Enodis®
One Company, Countless Solutions

SINGLE-TANK RACK CONVEYOR DISHMACHINE SERIES

SERVICE MANUAL

FOR JACKSON MODELS:

44CE - 44CEL
54CE - 54CEL
66CERPW - 66CELRPW
76CERPW - 76CELRPW

Jackson
An Enodis Company

January 21, 2004
P/N 7610-100-41-00 (Revision B)

www.jacksonmsc.com

SAFETY PRECAUTIONS

NEVER TRY TO REPAIR OR REPLACE ANY PART OF THE DISHWASHER UNLESS IT IS SPECIFICALLY RECOMMENDED IN THIS MANUAL. ALL SERVICING SHOULD BE DONE BY A FACTORY AUTHORIZED SERVICE TECHNICIAN DURING WARRANTY PERIOD, THERE ARE NO USER SERVICEABLE PARTS. SAFETY PRECAUTIONS IN THIS MANUAL ARE PRECEDED BY THE WORDS "WARNING" OR "CAUTION" AND ARE VERY IMPORTANT. WARNING MEANS THERE IS THE POSSIBILITY OF PERSONAL INJURY TO YOURSELF OR OTHERS. CAUTION MEANS THERE IS THE POSSIBILITY OF DAMAGE TO THE UNIT.

CERTIFICATION

THE UL MARK INDICATES THIS PRODUCT IS LISTED WITH THE UNDERWRITERS LABORATORY. THIS AGENCY CONDUCTS TESTS AND EVALUATIONS OF PRODUCT COMPLIANCE TO UL STANDARDS FOR SAFETY.

THE NSF SEAL IS WIDELY RECOGNIZED AS A SIGN THAT THE ARTICLE TO WHICH IS IS AFFIXED COMPLIES WITH ALL PUBLIC HEALTH AND SAFETY CODES FOR FOODSERVICE EQ.

APPENDIX SECTION

THE APPENDIX SECTION IN THIS MANUAL WILL CONTAIN AND COLLECT SUPPLEMENTAL INFORMATION ADDED TO UP-DATE AND KEEP THIS MANUAL CURRENT TO THE PRODUCT IT REPRESENTS. IT ALSO PROVIDES PERTINENT INFORMATION REGARDING ALL PRODUCT CHANGES AND NEW PRODUCT DEVELOPMENTS. PLEASE READ THESE SUPPLEMENTS CAREFULLY AND COMPLETELY FOR THEY MAY REPLACE OR SUPERCEDE INSTRUCTIONS ALREADY CONTAINED IN THIS MANUAL.

PRODUCT RECORD

FOR FUTURE USE, PLEASE RECORD THE INFORMATION IN THE SPACES PROVIDED BELOW:

MODEL NO. _____ DEALER _____

VOLTS _____ DATE INSTALLED _____

SERIAL NO. _____

SPECIFICATIONS

THE SPECIFICATION SECTION IN THIS MANUAL WILL CONTAIN ALL PERTINENT DATA COVERING THE SINGLE-TANK RACK CONVEYOR SERIES DISHWASHING MACHINES.

PLEASE REFER TO THIS SECTION FOR ALL DETAILS CONCERNING:

OPERATING HOT WATER CAPACITY

HOT WATER REQUIREMENTS

OVERALL MACHINE DIMENSIONS

TANK CAPACITIES

PUMP AND MOTORS

ELECTRIC HEAT

STANDARD RACKS

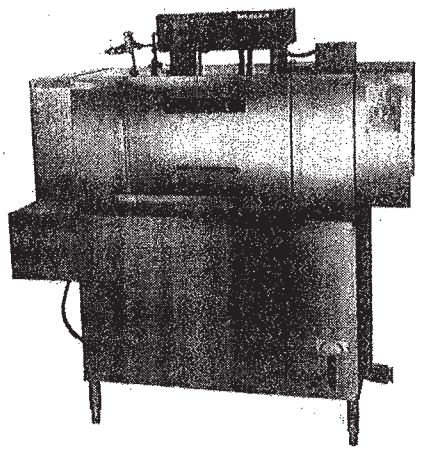
SHIPPING WEIGHT

ELECTRICAL REQUIREMENTS

ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.

SINGLE-TANK RACK CONVEYOR

DISHWASHER



44 SERIES

Jackson's 44 Series is made up of the following models.

MODEL 44CE - Electric tank heat, Hi-temp rinse
MODEL 44CEL - Electric tank heat, Low-temp rinse
MODEL 44CS - Steam coil tank heat, Hi-temp rinse
MODEL 44CSL - Steam coil tank heat, Low-temp rinse

STANDARD FEATURES

- o High output with NSF rated 205 racks per hour.
- o Can be ordered as an energy efficient high temperature sanitizing or low temperature (chemical) sanitizing model.
- o Heavier gauge construction for extra ruggedness and durability. 14 gauge tank vs. 16 gauge on competitive machines.
- o Stainless steel frame, legs, bullet feet, vent cowls and front panel are all standard features, not optional extras.
- o Uses less energy than competitive machines.
- o Low water consumption: only 1.4 gallons per rack.
- o Lower water consumption allows the use of a lower KW booster when operated as a high temperature unit. For a 40° F rise a 30W booster heater is recommended.
- o Exclusive "Energy Guard" control system and excellent separation of the wash and rinse sprays, produces superior results.
- o Convenient, externally operated, lever drains.
- o Positive manual fill valve. Automatic fill is available as an option.
- o A.S.S.E. approved vacuum breaker.

MANDATORY SPECIFICATIONS

The following information must be specified when placing an order.

Sanitizing Method: (Select One)
Hi-temp sanitizing — Low-temp (chemical) sanitizing

Voltage: (Select One)
208V/60Hz/1 Ph — 230V/60Hz/1 Ph
208V/60Hz/3 Ph — 230V/60Hz/3 Ph
460V/60Hz/3 Ph
50 Hz also available in these voltages as well as 380V/50Hz/3 Ph

Tank Heat: (Select One)
13 KW Electric - Immersion-type heating elements with primary and secondary low water protection.
Regulated Steam - Wash tank steam coils with low water protection. Requires 10-15 PSI steam supply. Above 15 PSI install a steam pressure regulator.

Direction of Rack Flow: (Select One)
From Right to Left — From Left to Right

SPECIFICATIONS

	MODELS 44CE & 44CS	MODELS 44CEL & 44CSL
Operating Capacity		
Racks per Hour	205	205
Dishes or glasses per Hour	5125	5125
Operating Requirements		
Incoming Waterline Size	1/2" IPS	1/2" IPS
Flow Pressure	20 PSIG	20 PSIG
Flow Rate @ 20 PSI	4.8 GPM	4.8 GPM
Final Rinse Consumption @ 20 PSI flow pressure	288 GPH	288 GPH
Final Rinse Temperature	180-195°F	140-150°F
Wash Tank Temperature	160°F	140°F
Electric Tank Heat		
Models 44CE & 44CEL	13KW	
Steam Coil Tank Heat		
Models 44CS & 44CSL		
Steam coil size	3/4" IPS	
Steam flow pressure requirement	10-15 PSIG	
Steam Consumption @ 15PSI	60 Lbs/Hr	
Dimensions		
Length - between dishtables	44"	
Width	25-1/2"	
Maximum Dish Clearance	18"	
	18"	
Venting		
Input End	200 CFM	
Output End	400 CFM	
Tank Capacity		
Wash Tank	20 Gals.	
Pumps and Motors		
Wash Motor	1-1/2 HP	
Wash Pump Capacity	270 GPM	
Conveyor Motor	1/4 HP	
Conveyor Speed (feet/minute)	5.70	
Standard Racks - 19-3/4" X 19-3/4"		
Dish racks (peg type)	4	
Combination racks (open type)	2	
Shipping Weight (approx.)	600 Lbs.	
Shipping Dimensions (L x D x H)	71" x 41" x 77"	
Cubic Feet	130	

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Performance: Fully automatic, single tank, rack conveyor dishwasher designed to wash, rinse and sanitize tableware and utensils commonly associated with the preparation and consumption of food items in a commercial foodservice operation. The unit conveys standard 19-3/4" x 19-3/4" racks through a recirculating wash section where 270 GPM of detergent laden water is pumped over the rack to remove food soil. The rack is then conveyor driven into a rinse section where a fresh water final rinse spray system removes residual detergent and sanitizes. Sanitization can be accomplished by one of two methods: 1) high temperature sanitization or 2) low temperature sanitization. For high temperature sanitization the unit must be installed on a potable water line capable of supplying 288 gallons per hour of water at: 180° F. minimum, 195° F. maximum. In some cases an external booster heater sized for the necessary temperature rise must be installed to reach this sanitizing temperature requirement. For low temperature sanitization the unit must be installed on a potable water line capable of supplying 288 gallons per hour of water at: 140° F. minimum, 150° F. maximum. A chemical feeder system must be supplied and installed by others to inject 50 PPM minimum sodium hypochlorite (chlorine) to meet sanitization requirements.

Caution: Use of sodium hypochlorite (chlorine) may have an adverse effect on materials including, but not limited to, silver and silver plate, pewter and aluminum.

Construction: All stainless steel components are 18-8 304 series stainless steel. Frame is 2" x 2" x 1/8" stainless steel angle satin finish. Tank is formed and heliarc welded 14 gauge #3 finish. The wash tank on units specified for use as low temperature sanitizing will be put through a passivation process to increase chemical resistance. Hood is 16 gauge #3 finish. Legs and feet are stainless steel and are adjustable ± 1/2".

Wash Tank: 20 gallon capacity with skimming type overflow tube. Lever operated drain valve for draining tank. Washing action is accomplished by recirculating detergent laden water in the wash tank through upper and lower wash arms to strip away food soil. 7/8" round knockouts are provided to allow easy installation of detergent concentration sensor and dispenser tube by others. A 19" span of 48 wash jets provides unsurpassed wash pattern. Tank and hood design provides 17" of distance between wash and rinse jets to insure excellent separation of wash and rinse sprays. This greater separation virtually eliminates spotting and poor results caused by wash water splashing into rinse section. Make-up water comes from the final rinse reservoir and is spilled into wash tank at a controlled rate.(approximately 2.0 GPM.)

Final Rinse: Rinse water enters the machine through a brass "Y" strainer and solenoid valve and approved vacuum breaker (supplied) and is plumbed to upper and lower final rinse arms located at the output end of the machine. Two dispensing point locations (1/4" NPT plugs) are provided for dispensing equipment connection by others. One point should be used for rinse agent injection into the final rinse water. The other connection point should be used for injection of sodium hypochlorite on low temperature sanitizing models.

Wash Pump: is integral with motor and is flange mounted to wash tank and manifold. Wash water is recirculated from the tank, through the pumping system and back to the tank at the rate of 270 GPM.

Wash Pump Motor: is a 1-1/2 HP open drip-proof type. Capacitor start, induction run with bimetallic thermal overload protection. Motor shaft is supported by permanently lubricated, grease packed ball bearings.

Conveyor: Center mounted pawl bar with counter weighted, wide surface pawls is driven by 1/4 HP motor and worm drive reduction gear unit. Motor is open, drip-proof type and is thermally protected. Pawl bar drive unit is mounted at the output end of machine and is enclosed with removable stainless steel cover. Conveyor speed is 5.7 feet per minute.

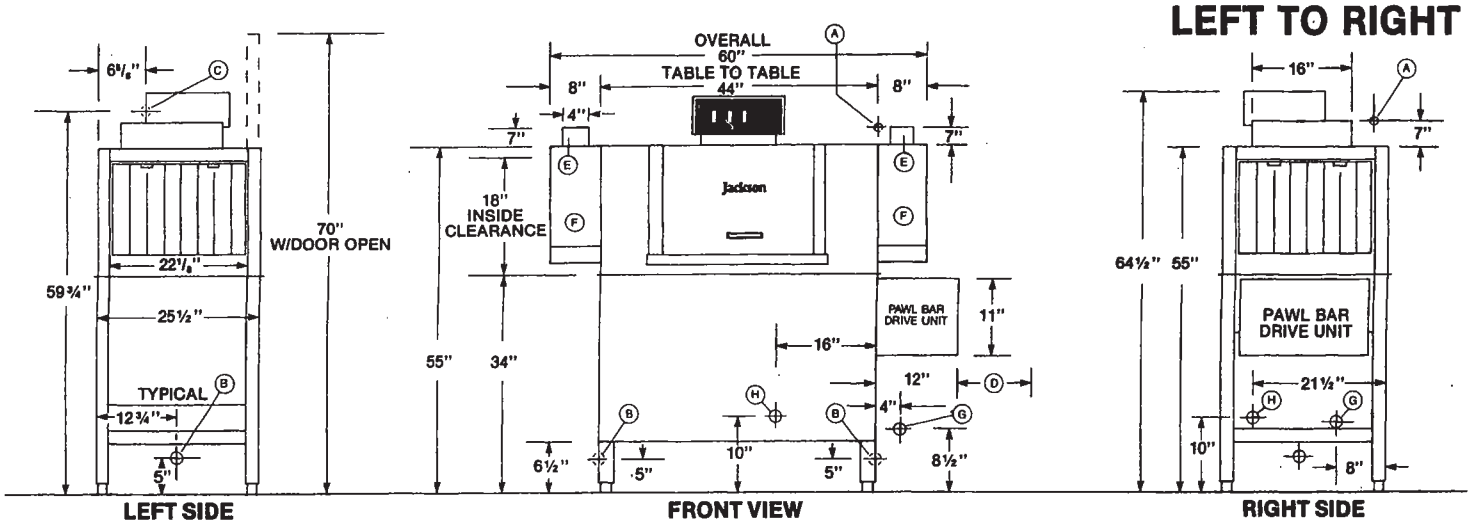
Vent Cowls: Unit comes standard with 8" vent cowls on each end. Tops of cowls have 4" x 16" openings (covered with removable plates) for connection to exhaust duct. Available at additional cost are 4" x 16" x 7" high vent cowl collars with adjustable and lockable damper style flaps.

MANDATORY SPECIFICATIONS

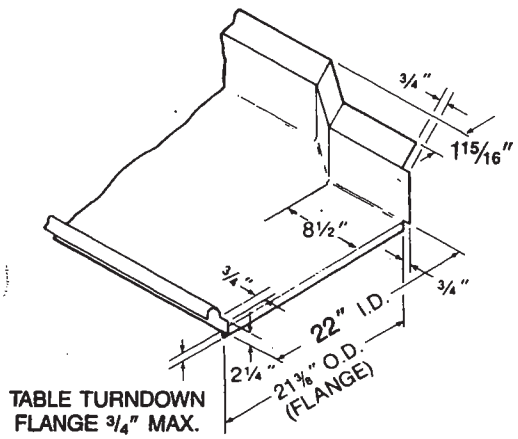
Tank Heating Equipment
13 KW Electric - High efficiency Firebar™ immersion type heating element is mounted in wash tank and is protected by a solid state low-water cutoff system. Tank temperature is monitored by a PTC thermistor and controlled by fast reacting, solid state thermostats. Available in 208V/60Hz/1 or 3 Phase, 230V/60Hz/1 or 3 Phase, 460V/60Hz/3 Phase. 50Hz available in these voltages as well as 380V/50Hz/3 Phase. 50Hz voltages are not UL listed.

Regulated Steam Coil - Stainless steel steam coil is mounted in wash tank and is protected by a solid state low-water cutoff system. Incoming steam passes through a steam pressure regulator and "Y" strainer. A steam solenoid valve regulates flow of steam through coil. Tank temperature is monitored by a PTC thermistor and controlled by a fast reacting, solid state thermostat. Requires 10-15 PSI flowing steam supply. Install with steam pressure regulator if steam supply exceeds 15 PSI.

44 SERIES
LEFT TO RIGHT



Recommended Table Fabrication



Note: *Tub will accept a table flange up to 24⅞".*

Legend To Drawings

A—Machine water inlet ½" I.P.S., 180ºF min. 58" above finished floor.

B—Drain connection 2" I.P.S. Drain can be connected to either end.

C—Electrical connection.

D—Allow 12" for removal of pawl bar drive unit cover.

E—Vent collar 4" × 16" × 3" tall, optional.

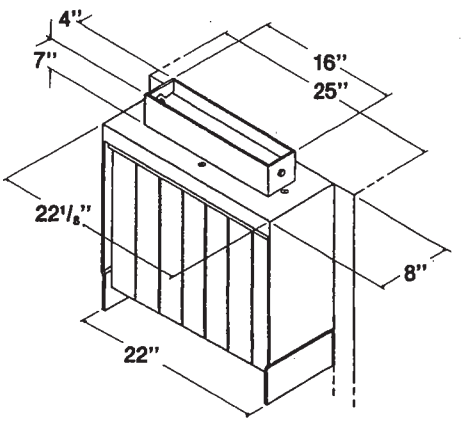
F—Vent cowl, standard.

*G—Incoming steam connection, optional. ¾" FPT. (Gate valve supplied.)

*H—Condensate return connection ¾" FPT. (Return to boiler or open drain.)

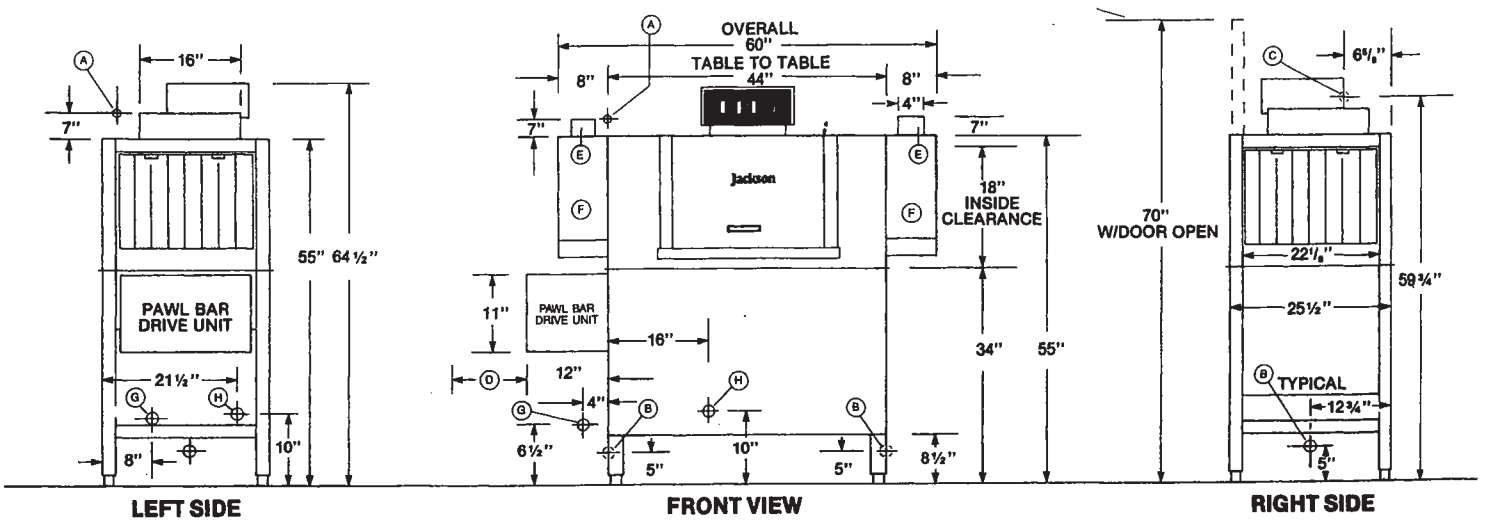
* *Steam Tank Heat Only*

Optional Vent Cowl Collar Detail



Note: *All dimensions from floor are ± ½" due to adjustable bullet feet.*

44 SERIES
RIGHT TO LEFT



44 SERIES
Single Tank Rack Conveyor
Optional Features and Accessories

Automatic Tank Fill - includes soleniod valve that is controlled by water level sensors mounted in wash tank. Function is activated by pressing a desiginated switch on the control panel.

Booster Heaters:

36 KW electric Booster Heater - boosts incoming 140°F water to 180°F for sanitizing rinse. Custom features include castone lined tank, low water cut-off, pressure relief valve, pressure reducing valve and two temperature/pressure gauges. Pre-plumbed to be located at output side of machine. Unit is supplied with a stainless steel stand with 6" legs and bullet feet. Unless specified otherwise, electrical characteristics of the booster heater will be the same as that of the dishwasher.

Steam Booster Heater - sized for a 40°F temperature rise. Therefore, unit must be connected to a 140°F waterline in order to insure 180°F minimum sanitizing requirements. The steam booster heater is designed to operate at flowing steam pressures from 10 PSIG to 15 PSIG and is equipped with a steam pressure reducing valve. Unit is externally mounted on a stainless steel base with 6" stainless steel legs and bullet type feet. Pre-plumbed for connection at output end of a 44 Series machine.

50 Cycle Electrical Characteristics - are available in 208V/1 or 3 Ph, 230V/1 or 3 Ph, 380V/3 Ph and 460V/3 Ph.

Higher Than Standard Hood - 5" increase in interior clearance through machine to 23". Allows washing a variety of larger sized trays and bun pans.

Incoming Water Pressure Reducing Valve - factory installed on incoming plumbing system. Not required when ordering the electric booster heater option.

Incoming Water Pressure Regulating Kit - factory installed package consisting of a pressure reducing valve with a built-in line strainer, 0-60 psi guage and water shock arrestor. Gives full range control over flow pressure, water consumption and damaging water hammer.

Sideloader - is factory installed on input end of machine. This option allows the machine to be installed in a corner and maximize the use of dishroom space. It is available both hooded and unhooded.

Table Limit Switch - factory wired to machine and mounted to the backsplash of the table in the field. Prevents damage to conveyor drive system, racks and dishes due to racks backing up on the output end of the machine. Highly recommended for clean dishtables less than 10 feet in length.

Vent Cowl Collar - 4" X 16" X 7" high collar installed in the vent cowl to allow easy connection of "pant-leg" type exhaust duct. Includes an adjustable and lockable damper flap for fine tuning exhaust system.

44 SERIES ELECTRICAL DATA	APPROXIMATE TOTAL LOAD AMPERES					
	ELECTRIC TANK HEAT MODELS 44CE & 44CEL		STEAM TANK HEAT MODELS 44CS & 44CSL		OPTIONAL 36KW ELECTRIC BOOSTER HEATER	
	1-PH	3-PH	1-PH	3-PH	1-PH	3-PH
208 VOLTS	75	44	12	7	173	100
230 VOLTS	69	40	12	7	157	90
380 VOLTS	N/A	22	N/A	7	N/A	55
460 VOLTS	N/A	18	N/A	5	N/A	45

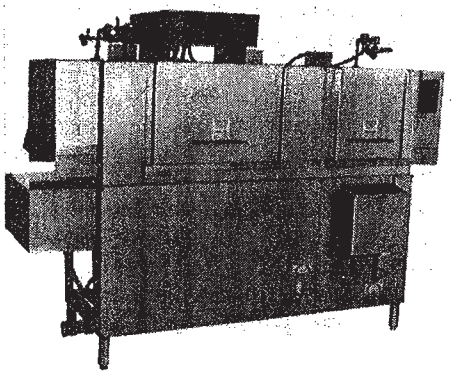
SHORT FORM SPECIFICATIONS AND PRODUCT DESCRIPTION
44 SERIES RACK CONVEYOR DISHWASHER - ITEM#_____

Shall be Jackson 44 Series, Single-Tank Rack Conveyor Dishwasher. Sanitization shall be accomplished by using ____a high temperature (180°F min.) rinse, ____a low temperature (140°F min. + chlorine) rinse. Electrical characteristics shall be ____208V, ____230V, ____380V(50Hz Only), ____460V/ ____60Hz, ____50Hz/ 1 Phase(208V & 230V Only), ____3 Phase. Tank heating shall be ____13KW electric element, ____3/4" steam coil. Direction of rack flow shall be ____left to right, ____right to left. Frame, hood and tank shall be constructed of 18-8 304 series stainless steel. 14 gauge material shall be used in the construction of the tank. Unit shall be supplied with stainless steel, adjustable, bullet-type feet for leveling, stainless steel front panel,stainless steel vent cowls with strip-type curtains on each end, lever operated drain, 4 peg-type dish racks and 2 open-type combination racks as standard equipment. Unit shall be equipped with "Energy Guard" automatic controls and a manual control backup system. Unit shall be NSF listed with a final rinse flow rate not to exceed 288 GPM @ 20 psig flow pressure, an operating capacity of not less than 205 racks per hour and a conveyor speed not less than 5.70 feet per minute. Final rinse water consumption shall not exceed 1.4 gallons per rack.

Unit shall have the following features as optional extras: ____automatic tank fill, ____36KW externally mounted electric booster heater to provide a 40°F temperature rise, ____steam booster heater to provide a 40°F temperature rise, ____5" higher than standard hood, ____incoming water pressure reducing valve, ____incoming water pressure reducing kit, ____hooded sideloader, ____unhooded sideloader, ____table limit switch, ____vent cowl collar at input end of unit, ____vent cowl collar at output end of unit.

SINGLE-TANK RACK CONVEYOR

DISHWASHER



66 SERIES

Jackson's 66 Series is made up of the following models.

MODEL 66CERPW - Electric tank heat, Hi-temp rinse

MODEL 66CELRPW - Electric tank heat, Low-temp rinse

MODEL 66CSRPW - Steam coil tank heat, Hi-temp rinse

MODEL 66CSLRPW - Steam coil tank heat, Low-temp rinse

STANDARD FEATURES

- Recirculating pre-wash feature virtually eliminates manual pre-rinsing and saves on labor.
- High output with NSF rated 205 racks per hour.
- Can be ordered as an energy efficient high temperature sanitizing or low temperature (chemical) sanitizing model. Low temperature model has a passivated tank for extra chemical resistance.
- Heavier gauge construction for extra ruggedness and durability. 14 gauge tank vs. 16 gauge on competitive machines.
- Stainless steel frame, legs, bullet feet, vent cowls and front panel are all standard features, not optional extras.
- Uses less energy than competitive machines.
- Low water consumption: only 1.4 gallons per rack.
- Lower water consumption allows the use of a lower KW booster when operated as a high temperature unit. For a 40°F rise a 30 KW booster heater is recommended.
- Exclusive "Energy Guard" control system and excellent separation of the wash and rinse sprays, produces superior results.
- Convenient, externally operated, lever drains.
- Positive manual fill valve. Automatic fill is available as an option.
- A.S.S.E. approved vacuum breaker.

MANDATORY SPECIFICATIONS

The following information must be specified when placing an order.

Sanitizing Method: (Select One)
Hi-temp sanitizing — Low-temp (chemical) sanitizing

Voltage: (Select One)
208V/60Hz/1 Ph — 230V/60Hz/1 Ph
208V/60Hz/3 Ph — 230V/60Hz/3 Ph
460V/60Hz/3 Ph
50 Hz also available in these voltages as well as 380V/50Hz/3 Ph

Tank Heat: (Select One)
13 KW Electric — Immersion-type heating elements with primary and secondary low water protection.
Regulated Steam — Wash tank steam coils with low water protection. Requires 10-15 PSI steam supply. Above 15 PSI install a steam pressure regulator.

Direction of Rack Flow: (Select One)
From Right to Left — From Left to Right

SPECIFICATIONS

	MODELS 66CERPW & 66CSRPW	MODELS 66CELRPW & 66CSLRPW
Operating Capacity		
Racks per Hour	205	205
Dishes or Glasses per Hour	5125	5125
Operating Requirements		
Incoming Waterline Size — Pre-Wash	½" IPS	½" IPS
Incoming Waterline Size — Machine	½" IPS	½" IPS
Flow Pressure	20 PSIG	20 PSIG
Flow Rate @ 20 PSI	4.8 GPM	4.8 GPM
Final Rinse Consumption @ 20 PSI Flow Pressure	288 GPH	288 GPH
Final Rinse Temperature	180-195°F	140-150°F
Wash Tank Temperature	160°F	140°F
Pre-Wash Tank Temperature (Maximum)	140°F	140°F
Electric Tank Heat		
Models 66CERPW & 66CELRPW	13 KW	
Steam Coil Tank Heat		
Models 66CSRPW & 66CSLRPW		
Steam Coil Size	¾" IPS	
Steam Flow Pressure Requirement	10-15 PSIG	
Steam Consumption @ 15 PSI	60 Lbs./Hr.	
Dimensions		
Length — between dishtables	66"	
Width — at widest point	33"	
Maximum Dish Clearance	18"	
Venting		
Input End	200 CFM's	
Output End	400 CFM's	
Tank Capacity		
Wash Tank	20 Gals.	
Pumps and Motors		
Pre-Wash Motor	1 HP	
Pre-Wash Pump Capacity	120 GPM	
Wash Motor	1½ HP	
Wash Pump Capacity	270 GPM	
Conveyor Motor	¼ HP	
Conveyor Speed (feet/minute)	5.70	
Standard Racks — 19¾" x 19¾"		
Dish Racks (peg-type)	4	
Combination Racks (open-type)	2	
Shipping Weight (approx.)	700 Lbs.	
Shipping Dimensions (L x D x H)	93" x 41" x 77"	
Cubic Feet	170	

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Performance: Fully automatic, single tank, rack conveyor dishwasher with a recirculating pre-wash designed to wash, rinse and sanitize tableware and utensils commonly associated with the preparation and consumption of food items in a commercial foodservice operation. The unit conveys standard 19¾" x 19¾" racks through a recirculating pre-wash section where 120 GPM of water is pumped over the rack to mechanically prepare the ware for washing. Next the rack is conveyor-driven into a power wash section where 270 GPM of detergent-laden water is pumped over the ware to remove food soil. Finally, the rack is conveyor-driven into a rinse section where a fresh water final rinse spray system removes residual detergent and sanitizes. Sanitization can be accomplished by one of two methods: 1) high temperature sanitization, or 2) low temperature sanitization. For high temperature sanitization, the unit must be installed on a potable water line capable of supplying 288 gallons per hour of water at: 180°F. minimum, 195°F. maximum. In some cases an external booster heater sized for the necessary temperature rise must be installed to reach this sanitizing temperature requirement. For low temperature sanitization, the unit must be installed on a potable water line capable of supplying 288 gallons per hour of water at: 140°F. minimum, 150°F. maximum. A chemical feeder system must be supplied and installed by others to inject 50 PPM minimum sodium hypochlorite (chlorine) to meet sanitization requirements.

***Caution:** Use of sodium hypochlorite (chlorine) may have an adverse effect on materials including, but not limited to, silver and silver plate, pewter and aluminum.*

Construction: All stainless steel components are 18-8 304 series stainless steel. Frame is 2" x 2" x 1/8" stainless steel angle satin finish. Tank is formed and heliarc welded 14 gauge #3 finish. The wash tank on units specified for use as low temperature sanitizing will be put through a passivation process to increase chemical resistance. Hood is 16 gauge #3 finish. Legs and feet are stainless steel and are adjustable ± ½".

Pre-Wash Tank: 12-gallon capacity with skimming-type overflow tube and large externally removable scrap basket. Pre-washing action is accomplished by pumping the water in the pre-wash tank through upper and lower spray arms which removes heavy soil and deposits it in an outside deep well scrap basket. Make-up water comes from detergent wash.

Wash Tank: 20-gallon capacity with skimming-type overflow tube. Lever-operated drain valve for draining tank. Washing action is accomplished by recirculating detergent-laden water in the wash tank through upper and lower wash arms to strip away food soil. 7/8" round knockouts are provided to allow easy installation of detergent concentration sensor and dispenser tube by others. A 19" span of 48 wash jets provides unsurpassed wash pattern. Tank and hood design provides 17" of distance between wash and rinse jets to insure excellent separation of wash and rinse sprays. This greater separation virtually eliminates spotting and poor results caused by wash water splashing into rinse section. Make-up water comes from the final rinse reservoir and is spilled into wash tank at a controlled rate (approx. 2 GPM).

Final Rinse: Rinse water enters the machine through a brass "Y" strainer and solenoid valve and approved vacuum breaker (supplied) and is plumbed to upper and lower final rinse arms located at the output end of the machine. Two dispensing point locations (¼" NPT plugs) are provided for dispensing equipment connection by others. One point should be used for rinse agent injection into the final rinse water. The other connection point should be used for injection of sodium hypochlorite on low temperature sanitizing models.

Pre-Wash Pump: is integral with motor and mounted to the machine's frame. The pump intake is plumbed to the pre-wash tank and is protected by a removable screen. The output side of the pump is plumbed to upper and lower spray arms. The pre-wash pump recirculates 120 GPM over the rack of ware.

Pre-Wash Pump Motor: is a 1 HP open drip-proof type. Capacitor start, induction run with bi-metallic thermal overload protection. Motor shaft is supported by permanently-lubricated, grease-packed ball bearings.

Wash Pump: is integral with motor and is flange-mounted to wash tank and manifold. Wash water is recirculated from the tank, through the pumping system and back to the tank at the rate of 270 GPM.

Wash Pump Motor: is a 1½ HP open drip-proof type. Capacitor start, induction run with bi-metallic thermal overload protection. Motor shaft is supported by permanently-lubricated, grease-packed ball bearings.

Conveyor: Center-mounted pawl bar with counter-weighted, wide surface pawls is driven by ¼ HP motor and worm drive reduction gear unit. Motor is open, drip-proof type and is thermally protected. Pawl bar drive unit is mounted at the output end of machine and is enclosed with removable stainless steel cover. Conveyor speed is 5.7 feet per minute.

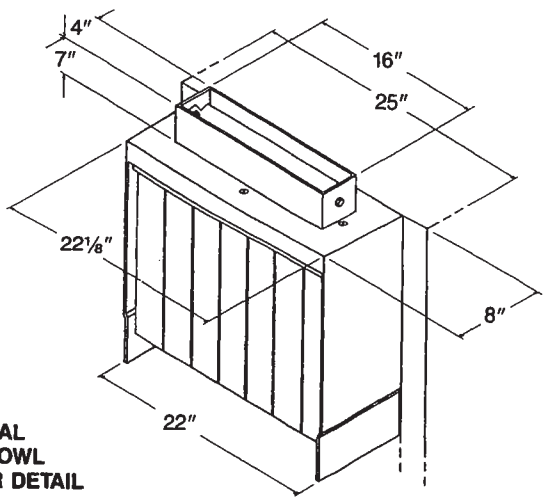
Vent Cowls: Unit comes standard with 8" vent cowls on each end. Tops of cowls have 4" x 16" openings (covered with removable plates) for connection to exhaust duct. Available at additional cost are 4" x 16" x 7" high vent cowl collars with adjustable and lockable damper-style flaps.

MANDATORY SPECIFICATIONS

Tank Heating Equipment

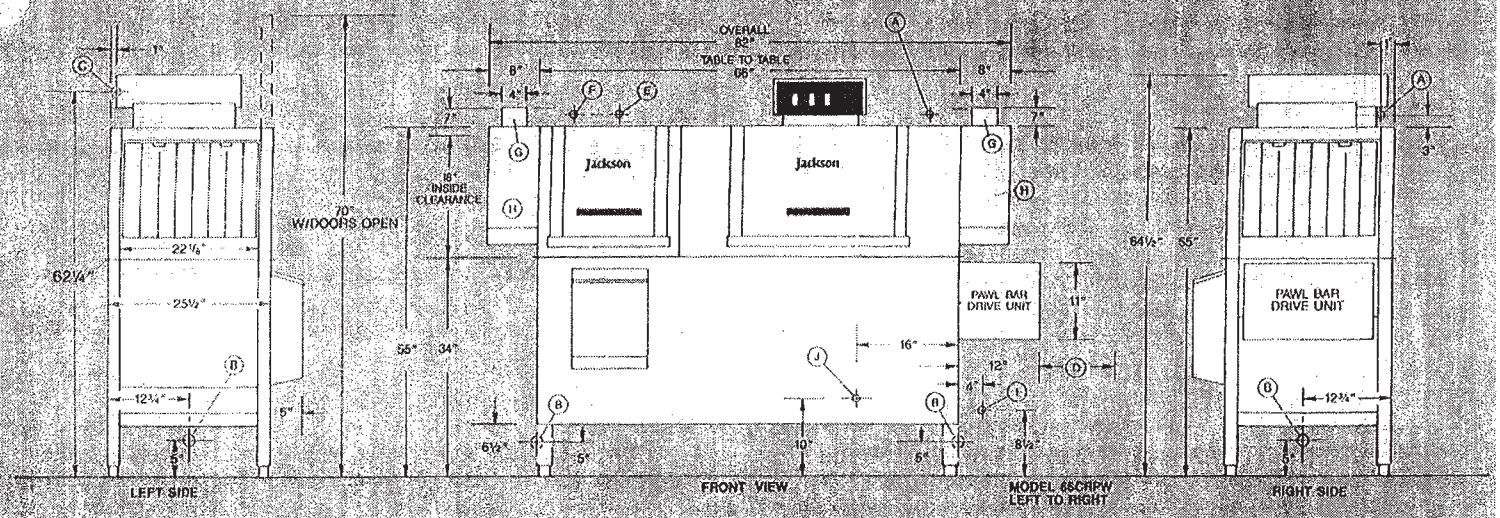
13 KW Electric — High efficiency Firebar™ immersion-type heating element is mounted in wash tank and is protected by a solid state low water cutoff system. Tank temperature is monitored by a PTC thermistor and controlled by fast-reacting, solid state thermostats. Available in 208V/60Hz/1 or 3 Phase, 230V/60Hz/1 or 3 Phase, 460V/60Hz/3 Phase. 50Hz available in these voltages as well as 380V/50Hz/3 Phase. 50Hz voltages are not UL listed.

