

Agrosta®14 FIELD / Agrosta® Needle Agrosta

Digital Penetrometer

The Agrosta® 14 Field Version 3 has been designed in 2015
It integrates the best technology for measuring the firmness of crisp fruits and materials – It is a statistic instrument
Agrosta® Needle, based on same system has been designed to determine firmness of thick products like ham of meat



Many thanks for having acquired an Agrosta instrument

Your package contains :

- A Box with the instrument itself
- A sensor connected to the instrument
- A SD card already inserted in the instrument
- A micro SD to SD adaptor
- A charger
- A certificate of conformity
- A manual

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The AGROSTA®14Field is entirely designed and assembled in France. The motherboard comes from Italy, and the shield boards are made by DF Robot. The battery comes from DURACELL in the UK.

The AGROSTA®14Field is not waterproof! It is a precision instrument; please take care to avoid dropping or knocking it.

The AGROSTA®14Field has a two year guarantee from its date of shipment (Except on SD card, no guarantee on SD card).

- Minimum grams: 800 (operation threshold),
- Maximum grams : 13 000,
- Resolution: +/- 1 gram
- Precision 1.5 grams (24 Bits)
- Charging time: 1 day for one week work
- Maximum memory capacity: Huge – Limited only by SD.
- Maximum number of pieces of fruit per batch: 450



1) HOW TO USE THE BATTERY

- Press on the button on back side of the instrument
- Press again, 4 blue leds appear, they indicate the charging level



2) HOW TO START THE INSTRUMENT

- **TAKE CARE TO TAKE THE SENSOR IN THE RIGHT POSITION** when you start / switch on the device (Same position as the one you will use for measurements) :



The device takes the origin when you switch it on. If the sensor is not in the right position when you start the device, you can have a mistake in the measurements that can reach up to the weight of the tip + stainless shaft (50 grams)

3) HOW TO USE THE INSTRUMENT

1st Menu :



Press 1 to start a new batch, 2 to consult or delete previous batches

2nd Menu after choice 1 :



You can measure your samples one after each other
Press 1 to cancel last measurement
Press 3 to record and obtain statistics
Press 4 to go back to Home menu without recording

If choice 3 :



The statistics of the batch are displayed, Press 4 to go back to Home menu

Menu “Manage Database”



Press 3 for batches consultation – Each batch statistics is displayed during 3.5 seconds – “A” corresponds to the average, “St” is the standard deviation of the batch, “Hi” corresponds to the homogeneity index of the batch (shall be less than 10% for good homogeneity)



Press 1 to erase Data, and go back to Batch 1, the data is deleted on SD card (Confirmation is asked by pressing 2)

4) ON SD CARD

The SD card is located on the left side of the instrument. In order to remove it, apply a light pressure on it till it “clicks”



2 Files are available on the SD card :

- ALL.txt is used by the machine, and shall no be deleted nor modified (If deleted, it is re-created by the instrument, but the memory is erased)
- BATCHES.csv can be opened by Excel (choose “;” separator when Excel tries to open the file) – All measurements and statistics are stored on this file – We recommend to copy it on your computer, and not to modify the file on the SD card

4) SPECIFIC INSTRUCTIONS FOR AGROSTA NEEDLE

Apply a pressure with your hand, and penetrate in the product with a constant speed. If you stop pressing, and then press again, then 2 measurements will be recorded. Go till the Red plastic abutment is in contact with the sample

