

Ver. 1

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# CINEVATE QUICK-START USER GUIDE

[WWW.CINEVATE.COM](http://WWW.CINEVATE.COM)



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## **BASIC SETUP**

(BREVIS35 MP.1, BREVIS35 REV2, and FLIP MODULE)

### A. Mounting 35mm Lenses

(not provided)

1. Align the red dot on the lens mount with red dot on the lens.
2. Rotate lens until it clicks.
3. To release, push down pin towards rear of unit and turn lens (for Nikon lenses).
4. Canon FD and Pentax M42 mounts do not have lock pins due to their design.



## B. Attaching Brevis and Flip Module

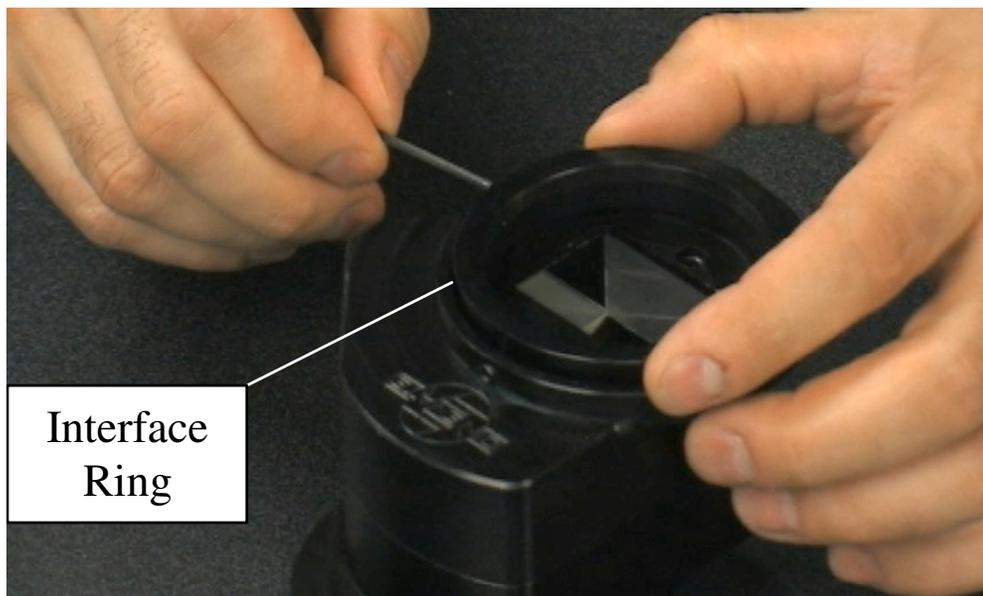
The flip module has its own achromat (the 72mm large lens at the rear of the unit); the Brevis 72mm non-flip achromat is NOT compatible with the flip module.

### 1. Remove Brevis achromat:

- Place Brevis on table with the achromat facing up.
- Loosen the setscrews that hold the achromat in place and remove achromat.



### 2. Place Brevis over interface ring (exposed end)



3. Align Brevis to flip unit by looking through flip unit and making sure imaging screen is upright and not angled left or right. The flip can be mounted and rotated either camera “up” or camera “down” relative to the adapter.



4. Attach by tightening setscrews on Brevis with the allen key provided. There is no need to over-tighten...snug is good enough! The 8 set screws at the interface of Brevis adapter to flip module will be loosened later to align the image frame perfectly to your camera.

### C. Mounting Flip Module and Brevis to Camera

1. For your first time mounting the unit we suggest attaching the flip achromat to the camera by itself, then adding the flip module after. This is not a mandatory step and once you've got everything setup, not required. Remove and clean flip module achromat with compressed air, lens tissue or lens pen (if necessary)
  - Place attached flip module and Brevis on the table.
  - Remove flip module achromat by loosening setscrews that hold achromat in place.
  - Clean the achromat with lens tissue or lens pen to remove dust.

2. Screw flip achromat onto camera lens. If your camera does not have 72mm threads, then you'll need to use step up or step down rings as required to attach to your camera's threads.

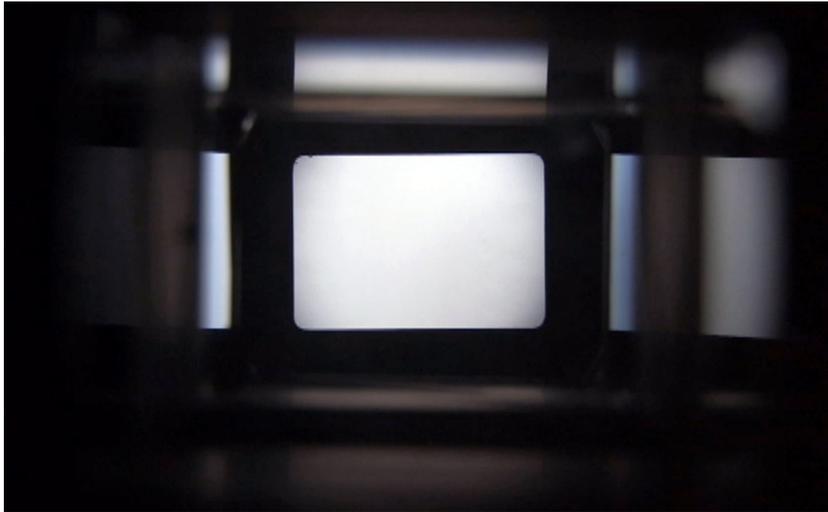
3. Re-attach adapter to achromat.

- Hold camera pointing up towards ceiling.
- Re-attach flip module/Brevis to the achromat by gently tightening setscrews in rotation, a bit at a time. Make sure the achromat lens is resting perfectly flat against the flip module.

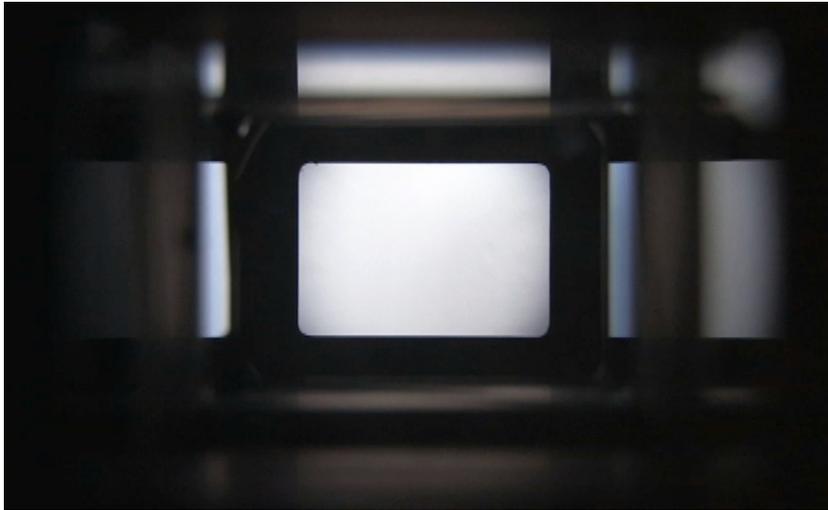
4. Turn OFF optical image stabilization, automatic focus and automatic exposure on camera.

