This manual should be kept carefully by the optician throughout the lifetime of the Alta XL.

Firstly it will act as a guide for the optician in the following operations:

- ✓ installation of the Alta XL and setting it up;
- ✓ use of the Alta XL;
- ✓ regular cleaning and simple maintenance in order to maintain optimal performance of the machine;
- ✓ configuration of the default settings of the Alta XL;
- ✓ maintenance assisted by the BRIOT hot line when possible technical problems occur that can be resolved immediately by telephone.

Secondly it will help the BRIOT technician:

- ✓ when setting up the Alta XL (if the machine has been delivered by a technician) in order to validate, in agreement with the client, the conformity of the machine and to follow the training plan for use step by step;
- ✓ during his visits, should a technical problem occur.

The information contained in this manual is not contractual and can be modified without prior notice. In addition, unintentional errors and omissions may occur, although everything is done to avoid them.

BRIOT cannot in any circumstances be held responsible for possible operating faults that could result from these errors and omissions.

Version: ***February 2010***
Reference: ***7195251 REV01***

Make sure that all the transport wedges have been removed before starting the apparatus.

BRIOT cannot in any circumstances be held responsible for possible damage caused by misuse, or use in a manner not specified by the manufacturer.

Disconnect the Alta XL from the mains before any work is done on this unit.

Disposal of Old Electrical & Electronic Equipments (Applicable in the European Union and other European countries with separate collection systems)

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources.
For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

Installation/Setting up

Use

Maintenance

Technical specifications

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REVISIONS FOLLOW-UP

REV01 – V5.03

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On-site Repair

Technician visits

The BRIOT technician is requested to write each visit to a client in the following table.

Date of the visit	Name of the technician	N° of the repair order

Installation/Setting up

Presentation

Introduction

You have just acquired an Alta XL. This chapter will guide you through the steps required for its installation and for setting it up.

In this chapter

In this chapter, the following points will be covered:

Unpacking the Alta XL

Installing the Alta XL

- ✓ Positioning
- ✓ Connecting
- ✓ Turning on
- ✓ Turning off

Setting up the Alta XL

- ✓ Starting
- ✓ Familiarization
- ✓ Maintenance

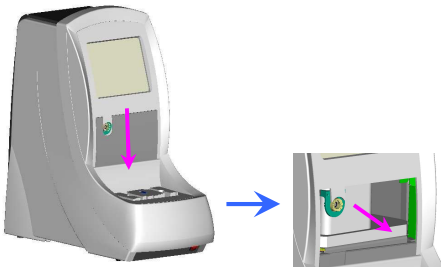
Unpacking

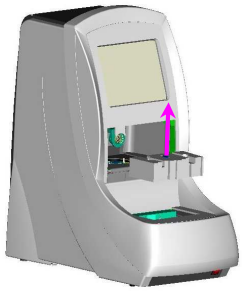
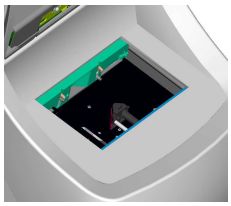
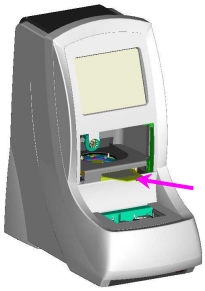
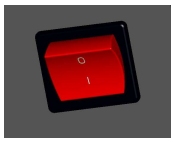
Warning

If you install the Alta XL yourself, you must **keep the packaging and ALL the internal and external wedging**, in case it might be necessary to return the machine.

Unpacking the Alta XL

To unpack the Alta XL, proceed as follows:

Step	Action	Illustration
1	To avoid damaging the internal components of the Alta XL, do not turn on the machine	
2	Lower the door of the layout unit by pushing it down.	
3	Remove upper wedge from the layout unit by pulling it out.	
4	Remove the lower wedge from the layout unit by gently pulling it up and then out.	

Step	Action	Illustration
5	Remove the wedge from the Scanform™ unit by gently pulling it up.	
6	Place the nose piece in the Scanform™.	
7	Place the opaque screen in its sliding guide located at the bottom right of the layout unit.	
8	Switch on the Alta XL.	

Carrying the Alta XL

To carry the Alta XL, proceed as follows:

Step	Action	Illustration
1	Please pick up the Alta XL as shown by the arrows opposite.	

Installation

Introduction

If you install the Alta XL yourself, you must follow the installation instructions below:
Work bench preparation
Connecting
Turning on

Work bench preparation

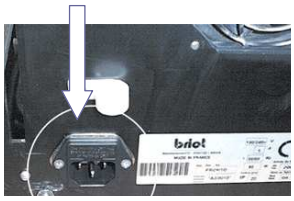
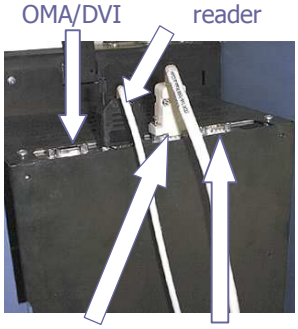
Before installing the Alta XL, check that the work bench corresponds to the following characteristics:

Step	Action
1	Install the Alta XL on a stable, level work bench.
2	Provide a mark measuring of 320 mm x 600 mm on the work bench
3	Do not place any obstacles (cupboard, shelf, etc.) lower than 650 mm above the work bench.
4	Allow sufficient distance between the Alta XL and the edger(s). *Note: the standard connection lead is 10m long.*
5	Prepare an earthed 16 A power socket, protected by a 30 mA differential circuit breaker.
6	Install the Alta XL away from sources of heat.
7	Install the Alta XL away from any source of pollution by dust or humidity (example: a non-enclosed water tank).
8	Install the Alta XL away from any source of strong light.

Connecting the Alta XL

To connect the Alta XL, proceed as follows:

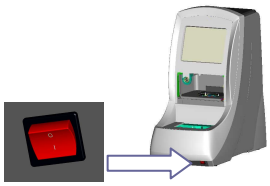
Step	Action	Illustration
1	Remove the rear cover by undoing the screw at the location shown by the arrow.	
2	Make sure you have: an electric socket: **2 P + T**, a power line protected by a **30 mA** differential circuit breaker. mains supply	

Step	Action	Illustration
3	Connect the supplied electric lead to the power socket.	Power socket 
4	If you link the Alta XL to the **OMA network or to the DVI network**, connect the cable to the OMA **port**, using the RS232 cable (screened and earthed) supplied. Contact your Briot dealer to configure the Alta XL in client configuration. If you link the Alta XL to an edger, connect the cable to the COM1 **port**, using the RS232 cable (screened and earthed) supplied. If you connect other edgers, use the COM2 and OMA **ports** (3 edgers maximum). The electric socket must always be earthed. In all cases, use the RS232 leads with the screening connected on both sides.	Network connection OMA/DVI Connection of bar code reader  Connection Accura 1 (COM 1) Connection Accura 2 (COM 2)
5	Put back the rear cover.	
6	Connect the Alta XL to the mains.	

Connecting	Description
COM1	Connection 1 Edger
COM2	Connection 2 Edger
Bar code reader	Connection of bar code reader
OMA	Connection of 3 OMA/DVI networks or Edger

Turning on the Alta XL

To turn on the Alta XL, proceed as follows.

Step	Action	Illustration
1	Press the Start/Stop switch, located at the bottom front right of the machine, on **I**.	

Turning off the Alta XL

To turn off the Alta XL **properly**, proceed as follows.

Step	Action
1	Press and hold the  key. *Result: the message **Please wait during Alta XL shut off** is shown on the screen. After several seconds, the message **You can safely turn off your Alta XL** is shown on the screen.*
2	Press the Start/Stop switch, located at the bottom front right of the machine, on **O**.
	⚠ It is important to turn off the Alta XL in this way. By using this procedure, the Alta XL: puts all mechanical elements in stand-by; closes the door to prevent dust from entering the equipment; saves the last job in the memory.

Setting up

Introduction

If the Alta XL is installed by a BRIOT technician on delivery, he will go through the following steps for putting the machine into operation with you.

Putting the Alta XL into service

Putting the Alta XL into service involves the installation of the machine by a BRIOT technician.

Checking installation conformity

- ✓ Work bench
- ✓ Electrical installation

Starting

- ✓ Dismantling the transport wedges
- ✓ Turning on
- ✓ Initialization

Tests

- ✓ Testing the Scanform™
- ✓ Testing the layout-blocking unit

Familiarization with the Alta XL

Familiarization with the Alta XL involves training in the use of the machine by a BRIOT technician.

General introduction to the machine

- ✓ Precautions for use
- ✓ Limitations of automatic lens blocking
- ✓ Touch screen unit
- ✓ Layout unit
- ✓ Scanform™ unit

Putting into practice

- ✓ General principles of use
- ✓ Standard use
  - ➢ Automatic or manual tracing of a frame, a pattern or a demonstration lens
  - ➢ Entry of client data
  - ➢ Layout and blocking of a lens in automatic or manual mode
  - ➢ Calling up and saving a job or a pattern
- ✓ Ancillary functions

Maintenance of the Alta XL

Maintenance of the Alta XL consists of simple maintenance, settings and adjustments of the machine.

Simple maintenance

- ✓ Cleaning the Scanform™
- ✓ Changing a stylus tip
- ✓ Cleaning the opaque screen
- ✓ Cleaning the collimator lens
- ✓ Changing a fuse
- ✓ Changing the target fluorescent lamp
- ✓ What should be done in case of a warning message?
- ✓ What should be done in case of an error message?

Settings and adjustments

- ✓ Configuration of the operator language
- ✓ Configuration of the data default format
- ✓ Adjustment of the touch screen
- ✓ Adjustment of the Scanform™
- ✓ Adjustment of the fronto-layout unit

Introduction to the accessories and consumables

Use

Presentation

Introduction

Having installed and put your Alta XL into operation, you can move on, strictly speaking, to its use.

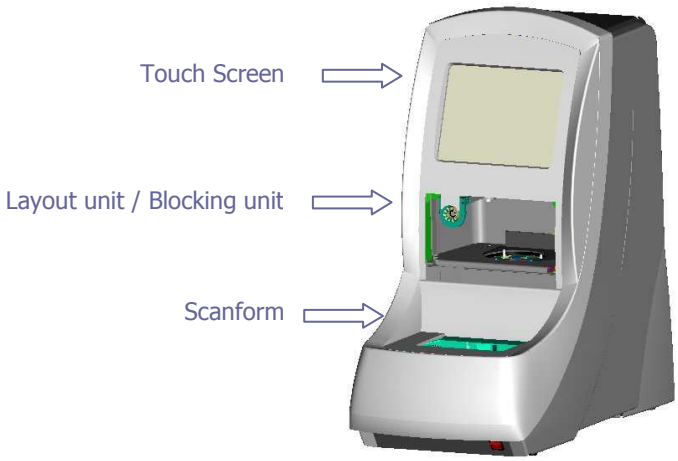
In this chapter

In this chapter, the following points will be covered:

- ❑ Introduction to the machine
- ❑ Precautions for use
- ❑ Use of the Alta XL
  - ✓ Tracing a frame, a pattern or a demonstration lens in automatic or manual mode
  - ✓ Manual tracing of the drilling holes
  - ✓ Entry of client data
  - ✓ Layout and blocking of a lens in automatic or manual mode
  - ✓ Calling up a job or a pattern saved in the memory or on the server
  - ✓ Saving a job or a pattern in the memory (only for server configuration)
  - ✓ Modification of the position and diameter of the drilling holes
  - ✓ Correction of the axis of a pattern recognized by PROS
  - ✓ Laying out and blocking a lens in manual mode
  - ✓ Laying out and blocking a lens to be re-cut or a lens of small diameter
  - ✓ Laying out and blocking a prismatic lens
  - ✓ Changing the position of the shape in relation to the lens
  - ✓ Distorting a shape – Digiform function (for server configuration only)
- ❑ Limitations of automatic lens blocking.

Introduction to the machine

Overview



Welcome screen

When switching on, the following welcome screen is displayed during the initialization of the Alta XL.

Unit descriptions

The Alta XL is made up of the three following units:

Unit	Functions
Touch screen	The touch screen makes it possible: ❑ to use the Alta XL; ❑ to enter the job data; ❑ to display the shape of the frame and the lens; ❑ to display the drilling holes.
Layout unit/ blocking unit	The layout/blocking unit makes it possible to: ❑ automatically detect the lens type inserted in the layout unit (e.g.: single vision, bifocal, progressives, etc.), except for prismatic lenses; ❑ detect automatically: ✓ the optical center and axis of single vision lenses; ✓ the position and axis of the near vision lens for bifocal lenses; ✓ the distance vision optical centre and axis for progressive lenses; ❑ automatically centre the lens, without prior marking of the optical centre or the axis; ❑ block the lens automatically or manually.
PROS	PROS makes it possible to: ❑ automatically recognize a pattern or a demonstration lens; ❑ recognize the drilling plane of a job.
Scanform™	The Scanform™ makes it possible to: ❑ enter the characteristics of the frame, the shape and the distances; ❑ trace the position and shape of the frame groove in 3D for better adaptation of the lens in the circle of the frame; ❑ trace one or both eyes; ❑ image the shape of a pattern or a demonstration lens (automatic detection of the presence of one or the other).

Precautions for use

Introduction

Before use, it is essential to observe the following precautions for use.

General cleaning: outside cover

Use a clean, soft cloth moistened with some alcohol.

Cleaning: warning

When cleaning the Alta XL, take care not to use any of the following products:

- ❑ Ammonia, soda or acetic acid-based products.
- ❑ Organic chemicals such as acetone, benzene or trichloroethylene.

Touch screen unit

- ❑ Do not press too hard on the touch screen. You may break it.

Caution: breakage of the touch screen is not covered by the guarantee.

- ❑ Do not press on it with sharp objects as pens, scissors, pliers, etc.
- ❑ Make sure your fingers are dry when touching the screen. If the touch screen does not react correctly to the pressure of your finger, press lightly with your nail.
- ❑ If the reaction zone does not correspond to the key location, you must adjust the touch window in relation to the screen (see paragraph *Adjusting the touch window*, Chapter *Settings & adjustments*).
- ❑ Clean the touch screen with a soft, dry, clean cloth.

Layout unit

- ❑ Make sure the lens inserted in the layout unit is clean.
- ❑ Do not dot single vision lenses on the optical center.

*Note: the R/L indications marked with a felt tip on the lens do not affect the measurement if they are marked **outside** a zone of 4 cm in diameter centered on the optical center (single vision lenses).*

- ❑ Place the lens flat between the three pivots of the lens holding table.
- ❑ Do not hamper the closing of the layout unit door.
- ❑ Because the block holder is magnetic, simply bring up the block so that it is attracted by the block holder.
- ❑ Do not scratch or put your fingers on the optical components of the layout unit (collimator lens, opaque screen). You may permanently alter the measurements of the equipment.
- ❑ Replace the Alta XL filter regularly (every month) in order to prevent dust build-up on optical components of the machine.

