# Hydrocollator®

**HEATING UNITS** 

# **User Manual**

120 Volt Units





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Hydrocollator<sup>®</sup> is a registered trademark of DJO, LLC
HotPac<sup>™</sup> is a trademark of DJO, LLC
Comet<sup>®</sup> of Prestige Brands, Inc.
Soft Scrub<sup>®</sup> of the Dial Corporation
Scotch-Brite<sup>®</sup> of 3M

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This manual contains general instructions for operation, precautionary instructions, and maintenance recommendations for the owners and operators of the Hydrocollator SS-2, M-2, M-4, SS, E-2 and E-1 Heating Units. In order to obtain maximum life and efficiency of the Hydrocollator Heating Units, please read this manual thoroughly and follow all instructions prior to operating the unit.

Specifications put forth in this manual were in effect at the time of publication. However, owing to DJO, LLC's policy of continual improvement, changes to these specifications may be made at any time without obligation on the part of DJO, LLC.

# PRECAUTIONARY DEFINITIONS

The precautionary instructions found in this section and throughout this manual are indicated by specific symbols. Understand these symbols and their definitions before operating this equipment. The definitions of these symbols are as follows:



= **CAUTIONS** - Text with a "CAUTION" indicator explains possible safety infractions that could have the potential to cause minor to moderate injury or damage to equipment.



= WARNINGS - Text with a "WARNING" indicator explains possible safety infractions that will potentially cause serious injury and equipment damage.



**PANGERS** - Text with a "DANGER" indicator explains possible safety infractions that are imminently hazardous situations that would result in death or serious injury.

NOTE: Throughout this manual, "NOTE" may be found. These notes are helpful information to aid in the particular area or function being described.

# **!** CAUTION

- Read, understand, and practice the precautionary and operating instructions. Know the limitations associated with the Hydrocollator SS-2, M-2, SS, E-2, E-1, M-4 Heating Units. Observe the cautionary and operational decals installed on the unit.
- DO NOT operate this unit in an environment where other devices are being used that intentionally radiates electromagnetic energy in an unshielded manner. Portable and mobile RF communications equipment can affect Medical Electrical Equipment.
- The Hydrocollator Heating Unit generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to other devices in the vicinity. However, there is no guarantee that interference will not occur in a particular installation. Harmful interference to other devices can be determined by turning the Hydrocollator Heating Unit on and off. Try to correct the interference using one or more of the following: reorient or relocate the receiving device, increase the separation between the equipments, connect the equipment to an outlet on a different circuit from that which the other device(s) are connected and consult the DJO, LLC Service Department for help.
- Do not use accessories other than those supplied with the Hydrocollator Heating Unit or recommended by DJO, LLC. The safety of other products has not been established, and their use could result in injury to the patient.
- Never adjust the thermostat too high. The thermostat is extremely sensitive and the slightest adjustment will alter the temperature several degrees. The recommended operating temperature is 160° F to 165° F (71° C to 74° C). The temperature of the water should be checked with a thermometer after every adjustment, before using the HotPac. Always allow sufficient time for the water temperature to stabilize.
- The Hydrocollator Heating Unit should not be installed above a surface that is susceptible to casual water damage.
- Always keep the water level over the top of the HotPacs to avoid burning or scorching of the packs.
- Never allow the HotPacs to dry after use.
- Check water level daily as it has a natural loss due to evaporation.
- Clean the tank periodically as described in the maintenance portion of this manual.
- Check unit periodically for signs of leaking and contact service if leaks are noted.
- Always replace Hydrocollator HotPacs as soon as they show signs of wear.
- If the unit is to be left unattended for a period of time, unplug the unit, remove the packs, empty the water, and clean the tank.
- Do not move the Hydrocollator Heating Unit while filled with heated water. Tipping over could result in burns to the user or others.
- Always unplug the Hydrocollator Heating Unit from the power source before attempting to empty water from unit.
- Always use factory authorized replacement parts.
- Always destroy and replace HotPacs which are exposed to contamination: hazardous or cleaning materials, bodily fluids, mold, etc.
- This unit should be operated, transported, and stored in temperatures between -40° C to +70° C (-40° F to 158° F) and no requirements for atmospheric pressure, with relative humidity ranging from 10% 100%.
- Treatment time should not exceed 30 minutes.
- DO NOT retrieve HotPacs from tank or replace HotPacs in tank with unprotected hand.
- Avoid direct contact with mounting rack in tank.
- Always wrap HotPac with towel or terry cover before handling or applying to patient.
- Constantly monitor HotPac application to ensure that the skin is not becoming too hot.
- Damage to skin can occur from exposure to extreme heat or cold. Note instructions for proper use.
- DO NOT apply over insensitive skin or in the presence of poor circulation.
- Never lay or sit on top of the HotPac.
- DO NOT use HotPac directly over cuts, abrasions or wounds.
- Consult health care professional before using HotPacs on non-communicative individuals.
- Exercise extreme caution when using HotPacs on non-communicative individuals.

