

Calf Hero™ X



Colostrum Warmers and Pasteurizers



Unloading and First Power On Manual

Models:

- Calf Hero™ X Thaw
- Calf Hero™ X 3
- Calf Hero™ X 6
- Calf Hero™ X 12

Software Rev 5.05

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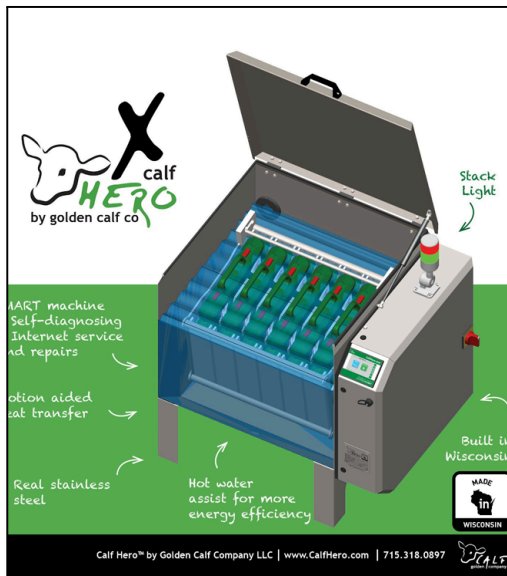
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Product Overview

The Calf Hero™ X product line builds on the success of the earlier Calf Hero™ line. Advancements include improved software, simplified build, easier maintenance, and more efficient operations.

We have updated the user interface for more intuitive navigation and quicker setup. The software and components are uniform among the Calf Hero™ X models making it easy for both users and maintenance.



Calf Hero™ X Models:

- **Calf Hero™ X Thaw**
 - Thaw program only
 - Cold water only
 - Single temp sensor

- **Calf Hero™ X 3**
 - Thaw and Pasteurize program
 - Cold water only
 - Single temp sensor

- **Calf Hero™ X 6**
 - Thaw and Pasteurize program
 - Hot and cold water
 - Hot Water Assist
 - Tank and inlet temp sensor

- **Calf Hero™ X 12**
 - Thaw and Pasteurize program
 - Hot and cold water
 - Hot Water Assist
 - Two tank and one inlet temp sensor
 - Two heating elements

Safety

Your safety and the safety of others are very important. Always read and obey all safety messages we have provided in this manual.



Warning: Hot Surface



Warning: Important Information



Warning: High Voltage

Installation

- Use only certified electricians and plumbers to install your Calf Hero™ X.
- When installing the wiring and plumbing, it is important to follow all state and local building codes and regulations. It is your responsibility to obtain all necessary permits and certifications required by your town, county, state or other jurisdiction before installation of the Calf Hero™ X.
- This unit contains High Voltage electricity that can cause serious harm or death.
- You must maintain proper safety standards during the set up and operation of the Calf Hero™ X. Exercise extra care, as is usual, when working with electricity in the proximity of water.
- The Calf Hero™ X must be electrically grounded. Have your electrician connect your Calf Hero™ X to a power supply.
- Live electricity is dangerous and may cause injury to personnel or livestock or damage to property.

- The Calf Hero™ X should be in a mild, low humidity climate for optimal performance. We suggest locating the unit in an area of the dairy, where temperatures can be expected between 55°F (13°C) and 85°F (30°C) year round.
- Do not attempt to tilt or lift the machine without proper equipment. This machine weighs 230lbs-400lbs depending on the model.
- The Calf Hero™ X is enabled for internet access. We recommend that you work with your IT support to set up all port forwarding properly.

- Keep hands away from moving parts, as injury could result.
- If injury does occur, seek proper medical attention.
- Failure to adhere to safety procedures and guidelines will VOID any and all warranties.

Operation

- Only use the Calf Hero™ X for its intended purpose.
- Only authorized personnel are allowed to operate and install this equipment. Do not allow children to operate or play around the Calf Hero™ X.
- Read this manual carefully and thoroughly before installing and operating the Calf Hero™ X.

- Hygiene is a critical part of proper calf care. Follow the cleaning recommendations.
- Do not try to change the settings in the Calf Hero™ X controller without consulting a technical expert
- To prevent severe burns, always wait for the entire cycle to complete prior to opening the unit and removing cases of colostrum.
- The water reaches high temperatures during pasteurizing and cleaning cycles. Proper caution should be exercised to prevent injury from scalding.
- Do not reach inside of the tank, touch the motor, or touch the hot water inlets while the unit is working.

