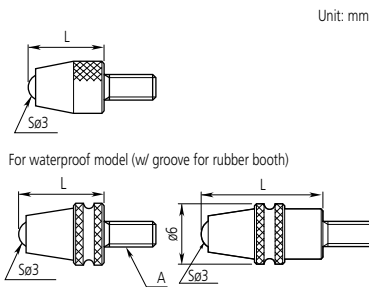


# Contact Point

Optional Accessory for Digimatic and Dial Indicators and Linear Gages

## SPECIFICATIONS

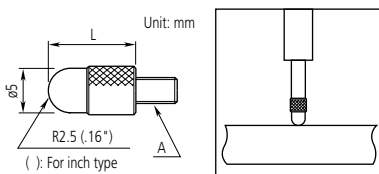
### Ball Points



| L     | Material | Order No. | A         |
|-------|----------|-----------|-----------|
| 7.3   | Carbide  | 901312    | M2.5x0.45 |
| 6.35  |          | 901454    | #4-48UNF  |
| 7.3   | Plastic  | 901994    | M2.5x0.45 |
| 6.35  |          | 902018    | #4-48UNF  |
| 7.3   | Ruby     | 120047    | M2.5x0.45 |
| 8.3   | Carbide  | 21AZA319  | M2.5x0.45 |
| 8.3*  | Carbide  | 902119    | M2.5x0.45 |
| 12.1* | Carbide  | 21AZA320  | M2.5x0.45 |
| 14    | Carbide  | 21JAA225  | M2.5x0.45 |
| 15    | Carbide  | 120049    | M2.5x0.45 |
|       | Ruby     | 120051    | M2.5x0.45 |
| 17    | Carbide  | 21JAA224  | M2.5x0.45 |
| 19.3* | Carbide  | 21AZA321  | M2.5x0.45 |
| 20    | Carbide  | 137391    | M2.5x0.45 |
|       | Ruby     | 137392    | M2.5x0.45 |
| 22    | Carbide  | 21JAA226  | M2.5x0.45 |
| 25    | Carbide  | 120053    | M2.5x0.45 |
|       | Ruby     | 120055    | M2.5x0.45 |
| 30    | Carbide  | 21AAA252  | M2.5x0.45 |
|       | Ruby     | 21AAA253  | M2.5x0.45 |

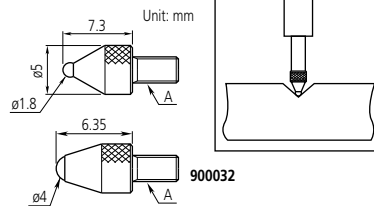
\*For waterproof dial indicators

### Shell Type Points



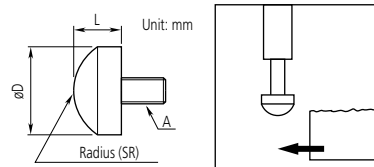
| L     | Order No. | A         |
|-------|-----------|-----------|
| 3.97  | 101184    | #4-48UNF  |
| 5     | 101386    | M2.5x0.45 |
| 10    | 101118    | M2.5x0.45 |
| 12.7  | 101185    | #4-48UNF  |
| 15    | 137393    | M2.5x0.45 |
| 19.05 | 101186    | #4-48UNF  |
| 20    | 101387    | M2.5x0.45 |
| 25    | 101388    | M2.5x0.45 |
| 25.4  | 101187    | #4-48UNF  |
| 30    | 21AAA254  | M2.5x0.45 |

### Ball Point



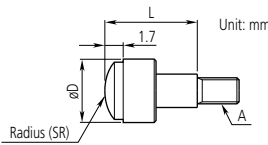
| SØD            | Ød  | Order No. | A         |
|----------------|-----|-----------|-----------|
| 1mm, carbide   | 5mm | 21AAA349  | M2.5x0.45 |
| 1.5mm, carbide | 5mm | 21AAA350  | M2.5x0.45 |
| 1.8mm, steel   | 5mm | 101122    | M2.5x0.45 |
| 2.5mm, carbide | 5mm | 21AAA351  | M2.5x0.45 |
| 4mm, carbide   | 5mm | 21AAA352  | M2.5x0.45 |
| 4mm, carbide   | 5mm | 900032    | #4-48UNF  |

