



INSTRUCTION MANUAL

# **AK52** POCKET CONDUCTIVITY METER

#### **MEASUREMENT ADJUSTMENT (CALIBRATION)**

The AK52 can be set to default value of conductivity of 1413µS/cm. To make the adjustment, follow the procedures below:

- 1) Into a small container, add approximately 50mL of the conductivity standard solution 1413µS/cm;
- 2)Remove the electrode protection cup;
- 3) Turn on the AK52 by pressing the **On/Off** button;
- 4) Rinse the electrode with distilled or deionized water in abundance:
- 5)Remove excess water using a soft paper towel. Make sure not to leave any water residue on the tip of the electrode:
- 6) Immerse the electrode in the conductivity standard solution, gently agitating to homogenize it;
- 7)Keep the instrument at rest (still) for a few seconds to stabilize the reading:
- 8)After the reading stabilizes, keep pressing the button CAL until the message CAL appears on the display. Release the button:
- 9)Wait for the message SA to appear on the display followed by End, signaling that the adjustment has been saved and completed.

## **1. SPECIFICATIONS**

#### Conductivity Temperature - Measuring range: 0.01 to 3999 µS/cm 0.0 to 50.0°C 0.01mS/cm - Resolution: 0.1°C - Accuracy: ± 3µS/cm + 2% ± 1.5°C

- Adjustment points: 1413µS/cm
- Automatic temperature compensation (ATC): 0 to 50 °C
- IP rating: IP54
- Automatic shutdown: 5 minutes
- Operating temperature: 0 to 50°C
- Operating humidity: 5 to 90%RH (non-condensing)
- Power: 6Vdc (4x LR44)
- Dimensions (WxHxD): 38 x 188 x 38mm
- Weight: 85g
- Additional functions:
- Low battery indication

Freeze reading on the display (HOLD)

- Items sold separately:
- Electrode for AK52 AK1056
- Standard solution 1413µS/cm AK4523

#### IMPORTANT:

• Before use, verify the AK52 carefully. If you detect any abnormalities, contact AKSO,

#### NOTE:

 After completing the adjustment procedure, discard the solutions used in running water.

**NEVER REUSE SOLUTIONS!** 

 Adjust/calibrate the AK52 periodically or before measurements.

#### **4. ADDITIONAL FUNCTIONS**

#### HOLD

To activate/deactivate Reading Freeze, press the HOLD button. **HOLD** will appear on the display while the function is active.

#### TEMPERATURE UNIT SELECTION - °C / °F

To change the temperature measurement unit, turn the instrument on and briefly press the CAL button. By pressing the following options will appear:

- → °C degrees Celsius [°C]
- → °F degrees Fahrenheit [°F]

### **5. MAINTENANCE**

#### ELECTRODE REPLACEMENT

1)Remove the electrode protection cup; 2)Rotate the attachment wing (on the top of the electrode) counterclockwise and remove it: 3) Detach the used electrode from the AK52: 4) Carefully install the new electrode for AK52, paying attention to its correct placement and connection; 5)Reattach the electrode attachment wing tightening it firmly (without applying force).

#### BATTERY REPLACEMENT

When "---" appears or when the characters start blinking on the display, replace the used batteries with new ones according to the procedure below:

1)Pull the battery compartment cover (at the top of the AK52) and remove it;

2)Remove the used batteries inside the compartment; 3)Install 4 new batteries observing their polarity; 4) Reattach the compartment cover by tightening it firmly.

#### 3. INSTRUCTIONS OF USE

#### ON - OFF

To turn the AK52 on/off, briefly press the button On/Off.

#### MEASUREMENT

- 1)Remove the electrode protection cup;
- 2) Turn on the AK52 by pressing the **On/Off** button;
- 3)Rinse the electrode with distilled water in abundance;
- 4)Remove excess water using a soft paper towel. Make sure not to leave any water residue on the tip of the electrode:
- 5)Immerse the electrode tip in the sample to be analyzed, gently agitating to homogenize it;
- 6)After the reading stabilizes, check the measured conductivity and temperature values on the display; 7)For a new measurement, repeat steps 3 to 6.

#### NOTE:

- During measurements, immerse only the tip of the electrode in the sample. Avoid contact of the sample with the electrode attachment ring!
- . Upon finishing the measurements, always rinse the electrode with distilled water in abundance.

#### CLEANING THE ELECTRODE

Clean the electrode periodically using water. For more information, contact Technical Support or visit the AKSO website.

#### **RESTORATION TO FACTORY DEFAULT**

- 1)With the AK52 turned on in measurement mode, keep pressing the HOLD button until the display shows the **CLr** message. Release the button;
- 2)Perform the conductivity measurement adjustments.

#### DISPOSAL OF BATTERIES AND ELECTRONICS



This product contains battery and electronic components. Do not dispose of them with other common household waste. Deliver them to the appropriate collection center in accordance with local guidelines. Important: The correct disposal of electronics and batteries prevents negative effects on the environment and on human health!



HOLD button HOLD On/Off button -O Electrode attachment ring Protection and storage cup

Battery compartment cover

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CAL

CAL button

2. OVERVIEW