



Installation/Operation with Service Replacement Parts Beginning with Serial No. R3448 and above







E-series Rack Conveyor Dishwasher Model Machines

Single Tank 44 66 PW 70 FFPW 80 HDPW 44 WS 66 WSPW 70 WSFFPW 80 WSHDPW	Dual Tank Rack 64 86 PW 90 PPPW 100 HDPW 120 HDPW
Single Dual-Rinse 44 DR 66 DRPW 70 DRFFPW 80 DRHDPW	Chemical Sanitizing 44 LT 66 LTPW 70 LTHDW 80 LTHDPW
44 DRWS 66 DRWSPW 70 DRWSFFPW 80 DRWSHDPW	
54 DR 76 DRPW 80 DRFFPW 90 DRHDPW	





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For machines beginning with S/N R3448 and ending with RE13077060

3765 Champion Boulevard Winston-Salem, NC 27105 336/661-1556 Fax: 336/661-1660 Toll-free: 800.858.4477

2674 N. Service Road, Jordan Station Ontario, Canada L0R 1S0 905/562-4195 Fax: 905/562-4618 Toll-free: 800.263.5798





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

Model Number		Serial Number	
Voltage	Hertz	Phase	
Champion Service Agent			_ Tel:
Champion Parts Distribut	or		Tel:

National Service Department



In Canada:

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

email: service@moyerdiebellimited.com



In the USA:

Toll-free: 800/ 858-4477
Tel: 336/ 661-1556
Fax: 336/ 661-1660

email: service@championindustries.com

ATTENTION:

The dishwasher model number, serial number, voltage, hertz and phase are needed to identify your machine and to answer questions.

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

For all models:

The data plate mounts to one side of the top-mounted control cabinet.

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REGISTER YOUR PRODUCT ONLINE

Make sure you are connected to the internet then enter the address below.

In the U.S.A

http://www.championindustries.com/register

In Canada

http://www.championindustries.com/canada/register



PRODUCT REGISTRATION BY FAX

COMPLETE THIS FORM AND FAX TO:

(336) 661-1660 in the USA

1-(800) 204-0109 in Canada

PRODUCT REGISTRATION CARD

Model	Serial #		
Date of Installation://			
Company Name:			
Address:	(Stroot)	Province	Postal Code
Telephone #: ()	(Sileet)	Province	Postal Code
Contact:			
Installation Company:			
Address:			
Telephone #:			
Contact:			

FAILURE TO REGISTER YOUR PRODUCT MAY VOID YOUR WARRANTY

IMPORTANT IMPORTANT

Revision History

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. Dishwasher owners may request a revised manual, at no charge, by calling (800.858.4477) in the USA or (800.263.5798) in Canada.

Revision Date	Revised Pages	Serial Number Effectivity	Description
9.01.04	All	RE3448	Released First Edition
9.01.04	20	RE3448	P/N 328473 replaced by 328977
9.01.04	20,23,25	RE3448	Added new door catches
9.01.04	23	RE3448	P/N 327891 replaced with 328974
12.16.04	43, 75,77	RE3448	Added 575 Volt Elements
2/16/05	91	RE3448	Added revised schematics
3/13/08	21,22	RE08024965	Added baffle to prevent drafts
9/27/06	32-35	RE4320	Added rack rear guide to the track
7/17/08	80	RE08065126	Added timer to eliminate blower chatter
3/14/08	N/A	RE0705549	Added Solid State Controls for special orders
8/18/09	98-99	J08102541	Added Digital Controls displays to cabinet
			and digital display troubleshooting guide
6/12//09	N/A	RE09045446	First Rack Model with digital display
10/13/09	All	J08102541	Released Second Edition
1/22/10	92-97	J08102541	Added 575V/3PH Part Nos.
1/22/10	110-113	J08102541	Added 24" and 30" Sideloaders
3.17.10	<i>80-83</i>	J08102541	Added Fill Piping and CWT Piping
8.2.10	23	J08102541	Added 120 to set-point instructions
8.2.10	84	J08102541	Added Drain Basket Assy. P/N 107342
8.2.10	89	J08102541	Changed Item 2 P/N to 113984
8.2.10	106-107	J08102541	Revised Illustration and Parts List
8.26.10	107	J08102541	Corrected Item 36 P/N for 0507315 to 601707
11.16.10	55	J08102541	Corrected Item Numbers in Illustration
10.15.12	<i>34-35</i>	RE10095983	Updated 575V Drive Mtr. to 240V/60/1
	39	J08102541	Chaned Item 2 from 328045 to 328046
	52-53	J08102541	Corrected Item Numbers in Illustration
	<i>54-55</i>	J08102541	Added E-84 Wash Manifold P/N's
	91	J08102541	Removed Kit 900184 from List NLA
	95	J08102541	Chenged Item 1 P/N 114505 for Digital Cabin
	121-150		Replaced All schems w/Current Digital revision
	27-120	RE3448	Revised Replacement Parts pages
	99-101	Re13077060	Revised Item 3 P/N 115019 and added
			Item 31 P/N 115018 to Control Cabinet

LIMITED WARRANTY

Champion Industries Inc. (herein referred to as Champion), 3765 Champion Blvd., Winston-Salem, North Carolina 27105, 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 workman ship 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.
- i. 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.

E-series Rack Conveyor Dishwashers

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Model Descriptions

Electric high temperature single tank and multiple tank rack conveyor dishwashers with built-in electric boosters in 40°F/22°C rise or optional 70°F/39°C rise.

Steam high temperature single tank and multiple tank rack conveyor dishwasher with built-in steam booster in 40°F/22°C rise or an optional 70°F/39°C rise booster.

Hot water coil dishwashers utilizing recirculating hot water through a wash tank heater coil to heat the wash water.

Electric low temperature chemical sanitizing single tank and multiple tank rack conveyor dishwasher.

Dual Rinse machines utilizing an auxiliary rinse to save energy and improve washability.

The installation, and initial start-up of your dishwasher must be performed by qualified electricians, plumbers, and authorized service technicians trained in commercial dishwashers.

Defects and repairs caused by unauthorized installers will not be covered by the dishwasher warranty.

Model Details

Champion single tank and two tank rack conveyor dishwashers are fully automatic. Standard equipment includes 1HP prewash, 2HP wash and 2HP power rinse pumps. The conveyor drive is a 1/6 HP motor. All models are available in right-to-left (R-L) or left-to-right (L-R) direction.

Model Numbers

Single Tank - Basic	44, 54, 44 WS, 44 LT
Single Tank with 22" Prewash	66 PW, 76 PW, 66 WS, 66 LT PW
Single Tank with 36" Prewash	80 HDPW, 90 HDPW, 80WS HDPW
Single Tank with 26" Front Feed Prewash	70 FFPW,80 FFPW, 70 WS FFPW

- The 44 DR and 54 DR basic models are high temperature 180°F/80°C hot final rinse water sanitizing dishwashers. Prewash options are available in 22", 36", and 26" front feed. Built-in stainless steel electric booster heaters in 40°F/22°C and 70°F/39°C rise are available and steam booster heaters in 40°F/22°C and 70°F/39°C rise. Dual-Rinse (DR) models feature a recirculating rinse that conserves energy.
- The 44 WS and 44 DRWS models are WaterSaver high temperature 180°F/80°C hot final rinse water sanitizing dishwashers. Prewash options are available in 22", 36", and 26" front feed. Built-in stainless steel electric booster heaters in 40°F/22°C and 70°F/39°C rise are available and steam booster heaters in 40°F/22°C and 70°F/39°C rise. Dual-Rinse (DR) models feature a recirculating rinse that conserves energy.
- The 44 LT and 66 LT models are low temperature 140°F/60°C sodium hypochlorite (chlorine bleach) sanitizing final rinse to maintain a minimum concentration of 50 PPM on the wares. The concentration of sanitizer must be tested at regular intervals using chlorine test papers.

Two Tank - Basic	64, 72, 84
Two Tank with 22" Prewash	86 PW, 94 PW, 106 PW
Two Tank with 36" Prewash	100 HDPW, 108 HDPW, 120 HDPW
Two Tank with 26" Front Feed Prewash	90 FFPW, 98 FFPW, 110 FFPW

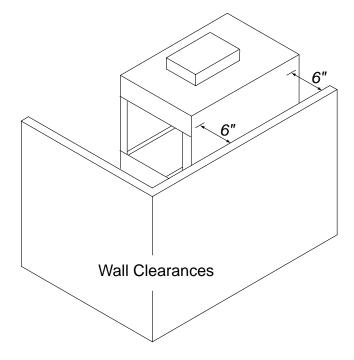
- The 64, and 84 basic models are high temperature 180°F/80°C hot water final rinse sanitizing models. Prewash options are available in 22", 36", and 26" front feed. Built-in stainless steel electric booster heaters in 40°F/22°C and 70°F/39°C rise are available and steam booster heaters in 40°F/22°C and 70°F/39°C rise.
- All rack conveyor dishwasher models are covered by a 1-year parts and labor limited warranty.

Receiving

! ATTENTION!

Use caution when moving or lifting the dishwasher to prevent damaging the dishwasher or the installation site. Check doorway and passageway clearance before moving the dishwasher. Remove dishwasher front panels and check under the machine base for obstructions before moving.

- 1. Inspect the dishwasher for shipping damage
- 2. Check the dishwasher interior for curtains, panels and other supplies.
- 3. Lift the dishwasher off the shipping pallet and move the machine near its permanent location.
- 4. Leave a minimum of 6" between walls and the rear of the dishwasher.
- 5. Level the dishwasher side-to-side and front-to-back using a bubble level. The dishwasher legs are adjusted by screwing them in or out.
- 6. Do not remove tags attached to the utility connections.
- 7. Remove the protective film from the dishwasher exterior.
- 8. Remove any foreign material from the dishwasher interior.



Utilities

Hot Water Connections

NOTE:

Only qualified personnel should make dishwasher plumbing connections. Connections must meet local plumbing and sanitary codes. Improper installation is not covered be the dishwasher warranty.

Hot Water Requirements:

- 1. Connect a 3/4" NPT hot water supply line to the line strainer located at the top rear of the dishwasher.
- 2. For a dishwasher without a booster heater, the hot water connection must supply a minimum of 180°F/82°C measured at the dishwasher.
- 3. For a 40°F/22°C rise booster heater, the hot water connection must supply a minimum of 140°F/60°C measured at the dishwasher.
- 4. For a 70°F/39°C rise booster heater, the hot water connection must supply a minimum of 110°F/43°C measured at the dishwasher.
- 5. For a single wash tank hot water coil heated dishwasher, the hot water connection must supply a minimum of 185°F/85°C measured at the dishwasher.
- For a two-tank hot water coil heated dishwasher, the hot water connection must supply a minimum of 195°F/91°C measured at the dishwasher.
- 7. For a low temperature chemical sanitizing dishwasher the hot water connection must supply a minimum of 140°F/60°C measured at the dishwasher.
- 8. Install a pressure regulating valve (PRV) before the dishwasher supply connection to maintain a flowing pressure of 20-25 PSI/137.8-172.4 kPa.
- 9. Install a service shut-off valve in the supply line, as close to the dishwasher as possible. The size of the valve must be the same size or larger as the supply line.

Cold Water Connections

Cold Water Requirements:

- 1. Connect a 1/2" NPT cold water supply line for a dishwasher equipped with a prewash cold water tempering option. Connection is located at the top of rear of the dishwasher load end.
- 2. Connect a 1/2" NPT cold water supply line for dishwashers required to have a drain water temperature tempering option. Request a P/N 452891 for a drain tempering water kit.

Drain Connections

- 1. The 1-1/2" drain line was removed and packed inside the dishwasher prior to shipping. Install the drain line once the dishwasher has been placed in its final location.
- Dual rinse (DR) models have a PVC drain line assembly packed inside the dishwasher also. Remove this assembly and install it at the unload end of the dishwasher. The drain connection is made to the main drain line with a hose-type connector.
- 3. Connect the 1-1/2" NPT drain line to above a drain sink or to a 1-1/2" or larger drain line connection.
- 4. Observe all local plumbing and sanitary codes when installing.

Steam Supply and Condensate Connections

- 1. The size of the steam supply line must be a 2" NPT line.
- Check the steam pressure requirements prior to connecting the steam supply lines. Standard high steam supply required is 15-30 PSI/103-201 kPa.
- 3. Low steam supply pressure is 7-14 PSI/48.2-96.5 kPa
- Connect a steam supply line the same size or larger to the dishwasher at the steam supply strainer located at the unload end of the dishwasher.
- 5. Condensate lines must be gravity drain with no back pressure. A condensate lift pump must be installed if the condensate flow is above the finished floor.

Ventilation Connections

- 1. DO NOT VENT THE DISHWASHER INTO WALLS, CEILINGS OR ENCLOSED PLACES.
- Vent stacks with adjustable dampers are supplied with the dishwasher to connect house vent.
- 3. Connect stainless steel water-tight duct inside the 4" x 16"/ 106mm x 407mm vent stacks supplied with the dishwasher.
- 4. A minimum of 6 air changes per hour of kitchen is recommended

Ventilation Guidelines:

Dishwasher without a prewash tank option: Load end- 200 CFM @ 1/4" SP/ 95 Liters/second Unload end- 400 CFM @ 1/4" SP/ 189 Liters/second

Dishwasher with a Prewash tank option: Load end- 150 CFM @ 1/4" SP/ 95 Liters/second Unload end- 400 CFM @ 1/4" SP/ 189 Liters/second

Dishwashers with more than two tanks: Load end- 200 CFM @ 1/4" SP/ 95 Liters/second Unload end- 400 CFM @ 1/4" SP/ 189 Liters/second

Electrical Connections



WARNING:

<u>Electrocution or serious injury</u> may result when working on an energized circuit.

Disconnect power at the main breaker or service disconnect switch before working on the circuit.

Lock-out and tag the breaker to indicate that work is being performed on the circuit.

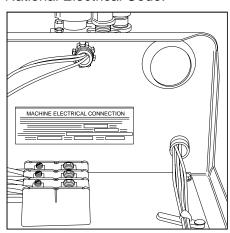
! ATTENTION!

A qualified electrician must connect the main incoming power to the dishwasher in accordance with all local codes and regulations or in the absence of local codes in accordance with the National Electrical Code.

! ATTENTION!

Electrical and grounding connections must comply with the National Electrical Code or in the absence of a National Code then all Local Electrical Codes.

A qualified electrician <u>MUST</u> compare the electrical power supply with the machine electrical specifications stamped on the MACHINE ELECTRICAL CONNECTION PLATE located inside the control cabinet before connecting the main power to the dishwasher.

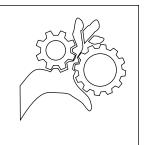


- 1. The Main incoming power to the dishwasher is made at the top of machine in the control cabinet.
- 2. The electrician must connect the incoming power based on the information that is stamped on the Machine Electrical Connection Plate.
- 3. Any change to the Machine Electrical Connection Plate must be approved by the factory in advance.
- 4. The dishwasher main power terminal block is located inside the top-mounted control cabinet.
- A knock-out plug is provided at the rear of the control cabinet for electrical service connections.
- 6. Built-in electric booster heaters have a separate main power connection except Models 44 WS and 66WS.
- 7. Electric blower-dryers have a separate main power connection.
- 8. If the machine incoming voltage exceeds 208-240VAC then the Dual Rinse (DR) models have a step-down transformer mounted on the frame of the dishwasher to reduce the incoming voltage for the DR drain pump.

Electrical Connections (continued)

Motor Rotation

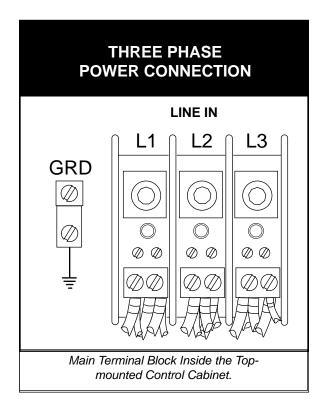
- 1. Motor rotation was set at the factory.
- 2. The conveyor drive motor rotation is indicated by a red arrow located on the side of the motor.
- 3. Check if all motors are running in the wrong direction.
- 4. Reverse the L1 and L2 wires on the output side of the dishwasher Main Terminal Block (MTB) located inside the top-mounted control cabinet.
- 5. The photograph to the right shows the conveyor drive motor with its direction arrow.
- 6. A wash pump/motor assembly can be seen in the back.

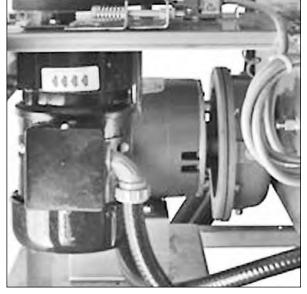


WARNING:

Moving Conveyor Parts may cause INJURY OR DEATH. Keep hands and clothing clear of the conveyor when the conveyor is moving.

USE EXTREME CAUTION WHEN THE CONVEYOR IS MOVING.

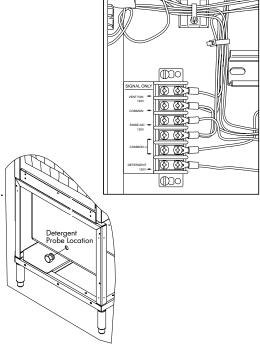




Motor Direction Rotation Label on Motor Frame.

Chemical Connections

- 1. Use a qualified detergent/chemical supplier for detergent/chemical and dispensing equipment needs.
- Labeled detergent control circuit connection terminals are provided in the control cabinet for detergent and rinse agent/sanitizer dispensing equipment (supplied by others).
- 3. The illustration on the right, shows the terminal board for the machine.
- 4. The signal connection points include:
 - Detergent signal 120VAC, 1A max load.
 - Rinse aid/Sanitizer signal 120VAC, 1A load.
 - Vent Fan 120VAC, 1Amp max amp load
- 5. A removable black plug is provided in the load end side of the wash tank for installation of the detergent conductivity cell.

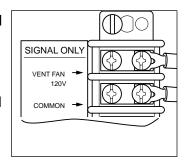


Vent Fan Signal Connection

1. A terminal block is provided inside the top-mounted control cabinet to provide a 120VAC, 1 AMP Max Load signal.

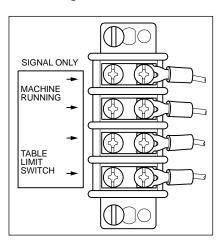
NOTE:

The Vent Fan Signal Connection supplies 120VAC to a control relay (supplied by others) when the dishwasher is ON and O VAC when the dishwasher is OFF. Power to operate the vent fan (supplied by others) must be supplied separately.



Machine Running & Table Limit Switch Signal Connections

- Connections are provided for systems that require that a signal to indicate the dishwasher is running.
- A signal connection is provided to indicate that the dishwasher has stopped due to a conveyor jam or when the clean dish table is full of racks and additional racks cannot exit the machine.
- 3. The table limit switch option is recommended be installed on all dishwashers and can be ordered from the factory P/N 407400.



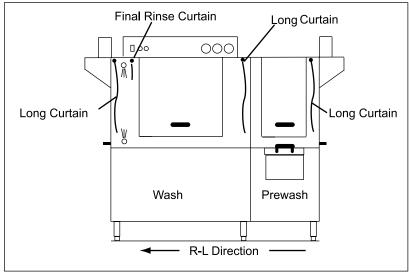
Curtain Locations

1. Refer to the illustrations below and hang the curtains as shown.

J-hooks are located in the corners of each section to accept the curtain rods.

•	Standard long curtains	24" x 20-1/4"
•	High hood long curtains	24" x 22-3/4"
•	Standard short curtains and DR	24" x 13-1/4"
•	High hood short curtains	24" x 20-1/4"
•	Final rinse curtain	24" x 6-1/4"

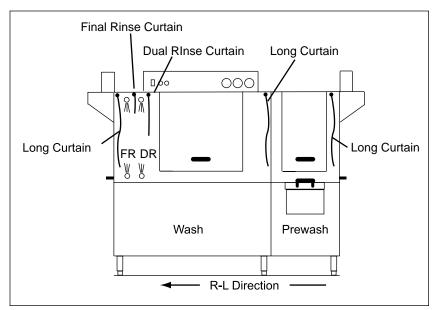
2. Make sure the that the short flaps of the curtains face the load end of the dishwasher. The longest curtains always go on each end of the dishwasher.



Single Tank Dishwasher Curtain Locations.

NOTE:

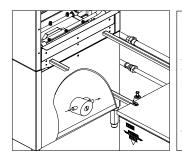
Misplacing a curtain or failing to install a curtain will adversely affect the proper operation of the machine.



Dual Rinse Single Tank Dishwasher with Prewash Curtains.

Hot Water Coil Tank Heat

Purging Air from the Dishwasher/Booster Heater System

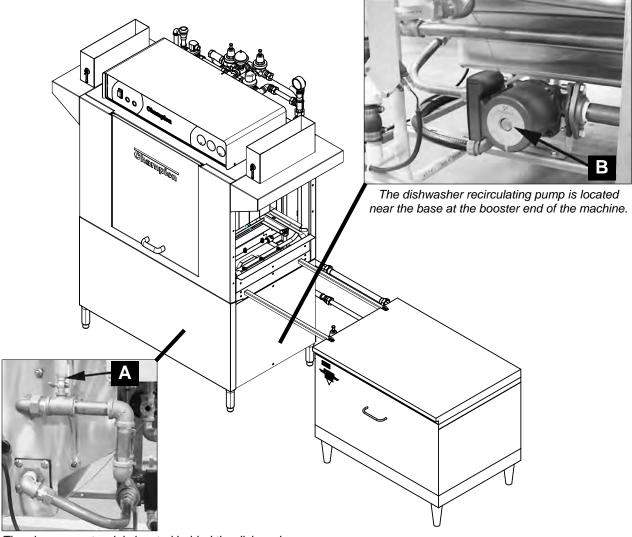


CAUTION:

PERMANENT DAMAGE to the hot water recirculating pump can occur if the air is not purged from the dishwasher/booster heater system prior to placing the dishwasher into service.

Follow the instructions carefully to prevent damage to the dishwasher hot water recirculating pump.

The air trapped in the <u>Dishwasher Hot Water Recirculating Pump and Water Lines</u> must be purged. Refer to the illustration below and follow the procedure on the next page.



The air purge petcock is located behind the dishwasher lower front panel at the booster end of the machine.

Hot Water Coil Tank Heat

Purging Air from the Dishwasher/Booster Heater System (continued)

Refer to the illustration on the previous page and follow the procedure below to purge the air from the system. Plumbing and electrical service connections must be completed before purging the system.

To purge the air:

- 1. Make sure the dishwasher main power switch is OFF.
- Make sure the main water supply valve located at the booster heater is OFF.
- 3. Open petcock (A) on the inlet side of the dishwasher hot water heater coil.
- 4. Remove the silver plug located in the center of the recirculating pump.
- 5. Turn the main water supply valve ON. Water will begin to fill the booster heater and the dishwasher heater coil.
- 6. Water and air will begin to flow out of the purge petcock and the recirculating pump and eventually only water will be observed.
- 7. Turn the booster heater power switch ON.
- 8. Turn the dishwasher power switch ON. The dishwasher wash tank will begin to fill with water.
- 9. Continue to observe the petcock and the recirculating pump and make sure that there is a steady stream of water is flowing from (A) and (B).
- 10. Replace the silver plug (B) in the center of the recirculating pump then close the petcock (A).
- 11. Turn the dishwasher power switch OFF.
- 12. Purging is complete.

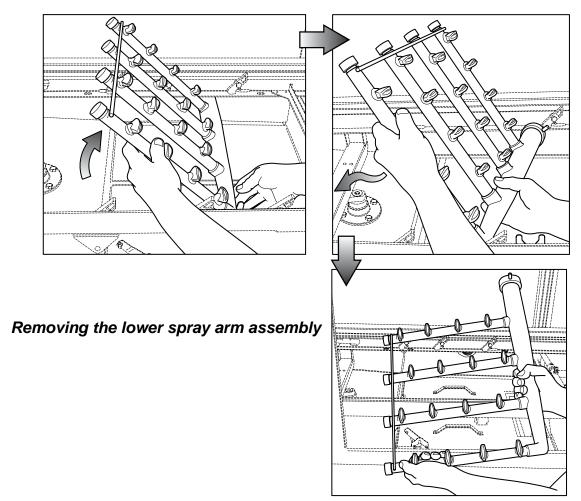
Door Safety Switches

Dishwasher access doors are equipped with a door safety switch that automatically stops the dishwasher pumps and conveyor drive if a door is raised while the dishwasher is running. In addition, the dishwasher will not start if a door is left open.

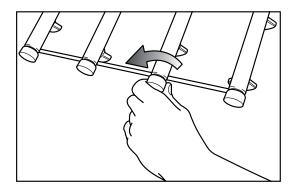
- 1. If the dishwasher is running and a door is raised, then lighted GREEN START pushbutton goes out and the pumps and conveyor drive stop.
- 2. Check the interior of the dishwasher for any dish racks still in the machine. These dish racks must be washed again to ensure they are washed and sanitized completely.
- 3. To restart the dishwasher, make sure all doors are closed, then push the GREEN START pushbutton.

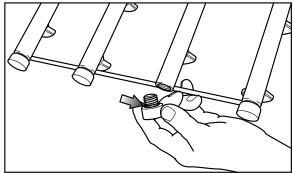
Spray Arm and Scrap Screen Installation

The illustrations below and on the proceeding pages illustrate how to install and remove the spray arm assemblies and scrap screens.

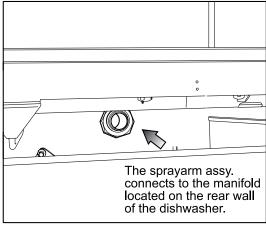


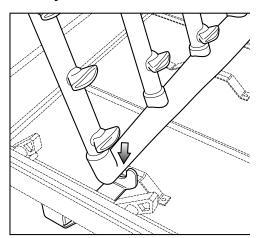
Removing the Spray Arm End Plugs

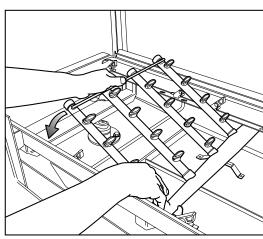


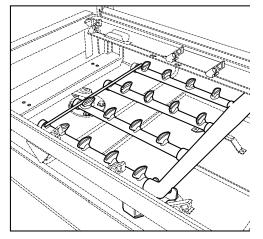


Installing the Lower Spray Arm Assembly

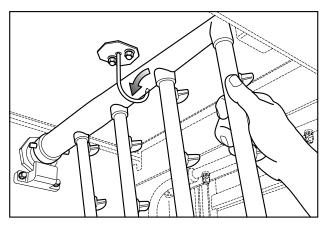


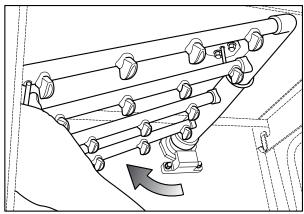


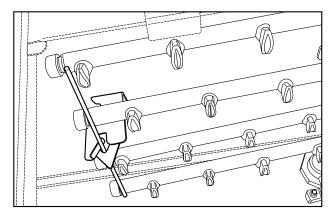




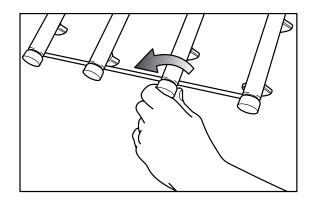
Installing the Lower Spray Arm Assembly

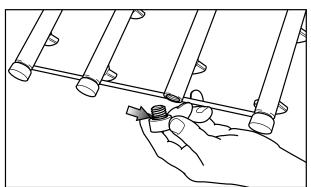




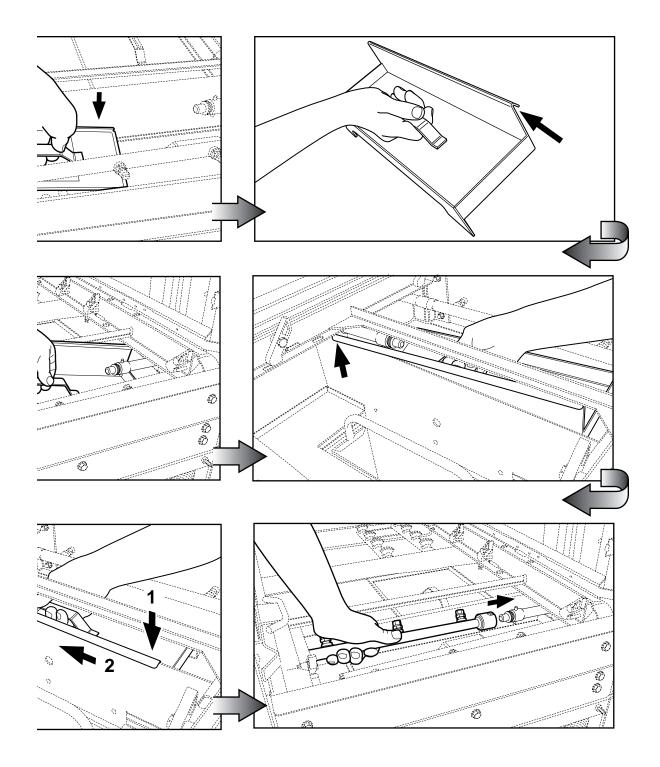


Removing the Spray Arm End Plugs

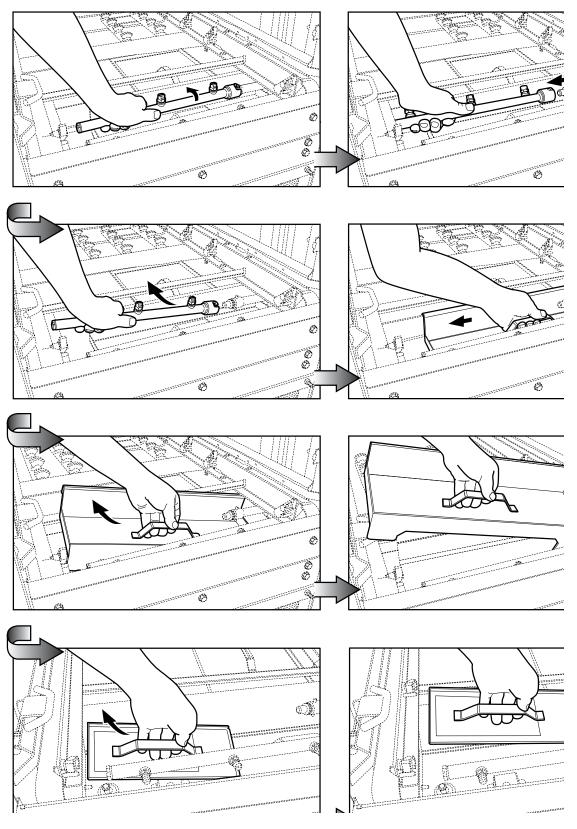




Removing the Dual Rinse (DR) scrap screens



Removing the Dual Rinse (DR) scrap screens (continued)



Check list

- 1. Remove white protective film from the dishwasher exterior.
- 2. Install lower panels to the dishwasher.
- 3. Remove any foreign material from inside of the machine.
- 4. Check dishwasher drain/overflows are closed and in securely seated.
- 5. Install scrap screens and baskets and spray arms.
- 6. Turn main utilities the dishwasher ON. (Power, water, steam if applicable).
- 7. Make sure doors are closed.
- 8. Turn dishwasher power switch ON.
- 9. Check tank water temperatures reach proper levels.
- 10. Check for leaks.
- Drain the dishwasher and check that floor drains handle the water volume leaving the dishwasher.
- 12. Push the Start button.
- 13. Open each dishwasher door to make sure the safety switch stops the conveyor.
- 14. Restart the dishwasher.
- 15. Insert an empty dish rack into the load end of the dishwasher. The pumps and conveyor will run.
- 16. Allow the dish rack to travel to the unload end of the dishwasher. The final rinse and the DR rinse (if equipped) will run.
- 17. Allow the rack to exit the dishwasher. The dishwasher pumps should run an 90-seconds and stop.
- 18. Push the Stop button when the machine is running and the dishwasher should stop.
- 19. Push the dishwasher Power Switch OFF. The dishwasher should shut down.

Operation

- 1. Check that the spray pipes, curtains, and scrap screens are in place and clean.
- 2. Check that the overflow drains are closed.
- 3. Check the chemical supplies. Turn on the detergent dispenser switches.
- 4. Turn on the exhaust vent system (if applicable), and make sure it is operating.
- Close the door(s). Push the power switch ON, light will illuminate. Machine will begin to fill via the fill valve and the final rinse piping.
- 6. When the tanks are full, wait until the wash tank has reached the proper temperature. Check the wash tank temperature gauges located on the control cabinet. Minimum wash temperatures are:
 - 44 LT, 66 LT PW -140°F/60°C
 - 44, 54, 44 WS 160°F/71°C to 175°F/79°C
 - 66 PW, 76 PW, 66 WS PW 160-175°F/71-79°C
 - 2-tank (Wash) 150-165°F TO 66°F/74°C (Power Rinse) 165-180°F TO 74°F/82°C
 - Final Rinse for all models is a minimum of 180-195°F/82-91°C.
 - Dual Rinse (if equipped) is 165-180°F/74-82°C Rinse for all models.
 - Prewash for all models has no temperature rating.
- 7. Push the Green start button. The pushbutton illuminates indicating the dishwasher is ready for automatic operation.
- 8. Pre-scrape wares to remove large food particles and load wares into the dish racks.

DO NOT OVERLOAD RACKS.

- Pegged racks are for plates and/or trays. Flat racks are for bowls and/or silverware.
 Spread silverware evenly in a single layer in a flat rack or upright (loosely packed) in a cutlery rack/cylinder.
- 10. Push a dish rack into the load-end of the dishwasher until it contacts the idle pump switch lever, the conveyor and pumps will start.
- 11. The dishwasher will run for 90 seconds to wash, rinse and move the dish rack out of the unload-end of the dishwasher.
- 12. Inserting another dish rack into the machine before the first rack exits will keep the dishwasher running until the last dish rack exits the machine.
- 13. Check the final rinse pressure and temperature as the racks pass through the final rinse. This final rinse pressure MUST be 20-22 psi [137.8-145 kPa] and the final rinse temperature MUST be a minimum of 180-195°F/82-91°C.
- 14. The pumps and the conveyor drive will automatically stop after the last rack exits the machine.
- 15. The machine may be stopped at any time during the cycle by pressing the red STOP pushbutton. The green light or LED will go out.
- Check the interior of the dishwasher for any dish racks still in the machine.
 These dish racks must be washed again to ensure they are washed and sanitized completely.
- 17. To restart, push the green START pushbutton and push another dish rack into the dishwasher load-end until the pumps and conveyor start again.
- 18. Repeat steps 7-10 until all wares are washed.

Cleaning

Cleaning your dishwasher is the best maintenance you can do.

The cleaning intervals below are the minimum requirements for most dishwashers. You may need to clean your dishwasher more often when washing heavily soiled wares or during long hours of continuous operation.











Daily or every 2 hours of operation

- 1. Turn power switch to OFF.
- Pull drain lever(s) to drain water. Remove scrap screens and scrap baskets.
 Clean inside of the tanks and flush with clean water.
 Back flush the scrap screens until clean.

DO NOT STRIKE SCREENS OR BASKETS AGAINST SOLID OBJECTS

- 3. Remove the spray arm assemblies. Remove the end cap from each spray arm.
- 4. Flush the spray arms and nozzles to remove any debris.
- 5. Replace the end caps. Check the condition of the manifold O-ring.
- 6. Reinstall the spray arms.
- 7. Remove and clean the curtains. Allow them to dry at the end of the day.
- 8. Leave the doors open between operations, allowing the machine to dry.
- 9. Make sure that the final rinse nozzles are clear of mineral deposits.
- 10. Straighten a metal paper clip to clean the nozzles.
- 11. Check the temperature and pressure gauge readings during operation.
- 12. Inspect the machine for signs of water leaks.
- 13. Check the chemical supplies and refill as necessary..

Cleaning (continued)

At the End of the Day

- 1. Perform Steps 1-10 on the previous page.
- 2. Remove the upper and lower rinse and wash spray arms and end plugs and flush with fresh water.
- 3. Remove the Dual Rinse (DR) rinse arm assemblies and flush with fresh water.
- 4. Clean the final rinse arm nozzles using a small paper clip.
- 5. Remove the curtains and clean with fresh water.

DO NOT USE STEEL WOOL TO CLEAN THE INTERIOR OF THE MACHINE.

6. Wipe the interior and exterior of the machine with a soft cloth and a mild detergent.

DO NOT HOSE THE EXTERIOR OF THE MACHINE WITH WATER.

- 7. Reassemble the dishwasher and leave the door open to allow overnight drying
- 8. Contact the chemical supplier for de-liming if required.

De-liming

Lime (scale) deposits are the result of minerals contained in the water feeding the dishwasher and appear as a white haze on the surface of the dishwasher. Severe scaling can appear as a granular deposit. These deposits are a result of the mineral content in the geographic area of the machine's location.

WARNING:

Death or injury can result from toxic fume when de-liming agents come in contact with Chlorine Bleach, or other chemicals that contain iodine, bromine, or fluorine.

USE EXTREME CAUTION WHEN HANDLING ANY DE-LIMING AGENT

CAUTION:

De-liming agents can cause chemical burns.

Wear rubber gloves, eye protection and any other protective clothing as instructed by a qualified chemical supplier and follow the instructions provided by the chemical supplier.

! ATTENTION!

Place a flat-bottom dish rack upside down on the idle pump start switch at the entrance end of the dishwasher to keep the dishwasher running during the de-liming procedure.