Scanform™ unit

- ❑ To improve the durability of the equipment and have better observation of shapes and sizes make sure:
  - ✓ the joints of the frame circles are closed;
  - ✓ the frame is cleaned in an ultrasound tank before tracing.
- ❑ In the event of a scanning problem, perform an emergency stop and wait until the Scanform™ allows you to recover the frame.

Automatic recognition of a pattern or a demonstration lens

- If the pattern or demonstration lens is thin and/or transparent, you must mark the outside of the pattern with marker # 24 06 486 in order to accentuate the contrast.

Mark the outline of the lens and the drilling holes on the external face of the lens!

- Make sure the pattern or the demonstration lens is correctly centered on the pattern holder # 02 25 042.

Recognition and automatic positioning of the drilling holes

If the pattern or demonstration lens is thin and/or transparent, you must mark the outline of the holes with the marker # 24 06 486 (See the photo above).

De-blocking a lens

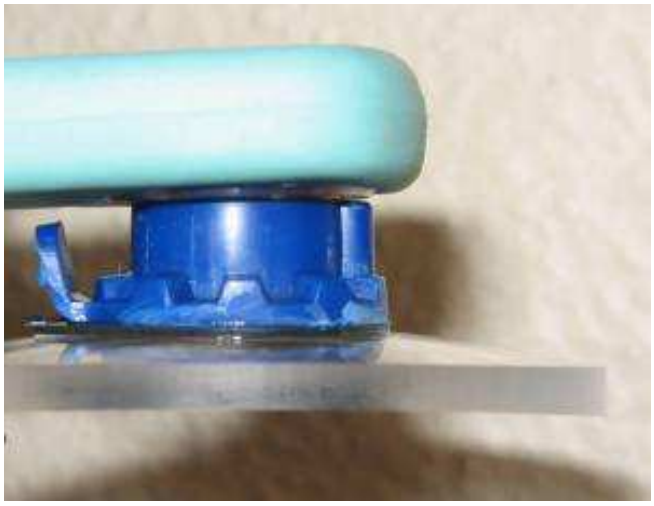
Even though the deblocker is easy to use, observe the procedure described below to avoid the risk of damaging the lens.

Presentation

The deblocker is made up of a block seat, a pin and a lever.

Presentation

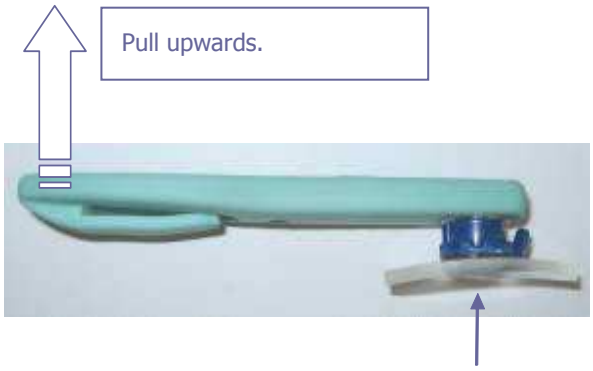
1 Insert the pin in the block hole and push down the metallic heel of the block on the block seat as indicated in the photo.



2 Hold the lens firmly in your hand and pull upwards on the lever. ("Bottle opener" movement)

Stop pulling upwards when the block is separated from the lens.

Do not deblock with a twisting movement around the deblocker axis. This movement produces much less force
and is less accurate.

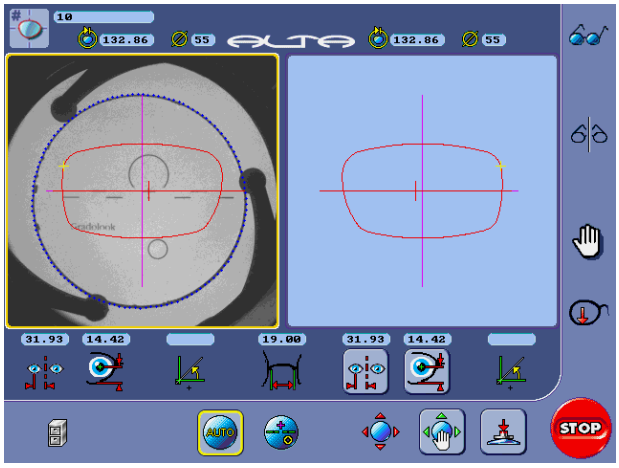


⚠ The Briot blocks have a lifespan of 100 blocking operations. You must replace them after these 100 operations.

General principles of use

Part	Function
Touch screen keys	To activate or deactivate a function by pressing on the key concerned. The action produces a change in the appearance of the key.
	Key activated  **Key deactivated** 
Digital keypad	Is used to enter digital data. The digital keypad automatically appears on the screen when a function requiring a digital key-in is activated.

Key details



Frame tracing unit:	
Key to be activated	**Function**
	Access to a job number entry *Note: When the Alta XL is configured as the server, pressing and holding this key gives access to the list of jobs in the memory (cf. paragraph Alta XL Memory Management at the end of the document).*
	Selection of metallic frame tracing
	Selection of plastic frame tracing

Frame tracing unit:	
Key to be activated	**Function**
	Selection of the tracing of both sides of the frame
	Selection of the tracing of the right-hand side of the frame
	Selection of the tracing of the left-hand side of the frame
	Selection of tracing in automatic or manual mode (manual introduction of the stylus)
	Starting the tracing of the frame or the pattern placed in the Scanform™
	Selection of pattern recognition (PROS)
	Selection of the right-hand shape
	Selection of the left-hand shape
	Starting the pattern shape recognition and orientation

Section: Automatic recognition of a pattern or a demonstration lens Accessible in manual layout mode	
Key to be activated	**Function**
	Manual layout of the pattern
	Modification of the position of the axis
	Modification of the position and diameter of the drilling holes

Section: Recognition and entry of data for the drilling holes	
Key to be activated	**Function**
	Manual entry of the drilling coordinates
	From the pattern memory, opens a shape with holes which are going to be re-used as drilling points (reference shape)
	Addition of a drilling hole
	Deletion of a hole in progress
	Move to the following hole
	Go back to the previous hole
	Zoom function
	Creation of a link with the previous hole to make an oblong hole or a notch
	Groups the holes on the side of the current hole (nasal or temporal). They can then be moved together or their diameters may be modified.
	Entry of the lateral position (x) of a drilling hole in relation to the boxing centre of the shape
	Entry of the vertical position (y) of a drilling hole in relation to the boxing centre of the shape
	Positioning of a hole in relation to the edge of the lens Distance from the centre of the hole to the edge of the lens on the temporal side
	Positioning of a hole in relation to the edge of the lens Distance from the centre of the hole to the edge of the lens on the nose side

Section: Recognition and entry of data for the drilling holes	
Key to be activated	**Function**
	Positioning of a hole in relation to another hole Distance in X in relation to the previous hole (positive values to the right)
	Positioning of a hole in relation to another hole Distance in Y in relation to the previous hole (positive values to the top)
	Moves the current hole or group of holes upwards by 0.05 mm steps
	Moves the current hole or group of holes downwards by 0.05 mm steps
	Moves the current hole or group of holes to the left by 0.05 mm steps
	Moves the current hole or group of holes to the right by 0.05 mm steps
	Places the new holes at the same ordinate point (Y) as the holes in the reference shape
	Places the new holes proportionately to the reference shape The new height is calculated as a function of the ratio between the boxing heights of the reference shape and the shape to be produced. We advise you to use this positioning function following the proportional modification of a starting shape, or following the use of a reference shape
	Places the new holes by moving them a distance equal to half the difference of the boxing height between the two shapes. In this case the vertical distance between the two holes is retained. We advise you to use this positioning function after modifying the boxing half height with the Digiform.
	Places the new holes at the same abscissa point (X) as the holes in the reference shape.
	Places the new holes at the same horizontal distance from the edge of the lens as the holes in the reference shape. The new X-position is calculated so that the holes are at the same distance from the left and right lens edges as the reference shape.
	Automatic calculation of the new bridge value so as to retain the same distance between the left and right holes on the nasal side, and retain the same PD.

Section: Recognition and entry of data for the drilling holes	
Key to be activated	**Function**
	Reduction of the hole diameter in steps of 0.05mm
	Enlargement of the hole diameter in steps of 0.05mm
	Entry of the hole depth Depth of the hole to do
	Selection of drilling according to the lens front surface Drills according to a direction perpendicular to the lens front surface at the drilling point
	Selection of drilling according to the lens rear surface Drills according to a direction perpendicular to the lens rear surface at the drilling point
	Selection of drilling according to a preset base curve Drills according to a direction perpendicular to a base curve preset by the operator
	Selection of drilling parallel to the clamping shafts Drills according to an angle parallel to the clamping shafts

Section: Entry of the client's settings	
Key to be activated	**Function**
	Entry (or indication after tracing) of the frame bridge
	Entry of the client's half pupillar distance *Note: in the case of a symmetrical job, the entry of the total distance is also possible at this level.*
	Entry of the distance (X between the frame geometrical center and the optical center (horizontal)
	Entry of the client's pupillary height Box (in boxing mode)
	Entry of the client's pupillary height Mix (in boxing mode)

Section: Entry of the client's settings	
Key to be activated	**Function**
	Entry of the distance (Y between the frame geometrical center and the optical center (vertical)
	Entry of the client's right or left axis. Indication of **+** or **-**
	Entry of the prism base axis in Tabo format
	Entry of the prism base axis in the format (IN, OUT, UP, DOWN)
	Entry of the (IN, OUT) component of the prism base axis
	Entry of the (UP, DOWN) component of the prism base axis

Section: Lens type, layout and blocking	
Key to be activated	**Function**
	Activation of the automatic lens type recognition ⚠ The automatic recognition of the lens type does not operate for prismatic lenses. Use the specific "prismatic lens" program in this case (see below)
	Selection of a single vision lens
	Selection of a bifocal lens
	Selection of a progressive lens
	Selection of a prismatic lens

Section: Lens type, layout and blocking	
Key to be activated	**Function**
	Selection of a dotted lens

Calling up and saving a job	
Key to be activated	**Function**
	Saving the shape in the pattern database (Alta XL configured as server)
	Calling up a shape in the pattern database (Alta XL configured as server) *Note: Holding down this key gives access to the list of patterns saved in the memory (cf. paragraph "Alta XL Memory Management" at the end of the document).*
	Saving a job on the server (Alta XL configured as client)

Digiform Function	
Key to be activated	**Function**
	Access to Digiform function (shape distortion program)
	Modification of the circumference of the shape
	Modification of the width without changing the height
	Modification of the height without changing the width
	Modification of the width and the height whilst keeping the same proportions.
	Modification of the height and the width whilst keeping the same proportions.

Digiform Function	
Key to be activated	**Function**
	Addition or subtraction of a step for each radius of the shape. The value is limited to +/- 5 mm.
	Modification of the bottom half height. The width remains constant. The new height will be half the initial height + half the new height entered.
	Access to the Shape Designer function (Shape design program). This key is accessible in the Digiform menu
	Creates a point on trhe reference shape. The curve passing through this new point and the adjacent points is automatically recalculated.
	Creates a point outside the reference shape. The curve passing through this new point and the adjacent points is automatically recalculated.
	Activates the selection of one or more points. By placing your finger on the screen, you create a selection box. The points are selected when you withdraw your finger from the screen. You select the closest point simply by pressing the screen.
	Moves the point(s) selected upwards by 0.2 mm steps.
	Moves the point(s) selected downwards by 0.2 mm steps.
	Moves the point(s) selected to the left by 0.2 mm steps.
	Moves the point(s) selected to the right by 0.2 mm steps.
	Deletes the point(s) selected
	Quits the menu and confirms the modifications

Various keys	
Key to be activated	**Function**
	Starting the automatic layout of the lens
	Starting the lens blocking process
	Consolidation menu: ✓ Access to manual entry of the data for the drilling holes ✓ Digiform ✓ Calling up a job (if Alta XL configured as server) ✓ Saving a job
	Emergency stop *Example:* *stopping the trace in progress*

Indicator details

Indicator	Function
	Frame tracing in progress
	Measurement or blocking of a lens in progress
	Frame circle or pattern circumference
	Lens effective diameter
	Measured spherical power of a single vision lens
	Measured cylindrical power of a single vision lens

Digital keypad detail

Key	Function
	Entry of numerical values *Example:* *Entry of a job number*
	Go back
	Exit without saving the data entry
	Clearing last entry
	Validating the data entry

Using the Alta XL

Introduction to use

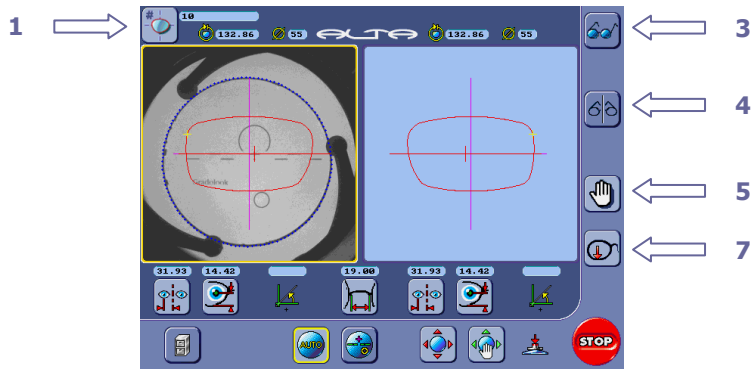
To use the Alta XL, you must perform the following tasks:

You can also:

Ancillary functions	Details on page
Correcting the axis of a pattern recognized by PROS	1-50
Laying out and blocking a lens in manual mode	1-51
Laying out and blocking a lens to be re-cut or a lens of small diameter (< 45 mm)	1-52
Laying out and blocking a prismatic lens	1-53
Modifying the shape position in relation to the lens	1-54
Distorting a shape – Digiform function	1-55
Design a new shape– function Shape designer	1-58
Management of job or pattern memory	1-61

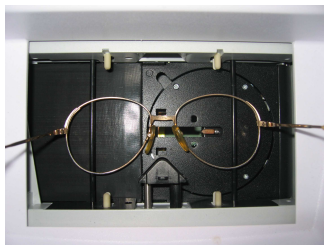
Task 1A: Tracing a frame

The numbers of this illustration refer to the step numbers below.



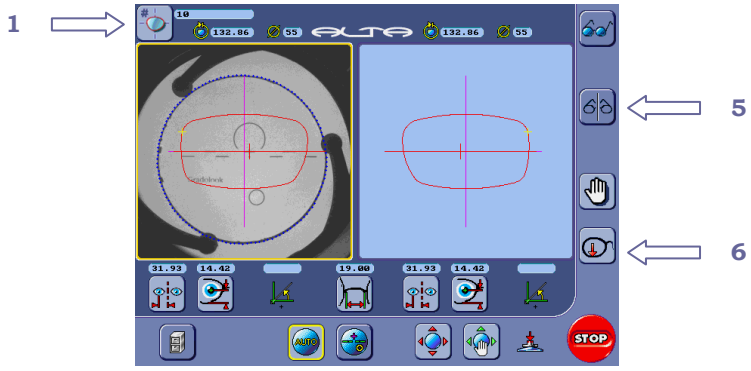
To trace a frame, proceed as follows.

