



# ExactaMix

2400 Compounder

## OPERATOR MANUAL



## SYMBOLS ON THE COMPOUNDER



Power button



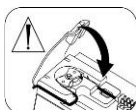
Power light



Load cell



Display



Pump door must be closed to operate



Warning / Caution



USB port



Ethernet port



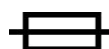
Reset button



Protective ground  
(earth) terminal



**WARNING!** US federal law restricts this device to sale, distribution and use by or on order of a physician.



Fuse

## TERMS IN THIS MANUAL



### **WARNING**

Indicates a risk of personal injury or patient harm if the instructions are not followed



### **CAUTION**

Indicates a risk of damage to equipment or data if the instructions are not followed

**IMPORTANT!** Provides important information

**NOTE:** Provides additional information

**Tip!** Provides a recommendation

In the electronic version of this manual, underlined text and Table of Contents entries provide hyperlinks to other sections.

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## INTRODUCTION

The Baxa EXACTAMIX 2400 Compounder is an automated pumping system that compounds multiple sterile ingredients into a finished solution in a single patient bag. Using a formula provided electronically or entered manually, the compounder withdraws a specified volume of each ingredient from its source container in a specified sequence, and pumps each ingredient into a patient bag. The finished solution is delivered to patients intravenously.

You can use the compounder to compound solutions such as:

- Parenteral Nutrition (PN)
- Continuous Renal Replacement Therapy (CRRT)
- Cardioplegia
- Base solutions
- Epidurals



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**WARNING**

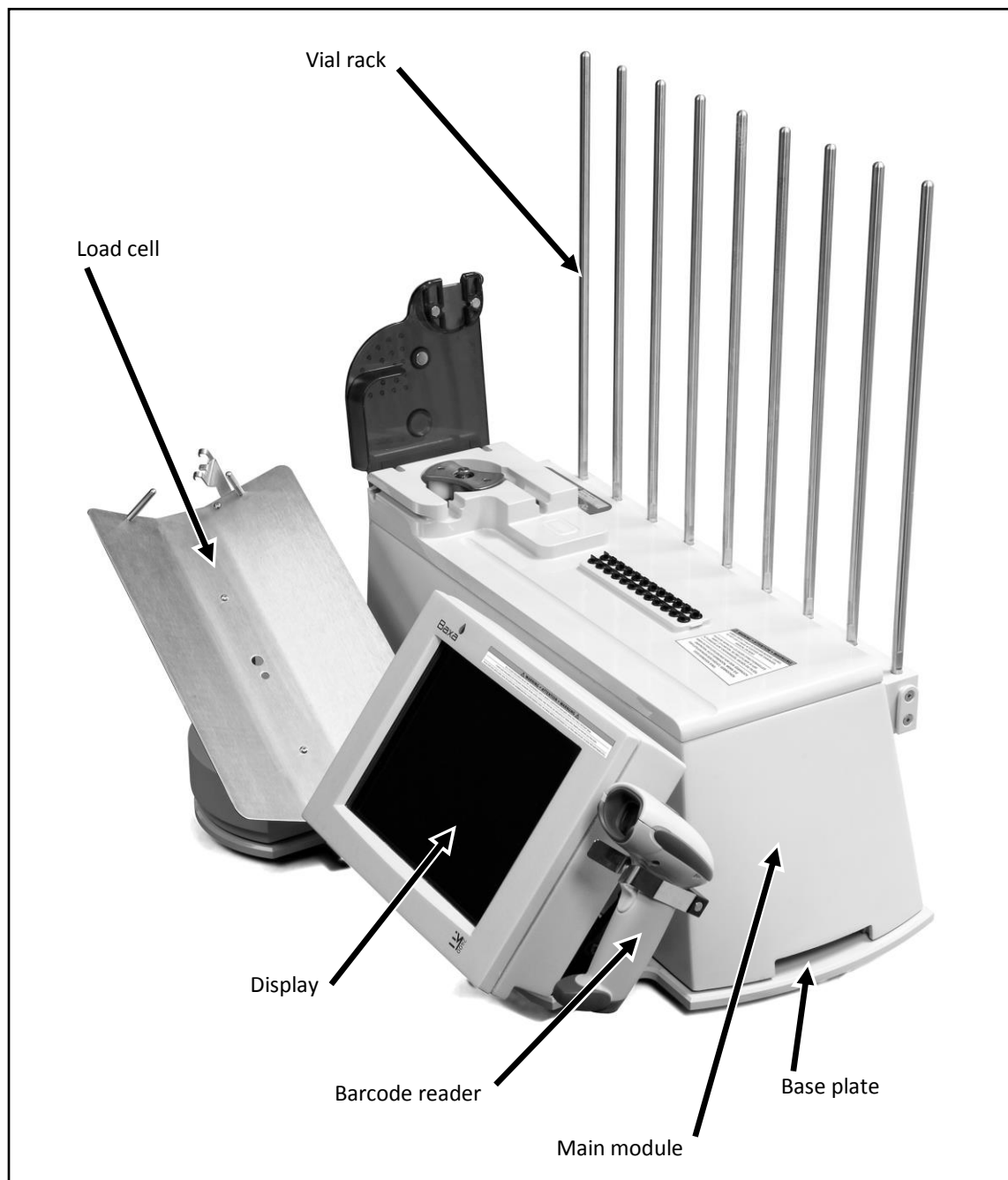
The compounder software is not intended to replace the professional judgment or knowledge of a pharmacist or pharmacy technician.

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## COMPONENTS

### HARDWARE COMPONENTS

The compounder consists of these main hardware components:

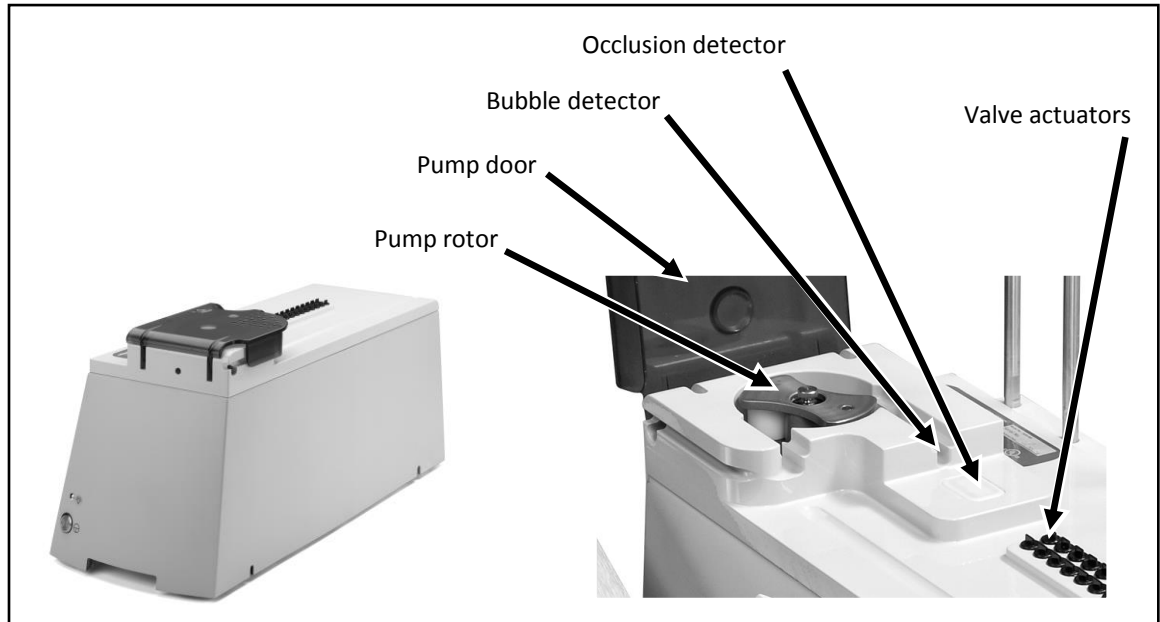


*Hardware components*

**NOTE:** The optional vial rack extension and printer are not shown.

The **main module** contains the moving parts of the compounder, including these parts:

- The **valve actuators** open and close as needed to allow the delivery of individual ingredients. When the pump is paused, the valve actuators automatically close.
- The **occlusion detector** detects occlusions (blockages) in the tube between the source containers and the detector.
- The **bubble detector** detects air bubbles as they pass through the tube over the detector.
- The **pump door** allows access to the pump rotor.
- The **pump rotor** moves the fluid from the valve set to the destination bag.



*Main module, with close-up view of the top*

The **load cell** weighs each destination bag and sends this measurement back to the display, where calculations are performed. A 2,000 g calibration weight is provided with the compounder and used to calibrate the load cell.



*Load cell*

The **display** operates the compounder software and includes a touch screen for easy input. The bottom of the display contains USB ports that can be used to connect a barcode reader, keyboard, mouse, and printer or USB drive. The bottom of the display also contains one Ethernet port. A reset button is also available if needed.



*Display*

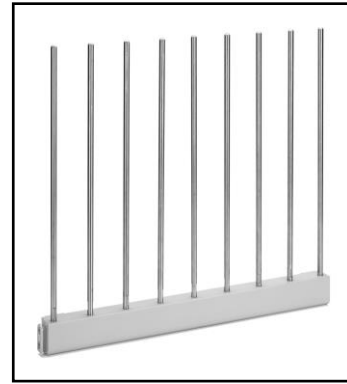
The **barcode reader** is stored on the right side of the display. This reader is used to scan barcodes on the labels of source containers, inlets and patient bags.

Models of the barcode reader may vary.



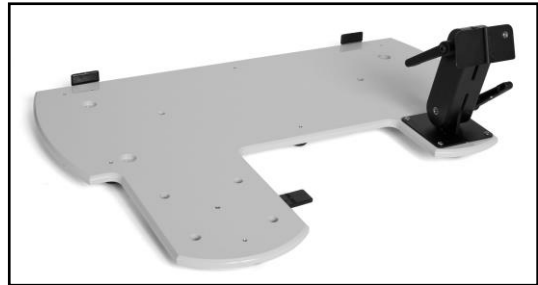
*Barcode reader*

The **vial rack** attaches to the main module and can support an optional **vial rack extension**. Adjustable **vial holders** and **syringe holders** attach to the vial rack.



*Vial rack*

The **base plate** is the common base on which the compounder's components sit.



*Base plate*

The optional laser **printer**, used for printing reports and labels, can be connected directly to the compounder or to a network.

Models of the printer may vary.



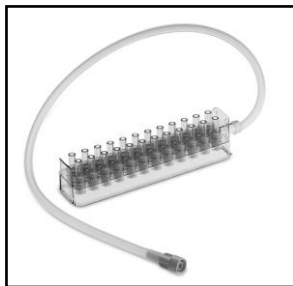
*Printer*

## DAILY USE COMPONENTS

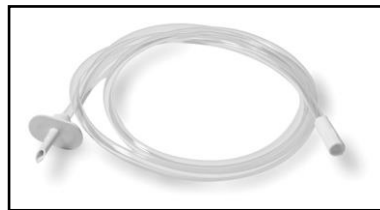
- The **valve set** is a sterile, multiple-port valve with an outlet tube attached. The valve body fits over the valve actuators on the compounder, protecting them from damage. The outlet tube attaches to the destination bag. For ordering information, refer to [Valve Sets](#) on Page 16.
- The **inlet** is a sterile tube with a spike or Luer end attached. The spike or Luer end attaches to a source container, and the other end attaches to a port on the valve set. The type of inlet that is used depends on the source container. For inlet types, descriptions and ordering information, refer to [Inlets](#) on Page 15.

**NOTE:** The valve set and inlets are collectively known as the tube set.

- The **destination bag** is a sterile container that holds the fluid pumped from the source containers. There are two main types of destination bags, which are available in different sizes. For bag types, descriptions and ordering information, refer to [Bags](#) on Page 16.
- The **patient bag** is used for delivering the finished solution to a patient. This bag contains three ports for filling the bag, adding ingredients manually and delivering the finished solution.
- The **calibration bag** is used for collecting any fluid that is not intended for a patient. For example, this type of bag is used while calibrating and priming the compounder. This bag contains only one port for filling the bag.



*Valve set*



*Inlet*



*Patient bag*



*Calibration bag*



## SOFTWARE

The compounder has been validated and approved for use only with the software that Baxa Corporation provides.

### License

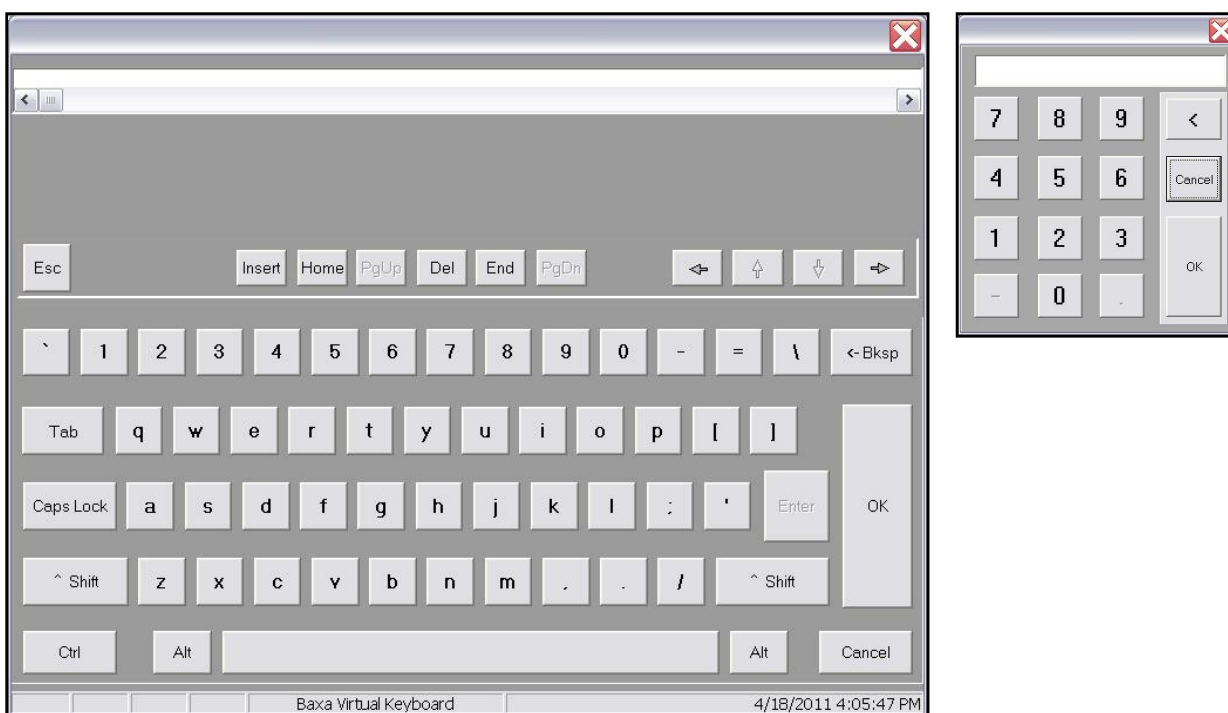
The license to use the compounder software is granted to a single concurrent user on a single EXACTAMIX 2400 Compounder for the term of the equipment contract. Baxa Corporation retains ownership of the software. Distribution or copying of this software, other than for backup purposes, is expressly forbidden.

### Permissions

The options that appear in the software depend on the permissions granted to the user. If you have questions about your permissions, contact your supervisor. For more information about setting up permissions, refer to [Setting Up the Users](#) on Page 121.

### Navigation

On any screen or window that requires data entry, touching a field displays an on-screen keyboard or number pad that allows you to enter characters.



*On-screen keyboard and number pad*

## Menu Screen

The menu screen allows access to menus and settings.



*Menu screen*

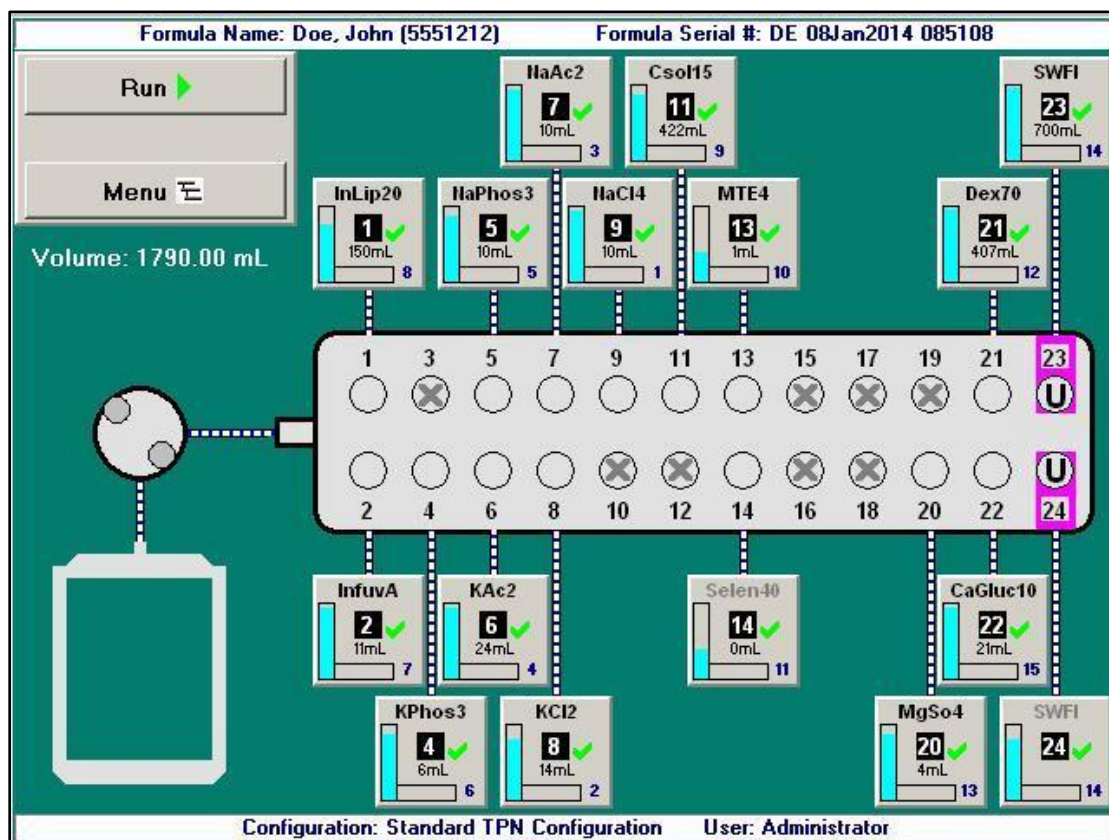
The menu screen has six tabs at the top. Touching a tab displays a drop-down menu. Use the:

- **File** menu to log out of the software, exit the software, restart the compounder and shut down the compounder
- **Edit** menu to view and edit the configurations, formulary, ingredient groups, inlet information and bag information
- **Compound** menu to set up the compounder for operation, select a formula to compound and execute the options in the Setup Wizard independently
- **Tools** menu to set up options related to the system, users, security, directories used for saving certain files and software maintenance
- **Reports** menu to view, print and export reports related to compounding and other device activity
- **Help** menu to view tutorials and information about the hardware and software

Touching **Close** in the bottom right displays the pump screen.

## Pump Screen

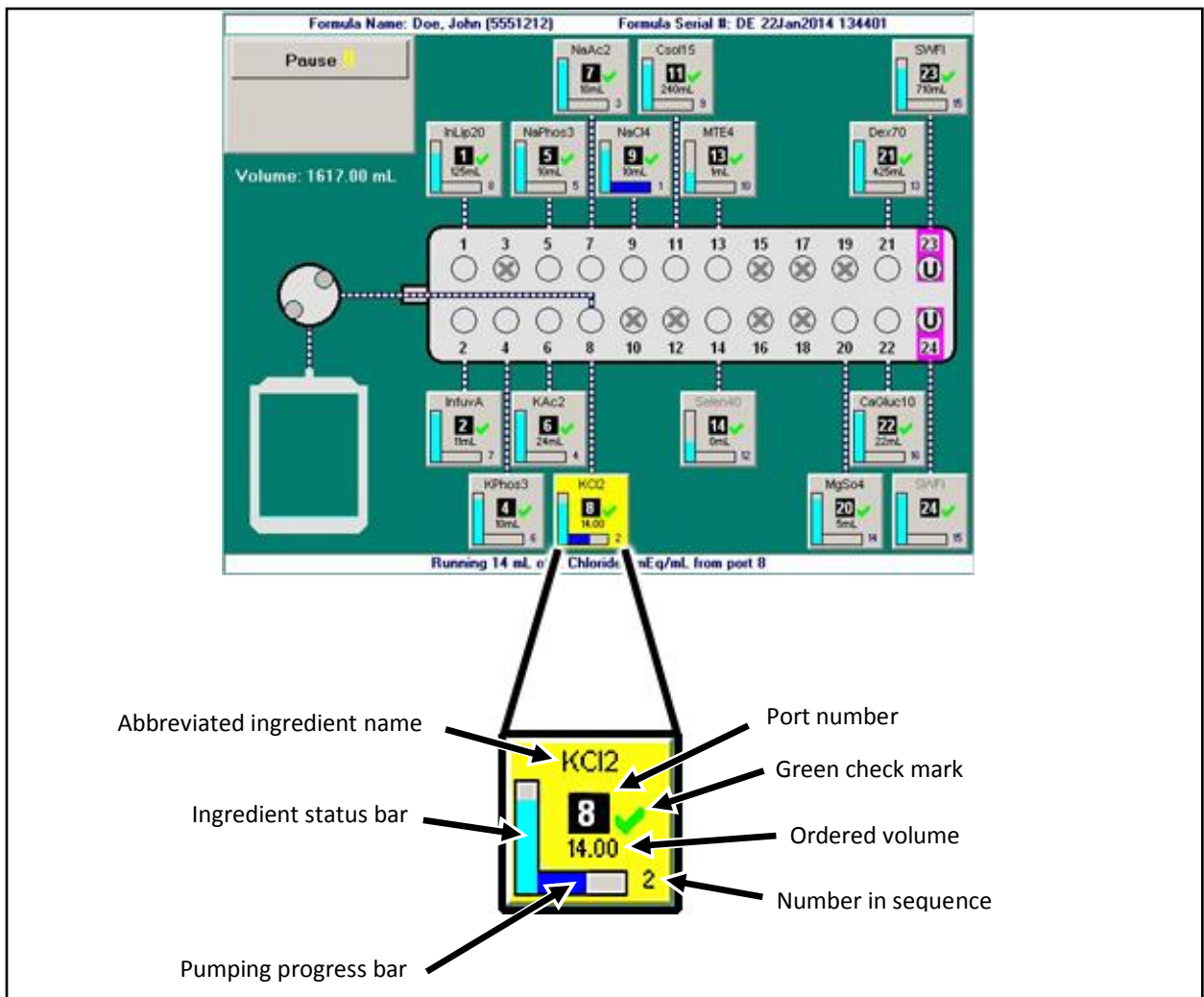
The pump screen shows a diagram of the valve set. It is used during the compounding process. Similar screens are used during setup.



*Pump screen at the start of the compounding process*

The appearance of the pump screen changes slightly during various steps of the compounding process. However, the screen always includes these elements:

- The formula name and serial number appear on the top of the screen.
- Buttons appear on the left side of the screen. Touching **Run** starts the compounding process. Touching **Menu** displays the menu screen.
- The total volume to be pumped for the order appears under the **Menu** button.
- A diagram of the valve set with numbered ports appears on the middle of the screen. Ports that:
  - Have no ingredient attached have an X over them
  - Have an ingredient attached have an ingredient button connected
  - Have the Universal Ingredient (UI) attached are identified by a **U**
  - Make up an electronic Y-site are identified by colored highlighting



*Ingredient button*

On the pump screen, each ingredient button includes:

- The abbreviated ingredient name
- The port number
- A green check mark indicating that the inlet and port have been verified, or a red X indicating that they need to be verified
- The ordered volume of the ingredient
- A number indicating the ingredient's place in the compounding sequence
- A light blue, vertical bar showing how much of the ingredient remains in the container; during the compounding process, this bar decreases as the remaining volume decreases
- A dark blue, horizontal bar showing how much of the ingredient is being used for the current order; during the compounding process, this bar increases as the pumped volume increases

When an ingredient is being pumped, its button becomes yellow. An animation shows fluid moving through the inlets and the outlet tube into the destination bag. Horizontal marks across an inlet represent fluid, indicating that this inlet has been primed.

## FEATURES

### SUMMARY OF FEATURES

The compounder:

- Accepts formulas created by order-entry software on a separate computer, or by direct entry on the compounder
- Uses barcodes on the source containers and inlets to promote correct setup
- Includes software with a Setup Wizard to guide you through the setup process
- Supports a maximum of 24 ingredients, source containers in volumes of 0.2–5,500 mL and destination bags in volumes of 125–5,000 mL in Europe or 250–5,000 mL for all other regions
- Allows you to attach the same ingredient to more than one port, creating an electronic Y-site
- Allows you to specify the sequence in which ingredients are pumped
- Allows you to specify the accuracy limits for the finished solution
- Uses volumetric delivery, gravimetric verification and automatic calibration to help ensure delivery accuracy
- Uses a bubble detector and occlusion detector
- Can be immediately stopped by lifting the pump door
- Can track ingredient lot numbers and ingredient expiration dates
- Generates a MixCheck Report for each finished solution
- Can print reports and barcode labels at the compounder's printer
- Can be set up to communicate with the printer and retrieve orders through a network

### ORDER ENTRY

The operating software can retrieve orders, via a network, from order-entry software on a separate computer. The order-entry software must produce a .PAT file and typically produces a corresponding barcode. At the compounder, scanning the barcode or manually selecting the formula retrieves the .PAT file through the network. The compounder also has other options for order entry when the order-entry computer or network is unavailable. For more information, refer to [Loading the Formula](#) on Page 73.

### FORMULARY

The formulary is the list of ingredients, and associated products, which can be attached to the compounder.

An ingredient is a solution of a specific chemical entity at a specific concentration regardless of container size, container type or manufacturer. One ingredient can have several associated products.

A product is an ingredient in a particular container size and type from a specific manufacturer. Several products can be associated to one ingredient.

For example:

- Ingredient: Amino Acid 70%
- Products:
  - Manufacturer X Amino Acid 70%, 2000 mL bag
  - Manufacturer X Amino Acid 70%, 1000 mL bag
  - Manufacturer X Amino Acid 70%, 500 mL bottle
  - Manufacturer Y Amino Acid 70%, 2000 mL bag
  - Manufacturer Y Amino Acid 70% 1000 mL bottle

## INGREDIENT GROUPS

An ingredient group is a list of chemically similar ingredients. For example:

- Ingredient Group: Phosphate  
Ingredients: K Phos 3mM/mL, Na Phos 3mM/mL
- Ingredient Group: Calcium  
Ingredients: Ca Gluconate 10%, Ca Chloride 10%

Some ingredients can tolerate each other's presence in the finished solution, but must be separated during compounding to ensure that they do not mix within the common fluid pathway, or within the patient bag in the absence of sufficient volume. These ingredients are considered to be incompatible. For example, calcium and phosphate should not be mixed in their concentrated forms (in the absence of amino acids), or a precipitate will immediately result. The compounder will pump incompatible ingredients only if it can pump a user-specified volume of another ingredient between them.

Each ingredient group has a list of other groups with which it is incompatible. When ingredients are assigned to these groups, the software can detect formulas in which incompatible ingredients are not sufficiently separated.

## UNIVERSAL INGREDIENT (UI)

When a patient bag is removed, approximately 25 mL of the last ingredient pumped remains in the common fluid pathway. This ingredient then becomes the first ingredient to enter the next patient bag when the next solution is compounded. Because this ingredient must be suitable for all formulas, it is called the Universal Ingredient (UI).

Each formula must include enough Universal Ingredient volume to allow a final flush, which flushes all the previous ingredients into the patient bag. Regardless of the total volume of the Universal Ingredient to be delivered, the compounder reserves enough volume of this ingredient to perform a final flush at the end of the compounding process. You can change the volume used for the final flush when creating a configuration. However, the volume must be at least 25 mL.



The Universal Ingredient is specified by the facility and is typically sterile water for injection (SWFI).

## CONFIGURATION

A configuration identifies the products that will be attached to the ports, the sequence in which they will be pumped, any allowable auto-additions, the ingredient and volume to use for any ingredient flushes, the Universal Ingredient and the volume to use for the final flush.

## BARCODE VERIFICATION



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### WARNING

It is important to use a barcode reader for scanning barcode labels on source containers and inlets during verification of the setup.

For the barcode verification to be effective, it is critical that the configuration be set up correctly. For instructions, refer to [Attaching the New Ingredients and Inlets](#) on Page 45.

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During daily setup, or when a source container must be replaced, the software guides you through a process of barcode verification. You scan a barcode label on each inlet and each source container to verify that the inlet is attached to the correct container.

Each inlet must be labeled with a barcode that identifies the port to which the inlet is attached. These barcode labels are packaged with the valve set. The compounder software can also generate a report that makes these labels available for printing.

Most source containers already have a manufacturer's barcode label attached. For containers that are filled or diluted in the pharmacy, the compounder software can also generate a report that makes these labels available for printing.

**Tip!** Baxa Corporation strongly recommends using the manufacturer's barcode labels whenever possible.

## DELIVERY AND ACCURACY

The compounder uses volumetric delivery to move fluid, with gravimetric verification to check the final weight of the destination bag. The compounder also performs an automatic calibration to maintain delivery accuracy.

### Volumetric Delivery

The pump rotor moves as it pumps an ingredient into the destination bag. The amount of movement determines the volume that is delivered.

### Flow Factors and Calibration

The pump is calibrated with sterile water. A flow factor associated with each ingredient adjusts the flow of that ingredient compared to the flow of water. The flow factor accounts for the ingredient's viscosity, the size and type of its source container, its inlet, its venting and other factors that affect its delivery. As a result, calibrating with water automatically calibrates the compounder for use with all the other ingredients.

The pump is calibrated during daily setup. In addition, when the rotor pumps an uninterrupted delivery of 175 mL or more of water, the compounder automatically performs a calibration of the rotor movement. Automatic calibration maintains the rotor's accuracy and reduces the need for manual adjustments.

### Gravimetric Verification

The compounder provides feedback about its delivery accuracy by weighing the finished solution and comparing that weight to the theoretical weight of a perfectly compounded solution. This theoretical weight is computed by this formula:

$$\Sigma(\text{Volume}_{\text{Ingredient}} \times \text{Specific Gravity}_{\text{Ingredient}})$$

## PRINTING OPTIONS

The printer is used for printing reports and creating labels for inlets and source containers. The printer can use standard 8.5 x 11 in. (21.6 x 28 cm) or A4 paper and standard label sheets. Avery 5160 label sheets are recommended.

You can connect the printer to a:

- USB port on the display
- USB port on the order-entry computer for use on a network, if the facility provides a network-ready printer
- Network via an Ethernet cable, if the facility provides a network-ready printer

The compounder software includes the printer drivers for the printer provided by Baxa Corporation only.

## NETWORK CONNECTIVITY

You can connect the compounder, via an Ethernet cable, to a:

- Facility network
- Mini-net that is typically shared only with the order-entry computer

The compounder reaches out to the network only to retrieve .PAT files, send print jobs and back up the database.

Baxa Corporation does not support activity related to setting up or troubleshooting the facility's network.

**Tip!** If you connect the compounder to a network, Baxa Corporation recommends taking precautions to minimize the compounder's exposure to cyber threats. For example, use a router that acts as a firewall or a VLAN. For more information about network security, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

## ORDERING SUPPLIES

Order supplies through your normal channels.



### WARNING

Use only sterile inlets, bags and valve sets validated by Baxa Corporation.

## INLETS

The following inlets are available. Availability may vary by region.

Product	Order Number	Quantity / Case	For Use With	Standard Priming Volume	Minimum Priming Volume
Non-Vented High-Volume Inlet	H938173	25	Large-volume, vented or collapsible containers (such as bags of dextrose and water)	50–60 mL	25–30 mL
Vented High-Volume Inlet	H938174	25	Large-volume, non-vented containers that require a spike to vent air into the container, such as bottles 500 mL or larger	50–60 mL	25–30 mL
Vented Micro-Volume Inlet	H938175	25	Small-volume vials, 10–250 mL	5–6 mL	2.5–3 mL
Vented or Non-Vented Micro-Volume Inlet, with Large-Bore Spike	H938751	25	Small-volume bags or bottles that require a large-bore spike	5–6 mL	2.5–3 mL
Syringe Inlet	H938176	25	60 mL Luer syringes (regardless of the volume they contain)	5–6 mL	2.5–3 mL

Baxa Corporation inlets are sterile, bio-compatible, non-pyrogenic, non-DEHP and contain no natural rubber latex components.

**NOTE:** The compounder will automatically use the highest available value for the standard priming volume and half of that value for the minimum priming volume. However, you can adjust these priming volumes in the Inlet Editor. For instructions, refer to [Using the Inlet Editor](#) on Page 150.

## BAGS

The following bags are available. Availability may vary by region.

Product	Order Number	Quantity / Case	Notes
EXACTAMIX Empty EVA Container, 250 mL	H938 <b>737</b>	50	
EXACTAMIX Empty EVA Container, 500 mL	H938 <b>738</b>	50	
EXACTAMIX Empty EVA Container, 1000 mL	H938 <b>739</b>	50	
EXACTAMIX Empty EVA Container, 2000 mL	H938 <b>740</b>	50	
EXACTAMIX Empty EVA Container, 3000 mL	H938 <b>741</b>	50	
EXACTAMIX Empty EVA Container, 4000 mL	H938 <b>742</b>	50	
EXACTAMIX Empty EVA Container, 5000 mL	H938 <b>143</b>	50	
EXACTAMIX Empty EVA Container, dual chamber, 1500 mL	H938 <b>901</b>	42	
EXACTAMIX Empty EVA Container, dual chamber, 3000 mL	H938 <b>905</b>	42	
EXACTAMIX Empty EVA Calibration Bag, 1000 mL	H938 <b>735</b>	50	Can be used for functions other than calibration; refer to <a href="#">calibration bag</a> on Page 6
Tamper-resistant add-port cap	H938 <b>4858</b>	100	Not compatible with dual-chamber bags

Baxa Corporation bags are sterile, bio-compatible, non-pyrogenic and contain no natural rubber latex components. These bags have a large-bore, threaded fill-port connector.

## VALVE SETS

The following valve sets are available. Availability may vary by region.

Product	Order Number	Quantity / Case	Notes
EM2400 Valve Set	H938 <b>724</b>	10	Includes: <ul style="list-style-type: none"> <li>Numbered inlet labels with barcodes</li> <li>10 calibration bags (H938<b>735</b>)</li> </ul>

Baxa Corporation valve sets are sterile, bio-compatible, non-pyrogenic, non-DEHP and contain no natural rubber latex components.

## GETTING HELP

The contact information and hours for Baxa Corporation Technical Support vary by region. Support in English is available 24 hours/day, 7 days/week at 800.678.BAXA (2292), 303.690.4204 or [cotechsupport@baxter.com](mailto:cotechsupport@baxter.com).

Before you call or e-mail for technical support:

1. At the menu screen, touch **Help > About**.  
The *About* window appears. It provides information about the hardware and software.
2. At the *About* window, identify the **Operating Software Version** and **Build #**.



*About window*

## INSTALLING THE COMPOUNDER

Your Baxa Corporation service provider will install the compounder at your site.

If you must reinstall the compounder or replace a component, verification tests must be performed before you use the compounder again. Contact Baxa Corporation Technical Support for assistance. Refer to [Getting Help](#) on Page 17.

To start, open the packaging, remove all the items and inspect them to make sure that they are not damaged.

---

### WARNING

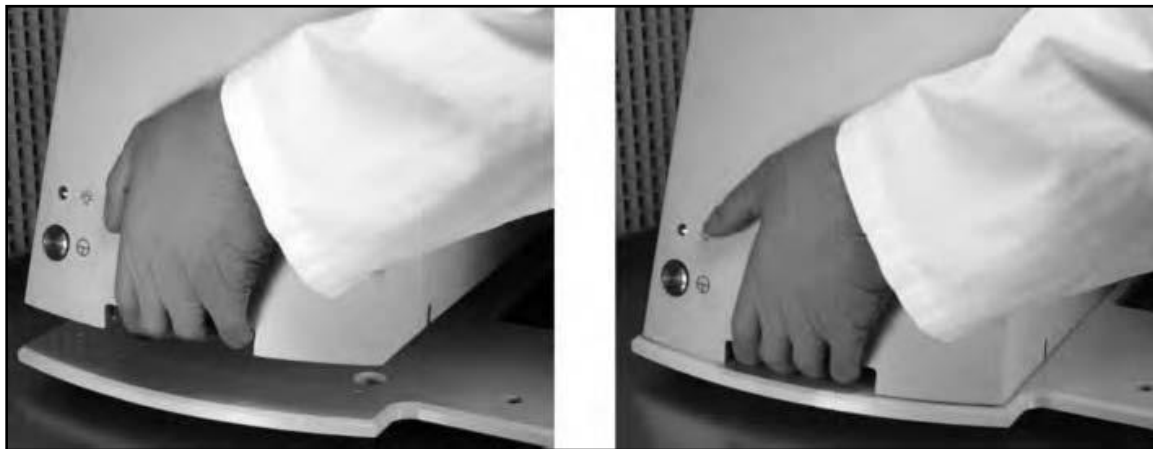


Do not use sharp objects to open the packaging. Personal injury may result.

The compounder should be placed on a level and stable surface to prevent its modules from moving out of position. Always hold the modules as shown below to avoid dropping them.

---

1. Route the power cord out through the routing hole in the back of the main module.
2. Place the main module onto the base plate.

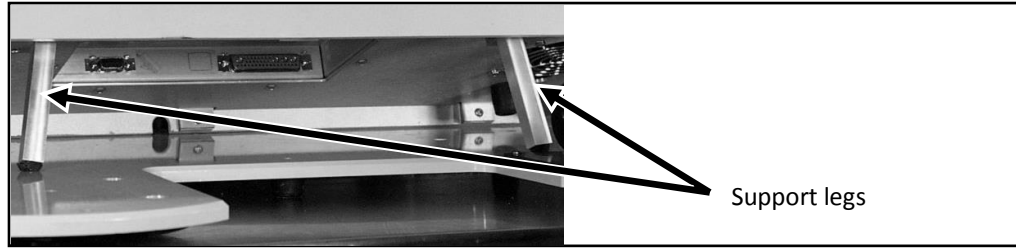


*Placing the main module*

3. Place the load cell to the left of the base plate.
4. Place the display to the right of the base plate.



5. Tip the main module back and extend the support legs.



*Extending the support legs*

**NOTE:** In a small hood, there may not be enough space behind the main module to tip it back. To make more space, you can move the compounder forward by lifting the front of the base plate slightly and sliding it toward you. It is easier to slide the base plate on its back feet (which are plastic) than on its front feet (which are rubber).



---

**WARNING**

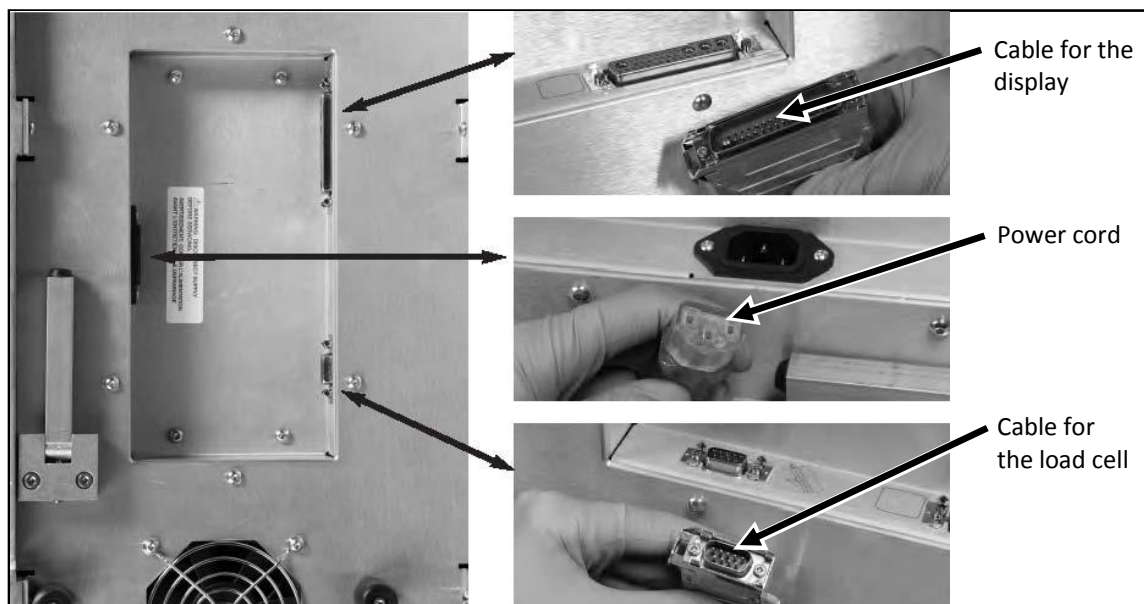
Using the support legs will reduce the possibility of pinching your hands when you connect the cord and cables.

The power cord must be unplugged from the main AC power source whenever you connect or disconnect the display and load cell.

The power cord must be positioned so that the plug is easily accessible.

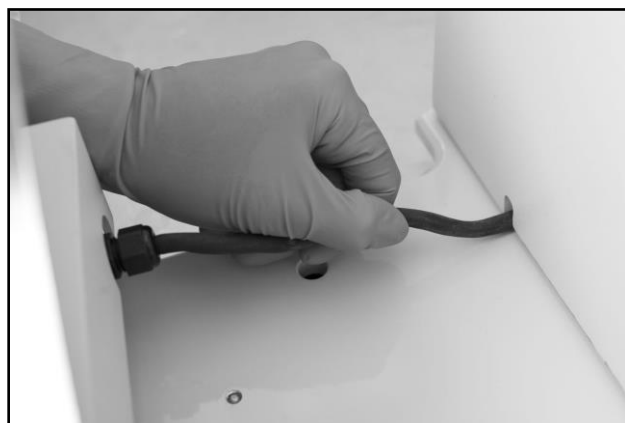
---

6. Under the main module, connect the following cord and cables. Reach under the main module with your palm facing up.
  - a. Connect the power cord.
  - b. Connect the cable for the display. Align the connector over the port on the main module, then push firmly on the connector to connect it. Check the connection by pulling on both sides.
  - c. Connect the cable for the load cell. Align the connector over the port on the main module, then push firmly on the connector to connect it. Check the connection by pulling on both sides.



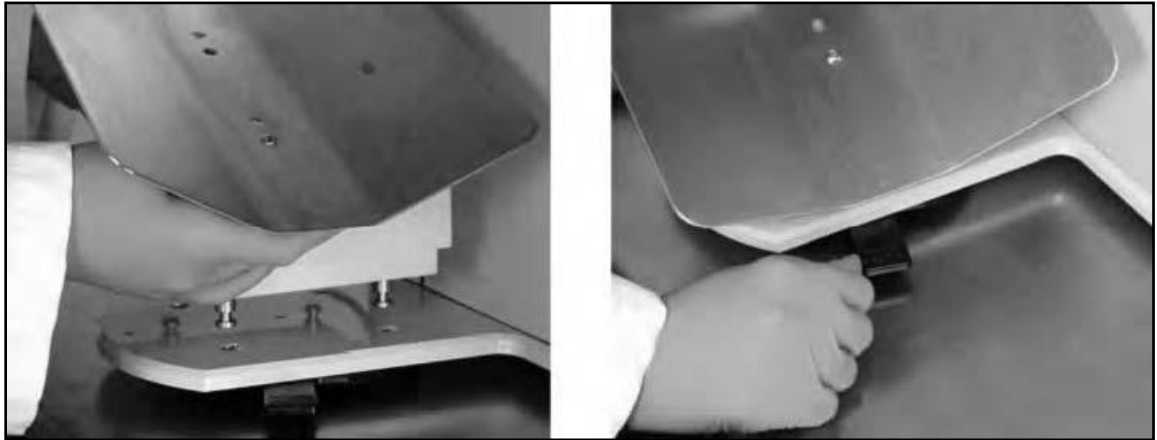
*Connecting the cord and cables*

7. Retract the support legs so that the main module rests fully on the base plate.
8. Route the cables through the two routing holes, pushing any excess length of the cables through the holes.



*Routing a cable*

9. Install the load cell.
  - a. Ensure that the locking lever is unlocked by sliding it forward.
  - b. Place the load cell onto the base plate.
  - c. To lock the load cell, move the black lever back until it clicks into place.



*Installing the load cell*

10. Install the display onto the arm.

The white locking pin snaps into the locked position.



*Installing the display*

**NOTE:** You can remove the display by pulling the locking pin out to the unlocked position, then rotating the pin 90 degrees to keep it in this position while lifting the display.

11. Install the barcode reader.

- a. Pull the arm that is behind the display out to the right.
- b. Rotate the arm up and over toward you.
- c. Pull the arm slightly to the right to lock it into place.



*Rotating the arm*

- d. Place the barcode reader in the cradle with the trigger facing you.

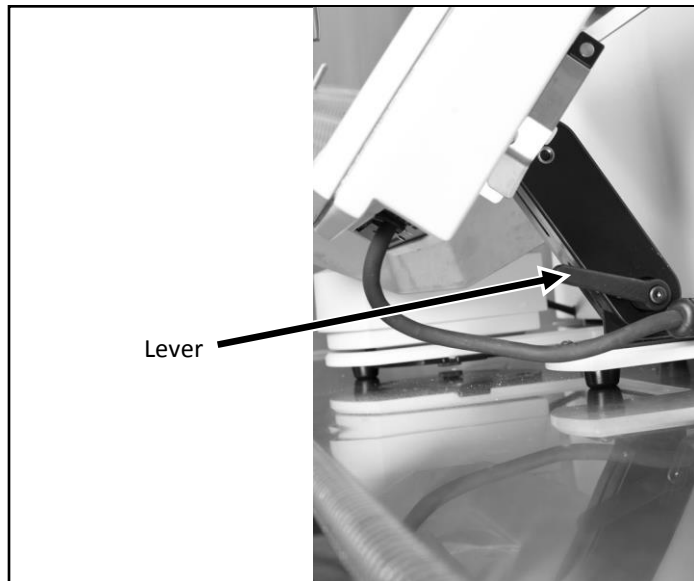


*Placing the barcode reader*

12. Connect the USB cable from the barcode reader to a USB port on the bottom of the display.
13. If desired:
  - Connect the USB cable from the printer to a USB port on the bottom of the display.
  - Connect an Ethernet cable to the Ethernet port on the bottom of the display.

**NOTE:** To perform administrative work, you can also connect a keyboard and mouse to the USB ports on the display. The keyboard and mouse should not be connected during normal compounding operation. They will conflict with the barcode reader, causing it to function incorrectly.
14. Move the arm of the display to the desired position.
  - a. Unlock the lever on the right by rotating it forward.

**NOTE:** Pulling the lever slightly out to the right allows adjustment of the lever's position if needed.
  - b. Adjust the arm of the display forward or backward.
  - c. Lock the lever by rotating it backward.



*Lever on the right*

15. Move the display to the desired position.

- a. Unlock the lever on the left by rotating it backward.

**NOTE:** Pulling the lever slightly out to the left allows adjustment of the lever's position if needed.

- b. Adjust the display up or down.
- c. Lock the lever by rotating it forward.



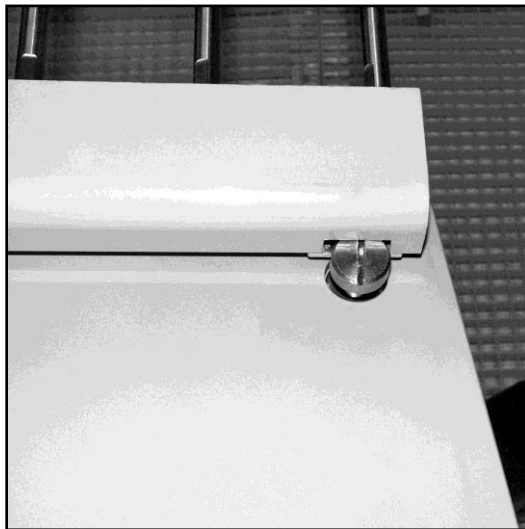
*Lever on the left*

16. Check that the cables:

- Are not kinked or pinched
- Do not touch the base of the load cell

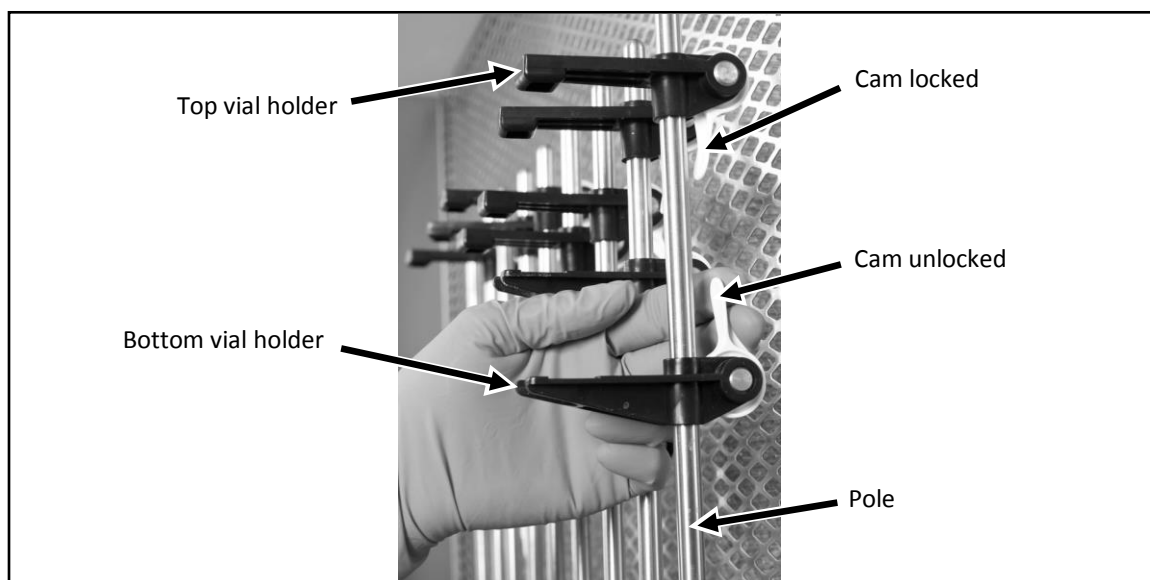
17. Plug the power cord into an uninterruptible power supply (UPS).

18. Install the vial rack onto the back of the main module. On each end, slide the slot on the vial rack over the bolt on the main module.



*Installing the vial rack*

19. Install the vial holders in the desired locations on the vial rack.
20. Adjust the position of each top and bottom vial holder.
  - a. Rotate the cam up to the unlocked position.
  - b. Push the holder to the desired location on the pole.
  - c. Rotate the cam down to the locked position.

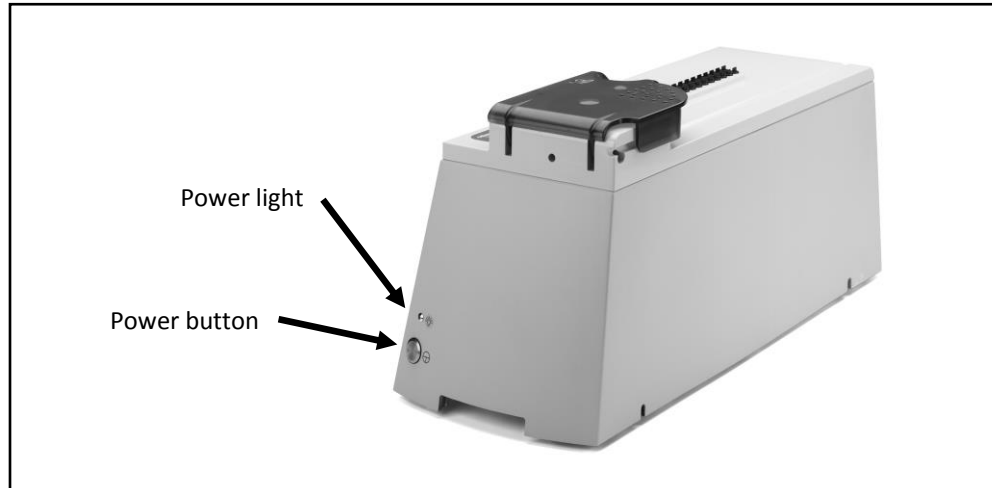


*Adjusting the vial holders*

## STARTING UP, LOGGING IN AND OUT, AND SHUTTING DOWN

### STARTING UP AND LOGGING IN

1. On the main module, press and hold the power button until the power light illuminates.



*Power light and power button*

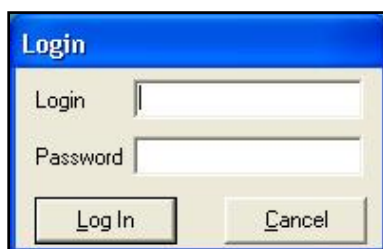
2. If the software does not start automatically, double-touch the **Exacta-Mix 2400** icon on the Windows desktop.

**Tip!** Baxa Corporation recommends setting the software to start automatically. Contact Baxa Corporation Technical Support for assistance with setting up this feature. Refer to [Getting Help](#) on Page 17.



*Icon*

3. If the *Login* window appears:
  - a. Enter a **Login** name.
  - b. Enter a **Password**.
  - c. Touch **Log In**.



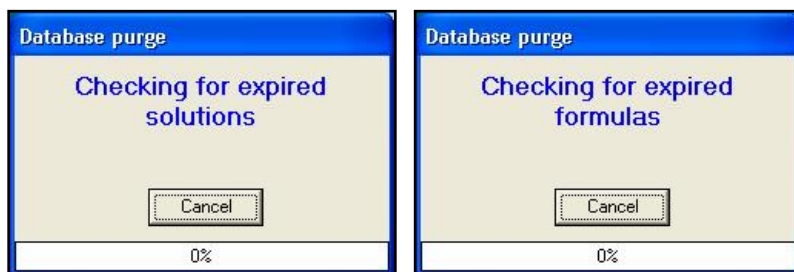
*Login window*



**Tip!** Baxa Corporation recommends setting up each user with a unique login name and password. If the compounder is connected to a network, Baxa Corporation requires that the compounder be logged in to the network automatically. For details, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

**NOTE:** To require each user to log in, refer to [General](#) on Page 117. To set up password expiration, refer to [Password Expiration](#) on Page 118.

When the software starts, it performs self-checks and briefly displays the following messages. Other messages may also appear. Do not cancel these operations.

