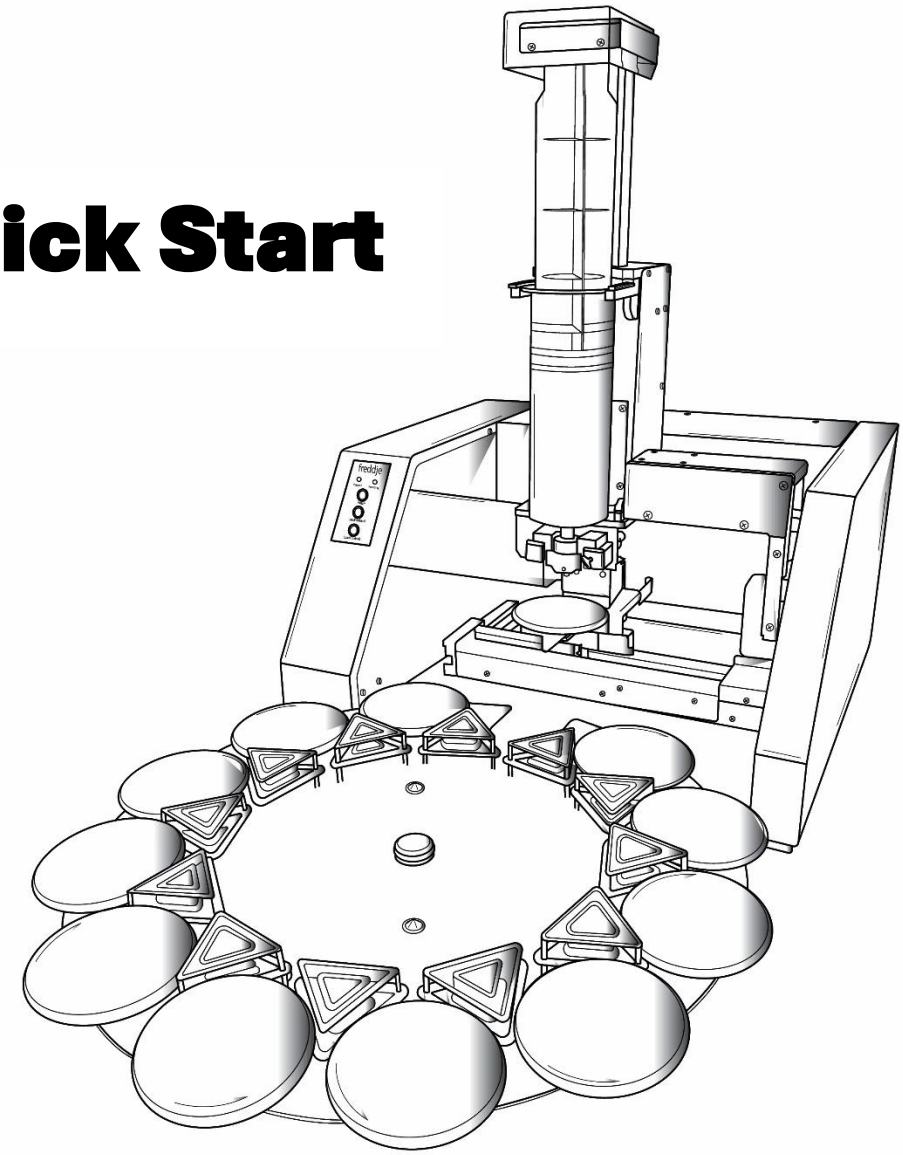
Quick Start



View the Setup Video at:
http://www.primera.com/FreddieDownloads

freddie®
The Frosting Machine

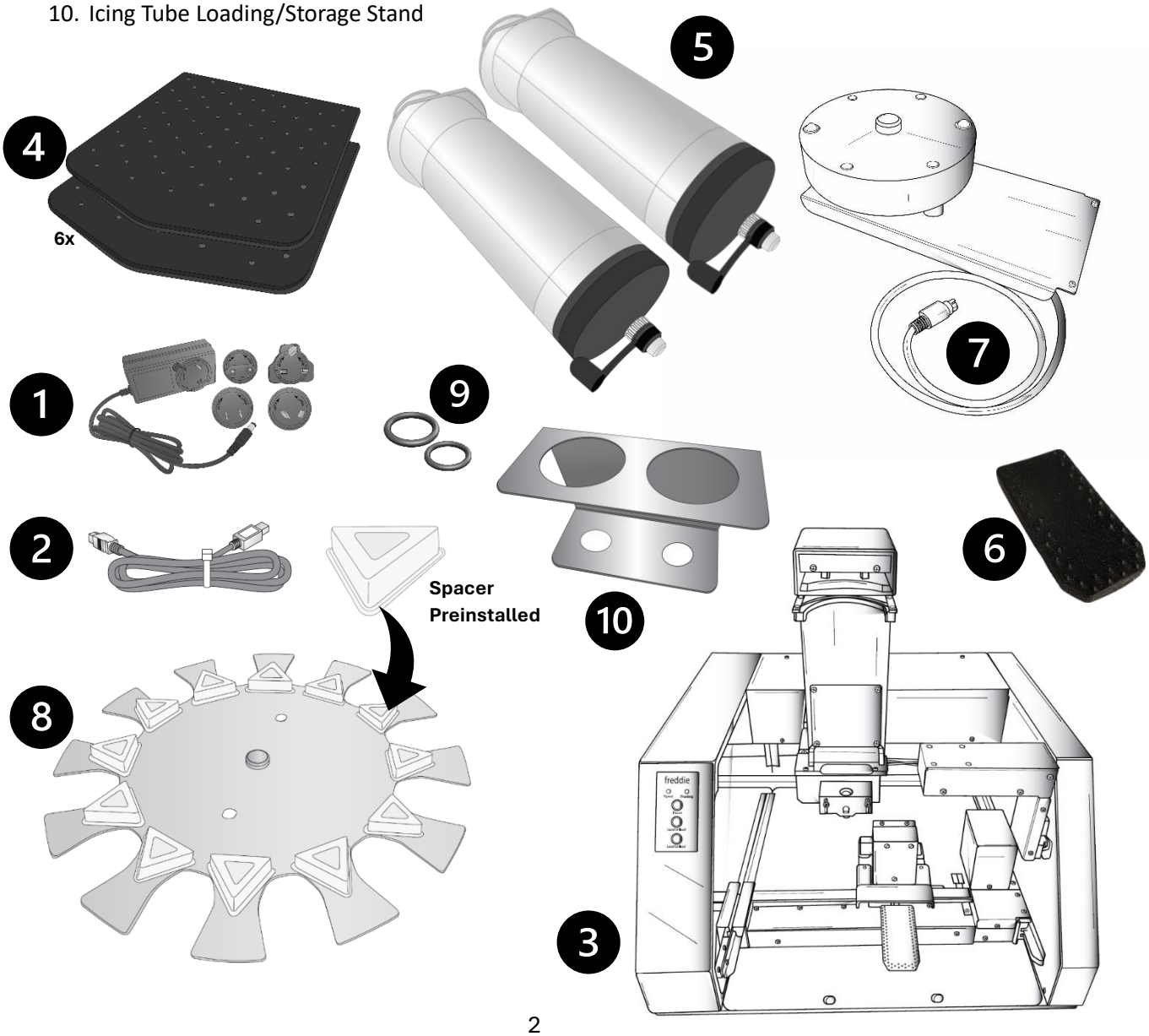
For the most recent version of this manual please visit
http://www.primera.com/FreddieDownloads

511510-061225

Unpacking and Inspection

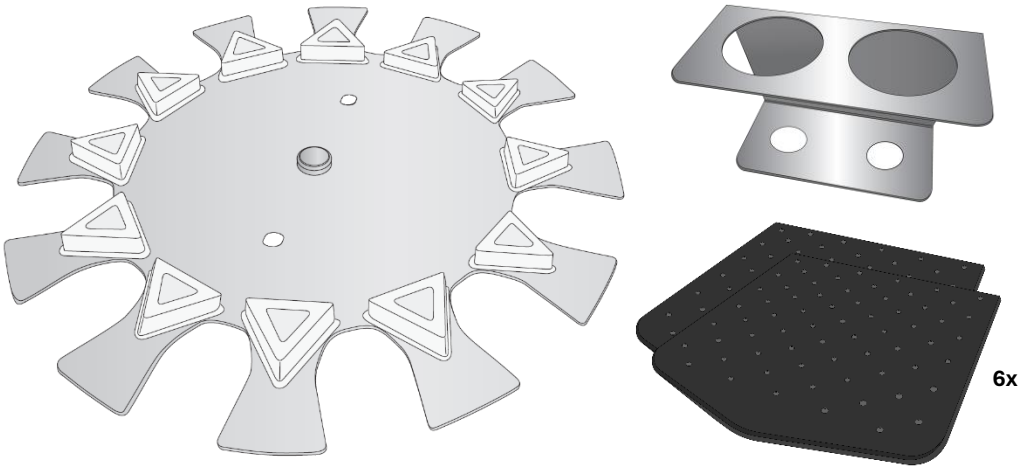
While unpacking your Frosting Machine, inspect the carton to ensure that no damage has occurred during shipping. Make sure that all supplied accessories are included with your unit. The following items are included:

1. Power Adapter, Cord, and Adapters
2. 6’ USB Cable (If another USB cable is used, it must be 6’ (2 M) or less)
3. Freddie
4. 6x Black Plastic Trays (for large or non-round cookies)
5. 2x Icing Tubes
6. 1x Silicone Tongue Cover (not used for this tutorial)
7. Carousel Base with Six-Pin Mini Din Cable
8. Carousel Platter (with triangle spacers)
9. Extra Valve Rings
10. Icing Tube Loading/Storage Stand

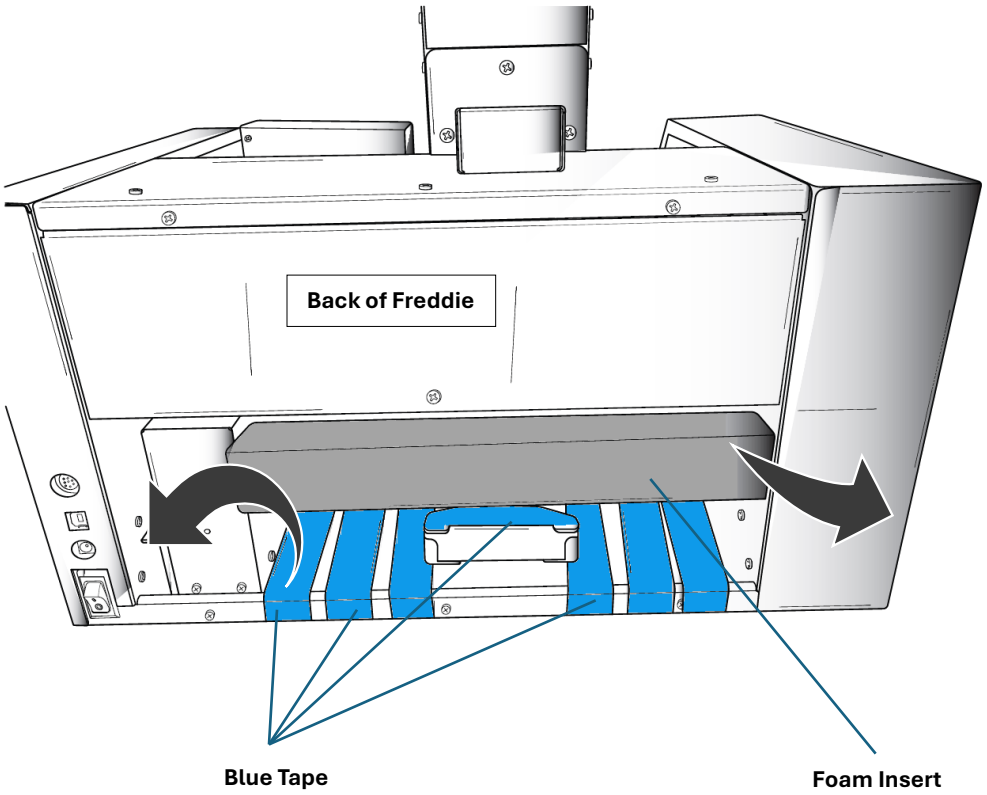


Some assembly is required to set up your Icing machine.

