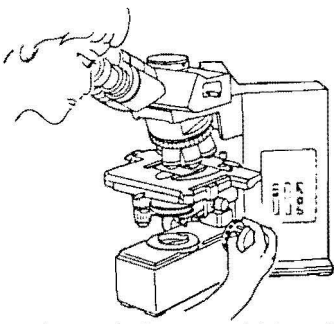
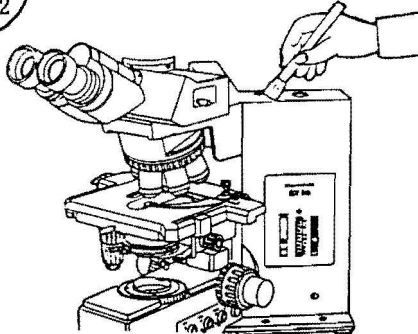
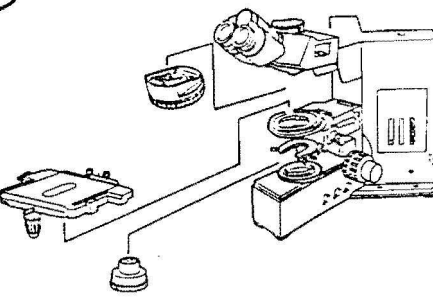
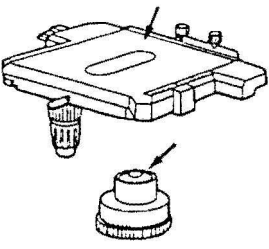
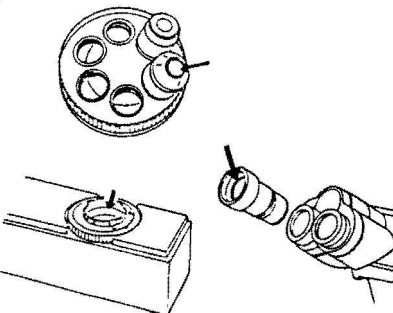
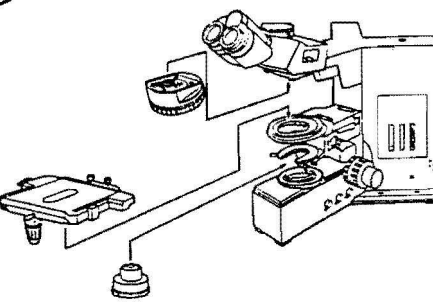
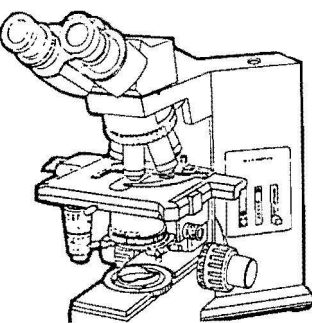
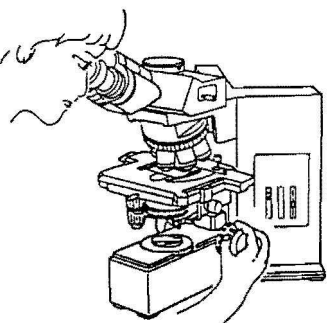
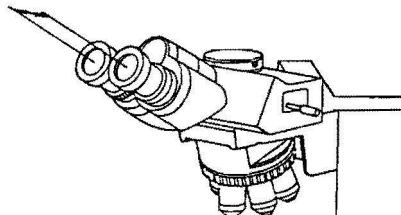
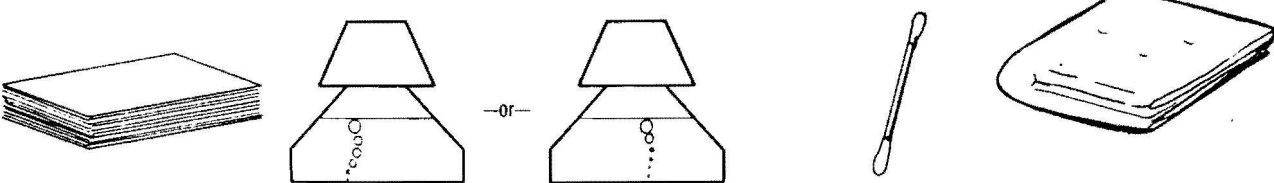


