

# ESSILOR e-Tess

## User's guide



Congratulations! You have just acquired a high precision Essilor tracer.

We strongly recommend that you read this entire manual before using your Essilor tracer, in order to obtain the greatest satisfaction.

**IMPORTANT**

**The information in this document is non-contractual and provided as a guide.**

**It is subject to change without prior notice. Although great care has been taken to avoid them, some errors or omissions may occur in a document of this type.**

**Essilor cannot be held liable for any operating defects or data loss that may result from such errors or omissions.**

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## **WARNING**

In order to reduce the risks associated with the use of electrical equipment - fire, electric shock, injury, etc., it is essential to comply with the basic safety rules.

We therefore strongly recommend that you read this manual before switching on your Essilor e-Tess tracer and that you keep it in a safe place for future reference.

The mechanical and electronic adjustments and the electrical servicing must be performed by an after-sales service technician approved by Essilor.

To ensure that you operate your tracer in complete safety, we recommend that you comply with the following instructions :

- Your workbench must be clean, free of clutter, and illuminated sufficiently to allow you to work in safety.
- Do not use your tracer in the presence of inflammable liquids or gases.
- Check the mains cable periodically. If damaged, it must be replaced by an approved repairer.
- Keep the cable well away from heat sources, sharp objects and oily substances.
- Never pull on the cable in order to unplug it from the mains supply.
- Before connecting your tracer to the mains supply, make sure that the switch is in the Off position: "0".
- If the mains switches are no longer performing their "ON/OFF" function, stop using your tracer at once. Faulty switches should be replaced by an approved technician.
- When the equipment is not to be used for an extended period, or before carrying out any maintenance, and/or when replacing certain accessories, it is imperative that you disconnect your tracer from the electric mains supply.
- Your tracer is a professional tool whose use is reserved for specialist and responsible operators. Use by anyone other than these operators should be strictly forbidden.
- Before using your tracer, check that it is operating correctly, and make sure that it is performing its function correctly.
- The use and operation of any accessory other than those recommended in this manual may pose hazards for the operators using the product.
- Do not use your tracer for any purposes other than those described in this document.
- Your tracer should be carefully maintained, in accordance with the detailed instructions in this document.
- Your tracer is an electrical device which conforms to the appropriate safety rules. If it malfunctions, any repair operations must be performed by a qualified technician approved by Essilor. Otherwise, the user's safety could be at risk.

## 1. PRECAUTIONS REQUIRED

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### 1.1. WORK SURFACE

In order to take full advantage from the high precision of your Essilor e-Tess tracer, we recommend that it is placed on a flat stable surface, free from shocks and vibrations.

Your Essilor e-Tess tracer can be positioned up to 5 metres from your PC and/or your edger.

Longer power cords are available on option.

### 1.2. ENVIRONMENT

The temperature and relative humidity of the room where you use your Essilor e-Tess tracer must lie within the following limits:

- |                           |  |
|---------------------------|--|
| ▪ Remote edging operation | +15 °C (+59 °F) to +30 °C (+86 °F)<br>30 % to 75 % humidity  |
| ▪ Local edging operation  | +10 °C (+50 °F) to +40 °C (+104 °F)<br>30 % to 75 % humidity |
| ▪ Storage                 | -5 °C (+23 °F) to +50 °C (+122 °F)<br>10 % to 95 % humidity  |
| ▪ Altitude                | < 2000 m   |

Avoid sudden changes in temperature or in relative humidity and install your tracer:

- in an area not exposed to direct sunlight,
- away from all heat sources,
- sheltered from any intense magnetic sources,
- away from all chemical products or corrosive gases and/or liquids.

Leave a clear space above the tracer. Do not place anything on top of the tracer.

#### **IMPORTANT**

**This machine is not suitable for nor intended to operate in an environment classified as being under risk of explosion.**

### 1.3. ELECTRICAL INSTALLATION

*Electrical specifications:*

Tracer voltage:

12 volt ===

Power supply voltage (external power supply):

100-240 VAC

Frequencies: 50 - 60 Hz

Earth connection:

The tracer must be connected to a power supply with earth.

The earth connection must comply with public standards and be checked by a qualified electrician.

Interference and micro-outages:

The tracer has been designed to withstand interference and the possibility of micro-outages on the power supply and continue operating correctly.

However, in the event of serious and abnormal faults, normal operation of the tracer cannot be guaranteed.

**1.4. SYMBOLS**

○ Off (power).

I On (power).

== Direct current



Caution: risk of electric shock.



Caution: risk of danger (see note).

**1.5. CLEANING**

To prevent accidents, unplug the device before you start to clean it.

Clean the tracer regularly (except the feeler) with a soft cloth dampened with water or neutral detergent (e.g. washing-up liquid).

**N.B.** To prevent the accumulation of dust which could affect the precision of your e-Tess tracer, we recommend closing the protective cover after use.

**IMPORTANT**

**Never clean your Essilor tracer with thinner, solvent, alcohol, benzene, acetone or other type of organic or mineral solvent.**

## 2. INSTALLATION

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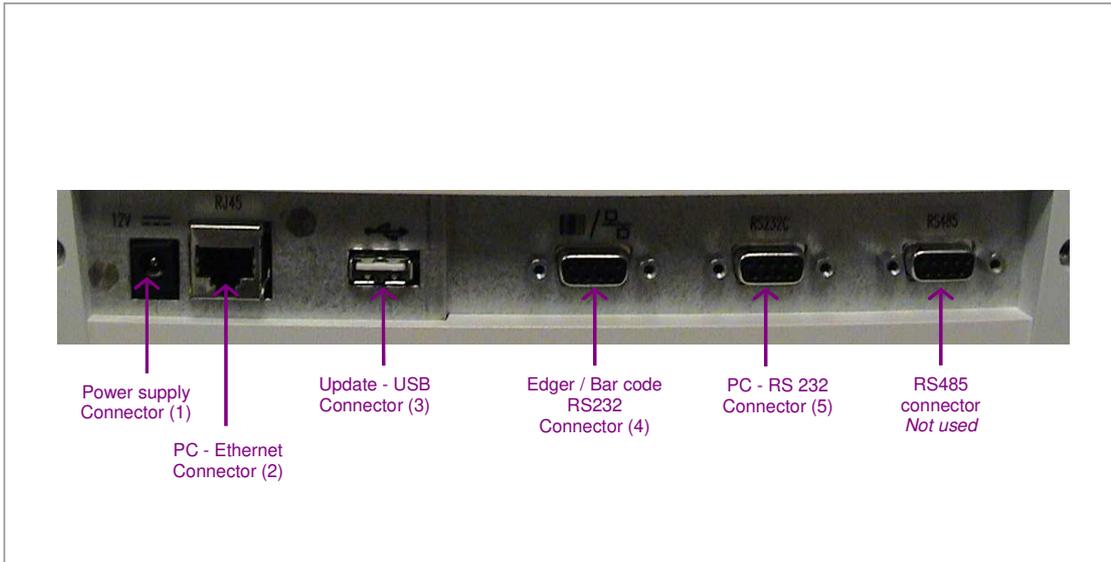
### 2.1. INTRODUCTION

#### Technical Characteristics

- Power up with the tracer on/off switch.
- Compliant with standard ISO16284 (OMA 3.04 compatible).
- Automatic self-test on power up.
- Calibration, linked to the computer (PC) or from the tracer.
- Cycle counter available on the software installed on the PC.
- Automatic feeler insertion.
- 3-D tracing for frames, 2-D tracing for patterns, pre-cut lenses and demo lenses.
- The "remote edging" precision will only be guaranteed on closed frames.
- High precision tracing with reading of the frame groove profile.
- Holder provided to trace a pattern or lens (demonstration or pre-cut).
- Automatic measurement of the frame bridge, binocular tracing.
- Frame thickness measurement.
- Differential tightening of the grips.
- RS232 and RJ45 ports.
- Memory update by Essilor external USB stick.
- Internal memory: 1000 Jobs.
- 5.7" touch screen.
- Tracer inclination 0° or 10°.
- Built-in auto-maintenance functions, from the computer (PC).
- Shape modification function.
- Power supply voltage: 12 V  $\overline{=}$ .
- External power supply: 100-240 VAC, 1 A, 50-60 Hz, Output 12 V  $\overline{=}$ .
- Frame dimension limits:
  - B-dimension min. 17 mm (pattern: 18.5 mm), max. 58 mm.
  - A-dimension min. 28 mm, max. 70 mm.
  - Limit Z height: 30 mm in binocular, 40 mm in monocular.
  - Frame thickness: min. 1.45 mm, max. 12 mm.
- Dimensions: (L) 280 mm x (D) 285 mm x (H) 180 mm.
- Weight: 7.5 kg.

**N.B.:** As improvements are made these specifications may be changed without prior notice.

## 2.2. CONNECTIONS



Depending on your configuration, your Essilor e-Tess tracer can be connected to either a PC or an Essilor Delta T edger.

### • Connection to a PC

1. Connect the **RS232C** cable to the tracer socket (5) and to an RS232C serial port on the PC. (see above figure),

or

Connect the **RJ45** cable to the tracer socket (2) and to the Ethernet RJ45 port on the PC. (see above figure).

**N.B.** Before any Ethernet connection, it is essential to know the structure of the network to which your tracer will be connected.

### • Connection to an edger:

**IMPORTANT**

**Before connecting the tracer to the edger, switch both machines off.**

**The voltage indicated on your machines (tracer, power supply) must correspond to the mains voltage.**

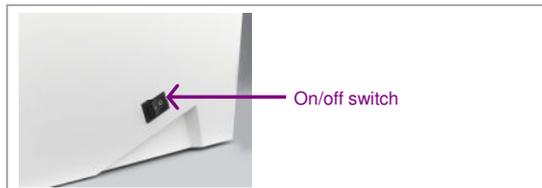
**Avoid using extension cords or intermediary multiple-socket connectors which might result in poor contact.**

**Make sure that the cables are not routed near electrical equipment that may produce interference: electric motor, fluorescent lighting tube, radio, etc.**

1. Connect the dedicated cable supplied with your edger: refer to the identification labels on the side and connect the tracer port (4) to the edger RS232 port,

**N.B.** A crossed cable is used. Make sure to respect the connection direction shown on the cable labels corresponding to the symbols used on the edger and the tracer.

