

Champion[®]

The Dishwashing Machine Specialists

Installation Manual with Service Replacement Parts



UH-200B



UH-170B



UH-100B

Undercounter High Temperature Dishwasher

Models:

UH-200B

UH-100B

UH-200

UH-100

UH-170B

UL-100

UH-170



Dishwasher Serial No.



www.championindustries.com

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Manual P/N 0512241

For machines beginning with S/N W11948 and above

File: NUC4246

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Toll-free: 800.532.8591

2674 N. Service Road, Jordan Station
Ontario, Canada L0R 1S0
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Printed in the USA



For future reference, record your dishwasher information in the box below.

Model Number _____ Serial Number _____

Voltage _____ Hertz _____ Phase _____

Champion Service Agent _____ Tel: _____

Champion Parts Distributor _____ Tel: _____



For all models:
The data plate is located on
the bottom right-hand side of
the dishwasher.

National Service Department



In Canada:

Toll-free: 800/ 263-5798
Tel: 905/ 562-4195
Fax: 905/ 562-4618
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In the USA:

Toll-free: 800/ 532-8591
Tel: 336/ 661-1556
Fax: 336/ 661-1979
email: service@championindustries.com

ATTENTION:

The dishwasher model no., serial no., voltage, Hz and phase are needed to identify your machine and to answer questions.

Please have this information on-hand if you call for service assistance.

We support



Revisions to this Manual

- This is where we record changes to the manual. A revision might be a part number change, new instructions, or information that was not available at print time.
- We reserve the right to make changes to this manual without notice and without incurring any liability by making the changes.

<i>Revision Date</i>	<i>Revised Pages</i>	<i>Serial Number Effectivity</i>	<i>Revision Description</i>
	<i>ALL</i>	<i>W11948</i>	<i>Released First Edition</i>
1.16.07	17,19	W11948	Changed operation instructions deleting step 1, which was out of sequence

LIMITED WARRANTY

Champion Industries Inc. (herein referred to as Champion), P.O. Box 4149, Winston-Salem, North Carolina 27115, and P.O. Box 301, 2674 N. Service Road, Jordan Station, Canada, L0R 1S0, warrants machines, and parts, as set out below.

Warranty of Machines: Champion warrants all new machines of its manufacture bearing the name "Champion" and installed within the United States and Canada to be free from defects in material and workmanship for a period of one (1) year after the date of installation or fifteen (15) months after the date of shipment by Champion, whichever occurs first. [See below for special provisions relating to glasswashers.] The warranty registration card must be returned to Champion within ten (10) days after installation. If warranty card is not returned to Champion within such period, the warranty will expire after one year from the date of shipment.

Champion will not assume any responsibility for extra costs for installation in any area where there are jurisdictional problems with local trades or unions.

If a defect in workmanship or material is found to exist within the warranty period, Champion, at its election, will either repair or replace the defective machine or accept return of the machine for full credit; provided, however, as to glasswashers, Champion's obligation with respect to labor associated with any repairs shall end (a) 120 days after shipment, or (b) 90 days after installation, whichever occurs first. In the event that Champion elects to repair, the labor and work to be performed in connection with the warranty shall be done during regular working hours by a Champion authorized service technician. Defective parts become the property of Champion. Use of replacement parts not authorized by Champion will relieve Champion of all further liability in connection with its warranty. In no event will Champion's warranty obligation exceed Champion's charge for the machine. The following are not covered by Champion's warranty:

- a. Lighting of gas pilots or burners.
- b. Cleaning of gas lines.
- c. Replacement of fuses or resetting of overload breakers.
- d. Adjustment of thermostats.
- e. Adjustment of clutches.
- f. Opening or closing of utility supply valves or switching of electrical supply current.
- g. Cleaning of valves, strainers, screens, nozzles, or spray pipes.
- h. Performance of regular maintenance and cleaning as outlined in operator's guide.
- i. Damages resulting from water conditions, accidents, alterations, improper use, abuse, tampering, improper installation, or failure to follow maintenance and operation procedures.
- j. Wear on Pulper cutter blocks, pulse vanes, and auger brush.

Examples of the defects not covered by warranty include, but are not limited to: (1) Damage to the exterior or interior finish as a result of the above, (2) Use with utility service other than that designated on the rating plate, (3) Improper connection to utility service, (4) Inadequate or excessive water pressure, (5) Corrosion from chemicals dispensed in excess of recommended concentrations, (6) Failure of electrical components due to connection of chemical dispensing equipment installed by others, (7) Leaks or damage resulting from such leaks caused by the installer, including those at machine table connections or by connection of chemical dispensing equipment installed by others, (8) Failure to comply with local building codes, (9) Damage caused by labor dispute.

Warranty of Parts: Champion warrants all new machine parts produced or authorized by Champion to be free from defects in material and workmanship for a period of 90 days from date of invoice. If any defect in material and workmanship is found to exist within the warranty period Champion will replace the defective part without charge.

DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY. CHAMPION'S WARRANTY IS ONLY TO THE EXTENT REFLECTED ABOVE. CHAMPION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED, TO ANY WARRANTY OF MERCHANTABILITY, OR FITNESS OF PURPOSE. CHAMPION SHALL NOT BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE REMEDIES SET OUT ABOVE ARE THE EXCLUSIVE REMEDIES FOR ANY DEFECTS FOUND TO EXIST IN CHAMPION DISHWASHING MACHINES AND CHAMPION PARTS, AND ALL OTHER REMEDIES ARE EXCLUDED, INCLUDING ANY LIABILITY FOR INCIDENTALS OR CONSEQUENTIAL DAMAGES.

Champion does not authorize any other person, including persons who deal in Champion dishwashing machines to change this warranty or create any other obligation in connection with Champion Dishwashing Machines.

Model Description

UH-200B, UH-170B, and UH-100B Models

High temperature sanitizing dishwashers with built in booster heaters.

UH-200, UH-170, and UH-100 Models

High temperature sanitizing dishwashers.

UL-100 Model

Low temperature sanitizing dishwasher.

Optional Equipment

- 70°F Rise Booster
- Three Phase Connection (UH-170B and UH-200B only)

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| <input checked="" type="checkbox"/> <i>Water Connection</i> | <input checked="" type="checkbox"/> <i>Chemical Dispensers</i> |

How to Operate Your Dishwasher

How to Clean Your Dishwasher

How to Maintain Your Dishwasher

All Models

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Installation Guide



Unpack and Place

Unpacking of Dishwasher

NOTE:

The installation of your dishwasher must be performed by qualified service personnel. Problems due to improper installation are not covered by the Warranty.

1. Inspect the outside of the dishwasher carton for signs of damage.
2. Remove the shipping box and inspect the dishwasher for damage.
3. Immediately contact the freight company and your equipment dealer to report the damage.
4. Save all packing materials.

CAUTION:

Be careful when lifting and moving the dishwasher to prevent damage to the machine.

5. Check your packing list and identify the accessories shipped with your dishwasher. Immediately report missing items to your dealer.
6. Turn to the front of this manual and complete the warranty card. Mail the card at once.
7. Move the dishwasher near its permanent location.
8. Locate the Quick Check Installation Guide located on the dishwasher. Use the card and the manual installation guide to properly install the dishwasher.

Placement of Dishwasher

CAUTION:

Be careful when lifting and moving the dishwasher to prevent damage to the machine.

NOTE:

The installation of the dishwasher must comply with local health codes.

1. Compare the utility connections with the dishwasher's utility connections. Contact your supervisor if problems are found.

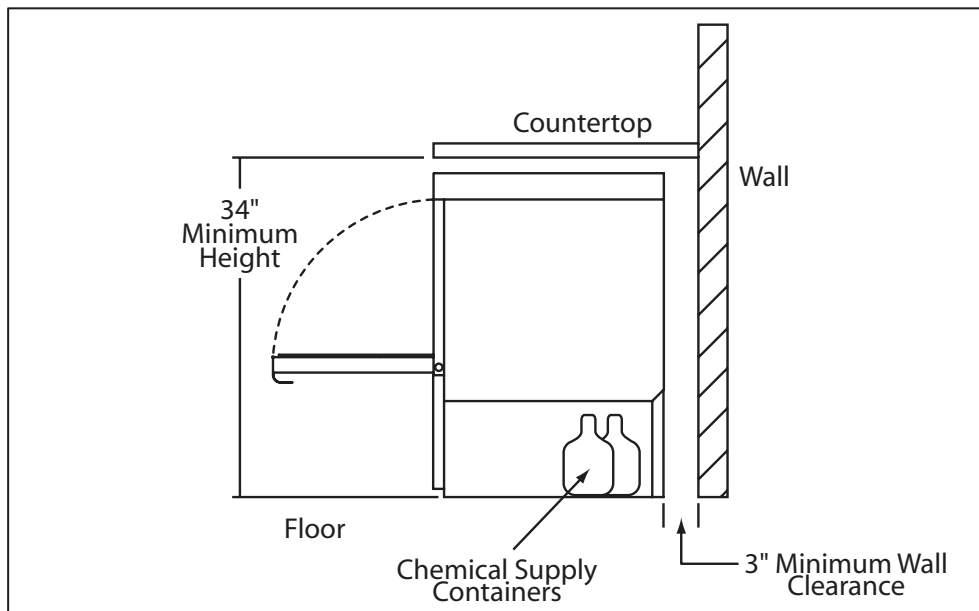
Installation Guide



Unpack and Place

Placement of Dishwasher (continued)

2. Your dishwasher may be installed as a free-standing unit or under a counter-top.
3. Typical counter-top height is 34". Refer to the illustration.



Typical Undercounter Installation

4. Counter installations must provide storage space for the dishwasher's chemical supply containers. Container height must not exceed 10" above the floor.
5. Chemical supply containers must be placed as close as possible to the side of the dishwasher.
6. Check that the floor is level at the permanent location.
7. The dishwasher has adjustable feet for leveling.
8. Level the dishwasher front to back and side to side with a 24" bubble level to match the permanent location.
9. Your dishwasher is ready for the utility connections.

Installation Guide



Electrical Connection

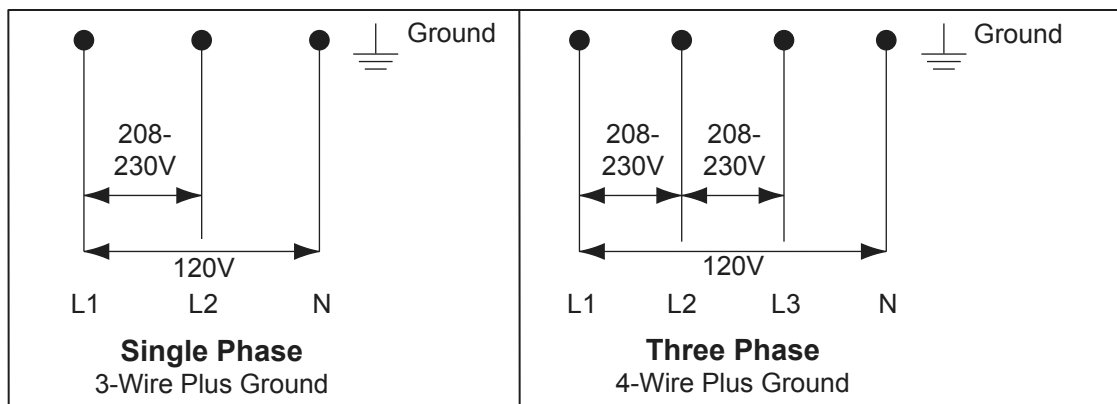
NOTE:

The electrical connection must be performed by a qualified electrician in accordance with local codes and the National Electrical Code.

WARNING:

For models UH-100B, UH-170B, and UH-200B disconnect the main power at the main disconnect switch. Tag and lockout the switch to indicate that work is being done on the circuit.

1. Refer to the connection diagrams below for proper dishwasher power connection at the dishwasher main terminal block (MTB).



2. (a) Electrical supply must be a single phase 3-wire plus ground which includes a current carrying neutral.
(b) For a three phase the electrical supply must be a 4-wire plus ground which includes a current carrying neutral.
3. The dishwasher MTB is located at the front right-side of dishwasher.
4. Remove the dishwasher's lower front access panel by removing the two truss head screws.



Front Panel Screw Location

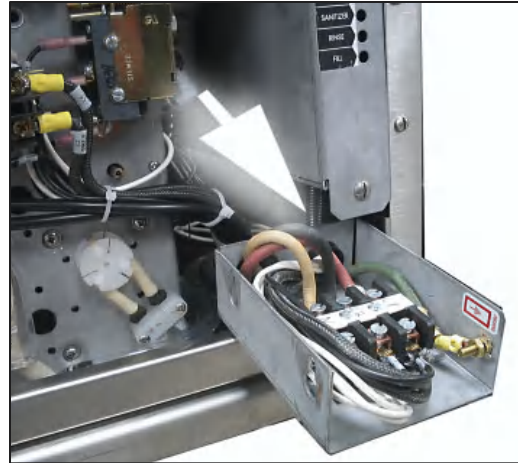
Installation Guide



Electrical Connection

Electrical Connection (continued)

5. Carefully bump the lower front access panel up as you pull forward. Be careful not to damage the pressure gauge mounted on the left side of the panel (not supplied on models UL-100, UH-100, or UH-100B).
6. Remove the main terminal block cover. The machine's electrical schematic is located on the inside of the front panel. Check the min/max data on the schematic.
7. Loosen the two screws securing the MTB. Then, pull the MTB up and forward.
8. Connect a flexible power cord conduit to the MTB. The power cord must extend a minimum of 3ft out the back of the dishwasher so the machine can be pulled out for servicing.



Main Terminal Block (MTB)

NOTE:

Models UL-100, UH-100, UH-170, UH-200 are already equipped with a 4 foot power cord and plug suitable for 115V-15A service.

9. Re-install the MTB and the lower front access panel.

Installation Guide



Water Connection

Water Connection UH-170, UH-170B, UH-200, UH-200B

NOTE:

Plumbing connections must comply with national, local plumbing and sanitary codes.

NOTE:

Route the flexible fill hose in a manner that prevents kinks.

1. All models have a 6ft flexible hot water fill hose with a 3/4" female garden hose connector.
2. A 1/2" or larger shut off valve should be installed upstream from the dishwasher.
3. A pressure regulating valve, PRV, (supplied by others) must be installed after the shut-off valve if incoming water pressure exceeds 20psi.
4. The hot water supply must provide a minimum of 140°F, measured at the dishwasher for the 40°F rise booster. For the 70°F rise booster the hot water supply must provide a minimum of 110°F measured at the dishwasher.
5. The incoming hot water supply line must be a 1/2" line and be able to maintain a flowing pressure of 20-22psi.

Installation Guide



Water Connection

Water Connection UL-100, UH-100, UH-100B

NOTE:

Plumbing connections must comply with national, local plumbing and sanitary codes.

NOTE:

Route the flexible fill hose in a manner that prevents kinks.

1. All models have a 6ft flexible hot water fill hose with a 3/4" female garden hose connector.
2. A 1/2" or larger shut off valve should be installed upstream from the dishwasher.
3. All models have a built-in flow control. The incoming hot water supply must supply no less than 25-95psi flowing pressure.
4. The hot water supply must provide a minimum of 140°F, measured at the dishwasher for the 40°F rise booster. For the 70°F rise booster the hot water supply must provide a minimum of 110°F measured at the dishwasher.
5. The incoming hot water supply line must be a 1/2" line.

Installation Guide



Drain Connection

Drain Connection

1. All models have a 6ft, 5/8" I.D. drain hose. Maximum drain hose height is 3ft. with a recommended height of 17" above the floor.
2. The drain hose is located on the right rear of the machine. A 5/8" hose barb - 3/4" NPT adapter fitting is strapped to the end of the drain hose for the drain connection.
3. The maximum drain flow is 15gpm.

NOTE:

The dishwasher drains in 8 seconds and drain water exits the hose with considerable force.

CAUTION:

Do not connect the drain hose to a disposer. The dishwasher will not drain correctly.

4. The drain hose is clamped to the rear of the machine to provide a goose neck bend. **DO NOT** remove this clamp.
5. Connect the drain hose to a wye fitting installed in the house drain. **DO NOT** connect to a tee fitting.
6. Do not kink the drain hose.

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Installation Guide



Initial Start-Up

Initial Start-Up All Models

1. Remove any protective film from dishwasher. Check the interior for foreign material.
2. Confirm that all utility connections are complete and that the dishwasher is in its permanent location.
3. Inspect the flexible drain hose and hot water fill hose to ensure they are not kinked.
4. Check the chemical supply containers to ensure they are full.
5. Check that the scrap screen and the overflow guard (Models UH-170, UH-170B, UH-200, and UH-200B only) are in place.
6. Check the spray arms are in place and that they spin freely.
7. Fully close the dishwasher door.
8. Turn hot water supply on and check for leaks.



