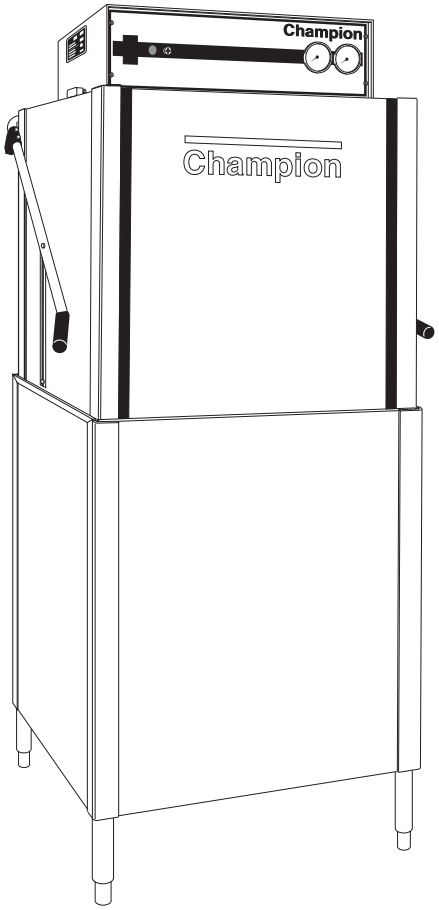
Champion®

The Dishwashing Machine Specialists

For machines beginning with serial no. D2099 thru D3693

Technical Manual



Door-Type Dishwasher

Model

D-HBM4
High Temperature with Built-in Booster

D-H1M4
High Temperature

D-LFM4
Low Temperature

Machine Serial No.

February, 2003

Manual P/N 113137 Rev. C

P.O. Box 4149
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2674 N. Service Road
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www.championindustries.com

Complete the information below so it will be available for quick reference.

Model Number_____ Serial Number _____

Voltage and Phase _____

Champion Parts Distributor _____ Phone _____

_____

Champion Service Agency_____ Phone _____

_____

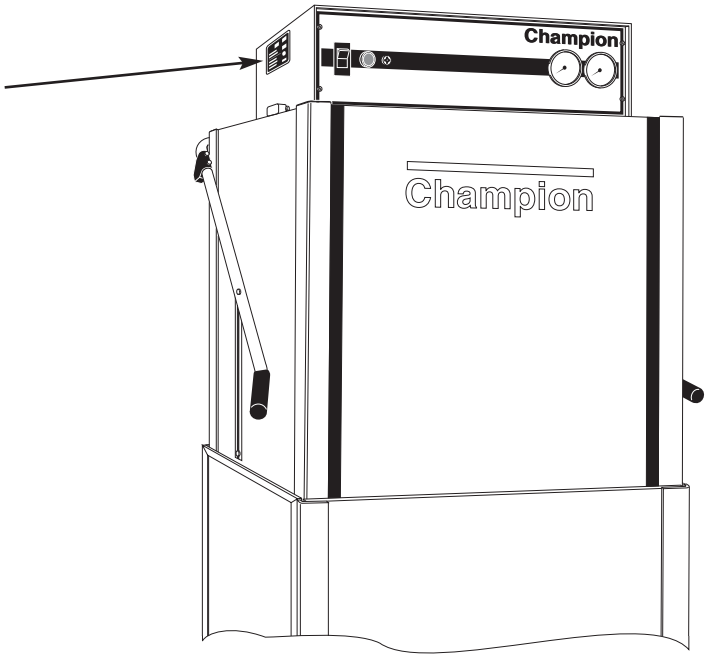
Champion Industries Service: 1 (800) 858-4477 Champion Service Fax: 1 (336) 661-1660

In Canada:
Champion Service: 1 (800) 263-5798
Canada Service Fax: 1 (905) 562-4618

We strongly recommend that you fax your orders.

NOTE: When calling to order parts, be sure to have the model number, serial number, voltage, and phase of your machine.

<u>Machine Data Plate</u> with Model & Serial number located on left side of control cabinet.



Revision History

Revision Date	Revised Pages	Serial Number Effectivity	Comments
4/2/01	All	——	Issue temporary manual with replacement parts lists
8/16/01	All	D2099	Issued as permanent manual
8/16/01		D2964	First S/N with electrical drain valve 113315 and timer 113314
8/16/01	39		Added P/N 900830 Drain Valve kit for machines S/N D2099 thru D2963
11/05/01	27		Corrected Corner Machine Side Door
1/03/02	47, 51	D3291	Change vacuum breaker 3/4" 104429 to 113222
1/03/02	32, 33		Added straight track assembly
5/20/02	47, 51		Added 900837 Kit* Repair 3/4" Vacuum Breaker
12/18/02	55	D3857	Inserted timer control board kit P/N 900911 to replace 112676
2/5/03	27	—	Replaced P/N 108391 with 113622.
2/5/03	53	—	Replaced P/N 11143 with 113248.
2/5/03	55	—	Replaced Furnace (Siemens) overloads with Telemecanique (Square D) overloads.

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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 North Service Road, Jordan Station, Ontario, 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.

<u>DISCLAIMER OF WARRANTIES AND LIMITATIONS OF LIABILITY</u>. 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.

INTRODUCTION

Welcome to **Champion . . .**
and thank you for allowing us to take care of your dishwashing needs.

This manual covers the door-type series dishwasher models D-H1, D-HB, and D-LF.
Your machine was completely assembled, inspected, and thoroughly tested at our factory before it was shipped to your installation site.

This manual contains:

- Warranty Information
- Operation and Cleaning Instructions
- Maintenance Instructions
- Troubleshooting Guide
- Basic Service Information
- Replacement Parts Lists
- Electrical Schematics

Complete and return your warranty registration card within ten (10) days after the installation of your machine.

All information, illustrations and specifications contained in this manual are based upon the latest product information available at the time of publication. **Champion** constantly improves its products and reserves the right to make changes at any time or to change specifications or design without notice and without incurring obligation.

For your protection, factory authorized parts should always be used for repairs.

Replacement parts may be ordered from your **Champion** authorized parts distributor or from your **Champion** authorized service agency. When ordering parts, please supply the model number, serial number, voltage and phase of your machine, the part number, part description and quantity.

GENERAL

This manual covers the Champion door type dishwashing machine. These machines are fully automatic and come equipped with a 1-HP pump motor.

The D-series dishwasher is available in the following models:

Model Numbers

D-H1, D-HB, D-LF

The D-H1 model is a high temperature (180°F/82°C rinse) sanitizing model without booster.

The D-HB model is a high temperature (180°F/82°C rinse) sanitizing model with booster.

The D-LF is a low temperature (Min. 140°F/60°C) sanitizing model for use with a sodium hypochlorite (Chlorine) based sanitizer at a minimum concentration of 50PPM in the final rinse.

Standard Equipment includes:

D-H1, D-HB, D-LF

- Automatic tank fill
- Built-in electric (D-HB only) or steam booster heater (D-HB only)
- Drain Valve – Electric
- Specified as straight-through or corner model
- Electric tank heat
- Balanced three door lift system
- Low-water tank heat protection
- 1-Hp drip-proof pump motor
- Door safety switches
- Common utility connections
- Two dish racks (peg and flat bottom)
- Detergent/chemical connection provisions
- Stainless steel front and side panels
- Top-mounted, splash-proof control console
- 60-second time cycle
- 2" O.D. gravity drain connection
- Water pressure regulating valve (mounted) (D-HB only)
- Interchangeable upper and lower spray arms

Options (D-HB only)

- Electric booster (70°F/39°C temperature rise) heater for 110°F/43°C supply water
- Steam injector or steam coil tank heat (steam booster 40°F/23°C – 70°F/39°C rise)

Accessories

Additional dishracks:

Dish rack (peg)	P/N 101285
Silverware rack (flat bottom)	P/N 101273
3/4” Pressure reducing valve (PRV)	P/N 112387

Electrical Power Requirements for Electric Heat / Electric Booster

Model	Voltage	Booster Rise (D-HB Only)	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
D-H1/LF	115/60/1	—	49 Amps	60 Amps	60 Amps
D-H1/LF	208/60/1	—	25 Amps	35 Amps	35 Amps
D-H1/LF	220/60/1	—	26 Amps	35 Amps	35 Amps
D-H1/LF	230/60/1	—	26 Amps	35 Amps	35 Amps
D-H1/LF	240/60/1	—	26 Amps	35 Amps	35 Amps
D-H1/LF	208/60/3	—	14 Amps	20 Amps	20 Amps
D-H1/LF	220/60/3	—	14 Amps	20 Amps	20 Amps
D-H1/LF	230/60/3	—	14 Amps	20 Amps	20 Amps
D-H1/LF	240/60/3	—	15 Amps	20 Amps	20 Amps
D-H1/LF	380/60/3	—	9 Amps	15 Amps	15 Amps
D-H1/LF	415/60/3	—	9 Amps	15 Amps	15 Amps
D-H1/LF	480/60/3	—	7 Amps	15 Amps	15 Amps
D-H1/LF	575/60/3	—	6 Amps	15 Amps	15 Amps
D-HB	115/60/1	—	—	—	
D-HB	208/60/1	40°F/23°C	69 Amps	80 Amps	80 Amps
D-HB	220/60/1	40°F/23°C	76 Amps	80 Amps	80 Amps
D-HB	230/60/1	40°F/23°C	76 Amps	80 Amps	80 Amps
D-HB	240/60/1	40°F/23°C	76 Amps	90 Amps	90 Amps
D-HB	208/60/3	40°F/23°C	39 Amps	45 Amps	45 Amps
D-HB	220/60/3	40°F/23°C	39 Amps	45 Amps	45 Amps
D-HB	230/60/3	40°F/23°C	43 Amps	45 Amps	45 Amps
D-HB	240/60/3	40°F/23°C	43 Amps	50 Amps	50 Amps
D-HB	380/60/3	40°F/23°C	24 Amps	30 Amps	30 Amps
D-HB	415/60/3	40°F/23°C	25 Amps	30 Amps	30 Amps
D-HB	480/60/3	40°F/23°C	18 Amps	25 Amps	25 Amps
D-HB	575/60/3	40°F/23°C	15 Amps	20 Amps	20 Amps
D-HB	115/60/1	—	—	—	—
D-HB	208/60/1	—	—	—	—
D-HB	220/60/1	—	—	—	—
D-HB	230/60/1	—	—	—	—
D-HB	240/60/1	—	—	—	—
D-HB	208/60/3	70°F/39°C	51 Amps	70 Amps	70 Amps
D-HB	220/60/3	70°F/39°C	51 Amps	70 Amps	70 Amps
D-HB	230/60/3	70°F/39°C	58 Amps	70 Amps	70 Amps
D-HB	240/60/3	70°F/39°C	58 Amps	80 Amps	80 Amps
D-HB	380/60/3	70°F/39°C	31 Amps	40 Amps	40 Amps
D-HB	415/60/3	70°F/39°C	34 Amps	45 Amps	45 Amps
D-HB	480/60/3	70°F/39°C	29 Amps	35 Amps	35 Amps
D-HB	575/60/3	70°F/39°C	24 Amps	30 Amps	30 Amps

Electrical Power Requirements for Steam or Gas Heat / Steam or Gas Booster

Model	Voltage	Booster Rise (D-HB Only)	Rated Amps	Minimum Supply Ckt. Conductor Ampacity	Maximum Overcurrent Protective Device
D-H1/LF	115/60/1	—	22 Amps	30 Amps	30 Amps
D-H1/LF	208/60/1	—	13 Amps	15 Amps	15 Amps
D-H1/LF	220/60/1	—	13 Amps	15 Amps	15 Amps
D-H1/LF	230/60/1	—	13 Amps	15 Amps	15 Amps
D-H1/LF	240/60/1	—	11 Amps	15 Amps	15 Amps
D-H1/LF	208/60/3	—	6 Amps	15 Amps	15 Amps
D-H1/LF	220/60/3	—	6 Amps	15 Amps	15 Amps
D-H1/LF	230/60/3	—	6 Amps	15 Amps	15 Amps
D-H1/LF	240/60/3	—	6 Amps	15 Amps	15 Amps
D-H1/LF	380/60/3	—	4 Amps	15 Amps	15 Amps
D-H1/LF	415/60/3	—	4 Amps	15 Amps	15 Amps
D-H1/LF	480/60/3	—	3 Amps	15 Amps	15 Amps
D-H1/LF	575/60/3	—	3 Amps	15 Amps	15 Amps
D-HB	115/60/1	—	—	—	
D-HB	208/60/1	40°F/23°C	22 Amps	30 Amps	30 Amps
D-HB	220/60/1	40°F/23°C	13 Amps	15 Amps	15 Amps
D-HB	230/60/1	40°F/23°C	13 Amps	15 Amps	15 Amps
D-HB	240/60/1	40°F/23°C	13 Amps	15 Amps	15 Amps
D-HB	208/60/3	40°F/23°C	6 Amps	15 Amps	15 Amps
D-HB	220/60/3	40°F/23°C	6 Amps	15 Amps	15 Amps
D-HB	230/60/3	40°F/23°C	6 Amps	15 Amps	15 Amps
D-HB	240/60/3	40°F/23°C	6 Amps	15 Amps	15 Amps
D-HB	380/60/3	40°F/23°C	4 Amps	15 Amps	15 Amps
D-HB	415/60/3	40°F/23°C	4 Amps	15 Amps	15 Amps
D-HB	480/60/3	40°F/23°C	3 Amps	15 Amps	15 Amps
D-HB	575/60/3	40°F/23°C	3 Amps	15 Amps	15 Amps
D-HB	115/60/1	—	—	—	—
D-HB	208/60/1	—	—	—	—
D-HB	220/60/1	—	—	—	—
D-HB	230/60/1	—	—	—	—
D-HB	240/60/1	—	—	—	—
D-HB	208/60/3	70°F/39°C	6 Amps	15 Amps	15 Amps
D-HB	220/60/3	70°F/39°C	6 Amps	15 Amps	15 Amps
D-HB	230/60/3	70°F/39°C	6 Amps	15 Amps	15 Amps
D-HB	240/60/3	70°F/39°C	6 Amps	15 Amps	15 Amps
D-HB	380/60/3	70°F/39°C	4 Amps	15 Amps	15 Amps
D-HB	415/60/3	70°F/39°C	4 Amps	15 Amps	15 Amps
D-HB	480/60/3	70°F/39°C	3 Amps	15 Amps	15 Amps
D-HB	575/60/3	70°F/39°C	3 Amps	15 Amps	15 Amps

INSTALLATION

Unpacking

CAUTION:
Care should be taken when lifting the machine to prevent damage.

1. Immediately after unpacking the machine, inspect for any shipping damage. If damage is found, save the packing material and contact the carrier immediately.
2. Remove the dishwasher from the skid. Adjust the feet if required, then move the machine to its permanent location.
3. Level the machine (if required) by placing a level on the top of machine and adjusting the feet. Level the machine front-to-back and side-to-side.
4. Remove the two dishracks and pressure gauge from the interior of the machine. Install the pressure gauge in the upper fill piping of the dishwasher in the petcock provided.

NOTE:
The installation of your machine must meet local health codes.

Changing from Straight-through to Corner Operation

Your door-type dishwasher was specified to the factory as a straight-through configuration or corner configuration. Your machine can be converted from straight-through to corner or from corner to straight-through. The factory has kits for these conversions available. For instructions and part numbers, see Appendixes A, B, and C.

Electrical Connections

WARNING:
Electrical and grounding connections must comply with the National Electrical Code and/or Local Electrical Codes.

WARNING:
When working on the dishwasher, disconnect the electric service and place a tag at the disconnect switch to indicate work is being done on that circuit.

1. A qualified electrician must compare the electrical power supply with the machine electrical specifications stamped on the MACHINE ELECTRICAL CONNECTION PLATE located inside the top mounted control cabinet before connecting to the incoming service at a fused disconnect switch.
2. Motor rotation was set at the factory. Check the rotation of the motor shaft (CW when viewed from rear of motor). For three phase machines, reversing the motor direction is done in the control cabinet by reversing the wires L1 and L2 on the disconnect side of

Electrical Connections (cont'd)

the main electrical connection block. For single phase machines, motor rotation is changed at the motor connection plate on the rear of the single phase motor.

3. A knock-out is provided at the rear of the top mounted control cabinet for the electrical service connection. A single source electrical connection has been provided. A fused disconnect switch or circuit breaker (supplied by others) is required to protect each power supply circuit.

Plumbing Connections

CAUTION:
Plumbing connections must comply with local sanitary and plumbing codes.

Water Connections

1. Connect the hot water supply using a 3/4" NPT connection. The connection point is located behind the lower front panel of the dishwasher. Supply enters from underneath the machine.

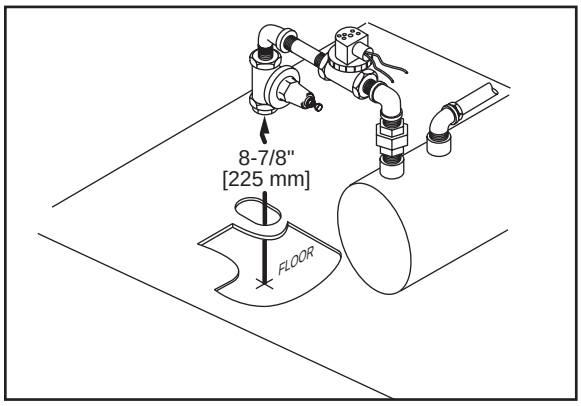


Figure 1
D-HB
3/4" NPT Water Supply Connection
Behind Front Panel

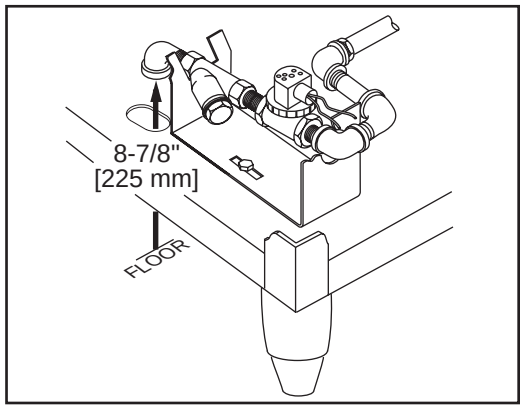


Figure 2
D-H1, D-LF
3/4" NPT Water Supply Connection
Behind Front Panel

2. Minimum incoming water supply temperature requirements are listed below:

   D-HB with built-in 40°F/23°C rise electric booster (Minimum 140°F/60°C)
   (Min./Max. flow pressure 20 – 22 psi/138 Kpa)

   D-HB with built-in 70°F/39°C rise electric booster (Minimum 110°F/43°C)
   (Min./Max. flow pressure 20 – 22 psi/138 Kpa)

   D-H1 without built-in booster (Minimum 180°F/70°C)
   (Min./Max. flow pressure 20 – 22 psi/138 Kpa)

   D-LF (Minimum 140°F/60°C)
   (Min./Max. flow pressure 20 – 22 psi/138 Kpa)

Water Connections (cont'd)

3. A manual shut-off valve for steam and water (supplied by others) should be installed in supply line to allow for servicing of the machine. The shut-off valve should be the same size or larger than the supply line.
4. A 3/4" Pressure Regulating Valve (PRV), should be installed on the incoming water supply line if water flow pressure exceeds 20 – 22 psi/138 Kpa.
   A PRV is standard equipment on Model D-HB.
   A PRV is not standard equipment on Models D-H1 and D-LF.
   The PRV may be obtained locally or direct from Champion.

Drain Connections

1. Models D-HB, D-H1, and D-LF are GRAVITY DRAIN machines equipped with a 2" hose connection point.
   • Drain height for ALL MODELS must not exceed 8-7/8" [225 mm] above floor level.

WARNING:
Connection of the machine to a drain line higher than the machine drain height will prevent the machine from draining properly.

Ventilation

NOTE:
Ventilation must comply with local sanitary and plumbing codes.

CAUTION:
Exhaust air should not be vented into a wall, ceiling, or concealed space of a building. Condensation can cause damage.

Chemical Connections

NOTE:
Consult a qualified chemical supplier for your chemical needs.

Models D-HB, D-H1 and D-LF

Refer to Figure 3.

1. Labeled chemical signal connection points are provided inside the control cabinet for chemical dispensing equipment (supplied by others).

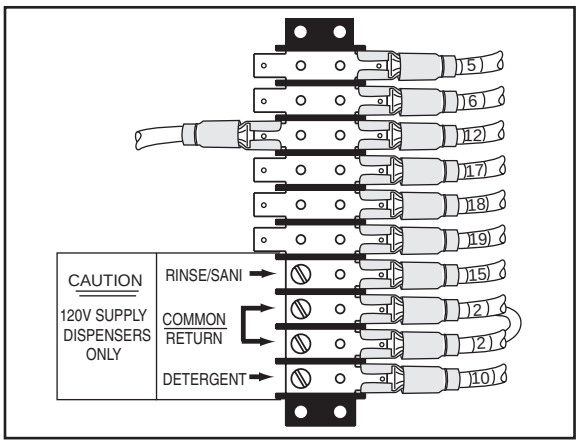


Figure 3
D-HB, D-H1, D-LF
Chemical Connection Points
Left Side Interior of Control Cabinet

Signal connection points include:

- Detergent signal 120VAC between Wire #10 and Wire #2 **(1 AMP MAX AMP LOAD)**
- Rinse Aid/Sanitizer signal 120VAC between Wire #15 and Wire #2 **(1 AMP MAX AMP LOAD)**

Detergent

Refer to Figure 4.

