A&D Company, Ltd.

AD-4724

Household Salt Meter Instruction Manual

About This Manual

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1WMPD4005350A

1. Introduction

Thank you for purchasing the AD-4724 household salt meter. This manual describes how the product works and how to get the most out of the product. Read this manual thoroughly before using the product and keep the manual at hand for future reference.

2. Safety Precautions

To prevent accidents due to inappropriate handling, this manual contains the following warning signs and marks.

WARNING DEFINITIONS

The meanings of these warning signs and marks are as follows.

⚠CAUTION	This symbol indicates a potentially hazardous situation that, if not avoided, could result in personal injury or property damage.

Note the following when operating the product.

⚠CAUTION

Repair

Only qualified professionals should open the case and conduct repairs. Performing such repairs yourself may void the warranty, damage the product, or otherwise cause loss of functionality.

Product malfunction

If any abnormality is found with the product, stop using it immediately. Attach a notice to the product indicating that the product is “Out of Order” or move the product to a location where it will not be used accidentally. Continued use of the product is extremely dangerous. For repairs, please contact the store where you purchased the product or an A&D office.

3. Precautions for Use

- Do not apply strong impacts, vibrations, or electrical shocks to the product as they may cause the product to malfunction.
- Avoid using the product in locations subject to a strong magnetic field or electric field (such as near a television, IH cooking utensil, or microwave), as doing so may adversely affect the product.
- Do not use or place the product in locations subject to direct sunlight for long hours or near a heating device such as a household heater. This product operates at temperatures from 0 to 40°C. Using the product outside this temperature range may cause it to malfunction.
- Avoid using the product in locations subject to sudden changes in temperature, high temperatures, high humidity, or high dust content.
- Do not use the product during cooking, disassembly, charging, modification, or in fire.
- Because the main unit is made of plastic, do not subject it to flame, drop it into a liquid that is at high temperature, or use or place it in a location subject to high temperatures. Doing so may cause malfunction or damage to the product.
- Keep the product out of reach of children. The tip of the product can pierce the eye, which is extremely dangerous.
- This product is for cooking. Do not use it for measuring the salinity of a non-food liquid.
- This product is waterproof, but do not keep it soaked in water for extended periods of time or use it immersed in water.
- The product complies with the IP65 standard for waterproofing, which means it is not affected by water sprayed from a nozzle in any direction.
- Do not place the product in a dishwasher or drier.
- If a battery that is running low is inserted in the product or the battery starts running low during use, the buttons may not operate or the display may display incorrect information. In this case, follow the procedure in "4. Replacing the Battery" to replace the battery.
- To prevent danger, do not use the product in a location where there is flammable gas.

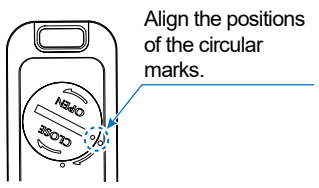
4. Replacing the Battery

Follow the procedure below to insert the battery correctly.

* If the main unit is wet, wipe away any moisture before replacing the battery. Water entering the main unit may cause a malfunction.

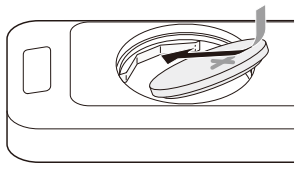
Replacing the Battery

1. Remove the battery lid on the back of the main unit. Use a coin to turn the battery lid on the back of the main unit counterclockwise.

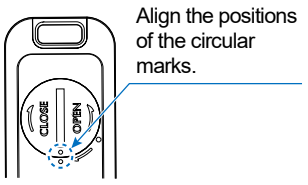


2. Remove the old battery, and insert a new CR2032 coin battery with the positive side facing up.

* When replacing the battery, inserting the battery straight down may damage the metal fitting, so carefully insert the battery at an angle.



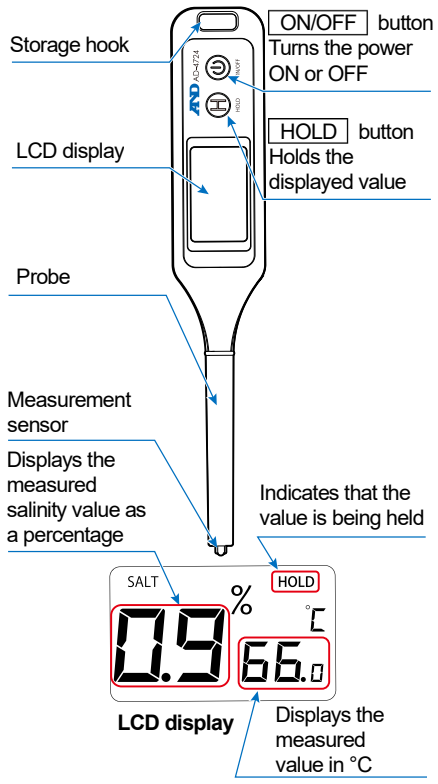
3. Return the battery lid to its original position. Confirm that there is a rubber ring in the battery lid area. Use a coin to turn the battery lid clockwise and align the position of the circular marks on the battery lid and case, as indicated in the figure below.



