



Meade Instruments Cell Phone Holder Users Guide



WARNING!

Never use the Meade cell phone holder or cell phone camera to look at or image the Sun! Looking at or near the Sun will cause instant and irreversible damage to your eye. Eye damage is often painless, so there is no warning to the observer that damage has occurred until it is too late. Never attempt to image the sun with your cell phone camera as it will damage the camera permanently. Do not point the telescope at or near the Sun. Children should always have adult supervision while observing.

INTRODUCTION

Your Meade telescope cell phone holder will allow you to take pictures through the telescope. This is ideal for taking images of the Moon, planets, and other bright object like star clusters. To use your telescope cell phone holder, read through the entire instructions first, then follow the steps below. Damage to your cell phone can occur with improper use.

FEATURES

Meade's telescope cell phone holder is compatible with many cell phone types and sizes. Its design includes several adjustments that allow for correct positioning of the phones camera into the optical path of the telescope. These features and adjustments as shown in Fig 1 are referenced below.

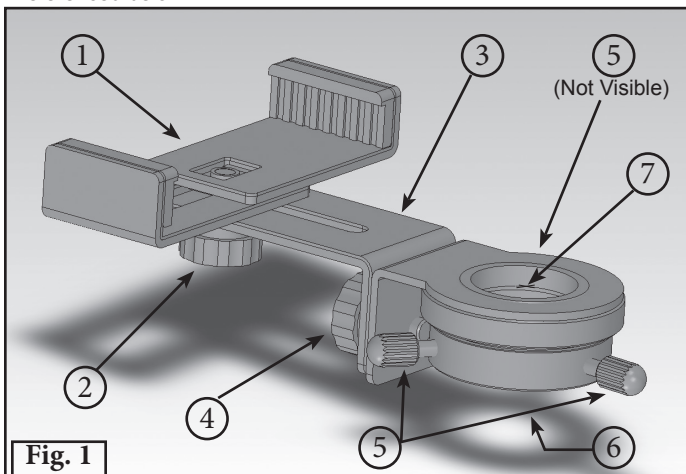


Fig. 1

- | | |
|-----------------------------------|------------------------------|
| 1. Phone Holder Bracket | 5. Eyepiece Locking |
| 2. Phone Holder Bracket Lock Knob | Thumbscrews (3) |
| 3. Vertical Stage | 6. Eyepiece mounting |
| 4. Vertical Stage Lock Knob | 7. Camera Centering Position |

INSTALLING THE PHONE INTO THE HOLDER

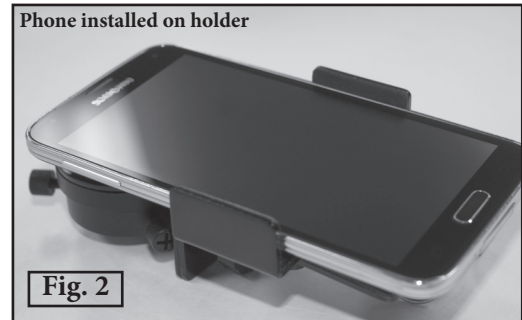
To begin, first loosen each of the phone holder knobs and adjustments and become familiar with the way it moves and operates. This will make positioning your cellphone in the proper location easier. When installing the cellphone take care and verify you have locked the phone securely into the holder, or damage to your phone can occur if it falls from the holder. Follow the below steps to secure your cellphone into the holder.

Note: Item #'s in parenthesis(#) refer to the parts in Figure 1.

- Loosen the Phone Holder Bracket Lock Knob (#2) and rotate the Phone Bracket Holder Bracket (#1) so it is perpendicular to the Vertical Stage (#3) as shown in Figure 1.
- Expand the Phone Holder Bracket (#1) and place your cell phone into the bracket with the camera sensor facing downward and inward toward the Camera Centering Position (#7). The phones

display should be facing upward. If the phone is too large or has an awkward case, remove the case and try again.

- With the phone in position, squeeze the clamp closed making sure the bottom of the phone is in full contact with the phone bracket floor. Position the phone so the clamp is midway along the phone. The phone body should remain parallel with the Vertical



as shown in Figure 2 & 4.

- Tighten the Phone Holder Bracket Lock Knob (#2) slightly and move the Phone Holder Bracket (#1) toward or away from the Camera Centering Position (#7) until the phone camera sensor is precisely centered in the Camera Centering Position(#7). Carefully flip over the phone bracket and check the camera centering as shown in Figure 3.