Maintenance

Weekly

- Inspect all water lines for leaks and tighten at joints if required.
- 2. Clean any detergent residue from the exterior of the machine.
- 3. Check that the drain/overflow pipes seat tightly in their drains.
- 4. Clean any accumulated scale from the heating element.
- 5. Inspect the spray arms for any damage or missing parts.
- 6. Inspect the final rinse arms for missing parts.
- 7. Inspect the pawl bar and drive assembly for damage or missing parts.
- 8. Check that float switches move freely.
- 9. Check the idle pump actuator and the final rinse actuator for freedom of travel.

Monthly

- 1. Inspect interior of machine for lime deposits and clean.
- 2. Check o-rings on spray arm piping connections.
- 3. Check that the drain/overflow o-rings
- 4. Clean any accumulated scale from the heating element.
- 5. Inspect the spray arms o-rings and ensure all plugs are installed.
- 6. Inspect the final rinse arms for missing parts and are clean.
- 7. Inspect the pawl bar and drive assembly for damage or missing parts.
- 8. Check that float switches move freely.
- 9. Check the idle pump actuator and the final rinse actuator for freedom of travel.
- 10. Check the drive clutch and adjust as necessary.
- 11. Check the pump rotation and direction of rotation.
- 12. Check the operation of temperature gauges or displays.
- 13. Perform complete operation check.

Yearly

- 1. Contact authorized service agent to perform complete maintenance review of machine.
- Correct any abnormal situations as recommended.

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E-Rack Digital Temperature Display Meters

ATTENTION:

The Digital Temperature Displays only indicate temperature, they <u>do not control</u> wash tank or final rinse booster heaters. Electro-mechanical thermostats continue to control the tank and final rinse heat circuits.

- 1. The analog temperature gauges have been replaced with digital temperature display meters.
- 2. The meters display temperatures for the prewash tank (if equipped), the wash tank, power rinse tank (if equipped), the DR dual rinse tank (if equipped), and the final rinse.
- 3. A meter displays temperature in 2 ways:
 - a. The first display is a semi-circular LED bar that moves from left to right; as the temperature increases in magnitude. The color of the bar changes from black, to orange, and to green.
 - b. The second display is a 3 digit LED that changes from OFF if the tank or final rinse heat is disabled, to Blank and from a minimum temperature of 70°F to the maximum calibrated temperature set point of the meter.

(Refer to the "Display Meter Operation Checks" on the next page to change a Meter set-point.)



Control cabinet showing digital temperature display meters on the right-hand side of the control cabinet.



Close-up view of the display meters. Note the semi-circular indicator bars and the numeric read-outs in the center.

Display Meter Operation Checks

Check the Meter LEDs:

1. Turn the Dishwasher Power Switch ON. The 3-digit LEDs illuminate simultaneously, then each LED bar illuminates from left-to right.

Check the Meter Temperature Set-point:

Refer to the photo below and the "Rear view of the Digital Display Circuit Board on the next page.

- 1. Remove the top-mounted control cabinet panel. Locate the CHECK pushbutton on the rear of the display. The push button is located at the top and center of the board.
- 2. There are 6 set-point values: 70,120,150,160,165, and 180° F.
- 3. Turn the dishwasher Power Switch ON, then Push and Hold the CHECK push button. Meter 1 flashes the current user-defined set-point. Meter 2 is blank.
- 4. Continue to Hold the CHECK push button. Meter 1 blanks out and Meter 2 flashes its current set-point value of 70,120,150,160,165, and 180° F.
- 5. Release the CHECK button. Meter 1 and Meter 2 display the actual temperatures in the wash tanks.
- 6. A final rinse Meter will display OFF until the final rinse switch is activated, then the meter displays the actual final rinse temperature which is measured at the final rinse manifold.

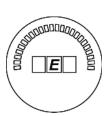
Change the Meter Temperature Set-point:

The set-point determines how the meter displays the yellow & green bar. For example, if the set-point is 70, then the bar displays yellow from 0-70 then green from 70 and above.

- 1. Push and Hold the CHECK pushbutton until Meter 1 display flashes.
- 2. Release the CHECK pushbutton. Meter 1 steps through the set-point values each time the CHECK pushbutton is pushed and released. The set-point value advances from 70,120,150,160 and 180° F.

Set-point value of 70°F

- 3. When the new set-point appears on the display, hold the CHECK pushbutton until the display flashes. The number that is displayed is the new set-point. If the display advances past the desired set-point, then repeat Steps 1-2.
- 4. In order to change Meter 2, Push and Hold the CHECK pushbutton until Meter 1 flashes. Continue to Hold the CHECK pushbutton until Meter 2 flashes, and then repeat Steps 2-3 for Meter 2.



Important:

The letter "E" appears in the center of the 3-digit display when the thermister is shorted or open. **METER 2**

METER

Calibration:

Calibration is an internal function of the display circuit board and <u>does not calibrate</u> temperature control of the dishwasher components.

NOTE:

The <u>Thermister Plug</u> and 1 wire from the <u>Rinse Switch Connector</u> must be disconnected from the display circuit board before calibration.

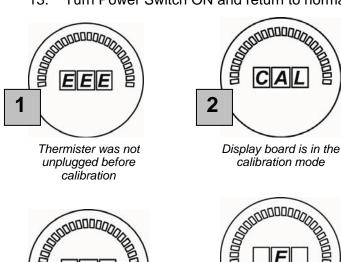
To calibrate the display board:

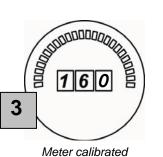
- Turn dishwasher Power Switch OFF.
- 2. Disconnect the thermister plug and at least 1 wire from the rinse switch connector.
- 3. Turn Power Switch ON.
- 4. Press and hold the CHECK pushbutton while pressing and releasing the RESET button.
- 5. Release the CHECK pushbutton.
- 6. Display shows "CAL" flashing on METER 1 and METER 2.

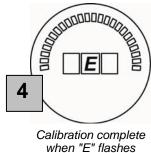
NOTE:

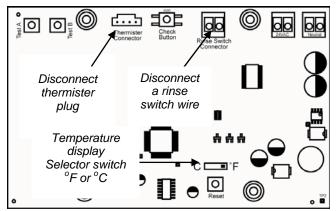
If the display shows "EEE", then the thermister plug is not disconnected. Disconnect the thermister plug and repeat Steps 1-6 above.

- 7. Press and hold the TEST A pushbutton to calibrate Meter 1 (Test B for Meter 2).
- 8. The display calibrates and shows "160".
- 9. Release TEST A pushbutton. An "E" flashes in the center of METER 1.
- 10. Press the RESET pushbutton to exit the calibration mode.
- 11. Repeat Steps 2-8 to calibrate Meter 2.
- 12. Turn the dishwasher Power Switch OFF and reconnect the thermister plug and rinse switch connector wire.
- 13. Turn Power Switch ON and return to normal operation.









Rear Detail View of Digital Display Circuit Board

Display Codes and Definitions

The illustrations below show the codes that may appear in the temperature meter displays.

START-UP



Number and bar LEDs cycle:

- This is the Display segment test when the dishwasher power is turned ON.
 - Check for defective LED segments during the test.

ERROR



E displayed and bar is blank:

 Thermister is open or shorted. Troubleshoot the thermister circuit connected to the display meter.

OPERATION



Numbers and bar are blank:

- 1. Main power or dishwasher OFF.
- 2. Tank temp. below 70°F/21°C. Turn power OFF, then ON to check display segments (see below).



ALL DISPLAY METERS

Numbers indicate between 70-209°F or 21-99°C; and the bar is illuminated left-to-right, from yellow to green:

- 1. Normal display meter operation.
- 2. Meter displaying temperature.



FINAL RINSE METER ONLY

OFF displayed - bar is blank:

 Final rinse start switch is not operated and final rinse water is not flowing.



HHH displayed and entire the bar is lit:

- 1. The temperature in the tank has exceeded 210°F/99°C.
 - Reset the hi-limit thermostat, then adjust or replace the temperature control thermostat.

CALIBRATION





CAL displayed and bar is blank:

- Display meter is in the calibration mode.
 - Press the RESET pushbutton on the display board to exit mode.





EEE displayed and bar is blank:

- Display meter is in the calibration mode.
- The thermister was not unplugged prior to calibration.

3



160 displayed and bar is blankDisplay meter is calibrated.

The meter should flash "E" in a few seconds.

4



E flashes and bar is blank.

- Calibration operation is complete for the display meter.
 - Press the RESET pushbutton on the display board to exit mode.

Troubleshooting

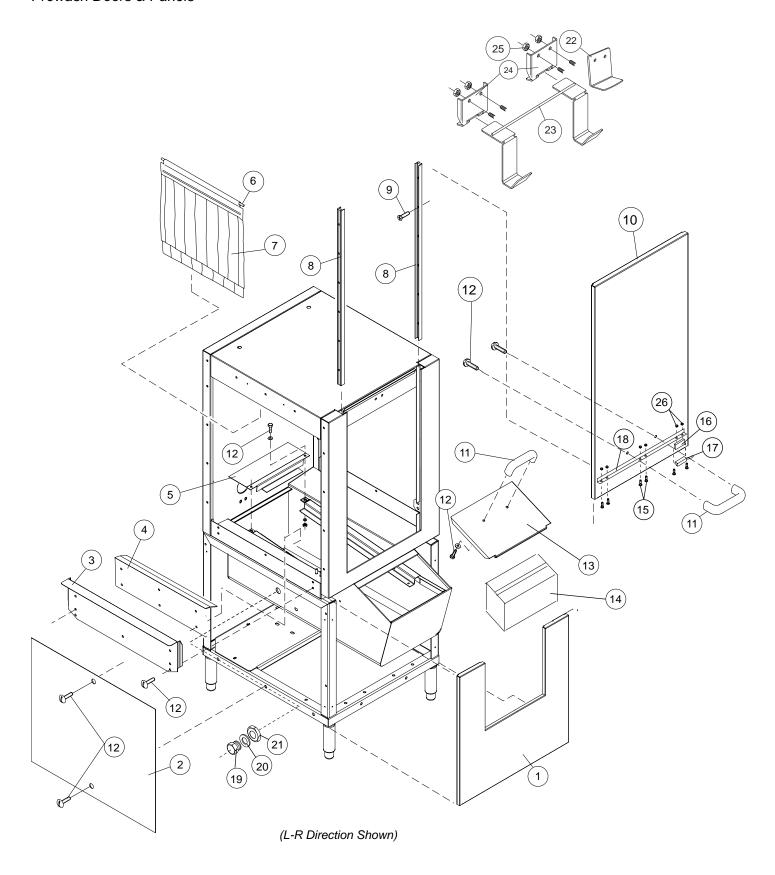
Before calling for service check the following conditions.

- 1. Dishwasher main power and water supply is on.
- 2. Machine has been assembled correctly.
- 3. Conveyor is clear of any obstructions.
- 4. Drains are closed.
- 5. Screens and pump intake screens are clear.
- 6. Doors are closed and secure.

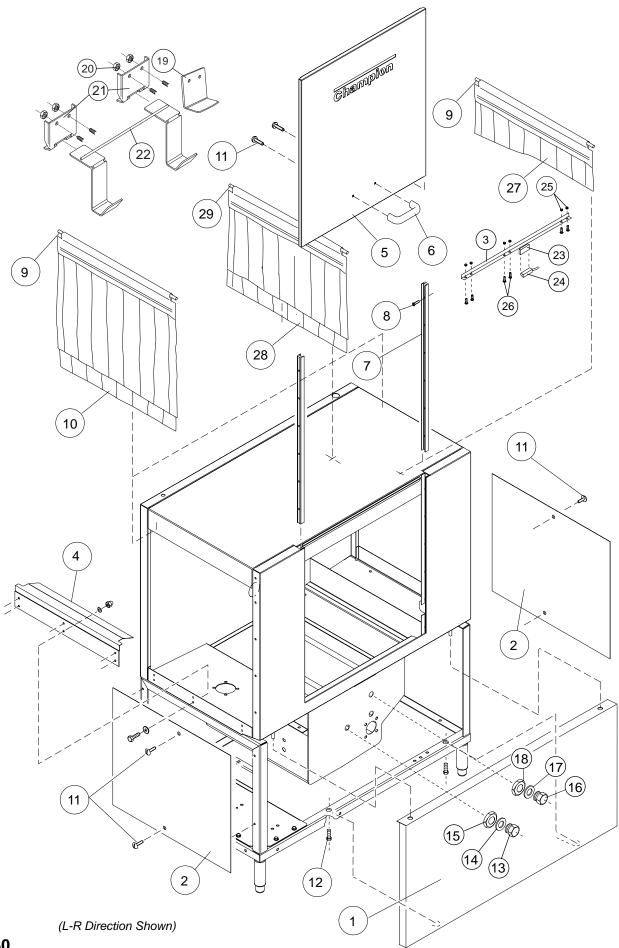
Condition	Cause	Solution
Dishwasher will not run.	Door not closed. Main power OFF. Dishwasher OFF. Dish rack inserted wrong	Close door completely. Check breaker on panel. Turn dishwasher ON. Check dish rack loading.
Low or no water.	Main water supply off. PRV setting incorrect Solenoid strainer clogged. Solenoid valve defective.	Open supply valve. Adjust the PRV setting Clean strainer. Contact Service Agent.
Poor wash results.	Detergent not added to tank	Check detergent suppy.
	Wares incorrectly loaded. in dishrack.	Reposition wares or reduce amount of wares.
	Clogged screens.	Clean screens
	Clogged spray arms.	Clean spray arms.
	Thermostat defective.	Contact Service Agent.
	End plugs missing.	Check spray arms.
	Water temperature low.	Check incoming water temperature.
Dishwasher stays in wash cycle.	90-second timer defective	Contact Service Agent
Dishwasher conveyor will not run.	Conveyor jammed or table limit switch has stopped conveyor.	Check conveyor for jams Remove racks from load end of table.

Service Replacement Parts

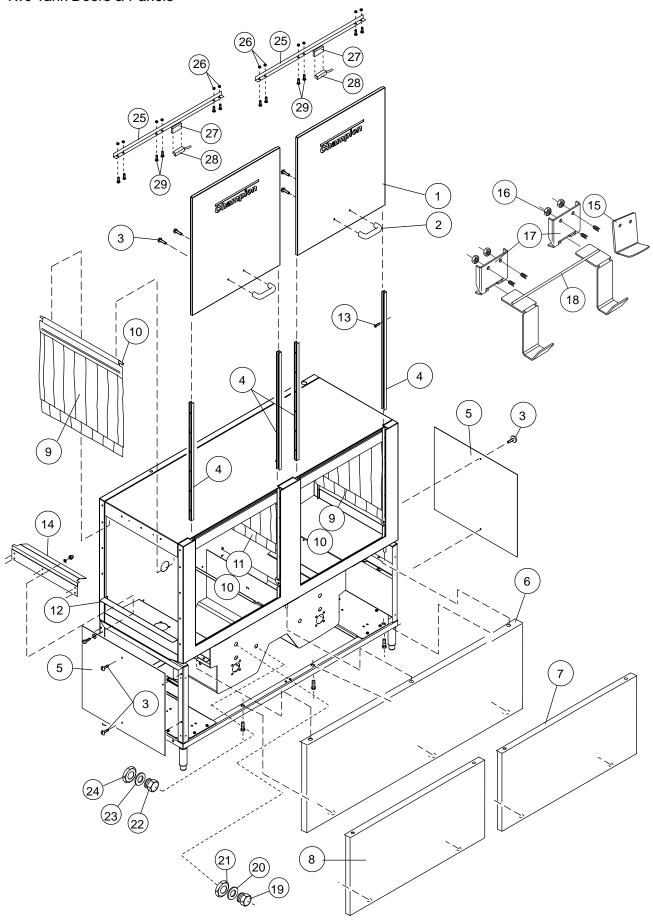
Illustration	Pag
Prewash Doors and Panels	28
Single Tank Doors and Panels	30
Two Tank Doors and Panels	32
Drive Motor Assembly	34
Conveyor Drive Assembly	36
Prewash Track and Cradle Assembly	38
Single Tank Track and Cradle Assembly	40
Two Tank Track and Cradle Assembly	42
Prewash Screens	44
Single Tank Scrap Screens	46
Two Tank Scrap Screens	48
Prewash Spray Arms	50
Single Tank Wash Spray Arms	52
Two Tank Wash and Rinse Spray Arms	54
Float Switches	56
Single Tank Electric Heat	58
Two Tank Electric Heat	60
Two Tank Steam Heat with K2 Booster	62
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Thermostats	68
E-series Thermostat and Junction Box	
Prewash Drain Overflow Assembly	72
Single and Two Tank Drain Overflow Assembly	74
Final Rinse Piping with Booster	76
Fill Piping no Booster or Steam Booster	78
Fill Piping with Booster	80
Cold Water Thermostat (CWT) Piping	82
Final Rinse Drain Assembly	84
Prewash Pump Suction and Discharge	86
Wash and Rinse Pump Suction/Discharge	88
Pump Motor Assembly	90
Electric Booster Assembly 40-60°F Rise	92
Electric Booster Assembly 70°F Rise	94
Standard Control Cabinet	96
Control Cabinet with Digital Display	100
Extended Vent Cowls	102
Standard Vent Cowls	104
E44DR Dual Rinse Assembly	106
E44DR Recycle pump Assembly	108
Single Tank Hot Water Coil Heat	
Double Tank Hot Water Coil Heat	112
24" Sideloader	114
30" Sideloader	116
Dishracks	118



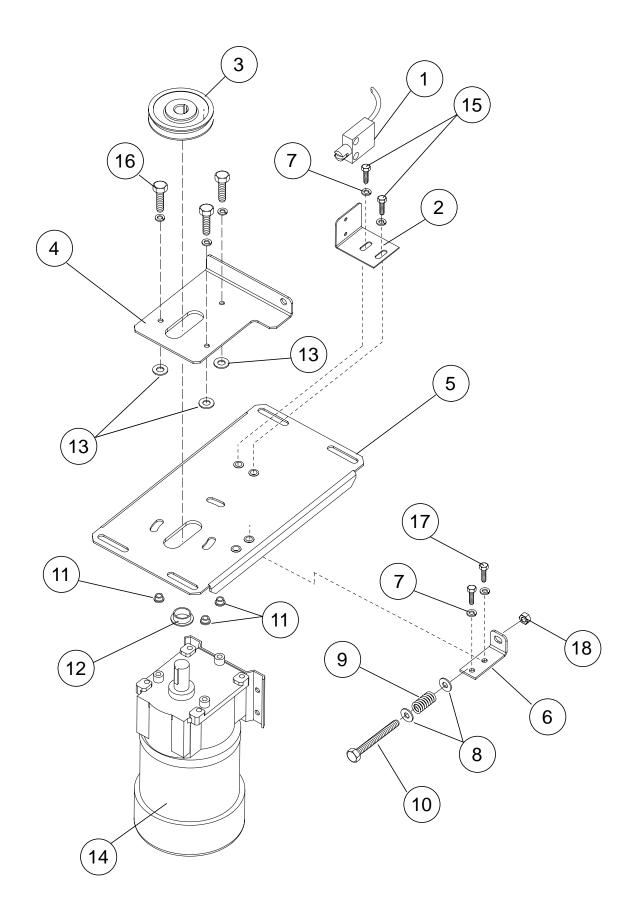
Item No.	Part No.	Description	Qty.
1	328977	Panel Assy. Front Perimeter 22" PW Prewash	1
-	328978	Panel Assy. Front Perimeter 36" PW Prewash	1
2	329351	Panel, 25" End Standard	1
3	328030	Table Flange Support	1
4	329926	Baffle, Table Flange	1
5	328006	Support, 22" PW Rear Screen	1
6	113828	Rod Curtain 5/16 x 24-5/8"	2
7	113720	Curtain 24 x 20-1/4"(load end)	2
8	113691	Guide, U-channel Door	2
9	113486	Screw 8-32 x 5/8" Flat Hd SST	12
10	327952	Door, E22 15" Prewash	1
-	327857	Door, E36 26" Prewash	1
11	108966	Door Handle	2
12	100073	Screw 1/4-20 x 1/2 Truss Head	2
13	328427	Cover, Refuse Basket 22"	1
-	328524	Cover, Refuse Basket 36"	1
14	328959	Basket, Refuse 22"	1
-	328967	Basket, Refuse 36"	1
15	100764	Screw, 6-32 x 1/2" Round Hd. SST	6
16	113937	Magnet, Door Safety	1
17	113719	Switch, Door Safety	1
18	329986	Bracket, E15" Door Water Diverter	1
-	329985	Bracket, E26" Door Water Diverter	1
19	108418	Plug, 1/2"	2
20	109034	Gasket	2
21	108417	Nut	2
22	331981	Bracket, Door Stop	1
23	328909	Dual Hook, Door	1
24	317345	Bracket, Door Catch	2
25	100141	Nut, Plain 1/4-20 SST	4
26	108954	Grip Nut, 6-32 w/nylon insert SST	6



Item No.	Part No.	Description	Qty.
1	328974	Panel Assy., 44 Front Perimeter	1
-	330981	Panel Assy., 54 Front Perimeter	1
2	335539	Panel, 25" End Standard	1
3	329985	Bracket, Water Diverter	1
4	329926	Baffle	1
5	327857	Door, E 26"	1
6	108966	Door Handle	1
7	113691	Guide, U-channel Door	2
8	113486	Screw, 8-32 x 5/8 Flat Head SST	12
9	108250	Rod, Curtain 5/16 x 24-5/8	2
	113828	Rod, Curtain, 5/16 x 21-1/2"	2
10	113720	Curtain 24 x 20-1/4 4 Ply	2
	109723	Curtain 24 x 6 -1/4 (Rinse Curtain)	1
11	100007	Screw 10-32 x 3/8" Truss Head	6
12	100734	Bolt 1/4-20 x 1/2 SST	3
13	113943	Plug, 3/4"	2
14	108620	Gasket	2
15	113944	Nut	2
16	108418	Plug, 1/2"	4
17	109034	Gasket	4
18	108417	Nut	4
19	331981	Bracket, Door Stop	1
20	100141	Nut, Plain 1/4-20 SST	4
21	317345	Bracket, Door Catch	2
22	308133	Dual Hook, Door	1
23	113937	Magnet, Door	1
24	113719	Switch, Reed Aleph	1
25	108954	Grip Nut, 6-32 w/nylon insert SST	8
26	100764	Screw, 6-32 x 1/2" Round Hd. SST	8
27	109723	Curtain, Short Rinse, 24" x 6-1/4"	1
28	108043	Curtain, Medium, 24" x 13-1/4" Rinse	1
29	114012	Rod, Curtain, 5/16" x 23-5/8"	1



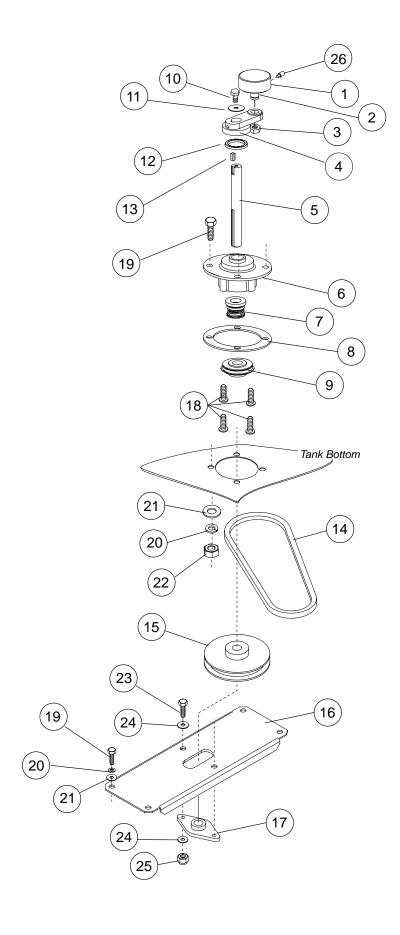
Item No.	Part Description No.		Qty.
1	327857	Door, E26"	2
2	108966	Door Handle	2
3	100073	Bolt 1/4-20 x 1/2 Truss Head	8
4	113691	Guide, U-channel Door	4
5	335539	Panel, 25" End standard	1
6	328975	Panel, 64 Front Perimeter	1
7	328976-01	Panel, 84 Front Perimeter Right Hand	1
8	328976	Panel, 84 Front Perimeter Left Hand	1
9	113720	Curtain 24 x 20-1/4" (Load/Unload)	2
10	108250	Rod, Curtain 5/16 x 24-5/8"	4
11	108043	Curtain 24 x 13-1/4" (between wash and rinse)	1
	114012	Rod, Curtain, 5/16" x 23-5/8" (use with Item No. 11)	1
	109723	Curtain 24 x 6-1/4" (Rinse/Final Rinse)(Not Shown)	1
12	328030	Table Flange	2
13	113486	Screw 8-32 x 5/8 Flat Head SST	12
14	329926	Baffle	1
15	331981	Bracket, Door Stop	1
16	100141	Nut, Plain 1/4-20 SST	4
17	317345	Bracket, Door Catch	2
18	308133	Dual Hook, Door	1
19	108418	Plug, 1/2"	4
20	109034	Gasket	4
21	108417	Nut	4
22	113943	Plug, 3/4"	4
23	108620	Gasket	4
24	113944	Nut	4
25	329985	Bracket, Water Diverter	2
26	108954	Grip Nut, 6-32 w/nylon insert SST	16
27	113937	Magnet, Door	2
28	113719	Switch, Door Safety	2
29	100764	Screw, 6-32 x 1/2" Round Hd. SST	16



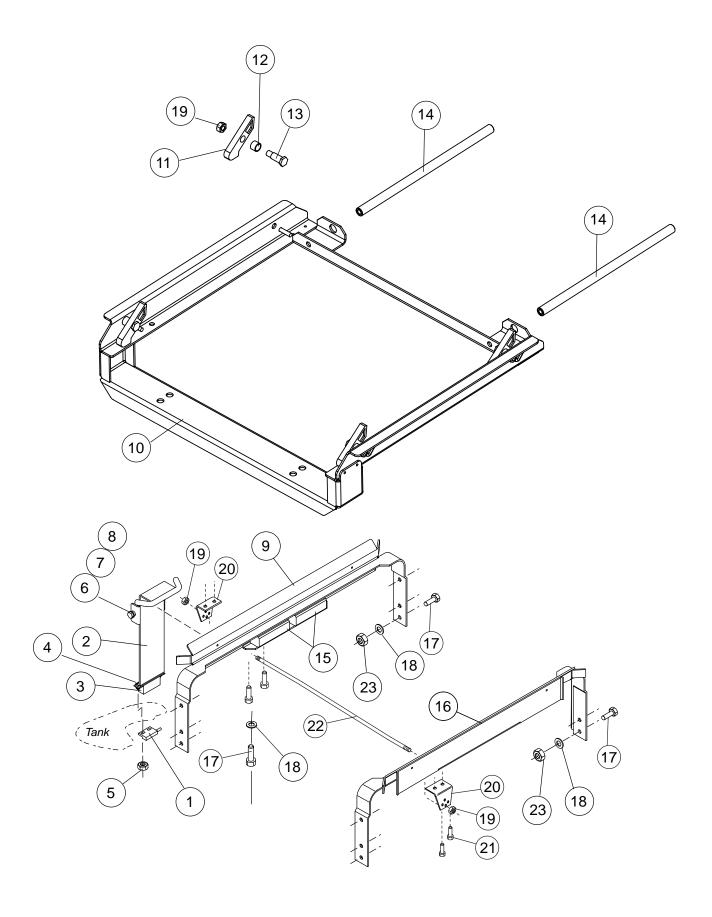
Item No.	Part No.	Description	
1	0509199	Drive Motor Switch	1
2	327918	Bracket, Motor Switch Mounting	1
3	See Sheave	and V-Belt Chart Below	
4	327916	Plate, Drive Motor Mounting	1
5	327920	Plate, 44 Motor Assy Mounting	1
5	327917	Plate, 64 Motor Assy Mounting	1
6	327919	Bracket, Motor Spring Mounting	1
7	106482	Washer Lock 1/4 Split SST	4
8	102376	Washer, Flat 5/16"	2
9	113702	Spring 0.6OD x 0.095 Wire x 1.5 Lg	1
10	113704	Bolt, 5/16 x 3-1/2 Hex Head SST	1
11	113700	Bushing 3/8 x 3/4 x 1/16 Thrust Bronze	3
12	113703	Bushing, 3/4 x 7/8 x 3/8 x 1-1/8 Flg	1
13	113701	Bushing 1/4 x 3/8 x 1/2 x 1/16 Flg Bronze	1
14	113732	Motor, Gear 1/6HP 3PH, MV	1
	113679	Motor, Gear 1/6HP 1PH, MV	1
	114598	Used on 1 and 3 PH machines prior to S/N RE4397 Motor, Gear 1/6HP 3 PH, 575V (Prior to S/N RE10095983)	1
	113679	Motor, Gear 1/6HP 240V/60/1 (Use for 575V Only with P/N 112246, TransformerContact Factory for Kit P/N 900945 Beginning with S/N RE10095983 and above	1
		Dogg with GAVINE 10000000 and above	•
15	100734	Bolt 1/4-20 x 1/2 Hex Head SST	2
16	100736	Bolt 1/4-20 x 3/4 Hex Head	3
17	100734	Bolt 1/4-20 x 1/2 Hex Head SST	2
18	109009	Grip Nut, 5/16-18 w/nylon insert	1

Sheave and V-belt Chart

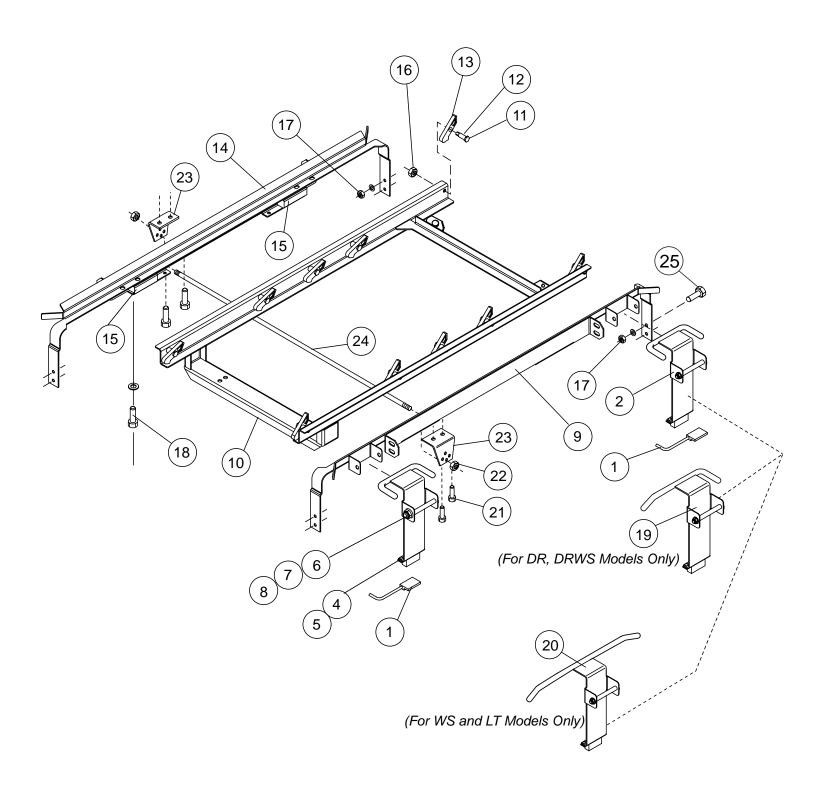
Model	Motor Sheave Part No.	Drive Sheave Part No.	V-Belt Drive Part No.
E44	103166: AK39 5/8 Bore	113892: AK59 5/8 Bore	100794: 4L 310
E44DR	103166: AK39 5/8 Bore	113892: AK59 5/8 Bore	100794: 4L 310
E44WS	113688: AK34 5/8 Bore	113995: AK89H 5/8 Bore	114002: 4L 380
E44DRWS	113688: AK34 5/8 Bore	114003: AK74 5/8 Bore	100799: 4L 350
E54DR	113896: AK54 5/8 Bore	113892: AK59 5/8 Bore	100797: 4L 340
E64	113689: AK46 5/8 Bore	113896: AK54 5/8 Bore	100797: 4L 340
E84	103170: AK49 5/8 Bore	108897:AK44 5/8 Bore	100794: 4L 310



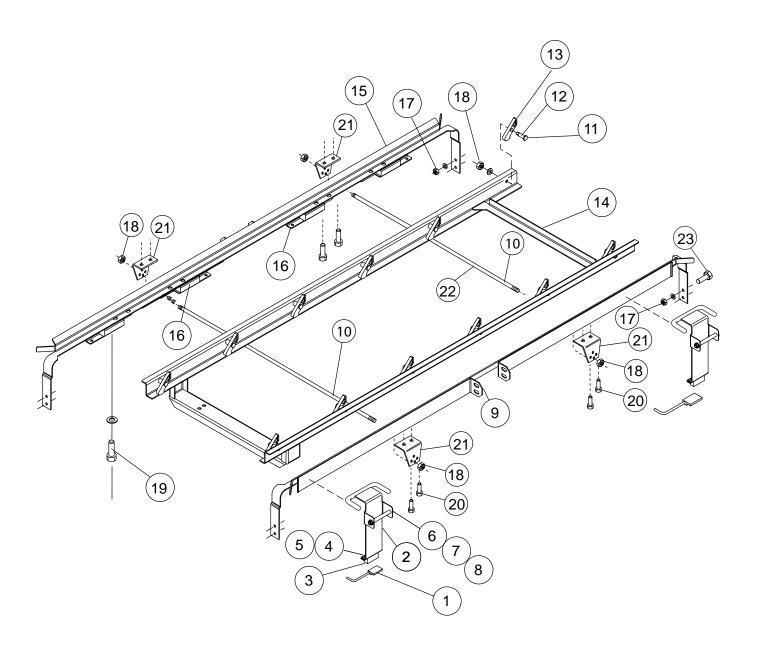
Item No.	Part No.	Description	Qty.
1	202381	Roller Crosshead	1
2	100868	Roller Stud Crosshead	1
3	107089	Nut Jam 1/2-13	1
4	206300	Crank, Rack Arm	1
5	206301	Shaft 5/8" O.D. x 9" LG.	1
6	113861	Housing, Bearing/Seal	1
7	102244	Seal 5/8"	1
8	206303	Gasket/Bearing Seal	1
9	100382	Bearing Jaf #EK104-10	1
10	100007	Screw, 10-32 x 3/8 Truss Head	1
11	104925	Washer 1/4 x 1 x 16 Gauge	1
12	103180	Wiper Ring	1
13	104916	Key 3/16 x 3/16 x 3/4 SST	1
14	See Sheave	and V-belt Chart on page 35.	
15	See Sheave	and V-belt Chart on page 35.	
16	327924	Bracket, 44 Drive Bearing Mounting	1
17	113860	Bearing, Sealed 5/8 Bore	1
18	104923	Screw 1/4-20 x 3/8 Round Head	4
19	100739	Bolt 5/16-18 x 3/4 Hex Head SST	8
20	106013	Washer Lock 5/16 Split	8
21	102376	Washer, flat 5/16"	8
22	100154	Nut Plain 5/16-18 SST	8
23	100746	Bolt 3/8-16 x 1-1/4" Hex Head	2
24	104618	Washer 3/8 x 7/8 x 1/16 SST	2
25	109010	Grip Nut, 3/8" w/nylon insert	2
26	100769	Screw, Set 3/8-16" x 3/4" Dog Point	1



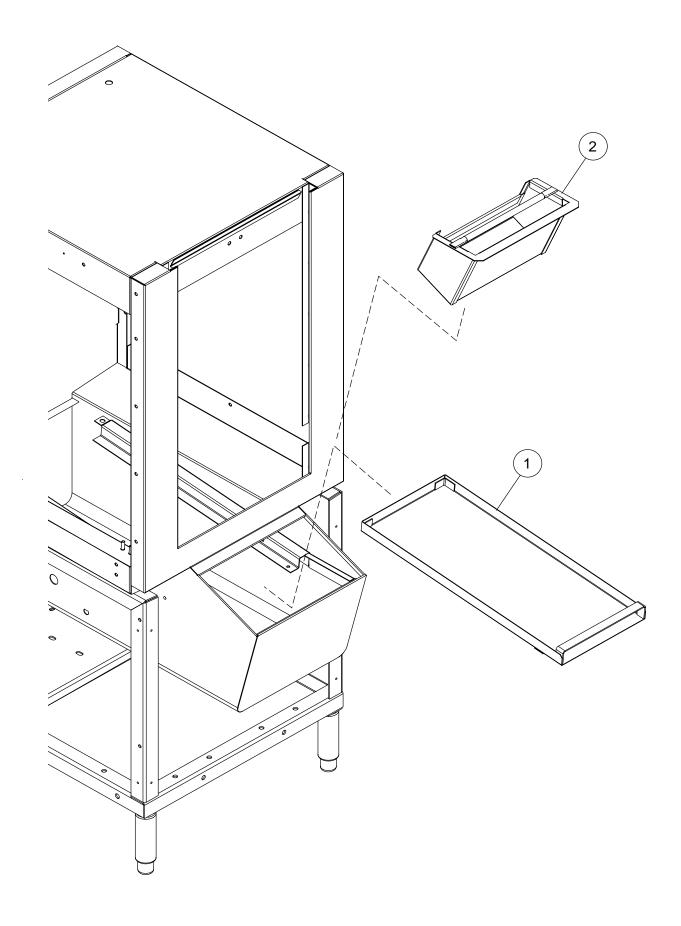
Item No.	Part No.	Description	Qty.
1	113719	Switch Door Safaty	1
	328046	Switch, Door Safety	1
2		Bracket, E PW IdlePump	1
3	113937	Magnet, SS	1
4	100764	Screw, 6-32 x 1/2 Round Head SST	2
5	108954	Nut, Grip 6-32 Hex Head W/Nylon Insert	2
6	106482	Washer Lock 1/4 Split	2
7	327833	Pin Idle Switch lever	1
8	100736	Bolt, 1/4-20 x 3/4" Hex Head	2
9	328041	Track, 22" PW Rear	1
10	328043	Cradle, 22" PW	1
11	204513	Pawl, Cradle	4
12	206345	Spacer, Rack Cradle Pawl	4
13	113692	Bolt, Shoulder, 3/8 x 3/4 x 5/16-18 x 3/8" SST	4
14	333155	Rod, Drive PW, 10-3/4"	2
15	206343	Bearing, E Cradle Support	4
16	327955	Track, 22" PW Front	1
17	100735	Bolt 1/4-20 x 5/8" Hex Head SST	8
18	106026	Washer, Flat 1/4-20	8
19	100142	Nut, Grip 5/16-18	6
20	331988	Bracket, Lower Washarm Support	2
21	100734	Bolt, Hex. Hd. 1/4-20 x 1/2"	6
22	206920	Rod, Lower Washarm Support, Threaded	1
23	100141	Nut, Grip 1/4-20	8
24	106482	Washer Lock 1/4-20 Split	2
	414334	Cradle Assembly, Complete, PW22"	
	414438	Cradle Assembly Complete, PW36"	
	900897	Kit, Idle Pump Assy.	



