

# HYDRIM<sup>®</sup> L110w

- Operator's Handbook
- Guide de l'utilisateur



HYDRIM L110w Operator's Handbook  
95-109976 Rev. 1.0

*Sci*Can

A HIGHER STANDARD



**This checklist is provided to assist those who are training new Hydrim users.**

- Instrument washing is the first, critical step in instrument processing.

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- Successful instrument processing in Hydrim
  - Remove cement, amalgam and composite at chairside
  - No burrs!
  - HIP chemical is instrument friendly; however some manufacturers' instruments may not be compatible
  - Anodized aluminum may exhibit cosmetic changes if processed in Hydrim
  - Wash small or light-weight objects in the basket with lid

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- Three Hydrim cycles and when they should be used

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- How to load baskets and cassettes and arrange them in the machine

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- How to change the chemical when the "no detergent" message appears.

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- How to refill the water softening salt container (if required)

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- User Menu
  - Adjust drying time, check cycle count, review cycle errors

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- Hydrim Maintenance
  - Filters
  - Wash arms

## Limited Warranty

For a period of one year, SciCan guarantees that the **Hydrim L110w**, when manufactured in new and unused condition, will not fail during normal service due to defects in material and workmanship that are not due to apparent abuse, misuse, or accident. In the event of failure due to such defects during this period of time, the exclusive remedies shall be repair or replacement, at SciCan's option and without charge, of any defective part(s), provided SciCan is notified in writing within thirty(30) days of the date of such a failure and further provided that the defective part(s) are returned to SciCan prepaid.

This warranty shall be considered to be validated, if the product is accompanied by the original purchase invoice from the authorized SciCan dealer, and such invoice identifies the item by serial number and clearly states the date of purchase. No other validation is acceptable. After one year, all SciCan's warranties and other duties with respect to the quality of the product shall be conclusively presumed to have been satisfied, all liability therefore shall terminate, and no action or breach for any such warranty or duty may thereafter be commenced against SciCan.

Any express warranty not provided hereon and any implied warranty or representation as to performance, and any remedy for breach of contract which, but for this provision, might arise by implication, operation of law, custom of trade or course of dealing, including any implied warranty of merchantability or of fitness for particular purpose with respect to all and any products manufactured by SciCan is excluded and disclaimed by SciCan.



## WARRANTY CARD

register on-line at:  
[www.scican.com](http://www.scican.com)

Please retain this portion for your records.

Model Number \_\_\_\_\_ Serial Number \_\_\_\_\_ Date of Purchase: (m / d / y) \_\_\_\_\_  
 Dealer \_\_\_\_\_ Dealer Contact Name \_\_\_\_\_  
 Address \_\_\_\_\_ City \_\_\_\_\_  
 State/Province/Region \_\_\_\_\_ ZIP Code/ Postal Code \_\_\_\_\_

Under no circumstances does SciCan pass information submitted through our website, warranty card submissions, or course registrations to other organizations.

## INTERNATIONAL

Serial number: \_\_\_\_\_ Model: L110W-D01

Practice / Clinic Name \_\_\_\_\_  
 Dr  Ms  Mr.  Mrs.   
 First name \_\_\_\_\_  
 Middle Initial \_\_\_\_\_  
 Last name \_\_\_\_\_  
 Business Address \_\_\_\_\_  
 City \_\_\_\_\_  
 State / Province / Region \_\_\_\_\_  
 Country \_\_\_\_\_ ZIP Code/Postal Code \_\_\_\_\_  
 Business Telephone \_\_\_\_\_  
 BusinessFax \_\_\_\_\_  
 Email \_\_\_\_\_  
 Dealer \_\_\_\_\_  
 Dealer Branch / City \_\_\_\_\_  
 Date of Purchase (month / day / year) \_\_\_\_\_

**Please answer the following questions:**

- What were the deciding factors in your SciCan purchase?  
 Dealer Recommendation  Unit Size  Throughput Capacity   
 Price  Cycle Time  Effectiveness  Industry Report   
 Brand Name  Convenience or ease of use   
 Cost efficient / increased productivity
- Including this purchase, how many sterilizers / washers / disinfectors do you currently use in your practice / clinic?  
 Sterilizers \_\_\_\_\_ Washer / Disinfectors \_\_\_\_\_
- What other SciCan products do you currently own in your practice / clinic?  
 Statim 2000/2000S/2000E  Statim 5000/5000S  Hydrim C51w   
 Hydrim L110w/wd  Other (please list) \_\_\_\_\_
- What other washing / disinfection / sterilization products do you have in your practice / clinic? Please list:  
 \_\_\_\_\_
- May we contact you about upcoming SciCan specials and promotions?  
 Yes  No

**For the Dental Practitioners:**

- Are you working in a new practice / clinic? Yes  No
- How long have you been in your location?  
 Less than 1 year  1-5yrs  6-10 yrs  15+ yrs
- Are you planning to expand or relocate your practice / clinic? Yes  No

Please mail this card to SciCan, or Fax it to 416-445-2727, or register your warranty information on-line at [www.scican.com](http://www.scican.com).

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# HYDRIM<sup>®</sup> L110w

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A HIGHER STANDARD

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# 1. Introduction

Thank you for selecting the Hydrim L110w instrument washer. The Hydrim complements the Statim autoclave by quickly and hygienically preparing soiled instruments for sterilization. To ensure years of safe, trouble-free service, carefully review this Operator's Manual before operating the unit. The Hydrim L110w is suitable only for the applications listed in this manual. Using the Hydrim for other purposes may be dangerous. The manufacturer cannot be held responsible for damage caused by improper use.

Operational, maintenance and replacement instructions must be followed for the product to perform as designed. All trademarks referred to in this manual are the property of their respective owners. Contents of this manual are subject to change without notice to reflect changes and improvements to the Hydrim product.

The Hydrim L110w should only be installed and serviced by a qualified contractor as it is an Installation Category 2 device. Before connecting the unit, the installer should check that the voltage and frequency of the electrical supply correspond with the details in the installation instructions. The unit must only be plugged into a grounded outlet. Please note that this unit is completely isolated from the electrical supply only when it is unplugged or the circuit breaker is turned OFF. This must be done before any repair work is carried out.



The Hydrim L110w uses HIP™ Cleaning Solution exclusively. The unit will not perform as described if other detergents / cleaning products are used. Other detergents / cleaning products may damage the unit, the instruments, cause excessive foaming, and void the warranty. Do not use solvents in this unit. Do not allow small children or unauthorized personnel access to this unit or its controls.

## 2. Important Information

**The following symbols appear in this book.**



Caution, there is a potential hazard to the operator.



This situation may lead to a mechanical failure.



This is important information.

**The following symbols appear on the touchscreen:**



Used to stop the cycle



Forward Arrow – used to move to the next menu



Back Arrow – used to move to the previous menu



Up Arrow – used to adjust a value up, or to move between screens in a menu



Down Arrow – used to adjust a value down, or to move between screens in a menu



Unlock – used to unlock the door



Used to clear the error history



Info menu – allows access to User, Setup and Technician menus.