# OLYMPUS B-MAX MICROSCOPE

## GUIDE TO CLEANING AND ADJUSTMENT

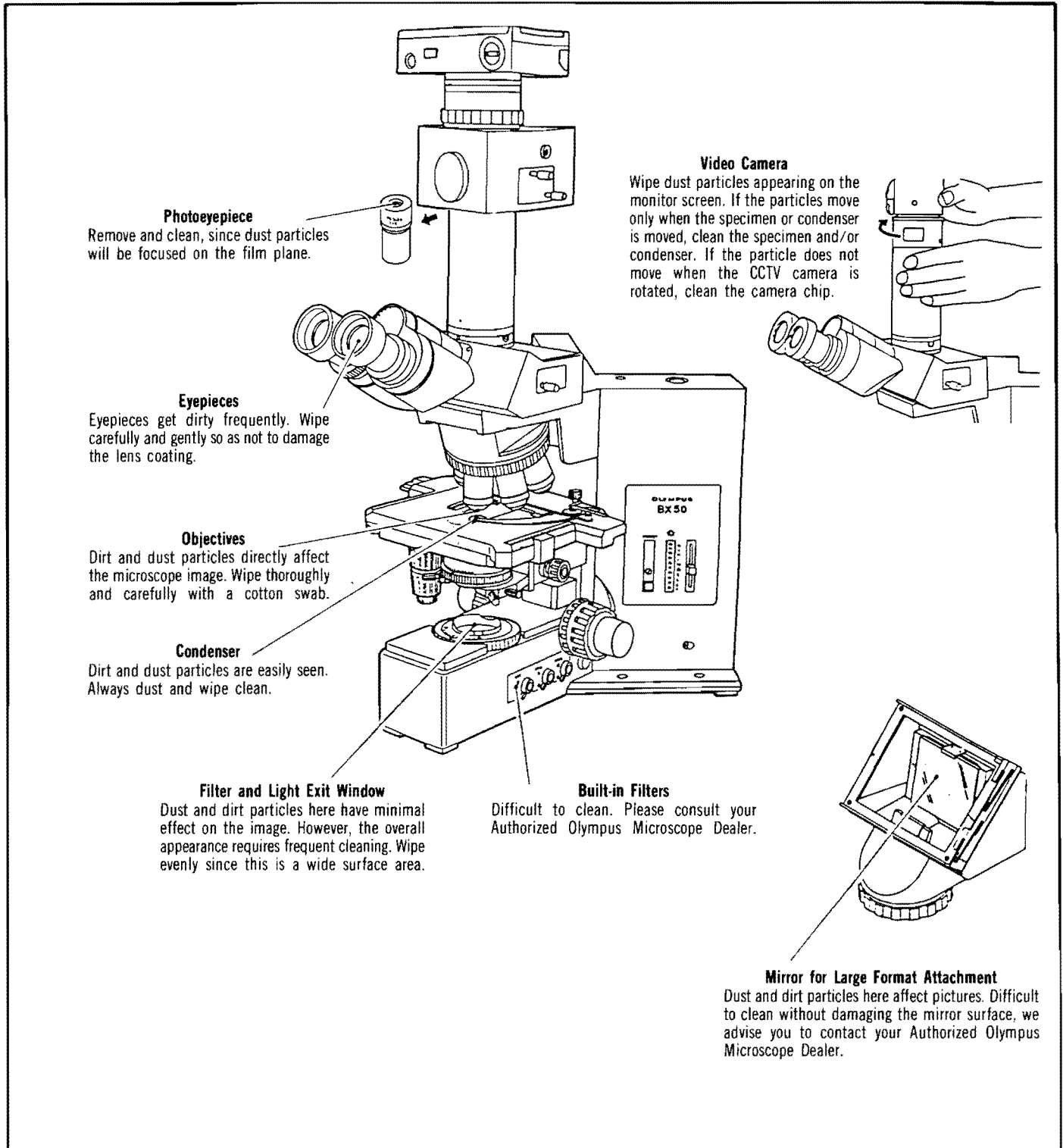
### CLEANING THE MICROSCOPE STAND AND COMPONENTS

<p>1</p>  <p>Mount a specimen and set your correct interpupillary distance. At the same time, check any areas suggesting a need for mechanical and/or optical maintenance.</p>	<p>2</p>  <p>Softly brush clean all mechanical parts of the microscope.</p>	<p>3</p>  <p>Remove the stage and condenser (and also, on the B-Max 50, the revolving nosepiece) from the microscope stand.</p>
<p>4</p>  <p>Clean any visible dirt spots with alcohol. Do not use ether/alcohol mixture, which can cause damage.</p>	<p>5</p>  <p>Clean all exposed optics.</p>	<p>6</p>  <p>Replace all removed units onto the microscope stand.</p>
<p>7</p>  <p>Polish all plastic components with soft gauze.</p>	<p>8</p>  <p>Do a final check of the microscope image, by observing a specimen.</p>	<p>9</p>  <p>Reset the interpupillary distance to its original condition.</p>
<p>10</p> <p style="text-align: center;">Cleaning Materials</p>  <p>Lens tissue      Ethyl Alcohol      70:30 Ether-Alcohol Mixture      Cotton swabs (Q-tips)      Soft Gauze</p>		