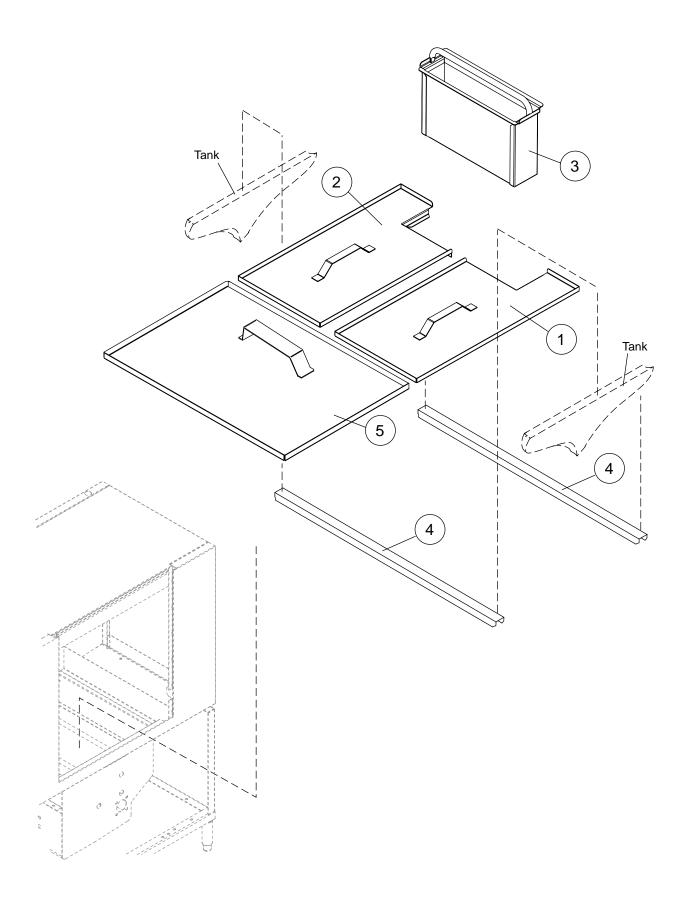
Item No.	Part No.	Description	Qty.
1	113719	Switch, Door Safety	1
2	900897	Switch, Idle Assembly (Includes Items 3-8)(Prior to 8/30/08)	1
3	113937	Magnet, SS	1
4	100764	Screw, 6-32 x 1/2 Round Head SST	2
5	108954	Nut, Grip 6-32 Hex Head W/Nylon Insert	2
6	106482	Washer Lock 1/4 Split	2
7	327833	Pin Idle Pump Switch	1
8	100736	Bolt, 1/4-20 x 3/4 Hex Head	2
9	414370	Track, E44 Front	1
10	NLA	Cradle, E44, No Longer Available	1
11	113692	Screw, 3/8 x .875 x 5/15-18	8
12	206345	Spacer, Rack Cradle Pawl	8
13	204513	Pawl, NG Cradle	8
14	414357	Track, E44 Rear	1
15	206343	Bearing, Rack Cradle Slide	4
16	100142	Nut, Grip 5/16-18	14
17	100141	Nut, Grip 1/4-20	4
18	100736	Bolt 1/4-20 x 3/4 Hex Head SST	2
	106482	Washer Lock 1/4-20 Split	2
19	329295	Switch, Idle Weldment (After 6-30/08) (For DR, DRWS Models)	1
20	329783	Switch, Idle Assy. Weldment (After 6-30/08) (For WS, LT Models)	1
21	100734	Bolt, Hex. Hd. 1/4-20 x 1/2"	6
22	100142	Nut, Grip 5/16-18	2
23	331988	Bracket Lower Washarm Support	2
24	206920	Rod, Support	1
25	100735	Bolt 1/4-20 x 5/8" Hex Hd., SST	8
	414377	Cradle, E-44 Complete (Includes Items 10-13 and 16)	1
	329486	Track, 26" Front Feed Assy.	
	900897	Kit. Idle Pump Assy.	



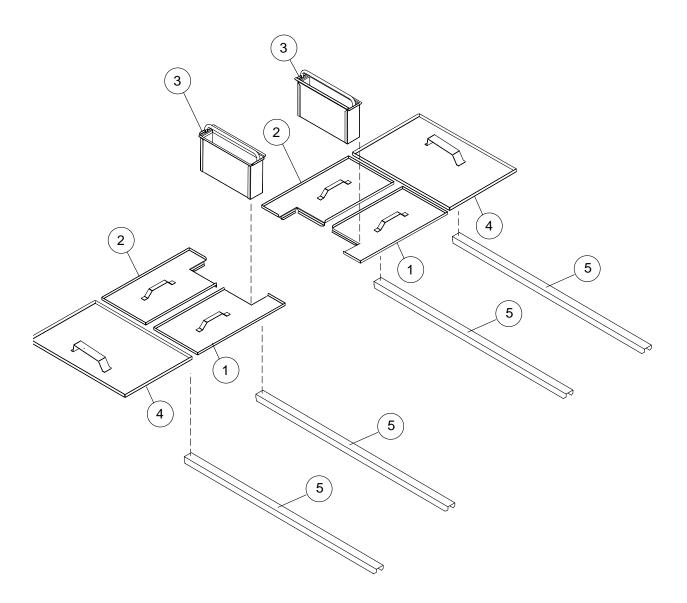
Item No.	Part No.	Description	Qty.
1	113719	Switch, Door Safety	1
2	900897	Switch, Idle Assembly (Includes Items 3-8)	1
3	113937	Magnet, SS	1
4	100764	Screw, 6-32 x 1/2 Round Head SST	2
5	108954	Nut, Grip 6-32 Hex Head W/Nylon Insert	2
6	106482	Washer Lock 1/4 Split	2
7	327833	Pin Idle Pump Switch	1
8	100736	Bolt, 1/4-20 x 3/4 Hex Head	2
9	331008	Track, 64 Front LR 328981 RL	1
10	206920	Rod, Lower Washarm Support	2
11	113692	Bolt Shoulder, 3/8 X 3/4 X 5-16 X 18 SST	12
12	206345	Spacer, Rack Cradle Pawl	12
13	204513	Pawl, NG Cradle	12
14	NLA	Cradle, 64, No Longer Available	1
15	414358	Track, 64 Rear	1
16	206343	Bearing, Rack Cradle Slide	8
17	100141	Nut, Grip 1/4-20	4
18	100142	Nut, Grip 5/16-18	3
19	100736	Bolt 1/4-20 x 3/4 Hex Head SST	2
	106482	Washer Lock 1/4-20 Split	2
20	100734	Bolt, Hex. Hd. 1/4-20 x 1/2"	8
21	331988	Bracket, Lower Washarm Support	4
22	100735	Bolt 1/4-20 x 5/8" Hex Hd., SST	8
	414378	Cradle Assy. Complete E-64	
	415839	Cradle Assy. Complete E84	



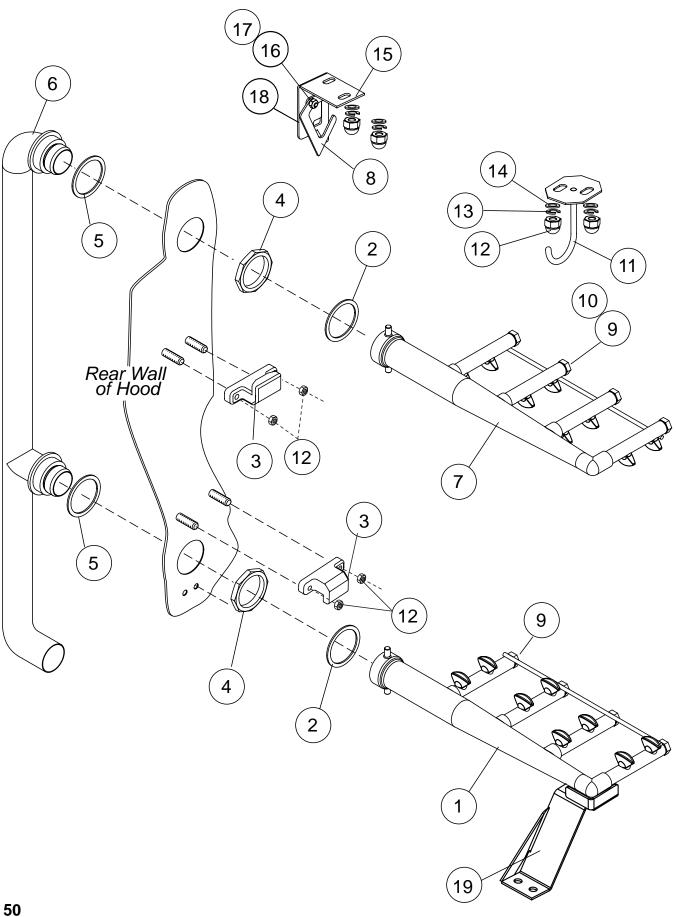
Item No.	Part No.	Des	scription	Qty.
1	328958	Screen Assy.		1
2	328959	Refuse Basket		1



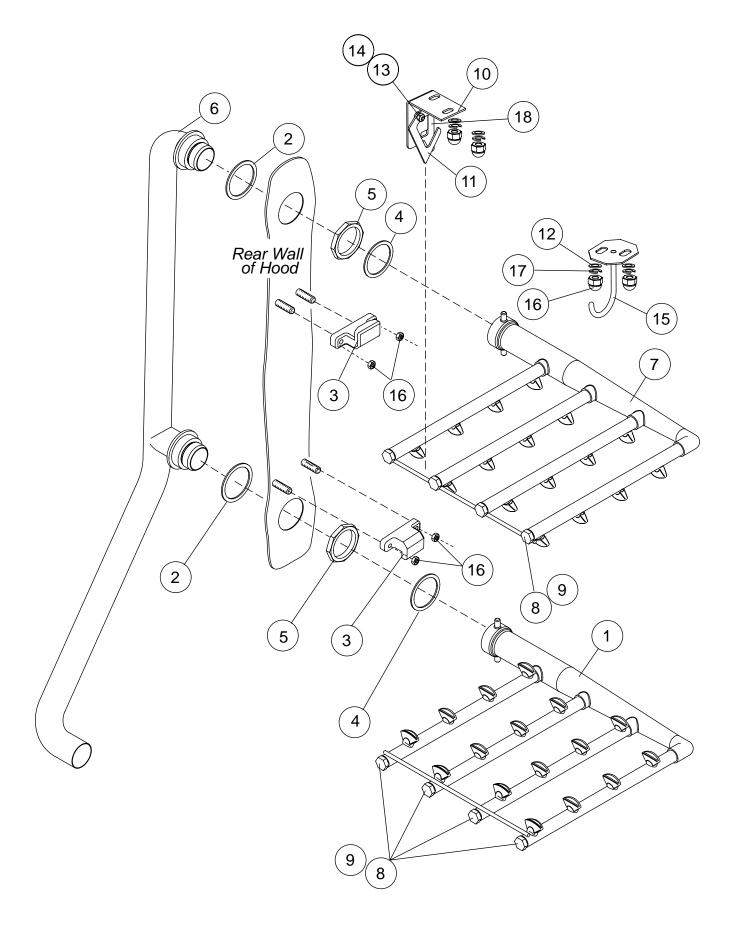
Item No.	Part No.	Description	Qty.
1	414328	Screen, E-44 L-R Front	1
2	414329	Screen, E-44 L-R Rear	1
3	414300	Basket, Rack	1
4	331923	Support, Screen	2
5	328653	Screen, Outboard, (E54DR)	1



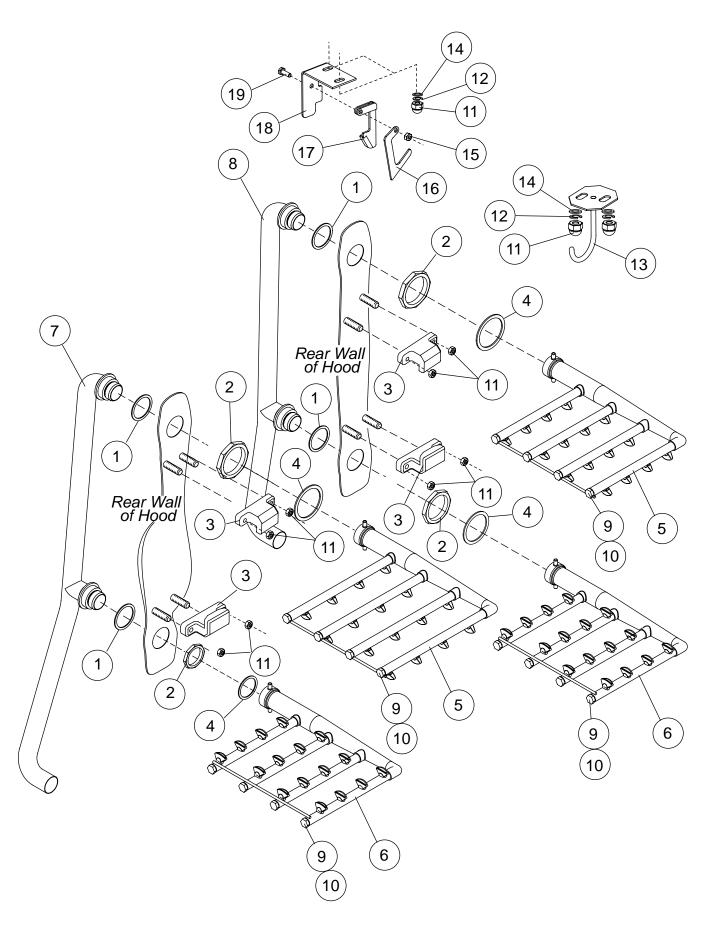
Item No.	Part No.	Description	Qty.
1	414328	Screen, E-44 L-R Front	1
2	414329	Screen, E-44 L-R Rear	1
3	414300	Basket, Rack	1
4	331923	Support, Screen	4
5	328653	Screen, Outboard, (E-84 Only)	1



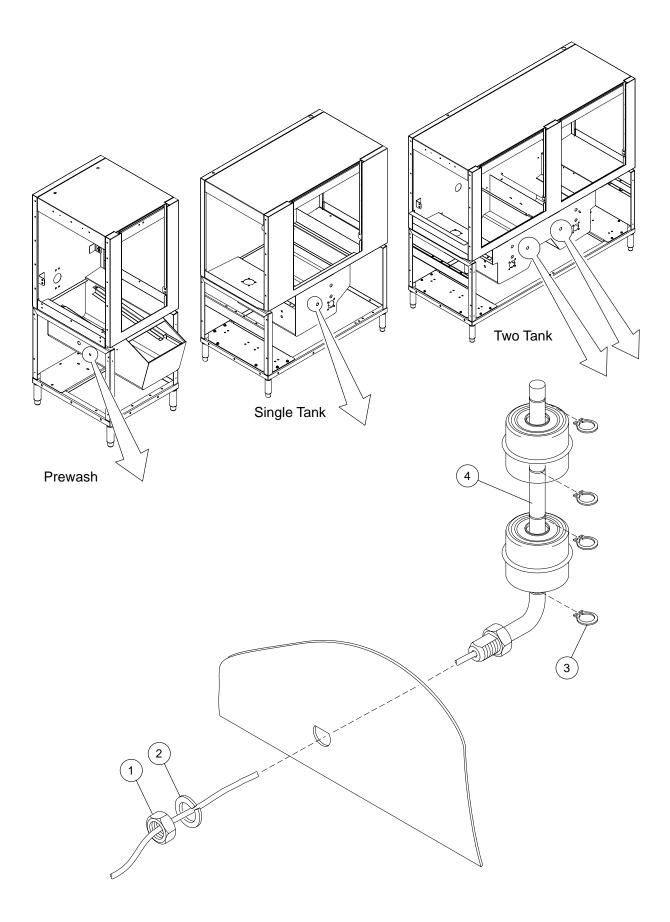
Item No.	Part No.	Description	Qty.
1	414569	Wash Manifold Assembly 6" Lower	1
2	113723	O-Ring	1
3	113738	Block, Washarm Retaining	4
4	113540	Locknut 2NPT SST	2
5	113741	Gasket, 2-5/16 ID	2
6	328028	Standpipe, 22" PW	1
7	414568	Wash Manifold Assy 6" Upper	1
8	328998	Bracket, Upper Safety	1
9	113555	Plug, Wash Arm E-Series (Qty per arm)	4
10	113716	O-ring	4
11	328034	Support, Upper Wash	1
12	106014	Nut, Acorn 1/4-20 SST	8
13	106482	Washer, Lock 1/4" Split SST	8
14	106026	Washer, Flat 1/4" SST	8
15	329000-1	Bracket, Support	1
16	100141	Grip Nut, 1/4" SST	2
17	100735	Bolt, Hex Hd. 1/4-20 SST	2
18	329001	Support, Upper Wash	1
19	328253	Bracket Support	1



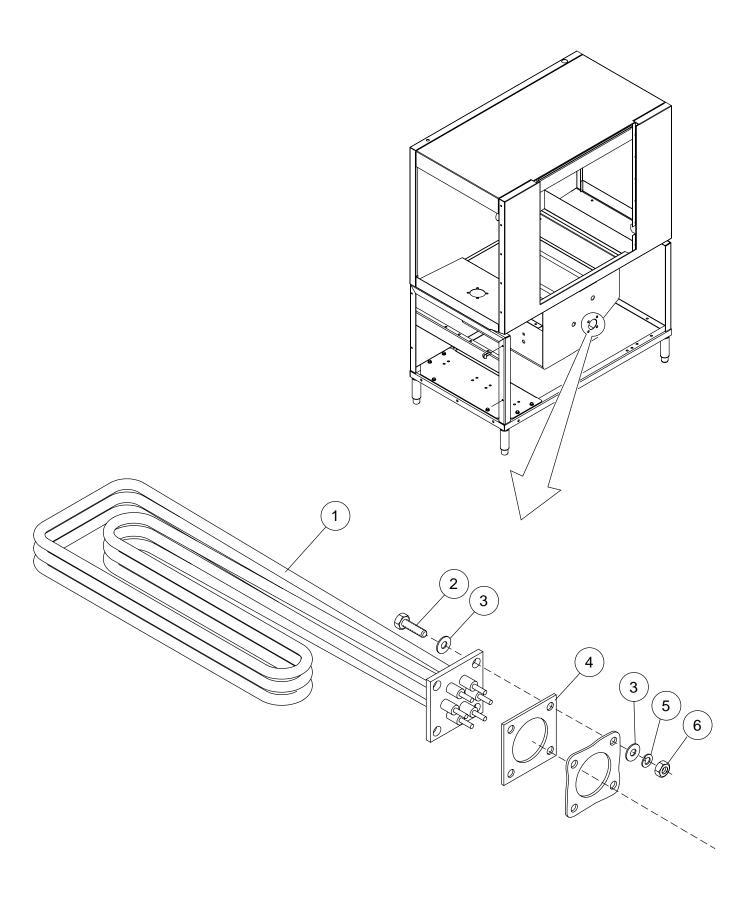
Item No.	Part No.	Description	Qty.
1	414567	Wash Manifold Assembly 10" 15° Lower (L-R)	1
	414566	Wash Manifold Assembly 10" 15° Lower (R-L)	1
2	113741	Gasket, 2-5/16 ID	2
3	113738	Block, Washarm Retaining	2
4	113723	O-ring	2
5	113540	Locknut 2NPT SST	2
6	327993	Standpipe, R-L 44	1
	414317	Standpipe, L-R 44	1
7	414288	Wash Manifold Assy 14" Straight (RH)	1
	414289	Wash Manifold Assy 14" Straight (LH)	1
8	113555	Plug, Wash Arm E-Series (Qty per arm)	4
9	113716	O-ring	4
10	329001	Bracket, Upper Wash Arm Support	1
11	328998	Bracket, Upper Safety Catch	1
12	106026	Washer, Flat 1/4" SST	4
13	100141	Grip Nut, 1/4-20 SST	10
14	100736	Bolt, Hex Hd. 1/4-20 x 3/4" SST	10
15	328034	Support, Upper Wash	1
16	106014	Nut, Acorn 1/4" SST	8
17	106482	Washer, Lock 1/4" Split SST	4
18	329000-1	Latch, E Upper Washarm Weldment (L-R Operation)	1
	329000-2	Latch, E Upper Washarm Weldment (R-L Operation)	1



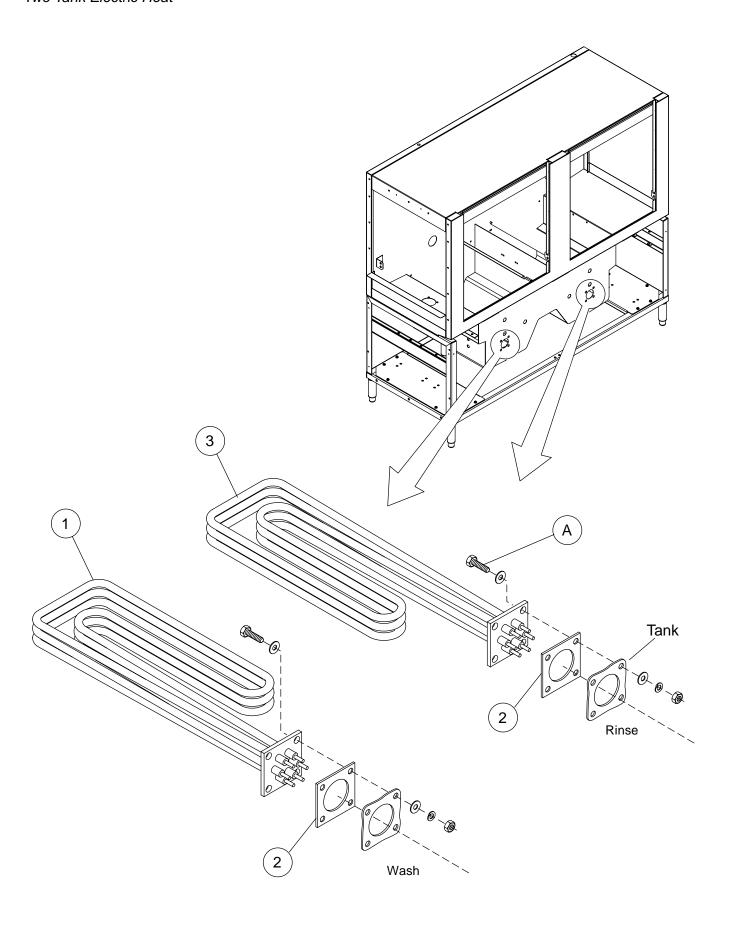
Item No.	Part No.	Description	Qty.
1	113741	Gasket, 2-5/16 ID	4
2	113540	Locknut 2NPT SST	4
3	113738	Block, Washarm Retaining	2
4	113723	O-ring	2
5	414288	Wash Manifold Assembly 14" Straight (RH)	2
	414289	Wash Manifold Assembly 14" Straight (LH)	2
	414565	Wash Manifold Assy. E84 (L-R)	2
	414564	Wash Manifold Assy. E84 (R-L)	2
6	414567	Wash Manifold Assembly 10" 15° Lower (L-R)	2
	414566	Wash Manifold Assembly 10" 15° Lower (R-L)	2
	414564	Wash Manifold Assy. E84 (L-R)	2
	414565	Wash Manifold Assy. E84 (R-L)	2
7	414318	Standpipe 64 L-R Wash	1
	328443	Standpipe 64 R-L Wash	1
8	414319	Standpipe 64 L-R Rinse	1
	328445	Standpipe 64 R-L Rinse	1
9	113555	Plug, Wash Arm E-Series (Qty per arm)	4
10	113716	O-ring	4
11	106014	Nut, Acorn 1/4" SST	10
12	106482	Washer, 1/4" Split SST	8
13	328034	Support, Upper Washarm	2
14	106026	Washer, Flat 1/4" SST	8
15	100141	Grip Nut, 1/4" SST	4
16	328998	Bracket, Upper Safety	2
17	329000-1	Latch, E Upper Washarm Weldment (L-R Operation)	2
	329000-2	Latch, E Upper Washarm Weldment (R-L Operation)	2
18	329001	Bracket, Upper Washarm Support	2
19	100736	Bolt, Hex Hd. 1/4-20 x 3/4" SST	4



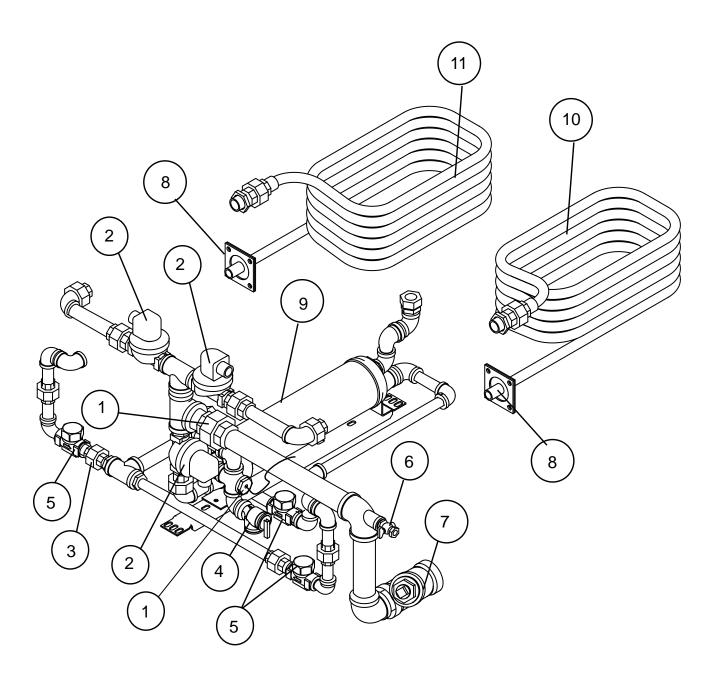
Item No.	Part No.	Description	Qty.
1	104584	Nut, Plain 1/2-13	1
2	107589	Washer, Lock 1/2"	1
3	111151	C-Clip	A/R
4	110854	Float Switch, Dual Prewash	1
	113291	Float Switch, Dual Wash/Rinse E-44	1
	113291	Float Switch, Dual Wash/Rinse E-64	2
	110750	Gasket, Float Switch (Not Shown)	A/R



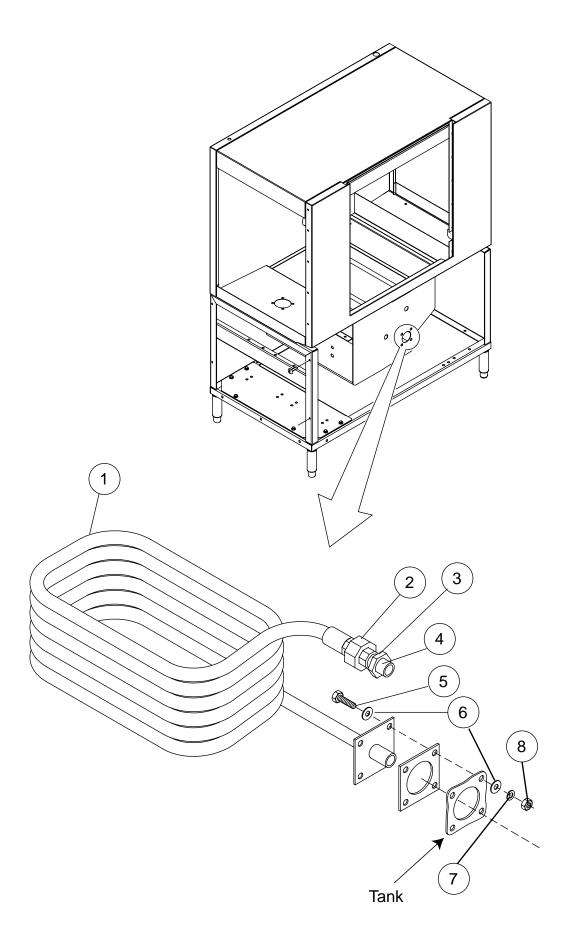
Item No.	Part No.	Description	Qty.
1	113516	Heater 15/18KW 200V-220V, 380V	1
	113517	Heater 15/16.3KW 230-240V, 400-415V	1
	113518	Heater 15/16.3KW 460-480V	1
	113519	Heater 15KW 575V	1
2	100153	Bolt, 3/18-16 x 1 Hex Head	4
3	104618	Washer 3/8 x 7/8 x 1/16 SST	8
4	108345	Gasket 3 x 3 x 1/8" 2" Hole	1
5	106407	Washer Lock 3/8 Split	4
6	100140	Nut Plain 3/8-16	4



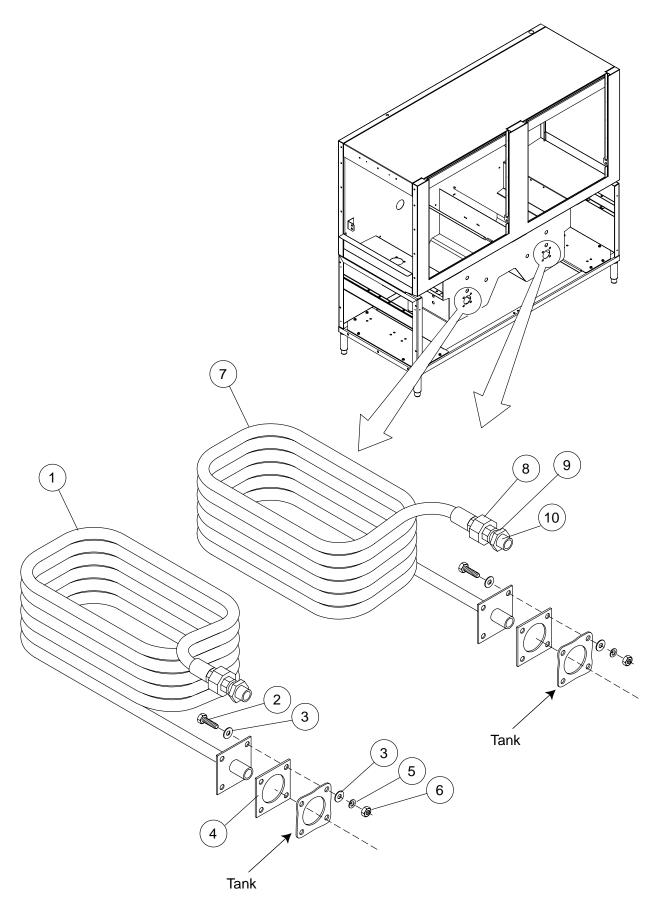
Item No.	Part No.	Description	Qty.
1	113516	Hostor 15/19KW 200 220V (Wash)	1
ı		Heater 15/18KW 200-220V (Wash)	l 4
	113517	Heater 15/16.3KW 230-240V(Wash)	1
	113518	Heater 15/16.3KW 460-480V (Wash)	1
	113519	Heater 15KW 575V (Wash)	1
2	108345	Gasket 3 x 3 x 1/8" 2" Hole	1
3	113804	Heater 10/12.1 KW 200-220V (Rinse)	1
	113882	Heater 10/11KW 230-240V (Rinse)	1
	113883	Heater 10/11KW 460-480V (Rinse)	1
	113884	Heater 10/11KW 575V (Rinse)	1
_			
A		Element Fasteners (Qty Per Element)	
	100153	Bolt, 3/18-16 x 1 Hex Head	4
	104618	Washer 3/8 x 7/8 x 1/16 SST	8
	106407	Washer Lock 3/8 Split	4
	100140	Nut Plain 3/8-16	4



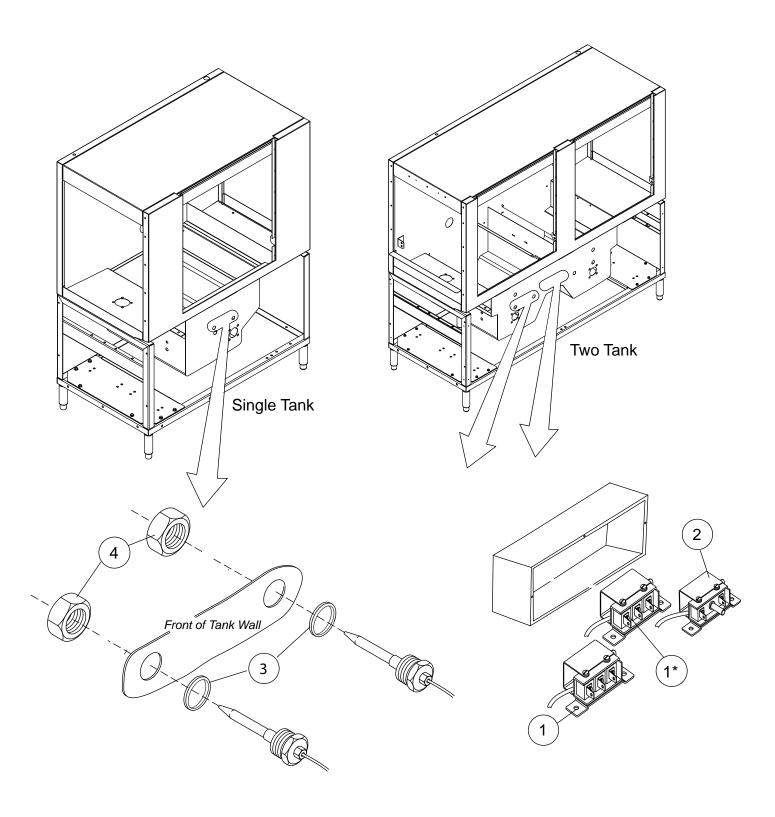
Item No.	Part No.	Description	Qty.
1	109069	Thermostat, Control	1
2	109887	Valve, 3/4" Solenoid 120VAC	3
	109903	Kit, Repair Solenoid Valve	A/R
	108516	Coil, Replacement 120VAC	A/R
3	105782	Nipple, Close 1/2 NPT BI	4
4	104649	Relief, Valve	1
5	111380	Trap, Steam I/2"	3
6	100123	Cock, Gauge 1/4"	1
7	100263	Strainer, Line 1-1/4" BI	1
8	108345	Gasket	2
9	110189	Booster, K2 Spirec	1
10	327907	Coil, Steam R-L	1
11	327908	Coil, Steam L-R	1



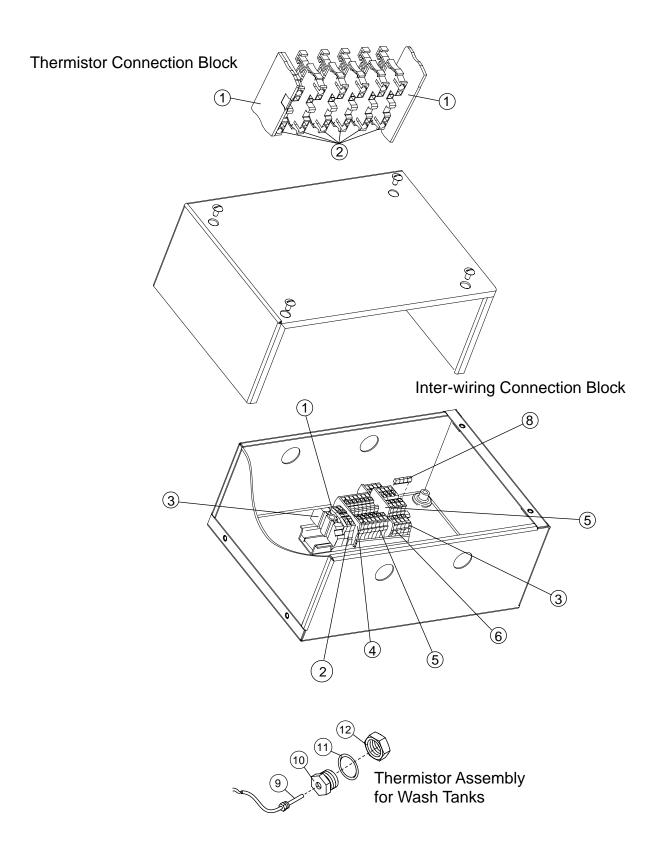
Item No.	Part No.	Description	Qty.
	007000	0.11.04	
1	327908	Coil, Steam LR (Shown)	1
1	327907	Coil, Steam RL	1
2	102554	Union 3/4 SST	1
3	100548	Locknut, 3/4NPT SST	1
4	113918	Nipple, RTOE 3/4 x 1-3/4	1
5	100740	Bolt 5/16-18 x 1 Hex Head	4
6	102376	Washer 5/16 X 3/4 x 1/16	8
7	108345	Gasket 3 x 3 1/8" 2IN Hole	1
8	106013	Washer Lock 5/16 Split	4
9	100154	Nut Plain 5/16-18	4



Item No.	Part No.	Description	Qty.
1	327907	Coil, Steam LH	1
2	100740	Bolt 5/16-18 x 1 Hex Head	8
3	102376	Washer 5/16 X 3/4 x 1/16	16
4	108345	Gasket 3 x 3 1/8" 2IN Hole	2
5	106013	Washer Lock 5/16 Split	8
6	100154	Nut Plain 5/16-18	8
7	327908	Coil, Steam RH	1
8	102554	Union 3/4 SST	2
9	100548	Locknut, 3/4NPT SST	2
4	113918	Nipple, RTOE 3/4 x 1-3/4	1

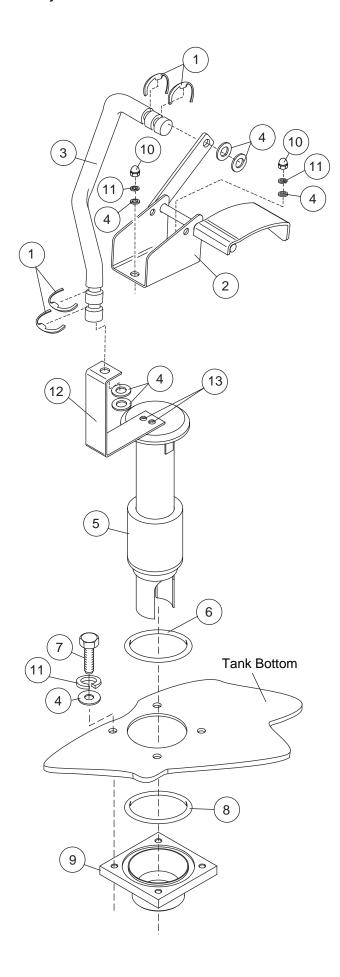


Item No.	Part No.	Description	Qty.
1	109069	Thermostat w/capillary - Single Tank and Two Tank	1
1*	109069	Thermostat w/capillary - Oligie falls and Two falls Thermostat w/capillary -DR Models Only	1
2	110561	Thermostat, Fixed Hi Limit - Single Tank and Two Tank	1
3	115489	O-ring	1
4	100547	Locknut 1-1/2 NPT SST - Single Tank	2
	100547	Locknut 1-1/2 NPT SST - Two Tank	4

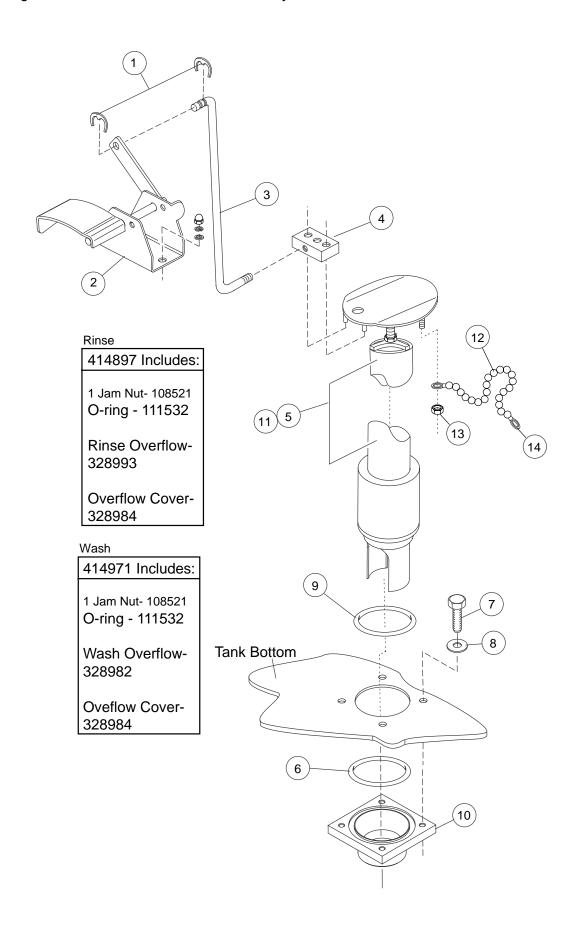


NOTE: Components and Quantities vary per Machine.

