CS152KB

PRIOR
Scientific

Touch Screen Controller

Operating Instructions

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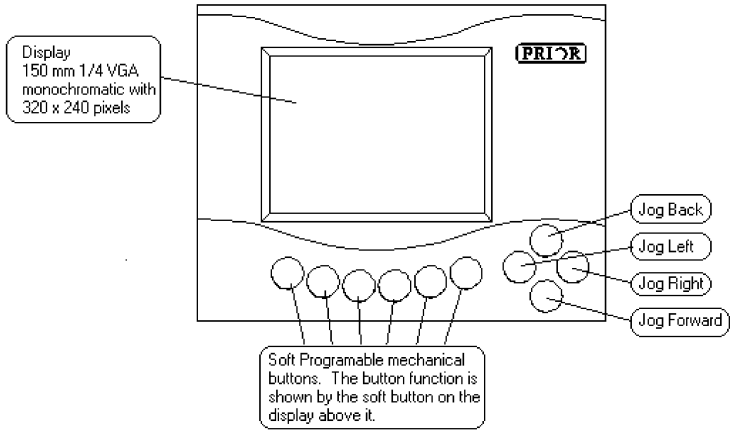
General

Section 1

General

1.1 Overview

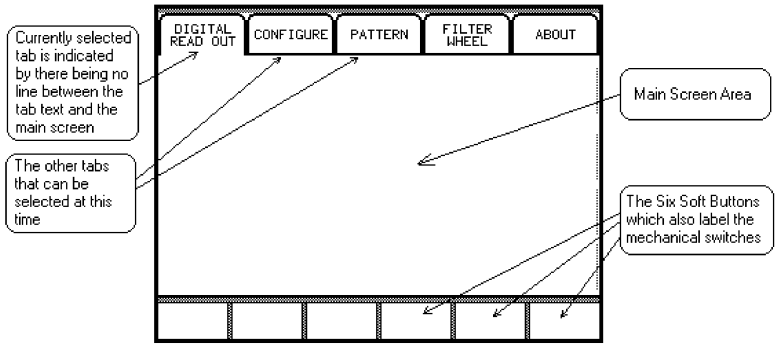
The Prior touch screen controller is a mini computer designed specifically for controlling the ProScan and OptiScan systems. It must be connected to either serial port on the controllers from where it gets its power. On power up the unit briefly displays some internal diagnostic information and then displays the Digital Read Out screen.



1.2 The Display

The Display is a ¼ VGA monochromatic screen giving a resolution of 320 x 240 pixels with an integral back light. This Screen is covered with a touch sensitive membrane which allows the user to simply touch the screen to select an action.

Most of the displays are broken down into three areas to separate their functions. At the top of the screen there are menu tabs which select the main action types, soft buttons which show the function of the soft button and mechanical switch, and the user area which is where items specific to the current action are shown.



Menu Tabs

Menu tabs are designed to give the appearance of a card index file. This allows the user to bring the card of interest to the top of the pile by touching the menu tab. If you want to look at the ABOUT screen simply touch the ABOUT tab and it will be brought to the front. The currently selected card has no line between its tab and the user screen showing it is the selected card.

Some of the screens are broken down into two levels of menus, this always leaves the main menu visible but allows the user to select the specific item they are interested in. The second card is contained on the main card, so the main card still shows what has been selected and the second shows the selection in the same way.

If there are more than 5 menu choices, the last tab on the screen will be a MORE tab which allows you to access the extra menus. If you use the MORE tab to get to extra menus a BACK tab will appear to give you access to the first set.

Soft Buttons

There are six boxes across the bottom of the screen that can be touched to perform the labeled action. They also serve to label the mechanical buttons directly under them. This gives the user the option to use the mechanical buttons for these functions which will be easier to find if the user's attention is directed elsewhere.

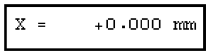
Main Screen Area

Function Buttons

Function buttons are boxes which perform some action if they are touched. They are shown on the screen as a box with a solid sides on the top and left, but shaded sides for the right and bottom. The button function is shown inside the box.

Value Boxes

Value boxes are used to show the current value of a variable to the user. Where possible these values are shown as human readable values (e.g. X position is shown in mm, μm or inches). Value boxes can be distinguished by having solid lines on all four sides.

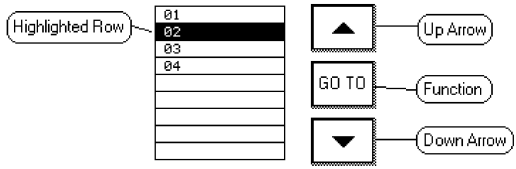


List Boxes

List boxes are used when there is a pick list or list of values to display. There is a cell which is shown in reverse video (white on black) which is the highlighted cell. The user can move up or down the list using the arrow keys. Some list boxes have more than 10 entries in which case a down arrow will be shown at the bottom of the list. Continuing to go down past the bottom of the screen will bring up the next 10 items.

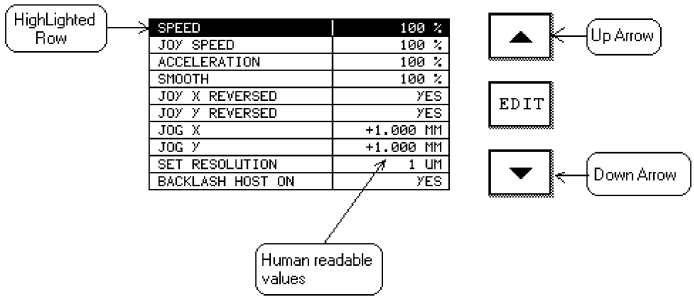
Pick list

The pick list box has one column and up to ten rows. There is normally a function box between the up and down arrows which allows the user to perform a task on the highlighted cell. If there are more items than rows in the list box a arrow will appear at the bottom of the list showing that there are more options to follow.