# **WARNING**

- Grounding the Hydrocollator SS, SS-2, E-1, E-2, M-2, and M-4 Heating Units: Make certain the unit is electrically grounded by plugging into a hospital grade electrical outlet with a ground terminal receptacle (U-ground outlet). Follow the National Electrical Code.
- The water temperature in the Hydrocollator Heating Unit is approximately 160° F (71° C), and the water scalding temperature is approximately 120° F (49° C).
- Care must be taken when operating the Hydrocollator Heating Unit adjacent to or stacked with other equipment. Potential electromagnetic or other interference could occur to this or other equipment. Try to minimize this interference by not using other equipment in conjunction with it.
- The Hydrocollator Heating Unit should be placed on a smooth, level surface. The surface should support up to the Filled Weight (weight of heating unit filled with water) found in Technical Specifications pages 8-10 of this manual.
- Use only accessories that are specially designed for the Hydrocollator Heating Unit. Do not use accessories manufactured by other companies on the Hydrocollator Heating Unit. DJO, LLC is not responsible for any consequence resulting from using products manufactured by other companies. The use of other accessories or cables may result in increased emissions or decreased immunity of the Hydrocollator Heating Unit.
- Periodically inspect unit for signs of damage and pitting during regular cleaning intervals, as described in maintenance portion of this manual. Contact service if any signs of damage are discovered.
- · DO NOT apply HotPac directly to skin.
- Individuals with circulatory problems should consult with a physician before using this product.
- DO NOT sit or lie on the HotPac.
- DO NOT add chlorine additive to water.
- DO NOT allow HotPac to come in contact with hydrocarbons (e.g., Comet®, Soft Scrub®, etc.).



Risk of explosion if used in the presence of flammable anesthetics.

## **Explanation of Symbols**



ATTENTION: Refer to Instruction Manual/Booklet



Type B equipment



# **NOMENCLATURE**

Hydrocollator® Heating Units

WHITE LAMP, when illuminated, indicates that main power is connected, the switch is on and unit is operating.

**RED LAMP (M-4 units),** when illuminated, warns of an overheat/low water condition. Action is necessary to correct the condition.

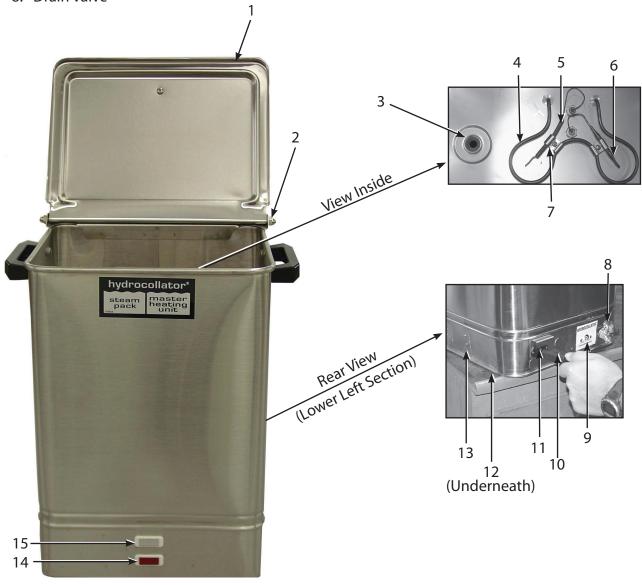


**IMPORTANT:** Some models (M-4 units) are fitted with a thermal cut-out thermostat which acts as a "non self-resetting" thermal cut-out. In the unlikely event of a fault condition, this device is designed to open the power circuit between 180° F to 185° F (82° C to 85° C). It is not possible to alter its operating range. The operation of the unit may be restored by depressing the red button after the water/element temperatures have been allowed to cool. If the fault condition persists, please contact DJO, LLC or an authorized agent.

