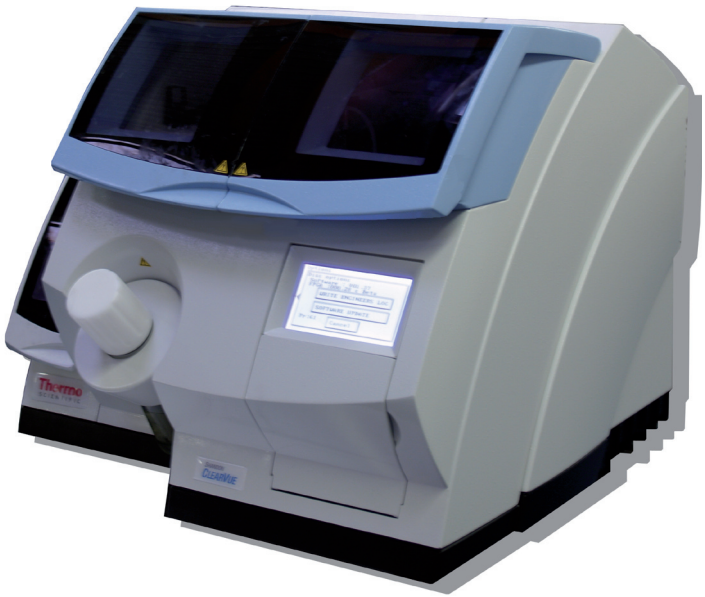
Shandon ClearVue™
Operator Guide - English
A79210100 - Issue 3



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CE

The Shandon ClearVue meets the following CE Mark requirements:

In Vitro Diagnostic Directive 98/79/EC

Low Voltage Directive 2006/95/EC, as amended by 93/68/EEC.

MET c US

E112715
UL61010-1
CSA C22.2 No 61010-1

This IVD equipment complies with the emissions and immunity requirements of IEC 61326-2-6:2006.

This equipment has been designed and tested to CISPR 11 Class A. In a domestic environment it may cause radio interference, in which case it may be necessary to take measures to mitigate the interference.

The electromagnetic environment should be evaluated prior to operation of the device.

Do not use this device in close proximity to sources of strong electromagnetic radiation (eg: unshielded intentional RF sources) as these may interfere with the proper operation.

The Shandon ClearVue™ is referred to throughout this document as the Shandon ClearVue.

Symbols

The following symbols and conventions are used throughout this manual and on the instrument.

THIS SYMBOL IS USED ON THE EQUIPMENT, OR IN A DOCUMENT, TO WARN THAT INSTRUCTIONS MUST BE FOLLOWED FOR SAFE AND CORRECT OPERATION. IF THIS SYMBOL APPEARS ON THE INSTRUMENT, ALWAYS REFER TO THIS OPERATOR GUIDE.

THIS SYMBOL IS USED ON THE EQUIPMENT, OR IN A DOCUMENT, TO WARN THAT THERE MAY BE A BIOHAZARD ASSOCIATED WITH THE INSTRUMENT. ALWAYS ACT WITH COMMON SENSE AND BE AWARE OF THE SAMPLES USED. TAKE SUITABLE PRECAUTIONS.

THIS SYMBOL IS USED ON THE EQUIPMENT, OR IN A DOCUMENT, TO WARN THAT HARMFUL CHEMICALS ARE USED WITH THE INSTRUMENT. REFER TO THE MATERIAL SAFETY DATA SHEETS FOR THE CHEMICALS USED. ALWAYS ACT WITH COMMON SENSE AND BE AWARE OF LOCAL LABORATORY PROCEDURES. TAKE SUITABLE PRECAUTIONS.

A warning is given in the document if there is a danger of personal injury or damage to samples or equipment.

Note
Notes give more information about a job or instruction but do not form part of the instructions.

Contents

How to Use This Guide

Introduction

The Shandon ClearVue is a high throughput, automated coverslipper intended for use in laboratories by operators familiar with coverslipping techniques and laboratory equipment.

Before operating this instrument the user should have read and understood the **Safety** section of the **Safety and Warranty Booklet (A79910001)**.

Chapter Summary

Chapter 1 - Introducing the Shandon ClearVue - This chapter gives a tour of the instrument and its features. It describes the different parts of the instrument and gives general information with regards to interfacing with the system.

Chapter 2 - Basic Operation - This chapter is intended to supplement the information given in the **Quick Start Guide (A79210120)**.

Chapter 3 - Settings - This chapter covers the more advanced features available on the Shandon ClearVue. The information contained in this chapter is intended to allow experienced operators to increase the versatility of the Shandon ClearVue.

Chapter 4 - Troubleshooting - This chapter is intended to help operators identify and cure common problems.

Chapter 5 - Cleaning and Maintenance - This chapter lists the day-to-day cleaning routines required for the safe and reliable operation of the Shandon ClearVue. It also contains the methods required to perform many of the remedies listed in the **Troubleshooting** section of this document.

1 - Introducing the Shandon ClearVue

1-1 - Introduction

The Shandon ClearVue is a high-throughput, precision engineered, slide coverslipper, capable of coverslipping 250 slides every hour in a precise and efficient manner.

The Shandon ClearVue has been designed for general laboratory use, and can handle baskets from the following stainers:

- **Shandon Varistain® Gemini** (Inc. ES Variant)
- **Shandon Varistain® 24-4**
- **Leica Autostainer**
- **Sakura Tissue-Tek® DRS 2000™ Series**

The Shandon ClearVue is capable of having multiple baskets loaded at once in any order from any of the above stainers.

High quality, 3"x1" microscope slides must be used with the baskets.

1-2 - Compatibility

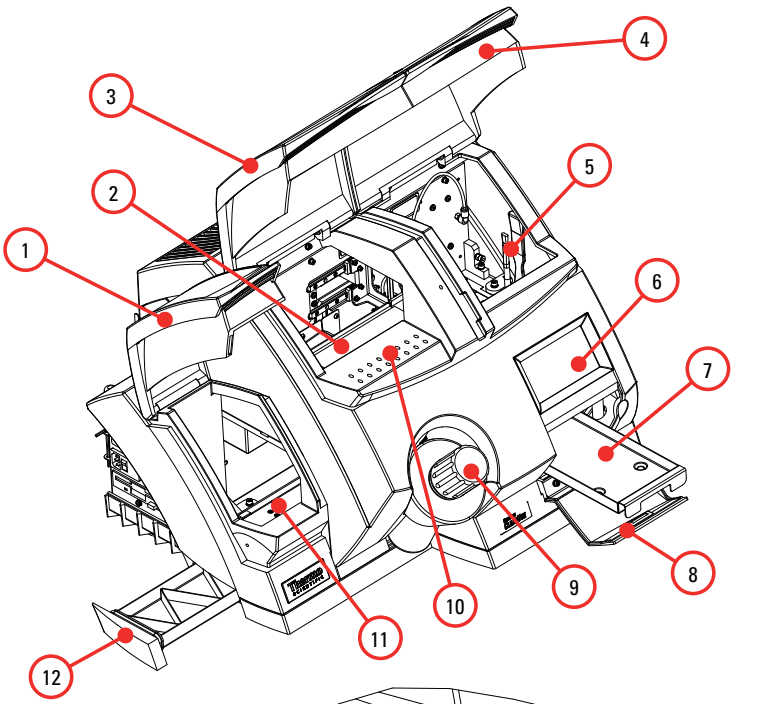
The Shandon ClearVue is compatible with the following sizes of coverslips:

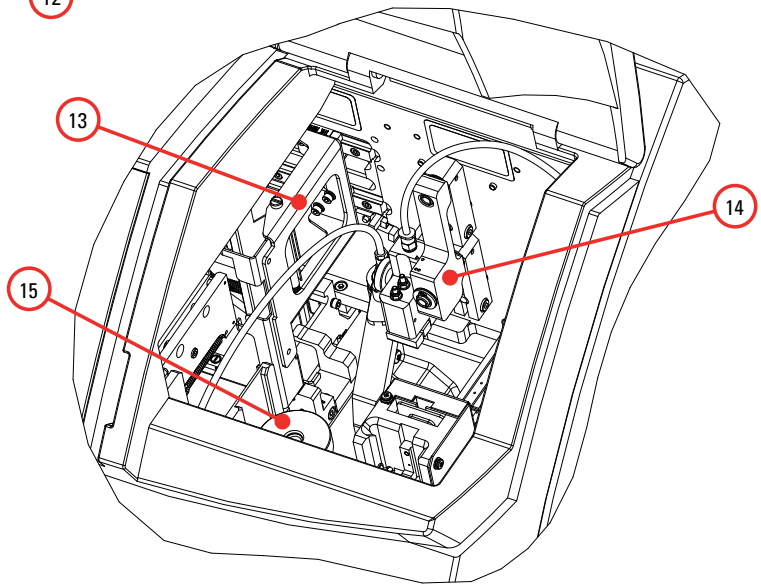
- **No. 1.5 x 24 x 40 mm**
- **No. 1.5 x 24 x 50 mm**
- **No. 1.5 x 24 x 55 mm**

The following slide dimensional tolerances are permissible:

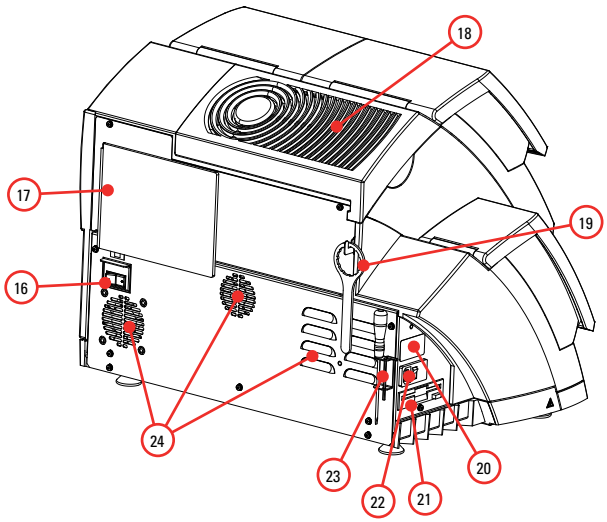
Length	74.5 -76.0 mm
Width	24.5 - 26.0 mm
Thickness	0.8 - 1.2 mm

1-3 - Identification of Parts

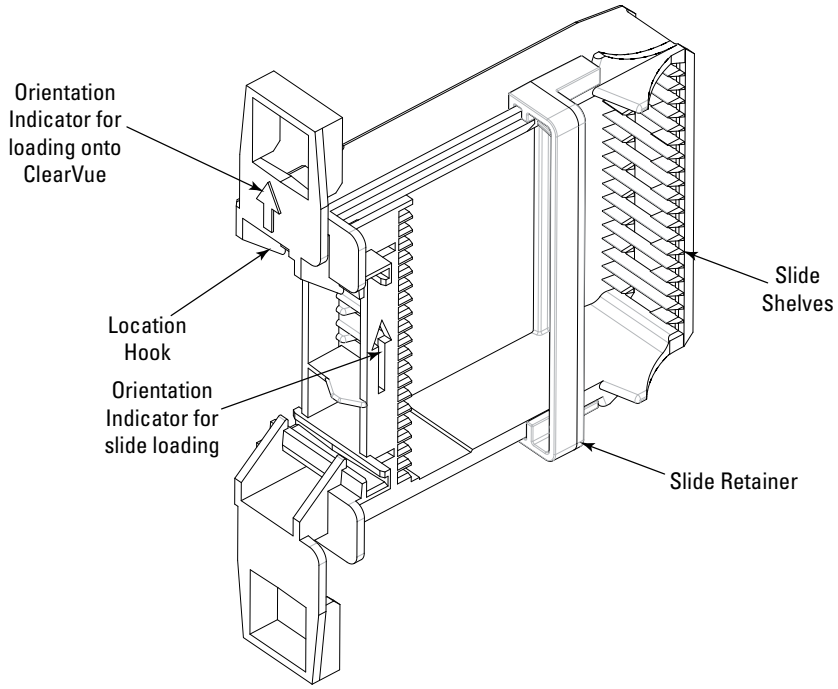




View through Access Door



1. Load Door
2. Unload Rail
3. Unload Door
4. Access Door
5. Cleaning Brushes
6. Touch Screen
7. Debris Tray
8. Debris Tray Door
9. Mountant Bottle
10. Downdraft Ventilation
11. Load Rail
12. Xylene Tray
13. Basket Unload Bracket
14. Coverslip Transfer Head
15. Dispense Head Cleaning Station
16. Battery Isolation Switch
17. Service History Booklet
18. Filter Cover
19. Mountant Bottle Cap Removal Tool
20. Rating Plate
21. 3½" Floppy Disk Drive
22. Main Power Switch, Fuses and Connector
23. Screwdriver and Allen Key
24. Vents for Electronics Enclosure



Example of a Shandon Varistain Gemini Basket

1-4 - System Interfacing

The **Touch Screen** panel is the primary user interface mode on the Shandon ClearVue.

It is used to input data, operate the manual functions and inform the user of instrument data.

In addition, the Shandon ClearVue will issue audible alerts when appropriate.

General operation of the Shandon ClearVue is started by opening and closing the **Load Door**.

Stopping and restarting the Shandon ClearVue is controlled by the software to ensure safety, whilst at the same time making sure that the samples are not compromised.

Opening any of the doors will not necessarily cause the Shandon ClearVue to stop running; therefore care should be taken when adding or removing baskets.

1-5 - System Specification

Dimensions		
Height	500 mm	19.7″
Width	645 mm	25.4″
Depth	575 mm	22.6″
Weight	48 kg	106 lbs

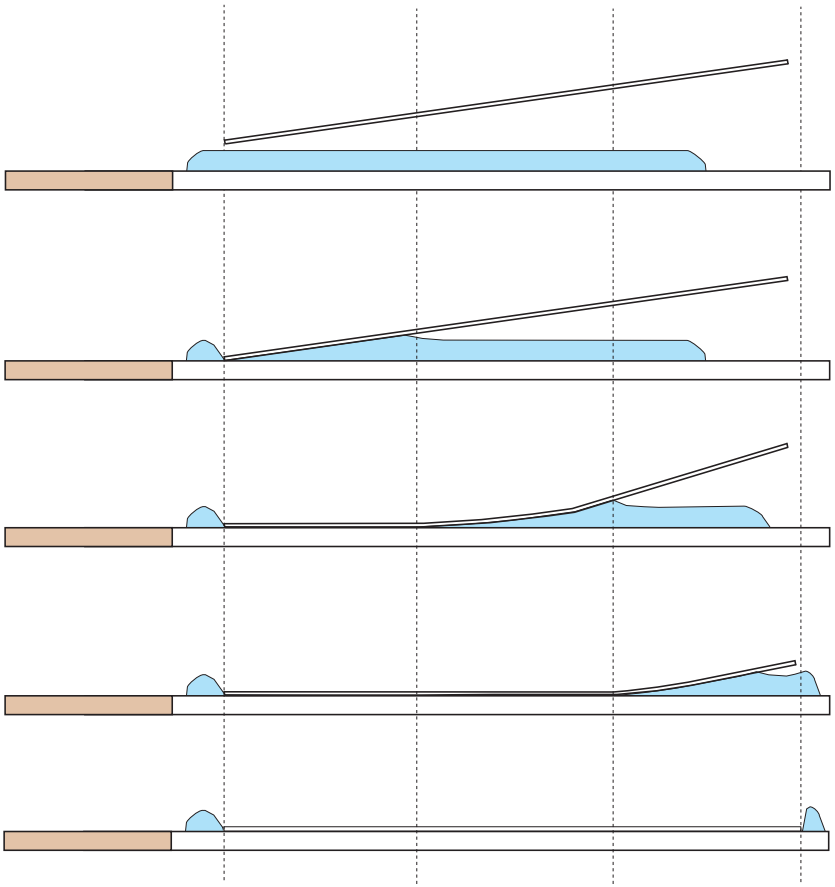
Electrical Specification	
Voltage	100 - 240 V_{ac}
Frequency	50 / 60 Hz
Power (max)	300 VA
Earth Leakage	< 500 μA at 110-120 V_{ac}
Fuses	T 6.3 A, 250 V
Internal Batteries	Sealed Lead Acid type. Not user replaceable.

Environmental Requirements	
Warning - For Indoor Use Only	
Temperature (Operating Limits)	+5°C to +40°C (+41°F to +104°F)
Temperature (Recommended Operation)	+15°C to +30°C (+59°F to +86°F) *Note: Performance may deteriorate when operated outside of this temperature range.*
Temperature (Transport & Storage)	-25°C to +55°C (-13°F to 131°F) +70°C (158°F) for short exposure
Relative Humidity	Max. 80% RH up to 31°C Decreasing linearly to 50% RH at 40°C
Altitude	Up to 2000 m (6,500 ft)
Pollution Degree	2
Over Voltage Category	II

1-6 - Coverslipping Method

The Shandon ClearVue has been specifically designed to ensure consistent, high quality, coverslipping.

The following diagram shows how the coverslip is laid:



This method of coverslipping has been proven, through rigorous testing, to minimize bubbles and ensure complete adhesion to the slide.

2 - Basic Operation

The following chapter describes the basic operational tasks required to run the Shandon ClearVue on a daily basis.

2-1 - Daily Tasks

The following tasks should be carried out at least once a day:

Top-up the Dispense Head Cleaning Station (*see Section 2-8)* - wipe the top with a xylene

Check the number of Coverslips in the Hopper and replace if necessary - *see Section 2-12.*

Check the level of Mountant and top-up if necessary - *see Section 2-5.*

Wipe the Suction Cup with a xylene damp cloth to ensure it is clean and free from debris - Replace if necessary - *see Section 5-2-4.*
Ensure Suction Cup is dry before use.

Clean Gripper Return Plate - *see Section 5-2-9.*

2-2 - Weekly Tasks

The following tasks should be carried out at least once a week:

Empty, clean and refill the Dispense Head Cleaning Station - *see Section 5-2-3.*

Remove any discarded coverslips from the Slip Dispense Area and clean the Slip Dispense Carriage - *see section 5-2-6.*

Remove the Coverslip Transfer Head - *see Section 5-2-4* - **to check that the Pads and the Suction Cup are clean and free of Mountant. Wipe the Pads with a xylene damp cloth to clean**

Check the level of xylene in the Xylene Tray - *see Section 2-4.*

Empty the Debris Tray - *see Section 2-6.*

Check the Purge Tray and replace if necessary - *see Section 2-6.*

Clean the Slip Dispense Skirt - *see Section 5-2-10*

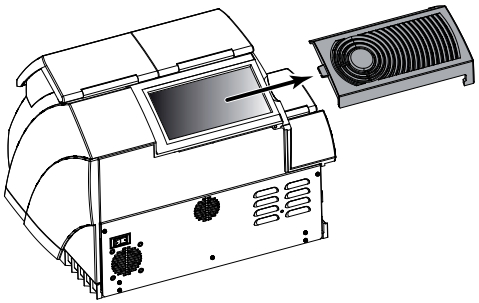
2-3 - Changing the Carbon Filter

Thermo Fisher Scientific recommends that the Shandon ClearVue be used with the **Vent Adaptor Kit** fitted.

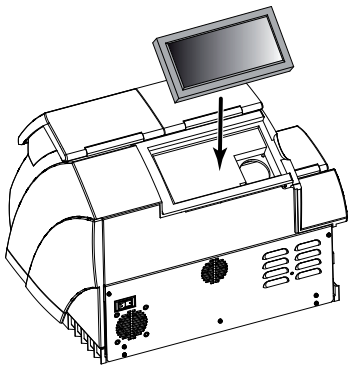
If **Carbon Filters** are being used it is important to ensure that they are changed regularly, to comply with local legislation on vapour exposure limits.

To change the **Carbon Filter**:

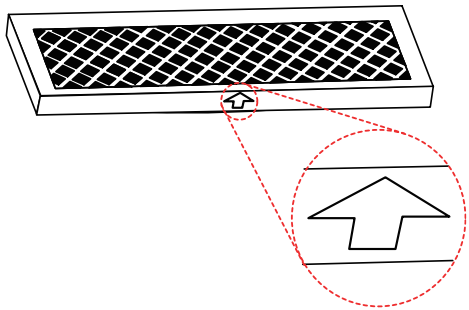
1. Slide the **Filter Cover** off to gain access to the **Carbon Filter**.



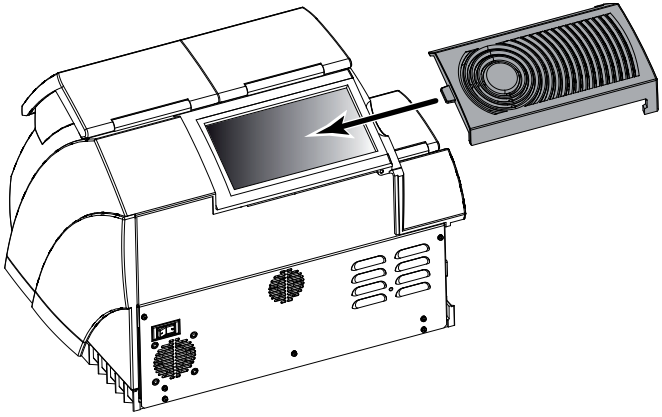
2. Lift the **Carbon Filter** out of the chamber and dispose of according to local regulations.
3. Remove the cellophane wrapping from a new C**arbon Filter** and place into the chamber.



4. Ensure the Airflow Directional Arrow is pointing upwards.



5. Slide the **Filter Cover** back into position making sure it is firmly clipped into place.



Write the installation date on the Carbon Filter using a permanent marker to ensure proper record keeping.

2-3-1 - Fitting the Extraction Kit

An optional **Extraction Kit** (A79210080) is available, which allows fumes to be vented into a fume cupboard, hood or the outside atmosphere.

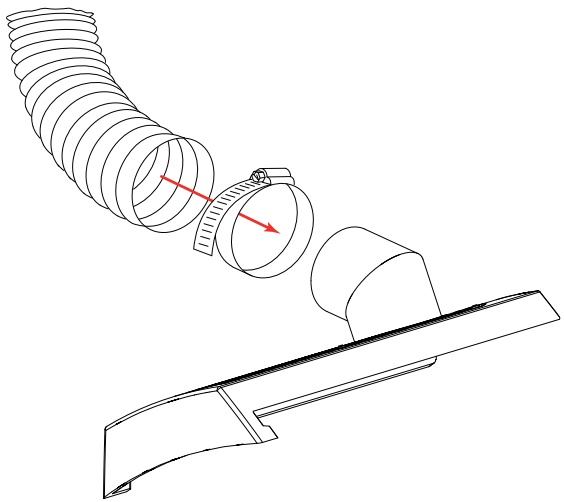
The Extraction Kit should not be used to extract fumes through the building HVAC system or through a common site extraction system!

The **Extraction Kit** comprises of the following parts:

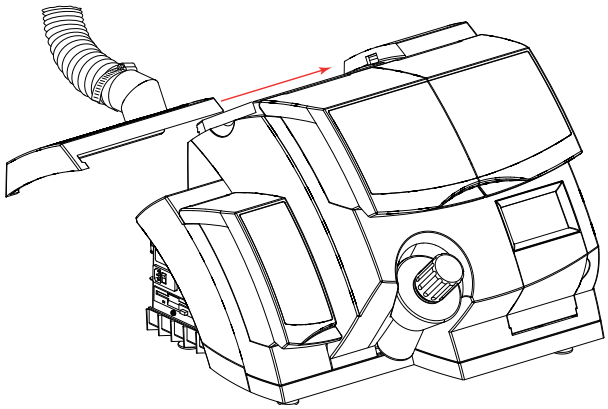
- **Filter Cover with Duct Adaptor**
- **Jubilee Clip**
- **2.5m Ducting Tube**

To fit the **Extraction Kit**:

- Fit the **Ducting tube** and **Jubilee Clip** to the **Duct Adaptor** as shown.



- Replace the **Filter Cover** with the assembled **Extraction Kit**.



Do not remove the Carbon Filter!

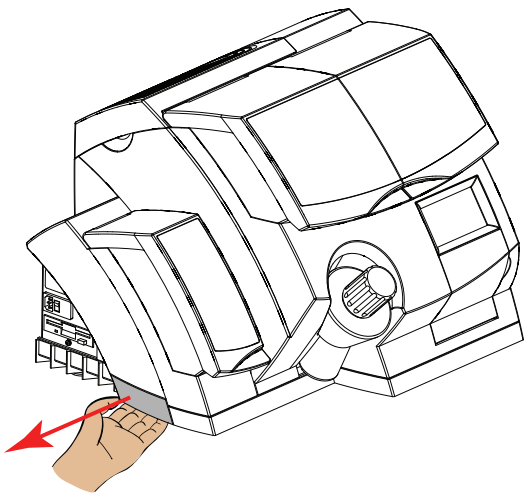
2-4 - Maintaining the Correct Xylene Tray Level

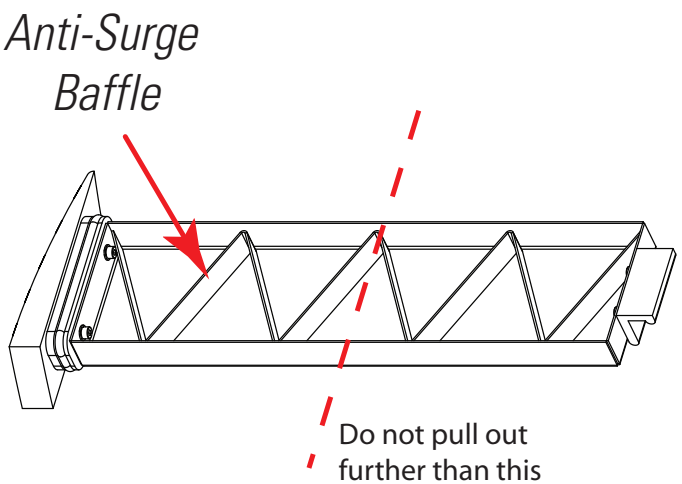
The **Xylene Tray** is intended to provide a xylene rich atmosphere to prevent slides on the **Load Rail** from drying out.