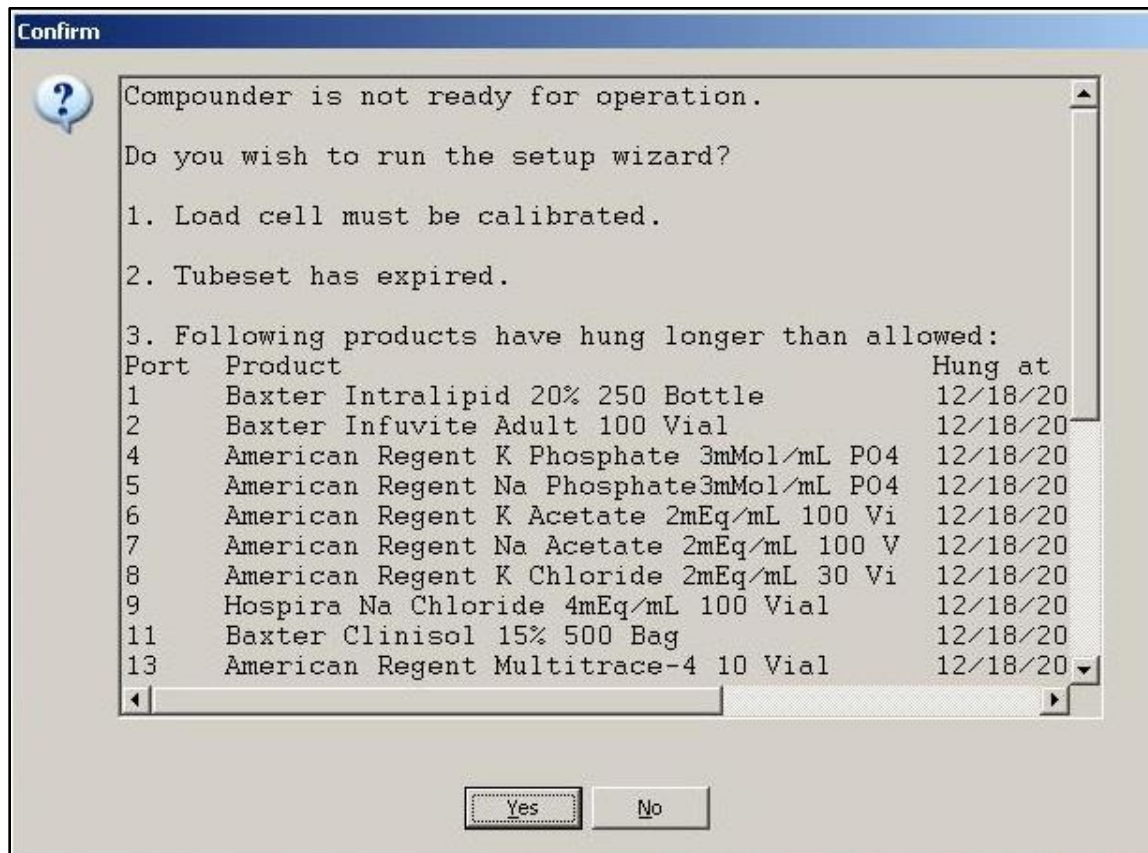


*Messages that appear at startup*

Next, the software may display a *Confirm* screen. Several styles of the *Confirm* screen may appear, but each includes this text: **Compounder is not ready for operation. Do you wish to run the setup wizard?** The screen also lists the conditions that prevent the compounder from being ready for operation. The screen appears if any of these conditions exist:

- The calibration of the load cell has expired (at midnight).
- The calibration of the pump has expired.
- The tube set has expired.

**NOTE:** To set up the options for tube set expiration, refer to [Tube Set Expiration](#) on Page 114.



*Confirm screen*

4. If the *Confirm* screen appears:

- Touch **Yes** if you want to use the Setup Wizard now. For instructions on using the Setup Wizard, refer to [Setting Up the Compounder](#) on Page 31.
- Touch **No** if you want to continue using the software in the current state.

**Tip!** Baxa Corporation recommends always touching **Yes**. If you touch **No**, you will be instructed to perform any required setup steps before compounding.

## LOGGING OUT

When you have finished using the compounder, or another user needs to log in, you should log out of the software.

At the menu screen, touch either:

- **File > Logout**
- **Tools > Users > Change User**

**NOTE:** The *Confirm* screen may appear if the compounder is not ready for operation. To set up the automatic logout option, refer to [Auto-Logout](#) on Page 117.

## REBOOTING AND SHUTTING DOWN

**Tip!** Baxa Corporation recommends shutting down the compounder when you are finished using it. Baxa Corporation also recommends fully shutting down and starting up the compounder, or rebooting it, once a day to allow the software to perform routine database maintenance.

1. At the menu screen, touch **File > Exit**.

The *Exit Options* window appears.



*Exit Options window*

**IMPORTANT!** The last two options shown above require Administration permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

2. Touch one of these options:

- **Shutdown the computer?** to shut down the software and turn off the compounder
- **Reboot the computer?** to shut down the software, turn off the compounder and restart the compounder
- **Log on as a different user?** to log out and allow another user to log on  
**NOTE:** The *Confirm* screen may appear if the compounder is not ready for operation.
- **Minimize this application?** to minimize the compounder software so that the Windows desktop is visible  
**NOTE:** The compounder software remains active and can be maximized when needed.
- **Exit program?** to exit the compounder software

3. Touch **OK**.

**NOTE:** You cannot turn off any part of the compounder by pressing the power button on the main module. This button is used only to turn the power on. Shutting down the compounder is done through the software. If you are unable to shut down through the software, you can reboot the display by pressing and holding the reset button on the display.



---

**CAUTION**

There is a reset button on the bottom right of the main module. Do not press this button at any time other than when you are directed by Baxa Corporation Technical Support. This action can corrupt the database.

---

## SETTING UP THE COMPOUNDER

### ACCESSING THE SETUP WIZARD

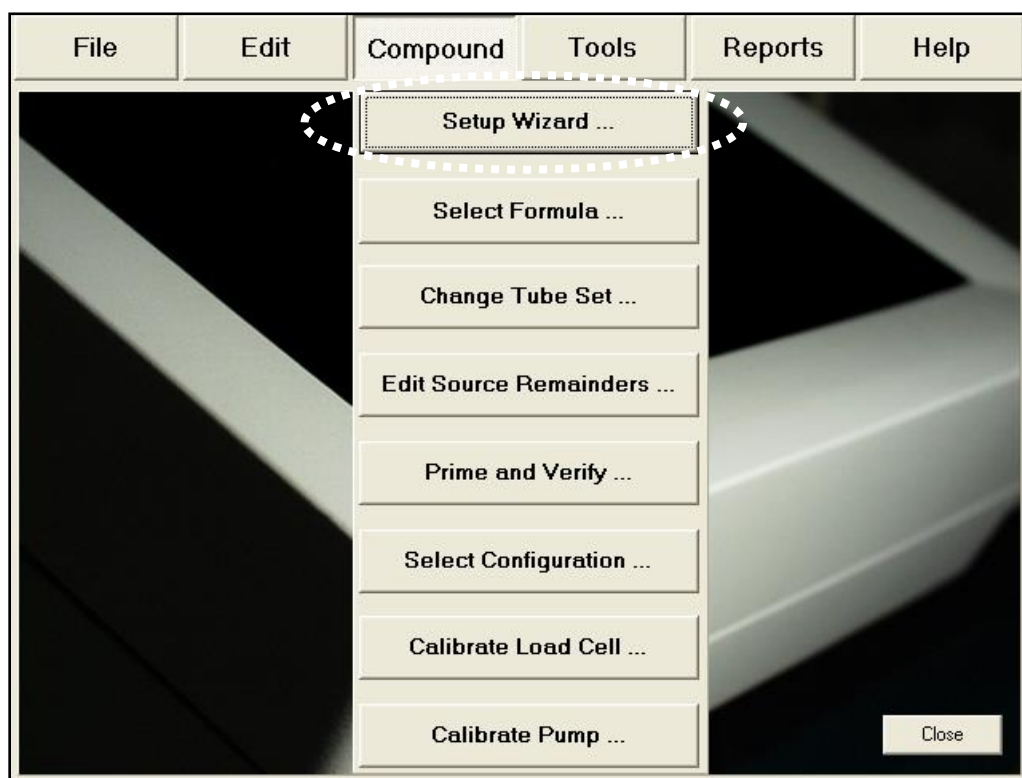
The Setup Wizard guides you through the setup process.

You can access the Setup Wizard in two ways:

- Touch **Yes** at the *Confirm* screen if it appears during startup.
- Touch **Compound > Setup Wizard** at the menu screen to access the Setup Wizard at any time.

**NOTE:** The **Compound** menu also includes options that allow you to perform individual steps of the setup process without completing the entire Setup Wizard.

**Tip!** Baxa Corporation recommends always using the Setup Wizard to guide you quickly through the necessary steps in the correct sequence.

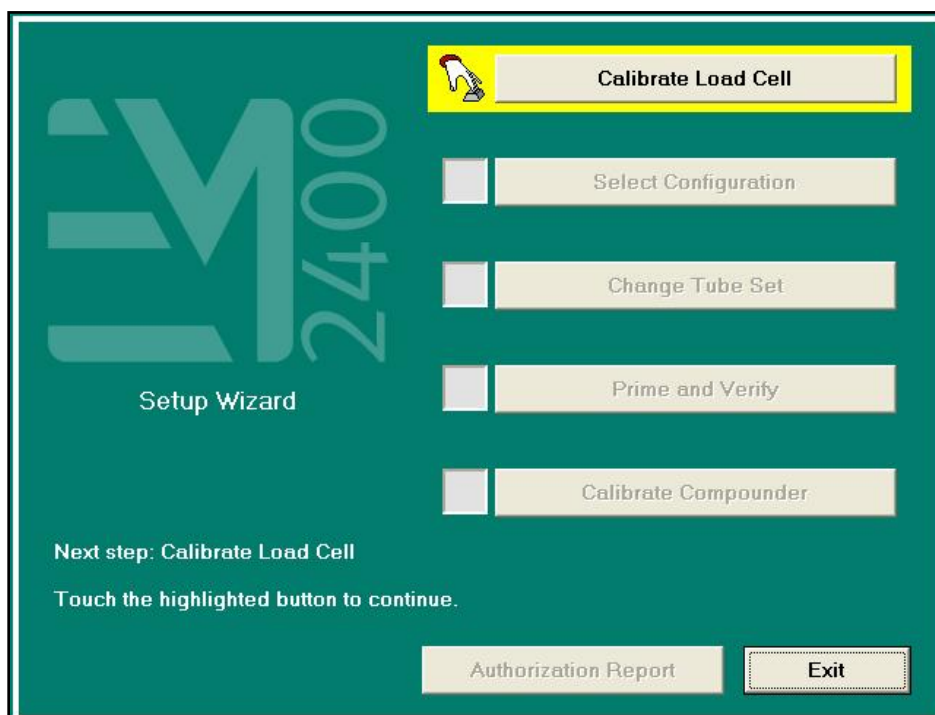


*Menu screen, Compound menu*

**IMPORTANT!** These functions require Compounder permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

The Setup Wizard guides you through these main steps:

1. **Calibrate Load Cell** guides you through calibrating the load cell.
2. **Select Configuration** allows you to select a configuration to use.
3. **Change Tube Set** guides you through installing a new tube set and new ingredients for the selected configuration.
4. **Prime and Verify** guides you (and an optional cosigner) through the process of priming the inlets and verifying the setup.
5. **Calibrate Compounder** calibrates the compounder's pump to ensure that it will deliver the intended volume of each ingredient.
6. **Authorization Report** allows you to view and print the Authorization Report, if desired.



*Setup Wizard screen*

## CALIBRATING THE LOAD CELL

This procedure calibrates the load cell to ensure that it measures weight accurately.

The load cell must be calibrated:

- Daily, after the calibration expires at midnight
- Using a 2,000 g weight that Baxa Corporation provides

**Tip!** Baxa Corporation recommends:

- Using gloves to handle the weight, to minimize the accumulation of oils and dust
- Storing the weight in its storage case

To calibrate the load cell:

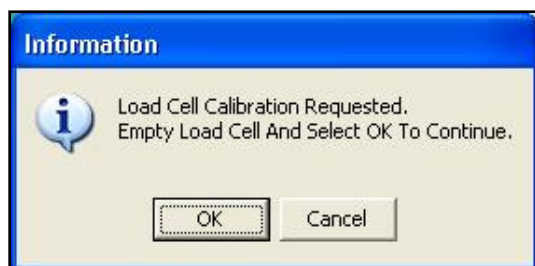
1. At the *Setup Wizard* screen, touch **Calibrate Load Cell**.



*Setup Wizard screen, calibrating the load cell*

**NOTE:** To calibrate the load cell without using the Setup Wizard, you can touch **Compound > Calibrate Load Cell** at the menu screen.

The *Load Cell Calibration Requested* message appears.

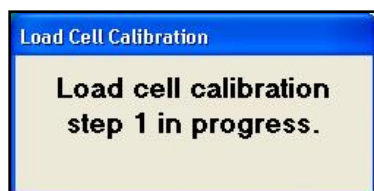


*Message*

**IMPORTANT!** If any items touch the load cell during the calibration, the calibration will not be accurate.

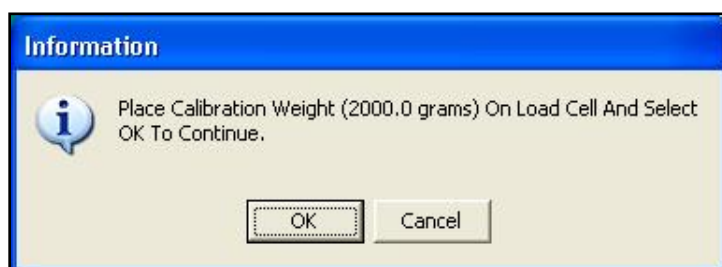
2. Make sure that:
  - There is no weight on the load cell.
  - There is nothing touching any part of the load cell (for example, there are no cables touching the base).
3. At the *Load Cell Calibration Requested* message, touch **OK**.

This message appears and then disappears:



*Message*

The *Place Calibration Weight* message appears.



*Message*



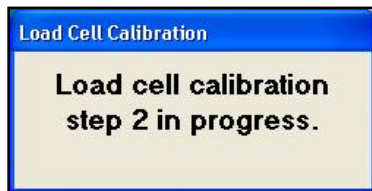
4. Place the 2,000 g weight on the load cell, aligning it with the holes in the load cell.



*Aligning the calibration weight*

5. At the *Place Calibration Weight* message, touch **OK**.

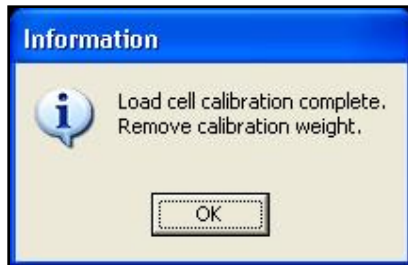
This message appears and then disappears:



*Message*

When calibration is finished, one of these results occurs:

- If you accessed the calibration procedure from the *Setup Wizard* screen, you return to that screen, and a check mark now appears next to **Calibrate Load Cell**.
- If you accessed the calibration procedure directly from the **Compound** menu, a *Load cell calibration complete* message appears.



*Message*

6. If the *Load cell calibration complete* message appears, touch **OK**.
7. Remove the calibration weight.

## SELECTING THE CONFIGURATION

The configuration identifies which ingredients are attached and at which ports on the compounder.

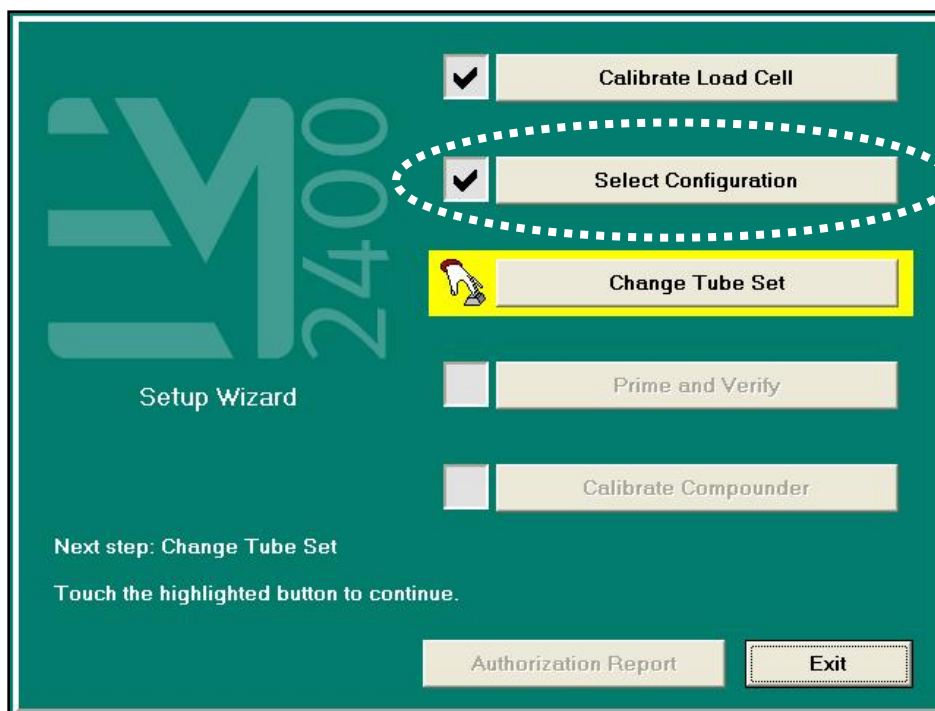
The software automatically selects the last configuration that was used, and a check mark appears next to **Select Configuration**.

You must manually select the configuration only if both of these conditions exist:

- More than one configuration is available.
- You want to use a configuration that is different from the last one that was used.

If you want to select the configuration manually:

1. At the *Setup Wizard* screen, touch **Select Configuration**.



*Setup Wizard screen, selecting the configuration*

**NOTE:** To select the configuration without using the Setup Wizard, you can touch **Compound > Select Configuration** at the menu screen.

The *Select Configuration* screen displays the last configuration that was used.

2. In the **Name** list, select the desired configuration.
3. Touch **OK**.

**Select Configuration**

Name: Standard TPN Configuration

Universal Ingredient: Sterile Water for In

Final Flush Volume: 30

OK

Cancel

Ingredient	Quantity
InLip20	8
NaAc2	3
Csol15	9
SWFI	14
NaPhos3	5
NaCl4	1
MTE4	10
Dex70	12
InfuvA	7
KAc2	4
Selen40	11
CaGluc10	15
KPhos3	6
KCl2	2
MgSo065	13
SWFI	14

The screen also displays a 2x12 grid of ports. Ports 1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, and 23 are marked with a cross (X). Ports 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, and 22 are empty. Ports 23 and 24 are highlighted in pink and labeled with a 'U' in a circle.

Select Configuration screen

## CHANGING THE TUBE SET

If the tube set is expired, it must be changed during the daily setup.

**NOTE:** To set up the options for tube set expiration, refer to [Tube Set Expiration](#) on Page 114.

### WARNING

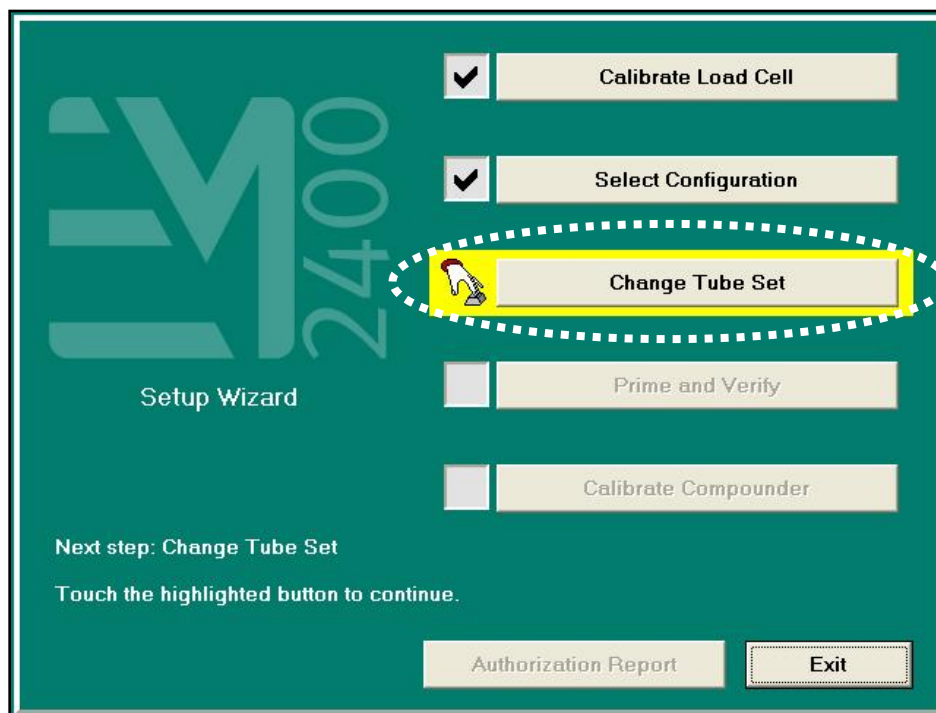


To maintain delivery accuracy, the tube set must be replaced after it has delivered 150 L of fluid or been installed for 24 hours, whichever comes first.

Check that the materials of the inlets, valves and bags are compatible with all ingredients used. Contact the *ingredient manufacturer* to confirm compatibility.

### Checking the Tube Set Statistics

1. At the *Setup Wizard* screen, touch **Change Tube Set**.



*Setup Wizard screen, changing the tube set*

**NOTE:** To change the tube set without using the Setup Wizard, you can touch **Compound > Change Tube Set** at the menu screen.

A screen with tube set statistics and recommendations appears. The statistics show how long the current tube set has been installed and how much fluid has been pumped during that time. Based on the usage, the software recommends whether or not the tube set should be changed.

**Tube Set Statistics:**

The current tube set has been in use since 5/4/2011 7:30:00 AM, a period of 25 hours.

94.68 liters have been pumped through this tube set.

**Recommendations:**

The maximum allowable time for this tube set to be used has expired.

The set should now be changed.

**Tube set will be changed**

**Continue with current tube set**

*Tube set statistics and recommendations*

2. Touch one of these options:
  - Touch **Tube set will be changed**, then continue with Removing the Expired Tube Set and Expired Ingredients on Page 40.

**NOTE:** Selecting **Tube set will be changed** resets the expiration counter for the tube set and resets the ingredient remainders (values in the software that represent the actual volume of fluid remaining in the source containers).
  - Touch **Continue with current tube set**.

**NOTE:** Selecting **Continue with current tube set** does not reset the expiration counter or the ingredient remainders.

## Removing the Expired Tube Set and Expired Ingredients

---



### CAUTION

Do not remove the valve set until you have removed all the source containers. This precaution helps to prevent a dropped source container from damaging the valve actuators.

---

If an expired tube set and expired ingredients are already installed:

1. Attach a calibration bag. Refer to Attaching and Removing the Calibration Bag on Page 43.
  2. Does the facility require the inlet spikes to be removed from the source containers?
    - If yes, continue with the next step.
    - If no, remove the source containers from the vial rack and the hangers. Place the source containers into a waste container, according to your facility's protocol. Then skip to Step 8.
- NOTE:** Do not disconnect the inlets from the source containers or the valve set.
3. Remove one source container from the vial rack or hanger, and turn the container right side up.
  4. Lower the container below the height of the valve set, and allow the fluid in the inlet to flow back into the source container.
  5. Remove the inlet from the port on the valve set.
  6. Discard the source container and the attached inlet according to your facility's protocol.
  7. Repeat the previous steps for each source container, until all the source containers and inlets are discarded.
  8. Open the pump door.
  9. Press the tabs on the ends of the valve set, then lift to remove it.

**IMPORTANT!** Do not turn the pump rotor clockwise. Doing so may detach the outlet tube from the valve body, resulting in the spillage of fluid that is in the valve set.

10. Remove the outlet tube from the channels near the pump rotor. Turn the pump rotor counterclockwise for access to the outlet tube.
11. Remove the calibration bag.
  - a. Remove the bag's fill port from the load cell's fill port holder.
  - b. Remove the bag from the load cell.
12. Discard the valve set and the attached calibration bag.

**Tip!** Baxa Corporation recommends cleaning the compounder before installing a new valve set. Refer to Cleaning the Compounder on Page 100, and follow your facility's protocol.

## Installing the New Valve Set



### CAUTION

If the valve set is not installed correctly, the compounder cannot be calibrated accurately.

1. Check that the valve actuators are not broken or damaged.



*Valve actuators*



*Normal*



*Damaged*



*Broken*



### WARNING

Do not use the compounder if a valve actuator is broken or damaged. Patient harm may result. For assistance, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

2. Using aseptic technique, remove the valve set from the packaging.
3. Check that all the slots on the bottom of the valve set are aligned.



*Checking that the slots are aligned*

4. Place the valve set onto the valve actuators.
5. Gently push the end tabs down and out until you hear a click on each end.



*Installing the valve set*

**NOTE:** The appearance of the valve set may differ from the example shown above.

6. Make sure that the valve set is installed securely by pulling up on both ends gently.



### CAUTION

Once the valve set has been installed, do not attempt to remove it during operation.

7. Open the pump door.



### WARNING

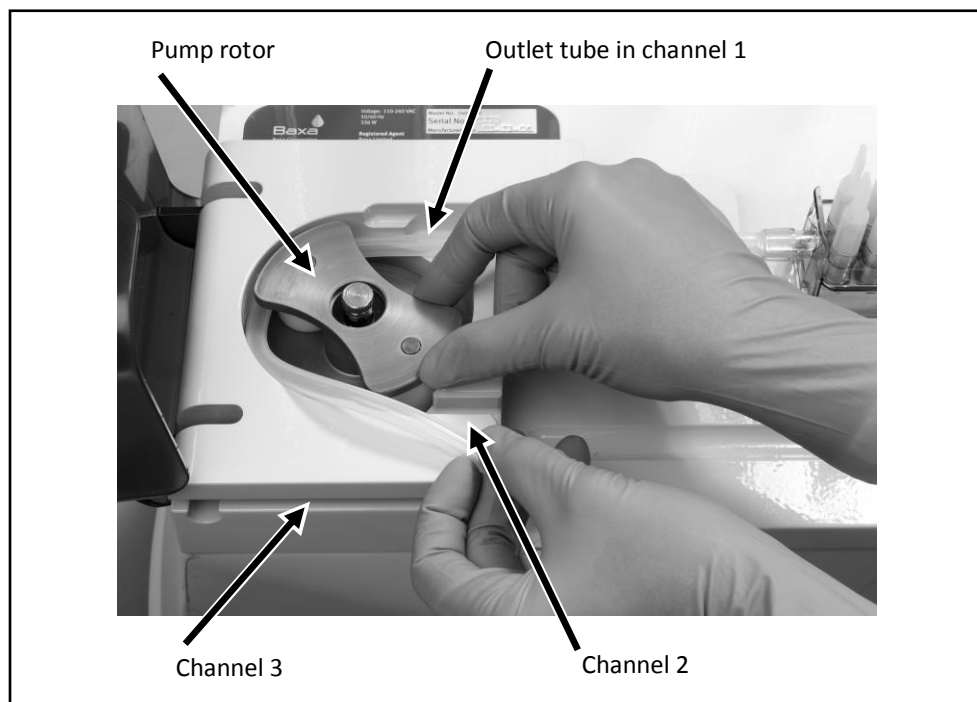
To avoid pinching your fingers, grasp the pump rotor from the top and rotate it counterclockwise, keeping your fingers away from other surfaces while moving the rotor.



### CAUTION

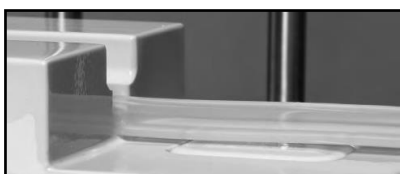
Do not pull or stretch the outlet tube.

8. Route the outlet tube into channel 1, around the pump rotor and into channels 2 and 3 as shown. Move the pump rotor counterclockwise only.

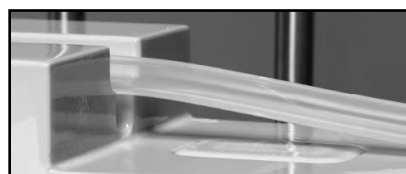


*Routing the outlet tube*

- a. Make sure that the tube is in correct position at the bottom of channels 1 and 2.



*Correct position*



*Incorrect position*

- b. Make sure that the tube is in correct position against the wall around the pump rotor.



*Correct position*



*Incorrect position*



9. Close the pump door.
10. Connect the end of the outlet tube to the tube holder on the vial rack.



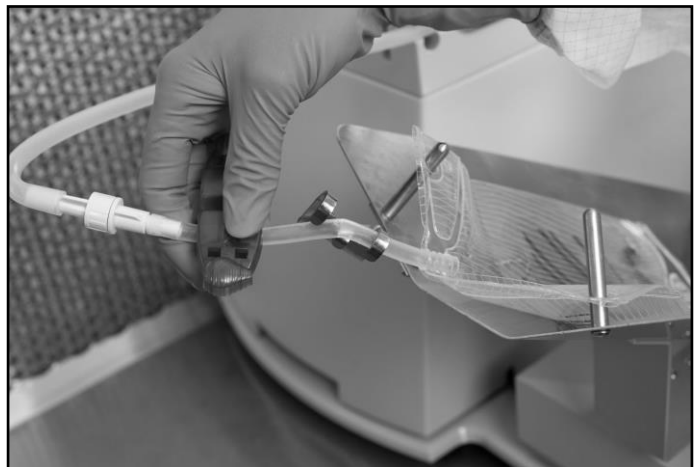
*Connecting the outlet tube*

### **Attaching and Removing the Calibration Bag**

Attach and remove the calibration bag when other procedures direct you to do so.

To attach the calibration bag, always use aseptic technique and:

1. Connect a sterile calibration bag to the outlet tube.  
**Tip!** Baxa Corporation recommends connecting the bag to the outlet tube before attaching it to the load cell, to prevent twisting or straining the tube.
2. Attach the bag to the load cell. Place the holes in the corners of the bag over the guide pins on the load cell.
3. Route the bag's fill port through the load cell's fill port holder.
4. Make sure the outlet tube is curved, not twisted or kinked.



*Attaching the calibration bag to the outlet tube and the load cell*

To remove the calibration bag, always use aseptic technique and:

1. Remove the bag's fill port from the load cell's fill port holder.
2. Remove the bag from the load cell.
3. Disconnect the outlet tube from the bag, to allow fluid in the bag's fill port to drain into the bag.

**NOTE:** If the bag is not full, you may keep it in the hood to use for subsequent flushes. If the bag will be used again, do not clamp its fill port or discard it.

4. If the bag will not be used again, clamp its fill port.
5. Connect the end of the outlet tube to the tube holder on the vial rack.
6. Cap the bag's fill port.
7. Discard the bag.

### Preparing the New Ingredients



#### **WARNING**

The compounder is not for use with non-sterile containers.

---

Source containers that can be used with the compounder are:

- Bags
- Bottles, vented or non-vented (500 mL or larger)
- Vials (10–250 mL)
- Luer syringes (60 mL only)

If you plan to use a different syringe size, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

1. Gather all the new ingredients.

**Tip!** Baxa Corporation recommends using the Authorization Report to quickly identify the ingredients needed for a specific configuration. Refer to [Authorization Report](#) on Page 159.

2. Check that each source container has a barcode label attached.

**Tip!** Baxa Corporation strongly recommends using the manufacturer's barcode labels whenever possible.

3. If a container that was filled or diluted in the pharmacy does not have a barcode label:
  - a. Print the appropriate label. Refer to [Product Bar Codes Report](#) on Page 168.
  - b. Apply the label.

**NOTE:** To minimize curvature of the barcode, the preferred application is vertical; however, labels may be applied horizontally to bags and large bottles.

**Tip!** When all containers are labeled, Baxa Corporation recommends that a pharmacist perform a final verification.

4. If desired, a pharmacist does the following steps:
  - a. Perform a final check of each container.
  - b. Initial each label to show that it was checked and found to be correctly applied.

## Attaching the New Ingredients and Inlets

Always use aseptic technique when attaching the ingredients and inlets.

Follow all the steps of this process for one ingredient and inlet pair before continuing with the next pair. This practice helps to ensure that you attach the ingredients and inlets correctly.

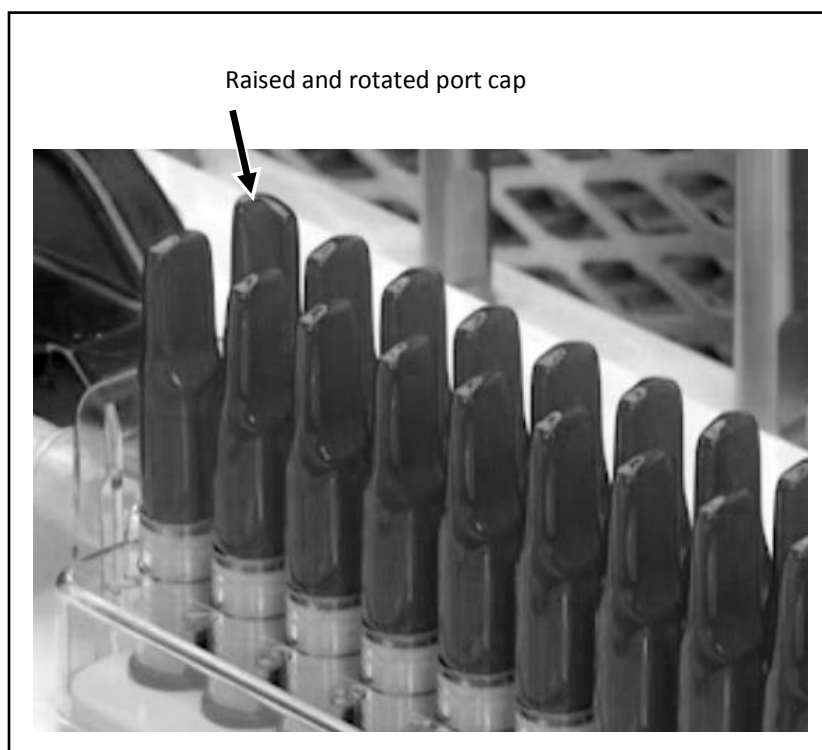
**Tip!** To keep track of the steps, Baxa Corporation recommends working from left to right in the sequence of the port numbers (1, 2, 3 and so on). You might find it helpful to remember the main steps of this process (covered in more detail on the upcoming pages) by remembering the term ITASHL, which signifies:

1. **Identify** the port where you will attach the ingredient.
2. **Touch** the ingredient button for this port on the screen.
3. **Attach** the inlet to the identified port on the valve set.
4. **Spike** the source container.
5. **Hang** the source container.
6. **Label** the inlet with the numbered barcode label.

To attach an ingredient:

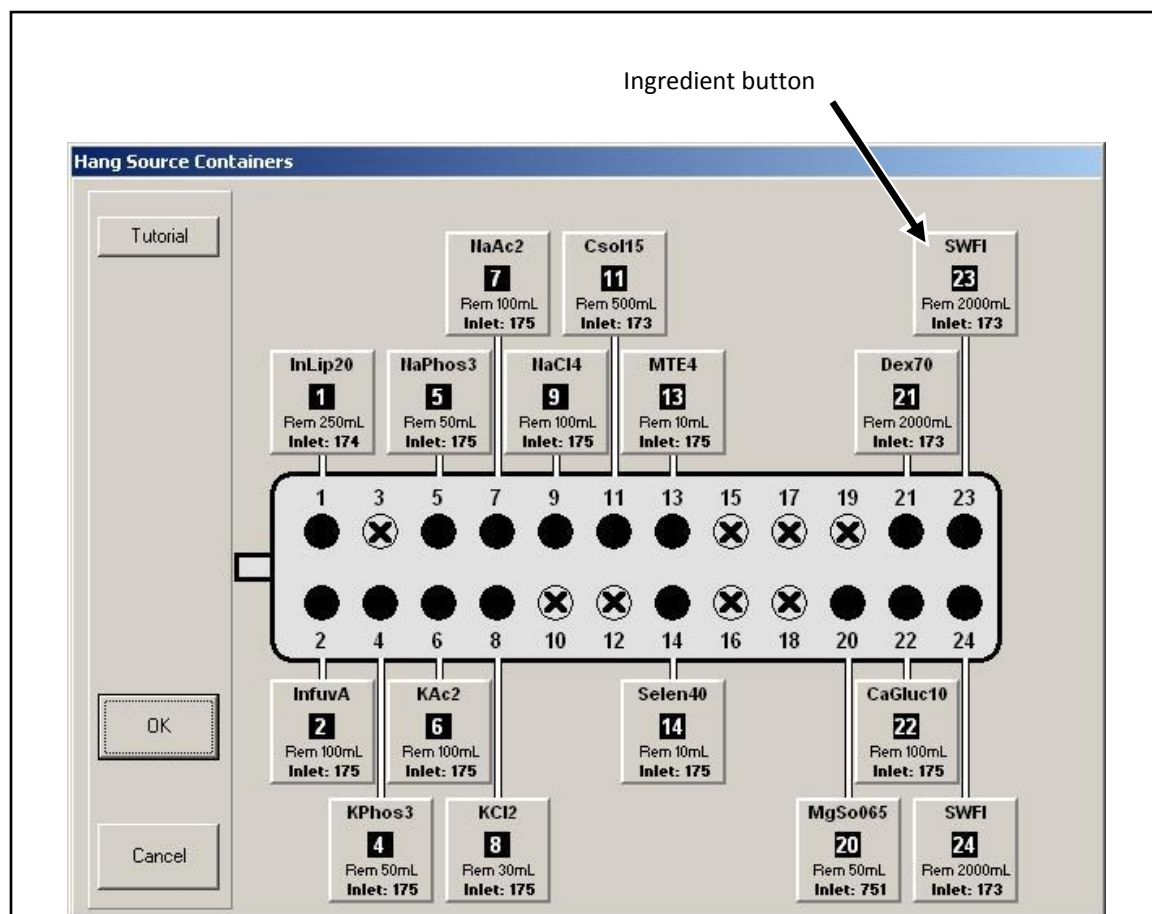
1. **Identify** the port where you will attach the ingredient.
  - a. At the *Hang Source Containers* screen, identify the port number.
  - b. On the valve set, identify the port number specified on the screen.

**Tip!** To locate an odd-numbered port, Baxa Corporation recommends locating the next, even-numbered port in the front row. For example, to locate port 1, look for port 2 in the front row and then look for port 1 directly behind it. Avoid leaning over the compounder.
  - c. Raise and rotate the cap over this port 90 degrees, to distinguish it from the other ports.



*Raised and rotated port cap*

2. **Touch** the ingredient button for this port on the screen.



*Hang Source Containers screen, no ingredients attached*

The ingredient detail window appears.

**IMPORTANT!** Always view the ingredient detail window. It includes details not visible on the ingredient button. For example, it includes the full product description, which you must check.

**Port 23**

Product: **Baxter Sterile Water for In 2000 Bag**

Inlet: **Non-Vented, Macro Inlet**

Part #: **173**

Remainder (mL): **2000**

Lot Number: **12345**

Expiration: **12/31/2014**

☐ Use Last Container

OK Cancel

*Ingredient detail window*

At the ingredient detail window, review the following information:

- Check that the **Port** number is correct.
- Check that the **Product** description matches the source container to be used.
- **NOTE:** If desired, you can touch the arrow to the right of this field to see a list of similar products in the same ingredient group. If you select another product in this list, the **Inlet** type and **Part #** may change accordingly.
- Check that the **Inlet** type and **Part #** are correct.
- **NOTE:** The **Part #** shows the last three digits of the complete part number. For a list of complete part numbers, refer to [Inlets](#) on Page 15. The complete part number also appears on the packaging materials for the inlet.
- Check that the **Remainder (mL)** matches the current volume of the source container.
- **NOTE:** When you attach a full, unopened container, the **Remainder (mL)** should equal the volume indicated on the container. When you attach a partially full container, change the **Remainder (mL)** to the actual volume in the container. The compounder will use this information to help track the volume used, to alert you when the container needs to be changed.
- If required, enter or check the **Lot Number** and the **Expiration**.
- **NOTE:** To set up these tracking options, refer to [Track Product Expiration Date and Lot Number](#) on Page 113.

3. **Attach** the inlet to the identified port on the valve set.



### WARNING

It is important to use the correct inlet type for the container. Using the incorrect inlet type can lead to occlusions and incorrect ingredient delivery, resulting in patient harm.

- Locate the inlet type specified in the ingredient detail window. Refer to [Inlets](#) on Page 15.
- Remove the inlet from its packaging materials and gently uncurl it. Do not pull or stretch the inlet.



### WARNING

A kink that causes an occlusion in the inlet can cause the delivery of incorrect ingredient volumes, resulting in patient harm.

- Check that the inlet is not kinked.
  - On the valve set, locate the port number specified at the ingredient detail window.
  - Grasp the port cap with one hand, remove the port cap and immediately attach the inlet with your other hand.
4. **Spike** the source container.



### CAUTION

The pictures and instructions on the following pages are for reference only. Use correct technique as identified by your facility's protocol.

- To spike a bag:

**NOTE:** To prevent dropping the bag, you can hang it on the hood hanger.

- Turn the bag with its spike port facing down.
- Remove the cap from the spike end of the inlet.



*Turning*



### WARNING

Failure to insert the spike completely into the bag port may restrict flow and cause the delivery of incorrect ingredient volumes, resulting in patient harm.



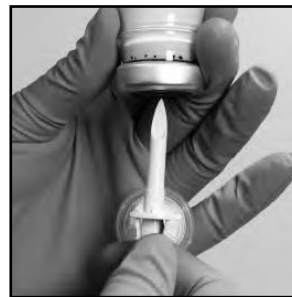
*Inserting*

- Insert the spike fully into the bag.
- Rotate the spike 180° to prevent occlusions.

- To spike a bottle:

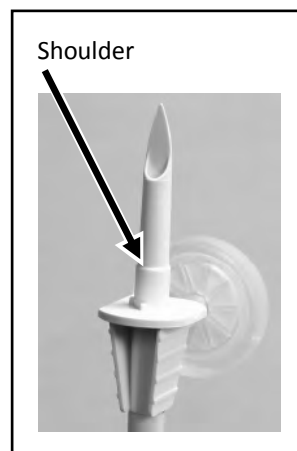
**NOTE:** To prevent dropping the bottle, you can hang it on the hood hanger.

- a. Turn the bottle with its septum facing down.
- b. Remove the cap from the spike end of the inlet.



*Turning*

- c. Locate the shoulder of the spike.



*Shoulder*

- d. Insert the spike fully into the bottle, up to the shoulder of the spike.

**NOTE:** Inserting the spike up to the shoulder helps ensure that the maximum amount of fluid and the minimum amount of air is withdrawn from the bottle.



*Inserting*



- To spike a vial:
  - a. Turn the vial with its septum facing down.
  - b. Remove the cap from the spike end of the inlet.

*Turning*

- c. Insert the spike fully into the vial.

*Inserting*

- To attach a syringe:
  - a. Turn the syringe with its Luer end facing down.
  - b. Remove the cap from the end of the inlet.
  - c. Rotate the inlet onto the syringe.

*Rotating*

5. **Hang** the source container.



**CAUTION**

The pictures and instructions on the following pages are for reference only. Use correct technique as identified by your facility's protocol.

---

- To hang a bag, hang it on the hood hanger.
- To hang a bottle, hang it on the hood hanger.



*Hanging a bottle*

- To hang a vial:
  - a. Push the bottom of the vial (now facing up) against the top holder. Make sure that the vent faces you.

**NOTE:** If the vent faces away from you (into the bottom vial holder), the vial will not be seated securely.

  - b. Slide the spiked end of the vial into the bottom vial holder



*Hanging a vial*

- To hang a syringe, hang it on the vial rack by snapping the syringe flanges into the syringe holder.



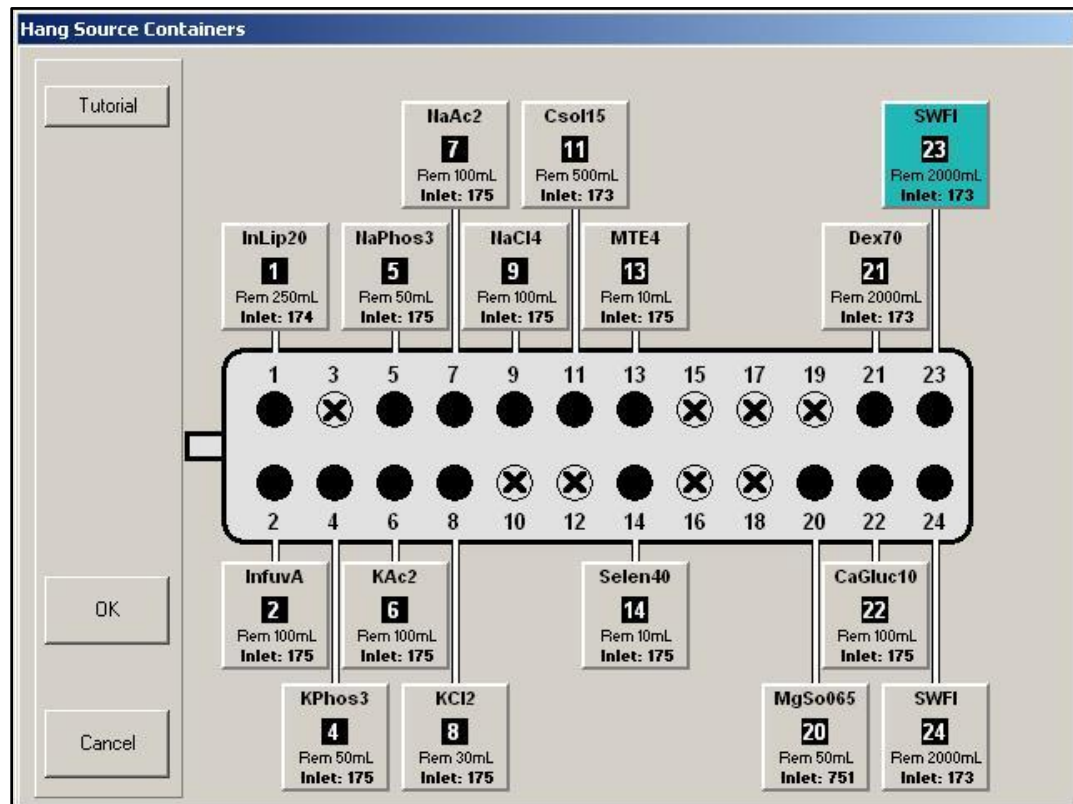
*Hanging a syringe*

6. **Label** the inlet with the appropriately numbered barcode label that was packaged with the valve set. Attach the label close to the source container. The number on the label must match the number of the port to which the inlet is attached.
7. Check each inlet to make sure that it is:
  - a. Not kinked
  - b. Attached to the correct ingredient and port
  - c. Labeled with the correct barcode label

**Tip!** Baxa Corporation recommends rotating the source container so that the barcode label faces you, for easy scanning during barcode verification.

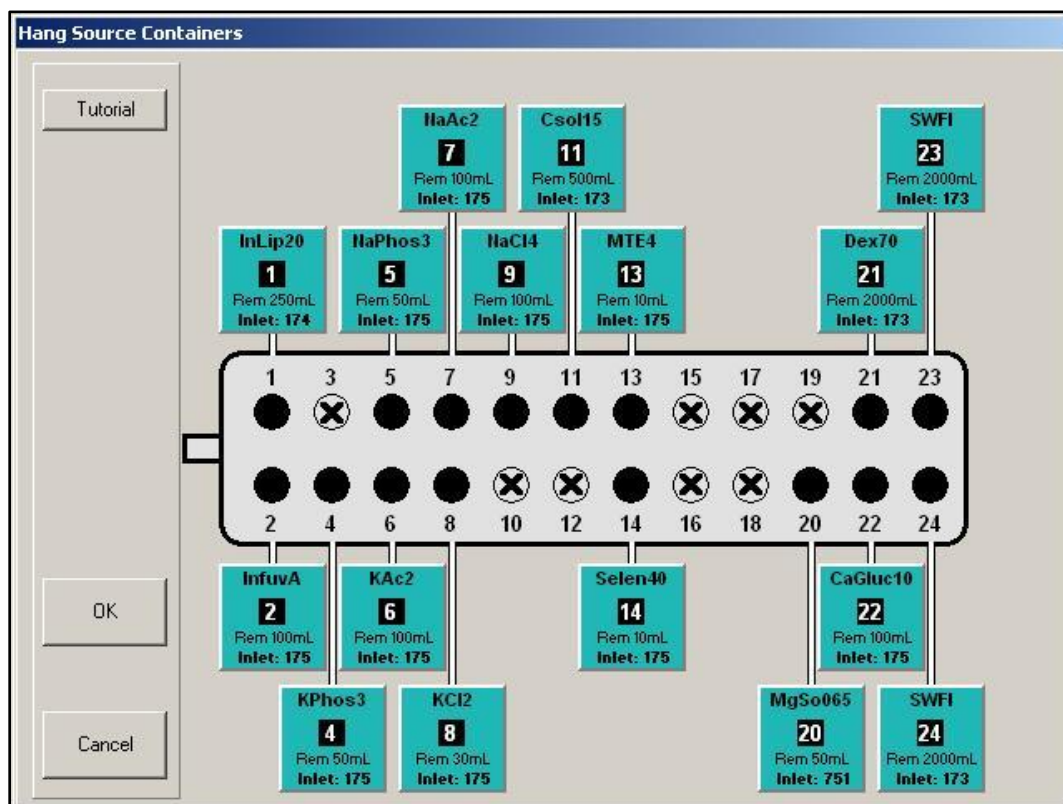
8. At the ingredient detail window, touch **OK**.

At the *Hang Source Containers* screen, the color of the ingredient button becomes teal to indicate that the ingredient is attached and waiting to be primed.



*Hang Source Containers screen, one ingredient attached*

9. Repeat the previous steps for all the ingredients you want to attach.  
When all the ingredient buttons are teal, you are finished changing the tube set.
10. Touch **OK**.



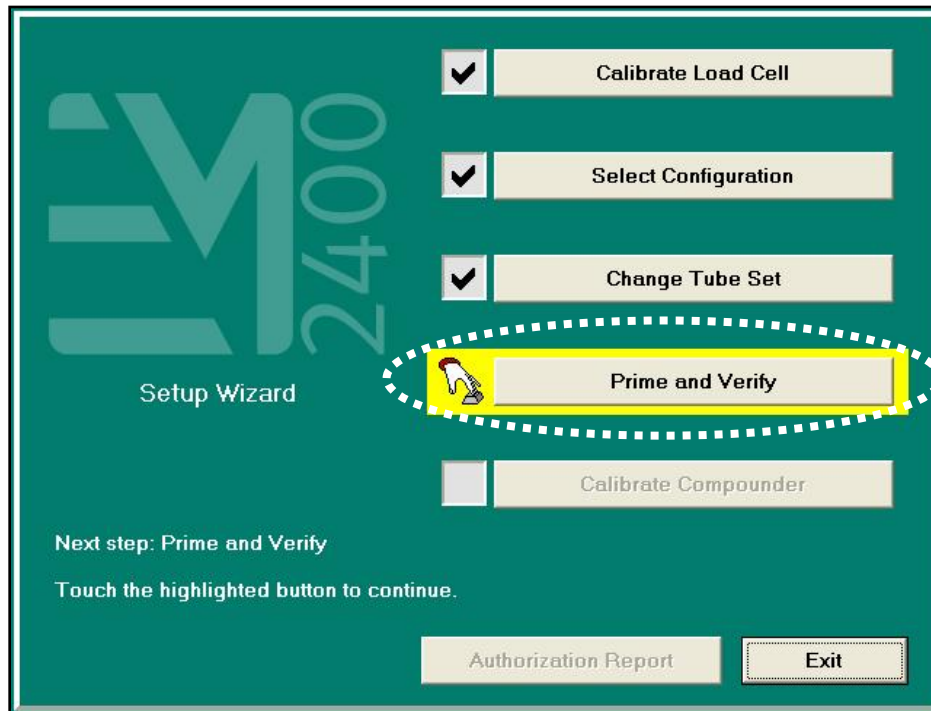
*Hang Source Containers screen, all ingredients attached*

If you started this procedure from the *Setup Wizard* screen, a check mark now appears next to **Change Tube Set** at the *Setup Wizard* screen.

## PRIMING AND VERIFYING

After the ingredients and inlets are attached, they must be primed and verified. This process includes scanning the barcodes on each container and inlet, priming the inlets and verifying the setup.

1. At the *Setup Wizard* screen, touch **Prime and Verify**.



*Setup Wizard screen, priming and verifying*

**NOTE:** To prime and verify without using the Setup Wizard, you can touch **Compound > Prime and Verify** at the menu screen.



### WARNING

It is important to use a barcode reader for scanning barcode labels on source containers and inlets during verification of the setup.

2. If your facility:
  - Uses barcode verification, continue with Verifying the Ingredient and Inlet Barcodes on Page 56
  - Does not use barcode verification, skip to Priming the Inlets and Verifying the Setup on Page 59

## Verifying the Ingredient and Inlet Barcodes



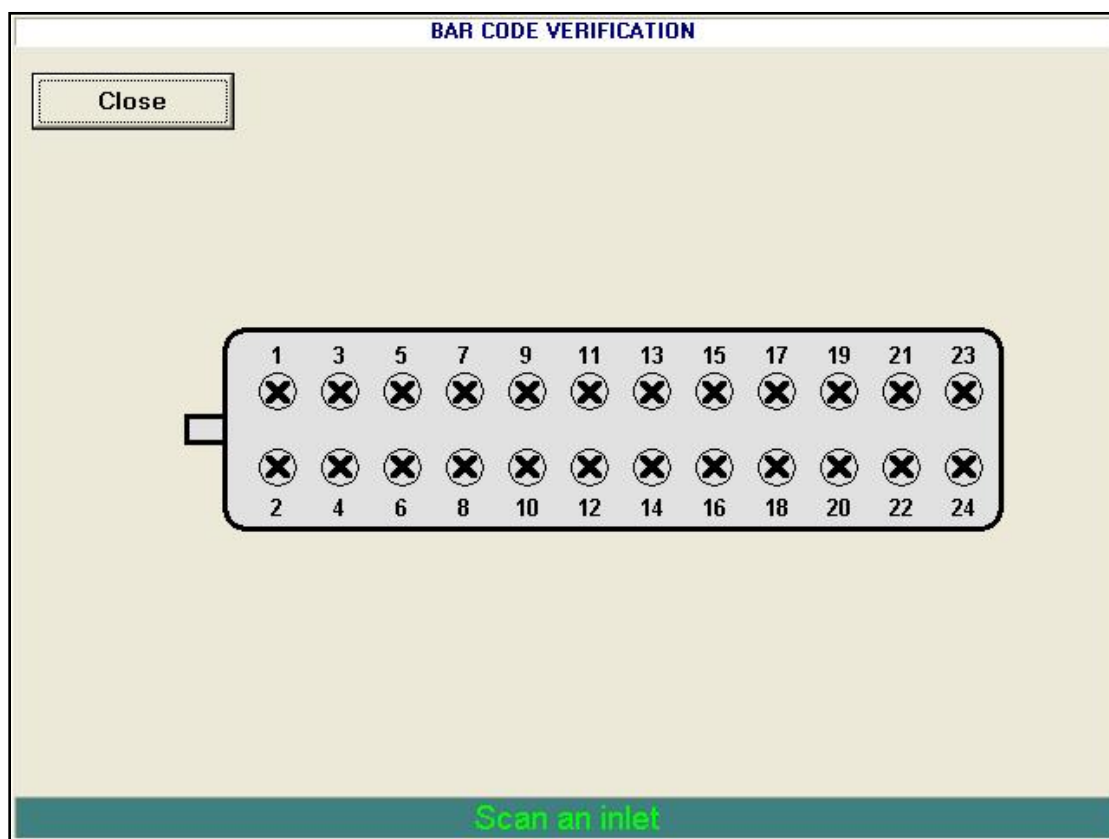
### WARNING

For the barcode verification to be effective, it is critical that the configuration be set up correctly. For instructions, refer to [Attaching the New Ingredients and Inlets](#) on Page 45.