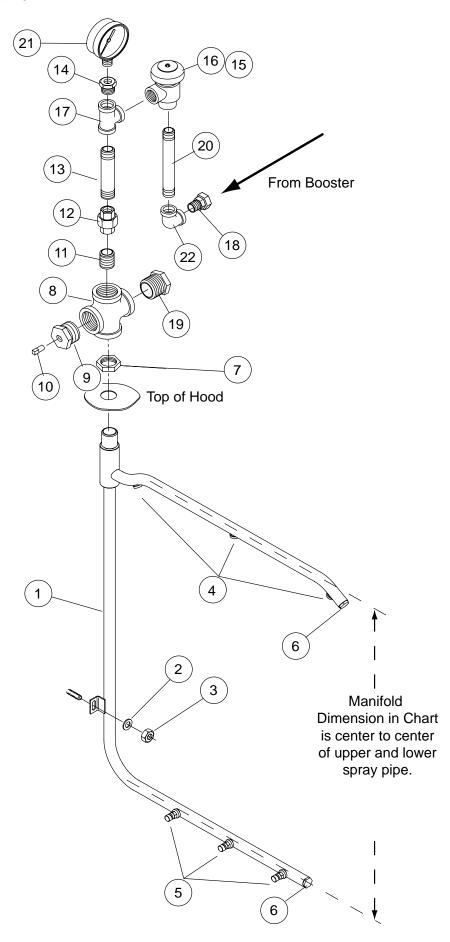
Item No.	Part No.	Description	Qty.
1	114521	End Cover, Single Terminal, D-MZB	A/R
2	114520	Terminal, Single MZB, 1.5 NS35	A/R
3	114519	End Block, E/NS 35 N	2
4	114518	End Cover, Double Terminal STTB 2.5,	A/R
4	114516	End Cover, Single Terminal D-ST 2.5	A/R
5	114515	Terminal, Single, Ground ST 2.5 (Green)	A/R
6	114517	Terminal, Double STTB 2.5	A/R
7	114512	Terminal, Single ST 2.5 (Gray)	A/R
8	114522	Bridge, 10-Pole FPS 10-5 (Cut to Fit)	1
9	114435	Thermistor, 10KΩ, 36" Lead	1
10	0512299	Adapter, Thermistor	1
11	0501836	O-ring	1
12	201029	Locknut 1/2" NPT NP	1



Item No.	Part No.	Description	Qty.
1	113715	Ring, Retaining	4
2	328824	Lever Drain Lift	1
3	206419	Rod, Overflow Lift 22"PW	1
4	106026	Washer 1/4" SST	10
5	328430	Overflow PW Mtd	1
6	111532	O-ring, Overflow	1
7	100735	Bolt 1/4-20 x 5/8 Hex Head	4
8	112257	O-ring, drain	1
9	111034	Drain , Flange Cast/Mach SST	1
10	106014	Acorn Nut 1/4-20	2
11	106482	Washer Split 1/4	6
12	327914	Bracket EPW Overflow, Lift	1
13	100073	sCREW 1/4-20 X 1/2	2

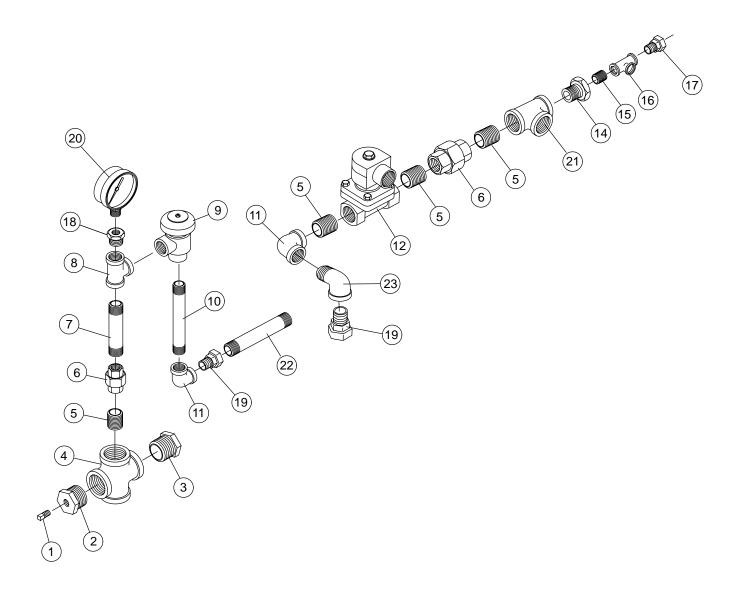


Item No.	Part No.	Description	Qty.
1	113715	Ring, Retaining	2
2	328985	Lever Drain Lift	1
3	206442	Rod, Overflow Lift	1
4	206444	Block, drain lift	1
5	107966	Nut, Grip 10-32 w/Nylon Insert	2
6	112257	O-ring	1
7	100735	Bolt 1/4-20 x 5/8 Hex Head	4
8	106026	Washer 1/4 x 5/8 x 1/6 SST	5
9	111532	O-ring, Drain 1.600 ID x .21	1
10	111034	Drain , Flange Cast/Mach SST	1
11		Overflow 2-tank Wash Tank (Breakdown previous page)	1
		Overflow 2-tank Rinse Tank (Breakdown previous Page)	1
12	107367	Chain, Bead #10	2FT
13	107966	Grip Nut, 10-32 w/nylon insert SST	1
14	107368	Fitting, Chain End Coupling	2

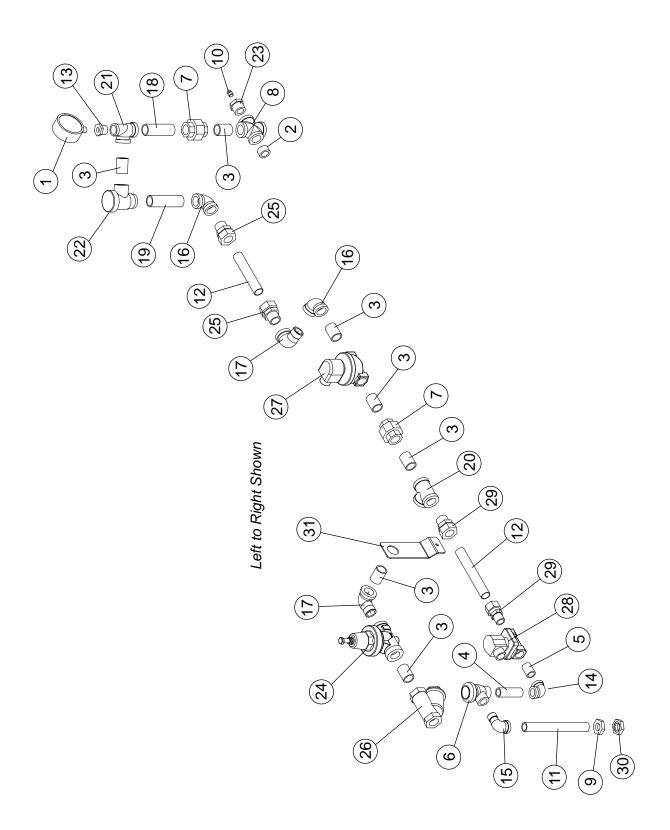


Item No.	Part No.	Description	Qty.
1	See Chart Be	elow for Manifold P/N's	
2	106026	Washer 1/4 x 5/8 x 1/16 SST	1
3	107967	Nut Grip 1/4-20 w/Nylon Insert	1
4	See Chart B	elow for Upper Nozzle P/N's	3
5	See Chart Be	elow for Lower Nozzle P/N's	3
6	113795	Plug 11/16-16 Thread	2
	109034	Gasket Rinse Pipe (Not Shown)	1
7	100156	Locknut 3/4NPT Brass	1
8	100599	Cross 3/4" NPT Brass	1
9	105976	Bushing Red 3/4" NPT x 1/8" NPT Brass	1
10	101259	Plug 1/8" NPT Brass	1
11	100184	Nipple 3/4"NPT Close Brass	1
12	100571	Union 3/4"NPT Brass	1
13	102470	Nipple 3/4" NPT x 3" Lg Brass	1
14	102388	Bushing, Reducing 1/2"NPT x 1/4"NPT Brass	1
15	104429	Vacuum Breaker 3/4"NPT	1
16	900837	Kit*Repair, 3/4 Vacuum Breaker	A/R
17	102525	Tee, Red 3/4" x 1/2" x 3/4" NPT Brass	1
18	109879	Fitting Compression 3/4"NPT x 7/8" OD	1
19	100171	Bushing Red Face 3/4" NPT x 1/2 NPT Brass	1
20	102490	Nipple 3/4"NPT x 3-1/2" Lg Brass	1
21	100135	Pressure Gauge 0-60 PSI	1
22	102442	Elbow 3/4 x 90° Brass	1

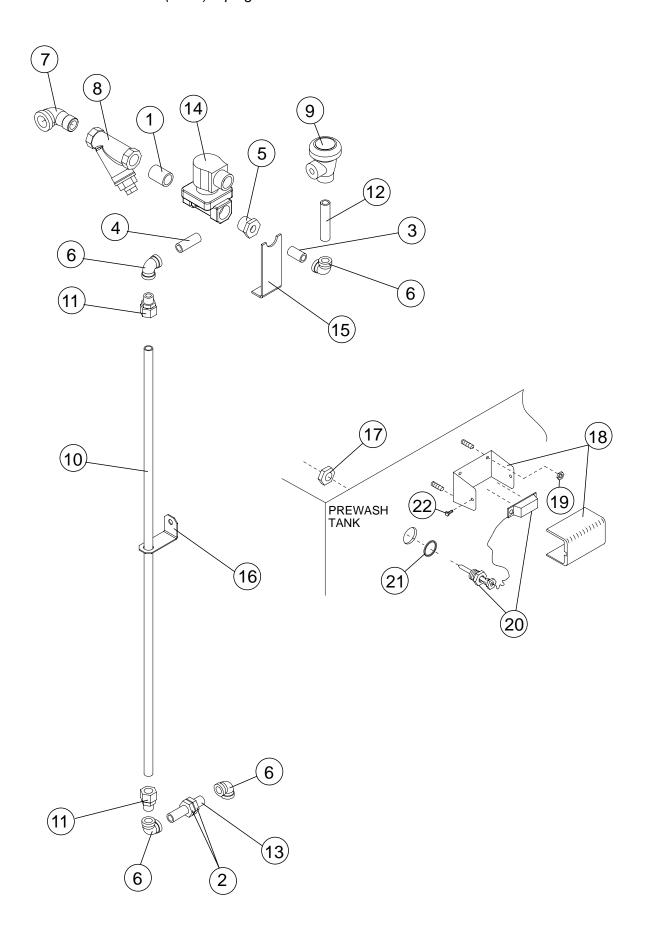
Model	Upper Final Rinse Nozzle	Lower Final Rinse Nozzle	Final Rinse Manifold R-L	Final Rinse Manifold L-R
	P/N	P/N	P/N - Dim.	P/N - Dim.
E44/54	107290	112022	113699 - 25-3/4"	113694 - 25-3/4"
E44/54 HH	107290	112022	114023 - 29-3/4"	114022 - 29-3/4"
E44/54DR	180282	112022	329010 - 25-3/4"	329265 - 25-3/4"
E44/54DR HH	107290	112022	114023 - 29-3/4"	114022 - 29-3/4"
E44/54WS	0508376	112022	113699 - 25-3/4"	113694 - 25-3/4"
E44/54DRWS	0508376	112022	329010 - 25-3/4"	329265 - 25-3/4"
E64/84	107290	112022	113699 - 25-3/4"	113694 - 25-3/4"
E64/E84 HH	107290	112022	114023 - 29-3/4"	114022 - 29-3/4"



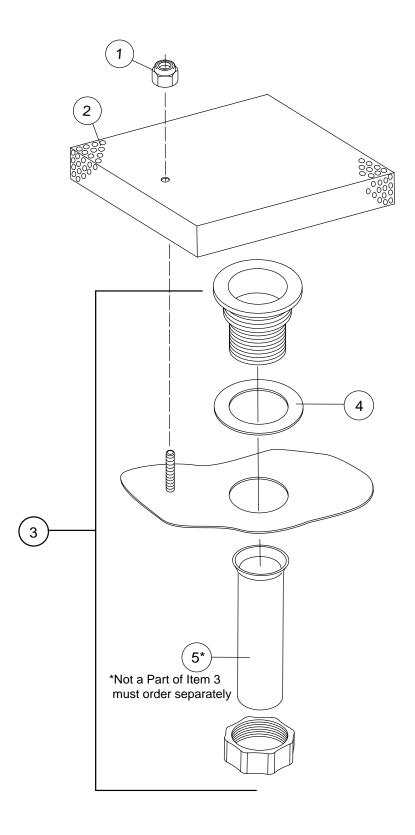
Item No.	Part No.	Description	Qty.
1	101259	Plug, 1/8" NPT Brass	1
2	105976	Bushing, Red 3/4" NPT x 18" NPT Brass	1
3	100171	Bush Red Face 3/4" NPT x 1/2" NPT Brass	1
4	100599	Cross, 3/4"NPT Brass	1
5	100184	Nipple 3/4" NPT Close Brass	4
6	100571	Union 3/4" NPT Brass	2
7	102470	Nipple 3/4" x 3" Lg Brass	2
8	102525	Tee Red 3/4 x 1/2 x 3/4 Brass	1
9	104429	Vacuum Breaker 3/4" NPT Brass	1
	900837	Kit*Repair, Vacuum Breaker 3/4"	A/R
10	102490	Nipple 3/4" NPT x 3-1/2"Lg Brass	1
11	102442	Elbow 3/4"NPT x 90° Brass	1
12	111437	Valve, Solenoid 3/4" HW	1
	109903	Kit Repair 3/4 JE Stm-Wat	A/R
	111472	Replacement Coil 3/4" Solenoid Valve	A/R
13	107418	Tee, 3/4"NPT x 3/4"NPT x 1/4"NPT Brass	1
14	102392	Bushing Red 3/4" x 1/2" NPT	1
15	100209	Nipple 1/2" NPT Brass	1
16	102514	Tee 1/2" NPT Brass	1
17	111250	Fitting Compression 1/2 OD x 1/2 MPT	1
18	102388	Bushing, Reducing 1/2" NPT x 1/4" NPT Brass	1
19	109879	Fitting, Comp 7/8OD x 3/4 MPT Brass	1
20	100135	Pressure Gauge 0-60 PSI	1
21	102521	Tee 3/4" NPT Brass	1
22	102490	Nipple 3/4" NPT x 3-1/2"Lg Brass (w/Steam Booster Only)	1
23	102444	Elbow Street 34 x 90° Brass	1



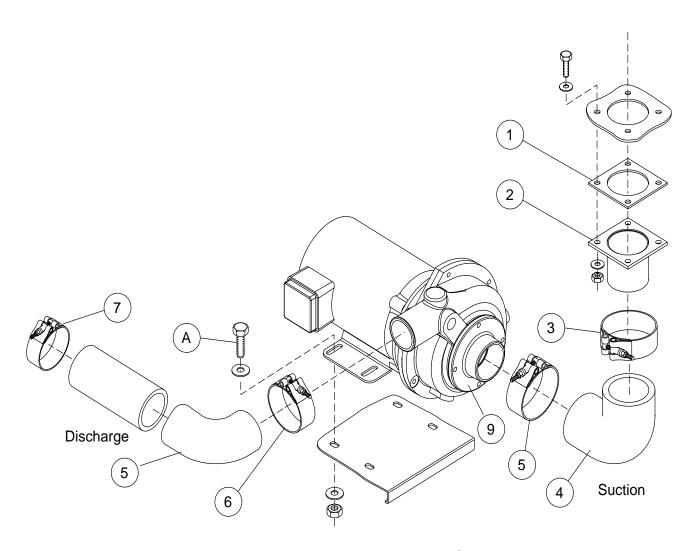
Item No.	Part No.	Description	Qty.
1	100135	Gauge, Pressure 0-60 PSI	1
2	100171	Bushing, Red. Face 3/4" x 1/2" Brass	1
3	100184	Nipple, Close 3/4" NPT Brass	7
4	100206	Nipple, 1/2" NPT x 2-1/2" Lg. Brass	1
5	100209	Nipple, Close 1/2" NPT	1
6	100500	Breaker, Vacuum 1/2" NPT Bronze	1
	900836	Kit, Repair Vacuum Breaker	A/R
7	100571	Union, 3/4" NPT Brass	2
8	100599	Cross, 3/4" NPT Brass	1
9	100709	Locknut, 1/2" NPT Brass	1
10	101259	Plug, 1/8" NPT Sq. Hd. Brass	1
11	101397	Nipple, RTOE, 1/2" NPT x 7" Lg. Brass	1
12	102104	Tube, E-series Final Rinse Vertical	2
13	102388	Bushing Reducing, 1/2" NPT x 1/4" NPT Brass	1
14	102435	Elbow, 1/2" NPT x 90° Brass	1
15	102438	Elbow, Street 1/2" NPT x 90° Brass	1
16	102442	Elbow, 3/4" NPT x 90° Brass	2
17	102444	Elbow, Street 3/4" NPT x 90° Brass	2
18	102470	Nipple, 3/4" NPT x 3" Lg. Brass	1
19	102490	Nipple, 3/4" NPT x 3-1/2" Lg. Brass	1
20	102521	Tee, 3/4" NPT Brass	1
21	102525	Tee, Red 3/4" x 1/2" x 3/4" NPT	1
22	104429	Breaker, Vacuum 3/4" Brass	1
	900836	Kit, Repair Vacuum Breaker	A/R
23	105976	Bush, Red 3/4" x 1/2" Brass	1
24	107550	Valve, Pressure Regulating 3/4" NPT Brass	1
25	109879	Fitting Comp. 7/8" O.D. x 3/4" NPT Brass	3
26	110768	Strainer, Line 3/4" NPT Brass Female	1
27	111437	Valve, Solenoid 3/4" NPT HW 120VAC coil	1
	109903	Kit, Repair 3/4" Diaphragm	A/R
	111472	Coil, Solenoid 3/4" 120VAC	A/R
28	109886	Valve, Solenoid 1/2" NPT HW 120VAC coil	1
	113392	Kit, Repair 1/2" Diaphragm	A/R
	113357	Coil, Solenoid 1/2" 120VAC	A/R
29	114384	Fitting, Comp. 7/8" O.D. x 1/2" NPT Brass	1
30	201029	Locknut, 1/2" NPT NP	1
31	311694	Bracket, Piping Support	1



Item No.	Part No.	Description	Qty.
1	100209	Nipple, 1/2" NPT Close, Brass	1
2	100573	Locknut, 1/2" NPT Brass	2
3	100947	Nipple, 1/4" NPT Close Brass	1
4	101262	Nipple, 1/4" NPT x 1-1/2" Lg. Brass	1
5	102388	Bushing Reducing 1/2" NPT x 1/4" NPT Brass	1
6	102422	Elbow, 1/4" NPT 90° Brass	4
7	102438	Elbow, Street 1/2" NPT 90° Brass	1
8	104421	Strainer, Line 1/2" NPT Bronze	1
9	107069	Breaker, Vacuum 1/4" NPT Brass	1
	900836	Kit, Repair Vacuum Breaker	A/R
10	107315	Tubing, 3/8" Type L Copper	1
11	109909	Fitting Comp. 1/2" O.D. x 1/4" MPT Brass	2
12	110134	Nipple, 1/4" NPT x 2-1/2" Lg. Brass	1
13	112109	Nipple, RTOE 1/4" NPT x 2-1/2" Lg. Brass	1
14	109886	Valve, Solenoid 1/2" NPT 120VAC	1
	113392	Kit, Repair Valve Diaphragm 1/2"	A/R
	113357	Coil, Solenoid 1/2" 120VAC	A/R
15	319549	Bracket, Cold Water Thermostat Piping	1
16	328539	Bracket, Piping Support	1
17	100547	Locknut, 1/2" NPT SST	1
18	900982	Box and Cover, Thermostat	1
19	107966	Gripnut, 10-32 w/nylon insert	2
20	109069	Thermostat, Control w/capillary	1
21	201041	Washer	1
22	106460	Screw, 6-32 x 1/4" Truss Hd.	2

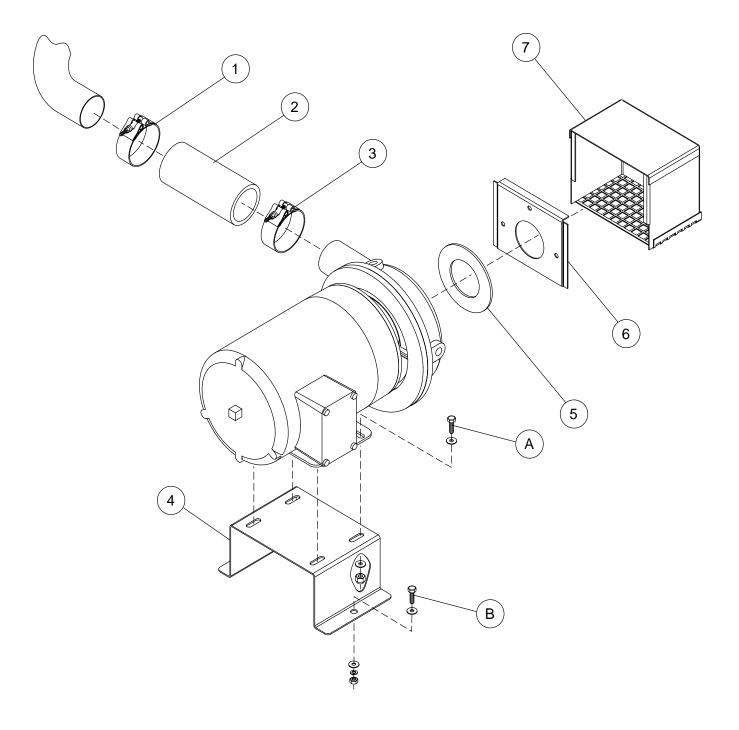


Item No.	Part No.	Description	Qty.
1	100141	Nut, Grip 1/4-20	1
2	305218	Strainer, F/R Drain	1
3	107342	Drain basket assy. (Does not include Item 5)	1
4	112045	Washer,tailpiece (Comes with Item 3)	1
5	107473	Tailpiece	1

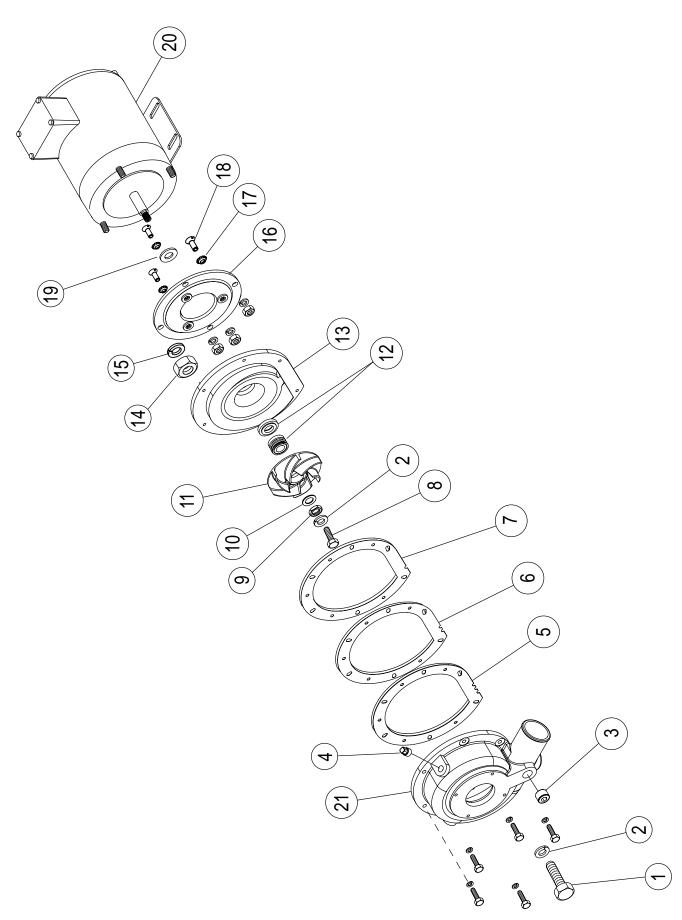


L-R Application Shown

Item No.	Part No.	Description	Qty.
1	109568	Gasket Pump Suction	1
2	307995	Flange, Suction	1
3	104203	Clamp, Hose M52 SST	2
4	110372	Hose, PW Suction	1
5	113731	Hose 22" PW Pump Discharge	1
6	104165	Clamp, Hose M40 SST	1
7	111964	Hose, Clamp Discharge	1
8	311761	Strainer, Pump Suction (Not Shown)	1
9	113636	Suction, Flange Machined	1
10	112338	Gasket Pump Suction Flange (Not Shown)	1
Α		Pump Fasteners	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	102376	Washer 5/16 x 3/4 x 1/16	8
	109009	Nut, Grip 5/16 w/Nylon Insert	4



Item No.	Part No.	Description	Qty.
1	110858	Hasa Clama Ruma Disabarga	4
2		Hose Clamp Pump Discharge	1
	113984	Hose Discharge Pump	1
3	111780	Hose Clamp Discharge	1
4	327997	Pump Motor Base	1
5	113538	Gasket Pump Suction	1
6	327906	Bracket, Pump Suction	1
7	327904	Screen Pump Suction	1
Α		Pump Base Fasteners	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	102376	Washer 5/16 x 3/4 x 1/16	8
	109009	Nut Grip 5/16 w/Nylon Insert	4
В		Pump Fasteners	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	102376	Washer 5/16 x 3/4 x 1/16	8
	109009	Nut, Grip 5/16 w/Nylon Insert	4

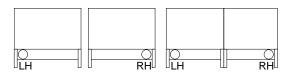


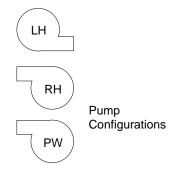
Item No.	Part No.	Description	Qty.
1	100736	Bolt 1/4-20 x 3/4 Hex Head	6
2	106482	Washer, Lock 1/4"	10
3	113705	Plug 1/2" NPT Countersunk Brass (2HP) (Wash/Rinse)	1
3	102504	Plug 1/2" NPT Brass Sq Head (1HP) (Prewash)	1
4	102500	Plug 1/4" NPT Brass	2
5	111943	Gasket .032 Thk (3 Notches)	1
6	111942	Gasket .015 Thk (2 Notches)	1
7	111941	Gasket .0085 Thk (1 Notch)	1
8	100735	Bolt 1/4-20 x 5/8 Hex Head	1
9	110247	Nut Jam Hex 7/16-20 SST	1
10	110248	Washer .44OID x .043SST	1
11	113118	Impeller 1HP, SST Machined (Prewash)	1
	113603	Impeller 2HP SST Machined (Wash/Rinse)	1
	113120	Impeller 3HP, SST	1
12	111111	Seal Pac Type 16	1
13	113635	Flange, Jet Pump, SST NG	1
14	107690	Nut, Jam 3/8-16	4
15	106407	Washer, Lock 3/8 Split	4
16	204460	Backing Plate 1Hp, 2HP, 3HP	1
17	110270	Washer, C-Sunk, Ex-Tooth SST	3
18	100754	Screw 10-32 x 1/2 Flat Head	3
19	109654	Slinger-Water	1
20	115580	Motor 1HP MV/60/1 (Prewash)	1
	110421	Motor 2HP MV/60/1 (Prewash)	1
	115578	Motor 1HP MV/60/3 (Prewash)	1
	115579	Motor 1HP 575/60/3 (Prewash)	1
	115587	Motor 2HP MV/60/3 (Wash/Rinse)	1
	115586	Motor 2HP 575/60/3 (Wash/Rinse)	1
	115589	Motor 3HP MV/60/3 (Wash/Rinse)	1
	115588	Motor 3HP 575/60/3 (Wash/Rinse)	1
21	113634	Pump Volute SST Machined (Prewash/Wash/Rinse)	1
	112338	Gasket, Pump Suction Flange (Not Shown)	1
	900737	Kit*Gaskets, Jet Pump (Includes Items 5-7)	A/R
	900183	Kit*Seal & 1HP Impeller (Includes Items 5-7, 11 and 12)	A/R
	900185	Kit*Seal & 3HP Impeller (Includes Items 5-7, 11 and 12)	A/R

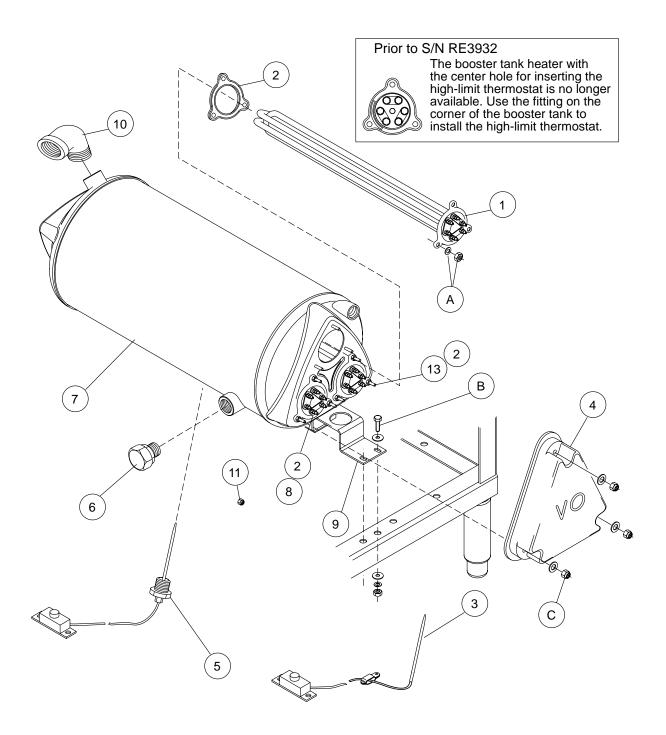
Complete Pump Assemblies:

Complete	complete i ump / tecombilee.					
415531	1HP PW 115-240/1/60	414821	2HP RH 115-240/1/60			
414965	1HP PW 208-480/3/60	414374	2HP RH 208-480/3/60			
415917	1HP PW 575/3/60	416243	2HP RH 220/380/3-50			
415743	2HP PW 115-240/1/60	415919	2HP RH 575/3/60			
415744	2HP PW 208-480/3/60	414977	3HP LH 208-480/3/60			
415745	2HP PW 575/3/60	415920	3HP LH 575/3/60			
414820	2HP LH 115-240/1/60	414978	3HP RH 208-480/3/60			
414373	2HP LH 208-480/3/60	415921	3HP RH 575/3/60			
415918	2HP LH 575/3/60					

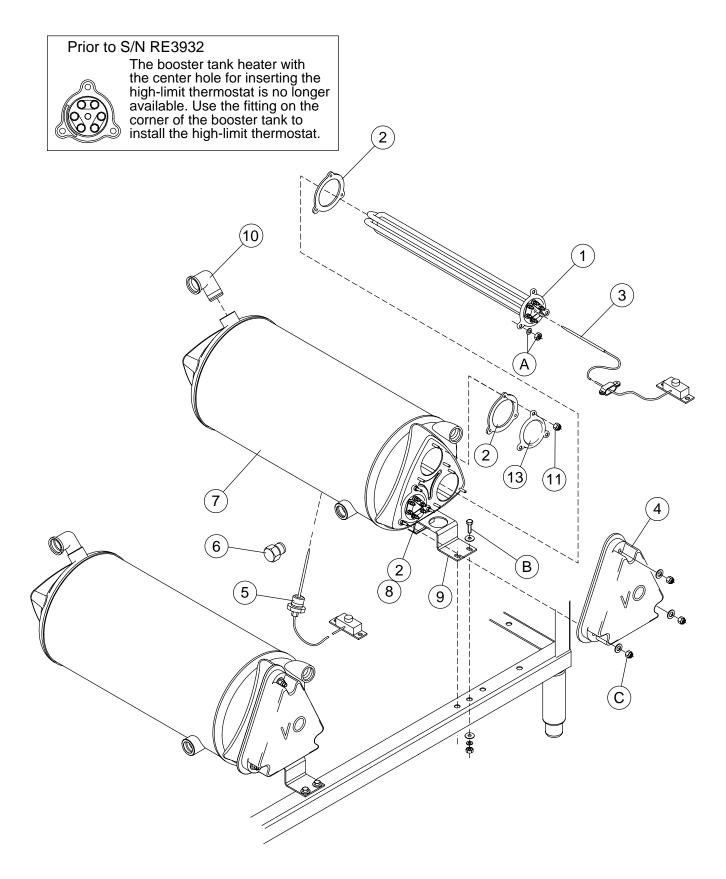
LH and RH indicate on which side of the machine the pump is located.



