Automatic Cell Washing System
UltraCW®II

Quick Reference Guide

Document History

Revision	Date*	CO	Supersession	Revision Description
A	8 NOV 2017	12850	n/a	Initial release
B	20 DEC 2017	13199	B supersedes A	Clarified content
C	18 JAN 2018	13259	C supersedes B	Added password information to **Add New Program** section
D	09 MAY 2018	13512	D supersedes C	Removed the **Maintaining the UltraCW II** section
E	20 AUG 2018	13866	E supersedes D	Updated **Setup** Instructions; Added information regarding the Fill button in **Calibrating the Saline Volume** section

* *Date submitted for Change Order review. Actual release date may vary.*

For complete instructions refer to the current operation and service manuals available at
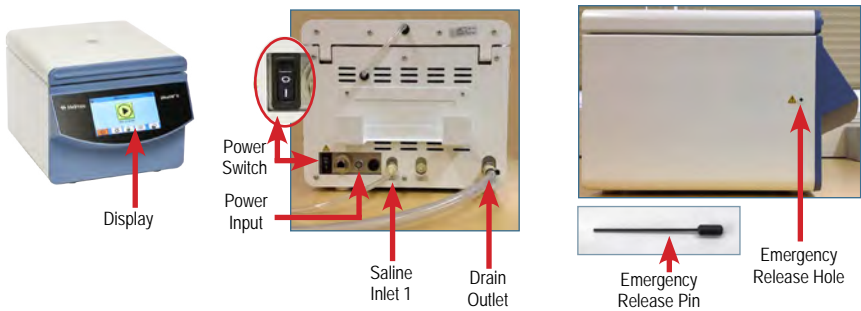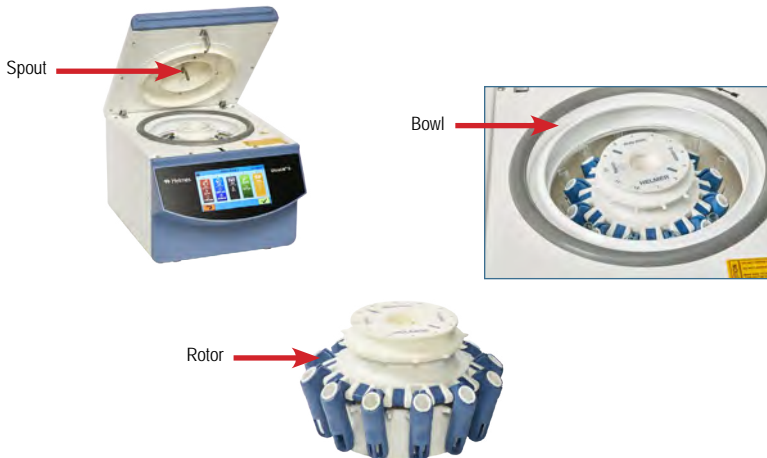http://info.helmerinc.com/manuals.

Table of Contents

Welcome to Helmer® Scientific *UltraCW® II*

Product Exterior

Power Switch

Display

Power Input

Saline Inlet 1

Drain Outlet

Emergency Release Pin

Emergency Release Hole

Product Interior

Spout

Bowl

Rotor

Unpacking Guidelines

- To avoid damage, unpack the appliance at or near the installation site.
- Lift the cell washer on both sides to remove from the box (2 people recommended).
- Check the packing slip to ensure delivery is complete.
- Inspect unit for damage that may have occurred during shipping. Contact the delivery carrier directly to report any damage.

Package Contents

- 1 drainage hose with connector
- 1 fill hose with connector, inlet 1 (Saline), with intake pipe; for the saline solution
- 1 universal power supply with cord
- 1 90 degree elbow
- rotor inserts (number varies based on configuration)
- emergency release pin
- Allen wrench

Emergency Release

The emergency release allows the lid to be opened during a power failure or when the cell washer is not powered on.

⚠ CAUTIONS
- Remove plug from emergency release hole and disconnect power cord from power outlet prior to using the emergency release.
- Only the plastic release pin provided may be used for emergency release.

1. Ensure power is switched to off "O", and disconnect power cord from power outlet.
2. Look through the window on top of the lid to ensure the rotor is at a complete stop.
3. Insert the release pin into the Emergency Release hole and push in to release the lid and open.

