Inami

PORTABLE OPERATION MICROSCOPE

MANUAL

L-0955-SD

VIEWLIGHT
POWERED BY INNOVATION

Before use this instrument, be sure to read this manual

EN

CONTENTS

This instruction manual provides a detailed description of the L-0940 Zoom Operation Microscope.

REMARKS

1.Follow the checkup points to keep the instruments with good condition for daily operations.
2.Store the instrument with care, keeping the optical parts free from moisture.
3.To move the instrument, fold the arms, secure the fastening handles well and hold the first arm, then gently move the instrument as necessary.
4.The EMISSIONS characteristics of this equipment are suitable for use in industrial areas and hospitals (CISPR 11 class A).
5.This device is based on IEC60601-1-2.
6.Confirm that there is not the disconnection of the electric wire regularly.
7.When illumination is not normal, you stop use, and, under influence caused by the electromagnetism, please keep it away from other electric apparatuses.
8.This device is class Ⅰ ME EQUIPMENT.

⚠ Caution

(1)When a device catches the electromagnetic interference, a lamp may flicker.
(2)When you bring a device close to other electric devices and use it, the device may catch the electromagnetic interference.
(3)When you use a cable attached to this device, the device may catch the electromagnetic interference.
(4)When you use the communications equipment such as cell-phones near a device, a device may catch the electromagnetic interference.

Indication

Name plate

The following matters are displayed on a nameplate.

・Product name ・Model No. ・Manufacturer & Distributer

・Serial No.

The following emblems are displayed.

Caution

Cf. instruction manual

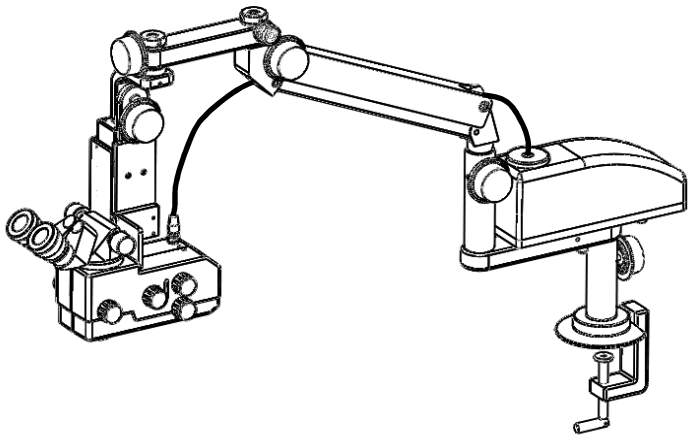
The name of the maker and the location

PORTABLE OPERATION MICROSCOPE L-0955XD

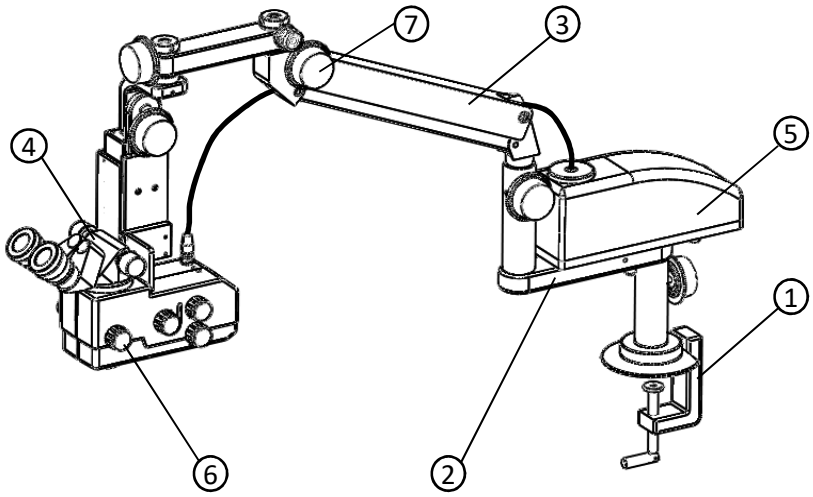
The Concept of Zoom Portable Operation Microscope is to be light weight, compact and easy to use and finally, we have succeeded to make it.

We use a spring balanced arm , so it will permit any kind of positions such as non-gravity conditions.

For the observation purposes, we have designed the microscope head with compact and to be available for a long observations.



