THORLABS

Small Table Support System and Accessories

User Guide

Contents

Chapter 1 Safety 3
1.1 Safety Information 3
1.1.1 General Safety Precautions 3
Chapter 2 Getting Started 4
2.1 General Description 4
Chapter 3 Basic Installation 5
3.1 Installing the Frame 5
3.2 Installing the Anti-vibration Mounts and Breadboard 6
3.2.1 Rigid Mounts 6
3.2.2 Passive Mounts 7
Chapter 4 Considerations For Ergonomic Layout 9
4.1 Ergonomic Guidelines 9
Chapter 5 Fitting Casters 11
5.1 Introduction 11
5.2 Procedure 11
5.2.1 Component Parts 11
5.2.2 Fitting the Caster Assemblies 11
Chapter 6 Thorlabs Worldwide Contacts 12

Chapter 1 Safety

1.1 Safety Information

For the continuing safety of the operators of this equipment, and the protection of the equipment itself, the operator should take note of the **Warnings, Cautions** and **Notes** throughout this handbook and, where visible, on the product itself.

The following safety symbols may be used throughout the handbook and on the equipment itself.

Shock Warning

Given when there is a risk of injury from electrical shock.

Warning

Given when there is a risk of injury to users.

Caution

Given when there is a risk of damage to the product.

Note

Clarification of an instruction or additional information.

1.1.1 General Safety Precautions

Warning

Do:

Ensure that the workstation is securely positioned prior to any work being undertaken on the system.

If using the workstation with any electrical equipment, incorporate appropriate earthing and/or other safety circuitry as required by national standards to protect the operator.

When lifting or moving components, ensure that the proper posture is maintained. Do not lift loads in excess of nationally recognized safe working limits (25kg per operator in Europe). If in doubt use an appropriately designed lifting device.

Before lifting the breadboard, ensure it is unpopulated.

Before moving the workstation, ensure that the feet are fully retracted.

Exercise particular caution if moving the workstation on a sloping surface.

Ensure all fixings are secure prior to use.

Do not:

Get into any position where you can be trapped between a wall, door frame or other immovable object and the workstation.

Go underneath the workstation when the unit is being moved.

Move an active system when the breadboard is floating on its isolators.

Tow the workstation with any powered device.

Ride on the workstation.

Move the workstation over uneven ground.

Leave the system on its castors for prolonged periods of time.

Leave the system unattended on its castors without applying the brakes.

Sit or stand on the desk unit or any accessory.

Caution

Before attempting to assemble/fit any accessories or modify the workstation layout, refer to Section 4 – 'Considerations For Ergonomic Layout', together with the sections which relate to those particular accessories.

Ensure that proper airflow is maintained to any electrical equipment installed on the workstation.

The workstation is designed only for indoor use.

Chapter 2 Getting Started

2.1 General Description

The basic workstation includes a frame consisting of four legs connected with tie bars. A breadboard or table top is supported on vibration isolation mounts and provides a stable platform on which to populate system components.

