ClearVue
Coverslipper

Operator Guide

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Our mission is to **improve lives** by **enhancing cancer diagnostics.**

To every one of us at Epredia, this mission is personal. Many of us have loved ones and family who have been affected by cancer.

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Company Information

Epredia makes every attempt to ensure that the information contained in this supporting document is correct and clearly stated but does not accept responsibility for any errors or omissions. The development of Epredia products and services is an ongoing process. Please ensure that any published information you use as a reference is up to date and relates to the condition of the product. If necessary, check with your local Epredia representative.

Contact address

Shandon Diagnostics Limited, a subsidiary of Epredia
Tudor Road, Manor Park, Runcorn
Cheshire, WA7 1TA, UK

Tel: +44 (0) 1928 534000
Fax: +44 (0) 1928 534001
Web: www. epredia.com

USA Distributor

Richard-Allan Scientific LLC, a subsidiary of Epredia
4481 Campus Drive
Kalamazoo, MI 49008, USA

Tel: 1-800-522-7270
Fax: +1 269-372-2674
Web: www. epredia.com

CE IVD

These instruments conform to the general safety and performance of:

- In Vitro Diagnostics Regulation (IVDR) EU 2017/746

Symbols

The following symbols and conventions may be used throughout this document and on the instrument:

This symbol is used on the equipment, or in a document, to indicate that instructions must be followed for safe and correct operation.

This symbol is also used on the instrument, or in a document, to indicate that irritants or potentially harmful chemicals are present. Refer to the Material Safety Data Sheets for the products, and always use Good Laboratory Practice.

If this symbol appears on the instrument always refer to the operator guide.

This symbol is utilised on the instrument, or in a document, to indicate that there are potential biological risks associated with the instrument and / or with instrument use. Always use Good Laboratory Practice.

Manufacturer

A warning is given in the documentation if there is a potential risk of injury, equipment failure or poor tissue sample processing outcome.

Note

Notes give additional information about a job or instruction, but do not form part of the instruction.

Contents

Company Information 3

Symbols 3
Contact address 3
USA Distributor 3

Contents 4

EMC Statement 6

Safety Information 7

Introduction 7
General Safety 7
Disposal of Sealed Lead Acid Batteries 8
Chemical Safety 8
Environment 9
Warranty Statement 9

Chapter 1 – Introduction to ClearVue 10

Intended Purpose 10
Compatibility 10
Identification of Parts 11
System Interfacing 15
Coverslipping Method 15
System Specification 16

Chapter 2 - Basic Operation 17

Daily Tasks 18
Weekly Tasks 18
Level the ClearVue before Use 19
Change the Carbon Filter 20
Fit the Extraction Kit 21
Maintaining the Xylene Tray Level 21
Fill the Mountant Bottle 22
Change the Purge Tray and Debris Tray 23
Start up the ClearVue 24
Fill the Dispense Head Cleaning Station 24
Degas the Mountant Bottle 26
Flush the System 27
Purge the System 28
Remove and Replace the Coverslip Hopper 29
Shutting Down the ClearVue 30
Load a Basket 31
Unload a Basket 33
Abort a Basket 34
Manually Abort a Basket 34
Remove Baskets from the Load & Unload Rail 35
Remove Slides during Coverslipping 36
Remove Baskets from the Vertical Lift 37

Chapter 3 – Settings 39

Adjust the Coverslip Position 40
Select the Coverslip Position 41
Change the Coverslip Transfer Head Position 42
Adjust the Screen Settings 44
Change the Time and Date Setting 45
Change the System Language 45
Create the Engineers' Log 46
Update the System Software 47
Adjust the Mountant Dispense Volume 48
Slide Retainer Types 49
Install the Offset Coverslip Transfer Head 50
Alter the Slide Sensing Parameter 52

Chapter 4 – Maintenance 53

Cleaning and Maintenance Cautions 54
Replacing Seals 55
Remove the Mountant Bottle 57
Prepare the ClearVue for Storage 58

Chapter 5 – Cleaning 59

Cleaning the Mountant Bottle Cap 60
Cleaning the Mountant Bottle Seal 61
Cleaning the Xylene Tray Seal 62

Cleaning the Dispense Head Cleaning Station 63
Cleaning the Suction Cup.....64
Cleaning the Slip Dispense Carriage.....67
Cleaning the Mountant Dispense Needle.....68
Cleaning the Touch Screen.....69
Cleaning the Slip Dispense Skirt.....70
Cleaning the Gripper Return Plate.....70
Cleaning the Slide Grippers 73
Cleaning the Coverslip Transfer Head.....74
Cleaning the Camera.....76

Chapter 6 – Troubleshooting 77

Error Screens.....78
Perform a Bead Test 79
Identifying Problems with Slides.....80
Troubleshooting Tables.....85
Diagnosis Flowchart.....93

Appendices 94

Appendix A – Accessories.....94
Appendix B - Spare Parts.....95
Appendix C - Approved Reagents.....96
Appendix D - Things to do before packing 97
Appendix E - Packing Instructions.....98
Appendix F - Main Menu 99
Appendix G - Mountant System Screens.....100
Appendix H - Options Screens 101
Index.....102

Revision Control For This Document 104

EMC Statement

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

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 ClearVue™ is referred to throughout this, and other supporting documents, as the ClearVue.

The Varistain® Gemini (Inc. ES Variant) is referred throughout this, and other supporting documents, as the Varistain Gemini.

The Varistain® 24-4 is referred throughout this, and other supporting documents, as the Varistain 24-4.

Safety Information

Introduction

Epredia instruments are designed for convenient and reliable service; however, improper use or handling by a user may damage the instrument or cause a hazard to health. The instrument must not be used in a manner not specified by Epredia. Correct maintenance procedures are essential for consistent performance. It is recommended that users secure a maintenance contract with our service department.

To remain compliant with regulatory requirements, and to ensure that mandatory safety upgrades are performed at the earliest opportunity, it is strongly recommended that all service activities are performed by Epredia-factory trained Engineers. Warranty may be voided if service is performed by non-factory trained Engineers.

Maintenance or repairs that are not performed by Epredia trained Engineers with proven training may affect the safety, performance and compliance of the equipment.

Please consult your local sales or support teams for more information about service contracts.

All users must read and understand the following sections before using the instrument.

The following sections contain important information for the safe setup and use of the instrument, and should be read and understood by the user before using the instrument.

General Safety

This instrument, as supplied, conforms to IEC 61010-1; however, the addition of chemicals introduces potential hazards. Good Laboratory Practice must be employed and consideration must be given to the potential for hazard when dealing with these chemicals.

- Do not use the instrument in close proximity to strong electromagnetic radiation, as these may interfere with the proper operation. The electromagnetic environment should be evaluated prior to operation of the device.
- Do not introduce any source of ignition into, or near, the instrument once it has been loaded with reagents.
- Do not remove any panels or access covers, unless specifically instructed to do so. The instrument does not have any user serviceable parts. Potentially lethal voltages are present inside the instrument.
- The instrument must be properly connected to a good earth (ground) via the Mains input supply and positioned such that it is possible to interrupt the Mains supply at the source by removing the plug from the socket.
- Use only factory approved accessories or replacement parts within the instrument.
- Only use reagents recommended in the operator guide.
- Position the instrument such that it is possible to interrupt the Mains supply at the source by removing the plug from the socket.
- If the equipment is used in a manner not specified by Epredia, the protection offered by the equipment may be impaired.

Disposal of Sealed Lead Acid Batteries

In cases where there are two back-up batteries, they should always be replaced as a pair at the recommended service interval.

If the instrument has mainly been operated in very low temperatures, or has been exposed to frequent mains failures, the batteries should be replaced every year.

The battery manufacturers advise their customers to comply with the relevant regulations within their particular country regarding disposal of this type of battery.

The batteries used within the instrument are valve regulated sealed lead-acid type rechargeable batteries; the specific details of which can be found in the Operator Guide.

Chemical Safety

The introduction of chemicals creates potential hazards. Epredia has adopted the following position with regard to the subject of volatile chemicals used in laboratories:

- The introduction of chemicals creates potential hazards and Epredia has adopted the following position with regard to the subject of volatile chemicals used in medical laboratories:
- Non-specified chemicals are used in the instrument at the customer's own risk.
- All the chemicals recommended by Epredia have auto-ignition temperatures considerably above any surface temperature that can be reached during a single fault failure on the instrument. Small quantities of paraffin wax present will not reach a temperature that will produce flammable vapour.

- The instrument contains no source of ignition in any areas of the instrument where chemicals are stored or likely to leak in a single fault condition.
- The operator is fully aware of the contents of the specification documents detailing the properties of the chemicals they are using.
- The operator has carried out any legally required assessment of chemicals used and is using good laboratory practice.

- Some chemicals which may be used during operation are flammable - do not use sources of ignition in the vicinity of the instrument when it is loaded with reagents.

- Harmful chemical vapours such as Xylene or Toluene (others) may be emitted during the normal operation of some instruments and the operator should be aware of suitable precautions and safety measures. The short-term exposure limits for Xylene and Toluene will be no greater 100 ppm.

Environment

This instrument is required to comply with the European Union's Waste Electrical and Electronic Equipment (WEEE) Directive 2012/19/EU. It is marked with the following symbol:

At the end of the product life it must be recycled in accordance with local regulations. It can be returned to a Municipal Collection Facility or to the retailer when a replacement is purchased. Where applicable this facility will be offered by the Product dealer.

Further information on compliance with these Directives, the recyclers in your country, and information on Pyramid Innovation products which may assist the detection of substances subject to the RoHS Directive are available from your distributor.

Warranty Statement

Epredia is proud of their quality, reliability and of our after-sales service. We continuously strive to improve our service to our customers.

Please ask your distributor or Epredia representative about service contracts which can help maintain your instrument in an optimal operating condition.

Warranty provisions necessarily vary to comply with differences in national and regional legislation. Specific details can be found in the delivery documentation or from your dealer or representative.

Please note that your warranty may be invalidated if:

- This instrument is modified in any way, or not used as intended by Epredia.
- Accessories and reagents which have not been approved by Epredia are used.
- The instrument is not operated or maintained in accordance with instructions.
- The installation of the instrument was not conducted by a certified Epredia representative.

Any serious incident that has occurred in relation to the device shall be reported to the manufacturer and the competent authority of the Member State in which the user/or the patient is established.

Chapter 1 – Introduction to ClearVue

- Design Purpose
- Compatibility
- Identification of parts (front)
- Inside the ClearVue
- Identification of parts (rear)
- Example of a Varistain Gemini basket
- System interfacing
- System specification
- Coverslipping method

Intended Purpose

The ClearVue is an in vito diagnostic device. The automated, high-throughput, precision engineered, slide coverslipper is intended for use in laboratories by trained operatives familiar with coverslipping techniques and laboratory equipment. It is designed to apply a coverslip over a microscope slide to allow for subsequent examination and diagnsosis of fixed/stained specimen by a technologist or pathologist.

Compatibility

The ClearVue is compatible with the following sizes of coverslips:

- No. 1.0 x 24 x 40mm
- No. 1.0 x 24 x 50mm
- No. 1.5 x 24 x 40mm
- No. 1.5 x 24 x 50mm
- No. 1.5 x 24 x 55mm

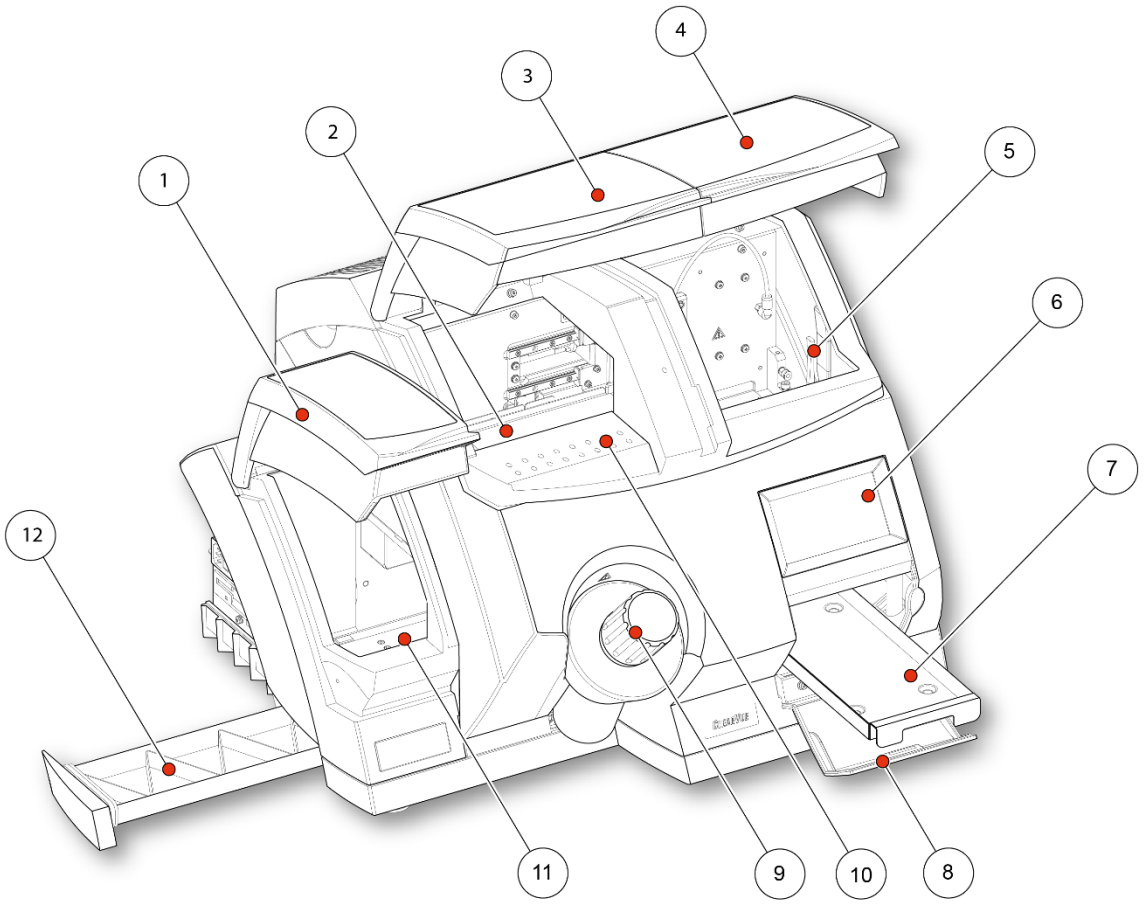
The following slide dimensional tolerances are permissible:

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

Identification of Parts

Front

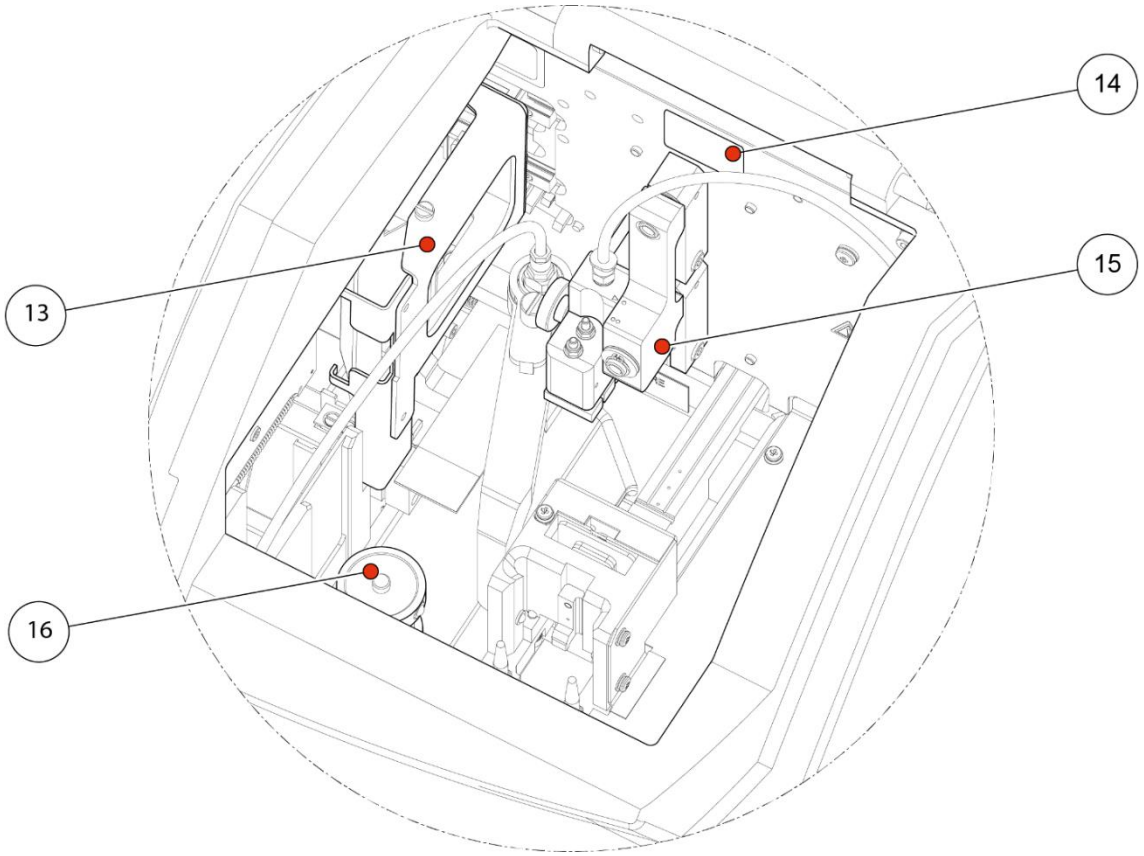
Front of the ClearVue



1	Load Door	7	Debris Tray
2	Unload Rail	8	Debris Tray Door
3	Unload Door	9	Mountant Bottle
4	Access Door	10	Downdraft Ventilation
5	Cleaning Brushes	11	Load Rail
6	Touch Screen	12	Xylene Tray

Inside

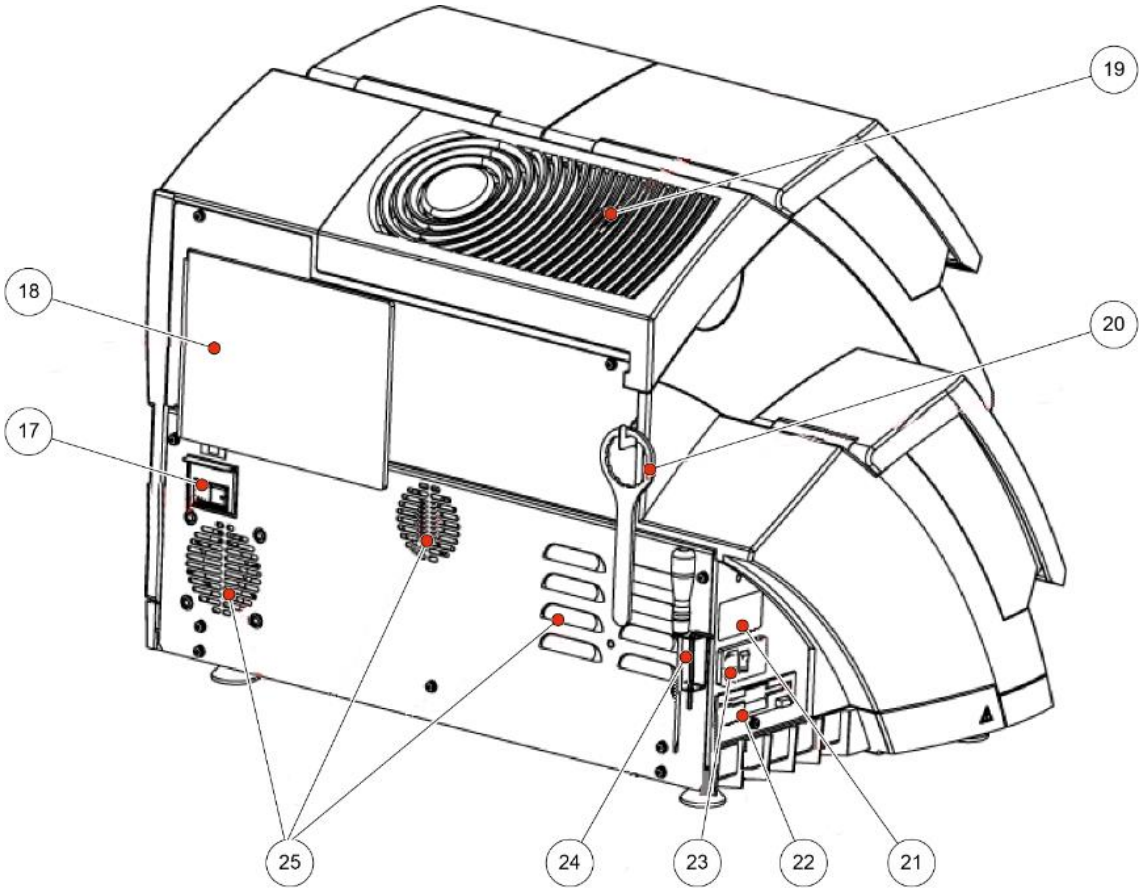
View through the Access door



13	Basket Unload Bracket	15	Coverslip Transfer Head
14	Serial Number Label	16	Dispense Head Cleaning Station

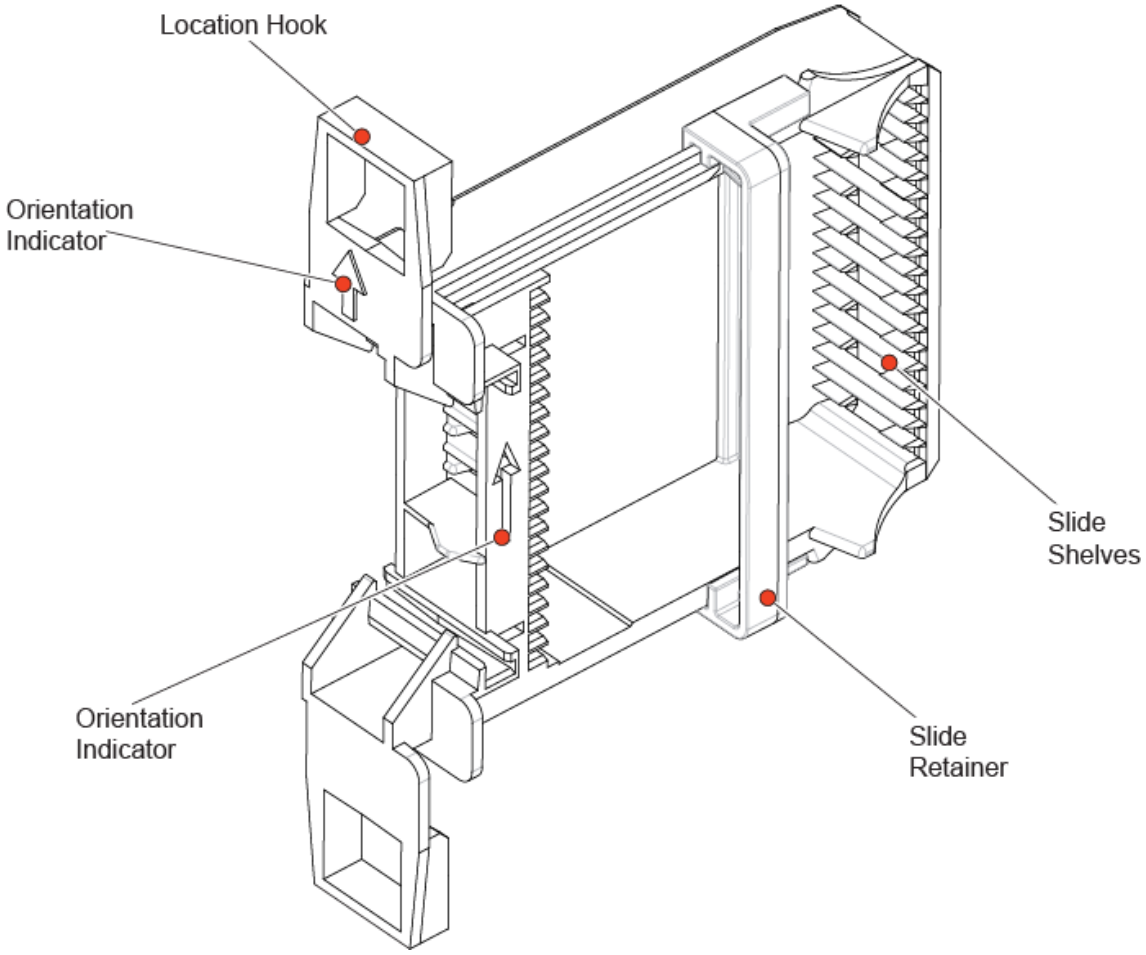
Rear

Rear of the ClearVue



17	Battery Isolation Switch	22	USB Disk Drive Emulator
18	Service History Booklet	23	Main Power Switch, Fuses and Connector
19	Filter Cover	24	Screwdriver and Allen Key
20	Mountant Bottle Cap Removal Tool	25	Vents for Electronics Enclosure
21	Rating Plate		

Example of a Varistain Gemini Basket

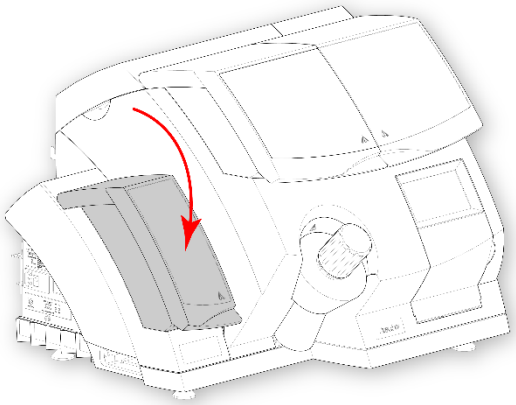


System Interfacing

The Touch screen panel is the primary user interface mode on the ClearVue. It is used to input data, operate the manual functions and inform the user of instrument data.

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

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



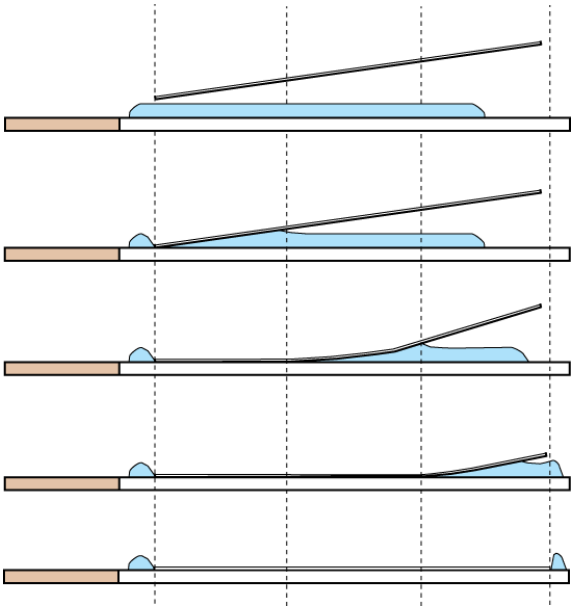
Stopping and restarting the ClearVue is controlled by the software to ensure safety, whilst at the same time making sure that the samples are not compromised.