Precautions for Using the Battery

- The included battery is for monitor purposes and may have a short life.
- If you will not use the product for an extended period of time, remove the battery before storing the product.
- Make sure to use the specified battery (CR2032 coin battery × 1).
- Make sure that orientation of the battery terminals is correct. Inserting the battery upside-down may cause malfunction.
- Do not charge, short-circuit, disassemble, or dispose of the battery in fire, as doing so may cause it to rupture or leak fluid.
- Keep the battery out of reach of children. If the battery is swallowed, seek medical assistance immediately.

5. Names of Parts



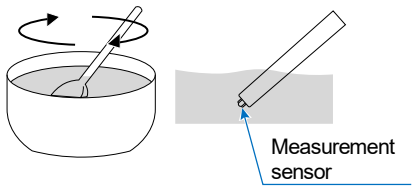
6. Using the Product

Check whether the measurement sensor is dirty before measurement. Accurate measurement is not possible if the sensor is dirty.
If it is dirty, wash it clean with water before use.

If it is very dirty, wipe it off with a soft cloth slightly moistened with a neutral detergent, then rinse it with water, and wipe away any moisture with a soft, dry cloth.

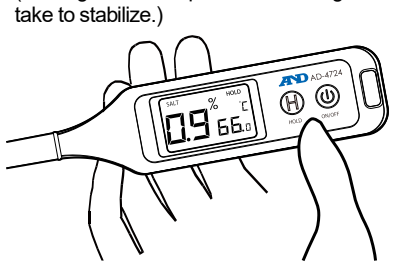
Measuring Salinity

1. Press the ON/OFF button to turn the product ON.
2. Stir the soup or other liquid, and insert the measurement sensor completely into the liquid. Accurate measurement is not possible unless the measurement sensor is completely immersed in the liquid.



3. The measured value is displayed.

* The time it takes for the measured value to stabilize may differ according to the salinity and temperature of the liquid. (The higher the temperature, the longer it will take to stabilize.)



4. Press the ON/OFF button to turn the product OFF.
5. After measurement, rinse the measurement sensor well with water, and wipe away any moisture with a soft, dry cloth.

Auto Power OFF Function

If you do not perform any operations for approximately 10 minutes, the product will automatically turn OFF.

Calculating Salt Intake from Salinity

The salinity measured by this product can be used to calculate salt intake (in grams). For example, if an approximately 150 gram cup of soup has 1.3% salinity, the salt intake can be derived as follows.
(One 150 g cup of soup × salinity 1.3%) ÷ 100 = salt intake 1.95 g

7. Displayed Errors

LCD Display	Description
H	The measured salinity exceeds 1.9 %.
LL.L	The measurement temperature is too low.
HH.H	The measurement temperature is too high.

8. Troubleshooting

Nothing is displayed. The display is faint and hard to see.	Check the battery level. The LCD will also be fainter at low temperatures, but this is normal behavior.
Measurement values are unstable.	Ensure that the measurement sensor is completely immersed in the liquid and stir the liquid well.
Measurement values are strange.	Check whether the measurement sensor is dirty.
	Check whether the measurement sensor is touching the ingredients or container of the liquid.
	Check whether the liquid is at a temperature of 20 to 50 °C.
	Thick liquids such as paste cannot be measured accurately.
	If the liquid contains tomato, citrus, or vinegar, the ions present in the liquid may prevent accurate measurement.

9. Product Maintenance

When cleaning the product, wipe it gently with a soft cloth that is moistened and tightly wrung out.
If the product is very dirty, wipe it off with a soft cloth slightly moistened with a neutral detergent.
Do not use organic solvents, chemical wipes, or brushes.
Using a spray for cleaning may cause malfunction.
Do not use thinner, benzene-like volatile solvents, or abrasives.

10. Specifications

Item		Description
Salinity	Measurement range	0.0 to 1.9 %
	Measurement accuracy	±0.2 % (0.3 to 1.3 %) ±0.4 % (0.0 to 0.2 %, 1.4 to 1.9 %)
	Resolution	0.1 %
Temperature	Measurement range	0.0 to 70.0 °C
	Measurement accuracy	±2.0 °C
	Resolution	0.1 °C
Temperature of liquid		20 to 50 °C
Measurement time		Approx. 1 to 30 sec.
Auto power OFF		Approx. 10 min.
Salinity measurement method		Electrical conductivity
Temperature sensor		Thermistor
Waterproof performance		IP65
Operating environment (main unit)		0 to 40 °C, 85 % or less RH (without condensation)
Storage environment		0 to 50 °C, 85 % or less RH (without condensation)
Battery		CR2032 × 1
Battery life		Approx. 1 year (when used for 5 minutes each day)
Dimensions		185 mm (H) × 32.2 mm (W) × 15.4 mm (D)
Main unit weight		Approx. 35 g (including battery)
Standard accessories		Instruction manual, battery (for monitor), silicon cap
Materials		LCD: PMMA Main unit: ABS Buttons: Silicon Electrode: Gold-plated copper Temperature sensor: Stainless steel
Optional accessories		Battery lid: AXP-AD4724-1 Silicon cap: AXP-AD4724-2