### 3. Disclaimers

Do not permit any person other than authorized personnel to service, maintain or supply parts for your Hydrim L110w. SciCan shall not be liable for incidental, special or consequential damages caused by any maintenance or services performed on the Hydrim L110w by unauthorized personnel, or for the use of equipment or parts manufactured by a third party, including lost profits, any commercial loss, economic loss, or loss arising from personal injury.

Never remove the covers of the unit and never insert objects through holes or openings in the cabinetry. Doing so may damage the unit and/or pose a hazard to the operator. If the unit is used in a manner other than that specified, the protection provided by the equipment may be impaired. Avoid contact with eyes and mouth. Never lean on the open door. The unit may tip forward causing injury.

Always turn the unit **OFF** before adding softener salt, adding solutions or performing routine maintenance to the unit.

The owner shall not allow any personnel other than the trained and authorized personnel to operate the unit. For further information or questions about the Hydrim L110w, contact your authorized dealer or:

**SciCan Ltd.**

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## 4. Installation Instructions

To open the wash chamber door, plug in the unit, turn it on and press the unlock symbol.

Alternatively, remove the screw in the kickplate and pull the ring.

**Tools and supplies required for installation:**

- Slot screwdriver
- Channel locks

### Specifications:

Voltage: 208 – 240 V	Height: 850 mm / 33.5"
Frequency: 60 Hz	Width: 600 mm / 23.75"
Rated load: 2 kW	Depth: 600 mm / 23.75"
Circuit breaker: 15 A per phase	Depth with door open: 1200 mm / 47"
	Weight: 80 kg / 176 lbs
	Running Noise: 60 dBA

### Utility Hook-ups

Hose / Cord	Length / Diameter	Max. Distance Distance from inlet / drain	Water Pressure (optimal)*	Shut-off valve
Hot inlet	1.9 m / 6 ft. 3/4"	1.5 m / 5 ft.	1-10 bar / 14.5-145 psi	Yes
Cold Inlet	1.9 m / 6 ft. 3/4"	1.5 m / 5 ft.	1-10 bar / 14.5-145 psi	Yes
Drain	1.5 m / 5 ft. 3/4"	—	—	—
Electrical	1.8 m AWG 14-3	—	—	—

### Installation:

If the Hydrim is installed in a Sterilization Center, the manufacturer of the Sterilization Center should allow a 10mm / 1/2" space at the top, back and both sides of the Hydrim. This will facilitate installation, and service access to the Hydrim.

Do not move the Hydrim into place by maneuvering the open wash chamber door. This may cause to door to become misaligned and leak.

### Leveling the Hydrim:

The unit is standing on three supports: rollers (wheels) at the back and two legs at the front.

1. Remove the kickplate. Push the Hydrim into place while lifting the strap at the front to allow the unit to roll on the rollers.
2. Adjust the front legs as required until the Hydrim is level. Access the legs from inside the unit.
3. The rear two legs are used only if the floor is uneven or cannot provide support to the rollers.



power cord

cold water inlet hose

hot water inlet hose

drain hose

rollers

## 4. Installation Instructions

### Connecting the water inlet hoses:

Connect the hot and cold water inlet hoses to the hot and cold water supply.

### Drain requirements:

Connect the drain hose to the drain outlet. The drain hose can be attached to existing drain lines using a 3.5 cm / 1.5" or larger standpipe / P-trap combination. If the hose is connected directly to the drain line, fittings and adapters should not reduce water flow. The drain hose should be attached to the main drain at a point no more than 1 metre / 3 ft. above the base of the Hydrim. A floor drain is acceptable (check local codes).

### Electrical requirements:

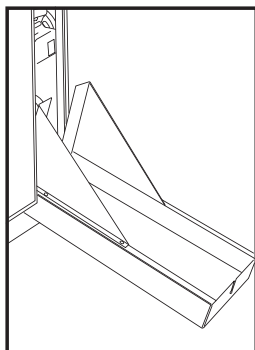
Connect the electrical cord to the power supply. The Hydrim must have a dedicated circuit equipped with a 15A fuse. The outlet must be grounded.

### Additional Information:

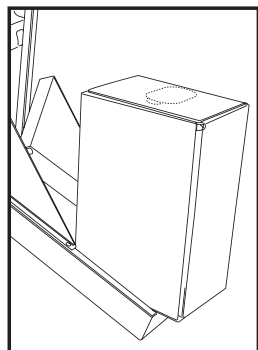
- The Hydrim unit is heavy. Use a forklift or dolly and exercise caution when moving it.
- The Hydrim should be serviced on site.
- The Hydrim is equipped with an air gap / anti-suction device to prevent backflow of dirty water into the water supply. No other air gap device is necessary.
- If you need to extend the water inlet and drain hoses, ensure that you use commercial grade plumbing hose. The maximum length of the drain hose is 3.3 m / 13 ft.

### Installing Cleaning Solution:

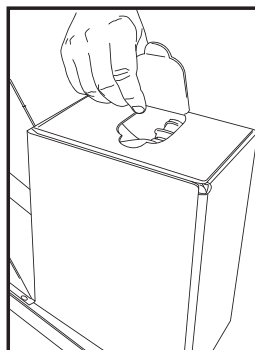
Install HIP Cleaning Solution as follows:



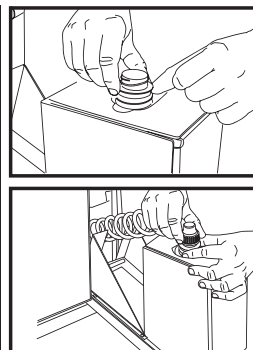
Open the cleaning solution drawer.



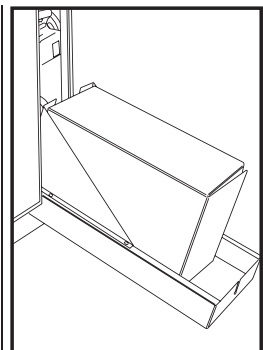
Put a new cleaning solution box into the drawer upside down.



Tear open the tab.



Pull out the spout and remove the protective cap. Connect the hose.



Place the box in the cleaning solution drawer and then close.

### Testing water hardness and setting the water softener (salt):

Hydrim is equipped with a built-in water softening system which needs to be adjusted according to the local water hardness. The Hydrim water test kit includes three water hardness test strips in bags. Take a water sample from the location where the machine will be installed. Open one of the bags and remove the test strip. Dip the strip in the water. Compare the color of the strip with the chart on the back of the bag. Determine the water hardness according to the chart on the water test kit envelope. Power the unit on. Touch the "i" in the lower right hand corner of the screen. Select

"Setup" and then "Set Regeneration". Using the up and down arrows, set the water softener regeneration level according to this table:

Hardness – ppm	Hydrim setting
0 - 180	0
190 - 210	1
220 - 250	2
260 - 300	3
310 - 350	4
360 - 400	5
410 - 540	6
550 - 890*	7
> 890	Additional water treatment required

\* consider using an additional water treatment

Unscrew the salt container lid and pour 1 litre / 1 quart of water into the water softener. Add 1 kg / 2.2 lbs of water softening salt in the same manner. Screw the salt container cap on tightly.