Values list

The values list box has two columns and up to ten rows. The values are where possible shown as human readable values. There is normally a function box named EDIT between the up and down arrows which allows the user to modify the highlighted value. The edit function will either toggle the value (e.g. Yes or No) or call an edit screen to edit the value (see Edit Screens section 2 below).



1.3 The Mechanical Press Switches

There are 10 mechanical press switches which can be used to select some actions. These switches are split into two groups. The group on the right hand side of the unit which form a diamond are always used to jog the stage left, right, forward, or back. The functions of the remaining six switches will change depending on the current screen. The function is always the same as the soft button directly above it.

1.4 Emergency Stop

If you press two of the mechanical switches at the same time the current move will be interrupted. This will cause the controller to ramp down the speed so position is not lost.

1.5 Touching the Screen

How to touch the screen

The touch screen is made of a plastic material which forms an array of switches. It should be touched with a finger or blunt end of a pencil in the center of the selected area. A beep will be heard to confirm the screen has been pressed.

Caution Do not use sharp objects to touch the screen.

Sound

There is a short beep to give the user audible feedback that the screen has been touched. This beep can be turned off if the unit is used in a quiet room (see Setting Section 5.4).

1.6 Connecting to the controller

The Touch Screen should be connected to the controller before the power is switched on, by plugging the flying lead into one of the controller s serial ports. The controller will detect the presence of the touch screen and enable the 12V to drive the unit.

1.7 Plug and Play

The unit at power up interrogates the controller to establish what resources (stage, focus, filters wheels, etc.) are present. The screen will only show those items that are connected and will automatically adjust for such variables as stage screw pitch, number of filters per wheel etc.

1.8 Auxilary Com Port

The unit has a second serial port so the user can connect it to a PC and transfer patterns and points to or from the PC. The port is also used for updating the unit s software.

Edit Screens

Section 2

Edit Screens

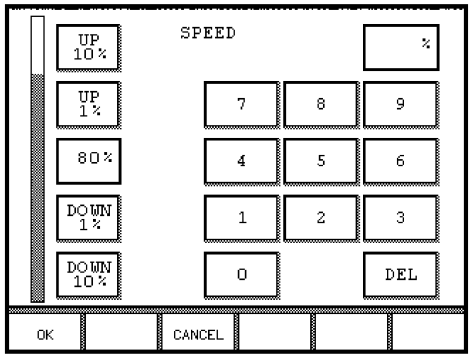
Edit screens are used to change the value of variables in either the ProScan/OptiScan controller or locally. The screens change values which can be percentages, numbers, or text strings. Exiting from each screen will go back to the calling screen, and either keep the new value for OK or revert back to the original value for CANCEL. Each screen shows the current value and a label to show what is being adjusted.

2.1 Percentage

The percentage screen allows for two ways of setting the new percentage value. The user can either use the Up 10%, Up 1%, Down 1%, or Down 10% function buttons to add or subtract from the value. Alternately the user can key in a new percentage with the numeric keys.

The current value is displayed as a percentage value in the center box on the left hand side, and as a percent bar value giving an instant visual feel for the value.

The OK button keeps the new value and returns to the previous screen. The CANCEL button restores the original value and returns to the previous screen.



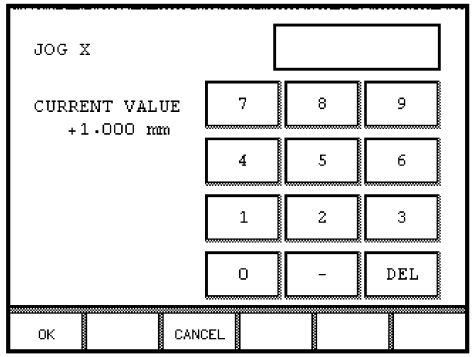
2.2 Numbers

This is used to enter numeric values. The user can key in a new value with the numeric buttons. The new value will be displayed in the currently selected units. The first number entered will put the number into the right hand digit of that cell. As more digits are typed the digits shift across the display towards the left, the decimal place remains in the same position. To enter a position of 1.000 mm type 1 followed by three 0 s.

If a resolution of 0.5 microns is set and a value of 3.4 microns is entered this will be rounded down to 3 microns.

The current value is displayed as a human readable value on the left hand side of the screen.

The OK button keeps the new value and returns to the previous screen. The CANCEL button restores the original value and returns to the previous screen.

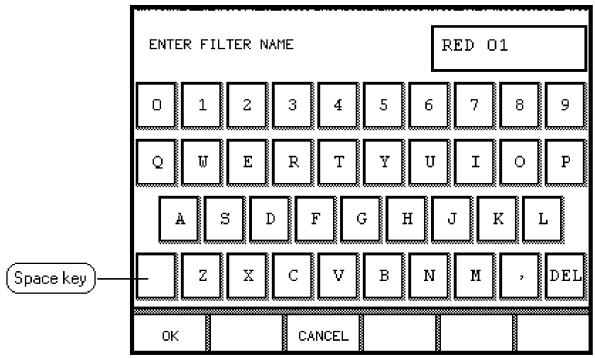


2.3 Text

This is used to enter text names. The current name appears in the value box on first entering the screen. If you press the DEL key the last letter of the name will be deleted, any other key will delete the whole name and insert that letter as the first letter of a new name.

The name that is being edited is displayed at the top of the screen.