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

Coverslipping Method

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

The following 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.

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 Vac ±10%
Frequency	50 / 60 Hz
Power (max)	300 VA
Earth Leakage	< 500 µA at 110-120 Vac
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

Chapter 2 - Basic Operation

- Daily tasks
- Weekly tasks
- Level the ClearVue before use
- Change the carbon filter
- Fit the extraction kit
- Maintaining the Xylene tray level
- Fill the mountant bottle
- Change the purge tray and debris tray
- Start up the ClearVue
- Fill the dispense head cleaning station
- De-gas the mountant bottle
- Flushing the system
- Purging the system
- Remove and replace the coverslip hopper
- Shutting down the ClearVue
- Load a basket
- Unload a basket
- Abort a basket
- Manually abort a basket
- Remove baskets from the Load & Unload rail
- Remove slides during coverslipping
- Remove baskets from the vertical lift

Daily Tasks

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

Lift the Coverslip Hopper before switching on

Top-up the Dispense head cleaning station. Wipe the top with a xylene damp cloth. Lift the Coverslip Hopper before accessing the Dispense head cleaning station

Check the level of xylene in the Xylene Tray

Check the number of Coverslips in the hopper and replace if necessary

Check the level of Mountant and top-up if necessary

Wipe the Suction cup with a xylene damp cloth to ensure it is clean and free from debris. Replace if necessary. Ensure the Suction cup is dry before use

Clean the Gripper return plate

Purge the system 3 times. Lift the coverslip hopper before purging

Weekly Tasks

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

Empty, clean and refill the Dispense head cleaning station

Remove any discarded coverslips from the Slip Dispense area and clean the Slip dispense carriage

Remove the Coverslip transfer head 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

Empty the Debris tray

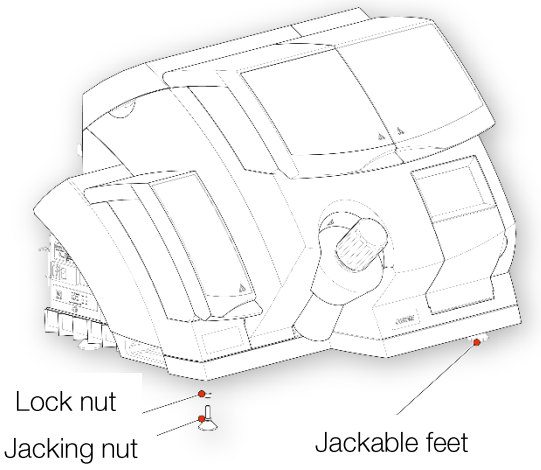
Check the Purge tray and replace if necessary

Clean the Slip dispense skirt

Level the ClearVue before Use

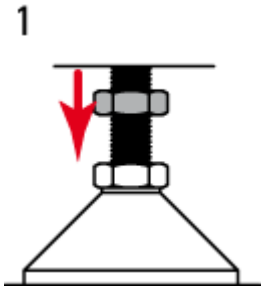
It is critical that the ClearVue is level before use!

Levelling is carried out on the jackable feet of the ClearVue to raise or lower any of the four corners of the instrument.

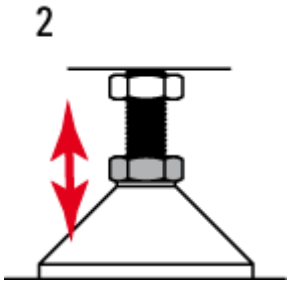


The following procedure should be carried out on all required corners of the ClearVue:

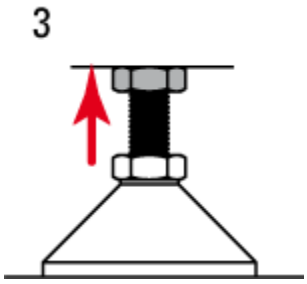
- Use a 13mm wrench (spanner) to loosen the Lock Nut of the Jackable foot.



- Adjust the Jacking Nut with the wrench to raise or lower the ClearVue as required.



- Tighten the Lock Nut to secure the Jackable foot in position.



Ensure the Lock Nuts are properly tightened after adjustment.

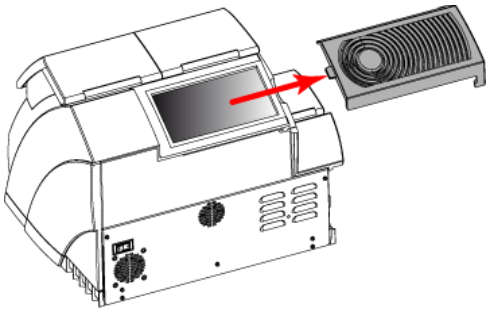
Change the Carbon Filter

Epredia recommends that the ClearVue be used with the Vent Adaptor Kit fitted.

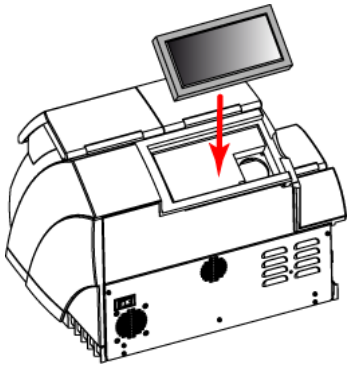
If Carbon filters are being used it is important to ensure that they are changed regularly, to comply with local legislation on vapour exposure limits.

To change the Carbon filter:

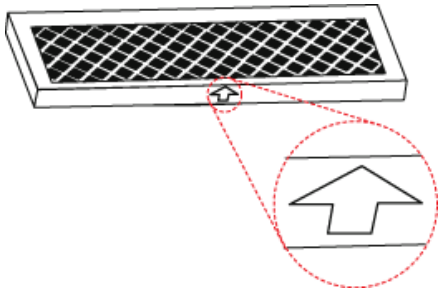
- Slide the Filter cover off to gain access to the Carbon filter.



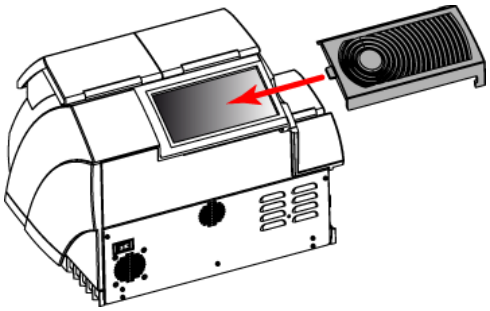
- Lift the Carbon filter out of the chamber and dispose of according to local regulations.
- Remove the cellophane wrapping from a new Carbon filter and place into the chamber.



- Ensure the Airflow directional arrow is pointing upwards.



- 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.

Fit 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.

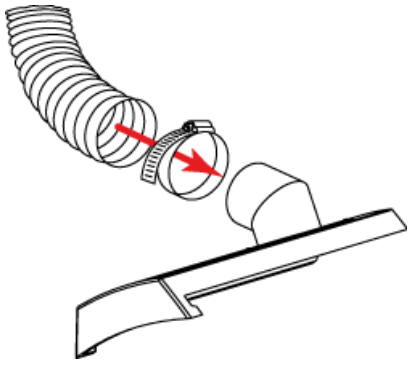
The Extraction Kit should not be used to extract fumes through the building HVAC system or through a common site extraction system!

The Extraction Kit comprises the following parts:

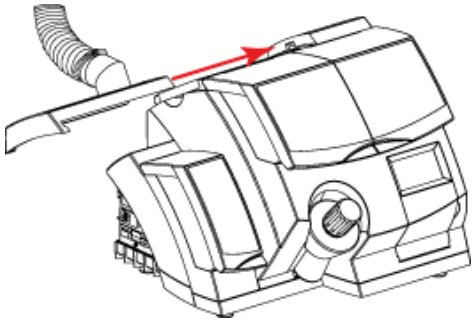
- Filter Cover with Duct Adaptor
- Jubilee Clip
- 2.5m Ducting Tube

To fit the Extraction Kit:

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



- Replace the Filter Cover with the assembled Extraction Kit.



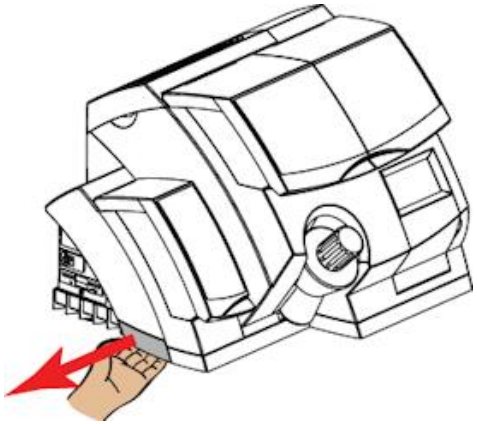
Do not remove the Carbon Filter!

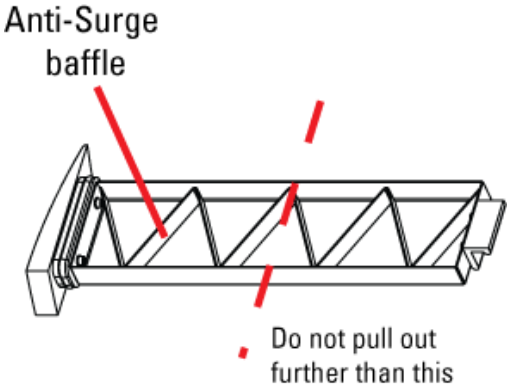
Maintaining the Xylene Tray Level

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 day and topped up or emptied as required.

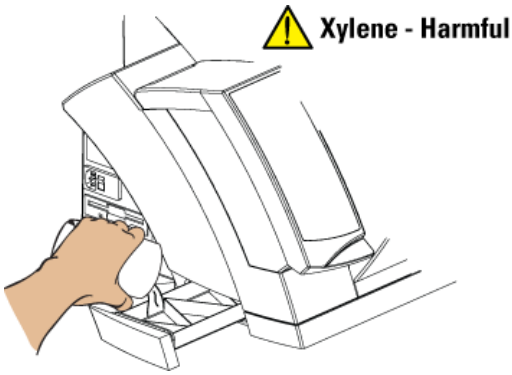
To fill the Xylene Tray:

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

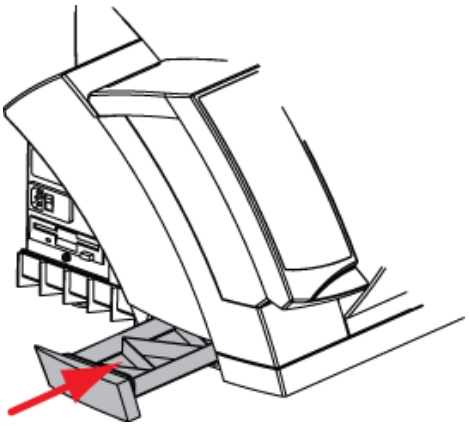




- Carefully pour xylene into the Xylene Tray or remove using a pipette as required.



- The depth of the xylene should be approximately half-way up the Anti-Surge Baffle.
- 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 ClearVue will perform a routine check after the Load Door has been closed.

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

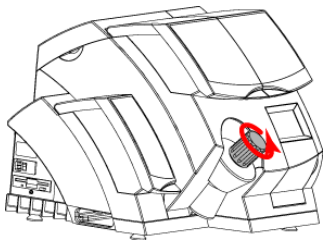
Fill the Mountant Bottle

Most Mountants are harmful!

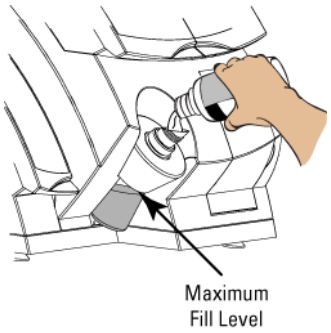
The Mountant Bottle supplies Mountant to the Dispense head. It is strongly advised not to allow the Mountant bottle to run dry.

To fill the Mountant bottle:

- Remove the Mountant bottle cap.



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



- Replace the Mountant bottle cap and twist clockwise by hand to tighten it.

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

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.

Notes

After filling, de-gas the mountant bottle.

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:

- *Fill the Mountant Bottle.*
- *De-gas the Mountant Bottle*
- *Flush the system to remove any air from the pipes*

Change the Purge Tray and Debris Tray

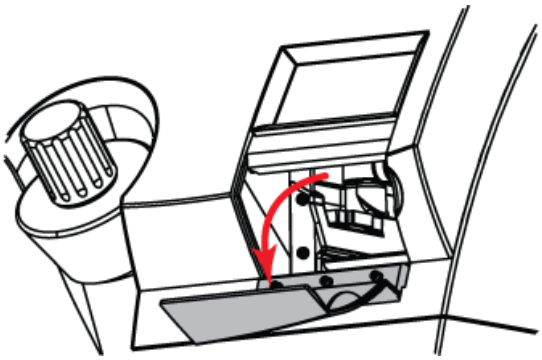
The Purge Tray is used as a receptacle for expelled Mountant and Xylene.

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

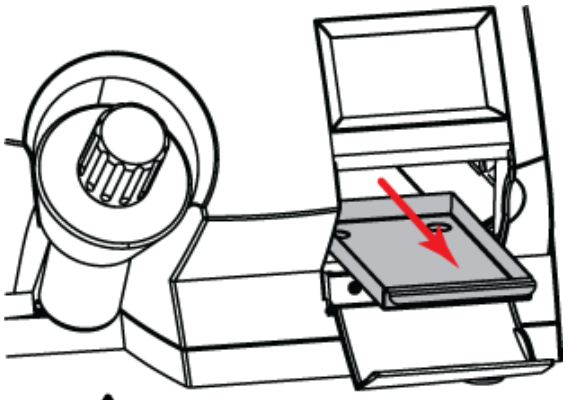
The Debris Tray contains any Coverslips which have been discarded or broken during coverslipping.

To change the Purge Tray and empty the Debris Tray:

- Open the Debris Tray Door.

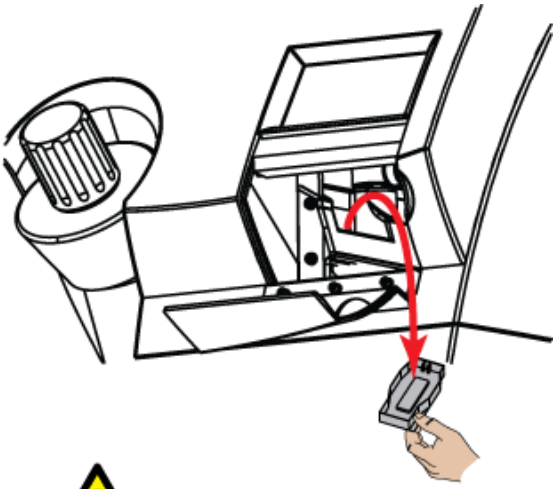


- Remove the Debris Tray and dispose of the contents according to local regulations.



Broken Glass

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

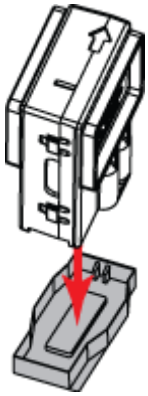


Harmful Chemicals

- Dispose of the used Purge Tray according to local regulations.

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.
- Place the new Purge Tray onto its shelf.
- Replace the Debris Tray.
- Close the Debris Tray Door.

Start up the ClearVue

Note

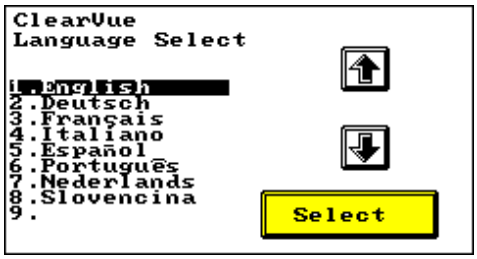
Before initial use, it is recommended that the ClearVue is switched on and left for 24 hours to ensure the battery backup system is fully charged.

To start up the ClearVue:

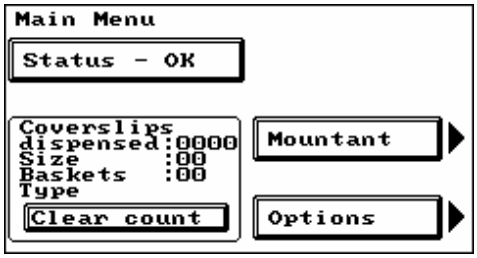
- Open the Access door and lift up the Coverslip Hopper.
- Turn the Mains power switch to the On position 'I'.

- Turn the Battery isolation switch to the On position 'I'.

- When the Language select screen appears, use the arrow keys on the Touch screen to highlight the required language, and then press Select.



- The Main menu now displays. 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.



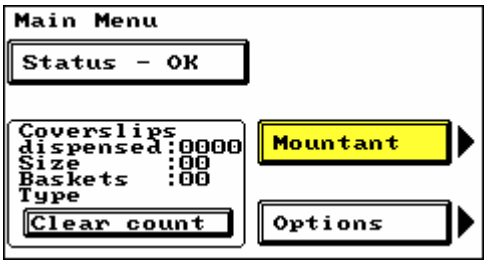
Fill the Dispense Head Cleaning Station

Take precautions when dealing with Xylene!

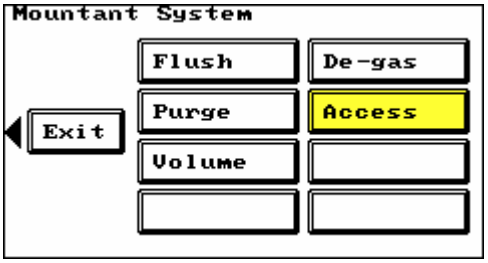
The Dispense head cleaning station ensures the Dispense head does not get blocked with Mountant. There should be a visible pool of Xylene in the central well.

To fill the Dispense head cleaning station:

- Lift up the Coverslip Hopper.
- From the Main menu, press the Mountant key on the screen.



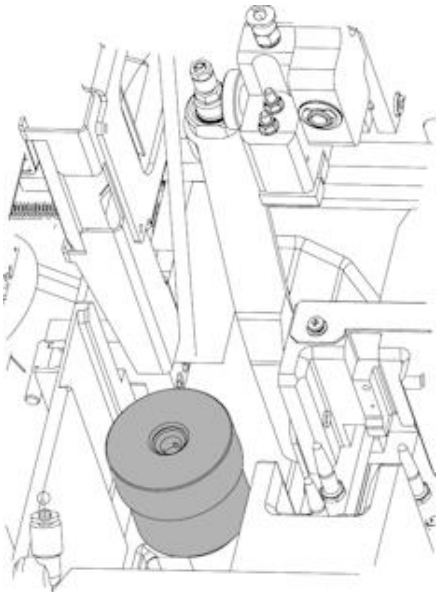
- Press the Access key.



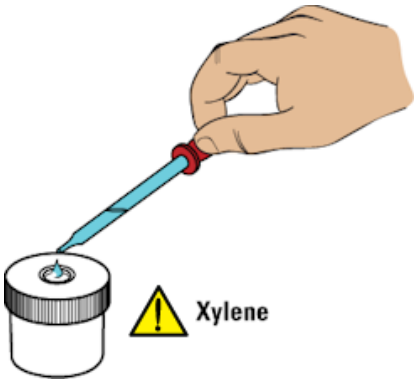
- Press the Start key.

- Wait for activity within the ClearVue to stop, and Access Ready to flash on the screen.

- Open the Access door.
- The Dispense head cleaning station is now be accessible from above. It can either be removed, by pulling slightly forwards and then lifting it gently from its fitting, or left in the ClearVue.



- Drip Xylene into the Cleaning station until it is at a level where it can be seen in the central well (approx. 18ml).

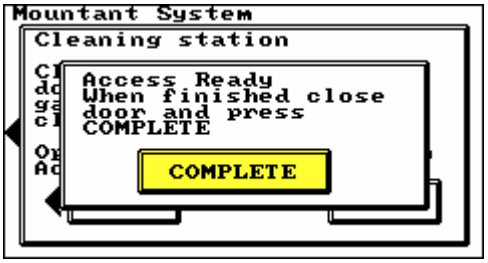


- Use the end of the pipette to push the central well down, to ensure that the Xylene levels are consistent.

Note

Ensure that the central well re-seats itself properly.

- 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.
- When finished, close the Access door and press the Complete key.



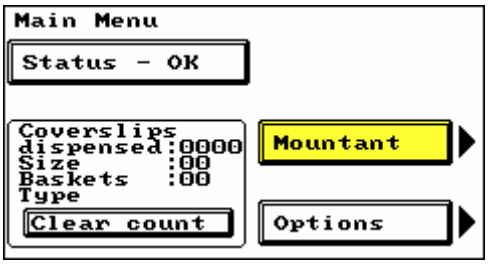
- Push the Coverslip Hopper down.

Degas the Mountant Bottle

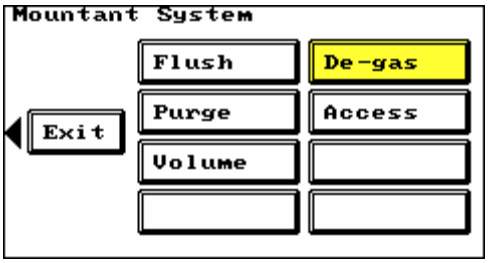
De-gassing the Mountant bottle will remove any air bubbles from the Mountant.

To de-gas the Mountant bottle:

- From the Main menu, press the Mountant key on the screen.

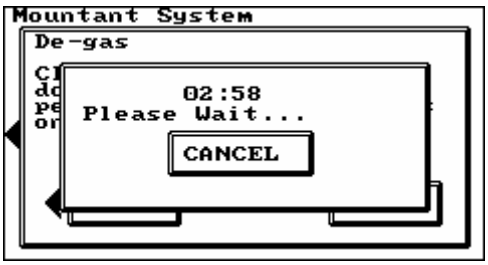


- Press the De-gas key.

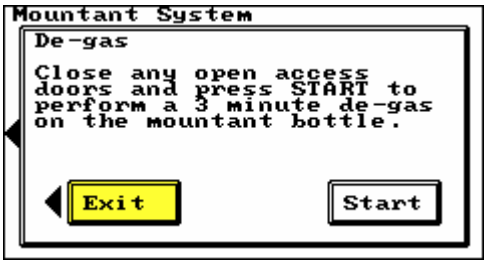


- Press the Start key.

- The ClearVue will now de-gas the Mountant bottle.



- When the process has stopped press the Exit key.

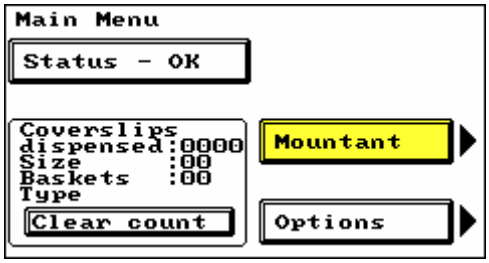


Flush the System

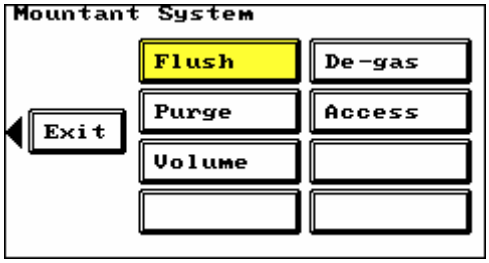
Flushing the system dispenses a large amount of Mountant. This function should only be used if the Mountant bottle has run dry or when cleaning the system using Xylene.

To flush the system:

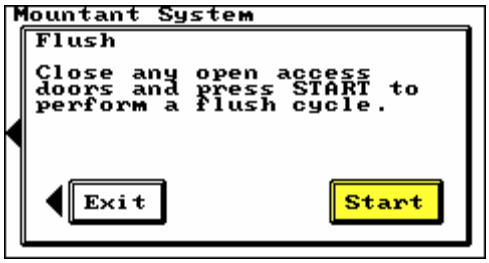
- Lift up the Coverslip Hopper.



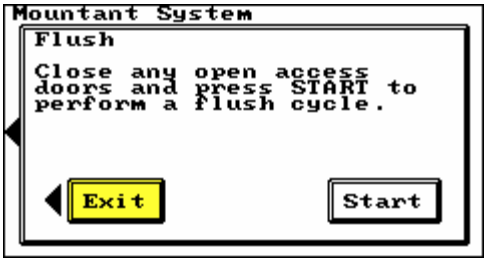
- Ensure the Access door is closed.
- From the Main menu, press the Mountant key on the screen.
- Press the Flush key on the screen.



- Ensure the Purge tray is empty and that there is sufficient Mountant (or Xylene) in the Mountant bottle (at least 80ml).
- Press the Start key.



- Wait for the activity within the ClearVue to stop, and then empty or discard the Purge tray.
- Press the Exit key.



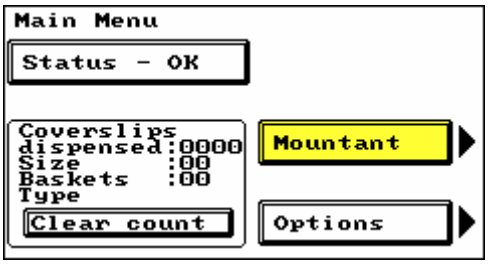
- Push the Coverslip Hopper down.

Purge the System

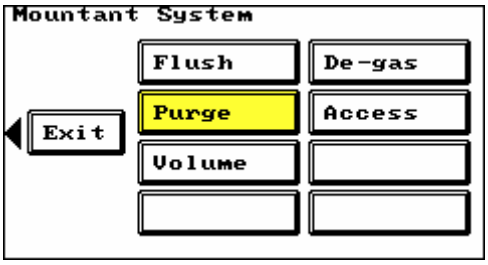
Purging the system is a routine procedure which dispenses a small amount of Mountant to ensure high-quality coverslipping.

To purge the system:

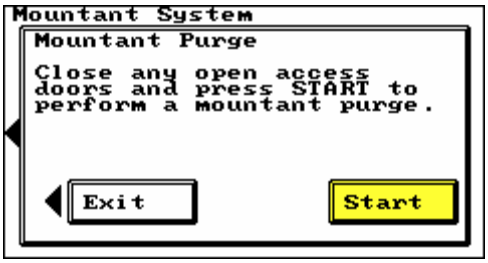
- Lift up the Coverslip Hopper.



