



# HIGH PRECISION 150MM 200MM 300MM DIGITAL VERNIER CALIPERS

MODEL NO: **AK9641EV AK9642EV AK9643EV**

Thank you for purchasing a Sealey product. Manufactured to a high standard, this product will, if used according to these instructions and maintained properly, give you years of trouble free performance.

**IMPORTANT: PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFE OPERATIONAL REQUIREMENTS, WARNINGS & CAUTIONS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE AND/OR PERSONAL INJURY AND WILL INVALIDATE THE WARRANTY. KEEP THESE INSTRUCTIONS SAFE FOR FUTURE USE.**



Refer to instruction manual

## **BATTERY WARNING**

**KEEP OUT OF REACH OF CHILDREN**  
Swallowing can lead to chemical burns, perforating of soft tissue, and death. Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.



Warning!  
Batteries in product

## 1. SAFETY

- WARNING!** Ensure Health and Safety, local authority and general workshop practice regulations are adhered to when using tools and equipment.
- DO NOT** use if damaged.
- Maintain in good and clean condition for best performance.
- Keep children and unauthorised persons away from the work area.
- DO NOT** use the for any purpose other than for which it is designed.
- DO NOT** get wet or use in damp or wet locations, or areas where there is condensation. Keep clean and dry using a dry cotton cloth only.
- DO NOT** expose to bright sunlight or dust.
- DO NOT** dismantle.
- DO NOT** apply any voltage to the vernier.
- The AK9641EV, AK9642EV, AK9643EV are precision instruments, treat with care, avoid using force and do not subject to knocks or shocks.
- When not in use, **turn off** and store gauge in a safe, dry, childproof location.

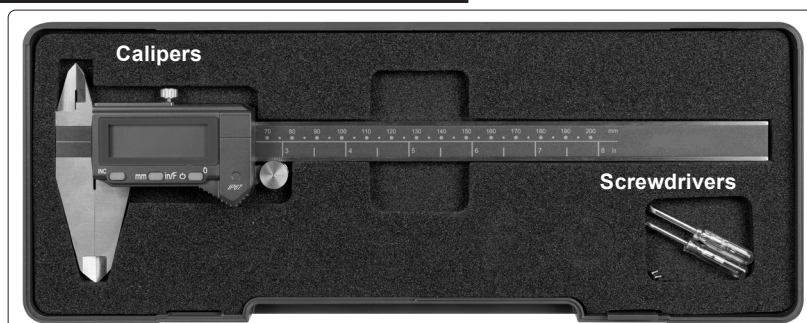
## 2. INTRODUCTION

Designed for demanding workshop and industrial environments, this digital caliper delivers reliable performance with IP67-rated protection to prevent damage from liquids and dust. Manufactured strictly in accordance with DIN 862 precision standards, it ensures consistent and accurate measurements for professional use. The caliper features a large, easy-to-read LCD display, noticeably bigger than standard screens, allowing clear visibility even in low-light conditions. Its precision-aligned, finely cut stainless steel jaws guarantee accurate results across all measurement functions, including outside, inside, depth and step measurements. Each unit is supplied with a calibration certificate, providing confidence in measurement accuracy. Accuracy:  $\pm 0.02 \text{ mm} / 0.001''$  Resolution:  $0.01 \text{ mm} / 0.0005'' / 1/128''$ . Supplied in a durable protective case, ensuring safe storage and transport.

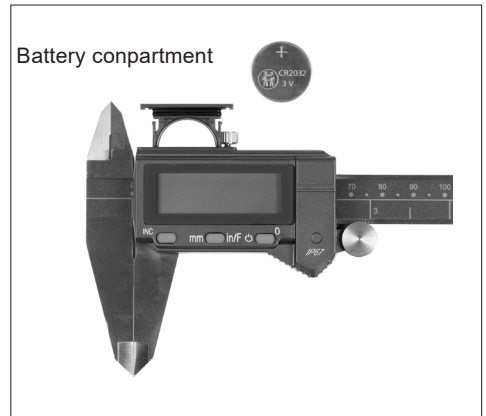
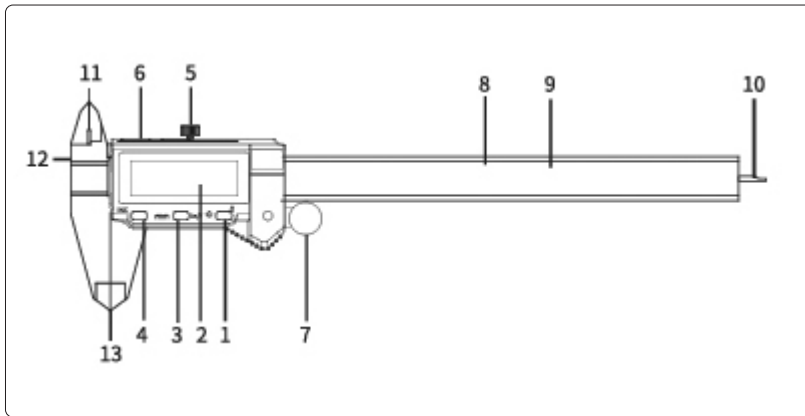
## 3. SPECIFICATION