**Installation Test:** Turn on the shut-off valves. Run a cycle, checking for leaks in the plumbing connections.

## 5. Instructions for Use

### 5.1 Instrument Reprocessing Recommendations

The Hydrim L110w is designed to clean general dental and medical instruments.

**SciCan recommends terminal sterilization after processing in the Hydrim L110w.**

When used correctly, the Hydrim L110w is effective for the removal of debris on instruments that may result in the insulation of microorganisms during terminal sterilization. Prior to placing instruments in the Hydrim, consult the instrument manufacturer's reprocessing instructions. All critical and semi-critical instruments can be considered clean after processing in the Hydrim L110w. Non-critical instruments can be terminally processed in the Hydrim L110w.

Examples of medical and dental instruments suitable for cleaning and disinfecting in the Hydrim L110w include:

- Stainless steel scalers, spatulas and hemostats.
- Stainless steel retractors, needle holders, skin hooks, tissue forceps, scissors, curettes, and other stainless steel instruments free of deep cavities.

For best results, instruments processed in the Hydrim L110w should have the following properties:

- Heat resistance to a temperature of up to 70°C / 158°F
- Corrosion resistance in the presence of heat and alkalinity.



Burrs, dental handpieces, microkeratomes, phaco tubing, fiberoptics and electrical equipment should not be processed in the Hydrim.



HIP™ (Hydrim Cleaning Solution with Instrument Protection) has been carefully formulated to provide outstanding material compatibility with a wide range of metals and coatings. However, some manufacturers' instruments may not be compatible.



All hinged instruments should be placed in open baskets in P3 Heavy-Duty cycle.



When processing small or light objects in the Hydrim use the basket with lid (SciCan part number 01-109966S).

## 5. Instructions for Use

### 5.2 Cycle Description Chart

	P1 – Rinse and Hold* Cycle	P2 – Regular Cycle	P3 – Heavy Duty Cycle
<b>Description</b>	Use to prevent soil from drying on instruments when they will not be washed within one hour	Use for moderately soiled loose instruments.	Use for heavily soiled instruments and cassettes
<b>Cold Prewash</b>	<45°C / 113°F	N/A	<45°C / 113°F
<b>Wash</b>	N/A	50°C / 122°F 5 minutes	50°C / 122°F 9 minutes
<b>Rinse</b>	60°C / 140°F	60°C / 140°F	60°C / 140°F
<b>Dry</b>	N/A	0-20 min. (10 min. default)	0-20 min. (10 min. default)
<b>Total Time** without drying</b>	9 minutes	16 minutes	25 minutes
<b>Water Consumption</b>	11.5L / 3 gallons	19L / 4.75 gallons	25L / 6.25 gallons

\* This is not a wash cycle. Always run a wash cycle following the rinse and hold cycle.

\*\* Cycle times depend on the temperature and pressure of incoming water.

## 5. Instructions for Use

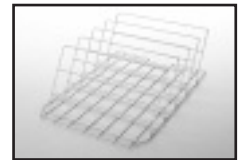
### 5.3 Baskets and Accessories



Observe the instrument manufacturer's recommendations for cleaning and care. When loading the unit, arrange loose instruments so that they do not touch one another. Instruments with concave surfaces or cavities should be placed so that water can drain freely.

#### The following are included with the Hydrim:

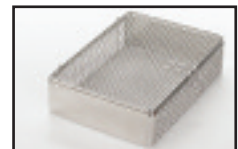
Rack for five 8" x11" cassettes, for upper or lower trolley.  
Full size (1/1). Part-number 01-109963S



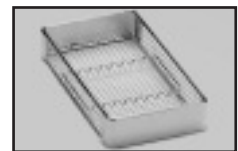
Rack for five medium size cassettes, for upper or lower trolley.  
Half-size (1/2). Part-number 01-109964S



Basket with lid. Quarter size (1/4). Part-number 01-109966S



Hygiene basket for loose instruments. Quarter size (1/4).  
Part-number 01-109967S

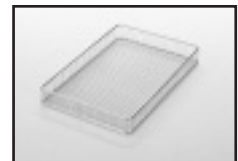


#### The following are optional:

Rack for four 11" x 14" cassettes, for upper or lower trolley.  
Full size (1/1). Part-number 01-109965S



Hinged instrument rack. Part-number 15793.00



Statim 2000 basket. Part-number 01-107240



Statim 5000 basket. Part-number 01-107241

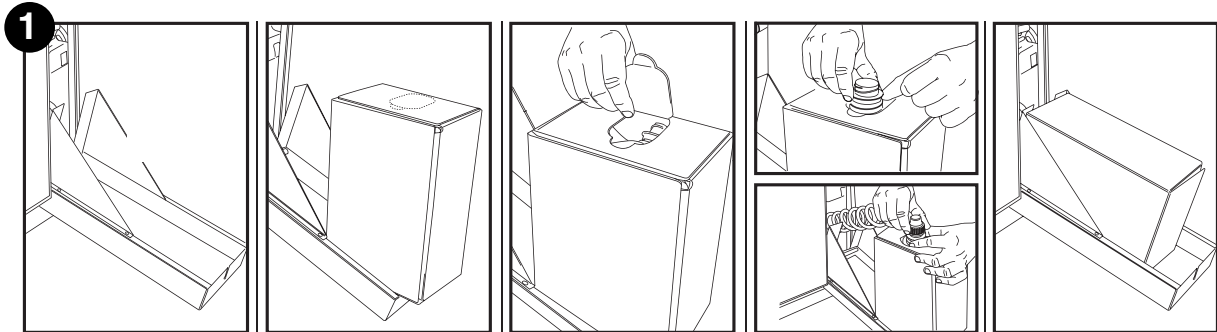


Long Basket. Part-number 01-108232

# 5. Instructions for Use

## 5.4 Activating the Hydrim L110w

Prior to activating the washer, check that the water supply is on and follow these steps:



Open the chemical door and ensure that a box of HIP Cleaning Solution has been installed.



Turn the unit on.



3

Touch the screen to begin.

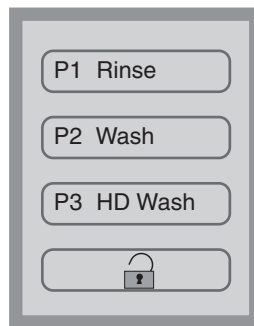
4



Press to unlock door.