1. Two removable black plugs, located on the rear and left side of the wash tank are provided as detergent equipment insertion points.

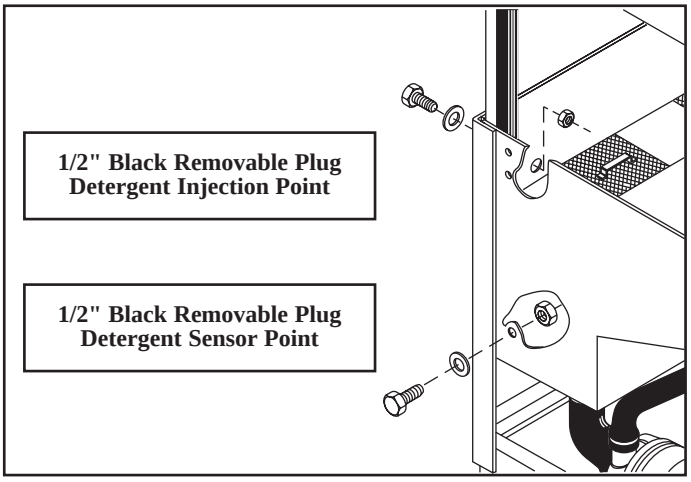


Figure 4
D-HB, D-H1, D-LF
Wash Tank Detergent Equipment
Insertion Points

Chemical Connections (cont'd)

Detergent (cont'd)

2. Detergent may be added manually if dishwasher is not equipped with dispensing equipment. Consult your chemical supplier for recommended amounts.

Rinse Aid/Sanitizer

Model D-HB and D-H1

Refer to Figure 5.

1. A rinse aid injection point is provided via a 1/4" NPT plug located in the final rinse piping. The plug is located in a cross fitting on the outlet side of the vacuum breaker. The vacuum breaker is located behind the control cabinet at the top of the machine.
2. Use a liquid rinse aid.

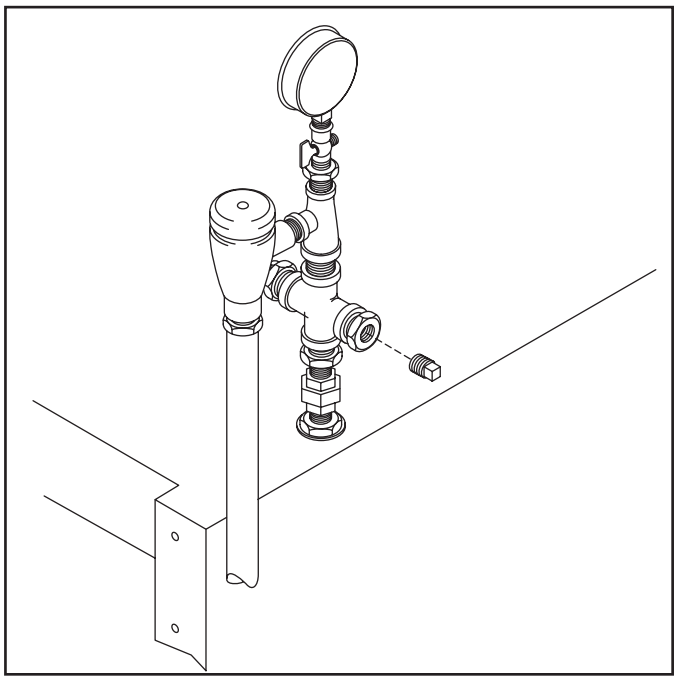


Figure 5
Rinse Aid Injection Point
D-HB, D-H1 Only

NOTE:
Models D-HB and D-H1 do not require sanitizer.

Chemical Connections (cont'd)

Rinse Aid/Sanitizer (cont'd)

Model D-LF

Refer to Figure 6.

1. A rinse aid injection point is provided via a 1/4" NPT plug located in the final rinse piping. The plug is located in a cross fitting on the outlet side of the vacuum breaker. The vacuum breaker is located behind the control cabinet at the top of the machine.
2. Use a liquid rinse aid.
3. A sanitizer injection point is provided via a 1/8" NPT plug located in the final rinse piping. The plug is located in a cross fitting on the outlet side of the vacuum breaker. The vacuum breaker is located behind the control cabinet at the top of the machine.
4. Use a sodium hypochlorite (Chlorine) based sanitizer at a minimum concentration of 50PPM in the final rinse. Use chlorine test papers to verify and monitor the 50PPM chlorine level.

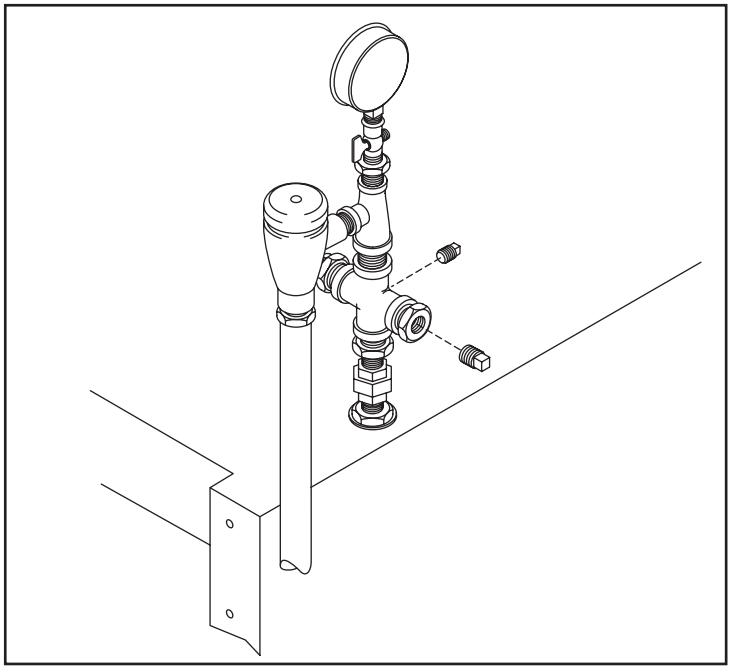


Figure 6
D-LF
Rinse Aid/Sanitizer Injection Points

WARNING:
Never premix rinse aid with the sanitizing agent. Mixing may cause hazardous gases to form.

CAUTION:
Some metal, including silver, aluminum, and pewter are attacked by sodium hypochlorite (chlorine sanitizer). Avoid cleaning these metals in a D-LF dishwasher.

INITIAL START-UP

After plumbing and electrical connections are completed, follow the steps below to place your machine in service.

Model D-HB, D-H1 and D-LF

Refer to Figures 7 and 8 below.

1. Remove any foreign material from inside the machine. Make sure scrap screens are in place.
2. Make sure wash and rinse arms are installed correctly.
3. Close the Door.
4. Turn the water and main power sources to the dishwasher ON.
5. Flip the Power switch to the ON position. The “power on” light will illuminate and the machine will automatically fill with water.
6. Check the machine for leaks.
7. Push the Green Start Button to check automatic cycle.
8. Check pump motor rotation. Rotation is CW when viewed from rear of motor.
9. If machine checks okay, flip the power switch to OFF and machine will drain for ten minutes.

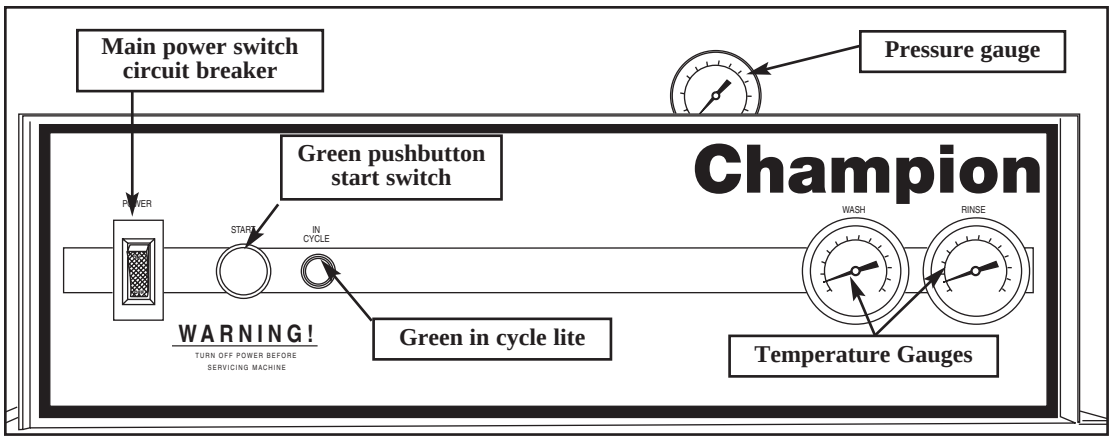


Figure 7
Operator Controls
Top Mounted Control Cabinet

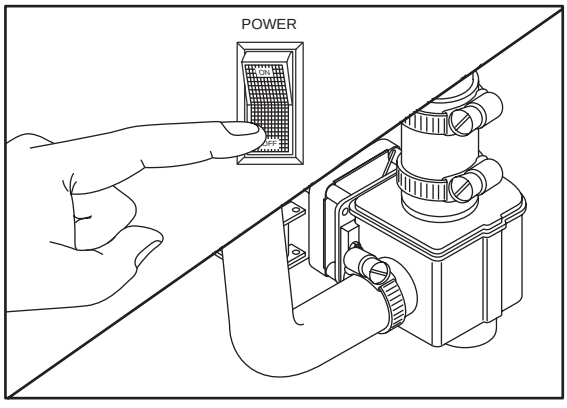


Figure 8
Drain Assembly

OPERATION

Model D-HB, D-H1 and D-LF

1. Close the door and flip power switch ON	Power light illuminates. Drain valve closes. Tank fills automatically and tank heat comes on.
2. Monitor wash tank temperature gauge	Wait for temperature reading to reach Min. 150°F/66°C (D-HB, D-H1 Only) Temperature reading must be Min. 120°F-140°F/49°C-60°C Optimum (For D-LF Only)
3. Prescrap and load ware into rack	Place dishes edgewise in peg rack, cups and bowls upside down in flat rack, and silverware spread evenly in single layer in flat rack.
4. Open door, insert rack	
5. Close door, Push Green start button	Green cycle light will illuminate. Automatic cycle begins. Machine washes for 45 sec., then pauses for 1 sec.
6. During Final Rinse monitor pressure	Machine final rinses for 14 sec. Pressure gauge and final rinse temperature gauge reading must read between 20 – 22 PSI. Temperature gauge must read 180 – 195°F/82 – 91°C (D-HB, D-H1 Only) Min. 120° – 140°F/49°C – 60°C Optimum (D-LF Only)
7. 60-second cycle complete	Green cycle light goes out.
8. Open door, remove clean rack	Insert another rack of soiled ware.
9. After each meal period or every two hours operation	Turn power switch to OFF position and machine will drain for ten minutes. Flush interior and clean scrap screens and pump intake strainer. Check spray arms and clean if necessary. Flip power switch ON and OFF to drain remaining water repeat as necessary.

NOTE:
Opening the door at any time during the cycle will stop the machine. Closing the door and pushing the Green start button will resume the cycle where it left off.

MAINTENANCE

Cleaning your machine is the best maintenance that you can provide. Components that are not regularly flushed and cleaned do not perform well.

The Maintenance intervals shown in the following schedules are the minimum requirements necessary for the proper performance of your machine. Maintenance intervals should be shortened whenever your machine is faced with abnormal working conditions, hard water, or multiple shift operations.

Maintenance Schedule

CLEANING

• Every 2 Hours or After Each Meal Period

Model D-HB, D-H1, and D-LF

1. Flip the power switch OFF.
2. Machine drain valve will open for 10 minutes automatically.
3. Flush tank interior with fresh water.
4. Remove and clean the scrap screens. Clean the pump intake screen.
5. Inspect the spray arm nozzles and rinse nozzles. Clean if necessary.
6. Close door, flip power switch ON to refill machine.

• Every 8 Hours or at the End of the Day

Model D-HB, D-H1, and D-LF

1. Flip the power switch OFF.
2. Machine drain valve will open for 10 minutes automatically.
3. Flush tank interior with fresh water.
4. Remove and clean the scrap screens. Clean the pump intake screen.
5. Remove the spray arms.
6. Clean and inspect the spray arm bearings.
7. Flush the wash arm and rinse arm assemblies and nozzles.
8. Back flush the scrap screens and pump intake strainer.
9. Flip power switch ON then OFF to open drain valve for 10 minutes.
10. Reassemble the machine. Leave the door open to aid overnight drying.

CAUTION:
DO NOT LEAVE WATER IN WASH TANK OVERNIGHT

DELIMING

Your dishwasher should be delimed regularly depending on the mineral content of your water. Inspect the machine interior for mineral deposits and use a deliming solution for the best cleaning results.

NOTE:
Consult your chemical supplier for an appropriate deliming solution.

WARNING:
Deliming solutions 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.

DELIMING PROCESS

Model D-HB, D-H1, and D-LF

1. Remove all dishes from machine.
2. Remove any chemical pick-up tubes from their containers.
3. Place each tube in a container of fresh water and prime the chemical lines for several minutes to thoroughly flush chemical from the lines. Leave pick-up tubes out of their containers.
4. Turn power switch to OFF position to drain machine for ten minutes, return power switch to ON position to refill with fresh water.
5. Spray interior walls with delimimg solution and let sit for 5 or 10 minutes depending on amount of build-up. Add deliming solution to wash tank. Do not let chemicals sit for longer than 15 minutes.
6. Push the Green start button and run an automatic cycle.
7. Repeat Steps 3-4 if necessary.
8. Repeat Step 4.
9. Refill the machine and run a complete cycle two additional times. Drain and refill the machine after each cycle to thoroughly flush any deliming solution from the interior of the machine.
10. Flip the power switch to OFF.
11. Machine drain valve will open for 10 minutes to drain machine completely.
12. Deliming is complete.

OPERATION CHECKS

• Daily

1. Check temperature gauges for proper readings.
2. Check pressure gauge for proper reading (D-H1, D-HB ONLY).
3. Check for leaks.
4. Check chemical supplies and refill as necessary.

• Weekly

1. Inspect all water lines for leaks.
2. Clean all detergent residue from the exterior of the machine.
3. Check the drains for leaks.
4. Clean accumulated mineral deposits from the tank heating elements
5. Check that float switch moves freely.

TROUBLESHOOTING

Before determining any specific cause of a breakdown or abnormal operation on your dishwasher, check that:

Checklist

1. Main power and water supply are turned on to the machine
2. All switches are ON
3. Wash pipe and rinse nozzles are clean
4. Scrap screen(s) are properly positioned
5. Spray pipes are in their proper positions
6. Doors are fully closed
7. Thermostat(s) are at their correct setting
8. Sanitizer, detergent, and rinse additive dispensers are adequately filled.
9. Drain valve/timer problems see Appendix D for trouble shooting.

If a problem still exists, use the following for troubleshooting.

CONDITION	CAUSE	SOLUTION
Machine will not start	Door not closed	Make sure doors are fully closed
	Door safety switch faulty	Contact your service agency
	Start switch faulty	Contact your service agency
	Main switch OFF	Check disconnect
	Overload protector tripped	Reset overload in control box
Low or no water	Main water supply is turned off	Turn on house water supply
	Faulty drain valve	Contact your service agency
	Machine doors not fully closed	Close doors securely
	Faulty fill valve	Contact your service agency
	Defective circuit board	Contact your service agency
	Stuck or defective float	Check floats and clean
	Clogged "Y" strainer	Clean or replace
Continuous water filling	Stuck or defective float	Check floats and clean
	Drain valve will not close	Replace drain valve/Contact your service agency
	Fill valve will not close	Clean or replace
	Defective circuit board	Contact your service agency
Any motor not running	Overload protector tripped	Reset overload in control box
	Defective motor	Contact your service agency
Wash tank water temperature is low when in use	Incoming water temperature at machine too low	Raise temperature to: 140°F/60°C for D-HB and D-LF, 180°F/82°C for D-H1
	Defective thermometer	Check or replace
	Defective thermostat	Check for proper setting or replace
	Lime scale buildup on heating elements	Delime element
	Defective heater element	Check or replace
	Low steam pressure	Check steam supply pressure (15 – 30 psi)
	Defective steam trap	Check or replace
	Defective solenoid valve	Check or replace
Insufficient pumped spray pressure	Clogged pump intake screen	Clean
	Clogged spray pipe	Clean
	Scrap screen full	Must be kept clean and in place
	Low water level in tank	Check drain
	Pump motor rotation incorrect	Reverse connection between L1 and L2 in Control Cabinet (3PH machines only)
	Defective pump seal	Contact Service Agent
Insufficient final rinse or no final rinse	Faulty pressure reducing valve	Clean or replace
	Improper setting on pressure reducing valve	Set psi flow pressure at 20 – 22 psi/138 Kpa
	Clogged rinse nozzle and/or pipe	Clean
	Improper water line size	Have installer change to proper size (3/4" min.)
	Clogged "Y" strainer	Clean or replace
Low final rinse temperature	Low incoming water temperature	Check house supply water temperature
	Improper setting of booster thermostat	Be sure booster thermostat is set to maintain 180°F/82°C temperature
	Defective booster thermostat	Replace thermostat
	Defective thermometer	Check for proper setting or replace
Poor washing results	Detergent dispenser not operating properly	Contact detergent supplier
	Insufficient detergents	Contact detergent supplier
	Wash water temperature too low	See condition "Wash tank water temperature" above.
	Wash arm clogged	Clean
	Improperly scraped dishes	Check scraping procedures
	Ware being improperly placed in rack	Use proper racks. Do not overload racks
	Improperly cleaned equipment	Unclog wash sprays and rinse nozzles to maintain proper pressure and flow conditions. Keep wash water as clean as possible.
	Electric Elements or steam coils has soil/lime buildup	Clean and/or delime
Poor drying results	Insufficient rinse-aid	Contact chemical supplier
	Low final rinse temp	See condition "Low final rinse temperature" above.

BASIC SERVICE

This Basic Service section does not cover all possible repair procedures. If you require additional service support, you may call your local service company or:

Champion National Service
1-800-858-4477

In Canada
1-800-263-5798

Please have the Model and Serial Number of the machine ready when you call.

ELECTRICAL SERVICE

WARNING:
Disconnect Power at main disconnect switch before removing lower panels. Removing lower panels exposes live open electrical wiring (not contained in conduit).

Always replace panels after completing service or repairs. Do not operate the dishwasher with panels removed for anything other than service repair operation.

NOTE:
DO NOT USE CHASSIS GROUND WHEN PERFORMING VOLTAGE CHECKS.

Doing so will result in false and inaccurate readings.
PERFORM VOLTAGE CHECKS BY READING FROM THE HOT SIDE OF THE LINE AND NEUTRAL (any #2 or white wire).

WARNING:
USE EXTREME CAUTION *when performing tests on energized circuits.*

WARNING:
When repairing a circuit, disconnect the power at the main service disconnect switch and place a tag at the disconnect switch to indicate that work is being performed on the circuit.

Troubleshooting

Schematics

Champion places an electrical schematic in the control cabinet of every machine before it is shipped. Schematics are included at the back of this manual as well. Be aware that these schematics include options that may not apply to your machine. Options are enclosed in dashed lines with the words (IF USED) next to them on the schematic. Disregard any options that appear on the schematics which are not a part of your machine.

Fuses

Refer to Figure 9.
There are two fuse blocks, located in the center of the main control cabinet. The (A) fuses protect the main control transformer. The (B) fuses protect the wash tank heater circuit. Fuses are marked FU on the electrical schematic. Booster heater circuits (D-HB only) are not fused.

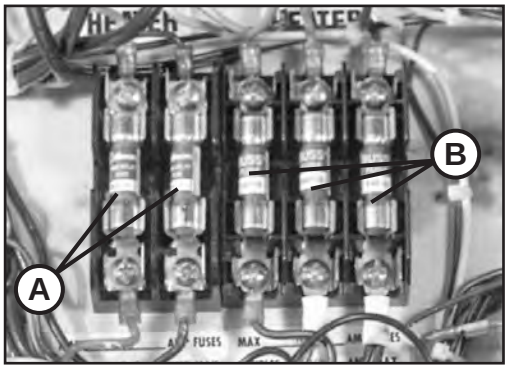


Figure 9
Fuses
(Three phase shown)

To Replace a fuse:

Turn the dishwasher main power switch off.
Disconnect power to the machine at the main service disconnect switch.
Replace the fuse. If the fuse blows again,
DO NOT INCREASE THE FUSE SIZE.
DETERMINE THE CAUSE OF THE OVERLOAD.

Motor Overloads

The wash pump motor has an overload to protect it from line voltage electrical overloads. The overload disconnects 120VAC power to the motor contactor coil.

Refer to Figure 10.

Note the Switch Lever on the Overload.

If the switch lever is off with the "0" showing then the overload has tripped.

To Reset the Motor Overload:

Flip the overload switch to the On position. A "1" should be visible on the switch lever.

To Replace a Motor Overload:

Disconnect the wires to the overload. Release the mounting catch on the front side of the overload. Push forward and lift out. Snap the new overload into place and reconnect the wires.