Regulated Steam Coil — Stainless steel steam coil is mounted in wash tank and is protected by a solid state low water cutoff system. Incoming steam passes through a steam pressure regulator and "Y" strainer. A steam solenoid valve regulates flow of steam through coil. Tank temperature is monitored by a PTC thermistor and controlled by a fast-reacting, solid state thermostat. Requires 10-15 PSI flowing steam supply. Install with steam pressure regulator if steam supply exceeds 15 PSI.

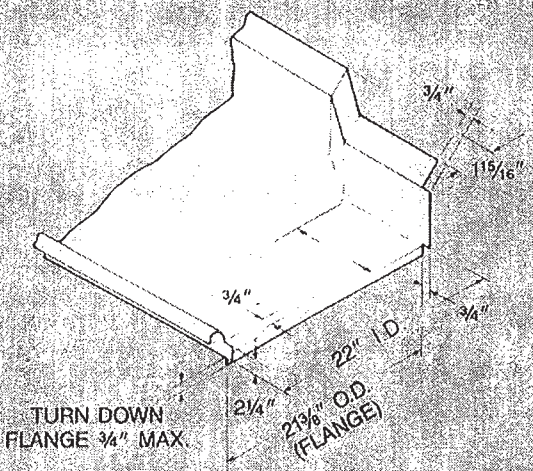


OPTIONAL VENT COWL COLLAR DETAIL

66 SERIES
LEFT TO RIGHT



Recommended Table Fabrication



Note: *Tub will accept a table flange up to 24⅛".*

Legend To Drawings

A—Machine water inlet ½" I.P.S., 180°F min. 58" above finished floor.

B—Drain connection 2" I.P.S. Drain can be connected to either end.

C—Electrical connection.

D—Allow 12" for removal of pawl bar drive unit cover.

E—Pre-wash water inlet ½" I.P.S. 140°F.

F—Cold water thermostat option ½" I.P.S. ambient temperature water connection.

G—Vent collar 4" x 16" x 7" tall, optional.

H—Vent cowl, standard.

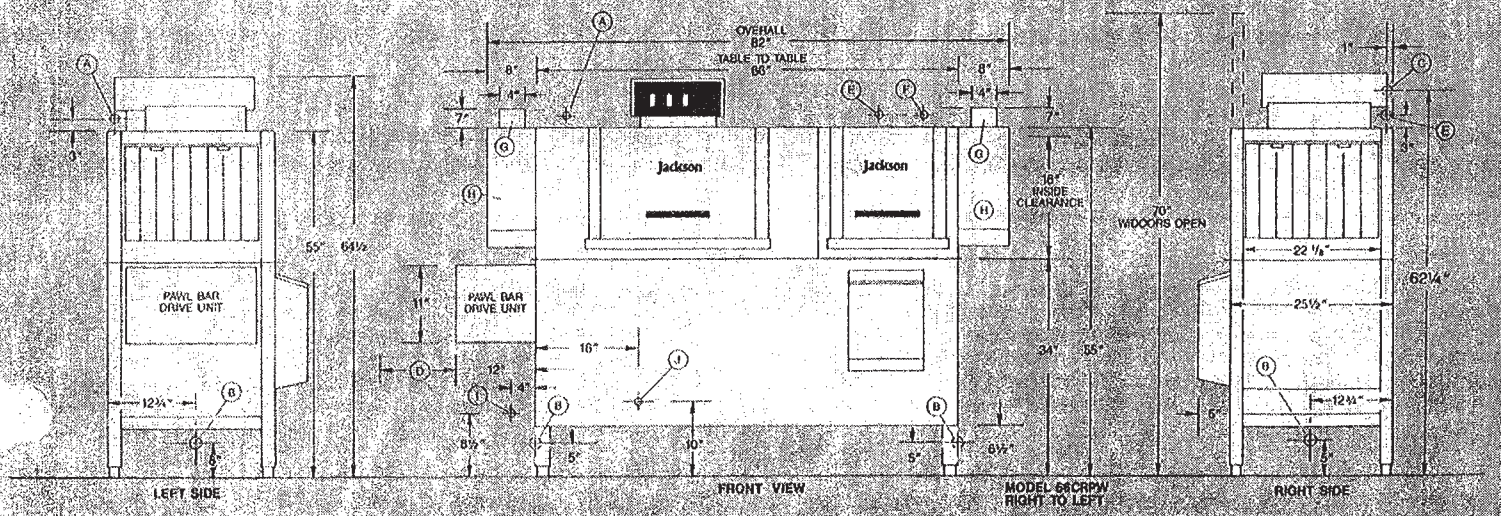
*I—Incoming steam connection, optional. ¾" FPT. (Gate valve supplied.)

*J—Condensate return connection ¾" FPT. (Return to boiler or open drain.)

**Steam tank heat only.*

Note: *All dimensions from floor are ± ½" due to adjustable bullet feet.*

66 SERIES
RIGHT TO LEFT



66 SERIES
Single Tank Rack Conveyor
Optional Features and Accessories

Automatic Tank Fill — includes solenoid valves that are controlled by water level sensors mounted in the pre-wash and wash tanks. Function is activated by pressing a designated switch on the control panel.

Booster Heaters:

30 KW Electric Booster Heater — boosts incoming 140°F water to 180°F for sanitizing rinse. Custom features include castone-lined tank, low water cutoff, pressure relief valve, pressure reducing valve and two temperature/pressure gauges. Preplumbed to be located at output side of machine. Unit is supplied with a stainless steel stand with 6" legs and bullet feet. Unless specified otherwise, electrical characteristics of the booster heater will be the same as that of the dishwasher.

Steam Booster Heater — sized for a 40°F temperature rise. Therefore, unit must be connected to a 140°F waterline in order to insure 180°F minimum sanitizing requirements. The steam booster heater is designed to operate at flowing steam pressures from 10 PSIG to 15 PSIG and is equipped with a steam pressure reducing valve. Unit is externally mounted on a stainless steel base with 6" stainless steel legs and bullet-type feet. Pre-plumbed for connection at output end of a 66 Series machine.

Cold Water Thermostat — provides an accurate method of controlling pre-wash tank heat to prevent "baking on" food soil in the pre-wash section. This feature is especially valuable for high protein soil loads such as eggs and cheese.

50-Cycle Electrical Characteristics — are available in 280V/1 or 3 Ph, 230V/1 or 3 Ph, 380V/3 Ph and 460V/3 Ph.

Higher Than Standard Hood — 5" increase in interior clearance through machine to 23". Allows washing a variety of larger-sized trays and bun pans.

Incoming Water Pressure Reducing Valve — factory-installed on incoming plumbing system. Not required when ordering the electric booster heater option.

Incoming Water Pressure Regulating Kit — factory-installed package consisting of a pressure reducing valve with a built-in line strainer, 0-60 PSI gauge and water shock arrestor. Gives full range control over flow pressure, water consumption and damaging water hammer.

Sideloader — is factory-installed on input end of machine. This option allows the machine to be installed in a corner and maximize the use of dishroom space. It is available both hooded and unhooded.

Table Limit Switch — factory-wired to machine and mounted to the backsplash of the table in the field. Prevents damage to conveyor drive system, racks and dishes due to racks backing up on the output end of the machine. Highly recommended for clean dishtables less than 10 feet in length.

Vent Cowl Collar — 4" x 16" x 7" high collar installed in the vent cowl to allow easy connection of "pant-leg" type exhaust duct. Includes an adjustable and lockable damper flap for fine-tuning exhaust system.

66 SERIES ELECTRICAL DATA	APPROXIMATE TOTAL LOAD AMPERES					
	ELECTRIC TANK HEAT MODELS — 66CERPW 66CELRPW		STEAM TANK HEAT MODELS — 66CSRPW 66CSLRPW		OPTIONAL 30 KW ELECTRIC BOOSTER HEATER	
	1-PH	3-PH	1-PH	3-PH	1-PH	3-PH
208 VOLTS	79	46	15	15	173	100
230 VOLTS	72	42	15	15	157	90
380 VOLTS	N/A	24	N/A	9	N/A	55
460 VOLTS	N/A	20	N/A	7	N/A	45

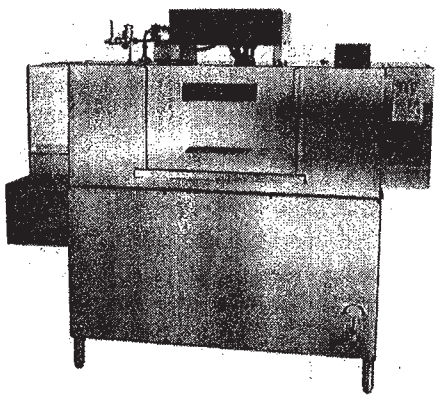
SHORT FORM SPECIFICATIONS AND PRODUCT DESCRIPTION
66 SERIES RACK CONVEYOR DISHWASHER — ITEM #_____

Shall be Jackson 66 Series, Single-Tank Rack Conveyor Dishwasher with Recirculating Pre-Wash. Sanitization shall be accomplished by using _____ a high temperature (180°F min.) rinse, _____ a low temperature (140°F min. + chlorine) rinse. Electrical characteristics shall be _____ 208V, _____ 230V, _____ 380V (50Hz only), _____ 460V/ _____ 60Hz, _____ 50 Hz/ 1 Phase (208V and 230V only), _____ 3 Phase. Tank heating shall be _____ 13 KW electric element, _____ ¾" steam coil. Direction of rack flow shall be _____ left to right, _____ right to left. Frame, hood and tank shall be constructed of 18-8 304 series stainless steel. 14 gauge material shall be used in the construction of the tank. Pre-wash section shall be equipped with upper and lower spray arms. Unit shall be supplied with stainless steel, adjustable, bullet-type feet for leveling, stainless steel front panel, stainless steel vent cowls with strip-type curtains on each end, lever-operated drain, 4 peg-type dish racks and 2 open-type combination racks as standard equipment. Unit shall be equipped with "Energy Guard" automatic controls and a manual control backup system. Unit shall be NSF listed with a final rinse flow rate not to exceed 288 GPH @ 20 PSIG flow pressure, an operating capacity of not less than 205 racks per hour and a conveyor speed not less than 5.70 feet per minute. Final rinse water consumption shall not exceed 1.4 gallons per rack.

Unit shall have the following features as optional extras: _____ automatic tank fill, _____ 30 KW externally-mounted electric booster heater to provide a 40°F temperature rise, _____ steam booster heater to provide a 40°F temperature rise, _____ cold water thermostat for pre-wash section, _____ 5" higher than standard hood, _____ incoming water pressure reducing valve, _____ incoming water pressure reducing kit, _____ hooded sideloader, _____ unhooded sideloader, _____ table limit switch, _____ vent cowl collar at input end of unit, _____ vent cowl collar at output end of unit.

SINGLE-TANK RACK CONVEYOR

DISHWASHER



54 SERIES

Jackson's 54 Series is made up of the following models.

MODEL 54CE - Electric tank heat, Hi-temp rinse
MODEL 54CEL - Electric tank heat, Low-temp rinse
MODEL 54CS - Steam coil tank heat, Hi-temp rinse
MODEL 54CSL - Steam coil tank heat, Low-temp rinse

STANDARD FEATURES

- High output with 270 racks per hour.
- Can be ordered as an energy efficient high temperature sanitizing or low temperature (chemical) sanitizing model. Low temperature model has a passivated tank for extra chemical resistance.
- Heavier gauge construction for extra ruggedness and durability. 14 gauge tank vs. 16 gauge on competitive machines.
- Stainless steel frame, legs, bullet feet, vent cowls and front panel are all standard features, not optional extras.
- Uses less energy than competitive machines.
- Low water consumption: only 1.3 gallons per rack.
- Lower water consumption allows the use of a lower KW booster when operated as a high temperature unit. For a 40°F rise a 36kw booster heater is recommended.
- Exclusive "Energy Guard" control system and excellent separation of the wash and rinse sprays, produces superior results.
- Convenient, externally operated, lever drains.
- Positive manual fill valve. Automatic fill is available as an option.
- A.S.S.E. approved vacuum breaker.

MANDATORY SPECIFICATIONS

The following information must be specified when placing an order.

Sanitizing Method: (Select One)
Hi-temp sanitizing Low-temp (chemical) sanitizing

Voltage: (Select One)
208V/60Hz/1 Ph 230V/60Hz/1 Ph
208V/60Hz/3 Ph 230V/60Hz/3 Ph
460V/60Hz/3 Ph
50 Hz also available in these voltages as well as 380V/50Hz/3 Ph

Tank Heat: (Select One)
15 KW Electric - Immersion-type heating elements with primary and secondary low water protection.
Regulated Steam - Wash tank steam coils with low water protection. Requires 10-15 PSI steam supply. Above 15 PSI install a steam pressure regulator. Do not use steam coils with less than 10 PSI flowing steam pressure.

Direction of Rack Flow: (Select One)
From Right to Left From Left to Right

SPECIFICATIONS

	MODELS 54CE & 54CS	MODELS 54CEL & 54CSL
Operating Capacity		
Racks per Hour	270	270
Dishes or glasses per Hour	6750	6750
Operating Requirements		
Incoming Waterline Size	1/2" IPS	1/2" IPS
Flow Pressure	20 PSIG	20 PSIG
Flow Rate @ 20 PSI	5.85 GPM	5.85 GPM
Final Rinse Consumption @ 20 PSI flow pressure	351 GPH	351 GPH
Final Rinse Temperature	180-195°F	140-150°F
Wash Tank Temperature	160°F	140°F
Electric Tank Heat		
Models 54CE & 54CEL	15KW	
Steam Coil Tank Heat		
Models 54CS & 54CSL		
Steam coil size	3/4" IPS	
Steam flow pressure requirement	10-15 PSIG	
Steam Consumption @ 15PSI	72 Lbs/Hr	
Dimensions		
Length - between dishtables	54"	
Width	25-1/2"	
Maximum Dish Clearance	18"	
Venting		
Soiled End	200 CFM	
Clean End	400 CFM	
Tank Capacity		
Wash Tank	24 Gals.	
Pumps and Motors		
Wash Motor	2 HP	
Wash Pump Capacity	300 GPM	
Conveyor Motor	1/4 HP	
Conveyor Speed (feet/minute)	7.5	
Standard Racks - 19-3/4" X 19-3/4"		
Dish racks (peg type)	4	
Combination racks (open type)	2	
Shipping Weight (approx.)	670 Lbs.	
Shipping Dimensions (L x D x H)	81" x 41" x 77"	
Cubic Feet	148	

All specifications subject to change without notice.

Performance: Fully automatic, single tank, rack conveyor dishwasher designed to wash, rinse and sanitize tableware and utensils commonly associated with the preparation and consumption of food items in a commercial foodservice operation. The unit conveys standard 19-3/4" x 19-3/4" racks through a recirculating wash section where 300 GPM of detergent laden water is pumped over the rack to remove food soil. The rack is then conveyor driven into a rinse section where a fresh water final rinse spray system removes residual detergent and sanitizes. Sanitization can be accomplished by one of two methods: 1) high temperature sanitization or 2) low temperature sanitization. For high temperature sanitization the unit must be installed on a potable water line capable of supplying 351 gallons per hour of water at: 180° F. minimum, 195° F. maximum. In some cases an external booster heater sized for the necessary temperature rise must be installed to reach this sanitizing temperature requirement. For low temperature sanitization the unit must be installed on a potable water line capable of supplying 351 gallons per hour of water at: 140° F. minimum, 150° F. maximum. A NSF recognised chemical feeder system must be supplied and installed by others to inject 50 PPM minimum sodium hypochlorite (chlorine) to meet sanitization requirements.

Caution: Use of sodium hypochlorite (chlorine) may have an adverse effect on materials including, but not limited to, silver and silver plate, pewter and aluminum.

Construction: All stainless steel components are 18-8 304 series stainless steel. Frame is 2" x 2" x 1/8" stainless steel angle satin finish. Tank is formed and heliarc welded 14 gauge #3 finish. The wash tank on units specified for use as low temperature sanitizing will be put through a passivation process to increase chemical resistance. Hood is 16 gauge #3 finish. Legs and feet are stainless steel and are adjustable ± 1/2".

Wash Tank: 24 gallon capacity with skimming type overflow tube. Lever operated drain valve for draining tank. Washing action is accomplished by recirculating detergent laden water in the wash tank through upper and lower wash arms to strip away food soil. 7/8" round knockouts are provided to allow easy installation of detergent concentration sensor and dispenser tube by others. A 24" span of 64 wash jets provides unsurpassed wash pattern. Tank and hood design provides 20" of distance between wash and rinse jets to insure excellent separation of wash and rinse sprays. This greater separation virtually eliminates spotting and poor results caused by wash water splashing into rinse section. Makeup water comes from the final rinse reservoir and is spilled into wash tank at a controlled rate. (approximately 2 g.p.m.)

Final Rinse: Rinse water enters the machine through a brass "Y" strainer and solenoid valve and approved vacuum breaker (supplied) and is plumbed to upper and lower final rinse arms located at the output end of the machine. Two dispensing point locations (1/4" NPT plugs) are provided for dispensing equipment connection by others. One point should be used for rinse agent injection into the final rinse water. The other connection point should be used for injection of sodium hypochlorite on low temperature sanitizing models.

Wash Pump: is integral with motor and is flange mounted to wash tank and manifold. Wash water is recirculated from the tank, through the pumping system and back to the tank at the rate of 300 GPM

Wash Pump Motor: is a 2 HP open, drip-proof type. Capacitor start, induction run with bimetallic thermal overload protection. Motor shaft is supported by permanently lubricated, grease packed ball bearings.

Conveyor: Center mounted pawl bar with counterweighted, wide surface pawls is driven by 1/4 HP motor and worm drive reduction gear unit. Motor is open, drip-proof type and is thermally protected. Pawl bar drive unit is mounted at the output end of machine and is enclosed with removable stainless steel cover. Conveyor speed is 7.5 feet per minute.

Vent Cowls: Unit comes standard with 8" vent cowls on each end. Tops of cowls have 4" x 16" openings (covered with removable plates) for connection to exhaust duct. Available at additional cost are 4" x 16" x 7" high vent cowl collars with adjustable and lockable damper style flaps.

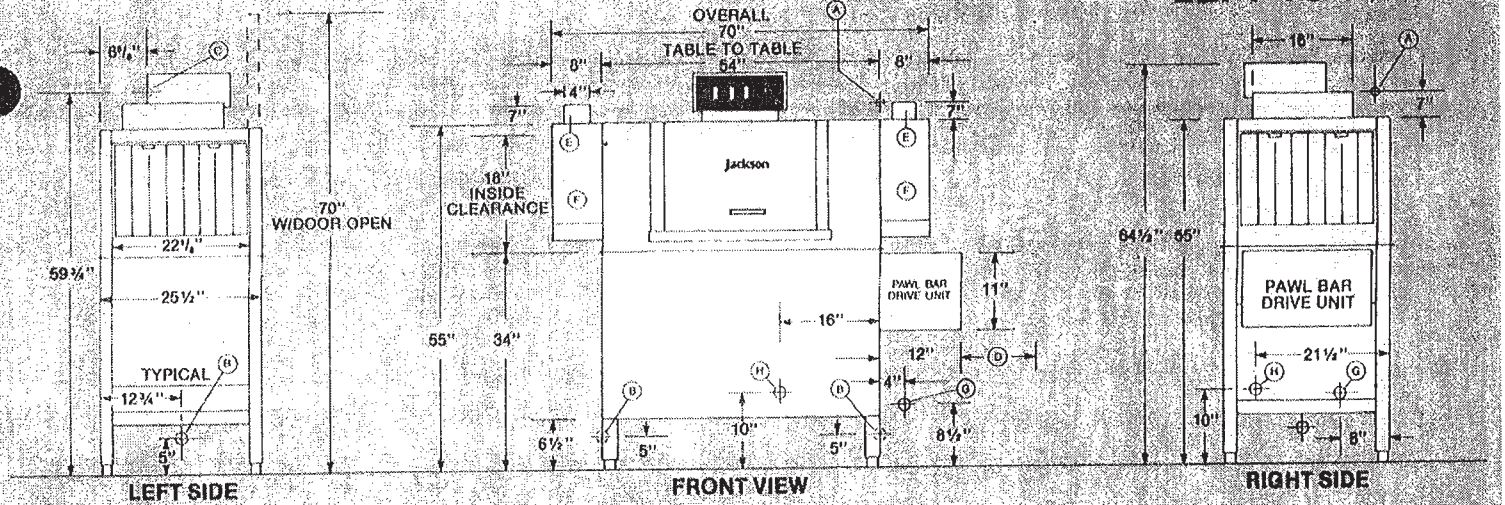
MANDATORY SPECIFICATIONS

Tank Heating Equipment

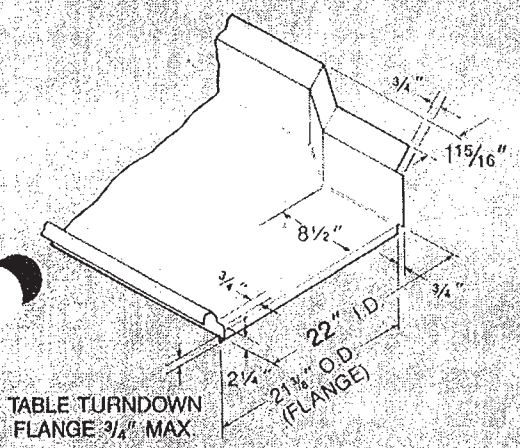
15 KW Electric - High efficiency Firebar™ immersion type heating element is mounted in wash tank and is protected by a solid state low-water cutoff system. Tank temperature is monitored by a PTC thermistor and controlled by fast reacting, solid state thermostats. Available in 208V/60Hz/1 or 3 Phase, 230V/60Hz/1 or 3 Phase, 460V/60Hz/3 Phase. 50Hz available in these voltages as well as 380V/50Hz/3 Phase. 50Hz voltages are not UL listed.

Regulated Steam Coil - Stainless steel steam coil is mounted in wash tank and is protected by a solid state low-water cutoff system. Incoming steam passes through a steam pressure regulator and "Y" strainer. A steam solenoid valve regulates flow of steam through coil. Tank temperature is monitored by a PTC thermistor and controlled by a fast reacting, solid state thermostat. Requires 10-15 PSI flowing steam supply. Install with steam pressure regulator if steam supply exceeds 15 PSI. Do not use coils with flowing steam pressures less than 10 PSI.

54 SERIES LEFT TO RIGHT



Recommended Table Fabrication



Note: *Tub will accept a table flange up to 24⅞".*

Legend To Drawings

A—Machine water inlet ½" I.P.S., 180°F min. 58" above finished floor.

B—Drain connection 2" I.P.S. Drain can be connected to either end.

C—Electrical connection.

D—Allow 12" for removal of pawl bar drive unit cover.

E—Vent collar 4" × 16" × 3" tall, optional.

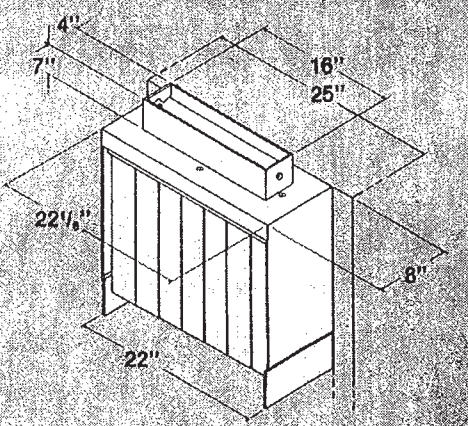
F—Vent cowl, standard.

*G—Incoming steam connection, optional. ¾" FPT. (Gate valve supplied.)

*H—Condensate return connection ¾" FPT. (Return to boiler or open drain.)

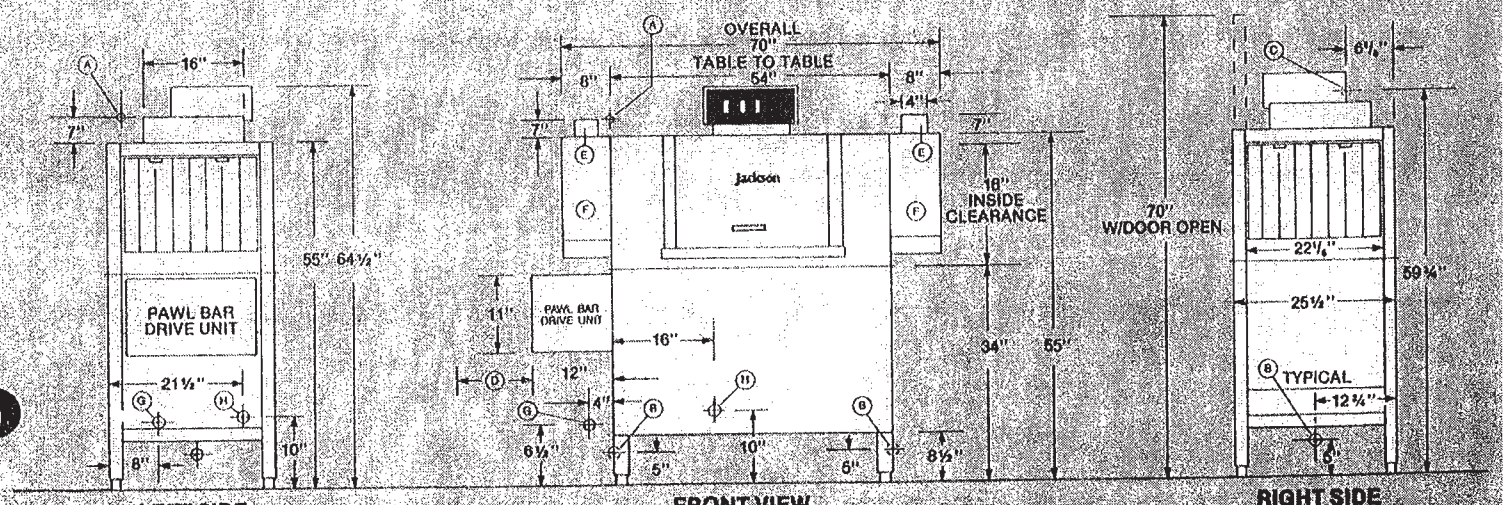
** Steam Tank Heat Only*

Optional Vent Cowl Collar Detail



Note: *All dimensions from floor are ± ½" due to adjustable bullet feet.*

54 SERIES RIGHT TO LEFT



54 SERIES
Single Tank Rack Conveyor
Optional Features and Accessories

Automatic Tank Fill - includes solenoid valve that is controlled by water level sensors mounted in wash tank. Function is activated by pressing a designated switch on the control panel.

Booster Heaters:

Electric:
36 KW - for a 40°F Rise
45 KW - for a 50°F Rise

Boosts incoming water temperature for sanitizing rinse. Custom features include castone lined tank, low water cutoff, pressure relief valve, pressure reducing valve and two temperature/pressure gauges. Preplumbed to be located at output side of machine. Unit is supplied with a stainless steel frame with 6" legs and bullet feet. Unless specified otherwise, electrical characteristics of the booster heater will be the same as that of the dishwasher.

Steam Booster Heater - sized for a 40°F temperature rise. Therefore, unit must be connected to a 140°F waterline in order to insure 180°F minimum sanitizing requirements. The steam booster heater is designed to operate at flowing steam pressures from 10 PSIG to 15 PSIG and is equipped with a steam pressure reducing valve. Unit is externally mounted on a stainless steel base with 6" stainless steel legs and bullet type feet. Pre-plumbed for connection at output end of machine. Do not use steam booster with flowing steam supply pressure less than 10 PSI.

50 Cycle Electrical Characteristics - are available in 208V/1 or 3 Ph, 230V/1 or 3 Ph, 380V/3 Ph and 460V/3 Ph.

Higher Than Standard Hood - 5" increase in interior clearance through machine to 23". Allows washing a variety of larger sized trays and bun pans.

Incoming Water Pressure Reducing Valve - factory installed on incoming plumbing system. Not required when ordering the electric booster heater option.

Incoming Water Pressure Regulating Kit - factory installed package consisting of a pressure reducing valve with a built-in line strainer, 0-60 psi gauge and water shock arrestor. Gives full range control over flow pressure, water consumption and damaging water hammer.

Sideloader - is factory installed on input end of machine. This option allows the machine to be installed in a corner and maximize the use of dishroom space. It is available both hooded and unhooded.

Table Limit Switch - factory wired to machine and mounted to the backsplash of the table in the field. Prevents damage to conveyor drive system, racks and dishes due to racks backing up on the output end of the machine. Highly recommended for clean dishtables less than 10 feet in length.

Vent Cowl Collar - 4" X 16" X 7" high collar installed in the vent cowl to allow easy connection of "pant-leg" type exhaust duct. Includes an adjustable and lockable damper flap for fine tuning exhaust system.

54 SERIES ELECTRICAL DATA	APPROXIMATE TOTAL LOAD AMPERES					
	ELECTRIC TANK HEAT		STEAM TANK HEAT		OPTIONAL 36KW ELECTRIC BOOSTER HEATER	
	MODELS 54CE & 54CEL		MODELS 54CS & 54CSL			
	1-PH	3-PH	1-PH	3-PH	1-PH	3-PH
208 VOLTS	87	51	14	9	173	100
230 VOLTS	79	47	14	9	156	90
380 VOLTS	N/A	28	N/A	5	N/A	55
460 VOLTS	N/A	23	N/A	5	N/A	45

SHORT FORM SPECIFICATIONS AND PRODUCT DESCRIPTION
54 SERIES RACK CONVEYOR DISHWASHER - ITEM#_____

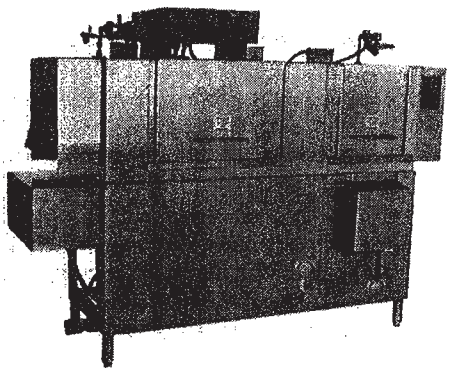
Shall be Jackson 54 Series, Single-Tank Rack Conveyor Dishwasher. Sanitization shall be accomplished by using _____a high temperature (180°F min.) rinse, _____a low temperature (140°F min. + chlorine) rinse. Electrical characteristics shall be _____208V, _____230V, _____380V(50Hz Only), _____460V/ _____60Hz, _____50Hz/_____1 Phase(208V & 230V Only), _____3 Phase. Tank heating shall be _____15KW electric element, _____3/4" steam coil. Direction of rack flow shall be _____left to right, _____right to left. Frame, hood and tank shall be constructed of 18-8 304 series stainless steel. 14 gauge material shall be used in the construction of the tank. Unit shall be supplied with stainless steel adjustable, bullet-type feet for leveling, stainless steel front panel, stainless steel vent cowls with strip-type curtains on each end, lever operated drain, 4 peg-type dish racks and 2 open-type combination racks as standard equipment. Unit shall be equipped with "Energy Guard" automatic controls and a manual control backup system. Unit shall be NSF listed with a final rinse flow rate not to exceed 351 GPM @ 20 psig flow pressure, an operating capacity of not less than 270 racks per hour and a conveyor speed not less than 7.5 feet per minute. Final rinse water consumption shall not exceed 1.3 gallons per rack.

Unit shall have the following features as optional extras: _____automatic tank fill, _____36KW externally mounted electric booster heater to provide a 40°F temperature rise, _____45KW externally mounted electric booster heater to provide a 50°F temperature rise, _____steam booster heater to provide a 40°F temperature rise, _____5" higher than standard hood, _____incoming water pressure reducing valve, _____incoming water pressure reducing kit, _____hooded sideloader, _____unhooded sideloader, _____table limit switch, _____vent cowl collar at input end of unit, _____vent cowl collar at output end of unit.

7610-200-18-00

SINGLE-TANK RACK CONVEYOR

DISHWASHER



76 SERIES

Jackson's 76 Series is made up of the following models.

MODEL 76CERPW - Electric tank heat, Hi-temp rinse

MODEL 76CELRPW - Electric tank heat, Low-temp rinse

MODEL 76CSRPW - Steam coil tank heat, Hi-temp rinse

MODEL 76CSLRPW - Steam coil tank heat, Low-temp rinse

STANDARD FEATURES

- Recirculating pre-wash feature virtually eliminates manual pre-rinsing and saves on labor.
- High output of 270 racks per hour.
- Can be ordered as an energy efficient high temperature sanitizing or low temperature (chemical) sanitizing model. Low temperature model has a passivated tank for extra chemical resistance.
- Heavier gauge construction for extra ruggedness and durability. 14 gauge tank vs. 16 gauge on competitive machines.
- Stainless steel frame, legs, bullet feet, vent cowls and front panel are all standard features, not optional extras.
- Uses less energy than competitive machines.
- Low water consumption: only 1.3 gallons per rack.
- Lower water consumption allows the use of a lower KW booster when operated as a high temperature unit. For a 40°F rise a 36 KW booster heater is recommended.
- Exclusive "Energy Guard" control system and excellent separation of the wash and rinse sprays, produces superior results.
- Convenient, externally operated, lever drains.
- Positive manual fill valve. Automatic fill is available as an option.
- A.S.S.E. approved vacuum breaker.

MANDATORY SPECIFICATIONS

The following information must be specified when placing an order.

Sanitizing Method: (Select One)
Hi-temp sanitizing — Low-temp (chemical) sanitizing

Voltage: (Select One)
208V/60Hz/1 Ph — 230V/60Hz/1 Ph
208V/60Hz/3 Ph — 230V/60Hz/3 Ph
460V/60Hz/3 Ph
50 Hz also available in these voltages as well as 380V/50Hz/3 Ph

Tank Heat: (Select One)
15 KW Electric — Immersion-type heating elements with primary and secondary low water protection.
Regulated Steam — Wash tank steam coils with low water protection. Requires 10-15 PSI steam supply. Above 15 PSI install a steam pressure regulator. Do not use steam coils with flowing steam pressures less than 10 PSI.