Step	Action
1	Create a job number. *Result: the keypad is displayed.*
2	Enter a new job number. *Result: if the number entered corresponds to a job already in the memory, the shape and the parameters of this job are displayed.* *If you do not want to delete this job, enter another number.*
3	Select the type of frame.

Step	Action
4	Select the side(s) to be traced. Also refer to *Important note concerning the tracing of one side* shown below.
5	Select the type of trace: ✓ automatic insertion of the stylus and rapid tracing of the frame; ✓ semi-automatic (manual) insertion of the stylus and slow tracing of the frame. Recommended for frames that are difficult to trace.
6	Place the frame in the Scanform™. 
7	Start the tracing of the frame. *Note: if you press on this key for two seconds, the Scanform™ starts in manual mode.*

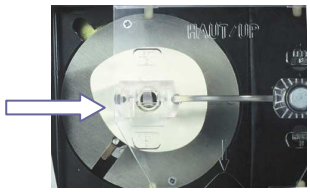
Task 1B: Tracing a pattern or a demonstration lens

The numbers of this illustration refer to the step numbers below.



To trace a pattern or a demonstration lens, proceed as follows.

Step	Action
1	Create a job number. *Result: the keypad is displayed.*
2	Enter a new job number. *Result: if the number entered corresponds to a job already in the memory, the shape and the parameters of this job are displayed.* *If you do not want to delete this job, enter another number.*

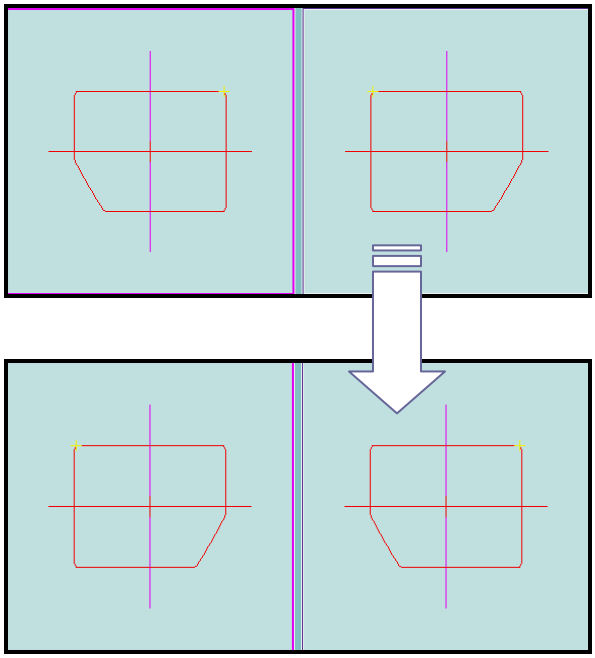
Step	Action
3	Insert the pattern or the previously blocked demonstration lens on the pattern holder. 
4	Place the lower part of the pattern holder so as to push in the nose of the frame holder and to insert the lower tabs between the Scanform™ clips.
5	Select the side(s) to be traced as follows. If the **nose part of the pattern** points towards the center of the Scanform™, select the left side, otherwise select the right side. If the **nose part of the lens** points towards the center of the Scanform™, select the right side, otherwise select the left side. In this case, select the right-hand side  *Note: As a default setting, the right side is traced.*
6	Start the tracing of the pattern or the demonstration lens. *Result: the Scanform™ automatically detects the presence of the pattern holder. First of all it searches for the presence of a demonstration lens (right side).* *If it does not find it, it moves to pattern tracing (left side).*
7	When the keypad is displayed, enter the bridge value of the frame.

Important note concerning the side to be traced!

You can still correct the side of the pattern tracing (R or L) just **after** tracing using the tracer or PROS.

Press again on the keys  or  or  (see note 5 on the diagram above).

Result: The traced side reverses.



Task 1C: Tracing a pattern or a demonstration lens by pattern recognition (PROS)

The numbers of this illustration refer to the step numbers below.

Follow the steps below to carry out pattern recognition.

Step	Action
1	Create a job number. *Result: the keypad is displayed.*
2	Enter a new job number. *Result: if the number entered corresponds to a job already in the memory, the shape and the parameters of this job are displayed.* *If you do not want to delete this job, enter another number.*
3	Select the pattern recognition mode.
4	Put the pattern or demonstration lens you want to use on the pattern holder (# 02 25 042). Place the pattern as close as possible to the centre of the holder. **For demonstration lens recognition, you must dot the demonstration lens first using the lensometer and accentuate the three dots with the permanent marker # 24 06 211.** **If the pattern or demonstration lens is thin and/or transparent, you must mark the outside of the pattern with a marker in order to accentuate the contrast.** 

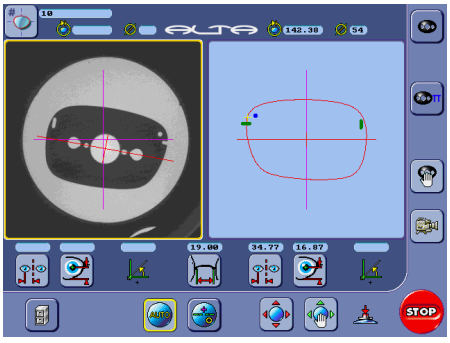
Step	Action
5	Place the pattern on its support in the Alta XL. Make sure the pattern is still in the centre of the holder. 

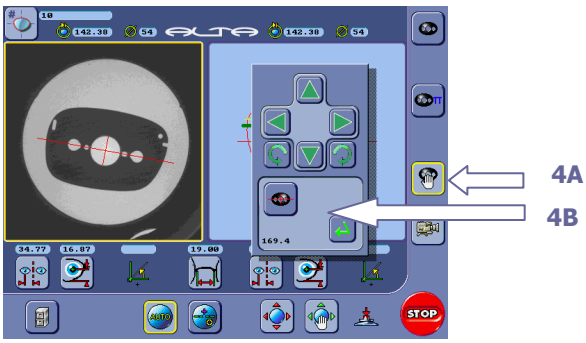
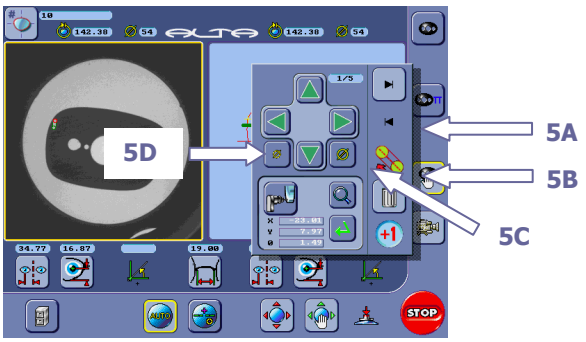
The numbers of this illustration refer to the step numbers below.

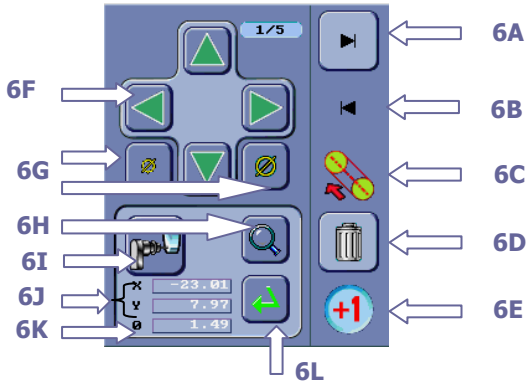
Step	Action
6	Select the side of the pattern whilst placing it on the support (nose side on the right or left). This selection can also be made just after tracing (Refer to the paragraph *Important note concerning the side to be traced* above).
7	Start the pattern recognition. *Note: pattern recognition takes about 10 seconds.*
8	When the pattern has been recognized, you must enter the frame bridge value.
9	If the axis or centre of the pattern has not been found properly, you can position it manually (see description below).
10	Save the pattern in the pattern database.
11	Take the pattern and its holder out of the Alta XL.

Task 1D: Imaging a pattern or a demonstration lens with automatic recognition of the drilling holes

To image a pattern or a demonstration lens with automatic recognition of the drilling holes, proceed as follows.

Step	Action
1	Using the marker # 24 06 486, mark the outline of the demonstration lens or the pattern as well as its axis and the holes. Trace these reference marks on the upper **part** of the pattern so as not to mark the pattern holder # 02 25 042.  ***Make sure the axis line does not touch the outline and the marked holes.*** *Note : If the pattern is made of an opaque (non-transparent) material, this step can be omitted.*
2	Place the pattern in the center of the pattern holder 02 25 042.  Insert the pattern holder, with the pattern placed in its centre, in the Alta XL and select the side of the pattern: right  or left  . This selection can also be made just after tracing (Refer to the paragraph *Important note concerning the side to be traced* above).
3	To start the recognition of the pattern and the holes, press the **3** key.  3 *Result: after several seconds, the program asks you to enter the bridge size (DBL). Holes are shown in blue, notches and oblong holes in green.*

Step	Action
4	When the recognition is finished, press the **4A** key to select the manual correction mode, then **4B** to switch to the manual hole positioning interface. 
5	❑ Depending on the curvature of the pattern or the demonstration lens, the diameter of some holes may be incorrect. ❑ Using the **5A** or **5B** keys, examine each hole to check that the detected diameter is correct. The current hole diameter (in red) is shown on the line containing the symbol Ø. ❑ If necessary, increase or reduce the diameter using the **5C** and **5D** keys ❑ An oblong hole is made up of 2 successive holes on the inside of the pattern. ❑ A notch is made up of 2 successive holes located on the inside and outside of the pattern respectively. 

Step	Action
6	If necessary, you can change the position of the holes, add or delete a hole, create a notch or an oblong hole by using the manual correction menu tools described below.  **6A**: Select and display the details of the following hole. **6B**: Select and display the details of the previous hole. **6C** : Create or delete a link between the current hole and the previous hole in order to create or delete a notch or an oblong hole. **6D**: Delete the current hole. **6E**: Create a new hole. **6F**: Change the position of the current hole by moving the hole by increments of 2 pixels (about 0.3mm) in normal display and 1/3 of a pixel in zoom display (about 0.05mm). **6G**: Increase or reduce the hole diameter (by increments of +/- 0.05mm). **6H**: Zoom in on the position of the current hole (accurate positioning of the hole). **6I**: Switch to manual correction mode of the pattern axis. **6J**: Show the X and Y coordinates of the current hole in relation to the centre boxing of the shape. **6K**: Display the diameter of the current hole. **6L**: Confirm the manual changes and close the manual correction menu
7	Confirm the changes and carry out the job procedure (tracing and blocking). ⚠ **In the case of a subsequent distortion of the pattern by the Digiform function, the positions of the holes will remain unchanged, even after the distortion.**

Task 1E: Entering the coordinates of the drilling holes manually

Preliminary comments

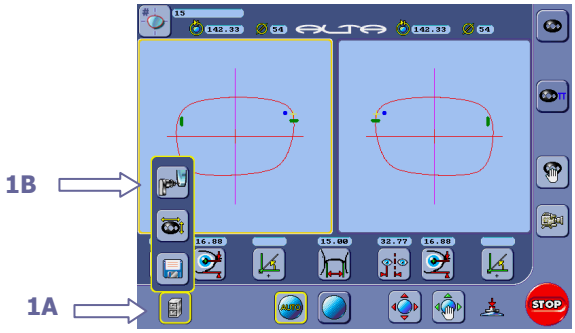
- ✓ The current hole is shown by a red cross.
- ✓ The hole previously selected is shown by a maroon circle.
- ✓ To position a hole in relation to the edge of the lens, the value you wish to enter must be between [-2.5 mm, +15 mm].
- ✓ To position a hole in relation to another hole, the value you wish to enter must be between [-15 mm, +15 mm].

Procedure

To enter the coordinates of the drilling holes manually, proceed as follows.

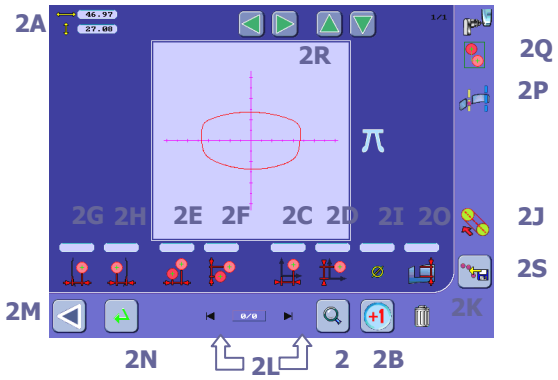
Step	Action
1	After the pattern has been traced, press **1A**, then **1B** to open the positioning menu.

Alta XL configured as client



Alta XL configured as server

Step	Action
2	Manually enter the position and diameter of each hole, notch or oblong hole of the rimless frame, using the functions described below:



2: Activate the zoom function

2A: Display the width and boxing height of the pattern (in mm)

2B: Add another hole.

2C: Define the X coordinate of the hole in relation to the Boxing Centre on the right lens (in mm) – Positive direction towards the right

2D: Define the Y coordinate of the hole in relation to the Boxing Centre on the right lens (in mm) – Positive direction towards the top

2E: Define the distance in X between the center of the current hole and the center of the previous hole – Positive direction towards the right

2F: Define the distance in Y between the center of the current hole and the centre of the previous hole – Positive direction towards the right

2G: Define the distance between the center of the hole and the edge of the right lens, temporal side – Positive direction towards the interior of the lens

2H: Define the distance between the center of the hole and the edge of the right lens, nose side – Positive direction towards the interior of the lens

2I: Define the diameter of the hole (in mm).

2J: Link the current hole (red) to the previous hole (maroon) to create a notch or an oblong hole.

2K: Delete the current hole.

2L: Display the details of the following or previous hole.

2M: Close the menu without recording the changes.

2N : Close the menu recording the changes.

2O :Define the hole depth

2P : Define the drilling angle of the hole

2Q : Groups the holes on the side of the current hole (nasal or temporal).