To adjust the overload setting:

The screwdriver in Figure 10 is positioned to adjust the motor overload AMP setting. Read the full load amps (FLA) motor amps on the motor nameplate. Turn setting to match nameplate.

Figure 10
Motor Overload

Solid State D-HB, D-H1, and D-LF Operating Instructions

Automatic Operation

1. Check that drain is closed and screens are in place.
2. Turn on main power to the machine.
3. Flip machine control panel power switch to ON.
4. Close doors.*
   *Machine pauses 4 seconds to check water level.
5. Machine fills for 110 seconds if float is down.

ELECTRICAL SERVICE (cont'd)

6. Run machine through several cycles or wait 10 minutes for temperature to stabilize.
7. Open door, insert rack of dishes.
8. Close doors. Push the GREEN push button to start cycle.
9. Machine cycle is:
   WASH = 45 seconds DWELL = 1 second RINSE = 14 seconds
10. Open door, remove clean rack of dishes.
11. Repeat for additional racks.

Troubleshooting Timer Circuit Board

1.1 Introduction

The following procedures are for determining whether or not the timer circuit board itself is faulty.

In this part —

- Checking the general condition of the circuit board.
- Testing inputs.
- Testing outputs.

Special Tools —

- A voltmeter capable of reading DC and AC volts.

1.2 Checking General Condition

Before testing the inputs and outputs, you should first check that the board is receiving power.

Turn on the power switch to the unit (do not start the unit, just turn ON power to the unit). If red "POWER" LED on board is illuminated, go directly to "1.3 Testing Board Inputs." When LED is not illuminated, then check that the following conditions are true:

Power Terminals

- Verify that the board is receiving power of 120 VAC at the terminals:
  — T2, marked "H" (AC Hot).
  — T1, marked "N" (AC Neutral).

If either of these terminals is not receiving 120 VAC, then there is a problem elsewhere with the unit not receiving power.

The Fuse (F1)

- Verify that the circuit board fuse (F1) is good.

If not replace it.

Red "POWER" LED

- Verify that the red "POWER" LED is illuminated.

If it is not, and the previous two conditions are true, then the board is bad and should be replaced.

1.3 Testing Board Inputs

After you have verified that the circuit board is receiving power (as explained above), then test the board inputs. There are 4 board inputs:

- Start Switch
- Door Safety Switch
- Float Switch
- Extended Wash (not used on this Model)

Perform the following steps to test a board input:

1. Set the voltmeter to measure ***DC volts***.

2. Place the NEGATIVE (Black) test probe on the "HOT" terminal:
   • T2, marked "H".
3. Place the POSITIVE (Red) test probe on the input terminal to be tested:
   • T7, marked "START SW" (for the Start Switch).
   • T8, marked "DOOR SW" (for the Door Safety Switch).
   • T9, marked "FLOAT SW" (for the Float Switch).
4. Check the results on the voltmeter:
   • ***If switch is opened*** – the meter should read between 4.7 to 5.3 DC volts.
   • ***If switch is closed*** – the meter should read between 0 to 1 DC volts.

1.4 Testing Board Outputs

After you have verified that the circuit board is receiving power (as explained above), then test the board outputs. There are 4 board outputs:

- Wash Cycle
- Rinse Cycle
- Heaters
- In-Cycle Lamp

Perform the following steps to test a board output:

1. Set the voltmeter to measure ***AC volts***.
2. Place the NEGATIVE (Black) test probe on the "NEUTRAL" terminal:
   • T1, marked "N".
3. Place the POSITIVE (Red) test probe on the output terminal to be tested:
   • T3, marked "WASH OUTPUT" (for the Wash Cycle).
   • T4, marked "RINSE OUTPUT" (for the Rinse Cycle).
   • T5, marked "HEATERS OUTPUT" (for the Water Heater).
   • T6, marked "LAMP OUTPUT" (for the In-Cycle Lamp indicator).
4. Check the results on the voltmeter for the terminal you are testing:
   • ***For T3*** – the meter should read 120 VAC whenever the unit is in cycle and the "WASH" LED is illuminated on the circuit board.
   • ***For T4*** – the meter should read 120 VAC whenever the unit is in a fill or rinse mode and the corresponding "FILL" or "RINSE" LED is illuminated on the circuit board.
   • ***For T5*** – the meter should read 120 VAC whenever the power switch is on and the wash tank is full (i.e., the float switch is up).
   • ***For T6*** – the meter should read 120 VAC whenever the machine is in cycle.

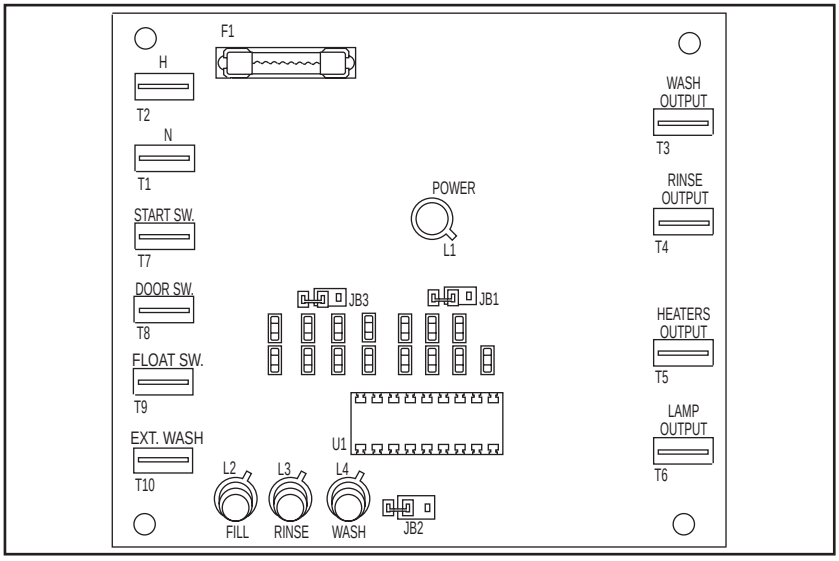


Figure 11
Solid State Control Board

Models D-HB, D-H1, and D-LF use a float switch and circuit board to control tank fill and tank heat.

For Model D-HB only, the built-in booster heat circuit is also controlled by the float switch.

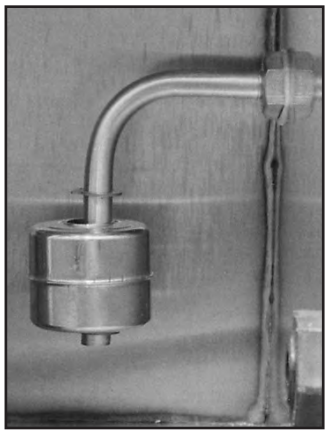


Figure 12
Float Switch

Operation:

1. When dishwasher main power switch is turned on (wash tank empty), the drain valve closes allowing cycle time to run for a minimum of 110 seconds to fill the tank.
2. The float switch ball rises; its normally open contacts close. The fill circuit times out; the fill solenoid de-energizes, and the tank heat and booster heat energize.
3. If water level drops below the float level, the float switch ball moves down; heat de-energizes. The fill solenoid energizes and the fill cycle runs for a minimum of 110 seconds to refill the tank.
4. If the tank is not full of water at the end of the 110-second fill cycle , then the machine will cycle again. When the float switch is satisfied, the fill cycle stops after completing its 110-second cycle.
5. Refer to the float switch troubleshooting chart (Fig.13) below, for a quick guide to evaluating float switch problems.

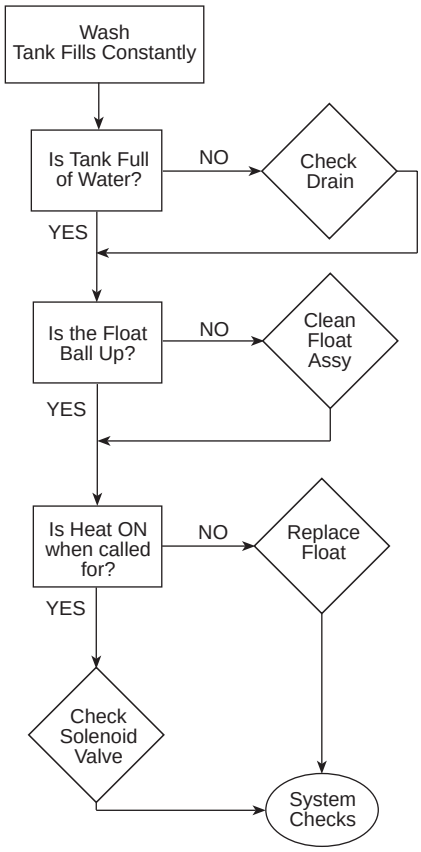


Figure 13
Float Switch
Troubleshooting Chart

Heater Element Wiring – Booster Tank and Wash Tank Heater Elements

Refer to the illustrations and follow the steps below to properly install terminal jumpers and to make line power connections to a replacement element.

Step 1. Hold the element assembly with the calrod coils facing toward you.

Step 2. Match your element coil to Configuration A, B, C, or D.

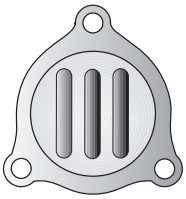
Step 3. Rotate your element coils to match the correct configuration.

Step 4. Turn the element over and match your element to the correct terminal configuration.

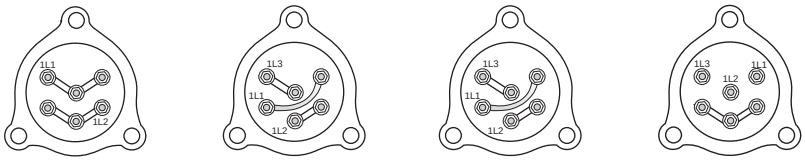
Step 5. Install terminal jumpers according to the illustration for your voltage requirement.

Step 6. Install the element and make your line connections 1L1, 1L2, or 1L3 per the illustration.

Configuration A
Booster tank element
View of calrod coils

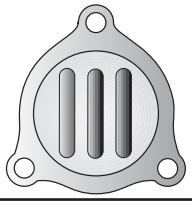


Terminal Connections view of element

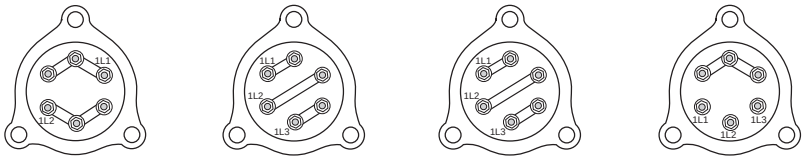


208V/1 Phase | 208-240V/3 Phase Delta Connection | 480V/3 Phase 575V/3 Phase Delta Connection | 208-240V/3 Phase Wye Connection for 380-415V/3 Phase

Configuration B
Booster tank element
View of calrod coils



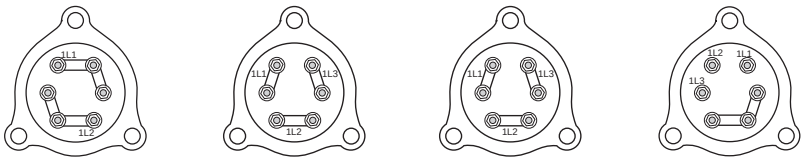
Terminal Connections view of element



208V/1 Phase | 208-240V/3 Phase Delta Connection | 480V/3 Phase 575V/3 Phase Delta Connection | 208-240V/3 Phase Wye Connection for 380-415V/3 Phase

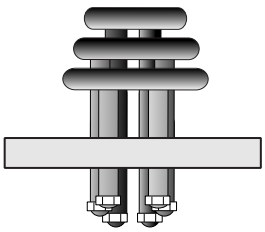
Configuration C
Booster tank element
View of calrod coils

Terminal Connections view of element

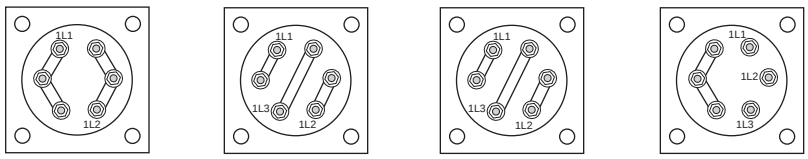


208V/1 Phase | 208-240V/3 Phase Delta Connection | 480V/3 Phase 575V/3 Phase Delta Connection | 208-240V/3 Phase Wye Connection for 380-415V/3 Phase

Configuration D
Wash tank element
View of calrod coils



Terminal Connections view of element



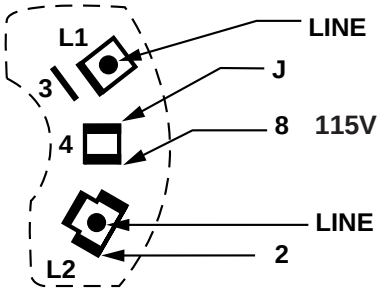
208V/1 Phase | 208-240V/3 Phase Delta Connection | 480V/3 Phase 575V/3 Phase Delta Connection | 208-240V/3 Phase Wye Connection for 380-415V/3 Phase

Motor Connections

1. Models D-HB, D-H1, and D-LF are available in either single phase or 3 phase voltages.
2. Motor rotation was set at the factory. For three phase machines, reversing the motor direction is done in the control cabinet by reversing the wires L1 and L2 on the disconnect side of the main electrical connection block. For single phase machines, motor rotation is changed at the motor connection plate on the rear of the single phase motor (if necessary).

Refer to Figure 14 for the proper wiring of the pump motor for single and three phase voltages.

Single Phase - Low Voltage



Single Phase - High Voltage

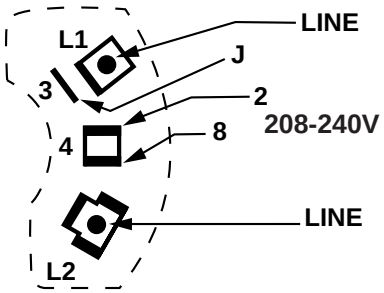
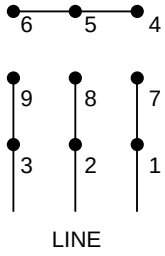
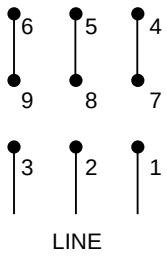


Figure 14
Pump Motor Wiring Diagrams

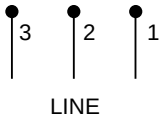
208-240V
Three Phase - Low Voltage



480V
Three Phase - High Voltage



575V Only
Three Phase



MECHANICAL SERVICE

Pump Seal Replacement

1. Disconnect the power to the machine at the main breaker panel or fuse box.
2. Drain the machine.
3. Remove the front and side panels.
4. Remove drain plug on the pump volute and drain the pump.
5. Remove the pump hoses.
6. Disconnect the wires to the motor at the motor junction box.
7. Unbolt motor from machine base and remove the pump/motor assembly.
8. Remove bolts on volute and carefully remove from the pump flange.
9. Lock the motor shaft with a wrench or pliers. The back of motor shaft is square.
10. Turn the impeller counter-clockwise to remove from shaft (right hand threads).
11. Remove the old seal and discard.
12. Check seal seat in the pump flange and clean thoroughly.
13. Press rubber seal/ceramic portion of seal assembly into the pump flange. Use a water soluble lubricant. Be careful to keep the ceramic clean.
14. Install the rotating part of the seal on the shaft with the graphite surface toward the ceramic. Use a water soluble lubricant on the rubber seal part only (not the graphite).
15. Reinstall impeller and new flange gasket. Reinstall bolts.
16. Reinstall the pump/motor assembly and reconnect the pump hoses.
17. Fill the dishwasher with water.
18. Check motor rotation by bump starting motor. Correct motor shaft rotation is clockwise when viewing motor from the rear.
19. Test run and check for leaks.

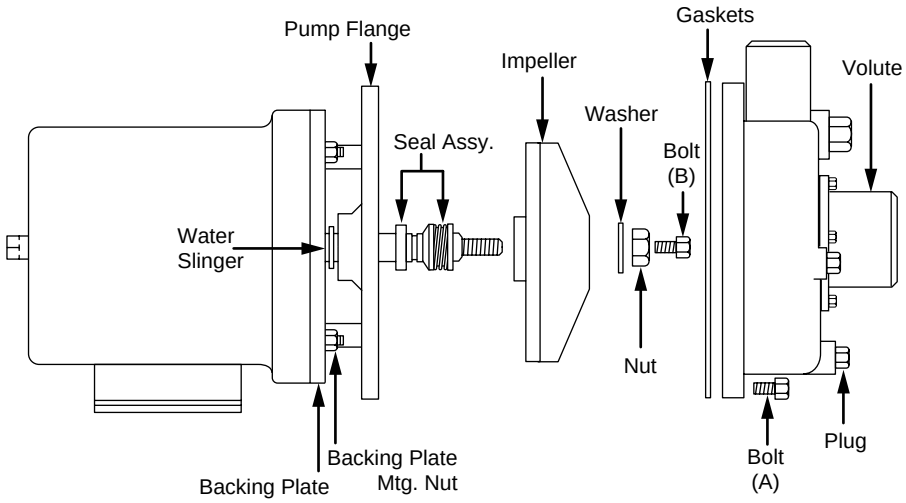


Figure 15
Pump Seal Replacement

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REPLACEMENT PARTS

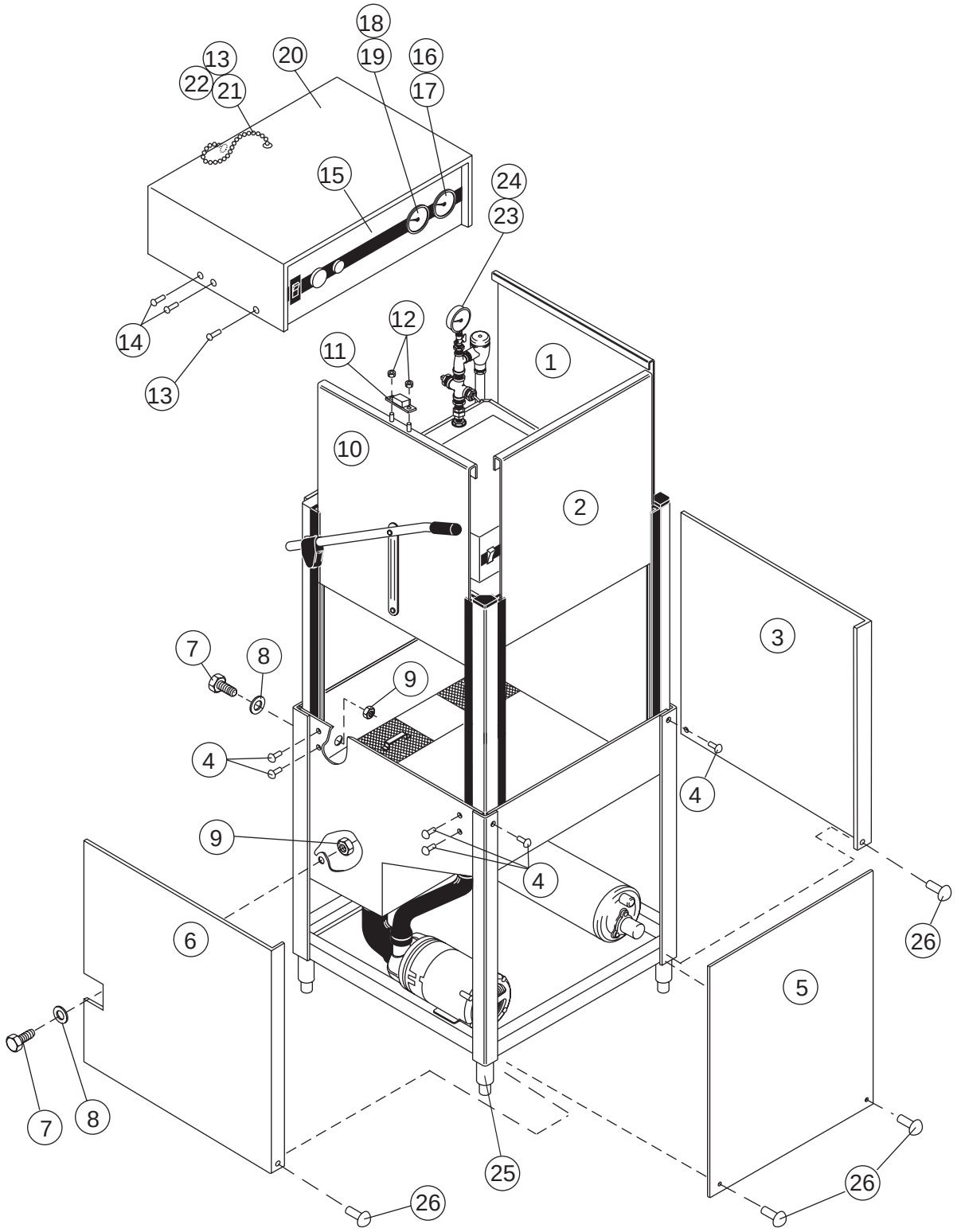

Figure 16 – D-HB/D-H1/D-LF
Doors, Panels and Gauges

D-HB/D-H1/D-LF
DOORS, PANELS AND GAUGES

Fig. 16 Item No.	Part No.	Part Description	Qty.
1	325405	Side Door, Right	1
1	325407	Side Door, Right (Corner Machine)	1
2	325408	Front Door	1
3	321929	RH Panel, No Cut Out	1
4	100779	Screw 1/4-20 x 5/8 Truss Head	6
5	321932	Panel Front	1
6	321941	LH Panel w/Cut Out	1
7	108418	Plug, Plastic	4
8	109034	Washer 13/16 x 1-13/16	4
9	108417	Nut, Plastic	4
10	325406	Door, Side Left	1
11	324801	Magnet Assembly	1
12	108954	Nut, Grip 6/32 w/Nylon Insert	2
13	100007	Screw 10-32 x 3/8 Truss Head	2
14	0508752	Screw 4-40 x 5/8 Round Head	2
15	0508668	Decal Control Cabinet	1
16	113622	Thermometer 4-ft. Gas Filled (Final Rinse) (Replaces 108391)	1
17	112090	Overlay, Final Rinse 180° – 195°F	1
17	112092	Overlay, Final Rinse 120°F (D-LF Only)	1
18	107440	Thermometer 8-ft. (Wash)	1
19	112086	Overlay, Wash 150°F	1
19	112093	Overlay, Wash 120°F (D-LF Only)	1
20	305404	Control Cabinet Cover.	1
21	107367	Chain, Bead #10	1
22	107368	Chain, End Coupling	1
23	100135	Gauge, Pressure (0 – 60 PSI)	1
24	109765	Overlay, Pressure Gauge.	1
25	112587	Foot, Cast Grey.	4
26	0504822	Screw 8-32 x 1/2 Pan Head	4
27	325392	Splash Baffle (Front & Side Doors) (Not Shown)	A/R
28	325400-1	Splash Baffle (Top of Hood) (Not Shown)	A/R
29	325400-2	Splash Baffle (Side, Top of Hood) (Not Shown)	A/R
30	325444	Splash Baffle (Front, Side, Top of Hood) (Not Shown)	A/R

