



# Food Calorie Measuring Equipment Calorie Answer® CA-Hi



MEXT Ministerial Award for Science and Technology
MEXT Ministerial Award for Invention
Received the Monodzukuri Nippon Grand Award

Made in Japan

#### Features of CA-Hi

A PC is not included with the CA-Hi main unit.





Calorie Answer employs a near-infrared spectroscopic analysis method, which uses the transmission method for liquid samples and the reflection method for powder and solid samples, and is capable of measuring nutritional components such as protein, fat, carbohydrate, and moisture as well as calories.

#### **Features of Calorie Answer CA-Hi**

- Improvements in sensing technology have made it possible to reduce the number of reference cell measurements and significantly shorten measurement time when there are no changes in ambient temperature or measurement method changes. \*1/3 compared to our products
- •Measurement data history is maintained, and the data sorting function enables comparison of data for each item.
- •Easy search for measurement modes that group a variety of foods with a pop-up display.
- •Measurement results per 100g are automatically converted when changed to any weight.
- •Simply installing the included software can easily establish the USB connection between the PC and the main unit.
- •The simple design allows the user to check the operation and progress of the main unit.
- •Original measurement mode can be created. (Separate software is required) Trial version available. After measurement, the salt equivalent is converted and displayed by separately entering the measured sodium value.

## **Various Measurement Modes**

# Seventeen measurement modes based on the Standard Tables of Food Composition in Japan

Consists of cereals, potatoes and starches, sugar and sweeteners, beans, nuts and seeds, vegetables, fruits, mushrooms, algae, seafood, meat, eggs, milk, oils and fats, confectionery, seasonings and spices, and prepared processed foods.

#### Twelve original measurement modes

Consists of fried food, simmered food, sushi, salad, soft drinks, coffee drinks, curry and stew, miso soup/soup, alcoholic drinks, Chinese food, fish roe, and bread.

We will mount the items selected from the above measurement modes. \*1

(We will provide a quotation depending on the details of the installation).

\*We can also separately create an original mode in accordance with your use, so please consult us.

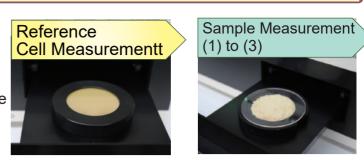
\*1 The specifications of the original mode will be decided upon consultation, however, please understand that we may not be able to meet all of your requests.

## **Recommended Measurement Method**

Reference measurement (1)  $\Rightarrow$  Reflection sample measurement (1) to (3)  $\Rightarrow$  Completed Adopt average values of measured data as measurement results. Reference measurement (1)  $\Rightarrow$  Transmission sample

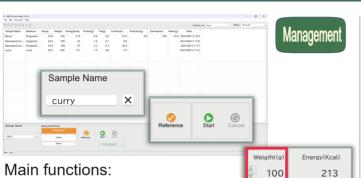
measurement (1) to (3)  $\Rightarrow$  Completed

Adopt average values of measured data as measurement results.



\* In case of ambient temperature change or measurement method change, it is recommended to perform the reference measurement again.

## Management and Collaboration

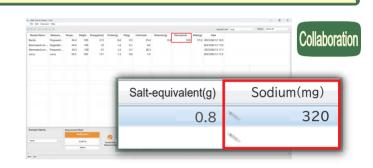


Main functions: Measurement mode selection/

Main unit control (start/cancel)

Automatic conversion per gram, measurement history table management

Data sort function, text output of measurement history, etc.



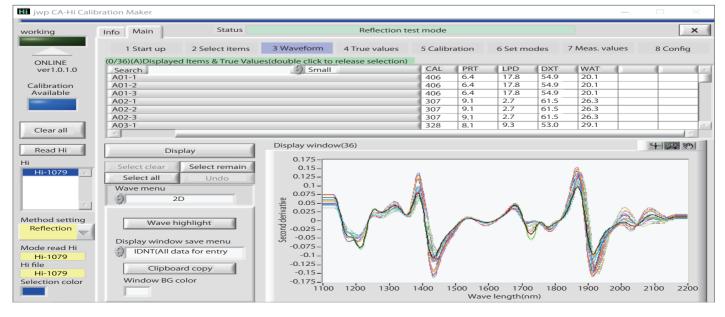
Salt equivalent conversion function: It is possible to add Salt-equivalent (g) in the CA-Hi measurement results by inputting the value obtained by sodium measurement into the Sodium (mg) section.

## **Measurement mode creation function**

Jwp CA-Hi Calibration Maker TRIAL VERSION allows you to display near-infrared spectra detected by CA-Hi.

You can also experience the creation of a measurement mode by inputting the component values of measured foods.

With PAID VERSION, created measurement modes can actually be installed in CA-Hi, and Focus Calculation such as wavelength specification and Correction of the installed modes are also available.



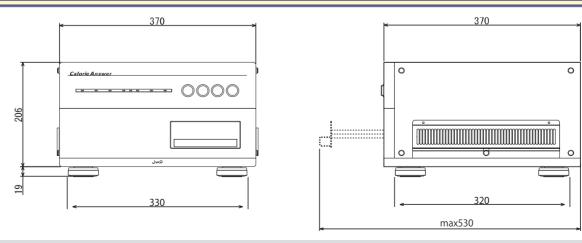
### **Main Specifications**

Specifications are subject to change without notice

Model	CA-H i
Power supply used	AC100V 50/60Hz
Power consumption	100W (max)
Equipment weight	About 14 Kg
Measurement Time	Approx. 80 sec. (Reference cell measurement/sample measurement)
Measurement Object	Ingredients, food products in general (solid, semi-solid, liquid)
Measurement Item	Calories, protein, fat, carbohydrate, water, alcohol (per 100g) *Alcohol measurement is included depending on the installation
Installation location	Avoid places with high temperature and humidity/No condensation/ Provide a space of 20 cm or more around the device Recommended operating environment temperature 23°C±2°C *Ground connection
Accessories	1 control cell / 1 specimen cell eachs (transmission/reflection)/ lamp / lamp replacement jig / power cable / communication cable /software installation disk
Software Operating Environment	[Supported OS] Microsoft Windows 7 or higher (32/64-bit version) [ C P U ] 32-bit/64-bit processor of 1GHz or higher [ M e m o r y ] 1GB or more [ H a r d d i s k ] 1GB or more free space [ S o f t w a r e ] Office Excel

\*Please confirm the measured values with the equipment and software before

## **External dimensions of measuring section**



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