2R : Moves the current hole or group of holes upwards, downwards, to the left or to the right by 0.05 mm steps

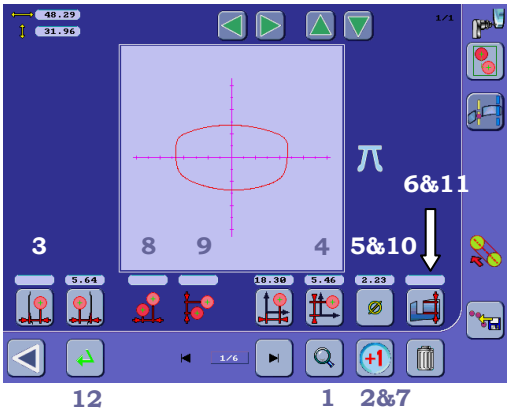
2S : From the pattern memory, opens a shape with holes which are going to be re-used as drilling points (reference shape)

Examples of use

Case 1

Aim: Make two holes with the following parameters:

- Ø = 1.5 mm
- Temporal side
- Y coordinate for the two holes = 7 mm
- Distance between the 2 centers = 4 mm
- Distance between the edge of the hole and the edge of the lens = 2 mm



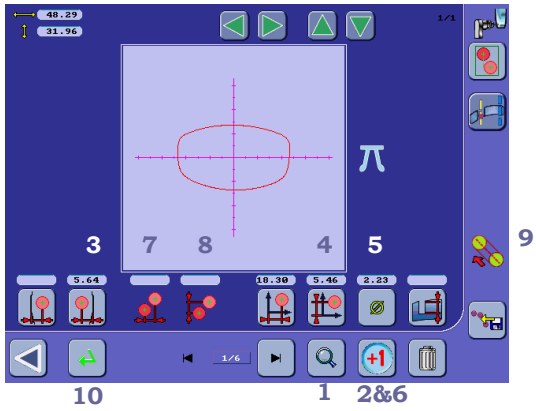
Step	Action
1	Select the zoom function.
2	Create the first hole.
3	Enter the distance between the center of the first hole and the edge of the lens: D = 2 mm + 1.5 mm/2 = 2.75 mm
4	Enter the y coordinate of the first hole. Y = 7 mm
5	Enter the diameter of the first hole. Ø = 1.5 mm
6	Enter the depth of the first hole. Without a value, the hole will pass throughout.
7	Create the second hole.
8	Enter the distance in X in relation to the previous hole. X = 4 mm
9	Enter the distance in Y in relation to the previous hole. Y = 0 mm
10	Enter the diameter of the second hole. Ø = 1.5 mm

Step	Action
11	Enter the depth of the second hole. Without a value, the hole will pass throughout.
12	Confirm the position or move to the following holes.

Case 2

Aim: Make a notch with the following parameters:

- Horizontal
- Ø = 2 mm
- Nose side
- Y = 8 mm
- P = 3 mm



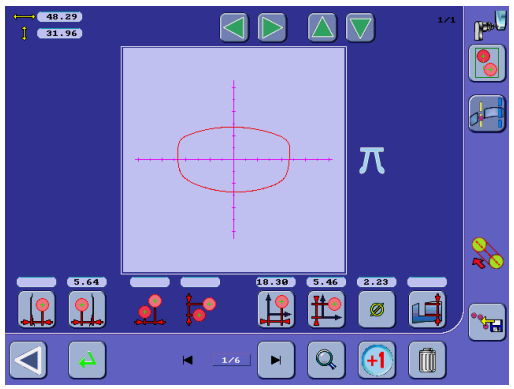
Step	Action
1	Select the zoom function.
2	Create the first hole.
3	Enter the distance between the centre of the first hole and the edge of the lens: D = 3 mm - 2 mm/2 = 2 mm
4	Enter the Y coordinate of the first hole. Y = 8 mm
5	Enter the diameter of the first hole. Ø = 2 mm
6	Create the second hole.
7	Enter the distance in X in relation to the previous hole. X = 3 mm – 2 mm/2 = 2 mm
8	Enter the distance in Y in relation to the previous hole. Y = 0 mm (horizontal notch)

Step	Action
9	Create the notch between the two holes.
10	Confirm the position or move to the following holes.

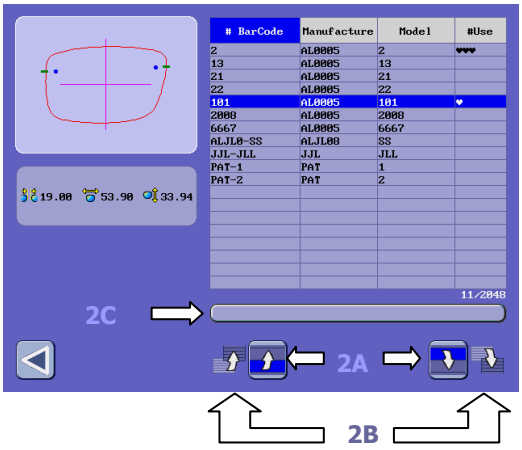
Case 3

Aim : Make a job using the drilling points of a previous shape (reference shape #20 for instance) of which the points on the nasal side have to be moved up 1 mm

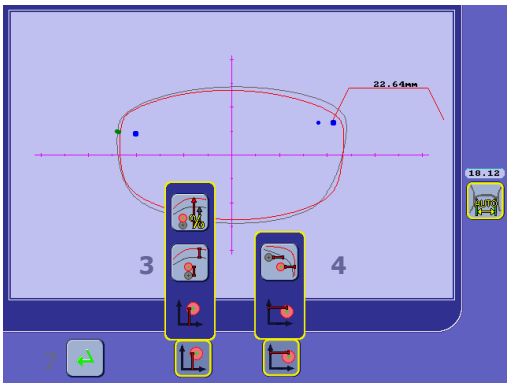
- Reference shape #20



Step	Action
1	Open the data base of patterns with drilling holes.

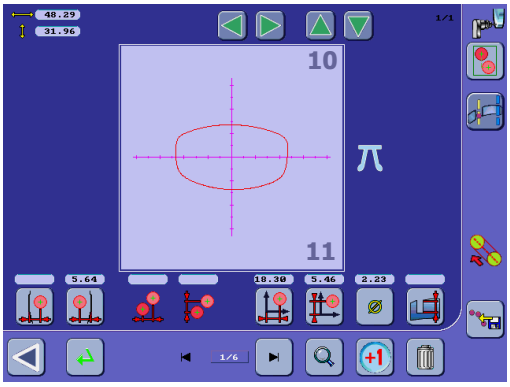


Step	Action
2	Look for the pattern by scrolling up or down the data base. ***2A*** *move from line to line* ***2B*** *and* ***2C*** *move from page to page*



5

Step	Action
3	Select the type of vertical repositioning (conservation of the original Y-axis of the holes, proportional positioning, or shifting the holes by a distance equal to the difference of the boxing ½ heights)
4	Select the type of horizontal repositioning (conservation of original X-axis or conservation of the horizontal distance to the lens edge).
5	Select, if required, the automatic bridge calculation which retains the distance between the nasal side holes corresponding to the centre part of the drilled job.
6	Confirm the new hole positions.

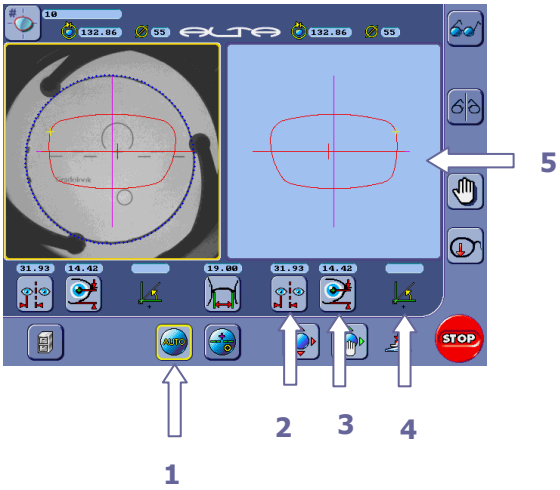


8 7

Step	Action
7	Select the zoom function.
8	Select one of the two holes on the nasal side
9	Group the holes on the nasal side
10	Move the holes up 1 mm using the upper arrow
11	You can also move the group of holes upwards by modifying the height of the current hole by +1 mm.
12	Confirm the new drilling plan

Task 2: Entering the client's data

The numbers of this illustration refer to the step numbers below.

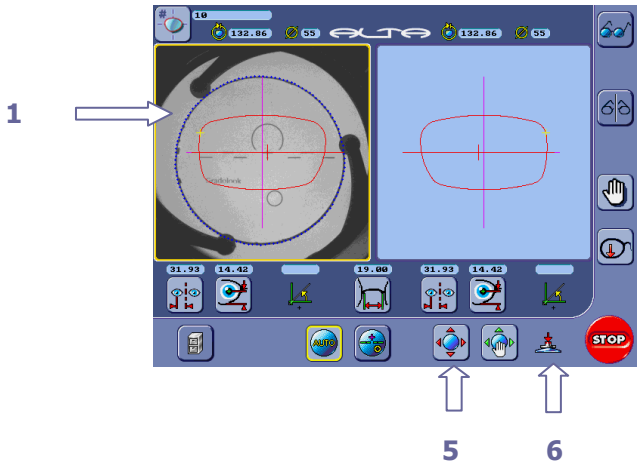


Follow the steps below to enter the client's data.

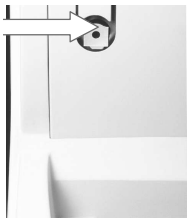
Step	Action
1	Press the AUTO key to activate automatic recognition (prismatic lenses excluded).
2	Enter the half-pupillary distance of the client, the total pupillary distance or the decentration.
3	Enter the optical centre height or the decentration.
4	If the lens to be put in place is: **A single vision lens with cylinder: enter the patient's axis** **A prismatic lens: enter the prism base axis.** If the lens is a combination of cylinder and prism, always use the direction of the prism base.
5	**If you wish to enter different data for the other eye**, press directly on the frame for the second eye (square zone) and go back to step **2**. Otherwise, the entered values for the first eye are automatically transferred to the second frame except for the value of the axis.

Task 3: Laying out and blocking a lens in automatic mode

The numbers of this illustration refer to the step numbers below.



Follow the steps below to lay out and block a lens in automatic mode.

Step	Action
1	Select the side to be blocked by pressing directly on the frame concerned (right or left eye).
2	Place the lens into the layout unit adhering to its top and bottom orientation (except for single vision lenses). Lens to be blocked  Note: the lens to be blocked must not be dotted beforehand on the lensometer (except when dotted lens mode is used).
3	Insert a magnetic block fitted with an adhesive pad in the blocker head. Blocker hea 
4	Make sure the AUTO key is activated.

Step	Action
5	Start the lens layout. *Result:* *the layout unit door closes, the lens is analyzed then the centre, axis and outline of the lens are detected. When imaging is complete, the lens appears on the screen, laid out and orientated in accordance with the client's data.* **Caution: if the lens characteristics have not been detected, the Alta XL automatically moves to manual layout mode (refer to paragraph *Task 3: Laying out and blocking a lens in manual mode*).**
6	Start blocking the lens.
7	When the blocking is finished, take the lens out.

Task 4A: Calling up a job saved in the memory (Alta XL configured as server)

The numbers of this illustration refer to the step numbers below.

To call up a job saved in the memory, proceed as follows.

Step	Action	
1	Press the  key. *Result: the keypad appears on the screen.*	**OR** Hold down the  key to access the job list directly.
2	Enter the job number to be recalled.	Access the required job using the  ,  ,  and  arrows or by pressing directly on the number.
		NOTE: It is possible to navigate from page to page by moving the cursor on the "Page number/total number of pages" bar just below the list of jobs. The required job can be selected by pressing directly on the line which shows it.
3	Press the  key. *Result: the shape appears on the screen as well as the client's parameters.*	Confirm your choice by leaving the screen using the  key.

Note on the configuration of the Alta XL in server mode : the jobs are automatically saved during the creation or recall of another job. They are deleted as soon as they are edged. The total memory capacity is 384 jobs.

You can manage the job memory by using the job list menu (refer to paragraph Management of job or pattern memories below).

Note: You can also call up a job using the scanner to read the bar codes.

Task 4B: Calling up a shape saved in the pattern database (Alta XL configured as server)

The numbers of this illustration refer to the step numbers below.

To call up a shape saved in the pattern database, proceed as follows.

Step	Action		
1	Press the key.		
2	Press the key. *Result: the keypad appears on the screen.*	**OR**	Hold down the key and access the pattern database.
3	Enter the reference number of the pattern to be recalled.		Select the required job using the , , and arrows or by pressing directly on the number.
			NOTE: It is possible to navigate from page to page by moving the cursor on the "Page number/total number of pages" bar just below the list of patterns. *The required job can be selected by pressing directly on the line which shows it.* *Pressing the title of a column sorts all the patterns according to the criteria of the selected column.*

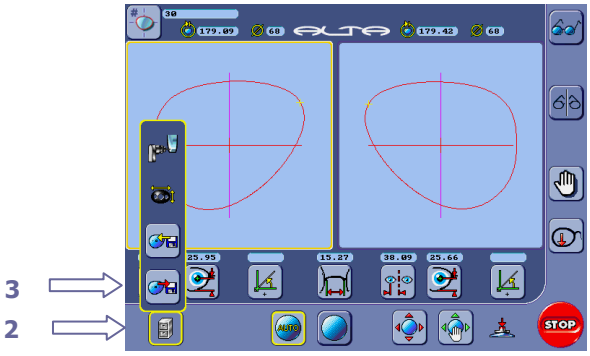
Step	Action
4	Press the ENT key. Confirm your choice by leaving the screen using the  key. *Result: the shape appears on the screen as well as the bridge value entered during tracing of the pattern.*

Note: you can manage the job memory using the job list menu (refer to paragraph *Management of the job or pattern memory* below).

Note: You can also call up a shape using the scanner. to read the bar codes.

Task 4C: Saving a shape in the pattern database (Alta XL configured as server)

The numbers of this illustration refer to the step numbers below.

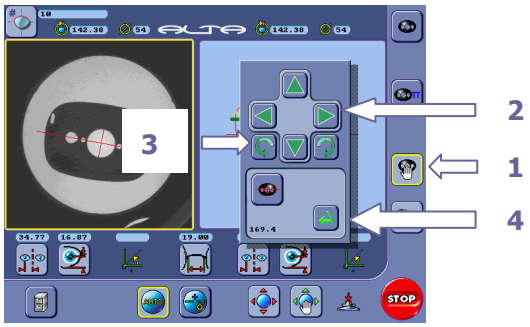


Follow the steps below to save a shape in pattern database.

Step	Action
1	Trace the pattern shape (see paragraph *Task 1B: Tracing a pattern or a demonstration lens*).
2	Press the  key.
3	Press the  key. *Result: the keypad appears on the screen.*
4	Enter the pattern reference number.
5	Press the ENT key. *Result: the shape and the bridge value are saved in the pattern database.* *Note: you can save up to 2048 shapes in the pattern database. You can manage the pattern memory: refer to paragraph* Management of the job or pattern memory *below.* *The pattern database only contains shapes in 2D (patterns).* *Do not use the pattern database to save shapes in 3D (frames).*

Correcting the axis of a pattern recognized by PROS

The numbers of this illustration refer to the step numbers below.



Follow the steps below to correct the pattern positioning.

Step	Action
1	Select the manual pattern positioning mode.
2	Position the red cross in the pattern centre.
3	Rotate the cross to line it up with the pattern axis marking.
4	Confirm the positioning and return to the main screen.

Laying out and blocking a lens in manual mode

Introduction

The manual layout mode can be started directly or will be activated if the layout unit has not been able to detect the lens characteristics automatically.

