

Starrett®

3900 ELECTRONIC INDICATOR USER MANUAL

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1. LCD Display
 - Pantalla LCD
 - Écran LCD
 - Display LCD
 - LCD 显示屏
 - LCD-Anzeige
 - Display LCD
2. Inch/mm button, conversion between English or metric values
 - Botón IN/mm, conversión entre valores del sistema imperial o métrico
 - Bouton pouces/mm, conversion entre les valeurs impériales et métriques
 - Botão Inch/mm: faz a conversão entre os valores em unidades métricas e inglesas
 - 英寸/毫米按钮, 在英制值与公制值之间转换
 - Zoll/mm-Taste, Konvertierung zwischen englischen und metrischen Werten
 - Tasto IN/mm, conversione tra unità imperiali o metriche
3. (±) button, sets the direction (polarity) of the reading
 - Botón (±), establece la dirección (polaridad) de la lectura
 - Bouton (±), définit le sens (polarité) du relevé
 - Botão (±): define a direção (polaridade) da leitura
 - (±)正负按钮, 设定读数的方向 (极性)
 - (±)-Taste zur Einstellung der Richtung (Polarität) des Messwerts
 - Tasto (±) , imposta la direzione della rilevazione (polarità)
4. 3900 3/8" diameter stem or 8mm for 3900M
 - Vástago de 3/8" de diámetro para el modelo 3900 o de 8 mm para el modelo 3900M
 - Canon d'un diamètre de 3/8 po pour le 3900 ou de 8 mm pour le 3900M
 - Haste com diâmetro de 3/8" para modelo 3900 ou de 8 mm para o modelo 3900M
 - 3900: 3/8 英寸杆径, 3900M: 8 毫米杆径
 - 3900 3/8 Zoll Durchmesser Spindel oder 8 mm für 3900M
 - Diametro del gambo di attacco di 3/8 di pollice per il 3900 e 8 mm per il 3900M

COMPONENTS

5. Contact point 4-48 on 3900 or M2.5 spindle thread on 3900M

- Punto de contacto de 4-48 en el modelo 3900 o rosca del husillo de M2.5 en el modelo 3900M
- Touche 4-48 pour le 3900 ou filetage M2.5 de la tige pour le 3900M
- Ponto de contato 4-48 no 3900 ou rosca de eixo M2.5 no 3900M
- 3900:接触点 4-48;3900M:M2.5 主轴螺纹
- Kontaktstelle 4-48 bei 3900 oder M2.5 Spindelgewinde bei 3900M
- Punta tastatrice 4-48 per il 3900 o filettatura M 2,5 per il 3900M

6. Spindle

- Husillo
- Tige
- Eixo
- 主轴
- Spindel
- Asta di misurazione

7. Zero setting button

- Botón de ajuste del cero
- Bouton de mise à zéro
- Botão de ajuste zero
- 置零按钮
- Nullungstaste
- Tasto di azzeramento

8. Battery tray/door

- Bandeja/Puerta para las baterías
- Support/trappe de pile
- Compartimento/tampa da bateria
- 电池托盘/门
- Batteriefach/-klappe
- Vano contenente la pila/sportellino

NOTE: The pictures shown are illustrative; the components may vary according to the model.

NOTA: Las figuras aquí presentadas son ilustrativas; los componentes pueden cambiar conforme el modelo del instrumento.

REMARQUE : les images sont données à titre illustratif ; les composants peuvent varier selon les modèles.

NOTA: As imagens são para fins ilustrativos; os componentes variam de acordo com o modelo.

注:上图仅作说明之用, 组件可能随型号的不同而有所不同。

HINWEIS: Die Bilder dienen nur der Veranschaulichung; die Komponenten können von Modell zu Modell unterschiedlich aussehen.

NOTA: le figure sono solo a scopo illustrativo; i componenti possono variare a seconda del modello.

3900 ELECTRONIC INDICATOR



**THIS IS A STARRETT USER GUIDE FOR THE 3900
ELECTRONIC INDICATOR.**

**ALL SPECIFICATIONS IN THIS DOCUMENT ARE
CORRECT AT TIME OF PRODUCTION AND ARE
SUBJECT TO CHANGE. PLEASE CONTACT STARRETT
FOR FURTHER INFORMATION.**

	INCH	MILLIMETER
Resolution ¹	.0005"	0.01mm
Accuracy ²	.001"	0.03mm
Range	.50"	12.7mm
Data Output	No	No

1.Resolution: Smallest difference between indications of a displaying device that can be meaningfully distinguished. For a digital displaying device, this is the change in the indication when the least significant digit changes by one step (VIM).

2.Accuracy: The closeness of the agreement between the result of a measurement and a true value of the measure (VIM).

