



No. 99MFA024B

Depth Micro Checker

Before Using This Product

In order to achieve the best performance of this product and to keep the product in its best condition so that it can be used for many years, read this document thoroughly before using this product. After reading, retain it in a safe place.

Conventions Used in This Document

Safety reminder conventions warning against potential hazards

DANGER	Indicates a hazard with a high level of risk which, if not avoided, will result in death or serious injury.
CAUTION	Indicates a hazard with a low level of risk which, if not avoided, could result in minor or moderate injury.
NOTICE	Indicates a situation which, if not avoided, may result in property damage.

Conventions indicating prohibited and mandatory actions

	Indicates concrete information about prohibited actions.
	Indicates concrete information about mandatory actions.

Conventions indicating referential information

IMPORTANT	Indicates information that must be known when using the product.
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Safety Precautions

When using this product, observe the precautions regarding its specifications, functions, and use that are described in this document. Failure to do so may impair the safety of the product.

CAUTION

Handling this product improperly during transport poses a risk of injuries.

Falling or toppling of the product may lead to injuries. Handle with care.

Precautions for Use

- This product is a reference instrument for depth micrometers. Do not use this product for any purposes other than setting the zero-point.
- This product is a precision instrument. Handle with sufficient care. Be careful not to jolt or apply excessive force to any of its parts during storage or use.
- It is recommended to use this product in a location with minimal dust, filth, and vibrations. It is also recommended to place this product on a surface plate during use.
- It is recommended to use this product in an environment of around 20 °C where temperature fluctuations are minimal. Avoid using this product in locations directly exposed to drafts of hot air, cool air, or air conditioning.

Precautions regarding Transfers Outside Japan

This product is subject to the Foreign Exchange and Foreign Trade Act of Japan. If you intend to transfer products or technologies from a country other than Japan, please contact Mitutoyo in advance.

Warranty

This product has been manufactured under strict quality management, but should it develop problems within one year of the date of purchase in normal use, repair shall be performed free of charge. Please contact the agent where you purchased the product or a Mitutoyo sales office.

1 Overview

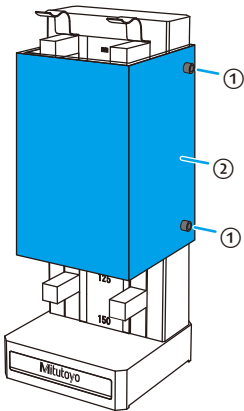
This product is a precision instrument that is used to check the zero-points of depth micrometers.

2 Removing the Protective Cover (CD-150 and CD-6)

- Remove the four screws (①; two screws each on the left and right sides) with an Allen wrench.
- Remove the protective cover (②).

IMPORTANT

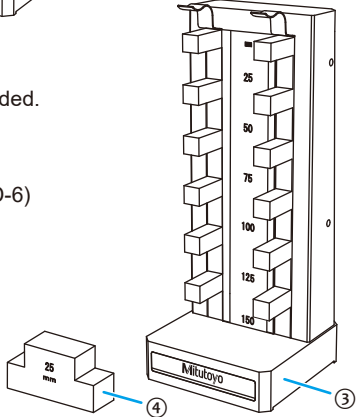
Store the removed protective cover, screws, and washers in a safe place. They can be reused during the transport of this product.



3 Included Components

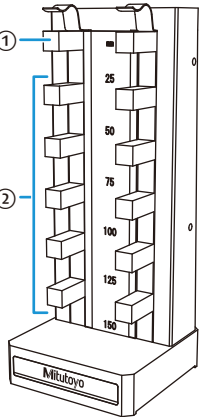
The following components are included.

- Depth Micro Checker (③)
- Anvil block (④)
- Protective cover (CD-150 and CD-6)
- User's Manual
- Certificate of inspection



4 Checking the Zero-Point of the Depth Micrometer

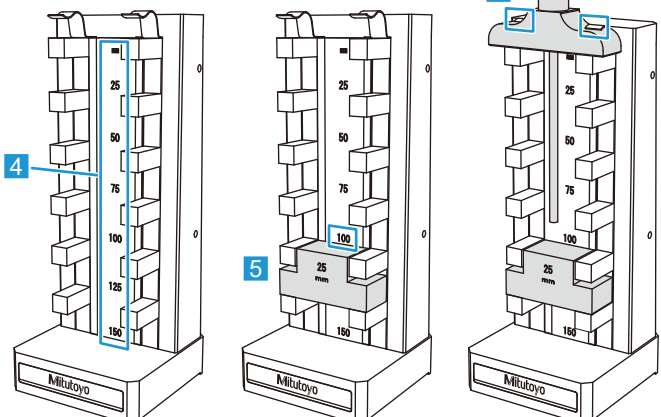
- Remove any adhering particles (such as dust) from this product, the depth micrometer, and the anvil block by blowing them away with clean air.
- If burrs have been found on a zero-point block (①), the measuring blocks (②), the depth micrometer, or the anvil block, remove them by using a Ceraston (optional accessory).
- Allow enough time for this product, the depth micrometer, and the anvil block to acclimate to room temperature.



