

# OP Mount Instrument INC

## Active Optical Table

### OTA series

## General Information

## Warranty

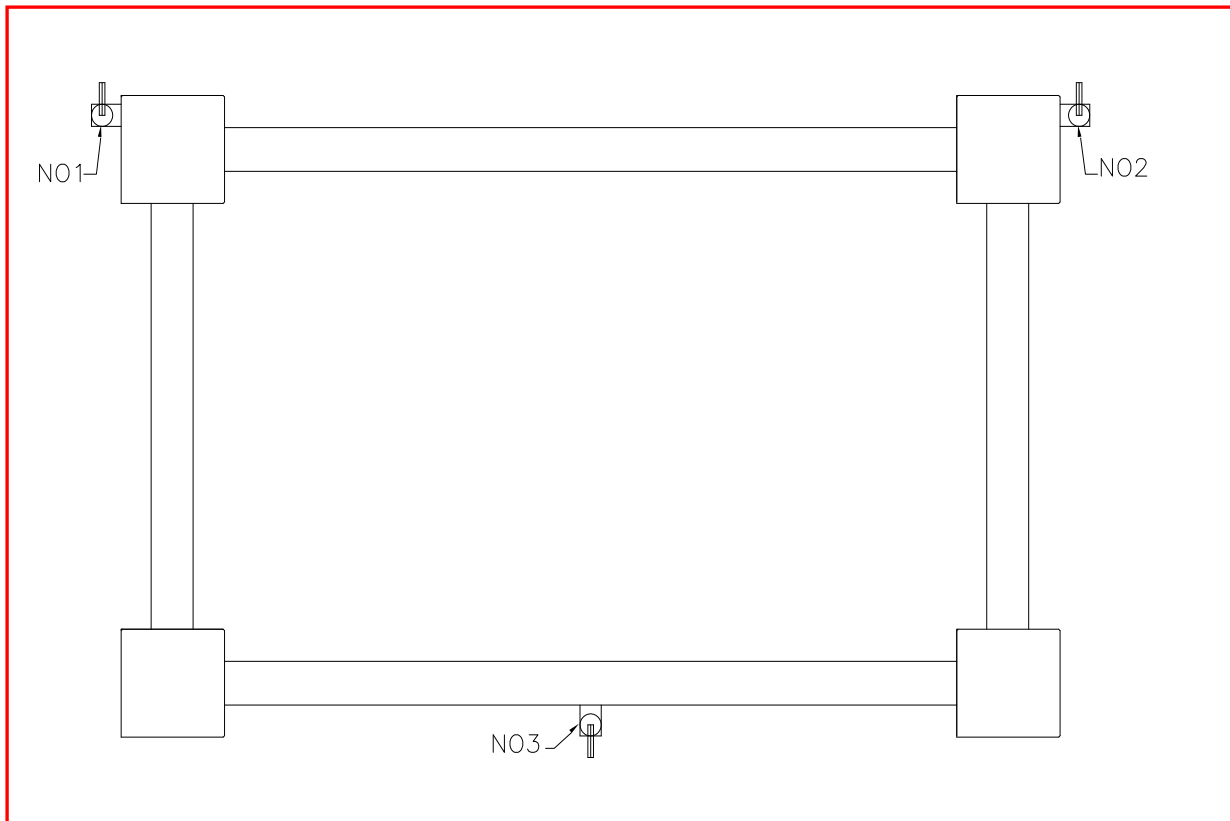
OP Mount Instrument Inc. warrants isolator products to be free of defects in material and workmanship for a period of system warranty is one year after completing acceptance of the system. Free of charge spare parts, components, labor under normal use and proper handling during warranty period. If found to be defective during the warranty period, the product will either be repaired or replaced at OP Mount Instrument Inc.'s option. Free technology professional consultation permanent

OP Mount Instrument Inc. shall not be liable for any indirect special, or consequential damages.