Laying out and axis determination of a lens

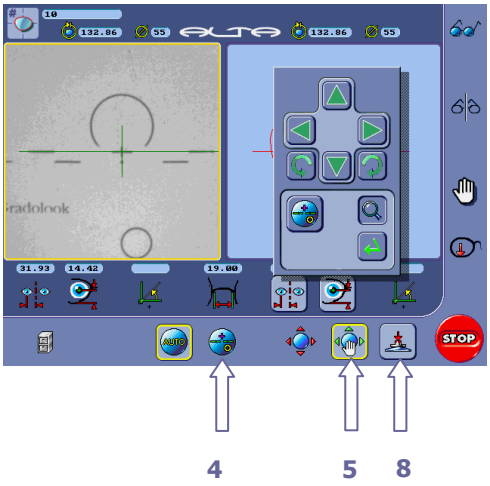
The numbers of this illustration refer to the step numbers below.

Follow the steps below to lay out a lens manually.

Step	Action
1	Select the type of lens to lay out.
2	Start the manual layout mode.
3	Position the cross on the screen in relation to the center marked on the lens,
4	Turn the cross on the screen in relation to the axis marked on the lens.
5	Confirm the new layout and the new axis.
6	Start blocking the lens.
7	When the blocking is finished, take the lens out.

Laying out and blocking a lens to be re-cut or a lens of small diameter (< 45 mm) – Except for prismatic lenses

The numbers of this illustration refer to the step numbers below.



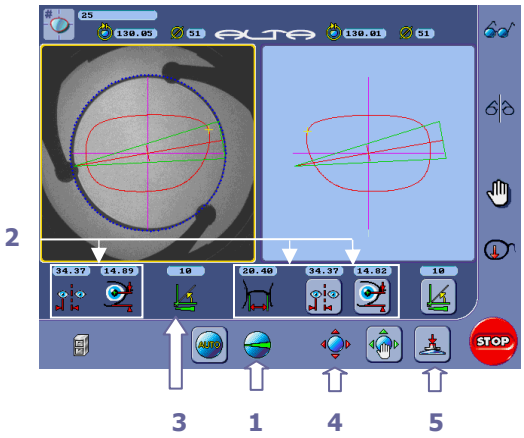
Follow the steps below to lay out a lens to be re-cut.

Step	Action
1	Lay out and dot the lens on the lensometer.
2	Place the lens to be re-cut on the lens holder (# 02 25 040) and block it using the pivoting tabs. 
3	Place the lens and its holder in the layout unit adhering to its top and bottom orientation. 
4	Select the dotted lens type  .
5	Start the manual lens layout  .

Step	Action
6	Lay out the lens in manual mode (see paragraph *Task 3B: Laying out and blocking a lens in manual mode*).
7	If necessary, change the position of the shape in relation to the lens (see paragraph *Changing the shape in relation to the lens*).
8	Start blocking the lens.
9	When blocking is finished, take the blocked lens and the holder out.

Laying out and blocking a prismatic lens

Note : the prism base is easily seen because of the triangle which symbolizes it.



Follow the steps below to lay out and block a prismatic lens.

Step	Action
1	Select the type of prismatic lens  .
2	Enter the client's data. Refer to the section *General principles for use*, paragraph *Key details* below.
3	If the Alta XL is configured with the Tabo format, press the  key and enter the value of the prism axis using the digital keypad. If the Alta XL is configured with the IN/OUT/UP/DOWN format, press the  key and enter the X and Y values. Refer to paragraph *Limitations for use* above and to the chapter *Maintenance*, section *Settings and Adjustments*, paragraph *Configuring the entry format of prism axis*.
4	Start the automatic layout mode.
5	Block the lens.
6	When the blocking is finished, take the lens out.

Modifying the shape position in relation to the lens

The numbers of this illustration refer to the step numbers below.

Follow the steps below to change the shape position in relation to the lens.

Step	Action
1	Display the  key.
2	Move the shape in relation to the lens outline. *Note: rotation of the shape is only possible for single vision lenses.* *For cylindrical lenses, 2 positions are possible : 0° or 180°.*
3	Confirm the new position of the shape in relation to the lens.
4	Start blocking the lens.
5	When the blocking is finished, take the lens out. *Note: the X and Y parameters indicate how far the shape has been moved on its two axes. These parameters can be used to calculate the induced prism due to the layout modification.*

Distorting a shape – Digiform function

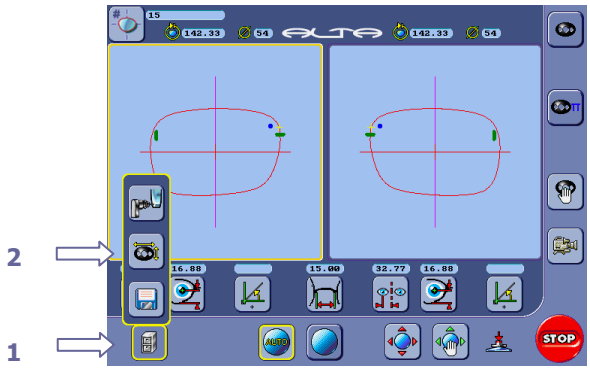
Introduction

In some cases, the pattern used for rimless frames or nylon frames does not correspond to the expected shape. The Digiform function performed on the Alta XL can distort any initial shape into a new pattern.

Procedure

The numbers of this illustration refer to the step numbers below.

Alta XL configured as client

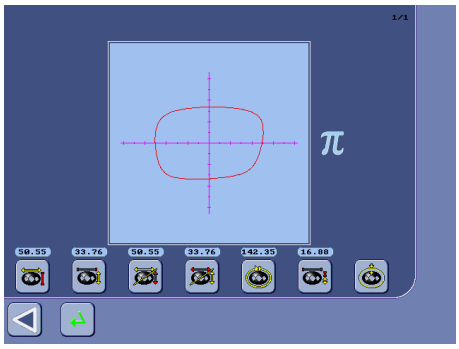


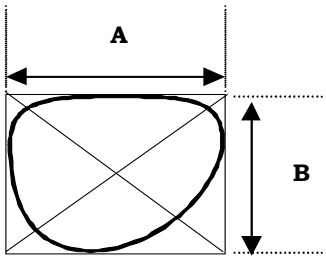
Alta XL configured as server

Follow the steps below to distort a shape (Digiform function).

Step	Action
1	Call up the initial shape saved in the pattern database or on the server.
2	Press the  key.
3	Press the  key (refer to paragraph **Description of the Digiform function** keys below).
4	Distort the shape (refer to paragraph **Description of the Digiform function** keys below).
5	Press the  key to confirm the new pattern.
6	Use the new shape as if it was a new pattern. *Note concerning the Alta XL configured in server mode :* *you can save this new shape in the pattern database under a new pattern number.*

Description of the Digiform function keys





Key	Description
	Modification of the circumference of the shape. **In this case, the proportion of the shape is retained.**
	Modification of the width without changing the height  **In this case, the shape is distorted in a non-proportional way.**
	Modification of the height without changing the width  **In this case, the shape is distorted in a non-proportional way.**
	Modification of the width and the height keeping the A/B ratio constant. **In this case, the proportion of the shape is retained.**

Key	Description
	Modification of the height and the width keeping the A/B ratio constant. **In this case, the proportion of the shape is retained.**
	Addition or subtraction of a border around the lens. The border value is limited to +/- 5 mm  **In this case, the shape is distorted in a non-proportional way.**
	Modification of the bottom half height. The width remains constant. The new height will be half the initial height + half of the new B value entered.  **In this case, the shape is distorted in a non-proportional way.**

Notes:

- ✓ When modifying a shape, if you enter a value between –10 mm and +10 mm, this value is interpreted as an increment or decrement of the displayed value.

  Example: modification of A keeping B constant (), the displayed value is 50 (A = 50 mm).

  If you enter –2 on the keypad, the new width will be modified in this way: 50-2 = 48 mm. You get the same result if you enter 48 directly via the keypad.

- ✓ The scale of the shape displayed on the screen is 1/1.

Design a new shape– function Shape designer

Introduction

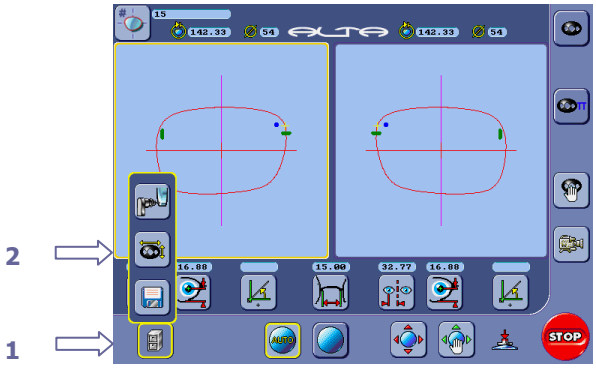
The new "Shape Creator" function enables you to create new shapes from a base shape. Unlike Digiform, "Shape Creator" allows modification of parts of the base shape so that the final shape no longer resembles it

This function comes with a test of the feasibility of producing the new shape on an Alta NX type of edger. This test is undertaken when you quit the menu by pressing the confirm key. If the shape cannot be edged, the part which is causing the problem is drawn in black, which allows you to rectify the shape.

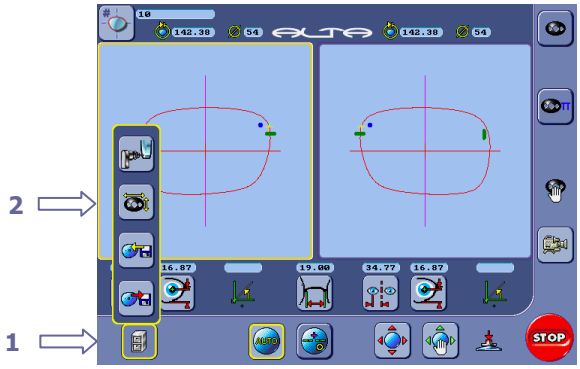
Procedure

The numbers of this illustration refer to the step numbers below.

Alta XL configured as client



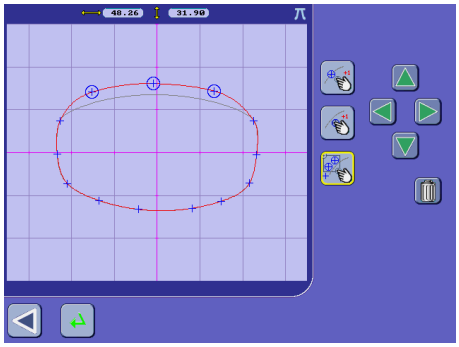
Alta XL configured as server



Follow the steps below to design a new shape (Shape Designer function)..

Step	Action
1	Call up the initial shape saved in the pattern database or on the server.
2	Press the  key.
3	Press the  key
4	Press the  key
5	Design the new shape
6	Press the  key to confirm the new pattern.
7	Use the new shape as if it was a new pattern. *Note concerning the Alta XL configured in server mode :* *you can save this new shape in the pattern database under a new pattern number.*

Description of the Shape Designer function keys



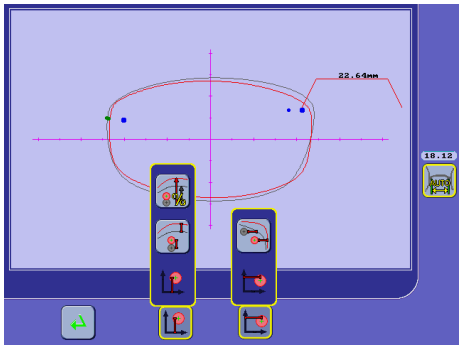
Key	Description
	Creates a point on the reference shape. The curve passing through this new point and the adjacent points is automatically recalculated.
	Creates a point outside the reference shape. The curve passing through this new point and the adjacent points is automatically recalculated.
	Activates the selection of one or more points. By placing your finger on the screen, you create a selection box. Select the points you require by including them in the box. The points are selected when you withdraw your finger from the screen. You select the closest point simply by pressing the screen.

Key	Description
	Moves the point(s) selected upwards by 0.2 mm steps
	Moves the point(s) selected downwards by 0.2 mm steps
	Moves the point(s) selected to the left by 0.2 mm steps
	Moves the point(s) selected to the right by 0.2 mm steps.
	Deletes the point(s) selected.
	Quits the menu and confirms the modifications. A coherence test is then applied to the shape created, to confirm the feasibility of edging it on an Alta NX type edger. If the shape cannot be edged, it is impossible to quit the menu with this key. The area of the shape which cannot be edged appears in black

Hole positioning interface after using the Digiform or Shape Designer functions.

If you design a new shape starting from a shape that already had holes positions, the machine will automatically switch into the hole positioning interface.

The hole placement on the new shape is left to your own appreciation according to the job to realise.



Description of the keys

The repositioning functions below move the holes by nasal or temporal groups. A hole is taken as a reference and all the holes around it move at the same time. In this way the gap between holes on the same side is retained

Key	Description
	Places the new holes at the same ordinate point (Y) as the holes in the reference shape.
	Places the new holes proportionately to the reference shape The new height is calculated as a function of the ratio between the boxing heights of the reference shape and the shape to be produced. We advise you to use this positioning function following the proportional modification of a starting shape, or following the use of a reference shape.
	Places the new holes by moving them a distance equal to half the difference of the boxing height between the two shapes. In this case the vertical distance between the two holes is retained. We advise you to use this positioning function after modifying the boxing half height with the Digiform.
	Places the new holes at the same abscissa point (X) as the holes in the reference shape.
	Places the new holes at the same horizontal distance from the edge of the lens as the holes in the reference shape. The new X-position is calculated so that the holes are at the same distance from the left and right lens edges as the reference shape.
	Automatic calculation of the new bridge value so as to retain the same distance between the left and right holes on the nasal side, and retain the same PD.

Management of job or pattern memory

Important

⚠ The job memory saves all the jobs. Once the job has been edged (left and right lenses) by an edger, it disappears from the memory. The job memory can contain up to 384 jobs (unfinished).

The Alta XL can be configured as server or client.

⚠ The pattern memory saves all the shapes in 2D. Not to be used to save jobs.
The pattern memory can contain up to 2048 patterns.
The Alta XL must be configured as server.

Access the list of jobs or patterns

Two possible accesses:

- From the main user screen: simplified access to a list of jobs or patterns. You can simply consult this list and select a job or pattern from it.
  The zoom and suppression functions are not accessible.

  To access the job or pattern list from the user screen, proceed as follows.

Key	Action
	Hold down this key for several seconds to access the list of jobs in the memory.
	Hold down this key for several seconds to access the list of patterns in the memory.

- From the adjustment access screen: indirect access to a list of jobs or patterns. You can work on the list of jobs or patterns.
  The suppression is accessible.

  To access the list of jobs or patterns from the adjustment access screen, proceed as follows.