Scrap Screen

Installation Guide



Initial Start-Up

Models: UH-100B, UH-170B, and UH-200B only

ATTENTION:

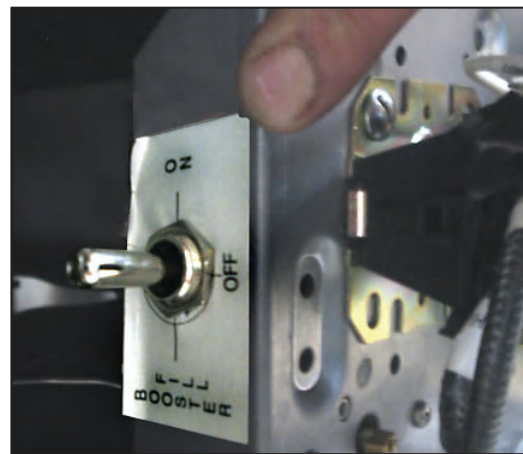
The Dishwasher's built-in booster heater was drained prior to shipment. The booster must be filled before operating the dishwasher. *Not following this procedure will void warranty.*

Booster Service Switch

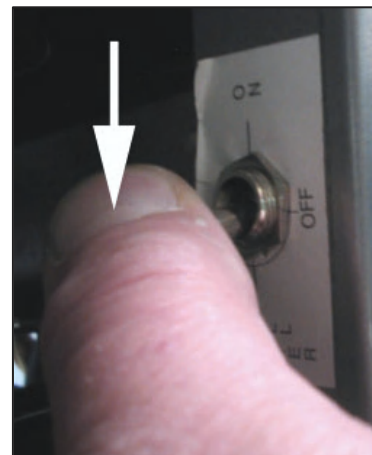
The booster is filled with the booster service switch. It is located behind the lower front access panel on the left center of the machine.

To Fill the Booster:

1. Remove the lower front access panel.
2. Locate the booster service switch and note the 2 switch positions indicated on the switch label.
3. Turn the main power supply on. Verify correct voltage at MTB.
4. Press and hold the booster service switch down to fill the booster.
5. Continue to hold the switch down until you hear the water spraying inside the dishwasher.
6. Release the switch, then flip the switch up to the ON position. The dishwasher is now powered up.



Booster Service Switch Location



Booster Service Switch Fill Position

Installation Guide



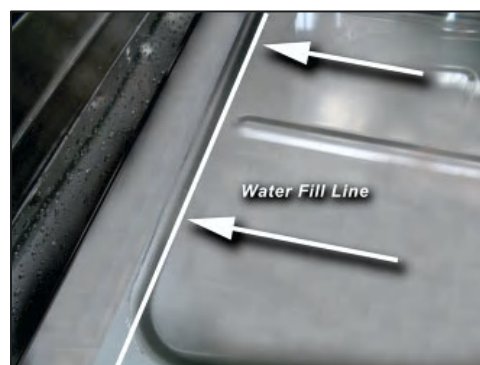
Initial Start-Up

Booster Service Switch (continued)

7. Flip the dishwasher POWER switch up to the "I" position. The POWER switch illuminates and the machine fills with water. See Proper Water Fill Line illustration.
8. Press and release the START switch. The green in-cycle light illuminates.
9. Check wash and final rinse gauges to ensure they have reacted to the incoming hot water.
10. Check that the final rinse pressure gauge reacts during the final rinse. (Models UH-170, UH-170B, UH-200, and UH-200B only)
11. Flip the POWER switch down to the "O" position. The green in-cycle light stays on and begins the drain cycle.
12. The green in-cycle light goes out when the machine has drained completely.
13. The Initial start-up is complete.



Power Switch



Proper Water Fill Line



Wash and Rinse Temperature Gauge



Final Rinse Pressure Gauge

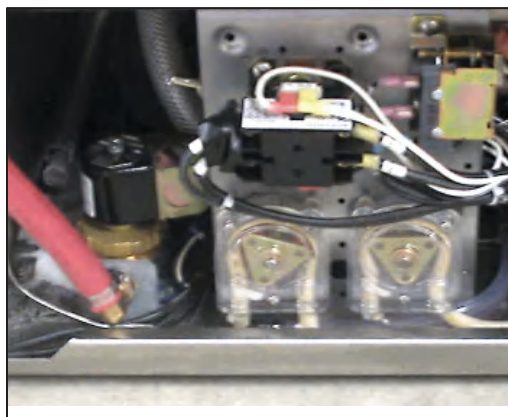
Installation Guide



Chemical Dispensers

Chemical Dispensers

1. All models come equipped with a built-in detergent dispensing pump and a rinse-aid dispensing pump. The pumps are located behind the lower front access panel.
2. Each pump is fitted with 6ft of pick-up supply tubing, a stand-pipe, and a strainer.
3. Pick-up tubes are marked detergent and rinse-aid. Make sure the pick-up tubes are placed in the correct chemical supply container (chemicals supplied by others).
4. The chemical dispensers require non-chlorinated liquid detergent and rinse-aid. Your chemical supplier must adjust the dispensers for the supplied product.
5. Chemical containers must be placed as close to the dishwasher as possible and no higher than 10" above the floor.



Dispenser Pump Location



Pick-Up Tubes

Installation Guide



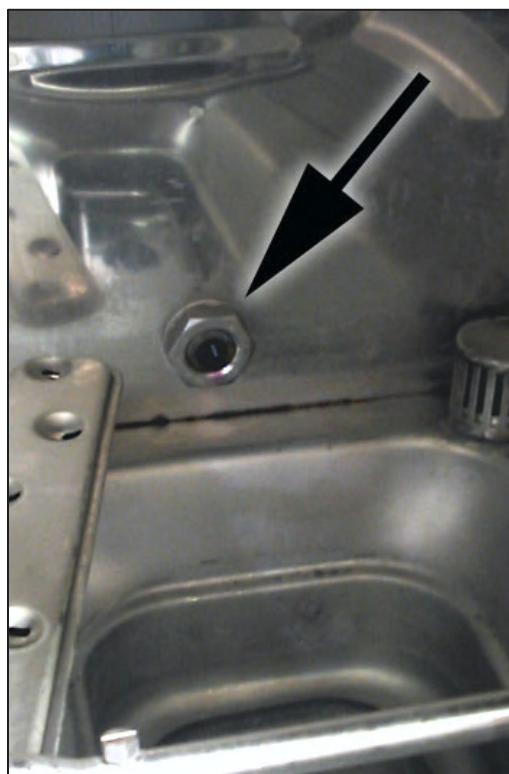
Chemical Dispensers

How to Prime the Dispensers

1. Place the chemical containers next to the dishwasher.
2. Insert the detergent and rinse-aid pick-up tubes in the correct chemical supply container.
3. Open the dishwasher door.
4. Press and hold the PRIME switch up to prime the detergent. Watch the detergent injection point located on the right rear wall of the machine until chemical enters the machine.



Prime Switch Up



Detergent Injection Point

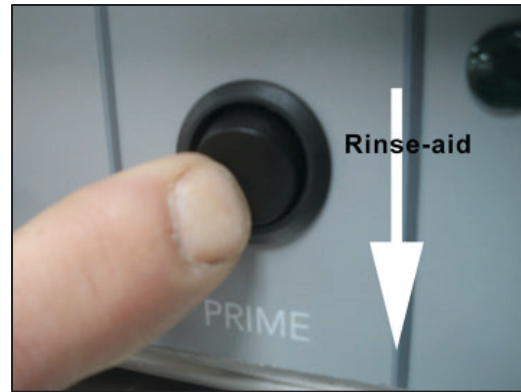
Installation Guide



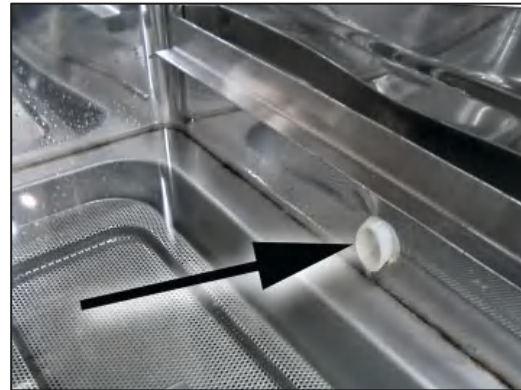
Chemical Dispensers

How to Prime the Dispensers (continued)

5. Press and hold the prime switch down for 30 seconds to prime the rinse-aid.
6. All chemicals enter the UL-100, UH-100, and UH-100B through the fill chute injection point located on the right-side of the wash compartment.



Prime Switch Down



Fill Chute Injection Point

Installation Guide



Chemical Dispensers

To Chemical Suppliers

How to Adjust Chemical Dispensers:

1. The chemical dispensing pumps are adjustable.
2. Adjustments are made by turning the trim potentiometers located on the dishwasher control board located at the lower right corner of the machine.
3. Remove the lower front access panel and identify the control circuit board cover. Each dispensing trim potentiometer is labeled on the cover.
4. Trim potentiometers are adjusted using a small screwdriver inserted into the adjusting slot. Turning the screwdriver clockwise increases the amount of dispensed chemical; counter clockwise reduces the amount of chemical dispensed.



Trim Potentiometer Location

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Models UH-170, UH-170B, UH-200, and UH-200B



UH-170B Control Panel



UH-200B Control Panel

Normal Wash Cycle

1. Flip the POWER switch up to the "I" position. The switch illuminates, water enters the wash compartment. Wash tank heater heats wash water and the booster heater begins to heat the final rinse water.
2. Prescrap and load wares into the appropriate dishrack.

NOTE:

Do not overload dishrack. Load wares in a peg rack; load silverware in a single layer in a flat-bottom dishrack. Overloading dishrack will result in poor washing results.

NOTE:

Wash temperature gauge must read 150°F before proceeding to the next step.

3. Open dishwasher door and slide dishrack into the machine. Only wash one dishrack per wash cycle.
4. Close dishwasher door and press the START switch for 1 second. The green in-cycle light illuminates and the wash cycle begins.

NOTE:

Opening the door stops the cycle. When the dishwasher door is closed the cycle resumes automatically.

Operation

Normal Wash Cycle (continued)

6. Check the rinse cycle temperature gauge during the final rinse cycle to ensure the final rinse temperature ranges between 180°-195°F.
7. Machine drains wash water and holds final rinse water for the next wash cycle. The green in-cycle light goes out completing the cycle.
8. Open the dishwasher door and remove the dishrack of clean wares.
9. Repeat steps 2-8 for additional cycles.

NOTE:

Poor washing results will occur if the scrap screen is not cleaned regularly.

Extended Wash Cycle

The extended wash cycle is ideal for pots, pans, and heavily soiled items.

1. Follow STEPS 1-5 of the Normal Wash Cycle.
2. Wait 10 seconds to allow detergent to enter into the dishwasher.
3. Press the EXT WASH switch. The light above the EXT WASH switch illuminates, indicating that the dishwasher is in a continuous extended wash mode.
4. Press the EXT WASH switch again to take the dishwasher out of the extended wash mode. The light above the EXT WASH switch goes out but the green light above the START switch will stay illuminated, indicating the dishwasher has resumed the remainder of the wash cycle.

NOTE:

The dishwasher washes until the extended wash cycle switch is pressed to stop the extended wash mode, or for a maximum of 15 minutes.

Models UL-100, UH-100, and UH-100B



UL-100, UH-100, and UH-100B Control Panel

Normal Wash Cycle

1. Flip the POWER switch up to the " I " position. The switch illuminates, water enters the wash tank. Wash tank heater heats wash water and the booster heater begins to heat the final rinse water.
2. Prescrap and load wares into the appropriate dishrack.

NOTE:

Do not overload dishrack. Load wares in a peg rack; load silverware in a single layer in a flat-bottom dishrack. Overloading dishrack will result in poor washing results.

NOTE:

Wash temperature gauge must read 150°F before proceeding to the next step. (140°F for UL-100).

3. Open dishwasher door and slide dishrack into the machine. Only wash one dishrack per wash cycle.
4. Close dishwasher door and press the START switch for 1 second. The green in-cycle light illuminates and the wash cycle begins.

NOTE:

Opening the door stops the cycle. When the dishwasher door is closed the cycle resumes automatically.

Operation

Normal Wash Cycle (continued)

6. Check that the temperature gauge reads 180°F (140°F on UL-100) during the rinse cycle.
7. Machine drains and holds final rinse water for the next wash cycle. The green in-cycle light goes out completing the wash cycle.
8. Open the dishwasher door and remove the dishrack of clean wares.
9. Repeat steps 2-8 for additional cycles.

NOTE:

Poor washing results will occur if the scrap screen is not cleaned regularly.

Cleaning

The best preventative maintenance is to keep the dishwasher as clean as possible during regular use and ensure best results. A regular cleaning schedule will increase the life of the dishwasher.

CAUTION:

Damage to the unit or improper operation may occur if components are not flushed and cleaned on a regular scheduled basis.

Daily-End of the Day

1. Flip the POWER switch to the "O" position and close the door to drain the tank. The green in-cycle light will illuminate indicating the machine is in the drain out cycle. This will last 90 seconds.
2. After the green in-cycle light goes out, open the door and remove both the upper and lower spray arms by unscrewing the knurled fastener while holding each spray arm.
3. Remove the scrap screen carefully to keep the soil or waste particles from falling into the sump.
4. Clean the scrap screen by rinsing with clean water. Do not strike the screen against solid objects.



Spray Arm Fastener



Sump Location

Cleaning

Daily-End of the Day (continued)

5. Clean the spray arms to remove any debris from spray nozzles. Do not strike the spray arms against solid objects.
6. Reinstall the scrap screen.
7. Wipe the exterior of the dishwasher clean using a soft cloth and mild detergent.
8. Leave the dishwasher door open overnight to allow the inside to dry.



Spray Nozzle

After Meal Period or Every 8 Hours

Clean the scrap screen after each meal period and more frequently if necessary in order to keep the scrap screen from becoming clogged.

Deliming

Your dishwasher should be delimed regularly. The frequency will depend on the mineral content of your water.

Inspect your machine interior for lime deposits. If deliming is required, a deliming agent should be used for best results.

DANGER:

Deliming solution or other acids must not come in contact with household bleach (sodium hypochlorite) or any chemicals containing chlorine, iodine, bromine, or fluorine. Mixing will cause hazardous gases to form. Skin contact with deliming solutions can cause severe irritation and possible chemical burns. Consult your chemical supplier for specific safety precautions.

Maintenance

Maintenance Schedule

The best maintenance you can perform is to keep your dishwasher clean.

Before and During Operation

- Check the temperature gauges during operation to ensure the proper temperatures are maintained.
- Check the chemical supply container level and replace if necessary.

Weekly Maintenance

- Inspect all water lines for leaks.
- Check drain for leaks.
- Clean accumulated lime deposits from the heating element.
- Inspect each spray arm for clogged nozzles.
- Check the scrap screen for damage and cleanliness.

Clean the detergent and rinse-aid pick-up tubes by following the steps below:

1. Remove the detergent and rinse-aid (add sanitizer on UL-100 model) pick-up tubes from each container. Place the pick-up tubes in separate containers of hot water.
2. Press and hold the PRIME switch in the "UP" position to flush the detergent tubing and in the "DOWN" position to flush the rinse-aid tubing.
3. Remove the pick-up tubes from the hot water and return them to their chemical containers.
4. Press and hold the PRIME switch in the "UP" position to fill the detergent tubing and in the "DOWN" position to fill the rinse-aid tubing.
5. Run a complete wash cycle to flush any chemicals out of the wash compartment.

