MEIJI TECHNO **SKT** Series

STEREO MICROSCOPES

INSTRUCTION MANUAL

MEIJI TECHNO CO.,LTD.

Tokyo, Japan

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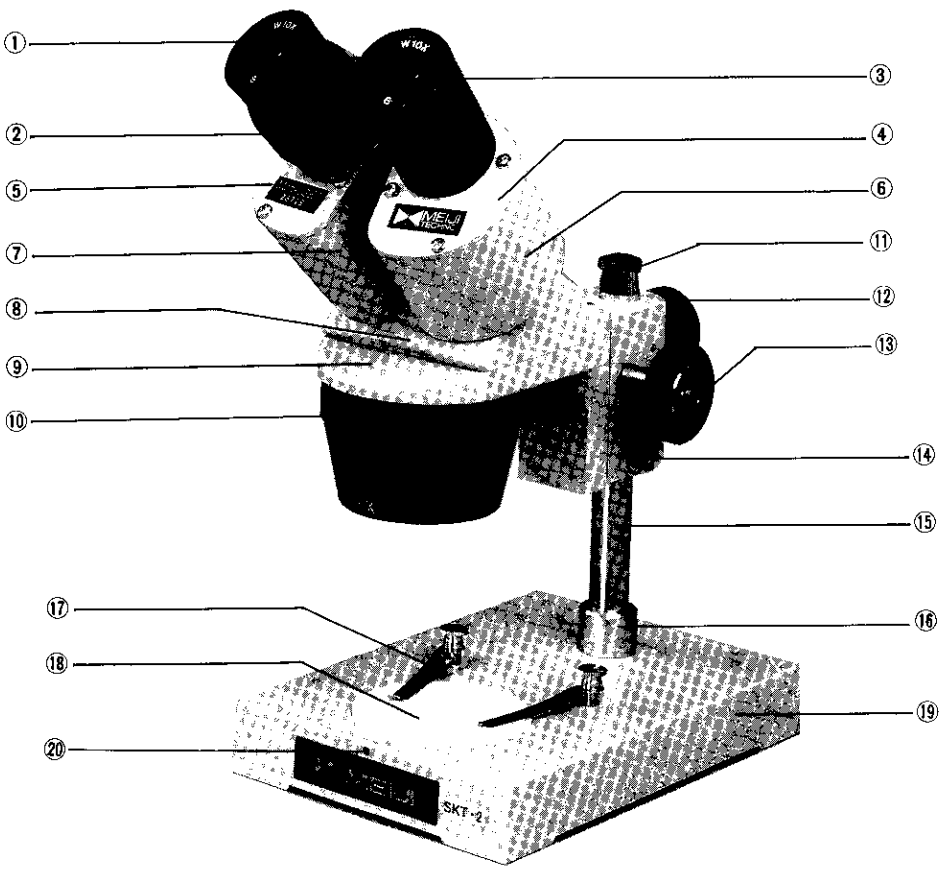
"MEIJI" SKT Series STEREO MICROSCOPE