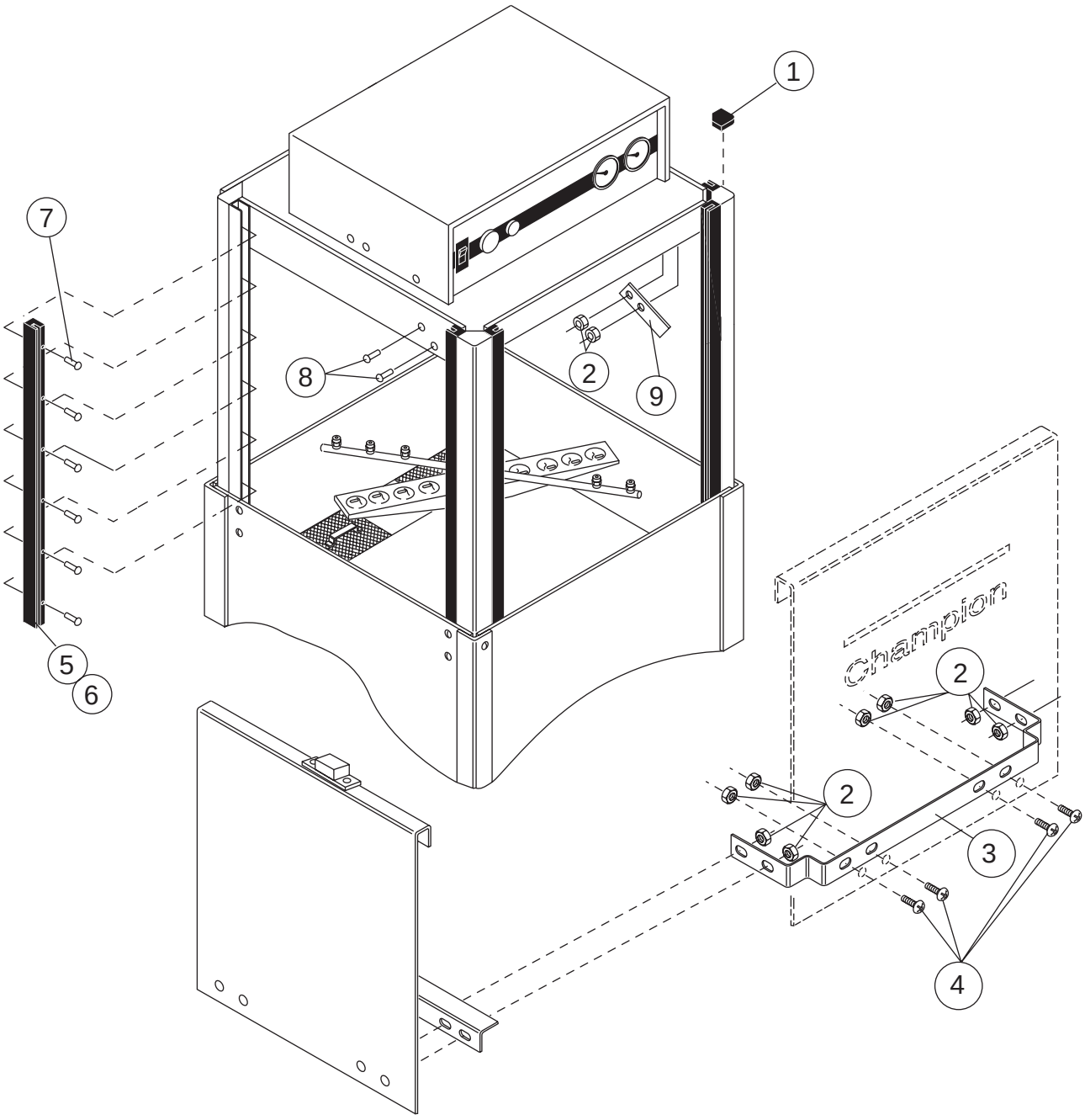

Fig. 17 – D-HB/D-H1/D-LF
Door Guides, Stops, and Lift Bracket

D-HB/D-H1/D-LF

DOOR GUIDES, STOPS, AND LIFT BRACKET

Fig. 17 Item No.	Part No.	Part Description	Qty.
1	108053	Plug, Cornerpost	2
2	107966	Nut, Grip 10-32 w/Insert	10
3	0309277	Bracket, Door Lift	1
4	100097	Screw 10-32 x 1/2" Truss Head	10
5	108347	Guide, Door	6
6	108410	Gasket, Door Guide (26")	12
7	107970	Screw 8-32 x 1 Filister	36
8	100007	Screw 10-32 x 3/8 Truss Head	2
9	0307328	Stop, Door	2

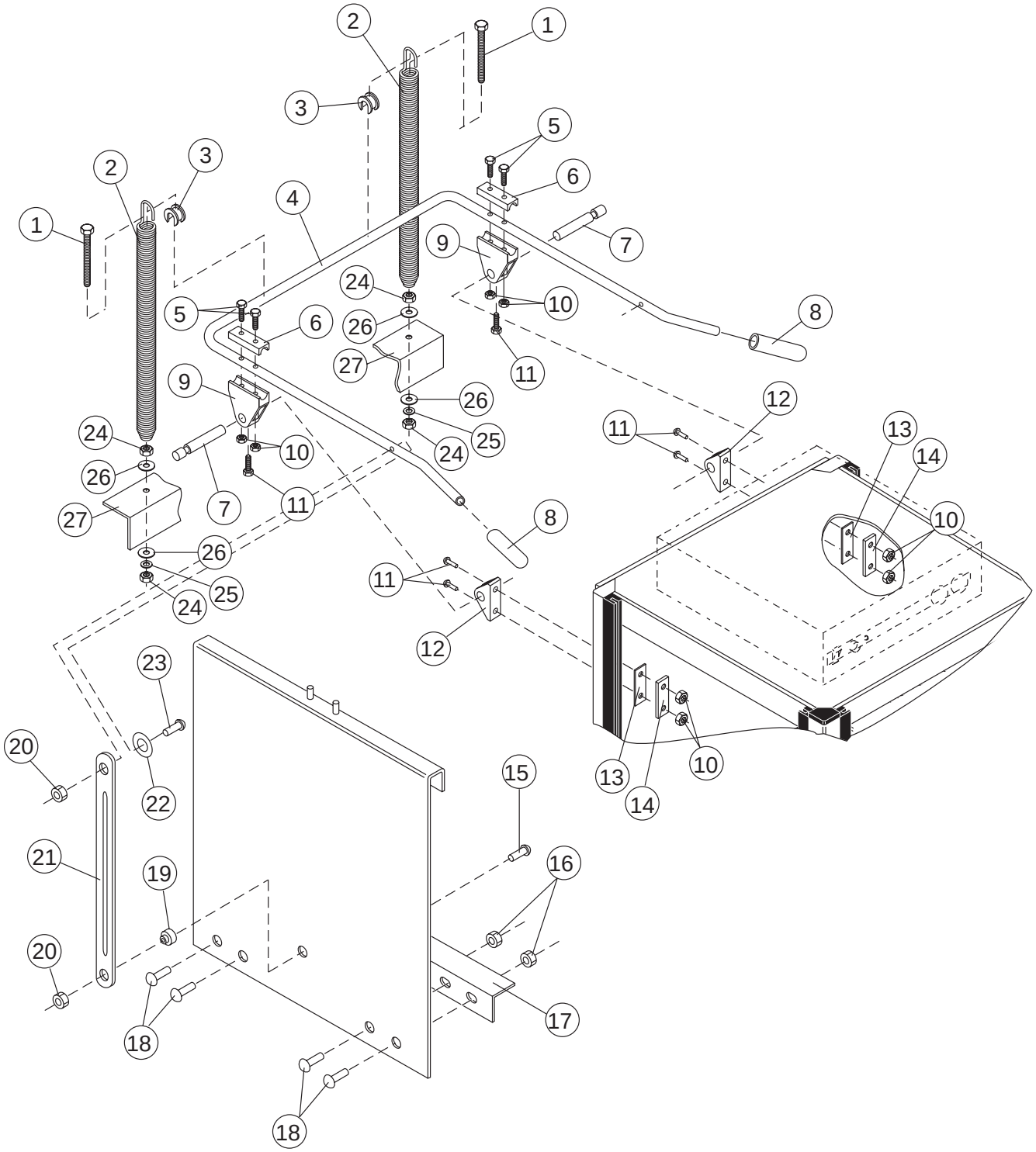

Fig. 18 – D-HB/D-H1/D-LF
Door Handle and Spring Assembly

D-HB/D-H1/D-LF

DOOR HANDLE AND SPRING ASSEMBLY

Fig. 18 Item No.	Part No.	Part Description	Qty.
1	0509168	Bolt 5/15-18 x 11 Hex Head	1
2	108066	Spring, Extension	2
3	107397	Block, Spring Hook	2
4	0509166	Door Handle (Straight Thru Machine)	1
4	112859	Door Handle (Corner Machine)	1
5	107437	Bolt M6 x 45mm Hex Head	4
6	107396	Block, Upper Pivot	2
7	107393	Pin, Pivot	2
8	107962	Handle, Grip	2
9	107395	Block, Lower Pivot	2
10	107420	Nut, Plain M6	8
11	107436	Screw M6 x 16mm Filister	6
12	107399	Support, Pivot Block	2
13	304811	Gasket, Backing	2
14	108368	Plate, Backing	2
15	100740	Bolt 5/16-18 x 1" Hex Head	2
16	107966	Nut, Grip 10-32 w/Nylon Insert	8
17	322077	Guard, Splash	2
18	100097	Screw, 10-32 x 1/2 Truss Head	8
19	0509264	Bushing, Side Door	2
20	100142-T	Nut, Toplock 5/16-18 SST	2
21	0309167	Lift Bar, Door	2
22	102376	Washer, Flat	2
23	104002	Bolt 5-16-18 x 1-1/2	2
24	100154	Nut, Plain 5/16-18	4
25	106013	Washer, Lock 5/16 Split	2
26	102376	Washer 5/16 x 3/4 x 1/16	4
27	321927	Spring Anchor Bracket	2

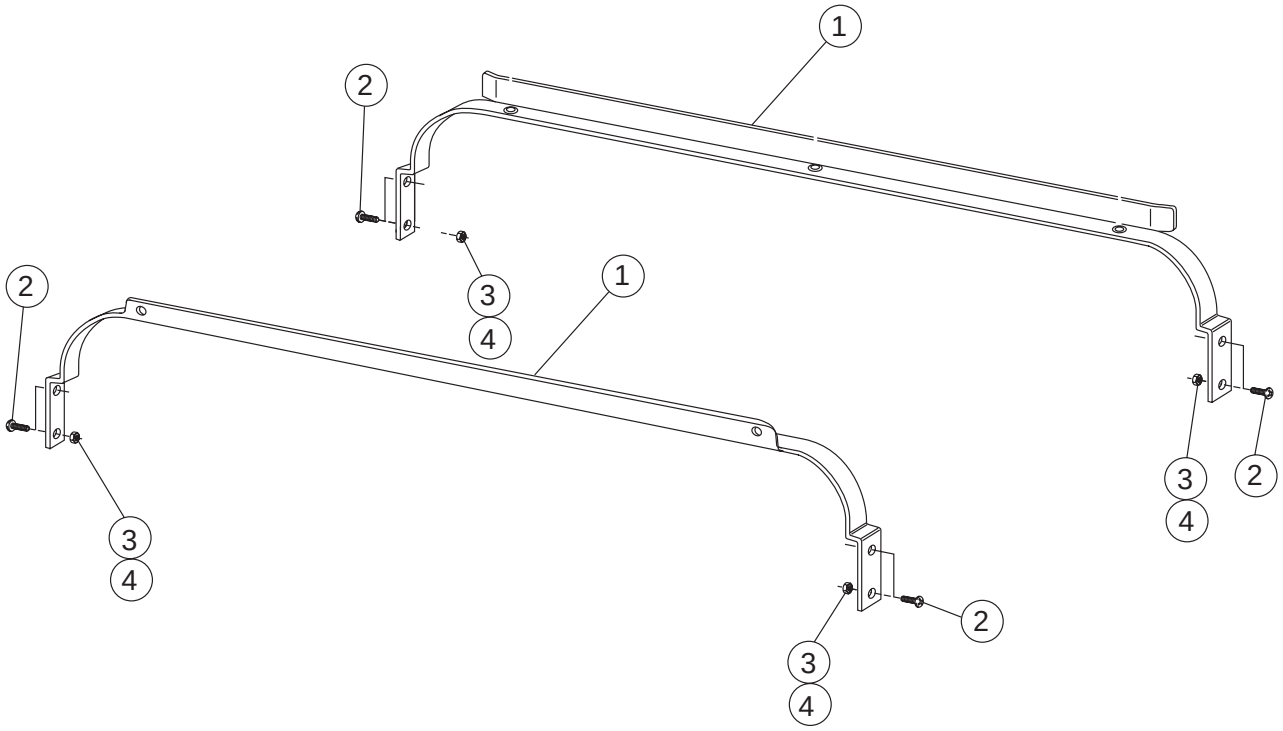

Fig. 19A – D-HB/D-H1/D-LF
Straight Track Assembly

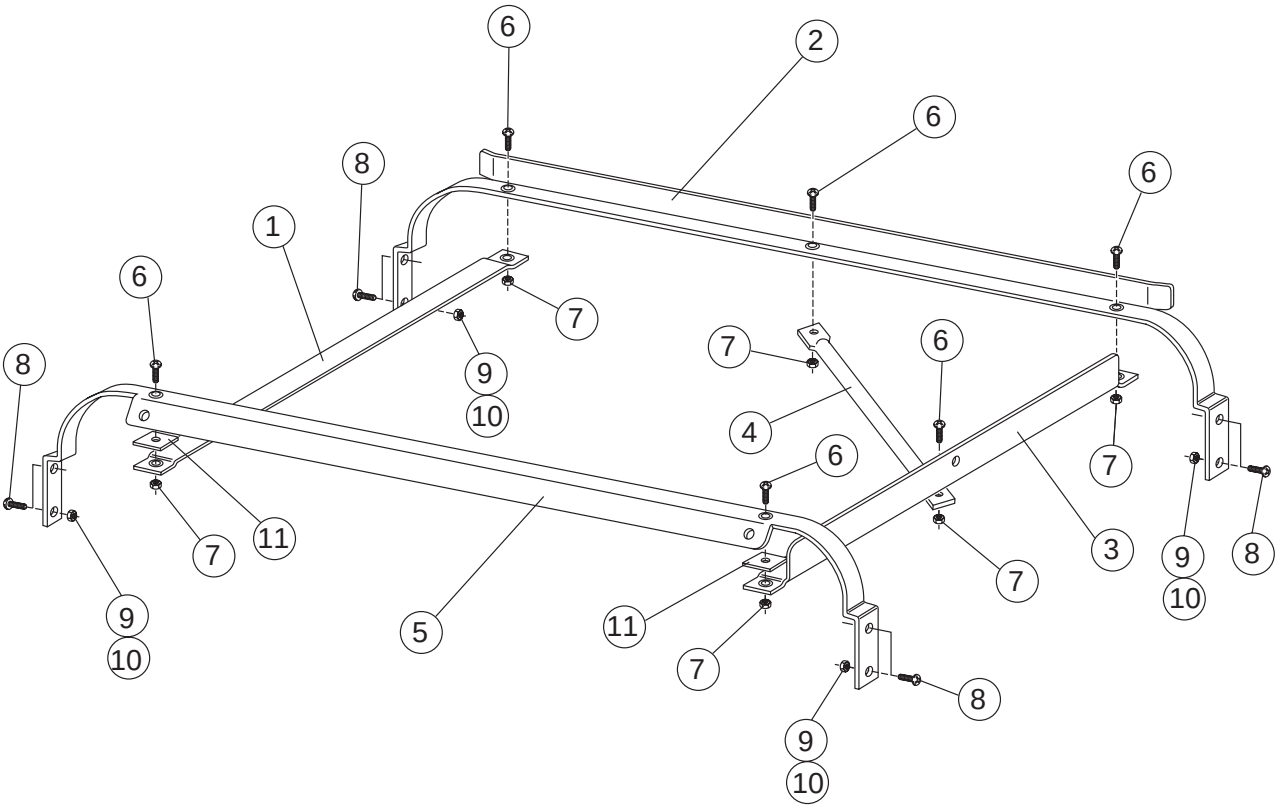

Fig. 19B – D-HB/D-H1/D-LF
Corner Track Assembly

D-HB/D-H1/D-LF
STRAIGHT TRACK ASSEMBLY

Fig. 19A Item No.	Part No.	Part Description	Qty.
1	0309472	Track, Rear	2
2	100073	Screw (1/4-20 x 1/2 Truss Head)	8
3	106482	Washer, Lock	8
4	100003	Nut (1/4-20 Hex Head)	8

D-HB/D-H1/D-LF
CORNER TRACK ASSEMBLY

Fig. 19B Item No.	Part No.	Part Description	Qty.
1	0309469	Guide, Right Hand	1
2	0309472	Track, Rear	1
3	0309468	Guide, Left Hand	1
4	0309470	Support, Rack	1
5	0309471	Track, Front	1
6	106727	Screw (10-32 x 5/8 Flat Head)	6
7	107966	Nut, Grip (10-32 w/Nylon Insert)	6
8	100073	Screw (1/4-20 x 1/2 Truss Head)	8
9	106482	Washer, Lock	8
10	100003	Nut (1/4-20 Hex Head)	8
11	0309473	Spacer	2

