

Aborting a tray

You can abort a tray that is being processed from the **Tray Inspector** view.

The following video demonstrates the process step-by-step. Continue reading the entire procedure for additional details.

Utility film

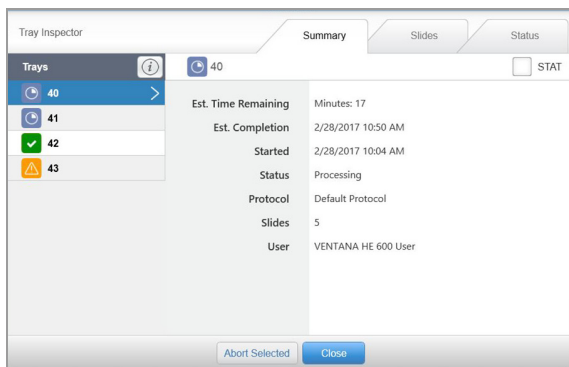
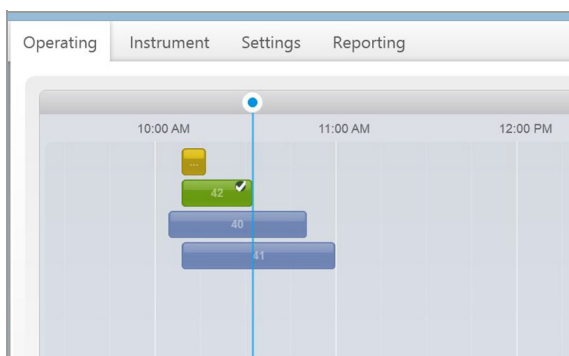
(.hwl): ua_CancelTray/UA_CancelTray.hwl

Title: Abort a tray

► To abort a tray

- 1 In the **Operating** tab, choose the tray that you want to abort.

→ The **Tray Inspector** view displays.



- 2 In the **Tray Inspector** view, choose the **Abort Selected** button.

→ The system delivers the selected tray to an open portal. If the tray was in an oven when aborted, it takes some time to cool in the portal before it is available to unload.

- 3 In the confirmation dialog box, choose the **Yes** button.

- 4 Unload the tray from the portal and examine the tray for any fluid that has spilled in the tray during slide processing. See the “Cleaning and inspecting trays” procedure (118).

📖 Related topics

- Monitoring a tray during processing (115)
- Unloading a tray from a portal (117)
- Cleaning and storing trays (118)

Unloading a tray from a portal

After a processing run, unload the tray from the system.

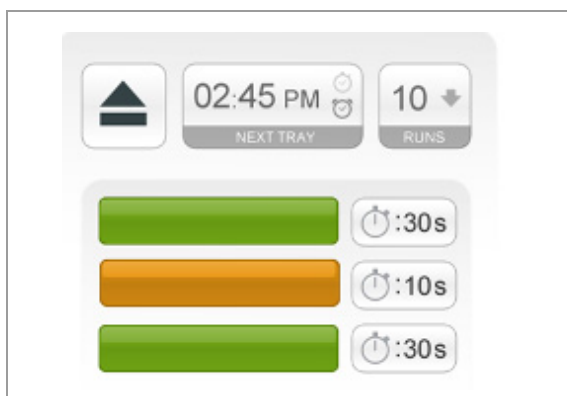
If you have a tray ready to load on the system, you can replace the completed tray with the new tray.



Before you begin the procedure, make sure that you have the following materials available:

- ☐ If you wish to load a new tray immediately after unloading a completed tray, have a tray with slides to be processed ready to load into the system.

► To unload a tray from a portal



- 1 Locate a tray that has a status indicator that is flashing green.
- 2 In the **Operating** tab, choose ▲ to open portals that contain completed trays, and remove a completed tray from the portal.
 - ❶ Portal status indicators flash green to indicate when trays are ready to remove.
- 3 If you are replacing the tray that you removed with a new tray, immediately insert the unprocessed tray into the portal.
- 4 Unload the slides from the tray, and check for the following:
 - Make sure that the coverslips have been applied correctly to the slides. You can remove a coverslip that is not correctly applied to a slide. See the “Removing coverslips from slides” procedure (🔗 237)
 - Examine the tray for any fluid that has spilled in the tray during slide processing. See the “Cleaning and inspecting trays” procedure (🔗 118).