ℹ Note
An error message will appear on the display once unit is powered back on. Select the Return button to clear.
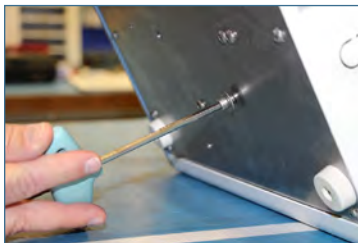
Transport Bolts

Transport bolts are located on the bottom of the cell washer to prevent the motor from moving during shipping. Transport bolts are necessary when moving or shipping the cell washer.

⚠ NOTICE
- Keep transport bolts and Allen wrench for future use.
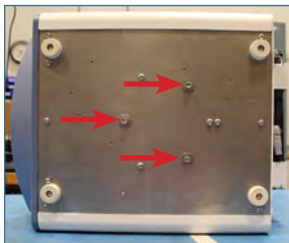
Transport Bolts

Removing/Installing Transport Bolts

☑ Remove Transport Bolts

1. With the cell washer powered off, open the lid using the emergency release and remove the rotor.
2. With the lid closed, place the cell washer in a position allowing access to the bottom of the unit.
3. On the bottom of the cell washer, locate the 3 transport bolts.
4. Using the Allen wrench included in the packaging, remove the bolts.
5. Return the cell washer to the upright position.

☑ Install Transport Bolts

1. With the cell washer powered off, open the lid using the emergency release and remove the rotor.
2. With the lid closed, carefully place the cell washer in a position allowing access to the bottom of the unit.
3. On the bottom of the cell washer, locate the threaded holes for the 3 transport bolts and hand thread the bolts in each location.
4. Using the Allen wrench included in the packaging, tighten bolts until snug.
5. Carefully return the cell washer to the upright position.

Installation

Location

- Has stable, level surface
- Has grounded outlet meeting electrical requirements on product specification label
- Has access to supply of saline solution
- Has access to waste container or drain suitable to receive decanted saline and human blood waste
- When the cell washer is running, per EN / IEC 61010-2-020, no individuals or dangerous objects such as flammable or explosive materials may be within a safety margin of 12" (300mm) around the unit

⚠ **CAUTIONS**
- Use only manufacturer supplied power cord.
- Ensure drain tube is installed at a downward slope for proper drainage.

Setup

- Plug saline tube into inlet 1 and place the weighted end of the tube in the Saline box
- Plug drain tube into drain outlet
- Connect plug to 24V DC input
- Connect power cord to power supply

Control Panel

Initial Startup

ℹ️ Notes

- Allow unit to reach room temperature before powering on.
- In the event of an error, an error message will appear at the top of the screen and an audible signal will sound.

1. Plug power cord into grounded outlet meeting electrical standards.
2. Switch the power switch located on the back of the unit ON. Initialization takes approximately one minute. The Start screen will appear.
3. Press the Open button (F) to open the lid and remove foam packing from rotor.
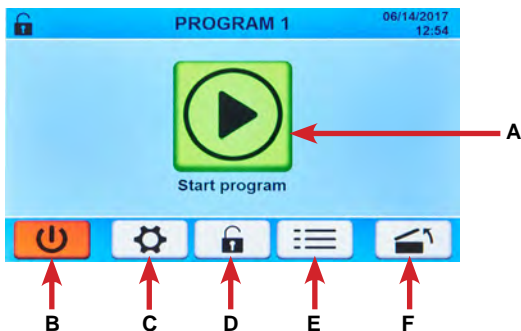
Start Screen

Label	Name	Description
A	Start Program	Starts selected program
B	Stand-by	Reduce power and darken screen
C	Settings	View / change device settings
D	Login	Advanced User / Service Login
E	Menu	View / Select program options
F	Open	Release / Open lid

Select Program

Program Menu Screen (showing examples of custom programs)

1. From the Start screen, select the Menu button [≡].
2. Touch the back or forward arrow buttons to navigate through the program menu.
3. Touch the desired program to select.
4. Use green and yellow directional arrows [→] [←] to scroll through and review program process settings to verify their accuracy.


Program Screen (showing multiple processes)

5. Select the green checkmark [✓] to load the program. The Start screen appears with the loaded program name at the top of the screen.
6. Select the Start Program button. The Process screen appears with the process being executed highlighted.
7. The "**Program successful**" dialog box appears once the program is complete.