Direction of Rack Flow: (Select One)
From Right to Left — From Left to Right

SPECIFICATIONS

	MODELS 76CERPW & 76CSRPW	MODELS 76CELRPW & 76CSLRPW
Operating Capacity		
Racks per Hour	270	270
Dishes or Glasses per Hour	6750	6750
Operating Requirements		
Incoming Waterline Size — Pre-Wash	½" IPS	½" IPS
Incoming Waterline Size — Machine	½" IPS	½" IPS
Flow Pressure	20 PSIG	20 PSIG
Flow Rate @ 20 PSI	5.85 GPM	5.85 GPM
Final Rinse Consumption @ 20 PSI Flow Pressure	351 GPH	351 GPH
Final Rinse Temperature	180-195°F	140-150°F
Wash Tank Temperature	160°F	140°F
Pre-Wash Tank Temperature (Maximum)	140°F	140°F
Electric Tank Heat		
Models 76CERPW & 76CELRPW	15 KW	
Steam Coil Tank Heat		
Models 76CSRPW & 76CSLRPW		
Steam Coil Size	¾" IPS	
Steam Flow Pressure Requirement	10-15 PSIG	
Steam Consumption @ 15 PSI	72 Lbs./Hr.	
Dimensions		
Length — between dishtables	76"	
Width — at widest point	33"	
Maximum Dish Clearance	18"	
Venting		
Input End	200 CFM's	
Output End	400 CFM's	
Tank Capacity		
Wash Tank	24 Gals.	
Pre-Wash Tank	12 Gals.	
Pumps and Motors		
Pre-Wash Motor	1 HP	
Pre-Wash Pump Capacity	120 GPM	
Wash Motor	2 HP	
Wash Pump Capacity	300 GPM	
Conveyor Motor	¼ HP	
Conveyor Speed (feet/minute)	7.5	
Standard Racks — 19¾" x 19¾"		
Dish Racks (peg-type)	4	
Combination Racks (open-type)	2	
Shipping Weight (approx.)	900 Lbs.	
Shipping Dimensions (L x D x H)	115" x 41" x 77"	
Cubic Feet	210	

ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

Performance: Fully automatic, single tank, rack conveyor dishwasher with a recirculating pre-wash designed to wash, rinse and sanitize tableware and utensils commonly associated with the preparation and consumption of food items in a commercial foodservice operation. The unit conveys standard 19¾" x 19¾" racks through a recirculating pre-wash section where 120 GPM of water is pumped over the rack to automatically prepare the ware for washing. Next the rack is conveyor-driven into a power wash section where 300 GPM of detergent-laden water is pumped over the ware to remove food soil. Finally, the rack is conveyor-driven into a rinse section where a fresh water final rinse spray system removes residual detergent and sanitizes. Sanitization can be accomplished by one of two methods: 1) high temperature sanitization, or 2) low temperature sanitization. For high temperature sanitization, the unit must be installed on a potable water line capable of supplying 351 gallons per hour of water at: 180°F. minimum, 195°F. maximum. In some cases an external booster heater sized for the necessary temperature rise must be installed to reach this sanitizing temperature requirement. For low temperature sanitization, the unit must be installed on a potable water line capable of supplying 351 gallons per hour of water at: 140°F. minimum, 150°F. maximum. An NSF listed chemical feeder system must be supplied and installed by others to inject 50 PPM minimum sodium hypochlorite (chlorine) to meet sanitization requirements.

***Caution:** Use of sodium hypochlorite (chlorine) may have an adverse effect on materials including, but not limited to, silver and silver plate, pewter and aluminum.*

Construction: All stainless steel components are 18-8 304 series stainless steel. Frame is 2" x 2" x 1/8" stainless steel angle satin finish. Tank is formed and heliarc welded 14 gauge #3 finish. The wash tank on units specified for use as low temperature sanitizing will be put through a passivation process to increase chemical resistance. Hood is 16 gauge #3 finish. Legs and feet are stainless steel and are adjustable ± ½".

Pre-Wash Tank: 12-gallon capacity with skimming-type overflow tube and large externally removable scrap basket. Pre-washing action is accomplished by pumping the water in the pre-wash tank through upper and lower spray arms to prepare the ware for the wash. Make-up water comes from detergent wash.

Wash Tank: 24-gallon capacity. Lever-operated drain valve for draining tank. Washing action is accomplished by recirculating detergent-laden water in the wash tank through upper and lower wash arms to strip away food soil. 7/8" round knockouts are provided to allow easy installation of detergent concentration sensor and dispenser tube by others. A 24" span of 64 wash jets provides unsurpassed wash pattern. Tank and hood design provides 20" of distance between wash and rinse jets to insure excellent separation of wash and rinse sprays. This greater separation virtually eliminates spotting and poor results caused by wash water splashing into rinse section. Make-up water comes from the final rinse reservoir and is spilled into wash tank at a controlled rate (approx. 2 GPM).

Final Rinse: Rinse water enters the machine through a brass "Y" strainer and solenoid valve and approved vacuum breaker (supplied) and is plumbed to upper and lower final rinse arms located at the output end of the machine. Two dispensing point locations (¼" NPT plugs) are provided for dispensing equipment connection by others. One point should be used for rinse agent injection into the final rinse water. The other connection point should be used for injection of sodium hypochlorite on low temperature sanitizing models.

Pre-Wash Pump: is integral with motor and mounted to the machine's frame. The pump intake is plumbed to the pre-wash tank and is protected by a removable screen. The output side of the pump is plumbed to upper and lower spray arms. The pre-wash pump recirculates 120 GPM over the rack of ware.

Pre-Wash Pump Motor: is a 1 HP open drip-proof type. Capacitor start, induction run with bi-metallic thermal overload protection. Motor shaft is supported by permanently-lubricated, grease-packed ball bearings.

Wash Pump: is integral with motor and is flange-mounted to wash tank and manifold. Wash water is recirculated from the tank, through the pumping system and back to the tank at the rate of 300 GPM.

Wash Pump Motor: is a 2 HP open drip-proof type. Capacitor start, induction run with bi-metallic thermal overload protection. Motor shaft is supported by permanently-lubricated, grease-packed ball bearings.

Conveyor: Center-mounted pawl bar with counter-weighted, wide surface pawls is driven by ¼ HP motor and worm drive reduction gear unit. Motor is open, drip-proof type and is thermally protected. Pawl bar drive unit is mounted at the output end of machine and is enclosed with removable stainless steel cover. Conveyor speed is 7.5 feet per minute.

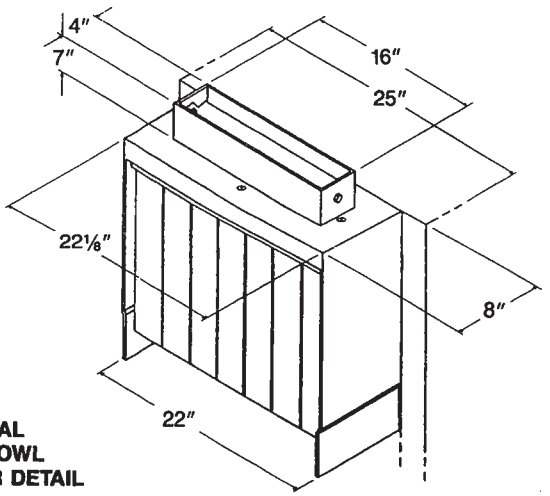
Vent Cowls: Unit comes standard with 8" vent cowls on each end. Tops of cowls have 4" x 16" openings (covered with removable plates) for connection to exhaust duct. Available at additional cost are 4" x 16" x 7" high vent cowl collars with adjustable and lockable damper-style flaps.

MANDATORY SPECIFICATIONS

Tank Heating Equipment

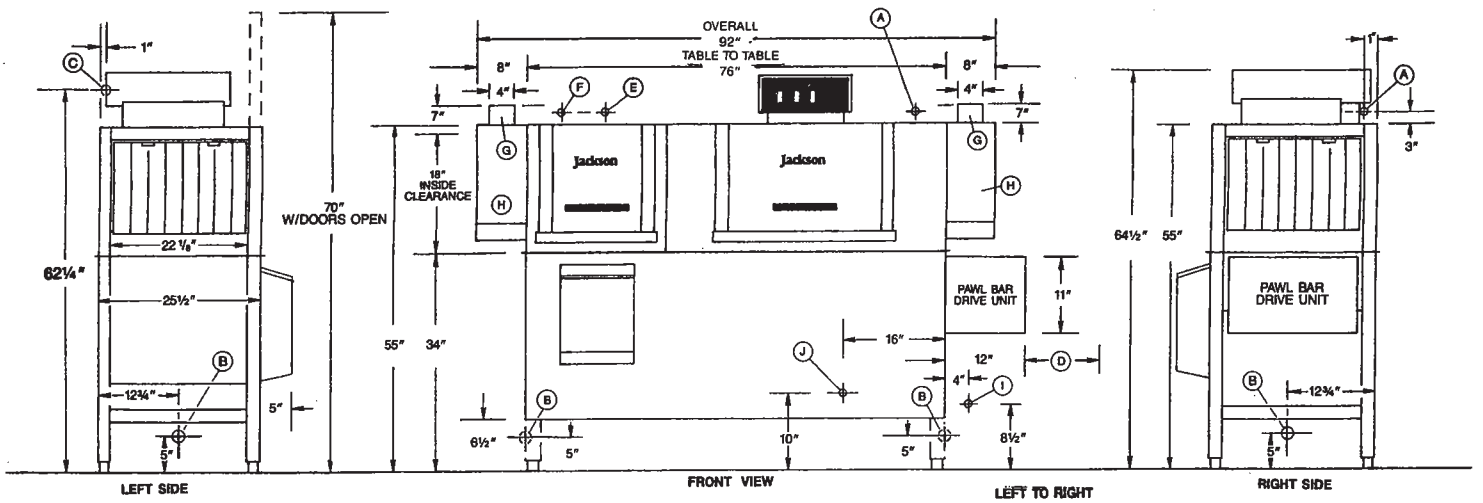
15 KW Electric — High efficiency Firebar™ immersion-type heating element is mounted in wash tank and is protected by a solid state low water cutoff system. Tank temperature is monitored by a PTC thermistor and controlled by fast-reacting, solid state thermostats. Available in 208V/60Hz/1 or 3 Phase, 230V/60Hz/1 or 3 Phase, 460V/60Hz/3 Phase. 50Hz available in these voltages as well as 380V/50Hz/3 Phase. 50Hz voltages are not UL listed.

Regulated Steam Coil — Stainless steel steam coil is mounted in wash tank and is protected by a solid state low water cutoff system. A steam solenoid valve regulates flow of steam through coil. Tank temperature is monitored by a PTC thermistor and controlled by a fast-reacting, solid state thermostat. Requires 10-15 PSI flowing steam supply. Install with steam pressure regulator if steam supply exceeds 15 PSI.

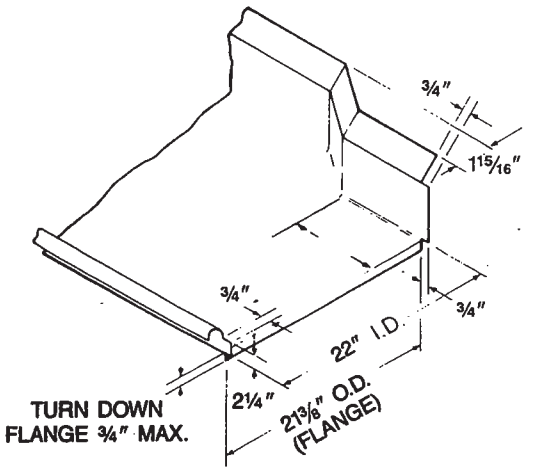


OPTIONAL VENT COWL COLLAR DETAIL

76 SERIES
LEFT TO RIGHT



Recommended Table Fabrication



Note: *Tub will accept a table flange up to 24 7/8".*

Legend To Drawings

A—Machine water inlet ½" I.P.S., 180°F min. 58" above finished floor.

B—Drain connection 2" I.P.S. Drain can be connected to either end.

C—Electrical connection.

D—Allow 12" for removal of pawl bar drive unit cover.

E—Pre-wash water inlet ½" I.P.S. 140°F.

F—Cold water thermostat option ½" I.P.S. ambient temperature water connection.

G—Vent collar 4" x 16" x 7" tall, optional.

H—Vent cowl, standard.

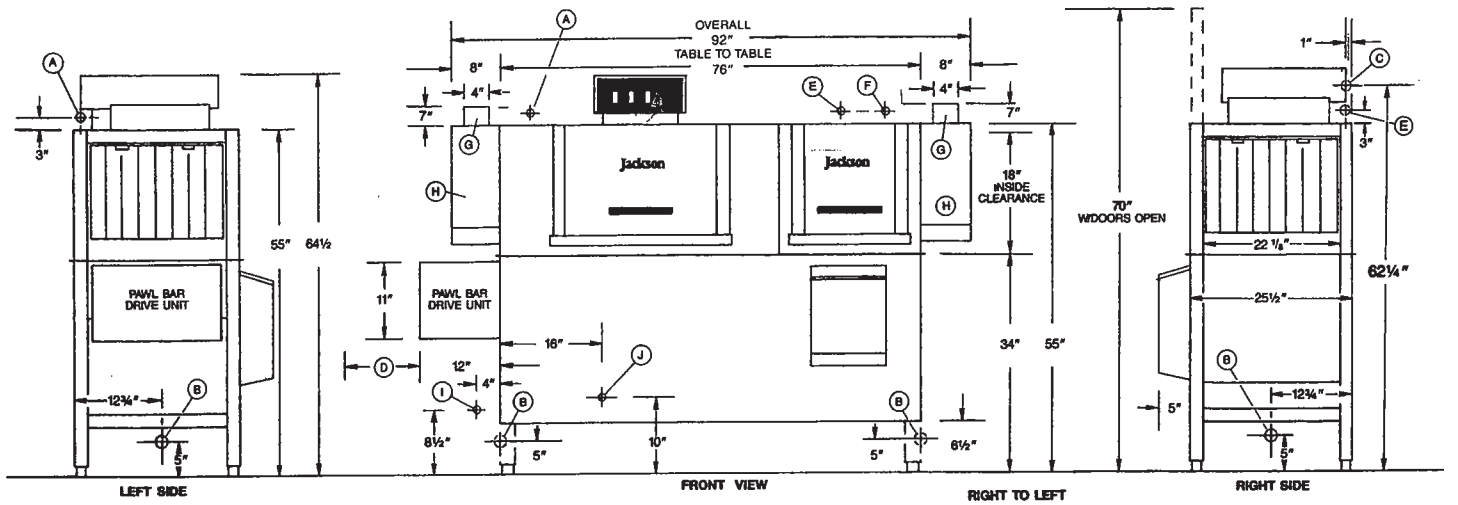
*I —Incoming steam connection, optional. ¾" FPT. (Gate valve supplied.)

*J —Condensate return connection ¾" FPT. (Return to boiler or open drain.)

*Steam tank heat only.

Note: *All dimensions from floor are ± ½" due to adjustable bullet feet.*

76 SERIES
RIGHT TO LEFT



76 SERIES
Single Tank Rack Conveyor
Optional Features and Accessories

Automatic Tank Fill — includes solenoid valves that are controlled by water level sensors mounted in the pre-wash and wash tanks. Function is activated by pressing a designated switch on the control panel.

Booster Heaters:

36 KW — for a 40°F Rise
45 KW — for a 50°F Rise

Boosts incoming water temperature for sanitizing rinse. Custom features include castone-lined tank, low water cutoff, pressure relief valve, pressure reducing valve and two temperature/pressure gauges. Preplumbed to be located at output side of machine. Unit is supplied with a stainless steel stand with 6″ legs and bullet feet. Unless specified otherwise, electrical characteristics of the booster heater will be the same as that of the dishwasher.

Steam Booster Heater — sized for a 40°F temperature rise. Therefore, unit must be connected to a 140°F waterline in order to insure 180°F minimum sanitizing requirements. The steam booster heater is designed to operate at flowing steam pressures from 10 PSIG to 15 PSIG and is equipped with a steam pressure reducing valve. Unit is externally mounted on a stainless steel base with 6″ stainless steel legs and bullet-type feet. Pre-plumbed for connection at output end of a 76 Series machine.

Cold Water Thermostat — provides an accurate method of controlling pre-wash tank heat to prevent "baking on" food soil in the pre-wash section. This feature is especially valuable for high protein soil loads such as eggs and cheese.

50-Cycle Electrical Characteristics — are available in 280V/1 or 3 Ph, 230V/1 or 3 Ph, 380V/3 Ph and 460V/3 Ph.

Higher Than Standard Hood — 5″ increase in interior clearance through machine to 23″. Allows washing a variety of larger-sized trays and bun pans.

Incoming Water Pressure Reducing Valve — factory-installed on incoming plumbing system. Not required when ordering the electric booster heater option.

Incoming Water Pressure Regulating Kit — factory-installed package consisting of a pressure reducing valve with a built-in line strainer, 0-60 PSI gauge and water shock arrestor. Gives full range control over flow pressure, water consumption and damaging water hammer.

Sideloader — is factory-installed on input end of machine. This option allows the machine to be installed in a corner and maximize the use of dishroom space. It is available both hooded and unhooded.

Table Limit Switch — factory-wired to machine and mounted to the backsplash of the table in the field. Prevents damage to conveyor drive system, racks and dishes due to racks backing up on the output end of the machine. Highly recommended for clean dishtables less than 10 feet in length.

Vent Cowl Collar — 4″ x 16″ x 7″ high collar installed in the vent cowl to allow easy connection of "pant-leg" type exhaust duct. Includes an adjustable and lockable damper flap for fine-tuning exhaust system.

76 SERIES ELECTRICAL DATA	APPROXIMATE TOTAL LOAD AMPERES					
	ELECTRIC TANK HEAT MODELS — 76CERPW 76CELRPW		STEAM TANK HEAT MODELS — 76CSRPW 76CSLRPW		OPTIONAL 30 KW ELECTRIC BOOSTER HEATER	
	1-PH	3-PH	1-PH	3-PH	1-PH	3-PH
208 VOLTS	91	53	15	15	173	100
230 VOLTS	83	49	15	15	156	90
380 VOLTS	N/A	29	N/A	9	N/A	55
460 VOLTS	N/A	24	N/A	7	N/A	45

SHORT FORM SPECIFICATIONS AND PRODUCT DESCRIPTION
76 SERIES RACK CONVEYOR DISHWASHER — ITEM #_____

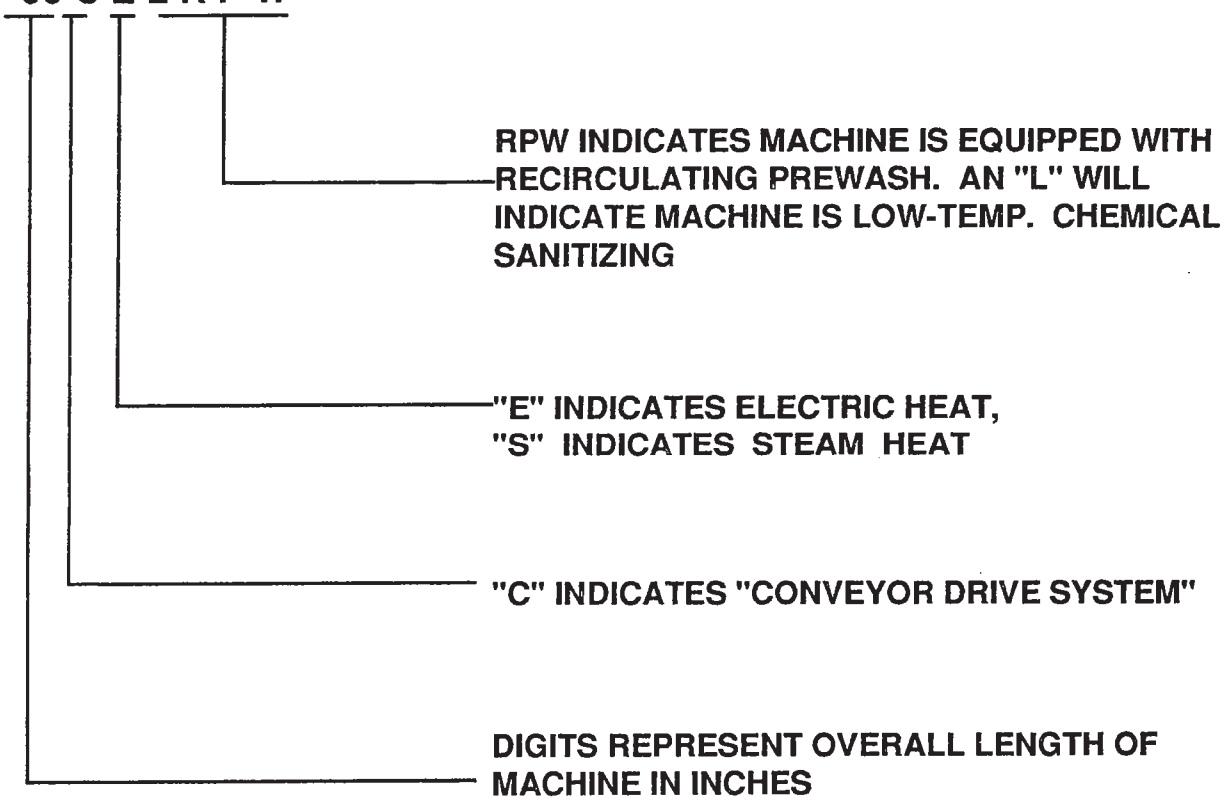
Shall be Jackson 76 Series, Single-Tank Rack Conveyor Dishwasher with Recirculating Pre-Wash. Sanitization shall be accomplished by using _____ a high temperature (180°F min.) rinse, _____ a low temperature (140°F min. + chlorine) rinse. Electrical characteristics shall be _____ 208V, _____ 230V, _____ 380V (50Hz only), _____ 460V/ _____ 60Hz, _____ 50 Hz/ 1 Phase (208V and 230V only), _____ 3 Phase. Tank heating shall be _____ 15 KW electric element, _____ ¾″ steam coil. Direction of rack flow shall be _____ left to right, _____ right to left. Frame, hood and tank shall be constructed of 18-8 304 series stainless steel. 14 gauge material shall be used in the construction of the tank. Pre-wash section shall be equipped with upper and lower spray arms. Unit shall be supplied with stainless steel, adjustable, bullet-type feet for leveling, stainless steel front panel, stainless steel vent cowls with strip-type curtains on each end, lever-operated drain, 4 peg-type dish racks and 2 open-type combination racks as standard equipment. Unit shall be equipped with "Energy Guard" automatic controls and a manual control backup system. Unit shall be NSF listed with a final rinse flow rate not to exceed 351 GPH @ 20 PSIG flow pressure, an operating capacity of not less than 270 racks per hour and a conveyor speed not less than 7.5 feet per minute. Final rinse water consumption shall not exceed 1.3 gallons per rack.

Unit shall have the following features as optional extras: _____ automatic tank fill, _____ 36 KW externally-mounted electric booster heater to provide a 40°F temperature rise, _____ 45 KW externally-mounted electric booster heater to provide a 50°F temperature rise, _____ steam booster heater to provide a 40°F temperature rise, _____ cold water thermostat for pre-wash section, _____ 5″ higher than standard hood, _____ incoming water pressure reducing valve, _____ incoming water pressure reducing kit, _____ hooded sideloader, _____ unhooded sideloader, _____ table limit switch, _____ vent cowl collar at input end of unit, _____ vent cowl collar at output end of unit.

MACHINE NOMENCLATURE

44 C E
54 C E
44 C E L
54 C E L
66 C E R P W
76 C E R P W
66 C E L R P W

MODEL NUMBERS ARE ON DATA PLATE LOCATED ON VENT COWL



UNPACKING

BEFORE ANY CONNECTIONS ARE MADE, VISUALLY CHECK THE ENTIRE MACHINE FOR ANY POSSIBLE SHIPPING DAMAGE. IF ANY DAMAGE IS FOUND, SAVE ALL SHIPPING MATERIAL AND NOTIFY CARRIER AND DEALER AT ONCE.

STEPS :

1. REMOVE ALL PROTECTIVE PACKING MATERIAL FROM MACHINE.

2. PLACE MACHINE IN ITS OPERATING LOCATION AND REMOVE SKID. CAUTION: INSURE WEIGHT OF MACHINE IS EVENLY DISTRIBUTED WHEN REMOVING FROM SKID INTO POSITION.

3. ADJUST ALL (4) ADJUSTABLE BULLET FEET SO CONTACT IS MADE TO FLOOR. SCREW BULLET FEET IN OR OUT TO LEVEL MACHINE WHILE USING LEVEL. LEVEL FRONT OF MACHINE FIRST, THEN REAR, AND SIDES.

ELECTRICAL CONNECTIONS

WARNING: ALL FIELD WIRING CONNECTIONS MUST CONFORM TO THE LOCAL AND NATIONAL ELECTRICAL CODES. INSTALL PROPER CIRCUIT BREAKER, WIRE AND CONDUIT SIZE.

MACHINE DATA PLATE is located at front of machine on vent cowl. Refer to data plate for machine voltage and amperage load.

REFER TO SPECIFICATION SECTION FOR FURTHER DETAILS IF NECESSARY.

STEPS : **REFER TO FIGURE 1**

1. Remove the cover from the electrical control box and lay aside.

2. Install conduit into access hole at rear of electrical control box as shown in figure (1).

3. Route wires and connect to service disconnect switch and grounding lug as shown. WARNING: Insure that machine is properly grounded and complies to all local and national codes. Injury or death may occur from shock if machine is not properly grounded.

4. Make connections to service disconnect switch as marked, L1 and L2 for SINGLE PHASE, VOLTAGE MUST match specified voltage on DATA PLATE, either 208 VAC or 220 VAC.

   For THREE PHASE, make connections to L1, L2 AND L3. Voltage must match specified voltage in DATA PLATE, either 208 VAC, 220 VAC or 460 VAC.

DO NOT APPLY POWER AT THIS TIME --- PROCEED TO VOLTAGE CHECK

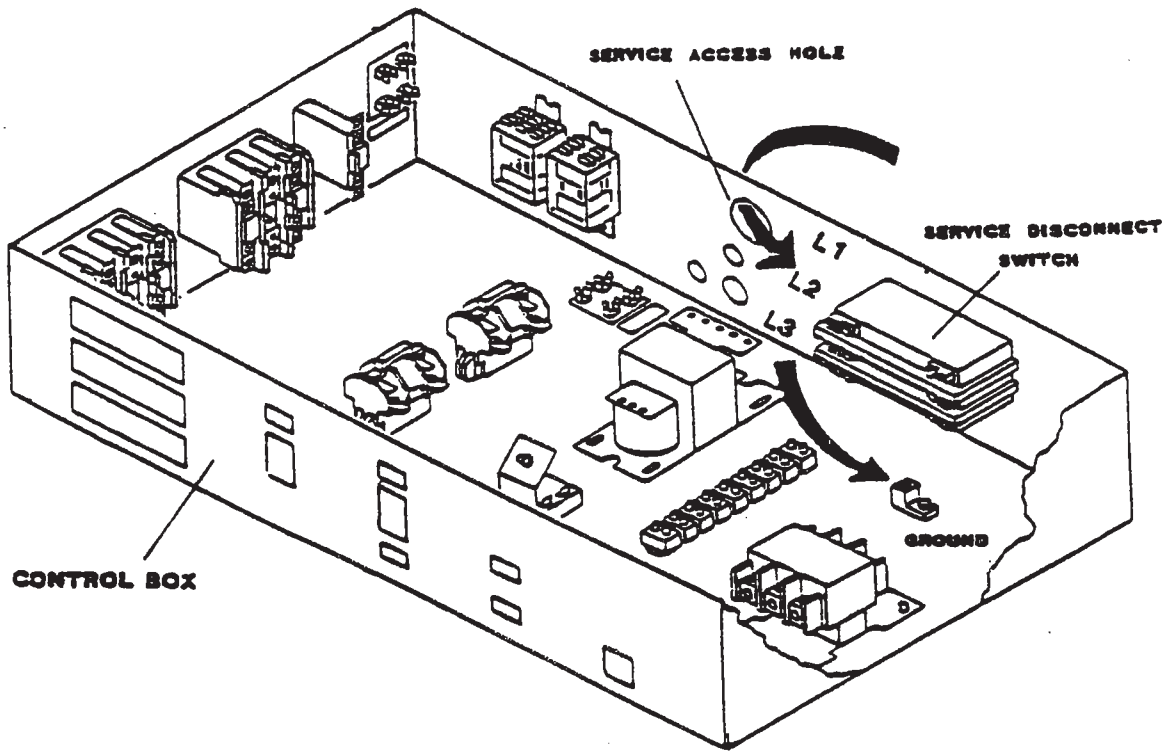


FIGURE 1

CONTROL BOX ELECTRICAL CONNECTIONS

VOLTAGE CHECK

STEPS :

1. Place the machine service disconnect switch in the "OFF" position.

2. Apply line power to the machine from the service breaker.

3. Check incoming service lines at terminals of disconnect switch for proper voltage per data plate.

   NOTE: If applicable, check voltage at L1 and L2 to ground individually to insure neither is connected to a HIGH or WILD leg.
   CAUTION: There is a possibility of damage to machine if not properly checked.

4. Turn off power at service breaker.
   NOTE: Mark breaker for dishwasher and advise proper personnel.

DO NOT APPLY POWER OR TURN MACHINE ON AT THIS TIME . . .
ALL PLUMBING AND WATER CONNECTIONS MUST BE COMPLETED BEFORE MACHINE CAN BE OPERATED.

PLUMBING CONNECTIONS

ALL PLUMBING CONNECTIONS MUST COMPLY WITH ALL SANITARY, SAFETY AND PLUMBING CODES.

REFER TO SPECIFICATION SECTION FOR FURTHER DETAIL IF NEEDED.

DRAIN CONNECTION

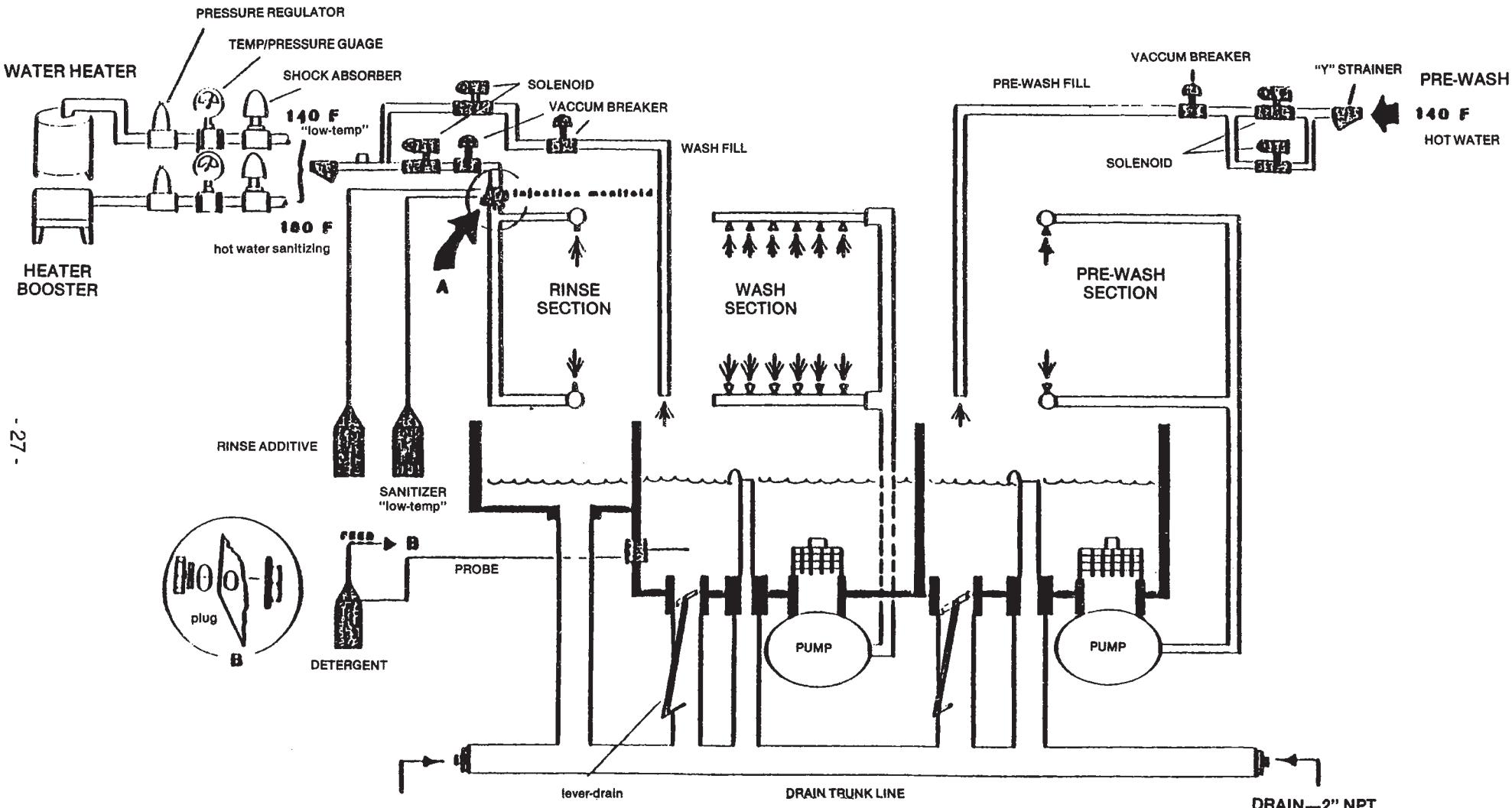
STEPS : REFER TO FIGURE (2)

1. Remove the 2" plug from drain tank line at left or right end, only one connection is necessary.

2. Install a 2" DRAIN LINE with proper slope at this point.

   NOTE: Drain is a GRAVITY FEED SYSTEM.

PROCEED TO PLUMBING AND HOT WATER REQUIREMENTS



MODEL—66CERPW (RIGHT TO LEFT) SHOWN

WATER FLOW DIAGRAM

FIGURE 2

PLUMBING AND HOT WATER REQUIREMENTS

Models 44CE, 54CE, 54CEL, 76CERPW, 44CEL, 66CERPW, and 66CELRPW DO NOT have an internal water heater to boost the regularly available hot water (usually 140F.) up to 180F. Water at 180F can be used as sanitzing rinse water.

ALL HOT-WATER SANITIZING machines MUST have an external supply of 180F. HOT WATER to the machine.
All LOW-TEMPERATURE CHEMICAL SANITIZING machines will use the regularly available 140F. hot water along with SANITIZER for sanitizing the final rinse water.

Before any connections are made, determine if machine is a HOT WATER SANITIZING or a LOW-TEMPERATURE CHEMICAL SANITIZING machine.

This can easily be accomplished by comparing the MODEL NUMBER on the machine DATA PLATE to the lists below. REFER TO NOMENCLATURE IN SPECIFICATION SECTION IF NECESSARY FOR FURTHER DETAILS.

The following machines are LOW-TEMPERATURE CHEMICAL SANITIZING:

44 C E L	54 C E L
66 C E L R P W	76 C E L R P W

The following machines are HOT-WATER SANITIZING:

44 C E	54 C E
66 C E R P WE	76 C E R P W

PROCEED TO THE APPROPRIATE HOT-WATER OR CHEMICAL SANITIZNG INSTRUCTIONS THAT FOLLOW.

HOT WATER SANITIZING MACHINES

STEPS: **REFER TO FIGURE (2)**

1. Connect a 180 F. MINIMUM constant HOT WATER 1/2" supply to the FINAL RINSE incoming water "Y" STRAINER as shown in FIGURE (2).

WASH TANK WATER SUPPLY

Wash tank water is recirculating and is initially filled by same supply line as final rinse and no additional connection is necessary.

NOTE:
ALL MACHINES require a MINIMUM of 20 PSI FLOW PRESSURE.
Do not confuse STATIC PRESSURE with FLOW PRESSURE. FLOW PRESSURE is the pressure in the FINAL RINSE LINE when the rinse valve is OPEN, and machine is RINSING.
STATIC PRESSURE is line pressure with no flowing, all valves and service CLOSED.

CONTINUE TO NEXT PAGE

DO NOT TAP any hot water supply lines for other hot water service.
THIS WILL DROP THE REQUIRED FLOW PRESSURE.

RECIRCULATING PRE-WASH "RPW"

Models 66CERPW, 76CERPW, 66CELRPW and 76 CELRPW are equipped with a RECIRCULATING PRE-WASH "RPW."

