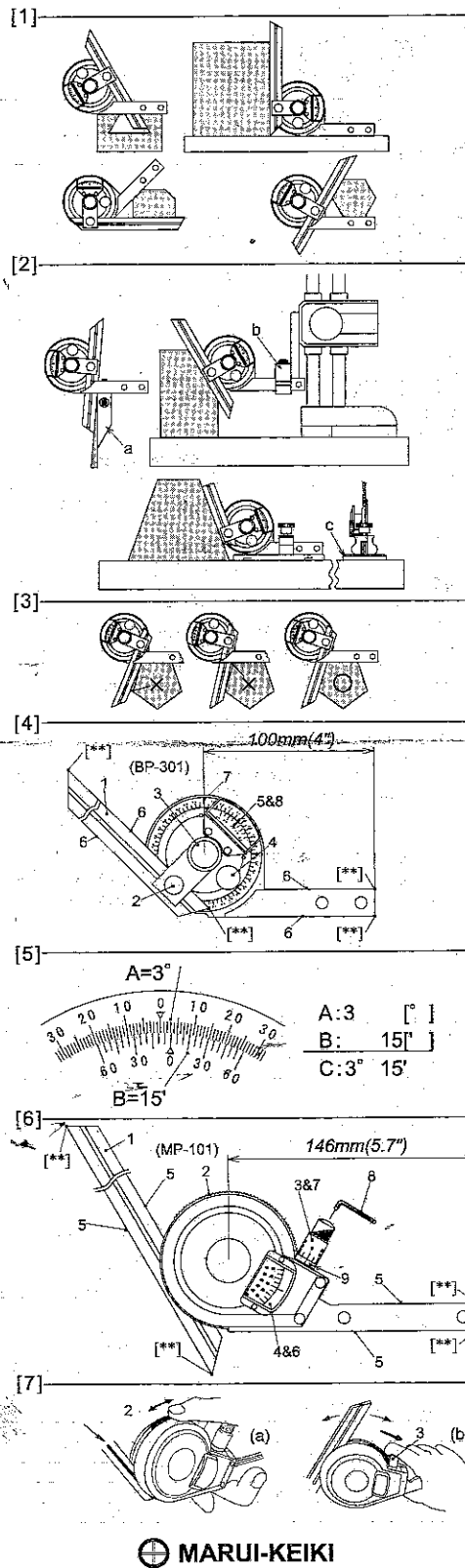




SAFETY PRECAUTION

To ensure operator safety, use this instrument in conformance with the directions and specifications given in this User's Manual.



[**] Handle it with great care to avoid injury.

IMPORTANT

- Before measuring, wipe chipping/dust/dirt off the sliding surfaces, measuring faces, and graduated surfaces.
- After use, take corrosion prevention measures. Corrosion will cause the trouble.

1. Standard applications (Figure [1])

2. Special applications with the optional accessories (Figure [2])

- a. With the Acute Angle Attachment
- b. With the Height Gauge Holder
- c. With the Stand

3. Precaution (Figure [3])

Push the workpiece to measuring surfaces equally without any space between them.

— BEVEL PROTRACTOR (BP-301) —

4. Name of each part (Figure [4])

- 1. Blade 2. Blade clamp 3. Rotation clamp 4. Fine feed knob
- 5. Magnifier Lens 6. Measuring face 7. Main scale
- 8. Vernier scale

5. Reading measurements (Figure [5])

A measurement is obtained by adding the reading of the vernier scale to that of the main scale. Take the vernier scale reading at the graduation which coincides with the one on the main scale.

- A: Main scale reading
- B: Vernier scale reading
- C: Reading (=A+B)

Take reading of the vernier/main scales in a viewing direction perpendicular to the measured point of the scales.

— MICRO PROTRACTOR (MP-101) —

6. Name of each part (Figure [6])

- 1. Blade 2. Blade clamp 3. Thimble 4. Magnifier Lens
- 5. Measuring face 6. Main scale 7. Scale on the thimble
- 8. Hexagonal wrench 9. Base line

7. Operating procedure (Figure [7])

- Equipping the blade (a)
By turning the blade clamp (parts No. 2), insert the blade (Parts No. 1)
- Quick motion (b)
Pull the thimble (Parts No. 3) to allow the blade (Parts No. 1) to be turned freely.
Release the thimble at the desired angle, and the blade is fixed.
- Fine Feeding
Turn the thimble scale by one turn, and one minute proceeds. The scale is divided in 60 equally, that is, one scale is one minute.
- Zero Adjustment
Measure the square. In case of that the scale is not at the 'Zero' point, adjust it to the 'Zero' as follows:
Loose the hex-screw on the thimble by the hex-key wrench (Parts No. 8) to let it turn freely.
Point the zero on the scale (Parts No. 7) at the base line (Parts No. 9), then fix it by turning the hex-screw.
- Note
In both scales on the body and thimble, red and black figures are available, which is convenient to read the same color figures.

8. Specifications

Model	BP-301	MP-101
Measuring range	360°	
Resolution	5'	1'
Instrumental error	±5'	±2'
Note	Stainless Steel Hrc45	