🔗 Related topics

- Loading a tray into a portal (105)
- Cleaning and storing trays (118)
- Guidelines for archiving slides (119)

Cleaning and storing trays

If you see fluid in the bottom of the tray or under the tray slide clips, clean the tray before using it again. When not using trays, make sure that they are clean and inspect trays periodically and when fluid present is on the bottom of the tray.

► To clean and store a tray



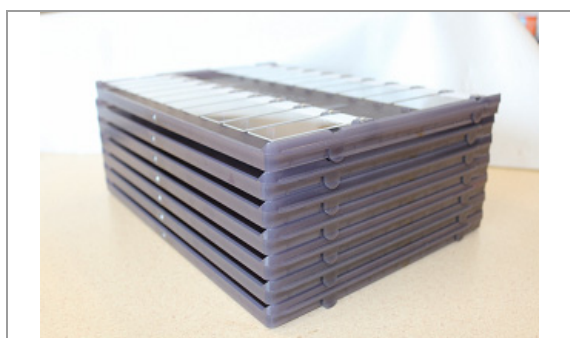
- 1 Clean the tray using deionized water only. Do not use a dishwasher to clean trays.

- ❶ Make sure to clean any excess fluid underneath the slide clips.



- 2 Dry the tray before installing slides. Do not use an oven to dry trays.

- 3 Check the tray to ensure that it is in optimal condition, and discard trays that show any sign of damage.



- 4 To avoid damaging tray clips or slides, stack the trays so that the corners are aligned.

• Related topics

- Slide labeling and loading guidelines (101)
- Loading a tray into a portal (105)
- Unloading a tray from a portal (117)
- Slide tray handling guidelines (103)

Guidelines for archiving slides

You can archive slides as early as 24 hours after they are removed from the system.

Make sure to follow these guidelines for archiving slides:

- Wait at least 24 hours after removing the slides from the system before archiving.
- Check slides to make sure they are not sticking together before archiving.
- Archive slides in a dark, dry environment.
- Adjust times and practices as necessary for your environment. Humidity might increase the time you need to wait before archiving the slides.



Make sure to validate these guidelines for your laboratory environment.

Stopping and shutting down the system

You can interrupt processing of trays by stopping or shutting down the system.

In this section

About stopping and shutting down the system (120)

Stopping the system to interrupt slide processing (121)

Shutting down the software and initiating the cleaning cycle (121)

Shutting down the software without initiating the cleaning cycle (122)

About stopping and shutting down the system

You have 3 different options for stopping system operations.

The following table describes the 3 options.

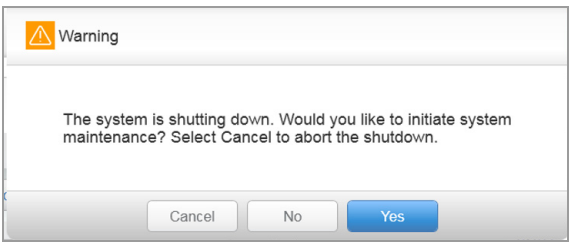
What do you want to do?	Follow this procedure	What happens after you choose the button?
Stop the processing of trays in case of an emergency.	▶ Stopping the system to interrupt slide processing (121)	Immediately stops all tray processing.
Shut down the software and initiate the cleaning cycle.	▶ Shutting down the software and initiating the cleaning cycle (121)	One of two dialog boxes displays, depending on when the cleaning cycle was last run. - Choose Yes in either dialog box to initiate the cleaning cycle before shutting down the system. - If the cleaning cycle has been run within the last 24 hours, you can choose No to shut down the system without initiating the cleaning cycle.
Shut down the software and do not initiate the cleaning cycle.	▶ Shutting down the software without initiating the cleaning cycle (122)	Note: If the cleaning cycle <i>has not been run</i> in the last 24 hours, you can cancel the shut down to prevent the cleaning cycle from running.

Options for stopping and shutting down the system

Shut down options

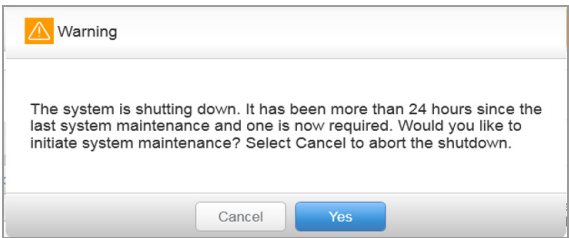
💡 It is mandatory to run the cleaning cycle once every 24 hours. If the system is restarted after shut down and the cleaning cycle has not been run within 24 hours, the cleaning cycle runs when the system is restarted.

