



ZTX-20 LED MICROSCOPE

Cod. 5313090

Instructions Manual

Instruction Manual for

ZTX20

Please read the booklet before using the microscope.

Address and Contact:

Contents:

I, Applications

II, Names of the parts, components and accessories

III, Major technical index

IV, How to use

V, Lamp and fuse replacement

VI, Maintenance and general care of your microscope

VII, Optional accessories

I, 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, outer appearance of objects.

II, Names of parts, components and accessories:

A: ZTX-20 parts:

Specimen clipper, power switch, block, focusing sliding block, pole fixing screw , focusing knob, pole, eyepiece, diopter adjustment ring, prism housing, fixing screw, objective case, incident lamp, illumination switch, frost glass stage, stage screw, transmitted illumination.

III , Major technical index:

1), Optical index(mm)

Field of view

Working distance

Auxiliary objective (table is omitted)

2), electric index:

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

Illuminating style:

**1), incident LED illuminator 3.5V/1W, transmitted
illuminator 3.5V/60mA with dimmer**

3, structure index:

Slanting 45 ° binocular head of 360 degrees rotatable.

**Left and right eyepiece diopter adjustment $\pm 5^\circ$, inter-pupillary
distance adjustable 54—76mm .**

optional auxiliary objective with adapter (M48x0.75)

IV, How to use: Refer to the names of parts if you would like to know them:

**1) environment requirement: Dry dust free room
temperature between -5° --- $+40^{\circ}$ 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. If you want to change the magnification you can turn the objective case. Loosen the body locking screw the body is 360° rotatable. You can observe the microscope at any position.

7) , 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 of the long working distance of the 0.5X objective, long pole should be used before it is used. (Please refer to optical index III).

V. Replacement of lamp and fuse:

Warning: Disconnect the power line and cool down the bulbs before you change the lamp or fuse.

1, Replacement of the incident lamp:

Loosen the fixing screw of the shade and take off lamp. Replace the bulb with a new one. Plug in the feet of the lamp back to the holder and fix it with the same screw.

2, 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 one.

3, 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.

VI. 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 get dusty blow off the dust with a rubber syringe. If necessary clean the lenses with a lint free cloth dipped in aether.

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 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.,

VII, Optional parts:

1, eyepieces: WF5X, WF10X, WF15X, WF20X

2, auxiliary objectives: 0.5X, 0.75X, 1.5X, 2X

3, Dark field stage, Jewel tweezers, particularly for jewel inspections.

4, Ring lamp: The fluorescent lamp is fixed by 3 screws on the outside surface of objective case. It can be a substitute of traditional incident lamp because it is evenly lighted and the light is brighter and softer and more comfortable to use.

