

INSTRUCTION MANUAL

No. 7612-00 Barometer With Digital Thermometer



SK SATO KEIRYOKI MFG.CO.,LTD.

Thank you for purchasing the Barometer with digital thermometer.

This product is designed to measure indoor barometric pressure and temperature by being mounted it on a wall. Do not use it for other purposes. Read this manual thoroughly before using. Keep the manual in a safe place for future references whenever necessary.

1. HOW TO USE

Since the battery has been installed at factory shipment, the display may become dim in a short time. If so, replace it to the attached battery.

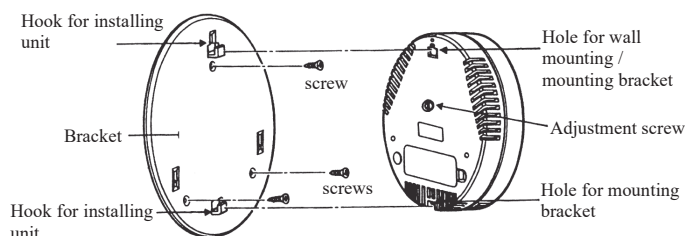
1-1. Replacement of a battery

- ① Open the lid of the battery compartment on the back of the unit and insert the "AA" size battery attached confirming (+) and (-) shown in the battery compartment
- ② Battery life is about one year, but it should be replaced when LCD becomes dim.



1-2. Installation with bracket

- ① Mount the bracket on a wall with the screws attached at 3 points.
- ② Slide the holes on the back of the instrument over the bracket hooks.



Warranty

1. This product is warranted to be free from defects in materials and workmanship in the period of one year from the delivery date to the original purchaser. If repair or adjustment is necessary and has not been the result of abuse or misuse within the one-year period, please contact our distributor. Out-of-warranty products will be repaired on charge basis.
2. On the following conditions, products will be repaired on charge basis even within the warranty period.
 - a. Defect due to misuse, abuse or mishandling.
 - b. Defect due to calamities, such as fire, earthquake, theft etc.
 - c. Defect due to improper repair, alteration and abnormal voltage.
 - d. Defect of external view, such as damages caused when the instrument is in use.
 - e. Replacement of consumables and accessories.

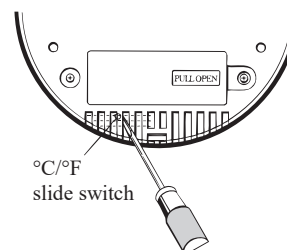
SATO KEIRYOKI MFG.CO.,LTD.

3-4, Kanda-kajicho, Chiyoda-ku, Tokyo 101-0045 Japan
URL: <http://www.sksato.co.jp/english/>

K.07

1-2. Alternation of unit temperature with °C - °F

- (1) Factory default of temperature indication is °C.
- (2) To indicate temperature with °F, slide the °C / °F slide switch to the right from the third hole at the bottom with use of a screw driver, etc.
- (3) To return to °C indication, slide the slide switch to the left.



2. PRECAUTIONS

2-1. Care for installation

- Do not use
 - in corrosive gas
 - in dusty environments
- Do not place near heating units or in direct sunlight.
- Do not mount on the wall where directly contacts with air circulation rom outdoors.
- Keep the instrument in vertical position without vibration.

2-2. Care for handling

- It takes about 15 - 30 minutes to indicate accurate value after mounted.
- Do not disassemble or it will be the cause of trouble.
- Be careful not to give shocks to the instruments.
- Handle with care. This instrument uses as precise mechanism to transmit the expansion and contraction of the aneroid capsule to the analog meter. Rough treatment can damage the mechanism.
- Adjustable screw on back of unit can be used to adjust reading to barometric pressure at your altitude – no need to use sea level conversion. Barometric pressure at your altitude may be found by calling a local airport or local weather service.
- Be careful about water and dews. Vents are intended only for proper air circulation.
- Do not cover the instrument with vinyl sheet in order to protect against water. Accurate barometric pressure reading will not be obtained.
- Use the instrument in the environment at 0 to 50°C.
- Be careful not to discard weak battery into fire.
- Make sure the polarities are correct (+) (–).

