

## Instruction manual for Instant Moisture Checker Model SK-940A

Thank you for purchasing the Instant Moisture Checker Model SK-940A.

- Read this manual thoroughly before using. Keep this manual in a safe place for future references whenever necessary.

### Before use

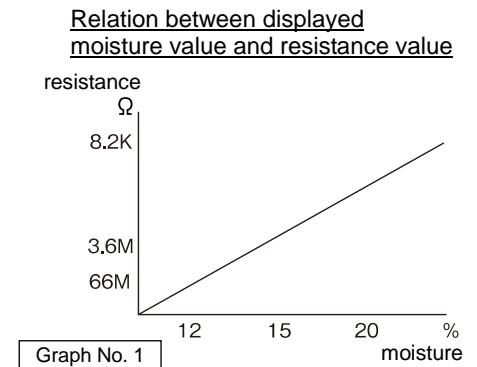
- . This SK-940A is designed to measure the electric resistance between two electrodes on the probe and display a value that represents the moisture content.
- . The displayed reading is not an absolute value; it is relative to electric conductance. If the sample has a high concentration of highly conductive substances such as salts or metals, the reading will be higher than the actual moisture content. However, as long as these substances are in small quantities and are evenly distributed throughout the sample, and so have little effect on the moisture content value, the device settings are useful for comparative examinations.
- . In the SK-940A, six ranges are provided such as one standard range (S) and five Users-ranges (1/2/3/4/5).

At factory shipment, the setting value in all ranges (S/1/2/3/4/5) is tentatively set that the angle is 100 and the equilibrium is 0.0 as the graph No.1. The setting values can be individually changed in all ranges (S/1/2/3/4/5).

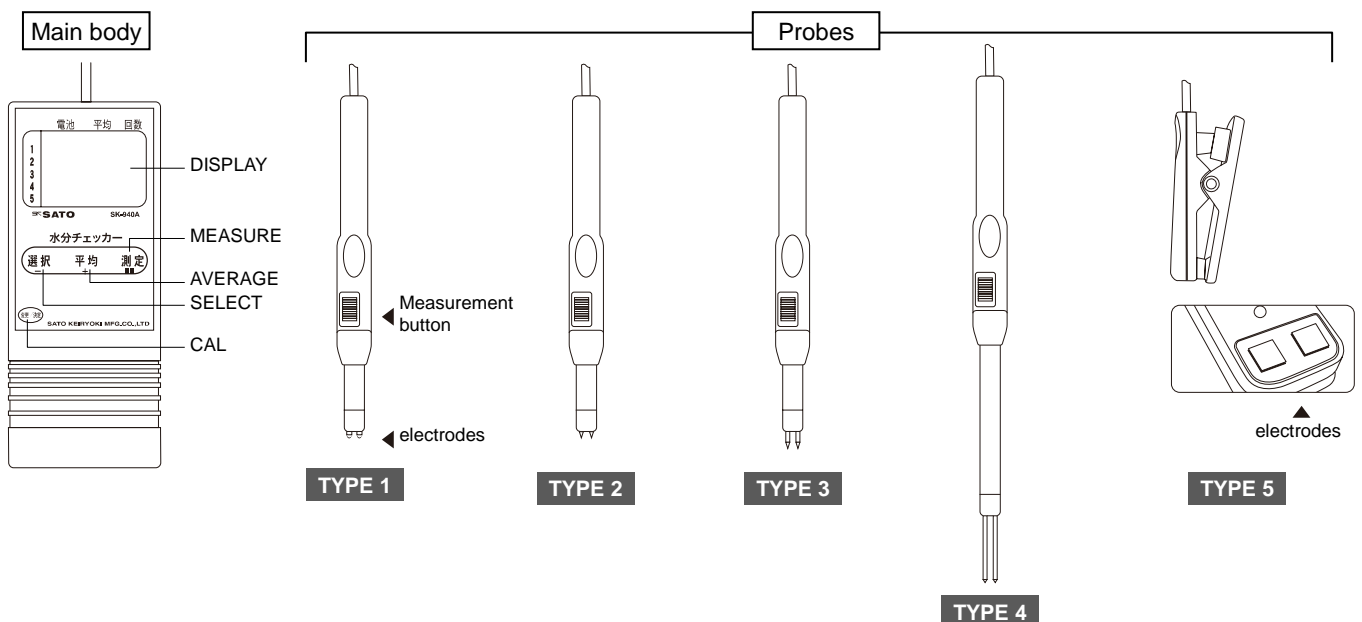
This default range is available in most cases, however in order to have more accurate readings, "Users-ranges" (1/2/3/4/5) is usable. Refer to "Set up Users-ranges"

NB. In the standard range, the default setting is also changeable; however it would be better not to change the value.

- . If the unit is not used for a long period of time, remove the battery. Otherwise, the battery may leak resulting in malfunctions.