**IMPORTANT!** This procedure requires barcode scanning to be enabled. To enable (and, if desired, to require) barcode scanning for verification, refer to [Bar Code Reader](#) on Page 118.

**Tip!** Baxa Corporation recommends enabling barcode scanning at all times.

On the *BAR CODE VERIFICATION* screen, the ports appear empty until the barcodes on the attached inlets and source containers are scanned.



*BAR CODE VERIFICATION screen, no barcodes verified*

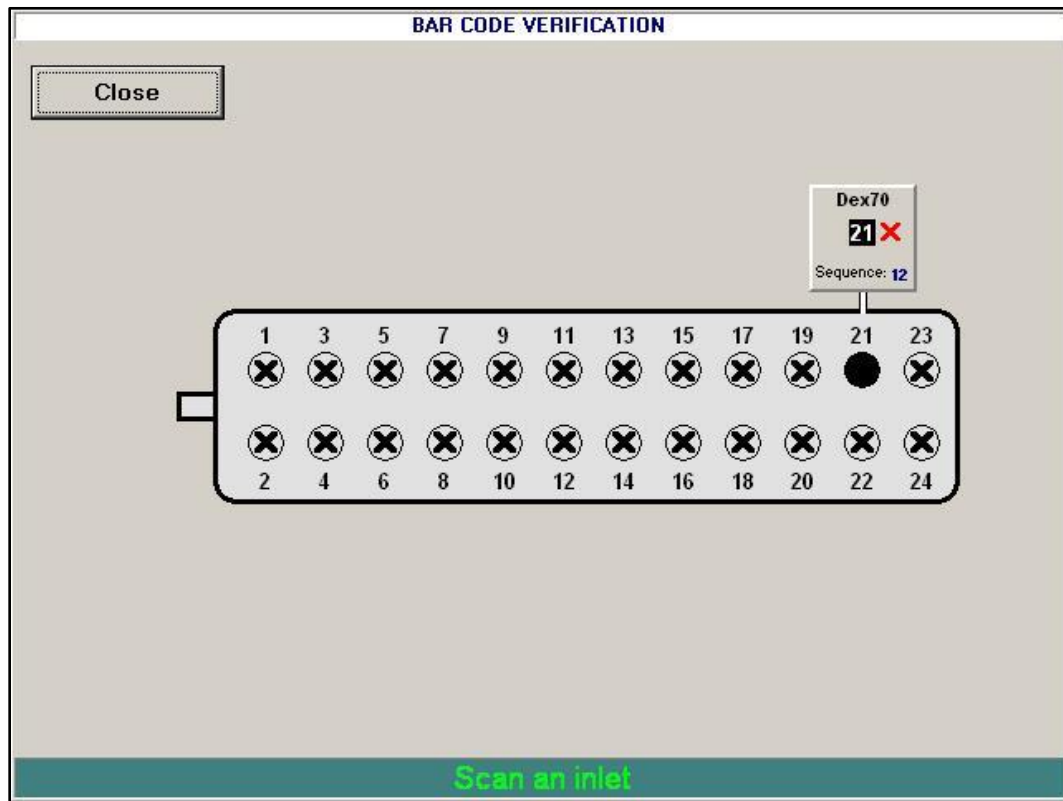
**WARNING**

Scan only the barcodes attached to the inlet and the corresponding source container. *Do not scan unattached barcodes or old (used) containers.* Doing so may result in incorrect ingredient delivery, resulting in patient harm.

**Tip!** Baxa Corporation strongly recommends scanning from left to right (or from right to left) to prevent skipping any ports.

1. Scan the barcode label on an inlet.
2. Scan the barcode label on the corresponding source container.

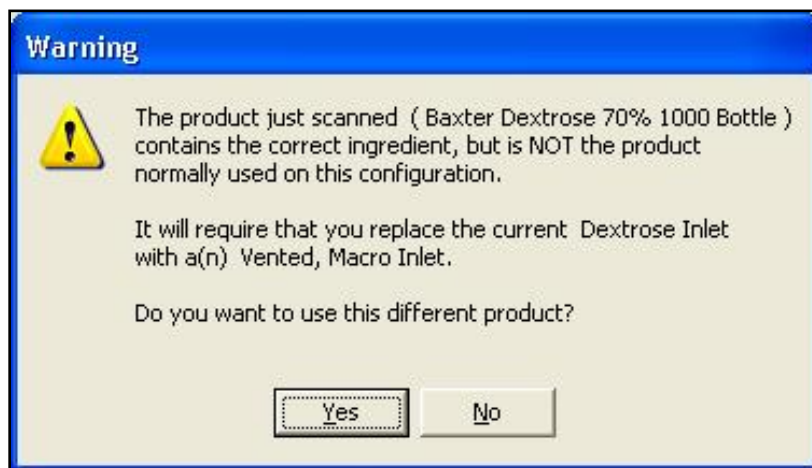
If you scanned the correct source container, the corresponding ingredient button appears on the screen.



*BAR CODE VERIFICATION screen*

If you scanned an incorrect source container, the compounder beeps and displays **Incorrect scan, try again** at the bottom of the screen. Confirm that the setup is correct and then scan the correct source container.

If the scanned product is not the specific product identified in the configuration but is the same ingredient, a *Warning* message appears. If the inlet must be changed, the message includes this instruction. Touch **Yes** if you want to use the scanned product.



*Message*

3. Repeat the previous steps until an ingredient button appears for each attached ingredient.
4. At the *Bar code verification completed* message, touch **OK**.



*Message*



## Priming the Inlets and Verifying the Setup

Usually, a cosigner must log in and verify the setup. Refer to your facility's protocol.



### WARNING

It is important to have a cosigner independently verify the setup, to help ensure that the first user attached each ingredient's inlet to the correct port. Incorrect setup may result in patient harm.

**IMPORTANT!** The cosignature option requires Verification permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121. To require that a cosigner verify the setup, refer to [Cosignature](#) on Page 118.

1. Attach a calibration bag. Refer to [Attaching and Removing the Calibration Bag](#) on Page 43.
2. If the *Cosignature required* message appears, the cosigner should:
  - a. Touch **OK**.



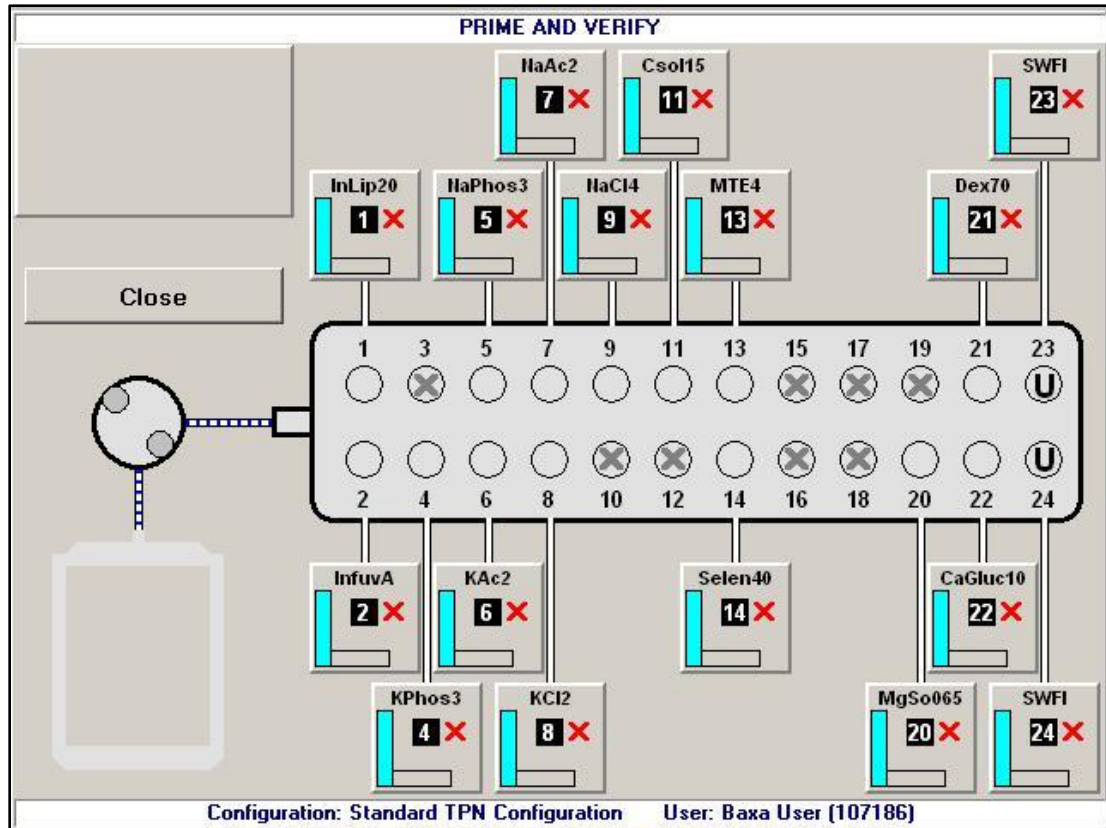
*Message*

- b. Enter a **Login** name.
- c. Enter a **Password**.
- d. Touch **Log In**, then continue with the next steps.



*Cosignature window*

When an X appears on the ingredient button, it indicates that verification is needed.



*PRIME AND VERIFY screen, no inlets primed*

### WARNING



Do not prime calcium and phosphate ingredients consecutively. Interaction of these ingredients can cause a precipitate in the finished solution.

If the configuration includes a lipid, you should prime the Universal Ingredient (UI) immediately after priming the lipid.

Always follow the configuration setup that Baxa Corporation recommends.

**Tip!** Baxa Corporation recommends physically rotating each source container so that its product label faces you, for easy verification.

3. Touch an ingredient button.

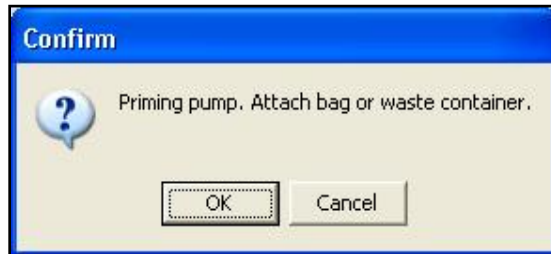
The ingredient detail window appears.

Baxter Sterile Water for In 2000 Bag	
Port Number	23
Ingredient	Sterile Water for In
Sequence Number	14
Drug ID	0338-0013-06
Container Size (mL)	<input type="text" value="2000.00"/>
Spec. Gravity	<input type="text" value="1.00"/>
Remainder (mL)	<input type="text" value="2000.00"/>
Spike Type	Non-Vented, Macro Inlet
Time Spiked	12/19/2013 2:59:13 PM
Lot Number	<input type="text" value="12345"/>
Expiration	<input type="text" value="12/31/2014"/>
<input type="button" value="Prime"/> <input type="button" value="Close"/>	

*Ingredient detail window before priming*

4. At the ingredient detail window, review the information.
  - a. Check that the product information in the title bar of the window is correct.
  - b. Check that the **Port Number** is correct.
  - c. Check that the **Ingredient** description matches the source container to be used.
  - d. Check that the **Remainder (mL)** matches the current volume of the source container to be used.
  - e. Check that the **Spike Type** (inlet type) is correct.
5. On the valve set, locate the port for this ingredient.
6. With your hand, hold the inlet that is attached to the port, and follow the inlet up to the source container.

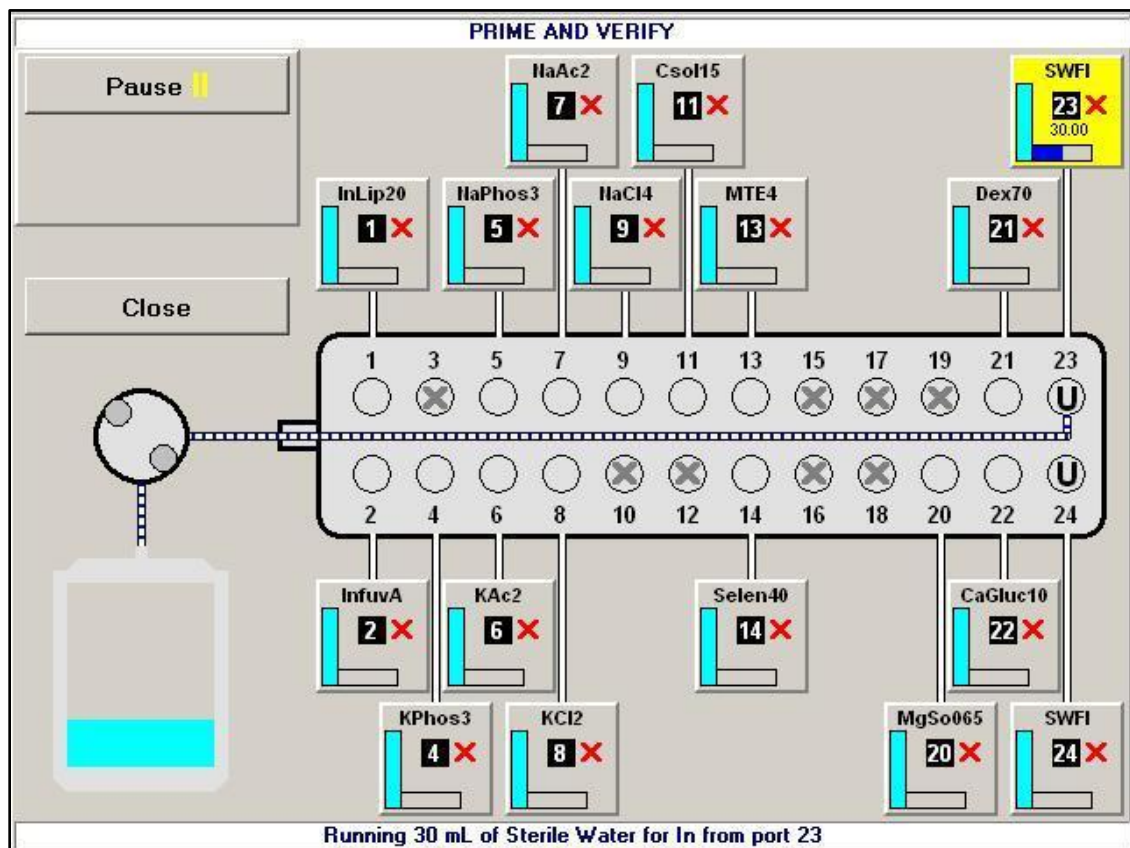
7. While continuing to hold the inlet near the source container:
  - a. Check that the number on the inlet label matches the port number.
  - b. Check that the product attached to the inlet matches the information on the screen.
  - c. At the ingredient detail window, touch **Prime**.
  - d. Check that a calibration bag is attached.
  - e. At the *Priming pump* message, touch **OK**.



*Message*

- f. Watch for fluid moving through the source-container end of the inlet that is in your hand.

When an ingredient is being primed, its button becomes yellow. The screen displays an animation of the process.



*PRIME AND VERIFY screen, priming in progress*

**WARNING**

The ingredient must be attached to the correct port. Patient harm can occur if the location of an ingredient is incorrect. Always watch for the fluid to flow through the source-container end of the inlet.

8. If the fluid:

- Does flow through the inlet that is in your hand, continue with the next step
- Does not flow through the inlet that is in your hand, resolve any problems, check that the inlet is attached to the correct port and prime it again

After the inlet has been primed, the ingredient detail window includes a **Verify** button, and the **Prime** button becomes a **Re-Prime** button.

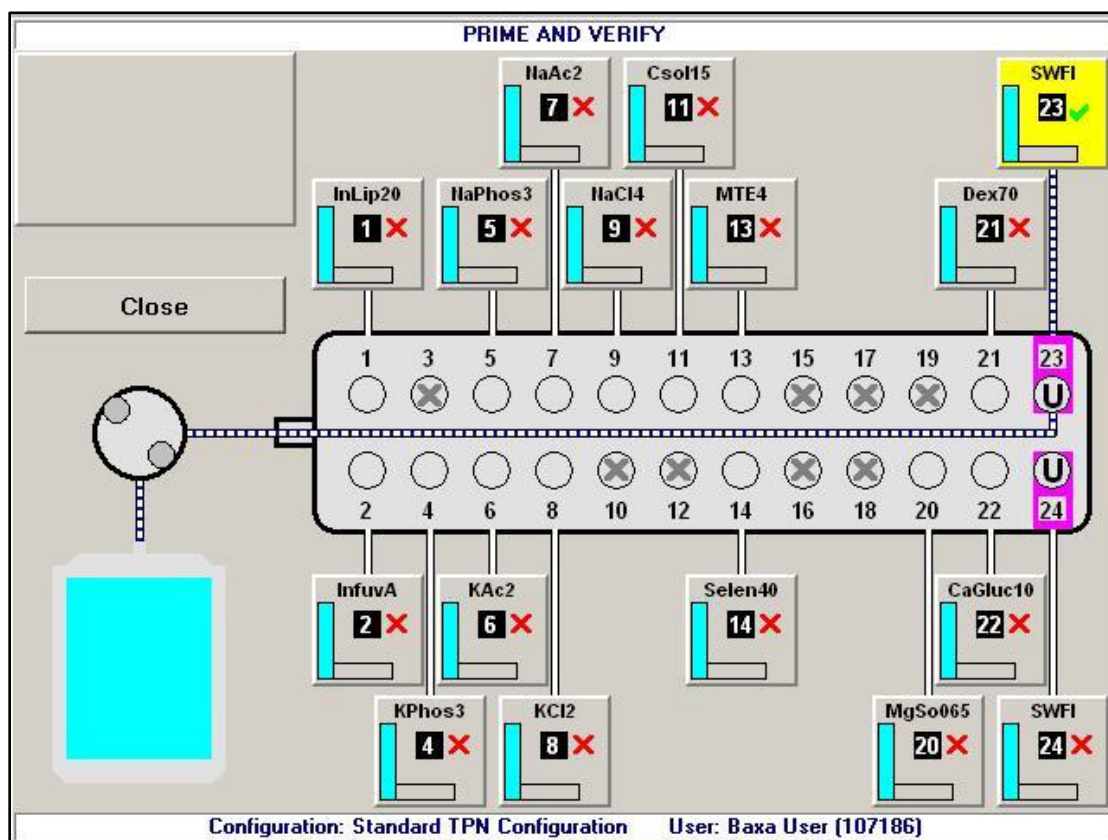
Baxter Sterile Water for In 2000 Bag	
Port Number	23
Ingredient	Sterile Water for In
Sequence Number	14
Drug ID	0338-0013-06
Container Size (mL)	2000.00
Spec. Gravity	1.00
Remainder (mL)	1940.00
Spike Type	Non-Vented, Macro Inlet
Time Spiked	12/19/2013 2:59:13 PM
Lot Number	12345
Expiration	12/31/2014
<div> <div>Re-Prime</div> <div>Verify</div> <div>Close</div> </div>	

*Ingredient detail window after priming*

**NOTE:** The first prime uses the standard priming volume. Any subsequent primes use the minimum priming volume.

9. Check the inlet to be sure that it primed correctly, leaving no air in the inlet tube. If necessary, touch **Re-Prime**.
10. When priming is finished:
  - a. Release the tube from your hand.
  - b. Touch **Verify** to confirm that the ingredient's inlet is attached to the correct port.

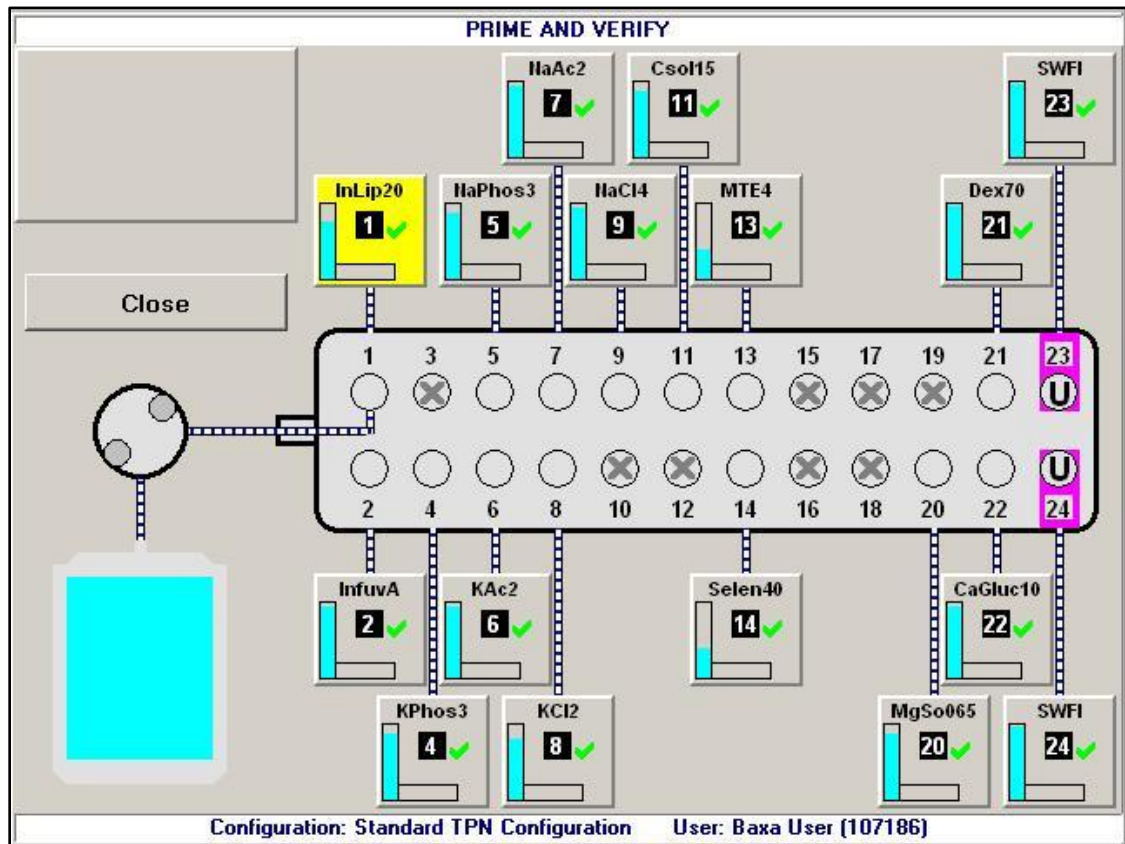
The connecting lines between the ingredient button and the port include horizontal marks, indicating that the ingredient has been primed. On the ingredient button, the red X becomes a green check mark, indicating that the ingredient has been verified.



*PRIME AND VERIFY screen, one inlet primed and verified*



11. Repeat steps 3–10 for all the attached ingredients. If the calibration bag becomes full, remove it and attach an empty calibration bag. Refer to [Attaching and Removing the Calibration Bag](#) on Page 43.
12. When you are finished, touch **Close**.



*PRIME AND VERIFY screen, all inlets primed and verified*

The software prompts you to flush with the Universal Ingredient (UI) to flush all ingredients out of the common fluid pathway and into the calibration bag.

13. At the *Fluid path will be flushed with UI* message, touch **OK**.



*Message*

The compounder flushes the common fluid pathway with the Universal Ingredient (UI), and tests for correct function of the occlusion detector. If the test fails, you cannot continue compounding a solution. Refer to [Issues with the Occlusion Detector / “Flow Sensor”](#) on Page 192.

14. At the *UI flush complete* message, touch **OK**.



*Message*

If a cosigner was logged in, the software automatically logs out the cosigner and logs in the original user.

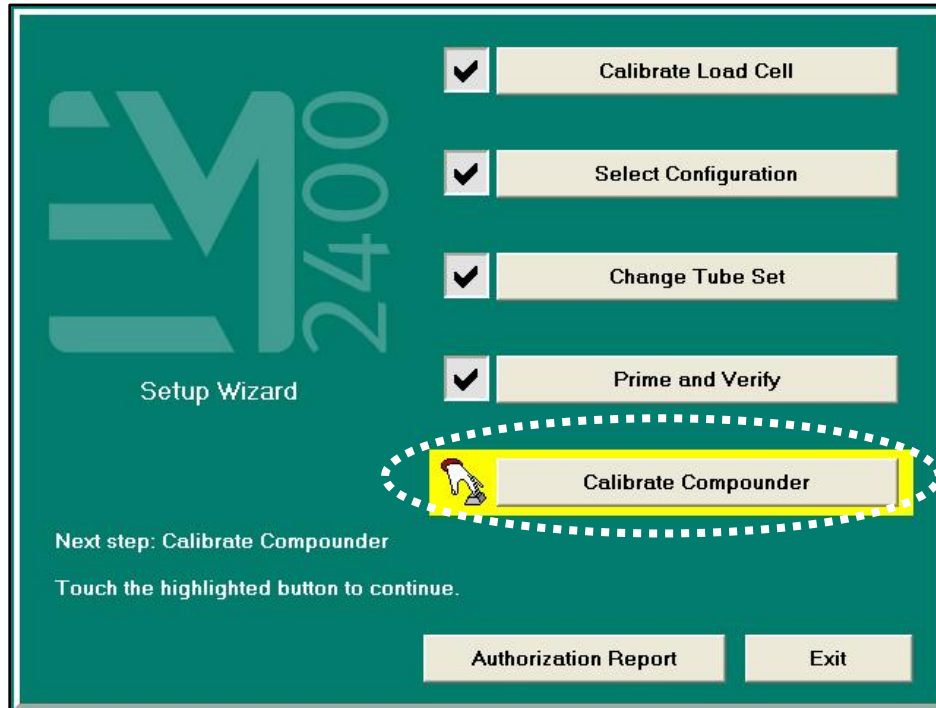
If you started this procedure from the *Setup Wizard* screen, a check mark now appears next to **Prime and Verify** at the *Setup Wizard* screen.



## CALIBRATING THE COMPOUNDER

This procedure calibrates the compounder's pump to ensure that it delivers the intended volume of each ingredient.

1. At the *Setup Wizard* screen, touch **Calibrate Compounder**.



*Setup Wizard screen, calibrating the compounder*

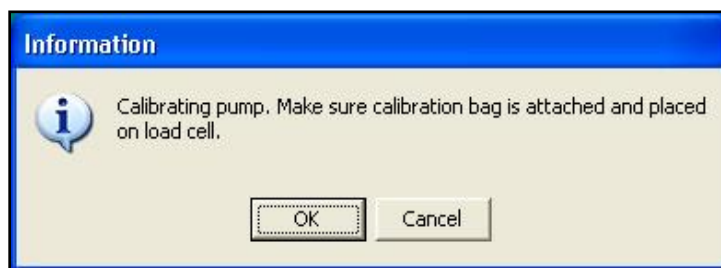
**NOTE:** You can calibrate the compounder at any time by touching **Compound > Calibrate Pump** at the menu screen.



### WARNING

To avoid using the wrong bag on a patient, a calibration bag should be used during all priming/verifying and Universal Ingredient (UI) flushes.

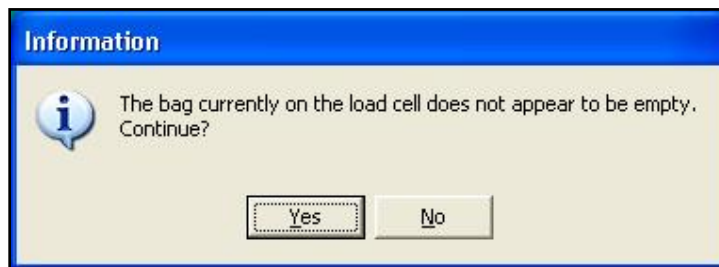
2. If a calibration bag is not already attached, attach it. Refer to [Attaching and Removing the Calibration Bag](#) on Page 43.
3. At the *Calibrating pump* message, touch **OK**.



*Message*

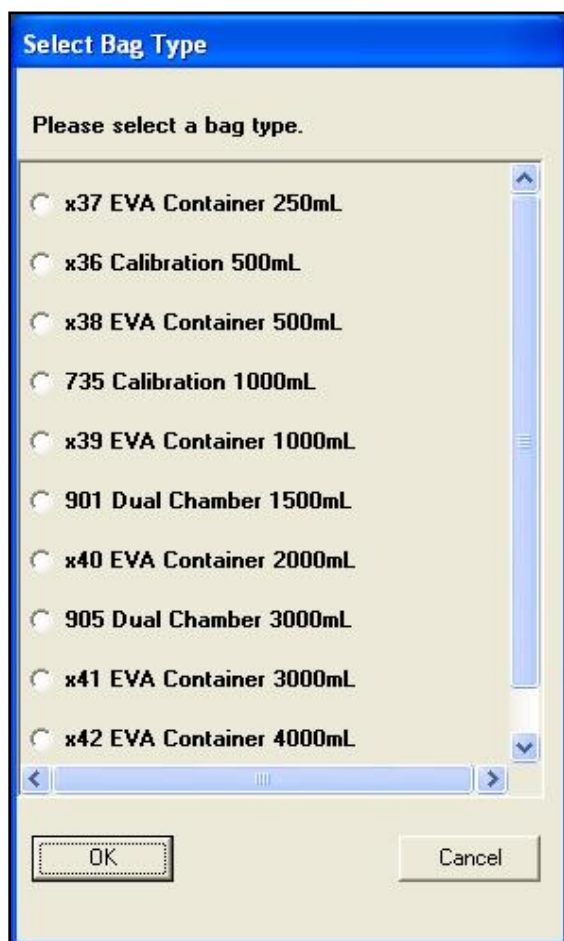
4. If the *Bag currently on the load cell does not appear to be empty* message appears, visually check the contents of the bag.
  - If the bag is empty, refer to Page 191.
  - If the bag contains fluid, continue with the next step.
5. Check whether the bag has space for an additional 200 mL of fluid.
  - If the bag does not have space:
    - a. Touch **No**.
    - b. At the *Operation Cancelled* message, touch **OK**.
    - c. Remove the calibration bag and attach an empty calibration bag. Refer to Attaching and Removing the Calibration Bag on Page 43.
    - d. Return to Step 1.
  - If the bag has space, touch **Yes**.

**IMPORTANT!** Never touch **Yes** when compounding a solution into a patient bag. It is acceptable to calibrate the pump when the calibration bag contains fluid. However, the calibration procedure is the *only* time you should touch **Yes** at this message.



*Message*

6. At the *Select Bag Type* window:
  - a. Select the type of bag you are using.
  - b. Touch **OK**.



*Select Bag Type window,  
sample North American version*



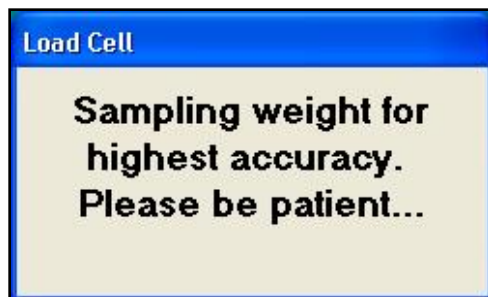
### **WARNING**

If any items except the calibration bag touch the load cell during the calibration, the calibration will not be accurate

7. Make sure that there is nothing except the calibration bag touching any part of the load cell (for example, there are no cables touching the base).

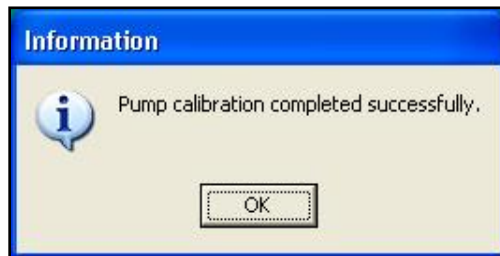
The compounder pumps 100 mL of water, checks the weight, makes any necessary adjustments to the movement of the pump rotor, pumps 100 mL again and checks the weight again. If the Universal Ingredient for the configuration is something other than water, the compounder automatically flushes the common fluid pathway with the identified Universal Ingredient.

This message appears and disappears:



*Message*

8. At the *Pump calibration completed successfully* message, touch **OK**.



*Message*

**NOTE:** If calibration fails, refer to Page 189.

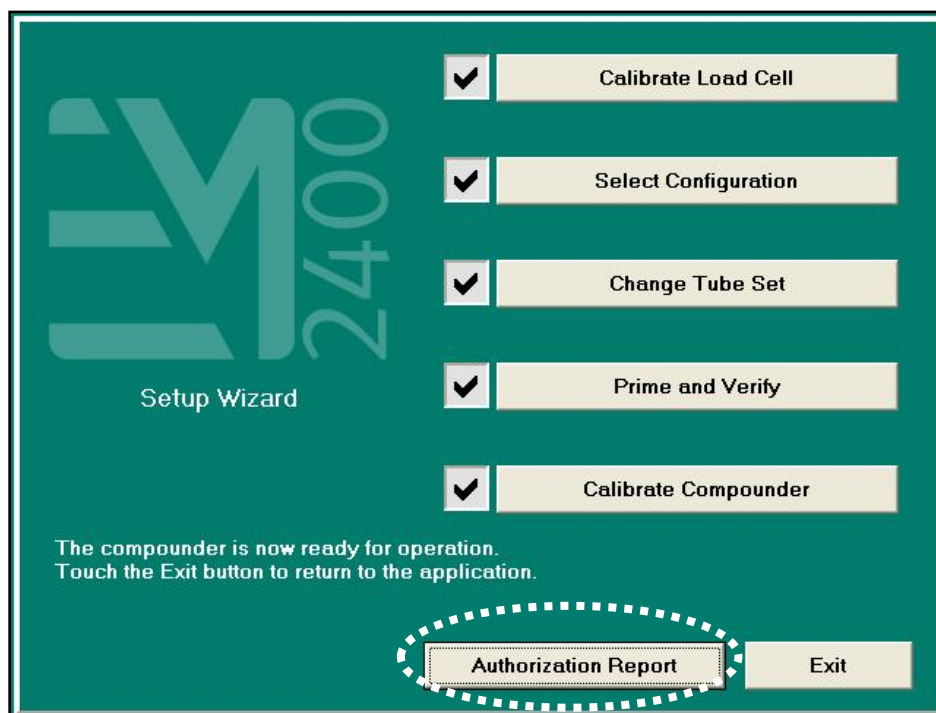
If you started this procedure from the *Setup Wizard* screen, a check mark now appears next to **Calibrate Compounder** at the *Setup Wizard* screen.

9. Remove the calibration bag. Refer to Attaching and Removing the Calibration Bag on Page 43.

## VIEWING THE AUTHORIZATION REPORT

When the setup steps are finished, the **Authorization Report** button becomes active at the *Setup Wizard* screen.

At the *Setup Wizard* screen, touch **Authorization Report**.



*Setup Wizard screen, viewing the Authorization Report*

**NOTE:** You can view the Authorization Report at any time by touching **Reports > Authorization Report** at the menu screen.

For more information, refer to [Authorization Report](#) on Page 159.

To exit the *Setup Wizard* screen, touch **Exit**.

## USING THE COMPOUNDER

### ATTACHING THE PATIENT BAG

Always use aseptic technique when attaching the bag.

**Tip!** Baxa Corporation recommends attaching a barcode label to the patient bag before attaching the bag to the outlet tube.

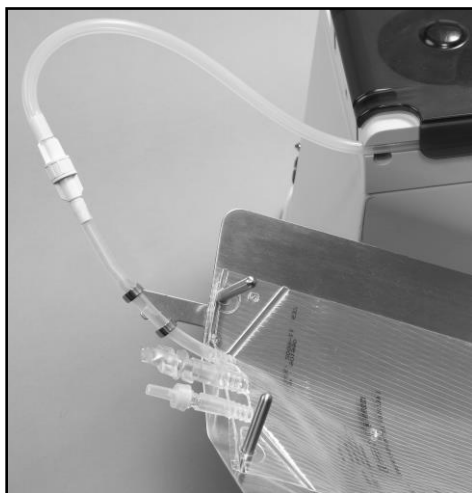
1. Connect a sterile patient bag to the outlet tube.

**Tip!** Baxa Corporation recommends connecting the bag to the outlet tube before attaching it to the load cell, to prevent twisting or straining the tube.



*Attaching the patient bag to the outlet tube*

2. Attach the bag to the load cell. Place the holes in the corners of the bag over the guide pins on the load cell.
3. Route the bag's fill port through the load cell's fill port holder.
4. Make sure the outlet tube is curved, not twisted or kinked.



*Attaching the patient bag to the load cell*

## LOADING THE FORMULA

There are several methods for loading a formula onto the compounder. They are:

- Automatically loading a formula by scanning a barcode to retrieve the .PAT file (recommended)
- Manually entering a formula through direct entry
- Manually selecting a saved formula

**Tip!** Baxa Corporation strongly recommends loading a formula by scanning a barcode, and using the manual entry or selection methods only when the barcode method fails. If the network connection to the order-entry computer fails, you can still load a formula by scanning a barcode. For instructions, refer to [Loading a Formula by Connecting a USB Drive](#) on Page 196.

**NOTE:** If you choose to require barcode scanning for loading formulas, refer to [Bar Code Reader](#) on Page 118.

### Loading a Formula by Scanning a Barcode

**Tip!** Baxa Corporation strongly recommends loading a formula by scanning a barcode.

**IMPORTANT!** This method requires:

- Order-entry software on a separate computer. This software must be able to produce both a .PAT file and a corresponding label with a barcode. Both the .PAT file and barcode must be compatible with the compounder. Baxa ABACUS Software meets these requirements. For more information, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.
- Network connection between the order-entry computer and the compounder
- Barcode reader at the compounder

In the order-entry software, the pharmacist creates an order, which creates a .PAT file that contains the patient information and the formula. A corresponding label with a barcode also prints at the same time.

At the compounder:

1. Navigate to the pump screen.



#### WARNING

Always attach the patient bag to the load cell before scanning the barcode on the label of the bag. If you scan the barcode label on one patient bag, become distracted and then attach a different patient bag to the load cell, patient harm may result.

2. Check that the patient bag is attached.
3. Scan the barcode on the label of the patient bag.

The compounder retrieves the order through the network and populates the pump screen with the formula name, formula serial number, volume of each ingredient to be pumped and total volume to be pumped.

4. Continue with [Fulfilling the Order \(Basic Process\)](#) on Page 81.

### Entering a Formula Through Direct Entry

Some facilities may use this method if the order-entry software is temporarily unavailable. With this method, you must manually enter the volume of each ingredient to create a new formula.

This process creates a formula with a unique serial number, but it does not create a .PAT file or a corresponding label with a barcode.

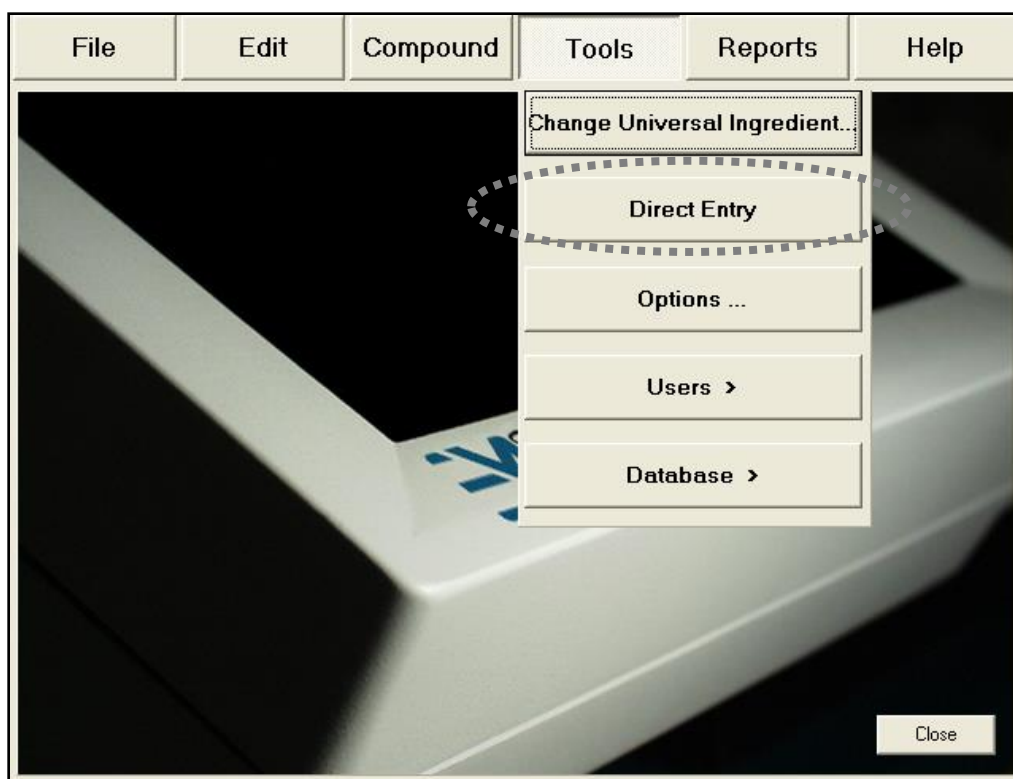


#### WARNING

Formulas entered directly into the compounder should be checked by a pharmacist. The compounder does not verify the formulas.

**IMPORTANT!** This function requires Formula Entry permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

1. At the menu screen, touch **Tools > Direct Entry**.

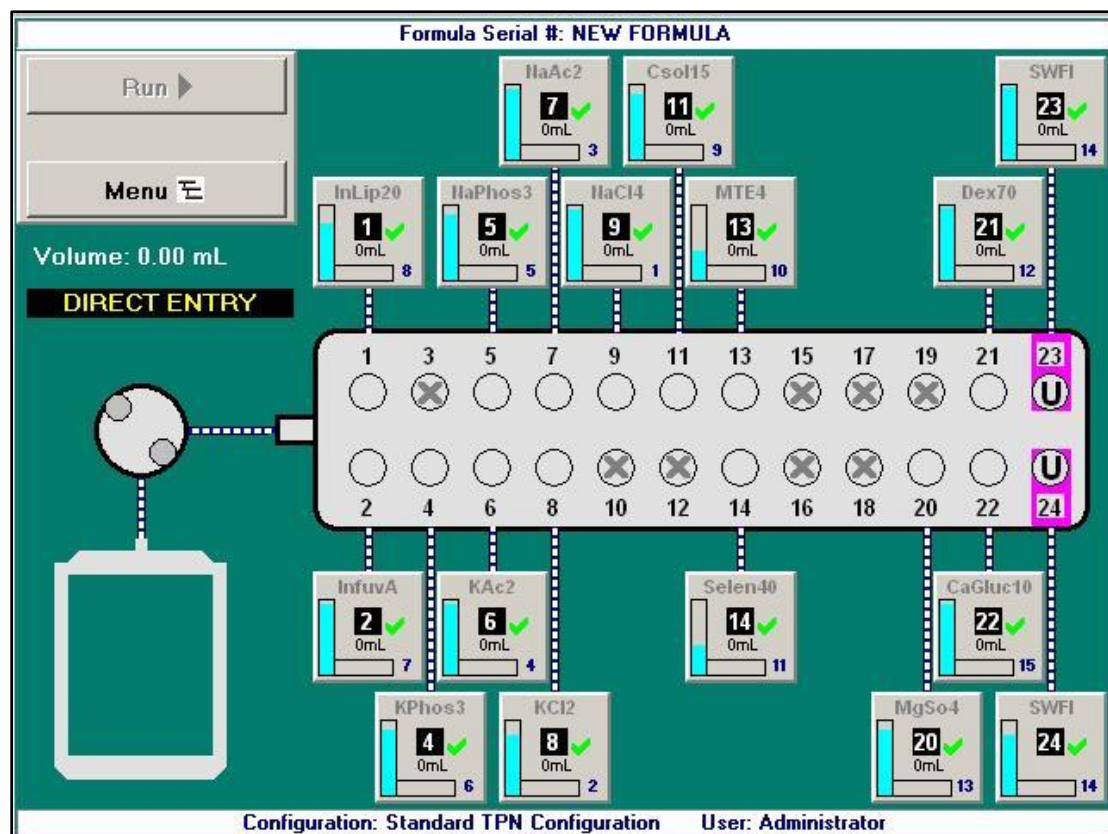


*Menu screen, Tools menu*

**NOTE:** To stop using direct entry, you can touch **Tools > Cancel Direct Entry** at the menu screen.



The pump screen appears. The text **DIRECT ENTRY** appears on the left side.



*Pump screen during direct entry*

2. Obtain the formula from the pharmacist. Refer to your facility's protocol.
3. Touch the ingredient button for the first ingredient in the formula.

The ingredient detail window appears.

The screenshot shows a software window titled "Baxter Sterile Water for In 2000 Bag". It contains the following fields and values:

Port Number	23
Ingredient	Sterile Water for In
Sequence Number	14
Drug ID	0338-0013-06
Container Size (mL)	2000.00
Ordered Volume:	0
Remainder (mL)	1940.00
Spike Type	Non-Vented, Macro Inlet
Time Spiked	1/8/2014 8:07:58 AM
Lot Number	12345
Expiration	12/31/2014

At the bottom of the window are four buttons: "Change Container", "Save", "Close", and "Next".

*Ingredient detail window during direct entry*

4. At the ingredient detail window:
  - a. Check that the **Ingredient** shown matches the ingredient ordered. Check its description and concentration.
  - b. Enter the **Ordered Volume** of the ingredient to be delivered.
  - c. Touch **Save**, or touch **Next** to view the next ingredient detail window.

The **Run** button becomes available on the pump screen.

5. Repeat steps 3–4 for each ingredient in the formula.
6. If you want to:
  - Use the formula now, continue with Saving and Using a Direct-Entry Formula on Page 77
  - Save the formula for using later, continue with Saving a Direct-Entry Formula to Use Later on Page 78

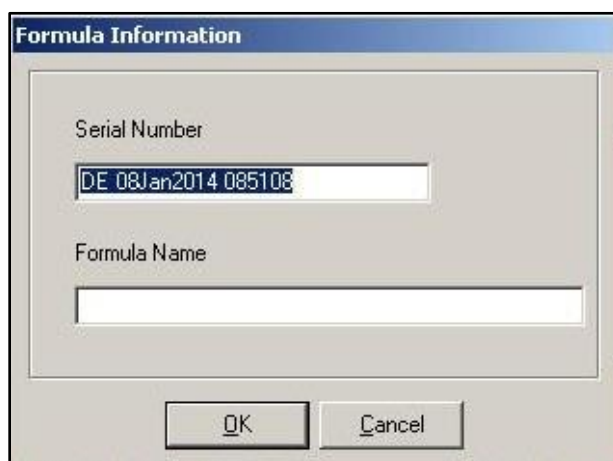
## Saving and Using a Direct-Entry Formula

**NOTE:** For information about automatic unloading of formulas, refer to [Understanding Automatic Unloading of Formulas](#) on Page 81.

1. At the pump screen, touch **Run**.
2. At the *Formula Information* window:
  - a. Enter a **Formula Name**.
  - b. If desired, enter a new **Serial Number**.

**Tip!** The serial number is based on the date and time the formula was directly entered. Baxa Corporation recommends not changing the serial number.

- 
- 
- c. Touch **OK**.



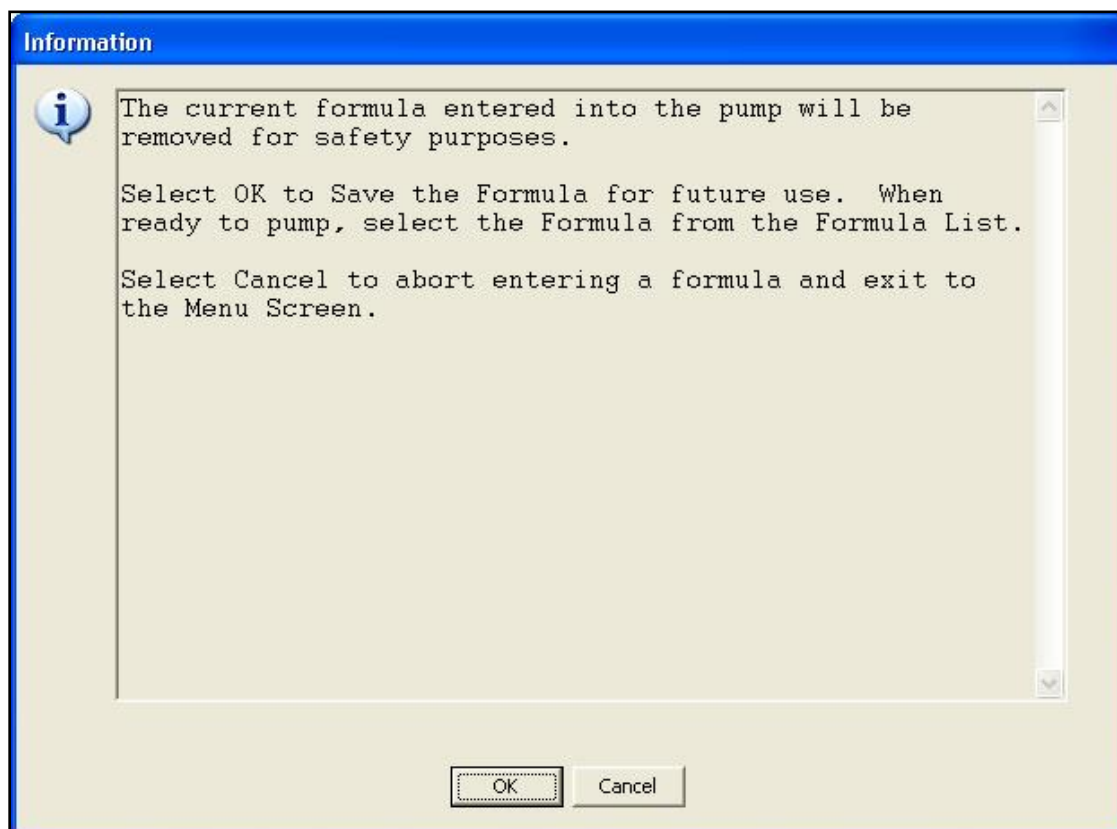
*Formula Information window*

- 
- 
3. Continue with [Compounding the Solution](#) on Page 82.

**NOTE:** You do not need to touch **Run** again.

### Saving a Direct-Entry Formula to Use Later

1. At the pump screen, touch **Menu**.
2. At the *Information* message, touch **OK**.



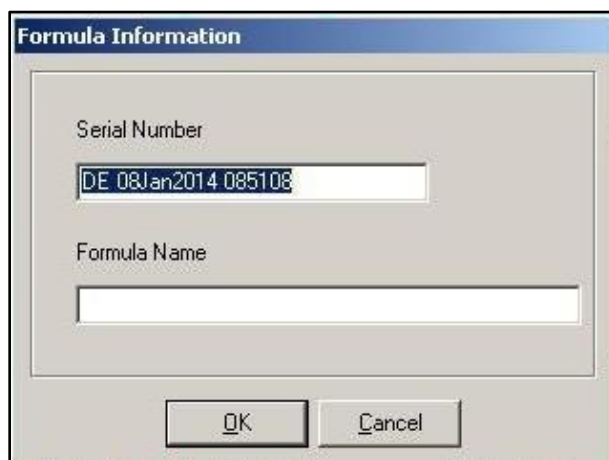
*Message*

3. At the *Formula Information* window:

- a. Enter a **Formula Name**.
- b. If desired, enter a new **Serial Number**.

**Tip!** The serial number is based on the date and time the formula was directly entered. Baxa Corporation recommends not changing the serial number.

- c. Touch **OK**.



*Formula Information window*

4. When you want to compound the solution, continue with Selecting a Saved Formula on Page 79.

### Selecting a Saved Formula

Some facilities may use this method to retrieve a formula, which has been created in the order-entry software, without scanning a barcode.

**IMPORTANT!** This method requires:

- Order-entry software on a separate computer. This software must be able to produce a .PAT file that is compatible with the compounder. ABACUS Software meets this requirement. For more information, contact Baxa Corporation Technical Support. Refer to Getting Help on Page 17.
- Network connection between the order-entry computer and the compounder
- Ability for formulas to be loaded without scanning barcodes. For more information, refer to Bar Code Reader on Page 118.

1. At the menu screen, touch **Compound > Select Formula**.

The *Select Formula* window appears.

Formula Name ▲	Serial Number
Doe, Jane (1114545)	DE 08Jan2014 085626
Doe, John (5551212)	DE 08Jan2014 085108

Filter

☐ Show All Formulas
 ☒ Show Unpumped Formulas
 ☐ Show Pumped Formulas

OK Cancel

*Select Formula window*

2. At the *Select Formula* window, touch one of these filter options:
  - **Show All Formulas** to view all the formulas that are stored
  - **Show Unpumped Formulas** to view all the formulas that have not been used for compounding
  - **Show Pumped Formulas** to view all the formulas that have been used for compounding

**Tip!** Baxa Corporation recommends selecting only **Show Unpumped Formulas**.

**NOTE:** You can touch **Formula Name** to sort by name or touch **Serial Number** to sort by number. Formulas are stored for a specified time period. To set up the storage of formulas, refer to Storage on Page 114.

3. Select a formula.
4. Touch **OK**.  
The formula is loaded and appears on the pump screen.
5. Continue with Fulfilling the Order (Basic Process) on Page 81.

## FULFILLING THE ORDER (BASIC PROCESS)

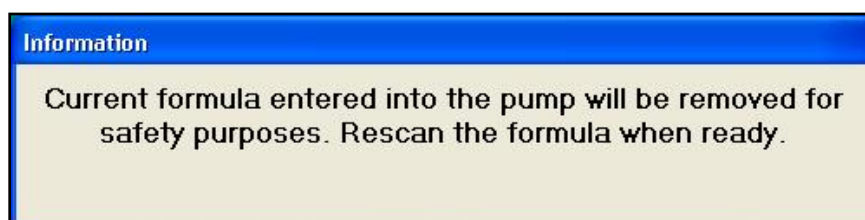
### Understanding Automatic Unloading of Formulas

As a safety precaution, the software automatically unloads the formula in these two main situations:

- The software usually unloads the formula if you leave the pump screen after loading the formula and before starting the compounding process.

The message below, or one similar to it, appears and then automatically disappears.

**NOTE:** The only exception is that the software does not unload the formula when you perform an auto-addition.



*Message*

- The software usually unloads the formula when compounding is finished, regardless of the outcome.

No message appears; however, you cannot use the formula for compounding again.