### **Diagram**

- 1. Lid
- 2. Lid Hinge Nuts
- 3. Drain
- 4. Heating Element
- 5. Overtemp Thermostat
- 6. Thermostat, Hydraulic
- 7. Bracket (comes with #6)
- 8. Drain Valve

- 9. Thermostat Intensity Control
- 10. AC Mains Power Cord
- 11. IEC Connector
- 12. Junction Box (J-Box) Cover
- 13. Reset Overtemp Button
- 14. Pilot Lamp, Red
- 15. Pilot Lamp, Clear

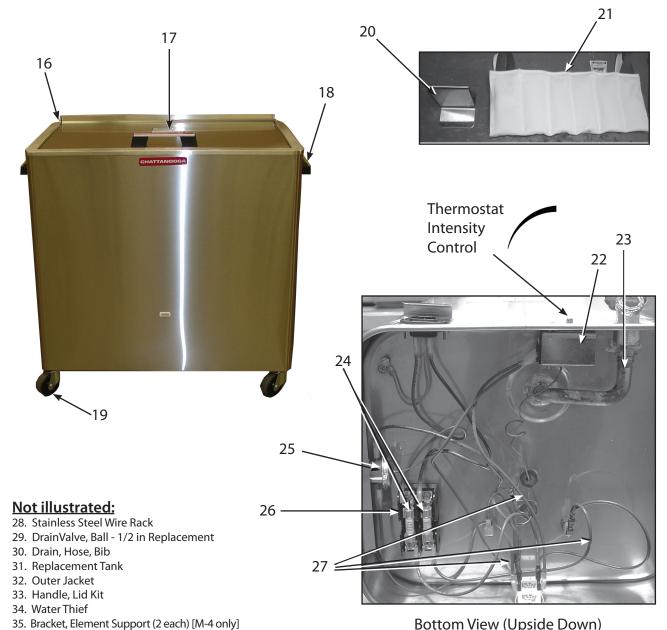


**NOTE:** E-1, E-2 models shown above. Nomenclature also applies to SS, SS-2, M-2, and M-4 models.

# **Diagram (CONTINUED)**

- 16. Lid Hinge Rod
- 17. Lid Knob/Handle
- 18. Side Handle
- 19. Caster, 3-inch (M-2, M-4, and SS-2 only)
- 20. Neck Pac Insert
- 21. HotPac

- 22. Thermostat, Hydraulic
- 23. Drain, Copper Tube
- 24. Fuses
- 25. Overtemp Thermostat
- 26. Fuse Block
- 27. Internal Wiring Harness



Bottom View (Upside Down) (J-Box Open)

36. Plastic Feet37. Hose, Drain

# **TECHNICAL SPECIFICATIONS**

Hydrocollator® Heating Units

# SS-2 Model

Power Supply 110-120 V~
Rated Frequency 60 Hz
Power Consumption 1000 W
Tank Capacity 49.32 Liters
Filled Weight 140 lbs (85 kg)

Temperature Range  $160^{\circ} \text{ F} - 165^{\circ} \text{ F} (71^{\circ} \text{ C} - 74^{\circ} \text{ C})$ Thermal Cut-out Temp  $180^{\circ} \text{ F} - 185^{\circ} \text{ F} (82^{\circ} \text{ C} - 85^{\circ} \text{ C})$ Heating Up Time  $160^{\circ} \text{ F} (70^{\circ} \text{ C}) - 4 \text{ Hours}$ Cool Down Time  $160^{\circ} \text{ F} (70^{\circ} \text{ C}) - 2 \text{ Hours}$ 

Safety Class Type B Safety Tests cMET

Dimensions 33 in H x 21 in L x 16 in W (85 cm H x 52 cm L x 39 cm W)

Product Weight 68 lbs (30.8 kg)
Shipping Weight 74 lbs (33.6 kg)
Fuses Interna ★ 5 amp

Standard Accessories: Includes eight Standard size HotPacs.

# M-2 Model

Power Supply 110-120 V~
Rated Frequency 60 Hz
Power Consumption 1000 W
Tank Capacity 68.81 Liters
Filled Weight 190 lbs (110 kg)

Temperature Range  $160^{\circ}$  F -  $165^{\circ}$  F ( $71^{\circ}$  C -  $74^{\circ}$  C) Thermal Cut-Out Temp  $180^{\circ}$  F -  $185^{\circ}$  F ( $82^{\circ}$  C -  $85^{\circ}$  C) Heat Up Time  $160^{\circ}$  F ( $70^{\circ}$  C) - 6 Hours Cool Down Time  $160^{\circ}$  F ( $70^{\circ}$  C) - 3 Hours

Safety Class Type B Safety Tests CMET

Dimensions 33 in H x 27 in L x 16 in W (85 cm H x 67 cm L x 40 cm W)

Product Weight 86 lbs (39 kg)
Shipping Weight 93 lbs (42.2 kg)
Fuses Interna ★ 5 amp

Standard Accessories: Includes twelve Standard size HotPacs.