The **Xylene Tray** should be checked **every week** and topped up or emptied as required.

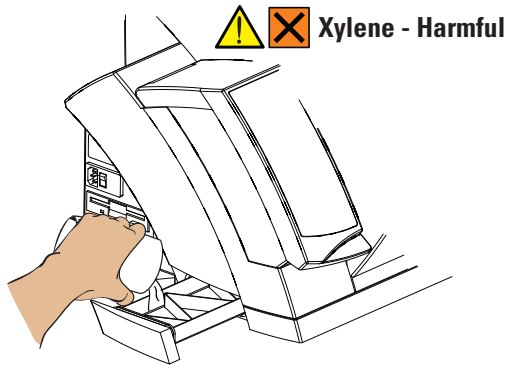
To fill the **Xylene Tray**:

1. Slide the **Xylene Tray** out about half way , taking care not to spill any remaining xylene.

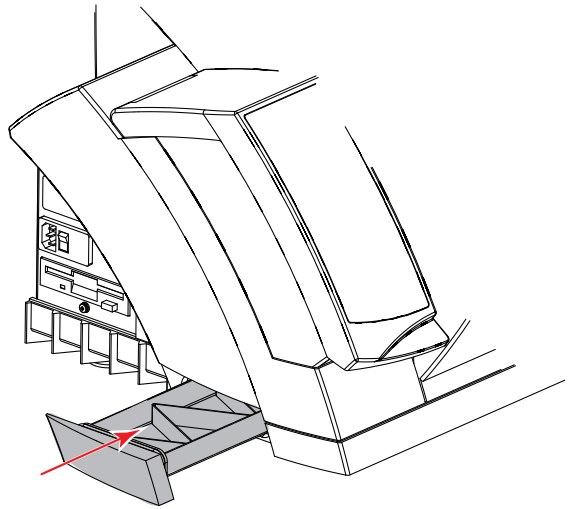




2. Carefully pour xylene into the **Xylene Tray** or remove using a pipette as required .



3. The depth of the xylene should be approximately half-way up the **Anti-Surge Baffle**.
4. Slowly close the **Xylene Tray** completely to ensure that the seal is properly engaged.



Alternatively, it is possible to open the **Load Door** and pour xylene into the **Xylene Tray** using a small beaker.

If this method is used and there are no **Baskets** waiting on the **Load Rail**, the Shandon ClearVue will perform a routine check after the **Load Door** has been closed.

If **Baskets** are loaded the Shandon ClearVue will begin coverslipping when the **Load Door** is closed.

2-5 - Filling the Mountant Bottle

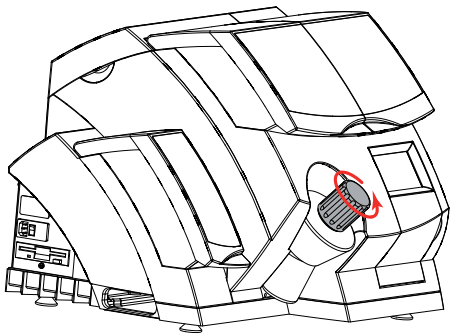
The Mountant Bottle supplies **Mountant** to the **Dispense Head**.

It is strongly advised not to allow the **Mountant Bottle** to run dry.

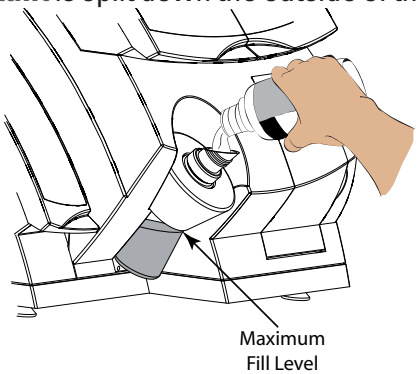
Most Mountants are harmful!

To fill the **Mountant Bottle**:

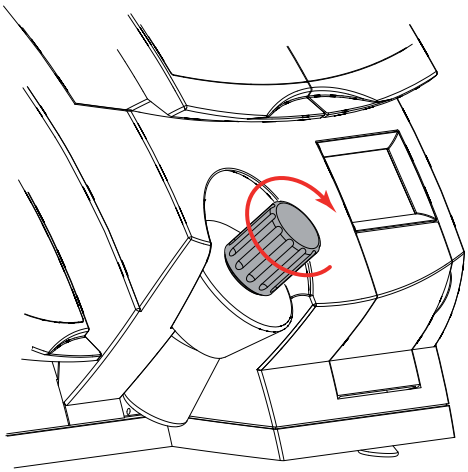
1. Remove the **Mountant Bottle Cap** by screwing it anti-clockwise by hand, or with the **Cap Removal Tool**.



2. Carefully pour **Mountant** into the open end of the **Mountant Bottle** until the liquid reaches the bottom of the collar as shown - Ensure no **Mountant** is spilt down the outside of the bottle.



3. Replace the **Mountant Bottle Cap** and tighten it fully.



Do not overfill the Mountant Bottle.

Ensure no Mountant reaches the Air Vent on the spout as this will cause the instrument to cease operation.

Do not use the Cap Removal Tool, or any mechanical means, to tighten the Mountant Bottle Cap.

Notes:

De-Gas the Mountant Bottle (see Section 2-9) after filling.

If the Mountant Bottle has been allowed to run dry, or the level has fallen below the bottom of the internal pipe, it will be necessary to:

1 - Fill the Mountant Bottle as shown above.

2 - De-gas the Mountant Bottle.

3 - Flush the system to remove any air from the pipes.

2-6 - Changing the Purge Tray and Debris Tray

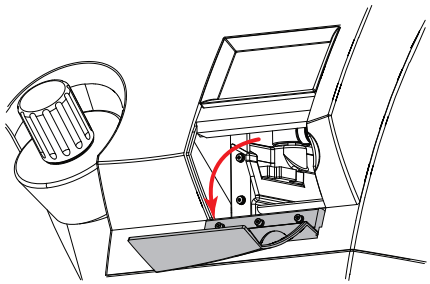
The **Purge Tray** is used as a recepticle for expelled **Mountant** and **Xylene**.

The volume of fluid in the **Purge Tray** should be checked prior to carrying out either a **Flush** or **Purge** function.

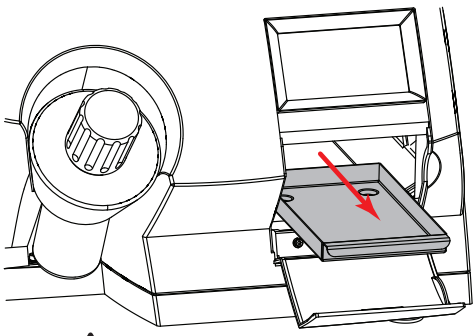
The **Debris Tray** contains any **Coverslips** which have been discarded or broken during coverslipping.

To change the **Purge Tray** and empty the **Debris Tray**:

1. Open the **Debris Tray Door**.

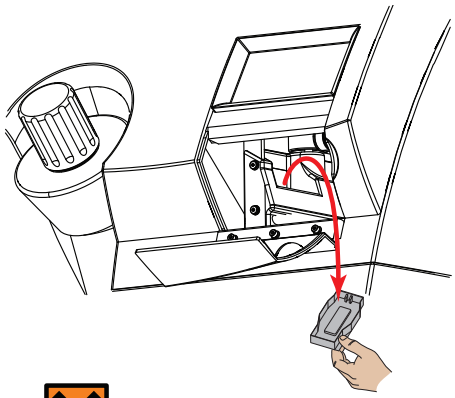


2. Remove the **Debris Tray** and dispose of the contents according to local regulations.



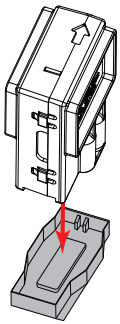
Broken Glass

3. Reach into the instrument as shown and, using the tab, carefully lift the **Purge Tray** down off its shelf.



Harmful Chemicals

4. Dispose of the used **Purge Tray** according to local regulations.
5. Either:
   Unpack a new **Coverslip Hopper**; the end cap doubles as a new **Purge Tray**.
   or
   Use one of the spare **Purge Trays** supplied with the instrument.



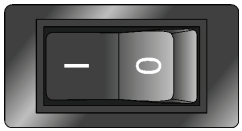
6. Place the new **Purge Tray** onto its shelf.
7. Replace the **Debris Tray**.
8. Close the **Debris Tray Door**.

2-7 - Starting Up the Shandon ClearVue

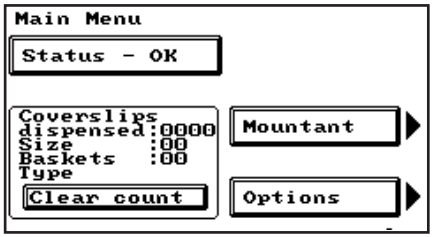
To start up the Shandon ClearVue:

1. Turn the **Mains Power Switch** to the On position **'I'**.

2. Turn the **Battery Isolation Switch** to the On position **'I'**.



3. When the **Language Select** screen appears, use the  and  keys on the **Touch Screen** to highlight the required language, and then press  .
4. The **Main Menu** will now be displayed. The system will carry out a series of automated checks and the Status will show 'Initialising'. When complete the Status will show 'OK'. The instrument is now ready to use.



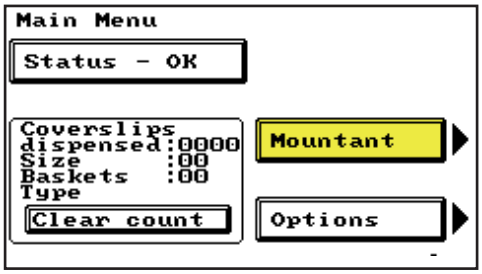
2-8 - Filling the Dispense Head Cleaning Station

The **Dispense Head Cleaning Station** ensures the **Dispense Head** does not get blocked with **Mountant**.

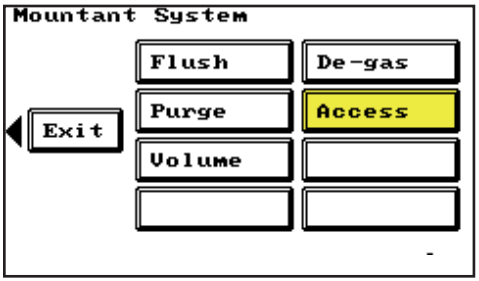
The **Dispense Head Cleaning Station** should contain enough Xylene for there to be a visible pool in the central well.

To Fill the **Dispense Head Cleaning Station**:

1. From the **Main Menu**, press the **Mountant** key on the **Touch Screen**.



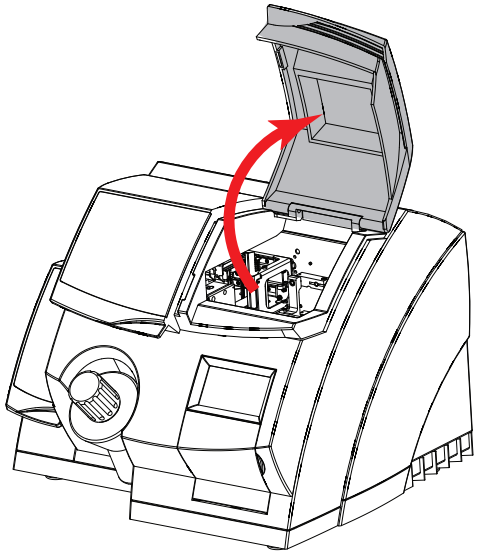
2. Press the **Access** key on the **Touch Screen**.



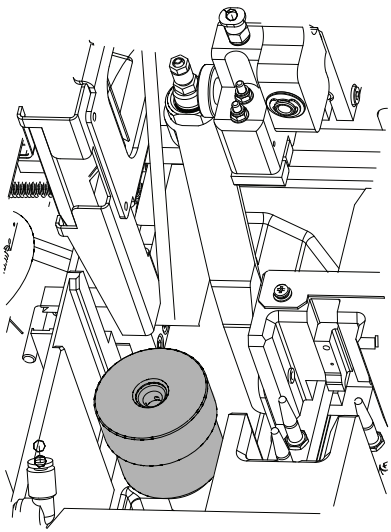
3. Press the **Start** key on the **Touch Screen**.

4. Wait for activity within the Shandon ClearVue to stop, and **Access Ready** to flash on the **Touch Screen.**

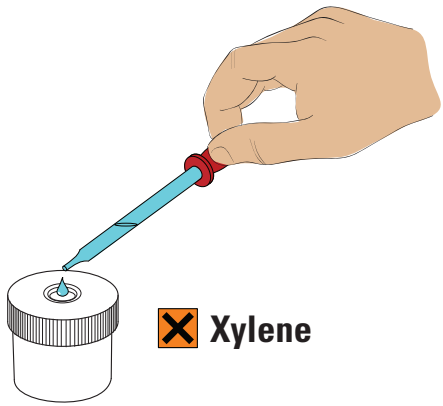
5. Open the **Access Door**.



6. The **Dispense Head Cleaning Station** should now be accessible from above.



7. The **Dispense Head Cleaning Station** can either be removed from the instrument - *see Section 5-2-3* - or left in-situ.
8. Drip Xylene into the **Dispense Head Cleaning Station** until it is at a level where it can be seen in the central well (approx. 18ml).



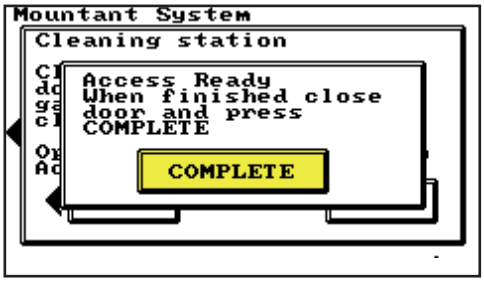
9. Use the end of the pipette to push the central well down, to ensure that the xylene levels are consistent.

Note:

Ensure that the central well re-seats itself properly.

10. If the **Dispense Head Cleaning Station** has been removed from the instrument, it can be filled easier by removing the **Dispense Head Cleaning Station Lid** and pouring xylene in up to the required level.

11. When finished, close the **Access Door** and press the **Complete** key on the **Touch Screen**.

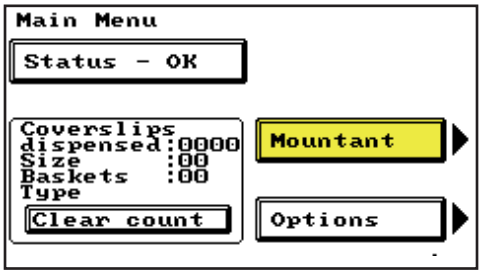


2-9 - De-Gassing the Mountant Bottle

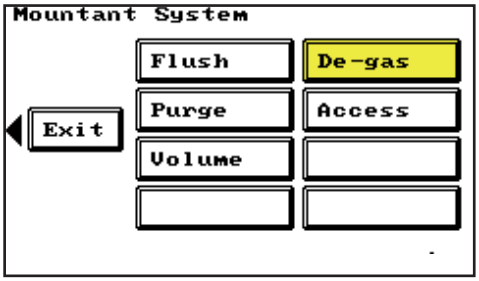
De-Gassing the **Mountant Bottle** will remove any air bubbles from the **Mountant**.

To De-Gas the **Mountant Bottle**:

1. From the **Main Menu**, press the **Mountant** key on the **Touch Screen**.

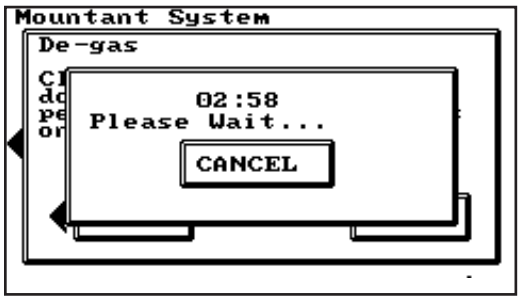


2. Press the **De-gas** key on the **Touch Screen**.

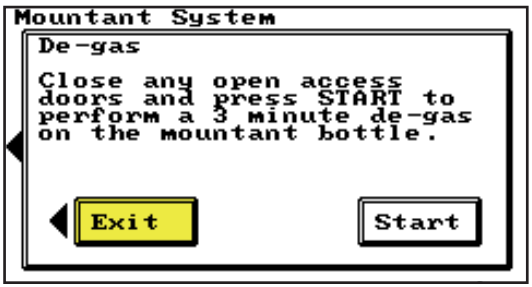


3. Press the **Start** key on the **Touch Screen**.

4. The Shandon ClearVue will now de-gas the **Mountant Bottle**.



5. When the Shandon ClearVue has stopped de-gassing the **Mountant Bottle** press the **Exit** key on the **Touch Screen**.



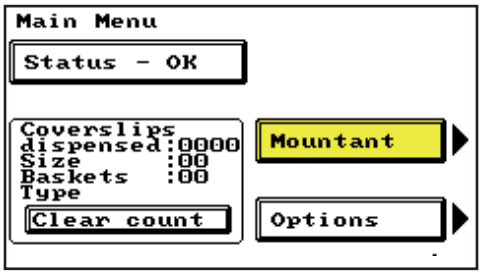
2-10 - Flushing the System

Flushing the system dispenses a large amount of **Mountant**.

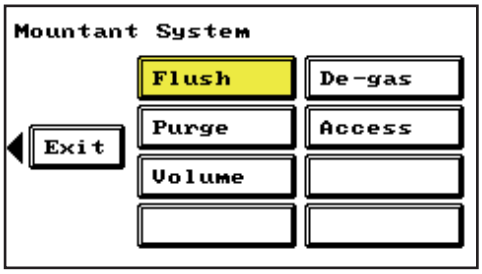
This function should only be used if the **Mountant Bottle** has run dry or when cleaning the system using xylene.

To flush the system:

1. Ensure the **Access Door** is closed.
2. From the **Main Menu**, press the **Mountant** key on the **Touch Screen**.

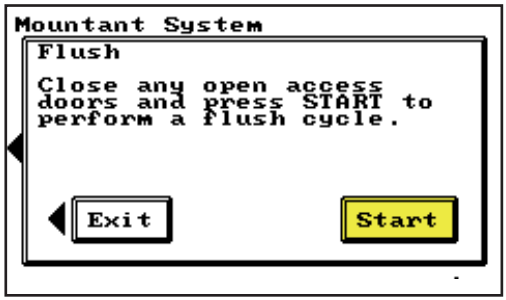


3. Press the **Flush** key on the **Touch Screen**.



4. Ensure the **Purge Tray** is empty and that there is sufficient **Mountant** (or xylene) in the **Mountant Bottle** (at least 80ml).

5. Press the **Start** key on the **Touch Screen**.



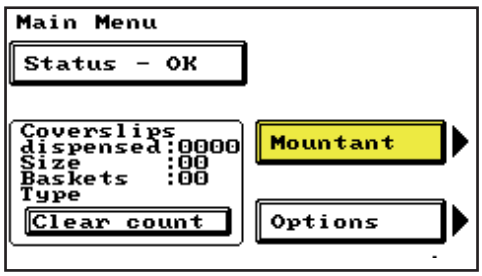
6. Wait for the activity within the Shandon ClearVue to stop, and then empty or discard the **Purge Tray** as described in *Section 2-6*.
7. Press the **Exit** key on the **Touch Screen**.

2-11 - Purging the System

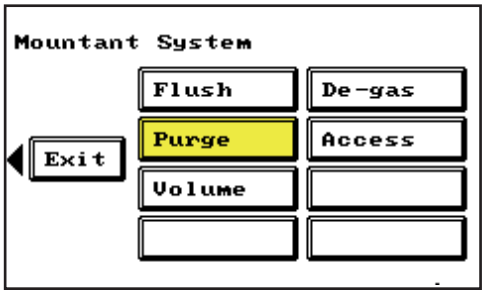
Purging the system is a routine procedure which dispenses a small amount of Mountant to ensure high-quality coverslipping.

To purge the system:

1. Ensure the **Access Door** is closed.
2. From the **Main Menu**, press the **Mountant** key on the **Touch Screen**.

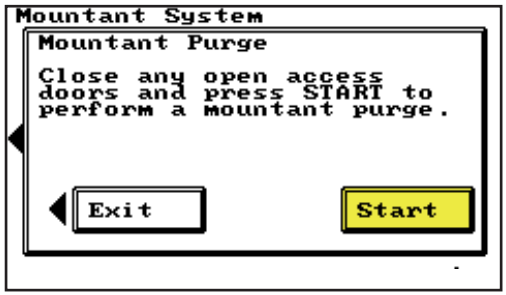


3. Press the **Purge** key on the **Touch Screen**.

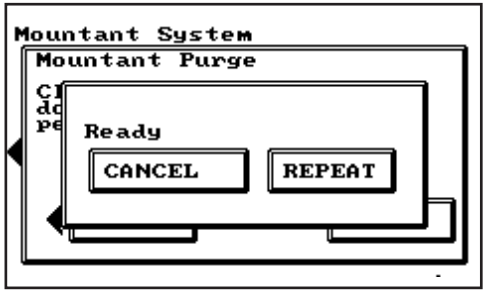


4. Ensure there is sufficient room in the **Purge Tray** before starting the **Purge** cycle.

5. Press the **Start** key on the **Touch Screen**.



6. Wait for the below screen to appear and the activity within the Shandon ClearVue to stop, and then empty the **Purge Tray** as described in *Section 2-6*.

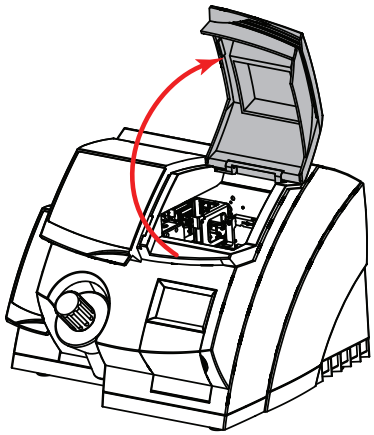


7. Press **Repeat** on the **Touch Screen** to restart the **Purge** process, or **Cancel** to exit.

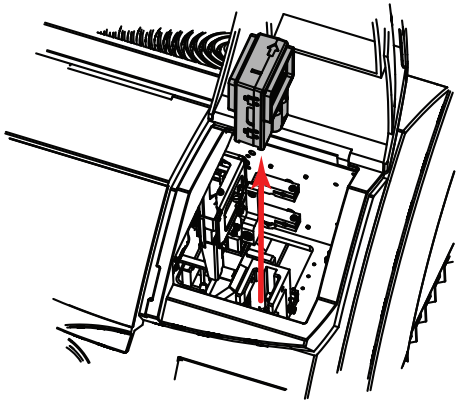
2-12 - Changing the Coverslip Hopper

To change the **Coverslip Hopper**:

1. Open the **Access Door**.



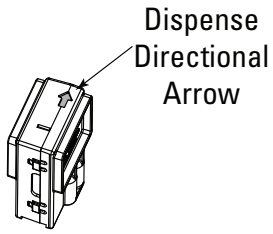
2. Remove the empty **Coverslip Hopper** by lifting it upwards.



Note:

If the Coverslip Hopper is not empty, use the end of the paintbrush provided to push the foam inside the Hopper down until it secures the remaining coverslips.

3. Unpack a new **Coverslip Hopper** and identify the **Dispense Directional Arrow** on the top.

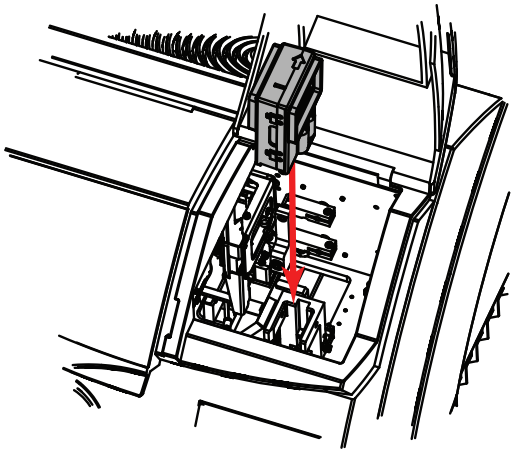


Note:

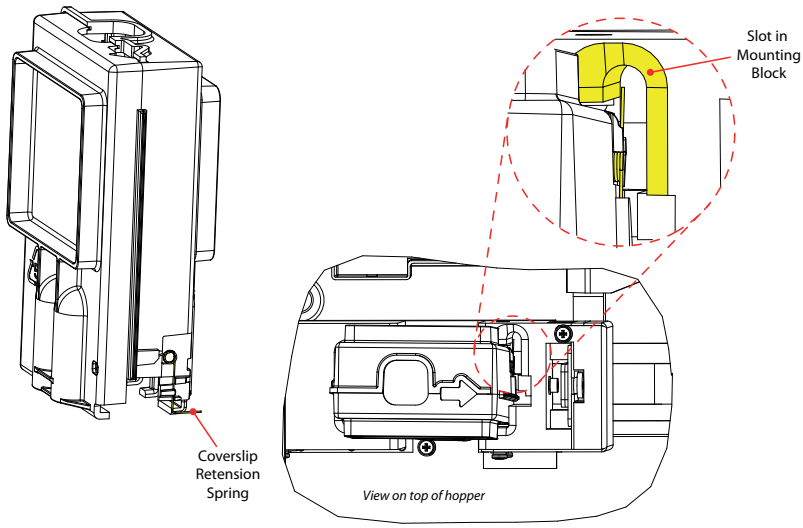
Ensure coverslips are the correct size.