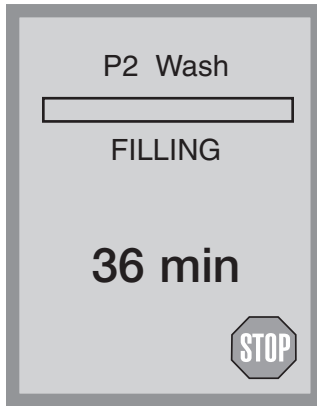
Load instruments into the baskets or cassettes, place them in the machine and close the door.



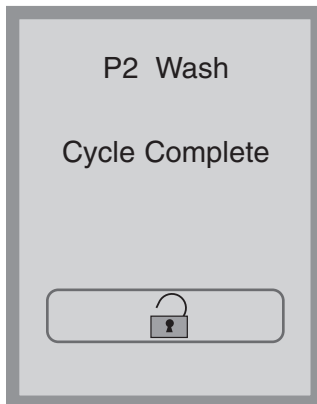
6


Select the desired cycle. The cycle will start automatically. (Use a heavy duty cycle for cassettes, hinged instruments or heavily soiled instruments.)

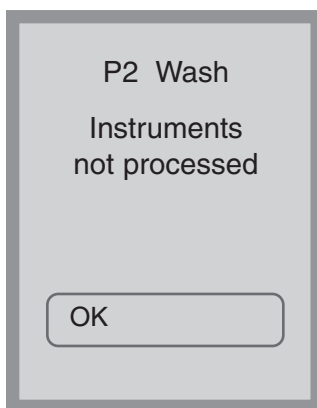
## 5. Instructions for Use




The cycle will start by draining the unit for 20 seconds. The bar on the screen indicates the progression of the cycle. The stage within the cycle is shown beneath the bar (eg. Filling, Rinsing). The estimated time remaining (in minutes) is always displayed. Please note that the time will increase or decrease depending on the projected cycle completion.



When the cycle is complete, the program name and “Cycle Complete” is displayed, and the unit beeps three times. Press  to open the door. Use gloves to unload the instruments. After all cycles, exercise caution as the instruments, trolley, baskets and cassettes may be hot. Inspect the instruments for debris prior to packaging / sterilizing.

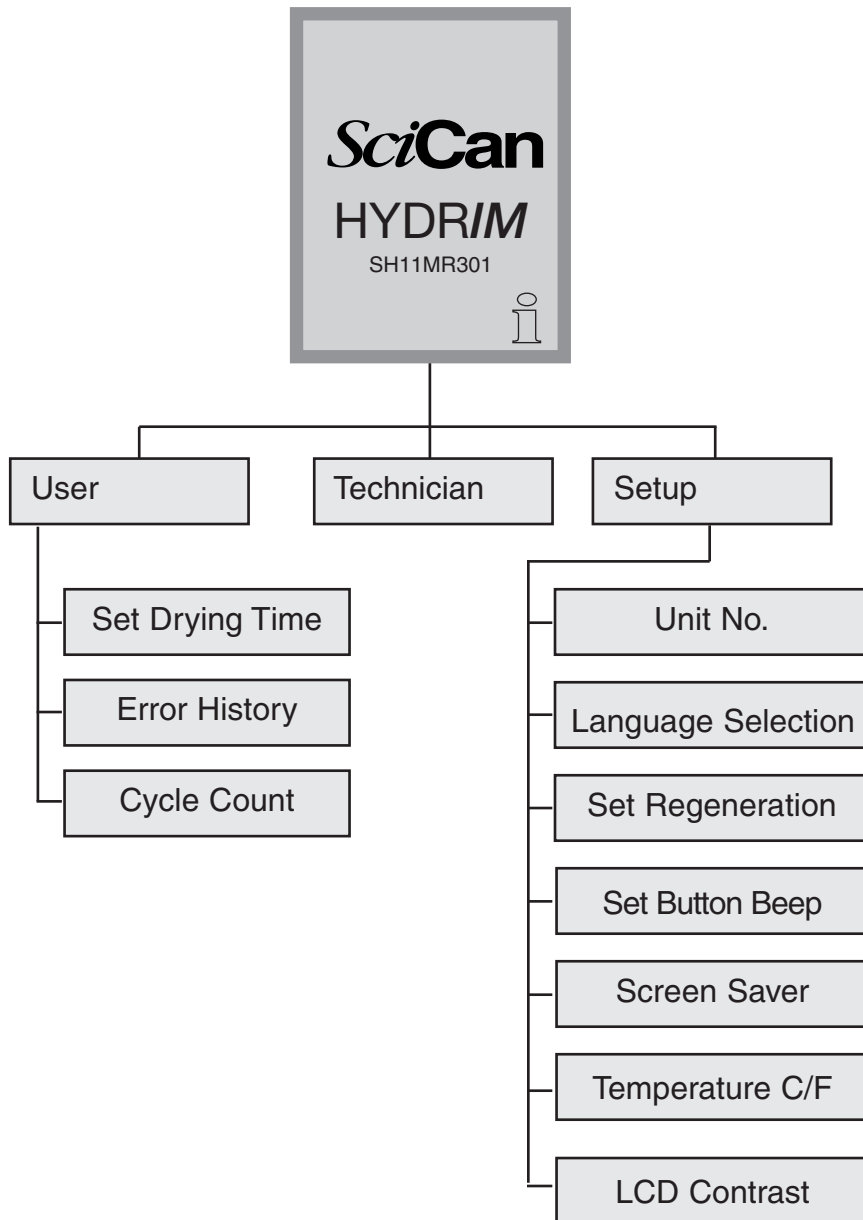


### 5.5 Interrupting / Aborting a Cycle

The door of the Hydrim is locked during the cycle. If the **STOP** button is pressed, the cycle is aborted and cannot be re-started. The message “Draining. Please wait” will appear. The unit will drain. Then the message “Instruments not processed” will appear. Press OK. Open the door by pressing . Use gloves if handling the instruments. Exercise caution as instruments, trolley, baskets and cassettes may be hot. The cycle must be repeated to ensure that instruments are properly processed. Note that if the drying phase of the cycle is interrupted, the critical parts of the cycle are complete and the message displaying the program name and “Cycle Complete. Drying interrupted” will appear.

# 5. Instructions for Use

## 5.6 Overview of Hydrim L110w Menus





## 5. Instructions for Use

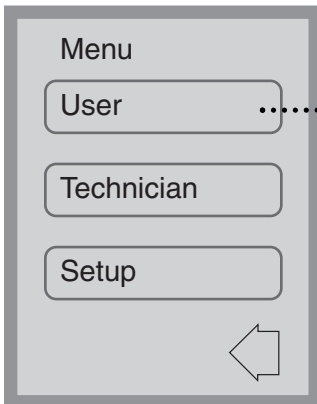


### 5.7 User Menu

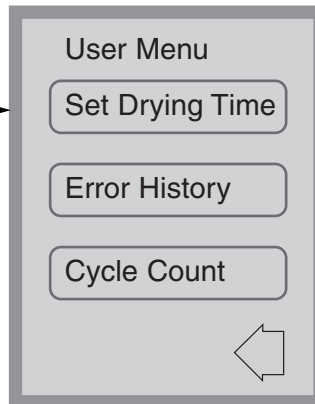
To access the user menu, follow these steps:

Turn the Hydrim OFF and then ON. An *i* (information) will appear briefly at the bottom right hand of screen.