|                             |                        |               |                |
|-----------------------------|------------------------|---------------|----------------|
| Model Nos:                  | AK9641EV               | AK9642EV      | AK9643EV       |
| Accuracy <100mm:            | 0.0005"/0.01mm         |               |                |
| Battery:                    | CR2032 lithium battery |               |                |
| Environmental humidity:     | 0-80%                  |               |                |
| Nett Weight:                | 0.45kg                 | 0.45kg        | 0.6kg          |
| Range:                      | 0-150mm (0-6")         | 0-200mm(0-8") | 0-300mm(0-12") |
| Storage and transportation: | -20-70°C               |               |                |
| Working temperature         | 0-40°C                 |               |                |

## 4. CONTENTS



## 5. FEATURES



- 1. On / Off button:** Press and release to turn the power on or off. When powered on, the system operates in absolute measuring mode. If "SET" appears on the display, press and hold button 1 to reset the calipers to zero.
- 2. LCD screen display:** Displays all measurement readings.
- 3. INC button:** Press and release the button at any position. LCD will display "0.00" and "INC", the caliper is ready for relative measurement. Press and can turn back the absolute measurement. This time the symbol "INC" disappear. Long press the button: LCD will display "0.00", The origin is set at this position.
- 4. The mm/in/F button:** Press this button to change the measurement standard.
- 5. Locking screw:** Twist right to secure the caliper position; twist left to release the lock.
- 6. Battery Cover:** Used to access and replace the battery.
- 7. Thumb Roller:** Used to smoothly move the caliper for measurement.
- 8. Measuring scale:** The upper scale is in millimetres (mm), and the lower scale is in inches.
- 9. Beam scale:** Serves as the main reference scale for taking measurements.
- 10. Depth measurement rod:** Designed for accurate depth measurement.
- 11. Internal measurement jaws:** Provide accurate internal dimension measurements.
- 12. Step measurement:** Designed for precise measurement of step dimensions.
- 13. External jaws:** Provide accurate measurement of external dimensions.

## 6. OPERATION

### 6.1. INITIAL SETUP

- 6.1.1. Rotate the locking screw of the caliper clockwise to disengage the locking mechanism and allow movement of the roller carriage.
- 6.1.2. Activate the device by pressing any key and verify that the display and keypad are fully functional.
- 6.1.3. Clean the measuring faces of the caliper. Close the jaws using moderate force and press the ZERO/SET button to initialize the reference position.

### 6.2. MEASUREMENT OPERATION

#### 6.2.1. Device Activation

- 6.2.1.1. Press the on / off switch 1 or move the slider to power on the display.

#### 6.2.2. Unit Selection

- 6.2.2.1. Select the desired measurement unit (metric or inch) using the METRIC/INCH button 4 according to the application required.

#### 6.2.3. Measurement Method

- 6.2.3.1. Position the caliper so that both measuring faces make proper contact with the workpiece surfaces. Ensure alignment and adequate contact pressure. The measurement value will be shown on the display.

#### 6.2.4. Accuracy Considerations

- 6.2.4.1. Clean the measuring surfaces before use to maintain accuracy.
- 6.2.4.2. Verify that the display reads zero prior to measurement (absolute mode).
- 6.2.4.3. When using relative measurement mode, press the INC (button 3) to set the reference (zero) point as required.

#### 6.2.5. Mode Operation

- 6.2.5.1. Absolute Measurement Mode
- 6.2.5.2. Maintains a fixed reference (original zero) position.
- 6.2.5.3. If power is interrupted, the absolute reference is preserved and does not require resetting.