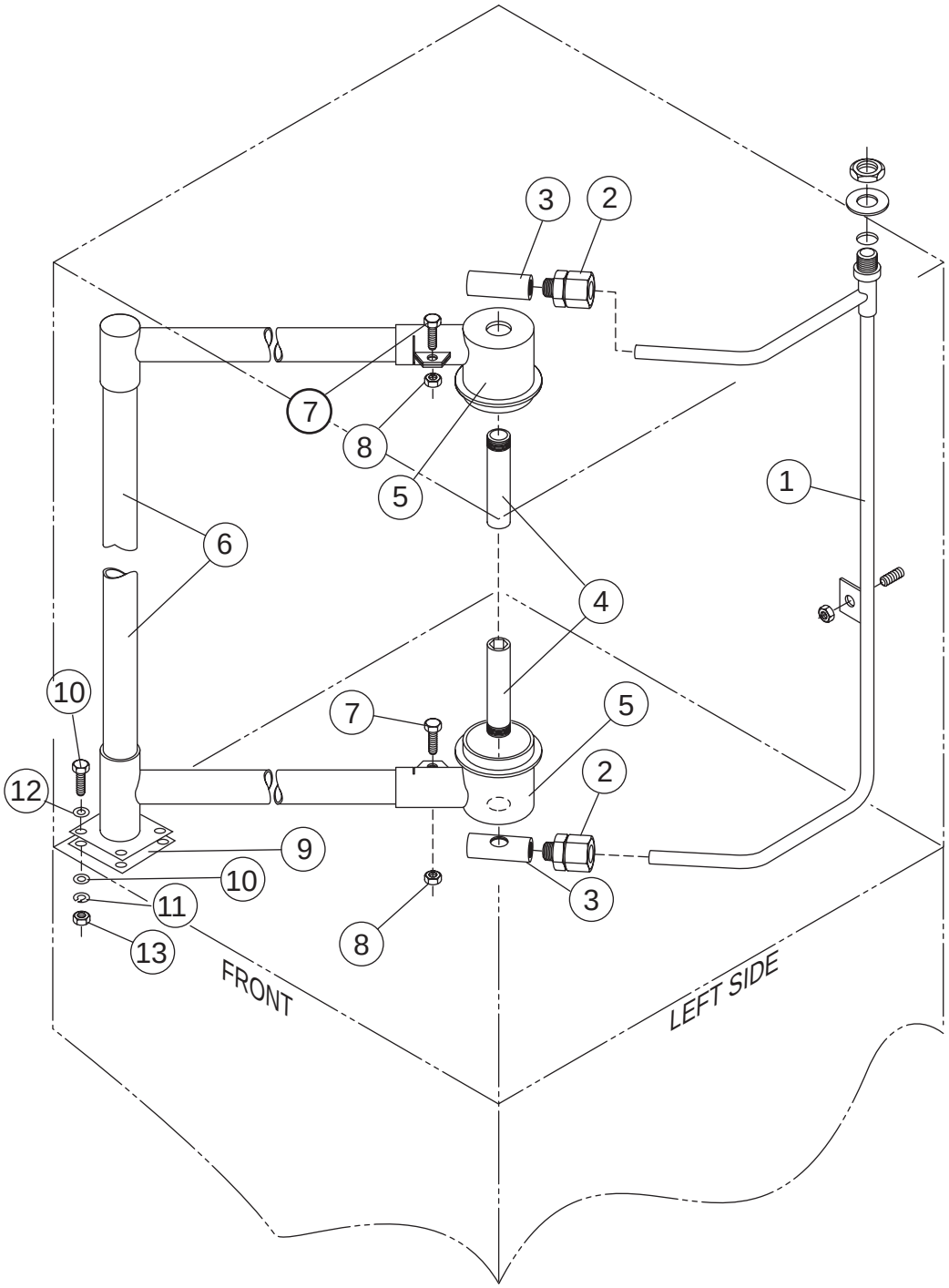

Fig. 20 – D-HB/D-H1/D-LF
Wash/Rinse Spray Piping

D-HB/D-H1/D-LF
WASH/RINSE SPRAY PIPING

Fig. 20 Item No.	Part No.	Part Description	Qty.
1	324526	Rinse Manifold Weldment	1
2	113027	Connector, Rinse Arm	2
3	113028	Top Rinse Arm Connector	2
4	0507445	Spindle, Wash Arm	2
5	109864	Support, Wash Arm	2
6	109781	Standpipe, Wash	1
7	100736	Bolt 1/4-20 x 3/4 Hex Head	2
8	107967	Nut, Grip 1/4-20	3
9	109854	Gasket, Standpipe Wash	1
10	100740	Bolt 5/16-18 x 1" Hex Head	4
11	106013	Washer, Lock 5/16 Split	4
12	102376	Washer, Flat	8
13	100154	Nut, Plain 5/16-18	4

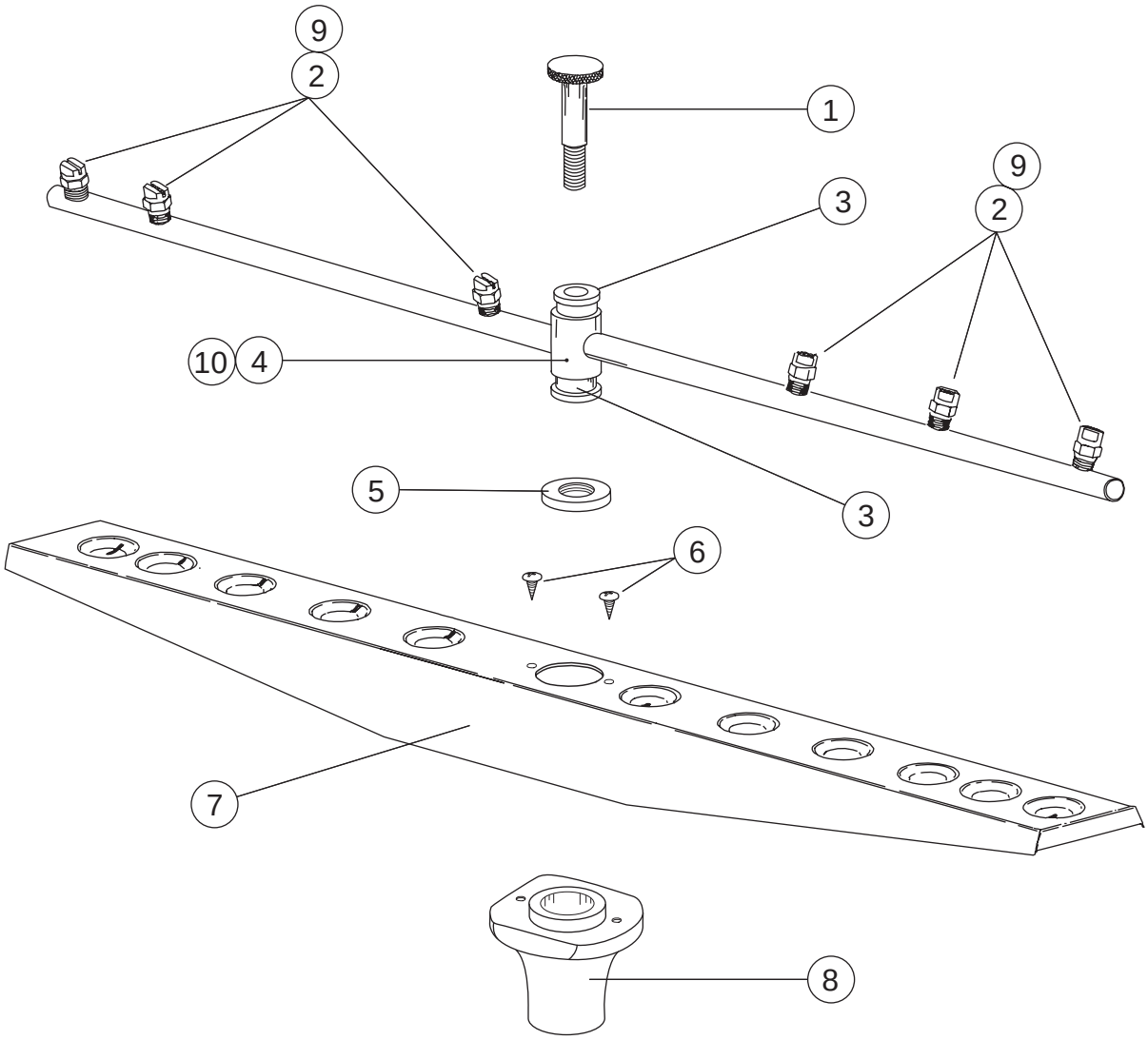

Fig. 21 – D-HB/D-H1/D-LF
Wash/Rinse Spray Arms

D-HB/D-H1/D-LF
WASH/RINSE SPRAY ARMS

Fig. 21 Item No.	Part No.	Part Description	Qty.
1	0507443	Spindle, Rinse Arm	2
2	0508376	Nozzle, Rinse Arm (DHB, D-H1 Only)	12
3	112164	Bearing, Rinse Arm	4
4	0707453	Rinse Arm Assembly (Includes 2 & 3)	2
5	0507444	Nut, Rinse Arm	2
6	109835	Screw (#8 x 1/2 Pan Head)	4
7	0707452-S	Wash Arm Assembly (Includes 6 & 8)	2
8	0507446	Bearing, Wash Arm	2
9	0507451	Nozzle Rinse Arm (SST) (Model D-LF Only)	12
10	0708899	Rinse Arm Assembly (Model D-LF Only) (Includes 3 & 9)	1
—	0707450	Rinse Arm (Does Not Include Items 2, 3, or 9)	
—	0707456	Wash Arm (Does Not Include Item 8)	

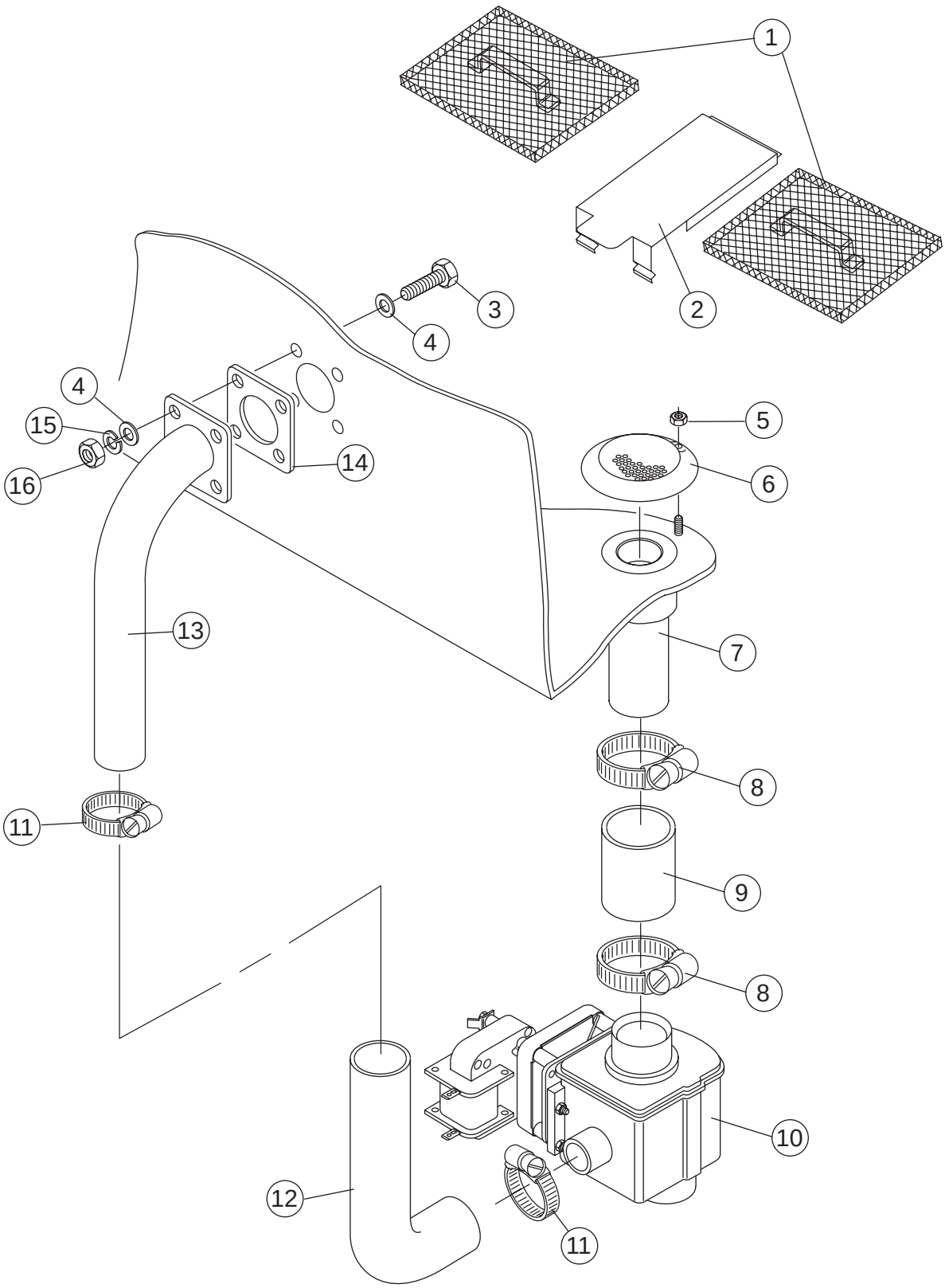

Fig. 22 – D-HB/D-H1/D-LF
Drain Assembly and Scrap Screens

D-HB/D-H1/D-LF

DRAIN ASSEMBLY AND SCRAP SCREENS

Fig. 22 Item No.	Part No.	Part Description	Qty.
1	305164	Screen 10"	2
2	324582	Filler Plate	1
3	100736	Bolt 1/4-20 x 3/4 Hex Head	4
4	106026	Washer, Flat	8
5	107967	Grip, Nut 1/4-20 w/Nylon Insert	1
6	304816	Strainer	1
7	205988	Connector, Electric Drain Valve	1
8	104165	Clamp, Hose	2
9	205990	Hose, Rubber	1
10	113315	Electric Drain Valve (After S/N D2964)	1
10	900830	Kit, Drain Valve (From S/N D2099 thru D2963)	
11	107340	Hose Clamp	2
12	113048	Overflow Hose	1
13	324573	Overflow Flange Weldment	1
14	113047	Gasket, Drain Flange	1
15	106482	Washer, Lock 1/4 Split	4
16	100003	Nut, Plain 1/4-20 SST	4

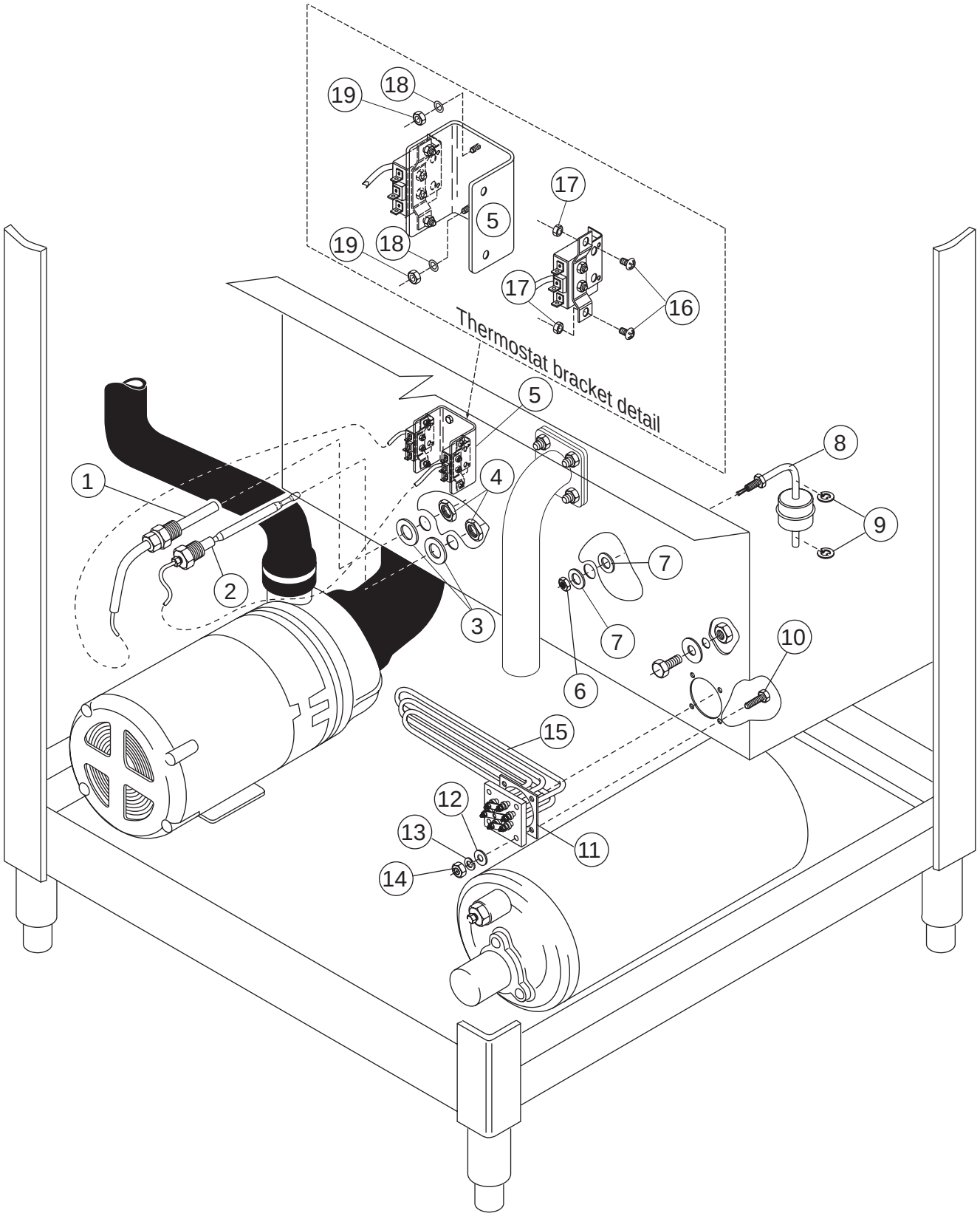

Fig. 23 – D-HB/D-H1/D-LF
Wash Tank Heat, Thermostats, and Float Switch

D-HB/D-H1/D-LF

WASH TANK HEAT, THERMOSTATS, AND FLOAT SWITCH

Fig. 23 Item No.	Part No.	Part Description	Qty.
1	107440	Thermometer 8 ft.	1
2	109069	Thermostat w/Cap 110-220°F	1
3	201041	Washer	2
4	201029	Nut, Lock 1/2"	2
5	322076	Dual Thermostat Bracket	1
6	107089	Nut, Jam 1/2-13	1
7	104882	Washer	2
8	111092	Float Switch	1
9	111151	C-clip Float Switch	2
10	100740	Bolt 5/16-18 x 1 Hex Head	4
11	108345	Gasket 3 x 3 x 1/8 2"	1
12	102376	Washer 5/16 x 3/4 x 1/16	8
13	106013	Washer, Lock 5/16 Split	4
14	100154	Nut, Plain 5/16-18 SST	4
15	0509637	Heater 3kw 115v/1ph	1
	0509185	Heater 3kw 208-240/380-415v 1/3ph	1
	0509373	Heater 3kw 480v/3ph	1
	0509372	Heater 3kw 575v/3ph	1
16	100007	Screw 10-32 x 3/8 Truss Head	4
17	107966	Nut, Grip 10-32 w/Nylon Insert	4
18	106482	Washer, Lock 1/4 Split	4
19	100003	Plain Nut 1/4-20 SST	4
—	104889	Putty, Sealing (Use To Seal Items 1, 2 & 8)	A/R

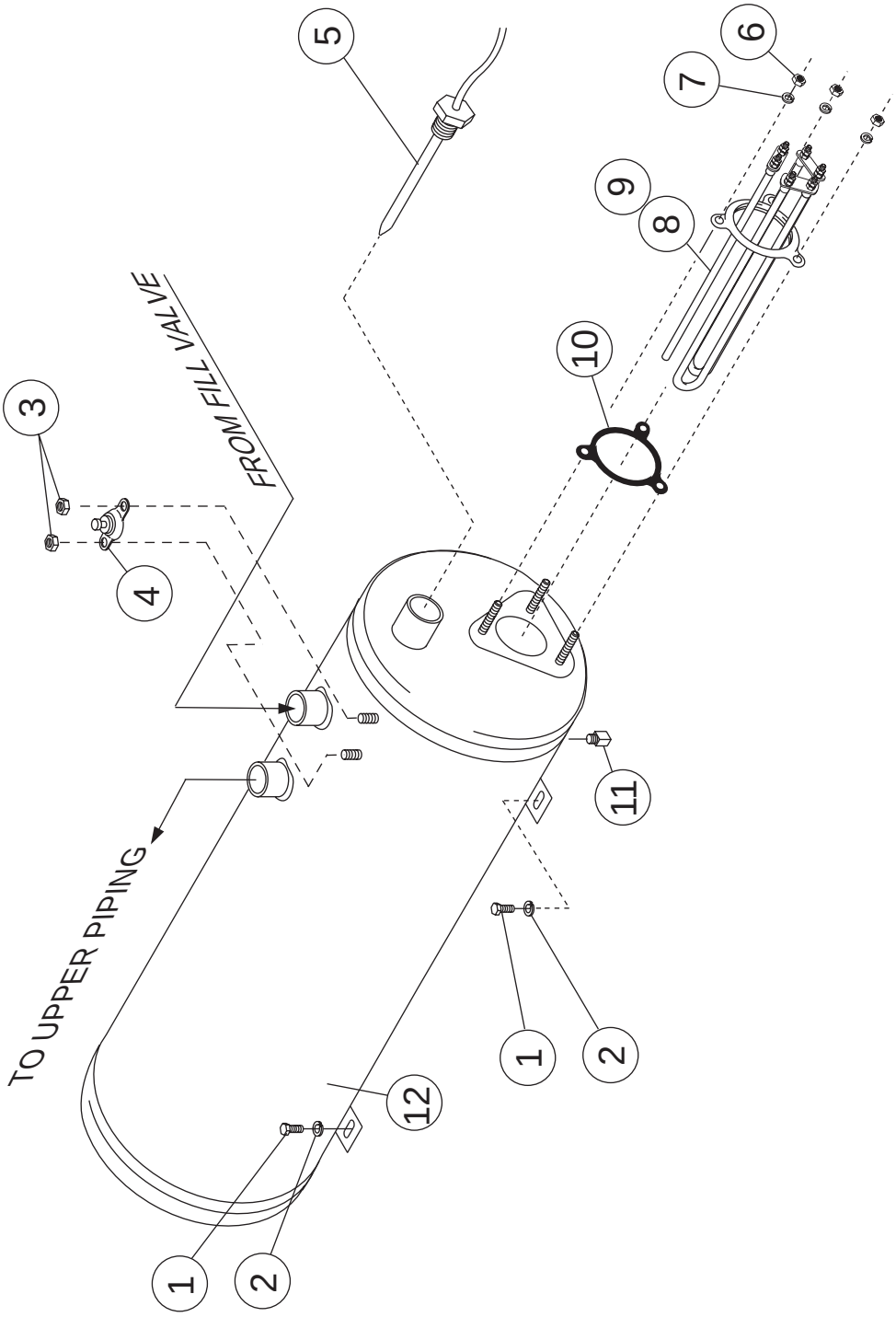

Fig. 24 – D-HB Only
Electric Booster and Thermostat

D-HB ONLY

ELECTRIC BOOSTER AND THERMOSTAT

Fig. 24 Item No.	Part No.	Part Description	Qty.
1	100740	Bolt 5/16-18 x 1 Hex Head	2
2	102376	Washer, Flat 5/16 x 3/4 x 1/16	2
3	108954	Nut, Grip 6-32 w/Insert	2
4	110562	Thermostat, High Limit	1
	110563	Compound, Heat Sink	A/R
5	109069	Thermostat, Booster	1
6	100003	Nut, Plain 1/4-20 SST	3
7	106482	Washer, Lock 1/4 Split	5
8	111334	Heater 9kw 208-240/380-415v, 40° Rise (1 & 3 Phase)	1
	108579	Heater 9kw 480v, 40° Rise (3 Phase Only)	1
	111122	Heater 9kw 575v, 40° Rise (3 Phase Only)	1
9	111266	Heater 18kw 208 –240/380-415v, 70° Rise (1 & 3 Phase)	1
	111267	Heater 18kw 480v, 70° Rise (3 Phase Only)	1
	111600	Heater 18kw 575v, 70° Rise (3 Phase Only)	1
10	109985	Seal, Electric Heater	1
11	100210	Plug 1/8 SST	1
12	0509042	Tank, Booster	1

