



***Model PKL  
Stereo Microscope Incident & Transmitted Light  
LED Pole Stand  
Instruction Manual***



# *Table of Contents*

- 1.0 Introduction
- 1.1 Product Features
- 1.2 General Safety Guidelines
- 1.3 Warning/Caution symbols used in this manual
- 1.4 Intended Product Use Statement
- 1.5 Product Safety Information
- 1.6 Warranty Notes
  
- 2.0 The Stand and its Components
- 2.1 Set Up
  
- 3.0 Operation
- 3.1 Incident Light Operation – Brightfield
- 3.2 Transmitted Light Operation – Brightfield
  
- 4.0 Maintenance and Cleaning
  
- 5.0 Troubleshooting
- 5.1 Replacing the mains fuse
  
- 6.0 Storage
  
- 7.0 Accessories and Replacements Parts
- 8.0 Physical Dimensions

# ***Model PKL Microscope Pole Stand***

## ***1. Introduction***

The Meiji Techno Model PKL Microscope Pole Stand has a low profile ergonomic shaped design that is very comfortable to use and offers excellent stability. All of the controls are ergonomically positioned to provide comfort and extended ease of use for the operator. An adjustable integrated LED vertical illuminator with a variable intensity control and automatic voltage sensing power supply provides excellent specimen illumination and contrast. The PKL is designed to meet your most diverse needs for stereo microscopy.

### ***1.1 Model PKL Features***

- CAD Designed
- Low Profile Compact Footprint
- Low Positioned Ergonomic Controls
- Smooth Operating Course Focus Block with LED Incident Illuminator
- Rugged Cast Alloy Construction
- Brightfield and Optional Polarized Light Observation Modes
- Integrated LED Transmitted Light Illumination System
- Wide Variety of Viewing Heads Available
- Automatic Voltage Sensing Power Supply with detachable power cord
- Wide Range of Accessories

## ***1.2 General Safety Guidelines***

Meiji Techno products are designed for safe operation under normal operating conditions. The instrument and accessories described in this manual have been built and tested according to industry safety standards for electronic laboratory instruments. Incorrect usage or non-conformance to operating instructions can cause personal injury or damage to equipment or property.

## ***1.3 Warning/Caution Symbols Used in this Manual***

You must be aware of all safety issues when you install and operate this microscope system. Several warning and caution symbols are listed below. These symbols are used throughout this instruction manual. For your safety, be sure to follow all instructions associated with the symbols listed below.



Possible electrical shock hazard exists



Disregarding instructions marked with this symbol may lead to serious injury or property damage.

## ***1.4 Intended Product Use***

*Product Disclaimer:* This product is designed and intended for use only as a stereo microscope fixturing system. Modifying this product in any way for use in any situation other than the original and intended product design will automatically void the warranty. In no event shall Meiji Techno be liable to any person for any incidental, indirect or consequential damages, arising out of or in connection with the use or performance of a modified or altered product.

## ***1.5 Product Safety Information***



This microscope stand is not intended to be used in the immediate vicinity of water or a water outlet or placed in any location where water may penetrate the instrument. Water penetration may result in electrical shock or death. Choose only a suitable environment for your microscope stand.

Do not subject any microscope system to extreme temperature fluctuations. Disassembly of the instrument may result in electrical shock, injury or death, equipment damage, loss of warranty coverage or may create other potential hazardous consequences.

Always turn off the power switch and disconnect the cord from the power supply when replacing fuses, doing general maintenance or cleaning of the stand.



**DO NOT OPERATE UNLESS THE UNIT IS PROPERLY GROUNDED!**

Use only the specified power cord in a well grounded socket. Do not use in an ungrounded power receptacle or in cases where there is a break in the ground conductor or damage to the electrical wiring.

Only fuses of the specified type and rating (1 amp 250V FB) are to be used as replacements. Switch off the power and disconnect the power cord before replacing fuses. Use of a non-compliant fuse may result in electrical shock or severe damage your equipment.

Modifying the product in any way or unauthorized attempts to disassemble or use the instrument for applications other than its intended design will automatically void the warranty.