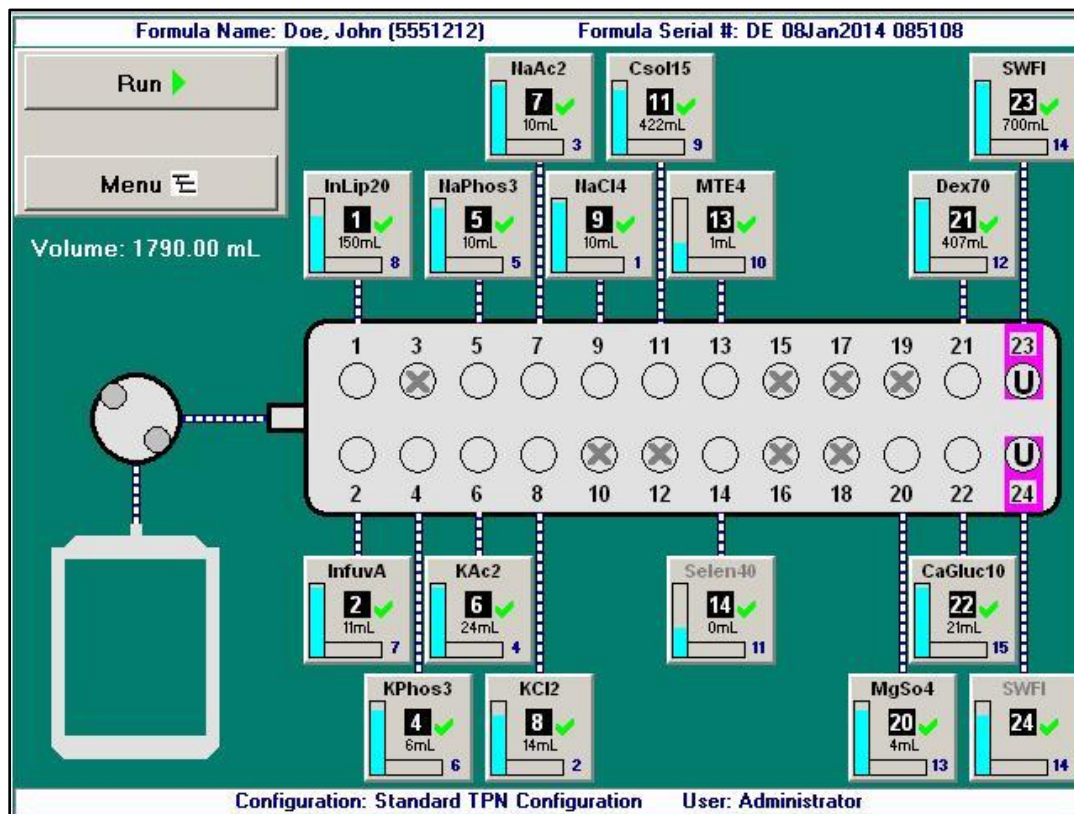
**NOTE:** The only exception is that the software does not unload the formula when either of these conditions occur:

- The solution limit is more than 1 and has not yet been met, or the solution limit is disabled. For more information, refer to [Solution Limit](#) on Page 119.
- Barcode scanning is not required to load a formula, but the formula was loaded through this method. For more information, refer to [Bar Code Reader](#) on Page 118.

## Compounding the Solution

**IMPORTANT!** This function requires Compounder permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

1. At the pump screen, touch **Run**.

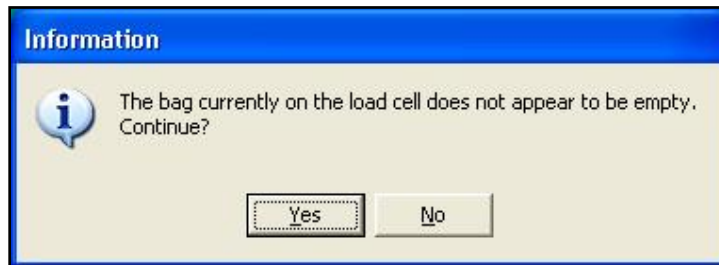


*Pump screen, ready to start compounding the solution*



2. If the *Bag currently on the load cell does not appear to be empty* message appears, visually check the contents of the bag.
  - If the bag is empty, refer to The bag currently on the load cell does not appear to be empty on Page 191.
  - If the bag contains fluid:
    - a. Touch **No**.
    - b. At the *Operation Cancelled* message, touch **OK**.
    - c. If the attached bag is a patient bag, write a large “X” on the label.
    - d. Remove the bag from the load cell. Depending on the type of the attached bag, refer to:
      - Removing the Patient Bag on Page 86
      - Attaching and Removing the Calibration Bag on Page 43

**NOTE:** The calibration bag may have been left on the load cell.
    - e. Discard the bag.
    - f. Attach an empty patient bag. Refer to Attaching the Patient Bag on Page 72.
    - g. Return to Step 1.



### *Message*

#### **WARNING**

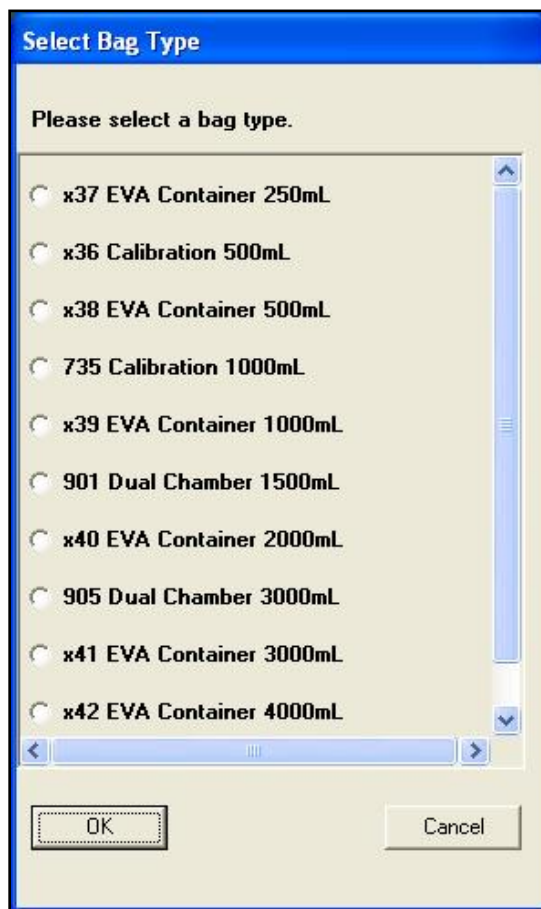
If you touch **Yes**, the compounder will reset the measured weight to zero, despite the fact that the bag contains fluid.



The finished solution may contain an unintended volume or ingredient, even if the final measured weight is within the acceptable range. This unintended volume or ingredient may result in patient harm.

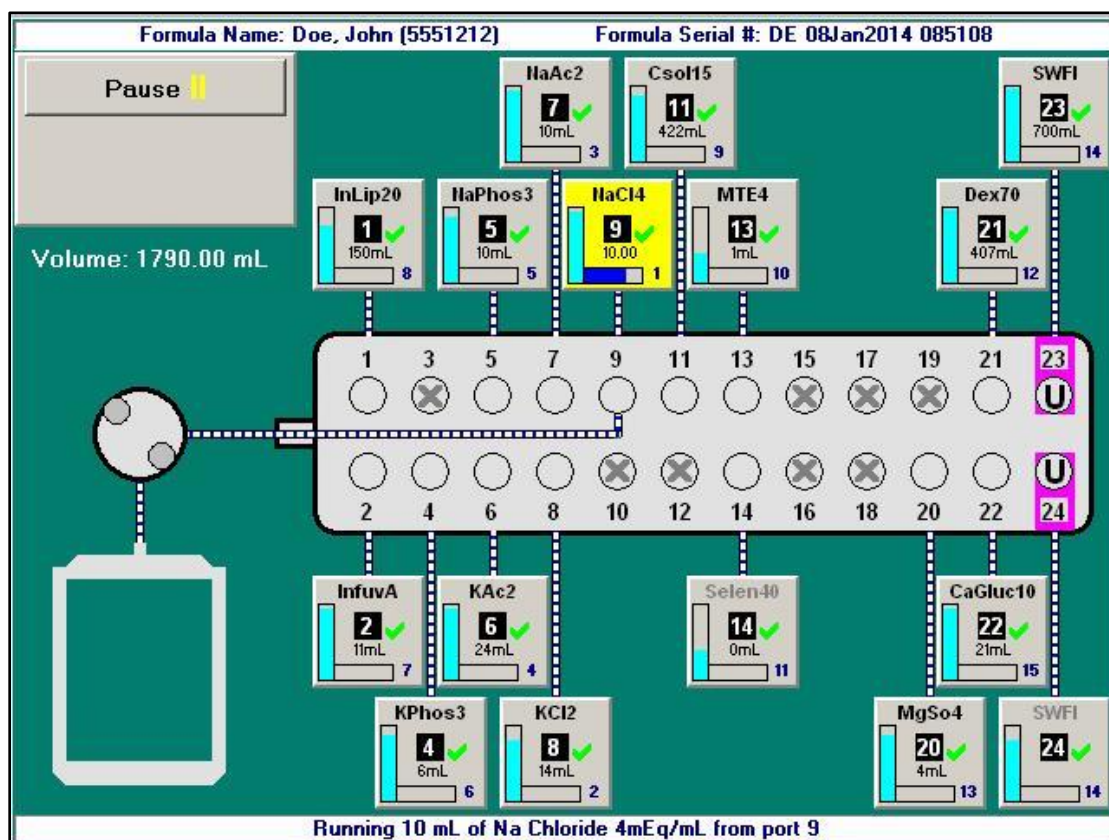
The **Details** section of the MixCheck Report will indicate that you continued compounding despite the warning that the bag did not appear to be empty. This bag should be discarded.

3. At the *Select Bag Type* window:
  - a. Select the size of the bag you attached.
  - b. Touch **OK**.



*Select Bag Type window  
(may vary by region)*

At the pump screen, the **Run** button becomes a **Pause** button. The compounder pumps each ingredient, one at a time, into the patient bag in the specified sequence and volume. When an ingredient is being pumped, its button becomes yellow.



*Pump screen, compounding the solution*

**NOTE:** For information about messages that might appear just before or during the compounding process, refer to [Fulfilling the Order \(Additional Steps\)](#) on Page 87. If you need to stop compounding temporarily, you can perform either of the following actions.

- Touch **Pause**, then touch **Resume** to continue compounding.
- Open the pump door, then close the pump door and touch **Resume** to continue compounding.

When compounding is finished, a message displays this information about the patient bag:

- Expected weight
- Actual weight
- Difference
- Statement about whether or not the difference is acceptable

**NOTE:** If the difference is not acceptable, refer to [Issues with the Weight and Load Cell](#) on Page 189. The acceptable difference is typically set to  $\pm 5\%$ . To change this setting, refer to [Acceptable Weight Variances \(%\)](#) on Page 116.

4. At the message with information about the patient bag, touch **OK**.



*Message*

### Removing the Patient Bag

Always use aseptic technique when removing the bag.

1. Remove the bag's fill port from the load cell's fill port holder.
2. Remove the bag from the load cell.
3. Disconnect the outlet tube from the bag, to allow fluid in the bag's fill port to drain into the bag.
4. Clamp the bag's fill port.
5. Connect the end of the outlet tube to the tube holder on the vial rack.
6. Cap the bag's fill port.

### Completing the Order



#### **WARNING**

It is important to inspect the finished solution to make sure that it complies with standards.

1. Visually inspect the finished solution in the patient bag for precipitates and particulates according to your facility's protocol.
2. View and approve the MixCheck Report according to your facility's protocol. For instructions, refer to [MixCheck Report](#) on Page 154.
3. If necessary, perform any manual additions. Refer to [Performing a Manual Addition](#) on Page 90.

## FULFILLING THE ORDER (ADDITIONAL STEPS)

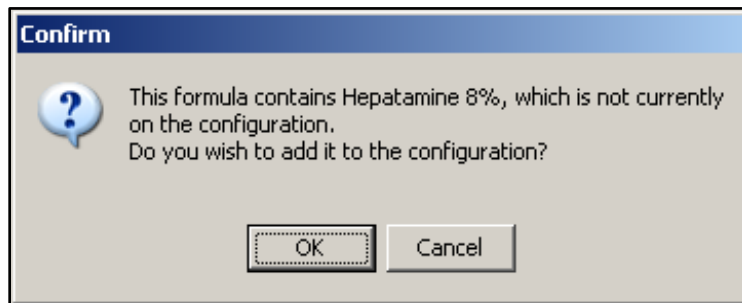
To complete some orders, you may need to perform additional steps along with the basic steps already explained. Interruptions to the compounding process may occur. These additions and interruptions are part of normal operation.

### Performing an Auto-Addition

An auto-addition allows you to add an ingredient to the existing configuration temporarily, to fulfill the current order, instead of selecting a new configuration (which would require you to prime and verify all the inlets and ingredients).

If the loaded formula includes an ingredient that is not attached to the compounder, but is identified as an allowable auto-addition in the formulary and the current configuration, a *Confirm* message appears.

1. At the *Confirm* message, touch **OK**.



*Message*

---

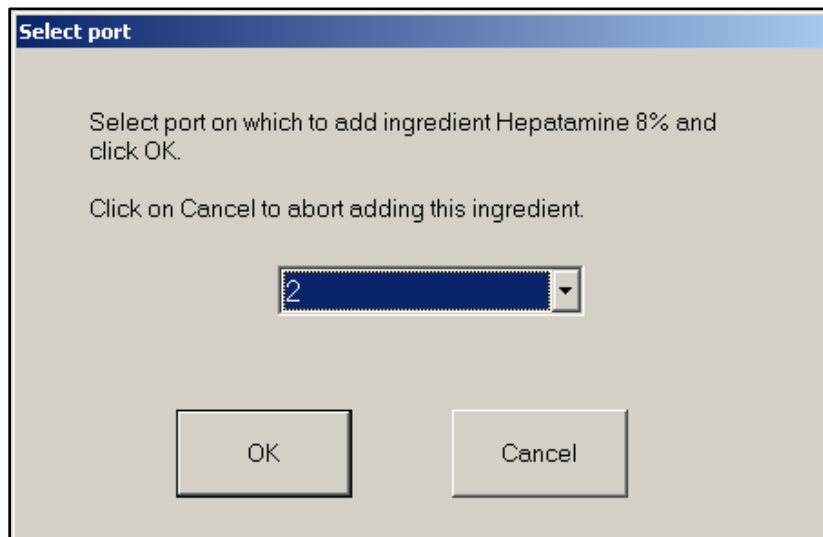
**WARNING**



The ingredient should be attached to a specific port, with incompatible ingredients adequately separated to avoid precipitation. If a port reference is not available, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

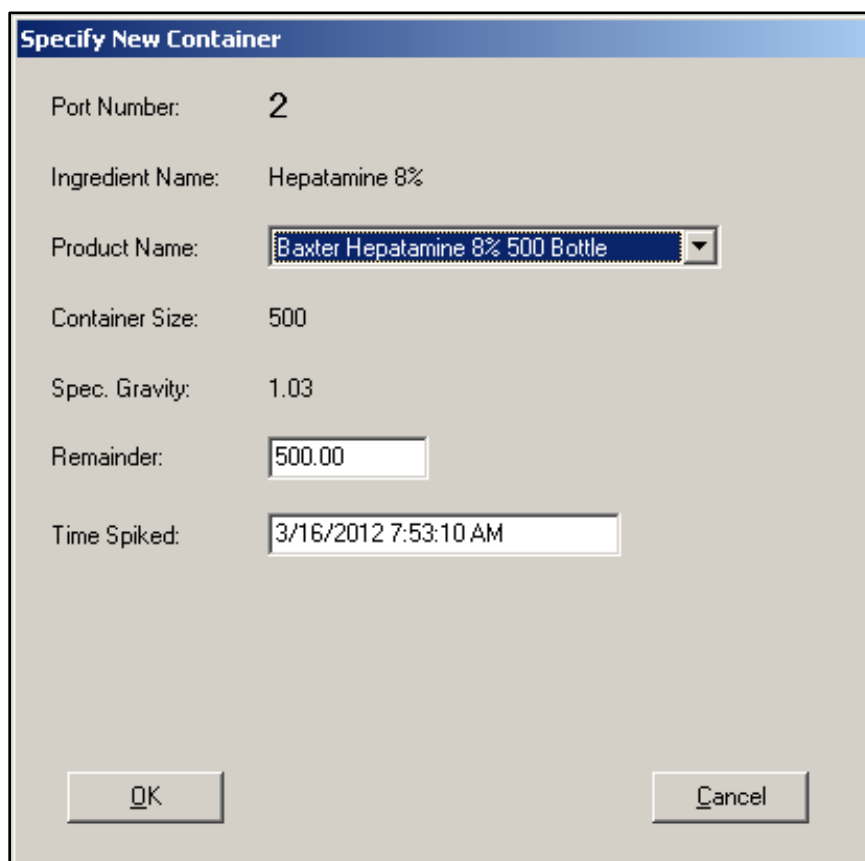
---

2. At the *Select port* window:
  - a. Select the port to which you will attach the ingredient.
  - b. Touch **OK**.



*Select port window*

3. At the *Specify New Container* window:
  - a. Select the **Product Name**.
  - b. Touch **OK**.

A screenshot of the 'Specify New Container' window. The window has a blue header bar with the title 'Specify New Container'. Below the header, there are several input fields and buttons. The fields are: 'Port Number' with the value '2', 'Ingredient Name' with the value 'Hepatamine 8%', 'Product Name' with a dropdown menu showing 'Baxter Hepatamine 8% 500 Bottle', 'Container Size' with the value '500', 'Spec. Gravity' with the value '1.03', 'Remainder' with a text box containing '500.00', and 'Time Spiked' with a text box containing '3/16/2012 7:53:10 AM'. At the bottom of the window, there are two buttons: 'OK' on the left and 'Cancel' on the right.

**Specify New Container**

Port Number: 2

Ingredient Name: Hepatamine 8%

Product Name: Baxter Hepatamine 8% 500 Bottle

Container Size: 500

Spec. Gravity: 1.03

Remainder: 500.00

Time Spiked: 3/16/2012 7:53:10 AM

OK Cancel

*Specify New Container window*

4. Attach the new ingredient and inlet. Refer to Attaching the New Ingredients and Inlets on Page 45.
5. If you have already attached the patient bag, remove it. Refer to Removing the Patient Bag on Page 86.
6. Attach a calibration bag. Refer to Attaching and Removing the Calibration Bag on Page 43.
7. Prime and verify the new inlet and ingredient. Refer to Priming and Verifying on Page 55.

**NOTE:** After priming and verifying, the compounder flushes the common fluid pathway with the Universal Ingredient (UI).

8. Remove the calibration bag. Refer to Attaching and Removing the Calibration Bag on Page 43.
9. Attach the patient bag. Refer to Attaching the Patient Bag on Page 72.

**NOTE:** You can reattach the original patient bag.

10. Continue with compounding the solution. Refer to Compounding the Solution on Page 82.

**NOTE:** The formula is not unloaded from the pump screen.

### Performing a Manual Addition

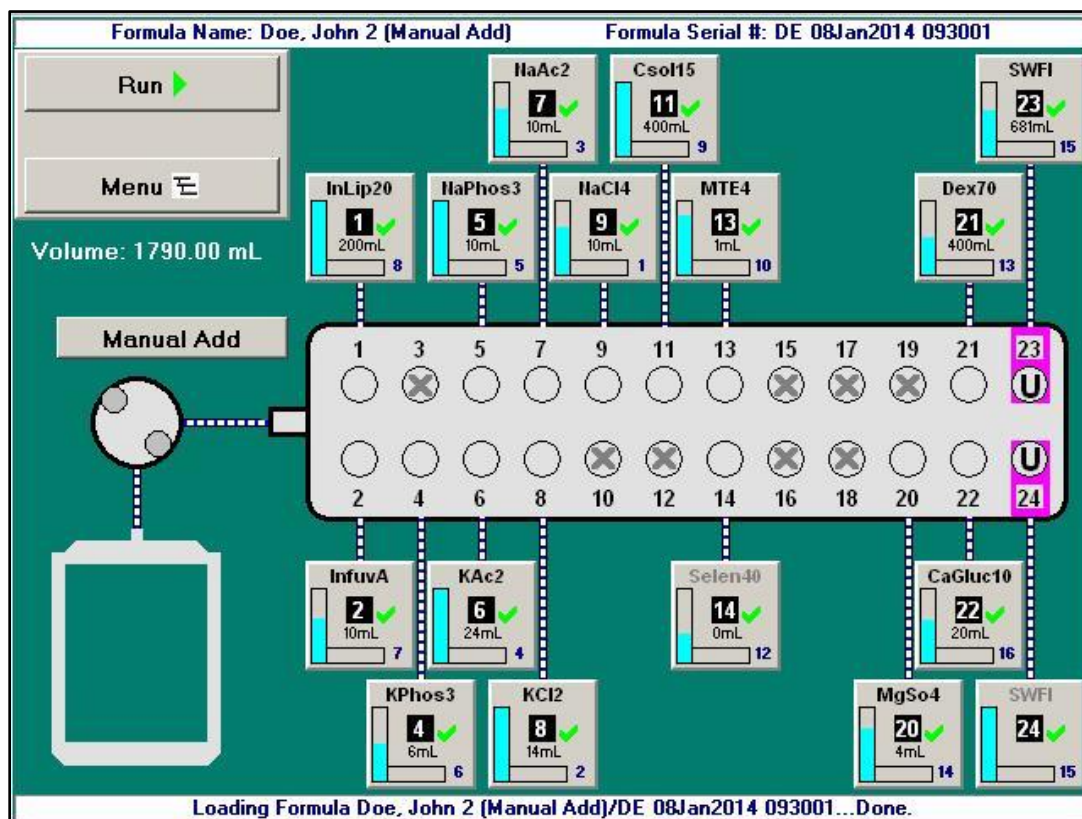
A manual addition allows you to add an ingredient to the finished solution manually. This type of addition may be necessary when the loaded formula includes an ingredient that meets at least one of these conditions:

- It is not in the configuration.
- Its ordered volume is less than the 0.2 mL minimum required for use on the compounder.
- Its Drug ID does not match any Drug ID in the compounder's formulary. Refer to A Drug ID in the formula does not match any Drug ID in the formulary on Page 185.



If a formula loaded by scanning a barcode includes an ingredient that must be added manually:

- A **Manual Add** button appears on the left side of the pump screen. You can touch this button to view information about the ingredients that must be added manually.



*Pump screen with manual addition*

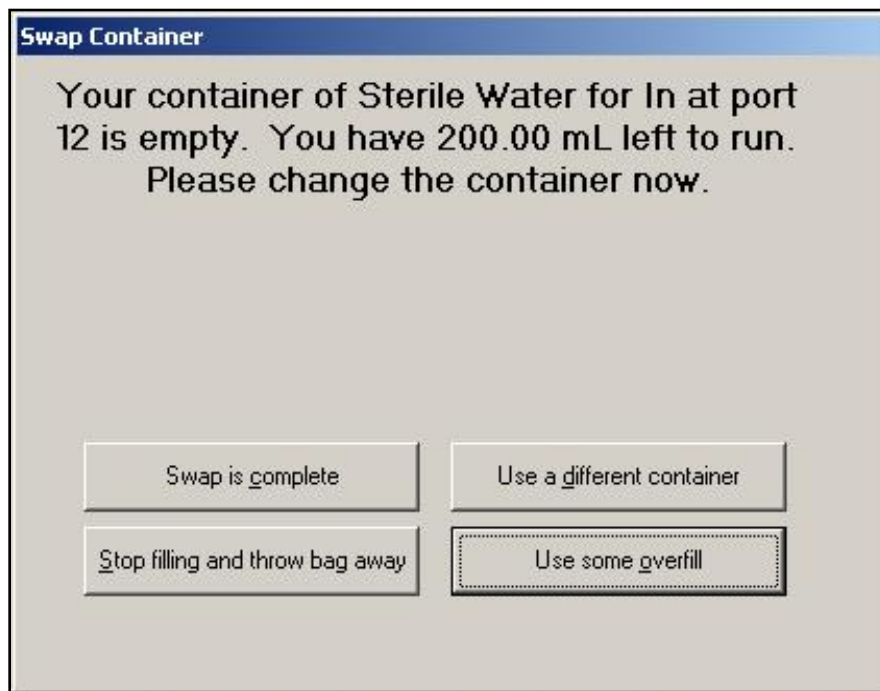
- The MixCheck Report includes a list of any ingredients that must be added manually. For more information, refer to [MixCheck Report](#) on Page 154.

To add ingredients manually, follow your facility's protocol.

**NOTE:** To set the maximum volume allowed for a manual addition, refer to [Manual Add](#) on Page 116.

## Replacing a Source Container

If you are fulfilling a series of orders, an ingredient may become depleted and need to be replaced. When a formula is loaded and requires more ingredient volume than what remains in the source container, the vertical bar on the ingredient button flashes. If you start compounding, the *Swap Container* window appears when the ingredient's remaining volume is depleted.



*Swap Container window*

1. Check that the source container is appropriately depleted.

---

### WARNING



If there is a large amount of fluid remaining in the source container, or if the container has emptied completely and forced air into the inlet, there may be a delivery problem. For assistance with troubleshooting, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

---

2. At the *Swap Container* window, touch one of these options:
  - Touch **Swap is complete** to replace the empty container with an exact match (same ingredient, container size, container type and manufacturer). Use aseptic technique to replace the source container.
  - Touch **Use a different container** to replace the empty container with the same ingredient from a different container size, container type or manufacturer. Use aseptic technique to replace the source container.

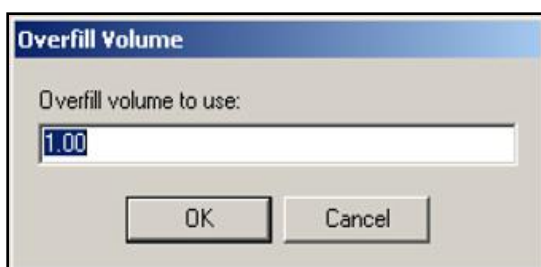
**NOTE:** Using a different container may require you to change and prime the inlet. Refer to [Attaching the New Ingredients and Inlets](#) on Page 45 and [Priming and Verifying](#) on Page 55.

- Touch **Stop filling and throw bag away** to cancel the order. At the pump screen, touch **Stop** and follow the on-screen instructions.
- Touch **Use some overflow** to use the overflow in the current container to complete the order. At the *Overflow Volume* window:
  - a. Enter the **Overflow volume to use**.

**WARNING**

Adjusting the value incorrectly in the **Overflow volume to use** field can lead to bubbles, occlusions and under-delivery of an ingredient if its source container runs empty.

- b. Touch **OK**.



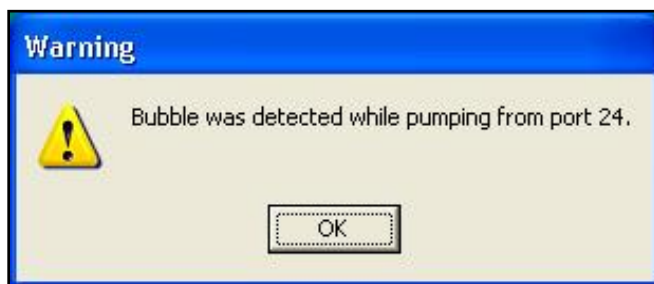
*Overflow Volume window*

## Handling an Air Bubble

An air bubble can occur at any time, but it most frequently occurs after priming the inlet during setup or after replacing a source container. A bubble can be caused by an incorrectly spiked container, an empty container or incomplete priming.

When the bubble detector finds a bubble in the outlet tube over the detector, the compounding process stops and an alarm beeps. A message also appears.

1. At the *Bubble was detected while pumping from port <port number>* message, touch **OK**.



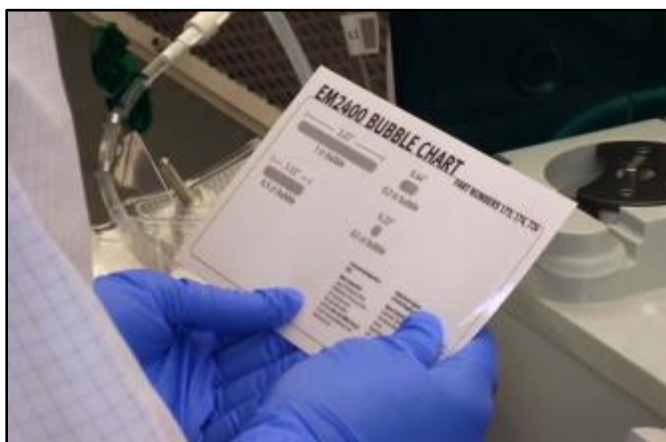
*Message*



### **WARNING**

A bubble in the common fluid pathway displaces the volume of one or more ordered ingredients, causing an under-delivery of these ingredients.

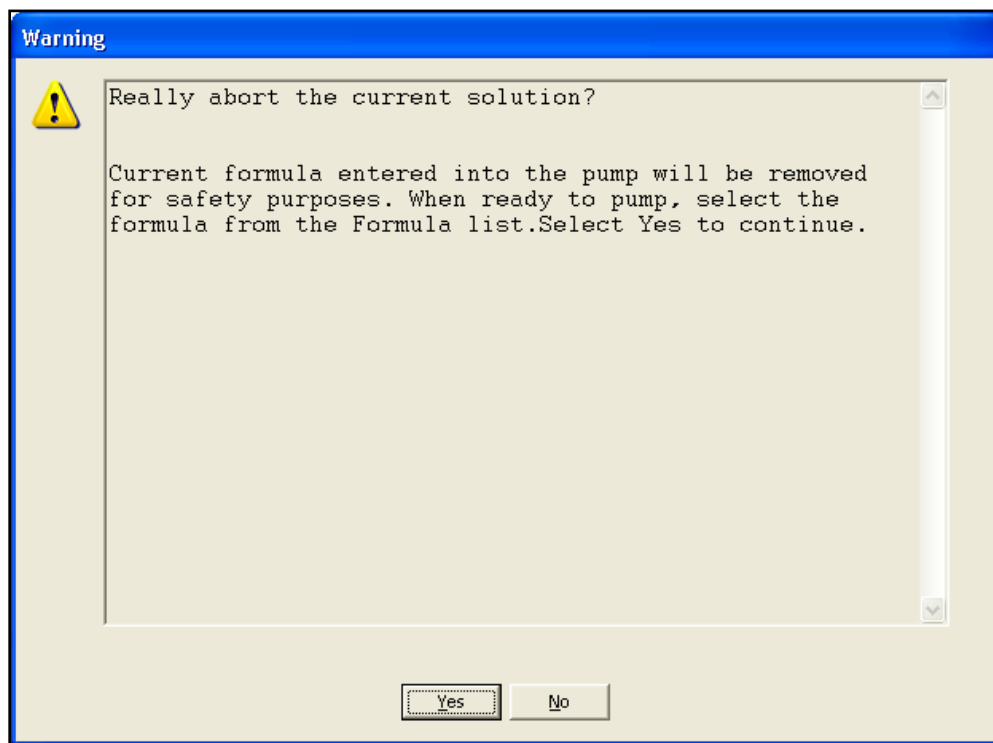
2. Determine the impact of the bubble:
  - a. Check the size of the bubble using the EM2400 Bubble Chart (5300-0868) to determine the volume of fluid displaced.
  - b. If more than one bubble is present, evaluate each bubble and add the values together to determine the total volume of fluid displaced.
  - c. Identify all the ingredients pumped prior to the alarm, the ingredient pumped during the alarm and the volume of each ingredient ordered.



*Using the EM2400 Bubble Chart*

**Tip!** Baxa Corporation recommends that a pharmacist evaluate the clinical significance of bubbles encountered during the compounding process.

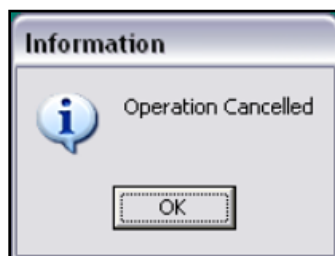
3. Ask a pharmacist to determine if the displaced volume is clinically significant for any of the ingredients pumped. Assume that the total displaced volume applies to each ingredient ordered.
  4. If the clinical significance:
    - Is acceptable, touch **Resume** at the pump screen to continue compounding the solution, and do not continue with the steps below
    - Is not acceptable, or cannot be determined, continue with the next step to cancel the order
- Tip!** Baxa Corporation recommends documenting all decisions according to your facility's protocol.
5. Immediately write a large "X" on the label of the patient bag.
  6. At the pump screen, touch **Stop**.
  7. At the *Really abort the current solution?* message, touch **Yes**.



*Message*

The software unloads the formula.

8. At the *Operation Cancelled* message, touch **OK**.



*Message*

9. At the *Fluid path will be flushed with UI* message, touch **OK**.



*Message*

10. Check that the fluid moves correctly during the flush.  
11. At the *UI flush complete* message, touch **OK**.



*Message*

12. Remove the bag. Refer to Removing the Patient Bag on Page 86.  
13. Discard the bag.

**NOTE:** To help reduce the occurrence of bubbles:

- Use correct technique to spike the containers. Refer to the steps for spiking a container, starting on Page 49.
- Re-prime any inlets that have visible bubbles. Refer to Priming the Inlets and Verifying the Setup on Page 59.
- Increase the priming volume in the configuration. Refer to Adding or Editing a Configuration on Page 130.

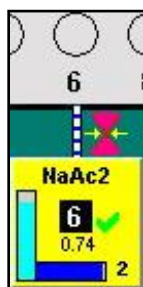
**NOTE:** To help avoid false bubble detections:

- Clean the channel over the bubble detector. Refer to Cleaning the Compounder on Page 100.
- Make sure that the outlet tube is in the correct position. It should be at the bottom of the channel over the bubble detector. Refer to Step 8a on Page 42.

## Handling an Occlusion

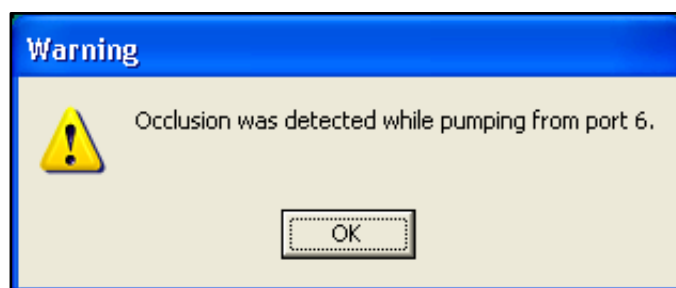
An occlusion can be caused by an empty syringe, stuck syringe plunger, kinked tube or other obstruction in the inlet.

When the occlusion detector detects that a vacuum was drawn, indicating an occlusion somewhere between the source container and the detector, the compounding process stops and an alarm beeps. A message appears, and a red occlusion symbol also appears near the ingredient button.



*Occlusion symbol*

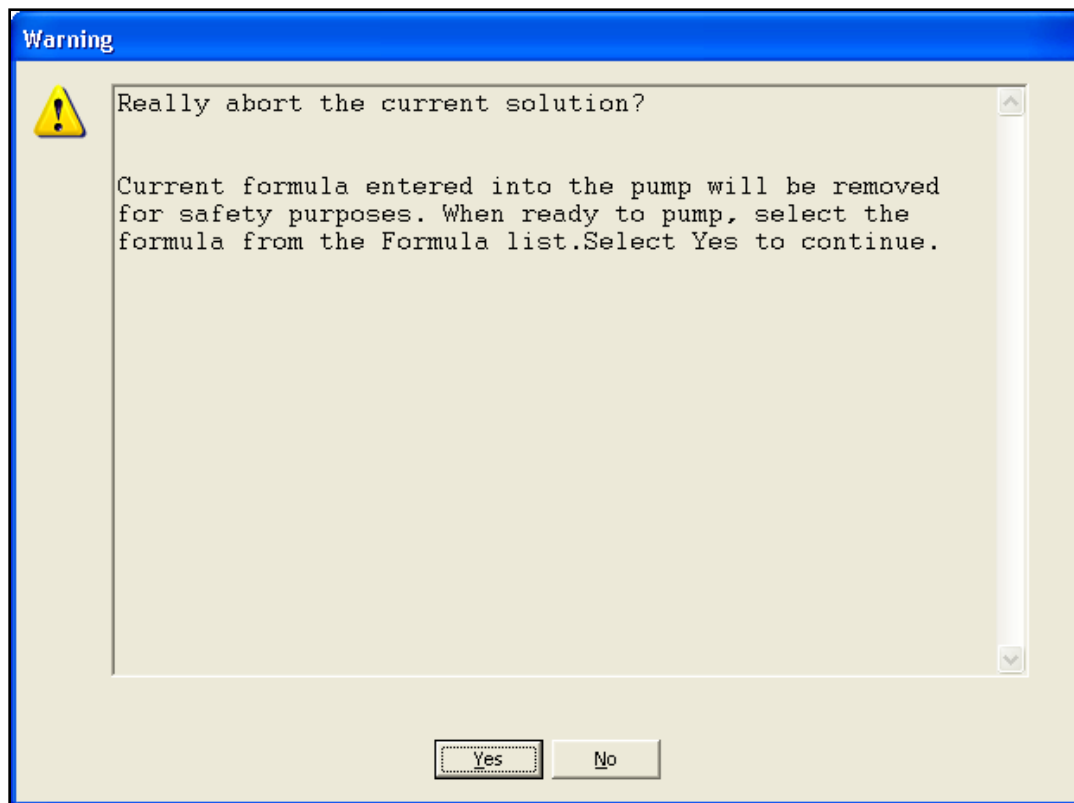
1. Immediately write a large "X" on the label of the patient bag.
2. At the *Occlusion was detected while pumping from port <port number>* message, touch **OK**.



*Message*

3. At the pump screen, touch **Stop**.

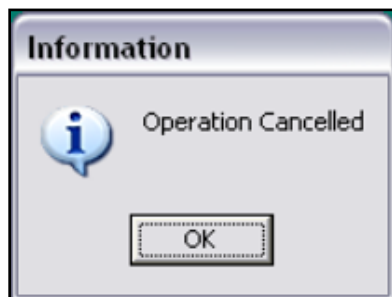
4. At the *Really abort the current solution?* message, touch **Yes**.



*Message*

The software unloads the formula.

5. At the *Operation Cancelled* message, touch **OK**.



*Message*

6. Check that:
  - The outlet tube is straight and flat on the occlusion detector.
  - The occlusion detector is not damaged or dirty.
  - The inlets have no obstructions, kinks or tangles. If necessary, replace the inlets. Refer to Changing the Tube Set on Page 38.
  - The appropriate inlet is used with each source container.
  - Each syringe has fluid and its plunger is not stuck.



**NOTE:** If you cannot find the cause for the occlusion, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

7. At the *Fluid path will be flushed with UI* message, touch **OK**.



*Message*

8. Check that the fluid moves correctly during the flush.
9. At the *UI flush complete* message, touch **OK**.



*Message*

10. Remove the bag. Refer to [Removing the Patient Bag](#) on Page 86.
11. Discard the bag.

### Handling Other Interruptions and Errors

For more information about handling interruptions and errors, refer to [Troubleshooting](#) on Page 183.

## MAINTAINING THE COMPOUNDER

To keep the compounder in the best possible condition, perform these routine maintenance tasks:

- Calibrate the load cell
- Change the tube set
- Clean the compounder
- Calibrate the compounder
- Shut down and start up the compounder, to back up and compact the database automatically

### CALIBRATING THE LOAD CELL

This procedure is usually performed as part of the daily setup.

For instructions, refer to [Calibrating the Load Cell](#) on Page 33.

### CHANGING THE TUBE SET

This procedure is usually performed as part of the daily setup.

For instructions, refer to [Changing the Tube Set](#) on Page 38.

### CLEANING THE COMPOUNDER

This procedure is usually performed as part of the daily setup before installing the new tube set, or whenever there is a spill. You can clean the compounder more often than once a day if indicated by your facility's protocol.

Use only these approved materials:

- Non-abrasive cloth
- Soap and water
- 70% isopropyl alcohol or another self-drying disinfectant

---

#### CAUTION

Cleaning is required to ensure that the compounder operates as intended. Failure to clean the compounder can impair its operation.



Do not immerse the compounder in liquid or use sodium hypochlorite solutions (for example, Clorox®).

Do not disassemble the compounder beyond the steps described in this procedure. Disassembling the compounder may damage the connections, increase the risk of dropped parts, and void the manufacturer's warranty.

The compounder must have its power turned off before cleaning.

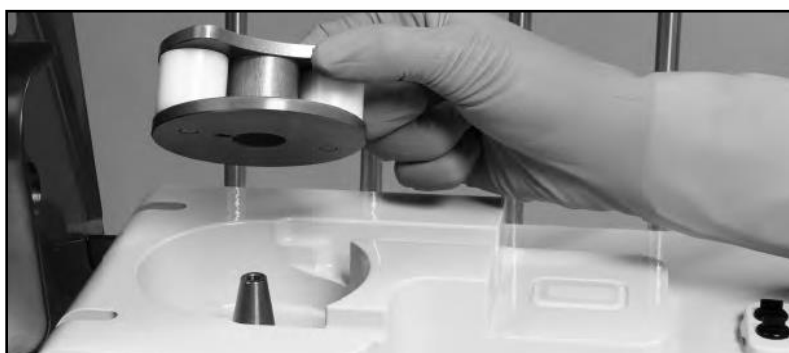
---

1. Shut down and turn off the compounder. Refer to Rebooting and Shutting Down on Page 29.
2. If the tube set is installed, remove and discard it. Refer to Removing the Expired Tube Set and Expired Ingredients on Page 40.
3. Open the pump door.
4. Remove and retain the thumbscrew and washer used to attach the rotor.



*Removing the thumbscrew*

5. Remove the pump rotor from the spindle.



*Removing the pump rotor*

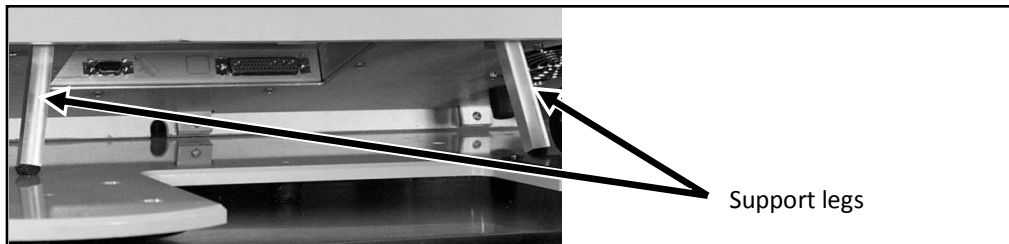
6. Using the approved materials, clean the:
  - a. Pump rotor, making sure that the rollers spin freely
  - b. Pump rotor area
  - c. Channels near the pump rotor area
7. Install the:
  - a. Pump rotor, aligning the notch on the bottom of the rotor with the pin on the spindle
  - b. Washer and thumbscrew
8. Close the pump door.
9. Using the approved materials, clean the:
  - a. Valve actuators, and inspect them for damage
  - b. Surface of the main module
  - c. Poles and holders on the vial rack
  - d. Display
  - e. Barcode reader
  - f. Load cell



### WARNING

With the vial rack attached, the compounder weighs 88.5 lb (40.14 kg). If necessary to prevent injury, use a second person to help move the compounder.

10. Tip the main module back and extend the support legs.



*Extending the support legs*

**NOTE:** In a small hood, there may not be enough space behind the main module to tip it back. To make more space, you can move the compounder forward by lifting the front of the base plate slightly and sliding it toward you. It is easier to slide the base plate on its back feet (which are plastic) than on its front feet (which are rubber). If necessary, you can also pull up and remove the vial rack.

11. Clean the top of the base plate.
12. Retract the support legs so that the main module rests fully on the base plate.
13. If you want to clean the hood under the base plate:
  - a. Move the compounder by lifting the front of the base plate slightly and sliding it to the desired location.
  - b. Clean the hood.

## CALIBRATING THE COMPOUNDER

This procedure is usually performed as part of the daily setup.

For instructions, refer to [Calibrating the Compounder](#) on Page 67.

## SHUTTING DOWN AND STARTING UP THE COMPOUNDER

**Tip!** Baxa Corporation recommends fully shutting down and starting up the compounder once a day, to allow the software to perform routine database maintenance.

For instructions, refer to [Starting Up, Logging In and Out, and Shutting Down](#) on Page 26.

The compounder's database accumulates data related to solutions, formulas and logs. For example, the software records important device activity in a Blackbox log, which Baxa Corporation can access through the Blackbox Report when needed. The compounder stores this data for a specified time period. To set up the storage options, refer to [Storage](#) on Page 114.

When you shut down the compounder, it backs up the database automatically. If required during troubleshooting, you can use the backup data to restore the software settings to an earlier state.

When you start up the compounder, it compacts the database automatically. Compacting the database reduces its space on the hard drive and keeps the compounder operating efficiently. To see the compaction settings, refer to [Database Compaction](#) on Page 115.

**IMPORTANT!** Failing to shut down the compounder may cause the database to grow to a size that decreases performance, and compacting the database manually may be required to resolve this issue. For instructions, refer to [Compacting the Database Manually](#) on Page 106.

## BACKING UP AND COMPACTING THE DATABASE MANUALLY

If you fully shut down and start up the compounder once a day, there is no need to back up or compact the database manually. The compounder performs these actions automatically.

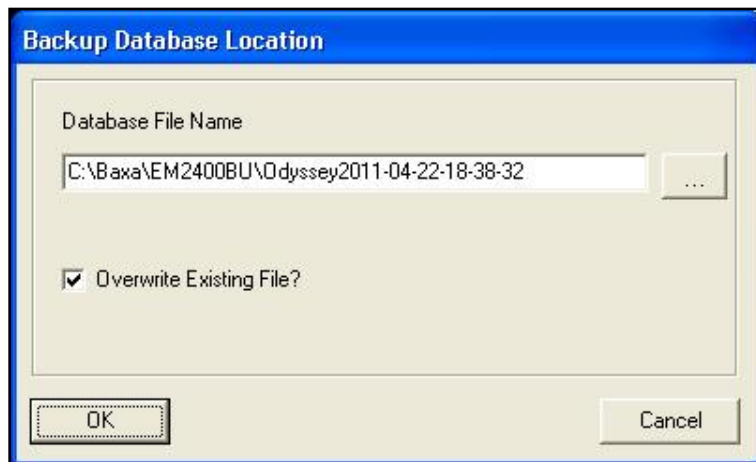
However, if more than seven days have passed since the last backup occurred, the software notifies you when you next log into the compounder. In this situation, perform a manual backup and compaction. For instructions, refer to the following pages.

**Tip!** Baxa Corporation also recommends performing a manual backup after changing the system settings.

## Backing Up the Entire Database Manually

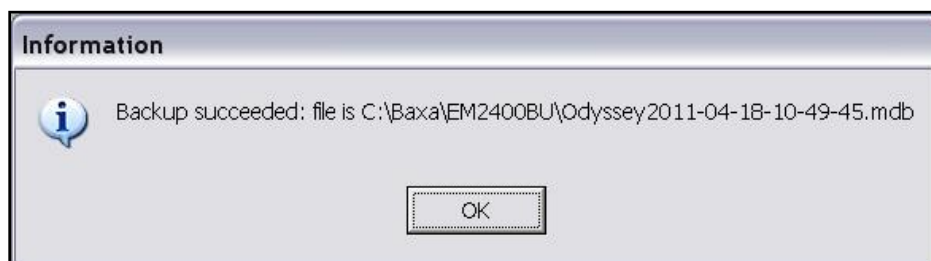
This procedure backs up the entire database, including the Blackbox log.

1. At the menu screen, touch **Tools > Database > Backup All**.
2. At the *Backup Database Location* window:
  - a. If you want to change the location of the backup, touch the button to the right of the **Database File Name** field and navigate to the new location (not recommended).
  - b. If you want to:
    - Keep the previous backup files of the same name, clear the **Overwrite Existing File?** check box
    - Replace all the previous backup files of the same name to save space, select the **Overwrite Existing File?** check box. If the displayed file name is different from the one you want to replace, touch the button to the right of the **Database File Name** field, then navigate to and select the existing file.
  - c. Touch **OK**.



*Backup Database Location window*

3. At the *Backup succeeded* message, touch **OK**.

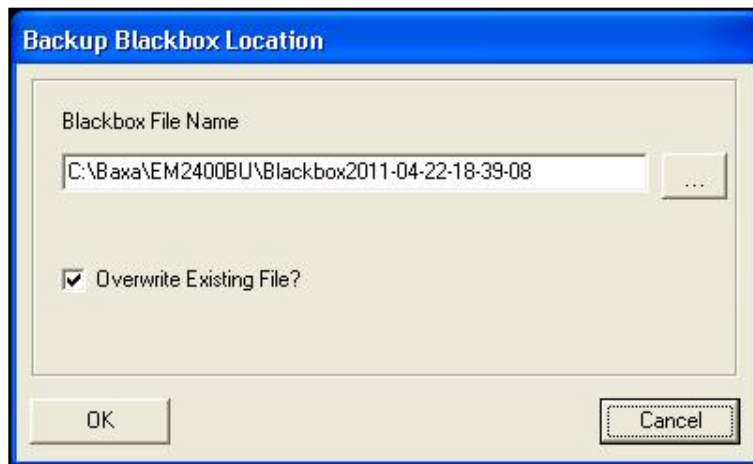


*Message*

## Backing Up the Blackbox Log Manually

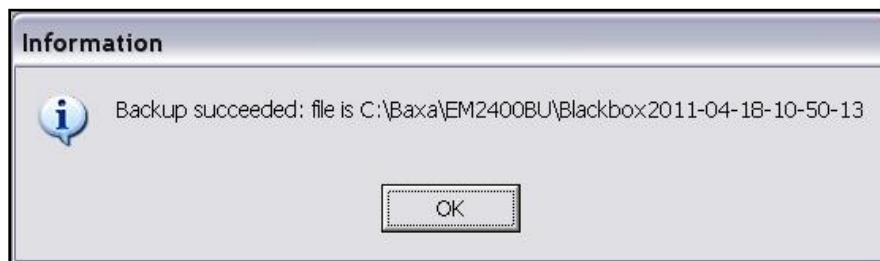
This procedure backs up only the Blackbox log.

1. At the menu screen, touch **Tools > Database > Backup Blackbox**.
2. At the *Backup Blackbox Location* window:
  - a. If you want to change the location of the backup, touch the button to the right of the **Blackbox File Name** field and navigate to the new location (not recommended).
  - b. If you want to:
    - Keep the previous backup files of the same name, clear the **Overwrite Existing File?** check box
    - Replace all the previous backup files of the same name to save space, select the **Overwrite Existing File?** check box. If the displayed file name is different from the one you want to replace, touch the button to the right of the **Blackbox File Name** field, then navigate to and select the existing file.
  - c. Touch **OK**.



*Backup Blackbox Location window*

3. At the *Backup succeeded* message, touch **OK**.



*Message*

### Compacting the Database Manually

1. At the menu screen, touch **Tools > Database > Maintenance**.
2. At the *Do Database Maintenance?* message, touch **OK**.



*Message*



## PERFORMING ADVANCED TASKS

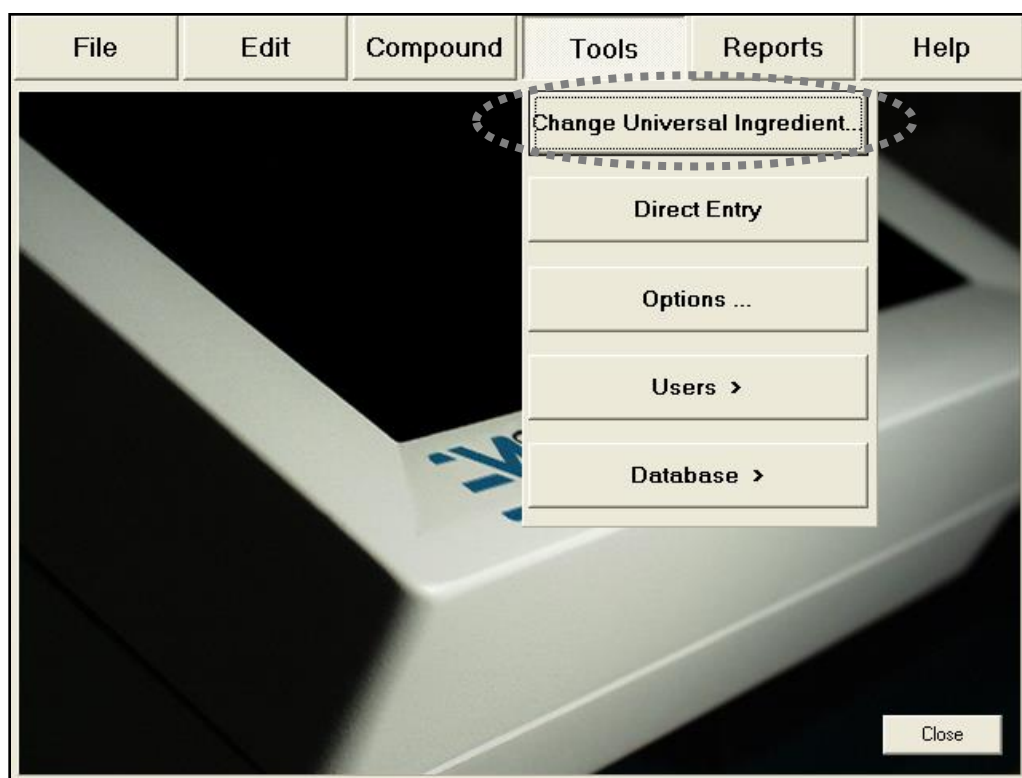
For assistance with any of these tasks, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

### CHANGING THE UNIVERSAL INGREDIENT

**IMPORTANT!** This function requires Change Universal Ingredient permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

To change the Universal Ingredient when you are not in the process of compounding a solution, do the following procedure. To change the volume used for flushing during a Universal Ingredient change, refer to [Flush Between UI Changes](#) on Page 116.

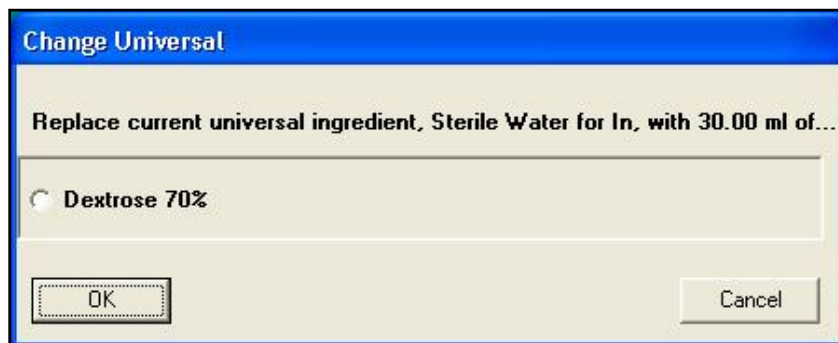
1. At the menu screen, touch **Tools > Change Universal Ingredient**.



*Menu screen, Tools menu*

A *Change Universal* window appears. It lists any ingredients that are specified as a UI in the Formulary Editor (refer to [Adding or Editing an Ingredient](#) on Page 139), included at a UI port in the configuration (refer to [Adding or Editing a Configuration](#) on Page 130) and have an ordered volume that is sufficient for a UI.

2. At the *Change Universal* window:
  - a. Select the Universal Ingredient you want to use.
  - b. Touch **OK**.



*Change Universal window*

The compounder requires a flush of the new Universal Ingredient to clear the old Universal Ingredient from the common fluid pathway.

3. Attach a calibration bag. Refer to [Attaching and Removing the Calibration Bag](#) on Page 43.
4. At the *Flushing with Universal Ingredient* message, touch **OK**.



*Message*

The pump screen shows an animation of the flush.

5. When the *Completed flushing* message appears, remove the calibration bag. Refer to [Attaching and Removing the Calibration Bag](#) on Page 43.
6. When you will continue with compounding a solution, attach a patient bag. Refer to [Attaching the Patient Bag](#) on Page 72.
7. At the *Completed flushing* message, touch **OK**.



*Message*

## CHANGING THE INGREDIENT REMAINDERS

For each ingredient, the compounder tracks the volume that is used and the volume that remains in the source container (the remainder). If necessary, you can manually change each remainder shown in the software.