Repairs

- Always disconnect the electrical power before attempting service. All power sources must be disconnected before opening the service panel.
- Do not repair or replace any part of the Calf Hero™ X, or attempt any servicing unless specifically recommended in the Service manual. Any modifications made to the units beyond these instructions will void all warranties.

Unloading Your Calf Hero™ X

When your unit arrives, inspect the packaging prior to removing. **DO NOT** accept with visible outside damage. Carefully remove the black tightening straps and cardboard box and inspect the unit. You only have three (3) days to report any interior damage caused by shipping. Everything is delivered on a single pallet.



1. Calf Hero™ X arrives strapped to the pallet



2. Remove the straps with wire snippers



3. Carefully cut the tape and open the top



4. Remove the cardboard box



5. Remove the empty support boxes



6. Then remove the protective plastic wrap

Lift the machine off of the shipping pallet and place it on a level surface. For smaller units, two people hand carrying is acceptable. For larger units, use a forklift. The machine weight (without crating): Thaw (230 lbs), 3 (235 lbs), 6 (260 lbs), 12 (350 lbs)

Model 3/Thaw lift points



Model 6/12 lift points



Leveling Feet (optional)

Leveling feet are available as an optional purchase. Be sure to use hands **ONLY** to secure good threading. Damage to the threads will result in improper installation. Thread the leveling feet approximately halfway into each of the legs to allow room for further adjustments.

Be sure to **NEVER** use less than one quarter of the leveling feet's threads. Less than one quarter is unsafe and may result in injury or damage.

Once all four (4) feet are installed, make sure that all of the leveling feet are horizontally flat.

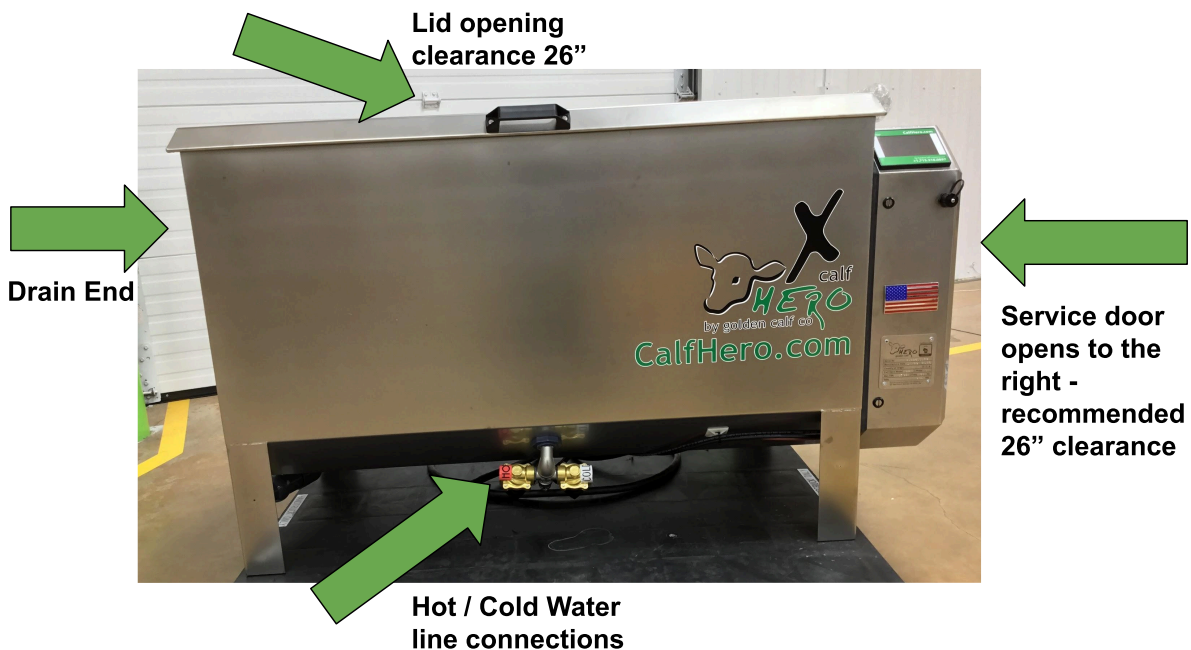
Location

The Calf Hero™ X Machines should be in a mild, low humidity climate for optimal performance. We suggest locating the unit in an area of the dairy, where temperatures can be expected between 55°F (13°C) and 85°F (30°C) year round.