5. Align adapter.

- Hold camera facing up (adapter pointed at ceiling) with LCD screen clearly visible.
- Loosen 4 bottom setscrews (holding flip achromat in place) and rotate unit until rectangles are perfectly centered. Take care so that the adapter/flip is supported so it cannot fall off the unit.
- Zoom in to make sure frame is properly aligned and centered.
- Adjust Brevis as necessary to center frame by loosening 8 set screws where flip joins to adapter. By loosening these, you'll be able to slide the adapter up/down or left/right to center the image perfectly. Your camera should see an image similar to figure b when everything is correct.
- There is more adjustment possible at the rear of the unit where the achromat attaches to the flip by loosening and differentially tightening the four set screws there.
- Once everything is aligned properly, snug the setscrews.



(zoomed out:) not aligned (figure a)



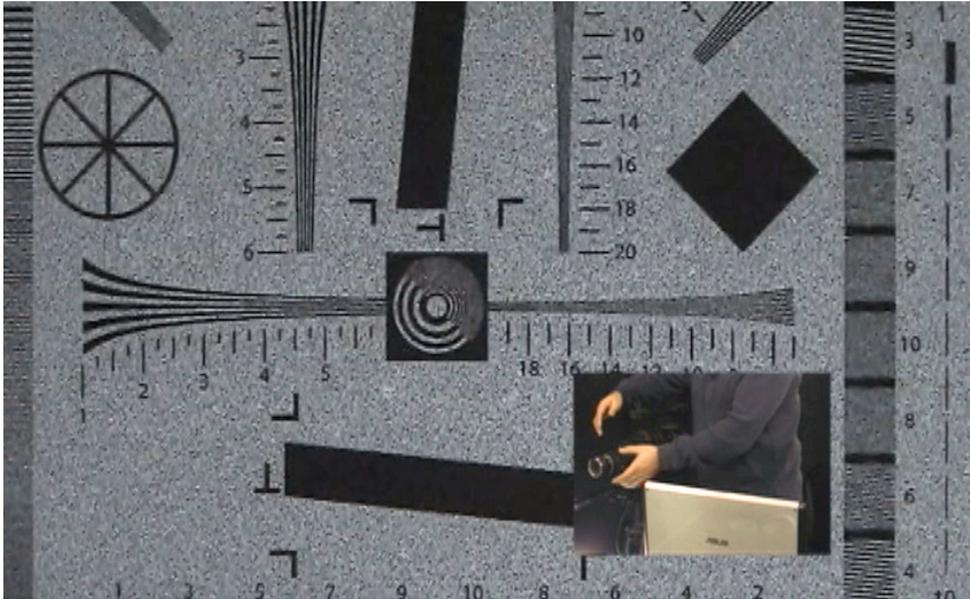
(zoomed out:) aligned (figure b)



(zoomed in:) edges are not straight, unit needs alignment (figure c)

## D. Setting Backfocus

1. Make sure unit is turned off.
2. Stop down to f11 or f16 on your 35mm lens so the diffuser's texture will show up, to help focusing on it.



3. Point at something bright and white. The sky, or a well-lit wall works great.
4. Engage peaking and/or focus assist to focus on the grain sharply. This is the single most important step of the 35mm adapter setup. If incorrect, all of your footage will look soft!
5. Lens collimation should be checked to ensure that your 35mm lens focus marks actually match measured distances, and you've got sharp focus at infinity. To collimate your lens properly please review the section later in this guide, or preferably the Lens Setup and Collimation Video from our "Video University" at <http://www.cinevate.com/website/index.php/videouniversity>

Note: Check backfocus and framing every time you set up the camera with the adapter.

## E. To a Add Spacer Ring

(only applies to non-flipped adapter setup!)

1. A spacer ring is only used in the non-flipped Brevis setup and is only used with cameras like the XL2, Z1U, FX1, and XH-A1. Start by placing the Brevis on a clean work surface with achromat facing up.
2. Loosen the setscrews holding the achromat in place.



3. Remove achromat
4. Screw spacer ring onto achromat
5. Replace spacer ring and achromat on Brevis so that achromat is now spaced away from the adapter. In other words, the spacer affixes to the Brevis and the achromat should now be affixed to the spacer ring.
6. Tighten set screws (do not over tighten) with provided 5/32 allen key.

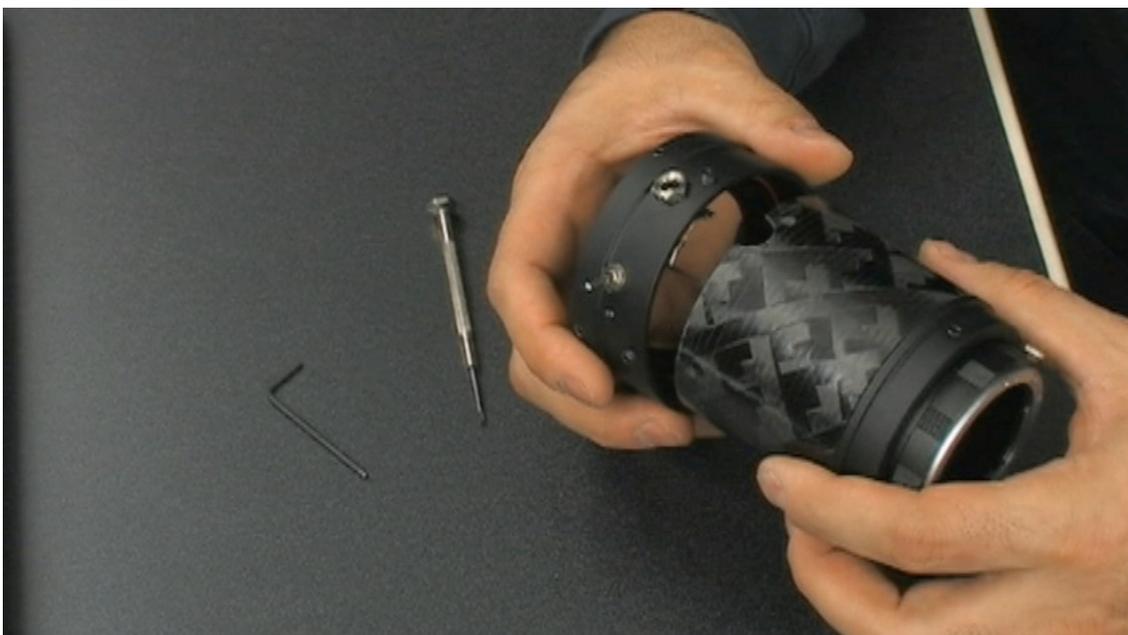
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## **OSCILLATION TUNING**

