

DUROFEL

SETOP GIRAUD-TECHNOLOGIE.

USER MANUAL

CAUTION**THE DUROFEL IS NOT TIGHT**

Durofel must be kept away from water. You can use a slightly humid rag to clean it.

DUROFEL IS FRAGILE

Durofel is sensitive to shocks.

The cord linked to the sensor is sensitive to a wrench (change of sensor) ; avoid all tension which can damage the sensor.

After each use replace DUROFEL in its original packaging.

GUARANTEE

Our measurement devices have 6-month guarantee covering all vice of manufacture excepting damages due to the non respect of instructions of use.

DUROFEL

*Made in France by SETOP GIRAUD - TECHNOLOGY S.A.
Under CTIFL exclusive licence*

NOTICE OF USE

1) POWER SUPPLY:

- 220 Volts

use the 220v supply adaptor provided with the DUROFEL set at 9 V position.

- Battery

use one 9 Volts battery.

DUROFEL does not recharge batteries.

Change battery when voltage drop under 8 volts or when the measure precision is less than 1 point.

Two positions switch selects either battery or power supply adaptor.

The two 1,5 batteries must be replaced once a year or when automatic shutdown malfunction.

Recommendation :

We advise to use rechargeable batteries that you will change once or twice a day and then recharge them.

2) IMPORTANT:

Standby: DUROFEL shutdown automatically after 3,5 mn of non utilization except during measurement process.

Caution: while measuring if you want to consult results by pressing E key , Durofel will turn'off automatically after 3,5mn and you will loose all measures of the current serie.(see 6th screen :paragraph results).

For a good reading of the screen, place LCD with an 45°angle.

3) KEYBOARD:

- R: to turn'on/wake up DUROFEL

- E: is used to begin a batch/ validate/ go to next screen

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- Arrow keys are used in accordance with instructions displayed on the screen;

4) MEMORY CAPACITY

59 series from 1 to 98 fruit (1 to 4 measures by fruit). Series are stored with an automatic record number from 1 to 59. If you do several measures by fruit, the program computes and records only the average by fruit.

You can use and re-use a batch code (6 char) to identify several series of measures (from 1 to 98 fruits for a same batch).

After the 59th serie, only the oldest serie will be removed and the automatic record number will be reset to 1.

5) DEFAULT VALUES AFTER INITIALIZATION

1st serie number = 01

1st serie name= AAAAAA

tip = 0.25

number of measures by fruit = 2

6) FUNCTIONING / UTILIZATION

a) 1st screen

When powering on, the following is displayed:

DUROFEL

SETOP

Two possibilities are proposed:

- press E key to go to 2nd screen

- press arrow keys to go to utilities.

(consultation, download datas onto PC computer, blank memory).

b) 2nd screen:

file identification:

SERIE:

01 AAAAAA MODIF: <--> VAL:E

SERIE(batch): serie number from 01 to 59 and serie name: 6 char .

If you validate with the E key, you go directly to third screen. If you press an arrow key you can modify name of serie.

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In this case, you can scan the alphabet up and down by pressing arrows keys <-->. You must validate with the E key to modify next letter.

After the 6th letter you will enter directly 3rd screen.

If you have finished, Durofel will turn'off automatically after 3,5mn.

You can also rock the switch to turn'off the Durofel.

c) 3rd screen:

TIP type: 25 (010-025-050)

MODIF: <--> VAL: E

Use arrow keys to choose one of the three tips, 0,10 - 0,25 - 0,50 and validate with E key; or validate directly if the tip displayed is correct.

d) 4th screen:

Number of measures / fruit

NBER MES / FRUIT: 02 (1 to 4)

MODIF: <--> VAL: E

Use arrow keys <--> to choose from 1 to 4 measures by fruit, and press E key when the number of measures is correct.

e) 5th screen:

Measures

FRUIT: 001 MES:1

VALUE: 047

FRUIT: fruit number from 01 to 98 (maxi) in the current serie.

MES= increment of the measure number by fruit from 1 to 4 depending on the inputed value at 4th screen

VALUE is the last value measured by DUROFEL.

Validate with E key to consult 6th screen.

During measuring process , automatic shutdown is disabled and power consumption is more important (sensor activated).

f) 6th screen:

Results

MOY:

average of measures for the current serie

S:

standard deviation

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VC: *variance coefficient*

Nb Fr: *number of fruit measured for the current serie*

If printer is selected, a ticket will be printed after validating this screen (see UTILITIES & PRINTERS)

You have now 3 possibilities:

TO CONTINUE: right arrow key to continue measuring in the current serie.

TO END: E key ends the current serie and go back to 2nd screen.

TO REMAKE: left arrow key to resume measures of the last fruit.

Warning: while measuring if you want to consult results by pressing E key and if you let the device in this position, Durofel will turn'off automatically after 3,5mn and you will loose all measures of the current serie (see 6th screen : paragraph results).

7) UTILITIES:

- *Series consultation*
- *Data Transfer into PC computer.*
- *Printer management.*
- *RAZ (Clear all datas)*
- *Calibration*

Utilities are invoked from 1st screen as follows:

Press left arrow key <-- and while you keep it switched, press right arrow key --> and keep it switched too. Now unpress left arrow key and then unpress right arrow key.

UTILITIES

a) 1st screen: CONSULTATION

*Press an arrow key to consult series or Press E to go to 2nd screen.
When consulting the program will go to 2nd screen after the last serie.*

b) 2nd screen: TRANSFER

Press an arrow key to transfer datas into PC computer (you must connect the transfer cord an run option 1- DUROFEL/PENEFEL DOWNLOAD of DUROFEL software.

Press E key to go to 3rd screen.

c) 3rd screen: PRINTER (option)

*Press an arrow key to enable printer or E key to disable printer.
If printer is enabled and transfer cord connected to DUROFEL, a ticket will be printed after the display of measures results for the current batch (after having pressed E key).
(for more information, consult printer user note)*

d) 4th screen: CLEAR ALL DATAS

*Press an arrow key to preset DUROFEL with defaults values an clear all datas.
Before erasing datas, verify that data transfer into PC computer has been performed correctly.
Press E key to return to 1st screen without deleting memory.*

e) 5th screen CALIBRATION

*Press an arrow key to calibrate DUROFEL
E key to go back to 1st screen.
Message "VALIDATE 0" is displayed.
Verify that the dial index is on zero position and press E key.
Message "VALIDATE MAXI" is displayed.
Press the tip against a hard surface (a table for example) to place the dial index in position:100 and press E key while dial index is pointing 100.
A coefficient will be displayed which must be greater than 100; if not repeat the procedure.
Press E key to return to normal mode.
If precision is less than 1 point between the dial and the display ,repeat the procedure.*

*Important: You must execute the calibration with a battery in very good condition or main sector power supply.
If the precision is not perfect, you can try to validate the maximum with the dial pointer on 99 position (0 to 99 = 100 graduations).*