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# CLEANING FOR BETTER OBSERVATION AND PHOTOMICROGRAPHY

Microscope components get dirty with time. Dirt and dust particles on the optical components are especially damaging to image quality. When photographing important specimens which cannot be rephotographed, visible dust particles on the picture can be most frustrating. Therefore, we suggest the following critical microscope components be kept clean and dust-free.



# CLEANING THE OPTICAL SYSTEM

Although cleaning the objectives and eyepieces is relatively easy, here are some procedures and simple techniques to protect the lens coating and assure optimal performance.

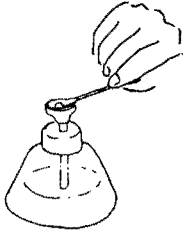
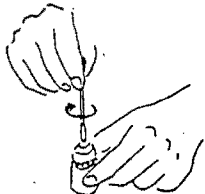
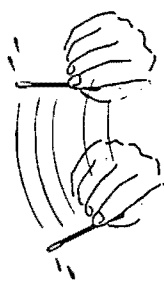
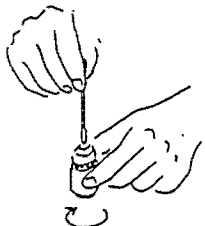
## Required tools:

- Lens Tissue
- Cotton swabs (Q-tips)
- Blower
- Magnifier
- Cleaning Solution: 7 parts of ether and 3 parts of ethyl alcohol. The mixture ratio depends on room temperature and humidity. When the humidity is high, the ratio can be changed to 8 parts of ether and 2 parts of ethyl alcohol.

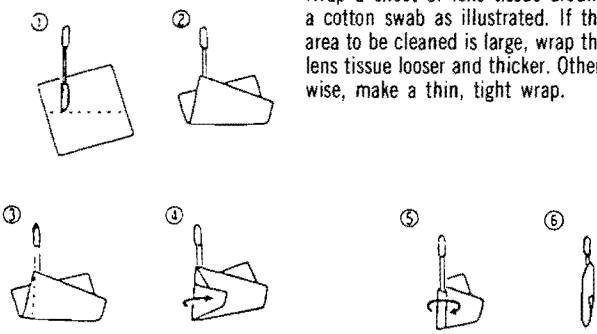

## Caution:

Lightly brush the lens surfaces or blow with the blower before wiping with tissue. This removes particles that may scratch the lens surface.

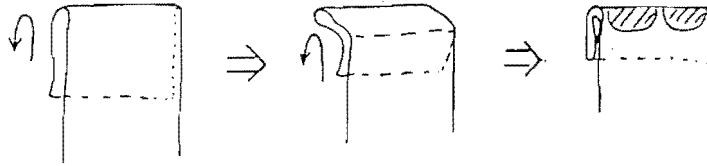
## HOW TO CLEAN OBJECTIVE LENSES

<p>1</p>  <p>Wet the tip of a cotton swab with a generous amount of lens cleaning solution.</p>	<p>2</p>  <p>With a circular motion, wipe the front lens surface with the cotton swab, to thoroughly remove any oil or dirt from the lens.</p>	<p>3</p>  <p>Dip a new cotton swab in the cleaning solution and shake vigorously to remove any excess solution.</p>	<p>4</p>  <p>Wipe the objective front lens from the center towards the periphery, while rotating the lens.</p>
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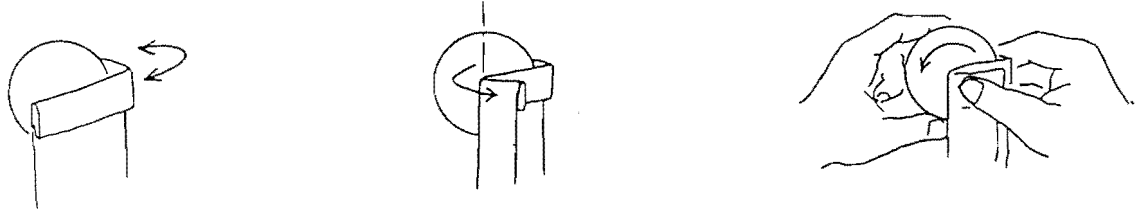
## HOW TO CLEAN THE EYEPIECES