2. Make sure that the tracer on/off switch is on the "0" position,
3. Connect the external power supply cable to the tracer (socket 1) and to the mains socket once you have ensured that this socket is properly earthed,  
Have an electrician check the earth connection if necessary.
4. Switch on the tracer, the switch is on the "I" position,

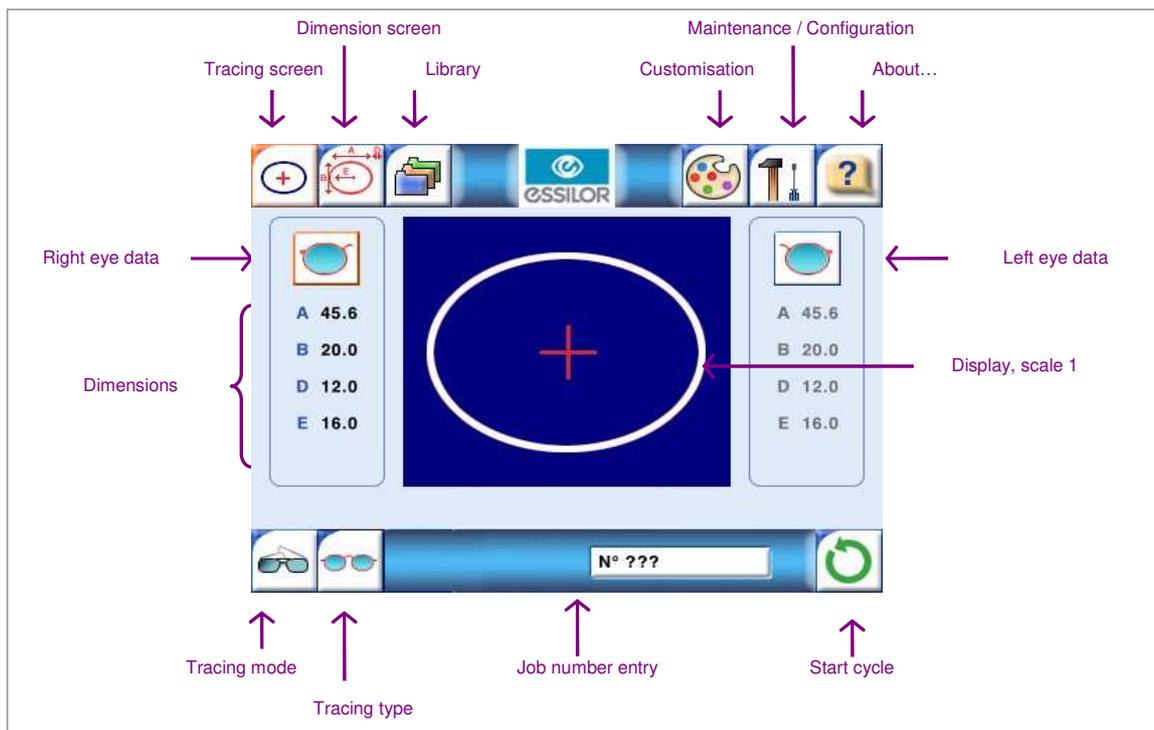


5. Refer to the user's manual of your edger to configure your installation correctly.

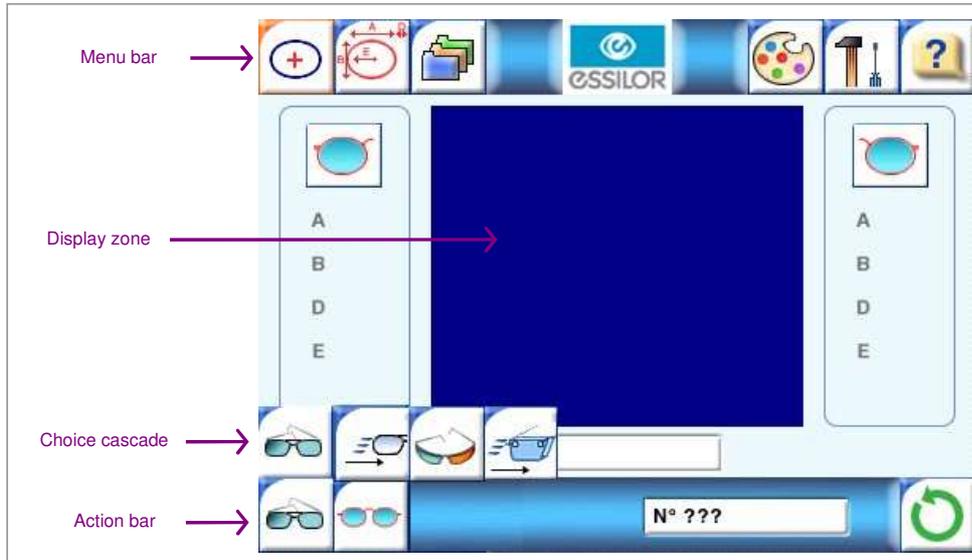
**N.B.** For a configuration with PC **and** edger connection, you can use both installations described above.

### 2.3. FIRST TIME USE

#### • Description of the main screen



**•Navigation principle**



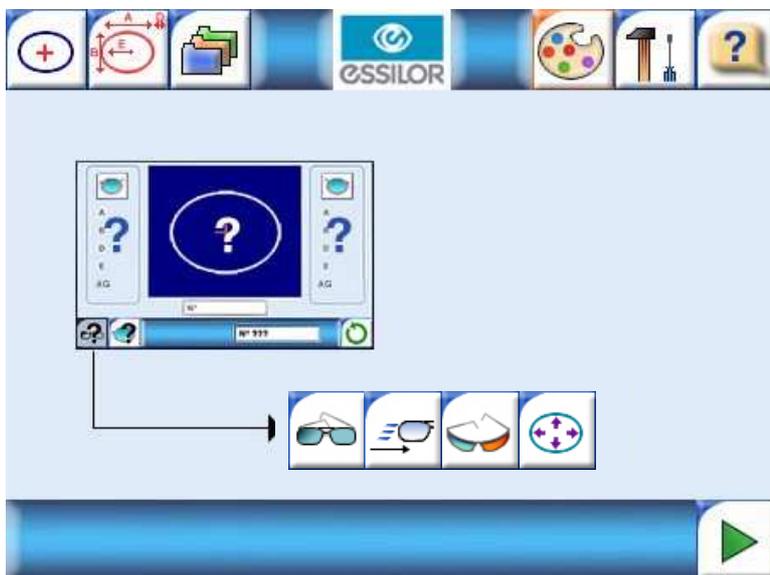
**•Main icons**

- |   |                                 |   |                                  |
|---|---------------------------------|---|----------------------------------|
|   | Standard tracing                |   | Start cycle.                     |
|  | "Precal" tracing                |  | Stop cycle.                      |
|  | Very high curve tracing.        |  | Validate, move to next step.     |
|  | Shape alteration.               |  | Cancel, return to previous step. |
|  | Dissymmetric binocular tracing. |  | Save.                            |
|  | Left eye monocular tracing.     |  | Delete.                          |
|  | Right eye monocular tracing.    |  | Frame thickness.                 |
|  | Symmetric binocular tracing.    |  | Curve angle.                     |
|  | Frame bridge indication.        |  | Frame curve.                     |

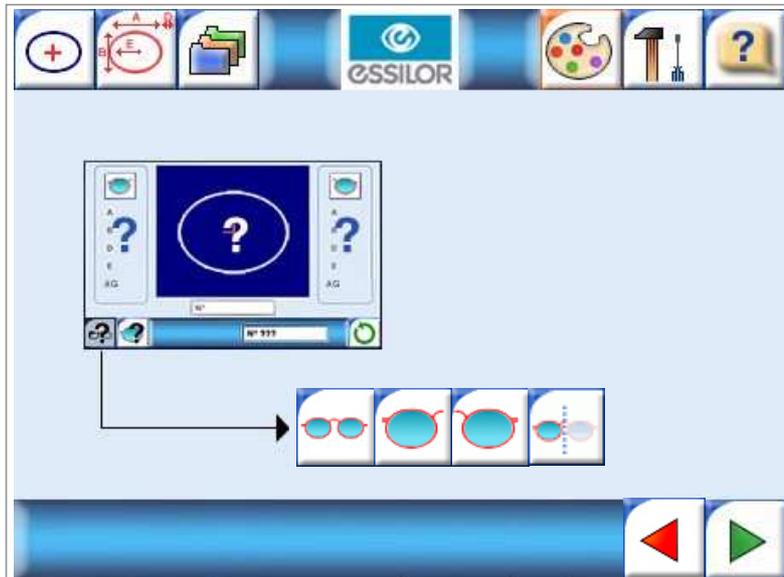
### 2.4. CUSTOMISING THE DISPLAY

Your e-Tess tracer allows you to customise the display of the default trace parameters. Irrespective of the configuration chosen here, each item can still be modified before each tracing job.

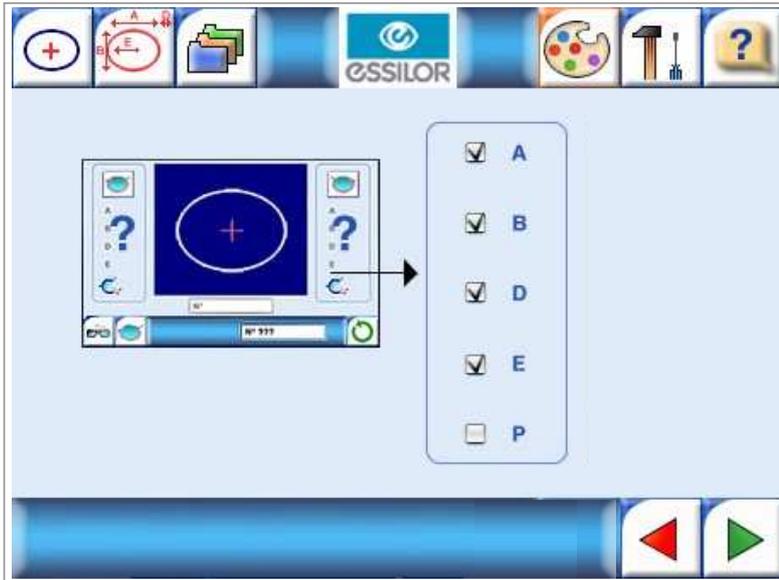
1. Press  to enter the customisation menu,



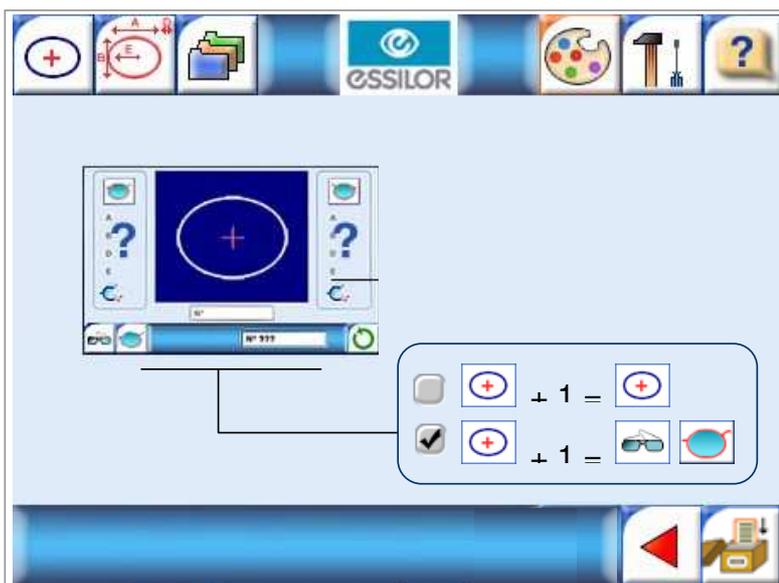
2. Choose your default tracing type (standard, very high curve, Precal, shape alteration), by clicking on the corresponding icon,
3. Validate your choice .



4. Choose the default tracing side (dissymmetric binocular, right eye/left eye monocular, symmetric binocular), by clicking on the corresponding icon,
5. Validate your choice  or return to the previous screen .



6. Select the dimensions you want to display in the trace screen (maximum 4), from: A, B, D, E, P,
7. Validate your choice  or return to the previous screen .