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The Troubleshooter

Troubleshooter

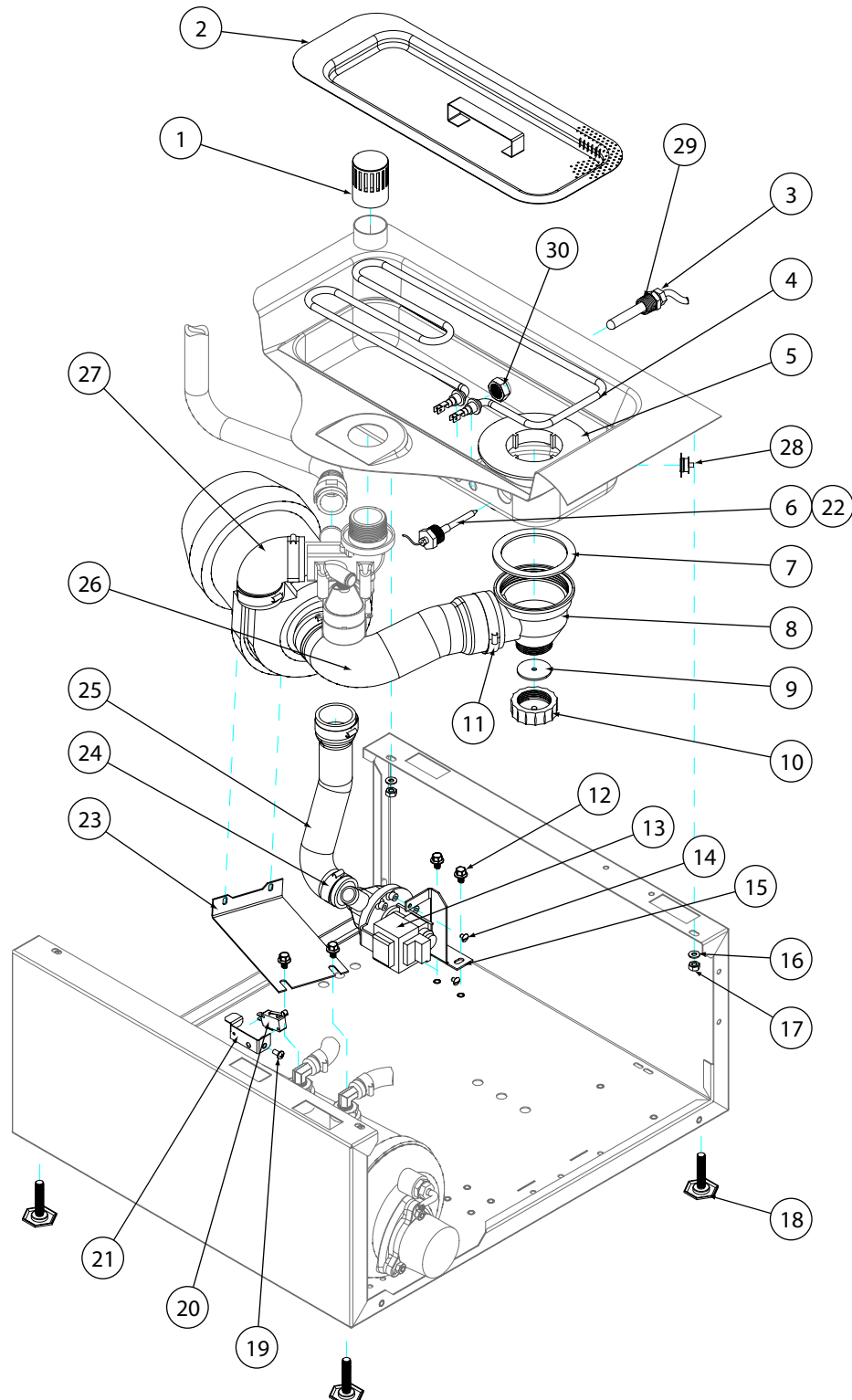
CONDITION	CAUSE	SOLUTION
Machine will not start.	Door not closed.	Clear door of any obstructions.
	Main switch is off.	Check disconnect or main circuit.
	Unit is unplugged.	Plug unit back into wall outlet.
Low or no water.	Main water supply is turned off.	Turn on house water supply.
Chemicals are not entering dishwasher.	Chemical supply container is low or empty.	Replace or fill chemical supply container.
	Pick-up tubing is kinked or split.	Straighten or replace tubing.
	Screen on pick-up tube is clogged.	Clean and/or replace screen.
	Pick-up tubing is clogged.	Clear obstruction and flush with hot water.
Poor pumped spray pressure.	Clogged spray arms or nozzles.	Clear obstruction and flush with hot water.
	Clogged scrap screen.	Clean and/or replace screen.
Poor wash results.	Detergent pick-up tube in wrong container.	Place pick-up tube into the correct container.
	Wash water temperature too low.	Have wash thermostat adjusted by service agent.
	Wares incorrectly loaded in rack.	Use correct racks and load dishes without nesting.
	No detergent.	Replace/refill detergent container.
	Detergent set too low.	Have chemical representative calibrate setting.
Cycle times increasing with each load.	Incoming water temperature too low.	Raise incoming water temperature.

Service Replacement Parts

Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0712236	TUBE, OVERFLOW
2	1	0712136	SCREEN, SCRAP ASSY
3	1	0507323	THERMOSTAT, WASH TANK
4	1	0512169	HEATER, 120VAC 750W (UL100, UH100, UH170, UH200)
		0512168	HEATER, 230VAC 1200W (UH100B, UH170B, UH200B)
5	1	D500615	FLANGE, PUMP SUCTION
6	1	109069	THERMOSTAT, BOOSTER
7	1	D80208	GASKET, PUMP SUCTION
8	1	D500603	ELBOW, PUMP SUCTION
9	1	D80305	GASKET, ELBOW
10	1	108447	CAP, 1 1/4 PLASTIC
11	2	0512322	CLAMP, HOSE 1-13/16 - 2-3/4 MAX S/S
12	2	0512185	BOLT, HEX FLANGE 1/4-20 X 3/8 SS
13	1	0512227	PUMP, DRAIN 115V 60 HZ.
14	2	0512352	SCREW, #10 x 3/4
15	1	0312145	BRACKET, DRAIN PUMP
16	4	0501501	WASHER, SPLIT LOCK 1/4i 304SS
17	4	0501539	NUT, HEX SS 1/4-20
18	1	0503718	FOOT, ADJUSTING
19	1	0501411	SCREW, 10-32 X 1/4 RH SLOT SS
20	1	0501379	SWITCH, 15A
21	1	0312096	BRACKET, DOOR SWITCH
22	2	112612	THERMISTOR, 10k 2 WIRE ASSY
23	1	0312144	BRACKET, WASH PUMP
24	4	0502571	CLAMP, HOSE GEAR HOSE 1-1/2" SS
25	1	0512132	HOSE, OVERFLOW MOLDED FWR
26	1	0512118	HOSE, PUMP SUCTION
27	1	0512119	HOSE, PUMP DISCHARGE
28	1	110562	THERMOSTAT, BIMETAL SNAP
29	1	0508872	ADAPTOR, THERMOMETER
	1	0512299	ADAPTOR, THERMOMETER (UH170, UH170B, UH200, UH200B ONLY)
30	2	201029	NUT, LOCK 1/2 INCH NI PLATED
31	1	0508873	ADAPTOR, THERMOSTAT (NOT SHOWN)

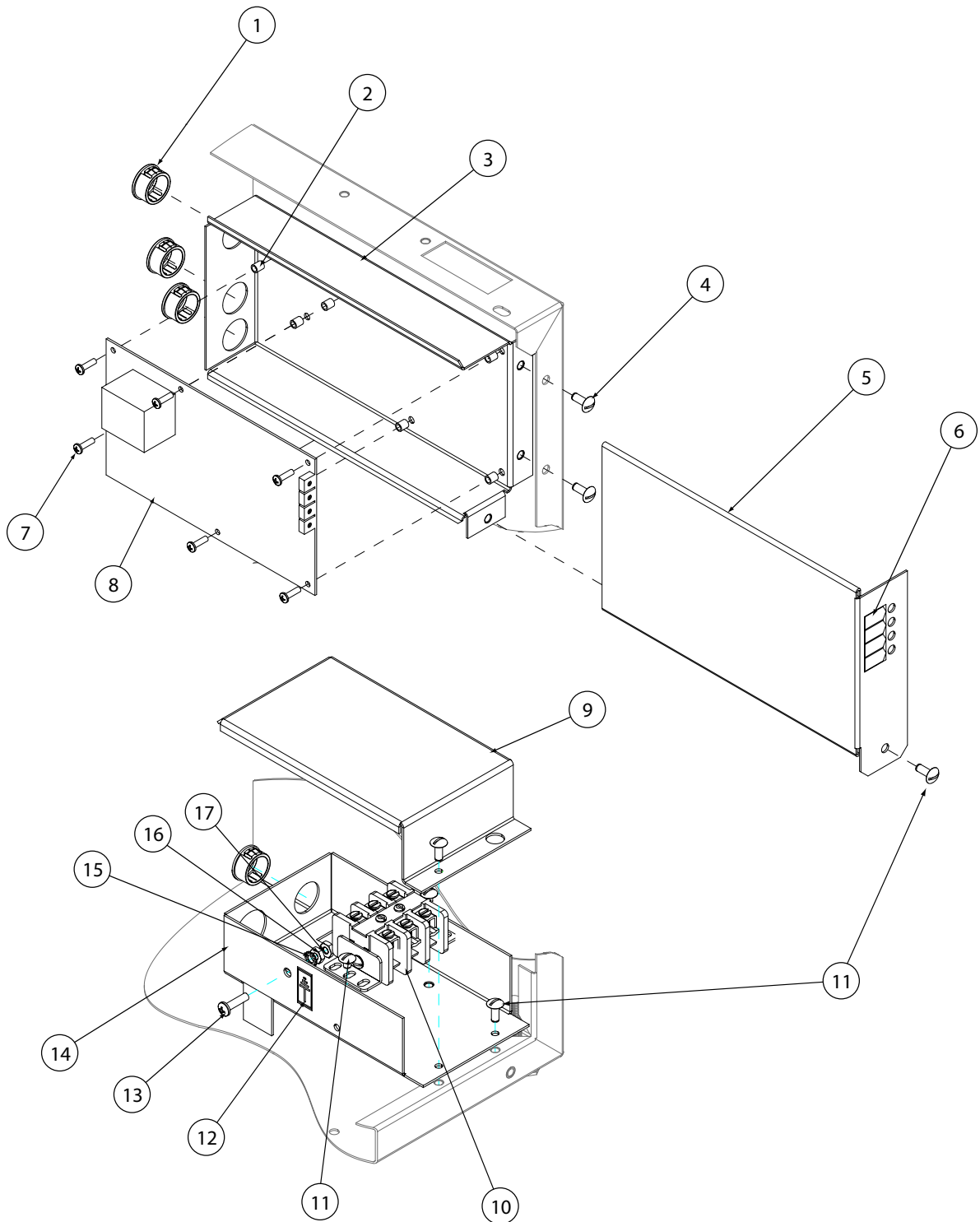
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	3	107964	BUSHING, SNAP (ALL)
	1	0503647	BUSHING, MED. STRAIN REL (UL100, UH100, UH170, UH200)
2	1	0508710	SPACER, 5/16
3	1	0312188	BASE, TIMER ENCLOSURE
4	1	0501411	SCREW, 10-32 X 1/4 RH SLOT SS
5	1	0312189	COVER, TIMER ENCLOSURE
6	1	0512243	LABEL, ADJUSTMENT
7	1	106695	SCREW, 6-32 X 1/2 ROUND HD PHI
8	1	0512105	TIMER, SOLID STATE
9	1	0312339	COVER ,ENCLOSURE, ELEC. CONN
10	1	0504951	BLOCK, TERMINAL
11	1	0501412	SCREW TRUSS SLOT SS 10-32X3/8
12	1	0503592	LABEL, GROUND
13	1	0501403	SCREW, BRASS RH 10-32X3/4 SLOT
14	1	0312338	BASE, ENCLOSURE, ELEC. CONN
15	1	0501493	WASHER LOCK #10 EXT. TOOTH BR
16	1	0501533	NUT, BRASS 10-32
17	1	0501472	WASHER, FLAT 1/8 X 1/2 BRASS

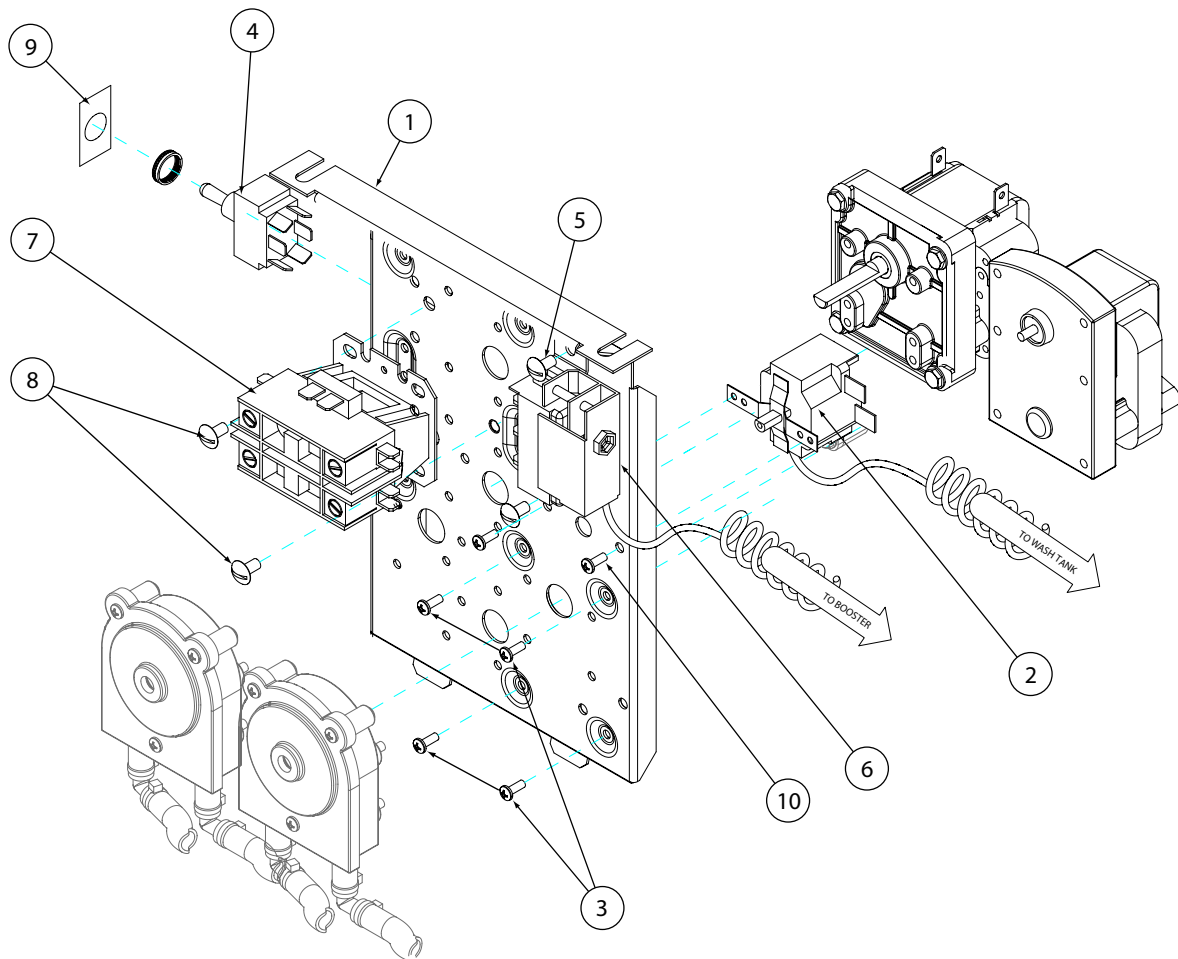
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0312173	BRACKET, CHEM PMP/THERMO CTRL
2	1	0507323	THERMOSTAT, WASH TANK
3	4	0504822	SCREW, 8-32 X 1/2 PAN HD PH S.S
4	1	0501373-1	SWITCH, 3-POST TOGGLE W/KEYWAY
5	2	0501412	SCREW, 10-32 X 3/8 PAN HD PH S.S
6	1	109069	THERMOSTAT, BOOSTER
7	1	107369	CONTACTOR, 2-POLE 120V
8	2	0501412	SCREW, TRUSS SLOT SS 10-32 X 3/8
9	1	0510648-1	LABEL, SWITCH
10	1	0501450	SCREW, NIBS RH 6-32 X 3/16 PHIL.SS