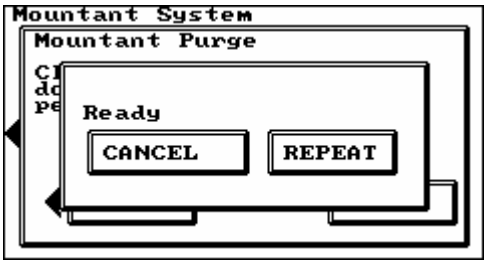
- Ensure the Access door is closed.
- From the Main menu, press the Mountant key.
- Press the Purge key.



- Ensure there is sufficient room in the Purge tray before starting the Purge cycle.
- Press the Start key.



- Wait for this screen to appear and the activity within the ClearVue to stop and then empty the Purge tray.

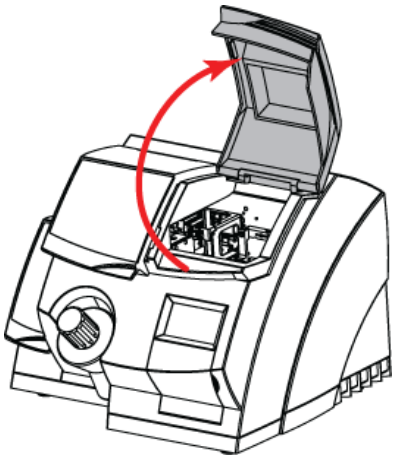


- Press **Repeat** to restart the Purge process, or **Cancel** to exit
- Push the Coverslip Hopper down

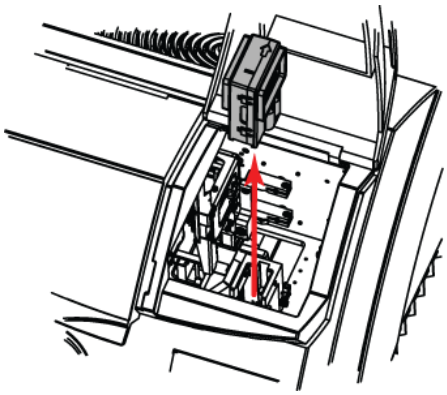
Remove and Replace the Coverslip Hopper

To change the Coverslip hopper:

- Open the Access door.



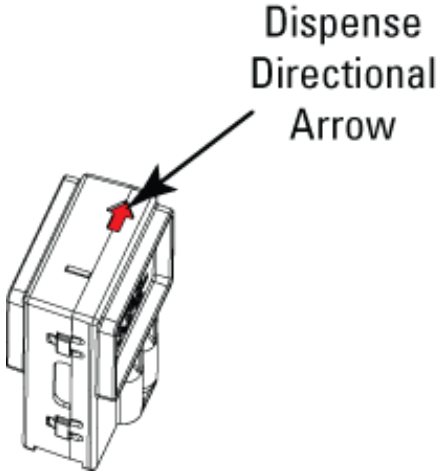
- Remove the empty Coverslip hopper by pulling slightly forwards and then lifting it gently upwards.



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.

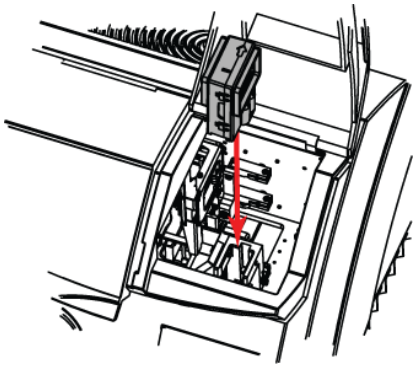
- Unpack a new Coverslip hopper and identify the Dispense directional arrow on the top.



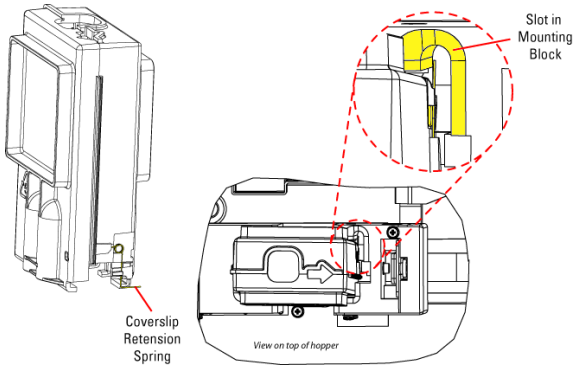
Note

Ensure coverslips are the correct size. Ensure Coverslip Hopper has not been dropped by checking for broken coverslips.

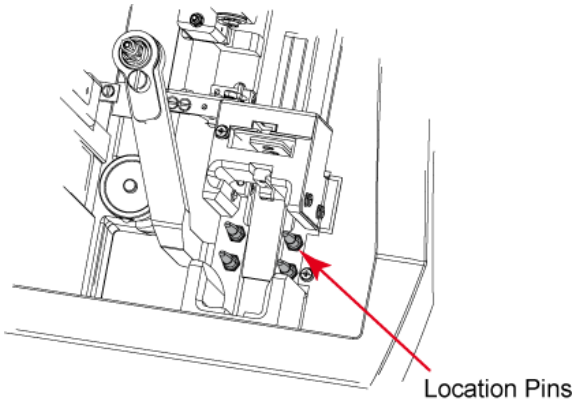
- Remove the end cap from the bottom of the Coverslip Hopper and retain for use as a Purge Tray.
- Load the new Coverslip Hopper ensuring that the Dispense Directional Arrow is pointing towards the back of the instrument.



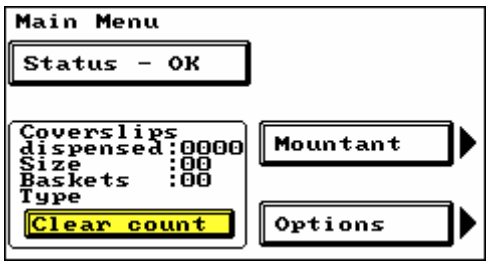
- Ensure the Coverslip retention spring is located inside the slot in the Hopper mounting block.



- The Coverslip hopper should sit level and fully down over the location pins.



- On the Main menu screen, press Clear count.



Note

The primary function of the Clear Count option is to report on the number of coverslips remaining in the Hopper. This option must always be selected after changing the Coverslip size.

Shutting Down the ClearVue

To shut down the 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. Do not switch off the Battery isolation switch.

Notes

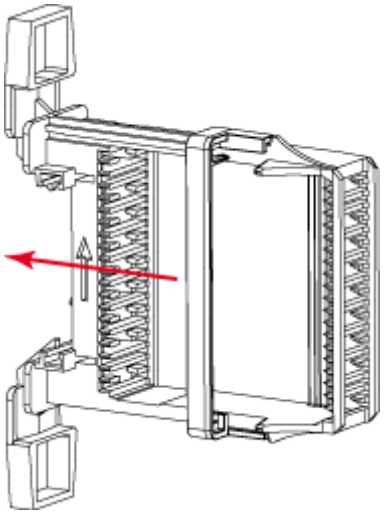
To conserve power and extend filter life, it is recommended that the ClearVue is shutdown at night.

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

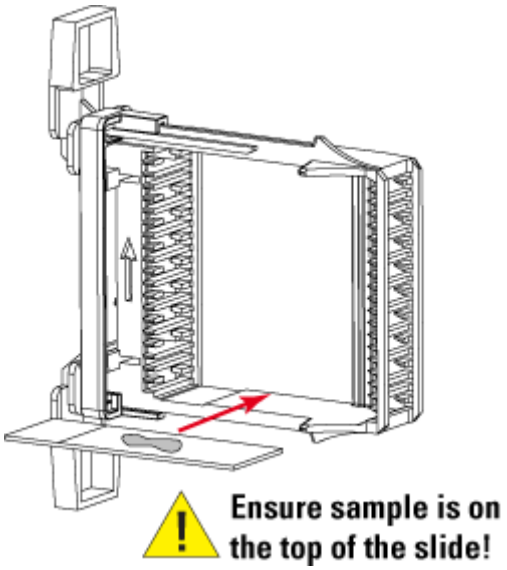
Load a Basket

To load Slides into Baskets:

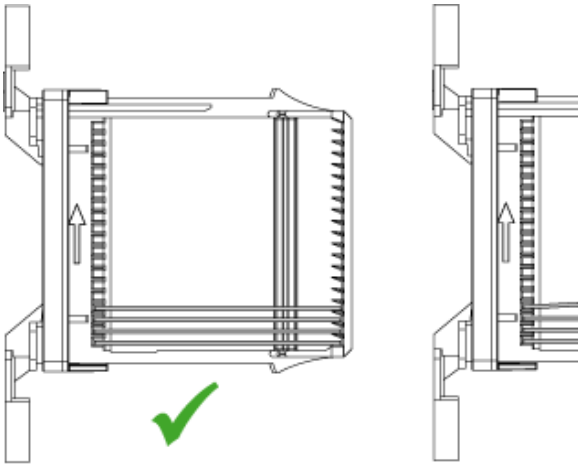
- Move the Slide Retainer. The orientation arrow on the basket (pointing upwards) shows the position the basket should be held in.



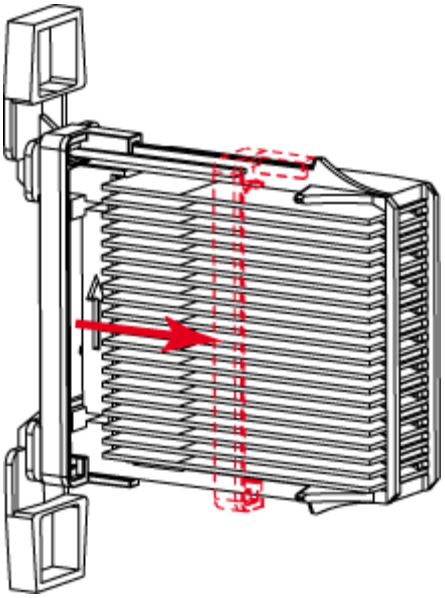
- Insert Slides, starting from the bottom shelf, with the sample on the top.



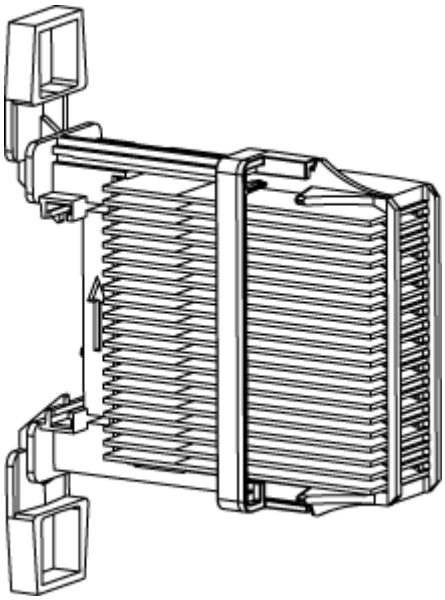
- Ensure the Slides are placed in the Basket correctly.



- When all the required Slides are in the Basket, return the Slide Retainer to its original position to secure the Slides in the Basket.

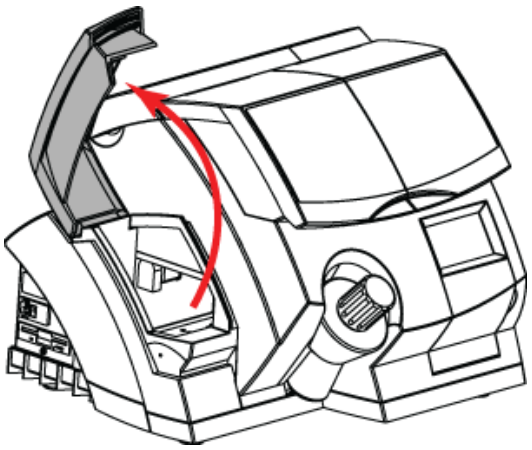


- The Basket is now ready to load onto a stainer or directly into the ClearVue.

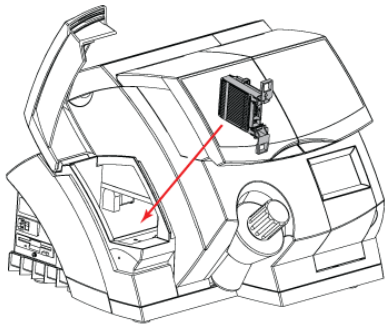


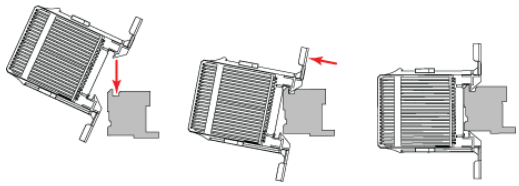
To load Baskets of Slides:

- Open the Load Door.



- Gently shake the Basket to remove excess xylene and blot on absorbent paper.
- Place the Basket onto the Load Rail.





Notes

Ensure Slide Retainer is closed before loading basket.

Ensure Directional Arrow on basket is pointing upwards.

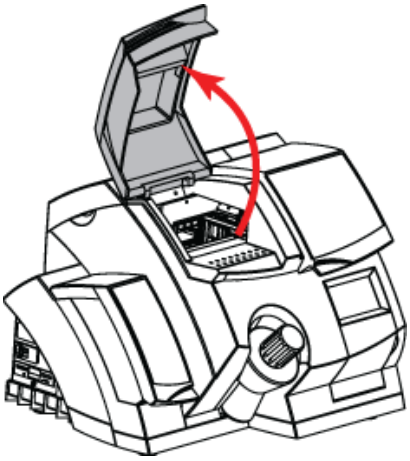
If operating outside of the recommended temperature range, ensure samples do not dry out too quickly by loading no more than 2 Baskets at any one time.

- Close the Load Door.
- The ClearVue will start automatically.

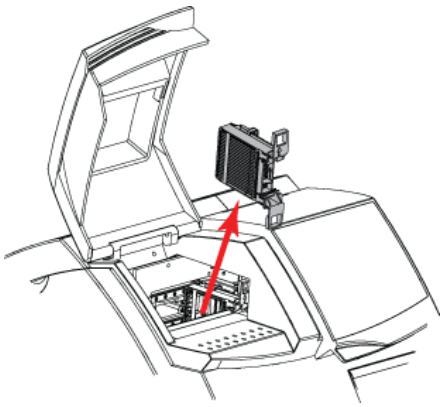
Unload a Basket

To unload a Basket:

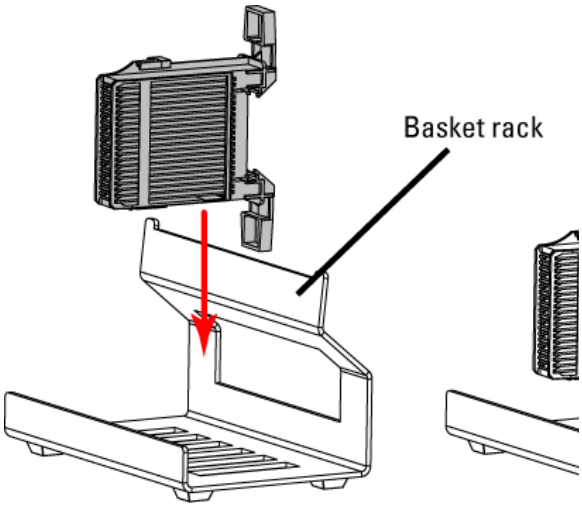
- When a Basket of slides is completed, the ClearVue emits an audible alert.



- Wait about 15 mins before removing a completed Basket, to allow the Mountant to dry enough to allow the Slides to be handled safely.
- Open the Unload door.
- Remove the completed Basket from the Unload rail.



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



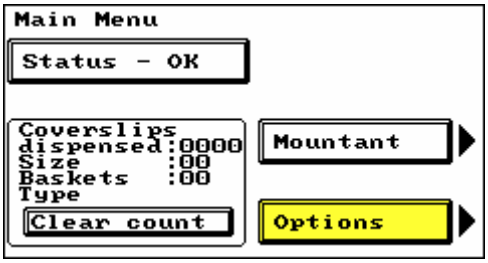
- Close the Unload door.

Abort a Basket

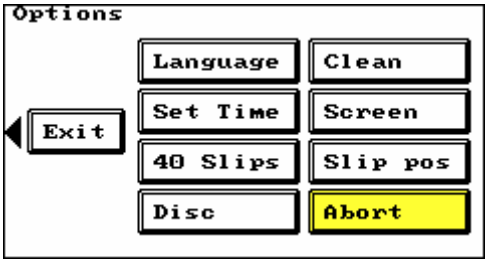
The Abort command can be used if a Basket being coverslipped needs to be returned to the Unload rail without finishing the coverslipping process.

To abort a basket:

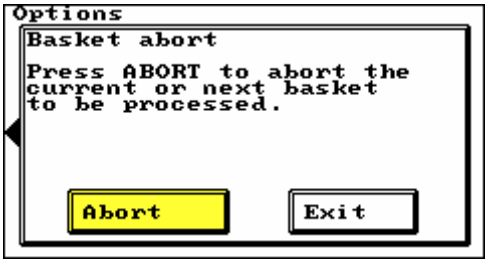
- From the Main menu press the Options key on the screen.



- Press the Abort key.



- From the Basket abort screen press the Abort key.



- Remove the Basket from the Unload rail (see Section 2.20).

Note

The ClearVue will finish coverslipping the current slide before it aborts the basket.

Manually Abort a Basket

In the event of a power failure the 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 ClearVue will remove any remaining Baskets from the **Load Rail** and place them, unprocessed, onto the **Unload Rail**.

The 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**:

- Remove Baskets from the Load rail
- Remove Baskets from the Unload rail
- Remove Slides which are in the process of being coverslipped
- Remove Baskets from the Vertical lift

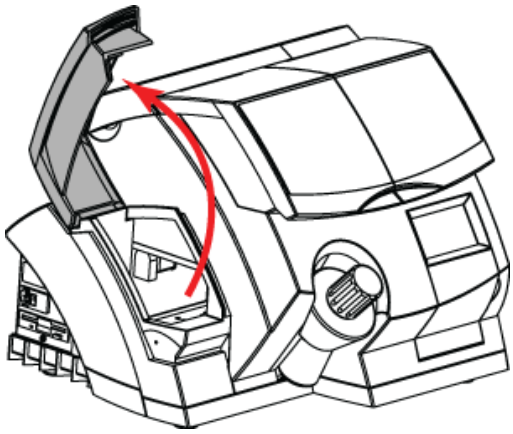
Any Baskets which are unloaded manually may contain slides which have not been coverslipped, and steps should be taken to preserve the specimens.

If any Baskets are removed manually due to a power failure or blockage, the ClearVue must be switched Off and On again to allow the mechanism to re-calibrate.

Remove Baskets from the Load & Unload Rail

To remove Baskets from the Load rail:

- Open the Load Door.

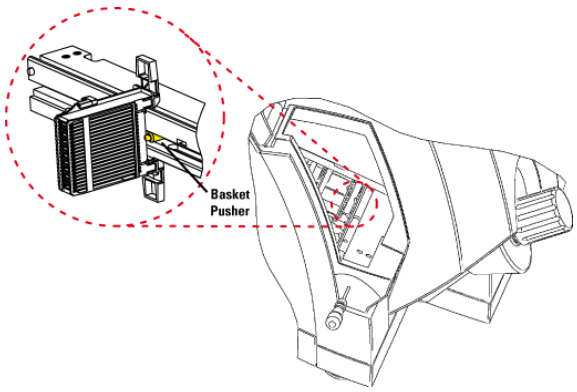


- Remove any Baskets which are located directly underneath the Load Door.

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.



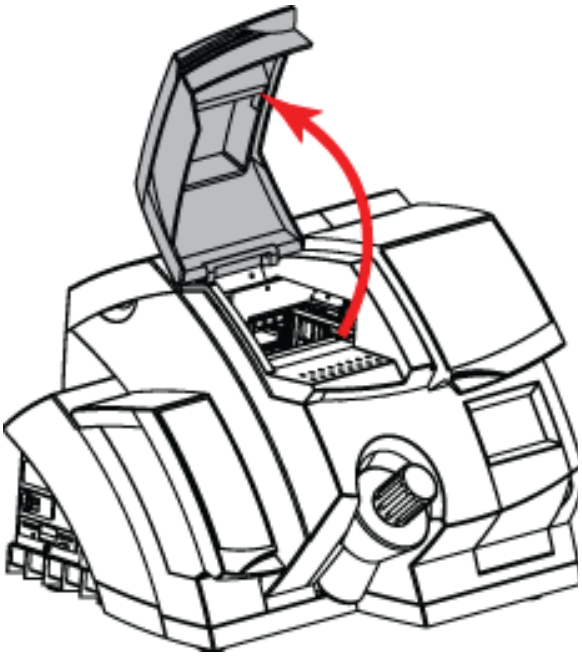
- Turn the Screwdriver clockwise to bring the Basket Pusher as far over to the left-hand side of the instrument as possible.
- It should then be possible to reach through the Load Door and pull any remaining Baskets over to where they can be removed.

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.

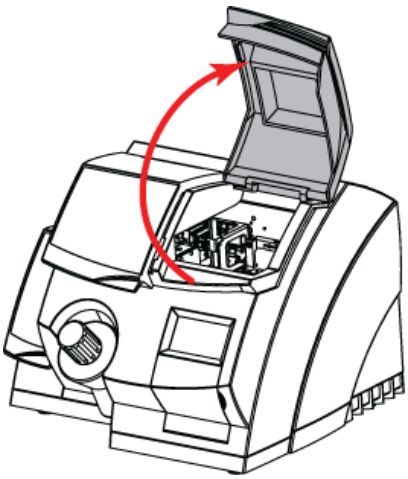


- Remove any Baskets which are located directly underneath the Unload Door as normal.

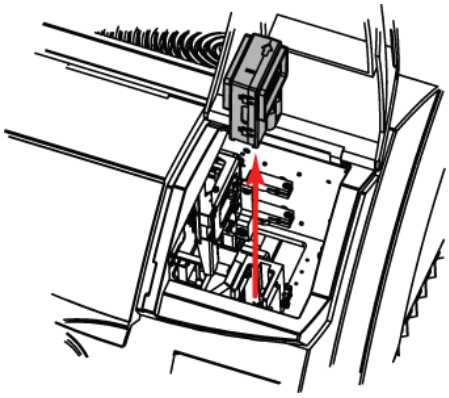
Remove Slides during Coverslipping

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

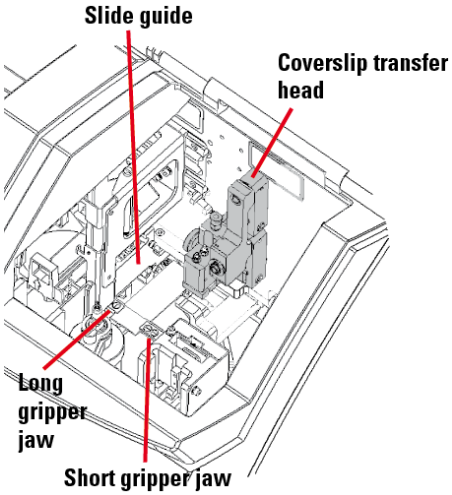
- Open the Access Door.



- 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.

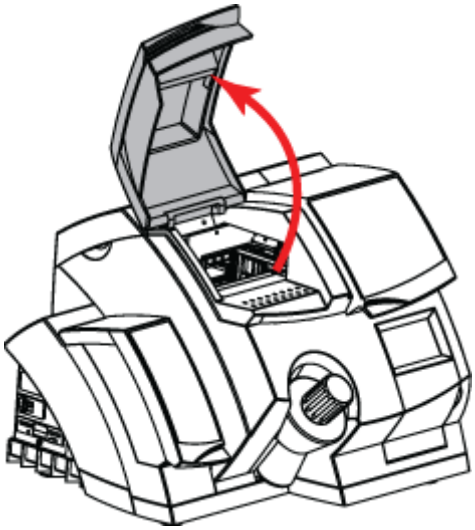
It is advisable to remove the Debris Tray and then reach into the instrument through the Debris Tray Door in order to support the Slide when removing it from the Gripper jaws.

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

Remove Baskets from the Vertical Lift

To remove baskets from the vertical lift:

- Open the Unload Door.

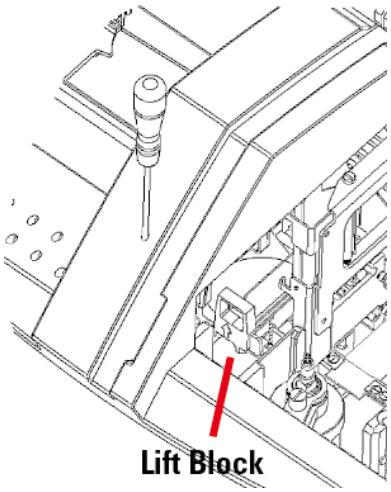


- If there are any Baskets halfway onto the Lift Block, it may be necessary to lower the Lift Block to remove them.
- Reach in through the Unload Door and push the Basket Unload Bracket as far towards the right of the instrument as possible.
- Reach in through the Load Door and pull the long Gripper jaw as far towards the left as possible.

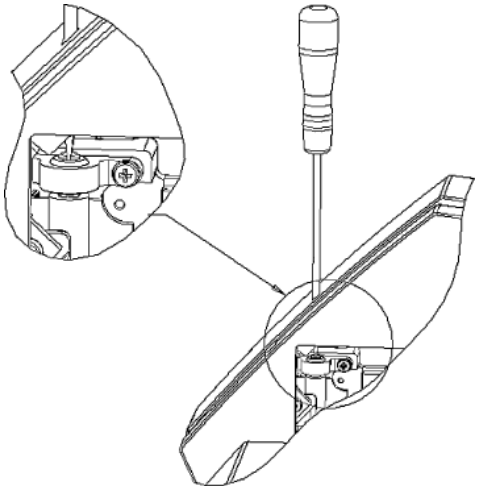
Note

The Gripper jaws are spring loaded and may spring back to block the Basket. It may be necessary to hold the long Gripper jaw over to the left during the steps that follow.

- Insert the Screwdriver into the small hole in the Main cover.



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



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

Note

Do not turn the Screwdriver anti-clockwise once the Slides are above the Slide Guide as this could result in broken Slides.

- 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.

Chapter 3 – Settings

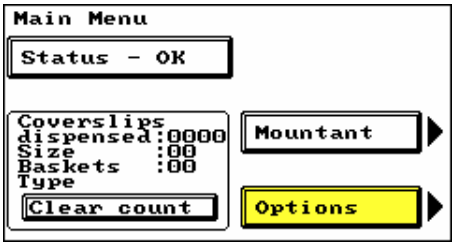
- Adjust the coverslip position
- Select the coverslip position
- Change the coverslip transfer head
- Adjust the screen settings
- Change the time and date setting
- Change the system language
- Create the engineers' log
- Update the system software
- Adjust the mountant dispense volume
- Slide retainer types
- Install the offset coverslip transfer head
- Alter the slide sensing parameter

Adjust the Coverslip Position

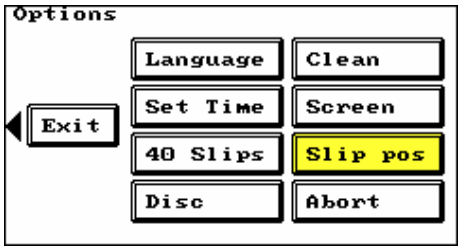
The Coverslip position on the slide can be adjusted by up to 1mm in any one direction in 0.25mm increments.