Model SKT Standard

① Eyepiece

② Diopter correction ring

③ Fixed eyepiece tube

④ Prism cover, right

⑤ Prism cover, left

⑥ Prism case, right

⑦ Prism case, left

⑧ Prism house

⑨ Prism house support

⑩ Objective cover

⑪ Pillar cap

⑫ Slide block clamp screw

⑬ Focus knob

⑭ Slide block

⑮ Pillar

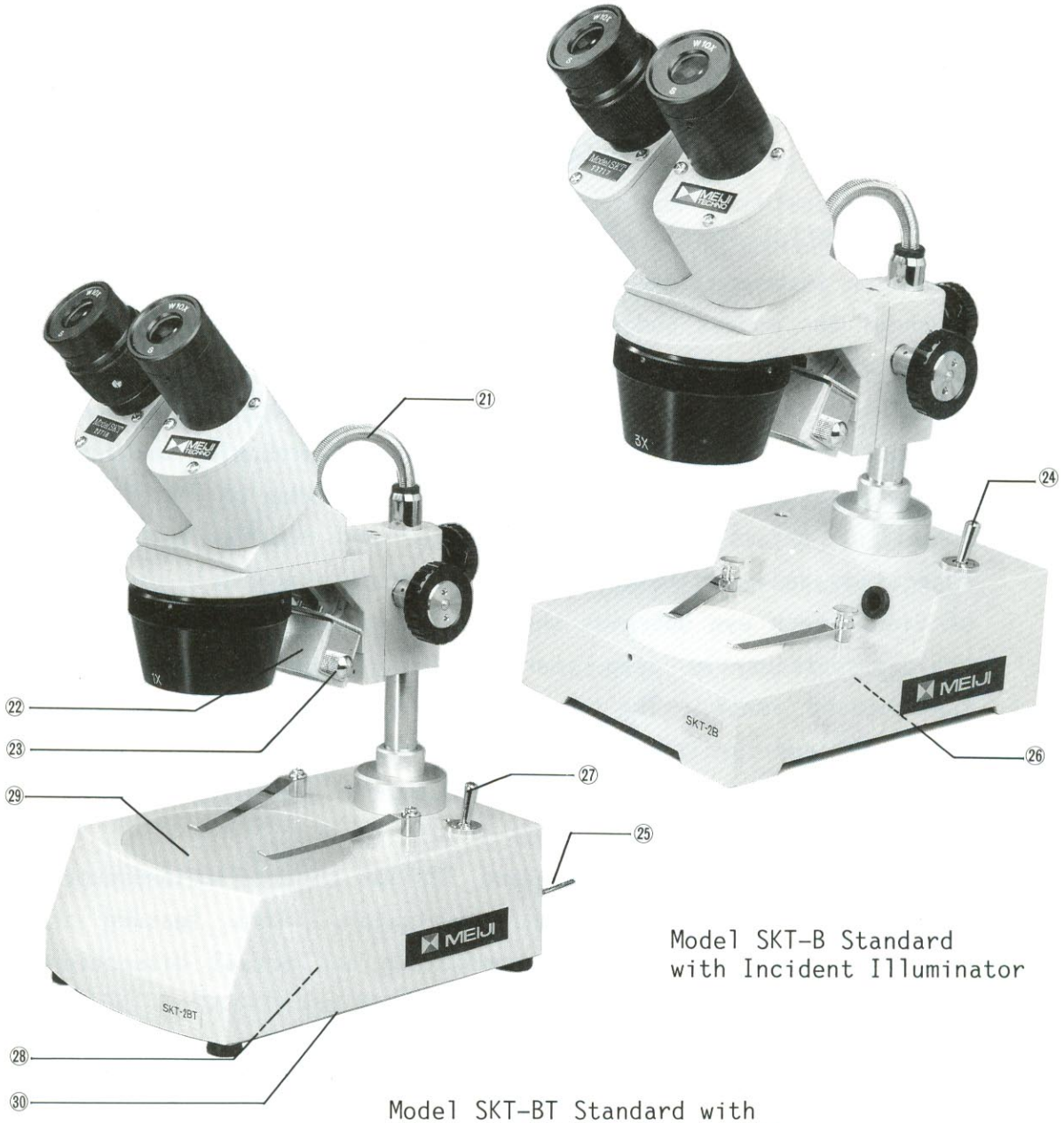
⑯ Pillar collar

⑰ Stage clip

⑱ Plastic stage plate

⑲ Base

⑳ Stage plate set screw



Model SKT-B Standard
with Incident Illuminator

Model SKT-BT Standard with
Incident and Transmitted Illuminator

㉑ Wire in flexible pipe

㉒ Lamp cover

㉓ Lamp cover clamp screw

㉔ Switch

㉕ Cord

㉖ Base transformer built-in

㉗ Switch for incident & transmitted light

㉘ Base transformer & transmitted light built-in

㉙ Frosted stage plate

㉚ Bottom cover

THE USE AND CARE
OF
"MEIJI" SKT Series STEREO MICROSCOPE

The MEIJI TECHNO "SKT" Series Stereo Microscope is a precision instrument made for the science student. Priced within reach of the modest budget, it is comparable to research quality stereo microscopes.

This instrument consists of two converging compound microscopes which are combined as a unit to focus simultaneously on the same field of the object. Each body tube is fitted with a set of prisms to erect the image, and matched achromatic objectives and widefield eyepieces to produce a wide flat field of view. Each eye observes the object from a slightly different angle, consequently deep stereoscopic relief is produced in the focused image. The erect image is a great aid to fine dissecting and specimen mounting.

Models SKT-1, SKT-2, and SKT-3 Stereo microscopes do not include any lighting.