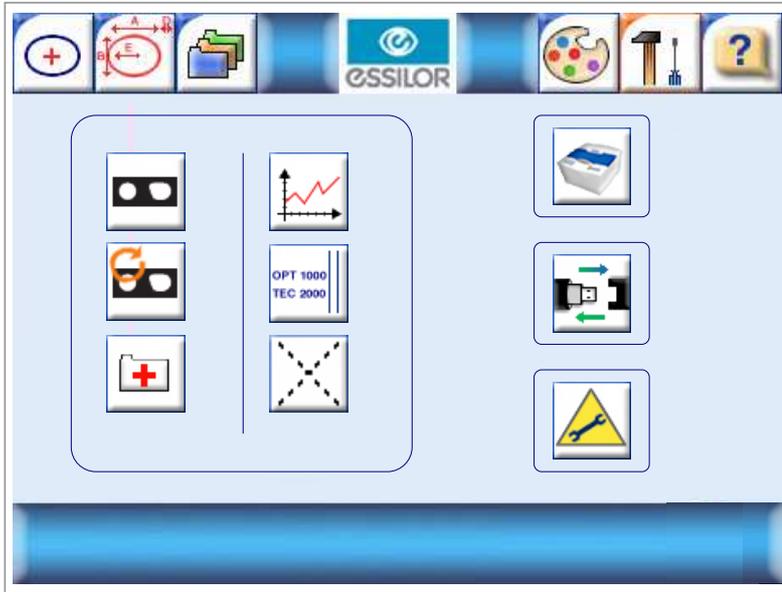


8. Choose the configuration type required for the next job:
  - Job + 1 = Job configuration,
  - Job + 1 = default configuration.

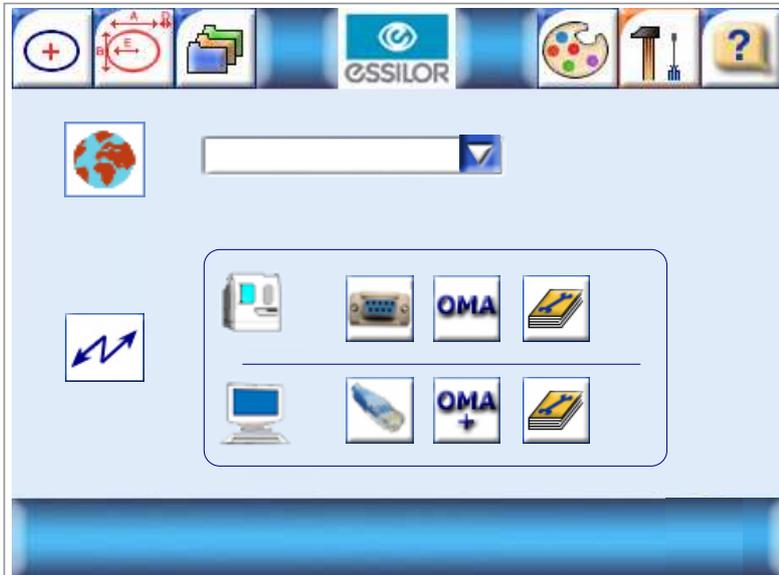
9. Save your configuration  or return to the previous screen .

## 2.5. CONFIGURING THE TRACER

1. Press  to enter the product configuration menu,



2. Click on  to access tracer configuration. On this screen, you can:



• **Choose the language** 

Choose the required language from the dropdown list.

• **Configure the connection and the communication parameters** 

The default parameter configuration is shown below:

	Speed	Flow control	Use
<b>PC serial port</b>	19200	Control	Opsys configuration
<b>Edger serial port</b>	19200	Control	Delta T configuration

	Mode	IP address	Subnet mask	Use
<b>IP</b>	Static	Tracer IP address	Opsys configuration	Regular

**N.B.** Modifying this configuration could have an adverse effect on the operation of your instruments. The configuration in this menu should only be modified if your configuration is not compatible with that proposed by default, with support from your Essilor technician.

a. **Edger connection** 

Three icons are available to configure the connection with the edger:

- Port type used, choose by pressing repeatedly:
  - Serial port 
  - No edger 
- Communication protocol:
  - OMA,
- Communication port configuration :
  - Choose the **baud rate** (19200: usual rate)
  - Choose the **flow control** (Hardware control = usual configuration)
  - Validate your configuration 

b. **PC connection** 

Three icons are available to configure the connection with the edger:

- Port type used, choose by pressing repeatedly:
  - Serial port 
  - Ethernet port 
  - No PC 
  
- Communication protocol, choose by pressing repeatedly:
  - OMA (serial port and Ethernet),
  - OMA+ (serial port only), used for the connection with Check Pro, (see Chapter 3),
  - PCCOM (serial port only), used for the connection with Opsys V1,
  
- Communication port configuration :
  - Serial port:*
    - Choose the **baud rate** (19200: usual rate)
    - Choose the **flow control** (Hardware control = usual configuration), None = Visual Lab Pro configuration)
    - Validate your configuration 
  - Ethernet port:*
    - Choose the **mode type**:
      - *Static*: usual mode,
      - *Apipa*: P to P operation,
      - *DHCP*: network operation.
    - Check the **IP address**, *IP*, if it does not correspond to your configuration:
      - Click on the "IP" zone, enter the required address on the numeric keypad,
      - Validate your entry ► or cancel your request ◄ .
    - Check the **subnet mask**, *MSK*, if it does not correspond to your configuration:
      - Click on the "MSK" zone, enter the required address on the numeric keypad,
      - Validate your entry ► or cancel your request ◄ .

Check Pro

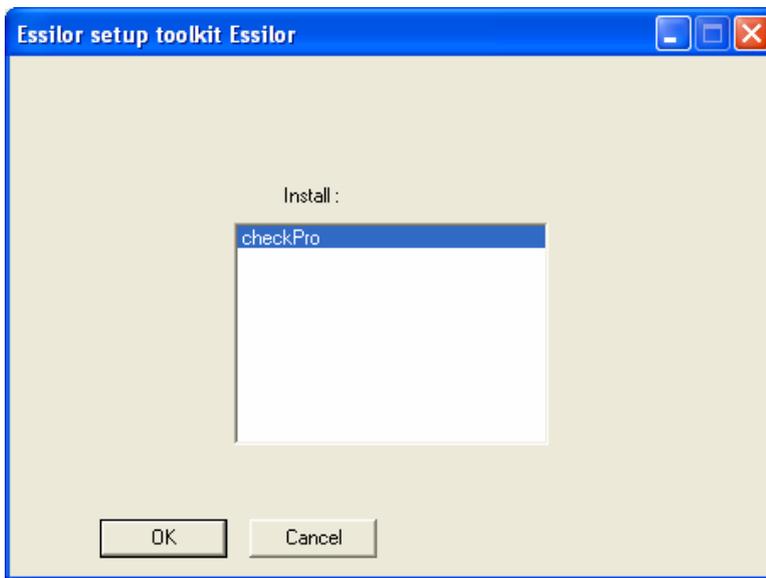
**Check Pro** is an Essilor software program used to:

- Display the trace statistics,
- Display the error messages generated by the tracer,
- Configure the PC communications,
- Perform a self-test from the PC,
- Perform a calibration check from a PC,
- Perform a calibration from a PC.

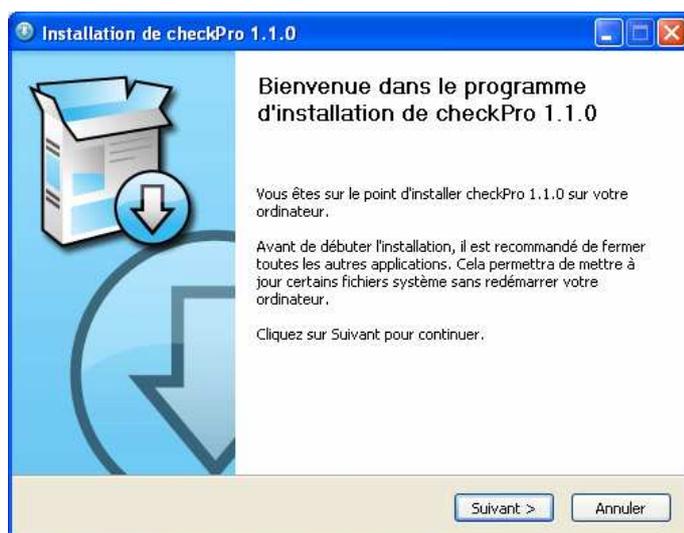
**2.6. INSTALLATION**

Check Pro is compatible with the following operating systems: Windows 98, 2000, XP, Millenium.

1. Insert the CD-ROM supplied with your e-Tess tracer. The following window is displayed:



2. Click on "**CheckPro**" then "**OK**": the installation procedure starts,



3. Click on "**Next** >" and follow the installation steps up to the next screen:



4. Close this window, the application starts automatically.

## 2.7. USE

Click on the icon on your PC desktop, the application starts:



From this screen, all functions can be accessed using icons.

**N.B.** So that Check Pro can communicate with your e-Tess tracer, remember to configure them together (see Chapter 2.3.).

### •Statistics

1. Click on: 

Category	Value
Total number of cycles	5
Number of symmetric binocular cycles	1
Number of dissymmetric binocular cycles	1
Number of right eye monocular cycles	2
Number of left eye monocular cycles	0
Number of very high curve cycles	1
Number of pattern cycles	0
Number of calibrations	0
Number of calibration checks	0
Number of High Precision traces (metal)	4
Number of "precal" cycles	0

 : Partial statistics

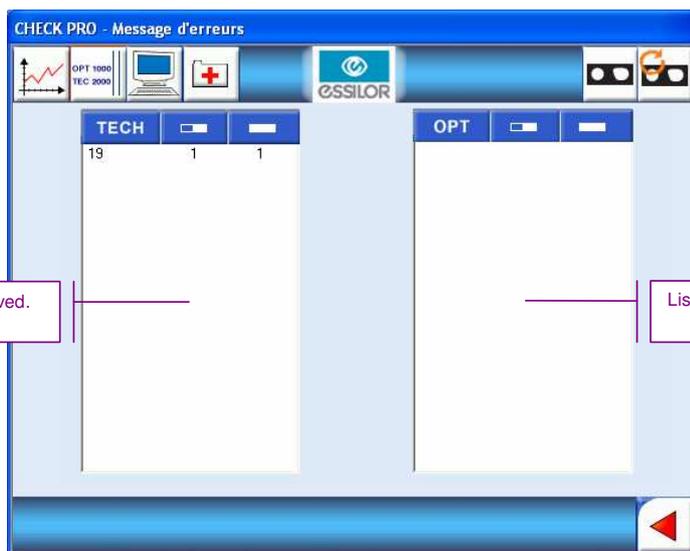
 : Total statistics

Each line indicates a dedicated function of your tracer.

2. To exit the screen and return to the previous screen, click on .

• **Error messages**

1. Click on: 



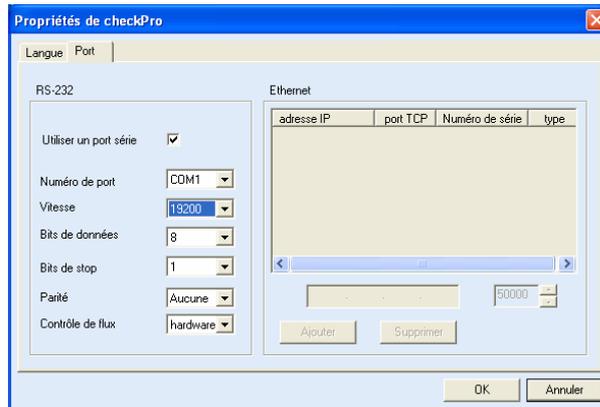
List of "technician" errors saved.