## ***1.6 Warranty Notes***

Meiji Techno warrants this product against defects in material and/or workmanship for the life of the instrument from the date of the original purchase to the original purchaser. Meiji Techno will repair or replace, at its option, any instrument which under normal conditions of use and service proves to be defective in material or workmanship. No charge will be made for labor or materials with respect to defects covered by this warranty, provided all repair work is done by Meiji Techno. This warranty does not cover expenses incurred in the removal or reinstallation of any products, whether or not proven defective. Replacement or repairs furnished under this warranty are subject to the same terms and conditions of the original warranty. This warranty supersedes any other warranty and is subject to the following terms and conditions:

### ***WARRANTY***

Warranty of Meiji Techno's product extends to the original purchaser of the product and is not transferable.

### ***WARRANTY DURATION***

Meiji Techno warrants this product against defects in material and/or workmanship for the life of the instrument from the date of original purchase to the original purchaser. The electrical warranty is one year.

### ***OWNER'S REGISTRATION CARD***

Return of the owner's registration card by the original purchaser within ten (10) days after the original purchase is a condition precedent to coverage under this warranty. Meiji Techno will at its option accept written proof of purchase from the original owner in lieu of a product registration card.

### ***EXCLUSIONS AND LIMITATIONS***

Specifically excluded from this warranty are failures caused by abuse, neglect, misuse, improper operation, normal wear, accident, improper maintenance or modifications of ANY type. This warranty does not cover repair or replacement where normal use has exhausted the life of a part or instrument. All mechanical devices need periodic parts replacement and service to perform well. Service life of an instrument is dependent upon the care it receives and the conditions under which it has to operate. In no event shall Meiji Techno be liable for incidental or consequential damages.

### ***SERVICE***

To obtain service under this warranty, please contact Meiji Techno directly and ask for the Product Service Department. State the nature of the problem, model and serial number of the instrument, date of purchase and location and name of the distributor the instrument was purchased from. After verification of warranty registration, Meiji Techno will issue a return authorization number. Customer may then return the product postage prepaid and insured to the authorized repair facility.

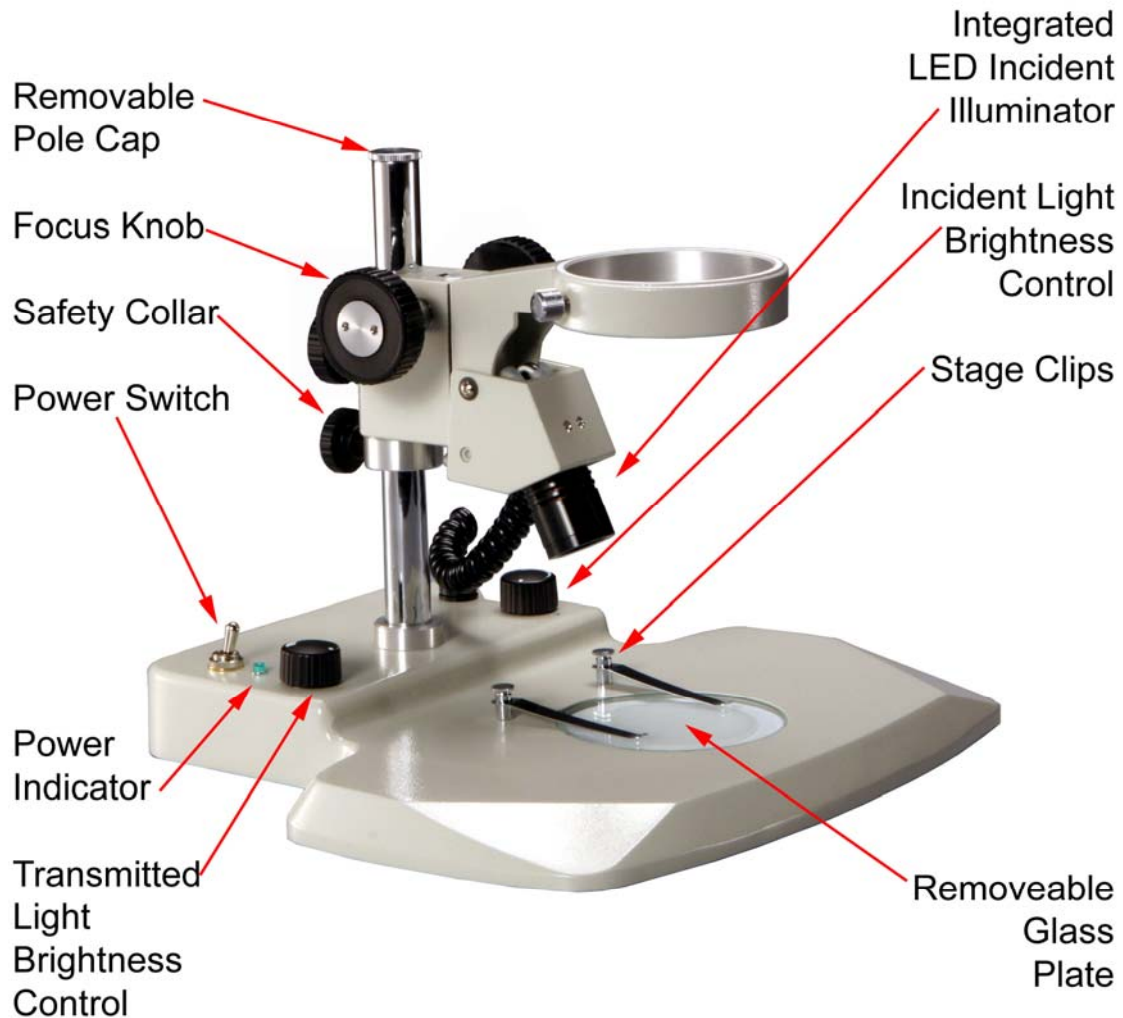
In most instances, requests for warranty service will be performed in a prompt and routine manner and merchandise will be returned in a reasonable period of time or at Meiji Techno's convenience. In some cases, requests for warranty service are received which are not justified. In these cases, Meiji Techno will provide an explanation for non-warranty action.