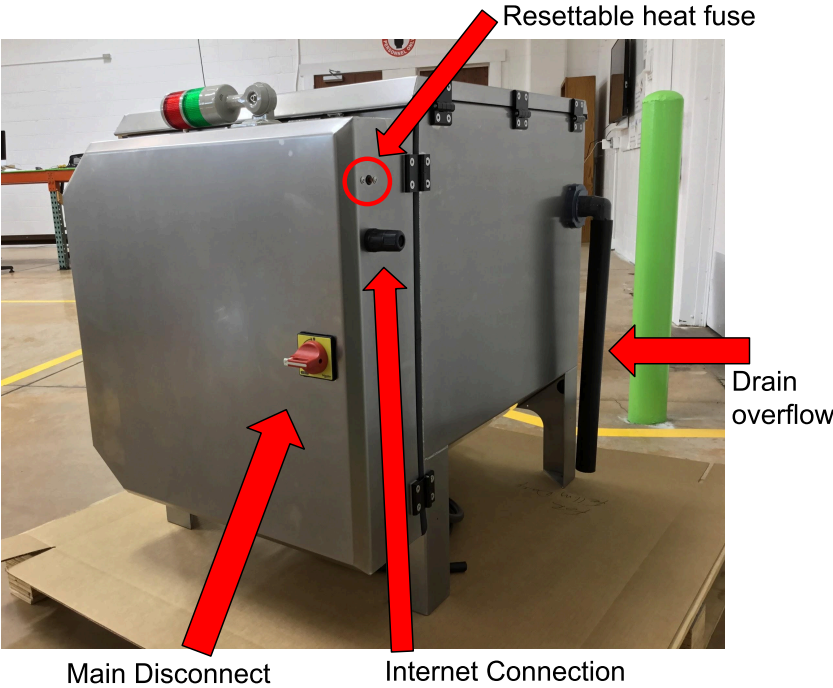
Hero X Thaw Dims:	D 26" x W 24" x H 33"	(66 cm x 61 cm x 84 cm)
Hero X 3 Dims:	D 26" x W 24" x H 33"	(66 cm x 61 cm x 84 cm)
Hero X 6 Dims:	D 26" x W 33" x H 33"	(66 cm x 84 cm x 84 cm)
Hero X 12 Dims:	D 26" x W 57" x H 33"	(66 cm x 145 cm x 84 cm)

When choosing a location, consider your connections such as drain, inlet water, electrical, as well as the need to be able to fully open the access service door located on the right side of the tank. Recommended distance is 26" (66 cm).

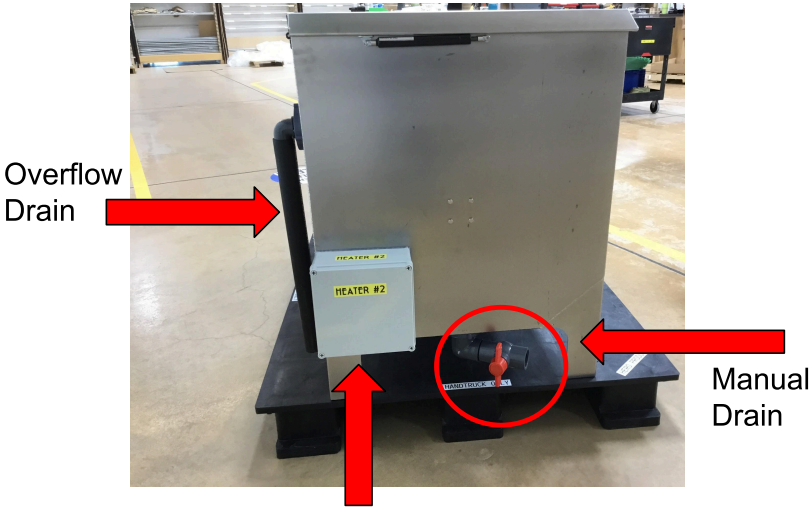
Front of the Calf Hero™ X



Right and back of the Calf Hero™ X



Left of the Calf Hero™ X



Model 12 only - Secondary Heater
Access - 12" recommended

Water Connections

Please read carefully the listed recommendations for water connections. Deviation from these specifications will affect the cycle length, energy efficiency, and overall performance of the machine, and may require cycle setting adjustments.