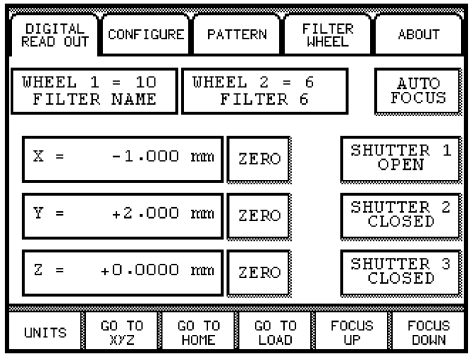
The OK button keeps the new value and returns to the previous screen. The CANCEL button restores the original value and returns to the previous screen.



Digital Read Out

This is the main entry screen of the touch screen controller and shows the current position of the Stage, Focus, Filters, and the state of the Shutters.

View



Units

This button toggles the units used to display human readable values. The options are millimeters (mm), microns (μm) and inches (in).

Go to XYZ

This button will call the GO TO XYZ screen allowing the user to enter a new target position.

Go to Home

This button will send the stage to the home position (see Error! Reference source not found. Section Error! Reference source not found.).

Go to Load

This button will send the stage to the load position (see Error! Reference source not found. Section 0).

Focus Up/Down

This button will call the focus motor to move the stage up / down by the current JOG Z (see 5.2 Focus section 0) value.

Zero

The ZERO function boxes allows the user to display the distance relative to the current position of the axis. The absolute position is not effected by these boxes. On entering the DRO screen the absolute position will be displayed.

Auto Focus

The Auto Focus function box initiates an auto focus routine in the ProScan controller only (see the ProScan manual for details of the auto focus routine).

Shutter 1/2/3

The Shutter 1/2/3 function boxes display the current state of the shutter. If the key is pressed the shutter is opened if it is currently closed, and closes it if it is currently open.

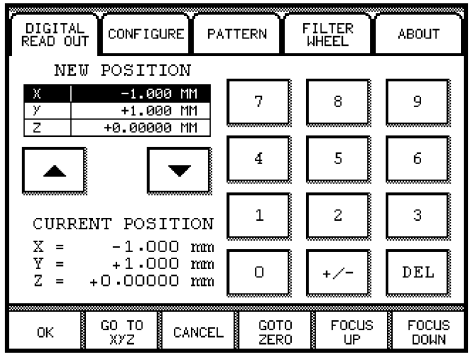
Go to XYZ Screen

Section 4

Go to XYZ Screen

This screen allows the user to go to a specific position by entering the coordinates of the point. On entering the screen the NEW POSITION list box will display the current position. This means if you only want to move one axis you do not need to enter the position for the other axes.

View



Up/Down Arrows

These buttons moves up / down the NEW POSITION list box.

Numeric Keys

These buttons enter values directly into the list box cell. The first number entered will clear the cell and put the number into the right hand digit of that cell. As more digits are typed the digits shift across the display towards the left, the decimal place remains in the same position. To enter a position of 1.000 mm type 1 followed by three 0 s.

The numbers are always entered to the current resolution. If the value is not an exact multiple of the resolution it will be rounded down.

+ / - Key

This button changes the sign of the highlighted cell.

OK

This button goes to the position shown in the NEW POSITION list box and returns to the previous screen.

Go to XYZ

This button goes to the position shown in the NEW POSITION list box.

Cancel

This button stays at the current position and returns to the previous screen.

Go to ZERO

This button goes to the zero positions of the stage and focus.

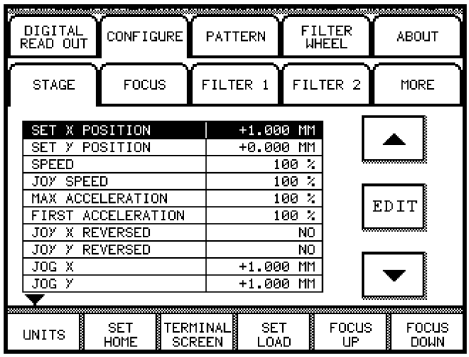
Configure

This is the area of the controller which sets user preferences. This group of screens can be password protected to prevent unintentional modification. If the password is set, touching the configure tab goes to the Enter Password screen. The user must enter a valid Password to proceed to the configure screens (see section 5.4).

5.1 Stage

This screen shows the current setting for the stage, and gives the user the ability to modify these settings.

View



Units

This button toggles the units used to display human readable values. The options are millimeters (mm), microns (μm) and inches (in).

Set Home

This button brings up a screen that asks you to move the stage to the HOME position and press OK.

Terminal Screen

This button brings up a basic terminal (see Terminal Screen section 5.5).

Set Load

This button brings up a screen that asks you to move the stage to the LOAD position and press OK.

List Box Items

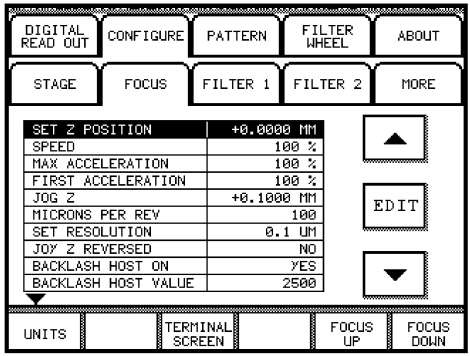
Item	Description	Change Method
Set X Position	This displays and allows the user to change the current X position of the stage.	Number Edit Screen
Set Y Position	This displays and allows the user to change the current Y position of the stage.	Number Edit Screen
Speed	This is a percentage of top speed of the stage / controller combination under host control. See controller handbook for range.	Percent Edit Screen
Joy Speed	This is a percentage of top speed of the stage / controller combination under joystick control. See controller handbook for range.	Percent Edit Screen
Max Acceleration	This is a percentage of maximum acceleration of the stage / controller combination under host control. See controller handbook for range.	Percent Edit Screen
First Acceleration	This refers to the start and finish acceleration value under host control. 1% gives the smoothest motion, 100 % gives the fastest movement.	Percent Edit Screen
Joy X Reversed	Reverses the direction of the X axis joystick motion	Toggles Yes / No
Joy Y Reversed	Reverses the direction of the Y axis joystick motion	Toggles Yes / No
Jog X	Sets the distance to move for the stage for the Stage Left / Right buttons.	Number Edit Screen
Jog Y	Sets the distance to move for the stage for the Stage Back / Forward buttons.	Number Edit Screen
Set Resolution	Sets the resolution of the Stage in microns	Toggles between 0.04, 0.1, 0.2, 0.5, 1, 10 for ProScan and 1, 10 for OptiScan

