

RIGID NONISOLATING SUPPORTS

Model Numbers PTL501, 502 and 503

THORLABS

About the Company

Thorlabs Ltd is an a leading manufacturer of motion control systems, vibration isolation systems, machine vision products and multi-element optical systems for fiber-optic, semiconductor and reprographic applications.

We offer customers an in-depth understanding of optical component manufacture, allowing us to quickly and confidently develop optimal positioning solutions.

As a part of Thorlabs inc., manufacturers of innovative photonics products, we are committed to providing the service, relationships and attention to detail that make businesses excel.

Revision History

Issue No.	Date	Summary
1		Incorporated
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3	131108	Packing List

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Introduction

1.1 How to use this Handbook

This handbook contains all the information necessary to install and set up the nonisolating support system. For the continuing safety of the operators of this equipment, and the protection of the equipment itself, read the Safety Information in Chapter 2 before using the equipment, and carefully heed all cautionary notes. If you have any questions or comments about this manual please call your local sales or service office or contact the factory at +44 (0) 1353 654440 and ask for Customer Service.

Alternatively, visit our website at www.thorlabs.com.

1.2 Handbook Structure

Chapter 1, Introduction, gives an overview of the handbook structure and draws attention to the importance of the safety information. Chapter 2, For Your Safety, provides critical information needed for the safe installation and operation of the equipment. Chapter 3, Operation, gives an explanation of the system and how it works. Chapter 4, Installation, gives instructions for the assembly and positioning of the isolation mounts, and explains how to mount the table top on the supports. Chapter 5, Mobility Kit, details the assembly and positioning of the tie bars and castors.

For Your Safety

2.1 Safety Information

Read this information carefully before installing or using the equipment.

Use of Instructions

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.



Warning. An instruction which draws attention to the risk of injury or death.



Caution. An instruction which draws attention to the risks of damage to the product, process or surroundings.



Note. Clarification of an instruction or additional information.

2.1.1 General Safety Precautions

Do:

- 1) Ensure that the system is securely positioned prior to any work being undertaken.
- 2) If using the system with any electrical equipment, incorporate appropriate earthing and/or other safety circuitry as required by national standards to protect the operator.
- 3) 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.
- 4) Before lifting the table top, ensure it is unpopulated.
- 5) Exercise particular caution if moving the system on a sloping surface.
- 6) Ensure all fixings are secure prior to use.

Do not:

- 7) Get into any position where you can be trapped between a wall, door frame or other immovable object and the system.
- 8) Go underneath the system when the unit is being moved.
- 9) Move the system when the table is floating on its supports.
- 10) Tow the system with any powered device.
- 11) Ride on the system.
- 12) Move the system over uneven ground.
- 13) Leave the system on its castors for prolonged periods of time.
- 14) Leave the system unattended on its castors.
- 15) Sit or support on the system.



Caution.

- Ensure that proper airflow is maintained to any electrical equipment installed on the system.
 - The system is designed only for indoor use.
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3.1 General Description

Thorlabs rigid nonisolating supports are designed for use in applications which do not warrant vibration isolation, such as an ultra short pulse laser system. They provide an economical support structure for an optical table under heavy loading and feature manual levelling adjustment on each support to compensate for uneven floors. Each nonisolating support has three adjustment screws to level or adjust the table height over a 21mm range. A choice of height allows any of the standard Thorlabs table tops to be mounted at a nominal working height of 910mm (36 in.) above the floor.