Models SKT-1B, SKT-2B and SKT-3B Stereo microscopes incorporate built-in incident illuminator. This feature is a great advantage for quick examination and actual dissection of specimen.

Models SKT-1BT, SKT-2BT and SKT-3BT Stereo microscopes incorporate built-in incident and transmitted lights for quick examination of histological and botanical sections.

UNPACKING:

Once opened, remove the microscope from the styrofoam pack, being careful not to touch the optical surfaces with your fingers. If you should accidentally touch the lenses, refer to the Chapter entitled "Cleaning". Do not discard packing materials until thoroughly checked for small items.

USING:

1. Mount the Eyepiece Shield onto each eyepiece.
2. Place a specimen on the Stage Plate and adjust the height of the Binocular Body by loosening the Slide Block Clamp Screw ⑫ .
   Move the Slide Block ⑭ up or down to approximate focus position and tighten Clamp Screw ⑫ .
   (The focus position/working distance of the SKT Series Stereo microscopes is as follows:
   SKT-1, SKT-1B and SKT-1BT... 75mm from the specimen to the front end of the objective cover.
   SKT-2, SKT-2B and SKT-2BT... 55mm from the specimen to the front end of the objective cover.
   SKT-3, SKT-3B and SKT-3BT... 44mm from the specimen to the front end of the objective cover.)
3. Adjust the interpupillary distance so that you can observe the specimen as a single image. This adjustment can be done by holding both Prism Cases in your hands and moving them inward or outward, until both fields are viewed as ONE through the eyepieces.

4. Focus the object sharply by turning the Focus Knobs ⑬, which move the Binocular Body and optical system up or down by means of Rack and Pinion.

5. For normal vision both eyepiece tubes should be at the same height. Differences in vision between the two eyes will require making adjustments as follows:
   First, cover the adjustable eyepiece tube (Eyepiece Tube with Diopter Correction Ring ②) with a black card, and focus critically on an object with the fixed eyepiece tube (Right Side Eyepiece Tube ③). Then, cover the fixed eyepiece tube with the card and turn the Diopter Correction Ring ② clockwise or counterclockwise until the object is critically sharp.

6. To change the magnification, hold the knurled part of the Objective Cover ⑩ and rotate it clockwise or counter-clockwise until it clicks and stops.

7. **On Models SKT-1B, SKT-2B and SKT-3B with Incident Illuminator:** Illuminate the object with a built-in incident light by turning on the light with a toggle Switch ㉔.
   Replacement of Bulb: First unplug the microscope, then take off the Lamp Cover ㉒ by loosening Lamp Cover Clamp Screw ㉓ and replace the bulb.

8. **On Models SKT-1BT, SKT-2BT and SKT-3BT with Incident and Transmitted Illuminator:** For examination of transparent objects such as histological and botanical sections. To illuminate the object with transmitted light, push the Switch ㉗ forward. Non-transparent or opaque ojbect can be examined with incident illuminator by pulling the Switch back.
   Replacement of Bulb: Unplug the microscope. The bulb

for the incident light can be replaced as above mentioned. To replace the transmitted light bulb, remove the Bottom Cover ㉚ by loosening ④ set screws and replace the bulb which is located underneath the stage plate.

TROUBLE SHOOTING:

1. Trouble..... The contrast of the image is weak.
   Correction: Clean the objectives and eyepieces according to the instructions under "Cleaning".
2. Trouble..... Unable to bring specimen into focus.
   Correction: Check that the objectives are correctly mounted. If they are correctly mounted, the eyelens of the eyepiece may be partially unscrewed. Take out the eyepiece and tighten the mount and reinstall.
3. Trouble..... Image of the specimen goes out of focus by itself.
   Correction: Tighten the tension adjustment collar which is located inside the left side Focus Knob by using the special Wrench supplied with the microscope.

   If the Focus Knobs are loose even though the tension adjustment is made, the microscope should be disassembled by a qualified, authorized technician for repair.

CLEANING:

1. Do not clean optical surfaces unnecessarily. If cleaning is required, dust off with a small camel hair brush or blow off with a rubber syringe.
2. Clean with lens paper moistened slightly with alcohol. Dry carefully, wiping in a circular motion. Should the

lens still be marred with a grease imprint or persistent stain, lens paper lightly moistened with xylene may be used very cautiously.

3. Painted surfaces should be cleaned with a soft cloth and mild detergent.

   Repairing or internal cleaning should be done only by qualified, authorized technicians.