Classified only with respect to Electrical Shock, Fire and Mechanical Hazards

#### Hydrocollator® Heating Units

# **TECHNICAL SPECIFICATIONS**

# M-4 Model

Power Supply 110-120 V~
Rated Frequency 60 Hz
Power Consumption 1000 W
Tank Capacity 135.76 Liters
Filled Weight 340 lbs (200 kg)

Temperature Range 160° F - 165° F (71° C - 74° C)
Thermal Cut-out Temp 180° F - 185° F (82° C - 85° C)
Heating Up Time 160° F (70° C) - 8 Hours
Cool Down Time 160° F (70° C) - 4 Hours

Safety Class Type B 🕏 Safety Tests CMET

Dimensions 33 in H x 35 in L x 20 in W (85 cm H x 89 cm L x 50 cm W)

Product Weight 135 lbs (61.2 kg) Shipping Weight 143 lbs (64.9 kg) Fuses Internal, 15 amp

Standard Accessories: Includes twenty-four Standard size HotPacs.

# SS Model

Power Supply 110-120 V~
Rated Frequency 60 Hz
Power Consumption 1000 W
Tank Capacity 31.64 Liters
Filled Weight 120 lbs (56 kg)

Temperature Range 160° F - 165° F (71° C - 74° C)
Thermal Cut-out Temp 180° F - 185° F (82° C - 85° C)
Heating Up Time 160° F (70° C) - 3 Hours
Cool Down Time Time from 160° F (70° C) - 2 Hours

Safety Class Type B ★ Safety Tests CMET

Dimensions 20 in H x 18 in L x 16 in W (51 cm H x 46 cm L x 41 cm W)

Product Weight 51 lbs (23.1 kg)
Shipping Weight 54 lbs (24.5 kg)
Fuses Internal, 15 amp

Standard Accessories: Includes eight Standard size HotPacs.

#### Hydrocollator® Heating Units

# **TECHNICAL SPECIFICATIONS**

# E-2 Model

Power Supply 110-120 V~
Rated Frequency 60 Hz
Power Consumption 1000 W
Tank Capacity 43.23 Liters
Filled Weight 125 lbs (60 kg)

Temperature Range 160° F - 165° F (71° C - 74° C)
Thermal Cut-Out Temp 180° F - 185° F (82° C - 85° C)
Heat Up Time 160° F (70° C) - 4 Hours
Cool Down Time 160° F (70° C) - 2 Hours

Safety Class Type B 🕏 Safety Tests CMET

Dimensions 20 in H x 15 in L x 13 in W (51 cm H x 38 cm L x 33 cm W)

Product Weight 31 lbs (14.1 kg)
Shipping Weight 35 lbs (15.9 kg)
Fuses Internal, 15 amp

**Standard Accessories:** Includes two Oversize HotPacs, three Standard size HotPacs

and 1 Neck Contour HotPac.

## E-1 Model

Power Supply 110-120 V~
Rated Frequency 60 Hz
Power Consumption 1000 W
Tank Capacity 15.44 Liters
Filled Weight 55 lbs (25 kg)

Temperature Range 160° F - 165° F (71° C - 74° C)
Thermal Cut-out Temp 180° F - 185° F (82° C - 85° C)
Heating Up Time Time to 160° F (70° C) - 2 Hours
Cool Down Time Time from 160° F (70° C) - 1 Hour

Safety Class Type B 🕏 Safety Tests CMET

Dimensions 16 in H x 13 in L x 8 in W (41 cm H x 33 cm L x 20 cm W)

Product Weight 14 lbs (6.4 kg)
Shipping Weight 16 lbs (7.3 kg)
Fuses Internal, 15 amp

Standard Accessories: Includes four Standard size HotPacs.

Remove all of the contents inside the Hydrocollator Heating Unit and then replace the wire rack. Make certain the drain valve is closed before filling the tank with water. The tank should be approximately 3/4 full with packs removed. The tank may be filled from any standard type faucet.

Check the voltage rating on the serial decal plate which is located on the back of the unit. To turn the unit on, simply plug the unit into a 120 Volt~, 60 Hz outlet as indicated on the decal plate. To turn the unit off, simply unplug from outlet. Do not attempt to use direct current. Follow the procedures indicated in the Precautionary Instructions. Do not attempt to use the unit if it is not properly grounded.

### **OPERATION**

The Hydrocollator Heating Unit is simple and easy to operate. The controls are located in the rear, near the bottom of the unit. The thermostat controls the temperature of the water. It is located near the bottom of the unit on the control panel. It has been tested and preset at the factory to normal operating temperature. If further adjustment is necessary, it can be easily accomplished by turning the adjusting screw located on the thermostat. **Turning the outer screw counterclockwise lowers the temperature, while turning it clockwise raises it.** 

# NOTE: <u>Do not turn the inner stem under any circumstance! Stem is preset by the</u> manufacturer.

The Hydrocollator Heating Units operate through the use of a hydraulic capillary-type thermostat and can be left plugged in and turned on to provide a ready supply of heated HotPacs.

The HotPac rack accommodates different sizes and types of packs.

**SS-2 Unit** – The SS-2 unit comes complete with eight standard HotPacs.

M-2 Units - The M-2 unit comes complete with 12 standard HotPacs.