List of "optician" errors saved.

2. The error codes are displayed in the left column with the quantities saved opposite,
3. To exit the screen and return to the previous screen, click on .

## •PC configuration

1. Click on: 

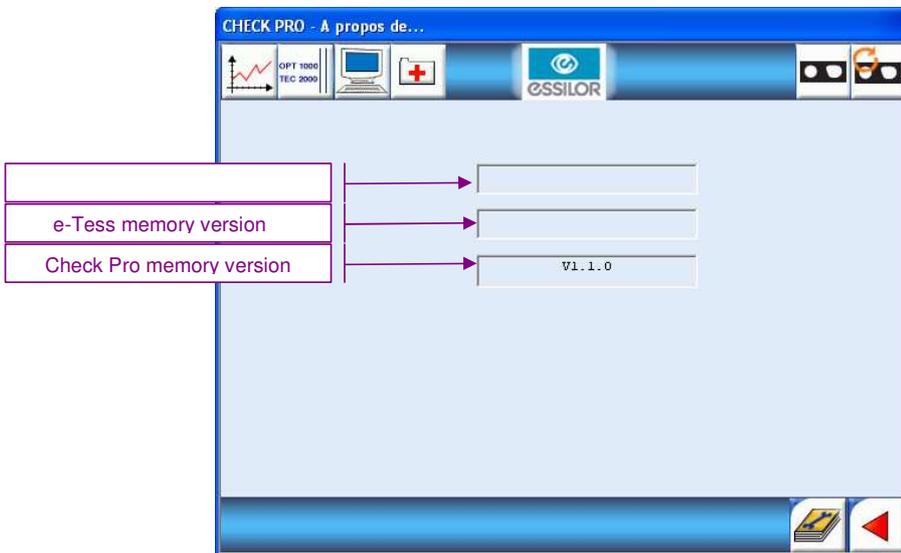


2. In the "**Language**" tab, choose the application operating language,
3. In the "**Port**" tab, configure the connection between your e-Tess tracer and your PC (see Chapter 2.3.),
4. Click on "**OK**" to save your parameters and return to the previous screen, or click on "**Cancel**" to return to the previous screen (without changing the parameters).

## •About

1. Connect your tracer to your PC according to the chosen connection method,
2. On the main screen, in the tracer selection list, display the port to which your tracer is connected, e.g. COM1,

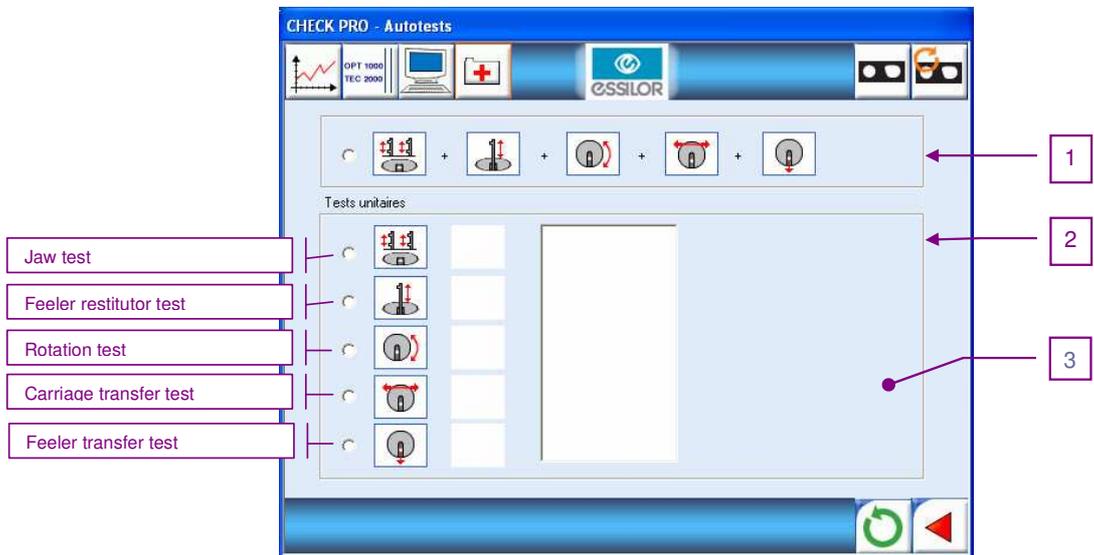
3. Click on: 



4. After a few seconds, the information is displayed on screen,
5. To exit the screen and return to the previous screen, click on .

**•Self-test**

1. Click on: 



2. Choose the type of test you want to perform:
  - Selection of line 1: the self-test will automatically run the 5 tests in the table one after the other,
  - Selection of a line in frame 2: the corresponding unit test is performed.

3. To validate the choice and start the test, click on .

4. At the end of each test, the result is displayed:

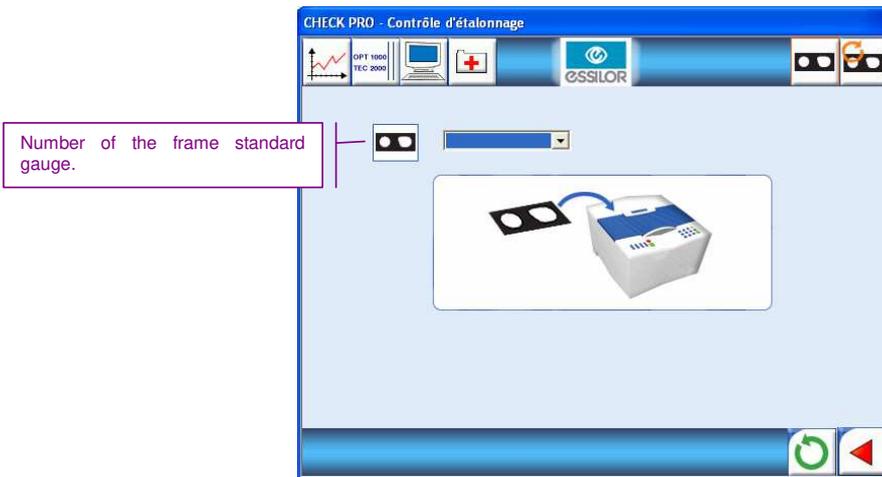
 : **Test NOK**, contact your technician. The code and description will be written in zone 3,

 : **Test OK**, you can continue using your tracer.

5. Click on  to exit the screen.

### • Calibration check

2. Click on: 



3. Choose the number of the frame "standard gauge" displayed, corresponding to the gauge to be used,  
 4. Position the frame "standard gauge" in e-Tess, stable on the four lower studs, with the "V" open upwards,  
 5. Click on  to validate,

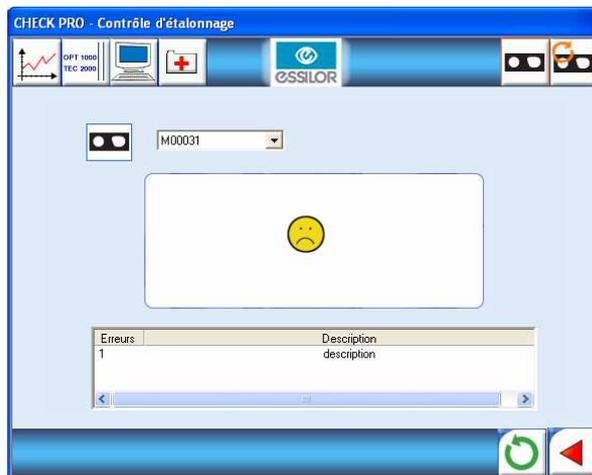


: is displayed in the Check Pro window,

6. Check the gauge number on the e-Tess display,  
 7. Press  on e-Tess to start tracing,  
 8. The check is carried out. At the end, there are two possibilities:



: The **check is not OK**, a window displays the error message code,



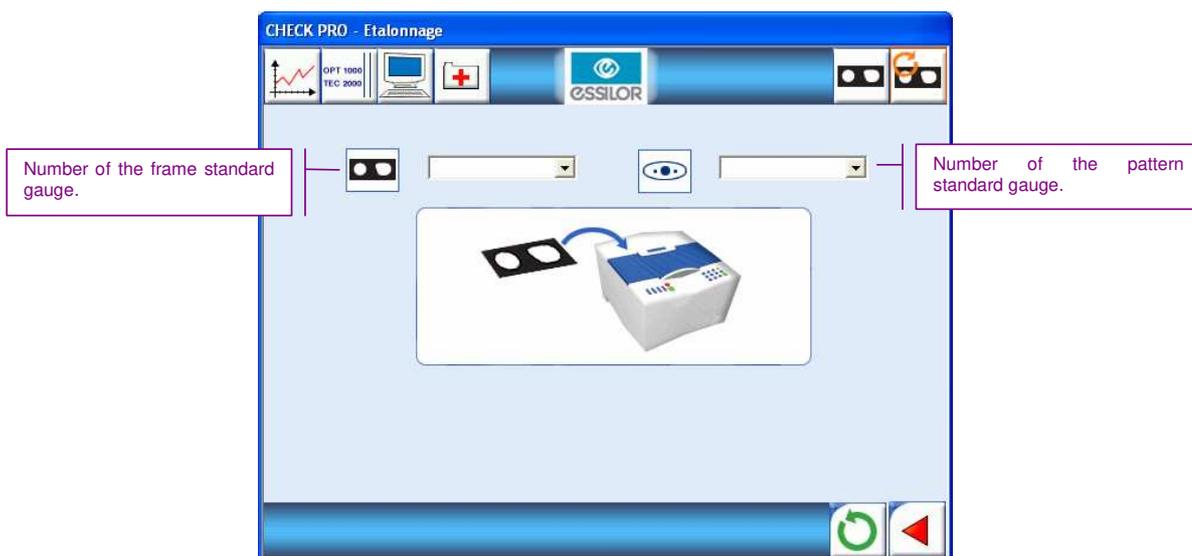
- Refer to Chapter 7 to find the cause of the problem.
- Then click on  to exit the Check Pro screen and press  $\checkmark$  to validate the code on your tracer.

 : The **check is OK**, you can continue using your tracer, the tracer display is ready for a job.

9. Click on  to exit the screen.

**•Calibration**

1. Click on: 



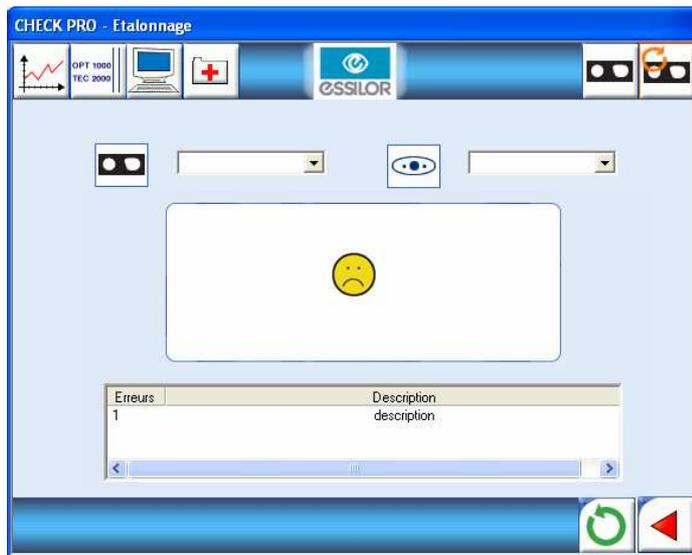
2. Choose the numbers of the "frame" and "pattern" standard gauges displayed, corresponding to the standard gauges used,
3. Position the frame "gauge" in the e-Tess tracer, stable on the four lower studs, with the "V" open upwards,
4. Click on  to validate,



: is displayed in the Check Pro window.