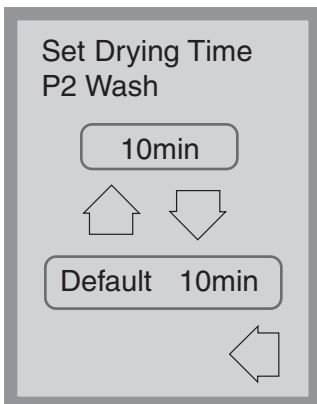
Touch the *i* to move to the Menu screen.



Select User.



The user menu consists of three choices.

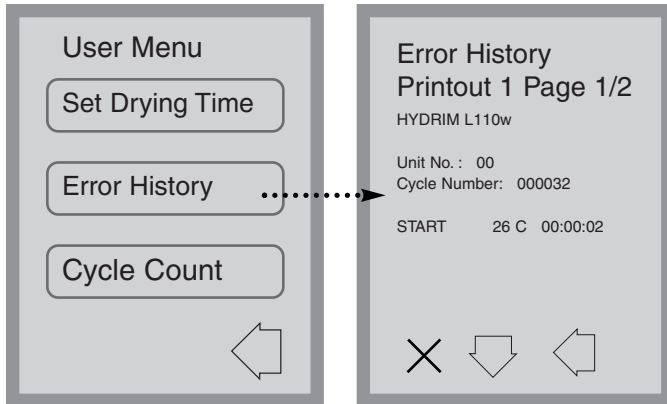


### User Menu – Set Drying Time

The drying time for P2 and P3 can be set independently. P1 does not have a drying cycle.

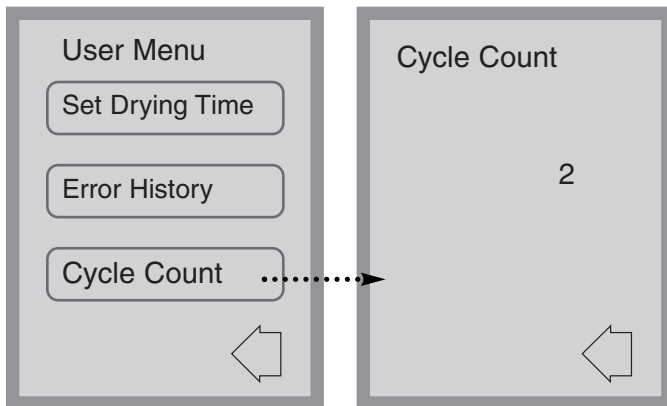
Touch the cycle for which you want to set the drying time. Use the up and down arrows to select the desired drying time. Touch **default** if you wish to return to the factory default. Use the back arrow to return to the previous screen.

## 5. Instructions for Use



### User Menu – Error History

This allows the user to see the last three errors. Press the down arrow to move to the next page / error. Press the X in the lower left hand corner to clear the error history. Press the back arrow to move to the previous menu.



### User Menu – Cycle Count

This allows the user to see how many cycles have been run on the Hydrim. Touch cycle count and the number of cycles (completed and aborted) will be displayed. This cannot be reset. Touch the back arrow to return to the previous menu.

## 5.8 Technician Menu



This menu is only available to authorized technicians.

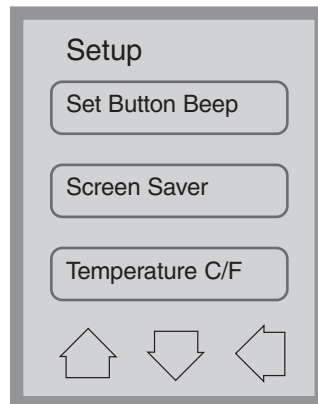
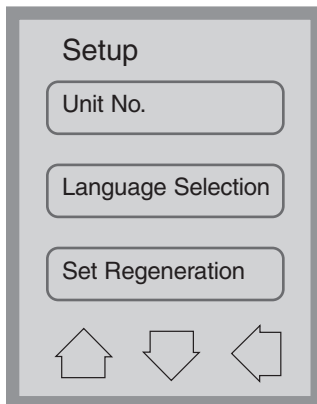
## 5. Instructions for Use

### 5.9 Setup Menu

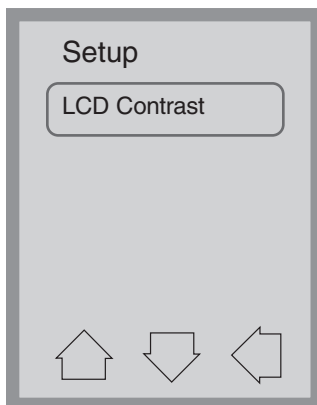
To access the Setup Menu, proceed to the menu screen by turning the Hydrim OFF and then ON. An i (information) will appear briefly at the bottom right hand corner.



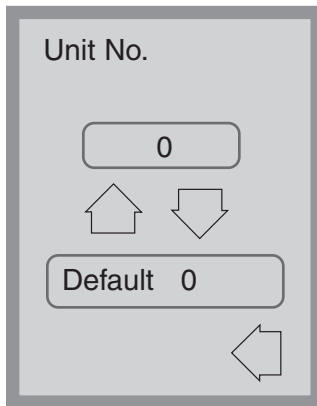
Touch the i to move to the Menu screen and select Setup.



The Setup Menu consists of seven choices as shown. Using the up and down arrows to move through the choices, touch the desired option to select it. For more detail on each setup menu option, refer to the following sections.

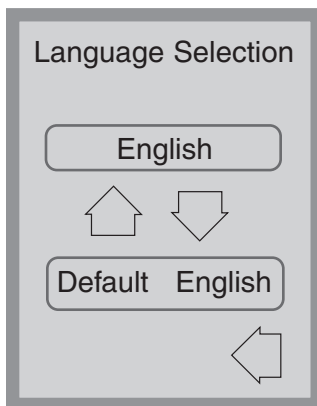


## 5. Instructions for Use



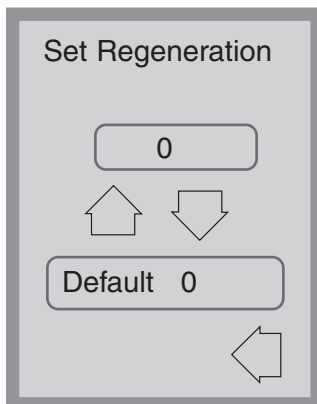
### Setup Menu – Unit Number

If you have more than one Hydrim, you can designate them Unit #1, Unit #2, etc. Use the up and down arrow keys to select the unit number. The default is 0.