## Notice

1. OP Mount Instrument Inc. optical tables are made of stainless steel. This material is relatively corrosion resistant, but still avoids exposure in the humid air, or put any beverages on it.
2. Do not use liquid aerosol cleaner or any other chemicals or solutions. Avoid abrasive cleaners as they will foul the mounting table. Use only a damp lint free cloth with Isotropy Alcohol.
3. OTA Optical table is capable of support 800 kg but heavy payloads are not located off center on the table surface or overloading of one isolator
4. Bottle nitrogen or mechanically compressed air should be used.
5. Note that the maximum operation pressure for the system is 2-5kg /cm<sup>2</sup>
6. Please jump the safe valve of sensor to take off to prolong sensor service life when not in use.
7. The table top is a metallic, electrical conductor. For installations where electrical shock is a possibility, the table top should be grounded to prevent personal injury.
8. The table top is a metallic electrical conductor. For installations where electrical shock is a possibility, the table top should be grounded to prevent personal injury.
9. The optical table must not be disassembled and they must not be pulled out. Never disassemble or open the screws of optical table in any case.
10. Please periodically drain in order to prevent Air compressor function otherwise, air chamber will be damaged.
- 11 Optical table for lab application only. Do not to place food beverage on the table's top.
12. be careful any kinds of sharp article to touch the optical table