Ensure Coverslip Hopper has not been dropped by checking for broken coverslips

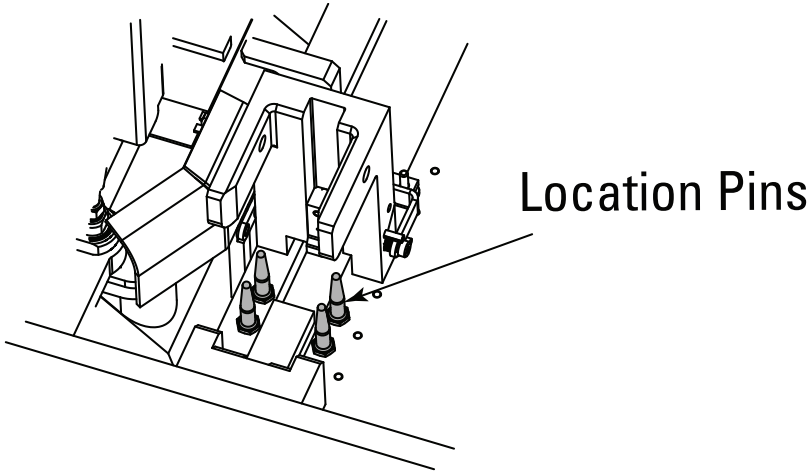
4. Remove the end cap from the bottom of the **Coverslip Hopper** and retain for use as a **Purge Tray**.
5. Load the new **Coverslip Hopper** ensuring that the **Dispense Directional Arrow** is pointing towards the back of the instrument.



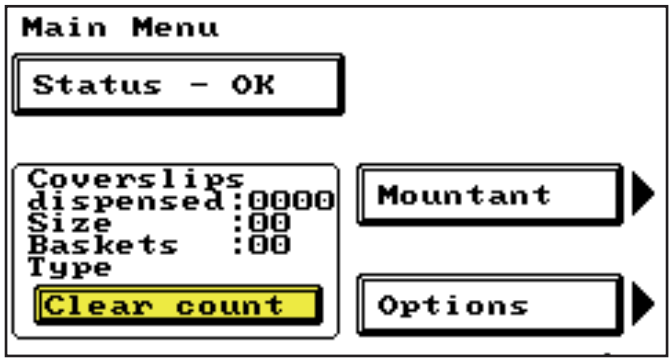
6. Ensure the **Coverslip Retension Spring** is located inside the slot in the **Hopper Mounting Block** as shown.



7. The **Coverslip Hopper** should sit level and fully down over the **Location Pins**.



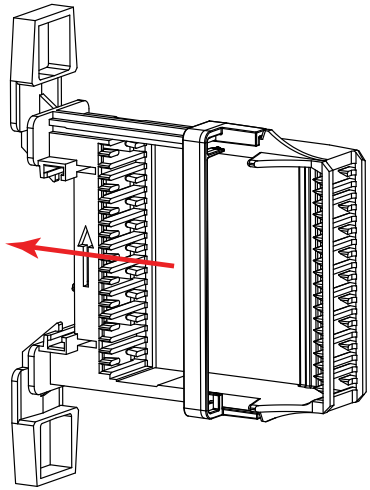
8. On the **Main Menu** screen, press **Clear Count**.



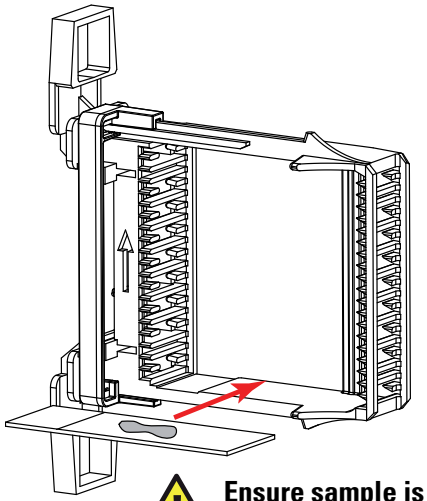
2-13 - Loading Baskets

To load **Slides** into **Baskets**:

1. Move the **Slide Retainer** as shown.

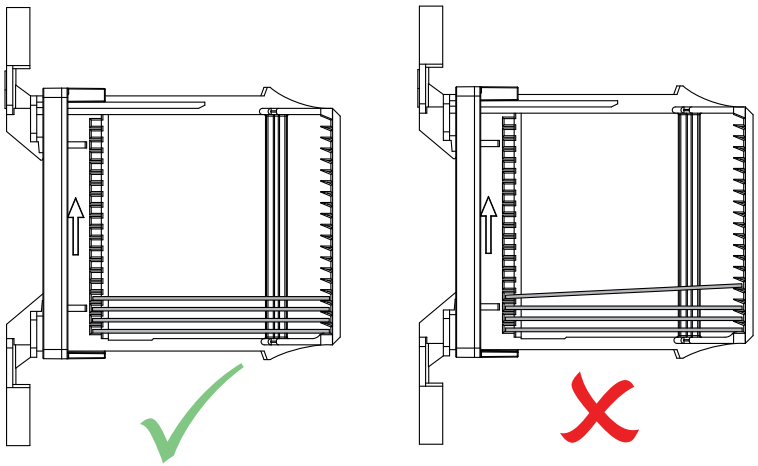


2. Insert **Slides** as shown, starting from the bottom shelf, with the sample on the top.

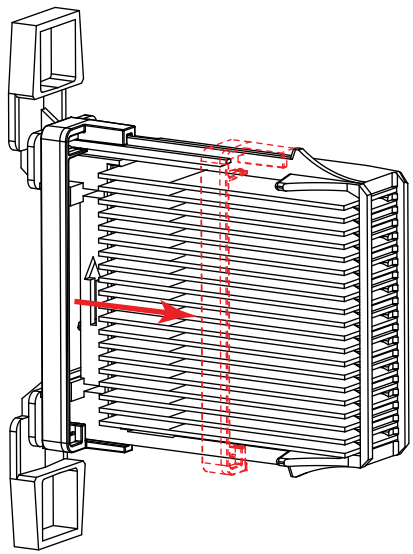


Ensure sample is on the top of the slide!

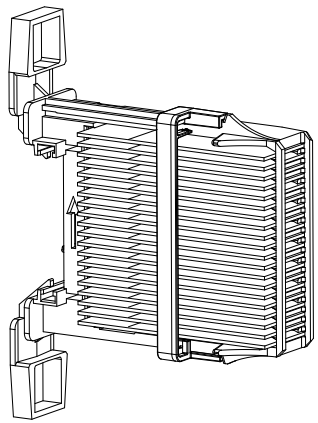
3. Ensure the **Slides** are placed in the **Basket** correctly.



4. When all the required **Slides** are in the **Basket**, return the **Slide Retainer** to it's original position to secure the **Slides** in the **Basket**.

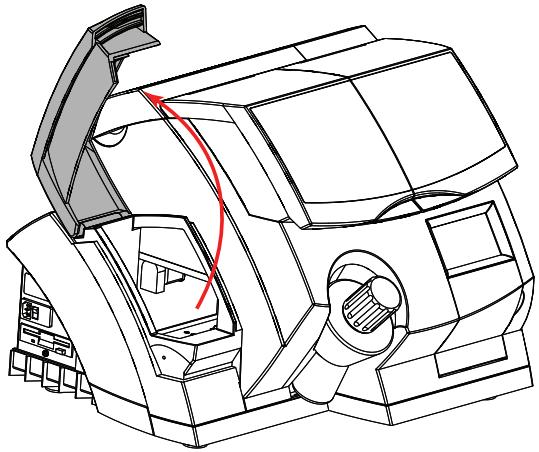


5. The **Basket** is now ready to load onto a stainer or directly into the Shandon ClearVue.



To load **Baskets** of **Slides**:

1. Open the **Load Door**.



Note:
Gently shake the Basket to remove excess xylene and blot on absorbant paper.

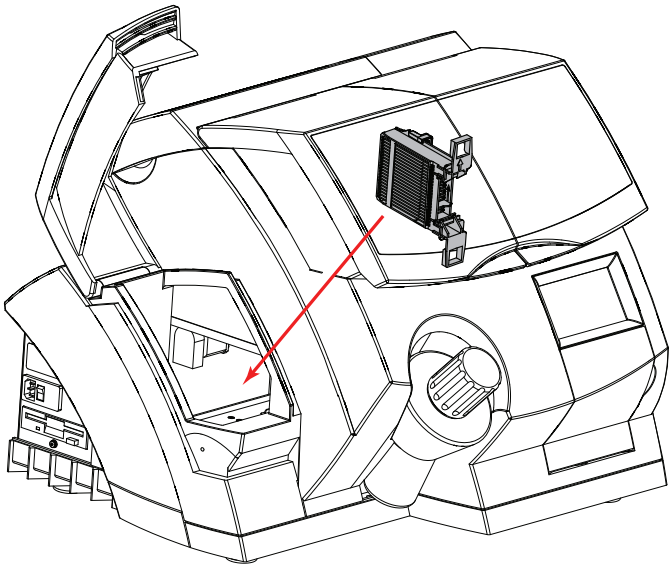
2. Place the **Basket** onto the **Load Rail** as shown.

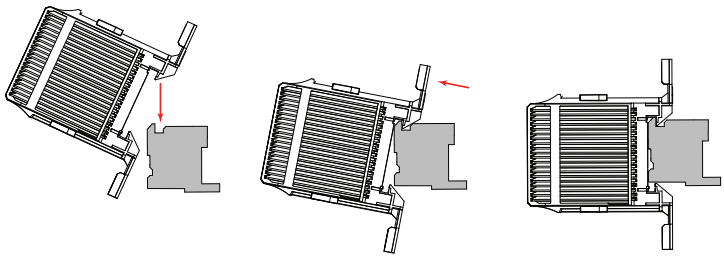
Notes:

Ensure Slide Retainer is closed before loading basket.

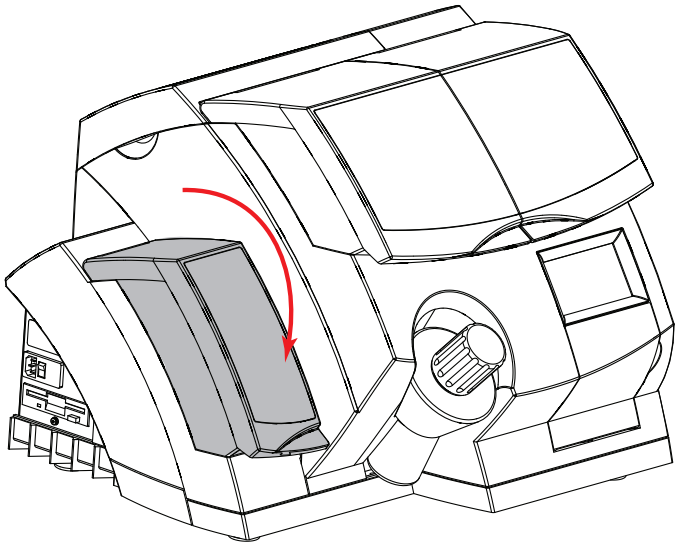
Ensure Directional Arrow on basket is pointing upwards.

If operating outside of the recommended temperature range, ensure samples do not dry out too quickly by loading no more than 2 Baskets at any one time.





3. Close the **Load Door**.

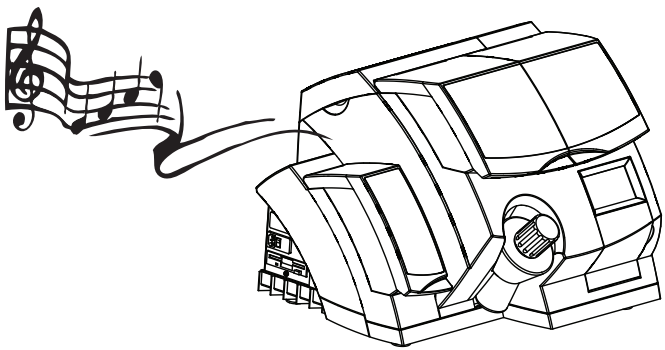


4. The Shandon ClearVue will start automatically.

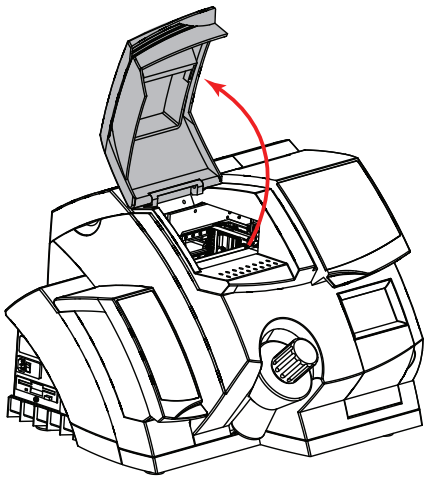
2-14 - Unloading Baskets

To unload **Baskets**:

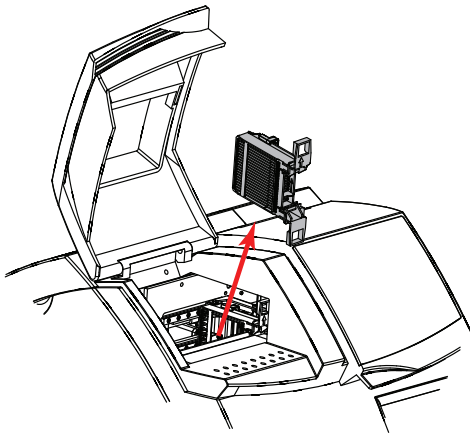
1. When a **Basket** of slides is completed, the Shandon ClearVue emits an **Audible Alert**.



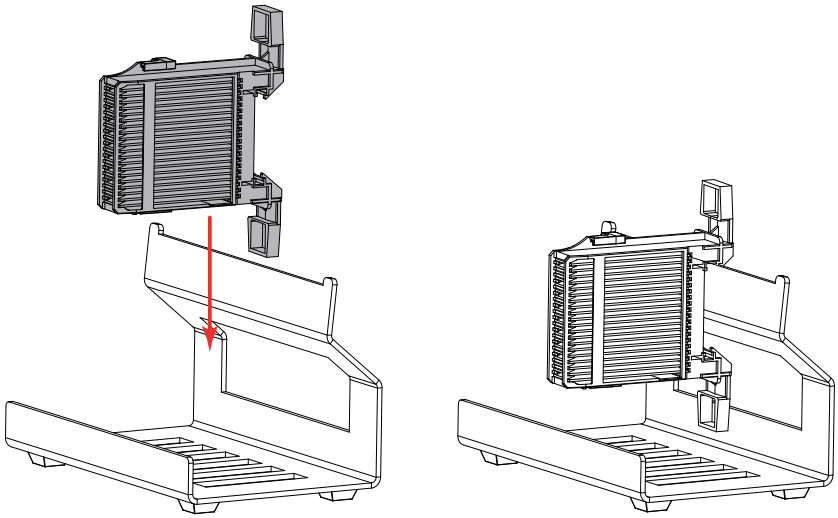
2. It is advisable to wait about 15 minutes before removing a completed **Basket**, to allow the **Mountant** to dry enough to allow the **Slides** to be handled safely.
3. Open the **Unload Door**.



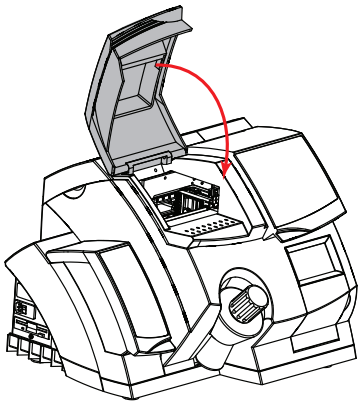
4. Remove the completed **Basket** from the **Unload Rail**.



Keep Basket upright after unloading - a Basket Rack is supplied for this purpose.



5. Close the **Unload Door**.

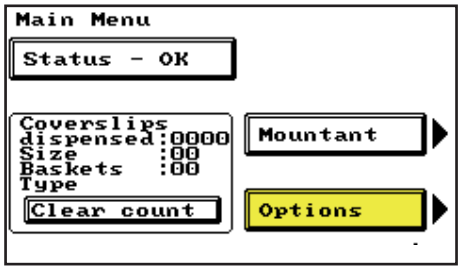


2-15 - Aborting a Basket

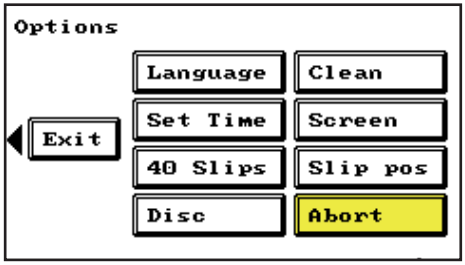
If for any reason a **Basket** being coverslipped needs to be returned to the **Unload Rail** without finishing the coverslipping process, the **Abort** command can be used.

To **Abort** a **Basket**:

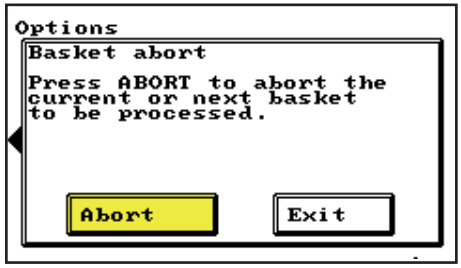
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.



2. Press the **Abort** key.



3. From the **Basket Abort** screen press the **Abort** key.



4. Remove the **Basket** from the **Unload Rail**.

Note:

The Shandon ClearVue will finish coverslipping the current Slide before it aborts the Basket.

2-15-1 - Manually Aborting a Basket

In the event of a power failure the Shandon ClearVue will continue to process **Baskets** using its own internal batteries.

If there is insufficient charge in the batteries to process the loaded **Baskets**, the Shandon ClearVue will remove any remaining **Baskets** from the **Load Rail** and place them, unprocessed, onto the **Unload Rail**.

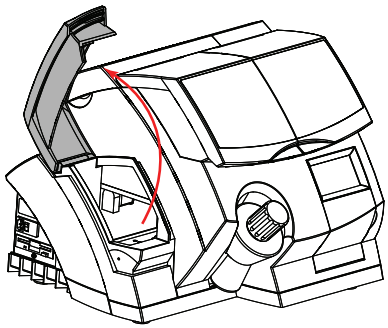
The Shandon ClearVue should be serviced regularly, and the batteries checked, or replaced, to ensure that they have sufficient charge to perform the automatic unload process in the event of a power failure.

However, in the unlikely event that the batteries are completely discharged and unable to automatically unload the **Baskets**, the following procedures will allow the **Baskets** to be unloaded manually.

Any Baskets which are unloaded manually may contain slides which have not been coverslipped, and steps should be taken to preserve the specimens.

To remove **Baskets** from the **Load Rail**:

- Open the **Load Door**.

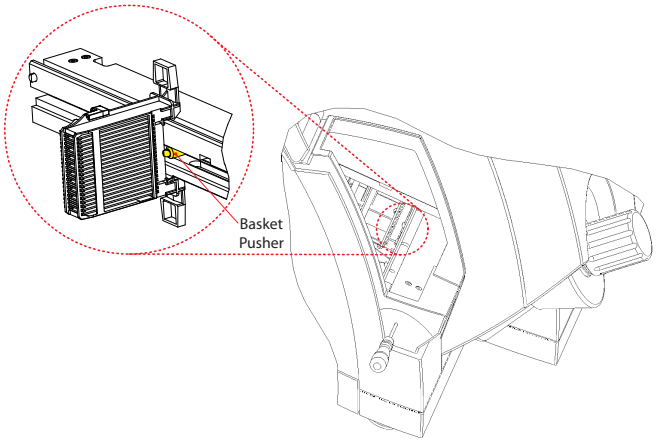


Remove any **Baskets** which are located directly underneath the **Load Door.**

Note:

If there are Baskets further along the Load Rail they must be brought back underneath the Load Door before they can be removed.

- To move **Baskets** back underneath the **Load Door** insert the **Screwdriver** (supplied) into the hole at the side of the instrument, under the **Load Door** as shown.



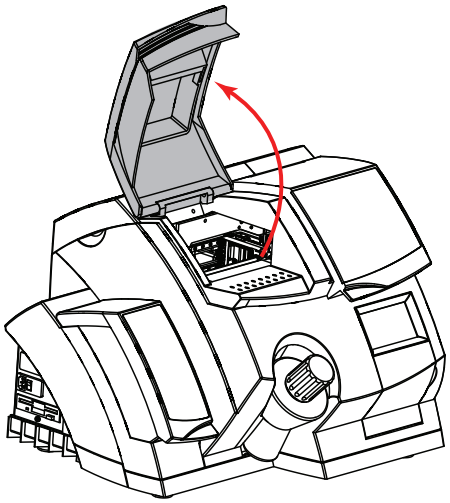
- Turn the **Screwdriver** clockwise to bring the **Basket Pusher** as far over to the left-hand side of the instrument as possible.
- It should then be possible to reach through the **Load Door** and pull any remaining **Baskets** over to where they can be removed.

Note:

There is a ball-spring plunger half-way along the Load Rail which the basket must be pulled over.

To remove **Baskets** from the **Unload Rail**:

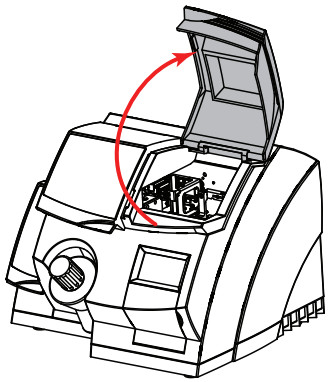
- Open the **Unload Door**.



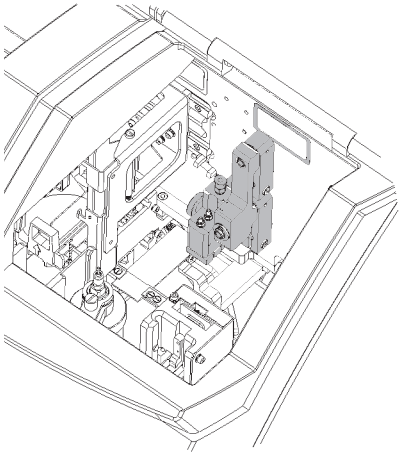
- Remove any **Baskets** which are located directly underneath the **Unload Door** as normal.

To remove **Slides** which are in the process of being coverslipped:

- Open the **Access Door**.



- Remove the **Coverslip Hopper**.
- If the **Dispense Head** is over the **Slide**, reach through the **Access Door** and manually pull it as far towards the front of the instrument as possible.
- Rotate the **Coverslip Transfer Head** until it is in its top position to provide access to the **Slide**.



- Carefully remove the **Slide** from the **Gripper** jaws.

Notes:

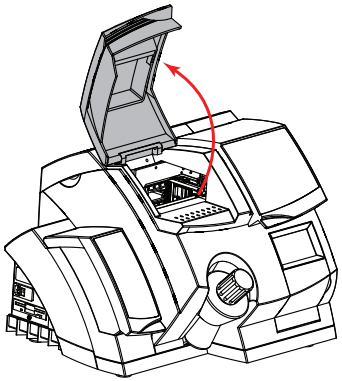
The right-hand Gripper jaw is spring loaded and can be moved to the right to release the slide.

It is advisable to remove the Debris Tray and then reach into the instrument through the Debris Tray Door in order to support the Slide when removing it from the Gripper jaws.

- Reach in through the **Load Door** and pull the long **Gripper** jaw as far towards the left of the instrument as possible.

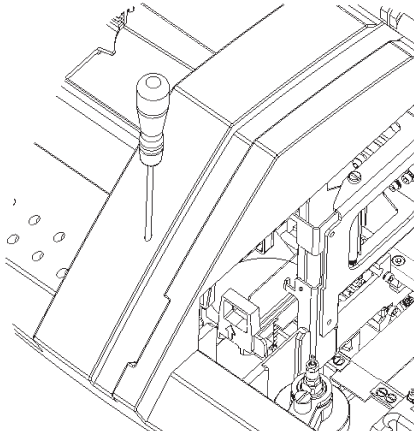
To remove any **Baskets** from the **Vertical Lift**:

- Open the **Unload Door**.

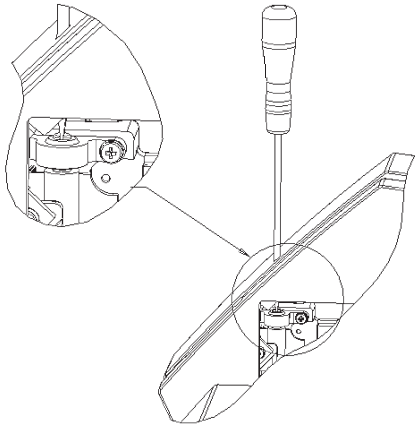


- Reach in through the **Unload Door** and push the **Basket Unload Bracket** as far towards the right of the instrument as possible.
- Ensure the long **Gripper** jaw is as far towards the left as possible (*see above*).