(VIM) International Metrology Vocabulary

- Instant millimeter/inch conversion
- Reverse travel to indicate direction ($\pm$)
- Zero at any position
- Battery 1.5V SR44
- Serial Number for production traceability

PRECAUTIONS WHEN USING THE INDICATOR

- Avoid dropping the Indicator.
- Avoid extreme temperatures, direct sunlight or below freezing for extended periods.
- Do not allow the indicator to get wet.
- Avoid shocks to the contact point and spindle. Do not apply any radial force to the spindle.
- If the indicator is stem-mounted, protect the indicator from being struck or bumped to prevent stem/case mechanical alignment damage.
- Do not over-tighten the mounting mechanism and use clamp mounting rather than set screws, if possible, to prevent damage to the spindle.
- Frequently clean the spindle using a dry cloth or a chamois to prevent sluggish or sticky movement. Isopropyl alcohol may be used to remove gummy deposits on metallic parts.
- Do not apply any type of lubricant to the spindle and do not use solvents.
- Avoid any disassembly or modification of the indicator.
- Avoid using anything that might damage the buttons when pressing the buttons.
- Use the appropriate gage stand or indicator holder for the job intended.

OPERATING INSTRUCTIONS

- Install the batteries that came with the indicator. Refer to "Installation/ Replacement of the Battery" on page 11.
- Clean the spindle and the contact point.
- Fasten the indicator onto a appropriate holding device.
- Turn the indicator on by moving the spindle or pressing the Zero button.
- Pick the unit of measure, inch or millimeter by pressing the IN/mm button.
- Place the indicator perpendicular to the reference surface being measured. Allow enough movement to be able to take a higher or lower measurement.
- Reset the display by pressing the ZERO Button.
- Lift the spindle to remove the reference surface, and carefully place the piece to be measured under the spindle making contact with the surface. The value measured on the display will be the difference between the reference and the measured piece.
- To change the travel direction press the " $\pm$ " button. A minus sign "-" will appear on the display indicating a negative reading.
- The tool will turn off at around 4 minutes of non-use.

INSTALLATION/ REPLACEMENT OF THE BATTERY

- The battery tray/door is at the top of the indicator and is fastened with a fillips head screw pointed out in Fig.2
- Hold the battery tray in and loosen the screw. Place the indicator face down, and then swing the battery door open as shown in Fig.3, being careful not to lose the battery.
- Remove the existing battery from the battery tray, if applicable.
- Install the new battery with the positive side facing the positive symbol on the battery tray pointed out in Fig.4
- Close the battery door and secure with the phillips head screw, and the indicator will turn on.
- The number of the replacement battery is 357/303.

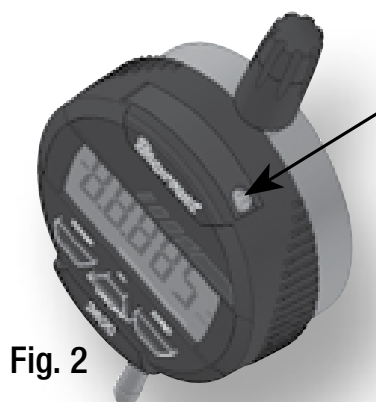


Fig. 2

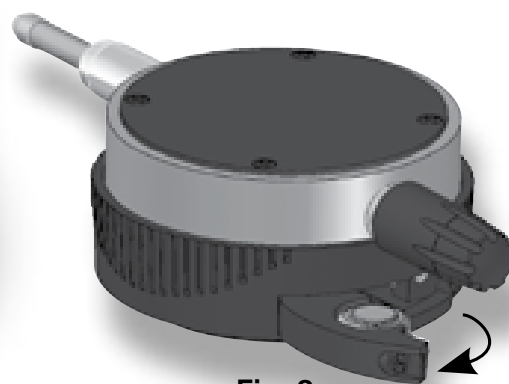


Fig. 3

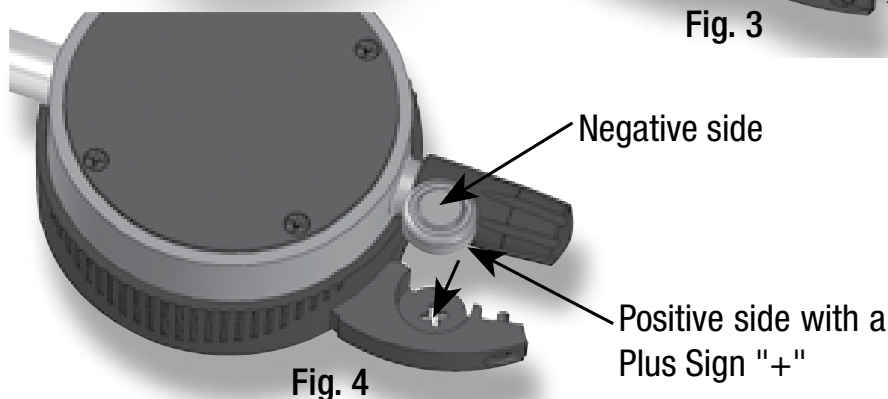


Fig. 4