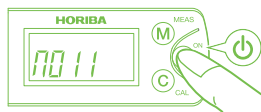
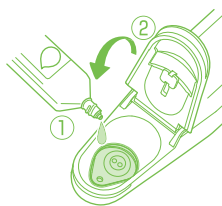


**① Turn ON**

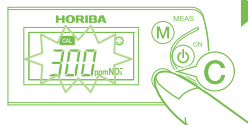
Press the ON/OFF button.

**② Calibration** Perform calibration at least once a day for accurate measurement.

① Pour the 5000 ppm standard solution.



② Press the CAL switch 0.5 seconds.  
CAL and ☺ is displayed, and the calibration value blinks.



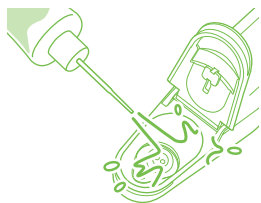
③ Press the MEAS switch 0.5 seconds.  
The other calibration value blinks.



④ Press the CAL switch 0.5 seconds.  
CAL and ☺ blink, and the calibration value is displayed.  
CAL and ☺ light up and the measured value is displayed, the calibration is completed.

**③ Measurement**

⑤ Clean the sensor with water.



① Press the crop sample.



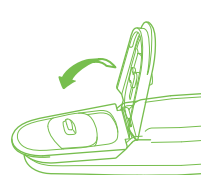
Cut the crop sample to a manageable size and place it in the press.

② Add some drops of the juice to the sensor.



Guideline: 4 or 5 drops.

③ Close the light shield cover.



④ When ☺ lights up, the measurement is completed.



If the measured value is 9900 ppm or more:

**④ After use**

Dilute the juice using the provided medical cup before measurement.



Example:  
Measure a solution of one part juice to one part water, then double the measured value displayed to obtain the result for the undiluted juice.

Clean the sensor with water, and then turn OFF the power.  
Close the light shield cover before storage.  
Make sure to store the sensor without any moisture.



The following settings can be changed.

- Measurement unit
- Calibration value
- Measurement mode
- Multiplying compensation
- Backlight mode
- Temperature sensor

Two-point calibration is recommended for accurate measurement.  
Prewashing the sensor with the sample may provide accurate measurement.

Note: Read the Instruction Manual in addition to this procedure.

**• Crop Measurement  
(Supplementary Information)**

- The above measurement procedure is just an example. You may try out your own methods to meet your objectives.
- To measure the nitric acid ion concentration of an entire crop, you will need to prepare juice of the entire crop or from the homogenous mixture.
- The nitric acid ion concentration in crops is higher in stems (leaf stems) than in leaves. The highest concentration is generally considered to be in the outermost stems (leaf stems).
- The sensor is affected by light, so avoid direct sunlight. Use the light shield cover.
- Chloride ions (Cl<sup>-</sup>), oils, and fats influence measurement results. Also, a juice of significantly high conductivity may cause measurement errors. Diluting the juice to a concentration within the measurable range can sometimes reduce measurement interference.

**• Consumable parts sold separately**

Items	Specifications	Part No.
Sensor	S040, NO <sub>3</sub> <sup>-</sup>	3200459870
Standard solution	Y042, NO <sub>3</sub> <sup>-</sup> 300ppm	3200053514
	Y041, NO <sub>3</sub> <sup>-</sup> 5000ppm	3200053433
Sampling sheet holder cover	Y048	3200459736
Sampling sheet B	Y046, 100 sheet pack	3200053858

**• Procedure for Two-point Calibration  
(For More Accurate Measurement)**

Perform two-point calibration when you want high-accuracy measurement.

1. Set the concentrations of standard solution for calibration.  
The 1st point is set to 300 ppm and the 2nd point is set to 5000 ppm by the default.
2. Open the light shield cover and place some drops of the standard solution on the flat sensor taking care to cover the entire flat sensor.
3. Close the light shield cover and press the CAL switch.
4. With the set concentration of the 1st point displayed, press the CAL switch.  
CAL and ☺ blink, and the calibration value is displayed. After the calibration is complete, CAL and ☺ stop blinking and the measured value is displayed. The calibration value at 25°C is displayed for 1s and the display returns to the measurement mode automatically.
5. Open the light shield cover and remove the standard solution. Then remove moisture on the sensor by gently dabbing with a soft tissue.
6. To perform 2nd point calibration, repeat steps 2 to 5.