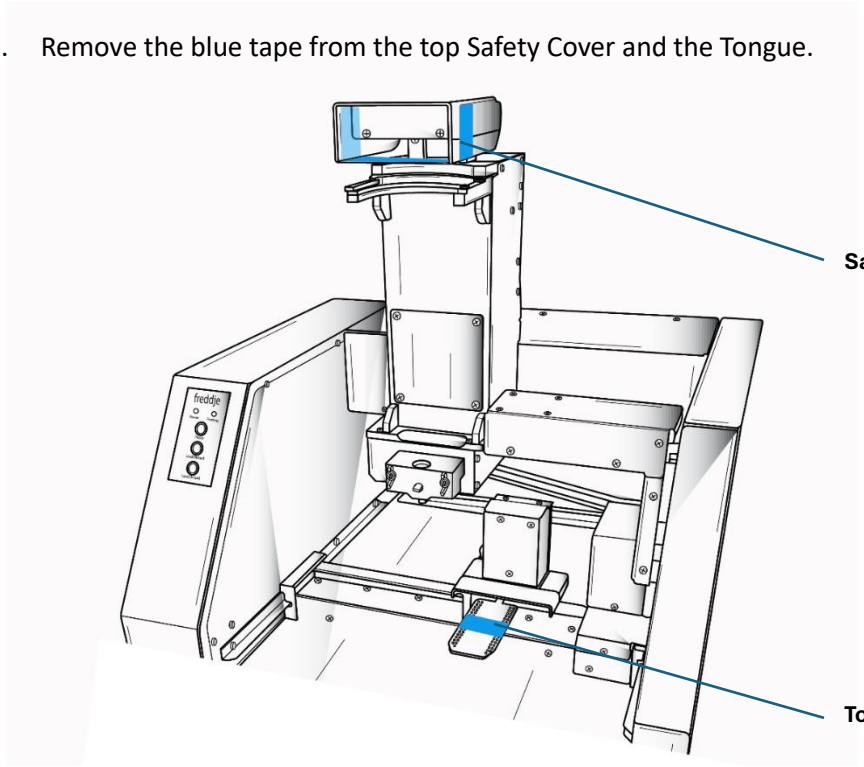
1. Open the box and remove the flat box for the carousel at the side, the icing tube stand box, and the accessory box.



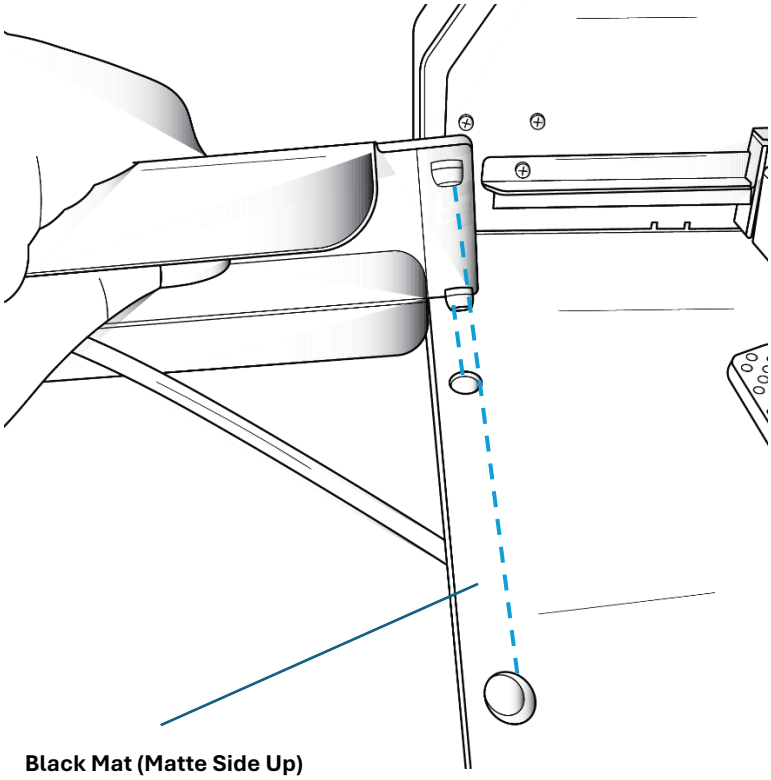
2. Next, Remove Freddie the Frosting Machine. We recommend two people when lifting the machine from the box. Remove the foam insert located at the back of the machine. Remove the blue tape from the tongue rail bar and the wiping station.



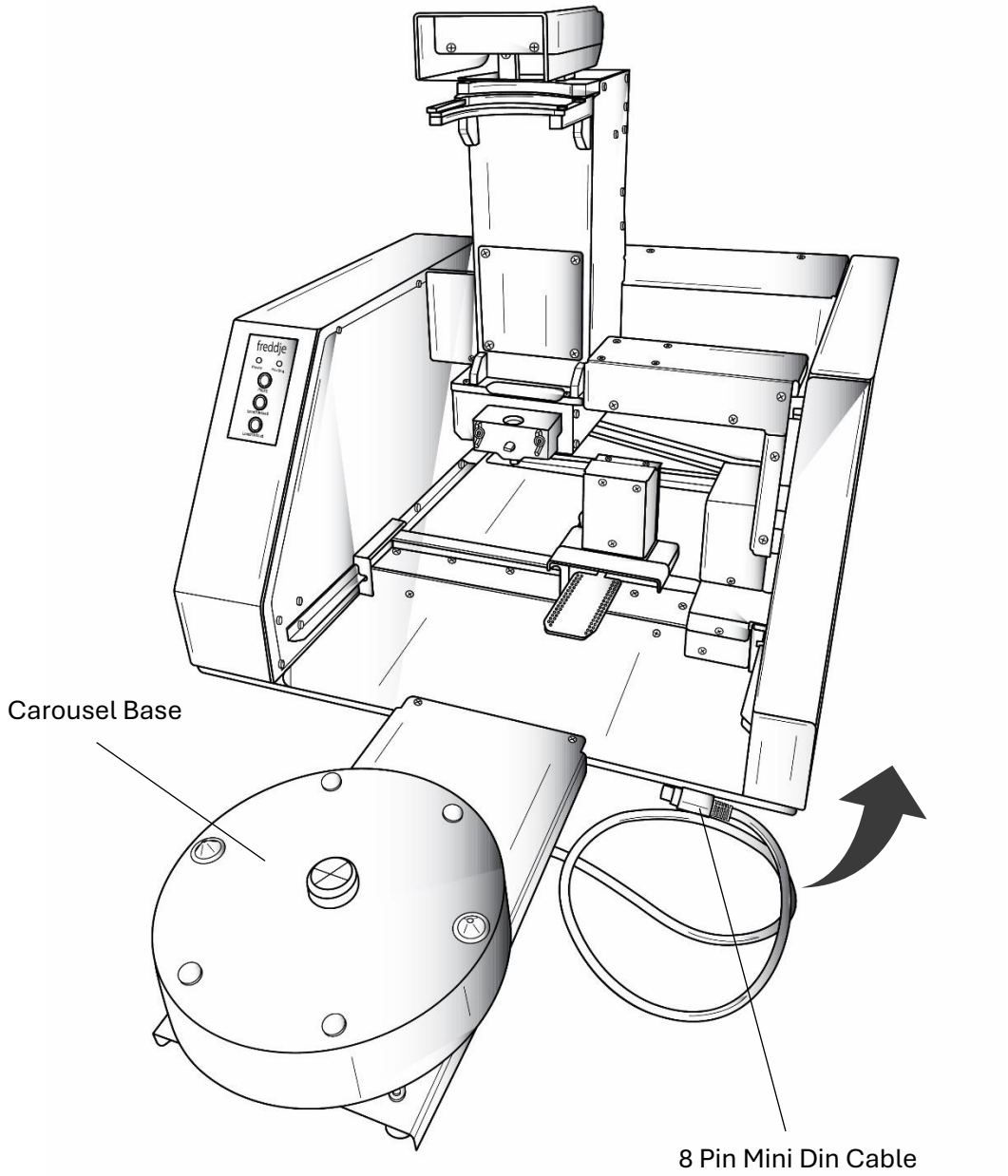
3. Remove the blue tape from the top Safety Cover and the Tongue.



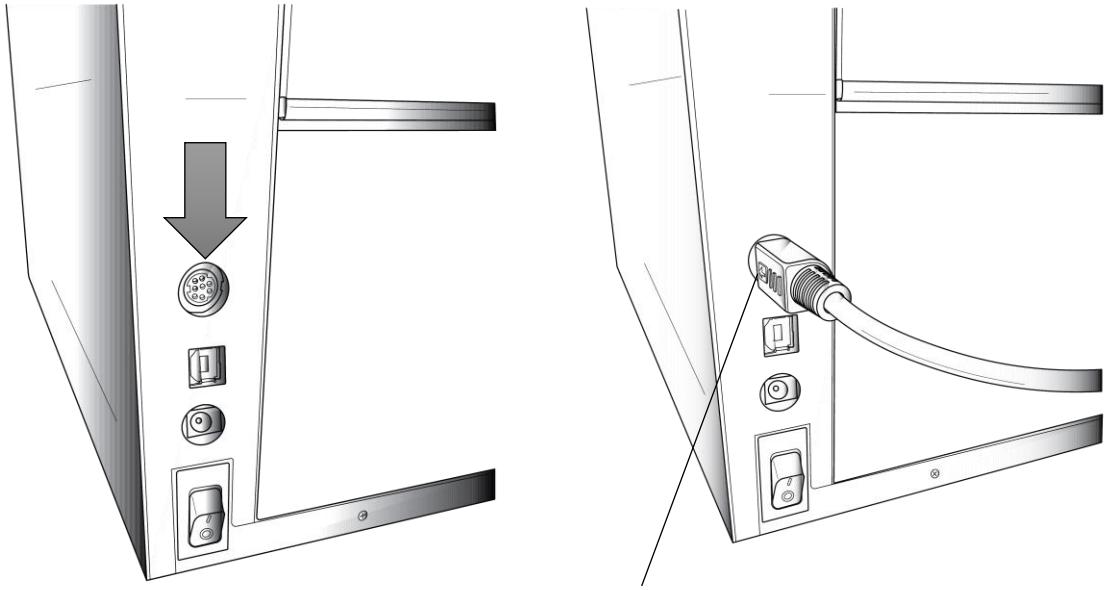
4. Next, locate the carousel base in the box inside the machine. To connect, place the two metal pins in their corresponding holes to orient the Carousel Base to the bottom plate of the Freddie.