## Section 1 Instruction

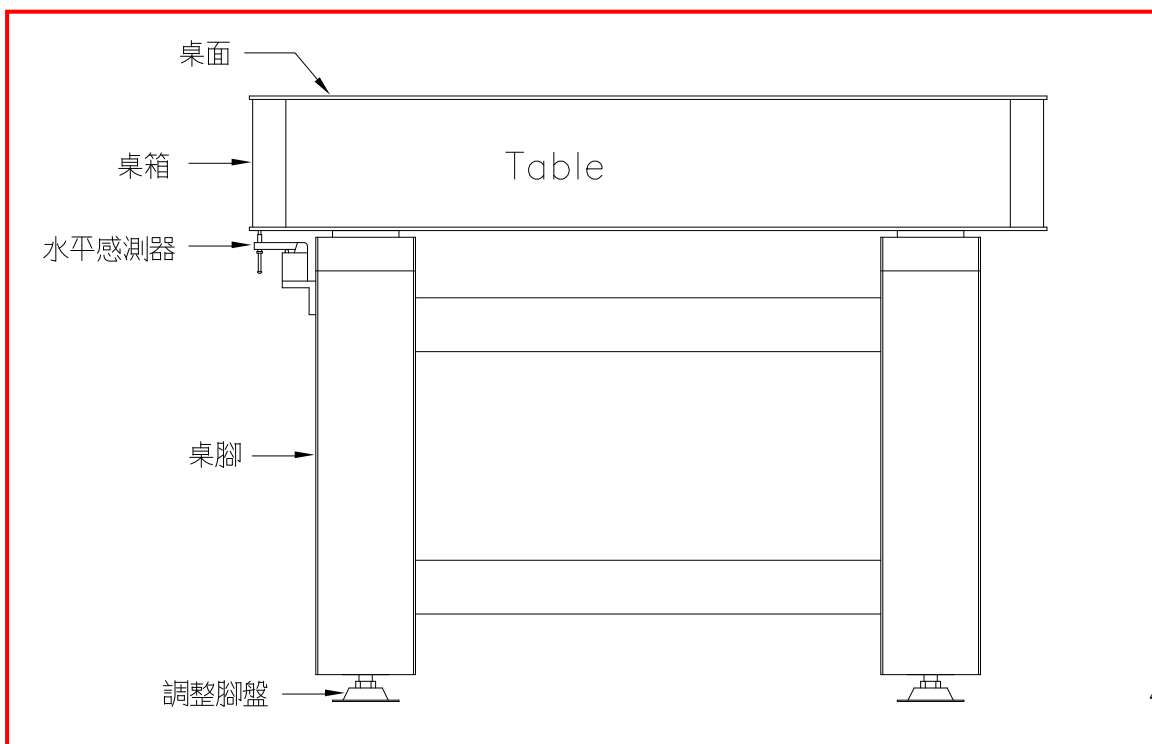


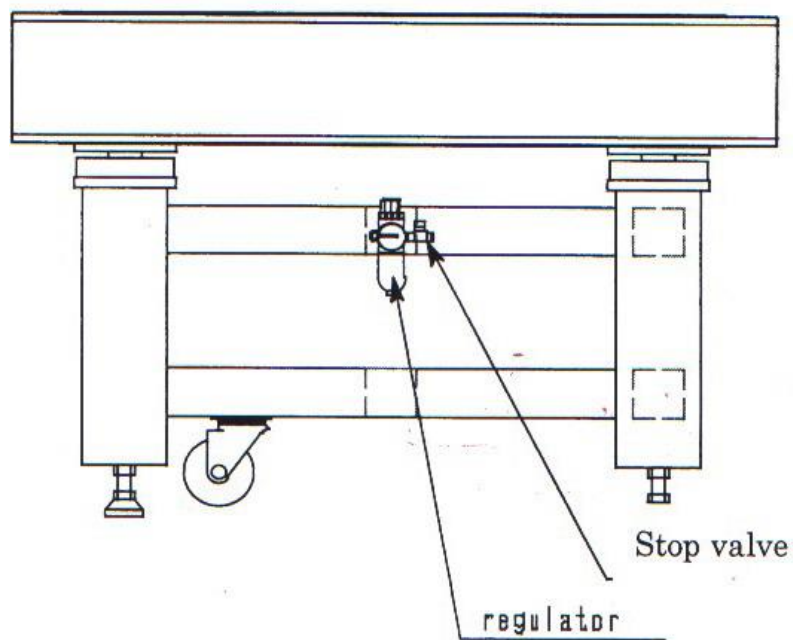
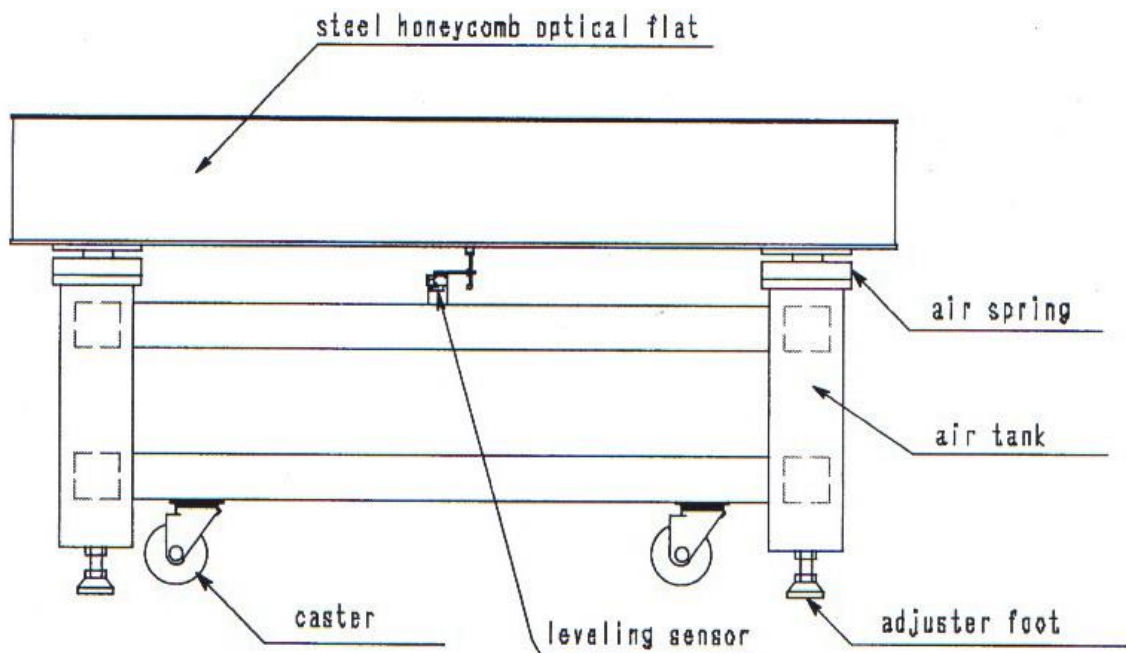
**The individual components have been assembled at the factory already, and required only final system assembly and performance adjustment.**

No 1. Air Spring(The X direction horizontal controls)