2-3. How to care

Remove stains with a soft cloth. Never clean with thinner, benzene, or alcohol.

3. SPECIFICATIONS

Cat. No.		No. 7612-00
Product		Barometer with digital thermometer
Barometric pressure	Sensor	Aneroid Chamber
	Measuring range	945 to 1045 hPa (Black scale) 710 to 780 mmHg (Red scale)
	Indication	Analog display (with a reference pointer)
	Min. graduation	1 hPa (1 mmHg)
	Accuracy	±1 hPa (980 to 1020 hPa) ±3 hPa (at other range)
Temperature	Sensor	Thermistor
	Measuring range	0 to 50°C
	Indication	Digital display (3 digits)
	Resolution	0.1°C
	Accuracy	±1°C (0 to 40°C) ±2°C (at other range)
	Sampling time	Every 10 seconds
Battery life		Approx. one year in normal ambient
Storage Ambient	Temperature	0 to 40°C
	Humidity	20 to 80 %rh (no condensing)
Materials of body & flange		ABS resin
Dimensions	Main body	Ø135 × 33 (D)mm
	Bracket	Ø160 × 4(D)mm
Weight		0.22kg (including a battery)
Accessories attached		Instruction manual Bracket with 3 screws 2 “AA” size manganese batteries (one is factory set)

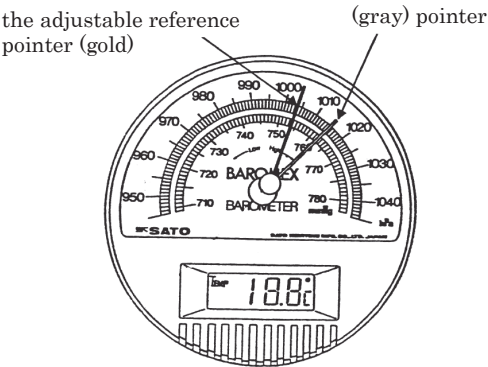
The Specifications and design subject to change with or without notice

4. OPERATION

- Overlap the gold adjustable reference pointer on the gray pointer which indicates the present barometric pressure. As time passes, the gray pointer will move either to left or right or still remain. You can forecast general tendency of the weather at the place by the movement.
- Barometric pressure indicates the density of air layer that surrounds the earth. “High pressure” and “low pressure” are relative term since there is no distinct point on the scale that clearly defines where low pressure and high pressure begins and vice versa.

Barometer and typhoon

It is a typhoon when the barometer shows a distinct change of barometric pressure. If the indicator is moving fast to the left (low pressure area) it shows that the typhoon is drawing near. If the indicator which stayed at some point in low pressure area begins to move to the right, it will show that the center of the typhoon is leaving even if it is blowing hard and is raining heavily.



5. SEA LEVEL CORRECTIONS

The weather observations (T.V., radio and newspapers) announce the barometric pressure (in hPa) they are referring to the barometric pressure at a height of zero meters above sea level. The biggest problem when using a barometer with the fact that the indicated reading (barometric pressure) changes with the height (meters above sea level) of the place where the barometer is being used. This is expressed in Fig. 2. As the ground gets higher the air becomes thinner and because the barometric pressure drops the pointer of the barometer will point to the low barometric pressure area of the scale.

Upon reaching a height of 100m above sea level the reading of the barometer will drop approximately 12 hPa.

The higher above sea level the more the pointer will move left to the low-pressure zone. For example, if one measures the barometric pressure on a piece of land 100m above sea level and the result is 100 hPa one calculates the barometric pressure at sea level to be 1013 hPa by adding the 12 hPa of barometric pressure that was lost to the height above sea level.

This method is referred to as “Correcting to Sea Level” and weather observatories announce the barometric pressure corrected to sea level using this method.