Item	Description	Change Method
Backlash Host On	Turns backlash on / off for command from the touch screen and host PC	Toggles Yes / No
Backlash Host Value	Sets the value of backlash in micro Steps	Number Edit Screen
Backlash Joy On	Turns backlash on / off for command from the touch screen and host PC	Toggles Yes / No
Backlash Joy Value	Sets the value of backlash in micro Steps	Number Edit Screen

5.2 Focus

This screen shows the current setting for the focus, and gives the user the ability to modify these settings.

View



Units

This button toggles the units used to display human readable values. The options are millimeters (mm), microns (μm) and inches (in).

Terminal Screen

This button brings up a basic terminal (see Terminal Screen section 5.5).

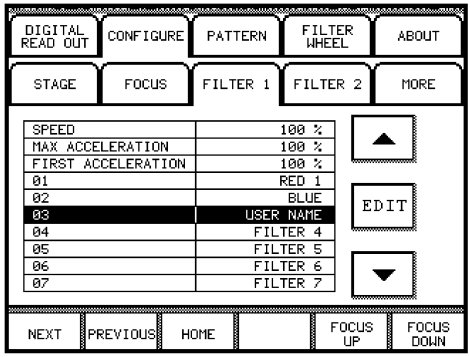
List Box Items

Item	Description	Change Method
Set Z Position	This displays and allows the user to change the current Z position of the stage.	Number Edit Screen
Speed	This is a percentage of top speed of the focus / controller combination under host control. See controller handbook for range.	Percent Edit Screen
Max Acceleration	This is a percentage of maximum acceleration of the focus / controller combination under host control. See controller handbook for range.	Percent Edit Screen
First Acceleration	This refers to the start and finish acceleration value under host control. 1% gives the smoothest motion, 100 % gives the fastest movement.	Percent Edit Screen
Joy Z Reversed	Reverses the direction of the Z axis joystick motion	Toggles Yes / No
Jog Z	Sets the distance to move for the focus motor for the Focus Up / Down buttons.	Number Edit Screen
Microns Per Rev	Sets the number of microns moved for one revolution of the focus motor.	Number Edit Screen
Set Resolution	Sets the resolution of the focus in microns	Toggles between 0.01, 0.02, 0.05, 0.1, 0.2, 1
Backlash Host On	Turns Backlash on / off for command from the touch screen and host PC	Toggles Yes / No
Backlash Host Value	Sets the value of Backlash in micro Steps	Number Edit Screen
Backlash Joy On	Turns Backlash on / off for command from the touch screen and host PC	Toggles Yes / No
Backlash Joy Value	Sets the value of Backlash in micro Steps	Number Edit Screen

5.3 Filter 1 / 2

This screen shows the current setting of the filter 1/ 2, and gives the user the ability to modify these setting.

View



Next

This button rotates the wheel on to the next filter position. If the wheel is at filter position 10 (or the last on the wheel) it will move to filter position 1.

Previous

This button rotates the wheel on to the previous filter position. If the wheel is at filter position 1 it will move to the last filter position on the wheel.

Home

This button rotates the wheel to find the reference position marker on the wheel. The wheel is then rotated to filter position 1.

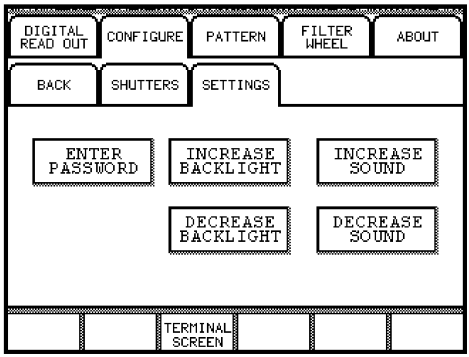
List Box Items

Item	Description	Change Method
Speed	This is a percentage of top speed of the filter / controller combination under host control. See controller handbook for range.	Percent Edit Screen
Max Acceleration	This is a percentage of maximum acceleration of the filter / controller combination under host control. See controller handbook for range.	Percent Edit Screen
First Acceleration	This refers to the start and finish acceleration value under host control. 1% gives the smoothest motion, 100 % gives the fastest movement.	Percent Edit Screen
01 to number of filters on wheel	The name of the Filter as specified by the user, this name may be up to 11 characters long. The defaults are FILTER n where n is the number of the filter.	Text String Edit Screen

5.4 Setting

The settings screen is used to set user preference for how the touch screen should behave. This includes whether there is a password or not for configure menus, changing the intensity of the back light, and adjusting the sound.

View



Password

The Password button brings up a text edit screen to allow the user to enter a password. The Password may be up to eight characters long. If the password is blank there is no password protection, allowing immediate access to the configure screens. By default there is no password set.

Caution - If the password is set you will not be able to access the configuration screens without entering the password.

If you have forgotten your password contact your local Prior dealer for assistance.

Increase / Decrease Backlight

This allows the user to increase or reduce the brightness of the back light.