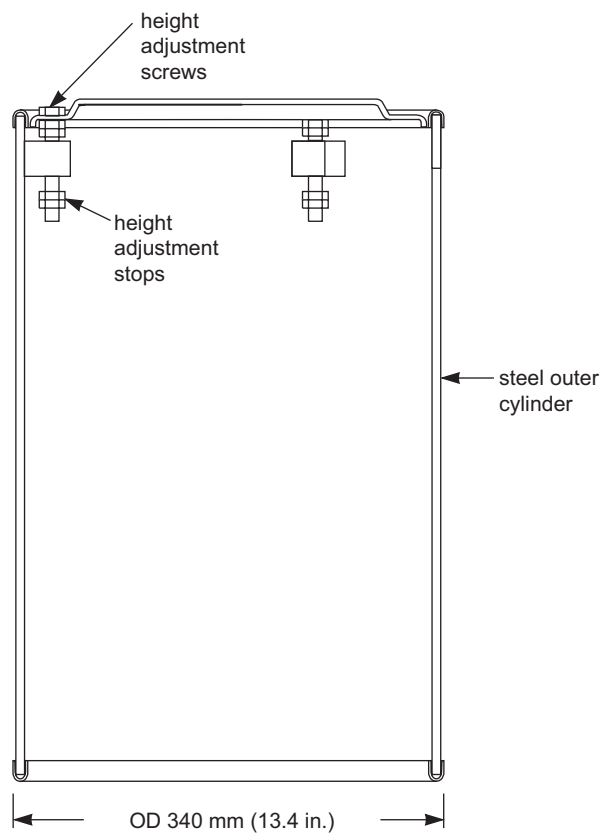


Fig. 3.1 Nonisolating support cross-section

4.1 General

4.1.1 Parts List

Supports	Height mm (in.)	Load Capacity kg (lb)	Part Number
	600 (24)	2500 (5500)	PTL 502
	700 (28)	2500 (5500)	PTL 503

The following items are supplied as standard:

4 rigid supports marked A, B, C and D

2 lifting handles

8 plastic plugs

4.1.2 Preparation

Ensure that the floor of the installation site is flat and horizontal to within 13 mm, (i.e. +/- 6.5 mm).

4.2 Installation

4.2.1 Positioning the Supports

- 1) Fit the lifting handles into the tapped holes on each side of the outer cylinder of the support – see Fig. 4.1.

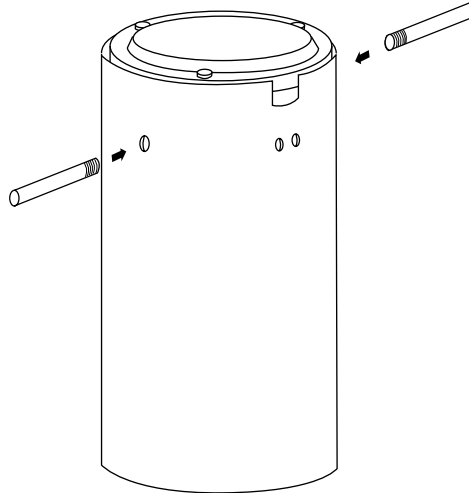


Fig. 4.1 Fitting the lifting handles



Note. During item 2, two people, one on each side, should be employed in positioning the supports.

- 2) Position the supports in approximately the correct position for the table – see Fig. 4.2 for dimensions. Note the position of the Thorlabs labels and orientate the supports as shown. Remove the lifting handles.