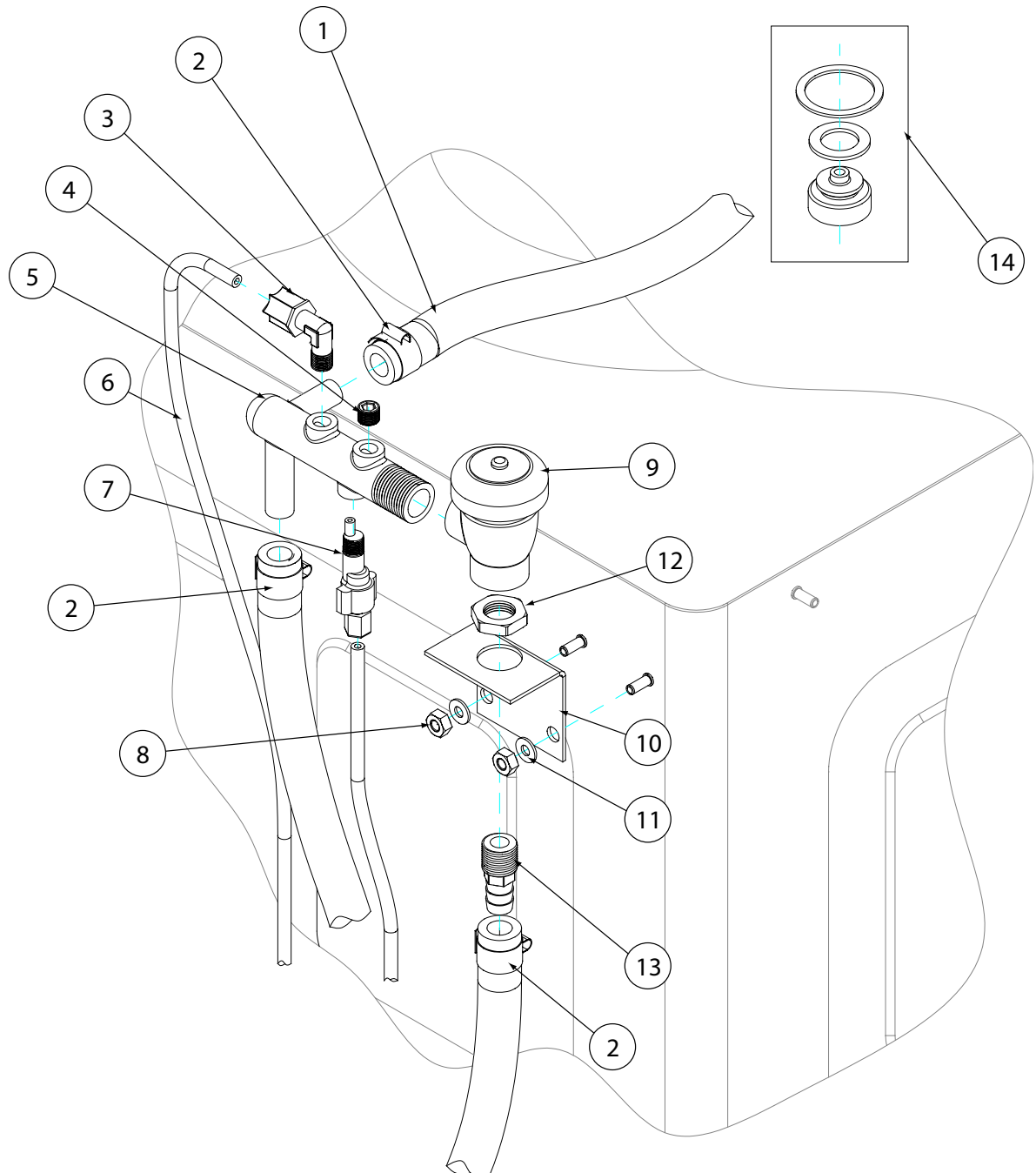
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	9'	107417	HOSE, RUBBER 1/2ID X .84OD
2	6	0503679	CLAMP, SS GEAR-MIN. 5/16-MAX.7/8
3	1	112728	FITT COMP 1/4OD X 1/8MPT ELL J
4	1	0508817	PLUG, 1/8 HEX COUNTERSUNK
5	1	112646	MANIFOLD, RINSE FWR
6	3	112883	TUBING, 1/8OD X 1/16 ID PE.
7	1	112763	INJECTOR FITTING
8	2	0501539	NUT, HEX SS 1/4-20
9	1	100500	VACUUM BREAKER, 1/2i BRASS
10	1	0312190	BRACKET, VACUUM BREAKER
11	2	0501501	WASHER, SPLIT LOCK 1/4i 304SS (NOT SHOWN)
12	1	201029	NUT, LOCK 1/2 INCH NI PLATED
13	1	0502651	COUPLER 1/2 MPT X 1/2 HOSE
14	1	900836	REPAIR KIT FOR ITEM 9

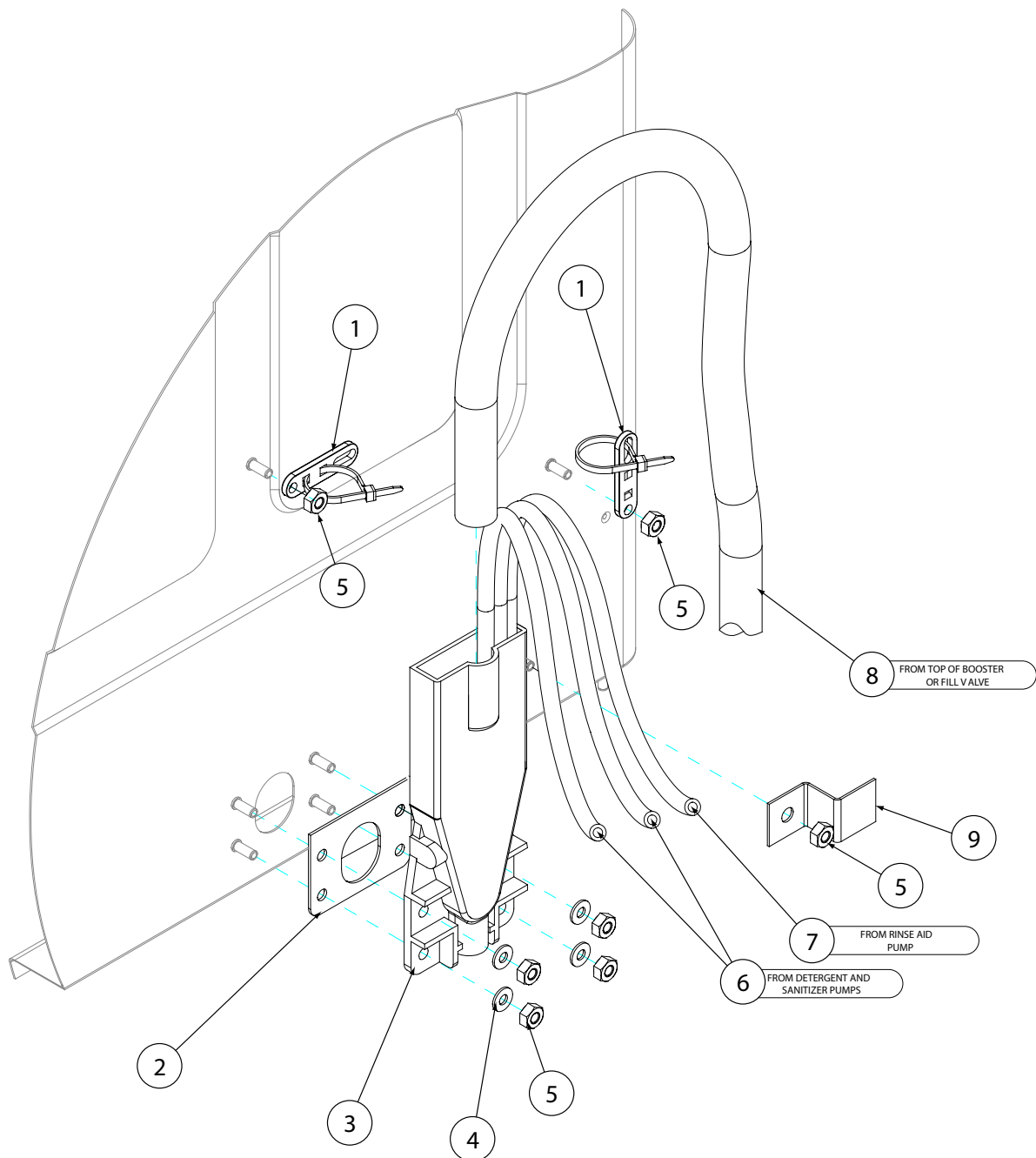
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	2	106090	TIE PLATE
2	1	0509048	GASKET, INLET CHUTE
3	1	0508867	CHUTE, INLET INJ.MOLDED
4	4	0507709	WASHER, FLAT #10 SS
5	6	0503722	NUT, HEX 10-32 SS
6	1	0502666	HOSE, 1/8ID X 1/4OD PVC
7	1	0502667	HOSE, 1/4ID X 3/8OD PVC
8	5'	107417	HOSE, RUBBER 1/2ID X .84OD
9	1	0308822	CLIP, HOSE

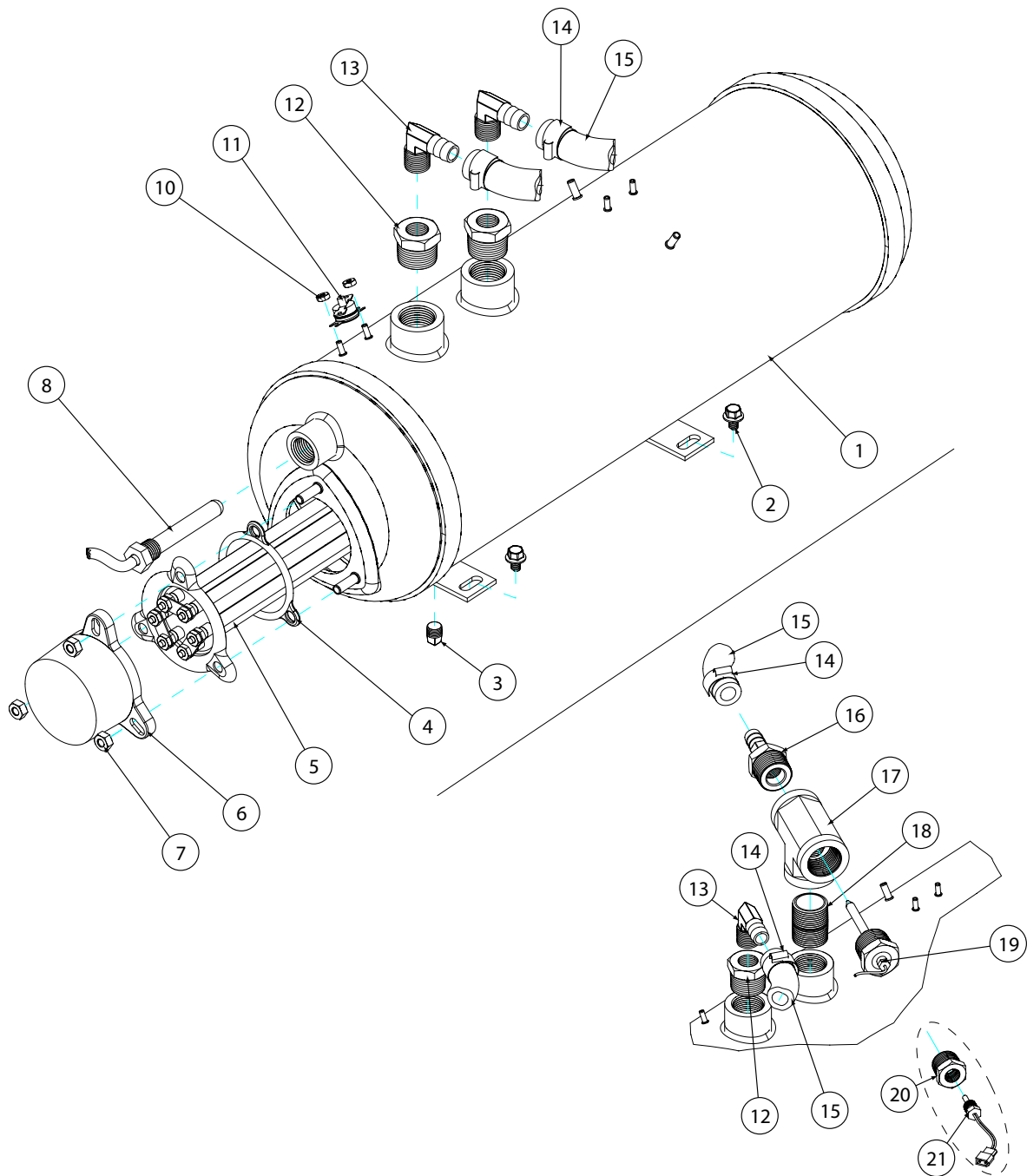
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0509042	BOOSTER TANK
2	2	0512185	BOLT, HEX FLANGE 1/4-20 X 3/8 SS
3	1	0508817	PLUG, 1/8 HEX COUNTERSUNK
4	1	109985	SEAL, ELECTRIC HEATER FLANGE
5	1	111235	HEATER 5/6.6KW 208/240V
	1	111233	HEATER 7.5/10KW 208/240 (70 DEGREE RISE)
6	1	H161123	COVER, HEATING ELEMENT
7	6	0501539	NUT, HEX SS 1/4-20
8	1	109069	THERMOSTAT, BOOSTER
9	3	0501501	WASHER, SPLIT LOCK 1/4i 304SS (NOT SHOWN)
10	2	108954	NUT, GRIP 6X32 NYLON INSERT SS
11	1	110562	THERMOSTAT, BIMETAL SNAP
12	2	0508840	BUSHING, 3/4MPT X 3/8FPT BRASS
13	2	0502653	ELBOW, 90 DEGR 3/8MPTX1/2 HOSE
14	6	0503679	CLAMP, SS GEAR-MIN. 5/16-MAX. 7/8
15	9'	107417	HOSE, RUBBER 1/2ID X .84OD
FOR MODELS UH170, UH170B, UH200, UH200B ONLY			
16	1	0572297	COUPLER, 1/2 HOSE X 3/4 NPT
17	1	102525	TEE
18	1	100184	NIPPLE 3/4 NPT
FOR MODELS UH170, UH170B ONLY			
19	1	0512107	THERMOMETER, 2" DIAL C/W 7FT CAP
FOR MODELS UH200, UH200B ONLY			
20	1	0512298	BUSHING REDUCING 1/8" NPT X 1/2" NPT
21	1	112612	THERMISTER

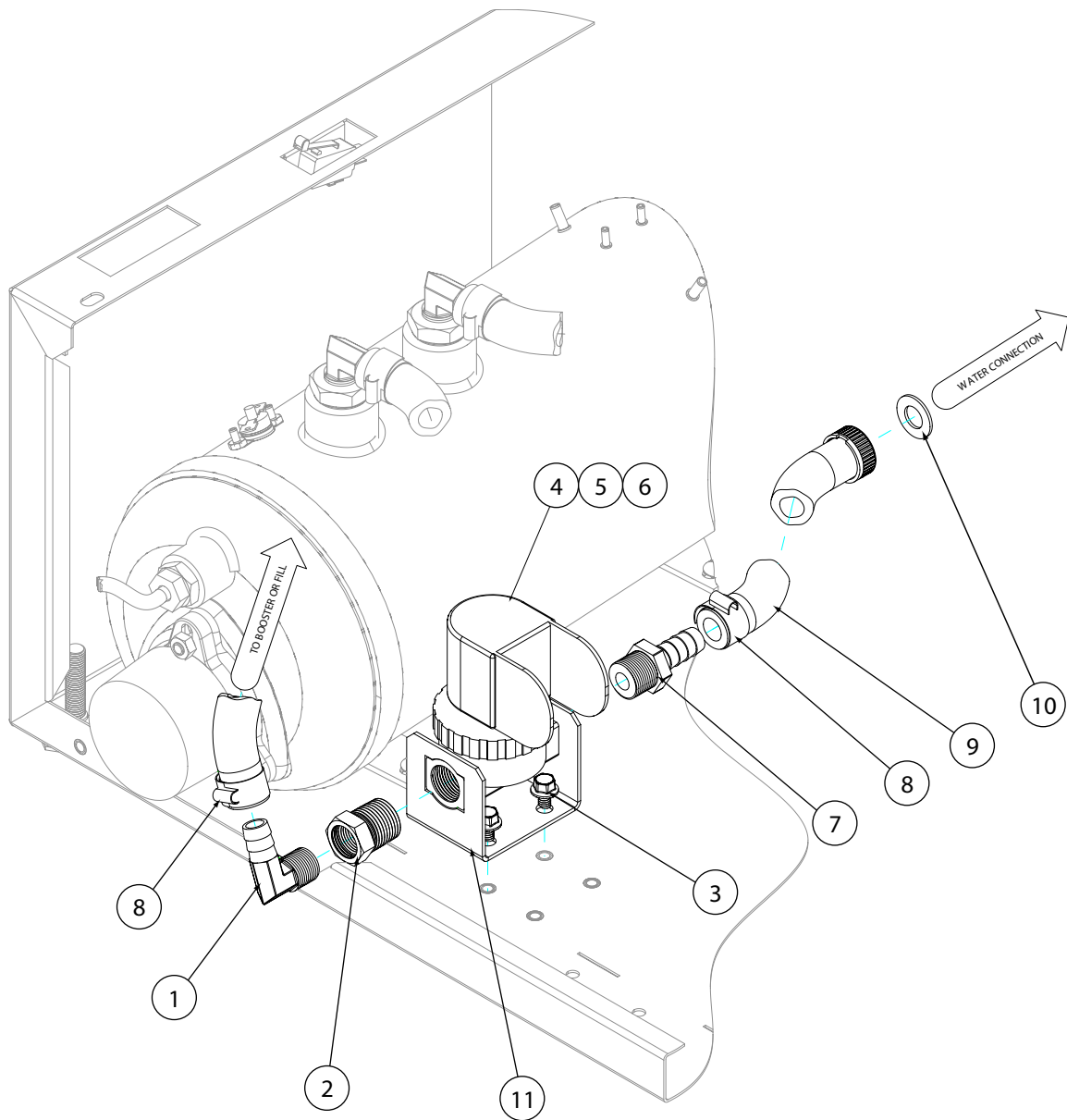
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0502653	ELBOW, 90 DEGR 3/8MPTX1/2 HOSE
2	2	0502650	BUSHING, 1/2 X 3/8
3	2	0512185	BOLT, HEX FLANGE 1/4-20 X 3/8 SS
4	1	109886	VALVE, 1/2" NPT 120V
5	1	108516	COIL REPAIR KIT
6	1	109902	REPAIR KIT
7	1	0502651	COUPLER 1/2 MPT X 1/2 HOSE
8	1	0503679	CLAMP, SS GEAR-MIN. 5/16-MAX.7/8
9	1	0509526	HOSE, 1/2 X 7FT FEM.GARD.ADAPT.
10	1	107873	WASHER, PACKING
11	1	0312146	BRACKET, VALVE FWR