Install check valves, especially when using the same pipe for multiple uses.

- Calf Hero™ 3X or Thaw X require only cold water connection.
- Calf Hero™ 6X or 12X require both hot and cold water connections.

All units are shipped with a female pipe threaded valve (NPTF), not a standard 5/8" garden/washing machine hose fitting connection. Be sure that the connection is tightened properly.

All units are supplied with a 1 ¼" overflow pipe.

You can connect a drain hose to the manual drain valve (1 ¼" female).

The flow rate of both hot and cold water should be no less than 6 gal per minute.

Hot Water (Calf Hero™ X 6/12 only)

For models 6 and 12, we recommend that the hot water be supplied from a commercial hot water heater with a minimum of 100 gallons and capacity of 180°F.

The water entering the tank should ideally be at **160°F**, without exceeding 160°F.

CAUTION It is important to consider the implication of the location of the hot water source.

- Too close to the Calf Hero™ - limited heat loss (less than 15°F), then lower the temperature on the hot water source to protect colostrum from damage.
- Too far from the Calf Hero™ - significant heat loss (more than 20°F), then insulate the hot water line between the source and the machine or raise the temperature of the hot water source.

Once you have completed the initial Welcome Screens and machine setup, you can verify the temperature of the incoming water by entering the Test mode.

The Calf Hero™ has a 100% maximum flow with no use of reducers or restrictions of flow on the system. In cases of high pressure flow from supply the manual hot and cold water valves on the supply line may require adjustments.

Calf Hero™ X 3/Thaw	30 Gallons
Calf Hero™ X 6	47 Gallons
Half Hero™ X 12	84 Gallons

Electrical Connections

All units come with an electrical cord. The plug needs to be wired by a licensed electrician. Do not wire directly! Wiring should be done by a licensed electrician as live electricity can cause injury or death. All the electrical information is listed on the product ID tag located on the bottom of the service door.



Important

- a. This unit requires a dedicated breaker in the size listed below.
- b. The Watts and Amps listed are the maximum that the unit should see under normal operating conditions. The wire AWG is the smallest gauge wire recommended for use as a main power cable based on the Amperage the unit should encounter.

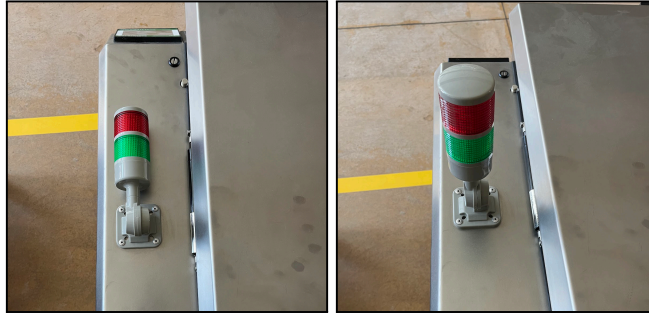
Power Requirements

Calf Hero™ X 3/Thaw/6			
Phase	3 Phase		1 Phase
Voltage	480 VAC	240 VAC	240 VAC
Standard AMP Draw	11 AMP	16 AMP	28 AMP
Max kVA	8.88 kVA	6.72 kVA	6.72 kVA

Calf Hero™ X 12			
Phase	3 Phase		1 Phase
Voltage	480 VAC	240 VAC	240 VAC
Breaker Size (Amperage)	25 AMP	40 AMP	60 AMP
Standard AMP Draw	22 AMP	32 AMP	56 AMP
Max kVA	13.24 kVA	13.24 kVA	13.24 kVA

Stack Light:

Gently lift the stack light up from its flat position.

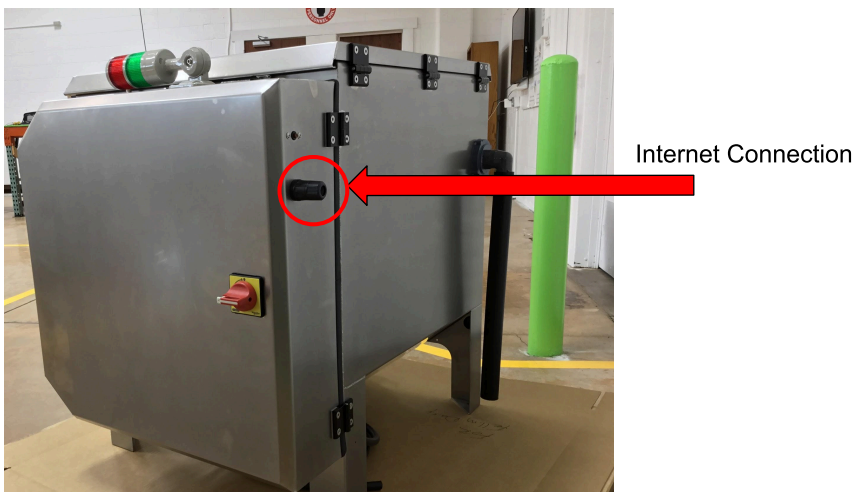


Internet Connection (optional)