<p>1</p>  <p>Wrap a sheet of lens tissue around a cotton swab as illustrated. If the area to be cleaned is large, wrap the lens tissue looser and thicker. Otherwise, make a thin, tight wrap.</p>	<p>2</p>  <p>Dip the wrapped lens tissue in the cleaning solution, and wipe the eyepieces from the center towards the periphery in a circular motion.</p>
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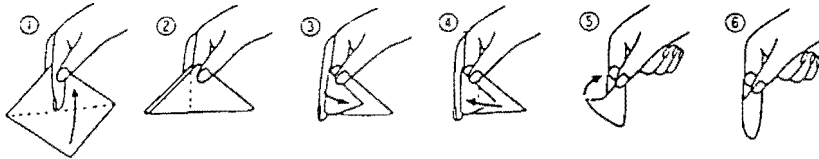
## HOW TO CLEAN FILTERS



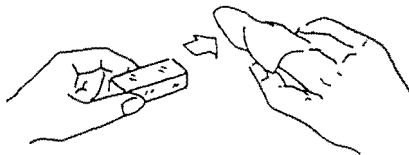
Fold the lens tissue into two or three layers and soak it with cleaning solution as illustrated. Hold the filter at its edge, and wipe as you slowly rotate it.



## HOW TO CLEAN THE PRISM



Hold a piece of lens tissue between your middle and index fingers, then fold and wrap it around your index finger. Hold the tissue down with your thumb and soak it with sufficient cleaning solution. Then wipe the prism surfaces clean, applying even pressure.

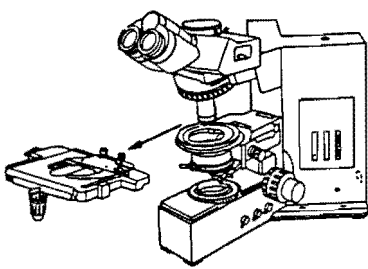
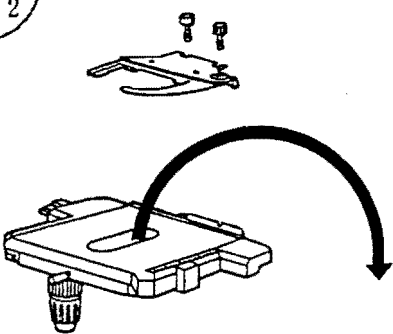
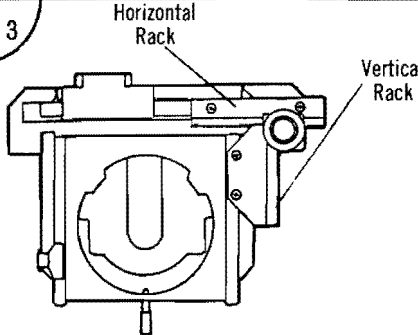
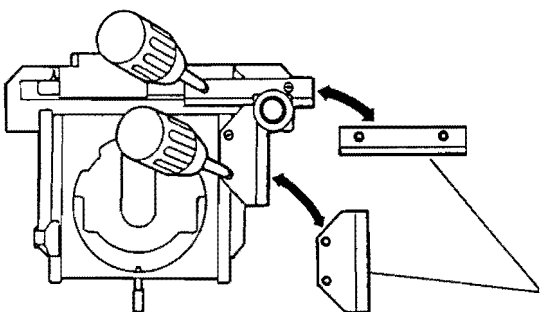
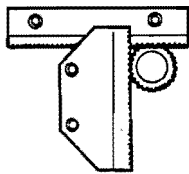
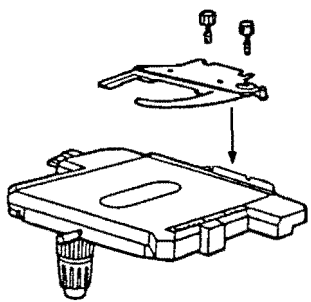
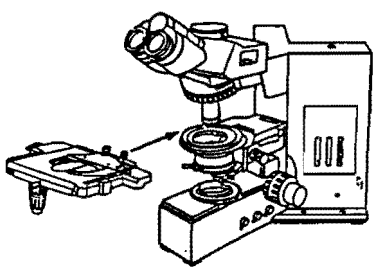
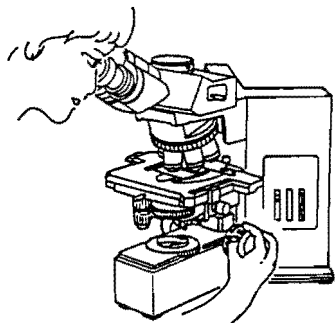


### IMPORTANT NOTES:

- Do not use the same lens tissue to clean more than one lens.
- Do not put an excessive amount of cleaning solution on the lens tissue.
- Blow on the surface of objects to be cleaned before wiping them.