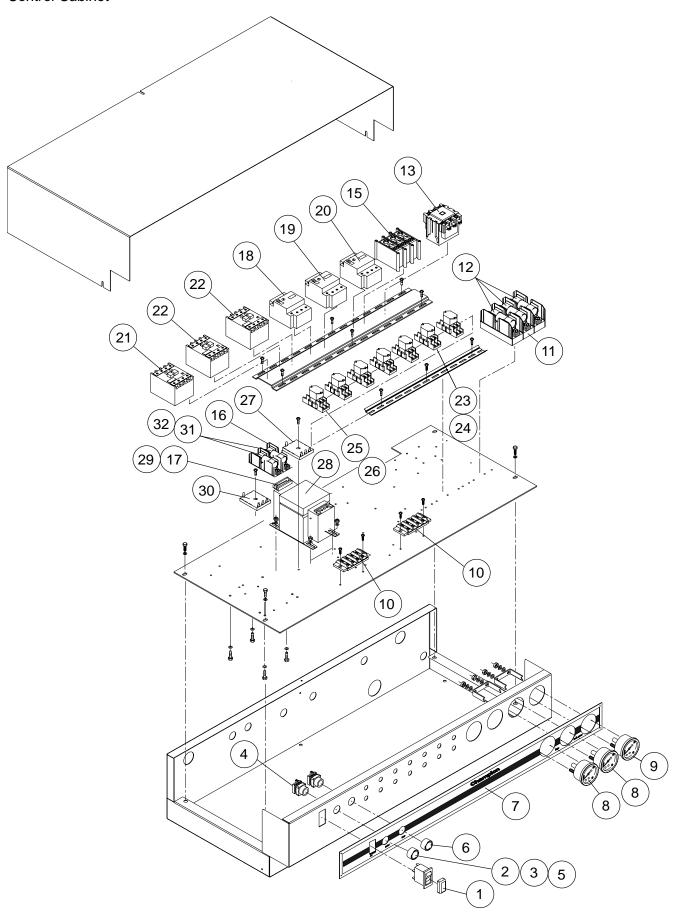




Item No.	Part No.	Description	Qty.
1	113690	Heater, 12KW 208/60/3Ph (60°F)(200-220V/1Ph & 3PH)	1
	113885	Heater, 12KW 220/230/240/380/415V 3Ph (60°F)(230-240/1PH & 3PH)	1
	113886	Heater, 12KW 460/480V 3Ph (60°F)	1
	113887	Heater, 12KW 575V 3Ph(60°F)	1
	111233	Heater 7.5/10KW 240V 3Ph (40°F Rise)(200-220,230-240V/1PH)	1
	111232	Heater, 10KW 208V 3PH (40°F Rise)(220-220/3PH)	1
	111234	Heater, 10KW 480V 3PH (40°F Rise (480V 3PH)	1
	111383	Heater, 10KW 575V3PH (40°F Rise)(480V 3PH)	1
2	109985	Seal, Electric Heater Flange	3
3	110561	Thermostat w/Capillary, Fixed High Limit 240°F (All S/N)	1
4	108576	Cover, Booster No Cutout	1
5	109069	Thermostat w/ Capillary	1
6	102505	Plug 3/4" NPT Brass	1
7	414331	Tank Booster (40°F Rise)	1
8	113690	Heater, 12KW 208/60/3Ph (40°F)(200-220V/1Ph & 3PH)	1
	113885	Heater, 12KW 220/230/240/380/415V 3Ph (40°F)(230-240/1PH & 3PH)	1
	113886	Heater, 12KW 460/480V 3Ph (40°F)(460-480°/3PH)	1
	112059	Heater, 12KW 208V 3Ph (60°F Rise)(200-220V/1PH & 3PH)	2
	111334	Heater 12KW (60°F Rise) (230-240/1PH & 3PH)	2
	112060	Heater 12KW (60°F Rise)(460-480/3PH)	2
	112061	Heater 12KW 575V 3Ph (60°F Rise)	2
9	328254	Bracket, Front Booster	1
10	113706	Elbow Street 3/4 x 45 Brass (E-44)	1
11	108954	Nut Grip 6-32 w/Nylon Insert	1
12	328048	Clamp, Thermostat Booster Tank (Not shown, use with item 11)	1
13	111235	Heater, 5/6.6KW 208/240 (40° Rise)(200-220V/1PH & 3PH)	1
	111236	Heater 5KW (40°F Rise)(230-240V1PH & 3PH)	1
	111237	Heater 5KW (40°F Rise) (460-480V/3PH)	1
	111384	Heater 5KW (40°F Rise) 575V 3PH	1
Α		Element Fasteners (Qty per Element)	
	100003	Nut Plain 1/4-20	9
	106482	Washer Lock 1/4 Split	9
В		Booster Tank Fasteners	_
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	106013	Washer Lock 5/16 Split	4
	109205	Nut, Grip 5/16 w/Nylon Insert	4
С		Element Cover Fasteners	
	107697	Nut Grip 1/4-20 w/Nylon insert	3
	106026	Washer Flat 1/4"	



Item No.	Part No.	Description	Qty.
1	113690	Heater, 12KW (200-220V/1Ph & 3PH)	1
	113885	Heater, 12KW 220/230/240/380/415V 3Ph (230-240/1PH & 3PH)	1
	113886	Heater, 12KW 460/480V 3PH	1
	113887	Heater, 12KW 575V 3PH	1
2	109985	Seal, Electric Heater Flange	6
3	110561	Thermostat w/Capillary Fixed High-limit 240°F (All S/N)	1
4	108576	Cover, Booster No Cutout	2
5	109069	Thermostat w/ Capillary	2
6	102505	Plug 3/4" NPT Brass (Not Shown) (On Opposite Side)	2
7	414331	Tank Booster	2
8	112059	Heater, 12KW (200-220V/1PH & 3PH)	2
	111334	Heater 12KW (230-240/1PH & 3PH)	2
	112060	Heater 12KW (460-480/3PH)	2
	112061	Heater 12KW 575V 3PH	2
9	328254	Bracket, Front Booster	2
10	113706	Elbow Street 3/4 x 45 Brass E-44	2
11	108954	Nut Grip 6-32 w/Nylon Insert	2
12	328048	Clamp, Thermostat Booster Tank (Not shown, use with item 11)	2
13	109458	Flange Heater Bloc/off	2
Α		Element Fasteners (Qty per Element)	
	100003	Nut Plain 1/4-20	9
	106482	Washer Lock 1/4 Split	9
В		Booster Tank Fasteners (Qty per Booster)	
	100739	Bolt 5/16-18 x 3/4 Hex Head SST	4
	106013	Washer Lock 5/16 Split	4
	100142	Nut, Grip 5/16 w/Nylon Insert	4
С		Element Cover Fasteners (Qty per Cover)	
	100141	Nut Grip 1/4-20 w/Nylon insert	3
	106026	Washer Flat 1/4"	3



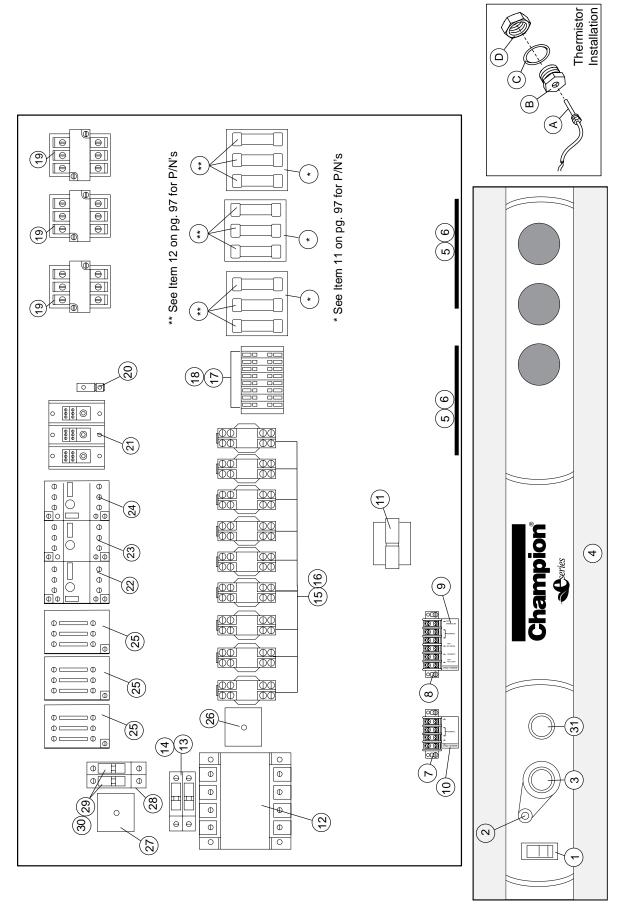
Item No.	Part No.	Description	Qty.
1	111980	Circuit Breaker On/Off 5amp	1
2	113814	Switch Pushbutton Green Illuminated	1
3	113752	Mounting Base Led Green	1
4	113812	Contact Block NO W/O Base	1
5	113140	Boot, Silicone Pushbutton	2
6	900726	Red Pushbutton (Includes (1) of Item 5)	1
		Includes the following:	
	111615	Red Push Button	1
	111616	Contact Block NC w/holder	1
7	113684	Decal 44/54 Cabinet (Single Tank)	1
7	113710	Decal 40/60/64 Cabinet (Two Tank)	1
8	107440	Thermometer 8ft Flanged (Wash) (Single Tank)	1
	107440	Thermometer 8ft Flanged (Rinse) (Two Tank)	2
9	113622	Thermometer 4Ft Gas Filled (Final Rinse)	_ 1
10	100294	Terminal Block 6PT	1
	112296	Label Detergent/Rinse Signal (Not Shown)	1
11	108424	Fuse Block 600V/100A 3P (208-220V/1PH)(230-240V/1PH)	1
	180171	Fuse Block 600V/60A 3P (208-220V/3PH)(230-240V/3PH)	1
	111135	Fuse Block 600V/30A 3P (460-480V/3PH)	1
	111135	Fuse Block 600V/30A 3P (575/3PH)	1
		(0.0/01.1)	·
12	108448	Fuse T 90A 250V Fast Act (208-220V/1PH)	2
	180059	Fuse T 80A 250V Fast Act (230-240V/1Ph)	2
	180175	Fuse J 50A 600V Fast Act (208-220V/3PH)	3
	180175	Fuse J 50A 600V Fast Act (230-240V/1PH)	3
	180174	Fuse J 45A 600V Fast Act (230-240V/3PH)	3
	180243	Fuse J 25A 600V Fast Act (460-480V/3PH)	3
	180176	Fuse J 60A 600V Fast Act (208-220V/1PH)	2
	180172	Fuse J 35A 600V Fast Act (208-220V/3PH)	3
	111683	Fuse J 30A 600V Fast Act (230-240V/3PH)	3
	112062	Fuse J 20A 600V Fast Act (460-480V/575V/3PH)	3
	111682	Fuse J 15A 600V Fast Act (575V/3PH)	3
40	444004	On the star 7551 A OD (000, 000) (/ADII)(000, 0.40) (/ADII)	4
13	111231	Contactor 75FLA 3P (208-220V/1PH)(230-240V/1PH)	1
	111827	Contactor 60FLA 3P (208-220V/3PH),	
	400040	(230-240V/3PH), (460-480V/3PH) (575V/3PH)	1
14	103310	Wire Lug, Ground (Not Shown)	1
15	111833	Terminal Block 175A 3Pole 600V	1
16	106402	Fuse Block 600V/30A 2P All Voltages	1
17	111821	Fuse ATDR-3 600V Time Delay, (460-480V/3PH), (575V/3)	2
	111823	Fuse, ATDR-6 6000V, Time Delay (208-220V/1PH & 3PH)	2
	111823	Fuse ATDR-6 600V Time Delay 480V 1& 3 PH	2
	114183	16' Lead Thermometer, (Use for 106PW L-R PW)	1
	109499	12' Lead Thermostat	A/R

Item No.	Part No.	Description	Qty.
18	111625	Starter, Mtr., 1/6HP Drive 200-220/208-240V/60/1, 1.0-1.6A	1
	111624	Starter, Mtr., 1/6HP Drive 208-220, 230-240V/60/3, .63-1.0A	1
	111623	Starter, Mtr., 1/6HP Drive 460-480V/60/3, .463A	1
	111622	Starter, Mtr., 1/6HP Drive 575V/60/3, .244A	1
19	113161	Starter, Mtr., 1HP Prewash 200-220/208-240V/60/1, 9.0-14.0A	1
	111628	Starter, Mtr., 1HP Prewash 200-220/208-240/60/3, 4.0-6.3A	1
	111626	Starter, Mtr., 1HP Prewash 460-480V/60/3, 1.6-2.4A	1
	111626	Starter, Mtr., 1HP Prewash 575V/60/3, 1.6-2.4A	1
20	111630	Starter, Mtr., 2HP Wash 200-220/208-240V/60/1, 13.0-18.0A	1
	111629	Starter, Mtr., 2HP Wash 200-220/208-240V/60/3 6.0-10.0A	1
	111627	Starter, Mtr., 2HP Wash 460-480V/60/3 2.5-4.0A	1
	111627	Starter, Mtr., 2HP Wash 575V/60/3 2.5-4.0A	1
	113161	Starter, Mtr., 3HP Was/Rinse 200-220/208-240V/60/3 9.0-14.0A	1
	111628	Starter, Mtr., 3HP Wash/Rinse 460-480V/60/3 4.0-6.3A	1
	111627	Starter, Mtr., 3HP Wash/Rinse 575V/60/3 2.5-4.0A	1
	111639	Auxillary Switch (Attached to Overload) (Not Shown)	A/R
	111633	Bus System, 2-Unit (Not Shown)	A/R
	111671	Bus System, 3-Unit (Not Shown)	A/R
	111634	Bus System, 4-Unit (Not Shown)	A/R
21	108122	Contactor, Mtr. 12A (Drive)	
		(208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	1
22	109582	Contactor, Mtr. 25A (Prewash, Wash/Rinse) (208-220V/1PH)(230-240V/1PH)	1
	108122	Contactor, Mtr. 12A (Wash, Rinse)	
		(208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	1
23	111036	Relay Socket	7
24	111068	Relay 2PDT 10A 120VA	6
	111068	Relay 2PDT 10A 120VAC	7
	113271	Suppressor, ARC (Not Shown)	5
25	112415	Relay Socket 3Pole	1
26	112382	Relay 3PDT 10A 120VAC	1
27	113782	Timer Fixed 90 Seconds (Idle Pump)	1
28	109064	Transformer 250VA 240/480, 230/460	1
	107091	Transformer 500VA 240/480, 230/460	1
	111521	Transformer 250VA, 575V	1
29	112424	Kit, Fuse Block	1
30	114189	Timer, 90 seconds (Dual Rinse-Drain valve) Beginning with S/N RE4086	1
31	100922	Fuse, ATMR-20A 200-220/208-240V/1-3	2
32	100913	Fuse, ATMR-10A 480-575V/60/3	2

Parts Illustration is on Page 100

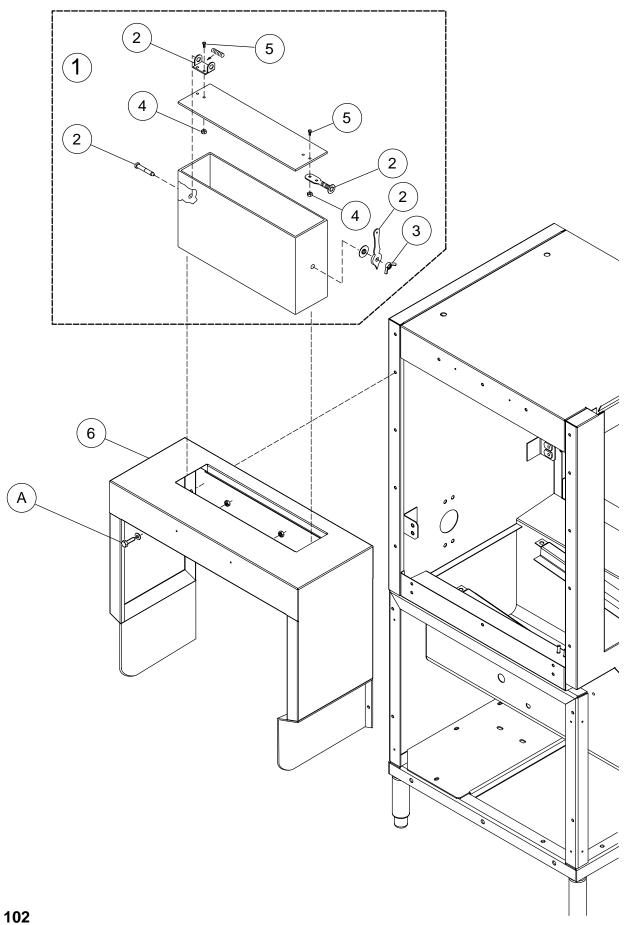
Item No.	Part No.	Description	Qty.
1	114505	Power Switch, Circuit Breaker	1
2	702084	LED Assy.	1
3	115019	Switch, Pushbutton, Green	1
4	114436	Decal, 2-Tank with Prewash	1
	114438	Decal 2-Tank	1
	114439	Decal 3-Tank	1
	114532	Decal, 2 Tank w/o Prewash R-L	1
	114437	Decal 2 Tank w/o Prewash L-R	1
	114532	Decal 1 Tank	1
5	114508	Cable Assy., 4-Conductor, Thermistor	A/R
6	114489	Digital Display	A/R
7	107171	Terminal Block 4 PT	1
8	100294	Terminal Block 6 PT	1
9	114760	Label, Vent Fan etc.	1
10	113936	Label, Machine Running etc.	1
11	111277	Transformer, 120VAC:24VAC	1
12	109064	Transformer, Input Power 250VA	1
	107091	Transformer, Input Power 500VA	1
	111521	Transformer 250VA, 575V Only	1
	111046	Transformer, Input Power 500VA (575V Hot water Heat only)	1
13	112424	Kit Fuse Block	1
14	111821	Fuse 3 Amp Time Delay 200-220/208-240V/60/1-3	2
	112901	Fuse 1 Amp Time Delay 460-480/575V/60/3	2
15	111036	Socket, Relay	9
16	111067	Relay, 24VAC	9
17	114520	Terminal, Single	4
18	114521	Stop, End (for single terminal)	2
19	111827	Contactor, 60A	A/R
20	103310	Lug, Ground	1
21	111833	Block Terminal, 175A 3-Pole 600V	1
22	111625	Starter, Mtr., 1/6HP Drive 200-220/208-240V/60/1, 1.0-1.6A	1
	111624	Starter, Mtr., 1/6HP Drive 208-220, 230-240V/60/3, .63-1.0A	1
	111623	Starter, Mtr., 1/6HP Drive 460-480V/60/3, .463A	1
	111622	Starter, Mtr., 1/6HP Drive 575V/60/3, .244A	1
23	113161	Starter, Mtr., 1HP Prewash 200-220/208-240V/60/1, 9.0-14.0A	1
	111628	Starter, Mtr., 1HP Prewash 200-220/208-240/60/3, 4.0-6.3A	1

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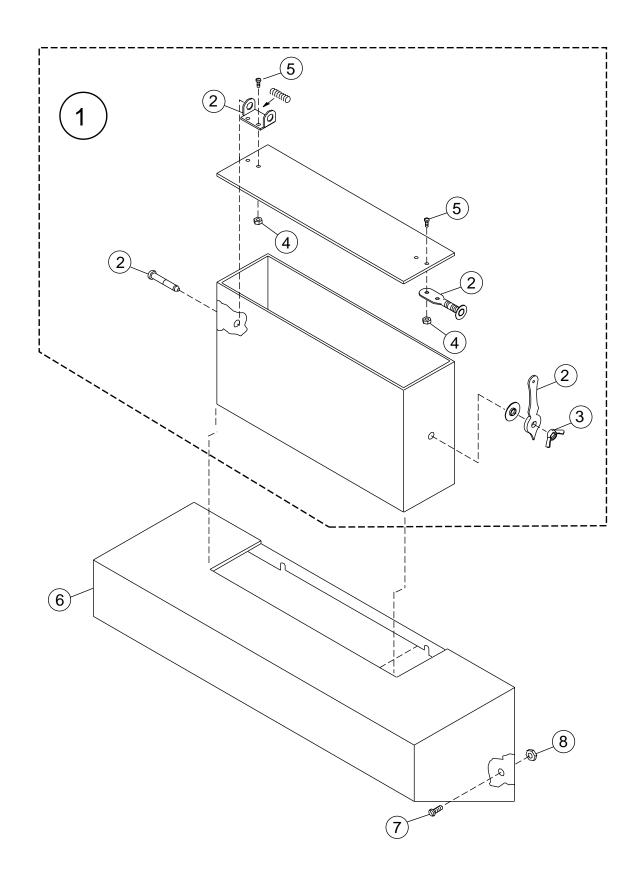


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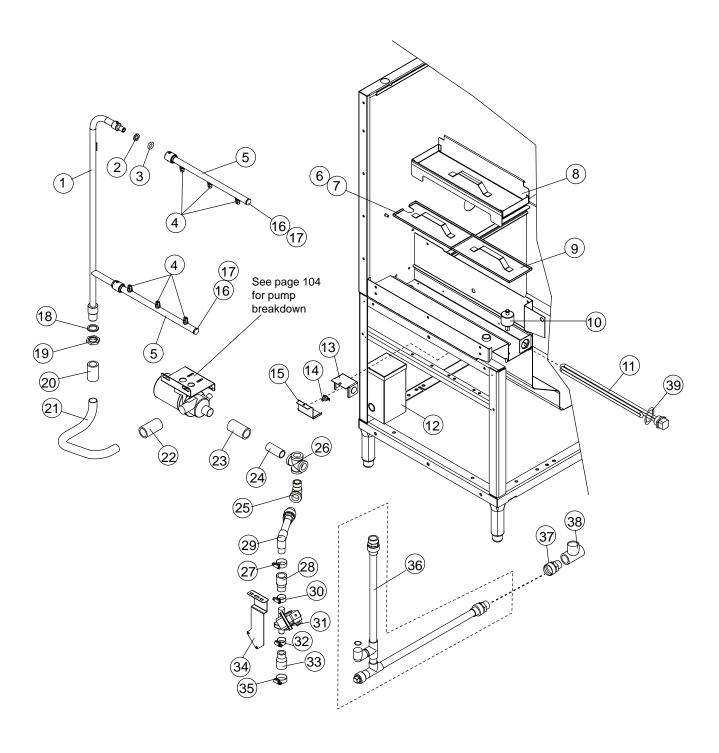
Item No.	Part No.	Description	Qty.
	111626	Starter, Mtr., 1HP Prewash 460-480V/60/3, 1.6-2.4A	1
	111626	Starter, Mtr., 1HP Prewash 575V/60/3, 1.6-2.4A	1
24	111630	Starter, Mtr., 2HP Wash 200-220/208-240V/60/1, 13.0-18.0A	1
	111629	Starter, Mtr., 2HP Wash 200-220/208-240V/60/3 6.0-10.0A	1
	111627	Starter, Mtr., 2HP Wash 460-480V/60/3 2.5-4.0A	1
	111627	Starter, Mtr., 2HP Wash 575V/60/3 2.5-4.0A	1
	113161	Starter, Mtr., 3HP Was/Rinse 200-220/208-240V/60/3 9.0-14.0A	1
	111628	Starter, Mtr., 3HP Wash/Rinse 460-480V/60/3 4.0-6.3A	1
	111627	Starter, Mtr., 3HP Wash/Rinse 575V/60/3 2.5-4.0A	1
	111639	Auxillary Switch (Attached to Overload) (Not Shown)	A/R
	111633	Bus System, 2-Unit (Not Shown)	A/R
	111671	Bus System, 3-Unit (Not Shown)	A/R
	111634	Bus System, 4-Unit (Not Shown)	A/R
25	108122	Contactor, Mtr. 12A (Drive)	
		(208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	1
25	109582	Contactor, Mtr. 25A (Prewash, Wash/Rinse) (208-220V/230-240V/1PH	
25	108122	Contactor, Mtr. 12A (Wash, Rinse)	1
		(208-220V/3PH), (230-240V/3PH), (460-480V/3PH), (575V/3PH)	
	113271	Arc Suppressor, (not shown)	A/R
26	113782	Timer, 90 seconds (Idle Pump)	1
27	114189	Timer, 90 seconds (Dual Rinse-Drain Valve)	1
28	106402	Block, Fuse 600V/30A 2P Midget	1
29	100922	Fuse, ATMR- 20A 208-240VAC	2
30	100913	Fuse, ATMR-10A 480-575VAC	2 1
31	115018	Switch, Pushbutton, Red	I
Α	114435	Thermistor	1
В	0512299	Adapter	1
С	0501836	O-ring	1
D	201029	Locknut 1/2" NPT, Nickel Plated	1



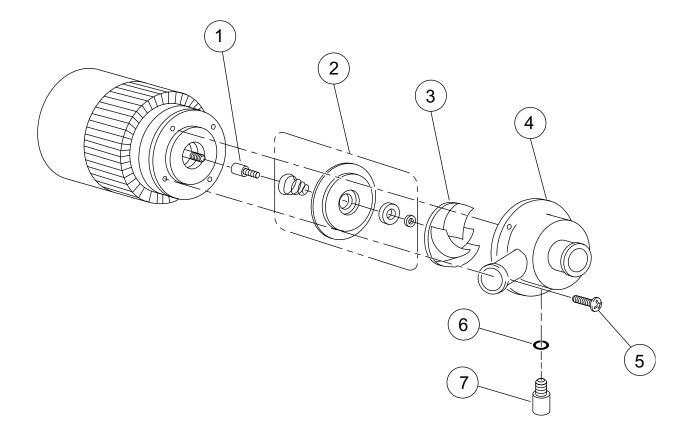
lte: No		Part No.	Description	Qty.
	1	401487	Vent Stack Assembly (Includes Items 2-5)	2
	2	201589	Regulator Assembly	2
	3	112258	Nut Wing 1/4-20 SST	2
	4	108954	Nut, Grip 6-32 w/Nylon Insert	4
	5	104883	Screw 6-32 x 3/8" Round Head	4
	6	328344	Vent Cowl	2
	Α		Vent Cowl Fasteners (Qty per Cowl)	
_		100734	Bolt 1/4-20 x 1/2 Hex Head SST	4
		106026	Washer Flat 1/4"	4
		106482	Wasger Lock 1/ Split	4
		100003	Nut Plain 1/4-20	4



Item No.	Part No.	Description	Qty.
1	401487	Vent Stack Assembly (Includes items 2-5)	2
2	201589	Regulator Assembly	2
3	112258	Nut, Wing 1/4-20 SST	2
4	108954	Nut, Grip 6-32 w/Nylon Insert	8
5	104883	Screw 6-32 x 3/8 Round Head	8
6	307228	Vent Cowl	2
7	100734	Bolt 1/4-20 x 1/2" Hex Head	4
8	100141	Nut Grip 1/4-20	8
	401889-S	Vent Cowl Assembly (Includes Items 1-10)	

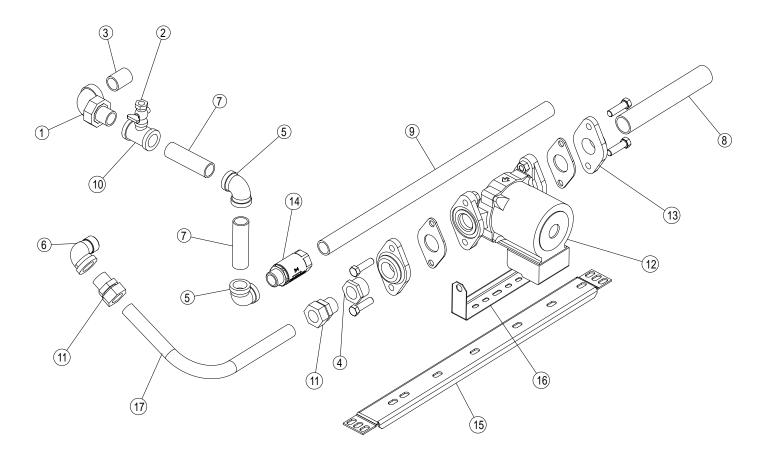


°°Item No.	Part No.	Description	Qty.
1	329167	Manifold, E44DR Aux. Rinse	1
2	114291	O-ring	2
3	114290	Washer, Rubber	2
4	107290	Nozzle	3
5	329009	Tube, Weld Horizontal	1
6	329562	Screen RH	1
7	329281	Screen LH	1
8	331017	Basket, Screen	1
9	329465	Screen	1
10	111443	Switch, Float	1
11	113986	Element 3.2/3.9KW 200-220V/60/1-3	1
	113987	Element 3.2/3.9KW 220-240V/60/1-3	1
	113988	Element 3.2/3.9KW 400-460V/60/3	1
	113989	Element 3.2/3.9KW 575V/60/3	1
12	111521	Transformer 480-575V/60/3:120V	1
13	322891	Box	1
14	113604	Thermostat, Fixed Snap 212°F	1
15	322892	Cover, Box	1
16	113716	O-ring	2
17	113795	Plug	2
18	108620	Gasket	1
19	100156	Locknut	1
20	114021	Hose	1
21	206503	Tube Discharge RL	1
	206501	Tube Discharge LR	1
22	114020	Hose	1
23	114020	Hose	1
24	110454	Nipple	1
25	100023	Elbow, 3/4" street	1
26	100537	Cross	1
27	105994	Clamp, Bose	1
28	112531	Hose	1
29	601814	PVC Pipe Assy.	1
30	105993	Clamp	1
31	0306618	Valve Drain	1
32	113269	Clamp	1
33	112531	Hose	1
34	329467	Bracket, Drain Valve	1
35	105993	Hose	1
36	601707	PVC Piping Assy.	1
37	100595	Reducer, Bushing	1
38	102521	Tee	1
39	0503588	O-ring, DR Element	1

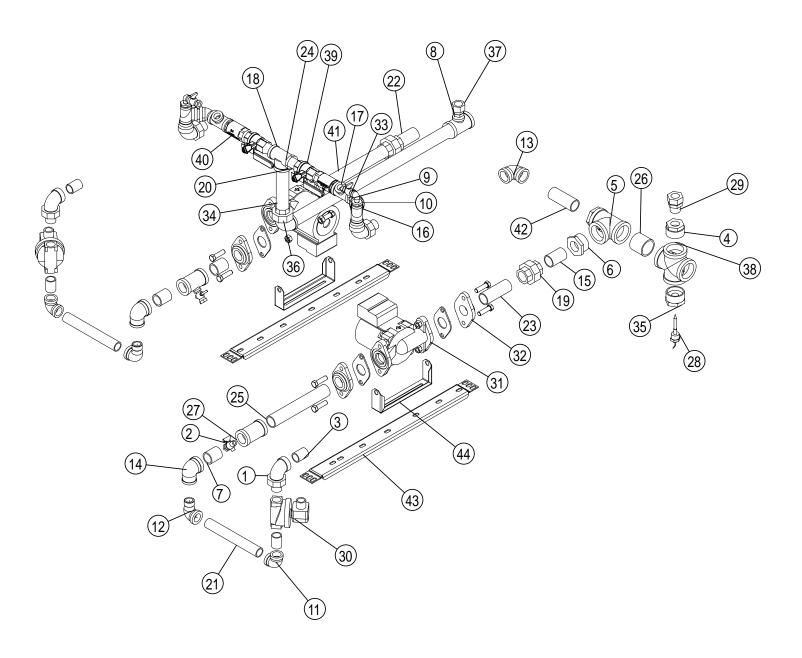


Item No.	Part No.	Description	Qty.
1	0502734	Stub Shaft	1
2	0502730	Seal Assembly (c/w spring)	1
3	0502729	Impeller	1
4	329281	Pump Housing	1
5	0501406	Screw, 8-32 x 1/2"	4
6	0501635	O-ring	1
7	0502732	Seal Screw, Housing	1
	0502692	Pump Assembly, Complete (c/w motor and items 1-7)	1

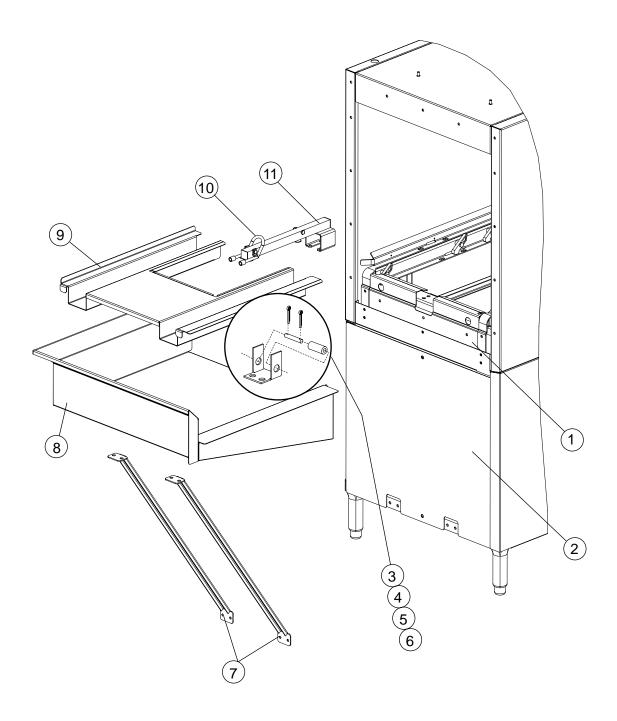
(Motor is not available as a separate service part)



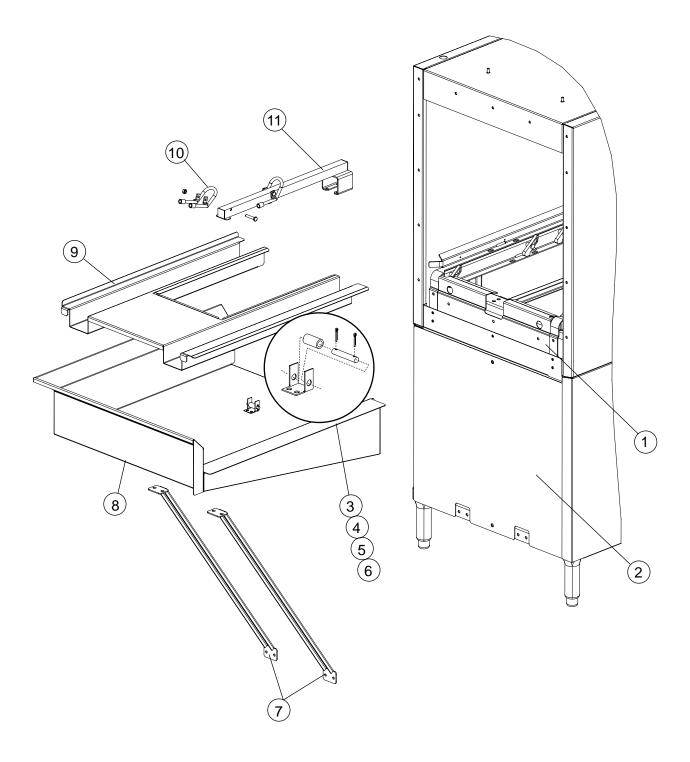
Item Part No. No.		Description	
1	100118	Union Elbow, 3/4" NPT Male Brass	1
2	100123	Petcock 1/4" Female Brass	1
3	100184	Nipple, 3/4" NPT x Close Brass	1
4	102396	Bushing Reducing, 1" NPT x 3/4" NPT Brass	1
5	102442	Elbow 3/4" NPT x 90° Brass	2
6	102444	Elbow, Street 3/4"NPT x 90° Brass	1
7	102490	Nipple 3/4" NPT x 3-1/2"Lg. Brass	2
8	102775	Nipple, 1" NPT, 8"Lg. Brass	1
9	103486	Nipple 3/4" NPT x 22" Lg. Brass	1
10	107418	Tee 3/4" x 3/4" 1/4" MPT Brass	1
11	109879	Fitting, Compression 7/8 OD x 3/4 MPT Brass	2
12	111854	Pump,HW Recirculator, Bronze	1
13	111860	Flange kit, 1" NPT Bronze Grundfoss	1
14	114463	Valve Check, 3/4MxF NPT Brass spring loaded ball	1
15	319273	Booster, Support, Channel	1
16	332841	Bracket, support, HW Coil Pump E-Rack	1



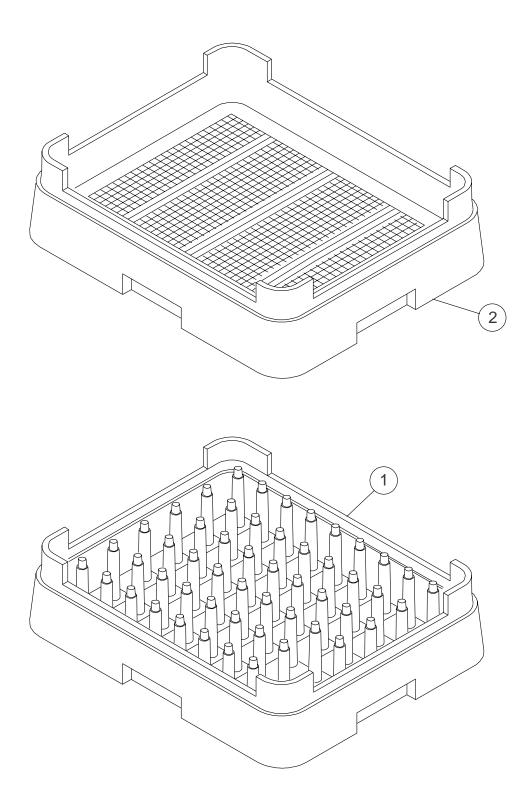
Item No.	Part No.	Description	Qty.
1	100118	Union Elbow, 3/4" NPT Male Brass	4
2	100123	Petcock 1/4" NPT Closs Brass	4
3	100184	Nipple, Close 3/4" NPT Brass	10
4	100595	Bushing, Reducing 1-1/2 x 3?4" Brass	1
5	100596	Tee, 1-1/2" NPT Brass	1
6	100613	Bushing Reducing, 1-1/2"NPT Brass	2
7	100100	Nipple, Close 1" NPT, Brass	3
8	101026	Tee, Red, 1" x 1" x 1/2" NPT Brass	1
9	101261	Elbow Street, 1/4" x NPT 90° Brass	2
10	102388	Bushing, Reducing 1/2" NPT x 1/4" NPT Brass	2
11	102442	Elbow 3/4" NPT x 90° Brass	2
12	102444	Elbow Street 3/4" NPT x 90° Brass	2
13	102448	Elbow 1" NPT x 90° Brass	2
14	102451	Elbow Reducing, 1"NPT X 3/4"NPT x 90° Brass	1
15	102472	Nipple, 1" x 2" NPT Brass	1
16	102525	Tee, Reducing 3/4" x 1/2" x 3/4" NPT Brass	2
17	102526	Tee, Reducing 3/4" x 3/4" X 1/2" NPT Brass	2
18	102527	Tee Reducing 3/4" x 3/4" x 1" NPT Brass	1
19	102551	Union, 1" NPT Brass	2 2
20	102651	Nipple, 3/4" NPT x 2" Lg. Brass	2
21	102666	Nipple 3/4" NPT 7-1/2" LG.	2
22	102761	Nipple 1" NPT x 3" Lg.	1
23	102762	Nipple 1"NPT x 3-1/2" Lg.	1
24	102771	Nipple 1"NPT x 6" Lg.	1
25	102775	Nipple 1" NPT x 8" Lg.	1
26	103554	Nipple, 1-12" x Close Brass	1
27	106709	Tee, Red 1" x 1" x 1/4" NPT Brass	2
28	107440	Thermometer 8 ft. Flange	1
29	109879	Fitting, Comp 7/8 OD x 3/4"MPT Brass	1
30	109887	Valve Solenoid, 3/4" NPT Brass Steam	2
31	111854	Pump HW Recirculator Bronze	2
32	111860	Flange Kit 1" NPT Bronze Grundfoss Pump	2
33	113706	Elbow Street 3/4" x 45C Brass	1
34	113838	Union Elbow 3/4" 45 90° Brass	1
35	113839	Bushing Reducing 1-1/2" NPT Brass	1
36	114081	Nipple, 1" NPT x 24" Lg. Brass	1
37	114384	Fitting COmp 7/8 OD x 1/2 MPT Brass	1
38	114459	Cross 1-1/2" NPT Brass	1
39	114461	Valve Balll 3/4 FNPT Brass w/ setting indicator	2
40	114463	Valve Check 3/4" MxF NPT Brass spring loaded ball	2
41	114476	Nipple 1" NPT x 10-1/4" Lg. Brass	1
42	114477	Nipple, 1" NPT x 3-1/4" Lg. Brass	1
43	319273	Booster Support Channel	2
44	332841	Bracket Support HW Coil Pump E-Rack	2