5. Check the gauge number on the e-Tess display,
6. Press  $\checkmark$  on e-Tess to start tracing,
7. Tracing is carried out. At the end, the number of the "pattern" standard gauge is displayed on e-Tess,
8. Remove the "frame" gauge and insert the "pattern" gauge,
9. Press  $\checkmark$  on e-Tess,
10. The second part of the calibration is carried out. After calibration the calculation starts, lasting about 10 min. There are two possible cases:

 : The **calibration is not OK**, a window displays the error message code,



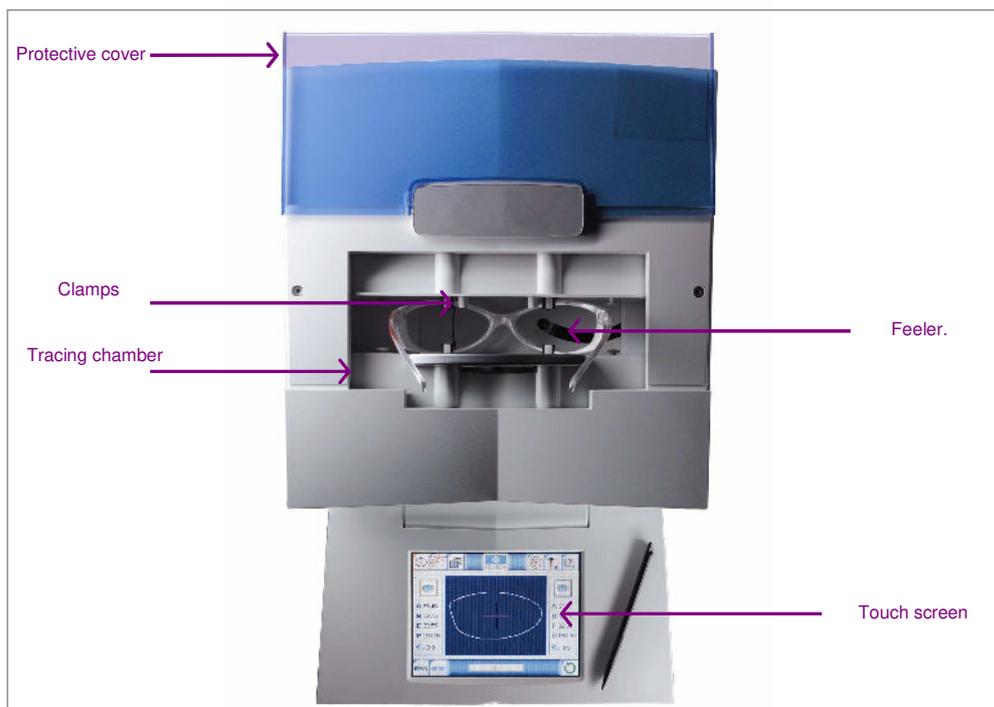
- Refer to Chapter 7 to find the cause of the problem,
- Then click on  to exit the Check Pro screen and press  to validate the code on your tracer.

 : The **calibration is OK**, you can continue using your tracer, the tracer display is ready for a job.

11. Click on  to exit the screen.

### 3. USING THE e-TESS TRACER

#### 3.1. DESCRIPTION OF THE TRACER

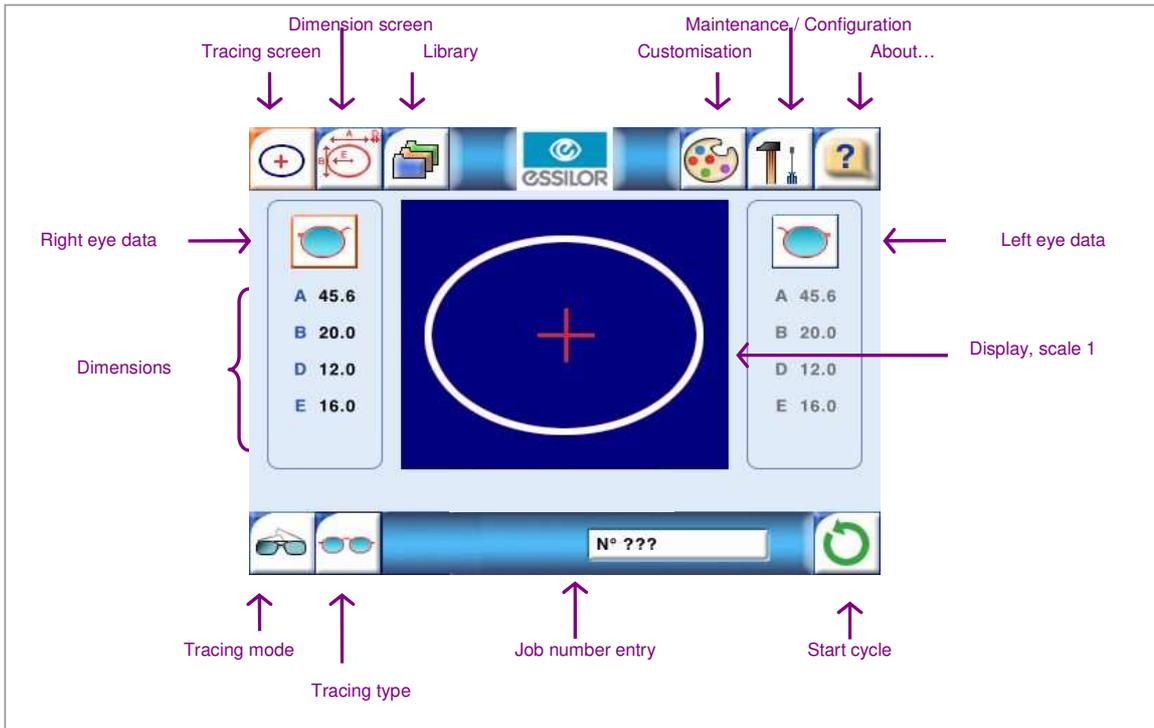


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#### 3.2. INITIALISATION

1. Power up the tracer with on/off switch,
2. Wait during the initialisation phase (automatic tests of the tracer functions),  
The graphic bar indicates the progress of the initialisation phase.
3. After "successful" initialisation, indicated by an audible beep, the tracer screen is displayed, the tracer is ready to trace an object,

By default the tracer is in current job (A):



- If you want to assign a job number:

- Click on the job number zone,
- A calculator is displayed to enter the required number between 1 and 9999. By default, the first number available in the list is proposed.



- Validate , the job number is displayed, or cancel ,
- Press  to start tracing.

- If you want to **work in current job**:

- Press  to start tracing,

**N.B.** Caution, in this case the jobs are not stored.

- If you are working with **bar codes** (Péniche or Opsys):

- Scan the bar code, the number is displayed on screen,
- Press  to start tracing.

### 3.3. FRAME TRACING

#### •Standard tracing

1. Take the lenses out of the frame,
2. Insert the frame on the tracing table, making sure that each circle lies between the clamps,

<b>IMPORTANT</b>
<b>Adjust the frame if necessary.</b>
<b>Make sure that the drum is correctly closed.</b>
<b>Make sure not to crush the frame if it is flexible.</b>

3. Select your trace type in the following cascade:

-  : standard tracing,
-  : very high curve tracing (see special cycles below),
-  : "precal" tracing (see special cycles below),

4. Select your tracing side in the following cascade

-  : dissymmetric binocular tracing,
-  : right eye monocular tracing,
-  : left eye monocular tracing,
-  : symmetric binocular tracing,

**N.B.** In case of monocular tracing, you will be prompted to enter the bridge value after tracing on a numeric keypad,



Enter the value then validate , (you can correct the value indefinitely using the  key as long as your entry has not been validated).

No other actions are possible without this entry.

The frame dimensions available can then be displayed.

5. Start the tracing cycle ,

6. To stop the cycle during tracing ,

- o 1<sup>st</sup> press: the tracing cycle is stopped (the data acquired is lost),
- o 2<sup>nd</sup> press: the cycle is reinitialised and an audible signal emitted. After a few seconds, your tracer is again ready to trace.

#### • **Special cycles**

1. "Precal" tracing 

When this function is selected, by default, tracing is carried out in right eye monocular, with a very fast tracing cycle, intended for precalibrated lens orders (optional).

You can choose the left eye by pressing the tracing side selection key (binocular tracing is impossible).

Tracing is carried out as with a standard cycle.

2. "Very high curve" frame tracing 

Thanks to its advanced technology, your e-Tess tracer can trace high curve frames on a standard cycle. This special cycle allows you to trace frames with very high curve for which binocular tracing can only be carried out in monocular mode.

2.1. When you want to trace a very high curve frame, activate this function,

2.2. Choose the tracing side, left or right,

2.3. Position the frame as follows, the eye to be traced must be as flat as possible and the clamps must be in the middle of the circle. Make sure that your frame is correctly aligned and properly held in the tracing chamber:



2.4. Start tracing 

2.5. Enter the bridge value on the numeric keypad, then validate ▶ ,

2.6. Position the frame to trace the other eye,

2.7. Start tracing again.

### 3. "Very small B-dimension" tracing

This type of tracing is suitable for frames with B-dimension  $\leq 19$  mm.

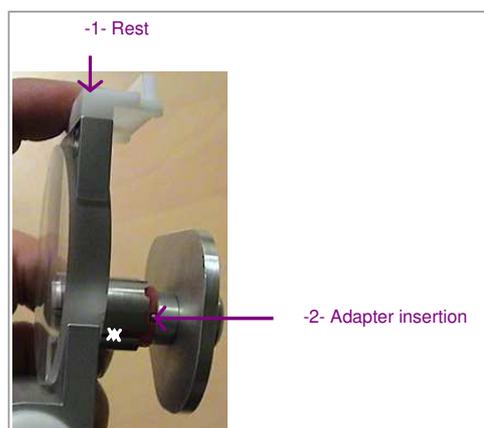
3.1. Position the accessory as shown below:



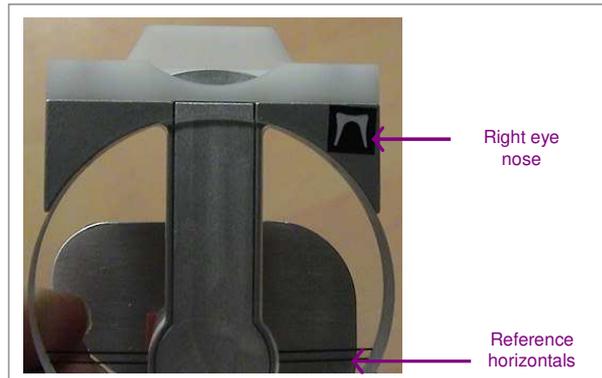
3.2. Perform your trace according to the description given in chapter 3.3.

### 4. Pattern/demonstration lens tracing

4.1. Position your pattern on the pattern holder between the adapter and the magnet. Press the top part of the holder to separate the jaws of the adapter holder and simplify handling.