**M-4 Units** - The M-4 unit comes complete with 24 standard HotPacs.

**SS Unit** – The SS unit holds eight Standard Size packs. Special rack holds two Neck Contour packs.

**E-2 Unit** – The E-2 unit comes complete with two Oversize, three Standard Size packs and one Neck Contour pack.

**E-1 Unit** – With the insert in, the rack accommodates four Standard Size packs.

### Hydrocollator® Heating Units

# **TROUBLESHOOTING**

The following are solutions to minor performance problems. Only qualified personnel should service all other equipment problems.

Problem	Possible Cause	Possible Solution
Unit plugged in, Water does not get hot	<ol> <li>Breaker for electric circuit off</li> <li>Thermostat not functioning</li> <li>Heating element burned out</li> </ol>	<ol> <li>Turn breaker on</li> <li>Replace thermostat</li> <li>Replace element</li> </ol>
Cloudiness of water	Filler from packs is seeping     Too long a period between cleanings.	Replace packs     Drain and clean
Packs too hot	Thermostat set too high     Thermostat failure	Adjust thermostat     Replace thermostat
Packs too cool	Thermostat set too low     Thermostat failure	Adjust thermostat     Replace thermostat
Unit boils	1. Thermostat failure	Replace thermostat
Rust/Discoloration	Contact with ferrous material	1. Remove the ferrous metal item from the unit (staple, paper clip, safety pin, tongs, etc.) and clean thoroughly. Add a dechlorinating agent if local water has high chlorine content.
	2. Deposits on inside of tank	Thoroughly clean tank and remove all deposits.
	3. Too much chlorine in water	Clean tank and rinse thoroughly. Add a dechlorinating agent if local water has high chlorine content.

# **REPLACEMENT PARTS**

### Model M-2 – Standard

Cat. No. - 2402C w/packs

Key*	Part Description	Part No.
1	Lid	22297
2	Lid Hinge Rod Nuts (2 each)	21737
4	Element, Heating 120 Volt, 1000 Watt	10630
6	Hydraulic Thermostat**	10631
10	Power Cord	72453
11	IEC Connector	89790
12	Cover, Junction Box (J-Box)	22087
14	Pilot Lamp, Red	22149
15	Pilot Lamp, Clear	22148
16	Lid Hinge Rod	22303
17	Lid Knob/Handle	21025
18	Handle, Side	20237
19	Caster, 3-inch	21259
23	Drain, Copper Tube Part A	21286
24	Fuses 15 amp (2 each)	tba
25	Thermostat Low Water Kit***	20548
26	Fuse Block	tba
27	Wiring (Internal) Harness	61579
28	Stainless, Wire Rack	22304
29	Drain Valve, Ball - 1/2 in Replacement	21085
30	Drain, Hose, Bib	23392
31	Replacement Tank M-2	56314
32	M-2 Outer Jacket	22421
33	Handle, Lid Kit****	22171

<sup>\*</sup> Key numbers refer to Nomenclature section (pages 6 and 7)

<sup>\*\*</sup> Includes thermostat, gasket, 1/2-20 brass nut, 6-32x3/16 screw, and brackets (2) to hold thermostats to heating element

<sup>\*\*\*</sup> Includes gasket, thermostat, and 1/2-20 brass nut

<sup>\*\*\*\*</sup> Includes decorative handle, 10-32 brass acorn nut, 10-32X2 screw, logo decal, & plastic washer

# **REPLACEMENT PARTS**

### Model SS-2 – Standard

Cat. No. - 2302C w/packs

Key*	Part Description	Part No.
1	Lid SS-2	22219
2	Lid Hinge Rod Nuts (2 each)	21737
4	Element, Heating 120 Volt, 1000 Watt	10630
6	Hydraulic Thermostat**	10631
10	Power Cord	72453
11	IEC Connector	89790
12	Cover, Junction Box (J-Box)	22087
14	Pilot Lamp, Red	22149
15	Pilot Lamp, Clear	22148
16	Lid Hinge Rod	22231
17	Lid Knob/Handle	21025
18	Handle, Side	20237
19	Caster, 3-inch	21259
23	Drain, Copper Tube Part A	21286
24	Fuses 15 amp (2 each)	tba
25	Thermostat Low Water Kit***	20548
26	Fuse Block	tba
27	Wiring (Internal) Harness	61579
28	Stainless, Wire Rack	22259
29	DrainValve, Ball - 1/2 in Replacement	21085
30	Drain, Hose, Bib	23392
31	Replacement Tank SS-2	23385
32	SS-2 Outer Jacket	22425
33	Handle, Lid Kit****	22171
34	Water Thief	21882
37	Hose, Drain	21635