Item No.	Part No.	Description	Qty.
1	329927	Baffle, Table Flange, Sideloader with cutout	1
2	329352	Panel, End	1
3	312336	Bracket, Bar Support	1
4	312335	Pawl, Pin, Bar Support	1
5	109282	Spacer	1
6	108875	Pin, Cotter 3/32" x 1/2"	2
7	328955	Bracket Support, Sideloader	2
8	328941	24" L-R Sideloader	1
	328942	24" R-L Sideloader	1
9	329317-1	24" Track, R-L Sideloader	1
	329318-2=1	24" Track, L-R Sideloader	1
10	313598	Lever, Pawl	1
11	328914	Bar, Pawl 13-1/2" Lg.	1

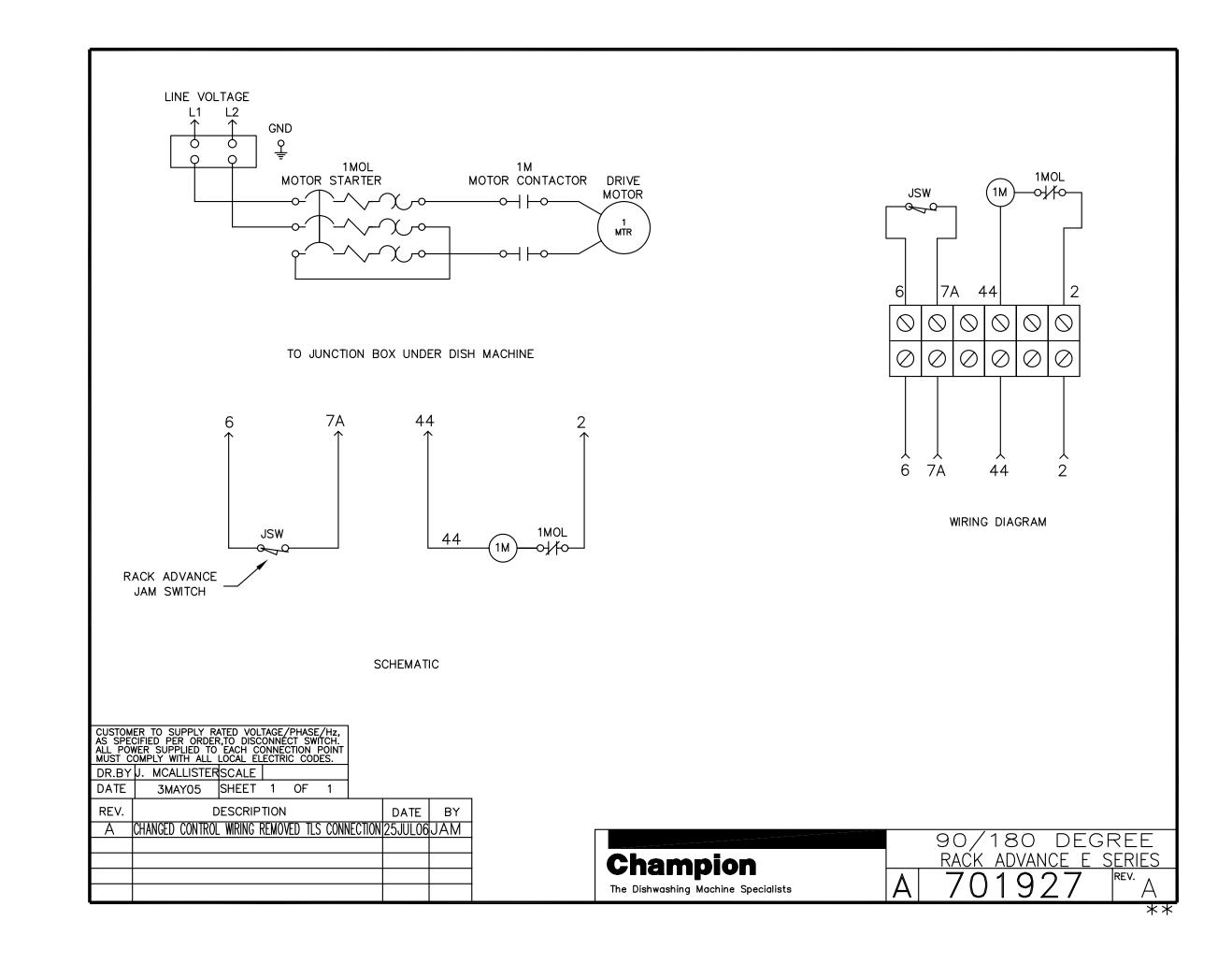


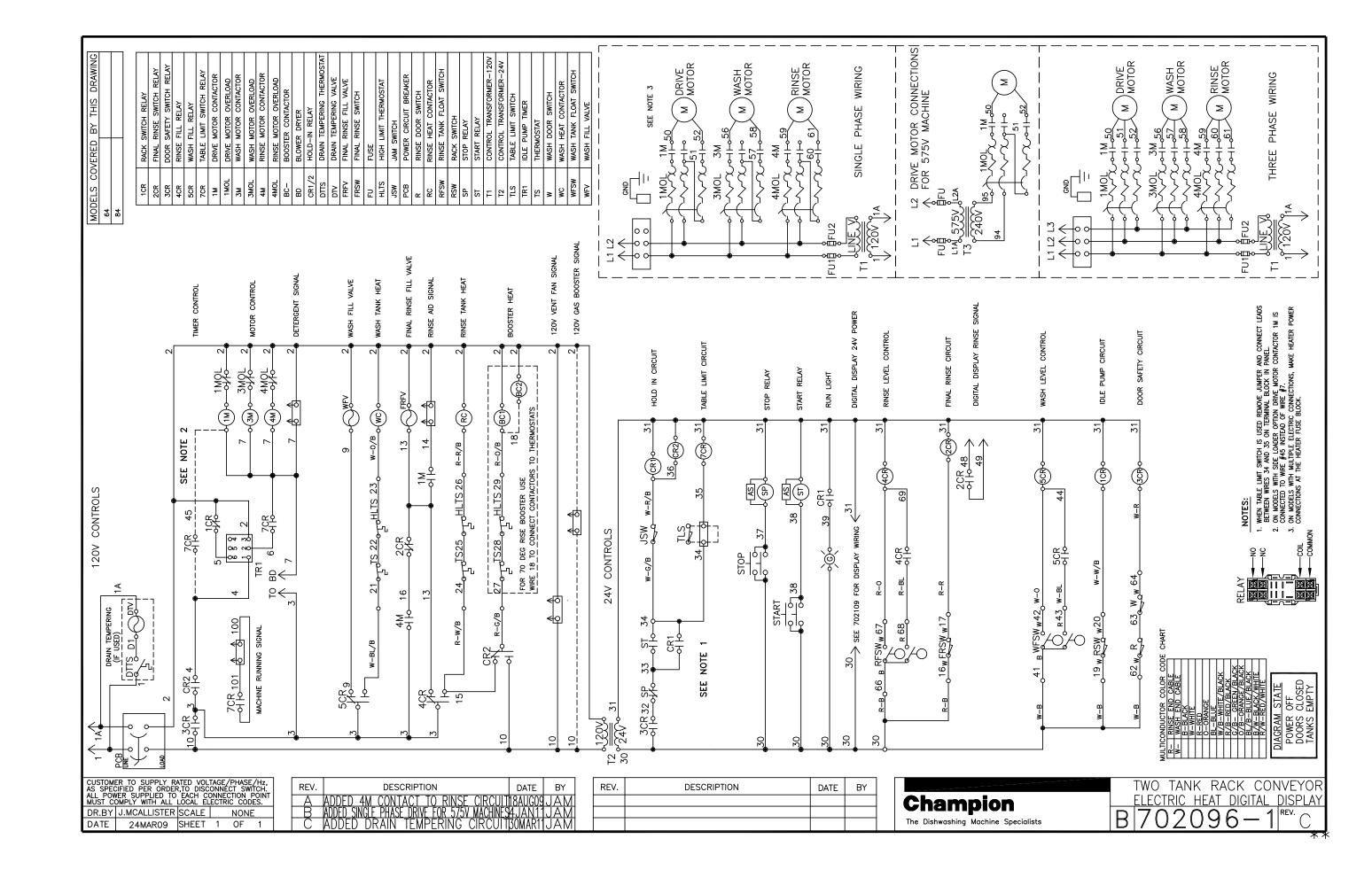
Item No.	Part No.	Description	Qty.
1	329927	Baffle, Table Flange, Sideloader with cutout	1
2	329352	Panel, End	1
3	312336	Bracket, Bar Support	2
4	312335	Pawl, Pin, Bar Support	2
5	109282	Spacer	2
6	108875	Pin, Cotter 3/32" x 1/2"	4
7	328955	Bracket Support, Sideloader	2
8	328943	30" L-R Sideloader	1
	328944	30" R-L Sideloader	1
9	329317-2	30" Track, R-L Sideloader	1
	329318-2	30" Track, L-R Sideloader	1
10	313598	Lever, Pawl	2
11	328915	Bar, Pawl 19-1/2" Lg.	1

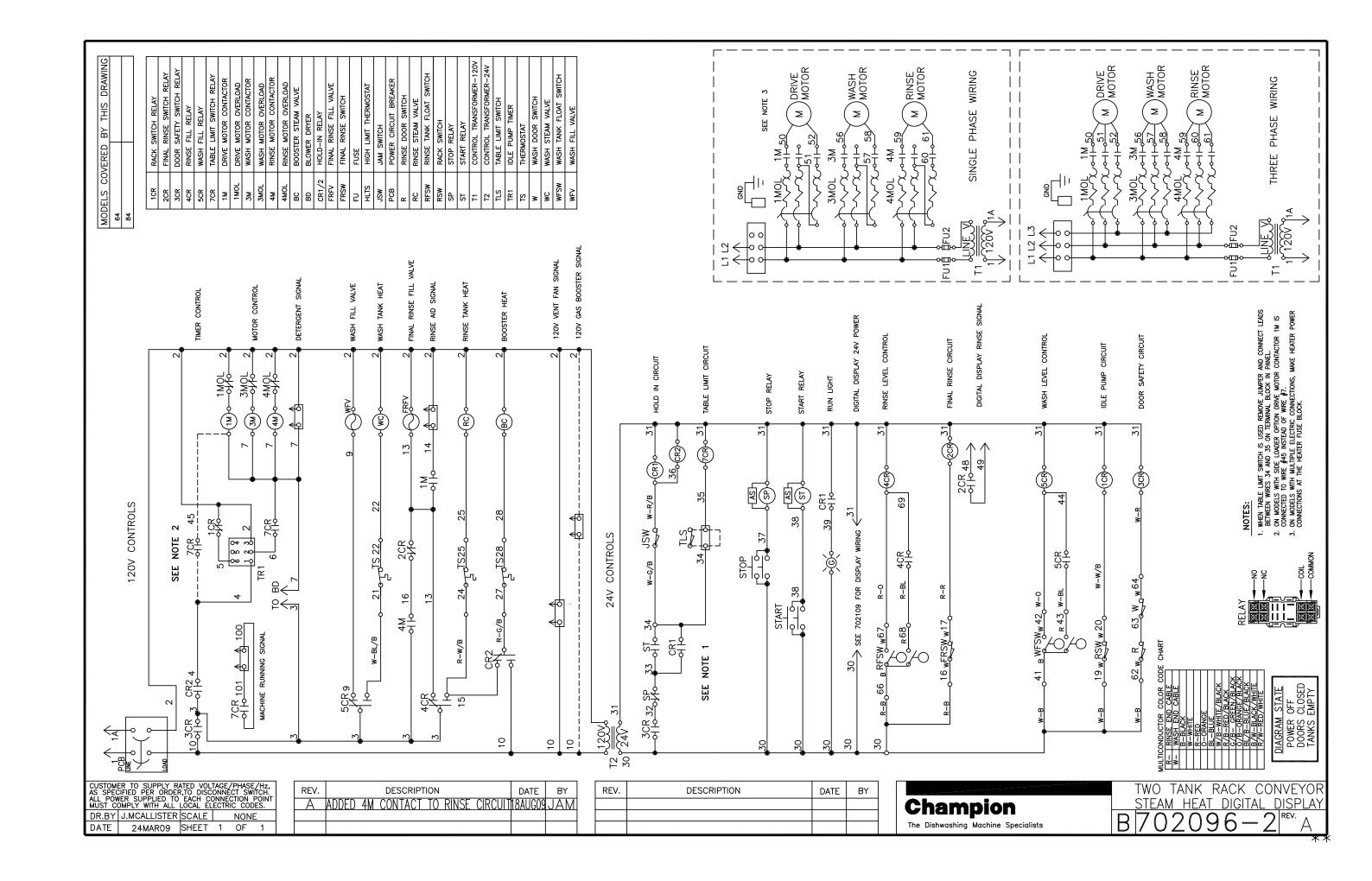


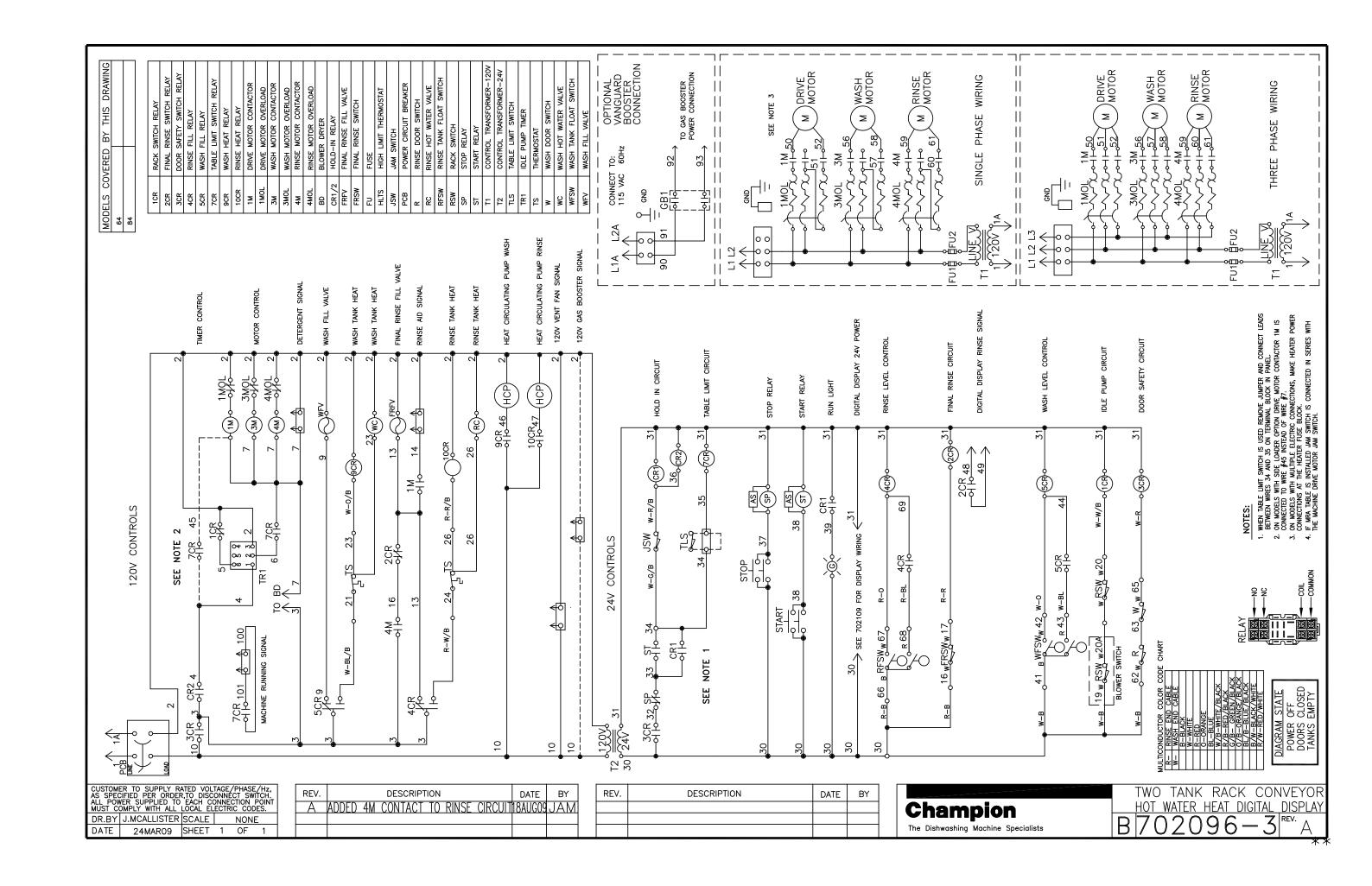
Item No.	Part No.	Description	Qty.
1	101285	Rack Peg	1
2	101273	Rack Combination	1

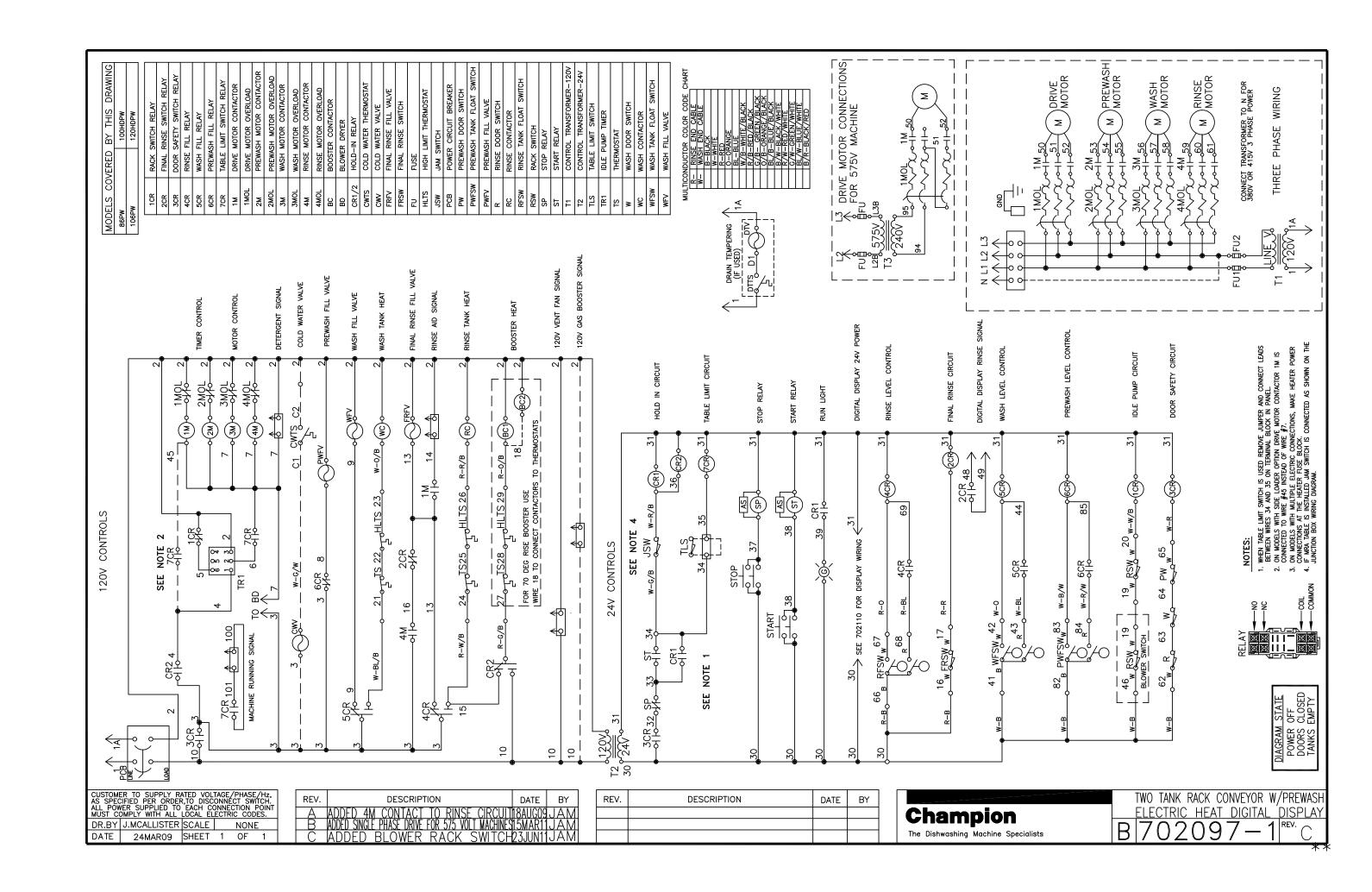
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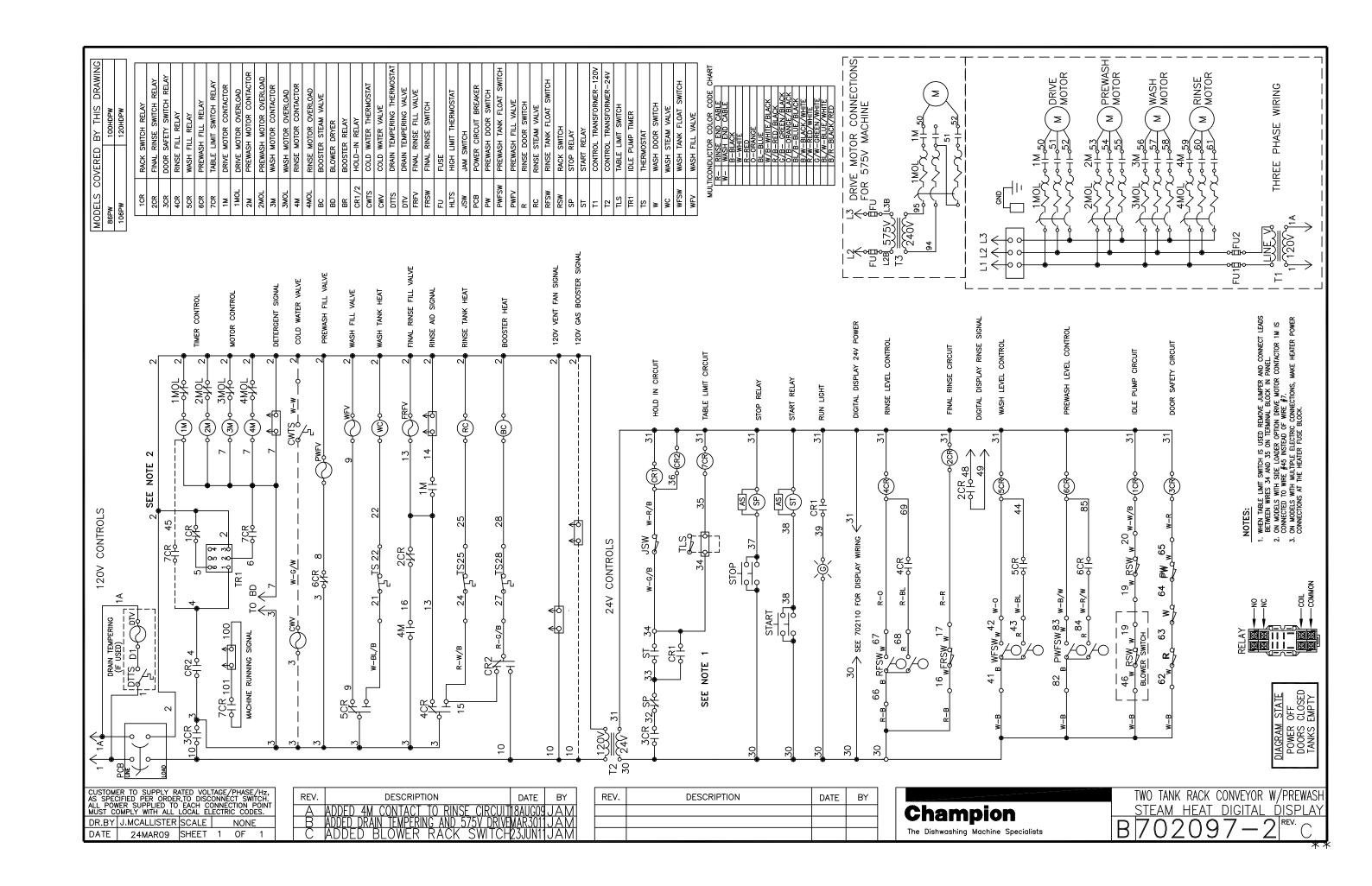