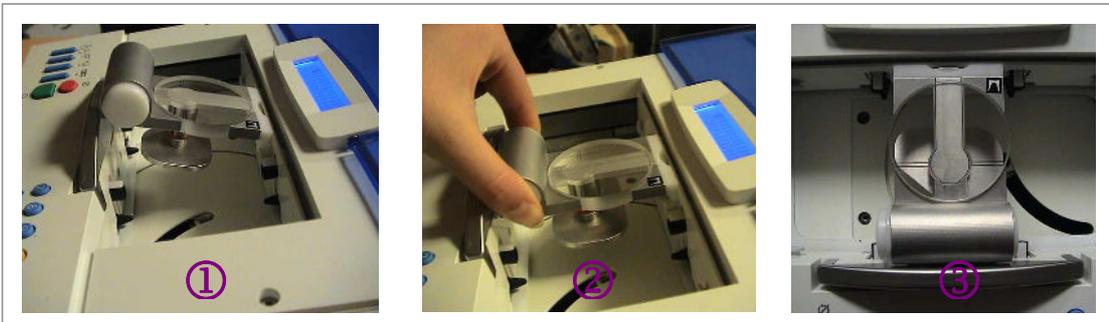


Make sure to align the horizontal of your pattern (or demonstration lens) and that of the pattern holder.



**N.B.** When tracing a demonstration lens or a recut lens, first centre and secure your lens with the sucker.

4.2. Fit the pattern holder in the tracing table. Press the lower right button of the holder to simplify handling.



4.3. Irrespective of the tracing mode chosen, your tracer will detect the presence of the pattern holder,

4.4. Choose your tracing side,

4.5. Start the cycle .

4.6. Your e-Tess tracer automatically detects that it is a pattern trace. If no tracing side has been selected, it will prompt you to select the tracing eye,

4.7. After tracing, enter the nose value on the numeric keypad, then validate .

## 5. Shape alteration

Your e-Tess tracer has a shape alteration function.

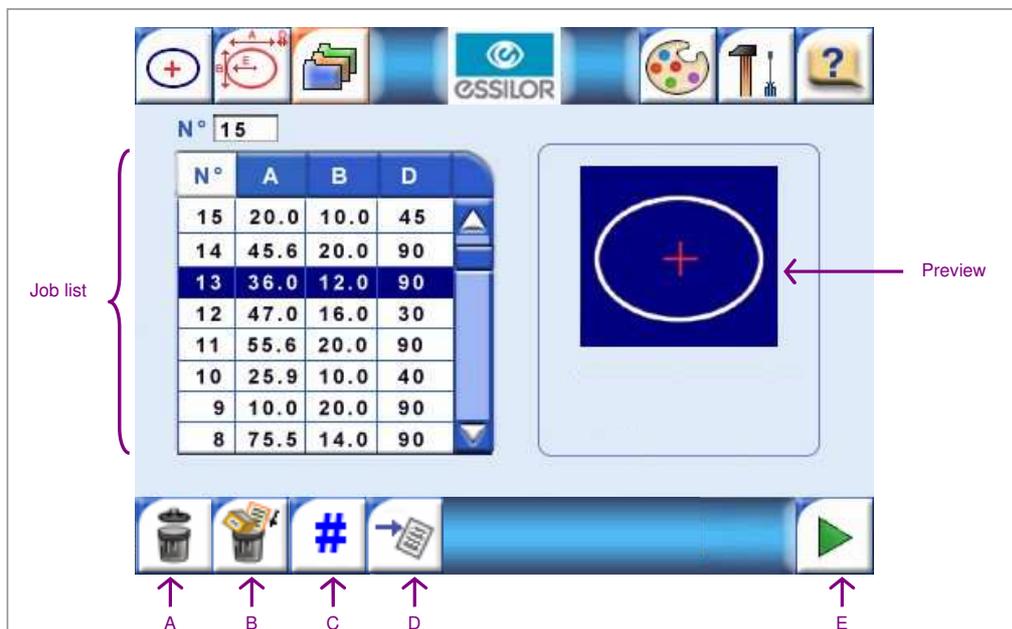
When you choose this type of tracing, after tracing, you access the shape alteration directly. On this screen, you can modify the A, B and D-dimensions of your job as required (for more details on this function, refer to Chapter 4.5.).

In all other cases, irrespective of the tracing mode chosen, this function can be accessed from the dimension screen.

### 3.4. RECALLING A JOB

Your e-Tess can store up to 1,000 jobs using numeric references between 1 and 1000.

1. Press  to access the library:



2. Use the scroll bar to move through the list and find the required job. After clicking on the line to select it, a preview of the shape is displayed on the right of the screen.

**N.B.** For a faster search, click on key C and enter the required job number.

3. If you want:

- To delete the job
  - Click on key A,
  - To prevent accidental errors, a window opens prompting you to confirm or cancel your request.
- To delete all jobs
  - Click on key B,
  - To prevent accidental errors, a window opens prompting you to confirm or cancel your request.
- To search for a job using its number
  - Click on key C,
  - A numeric keypad is displayed to enter the requested number,
  - If you validate ► the corresponding line is selected and the shape is displayed in the "Preview" zone, otherwise cancel your request ◀ ,
- To transfer the job to a PMS
  - Select the required job in the list,

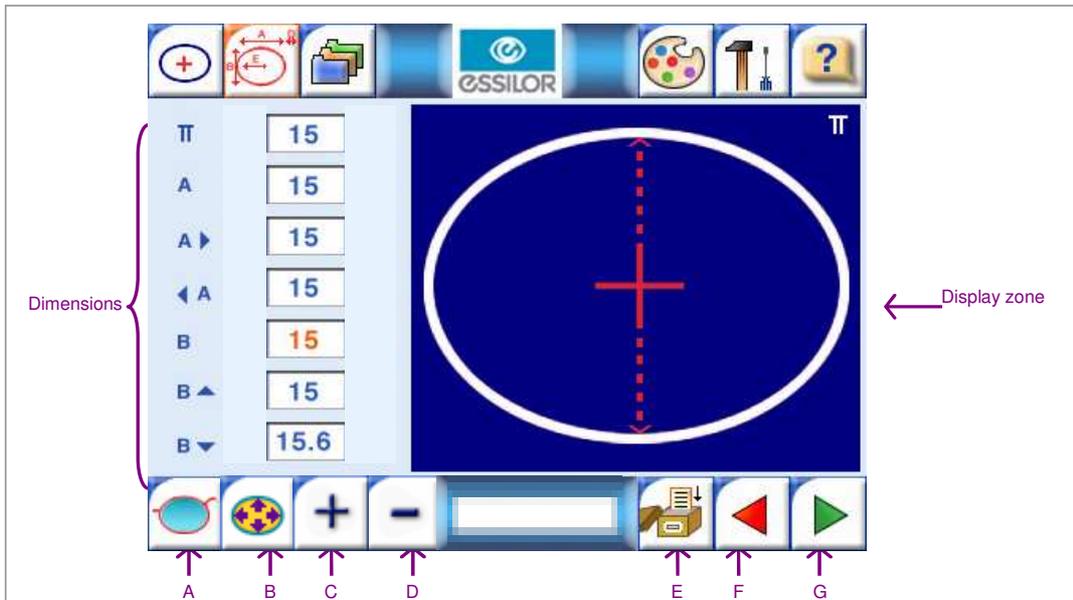
- Click on key *D*.
- To call the job on screen
  - Select the required job in the list,
  - Click on key *E*, you return to the tracing screen.

### 3.5. SHAPE ALTERATION



Shape alteration can be accessed from the dimension screen after tracing or recalling a job, or directly if you choose "Shape alteration" tracing mode (see Chapter 4.3.).

The following screen is displayed:



1. Select the eye you want to alter, *A*,
2. Start the alteration. Two methods are available:
  - a. Method 1
    - Select the dimension you want to modify, *B*:



B-dimension.



A-dimension.



Upper 1/2 B-dimension.



Right 1/2 A-dimension.



Lower 1/2 B-dimension.



Left 1/2 A-dimension.



Scaling.

- Use keys *C* and *D* to increase or decrease the chosen dimension.

b. Method 2

- Click on the numeric zone of the dimension you want to modify. A calculator is displayed on screen:



- Enter the required value, either with the + and – keys or directly on the numeric keypad.

You can delete any value with the eraser .

- Validate your choice  or cancel your request .

3. The numeric value of the dimension is automatically modified (red display). On the display zone, you can also compare your new shape (green display) with the original shape (purple display).

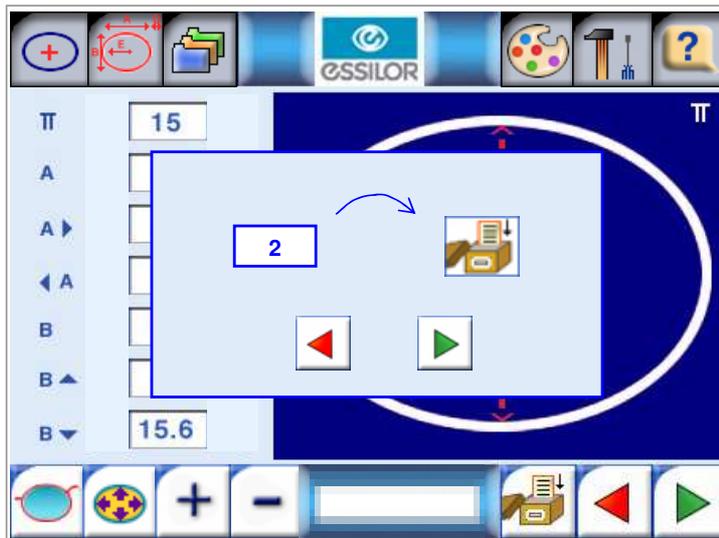
You can cancel the requested alteration(s) at any time by pressing key *F* repeatedly.

4. When your alteration is finished, you can:

- Save the shape permanently:

The shape will be saved with a new job number.

- Click on key *E*.
- A window displays a job number, available in the list:



→ Press  to start saving or cancel with .

- Save the shape temporarily:

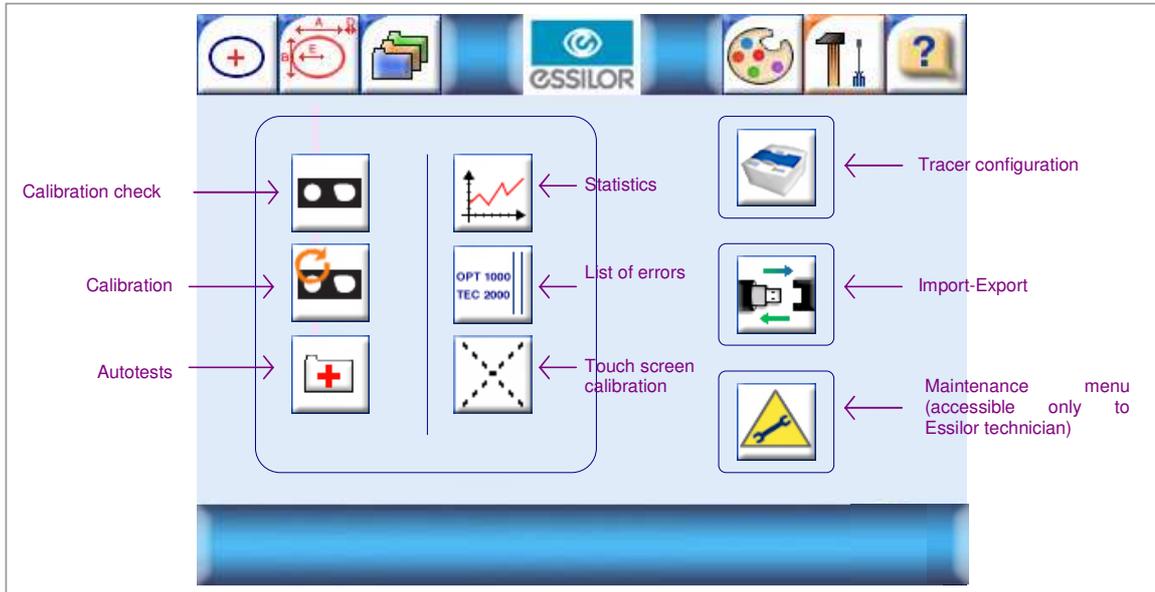
The alteration will only be effective for the current processing.