To adjust the Coverslip position:

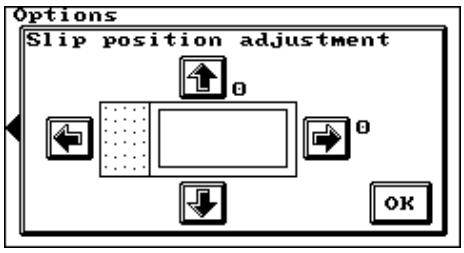
- From the Main menu press the Options key on the Touch screen.



- Press the Slip Position key.



- Use the Arrow Keys on the Slip Adjustment screen to move the Coverslip to the required position. The default position has a setting of 0.

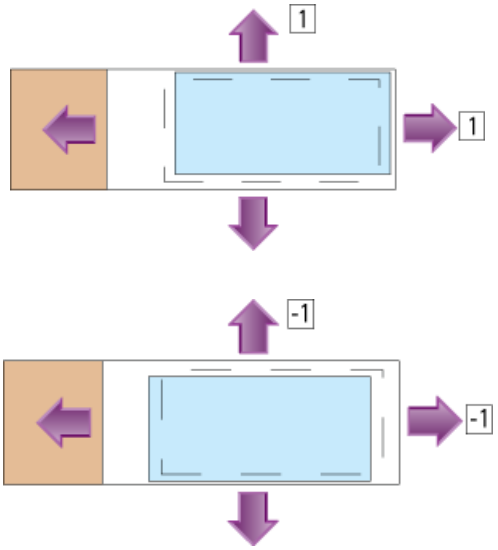


- Press OK on the screen when the adjustment has been made.

Note

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:



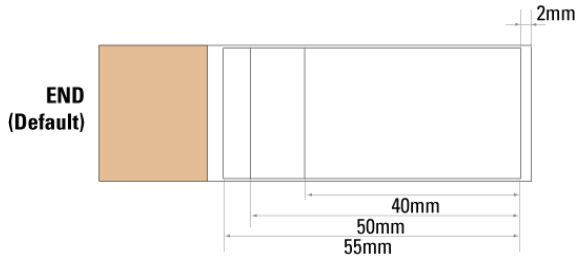
The positive number values indicate a movement in the direction of the labelled arrows; hence the Coverslip is positioned above and to the right-hand side of centre.

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.

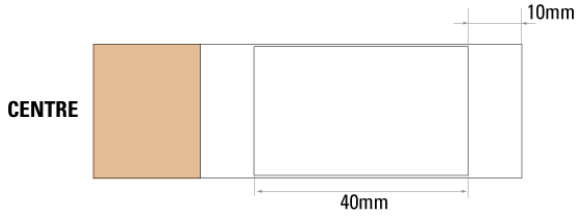
Select the Coverslip Position

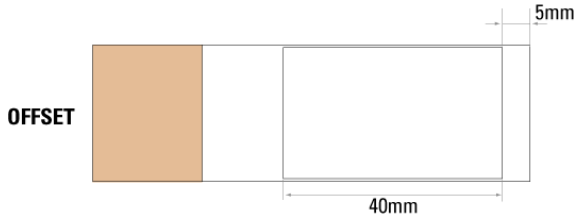
The ClearVue is capable of using 3 different lengths of Coverslip: 40mm, 50mm and 55mm.

The default setting for coverslip position is with a 2mm gap between the end of the slide and the end of the coverslip.



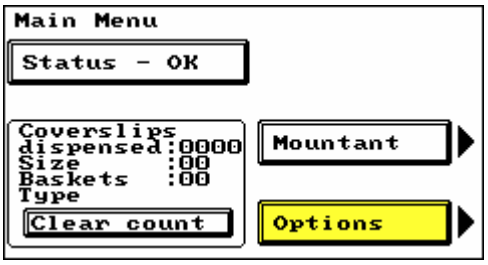
The 40mm Coverslips can be positioned centrally, and also offset by 5mm when using the Offset coverslip transfer head.



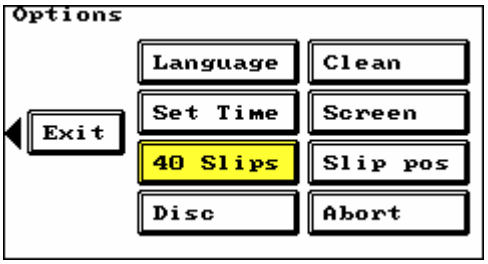


To select the position of the 40mm coverslip:

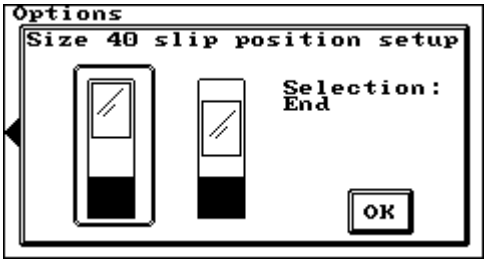
- From the Main menu press the **Options** key on the Touch screen.

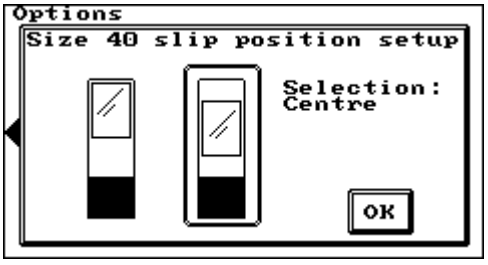


- Press the **40 Slips** key.



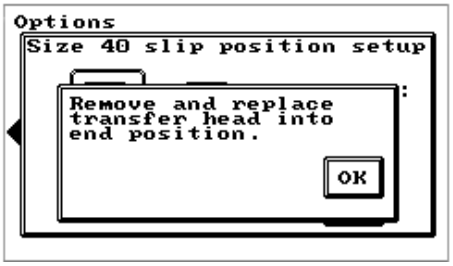
- Select either **End** (default setting) or **Centre**, then press **OK**.





- Move the Coverslip transfer head into the position specified.

- Press OK on the Position Setup screen.



Note

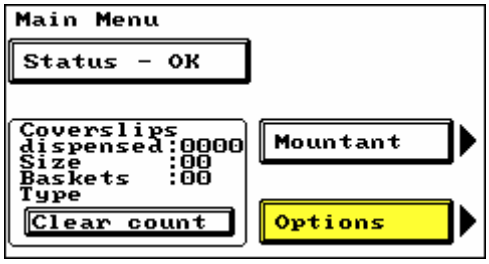
When using the ***Offset coverslip transfer head*** *with 40mm Coverslips, the ClearVue automatically places the Coverslip on the slide in the correct position, regardless of whether the End or Centre position has been selected.*

Change the Coverslip Transfer Head Position

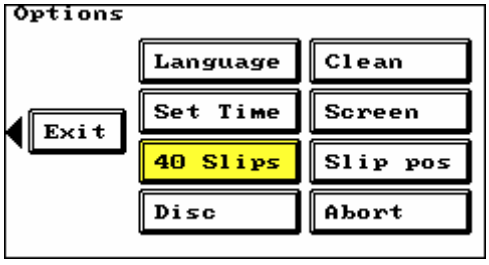
The coverslip transfer head has 2 possible positions to allow the 40mm coverslips to be positioned either Centrally or in the End (default) position.

To change the coverslip transfer head position:

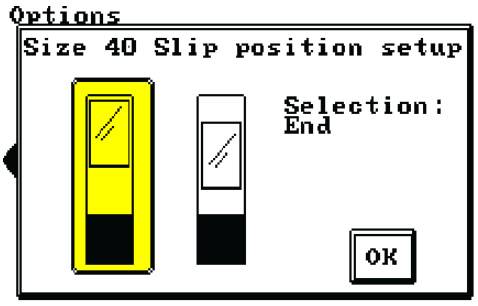
- From the Main Menu press the Options key.

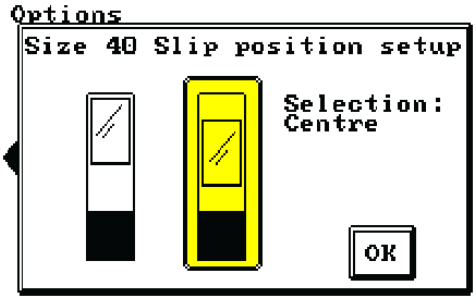


- Press the 40 Slips key.



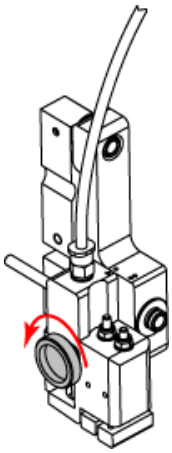
- Select either End or Centre, then press OK.



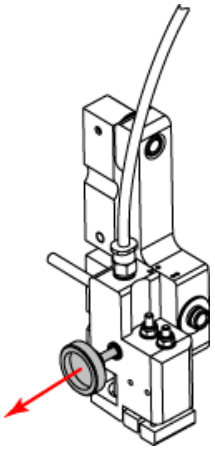


- Open the Access Door.
- Remove the coverslip transfer head:

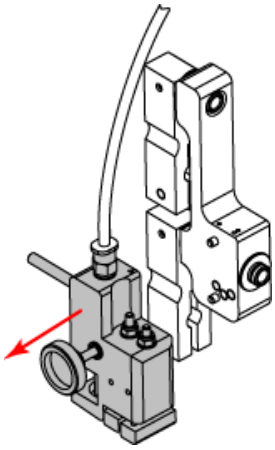
  A: Identify the coverslip transfer head and loosen the thumbscrew by turning it anti-clockwise.



B: Pull the thumbscrew out to release the coverslip transfer head.



C: Note the position of the coverslip transfer head and then remove it from the location pins.

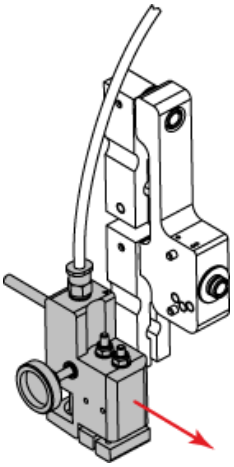


Note

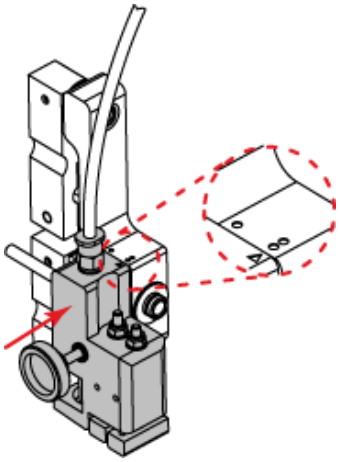
The example shown here is the procedure for changing from the End (Default) position to the Central position.

Reposition the coverslip transfer head:

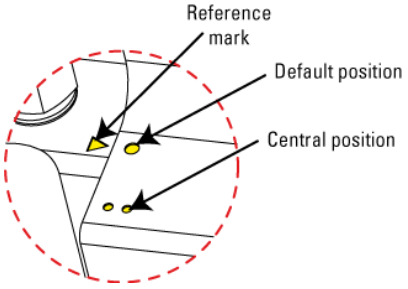
A: Reposition the coverslip transfer head as required.



B: Replace the coverslip transfer head onto the location pins in either the default or central position. Tighten the thumbscrew by turning it clockwise.



C: The reference mark on the top of the coverslip transfer head indicates which position it is in.

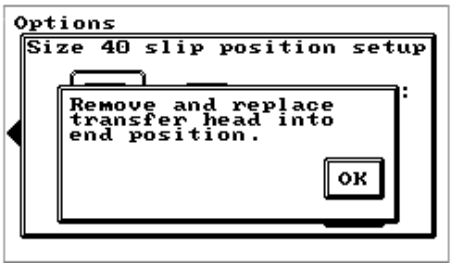


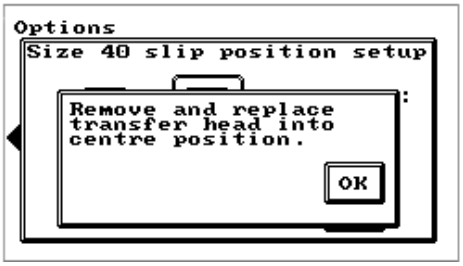
Note:

One or other of the Position Indicators will line up with the Reference Mark to indicate the position.

The Offset coverslip transfer head can only be fitted in the Default position.

- Press OK on the Position Setup screen.





- Close the Access Door.

Adjust the Screen Settings

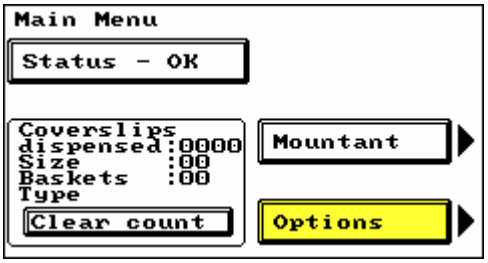
The Touch screen settings can be altered to adjust both the View angle and the screen Brightness.

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.

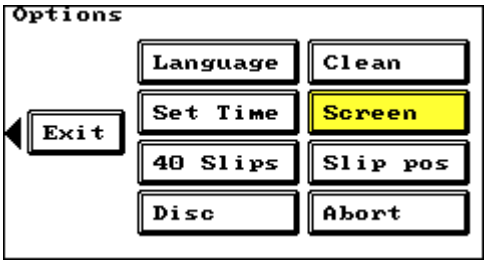
The Brightness sets the amount of screen back-lighting.

To adjust the Screen display:

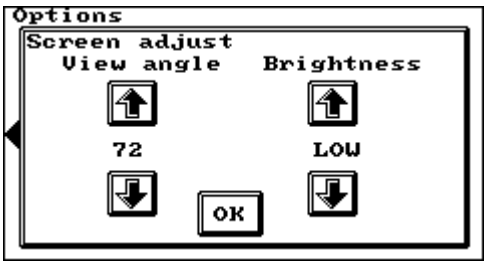
- From the Main menu press the Options key on the screen.



- Press the Screen key.



- This will open the Screen adjust display.

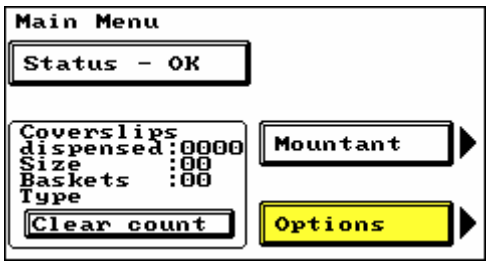


- Use the arrow keys to adjust the View Angle and Brightness.
- When the Touch screen is configured, press OK to return to the Options menu.

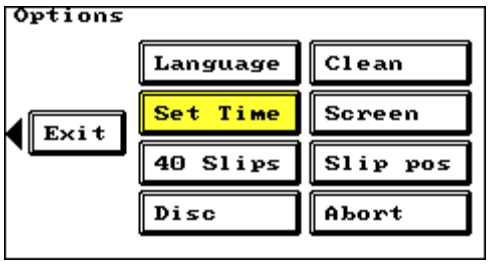
Change the Time and Date Setting

To alter the time and date:

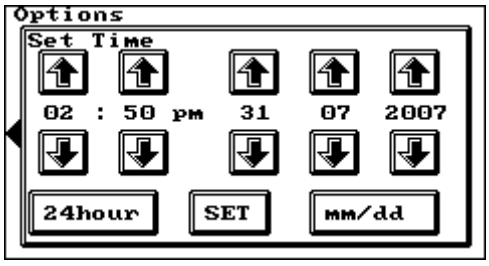
- From the Main menu press the **Options** key on the Touch screen.



- Press the **Set Time** key.



- The Set Time display opens.

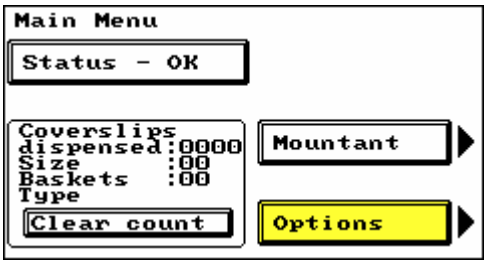


- Adjust the Time and the Date using the relevant arrow keys.
- Adjust the Time Format: use the 24-hour key to set the time to the 24-hour format. The 12-hour key then displays to let you change the format to 12-hour.
- Adjust the Date Format: use the mm/ dd key to set the date to that format. The dd/mm key then displays to let you change the format to dd/mm.
- When the settings are configured as required, press **Set** to apply the settings.

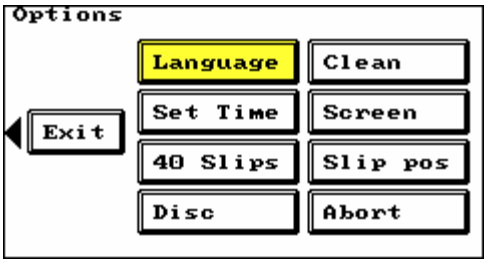
Change the System Language

After the initial start-up procedure, it is possible to change the Language used on the touch screen display:

- From the Main menu, press the **Options** key on the touch screen.



- Press the **Language** key.



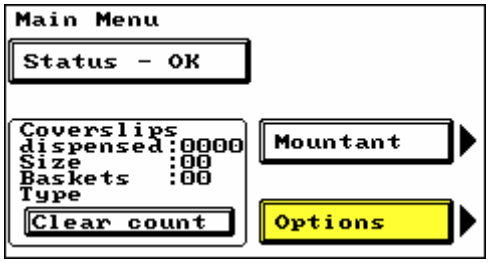
- The Language Select screen displays. Use the arrow keys to highlight the required language and press **Select**.

Create the Engineers' Log

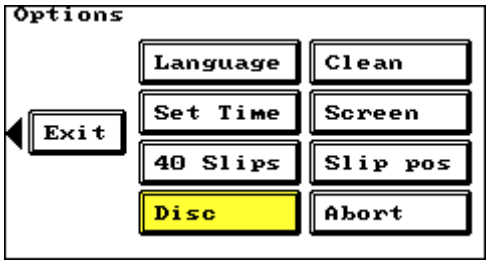
The Disc Options screen allows an Engineers' Log to be taken. The Engineers' log may be requested by a Service Engineer to aid troubleshooting.

To create the Engineers' log:

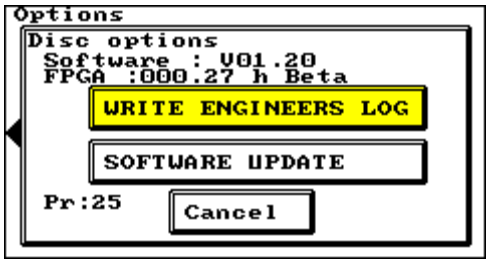
- From the Main menu press the **Options** key on the Touch screen.



- Press the **Disc** key to open the Disc Options display.



- Insert a blank pre-formatted Memory Stick into the USB Disk Drive Emulator.
- Press the **Write Engineers' Log** key.



- The ClearVue displays the Wait screen and writes to the memory stick.

- When the Wait screen has gone and the light on the USB Disk Drive Emulator has gone out, it is safe to remove the memory stick from the USB Disk Drive Emulator.

Note

An Engineers' log can only be written when the ClearVue is idle (not processing baskets). An audible warning sounds if you attempt to write an Engineers' log during processing.

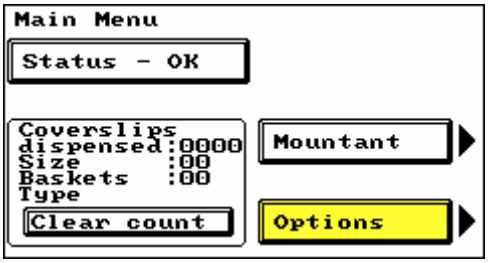
Update the System Software

Do not perform a software update unless instructed to do so by an Epredia Service Engineer.

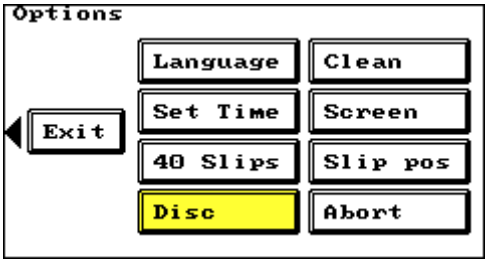
The Disc Options screen allows the ClearVue software to be updated. A Software Update would normally be performed by a Service Engineer; however, it is possible for the user to perform an update if supplied with a new version on a memory stick.

To perform a Software update:

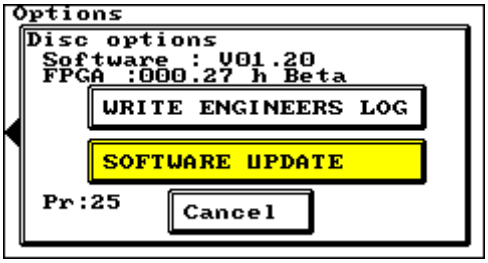
- Insert the memory stick, containing the updated version of the software, into the USB Disk Drive Emulator. From the Main menu press the Options key on the Touch screen.



- Press the Disc key to open the Disc Options display.



- Press the Software Update key.



- The ClearVue will then automatically install the updated software and reboot itself.

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

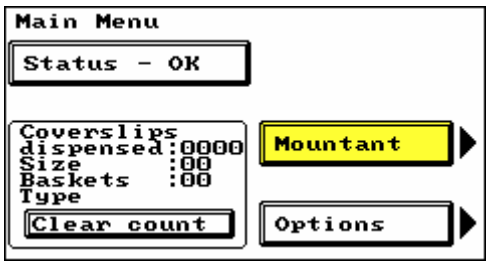
- The new software will be active when the reboot is complete.

Adjust the Mountant Dispense Volume

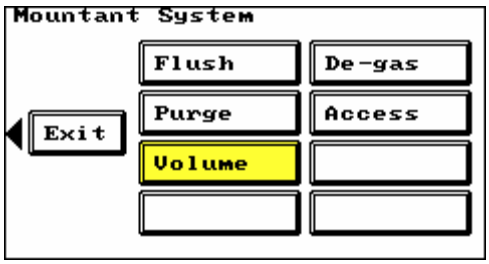
The ClearVue will automatically adjust the amount of Mountant dispensed, depending on the colour of the Slide Retainer and the user-defined settings.

To adjust the Mountant volume:

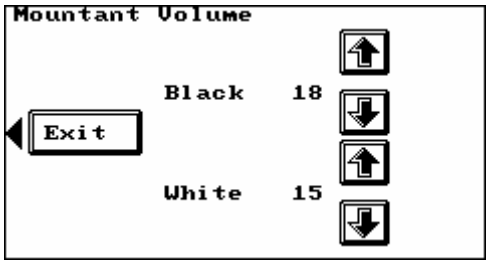
- From the Main menu, press the **Mountant** key on the Touch screen.



- Press the **Volume** key.



- Use the Arrow keys on the Mountant Volume screen to adjust the dispensed volume for each Basket type. The recommended setting for general use is 13.



- Press **Exit** when complete.

Notes

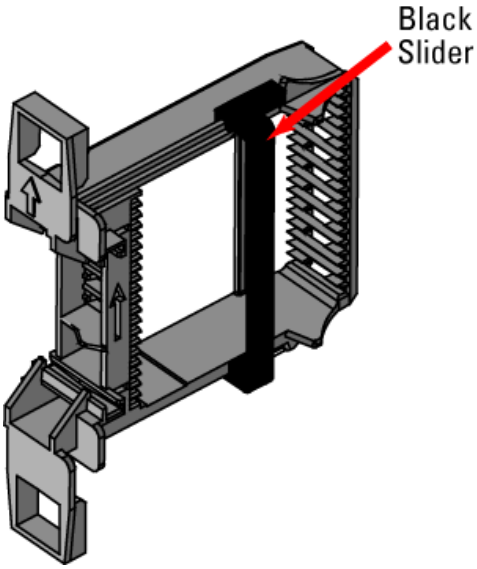
Settings will automatically adjust to suit the Coverslip length, so that the same Mountant Setting dispenses a larger volume of Mountant for a 50mm Coverslip than for a 40mm Coverslip.

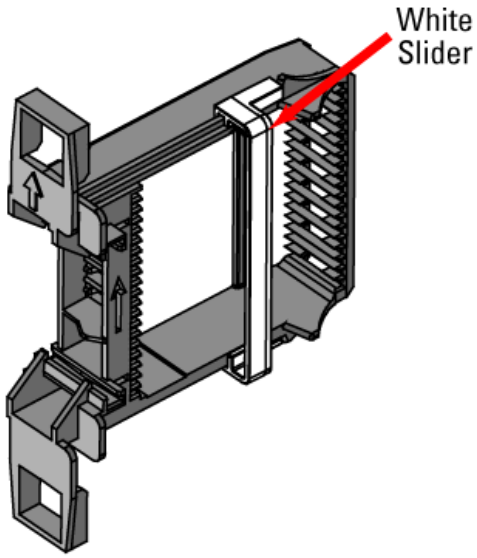
During processing, pressing the Mountant key from the Main menu will automatically open the Mountant Volume screen.

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

Slide Retainer Types

To allow for variations in the thickness of samples, the ClearVue has a Basket Recognition feature. This allows the ClearVue to determine the colour of the Slide Retainer on the Baskets.





The Baskets supplied with the ClearVue have a Black slide retainer. Baskets with White slide retainers are available as an Accessory. The Black slide retainer typically designates thicker samples; whilst the White slide retainer designates thinner samples.

The 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.

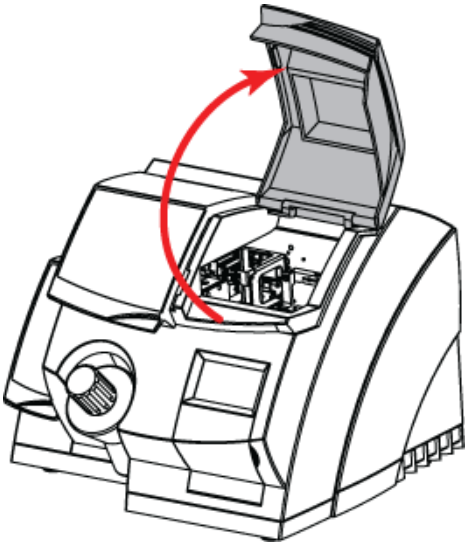
Install the Offset Coverslip Transfer Head

The Offset coverslip transfer head is used to position 40mm Coverslips 5mm from the end of the slide. The Offset head is supplied with a pneumatic pipe that must be connected between the Offset coverslip transfer head and the Rotatable fitting on the ClearVue.