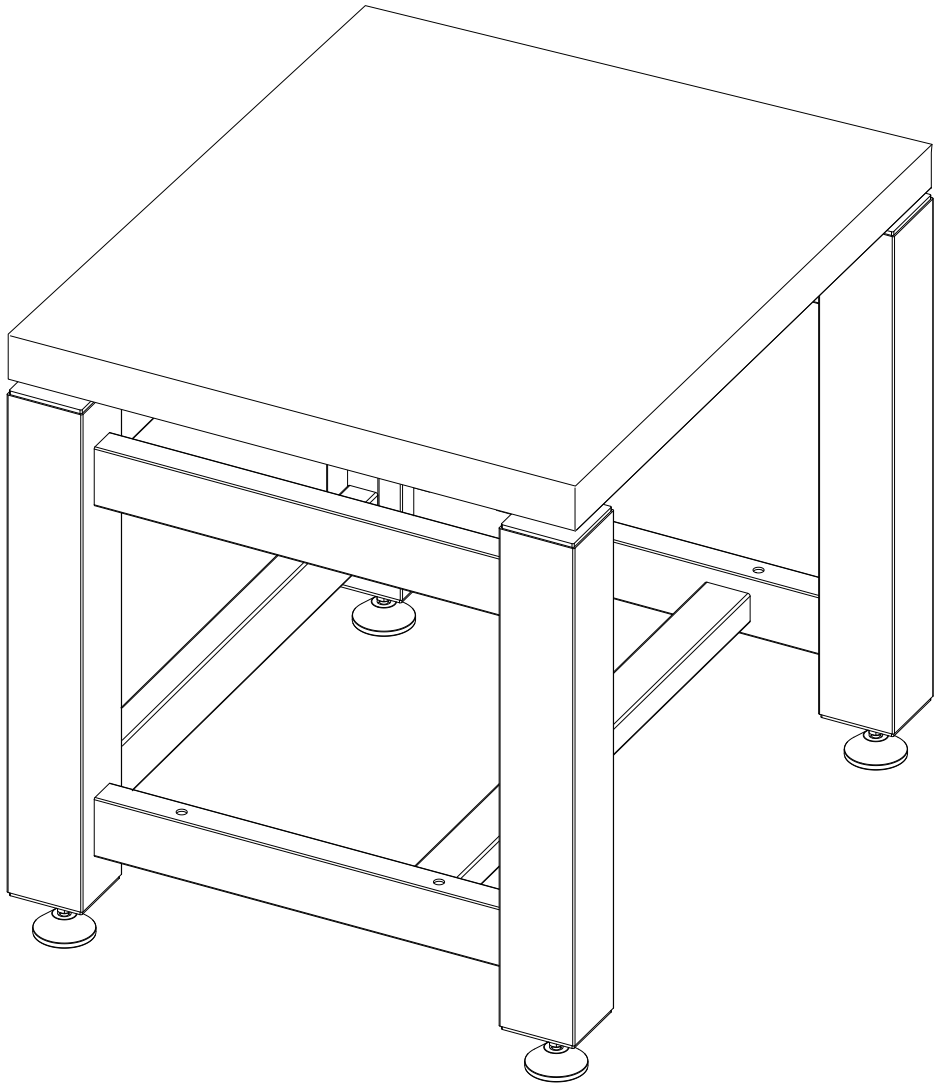


Fig. 2.1 Typical layout

Chapter 3 Basic Installation

3.1 Installing the Frame

1) Remove all packaging.
2) Install the frame in the location in which it is to be used.
3) Adjust the feet until the castors (if fitted) are clear of the ground and the frame is level – see Fig. 3.1. Use a suitable levelling device as necessary.