2. Connect a 140 F. MAXIMUM constant HOT WATER 1/2" supply line to the PRE-WASH "Y" STRAINER as shown.

LOW TEMPERATURE CHEMICAL SANITIZING

Models 44CEL, 54CEL, 66 CELRPW and 76CELRPW are Low Temperature Chemical Sanitizing machines. THESE MODELS REQUIRED CHEMICAL DISPENSING EQUIPMENT BE INSTALLED TO DISPENSE 50 PARTS PER MILLION OF CHLORINE INTO THE FINAL RINSE WATER FOR PROPER SANITIZING OF THE WARE. REFER TO CHEMICAL DISPENSING EQUIPMENT INSTALLATION.

FRESH WATER FINAL RINSE SUPPLY

1. Connect a 140 F MAXIMUM constant HOT WATER 1/2" supply to the FINAL RINSE incoming water "Y" STRAINER as shown in FIGURE (2).

WASH TANK WATER SUPPLY

Wash tank water is recirculating and is initially filled by same supply line as final rinse and no additional connection is necessary.

RECIRCULATING PRE-WASH "RPW"

Model 66 CELRPW is equipped with a RECIRCULATING PRE-WASH "RPW".

2. CONNECT A 140 F. maximum CONSTANT hot water 1/2" supply line to the PRE-WASH "Y" STRAINER as shown.

PROCEED TO CHEMICAL DISPENSING EQUIPMENT INSTALLATION FOR DETERGENT, SANITIZER AND RINSE AID DISPENSING.

RECOMMENDED EQUIPMENT

REFER TO FIGURE (2)

SHOCK ABSORBER

A SHOCK ABSORBER (NOT SUPPLIED) in the FINAL RINSE LINE as shown in FIGURE (2) prevents LINE HAMMER (hydraulic shock) induced by the final rinse solenoid valve as it operates. THIS SHOCK CAN CAUSE DAMAGE TO EQUIPMENT.

PRESSURE REGULATING VALVE

The FINAL RINSE SUPPLY LINE MUST have a PRESSURE REGULATING VALVE (NOT SUPPLIED) installed when flow pressure exceeds the specified 20 PSI. Pressures above 25 PSI will cause rinse spray to fog or atomize. Install regulator valve and adjust to 20 PSI FLOW PRESSURE.

PRESSURE / TEMPERATURE GAUGE

This gauge is recommended to be installed in the following lines:

FINAL RINSE SUPPLY LINE - Temperature and flow pressure of water supplied to machine for final rinse can be established.

PRE-WASH SUPPLY LINE - Temperature and flow pressure of water supplied to machine for pre-wash can be established.

CHEMICAL DISPENSING EQUIPMENT INSTALLATION

EQUIPMENT PLACEMENT

Mount all dispensing equipment at back of machine or on adjacent wall.
DO NOT MOUNT EQUIPMENT ON TOP OR FRONT OF MACHINE.

ELECTRICAL CONNECTION

An electrical power connection is provided inside the electrical control box for dispensing equipment. Access is made at rear of control box through conduit hole provided, route wires to fuse block provided as shown in FIGURE (3). Fuse block supplies constant power per specified voltage on DATA PLATE and MUST have properly rated fuse installed. This power connection does not provide a SIGNAL SOURCE for intermittent operation.

CONTINUE TO NEXT PAGE

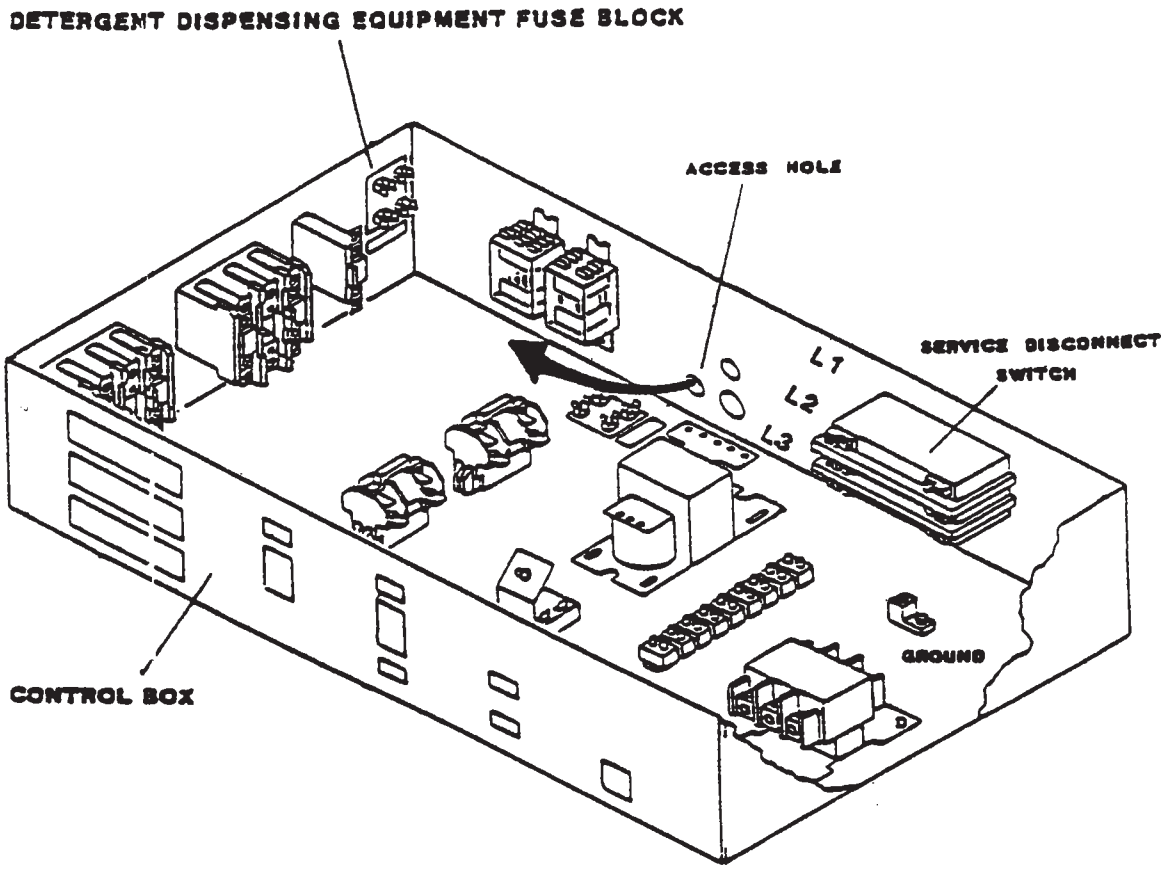


FIGURE 3

CONTROL BOX ELECTRICAL CONNECTION FOR CHEMICAL EQUIPMENT

DISPENSING INJECTION POINTS

RINSE AID AND SANITIZER (CHLORINE) CHEMICAL DISPENSING

Two 1/8" NPT injection points are provided at the incoming final rinse supply line as shown in FIGURE (2) ITEM "A". These injection points are provided for rinse aid and sanitizer chemical dispensing into the fresh water final rinse.

DETERGENT DISPENSING

A 7/8" hole is provided in the WASH TANK for installation of a detergent solution sensing probe. This hole is plugged with a large white plastic fastener as shown in FIGURE (2) ITEM "B". There are two (2) additional 7/8" holes provided for dispensing detergent into wash tank, (21) hole is located in wash tank at back of machine and is located for dispersing of powdered detergent, the other hole is located on top of machine directly above wash tank and is located for dispensing liquid detergent.

CURTAIN INSTALLATION

There are (5) CURTAINS provided for each Model 44CE, 54CE, 44CEL and 54CEL and (6) curtains provided for each Model 66CERPW, 76CERPW, 66CELRPW and 7CELRPW. All curtains MUST be installed in specified arrangement for machine to function properly. Curtain sizes are LONG, MEDIUM AND SHORT. REFER TO FIGURE (4) FOR DETAILS.

CURTAIN PLACEMENT

MODELS 44CE, 54CE, 44CEL AND 54CEL (5 CURTAINS SUPPLIED)

STEPS :

1. Install (2) LONG CURTAINS, (1) to the outside vent cowl hooks at WASH side and (1) to the outside vent cowl hook at FINAL RINSE side. Install (2) MEDIUM CURTAINS, (1) to the INSIDE vent cowl hooks at the FINAL RINSE side and (1) to hooks between FINAL RINSE and WASH section as shown in FIGURE (4). Install (1) SHORT CURTAIN to INSIDE vent cowl hooks at WASH side.

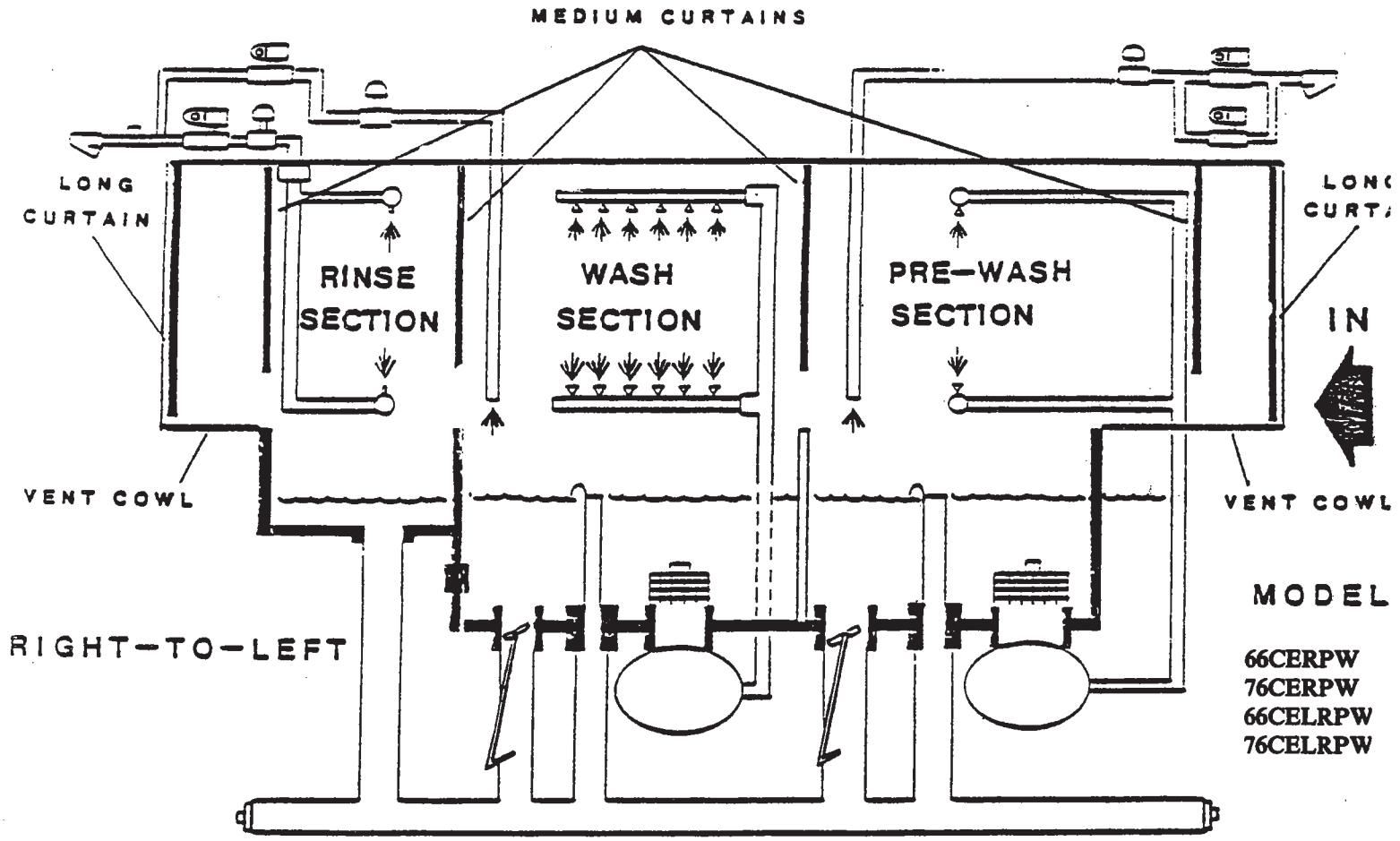
MODELS 66CERPW, 76CERPW, 66CELRPW and 76CELRPW (6 CURTAINS SUPPLIED)

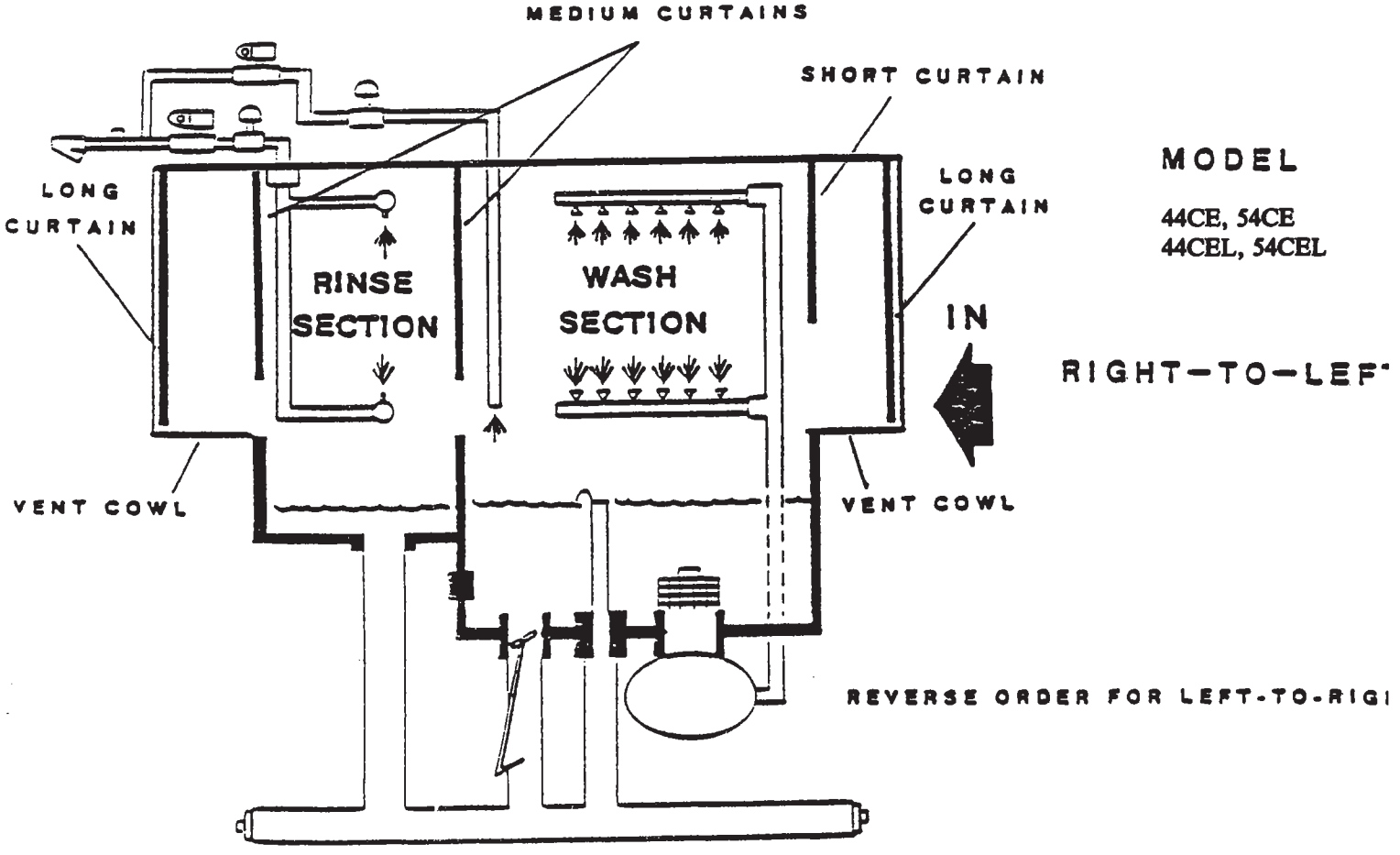
STEPS :

INSTALL (2) LONG CURTAINS, (1) to the outside vent cowl hooks at WASH side and (1) to the outside vent cowl hooks at FINAL RINSE side. Install (4) MEDIUM CURTAINS, (1) to the INSIDE vent cowl hooks at the FINAL RINSE side and (1) to hooks between FINAL RINSE and WASH SECTION, (1) to hooks between WASH section and PRE-WASH section and (1) to the INSIDE vent cowl hooks at the PRE-WASH side as shown in FIGURE (4).

PROCEED TO INSTALLATION OF STRAINERS, OVERFLOW TUBES, WASH/PREWASH TUBES

CURTAIN INSTALLATION FIGURE–4





STRAINER INSTALLATION

STEPS : **WASH PUMP TANK INTAKE STRAINER**

1. Install strainer into proper position as shown in FIGURE (5).

   PAN STRAINERS WASH AND PREWASH SECTIONS

2. Install WASH strainers into tank as shown. Machines equipped with PRE-WASH "RPW", install strainers into prewash tank.

OVERFLOW TUBE INSTALLATION

STEPS : (44CE, 44CEL, 66CERPW, 66CELRPW)

1. Install the LONG overflow standoff tube into WASH TANK drain seat firmly. Insure "o" ring is properly seated. Machines equipped with PRE-WASH "RPW", install SHORT overflow standoff tube into PREWASH drain seat firmly.

2. Install short overflow tube into rinse tank (54CE, 76CERPW).

WASH ARM TUBE INSTALLATION

STEPS :

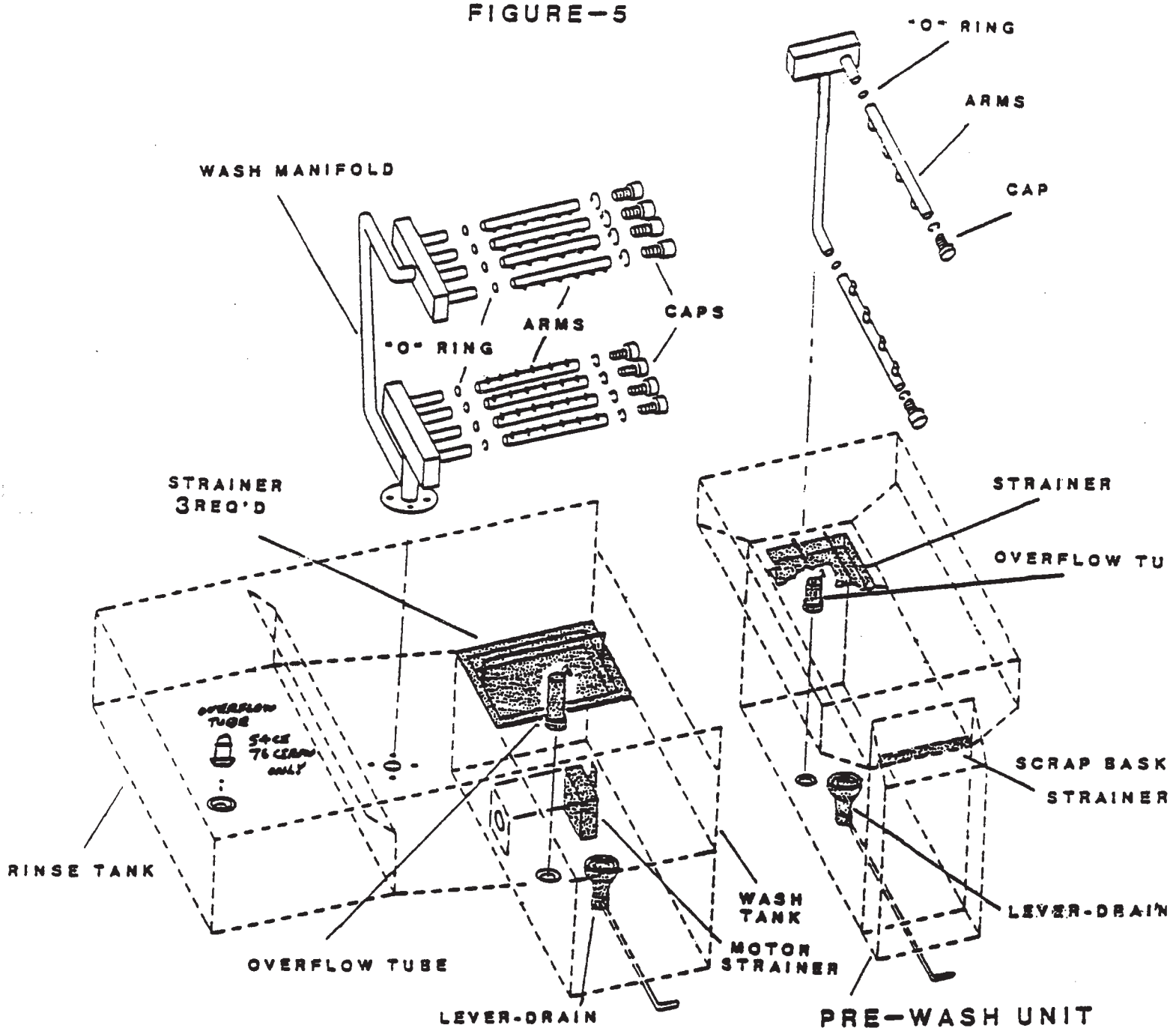
1. Install all WASH ARM TUBES into UPPER AND LOWER WASH manifolds as shown in FIGURE (5). Insure all tubes are properly seated into MANIFOLD "O" RING and all tubes are pointing straight.

2. Machines equipped with PRE-WASH "RPW", install all WASH ARM TUBES into UPPER AND LOWER WASH manifolds as shown in FIGURE (5). Insure all tubes are properly seated and straight.

PLEASE COMPLETE THE FOLLOWING INSTALLATION CHECKLIST COMPLETELY BEFORE PROCEEDING TO MACHINE OPERATIONAL START-UP AND CHECK.

INTERNAL COMPONENT LAYOUT

FIGURE–5



MODELS 44CE, 54CE, 44CEL and 54CEL ARE NOT EQUIPPED WITH PRE-WASH

MODELS 66CERPW, 76CERPW, 66CELRPW and 76CELRPW ARE EQUIPPED WITH PRE-WASH

INSTALLATION CHECKLIST

PLEASE CHECK OFF THE FOLLOWING ITEMS AS THEY ARE COMPLETED. ALL ITEMS MUST BE COMPLETED AND CHECKED OFF BEFORE PROCEEDING TO MACHINE OPERATION.

IN THE EVENT THAT YOUR MACHINE CONTAINS DAMAGED OR MISSING PARTS, OR INSTALLATION INFORMATION IS NEEDED, PLEASE CALL ONE OF THE AUTHORIZED SERVICE AGENCIES, DEALERSHIP WHERE PURCHASED OR JACKSON PRODUCTS COMPANY, 801 AIRPARK CENTER DRIVE, NASHVILLE, TN 37217, (615) 399-3944. PLEASE WRITE A LETTER IF NECESSARY.

1.	Is machine properly leveled	YES	( )	NO	( )
2.	Is drain connection installed	YES	( )	NO	( )
3.	Is line power connected to SERVICE DISCONNECT in CONTROL BOX	YES	( )	NO	( )
4.	Is machine properly GROUNDED INSIDE CONTROL BOX at GROUND terminal provided	YES	( )	NO	( )
5.	Is MACHINE VOLTAGE at L1, L2, and L3 (if applicable) correct to specified voltage on DATA PLATE	YES	( )	NO	( )
6.	Has MACHINE VOLTAGE been checked at L1 and L2 to insure a HIGH/ WILD LEG is not connected to L1 or L2 (VOLTAGE EXCEEDING 150 VAC TO GROUND WOULD INDICATE A HIGH LEG)	YES	( )	NO	( )
7.	Is machine SERVICE BREAKER properly SIZED for TOTAL LOAD AMPS specified on DATA PLATE	YES	( )	NO	( )
8.	Is machine SERVICE BREAKER properly marked to indicate a DISHWASHING MACHINE	YES	( )	NO	( )
9.	Are the machine CURTAINS installed in proper arrangement as specified	YES	( )	NO	( )
10.	Is the STRAINER for the wash tank pump intake installed	YES	( )	NO	( )
11.	Is the OVERFLOW STANDOFF TUBE installed properly into the WASH TANK drain seat	YES	( )	NO	( )
12.	Is the OVERFLOW STANDOFF TUBE installed properly into the PRE-WASH TANK drain (MACHINES EQUIPPED WITH PRE-WASH only)	YES	( )	NO	( )
13.	Are all pan strainers installed into tanks	YES	( )	NO	( )
14	Are all WASH and PRE-WASH (MACHINES EQUIPPED WITH PRE-WASH) ARMS properly installed and straight	YES	( )	NO	( )
15.	Is a 180 F. HOT WATER supply line with proper capacity and at 20 PSI FLOW PRESSURE connected to FINAL RINSE INCOMING PLUMBING (FOR HOT WATER SANITIZING MACHINES ONLY)	YES	( )	NO	( )
16.	Is a 140 F. HOT WATER supply line connected to FINAL RINSE INCOMING PLUMBING	YES	( )	NO	( )
17.	Is a 140 F. HOT WATER supply line with proper capacity and at 20 PSI FLOW PRESSURE connected to PRE-WASH INCOMING PLUMBING (FOR MACHINES EQUIPPED WITH PRE-WASH ONLY)	YES	( )	NO	( )
18.	Is CHEMICAL DISPENSING EQUIPMENT installed on LOW TEMPERATURE CHEMICAL SANITIZING MACHINES with CHLORINE injection into FINAL RINSE LINE adjusted for 50 PARTS PER MILLION SOLUTION	YES	( )	NO	( )

PROCEED TO OPERATIONAL START - UP AND CHECK

OPERATIONAL START - UP AND CHECK

Complete the following OPERATIONAL START-UP AND CHECK only after all INSTALLATION requirements have been completed and the INSTALLATION CHECKLIST provided is marked "YES" for all items listed.

The OPERATIONAL START-UP AND CHECK will provide instructions for the OPERATOR to complete STEP-BY-STEP so machine may be started and checked for proper machine operation. These instructions will include machines equipped with RECIRCULATING PRE-WASH "RPW".

STEPS :

1. Close door(s) to machine.

2. Close HAND OPERATED DRAIN VALVES completely.

3. Fill machine WASH TANK and PRE-WASH (if equipped) with hot water.
   NOTE: Machines are filled with HOT WATER by MANUALLY OPENING incoming water hand-valve (WASH and PRE-WASH, IF EQUIPPED) or AUTOMATICALLY on machines equipped with AUTO FILL feature. Machines with MANUAL FILL will have HAND VALVES and machines with AUTO FILL will have INDICATOR LIGHT on CONTROL PANEL labeled "AUTO FILL".

   MACHINES EQUIPPED WITH MANUALLY OPERATED HAND-VALVE(S), PROCEED AS FOLLOWS:

   (a) OPEN AND LATCH DOOR TO WASH TANK AND PRE-WASH, IF EQUIPPED. Remove closest PAN STAINER in both WASH TANK and PRE-WASH, if equipped. This will allow visual observation of OVERFLOW standoff tubes in each tank, allow water to FILL to TOP of OVERFLOW TUBES and SHUT OFF hand valves.

   (b) Manually OPEN hand-valves for WASH TANK and PRE-WASH TANK (if equipped); allow tanks to FILL to proper water level. CLOSE DOORS.

   MACHINES EQUIPPED WITH AUTO-FILL FEATURE, PROCEED AS FOLLOWS:

   (a) Turn POWER on at MACHINE SERVICE DISCONNECT at back of CONTROL PANEL.

   (b) Turn POWER ON at MACHINE CONTROL PANEL.
   The MACHINE will AUTOMATICALLY FILL to proper water level, and shut off incoming water, the AUTO FILL INDICATOR LIGHT will light as machine fills and go out when water level is reached. PROCEED TO NEXT PAGE.

WASH TANK, PRE-WASH TANK AND FINAL RINSE WATER TEMPERATURES

WASH TANK, PRE-WASH TANK (if equipped) and FINAL RINSE WATER temperatures MUST be reached BEFORE machine can be used to SANITIZE and WASH ware properly.

4. OBSERVE the WASH, PRE-WASH AND FINAL RINSE DIGITAL GAUGES until proper temperatures are reached as follows:

   (a) HOT WATER SANITIZING MACHINES will maintain the WASH TANK water at 165 F. and LOW TEMPERATURE CHEMICAL SANITIZING MACHINES will maintain the WASH TANK water at 142 F. NOTE: A small RED LIGHT at the RIGHT BOTTOM CORNER of the WASH TEMPERATURE GAUGE will indicate that the WASH TANK HEATER is "ON" but the REQUIRED temperature has not been reached. When this temperature is reached, the RED LIGHT will go OUT.

   (b) PRE-WASH TANK water temperature (if equipped) should read 140 F. MAXIMUM.

   (c) FINAL RINSE HOT WATER temperature should read 180 F. MINIMUM for HOT WATER SANITIZING MACHINES and 140 F. for LOW TEMPERATURE CHEMICAL SANITIZING MACHINES.

5. AUTOMATIC OR MANUAL OPERATION: Machine may be operated either in AUTO or MANUAL MODES; in the AUTO MODE, the dishwasher will only run when a rack of dishes is placed on the CONVEYER, as rack LEAVES MACHINES WASH SPRAY, PRE-WASH SPRAY (if equipped) and FINAL RINSE SPRAY will STOP.

   In the MANUAL MODE, all dishwashing functions will RUN CONTINUOUSLY.

   a. Place machine in AUTO or MANUAL MODE.

6. Place a rack of dishes onto conveyor and allow to WASH and EXIT machine at FINAL RINSE.

   NOTE: When the rack leaves the FINAL RINSE end of the machine, it should be removed and not allowed to accumulate more than three racks on the table.

   TABLE LIMIT SWITCH (OPTIONAL): The table limit switch will shut off machine as racks build up; and as racks are removed, machine will RESTART AUTOMATICALLY.

WARNING: Should the HEATER OVERLOAD INDICATOR LIGHT come on, immediately turn off machine. This indicates a HEATER CIRCUIT MALFUNCTION; contact an authorized SERVICE AGENCY for assistance.

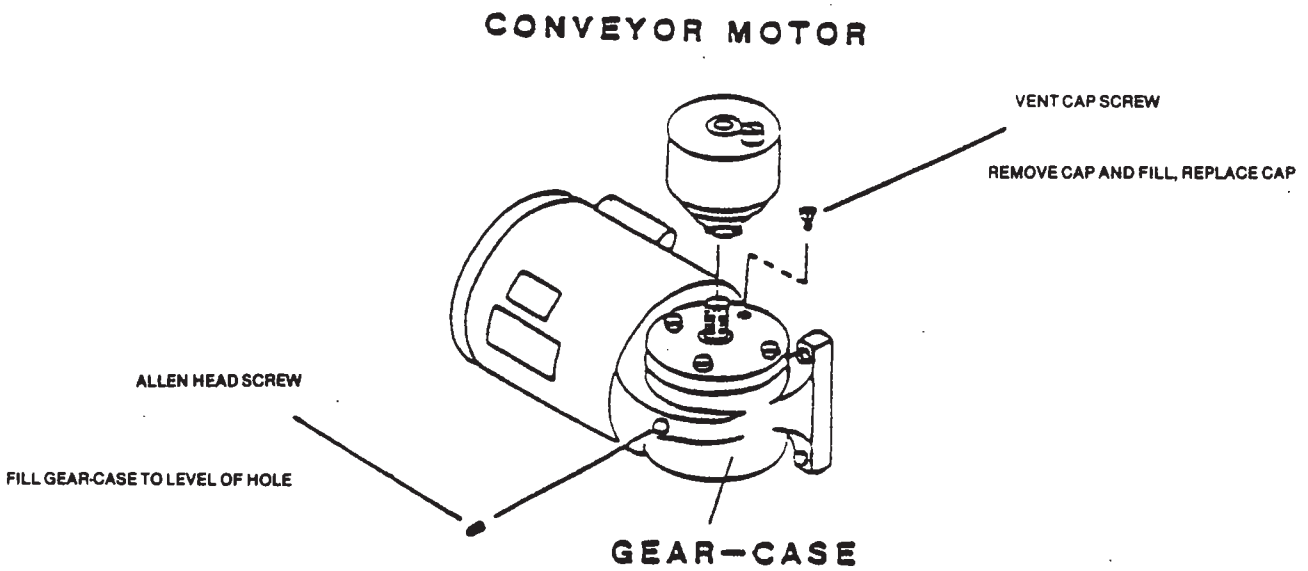
CONVEYOR DRIVE MOTOR GEAR-CASE LUBRICATION

WARNING: IMPROPER OIL LEVEL OR UNAPPROVED SUBSTITUTE OIL MAY CAUSE SERIOUS DAMAGE TO CONVEYOR GEAR DRIVE.

KEEP GEAR CASE FILLED TO PROPER LEVEL WITH AN OIL SUITABLE FOR BRONZE WORM GEARING. CHANGE OIL AFTER FIRST WEEK OF SERVICE AND ANNUALLY THEREAFTER. USE HOLE NEAREST HORIZONTAL CENTERLINE OF GEAR CASE AS OIL LEVEL.

AIR TEMPERATURE F.	AGMA NO.
15 - 60	7 EP
50 - 125	8 EP

TEXACO INC. "MEROPA 680 CT JP 011485 gear-case oil has been factory filled to proper level and will not need servicing until after first week of service.



GENERAL INSTRUCTIONS

Preventative Maintenance

(To be performed as needed)

Note: Read carefully. Proper maintenance of your Jackson Dishwasher will insure optimum service with a minimum of down time.

1. Remove all lime and corrosion deposits.
   a. Fill the machine with water as normal.
   b. Open doors and place de-liming compound into the wash water in accordance with the directions on the label. Close doors.
   c. Turn on the machine in the manual mode and allow to run for 5 minutes.
   d. Turn off the machine, open doors and inspect the interior. All lime should be removed and parts should appear shiny. If not, allow to run for a longer period.
   e. When the interior of the machine is clean, drain the water and refill.
   f. After refilling, allow machine to run for 2 minutes and drain again.
   g. Refill machine and resume normal operation.
2. Clean strainers (every meal period or more).
   a. Turn off unit and drain water.
   b. Remove and clean all strainers thoroughly.
   c. Replace strainers and refill machine. Resume normal operation.
3. Clean wash tubes.
   a. Remove wash tubes by turning arms 45° and sliding tubes out.
   b. Remove end plugs by unscrewing.
   c. Flush tubes with water until clean.
   d. Reassemble and replace.
4. Clean final rinse heads.
   a. Remove end plugs.
   b. Clear spray nozzles using a pointed tool.
   c. Close doors and activate manual cycle momentarily.
   d. Replace end plugs.
5. Clean Y-strainer on incoming water line.
   a. Turn off water to the machine.
   b. Relieve line pressure by opening fill valve.
   c. Remove plug and strainer. Clean using a brush and de-limer.
   d. Replace strainer and plug.
6. Clean exterior of the machine using a stainless steel polish.

REPLACEMENT PART PROCEDURES

The REPLACEMENT PART PROCEDURE SECTION will contain information necessary to REMOVE and REPLACE a MALFUNCTIONING or DEFECTIVE part which has been DIAGNOSED as a FAULTY PART. REFER to the TROUBLESHOOTING SECTION and WIRING SCHEMATICS to assure proper diagnosing of machine failure.

