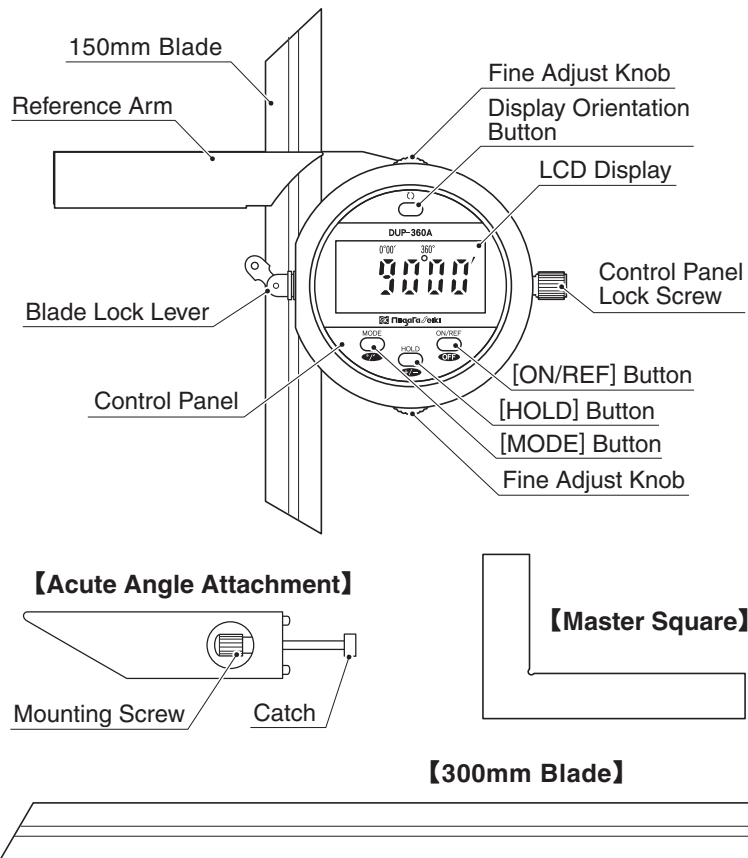


Thank you for purchasing the Digital Protractor.
Please read this manual thoroughly before use for proper operation.

■ PART IDENTIFICATION



■ FEATURES AND APPLICATIONS

- Precision angle measurement for machinery, jigs, molds, and assembly. Use as precision angle reference and for angle measurement.
- Easy to read digital display.
- Three modes available : 360°, 180°, 90°.
- Display orientation can be flipped 180°.
- Angle memory saved when replacing battery.
- 0-Reference can be set at any position.
- Acute Angle Attachment included.
- +/- Switching Feature.

■ SPECIFICATIONS

- Measuring Range : 0 - 360°
- Resolution : 1' / 0.01°
- Maximum Instrument Error : $\pm 5' / 0.08^\circ$
- Operating Temperature Range : 0 ~ 40°C
- Weight : 350g
- Power : CR2032 Lithium Battery
- Accessories :
 - 150mm Blade
 - 300mm Blade
 - Acute Angle Attachment
 - Master Square
 - CR2032 Lithium Battery (Included for testing)

■ CONTROL PANEL

1 [ON/REF] Button (Power on/off, Comparative measurement on/off)

- With power off, a short press.....Power on
- With power on, a short press.....Comparative measurement on/off
When turned on, display will indicate "REF" and 0°00' (0.00°).
- With power on, a long press.....Power off

2 [MODE] Button (Switches measurement range and units)

- Short press.....360° → 180° → 90° →
Switches measurement range. If range is exceeded, measurement starts back at "0".
- Long press.....Measurement units : 0°00' ↔ 0.01°

3 [HOLD] Button (Display hold on/off, Measurement +/- direction)

- Short press.....Hold display. Press again to release
 - Long press.....Measurement +/- direction. Default is "+"
- Example: For a "+" reading of 15.00°, "-" setting will give following display:
- For Measurement Range = 360°.....-345.00°
 - For Measurement Range = 180°.....-165.00°
 - For Measurement Range = 90°..... -75.00°

4 Display Orientation Button ()

- LCD display flips 180°.

■ NOTICE

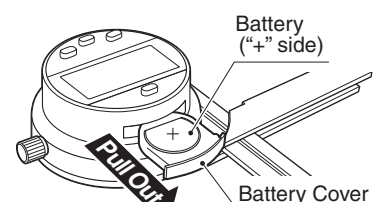
- Before use, please wipe off corrosion protectant using a soft oiled cloth.
- This product is a precision instrument. Use care not to drop or subject to shock or strong force.
- Do not disassemble or modify.
- Do not scratch surface of blade. Do not engrave or use electric pen, such as to engrave with ID numbers.
- Do not use or store in places subject to direct sunlight, extreme temperate fluctuations, high humidity, or high levels of dust. Also, Keep away from water and oil. Keep out of reach of children.
- This product is precision measuring instrument. Use only as directed. Improper use may cause accident or injury.

■ INSERTING/REPLACING BATTERY

1. Open battery cover (Pull out silicone rubber cover to remove).
2. Insert battery with "+" side up.
3. Push battery cover back into it's original position.