When you choose the **Shut Down** button, one of two dialog boxes displays, depending on whether or not the cleaning cycle has been run in the last 24 hours.



If the cleaning cycle has been run within the last 24 hours, the following options display in the **Warning** dialog box:

- **Yes:** Shuts down the system and initiates the cleaning cycle.
- **No:** Shuts down the system and does not initiate the cleaning cycle.
- **Cancel:** Cancels the system shut down.



If the cleaning cycle has not been run within the last 24 hours, the following options display in the **Warning** dialog box:

- **Yes:** Shuts down the system and initiates the cleaning cycle.
- **Cancel:** Cancels the system shut down.

Stopping the system to interrupt slide processing

You can stop the system to interrupt processing of any trays in the system.

 When the system is restarted, processing does not resume. All trays in the system are delivered to the tray portals.

► To stop the system to interrupt slide processing

- 1 Navigate to the **Instrument** tab.
- 2 Choose the **Stop** button, and choose **Yes** in the confirmation dialog box.
→ Tray processing is stopped.
- 3 Recover any trays present in the system when the system was stopped. See the instructions for recovering trays in the “Errors and troubleshooting” chapter.

Related topics

- About stopping and shutting down the system (120)
- Starting up the system (99)
- Shutting down the software and initiating the cleaning cycle (121)
- Errors and troubleshooting (191)

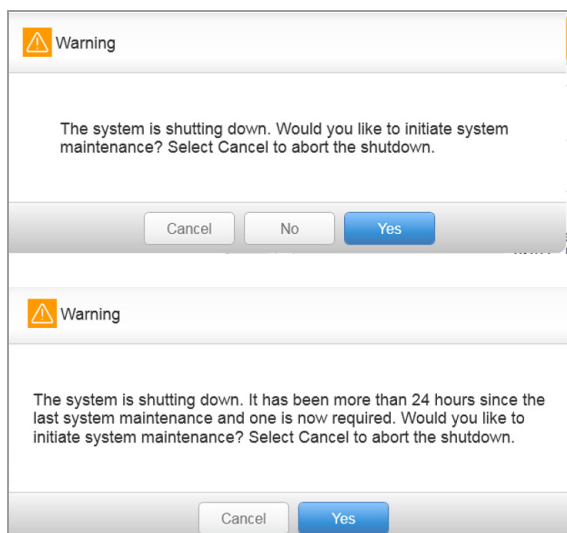
Shutting down the software and initiating the cleaning cycle

You can shut down the VENTANA HE 600 system software and initiate the cleaning cycle.

The **Shut Down** button is not available while trays are processing. Use the **Stop** button to stop the system while trays are processing.

-  Stopping the system to interrupt slide processing (121)

 If you initiate the cleaning cycle when you shut down the system, you cannot process trays for at least 60 minutes while the system performs the cleaning cycle.



► To shut down the software and initiate the cleaning cycle

- 1 Navigate to the **Instrument** tab.
- 2 Choose the **Shut Down** button.
- 3 To shut down the software and initiate the cleaning cycle, in the **Warning** dialog box, choose the **Yes** button.
 - ❶ The text in the **Warning** dialog box varies, depending on whether or not the cleaning cycle has been run in the last 24 hours.

📖 Related topics

- About stopping and shutting down the system (120)
- Stopping the system to interrupt slide processing (121)
- Shutting down the software without initiating the cleaning cycle (122)
- System-performed maintenance (188)

Shutting down the software without initiating the cleaning cycle

You can shut down the VENTANA HE 600 system software without initiating the cleaning cycle if the cleaning cycle has been run in the last 24 hours.

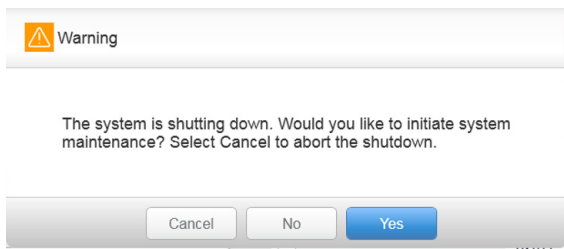
💡 You will not have the option to shut down the software without running the cleaning cycle if the cleaning cycle has not been run in the last 24 hours.

The **Shut Down** button is not available while trays are processing. Use the **Stop** button to stop the system if necessary while trays are processing.

