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***PD-8000-RSC***  
***Rotary Shouldered***  
***Pin Connection***  
**OPERATION MANUAL**

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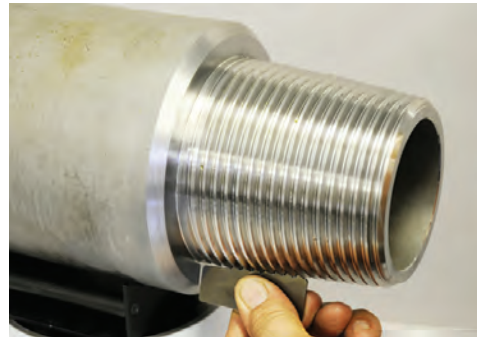
## Procedures for Using the Pin Pitch Diameter Location Template and the PD-8000-RSC External Pitch Diameter Gage

The pin pitch diameter location template or LPP is similar to a standard thread profile template with a locator reference mark and a special shaped reference tooth. These reference indicators are used to position and mark the location at which the pitch diameter of the connector will be measured. The LPP location template works on standard pins as well as pins connectors with relief grooves. There are 11 different LPP templates based on specific TPI, TPF, and Thread forms.

The PD-8000-RSC gage measures the deviation from nominal pitch diameter for the connector being inspected. The gage uses fixed and a moveable contact balls that are set into the thread's helical path at a predetermined location. The deviation is read directly from the indicator.

### Applying the LPP to the Pin Connector

1. With the profile's reference mark facing you and the connector shoulder to your left, place the LPP template on the threaded connector so the teeth seat fully into the threads. The last length of the template does not contact the shoulder.



2. With the teeth of the template seated fully in the threads of the connector, slide the template clockwise or away from you around the connector until the left end of the template makes contact with the pin shoulder. This is a rough clocking position.



3. Using a Sharpie® felt marker, place a mark on the pin shoulder next to where the template contacts the shoulder. Jog or rotate the machine spindle until this mark is at the 12:00 o'clock position. This makes it easier to locate and mark the measurement position.

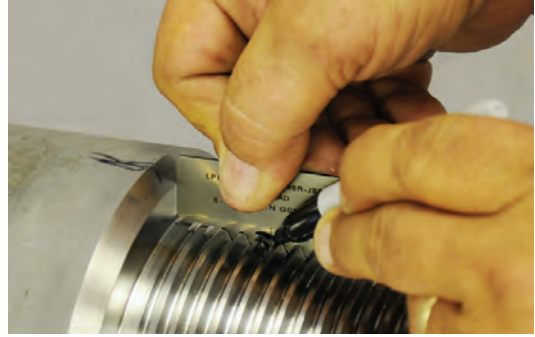


4. Place the template back onto the pin threads just before the mark on the shoulder. Be sure that the template threads are fully seated and parallel to the pin centerline. Using a slight twisting motion, slide the template in a clockwise direction or away from you until the left edge of the template contacts the shoulder. The twisting motion ensures that the template is seated properly in the threads and against the pin shoulder.



## Applying the LPP to the Pin Connector (Cont.)

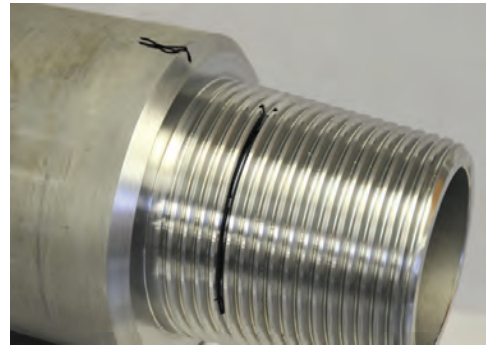
5. Using a Sharpie® felt marker, mark the crests of the two threads on either side of the locator reference marks. This is the location where the fixed contact ball of the PD-8000-RSC gage will be placed when measuring the pitch diameter.



6. Repeat steps 4 and 5 to verify proper template location. Holding the template **firmly** into the threads will ensure the left edge is parallel and square against the pin shoulder.



7. The connection is now properly marked and ready to measure the pitch diameter using the PD-8000-RSC gage.



## Measuring the Pitch Diameter of the Pin Connector

1. The PD-8000-RSC gage must be preset and locked to a calculated dimension for the particular connector you are inspecting. It is recommended that a ground setting standard rod or a MIC TRAC is used for presetting the gage. Gages, setting standards, and parts should be at the same temperature.

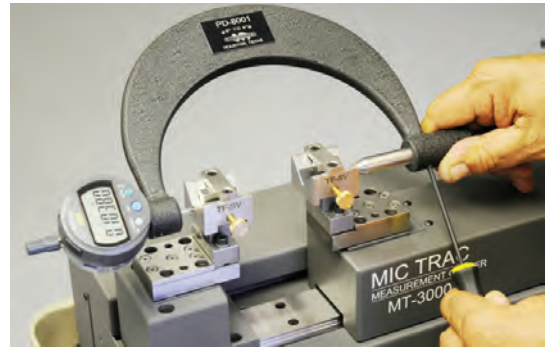


2. To preset the gage, loosen the lower arm lock screw and slide it to the approximate location where the standard will fit between the contact points.