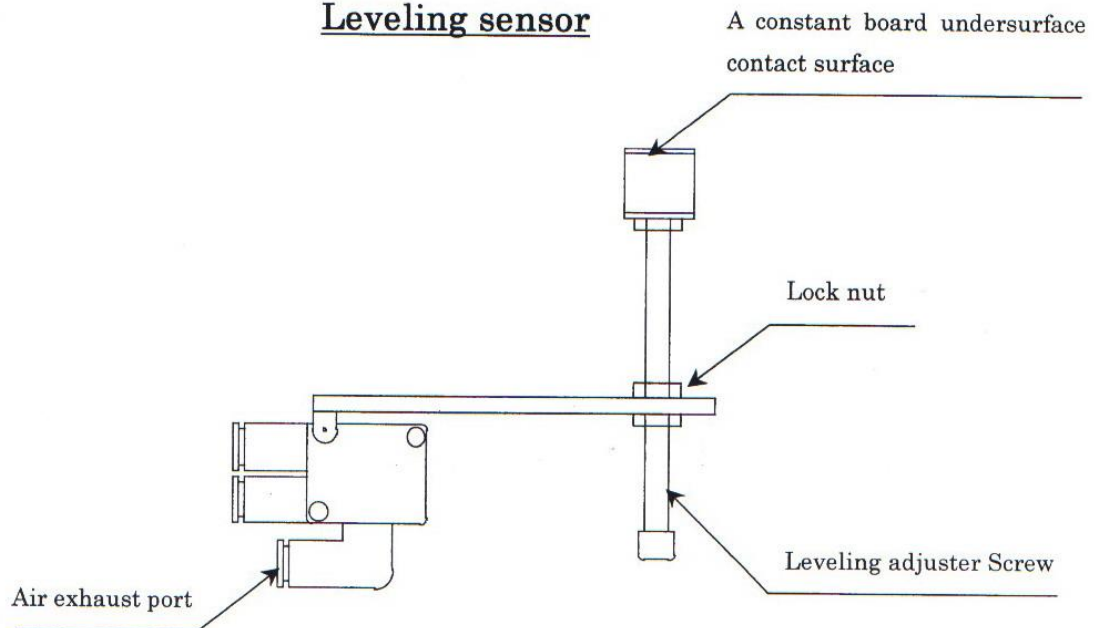
No 2. Air Spring (The X direction horizontal controls)

No 3. Air Spring (The Y direction horizontal controls)