### Setup Menu – Language Selection

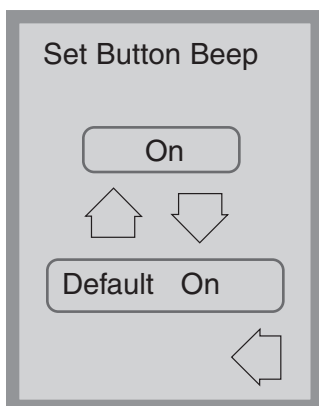
This allows the user to select among available languages for the Hydrim. Use the up and down arrows to select the desired language. The default language is English. Touch the back arrow to return to the previous menu.



### Setup Menu – Set Regeneration

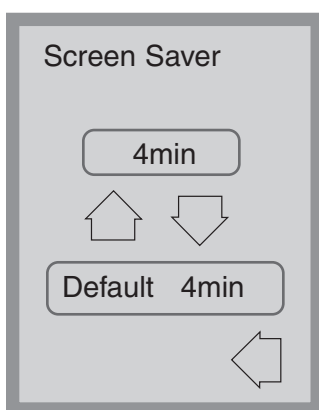
Set the salt regeneration according to the local water hardness. Use the up and down arrows to change the value. The default setting is 0 . See Installation Instructions for further information.

## 5. Instructions for Use



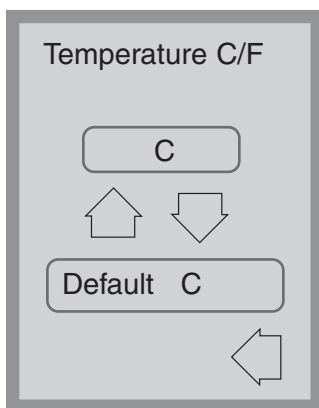
### Setup Menu – Set Button Beep

The user can select between having the unit beep or not beep whenever a screen button is touched. Turn the beep on or off by using the up and down arrows. Note that the default setting is ON. Touch the back arrow to return to the previous menu.



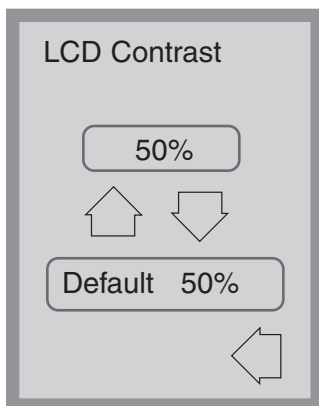
### Setup Menu – Screen Saver

The user can adjust the time that elapses before the screen goes into screen saver mode. Touch **Screen Saver**. Touch the up and down arrows to select the desired screen saver setting. The default is 4 minutes. Touch the back arrow to return to the previous menu.



### Setup Menu – Temperature C/F

The user can choose to have information displayed in degrees Celsius or degrees Fahrenheit. Touch the up and down arrows to select the desired choice. The default is degrees Celsius. Touch the back arrow to return to the previous menu.



### Setup Menu - LCD Contrast

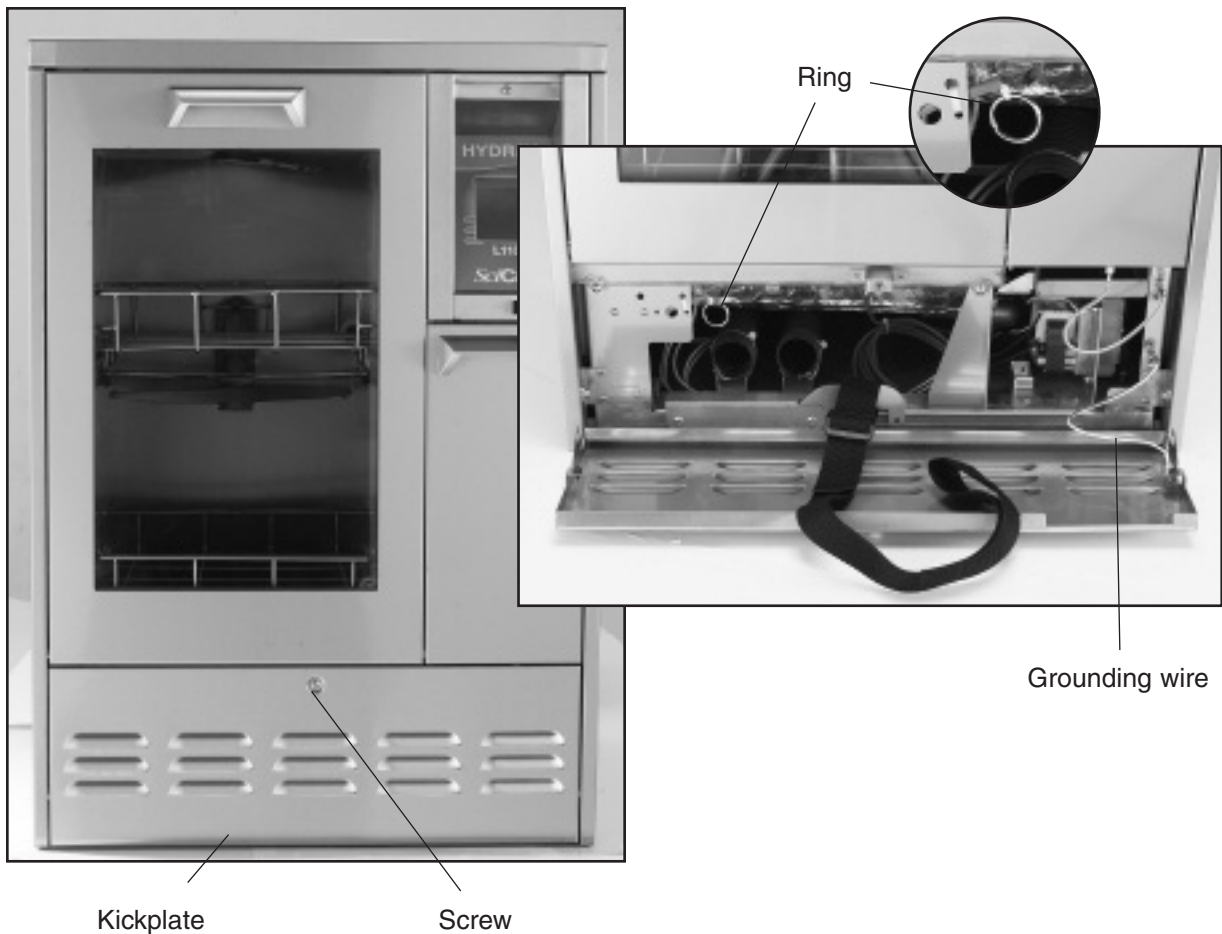
The user can adjust the LCD contrast. Touch the up and down arrows to select the desired contrast. The default is 50%. Touch the back arrow to return to the previous menu.

