Scican Ltd. 1440 Don Mills Road, Toronto, Ontario, Canada. M3B 3P9

Product Advice Sheet – SD-354

Hydrim M2 Washer Disinfector Pre installation Requirements

To ensure the optimum performance of Scican M2 washer disinfectors it is imperative that the correct services are made available in the surgery and that the positioning of the unit does not compromise the function of the unit in any way.

Prior to installation therefore it is important that the site be inspected and all the appropriate conditions are met to ensure the safe and efficient operation of the WD.

Practice details and summary results.

Practice/Office location details	
Customer Name:	
Address	
Tel:	

Installer/Pre installation inspector	
Name:	
Dealer details	
Tel:	

Conditions approved/rejected for installation subject to checklist below (✓/✖)	
Name	
Signature	
Date	
On behalf of (Dealer)	

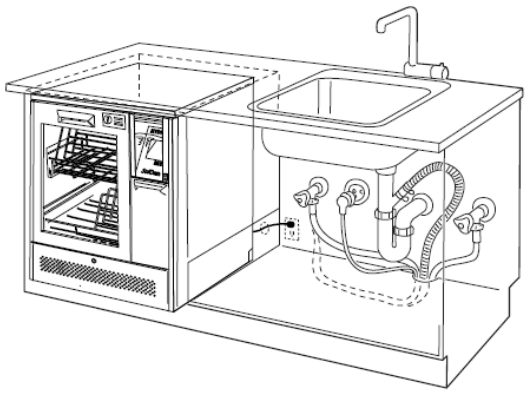
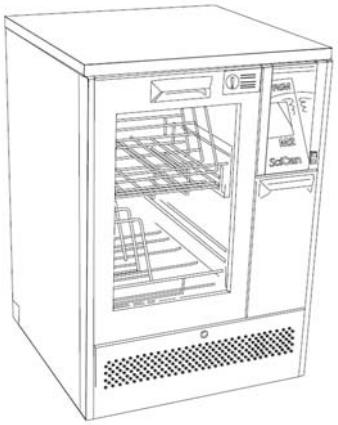
Models available

M2-WD-D02	Hydrim M2 Large Instrument Washer / Disinfector, EU model, Full height – 850mm
M2-WD-D02-SH	Hydrim M2 Large Instrument Washer / Disinfector, EU model, Short height – 830mm
M2-WD-D04	Hydrim M2 Large Instrument Washer / Disinfector, UK model, Full height – 850mm
M2-WD-D04-SH	Hydrim M2 Large Instrument Washer / Disinfector, UK model, Short height – 830mm

Installation configurations

The Hydrim M2 may be installed under-bench or free standing dependent on space and service availability.

This configuration is:

1. Under-bench ✓/✗		2. Free Standing ✓/✗	
			

Note: If installing unit under-bench, minimum dimension required from underside of work surface is as follows:

For full height units - 860mm ✓/✗		For Short height units – 840mm ✓/✗	

Pre Installation checklist

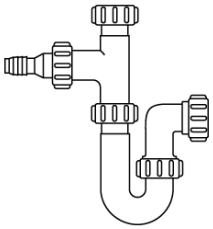
The following items are required to be in place before installation commences.

Description	✓/✗
Hot water/RO feed with G ¾" shut off valve (washing machine fitting)	
• Maximum distance from installation less than 1.50 metres	
• Pressure between 2 and 5 bar	
Cold water feed with G ¾" shut off valve (washing machine fitting)	
• Maximum distance from installation less than 1.50 metres	
• Pressure between 2 and 5 bar	

Note 1 - If hot feed/RO is not available then it must be possible to attach a 'Y' fitting to the cold water feed valve so that both machine pipes can be connected to the cold supply. The machine will not work with only one supply attached as it requires pressure in both supplies to activate the feed pressure switches. Please note that cold fill only will increase cycle times.
Note 2 – Water feeds should be adjacent to the machine and not behind it so that the shut off valves may be accessed in case emergency isolation is required and to ensure unit can be inserted fully under the work surface.

Drain outlet.	✓/✗
• Maximum distance from installation less than 1.50 metres	
• Drain should be no more than 1 meter above the base of the Hydrim unit.	
• 'P' trap spur connection (preferred method) **OR**	
• Standpipe connection	

Note:
The preferred method of connection of the Hydrim to the drain is by the use of a 'spurred' 'P' trap fitting.



Note 1 - The waste connection pipe is clamped on to the spur by the clips provided with the Hydrim. Wherever possible, if the Hydrim is located close to a sink unit, then this method should be used. If the Hydrim is not close to a sink unit and a 'P' trap cannot be used, then a standpipe with 'U' bend fitting can be used. **This must be a dedicated standpipe. Under no circumstances should any other equipment share the standpipe.**

Note 2 – Waste connection should be adjacent to the machine and not behind it.