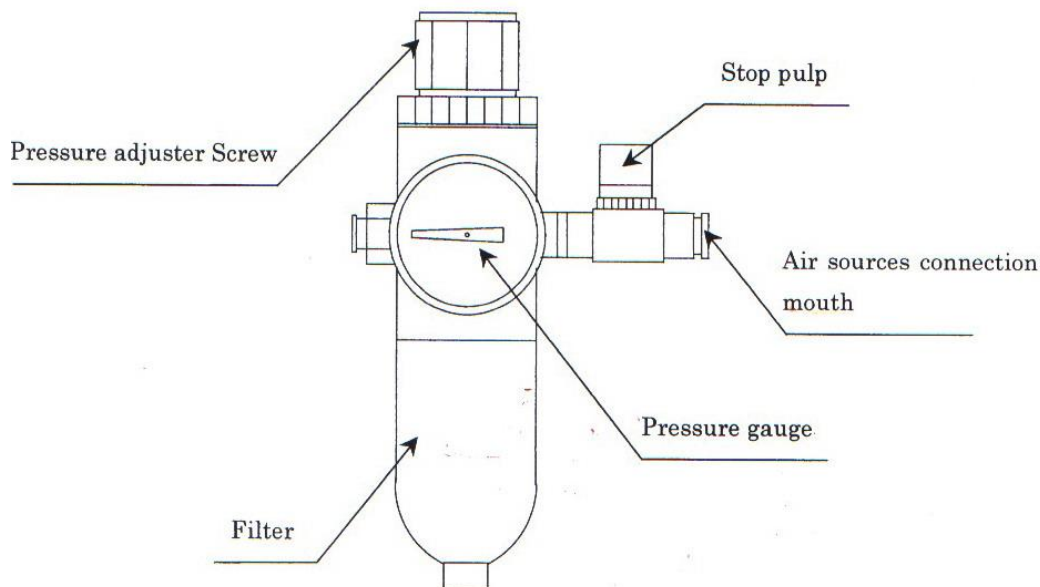




### Leveling sensor



### Regulator



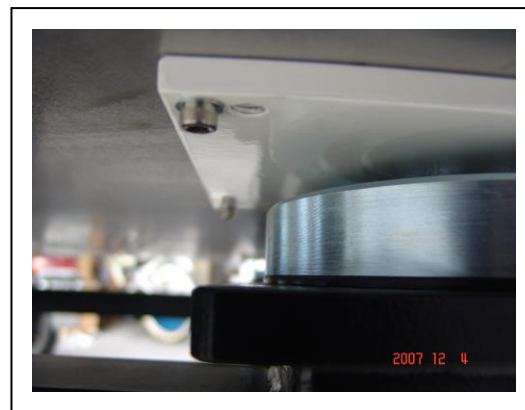
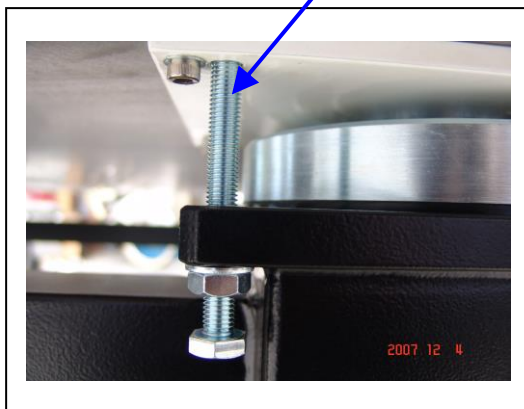
#### Section 2 Assembly

##### **First step: Table Placement**

To ensure optical optimal performance from you Vibration Control System, it should be located on a level surface. Uneven floors may cause difficulty during the leveling of the table top if their irregularity is outside of the adjustment.

Please remove the set of bolt of optical flat reverse side. And keep them properly in case there will be another shipment.

Setting bolt for shipping



**Second step adjusting the leveling surface**

1. Place a balance on the optical table



A1



A2

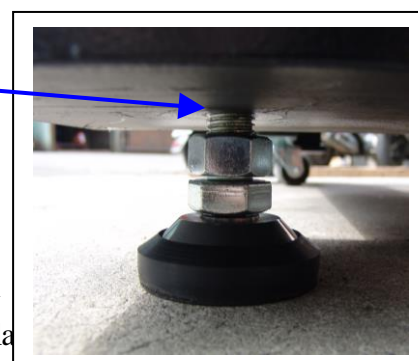
A1: Adjust the X direction horizontal /spirit level to place this mode

A2: Adjust the Y direction horizontal /spirit level to place that mode

2. Positioning the Isolators

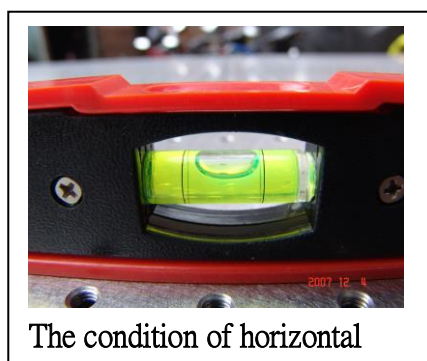
Rotating the feet bottom nut to raise legs of table

Adjustment nut



3. Take ground as foundation to adjust table's top horizontal

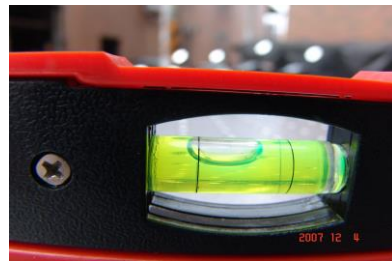
Take spirit level as basis; adjust four other feet dishes to place level. (The lower legs of table; the steadier table of gravity)



The condition of horizontal



If the right side is too high, please reduce the right side feet or rise the left side feet



If the left side is too high, please reduce the left side feet or rise the right side feet

#### 4. Fix feet screw

When table's top reach horizontal, fasten up the nut upwards to prevent optical table's top tilt