5. Locate the 8 Pin Mini Din Cable attached to the Carousel Base. Route the cable underneath the machine. You may find that you need to lift one side to make this process easier.



6. Connect the 8-Pin Mini Din Cable to the round port on the back of the Printer. Connect the cable so the flat size is facing the outside of the unit.

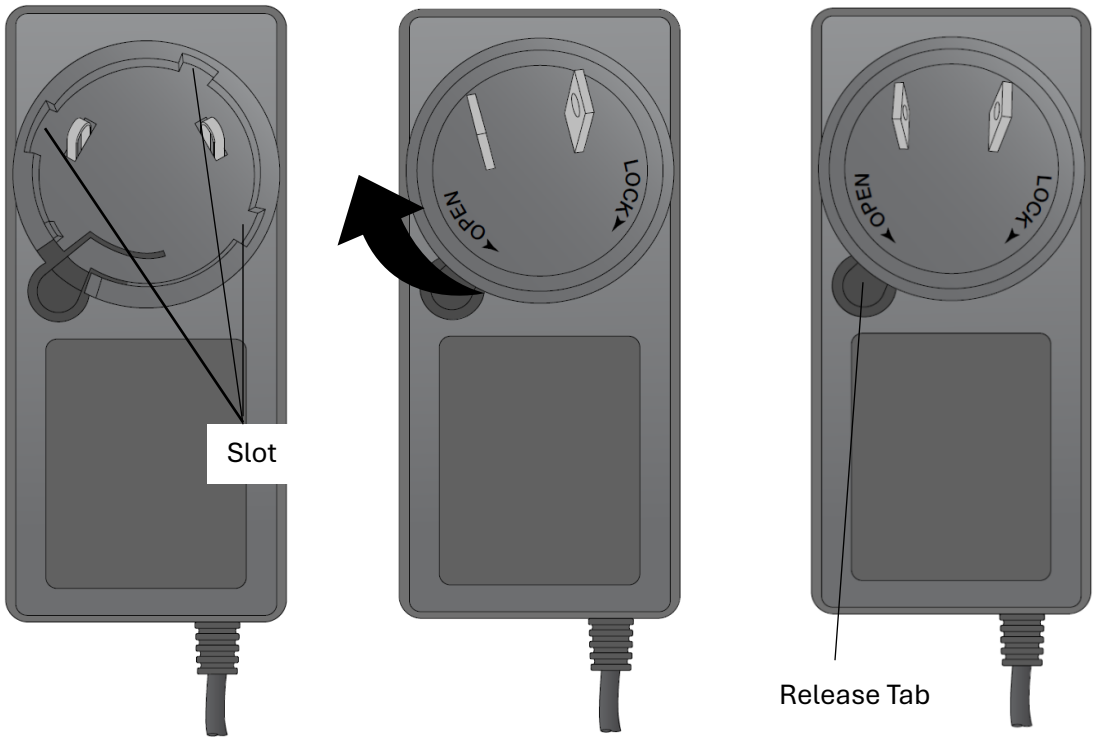


Flat Side Facing Out

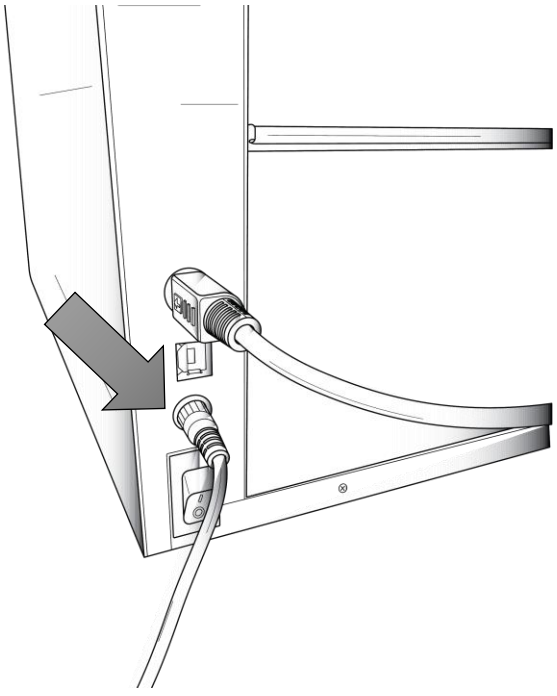
Cable Specifications:
Serial RS-232 Mini DIN8

7. Locate the Power Supply.

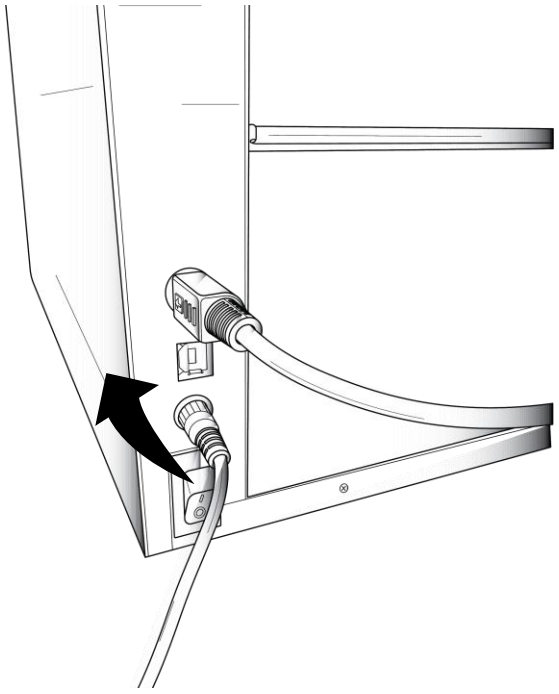
8. Install the appropriate adapter by aligning the tabs on the plug to the slots in the power adapter. Rotate the plug until it snaps into place.



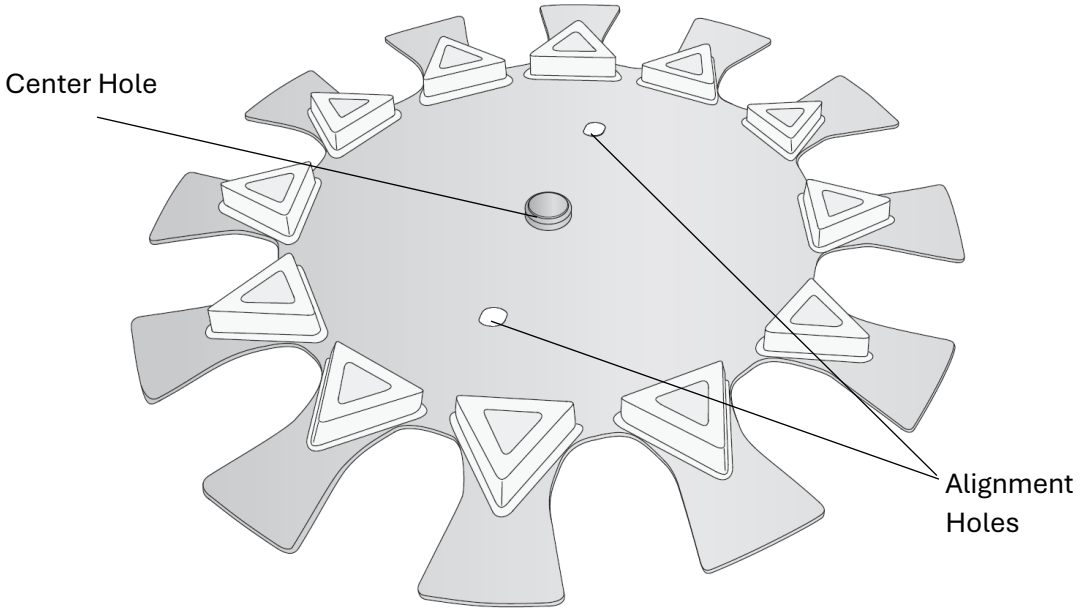
9. Connect the Power Brick to a wall outlet and the round barrel connector to the back of the Printer.



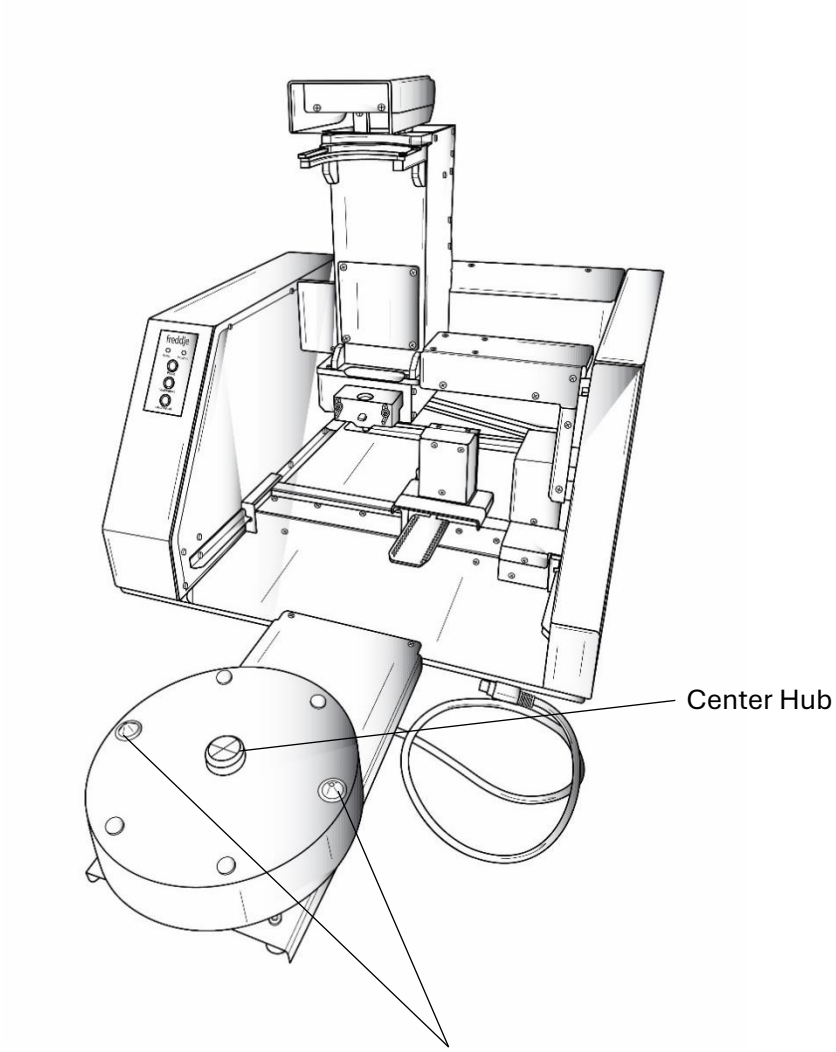
10. Switch on the Power Switch.