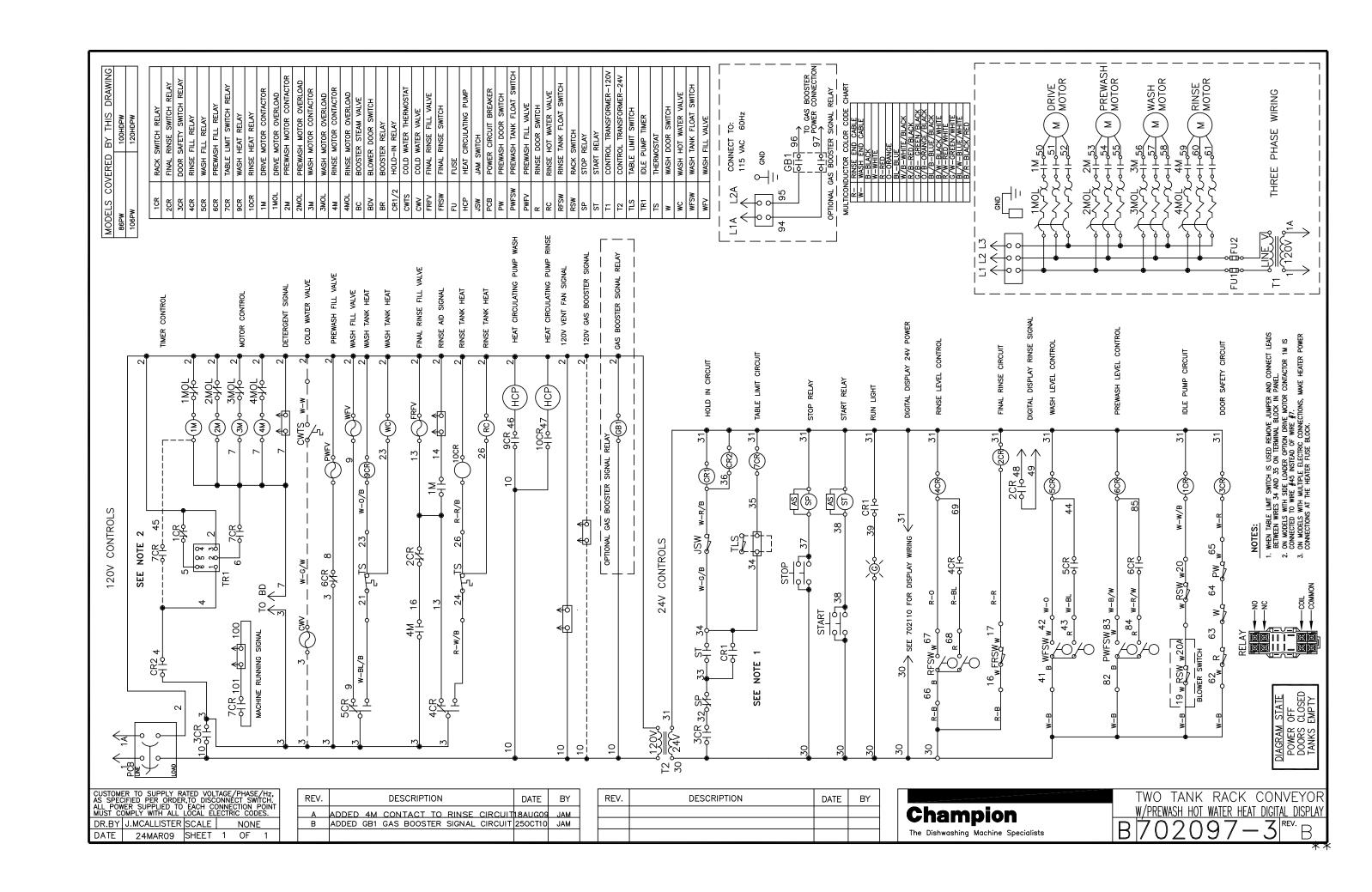


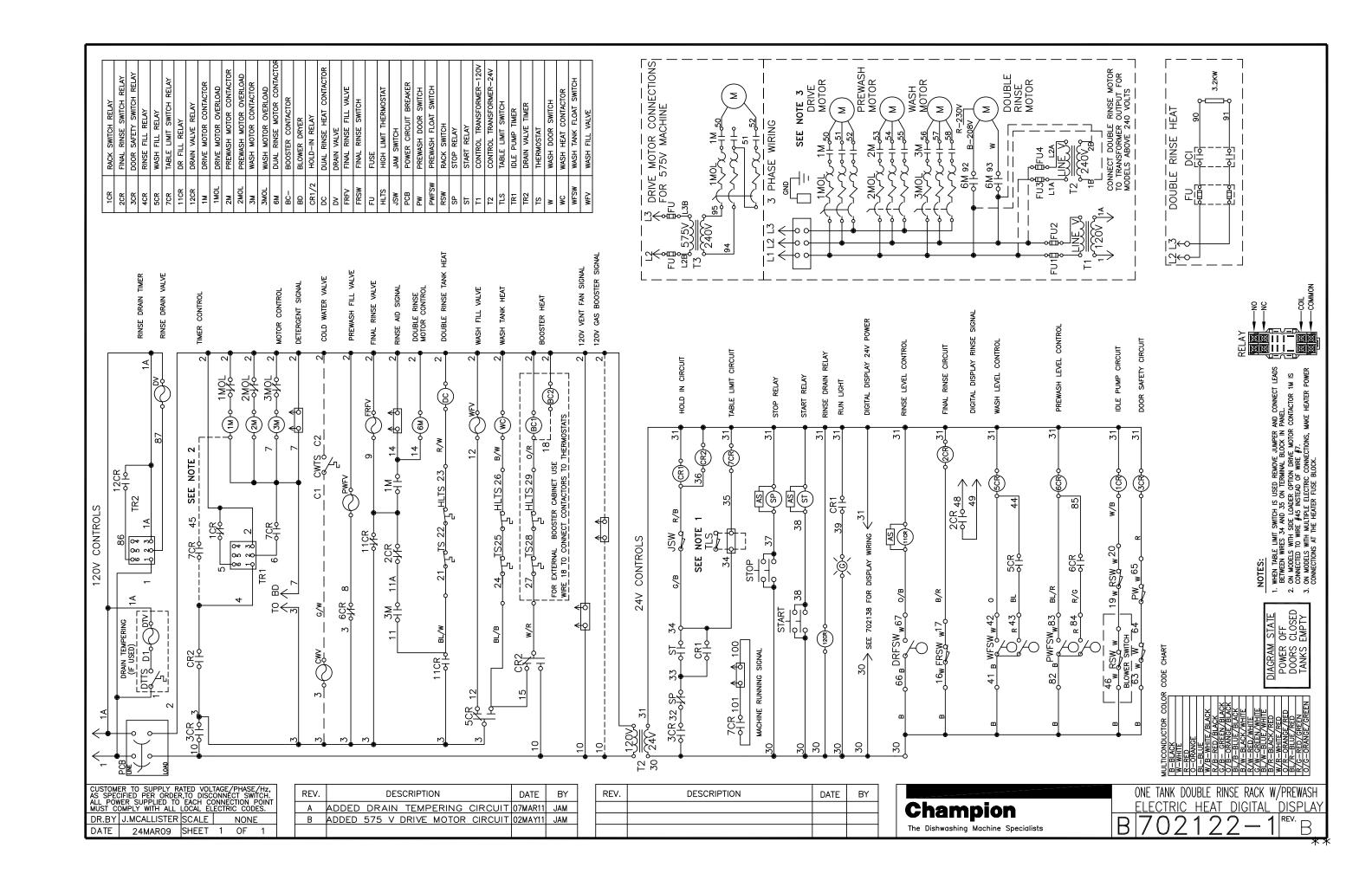


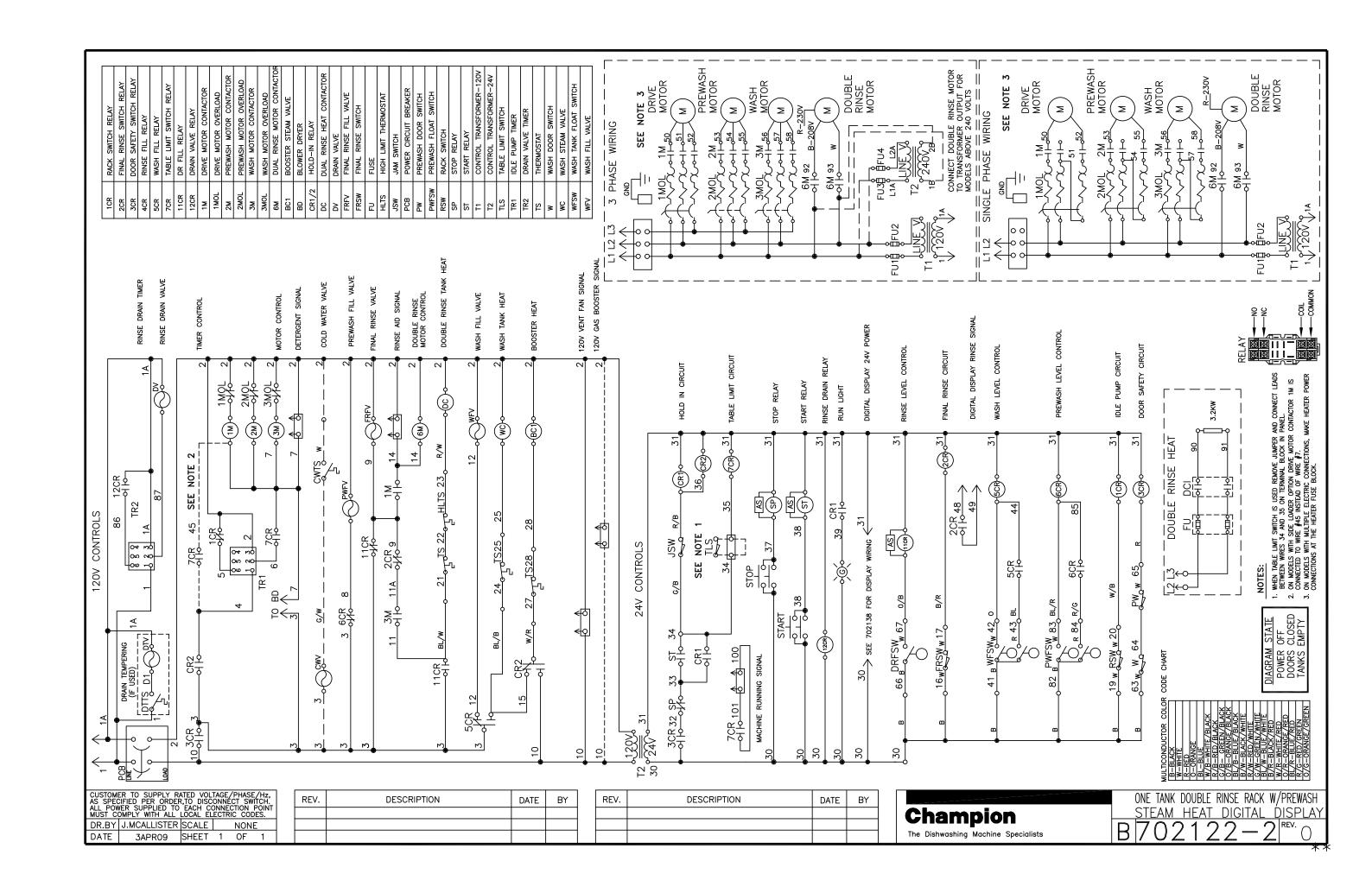


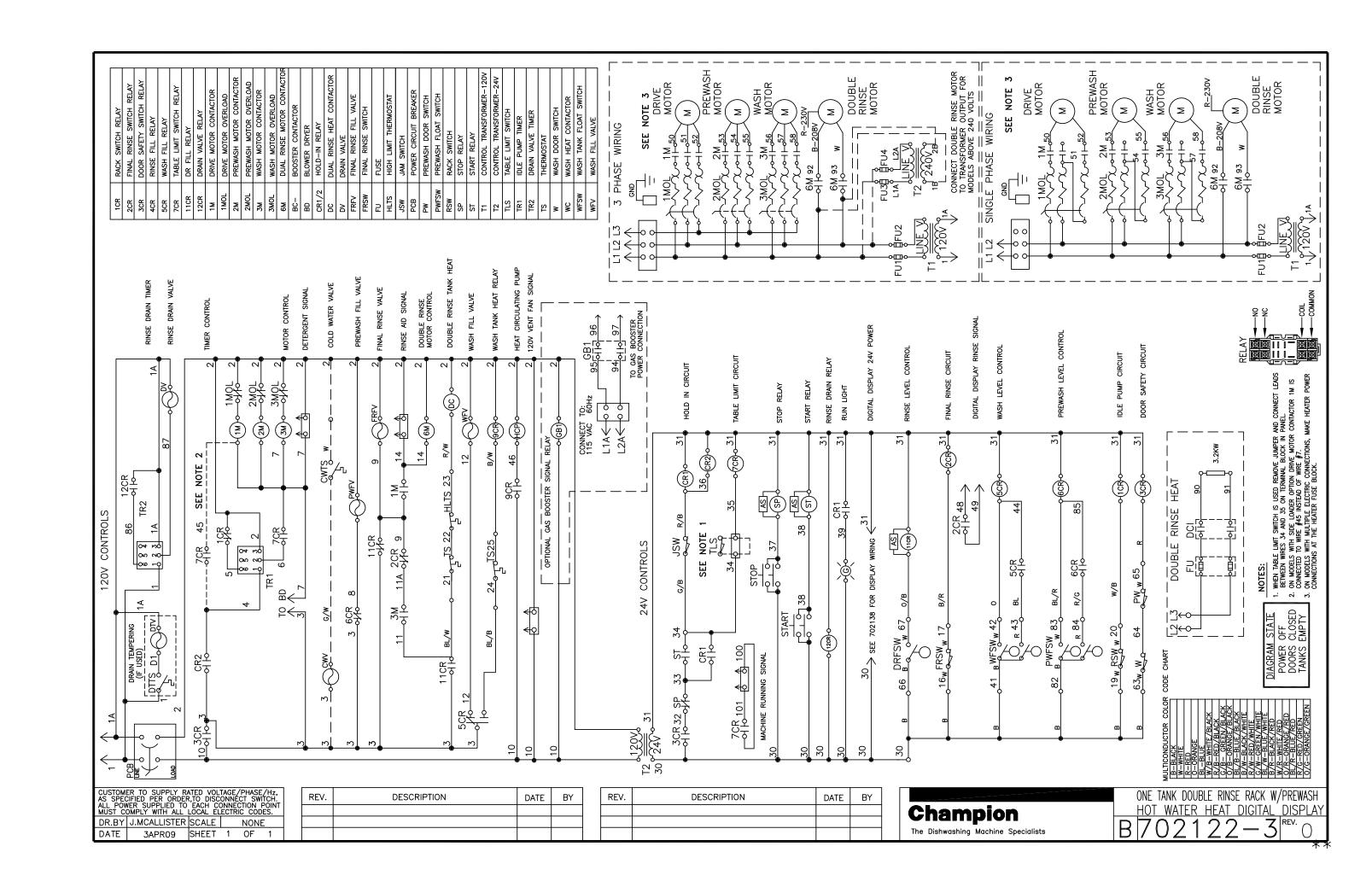


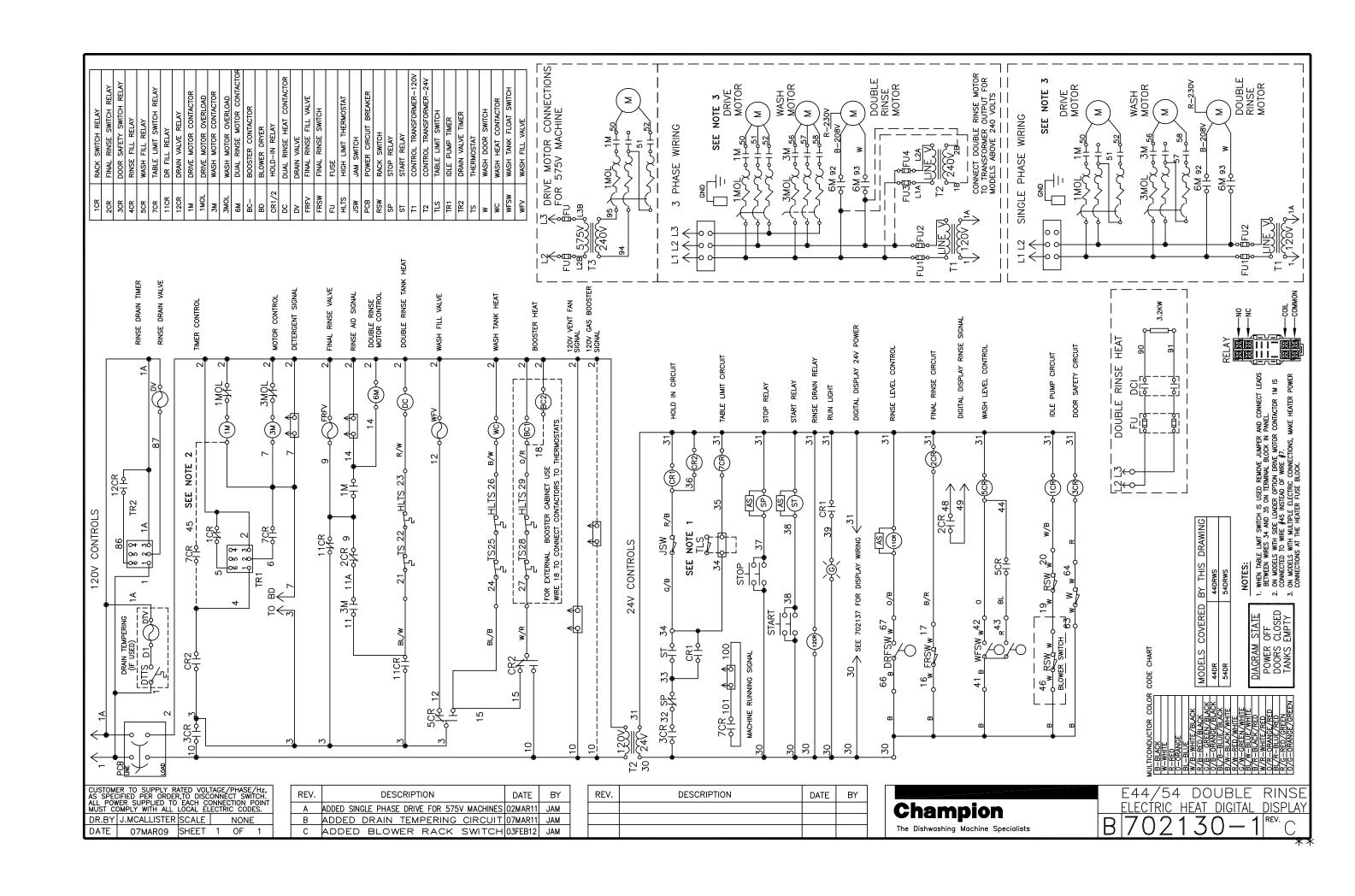


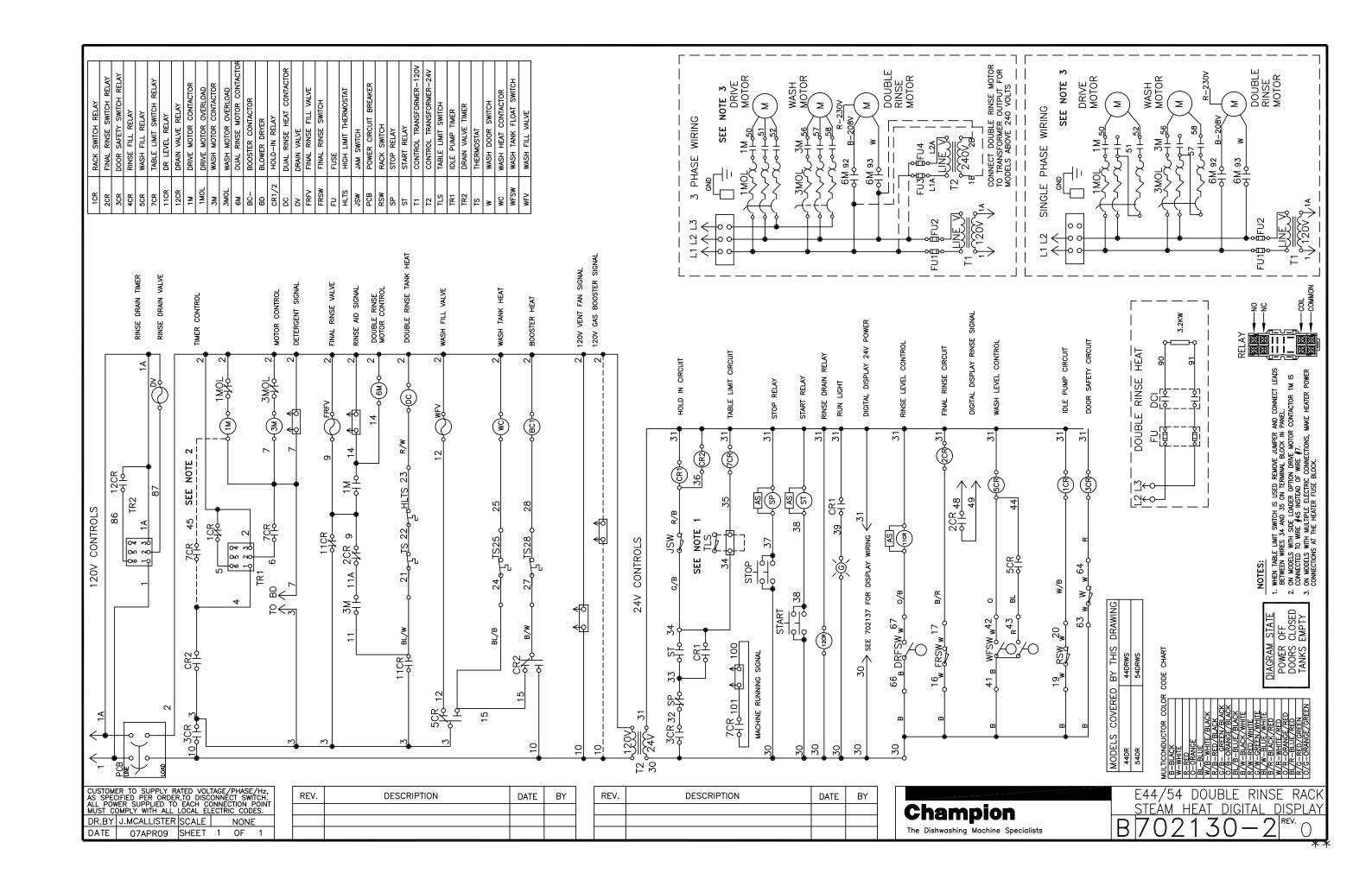


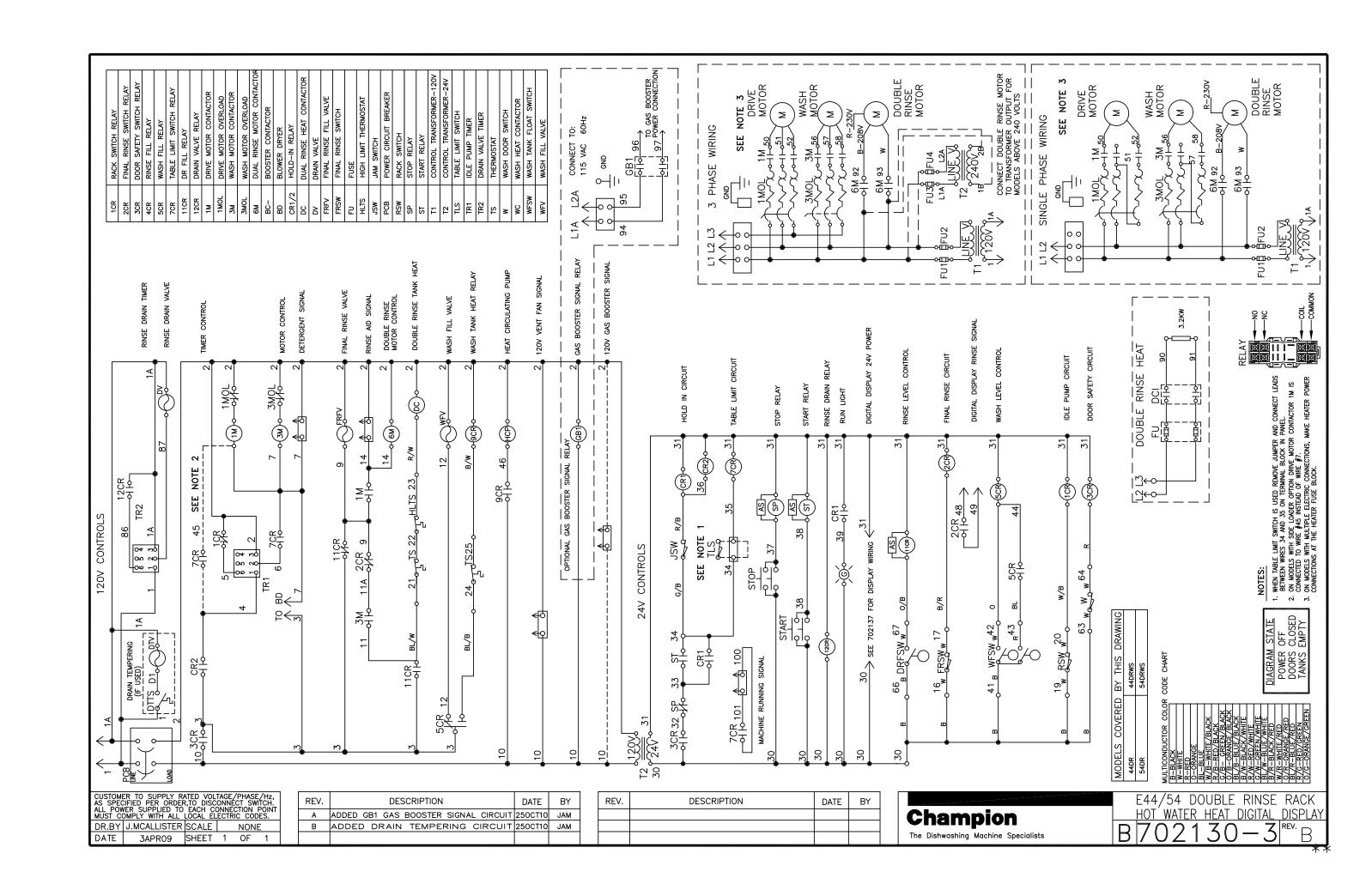


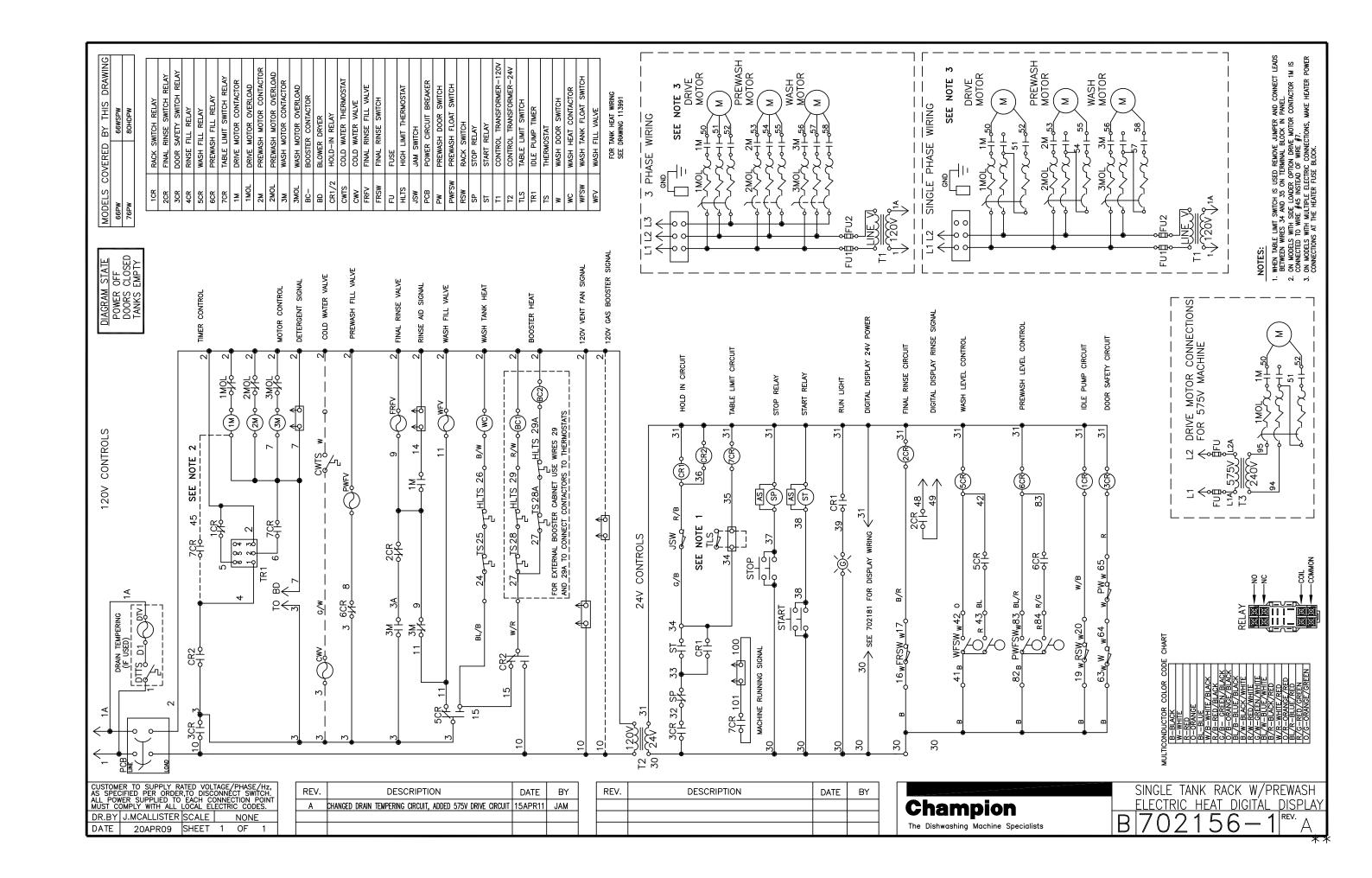


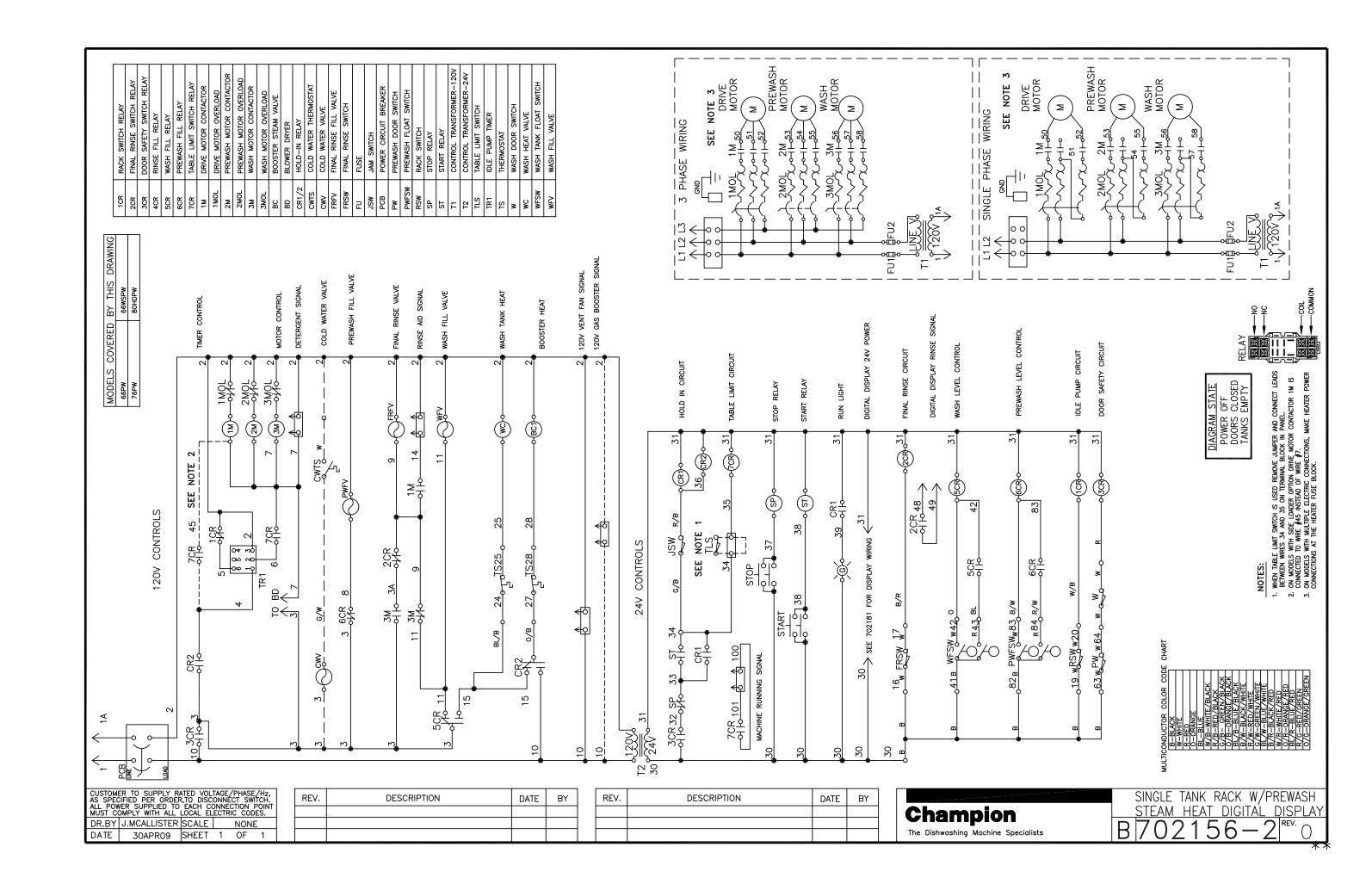


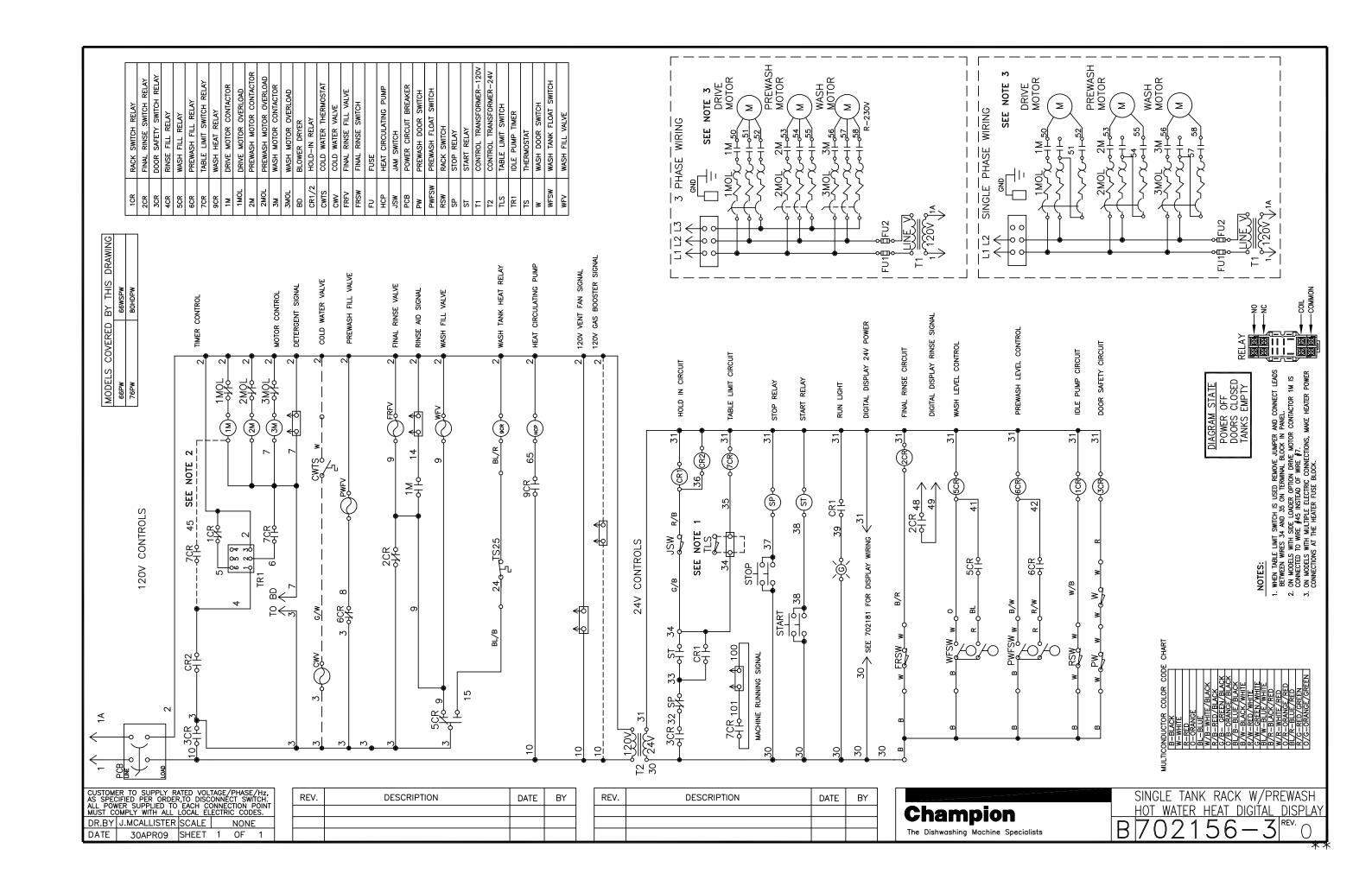


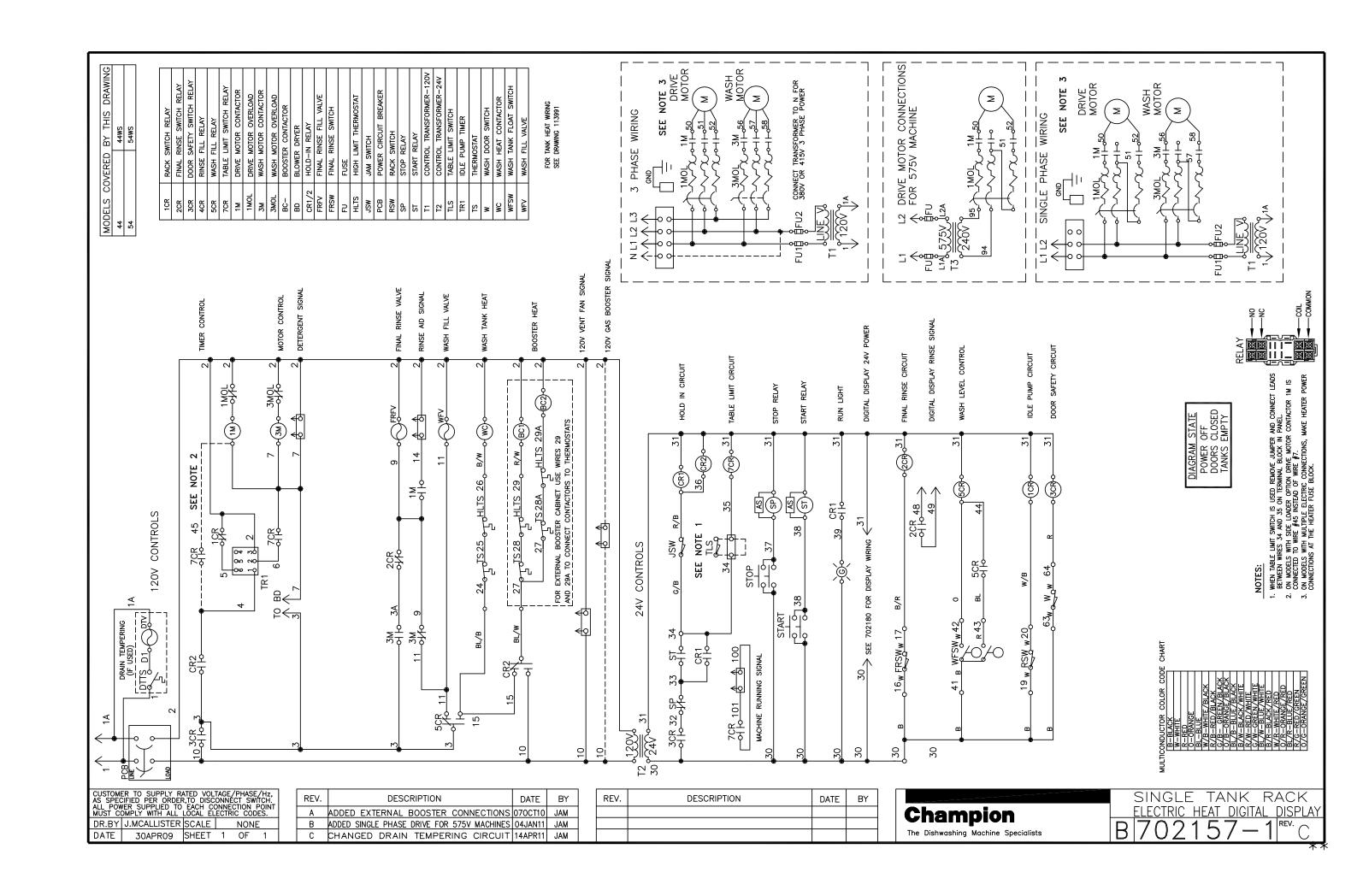


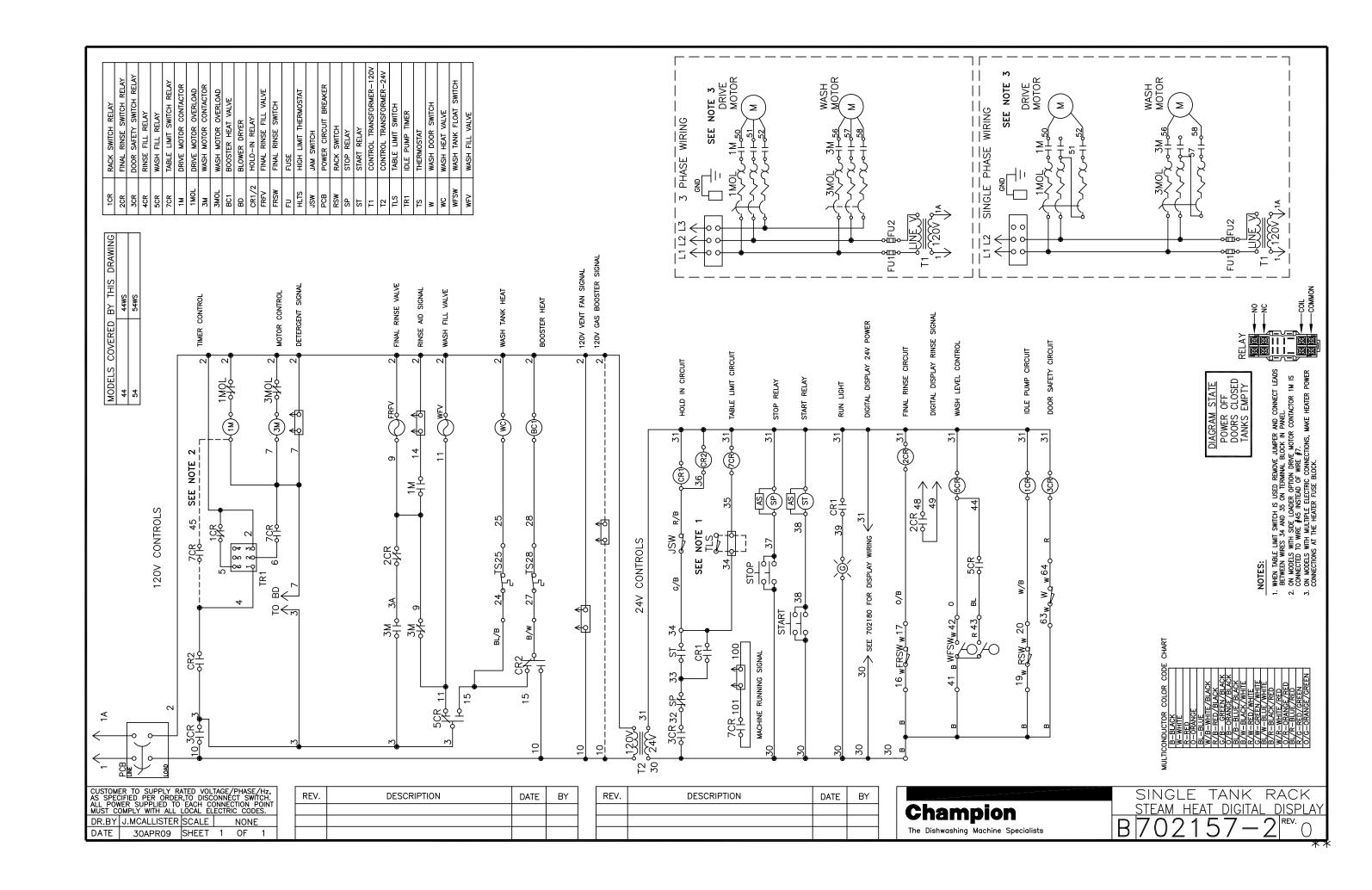


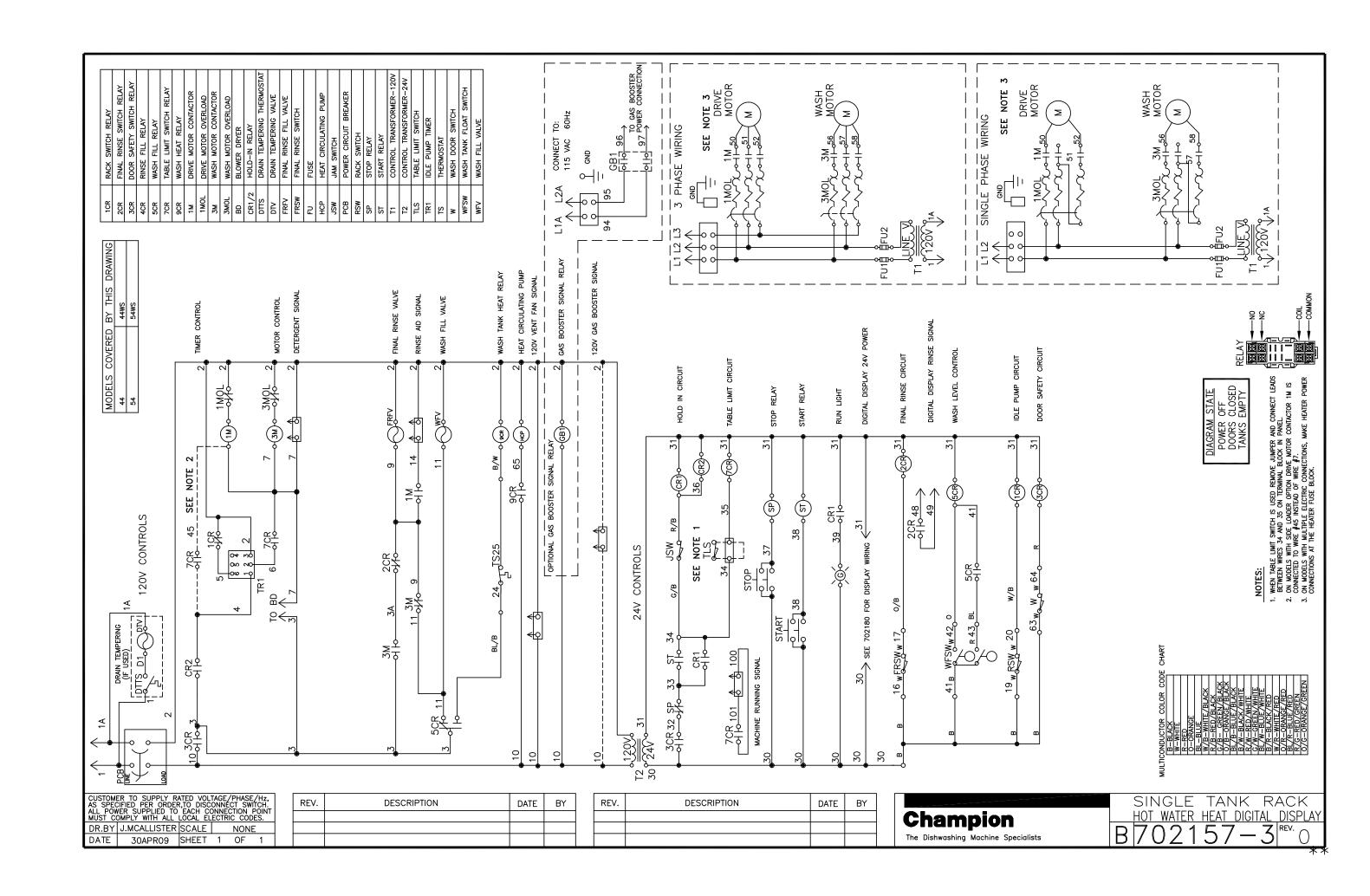


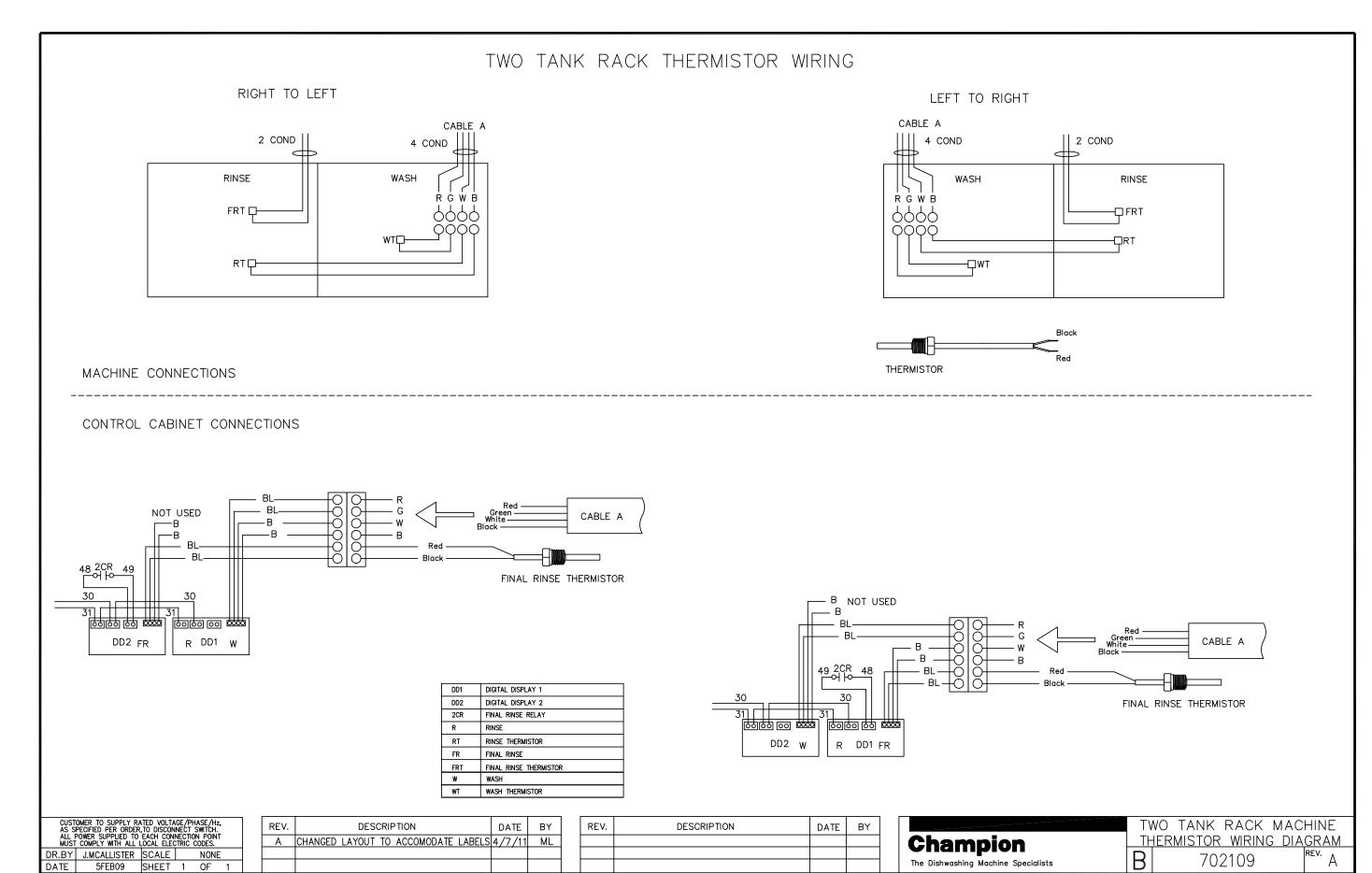




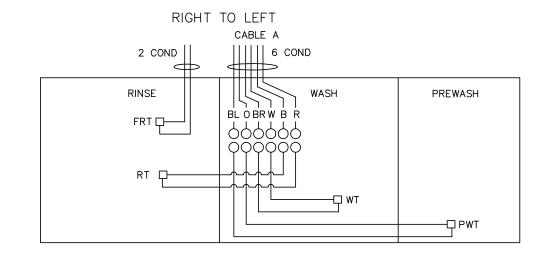


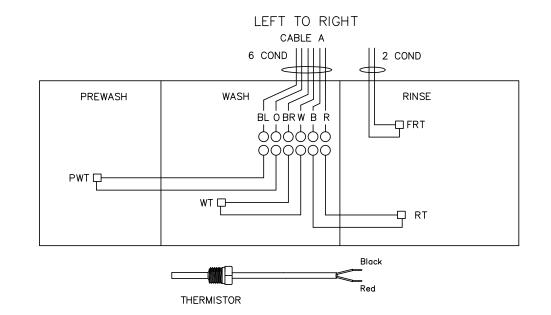




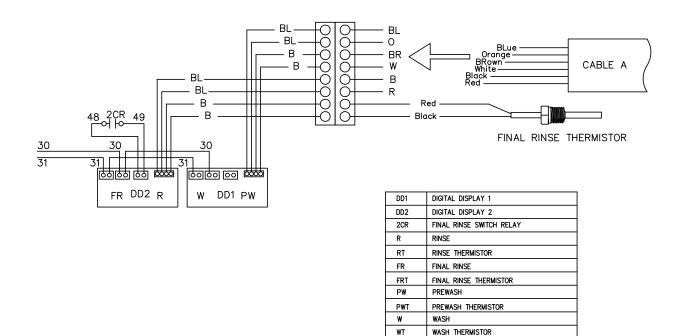


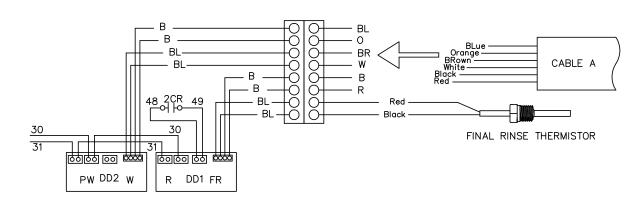
TWO TANK RACK WITH PREWASH THERMISTOR WIRING





MACHINE CONNECTIONS





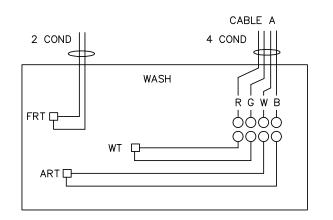
CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.						
	DR.BY	J.MCALLISTER	SCALE		NONE	
	DATE	04FEB09	SHEET	1	OF	1

REV.	DESCRIPTION	DATE	BY
Α	CHANGED LAYOUT TO ACCOMODATE LABELS	4/7/11	ML

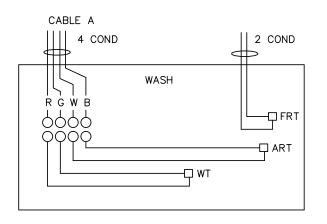
REV.	DESCRIPTION	DATE	BY	

	TWO TANK RACK W/PREWA	ASH	
Champion	THERMISTOR WIRING DIAGRAM		
The Dishwashing Machine Specialists	B 702110	REV.	



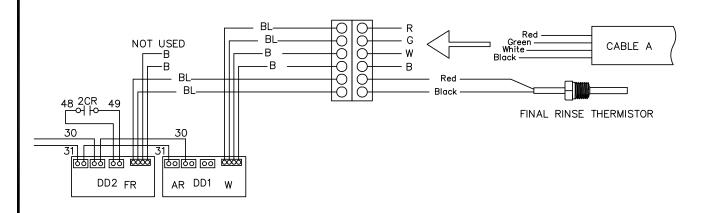


RIGHT TO LEFT

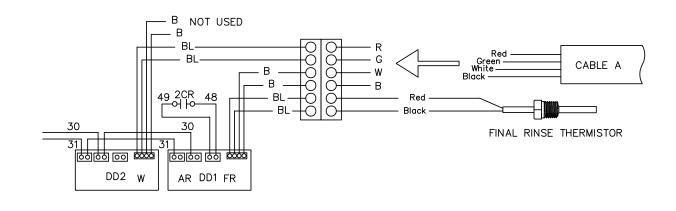


THERMISTOR

MACHINE CONNECTIONS



DD1	DIGITAL DISPLAY 1
DD2	DIGITAL DISPLAY 2
2CR	FINAL RINSE RELAY
AR	AUXILLIARY RINSE
ART	AUXILLIARY RINSE THERMISTOR
FR	FINAL RINSE
FRT	FINAL RINSE THERMISTOR
W	WASH
WT	WASH THERMISTOR



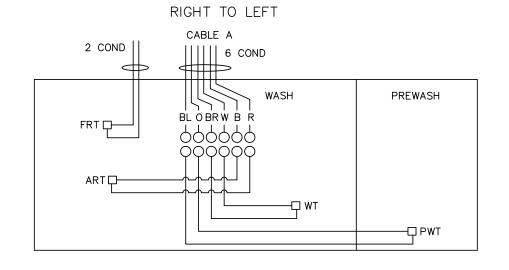
CUSTOMER TO SUPPLY RATED VOLTAGE/PHASE/Hz, AS SPECIFIED PER ORDER, TO DISCONNECT SWITCH. ALL POWER SUPPLIED TO EACH CONNECTION POINT MUST COMPLY WITH ALL LOCAL ELECTRIC CODES.						
	DR.BY	J.MCALLISTER	SCALE		NONE	
	DATE	08APR09	SHFFT	1	OF	1

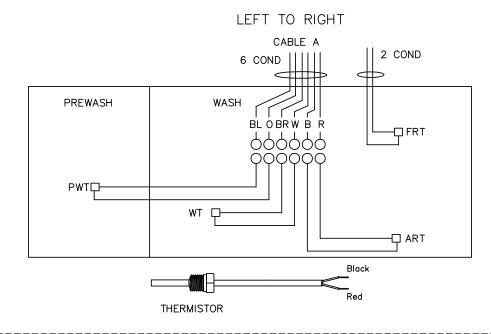
	REV.	DESCRIPTION	DATE	BY
	Α	CHANGED LAYOUT TO ACCOMODATE LABELS	4/7/11	ML
ſ				

	REV.	DESCRIPTION	DATE	BY	

	Ε	14/54DR RACK N	1ACHINE
Champion	TH	HERMISTOR WIRING	DIAGRAM
The Dishwashing Machine Specialists	В	702137	REV.

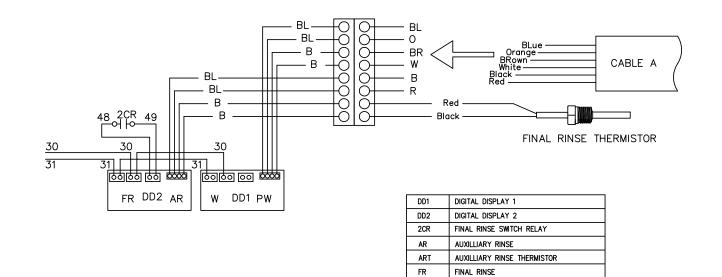
E44/54DR RACK WITH PREWASH THERMISTOR WIRING

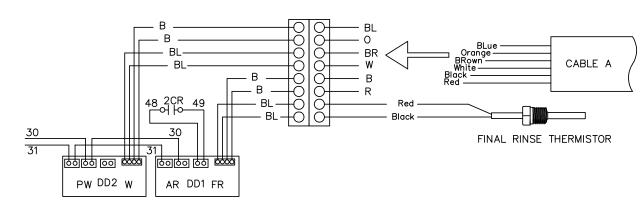




MACHINE CONNECTIONS

CONTROL CABINET CONNECTIONS





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.MCALLISTER	SCALE	E NONE			
DATE	09APR09	SHEET	1	OF	1	

REV.	DESCRIPTION	DATE	BY
Α	CHANGED LAYOUT TO ACCOMODATE LABELS	4/7/11	ML

FRT

PW

PWT

FINAL RINSE THERMISTOR

PREWASH THERMISTOR

PREWASH

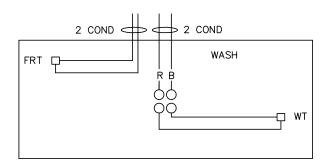
WASH THERMISTOR

REV.	DESCRIPTION	DATE	BY	

	E4	4/54DR RACK WITH PR	EWASH
Champion	T⊦	HERMISTOR WIRING DIA	GRAM
The Dishwashing Machine Specialists	В	702138	REV. A

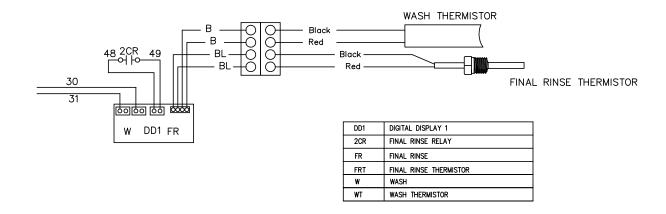
E44/54 THERMISTOR WIRING

E44/54 LEFT TO RIGHT OR RIGHT TO LEFT





MACHINE CONNECTIONS



ALL I	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.MCALLISTER	SCALE		NONE	:		
DATE	29APR09	SHEET	1	OF	1		

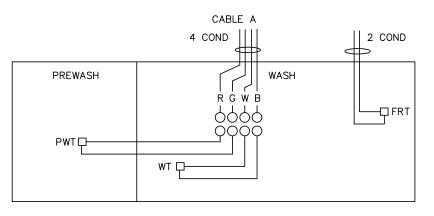
REV.	DESCRIPTION	DATE	BY
Α	CHANGED LAYOUT TO ACCOMODATE LABELS	4/7/11	ML
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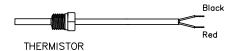
	REV.	DESCRIPTION	DATE	BY	
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Champion The Dishwashing Machine Specialists THERMISTOR WIRING DIAGRAM REV. A		SINGLE TANK RACK
- II) 700100 INEV. A	Champion	THERMISTOR WIRING DIAGRAM
	_	B 702180 REV. A

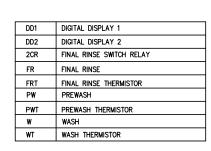
SINGLE TANK RACK WITH PREWASH THERMISTOR WIRING

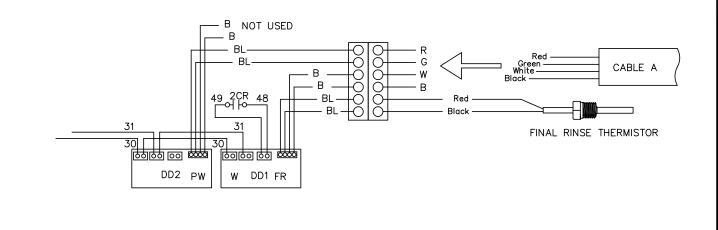
RIGHT TO LEFT OR LEFT TO RIGHT





MACHINE CONNECTIONS





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.MCALLISTER	SCALE		NONE		
DATE	29APR09	SHEET	1	OF	1	

REV.	DESCRIPTION	DATE	BY
Α	CHANGED LAYOUT TO ACCOMODATE LABELS	4/7/11	ML

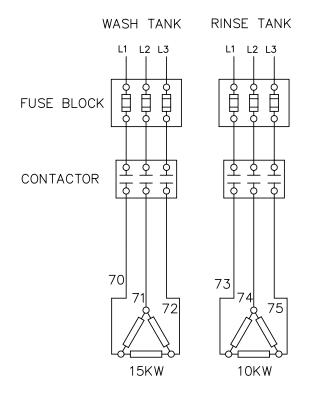
REV.	DESCRIPTION	DATE	BY	
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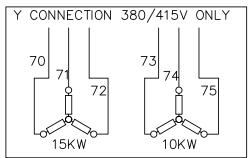
	SII	NGLE TANK RACK W/PREW	/ASH
Champion	TH	<u> ERMISTOR WIRING DIAG</u>	1 17 1111
The Dishwashing Machine Specialists	В	702181	REV. A

E SERIES RACK MACHINE TANK HEATER CONNECTIONS

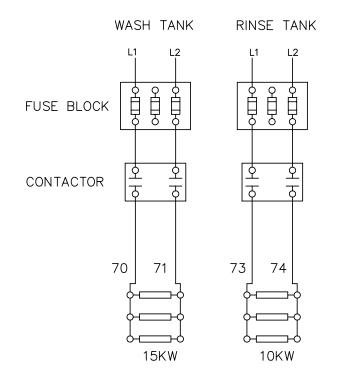
3 PHASE CONNECTION

1 PHASE CONNECTION





VOLTAGE 200-220V	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE		10KW 60A 35A #10
VOLTAGE 230-240V	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE		60A
VOLTAGE 380V	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE		60A
VOLTAGE 415V	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE		60A
	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE	15KW 60A 25A #12	10KW 60A 20A #12
VOLTAGE 575V	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE		60A



VOLTAGE 200-220V	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE	15KW 75A 90A #4	10KW 60A 60A #6
VOLTAGE 230-240V	WASH	RINSE
KW/CONTACTOR CONTACTOR RATING FUSE RATING WIRE SIZE	15KW 75A 80A #4	10KW 60A 50A #8