- Insert the **Screwdriver** into the small hole in the **Main Cover** as shown.



- The **Screwdriver** should slot into the **Vertical Lift** lead-screw as shown.



- Turn the **Screwdriver** clockwise to raise the **Basket** until it is level with the **Unload Rail**.

- Close the **Slide Retainer** as soon as possible to ensure that no **Slides** fall out of the **Basket**.
- Once the **Basket** is aligned with the **Unload Rail**, pull the **Basket** onto the **Unload Rail** and remove as normal.

If the Gripper jaws and Basket Unload Bracket are not correctly located as described above, any attempt to raise the Basket may lead to damage to the instrument, Basket or specimens.

2-16 - Shutdown Procedure

To shutdown the Shandon ClearVue:

- Ensure there are no **Baskets** still in the instrument.
- Ensure the **Dispense Head** is located in the **Dispense Head Cleaning Station**.
- Switch the **Mains Power Switch** to the off **'O'** position.

Note:

Do not switch off the Battery Isolation Switch.

To conserve power and extend filter life, it is recommended that the Shandon ClearVue is shutdown at night.

If 24 hour operation is required, ensure that the Shandon ClearVue is shutdown once per 24 hours to allow 'Self-Test' and 'Maintenance' Logs to be stored.

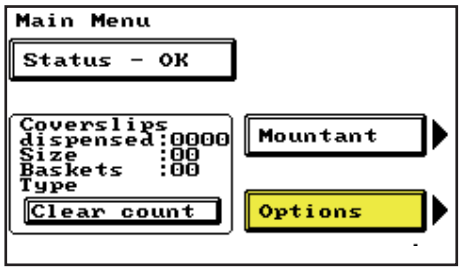
3 - Settings

The following chapter explains the optional settings available with the Shandon ClearVue.

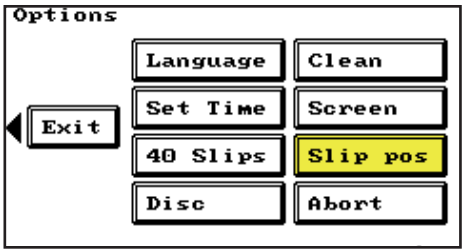
3-1 - Adjusting Coverslip Position

The Coverslip position on the Slide can be adjusted in the following manner:

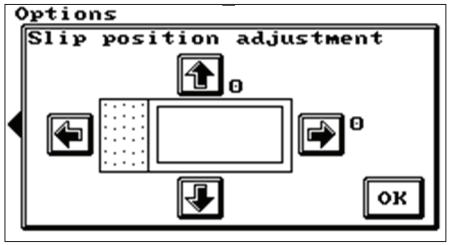
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.



2. Press the **Slip Position** key.



3. Use the **Arrow Keys** to move the Coverslip to the required position.



Note:

The Coverslip position can be adjusted by up to 1mm in any one direction in 0.25mm increments.

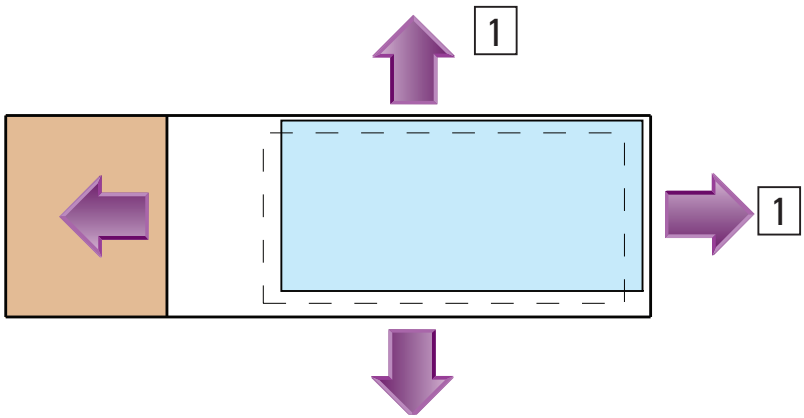
The default position has a setting of 0.

Positive numbers indicate that the Coverslip has moved in the direction of the corresponding arrow.

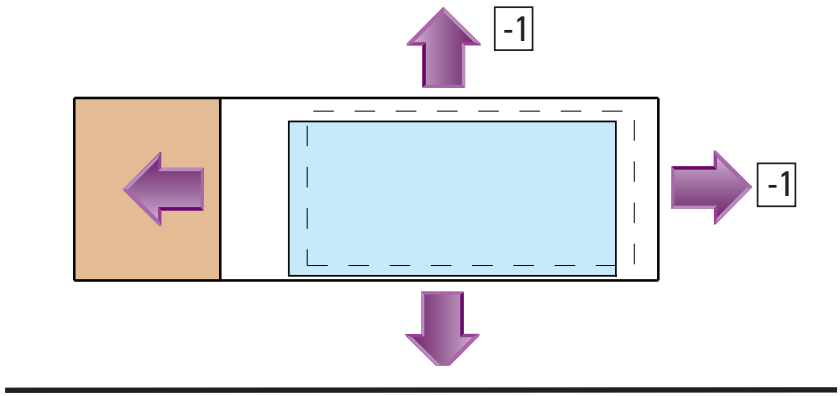
Negative numbers indicate that the Coverslip has moved in the opposite direction to the arrow.

Examples

1. The positive number values indicate a movement in the direction of the labelled arrows; hence the **Coverslip** is positioned above and to the right hand side of centre.



2. The negative number values indicate a movement in the opposite direction to the labelled arrows; hence the **Coverslip** is positioned below and to the left hand side of centre.



3-2 - Coverslip Size Options

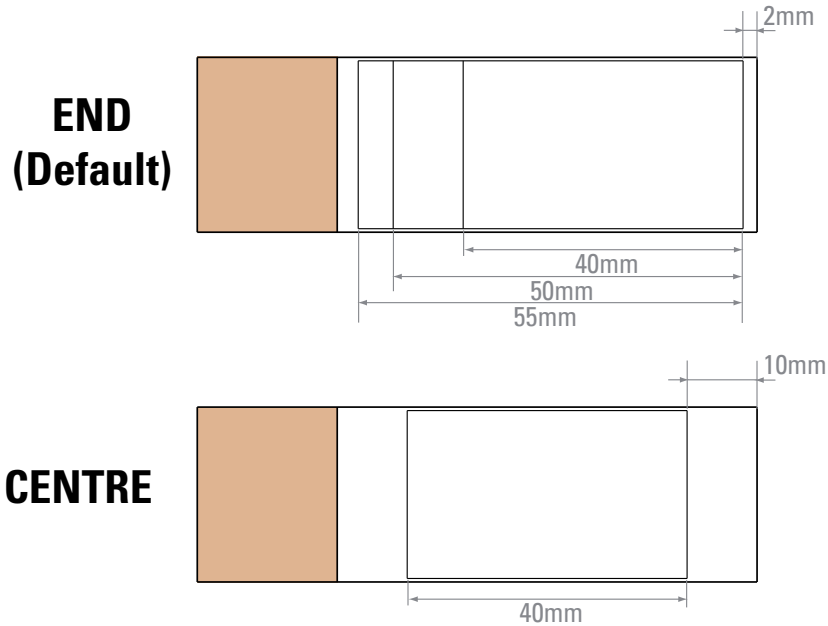
The Shandon ClearVue is capable of using 3 different lengths of **Coverslip**.

These are:

- **40 mm**
- **50 mm**
- **55 mm**

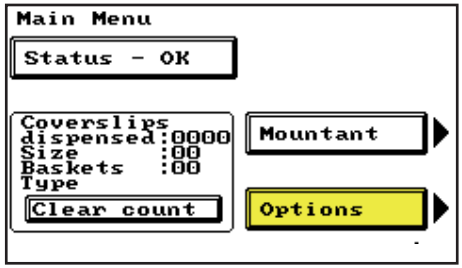
The default setting for **Coverslip Position** is with a **2mm** gap between the end of the **Slide** and the end of the **Coverslip**.

The **40 mm Coverslips** can also be positioned centrally.

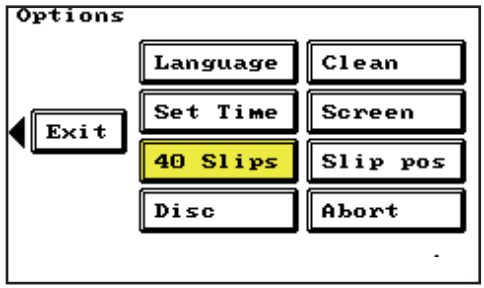


The method for selecting the position of the **40 mm Coverslip** is as follows:

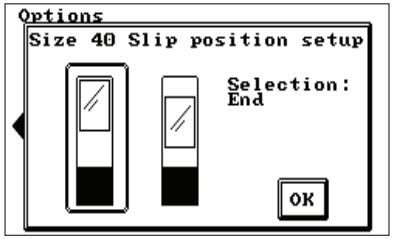
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.

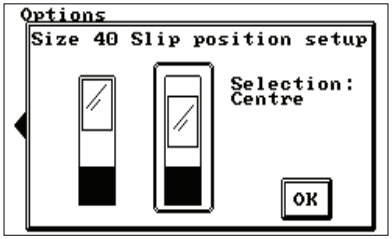


2. Press the **40 Slips** key on the **Touch Screen**.

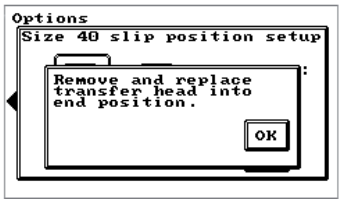


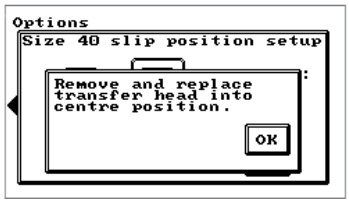
3. Select either **End** (default setting) or **Centre**, then press **OK**.





4. Using the procedure given in *Section 3-3*, move the **Coverslip Transfer Head** into the position specified on the **Touch Screen** and then press **OK**.



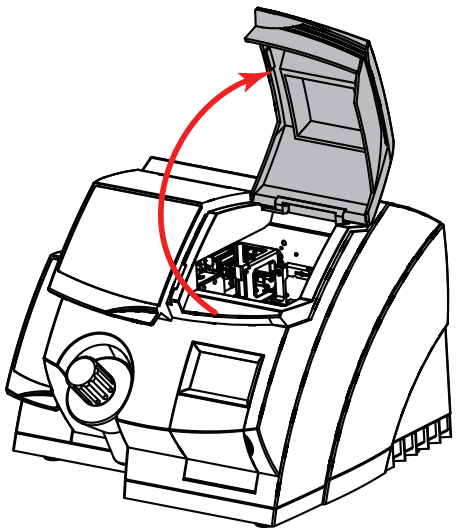


3-3 - Altering Coverslip Transfer Head Position

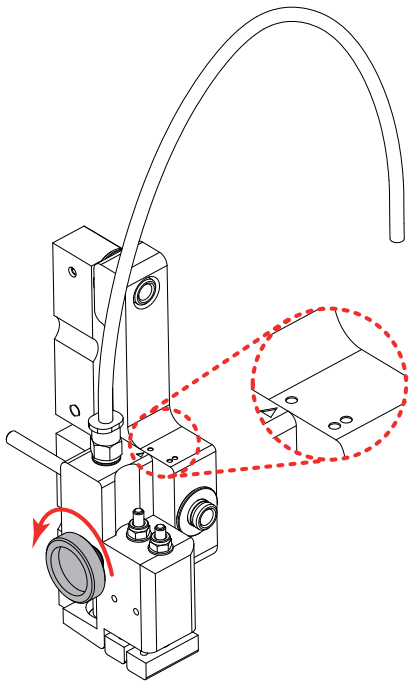
The **Coverslip Transfer Head** has 2 possible positions to allow the 40 mm coverslips to be positioned either **Centrally** or in the **End (Default)** position (*See Section 3-2*).

The method for changing the Coverslip Transfer Head position is:

- Follow the setup method shown in *Section 3-2*.
- Open the **Access Door**.



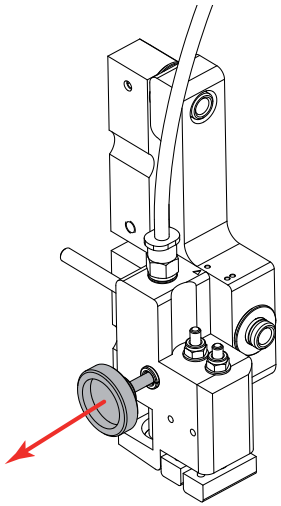
- Identify the **Coverslip Transfer Head** and loosen the **Thumbscrew** by turning it anti-clockwise.



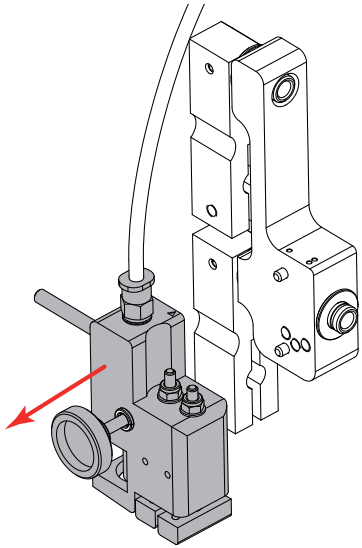
Note:

For the purpose of this manual the example shown is the procedure for changing from the End (Default) position to the Central position.

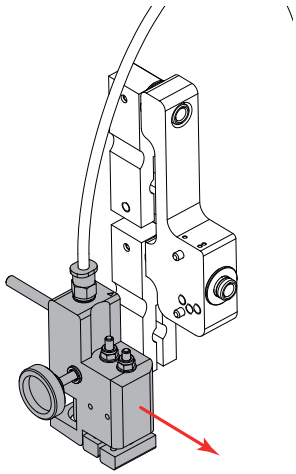
- Pull the **Thumbscrew** out as shown to release the **Coverslip Transfer Head**.



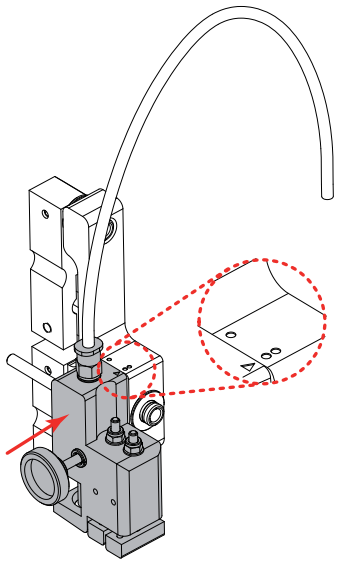
- Remove the **Coverslip Transfer Head** from the **Location Pins** as shown.

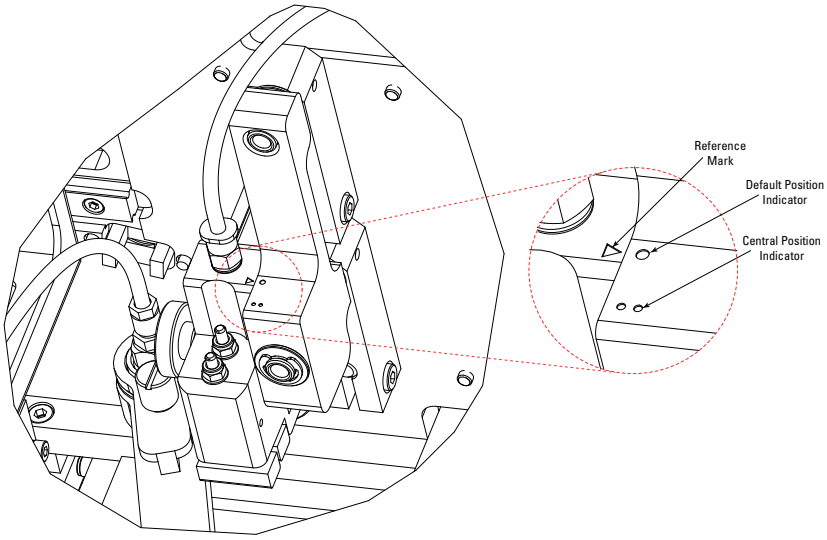


- Reposition the **Coverslip Transfer Head** as required.



- Replace the **Coverslip Transfer Head** onto the **Location Pins** in its new position and tighten the **Thumbscrew**.





Note:

There is a Positional Indicator on the top of the Coverslip Transfer Head which enables quick recognition of which position the Transfer Head is currently in.

One or other of the Position Indicators will line up with the Reference Mark to indicate which position the Transfer Head is in.

3-4 - Screen Options

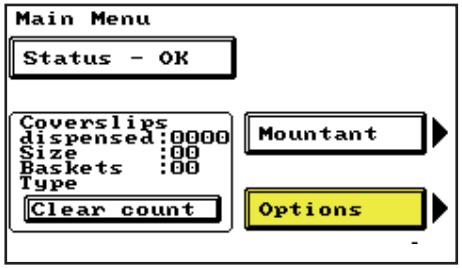
The **Touch Screen** settings can be altered to adjust both the **View Angle** and the screen **Brightness**.

The **View Angle** is the angle from which the screen is best viewed - so a tall person would want a higher **View Angle** than a shorter person.

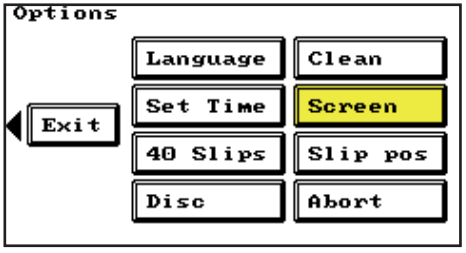
The **Brightness** sets the amount of screen back-lighting.

To access the **Screen Adjust** display:

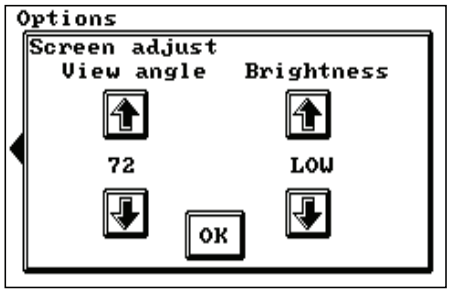
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.



2. Press the **Screen** key.



3. This will open the **Screen Adjust** display.

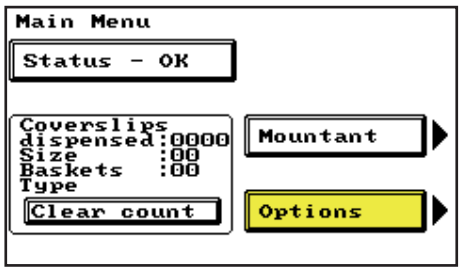


4. From this it is possible to adjust the **View Angle** and **Brightness** using the relevant **Arrow Keys**.
5. When the **Touch Screen** is configured as required, press **OK** to return to the **Options Menu**.

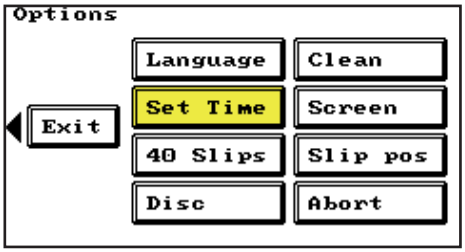
3-5 - Time and Date Settings

The Time and Date can be altered in the following way:

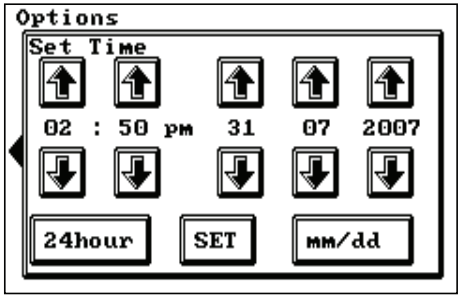
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.



2. Press the **Set Time** key.



3. This will open the **Set Time** display.



4. From this it is possible to adjust the **Time** and the **Date** using the relevant **Arrow Keys**.
5. The **Time Format** and **Date Format** can also be altered by pressing the **24 Hour / 12 Hour** and **mm/dd / dd/mm** keys as appropriate.
6. When the settings are configured as required, press **SET** to apply the settings.

3-6 - Disc Options

The **Disc Options** screen allows an **Engineers' Log** to be taken and the Shandon ClearVue software to be updated.

The **Engineers' Log** may be requested by a Service Engineer to aid troubleshooting.

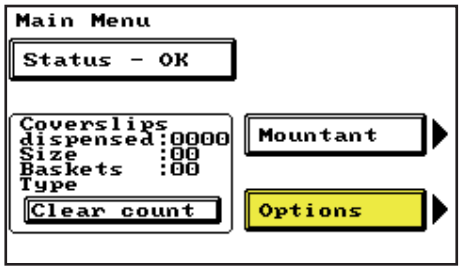
To create an **Engineers' Log**:

Note:

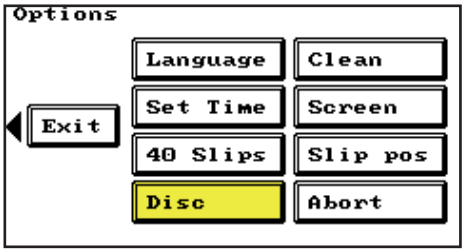
An Engineers' Log can only be written when the Shandon ClearVue is idle - that is, not processing baskets.

An audible warning will sound if an attempt is made to write an Engineers' Log during processing.

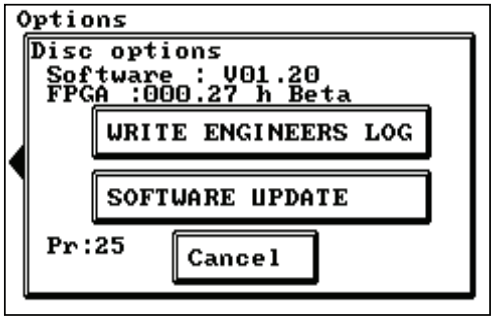
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.



2. Press the **Disc** key.



3. This will open the **Disc Options** display.



4. Insert a blank, formatted, floppy disc into the **Disc Drive**.
5. Press the **Write Engineers' Log** key.
6. The Shandon ClearVue will then write to the floppy disc.

7. When the above screen has gone and the light on the **Disc Drive** has gone out, it is safe to remove the floppy disc from the **Disc Drive**.

Updating the Software:

Do not use this screen unless instructed to do so by a Thermo Fisher Service Engineer.

A **Software Update** would normally be performed by a Service Engineer; however, it is possible for the user to perform an update if supplied with a new version on a floppy disc.

To perform a **Software Update**:

1. Insert the floppy disc, containing the updated version of the software, into the **Disc Drive**.
2. From the **Disc Options** screen press the **Software Update** key.
3. The Shandon ClearVue will then automatically install the updated software and reboot itself.

Do not switch off or interrupt the power during this process.

4. The new software will be active when the reboot is complete.

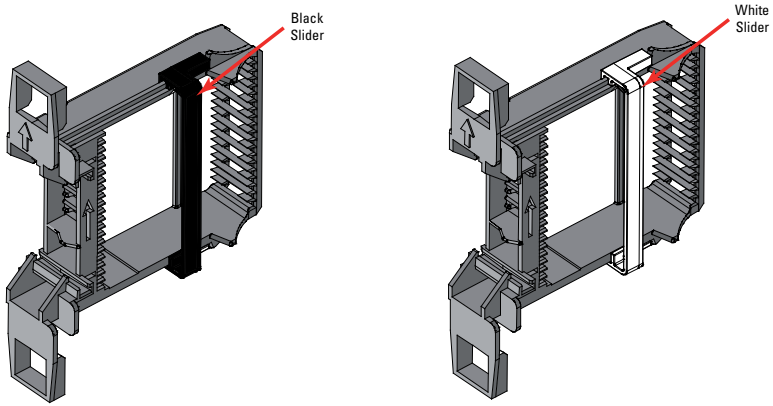
3-7 - Altering the Mountant Dispense Volume

To allow for variations in the thickness of samples, the Shandon ClearVue has a **Basket Recognition** feature.

This allows the Shandon ClearVue to determine the colour of the **Slide Retainer** on the **Baskets**.

The **Baskets** supplied with the Shandon ClearVue have a **Black Slide Retainer**.

Baskets with **White Slide Retainers** are available as an accessory (see *Appendix A*).



The **Black Slide Retainer** typically designates thicker samples; whilst the **White Slide Retainer** designates thinner samples.

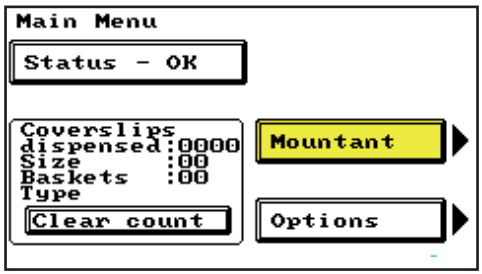
The Shandon ClearVue can detect the colour of the **Slide Retainer** and automatically adjust the amount of **Mountant** dispensed, based on the user defined settings, to ensure that the **Coverslip** adheres properly to the slide.

Note:

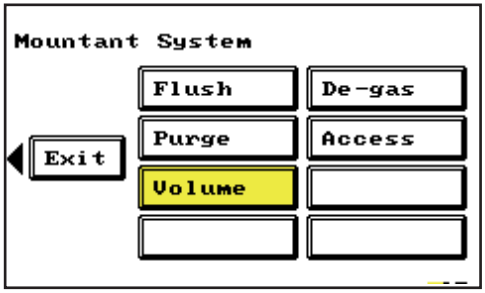
If there is very little variation in the thicknesses of samples, the volume of Mountant dispensed for Baskets with either a black or a white Slide Retainer can be set to the same value.