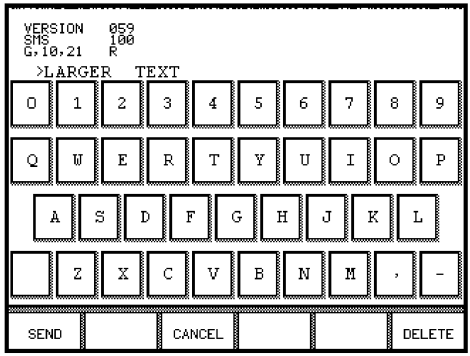
Increase / Decrease Sound

The sound is always the same volume but its duration can be adjusted to make it more prominent. For no sound keep pressing the Decrease Sound button until no sound is heard.

5.5 Terminal Screen

The terminal screen is used to act as a basic terminal program. You can type in a command and press SEND to send the command to the controller. CANCEL is used to escape from the terminal screen. The last 4 command lines are shown in the history above the command line. When entering a command with arguments, use the comma, or space to separate the arguments. The current line being entered is shown in larger text.

View



Pattern

Patterns can be created and run using the touch screen. There are four types of pattern; Raster, Snake, User, and Circle.

If the user selects the pattern tab and there are some patterns saved, the Pattern Run window appears giving the user a choice of which pattern to run. The patterns are displayed in a most recently used order. That is the pattern that was run or created last will appear at the top of the list.

The CREATE and DELETE screens are password protected if a password has been set.

6.1 Pattern Types Defined

Raster

Raster starts at the top left of the image, steps right until the end of the row, then moves down one row and back to the left and again steps right until the end of the line. This is repeated for each row. The grid below shows the steps of a raster pattern.

1	2	3	4	5
6	7	8	9	10
11	12	13	14	15

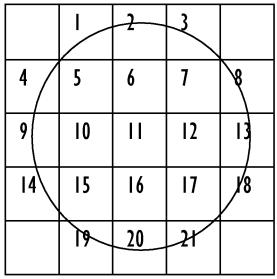
Snake

Snake start at the top left of the image, steps right until the end of the row, then moves down one row and steps left until the start of the line is reached. This is repeated for each row. The grid below shows the steps of a snake pattern.

1	2	3	4	5
10	9	8	7	6
11	12	13	14	15

Circle

A circular pattern is a pattern which scans a disc in the same manner as the snake pattern above but only goes to positions within the bounds of a circle.

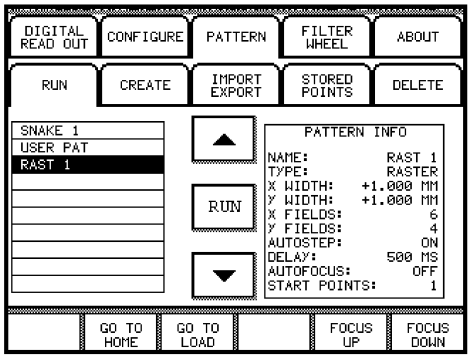


User

A user pattern is effectively a raster with only one cell but multiple start points. This means a series of points can be saved as start points and just those points used as the pattern.

6.2 Run

This gives a list of patterns displayed in a pick list. When scrolling through the list pattern, summary information appears in the box on the right hand side of the screen. When the pattern required is highlighted press the RUN button.



If the pattern has start points saved the stage will go to the first start point and be ready to step through the pattern. If there are no start points saved a message will appear saying GO TO START POSITION. Move to the pattern start position and press OK. The stage is now ready to step through the pattern.

Go to Home

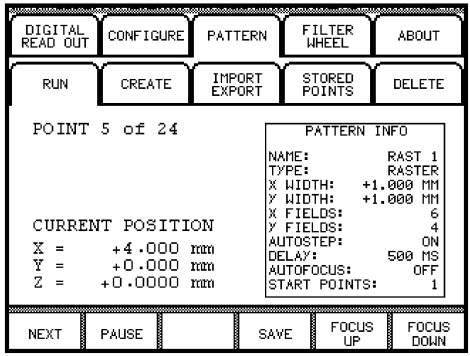
This button moves the stage to the HOME position.

Go to Load

This button moves the stage to the LOAD position.

6.3 Stepping Through the Pattern

If the pattern has AUTOSTEP On the stage will wait for DELAY milliseconds or the NEXT key being pressed (whichever occurs first) and then move to the next position in the pattern. If AUTOSTEP is Off the stage will wait until the NEXT key is pressed.



Pause

This pauses the pattern and allows you to go back (see BACK)and re-inspect the previous 20 points. The PAUSE soft switch also changes function to be CONTINUE.

Continue

This button is used to resume a pattern that has been paused. When pressed the soft switch reverts to the PAUSE function and the BACK switch is removed.

Next

The next key is used to move to the next field in the pattern. If the pattern has been paused this can be used in conjunction with BACK to navigate through the last 20 pattern points. When the pattern has finished the NEXT soft switch changes function to REPEAT PATTERN.

Back

If the pattern has been paused this can be used in conjunction with NEXT to navigate through the last 20 pattern points. This button only appears when the pattern has been paused.

Save

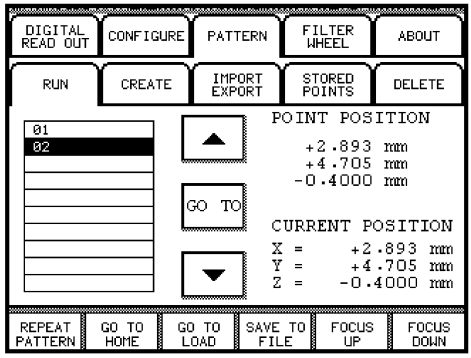
This gives you the option of saving points so you can go back and review them at the end of the pattern. If you press SAVE a message appears to say the number of saved points. You cannot save the same point twice.

Repeat Pattern

This gives you the option of repeating the pattern just run.