<sup>\*</sup> Key numbers refer to Nomenclature section (pages 6 and 7)

<sup>\*\*</sup> Includes thermostat, gasket, 1/2-20 brass nut, 6-32x3/16 screw, and brackets (2) to hold thermostats to heating element

<sup>\*\*\*</sup> Includes gasket, thermostat, and 1/2-20 brass nut

<sup>\*\*\*\*</sup> Includes decorative handle, 10-32 brass acorn nut, 10-32X2 screw, logo decal, & plastic washer

#### Model M-4 – Standard

Cat. No. – 2502C w/packs

Key*	Part Description	Part No.
1	Lid	22348
2	Lid Hinge Rod Nuts (2 required)	21737
4	Heating Element M-4, 120 Volt, 1500 Watt	22267
6	Hydraulic Thermostat**	10631
10	Power Cord	72453
11	IEC Connector	89790
12	Cover, Junction Box (J-Box)	22360
14	Pilot Lamp, Red	22149
15	Pilot Lamp, Clear (Serial # Above 5840)	22148
	Lamp, Ind (Serial # Below 2550)	21665
	Lamp, Pilot Light (Serial # Above 2549)	20042
16	Lid Hinge Rod	22361
17	Lid Knob/Handle	21025
18	Side Handle (Serial # Above 5149)	20237
19	Caster, 3-inch	21260
23	Drain, Copper Tube Part A	21286
24	Fuses 15 amp (2 each)	tba
25	Thermostat Low Water Kit***	20548
26	Fuse Block	tba
27	Wiring (Internal) Harness	21617
28	Rack, Stainless Steel	22374
29	Drain Valve, Ball - 1/2 in Replacement	21085
30	Drain, Hose, Bib	23392
31	Replacement Tank M-4	22343
32	M-4 Outer Jacket	23384
33	Handle, Lid Kit****	22171
34	Water Thief	21882
35	Bracket, Element Support (2 each)	22356
37	Hose, Drain	21635

<sup>\*</sup> Key numbers refer to Nomenclature section (pages 6 and 7)

<sup>\*\*</sup> Includes thermostat, gasket, 1/2-20 brass nut, 6-32x3/16 screw, and brackets (2) to hold thermostats to heating element

<sup>\*\*\*</sup> Includes gasket, thermostat, and nut 1/2-20 brass

<sup>\*\*\*\*</sup> Includes decorative handle, 10-32 brass acorn nut, 10-32x2 screw, logo decal, & plastic washer

# **REPLACEMENT PARTS**

### Model SS - Standard

Cat. No. - 2202C w/packs

Key*	Part Description	Part No.
1	Lid	22219
2	Lid Hinge Rod Nuts (2 required)	21737
4	Element, Heating 120 Volt, 1000 Watt	10630
6	Hydraulic Thermostat**	10631
10	Power Cord	72453
11	IEC Connector	89790
12	Cover, Junction Box (J-Box)	22223
14	Pilot Lamp, Red	22149
15	Pilot Lamp, Clear	22148
16	Lid Hinge Rod	22231
17	Lid Knob	21025
23	Drain, Copper Tube Part A	21288
24	Fuses 15 amp (2 each)	tba
25	Thermostat Low Water Kit***	20548
26	Fuse Block	tba
27	Wiring (Internal) Harness	61579
29	DrainValve, Ball - 1/2 in Replacement	21373
33	Handle, Lid Kit****	22171
34	Water Thief	21882
36	Feet, Plastic	75538
37	Hose, Drain	21635

<sup>\*</sup> Key numbers refer to Nomenclature section (pages 6 and 7)

<sup>\*\*</sup> Includes thermostat, gasket, 1/2-20 brass nut, 6-32x3/16 screw, and brackets (2) to hold thermostats to heating element

<sup>\*\*\*</sup> Includes gasket, thermostat, and 1/2-20 brass nut

<sup>\*\*\*\*</sup> Includes decorative handle, 10-32 brass acorn nut, 10-32X2 screw, logo decal, & plastic washer

### Model E-2 – Standard

Cat. No. – 2802C w/packs

Key*	Part Description	Part No.
1	Lid	23457
4	Element, Heating 120 Volt, 1000 Watt	10630
6	Hydraulic Thermostat**	10631
10	Power Cord	72453
11	IEC Connector	89790
12	Cover, Junction Box (J-Box)	23460
14	Pilot Lamp, Red	22149
15	Pilot Lamp, Clear	22148
16	E-2 Lid Handle	20512
23	Drain, Copper Tube Part A	21288
24	Fuses 15 amp (2 each)	tba
25	Thermostat Low Water Kit***	20548
26	Fuse Block	tba
27	Wiring (Internal) Harness	61579
29	DrainValve, Ball - 1/2 in Replacement	21373
34	Water Thief	21882
37	Hose, Drain	21635