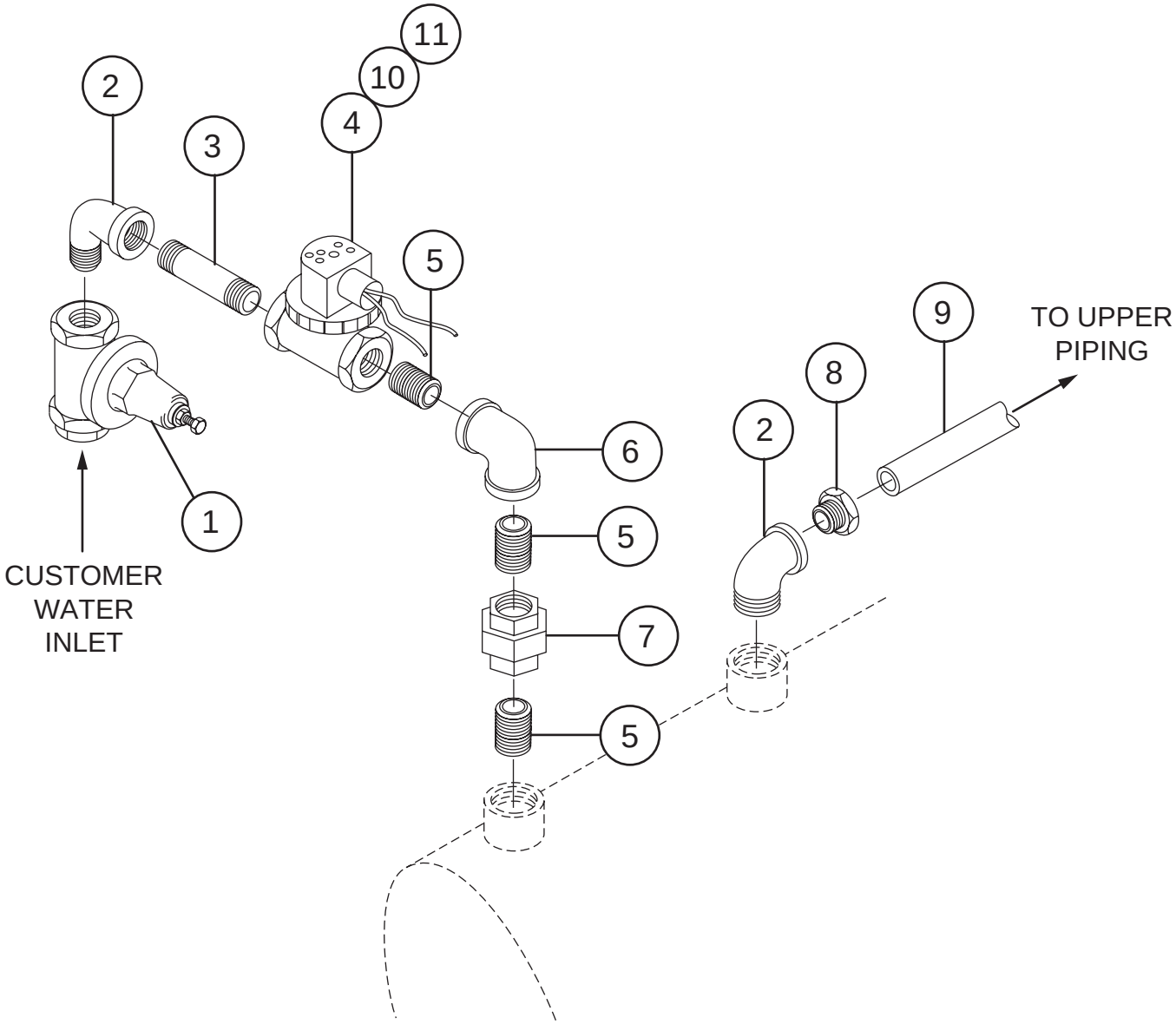

Fig. 25 – D-HB ONLY
Lower Fill Piping Assembly

D-HB ONLY

LOWER FILL PIPING ASSEMBLY

Fig. 25 Item No.	Part No.	Part Description	Qty.
1	112387	Line Strainer/PRV Combo	1
2	102444	Street Ell 3/4" NPT Brass	2
3	102651	Nipple 3/4" x 2" Brass	1
4	111437	Valve 3/4" NPT Hot Water	1
5	100184	Nipple 3/4" NPT	3
6	102442	Elbow 3/4" NPT x 90°	1
7	100571	Union 3/4" NPT Brass	1
8	109879	Compression Fitting 3/4" x 7/8"	1
9	205761	3/4" Copper Tube (Formed)	1
10	108516	Coil, Solenoid Valve (120v)	1
11	109903	Repair Kit, 3/4" Solenoid Valve	1

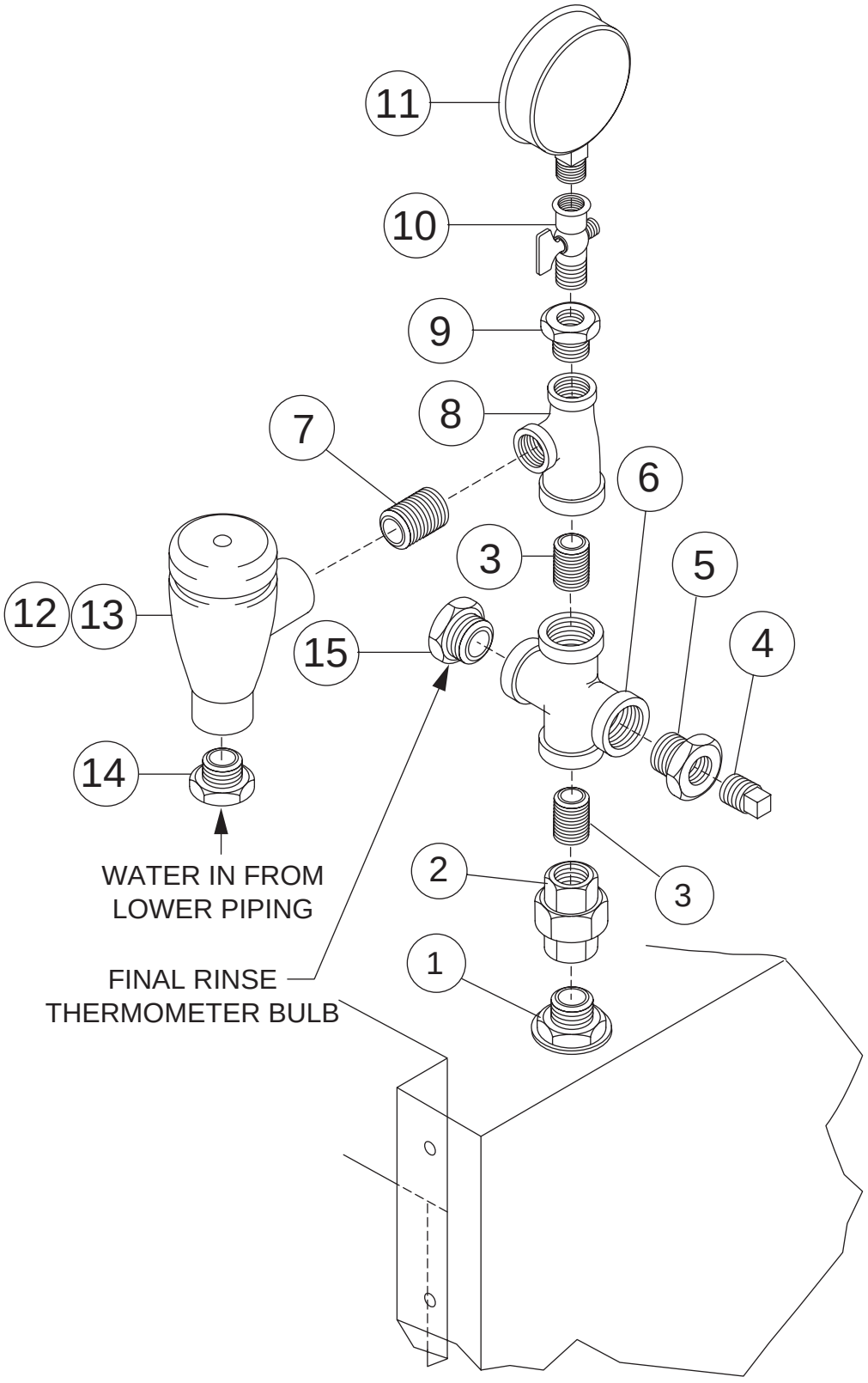

Fig. 26 – D-HB/D-H1
Upper Fill Piping Assembly

D-HB/D-H1

UPPER FILL PIPING ASSEMBLY

Fig. 26 Item No.	Part No.	Part Description	Qty.
1	100156	Locknut 3/4" NPT Brass	1
2	100571	Union, 3/4" NPT Brass	1
3	100184	Nipple, Close 3/4" NPT Brass	2
4	107463	Plug 1/4" NPT Plastic	1
5	108181	Bushing, Reducing 3/4 x 1/4 NPT Plastic	1
6	100599	Cross, 3/4 NPT Brass	1
7	102489	Nipple 3/4 x 2-1/2 NPT Brass	1
8	102525	Tee 3/4 x 1/2 x 3/4 NPT Brass	1
9	102388	Bushing, Reducing 1/2 x 1/4 NPT Brass	1
10	112437	Needle Valve 1/4"	1
11	100135	Gauge, Pressure (0-60 PSI)	1
12	104429	Vacuum Breaker 3/4" (Prior to S/N D3290)	1
12	113222	Vacuum Breaker 3/4" (After S/N D3291)	1
13	108349	Repair Kit 3/4" Vacuum Breaker (Not Shown) (Prior to S/N D3290)	1
13	113223	Repair Kit 3/4" Vacuum Breaker (Not Shown) (After S/N D3291)	1
14	109879	Compression Fitting 3/4 NPT x 7/8" OD	1
15	102392	Bushing, Reducing 3/4 x 1/2 NPT Brass	1

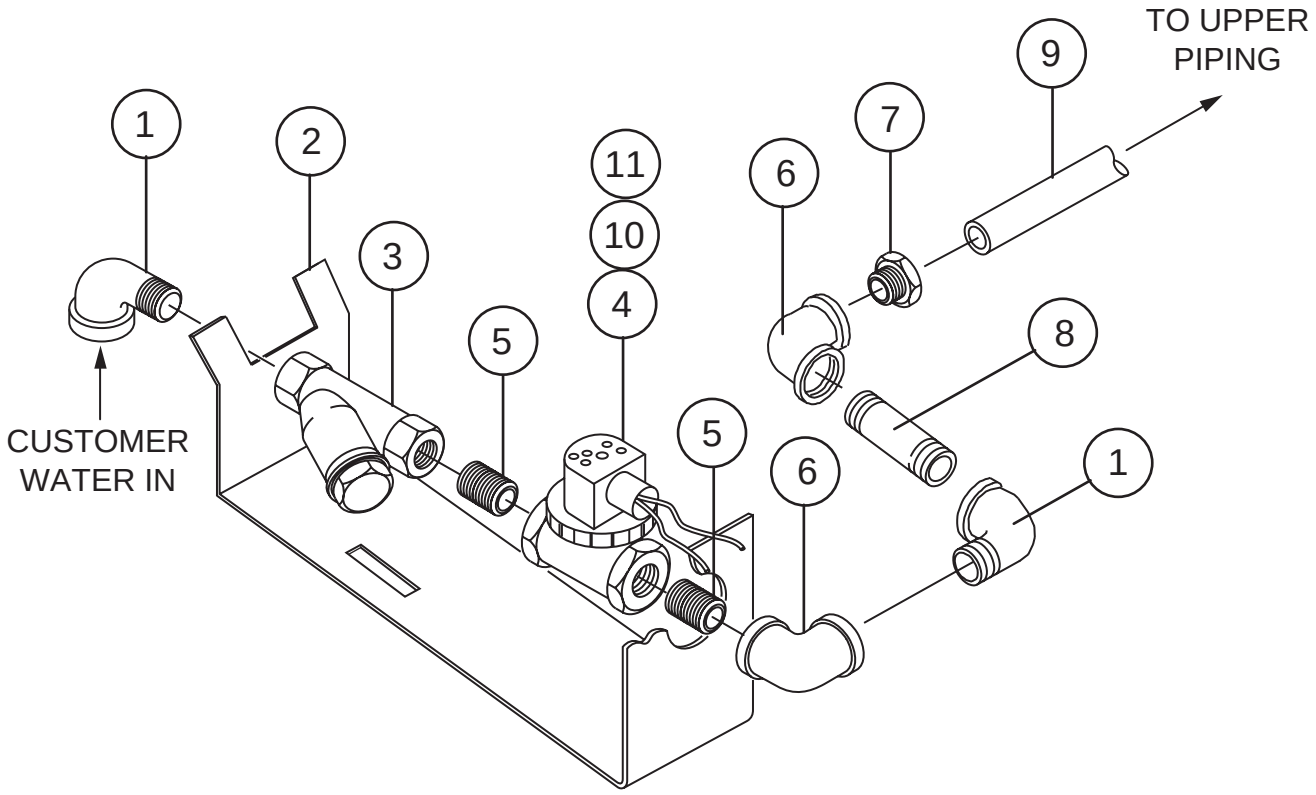

Fig. 27 – D-H1/D-LF
Lower Fill Piping Assembly

D-H1/D-LF

LOWER FILL PIPING ASSEMBLY

Fig. 27 Item No.	Part No.	Part Description	Qty.
1	102444	Street Ell 3/4" NPT Brass	2
2	0309340	Plumbing Support Bracket	1
3	110768	Line Strainer 3/4" Brass	1
4	111437	Valve 3/4" NPT Hot Water	1
5	100184	Nipple, Close 3/4" NPT Brass	2
6	109879	Compression Fitting 3/4" NPT 7/8"	1
7	102442	Elbow 3/4" NPT Brass	1
8	102470	Nipple 3/4" NPT x 3" Brass	1
9	205761	Tube 3/4" Copper (Formed)	1
10	108516	Coil, Solenoid Valve (120V)	1
11	109903	Repair Kit, 3/4" Solenoid Valve	1

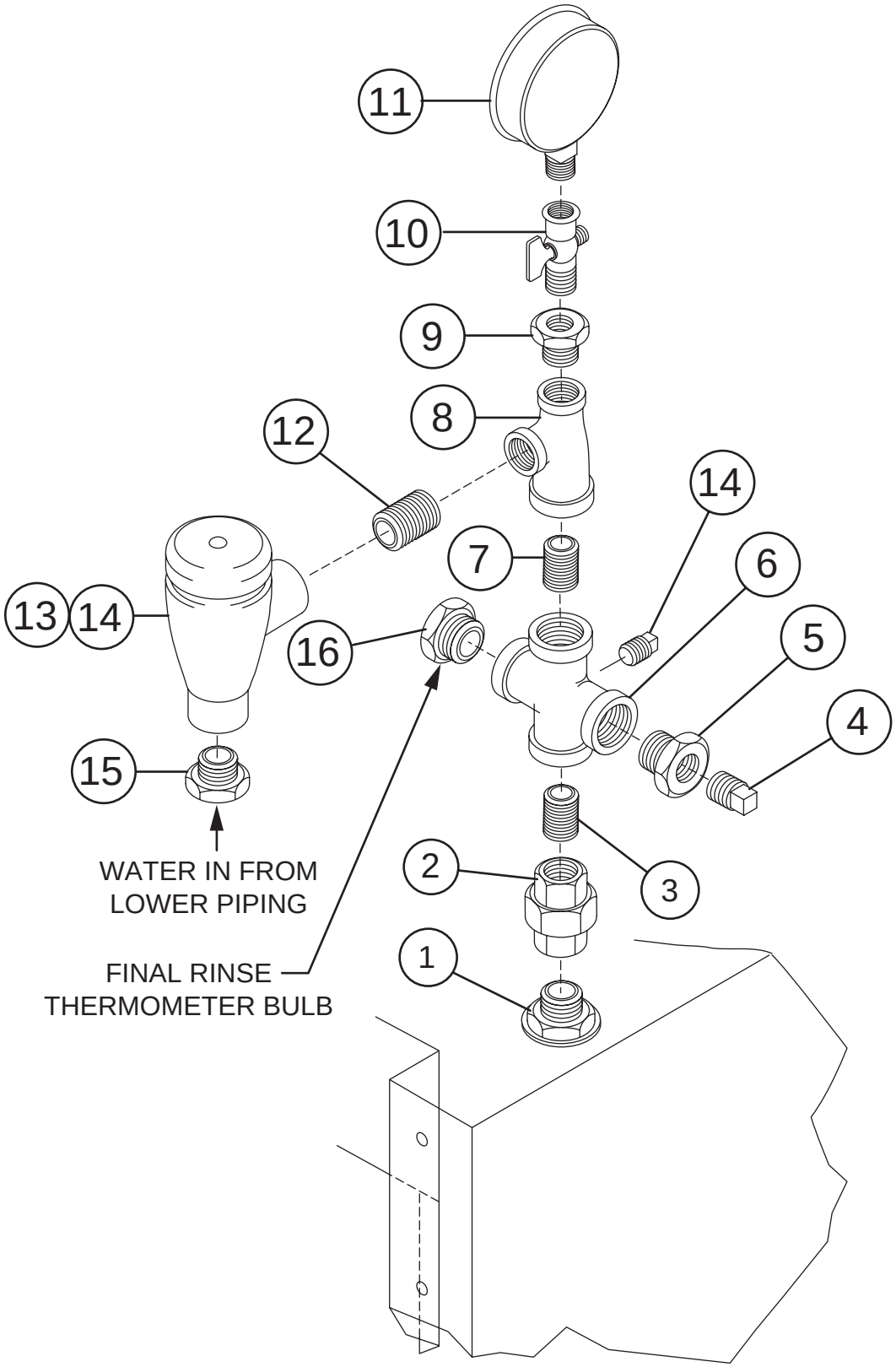

Fig. 28 – D-LF
Upper Fill Piping Assembly

D-LF

UPPER FILL PIPING ASSEMBLY

Fig. 28 Item No.	Part No.	Part Description	Qty.
1	100548	Locknut 3/4" NPT SST	1
2	102554	Union, 3/4" NPT SST	1
3	100051	Nipple, Close 3/4" NPT SST	1
4	107463	Plug 1/4" NPT Plastic	1
5	108181	Bushing, Reducing 3/4 x 1/4 NPT Plastic	1
6	205993	Cross, 3/4 NPT SST	1
7	100184	Nipple, Close 3/4" NPT Brass	1
8	102525	Tee 3/4 x 1/2 x 3/4 NPT Brass	1
9	102388	Bushing, Reducing 1/2 x 1/4 NPT Brass	1
10	112437	Needle Valve 1/4"	1
11	100135	Gauge, Pressure (0-60 PSI)	1
12	102489	Nipple, 3/4 x 2-1/2" Brass	1
13	104429	Vacuum Breaker 3/4" (Prior to S/N D3290)	1
13	113222	Vacuum Breaker 3/4" (After S/N D3291)	1
14	108349	Repair Kit 3/4" Vacuum Breaker (Not Shown) (Prior to S/N D3290)	1
14	113223	Repair Kit 3/4" Vacuum Breaker (Not Shown) (After S/N D3291)	1
15	109879	Compression Fitting 3/4 NPT x 7/8" OD	1
16	102393	Bushing, Reducing 3/4 x 1/2 NPT SST	1