---

### WARNING



The remainder value in the software must accurately represent the actual volume remaining in the source container. Change a remainder value only when you know the precise amount remaining in the source container. Incorrect remainder values can lead to bubbles, occlusions and under-delivery of an ingredient if its source container runs empty.

---

**IMPORTANT!** This function requires Compounder permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

1. At the menu screen, touch **Compound > Edit Source Remainders**.
2. At the *Edit Source Remainders* window:
  - a. For the desired ingredient, change the **Remainder** to correspond to the volume remaining in the container.
 

**NOTE:** You can touch **Reset** to change the remainder to its default value, or touch **Reset All** to change all the remainders to their default values at the same time.

**Tip!** Baxa Corporation does not recommend using **Reset All** unless the entire list of ingredients has been changed.
  - b. Touch **OK**.

Port	Ingredient	Container Size	Remainder	Reset
1	Intralipid 20%	250	250	Reset
2	Infuvite Adult	100	61	Reset
4	K Phosphate 3mMol/mL PO4	50	26	Reset
5	Na Phosphate 3mMol/mL PO4	50	50	Reset
6	K Acetate 2mEq/mL	100	100	Reset
7	Na Acetate 2mEq/mL	100	64	Reset

Reset All OK Cancel

*Edit Source Remainders window*

## SETTING UP THE OPTIONS

**IMPORTANT!** These functions require Administration permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

**NOTE:** At any tab of the *Options* window:

- Touching **OK** saves the changes made on all the tabs and requires you to reboot the compounder.
- Touching **Cancel** closes the window without saving any changes.

## SETTING UP THE SYSTEM OPTIONS

Use the **System** tab to set up the general system options.

To access the system options, touch **Tools > Options** at the menu screen.

At the *Options* window, the **System** tab is selected.

**Options**

System | System Cont. | Security | Directories | Baxa

**MixCheck Report**

☐ Use Online MixCheck Authorization

☐ Enable Auto-Display

☒ Enable Auto-Print

**Authorization Report**

☒ Auto Fill

**Load Cell**

☒ Use load cell

☒ Check for empty bag

Min Empty Weight (g) 18.00

Max Empty Weight (g) 145.00

**Track Product Expiration Date and Lot Number**

☐ Enabled

☒ Use Previous Values, No Confirm

☐ Use Previous Values, Confirm

☐ Require Entry

**Logging**

☐ Log All

☐ Comm

☐ Verbose Comm

☐ Sequencer

**Demo**

☐ Demo mode

☒ Warp factor

Pump Skew 1.05

**Storage**

Solution Storage (Days) 45

Formula Storage (Days) 45

Log Storage (Days) 45

**MixCheck Data Export**

☐ Enable

**Tube Set Expiration**

☒ Enable

Max Hours to Use Tube Set 20

OK Cancel

*Options window, System tab*

### MixCheck Report

The MixCheck Report is available after compounding is finished. For more information about the contents of this report, refer to [MixCheck Report](#) on Page 154.

If desired, select one or more of these check boxes:

- Select **Use Online MixCheck Authorization** if you want to require a qualified user to log in with a password to approve each MixCheck Report on the screen.
- Select **Enable Auto-Display** if you want the MixCheck Report to appear automatically on the display after compounding is finished.
- Select **Enable Auto-Print** if you want the MixCheck Report to print automatically after compounding is finished.

**Tip!** Baxa Corporation recommends selecting **Enable Auto-Print**.

### Authorization Report

The Authorization Report is available after the Setup Wizard is finished, or from the **Reports** menu. For details about the contents of this report, refer to [Authorization Report](#) on Page 159.

Select **Auto Fill** if you want to make the **Assembled** and **Verified** columns of the report populate automatically with the name of the person who logged in to perform the task.

### Load Cell

**IMPORTANT!** Baxa Corporation does not recommend changing these settings. Before changing any of them, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

Select **Use load cell** if you want to use the compounder's scale. This box should always be selected, except if the load cell is not functional and an external scale is available. If you select this check box, the following options become available.

Select **Check for empty bag** if you want to make the load cell check for the absence of a bag or the presence of a non-empty bag. If you select this check box, numbers appear in both of these fields:

- For **Min Empty Weight**, enter the minimum expected weight of an empty bag. If the load cell measures a weight less than this number at the start of compounding, a warning message indicates that a bag may not be attached to the load cell.

**IMPORTANT!** Baxa Corporation does not recommend changing this setting without first contacting Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

- For **Max Empty Weight**, enter the maximum expected weight of an empty bag. If the load cell measures a weight greater than this number at the start of compounding, a warning message indicates that the bag on the load cell may not be empty.

**IMPORTANT!** Baxa Corporation does not recommend changing this setting without first contacting Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

**Tip!** Baxa Corporation recommends selecting **Check for empty bag**.

### Track Product Expiration Date and Lot Number

Select **Enabled** if you want to track the expiration date and lot number for every source container that is attached to the compounder. If you select this check box, these options become available:

- Select **Use Previous Values, No Confirm** if you want the compounder to use the previous date and lot number without requiring confirmation.
- Select **Use Previous Values, Confirm** if you want the compounder to use the previous date and lot number but require confirmation.
- Select **Require Entry** if you want the user to enter values each time a new container is attached.

### Logging

**IMPORTANT!** Baxa Corporation does not recommend changing these settings. Before changing any of these settings, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

Regardless of the **Logging** settings, the compounder stores records in a Blackbox log. For information about viewing the contents of this log, refer to [Blackbox Report](#) on Page 172.

In most cases, it is not necessary to change the **Logging** settings. Selecting any of these check boxes may cause the log to grow to a size that slows the performance of the software.

### Demo

Demo mode simulates the compounder's operation. It can be used during training.

Select **Demo mode** if you want to enable demo mode. If you select this check box, these options become available:

- Select **Warp factor** if you want to make the simulation perform compounding operations faster than normal.
- For **Pump Skew**, enter a number. Entering a number other than **1.05** forces the simulation to pump inaccurately, for training purposes.

**NOTE:** Operating in demo mode affects the ingredient remainders. Do not use demo mode with ingredients attached.

## Storage

The storage fields set the number of days that the database stores solution, formula and log (Blackbox) information. Information older than the specified storage period is purged when the software starts up.

You can increase or decrease these settings:

- For **Solution Storage (Days)**, enter the number of days that used formulas are available in the database.
- For **Formula Storage (Days)**, enter the number of days that unused formulas are available in the database.
- For **Log Storage (Days)**, enter the number of days that Blackbox information is available in the database. The minimum is 45 days.

**Tip!** Baxa Corporation recommends entering at least 45 days for each of these fields.

## MixCheck Data Export

Select **Enable** if you want the compounder to export data directly to the Baxa **DoseEdge** System.

For this feature, the **DoseEdge** System must be specified as the printer. For assistance with setting up printers, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

## Tube Set Expiration



---

### WARNING

Changes to these settings can affect patient safety. Before changing any of these settings, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

---

Select **Enable** if you want the compounder to display a message when the tube set has been used longer than recommended.

For **Max Hours to Use Tube Set**, enter the maximum number of hours that the tube set should be used.

**Tip!** Baxa Corporation recommends entering 20 for the **Max Hours to Use Tube Set**, so that the tube set expires shortly before (instead of shortly after) the daily setup.



## SETTING UP THE SYSTEM (CONTINUED) OPTIONS

The **System Cont.** tab is a continuation of the **System** tab.

To access the continued system options:

1. At the menu screen, touch **Tools > Options**.
2. At the *Options* window, touch the **System Cont.** tab.

**Options**

System System Cont. Security Directories Baxa

**Database Compaction**

☒ Compact DB

Compact After (Days) 10

**Acceptable Weight Variances (%)**

Final Solution 3.0 Individual Ingredient 5.0

**Manual Add**

Max manual add volume 50.00

**Flush Between UI Changes**

Volume (mL) 30.00

**Report Printer**

**MixCheck Data Export Printer**

**MixCheck Signature Label**

Authorized by:

**Authorization Report Signature Label**

Assembled by: Date: Time: Assembled by: Date: Time:

OK Cancel

*Options window, **System Cont.** tab*

### Database Compaction

**IMPORTANT!** Do not clear the **Compact DB** check box unless directed by Baxa Corporation Technical Support.

When the **Compact DB** check box is selected, the compounder compacts the database at startup.

### **Acceptable Weight Variances (%)**

**IMPORTANT!** Changing the default settings of 5% for the **Final Solution** and 5% for the **Individual Ingredient** is not recommended.

For **Final Solution**, enter the maximum acceptable difference between the expected and actual weight of the compounded solution. If any compounded solution has a weight outside this range, an alarm beeps and a message displays the results in red. The results also appear on the MixCheck Report.

For **Individual Ingredient**, enter the maximum acceptable difference between the expected and actual weight of each delivered ingredient. If any delivered ingredient has a weight outside this range, a message appears. The compounder weighs only individual ingredient deliveries of 100 mL or more.

### **Manual Add**

For **Max manual add volume**, enter the maximum volume that can be used for a manual addition without a message appearing. If the volume of a formula ingredient exceeds this amount, a message appears, with options to add the ingredient manually or cancel compounding.

### **Flush Between UI Changes**

For **Volume (mL)**, enter the final flush volume used to clear the common fluid pathway after changing the Universal Ingredient (UI).

**NOTE:** A Universal Ingredient flush contains three deliveries with standard volumes of 50, 50 and 30 mL. Changing the **Volume** setting only changes the last of the three deliveries.

### **Report Printer**

Select the printer to use for printing reports.

### **MixCheck Data Export Printer**

Select the printer to use for sending MixCheck data to the **DoseEdge** System.

### **MixCheck Signature Label**

Enter the text to include at the bottom of the MixCheck Report.

### **Authorization Report Signature Label**

Enter the text to include about required signatures in the Authorization Report.

## SETTING UP THE SECURITY OPTIONS

Use the **Security** tab to set the security features according to your facility's protocol.

To access the security options:

1. At the menu screen, touch **Tools > Options**.
2. At the *Options* window, touch the **Security** tab.

*Options window, Security tab*

### General

Select **Use Security** if you want each user to sign in with a user ID and password.

Select **Remember last login** if you want the login box to populate automatically with the user ID of the last user who logged in. Only the user ID populates; the user must enter a password each time.

### Auto-Logout

Select **Use Auto-Logout** if you want the current user to be logged out automatically after a period of inactivity.

For **Minutes to Auto-Logout**, enter the number of minutes after which the user is logged out.

**Tip!** Baxa Corporation recommends entering 10 for the **Minutes to Auto-Logout**.

## Password Expiration

If your facility's protocol requires that user passwords must be changed on a regular basis, select **Use password expiration** to place an expiration date on each password.

For **Days password valid**, enter the number of days after which the password expires.

## Bar Code Reader



---

### WARNING

It is important to use a barcode reader for scanning barcode labels on source containers and inlets during verification of the setup and for loading formulas.

---

If you select **Enable bar code reader**, the barcode reader can be used for loading formulas and scanning barcode labels on source containers and inlets during verification of the setup. These additional options become available:

- Select **Use bar code verification** if you want to require the use of a barcode reader for scanning barcode labels on source containers and inlets during verification of the setup.
- Select **Require bar code to initiate compounding** if you want to require the use of a barcode reader for loading formulas. If this box is selected, the user cannot manually select a saved formula.

If you do not select **Enable bar code reader**, the barcode reader cannot be used for any functions.

## Default User



---

### WARNING

Using this feature can affect patient safety and is not recommended.

---

If your facility does not require users to log in, select a **Default User** who is logged in automatically at startup.

## Cosignature

Select **Required for Configuration Verification** if you want to require a second user to log in and verify the configuration. If this option is not selected, the same user can set up and verify the configuration.

**IMPORTANT!** Baxa Corporation strongly recommends requiring a second user to verify the daily setup of the compounder.

Select **Required for MixCheck Authorization** if you want to require a second user to log in and verify the MixCheck Report on the screen after compounding.

### Solution Limit

Select **Limit formula runs** if you want to limit the number of times a specific formula can be used for compounding.

For **Max**, enter the maximum of times an individual formula can be used.

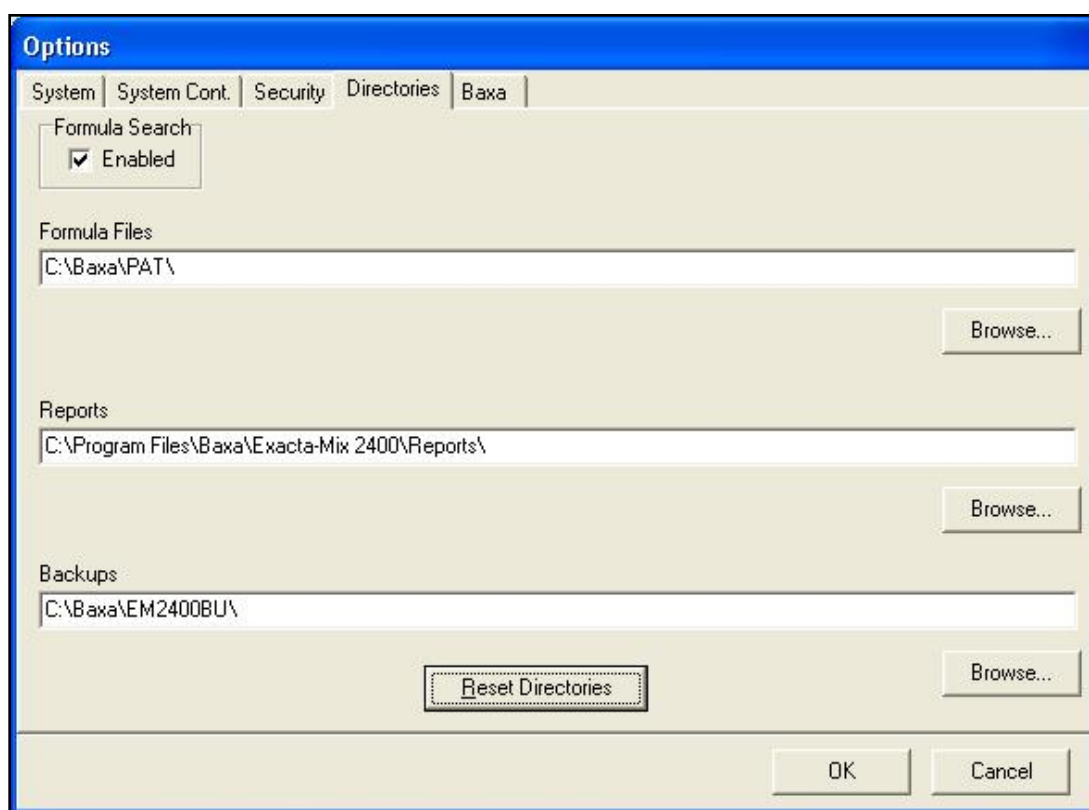
**Tip!** Baxa Corporation recommends entering 1 for the **Max**.

## SETTING UP THE DIRECTORIES OPTIONS

Use the **Directories** tab to set the locations of formula files, reports and backups.

To access the directories options:

1. At the menu screen, touch **Tools > Options**.
2. At the *Options* window, touch the **Directories** tab.



*Options window, **Directories** tab*

3. To allow users to retrieve formula files, select **Enabled** for **Formula Search**.

**CAUTION**

After initial installation, you should not need to change the locations of the directories. Do not touch **Reset Directories** unless directed by Baxa Corporation Technical Support. Touching **Reset Directories** may result in damaged or lost data.

4. If you want to change the locations of the directories, when directed by Technical Support:
  - a. Touch **Browse** for **Formula Files**, **Reports** or **Backups**.
  - b. Select the location of the directory.

## VIEWING THE BAXA OPTIONS

You cannot edit the information on this tab; however, you may need to view it if directed by Baxa Corporation Technical Support.

To access the Baxa options:

1. At the menu screen, touch **Tools > Options**.
2. At the *Options* window, touch the **Baxa** tab.

*Options window, **Baxa** tab*

## SETTING UP THE USERS

Users are assigned to groups that have the appropriate permissions to perform the required tasks.

### WORKING WITH GROUPS

#### Adding or Editing a Group

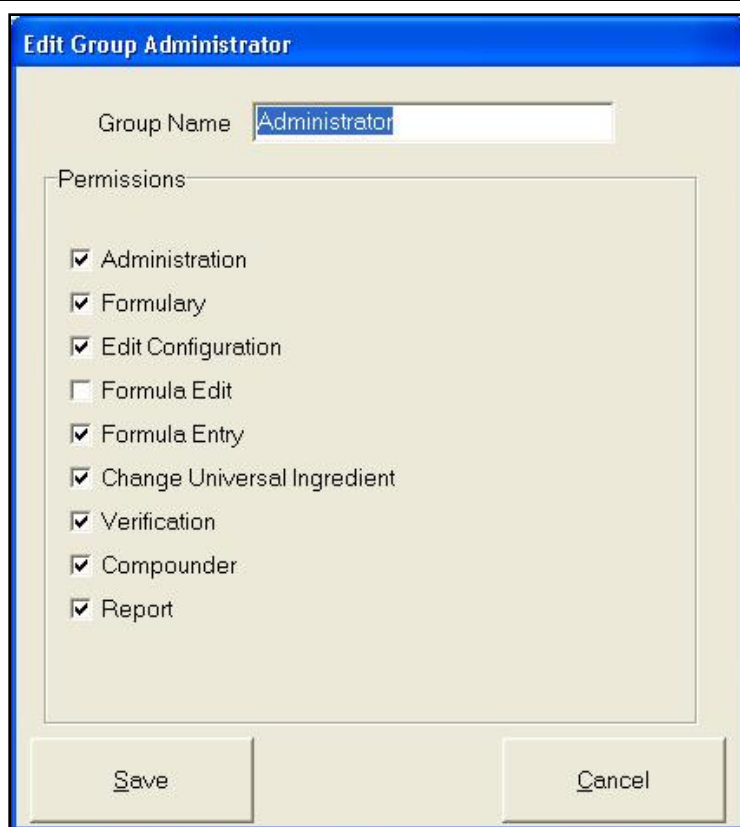
**IMPORTANT!** These functions require Administration permissions.

1. At the menu screen, touch **Tools > Users > Edit Users and Groups**.

The screenshot shows the 'Edit Users and Groups' window. It has a blue title bar with the text 'Edit Users and Groups'. Below the title bar, there are three main sections. The first section is labeled 'Name' and contains a list with three items: 'Administrator', 'Pharmacist', and 'Technician'. The second section is labeled 'Groups' and contains three buttons: 'Add', 'Edit', and 'Delete'. The third section is labeled 'Login Name' and contains a list with two items: 'ADMIN' and 'Administrator'. At the bottom of the window, there is a section labeled 'Users' with three buttons: 'Add', 'Edit', and 'Delete', and an 'OK' button.

*Edit Users and Groups window*

2. At the *Edit Users and Groups* window, in the top half, you may perform either of these actions:
  - To add a group, touch **Add** in the **Groups** section.  
The *Add Group* window appears.
  - To edit a group, select the group from the **Name** list, then touch **Edit** in the **Groups** section.  
The *Edit Group <name>* window appears.




*Edit Group <name> window*

3. At the *Add Group* window or *Edit Group <name>* window, select the permissions for the group.

**IMPORTANT!** These permissions will apply to an entire group of users. You cannot assign unique permissions directly to a user; however, you can create a group that contains only one user.



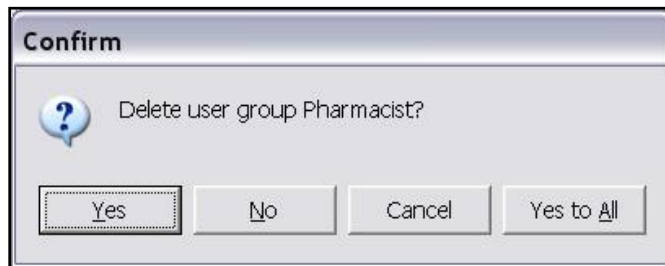
Permissions	Allowed Functions	Recommended Assignment
<b>Administration</b>	<ul style="list-style-type: none"> <li>• Access the Windows desktop</li> <li>• Use <b>Tools &gt; Options</b></li> <li>• Use <b>Tools &gt; Users &gt; Edit Users and Groups</b></li> <li>• Use the Inlet Editor</li> <li>• Use the Bag Inventory Editor</li> </ul>	Administrator
<b>Formulary</b>	<ul style="list-style-type: none"> <li>• Use the Formulary Editor</li> <li>• Use the Ingredient Group Editor</li> </ul>	Administrator
<b>Edit Configuration</b>	Use the Configuration Editor	Administrator
<b>Formula Edit</b>	Increase the Universal Ingredient (UI) volume to satisfy the flush requirement	None   <p><b>WARNING</b> Use of this permission for any user is discouraged. Because this permission allows a user to make changes to formulas, the clinical impact must be considered.</p>
<b>Formula Entry</b>	Create and save direct-entry formulas	Administrator and Pharmacist
<b>Change Universal Ingredient</b>	Change the Universal Ingredient (UI) without changing the configuration	Administrator, Pharmacist and Technician
<b>Verification</b>	Perform cosignature authorization of the priming and verifying steps during setup	Administrator and Pharmacist <b>Tip!</b> Baxa Corporation recommends having a pharmacist perform the verification.
<b>Compounder</b>	<ul style="list-style-type: none"> <li>• Calibrate the load cell</li> <li>• Select the configuration</li> <li>• Change the tube set</li> <li>• Prime the inlets</li> <li>• Calibrate the compounder</li> <li>• Compound the solution</li> <li>• Edit the source remainders</li> </ul>	Administrator, Pharmacist and Technician
<b>Report</b>	<ul style="list-style-type: none"> <li>• View reports</li> <li>• Export reports</li> <li>• Print reports (except MixCheck Report)</li> </ul>	Administrator, Pharmacist and Technician

4. Touch **Save**.
5. At the *Edit Users and Groups* window, touch **OK**.

## Deleting a Group

**IMPORTANT!** This function requires Administration permissions. You cannot delete a group that contains users.

1. At the menu screen, touch **Tools > Users > Edit Users and Groups**.
2. At the *Edit Users and Groups* window, in the top half:
  - a. Select the group to delete from the **Name** list.
  - b. Touch **Delete** in the **Groups** section.
3. At the *Delete user group <name>?* message, touch **Yes** to delete the group.



*Message*

4. At the *Edit Users and Groups* window, touch **OK**.

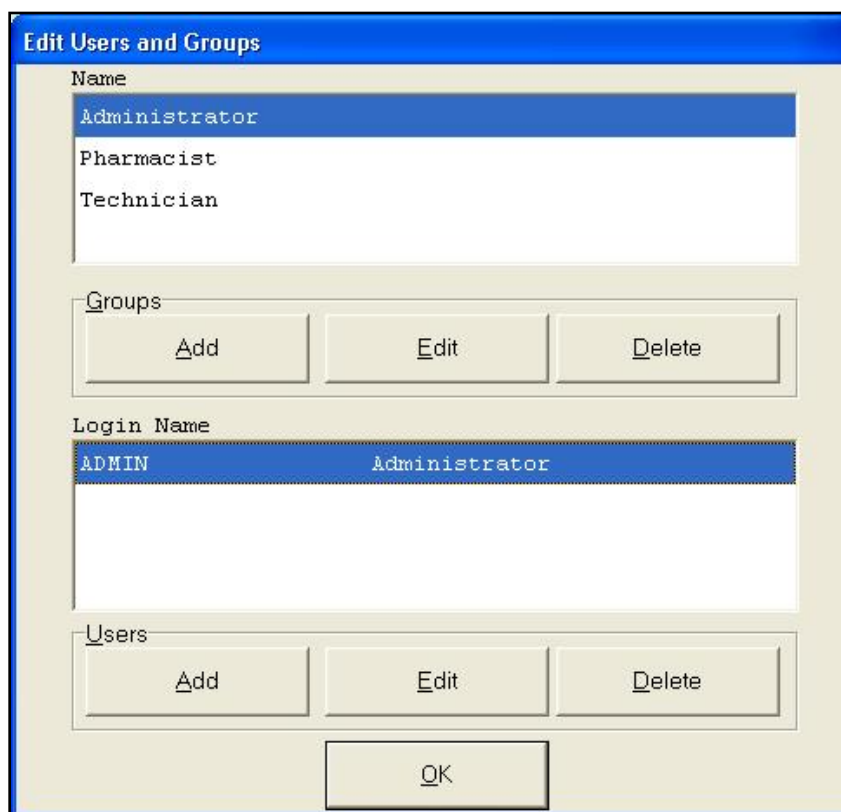
## WORKING WITH USERS

### Adding or Editing a User

**IMPORTANT!** These functions require Administration permissions.

1. At the menu screen, touch **Tools > Users > Edit Users and Groups**.

The *Edit Users and Groups* window appears.



*Edit Users and Groups window*

2. At the *Edit Users and Groups* window:
  - a. In the top half, select the group from the **Name** list.
  - b. In the bottom half, you may perform either of these actions:
    - To add a user, touch **Add** in the **Users** section.  
The *Add User* window appears.
    - To edit a user, select the user from the **Login Name** list, then touch **Edit** in the **Users** section.  
The *Edit User <name>* window appears.

*Edit User <name> window*

3. At the *Add User* window or *Edit User <name>* window:

- a. Enter the **Login Name**.
- b. Enter the **User Name**.

**Tip!** Baxa Corporation recommends using a short **Login Name** and full **User Name**.

- c. Select the **Group** to which the user is assigned.
- d. Touch **Save**.

4. At the *Edit Users and Groups* window, touch **OK**.

**NOTE:** The password will be the same as the **Login Name** until the user logs in and changes the password.

**Tip!** Baxa Corporation recommends that new users log in and change their passwords immediately. Refer to [Changing a Password](#) on Page 127.

### Resetting a User's Password

**IMPORTANT!** This function requires Administration permissions.

1. At the menu screen, touch **Tools > Users > Edit Users and Groups**.
2. At the *Edit Users and Groups* window:
  - a. In the top half, select the group from the **Name** list.
  - b. In the bottom half, select the user from the **Login Name** list, then touch **Edit** in the **Users** section.
3. At the *Edit User <name>* window:
  - a. Touch **Reset Password**.
  - b. Touch **Save**.
4. At the *Edit Users and Groups* window, touch **OK**.

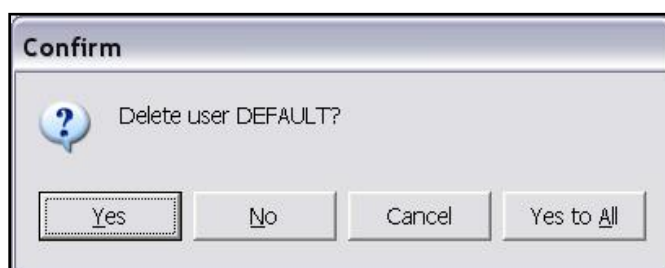
**NOTE:** The password is reset to be the same as the **Login Name** until the user logs in and changes the password.

**Tip!** Baxa Corporation recommends that users log in and change their passwords immediately after a password reset. Refer to [Changing a Password](#) on Page 127.

## Deleting a User

**IMPORTANT!** This function requires Administration permissions.

1. At the menu screen, touch **Tools > Users > Edit Users and Groups**.
2. At the *Edit Users and Groups* window:
  - a. In the top half, select the group from the **Name** list.
  - b. In the bottom half, select the user to delete from the **Login Name** list, then touch **Delete** in the **Users** section.
3. At the *Delete user <name>?* message, touch **Yes** to delete the user.



*Message*

4. At the *Edit Users and Groups* window, touch **OK**.

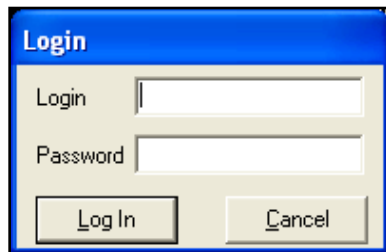
## Changing a Password

1. At the menu screen, touch **Tools > Users > Change Password**.
2. At the *Change Password* window:
  - a. Enter the **Old password**.
  - b. Enter the **new password**.
  - c. Enter the **new password** again to verify it.
  - d. Touch **OK**.

*Change Password window*

### Logging in as a Different User

1. At the menu screen, select **Tools > Users > Change User**.
2. At the *Login* window:
  - a. Enter a different **Login** name.
  - b. Enter the **Password**.
  - c. Touch **Log In**.



*Login window*

## USING THE CONFIGURATION EDITOR

Use the Configuration Editor to manage the configurations.

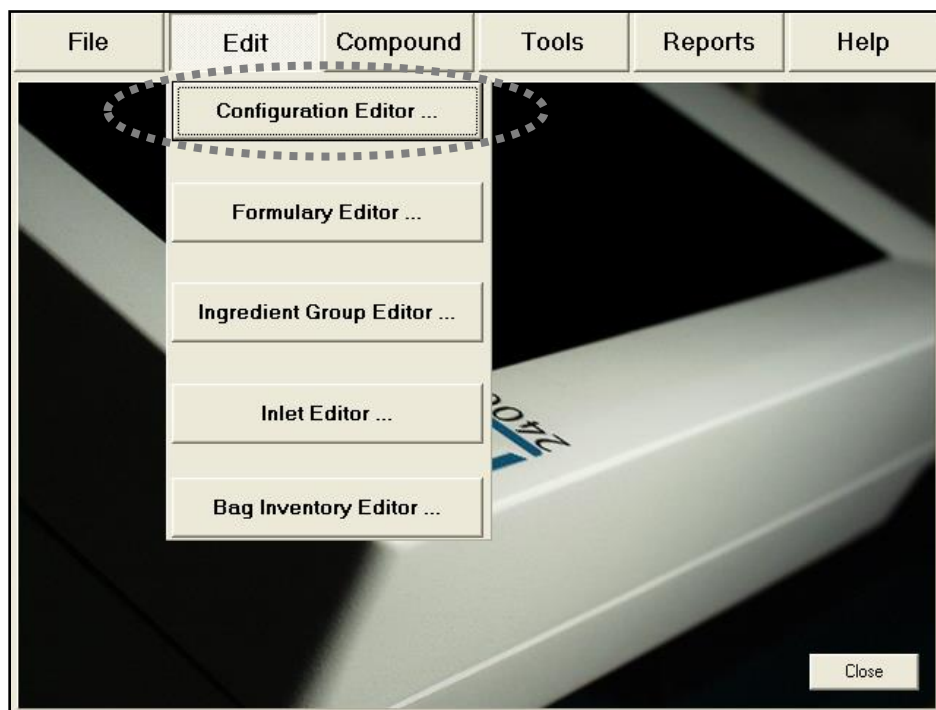


### WARNING

Before making any changes, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

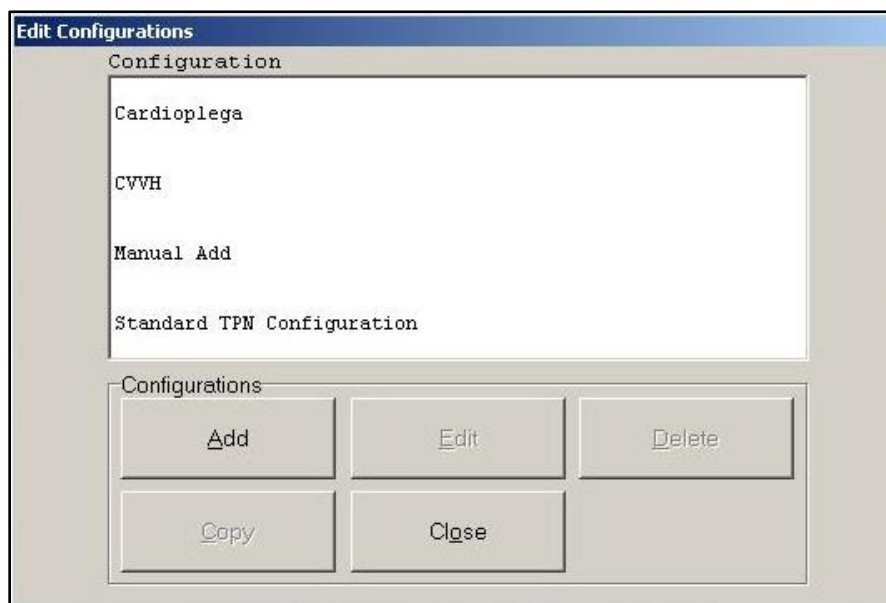
**IMPORTANT!** These functions require Edit Configuration permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

At the menu screen, touch **Edit > Configuration Editor**.



*Menu screen, Edit menu*

The *Edit Configurations* window appears. It lists the available configurations and allows you to add, edit, copy or delete configurations.



*Edit Configurations window*

## ADDING OR EDITING A CONFIGURATION



### WARNING

A Baxa Corporation pharmacist must approve every new or edited configuration before it is placed into service. Before making any changes, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

1. At the *Edit Configurations* window, you may perform any of these actions:

- To add a configuration, touch **Add**.  
The *Add Configuration* window appears.
- To edit a configuration, select the configuration, then touch **Edit**.  
The *Edit Configuration <name>* window appears.
- To copy a configuration, select the configuration, then touch **Copy**.  
The *Copy of <copied configuration name>* window appears.

**NOTE:** You can use the **Copy** option to make minor edits to an existing configuration and save it with a new name.



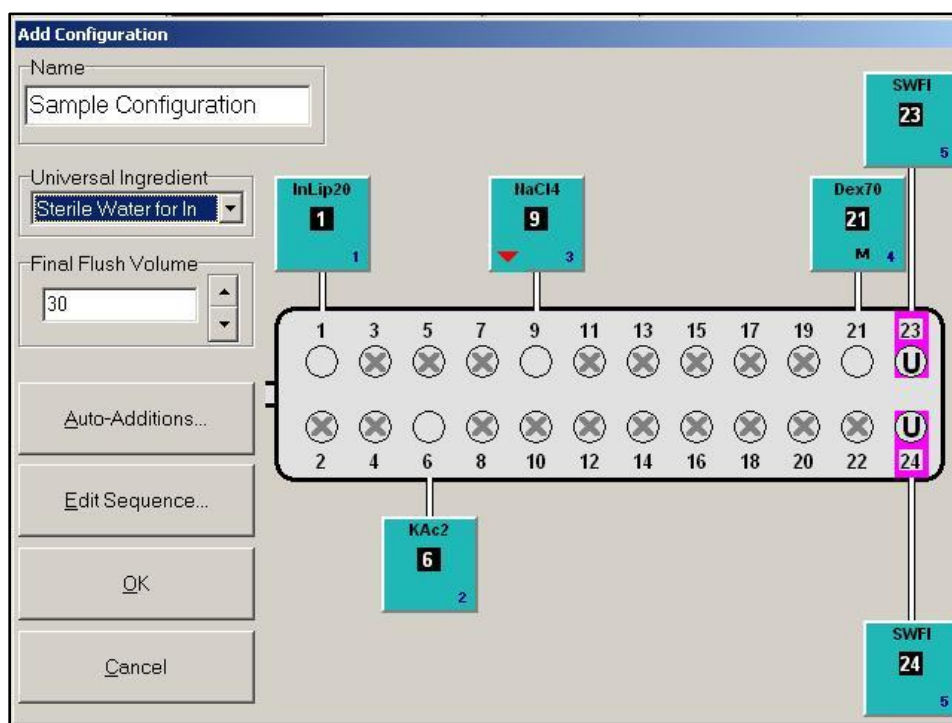
*Add Configuration window*

2. Enter the **Name** of the configuration.
3. Touch a port.  
The *Edit Port <number>* window appears.

*Edit Port <number> window*

4. At the *Edit Port <number>* window:
  - a. Select the **Product** to associate with the port.  
**NOTE:** For a product to appear in the list, it must first be in the formulary. Refer to [Using the Formulary Editor](#) on Page 137.
  - b. Select the **Prime Volume**. You can leave the standard volume that is automatically selected, or select the minimum volume.  
**Tip!** Baxa Corporation recommends using the standard prime volume to ensure that the inlets are primed and any bubbles are removed.  
**NOTE:** The prime volume is used during setup of the compounder. This volume must be set for each product that is in each configuration. Auto-addition ingredients are always primed with the standard volume.
  - c. If the selected product requires an ingredient flush after it is delivered, select the flush ingredient in the **Flush With** list and set the flush volume in the **Volume** field.  
**NOTE:** For example, to force a flush when lipids are pumped in a 3-in-1 bag, set the port with the appropriate flush ingredient and volume. Typically, the flush ingredient is the Universal Ingredient (UI), but it can be any ingredient in the configuration and the formula. Formulas containing the selected product to be flushed must include a minimum volume of the flush ingredient.
  - d. Touch **OK**.
5. Repeat Steps 3–4 for all the ports you want to use.

The configuration window now shows the product that is associated with each port. If you requested an ingredient flush for a product, the ingredient button includes a red downward arrow that represents the flush. If the ingredient is set to use the minimum prime volume, the ingredient button includes the letter M.



*Add Configuration window with products*

6. At the configuration window:

- a. Select the **Universal Ingredient**.

**NOTE:** For the Universal Ingredient (UI) to appear in the list, it must first be specified as a UI in the Formulary Editor (refer to [Adding or Editing an Ingredient](#) on Page 139) and included in the configuration. Universal Ingredients must be assigned to ports 19–24; they cannot be assigned to ports 1–18. A port specified for the Universal Ingredient is labeled **U**. For commonly used ingredients such as the Universal Ingredient, you can set up an electronic Y-site (refer to [electronic Y-site](#) on Page 199). For help with setting up an electronic Y-site, contact your local Baxa Corporation Technical Support.

- b. Enter the **Final Flush Volume**.

**Tip!** Each formula must include at least this volume of the Universal Ingredient. Baxa Corporation recommends using at least 30 mL. The minimum is 25 mL.

- c. If you want to specify ingredients for auto-addition, touch **Auto-Additions**. Otherwise, skip to Step 8.

A list of ingredients that are available for auto-addition appears on the right side of the window.

**NOTE:** For the ingredient to be listed as available for auto-addition, it must first be specified as an allowable auto-addition in the formulary. Refer to [Using the Formulary Editor](#) on Page 137.

*Selecting auto-additions*

7. To select auto-additions:
  - a. Select the check box for each desired ingredient.
  - b. To select a specific product or add an ingredient flush for the selected ingredient, touch **Edit Selected**.
  - c. When you are finished, touch **Return to Products**.
8. At the configuration window, touch **Edit Sequence**.

**NOTE:** This option is available only for existing configurations. If you do not edit the sequence (pumping order), the compounder will use the sequence of the port numbers (1, 2, 3 and so on).

A sequential list of ingredients appears on the right side of the window.

Seq	Ingredient	Auto-Add
1	Intralipid 20%	False
2	K Acetate 2mEq/mL	False
3	Na Chloride 4mEq/mL	False
4	Dextrose 70%	False
5	Sterile Water for In	False

*Editing the sequence*

9. To edit the sequence:
  - a. Select an ingredient, then use the arrows to move it up or down in the sequence.  
**NOTE:** If an ingredient is available for auto-addition, **True** appears in the **Auto-Add** column in this ingredient's row.
  - b. When you are finished, touch **Return to Products**.
10. At the configuration window, touch **OK**.
11. At the *Edit Configurations* window, touch **Close**.



#### **WARNING**

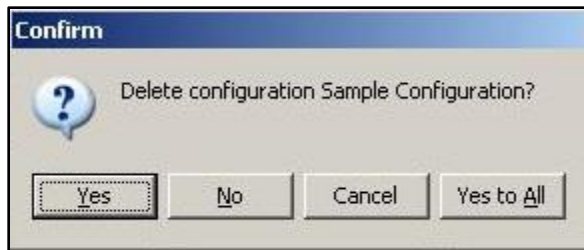
A Baxa Corporation pharmacist must approve every new or edited configuration before it is placed into service.

12. Print a Configuration Report for the new or edited configuration. Refer to [Configuration Report](#) on Page 164. For instructions on sending the Configuration Report, refer to [Getting Help](#) on Page 17.

## DELETING A CONFIGURATION

1. At the *Edit Configurations* window:
  - a. Select one or more configurations you want to delete.
  - b. Touch **Delete**.
2. At the *Delete configuration <name>?* message, touch:
  - **Yes** to delete the configuration
  - **Yes to All** to delete all configurations selected in the *Edit Configurations* window

**NOTE:** If only one configuration is selected, only one will be deleted. You cannot delete a configuration that is currently in use.



*Message*

3. At the *Edit Configurations* window, touch **Close**.

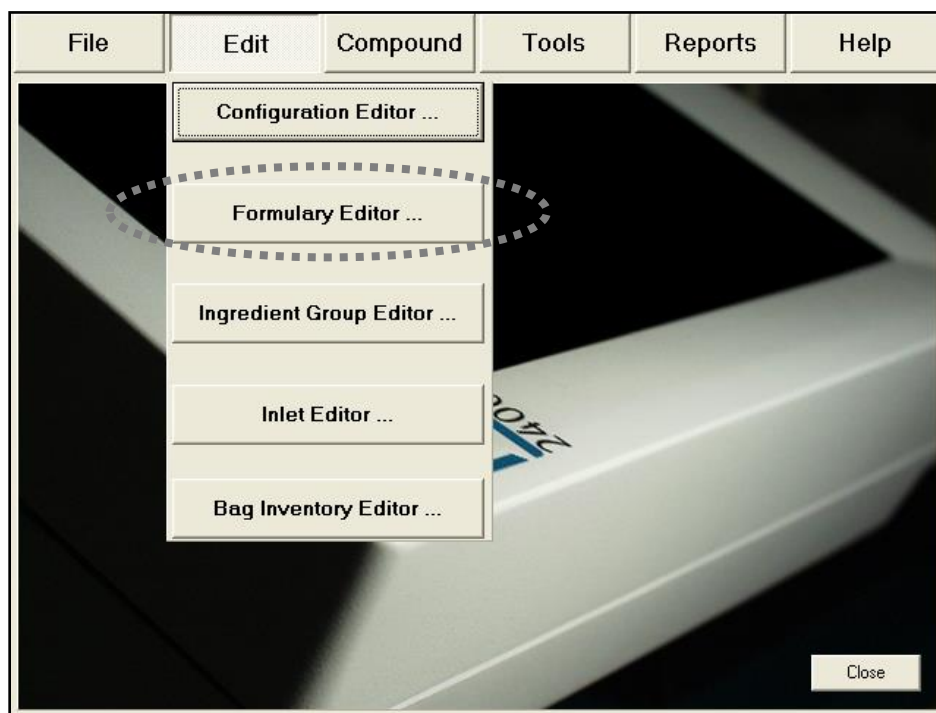
## USING THE FORMULARY EDITOR

Use the Formulary Editor to manage the ingredients and products in the formulary.

**WARNING**

Before making any changes, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

**IMPORTANT!** These functions require Formulary permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.



*Menu screen, Edit menu*

The *Formulary Editor* window appears. In the top half, the **Name** list identifies the ingredients that can be included in a formula. In the bottom half, the **Product Name** list identifies each **Product Name**, with its **Drug ID**, that is associated with the ingredient.

Touching the **Inlets** button displays the Inlet Editor. For instructions on using this feature, refer to [Using the Inlet Editor](#) on Page 150.

Name	Abbrev.
Aminosyn 15%	Amin15
Aminosyn 8.5%	Amin85
Aminosyn HBC 7%	AminHBC7
Aminosyn II 10%	AminII10

Ingredients

Add Edit Delete

Contained In... Show Cal. Ingredient

Product Name	Drug ID
Hospira Aminosyn 8.5% 500 Bottle	0409-0000-20

Products

Add Edit Delete

Contained In...

Inlets.. OK

*Formulary Editor window*



## WORKING WITH INGREDIENTS

### Adding or Editing an Ingredient

1. At the *Formulary Editor* window, in the top half, you may perform either of these actions:

- To add an ingredient, touch **Add** in the **Ingredients** section.

The *Add Ingredient* window appears.

- To edit an ingredient, select the ingredient from the **Name** list, then touch **Edit** in the **Ingredients** section.

The *Edit Ingredient <name>* window appears.

*Add Ingredient window*

2. At the *Add Ingredient* window or *Edit Ingredient <name>* window:

- a. Enter the **Name**.

**Tip!** Baxa Corporation recommends entering the name and concentration.

- b. Enter the **Abbr** (abbreviation).

**NOTE:** The information entered in the **Abbr** field will appear on the ingredient button on the pump screen.

- c. Enter the **Spec Gr** (specific gravity).

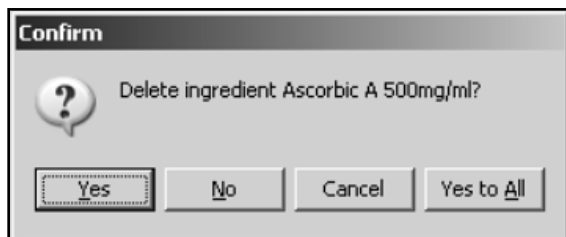
- d. In the **Groups** list, select the group to which the ingredient belongs. For more information, refer to [Using the Ingredient Group Editor](#) on Page 145.

- e. If desired, select one or more of these check boxes:
  - **Warn If Manual Addition** to make a message appear when a formula that includes this ingredient is used, but this ingredient is not in the current configuration
  - **Can be used for Universal Ingredient** to allow this ingredient to be used as a Universal Ingredient (UI)
  - **Auto-addition** to allow this ingredient to be added for temporary use at an open port
- f. Touch **Save**.

### Deleting an Ingredient

1. At the *Formulary Editor* window, in the top half:
  - a. Select one or more ingredients you want to delete from the **Name** list.
  - b. Touch **Delete** in the **Ingredients** section.
2. At the *Delete ingredient <name>?* message, touch:
  - **Yes** to delete the ingredient
  - **Yes to All** to delete all ingredients selected in the *Formulary Editor* window

**NOTE:** If only one ingredient is selected, only one will be deleted. You cannot delete an ingredient that is currently associated with a product, ingredient group, configuration or formula.



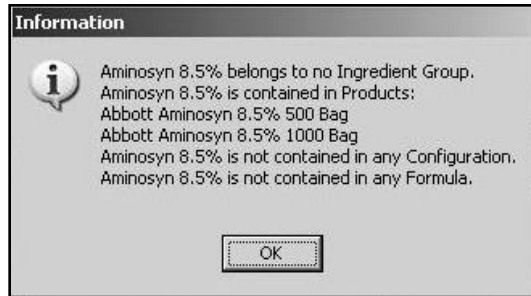
*Message*

## Viewing an Ingredient's Usage Information

1. At the *Formulary Editor* window, in the top half:
  - a. Select the ingredient you want to view from the **Name** list.
  - b. Touch **Contained In** in the **Ingredients** section.

A message with the ingredient's current usage appears, including:

  - The groups to which the ingredient belongs
  - The products that contain the ingredient
  - The configurations and formulas that contain the ingredient
2. At the *Information* message, touch **OK**.



*Message*

## Setting the Calibration Ingredient

The calibration ingredient is used for calibrating the compounder's pump.



### **WARNING**

A sterile water product is required as the calibration ingredient. If you think that the calibration ingredient needs to be changed, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

## Viewing the Calibration Ingredient

1. At the *Formulary Editor* window, in the top half, touch **Show Cal. Ingredient** in the **Ingredients** section.
- The calibration ingredient is highlighted.
2. Touch **OK**.

## WORKING WITH PRODUCTS

### Adding or Editing a Product

1. At the *Formulary Editor* window:
  - a. In the top half, select the ingredient from the **Name** list.
  - b. In the bottom half, you may perform either of these actions:
    - To add a product, touch **Add** in the **Products** section.  
The *Add Product* window appears.
    - To edit a product, select the product from the **Product Name** list, then touch **Edit** in the **Products** section.  
The *Edit Product <name>* window appears.

*Add Product window*

2. At the *Add Product* window or *Edit Product <name>* window:
  - a. Enter the product's **Manufacturer**.

**NOTE:** The **Ingredient Name** field populates automatically with the ingredient name in the formulary. You cannot change this field.

#### WARNING



It is important to select the correct inlet type for the container. Selecting the incorrect inlet type can lead to occlusions and incorrect volume delivery, resulting in patient harm. For assistance, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

- b. Select the appropriate **Inlet** for the container. For information about the available inlet types, refer to [Inlets](#) on Page 15.
- c. Enter the **Container Size**.
- d. Scan the barcode to enter the **Barcode ID**.

**NOTE:** For items that do not have a Barcode ID from the manufacturer, you can enter the data manually or use the default value. A default value will be created based on the data in the other fields.

**Tip!** Baxa Corporation recommends always using the barcode reader when possible.

---

**WARNING**



If a Drug ID is assigned to one product in the order-entry software, and that Drug ID is assigned to a different product in the compounder's formulary, the compounder may pump the wrong ingredient. *It is the user's responsibility to ensure that Drug IDs are correctly and consistently assigned in both systems.*

---

- e. Enter the **Drug ID**.

**NOTE:** The Drug ID is used to identify products uniquely. In the United States, the Drug ID is usually the NDC.

- f. Enter the **Max Hang Time**.

**NOTE:** This setting is the maximum amount of time the product can be attached to the compounder. The compounder displays a message if the product remains attached longer than the specified time.

- g. Select the product's **Container Type**.

**NOTE:** Source containers that can be used with the compounder are:

- Bags
- Bottles, vented or non-vented (500 mL or larger)
- Vials (10–250 mL)
- Luer syringes (60 mL only)

If you plan to use a different syringe size, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

- h. If you want to change the **Name**, touch **Regenerate Name**.

**NOTE:** The **Name** is used when the product's barcode is printed. Based on the product information, the **Name** is generated automatically for new products.

- i. Touch **Save**.




---

**WARNING**

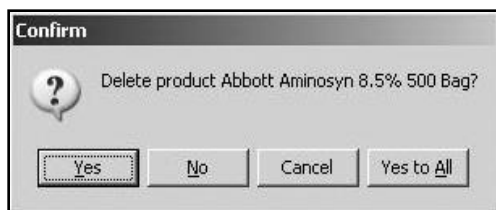
A second user should verify all added or edited products. Otherwise, an incorrect dose and patient harm may result.

---

## Deleting a Product

1. At the *Formulary Editor* window:
  - a. In the top half, select the ingredient from the **Name** list.
  - b. In the bottom half, select one or more products you want to delete from the **Product Name** list, then touch **Delete** in the **Products** section.
2. At the *Delete product <name>?* message, touch:
  - **Yes** to delete the product from the ingredient
  - **Yes to All** to delete all products selected in the *Formulary Editor* window

**NOTE:** If only one product is selected, only one will be deleted. You cannot delete a product that is currently used in a configuration.



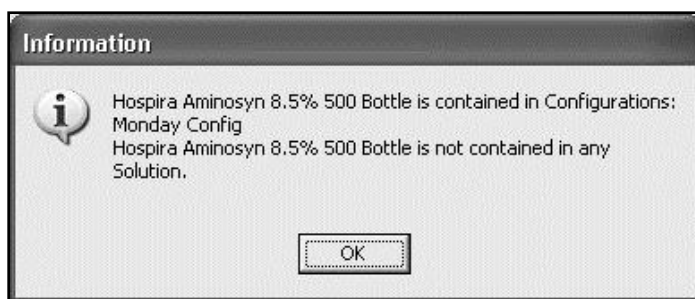
*Message*

## Viewing a Product's Usage Information

1. At the *Formulary Editor* window:
  - a. In the top half, select the ingredient from the **Name** list.
  - b. In the bottom half, select the product you want to view from the **Product Name** list, then touch **Contained In** in the **Products** section.

A message with the product's current usage appears, including:

  - The configurations that contain the product
  - The solutions that contain the product
2. At the *Information* message, touch **OK**.



*Message*

## USING THE INGREDIENT GROUP EDITOR

Use the Ingredient Group Editor to assign the products that are in the formulary to the correct groups and specify which groups are incompatible.

**WARNING**

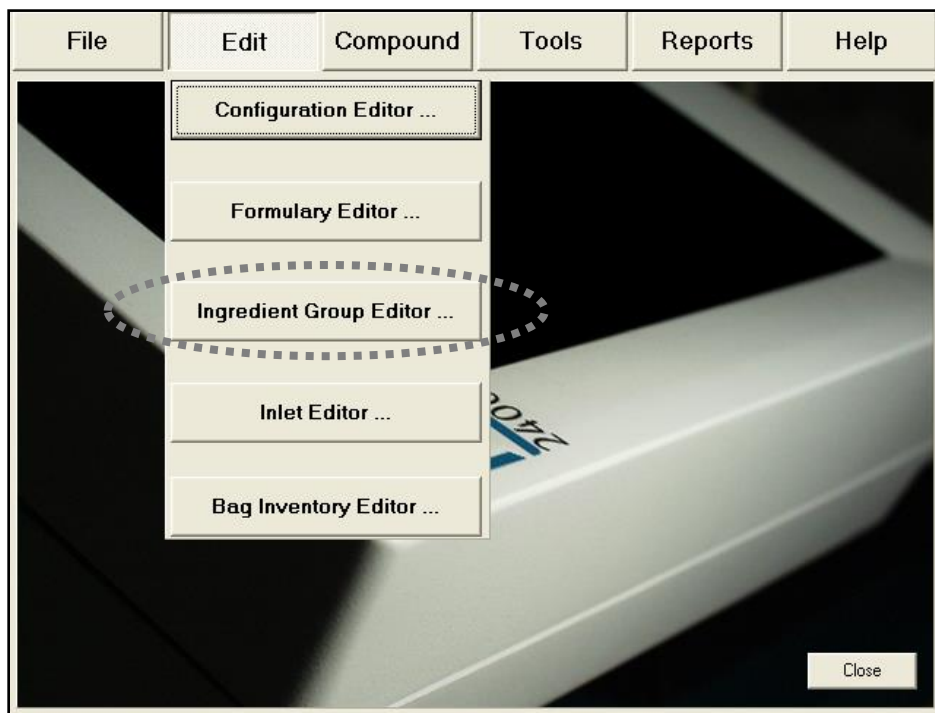
Before making any changes, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

**WARNING**

Any calcium-containing products must be assigned to the calcium members group, and any phosphate-containing products must be assigned to the phosphate members group to ensure the software will warn users about formulas that may cause a precipitate in the tube set during the compounding process.

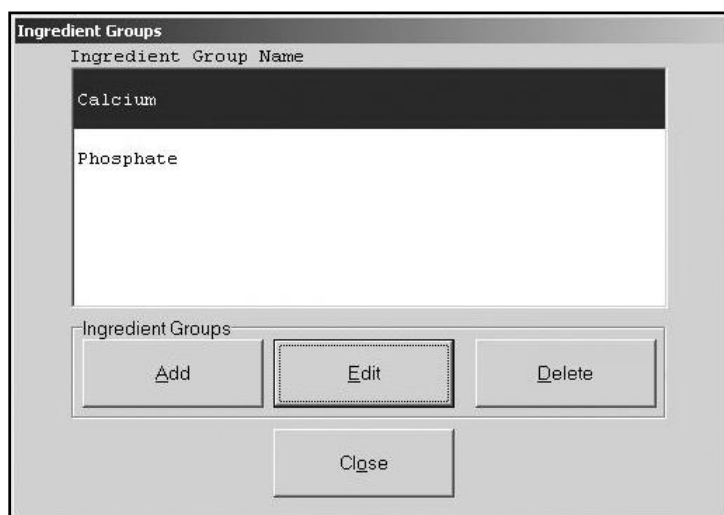
**IMPORTANT!** These functions require Formulary permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

At the menu screen, touch **Edit > Ingredient Group Editor**.