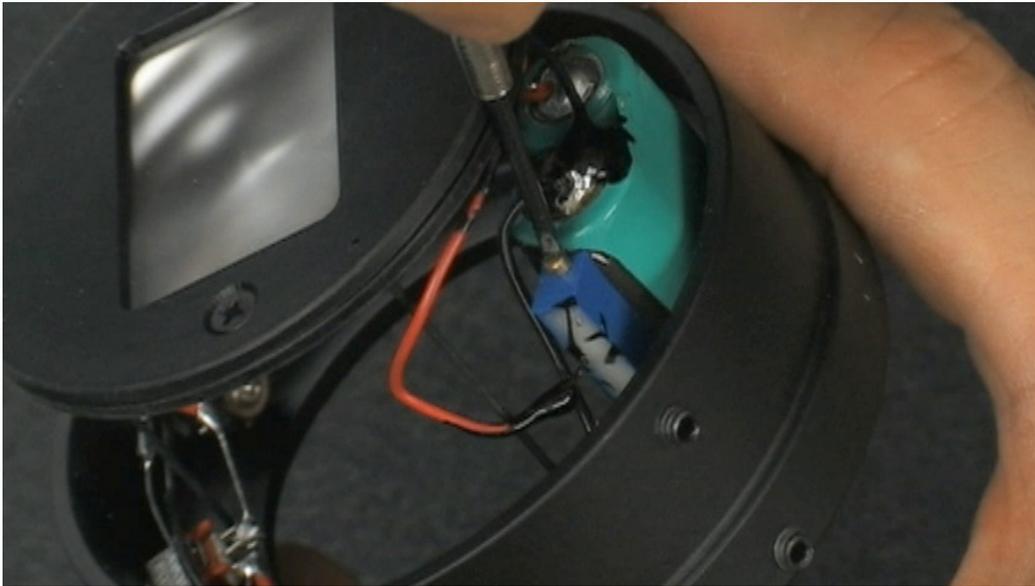
All current adapters have adjustable oscillation amplitude. What you want are the largest oscillations possible, but without image problems. This adjustment may vary slightly between CINEFUSE 1, 2 and 3, but you will likely not have to change the setting once it is set. The units are set during production and should not require adjustment, however in some cases, you may need to fine tune as we tend to set them near the top end of oscillation amplitude.

**If you are using the MP.1 version, skip this section and refer to Part B**

To do the adjustment, you will need to remove the carbon fibre tube from the rear ring. It's best to do this in the cleanest, dust free area you can find. Use the provided 5/64" allen key to remove the four small set screws that go through both the rear ring and carbon fibre tube. Carefully pull the carbon fibre tube straight off and set it aside. Having dry compressed air on hand is nice as you can blow off the diffuser and inner shield surfaces while you've got things apart.



Beside the power cells you will see a small blue box with a small slotted screw on top. A slotted jeweler's driver is perfect for turning this screw. Turning the screw clockwise will decrease oscillation **size**, and counter-clockwise will increase it. You can turn the unit on and adjust while the motor is running. You'll see and hear the difference as you adjust. When testing, adjust the screw 1/2 to 1 full turn, and check for conditions as described below.



**Part B**, Oscillation can be adjusted by removing the port cover (small allen head bolt on side of unit) using your fingers, and adjusting with the small slotted screwdriver provided. We suggest you do this with your complete rig, and an HD monitor connected to your camera. The unit can be adjusted even while it is running.



Signs that oscillation size is too great:

1. Image softens slightly when adapter is turned on.
2. Image flickers when adapter is turned on.
3. Bokeh (out of focus) areas flicker or move when adapter is turned on.
4. Adapter is loud.

Signs that oscillation adjustment is too low:

1. When toggle switch is on, and LED lit, motor does not turn on.
2. Grain is visible in image. Check for this on your editing machine, or a good monitor. Your camera's LCD pixels can often be mistaken for grain on moving objects, when really there is none.

When putting the carbon fibre tube back on, take care to ensure that the motor wires are not contacting the tube body, or any other part of the adapter. Have fun

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## **COLLIMATION**

**Collimation is the process of setting the distance between the lens mount flange and film plane (imaging element). This adjustment is required so that zoom lenses maintain focus as zoomed, and prime lens focus marks match up with measured distances. If collimation is not correct, the image projected by your 35mm/cinema lenses will not be sharp at infinity focus.**

**You will need:**

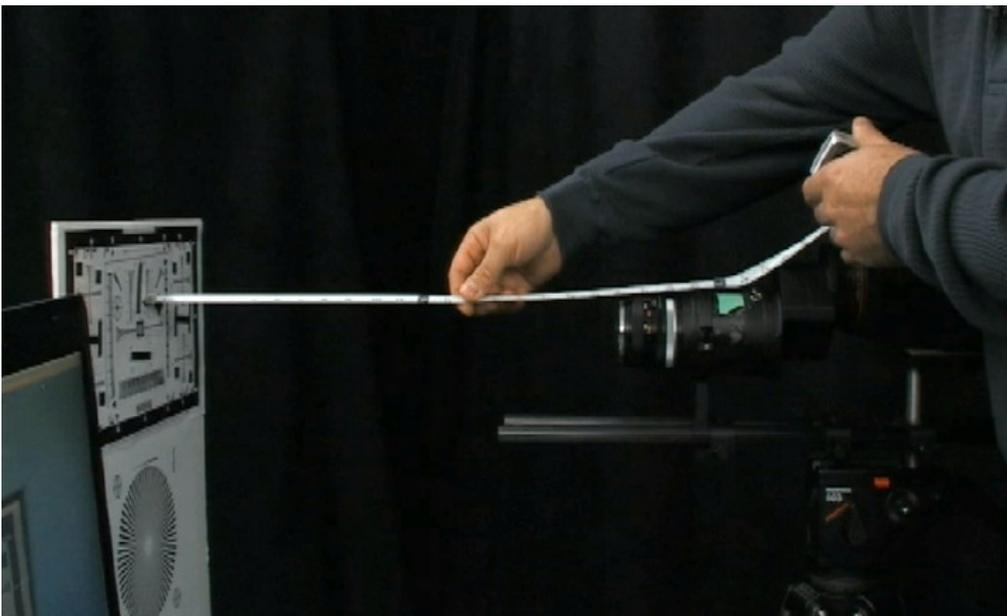
- **Allen key (provided)**
- **small slotted screwdriver**
- **tape measurer.**