## 5. Instructions for Use

### 5.10 Opening the Door in Case of Power Failure



If there is a power failure, remove the kickplate of the Hydrim. Remove the screw with a screwdriver and lift the kickplate up and toward you. Locate the ring and pull it to open the door. Exercise caution! There may be fluid remaining in the unit and the instruments may be hot. Instruments that have not completed the cycle should not be used and should be reprocessed. When replacing the kickplate, ensure that the grounding wire is attached.



## 6. Care and Maintenance

### 6.1 Replacing the HIP Cleaning Solution

The Hydrim L110w uses a 3.8L / 1 gallon container of HIP Cleaning Solution (Part number CS-HIPL). Use only the recommended cleaning solution and read the MSDS before inserting into the unit.

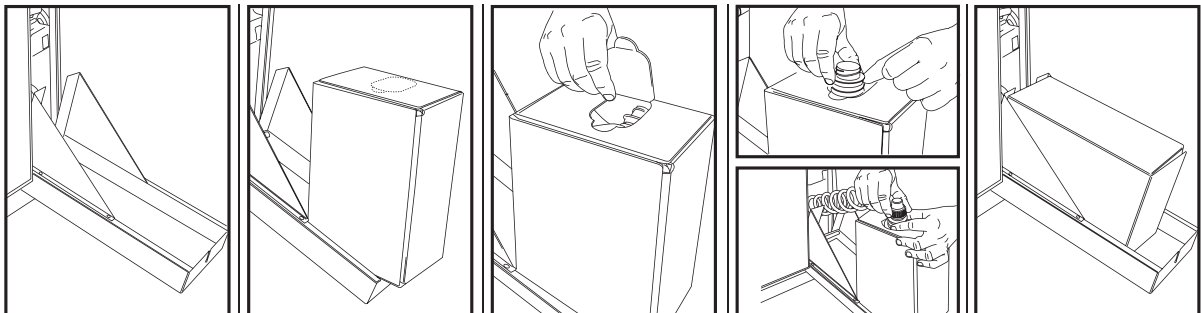


To order additional HIP Cleaning Solution, contact your local dealer. When the message “no detergent” appears on the screen, the cleaning solution container is empty and is in need of changing. To avoid spillage, replace the solution container only when the message appears and be sure to wear gloves.

**NOTE:** Each cleaning solution container will last approximately 30 cycles, depending on which cycles are used..

To replace the cleaning solution container, follow these steps:

1. Turn the power switch OFF.
2. Open the cleaning solution door.
3. Disconnect the cleaning solution connector. Remove any dried chemical by immersing the connector in a cup of water.
4. Remove the empty cleaning solution container and discard or recycle.
5. Connect new container and insert into the cleaning solution compartment. Follow the instructions printed on each cleaning solution container.
6. Close the door.
7. Turn the power switch ON



## 6. Care and Maintenance



salt container

### 6.2 Refilling the Water Softening Salt Reservoir

When the error message "salt level low" appears, the salt reservoir is in need of refilling. Ensure that your authorized technician has set the water softener according to the hardness level in your area.

To fill the salt reservoir, follow these steps:

1. Unscrew the salt container lid.
2. Fill the salt container to the top (maximum 1 kg / 2.2 lbs.)
3. Screw the salt container lid on tightly.
4. Run a complete cycle, with no instruments.



### 6.3 Using Rinse Aid

Rinse-aid is not required when using the Hydrim L110w with HIP cleaning solution. There is a rinse-aid container in the Hydrim L110w, but it is not active and should not be filled.



## 6. Care and Maintenance

### 6.4 Cleaning the Hydrim L110w



To clean outer surfaces and the decal covering the touchscreen, use a soft cloth moistened with soap and water or a surface disinfectant. Do not use harsh cleaning chemicals.

If preparing the unit for transport or storage, waste water should be removed from the sump.

Waste water in the unit may contain biological contaminants. Use a mechanical means to siphon the contents. Wear disposable rubber gloves. Dispose of absorbent material according to biological waste disposal regulations.

### 6.5 Filter and Wash Arm Maintenance



#### **Filter Maintenance:**

Inspect the filter in the bottom of the chamber **daily** for debris and clean if necessary. To clean, remove the filter rinse under a tap and replace. Ensure that the filter is firmly locked into position when replaced.

Wash arms

#### **Wash Arm Maintenance:**

If the wash arms are not turning easily, remove them, rinse under a tap and reassemble. To remove the upper or middle arm, unscrew the collar counterclockwise. To remove the lower arm unscrew the collar clockwise.

Filter

## 7. Troubleshooting

Problem	Possible Causes and Solutions
<b>Instruments are not clean</b>	<ul style="list-style-type: none"> <li>• Do not overload cassettes or instrument baskets.</li> <li>• Do not load too many cassettes into the Hydrim.</li> <li>• Use the Heavy Duty cycle for cassettes and hinged instruments.</li> <li>• Check filters and wash arms for debris.</li> </ul>
<b>Touchscreen / Unit does not come on</b>	<ul style="list-style-type: none"> <li>• Ensure that the power button is turned ON.</li> <li>• Ensure that the plug is properly inserted into the wall socket.</li> <li>• Check if a fuse or circuit is blown – call service for assistance.</li> </ul>
<b>The wash arms do not rotate</b>	<ul style="list-style-type: none"> <li>• Remove the wash arms, clean and reinstall them.</li> </ul>
<b>The door cannot be opened</b>	<ul style="list-style-type: none"> <li>• The cycle is not complete.</li> <li>• The cycle was aborted and the unit has not completed draining yet.</li> </ul>
<b>Operating cycles appear to be taking too long to complete</b>	<ul style="list-style-type: none"> <li>• The water is not hot enough. Check that the incoming hot water temperature is in the recommended range.</li> <li>• Check that the hot and cold hoses are not reversed.</li> </ul>
<b>“No detergent” message comes on when there is still chemical left in the container</b>	<ul style="list-style-type: none"> <li>• Check for a kink in chemical tubing.</li> </ul>
<b>Drying Performance is inadequate</b>	<ul style="list-style-type: none"> <li>• Increase the drying time (user menu).</li> </ul>

NOTE: Fuses should NOT be replaced by the operator. Call an authorized service technician for assistance.

## 7. Troubleshooting

### Error Messages

<b>Error</b>	<b>Cause</b>	<b>Solution</b>
<b>CF1 Water Heating failure</b>	The water does not reach the required temperature in the specified time	Call for service.
<b>CF2 Chamber Filling Failure</b>	The water does not fill the chamber within the specified time.	Check that the water hoses are not kinked. Open the water shut-off valves.
<b>CF3 Chamber temperature reading failure</b>	Faulty sensor.	Call for service.
<b>CF4 Draining failure</b>	Water cannot drain from the unit.	Check that the drain hose is not kinked. Check that the filter in the bottom of the chamber is not obstructed.
<b>CF9 Software or PCB Failure</b>	Cycle length is more than 2hr 30 min.	Call for service.
<b>CF11 No detergent</b>	Flow switch did not detect detergent during wash phase.	Replace detergent box if empty. If the problem persists, call for service.
<b>CF14 Fault Flow Switch</b>	Flow switch is stuck closed.	Call for service.
<b>CF15 Chamber overflow</b>	Overflow switch did not turn off after 30 sec of running the drain pump.	Check if drain is blocked; Call for service.