- 📖 Stopping the system to interrupt slide processing (121)

► To shut down the software without initiating the cleaning cycle

- 1 Navigate to the **Instrument** tab.
- 2 Choose the **Shut Down** button.



3 In the **Warning** dialog box, choose the **No** button.

- ❶ If the cleaning cycle has not been run within the last 24 hours, a different dialog box displays, which provides the option to either run the cleaning cycle or cancel the shut down.

📖 **Related topics**

- About stopping and shutting down the system (120)
- Stopping the system to interrupt slide processing (121)
- Shutting down the software and initiating the cleaning cycle (121)
- System-performed maintenance (188)

Managing reagents and consumables

In this section

Managing reagents (124)

Managing coverslip cassettes and waste (134)

Managing reagents

In this section

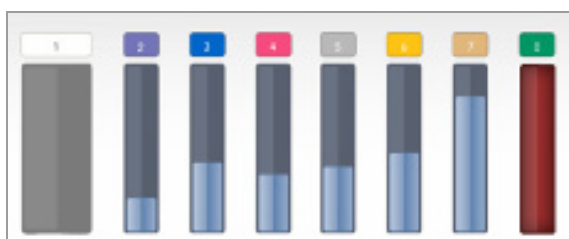
Replacing reagents (124)

Recovering from incorrect reagent hat placement (128)

Emptying a reagent hat drip trap (130)

Cleaning the reagent access drawer (132)

Replacing reagents



For the most efficient use of reagents, replace reagent bottles only when reagent status indicators in the **Operating** tab turn red, indicating that reagent bottles are empty.



Reagents are shipped and stored in disposable bottles with colored and numbered labels. Those labels match the color and number on the reagent hat assembly and on the **Operating** tab status indicator.

The reagent bottles are designed so that they cannot be inserted in the wrong position. Each bottle has an RFID tag that identifies the contents of the bottle to ensure it is placed accurately.

⚠ CAUTION

Possible skin irritation

Exposure to reagents can cause skin irritation.

- ▶ Wear personal protective equipment when working with reagents, reagent hats, or reagent containers.



Replace a reagent container when the status indicator turns red.



Make sure that the following supplies are ready before starting this procedure:

- ☐ A full reagent bottle for each reagent that needs to be replaced



Make sure that the following prerequisites are completed before starting this procedure:

- ☐ Make sure that the reagent status indicator in the **Operating** tab is red before replacing the reagent container.
- ☐ Put on the following personal protective equipment: approved eye protection, gloves, and protective clothing.

► To replace reagents

- 1** NOTICE Do not stress the open access door with heavy weight. Do not place more than 8 reagent bottles at a time on top of the door.

Open the reagent access door.

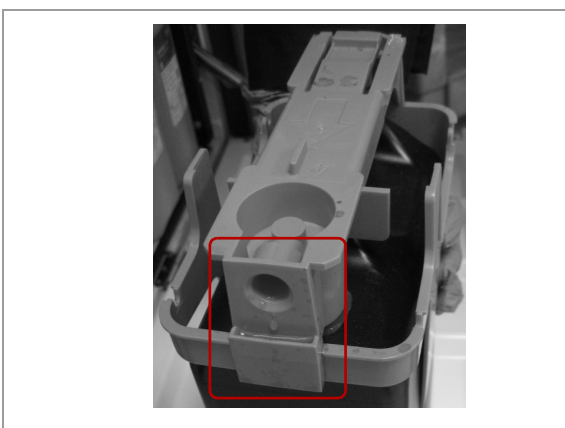


- 2** Press down on the locking tab on the reagent container hat with your index finger looped around the bottle handle, and pull it straight out.





- 3** Grasp the sides of the bottle hat with one hand, and squeeze the release bands until the bottle disengages. Pull the hat off the bottle with your other hand.



- 4** Check the reagent hat drip traps and the reagent drawer for excess fluid.



- 5** NOTICE Placing the incorrect hat on the bottle could lead to staining errors.

Match the hat that you removed to the replacement reagent bottle.

- i** The color and number on the hat must match the color and number on the bottle and the label on the reagent drawer.



- 6 Unscrew and remove the bottle cap on the new reagent bottle.
- 7 Put the cap that you removed on the empty reagent bottle, and discard or recycle the empty bottle according to local regulations.