<sup>\*</sup> Key numbers refer to Nomenclature section (pages 6 and 7)

<sup>\*\*</sup> Includes thermostat, gasket, 1/2-20 brass nut, 6-32x3/16 screw, and brackets (2) to hold thermostats to heating element

<sup>\*\*\*</sup> Includes gasket, thermostat, and 1/2-20 brass nut

### Model E-1 – Standard

Cat. No. – 2102C w/packs

Key*	Part Description	Part No.
1	Lid	21004
2	Lid Hinge Rod Nuts (2 required)	21737
4	Element, Heating 120 Volt, 1000 Watt	21007
6	Hydraulic Thermostat**	10631
10	Power Cord	72453
11	IEC Connector	89790
12	Junction Box Cover	21005
14	Pilot Lamp, Red	22149
15	Pilot Lamp, Clear	22148
16	Lid Hinge Rod	22668
17	Handle, Lid	21025
18	Handle, Side Kit***	21994
24	Fuses 15 amp (2 each)	tba
25	Thermostat Low Water Kit****	20548
26	Fuse Block	tba
27	Wiring (Internal) Harness	61579
28	Rack, Stainless Steel	21062

<sup>\*</sup> Key numbers refer to Nomenclature section (pages 6 and 7)

<sup>\*\*</sup> Includes thermostat, gasket, 1/2-20 brass nut, screw 6-32x3/16, and brackets (2) to hold thermostats to heating element

<sup>\*\*\*</sup> Includes 10-24X3/8 screw, E-1 side handle, nylon washer, 10-32 brass acorn nut, 10-32X1/4 screw, and handle adapter

<sup>\*\*\*\*</sup> Includes gasket, thermostat, and 1/2-20 brass nut

### **MAINTENANCE**

### **Care and Cleaning**

The Hydrocollator Heating Unit is equipped with an immersion type heating element and a hydraulic capillary type thermostat which evenly maintains the HotPac temperature in the water and provides a ready supply of heated packs. It is critical to maintain the water level over the top of the HotPac to avoid damage to the heating element, the stainless steel, or the HotPac. Water is constantly lost during operation due to evaporation. Therefore, it is essential that water be added daily. The tank should also be drained, cleaned, and inspected at minimum intervals of every two weeks.

Always unplug the unit from the power source when emptying or cleaning the unit. Drain the unit by the drain valve located at the bottom rear of the unit. Either move the unit to a floor drain or attach the extension hose to it when draining.

# **⚠ WARNING**

- DJO, LLC does not recommend the Hydrocollator Heating Unit be moved while filled with heated water. Tipping over could result in a burn to the user or others. If the Hydrocollator Heating Unit must be moved while filled, **exercise extreme caution!** It is recommended to allow the water to cool below 120° F (49° C) before moving the unit.
- Always unplug the Hydrocollator Heating Unit from the power source before attempting to empty water from unit.

The Hydrocollator Heating Unit is made of high quality stainless steel that, with proper care and maintenance, could easily last a lifetime. Improper care could allow the stainless steel to wear prematurely.

#### NOTE: Failure to maintain the unit (including regular cleaning) will void your warranty.

Follow these simple steps to ensure that the Hydrocollator Heating Unit remains in excellent condition.

- 1. Excessive chlorine can be detrimental to the stainless steel in the Hydrocollator Heating Unit. No bleach or any cleaner with high chlorine content should be used under any circumstance.
- 2. Clean regularly for optimal service and operation.
- 3. Fill daily with water. Water is constantly lost during operation due to evaporation.
- 4. Chlorine in regular tap water may be present in high enough concentrations to damage the unit. If you suspect high levels of chlorine in the Hydrocollator Heating Unit, the addition of a dechlorinator is recommended.
- 5. Certain additives (such as herbal teas, essential oils, etc.) will damage the HotPacs and components of the heating unit, including the stainless steel. The Hydrocollator Heating Unit was designed to heat water and HotPacs only. The addition of any such foreign substance (except dechlorinator) to the water in the unit will void the warranty.
- 6. Inspect the heating element for pitting and other visible damage during regular cleaning intervals.
- 7. Inspect the power cord for wear, fraying, and other visible damage during regular cleaning intervals.