Electrical supply.	✓/✗
• Dedicated 16 amp independent supply (preferred). (see note 1 below). **OR**	
• Standard domestic outlet.	
• Located within 1.50 metres maximum.	
• Supply location (see notes below)	
• Power cord routing (see note below)	

Note 1 - The M2 is supplied with a domestic fused plug as standard. This should only be used in the event that a dedicated, hard wired 16 amp supply is not available.

Note 2 - Due to the power requirements of the Hydrim, (Rated load 2 kW) especially during drying, it is advised that no other equipment is connected to the same supply outlet.

Note 3 - Power supply outlet should be adjacent to the machine and not behind it. The cable should be routed away from the back panel and hot water inlet hose.

Ventilation requirements	✓/✗
• A space of **at least** 10mm should be available on all sides of the machine	
o Top	
o Left Hand Side	
o Right Hand Side	
o Back	

Notes 1 - **Important!** Ventilation during drying is via the front of the machine. Some increase in humidity may be apparent during this drying phase and it is imperative that sufficient air circulation is available surrounding the machine to enable this humidity to be dissipated. Failure to provide adequate ventilation may lead to equipment or cabinetry damage (depending on installation configuration).

Note 2 - The drying system has a filtered air intake. The free movement of air to this intake is important and failure to provide the required space may cause overheating of the dryer motor and/or compromise drying efficiency.

General Notes

1. Washer disinfectors by their very nature use water and chemicals, and generate heat during use. It is important therefore that their surroundings (cabinetry and flooring) are of good quality and in good condition to minimise the risk of damage, particularly where a 'built in' configuration is used.

2. The Hydrim M2 is also heavy! (80 Kg) Consideration should therefore be given to the structural integrity of the flooring.

3. It is also important that the flooring is flat, and does not run out greater than 2mm front to back and side to side over the footprint of the unit (600 x 600mm)

4. From time to time, access will be required to change the air filter and/or service the machine. It is important therefore to ensure that adequate space is available in front of the machine to allow easy removal of the equipment. Ensure that when the machine is pulled out that the integrity of the services is not compromised.

Optimum features should be as follows:

• Cabinetry/floor	✓/✗
o Waterproof	
o Sealed edges	
o Heat resistance	
o Sound structural integrity	
o Post installation access	
o Flatness (See note 3 above)	

Water Quality

The quality of the water being used in the Hydrim to clean the medical instruments is very critical to achieving satisfying cleaning results and to protecting the instruments and the internal parts of the Hydrim from deterioration. Dissolved solids in the water can cause stains, spots, and corrosion on instruments and the internal parts of the Hydrim.
Before installing and using the Hydrim, SciCan recommends testing the water and recording the results for water hardness, water conductivity, and pH-value for future references here.

The following table lists the desired levels of the water parameters. If the test results of any of the water parameters exceed the stated problem levels, a full water analysis is recommended and the installation of a water treatment system may be required to achieve satisfying cleaning results with the Hydrim.

Water Parameter	Desired Level	Units	Problem Level
pH value	7.0 – 7.5	S.U.	< 6.8 or > 8.5
Hardness	< 85	mg/l	> 100
Water conductivity	< 274	microS/cm	> 469

The Hydrim is equipped with an air gap / anti-suction device to prevent backflow of dirty water into the water supply.

• Water hardness	
o Hot water	
o Cold water	
• Water conductivity	
• pH value	

Action required (if any):

Technical Specifications Summary

Applicable Standards	EN ISO 15883 parts 1 & 2
Height (Full height unit)	850mm
Height (Short height unit)	830mm
Width	600mm
Depth (Door closed)	600mm
Depth (Door open)	1200mm
Weight	80kg
Floor loading per support (3) when full	1,300 N
Required clearance, top, sides and rear	>10mm
Running Noise	60 dB(A)
Inlet water connections	G 3/4”
Inlet water pressure	2-5 bar
Drain	3/4”
Maximum water flow to drain	47 l/min
Maximum water discharge temperature to drain	95°C
Maximum water hardness	45.9dH, 52.0 US GPG, 890 PPM(mg CaCO3 per litre)
Maximum water conductivity	469 µS/cm
PH range	>6.8 and < 8.5
Water volume per process stage	± 8 litre
Total water consumption per cycle without drying	± 40 litres
Total water consumption per cycle with drying	± 80 litres
Water softener salt capacity	1.0 kg
Equipment installation category	II
Voltage 230 – 240 VAC	+/- 10%
Frequency	50 Hz
Rated load	2.7 kW
Circuit breaker	13 amps
Operating temperature range	+5°C to +40°C
Maximum relative humidity	80% for temp up to 31°C 50% for temp up to 40°C
Maximum operating altitude	2000m
Equipment pollution degree	2
Maximum deviation from plane horizontal surface.	2mm

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product Name: HIP (Hydrim Cleaning Solution with Instrument Protection)

Product Use: Cleaner for Hydrim automatic instrument reprocessor machines

WHMIS Class: Class D - Division 2B

TDG Classification: Not regulated as dangerous goods.

