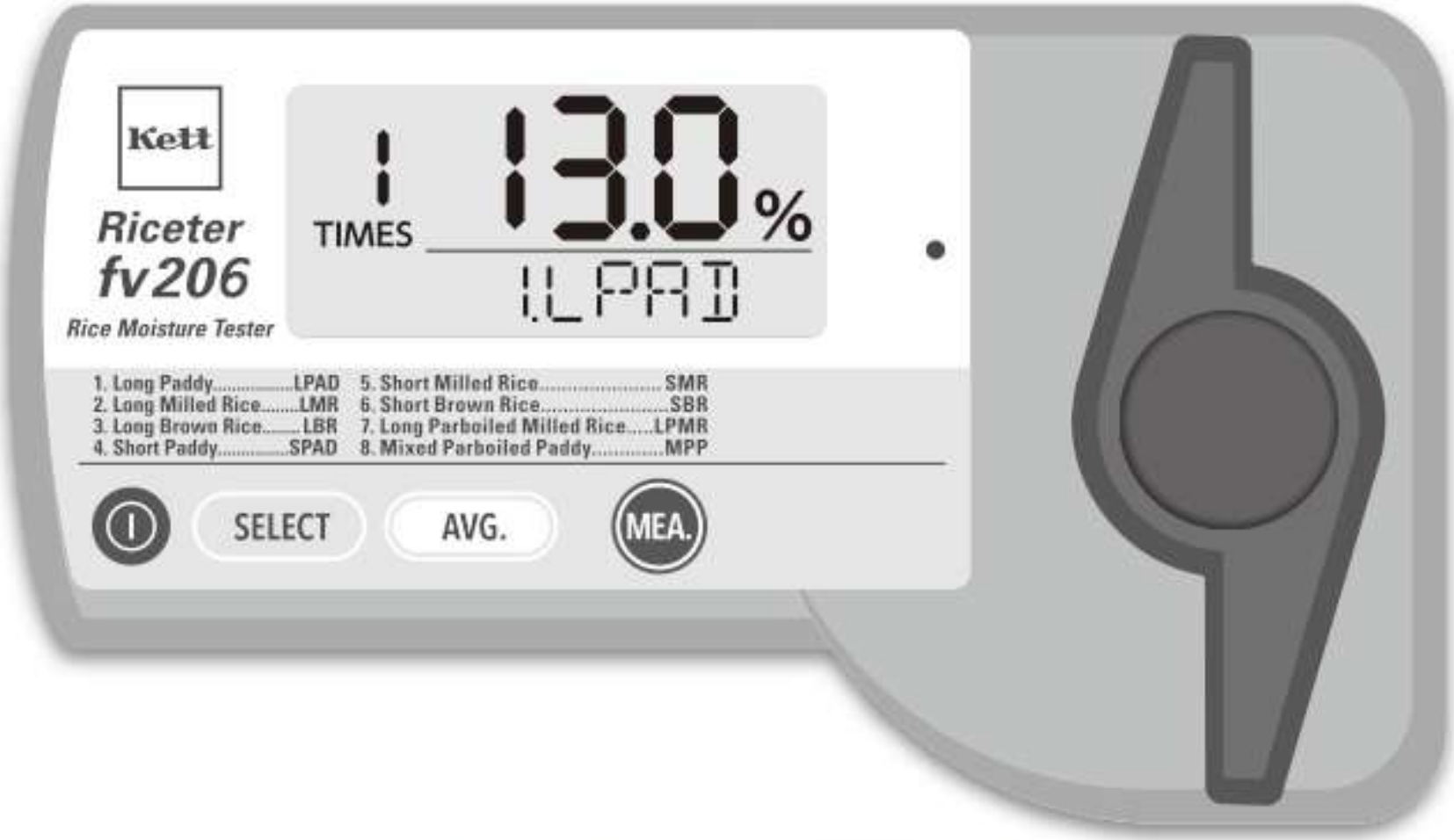



# *Rice Moisture Tester* *Riceter fv206*

# Operating Manual

# Table of contents

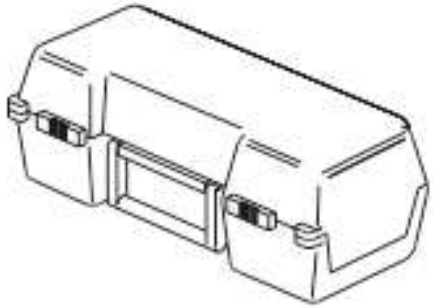
## Contents of Package

Sample tray
(2 pcs)

Spoon
with tweezers

Cleaning brush

Battery
(AA size x 4 pcs)