- 8 Guide the straw on the hat into the mouth of the replacement bottle, and press the hat down over the bottle until it snaps into place.
 - ❶ To avoid spills, keep the assembled bottle-and-hat container upright, and grasp the bottle by the handle.



- 9 Align the bottle-and-hat with its mount, and slide the container into position until the locking tab engages.
 - In the **Operating** tab, the status indicator for the reagent turns blue to show that the bottle is properly installed and fluid levels are sufficient.

- 10 Close the reagent access door.

Related topics

- List of supported reagents and consumables (75)
- Emptying a reagent hat drip trap (130)
- Cleaning the reagent access drawer (132)
- Managing coverslip cassettes and waste (134)

Recovering from incorrect reagent hat placement

If a reagent hat is placed on the wrong reagent bottle, contamination of the reagent can occur.

NOTICE

Possible staining issues

If the wrong reagent hat is placed on a reagent bottle, fluid from the hat could contaminate the fluid in the bottle and cause staining issues.

- ▶ As soon as the incorrect hat placement is discovered, wash and dry the reagent hat and straw with deionized water, and allow to dry. Putting wet straws into non-aqueous reagents is not recommended. Set aside the affected reagent bottle.

CAUTION

Possible skin irritation

Exposure to reagents can cause skin irritation.

- ▶ Wear personal protective equipment when working with reagents, reagent hats, or reagent containers.



Make sure that the following supplies are ready before starting this procedure:

- ☐ Deionized water to wash the reagent hat



Make sure that the following prerequisites are completed before starting this procedure:

- ☐ Put on the following personal protective equipment: approved eye protection, gloves, and protective clothing.

► **To recover from incorrect reagent hat placement**

1 Remove the reagent hat from the reagent bottle.



2 Wash the reagent hat and tubing with deionized water. Allow to dry.

❶ Putting wet straws into non-aqueous reagents is not recommended.

3 Set aside and label the contaminated reagent bottle.



4 Install the reagent hat on the correct bottle.

► **Related topics**

- Replacing reagents (124)
- Cleaning the reagent access drawer (132)



Emptying a reagent hat drip trap

During system operation, the reagent hat drip traps can collect reagent.

⚠ CAUTION

Possible skin irritation

Exposure to reagents can cause skin irritation.

- ▶ Wear personal protective equipment when working with reagents, reagent hats, or reagent containers.

The following video demonstrates the process step-by-step. Continue reading the entire procedure for additional details.

Utility film

(.hwl): [ua_CleanDripTrap/UA_CleanDripTrap.hwl](#)

Title: Emptying a reagent hat drip trap



Empty reagent hat drip traps when fluid is present.



Make sure that the following supplies are ready before starting this procedure:

- ☐ Clean absorbent cloth



Make sure that the following prerequisites are completed before starting this procedure:

- ☐ Put on the following personal protective equipment: approved eye protection, gloves, and protective clothing

▶ To empty a reagent hat drip trap

- 1 Open the reagent access door.





2 Remove the reagent bottle.

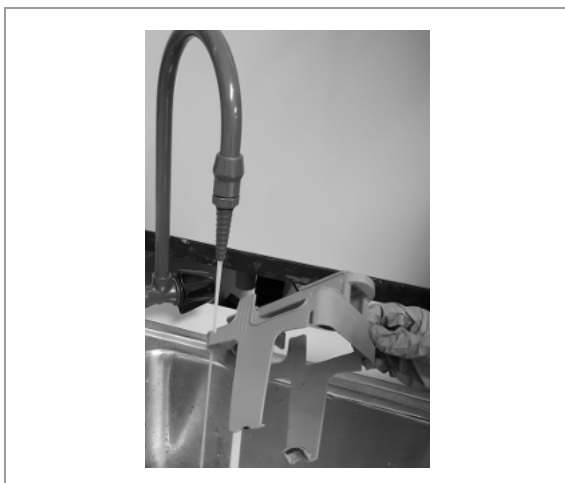


3 Check to see if fluid is present in the reagent drip trap on the back of the hat.



4 If fluid is present, remove the reagent hat from the reagent bottle.

5 Discard the fluid according to local waste disposal regulations.



6 Clean any additional fluid that is present on the reagent hat or mouth of the bottle with deionized water, if needed. Allow to dry.

- ❶ Make sure the reagent hat is dry before replacing it on the bottle.