### Spherical Points



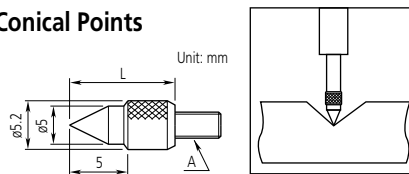
| D    | L    | SR | Order No. | A         |
|------|------|----|-----------|-----------|
| 10   | 5    | 7  | 101119    | M2.5x0.45 |
| 12.7 | 3.18 | 7  | 101205    | #4-48UNF  |
| 9.53 | 2.38 | 9  | 101204    | #4-48UNF  |

### Spherical Points (Carbide)

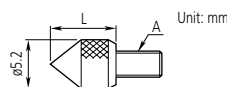


| D    | L  | SR | Order No. | A         |
|------|----|----|-----------|-----------|
| 5.2  | 5  | 5  | 120058    | M2.5x0.45 |
| 7.5  | 10 | 7  | 120059    | M2.5x0.45 |
| 10.5 | 10 | 10 | 120060    | M2.5x0.45 |

### Conical Points

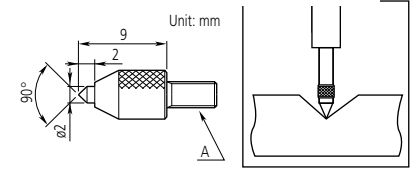


| Tip angle | L    | Order No. | A         |
|-----------|------|-----------|-----------|
| 60°       | 10   | 101120    | M2.5x0.45 |
| 60°       | 12.7 | 101190    | #4-48UNF  |

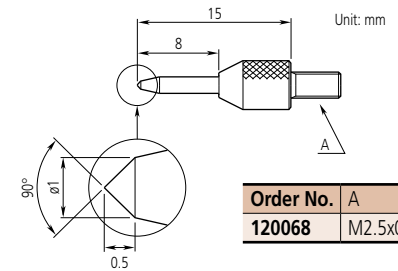


| Tip angle | L    | Order No. | A         |
|-----------|------|-----------|-----------|
| 90°       | 5    | 101385    | M2.5x0.45 |
| 90°       | 7.14 | 101191    | #4-48UNF  |

### Conical Points (Carbide)

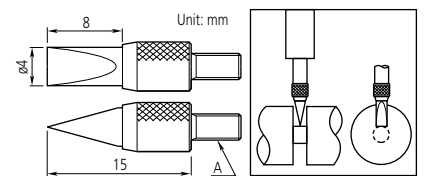


| Order No. | A         |
|-----------|-----------|
| 120057    | M2.5x0.45 |



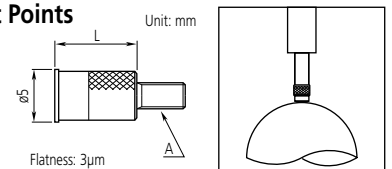
| Order No. | A         |
|-----------|-----------|
| 120068    | M2.5x0.45 |

### Knife Edge Point (Carbide)

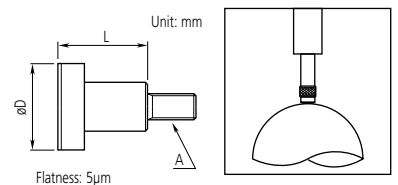


| Order No. | A         |
|-----------|-----------|
| 120067    | M2.5x0.45 |

### Flat Points

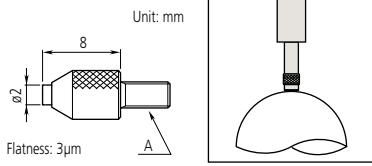


| L  | Order No. | A         |
|----|-----------|-----------|
| 8  | 131365    | M2.5x0.45 |
| 10 | 21AAA340  | M2.5x0.45 |
| 8  | 133017    | #4-48UNF  |

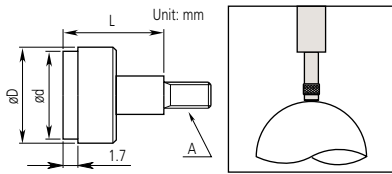


| D    | L    | Order No. | A         |
|------|------|-----------|-----------|
| 10   | 10   | 101117    | M2.5x0.45 |
| 15   | 10   | 21AAA341  | M2.5x0.45 |
| 20   | 10   | 21AAA342  | M2.5x0.45 |
| 25   | 10   | 21AAA343  | M2.5x0.45 |
| 20   | 10   | 21AAA344  | M2.5x0.45 |
| 12.7 | 9.53 | 101188    | #4-48UNF  |
| 9.53 | 9.53 | 101189    | #4-48UNF  |