Manufacturer/Supplier: SciCan Ltd.
1440 Don Mills Road
Toronto, ON M3B 3P9 CA
Phone: 1-800-667-7733

SECTION II - HAZARDOUS INGREDIENTS

Ingredient(s)	CAS #	Wt%	ACGIH-TLV	LC50	Oral LD50
N-(n-octyl)-2-pyrrolidone	2687-94-7	1 - 5	Not established	Not available	2050 mg/kg rat
Sodium xylene sulphonate	1300-72-7	3 - 7	Not established	Not available	7200 mg/kg rat
Phosphonic acid, (1-hydroxyethylidene)bis-, tetrapotassium salt	14860-53-8	5 - 10	Not established	Not available	520 mg/kg rat

SECTION III - PHYSICAL DATA

Boiling Point: Not available

Freezing Point: Not available

Vapour Pressure: Not available

Vapour Density: Not available

Solubility in Water: Complete

Physical State: Liquid

Appearance: Clear colourless Liquid

Odour: Odourless

Specific Gravity: 1.113 (H_2O = 1)

Coefficient of Water/Oil Distribution: Not available

% Volatile: Not available

Evaporation Rate: Not available

pH: 9.3 - 9.8

Viscosity: Water thin

Odour Threshold: Not available

SECTION IV - FIRE AND EXPLOSION DATA

Flammability: Not flammable by WHMIS criteria.

Flash Point: > 93.3 °C (> 199.94 °F) **LEL:** Not applicable **UEL:** Not applicable

Hazardous Combustion Products: May include and are not limited to: Oxides of carbon. Oxides of sulphur. Oxides of phosphorus.

Autoignition Temperature: Not applicable

Explosion Data:

Sensitivity to Mechanical Impact: Not applicable.

Sensitivity to Static Discharge: Not applicable.

Means of Extinction: Treat for surrounding material.

Special Fire Hazards: Firefighters should wear a self-contained breathing apparatus.

SECTION V - REACTIVITY DATA

Conditions for Chemical Instability: Stable under recommended storage conditions.

Incompatible Materials: Do not mix with any other cleaning or disinfecting product.

Reactivity: Do not mix with any other cleaning or disinfecting product.

Hazardous Decomposition Products: None known.

SECTION VI - TOXICOLOGICAL PROPERTIES

Route of Entry: Eye, Skin contact, Ingestion.

EFFECTS OF ACUTE EXPOSURE:

Eye: May cause irritation.

Skin:	May cause irritation.
Inhalation:	Not a normal route of exposure.
Ingestion:	Like any product not designed to be ingested, this product may cause stomach distress if ingested in large quantities.

EFFECTS OF CHRONIC EXPOSURE:

Skin:	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Irritancy:	May cause irritation.
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.
Synergistic Materials:	Not available

SECTION VII - PREVENTATIVE MEASURES

Gloves:	Natural or butyl rubber, nitrile or neoprene gloves.
Eye Protection:	Wear safety glasses with side shields.
Respiratory Protection:	Not normally required under normal use conditions.
Other Protective Equipment:	As required by employer code.
Engineering Controls:	General ventilation normally adequate.
Leak and Spill Procedure:	Small spills (<5 gallons) can be flushed into sewage system in accordance with local regulations. Prevent large spills (>5 gallons) from entering sewers or waterways. Use non-reactive absorbent and place in suitable, covered, labelled containers. Contact emergency services and supplier for advice.
Waste Disposal:	Review federal, provincial, and local government requirements prior to disposal.
Handling Requirements:	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.
Storage Requirements:	Keep out of reach of children. Store in a closed container away from incompatible materials.

SECTION VIII - FIRST AID

Eye:	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medical attention if irritation persists.
Skin:	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation develops or persists.
Inhalation:	No specific first aid measures are required.
Ingestion:	Do not induce vomiting. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.

SECTION IX - PREPARATION INFORMATION

Effective Date: 15-May-2009

Expiry Date: 15-May-2012

Prepared By: Dell Tech Laboratories Ltd. (519) 858-5021