11. Locate the Carousel Platter. Note the location of the alignment holes and the Center hole.



12. Install the platter by aligning the center hole with the center Hub on the Carousel platter base. Rotate the platter by hand until the holes in the platter are aligned with the pegs on the base.

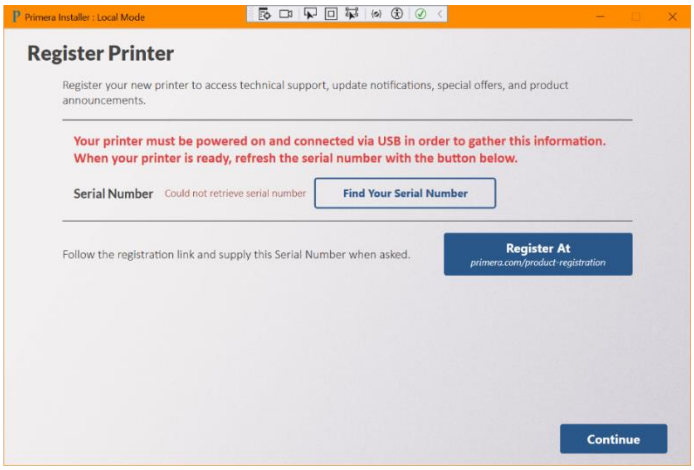


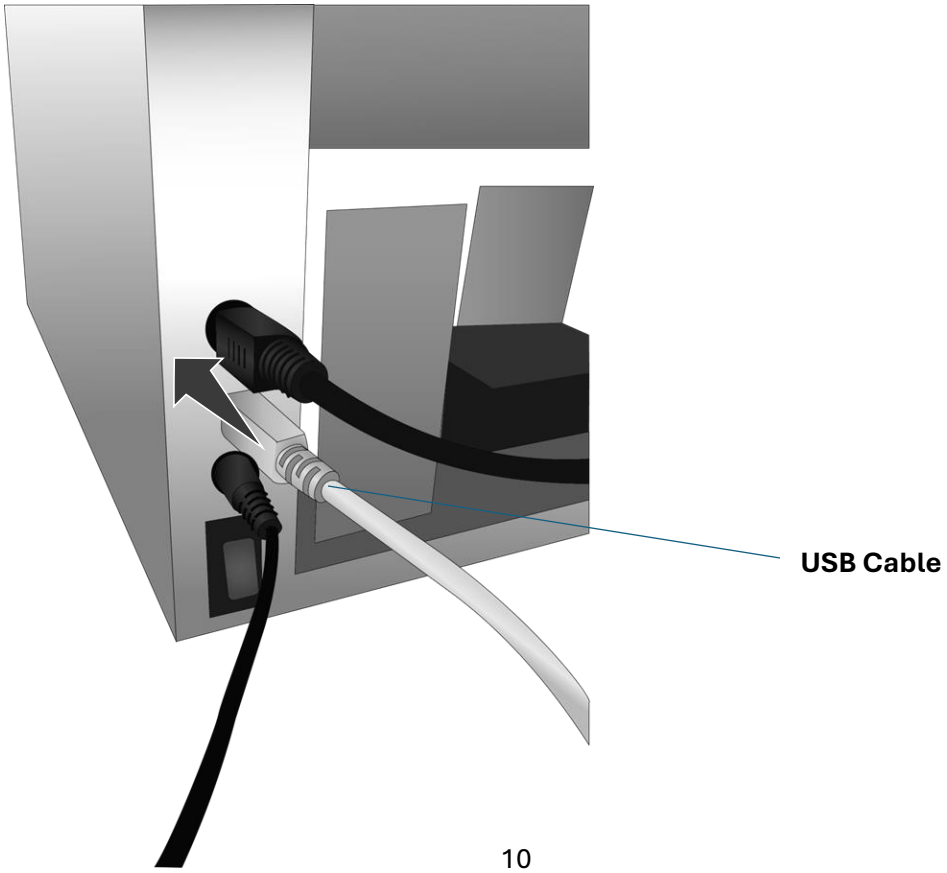
13. Install the Windows PC Only software by following the link below:

    www.primera.com/Freddiedownloads

    Follow the instructions in the software installer to complete the setup and connect USB. Start with the next step after the software is installed.

14. At the end of the installation process, you will be prompted to install the USB cable.



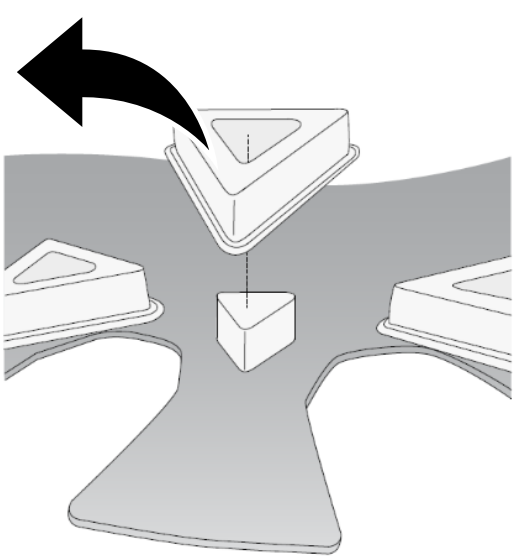


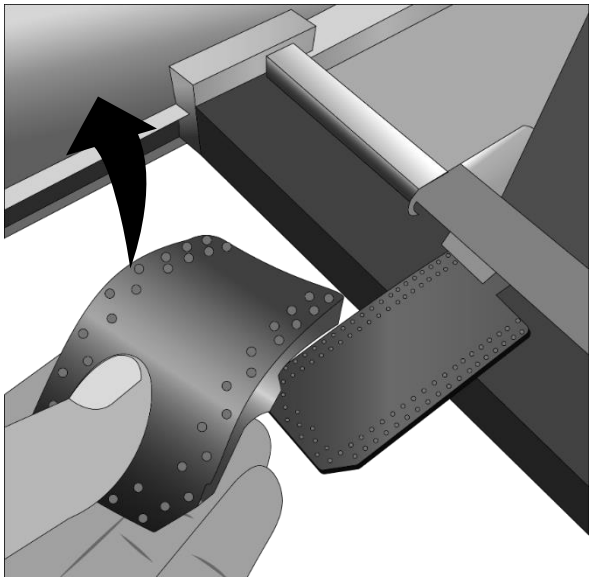
Loading Freddie with Cookies Using Black Trays

For this tutorial we will focus on using **t**he Black Trays. The black trays can be used for cookies of any size or shape up to 0.5” tall. For other loading methods see the User’s Manual Section 2.

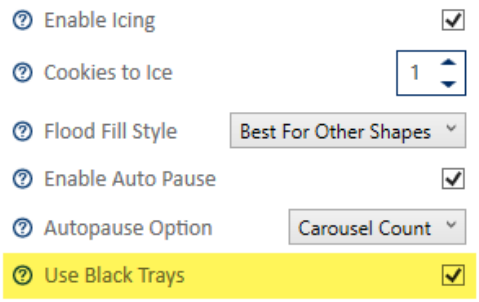
To load the trays, follow these instructions.

1. Remove the outer triangle adapters and the silicone tongue cover if installed.



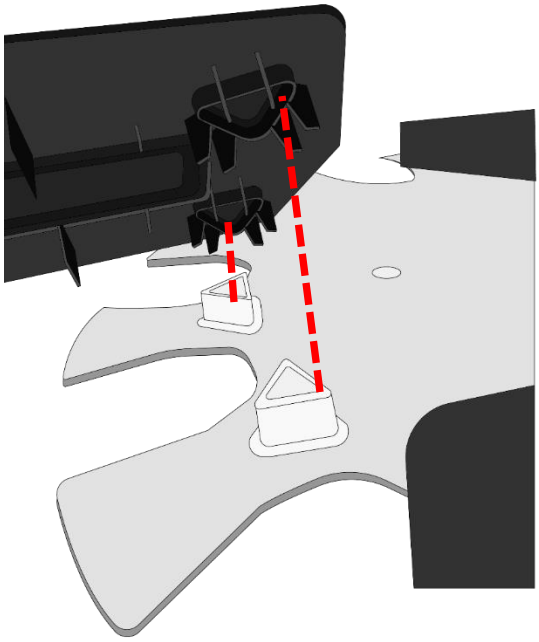


2. Check the “Use Large Trays” box in the FreddieView™ software.

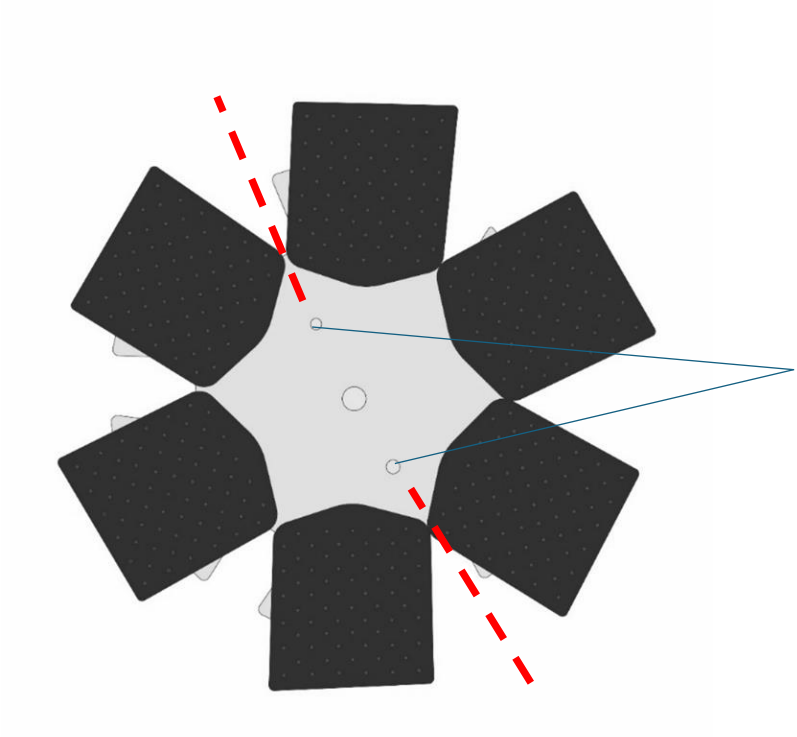


3. Switch off the unit and turn it back on to force a carousel position calibration at startup.

4. Place the large trays on the carousel platter by lining up the triangle impressions on the bottom with the triangle spaces on the carousel platter.



5. The trays should be placed on the carousel at the position shown in the diagram below one space offset from the space aligning the locator holes.



Note: The tray is placed one space offset from the location holes. The location holes will always be offset but may not be in this exact position.

Make Icing

Icing Consistency is very important to success when using Freddie. If icing is too thin, it will spread and run off the cookie. If it is too thick, it will not flood fill inside the outline. The instructions and recipe below is one way to achieve the proper consistency. However, any recipe or technique that produces a similar consistency will also work. Finally, there is a range of acceptable consistency. There is no need to make it perfectly the same every time. The calibration we recommend before starting a job with any new batch of icing will measure the spread of the icing and automatically adjust settings.