### ***WARRANTY TERMS***

The terms of this warranty may not be varied by any person, whether or not purporting to represent or act on behalf of Meiji Techno. The limited lifetime warranty provided is in lieu of any and all warranties, expressed or implied, whether for merchantability or fitness for a particular purpose or otherwise. Liability for consequential damages under any, and all warranties are excluded to the extent exclusions are permitted by law. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty sets forth the customer's exclusive remedy, with respect to defective products. This limited warranty shall become null and void in the event of a violation of the provisions of this limited warranty.

## 2.0 The Stand and its Components

The image below designates the main components of the PKL Stereo Microscope Stand.



## ***2.1 Set Up***

Microscope work should be performed in a room with as little dust as practically possible.

Keep your instruments away from solvents, chemical fumes and excessive humidity.

Also try to avoid big swings in ambient temperature, direct sunlight and vibration as they can affect measurements and your instrument performance.

### **Acceptable Operating Ambient Conditions**

**Temperature:** 10 - 36°C (50 – 96.8°F)

**Relative Humidity:** 0 – 80% up to 30°C (86°F)

1. As a first step, remove all components from the shipping container and remove the packing materials. Save the container and packing in a dry location.
2. Place the microscope stand on a stable work surface.
3. Loosen the clamp screw on the PKL focus block and install the microscope head.
4. Install the two eyepieces by sliding them into the head.
5. Connect the power cable from power socket on the rear of the stand to a known grounded outlet.

At this point, your stereo microscope is ready to go to work.



**The mains power cord should only be plugged into a known grounded outlet.**

Contact your facilities technician if you are unsure of your mains outlet status. A simple outlet tester can be used to verify correct outlet polarity and the presence of a grounded circuit.



## ***3.0 Operation***

Once the microscope has been setup in its working location with all of the components correctly installed, it is ready for use.

Your Meiji Techno PKL Microscope Stand is a precision instrument designed to last a lifetime. Always handle your equipment with care and avoid abrupt motion, vibration and shock.

Always disconnect the power cord from the back of the stand when not being used, when cleaning your instrument or when making any repairs.



### ***Avoid Dismantling***

Never attempt to dismantle the stand. This will void your warranty and could possibly lead to the stand no longer working.

## ***3.1 Incident Light Operation – Brightfield***

1. First, set your interpupillary distance on the microscope eyetubes by pulling them apart or pushing them closer together to fit your eyes. When set correctly, one will see one uniform round field of view.
2. Turn on the power switch to the stand. Adjust the brightness desired with the variable brightness control knob on the right hand side of the stand.
3. Parfocal your microscope. For help on how to parfocal your stereo microscope, visit our website: <http://www.meijitechno.com/instructions/parfocal.htm>
4. Place your specimen on the stage and by using the focus knobs, adjust your specimen into focus.