*Menu screen, Edit menu*

The *Ingredient Groups* window appears. It lists the available ingredient groups and allows you to add, edit or delete ingredient groups. **Calcium** and **Phosphate** groups are created automatically.



*Ingredients Groups window*



## ADDING OR EDITING AN INGREDIENT GROUP

- At the *Ingredient Groups* window, you may perform either of these actions:
  - To add an ingredient group, touch **Add**.  
The *Add Ingredient Group* window appears.
  - To edit an ingredient group, select the ingredient group, then touch **Edit**.  
The *Edit Ingredient Group <name>* window appears.

**Edit Ingredient Group Calcium**

Name: Calcium

**Nonmembers**

- Albumin 25%
- Aminosyn 10%
- Aminosyn 15%
- Aminosyn 8.5%
- Aminosyn HBC 7%
- Aminosyn II 10%
- Aminosyn II 15%

**Members**

- Ca Acetate
- Ca Gluconate 0.465mE

Use for Compatible Groups Flush?

Incompatible Groups

Flush Volume

Phosphate 100

☒ Allow All Groups to Flush

Modify Flush

Save Flush Volume 100 Cancel

*Edit Ingredient Group <name> window*

- Enter the **Name** of the group.
- Specify the members of this group.
  - To add an ingredient to this group:
    - Select the ingredient in the **Nonmembers** list.
    - Touch **>>** to move the ingredient to the **Members** list.
  - To remove an ingredient from this group:
    - Select the ingredient in the **Members** list.
    - Touch **<<** to move the ingredient to the **Nonmembers** list.

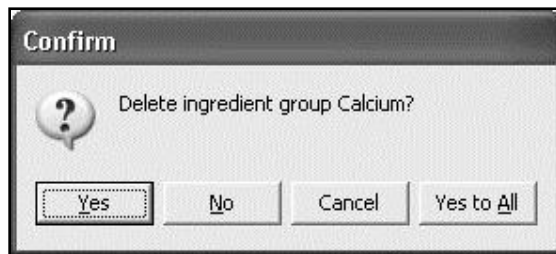
4. Specify the groups that are incompatible with this group.
  - To make another group incompatible with this group:
    - a. Select the other group in the **Compatible Groups** list.
    - b. Enter a **Flush Volume**.

**NOTE:** The flush ingredient will be any ingredient that is not listed as incompatible.
    - c. Touch **>>** to move the group to the **Incompatible Groups** list.
  - To make another group compatible with this group:
    - a. Select the other group in the **Incompatible Groups** list.
    - b. Touch **<<** to move the group to the **Compatible Groups** list.
5. To modify the flush volume for an incompatible group:
  - a. Select the group in the **Incompatible Groups** list.
  - b. Edit the **Flush Volume**.
  - c. Touch **Modify Flush**.
6. Touch **Save**.
7. At the *Ingredient Groups* window, touch **Close**.

## DELETING AN INGREDIENT GROUP

1. At the *Ingredient Groups* window:
  - a. Select one or more ingredient groups you want to delete.
  - b. Touch **Delete**.
2. At the *Delete ingredient group <name>?* message, touch:
  - **Yes** to delete the ingredient group
  - **Yes to All** to delete all ingredient groups selected in the *Ingredient Groups* window

**NOTE:** If only one ingredient group is selected, only one will be deleted. You cannot delete an ingredient group that contains ingredients.



*Message*

3. At the *Ingredient Groups* window, touch **Close**.

## USING THE INLET EDITOR

The Inlet Editor allows you to manage the inlets that are available for use on the compounder.

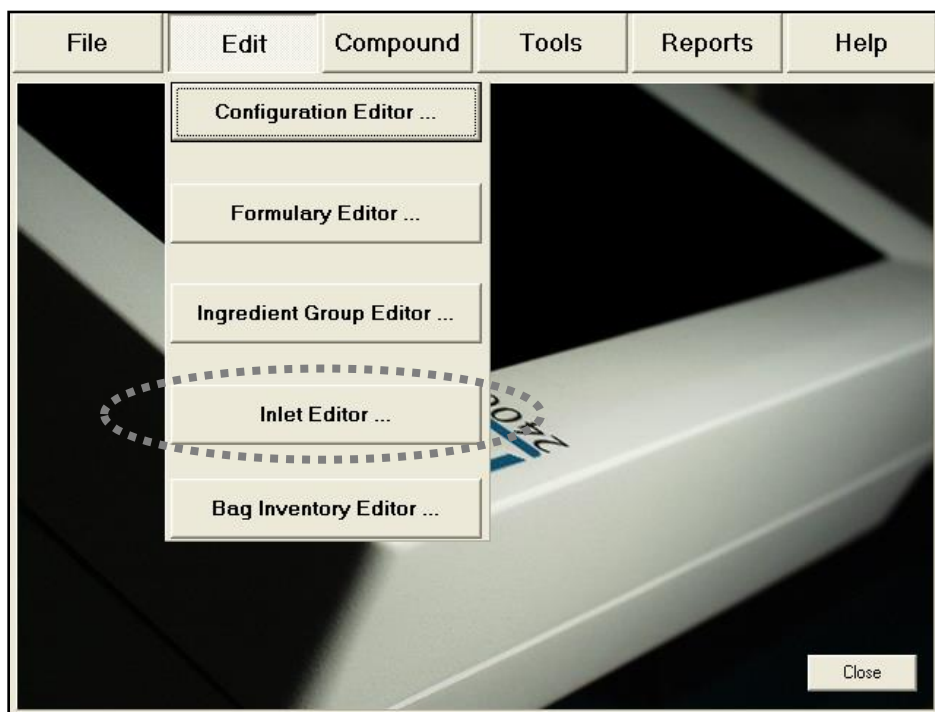
### WARNING



Do not make any changes unless directed by Baxa Corporation Technical Support. Changes may affect the delivery of ingredients. If you think that an inlet needs to be added, edited or deleted, contact Technical Support. Refer to [Getting Help](#) on Page 17.

**IMPORTANT!** These functions require Administration permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

At the menu screen, touch **Edit > Inlet Editor**.



*Menu screen, Edit menu*

## USING THE BAG INVENTORY EDITOR

The Bag Inventory Editor allows you to manage the bags that are available for use on the compounder.

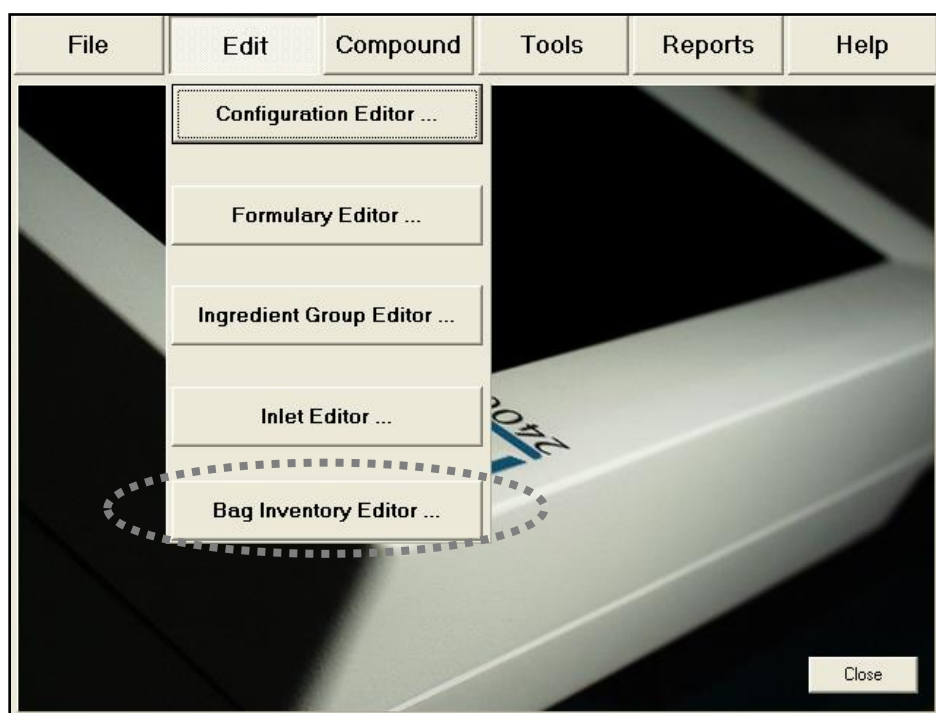


### WARNING

Do not make any changes unless directed by Baxa Corporation Technical Support. If you think that a bag needs to be added, edited or deleted, contact Technical Support. Refer to [Getting Help](#) on Page 17.

**IMPORTANT!** These functions require Administration permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121. Use only bags validated by Baxa Corporation for use with the compounder. For details, refer to [Bags](#) on Page 16. Using non-validated bags voids all manufacturer warranties. In addition, the accuracy of the finished solution will not be validated.

At the menu screen, touch **Edit > Bag Inventory Editor**.



*Menu screen, Edit menu*

## USING REPORTS

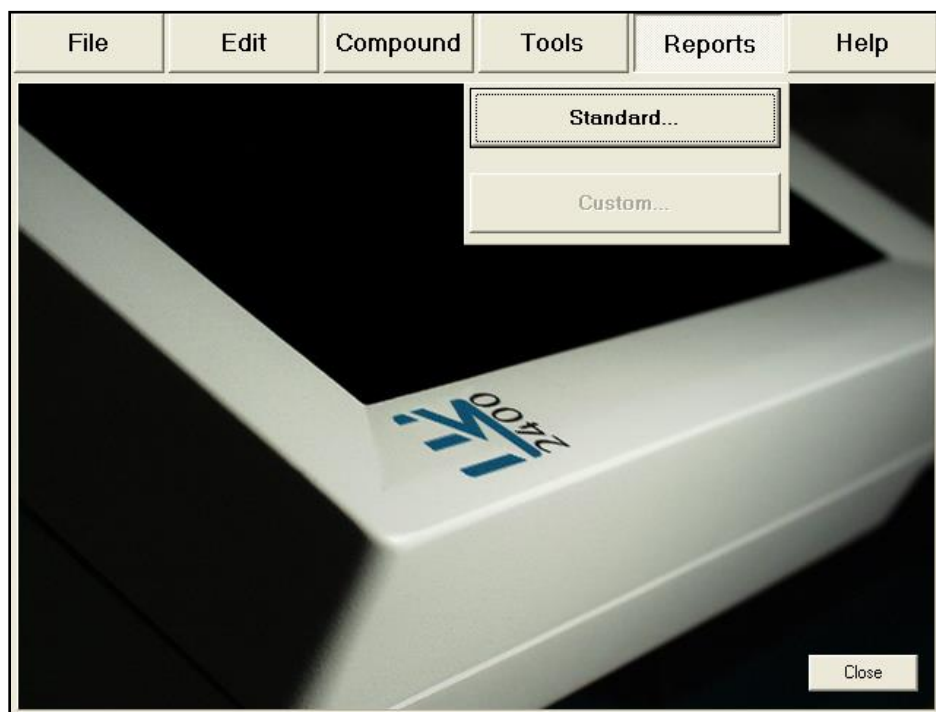
The compounder offers standard reports that document compounding activity and support various utilities. All reports are formatted for printing on standard-size paper.

**IMPORTANT!** Viewing, printing and exporting reports requires Report permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

**NOTE:** To select the printer used for printing reports, refer to [Report Printer](#) on Page 116.

To view reports:

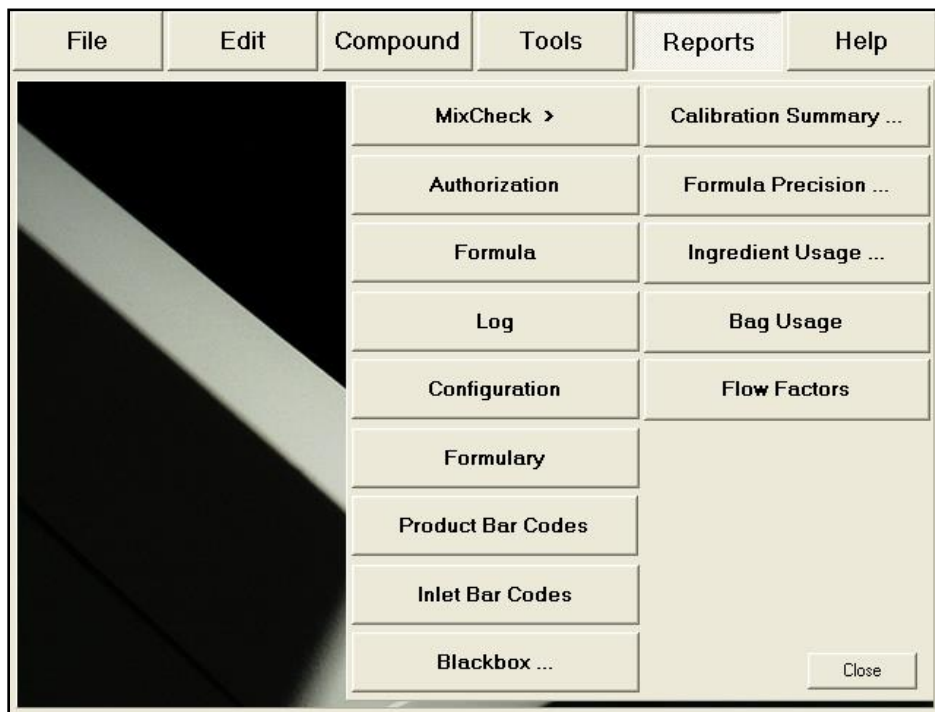
1. At the menu screen, select **Reports > Standard**.



*Menu screen, Reports menu*

2. Select the report you want to view.

**NOTE:** If reports are not listed, the directory for reports is not set up correctly. Refer to [Setting Up the Directories Options](#) on Page 119.



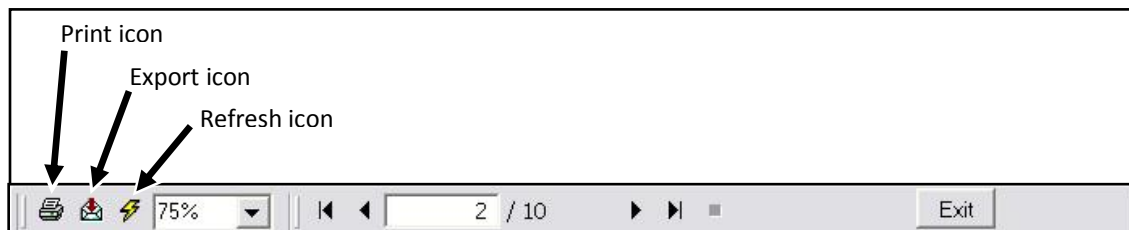
#### *Standard reports*

3. View the report. Refer to the instructions on the upcoming pages.

**NOTE:** The report screen may include scroll bars on the right side and/or the bottom. The top of the report screen may include these navigation options:

- The print icon allows you to send the report to the specified printer.
- The export icon allows you to save the report to a USB drive.
- The refresh icon generates the report again.
- The percentage list controls the zoom.
- The arrows and the number field allow you to move to different pages of a multi-page report.

4. When you are finished using the report, touch **Exit**.



#### *Navigation options for reports*

## MIXCHECK REPORT

The MixCheck Report provides details about the compounding process for an order. It reports information including the expected bag weight, measured bag weight, ordered ingredients, ordered volumes and manual additions that are required.

### Customizing MixCheck Reports

These options are available for customizing the MixCheck Report:

- To make this report display and/or print automatically after compounding, and/or allow on-screen authorization, refer to [MixCheck Report](#) on Page 112.
- To allow exporting of this report directly to the **DoseEdge** System, refer to [MixCheck Data Export](#) on Page 114.
- To specify signature-related text that you want to include at the end of the report, refer to [MixCheck Signature Label](#) on Page 116.

### Using MixCheck Reports



---

#### WARNING

It is important to print a MixCheck Report for every order, then have a cosigner (pharmacist) view and approve the entire report, especially the **Formula Name**; **Expected Weight**, **Measured Weight** and **Difference**; **Manual Additions**; and **Details**.

---

For instructions on viewing and approving the MixCheck Report, refer to the following pages.



**MixCheck™ Report**

Formula Name **DOE, JOHN(5551212)**  
 Serial Number **5984912**  
 Configuration **Daily TPN**

Date/Time **6/20/2011 1:19:10PM**  
 User **Administrator**  
 Elapsed Time **00:02:27**

Expected Weight (g): **237.79**      Measured Weight (g): **219.56**      Difference (%): **-7.66**

User Comments:

**Manual Additions:**

Ingredient Name	Vol (mL)	Added
Heparin 1000u/ml	0.12	
K Phosphate 3mM/ml	0.67	
L-Cysteine 50mg/ml	9.63	

Ordered Volume

<b>Ca Gluconate 0.465mE</b>		
Port: 6	APP Ca Gluconate 0.465mE 200 Vial (seq 4)	10.35
<b>Dextrose 70%</b>		
Port: 11	Abbott Dextrose 70% 2000 Bag (seq 5)	35.09
<b>K Acetate 2mEq/ml</b>		
Port: 5	Am. Regent K Acetate 2mEq/ml 100 Vial (seq 1)	2.54
<b>Na Chloride 4mEq/ml</b>		
Port: 8	Hospira Na Chloride 4mEq/ml 250 Vial (seq 2)	1.64
<b>Sterile Water for In</b>		
Port: 12	Hospira Sterile Water for In 2000 Bag (seq 6)	54.76
<b>Trophamine 10%</b>		
Port: 9	B Braun Trophamine 10% 500 Bottle (seq 3)	120.38

Details:

**Total (mL): 224.76**

Overrode destination bag not empty warning.  
 Selected bag 141 EVA Container 3000mL.  
 Trophamine 10% is possibly underweight by 9.86 grams  
 Occlusion was detected while pumping from port 6.  
 Pump door was open during delivery from port 11. Notify Pharmacist.  
 The final weight of this solution is outside of the acceptable limit of +/- 3.00%

Authorized by:

Serial Number **5984912**

Page 1 of 1

Date/Time **6/20/2011 1:19:10PM**

*Sample MixCheck Report*

Verify that the **Formula Name** matches the patient name on the label on the patient bag.

Verify that the **Serial Number** (unique for each order) matches the serial number on the label of the patient bag.

If **Manual Additions** are listed:

1. Verify that they match the label on the patient bag and/or the original formula.
2. Add these ingredients to the solution manually.
3. Place your initials in the **Added** column\* on the right side of the page.

Evaluate the information in the **Details** section to verify that the solution was compounded correctly. This section lists any interruptions that occurred while compounding, such as ingredient changes, ingredient replacements, occlusions, bubbles and other interruptions.



**WARNING**

It is important to have a pharmacist view and approve this information.

In the signature-related section at the end of the report, follow your facility's protocol.

MixCheck	
Formula Name	DOE, JOHN(5551212)
Serial Number	5984912
Configuration	Daily TPN
Expected Weight (g): 237.79	
Measured Weight	
User Comments:	
<b>Manual Additions:</b>	
Ingredient Name	
Heparin 1000u/ml	
K Phosphate 3mM/ml	
L-Cysteine 50mg/ml	
Ca Gluconate 0.465mE	
Port: 6	APP Ca Gluconate 0.465mE 200 Vial (seq 4)
Dextrose 70%	
Port: 11	Abbott Dextrose 70% 2000 Bag (seq 5)
K Acetate 2mEq/ml	
Port: 5	Am. Regent K Acetate 2mEq/ml 100 Vial (seq 1)
Na Chloride 4mEq/ml	
Port: 8	Hospira Na Chloride 4mEq/ml 250 Vial (seq 2)
Sterile Water for In	
Port: 12	Hospira Sterile Water for In 2000 Bag (seq 6)
Trophamine 10%	
Port: 9	B Braun Trophamine 10% 500 Bottle (seq 3)
Details:	
Override destination bag not empty warning.	
Selected bag 141 EVA Container 3000mL.	
Trophamine 10% is possibly underweight by 9.86 grams	
Occlusion was detected while pumping from port 6.	
Pump door was open during delivery from port 11. Notify Pharmacist	
The final weight of this solution is outside of the acceptable limit of +	
Authorized by:	
Serial Number 5984912	
Page 1	

Sample MixCheck Report (left side)

**Report**

Date/Time 6/20/2011 1:19:10PM  
 User Administrator  
 Elapsed Time 00:02:27

---

Weight (g): 219.56      Difference (%): -7.66

---

Vol (mL)	Added
0.12	
0.67	
9.63	

	Ordered Volume
	10.35
	35.09
	2.54
	1.64
	54.76
	120.38
<b>Total (mL):</b>	<b>224.76</b>

-/- 3.00%

of 1      Date/Time 6/20/2011 1:19:10PM

Verify that the **Date/Time** matches the date and time the order was fulfilled.

Compare the **Measured Weight** of the solution to the **Expected Weight**. Verify that the **Difference** is within acceptable limits per your facility's protocol.

**NOTE:** This example is shown to reinforce the importance of information included in this report.

\* If **Manual Additions** are listed, place your initials in the **Added** column.

Verify that each ingredient and its **Ordered Volume** match the label on the patient bag and/or the original formula.

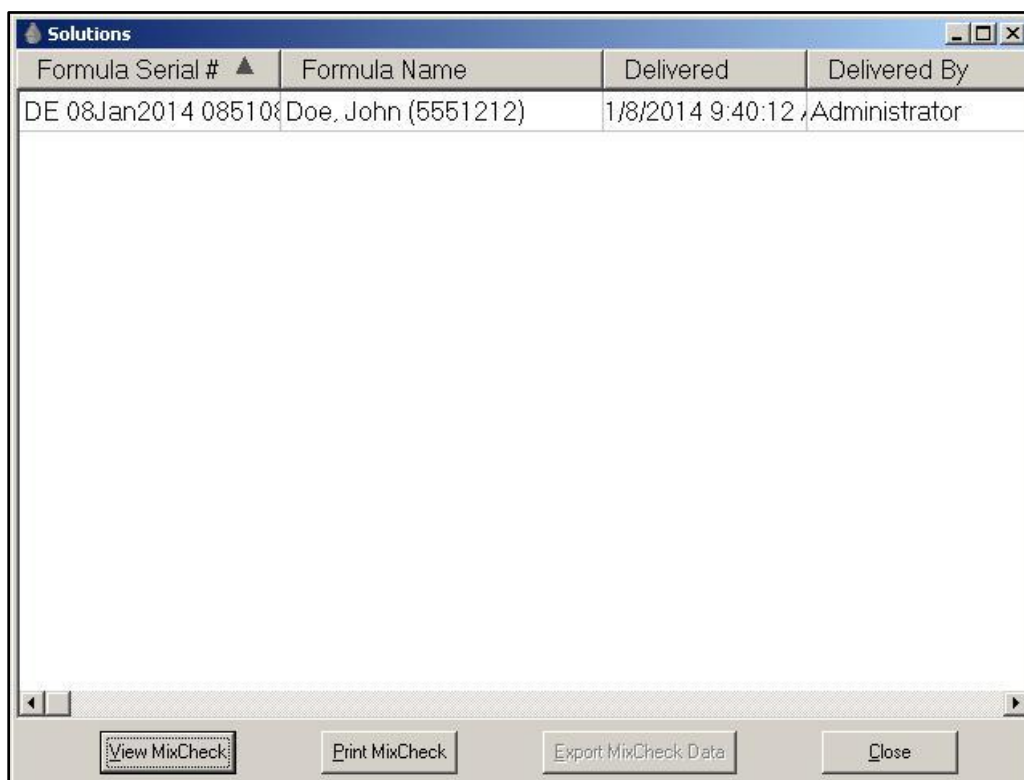
Verify that the **Total (mL)** matches the label on the patient bag and/or the original formula.

*Sample MixCheck Report (right side)*

## Viewing Old MixCheck Reports

For information about the options that are available for customizing MixCheck Reports, refer to [Customizing MixCheck Reports](#) on Page 154.

1. At the menu screen, touch **Reports > MixCheck > Old MixCheck Data**.
2. At the *Solutions* window:
  - a. Select a formula.
  - b. Touch one of these buttons:
    - **View MixCheck** to view the report on the screen
    - **Print MixCheck** to send the report to the assigned printer
    - **Export MixCheck Data** (not shown below) to export the data to the **DoseEdge** System



*Solutions window*

## AUTHORIZATION REPORT

The Authorization Report contains information about the compounder setup, including:

- The user who set it up (in the **Assembled** column) and the optional cosigner who performed the verification (in the **Verified** column)

**NOTE:** Users can print the report and write their initials in these columns, or the software can be set up to populate these columns automatically.

- The ingredient name, port and inlet used during setup

These options are available for customizing the Authorization Report:

- To require a cosigner to verify the setup, refer to [Cosignature](#) on Page 118.
- To make the **Assembled** and **Verified** columns populate automatically, refer to [Authorization Report](#) on Page 112.
- To specify signature-related text that you want to include at the end of the report, refer to [Authorization Report Signature Label](#) on Page 116.

To view the Authorization Report, touch **Reports > Standard > Authorization** at the menu screen.

Configuration: <b>Standard TPN Configuration</b>					Authorization Report		
					Current user: <b>Administrator</b>		
Port	Ingredient name	Inlet PN	Container (mL)	Remainder(mL)	Assembled	Verified	Date / Time
1	Intralipid 20%	174	250	190.00	Administrator	Baxa User (107186)	1/8/2014 8:36:52AM
2	Infuvite Adult	175	100	94.00	Administrator	Baxa User (107186)	1/8/2014 8:36:34AM
4	K Phosphate 3mMol/mL PO4	175	50	44.00	Administrator	Baxa User (107186)	1/8/2014 8:36:24AM
5	Na Phosphate 3mMol/mL PO4	175	50	44.00	Administrator	Baxa User (107186)	1/8/2014 8:36:14AM
6	K Acetate 2mEq/mL	175	100	94.00	Administrator	Baxa User (107186)	1/8/2014 8:36:03AM
7	Na Acetate 2mEq/mL	175	100	94.00	Administrator	Baxa User (107186)	1/8/2014 8:35:52AM
8	K Chloride 2mEq/mL	175	30	24.00	Administrator	Baxa User (107186)	1/8/2014 8:35:38AM
9	Na Chloride 4mEq/mL	175	100	94.00	Administrator	Baxa User (107186)	1/8/2014 8:35:28AM
11	Clinisol 15%	173	500	440.00	Administrator	Baxa User (107186)	1/8/2014 8:35:16AM
13	Multitrace-4	175	10	4.00	Administrator	Baxa User (107186)	1/8/2014 8:35:00AM
14	Selenium 40mcg/mL	175	10	4.00	Administrator	Baxa User (107186)	1/8/2014 8:34:49AM
20	Magnesium Sulfate 4.06mEq	175	50	44.00	Administrator	Baxa User (107186)	1/8/2014 8:34:38AM
21	Dextrose 70%	173	2000	1940.00	Administrator	Baxa User (107186)	1/8/2014 8:34:26AM
22	Ca Gluconate 0.465mEq	175	100	94.00	Administrator	Baxa User (107186)	1/8/2014 8:34:08AM
23	Sterile Water for In	173	2000	1940.00	Administrator	Baxa User (107186)	1/8/2014 8:33:54AM
24	Sterile Water for In	173	2000	1610.00	Administrator	Baxa User (107186)	1/8/2014 8:33:37AM

Part Number	Count
173	4
174	1
175	11

Assembled by: _____	Date: _____	Time: _____
Assembled by: _____	Date: _____	Time: _____
Checked by: _____	Date: _____	Time: _____

SAMPLE

Print Date / Time: 1/8/2014 8:41:40AM Page 1 of 1

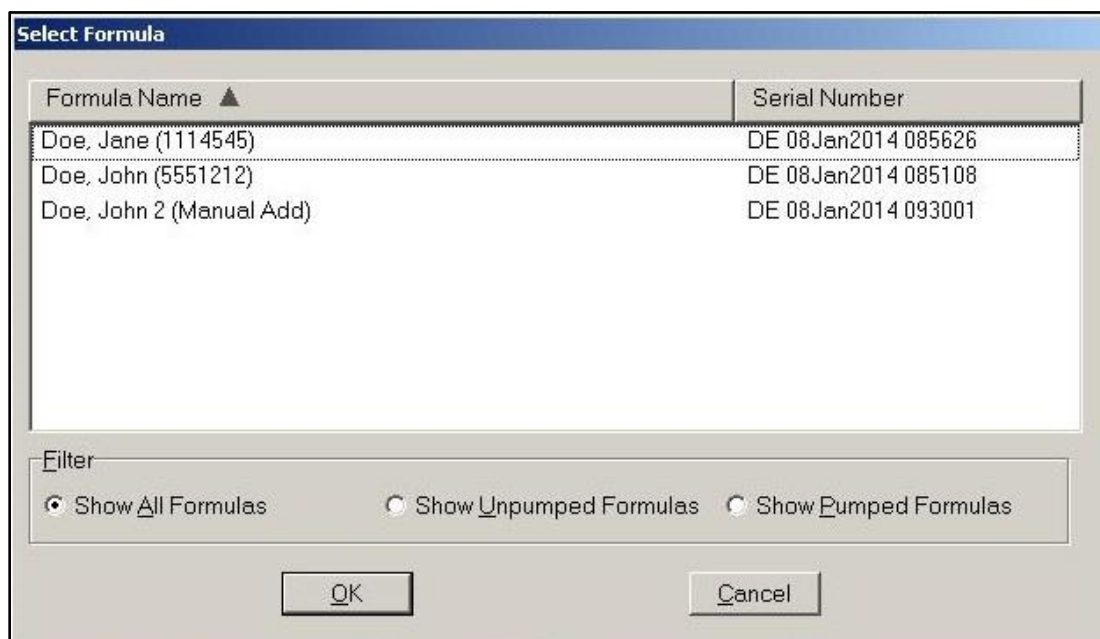
*Sample Authorization Report*

## FORMULA REPORT

The Formula Report is a summary of a specific formula. This report includes a delivery count for formulas that have been pumped multiple times.

To view the Formula Report:

1. At the menu screen, touch **Reports > Standard > Formula**.
2. At the *Select Formula* window:
  - a. Select **Show All Formulas**, or select another filter to reduce the number of formulas displayed.  
**NOTE:** The default filter is **Show Unpumped Formulas**. You can touch **Formula Name** to sort by name or touch **Serial Number** to sort by number.
  - b. Select a formula.
  - c. Touch **OK**.



The screenshot shows the 'Select Formula' window. It has a title bar 'Select Formula' in blue. Below the title bar is a table with two columns: 'Formula Name ▲' and 'Serial Number'. The table contains three rows of data. Below the table is a 'Filter' section with three radio buttons: 'Show All Formulas' (selected), 'Show Unpumped Formulas', and 'Show Pumped Formulas'. At the bottom are two buttons: 'OK' and 'Cancel'.

Formula Name ▲	Serial Number
Doe, Jane (1114545)	DE 08Jan2014 085626
Doe, John (5551212)	DE 08Jan2014 085108
Doe, John 2 (Manual Add)	DE 08Jan2014 093001

Filter

☒ Show All Formulas    ☐ Show Unpumped Formulas    ☐ Show Pumped Formulas

OK    Cancel

*Select Formula window*

### Formula Report

Formula Name: **Doe, John (5551212)**  
 Serial Number: **DE 08Jan2014 085108**  
 Delivery Count: **1**

Date: **1/8/2014**  
 Time: **10:09:14AM**

<u>Ingredient Name</u>	<u>Requested Volume (mL)</u>
Ca Gluconate 0.465mE	21
Clinisol 15%	422
Dextrose 70%	407
Infuvite Adult	11
Intralipid 20%	150
K Acetate 2mEq/mL	24
K Chloride 2mEq/mL	14
K Phosphate 3mMol/mL PO4	6
Magnesium Sulfate 4.06mEq	4
Multitrace-4	1
Na Acetate 2mEq/mL	10
Na Chloride 4mEq/mL	10
Na Phosphate 3mMol/mL PO4	10
Sterile Water for In	700

Non-formulary ingredients

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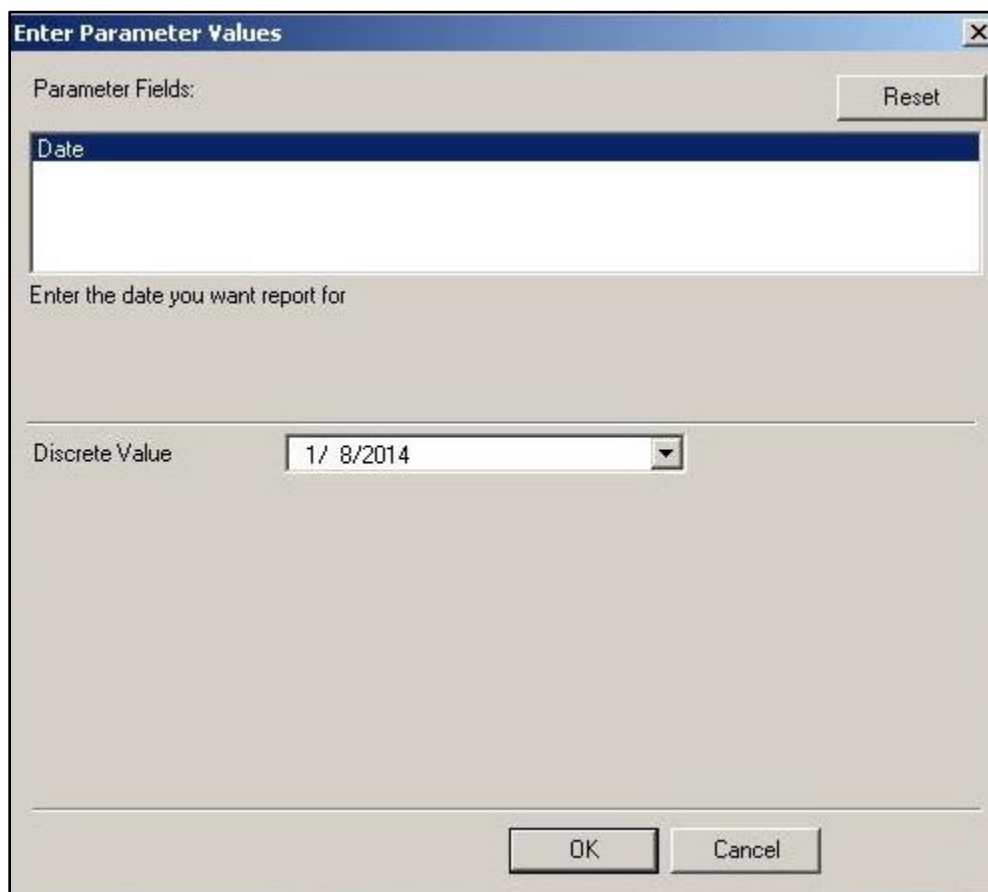
*Sample Formula Report*

## LOG REPORT

The Log Report is a summary of the formulas that were used for compounding on a specific day.

To view the Log Report:

1. At the menu screen, touch **Reports > Standard > Log**.
2. At the *Enter Parameter Values* window:
  - a. Enter the date for the report in the **Discrete Value** field.
  - b. Touch **OK**.



*Enter Parameter Values window*

**NOTE:** Depending on the number of formulas that are used for compounding each day, this report may be lengthy.



**Log Report**

Date: 1/8/2014

Formula Serial #: <b>DE 08Jan2014 085108</b>	Formula Name: <b>Doe, John (5551212)</b>
Ca Gluconate 0.465mE	21 mL
Clinisol 15%	422 mL
Dextrose 70%	407 mL
Infuvite Adult	11 mL
Intralipid 20%	150 mL
K Acetate 2mEq/mL	24 mL
K Chloride 2mEq/mL	14 mL
K Phosphate 3mMol/mL PO4	6 mL
Magnesium Sulfate 4.06mEq	4 mL
Multitrace-4	1 mL
Na Acetate 2mEq/mL	10 mL
Na Chloride 4mEq/mL	10 mL
Na Phosphate 3mMol/mL PO4	10 mL
Sterile Water for In	700 mL

Date Delivered:	1/8/2014	Expected Weight:	1,920.01 g
Time Delivered:	9:40:12AM	Measured Weight:	1,862.40 g
Elapsed Time:	00:05:22	Percent Error:	-3.00 %

SAMPLE

Page 1 of 1

*Sample Log Report*

## CONFIGURATION REPORT

The Configuration Report provides information about a specific configuration.

To view the Configuration Report:

1. At the menu screen, touch **Reports > Standard > Configuration**.
2. At the *Select Configuration* window:
  - a. Select the configuration.
  - b. Touch **OK**.



*Select Configuration window*

### Configuration Report

Configuration: **Standard TPN Configuration**Date: **1/8/2014**User: **Administrator**Time: **10:13:00AM**

<u>Sequence</u>	<u>Port</u>	<u>Ingredient</u>
1	9	Na Chloride 4mEq/mL
2	8	K Chloride 2mEq/mL
3	7	Na Acetate 2mEq/mL
4	6	K Acetate 2mEq/mL
5	5	Na Phosphate 3mMol/mL PO <sub>4</sub>
6	4	K Phosphate 3mMol/mL PO <sub>4</sub>
7	2	Infuvite Adult
8	1	Intralipid 20%
9	11	Clinisol 15%
10	13	Multitrace-4
11	Auto-Add	A Famotidine 10mg/mL
12	14	Selenium 40mcg/mL
13	21	Dextrose 70%
14	20	Magnesium Sulfate 4.06mEq
15	23	U Sterile Water for In
15	24	U Sterile Water for In
16	22	Ca Gluconate 0.465mE

"U" marks the default universal ingredient for this configuration.

"A" marks the allowed auto-addition ingredients for this configuration.

Page 1 of 1

*Sample Configuration Report*

## FORMULARY REPORT

The Formulary Report lists the ingredients that are included in the formulary.

To view the Formulary Report, touch **Reports > Standard > Formulary** at the menu screen.

## Formulary Report

Date: 1/8/2014

Time: 10:13:55AM

<u>Ingredient Name</u>	<u>Drug ID</u>	<u>Inlet</u>	<u>Sp. Gravity</u>	<u>Size</u>
<b>Product Name</b>				
<b>15% Amino Acids</b>				
B Braun 15% Amino Acids 1000 Bottle	0264-3200-55	174	1.05	1000
<b>Aminosyn 10% SF</b>				
Hospira Aminosyn 10% SF 1000 Bag	0409-4191-05	173	1.03	1000
Hospira Aminosyn 10% SF 500 Bag	0409-4191-03	173	1.03	500
<b>Aminosyn 3.5% M SF</b>				
Hospira Aminosyn 3.5% M SF 1000 Bag	0409-4196-05	173	1.02	1000
<b>Aminosyn 8.5%</b>				
Hospira Aminosyn 8.5% 500 Bottle	0409-4203-03	174	1.04	500
<b>Aminosyn 8.5% SF</b>				
Hospira Aminosyn 8.5% SF 500 Bag	0409-4187-03	173	1.03	500
<b>Aminosyn HBC 7%</b>				
Hospira Aminosyn HBC 7% 500 Bag	0409-4168-03	173	1.02	500
<b>Aminosyn II 10%</b>				
Hospira Aminosyn II 10% 2000 Bag	0409-7121-07	173	1.03	2000
<b>Aminosyn II 10% SF</b>				
Hospira Aminosyn II 10% SF 500 Bag	0409-4164-03	173	1.03	500
Hospira Aminosyn II 10% SF 1000 Bag	0409-4164-05	173	1.03	1000
<b>Aminosyn II 15% SF</b>				
Hospira Aminosyn II 15% SF 2000 Bag	0409-7171-17	173	1.05	2000
<b>Aminosyn PF 10%</b>				
Hospira Aminosyn PF 10% 1000 Bag	0409-4179-05	173	1.03	1000
<b>Aminosyn PF 7%</b>				
Hospira Aminosyn PF 7% 500 Bag	0409-4178-03	173	1.02	500
<b>Aminosyn RF 5.2%</b>				
Hospira Aminosyn RF 5.2% 500 Bag	0409-4166-03	173	1.02	500
<b>Ascorbic A 500mg/mL</b>				
American Regent Ascorbic A 500mg/mL 50 Vial	0517-5050-01	175	1.27	50

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Sample Formulary Report

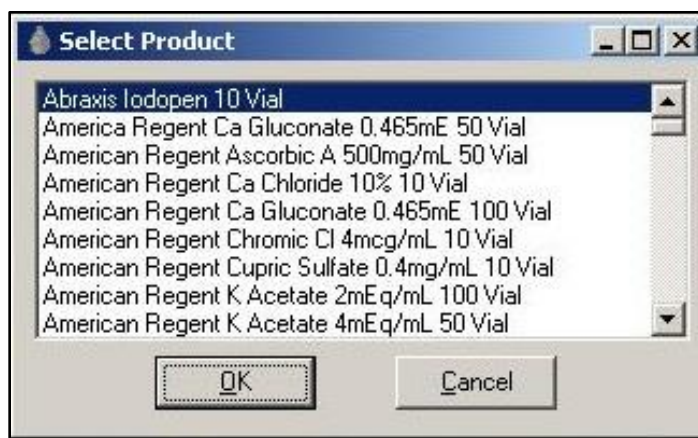
## PRODUCT BAR CODES REPORT

The Product Bar Codes Report displays the barcodes for products that are in the formulary. You can print the report onto labels for use with products that do not have a manufacturer's barcode.

For more information about printing, refer to [Printing Options](#) on Page 14.

To view the Product Bar Codes Report:

1. At the menu screen, touch **Reports > Standard > Product Bar Codes**.
2. At the *Select Product* window:
  - a. Select the product.
  - b. Touch **OK**.



*Select Product window*



*Sample Product Bar Codes Report*

























## INLET BAR CODES REPORT

The Inlet Bar Codes Report displays the barcodes for the inlets. You can print the report onto labels if you need an extra barcode label.

For more information about printing, refer to [Printing Options](#) on Page 14.

To view the Inlet Bar Codes Report, touch **Reports > Standard > Inlet Bar Codes** at the menu screen.



<b>1</b>	<small>1</small>		<b><u>9</u></b>	<small><u>9</u></small>		<b>17</b>	<small>17</small>	
<b>2</b>	<small>2</small>		<b>10</b>	<small>10</small>		<b>18</b>	<small>18</small>	
<b>3</b>	<small>3</small>		<b>11</b>	<small>11</small>		<b>19</b>	<small>19</small>	
<b>4</b>	<small>4</small>		<b>12</b>	<small>12</small>		<b>20</b>	<small>20</small>	
<b>5</b>	<small>5</small>		<b>13</b>	<small>13</small>		<b>21</b>	<small>21</small>	
<b><u>6</u></b>	<small><u>6</u></small>		<b>14</b>	<small>14</small>		<b>22</b>	<small>22</small>	
<b>7</b>	<small>7</small>		<b>15</b>	<small>15</small>		<b>23</b>	<small>23</small>	
<b>8</b>	<small>8</small>		<b>16</b>	<small>16</small>		<b>24</b>	<small>24</small>	

SAMPLE

*Sample Inlet Bar Codes Report*

## BLACKBOX REPORT

The Blackbox Report is a chronological list of all important system activity for a specific period of time. If necessary, Baxa Corporation may use this information for troubleshooting.

To view the Blackbox Report:

1. At the menu screen, select **Reports > Standard > Blackbox**.
2. At the *Enter Begin and End Times* window:
  - a. Enter the starting and ending times for the report.
  - b. Touch **OK**.



*Enter Begin and End Times window*

**Tip!** Due to the amount of data collected, this report may be lengthy. Baxa Corporation recommends contacting Technical Support. Refer to [Getting Help](#) on Page 17.

### Blackbox Report

Entry Date	Entry Time	User Name	Audit Category	Audit Message
1/8/2014	7:17:14AM	Initialization	Startup	Creating auto-backup: DB Name: C:\Program Files\Baxa\Exacta-Mix 2400\Odyssey.mdb, 1/7/2014 3:24:54 PM Backup Name:
1/8/2014	7:17:14AM	Initialization	Startup	C:\Program Files\Baxa\Exacta-Mix 2400\OdysseyBAK.mdb does not exist.
1/8/2014	7:17:15AM	Initialization	Database	Opened database: C:\Program Files\Baxa\Exacta-Mix 2400\Odyssey.mdb
1/8/2014	7:17:19AM	Initialization	Startup	Using database C:\Program Files\Baxa\Exacta-Mix 2400\Odyssey.mdb
1/8/2014	7:17:19AM	Initialization	Startup	Application info: Product: EM2400, Build #1.10.3.268
1/8/2014	7:17:19AM	Initialization	Startup	Loading configuration Sample
1/8/2014	7:17:19AM	Initialization	Startup	Initiating Database Purge/Compaction
1/8/2014	7:17:22AM	Initialization	COMM	OPOS: Creating OPOSPacketComm
1/8/2014	7:17:22AM	Initialization	COMM	OPOS: Creating OPOS Driver
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: OPOS Driver Created
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Loading USB Scanner Driver...
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Scanner Open successfully
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Scanner Claim successful
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Scanner set Enabled successful
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Scanner set DataEventEnabled successful
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Scanner set DecodeData successful
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Scanner is Idle
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Scanner Driver successfully loaded and initialized.
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Creating USBController
1/8/2014	7:17:23AM	Initialization	COMM	OPOS: Created USBController Object TJVHidDeviceController.
1/8/2014	7:17:23AM	Initialization	BARCODE	Created
1/8/2014	7:17:24AM	Initialization	PUMPSSENT	0x0101
1/8/2014	7:17:24AM	Initialization	PUMPRCVD	0x0101
1/8/2014	7:17:25AM	Initialization	PUMPSSENT	0x0102
1/8/2014	7:17:25AM	Initialization	PUMPRCVD	0x01020150554D502030303237
1/8/2014	7:17:25AM	Initialization	PUMP	FirmwareID: PUMP 0027
1/8/2014	7:17:25AM	Initialization	PUMPSSENT	0x0115
1/8/2014	7:17:25AM	Initialization	PUMPRCVD	0x011500
1/8/2014	7:17:25AM	Initialization	PUMPSSENT	0x0110
1/8/2014	7:17:25AM	Initialization	PUMPRCVD	0x01101000
1/8/2014	7:17:25AM	Initialization	PUMPSSENT	0x0131
1/8/2014	7:17:25AM	Initialization	PUMPRCVD	0x0131FE1C000035040000
1/8/2014	7:17:25AM	Initialization	PUMP	Life statistics: Revolutions=7422, Cycles=1077
1/8/2014	7:17:25AM	Initialization	FLOWSENT	0x0401
1/8/2014	7:17:25AM	Initialization	FLOWRCVD	0x0401
1/8/2014	7:17:26AM	Initialization	FLOWSENT	0x0402
1/8/2014	7:17:26AM	Initialization	FLOWRCVD	0x040201464C4F572030303237
1/8/2014	7:17:26AM	Initialization	FLOW	FirmwareID: FLOW 0027
1/8/2014	7:17:26AM	Initialization	FLOWSENT	0x044100
1/8/2014	7:17:26AM	Initialization	FLOWRCVD	0x0441000000

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### Sample Blackbox Report

## CALIBRATION SUMMARY REPORT

The Calibration Summary Report summarizes the calibration processes for the pump and the load cell during a specific period of time. It also distinguishes between automatic and manual calibrations.

To view the Calibration Summary Report:

1. At the menu screen, touch **Reports > Standard > Calibration Summary**.
2. At the *Enter Parameter Values* window:
  - a. Enter the starting and/or ending dates for the report.
  - b. If desired, select:

- **No lower bound** to leave the starting date open-ended
- **No upper bound** to leave the ending date open-ended

**NOTE:** The available dates are still limited by the amount of time this information is stored. For more information, refer to [Storage](#) on Page 114.

- c. Touch **OK**.

Enter Parameter Values

Parameter Fields: Reset

Start And End Dates

Enter starting and ending dates

Start of range  ☒ Include value

End of range  ☒ Include value

☐ No lower bound ☐ No upper bound

OK Cancel

*Enter Parameter Values window*

## Calibration Summary

### Pump Calibration

From: 1/8/2014

To: 1/8/2014

<u>Time</u>	<u>Type</u>	<u>Cal Product</u>	<u>Result</u>	<u>Port</u>	<u>Volume</u>
<b>1/8/2014</b>					
8:40:39AM	Manual using load cell		Succeeded		
	Administrator	0338-0013-06		24	200.00
9:17:34AM	Auto-adjustment		Succeeded		
	Administrator	0338-0013-06		24	670.00
9:39:31AM	Auto-adjustment		Succeeded		
	Administrator	0338-0013-06		23	670.00

### Load Cell Calibration

<u>Time</u>	<u>User</u>	<u>Result</u>
<b>1/8/2014</b>		
7:18:18AM	Baxa User (107186)	Succeeded

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*Sample Calibration Summary Report*

## FORMULA PRECISION REPORT

The Formula Precision Report summarizes the precision of the compounding process (how accurately the actual weight matched the expected weight) during a specific period of time.

To view the Formula Precision Report:

1. At the menu screen, touch **Reports > Standard > Formula Precision**.
2. At the *Enter Parameter Values* window:
  - a. Select **Start\_And\_End\_Dates** and enter the starting and/or ending dates for the report. If desired, select:
    - **No lower bound** to leave the starting date open-ended
    - **No upper bound** to leave the ending date open-ended

**NOTE:** The available dates are still limited by the amount of time this information is stored. For more information, refer to [Storage](#) on Page 114.
  - b. Select **Acceptable Weight Variance (%)** and enter a value.
  - c. Touch **OK**.

*Enter Parameter Values window*

### Formula Precision Summary

From: 1/8/2014 To: 1/8/2014

Acceptable Weight Variance: - 3.00% to 3.00%

Serial Number	Formula Name	Delivered	User	Expected (g)	Measured (g)	%Variance
---------------	--------------	-----------	------	--------------	--------------	-----------

1/8/2014

DE 08Jan2014 0851D8e, John (5551212)	9:40:12AM	Administrator	1,920.01	1,862.40	-3.00
--------------------------------------	-----------	---------------	----------	----------	-------

#### Summary:

#### Number of bags

-5% + variance	0	Maximum positive variance	0.00 %
-4% to -4.99% variance	0	Maximum negative variance	-3.00 %
-3% to -3.99% variance	1	Average variance	-3.00 %
-2 % to -2.99% variance	0	Median variance	-3.00 %
-1% to -1.99% variance	0		
-0.01% to -0.99% variance	0		
0% to 0.99% variance	0		
1% to 1.99% variance	0		
2% to 2.99% variance	0		
3% to 3.99% variance	0		
4% to 4.99% variance	0		
5% + variance	0		
<hr/>			
Total Bags	1		
Bags within range	0		
Bags out of range	1		

SAMPLE

Printed Date /Time: 1/8/2014

10:22:30AM

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*Sample Formula Precision Report*

## INGREDIENT USAGE REPORT

The Ingredient Usage Report summarizes the ingredient usage during a specific period of time. This report can be used to help manage inventory.

To view the Ingredient Usage Report:

1. At the menu screen, select **Reports > Standard > Ingredient Usage**.
2. At the *Enter Parameter Values* window:
  - a. Select **StartDay** and enter a starting day for the report.
  - b. Select **EndDay** and enter an ending day for the report.
  - c. Touch **OK**.

Enter Parameter Values

Parameter Fields: Reset

Start And End Dates

Enter starting and ending dates for the report:

Start of range  ☒ Include value

End of range  ☒ Include value

☐ No lower bound ☐ No upper bound

OK Cancel

*Enter Parameter Values window*



## Ingredient Usage

From: 4/26/2011

To: 4/26/2011

Ingredient NameVolume Used (ml)ContainersFormulary Ingredients

<b>Ca Gluconate 0.465mE</b>		<b>30.35</b>	
Am. Regent Ca Gluconate 0.465mE 100 Vial	0517-3900-25	30.35	1
<b>Dextrose 70%</b>		<b>145.09</b>	
Hospira Dextrose 70% 2000 Bag	0409-7120-07	145.09	1
<b>Heparin 1000u/ml</b>		<b>15.00</b>	
Hospira Heparin 1000u/ml 50 Vial	0000-0000-07	15.00	1
<b>K Acetate 2mEq/ml</b>		<b>2.54</b>	
Hospira K Acetate 2mEq/ml 100 Vial	0409-3294-06	2.54	1
<b>K Phosphate 3mM/ml</b>		<b>0.67</b>	
Baxter K Phosphate 3mM/ml 100 Vial	0000-0000-10	0.67	1
<b>L-Cysteine 50mg/ml</b>		<b>9.63</b>	
Baxter L-Cysteine 50mg/ml 50 Vial	0000-0000-14	9.63	1
<b>Na Acetate 2mEq/ml</b>		<b>0.74</b>	
Hospira Na Acetate 2mEq/ml 50 Vial	0409-3299-05	0.74	1
<b>Na Chloride 4mEq/ml</b>		<b>1.64</b>	
Hospira Na Chloride 4mEq/ml 250 Vial	0409-1130-02	1.64	1
<b>Ped MVI</b>		<b>8.08</b>	
SV Ped MVI 50 Syringe	0000-0000-08	8.08	1
<b>Ped Trace</b>		<b>4.20</b>	
SV Ped Trace 20 Syringe	0000-0000-09	4.20	1
<b>Sterile Water for In</b>		<b>99.76</b>	
Hospira Sterile Water for In 2000 Bag	0409-7118-07	99.76	1
<b>Trophamine 10%</b>		<b>122.38</b>	
B Braun Trophamine 10% 500 Bottle	0264-9341-55	122.38	1

Manual Add Ingredients

SAMPLE

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## Sample Ingredient Usage Report

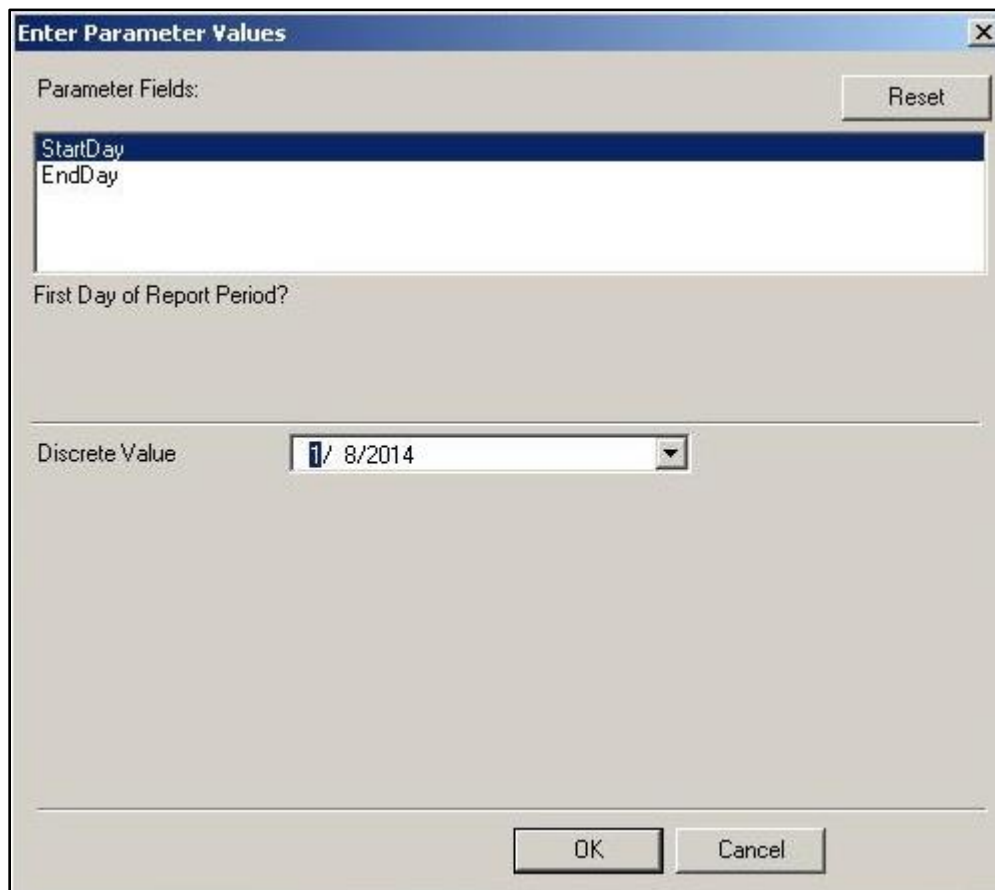
## BAG USAGE REPORT

The Bag Usage Report summarizes the bag usage during a specific period of time. This report can be used to help manage inventory.