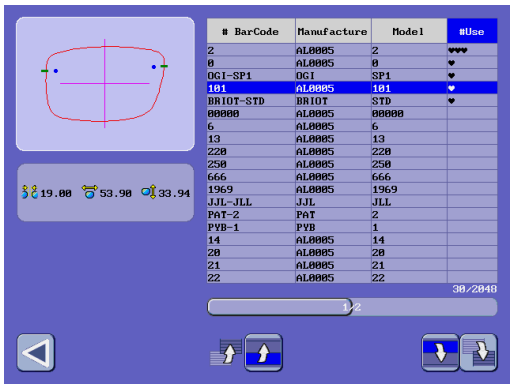
Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key if you want to access the job list and work on one or several jobs.
4	Press the  key if you want to access the pattern list and work on one or several patterns.

Leaving the job or pattern list

To leave the job or pattern list, proceed as follows.

Step	Action
1	Press the  key located at the bottom right of the screen showing the job or pattern list.

Description of the keys



Management of the job or pattern memory	
Key to be activated	**Function**
	Return to the previous page.
	Return to the previous line.
	Go to the next page.
	Go to the next line.
	Deletes the active line. This function is only visible (and therefore accessible) if you have opened a list via the adjustment menu.

Selection of one or several jobs or patterns

State: having accessed the list by the adjustment access menu.

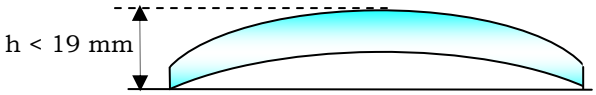
To select one or several jobs or patterns from the list displayed, proceed as follows.

Step	Action
1	Select the job/pattern to delete.
2	Press the  key.
3	Press the  key to confirm the modification and quit the Digiform function.

Limitations

Lens characteristics

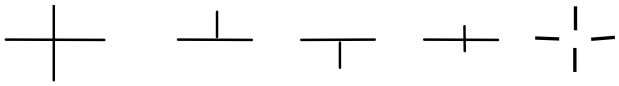
The Alta XL can block lenses with the following characteristics:

Characteristics	Description
Diameter	❑ Maximum lens diameter : **80 mm** ❑ Minimum lens diameter: **45 mm**
Index & color	The index and color have no effect on automatic layout.
Coating	Lens coating, particularly anti-reflection coating, has no effect on the lens measurement.
"Height"	❑ Maximum lens "height": **19 mm**  Put your lens on a flat surface and measure the maximum "height" starting from the centre of the lens.

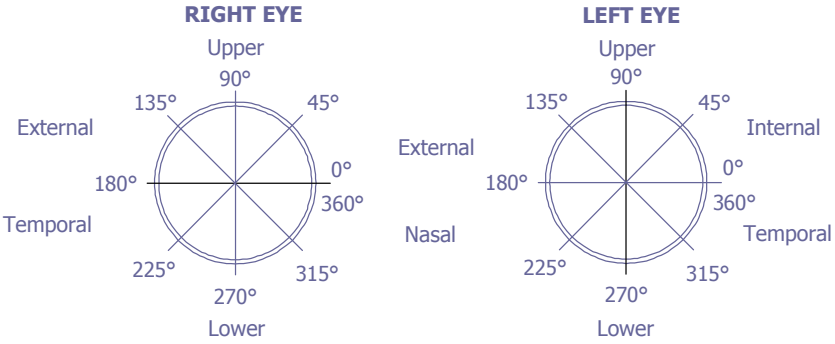
Limitations of automatic lens blocking

Lens types

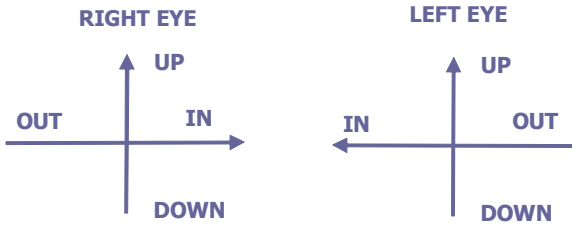
The Alta XL makes it possible to block the following lens types automatically:

Lens types	Distinctive feature
Progressive lenses	❑ Lenses showing an axis marked by at least two separated segments and an optical center marked by one of the following crosses:  ❑ Layout marks must be obvious and not be erased. ❑ The lens must be inserted in the Alta XL placing its axis at + or – 30° in relation to the horizontal.
Bifocal lenses	Lenses with curved or straight (flat top) upper segment
Single vision lenses	Lenses of a power ranging between **–10 D and +8 D** (sphere and cylinder). Outside this range, prior marking of the centre and axis of the lens using the lensometer is necessary. *Note: the evaluation and display of the lens power is effective only for lenses of a power between **–6 D and +6 D** with an accuracy of **+/- 0.125 D.***

Lens types	Distinctive feature
Prismatic lenses	Lenses of a power ranging between **0 D and +6 D** in layout. Lenses the axis of which is measured according to the Tabo diagram shown below.



Or lenses the axis direction of which is measured in this format:



Flat lenses, executives, tri-focal, polarized, etc.	Lenses for which manual mode blocking is compulsory (see paragraph *Laying out and blocking a lens in manual mode*). *Note: if the characteristics of the lens cannot be identified by the machine, it moves to manual blocking mode automatically.*

Laying out of low power single vision lenses

Procedure

The Alta XL centers the lenses in a reliable, repetitive manner, even for low powers. You can check this as follows:

Step	Action
1	Dot a lens with the lensometer and then erase the central dot so as not to impede the measurement.
2	Use the Alta XL to perform successive layouts on this lens. *Result: you see that the machine always positions it in the same way (at about 180°), proof of the repetitiveness of the measurement.* *Note: for low power (**≤1 D**) single vision lenses, it is possible that you will notice a difference between the determination of the optical centre and the axis made by Alta XL and the lensometer. In this case, the prismatic effect of the lens is not actually pronounced enough.* *You can check the repetitiveness of the measurement and the axis determined by the lensometer (refer to the paragraph below).*

Checking the repetitiveness of the measurement and the axis determined by the lensometer

To check the repetitiveness of the measurement and the axis determined by the lensometer, proceed as follows.

Step	Action	Illustration
1	Dot a cylindrical lens **0.25 D or 0.5 D at 0°**.	
2	*Dot it again at **0°**.*	
3	Dot it again at **180°**. *Result: in all cases, the three layout dots must be superimposed. If this is not the case, the repetitiveness and precision of the lensometer could be doubtful. (refer to paragraph* Limitations of automatic lens blocking *below).*	

Reminder

However it must be remembered that **standard ISO 8980** accepts the following tolerances for the determination of the axis of single vision lenses:

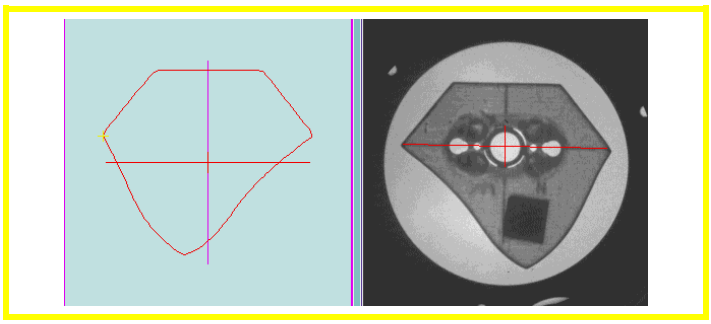
Tolerances concerning the axis direction of the cylinder				
Cylindrical power (in dioptres)	≤ 0.50 D	0.75 D	> 0.75 & ≤1.50 D	> 1.50 D
Tolerance (in degrees)	± 7°	± 5°	± 3°	± 2°

*Note : given the weak prismatic effect of cylindrical lenses **≤0.50 D**, the detection of the axis accepts a job tolerance of **± 7°**. signifying that, in this case, if the axes given by the Alta XL and your lensometer remain in a range of 14°, both machines still **conform to the standard**.*

Recognizing concave shapes

The smoothing procedure of the pattern recognition optical system (PROS) allows concave shapes to be imaged. The PROS system is able to complete a shape that has been halted by the presence of a notch in the pattern.

All the concave curves are restricted by the diameter of the edging wheels.



Final job

The job you are going to or have just performed could/may show the following variations:

Tolerances which might appear on the final job	
Total pupillary distance	+/- 1mm
Height	+/- 0.5mm
Axis	+/- 1°

Maintenance

Presentation

Introduction

To guarantee the performance of your Alta XL, you must perform several maintenance operations regularly and make sure you configure and adjust your machine according to the use you wish to make of it.

In this chapter

In this chapter, the following points will be covered:

Maintenance of the Scanform™ unit

- ✓ Cleaning the Scanform™
- ✓ Changing a stylus tip

Maintenance of the layout/blocker unit:

- ✓ Changing the opaque screen
- ✓ Cleaning the collimator lens
- ✓ Changing a fuse
- ✓ Changing the target fluorescent lamp
- ✓ Changing the Alta XL filter

Lists of accessories and consumables

Settings and adjustments

Messages

- ✓ What should be done in the case of a warning message?
- ✓ What should be done in case of an error message?
- ✓ List of messages

Maintenance of the Scanform™ unit

Cleaning the Scanform™

Follow the steps below to clean the Scanform™

Step	Action
1	Turn off the Alta XL.
2	Manually raise the stylus head.
3	Using a brush, clean the stylus head making sure the dust does not fall into the Scanform™.
4	Using a compressed air spray, gently blow on the Scanform™ unit to remove the dust.
5	Switch the Alta XL on again.

Changing a stylus tip

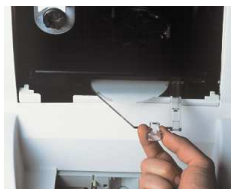
To change a stylus tip, proceed as follows.

Step	Action
1	Turn off the Alta XL.
2	Manually raise the stylus head.
3	Using an optician's screwdriver, undo the two fixing screws of the stylus tip. Make sure you place a sheet of paper at the base of the stylus shaft beforehand to avoid the screws falling into the Scanform™. 
4	Remove the stylus tip.
5	Place the new stylus tip on the shaft.
6	Fix the stylus tip by replacing the two fixing screws.
7	Switch the Alta XL on again.
8	Adjust the Scanform™ (see § *Adjusting the Scanform™* of the following chapter *Adjustments & settings*).

Maintenance of the layout/blocker unit:

Changing the opaque screen

Follow the steps below to change the opaque screen

Step	Action
1	Check the door of the layout unit is open.
2	Manually push the door all the way down.
3	Remove the opaque screen by pulling on the tab located at the bottom right of the layout unit. 
4	Carefully position a new opaque screen. Insert it fully until you hear a slight click. ***Caution*:** **Make sure any contact between the opaque screen and a greasy item or fingers is avoided.** **Any loss of the screen's opacity leads to malfunctions of the apparatus that are NOT COVERED BY THE GUARANTEE.**

Cleaning the collimator lens

Follow the steps below to clean the collimator lens.

Step	Action
1	Turn off the Alta XL.
2	Using lens cleaning cloths # **10 00 186**, clean the collimator lens. 
3	Switch the Alta XL on again.

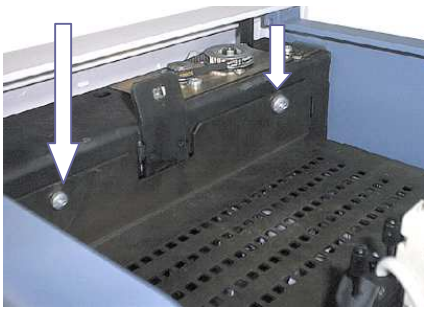
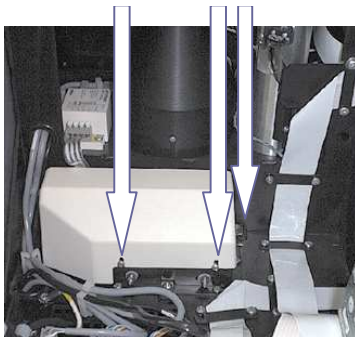
Changing a fuse

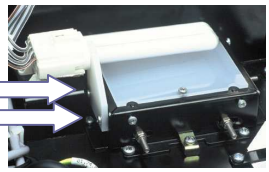
Follow the steps below to change a fuse.

Step	Action
1	Turn off the Alta XL.
2	Unplug the power supply lead from the wall plug. **mains**
3	Remove the rear cover by undoing the screw at the location shown by the arrow. 
4	Unplug the power lead from the Alta XL mains connector.
5	Remove the faulty fuse from its housing above the mains connector. 
6	Put a new fuse into its housing. Use only 2 AT fuse Littlefuse # **21 8002**.
7	Reconnect the power supply lead to the Alta XL. **mains**
8	Put back the rear cover.
9	Reconnect the power lead to the wall plug. **mains**
10	Switch the Alta XL on again.

Changing the target fluorescent lamp

To change the target fluorescent lamp, proceed as follows.

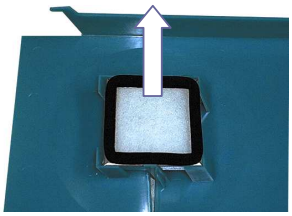
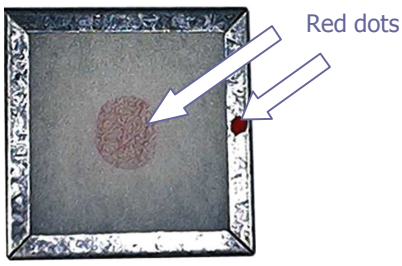
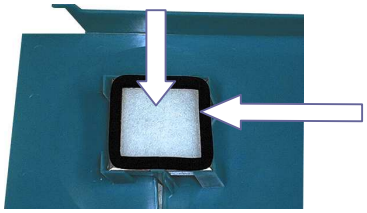
Step	Action
1	Turn off the Alta XL.
2	Unplug the power supply lead from the wall plug. ⚠ **mains**
3	Remove the rear cover by undoing the screw at the location shown by the arrow. 
4	Remove the right-hand cover by unclipping it.
5	Undo the two closing screws of the electronic box. 2 screws for the electronic box 
6	Tilt the electronic box towards the rear.
7	Undo the three fixing screws of the target lamp protective cover. 3 fixing screws 

Step	Action
8	Remove the two screws of the lamp locking plate, accessing the screws through a hole in the chassis designed for this. 2 fixing screws 
9	Disconnect the lamp from its socket.
10	Plug in the new lamp.
11	Put back the lamp locking plate and its two screws.
12	Close the electronic box.
13	Screw up the two closing screws.
14	Put back the right-hand cover.
15	Put back the rear cover.
16	Reconnect the power lead to the wall plug. ⚠ **mains**
17	Switch the Alta XL on again.

Replacing the filter

Replace the Alta XL filter regularly (every month) in order to prevent dust build-up on optical components of the machine.

To replace the Alta XL filter, proceed as follows.

Step	Action
1	Turn off the Alta XL.
2	Unplug the power supply lead from the wall plug. **mains**
3	Remove the rear cover by undoing the screw at the location shown by the arrow. 
4	Unplug the power lead from the Alta XL mains connector.
5	Unclip the filter and its frame from the rear cover. 
6	Replace the used filter observing the correct orientation. Place the red marks (on the filter and the holder) on the same side, as shown on the photo. 
7	Clip in the filter directing the dots towards the rear cover. The rubber seal should be visible as indicated in the photo. 