## ***3.2 Transmitted Light Operation – Brightfield***

1. First, set your interpupillary distance on the microscope eyetubes by pulling them apart or pushing them closer together to fit your eyes. When set correctly, one will see one uniform round field of view.
2. Turn on the power switch to the stand. Adjust the brightness desired with the variable brightness control knob on the left hand side of the stand.
3. Parfocal your microscope. For help on how to parfocal your stereo microscope, visit our website: <http://www.meijitechno.com/instructions/parfocal.htm>
4. Place your specimen on the stage and by using the focus knobs, adjust your specimen into focus.

## ***4.0 Maintenance and Cleaning***



- Disconnect the power cord on your equipment prior to performing cleaning, maintenance or repair.
- Keep electrical components away from moisture or humidity.
- In warm humid climates, take special care to prevent your equipment from exposure to fungal growth.
- Clean the microscope after each use. Keeping your microscope clean will insure its proper operation over its lifetime.

### **Dust Protection**

Be sure to use the supplied dust cover with your microscope after each work session.

### **Cleaning of Painted Surfaces**

Use a soft brush or lint-free cotton cloth to removed dust and loose particles. Tough dirt can be removed with water and a mild detergent.



**NEVER USE ACETONE OR OTHER HARSH CHEMICALS.**

## **Cleaning the Stage**

Use a soft brush or lint-free cotton cloth to removed dust and loose particles.

**DO NOT USE ACETONE OR OTHER HARSH CHEMICALS**, use a moistened lint-free cotton cloth with a solution of mild soapy water.

## **Cleaning of the Glass Stage Plate**

Use a soft brush or lint-free cotton cloth to removed dust and loose particles.

For tough dirt, use a soft lint-free cotton cloth moistened with distilled water.

If that fails, try using medical or reagent grade isopropyl alcohol.

## ***5.0 Troubleshooting***

Meiji Techno products are manufactured in Japan under ISO9001 manufacturing standards. However, if you ever have any difficulty with any Meiji product, feel free to contact us at:

**Meiji Techno America**  
**2186 Bering Drive**  
**San Jose, CA 95131**  
**800.832.0060**  
**408.428.0472 FAX**  
[technicalsupport@meijitechno.com](mailto:technicalsupport@meijitechno.com)  
<http://www.meijitechno.com>

Our technical staff is trained to assist you on mechanical or electrical issues you may have.

## ***5.1 Replacing the mains fuse***



**ALWAYS DISCONNECT YOUR EQUIPMENT BEFORE DOING ANY REPAIR.**

### **Location of Mains Fuse**

The mains fuse of the PKL located inside the bottom panel of the stand.

### **Instructions to replace the mains fuse:**

- Turn the power switch to the off position.
- Unplug the microscope from the wall outlet.
- Loosen the four screws that secure the bottom metal access plate.
- Remove the bad fuse from the fuse holder after removing the clear plastic cover.
- Replace the fuse with the CORRECT type and rating which is: IEC Standard 5 X 20mm 1amp 250V Fast-Acting such as Littelfuse 217 Series or Bussmann GDB
- Reinstall the plastic fuse cover with the new fuse installed.
- Re-install the metal access cover plate.



**NEVER USE REPLACEMENT FUSES OF A DIFFERENT RATING.**

## ***6.0 Storage***

Protect your microscope from dust after each use by covering your instrument with the protective dust cover that came with your microscope.

Store your microscope in a cabinet that has a stable temperature and low humidity.

If you live in an area that has high humidity, consider storing your microscope in a sealed container along with a desiccant such as silica gel.

Whenever the microscope is going to be moved, ship or transport the microscope and the accessories in its original packing.

It is advisable to keep a copy of all necessary information: copy of the original invoice, the operations manual, etc. included with the microscope when shipping.