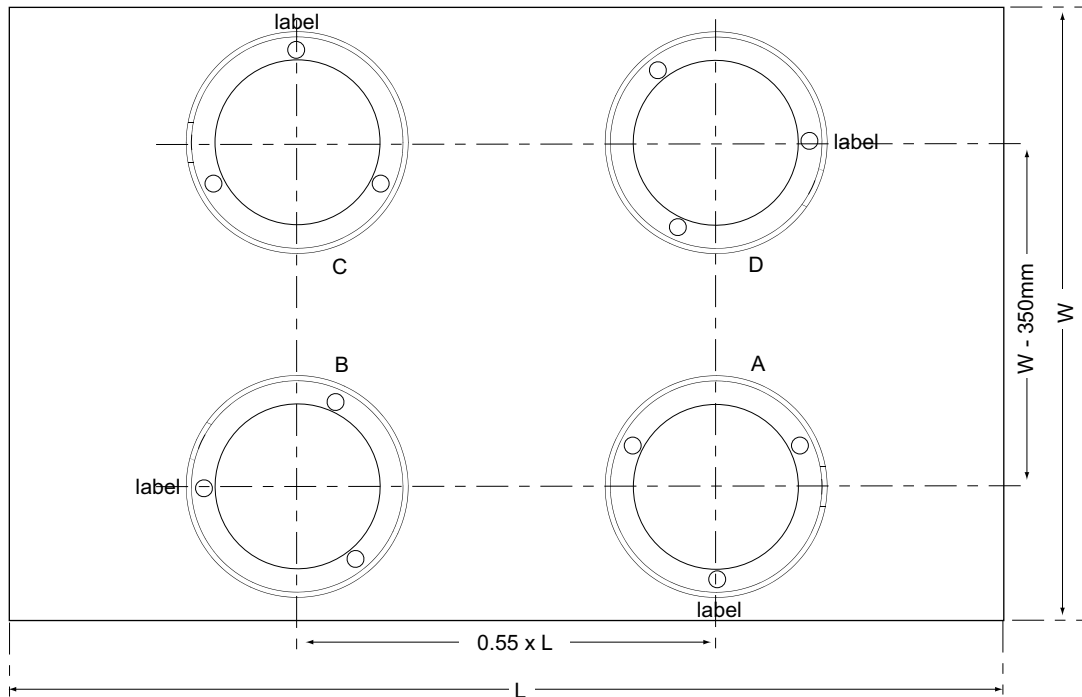


Fig. 4.2 Support positions

- 3) Fit the plastic plugs into the exposed lifting handle attachment holes.

4.2.2 Mounting the Table on the Supports



Note. Item 1) is applicable only to systems fitted with tie-bars and castors.

- 1) Ensure the supports, tie bars and castors are correctly assembled and that the castors are clear of the ground.
- 2) Raise the table on a fork-lift truck, ensuring that the fork distance is set such that the forks can pass between the supports when the table is lowered into position – See Fig. 4.3.

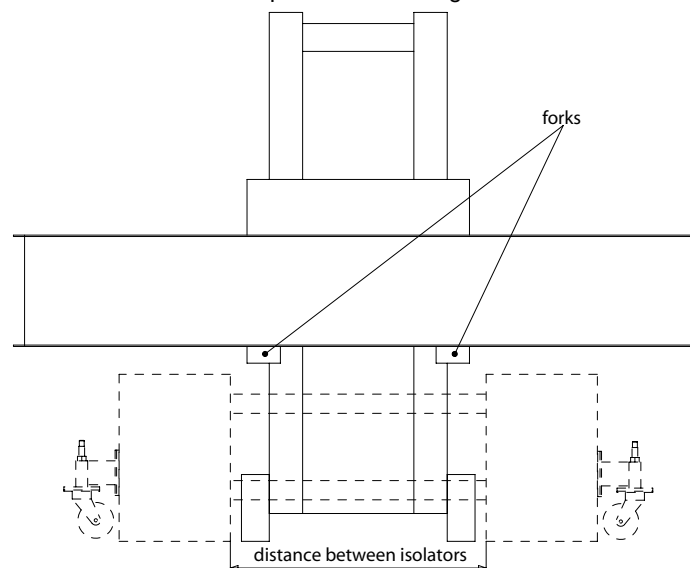


Fig. 4.3 Distance between forks

- 3) Manoeuvre the fork-lift truck until the table is over the supports. Carefully lower the table until it is around 20mm above the supports.
- 4) Ensure that the supports are positioned correctly as identified by the location marks on the underside of the table – Fig. 4.4.