7 Replace the reagent hat on the bottle.

📖 **Related topics**

- Replacing reagents (124)
- Cleaning the reagent access drawer (132)

Cleaning the reagent access drawer

When removing and replacing a reagent bottle, check the drawer around the bottle for fluid that might have spilled.

⚠ **CAUTION**

Possible skin irritation

Exposure to reagents can cause skin irritation.

- ▶ Wear personal protective equipment when working with reagents, reagent hats, or reagent containers.



Clean the reagent access drawer when fluid has spilled in the drawer.



Make sure that the following supplies are ready before starting this procedure:

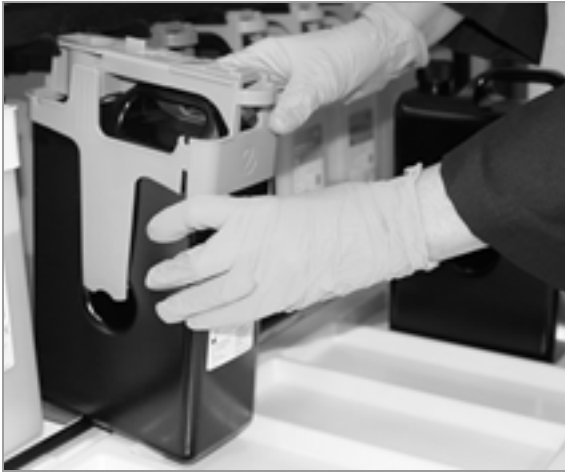
- ☐ Mild dishwashing detergent and a clean absorbent cloth



Make sure that the following prerequisites are completed before starting this procedure:

- ☐ Either the reagent status indicator is red, or no trays are currently being processed.
- ☐ Put on the following personal protective equipment: approved eye protection, gloves, and protective clothing.

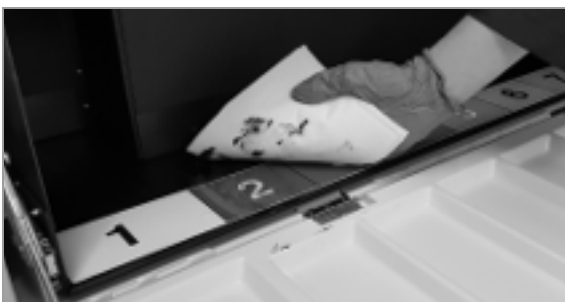
► **To clean the reagent access drawer**



- 1 Remove a reagent bottle from the reagent access drawer.
- 2 Look for reagent fluid around the area where the bottle has been removed.



- 3 If necessary, clean the drawer with a clean, damp cloth.



- 4 If you notice that the spilled fluid has spread under other bottles in the drawer, do the following;
 - Wait until all trays have finished processing.
 - Stop the system.
 - Remove any reagent bottles present in the drawer.
 - Clean the entire drawer with a clean damp cloth.
- 5 Replace any reagent bottles removed.

• **Related topics**

- Replacing reagents (124)
- Emptying a reagent hat drip trap (130)

Managing coverslip cassettes and waste

In this section

- Coverslip cassette handling guidelines (134)
- About the status indicators for the coverslipper (135)
- Loading coverslip cassettes (136)
- Unloading used coverslip cassettes (137)
- Checking the coverslip waste dispensary (138)
- Replacing the coverslip activator (139)

Coverslip cassette handling guidelines

VENTANA HE 600 system coverslip cassettes contain pre-glued coverslips.

⚠ CAUTION

Possible damage to system or slides

Damage to the system or slides can occur if the wrong coverslips are used in the VENTANA HE 600 system.

- ▶ Use only coverslip cassettes that have been verified for use on the VENTANA HE 600 system.



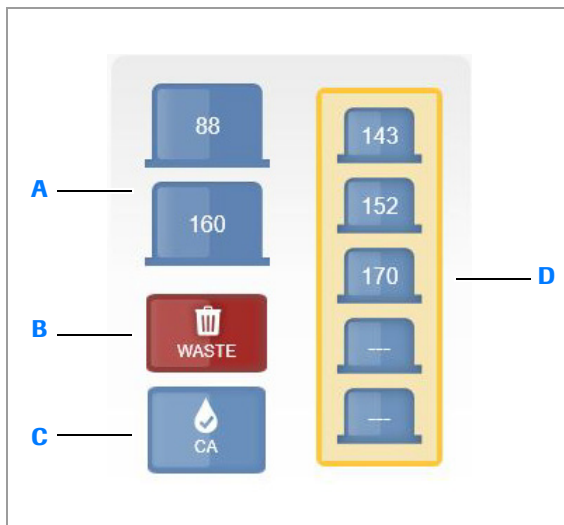
Follow these guidelines for storing and handling coverslip cassettes:

- Stack the shipping packages of coverslip cassettes horizontally with the arrow on the side of the box pointing up.
- Store cassettes horizontally with the labels facing up.
- Store cassettes in a clean, dry area and sealed in their plastic bags until they are loaded into the system.
- Do not use a cassette if it contains broken or cracked coverslips.

