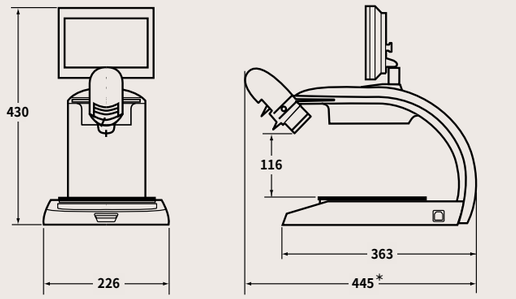
Specifications

	TW-TL5M	TW-TL10M
Video signal	NTSC color	
CCD	1/4-inch, 410,000 pixels	
Electronic shutter	1/60th to 1/10,000th second (varied automatically)	
Lens	10× zoom lens (manual)	
Optical magnification	0.084 to 0.84	0.3 to 3.0
Monitor display magnification	4× to 40×	10× to 100×
LCD monitor	TFT 7-inch wide 480 (horizontal) × 234 (vertical) pixels (16:9 display mode) 360 (horizontal) × 234 (vertical) pixels (4:3 display mode)	
Illumination	Cold cathode tube	
Laser pointer	Class 1 (wavelength: 650 nm)	
Pointer spot diameter	2 mm or less	
Calendar display	Digital display (year/month/day/hour/minute/second)	
Memory Stick	Memory Stick slot × 1 (for Memory Sticks up to 128 MB capacity)	
USB	USB connector (B type) × 1	
Video input	Composite video input: pin jack (75 Ω unbalanced) × 1	
Video output	Composite video output: pin jack (75 Ω unbalanced) × 1 S-Video output: Mini DIN 4-pin connector (75 Ω unbalanced) × 1	
Power supply voltage	AC 100 to 240 V, 50/60 Hz (using the supplied AC power adapter)	
Power consumption	26W	
Operating temperature rang	0 to +40 ℃	
Storage temperature range	−20 to +60 ℃	
Dimensions (W × H × D)	226 × 430 × 445 mm	226 × 430 × 455 mm
Weight	Approx. 6.6 kg	
Supplied accessories	AC power supply cord (2-terminal) 2 m, AC adapter, Specimen table, Lens cap, Lens protecting filter, USB cable 1.5 m, Memory Stick (8 MB), USB driver/image-viewing software (3.5-inch FD), Image processing software Ulead PhotoExplorer 7 (CD-ROM), Instruction manual, Guarantee certificate	

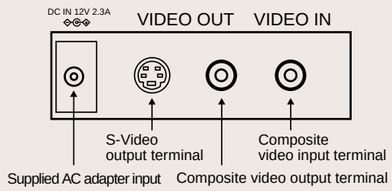
USB driver/image-viewing software operating environments
OS: Windows 98/Me CPU: Pentium II 266 MHz or greater
Memory: 32 MB or greater (64 MB recommended) HD: At least 1 MB of free space Drive: 3.5-inch FD
Please note that operation is not guaranteed under the following environments: 1) Environments that have been upgraded to Windows 98 from either Windows 3.1 or Windows 95; 2) Environments that have been upgraded to Windows 98SE from Windows 98. Operation may not be possible, depending on the type of USB device used. Even under the recommended operating environments, operation is not guaranteed for all PCs.

Dimensions



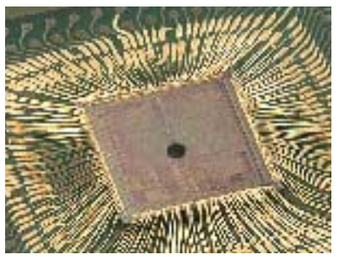
*: 455 mm for the TW-TL10 Units: mm

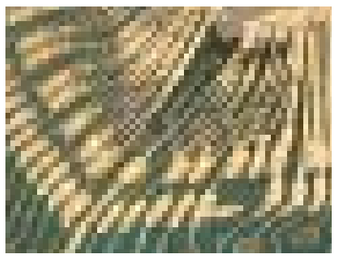
Rear terminals



Comparison of image magnifications

40x
TW-TL5M





100x
TW-TL10M

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Video Microscopes

TW-TL5M
TW-TL10M

Upload images into your PC via the USB terminal. Insert a Memory Stick into the Memory Stick slot and store images.
The new TECHNOLOOK video microscopes have a wide range of applications.

TECHNOLOOK

MEMORY STICK ™

The model shown in this photograph is the TW-TL5M.

View, capture, memory — three functions in one unit. Direct connection to a PC enables smooth operation, from specimen observation through to image recording and editing.

The model shown in this photograph is the TW-TL5M. The insert shown in the monitor is a simulated picture only.

The CCD camera is integrated with the LCD monitor. Tilting the camera 45 °from the vertical enables observation of the 3-dimensional form of specimens.