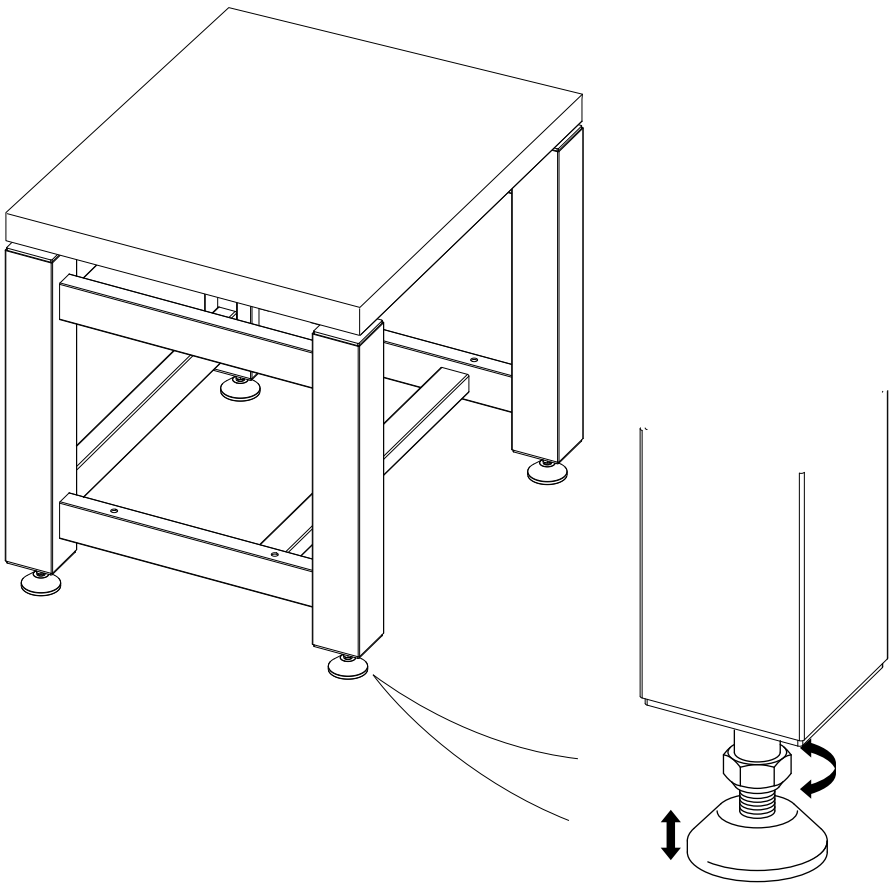


Fig. 3.1 Levelling the frame

3.2 Installing the Anti-vibration Mounts and Breadboard

3.2.1 Rigid Mounts

1) Ensure the frame is correctly sited and level – see Section 3.1.

Warning

During item (2):

Breadboards should be manipulated only using appropriate lifting equipment.

Breadboards should be lifted only in an unpopulated condition.

The space between the edge of the breadboard and the frame is very small. When lowering the breadboard into position, take care not to trap fingers or clothing.

2) Using a suitable device, lift the breadboard/table top into position.
3) Release the locknut on one of the adjustable mounts and adjust to the desired height – see Fig. 3.2
4) Adjust the mount diagonally opposite
5) Repeat steps (3) and (4) for the two remaining mounts.
6) Use a suitable levelling device to check the breadboard is level. Repeat steps (3) to (5) as necessary.
7) Tighten the locknuts.
8) Populate the breadboard.

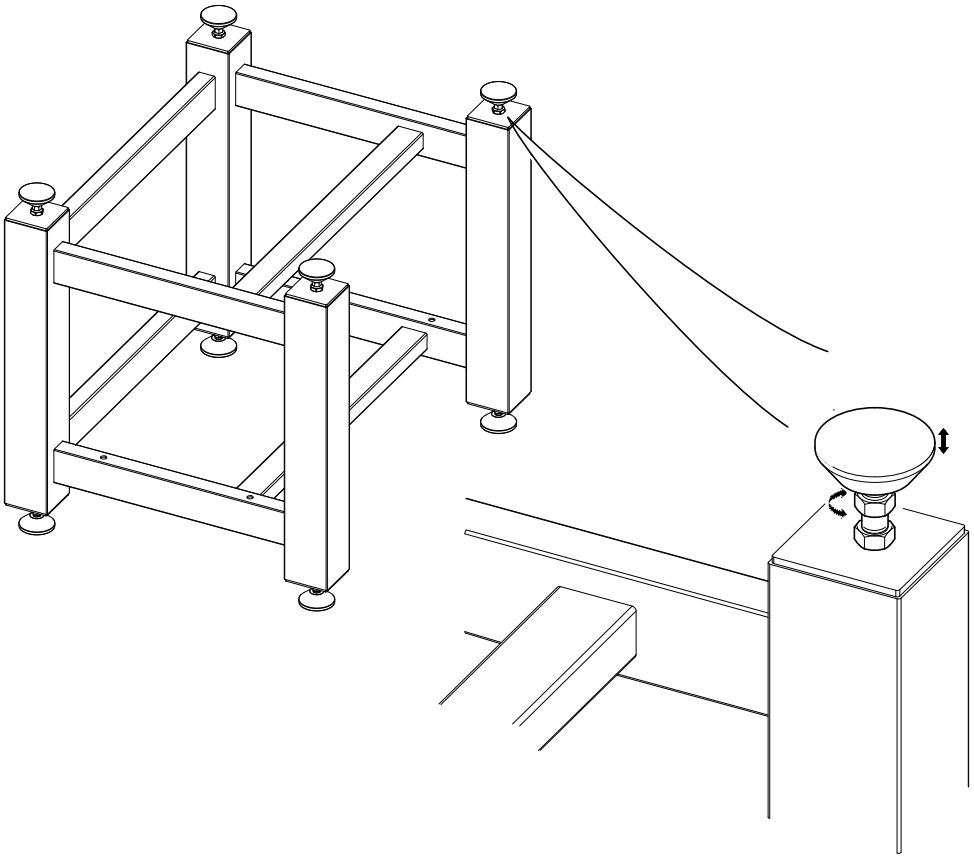


Fig. 3.2 Adjusting rigid mounts

3.2.2 Passive Mounts

Equipment Required:

Levelling device (e.g., bubble level)

Foot pump (automobile tire type)

Parts supplied:

Valve cap (qty 4)

1) Ensure the frame is level – see Section 3.1.
2) If fitted, remove the valve caps from each mount – see Fig. 3.3.