## A. Adjusting Collimation

1. Set your video camera's focus correctly (see also "Basic Setup").
2. Measure the distance between imaging element and subject.
  - Measure 33.6 mm back from where Brevis interfaces with 35mm lens mount and mark it. This is the location of the imaging element inside the unit and corresponds with the film plane marker on film/video cameras.



- Measure distance of your target from the imaging element mark you made in step one (for instance, 6 ft/2 meters)



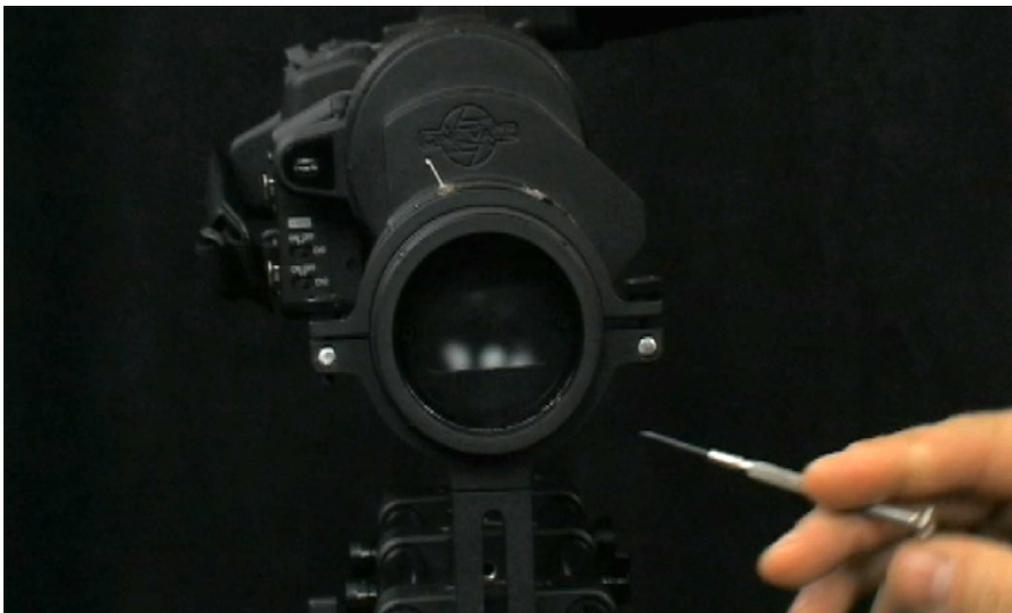
- Set focus ring of 35mm lens so that the focus marks correspond to distance of your target (6 ft/2 meters).
- Focus should be sharp, if not collimation needs to be adjusted.

### 3. Adjusting collimation itself:

- Loosen setscrews that hold the lens mount in place.
- Carefully remove lens and lens mount.

### 4. Adjust micro-collimation ring inside the front barrel of the Brevis unit to desired distance. The lens mount rests against this ring when fully inserted.

- If, for example your subject is a measured 4 feet away and the picture is sharp when your lens is set to 5 feet, rotate collimation ring clockwise (towards you) using a small slotted screwdriver. If it's the opposite (ie. Lens is set to 3 feet for a subject 4 feet away) rotate the ring counter-clockwise (away from you).
- One full rotation of the collimation ring represents moving the lens 1mm in or out (depending on which way the ring is turned).
- Attach lens and mount, check focus. If image is sharper, remove lens/mount and turn ring some more in same direction. If image loses focus, rotate ring the opposite direction. Repeat until image gets sharper, then fine-tune with  $\frac{1}{2}$  and  $\frac{1}{4}$  turns until perfect focus is found.



5. Re-attach lens and lens mount. This is a one-time adjustment and will likely not be done again.

### B. Setting Collimation For Cinema Lenses (PL or OCT19 mounts)

- Measure distance of your target from the imaging element (for instance, 6 ft/2 meters).
- Set focus ring to distance of your target (6 ft/2 meters).
- Focus should be sharp; if not collimation needs to be adjusted.

1. Remove the SLR lens mount and set screws securing it (if present) from Brevis using the small allen key provided in your kit.

2. Adjust micro-collimation ring on the inside of the cinema mount to desired distance:

- Using the small slotted screwdriver, rotate collimation ring clockwise (towards you) or counter-clockwise (away from you).
- One full rotation of the collimation ring represents moving the lens mount 1mm in or out (depending on which way the ring is turned).



### 3. Attach cinema lens to lens mount:

- Line-up grooves on mount and lens.
- Push lens downward into mount.
- Rotate PL or OCT19 mount lock ring to secure lens to mount.



### 4. Check Collimation:

- Hold lens mount/lens in place on the Brevis and check focus without fastening the lens mount.

### 5. Adjust as needed:

- If image is sharper, take lens off and turn ring some more in same direction. If the image loses focus, rotate ring the opposite direction. Repeat until image gets sharper, then fine-tune with  $\frac{1}{2}$  and  $\frac{1}{4}$  turns until focus marks on lens match measured distances.

### 6. Once collimation is correct, attach mount and lens to Brevis:

- Place lens mount over edge of Brevis.
- Secure mount in place using bolts provided as you maintain downward pressure to ensure mount stays flat.

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## **USING THE RAILS SYSTEM**

There are many different ways to configure the rails system. This is the basic setup. For other configurations see “show off your rig” in the Cinevate users forum.