6.4 Reviewing Saved Points

If while running a pattern you saved some points, at the end of the pattern a Points review screen will appear. This shows a pick list of points, the coordinates of the current highlighted point and the current position. To go to the highlighted point press GO TO.



Repeat Pattern

This gives you the option of repeating the pattern just run.

Go to Home

This button moves the stage to the HOME position.

Go to Load

This button moves the stage to the LOAD position.

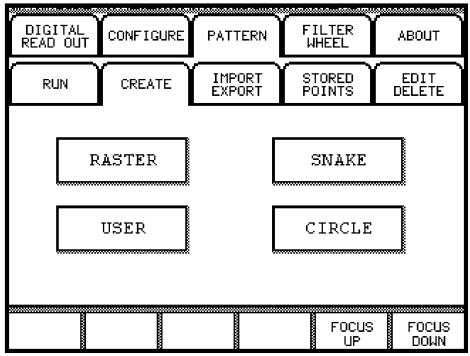
Save To File

This button allows you to save the set of points to a local file. After pressing the button a screen appears with a default name which you can change. You must press OK to save the points. You can then go back to review these points using the Stored Points tab (see STORED POINTS). There can be up to 200 files stored.

6.5 Create

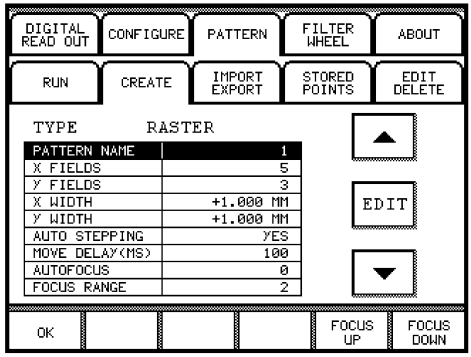
This provides a choice of the four pattern types. Touch the desired pattern type.

The pattern will be created and given a default name. This can be left or the pattern can be given a more meaningful name of up to 11 characters. The pattern will show the values of the last pattern used or created of that type. If this is the first pattern created of that type, default values will be set.



Raster / Snake

The creation of raster and snake patterns is the same.



OK

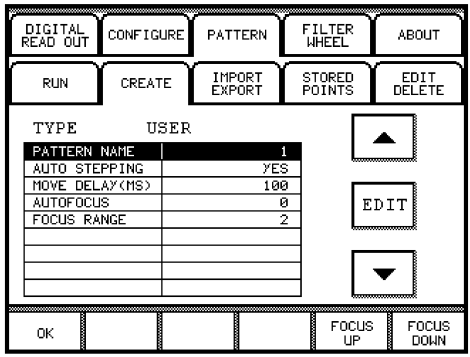
This button accepts the current settings in the list box and moves on to storing the patterns start points.

List Box Items

Item	Description	Change Method
Pattern Name	The Pattern Name which can be up to 11 characters.	Text String Edit Screen
X Fields	This is the number of moves in the X axis, a value of zero means there is only one field in the X axis.	Number Edit Screen
Y Fields	This is the number of moves in the Y axis, a value of zero means there is only one field in the Y axis.	Number Edit Screen
X Width	This is the width of each field in the X axis. The number will be displayed in the current units.	Number Edit Screen
Y Width	This is the width of each field in the Y axis. The number will be displayed in the current units.	Number Edit Screen

Item	Description	Change Method
Auto Stepping	Enables / Disables automatic stepping. Automatic stepping causes the pattern to move to a position wait for a time specified by move delay and then move to the next position.	Toggle Yes, No
Move Delay(ms)	The delay time at each position in milliseconds	Number Edit Screen
Auto Focus	This field says how many moves to make before an auto focus is done. If the value is 0 no auto focusing is done.	Number Edit Screen
Focus Range	This specifies the focus range for the auto focus, the value is in the range 0 to 5 inclusive. See the ProScan manual for an explanation of focus range.	Number Edit Screen

User



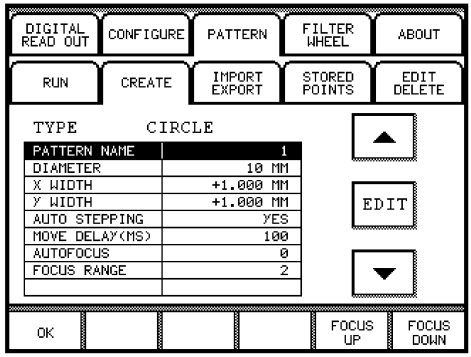
OK

This button accepts the current settings in the list box and moves on to storing the patterns start points.

List Box Items

Item	Description	Change Method
Pattern Name	The Pattern Name which can be up to 11 characters.	Text String Edit Screen
Auto Stepping	Enables / Disables automatic stepping. Automatic stepping causes the pattern to move to a position wait for a time specified by move delay and then move to the next position.	Toggle Yes, No
Move Delay(ms)	The delay time at each position in milliseconds	Number Edit Screen
Auto Focus	This field says how many moves to make before an auto focus is done.	Number Edit Screen
Focus Range	This specifies the focus range for the auto focus, the value is in the range 0 to 5 inclusive. See the ProScan manual for an explanation of focus range.	Number Edit Screen

Circle



OK

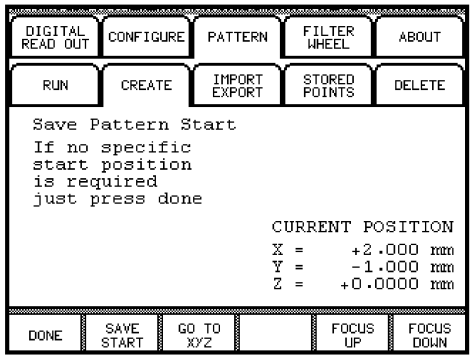
This button accepts the current settings in the list box and moves on to storing the patterns start points.