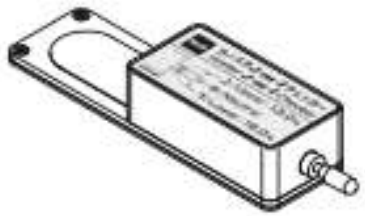
Carrying case

**<Option>**

Operating
manual

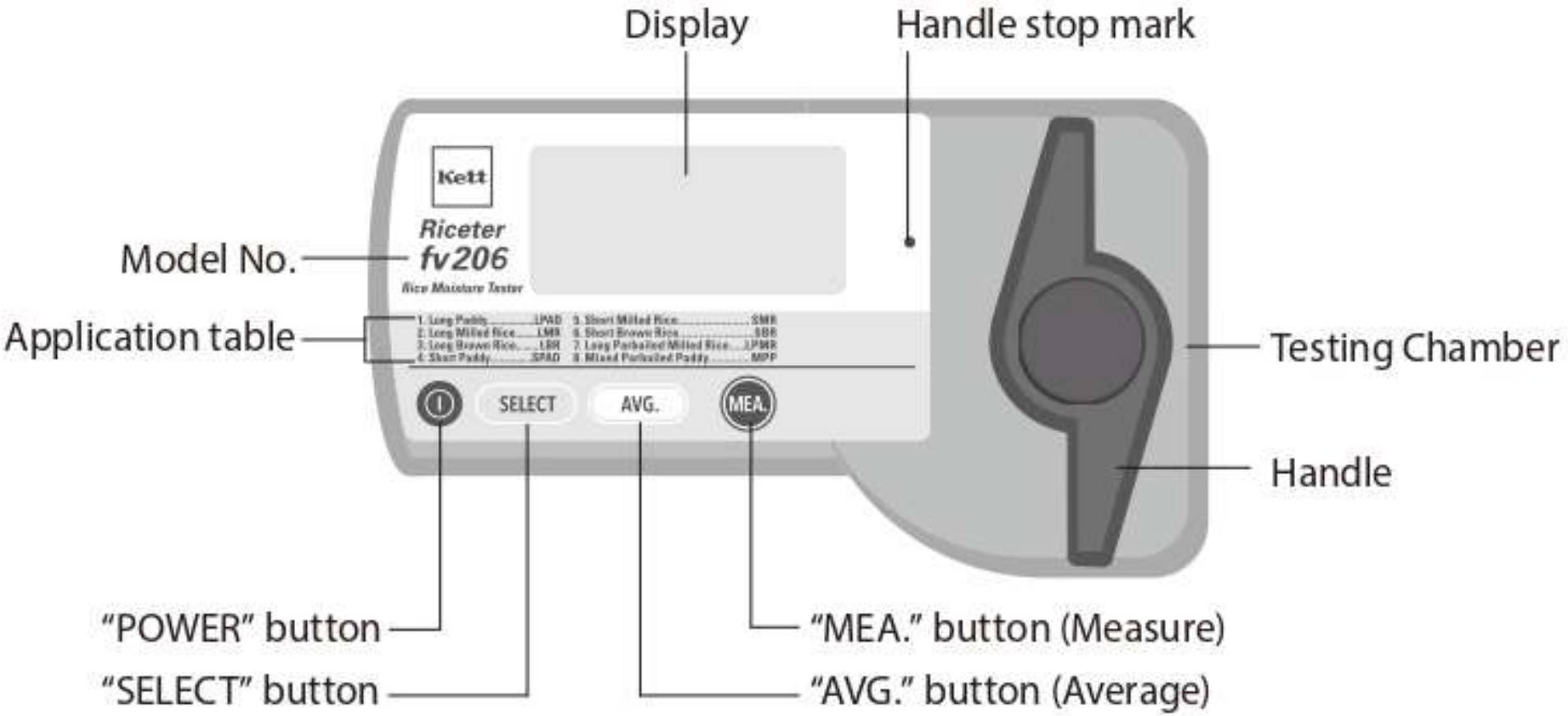
Inspection
certificate

Rice husker
TR-130



Riceter
J·m·f checker

# Part Names


Display
Handle stop mark
Model No.
Application table
Testing Chamber
Handle
"POWER" button
"SELECT" button
"MEA." button (Measure)
"AVG." button (Average)
Kett
Riceter
fv206
Rice Moisture Tester
SELECT
AVG.
MEA.

## Description of Display

This tester adopts the auto power off function. The power of the tester is automatically turned off in approx.
5 minutes after turning on the power if no operation is performed.

Use of backlight in the display section allows users to see the display clearly even in the dark.