To adjust the **Mountant Volume**:

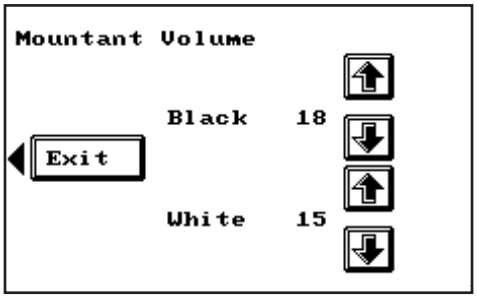
1. From the **Main Menu**, press the **Mountant** key on the **Touch Screen**.



2. Press the **Volume** key on the **Touch Screen**.



3. Use the **Arrow Keys** to adjust the dispensed volume for each **Basket** type.



Notes:

The recommended Mountant Setting for general use is 15.

Settings will automatically adjust to suit the Coverslip length, so that the same Mountant Setting dispenses a larger volume of Mountant for a 50mm Coverslip than for a 40mm Coverslip.

During processing, pressing the Mountant key from the Main menu will automatically open the Mountant Volume screen.

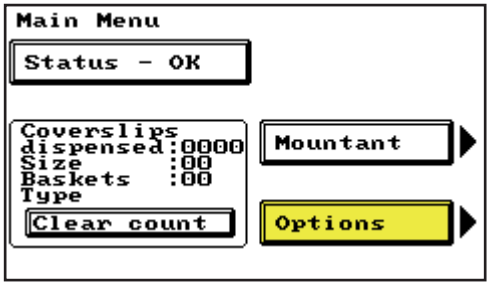
Adjusting the Volume during processing will have an IMMEDIATE effect on the amount of Mountant dispensed.

3-8 - Changing Languages

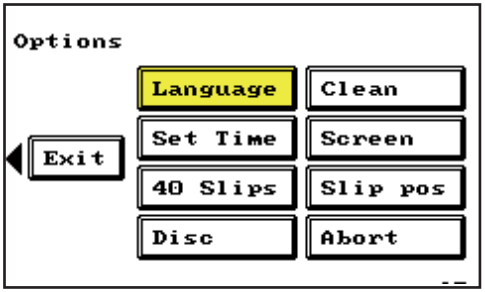
After the initial start-up procedure it is possible to change the **Language** used on the **Touch Screen** display.

The **Language** can be changed as follows:

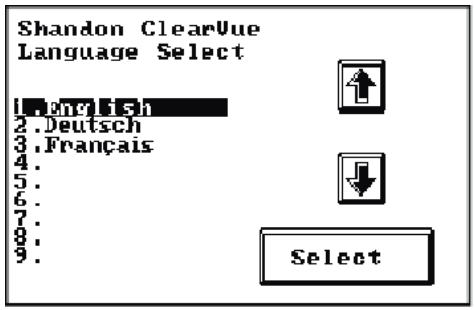
1. From the **Main Menu**, press the **Options** key on the **Touch Screen**.



2. Press the **Language** key on the **Touch Screen**.



3. This will display the same **Language Select** screen as was used during the start-up procedure.



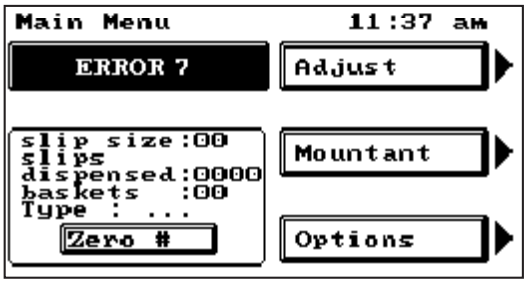
4. Use the **Arrow Keys** to highlight the required language from the list available and press **Select**.

4 - Troubleshooting

This chapter describes some possible problems and their solutions.

4-1 - Error Screens

If an error occurs an alert will be displayed on the **Touch Screen**.

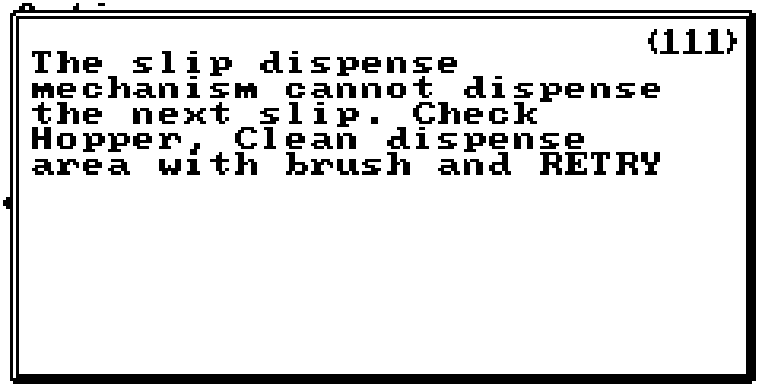


Pressing the flashing Error message will display one of the following screens, which provide more information about the error.

When an **Error Screen** appears there will be one or more of the following options given to rectify the error.

The specific **Error Screens** explain the options available.

If it is necessary to call the Thermo Fisher Scientific Service Department they will ask for the **Engineer's Code** which is displayed in the top, right-hand corner of the Error screen.



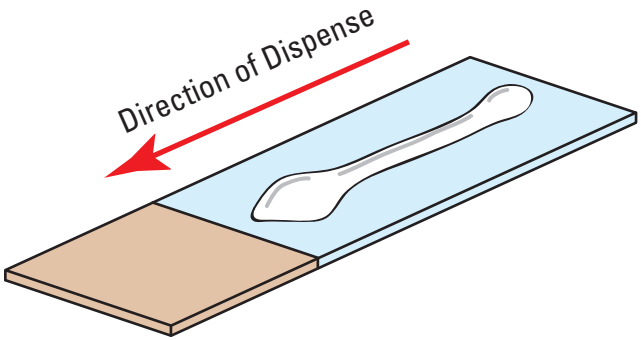
4-2 - Identifying Problems

The quality of prepared slides can be used to help troubleshooting on the Shandon ClearVue. Any problems can then be solved either by the operator or by a Service Engineer.

The two states which can be observed are:

- Quality of **Mountant** dispense *(see App. D - Performing a Bead Test)*
- Quality of coverslipped slide.

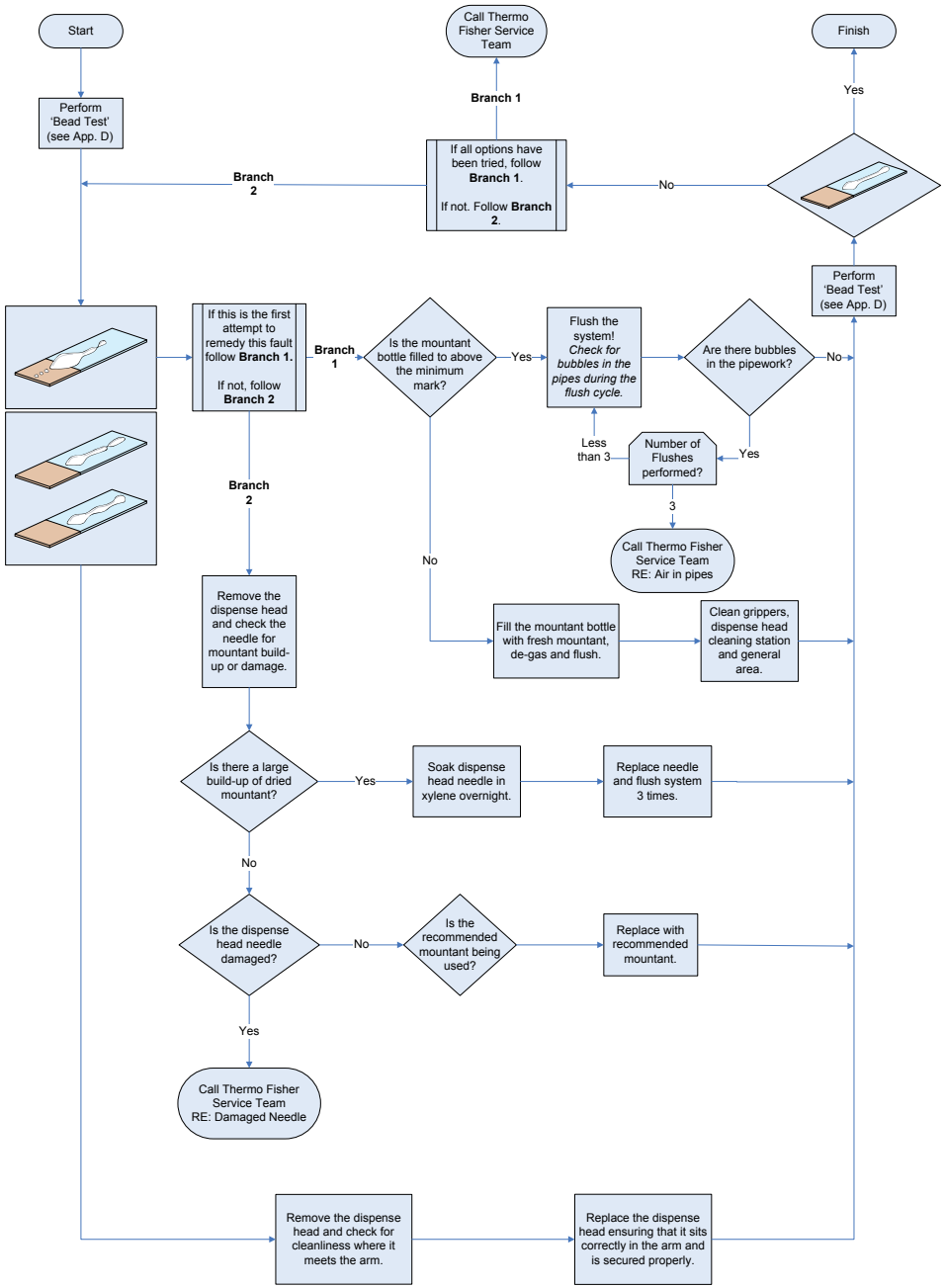
The correct appearance for each of these is shown below.

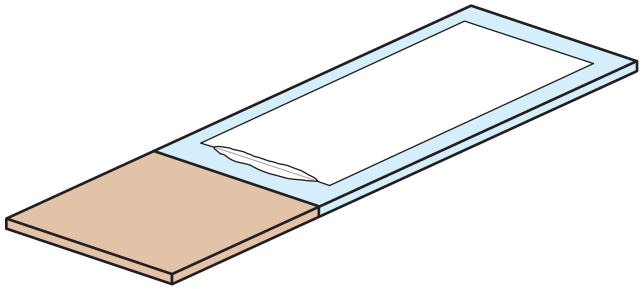


Correct **Mountant** dispense appearance:

- Small initial drop.
- Uniform middle strip of **Mountant**.
- Larger drop at end, close to, but not encroaching on the frosted area.

The flow chart on the following page is intended to aid in the diagnosis of problems relating to the quality of the **Mountant** dispense.


Start
Perform 'Bead Test' (see App. D)
Call Thermo Fisher Service Team
Branch 1
If all options have been tried, follow Branch 1.
If not. Follow Branch 2.
Branch 2
No
Finish
Yes
Perform 'Bead Test' (see App. D)
If this is the first attempt to remedy this fault follow Branch 1.
If not, follow Branch 2
Branch 1
Is the mountant bottle filled to above the minimum mark?
Yes
Flush the system! Check for bubbles in the pipes during the flush cycle.
Are there bubbles in the pipework?
No
Yes
Number of Flushes performed?
Less than 3
3
Call Thermo Fisher Service Team RE: Air in pipes
Branch 2
No
Remove the dispense head and check the needle for mountant build-up or damage.
Fill the mountant bottle with fresh mountant, de-gas and flush.
Clean grippers, dispense head cleaning station and general area.
Is there a large build-up of dried mountant?
Yes
Soak dispense head needle in xylene overnight.
Replace needle and flush system 3 times.
No
Is the dispense head needle damaged?
No
Is the recommended mountant being used?
Replace with recommended mountant.
Yes
Call Thermo Fisher Service Team RE: Damaged Needle
Remove the dispense head and check for cleanliness where it meets the arm.
Replace the dispense head ensuring that it sits correctly in the arm and is secured properly.

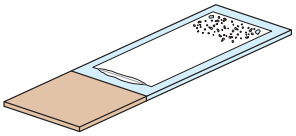
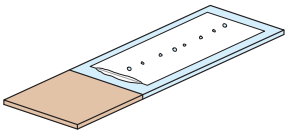
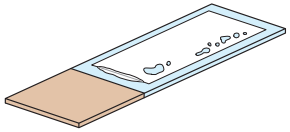


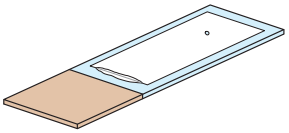
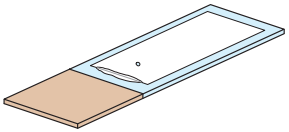
Correct appearance of coverslipped slide:

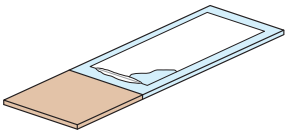
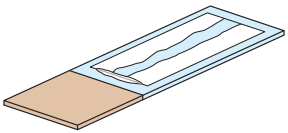
- Minimal overspill of **Mountant** at the frosted end of slide.
- Coverslipped area free from bubbles.
- Coverslipped area totally covered in **Mountant**.
- Minimum **Mountant** overspill over the rest of the coverslip perimeter.
- Coverslip positioned correctly on slide.

Note

There may be a slight variation in the position of the Coverslip depending on the quality of the Coverslips used.

Description	Possible Cause	Solution
Multiple Bubbles at End:  • Multiple bubbles visible towards the non-frosted end of the slide.	**Suction Cup** contaminated or broken.	Remove **Suction Cup** *(see Section 5-2-4)* and clean using a xylene-damp cloth. *Note: Dry Suction Cup fully before refitting.*
		Replace **Suction Cup** *(see Section 5-2-4)*
		Ensure pipe to **Transfer Head** is properly inserted *(see Section 5-2-12).*
Straight Line of Bubbles  • Multiple bubbles in a line down the length of slide.	**Suction Cup** contaminated with **Mountant**.	Remove **Suction Cup** *(see Section 5-2-4)* and clean using a xylene-damp cloth. *Note: Dry Suction Cup fully before refitting.*
	Dispense Head too high.	Perform **Bead Test** (*see App. D*) and check dispense quality.
	Air in **Pipes** or **Syringe**.	**Flush** system to ensure all bubbles have been expelled.
Multiple Non-Uniform Bubbles  • Often down one side of the slide. • Various sizes of bubbles.	Contaminated reagents.	Check quality and levels of staining reagents, and replace if necessary.
	Incompatible chemicals used.	Ensure that all chemicals used are on the **Approved Reagents** list (see *Appendix B*). If problems persist contact your Thermo Fisher Scientific Representative for advice.
	Instrument not level.	Level instrument using the levelling feet.

Description	Possible Cause	Solution
Single Bubble at Non-Frosted End of Slide  • Often located underneath the **Suction Cup**.	**Dispense Head** too high.	• Check **Dispense Head** is fully screwed down. • Contact Thermo Fisher Scientific Service Department.
	Suction Cup contaminated with **Mountant**.	Remove **Suction Cup** *(see Section 5-2-4)* and clean using a xylene-damp cloth. *Note: Dry Suction Cup fully before refitting.*
Single Bubble at Frosted End of Slide 	**Dispense Head** too high.	• Check **Dispense Head** is fully screwed down. • Contact Thermo Fisher Scientific Service Department.
	Air in **Pipes** or **Syringe**.	**Flush** system to ensure all bubbles have been expelled.
	Coverslip contacting the **Mountant** before the **Transfer Head** has slowed down.	• Reduce **Mountant** volume (*see Section 3-7*). • Contact Thermo Fisher Scientific Service Department.
	Non-approved **Mountant** used.	Use approved **Mountant** (see *Appendix B*)

Description	Possible Cause	Solution
Distinct Area with No Mountant  • Area of coverslip is not stuck to slide.	Debris under the coverslip.	• Ensure coverslips are free from debris and dust. • Ensure **Slip Dispense Area** is free of debris and dust.
	Very low volume of **Mountant**, AND slide is very dry.	• Ensure an appropriate amount of **Mountant** is being dispensed. • Ensure **Xylene Tray** is filled. • Ensure slides are appropriately coated with xylene.
Strip of No Mountant  • A distinct line of coverslip is not stuck to slide.	Poor quality (bowed) coverslips.	Replace with better quality (non-bowed) coverslips.

4-3 - Troubleshooting Tables

Problem	Cause	Solution
The Shandon ClearVue does not respond when the mains power is switched on.	The Shandon ClearVue is still starting-up.	Wait approximately 30 seconds for the start-up sequence to finish.
	No power supply.	Connect the power lead and switch on the mains power at the socket and the instrument.
	The mains fuses have blown.	Replace the mains fuse. Replace the instrument fuses. *Note: Only a technically competent person should replace fuses.*
	Other error.	Call Thermo Fisher Service Team for support.
The Shandon ClearVue is switched ON but the screen is blank.	Instrument in Standby mode, Screensaver is on.	Touch the screen to exit Standby mode.
	Other error.	Call Thermo Fisher Service Team for support.

Problem	Cause	Solution
Mountant Dispense Needle dirty / blocked.	Low xylene level in Dispense Head Cleaning Station.	Refill the Dispense Head Cleaning Station fully (*see Section 2-8*).
	Quick drying Mountant has formed a skin on the Needle.	Use approved Mountant *(see App. B)* Contact your Thermo Fisher Product Specialist for advice.
	Dispense Head Cleaning Station not functioning correctly.	Call Thermo Fisher Service Team for support.

Problem	Cause	Solution
Slide jams.	Basket Slide Retainer is not fully closed.	Ensure the Slide Retainer is fully closed prior to loading the basket *(see Section 2-13).*
	Chipped or broken slide loaded into basket.	Ensure only undamaged slides are loaded into the instrument.
	Damaged or broken basket.	Replace basket.
	Gripper Return Plate stuck.	Clean Gripper Return Plate *(see Section 5-2-9)*.
	Gripper Return Plate not fitted correctly.	Re-fit Gripper Return Plate *(see Section 5-2-9)*.
	Skewed slide loaded into basket.	Ensure slides are loaded correctly into the basket *(see Section 2-13).*
	Incorrect size of slide.	Refer to *Section 1-2* for maximum permissible slide sizes.
	Build up of dried Mountant on basket.	Clean or replace basket.
	Dirty camera lens.	Clean camera lens, (see *Section 5-2-6*).
	Other error.	Call Thermo Fisher Service Team for support.

Problem	Cause	Solution
Coverslip misdispense.	Hopper empty.	Load new hopper (see *Section 2-12*).
	Hopper not loaded correctly.	Load hopper correctly (see *Section 2-12*).
	Broken slip(s) jamming hopper.	Clear broken slip(s) from hopper.
	Hopper worn due to re-use.	Use new hopper.
	Moisture causing coverslips to stick together.	Remove affected coverslips from the bottom of the hopper. For best results use Shandon Pre-Loaded Hoppers *(see App. A)*
	Debris on Slip Dispense Carriage.	Clean Slip Dispense Carriage (see *Section 5-2-6*).
	Mountant on Coverslip Transfer Head Suction Cup.	Clean Suction Cup (see *Section 5-2-4*).
	Loss of vacuum on Coverslip Transfer Head Suction Cup.	Clean suction cup (see *Section 5-2-4*). If this is ineffective call Thermo Fisher Service Team for support.

Problem	Cause	Remedy
Coverslip misdispense (Cont.).	Suction Cup not fitted correctly.	Ensure Suction Cup is pushed fully up against the metal collar and does not protrude more than 1mm.
	Faulty / damaged Suction Cup.	Replace Suction Cup (see *Section 5-2-4*).
	Incorrect size of coverslip.	Refer to *Section 1-2* for permissible coverslip options.
	Coverslip Transfer Head blocked by debris.	Clean and unblock Coverslip Transfer Head (see *Section 5-2-12*)
	Slip Dispense Skirt dirty, worn or missing.	Check Skirt and clean or replace as necessary (see *Section 5-2-10*).
	Mountant dried on Slip Dispense Carriage.	Clean Slip Dispense Carriage (see *Section 5-2-6*). If this is ineffective call Thermo Fisher Service Team.
	Loss of vacuum on Slip Dispense Carriage.	Clean Slip Dispense Carriage (see *Section 5-2-6*). If this is ineffective call Thermo Fisher Service Team.
	Other error.	Call Thermo Fisher Service Team.

Problem	Cause	Remedy
Breaking coverslips.	Broken slip in hopper.	Clear broken slips from hopper.
	Moisture causing coverslips to stick together.	Remove affected coverslips from the bottom of the hopper. For best results use Shandon Pre-Loaded Hoppers *(see App. A)*
	Debris on Slip Dispense Carriage.	Clean carriage (see *Section 5-2-6*).
	Incorrect size of coverslip.	Refer to *Section 1-2* for permissible coverslip options.
	Faulty Coverslip Transfer Head Suction Cup.	Replace Suction Cup (see *Section 5-2-4*).
	Mountant dried on Slip Dispense Carriage.	Clean carriage (see *Section 5-2-6*).
	Loss of vacuum on Slip Dispense Carriage.	Call Thermo Fisher Service Team for support.
	Slip Dispense Skirt worn or missing.	Replace Slip Dispense Skirt (see *Section 5-2-10*)
	Other error.	Call Thermo Fisher Service Team for support.

Problem	Cause	Remedy
Basket Jams.	Unload rail full.	Remove Baskets from Unload Rail.
	Basket Slide Retainer not fully closed.	Ensure Slide Retainer is fully closed prior to loading basket.
	Damaged or broken basket.	Replace basket.
	Incorrect size of slide.	Refer to *Section 1-2* for maximum permissible slide sizes.
	Build-up of dried Mountant on basket.	Clean or replace basket.
	Other error.	Call Thermo Fisher Service Team for support.
Missing or part-broken coverslip on slide.	Poor quality coverslips.	Replace coverslips. Use new hopper.
	Dirty or worn Suction Cup.	Clean or replace Suction Cup (see *Section 5-2-4*) Check adjacent slides for contamination.

Problem	Cause	Remedy
Breaking Slides.	Poor quality slides used.	Use high quality slides.
	Basket Slide Retainer not fully closed.	Ensure Slide Retainer is fully closed prior to loading basket.
	Chipped or broken slide loaded into basket.	Ensure only undamaged slides are loaded into instrument.
	Slide loaded into basket incorrectly.	Ensure slides are correctly loaded into baskets.
	Gripper Return Plate stuck.	Remove and clean Gripper Return Plate (*see Section 5-2-9*).
	Damaged or broken basket.	Replace basket.
	Incorrect size of slide.	Refer to *Section 1-2* for maximum permissible slide sizes.
	Build up of dried Mountant on basket.	Clean or replace basket.
	Incorrectly fitted Transfer Head Suction Cup.	Ensure Suction Cup is fitted correctly (*see Section 5-2-4*).

Problem	Cause	Remedy
Breaking Slides (cont.).	Transfer Head Pads clogged with Mountant.	Clean Transfer Head (*see Section 5-1*).
	Dirty camera lens.	Clean camera lens (*see Section 5-2-6*).
	Other error.	Call Thermo Fisher Service Team for support.
Too much Mountant overspill.	Too much xylene carry-over from staining.	Shake Basket to remove excess xylene before loading.
	Too much Mountant being dispensed.	Reduce volume of Mountant dispensed (*see Section 3-7*).
	Coverslip too close to the end of the Slide.	Alter Coverslip position (*see Section 3-1).*
	Air in system.	Flush system until all air is expelled from the pipes *(see Section 2-10)*.
	Damaged Dispense Head.	Call Thermo Fisher Service Team for support.
	Other error.	Call Thermo Fisher Service Team for support.

Problem	Cause	Remedy
Slides are too wet when removed from Unload Rail.	Insufficient drying time allowed.	Leave Baskets on the Unload Rail for a minimum of 15 minutes.
	Too much xylene carry-over from staining.	Shake Basket to remove excess xylene before loading.
	Filter not fitted.	Fit Filter.
	Filter switch damaged.	Call Thermo Fisher Service Team for support.
	Other error.	Call Thermo Fisher Service Team for support.

Problem	Cause	Remedy
Skewed Coverslips.	Baskets not stored level when Slides are wet.	Ensure Drying Rack is on a level surface.
	Insufficient drying time allowed.	Leave Baskets on the Unload Rail for a minimum of 15 minutes.
	Slip Dispense Skirt dirty or worn.	Clean or replace Slip Dispense Skirt *(see Section 5-2-10)*.
	Suction Cup dirty or worn.	Clean or replace Suction Cup *(see Section 5-2-4)*.
	Gripper Return Plate is dirty or stuck.	Clean Gripper Return Plate *(see Section 5-2-9)*.
	Slip Dispense Carriage vacuum ports clogged.	Clean Slip Dispense Carriage vacuum ports *(see Section 5-2-6)*.
	Transfer Head Pads stuck.	Clean Transfer Head Pads.
	Other Error.	Call Thermo Fisher Service Team for support.