## ***7.0 Accessories and Replacement Parts***

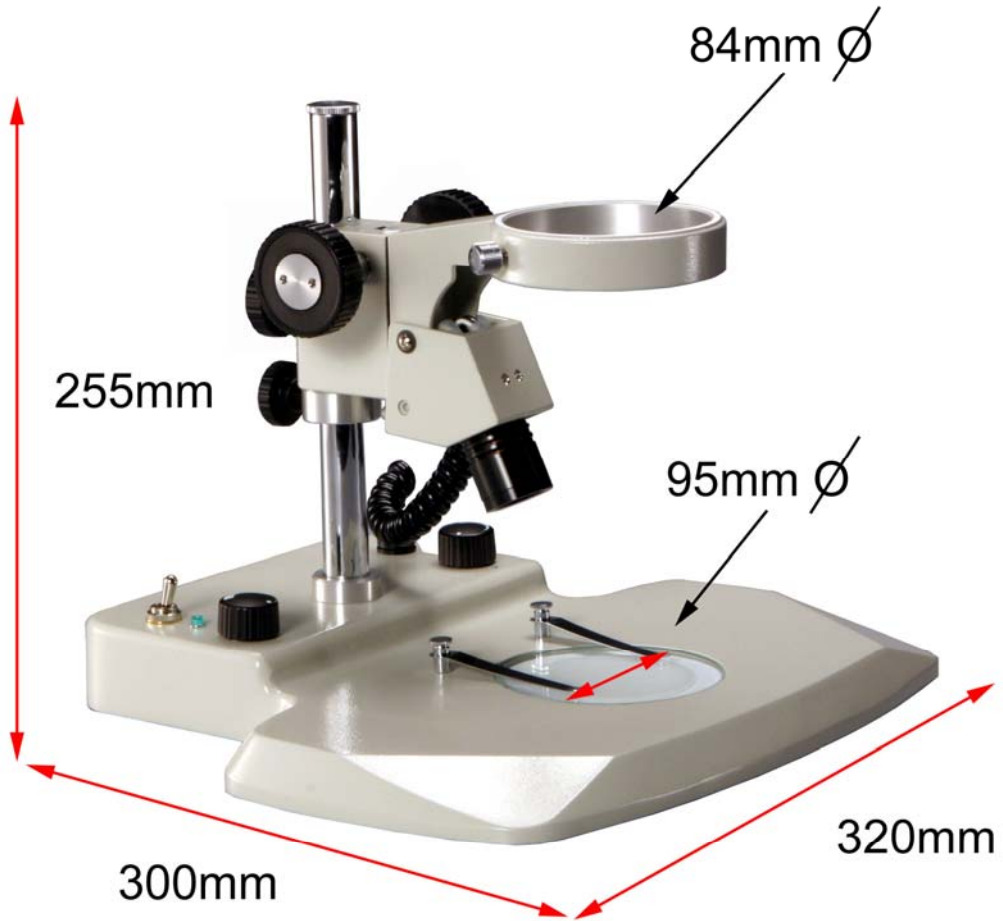
Part numbers and product descriptions for accessories and parts for PKL stand can be found listed below. Accessories and replacement parts for all Meiji Techno products are available through our dealer network.

Feel free to contact us a call so we may direct you to the closest authorized Meiji Techno Dealer in your area.

Call us toll free (800) 832-0060 Monday through Friday 9am – 5pm PST.

<b>Miscellaneous Parts &amp; Optional Accessories</b>	
<b>MA667</b>	Polarizing Plate – Installs into the stage
<b>MA550</b>	Polarizing Filter – Install onto the microscope nosepiece all EMZ Series
<b>MA550/05</b>	Polarizing Filter – Install onto the EMT-1, 2 & EMF-1, 2 Series
<b>MA550/10</b>	Polarizing Filter – Install onto the EMT-3, 4 & EMF-3, 4 Series
<b>MA809</b>	Replacement AC Power Cord
MA569	Replacement Glass Stage Plate
MA551	4 –inch Pillar Extension

## 8.0 Physical Dimensions



## *Meiji Techno Co. Ltd.*



**MEIJI TECHNO AMERICA**  
2186 Bering Drive  
San Jose, CA 95131

**Toll free:** (800) 832-0060  
**Phone:** (408) 428-9654  
**Fax:** (408) 428-0472  
**Email:** [sales@meijitechno.com](mailto:sales@meijitechno.com)  
**Web:** <http://www.meijitechno.com>

**MEIJI TECHNO CO., LTD.**  
322-1, Chikumazawa,  
Miyoshi machi, Iruma-gun  
Saitama 354-0043, Japan

**Phone:** 049-259-0111  
**Fax:** 049-259-0113  
**E-mail:** [meiji@meijitechno.co.jp](mailto:meiji@meijitechno.co.jp)  
**Web:** <http://www.meijitechno.co.jp>

**MEIJI TECHNO UK, LTD.**  
The Vineyard, Axbridge  
Somerset, BS26 2AN

**Phone:** 01934 733655  
**Fax:** 01934 733660  
**Email:** [enquiries@meijitechno.co.uk](mailto:enquiries@meijitechno.co.uk)  
**Web:** <http://www.meijitechno.co.uk>