

# #631-0125 Stereo Zoom Microscope

## Instruction Manual for Model ZTX-E

Please read the booklet before using the microscope.

### APPLICATIONS:

Widely used in electronics industry, assembling and inspection of precise instruments and meters, educational experiments, observation and research. It can be used in the schools, research institutes, factories, and families to study the geology, out appearance of objects.

### MAJOR TECHNICAL INDEX:

#### 1. Optical index(mm)

Field of view

Working distance

Zooming objective

Auxiliary objective

#### 2. Electric index:

Input voltage: 220V/50Hz or 110V/60Hz (Optional)

The below 4 illumination styles are optional:

- Incident light of bowl shaped halogen lamp 12V/10W, transmitted illuminator is the same as the incident
- Incident light of bowl shaped halogen lamp 12V/10W, transmitted illuminator is the same as the incident with dimmer
- Incident illuminator 12V/10W, transmitted illuminator 5W fluorescent lamp.
- Incident illuminator 12V/10W, transmitted illuminator 5W fluorescent lamp with dimmer

#### 3. Structure index:

Slanting 45 degree binocular head of 360 degrees rotatable. Left and right eyepiece diopter adjustment +/- 5 degrees , inter-pupillary distance adjustable 54—76mm . Optional auxiliary objective (M48x0.75)

### HOW TO USE:

1) Environment requirement: Dry dust free room temperature between -5---+40 degrees Celsius.

2) Illuminator control: Plug in the power cord into the outlet. Refer to the following table for illumination styles. For microscopes with dimmer control the brightness of the illuminators can be adjusted.

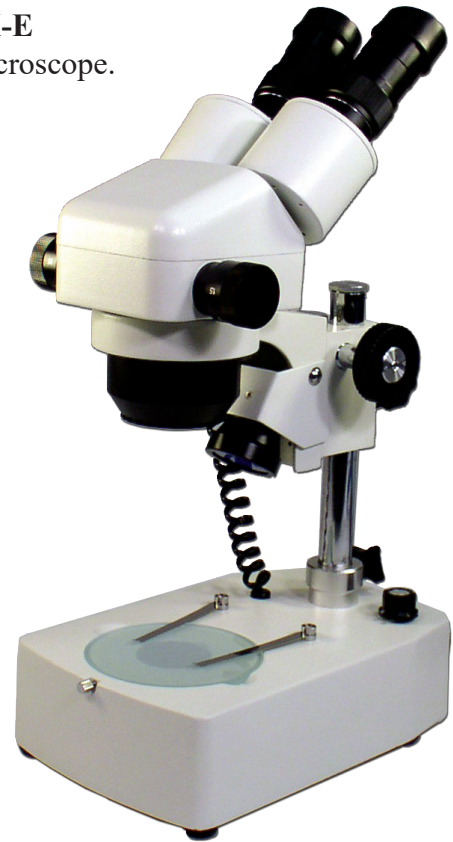
3) Select the stage:

1. The frost glass stage is placed on the base and is fixed with a screw, It is used when a transparent specimen is being observed, please use transmitted illuminator.
2. Black and white stage is kept in the packing as an accessory. When it is to be used take off the glass stage and place the black and white stage on the base. Normally the white side is upward. If the specimen is white or in other bright colors, use the black side to improve the contrast with only incident illuminator.

4) Placement of specimen:

Place the clean specimen in the center of the stage and fix it with clippers if necessary.

5) Use of rubber eye-guard: One pair of rubber eye guards is contained in the packing. They are used to prevent the extra light from entering the eyepieces, to improve visibility.



6) Focusing, diopter, interpupillary adjustments:

Place a specimen onto the stage. Loosen the body locking thumb screw and hold the microscope head and move the body up and down to fix it at the estimated working distance. Rotate the zooming knob while looking through the right eyepiece until you see the image. Using the focusing handles to get the sharpest image of the specimen. Then look through the left eyepiece with your left eyes and turn the diopter adjustment ring until you get an image as sharp as the right side. Make this adjustment without moving the focusing handle. Then grasp the right and left prism housing and move them closer or farther apart in order to match your pupil distance. Adjustment is proper when the field of view becomes comfortable and presents a full single field.

7) Trinocular zooming head:

When the photo switch is pressed in, the microscope is set for binocular users. When it is pulled out, the photo tube is in working condition. Adapters for cameras, digital cameras, CCD are optional if necessary.

8) Use of auxiliary objectives:

Auxiliary objectives of 0.75X, 1.5X, 2X can be screwed in directly at the tip of the objective cases. Because the working distance of the 0.5X objective is long, a long pole should be used before it is used. (Please refer to optical index III).

### **REPLACEMENT OF LAMP AND FUSE:**

Warning: Disconnect the power line before you change the lamp or fuse.

• Replacement of the incident lamp:

Loosen the fixing screw and take off the lamp housing. Replace the bulb with a same new bulb. Place the lamp housing back and fix it with the same screw.

• Replacement of the transmitted lamp:

Loosen the fixing screw of the glass stage and take off the glass. Take off the broken bulb through the stage hole and install a new bulb.

• Replacement of the fuse:

The fuse case is located at the back side of the base. Unscrew the fuse case cover and put in a new one.

### **MAINTENANCE AND GENERAL CARE OF YOUR MICROSCOPE:**

1. Microscope is a delicate precision instrument and it may be damaged by dropping and hitting.
2. Do not keep microscope under sun. It should be kept in a dry and clean environment and avoid heat and strong tremor.
3. To obtain clear image, do not touch lenses with your finger.
4. All lens surface should be kept clean. If the lens gets dusty, blow off the dust with a rubber syringe. If necessary, clean the lenses with a lint-free cloth dipped in ether.
5. Do not use any organic material to clean the microscope surface, especially the plastic surface. It should be cleaned by neutral detergent.
6. Because the assembly of all parts has been done by skilled optical craftsmen at the factory, you should never attempt disassembly.
7. Apply a little bit of grease regularly to the mechanical parts.
8. When not in use, always cover the microscope with the dust cover and place it in a cool and dry place.

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**Warranty and Parts:** We replace all defective or missing parts free of charge. Additional replacement parts may be ordered toll-free. We accept MasterCard, Visa, checks and School P.O.s. All products warranted to be free from defect for 90 days. Does not apply to accident, misuse or normal wear and tear. Intended for children 13 years of age and up. This item is not a toy. It may contain small parts that can be choking hazards. Adult supervision is required.