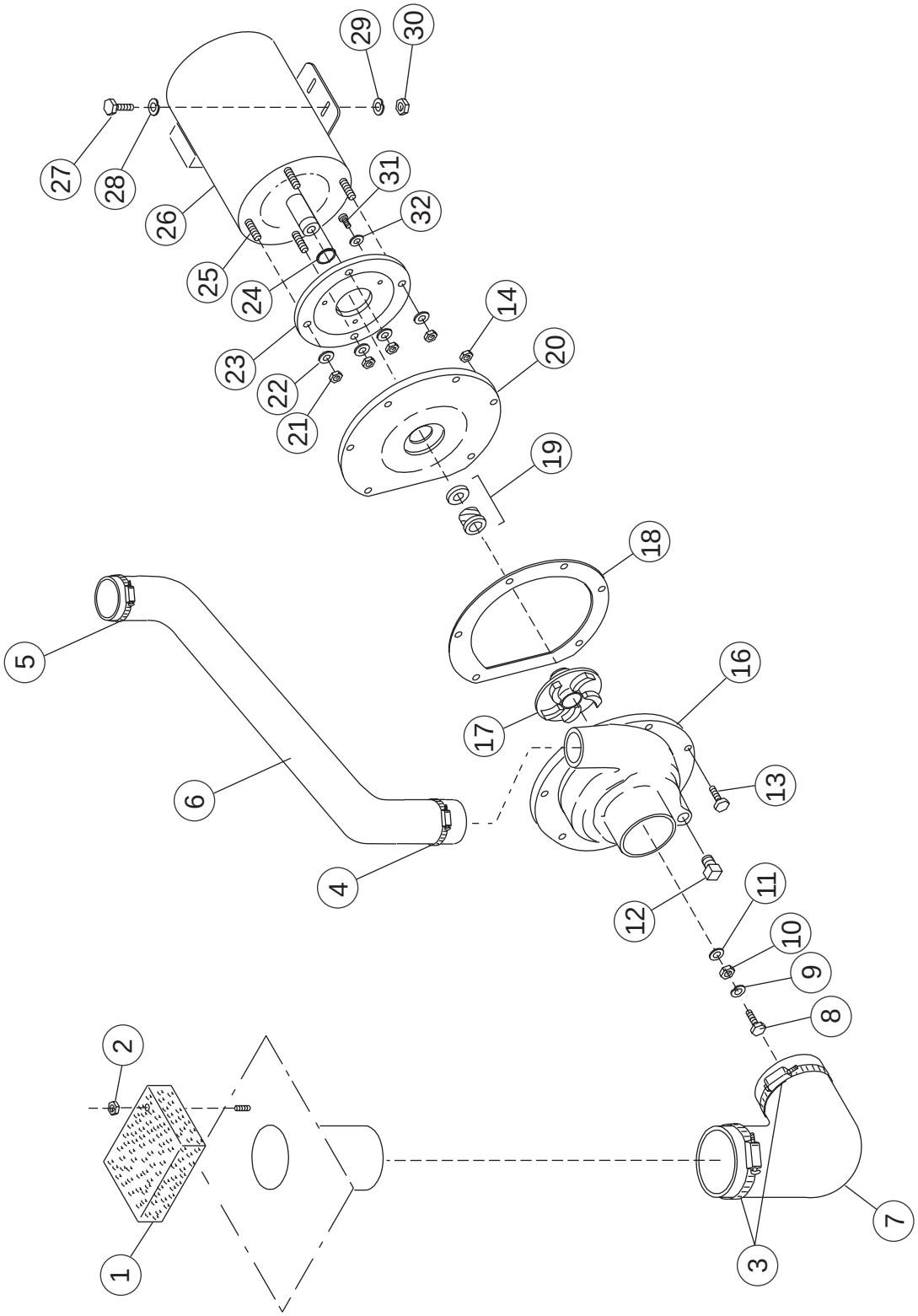

Fig. 29 – D-HB/D-H1/D-LF
Pump Assembly

D-HB/D-H1/D-LF
PUMP ASSEMBLY

Fig. 29 Item No.	Part No.	Part Description	Qty.
1	324580	Stainer	1
2	107966	Nut, Grip 10-32 w/Nylon Insert	1
3	104203	Clamp, Hose	2
4	104165	Clamp, Hose	1
5	107340	Clamp, Hose	1
6	112383	Hose Pump, Discharge	1
7	109562	Hose, Suction	1
8	100734	Bolt 1/4-20 x 1/2" Hex Head	1
9	106482	Washer, Lock 1/4" Split	1
10	110247	Nut, Hex Jam 7/16-20	1
11	110248	Washer, Flat	1
12	107463	Plug 1/4"	1
13	107137	Bolt 10-32 x 7/8 Hex Head	11
14	100194	Nut, Grip (10-32)	11
15	0501505	Washer, Lock Int. SST #8 (not shown)	11
16	109651	Volute	1
17	113248	Impeller, 1.4-HP SST	1
18	109653	Gasket, O-ring	1
19	111111	Pump Seal	1
20	109649	Flange Assembly, 1-HP	1
21	107690	Nut, Jam 3/8-16	4
22	106407	Washer, Lock 3/8" Split	4
23	109648	Backing Plate	1
24	109654	Pump Slinger Washer	1
25	110734	Stud 3/8-16 x 1-3/8	4
26	111145	Motor, 1.4-HP (208-240v/460v/60/3	1
26	111144	Motor, 1.4-HP (115v/208-240v/60/1)	1
26	112163	Motor ,1.4-HP (115v/208-240v/50/1)	1
26	0507708	Motor, 1.4-HP (575v/60/3)	1
27	100739	Bolt 5/16-18 x 3/4 Hex Head	4
28	102376	Washer, Flat 5/16	4
29	106013	Washer, Lock 5/16-18 SST	4
30	100142	Nut, Grip 5/16-18	4
31	100754	Screw, Flat 10-32 x 1/2	4
32	110270	Washer, Countersunk SST	4
—	109645	Kit, Pump (Includes 16, 18, 20, 23, 24)	1
—	451643	Pump, Motor Assembly Complete 1.4-HP (208-240v/460v/60/3ph)	1
—	451642	Pump, Motor Assembly Complete 1.4-HP (115v/208-240v/60/1ph)	1
—	0707549	Pump, Motor Assembly Complete 1.4-HP (575v/60/3ph)	1

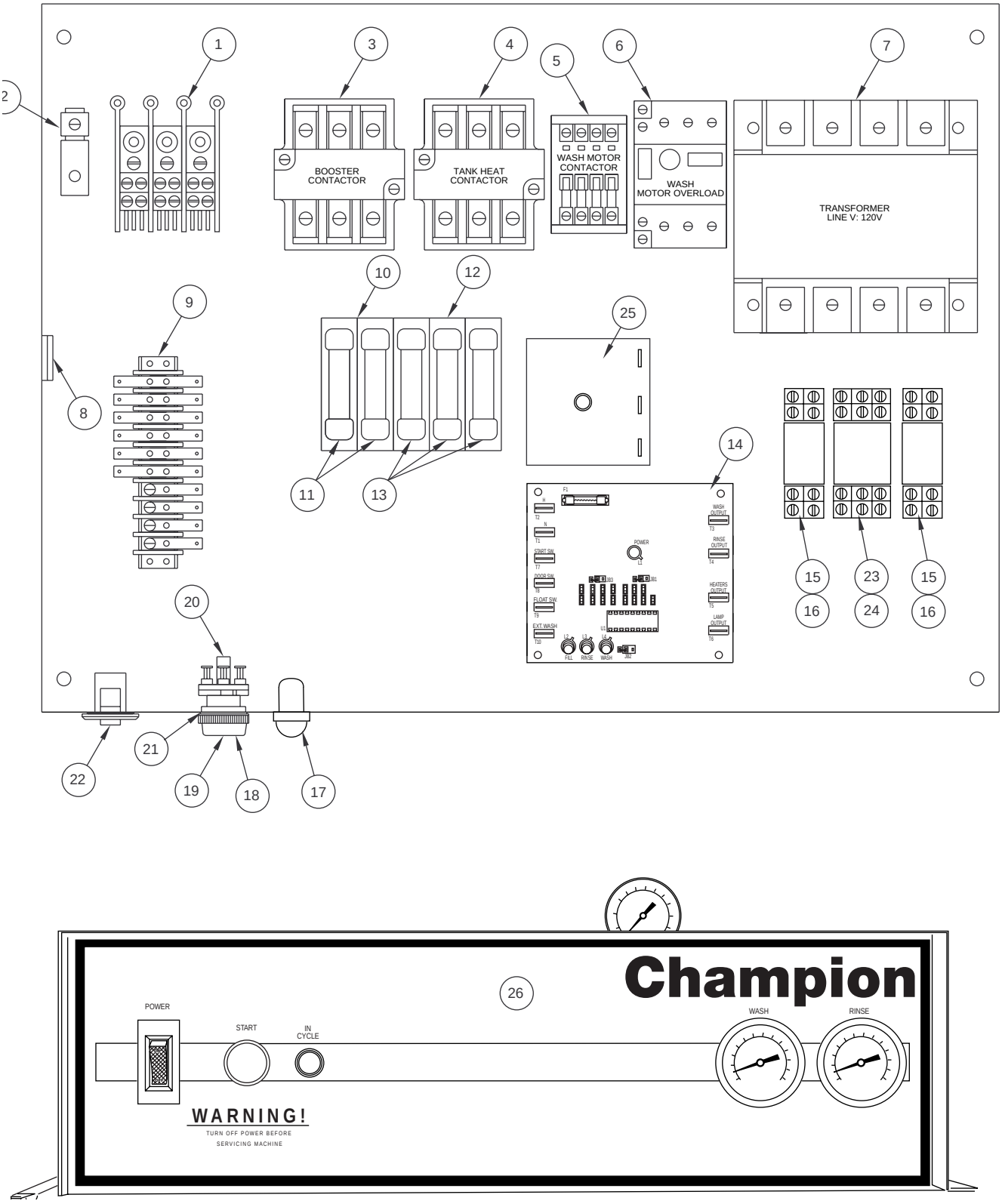

Fig. 30 – D-HB/D-H1/D-LF
Control Cabinet

D-HB/D-H1/D-LF

CONTROL CABINET

Fig. 30 Item No.	Part No.	Part Description	Qty.
1	111833	Terminal Block, 1 & 3 phase	1
2	103310	Wire Lug, Ground	1
3	111702	Contactor, Booster (All voltages), 3 phase 40° & 70°	1
4	111702	Contactor, Tank Heat (All voltages), 1 & 3 phase	1
5	109582	Contactor, Wash Motor, 1 phase	1
5	108122	Contactor, Wash Motor, 3 phase	1
6	111632	Overload, Motor, 1.4-HP Wash (115v/1ph)	1
6	111630	Overload, Motor, 1.4-HP Wash (208-240/1ph)	1
6	110806	Starter Mtr, OL GV2-M10 w/Aux 1.4-HP Wash (208-240/3ph)	1
6	110805	Starter Mtr, OL GV2-M08 w/Aux 1.4-HP Wash (380-415/3ph)	1
6	110804	Starter Mtr, OL GV2-M08 w/Aux 1.4-HP Wash (480v/3ph)	1
6	112692	Overload, Motor, 1.4-HP Wash (575v/3ph)	1
7	109064	Transformer, Control (208-240v/1 & 3 phase)	1
7	109064	Transformer, Control (480v/3ph)	1
7	111484	Transformer, Control (380-415vV/3ph)	1
7	111521	Transformer, Control (575v/3ph)	1
8	112659	Hamlin Reed Switch	1
9	0508895	Terminal Block	1
10	106402	Fuse Block, 2 Pole (1 & 3 phase)	1
11	107289	Fuse 2.5A (115v/1ph)	2
11	107289	Fuse 2.5A (280-240v/1ph)	2
11	107289	Fuse 2.5A (280-240v/3ph)	2
11	0508707	Fuse 1A (380-415v/3ph)	2
11	0508707	Fuse 1A (480v/3ph)	2
11	0508708	Fuse 2.5A (575v/3ph)	2
12	106925	Fuse Block, 3 Pole (1 & 3 phase)	1
13	100929	Fuse 30A (115v/1ph)	3
13	100922	Fuse 20A (208-240v/1ph)	3
13	100913	Fuse 10A (208-240v/3ph)	3
13	105265	Fuse 6A (380-415v/3ph)	3
13	100906	Fuse 5A (480-575v/3ph)	3
14	900911	Kit* DM Board & Instructions	1
15	111068	Relay 120v	2
16	111036	Relay Socket	2
17	106364	Indicator Light	1
18	900725	Kit* Pushbutton (Includes items 19, 20, 21)	1
19	111614	Switch, Pushbutton	1
20	111617	Contact Block (NO)	1
21	113140	Boot, Silicone, Pushbutton	1
22	111980	Circuit Breaker 5A	1
23	112382	Relay 3PDT 10Amp 120v	1
24	112415	Relay Socket	1
25	113314	Timer, Infintec 600 Second	1
26	0508668	Decal, Control Cabinet	1

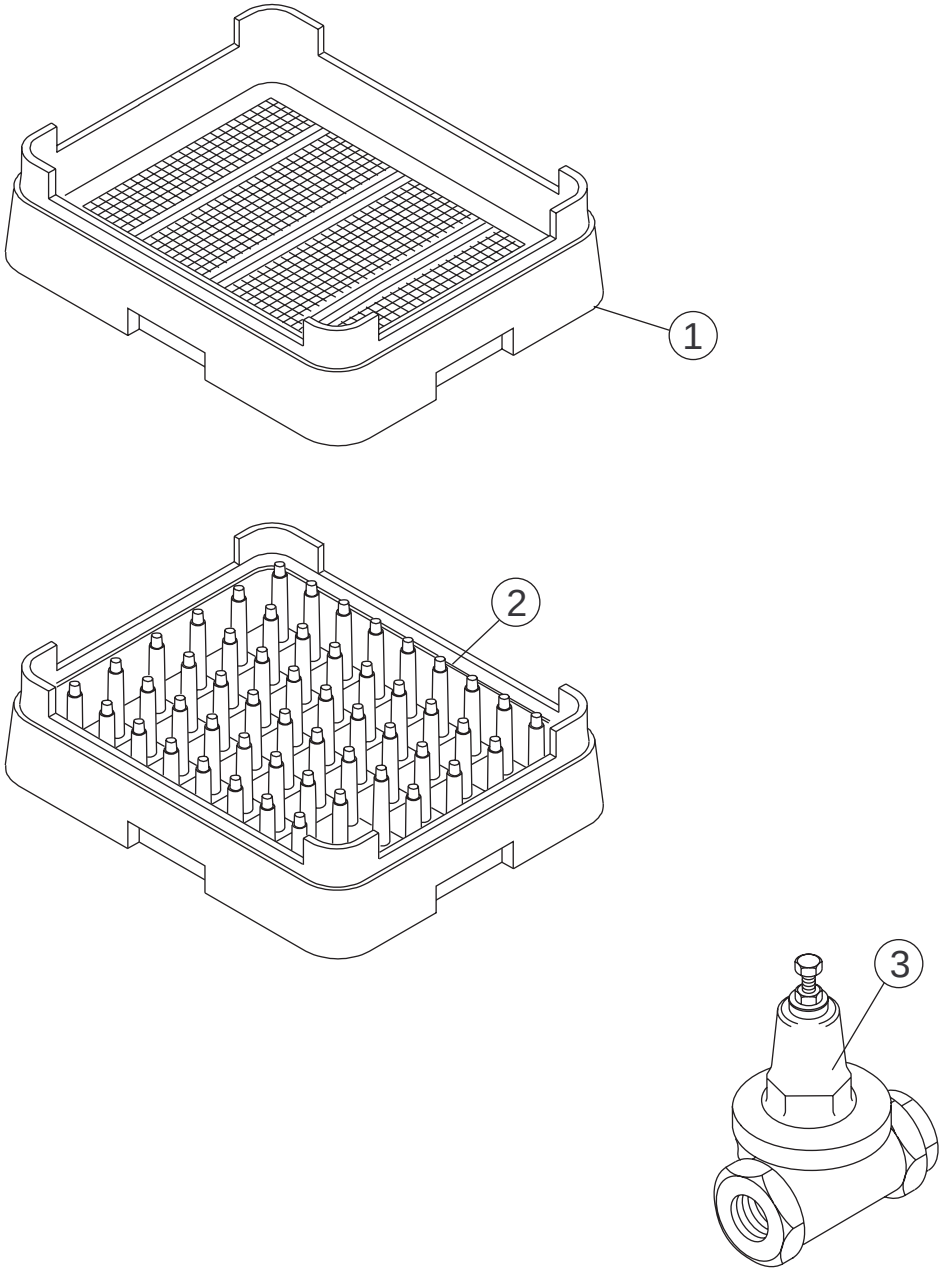

Fig. 31 – D-HB/D-H1/D-LF
Dishracks and PRV

D-HB/D-H1/D-LF
DISHRACKS AND PRV

Fig. 31 Item No.	Part No.	Part Description	Qty.
1	101273	Rack (Flat Bottom)	1
2	101285	Rack (Peg)	1
3	112387	Pressure Reducing Valve (3/4") (PRV)	A/R

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APPENDIXES

Champion®
The Dishwashing Machine Specialists

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INSTRUCTION SHEET

Straight to Corner (Door Conversion Kit) P/N 900794

The instructions below illustrate the conversion of a Champion or Moyer Diebel door-type dishwasher from straight-through to corner operation.

Affected Models: **D-HBM3, D-H1M3, D-LFM3**
Beginning with **MH-60M3, MH-6NM3, MH-6LM3**
S/N D1054 and above

Prepare for Conversion

① Refer to the parts list at right and make sure the kit is complete.

OPTIONAL TOOL:
(Qty. 2) 17-3/4" [451mm] 2" x 4" wood block to support front and right door.

② Make sure dishwasher completes any unfinished cycles. Turn machine power off and turn power off at the main disconnect switch.

⚠ **Warning!**
Disconnect power at the main disconnect switch and place a tag at the disconnect switch to indicate work is being performed on the machine.

⚠ **Warning!**
Machine surfaces are hot, especially during and after machine operation.

③ Drain the dishwasher and allow hot surfaces to cool.

④ Refer to Fig. 1 at right. Note the orientation of the machine for corner installation. Note the controls must be accessible from the front. Plan your relocation accordingly.

⑤ Raise the doors completely. Block the front and right side door with the wood blocks described in step 1. If you do not have a blocking tool, have a helper stand by to support the doors.

(Continued on next page)

Conversion Kit Parts List Kit # 900794

Item No.	Part No.	Description	Qty.
1	0309471	Track, front	1
2	0309469	Track, rack guide	1
3	0309468	Track, rack guide	1
4	0309470	Track, rack support	1
5	107966	Nut, grip 10-32 w/nylon insert)	6
6	106727	Screw (10-32 x 5/8" Flat Hd.)	6
7	323224	Bracket, door lift	1
8	112723	Bolt, spring (5/16-18 x 15")	2
9	104889	Putty, sealing	1 ft.

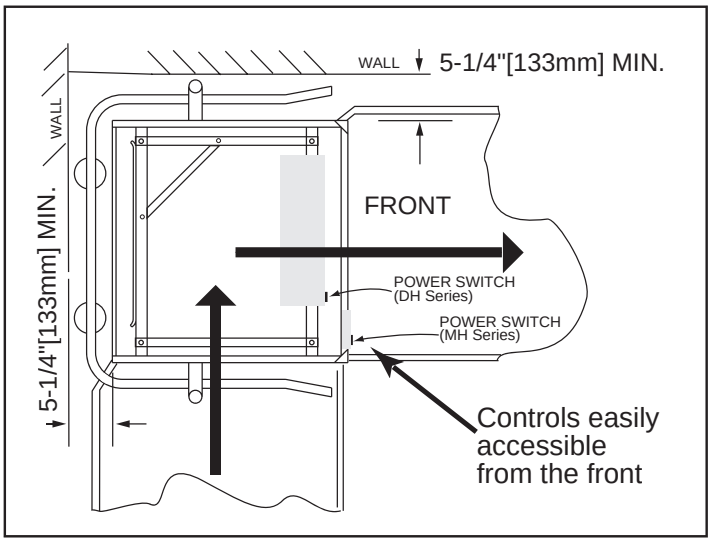

Figure 1-
Machine Orientation for Corner Operation

Form #900794-1

Form #900794-1

Change the Tracks

Refer to Fig.2.

⑥ Remove existing front track, save mounting hardware.

⑦ Install Item 1, from kit using existing mtg. hardware. Seal bolts with putty supplied in kit.

⑧ Install Items 2-6 from kit.

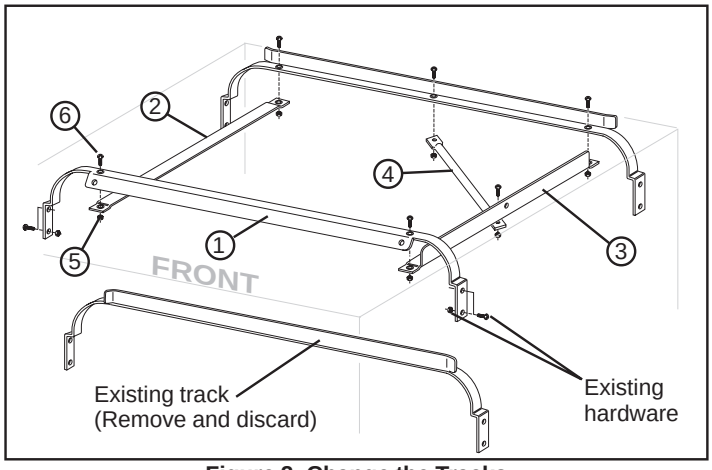

Figure 2- Change the Tracks

Change the Door Lift Bracket

Refer to Fig.3.