📖 Related topics

- About the status indicators for the coverslipper (135)
- Loading coverslip cassettes (136)
- Unloading used coverslip cassettes (137)

About the status indicators for the coverslipper



In the **Instrument** tab, status indicators show the status of the coverslip cassettes, the coverslip activator, and coverslip waste.

Two coverslip cassettes are used in the coverslipper module, one for each row of slides in a tray. When an active coverslip cassette is empty, the coverslip cassette status indicator turns red, and the empty cassette is replaced with a reserve coverslip cassette.

The diagram and table describe the coverslipper status indicators and the actions to take when coverslipper maintenance is required.

	Status indicator	Color	Meaning	Action	Link to procedure
A	Active coverslip cassettes	Blue	The active coverslip cassette indicators show how many coverslips are currently available in the active cassettes.	n/a	n/a
B	Coverslipper waste	Solid red	The coverslipper waste bin is full, and the coverslipper module will be disabled after coverslipping the current tray.	Empty the coverslipper waste bin before you can proceed.	☞ Unloading used coverslip cassettes (137)
C	Coverslip activator	Solid red	Coverslip activator bottle is empty. The activator bottle must be replaced before loading more trays.	Replace the empty coverslip activator bottle with a full bottle.	☞ Replacing the coverslip activator (139)
D	Reserve coverslip cassettes	Flashing yellow	Reserve coverslip cassettes need to be replenished. In order to process new trays, 6 coverslips cassettes must be present in the system.	Add coverslip cassettes to the coverslipper access area.	☞ Loading coverslip cassettes (136)

☞ Coverslipper maintenance status indicators

☞ Related topics

- Coverslip cassette handling guidelines (134)
- Loading coverslip cassettes (136)
- Unloading used coverslip cassettes (137)

Loading coverslip cassettes

Load a new coverslip cassette when the status indicator for reserve coverslip cassettes flashes yellow. You cannot load new trays until 6 coverslip cassettes are loaded into the system.

Two coverslip cassettes are used in the coverslipper module, one for each row of slides in a tray. Additional cassettes are held in reserve by the system.



Load coverslip cassettes when status indicators for the coverslip cassettes flash yellow.

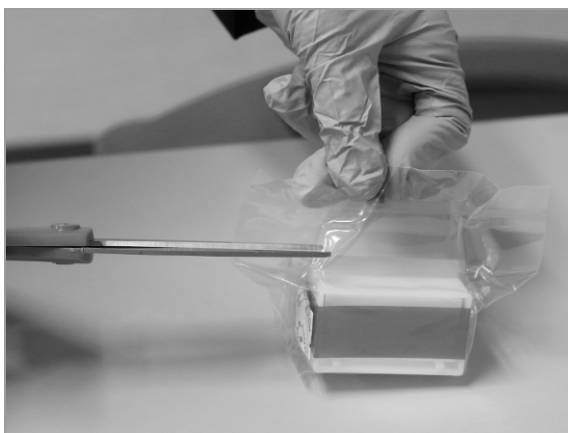


Before you begin the procedure, make sure that you have the following materials available:

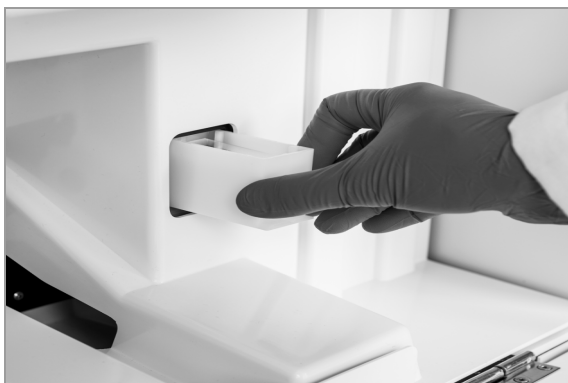
- ☐ VENTANA HE 600 system coverslip cassette filled with unused coverslips.