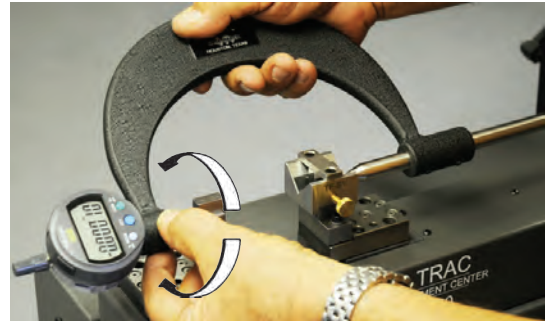


## Measuring the Pitch Diameter of the Pin Connector

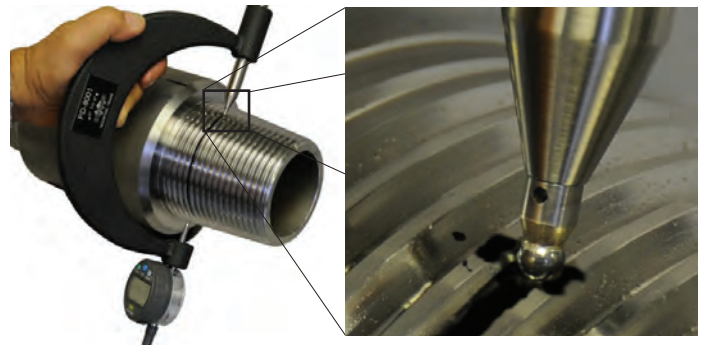
3. With the lower arm loose, slide the arm toward the indicator approximately .100" and tighten the lock screw using a 1/8" Allen wrench. This will preload the indicator .100" as the gage is zeroed.



4. Place the standard between the contact points, sweep the standard in a small circular motion to locate the smallest reading and zero the indicator.



5. With the indicator on the bottom side of the connector, place the fixed contact ball at the point where the LPP was located and marked.



6. Trace the same thread groove counter-clockwise to the opposite side of the connector and place the moveable contact ball in that thread groove.



7. While holding the fixed contact ball at the marked location, sweep the gage to locate the largest indicator reading.



The reading on the indicator is the amount of deviation from the nominal pitch diameter.

◇Key pressing method

- Press ( within 2 sec. )
- Press and hold (2sec. or more)

- in ↔ mm ( in/mm model only )
- Parameter Setting Mode



DATA ON· OFF

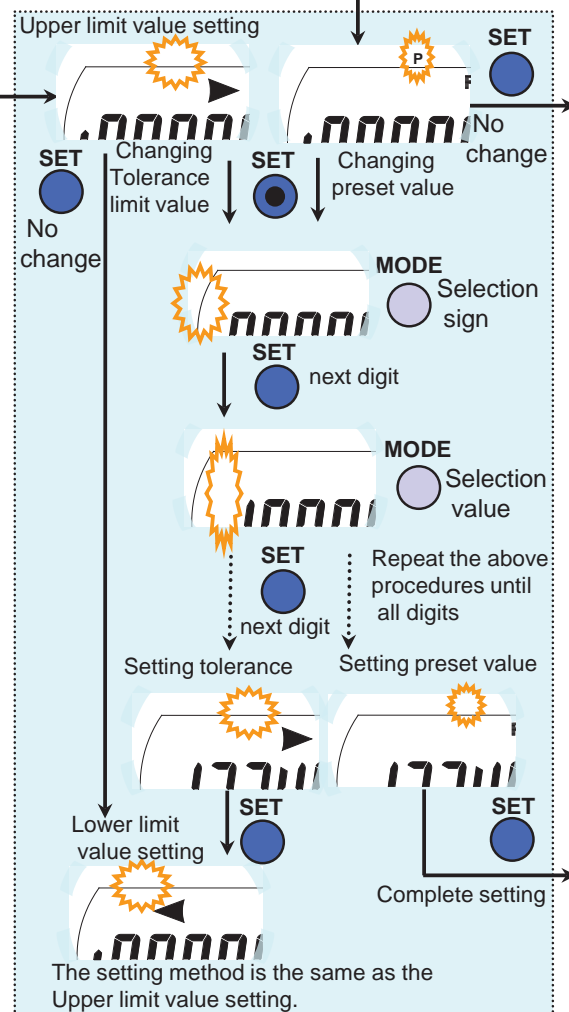
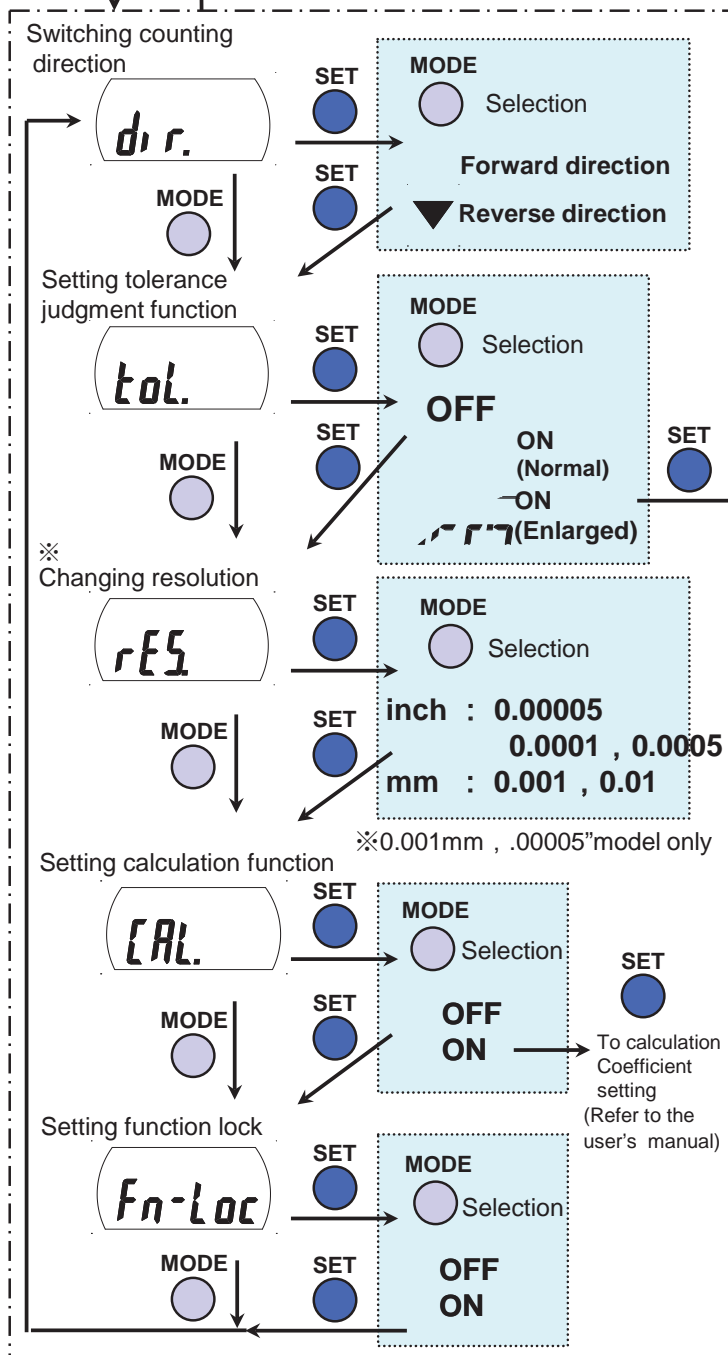
- Power On
- Holding displayed value or External output of displayed value
- Power Off