Step	Action
8	Put back the rear cover.
9	Reconnect the power lead to the wall plug.  **mains**
10	Switch the Alta XL on again.

Lists of accessories and consumables

Accessories

The accessories delivered with the Alta XL are the following.

Accessory	Briot reference
Alta XL accessory box	11 77 020
Indelible black pen	24 06 211
Fuse 2 AT – 250 V – 5X20	22 29 038
Calibration lens OR04 ï 70 - 3 D	14 04 228
Calibration lens OR02 ï 70 + 3 D	14 04 227
Factory calibration lens OR08 ï 65 - 0.035 D	14 04 224
Briot magnetic blocks large size (x5)	11 53 026
Briot magnetic blocks small size (x5)	11 53 027
Opaque mirror (extra)	S3 00 017
Lens/lens and pattern holder	11 90 637
Knurled B193/15 PM4X10 button	21 12 043
Special hydrophobic lenses felt tip marker	24 06 503
Gain calibration tool	14 04 255
Scan offset/axis calibration tool	14 04 185
Lens/lens and pattern axis adjustment tool	14 04 191
Lens/lens offset calculation pattern	14 04 192
Alta XL holder for lens to be reworked	S2 25 041
Pattern holder	S2 25 042

Consumables

Consumables available for the Alta XL are the following:

Consumable	Briot reference
Bundle of 3 filters	SV11 77 019
Target fluorescent lamp	22 01 058
Clip-frame tube	11 92 093
Frame centering plate	S2 22 066
Lens gripping plate end piece + Ball bearing W6 48/2-2Z	11 38 188 21 87 060
Stationary plier end fitting	11 38 166
Stylus tip	11 91 045
Accessory box and its contents	01 64 029
Lens cleaning cloths	10 00 186
Touch window ***Caution:*** ***part not covered by the guarantee in the case of non-accidental breakage***	22 05 008

Settings & adjustments

Presentation

Introduction

This section will help you to customize the settings for the use of your Alta XL and to perform the main adjustments.

In this section

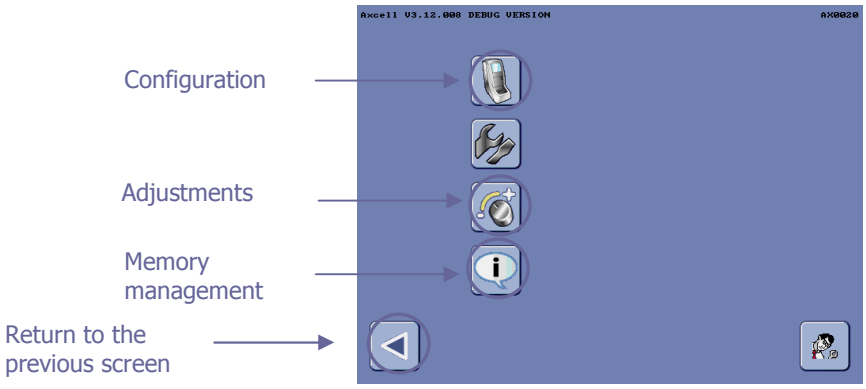
In this section, the following points are covered:

- ❑ Introduction to the menu access, configuration and adjustment screens
- ❑ Settings
  - ✓ Configuration of the operator language
  - ✓ Configuring the cylinder display (+ or -)
  - ✓ Activating/deactivating the display of powers
  - ✓ Changing the display size of the digital keypad
  - ✓ Configuring the default format for client data
  - ✓ Configuring a default offset value
  - ✓ Configuring the prism axis entry format
  - ✓ Activating/deactivating the Scanform™ safety function
- ❑ Adjustments
  - ✓ Adjusting the touch window
  - ✓ Adjustment of the Scanform™
  - ✓ Adjusting the layout unit

Introduction to the menu access screen

To access the settings and adjustments of the Alta XL, press the icon first.

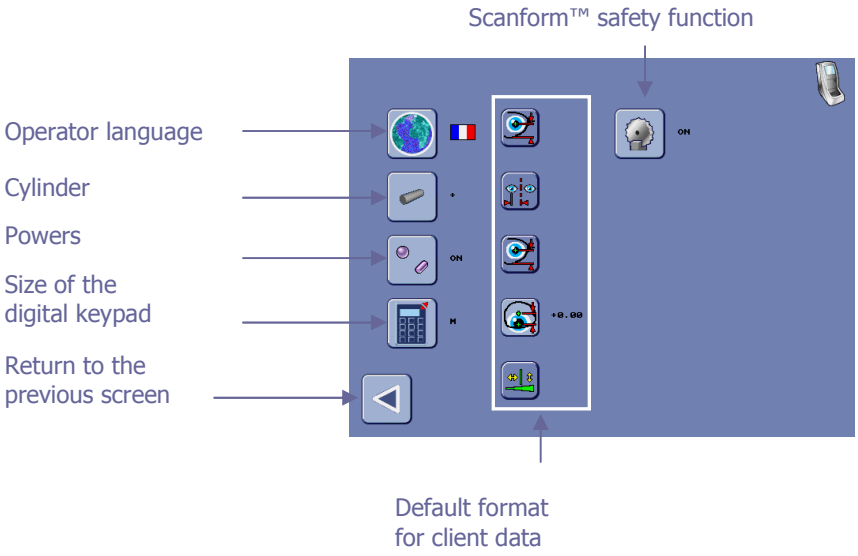
Result: the following screen is displayed:



Note : Only the menus or functions symbolized by the circled buttons are accessible to the user

Configuration of the Alta XL

Configuration screen



Setting the operator language

To set the operator language, proceed as follows.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key to select your language (flags).
4	Press the  key to confirm this configuration.
5	Press the  key to exit the adjustment.

Configuring the cylinder display (+ or -)

To set the cylinder display (+ or -), proceed as follows.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key to display **+** (cylinder +) or **–** (cylinder -).
4	Press the  key to confirm this configuration.
5	Press the  key to exit the adjustment.

Note: configuration in cylinder + or – is visible during use with the  *(cylinder **-**) or*  *(cylinder **+**) keys.*

Activating/deactivating the display of powers

To activate or deactivate the display of the powers by the Alta XL, proceed as follows.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key to activate or deactivate the display of powers.
4	Press the  key to confirm this configuration.
5	Press the  key to exit the adjustment.

Changing the display size of the digital keypad

To change the display size of the digital keypad, proceed as follows.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key to display: ❑ **M**: normal size ❑ **L**: large size.
4	Press the  key to confirm this configuration.
5	Press the  key to exit the adjustment.

Configuring the default format for client data

To configure the default format for client data, proceed as follows.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key to select the pupillary height reference of the client (Box height or Mix).
4	Press the  key to select the entry of the pupillary distance of the client in half PD format or decentration.
5	Press the  key to select the height in height format or decentration.
6	Press the  key to confirm this configuration.
7	Press the  key to exit the adjustment.

Configuring a default vertical offset value

The Alta XL gives you the ability to enter a default vertical offset value. This value will be transferred to each job and the height displayed will be recalculated commensurate with this decentration value.

To configure a default vertical offset value, proceed as follows.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key. *Result: the keypad is displayed.*
4	Enter a default vertical offset value.

Step	Action
5	Press the ENT key.
6	Press the key to confirm this configuration.
7	Press the key to exit the adjustment.

Configuring the entry format of the prism axis

To configure the entry format of the prism axis, proceed as follows.

Step	Action
1	Press on located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the key.
3	Press the key to select the Tabo format (entry of an angle). or Press the key again to select the (IN, OUT, UP, DOWN) format. *Note: the configuration of the prism axis is visible on the user screen.*
4	Press the key to confirm the configuration.
5	Press the key to exit the adjustment.

Activating/deactivating the Scanform™ safety function

The Scanform™ has a program which makes it possible to detect accidental stopping of the trace. This safety function can be activated or deactivated.

To activate the Alta XL safety function, proceed as follows.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key to activate (ON) or deactivate (OFF) the Scanform™ safety function.
4	Press the  key to confirm this configuration.
5	Press the  key to exit the adjustment.

Important!

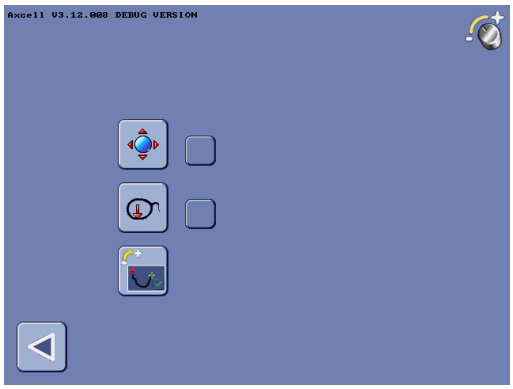
The Scanform™ safety function is activated as a default setting. Only deactivate this function when it has a malfunction.

You can continue working with the Scanform™ whilst waiting for a Briot technician to repair the safety function.

It is preferable to deactivate the safety function with the prior agreement of Briot technical services.

Adjustment of the Alta XL

Adjustment screen



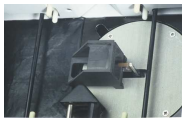
Adjusting the touch screen

Follow the steps below to adjust the touch screen.

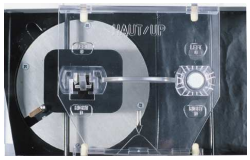
Step	Action
1	Press on ALTA located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the key.
3	Press the key. *Result: A cross + appears In the left upper corner of the screen.*
4	Press on the center of this, using a pen tip. *Result: another cross appears in the right lower corner of the screen.*
5	Repeat the step **4** for each cross displayed (total of 4 crosses). *Result: the touch window is automatically adjusted.*
6	Press on the screen. *Result:* ❑ **If the screen is correctly adjusted**, a cross is displayed in the touch zone. ❑ **If the screen is out of adjustment**, a cross is displayed outside the touch zone. Go back to this procedure to readjust.
7	Press the key to confirm this adjustment.
8	Press the key to exit the adjustment.

Adjusting the Scanform™

Follow the steps below to adjust the Scanform™.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key. *Result: the Scanform™ initializes.*
4	When the  icon appears, equip yourself with the gain adjustment tool n° **14 04 218**.
5	Checks that the values **R** and **H** engraved on the tool correspond to the values on the screen. ✓ If the values correspond, go to the next step. ✓ If the values are different, enter the values shown on the tool using the  and  keys. Note: the value **R** must be close to **40 mm**, the value **H** must be close to **24 mm**.
6	Place it all in the Scanform™. 
7	Press the  key. *Result: the adjustment is performed.*
8	When the adjustment is finished, check the measured values which appear on the screen. The adjustment is correct when all the dots shown before the settings are green. *Note: If one or several dots are red, re-work the step by pressing on the  key. If the problem persists, contact your dealer.*
9	Remove the tool.
10	Press the  key. *Result: the Alta XL confirms this adjustment and moves to the next.*
11	When the  icon appears, equip yourself with tool n° **14 04 185**.

Step	Action
12	Check that the value of the diameter of the round shape engraved on the tool corresponds to the value displayed on the screen. ✓ If the values correspond, go to the next step. ✓ If the values are different, enter the value shown on the tool using the + and − keys. *Note: the value must be close to **40 mm**.*
13	Place it all in the frame holder. 
14	Press the key. *Result: the stylus is inserted into the tool and the adjustment is performed.*
15	When the adjustment is finished, check the measured values which appear on the screen. The adjustment is correct when all the dots shown before the settings are green. *Note: If one or several dots are red, re-work the step by pressing on the key. If the problem persists, contact your dealer.*
16	Remove the tool.
15	Press the key. *Result: the Alta XL confirms this adjustment and moves to the next.*
16	When the  icon appears, insert the round pattern n° **14 04 192** on the pattern holder.
17	Make sure that the value of the pattern diameter engraved on tool n° **14 04 192** corresponds to the value displayed on the screen. ✓ If the values correspond, go to the next step. ✓ If the values are different, enter the value shown on the tool using the + and − keys. *Note: the value must be close to **40 mm**.*
18	Place it all in the Scanform™. 

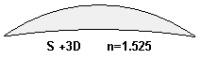
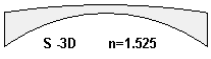
Step	Action
19	Press the key. *Result: the stylus traces the round pattern and the adjustment is performed.* When the adjustment is finished, check the measured values which appear on the screen. The adjustment is correct when all the dots shown before the settings are green. *Note: If one or several dots are red, re-work the step by pressing on the key. If the problem persists, contact your dealer.*
20	Remove the tool.
21	Press the key. *Result: the Alta XL confirms this adjustment and moves to the next.*
22	When the icon appears, insert the rectangular pattern n° **14 04 191** on the pattern holder.
23	Make sure the value of the rectangular pattern engraved on tool n° **14 04 191** corresponds to the value displayed on the screen. ✓ If the values correspond, go to the next step. ✓ If the values are different, enter the value shown on the tool using the + and - keys.
24	Place it all in the Scanform™. 
25	Press the key. *Result: the stylus traces the rectangular pattern and the adjustment is performed.*
26	When the adjustment is finished, check the measured values which are displayed on the screen. The adjustment is correct when all the dots shown before the settings are green. *Note: If one or several dots are red, re-work the step by pressing on the key. If the problem persists, contact your dealer.*
27	Remove the tool.
28	Press the key. *Result: the adjustment of the Scanform™ is confirmed.*

Step	Action
29	Press the  key to confirm this adjustment.
30	Press the  key to exit the adjustment access screen.

Adjusting the layout unit

Follow the steps below to adjust the layout unit.

Step	Action
1	Press on  located at the top of the user screen. *Result: the adjustment access screen is displayed.*
2	Press the  key.
3	Press the  key.
4	When the  icon is displayed, place lens # **14 04 224** (flat lens with cross and axis lines) in the layout unit. 
5	Press the  key. *Result: the adjustment of the table is performed.*
6	When the target appears, press    or  to place the center of the grey cross (blurred) exactly on the center of the target cross (sharp).
7	Press the  key to confirm the placement of the grey cross.
8	Check the values measured and displayed on the screen. The adjustment is correct when all the dots shown before the settings are green. *Note: If one or several dots are red, re-work the step by pressing on the*  *key. If the problem persists, contact your dealer.*
9	Press the  key to continue the adjustment.

Step	Action
10	When the  icon appears, place the +3D lens # **14 04 227** in the layout unit.  ***Caution:*** ***only use Briot adjustment lenses, otherwise there is a risk of causing deterioration in the Alta XL's performance.***
11	Press the  key. *Result: the adjustment of the table continues.*
12	When the adjustment is finished, check the measured values which are displayed on the screen. The adjustment is correct when all the dots shown before the settings are green. *Note: If one or several dots are red, re-work the step by pressing on the*  *key. If the problem persists, contact your dealer.*
13	Press the  key to continue the adjustment.
14	When the  icon appears, place the -3D lens # **14 04 228** in the layout unit.  ***Caution:*** ***only use Briot adjustment lenses, otherwise there is a risk of causing deterioration in the Alta XL's performance.***
15	Press the  key. *Result: the adjustment of the table continues.*
16	When the adjustment is finished, check the measured values which are displayed on the screen. The adjustment is correct when all the dots shown before the settings are green. *Note: If one or several dots are red, re-work the step by pressing on the*  *key. If the problem persists, contact your dealer.*
17	Press the  key to confirm the displayed values.
18	Remove the adjustment tool.
19	Consult the adjustment values.

