

# FoneMate™ Smart Phone to Tele Vue Eyepiece Adapter



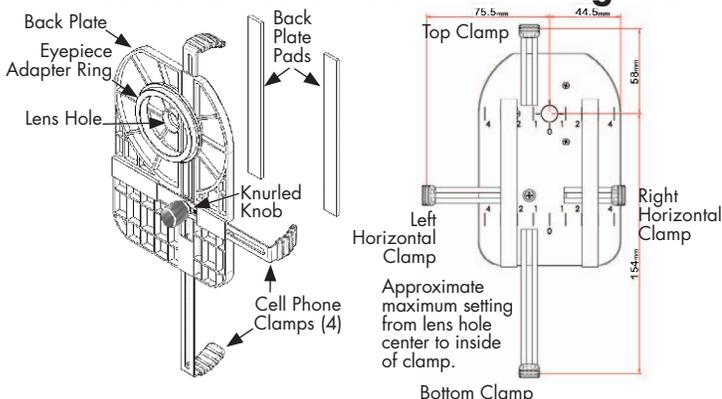
## Introduction

FoneMate™ can connect many Tele Vue eyepieces with phones from about 60-mm x 114-mm (width x height) to 120-mm x 212-mm in size. While the FoneMate™ will fit on any eyepiece that accepts DIOPTRX™, we have recommended only eyepieces most likely to show fully illuminated fields. Delos and DeLite eyepieces, with their sliding, locking, eyeguards work particularly well in this application. Also recommended are all Ethos, Panoptic 41, and Nagler 31, 22 and 17 eyepieces.

## Adapter Pre-Installation Notes

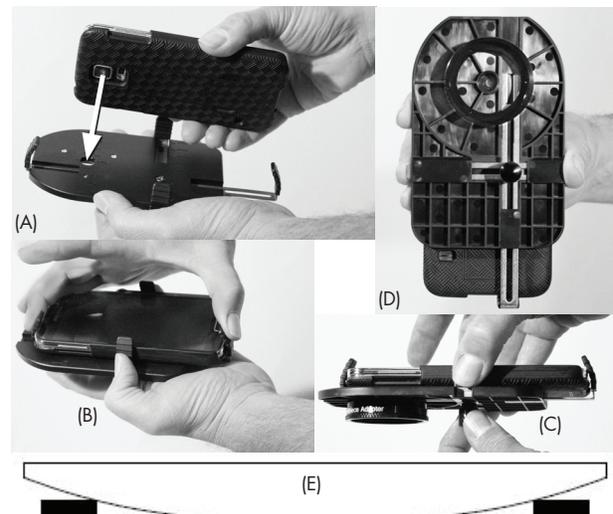
- If using short eye relief eyepieces, you may have to remove any form-fitting phone case in order to avoid vignetting. For large phones, removing the case can give you more “wobble” room for centering the phone once the clamp limits are reached.
- Familiarize yourself with the parts diagram. Note that the right horizontal clamp does not extend past the back plate.

## Nomenclature and Parts Diagram



## Install Smart Phone on FoneMate™

- Adjust knurled knob to the point where the clamps can slide by hand – but not slide on their own. Pull out clamps.
- Place smart phone on back plate so the camera lens is roughly centered over the camera hole (Fig A) and push opposing clamps simultaneously snug against the phone body (Fig B). Tighten the knurled knob (Fig C).
- Flip the assembly over (Fig D). If the camera lens is not centered in the lens hole, support the camera with one hand and just loosen the knurled knob enough to move the clamps. Using both hands, nudge opposing clamps to center the lens. Tighten the knob.



- Flip the assembly over to check if the phone rocks in the cradle when pressing buttons, or does not lie flat. This may be due to phone contours and hard buttons.

In these cases, consider using the supplied back plate pads to correct the fit. The pads should be stuck on the back plate underneath the phone and not interfere with the clamps around the phone body (Fig E). Before removing the phone to place the pads, note the position of the opposing clamps on the engraved scale. Keep the pads within these positions. Trim the pads as necessary and peel off the self-adhesive backing before applying to the back plate.

### Telescope Pre-Installation Notes

- Make sure the telescope is locked down and stable before attaching FoneMate™ to it.
- Visually focus the desired eyepiece while on the scope before attaching the adapter to it.
- Depending on the size of the eyepiece, it may be easier to connect the phone to it while off the telescope. Mounting the parts off the scope also prevents decentering the target in the field of view.
- If the eyepiece has an adjustable eyeguard, lock it in place to prevent sudden movement before attaching it to the FoneMate™.
- Become familiar with which direction to turn the adapter ring to lock and unlock it to the eyepiece. When FoneMate™ is resting on top of the eyepiece, the ring is locking when turned counter clockwise. Fewer threads will be showing.
- CAUTION, if the eyepiece is placed standing on a flat surface, the unbalanced weight of the FoneMate™ plus smart phone may cause the eyepiece to topple.

### Installation on Eyepiece

1. Remove rubber eyeguard from eyepiece.
2. Rotate eyepiece adapter ring, located on the underside of the FoneMate™, out into the unlocked position so that four threads are visible. Do not rotate the ring further out than this (there are only five threads holding it on).
3. Place phone adapter so that adapter ring is centered over the eyepiece and it can slide down to cover the eyeguard groove. Do not force the adapter ring down. If the ring doesn't easily slide down to cover the groove, loosen the adapter ring a little more.

4. While holding the adapter against the eyepiece with one hand, use the other hand to rotate the ring counter clockwise until it clamps the FoneMate™ to the eyepiece. It should only need a few turns. If you are having trouble getting it to lock, you may be turning the ring the wrong way, or the ring is not being held firmly and squarely against the eyepiece.

### Imaging on Scope

1. If the eyepiece was removed from the scope for FoneMate™ attachment, put the eyepiece/ FoneMate™ combination into the eyepiece holder.
2. Note that the weight of the camera and adapter may shift the telescope off target.
3. Turn on the camera app and make sure it is zoomed to the widest setting. Do not worry if you don't see a focused image at this point. If you see no image or an off-center image circle, loosen the knurled knob under the back plate ½-turn. Hold the back plate with one hand and use the other hand to move each pair of clamps one way and the other until you see a centered image. Now tighten the knurled knob.
4. On eyepieces with adjustable, locking, eyeguards, such as Delos and Delite, loosen the eyeguard just enough to allow it to slide. Move the eyeguard into a position so the image fills the frame as much as possible with a minimum of shadowing or color vignetting. Then lock the eyeguard.
5. Make fine adjustments with the telescope focuser to bring the image into focus.
6. Use the camera app to zoom the camera into the image circle and frame the target.
7. To change the orientation of the image from portrait to landscape, loosen the lock screw holding the eyepiece and rotate the whole eyepiece with FoneMate™ attached.
8. You are now ready to use the controls on the camera app to take photos.

### Troubleshooting

See Troubleshooting section of *FoneMate™ Split Compression Ring Replacement* instructions.