5 - Cleaning and Maintenance

5-1 - Cleaning Schedules

For **Daily Tasks** see *Section 2-1.*

For **Weekly Tasks** see *Section 2-2.*

If the Shandon ClearVue has been used with, or has come into contact with, hazardous material, ensure that the appropriate decontamination procedures have been followed (See World Health Organization 'Laboratory Biosafety Manual').

Cleaning or decontamination methods, other than those recommended in this document, should be checked with a Thermo Fisher Scientific agent to ensure that they will not damage the instrument.

Always wear suitable protective coverings when carrying out cleaning using chemicals.

Do not use chemicals which may interact with the materials of manufacture - If in doubt contact your Thermo Fisher Scientific agent.

Do not use hypochlorites in strong solution.

Do not use abrasive compounds or metal components to clean the Shandon ClearVue or its accessories.

Always clean up spills immediately.

In the event of a major spillage on or around the Shandon ClearVue, immediately disconnect the instrument from the Mains supply, and do not reconnect until the instrument has been thoroughly dried and check by a Thermo Fisher Service Engineer.

Potentially lethal voltages in excess of 110VAC are present within the Shandon ClearVue - Do not remove any access covers.

Disconnect the Shandon ClearVue from the Mains before cleaning.

Inspect the instrument for obvious damage or wear whenever it is being cleaned.

5-2 - User Cleaning and Maintenance

The following sections give details on how to carry out basic cleaning and maintenance procedures.

If a problem occurs which is not covered in these sections contact Thermo Fisher Scientific Service Department.

5-2-1 - Replacing Seals

Seals are used to ensure air-tight or liquid-tight seals either for the reliable operation of the instrument, or for the safety of the user.

If these seals become encrusted with **Mountant** their ability to create a good seal is impaired and they must be replaced.

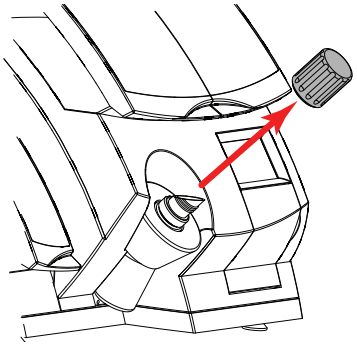
There are two user serviceable seals on the Shandon ClearVue.

These are located on:

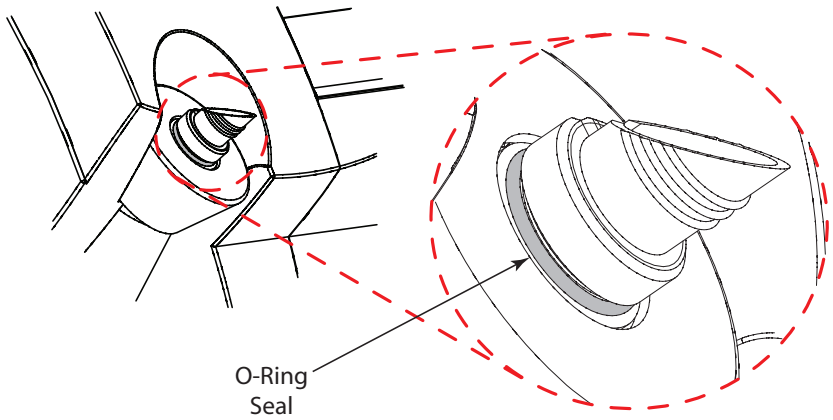
- The **Mountant Bottle** spout.
- The **Xylene Tray**.

To remove the **O-Ring Seal** on the **Mountant Bottle** spout for replacement:

1. Ensure that there are no **Baskets** currently being processed within the Shandon ClearVue.
2. Unscrew and remove the **Mountant Bottle Cap**.



3. Identify the black **O-Ring Seal** at the base of the **Mountant Bottle** spout.



4. Use a pair of scissors or wire-cutters to carefully cut the **O-Ring Seal**, ensuring none of the surfaces of the **Mountant Bottle** are damaged in the process.

To remove the **O-Ring Seal** on the **Mountant Bottle** spout for cleaning:

1. Follow *Steps 1 to 3* above.
2. Carefully prise the **O-Ring Seal** from its seat, ensuring none of the surfaces of the **Mountant Bottle** are damaged in the process.

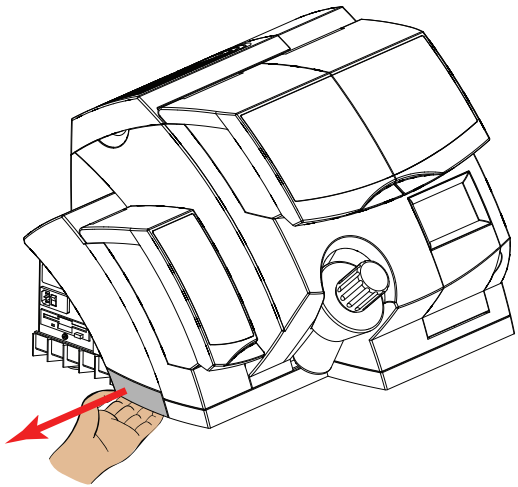
Do not use blades to remove seals as injury may occur.

3. Manoeuvre the **O-Ring Seal** over the large diameter threaded portion of the **Mountant Bottle** spout.
4. Roll the **O-Ring Seal** up the spout until it comes off.

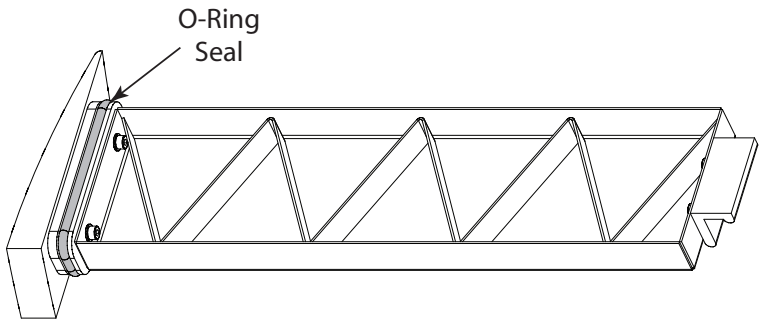
To remove the **O-Ring Seal** on the **Xylene Tray** for replacement:

Xylene is Harmful.

1. Ensure that there are no **Baskets** currently being processed within the Shandon ClearVue.
2. Taking care not to spill any remaining xylene, remove the **Xylene Tray** and empty out any xylene.



3. Identify the black **O-Ring Seal**.



4. Use a pair of scissors or wire-cutters to carefully cut the **O-Ring Seal**, ensuring none of the surfaces of the **Xylene Tray** are damaged in the process.

To remove the **O-Ring Seal** on the **Xylene Tray** for cleaning:

1. Follow *Steps 1 to 3* above.
2. Carefully prise the **O-Ring Seal** from its seat, ensuring none of the surfaces of the **Xylene Tray** are damaged in the process.

Do not use sharp objects to prise the seal out.

3. Manoeuvre the **O-Ring Seal** onto the larger adjacent portion of the **Xylene Tray**.
4. Roll the **O-Ring Seal** along the surface of this portion until it comes off.
5. Carefully guide the **O-Ring Seal** over the rest of the **Xylene Tray** until it is clear.

To clean the **O-Ring Seals**:

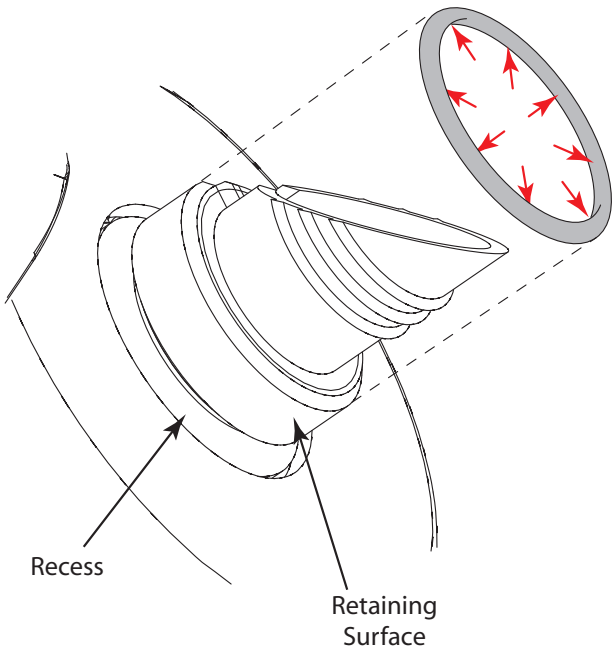
1. Remove the **O-Ring Seal** using the appropriate method described above.
2. Use a xylene-damp cloth to remove any encrusted **Mountant** from the **O-Ring Seal**.
3. Check the seal for signs of tearing or splitting, and replace if necessary.

To replace the **O-Ring Seals**:

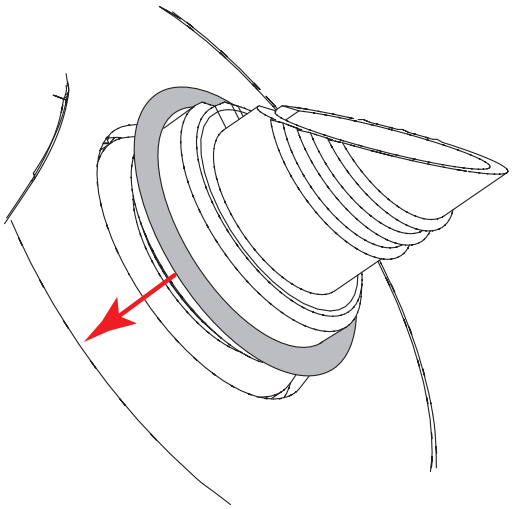
Note:

The diagrams show only the Mountant Bottle spout seal replacement, but the technique is common for both circumstances.

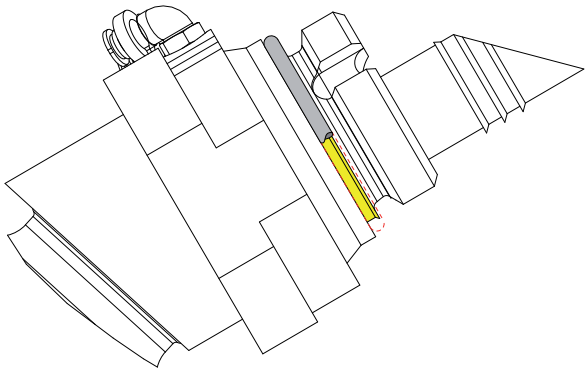
1. Carefully stretch the **O-Ring Seal** to allow it to fit over the **Retaining Surface**.



2. Once it is over the **Retaining Surface**, roll it towards the **Recess**.

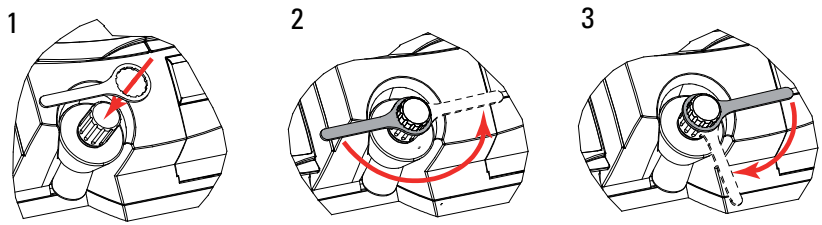


3. Allow the **O-Ring Seal** to snap into place, then ensure it is properly seated in the **Recess**.



5-2-2 - Mountant Bottle

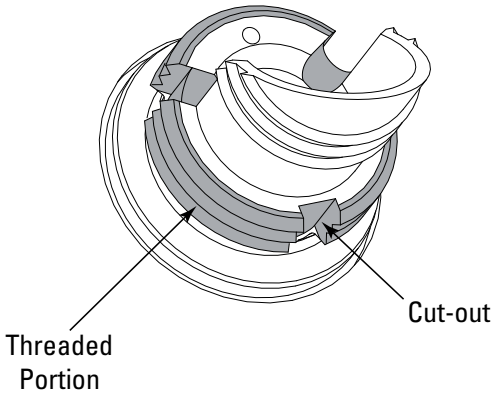
If the **Mountant Bottle Cap** becomes encrusted with **Mountant** and difficult to open, the following removal procedure should be followed:



1. Place the **Cap Removal Tool** over the **Mountant Bottle Cap**.
2. Turn anti-clockwise by half a turn.
3. Turn clockwise by a quarter of a turn.
4. Repeat *Steps 2* and *3* until the **Mountant Bottle Cap** is fully removed.

Once the **Mountant Bottle Cap** has been removed, the following cleaning procedure should be followed.

- Use a xylene soaked cloth to remove any dried **Mountant** from the **Mountant Bottle** spout.



Note:

Pay particular attention to the Threaded Portion and the 3 Cut-Outs located in the threaded portion.

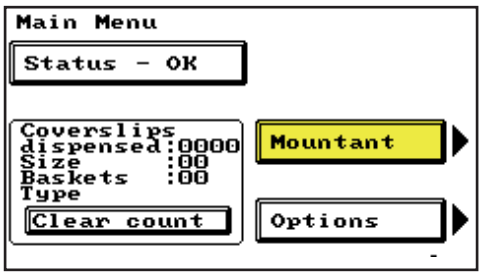
- Replace the Mountant Bottle Cap.

Hand tighten the Mountant Bottle Cap only - do not use the Cap Removal Tool!

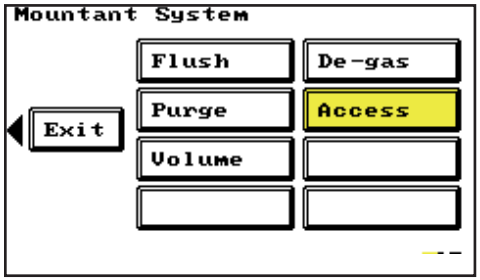
5-2-3 - Dispense Head Cleaning Station

To clean the **Dispense Head Cleaning Station**:

1. From the **Main Menu**, press the **Mountant** key on the **Touch Screen**.



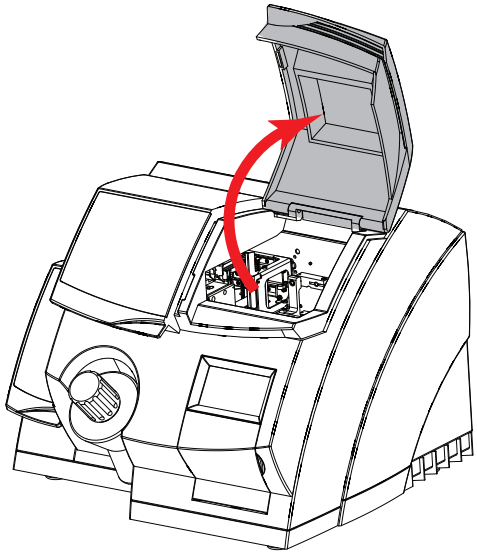
2. Press the **Access** key on the **Touch Screen**.



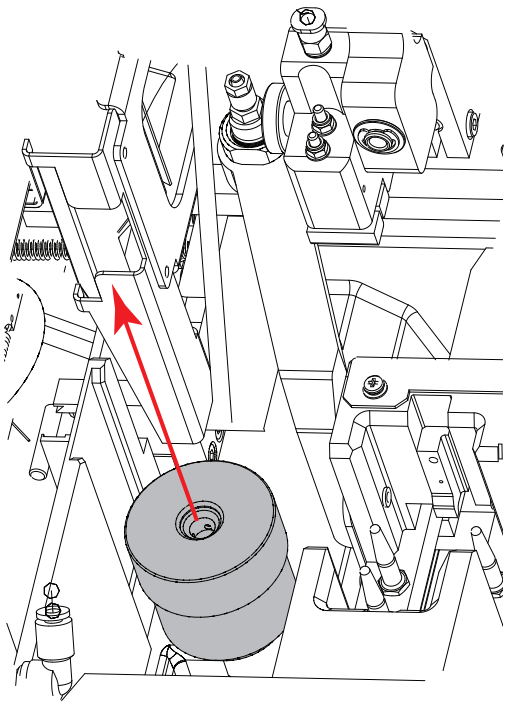
3. Press the **Start** key on the **Touch Screen**.

4. Wait for activity within the Shandon ClearVue to stop, and **Access Ready** to flash on the **Touch Screen.**

5. Open the **Access Door**.

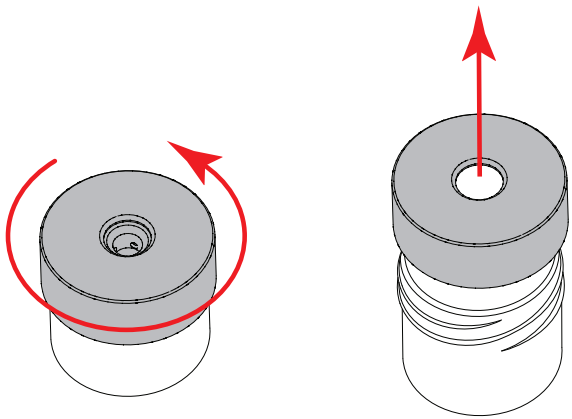


6. The **Dispense Head Cleaning Station** should now be accessible from above.
7. Pull the **Dispense Head Cleaning Station** upwards to remove it from its fixing.

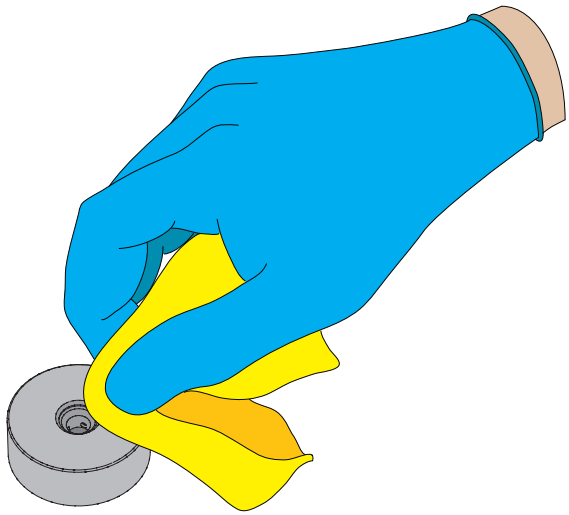


Take suitable precautions when dealing with xylene.

8. Remove the **Dispense Head Cleaning Station Lid** as shown and dispose of the contents according to local regulations.



9. Use a xylene damp cloth to clean all the surfaces of the **Dispense Head Cleaning Station** including the top of the internal parts.

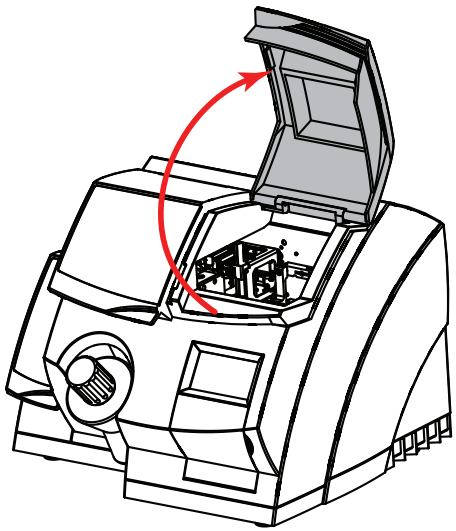


10. Refill to about ¾ full with xylene.
11. Reassemble the **Dispense Head Cleaning Station** and refit into the Shandon ClearVue.
12. Top-up the **Dispense Head Cleaning Station** as described in *Section 2-8*.

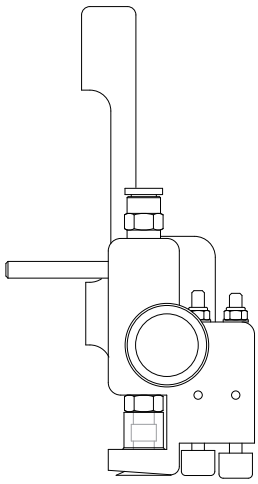
5-2-4 - Changing the Suction Cup

To remove the **Suction Cup**:

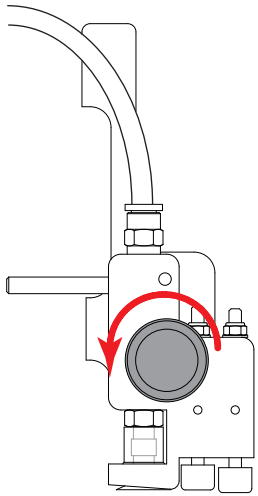
- Open the **Access Door**.



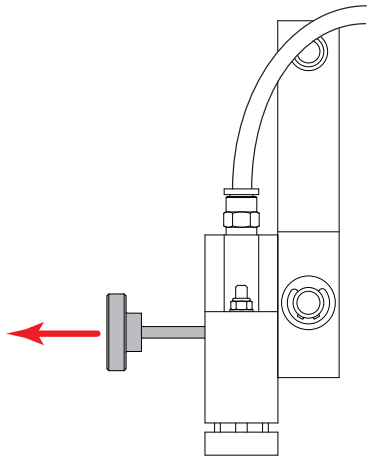
- Identify the **Coverslip Transfer Head**.



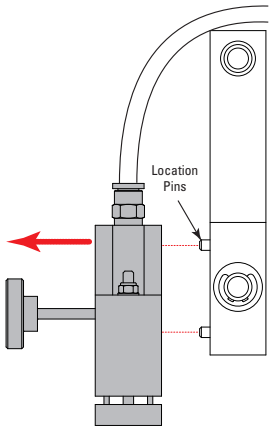
- Loosen the **Thumbscrew** by turning it anti-clockwise.



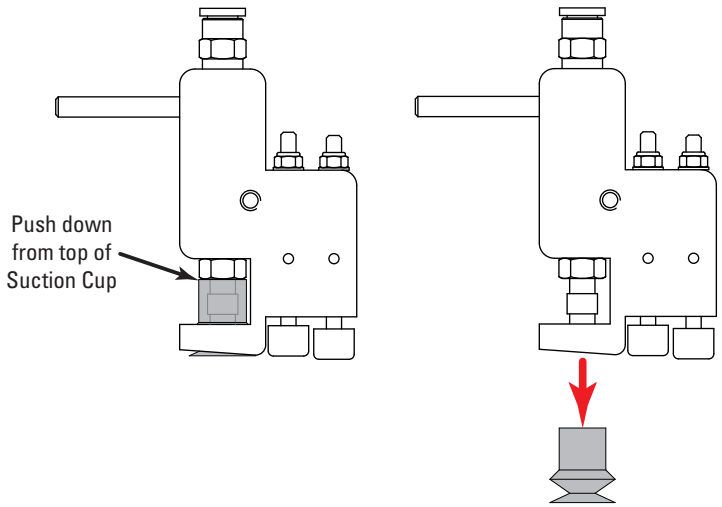
- Pull the **Thumbscrew** out as shown to release the **Coverslip Transfer Head**.



- Note the position of the **Coverslip Transfer Head** and then remove it from the **Location Pins** as shown.



- Remove the **Suction Cup** by pushing down from the top of the rubber as shown.

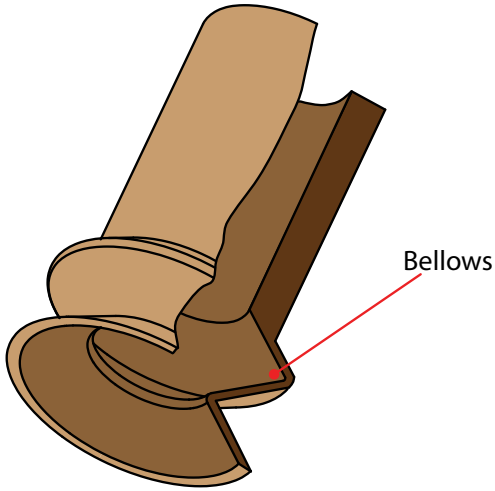


To clean the **Suction Cup**:

- Remove the **Suction Cup** as described above.
- Soak the Suction Cup in xylene.

Xylene is harmful!

- Ensure that all **Mountant** is cleared from the inside of the **Suction Cup** - especially the **Bellows**.



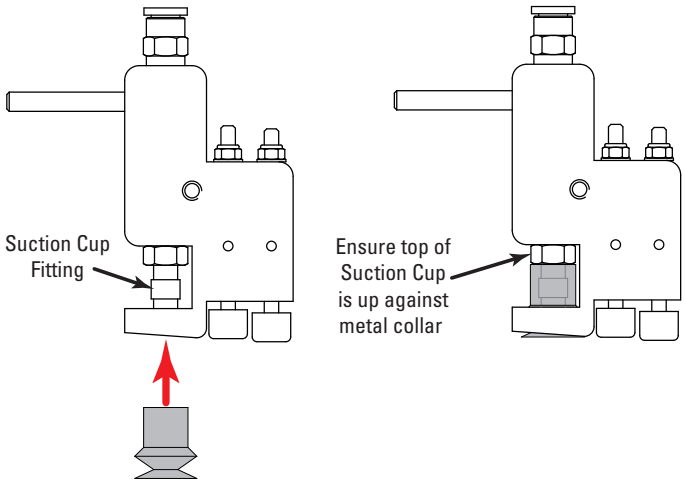
Note:

A cotton-bud (Q-tip) can be used to wipe the internal surfaces of the Suction Cup if necessary.