Step	Action
20	Press the  key to confirm the adjustment.
21	Press the  key to exit the adjustment access screen.

Messages

What should be done in the case of a warning message?

The following table lists the most common messages that might appear whilst using the Alta XL and the possible solutions.

Message: ***Job modified, do you want to save it?***	
Possible cause(s)	**Solution(s)**
A job in the memory has been recalled and changed.	❑ **Yes**: the changes are entered. ❑ **No**: the changes made have not been modified and are lost.

Message: A defected frame may possibly cause an axis error, would you like to see it?	
Possible cause(s)	**Solution(s)**
The traced frame shows large differences between the right and left circles. This could be due to a difference in shape between the two sides of the frame or a difference in frame axis (between the top and bottom axes).	❑ **Yes**: the right shapes (in red) and the left (in blue) are displayed superimposed. You can see the differences in shape in order to re-work the frame to avoid them. Press the  key to go back to the main screen. ❑ **No**: The shape differences are not displayed.

Message: Distorting the shape will not modify the holes relative positions. Do you want to keep the holes positions anyway?	
Possible cause(s)	**Solution(s)**
Drilling hole coordinates have been detected or entered with the shape in progress. Changing the shape in progress will not change the positions of the holes.	Change the shape using the Digiform function and then change the position of the holes depending on the distortions introduced.

Message: ***The half vertical box value has been modified. Do you want to automatically recalculate the holes positions?***	
Possible cause(s)	**Solution(s)**
When in the Digiform screen, you have changed the bottom half-height of a shape containing drilling holes.	❑ **Yes** : the Y coordinate is recalculated from the new center of the shape: New Y = Old Y+ ½ height ❑ **No** : the X and Y coordinates of the holes do not change.

Message: *Lens is too small. Do you want to continue?*	
Possible cause(s)	**Solution(s)**
The inserted lens is too small in relation to the shape, distance or height data.	❑ **Yes**: perform a manual reworking of the layout (refer to the chapter *Use*, paragraph *Task 3B: Laying out and blocking a lens in manual mode*) **Caution! In this case, manual re-working will modify the layout.** ❑ **No**: insert a lens with a larger diameter and restart the layout.

Message: *Impossible to check the lens size*	
Possible cause(s)	**Solution(s)**
❑ The lens outline could not be detected. ❑ The lens diameter is greater than 80 mm. ❑ There is no lens in the layout unit.	❑ Resume the layout in manual mode. ❑ Place a lens in the layout unit.

Message: *Do you want to overwrite the job?*	
Possible cause(s)	**Solution(s)**
A complete job has been recalled and you want to start tracing a new frame using the same job number.	❑ **Yes** : delete the job in the memory. ❑ **No** : do not delete the job in the memory.

Message: *Inserted lens doesn't match with the side selected (R/L). Do you want to continue?*	
Possible cause(s)	**Solution(s)**
❑ The lens does not correspond to the side (R/L) (progressive or bifocal lenses only). ❑ E.g. you have inserted a right-hand lens to block the left side.	Make sure the lens inserted in the layout unit corresponds to the eye side you want to block (right or left).

Message: *Incorrect input value*	
Possible cause(s)	**Solution(s)**
The entered value for the pupillary distance or the height places the optical center outside the frame.	Check the consistency of the entered setting.

Message: ***Spherical lens, axis not required***	
Possible cause(s)	**Solution(s)**
You have entered an axis value for a purely spherical lens.	❑ Select the initial lens type in the drop-down menu. ❑ Press the  key. ❑ Restart the automatic layout  .

Message: ***Cylindrical lens, axis required***	
Possible cause(s)	**Solution(s)**
You have not entered an axis value for a cylindrical lens.	❑ Press the  key. ❑ Enter an axis value for the corresponding eye.

Message: ***Prismatic lens, axis required***	
Possible cause(s)	**Solution(s)**
You have not entered an axis value for a prismatic lens	❑ Press the  key. ❑ Enter an axis value for the corresponding eye.

Message: ***Progressive lens, axis not required***	
Possible cause(s)	**Solution(s)**
You have entered an axis value for a progressive lens	❑ Select the initial lens type in the drop-down menu. ❑ Press the  key. Restart the automatic layout  .

Message: ***This pattern number is already used.***	
Possible cause(s)	**Solution(s)**
You are trying to use a pattern with a number already used.	Use another job number.

Message: ***Memory is going to be sorted, please wait.***	
Possible cause(s)	**Solution(s)**
The job memory is full. The Alta XL is sorting the memory to make space.	❑ Wait until the procedure is finished. ❑ **DO NOT TURN OFF** the Alta XL during the reorganization process.

Message: ***Unknown lens type***	
Possible cause(s)	**Solution(s)**
The lens inserted in the layout unit could not be identified.	Lay out the lens in manual mode.

Message : ***Memory full***	
Possible cause(s)	**Solution(s)**
You want to save a pattern or a job in a job or pattern database that is full.	Delete one or several jobs or patterns in the databases concerned (refer to the chapter *Use*, paragraph *Pattern or job memory management*). Recommendation: edge both sides of a job right away in order to avoid it being stored in the job list.

Message: ***Do you want to block again?***	
Possible cause(s)	**Solution(s)**
You have pressed the  key even though this side has already been blocked or if the PD values have been modified.	❑ **Yes**: Block the lens again. ❑ **No**: Do not block the lens again.

Message: ***Blocking impossible***	
Possible cause(s)	**Solution(s)**
Some shape or frame data is missing.	❑ Check if a frame has been traced. ❑ Make sure the bridge value is not zero.

Message: ***Please insert an appropriate small block and press OK!***	
Possible cause(s)	**Solution(s)**
The frame shape requires the use of small size blocks or 16mm flat.	Confirm the message and use a small size block.

Message: Scanform™ absent	
Possible cause(s)	**Solution(s)**
❑ Serious problem with the Scanform™ ❑ Technical Services may have disconnected the Scanform™.	Call your dealer's Technical Services.

Message: *Touch screen disabled*	
Possible cause(s)	**Solution(s)**
Serious problem with the touch screen	Call your dealer's Technical Services.

Message: *Memory board absent*	
Possible cause(s)	**Solution(s)**
Problem with the memory board	Call your dealer's Technical Services.

Message: *Server error. The current job will be lost. Do you want to continue shutting down the Alta XL?*	
Possible cause(s)	**Solution(s)**
The server connection has not been established and you want to turn the Alta XL off. The current job will not be saved on the server.	Keep the Alta XL switched on. Check the server is on and Briot applications are running. Check the connections to the server.

What should be done in case of a warning message?

When an error occurs, it is preferable to**ring your dealer's Technical Services** and to inform them of the exact error number together with the associated text.

You will find below a list of the error messages which may appear during use of your Alta XL.

Certain problems can sometimes be resolved without calling Technical Services. The action to be taken is therefore indicated.

Error number	Description
0x**0001** 0001	Origin **software system**, Queue full
0x**0002** 0002	Origin Software **software application**, Software failure
0x**0002** 0029	Origin software **application**, Hardware failure
0x**0003** 0007	Origin Scanform™ **rods**, Timeout
0x**0004** 0007	Origin Scanform™ **jaws**, Timeout
0x**0004** 0005	Origin Scanform™ **jaws**, Frame present 1. Confirm the message. 2. Make sure there is no object present in the frame station. 3. If there is no object and the message appears again for no apparent reason, call Technical Services.
0x**0004** 0028	Origin Scanform™ **jaws**, Sensor error
0x**0005** 0008	Origin Scanform™ **height**, Insufficient stroke
0x**0005** 0007	Origin Scanform™ **height**, Timeout
0x**0006** 0008	Origin Scanform™ **introduction**, Insufficient stroke
0x**0006** 0007	Origin Scanform™ **introduction**, Timeout
0x**0007** 0009	Origin Scanform™ **carriage**, Timeout
0x**0007** 0009	Origin Scanform™ **carriage**, Loss of step
0x**0007** 0010	Origin Scanform™ **carriage**, Bad parameter
0x**0007** 0011	Origin Scanform™ **carriage**, Motor not initialized

Error number	Description
0x**0007** 000B	Origin: Scanform™ **carriage**, Automatic calibration needed 1. Confirm the message. 2. Proceed with the Scanform™ adjustment. 3. If the message is displayed again, call Technical Services.
0x**0008** 0009	Origin Scanform™ **turret**, Loss of step
0x**0008** 000D	Origin Scanform™ **turret**, unexpected stylus jump (rho delta > 0.8mm)
0x**0008** 000E	Origin Scanform™ **turret**, turret jamming
0x**0008** 000F	Origin Scanform™ **turret**, Frame moved
0x**0008** 0010	Origin Scanform™ **turret**, Bad parameter
0x**0008** 0011	Origin Scanform™ **turret**, Motor not initialized
0x**0008** 000B	Origin: Scanform™ **turret**, Automatic calibration required 1. Confirm the message. 2. Proceed with the Scanform™ adjustment. 3. If the message is displayed again, call Technical Services.
0x**0009** 0008	Origin Scanform™ **thickness**, Insufficient stroke
0x**000A** 0009	Origin **X** table axis, Loss of step
0x**000A** 0010	Origin **X** table axis, Bad parameter
0x**000A** 0011	Origin **X** table axis, Motor not initialized
0x**000A** 0023	Origin **X** table axis, Unknown blocker status
0x**000A** 000B	Origin **X** table axis, Automatic calibration needed 1. Confirm the message. 2. Proceed to blocking unit adjustment. 3. If the message is displayed again, call Technical Services.
0x**000B** 0009	Origin **Y** table axis, Loss of step
0x**000B** 0010	Origin **Y** table axis, Bad parameter
0x**000B** 0011	Origin **Y** table axis, Motor not initialized
0x**000B** 0022	Origin **Y** table axis, Impossible movement
0x**000B** 0023	Origin **Y** table axis, Unknown blocker status

Error number	Description
0x**000B** 000B	Origin **Y** table axis, Automatic calibration needed 1. Confirm the message. 2. Proceed to blocking unit adjustment. 3. If the message is displayed again, call Technical Services.
0x**000C** 0009	Origin **THETA** table axis, Loss of step
0x**000C** 0010	Origin **THETA** table axis, Bad parameter
0x**000C** 0011	Origin **THETA** table axis, Motor not initialized
0x**000C** 0023	Origin **THETA** table axis, Unknown blocker status
0x**000C** 000B	Origin **THETA** table axis, Automatic calibration needed 1. Confirm the message. 2. Proceed to blocking unit adjustment. 3. If the message is displayed again, call Technical Services.
0x**000D** 0007	Origin **door**, Timeout
0x**000D** 0024	Origin **door**, Shut off sequence has not been respected 1. Confirm the message. 2. Turn off the Alta XL with the Stop button. 3. If the message is displayed again, call Technical Services.
0x**000D** 0028	Origin **door**, Sensor problem
0x**000E** 0007	Origin **blocker**, Timeout
0x**000E** 000B	Origin **blocker**, Automatic calibration needed
0x**000E** 0021	Origin: **blocker**, Low thrust detected, no lens in blocker
0x**000E** 0028	Origin: **blocker**, Sensor problem
0x**000F** 000C	Origin: **layout**, Impossible layout
0x**000F** 000B	Origin **layout**, Automatic calibration needed 1. Confirm the message. 2. Proceed to blocking unit adjustment. 3. If the message is displayed again, contact Technical Services.
0x**000F** 0012	Origin **layout**, Confidence level for the optical centre too low *(burn-in)*
0x**000F** 0013	Origin **layout**, Confidence level for outline too low *(burn-in)*

Error number	Description
0x**000F** 0014	Origin **layout**, Error during target analysis *(adjustment)*
0x**000F** 0015	Origin **layout**, Target without lens is not circular *(adjustment)*
0x**000F** 0016	Origin **layout**, Ellipse not detected *(adjustment)*
0x**000F** 0017	Origin **layout**, Target position without lens is wrong *(adjustment)*
0x**000F** 0018	Origin **layout**, Target size without lens is wrong *(adjustment)*
0x**000F** 0019	Origin **layout**, Wrong confidence level *(adjustment)*
0x**000F** 001A	Origin **layout**, Wrong pixel size detection *(adjustment)*
0x**000F** 001B	Origin **layout**, Tool cross out of image center *(adjustment)*
0x**000F** 001C	Origin **layout**, Table and shadow video camera centers don't match *(adjustment)*
0x**000F** 001D	Origin **layout**, Theta axis failure *(adjustment)*
0x**000F** 001E	Origin **layout**, Wrong axis between table and shadow camera *(adjustment)*
0x**000F** 001F	Origin **layout**, Wrong axis between table and target camera *(adjustment)*
0x**000F** 0020	Origin **layout**, Wrong tool magnification *(adjustment)*
0x**000F** 0025	Origin **lay-out**, A request is already processing
0x**0010** 000F	Origin **Scanform™**, Frame moved (|1st rho - 1024th| > 0.4mm)
0X**0011** 0007	Origin server, Timeout
0X**0011** 0026	Origin server, Server not connected 1. Confirm the message. 2. Check if the server is switched on and the Briot applications in operation. 3. Check the connections to the server.
0X**0011** 0027	Origin server, Communication trouble

Technical specifications

The general characteristics of the Alta XL are as follows:

- ❑ Dimensions:
  - ✓ Width: **320 mm**
  - ✓ Depth: **600 mm**
  - ✓ Height: **650 mm**
- ❑ Weight: **36 kg**
- ❑ Job memory capacity: **384 jobs**
- ❑ Pattern database capacity: **2048 shapes**
- ❑ Voltage: **100 V to 240 V +/- 10 % - 50 Hz or 60 Hz**
- ❑ Electricity consumption: **80 W**
- ❑ Fuses: **2 AT** (x2) – UL recognized – To be replaced only by Littlefuse # **218002**
- ❑ EC standards:
  - ✓ In compliance with EMC Di-89/336/EEC
  - ✓ EN 55022 "Class B"
  - ✓ EN 61000 – 6 - 2
  - ✓ EN 61000 – 6 - 3
- ❑ Safety standards:
  - ✓ In compliance with Di-89/392/EEC
  - ✓ EN 61010 – 1
- ❑ ETL marking:
  - ✓ UL 61010-1
  - ✓ CAN/CSA-C22.2 N°61010-1
- ❑ Installation: **Category II**
- ❑ Degree of pollution: **II**
- ❑ Operating temperature: **Min. 13°C**
  Max. 35°C
- ❑ Maximum humidity level **80% for temperatures up to 31°C decreasing linearly to 50% relative humidity at 40°C**

Maximum altitude: **2000 meters**