Ingredients

- 48g meringue powder (1/3c)
- 175g (3/4 cup) water
- 907g (2 lb) powdered sugar

Note: This will be enough to fill two icing tubes and ice approximately 35x 3.5” cookies

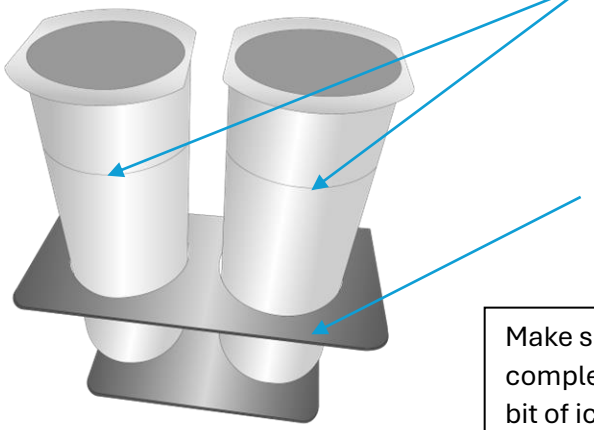
Making Icing

1. Measure out 1/3c (48g) of meringue powder. Add 175g (3/4 cup) of warm/hot water. Whisk briskly until it is mixed up completely and the mixture is frothy.
2. Add 2 lbs (907g) of powdered sugar.
3. Mix it up for several minutes with the power mixer.
4. After mixing, you may need to stir in any powder from the sides/bottom into the mixture using a spatula.
5. Pour the mixture into a sealable container and let it sit covered for several minutes to let the bubbles come to the surface. After the bubbles come to the surface you can pop them with the spatula.

Fill the Icing Tube

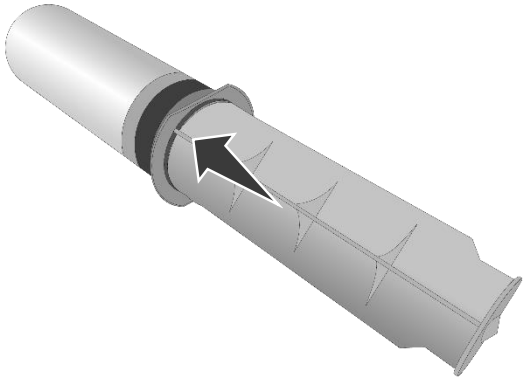
1. Remove the plunger from the icing tube. You will need to remove the cap on the tip before removing the plunger. Be sure to replace the cap before the next step, or the icing will run out the tip.

2. Pour the Icing into the tube. Don't overfill past the Max Fill Line. If you fill too much you will not be able to fit the extended plunger under the pressure tower without manually extruding some icing. Use the Fill/Storage Stand to stabilize the tube while filling.



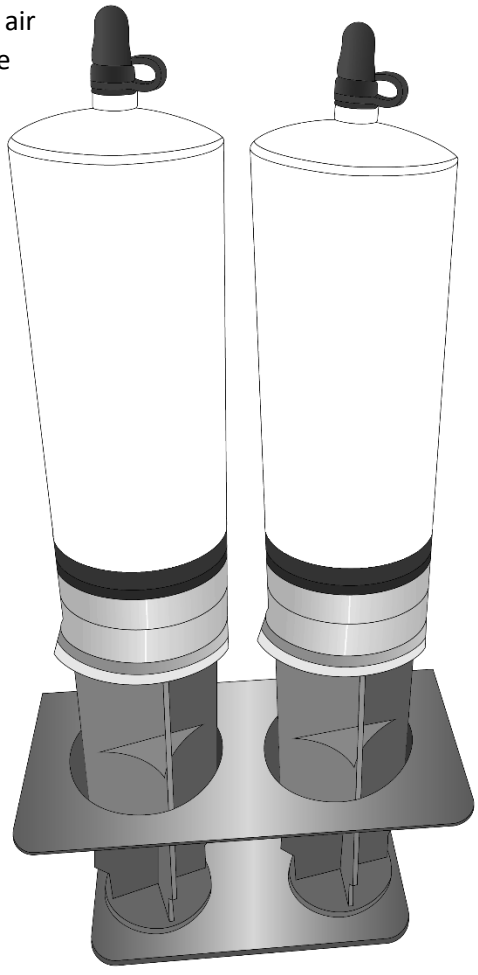
Make sure the tubes and plungers are completely dry before filling or the first bit of icing will be too thin and not representative of the rest of the batch.

3. Insert the plunger until you feel resistance – it will not go in all the way because of the air gap pressure.

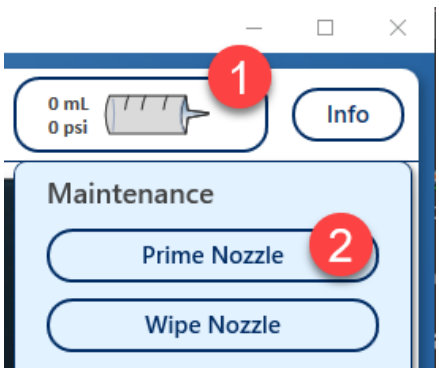


4. Now flip the tube over so that the tip is pointing up – let the Icing drain down (wait a couple minutes).

5. Uncap the tip and slowly push the tube down until all the air at the top is gone and Icing starts to come out. Re-cap the tip. Note that while pushing out the air you may get a small blob of Icing pop out of the tip – make sure you keep pressing all the way until all the air is out. The centerline of the icing tube plunger must be at or below the Max Fill line.



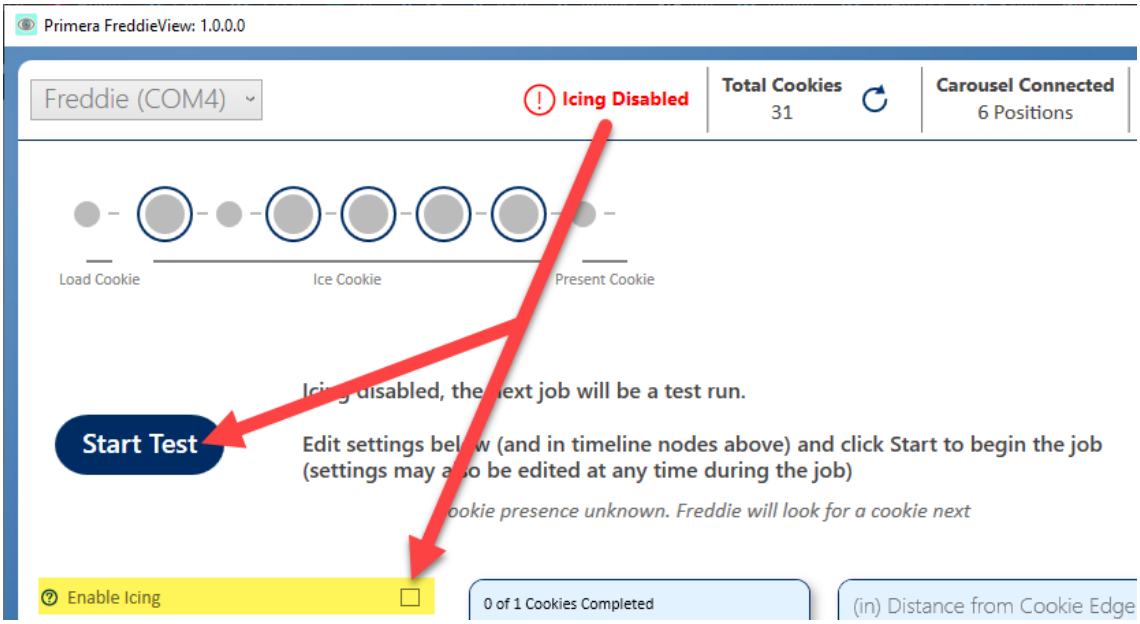
6. The tube is now ready for icing. Repeat the procedure to fill as many tubes as you need for your job. The recipe above will fill almost two tubes. If properly sealed, icing will remain at the proper consistency for approximately 24 hours. If the icing has been sitting for more than 3 hours it is best to Prime the Nozzle first to purge any partially dried icing.



Perform a Test Run with No Icing

Before you start icing cookies for the first time, we recommend running the unit in test mode with **no icing tube loaded.**

1. To perform a dry-run test, you need to make sure icing is not enabled. This will allow you to determine if things are running smoothly before committing to Icing cookies. Make sure **Enable Icing** is un-checked.

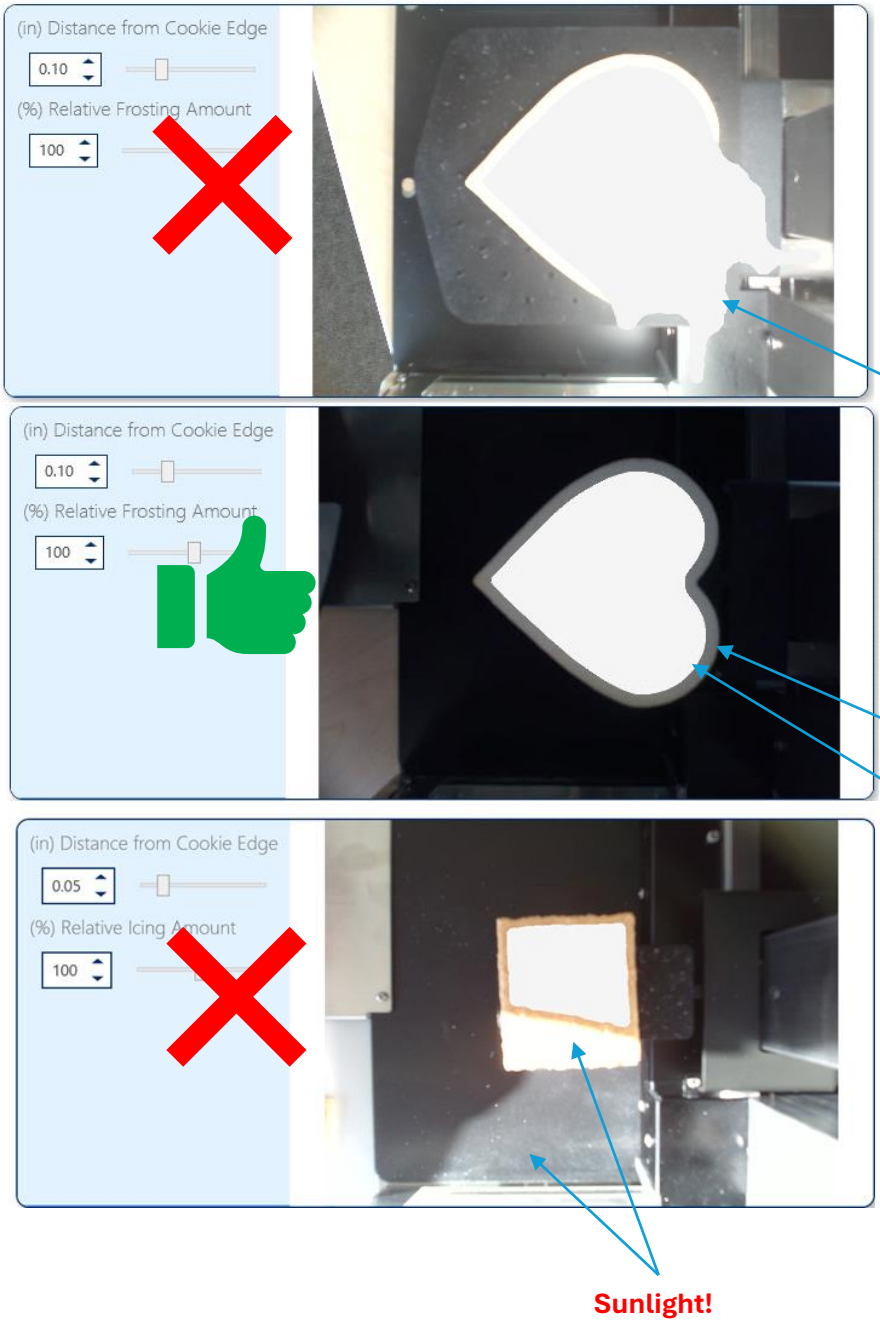


2. If using the Carousel, make sure you have at least one cookie placed on the Carousel Platter (with or without Black Trays). If using Manual Mode, the software will tell you when to load a cookie onto the Tongue.