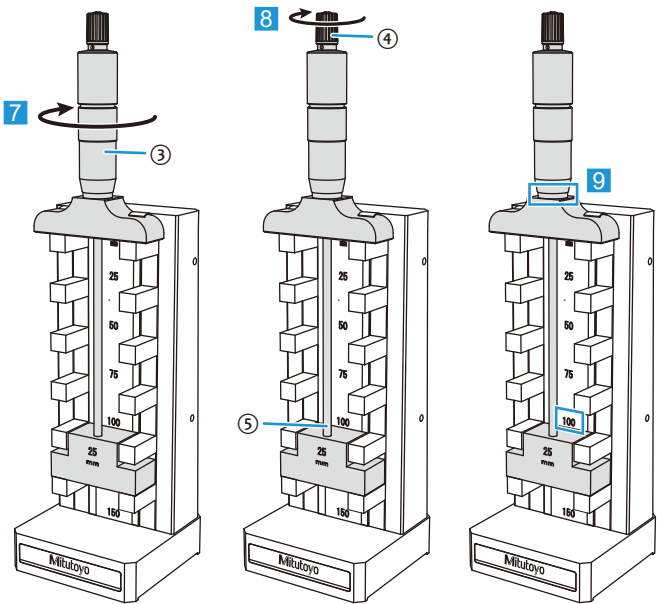
IMPORTANT

- Applying the Ceraston to a surface with too much force may distort the dimensions of the surface. Be careful not to dent or scratch the surfaces of the depth micrometer or of a block.
- In cases where it is not possible to eliminate the burrs, a repair is required. Please contact the agent where you purchased the product or a Mitutoyo sales office.
- Prior to use, be sure to allow enough time for this product, the depth micrometer, and the anvil block to acclimate to room temperature.

- Check the dimension at which to perform zero-point alignment.
- Set the anvil block so that its reference surface is at the zero-point alignment position.
Example: Where the dimension to check is 100 mm
- Place the depth micrometer on the zero-point blocks. When using the CD-150 or the CD-6, insert it between the zero-point blocks and the plate springs. When using the CD-300, put your fingers on the depth micrometer instead of the plate springs and hold it down to the degree that the depth micrometer does not rise when normal measuring force is applied.



- Rotate the thimble (③) until the rod (⑤) comes into light contact with the anvil block.
- Apply the specified measuring force by rotating the ratchet stop (④) roughly three to five times.
- Calculate the difference (zero-point error) between the reference dimension on the Depth Micro Checker and the reading on the depth micrometer. In the event that any amount of zero-point error is present, perform alignment of the zero-point of the depth micrometer. For details, see the user's manual for the depth micrometer that is being tested.



- Remove the depth micrometer from the zero-point blocks.

5 Maintenance

The following describes the daily inspection and storage of this product. In order to obtain optimum performance and to ensure safe use of this product over an extended period of time, please observe the following guidelines when performing maintenance.

Daily inspection

Check for the presence of any grime or parts defects. If the product is dirty, clean it. If any part defects are found, they must be repaired. Please contact the agent where you purchased the product or a Mitutoyo sales office.

Cleaning

After each use, remove any particles (such as dust) adhering to this product by blowing them away with clean air. Then, wipe off any grime (such as oil stains) by using a lint-free cloth that has been moistened with a solvent such as absolute alcohol. Due to the risk that the air-spray guns furnished in the factory may be contaminated with oil or the like, they are not to be used. Do not use organic solvents such as diluents or benzine spirits.

DANGER

Organic solvents such as diluents and benzine spirits may catch fire either due to being ignited or due to combusting spontaneously. Inhaling them also poses a risk of poisoning. Do not use them.

NOTICE

Do not use detergents or organic solvents such as diluents or benzine spirits because they will adversely affect product quality and cause damage to the product.