### Flat Points (Carbide)

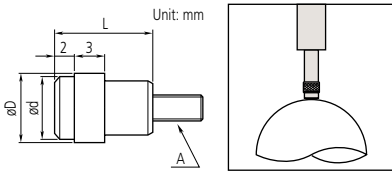


| Order No. | A         |
|-----------|-----------|
| 120056    | M2.5x0.45 |



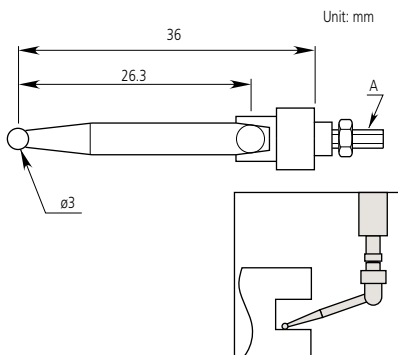
| D    | d    | L  | Order No. | A         |
|------|------|----|-----------|-----------|
| 5.2  | 4.3* | 5  | 120041    | M2.5x0.45 |
| 7    | 6.5* | 10 | 120042    | M2.5x0.45 |
| 10.5 | 9.5* | 10 | 120043    | M2.5x0.45 |
| 17   | 15** | 10 | 21AAA345  | M2.5x0.45 |
| 22   | 20** | 10 | 21AAA346  | M2.5x0.45 |
| 27   | 25** | 10 | 21AAA347  | M2.5x0.45 |
| 32   | 30** | 10 | 21AAA348  | M2.5x0.45 |

Flatness: \*3µm, \*\*5µm



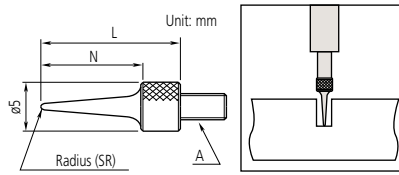
| D | d   | L  | Order No. | A         |
|---|-----|----|-----------|-----------|
| 7 | 6.4 | 10 | 137255    | M2.5x0.45 |
| 9 | 8   | 10 | 137399    | M2.5x0.45 |

### Lever Points



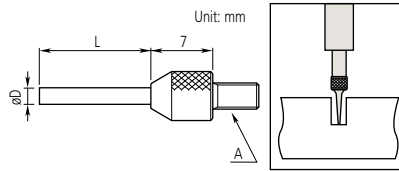
| Order No. | A         |
|-----------|-----------|
| 900391    | M2.5x0.45 |
| 900393    | #4-48UNF  |

### Lever Points



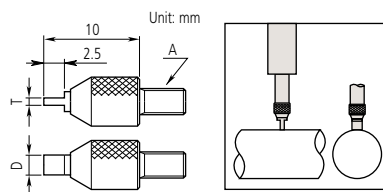
| N  | L  | SR  | Order No. | A         |
|----|----|-----|-----------|-----------|
| 11 | 15 | 0.4 | 101121    | M2.5x0.45 |
| 13 | 17 | 0.2 | 137413    | M2.5x0.45 |
| 21 | 25 | 0.4 | 21AAA255  | M2.5x0.45 |
| 31 | 35 | 0.4 | 21AAA256  | M2.5x0.45 |

### Needle Points (Carbide)



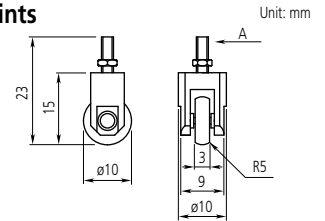
| D    | L  | Order No. | A         |
|------|----|-----------|-----------|
| 0.45 | 3  | 120066    | M2.5x0.45 |
| 0.45 | 5  | 21AAA329  | M2.5x0.45 |
| 1    | 3  | 120065    | M2.5x0.45 |
| 1    | 5  | 21AAA330  | M2.5x0.45 |
| 1    | 8  | 21AAA331  | M2.5x0.45 |
| 1    | 10 | 21AAA332  | M2.5x0.45 |
| 1    | 20 | 21AAA333  | M2.5x0.45 |
| 1    | 40 | 21AAA334  | M2.5x0.45 |
| 1.5  | 5  | 21AAA335  | M2.5x0.45 |
| 1.5  | 10 | 21AAA336  | M2.5x0.45 |
| 1.5  | 13 | 120064    | M2.5x0.45 |
| 1.5  | 20 | 21AAA337  | M2.5x0.45 |
| 1.5  | 40 | 21AAA338  | M2.5x0.45 |
| 2    | 8  | 137257    | M2.5x0.45 |
| 2    | 18 | 21AAA257  | M2.5x0.45 |
| 2    | 28 | 21AAA258  | M2.5x0.45 |
| 2    | 40 | 21AAA339  | M2.5x0.45 |