⑨ Raise the doors completely. Block the front and right side door with the wood block described in step 1, If you do not have blocking tools, have a helper support the doors.

⑩ Remove the mounting hardware holding the existing door lift bracket. remove the bracket and discard.

⑪ Install Item 7 using existing hardware. Be sure to reinstall bolts in right side door to plug holes.

⑫ Remove lift bar and associated hardware connecting door handle and right side door.

⑬ Carefully remove wood block supporting right side door and close door.

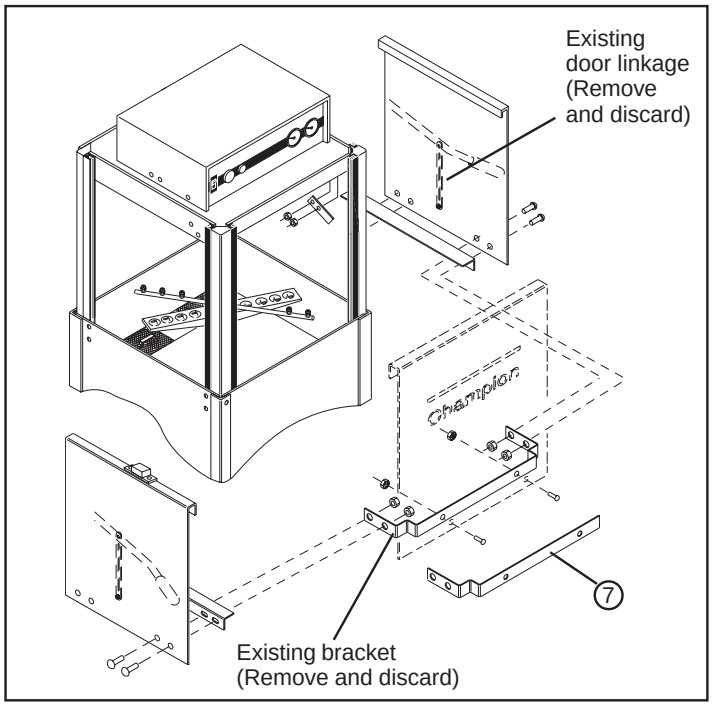

Figure 3- Change the Door Lift Bracket

Change the Extension Bolts

Refer to Fig.4.

⑭ Make sure wood blocks or helper supports opened front and left doors.

⑮ Remove existing extension bolts. Remove door springs. Install (qty. 2) Item 8 from kit in reverse order.

⑯ Adjust door spring tension for smooth door operation. Doors should provide 17-3/4" [451mm] clearance when fully raised.

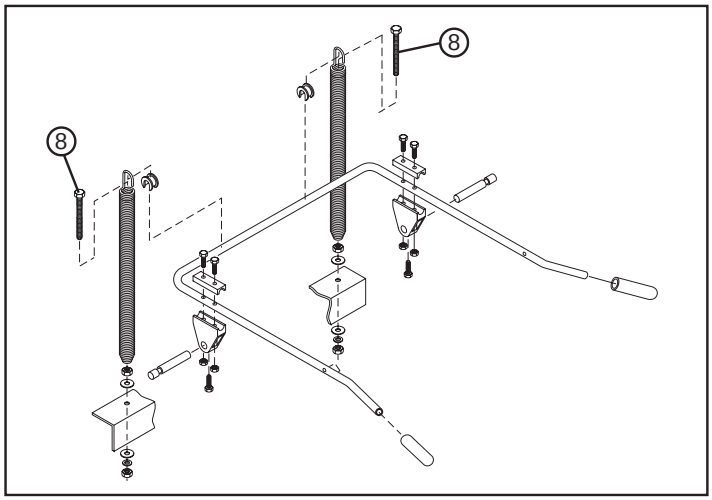

Figure 4- Change the Extension Bolts

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Champion/Moyer Diebel Canada
Tel: 905/562-4195
Fax: 905/562-4618
Tel: 800/263-5798

INSTRUCTION SHEET

Corner to Straight (Door Conversion Kit) P/N 900795

The instructions below illustrate the conversion of a Champion door-type dishwasher from corner to straight-through operation.

Affected Models: **D-HBM3, D-H1M3, D-LFM3**
Beginning with
S/N D1054 and above

Prepare for Conversion

① Refer to the parts list at right and make sure the kit is complete.

OPTIONAL TOOL:
(Qty. 2) 17-3/4" [451mm] 2" x 4" wood block to support front and right door.

② Make sure dishwasher completes any unfinished cycles. Turn machine power off and turn power off at the main disconnect switch.

⚠ **Warning!**
Disconnect power at the main disconnect switch and place a tag at the disconnect switch to indicate work is being performed on the machine.

⚠ **Warning!**
Machine surfaces are hot, especially during and after machine operation.

③ Drain the dishwasher, open doors fully and allow hot surfaces to cool.

Conversion Kit Parts List Kit # 900795

Item No.	Part No.	Description	Qty.
1	0309472	Track, front	1
2	0709405	Door, right side	1
3	0309277	Bracket, door lift	1
4	0509166	Handle, door	1
5	107962	Grip, handle (Black)	2
6	0309167	Bar, door lift	1
7	0509264	Bushing, side door	1
8	104002	Bolt (5/16-18 x 1-1/2")	1
9	109009	Nut, grip 5/16 w/nylon insert)	1
10	102376	Washer	2
11	100740	Bolt (5/16-18 x 1")	1
12	100142-T	Nut, grip (5/16-18 Toplock)	1
13	104889	Putty, sealing	1 ft.

Change the Tracks

Refer to Fig.1.

④ Remove existing tracks, save mounting hardware.
DO NOT REMOVE REAR TRACK.

⑤ Install Item 1, from kit using existing mtg. hardware. Seal bolts with putty supplied in kit.

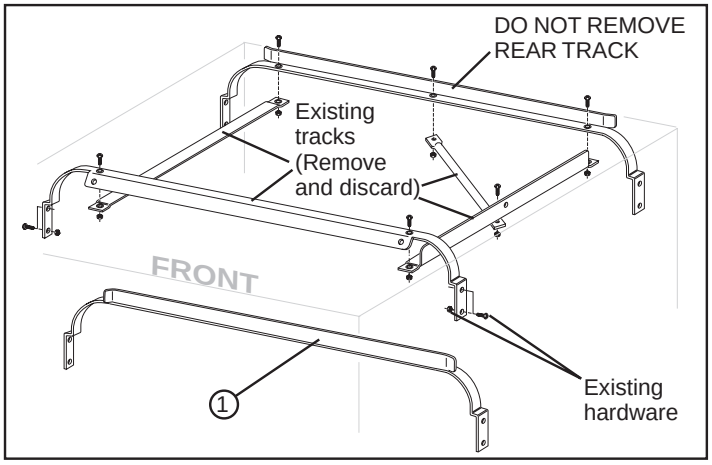


Figure 1- Change the Tracks

(Continued on next page)

Form # 900795-1

Form # 900795-1

Change Door and Door Lift Bracket

Refer to Fig.2.

⑥ Raise the doors completely. Block the front and right side door with the wood blocks described in step 1, If you do not have blocking tools, have a helper support the doors.

⑦ Remove the mounting hardware holding the existing door lift bracket. Remove the bracket and discard.

⑧ Remove right side door stop located upper front right corner.

⑨ Remove right side door and replace with Door, Item 2, from kit.

⑩ Install Lift bracket,Item 3, from kit. Reinstall door stop removed in step 9.

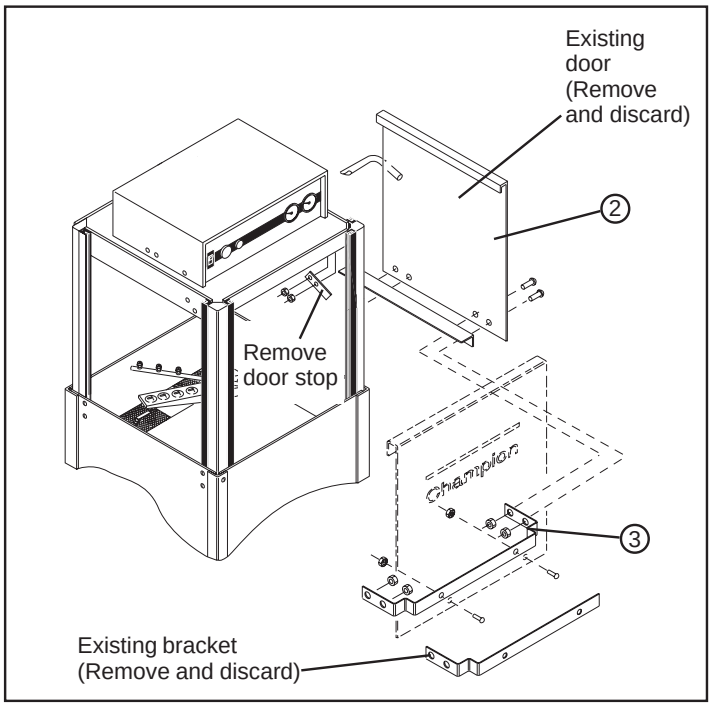


Figure 2- Change Door and Door Lift Bracket

Change the Door Handle

Refer to Fig.3.

⑪ Make sure wood blocks or helper support opened front and right side doors.

⑫ Remove door springs and upper pivot blocks from door handle. Remove left side door lift bar assy. Replace existing door handle with Item 3 and 4 from kit. Reassemble in reverse order.

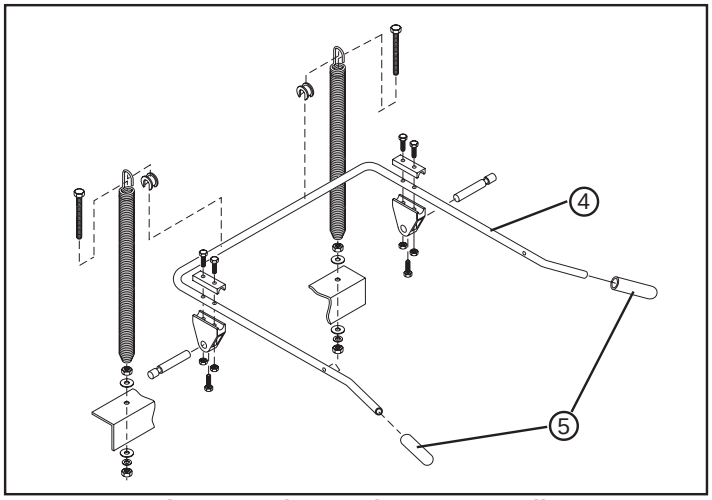


Figure 3- Change the Door Handle

Install the Door Lift Bar Assy.

Refer to Fig.4.

⑬ Install the door lift bar assy., Items 5-11, on the right side door. *Make sure the Toplock 5/16-18 nut is installed on the bottom inside of the machine.*

⑭ Adjust door spring tension for smooth door operation. Doors should provide 17-3/4" [451mm] clearance when fully raised.

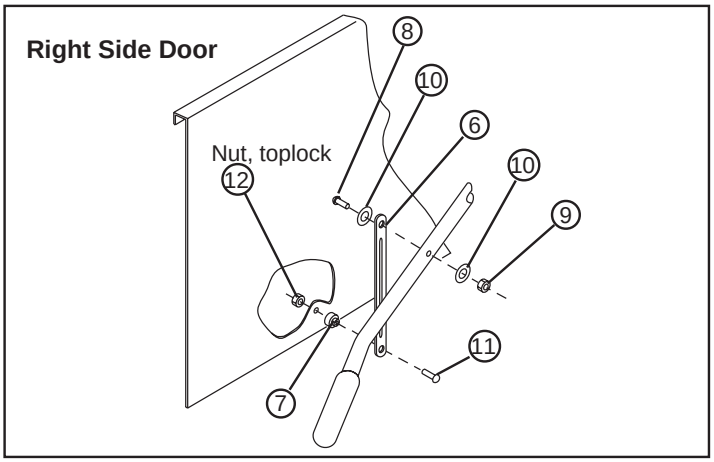


Figure 4- Install the Door Lift Bar Assembly

APPENDIX D

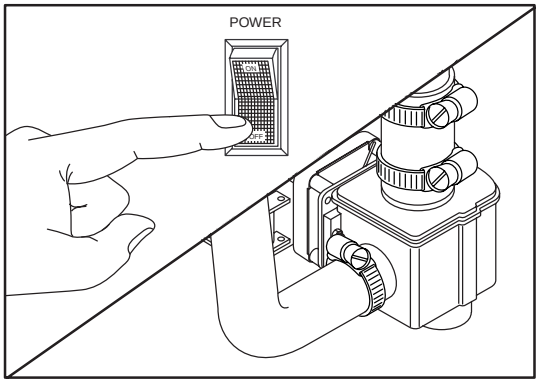
DRAIN TIMER/VALVE CIRCUIT

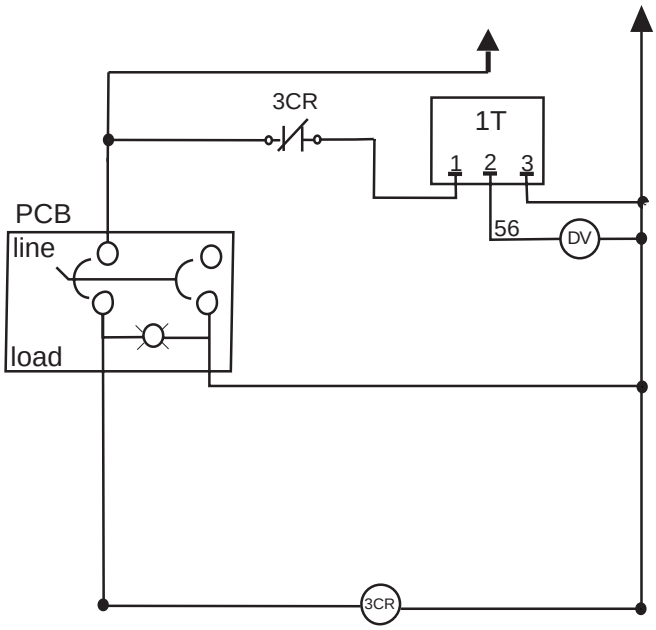
Models D-HB, D-H1, and D-LF uses a drain circuit consisting of a 3cr relay, 10 minute timer, and a drain valve.

OPERATION:

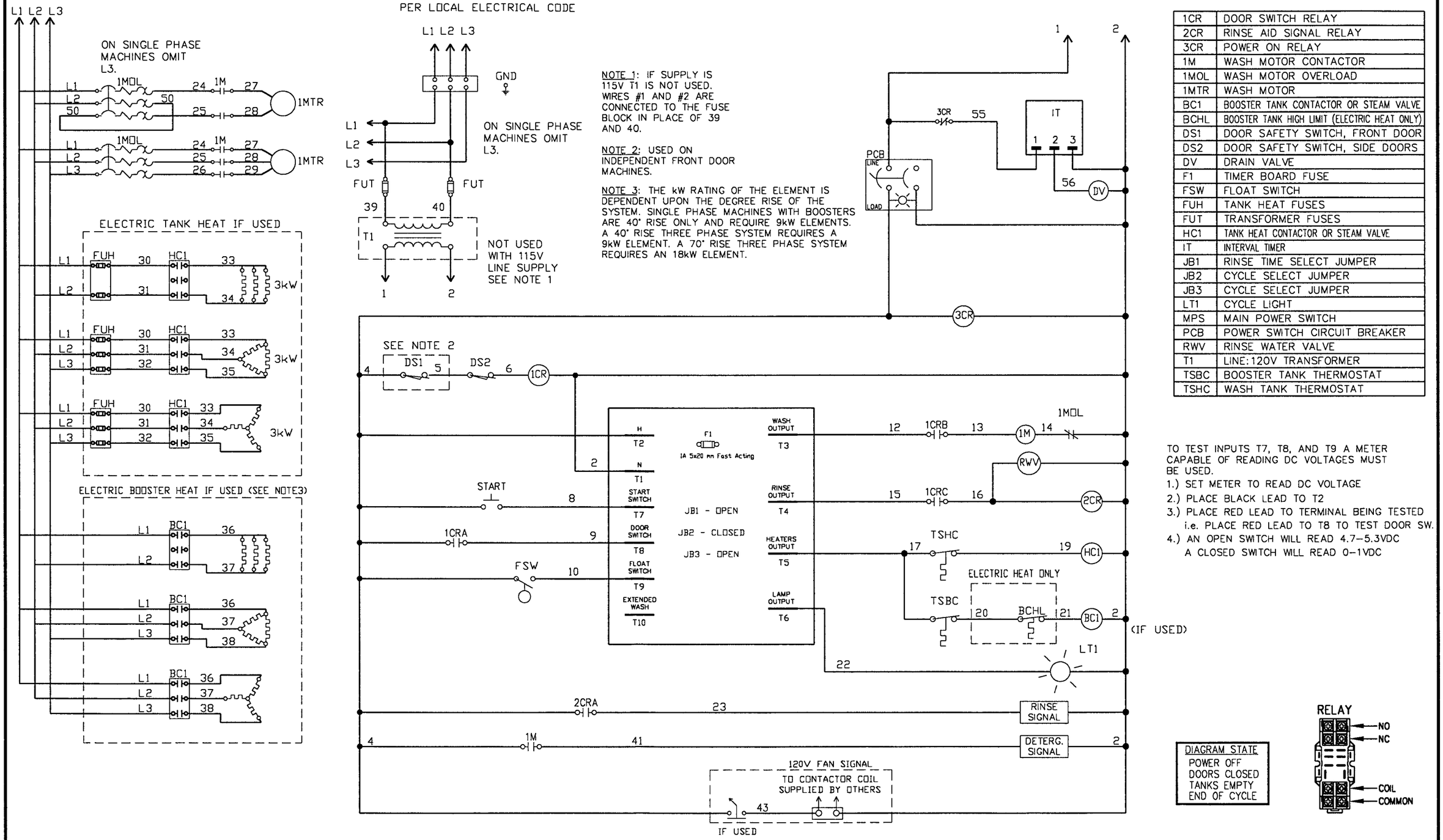
1) When the power switch is pushed to the OFF posistion, the 3CR relay coil is then energized, closing the 3CR contacts.
2) Drain timer now is powered from the 3CR relay, which opens the drain valve for ten (10) minutes.
3) When the timer times out (10 minutes), the drain valve closes and machine has completed it's drain cycle.

NOTE: Flip the power switch on the machine to ON then OFF position to open the drain for an additional drain cycle. Repeat this step as necessary.





ELECTRICAL SCHEMATICS



1CR	DOOR SWITCH RELAY
2CR	RINSE AID SIGNAL RELAY
3CR	POWER ON RELAY
1M	WASH MOTOR CONTACTOR
1MOL	WASH MOTOR OVERLOAD
1MTR	WASH MOTOR
BC1	BOOSTER TANK CONTACTOR OR STEAM VALVE
BCHL	BOOSTER TANK HIGH LIMIT (ELECTRIC HEAT ONLY)
DS1	DOOR SAFETY SWITCH, FRONT DOOR
DS2	DOOR SAFETY SWITCH, SIDE DOORS
DV	DRAIN VALVE
F1	TIMER BOARD FUSE
FSW	FLOAT SWITCH
FUH	TANK HEAT FUSES
FUT	TRANSFORMER FUSES
HC1	TANK HEAT CONTACTOR OR STEAM VALVE
IT	INTERVAL TIMER
JB1	RINSE TIME SELECT JUMPER
JB2	CYCLE SELECT JUMPER
JB3	CYCLE SELECT JUMPER
LT1	CYCLE LIGHT
MPS	MAIN POWER SWITCH
PCB	POWER SWITCH CIRCUIT BREAKER
RWV	RINSE WATER VALVE
T1	LINE:120V TRANSFORMER
TSBC	BOOSTER TANK THERMOSTAT
TSHC	WASH TANK THERMOSTAT

TO TEST INPUTS T7, T8, AND T9 A METER CAPABLE OF READING DC VOLTAGES MUST BE USED.
1.) SET METER TO READ DC VOLTAGE
2.) PLACE BLACK LEAD TO T2
3.) PLACE RED LEAD TO TERMINAL BEING TESTED
i.e. PLACE RED LEAD TO T8 TO TEST DOOR SW.
4.) AN OPEN SWITCH WILL READ 4.7–5.3VDC
A CLOSED SWITCH WILL READ 0–1VDC

DIAGRAM STATE
POWER OFF
DOORS CLOSED
TANKS EMPTY
END OF CYCLE

CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER. TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.

DR.BY	J.NEWTON	SCALE	NONE
DATE	20MAY99	SHEET 1 OF 1	

REV.	DESCRIPTION	DATE	BY

REV.	DESCRIPTION	DATE	BY

Champion
The Dishwashing Machine Specialists

CHAMPION DOOR MACHINE
DH1/B-E - STEAM/ELECTRIC - 1 & 3 PHASE

B | 701650 | REV. E

**