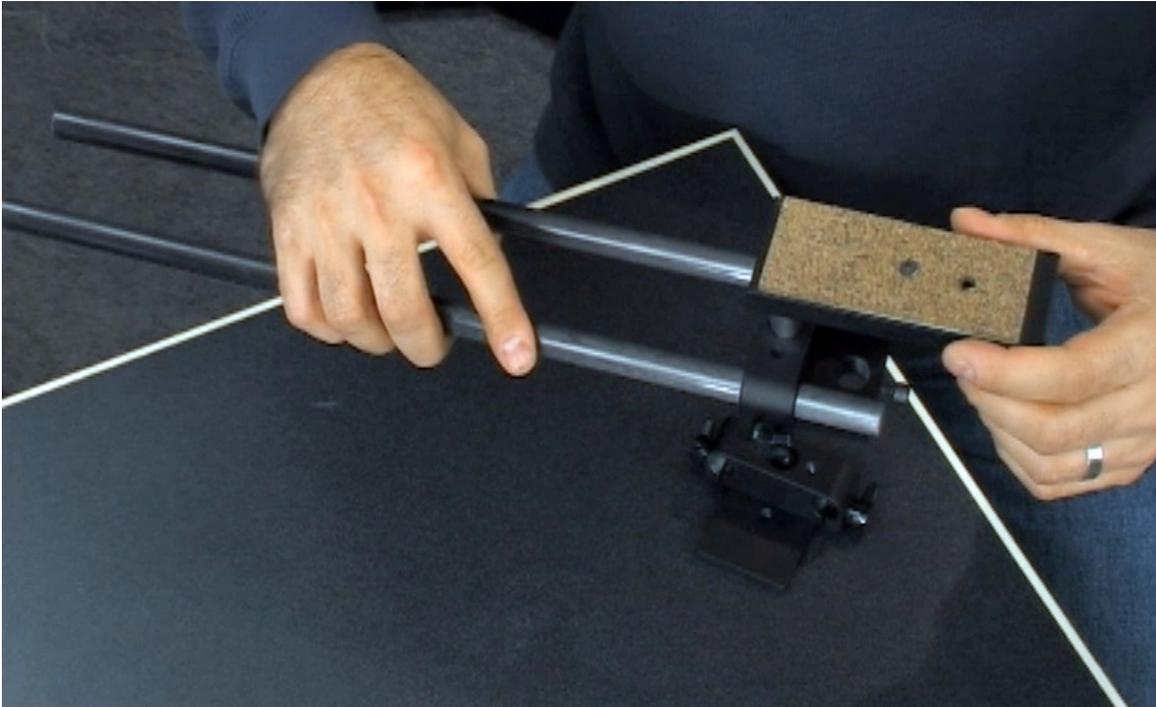


### **A. Assembling Rails**

1. Slide tripod plate assembly onto rods, tighten thumb screws.



2. Slide riser plate into rails block, adjust height, and tighten with the allen key provided. The allen bolt securing the stainless steel riser tube should be fairly tight to ensure the camera base plate remains stiff and secure and cannot slide down when the camera is mounted.



3. Slide on Brevis-to rails mount on front section, tighten hand screws.



## B. Mounting Camera on Rails

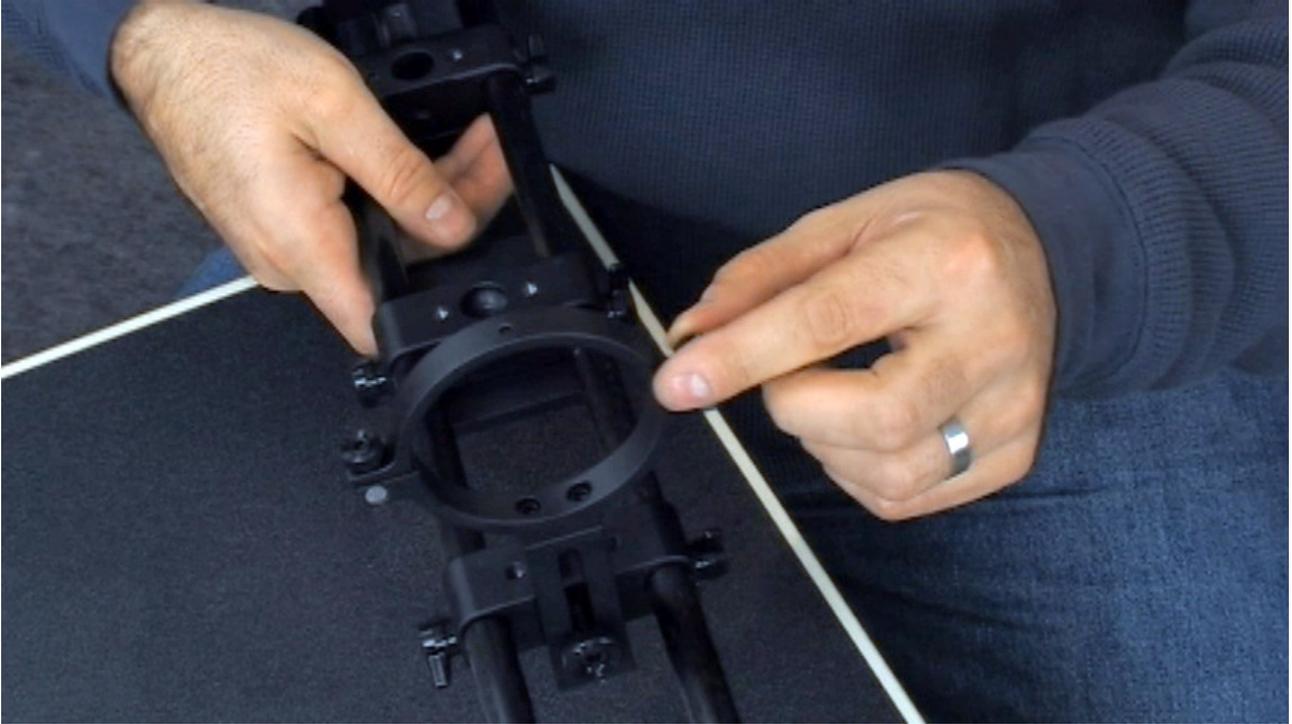
- Attach camera to riser base plate, secure with the 1/4" 20 thumbscrew provided.



- Slide tripod plate interface onto tripod plate and secure on tripod.



- Open quick release.



- Slide Brevis-to-rails mount under Brevis, adjust height, tighten and re-attach quick release on top.
- Tighten.



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## **MP.1 OPERATION, CHARGING AND USE OF THE EXTERNAL POWER POD**

### **A.MP.1 Operation**

1. The Brevis35 MP.1 will provide approximately 32 hours of runtime on a full charge.
2. When about 1 hour of runtime remains, the power LED will start flashing as a warning.
3. If the unit is left on and forgotten, it will shut itself down to save the internal cells from becoming completely discharged. Simply charge the unit, or plug in the power pod and it will begin operating again.
4. Should the internal cells or motor require replacement, they can be ordered and simply replaced and plugged in using the standard harness plugs already attached.