### Blade Points (Carbide)



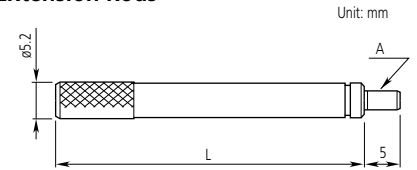
| T   | W | Order No. | A         |
|-----|---|-----------|-----------|
| 0.4 | 2 | 120061    | M2.5x0.45 |
| 0.6 | 2 | 120062    | M2.5x0.45 |
| 1   | 4 | 120063    | M2.5x0.45 |

### Roller Points



| Order No. | A         |
|-----------|-----------|
| 901954    | M2.5x0.45 |
| 901991    | #4-48UNF  |

### Extension Rods



| L   | Order No. | A         |
|-----|-----------|-----------|
| 10  | 303611    | M2.5x0.45 |
| 15  | 21AAA259A | M2.5x0.45 |
| 20  | 303612    | M2.5x0.45 |
| 25  | 21AAA259B | M2.5x0.45 |
| 30  | 303613    | M2.5x0.45 |
| 35  | 21AAA259C | M2.5x0.45 |
| 40  | 21AAA259D | M2.5x0.45 |
| 45  | 21AAA259E | M2.5x0.45 |
| 50  | 21AAA259F | M2.5x0.45 |
| 55  | 21AAA259G | M2.5x0.45 |
| 60  | 304146    | M2.5x0.45 |
| 65  | 21AAA259H | M2.5x0.45 |
| 70  | 21AAA259J | M2.5x0.45 |
| 75  | 21AAA259L | M2.5x0.45 |
| 80  | 21AAA259M | M2.5x0.45 |
| 90  | 304147    | M2.5x0.45 |
| 100 | 303614    | M2.5x0.45 |
| 1"  | 301655    | #4-48UNF  |
| 2"  | 301657    | #4-48UNF  |
| 4"  | 301659    | #4-48UNF  |

### Interchangeable Contact Point Set (M2.5x0.45)




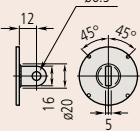

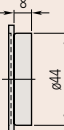

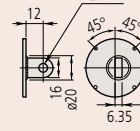

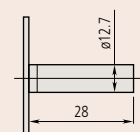

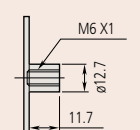

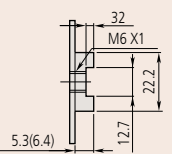
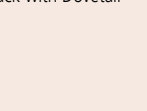
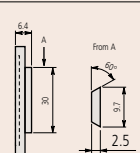

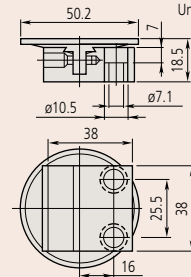


| Order No. | Components                        |
|-----------|-----------------------------------|
| 7822      | Flat Point (131365, $\phi 5$ mm)  |
|           | Flat Point (101117, $\phi 10$ mm) |
|           | Needle Point (101121)             |
|           | Spherical Point (101119)          |
|           | Shell Type Point (101118)         |
|           | Shell Type Point (101387)         |

# Back

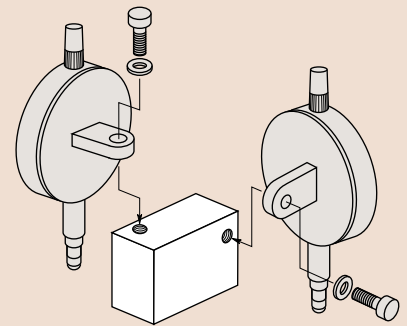
## Optional Accessory for Digimatic and Dial Indicators