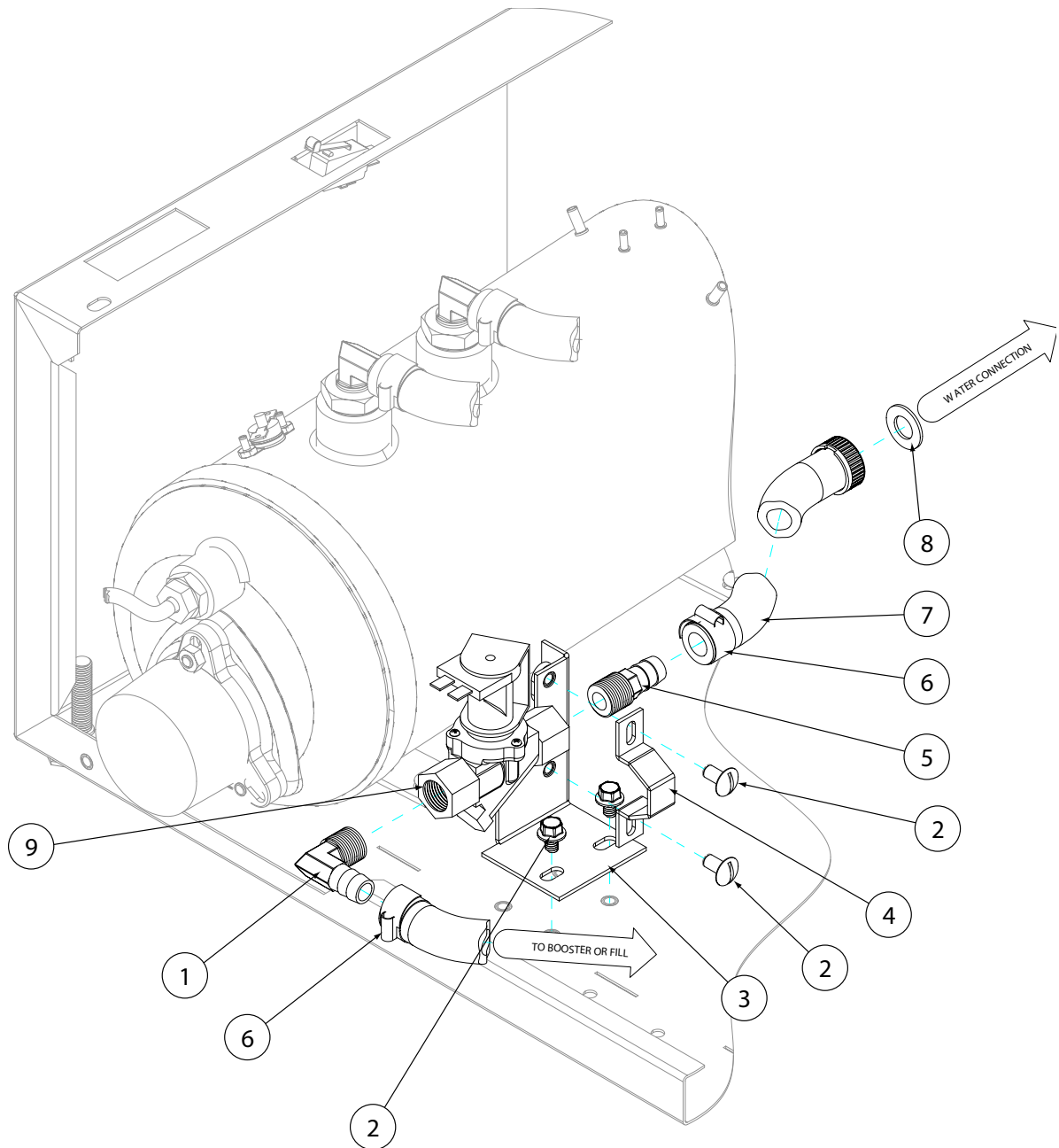
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0502653	ELBOW, 90 DEGR 3/8MPTX1/2 HOSE
2	4	0512185	BOLT, HEX FLANGE 1/4-20 X 3/8 SS
3	1	0300065	SUPPORT, VALVE
4	1	0300203	CLAMP, VALVE
5	1	0502618	HOSE BARB, 1/2 X 3/8 MPT
6	1	0503679	CLAMP, SS GEAR-MIN. 5/16-MAX.7/8
7	1	0509526	HOSE, 1/2 X 7FT FEM.GARD.ADAPT.
8	1	505320	WASHER, 1" O.D. GARDEN HOSE
9	1	0504952	VALVE

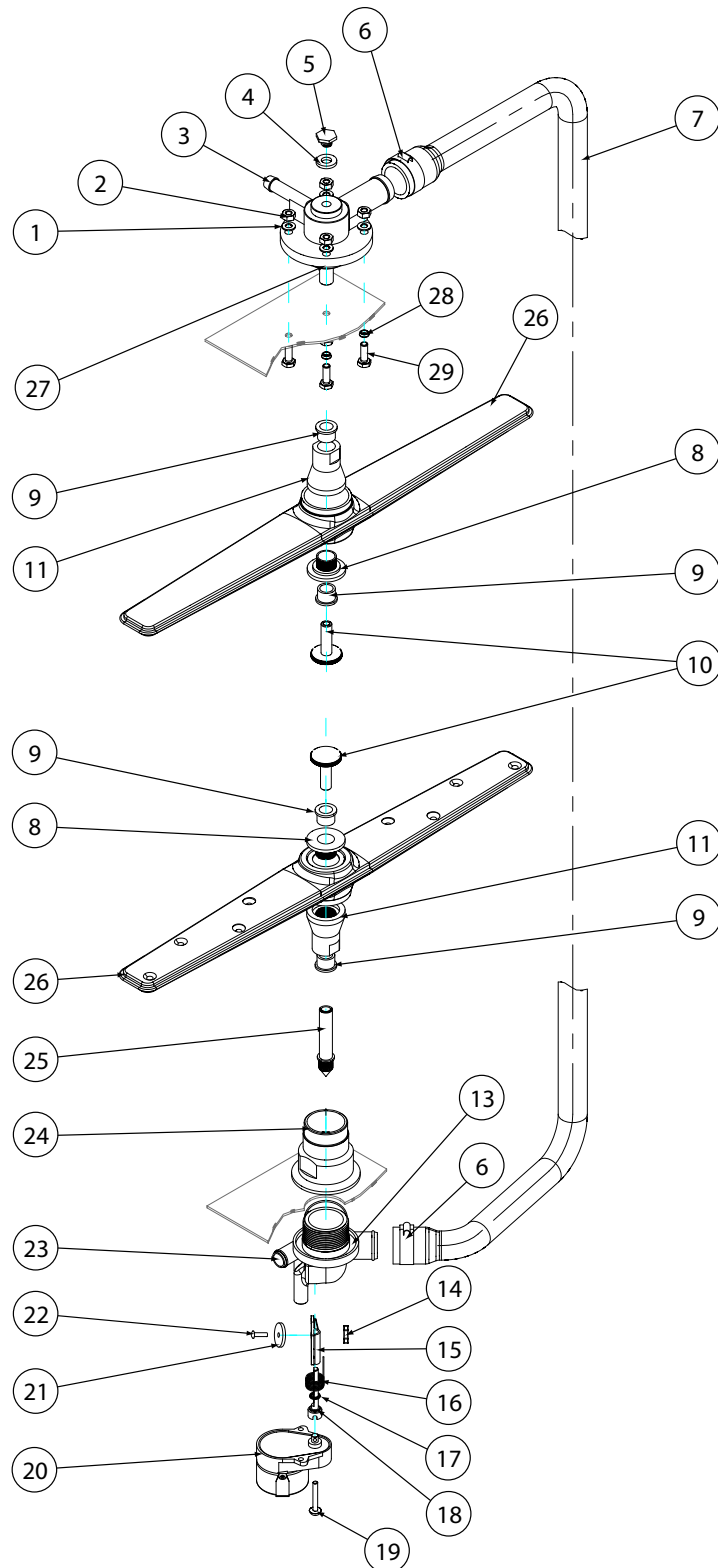
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	4	0501478	WASHER, 17/64IDX9/16 OD18G SS
2	4	107967	NUT, HEX SS 1/4-20 NYLON INSERT
3	1	H35509	HUB,UPPER WASH ARM
4	1	107873	WASHER, PACKING
5	1	110215	SCREW, RETAINING
6	2	0502571	CLAMP,HOSE GEAR HOSE 1-1/2" SS
7	1	0512120	HOSE, UPPER WASH ARM,
8	2	112550	LOCKNUT, WASH ARM
9	4	112551	BEARING, WASH ARM
10	2	0512129	NUT, WASH ARM F&D (UL100, UH100, UH100B)
11	2	112549	HUB, WASH ARM
12	2	H420548	ASSY, WASH ARM COMPLETE (NOT SHOWN)
13	1	0512133	O RING, 2 1/8 OD X 1 3/4 ID X 3/16 #327 SILICONE
14	1	100194	NUT, GRIP 10-32
15	1	0512104	FLAP, DRAIN
16	1	0512126	SPRING, TORSION
17	1	0512130	O RING #106
18	1	0512128	SHAFT, DRAIN FLAP
19	2	104883	SCREW 6-32 X 3/8 RD HD SS-SLOT
20	1	0512123	MOTOR, DRAIN 115V
21	1	0512127	GASKET, DRAIN
22	1	0501412	SCREW TRUSS SLOT SS 10-32X3/8
23	1	0512103	MANIFOLD, LOWER F&D (UL100, UH100, UH100B)
24	1	0512066	HUB, LOWER WASHARM
25	1	0512125	SHAFT, LOWER F&D (UL100, UH100, UH100B)
26	2	H420548	WASH ARM, STAMPED
27	1	0512133	O RING, 2 1/8 OD X 1 3/4 ID X 3/16 #327 SILICONE
28	4	0501481	WASHER, NYLTITE
29	4	0501420	BOLT, 1/4 X 1i SS HEX HEAD
30	2	H420548	WASH ARM ASSEMBLY INCLUDES ITEMS 8, 9, 11, 26

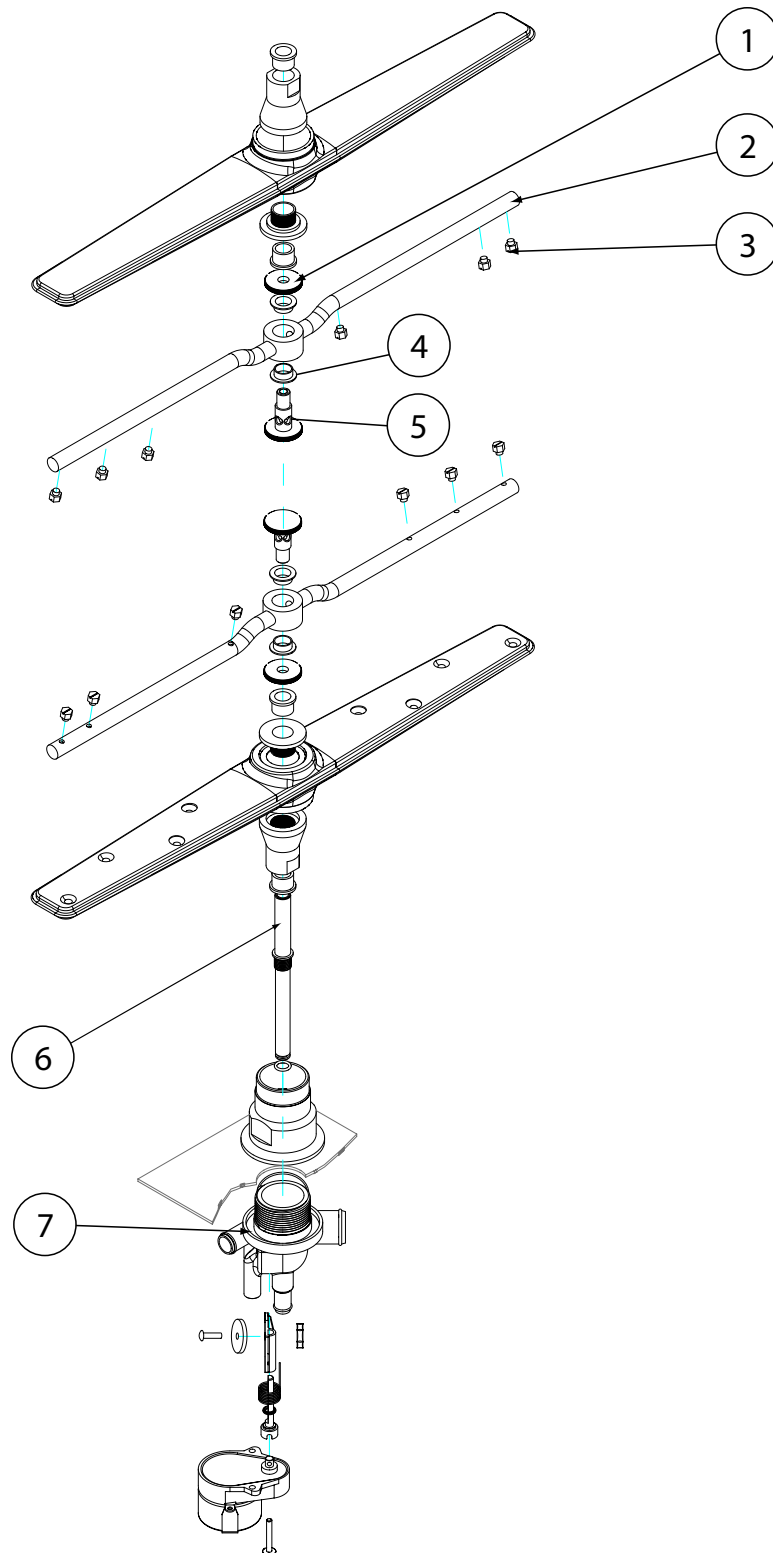
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	2	H34998	NUT, SPACER
2	2	H36211	RINSE ARM
3	12	H37149	NOZZLE, 65L/HR S.S.
4	4	H190663	BUSHING, RINSE ARM
5	2	H36275	PIN, RINSE ARM
6	1	0512124	SHAFT, LOWER FWR (UH170, UH170B, UH200, UH200B)
7	1	0512102	MANIFOLD, LOWER FWR (UH170, UH170B, UH200, UH200B)
8	2	H36211	RINSE ARM COMPLETE (NOT SHOWN)