3. Click on the Start Test button.

4. Follow any instructions regarding loading. Observe Freddie's behavior to see if it goes through the motions of properly Icing a cookie. We've disabled Icing for this test, but we want to make sure it spirals over the cookie as if Icing and no issues are experienced.

5. Also, look at the Preview of the cookie icing plan in the lower-right corner. It should have a white area on the cookie to show the expected area of the cookie that will be Iced -- make sure it appears to cover the cookie properly. E.g.



Over Exposure from External light source. The cookie shape is incorrect. This will be a problem.

Detected Cookie Shape is incorrect!

Correct Exposure. It's easy to see where the icing will be and the edge of the cookie

Cookie Edge

Icing Edge

Over Exposure from direct sunlight. The icing preview/plan does not cover the whole object.

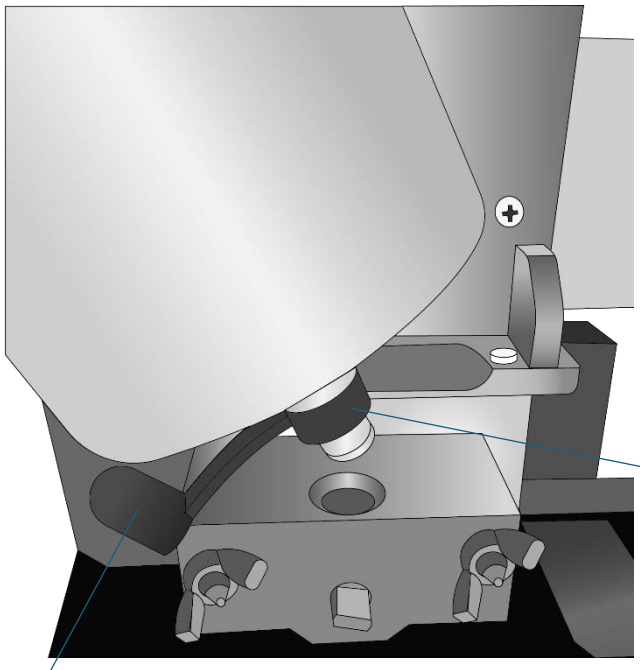
Sunlight!

Please check the enable icing box to get out of test mode. This will turn on the pressure tower so icing is extruded from the nozzle. The button will change to Start Icing Job.

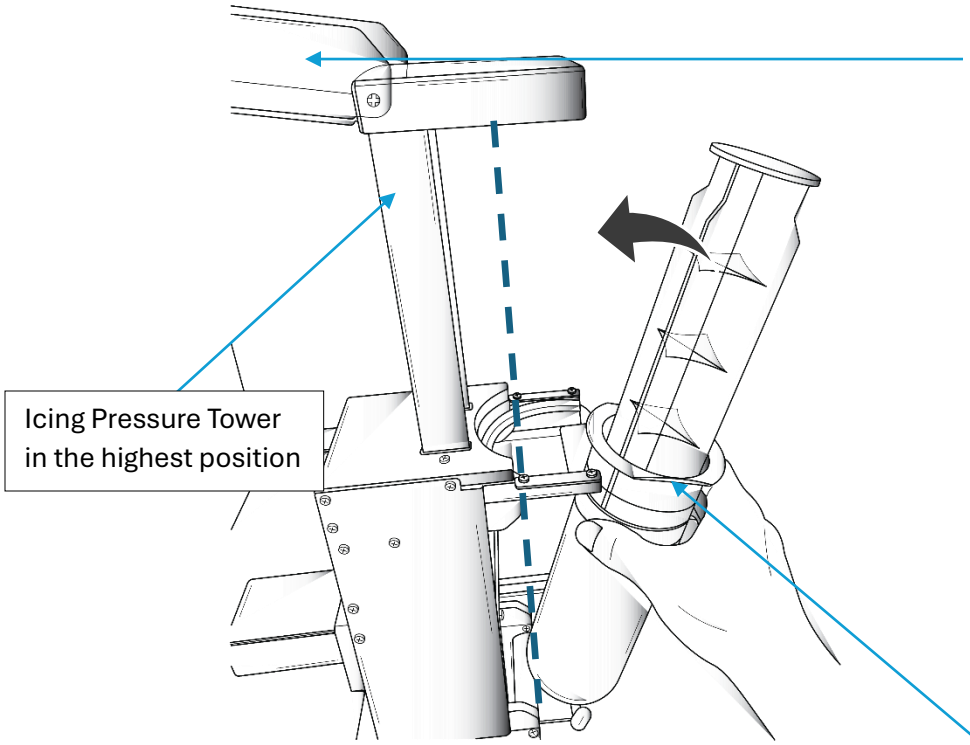
Loading the Icing Tube

1. To load the filled icing tube, first make sure the pressure tower is in the highest position. Turn the machine off and on to move the tower to the top. (The Safety Cover must be closed for the tower to move up.)

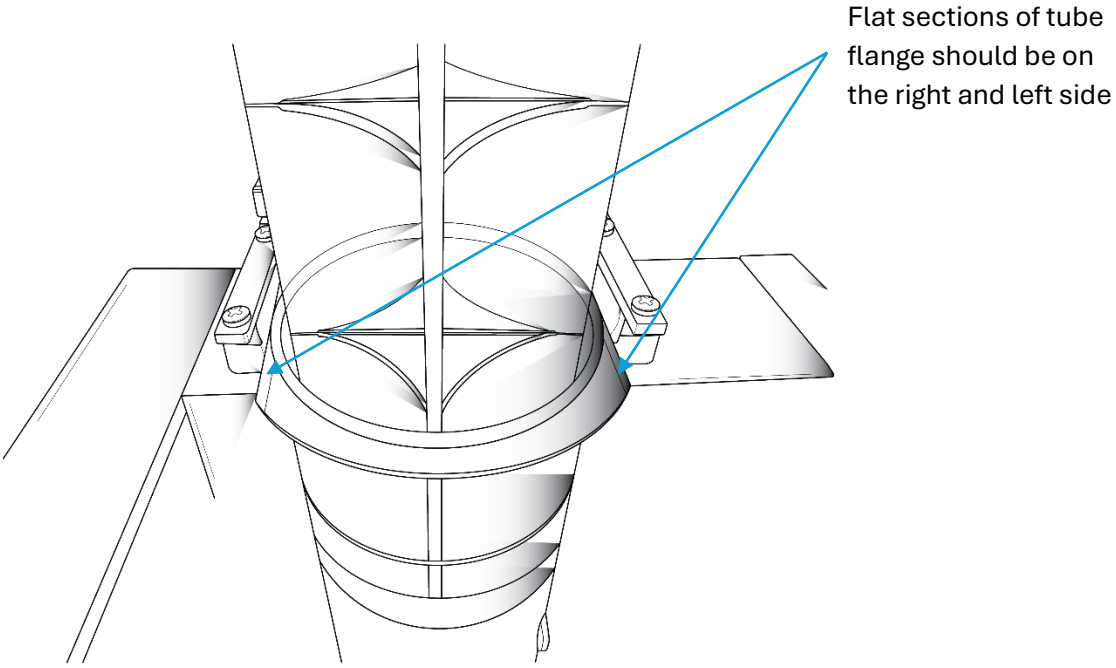
2. Next, uncap the tip and quickly insert the tip into the Freddie Nozzle Block.



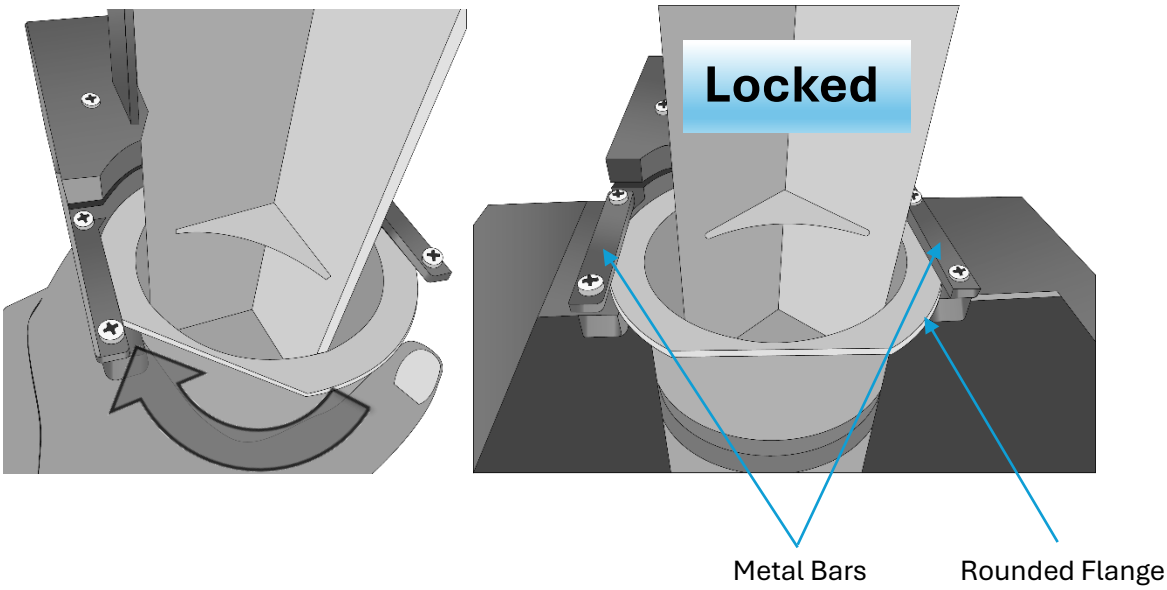
3. Tip the tube into the pressure tower until it is standing up.



4. Rotate the tube until the flat sections are on the right and left sides.



5. Rotate the tube 90 degrees to lock it in place. You can rotate the tube to the right or left. It doesn't matter.



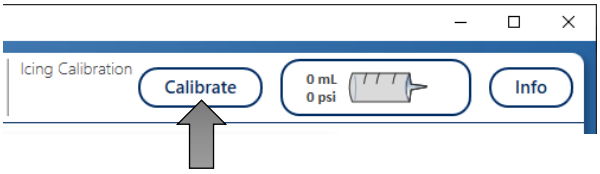
6. The tube is locked when the rounded parts of the flanges are under the Metal Bars on the left and right sides.