### SPECIFICATIONS

| Description  | Unit: mm  | Order No.  |  |  |
|--|---|--|--|--|
|  |   | Series 1<br>(ø41mm)  | Series 2<br>(ø57mm)  | Series 3, 4<br>(ø77, 91mm)                             |
| Flat Back<br>                      |    | <b>101211:</b> a=2.2<br><b>136872:</b> for water-proof type<br><b>191559:</b> for 1911, 1913-10<br><b>137906:</b> for 1003 | <b>101039:</b> a=2.5<br><b>21AZB231:</b> for water-proof of S type                                   | <b>100836:</b> a=3.0                                   |
| Lug-on-Center Back<br>             |    | <b>101210:</b> metric type<br><b>101307:</b> inch type<br><b>190561:</b> for 1911, 1913-10<br><b>137905:</b> for 1003      | <b>101040:</b> metric type<br><b>101306:</b> inch type<br><b>21AZB230:</b> for water-proof of S type | <b>100691:</b> metric type<br><b>100797:</b> inch type |
| Magnetic Back<br>                  |    | <b>Special order</b>   | <b>900928</b>  | <b>900929</b>  |
| Back with Offset Lug<br>          |   | <b>Special order</b>   | <b>101167</b>  | <b>100837</b>  |
| Back with Post<br>               |  | <b>193172</b><br>Order-to-made   | <b>101169</b>  | <b>100839</b>  |
| Back with Screw Mount<br>        |  | <b>193173:</b> M6x1, Order-to-made<br><b>193174:</b> #1/4-28UNF, Order-to-made   | <b>136023:</b> M6x1<br><b>193174:</b> #1/4-28UNF   | <b>136024:</b> M6x1<br><b>100840:</b> #1/4-28UNF       |
| Adjustable Back<br>              |  | <b>136025:</b> M6x1<br><b>129721:</b> #1/4-28UNF   | <b>136026:</b> M6x1<br><b>101168:</b> #1/4-28UNF)  | <b>136027:</b> M6x1<br><b>100838:</b> #1/4-28UNF       |
| Back with Dovetail<br>           |  | —  | <b>900008</b>  | <b>Special order</b>                                   |
| Back with Adjustable Bracket<br> |  | —  | <b>901963</b>  | —  |

There are two ways to support Digimatic and dial indicators; by either holding the stem or the lug on the back of the indicator. The back of the indicator may need to be replaced for special applications. A wide variety of backs are available for Mitutoyo Digimatic and dial indicators.

### Application



# Spindle Lifting Lever and Cable

## Optional Accessory for Digimatic and Dial Indicators

### Spindle Lifting Lever

- The Spindle Lifting Lever is attached to the top end of the spindle for improved inspection efficiency when using a dial indicator mounted on a stand.

#### 902100

Use for S type Series 1 and F type Series 2 (up to 10mm/.4" range) dial indicators.



#### 21AZB149

Use for S type Series 2, 3, and 4 dial indicators (up to 10mm/.4").



#### 21AZB150

Use for S type Series 2 and 3 dial indicators (from 10mm/.4" up to 20mm/.8").



### Spindle Lifting Cable

**901975:** with auto-stop function

**540774:** without auto-stop function

Lifting range: 10mm

Cable length: 300mm



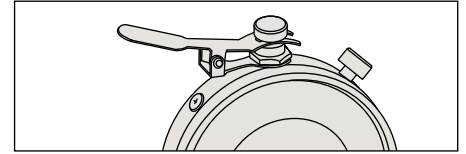
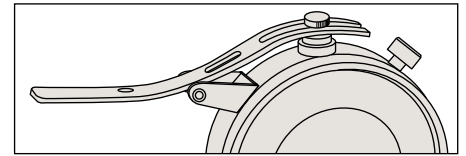
### Spindle Lifting Knob

#### 137693

Applicable spindle diameter; 4.8mm



### Application



#### 21BZA205

Use for F type Series 1 dial indicators.



**900527:** Lever  
**101171:** Screw

#### 902011

Use for F type Series 2 dial indicators (up to 10mm/.4" range).