To install the ethernet cable:

1. Unscrew the protective cap.
2. Pull out the gasket.
3. Connect the ethernet cable.
4. Place the gasket on the cord and push into the connector, replace the protective cap and plug in your ethernet cable.

You **MUST** connect the ethernet to the unit **before** connecting to the router.



Turning Unit On for the First Time

***Please allow up to 30 minutes for the Calf Hero™ 3/Thaw and up to 90 minutes for the Calf Hero™ 6/12 for the first time power this includes 30-45 minutes for the set up of the Hot Water Assist feature.**

Before turning the unit on, make sure the tank is empty, as well as, making sure hoses are connected, the drain is situated, and the machine is plugged in. The main disconnect is located on the right hand side of the upper electrical shroud.



**Main
Disconnect**

Power up the unit by turning the main disconnect from the side position “OFF” to the up position “ON”.

Welcome Sequence for Calf Hero™ X

Once the Hero X is turned on, the screen will begin to power on. It may take a few seconds to fully load. When almost ready, the screen should display the image shown here.

1. Setting Up Your Calf Hero

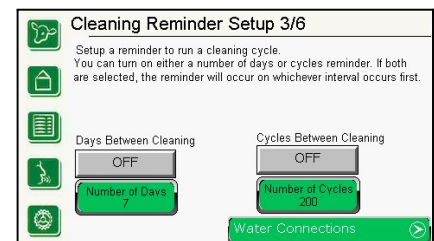
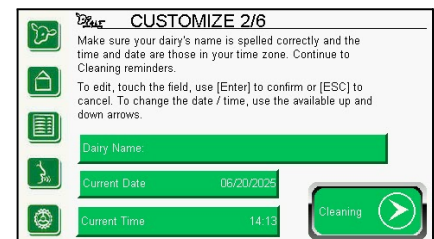
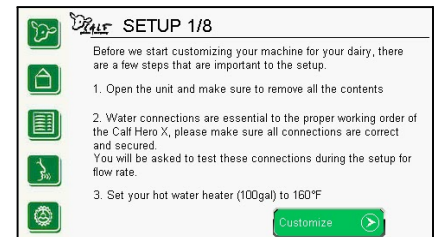
Once loaded you should be able to see this on your screen. Press **Customize** to start your set up.

2. Customizing (Step 2)

After pressing the “Customize” button, you’ll be taken to a page where you can customize your dairy name, current date, and current time. Once everything is set, press the **Cleaning** button to proceed to the next setup page.

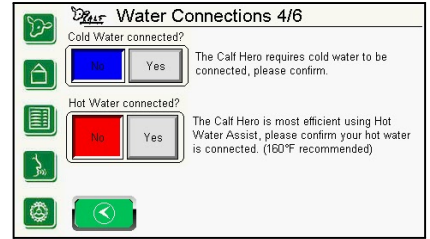
3. Cleaning Reminders (Step 3)

A cleaning reminder setup screen will appear next. Here, you can set parameters such as the number of days and cycles for reminders. When you’re done, press the **Water Connections** button to proceed to the next page.



4. Water Connections (Step 4)

First, connect your water supply to the machine. On this screen, press **YES** to confirm that your cold water is connected. For the Calf Hero™ X 6/12 models, there will also be a hot water connection button. Once confirmed, a green **Water Flow** button will appear in the bottom right corner of the screen. Click this button to proceed to the next page.

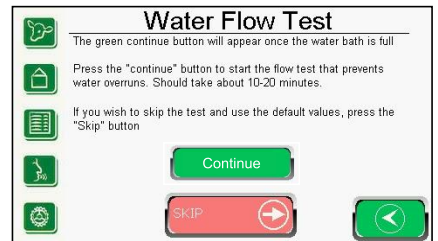


5. Water Flow Cold (Step 5)

On this screen, you can start the water flow test that prevents the machine from overflowing.