This nut upwards apogee to fixed

#### Sixth Step : Adjust table's top horizontal

Turn on all valves to limit and be careful

- 1.clockwise -> turn up flow
- 2.counterclockwise -> turn down flow





## 2. shear pin

Push back the shear pin due the it maybe out of original position



Out of function



Normal position

## 3. Turn on air compressor

Please check instruction manual of air compressor



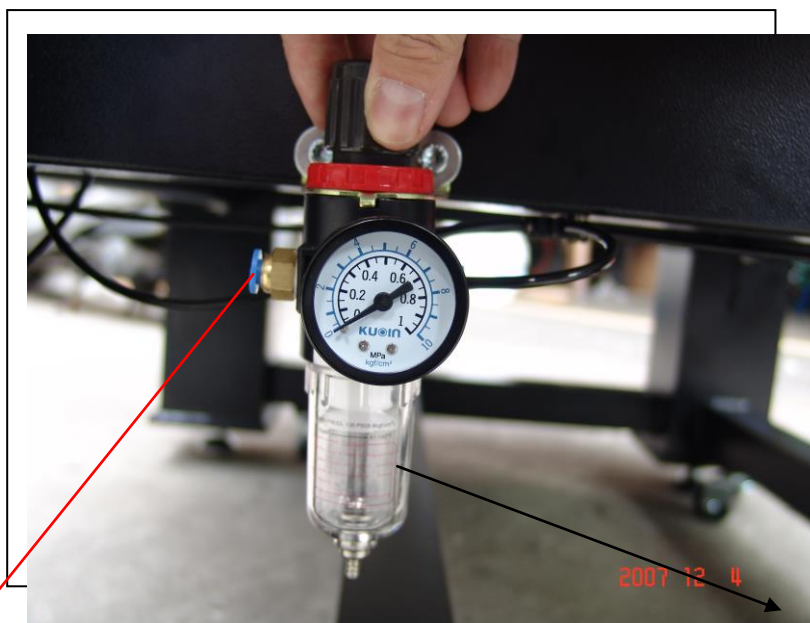
## 4.connecting

Link the tube of air compressor to optical table's valve. The maximum operation pressure of air composer for the system is 2-5kg /cm<sup>2</sup>. The dimension of tube is 4mmX6mm Push plastic slightly first if you would like to take out tube from valve. Please don't make too many efforts to dismantle or it makes damage.

## 5. Adjusting a valve

Regulator operation pressure for the system is 0.2-0.4

1. clockwise -> turn up
2. counterclockwise -> turn down



Take out the plastic filter : when the water is getting full, please switch the underneath the device to carry on catchment

### 6. installing table top(The X direction horizontal to X axial

Firstly, adjusting No 1 makes isolator up to around 7 mm t-10mm.

clockwise -> table turn down

counterclockwise -> table turn up



### 6. Installing table top

The X direction horizontal to X axial

Firstly, adjusting No 1 leveling valve makes isolator up to around 7 mm t-10mm.

clockwise -> table turn down

counterclockwise -> table turn up

### 7. The X direction horizontal to X axial

Observing table's top spirit level, adjust NO 2.leveling valve.

Bubble level refer to step fifth (please notice the bubble level is on the direction of X direction)

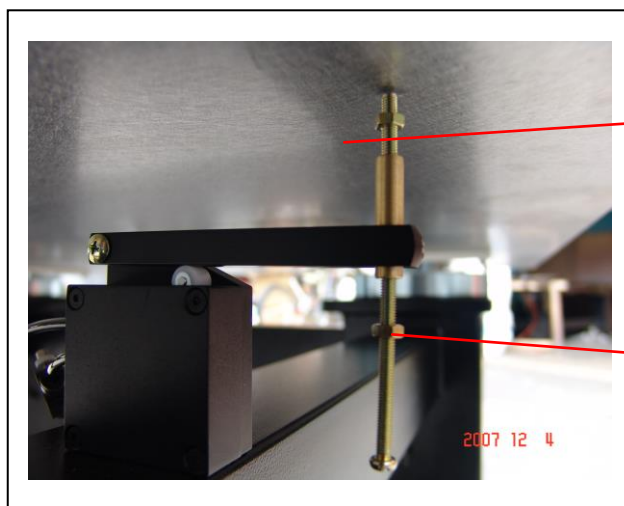
### 8. The Y direction horizontal to Y axial

Observing table's top spirit level, adjust NO 3.leveling valve.

Bubble level refer to step fifth (please notice the bubble level is on the direction of Y direction) It takes longer time than before.

### 9 Fixing valve nuts

The No.1 No.2 Nos.3 fixing nuts go to the clamp (necessary action).The height of system is determined at the valve position.



This nut moves down

This nut moves up

### 10. leveling sensor

After the horizontal completion, turn down sensor No1 to minimum condition, and so do No2 and No3. Valve of No3. This is valve for air supply. Do not disconnect. A constant air supply of air must be connected to the vibration control system during operation. Setting depends on individual condition of user. Op Mount Instrument recommends for general users that :

No1 after switch off then turn 2 and half

No2 after switch off then turn 2 and half

No3 after switch off then turn 4 and half

1. Optics table's regulating valve turn in a limit; the adjustment is very easy to have resonating. When this happens, patting the tabletop stops the table resonating.
2. After optics table adjustment all done, turn on regulating valve current to help optics table balance.
3. The table top is a metallic, electrical conductor. For installations where electrical shock is a possibility, the table top should be grounded to prevent personal injury.

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