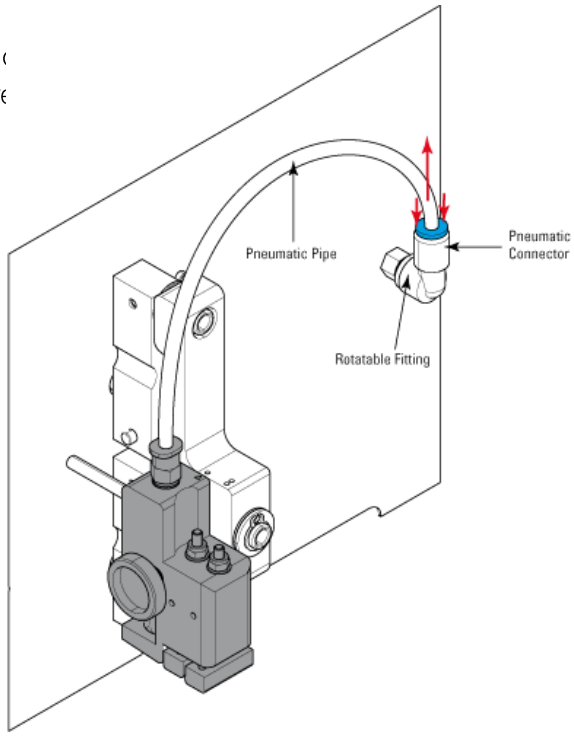
Only use 40mm coverslips otherwise the quality display an error message if any other size of cove

To install the Offset coverslip transfer head:

- Open the Access door.

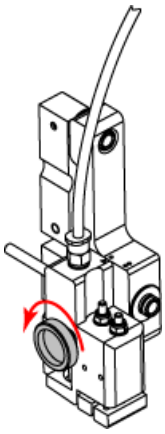


- Detach the Pneumatic pipe connecting the current coverslip transfer head to the ClearVue: hold down the blue portion of the Pneumatic connector on the Rotatable Fitting and pull out the Pneumatic pipe.

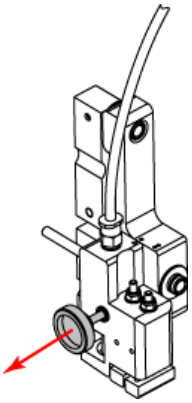


- Remove the Coverslip transfer head:

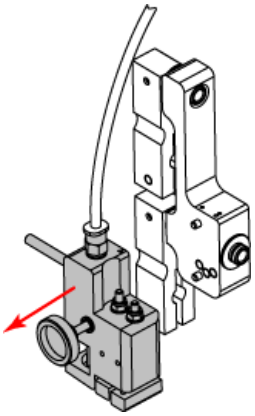
  A: Identify the coverslip transfer head and loosen the thumbscrew by turning it anti-clockwise.



  B: Pull the thumbscrew out to release the coverslip transfer head.

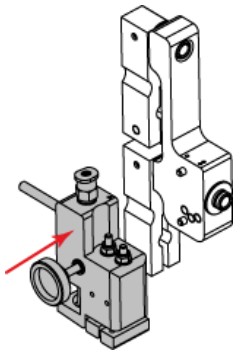


  C: Note the position of the coverslip transfer head and then remove it from the location pins.

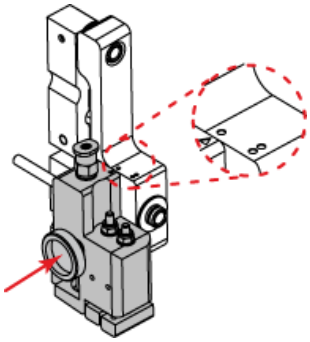


- Fit the Offset coverslip transfer head:

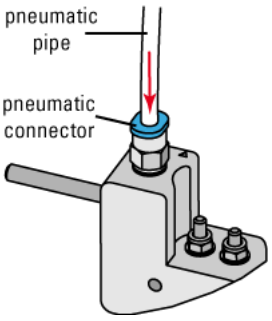
  A: Fit the Offset head onto the Location pins.



  B: Align the Reference mark with the **Default** position. Tighten the Thumbscrew by turning it clockwise.



  C: Hold the Offset head and push one end of the pneumatic pipe firmly into the pneumatic connector. Do not push down on the connector.



  D: Insert the other end of the pipe into the connector of the Rotatable fitting on the ClearVue.

- Pull firmly on the Pneumatic pipe to make sure it is correctly fitted into the Pneumatic collars.

Incorrect fitting may result in poor coverslipping performance.

Note

When the Offset coverslip transfer head is fitted, the ClearVue automatically places the 40mm coverslip on the slide in the correct position.

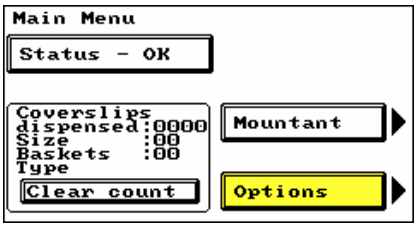
Alter the Slide Sensing Parameter

To improve throughput the ClearVue has an optical system to sense the presence of Slides in a Basket. The system is preset at the factory to provide the optimal performance for the majority of users. In some instances, the combination of Slide type, Specimen type and Reagent might make it difficult for the optical system to see Slides.

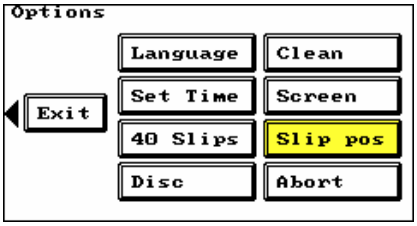
In the unlikely event that the ClearVue does not coverslip all the Slides in a Basket and does not issue any errors or warnings, the sensitivity of the optical system can be increased by adjusting the Slide sensing parameter.

To adjust the Slide sensing parameter:

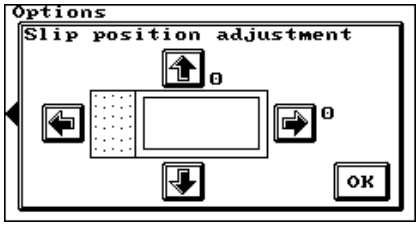
- From the Main menu press the **Options** key on the Touch screen:



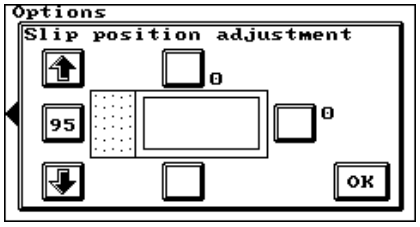
- Press the **Slip position** key.



- The Slip adjustment screen displays.



- Press the shaded area of the slide for approximately 3 seconds to display the Slide sensing adjustment screen.



- Initially, the default value (95) is displayed on the left side of the screen. Use the bottom arrow to reduce the value in steps of 5. If ClearVue is missing slides when processing, initially reduce the value by 10.
- Press **OK** to exit the screen and return to the Options menu. If the problem persists, further reduce the Slide sensing value by 5 at a time. The lowest possible value is 40.

Note

Adjusting the slide sensing will not affect the quality of coverslipping but it might reduce the speed.

Chapter 4 – Maintenance

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

If a problem occurs which is not covered in these sections, contact the Epredia Service Department.

- Cleaning and maintenance cautions
- Replacing seals
- Removing the mountant bottle
- Preparing the ClearVue for storage

Cleaning and Maintenance Cautions

If the 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 an Epredia 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 Epredia agent.

Do not use hypochlorites in strong solution.

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

Always clean up spills immediately.

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

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

Disconnect the ClearVue from the Mains before cleaning.

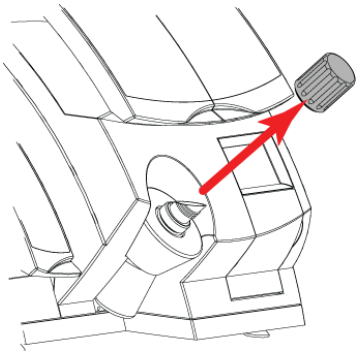
Inspect the instrument for obvious damage or wear whenever it is being cleaned.

Replacing Seals

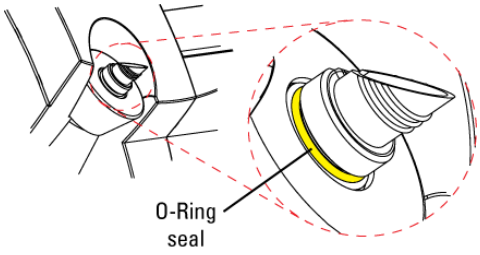
There are two user-serviceable seals on the ClearVue, located on the Mountant Bottle spout and the Xylene Tray. If these seals become encrusted with Mountant their ability to create a good seal is impaired and they must be replaced.

To remove the O-Ring seal on the Mountant Bottle spout:

- Ensure that there are no Baskets currently being processed within the ClearVue.
- Unscrew and remove the Mountant Bottle cap.



- Identify the black O-Ring seal at the base of the Mountant Bottle spout (shown here in yellow).

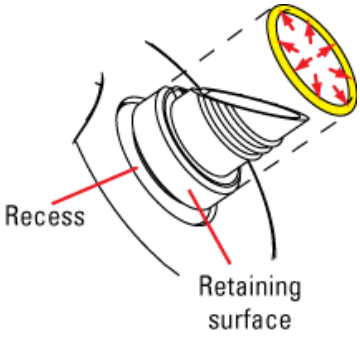


- Use a pair of scissors or wire-cutters to carefully cut the O-Ring seal, ensuring none of the surfaces of the Mountant Bottle are damaged in the process.
- Replace with a new seal:

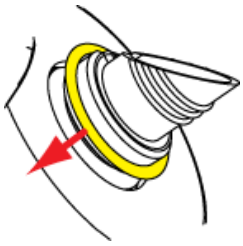
Note

The diagrams show the Mountant bottle spout seal replacement, but the technique is common to the Xylene tray seal also.

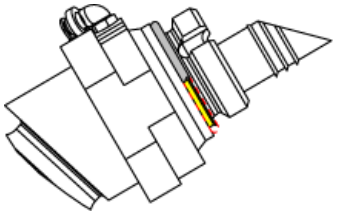
A: Carefully stretch the O-Ring seal to fit over the Retaining surface.



B: Once it is over the Retaining surface, roll it towards the Recess.



C: Allow the O-Ring seal to snap into place, then ensure it is properly seated in the Recess.

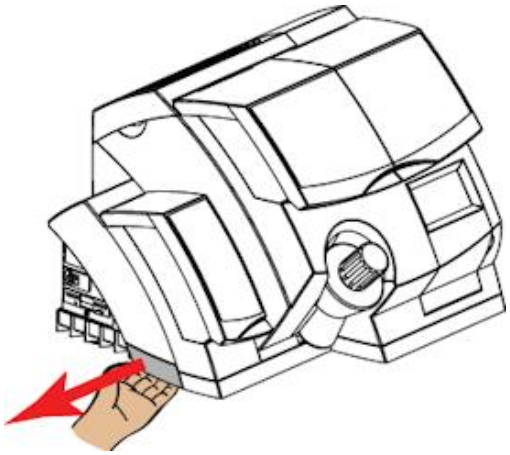


To remove the O-Ring seal on the **Xylene Tray**:

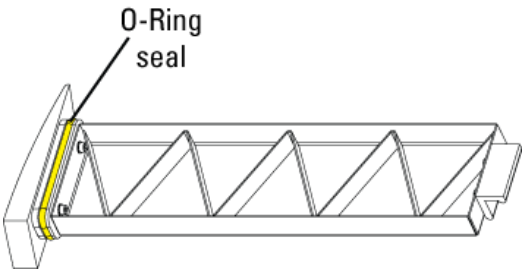
Xylene is harmful

- Ensure that there are no **Baskets** currently being processed within the ClearVue.

- Taking care not to spill any remaining xylene, remove the Xylene Tray and empty out any xylene.



- Identify the black O-Ring seal (shown here in yellow).



- 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.
- Replace with a new seal.

Note

Refer to Mountant Bottle Seal and Xylene Tray Seal for information about cleaning the Mountant bottle spout seal and the Xylene tray seal respectively.

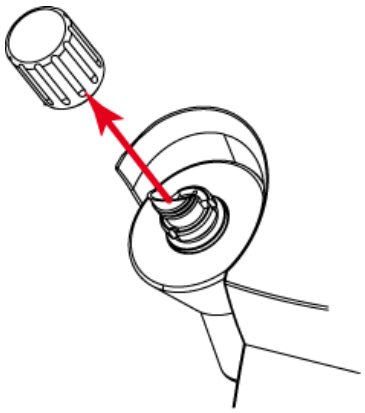
Remove the Mountant Bottle

Take precautions when dealing with Xylene!

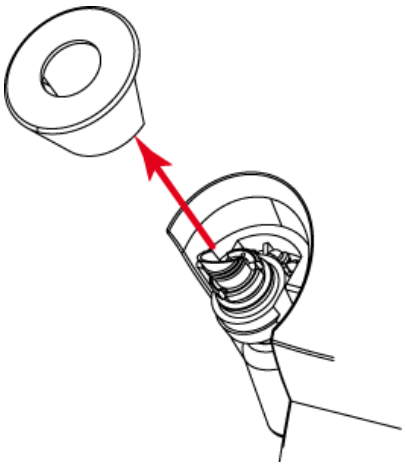
After Flushing the system with Xylene during the initial set-up of the ClearVue, the Mountant Bottle needs to be emptied of any remaining Xylene.

To remove the mountant bottle:

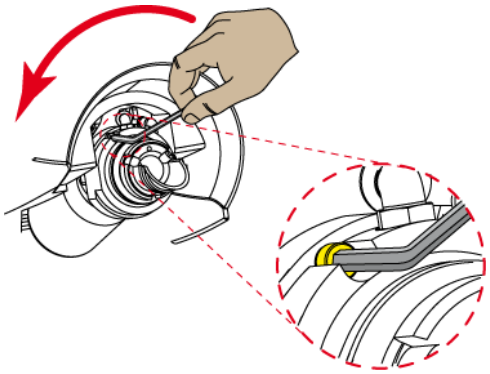
- Remove the mountant bottle cap by twisting it anti-clockwise to loosen it.



- Lift off the mountant bottle collar.

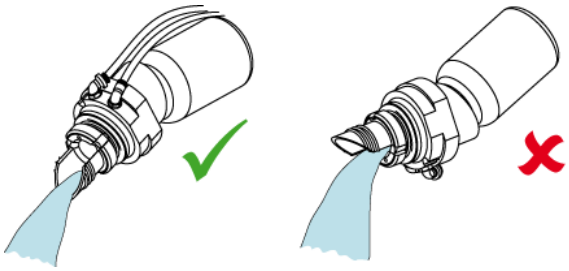


- Insert the Allen key (as provided) into the Mountant Bottle fitting connector. Turn the Allen key anti-clockwise to loosen the bottle and lift the bottle out of the ClearVue.



Do not disconnect the pipes!

Carefully dispose of any remaining Xylene in the Mountant Bottle.



Do not attempt to stand the bottle up when detached from the instrument!

Reverse the above instructions to reassemble.

Prepare the ClearVue for Storage

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

- Empty the Mountant bottle and clean with xylene
- Flush the system with xylene
- 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
- Re-pack it into its original packing

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

Chapter 5 – Cleaning

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

If a problem occurs which is not covered in these sections, contact the Epredia Service Department.

- Mountant bottle cap
- Mountant bottle seal
- Xylene tray seal
- Dispense head cleaning station
- Suction cup
- Slip dispense carriage
- Mountant dispense needle
- Touch screen
- Slip dispense skirt
- Gripper return plate
- Slide grippers
- Coverslip transfer head
- Camera

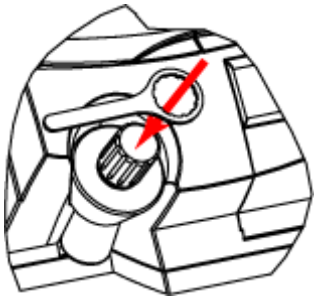
Cleaning the Mountant Bottle Cap

Take precautions when dealing with Xylene!

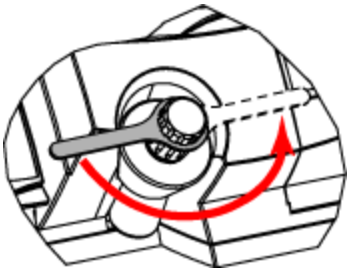
If the Mountant bottle cap becomes encrusted with Mountant and difficult to open, the following procedures should be followed to remove and clean the bottle cap:

To remove the mountant bottle cap:

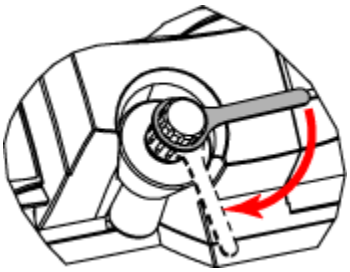
- Place the Cap removal tool over the Mountant bottle cap.



- Turn anti-clockwise by half a turn.

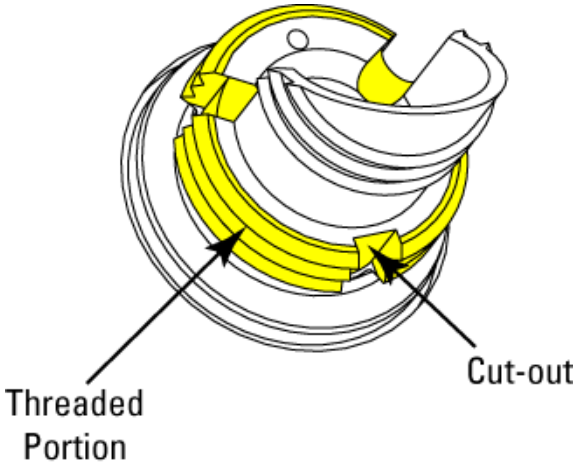


- Turn clockwise by a quarter of a turn. Repeat steps 2 & 3 until cap is fully removed.



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 bottle spout. Pay particular attention to the threaded portion and its 3 cut-outs.



- Replace the Mountant bottle cap.

Hand tighten the Mountant bottle cap only - do not use the cap removal tool!

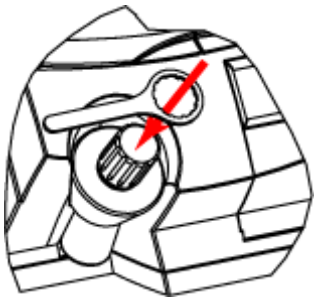
Cleaning the Mountant Bottle Seal

Take precautions when handling Xylene!

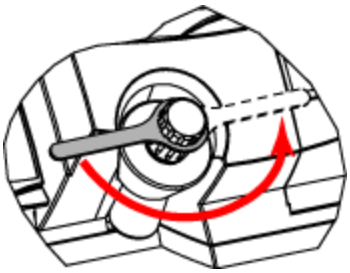
To remove the O-Ring seal:

- Ensure that there are no Baskets currently being processed within the ClearVue.
- Unscrew and remove the Mountant bottle cap:

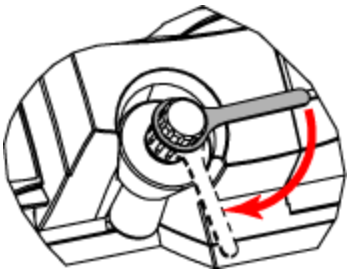
A: Place the Cap removal tool over the Mountant bottle cap.



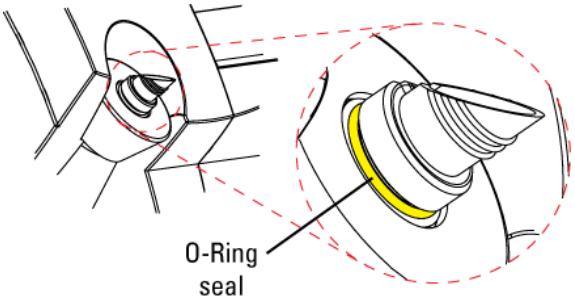
B: Turn anti-clockwise by half a turn.



C: Turn clockwise by a quarter of a turn. Repeat steps 2 & 3 until cap is fully removed.



- Identify the black O-Ring seal at the base of the Mountant bottle spout (shown here in yellow).



- Carefully prise the O-Ring seal from its seat, ensuring none of the surfaces of the Mountant bottle are damaged in the process.

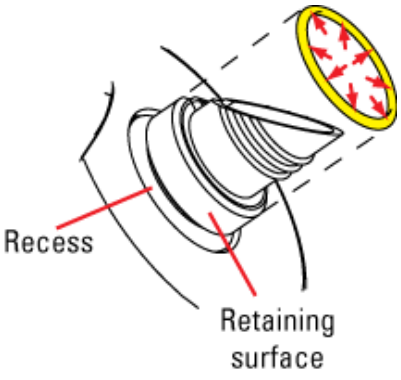
Do not use a blade to remove the seal as injury may occur.

- Manoeuvre the O-Ring seal over the large diameter threaded portion of the Mountant bottle spout.
- Roll the O-Ring seal up the spout until it comes off.

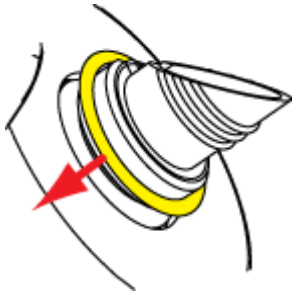
To clean the seal:

- Use a xylene-damp cloth to remove any encrusted Mountant from the seal.
- Check the seal for signs of tearing or splitting and replace if necessary.
- Refit the seal when fully dry.

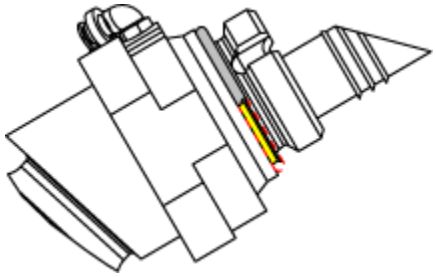
A: Carefully stretch the O-Ring seal to fit over the Retaining surface.



B: Once it is over the Retaining surface, roll it towards the Recess.



C: Allow the O-Ring seal to snap into place, then ensure it is properly seated in the Recess.

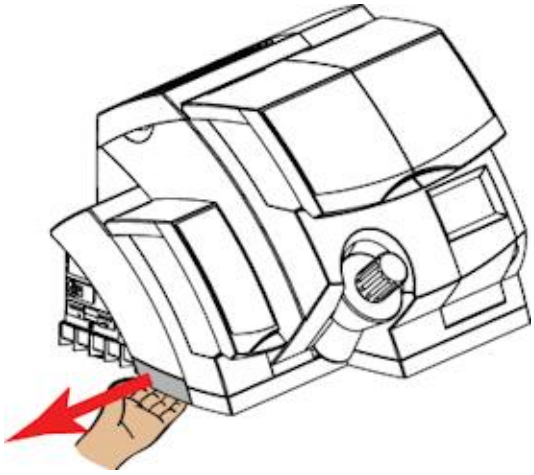


Cleaning the Xylene Tray Seal

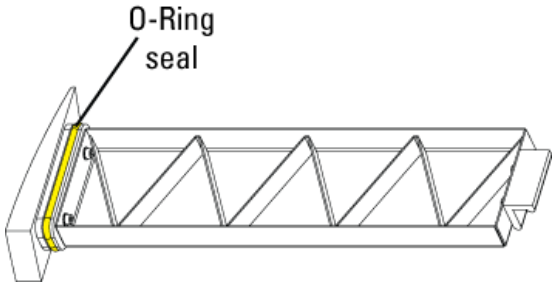
Take precautions when handling Xylene!

To remove the O-Ring from the Xylene tray:

- Ensure that there are no Baskets currently being processed within the ClearVue.
- Taking care not to spill any remaining xylene, remove the Xylene tray and empty out any xylene.



- Identify the black O-Ring seal (shown here as yellow).



- 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 a sharp object to prise the seal out.

- Manoeuvre the O-Ring seal onto the larger adjacent portion of the Xylene tray.
- Roll the O-Ring seal along the surface of this portion until it comes off.
- Carefully guide the O-Ring seal over the rest of the Xylene tray until it is clear.

To clean the seal:

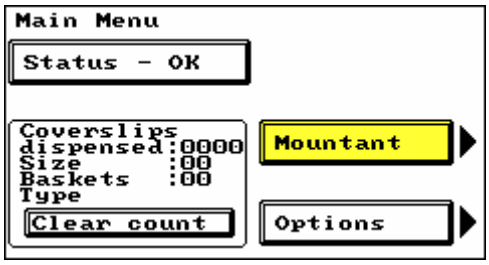
- Use a xylene-damp cloth to remove any encrusted Mountant from the seal.
- Check the seal for signs of tearing or splitting and replace if necessary.
- Refit the seal when fully dry.

Cleaning the Dispense Head Cleaning Station

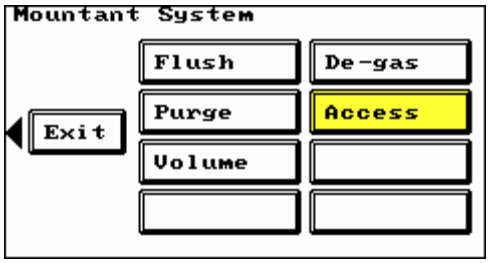
Take precautions when handling Xylene!

To clean the dispense head cleaning station:

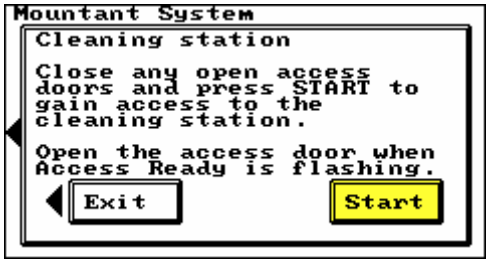
- From the Main menu, press the **Mountant** key on the touch screen.



- Press the **Access** key.

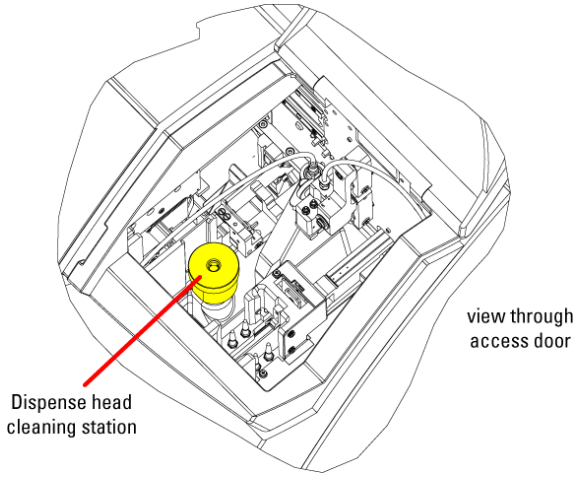


- Press the **Start** key.