## Description of Display

Meanings of special marks The display may show marks as follows:

| | | |
|---|---|---|
| Battery mark |  Caution | Battery is dead. Replace the batteries with new ones.<br>(displayed immediately after pressing the power switch and while using) |
| Over mark |  Caution | Displayed when the measured result exceeded the upper limit of the measurement range |
| Under mark |  Caution | Displayed when the measured result fell below the lower limit of the measurement range, or the contact between the test sample tray and the measuring unit of the main body was poor. |
| Error mark |  | Main unit temperature is too low -5°C or lower. |
| |  | Main unit temperature is too high 50°C or higher. |

- ***When measurement is performed with the Sample tray empty or the measuring unit is poorly insulated due to condensation, high humidity, contamination, etc., the over mark, under mark, or other meaningless numbers may be displayed. In such a case, clean the measuring unit and dry it well in a natural way.***

## How to Place Batteries

**1** Take out the main unit from the carrying case.

**2** Take out the batteries from the battery holder.

**3** Open the battery box on the back side of the main unit, and place 4 batteries appropriately.

**Battery replacement**

When the battery is running out, the battery mark lights up the display. Replace all 4 batteries (AA) with new ones.

Those batteries are gradually discharging even when the tester is not used.
It is recommended to always use new batteries.

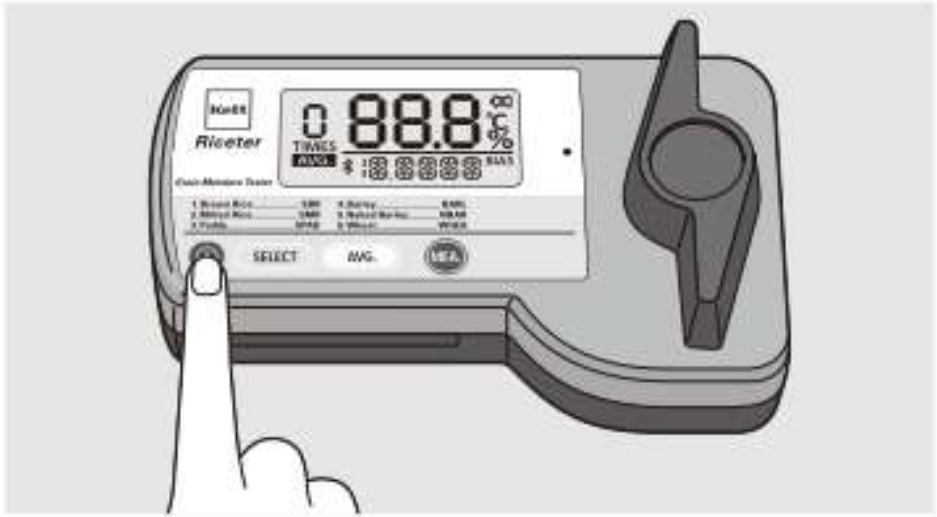
*Place batteries in the correct polarity*

Riceter fv200 series is equipped with a temperature compensation function. However, the test unit and samples are required to be thermally stabilized before measurement.

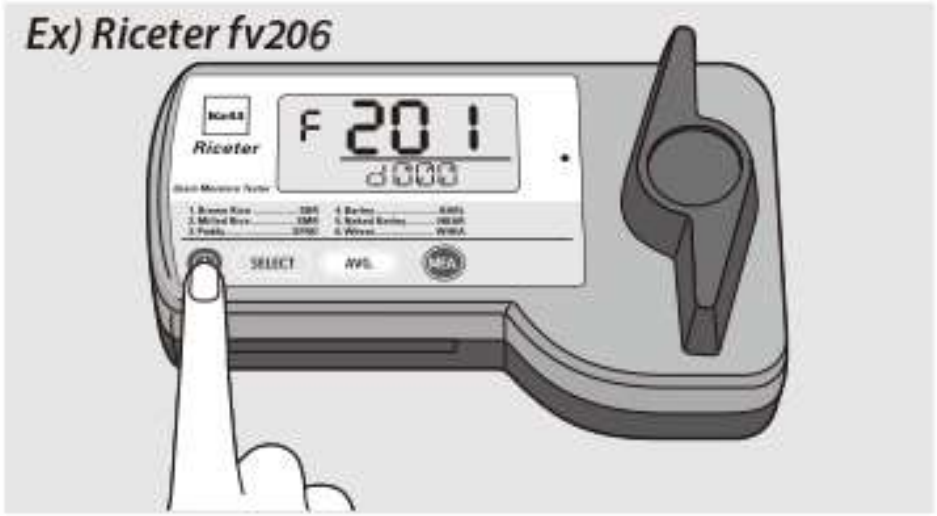
## Measurement

**1** Press the “POWER” button. All the characters and marks on the display section as well as the backlight light up for 2 seconds, and then model number and software version number are automatically displayed. The backlight goes out, and the tester becomes a standby state for measuring.