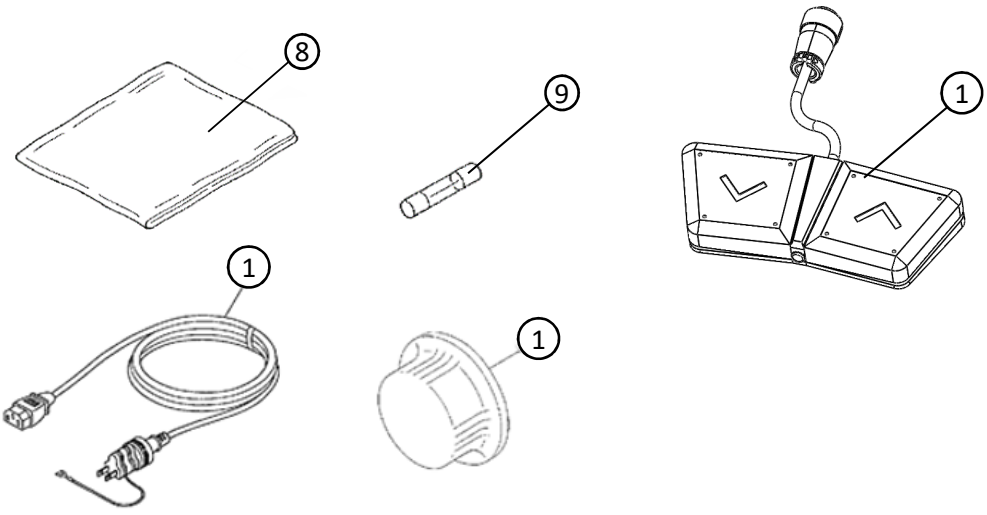
ASSEMBLED COMPONENTS



①The base for the first arm ・・・・・・・・・・ 1
②The first arm(The transformer can be mounted) ・・・・・ 1
③The second arm(with moicroscope head, coaxial illuminatic ・・・ 1
④Eyepiece with prism box ・・・・・・・・・・ 1
⑤Transformer ・・・・・・・・・・・・・ 1
⑥Plastic cap for sterilization(for body) ・・・・・・・・ 5
⑦Plastic cap for sterilization(for magnification) ・・・・・・ 2

Standard Accessory

⑧Dust cover for the body ・・・・・・・・・・・・ 1
⑨Fuse ・・・・・・・・・・・・・・・ 1
⑩Foot switch ・・・・・・・・・・・・・ 1
⑪Electric wire ・・・・・・・・・・・・・ 1
⑫Sterilization cap ・・・・・・・・・・・・ 1



UNPACKING AND ASSEMBLING

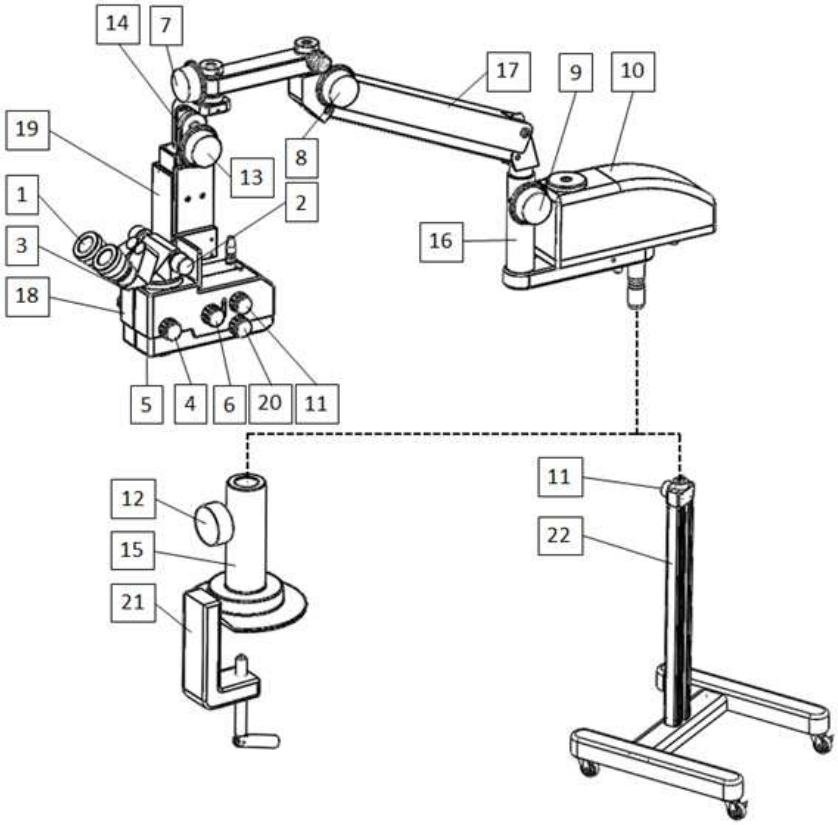
・Don't get a device wet in water.

・Install it a decice the place without a slant and the vibration.

・Use it on the following environmental condition.