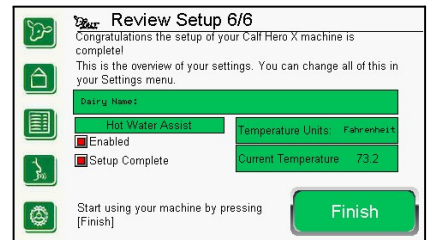
You will have the option to **Continue** or **Skip**.

- Choose **Skip** if you are short on time (this sequence will take about 20 minutes) You will be able to complete the test later. Skipping will take you to the final Step - Complete Setup page.
- Choose **Continue** to begin the test (**see next page for instructions**) - if the Continue button doesn't appear, wait for the water to fill up the tank.



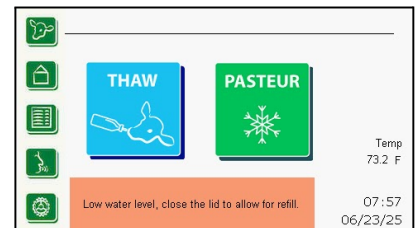
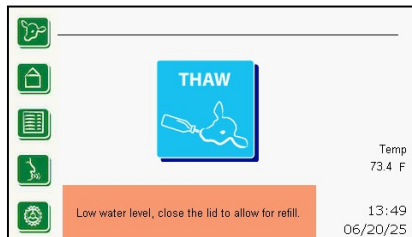
6. Complete the Setup - Final Review (Step 6)

On this screen, you can review your entire setup and make any necessary changes. Once everything is correctly set, press **Finish**.



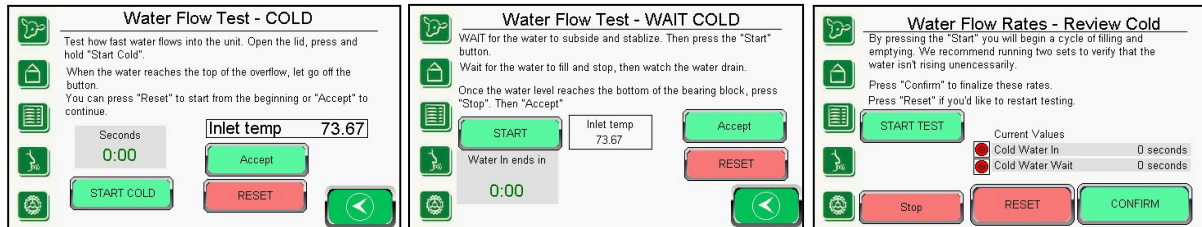
This will take you to your home screen, depending on the type of unit, this will either show

- only the Thaw button (Calf Hero™ X Thaw)
- both Thaw and Pasteurize buttons (Calf Hero™ X 3/6/12)



Performing the Water Flow Test (requires full tank of water)

- A. Pressing **Continue** will take you to the cold water flow test - there are three screens for each cold and hot water (CHX 6/12). The goal is to establish the flow rate of your water, so that the water doesn't overflow.



Water Flow Test - COLD

Visually check that the water is up to the water level sensor and the sensor is covered.

- **Press and hold** Start Cold
- When the water reaches the top of the overflow, (make sure the drive train collar is well above the water level) release the button.
- Press **Accept** to confirm or **Reset** to retest.

Water Flow Test – “Wait Cold”

After pressing **Accept**, you'll be taken to the **Water Flow Test – “Wait Cold”** screen. On this page, you'll test how long it takes for the cold water to drain:

- First, wait for the water to finish running out of the overflow and allow the level to stabilize.
- Press the **Start** button. The water will automatically begin to fill using the time duration established in the previous step then automatically stop.
- Watch the water drain, (the draining timer will appear on screen). When the water level reaches the bottom of the overflow, press the **Stop** button.
- Press **Accept** to proceed or **Reset** to retest.

Cold Water Review

After pressing **Accept**, you will be taken to the **Cold Water Review** page. Here, you'll see your current water time values and have the option to **run another test** to verify accuracy or **confirm and complete the setup**.