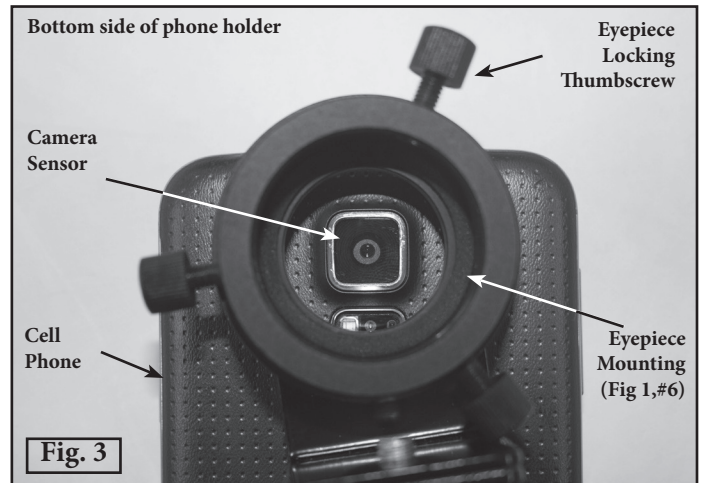


Fig. 3

- Securely tighten the Phone Holder Bracket Lock Knob (#2) so the phone does not fall out of the holder and camera remains centered in centering position (#7).
- Now adjust the vertical position by loosening the Vertical Stage Lock Knob (#4). Raise or lower the Vertical Stage (#3) so the camera sensor does not interfere with the phone holder. See Figure 4. The camera should remain parallel to the mounting bracket for best performance.

ATTACHING THE PHONE HOLDER TO THE EYEPIECE

To attach the phone holder to your 20mm eyepiece, you must remove the flip-up rubber eyecup located at the top of the eyepiece.

- Carefully pull up on the rubber eyecup to remove it. Be sure to store the eyecup in a safe place as you can reinstall it again later if desired. The rubber eyecup will help block out stray light when using the eyepiece visually.

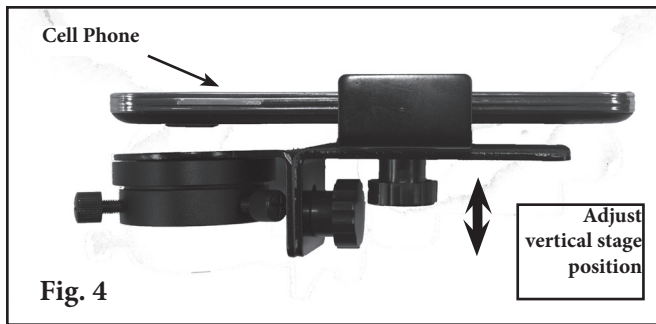


Fig. 4

2. With the eyecup removed, loosen the three Eyepiece Locking Thumbscrews(#5).
3. Insert the top of the eyepiece into the phone holder as far as possible and tighten the three Eyepiece Locking Thumbscrews (#5) by hand to a firm feel. See Figure 5. Try not to move the cell phone inside the holder or you will lose the camera sensor alignment performed above.

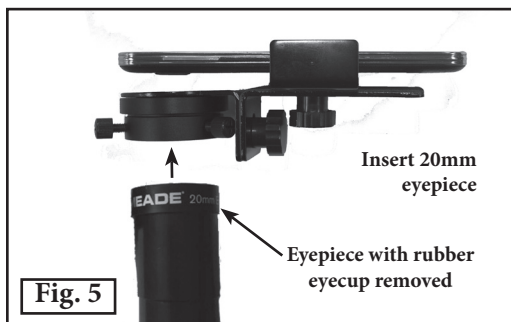


Fig. 5

4. Insert the eyepiece with phone holder into the telescope focuser as shown in Fig 6 and lock the eyepiece in place with the focuser thumbscrews.

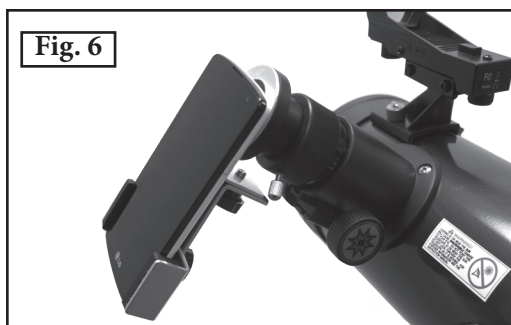


Fig. 6

FINDING OBJECTS AND FOCUSING

Follow your telescope owners manual to learn how to find objects and use the telescope. Once an object you wish to take a picture of is located follow the below steps.

1. Open up a camera app on your cell phone. This is the same camera app you use everyday to take pictures.
2. The target should appear in the camera field of view but may be out of focus. Turn the telescopes focusing knobs to bring the phone holder into sharp focus.
3. Take a picture! The picture will be stored in your phones camera folder where your other pictures are stored.
4. When taking pictures, try not to shake the telescope, camera, or ground when taking pictures or your images may not be in sharp focus.

HINT: Use your cameras shutter delay feature to allow you telescope to damp down before taking the picture. This feature will add a

several second delay before the picture is taken and will improve the quality of most photos. See your cell phone owners manual for more information.

TIPS & TRICKS

- If you have difficulty getting the object in focus, try turning off the auto-focus feature on your cell phone camera. See your cell phone owners manual for more information.
- Use your cameras shutter delay feature to allow vibrations in you telescope to dampen down before taking the picture. This feature will add a several second delay before the picture is taken and will improve the quality of most photos. See your cell phone owners manual for more information.
- Turn off your cameras flash! The camera flash will not help.
- Use third party software to adjust the quality, brightness and contrast of your images to bring out more detail in the image.
- Share your images with your friends and with us at Meade!

Let's Get Social:



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