### **B. Charging the Brevis**

Plug smart charger into jack on Brevis (unit will flash red and green at first, then solid red until charged – turns green when fully charged).



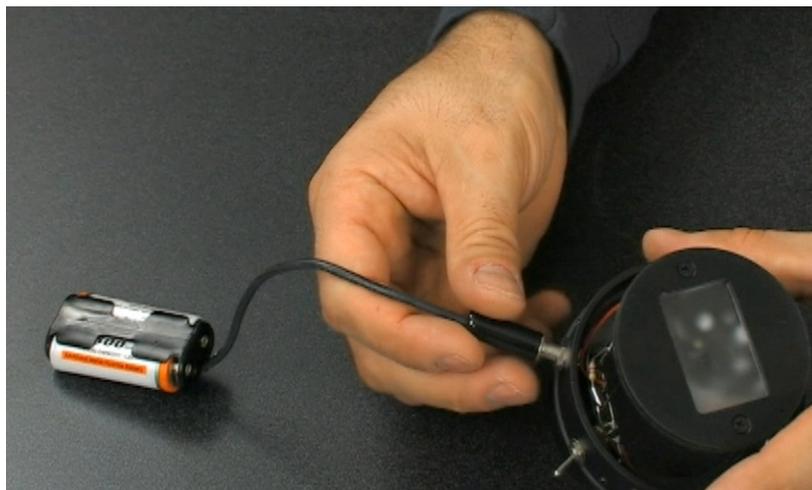
A full charge is normally achieved in under 30 minutes and provides 20 hours of runtime on REV2 units, and 30 hours on MP.1 versions. If charger is taking longer than 45minutes to charge the cells, please disconnect and contact us for service. Internal cells can be recharged 500-700 times if used properly.

### C. To use the External Power Pod

Insert two AA batteries into power pod ensuring that negative terminal (flat end) of batteries go towards springs in the power pod.



Plug into jack on Brevis, switch unit on, motor will run. Should last approx. 50 hours.



Please note: power pod will *not* fully charge the internal cells, only run the motor.

#### D.Troubleshooting

If your smart charger does not recognize your Brevis your batteries are probably completely discharged. The charger will flash its red LED if this is the case. The Brevis MP.1 unit will automatically shut itself down before complete discharge can occur.

Check batteries with voltmeter if available. When fully charged, they should indicate 2.8 volts, and when fully discharged will read zero volts.



Power pod can power Brevis if internal cells are completely discharged. (smart charger will flash red if it does not recognize cells). Once internal cells are “boosted” just enough for smart charger to recognize them (5-10 minutes), remove the power pod, plug in the smart charger and charge cells as usual. This should never occur if you’re using the new MP.1 version.

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## **CHANGING AND CLEANING THE IMAGING ELEMENT**

### **Step 1 - Removing/Cleaning Imaging Element:**

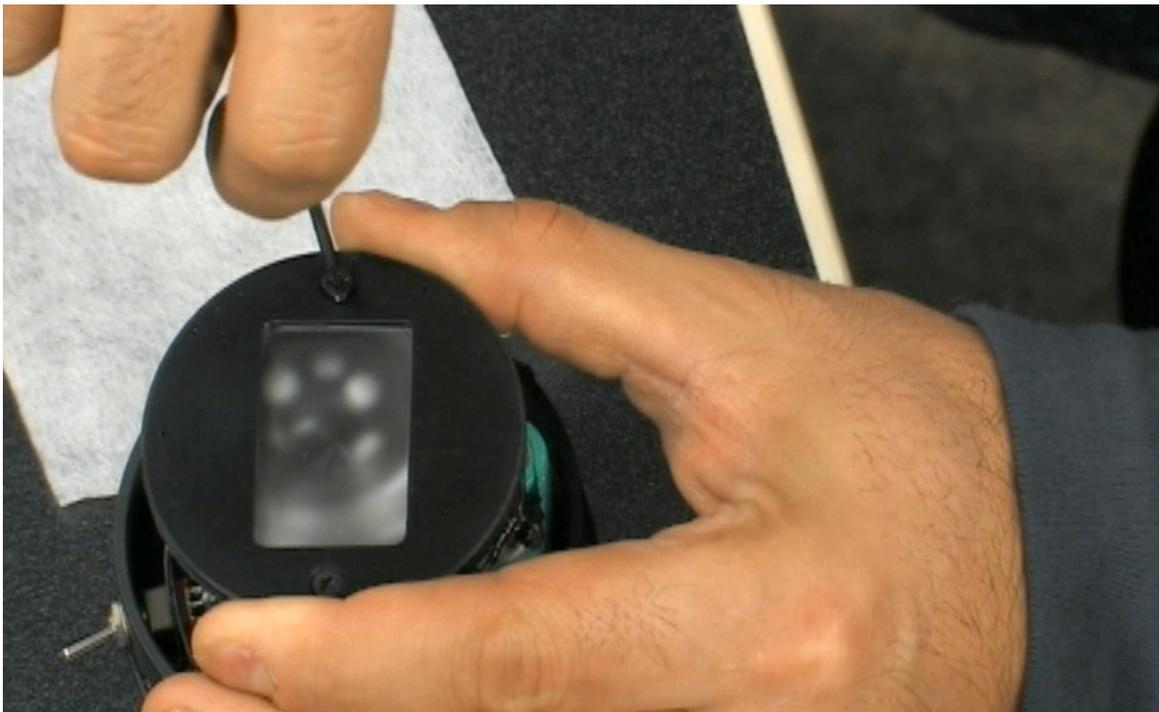
- Place Brevis down flat on a table in a clean area.
- Loosen setscrews on the base that hold carbon tube in place using the allen key provided.



- Slide base off.