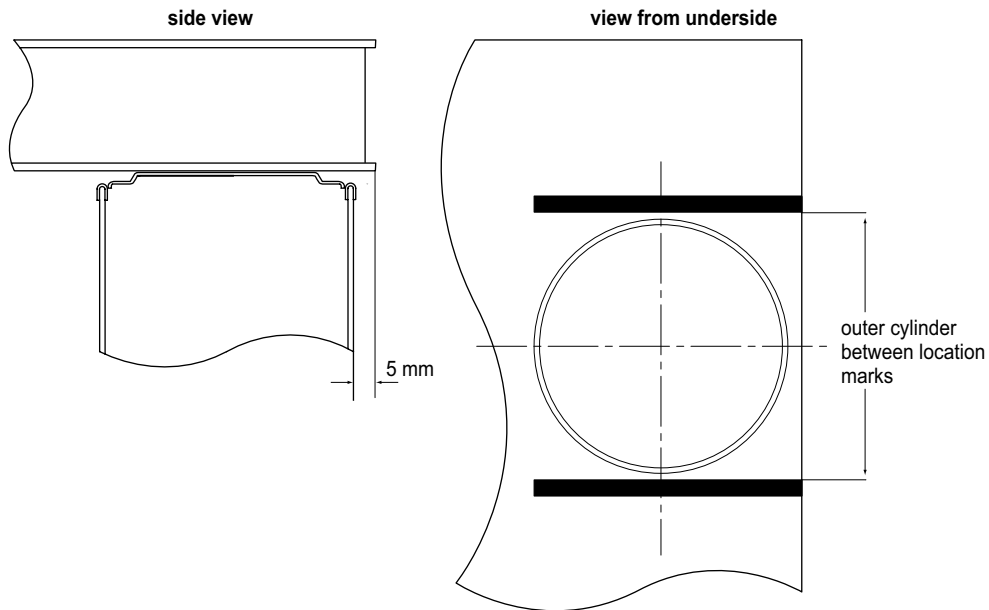


Fig. 4.4 Location marks

- 5) Lower the table onto the supports.
- 6) When the table is resting on the supports, remove the fork-lift truck.

4.3 Set-up

- 1) Using an open ended spanner, adjust the three bolts on top of one of the supports to raise the table by about 5mm.
- 2) Repeat item 1) for the support diagonally opposite.
- 3) Repeat items (1) and (2) for the remaining two supports.
- 4) Repeat items (1) to (3) until all four supports have a gap of 13mm between the outer cylinder and the underside of the table – see Fig. 4.5.

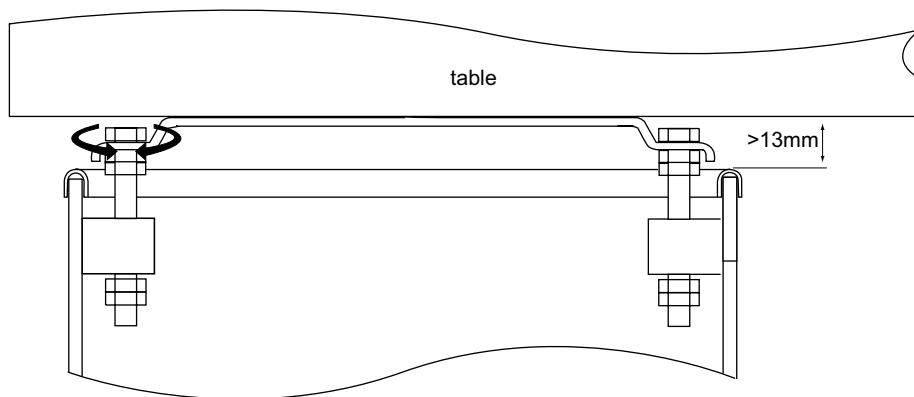


Fig. 4.5 Levelling the system

- 5) Check that the table top is level. If the floor is uneven, the gap between the table and each support may not be the same. If this is the case, identify the support with the smallest gap. Set this gap to 13mm and then adjust the remaining supports such that the table is level. Use a levelling device as necessary.

Packing List

Manual HA0022T		Handles QTY 2		Bungs BF0052 QTY 8		Spanner 19mm	
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Signed..... Countersigned..... Date.....

Products and Customer Support

A Comprehensive Product Range

Optical Components,

Singlets, Doublets and Triplets; Cylindrical Optics, Mirrors, Prisms and Retroreflectors, Beamsplitters, Polarization Components, Filters, High Energy Laser Optics, Diode Laser Optics, UV Optics, Machine Vision.

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Technical Support

Thorlabs provides a comprehensive after sales service. Contact us through your local representative, or at the address below:

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Product Warranty

All Thorlab products are covered by a manufacturers warranty against faulty workmanship and materials, valid for 24 months from the date of original purchase. All products returned under warranty must be returned in their original packaging.

Prior to installation, the equipment referred to in this handbook must be stored in a clean, dry environment, in accordance with any instructions given. Periodic checks must be made on the equipment's condition.

Customer Feedback

It is always helpful to have detailed and accurate information about any problems encountered by customers

We welcome comments or suggestions about any aspect of the equipment and instruction handbooks.

THORLABS

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