7. Shut the icing tower Safety Cover.

Icing Calibration

Before using a new batch of icing you will need to perform **an icing calibration**. Calibration will extrude beads of icing that the vision system will measure to determine how much each bead will spread. It then uses this information to set the distance between each bead of icing. If the icing is the correct consistency, calibration will succeed, and you may proceed to icing your cookies. However, if calibration fails, the calibration process can be used to adjust settings to still allow this batch of icing to be used. It can also be used to calibration centering and other aspects of the icing process. See section 4C in the User's manual if other advanced calibration is necessary.

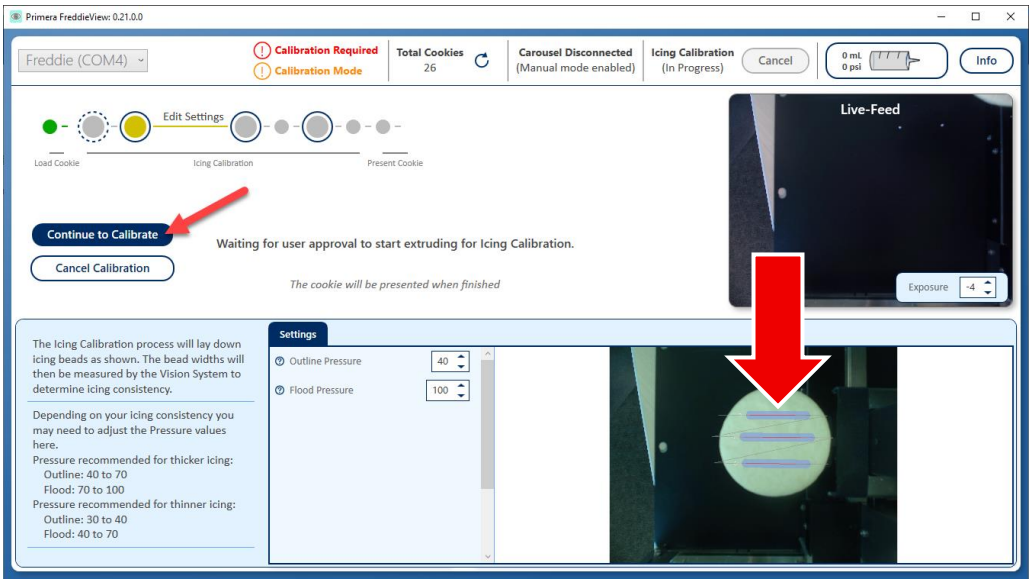
1. In the upper-right corner of the software, click on the **Calibrate** button.



2. The start icing Job will change to Start Icing Calibration. To cancel calibration click the cancel button in the upper right corner where the calibration button was.

3. Load the black trays with cookies.

4. Click the **Start Icing Calibration** button. Freddie will take a picture of the cookie and preview where the icing beads will be placed. If the beads are on the cookie, click Continue to Calibrate to start the calibration.

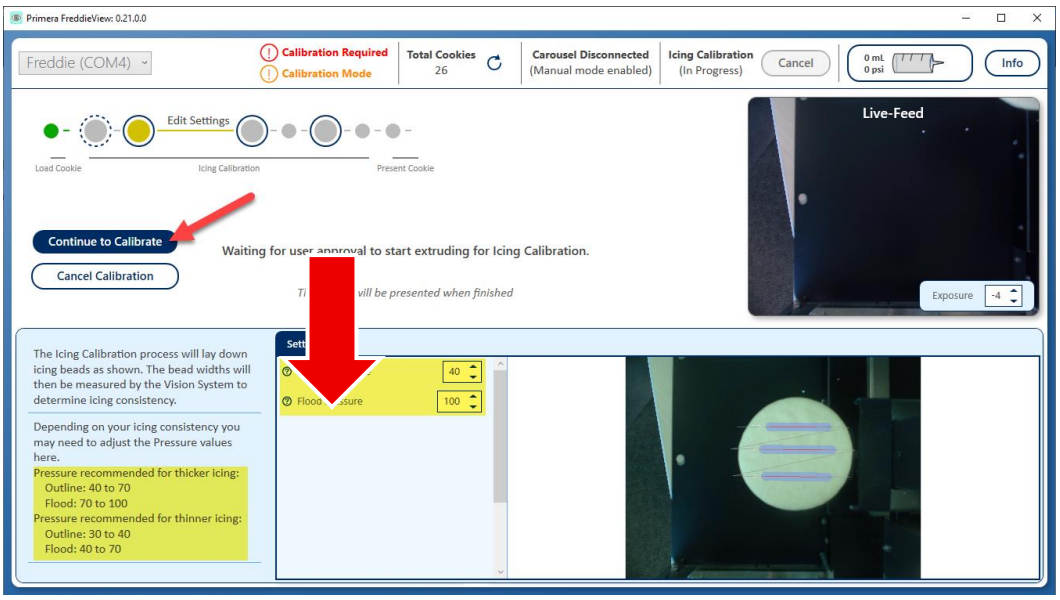


If Calibration Fails

If Calibration fails, it may also display an error that your icing is too thick or too thin. However, you can probably still use this icing batch if you adjust settings. You can always start calibration again by cancelling the current calibration and clicking the Calibrate button again. On the preview screen you can adjust the Outline Pressure and Flood Pressure before continuing calibration. **Note**: Too thin icing will limit how close you can ice to the edge of your cookie.

For Thicker Icing:	Outline Pressure = 40 to 70 Flood Pressure = 70 to 100

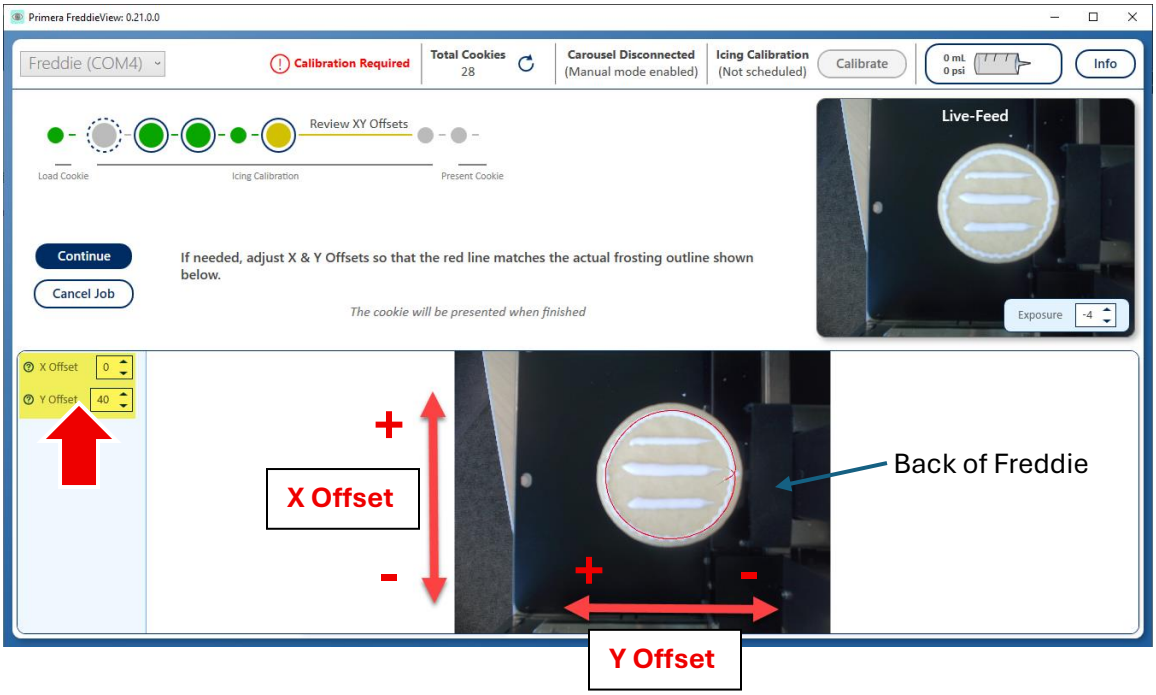
For Thinner Icing:	Outline Pressure = 30 to 40 Flood Pressure = 40 to 70



Centering Calibration

During the Calibration process you will be prompted to adjust XY Offsets (Centering). If it looks centered, click Continue. You can always do another calibration if you find your icing is not centered.

The key to adjusting the X-Y offset is to center the red line on the actual Iced outline in the picture. **NOTE:** Do not center the red line on the cookie itself – instead center the red line over the icing outline in the picture. The red line will move on the preview as you adjust the numbers. The picture is turned 90 degrees so the back of Freddie is on the right. Use the mouse scroll wheel to zoom. Click and drag to move the image around.

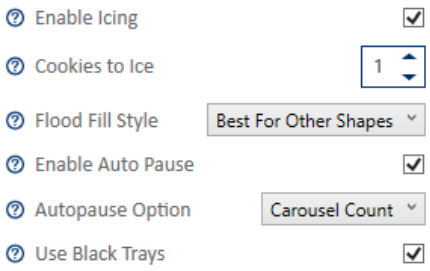


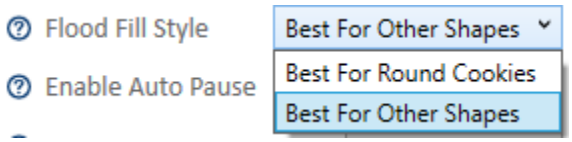
Once the calibration is complete, you will receive a Calibration Succeeded message. Click OK.

Start an Icing Job

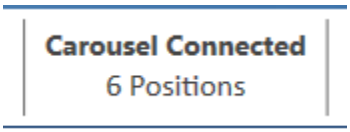
You are now ready to start icing cookies. Before you begin, note the group of settings just below the Start Icing Job button. These will need to be adjusted based on what type of cookies you have and how the machine is setup.

1. Make sure Enable Icing is Checked.
2. For now, keep the number of **Cookies to Ice** at 1 until you are satisfied with the result.
3. Set your Cookie Flood Style to match your cookie Shape. For round cookies set it to Best for Round. For all other shapes or mixed shapes on the same carousel set it to Best for Other Shapes.





4. Leave Auto Pause Options alone for now. They only apply for jobs bigger than the number of cookies on your carousel.
5. If you are using the black trays make sure to check the box for Use Black Trays. You will notice the Carousel Connected Positions at the top of the screen switch from 12 positions to 6 positions.

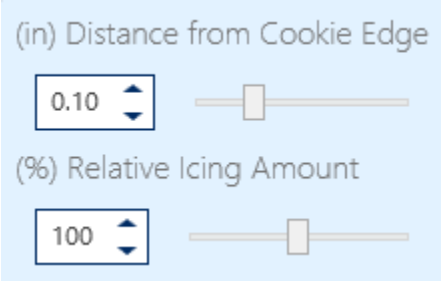


6. You are ready to Ice your first cookie. Click on the **Start Icing Job.**

7. If the icing is acceptable, you can now update the **Cookies to Ice** value to the total number of cookies you would like to complete in your job and click **Start Icing Job** again to begin…

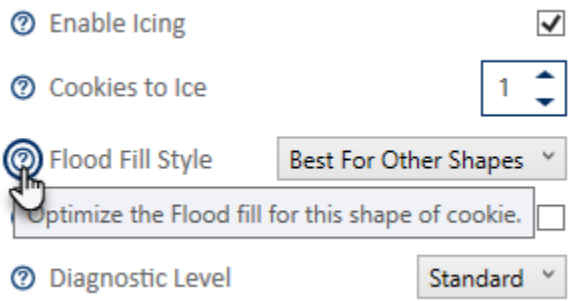
8. If not, there are two prominent settings in the lower-right corner. **Distance from Cookie Edge** and **Relative Icing Amount**.