<All characters displayed after pressing the "POWER" button>

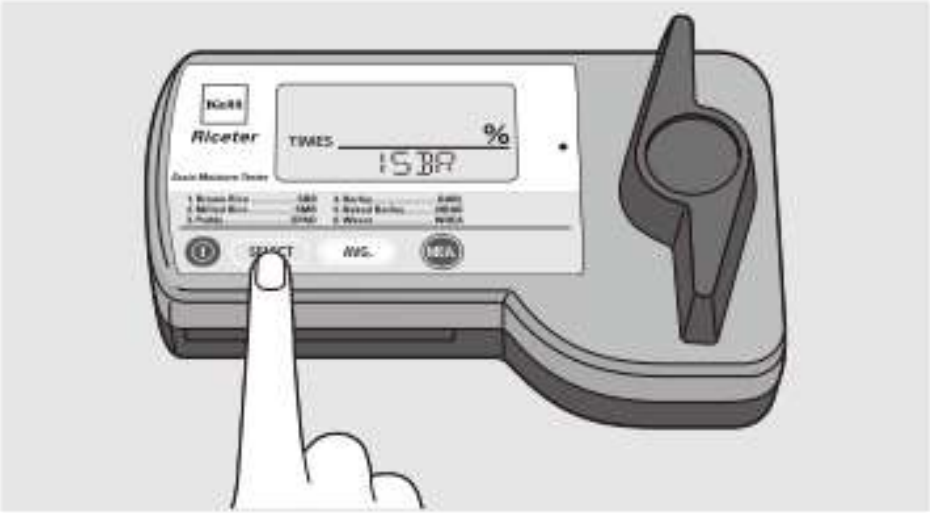



<Model number and software version number>

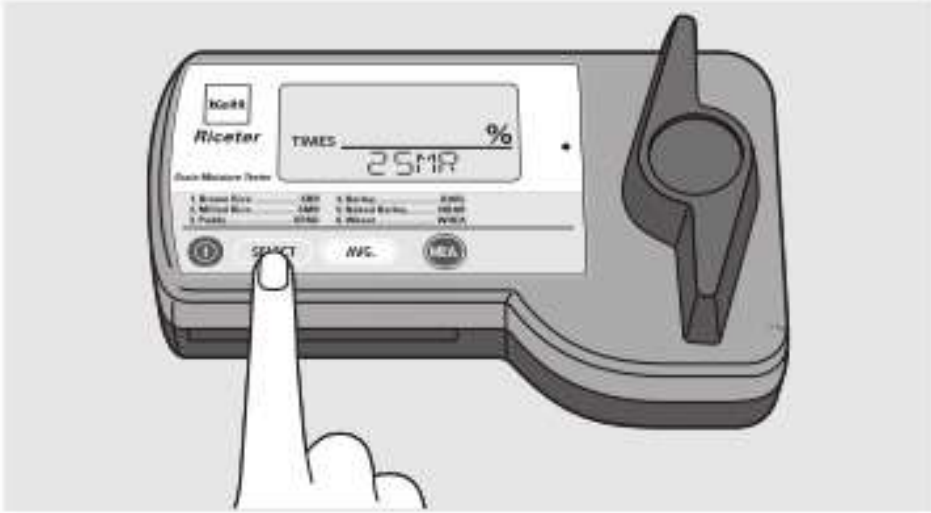


The backlight turns off and “Application”, “Times”, “%” are displayed. It is ready for measurement.

<Ready for measurement>




**2** Press the "SELECT" button and repeat until the abbreviation for the name of the application you wish to test appears.
The selected application is memorized even after turning off the power.