► To load coverslip cassettes

- 1 Remove the coverslip cassette from the plastic bag, and remove the tape covering the top of the cassette.
 - ① Make sure that the desiccant pouches are removed along with the tape.



- 2 Open the door to the coverslipper access area.



- 3 Place the cassette in the cassette portal with the label facing right. Insert the cassette until it is detected by the belt sensor and the belt starts moving.

- ❶ Coverslip cassettes are keyed to prevent incorrect loading.

- 4 Close the door to the coverslipper access area.

📖 Related topics

- Coverslip cassette handling guidelines (134)
- About the status indicators for the coverslipper (135)
- Unloading used coverslip cassettes (137)

Unloading used coverslip cassettes

When the status indicator for a coverslip cassette waste bin turns red, that cassette waste bin is full. The empty cassettes must be removed immediately.

Once the cassette waste bin becomes full, the coverslipper module finishes coverslipping the current tray, and then the coverslipper module is disabled. The module is re-enabled once the waste bin is emptied and any errors are acknowledged.

⚠ CAUTION

Possible minor cuts

The coverslip waste bin might contain broken coverslips.

- ▶ Proceed with caution when disposing of coverslip waste to avoid minor cuts. Use safety gloves to help prevent cuts.

The following video demonstrates the process step-by-step. Continue reading the entire procedure for additional details.

Utility film

(.hwls): [ua_EmptyCassetteWaste/UA_CassetteWasteBinFull.hwls](#)

Title: Unloading used coverslip cassettes



Empty coverslip cassette waste when the status indicator for coverslip waste turns red.



► To unload used coverslip cassettes

1 Open the door to the coverslipper access area.

2 Remove empty cassettes from the bin.

3 Discard the empty cassettes, following local waste disposal guidelines.

4 Close the door to the coverslipper access area.

• Related topics

- Coverslip cassette handling guidelines (134)
- About the status indicators for the coverslipper (135)
- Loading coverslip cassettes (136)

Checking the coverslip waste dispensary

Each day, remove any glass debris that has collected in the dispensary.

⚠ CAUTION

Possible minor cuts

The coverslip waste might contain broken coverslips.

- Proceed with caution when disposing of coverslip waste to avoid minor cuts. Use safety gloves to help prevent cuts.



Check the coverslip waste dispensary daily.

► To check the coverslip waste dispensary



- 1 Open the door to the coverslip access area.



- 2 Remove the coverslip waste dispensary located at the base of the coverslipper module.



- 3 Dispose of the broken glass debris according to your local procedure for handling glass waste.
- 4 Replace the coverslip waste dispensary, and close the door to the coverslipper access area.

► Related topics

- List of supported reagents and consumables (75)
- About the status indicators for the coverslipper (135)

Replacing the coverslip activator

When coverslip activator is empty, the status indicator for the coverslip activator turns red. You are not able to load any additional trays until the activator bottle is replaced with a full one.



Replace the coverslip activator when the status indicator for the coverslip turns red.

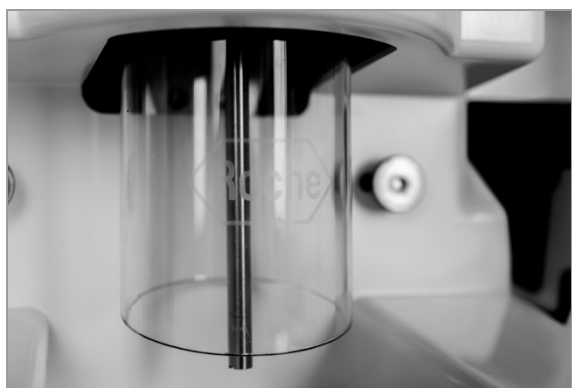


Before you begin the procedure, make sure that you have the following materials available:

- ☐ New bottle of coverslip activator

► To replace the coverslip activator

1 Open the coverslipper module door.



2 Verify that the Roche plastic cover is fully elevated. Remove the empty coverslip activator bottle.



3 Remove the cap from the new coverslip activator bottle.



4 Insert the new bottle below the Roche plastic cover.

5 When the bottle is in place, the plastic cover descends and covers the entire bottle.

• Related topics

- About the status indicators for the coverslipper (135)
- Loading coverslip cassettes (136)
- Unloading used coverslip cassettes (137)