Service Replacement Parts

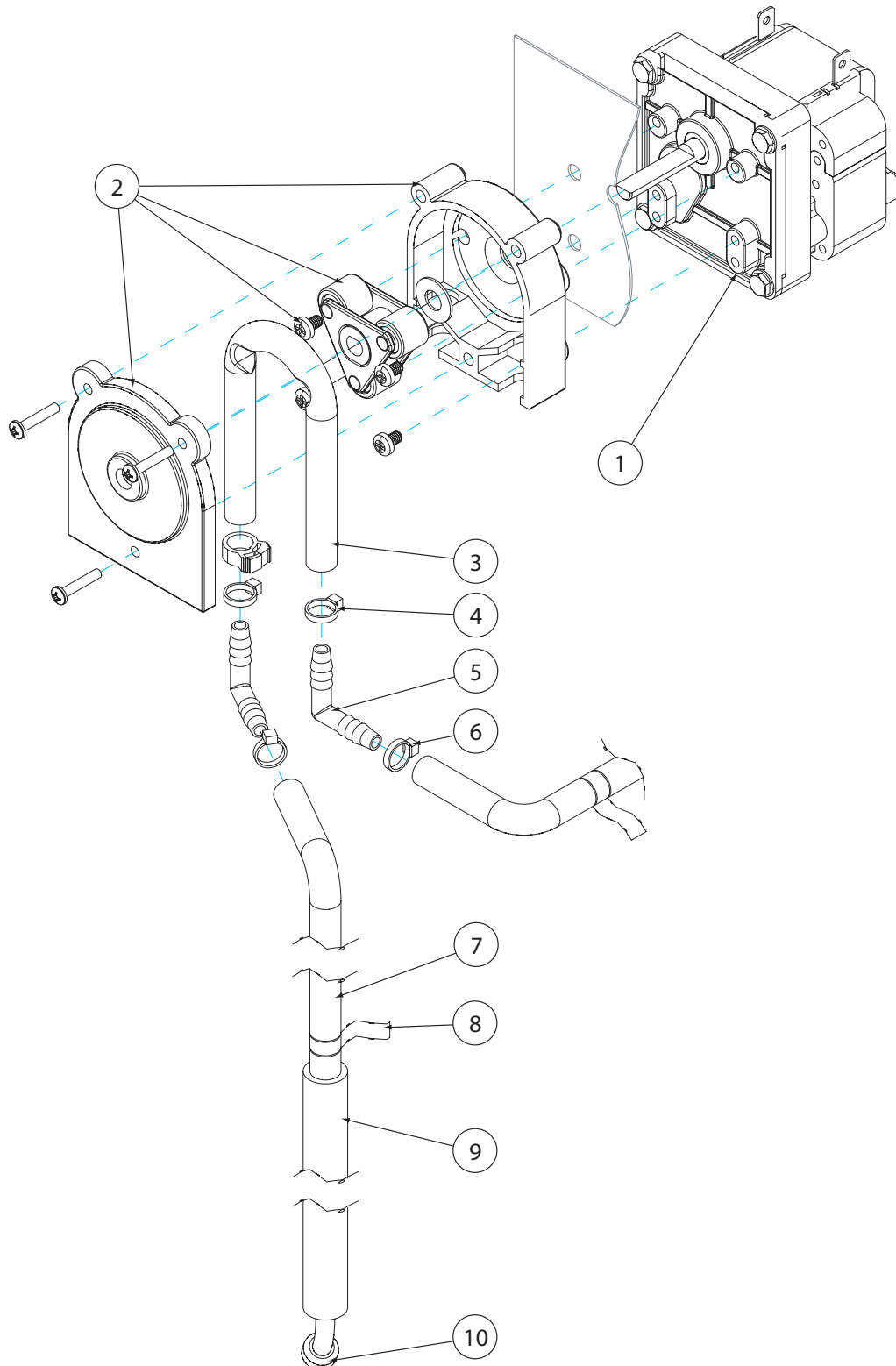


Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0510870-1	GEARMOTOR,108 RPM, 115/60/1
2	1	114203	PUMP HD KIT, PERISTALIC
3	1	114202	TUBE ASY,SANTOPRENE,1/4IDX8.25
4	1	0501519	TIE, NYLON 4i
5	1	0502644	ELBOW, 1/4 HOSE BARB
6	4	0501519	TIE, NYLON 4i
7	12	0502667	HOSE, 1/4ID X 3/8OD PVC
8	1	0503695	LABEL, DETERGENT
9	1	0306363	TUBE,1/2IDX11-7/8LG. STIFFENER
10	1	0501869	STRAINER

Service Replacement Parts

Detergent Pump All Models

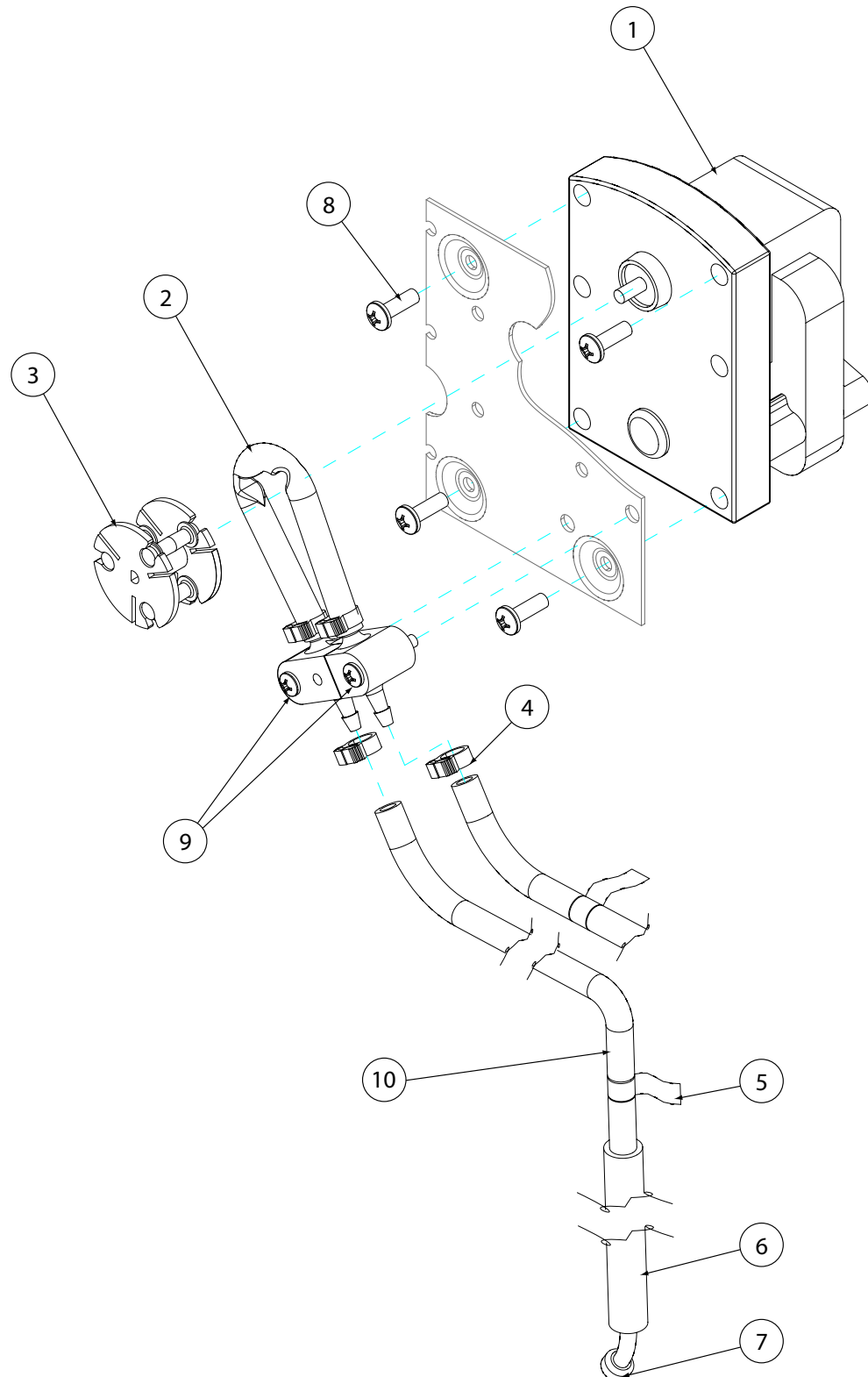


Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0503756	MOTOR, INJECTOR PUMP
2	1	0706635	TUBE, ELEMENT ASSEMBLY 45CC
3	1	0707142	ROTOR, ASSEMBLY
4	2	0501519	TIE, NYLON 4i
5	1	0505483	LABEL, RINSE AID
6	1	0306363	TUBE, 1/2IDX11-7/8LG. STIFFENER
7	1	0501869	STRAINER
8	2	0504822	SCREW, 8-32 X 1/2 PAN HD PH S.S
9	2	0506589	SCREW, PAN 6-32X7/8 SS PHILLIP
10	1	0502666	HOSE, 1/8ID X 1/4OD PVC

Service Replacement Parts

Rinse Aid/Sanitizer Pump

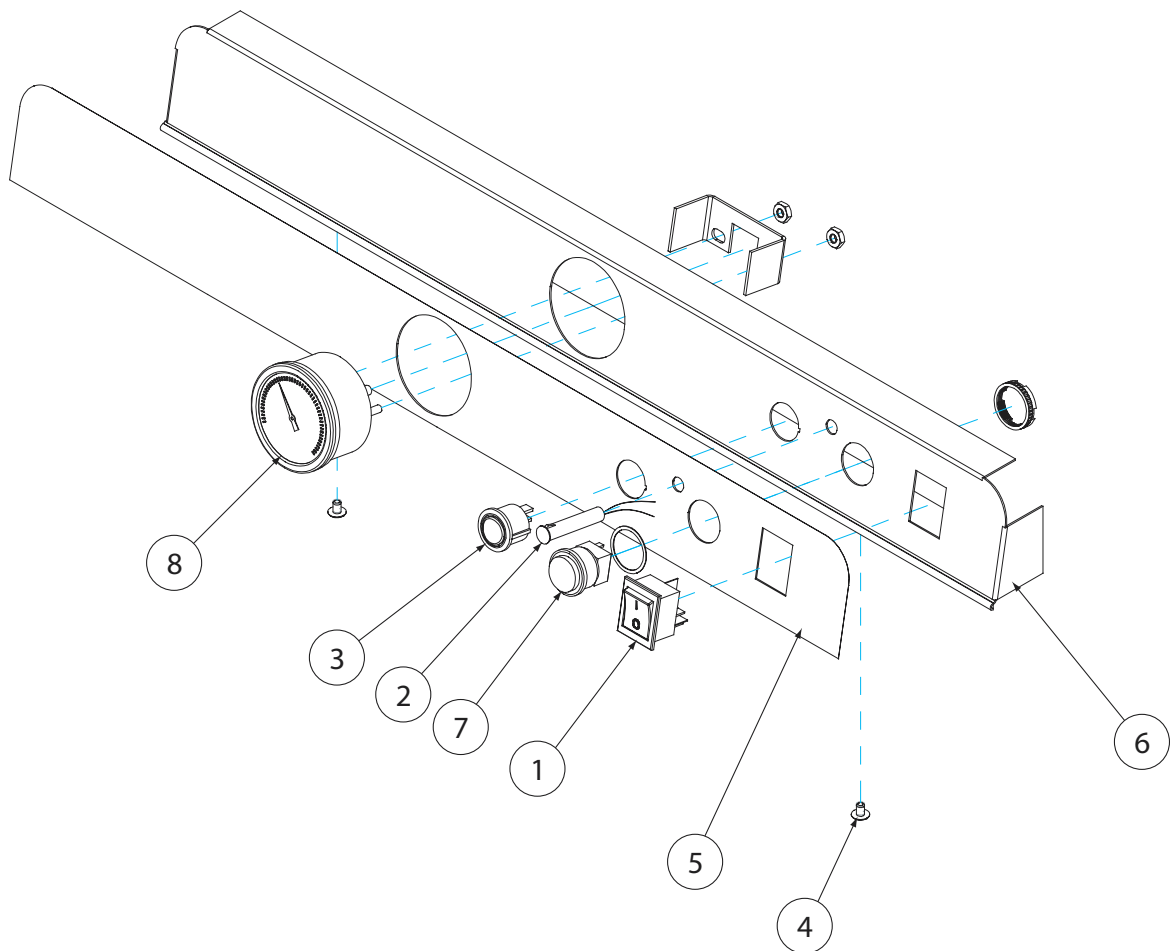


Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0512220	SWITCH, ROCKER DPDT 125V NEON (UL100 ONLY)
	1	0512221	SWITCH, ROCKER DPDT 250V NEON
2	2	0512232	LIGHT, INDICATOR, GREEN LED 2VDC
3	1	0512226	SWITCH, ROCKER RND SPDT MOMENTARY
4	1	0501408	SCREW, TRUSS SLOT SS 8-32 X 1/4
5	1	0512110	LABEL, FACIA, UH200
	1	0512111	LABEL, FACIA, UH170
	1	051212	LABEL, FACIA, UH100
6	1	0312178	PANEL, FACIA, UH200
	1	0312179	PANEL, FACIA, UH170
	1	0312180	PANEL, FACIA, UH100
7	1	0512214	SWITCH, PUSHBUTTON, GREEN
8	1	0512107	THERMOMETER, 2" DIAL C/W 7' CAPILARY
9	1	0512215	SWITCH, PUSHBUTTON, WHITE
10	2	0512213	SWITCH, PIE ZIO
11	1	0512106	THERMOMETER, DIGITAL
12	4	0501563	SCREW, #8 x 3/8
13	2	0503580	NUT, 10-32
14	2	0512357	SPACER