Storage

After cleaning, apply anti-corrosion lubricant to the measuring blocks and zero-point blocks of the product main body as well as to the anvil block. Then, attach the protective cover (CD-150 and CD-6). Then, wrap them separately in a piece of anti-corrosion packaging paper and a plastic packaging sheet and store them in the cardboard box that is used for shipping. (This is the same as the procedure for long-term storage.)

IMPORTANT

Store the product in an environment with a constant temperature and humidity, and avoid any environments where there are drastic changes in temperature or humidity.

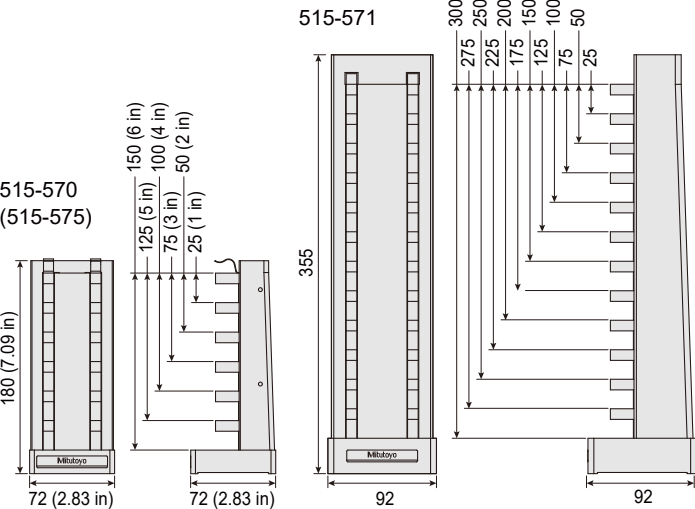
Calibration and repair

When consigning this product for calibration or repair, attach the protective cover (CD-150 and CD-6) to the product and then pack it in the cardboard box that is used for shipping along with cushioning materials. Then, please contact the agent where you purchased the product or a Mitutoyo sales office.

6 Specifications

Code No.	515-570	515-571	515-575
Model No.	CD-150	CD-300	CD-6
Zero-point settable range	0 mm to 150 mm	0 mm to 300 mm	0 in to 6 in
Block pitch accuracy L = Length to check	$\pm(1 + L/150) \mu\text{m}$		$\pm(40 + L/0.15) \mu\text{in}$
Anvil block accuracy	$\pm 0.5 \mu\text{m}$		$\pm 20 \mu\text{in}$
Mass	3.0 kg	10.5 kg	3.0 kg
Environment for operation	Temperature: 5 °C to 40 °C		
Environment for storage	Temperature: -10 °C to 60 °C		

External dimensions



Standard accessories

Code No.	Name	CD-150	CD-300	CD-6
601491	Protective cover	✓	-	✓
600300	Anvil block	✓	-	-
602277	Anvil block	-	✓	-
600204	Anvil block	-	-	✓
99MFA024B	User's Manual	✓	✓	✓
-	Certificate of inspection	✓	✓	✓

Warranty card

Mitutoyo Corporation
20-1, Sakado 1-chome, Takatsu-ku,
Kawasaki-shi, Kanagawa 213-8533, Japan
Phone:044/813-8230

ONE YEAR WARRANTY

Product Name _____ Code No. _____

Serial No. _____ Date Purchased _____

Mitutoyo Corporation conducts an own Quality management system based on the requirements of ISO 9001. This product conforms to the Mitutoyo inspection standard and the standard (s) used for the calibration is /are traceable to the national standard (s).

In the event that this product should fail within one (1)year from the original date of purchase through normal use conforming to the User's Manual provided with the product and Warning Label(s) on the product,we will repair or replace at our option,free of charge,upon its prepaid return to Mitutoyo with this WARRANTY card.

※Purchaser is requested to fill the blank above and retain the warranty card at hand. Return card only when requesting Warranty Service.

Quality Assurance Department
T. Nishimura

This warranty shall not apply if the product and consumables have been subject to fair wear and tear, abuse through misuse or improper use,handling/storage/maintenance/service/repair or through adaptation/modification by the original purchase or any third party without prior written consent of Mitutoyo or as a result of damage by an actual disaster or circumstances beyond the control of Mitutoyo.

To obtain service under this warranty the product must be returned to the store/dealer you purchased from along with the warranty card. Any postage, insurance, or shipping charges incurred in returning the product for service are the responsibility of the purchaser.

※This warranty is not transferable and is only valid within the country of the original purchase.

※You may have additional rights under the laws of country of original purchase that do not allow the exclusion of implied warranties of the exclusion or limitation of certain damages. If these laws apply,Mitutoyo's limitations and exclusions may not apply to you.