#### 6.2.6. Relative Measurement Mode

- 6.2.6.1. Activate by pressing the INC (button 3).
- 6.2.6.2. The display will show the INC indicator.
- 6.2.6.3. Measurements are taken relative to a user-defined zero point.


#### 6.2.7. Mode Switching

- 6.2.7.1. Press the INC (button 3) to toggle between absolute and relative measurement modes.
- 6.2.7.2. In absolute mode, the INC indicator is not displayed and measurement restarts from the original zero position.

#### 6.2.8. Power Management

- 6.2.8.1. If the device remains inactive for more than 8 hours, it automatically powers down.
- 6.2.8.2. To resume operation, power on the device; the caliper will return to absolute mode.
- 6.2.8.3. Clean the measuring surfaces if necessary, then close the jaws and press ZERO/SET to recalibrate.

## 7. MAINTENANCE

- 7.1. After use, remove any contaminants such as dust, water, or cutting fluid from the measuring surfaces using a lint-free cloth.
- 7.2. Avoid the use of organic solvents.
- 7.3. If necessary, use alcohol-based cleaning agents and dry immediately after cleaning.
- 7.4. Store the caliper in its protective case after use.
- 7.5. Prevent damage by avoiding impacts, drops, or improper handling.
- 7.6. **Battery Replacement**
- 7.6.1. A flashing  indicator on the LCD signifies low battery voltage.
- 7.6.2. Install a replacement battery of the same specification. To access it, remove the two crosshead screws securing the cover, then release the latch on the side of the battery compartment to open it. Suitable screwdrivers are provided in the retaining box.
- 7.7. **Setting Zero (Origin)**
- 7.7.1. Fully close the jaws.
- 7.7.2. Press and hold the ZERO/SET button for about 5 seconds.
- 7.7.3. When the display reads "0.00", the zero point has been correctly set.

## 8. POSSIBLE BATTERY INGESTION

- 8.1. **NO OBVIOUS SYMPTOMS**  
**NOTE:** Unfortunately, it is not obvious when a button or coin battery is stuck in a child's oesophagus (food pipe). There are no specific symptoms associated with this. The child might:
  - 8.1.1. Cough, gag or drool a lot;
  - 8.1.2. Appear to have a stomach upset or a virus;
  - 8.1.3. Be sick;
  - 8.1.4. Point to their throat or stomach;
  - 8.1.5. Have a pain in their abdomen, chest or throat;
  - 8.1.6. Be tired or lethargic;
  - 8.1.7. Be quieter or more clingy than usual or otherwise "not themselves";
  - 8.1.8. Lose their appetite or have a reduced appetite; and
  - 8.1.9. Not want to eat solid food / be unable to eat solid food.
- 8.1.10. These sorts of symptoms vary or fluctuate, with the pain increasing and then subsiding.
- 8.1.11. A specific symptom to button and coin battery ingestion is vomiting fresh (bright red) blood. If the child does this seek immediate medical help.
- 8.1.12. The lack of clear symptoms is why it is important to be vigilant with "flat" or spare button or coin batteries in the home and the products that contain them.



### ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.



REGISTER YOUR PURCHASE HERE



### WEEE REGULATIONS

Dispose of this product at the end of its working life in compliance with the EU Directive on Waste Electrical and Electronic Equipment (WEEE). When the product is no longer required, it must be disposed of in an environmentally protective way. Contact your local solid waste authority for recycling information.



### BATTERY REMOVAL (For removal details see section 5)

Under the Waste Batteries and Accumulators Regulations 2009, Jack Sealey Ltd are required to inform potential purchasers of products containing batteries (as defined within these regulations), that they are registered with Valpak's registered compliance scheme. Jack Sealey Ltd Batteries Producer Registration Number (BPRN) is BPRN00705.

**Note:** It is our policy to continually improve products and as such we reserve the right to alter data, specifications and component parts without prior notice.

**Important:** No Liability is accepted for incorrect use of this product.

**Warranty:** Lifetime Guarantee - IP67-rated protection preventing damage from liquids and dust in harsh workshop environments.

**Jack Sealey Ltd t/a Sealey Group**, Kempson Way, Suffolk Business Park, Bury St Edmunds, Suffolk, IP32 7AR UK  
**Jack Sealey (EU) Ltd t/a Sealey Group**, Farney Street, Carrickmacross, Co. Monaghan, A81 PK68 Ireland  
**Tel:** 01284 757500 - **Email:** sales@sealey.co.uk - **Web:** www.sealey.co.uk