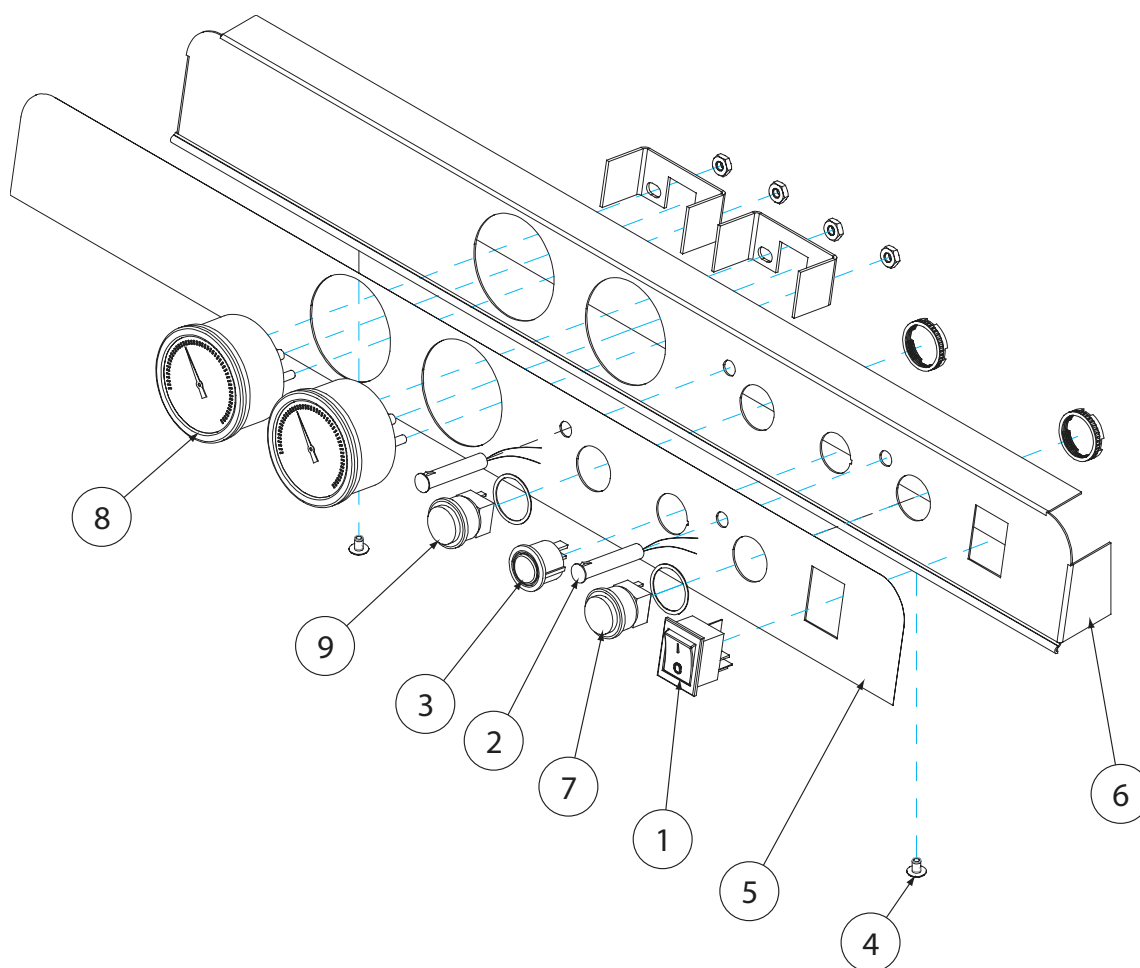
Service Replacement Parts

Models UL-100, UH-100, and UH-100B



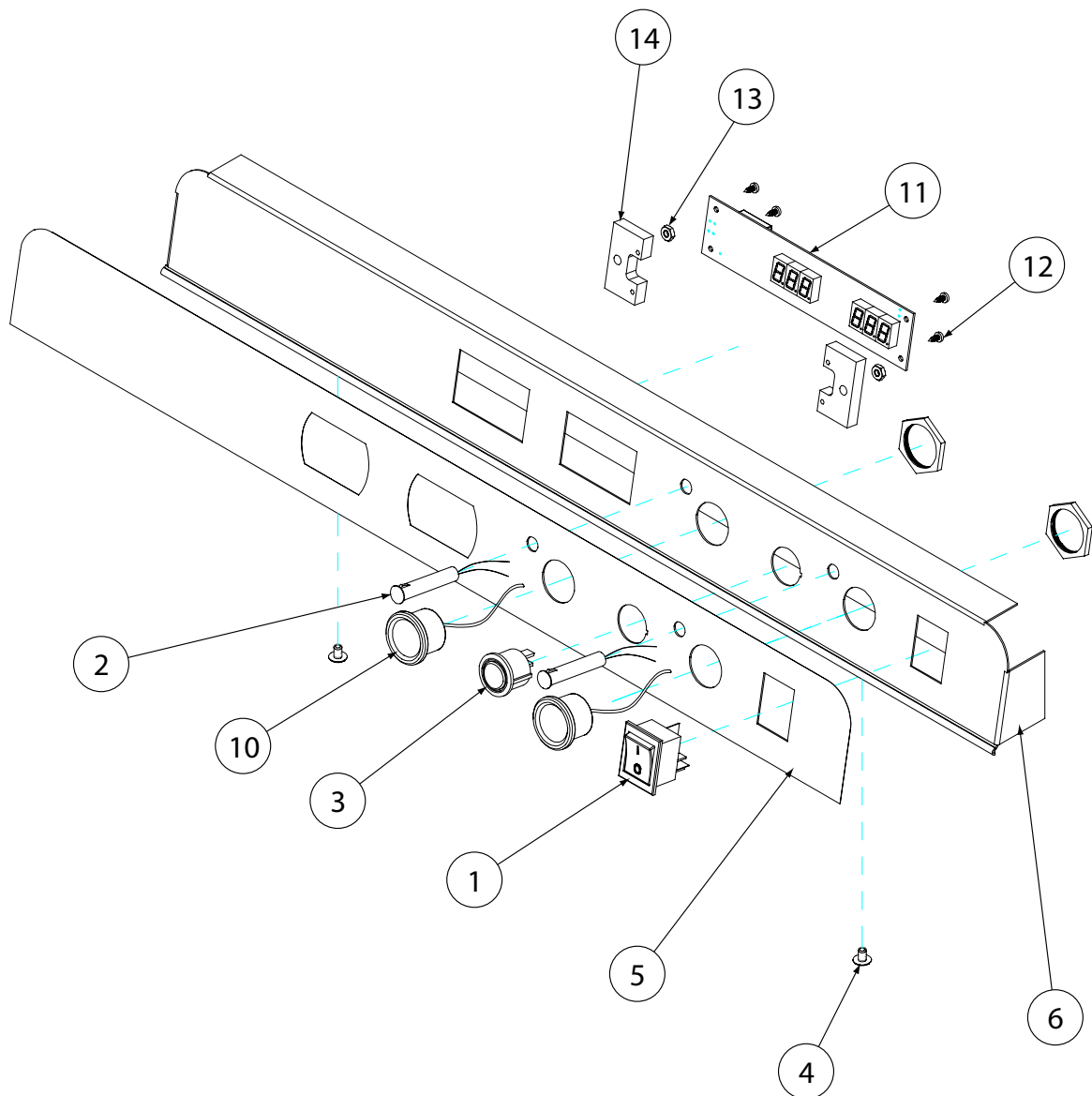
Service Replacement Parts

Models UH-170 and UH-170B



Service Replacement Parts

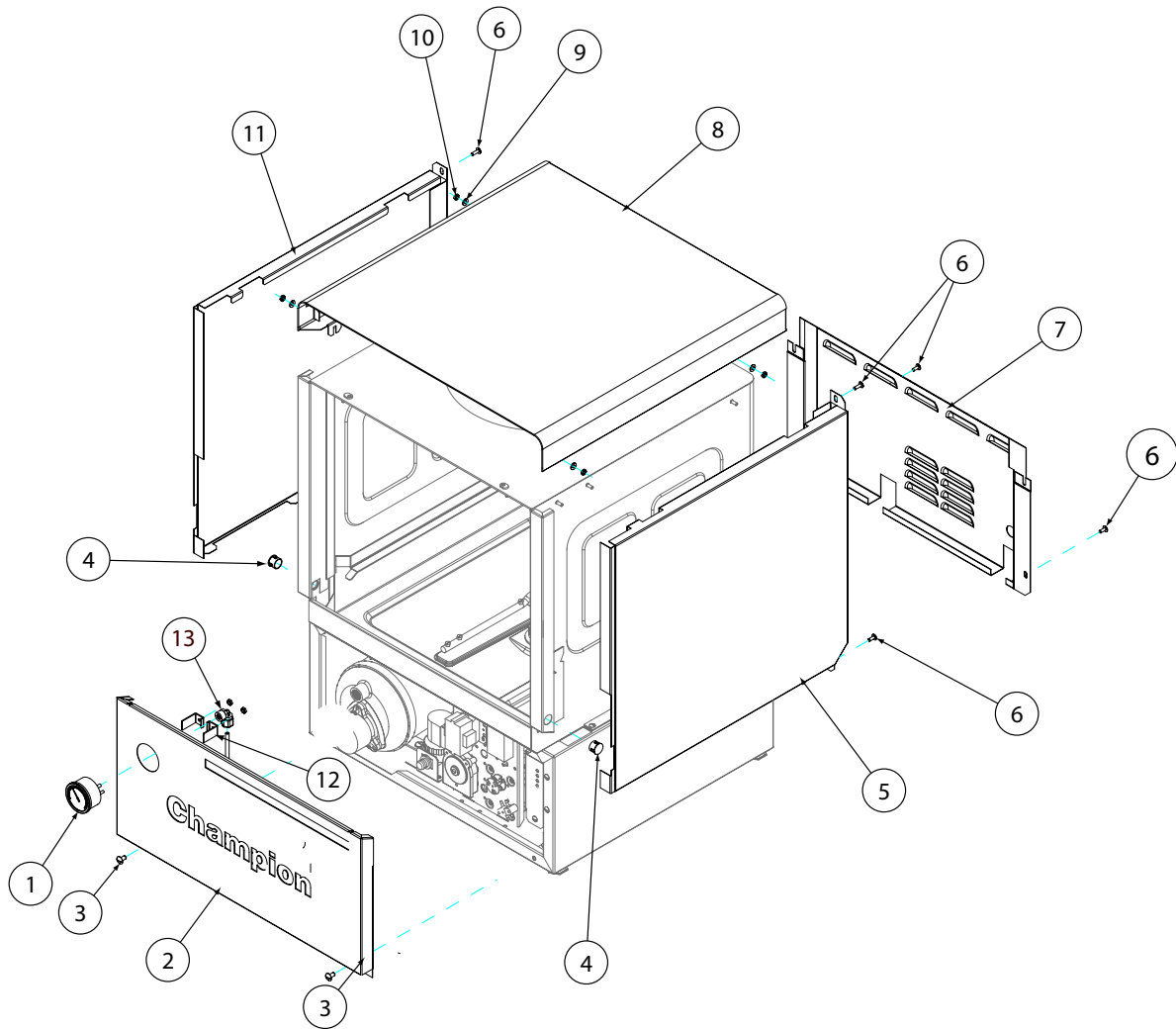
Models UH-200 and UH-200B



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	109812	GAUGE, PRESSURE 0-60PSI
	1	0512107	THERMOMETER, 2" DIAL C/W 7' CAP. (UL100, UH100, UH100B)
2	1	0312192	PANEL, FRONT CHAMPION
3	2	100779	SCREW 1/4-20X5/8 TRUSS SS PHIL
4	2	108826	GROMMET
5	1	0312174	PANEL, RH SIDE
6	2	0501412	SCREW TRUSS SLOT SS 10-32X3/8
7	1	0312191	PANEL, BACK
8	1	0712209	HOOD, WELDED CHAMPION
9	4	0501478	WASHER, 17/64IDX9/16 OD18G SS
10	4	0501539	NUT, HEX SS 1/4-20
11	1	0312175	PANEL, LH SIDE
12	1	107928	TUBING, 1/4i NATURAL
13	1	112728	FITT COMP 1/4OD X 1/8MPT ELL J

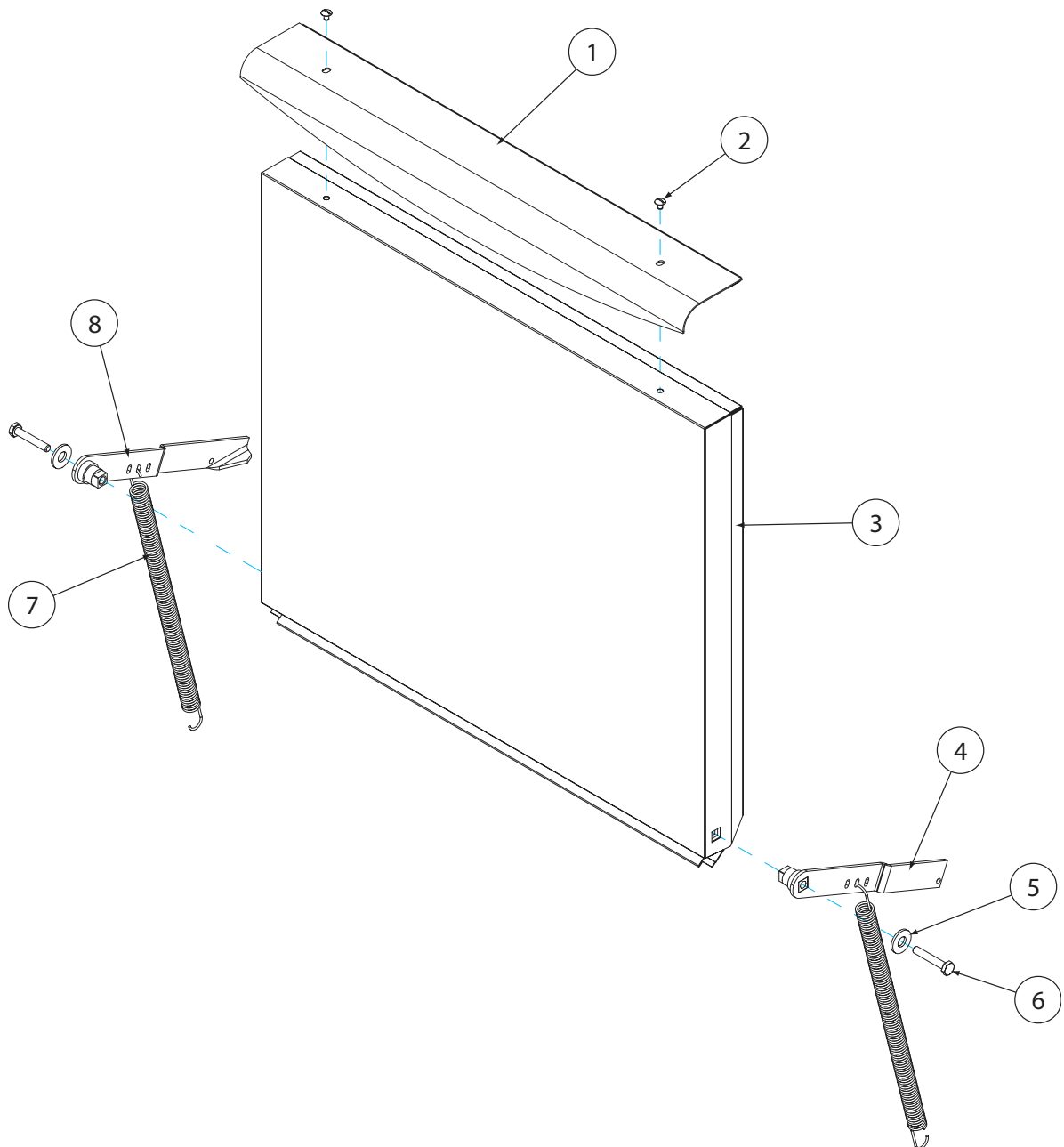
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0312172	HANDLE, DOOR CHAMPION
2	2	0501408	SCREW, TRUSS SLOT SS 8-32 X 1/4
3	1	0712164	DOOR WELDED ASSY
4	1	0712162-1	HINGE, RH ASSY
5	1	0501476	WASHER,SS 9/32 X 5/8 OD
6	1	0501422	BOLT, HEX SS 1/4-20 X 1-1/2
7	2	0512122	SPRING, DOOR
8	1	0712162	HINGE, LH ASSY

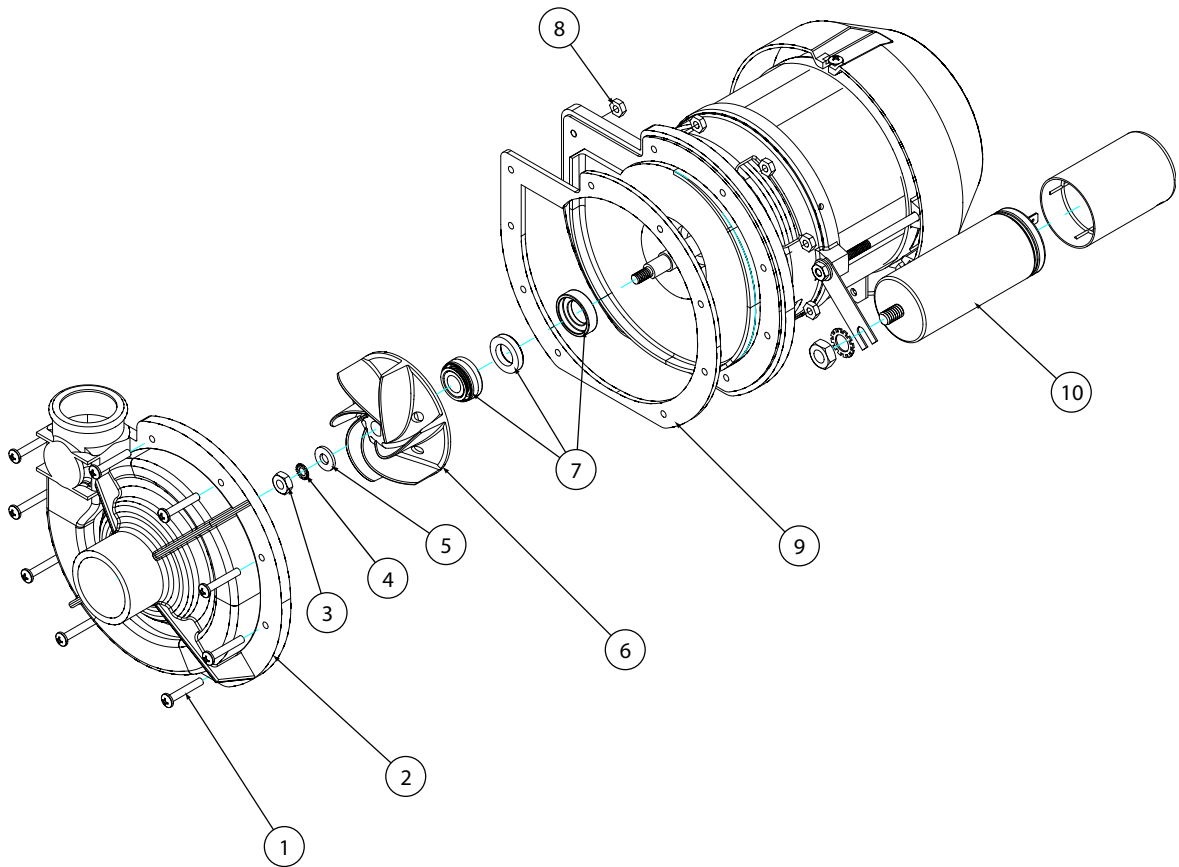
Service Replacement Parts



Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	9	0512340	SCREW, M4.0x0.70 30mmPHILIPS PAN HEAD
2	1	0512341	IMPELLER HOUSING COVER
3	1	107435	NUT, M6
4	1	0501501	WASHER, LOCK, M6
5	1	0501478	WASHER, PLAIN, M6
6	1	0512345	IMPELLER
7	1	H36355	SEAL
8	9	107337	NUT, M4.0x0.70
9	1	H36356	FLANGE REAR, PUMP
10	1	0512101	PUMP ASSEMBLY COMPLETE