# MAINTENANCE USING ONLY A SCREWDRIVER

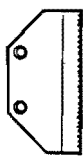
## EXCHANGING THE STAGE

<p>1</p>  <p>For stage rack replacement, remove the stage from the stand.</p>	<p>2</p>  <p>Remove the specimen holder and turn the stage upside down.</p>	<p>3</p>  <p>Horizontal Rack Vertical Rack</p> <p>Before disassembly, rotate the stage movement knob(s) to understand the construction and movement of the rack.</p>
<p>4</p>  <p>Replace the racks. In order to properly align the gear teeth, do not fully tighten the screws.</p>	<p>5</p>  <p>Properly mesh the teeth of the racks and gear (see details on the following page).</p>	
<p>6</p> <p>Reattach the specimen holder to the stage.</p> 	<p>7</p> <p>Attach the stage to the microscope stand.</p> 	<p>8</p>  <p>To check that the rack adjustment is complete, observe a specimen with 100x objective. The adjustment is complete if the specimen can be positioned smoothly, without play in the rack movement.</p>

Required items:



• Screw Driver



• Vertical Rack



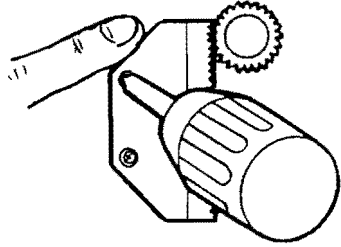
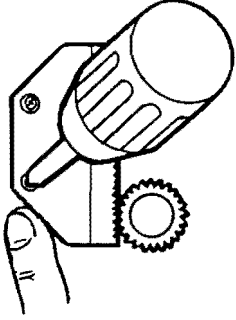
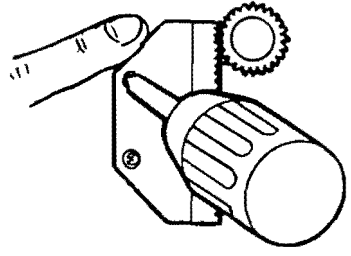
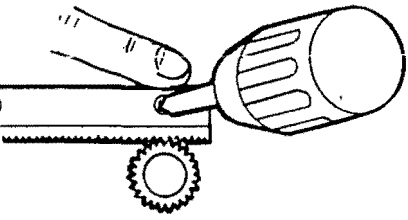
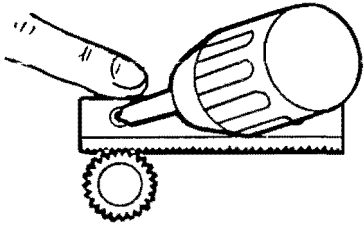
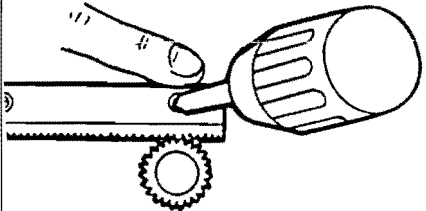
• Horizontal Rack



• Screws

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# ADJUSTING THE STAGE RACKS AND GEARS

<b>VERTICAL RACK</b>	<p>1</p> 	<p>2</p> 	<p>3</p> 
	<p>After loosening the screw, gently push the edge of the vertical rack towards the gear. Then tighten the screw nearest to the gear.</p>	<p>Move the gear to the opposite end of the rack. Perform the same procedure as Step 1.</p>	<p>Repeat the procedures of Steps 1 and 2, further tightening the screws.</p>
<b>HORIZONTAL RACK</b>	<p>1</p> 	<p>2</p> 	<p>3</p> 
	<p>After loosening the screw, gently push the edge of the horizontal rack towards the gear. Then tighten the screw nearest to the gear.</p>	<p>Move the gear to the opposite end of the rack. Perform the same procedure as Step 1.</p>	<p>Repeat the procedures of Steps 1 and 2, further tightening the screws.</p>

The above procedures should be done until the racks are smoothly meshing with the gears along the entire length of the racks.

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