The REPLACEMENT PART PROCEDURE SECTION will also contain information on CALIBRATION and ADJUSTMENT of equipment, such as:

CONVEYOR SYSTEM CLUTCH

AUTO CYCLE TIMER

DIGITAL GAUGE CALIBRATION

CONTROL BOX ELECTRICAL COMPONENTS

The REPLACEMENT PART SECTION contains procedures for replacing the following parts:

WATER SOLENOIDS

WASH HEATER

WASH MOTOR AND PUMP

PRE-WASH MOTOR AND PUMP

CONVEYOR MOTOR

VACUUM BREAKER

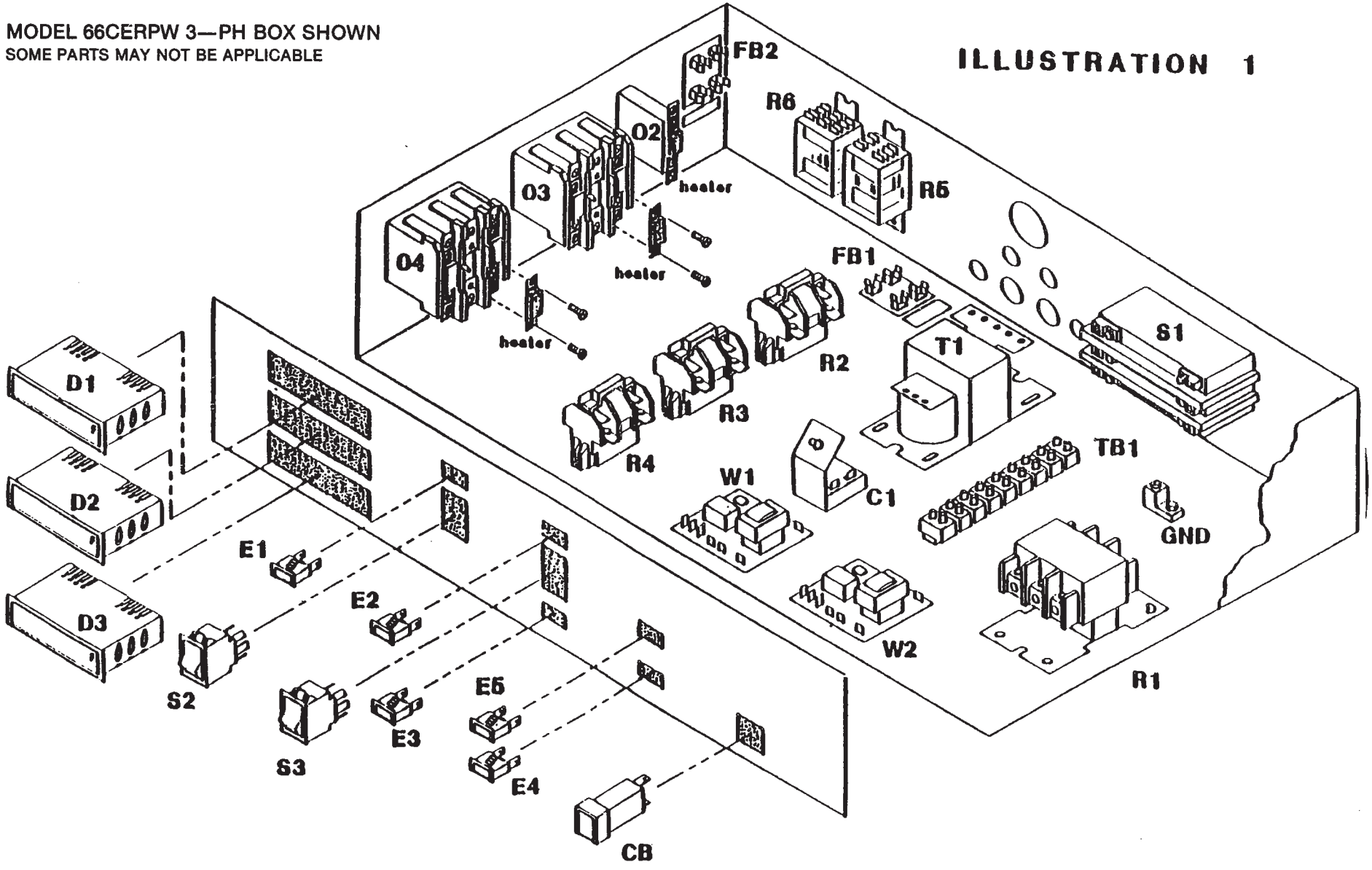
PADDLE LIMIT SWITCHES

CONTROL BOX ELECTRICAL COMPONENTS

ELECTRICAL CONTROL BOX

MODEL 66CERPW 3—PH BOX SHOWN
SOME PARTS MAY NOT BE APPLICABLE

ILLUSTRATION 1



Refer to electrical schematic for component designations

ILLUSTRATED PARTS LIST

The ILLUSTRATED PARTS LIST SECTION will contain EXPLODED ASSEMBLY DRAWINGS illustrating a complete PARTS LIST for the SINGLE-TANK RACK CONVEYOR SERIES.

WHEN ORDERING A REPLACEMENT PART: Call a JACKSON PRODUCTS PART DISTRIBUTOR from the PARTS DISTRIBUTOR LIST provided in the back of this manual.

PROVIDE THE FOLLOWING INFORMATION WHEN ORDERING:

MODEL NUMBER

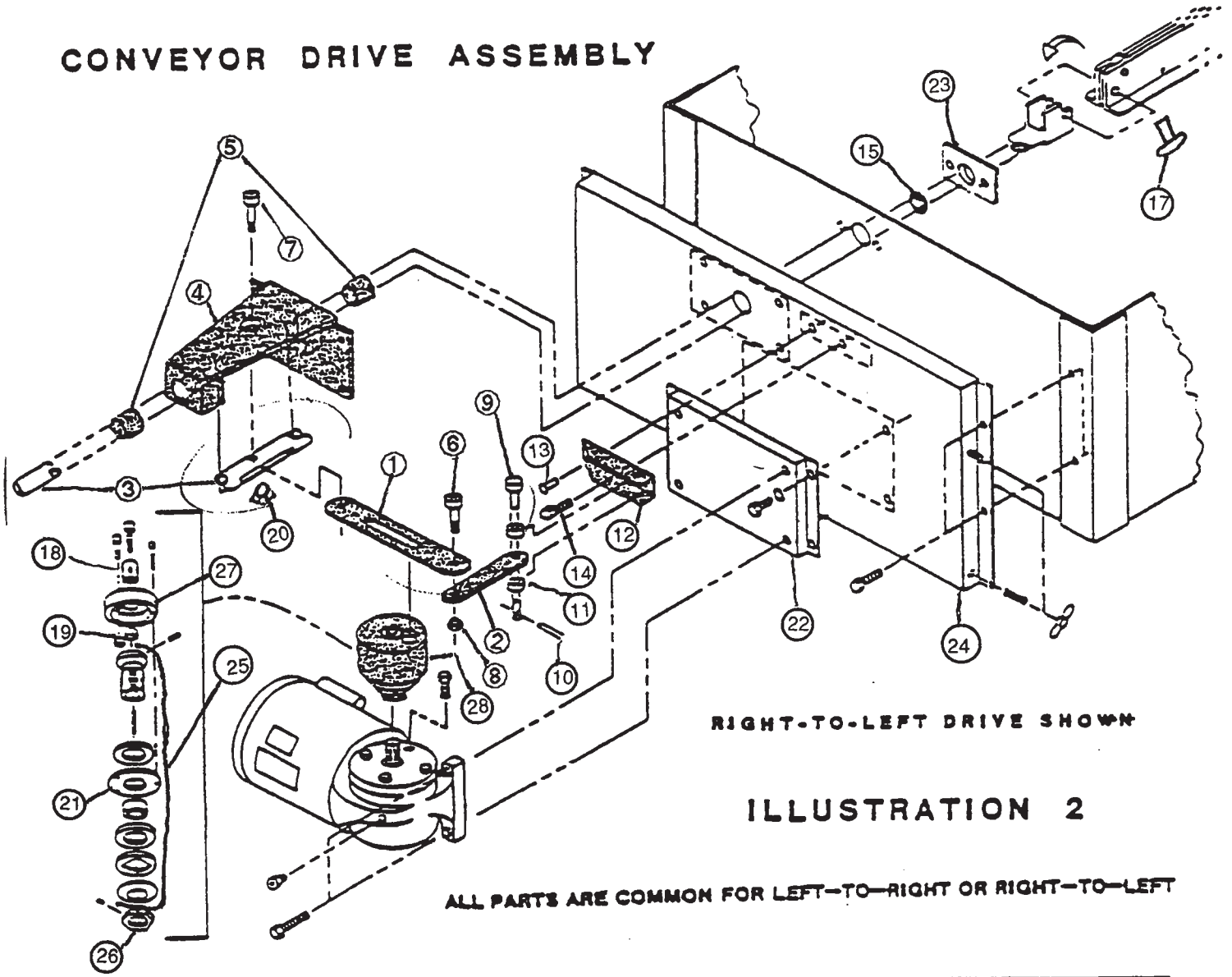
MACHINE VOLTAGE AND PHASES

SERIAL NUMBER

REPLACEMENT PART NUMBER (S)

CAUTION: NEVER SUBSTITUTE A JACKSON PRODUCT PART WITH AN UNAUTHORIZED PART.

CONVEYOR DRIVE ASSEMBLY



RIGHT-TO-LEFT DRIVE SHOWN

ILLUSTRATION 2

ALL PARTS ARE COMMON FOR LEFT—TO—RIGHT OR RIGHT—TO—LEFT

ITEM	SERVICE PART NO.	DESCRIPTION	QTY	ITEM	SERVICE PART NO.	DESCRIPTION	QTY
1	0035300	Dr. Rod Arm		15	0040500	Dr. Rod Wiper	
2	0035500	Dr. Arm Linkage		16			
3	0036000	Dr. Rod		17	0042900	Connecting Pin	
4	0036100	Dr. Rod Bearing Bkt.		18	0038001	Cam Bearing	
5	0040000	Dr. Rod Bearing		19	0038100	Cam Bearing Nut	
6	0041500	Shoulder Bolt 1/4" x 20		20	0048112	Lock Nut Low Profile	
7	0041700	Shoulder Bolt 1/2" x 20		21	0039001	Friction Plate	
8	0044700	Hex Nut L-7		22	0006370	Motor Riser Plate	
9	7000500	Clevis Pin		23	0002932	Spacer Plate	
10	0054109	Cotter Pin		24	0035100	Motor Base Plate	
11	0009026	Bushing		25	0035801	Clutch Assy.	
12	0009030	Channel Load Sensor		26	0037000	Set Screw	
13	0048304	Rivet		27	0036501	Cam Wheel Universal	
14	1072100	Bolt		28	6038600	Clutch Complete	

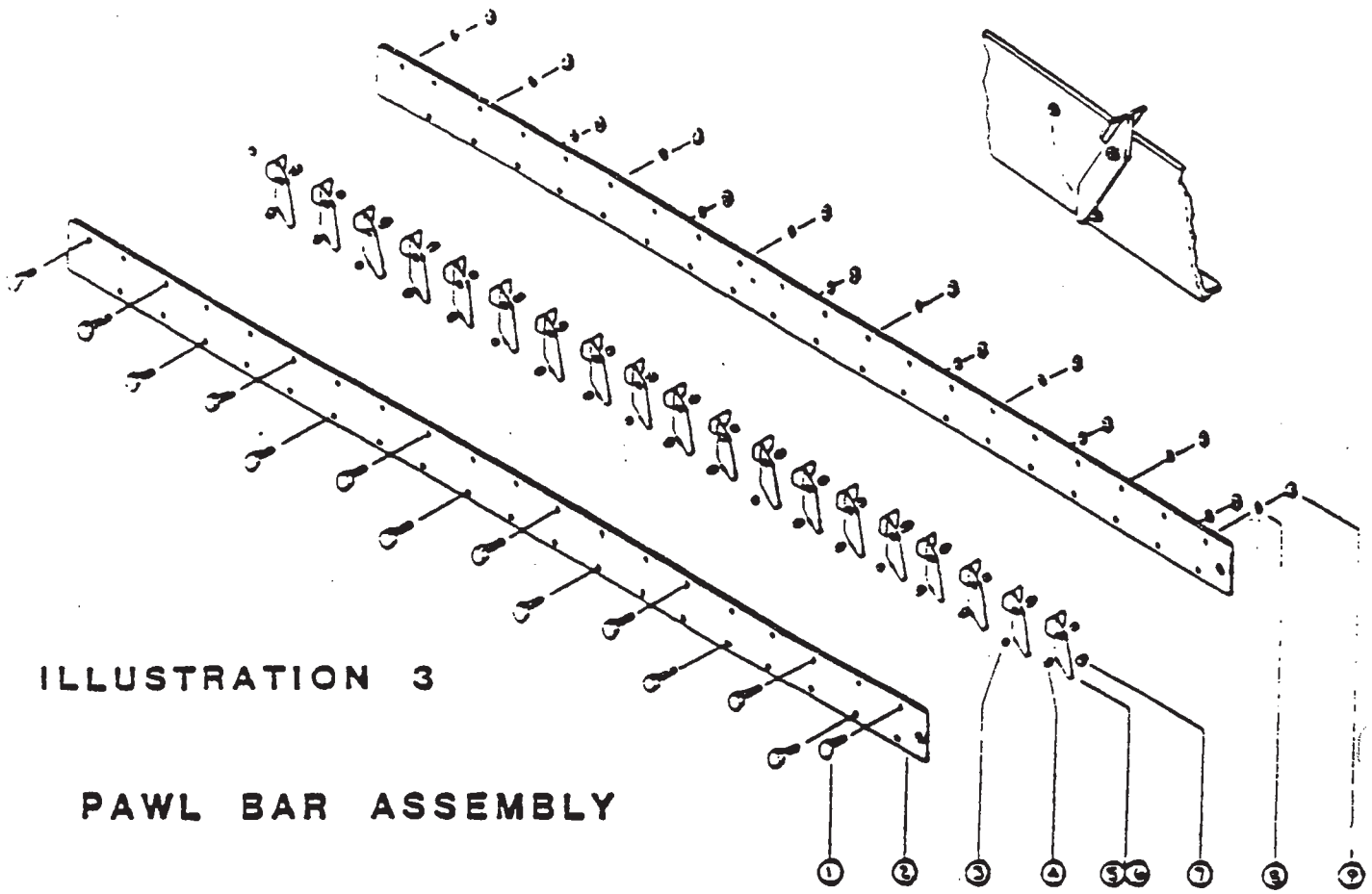


ILLUSTRATION 3

PAWL BAR ASSEMBLY

ALL PARTS ARE COMMON FOR LEFT—TO—RIGHT OR RIGHT—TO—LEFT

ITEM	SERVICE PART NO.	DESCRIPTION	QTY	ITEM	SERVICE PART NO.	DESCRIPTION	QTY
1	0044600	Bolt 1/4 X 20 X 3/4					
2	0003534	Sides					
3	0044000	Bolt Spacer					
4	0043500	Pin Spacer					
5	0043001	Dog Assy.					
6	0044500	Connector Pin					
7	3740100	Lock Nut 1/4 x 20					
8							
9							
10							
11							
12							
13							
14							
15							

WASH MOTOR AND PUMP ASSEMBLY

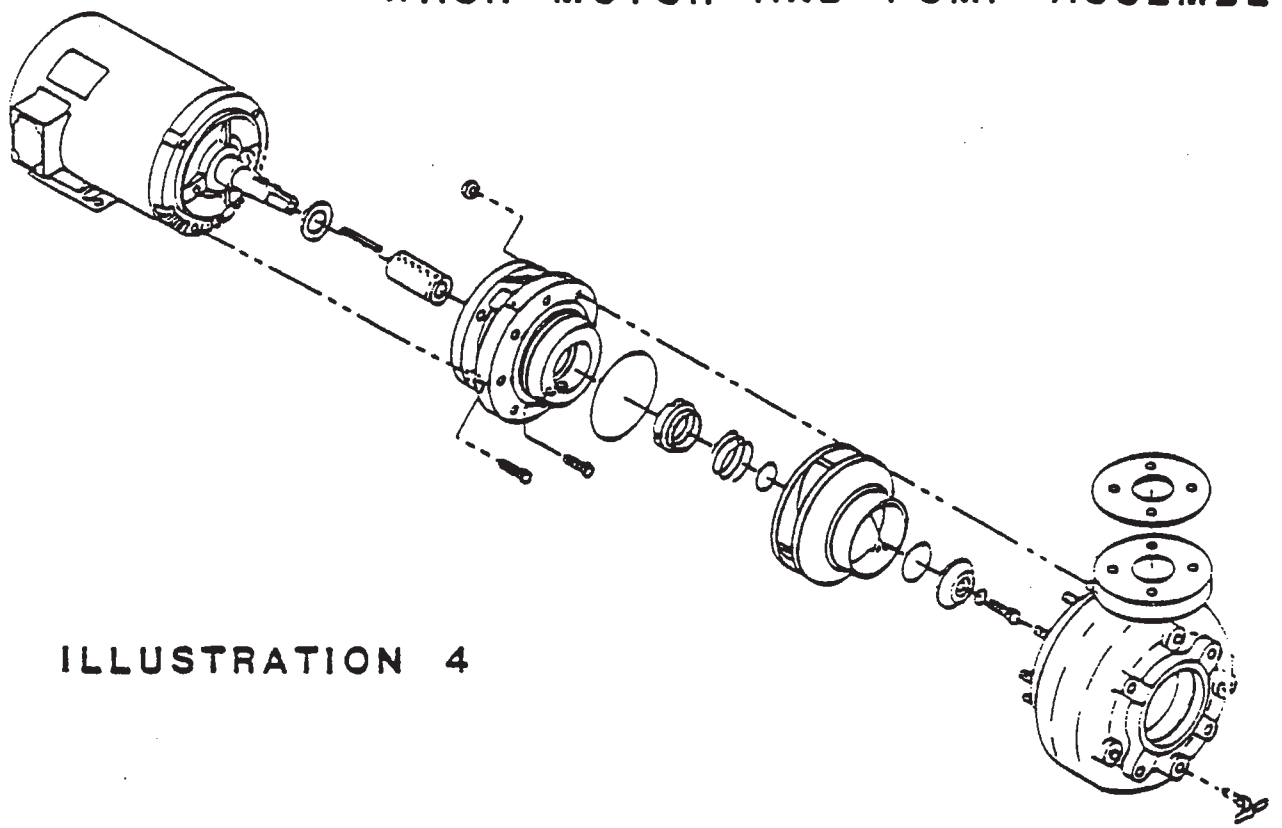


ILLUSTRATION 4

ITEM	SERVICE PART NO.	DESCRIPTION	QTY	ITEM	SERVICE PART NO.	DESCRIPTION	QTY

PRE-WASH MOTOR AND PUMP ASSEMBLY

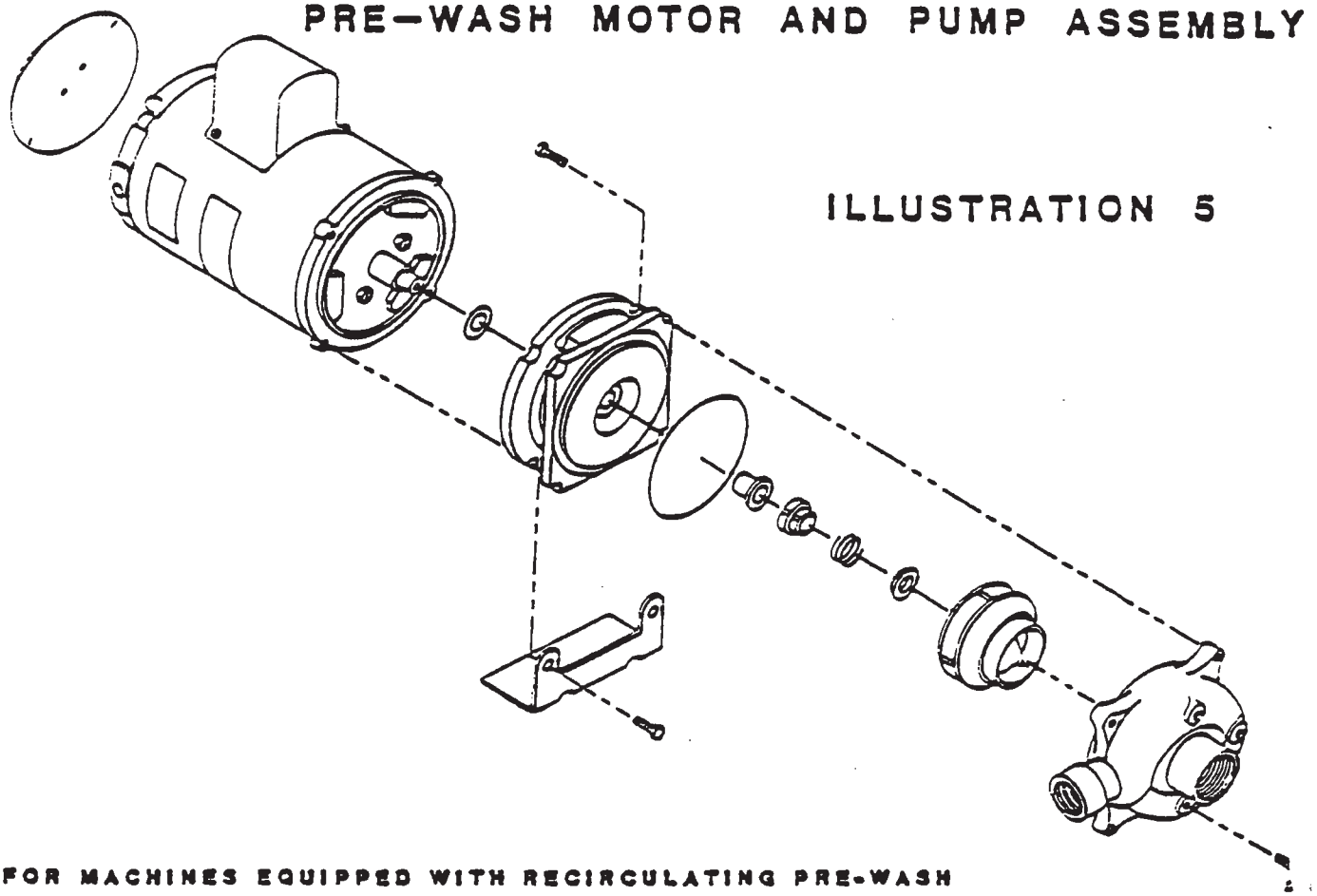
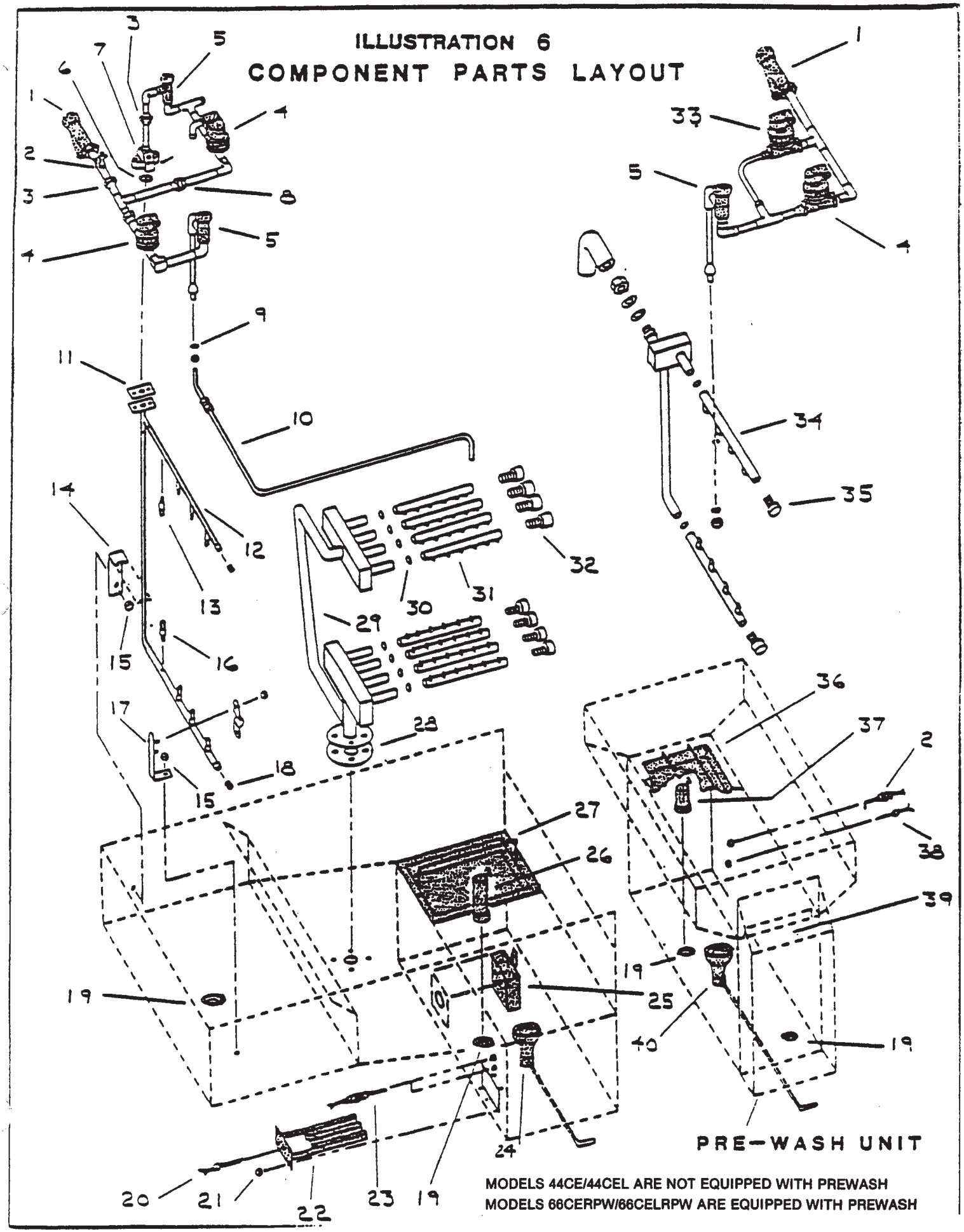


ILLUSTRATION 5

FOR MACHINES EQUIPPED WITH RECIRCULATING PRE-WASH

ITEM	SERVICE PART NO.	DESCRIPTION	QTY	ITEM	SERVICE PART NO.	DESCRIPTION	QTY

ILLUSTRATION 6
COMPONENT PARTS LAYOUT

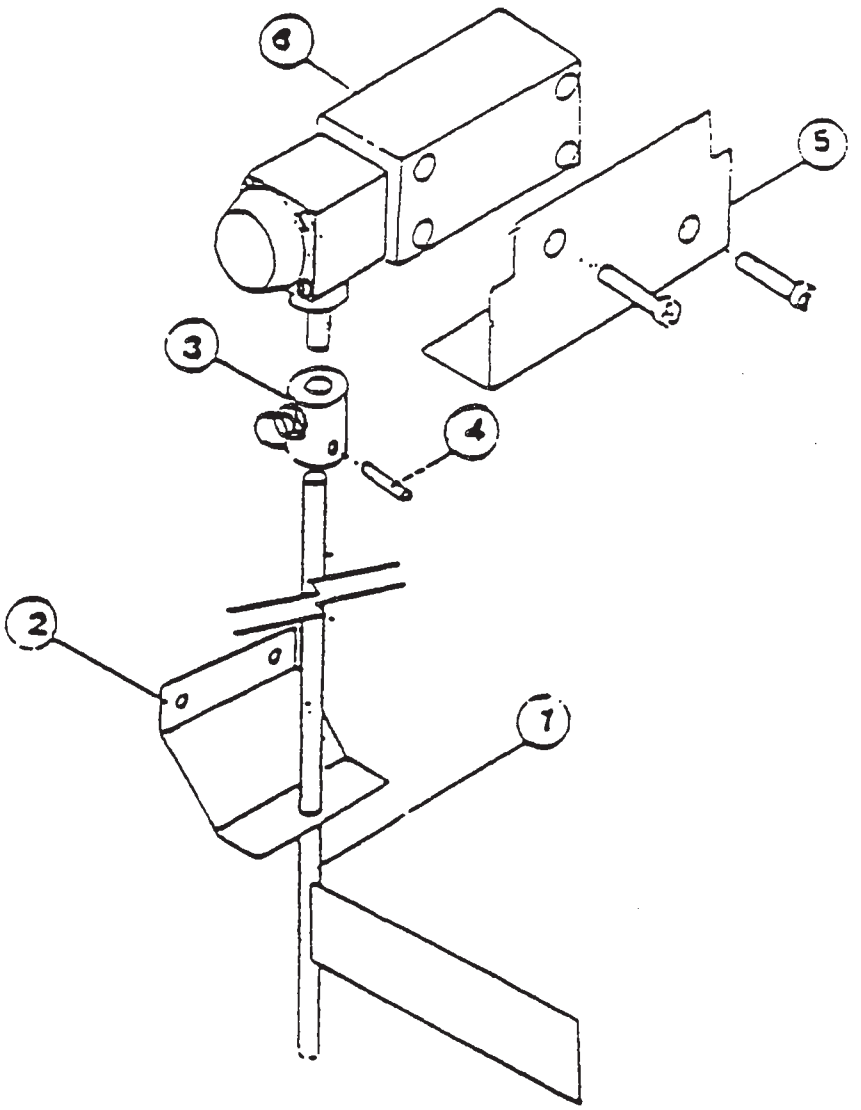


MODELS 44CE/44CEL ARE NOT EQUIPPED WITH PREWASH
MODELS 66CERPW/66CELRPW ARE EQUIPPED WITH PREWASH

ILLUSTRATED PARTS FOR MODEL 44CE and 66CERPW

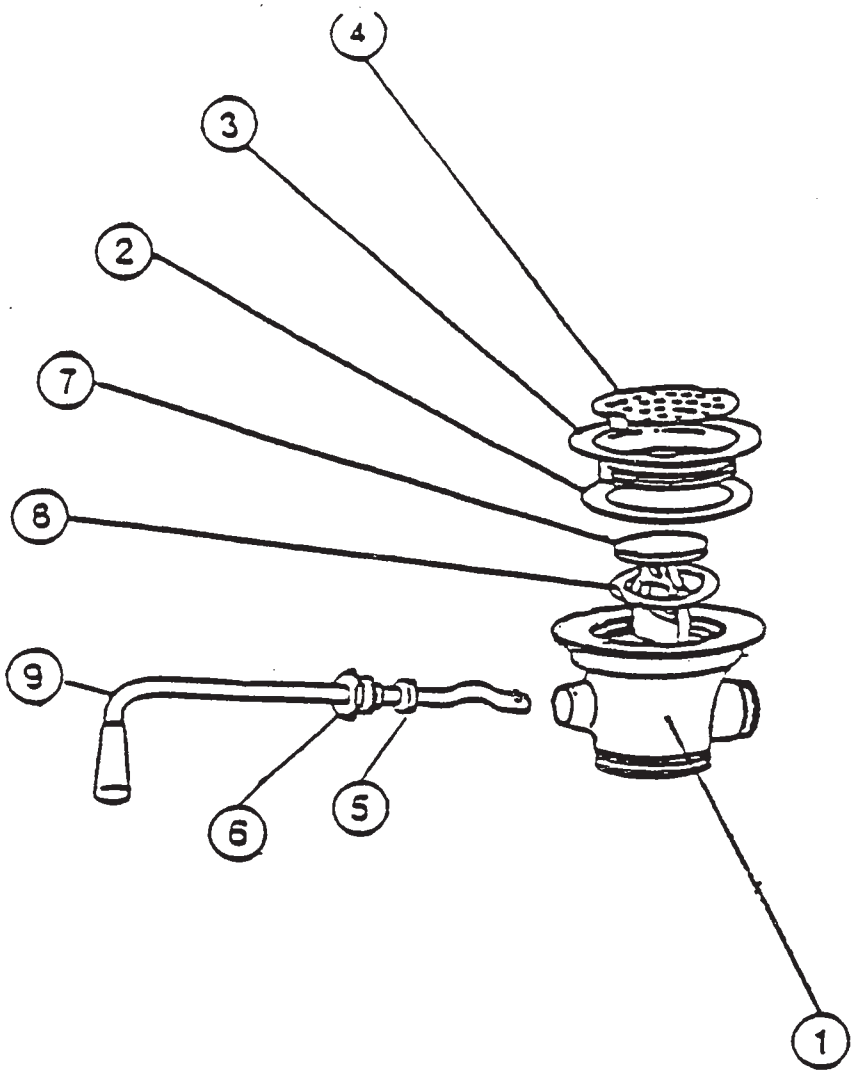
(MODEL 44CE and 22" PREWASH SECTION SHOWN)
ALL PARTS ARE COMMON FOR LEFT-TO-RIGHT OR RIGHT-TO-LEFT

ITEM	SERVICE PART NO.	DESCRIPTION	QTY
1		Y-STRAINER ½" INCOMING WATER LINE —WASH/RINSE —PREWASH	 1 1
2		PET COCK	1
3		ADAPTER ½" FPTx ½" MSOC	
4		SOLENOID VALVE ½" 24V INCOMING WATER LINE —FINAL RINSE —WASH TANK —PREWASH TANK	 1 1 1
5	0184101	VACUUM BREAKER INCOMING WATER LINE —FINAL RINSE —WASH TANK —PREWASH TANK	 1 1 1
6		O-RING—INJECTION MANIFOLD	1
7		FINAL RINSE INJECTION MANIFOLD	1
8		UNION ½"	
9		NEOPRENE WASHER	
10		INTERNAL FILL LINE	1
11		FINAL RINSE TEE GASKET	1
12		UPPER RINSE TUBING	1
13		SPRAY JET UPPER RINSE H ¼ SS6508	4
14		RINSE MANIFOLD SUPPORT VERTICAL	1
15		10-24 SS NUT w/NYLON INSERT	
16		SPRAY JET LOWER RINSE H 1/8" VV65Q	4
17		RINSE MANIFOLD SUPPORT HORIZONTAL	1
18		BRASS CAP PLUG RINSE ARMS	2
19	0012142	DRAIN SEAT PREWASH	4
20		WASH HEATER OVERLOAD	1
21		3/16-18 SS HEX NUT	
22		MODIFIED FIREBAR HEATER 230V, 13KW	
23		WATER LEVEL PROBE —WASH TANK —PREWASH TANK	 2 1
24		LEVER OPERATED DRAIN —WASH TANK	 1
25		INTAKE PUMP STRAINER —WASH MOTOR	 1
26		WASH OVERFLOW TUBE —WASH TANK	 1
27		STRAINER BASKET —WASH TANK	 1
28		WASH MANIFOLD GASKET	1
29		WASH MANIFOLD	1
30	0199302	O-RING—WASH ARM	8
31		WASH ARM	8
32		WASH ARM END CAPS	8
33		¼" SOLENOID VALVE —PREWASH TANK	 1
34		PREWASH WASH ARM	2
35		PREWASH ARM END CAPS	2
36		PREWASH STRAINER	1
37		OVERFLOW TUBE —PREWASH TANK	 1
38		TEMPERATURE PROBE PREWASH TANK	1
39		SCRAP BASKET PREWASH TANK	1
40		LEVER OPERATED DRAIN —PREWASH TANK	 1



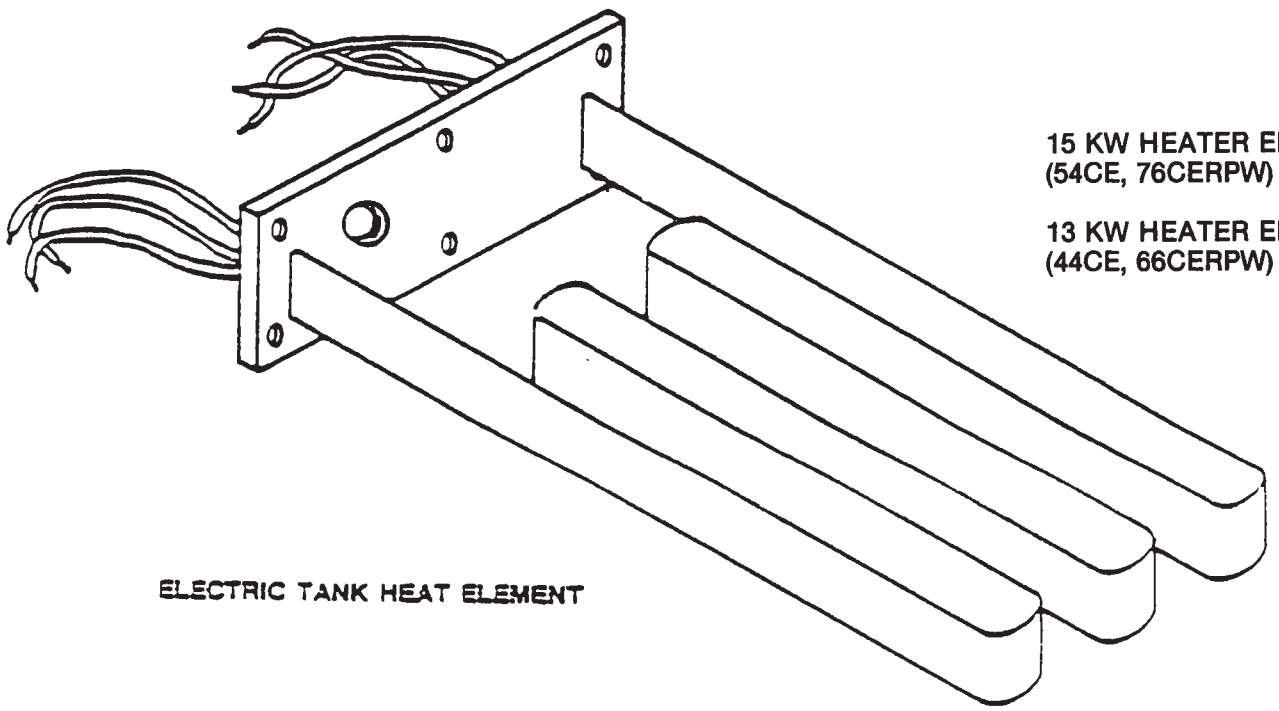
PADDLE SWITCH ASSEMBLY

1 —	0137600	ACTUATOR ROD & PADDLE
2 —	0137900	ACTUATOR ROD BRACKET
3 —	0137800	ACTUATOR COUPLING
4 —	0137801	ACTUATOR COUPLING ROLLED PIN
5 —	0137702	ACTUATOR LIMIT SWITCH BRACKET
6 —	0163500	SWITCH (L-R OPERATION)
	0163600	SWITCH (R-L OPERATION)