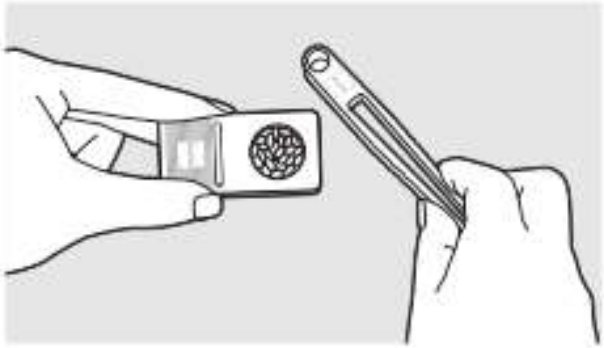


## Measurement

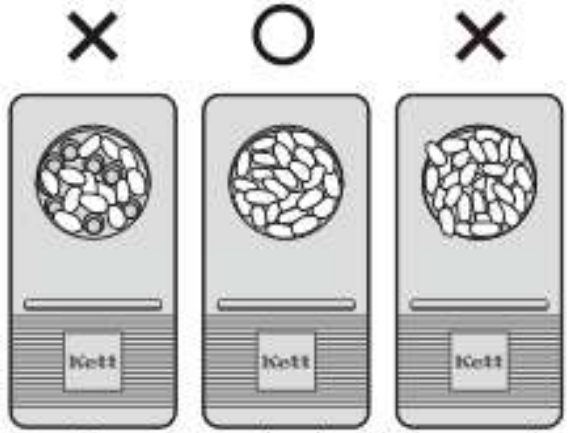
**3** Put the test sample evenly in one layer on the sample tray.

***Note: Both the amount of sample is too much or insufficient may cause a measurement error. Over more, too much sample may cause wear on the screw and damage the instrument.***

***Note: Sort out immature or dead grains from the sample tray in order to avoid error.***



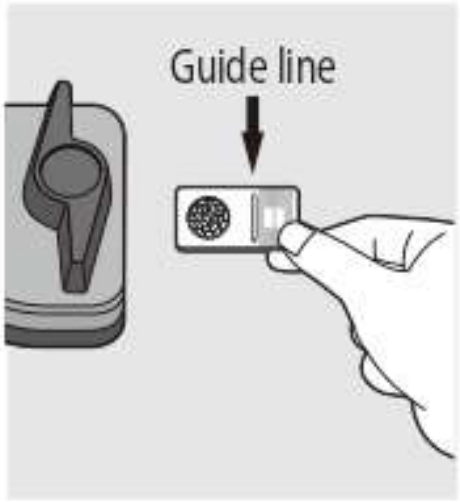
Evenly in one layer on the sample tray

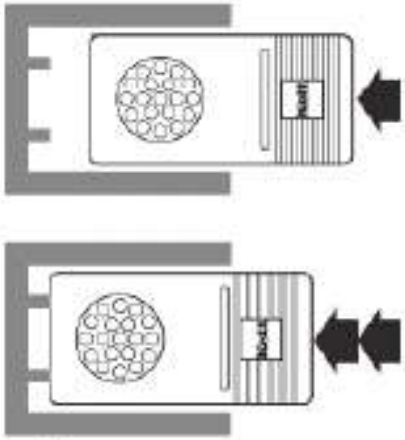



Insufficient | Evenly placed in one layer | Too much

**4** Rotate the handle counterclockwise to let the sample tray enter the testing chamber and insert it into the testing chamber until the guide line is hidden.

***Note: Failure to observe this may cause the tip of the handle to damage the plastic portion of the sample tray. Be sure to fully insert the tray.***