SET

- ABS mode ↔ INC mode ( Preset ) (Zero-setting)
- Setting preset value ( ABS mode ) Zero-setting ( INC mode )

Measurement mode

MODE Quit setting mode



- To cancel the setting halfway, press and hold the MODE key in area . It returns to the state in front of one. It can return to measurement mode by repeating the same operation.
- Clears all settings when the battery is put in again.

◇Meaning of the icons

	Reverse counting
<b>Ax</b>	Calculation function display. Displayed value= Calculation coefficient × Spindle displacement
	Function lock. The content of the operation has been limited.

## HOW TO CHANGE RESOLUTION

MODE

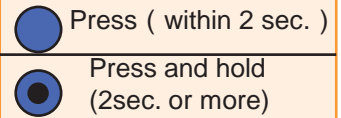


- 1) PRESS AND HOLD MODE BUTTON FOR MORE THAN TWO SECONDS

MODE



- 2) PRESS(DON'T HOLD) MODE BUTTON *TWICE*



*res.*

A BLINKING res. WILL BE DISPLAYED

SET



- 3) PRESS THE SET BUTTON (THE res. ON DISPLAY WILL STOP BLINKING)

MODE



- 4) PRESS MODE BUTTON TO TOGGLE BETWEEN RESOLUTION [(.00005", .0001", 0.005" OR 0.001", 0.01")]

SET



- 5) PRESS THE SET BUTTON

MODE



- 6) PRESS AND HOLD MODE BUTTON FOR MORE THAN TWO SECONDS TO RETURN TO STANDARD MEASUREMENT MODE

## HOW TO CHANGE LINEAR DIRECTION

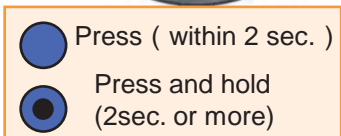
MODE



- 1) PRESS AND HOLD MODE BUTTON FOR MORE THAN TWO SECONDS

*dir.*

A BLINKING Dir. WILL DISPLAY



SET



- 2) PRESS THE SET BUTTON (THE Dir. ON DISPLAY WILL STOP BLINKING)

MODE



- 3) PRESS MODE BUTTON TO TOGGLE BETWEEN (BLANK) AND (REVERSE DIRECTION)

SET



- 4) PRESS(DON'T HOLD) THE SET BUTTON

MODE



- 5) PRESS AND HOLD MODE BUTTON FOR MORE THAN TWO SECONDS TO RETURN TO STANDARD MEASUREMENT MODE

Notes:

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