SHORT HANDLE
LEVER OPERATED
DRAIN ASSEMBLY
P/N 0054003

1. VALVE BODY
2. DRAIN VALVE GASKET
3. FLANGE
4. STRAINER
5. "O" RING
6. RETAINING NUT
7. STOPPER
8. "O" RINGS, STOPPER
9. HANDLE, SHORT

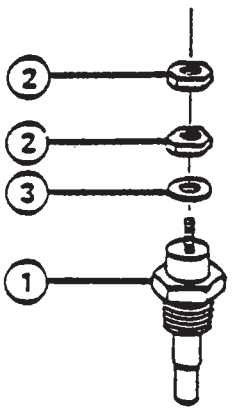


ELECTRIC TANK HEAT ELEMENT

15 KW HEATER ELEMENT
(54CE, 76CERPW)

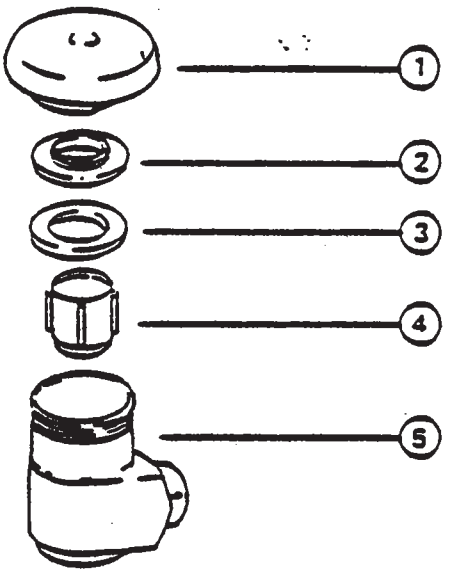
13 KW HEATER ELEMENT
(44CE, 66CERPW)

WATER LEVEL
PROBE ASSEMBLY
P/N 0084500



1. PROBE BODY
2. NUTS
3. LOCKWASHER

VACUUM BREAKER ASSEMBLY
P/N 0184101



ITEM	P/N	DESCRIPTION
1.		BONNET
2.	0184200	DISK
3.	0184200	GASKET
4.	0184200	POPPET
5.		BODY

SERVICE INSTRUCTIONS
(INCOMING WATER SOLENOID VALVE)

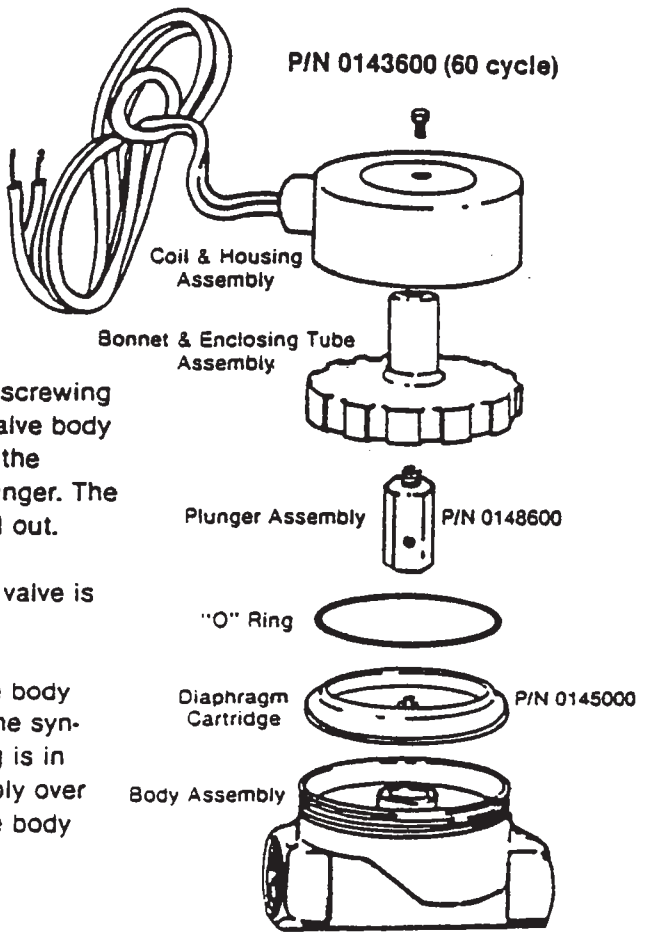


FIG.3

SOLENOID VALVE

P/N 0142100
(110V, used on 60 cycle machine)

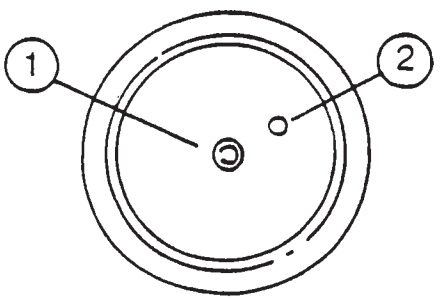
To take the valve apart:

Disassembly — These valves may be taken apart by unscrewing the bonnet and the enclosing tube assembly from the valve body assembly. See Fig. 3. After unscrewing, carefully lift off the bonnet and enclosing tube assembly. Don't drop the plunger. The "O" ring seal and diaphragm cartridge can now be lifted out.

Be careful not to damage the machined faces while the valve is apart.

To Reassemble — Place the diaphragm cartridge in the body with the pilot port extention UP. Hold the plunger with the synthetic seat against the pilot port. Make sure the "O" ring is in place, then lower the bonnet and enclosing tube assembly over the plunger. Screw bonnet assembly snugly down on the body assembly.

DIAPHRAGM CARTRIDGE



Possible Problems
Pilot Port extension #1 clogged
Hole #2 clogged

Remedy
Pass heated straight pin through hole #2
or clean hole #1

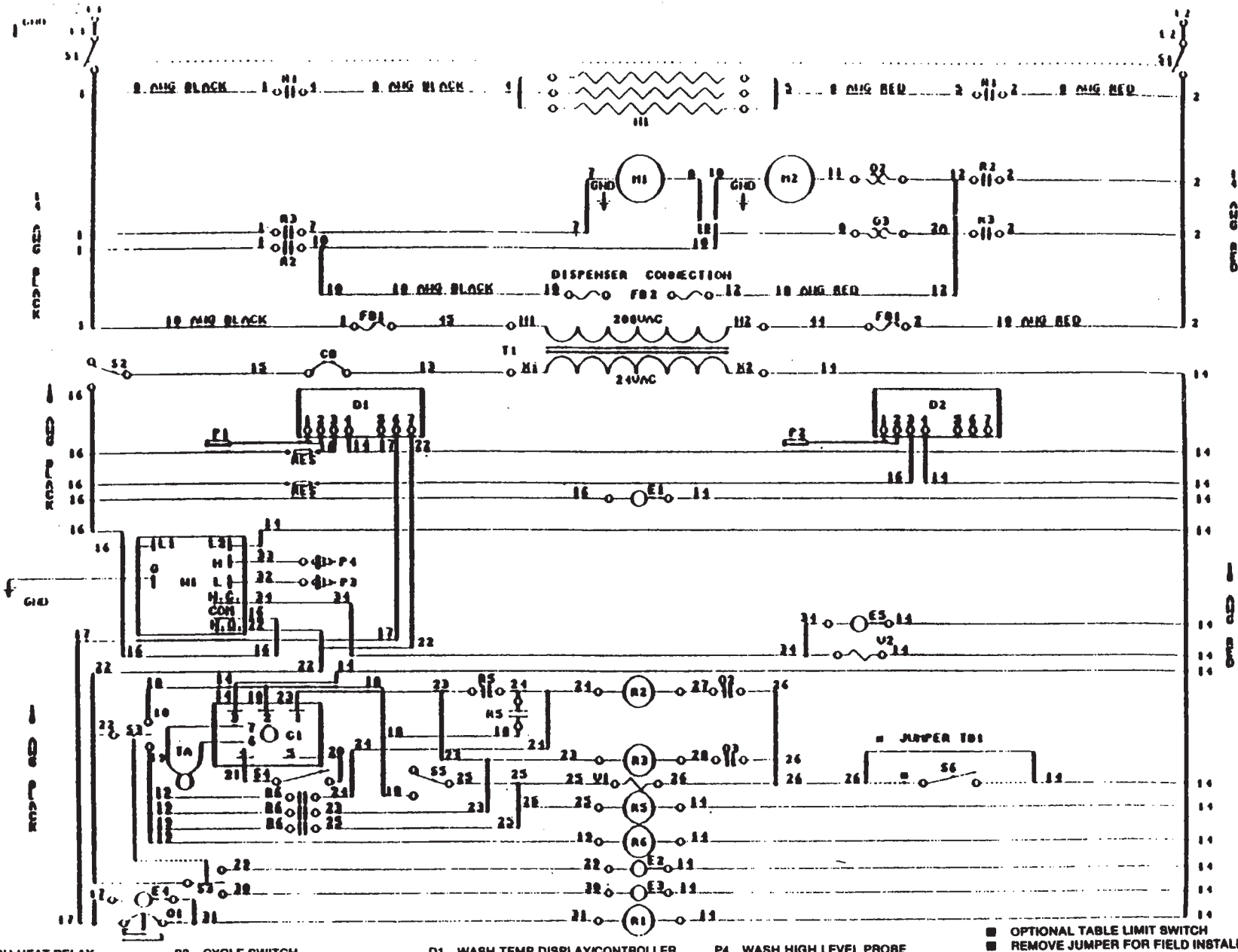
COMPLETE REPLACEMENT PART LIST
FOR
MODEL - 44CE / 66CERPW
MODEL - 54CE / 76CERPW

PART NO.	DESCREIPTION
0012600	CIRCUIT BREAKER, 5 AMP, PUSH BUTTON RESET
0029800	CONTROL BOX, LOCK
0034900	CONVEYOR DRIVE MOTOR, 1/4 HP, 220 V, 60 CY, 1 PH, 30 RPM
0035001	CONVEYOR DRIVE SHAFT ADAPTER, FOR MOTOR
0035300	CONVEYOR DRIVE ARM
0035500	CONVEYOR DRIVE ARM LINKAGE
0036000	CONVEYOR DRIVE ROD
0036100	CONVEYOR DRIVE ROD, BEARING BRACKET ASSEMBLY
0036503	CONVEYOR DRIVE CAM WHEEL
0037501	CONVEYOR DRIVE, SOCKET HEAD BOLT
0038001	CONVEYOR DRIVE CAM, FOLLOWER BEARING
0038100	CONVEYOR DRIVE CAM, FOLLOWER BEARING LOCKNUT
0038501	CONVEYOR DRIVE CLUTCH, TORQUE LIMITER
0039001	CONVEYOR DRIVE CLUTCH, ADAPTER PLATE
0039501	CONVEYOR DRIVE BUSHING, FOR CAM WHEEL
0040000	CONVEYOR DRIVE ROD BEARING
0040500	CONVEYOR DRIVE ROD WIPER
0041000	CONVEYOR DRIVE SHOULDER SCREW, 1/4"
0041500	CONVEYOR DRIVE SHOULDER SCREW, 3/8"
0042300	CONVEYOR PAWL BAR IDLER ROLLER
0042400	CONVEYOR PAWL BAR IDLER ROLLER BUSHING
0042500	CONVEYOR PAWL BAR ASSEMBLY COMPLETE 44"
0042502	CONVEYOR PAWL BAR ASSEMBLY COMPLETE 54"
0042900	CONVEYOR PAWL BAR, DRIVE CONNECTOR PIN
0043001	CONVEYOR PAWL BAR PAWL (DCG)
0043300	CONVEYOR PAWL BAR ASSEMBLY 66"
0043400	CONVEYOR PAWL BAR ASSEMBLY 76"
0043500	CONVEYOR PAWL BAR SPACER PIN
0044000	CONVEYOR PAWL BAR SPACE BUSHING
0044600	CONVEYOR PAWL BAR BOLTS
0044700	CONVEYOR PAWL BAR NUT (NYLON INSERT)
0045200	CURTAIN ROD
0045300	CURTAIN, MEDIUM
0045301	CURTAIN, SHORT
0045302	CURTAIN, LONG
0050100	DOOR ASSEMBLY, PREWASH
0050200	DOOR STRIP, NYLATRON
0050300	DOOR CATCH
0050400	DOOR ASSEMBLY, WASH
0053001	DOOR HANDLE
0053202	DRAIN STOPPER 'O' RING
0053205	DRAIN OVERLOW STOPPER, WASH (44CE/66CERPW)
0053208	DRAIN OVERFLOW STOPPER, PREWASH
0053209	DRAIN OVERFLOW STOPPER, RINSE (54CE/76CERPW)
0054002	DRAIN "O" RING (FOR LEVER OPERATED DRAIN)
0054003	DRAIN, LEVER OPERATED (SHORT HANDLE)

PART NO.	DESCRIPTION
0054006	DRAIN, LEVER OPERATED (LONG HANDLE)
0055800	FEED WATER TROUGH (BETWEEN WASH & PREWASH) 44CE66CERPW
0059201	HEATER ELEMENT, GASKET (ALL)
0059404	HEATER ELEMENT, WASH, 203V, 15KW (54CE/76CERPW)
0059405	HEATER ELEMENT, WASH, 208V, 15KW (54CE/76CERPW)
0059406	HEATER ELEMENT, WASH, 460V, 15KW (54CE/76CERPW)
0059502	HEATER ELEMENT, WASH, 208V, 15KW (44CE/66CERPW)
0059503	HEATER ELEMENT, WASH, 230V, 15 KW (44CE66CERPW)
0083105	LEG, LEVELING FOOT
0083502	LIGHT INDICATOR, 24V
0084500	PROBE, WARRICK
0087714	PUMP & MOTOR ASSY, 1 HP, 208-230/460, 60CY, 1 PH, 3450 RPM, (76CERPW)
0087715	PUMP MOTOR, 1 HP, 208-230/460, 60CY, 1 PH, 3450 RPM (76CERPW)
0087716	PUMP & MOTOR ASSY, 1 HP, 208-230/460, 60CY, 3 PH, 3450 RPM, (76CERPW)
0087717	PUMP MOTOR, 1 HP, 208-230/460, 60 CY, 3 PH, 3450 RPM (76CERPW)
0087718	PUMP SEAL, 1 HP MOTOR (76CERPW)
0087719	PUMP GASKET, 1 HP MOTOR (76CERPW)
0087804	PUMP & MOTOR ASSY, 1 1/2 HP, 220 V, 60 CY, 1 PH, 1745 RPM (44, 66)
0087805	PUMP MOTOR, 1 1/2 HP, 220V, 60 CY, 1 PM, 1745 RPM
0087806	PUMP & MOTOR ASSY, 1 1/2 HP, 220V, 60 CY, 3 PH, 1745 RPM
0087807	PUMP MOTOR, 1 1/2 HP, 220V, 60 CY, 3 PH, 1745 RPM
0087808	PUMP & MOTOR ASSY, 1 1/2 HP, 380V, 50 CY, 3PH, 1745 RPM
0087809	PUMP MOTOR, 1 1/2 HP, 380V, 50 CY, 3 PYH, 1450 RPOM
0087810	PUMP & MOTOR ASSY, 1 1/2 HP, 440V, 60 CY, 3 PH, 1745 RPM
0087811	PUMP MOTOR, 1 1/2 HP, 440V, 60CY, 3 PH, 1745 RPM
0087812	PUMP SEAL (44CE/66CERPW, 54CE/76CERPW)
0087813	PUMP "O" RING (GASKET) (44CE/66CERPW, 54CE/76CERPW)
0087814	PUMP & MOTOR ASSY, 2 HP, 208-230/460, 60 CY, 1 PH, 1745 RPM (54CE/76CERPW)
0087815	PUMP MOTOR, 2 HP, 208-230/460, 60 CY, 1 PH, 1745 RPM (54CE/76CERPW)
0087816	PUMP & MOTOR ASSY, 2 HP, 208-230/460, 60 CY, 3 PH, 1745 RPM (54CE/76CERPW)
0087817	PUMP MOTOR, 2 HP, 208-230/460, 60 CY, 3 PH, 1745 RPM, (54CE/76CERPW)
0122800	RELAY, OVERLOAD, 3 POLE
0122801	RELAY, OVERLOAD, 1 POLE
0122902	RELAY, OVERLOAD HEATER, E-34 (FOR CONVEYOR MOTOR, ALL)
0122903	RELAY, OVERLOAD HEATER, E-36 (FOR WASH PUMP, 440V, 3PH)
0122905	RELAY, OVERLOAD HEATER, E-46 (FOR WASH PUMP, 220V, 3PH)
0122906	RELAY, OVERLOAD HEATER, E-52 (FOR WASH PUMP, 220V, 1 PH)
0122907	RELAY, OVERLOAD HEATER, E-41 (FOR PREWASH PUMP, 460V, 3 PH)
0122908	RELAY, OVERLOAD HEATER, E-46 (FOR PREWASH PUMP, 208-230V, 3PH)
0122909	RELAY, OVERLOAD HEATER, E-41 (FOR 2 HP WASH PUMP, 460V 3PH) 54CE/76CERPW

PART NO.	DESCRIPTION
0122910	RELAY, OVERLOAD HEATER, E-57 (FOR PREWASH PUMP, 208-230V, 1 PH)
0122911	RELAY, OVERLOAD HEATER, E-51 (FOR WASH PUMP, 2 HP, 208-230V, 3 PH) 54CE/76CERPW
0122912	RELAY, OVERLOAD HEATER, E-57 (FOR 2 HP, WASH PUMP, 208-230V, 1 PH) 54CE/76CERPW
0123200	RELAY, 3 POLE, 24V, 60 AMP
0123201	RELAY, 2 POLE, 24V, 75 AMP
0123202	RELAY, 2 POLE, 24V, 75 AMP
0123203	RELAY, 2 POLE, 24V, 25 AMP
0123204	RELAY, DPTT, 24 VAC (R6)
0123205	RELAY, TPDT, 24 VAC (R5)
0123400	RESISTOR, 5 WATT, 82 OHM
0137600	RINSE OR CYLCE ACTUATOR ROD & PADDLE
0137700	RINSE OR CYLCE ACTUATOR ROD BUSHING
0137701	RINSE OR CYLCE ACTUATOR HELPE SPRING
0137702	RINSE OR CYCLE ACTUATOR LIMIT SWITCH BRACKET
0137800	RINSE OR CYCLE ACTUATOR COUPLING
0137801	RINSE OR CYCLE ACTUATOR COUPLING ROLLED PIN
0137900	RINSE OR CYCLE ACTUATOR ROD BRACKET
0138200	RINSE HEAD ASSEMBLY, FINAL (44CE/66CERPW)
0138201	RINSE SPRAY NOZZLES, FINAL UPPER, 1/4" (44CE/66CERPW)
0138202	RINSE END PLUGS, 3/8" (PIPE PLUG)
0138203	RINSE HEAD ASSEMBLY, FINAL (54CE/76CERPW)
0138204	RINSE SPRAY NOZZLES, FINAL RINSE, UPPER & LOWER (54CE/76CERPW)
0139500	RINSE SPRAY NOZZLES, FINAL, LOWER, 1/8" (44CE/66CERPW)
0142700	SOLENOID VALVE, 1/2", 24V
0142701	SOLENOID VALVE COIL, 24V, JE
0145000	SOLENOIDC VALVE DIAPHRAGM KIT, 1/2"
0148600	SOLENOID VALVE PLUNGER, JE GP
0152500	STRAINER, PUMP INTAKE
0152705	STRAINER, PAN (22" PREWASH) 76CERPW
0152706	STRAINER, PAN (WASH) 54CE/76CERPW
0152800	STRAINER, BASKET (22" PREWASH) 76CERPW
0153400	STRAINER, PAN (WASH)
0153600	STRAINER, "Y" 1/2"
0156301	SWITCH, DPOT, 3 POSITION, ROCKER TYPE (BLACK ROCKER)
0156600	SWITCH, SERVICE DISCONNECT, 3 POLE, 100 AMP
0156601	SWITCH, SERVICE DISCONNECT, 2 POLE, 100 AMP
0159700	SWITCH, SPOT, 2 POSITION, ROCKER TYPE
0163400	SWITCH, TABLE LIMIT
0163500	SWITCH, LIMIT (LEFT TO RIGHT OPERATION)
0163600	SWITCH, LIMIT (RIGHT TO LEFT OPERATION)
0166600	TERMINAL BOARD, 12 POLE
0166601	TERMINAL BOARD JUMPERS
0168700	THERMOMETER, DIGITAL DISPLAY (RINSE & 22" PREWASH)
0168701	THERMOMETER, DIGITAL DISPLAY & TEMP, CONTROL (WASH)
0168702	THERMOMETER, PROBE
0168800	THERMOSTATIC OVERLOAD (HI LIMIT FOR HEATER)
0174800	TIMER, 24V, 5 AMP, 1 LED ON TOP
0174801	TIMER ADJUSTING POT
0174900	TIMER, 1 AMP, 2 LEDS ON TOP

PART NO.	DESCRIPTION
0180403	TRACK ASSEMBLY, FRONT OR BACK 44"
0180404	TRACK ASSEMBLY, FRONT OR BACK 66"
0180405	TRACK ASSEMBLY, FRONT OR BACK, 54"
0180406	TRACK ASSEMBLY, FRONT OR BACK, 76"
0180602	TRANSFORMER, MULTITAP, 24V SECONDARY
0180900	TRANSFORMER, 1 KVA, 440/100 (440V UNIT ONLY)
0184101	VACUUM BREAKER, 1/2" CONBRACO
0184200	VACUUM BREAKER REPAIR KIT, 1/2" CONBRACO
0184900	VALVE, 1/2", FILL
0185000	VALVE, 1/4" (FOR PRESSURE GAUGE)
0199102	WASH HEAD TUBE ASSEMBLY (22" PREWASH)
0199201	WASH HEAD END PLUG
0199300	WASH HEAD TUBE ASSEMBLY, UPPER (44CE/66CERPW)
0199301	WASH HEAD TUBE ASSEMBLY, LOWER (44CE/66CERPW)
0199302	WASH HEAD TUBE 'O' RING (ALL)
0199304	WASH HEAD TUBE ASSEMB LY, UPPER (54CE/76CERPW)
0199305	WASH HEAD TUBE ASSEMBLY, LOWER (54CE/76CERPW)
0205600	WATER LEVEL CONTROL, 24V

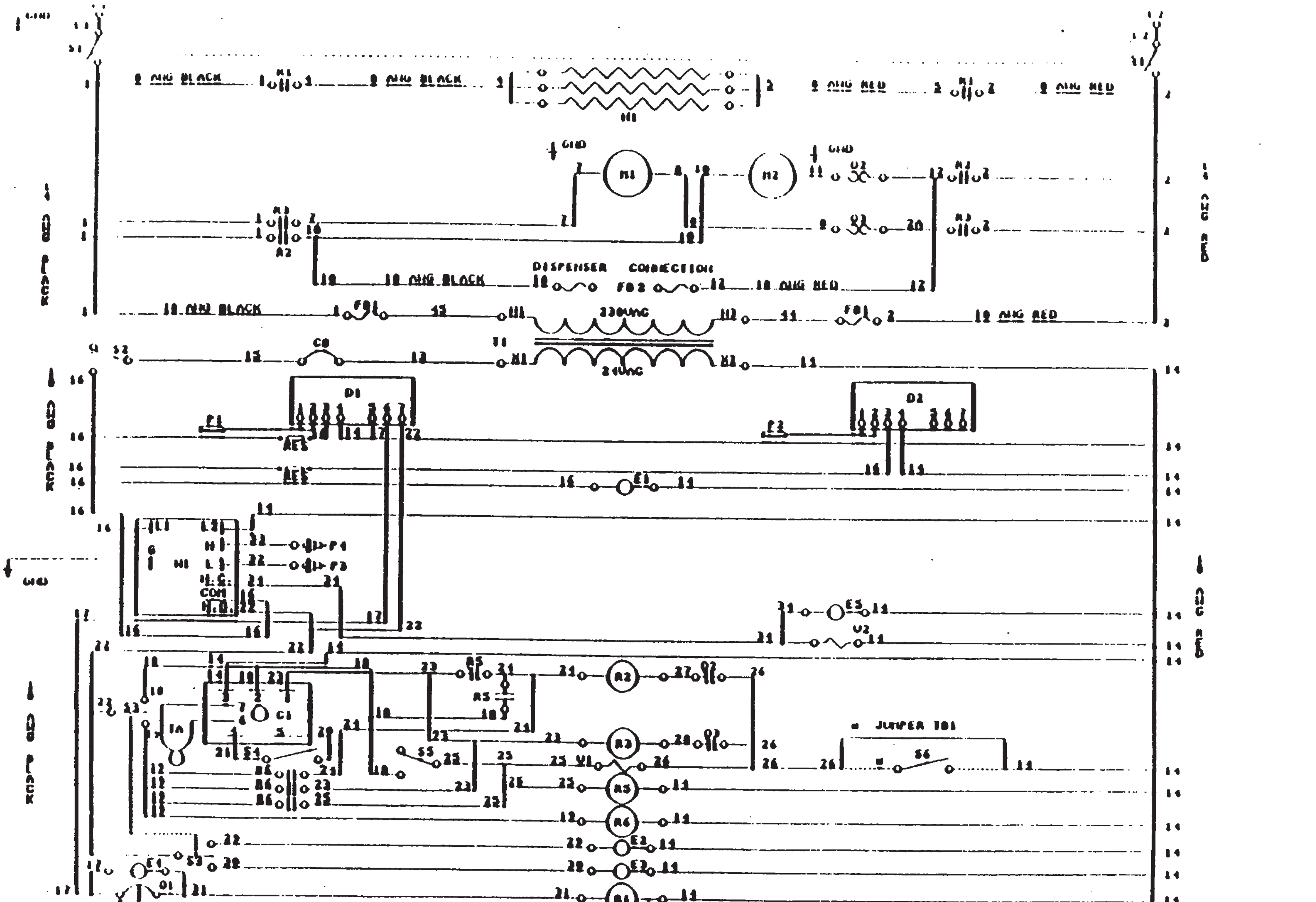


R1 WASH HEAT RELAY
R2 CONVEYOR MOTOR RELAY
R3 WASH MOTOR RELAY
R5 CONVEYOR CYCLE RELAY
R6 MANUAL CYCLE RELAY
H1 WASH TANK HEATER
M1 WASH MOTOR
M2 CONVEYER MOTOR
S1 SERVICE DISCONNECT
S2 POWER SWITCH

S3 CYCLE SWITCH
S4 PADDLE SWITCH
S5 RINSE PADDLE SWITCH
S6 TABLE LIMIT SWITCH
O1 WASH HEATER OVERLOAD
O2 CONVEYOR MOTOR OVERLOAD
O3 WASH MOTOR OVERLOAD
FB1 CONTROL TRANS. FUSE BLOCK
FB2 DETERGENT FUSE BLOCK
T1 CONTROL TRANSFORMER

D1 WASH TEMP DISPLAY/CONTROLLER
D2 FINAL RINSE TEMP DISPLAY
E1 POWER LIGHT
E2 AUTO CYCLE LIGHT
E3 MANUAL CYCLE LIGHT
E4 HEATER OVERLOAD LIGHT
E5 AUTO FILL LIGHT
P1 WASH TEMP PROBE
P2 FINAL RINSE TEMP PROBE
P3 WASH LOW LEVEL PROBE

P4 WASH HIGH LEVEL PROBE
W1 WASH LEVEL CONTROL
V1 FINAL RINSE SOLENOID
V2 WASH FILL SOLENOID
C1 AUTO CYCLE TIMER
TA TIMER ADJUSTMENT
CB CIRCUIT BREAKER



R1 WASH HEAT RELAY
R2 CONVEYOR MOTOR RELAY
R3 WASH MOTOR RELAY
R5 CONVEYOR CYCLE RELAY
R6 MANUAL CYCLE RELAY
M1 WASH TANK HEATER
M1 WASH MOTOR
M2 CONVEYER MOTOR
S1 SERVICE DISCONNECT
S2 POWER SWITCH

S3 CYCLE SWITCH
S4 PADDLE SWITCH
S5 RINSE PADDLE SWITCH
S6 TABLE LIMIT SWITCH
O1 WASH HEATER OVERLOAD
O2 CONVEYOR MOTOR OVERLOAD
O3 WASH MOTOR OVERLOAD
FB1 CONTROL TRANS. FUSE BLOCK
FB2 DETERGENT FUSE BLOCK
T1 CONTROL TRANSFORMER

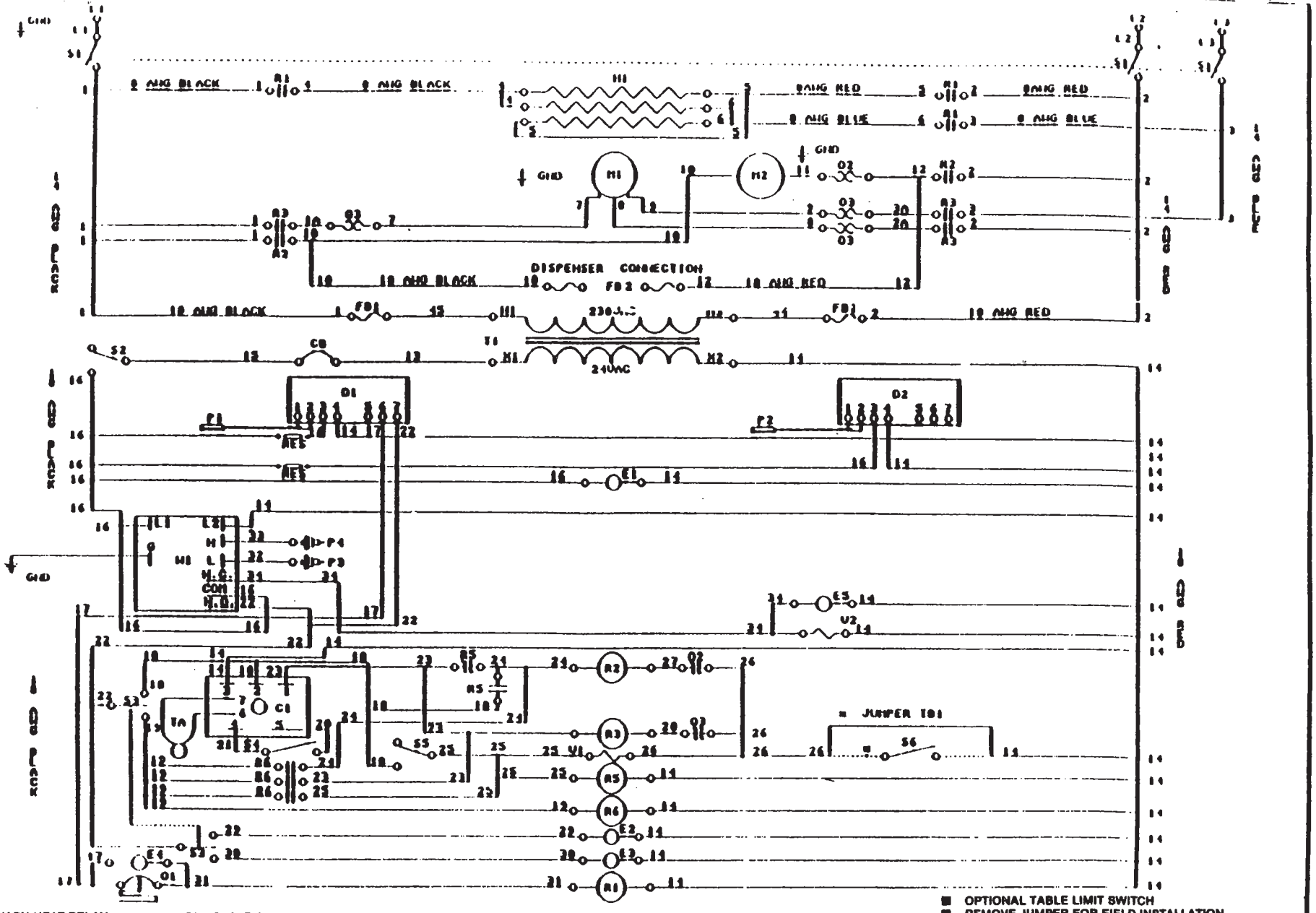
D1 WASH TEMP DISPLAY/CONTROLLER
D2 FINAL RINSE TEMP DISPLAY
E1 POWER LIGHT
E2 AUTO CYCLE LIGHT
E3 MANUAL CYCLE LIGHT
E4 HEATER OVERLOAD LIGHT
E5 AUTO FILL LIGHT
P1 WASH TEMP PROBE
P2 FINAL RINSE TEMP PROBE
P3 WASH LOW LEVEL PROBE

P4 WASH HIGH LEVEL PROBE
W1 WASH LEVEL CONTROL
V1 FINAL RINSE SOLENOID
V2 WASH FILL SOLENOID
C1 AUTO CYCLE TIMER
TA TIMER ADJUSTMENT
CB CIRCUIT BREAKER

44CE
54CE

■ OPTIONAL TABLE LIMIT SWITCH
■ REMOVE JUMPER FOR FIELD INSTALLATION
..... FIELD WIRING
NOTE—ALL WIRES MTW 2/64 INSULATION
TEMP RATED 90 C/194 F DEGREES

Jackson
DRN. D.A.R.
CK. B.H.H.