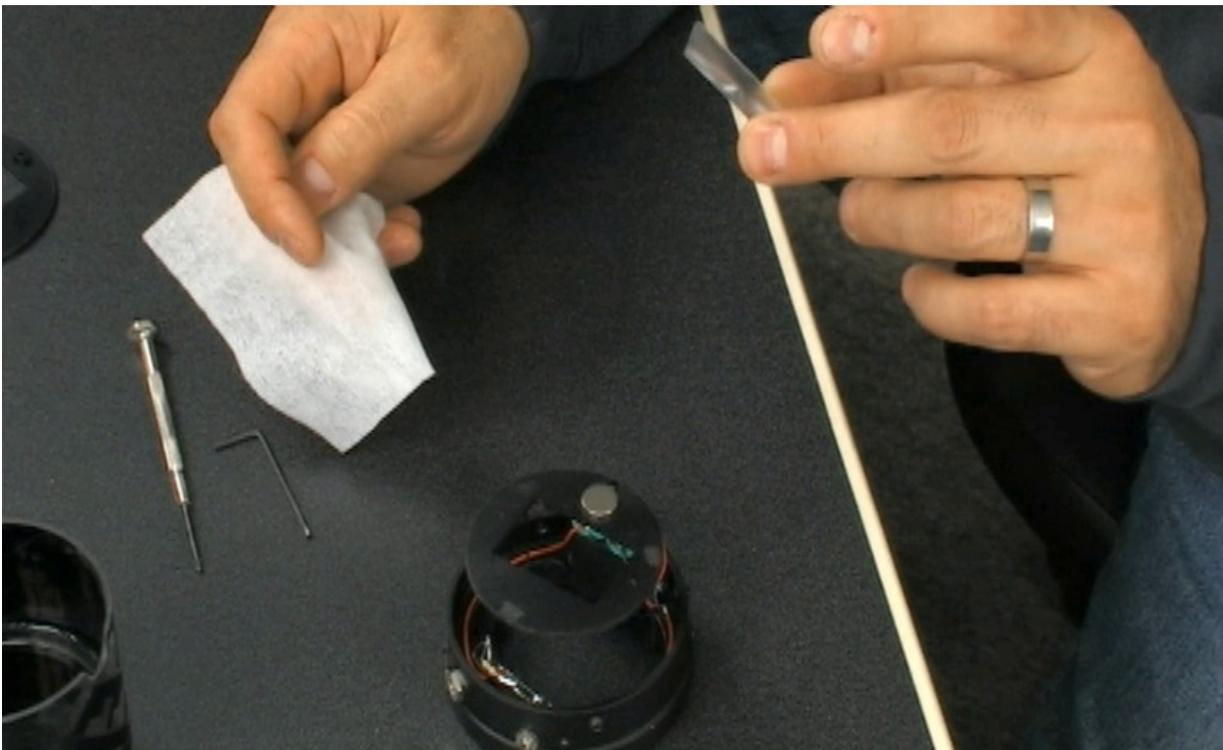


- Use small phillips screwdriver to gently remove the two screws securing the retaining plate in place. Support the plate between two fingers to ensure no downward pressure is placed on the three small support rods!



- Set Brevis down and remove retainer plate.

- Gently push imaging element up from underneath with micro-fiber cloth and remove imaging element by its edges.



## Step 2 – Cleaning:

- Wash hands first.
- Wet fingers with warm water.
- Keep element under warm running water and gently clean with fingers using a small dab of regular dish soap.
- Rinse well.
- Dry quickly (preferably using compressed air until completely dry) to avoid dry spotting. A final rinse with distilled water will help to prevent water spots when drying.



## Step 3 - Replacing imaging element:

- Replace imaging element and re-attach retainer plate.
- Replace inside tube.
- Re-attach by gently tightening setscrews at the base of the Brevis.

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## **MATTE BOX**

The Cinevate Matte Box will accept two 4x4 filters in a rotating stage. It is height adjustable, and also includes rear foam inserts for use with various diameter lenses. Shading your camera lens from non-image forming light and using filters correctly can dramatically improve your image quality. The 4x4 filters that we found very cost effective were as follows, manufactured by Cavision:

1. FTG4X4GD/0.6 (This 0.6 graduated ND is excellent for shooting in situations where large dynamic range is required)
2. FTG4X4ND09 (0.9 ND, cuts three stops of light)
3. FTG4X4PL (Polarizer, reduces solar glare and reflections)

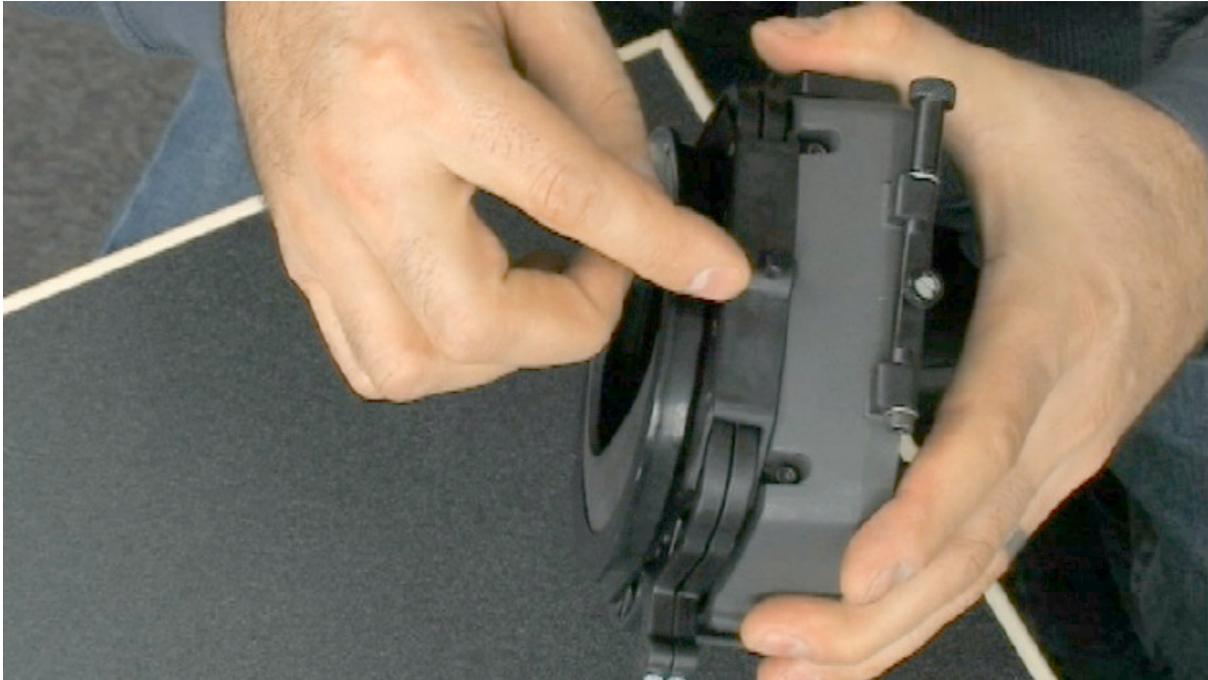
### **A. Inserting Filters**

1. Insert filter into frame
2. Make sure glass is firmly secured by retainer clamp. Turn the metal knurled knob at the top of the frame to adjust tension on the retainer clamp.
3. turn frame over to ensure glass is secure