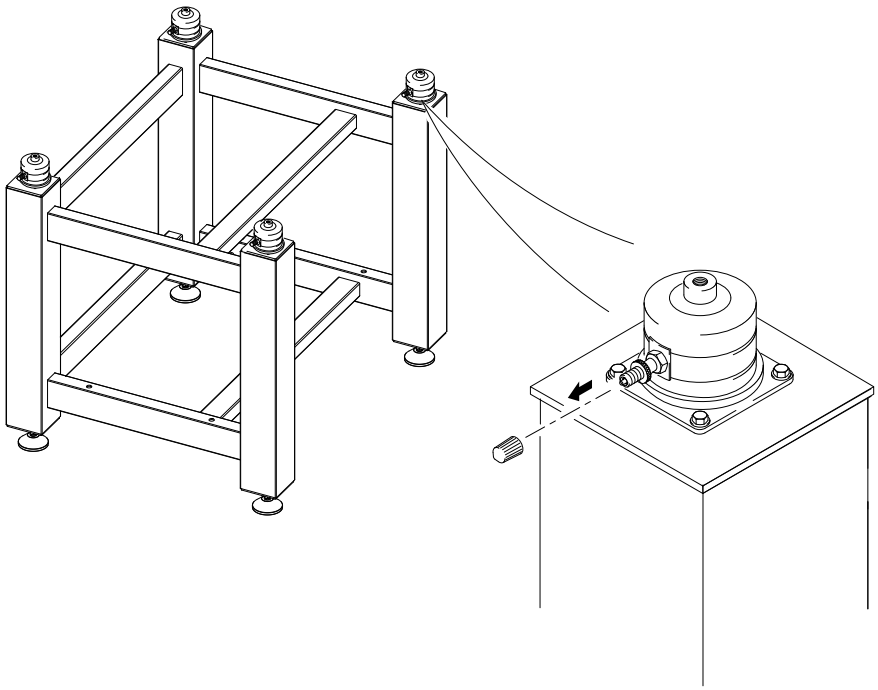


Fig. 3.3 Fitting a valve to a passive anti-vibration mount

Warning

During item (3):

Breadboards should be manipulated only using appropriate lifting equipment.

Breadboards should be lifted only in an unpopulated condition.

The space between the edge of the breadboard and the frame is very small. When lowering the breadboard into position, take care not to trap fingers or clothing.

3) Using a suitable device, lift the breadboard/table top into position.

4) Connect the foot pump to the mount on one of the legs and inflate to about 40 p.s.i. – see Fig. 3.4.
5) Inflate the leg diagonally opposite to 40 p.s.i.
6) Repeat steps 4) and 5) for the two remaining legs.
7) Populate the breadboard.

Caution

During item 8):

it may be necessary to inflate each mount to a different pressure due to the loading of the breadboard.

do not exceed 72 p.s.i.

8) Further inflate the mounts until the breadboard is level and the correct height is obtained – see Fig. 3.5.
9) Fit the dust caps.