R1	WASH HEAT RELAY	S3	CYCLE SWITCH	D1	WASH TEMP DISPLAY/CONTROLLER	P4	WASH HIGH LEVEL PROBE
R2	CONVEYOR MOTOR RELAY	S4	PADDLE SWITCH	D2	FINAL RINSE TEMP DISPLAY	W1	WASH LEVEL CONTROL
R3	WASH MOTOR RELAY	S5	RINSE PADDLE SWITCH	E1	POWER LIGHT	V1	FINAL RINSE SOLENOID
R5	CONVEYOR CYCLE RELAY	S6	TABLE LIMIT SWITCH	E2	AUTO CYCLE LIGHT	V2	WASH FILL SOLENOID
R6	MANUAL CYCLE RELAY	O1	WASH HEATER OVERLOAD	E3	MANUAL CYCLE LIGHT	C1	AUTO CYCLE TIMER
H1	WASH TANK HEATER	O2	CONVEYOR MOTOR OVERLOAD	E4	HEATER OVERLOAD LIGHT	TA	TIMER ADJUSTMENT
M1	WASH MOTOR	O3	WASH MOTOR OVERLOAD	E5	AUTO FILL LIGHT	CB	CIRCUIT BREAKER
M2	CONVEYER MOTOR	FB1	CONTROL TRANS. FUSE BLOCK	P1	WASH TEMP PROBE		
S1	SERVICE DISCONNECT	FB2	DETERGENT FUSE BLOCK	P2	FINAL RINSE TEMP PROBE		
S2	POWER SWITCH	T1	CONTROL TRANSFORMER	P3	WASH LOW LEVEL PROBE		

44CE
54CE

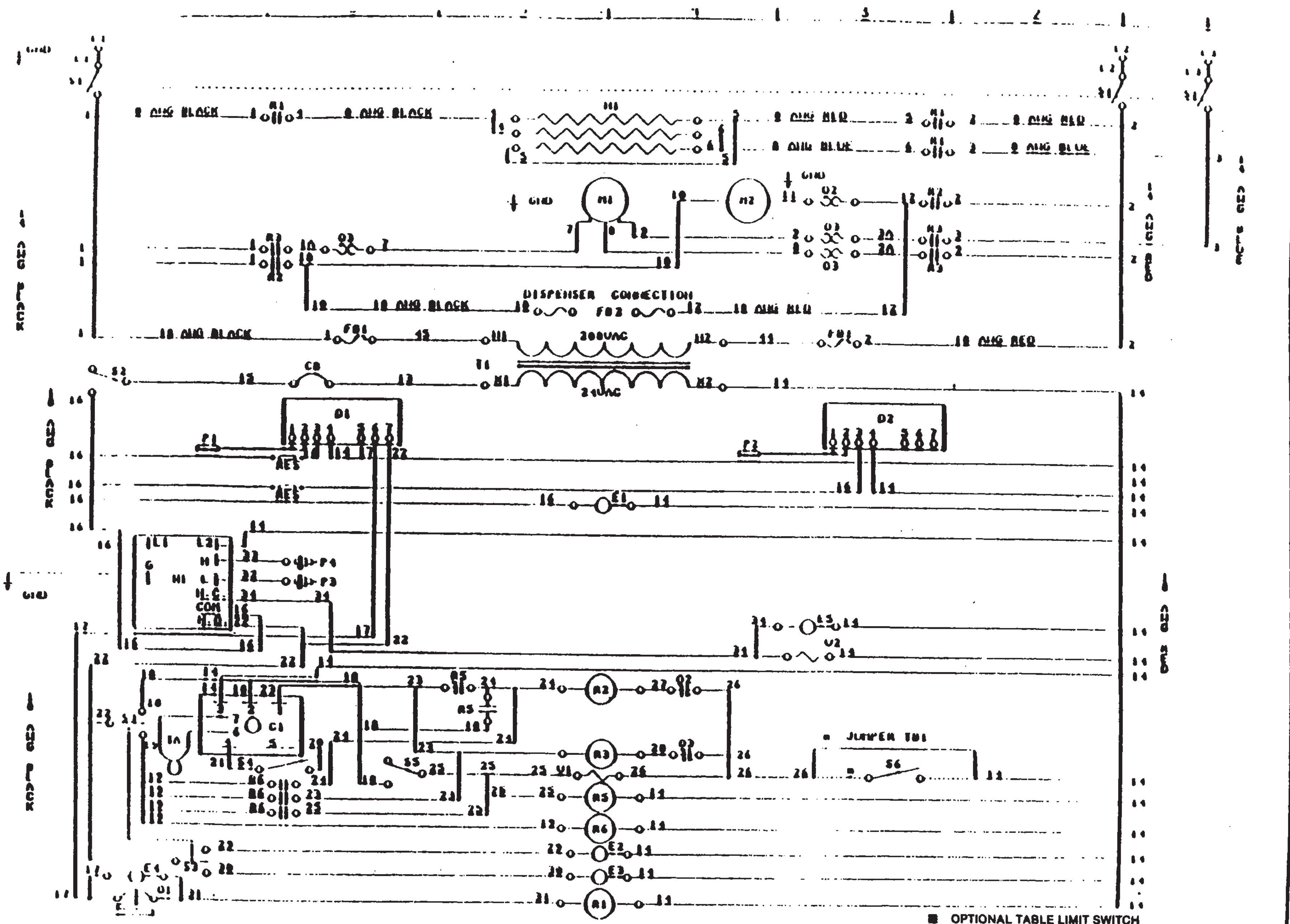
■ OPTIONAL TABLE LIMIT SWITCH
■ REMOVE JUMPER FOR FIELD INSTALLATION
····· FIELD WIRING
NOTE—ALL WIRES MTW 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES

Jackson, MI (USA)

DRN	D.O.B	DATE 7-27-87	APP D.O.S. 8/27/87
CK	B.M.M.	DATE 8/15/87	APP

TITLE 230V 50-60HZ 3PH AUTO/FILL LADDER SCHEMATIC

ID. DE 10637A

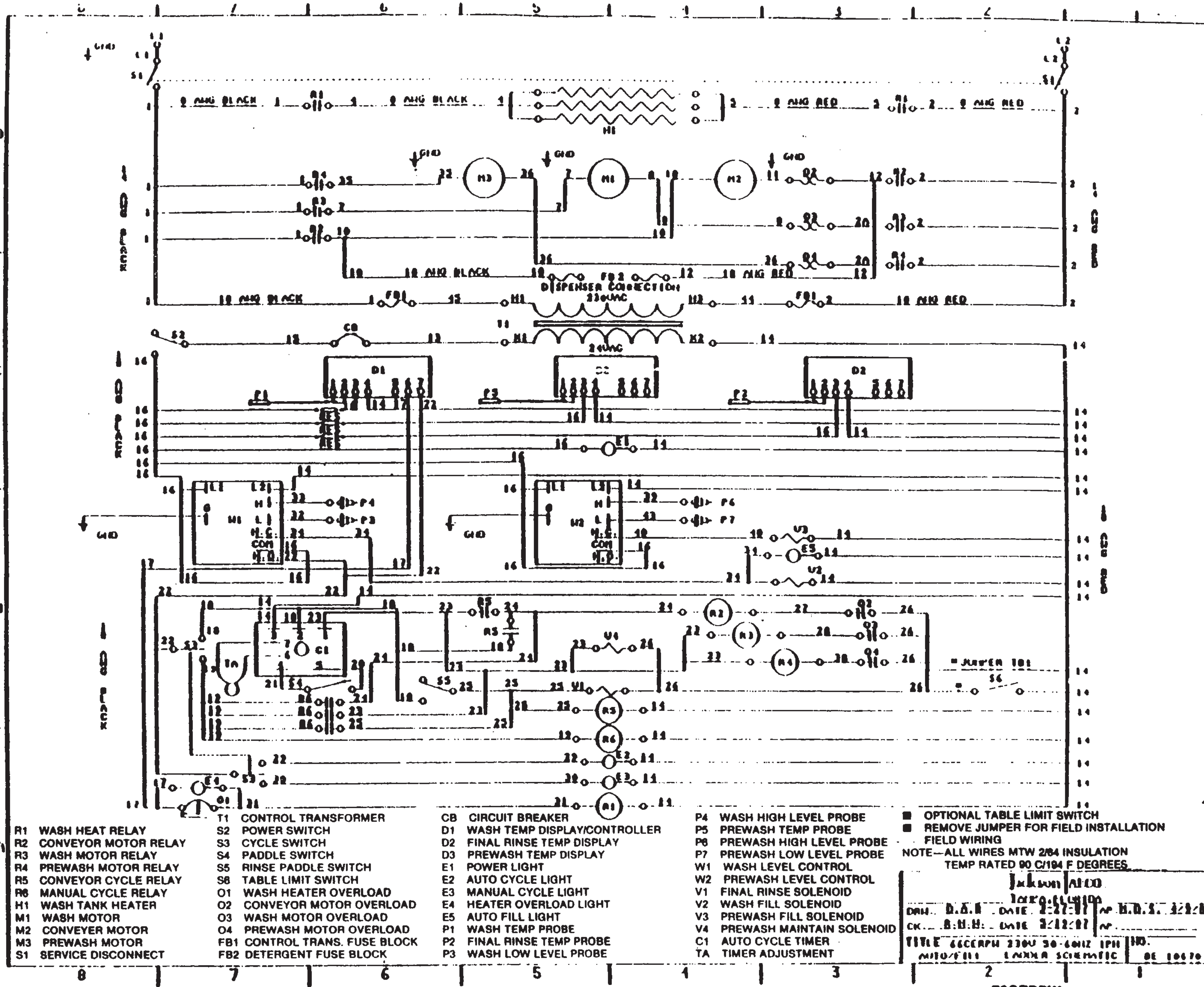


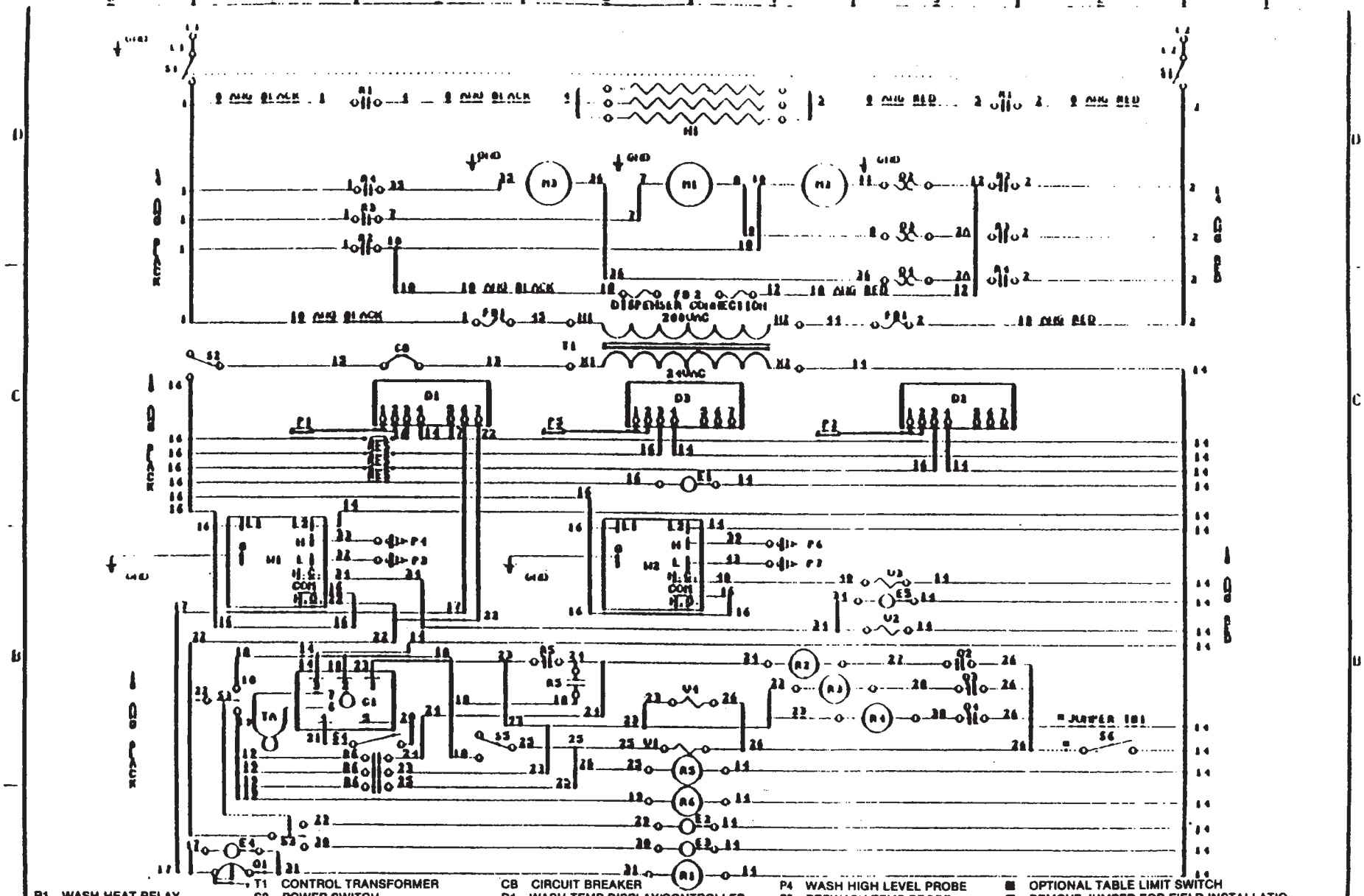
R1 WASH HEAT RELAY	S3 CYCLE SWITCH	D1 WASH TEMP DISPLAY/CONTROLLER	P4 WASH HIGH LEVEL PROBE
R2 CONVEYOR MOTOR RELAY	S4 PADDLE SWITCH	D2 FINAL RINSE TEMP DISPLAY	W1 WASH LEVEL CONTROL
R3 WASH MOTOR RELAY	S5 RINSE PADDLE SWITCH	E1 POWER LIGHT	V1 FINAL RINSE SOLENOID
R5 CONVEYOR CYCLE RELAY	S6 TABLE LIMIT SWITCH	E2 AUTO CYCLE LIGHT	V2 WASH FILL SOLENOID
R6 MANUAL CYCLE RELAY	O1 WASH HEATER OVERLOAD	E3 MANUAL CYCLE LIGHT	C1 AUTO CYCLE TIMER
H1 WASH TANK HEATER	O2 CONVEYOR MOTOR OVERLOAD	E4 HEATER OVERLOAD LIGHT	TA TIMER ADJUSTMENT
M1 WASH MOTOR	O3 WASH MOTOR OVERLOAD	E5 AUTO FILL LIGHT	CB CIRCUIT BREAKER
M2 CONVEYER MOTOR	FB1 CONTROL TRANS. FUSE BLOCK	P1 WASH TEMP PROBE	44CE
S1 SERVICE DISCONNECT	FB2 DETERGENT FUSE BLOCK	P2 FINAL RINSE TEMP PROBE	54CE
S2 POWER SWITCH	T1 CONTROL TRANSFORMER	P3 WASH LOW LEVEL PROBE	

■ OPTIONAL TABLE LIMIT SWITCH
■ REMOVE JUMPER FOR FIELD INSTALLATION
..... FIELD WIRING
NOTE—ALL WIRES MTW 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES

Jackson | Atco
S/N 2929
DATE 3/12/87
DATE 3/12/87
208V 50-60HZ 3PH

PAGE 2 OF 10 PAGES

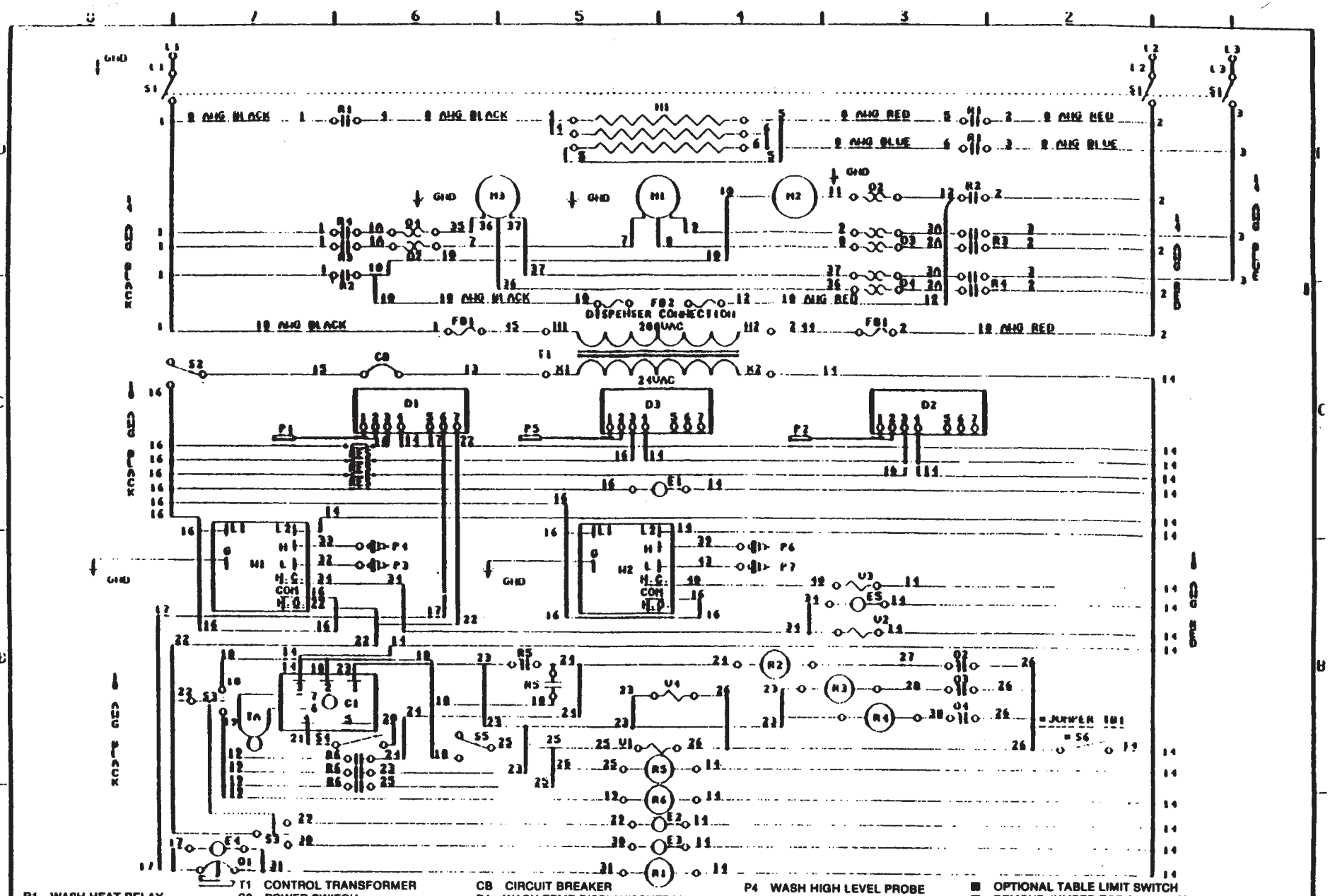

R1 WASH HEAT RELAY
R2 CONVEYOR MOTOR RELAY
R3 WASH MOTOR RELAY
R4 PREWASH MOTOR RELAY
R5 CONVEYOR CYCLE RELAY
R6 MANUAL CYCLE RELAY
H1 WASH TANK HEATER
M1 WASH MOTOR
M2 CONVEYER MOTOR
M3 PREWASH MOTOR
S1 SERVICE DISCONNECT
T1 CONTROL TRANSFORMER
S2 POWER SWITCH
S3 CYCLE SWITCH
S4 PADDLE SWITCH
S5 RINSE PADDLE SWITCH
S6 TABLE LIMIT SWITCH
O1 WASH HEATER OVERLOAD
O2 CONVEYOR MOTOR OVERLOAD
O3 WASH MOTOR OVERLOAD
O4 PREWASH MOTOR OVERLOAD
FB1 CONTROL TRANS. FUSE BLOCK
FB2 DETERGENT FUSE BLOCK
CB CIRCUIT BREAKER
D1 WASH TEMP DISPLAY/CONTROLLER
D2 FINAL RINSE TEMP DISPLAY
D3 PREWASH TEMP DISPLAY
E1 POWER LIGHT
E2 AUTO CYCLE LIGHT
E3 MANUAL CYCLE LIGHT
E4 HEATER OVERLOAD LIGHT
E5 AUTO FILL LIGHT
P1 WASH TEMP PROBE
P2 FINAL RINSE TEMP PROBE
P3 WASH LOW LEVEL PROBE
P4 WASH HIGH LEVEL PROBE
P5 PREWASH TEMP PROBE
P6 PREWASH HIGH LEVEL PROBE
P7 PREWASH LOW LEVEL PROBE
W1 WASH LEVEL CONTROL
W2 PREWASH LEVEL CONTROL
V1 FINAL RINSE SOLENOID
V2 WASH FILL SOLENOID
V3 PREWASH FILL SOLENOID
V4 PREWASH MAINTAIN SOLENOID
C1 AUTO CYCLE TIMER
TA TIMER ADJUSTMENT
OPTIONAL TABLE LIMIT SWITCH
REMOVE JUMPER FOR FIELD INSTALLATION
FIELD WIRING
NOTE—ALL WIRES MTW 2/64 INSULATION
TEMP RATED 90 C/194 F DEGREES
DISPENSER CONNECTION
230VAC
24VAC
8 AWG BLACK
8 AWG RED
10 AWG BLACK
10 AWG RED



R1	WASH HEAT RELAY	T1	CONTROL TRANSFORMER	CB	CIRCUIT BREAKER	P4	WASH HIGH LEVEL PROBE
R2	CONVEYOR MOTOR RELAY	S2	POWER SWITCH	D1	WASH TEMP DISPLAY/CONTROLLER	P5	PREWASH TEMP PROBE
R3	WASH MOTOR RELAY	S3	CYCLE SWITCH	D2	FINAL RINSE TEMP DISPLAY	P6	PREWASH HIGH LEVEL PROBE
R4	PREWASH MOTOR RELAY	S4	PADDLE SWITCH	D3	PREWASH TEMP DISPLAY	P7	PREWASH LOW LEVEL PROBE
R5	CONVEYOR CYCLE RELAY	S5	RINSE PADDLE SWITCH	E1	POWER LIGHT	W1	WASH LEVEL CONTROL
R6	MANUAL CYCLE RELAY	S6	TABLE LIMIT SWITCH	E2	AUTO CYCLE LIGHT	W2	PREWASH LEVEL CONTROL
H1	WASH TANK HEATER	O1	WASH HEATER OVERLOAD	E3	MANUAL CYCLE LIGHT	V1	FINAL RINSE SOLENOID
M1	WASH MOTOR	O2	CONVEYOR MOTOR OVERLOAD	E4	HEATER OVERLOAD LIGHT	V2	WASH FILL SOLENOID
M2	CONVEYER MOTOR	O3	WASH MOTOR OVERLOAD	E5	AUTO FILL LIGHT	V3	PREWASH FILL SOLENOID
M3	PREWASH MOTOR	O4	PREWASH MOTOR OVERLOAD	P1	WASH TEMP PROBE	V4	PREWASH MAINTAIN SOLENOID
S1	SERVICE DISCONNECT	FB1	CONTROL TRANS. FUSE BLOCK	P2	FINAL RINSE TEMP PROBE	C1	AUTO CYCLE TIMER
		FB2	DETERGENT FUSE BLOCK	P3	WASH LOW LEVEL PROBE	TA	TIMER ADJUSTMENT

■ OPTIONAL TABLE LIMIT SWITCH
■ REMOVE JUMPER FOR FIELD INSTALLATION
— FIELD WIRING
NOTE—ALL WIRES MTW 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES

76CERPW



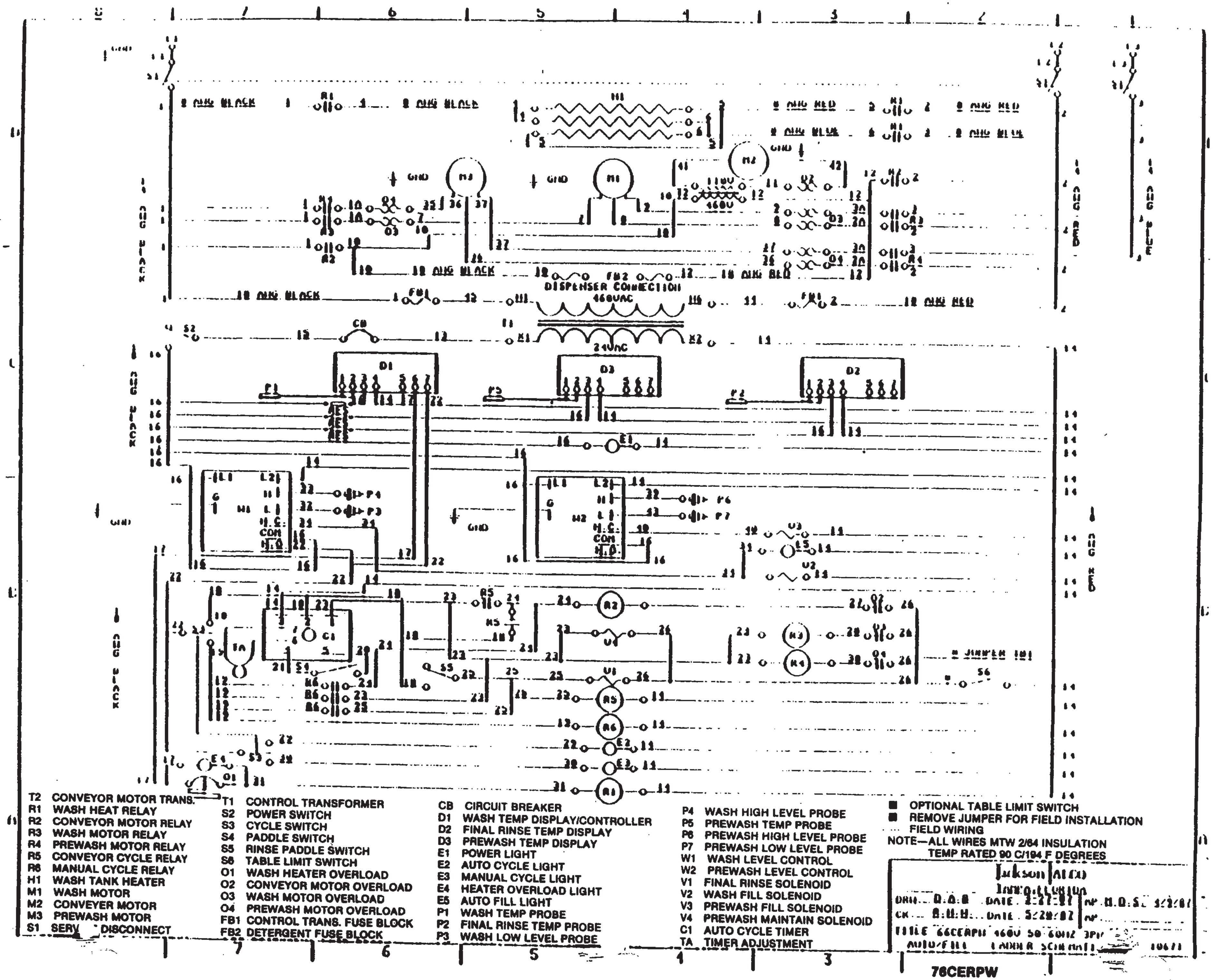
R1	WASH HEAT RELAY	T1	CONTROL TRANSFORMER	CB	CIRCUIT BREAKER
R2	CONVEYOR MOTOR RELAY	S2	POWER SWITCH	D1	WASH TEMP DISPLAY/CONTROLLER
R3	WASH MOTOR RELAY	S3	CYCLE SWITCH	D2	FINAL RINSE TEMP DISPLAY
R4	PREWASH MOTOR RELAY	S4	PADDLE SWITCH	D3	PREWASH TEMP DISPLAY
R5	CONVEYOR CYCLE RELAY	S5	RINSE PADDLE SWITCH	E1	POWER LIGHT
R6	MANUAL CYCLE RELAY	S6	TABLE LIMIT SWITCH	E2	AUTO CYCLE LIGHT
H1	WASH TANK HEATER	O1	WASH HEATER OVERLOAD	E3	MANUAL CYCLE LIGHT
M1	WASH MOTOR	O2	CONVEYOR MOTOR OVERLOAD	E4	HEATER OVERLOAD LIGHT
M2	CONVEYER MOTOR	O3	WASH MOTOR OVERLOAD	E5	AUTO FILL LIGHT
M3	PREWASH MOTOR	O4	PREWASH MOTOR OVERLOAD	P1	WASH TEMP PROBE
S1	SERVICE DISCONNECT	FB1	CONTROL TRANS. FUSE BLOCK	P2	FINAL RINSE TEMP PROBE
		FB2	DETERGENT FUSE BLOCK	P3	WASH LOW LEVEL PROBE
				P4	WASH HIGH LEVEL PROBE
				P5	PREWASH TEMP PROBE
				P6	PREWASH HIGH LEVEL PROBE
				P7	PREWASH LOW LEVEL PROBE
				W1	WASH LEVEL CONTROL
				W2	PREWASH LEVEL CONTROL
				V1	FINAL RINSE SOLENOID
				V2	WASH FILL SOLENOID
				V3	PREWASH FILL SOLENOID
				V4	PREWASH MAINTAIN SOLENOID
				C1	AUTO CYCLE TIMER
				TA	TIMER ADJUSTMENT

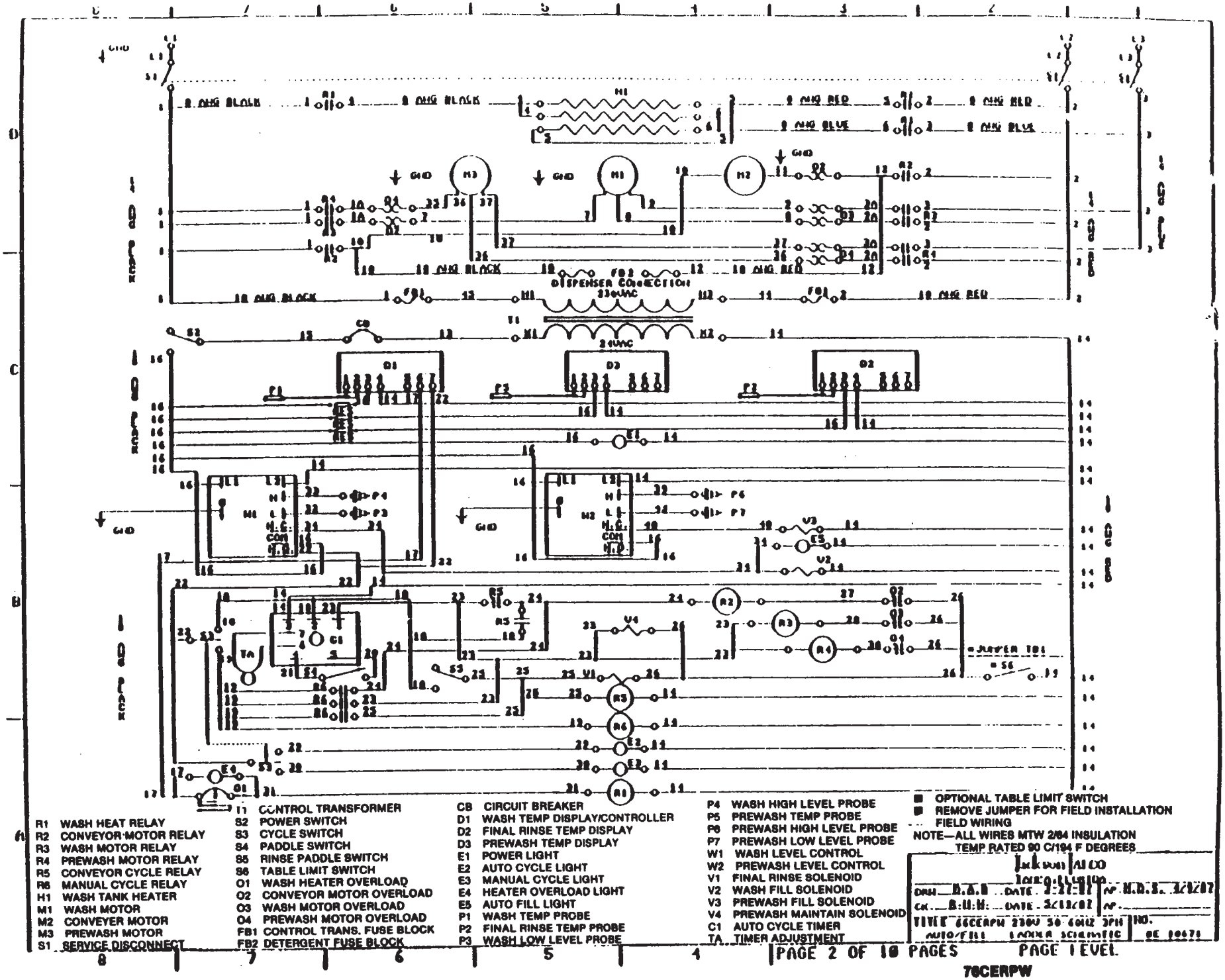
■ OPTIONAL TABLE LIMIT SWITCH
■ REMOVE JUMPER FOR FIELD INSTALLATION
FIELD WIRING

NOTE—ALL WIRES TMW 2/64 INSULATION
TEMP RATED 90 C/194 F DEGREES

Jackson (AIED)
Tampa, Florida

DRN D.A.B DATE 3/27/97 APP'D. B.D.S. 3/27/97
CK B.H.H. DATE 5/12/97 APP
TITLE 66CERPII 208V 50 60HZ 3PH NO.


T2 CONVEYOR MOTOR TRANS.
R1 WASH HEAT RELAY
R2 CONVEYOR MOTOR RELAY
R3 WASH MOTOR RELAY
R4 PREWASH MOTOR RELAY
R5 CONVEYOR CYCLE RELAY
R6 MANUAL CYCLE RELAY
H1 WASH TANK HEATER
M1 WASH MOTOR
M2 CONVEYER MOTOR
M3 PREWASH MOTOR
S1 SERV DISCONNECT
T1 CONTROL TRANSFORMER
S2 POWER SWITCH
S3 CYCLE SWITCH
S4 PADDLE SWITCH
S5 RINSE PADDLE SWITCH
S6 TABLE LIMIT SWITCH
O1 WASH HEATER OVERLOAD
O2 CONVEYOR MOTOR OVERLOAD
O3 WASH MOTOR OVERLOAD
O4 PREWASH MOTOR OVERLOAD
FB1 CONTROL TRANS. FUSE BLOCK
FB2 DETERGENT FUSE BLOCK
CB CIRCUIT BREAKER
D1 WASH TEMP DISPLAY/CONTROLLER
D2 FINAL RINSE TEMP DISPLAY
D3 PREWASH TEMP DISPLAY
E1 POWER LIGHT
E2 AUTO CYCLE LIGHT
E3 MANUAL CYCLE LIGHT
E4 HEATER OVERLOAD LIGHT
E5 AUTO FILL LIGHT
P1 WASH TEMP PROBE
P2 FINAL RINSE TEMP PROBE
P3 WASH LOW LEVEL PROBE
P4 WASH HIGH LEVEL PROBE
P5 PREWASH TEMP PROBE
P6 PREWASH HIGH LEVEL PROBE
P7 PREWASH LOW LEVEL PROBE
W1 WASH LEVEL CONTROL
W2 PREWASH LEVEL CONTROL
V1 FINAL RINSE SOLENOID
V2 WASH FILL SOLENOID
V3 PREWASH FILL SOLENOID
V4 PREWASH MAINTAIN SOLENOID
C1 AUTO CYCLE TIMER
TA TIMER ADJUSTMENT
OPTIONAL TABLE LIMIT SWITCH
REMOVE JUMPER FOR FIELD INSTALLATION
FIELD WIRING
NOTE—ALL WIRES MTW 2/64 INSULATION
TEMP RATED 90 C/194 F DEGREES
DISPENSER CONNECTION
460VAC
24VAC
76CERPW



R1	WASH HEAT RELAY	T1	CONTROL TRANSFORMER	CB	CIRCUIT BREAKER	P4	WASH HIGH LEVEL PROBE
R2	CONVEYOR MOTOR RELAY	S2	POWER SWITCH	D1	WASH TEMP DISPLAY/CONTROLLER	P5	PREWASH TEMP PROBE
R3	WASH MOTOR RELAY	S3	CYCLE SWITCH	D2	FINAL RINSE TEMP DISPLAY	P6	PREWASH HIGH LEVEL PROBE
R4	PREWASH MOTOR RELAY	S4	PADDLE SWITCH	D3	PREWASH TEMP DISPLAY	P7	PREWASH LOW LEVEL PROBE
R5	CONVEYOR CYCLE RELAY	S5	RINSE PADDLE SWITCH	E1	POWER LIGHT	W1	WASH LEVEL CONTROL
R6	MANUAL CYCLE RELAY	S6	TABLE LIMIT SWITCH	E2	AUTO CYCLE LIGHT	W2	PREWASH LEVEL CONTROL
H1	WASH TANK HEATER	O1	WASH HEATER OVERLOAD	E3	MANUAL CYCLE LIGHT	V1	FINAL RINSE SOLENOID
M1	WASH MOTOR	O2	CONVEYOR MOTOR OVERLOAD	E4	HEATER OVERLOAD LIGHT	V2	WASH FILL SOLENOID
M2	CONVEYER MOTOR	O3	WASH MOTOR OVERLOAD	E5	AUTO FILL LIGHT	V3	PREWASH FILL SOLENOID
M3	PREWASH MOTOR	O4	PREWASH MOTOR OVERLOAD	P1	WASH TEMP PROBE	V4	PREWASH MAINTAIN SOLENOID
S1	SERVICE DISCONNECT	FB1	CONTROL TRANS. FUSE BLOCK	P2	FINAL RINSE TEMP PROBE	C1	AUTO CYCLE TIMER
		FB2	DETERGENT FUSE BLOCK	P3	WASH LOW LEVEL PROBE	TA	TIMER ADJUSTMENT

■ OPTIONAL TABLE LIMIT SWITCH
■ REMOVE JUMPER FOR FIELD INSTALLATION
- - - FIELD WIRING
NOTE—ALL WIRES MTW 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES

DRN	D.A.B.	DATE 3-21-97	APP. H.D.S. 3/21/97
CK	B.U.H.	DATE 3/21/97	APP.