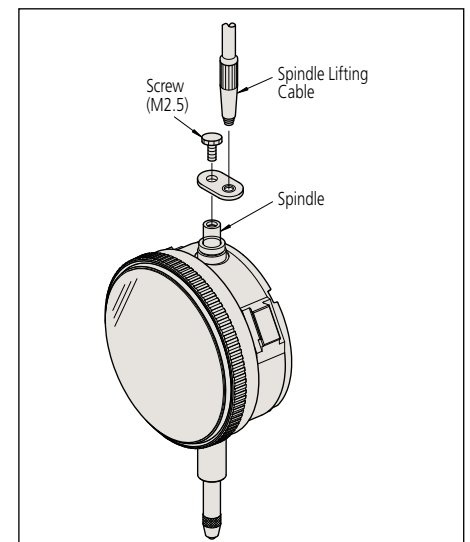
#### 903424

Use for F type Series 2 dial indicators (up to 20mm/.8" range) and Series 3 and 4 dial indicators (up to 10mm/.4" range).



**903307:** Lever  
**192686:** Screw

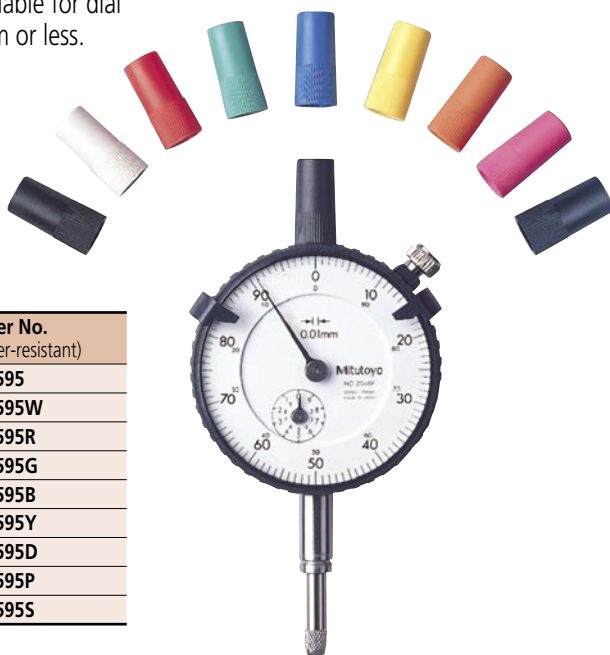
### Application



# Color Spindle Cap

## Optional Accessory for Digimatic and Dial Indicators

8 colors of spindle caps are available for dial indicators with a range of 10mm or less.



### SPECIFICATIONS

| Color     | Order No. (normal) | Order No. (water-resistant) |
|-----------|--------------------|-----------------------------|
| Black     | 193051             | 193595                      |
| White     | 193051W            | 193595W                     |
| Red       | 193051R            | 193595R                     |
| Green     | 193051G            | 193595G                     |
| Blue      | 193051B            | 193595B                     |
| Yellow    | 193051Y            | 193595Y                     |
| Orange    | 193051D            | 193595D                     |
| Pink      | 193051P            | 193595P                     |
| Dark blue | 193051S            | 193595S                     |

# Limit Sticker

## Optional Accessory for Digimatic and Dial Indicators

### FEATURES

- Stuck on the dial face or crystal of a Series 2 dial indicator (55.6mm or 57mm bezel dia.) to indicate tolerance limits.



136420: Red (10-sheet/set)



136421: Green (10-sheet/set)



136422: Yellow (10-sheet/set)

# Dial Indicator Repair Tool Kit

Optional Accessory for Digimatic and Dial Indicators

## Set Configuration

- 901171: Molykote (lubricant)
- 901172: Lubricating oil
- 901173: Screwdriver (Phillips)
- 901174: Screwdriver (Phillips/flat blade)
- 129729: Tweezers
- 901175: Pin-vise
- 901176: Brush
- 901177: Brush
- 901177: Brush
- 901178: Hammer
- 129730: Spindle rest
- 129731: Pin rest
- 901179: Nippers
- 901180: Pliers
- 901181: Hand remover
- 129732: Pin remover
- 129733: Punch
- 129734: Bearing adjuster
- 129735: Pinion rest
- 129736: Reamer  $\varnothing 1$
- 193702: Reamer  $\varnothing 0.6$
- 901182: Case

Mitutoyo offers a tool set designed to let you perform simple repairs to your Mitutoyo dial indicator, and a device that lets you reset the indicator crystals.



7823

# Dial Indicator Crystal Setter

Optional Accessory for Digimatic and Dial Indicators

## FEATURES

- Used for fitting a crystal on dial indicators, dial test indicators, and dial calipers.



7000

With 8 sizes of crystal setting pads