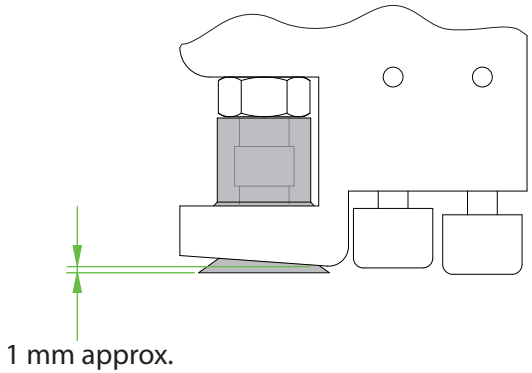
- Remove the Suction Cup from the xylene and allow to air-dry.

To refit the **Suction Cup:**

- Push it onto the **Suction Cup Fitting** as shown.



- Ensure the **Suction Cup** protrudes from the base of the **Coverslip Transfer Head** as shown.

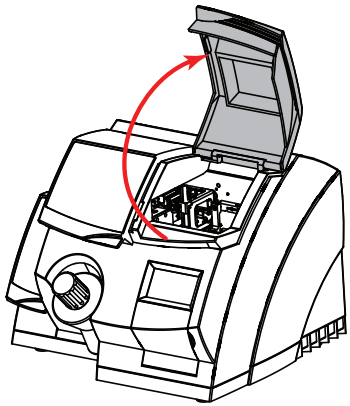


- Replace the **Coverslip Transfer Head** onto the **Location Pins** and tighten the **Thumbscrew**.

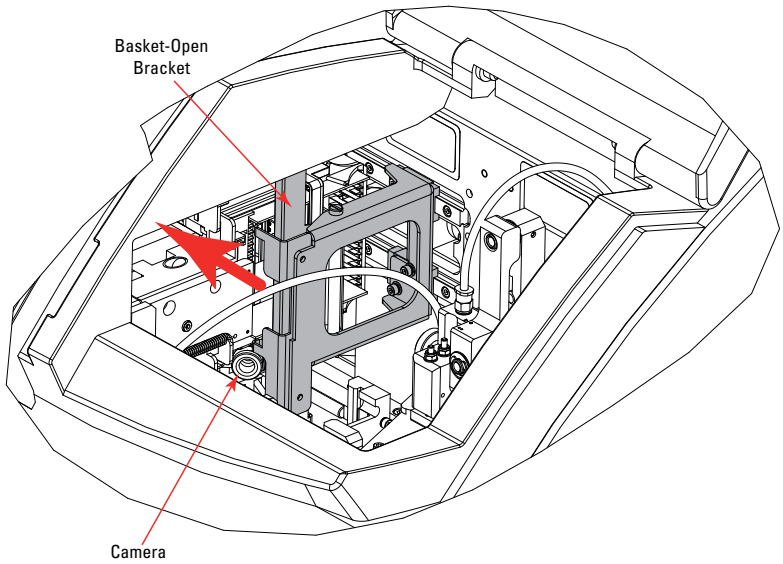
5-2-5 - Cleaning the Camera

To clean the **Camera**:

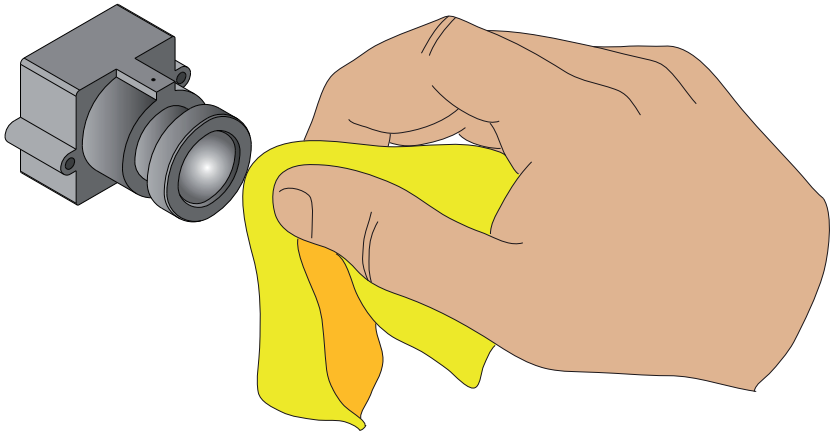
- Switch off the Shandon ClearVue.
- Open the **Access Door**.



- Push the **Basket-Open Bracket** in the direction shown to allow access to the **Camera**.



- Carefully wipe the **Camera Lens** using a **Lint-Free Cloth**.



Never use solvents or water to clean the camera.

Never clean the camera with the Shandon ClearVue switched on.

- Close the Access Door and restart the Shandon ClearVue

Note:

Cleaning the camera is NOT a routine maintenance task, and should only be done if directed to by this document or by a Thermo Fisher Service Engineer.

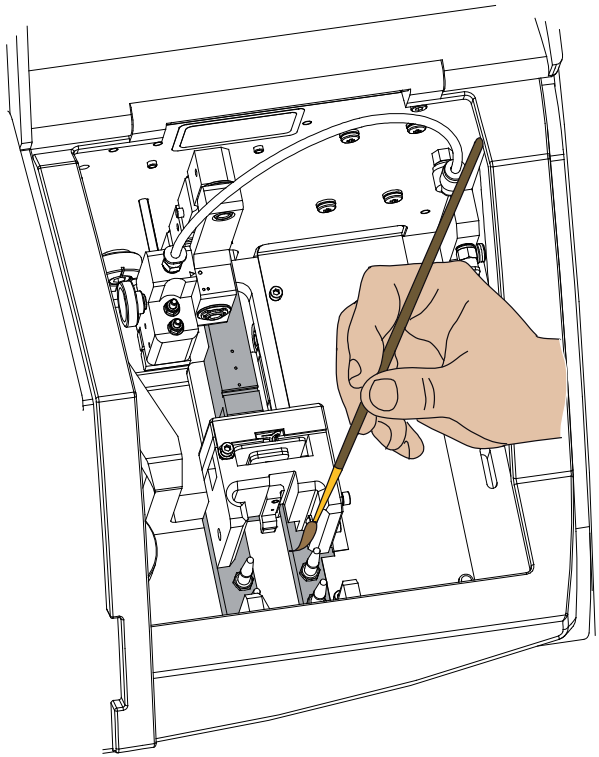
5-2-6 - Cleaning the Slip Dispense Carriage

To clean the **Slip Dispense Carriage**:

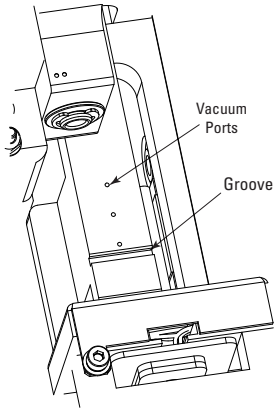
- Remove the **Coverslip Hopper** as described in *Section 2-12*.
- Without turning the **Coverslip Hopper** upside down, check the bottom of the **Hopper** for any broken **Coverslips**.

Broken glass may be present!

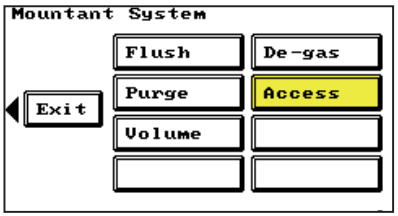
- If any broken **Coverslips** are present, carefully remove them.
- Using the **Brush** provided, clear the top of the **Slip Dispense Carriage** of any glass debris.



- Pay particular attention to the **Groove** and **Vacuum Ports**, which must be kept clear of glass dust at all times.



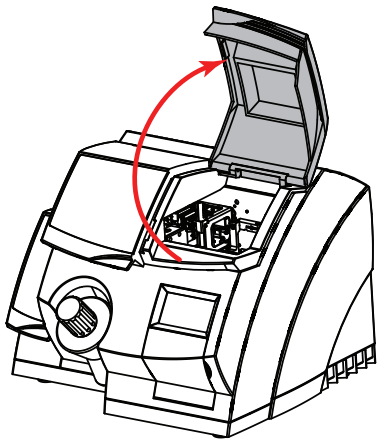
- If the **Vacuum Ports** are blocked use a suitable implement (less than 1mm (0.039”) in diameter) to push the blockage through.
- Remove the **Slip Dispense Skirt** (*see Section 5-2-10*) and clean in the recess.
- Move the **Slip Dispense Carriage** forwards if necessary by pressing the **Access** button in the **Mountant Screen** and then following the steps given in *Section 2-8* for access to the **Dispense Head Cleaning Station**.



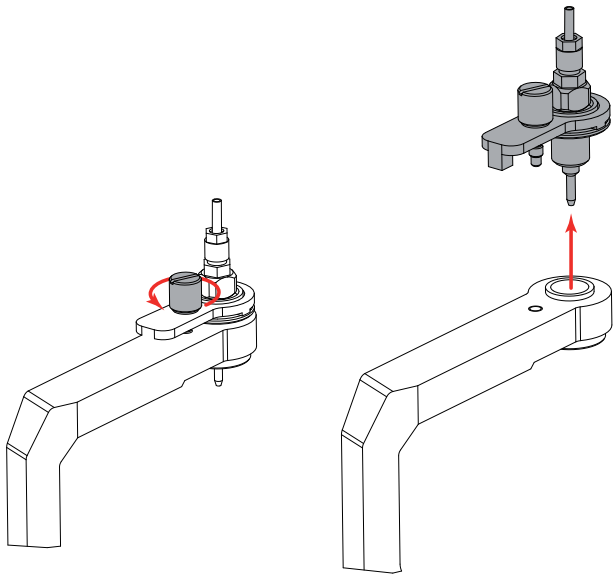
5-2-7 - Removal and Cleaning of the Mountant Dispense Needle

To remove the **Mountant Dispense Needle Assembly**:

- Open the **Access Door**.

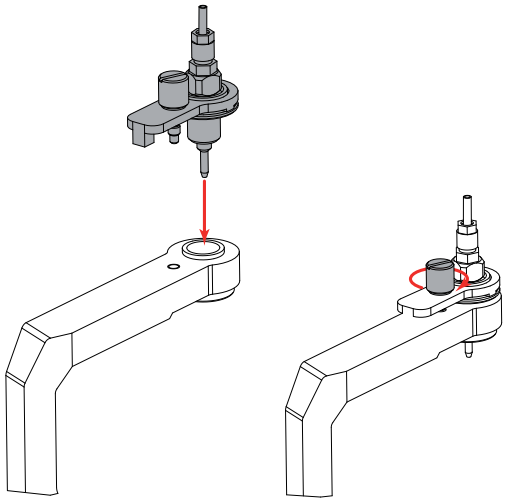


- Unscrew the **Mountant Dispense Needle Assembly** and lift it out of the **Support Arm** as shown.



Do not disconnect the tubing!

- Place the **Mountant Dispense Needle Assembly** in a container of xylene and allow to soak overnight.
- When the **Needle** is clean, replace the **Mountant Dispense Needle Assembly** in the **Support Arm.**



- Screw the **Mountant Dispense Needle Assembly** back in as shown.
- **Flush** the system (*see Section 2-10*).

Take care not to screw the Mountant Dispense Needle Assembly in cross-threaded as this will damage the support arm.

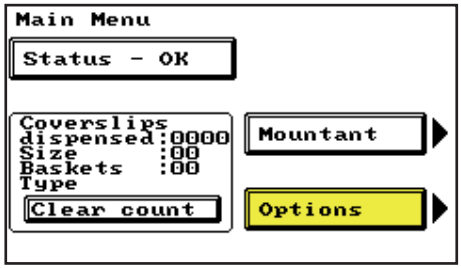
The Mountant Dispense Needle Assembly should only be tightened by hand - do not use a wrench.

Ensure the Dispense Head Cleaning Station is topped up.

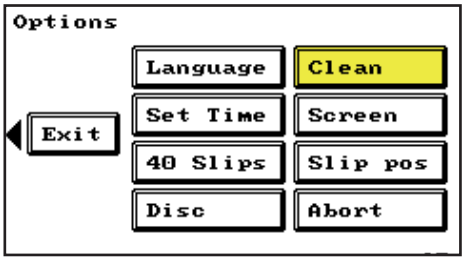
5-2-8 - Cleaning the Touch Screen

To clean the Touch Screen display:

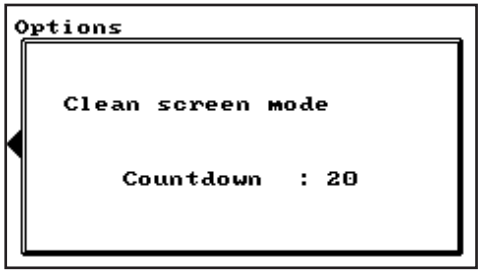
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.



2. Press the **Clean** key.



3. The **Cleaning** screen will appear, in which it is possible to touch the **Touch Screen** display without any effect, enabling the cleaning of the screen.



4. The **Cleaning** screen shows a countdown timer which shows how long the cleaning screen will continue to be displayed for.

When cleaning the **Touch Screen**:

- Use a soft, water-damp cloth to wipe the screen.
- Thoroughly dry the screen using a lint-free cloth.

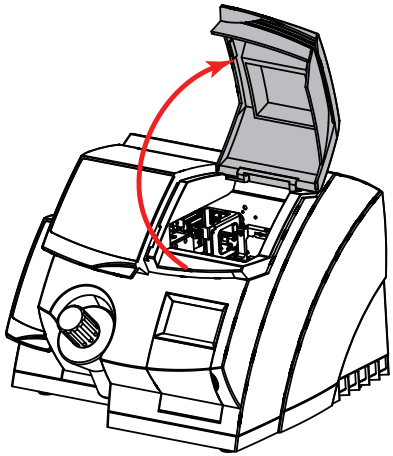
Do not use solvents to clean the Touch Screen.

Wiping the Touch Screen when the Cleaning screen is not displayed may cause unexpected results.

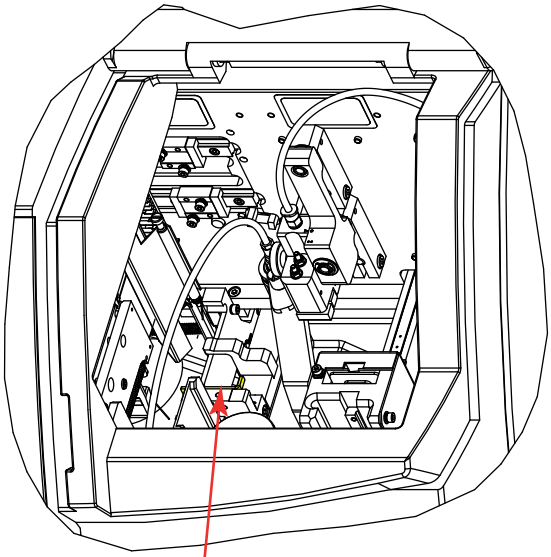
5-2-9 - Cleaning the Gripper Return Plate

To clean the **Gripper Return Plate** in-situ:

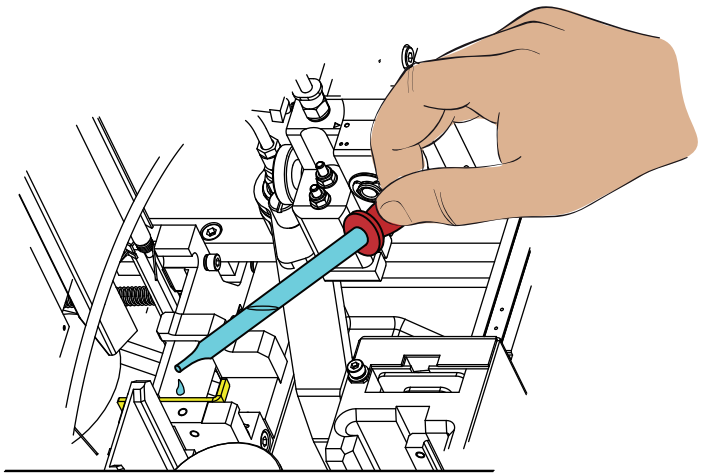
- Open the **Access Door**.



- Locate the **Gripper Return Plate**.



- Use a pipette to drip xylene onto the **Gripper Return Plate**.



Xylene

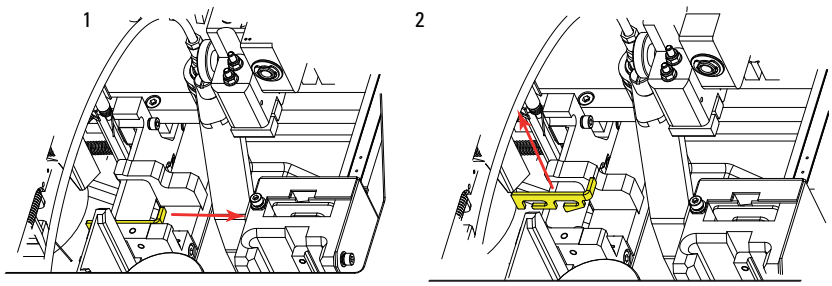
Pay particular attention to the areas where the Gripper Return Plate contacts any other surface.

Ensure that the Gripper Return Plate is able to move freely from side to side.

If the **Gripper Return Plate** is heavily contaminated with **Mountant**, it may be necessary to remove it for a more thorough clean.

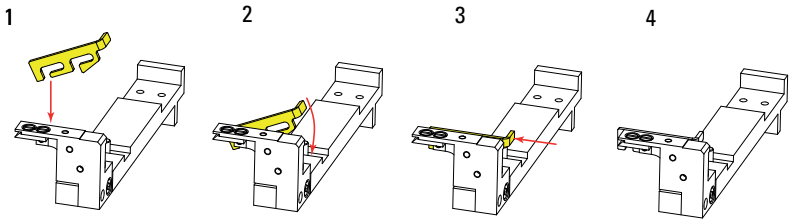
To remove and clean the **Gripper Return Plate**:

- Locate the **Gripper Return Plate** as above.
- Using the protruding handle, pull the **Gripper Return Plate** to the right and then up.



- The **Gripper Return Plate** should now lift off its **Location Pins**.
- Soak the **Gripper Return Plate** in xylene to remove any **Mountant**.
- Use xylene to clean the **Location Pins** and other contact areas.

The following diagram explains how to replace the **Gripper Return Plate**:

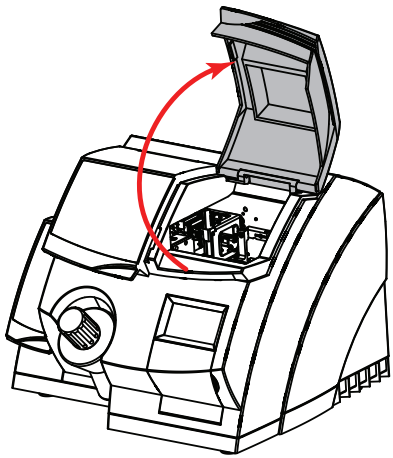


Ensure that the Gripper Return Plate is able to move freely from side to side.

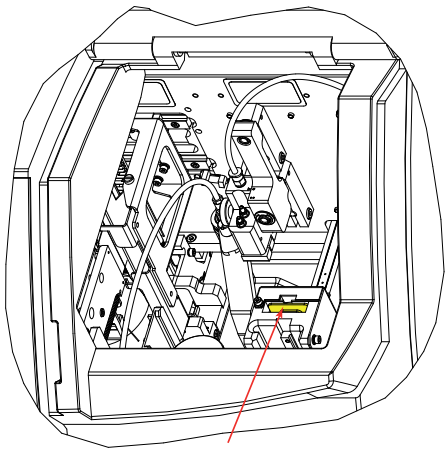
5-2-10 - Cleaning the Slip Dispense Skirt

If the Slip Dispense Skirt becomes covered in glass dust it can be removed and cleaned as follows:

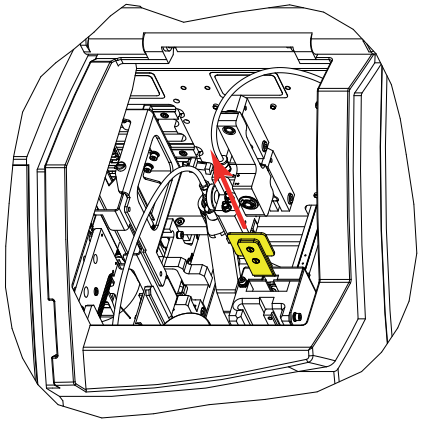
- Open the **Access Door**.



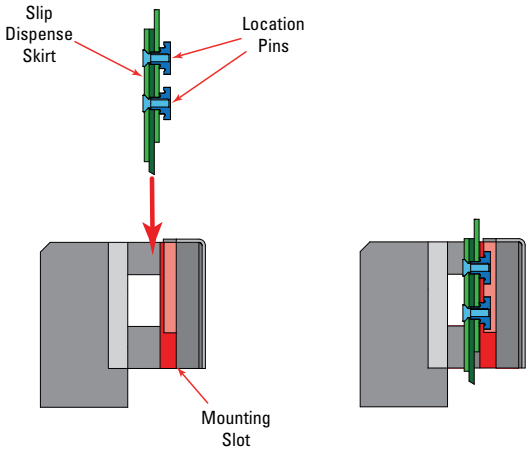
- Identify the **Slip Dispense Skirt**.



- Lift the **Slip Dispense Skirt** out of the **Mounting Slot**.



- Wipe any glass dust off the **Slip Dispense Skirt** with a dry paper towel.
- Replace the **Slip Dispense Skirt** into the **Mounting Slot** and ensure that it is pushed fully down so that it rests on the lower **Location Pin** as shown.



5-2-11 - Cleaning the Slide Grippers

The Shandon ClearVue uses a pair of **Slide Grippers** to remove the slides from the **Basket** and hold them in place during coverslipping.

The **Slide Grippers** are self-cleaning and should only require cleaning once per year during the annual service.

However, in certain situations it may be necessary to perform additional cleaning; particularly in the following cases:

- Excessive overspill of **Mountant**.
- **Mountant** spraying due to failure to top up the **Mountant Bottle**.
- Debris stuck in the **Gripper Jaw**.

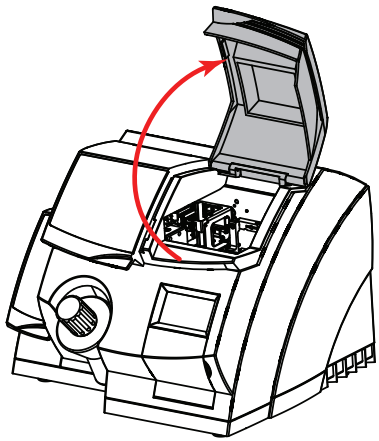
To clean the **Slide Grippers**:

Do not, under any circumstances, use abrasive cleaners, abrasive materials or unapproved solvents to clean the painted surface of the Long Gripper.

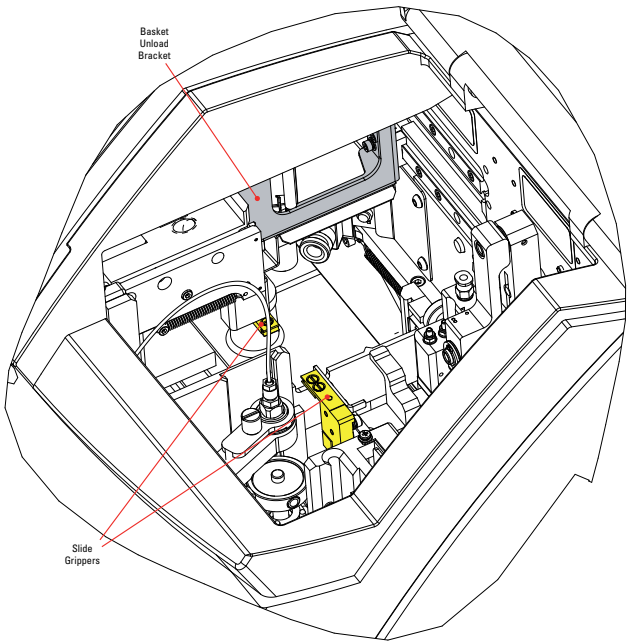
Damage to the painted surface of the Long Gripper will impair the performance of the Shandon ClearVue, and may, in extreme cases cause the instrument to stop functioning or break slides.

Xylene fumes!

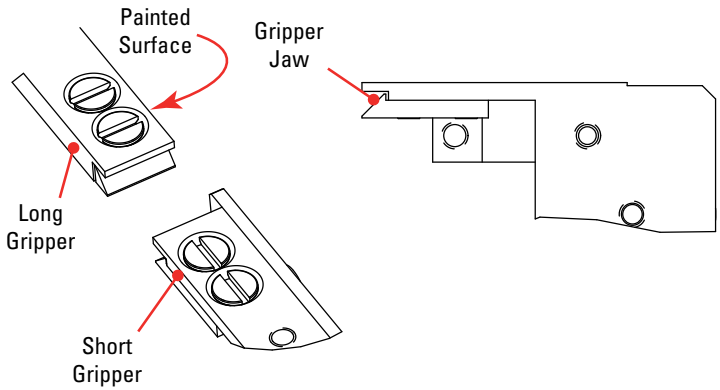
1. Switch off the Shandon ClearVue.
2. Open the **Access Door**.



3. Identify the **Slide Grippers.**



4. To improve access to the **Slide Grippers**, push the **Basket Unload Bracket** as far over to the left as it will go.
5. Remove the **Gripper Return Plate** *(see Section 5-2-9)*.
6. Remove any debris from the **'V'** in each **Gripper**.



Do not use force to remove debris.

Note:

If the debris is stuck with dried Mountant, use a pipette to apply xylene to soften the Mountant to allow removal.