Add New Program

Flexible programming enables multi-cycle wash and basic spin programs to be created. Check and spin steps can be integrated into programs allowing users to run wash cycles, add reagents, and then perform a quick spin.
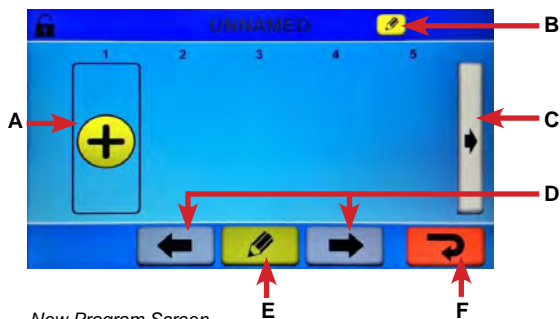

New Program Screen

Label	Name	Description
A	Add	Add process
B	Edit	Edit program name
C	Next Screen	View processes 6 - 10, 11 - 15, and 16 - 20
D	Navigation Arrows	Move left or right
E	Edit	Edit process
F	Return	Return to previous screen

🛈 Notes

- This process requires an authorized user.
- If accessing unit for the first time, use factory created Service User password 46060.

1. From the Start screen, touch the login button 🔒.
2. Enter a Service User password and select the green checkmark when finished.
3. Select the Menu ☰ button.
4. Select Add New Program ➕📄.

5. Select Edit button (B) at top of screen to change program name.
6. Select Add button to add a process. A menu of available processes are displayed across the top of the screen.
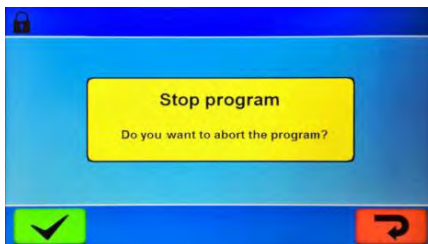

Process Menu

Setting Parameters (sample)

7. Select desired process from the options displayed. Programmable parameters appear below the selected process.
8. Touch the + or - to adjust the parameter(s).
9. Select the green checkmark to save.
10. Repeat steps 4 - 7 as needed to complete the program.

Interrupt a Program

Active Program Screen

Stop Program Screen

1. From the active Program screen, select STOP button. The Stop program dialogue box appears.
2. Select the green checkmark to confirm, or the red return arrow to return the Program screen.

Select Rotor Type

The rotor type can be changed through System Settings. Enter the rotor type used (12-place or 24-place) to calculate filling volume. Ensure the rotor has stopped prior to entering the rotor type.
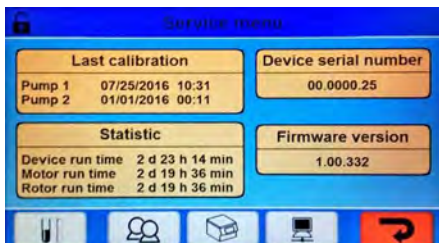

Settings Screen

ℹ️ Notes

- This process requires an authorized user.
- If accessing unit for the first time, use factory created Service User password 46060.

1. From the Start screen, touch the login button 🔒.
2. Enter a Service User password and select the green checkmark when finished.
3. Select the settings button ⚙. The settings screen opens.
4. Select the rotor type 12 24 .
5. Select the green checkmark ✔ to save.
6. Select the red return arrow ⤺ to return to the Start screen.

Calibrating the Saline Volume

Service Menu Screen

Calibration Screen

ⓘ Notes

- The cell washer lid must be open to perform the calibration.
- Ensure air bubbles are purged from saline tubes prior to calibration using the Fill program or fill button [🗲].
- This process requires an authorized user.
- If accessing unit for the first time, use factory created Service User password 46060.

1. From the Start screen, touch the login button [🔒].
2. Enter a Service User password and select the green checkmark when finished.
3. Select the settings button [⚙].
4. In the System Settings screen, select the tools button [✕].
5. On the Service Menu screen, select the ruler icon [ⅈ].
6. Select the volume to calibrate.
7. Hold a clean, dry graduated cylinder below the spout on the lid and press the start button [▶]. Wait until liquid has stopped flowing from spout.
8. Measure the liquid collected in the graduated cylinder.
9. Use the "+", "++", "-", and "- -" on the left side of the screen to adjust the number to match the measured volume in **Step 8**.
10. Select the green checkmark [✓] to finish calibration.
11. Use the red arrow [↩] to return to the home screen.

Notes:

For repairs or operating issues, please contact:
Helmer Technical Service at 800-743-5637 or
techservice@helmerinc.com.

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Cell Washing Perfected