Environmental condition	
Temperature	+10℃～+35℃
Humidity	30%～75%
Atmosphere	800hPa～1060hPa

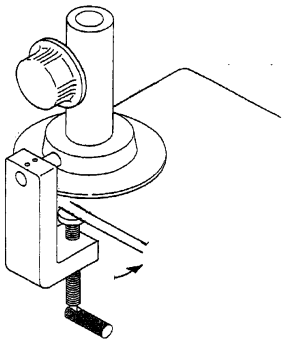
NAME OF RESPECTIVE PARTS



1	12.5× Eyepiece	9	Second Arm Rotation control knob	17	The second arm
2	PD adjustment knob	10	Rotating Transformer	18	The zoom microscope head
3	Srew for Detaching	11	Intensity control knob	19	Focus unit
4	Zoom Magunification Control knob	12	First Arm Rotation Control knob	20	Coaxial illumination control knob
5	Objective Lens	13	Microscope head adjusting knob	21	Table clamp
6	Filter Change knob	14	Microscope head angle adjuster	22	Stand base
7	Microscope Head Rotation knob	15	The base for first arm		
8	Second Arm Balance knob	16	The first arm		

Nine caps for sterilization

4	−1	The cap for sterilization for zoom magnification change knob
7	−1	The cap for sterilization for the microscope head rotation knob.
8	−1	The cap for sterilization for the second arm
9	−1	The cap for sterilization for the first arm
12	−1	The cap for sterilization for the base of the first arm
13	−1	The cap for sterilization for the angle adjuster of head
20	−1	The cap for sterilization for the third arm
21	−1	The cap for sterilization for the focus control knob1
22	−1	The cap for sterilization for the focus control knob2



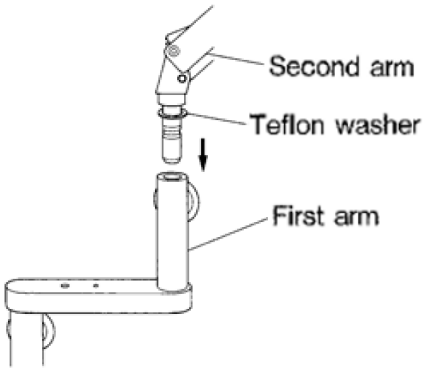
1. ASSEMBLING PROCEDURES

1)The base for First Arm

In order to keep the stability, the base has to be fixed tightenly with handle.

(Maximum thickness of the table:70mm)

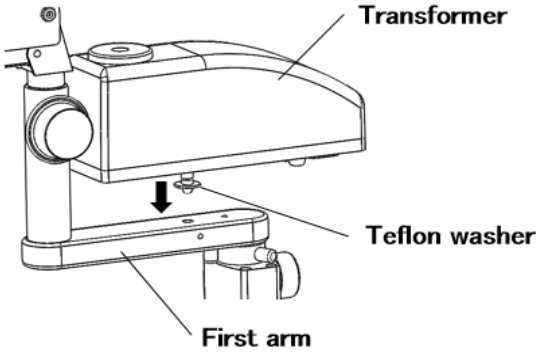
2)The First Arm

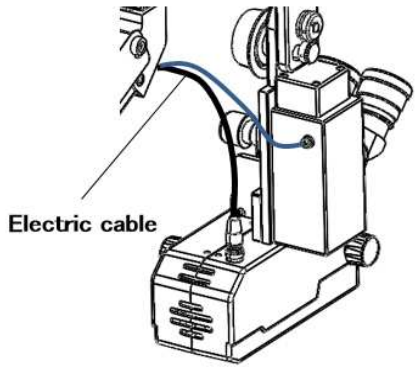


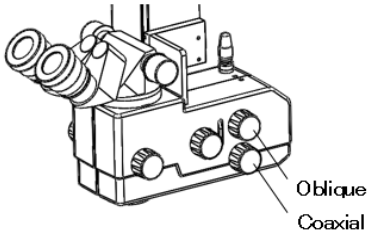
Insert the first arm to the base with teflon washer. This arm has to be inserted slowly to the vertical direction.

3)The Second Arm

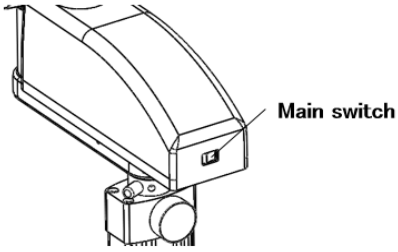
Same as first arm, insert the shaft slowly to the vertical direction with washer.