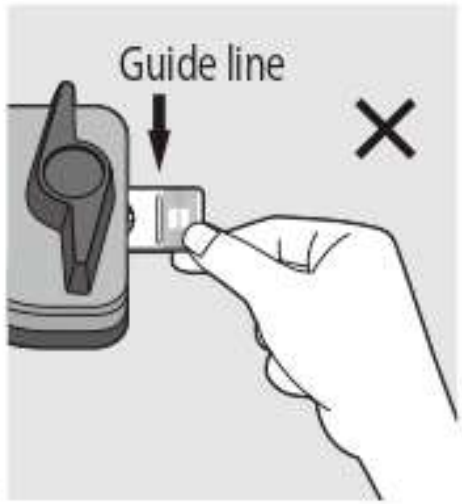


▲ Designated position

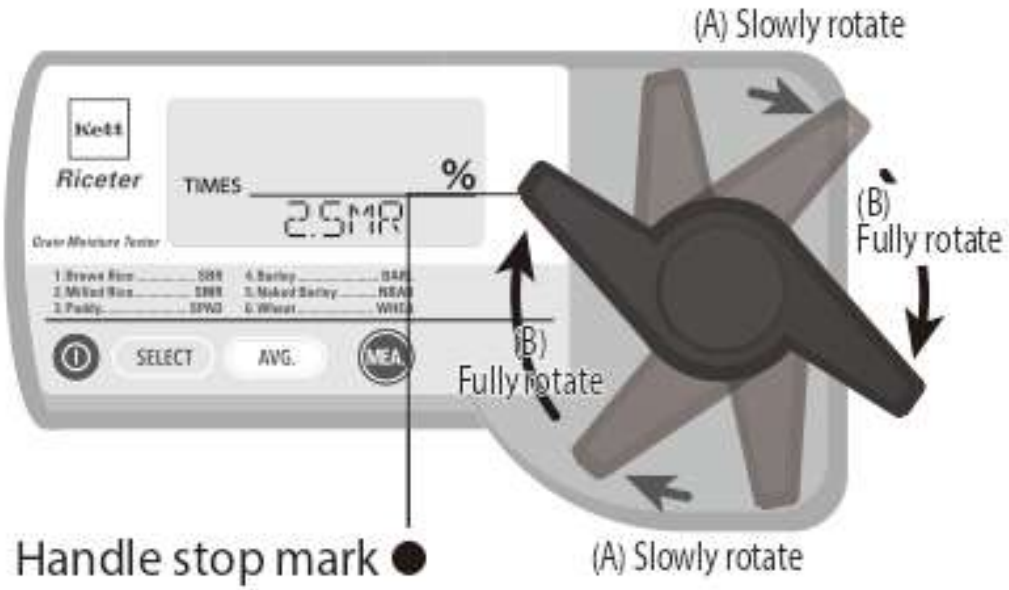
Correct placement

Incorrect placement

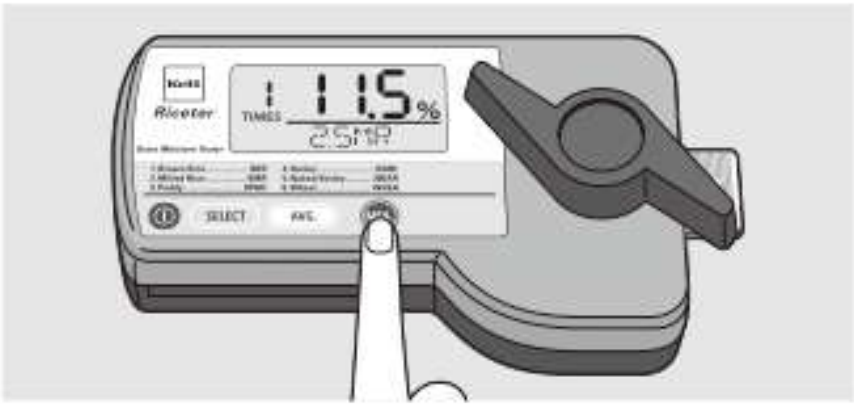


## Measurement

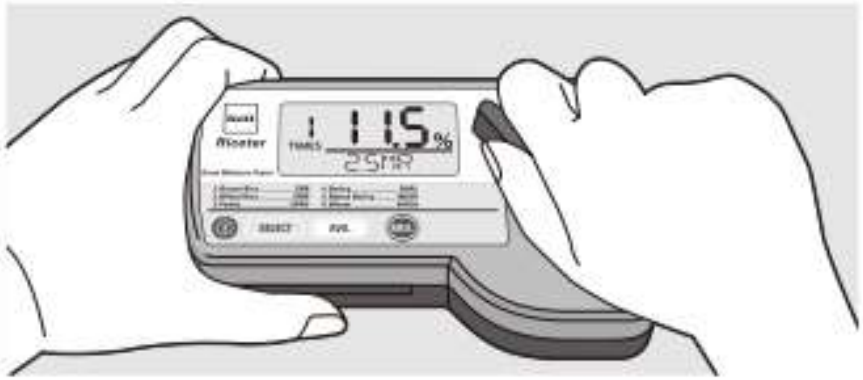
**5** Slowly rotate the handle clockwise. When the tip of the handle reaches the sample (A), and fully rotate the handle to the “handle stop mark” holding the handle firmly (B).




**6** Press the "MEA." button, the decimal point blinks, the backlight lights up, the moisture content and measuring number are displayed thereafter. The backlight goes out after 4 seconds, but the moisture content remains being displayed.



**7** For continuous measurement, perform the next measurement while the last measured value is displayed. Replace the test sample, fully rotate the handle, and press the "MEA." button. The last measured value disappears and the new measured value is displayed. The measuring count also changes at the same time.