To Run the Test




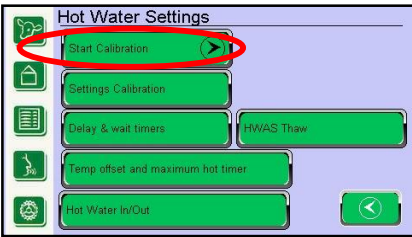
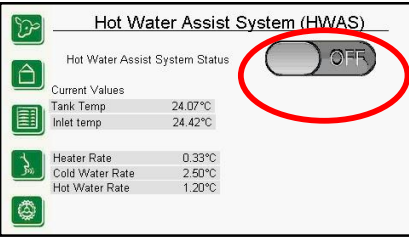
- Press **Start Test** to begin a cycle of filling and emptying the tank.
- Press **Stop** once the cycle completes.
- It is recommended to run two cycles to ensure the water level is stable and not rising unnecessarily.
- Press **Confirm** to finalize your values or **Reset** to restart testing.
- After pressing **Confirm**, you will be taken to the **Review Setup** page or to the Hot Water flow test, depending on your model.

To continue with Hot Water - Follow the same instructions to get through the hot water test.

Complete the Setup - Final Review (Step 6) - Make sure to press **Finish**.

Hot Water Assist Setup (models 6X and 12X)













This step can be done at any time.

<p>Press the Settings button on the left side menu</p> 	<p>Press the Login > Enter code 2000</p> 
<p>Select Cycle Settings</p> 	<p>Select Hot Water Settings > Start Calibration</p> 
<p>Make sure the toggle button for the Hot Water Assist (HWA) system is on.</p> 	<p>“Start the Calibration” button will appear. Press it. If you cannot see the button, make sure the water is covering the water level sensor and the lid is closed.</p>

The following screen will show the progress of the Hot Water Assist. Let it run through.
Do not leave this screen until completed.

Controller Navigation Buttons



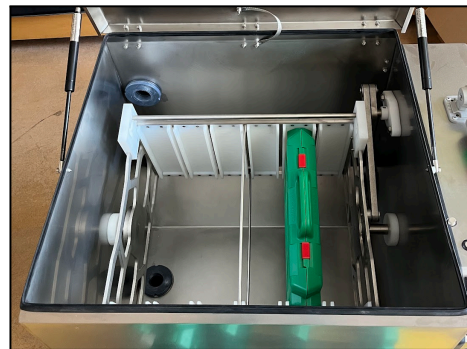
	Menu Button: Takes you directly to the Menu screen and has no effect on login. Access to: Cleaning Cycle, Ordering, Troubleshooting		Next Arrow Button: Takes you to the next screen
	Home Button: Takes you all the way to the home screen (Thaw and Pasteurize Functions) and logs out all users.		Back Arrow Button: Takes you back to the previous screen
	Cycle Information Button: Takes you directly to the Log History and has no effect on the login.		Arrow Up Button: Click on Menu item and scroll through the options on the page
	Settings Button: Takes you directly to the Settings screen, and has no effect on login. Access to: About Calf Hero, Cycle Settings, Program Settings, Water Settings		Arrow Down Button: Click on Menu item and scroll through the options on the page
	Language Toggle Button: Press to change the displayed language. (English-Spanish-French)		Enter/Return Button: Confirms selection and takes you to the next screen
	Help Button: Used on Error screens to provide background and troubleshooting information.		Escape Button: Takes you back one screen Releases the cursor from the menu to allow other operations.

Starting a Cycle

Make sure that all start up steps are completed, the unit is filled with water, and the home screen is showing.



Slide cases inside the holder, then close the lid



Select the program you wish to run by pressing the corresponding button.



In the next screen, choose how many cases you want to process. It is important to be accurate, as this information changes the parameters of each cycle.

The cycle will start automatically after this screen.

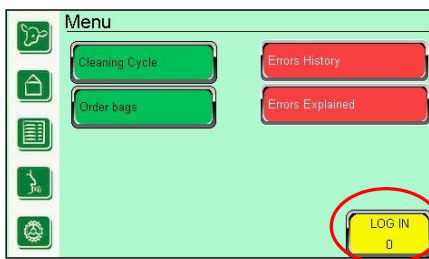


Entering Test Mode

Test mode is the most important tool for verifying your inlet temperature, and troubleshooting.
Start by pressing the **Calf Head Menu Button**



Press the **Log In** button and enter 2000



This will bring you to the Technician Menu, select **Test Mode**.



The Test Mode Screen allows you to isolate the performance of individual components. You can also monitor individual temperatures. Inlet Temp is best used for identifying whether or not Cold and Hot water are connected to the proper valves.