9. You can set **Distance from Cookie Edge** lower to get the Icing closer to the cookie edge, but be mindful that getting too close can allow the Icing to run over the sides. A good starting point may be 0.10 inches (2.5 mm).



10. The standard **Relative Icing Amount** is 100%. You can adjust it higher for more Icing or lower it for less Icing. The alternative to adjusting this setting is to perform another **Icing Calibration**.

Note: Both of these settings can be adjusted while a job is in process – the settings will take effect on the next cookie. Also, there are other settings in the program and each has a question mark icon **(?)** that you can hover over or click on for more details. Any of the settings can be adjusted in the middle of an icing job.

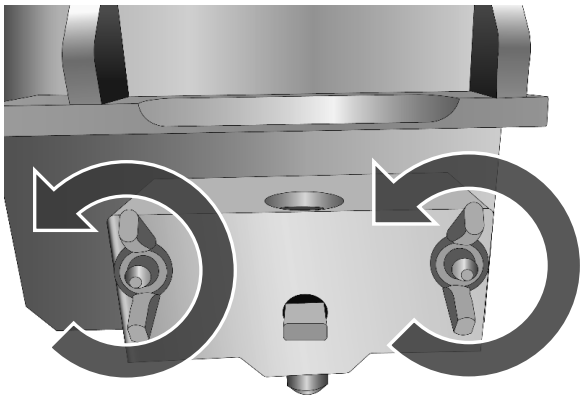


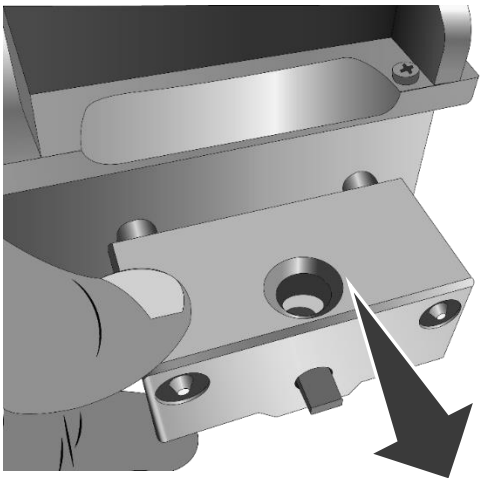
Clean-up and Maintenance

Important Note: Immediately after you are done Icing, you must clean the Nozzle Assembly. **You must clean it before the Icing hardens or it will be much harder to clean. For complete instructions visit Section 5 of the User's Manual**

To remove the Nozzle Assembly:

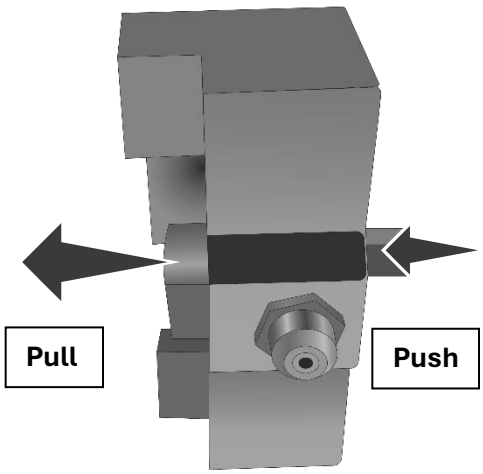
1. First remove the two wingnuts as shown here. Set aside the wingnuts in a safe place.

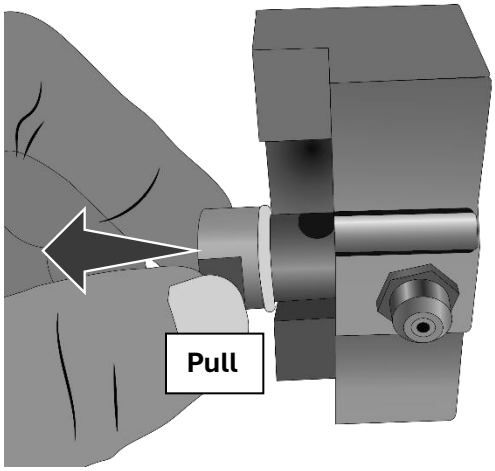




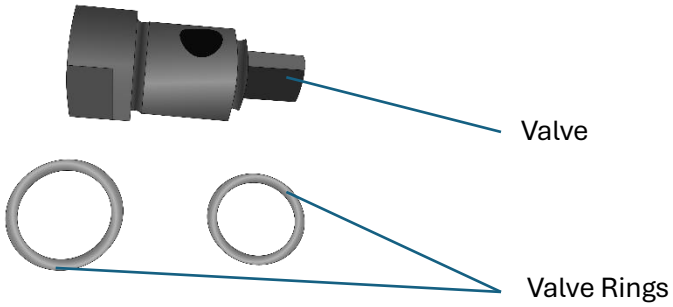
2. Pull the Nozzle Assembly off the mounting posts.

3. Remove the beige plastic icing valve from the aluminum block by pushing on one end and pulling it out on the other end.

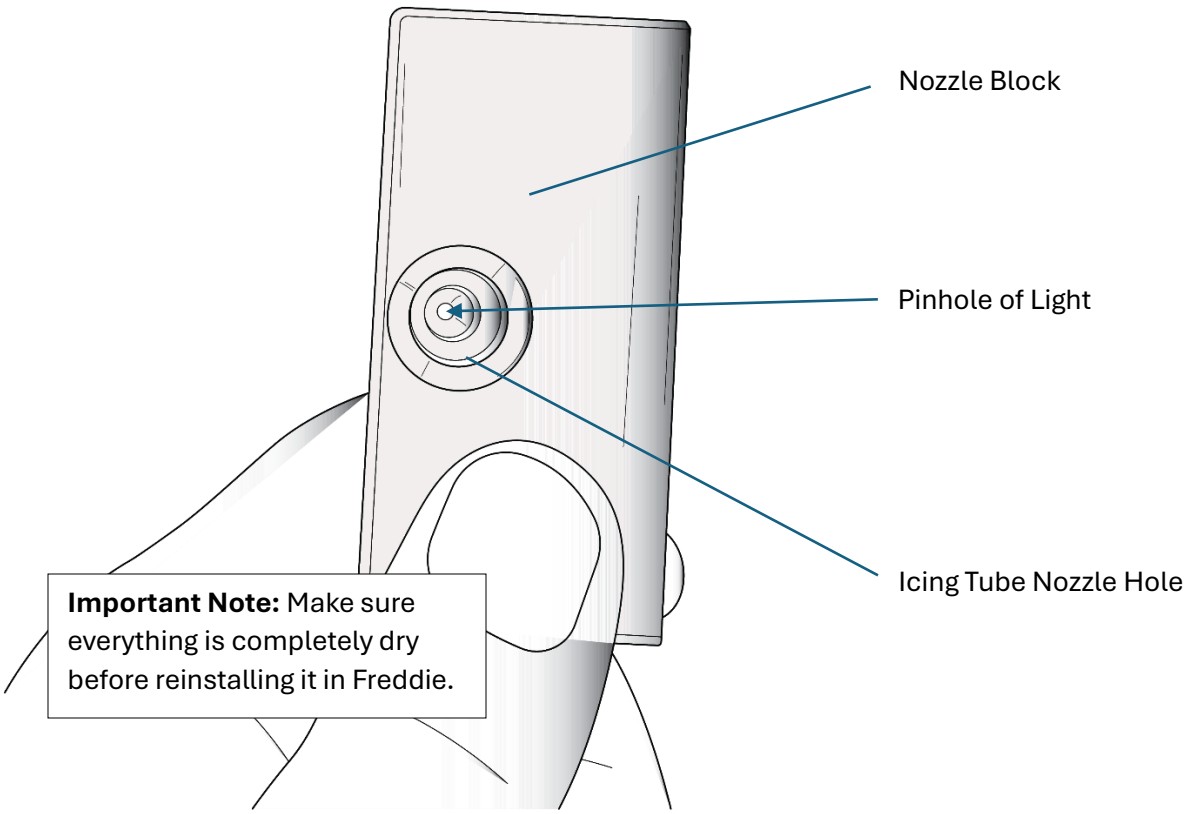




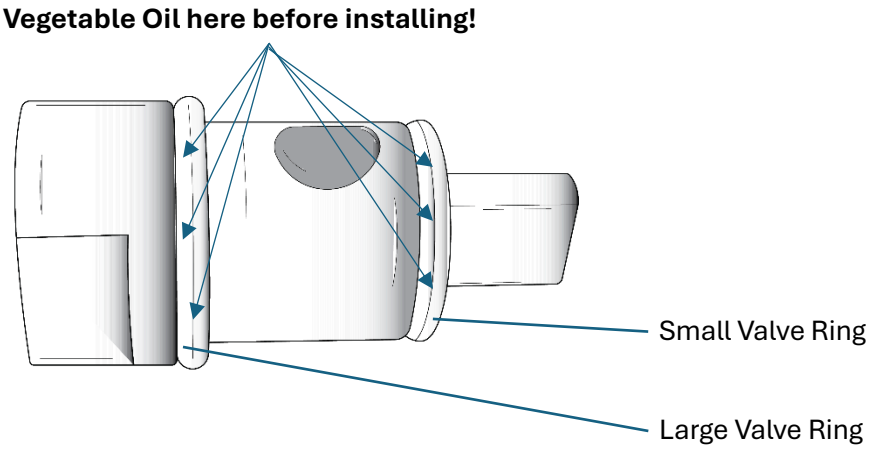
4. As you remove the valve make sure that both white valve rings are accounted for. If a valve ring falls off inside the Aluminum block, you will have to retrieve it before washing.



5. Now, wash the Valve and the Aluminum Block/Nozzle Assembly out thoroughly with hot/warm water and dish soap until all Icing is removed. You don't need to remove the Valve rings when cleaning unless there is icing under/near the O-ring. Make sure the nozzle is completely clean and clear. Hold it up to the light so you can see a pin hole of light through the nozzle. Finally make sure the valve, nozzle block, nozzle hole and valve hole are completely dry before reinstalling it in Freddie. Excess water will affect the viscosity of the icing and affect calibration and icing results.



6. Once completed, make sure the plastic nozzle with valve rings looks like the illustration below. The larger valve ring is on the left and the smaller one is on the right. Put a small amount of vegetable oil on a paper towel. Place the valve on its side on the vegetable oil-soaked paper towel and turn the valve 360 degrees so the outside edge of both valve rings are coated with a small amount of vegetable oil. It is important to use a small amount, so excess oil does not migrate to the valve hole and affect the viscosity of the icing.



Important Note: Put a small amount of vegetable oil on outsides of the Valve Rings after they are installed to allow the valve to turn more easily and avoid a Valve Home Error.