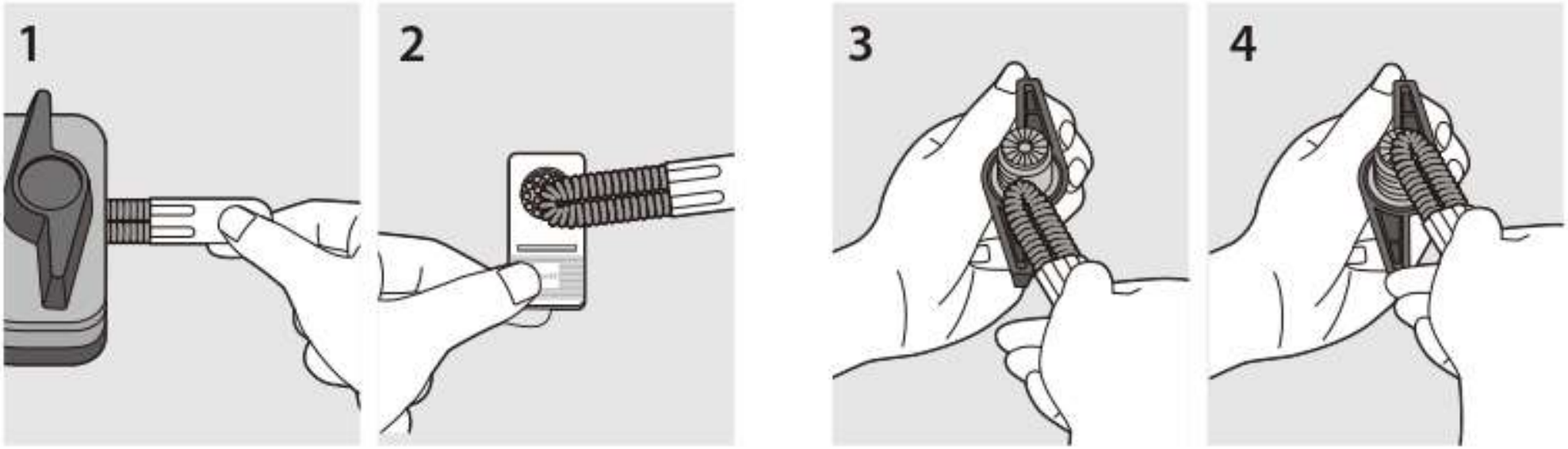


After a lapse of 5 minutes, the power is automatically turned off and all the displayed items are cleared.
Pressing the "POWER" button while the display is in the on state allows users to turn off the power manually.

***Note: If the handle moves to the right side of the red mark after being fully rotated, the handle or main unit may be damaged. Please inspect the unit at our official distributor.***

## Measurement

**8** Clean the inside of the testing chamber, the sample tray, and metal plate after every measurement. If the last test sample remains, proper measurement cannot be performed. For continuous measurement, disconnect the handle and remove the attached sample and contamination from the tip of the handle and contact section.



# Average Value

Pressing the "AVG." button after several measurements can obtain the average value of the measured moisture contents. The average value calculated from the measured values of the measuring count 2 to 9 is displayed with the average characters and number of measurement times.

*Note1: To obtain the average value of moisture contents, press the "AVG." button within 5 minutes after measurement. After the last measured value disappears, the average calculation function does not work.*
*The initial state is restored in the following states:*

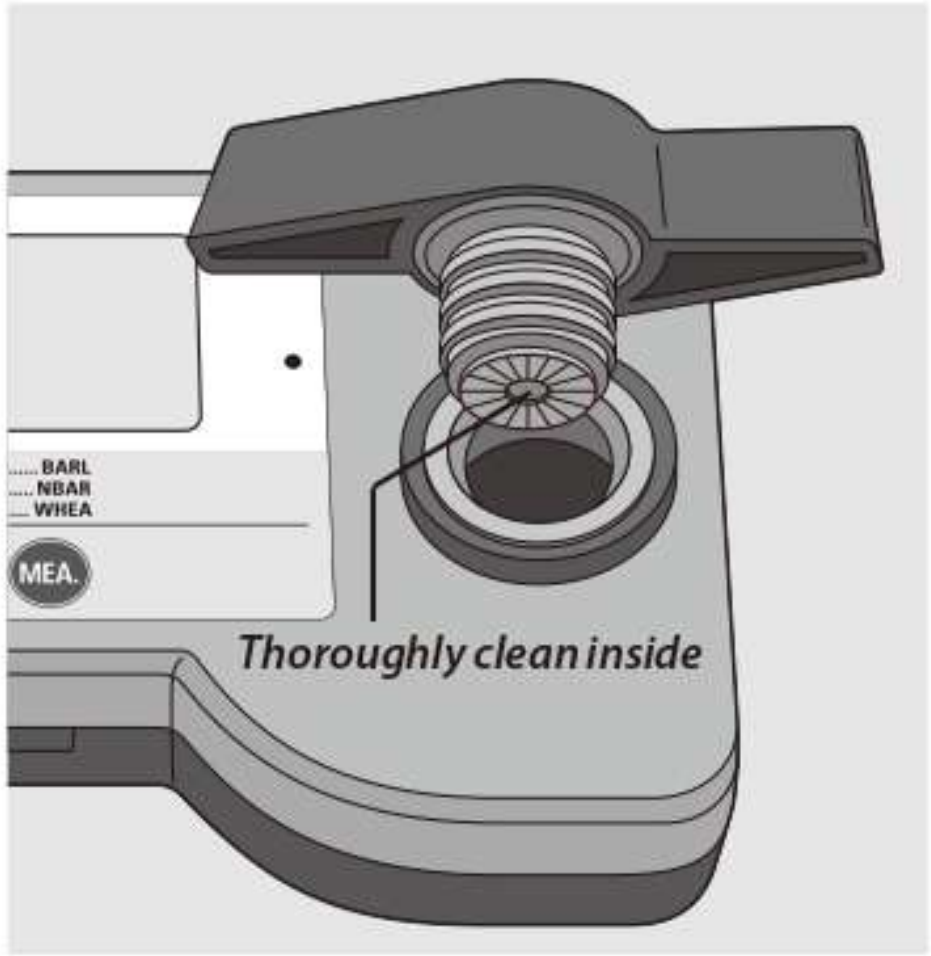
- *When the power is turned off*
- *When the "SELECT" button is pressed*
- *When the "AVG." button is pressed*
- *When the continuous measurement count exceeds 9*