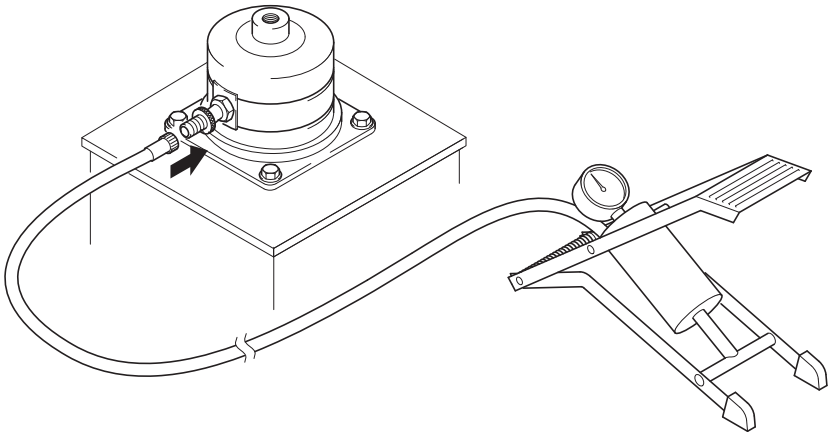


Fig. 3.4 Inflating passive anti-vibration mounts

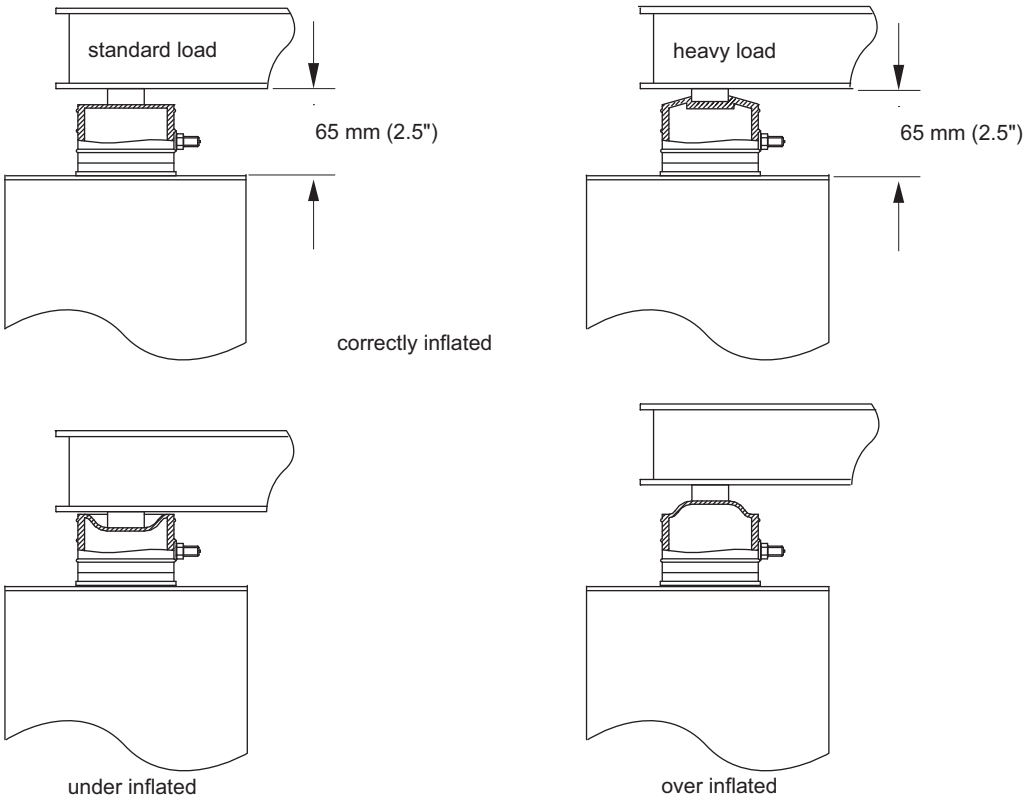


Fig. 3.5 Correct inflation of passive mounts

Chapter 4 Considerations For Ergonomic Layout

Note

The workstation and its accessories have been designed to provide maximum adaptability, thereby ensuring the most ergonomically favorable work environment for the operator. When setting up the final layout of the workstation, consideration should be given to the position of the operator, the positioning of the various pieces of equipment in relation to the operator, and the duration of use for each unit.

4.1 Ergonomic Guidelines

The following information from ISO 6385 is provided as a guide.

The work area should be adapted to the operator:

- Height of work area should be adapted to body dimensions and work performed.
- Seating arrangements should be adjusted to the individual.
- Sufficient space should be provided for body movements.
- Controls should be within reach. (preferably within the working area defined – see Fig. 4.1)

The work should be adapted to the operator:

- Unnecessary strain should be avoided.
- Strength requirements should be within reasonable limits.
- Body movements should follow natural rhythms.
- Posture, strength and movement should be harmonized.

Particular attention should be paid to:

- Where possible, alternate between sitting and standing postures (if only one position is available, sitting is preferable to standing).
- Keep the chain of force vectors through the body short and simple.
- Allow suitable body posture and provide appropriate support.
- Provide auxiliary energy if strength demands are excessive.
- Avoid immobility.
- Use preferred motions. Repetitive twisting should be avoided, especially when seated.