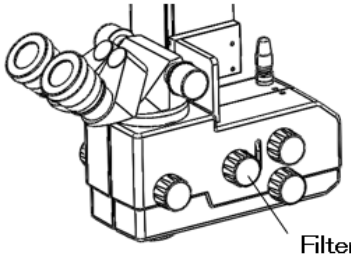






Illumination control knob





5)Placing the Transformer

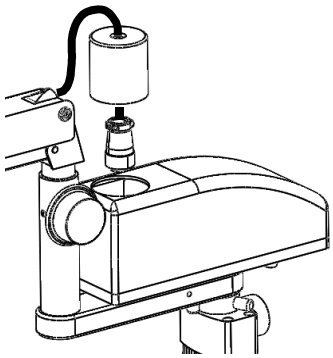
Insert the shaft of the transformer to the hole of the first arm with teflon washer slowly to the vertical positions.

Then tighten the hex-screw location under the first arm, so you can fix the position, the screw will be clicked in a proper position.

And should confirm that transformer can be rotate to right and left.

6)Connection of the Electric Cable

Connect the electric cable to the receptacle of the microscope head and fix it. And another side has to be inserted to the receptacle of the transformer and has to be fixed.



2. OPERATING PROCEDURES

1)Operation of Transformer

Main switch : On / off

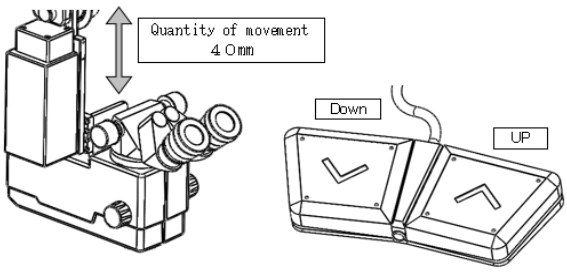
Power unit : AC100V～240V
50/60Hz,Allowance range±10%

Fuses : AC250V 5A

To keep a comfortable operation, this transformer box is designed to any direction.

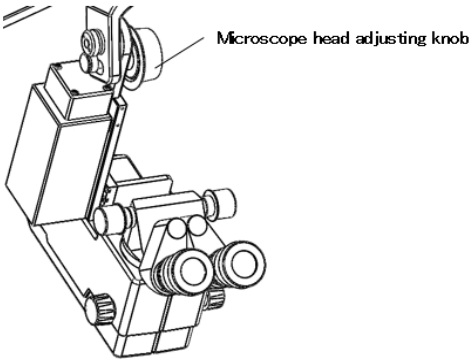
2)Filters

In addition to the built-in UV cut filter, it contains bulb color filter,blue filter and retina protection filter



3)Focus

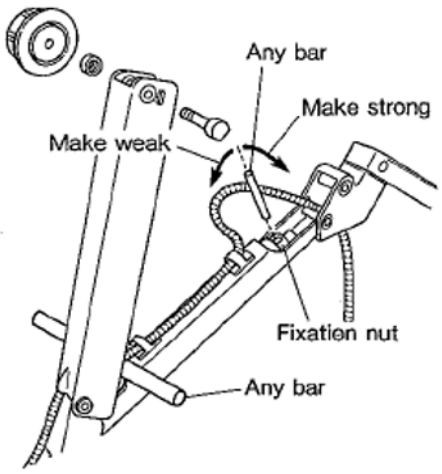
The user can let a microscope head go up and down by stepping on a foot switch.



4)Microscopic angle

The user can change the angle of the microscope head by loosening a knob.

3. MAINTENANCE



1)Adjustment of the Power for Second Arm

By taking off the fixation knob and axis, we can remove the arm cover, by tightening the nut inside of the arm with driver or any bar, we can power-up the balance.

During the adjustment of the balance, place the any bar to avoid the falling down.

2)After use

After use the equipment, keep clean and wipe with soft cloth.

When the infection is possible, please sterilize it with 70% of ethanol.

4. OPTIONAL ACCESSORIES

・Objective lens f=175mm:Ophthalmology
f=200mm:Otorhinology-plastic surgery
f=300mm:Neurosurgery

5. SPECIFICATIONS

Main Microscope

Model :	Zoom microscope(ratio1:3)
Magnification changes:	Continuously(5 to 15x)
Objective lens:	f=175mm
Working distance:	170mm
Eyepiece:	12.5x diopter −6～+6 DP
Range of pupillary distance:	50 ～75mm

Main Coaxial illuminator

Light source:	LED×2
Field of illumination:	5x φ42mm to 15x φ24mm
Maximum brightness:	50,000 Lux
Filters:	UV cut filter(Built-in)
	Bulb color filter
	Blue filter
	Retina protection filter

Power Requirements

Power unit:	AC 100V～ 240V
	50/60 Hz

6. About the disposal

As for this apparatus, RoHs rule material is less than a designated value, and there are few problems by the disposal, but please depend on the processing company of the medical equipment after sterilization because there might be the infection.

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Printed in japan 201804 Second edition