⚠ CAUTION

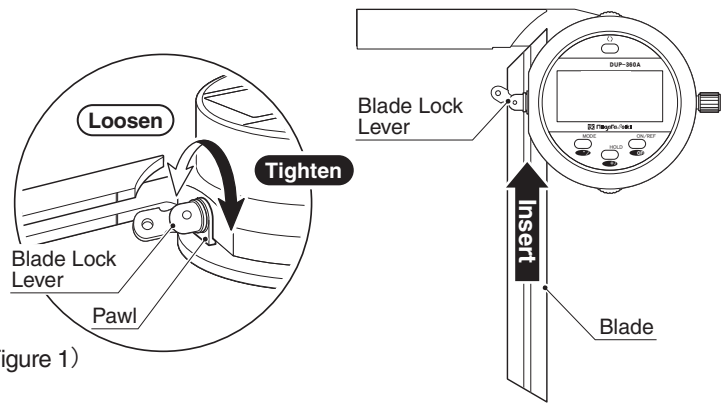
Only use CR2032 Lithium Battery.



■ OPERATION

1 Mounting the Blade

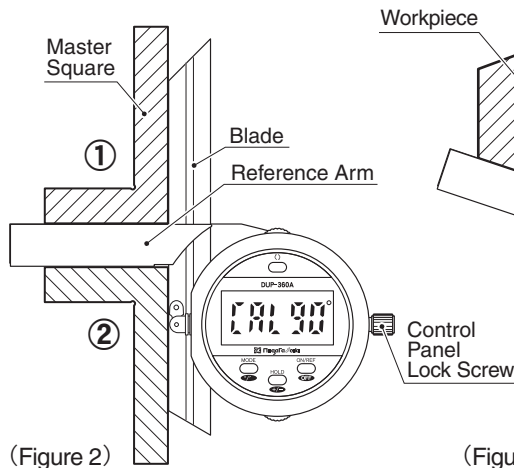
1. Select 150mm or 300mm blade as required.
2. Loosen the Blade Lock Lever. Insert the Blade with the pawl securely in the groove. (Figure 1)
3. Secure blade using the Blade Lock Lever.



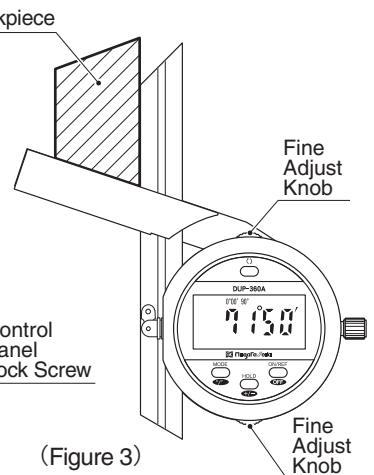
(Figure 1)

2 Setting the Reference Point (Please use supplied Master Square)

1. Press [ON/REF] Button to turn on power.
2. While holding down the Display Orientation Button ("Z"), simultaneously apply a long press to the [MODE] Button.
3. Instrument will switch to angle setting mode and display a flashing "CAL 90°" on LCD.
4. To set the reference point, place the Master Square in position ① or ② (depending upon how it will be used) against the Reference Arm and Blade as shown. (Figure 2)
5. Press the Display Orientation Button ("Z") to establish this position as the 90° reference point.



(Figure 2)



(Figure 3)

⚠ NOTICE

Set the reference point using the procedure above based on intended use.

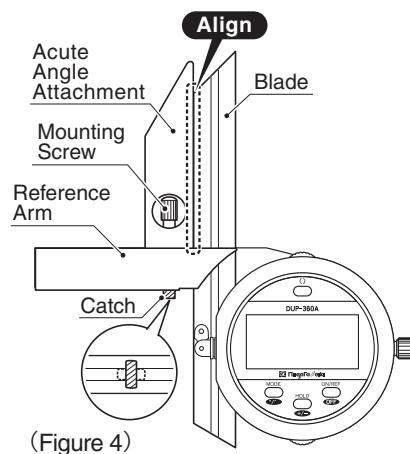
- For Example, once reference point is set using position ①, to switch faces and take measurements with the opposite face, the reference point must be reestablished using position ②.

3 Measurement

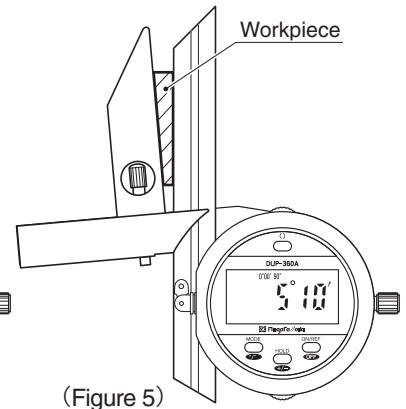
1. Press [ON/REF] Button to turn on power.
 2. Press the [MODE] Button to choose measurement range.
 3. Position the workpiece between the Reference Arm and Blade. Read the measurement from LCD. (Figure 3)
- ※ If the Reference Arm does not rotate, loosen the Control Panel Lock Screw.
- ※ The Fine Adjust Knob can be used to rotate the Reference Arm with more precise control.

4 Acute Angle Measurements

1. Mount the Acute Angle Attachment onto the groove on the Reference Arm.
2. Rotate the Catch 90° to the Reference Arm. (Figure 4)
3. Align the Acute Angle Attachment to the Blade and secure by tightening the Mounting Screw.
4. Position the workpiece between the Acute Angle Attachment and Blade. Read the measurement from LCD. (Figure 5)



(Figure 4)



(Figure 5)

■ TROUBLESHOOTING

- Q. Nothing is displayed, or the numbers are flashing.
- A. Is the battery running low?
- Q. With power on, the number on the LCD does not change as blade is moved.
- A. Please reset by removing battery for about 30sec., and then replacing.
- Q. Nothing happens when buttons are pressed.
- A. Is the battery inserted properly?

■ SERVICE

- If not working properly, or if you have any questions, please contact distributor or place of purchase.
- Please note, manufacturer is unable to respond to inquiries or provide service directly. Please contact distributor or place of purchase.

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