The user should be supplied with a chair providing good body support, and adjustable height and posture. An inclined foot support is recommended, where necessary, to aid user comfort. This should be adequately adjustable in height and inclination to provide good support for the feet and legs.

Once the user is seated, their seating height and footrest (if used) should be adjusted so the interface with the workstation is comfortable – See Fig. 4.1 for guidance on preferred workspaces.

Note

For simplicity, only one body size is shown and adaptations for other body sizes will be necessary. It is advisable to leave legroom, which is free from obstructions/ bump hazards, under the desk.

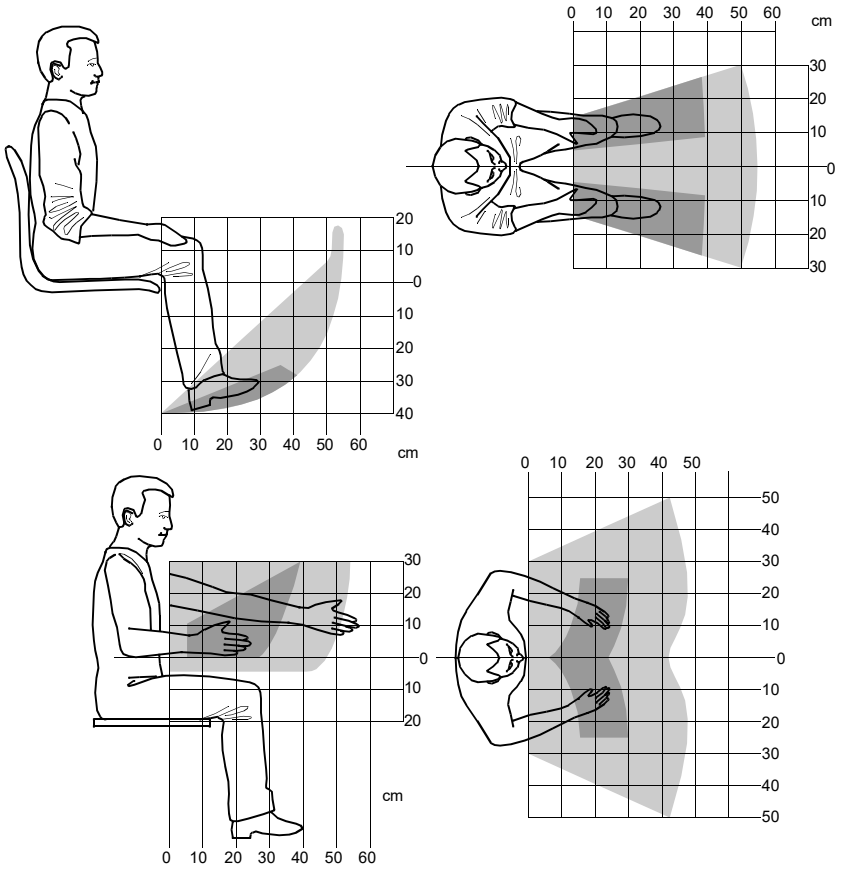


Fig. 4.1 Preferred workspaces for feet and hands

Where operators are required to visually monitor work, displays, control devices etc., of any nature these should, where practicable, be placed so that the top edge of the viewed area is on or below the operator's horizontal line of sight. If possible, it is good practise to have all viewed areas in the range of 0° (horizontal sight) to 30° below that line. A maximum angle of 45° below horizontal is acceptable for intermittent use only.

All keyboards, mice and other control equipment should be mounted and used in a manner appropriate to the task in hand. For example if the keyboard is only to be used occasionally, perhaps during set-up, it should be placed on a side table or even the breadboard and stored after use, whereas a fully engineered ergonomic solution would be better for an application requiring large amounts of typing.

Lighting is also an important issue that must be addressed at the system design stage and there are many national standards to cover appropriate lighting levels.

Finger traps should be avoided. Operation of components should not interfere with other settings or adjacent equipment.

All warning labels must adhere to the end user's national standards and should be placed in a prominent and appropriate position.

Chapter 5 Fitting Casters

5.1 Introduction

If specified at the time of ordering, the system is supplied with casters already fitted. This section is applicable only if casters are ordered as an optional accessory at a later date.