→ Click on key G to return to the dimension screen and continue your job processing.

## 4. AUTOMAINTENANCE

The functions described in this menu will allow you to troubleshoot any problems you may encounter when using your tracer or help the technician to solve the problem.

All of these functions are accessible from the configuration/maintenance screen .



### 4.1. CALIBRATION CHECK

Calibration must be carried out regularly to guarantee *High Precision acquisitions*.

1. Press  to access the configuration/maintenance menu,
2. Select the "calibration check" function ,
3. Position your frame "standard gauge" in the tracing chamber, stable on the four lower studs, with the "V" open upwards,
4. In the selection list, select the number of the standard gauge you have just positioned,



5. Start the tracing cycle .
6. After tracing, the clamps open and an audible signal indicates the end of the calculations:
  - If the **check is OK**, the screen displays:   
Press  and continue using your tracer.
  - If the **check is not OK**, the display indicates:   
Press  and perform a complete calibration (see Chapter 5.2.).

## 4.2. CALIBRATION

Calibration must be carried out regularly to guarantee *High Precision acquisitions*, especially when the calibration check is NOK (see Chapter 5.1.). This step may take a certain amount of time and block the use of your tracer, but it is essential to maintain high performance.

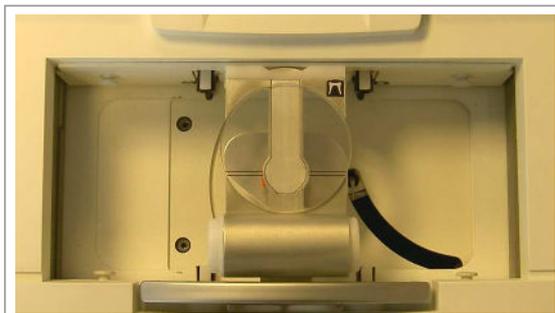
4. Press  to access the configuration/maintenance menu,
5. Select the "calibration" function ,
6. The 1<sup>st</sup> step consists in calibrating the "Pattern" precision with the metal pattern standard. The screen displays:



*G: Pattern*

*00001 : number of the pattern supplied by default with your tracer.*

7. Select the pattern number supplied with your tracer,
8. Place the pattern supplied with your tracer on the pattern holder in the direction shown below (nose to the left). Make sure it is quite stable,



9. Then place the pattern holder in the tracing chamber (see Chapter 4, Special cycles: pattern tracing),
10. Press  to start calibration, or press  to exit the configuration menu,

11. After tracing, the screen displays:



12. Select the number of the standard gauge in the selection list,

13. Position your corresponding frame "standard gauge" in the tracing chamber, stable on the four lower studs, with the "V" open upwards (for positioning, see Chapter 5.1.),

14. Start the tracing cycle ,

15. After tracing, the clamps open,

16. During the calculation phase, the screen displays:

This operation may take about 10 minutes.



17. An audible signal indicates the end of the calculations,

→ If calibration is OK, the screen displays: 

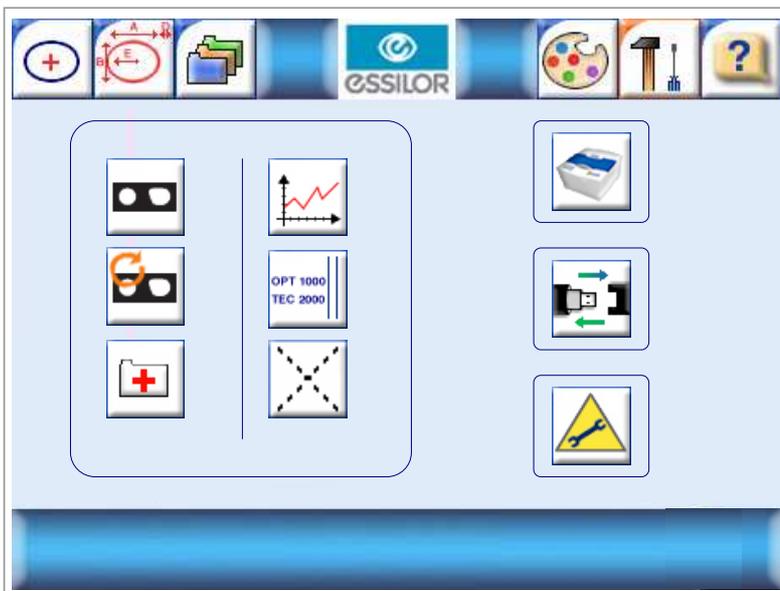
Press  and continue using your tracer.

→ If an error occurred, a message indicates the error reference. Refer to Chapter 7 to find out the error type.

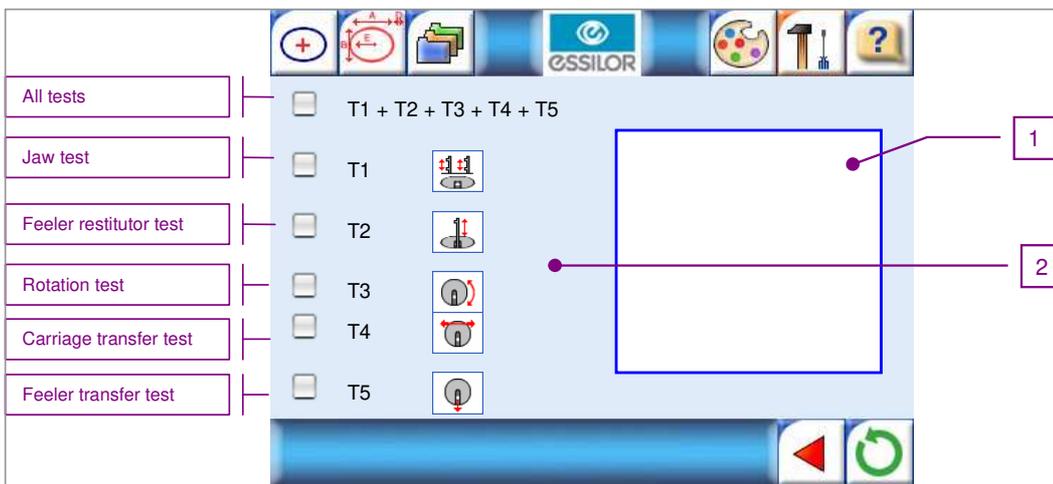
### 4.3. SELF-TESTS

This function allows you to test the various tracer movements.

1. Press  to access the configuration/maintenance menu,



2. Select the "Self-tests" function 



3. Select the tests you want to perform,

4. Start the tests 

1. An audible signal indicates the end of the tests:

- **If the test is OK**, the screen displays in zone 2 for each test concerned: 

Press  and continue using your tracer.

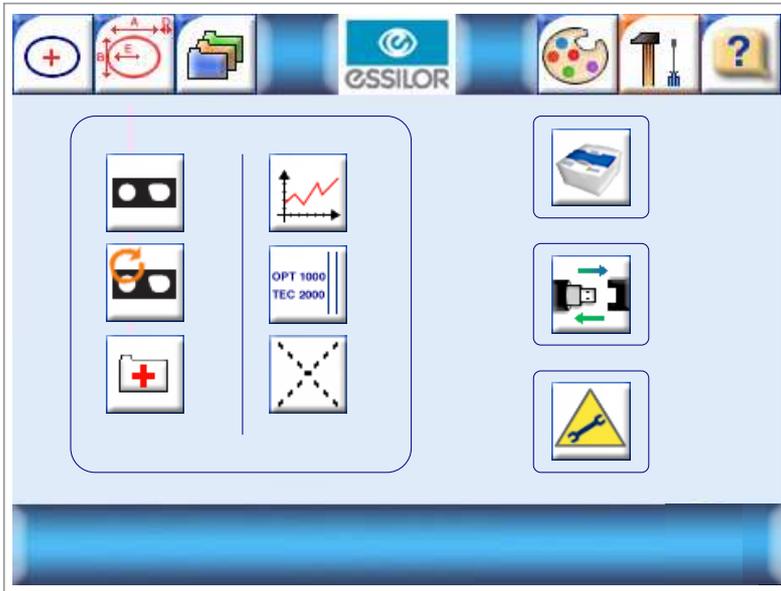
- **If a test is not OK**, the screen displays in zone 2 for each test concerned: 

Press  and contact your After-Sales technician.

#### 4.4. STATISTICS

This function enables you to display statistics on the use of your tracer.

1. Press  to access the configuration/maintenance menu.



2. Select the "Statistics" function .

- : Partial statistics (since servicing by your technician).
- : Total statistics (since you first started using your tracer).



3. Click  to get to the next screen,

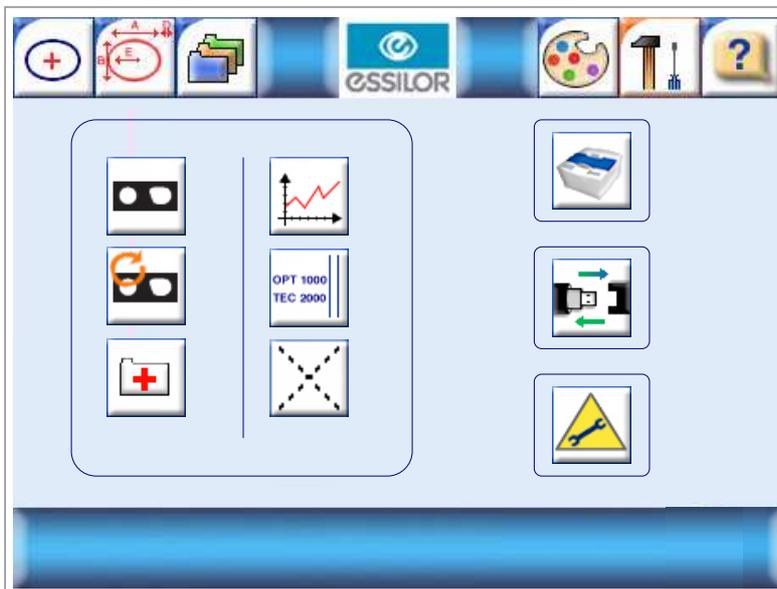


4. At the end of your consultation, click  to go back to the general configuration menu.

#### 4.5. LIST OF ERRORS

This function enables you to display the list of OPT (optician) errors and TEC (technician) errors displayed on your tracer. This will be useful in any contact with your technician in the event of a problem or verification of your tracer.

1. Press  to access the configuration/maintenance menu.



2. Select the "List of errors" function .

-  : Partial list (since servicing by your technician).
-  : Total list (since you first started using your tracer).