# 8. Material Safety Data Sheet

## 1.0 PRODUCT AND COMPANY IDENTIFICATION

Product Name: HIP – Hydrim Cleaning Solution With Instrument Protection

Product Use: Cleaner

Manufacturer/Supplier: Virox Technologies Inc.

Address: 2815 Bristol Circle, Unit 4, Oakville, Ontario L6H 6X5

Phone #: (905) 813-0110

(W)HMIS Classification: Health: 2      Flammability: 0  
Reactivity: 0      Personal Protection: B (Gloves + Goggles)

## 2.0 INFORMATION ON ACTIVE INGREDIENTS

Ingredient	CAS#	Wt%	OSHA-PEL	ACGIH-TLV
1-Hydroxyethane -1,1-Diphosphonic acid, K salt	2809-21-4	5-10%	N/E	N/E
1, 2 propylene glycol	57-55-6	15-20%	N/E	N/E
Xylenesulfonic acid, K salt	1300-72-7	5-10%	N/E	N/E
N-Octyl -2-Pyrrolidone	2687-94-7	3-5%	N/E	N/E

## 3.0 HEALTH HAZARD IDENTIFICATION

Rout of Entry: Skin contact, Eye, Ingestion.

### Signs and Symptoms

Eye contact: Causes irritation.

Skin contact: Causes irritation.

Ingestion: Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.

Inhalation: Not a normal route of exposure.

Acute overexposure: Corrosive. May cause burn or irritation.

Chronic Overexposure: Prolonged or repeated exposure can cause drying, defatting and dermatitis.

Respiratory Tract  
Sensitization: Non-hazardous by WHMIS criteria.

Carcinogenicity: Non-hazardous by WHMIS criteria.

Teratogenicity: Non-hazardous by WHMIS criteria.

Mutagenicity: Non-hazardous by WHMIS criteria.

Reproductive Effects: Non-hazardous by WHMIS criteria.

## 8. Material Safety Data Sheet

### 4.0 FIRST AID MEASURES

Eye:	Immediately flush with water for 15 minutes while lifting eyelids and rolling eyes. Get medical attention if irritation develops or persists.
Skin:	Wash promptly with soap and water.
Ingestion:	Get medical help. Do NOT induce vomiting. If conscious and medical help not readily available, give water.
Inhalation:	Not a normal route of exposure. If symptoms develop, move to fresh air. If breathing is difficult get medical attention.

### 5.0 FIRE FIGHTING MEASURES

Flash point:	Not Available
Auto-Ignition temperature:	Not Available
Extinguisher Media:	Water spray, dry chemical, foam, carbon dioxide.
Special Fire Fighting Procedures:	Firefighters should have eye protection and wear self-contained breathing apparatus.

### 6.0 SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be taken in handling and storage:  
Store in a cool, dry, well ventilated location.

Other Precautions:  
Avoid skin contact. Keep containers tightly closed. No smoking or eating in handling area.

Steps to be taken in case Material is Released or Spilled:  
Flush into sewage system in accordance with local regulations.

Waste Disposable Methods:  
Review federal, provincial, and local government requirements prior to disposal.

### 7.0 EXPOSURE CONTROLS/PERSONAL PROTECTION

Gloves:	Natural or butyl rubber, nitrile or neoprene gloves.
Eye Protection:	Safety Glasses.
Respiratory Protection:	Not normally required if good ventilation is maintained and exposure guidelines are not exceeded.
Other protective equipment:	As required by employer code.

# 8. Material Safety Data Sheet

## 8.0 PHYSICAL/CHEMICAL CHARACTERISTICS

Physical State: Liquid	Boiling Point: No Data
pH: 9.5-10.5	Specific Gravity: 1.14-1.15@25°C
Solubility in Water: 100% soluble in water.	Appearance and Color: Clear colorless to slight yellow.
Melting Point: No Data	

## 9.0 PHYSICAL HAZARDS/REACTIVITY DATA

Stability:	Stable under normal conditions of handling, use and transportation.
Incompatibility (Materials to Avoid):	Acids.
Hazardous Decomposition Products:	Combustion produces carbon dioxide and carbon monoxide.
Hazardous polymerization:	Will Not Occur.

## 10.0 TRANSPORTATION

T.D.G./D.O.T. Classifications:	Not regulated.
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## 11.0 REGULATORY INFORMATION

### Occupational health and safety Regulations

WHMIS Class:	Class D, Division 2B
OSHA & WHMIS:	MSDS prepared pursuant to the Hazard Communication Standard (CFR29 1910.1200) and Canadian WHMIS regulations (Controlled Products Regulations under the Hazardous Products Act).
Environmental Regulatory Lists:	SARA – Section 313 (Toxic Chemical Release Reporting) 40 CFR 372 : No reportable ingredients.
Toxic Substances Control Act (TSCA):	All ingredients are listed on the Chemical Substances Inventory or exempt.
Canadian Domestic Substance List (DSL):	All ingredients are listed on the DSL or exempt.

## 12.0 PREPARATION INFORMATION

Date:	November 9, 2005 MSDS
Prepared by:	Virox Technologies Inc.
Telephone:	(905) 813-0110

Disclaimer: Information for this material safety data sheet was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this form. If user requires independent information on ingredients in this or any other material, we recommend contact with the Canadian Center for Occupational Health and Safety (CCOHS) in Hamilton, Ontario (1-905-877-4400) or the local office of US EPA.

## 9. Specifications

Height, freestanding: 850 mm / 33.5"

Height, built-in: 810 mm / 32"

Width: 600 mm / 23.75"

Depth: 600 mm / 23.75"

Depth with door open: 1200 mm / 47"

Weight: 80 kg / 176 lbs.

Running Noise: 60 dB(A)

Hot and cold water connections: 3/4"

Inlet water pressure: 1-10 bar

Incoming hot water temperature: 50-70°C / 122-158°F

Drain: 3/4"

Water softener: 1 kg / 2.2 lbs salt capacity

Filling System: 5.5L / 1.5 gallon safety maximum

Drying System: Heater 1 kW

Electrical Connection: 208-240 V 60 Hz 15 A

Equipment pollution degree: Pollution Degree 2

Equipment installation category: Installation category II

Maximum relative humidity: 80% for temp up to 31°C / 88°F  
50% for temp up to 40°C / 104°F

Operating temperature range: -5°C to 40°C / 23-104°F

Max. altitude: 2000m / 6561.7 ft.

Mains supply: + / -10% of nominal

## 10. Serial Number Plate

When ordering supplies, spare parts or requesting service, please ensure that the information contained on the serial number plate is available (Model number, serial number etc.).

The serial number plate is located at the bottom left on the rear panel of the Hydrim L110w unit. A small label is located on the left hand side of the chemical door.