyPix Quick. **a**) Front side, **b**) Back side



Figure 2. The adjustable bracket can open wide enough to hold even large cell phones. The phone clamps in place securely thanks to rubber padding and inward-angled side rails.



Figure 3. Align your phone's camera with the hole in the turret.



Figure 4. Turn the turret's housing until the clamp pads are wide open (flush with turret's inside edge).

For a telescope or spotting scope eyepiece, it may be easier to remove the eyepiece from the scope and install it in the turret first, then re-insert the eyepiece in the scope with SteadyPix Quick and phone attached. Binocular eyepieces are not removable.

Figure 6 shows the SteadyPix Quick attached to a binocular eyepiece. To hold the binocular steady and ensure a sharp image, you may want to mount the binocular to a tripod using an optional binocular mounting L-bracket.

Now turn on your phone's camera, focus your instrument, and start shooting!

We recommend starting with a fairly long focal length eyepiece (if your instrument accepts interchangeable eyepieces), such as a 25mm focal length eyepiece. Once you get the hang of things, you could swap it out for shorter focal length, higher-power, eyepieces such as a 15mm or 10mm, which usually have smaller eye lenses.

Taking Photographs with the SteadyPix Quick and Your Smartphone

The higher the camera sensor's resolution, i.e., the more megapixels it has, the better your smartphone photos are likely to be. That is, an 8MP camera should produce a sharper, more resolved image than a 2MP camera. If your phone has a flash, make sure the flash is turned off when shooting through a telescope eyepiece!

Use exposure delay, also called a self timer. The vibration from the tapping the phone to take an image is enough to cause blurring of the image, if the exposure occurs immediately. Having a delay of a few seconds between the screen tap and the onset



Figure 5. Place the turret over the eyepiece of your instrument **(a)** and turn the turret's twist-tight housing until it firmly grips the eyepiece **(b)**.



Figure 6. The SteadyPix Quick can be used with binoculars, as shown here, or spotting scopes or even monoculars.

You'll need a steady atmosphere, i.e., good "seeing," to get sharp planetary images. The smartphone's display will allow you to show off your target object to friends and passers-by -- no waiting in line at the eyepiece!

Deep-sky Objects: Most deep-sky objects are difficult to photograph using a smartphone due to their faintness. Try working with brighter objects such as M42 (Orion Nebula) or M13 (Hercules Cluster). You will likely need a mount that tracks the motion of the sky so that you can take "long" exposures using a 3rd-party app that offers that capability, and you may have to stack multiple images to get a good final image.

Sun: If -- and only if -- you have a proper solar filter to cover the front of your telescope or binoculars, you can get terrific images of sunspots on the surface of our nearest star in the daytime with your smartphone. Sunspots are constantly changing, so shooting them is always interesting and a lot of fun.

Nature/Terrestrial: The SteadyPix Quick can be used to take through-the-telescope photos and videos of distant subjects in daylight.

Have fun!

of exposure eliminates the problem by allowing any vibration to dissipate prior to image capture. If your phone's native camera function does not have an exposure delay feature, there are plenty of third-party camera apps that do.

Moon: Our closest neighbor in the solar system is dazzling through even a very small telescope. The SteadyPix Quick will allow you to take beautiful images of the whole Moon or closeups that showcase the craters, mountains, or maria. Single snapshots work well and multiple shots can be stacked later in a program such as Registax to increase the signal-to-noise ratio and dynamic range of the image. Also, you can take video and then stack a series of the sharpest individual video frames.

Bright Planets: The bright planets Venus, Mars, Jupiter and Saturn also make excellent targets for afocal photography. Try using a higher power eyepiece and maybe a Barlow lens to boost the magnification -- planets are tiny objects in the sky!

One-Year Limited Warranty

This Orion product is warranted against defects in materials or workmanship for a period of one year from the date of purchase. This warranty is for the benefit of the original retail purchaser only. During this warranty period Orion Telescopes & Binoculars will repair or replace, at Orion's option, any warranted instrument that proves to be defective, provided it is returned postage paid. Proof of purchase (such as a copy of the original receipt) is required. This warranty is only valid in the country of purchase.

This warranty does not apply if, in Orion's judgment, the instrument has been abused, mishandled, or modified, nor does it apply to normal wear and tear. This warranty gives you specific legal rights. It is not intended to remove or restrict your other legal rights under applicable local consumer law; your state or national statutory consumer rights governing the sale of consumer goods remain fully applicable.

For further warranty information, please visit www.OrionTelescopes.com/warranty.