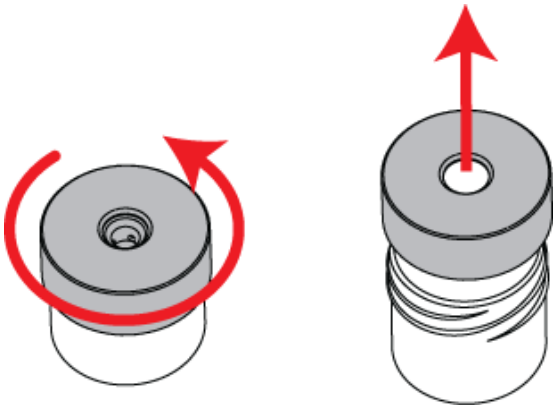


- Wait for activity within the ClearVue to stop, and Access Ready to flash.

- Open the Access door.
- The cleaning station is now accessible: carefully pull it upwards to remove from its fixing.

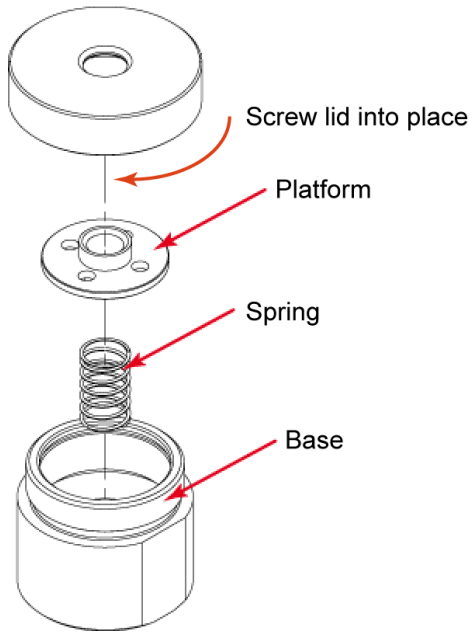


- Remove the lid and dispose of the contents according to local regulations.



- Use a xylene damp cloth to clean all the surfaces of the cleaning station including the top of the internal parts.

- Refill to about ¾ full of xylene.
- Reassemble the cleaning station and refit into the ClearVue.



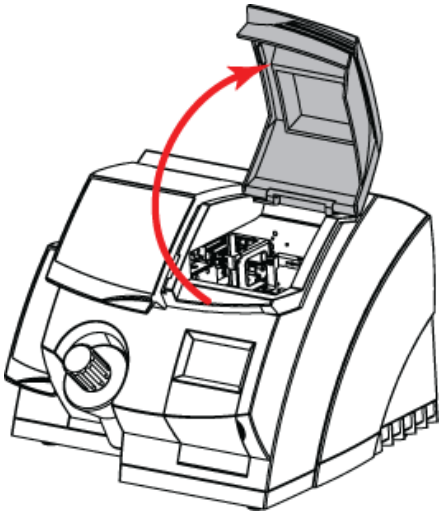
- Top up the cleaning station:
  - Drip Xylene into the dispense head cleaning station until it is at a level where it can be seen in the central well (approx. 18ml).
  - Use the end of the pipette to push the central well down, to ensure that the xylene levels are consistent.
  - Make sure that the central well re-seats itself properly.
- When finished, close the Access door and press the **Complete** key on the screen.

Cleaning the Suction Cup

Take precautions when handling Xylene!

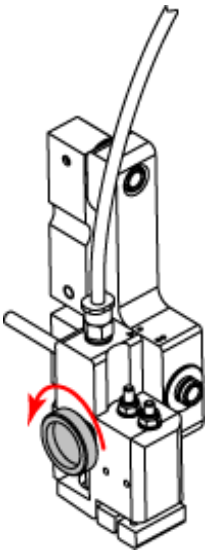
Remove the suction cup:

- Open the Access door.

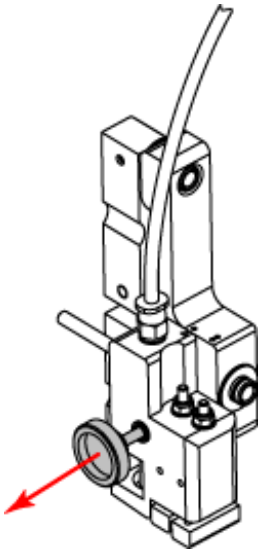


- Remove the Coverslip transfer head:

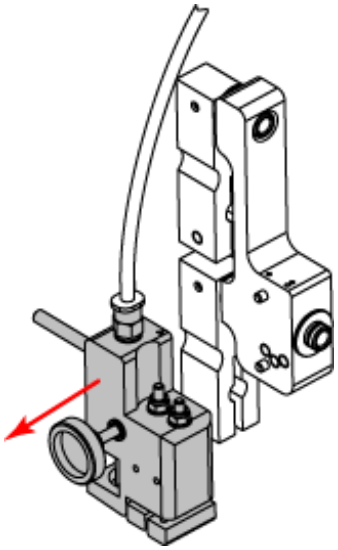
  A: Identify the Coverslip transfer head and loosen the thumbscrew by turning it anti-clockwise.



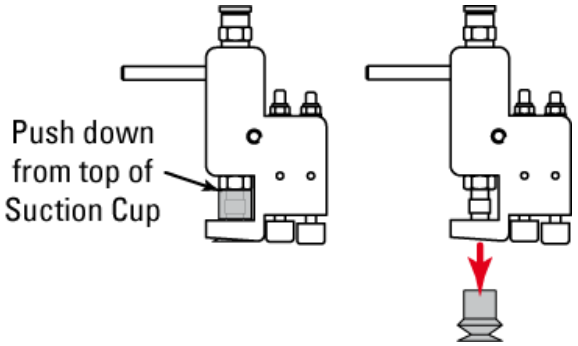
B: Pull the thumbscrew out to release the coverslip transfer head.



C: Note the position of the Coverslip transfer head and then remove it from the Location pins.

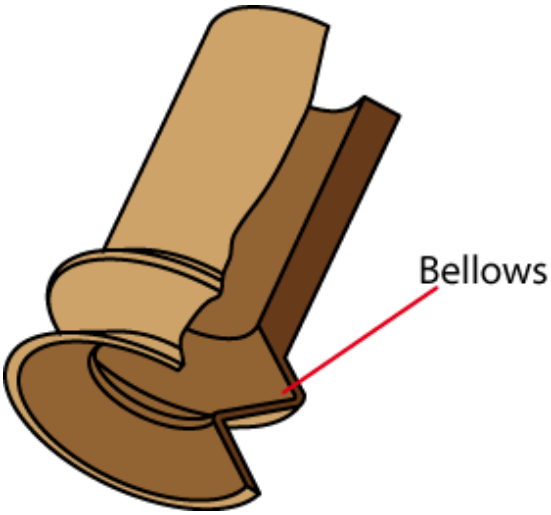


- Remove the Suction cup by pushing down from the top of the rubber.



Clean the suction cup:

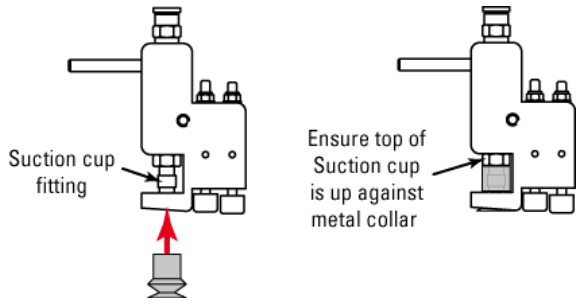
- When removed from the coverslip transfer head, soak the suction cup in xylene.
- Ensure that all Mountant is cleared from the inside of the suction cup, especially the bellows. A cotton-bud (Q-tip) can be used to wipe the internal surfaces.



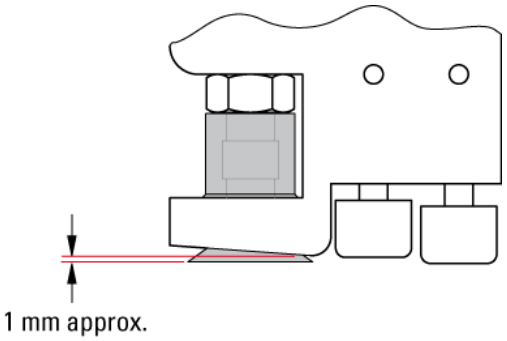
- Remove the suction cup from the xylene and allow to air-dry. Make sure the suction cup is fully dry before refitting.

Refit the suction cup:

- Push it onto the suction cup fitting

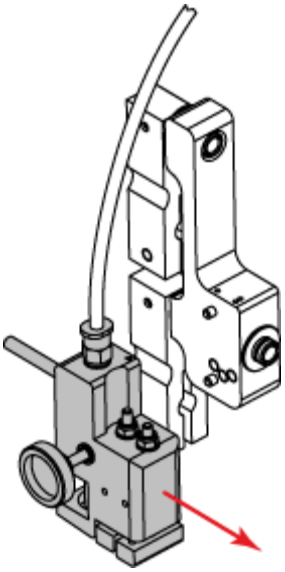


- Ensure the suction cup protrudes from the base of the coverslip transfer head.

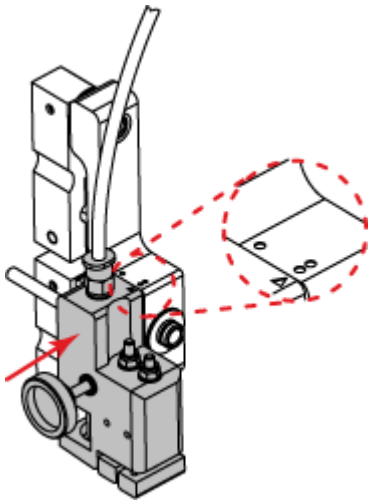


- Replace the Coverslip transfer head:

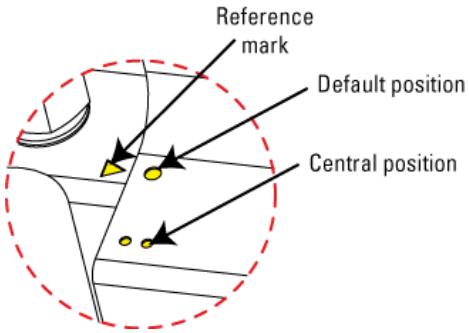
  A: Reposition the Coverslip transfer head as required.



B: Replace the Coverslip transfer head onto the Location pins in either the Default or Central position. Tighten the Thumbscrew by turning it clockwise.



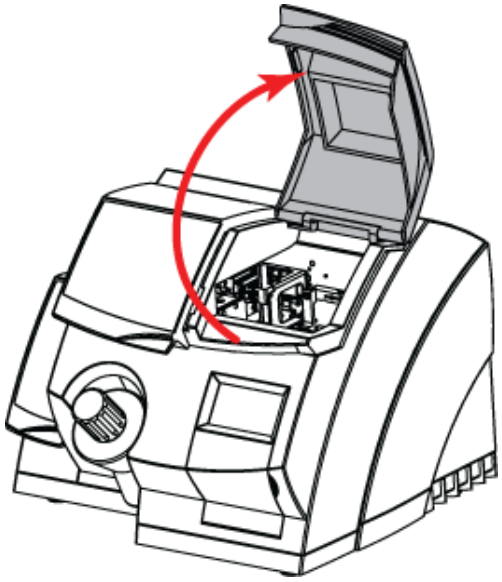
C: The Reference mark on the top of the Coverslip transfer head indicates which position it is in: either the Default or End position.



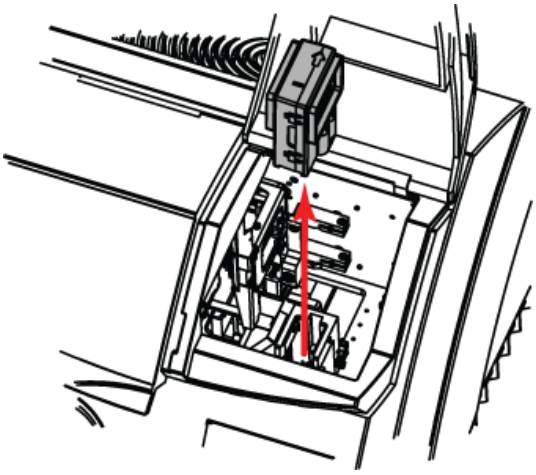
Cleaning the Slip Dispense Carriage

To clean the Slip dispense carriage:

- Open the Access door.



- Remove the Coverslip hopper by pulling it towards the front of the ClearVue and then lifting it gently upwards.

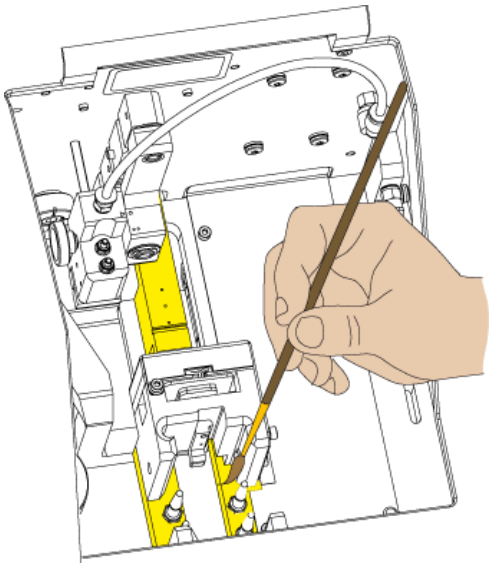


- Without turning the Coverslip hopper upside down, check the bottom of the Hopper for any broken Coverslips.

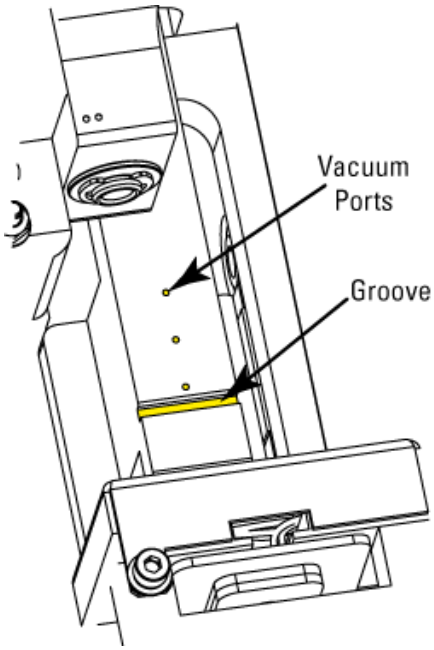
Broken glass may be present!

- Carefully remove any broken coverslips.

- Using the Brush provided, clear the top of the Slip dispense carriage of any glass debris.

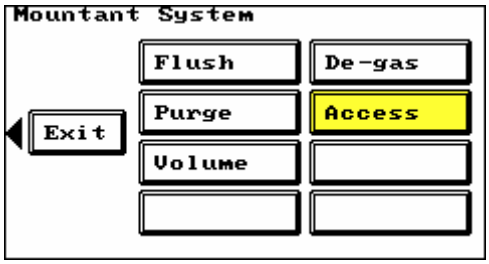


- Make sure the Groove and vacuum ports are clear of glass dust. If the Vacuum ports are blocked use an implement (less than 1mm (0.039") dia.) to push the blockage through.



- Remove the Slip dispense skirt and clean in the recess.

- Move the Slip Dispense Carriage forwards if necessary by pressing the Access button on the Mountant Screen and then following the steps given in the Dispense Head Cleaning Station section.

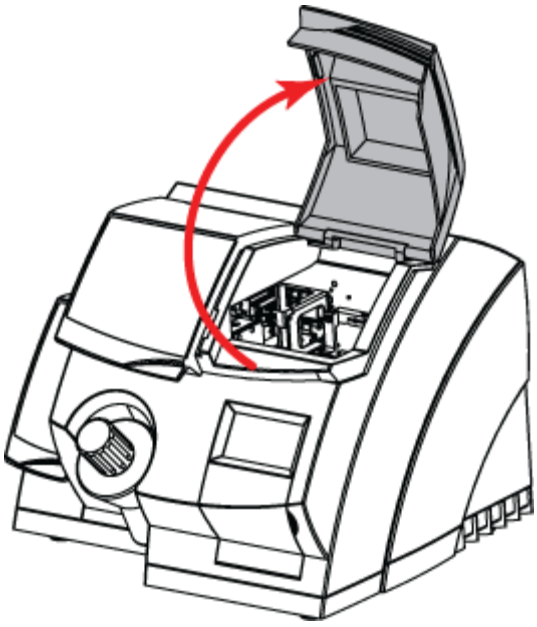


Cleaning the Mountant Dispense Needle

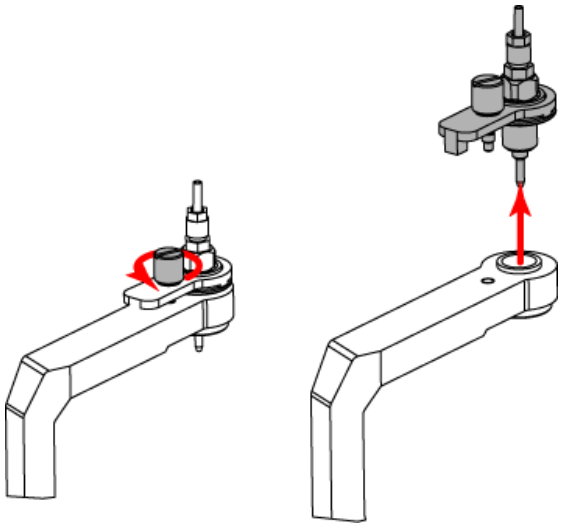
Take precautions when handling Xylene!

Remove the mountant dispense needle assembly:

- Open the Access door.



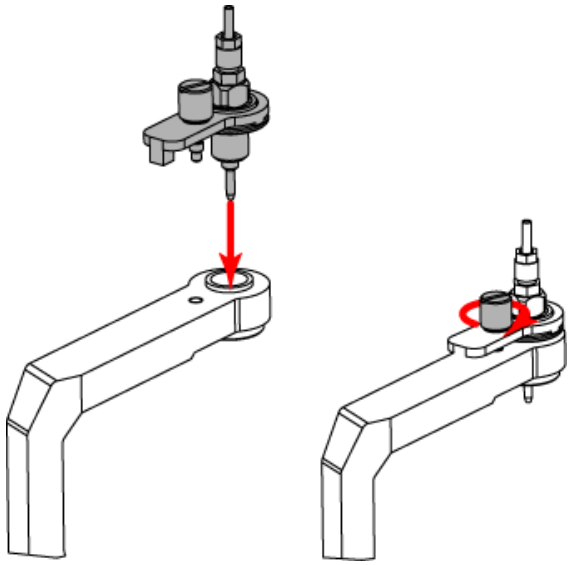
- Unscrew the Mountant dispense needle assembly and lift it out of the Support arm.



Do not disconnect the tubing!

Clean and replace the dispense needle:

- Place the 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 needle assembly back in by hand.



Take care not to screw the Mountant dispense needle assembly in cross-threaded as this will damage the support arm.

Do not use a wrench.

After cleaning:

- Flush the system

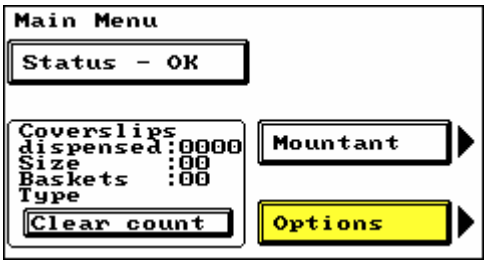
Ensure the Dispense head cleaning station is topped up

Cleaning the Touch Screen

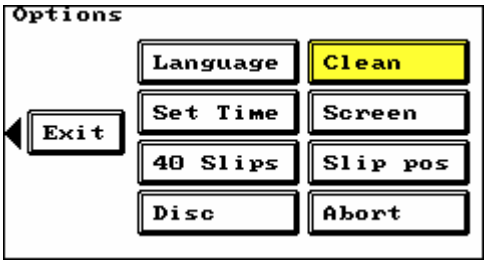
Do not use solvents to clean the touch screen. Wiping the touch screen when the Cleaning screen is NOT displayed may cause unexpected results.

To clean the touch screen display:

- From the Main menu press the **Options** key on the touch screen.



- Press the **Clean** key.



- The Cleaning screen displays, in which it is possible to touch the screen without any effect. A countdown timer shows how long the cleaning screen will continue to be displayed for.

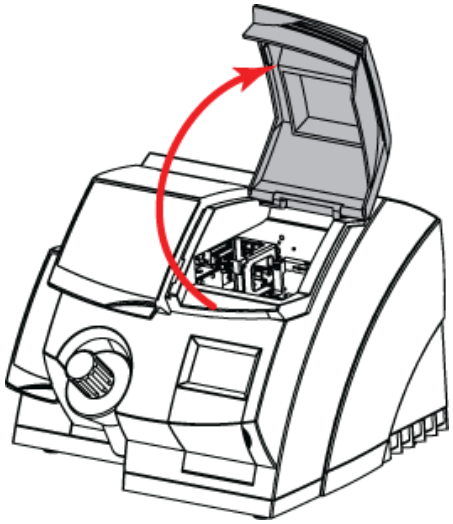
- To clean the touch screen, wipe with a soft, water-damp cloth. Thoroughly dry using a lint-free cloth.

Cleaning the Slip Dispense Skirt

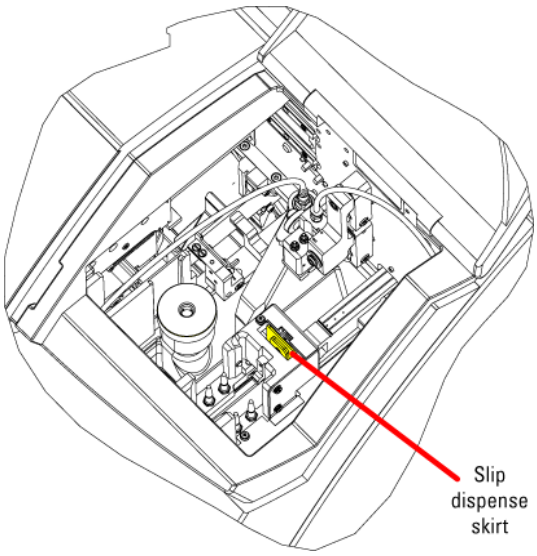
If the Slip dispense skirt becomes covered in glass dust it can be removed and cleaned.

Clean the Slip dispense skirt:

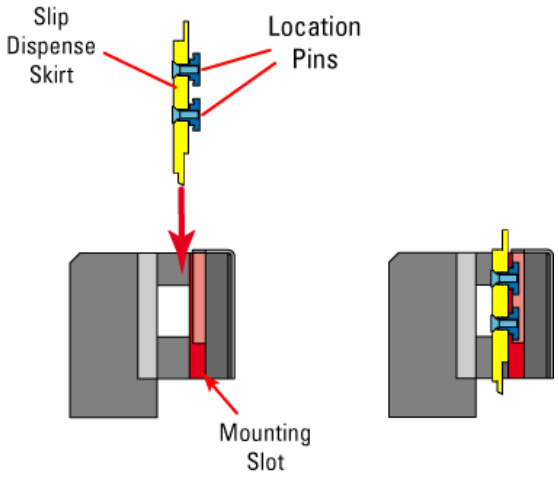
- Open the Access door.



- 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.

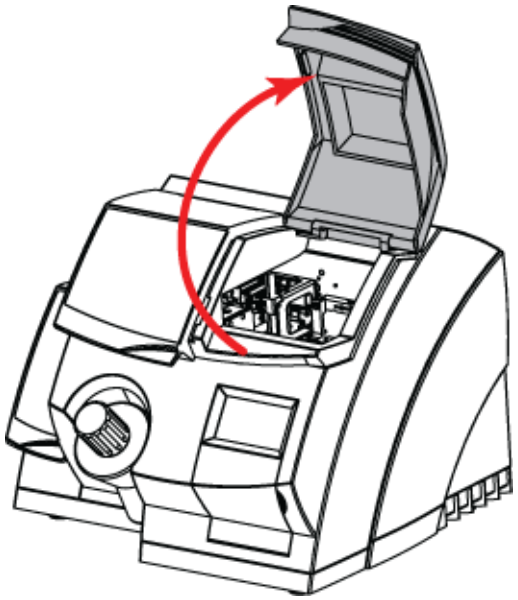


Cleaning the Gripper Return Plate

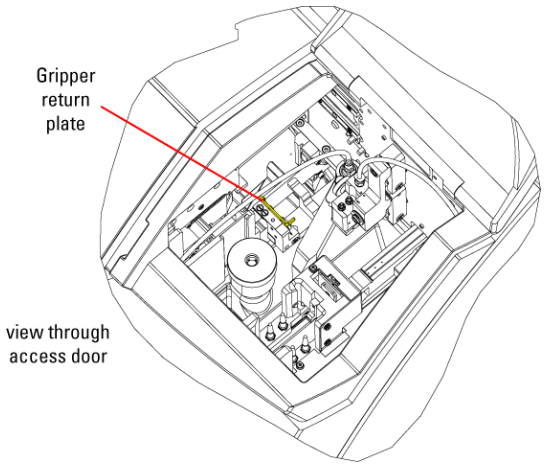
Take precautions when handling Xylene!

To clean the Gripper return plate in-situ:

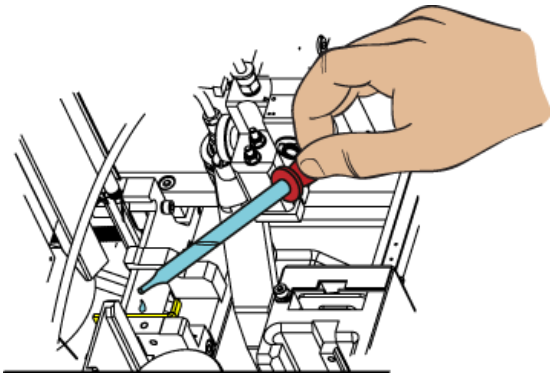
- Open the Access door.



- Locate the Gripper return plate.



- Use a pipette to drip xylene onto the Gripper return plate.