5.2 Procedure

5.2.1 Component Parts

Bolt (qty 4)

Washer (qty 8)

Nut (qty 4).

End Cap (qty 4)

Caster Assembly (qty 4)

5.2.2 Fitting the Caster Assemblies

Referring to Fig 2.1:

1) Fit a washer to the attachment bolt and pass the bolt through the holes in the lower support strut.
2) Fit a washer to the end of the bolt protruding through the support strut.
3) Using an open ended spanner, turn each mounting foot and adjust the height of the frame sufficiently to allow the caster assembly to be fitted.
4) Fit the castor assembly onto the bolt.
5) Fit the retaining nut and tighten.
6) Fit the plastic end cap to the head of the bolt.
7) Repeat items 1) to 6) for the remaining 3 casters.

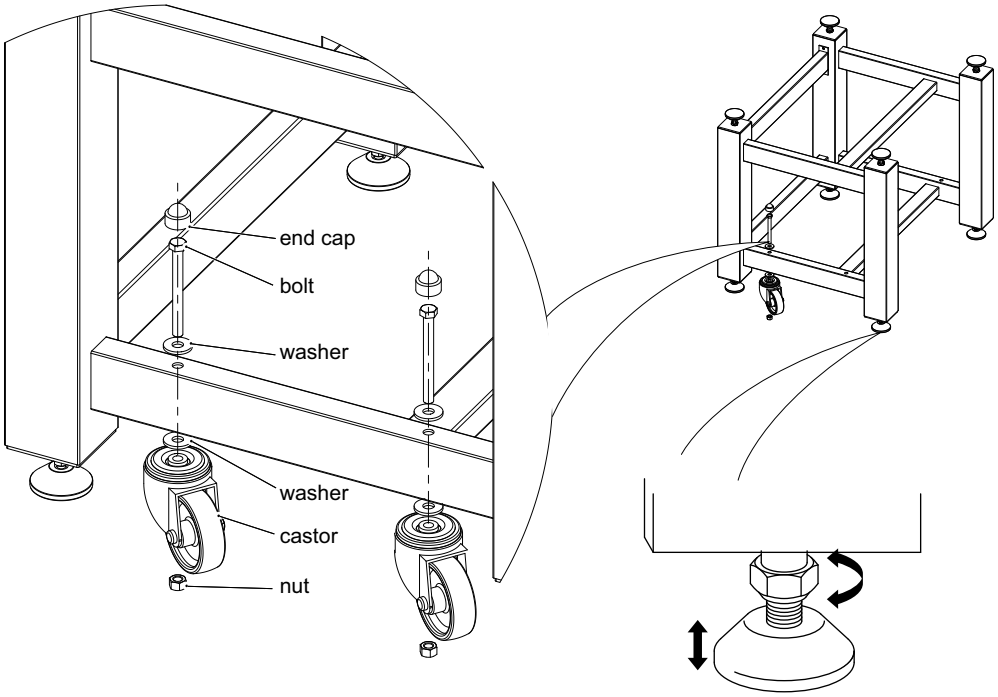


Fig. 5.1 Fitting a caster assembly]

Thorlabs Worldwide Contacts

For technical support or sales inquiries, please visit us at www.thorlabs.com/contact for our most up-to-date contact information.



USA, Canada, and South America
Thorlabs, Inc.
sales@thorlabs.com
techsupport@thorlabs.com

Europe
Thorlabs GmbH
europe@thorlabs.com

France
Thorlabs SAS
sales.fr@thorlabs.com

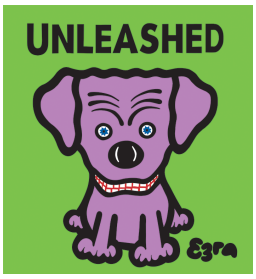
Japan
Thorlabs Japan Inc.
sales@thorlabs.jp

UK and Ireland
Thorlabs Ltd.
sales@uk.thorlabs.com
techsupport.uk@thorlabs.com

Scandinavia
Thorlabs Sweden AB
scandinavia@thorlabs.com

Brazil
Thorlabs Vendas de Fotônicos Ltda.
brasil@thorlabs.com

China
Thorlabs China
chinasales@thorlabs.com



THORLABS
www.thorlabs.com