

Tritech Research, Inc. SMT1 Stereomicroscope System

Warnings, Cautions, and Recommendations

Thanks for buying your microscope from Tritech Research. We think you'll be as impressed by the optics as you were by the price. If you have any questions or problems, just give us a call. To set up for standard genetics microscopy:

Mount the pole on the base by tightening its nut from below the base. Slide the scope body on to the pole and tighten its set screw. Turn the eyepiece head 180° by loosening the small set screw on the main body, and turning the head around so that the white arrow lines up with the other black dot on the body, and re-tightening the set screw.

Make sure the frosted disk in the base is frosted-side-down.

Choose and insert eyepieces into eyepiece head. 10x gives the brightest and most perfect image; 15x and 20x enlarge the image and have little effect on the resolution. Therefore, we recommend the 10x eyepieces unless you need to enlarge things more than is possible using the other microscope features.

To increase the magnification and *improve* the resolution at the expense of working distance, add the 1.5x or 2x objective modifier lens to the bottom of the objective by slipping it on and tightening its set screw. We recommend the 1.5x modifier, as it leaves ample working distance and produces beautiful images in the range of 7.5x to 75x when used in combination with the 10x eyepieces.

Setting up the illumination:

By sliding the bulb holder to slightly different positions in the housing, the light beam is focused. For transillumination, aim a lamp through the hole in the back of base plate. For light from above, install a lamp holder bracket by unscrewing the ring under the objective and installing the bracket and spacer ring.

ALWAYS start with the power controls turned fully counterclockwise. Turn on the power supplies using their buttons; the indicator will light if power is getting through. Turn the appropriate power control clockwise until the desired brightness is achieved, but **DO NOT** go past 75% of maximum. Setting the power above this level briefly for photography is permissible, but will decrease the bulb life. At very low lamp levels, flickering may occur; if this happens, turn up the power.

To change bulbs: **DO NOT** touch the lamp bulbs with bare fingers; use a clean cloth or tissue to hold them instead. This is because finger oil and dirt will make the lamps burn hotter and decrease their life; it can cause halogen bulbs to explode. If you do touch the bulbs, wipe them off with a clean cloth or tissue to remove any dirt or oil.

Make sure the bulb and the inside of the housing are clean! Insert the nubs on the bulb into the slots in the bulb receptacle, push the bulb down, and turn a few degrees to lock it in.

Put the lamp bulb holder back into the housing, and re-tighten the set screw.

To get the maximum life from the lamp bulbs:

Make sure bulbs are **clean** and oil-free.

DO NOT turn the power supply past the **75% setting**.

Always reset the power controls to the lowest level before turning on the supply to limit power surges.