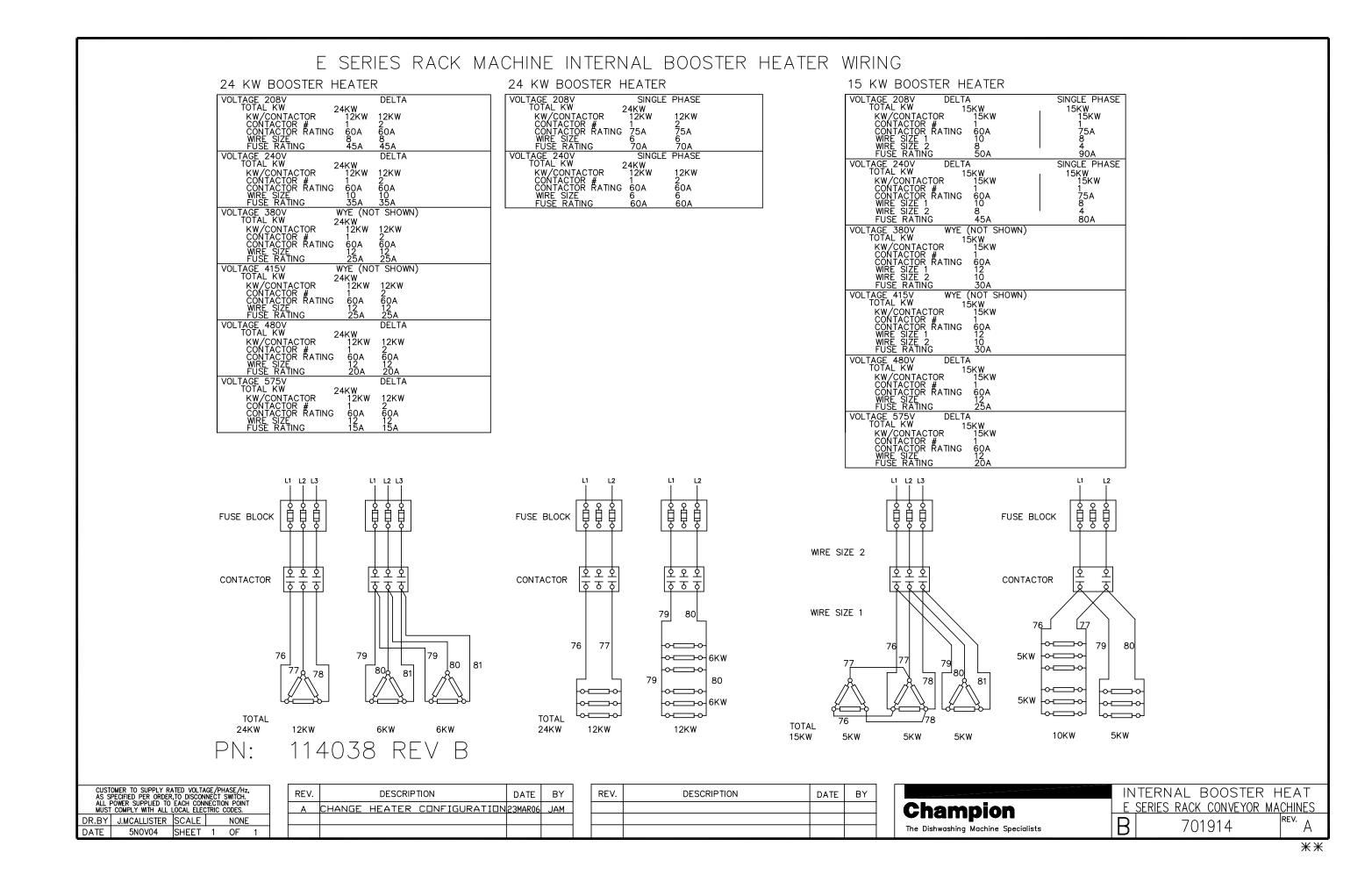
PN: 113991

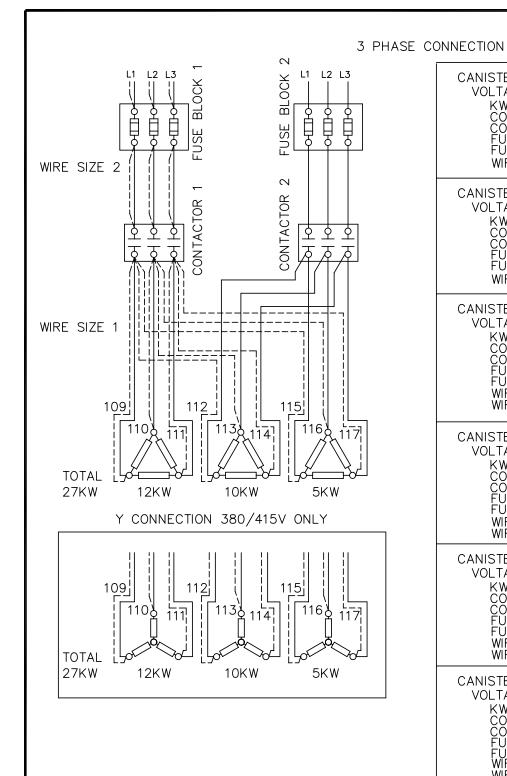
ALL PO	ER TO SUPPLY R CIFIED PER ORDE WER SUPPLIED T OMPLY WITH ALL	I EACH	CON	NECTIC	IN POII	ŃΤ
DR.BY	J.MCALLISTER	SCALE				
DATE	270CT04	SHEET	1	OF	1	

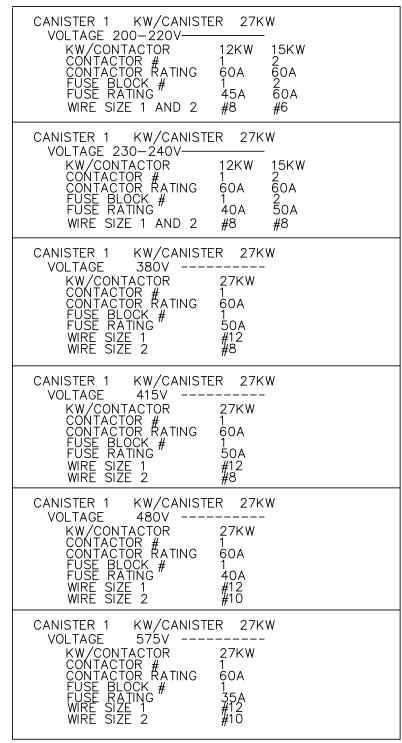
REV.	DESCRIPTION	DATE	BY

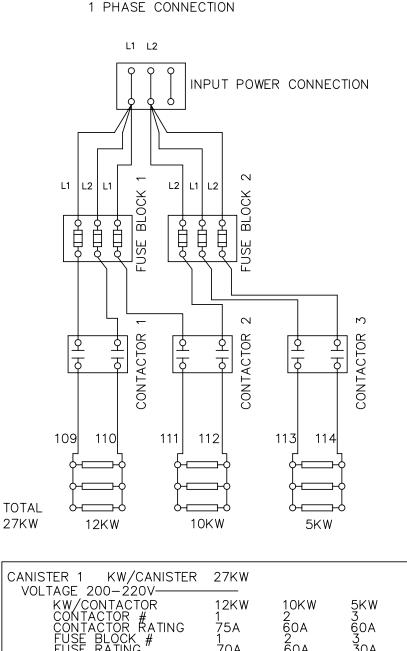
	REV.	DESCRIPTION	DATE	BY

	W	ASH	AND	RINS	E TANK	HEAT	FOR
hampion	E	SER:	IES F	RACK (CONVEYO	R MACH	HINES
Dishwashing Machine Specialists	B^{\lceil}	7	7()	19	22	REV.	









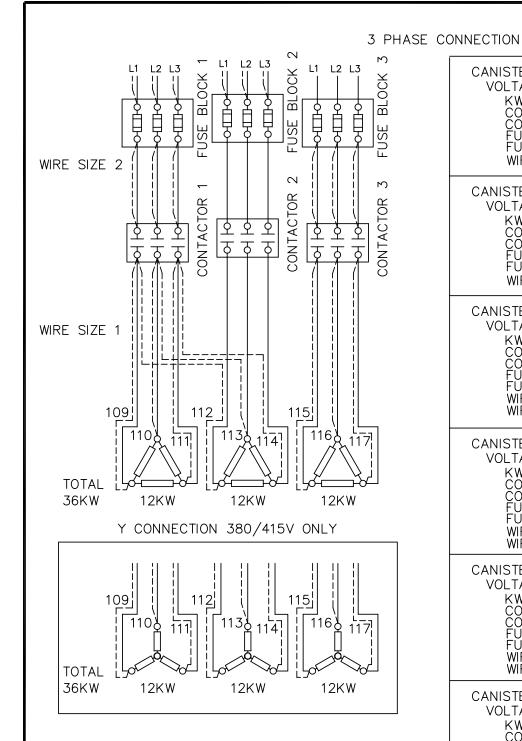
CANISTER 1 KW/CANISTER VOLTAGE 200-220V	27KW		
KW/CONTACTOR CONTACTOR # CONTACTOR RATING FUSE BLOCK # FUSE RATING WIRE SIZE	12KW 1 75A 1 70A #6	10KW 2 60A 2 60A #6	5KW 3 60A 3 30A #10
CANISTER 1 KW/CANISTER VOLTAGE 230-240V	27KW		
KW/CONTACTOR CONTACTOR # CONTACTOR RATING FUSE BLOCK # FUSE RATING WIRE SIZE	12KW 1 60A 1 60A #6	10KW 2 60A 2 60A #6	5KW 60A 30A #10

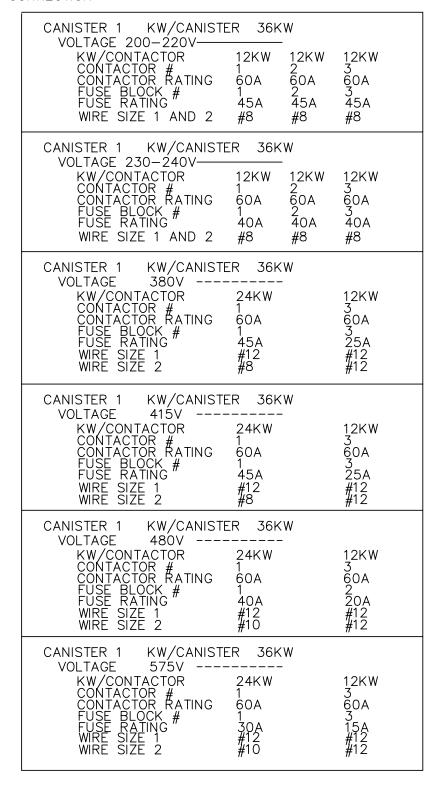
CUSTOME AS SPEC ALL POY MUST CO	ER TO SUPPLY R CIFIED PER ORDE WER SUPPLIED T OMPLY WITH ALL	R,TO DI: O FACH	CUNN CUNN	NECT : IECTIO	SWITC	7. 7.
DR.BY	J.MCALLISTER	SCALE		NDN	Ξ	
DATE	03MAY04	SHEET	1	OF	1	ı

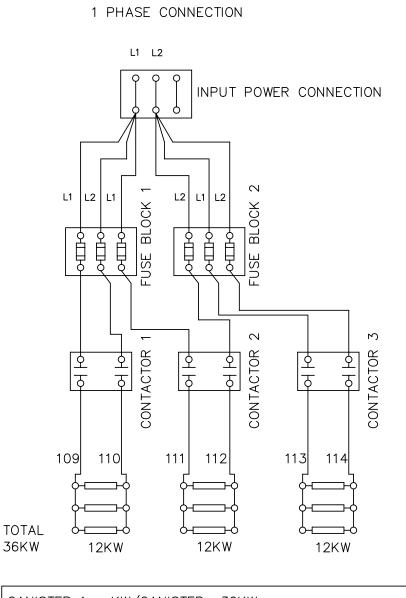
REV.	DESCRIPTION	DATE	BY	

REV.	DESCRIPTION	DATE	BY	
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hampion Dishwashing Machine Specialists CH-27E, 27KW BOOSTER FOR RACK CONVEYOR MACHINES B 701888 REV.		
Champion	l f	FOR RACK CONVEYOR MACHINES
The Dishwashing Machine Specialists	В	701888 REV.







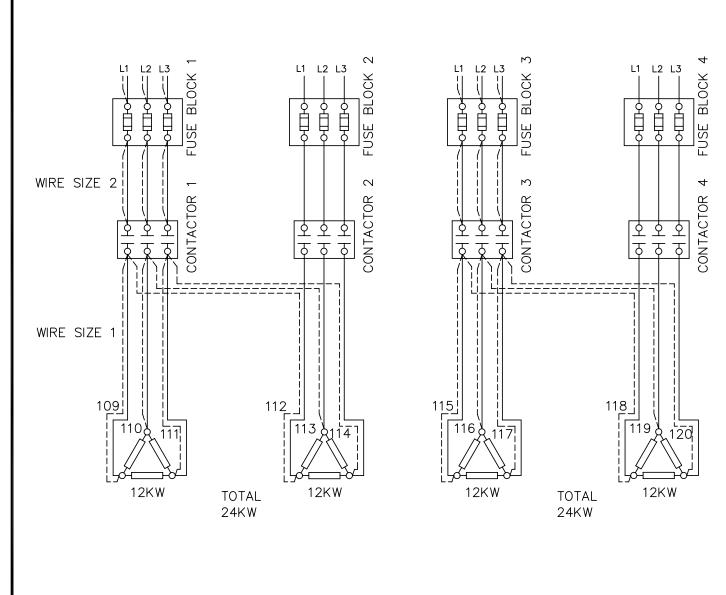
CANISTER 1 KW/CANISTER VOLTAGE 200-220V	36KW		
KW/CONTACTOR CONTACTOR # CONTACTOR RATING FUSE BLOCK # FUSE RATING WIRE SIZE	12KW 1 75A 1 70A #4	12KW 2 75A 2 70A #4	12KW 3 75A 3 70A #4
CANISTER 1 KW/CANISTER VOLTAGE 230-240V	36KW		
KW/CONTACTOR CONTACTOR #	12KW	12KW	12KW 3
CONTACTOR RATING FUSE BLOCK # FUSE RATING	75A 1	75A 2 70A	75A 3
WIRE SIZE	70A #6	/0A #6	70А #6

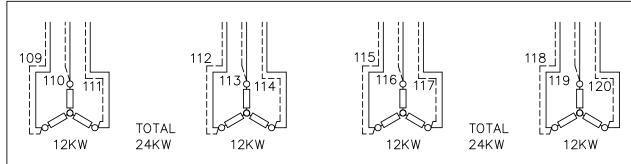
CUSTOME AS SPEC ALL POV MUST CO	ER TO SUPPLY R CIFIED PER ORDE WER SUPPLIED T OMPLY WITH ALL	יות חד:א־	CUN	NECT	SWITCH	Ý. VŤ
DR.BY	J.MCALLISTER	SCALE				
DATE	05APR04	SHEET	1	OF	1	

REV.	DESCRIPTION	DATE	BY

REV.	DESCRIPTION	DATE	BY

CH-36E, 36KW BOOSTER
FOR RACK CONVEYOR MACHINES
B 701861 REV.





Y CONNECTION 380/415V ONLY

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.MCALLISTER	SCALE				
DATE	05APR04	SHEET	1	OF	1	

REV.	DESCRIPTION	DATE	BY

	REV.	DESCRIPTION	DATE	BY	

CANISTE VOLTA	ER 1 AGE 2	KW/CANISTER 00-220V ONTACTOR CTOR # CTOR RATING BLOCK # RATING SIZE 1 AND 2	24KW		CANIST VOL	TER 2 TAGE 2	KW/CANISTI	ER :	24KW	
} (KW/CC CONTA	NTACTOR CTOR #	12KW 1	12KW 2		KW/CC CONTA	NTACTOR CTOR #		12KW 3 <u>6</u> 0A	12KW 4 60A
 	FUSE FUSE	BLOCK # RATING	1 45A	2 45A		FUSE FUSE	BLOCK # RATING	,	3 45A	4 45A
,	WIRE S	SIZE 1 AND 2	#8 	#8		WIRE S	SIZE 1 AND 2		#8 	#8
VOLT	A C E 2	KW/CANISTER 30-240V	24KW		CANIST VOL	TER 2 TAGE 2	KW/CANISTI 30-240V	ER :	24KW	
, , , , , , , , , , , , , , , , , ,	KW/CC	SU-240V- SUTACTOR CTOR # CTOR RATING BLOCK # RATING SIZE 1 AND 2	12KW 1	12KW 2		KW/CC CONTA	KW/CANISTI 30-240V—— DNTACTOR CTOR # CTOR RATING BLOCK # RATING SIZE 1 AND 2		3	12KW 4
(CONTA FUSE FUSE	CTOR RATING BLOCK # BATING	60A 1	60A 2 40A		CONTA FUSE FUSE	CTOR RATING BLOCK # BATING		60A 3	60A 4 40A
,	WIRE S	SIZE 1 AND 2	#8	#8		WIRE S	SIZE 1 AND 2		40A #8	#8
1/(1) 1/	Δ(: -	KW/CANISTER 380V — — —				ΙΔ(2Ε	580W — —		24KW	
VOL 17	KW/CC CONTA	DNTACTOR CTOR # CTOR RATING BLOCK # RATING SIZE 1 SIZE 2			VOL	KW/CC CONTA	DNTACTOR CTOR # CTOR RATING BLOCK # RATING BLZE 1 BIZE 2	;	24KW	
(CONTA FUSE	ČTOR KATING BLOCK #	60A 1			CONTA	CTOR RATING BLOCK #	(60A 3	
,	WIRE S WIRE S	SIZE 1 SIZE 2	#12 #8			WIRE S	RATING SIZE 1 SIZE 2		45A #12 #8	
VOLT	A C E	KW/CANISTER 415V — — —	24KW — — 24KW		VOL	LVCE	KW/CANISTI 415V — —	. — —	24KW	
r (CONTA CONTA	DATACTOR COTOR # COTOR # COTOR RATING BLOCK # RATING SIZE 1 SIZE 2	1 60A			CONTA	DNTACTOR CTOR # CTOR RATING BLOCK # RATING BIZE 1 BIZE 2	i	24KW 3 <u>6</u> 0A	
	FUSE FUSE	BLOCK # RATING	1 45A "12			FUSE FUSE	BLOCK # RATING		კ 45A	
,	WIRE	SIZE 2 	#12 #8			WIRE	SIZE 2 		#12 #8	
VOI TA	4GF	KW/CANISTER 480V — — —	24KW — —		CANIS	ΓAGF	KW/CANISTI 480V — —	. — —	24KW	
} (KW/CC	ONTACTOR SCTOR # SCTOR RATING BLOCK # RATING	24KW 1			KW/CC CONTA	ONTACTOR CTOR # CTOR RATING BLOCK # RATING	•	24KW 3	
(CONTA FUSE FUSE	CTOR RATING BLOCK # BATING	60A 1 40A			CONTA FUSE FUSE	CTOR RATING BLOCK # RATING		60A 3 40A	
ļ	WIRE S	SIZE 1 SIZE 2	#12 #10			WIRE S	SIZE 1 SIZE 2		#12 #10	
CANISTE	ER 1	KW/CANISTER	24KW		CANIS		KW/CANISTI		24KW	
VOLTA k	< W / C.C	575V — — — ONTACTOR CTOR #	— — 24KW		VOL	TAGE KW/CC	575V — — NTACTOR		- — 24KW 3	
(CONTA FUSE	CTOR # CTOR RATING BLOCK # RATING	60A 1			CONTA	CTOR # CTOR RATING BLOCK # RATING	è	60A 3	
İ	FUSĒ WIRE S	RĀTING " SIZE 1 SIZE 2	30A #12 #10			FUSE WIRE WIRE	RATING"		30A #12 #10	
	VVIRE 3) LE	#10			WIRE 3	DI		#10	

	CH-48E, 48KW BOOSIER
Champion	FOR RACK CONVEYOR MACHINES
•	R 701862 REV.
The Dishwashing Machine Specialists	D