# **MAINTENANCE**

### To avoid potential for rusting:

- 1. **Do not** use bleach or cleaners with high chlorine content.
- 2. **Do not** use paper clips, safety pins, staples, coat hangers, etc., in, on, or near the unit.
- 3. **Do not** clean the unit with carbon steel wool or a carbon steel brush. Use only soft cloth, Scotch-Brite<sup>™</sup> type scouring pads of green, blue, or white abrasiveness, or stainless steel wool if absolutely necessary.
- 4. **Do not** use abrasive cleaners which tend to disturb the grain in the finish, especially on the exterior of the unit. For exterior cleaning, use only non-abrasive stainless steel polish.
- 5. Water level is critical. Add water daily, if necessary, to keep it full.
- 6. Regularly clean and drain the tank (every two weeks). Failure to properly maintain the unit will cause premature wear and will void the warranty.
- 7. Remove all deposits from interior surfaces and parts. The deposits are concentrations of minerals that will allow rusting to begin. If allowed to accumulate on the heating element, these deposits will lower the efficiency of the element and increase the power consumption of the unit. However, exercise extreme care if cleaning element or thermostat(s). These components can be easily damaged without proper care or caution.
- 8. If you suspect that you have "hard water", you may need to change the water and clean the unit more frequently. Salt deposits are an indication of hard water that will eventually cause rust.

### **Cleaning Tips**

- 1. The interior of the unit should be cleaned, at lease every two weeks, using a low abrasive bathroom cleaner with a soft cloth or green, blue, or white Scotch-Brite™ type scouring pad. Stainless steel wool may be used if necessary, but not regular, carbon steel wool. Check for low or no chlorine content in you cleaner and make sure that the residue is thoroughly rinsed away with water.
- 2. A strong solution of vinegar and water may be used to dissolve away deposits, which then must be thoroughly rinsed away. Results may vary.
- 3. For exterior cleaning, use stainless steel polish and a soft cloth only. Numerous industrial stainless steel polishes are available from various supply companies. Use of any cleaner except stainless steel polish on the exterior of the unit is not recommended. Abrasive cleaners and scouring pads can damage the finish of the unit.

#### **Care of HotPacs**

Always return the Hydrocollator HotPac to the hot water of the heating unit after each treatment. There it is heated, kept clean, and ready for immediate use. The HotPac may be boiled; however, this hastens the deterioration of the pack. The pack may also be cleaned by scrubbing the pack with soap and water. The simplified method of keeping the pack clean is to keep it immersed in water.

The Hydrocollator HotPac, under constant daily use, should have a useful life of at least one year. When the pack begins to wear out, the filler oozes and leaks through the fabric of the cloth and sections of the pack appear to be loose and empty and will not retain heat properly. The pack should be replaced when it reaches this state. Original replacement Hydrocollator HotPacs may be ordered from an authorized DJO, LLC dealer.

**Note:** If HotPacs are to be stored for extended periods, they may be placed - while wet - in plastic bags and stored in a freezer.

DJO, LLC ("Company") warrants that the Hydrocollator Models SS-2, M-2, M-4, SS, E-2, and E-1 Heating Units ("Products") are free of defects in material and workmanship. This warranty shall remain in effect for one year (12 months) from the date of original consumer purchase. If these Products fail to function during the one year warranty period due to a defect in material or workmanship, at the Company's option, Company or the selling dealer will repair or replace this Product without charge within a period of thirty days from the date on which the Product is returned to the Company or the dealer.

All repairs to the Product must be performed by a service center authorized by the Company. Any modifications or repairs performed by unauthorized centers or groups will void this warranty.

To participate in warranty coverage, this Product's warranty registration card (included with Product) must be filled out and returned to the Company by the original owner within ten (10) business days of purchase.

#### **This Warranty Does Not Cover:**

- Replacement parts or labor furnished by anyone other than the Company, the selling dealer or a certified Company service agent.
- Defects or damage caused by labor furnished by someone other than Company, the selling dealer or a certified Company service agent.
- Any malfunction or failure in the Product caused by product misuse, including, but not limited to, the failure to provide reasonable and necessary maintenance or any use that is inconsistent with the Product User Manual.

# COMPANY SHALL NOT BE LIABLE IN ANY EVENT FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

To obtain service from Company or the selling dealer under this warranty:

1. A written claim must be made within the warranty period to the Company or the selling dealer. Written claims made to the Company should be sent to:

DJO, LLC 1430 Decision St Vista, CA 92081 USA

Phone: 1-800-592-7329 USA

Phone: 1-423-870-2281 or 1-317-406-2250

Fax: 1-317-406-2014

2. The Product must be returned to the Company or the selling dealer by the owner.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

The Company does not authorize any person or representative to create for it any other obligation or liability in connection with the sale of the Product. Any representation or agreement not contained in the warranty shall be void and of no effect.

THE FOREGOING WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.



#### ISO 13485 Certified

DJO, LLC 1430 Decision St Vista, CA 92081 USA Phone: 1-800-592-7329 USA Phone: 1-423-870-2281 or

1-317-406-2250 Fax: 1-317-406-2014 chattgroup.com © 2009 DJO, LLC

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Classified only with respect to Electrical Shock, Fire and Mechanical Hazards