The CCD camera (that films the specimen) is integrated with the LCD monitor (that displays the image of the specimen). The stereoscopic shape of specimens can easily be observed by tilting the camera to 45 °from the vertical. The camera can be rotated 45 °to either the left or right from the vertical. Without moving the specimen, the angle of view can be altered by rotating the camera from one side of the specimen to the other.

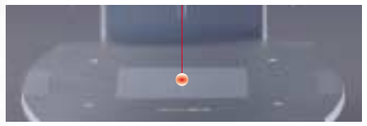
The camera can be rotated 45 °to either the left or right from the vertical while the specimen remains in place.

A high-powered zoom lens permits observation at magnifications up to 40 times (on the TW-TL5M) or 100 times (on the TW-TL10M).

The powerful zoom lens enables observations via the LCD monitor at magnifications of up to 40 times (on the TW-TL5M) or 100 times (on the TW-TL10M). Tiny objects the size of a grain of rice will fill the entire viewing field of the LCD monitor. In addition to the zoom/focus/iris control levers there is a fine tilt control that enables minute changes to the orientation of the camera. These controls are used to compensate for variation in height of different parts of the specimen causing the image to lose focus.

Cold cathode tube illumination unlikely to affect the specimen.Built-in laser pointer function.

The round cold cathode light source emits natural-coloured light but very little heat. There is a 3-stage light intensity control (Hi/Med/Lo) and OFF. These features allow the specimen to be viewed in the appropriate lighting conditions for the surrounding environment and the screen magnification. There is also a convenient laser pointer for checking the central point of the viewing field.



Laser pointer that enables the easy checking of the center of the viewing field.

Memory Stick slot for the storage of memory-intensive images.

On the front side of the control panel there is a Memory Stick slot for the insertion of a Sony Memory Stick — a thin, compact memory medium. Once the Memory Stick is in place, the screen image of the object being observed can be easily be recorded, or an image file stored earlier on the Memory Stick can be retrieved and displayed on the LCD monitor. The Memory Stick is capable of storing approximately 120 images*. After recording, the Memory Stick may be removed from its slot. Later, the images stored on the Memory Stick may be uploaded into a PC for processing. Alternatively, the Memory Stick can remain in the slot while the images are transferred to a PC via a USB cable.

*When using the supplied 8-MB Memory Stick, with the image quality mode set at Normal.

The slot can accept Memory Sticks of capacities up to 126 MB.

The monitor can display 4 images from a Memory Stick at one time in a 2 x 2 array.

A USB terminal enables image transfer. The video microscope is supplied with driver/image-viewing software.

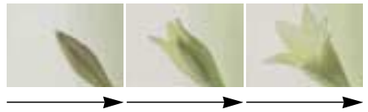
The USB terminal enables the captured image of the specimen to be transferred to a PC. Simply install the USB driver/image-viewing software into your PC, then, view images live on the PC, store image files on the PC hard disc, view stored images on the PC or send images to another PC. Use the image processing utility software Ulead PhotoExplorer 7 to display a menu of the stored images.The order of the images can be altered, and the images can be played back as a slide show.

USB terminal enables the microscope to be connected to a PC and can be used in combination with an image capturing system.

A calendar function tags images with the year, month, day, minute and second. The system can be programmed to automatically record images at preset intervals.

The calendar function displays dates and times, from the year, month and day, down to the hour, minute and second. The files of images stored on the Memory Stick are displayed on the LCD monitor by their file name (photo number), and the date and time they were recorded. The video microscope is able to make periodic recordings of the same specimen, taking advantages of high-capacity Memory Sticks. The interval of these automatic exposures can be set from a minimum of 5 seconds to a maximum of 24 hours, and it is possible to set the microscope to take up to 99* consecutive shots.

*The maximum number of images that can be captured will vary, depending on the memory capacity of the Memory Stick used.



Example of interval recordings made using a video camera connected to a video recorder.

On-screen menu function lets you select the settings while viewing the screen.

While watching the LCD monitor screen, it is possible to perform a range of actions via the on-screen menu function. These tasks include initializing the calendar, selecting the picture quality mode (Fine/Normal), or deleting image files stored on a Memory Stick. In addition to the on-screen menu operations, the front panel controls are used to turn the power ON or OFF, set the brightness, and capture images.

Menu selection screen

Calendar setting screen

A video input/output terminal allows you to expand the video microscope system by connecting it to a projector or other peripheral device.

The video microscope has a video input/output terminal (S-Video terminal) to enable the signal from the camera to be fed into a peripheral video device. For example, you can connect the camera to a projector to display the specimen on a large screen, or record the viewing field on a VCR. The microscope also has a video input terminal, allowing images from a video camera or other video device to be recorded on a Memory Stick.