### Names of section



## How to use

1. Check that the sensing part is clean. When the part is dirty, wipe it with a dried cloth.
2. Press [測定] (measurement) button and confirm that [L] displays.
3. By pressing [選択] (select) button, move the cursor to the range (S, 1, 2, 3, 4 and 5) you want to measure.
4. Apply the electrodes of probe to the sample (object to be examined). Be sure to apply two electrodes to the sample with uniform force (pressure).
5. Press the [測定] (measurement) button either of the probe or main body.
6. For accurate readings, measure the same sample more than three times and detect an average value by pressing [平均] (average).
7. After the measurement, be sure to clean the sensor section.
8. Power will automatically turn off after 2 min.

### Average:

By pressing the [平均] "Averaging" button, averaged moisture value of the up to last 9 data since the power has turned on is displayed. When the "Averaging button" is pressed, the data stored are reset. If you measured more than 9 times, the data of the earlier measurement are erased and the latest 9 data are stored. When the power is turned off, all data stored are reset.

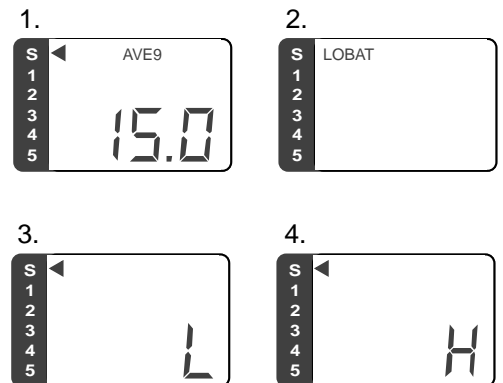
NB: Be sure to press the averaging button before starting measurement of different sample.

## Notes on measurement

1. It is desirable that there are little difference in temperature between the sample and the unit for accurate measurement.
2. The power is automatically turned off if the unit is not operated for approx. 2 min. At this time, all stored data are reset.

## Display

1. [平均] (Average)  
"AVE" blinks at upper part of the display when measurement starts.  
The latest 2 to 9 measurements are averaged.
2. Low battery mark  
"LOBAT" appears when the battery power is insufficient.  
Replace the battery with new one.
3. Low moisture  
"L" appears when the moisture content of sample is 10% or less,
4. High moisture content  
"H" appears when the moisture content of sample is 40% or more.



## Uses-range (set up a moisture value to your original)

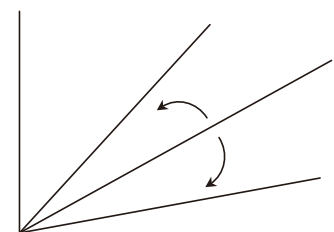
It is possible to individually set the suitable value responds to each sample in 5 users-ranges. In the Users-ranges, range angle and equilibrium of range are changeable.

### A) Angle change

1. Select the range by pressing [選択] (select) button.
2. Press [変更/決定] (Cal.) button.  
[A] appears at upper right and [100] is displayed. The default setting is [100] in all ranges. When the setting was changed before, the value of the latest setting is displayed.

To lower the value, press [-] button  
To increase the value, press [+] button

NB: The movable range is 0 to 199. Keep pressing the button 1 sec. or more to change the numbers in succession.



A) Angle change

3. Press [変更/決定] (CAL.) button again to complete the setup.

## B) Parallel change (equilibrium)

1. Press [測定] (measurement) button under the angle change display.  
The character at upper right changes to [H] and [0.0] displays.  
The default setting is [0.0] in all ranges. When the setting was changed  
the value of the latest setting is displayed.

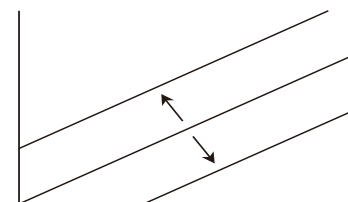
2. To lower the value, press [-] button. To increase the value, press [+] button.

NB: The movable range is -19.9 to +19.9. Keep pressing the button 1 sec.  
or more to change the numbers in succession.

3. Press [変更/決定] (CAL.) button again to complete the setup. When you set up the angle change again,  
press [測定] (measurement) button.

4. If a measured value was displayed before setting up, the value is re-calculated with the new setup.

NB. During changes, a power supply is not turned off automatically. Be sure to press an A/P button when the  
operation ends.



B) Parallel change

## **NOTE**

\* Powdered objects and granular ones cannot be measured.

\* Apply electrodes to the sample with a uniform force (pressure). Depending on the pressure intensity, displayed  
value may be different,

\* SK-940A has temperature compensation function. So it is not required to compensate the temperature against  
the measured value within the measuring range, however if there is a large difference in temperature between  
the unit and the sample, it results in measurement error.

## **Specifications**

Model	: SK-940A Instant Moisture Checker
Measuring method	: Electric resistance type
Measuring ranges	: 9.0 to 40.0% (Types 1, 2, 3 and 5) 12.1 to 58.0% (Type 4)
Operating ambient	: 5 to 40°C
Power requirement	: One 9V battery (6F22)
Dimensions	: Main body: 62 (W) x 148(H) 24(D)mm Cord length: 0.5m
Weight	: about 145g (including the battery)
Accessories	: 1 pc. of 9V battery, carrying case

## **SATO KEIRYOKI MFG. CO., LTD.**

3-4, Kanda-kajicho, Chiyoda-ku, Tokyo 101-0045 Japan

URL: <http://www.sksato.co.jp/english/>