*Note 2: AVG characters are displayed while an average value is displayed.*

## Storage

Observe the following instructions to keep moisture tester for a long period of time:

- ***Be sure to remove the batteries.***
- ***Clean every portion of the main body in a careful manner. Especially for the testing chamber, disconnect the handle and clean the inner contact section sufficiently.***
- ***Be sure to put the tester together with accessories in the carrying case and keep them in a cool place avoiding direct sunlight.***



# Applications

| No. | Applications | Abbreviation | Measurement range | S.E.C.*1 | Standard | Reference method |
|---|---|---|---|---|---|---|
| 1 | Long Paddy | L P A D | 10-35% | 0.5 | ISO 712 | 130°C 5g ground 2hr |
| 2 | Long Milled Rice | L M R | 10-20% | 0.5 | ISO 712 | 130°C 5g ground 2hr |
| 3 | Long Brown Rice | L B R | 10-20% | 0.5 | ISO 712 | 130°C 5g ground 2hr |
| 4 | Short Paddy | S P A D | 10.-30% | 0.5 | ISO 712 | 130°C 5g ground 2hr |
| 5 | Short Milled Rice | S M R | 10-20% | 0.5 | ISO 712 | 130°C 5g ground 2hr |
| 6 | Short Brown Rice | S B R | 10-20% | 0.5 | ISO712 | 130°C 5g ground 2hr |
| 7 | Long Parboiled Milled Rice | L P M R | 10-20% | 0.5 | ISO712 | 130°C 5g ground 2hr |
| 8 | Mixed Parboiled Paddy*2 | M P P | 9-30% | 0.5 | ISO712 | 130°C 5g ground 2hr |

*1 S.E.C. : Standard Error of Calibration
(Compared to reference drying air oven method in the moisture range less than 20%)

*2 Mixed parboiled paddy : This calibration curve is made with long, medium and short parboiled paddy.

# Specifications

| | | |
|---|---|---|
| Measurement method | : | Electrical resistance |
| Accuracy | : | 0.5% (SEC, 9-20% range), Environment without abnormal electromagnetic noise[*1] |
| Operating temperature | : | 0 to + 40 °C |
| Display | : | Digital LCD with backlight illuminator, Minimum display digit : 0.1% |
| Number of applications | : | Refer to the application table |
| Temperature correction | : | Automatic temperature correction with thermistor |
| Automatic temperature correction | : | Unit and sample temperature correction<br>Note: Sample temperature correction is applicable for less than 20% moisture sample |
| Power source | : | 1.5V (AA size) battery x 4 |
| Auto power off | : | After 5 minutes of inactivity |
| Power consumption | : | Max. 0.3W |
| Dimensions and weight | : | (Only main unit) 164(W)x94(D)x64.5(H)mm, approx. 0.44kg |
| Accessories | : | Sample tray (2), Spoon with tweezers (1), Cleaning brush (1), AA size Battery (4), Carrying case (1), Operating manual (1), Inspection certificate (1) |
| Options | : | Rice husker TR-130, Riceter J·m·f checker |

[*1] It has been confirmed that the environmental error caused by electromagnetic noise is within 0.5% by radiated radio wave electromagnetic field immunity test (EN6100-4-3) at test levels 3V/m :80MHz ~ 1GHZ, 1V/m: 2.0 ~ 2.7GHz.