Service Replacement Parts

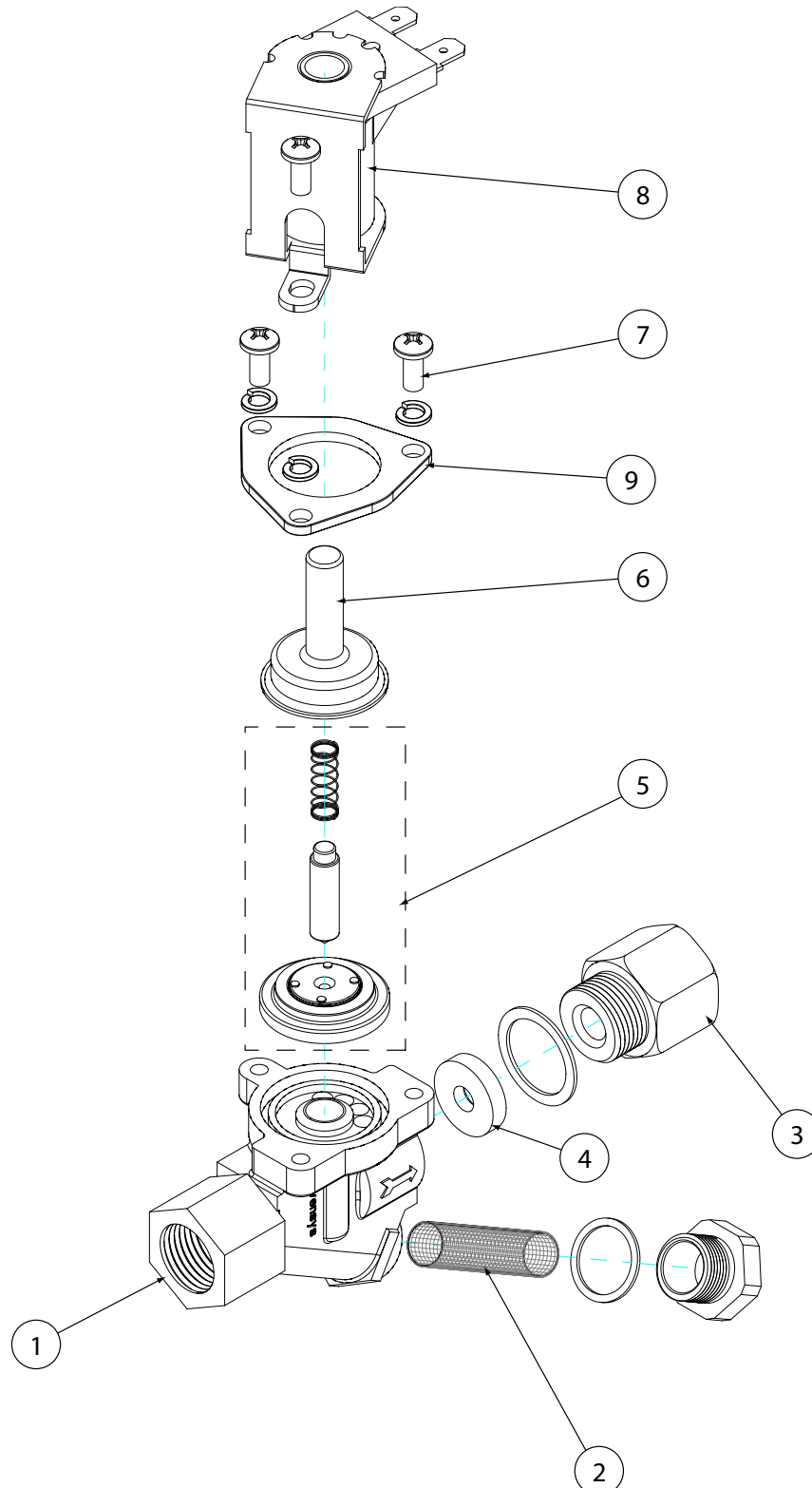


Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0504952	VALVE, FILL 5.0 GPM-
2	1	0502803	SCREEN, SOL-VALVE STRAINER
3	1	0502804	GASKET, CAP
4	1	0504958	WASHER, FLOW 5.0 GPM
5	1	0502811	KIT, REBUILD
6	1	0505229	GUIDE
7	3	0501406	SCREW, SLOT SS RH 8-32 X 1/2
8	1	0505235	COIL, 115V 60HZ 10W
9	1	0502807	GASKET

Service Replacement Parts

Models UL-100, UH-100, and UH-100B

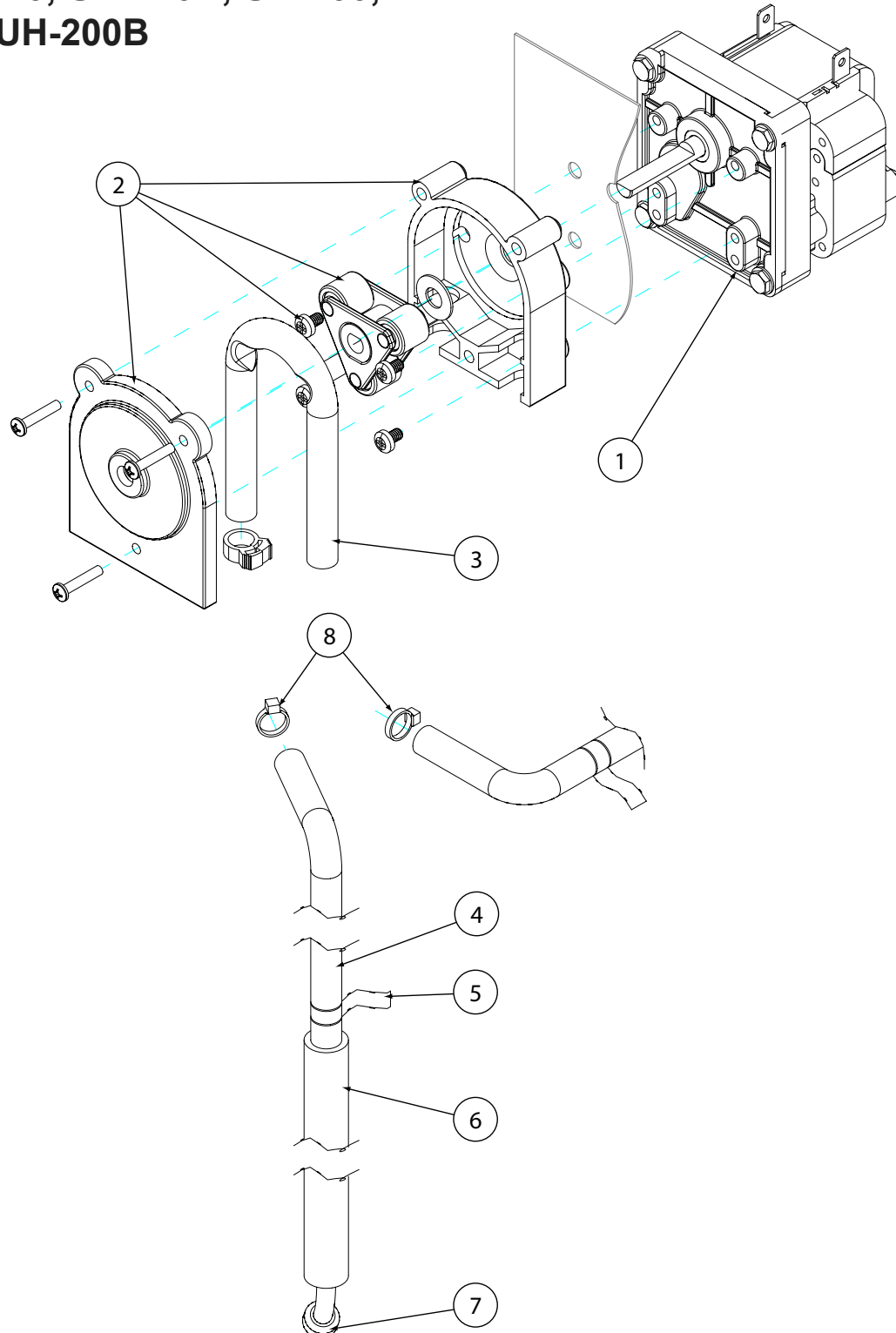


Service Replacement Parts

<u>Item</u>	<u>Qty</u>	<u>Part No.</u>	<u>Description</u>
1	1	0510872-1	GEARMOTOR, 14 RPM, 115/60/1
2	1	0512325	PUMP HEAD, PERISTALTIC RINSE (PINK ROLLERS)
3	1	112759	TUBE 1/8ID X 9i PUMP
4	2	112883	TUBING, 1/8OD X 1/16 ID PE.
5	1	0505483	LABEL, RINSE AID
6	4	0306363	TUBE, 1/2ID X 11-7/8LG. STIFFENER
7	12	0501869	STRAINER
8	2	0501519	TIE, NYLON 4i

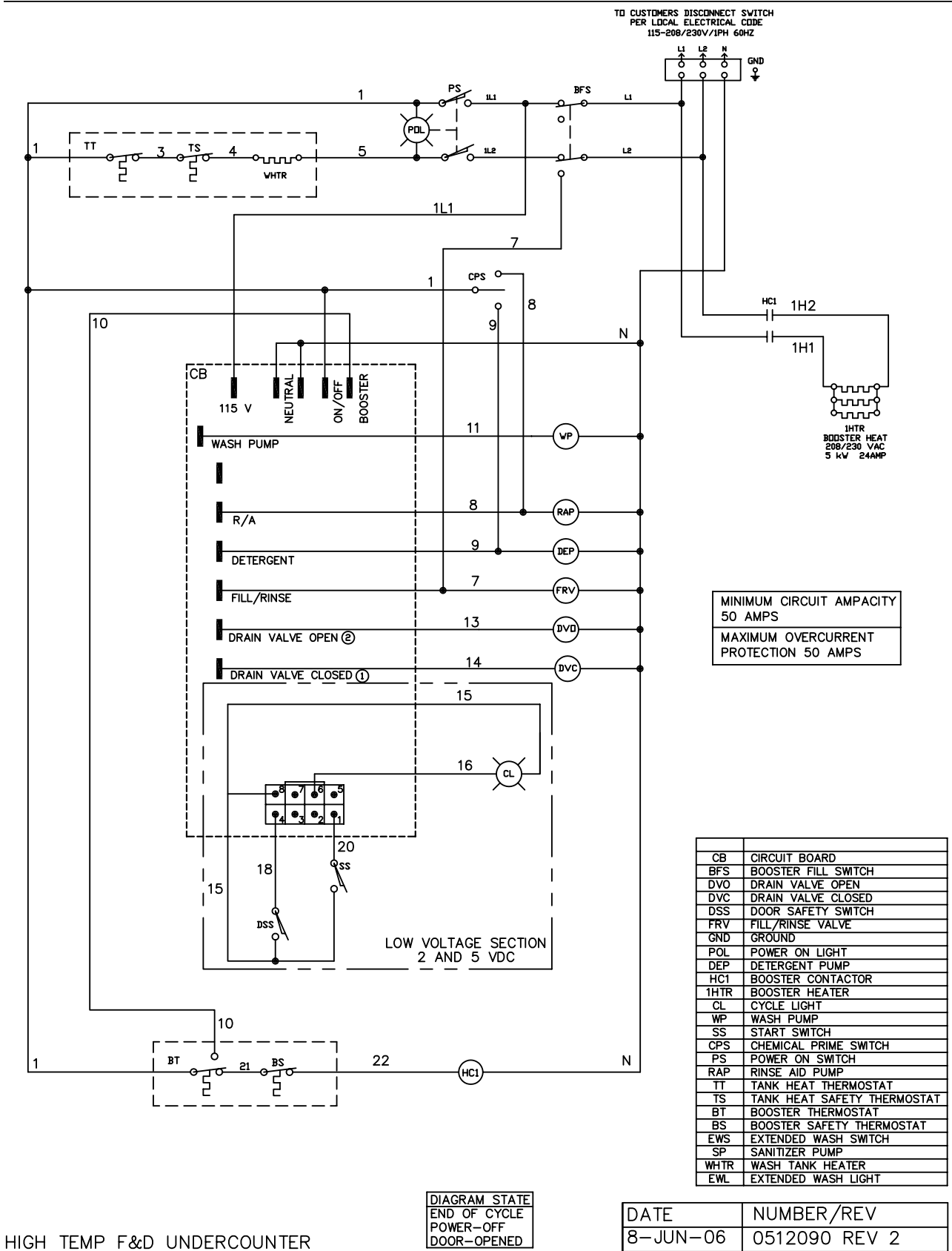
Service Replacement Parts

Rinse Aid Pump Models UH-170, UH-170B, UH-200, and UH-200B



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Electrical Schematics

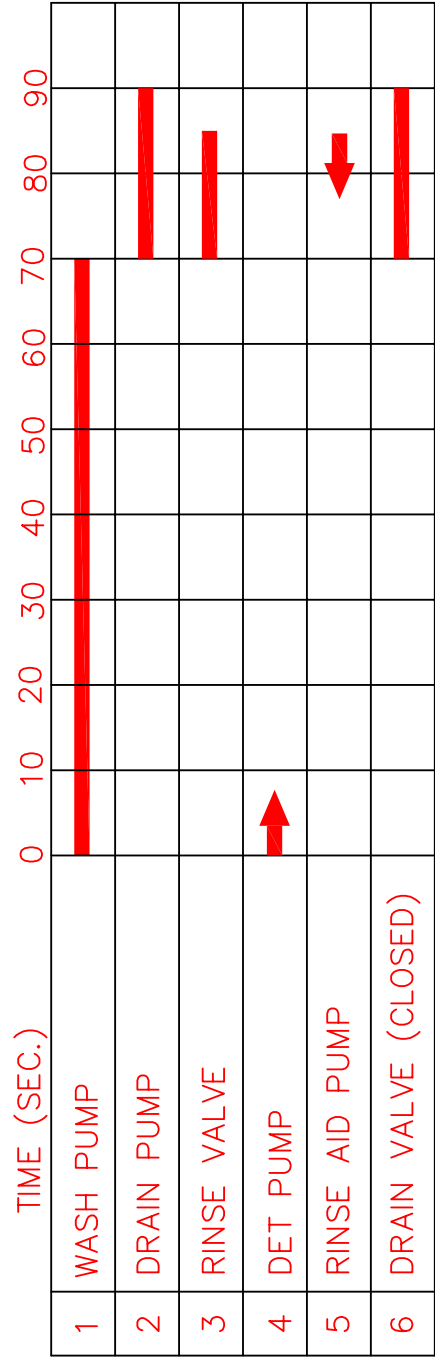




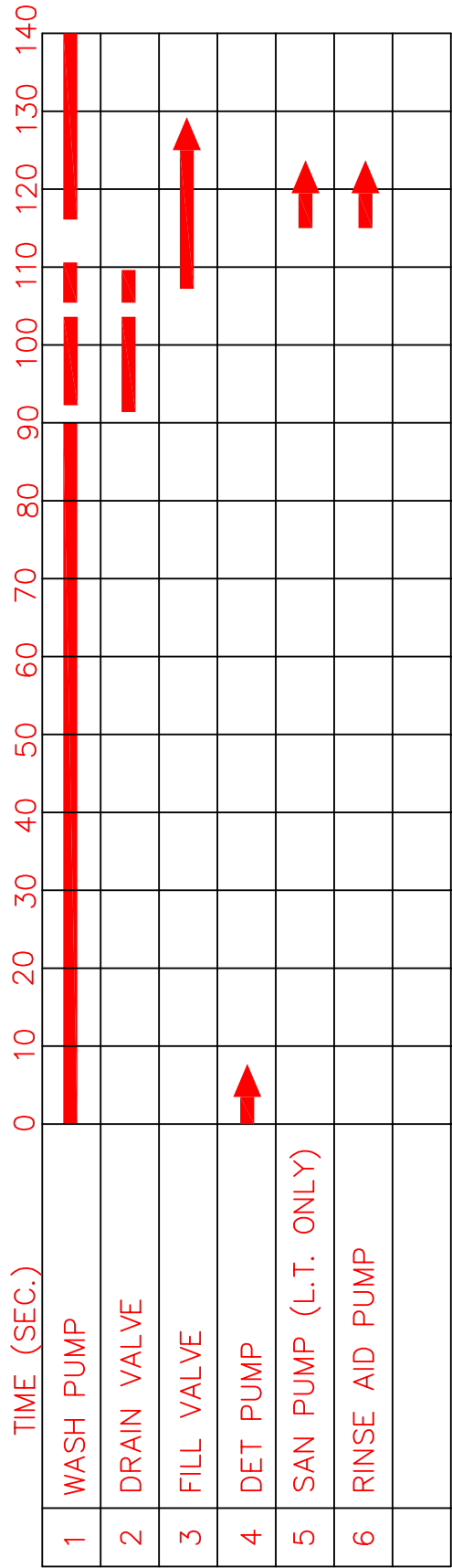
DATE	NUMBER/REV
29-MAY-06	0512091 REV 2

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Timer Charts



TIMING CHART FOR MODELS UH170, UH170B, UH200, UH200B



TIMING CHART FOR MODELS UL100, UH100, UH100B