To view the Bag Usage Report:

1. At the menu screen, touch **Reports > Standard > Bag Usage**.
2. At the *Enter Parameter Values* window:
  - a. Enter the starting and/or ending dates for the report.
  - b. If desired, select:
    - **No lower bound** to leave the starting date open-ended
    - **No upper bound** to leave the ending date open-ended
  - c. Touch **OK**.

**NOTE:** The available dates are still limited by the amount of time this information is stored. For more information, refer to [Storage](#) on Page 114.



*Enter Parameter Values window*

**Bag Usage**

9/1/2011 --- 9/1/2011

<u>Part Number</u>	<u>Description</u>	<u>Number Used</u>
737	TPN Bag 250mL.	2
738	TPN Bag 500mL.	1
739	TPN Bag 1000mL.	1
742	TPN Bag 4000mL.	1
<b>Total:</b>		5

SAMPLE

*Sample Bag Usage Report*

## FLOW FACTORS REPORT

The Flow Factors Report lists the flow factors for all the ingredients in the current configuration.

To view the Flow Factors Report, touch **Reports > Standard > Flow Factors** at the menu screen.

Flow Factors					
Configuration:		Standard TPN Configuration			
Date:		1/8/2014			
Time:		10:25:48AM			
Port	Seq	Product Name	Min Vol (mL)	Max Vol (mL)	Flow Factor
1	8	Baxter Intralipid 20% 250 Bottle	0.00	5.00	<b>0.9930</b>
			5.00	12.50	<b>0.9820</b>
			12.50	12,000.00	<b>1.0020</b>
2	7	Baxter Infuvite Adult 100 Vial	0.00	10.00	<b>1.0120</b>
			10.00	12,000.00	<b>1.0300</b>
4	6	American Regent K Phosphate 3mMol/mL PO4 50 Vial	0.00	10.00	<b>1.0350</b>
			10.00	12,000.00	<b>1.0371</b>
5	5	American Regent Na Phosphate 3mMol/mL PO4 50 Vial	0.00	10.00	<b>1.0780</b>
			10.00	12,000.00	<b>1.1100</b>
6	4	American Regent K Acetate 2mEq/mL 100 Vial	0.00	10.00	<b>1.0180</b>
			10.00	12,000.00	<b>1.0370</b>
7	3	American Regent Na Acetate 2mEq/mL 100 Vial	0.00	10.00	<b>1.0330</b>
			10.00	12,000.00	<b>1.0430</b>
8	2	American Regent K Chloride 2mEq/mL 30 Vial	0.00	10.00	<b>1.0300</b>
			10.00	12,000.00	<b>1.0420</b>
9	1	Hospira Na Chloride 4mEq/mL 100 Vial	0.00	10.00	<b>1.0130</b>
			10.00	12,000.00	<b>1.0250</b>
11	9	Baxter Clinisol 15% 500 Bag	0.00	5.00	<b>1.0000</b>
			5.00	12.50	<b>1.0010</b>
			12.50	12,000.00	<b>0.9990</b>
13	10	American Regent Multitrac-4 10 Vial	0.00	10.00	<b>0.9890</b>
			10.00	12,000.00	<b>1.2110</b>
14	12	American Regent Selenium 40mcg/mL 10 Vial	0.00	10.00	<b>1.0120</b>
			10.00	12,000.00	<b>1.0200</b>
20	14	Hospira Magnesium Sulfate 4.06mEq 50 Vial	0.00	10.00	<b>1.0140</b>
			10.00	12,000.00	<b>1.0730</b>

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*Sample Flow Factors Report*

## TROUBLESHOOTING

### HANDLING INTERRUPTIONS AND ERRORS

If you encounter any of these interruptions or errors, take the suggested actions. If the issue persists, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

#### Issues with the Barcodes

Issue / On-screen Text	Possible Explanation	Suggested Actions
<p>The label on the source container or the patient bag cannot be scanned.</p> <p>Text: <b>Unable to scan</b></p>	<p>The barcode on the label is not legible, or the barcode reader conflicts with a connected keyboard and/or mouse.</p>	<ol style="list-style-type: none"> <li>Check that the green LED on the barcode reader illuminates and the barcode reader beeps when you scan a barcode. <ul style="list-style-type: none"> <li>If yes, continue with the next step.</li> <li>If no, check that the cable for the barcode reader is connected correctly to the display, then skip to Step 3.</li> </ul> </li> <li>Check whether a keyboard or mouse is connected. <ul style="list-style-type: none"> <li>If yes, disconnect the keyboard and/or mouse. They will conflict with the barcode reader.</li> <li>If no, check that the barcode reader is enabled. Refer to <a href="#">Bar Code Reader</a> on Page 118. If the compounder stops responding, reboot it. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> </ul> </li> <li>If the barcode on the source container or patient bag is not legible, replace the source container (Refer to <a href="#">Replacing a Source Container</a> on Page 92.) or print and attach a new label for the patient bag. Do not scan any labels that are not on containers or bags attached to the compounder.</li> </ol>
<p>Text: <b>Incorrect Scan</b></p>	<p>The barcode on the source container does not match the barcode value in the formulary.</p>	<ol style="list-style-type: none"> <li>Contact your EXACTAMIX Administrator or Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.</li> <li>For help with correcting the barcode value, contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.</li> <li>When entering the Barcode ID for a new product, make sure that the information in the formulary matches the information on the container. Refer to <a href="#">Adding or Editing a Product</a> on Page 142.</li> </ol>



Issue / On-screen Text	Possible Explanation	Suggested Actions
No barcodes can be scanned.	The barcode reader does not indicate that it is operational.	<ol style="list-style-type: none"> <li>1. Disconnect the cable for the barcode reader from the display, then reconnect this cable.</li> <li>2. Check that the barcode reader and its cable are not damaged.</li> <li>3. If the cables for the keyboard and mouse are connected to the display, disconnect these cables. Then reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>4. Contact Baxa Corporation Technical Support for a barcode programming sheet. Refer to <a href="#">Getting Help</a> on Page 17.</li> </ol>
Text: <b>Barcode reader (&lt;serial number of .PAT file&gt;): formula not found.</b>	The .PAT file is not available.	<ol style="list-style-type: none"> <li>1. Correct the .PAT file in the order-entry software.</li> <li>2. Reprint and attach the barcode label.</li> <li>3. Scan the barcode again.</li> <li>4. Check that the Ethernet cable is connected correctly to both the display and the order-entry computer.</li> <li>5. Check that the network is functioning.</li> <li>6. Check the path on both the order-entry computer and the compounder. Refer to <a href="#">Setting Up the Directories Options</a> on Page 119.</li> <li>7. Reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> </ol>
Text: <b>Barcode reader (X): barcode contains an invalid Code 39 character.</b>	The barcodes for formulas must use the Code39 symbology, which has a restricted character set.	<ol style="list-style-type: none"> <li>1. Ensure that the correct barcode is scanned.</li> <li>2. Reprint and attach the barcode label.</li> <li>3. Scan the barcode again.</li> </ol>
Text: <b>Barcode reader (X): barcode contains an invalid MOD43 check digit.</b>	The barcodes for formulas must use the Code39 symbology with a MOD43 check digit appended.	<ol style="list-style-type: none"> <li>1. Ensure that the correct barcode is scanned.</li> <li>2. Reprint and attach the barcode label.</li> <li>3. Scan the barcode again.</li> </ol>

## Issues with the Formulas, Ingredients and Configurations

Issue / On-screen Text	Possible Explanation	Suggested Actions
Text: <b>This formula contains &lt;ingredient name&gt;, which is not currently on the configuration. Do you wish to add it to the configuration?</b>	The ingredient is an auto-addition ingredient.	Add the ingredient. Refer to <a href="#">Performing an Auto-Addition</a> on Page 87.
Text: <b>Configuration must be verified before compounding.</b>	The configuration is not primed and verified.	Prime and verify the configuration. Refer to <a href="#">Priming and Verifying</a> on Page 55.
Text: <b>The following ports contain products that have been spiked longer than allowed. Port Product Time Spiked Allowed Hang Time (Hours) &lt;list of products&gt;.</b>	One or more ingredients have been attached longer than the allowed time.	<ol style="list-style-type: none"> <li>1. Touch <b>Cancel</b>.</li> <li>2. Replace the source container of each expired ingredient. Use aseptic technique. Refer to <a href="#">Attaching the New Ingredients and Inlets</a> on Page 45.</li> <li>3. Prime and verify each expired ingredient. Refer to <a href="#">Priming and Verifying</a> on Page 55.</li> </ol>
Text: <b>Ingredient &lt;ingredient name&gt; must be manually added and its requested volume of &lt;requested volume&gt; mL exceeds the maximum manual add volume of &lt;max manual add volume&gt; mL.</b>	The product must be added manually, because it is not in the configuration, but its ordered volume exceeds the maximum volume for manual additions.	<ul style="list-style-type: none"> <li>• To continue with the manual addition, touch <b>Manual Additions</b>.</li> <li>• To cancel the order, touch <b>Cancel</b>.</li> </ul> <p>Also consider adding the ingredient to the configuration, so that this ingredient will not need to be handled as a manual addition. Refer to <a href="#">Adding or Editing a Configuration</a> on Page 130.</p>
	A Drug ID in the formula does not match any Drug ID in the formulary.	If the product is in the configuration, check that the Drug ID is correct and that it matches the Drug ID from the order-entry software. Refer to <a href="#">Adding or Editing a Product</a> on Page 142.
Text: <b>Swap Container: Your container of &lt;ingredient name&gt; is empty. You have &lt;remaining volume&gt; mL left to run. Please change the container now.</b>	The container is almost empty and needs to be replaced.	<p>Check that the container is almost empty.</p> <ul style="list-style-type: none"> <li>• If the container is almost empty, replace it. Refer to <a href="#">Replacing a Source Container</a> on Page 92.</li> <li>• If the container is not almost empty, check that it is the correct container, and contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.</li> </ul>
During priming, the fluid does not flow through the expected inlet.	The inlet is not attached to the correct port.	<ol style="list-style-type: none"> <li>1. Remove the source container from the vial rack or hanger and turn it right-side-up, to prevent fluid from flowing.</li> <li>2. Remove the inlet from the incorrect port and attach it to the correct port.</li> <li>3. Return the source container to the vial rack or hanger.</li> </ol>

Issue / On-screen Text	Possible Explanation	Suggested Actions
Text: <b>Flushing with Universal Ingredient. Please attach flush/calibration bag.</b>	The tube set needs to be flushed prior to compounding.	Attach a calibration bag and continue. Refer to <a href="#">Attaching and Removing the Calibration Bag</a> on Page 43. Do not use a patient bag.
Text: <b>Formula Conflict:</b>  <b>Formula contains incompatible ingredients with insufficient flush volume between them.</b>  <b>First Ingredient:</b> <i>&lt;ingredient name&gt;</i>  <b>Second Ingredient:</b> <i>&lt;ingredient name&gt;</i>  <b>Required Flush:</b> <i>&lt;required volume&gt;</i>  <b>Available Flush:</b> <i>&lt;available volume&gt;</i>  <b>Solution must be canceled.</b>	There is not enough ingredient flush between incompatible ingredient groups.	1. Touch <b>Cancel</b> . 2. Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.



Issue / On-screen Text	Possible Explanation	Suggested Actions
<p>Text:  <b>Formula Conflict:</b>  <b>Additional &lt;flush volume&gt; mL of &lt;Universal Ingredient&gt; required for order.</b></p>	<p>The formula does not contain the minimum required volume of the Universal Ingredient (UI).</p>	<p><b>IMPORTANT!</b> This function requires Change Universal Ingredient permissions. For more information about user groups and permissions, refer to <a href="#">Setting Up the Users</a> on Page 121.</p> <ol style="list-style-type: none"> <li>1. Touch <b>Change UI To...</b></li> <li>2. Touch <b>OK</b>.  A <i>Change Universal</i> window appears. It lists any ingredients that are specified as a UI in the Formulary Editor (refer to <a href="#">Adding or Editing an Ingredient</a> on Page 139), included at a UI port in the configuration (refer to <a href="#">Adding or Editing a Configuration</a> on Page 130) and have an ordered volume that is sufficient for a UI.</li> <li>3. At the <i>Change Universal</i> window: <ol style="list-style-type: none"> <li>a. Select the Universal Ingredient you want to use.</li> <li>b. Touch <b>OK</b>.</li> </ol> </li> </ol> <div data-bbox="1073 737 1195 762" style="border: 1px solid black; padding: 2px;"> <p><b>WARNING</b></p> </div> <div data-bbox="959 779 1040 863" style="text-align: center;">  </div> <div data-bbox="1073 772 1472 909" style="border: 1px solid black; padding: 2px;"> <p>Do not use a patient bag during Universal Ingredient flushes. Otherwise, the patient bag may contain an unintended volume and/or ingredient, resulting in patient harm.</p> </div> <ol style="list-style-type: none"> <li>4. If a patient bag is attached, remove it. Refer to <a href="#">Removing the Patient Bag</a> on Page 86.</li> <li>5. Attach a calibration bag. Refer to <a href="#">Attaching and Removing the Calibration Bag</a> on Page 43.</li> <li>6. At the <i>Flushing with Universal Ingredient</i> message, touch <b>OK</b>.</li> </ol> <div data-bbox="1073 1125 1195 1150" style="border: 1px solid black; padding: 2px;"> <p><b>WARNING</b></p> </div> <div data-bbox="959 1167 1040 1251" style="text-align: center;">  </div> <div data-bbox="1073 1161 1472 1297" style="border: 1px solid black; padding: 2px;"> <p>Do not touch <b>OK</b> at the <i>Completed flushing</i> message until after you attach the patient bag. Otherwise, the compounder will pump the formula ingredients into the calibration bag.</p> </div> <ol style="list-style-type: none"> <li>7. When the <i>Completed flushing</i> message appears, remove the calibration bag. Refer to <a href="#">Attaching and Removing the Calibration Bag</a> on Page 43.</li> <li>8. Attach the patient bag. Refer to <a href="#">Attaching the Patient Bag</a> on Page 72.</li> <li>9. At the <i>Completed flushing</i> message, touch <b>OK</b>.</li> <li>10. Repeat the compounding process.</li> </ol>
<p>Text:  <b>Calibration ingredient not found in configuration.</b></p>	<p>The water product (for example, the manufacturer or container size of dextrose) may have changed recently.</p>	<ol style="list-style-type: none"> <li>1. Check that the calibration ingredient is set correctly. Refer to <a href="#">Setting the Calibration Ingredient</a> on Page 141.</li> <li>2. If it is set correctly, contact Baxa Corporation Technical Support for assistance. Refer to <a href="#">Getting Help</a> on Page 17.</li> </ol>

## Issues with the Calibration

On-screen Text	Possible Explanation	Suggested Actions
<b>Load cell not calibrated. Must calibrate to continue.</b>	The load cell is not calibrated.	<ol style="list-style-type: none"> <li>1. Touch <b>Yes</b>.</li> <li>2. Calibrate the load cell. Refer to <a href="#">Calibrating the Load Cell</a> on Page 33.</li> </ol>
<b>Span Calibration Out Of Range. Calibration failed.</b>	The calibration of the load cell is out of range. Something may be touching or interfering with the load cell.	<ol style="list-style-type: none"> <li>1. Check that: <ul style="list-style-type: none"> <li>• The cable for the load cell is connected correctly.</li> <li>• The load cell is level and locked into place.</li> <li>• There is nothing (for example, the outlet tube, bag or cable for the load cell) touching the pan or base of the load cell.</li> <li>• There are no environmental factors (for example, air flow or vibrations) interfering with the load cell.</li> </ul> </li> <li>2. Calibrate the load cell. Refer to <a href="#">Calibrating the Load Cell</a> on Page 33. Read the on-screen messages carefully, and make sure that you do not place the calibration weight on the load cell too early.</li> </ol>
<p><b>The pump has not been calibrated since the last tube set change. This operation must be completed prior to pumping a solution.</b></p> <p><b>Would you like to calibrate the pump now?</b></p>	The pump is not calibrated.	<ol style="list-style-type: none"> <li>1. Touch <b>Yes</b>.</li> <li>2. Calibrate the pump. Refer to <a href="#">Calibrating the Compounder</a> on Page 67.</li> </ol>
<b>Unable to measure stable weight</b>	The calibration of the pump failed. Something may be touching or interfering with the load cell.	<ol style="list-style-type: none"> <li>1. Check that: <ul style="list-style-type: none"> <li>• The load cell is level and locked into place.</li> <li>• There is nothing (for example, the outlet tube, bag or cable for the load cell) touching the pan or base of the load cell.</li> <li>• There are no environmental factors (for example, air flow or vibrations) interfering with the load cell.</li> </ul> </li> <li>2. Calibrate the compounder. Refer to <a href="#">Calibrating the Compounder</a> on Page 67.</li> </ol>

On-screen Text	Possible Explanation	Suggested Actions
<b>Pump calibration has failed.</b>	The calibration of the pump failed.	<ol style="list-style-type: none"> <li>1. Check that the valve set is installed correctly. Refer to <a href="#">Installing the New Valve Set</a> on Page 41.</li> <li>2. For the source container of water, check the following conditions. Refer to <a href="#">Attaching the New Ingredients and Inlets</a> on Page 45. <ul style="list-style-type: none"> <li>• The correct inlet is used.</li> <li>• The inlet is not kinked.</li> <li>• The bag is spiked correctly. Refer to Page 49.</li> </ul> </li> <li>3. Clean any spills near the pump rotor.</li> <li>4. Calibrate the load cell. Refer to <a href="#">Calibrating the Load Cell</a> on Page 33.</li> <li>5. Calibrate the pump. Refer to <a href="#">Calibrating the Compounder</a> on Page 67.</li> </ol>

### Issues with the Weight and Load Cell

On-screen Text	Possible Explanation	Suggested Actions
<p><b>Expected Weight:</b> <b>&lt;calculated weight&gt; gm</b></p> <p><b>Actual Weight:</b> <b>&lt;actual weight&gt; gm</b></p> <p><b>Difference:</b> <b>&lt;weight difference&gt;%</b></p> <p><b>The final weight of this solution is outside of the acceptable limit of +/-5%</b></p> <p><b>Possible Cause: Unknown</b></p>	<p>The final bag weight is out of range.</p> <p>After the compounder delivers all the ingredients, the weight of the patient bag differs from the expected weight by more than the acceptable difference.</p>	<ol style="list-style-type: none"> <li>1. On the MixCheck Report, check for suspect ingredients and references to occlusions and bubbles. Refer to <a href="#">MixCheck Report</a> on Page 154.</li> <li>2. Calibrate the load cell. Refer to <a href="#">Calibrating the Load Cell</a> on Page 33.</li> <li>3. Calibrate the compounder. Refer to <a href="#">Calibrating the Compounder</a> on Page 67.</li> <li>4. If the issue persists, check that: <ul style="list-style-type: none"> <li>• All the source containers are spiked correctly. Refer to the steps for spiking a container, starting on Page 49.</li> <li>• The rollers on the pump rotor are clean and move freely. Refer to <a href="#">Cleaning the Compounder</a> on Page 100.</li> <li>• The tube set is installed correctly. Refer to <a href="#">Attaching the New Ingredients and Inlets</a> on Page 45.</li> </ul> </li> <li>5. Compound a large-volume solution with at least 205 mL of water to make the compounder calibrate automatically.</li> </ol>

On-screen Text	Possible Explanation	Suggested Actions
<p><b>Expected Weight:</b> <b>&lt;calculated weight&gt; gm</b></p> <p><b>Actual Weight:</b> <b>&lt;actual weight&gt; gm</b></p> <p><b>Difference:</b> <b>&lt;weight difference&gt;%</b></p> <p><b>The final weight of this solution is within the acceptable limit of +/-5%, however some ingredients may not have delivered correctly.</b></p> <p><b>Possible Cause:</b> <b>&lt;ingredient name&gt; is possibly &lt;underweight / overweight&gt; by &lt;weight error&gt; grams</b></p>	<p>Although the final bag weight is within range, an individual ingredient delivery is out of range.</p> <p>After the compounder delivers an individual ingredient, the weight of the patient bag differs from the expected weight by more than the acceptable difference.</p> <p>The compounder checks the bag weight after individual ingredient deliveries over 100 mL.</p>	<ol style="list-style-type: none"> <li>1. Check that all the ingredients and inlets are correct.</li> <li>2. Check that the tube set is installed correctly. Refer to <a href="#">Installing the New Valve Set</a> on Page 41 and <a href="#">Attaching the New Ingredients and Inlets</a> on Page 45.</li> <li>3. On the MixCheck Report, check for references to occlusions and bubbles. Refer to <a href="#">MixCheck Report</a> on Page 154.</li> <li>4. Check that all the source containers are spiked correctly. Refer to the steps for spiking a container, starting on Page 49.</li> <li>5. Check that the rollers on the pump rotor are clean and move freely. Refer to <a href="#">Cleaning the Compounder</a> on Page 100.</li> <li>6. Calibrate the load cell. Refer to <a href="#">Calibrating the Load Cell</a> on Page 33.</li> <li>7. Calibrate the pump. Refer to <a href="#">Calibrating the Compounder</a> on Page 67.</li> <li>8. Contact Baxa Corporation Technical Support to check that the flow factors are correct. Refer to <a href="#">Getting Help</a> on Page 17.</li> </ol>

On-screen Text	Possible Explanation	Suggested Actions
<b>The bag currently on the load cell does not appear to be empty.</b>	Before pumping starts, the load cell detects that the destination bag contains fluid.	<p>If the bag contains fluid, and you are calibrating the compounder, refer to Step 4 on Page 68.</p> <p>If the bag contains fluid, and you are compounding the solution:</p> <ol style="list-style-type: none"> <li>1. Touch <b>No</b>.</li> <li>2. At the <i>Operation Cancelled</i> message, touch <b>OK</b>.</li> <li>3. If the attached bag is a patient bag, write a large "X" on the label.</li> <li>4. Remove the bag from the load cell. Depending on the type of the attached bag, refer to: <ul style="list-style-type: none"> <li>• <a href="#">Removing the Patient Bag</a> on Page 86</li> <li>• <a href="#">Attaching and Removing the Calibration Bag</a> on Page 43</li> </ul> </li> <li>5. Discard the bag.</li> <li>6. Attach an empty patient bag. Refer to <a href="#">Attaching the Patient Bag</a> on Page 72.</li> </ol> <p>If the bag is empty:</p> <ol style="list-style-type: none"> <li>1. Touch <b>No</b>.</li> <li>2. At the <i>Operation Cancelled</i> message, touch <b>OK</b>.</li> <li>3. Remove the bag from the load cell. Depending on the type of the attached bag, refer to: <ul style="list-style-type: none"> <li>• <a href="#">Removing the Patient Bag</a> on Page 86</li> <li>• <a href="#">Attaching and Removing the Calibration Bag</a> on Page 43</li> </ul> </li> <li>4. Calibrate the load cell. Refer to <a href="#">Calibrating the Load Cell</a> on Page 33.</li> <li>5. If necessary, attach the appropriate bag to the load cell. Refer to: <ul style="list-style-type: none"> <li>• <a href="#">Attaching the Patient Bag</a> on Page 72</li> <li>• <a href="#">Attaching and Removing the Calibration Bag</a> on Page 43</li> </ul> </li> </ol>
<b>There does not appear to be a bag hung on the scale.</b>	The load cell detects that the destination bag is not attached.	<p>If the bag is not attached, attach the appropriate bag to the load cell. Refer to:</p> <ul style="list-style-type: none"> <li>• <a href="#">Attaching the Patient Bag</a> on Page 72</li> <li>• <a href="#">Attaching and Removing the Calibration Bag</a> on Page 43</li> </ul> <p>If the bag is attached:</p> <ol style="list-style-type: none"> <li>1. Touch <b>No</b>.</li> <li>2. Calibrate the load cell. Refer to <a href="#">Calibrating the Load Cell</a> on Page 33.</li> </ol>

## Issues with the Pump

On-screen Text	Possible Explanation	Suggested Actions
<b>Pump was paused.</b>	The pump was paused during normal operation.	<ol style="list-style-type: none"> <li>1. If the pump door was opened, close it.</li> <li>2. Touch <b>OK</b>.</li> <li>3. Touch <b>Resume</b> to continue compounding.</li> </ol>
<b>Pump door was opened.</b>	The pump door was opened during normal operation.	<ol style="list-style-type: none"> <li>1. Close the pump door.</li> <li>2. Touch <b>OK</b>.</li> <li>3. Touch <b>Resume</b> to continue compounding.</li> </ol>
<b>Pump is faulted</b>	The pump door was opened during normal operation.	<ol style="list-style-type: none"> <li>1. Close the pump door.</li> <li>2. Touch <b>OK</b>.</li> <li>3. Touch <b>Resume</b> to continue compounding.</li> </ol>
<b>Unable to start the pump because the pump is in a fault state</b>	The rotor was manually adjusted while the compounder was turned on.	<ol style="list-style-type: none"> <li>1. Touch <b>OK</b>.</li> <li>2. At the pump screen, touch <b>Stop</b> and follow the on-screen instructions.</li> <li>3. Reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>4. Repeat the compounding process.</li> </ol>
<b>Pump is in fault state and must be reset before use. Reset the pump?</b>	A pump fault occurred.	Touch <b>Yes</b> to reset the pump.
<b>Pump faulted. Unable to close valve. Valve is moving.</b>	A system fault or power loss occurred.	<p>The compounding process cannot be completed.</p> <ol style="list-style-type: none"> <li>1. Write a large "X" on the label of the patient bag, then remove and discard the patient bag.</li> <li>2. Reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>3. Repeat the compounding process.</li> </ol>

## Issues with the Occlusion Detector / "Flow Sensor"

**NOTE:** For all of these messages about the occlusion detector self-test, touching **Cancel** displays a *Contact Baxa* message and disables your ability to compound a solution or calibrate the compounder.

On-screen Text	Possible Explanation	Suggested Actions
<b>The Occlusion Detector Test failed.</b> <b>Air detected in fluid pathway.</b>  <b>Select OK to Retry.</b> <b>Select Cancel to Exit.</b>	The test failed because an air bubble was detected in the common fluid pathway.	<ol style="list-style-type: none"> <li>1. Touch <b>Cancel</b>.</li> <li>2. To help reduce the occurrence of bubbles and make their detection more accurate, refer to the note on Page 96.</li> <li>3. Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.</li> </ol> <p><b>NOTE:</b> To perform the test again, you must re-prime at least one inlet (other than the Universal Ingredient) and then exit the <i>PRIME AND VERIFY</i> screen.</p>
<b>The Occlusion Detector Test failed.</b> <b>Pump door open.</b>  <b>Select OK to Retry.</b> <b>Select Cancel to Exit.</b>	The test did not finish because the pump door was opened during the test.	<ol style="list-style-type: none"> <li>1. Close the pump door.</li> <li>2. Touch <b>OK</b>. The test occurs again.</li> </ol>

On-screen Text	Possible Explanation	Suggested Actions
<b>The Occlusion Detector Test failed.</b> <b>Pump was paused.</b>  <b>Select OK to Retry.</b> <b>Select Cancel to Exit.</b>	The test did not finish because the pump was paused during the test.	Touch <b>OK</b> . The test occurs again.
<b>The Occlusion Detector Test failed.</b>  <b>Select OK to Retry.</b> <b>Select Cancel to Exit.</b>	The test failed for an unknown reason.	<ol style="list-style-type: none"> <li>1. Check that the tube set is installed correctly. Refer to <a href="#">Installing the New Valve Set</a> on Page 41 and <a href="#">Attaching the New Ingredients and Inlets</a> on Page 45.</li> <li>2. Touch <b>OK</b>. The test occurs again.</li> </ol>
<b>The Occlusion Detector Test did not run because the bubble test failed.</b>	The test did not start because an air bubble was detected or the outlet tube was not installed correctly.	<ol style="list-style-type: none"> <li>1. Touch <b>Cancel</b>.</li> <li>2. To help reduce the occurrence of bubbles and make their detection more accurate, refer to the note on Page 96.</li> </ol> <p><b>NOTE:</b> To perform the test again, you must re-prime at least one inlet (other than the Universal Ingredient) and then exit the <i>PRIME AND VERIFY</i> screen.</p>
<b>Cannot set flow sensor status:</b>	The compounder failed to set the status of the occlusion detector when starting to pump.	Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.
<b>The Occlusion Detector Test failed.</b> <b>Sensor failure.</b>  <b>Select OK to retry</b> <b>Select Cancel to exit</b>	The test failed. The detector may have malfunctioned.	Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.

## Other Issues

Issue / On-screen Text	Possible Explanation	Suggested Actions
The compounder does not power up.	The power cord or the cable for the display is disconnected.	<ol style="list-style-type: none"> <li>1. Check that the power cord is connected to the main module and the power source.</li> <li>2. Check that the cable for the display is connected correctly to both the display and the main module.</li> </ol>
	The power source is not functional.	Connect the power cord to another power source.
The screen of the display does not respond to touch.	The cable for the display is disconnected.	<ol style="list-style-type: none"> <li>1. Check that the cable for the display is connected correctly to both the display and the main module.</li> <li>2. Disconnect the cables for the mouse and keyboard from the display.</li> <li>3. Reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> </ol>
The network is unavailable.	There is a problem with the hospital network.	<ol style="list-style-type: none"> <li>1. Check that the Ethernet cable is connected to the Ethernet port on the bottom of the display.</li> <li>2. Load the formula by connecting a USB drive. Refer to <a href="#">Loading a Formula by Connecting a USB Drive</a> on Page 196.</li> </ol>
The MixCheck Report does not print.	The printer is disconnected or turned off.	Check that the printer is connected and turned on.
	Printing was cancelled inadvertently.	<ul style="list-style-type: none"> <li>• Check that the MixCheck Report is available when you print old MixCheck Reports. Refer to <a href="#">Viewing Old MixCheck Reports</a> on Page 158.</li> <li>• Be aware that the message about the MixCheck Report being printed appears after you touch <b>OK</b> at the message about the final weight. If you quickly touch more than once, you might inadvertently touch <b>Cancel Printing</b>.</li> </ul>
	The path to the printer is not set up correctly.	Check the path to the printer. Refer to <a href="#">Setting Up the Directories Options</a> on Page 119.
Text: <b>An unknown pump error/valve error occurred</b>	An internal software error occurred.	Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.
Text: <b>Bad file format</b>	The .PAT file being read does not match the expected format.	Create a new order in the order-entry software.
Text: <b>Cancellation in progress. Solution will need to be discarded. Continue?</b>	During the compounding process, a necessary container replacement was cancelled.	<ol style="list-style-type: none"> <li>1. Touch <b>Continue</b>.</li> <li>2. Write a large "X" on the label of the patient bag, then remove and discard the bag.</li> </ol>
Text: <b>Cannot resume: Pump is faulted</b>	The pump failed to resume compounding.	<ol style="list-style-type: none"> <li>1. Reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>2. Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.</li> </ol>
Text: <b>Cannot resume: Pump is deenergized</b>	The pump failed to resume compounding.	<ol style="list-style-type: none"> <li>1. Reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>2. Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.</li> </ol>



Issue / On-screen Text	Possible Explanation	Suggested Actions
Text: <b>Compounder connection not established. Must connect to continue.</b>	The cable for the display is disconnected or damaged.	Check that the cable for the display is connected correctly to both the display and the main module, and that the cable is not damaged.
Text: <b>No Pump Device Assigned</b>	A software error occurred.	<ol style="list-style-type: none"> <li>1. Shut down the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>2. Reconnect the cord and cables. Refer to Step 6 on Page 20.</li> <li>3. Turn the compounder on. Refer to <a href="#">Starting Up and Logging In</a> on Page 26.</li> </ol>
Text: <b>No Scale Device Assigned</b>	A software error occurred.	<ol style="list-style-type: none"> <li>1. Shut down the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>2. Reconnect the cord and cables. Refer to Step 6 on Page 20.</li> <li>3. Turn the compounder on. Refer to <a href="#">Starting Up and Logging In</a> on Page 26.</li> </ol>
Text: <b>No Valve Device Assigned</b>	A software error occurred.	<ol style="list-style-type: none"> <li>1. Shut down the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>2. Reconnect the cord and cables. Refer to Step 6 on Page 20.</li> <li>3. Turn the compounder on. Refer to <a href="#">Starting Up and Logging In</a> on Page 26.</li> </ol>
Text: <b>Password (X) contains an invalid character</b>	Passwords can contain only the letters A–Z and numbers 0–9.	Correct the password. Refer to <a href="#">Changing a Password</a> on Page 127.
Text: <b>Time out.</b>	A hardware communication error occurred.	<ol style="list-style-type: none"> <li>1. Shut down the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.</li> <li>2. Check that the cord and cables are connected correctly. Refer to Step 6 on Page 20.</li> <li>3. Turn the compounder on. Refer to <a href="#">Starting Up and Logging In</a> on Page 26.</li> </ol>
Text: <b>Unable to save current DB</b>	The current database cannot be saved. There may be a hard drive failure, missing directory, network failure (if the destination is on a network drive) or issue with permissions.	Contact Baxa Corporation Technical Support. Refer to <a href="#">Getting Help</a> on Page 17.
Text: <b>Valve is moving.</b>	A port cannot be closed.	Reboot the compounder. Refer to <a href="#">Rebooting and Shutting Down</a> on Page 29.

## LOADING A FORMULA BY CONNECTING A USB DRIVE

Some facilities may use this method if they use order-entry software but the network is temporarily unavailable. For help with using this method, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

**IMPORTANT!** This method requires:

- Formula Entry permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.
- Order-entry software on a separate computer. This software must be able to produce both a .PAT file and a corresponding label with a barcode. Both the .PAT file and barcode must be compatible with the compounder. ABACUS Software meets these requirements. For more information, or if a barcode cannot be printed, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.
- USB drive
  - NOTE:** Be sure that the USB drive is free of viruses.
- Barcode reader at the compounder

In the order-entry software, the pharmacist creates an order, which creates a .PAT file that contains the patient information and the formula. The pharmacist saves the order onto a USB drive. Refer to [Transferring Patient \(.PAT\) Files to the EXACTAMIX Compounders when the Network is Unavailable](#) on Page 204. A corresponding label with a barcode also prints at the same time. Typically, a technician applies this label to a new patient bag and brings it to the compounder. However, this process depends on your facility's protocol.

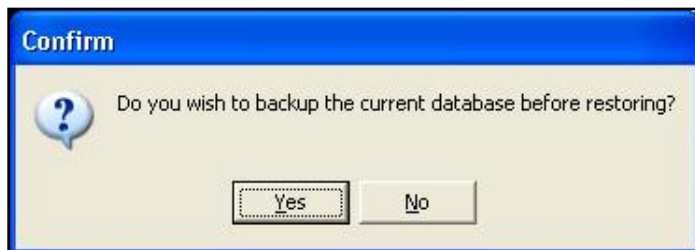
At the compounder:

1. Connect the USB drive to a USB port on the bottom of the display.
2. Set up the software to look for formula files on the USB drive. For instructions, refer to [Setting Up the Directories Options](#) on Page 119.
  - NOTE:** The software will continue to look for formula files in this location until you change it back to the original location.
3. Scan the barcode on the label of the patient bag.
  - The compounder retrieves the order file from the USB drive and populates the pump screen with the name and volume of each ingredient to be pumped.
4. Continue with [Fulfilling the Order \(Basic Process\)](#) on Page 81.

## RESTORING THE DATABASE

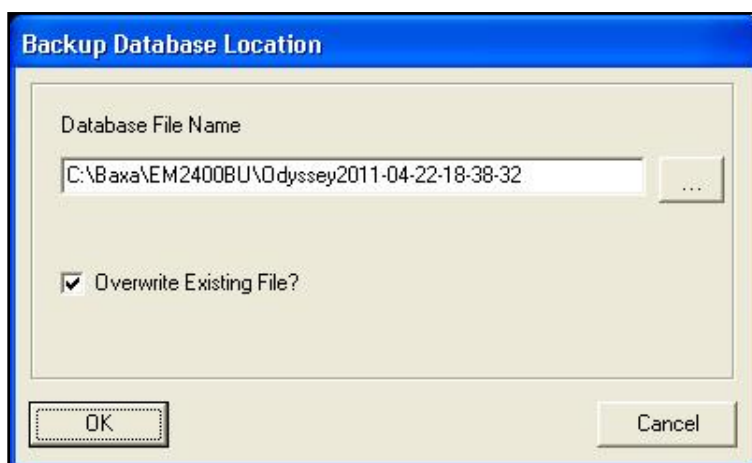
If certain types of issues occur, Baxa Corporation Technical Support may ask you to restore the database.

1. At the menu screen, touch **Tools > Database > Restore Database**.
2. At the *Do you wish to backup* message, touch **Yes**.



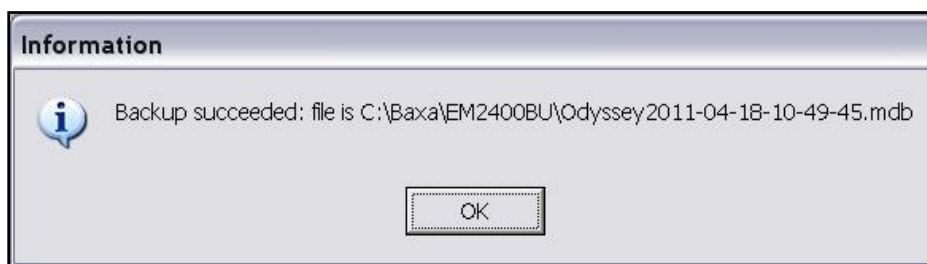
*Message*

3. At the *Backup Database Location* window:
  - a. If desired, change the location of the backup by touching the button to the right of the current location (not recommended).
  - b. Check **Overwrite Existing File?** to replace the previous backup file.
  - c. Touch **OK**.



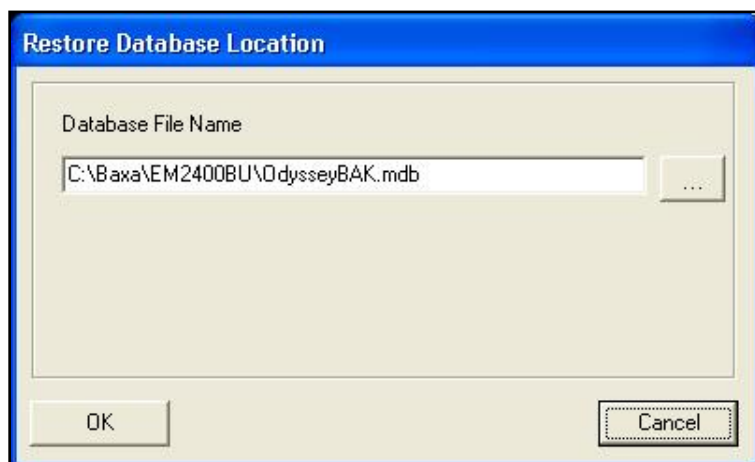
*Backup Database Location window*

4. At the *Backup succeeded* message, touch **OK**.



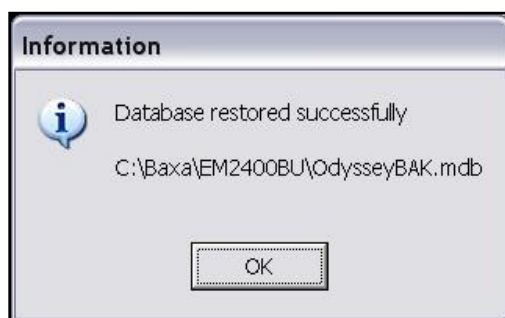
*Message*

5. At the *Restore Database Location* window:
  - a. If desired, change the location of the backup you want to restore by touching the button to the right of it.
  - b. Touch **OK**.



*Restore Database Location window*

6. At the *Database restored successfully* message, touch **OK**.  
The compounder is now ready to use the restored database.



*Message*

## GLOSSARY

Use this glossary to help you understand any terms that may be unfamiliar.

Term	Definition
acceptable weight variance	The percentage by which the final weight of the compounded solution, or the weight of an ingredient delivery, is allowed to differ from the expected weight. You can specify the variance.
alarm	An audible tone that indicates an error state.
auto-addition	An option that allows you to add an ingredient to the existing configuration when needed, instead of selecting a new configuration (which would require you to prime and verify all the inlets and ingredients).
backup	The process and result of saving database information to a location other than the compounder.
base plate	The common base on which the compounder's components sit.
Blackbox data	The logged activities of the compounder, mainly based on the communication between software, firmware and user actions.
common fluid pathway	The area from the port through the valve set to the destination bag. One or more ingredients can be present in this area.
compounder	The complete device with all of its hardware components and software, excluding the tube set and bags.
compound / compounding	The process of pumping ingredients into a patient bag.
configuration	A designation of the products that will be attached to the ports, the sequence in which they will be pumped, any allowable auto-additions, the ingredient and volume to use for any ingredient flushes, the Universal Ingredient (UI) and the volume to use for the final flush.
daily setup	The process of attaching all the ingredients for a specific configuration to the compounder and preparing to compound solutions. Includes calibrating the load cell, priming, verifying and calibrating the compounder.
daily use components	The disposable components (tube set) and destination bags.
database	Information containing operating parameters, the formulary and other definable variables to be used by the compounder.
deliver / delivering	The act of pumping ingredients from a source container to the destination bag.
delivery	A single, measured volume of fluid that has been pumped into the destination bag.
destination bag	A sterile container that holds the fluid pumped from the source containers. It can be a patient bag (used for delivering the finished solution to a patient) or a calibration bag (used for collecting any fluid that is not intended for a patient).
direct entry mode	A mode where you enter a formula manually by specifying the ingredient and volume to be delivered from each port.
display	The touch-screen display for the user interface. It mounts to the base plate.
disposables	See <i>tube set</i> .
dose	A specific volume and concentration of an ingredient.
electronic Y-site	A setup option that allows you to attach the same ingredient to multiple ports, to improve the efficiency of pumping common ingredients. When the first container of this ingredient has emptied, the compounder continues pumping from the next container of this ingredient.

Term	Definition
equivalent ingredient products	Products of the same ingredient type that may have different container sizes, container types or manufacturers.
final flush	A delivery of fluid that is pumped to clear all delivered ingredients from the common fluid pathway, to ensure that these ingredients are fully present in the finished solution. The fluid used for this flush is always the Universal Ingredient (UI). The standard volume is 30 mL.
finished solution	The ingredients in the patient bag after compounding, including manual additions.
flow factor	A value associated with each ingredient that compares the flow of that ingredient to the flow of water. The flow factor accounts for the ingredient's viscosity, the size and type of its source container, its inlet, its venting and other factors that affect its delivery. The flow factor is critical to performance and should not be modified without contacting Baxa Corporation Technical Support.
fluid pathway	See <i>common fluid pathway</i> .
flush	See <i>final flush</i> , <i>ingredient flush</i> or <i>intermediate flush</i> .
formula	A recipe of ingredients to be compounded. Typically, it is created by the pharmacist, based on a prescription from a physician.
formulary	The list of ingredients, and associated products, which can be attached to the compounder.
incompatible group	A group of ingredients that you identify as having interaction concerns with other ingredients.
ingredient	A solution of a specific chemical entity at a specific concentration, regardless of the container size, container type or manufacturer. One ingredient can have several associated products.
ingredient flush	A delivery of fluid that is pumped to clear the common fluid pathway between the delivery of certain ingredients that have interaction concerns. The fluid used for this flush is usually the Universal Ingredient (UI), but it can be any compatible ingredient in the configuration and formula.
ingredient group	A list of chemically similar ingredients, used for defining incompatible groups.
initial setup	The placement and assembly of the product components at the customer facility by Baxa Corporation personnel.
inlet	A sterile tube with a spike or Luer end attached. The spike or Luer end attaches to a source container, and the other end attaches to a port on the valve set.
intermediate flush	A delivery of fluid that comes just before the final flush as part of an enhanced flush. The fluid used for this flush is always the Universal Ingredient (UI), and it is pumped in two deliveries of 50 mL each.
large-volume delivery	See <i>macro ingredient</i> .
load cell	The component that holds the destination bag, weighs the compounded solution and reports the measurement to the software. It mounts to the base plate.
macro ingredient	A generic term used to describe an ingredient that uses a large-bore inlet and is delivered in volumes equal to or greater than 5 mL.
main module	The component that contains the valve actuators, occlusion detector, bubble detector, pump chamber and power supply. It mounts to the base plate.
maintenance	The act of performing scheduled or expected work on the compounder. It does not include repairs or corrections due to product failure.
manual addition	A product that is added to the compounded solution manually, after compounding has finished.

Term	Definition
micro ingredient	A generic term used to describe an ingredient that uses a micro inlet and is delivered in volumes less than 5 mL.
National Drug Code (NDC)	A unique, three-segment number used in the United States to identify drug products used by humans.
occlusion	A blockage in the fluid pathway.
outlet tube	The section of tube on the discharge side of the valve set. It connects the valve set to the destination bag.
Parenteral Nutrition (PN)	A form of intravenous therapy that requires multiple fluid ingredients to be accurately compounded into a single solution to support a patient's nutritional needs.
.PAT file	A file, created in the order-entry software, which contains the patient information and formula.
patient	The recipient of the finished solution.
permissions	The privileges granted to groups of users to allow them to perform specific functions.
port	The interface between the valve set and the inlets for source containers.
prime	To pump a small volume of an ingredient through an inlet, to remove air bubbles from the inlet and prepare it for compounding the solution.
privileges	See <i>permissions</i> .
product	An ingredient in a particular container size and type from a specific manufacturer. Several products can be associated with one ingredient.
pump	A peristaltic device used to push fluid through the outlet tube.
pump module	See <i>main module</i> .
remainder	A value in the software that represents the actual volume of fluid remaining in the source container.
scale	See <i>load cell</i> .
sequence	The order in which ingredients are delivered to the destination bag.
solution	The mixture of ingredients that have been compounded.
small-volume delivery	See <i>micro ingredient</i> .
source container	A container (bag, bottle, vial or syringe) that holds one ingredient.
tolerance	The amount by which any characteristic (for example, dimensional, chemical, physical or mechanical properties) may vary from that specified.
tube set	The valve set and inlets.
Universal Ingredient (UI)	The ingredient that is used to flush the common fluid pathway. This ingredient must be contained in the configuration and the formula being compounded.
unload	The precaution of removing a formula from the pump screen when you navigate away from this screen. Unloading does not delete the formula from the database.
user accounts	The accounts that contain the user names, user permissions and other attributes as determined by the facility.
valve set	A sterile, multiple-port valve with an outlet tube attached. The valve body fits over the valve actuators on the compounder, protecting them from damage. The outlet tube attaches to the destination bag.
variance	One measure of statistical dispersion, averaging the squared distance of its possible values from the expected value (mean).
volume	The physical amount of the ingredient that is delivered, typically in milliliter (mL) units.

## APPENDIX A: SPECIFICATIONS

### DIMENSIONS, WEIGHT AND CONTENTS OF THE DISPLAY

	<b>DX Display</b>	<b>DY Display</b>
<b>Dimensions and weight:</b>	Length: 11 in. (27.9 cm) Width: 5 in. (12.7 cm) Height: 9 in. (22.9 cm) Weight: 10 lb (4.5 kg)	Length: 12.2 in. (31 cm) Width: 2.1 in. (5.3 cm) Height: 9.6 in. (24.2 cm) Weight: 8 lb (3.6 kg)
<b>Operating software:</b>	Windows XP, embedded	Windows, embedded standard 2009
<b>CPU:</b>	Pentium II 266 MHz minimum	Intel Atom Z5xxP 1.1 Ghz
<b>Memory:</b>	64 MB minimum	512 MB SDRAM and 2 GB SODIMM
<b>Screen:</b>	EGA/VGA	XGA/ VGA
<b>CD ROM:</b>	Internal, 24X	None
<b>Ethernet:</b>	10/100 Base-T Ethernet network connectivity	10/100 Base-T Ethernet network connectivity
<b>USB ports:</b>	4 ports, USB 1.1, which support USB 1.1 components	4 ports, USB 2.0, which support USB 1.1/2.0 components

### DIMENSIONS AND WEIGHT OF THE OTHER COMPONENTS

<b>Main module:</b>	Length: 24 in. (61 cm) Width: 10 in. (25.4 cm) Height: 10 in. (25.4 cm) Weight: 40 lb (18.14 kg)
<b>Load cell:</b>	Length: 13 in. (33 cm) Width: 8 in. (20.3 cm) Height: 10 in. (25.4 cm) Weight: 5 lb (2.3 kg)
<b>Base plate:</b>	Weight: 13 lb (5.89 kg)
<b>Compounder (including the main module, base plate and display) without vial rack:</b>	Length: 30 in. (76.2 cm) Width: 19 in. (48.3 cm) Height: 12 in. (30.5 cm) Weight: 79 lb (35.83 kg)
<b>Compounder (including the main module, base plate and display) with vial rack:</b>	Length: 41 in. (104.1 cm) Width: 20 in. (50.8 cm) Height: 30 in. (76.2 cm) Weight: 88.5 lb (40.14 kg)

### ELECTRICAL

<b>Power:</b>	100–240 V AC RMS, 50–60 Hz, 336 W
<b>Line cord:</b>	3-prong detachable plug, hospital grade
<b>Fuse ratings:</b> <ul style="list-style-type: none"> <li>Pump driver PCA</li> <li>LRV PCA</li> <li>Power supply</li> </ul>	F1—3 Amp, 2 AG, fast acting, 250 V F1—2 Amp, 2 AG, fast acting, 250 V F1—4 Amp, 5 x 20 mm, slow acting, 250 V F2—4 Amp, 5 x 20 mm, slow acting, 250 V F3—3.15 Amp, 5 x 20 mm, fast acting, 250 V F4—3.15 Amp, 5 x 20 mm, fast acting, 250 V F5—6.3 Amp, 5 x 20 mm, fast acting, 250 V



## PERFORMANCE

<b>Accuracy:</b>	± 10% at 0.2 mL ± 5% at 0.4 mL ± 3% above 1 mL
<b>Dispensing of ingredients:</b>	Increments of 0.01 mL
<b>Volume of source containers:</b>	0.2–5,500 mL
<b>Volume of destination bags:</b>	125–5,000 mL
<b>Maximum flow rate of water:</b>	16.6 mL/second
<b>Maximum number of ingredients:</b>	24
<b>Maximum capacity of vial rack:</b>	16 (small-volume vials and 60 mL Luer syringes)

## ENVIRONMENTAL

<b>Operating temperature:</b>	59–86°F (15–30°C)
<b>Storage temperature:</b>	32–147°F (0–64°C)
<b>Maximum relative humidity:</b>	10–80%
<b>Maximum altitude:</b>	Not to exceed 3,000 m
<b>Main supply voltage fluctuation:</b>	Not to exceed ±10% (surge protection recommended)
<b>Sound pressure level:</b>	Not to exceed 85 dBA

For Indoor Use Only

ISO Class 5 (Class 100) cleanroom as defined in ISO 14644-1:1999

Class I Equipment (Grounded Type)

Installation (Over Voltage) Category II

Pollution Degree 2 Environment

The maximum circuit voltage of USB 1.1/2.0 is 5.0 V DC with a maximum current of 500 mA DC (all ports combined). Use only USB devices supplied by Baxa Corporation.

For EMC compliance, ferrite beads are required on these cables:

- Display cable (on the DX display only)
- USB A to B printer cable
- Ethernet cable

**NOTE:** Ferrite beads are attached by Baxa Corporation. There are no internal user-serviceable parts.

## APPENDIX B: POLICIES AND PROCEDURES

### TRANSFERRING PATIENT (.PAT) FILES TO THE EXACTAMIX COMPOUNDERS WHEN THE NETWORK IS UNAVAILABLE

#### Policy

Patient (.PAT) files are prepared with ABACUS Software on the order-entry computer, then transferred electronically to a directory for use on the compounder. PAT files may be transferred through peer-to-peer transfer, or by having the two software modules address a common directory path on the network.

When the network connection is unavailable, users must have a way to retrieve .PAT files from the order-entry computer and load them onto the compounder. In this situation, follow the steps below to transfer .PAT files by using a USB drive.

#### Equipment

- Order-entry computer with ABACUS Software installed
- USB drive

#### Procedure

On the order-entry computer:

1. Connect the USB drive to the USB port.  
**NOTE:** The ABACUS Software must be set to save the .PAT file to the USB drive. If you need assistance, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.
2. Select **Tools > Options > Directories**.
3. Change the directory for the formulas to the location of the USB drive. You can use the **Browse** button to browse to the USB drive.  
The software requires you to reboot the computer.
4. Continue with [Loading a Formula by Connecting a USB Drive](#) on Page 196.

**NOTE:** Formulas saved to the USB drive are available for either barcode scanning or manual selection.

## FILLING EVACUATED CONTAINERS FOR USE WITH THE EXACTAMIX COMPOUNDERS

### Policy

Users should always follow this procedure to fill evacuated containers that will be used with the compounder.

### Equipment

- Two 60 cc syringes
- 150 mL evacuated container(s)
- EXACTAMED Dispensing Pin(s) (Order No. H93847)
- Vented Micro-Volume Inlet (Order No. H938175)
- EXACTAMIX 1200/2400 Compounder

### Procedure

1. Pull the prepared solution into a 60 cc syringe.
2. Open the evacuated container.
3. Swab the container with alcohol.
4. Insert the dispensing pin all the way into the container.

The pressure equalizes.