List Box Items

Item	Description	Change Method
Pattern Name	The Pattern Name which can be up to 11 characters.	Text String Edit Screen
Diameter	This is the diameter of the circle in millimeters.	Number Edit Screen
X Width	This is the width of each field in the X axis. The number will be displayed in the current units.	Number Edit Screen
Y Width	This is the width of each field in the Y axis. The number will be displayed in the current units.	Number Edit Screen
Auto Stepping	Enables / Disables automatic stepping. Automatic stepping causes the pattern to move to a position wait for a time specified by move delay and then move to the next position.	Toggle Yes, No
Move Delay(ms)	The delay time at each position in milliseconds	Number Edit Screen
Auto Focus	This field says how many moves to make before an auto focus is done.	Number Edit Screen
Focus Range	This specifies the focus range for the auto focus, the value is in the range 0 to 5 inclusive. See the ProScan manual for an explanation of focus range.	Number Edit Screen

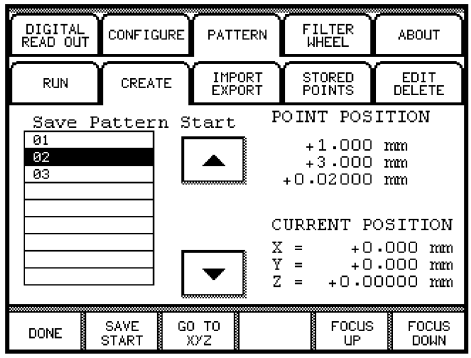
6.6 Storing Pattern start points.

After you OK the pattern create list box information you will be asked to save Pattern Start Points. Move to the desired start point and press SAVE START. There is a mini Digital Read Out at the bottom right hand corner of the screen showing the current position. If you want to go to a specific position you can use the GO TO XYZ button at the bottom of the screen (see Go to XYZ section 0). If you do not want to save any start points press DONE.



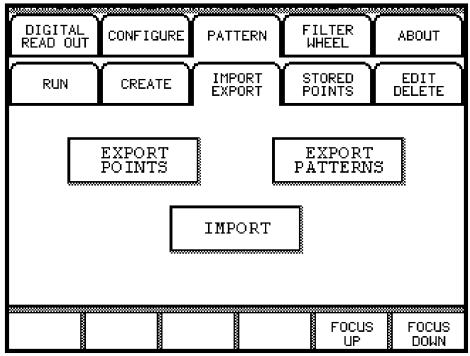
After the first press of SAVE START a pick list appears which shows a list of start points saved. If you press the SAVE START button again without moving the point will not be saved for a second time. However if you move to a new point and press SAVE START this will appear in the next line of the pick list. The Point Position display at the top right hand corner shows the coordinates of the current highlighted cell in the pick list.

When you have finished entering start points press DONE.



6.7 Import / Export

Import / Export allows for the Importing and exporting of points and patterns. On selecting the tab a choice is given between EXPORT POINTS, EXPORT PATTERNS, and IMPORT as shown below. For all import and export operations underscore is used in place of the space character.



Export Patterns

If you select EXPORT PATTERNS a pick box appears as for Pattern Run but the center function box is marked EXPORT. Once you have selected the pattern to export press the export key. The pattern will be exported along the auxiliary serial port. The pattern will be tab delimited in the format shown below.

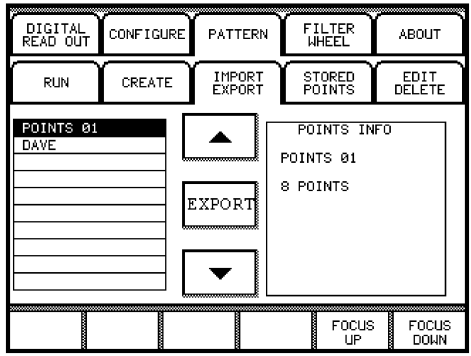
PATTERN			
NAME	SNAKE__01		
TYPE	SNAKE		
X_FIELDS	5		
Y_FIELDS	2		
X_WIDTH	+1.000 mm		
Y_WIDTH	+1.000 mm		
AUTO_STEP	YES		
STEP_DELAY	100 ms		
FOCUS_EVERY	0		
FOCUS_RANGE	2		
START_POINTS	1		
POINT	X	Y	Z
1	-1.000 mm	+0.000 mm	+0.0000 mm
END			

```
PATTERN
NAME            USER__PAT1
TYPE            USER
AUTO_STEP       YES
STEP_DELAY      100 ms
FOCUS_EVERY     0
FOCUS_RANGE     2
START_POINTS    5
POINT           X             Y             Z
1               +4.000 mm     +2.000 mm     +0.0000 mm
2               +2.000 mm     +2.000 mm     +0.0000 mm
3               +0.000 mm     +2.000 mm     +0.0000 mm
4               +0.000 mm     +4.000 mm     +0.0000 mm
5               +0.000 mm     +0.000 mm     +0.0000 mm
END
```

```
PATTERN
NAME            CIRCLE_01
TYPE            CIRCLE
DIAMETER        5 mm
X_WIDTH         +1.000 mm
Y_WIDTH         +1.000 mm
AUTO_STEP       YES
STEP_DELAY      100 ms
FOCUS_EVERY     0
FOCUS_RANGE     2
START_POINTS    1
POINT           X             Y             Z
1               +0.000 mm     +0.000 mm     +0.0000 mm
END
```

Export Points

If you select the EXPORT POINTS Button a pick list of stored point files is shown.