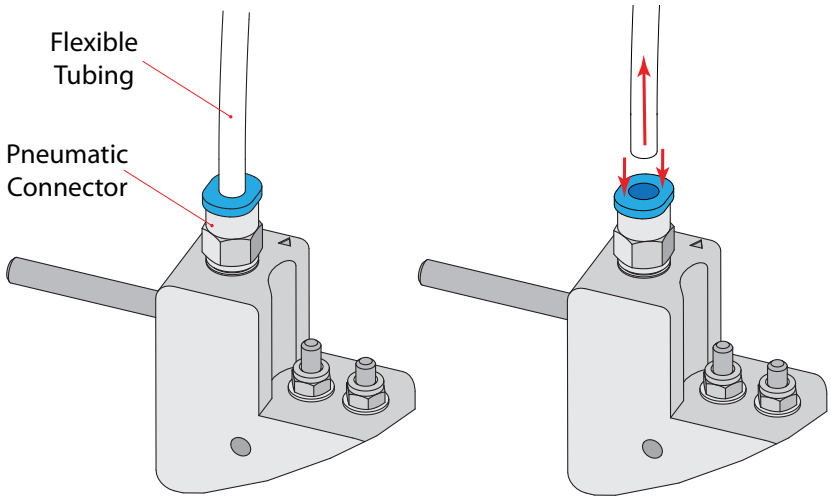
It is possible to reach into the Load Door and push the Long Gripper to the right of the instrument to improve access.

7. Use a xylene-damp cloth to wipe any dried **Mountant** from the **Slide Grippers** - Pay particular attention to both of the surfaces of the **'V'** on both of the **Gripper Jaws**.

5-2-12 - Cleaning the Coverslip Transfer Head

If the internal airway in the **Coverslip Transfer Head** becomes blocked it can be cleaned as follows:

- Remove the **Coverslip Transfer Head** as described in *Section 3-3*.
- Detatch the **Flexible Tubing** from the top of the **Coverslip Transfer Head**, by holding down the blue portion of the **Pneumatic Connector** and pulling the **Flexible Tubing** out.



- Ensure that the internal airway is free from blockages such as glass debris or dried **Mountant**.

Note:

The Coverslip Transfer Head can be soaked in xylene to aid removal of dried Mountant.

Xylene is harmful!

- Once clean, remove the **Coverslip Transfer Head** from the xylene and allow to air-dry.

- Refit the **Coverslip Transfer Head** making sure that the **Flexible Tubing** is fully inserted into the **Pneumatic Connector**.

Note:

To check that the Flexible Tubing is correctly fitted, pull firmly on the Flexible Tubing to ensure it does not detatch.

Failure to ensure that the Flexible Tubing is properly connected may result in poor coverslipping performance.

5-3 - Taking Out of Operation and Storage

If the Shandon ClearVue is to be taken out of operation for a long period of time, or put into storage, ensure the following procedure has been followed:

- Empty the **Mountant Bottle** and clean with xylene.
- Flush the system with xylene (see *Section 2-10*).
- Cap the **Mountant Dispense Needle**.
- Empty the **Dispense Head Cleaning Station**.
- Empty the **Xylene Tray**.
- Ensure the instrument has been thoroughly cleaned and decontaminated as necessary.

If the Shandon ClearVue has been used with, or has come into contact with, hazardous material, ensure that the appropriate decontamination procedures have been followed (See World Health Organization 'Laboratory Biosafety Manual').

- If the instrument is to be put into storage, re-pack it into its original packing (see *Appendix C*).

If the Shandon ClearVue has been out of operation for a month or longer, ensure any Mountant is fully removed by performing a Flush cycle using xylene.

Appendix A - Spares and Accessories

Accessories

Item	Part No.
Coverslip Hopper, Pk. of 2 *(24 x 40mm, #1.5, 500 off)*	A79210050
Coverslip Hopper, Pk. of 2 *(24 x 50mm, #1.5, 500 off)*	A79210051
Coverslip Hopper, Pk. of 2 *(24 x 55mm, #1.5, 500 off)*	A79210052
Coverslip Hopper, Pk. of 20 *(24 x 40mm, #1.5, 500 off)*	A79210074
Coverslip Hopper, Pk. of 20 *(24 x 50mm, #1.5, 500 off)*	A79210075
Coverslip Hopper, Pk. of 20 *(24 x 55mm, #1.5, 500 off)*	A79210076
Gemini Basket with Black Slide Retainer (Pk of 5)	A79210064
Gemini Basket with White Slide Retainer (Pk of 5)	A79210065
V24 Basket with Black Slide Retainer (Pk of 5)	A79210069
V24 Basket with White Slide Retainer (Pk of 5)	A79210070
Sakura Basket with Black Slide Retainer (Pk of 5)	A79210066
Sakura Basket with White Slide Retainer (Pk of 5)	A79210067
Leica Basket with Black Slide Retainer (Pk of 5)	A79210072
Leica Basket with White Slide Retainer (Pk of 5)	A79210073
Vent Extraction Kit	A79210080
V24 Kit	A79210071
Sakura Hanger Kit (Pk of 5)	A79210068
Cytology Loading Tray	A79210092
Shandon ClearVue Mount XYL	4212
Shandon ClearVue Mount	4211

Spares

Item	Part No.
Fuse Kit (Pk of 2)	A79210104
Carbon Filter	9990610
Carbon Filter (Pk of 6)	7411258
Slip Dispense Skirt and Support	A79210095
Suction Cup (Pk of 3)	A79210081
Dispense Head Cleaning Station	A79210027
Mountant Bottle (Complete)	A79210045
Mountant Bottle Seal Kit	A79210096
Xylene Tray Seal	AP15283
Gripper Return Plate	A79230285
Soft Hair Brush	P12257
Pure Bristle Brush	P12940

Appendix B - Approved Reagent List

B1 - Reagents

Xylene

Toluene

Ethanol

Industrial Methylated Spirit (IMS) - up to 5% methanol in ethanol

Isopropanol (IPA)

Water

Sodium Hypochlorite (10% in water)

B2 - Mountants

Shandon ClearVue Mount XYL

Shandon ClearVue Mount

Note:

All Mountants are available from Thermo Fisher Scientific.

Appendix C - Transportation Instructions

C1 - Things to Do Before Packing

- Ensure the instructions for cleaning (see *Section 5-3*) have been followed.

Discard chemicals according to local environmental procedures.

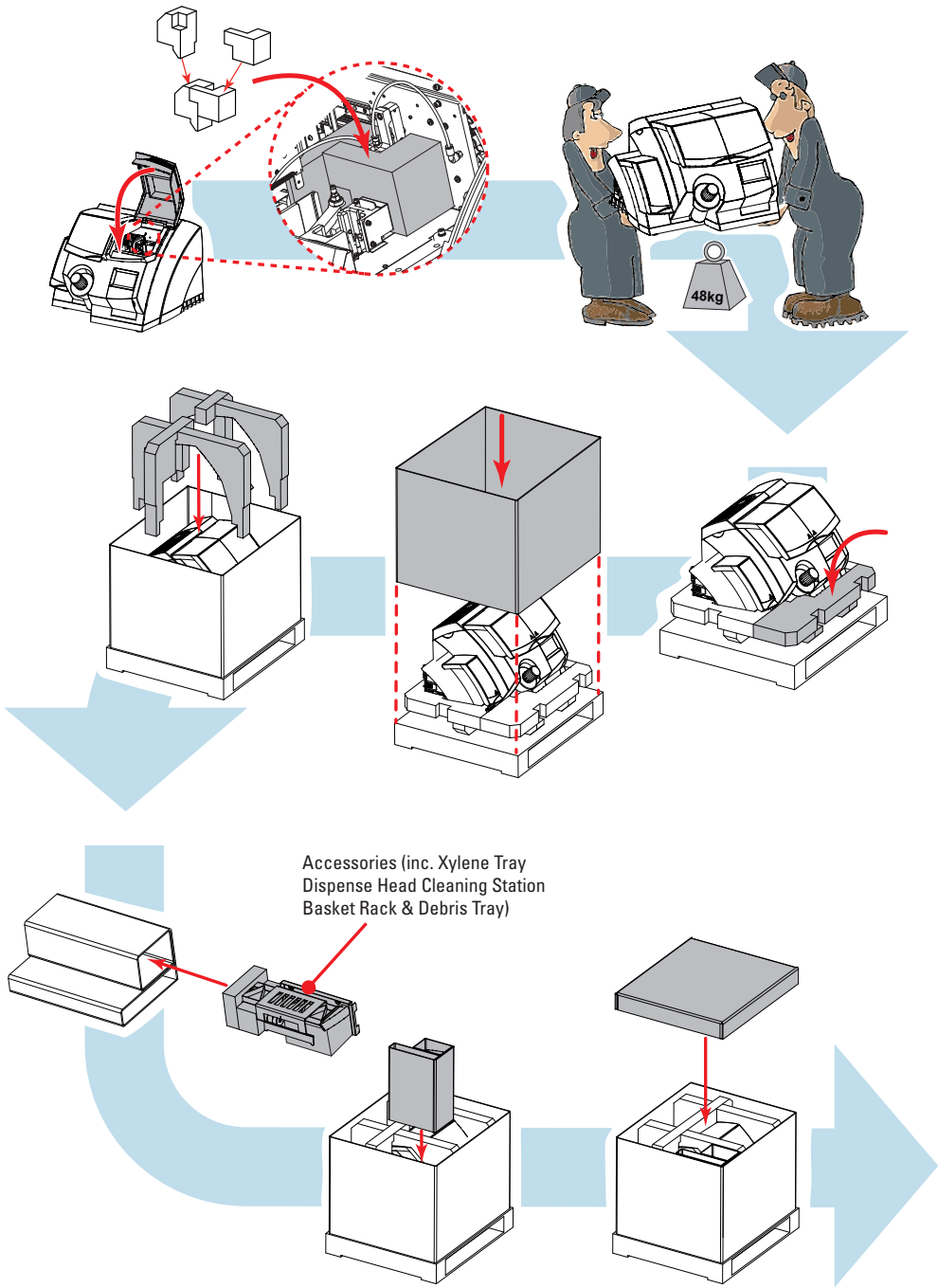
- Remove the following:
  - **Debris Tray**
    - Remove any discarded glass
    - Clean any **Mountant** off
    - Dry
  - **Dispense Head Cleaning Station**
    - Discard any liquid
    - Clean with xylene
    - Dry
  - **Xylene tray**
    - Discard any liquid
    - Dry
  - **Hopper**
- Remove the **Dispense Head** (see *Section 5-2-8*) and place in a suitable container to allow it to drain.
- Remove the **Mountant Bottle** and rinse with xylene, or replace with a fresh bottle.
- Pour 25ml of xylene into the clean **Mountant Bottle** and **Flush** the system (see *Section 2-10*).
- Replace the **Dispense Head.**

- When the **Flush** cycle is complete, check that the **Mountant Bottle Cap** is clear of **Mountant**.
- Place the **Dispense Head Cap** over the **Dispense Head Needle** to prevent the xylene which remains in the system from leaking out during transit.

Approximately 5ml of xylene will remain in the system - follow good laboratory practice when packing and unpacking.

- Disconnect the **Power Lead**.
- Ensure the **Battery Switch** has been set to the off **'O'** position.
- Follow the **Packing Instructions** on the following page.

C2 - Packing Instructions



Appendix D - Performing a Bead Test

The **Bead Test** is used to lay down lines of **Mountant** on slides, which remain uncoverslipped to allow inspection of the dispense quality.

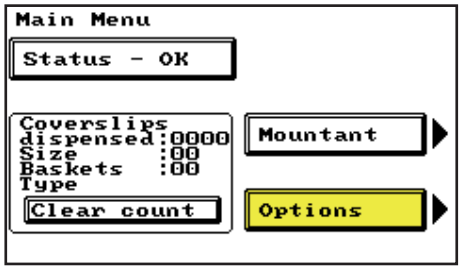
Note:

The Bead Test will typically lay down a line of Mountant suitable for the last type of coverslips that were used during processing.

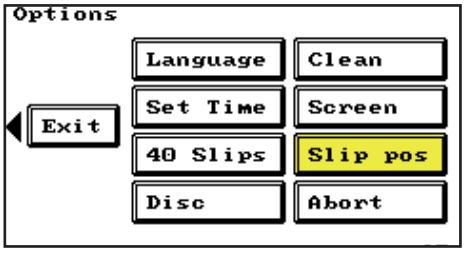
If the instrument has just been switched 'On', or the 'Clear Count' button on the Main Menu has been pressed, the Bead Test will lay down a line of Mountant in the default position (50mm coverslip, end position).

To perfrom a **Bead Test**:

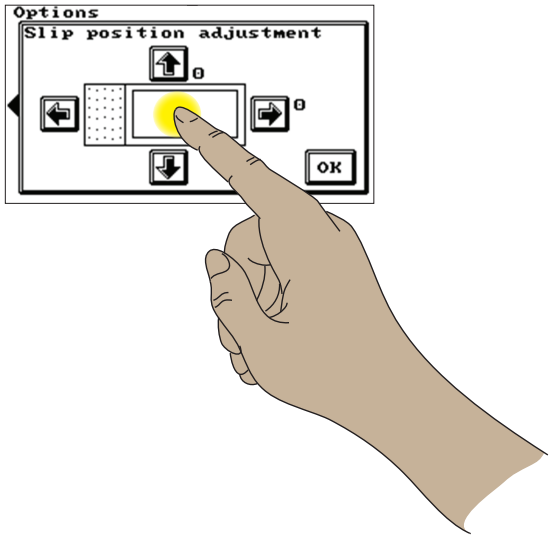
1. From the **Main Menu** press the **Options** key on the **Touch Screen**.



2. Press the **Slip Position** key.



3. Open all 4 doors on the instrument.
4. Place a **Basket** of dry slides on the **Load Rail** - Do not close the **Load Door**.
5. Touch the image of the coverslip.



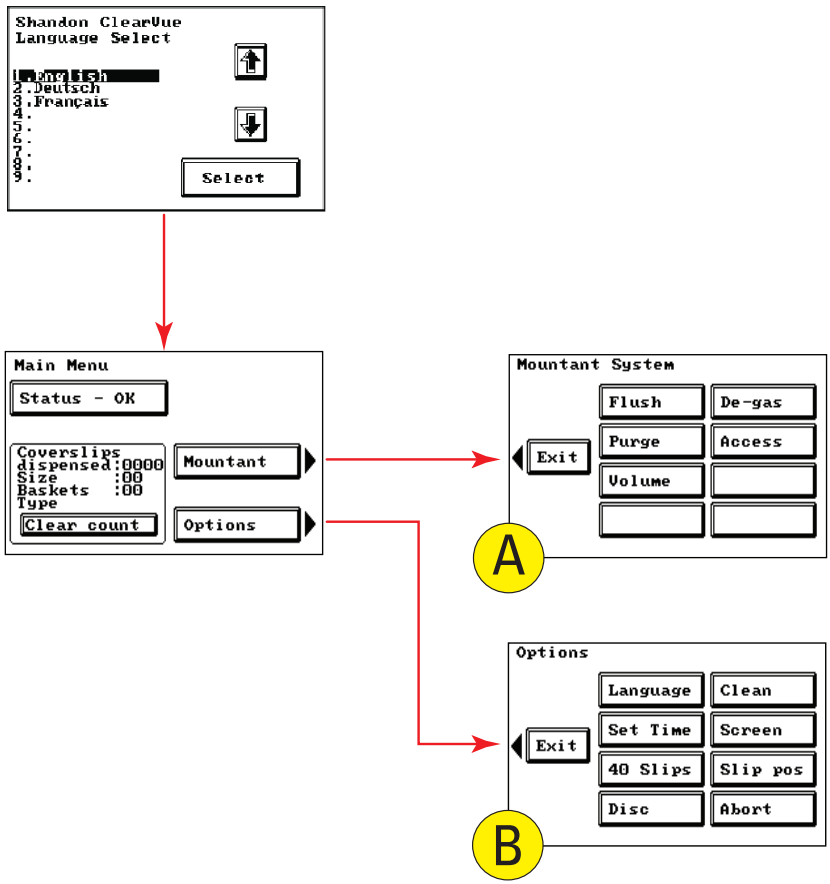
6. The image of the coverslip will disappear and the Shandon ClearVue will emit an ascending tone.
7. Close all the doors to begin processing the **Basket**.
8. When processing is complete, remove the **Basket** and lay the slides out on a flat surface.

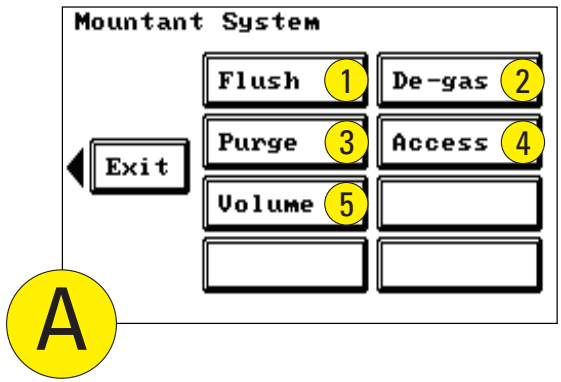
Note:

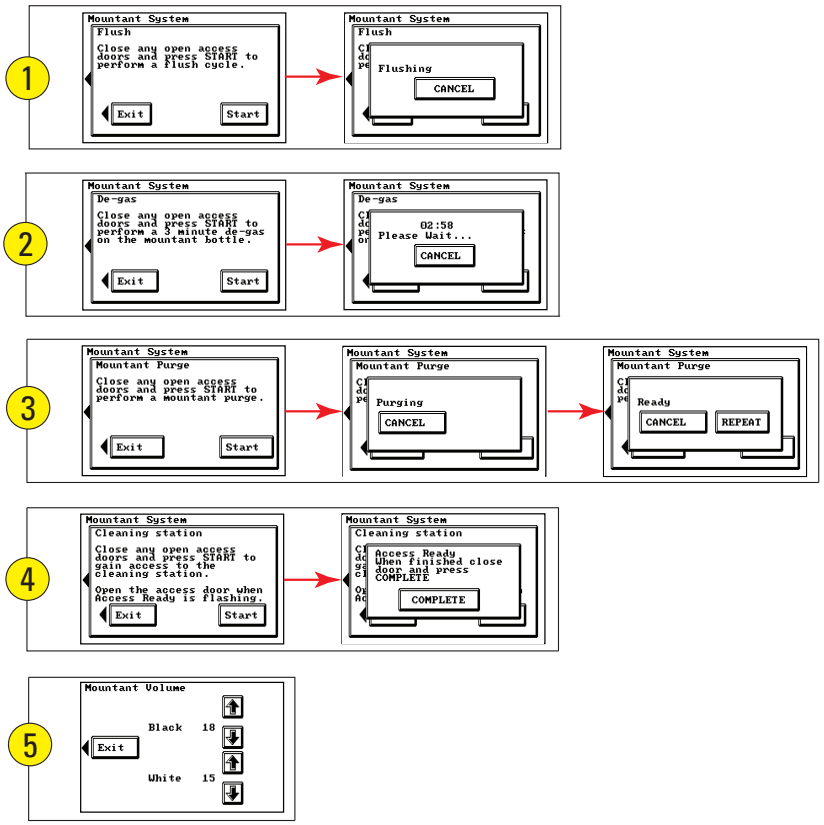
The Mountant will run when it is still a liquid, so ensure the slides are kept flat at all times.

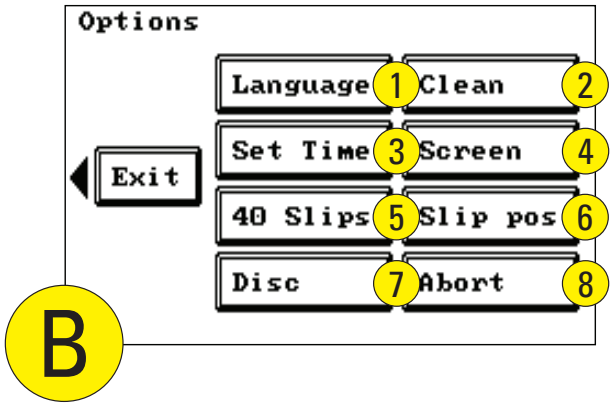
9. Compare the beads to those in *Section 4-2*.

Appendix E - Screen Maps

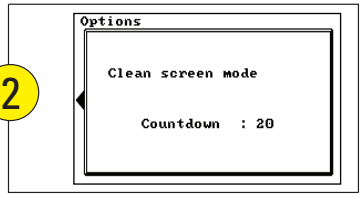


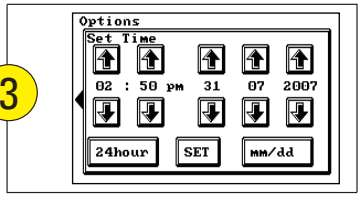

Mountant System
Flush
1
De-gas
2
Exit
Purge
3
Access
4
Volume
5
A

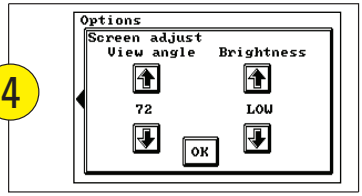

1
Mountant System
Flush
Close any open access doors and press START to perform a flush cycle.
Exit
Start
Mountant System
Flush
Flushing
CANCEL
2
Mountant System
De-gas
Close any open access doors and press START to perform a 3 minute de-gas on the mountant bottle.
Exit
Start
Mountant System
De-gas
02:58
Please Wait...
CANCEL
3
Mountant System
Mountant Purge
Close any open access doors and press START to perform a mountant purge.
Exit
Start
Mountant System
Mountant Purge
Purging
CANCEL
Mountant System
Mountant Purge
Ready
CANCEL
REPEAT
4
Mountant System
Cleaning station
Close any open access doors and press START to gain access to the cleaning station.
Open the access door when Access Ready is flashing.
Exit
Start
Mountant System
Cleaning station
Access Ready
When finished close door and press COMPLETE
COMPLETE
5
Mountant Volume
Black 18
Exit
White 15

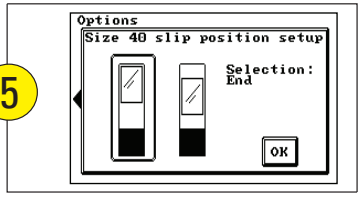

Options
Language
1
Clean
2
Set Time
3
Screen
4
Exit
40 Slips
5
Slip pos
6
Disc
7
Abort
8
B

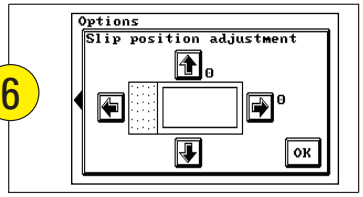

1
Shandon ClearVue
Language Select
1.English
2.Deutsch
3.Français
4.
5.
6.
7.
8.
9.
Select

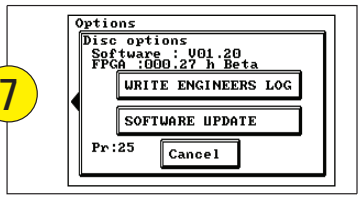

2
Options
Clean screen mode
Countdown : 20

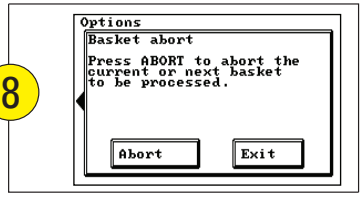

3
Options
Set Time
02 : 50 pm 31 07 2007
24hour
SET
mm/dd


4
Options
Screen adjust
View angle
Brightness
72
LOW
OK


5
Options
Size 40 slip position setup
Selection:
End
OK


6
Options
Slip position adjustment
0
0
OK


7
Options
Disc options
Software : V01.20
FPGA :000.27 h Beta
WRITE ENGINEERS LOG
SOFTWARE UPDATE
Pr:25
Cancel


8
Options
Basket abort
Press ABORT to abort the current or next basket to be processed.
Abort
Exit

Appendix F - Declaration of Conformity

Declaration of Conformity

This Declaration of Conformity is only valid when the instrument is used in accordance with the Operator Guide A79210100

Manufacturer's Name:	Thermo Shandon Limited (Trading as Thermo Fisher Scientific)
Manufacturer's Address:	Chadwick Road, Astmoor, Runcorn, Cheshire, WA7 1PR ENGLAND
Product Description:	Automatic Coverslipper
Product Designation:	**Shandon ClearVue™**
Part numbers:	*A79200001* *including accessories supplied as standard and the following accessories*
Coverslips:	*A79210050 – A79210054 (inclusive)* *A79210074 – A79210078 (inclusive)*
Mountant:	*4211, 4212*
Year of Marking (CE):	2007

This product conforms with the essential requirements of the following directives:

In Vitro Diagnostics Directive	98/79/EC
Low Voltage Directive	2006/95/EC

This product complies with the following International Standards:

EMC:	EN 61326-2-6 EN 61000-3-2 EN 61000-3-3
Safety:	EN 61010-2-101 IEC 61010-2-101 CAN/CSA C22.2 No. 61010-1 UL 61010-1

Issued by: K. Waldron
Quality Manager
Thermo Fisher Scientific
Anatomical Pathology, Diagnostics Division

Kevin Waldron Date: 7th February 2008

Optional accessories considered subject to the In Vitro Diagnostics Directive (IVDD) are specifically identified on this Declaration of Conformity. Further supplies of standard accessories are treated as spares. Convenience aids offered as accessories are not subject to the IVDD.

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