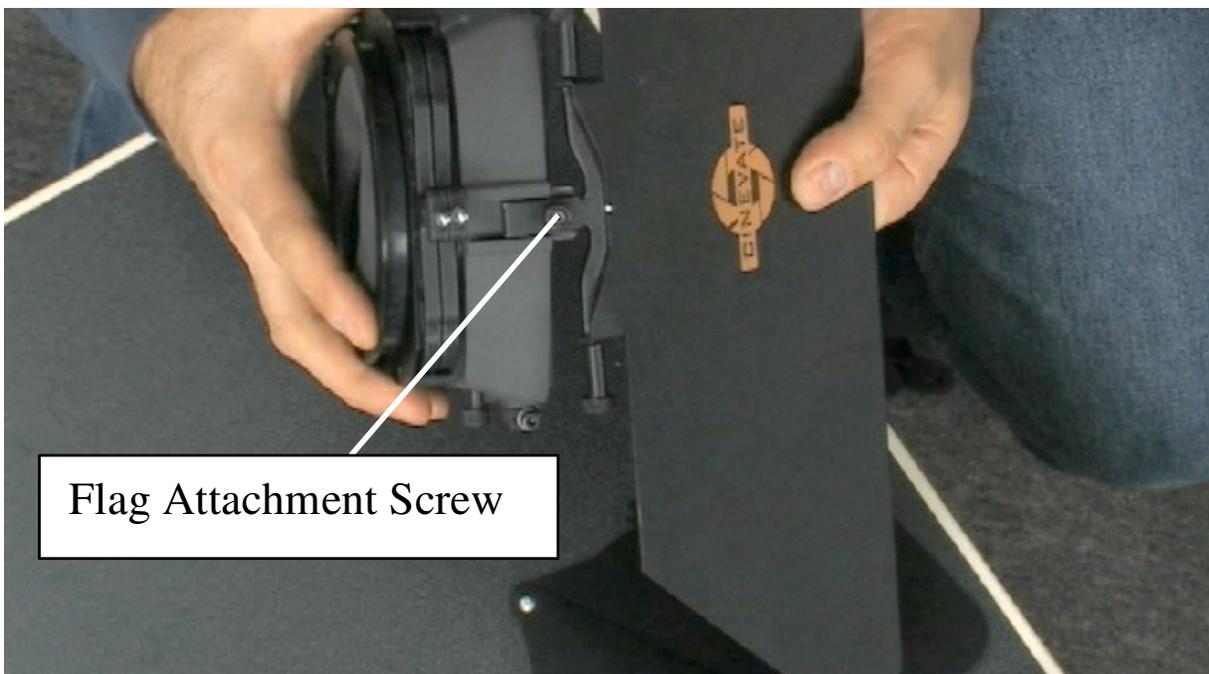
4. Slide frame into place in matte box, making sure your 35mm lens does not interfere.

5. Snug retaining screws on side of matte box as pictured below.



### B. Attaching Flags

1. Slide tag of top flag into groove on top of matte box and tighten screw



2. Attach side flags as pictured below, onto side hinges, and snug retaining thumb screw. These threads are very fine, and over-tensioning will damage them.



### C. Mounting Matte Box on Rails

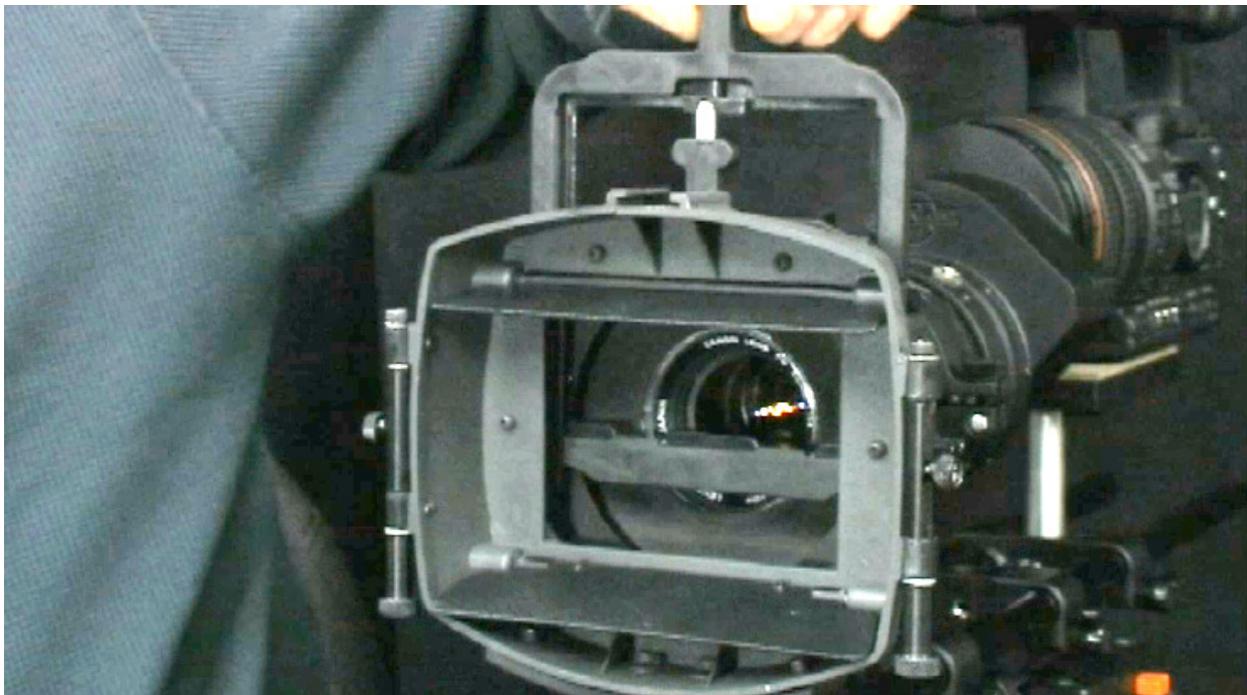
1. Slide base of matte box onto rails
2. Adjust for height by loosening height adjustment thumbscrew at base of unit.



3. Push matte box back and align foam around the edge of the lens. Your kit contains various foam inserts that can be replaced by unscrewing the large rear ring that houses them.



4. Extend lens to its maximum length and ensure that the lens will not make contact with the filter frames. Zoom lenses may be a problem, so check carefully.



5. Snug thumbscrews that secure the 15mm rails block to the rails.