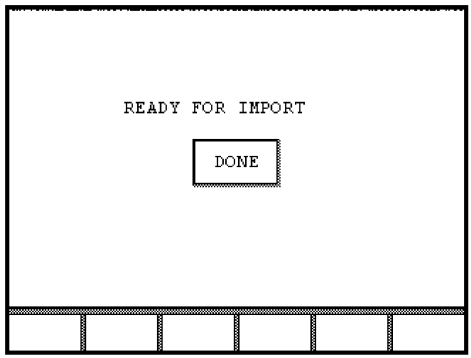


The box on the right hand side of the screen shows the points file name and number of points it contains. The EXPORT button starts the export for the highlighted cell. The output format is shown below.

POINTS			
NAME	POINTS_01		
NO_OF_POINTS	8		
POINT	X	Y	Z
1	+2.995 mm	+4.000 mm	+0.00000 mm
2	+5.995 mm	+4.000 mm	+0.00000 mm
3	+4.133 mm	+5.000 mm	+0.00000 mm
4	+4.000 mm	+6.000 mm	+0.00000 mm
5	+4.000 mm	+6.000 mm	+0.00000 mm
6	+6.000 mm	+6.000 mm	+0.00000 mm
7	+8.000 mm	+6.000 mm	+0.00000 mm
8	+10.000 mm	+6.000 mm	+0.00000 mm
END			

Import

On pressing the IMPORT button the screen displays a message saying that it is ready for import. You may now send as many patterns or points as you wish, and when you are finished press the DONE button. The touch screen accepts the same format for import as for export.



Hyper Terminal and Pattern Import / Export

You can use Hyper terminal to import and export files, follow the sequence below Using Hyper terminal to import and export files.

To capture a file onto your PC.

1. Open hyper terminal with the setting as below.
    - Bits per second 9600
    - Data Bits 8
    - Parity None
    - Stop Bits 1
    - Flow control None
2. Select the Transfer pull down menu
3. Select Capture Text
4. Enter a file name to store the file as.
5. Select the file on the touch screen and press EXPORT
6. Select the Transfer pull down menu
7. Select Capture Text
8. Select Stop. The file is now saved on the PC as a text document.

The files captured could be imported into a spread sheet such as excel as follows.

To import the file into Excel

1. Open Excel
2. Select the File Pull down Menu
3. Select Open File
4. Select the file as saved above.
5. A Text Import Wizard will open.
6. Select Finish and the file will be Imported.

To copy files from a spread sheet to the controller, select the pattern. Copy the pattern you wish to copy to the clipboard (see Windows manual for details). Connect the hyper Terminal session as above and paste the clipboard to the host.

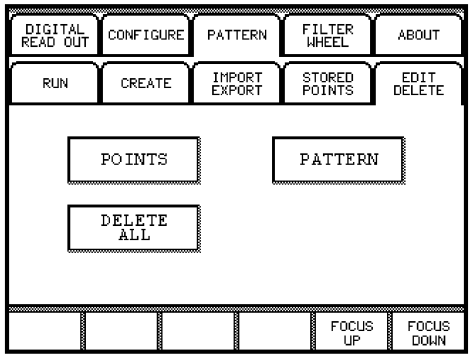
6.8 Stored Points

If you select the Stored Points tab a pick list of stored point files is shown. As for EXPORT except there the Export button is replaced with an OK button. The OK button selects the highlighted file.

You then have a screen for points review as before except there is no option to save the file.

6.9 Edit / Delete

This allows you to delete patterns or points from the list.



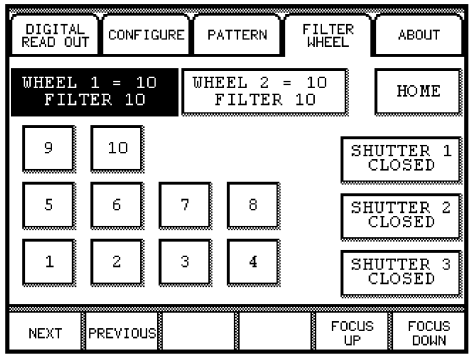
If you pick Points, or Patterns you are then given a pick list to choose what to delete. If you select DELETE ALL all patterns and points are deleted.

Filter Wheel

This screen is intended to control the Filters and Shutters. All filter moves are done using the shortest route. The active wheel (the filter wheel commands act on) is shown in reverse video (white on black), On the display below wheel 1 is the active wheel.

The number after the equals sign in the wheel box is the current position of the wheel. The second line of text displays the name assigned to that particular filter. The names are user configurable.

View



Next

This button rotates the wheel on to the next filter position. If the wheel is at filter position 10 (or the last on the wheel) it will move to filter 1.

Previous

This button rotates the wheel on to the previous filter position. If the wheel is at filter position 1 it will move to the last filter position on the wheel.

Buttons 1 to 10

These buttons rotates the wheel to the filter position as indicated by the button.

Home

This button rotates the wheel to find the reference position marker on the wheel. The wheel is then rotated to filter position 1.

SHUTTER 1/2/3

The Shutter 1/2/3 function boxes displays the current state of the shutter. If the key is pressed the shutter is opened if it is closed, or closes it if it is open.

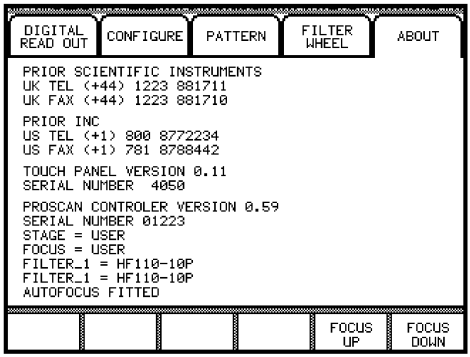
About

Section 8

About

This screen shows contact information about Prior. It also show information about the controller and peripherals attached. The version and serial numbers of the controller and touch screen are shown.

View



CERTIFICATE NO: FM 61600
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