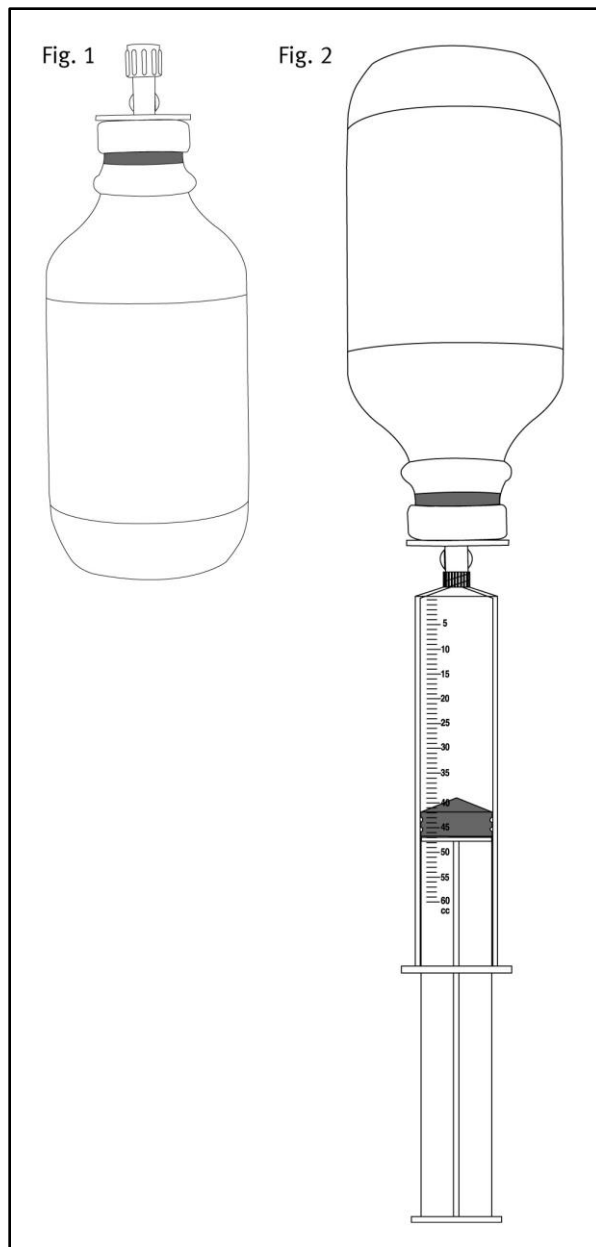
5. Remove the cap from the dispensing pin.
6. Attach an empty 60 cc syringe to the dispensing pin.
7. Invert the container.
8. Remove the residual liquid from the container.

**NOTE:** The container must be fully inverted to extract as much liquid as possible.

9. Detach the syringe from the dispensing pin. If you will fill multiple containers, retain the syringe for use with the other containers.
10. Attach the syringe with the prepared solution to the dispensing pin.
11. Dispense the solution into the container.
12. Remove the syringe from the dispensing pin and add solution from additional syringes until the desired volume is reached.
13. Remove the syringe and the dispensing pin.

The container is ready to be spiked and attached to the inlet on the compounder.

**NOTE:** When spiking a container, enter into the original puncture.



*Inserting the dispensing pin  
and removing residual liquid*

## LABELING SOURCE CONTAINERS FOR USE WITH THE EXACTAMIX COMPOUNDERS

### Policy

All source containers for the compounder should be labeled with barcodes before they are placed in the admixture area. Containers that have a manufacturer's barcode do not need additional labeling.

### Equipment

- EXACTAMIX 1200/2400 Compounder
- Self-adhesive labels (Avery 5160 label sheets are recommended.)
- Printer

### Procedure

Before attaching new ingredients to the compounder:

1. Gather all the new ingredients.

**Tip!** Baxa Corporation recommends using the Authorization Report to quickly identify the ingredients needed for a specific configuration. Refer to [Authorization Report](#) on Page 159.

2. Check that each source container has a barcode label attached.

**Tip!** Baxa Corporation strongly recommends using the manufacturer's barcode labels whenever possible.

3. If a container that was filled or diluted in the pharmacy does not have a barcode label:
  - a. Print the appropriate label. Refer to [Product Bar Codes Report](#) on Page 168.
  - b. Apply the label.

**NOTE:** To minimize curvature of the barcode, the preferred application is vertical; however, labels may be applied horizontally to bags and large bottles.

**Tip!** When all containers are labeled, Baxa Corporation recommends that a pharmacist perform a final verification.

4. If desired, a pharmacist does the following steps:
  - a. Perform a final check of each container.
  - b. Initial each label to show that it was checked and found to be correctly applied.

## VALIDATING ASEPTIC TECHNIQUE WITH THE EXACTAMIX COMPOUNDERS

### Policy

This procedure monitors the quality of the aseptic technique used by employees at the compounder. This procedure should be conducted:

- As often as necessary to comply with USP 797
- For each employee who uses the EXACTAMIX Compounder
- Before the first bag of the day (immediately after daily setup) and after the last bag of the day, to validate that users followed good technique during the daily setup and throughout the day

### Equipment

- EXACTAMIX 1200/2400 Compounder, set up with the daily configuration
- Q.I. Medical QT1000 QuickTest™ System

### Procedure

**IMPORTANT!** During this procedure, an additional 10 mL of each ingredient is pumped from each source container, except for the Universal Ingredient (UI). You must include this additional volume when attaching the ingredients, especially those ingredients in syringes.

1. Remove and aseptically save the cover of the QT1000 non-vented spike.
2. Aseptically insert the spike into the outlet tube of the valve set on the compounder.
3. Remove and aseptically save the cover from the distal end of the spike.
4. Attach the spike to a Baxa bag.

**Tip!** Baxa Corporation recommends that this bag be appropriately labeled and marked “Not for Human Use.” The bag should be discarded immediately after use.

5. Attach the bag to the load cell. Refer to Attaching and Removing the Calibration Bag on Page 43.

**NOTE:** A user with Formula Entry permissions must log on and do the following steps.

6. Through direct entry, create a formula that uses all the ingredients that are attached to the compounder. Refer to Entering a Formula Through Direct Entry on Page 74. Enter at least 10 mL for each ingredient and 30 mL for the Universal Ingredient (UI).
7. Touch the **Menu** button.
8. At the menu screen, select **File > Save Formula As**.
9. Name the formula **Aseptic Technique Validation** or a similar name that is appropriate for your facility.
10. Touch **OK**.

The pump screen appears.

11. Compound the solution and follow the directions for use with the QT1000 system.

12. File the MixCheck Report and the QuickTest logs in the “Records” section of the Baxa USP 797 Compliance Package.
13. When this procedure is conducted before the first bag of the day:
  - a. Cancel direct entry.
  - b. Have the normal user log on and continue with normal compounding.

## INSTALLING THE VALVE SET ON THE EXACTAMIX COMPOUNDERS

### Policy

Compounder tube sets should be replaced at the beginning of the work day, at intervals established by the pharmacy. Baxa recommends intervals of 24 hours. The compounder and adjacent work area should be cleaned before a new tube set is installed.

### Equipment

- EXACTAMIX 1200/2400 Compounder
- EM1200 Valve Set (Order No. H938792)
- EM2400 Valve Set (Order No. H938724)

**NOTE:** The valve set is a sterile, 12- or 24-port valve with an outlet tube attached. The valve body fits over the valve actuators on the compounder, protecting them from damage. The outlet tube attaches to the destination bag. Inlets must be purchased separately.

### Procedure



#### CAUTION

If the valve set is not installed correctly, the compounder cannot be calibrated accurately.

1. Check that the valve actuators are not broken or damaged.



*Valve actuators*



*Normal*



*Damaged*



*Broken*



#### WARNING

Do not use the compounder if a valve actuator is broken or damaged. Patient harm may result. For assistance, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

2. Using aseptic technique, remove the valve set from the packaging.
3. Check that all the slots on the bottom of the valve set are aligned.
4. Place the valve set onto the valve actuators.
5. Gently push the end tabs down and out until you hear a click on each end.



*Installing the 12-port valve set*



*Installing the 24-port valve set*

**NOTE:** The appearance of the valve set may differ from the examples shown above.

6. Make sure that the valve set is installed securely by pulling up on both ends gently.



---

**CAUTION**

Once the valve set has been installed, do not attempt to remove it during operation.

---

7. Open the pump door.



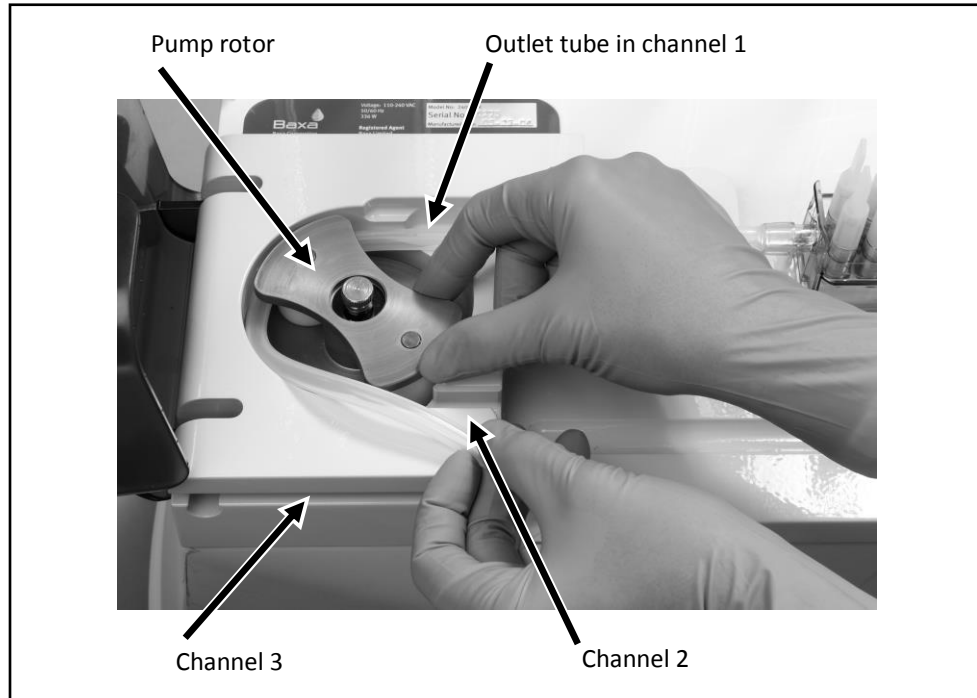
**WARNING**

To avoid pinching your fingers, grasp the pump rotor from the top and rotate it counterclockwise, keeping your fingers away from other surfaces while moving the rotor.

**CAUTION**

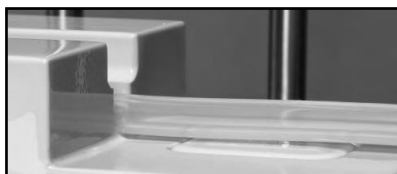
Do not pull or stretch the outlet tube.

8. Route the outlet tube into channel 1, around the pump rotor and into channels 2 and 3 as shown. Move the pump rotor counterclockwise only.

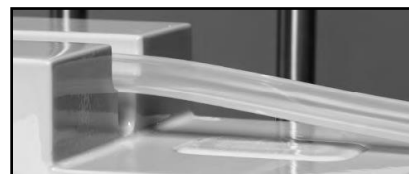


*Routing the outlet tube*

- a. Make sure that the tube is in correct position at the bottom of channels 1 and 2.



*Correct position*

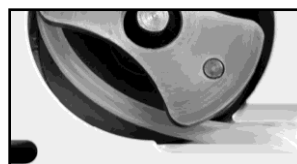


*Incorrect position*

- b. Make sure that the tube is in correct position against the wall around the pump rotor.

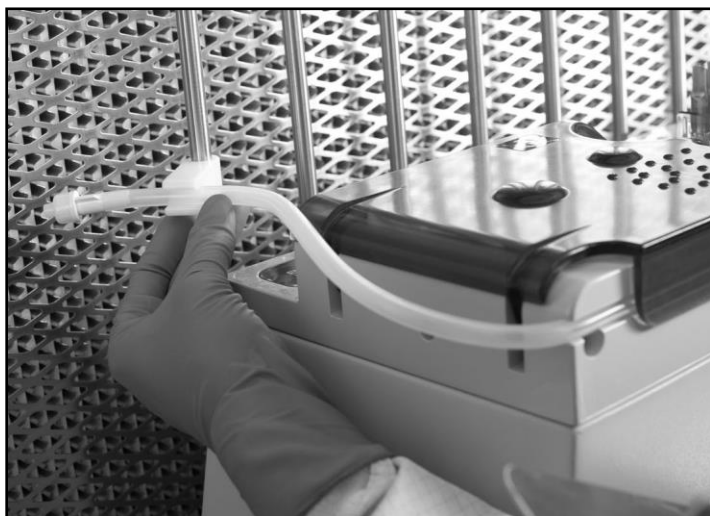


*Correct position*



*Incorrect position*

9. Close the pump door.
10. Connect the end of the outlet tube to the tube holder on the vial rack.



*Connecting the outlet tube*

## APPENDIX C: COMMON ISSUES

If you encounter any of these issues, take the suggested actions. If the issue persists, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

For more information about interruptions that may occur as part of normal operation, refer to [Fulfilling the Order \(Additional Steps\)](#) on Page 87. For more information about errors, refer to [Troubleshooting](#) on Page 183.

### ATTACHING AN INCORRECT PATIENT BAG

**WARNING**

If you scan the barcode label on one patient bag, become distracted and then attach a different patient bag to the load cell, patient harm may result.

Always attach the patient bag to the load cell before scanning the barcode on the label of the bag. For more information about attaching a patient bag, refer to [Attaching the Patient Bag](#) on Page 72.



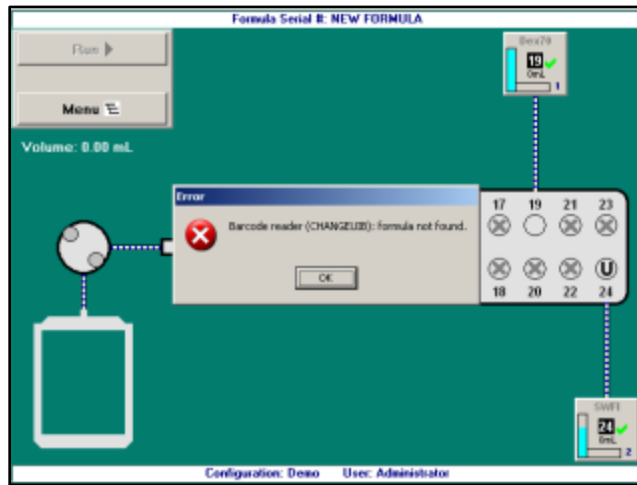
*Correct technique*



*Incorrect technique*

## BARCODE READER: FORMULA NOT FOUND

If an issue such as a network connectivity problem prevents the compounder from finding or accessing the formula file, this message appears: *Barcode reader (<serial number of .PAT file>): formula not found.*



Message

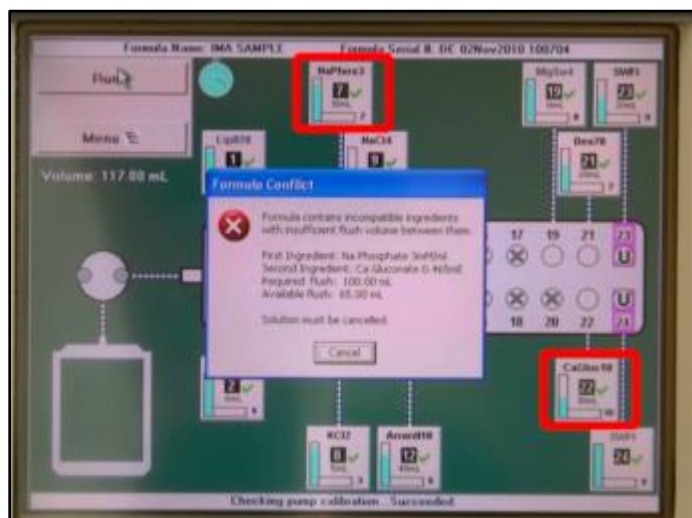
To resolve the issue:

1. Correct the .PAT file in the order-entry software.
2. Reprint and attach the barcode label.
3. Scan the barcode again.
4. Check that the Ethernet cable is connected correctly to both the display and the order-entry computer.
5. Check that the network is functioning.
6. Check the path on both the order-entry computer and the compounder. Refer to [Setting Up the Directories Options](#) on Page 119.
7. Reboot the compounder. Refer to [Rebooting and Shutting Down](#) on Page 29.

## ISSUES WITH THE FORMULAS, INGREDIENTS AND CONFIGURATIONS

### Incompatible Ingredients with Insufficient Flush Volume

If a formula contains incompatible ingredients with an insufficient flush volume between them, this *Formula Conflict* message appears: *Formula contains incompatible ingredients with insufficient flush volume between them.* The message indicates which ingredients are incompatible.



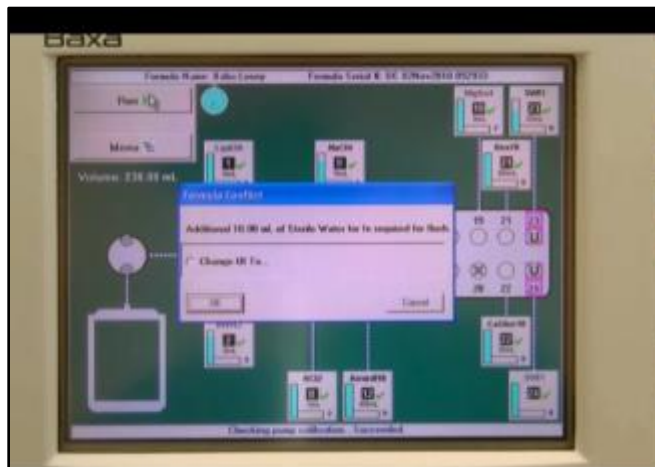
Message

To resolve the issue:

1. Touch **Cancel**.
2. Contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

### Additional Universal Ingredient (UI) Required for Flush

If a formula does not contain the minimum required volume of the Universal Ingredient (UI), which is necessary for flushing the fluid pathway, this *Formula Conflict* message appears: *Additional <flush volume> mL of <Universal Ingredient> required for order.* The message indicates how much additional volume is needed. The user can either change the Universal Ingredient (UI) or cancel the order.



*Message*

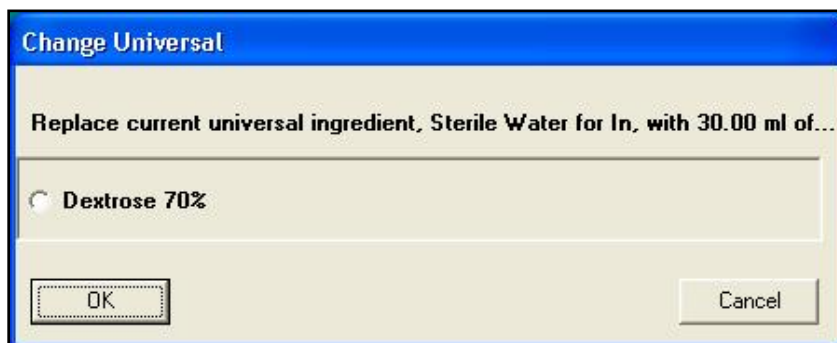
To resolve the issue:

**IMPORTANT!** This function requires Change Universal Ingredient permissions. For more information about user groups and permissions, refer to [Setting Up the Users](#) on Page 121.

1. Touch **Change UI To...**
2. Touch **OK**.

A *Change Universal* window appears. It lists any ingredients that are specified as a UI in the Formulary Editor (refer to [Adding or Editing an Ingredient](#) on Page 139), included at a UI port in the configuration (refer to [Adding or Editing a Configuration](#) on Page 130) and have an ordered volume that is sufficient for a UI.

3. At the *Change Universal* window:
  - a. Select the Universal Ingredient you want to use.
  - b. Touch **OK**.



*Change Universal window*

**WARNING**

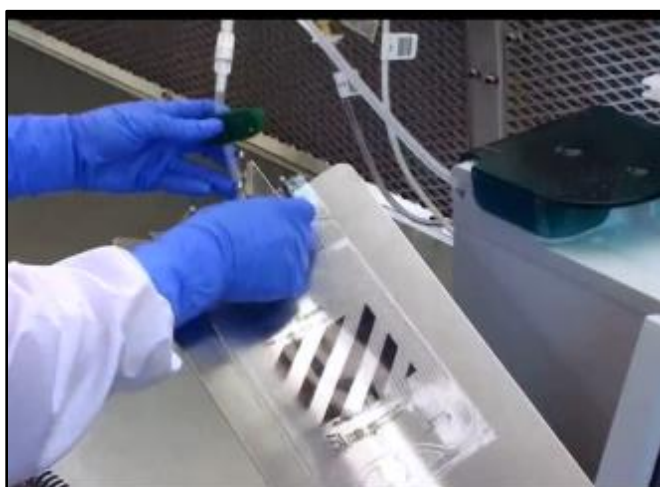
Do not use a patient bag during Universal Ingredient flushes. Otherwise, the patient bag may contain an unintended volume and/or ingredient, resulting in patient harm.

4. If a patient bag is attached, remove it. Refer to [Removing the Patient Bag](#) on Page 86.



*Removing the patient bag*

5. Attach a calibration bag. Refer to [Attaching and Removing the Calibration Bag](#) on Page 43.



*Attaching the calibration bag*

6. At the *Flushing with Universal Ingredient* message, touch **OK**.

The calibration bag fills.



*Filled calibration bag*



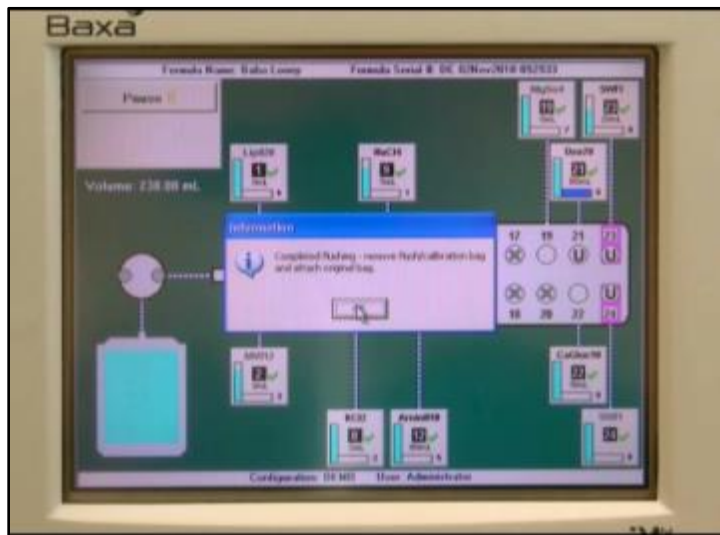
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**WARNING**

Do not touch **OK** at the *Completed flushing* message until after you attach the patient bag. Otherwise, the compounder will pump the formula ingredients into the calibration bag.

---

7. When the *Completed flushing* message appears, remove the calibration bag. Refer to [Attaching and Removing the Calibration Bag](#) on Page 43.
8. Attach the patient bag. Refer to [Attaching the Patient Bag](#) on Page 72.
9. At the *Completed flushing* message, touch **OK**.



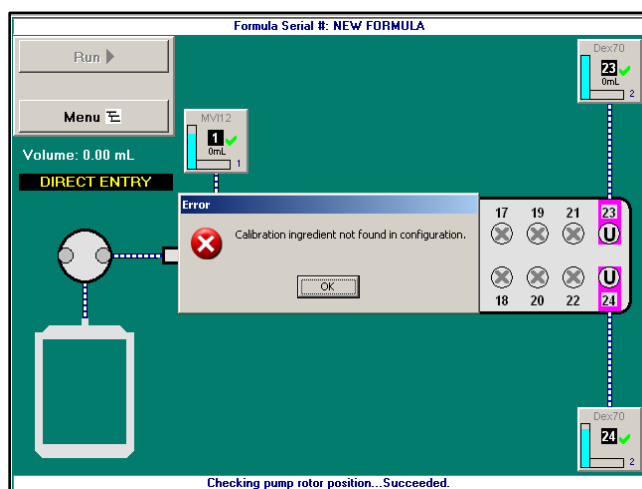
*Completed flushing message*

10. Repeat the compounding process.



## Calibration Ingredient Not Found in Configuration

A *Calibration ingredient not found in configuration* message most often appears when the calibration ingredient (for example, the manufacturer or container size of dextrose), has changed recently.



### Message

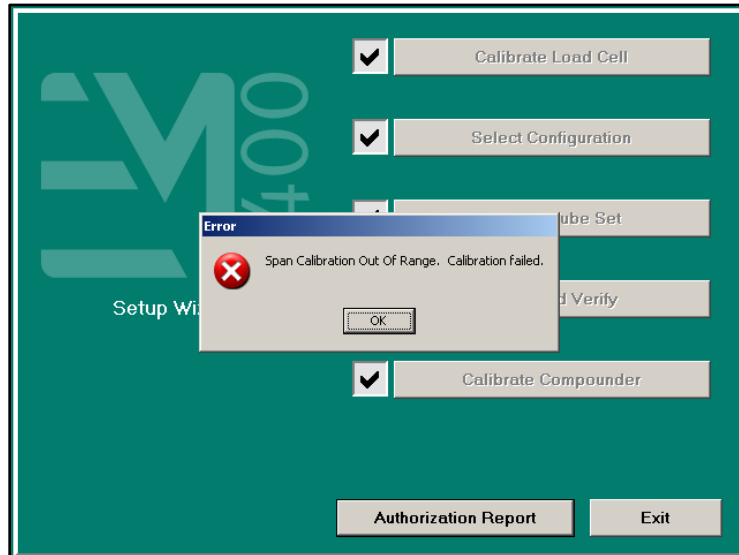
To resolve the issue:

1. Check that the calibration ingredient is set correctly. Refer to [Setting the Calibration Ingredient](#) on Page 141.
2. If it is set correctly, contact Baxa Corporation Technical Support for assistance. Refer to [Getting Help](#) on Page 17.

## ISSUES WITH THE CALIBRATION

### Span Calibration Out of Range

If something touches or interferes with the load cell during its calibration, this message appears: *Span Calibration Out Of Range. Calibration failed.*



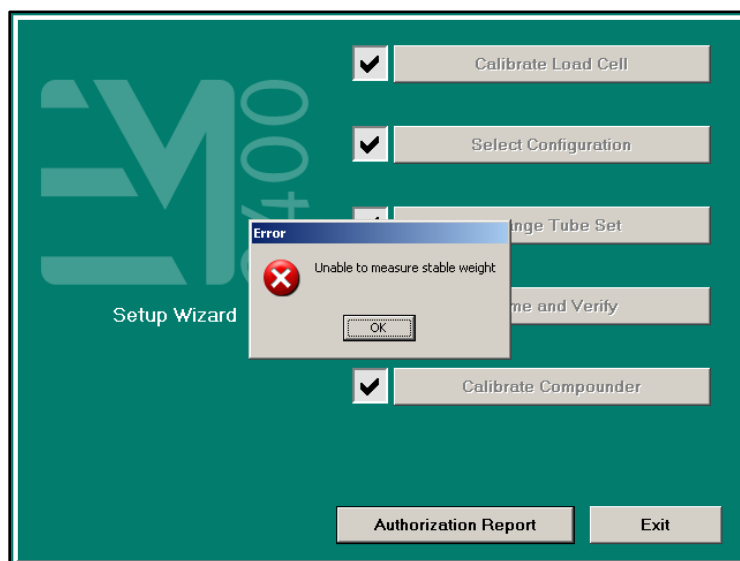
*Message*

To resolve the issue:

1. Check that:
  - The cable for the load cell is connected correctly.
  - The load cell is level and locked into place.
  - There is nothing (for example, the outlet tube, bag or cable for the load cell) touching the pan or base of the load cell.
  - There are no environmental factors (for example, air flow or vibrations) interfering with the load cell.
2. Calibrate the load cell. Refer to Calibrating the Load Cell on Page 33. Read the on-screen messages carefully, and make sure that you do not place the calibration weight on the load cell too early.

## Unable to Measure Stable Weight

If something touches or interferes with the load cell during calibration of the compounder, this message appears: *Unable to measure stable weight*.



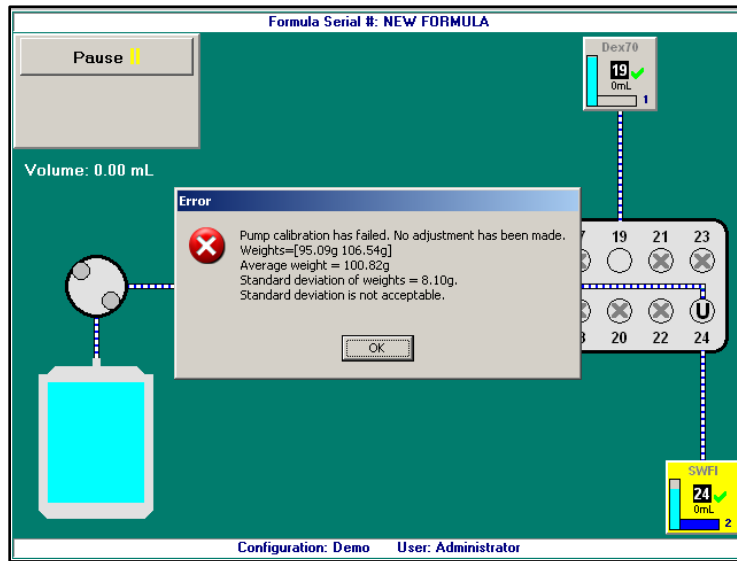
*Message*

To resolve the issue:

1. Check that:
  - The load cell is level and locked into place.
  - There is nothing (for example, the outlet tube, bag or cable for the load cell) touching the pan or base of the load cell.
  - There are no environmental factors (for example, air flow or vibrations) interfering with the load cell.
2. Calibrate the compounder. Refer to [Calibrating the Compounder](#) on Page 67.

## Pump Calibration Has Failed

If calibration of the pump fails, this message appears: *Pump calibration has failed.*



*Message*

To resolve the issue:

1. Check that the valve set is installed correctly. Refer to [Installing the New Valve Set](#) on Page 41.
2. For the source container of water, check the following conditions. Refer to [Attaching the New Ingredients and Inlets](#) on Page 45.
  - The correct inlet is used.
  - The inlet is not kinked.
  - The bag is spiked correctly. Refer to Page 49.
3. Clean any spills near the pump rotor.
4. Calibrate the load cell. Refer to [Calibrating the Load Cell](#) on Page 33.
5. Calibrate the pump. Refer to [Calibrating the Compounder](#) on Page 67.

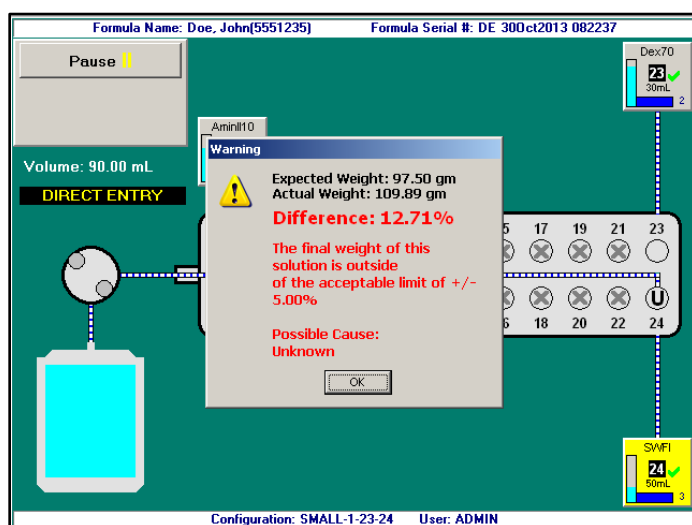
## ISSUES WITH THE WEIGHT AND LOAD CELL

### Weight Outside of the Acceptable Limit

When compounding is finished, a message displays this information about the patient bag:

- Expected weight
- Actual weight
- Difference
- Whether the difference is outside of the acceptable limit of  $\pm 5\%$

The message also lists any individual ingredients that are over 100 mL and have a weight difference outside of the acceptable limit of  $\pm 5\%$ .



*Message*

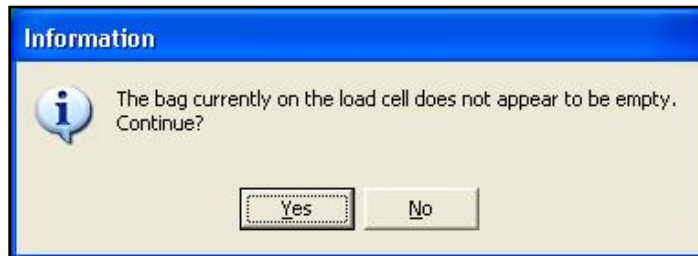
If the final bag weight is out of range, to resolve the issue:

1. On the MixCheck Report, check for suspect ingredients and references to occlusions and bubbles. Refer to [MixCheck Report](#) on Page 154.
2. Calibrate the load cell. Refer to [Calibrating the Load Cell](#) on Page 33.
3. Calibrate the compounder. Refer to [Calibrating the Compounder](#) on Page 67.
4. If the issue persists, check that:
  - All the source containers are spiked correctly. Refer to the steps for spiking a container, starting on Page 49.
  - The rollers on the pump rotor are clean and move freely. Refer to [Cleaning the Compounder](#) on Page 100.
  - The tube set is installed correctly. Refer to [Attaching the New Ingredients and Inlets](#) on Page 45.
5. Compound a large-volume solution with at least 205 mL of water to make the compounder calibrate automatically.

### Bag Does Not Appear to Be Empty

In most cases, when you touch **Run** to fulfill an order, the compounder expects an empty delivery bag. If the compounder detects that the delivery bag is not empty, this message appears: *Bag currently on the load cell does not appear to be empty. Continue?*

This message may appear when the user changes the Universal Ingredient (UII) and forgets to replace the patient bag with a calibration bag.



Message

### WARNING

If you touch **Yes**, the compounder will reset the measured weight to zero, despite the fact that the bag contains fluid.



The finished solution may contain an unintended volume or ingredient, even if the final measured weight is within the acceptable range. This unintended volume or ingredient may result in patient harm.

The **Details** section of the MixCheck Report will indicate that you continued compounding despite the warning that the bag did not appear to be empty.

This bag should be discarded.

Configuration		MixCheck™ Report		Date/Time
Configuration	SMALL-1-23-24			10/30/2013 8:24 AM
Serial Number	DE 300ct2013 082237			User: ADMIN
Formula Name	Doe, John(5551235)			Elapsed Time: 00:01:52
Page 2 of 2		<input type="button" value="Previous"/> <input type="button" value="Next"/>		
Expected Weight(g):	97.50	Measured Weight(g):	109.89	Difference(%): 12.71
				Total(mL): 50.00
				<b>Total(mL): 90.00</b>
<b>Details:</b> Override destination bag not empty warning. Selected bag x40 EVA Container 2000mL. Pump door was open during delivery from port 23 . Notify Pharmacist. Flushed with 10.00 mL of Aminosyn II 10% after delivery of Dextrose 70% The final weight of this solution is outside of the acceptable limit of +/- 5.00%				
<b>Authorized by:</b>				
<input type="button" value="Print"/> <input type="button" value="OK"/>				

MixCheck Report with "Override destination bag not empty warning"

Do not continue until the issue is resolved. To resolve the issue, visually check the contents of the bag.

If the bag contains fluid:

1. Touch **No**.
2. At the *Operation Cancelled* message, touch **OK**.
3. If the attached bag is a patient bag, write a large "X" on the label.
4. Remove the bag from the load cell. Depending on the type of the attached bag, refer to:
  - Removing the Patient Bag on Page 86
  - Attaching and Removing the Calibration Bag on Page 43
5. Discard the bag.
6. Attach an empty patient bag. Refer to Attaching the Patient Bag on Page 72.

If the bag is empty:

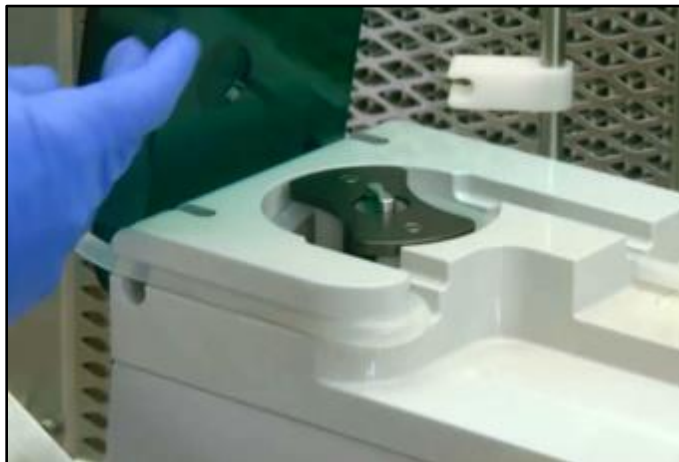
1. Touch **No**.
2. At the *Operation Cancelled* message, touch **OK**.
3. Remove the bag from the load cell. Depending on the type of the attached bag, refer to:
  - Removing the Patient Bag on Page 86
  - Attaching and Removing the Calibration Bag on Page 43
4. Calibrate the load cell. Refer to Calibrating the Load Cell on Page 33.
5. If necessary, attach the appropriate bag to the load cell. Refer to:
  - Attaching the Patient Bag on Page 72
  - Attaching and Removing the Calibration Bag on Page 43

## ISSUES WITH THE PUMP

During the pumping process, errors may occur due to issues such as incorrect positioning of the outlet tube around the pump rotor, manual adjustments made to the rotor or use of a dirty rotor.

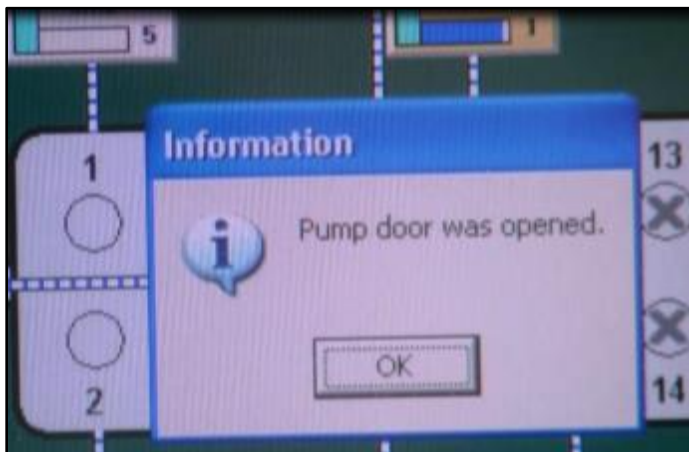
### Pump Door Was Opened

If you need to stop compounding temporarily, you can touch **Pause** or open the pump door.



*Opening the pump door*

Compounding stops and this message appears: *Pump door was opened.*



*Message*



**NOTE:** When the pump door is opened, this event will be logged in the **Details** section of the MixCheck Report.

MixCheck™ Report		
Configuration	SMALL-1-23-24	Date/Time
Serial Number	DE 300ct2013 082237	User
Formula Name	Doe, John[5551235]	Elapsed Time
Page 2 of 2 << Previous Next >>		
Expected Weight(g):	97.50	Measured Weight(g):
		Difference(%):
		Total(mL):
		Total(mL):
Details: Override destination bag not empty warning. Selected bag x40 EVA Container 2000mL. Pump door was open during delivery from port 23. Notify Pharmacist. Flushed with 10.00 mL of Aminosyn II 10% after delivery of Dextrose 70%. The final weight of this solution is outside of the acceptable limit of +/- 5.00%		
Authorized by:		

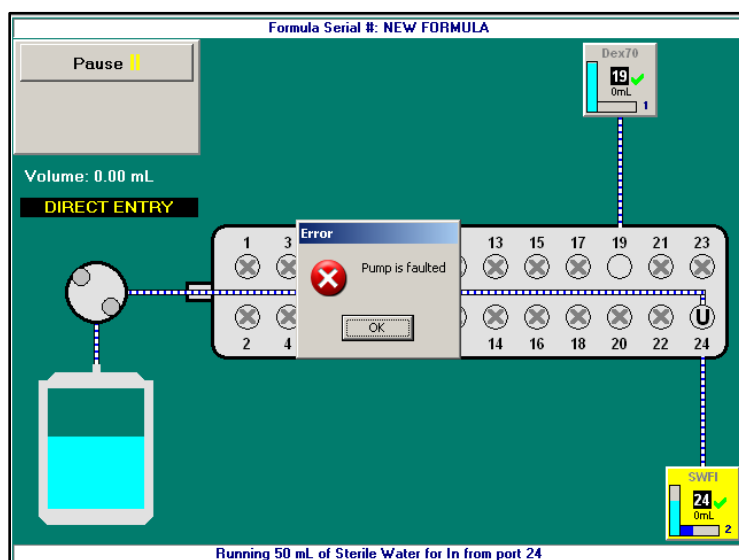
*MixCheck Report with “Pump door was open” message*

To resolve the issue:

1. Close the pump door.
2. Touch **OK**.
3. Touch **Resume** to continue compounding.

### Pump Is Faulted

If the pump door is opened, this message may also appear: *Pump is faulted.*



*Message*

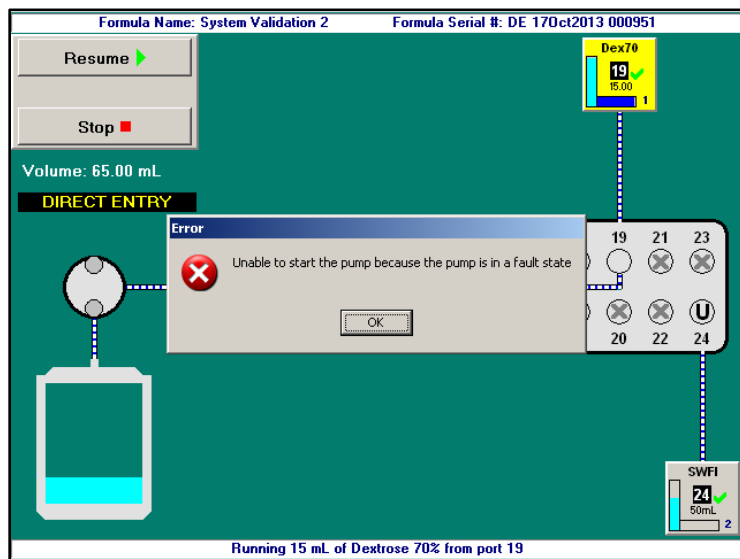
To resolve the issue:

1. Close the pump door.
2. Touch **OK**.
3. Touch **Resume** to continue compounding.

## Unable to Start the Pump

If the rotor is manually adjusted while the compounder is turned on, this message appears:

*Unable to start the pump because the pump is in a fault state.*



*Message*

To resolve the issue:

1. Touch **OK**.
2. At the pump screen, touch **Stop** and follow the on-screen instructions.
3. Reboot the compounder. Refer to Rebooting and Shutting Down on Page 29.
4. Repeat the compounding process.

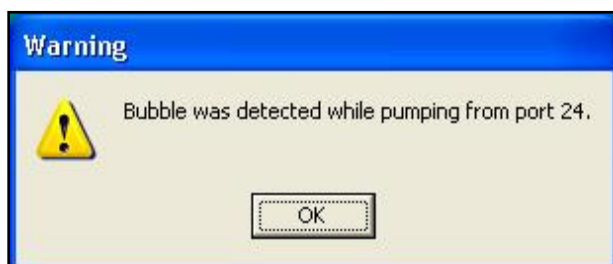
## INTERRUPTIONS

### Air Bubble

An air bubble can occur at any time, but it most frequently occurs after priming the inlet during setup or after replacing a source container. A bubble can be caused by an incorrectly spiked container, an empty container or incomplete priming.

When the bubble detector finds a bubble in the outlet tube over the detector, the compounding process stops and an alarm beeps. A message also appears. To resolve the issue:

1. At the *Bubble was detected while pumping from port <port number>* message, touch **OK**.



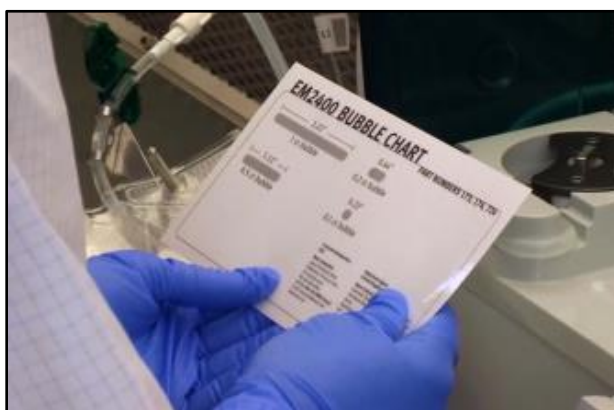
*Message*



### WARNING

A bubble in the common fluid pathway displaces the volume of one or more ordered ingredients, causing an under-delivery of these ingredients.

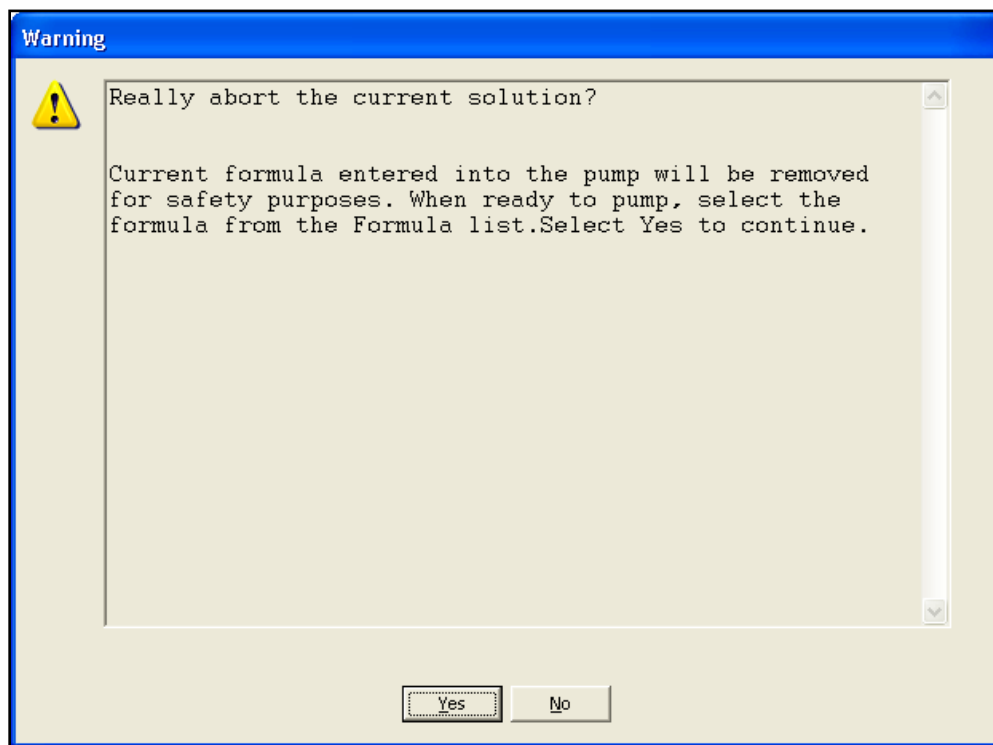
2. Determine the impact of the bubble:
  - a. Check the size of the bubble using the EM2400 Bubble Chart (5300-0868) to determine the volume of fluid displaced.
  - b. If more than one bubble is present, evaluate each bubble and add the values together to determine the total volume of fluid displaced.
  - c. Identify all the ingredients pumped prior to the alarm, the ingredient pumped during the alarm and the volume of each ingredient ordered.



*Using the EM2400 Bubble Chart*

**Tip!** Baxa Corporation recommends that a pharmacist evaluate the clinical significance of bubbles encountered during the compounding process.

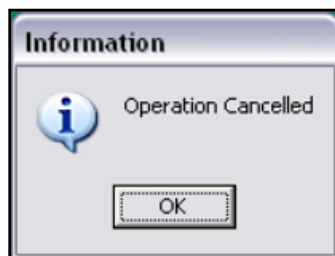
3. Ask a pharmacist to determine if the displaced volume is clinically significant for any of the ingredients pumped. Assume that the total displaced volume applies to each ingredient ordered.
  4. If the clinical significance:
    - Is acceptable, touch **Resume** at the pump screen to continue compounding the solution, and do not continue with the steps below
    - Is not acceptable, or cannot be determined, continue with the next step to cancel the order
- Tip!** Baxa Corporation recommends documenting all decisions according to your facility's protocol.
5. Immediately write a large "X" on the label of the patient bag.
  6. At the pump screen, touch **Stop**.
  7. At the *Really abort the current solution?* message, touch **Yes**.



*Message*

The software unloads the formula.

8. At the *Operation Cancelled* message, touch **OK**.



*Message*

9. At the *Fluid path will be flushed with UI* message, touch **OK**.



*Message*

10. Check that the fluid moves correctly during the flush.  
11. At the *UI flush complete* message, touch **OK**.



*Message*

12. Remove the bag. Refer to Removing the Patient Bag on Page 86.  
13. Discard the bag.

**NOTE:** To help reduce the occurrence of bubbles:

- Use correct technique to spike the containers. Refer to the steps for spiking a container, starting on Page 49.
- Re-prime any inlets that have visible bubbles. Refer to Priming the Inlets and Verifying the Setup on Page 59.
- Increase the priming volume in the configuration. Refer to Adding or Editing a Configuration on Page 130.

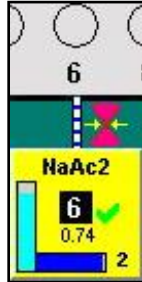
**NOTE:** To help avoid false bubble detections:

- Clean the channel over the bubble detector. Refer to Cleaning the Compounder on Page 100.
- Make sure that the outlet tube is in the correct position. It should be at the bottom of the channel over the bubble detector. Refer to Step 8a on Page 42.

## Occlusion

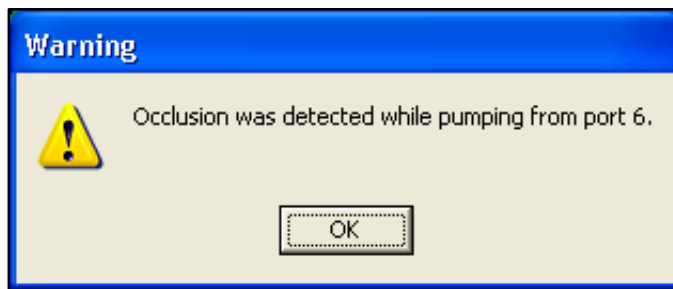
An occlusion can be caused by an empty syringe, stuck syringe plunger, kinked tube or other obstruction in the inlet.

When the occlusion detector detects that a vacuum was drawn, indicating an occlusion somewhere between the source container and the detector, the compounding process stops and an alarm beeps. A message appears, and a red occlusion symbol also appears near the ingredient button. To resolve the issue:



*Occlusion symbol*

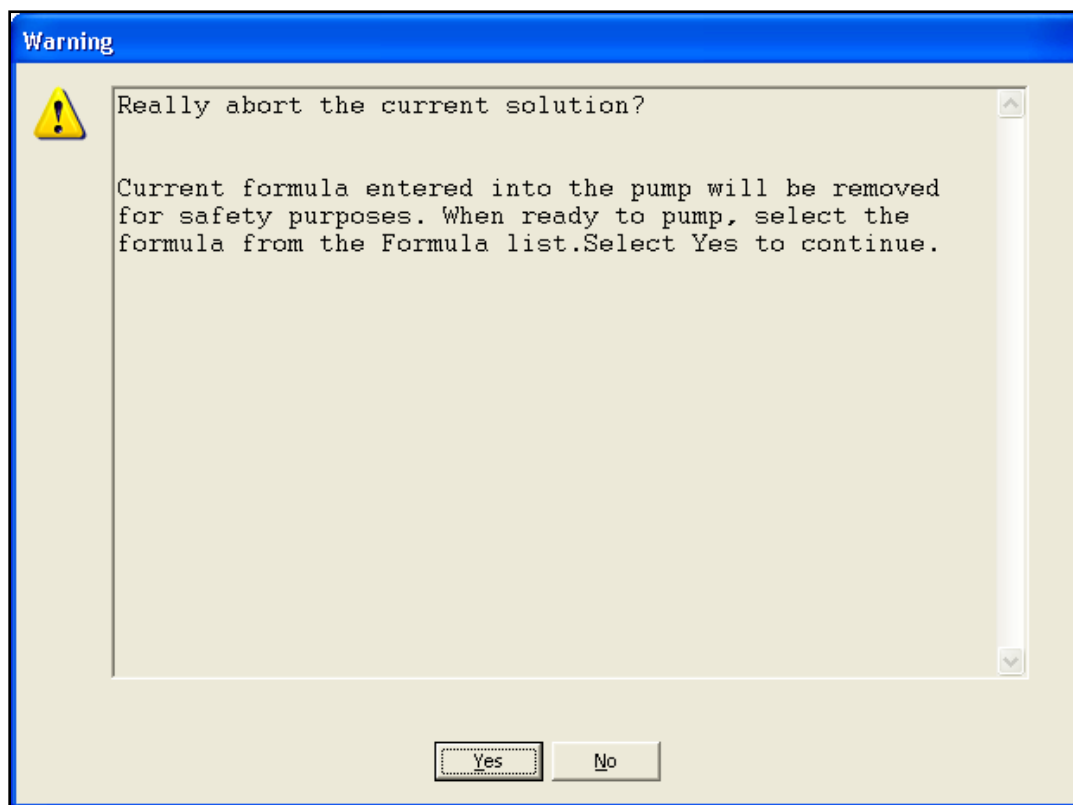
1. Immediately write a large "X" on the label of the patient bag.
2. At the *Occlusion was detected while pumping from port <port number>* message, touch **OK**.



*Message*

3. At the pump screen, touch **Stop**.

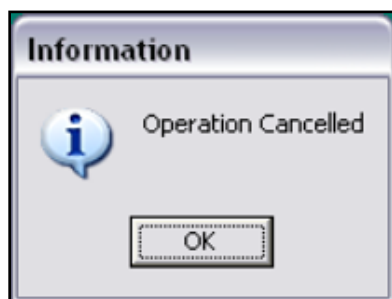
4. At the *Really abort the current solution?* message, touch **Yes**.



*Message*

The software unloads the formula.

5. At the *Operation Cancelled* message, touch **OK**.



*Message*

6. Check that:
- The outlet tube is straight and flat on the occlusion detector.
  - The occlusion detector is not damaged or dirty.
  - The inlets have no obstructions, kinks or tangles. If necessary, replace the inlets. Refer to [Changing the Tube Set](#) on Page 38.
  - The appropriate inlet is used with each source container.
  - Each syringe has fluid and its plunger is not stuck.

**NOTE:** If you cannot find the cause for the occlusion, contact Baxa Corporation Technical Support. Refer to [Getting Help](#) on Page 17.

7. At the *Fluid path will be flushed with UI* message, touch **OK**.



*Message*

8. Check that the fluid moves correctly during the flush.
9. At the *UI flush complete* message, touch **OK**.



*Message*

10. Remove the bag. Refer to [Removing the Patient Bag](#) on Page 86.
11. Discard the bag.



## APPENDIX D: TRADEMARK AND WARRANTY STATEMENTS

### TRADEMARK STATEMENT

The following are registered trademarks of Baxa Corporation: Baxa, the Baxa logo, ABACUS, **DoseEdge** and EXACTAMIX.

MIXCHECK is a trademark of Baxa Corporation.

### WARRANTY STATEMENT

Baxa Corporation provides a limited warranty for the EXACTAMIX 2400 Compounder.

See your lease or purchase contract for details about the warranty.

If the equipment is under warranty, Baxa Corporation will replace the defective equipment the day following notification, whenever possible. Equipment that is not under warranty can also be replaced the next day. The customer is responsible for the cost of repairs and shipping.

Baxa Corporation warrants that the EXACTAMIX 2400 Operating Software will perform as described in the operator manual, by the release notes with the currently released version and when operated on a correctly configured computer using a correctly configured load cell and barcode reader. Where there is a discrepancy between the manual and the operation of the software, Baxa Corporation may, at its discretion, revise either the software or the text of the manual.

This software is intended solely for the operation of the EXACTAMIX 2400 Compounder for the preparation of compounded sterile formulas. It is not intended to replace the professional knowledge or judgment of a Registered Pharmacist in the preparation of such formulas.

No other warranties, whether express or implied, made by any representative or other agent of Baxa Corporation shall be binding upon Baxa Corporation. This is an exclusive warranty.



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