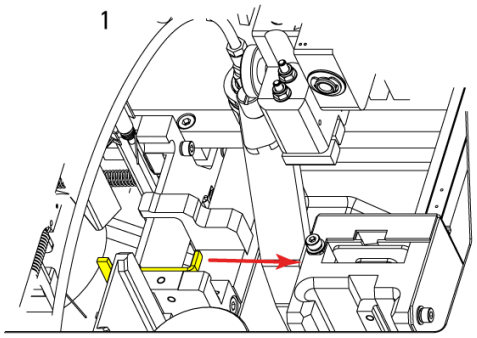


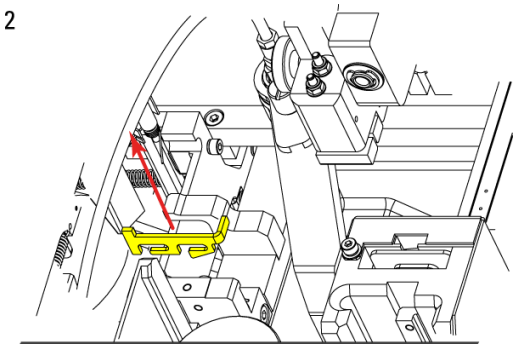
Pay particular attention to the areas where the plate contacts any other surfaces.

Ensure that the Gripper return plate can move freely from side to side.

If the Gripper return plate is heavily contaminated with Mountant, remove it for a more thorough clean:

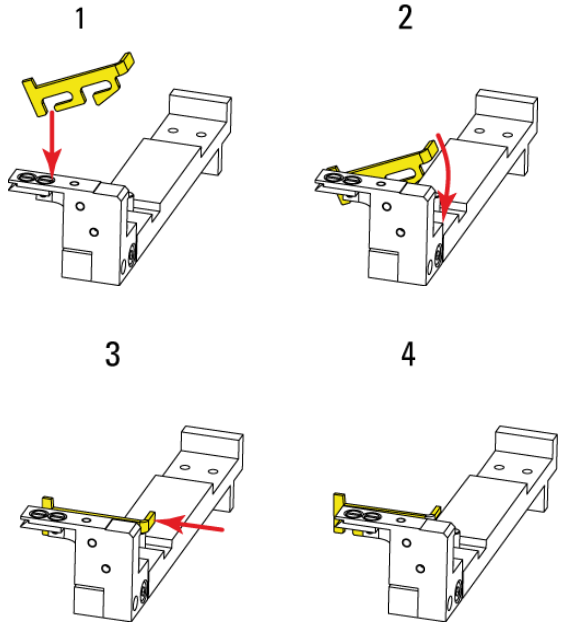
- Locate the Gripper return plate.
- Using the protruding handle, pull the Gripper return plate to the right and then up. It should now lift off its Location pins:





- Soak the Gripper return plate in xylene to remove any Mountant. Use xylene to clean the Location pins and other contact areas.

- Replace the Gripper return plate:



Ensure that the Gripper return plate can move freely from side to side.

Cleaning the Slide Grippers

The Slide grippers remove the slides from the Basket and hold them in place during coverslipping. They are self-cleaning and should only require manual cleaning 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

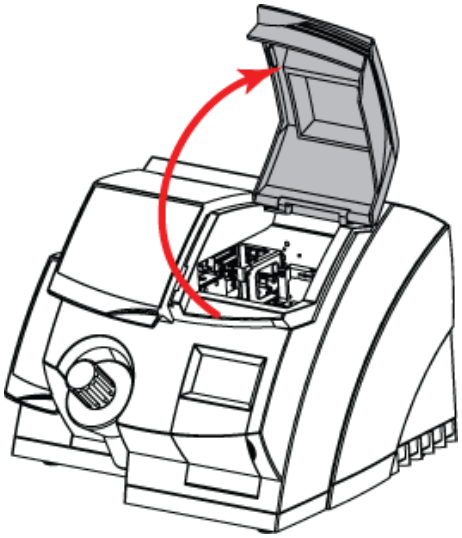
Do not, under any circumstances, use abrasive cleaners, abrasive materials or unapproved solvents to clean the painted surface of the Long gripper.

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

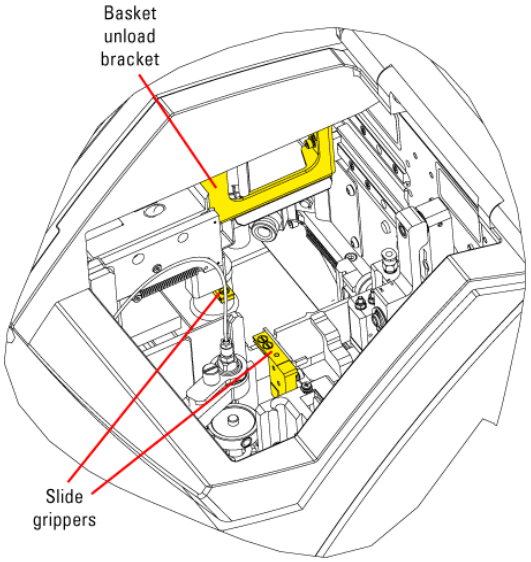
Be cautious of Xylene fumes!

To clean the Slide grippers:

- Switch off the ClearVue.
- Open the Access door.



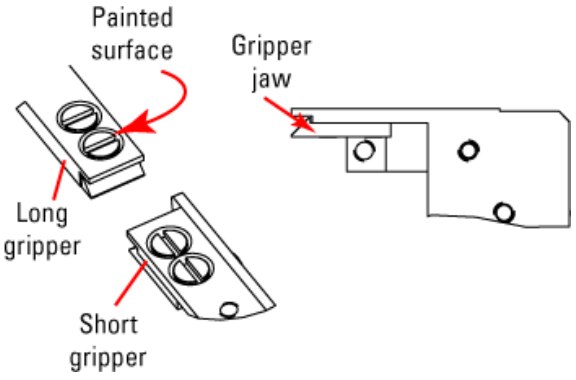
- Identify the Slide grippers. To improve access to the Slide grippers, push the **Basket unload bracket** as far over to the left as it will go.



- Remove the Gripper return plate.
- Remove any debris from the 'V' in each Gripper.

Do not use force to remove debris.

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



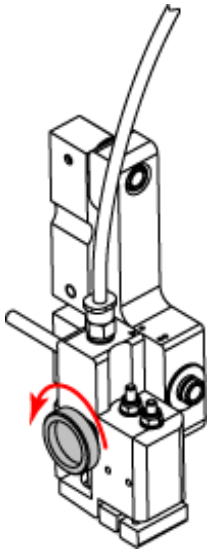
Cleaning the Coverslip Transfer Head

Take precautions when dealing with Xylene!

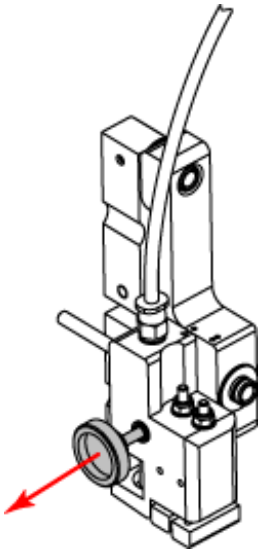
If the internal airway in the Coverslip transfer head becomes blocked it can be cleaned as follows:

- Remove the Coverslip transfer head:

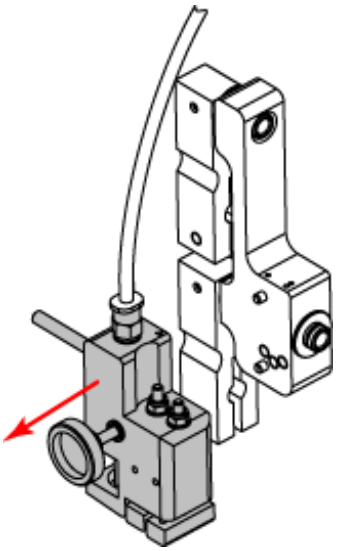
  A: Identify the Coverslip transfer head and loosen the thumbscrew by turning it anti-clockwise.



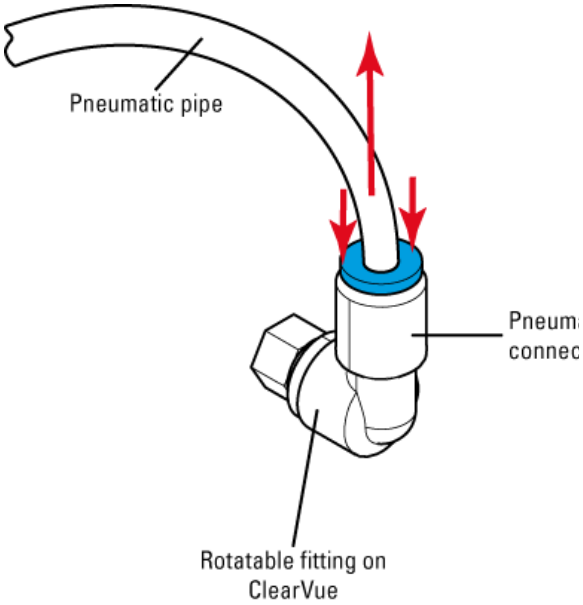
  B: Pull the thumbscrew out to release the coverslip transfer head.



  C: Note the position of the Coverslip transfer head and then remove it from the Location pins.

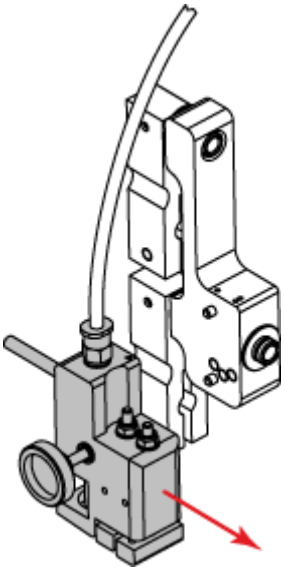


- Detach the Pneumatic pipe from the top of the Coverslip transfer head: hold down the blue portion of the Pneumatic connector and pull out the Pneumatic pipe.



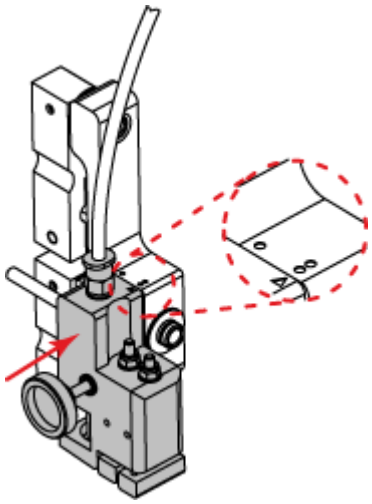
- Ensure that the internal airway is free from blockages such as glass debris or dried Mountant. The Coverslip transfer head can be soaked in xylene to aid removal of dried Mountant.
- Once clean, remove the Coverslip transfer head from the xylene and allow to air-dry.
- Refit the Coverslip transfer head making sure that the Pneumatic pipe is fully inserted into the Pneumatic connector:

A: Reposition the Coverslip transfer head as required.

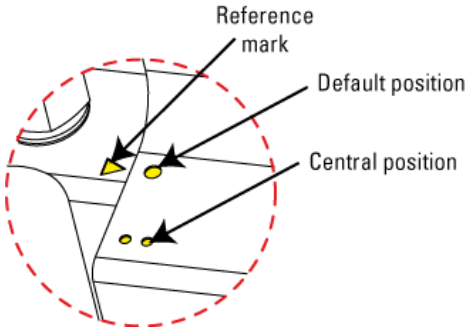


B:

Replace the Coverslip transfer head onto the Location pins in either the Default or Central position. Tighten the Thumbscrew by turning it clockwise.



C: The Reference mark on the top of the Coverslip transfer head indicates which position it is in: either the Default or End position.



Note

Pull firmly on the Pneumatic pipe to check that it is correctly fitted into the Pneumatic connectors.

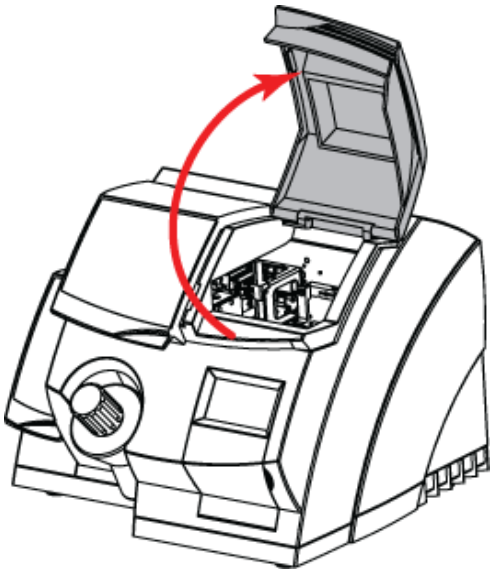
Failure to ensure that the Pneumatic Pipe is properly connected may result in poor coverslipping performance.

Cleaning the Camera

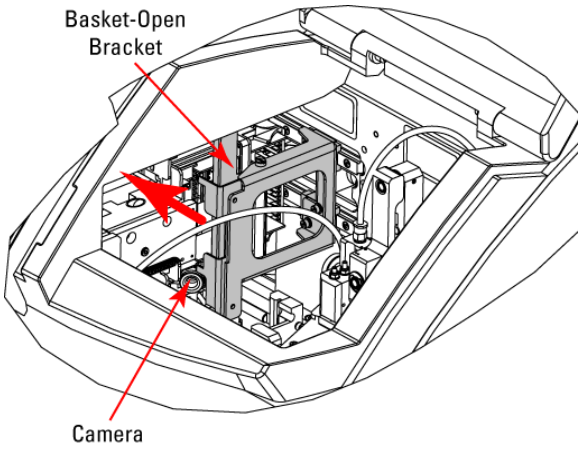
Never use solvents or water to clean the camera. Never clean the camera with the ClearVue switched on.

To clean the Camera:

- Switch off the ClearVue.
- Open the Access door.



- Push the Basket-Open bracket to allow access to the Camera.



- Carefully wipe the Camera lens using a lint-free cloth.
- Close the Access door and restart the ClearVue.

Note

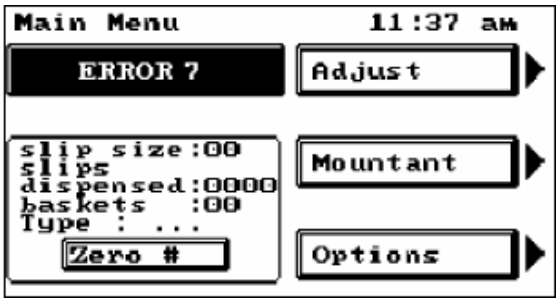
Cleaning the camera is ***Not*** *a routine maintenance task and should only be done if advised by an Epredia Service Engineer.*

Chapter 6 – Troubleshooting

- Error screens
- Perform a bead test
- Identifying problems with slides
- Troubleshooting tables
- Machine dead - no power
- Dispense needle dirty/blocked
- Slide jams
- Coverslip misdispense
- Coverslip misdispense (cont'd)
- Breaking coverslips
- Basket jams
- Breaking slides
- Mountant overspill
- Skewed coverslips
- Slides not coverslipped
- Part broken coverslips
- Slides too wet
- Diagnosis flowchart

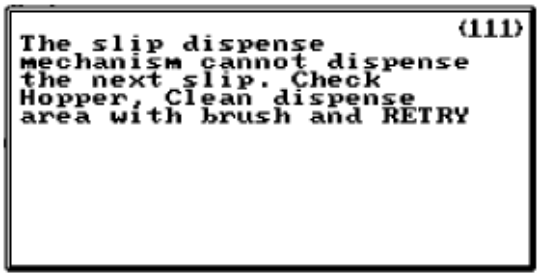
Error Screens

- If an error occurs an alert will be displayed on the Touch screen.



- Pressing the flashing Error message will display an Error Screen which provides one or more of the following options to rectify the error.

- The specific Error Screens explain the options available.
- If it is necessary to call the Epredia Service Department they will ask for the Engineer's Code which is displayed in the top, right-hand corner of the Error screen.



Perform a Bead Test

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

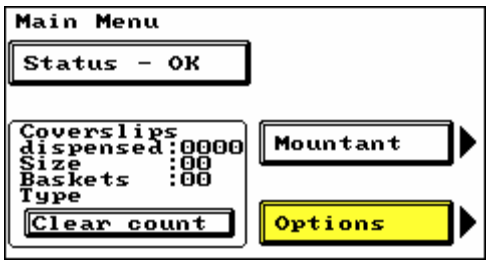
Note

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

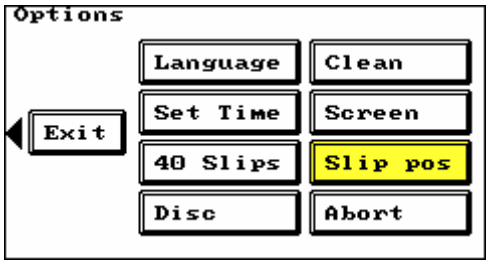
If the instrument has just been switched On, or the Clear Count button on the Main Menu has been pressed, the Bead Test will lay down a line of Mountant in the default position (50mm coverslip, end position).

To perform a Bead Test:

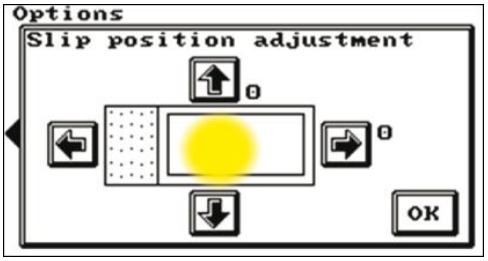
- From the Main menu press the Options key on the Touch screen.



- Press the Slip Position key.



- Open all 4 doors on the instrument.
- Place a Basket of dry slides on the Load rail. Do not close the Load door.
- Touch the image of the coverslip.



- The image of the coverslip will disappear and the ClearVue will emit an ascending tone.
- Close all the doors to begin processing the Basket.
- 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.

- Check the quality of the prepared slide.

Identifying Problems with Slides

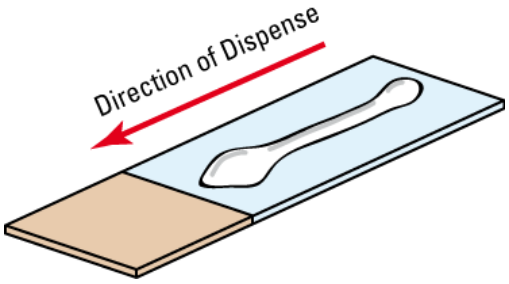
The quality of prepared slides can be used to help troubleshooting on the ClearVue. Any problems can then be solved either by the operator or by a Service Engineer.

The two states which can be observed are:

- Quality of Mountant dispense (see Perform a Bead Test)
- Quality of coverslipped slide

Correct Mountant dispense appearance:

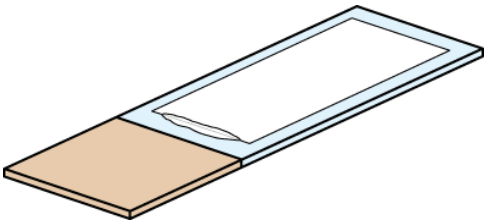
- Small initial drop
- Uniform middle strip of Mountant
- Larger drop at end, close to, but not encroaching on the frosted area



The Diagnosis flowchart is intended to aid in the diagnosis of problems relating to the quality of the Mountant dispense.

Correct appearance of coverslipped slide:

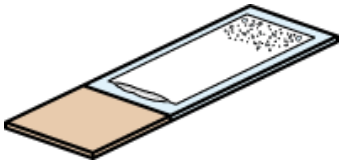
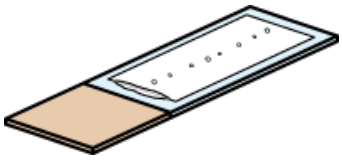
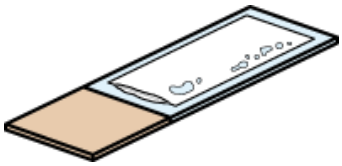
- Minimal overspill of Mountant at the frosted end of slide
- Coverslipped area free from bubbles
- Coverslipped area totally covered in Mountant
- Minimum Mountant overspill over the rest of the coverslip perimeter
- Coverslip positioned correctly on slide



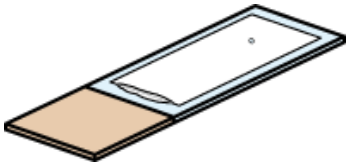
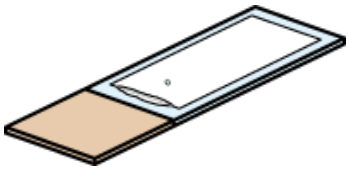
Note

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

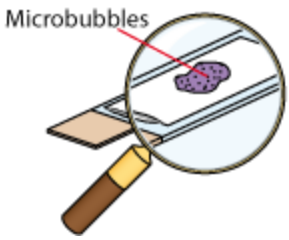
Prepared Slides - Troubleshooting (i)

Description of slide	Possible cause	Solution
Multiple bubbles visible at non-frosted end of slide 	**Suction cup** contaminated or broken	Remove Suction cup and clean using a xylene-damp cloth. *Note: Dry suction cup fully before refitting.* Replace Suction cup. Ensure pipe to Coverslip transfer head is properly inserted.
	Offset coverslip transfer head used with incorrect size coverslip	Use only **40mm** coverslips or replace the offset coverslip transfer head with original (black or silver coloured).
	Offset coverslip transfer head put onto early production model (silver in colour)	Call **Epredia Service** department for advice.
Straight line of bubbles down the length of slide 	**Suction cup** contaminated with Mountant	Remove Suction cup and clean using a xylene-damp cloth. *Note: Dry suction cup fully before refitting*
	Dispense Head too high	Perform Bead test.
	Air in Pipes or Syringe	Flush system to ensure bubbles have been expelled.
Multiple non-uniform bubbles  Often down one side of 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. If problems persist contact your **Epredia Representative** for advice.
	Instrument not level	Level instrument using the levelling feet.

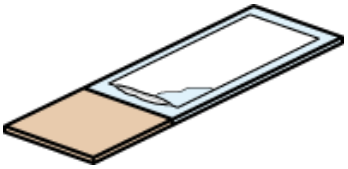
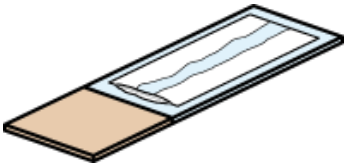
Prepared Slides - Troubleshooting (ii)

Description of slide	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 Epredia Service department.
	Suction cup contaminated with Mountant	Remove and clean Suction cup using a xylene-damp cloth. *Note: Dry suction cup fully before refitting*
	Offset Coverslip Transfer Head used with incorrect size coverslip	Use only **40mm** coverslips or replace the Offset Transfer Head with the original one (black or silver coloured).
	Offset Coverslip Transfer Head put onto early production model (silver in colour)	Call Epredia Service Department for advice.
Single bubble at Frosted end of slide 	Dispense Head too high	Check Dispense Head is fully screwed down. Contact Epredia 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. Contact Epredia Service Department.
	Non-approved Mountant used	Use approved Mountant.

Prepared Slides - Troubleshooting (iii)

Description of slide	Possible cause	Solution
Microbubbles 	Old Mountant	Dispose of the Mountant. Flush the system with Xylene. Refill the Mountant bottle from a new, unopened bottle of approved Mountant and Flush through the system.
	Contaminated **Mountant** (via thinning)	Dispose of the Mountant. Flush the system with Xylene. Refill the Mountant bottle and Flush through the system.
	Unapproved **Mountant** with an extreme of viscosity	Dispose of the Mountant. Flush the system with Xylene. Refill the Mountant bottle with an approved Mountant and Flush through the system.
	Slides too dry	Ensure Xylene tray is topped up. Carry the baskets to the ClearVue immersed in Xylene and drain gently before loading onto the input rail. Ensure errors are cleared promptly or abort the basket and store in Xylene while the error is resolved. Load one basket at a time.
	Water/alcohol contamination from Stainer	Replace the Stainer Reagents ensuring the **water level is lower** than the **alcohol** (which is lower than the Xylene). Ensure the alcohol concentrations are correct.

Prepared Slides - Troubleshooting (iv)

Description of slide	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 on **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.

Troubleshooting Tables

- The ClearVue does not respond when the mains power is switched on
- The ClearVue is switched ON but the screen is blank
- Mountant dispense needle dirty/blocked
- Slide jams
- Coverslip misdispense
- Breaking coverslips
- Basket jams
- Part broken coverslip on slide
- Breaking slides
- Too much Mountant overspill
- Slides are too wet when removed from the Unload rail
- Skewed coverslips
- Slides not coverslipped

Machine Dead - No Power

Problem	Cause	Solution
The ClearVue does not respond when the mains power is switched on.	The 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 Epredia Service Team for support.
The 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 Epredia Service Team for support.

Dispense Needle Dirty/Blocked

Problem	Cause	Solution
Mountant dispense needle dirty/blocked.	Low xylene level in Dispense head cleaning station.	Refill the Dispense head cleaning station fully.
	Quick drying Mountant has formed a skin on the Needle.	Use an approved Mountant. Contact your Epredia Product Specialist for advice.
	Dispense head cleaning station not functioning correctly.	Call Epredia Service Team for support.

Slide Jams

Problem	Cause	Solution
Slide jams.	Gripper Return Plate stuck.	Clean the Gripper return plate.
	Basket Slide Retainer is not fully closed.	Ensure the Slide Retainer is fully closed prior to loading the basket.
	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 not fitted correctly.	Re-fit Gripper return plate.
	Skewed slide loaded into basket.	Ensure slides are loaded correctly into the 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.
	Dirty camera lens.	Clean the camera lens.
	Other error.	Call Epredia Service Team for support.

Coverslip Misdispense

Problem	Cause	Solution
Coverslip misdispense.	Hopper empty.	Load new hopper.
	Hopper not loaded correctly.	Load hopper correctly.
	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 ClearVue Pre-Loaded Hoppers.
	Debris on Slip Dispense Carriage.	Clean Slip dispense carriage.
	Mountant on Coverslip Transfer Head Suction Cup.	Clean Suction cup.
	Loss of vacuum on Coverslip Transfer Head Suction Cup.	Clean Suction cup. If this is ineffective call **Epredia Service Team** for support.
	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.
	Coverslip Transfer Head blocked by debris.	Clean and unblock Coverslip Transfer Head.
	Incorrect size of coverslip.	Refer to Section 1-2 for permissible coverslip options.
	Slip Dispense Skirt dirty, worn or missing.	Check Skirt and clean or replace as necessary.
	Mountant dried on Slip Dispense Carriage.	Clean Slip Dispense Carriage. If this is ineffective call **Epredia Service Team**.
	Loss of vacuum on Slip Dispense Carriage.	Clean Slip Dispense Carriage. If this is ineffective call **Epredia Service Team**.
	Other error.	Call Epredia Service Team.