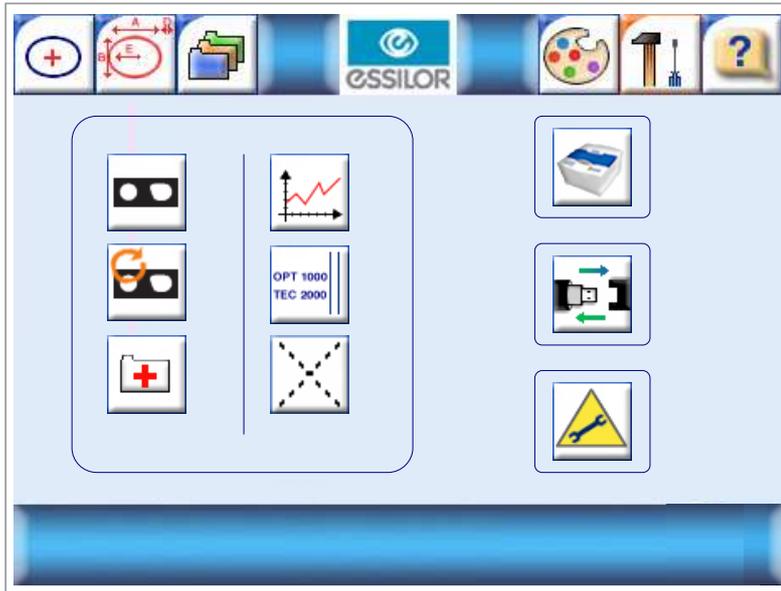


TEC			OPT		
16000	10	10	1000	10	10
10000	5	5	4006	5	5

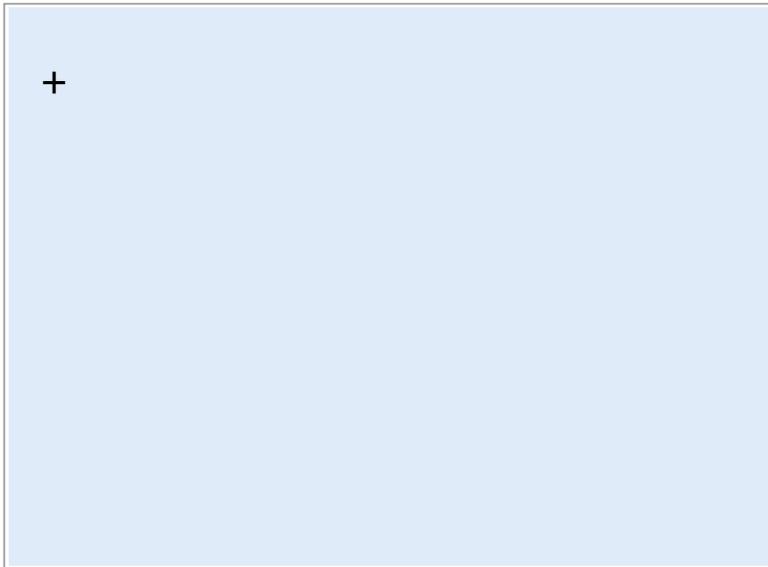
3. At the end of your consultation, click  to go back to the general configuration menu.

#### 4.6. TOUCH SCREEN CALIBRATION

1. Press  to access the configuration/maintenance menu.



2. Select the "**Touch screen calibration**" function 



3. Four crosses will successively appear at the four corners of the screen. Click at the centre of each cross when they appear on screen.  
Once this operation has been carried out, you get back to the general configuration menu.

## 5. IMPORT-EXPORT

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Data can be exchanged quickly between your e-Tess tracer and your Essilor technician via the USB connector. To perform this function, a USB stick compatible with your tracer can be obtained from your Essilor retailer.

### 5.1. EXPORT

This function allows you to transmit information from your e-Tess tracer to your technician in order to optimise the analysis of a possible malfunction.

#### ***c. Step 1: from your tracer***

1. Power up your tracer, switch in position 1,
2. After the initialisation phase, insert the USB stick on the external USB port of your tracer, connector (3),
3. Press  to access the configuration/maintenance menu,
4. Select the "Import-Export" function ,
5. Depending on the files requested by your Essilor technician (calibration data or error list), select the corresponding box, then validate ,
6. When the export is finished, e-Tess is ready for a job, the information has been copied onto the stick which can now be removed.

If an error occurred during the operation, refer to Chapter 7.

#### ***d. Step 2: from your PC***

1. Insert the USB stick on a USB port of your PC,
2. Wait for a few seconds until Windows detects the accessory,
3. In the start menu, click on My PC, your stick must be displayed: "removable disk",
4. Double-click on this disk,
5. Copy the files requested by your Essilor technician from the disk to a dedicated location on your PC hard disk,
6. Send the files to your Essilor technician.

**N.B.** The data may first have to be compressed. Use the compression software on your PC, for example WinZip.

### 5.2. IMPORT

This function allows you to upgrade your product with any new memory versions recommended by your Essilor retailer or to add information required to guarantee the performance of your tracer.

• **Adding a standard**

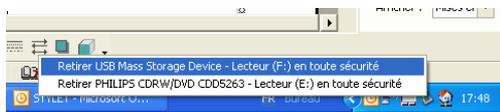
This function allows you to save in your e-Tess tracer information concerning a frame standard used for calibration and the calibration check.

**a. Step 1: from your PC**

1. Insert the Check CD-ROM, CD No. 2, supplied with the standard you want to add in your tracer,

**N.B.** The number indicated on your standard must be the same as that indicated on the CD.

2. Insert the USB stick supplied by Essilor on a USB port of your PC,
3. Wait for a few seconds until Windows detects the accessory,
4. In the start menu, click on My PC, your stick must be displayed: "removable disk",
5. Double-click on this disk,
6. Copy the files of type **M66173OD.TXT** and **M66173OG.TXT** on the root directory of the CD-ROM to the root of the USB stick,
7. Close the USB removable disk,
8. At the bottom right of your screen, request the removal of your USB storage peripheral,



9. Wait for confirmation, then remove the stick from your PC,

**b. Step 2: from your E-Tess tracer**

1. Power up your tracer, switch in position 1,
2. After the initialisation phase, insert the USB stick on the external USB port of your tracer, connector (3),

3. Press  to access the configuration/maintenance menu,

4. Select the "Import-Export" function ,

5. Select the **import pattern**, then validate ,

6. When the import is finished, e-Tess is ready for a job, your new standard will be available for your calibration operations (see Chapters 5.1. and 5.2).

If an error occurred during the operation, refer to Chapter 7.

7. Remove the stick from your tracer.

• **Software update**

<p><b>IMPORTANT</b></p> <p><b>During a software update, your tracer returns to the default configuration:</b></p> <p>→ <b>Configure the communication parameters, see Chapter 2.3.</b></p> <p>→ <b>Choose your language, see Appendix A.</b></p>
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**c. Step 1: from your PC**

1. Insert the USB stick supplied by Essilor on a USB port of your PC,
2. Wait for a few seconds until Windows detects the accessory,
3. In the start menu, click on My PC, your stick must be displayed: "removable disk",
4. Double-click on this disk,
5. Copy the file in format **.tar.gz** sent by your Essilor retailer to the root directory of your stick,
6. Close this disk,
7. At the bottom right of your screen, request the removal of your USB storage peripheral,



8. Wait for confirmation, then remove the stick from your PC,

**d. Step 2: from your E-Tess tracer**

1. Power up your tracer, switch in position 1,
2. After the initialisation phase, insert the USB stick on the external USB port of your tracer, connector (3),
3. Press  to access the configuration/maintenance menu,
4. Select the "Import-Export" function ,
5. Select the **import memory version**, then validate ,
6. e-Tess prompts you to confirm the memory update,
7. Check the update version number,
8. Press  to validate and start the update or  to cancel your request and return to the previous screen,
9. When the update is finished, e-Tess is ready for a job,  
If an error occurred during the operation, refer to Chapter 7.
10. Remove the stick from your tracer.

## 6. ERROR CODES

The actions required if an error occurs are indicated below.

If one of these codes appears repeatedly or remains after the actions proposed below, record this code and contact your technician.

<b>Opt1</b>	<i>Contact your technician with the machine data.</i>
<b>Opt1000</b>	<i>An error occurred during startup. Restart the device.</i>
<b>Opt4000</b>	<i>An error occurred during operation. Restart the machine. If the error occurs several times, contact your technician.</i>
<b>Opt4001</b>	
<b>Opt4002</b>	
<b>Opt4003</b>	
<b>Opt4004</b>	
<b>Opt4005</b>	
<b>Opt4006</b>	
<b>Opt4007</b>	
<b>Opt6000</b>	<i>This function is not implemented.</i>
<b>Opt6001</b>	<i>Contact your technician or perform another action.</i>
<b>Opt6002</b>	<i>Insert a pattern or a frame in the tracing table. Restart your cycle.</i>
<b>Opt6003</b>	<i>An error occurred during tracing. Repeat the operation.</i>
<b>Opt6004</b>	<i>If the error occurs several times, contact your technician.</i>
<b>Opt6005</b>	<i>There is an error on your tracing table. Contact your technician.</i>
<b>Opt6006</b>	<i>The bar code read is not compatible with your tracer.</i>
<b>Opt6007</b>	<i>Check your bar code reader and your code.</i>
<b>Opt6008</b>	<i>Repeat the operation.</i>
<b>Opt6011</b>	<i>Insert new standards, see Chapter 6.2.</i>
<b>Opt6012</b>	<i>Contact your technician.</i>
<b>Opt6014</b>	<i>Calibrate your tracer, see Chapter 5.2.</i>
<b>Opt6017</b>	<i>The file format of your standards is incorrect, Delete your standard files from your tracer, see Chapter 2.2. Insert new standards, see Chapter 6.2.</i>
<b>Opt6019</b>	<i>An error occurred on OMA file. Restart the device and repeat the operation.</i>
<b>Opt6021</b>	<i>Contact your technician.</i>
<b>Opt6022</b>	
<b>Opt6023</b>	<i>An error occurred during the software update. Restart the device, the instrument will automatically start up on the old version.</i>
<b>Opt6024</b>	<i>The external USB stick is missing.</i>
<b>Opt6025</b>	<i>Insert the USB stick and continue.</i>
<b>Opt6026</b>	<i>There is an error on the update file. You can use your tracer with your old version. Contact your technician.</i>
<b>Opt6027</b>	<i>The pattern standard is incorrectly positioned, see Chapter 4.3., special cycles.</i>
<b>Opt6030</b>	<i>Your edger cannot carry out this type of machining (small B-dimension).</i>
<b>Opt6031</b>	<i>Your edger cannot carry out this type of machining (high curve).</i>
<b>Opt6032</b>	<i>The frame standard is incorrect or badly positioned. Refer to Chapter 5.1. and repeat the operation.</i>
<b>Opt6033</b>	<i>There is an object in the tracing table. Check your tracing table. Restart the device and repeat the operation.</i>
<b>Opt6035</b>	<i>Insert the pattern standard supplied with your tracer, see Chapter 5.</i>
<b>Opt6036</b>	<i>Insert the frame standard supplied with your tracer, see Chapter 5.</i>





**Essilor Instruments USA**  
8600 W. Catalpa Avenue, Suite 703  
Chicago, IL 60656  
Phone: 855.393.4647  
Email: [info@essilorinstrumentsusa.com](mailto:info@essilorinstrumentsusa.com)  
[www.essilorinstrumentsusa.com](http://www.essilorinstrumentsusa.com)