Breaking Coverslips

Problem	Cause	Solution
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 ClearVue Pre-Loaded Hoppers.
	Debris on Slip Dispense Carriage.	Clean the Slip Dispense Carriage.
	Incorrect size of coverslip.	Refer to Compatibility section for permissible coverslip options.
	Faulty Coverslip Transfer Head Suction Cup.	Replace the Suction Cup.
	Mountant dried on Slip Dispense Carriage.	Clean the Slip Dispense Carriage.
	Loss of vacuum on Slip Dispense Carriage.	Call Epredia Service Team for support.
	Slip Dispense Skirt worn or missing.	Replace Slip Dispense Skirt.
	Other error.	Call Epredia Service Team for support.

Basket Jams

Problem	Cause	Solution
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 Compatibility section for maximum permissible slide sizes.
	Build-up of dried Mountant on basket.	Clean or replace basket.
	Other error.	Call Epredia Service Team for support.

Breaking Slides

Problem	Cause	Solution
Breaking slides	Gripper Return Plate stuck.	Remove and clean Gripper Return Plate.
	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.
	Damaged or broken basket.	Replace basket.
	Incorrect size of slide.	Refer to Compatibility section 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.
	Transfer Head Pads clogged with Mountant.	Clean Transfer Head.
	Dirty camera lens.	Clean camera lens.
	Other error.	Call Epredia Service Team for support.

Mountant Overspill

Problem	Cause	Solution
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.
	Coverslip too close to the end of the Slide.	Alter Coverslip position.
	Air in system.	Flush system until all air is expelled from the pipes.
	Damaged Dispense Head.	Call Epredia Service Team for support.
	Other error.	Call Epredia Service Team for support.

Skewed Coverslips

Problem	Cause	Solution
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.
	Suction Cup dirty or worn.	Clean or replace Suction Cup.
	Gripper Return Plate is dirty or stuck.	Clean Gripper Return Plate.
	Slip Dispense Carriage vacuum ports clogged.	Clean Slip Dispense Carriage vacuum ports.
	Transfer Head Pads stuck.	Clean Transfer Head Pads.
	Other Error.	Call Epredia Service Team for support.

Slides not Coverslipped

Problem	Cause	Solution
Slides not coverslipped	Gripper return plate is stuck with mountant and prevents the gripper jaws closing fully on the slide (User Error 28).	Clean Gripper Return Plate.
	ClearVue is not seeing the slides (No User Error).	Adjust the Slide Sensing Parameter.
	Access or Debris Tray door opened at the wrong time.	Do not open the Access or Debris Tray door unless the ClearVue has stopped.
	Other Error.	Call Epredia Service Team for support.

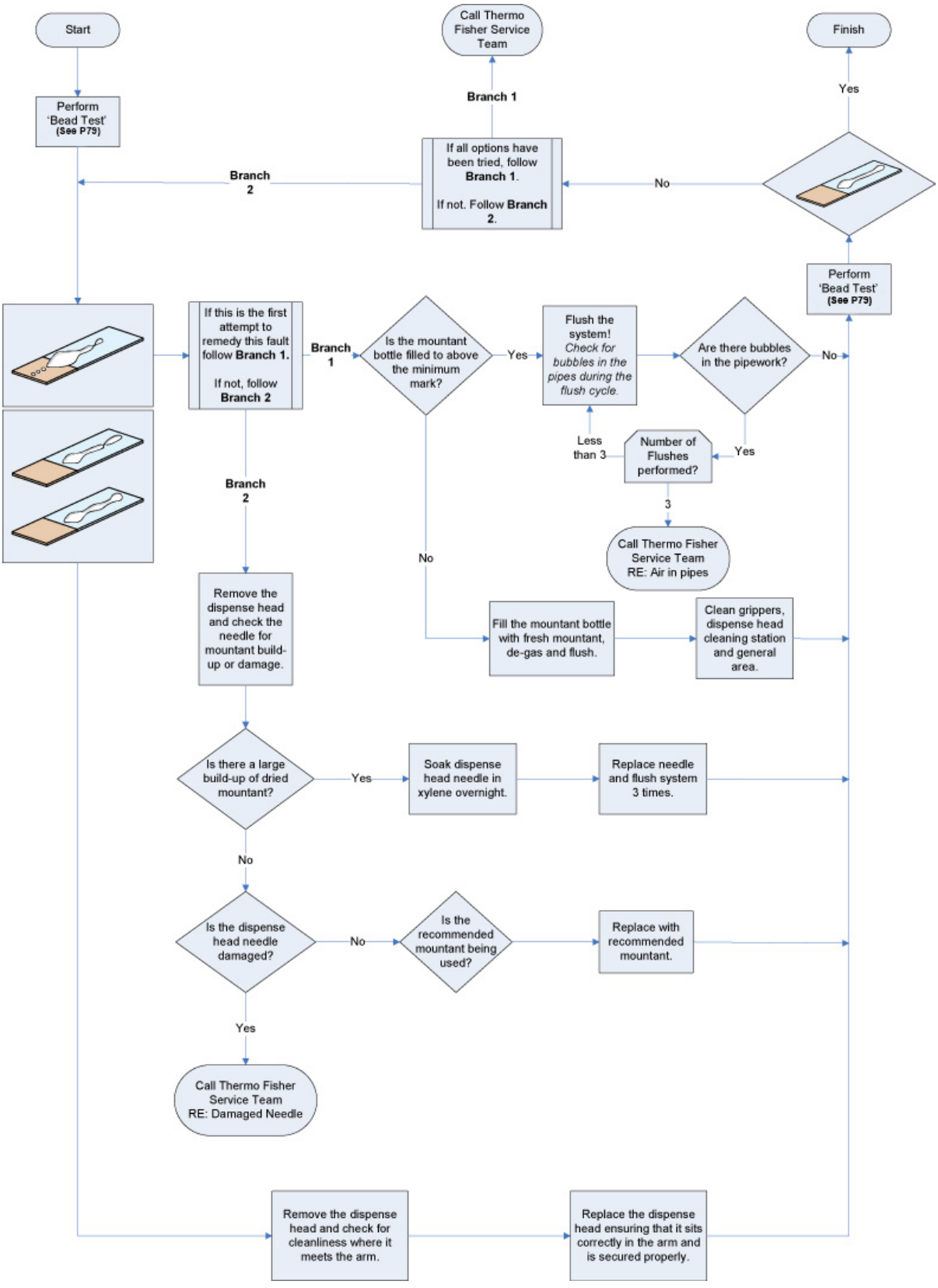
Part Broken Coverslips

Problem	Cause	Solution
Slides are too wet when removed from the 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 Epredia Service Team for support.
	Other error.	Call Epredia Service Team for support.

Slides too wet

Problem	Cause	Solution
Slides are too wet when removed from the 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 Epredia Service Team for support.
	Other error.	Call Epredia Service Team for support.

Diagnosis Flowchart



Appendices

Appendix A – Accessories

Item	Part Number
Coverslip Hopper, Pk. of 2 *(24 x 40mm, #1.0, 575 off)*	A79210165
Coverslip Hopper, Pk. of 2 *(24 x 50mm, #1.0, 575 off)*	A79210166
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
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
Offset Coverslip Transfer Head Kit	A79210099
ClearVue Mount XYL	4212
ClearVue Mount	4211

Appendix B - Spare Parts

Item	Part Number
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	A79210158
Soft Hair Brush	P12257
Pure Bristle Brush	P12940
Decay Block Spares Kit	A79210177
Grabber Eccentric Kit	A79210178
USB Disk Drive Emulator	A78430388

Appendix C - Approved Reagents

Reagents

- Xylene
- Toluene
- Ethanol
- Industrial Methylated Spirit (IMS) - up to 5% methanol in ethanol
- Isopropanol (IPA)
- Water
- Sodium Hypochlorite (10% in water)

Mountants

- ClearVue Mount XYL
- ClearVue Mount

Note

All Mountants are available from Epredia.

Appendix D - Things to do before packing

Ensure the instructions for cleaning have been followed.

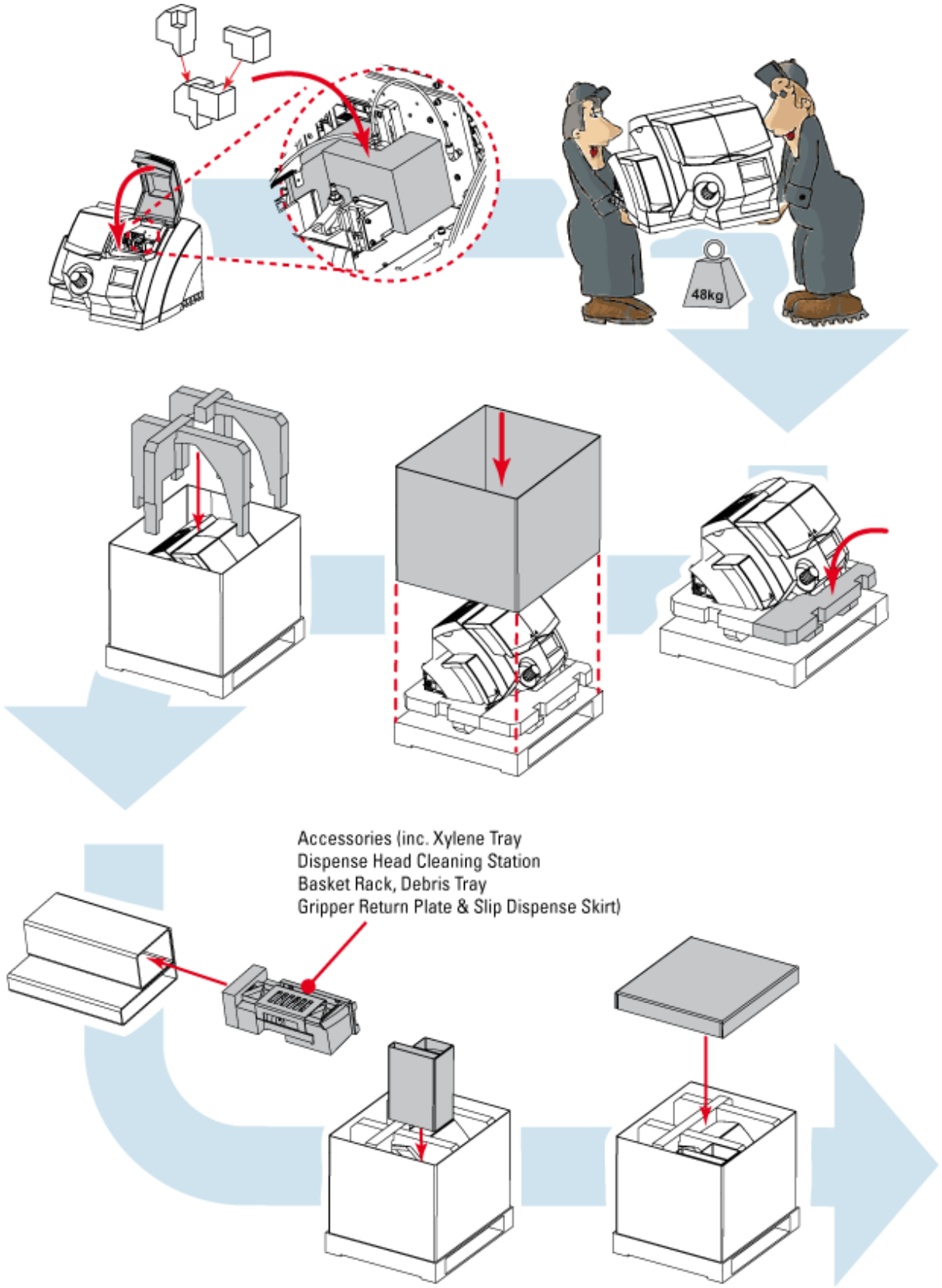
Discard chemicals according to local environmental procedures.

- Remove the Debris Tray:
  - Remove any discarded glass
  - Clean any Mountant off
  - Dry
- Remove the Dispense head cleaning station:
  - Discard any liquid
  - Clean with xylene
  - Dry
- Remove the Xylene tray:
  - Discard any liquid
  - Dry
- Remove the Coverslip Hopper
- Remove the Gripper return plate
- Remove the Slip dispense skirt
- Remove the Dispense head 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
- 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

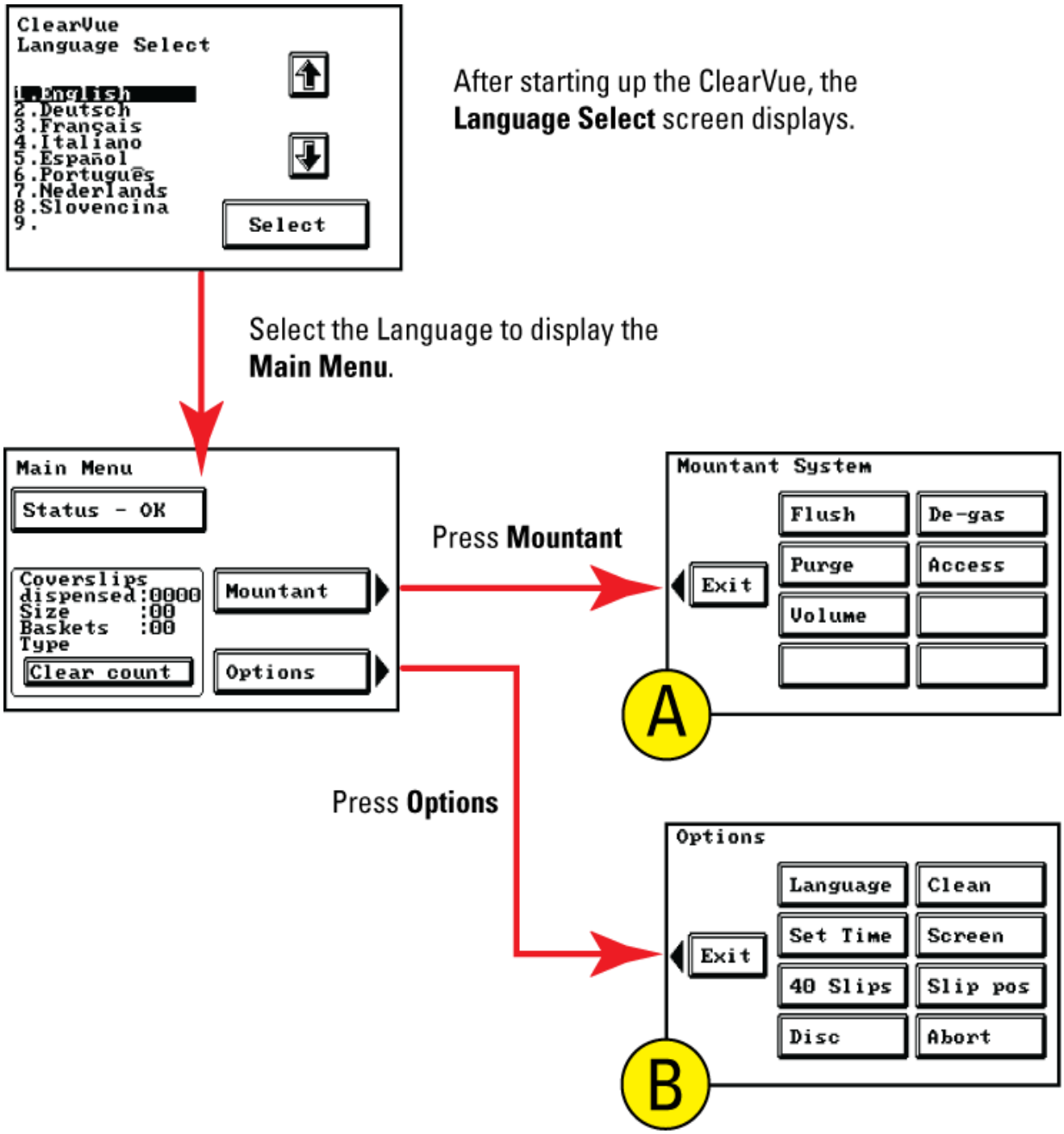
Approximately 5ml of xylene will remain in the system - follow good laboratory practice when packing and unpacking.

- Disconnect the Power Lead
- Ensure the Battery Switch has been set to the off 'O' position
- Follow the Packing Instructions

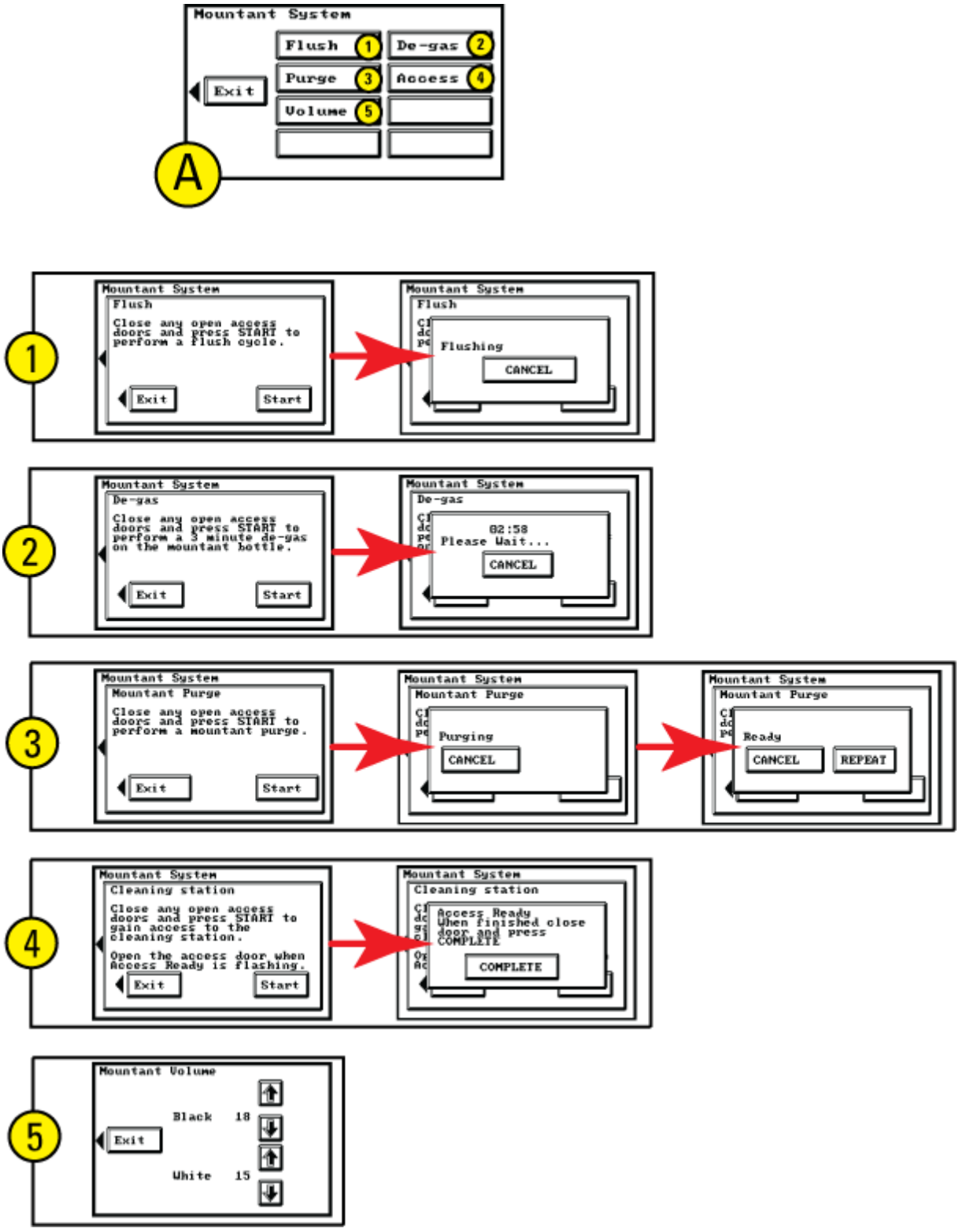
Appendix E - Packing Instructions



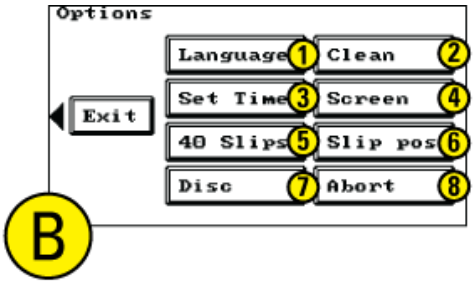
Appendix F - Main Menu

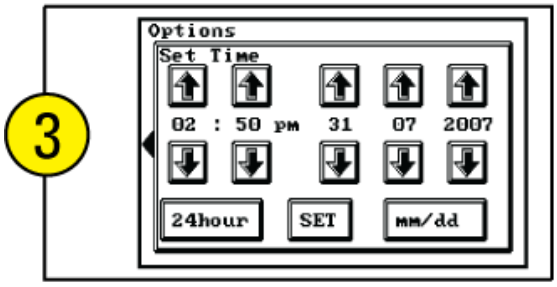


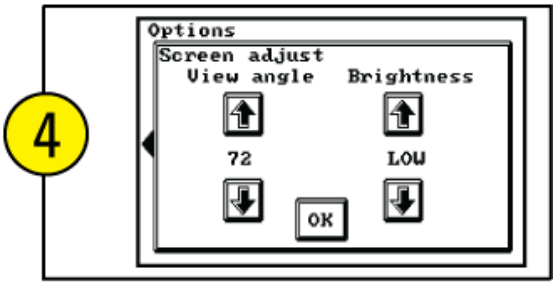
Appendix G - Mountant System Screens

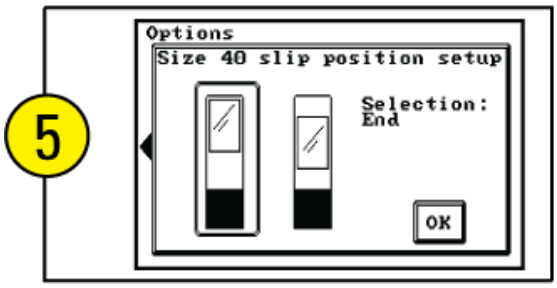


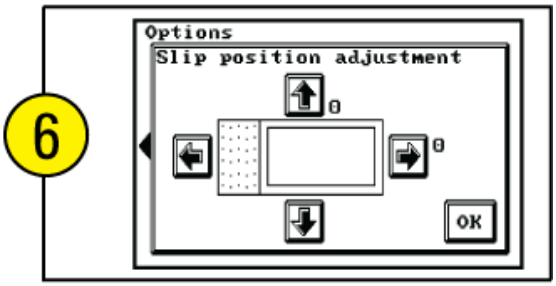
Appendix H - Options Screens











Index

A

Abort a Basket 34
Accessories list 94
Adjust the Coverslip Position 40
Adjust the Mountant Dispense Volume 48
Adjust the Screen Settings 44
Alter the Slide Sensing Parameter 52
Appendices 94
- Accessories 94
- Approved Reagents 96
- Main Menu 99
- Mountant System Screens 100
- Options Screens 101
- Packing Instructions 98
- Spare Parts 95
- Things to do before packing 97

B

Basic Operation 17

C

Change the Carbon Filter 20
Change the Coverslip Transfer Head Position 42
Change the Purge Tray and Debris Tray 23
Change the System Language 45
Change the Time and Date Setting 45
Cleaning 59
- Cleaning the Mountant Bottle Cap 60
- Cleaning the Mountant Bottle Seal 61

Cleaning and Maintenance Cautions 54
Cleaning the Camera 76
Cleaning the Coverslip Transfer Head 74
Cleaning the Dispense Head Cleaning Station 63
Cleaning the Gripper Return Plate 70
Cleaning the Mountant Dispense Needle 68
Cleaning the Slide Grippers 73
Cleaning the Slip Dispense Carriage 67
Cleaning the Slip Dispense Skirt 70
Cleaning the Suction Cup 64
Cleaning the Touch Screen 69
Cleaning the Xylene Tray Seal 62
Company Information 3
Compatibility 10
contents 4
Coverslipping Method 15
Create the Engineers' Log 46

D

Daily Tasks 18
Degas the Mountant Bottle 26
Diagnosis Flowchart 93
Disposal of Sealed Lead Acid Batteries 8

E

Error Screens 78
Example of a Varistain Gemini Basket 14

F

Fill the Dispense Head Cleaning Station 24
Fill the Mountant Bottle 22
Fit the Extraction Kit 21
Flush the System 27

I

Identification of Parts 11
- Front 11
- Inside 12
- Rear 13

Identifying Problems with Slides 80
Install the Offset Coverslip Transfer Head 50
Intended Purpose 10
Introduction to ClearVue 10

L

Level the ClearVue before Use 19
Load a Basket 31

M

Maintaining the Xylene Tray Level..... 21
Maintenance..... 53
Manually Abort a Basket..... 34

P

Perform a Bead Test..... 79
Prepare the ClearVue for Storage..... 58
Prepared Slides - Troubleshooting (i)..... 81
Prepared Slides - Troubleshooting (ii)..... 82
Prepared Slides - Troubleshooting (iii)..... 83
Prepared Slides - Troubleshooting (iv)..... 84
Purge the System..... 28

R

Remove and Replace the Coverslip Hopper..... 29
Remove Baskets from the Load & Unload Rail..... 35
Remove Baskets from the Vertical Lift..... 37
Remove Slides during Coverslipping..... 36
Remove the Mountant Bottle..... 57
Replacing Seals..... 55

S

Safety Information..... 7
- Chemical Safety..... 8
- Environment..... 9
- General Safety..... 7
- Introduction..... 7
- Warranty Statement..... 9

Select the Coverslip Position..... 41
Settings..... 39
Shutting Down the ClearVue..... 30
Slide Retainer Types..... 49
Spare parts list..... 95
Start up the ClearVue..... 24
System Interfacing..... 15
System Specification..... 16
- Dimensions..... 16
- Electrical Specification..... 16
- Environmental Requirements..... 16

T

Troubleshooting..... 77
Troubleshooting Tables..... 85
- Basket Jams..... 89
- Breaking Coverslips..... 89
- Breaking Slides..... 90
- Coverslip Misdispense..... 88
- Dispense Needle Dirty/Blocked..... 86
- Machine Dead - No Power..... 86
- Mountant Overspill..... 90
- Part Broken Coverslips..... 92
- Skewed Coverslips..... 91
- Slide Jams..... 87
- Slides not Coverslipped..... 91
- Slides too wet..... 92

U

Unload a Basket..... 33
Update the System Software..... 47

W

Weekly Tasks..... 18

Revision Control For This Document

Date	Revision number	Changes made
February 2022	13	IVDR compliance requirements added, including this revision record table.

Enhancing precision
cancer diagnostics

www.epredia.com

Tudor Road, Manor Park
Runcorn, WA7 1TA
United Kingdom
+44 (0) 800 018 9396
+44 (0) 1928 534 000

4481 Campus Drive
Kalamazoo, MI 49008
United States
+1 (800) 522-7270

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