TITLE 66CERPW 230V 50-60HZ 3PH AUTO-FILL LADDER SCHEMATIC | NO. 00 10671

APPENDIX SECTION

THE APPENDIX SECTION IN THIS MANUAL WILL CONTAIN AND COLLECT SUPPLEMENTAL INFORMATION ADDED TO UP-DATE AND KEEP THIS MANUAL CURRENT TO THE PRODUCT IT REPRESENTS. IT ALSO PROVIDES PERTINENT INFORMATION REGARDING ALL PRODUCT CHANGES AND NEW PRODUCT DEVELOPMENTS. PLEASE READ THESE SUPPLEMENTS CAREFULLY AND COMPLETELY FOR THEY MAY REPLACE OR SUPERCEDE INSTRUCTIONS ALREADY IN THIS MANUAL.

JACKSON PRODUCTS COMPANY
(901) 968-5753

SERVICE MANUAL SUPPLEMENT

FOR

MODEL 44CEL

208-230V, 60HZ, 3PH

PLEASE INSERT INTO EXISTING MODEL 44CEL SERVICE MANUAL

D E S C R I P T I O N

PRODUCT COVERED:

*Commercial electric dishwashers, electrically heated Models 44CE, 44CEL, 54CE, 54CEL, 66CELRPW, 66CERPW, 76CERPW and 76CELRPW and steam heated Models 44CS, 44CSL, 54CS, 54CSL, 66CSRPW, 76CSRPW and 76CSLRPW.

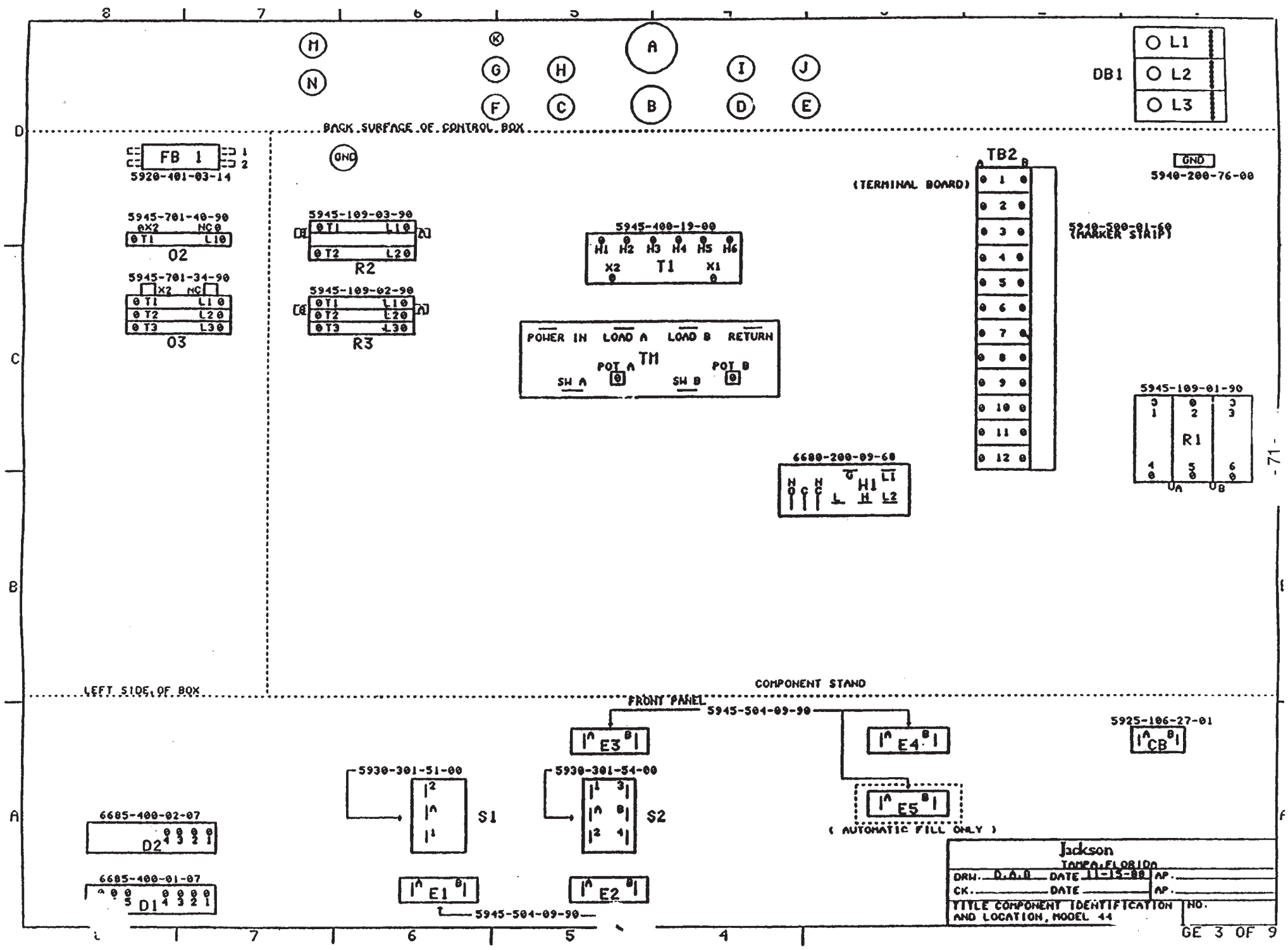
ELECTRICAL RATING:

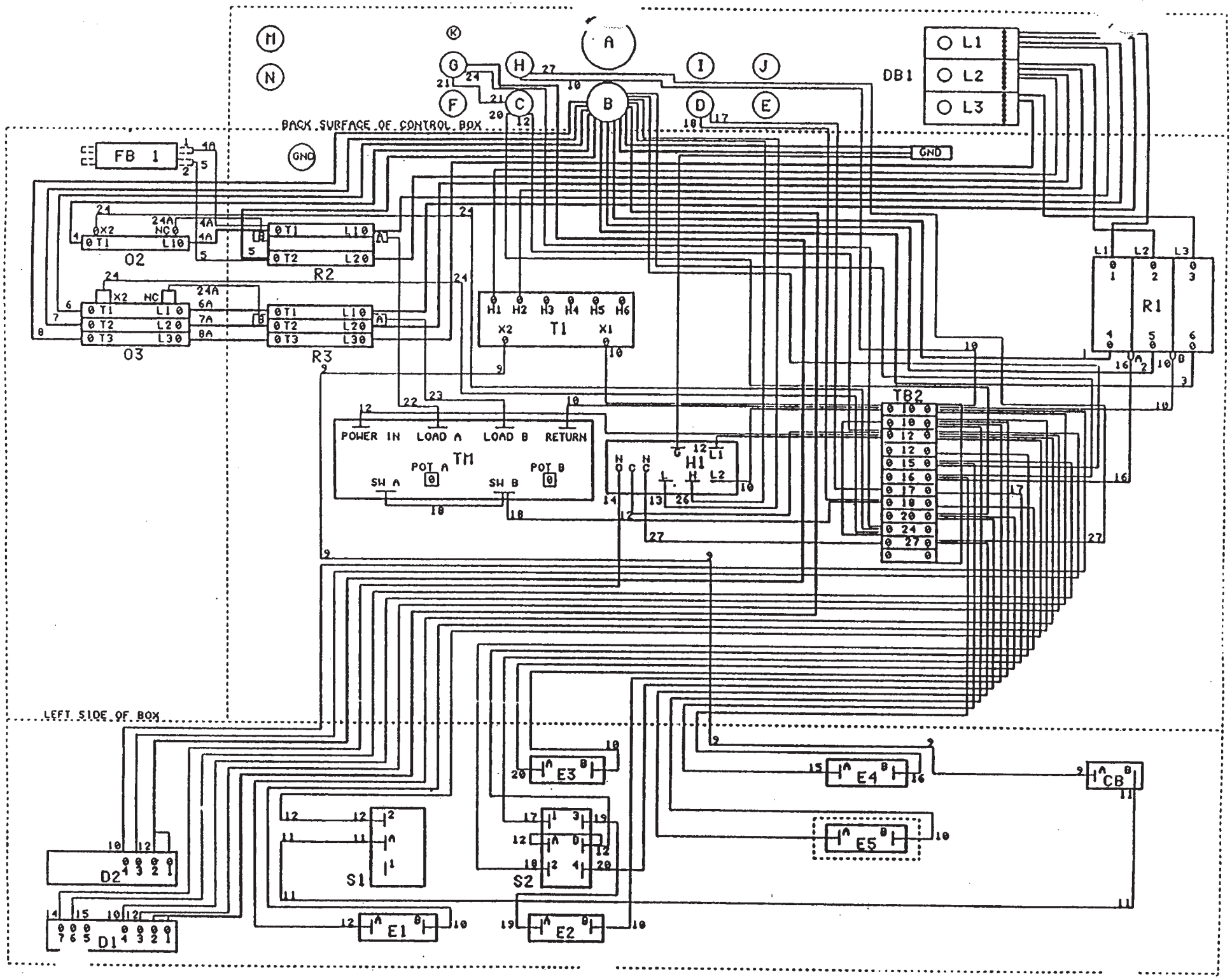
TABLE I

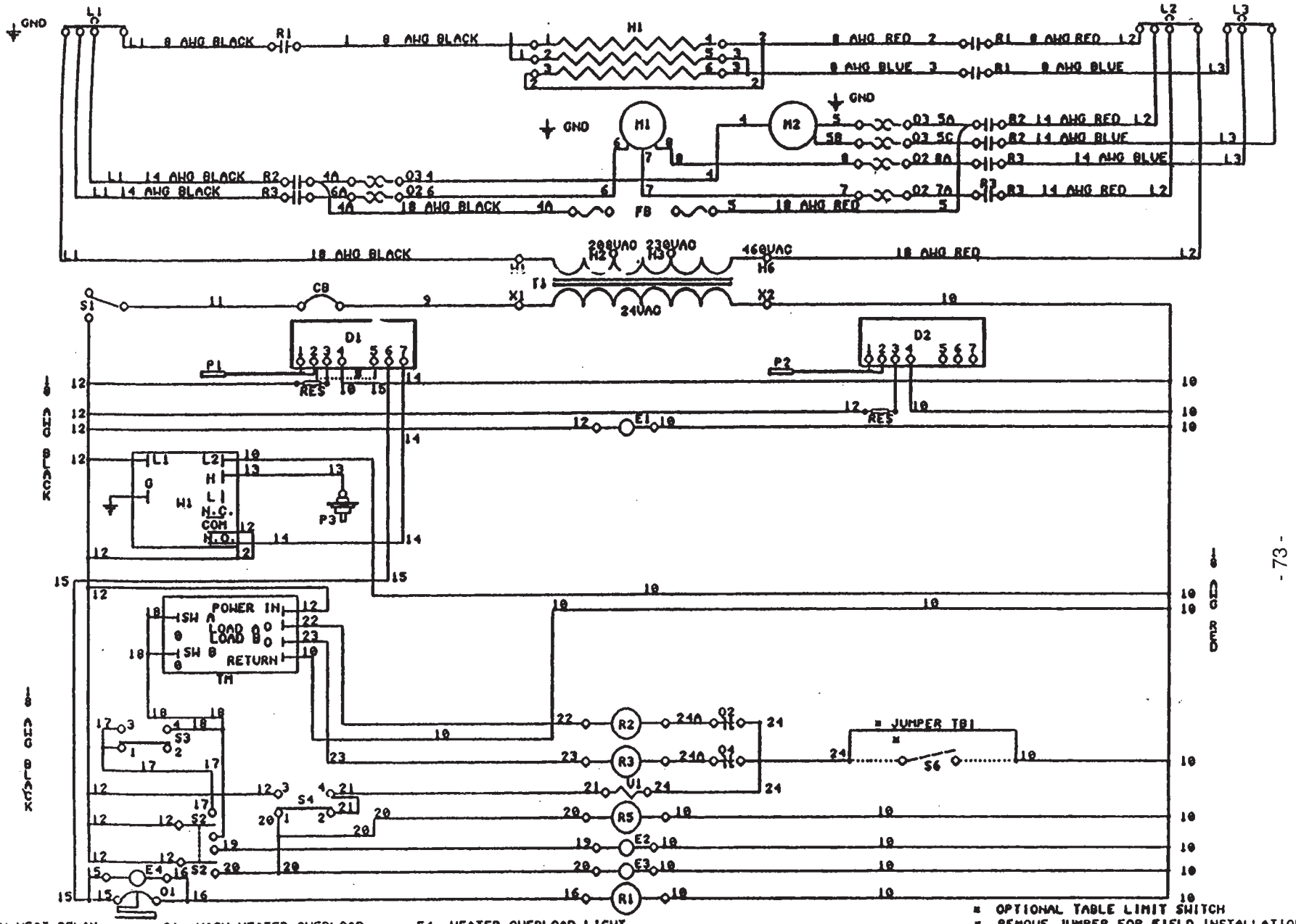
Ratings For Electrically Heated Models

				Conveyor Motor		Wash Motor		Pre-Wash Motor		Wash Heater		Total Load
Models	V	Ph	Hz	A (+)	hp	A	hp	A	hp	kW	A	A (+)
44CE	208	1	60	3.1	1/4	9.0	1-1/2	-	-	13	62.5	74.6
44CEL	208	3	60	3.1 (1.3)	1/4	4.8	1-1/2	-	-	13	36.1	44.0 (42.2)
	230	1	60	3.1	1/4	9.0	1-1/2	-	-	13	56.5	68.6
	230	3	60	3.1 (1.3)	1/4	4.8	1-1/2	-	-	13	32.6	40.6 (38.8)
	460	3	60	1.6 (0.65)	1/4	2.4	1-1/2	-	-	13	16.3	25.0 (24.0)
54CE	208	1	60	3.1	1/4	11.3	2.0	-	-	15	72.2	86.6
54CEL	208	3	60	3.1 (1.3)	1/4	6.2	2.0	-	-	15	41.7	51.0 (49.2)
	230	1	60	3.1	1/4	10.5	2.0	-	-	15	65.3	78.9
	230	3	60	3.1 (1.3)	1/4	6.2	2.0	-	-	15	37.7	47.0 (45.2)
	460	3	60	1.6 (0.65)	1/4	3.1	2.0	-	-	15	18.9	28.2 (27.2)
66CERPW	208	1	60	3.1	1/4	9.0	1-1/2	8.4	1	13	62.5	83.0
66CELRPW	208	3	60	3.1 (1.3)	1/4	4.8	1-1/2	3.2	1	13	36.1	47.2 (45.4)
	230	1	60	3.1	1/4	9.0	1-1/2	4	1	13	56.5	77.0
	230	3	60	3.1 (1.3)	1/4	4.8	1-1/2	2	1	13	32.6	43.7 (41.9)
	460	3	60	1.6 (0.65)	1/4	2.4	1-1/2	6	1	13	16.3	21.9 (20.9)
76CERPW	208	1	60	3.1	1/4	11.3	2.0	8.4	1	15	72.2	95.0
76CELRPW	208	3	60	3.1 (1.3)	1/4	6.2	2.0	3.2	1	15	41.7	54.2 (52.4)
	230	1	60	3.1	1/4	10.5	2.0	8.4	1	15	65.3	87.3
	230	3	60	3.1 (1.3)	1/4	6.2	2.0	3.2	1	15	37.7	50.2 (48.4)
	460	3	60	1.6 (0.65)	1/4	3.1	2.0	1.6	1	15	18.9	25.2 (24.2

(+) - Amperes indicated in parenthesis is for models employing alternate 3 phase conveyor motor.


BACK SURFACE OF CONTROL BOX
DB1
L1
L2
L3
FB 1
5920-401-03-14
GND
5945-701-40-90
02
5945-701-34-90
03
5945-109-03-90
R2
5945-109-02-90
R3
5945-400-19-00
T1
TB2
(TERMINAL BOARD)
GND
5940-200-76-00
5948-500-01-60
(MARKER STRIP)
POWER IN
LOAD A
LOAD B
RETURN
TM
SW A
POT A
SW B
POT B
6680-200-09-60
H1
5945-109-01-90
R1
- 71 -
LEFT SIDE OF BOX
COMPONENT STAND
FRONT PANEL
5945-504-09-90
E3
E4
E5
CB
5925-106-27-01
(AUTOMATIC FILL ONLY)
5930-301-51-00
S1
5930-301-54-00
S2
6685-400-02-07
D2
6685-400-01-07
D1
E1
E2
5945-504-09-90
Jackson
TAMPA, FLORIDA
DRN. D.A.B DATE 11-15-88 AP.
CK. DATE AP.
TITLE COMPONENT IDENTIFICATION AND LOCATION, MODEL 44
NO.
GE 3 OF 9

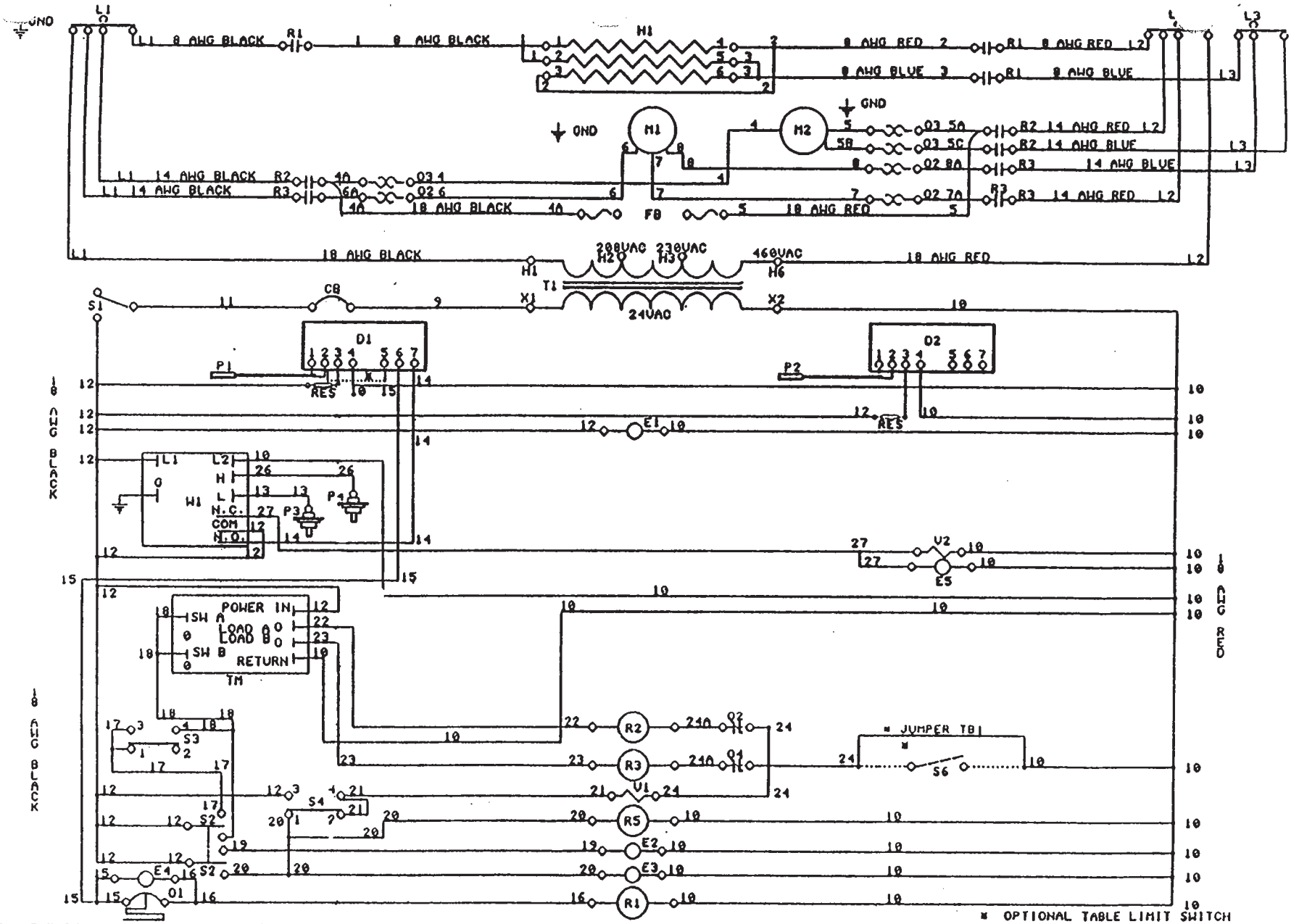

BACK SURFACE OF CONTROL BOX
LEFT SIDE OF BOX
FB 1
GND
DB1
L1
L2
L3
02
R2
03
R3
T1
R1
TB2
TM
POWER IN
LOAD A
LOAD B
RETURN
POT A
POT B
SW A
SW B
H1
D2
D1
S1
S2
E1
E2
E3
E4
E5
CB



R1	WASH HEAT RELAY	O1	WASH HEATER OVERLOAD	E4	HEATER OVERLOAD LIGHT
R2	CONVEYOR MOTOR RELAY	O2	WASH MOTOR OVERLOAD	D1	WASH TEMP DISPLAY/CONTROLLER
R3	WASH MOTOR RELAY	O3	CONVEYOR MOTOR OVERLOAD	D2	FINAL RINSE TEMP DISPLAY
H1	WASH TANK HEATER	FB	DETERGENT FUSE BLOCK		
M1	WASH MOTOR	T1	CONTROL TRANSFORMER		
M2	CONVEYOR MOTOR	CB	CIRCUIT BREAKER		
S1	POWER SWITCH	H1	WASH LEVEL CONTROL		
S2	CYCLE SWITCH	V1	FINAL RINSE SOLENOID		
S3	SX °ADDLE SWITCH	E1	POWER LIGHT		
S4	ADDLE SWITCH	E2	AUTO CYCLE LIGHT		
S6	IMIT SWITCH *	E3	MANUAL CYCLE LIGHT		

* OPTIONAL TABLE LIMIT SWITCH
* REMOVE JUMPER FOR FIELD INSTALLATION
..... FIELD WIRING
NOTE: ALL WIRES MTW 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES
NOTE: TO CONVERT TO LOW TEMPERATURE * JUMPER DIGITAL/THERMOMETER/ CONTROLLER BETWEEN TERMINALS #2 AND #5

44CE,44CEL,54CE,54CEL 208V,230V,460V 50-60HZ 3PH ELECTRIC TANK HEAT



R1	WASH HEAT RELAY	O1	WASH HEATER OVERLOAD	E3	MANUAL CYCLE LIGHT
R2	CONVEYOR MOTOR RELAY	O2	WASH MOTOR OVERLOAD	E4	HEATER OVERLOAD LIGHT
R3	WASH MOTOR RELAY	O3	CONVEYOR MOTOR OVERLOAD	E5	AUTOFILL LIGHT
H1	WASH TANK HEATER	FB	DETERGENT FUSE BLOCK	D1	WASH TEMP DISPLAY/CONTROLLER
M1	WASH MOTOR	T1	CONTROL TRANSFORMER	D2	FINAL RINSE TEMP DISPLAY
M2	CONVEYOR MOTOR	CB	CIRCUIT BREAKER	P1	WASH TEMP PROBE
S1	POWER SWITCH	W1	WASH LEVEL CONTROL	P2	FINAL RINSE TEMP PROBE
S2	CYCLE SWITCH	V1	FINAL RINSE SOLENOID	P3	WASH LOW LEVEL PROBE
S3	START PADDLE SWITCH	V2	FILL SOLENOID	P4	WASH HIGH LEVEL PROBE
S4	RINSE PADDLE SWITCH	E1	POWER LIGHT		
S6	TABLE LIMIT SWITCH	E2	AUTO CYCLE LIGHT		

* OPTIONAL TABLE LIMIT SWITCH

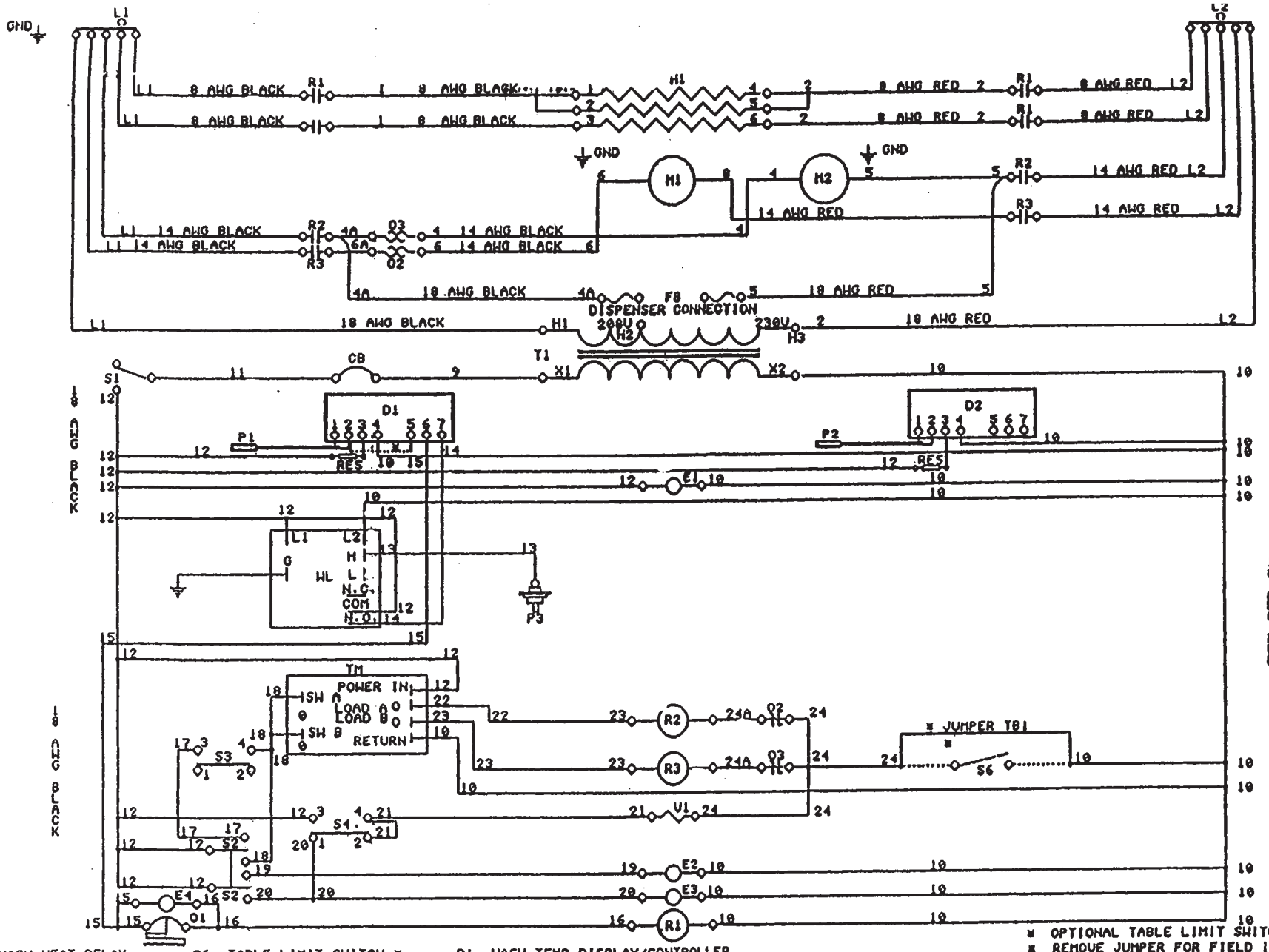
■ REMOVE JUMPER FOR FIELD INSTALLATION

····· FIELD WIRING

NOTE: ALL WIRES MIN 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES

NOTE: TO CONVERT TO LOW TEMPERATURE ■ JUMPER DIGITAL THERMOMETER/ CONTROLLER BETWEEN TERMINALS •2 AND •5

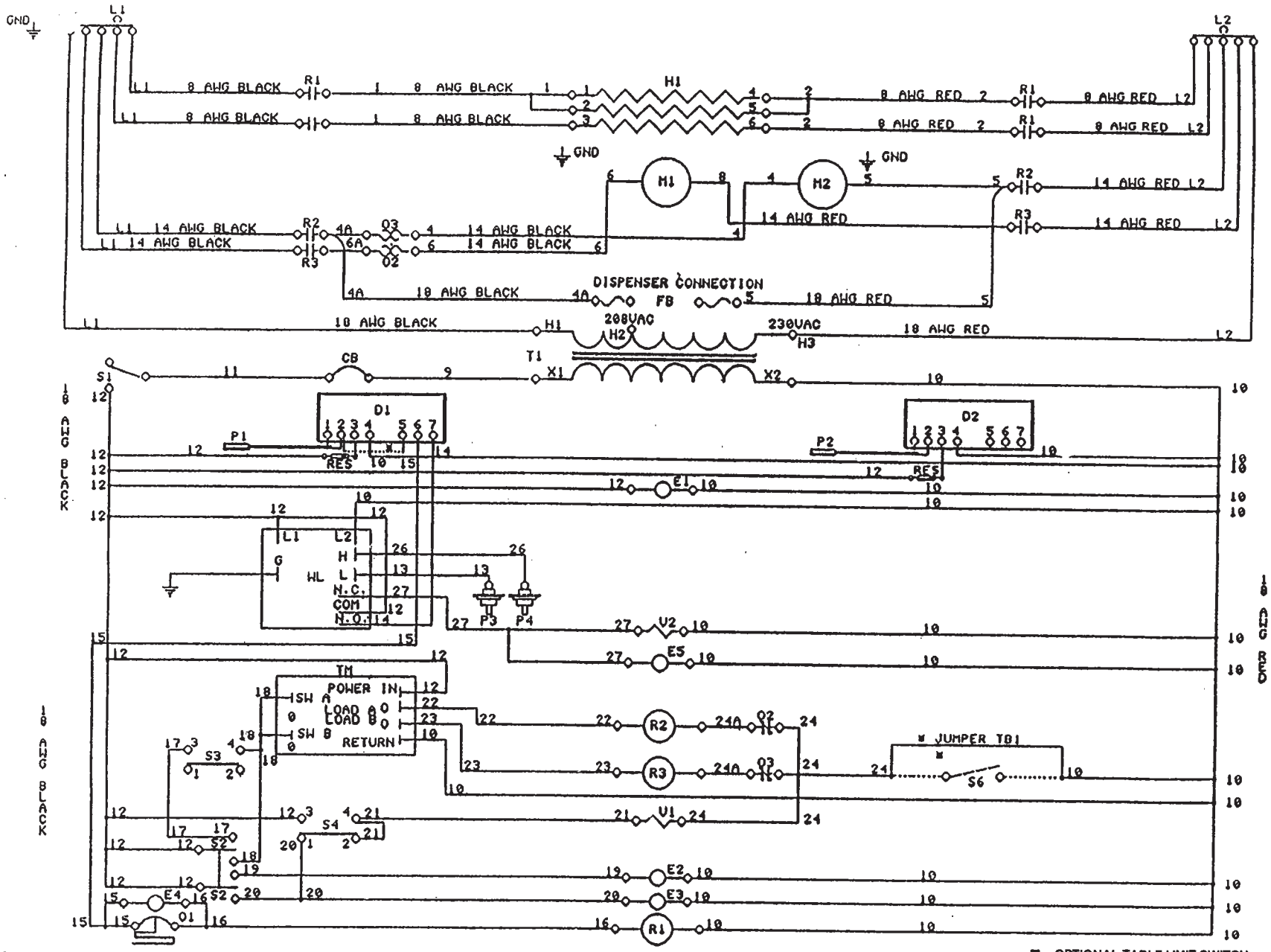
44CE.44CEL.54CE.54CEL 208V.230V.460V 50-60HZ 3PH
ELECTRIC TANK HEAT AUTOFILL



R1 WASH HEAT RELAY
R2 CONVEYOR MOTOR RELAY
R3 WASH MOTOR RELAY
H1 WASH TANK HEATER
M1 WASH MOTOR
M2 CONVEYOR MOTOR
S1 POWER SWITCH
S2 CYCLE SWITCH
S3 STAT[illegible]ADDLE SWITCH
S4 RI[illegible]ADDLE SWITCH
S6 TABLE LIMIT SWITCH *
O1 WASH HEATER OVERLOAD
O2 WASH MOTOR OVERLOAD
O3 CONVEYOR MOTOR OVERLOAD
F8 DETERGENT FUSE BLOCK
T1 CONTROL TRANSFORMER
CB CIRCUIT BREAKER
WL WATER LEVEL CONTROL
V1 FINAL RINSE SOLENOID
TM DUAL TIMER MODULE
D1 WASH TEMP DISPLAY/CONTROLLER
D2 FINAL RINSE TEMP DISPLAY
E1 POWER LIGHT
E2 AUTO CYCLE LIGHT
E3 MANUAL CYCLE LIGHT
E4 HEATER OVERLOAD LIGHT
P1 WASH TEMP PROBE
P2 FINAL RINSE TEMP PROBE
P3 WASH LOW LEVEL PROBE

* OPTIONAL TABLE LIMIT SWITCH
* REMOVE JUMPER FOR FIELD INSTALLATION
..... FIELD WIRING
NOTE: ALL WIRES MTW 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES
NOTE: TO CONVERT TO LOW TEMPERATURE * JUMPER DIGITAL THERMOMETER/ CONTROLLER BETWEEN TERMINALS *2 AND *5

44CE,44CEL,54CE,54CEL 208V,230V [illegible]12 1PH
ELECTRIC TANK HEAT



R1	WASH HEAT RELAY	S6	TABLE LIMIT SWITCH	TM	DUAL TIMER MODULE	P3	WASH LOW LEVEL PROBE
R2	CONVEYOR MOTOR RELAY	Q1	WASH HEATER OVERLOA	D1	WASH TEMP DISPLAY/CONTROLLER	P4	WASH HIGH LEVEL PROBE
R3	WASH MOTOR RELAY	Q2	WASH MOTOR OVERLOAD	D2	FINAL RINSE TEMP DISPLAY		
H1	WASH TANK HEATER	Q3	CONVEYOR MOTOR OVERLOAD	E1	POWER LIGHT		
M1	WASH MOTOR	FB	DETERGENT FUSE BLOCK	E2	AUTO CYLCE LIGHT		
M2	CONVEYER MOTOR	T1	CONTROL TRANSFORMER	E3	MANUAL CYCLE LIGHT		
S1	POWER SWITCH	CB	CIRCUIT BREAKER	E4	HEATER OVERLOAD LIGHT		
S2	CYCLE SWITCH	WL	WATER LEVEL CONTROL	E5	AUTO FILL LIGHT		
S3	START PADDLE SWITCH	V1	FINAL RINSE SOLENOID	P1	WASH TEMP PROBE		
S4	RINSE PADDLE SWITCH	V2	AUTO FILL SOLENOID	P2	FINAL RINSE TEMP PROBE TO CONVERT TO LOW TEMPERATURE		

■ OPTIONAL TABLE LIMIT SWITCH
■ REMOVE JUMPER FOR FIELD INSTALLATION
FIELD WIRING

NOTE—ALL WIRES MTW 2/64 INSULATION TEMP RATED 90 C/194 F DEGREES

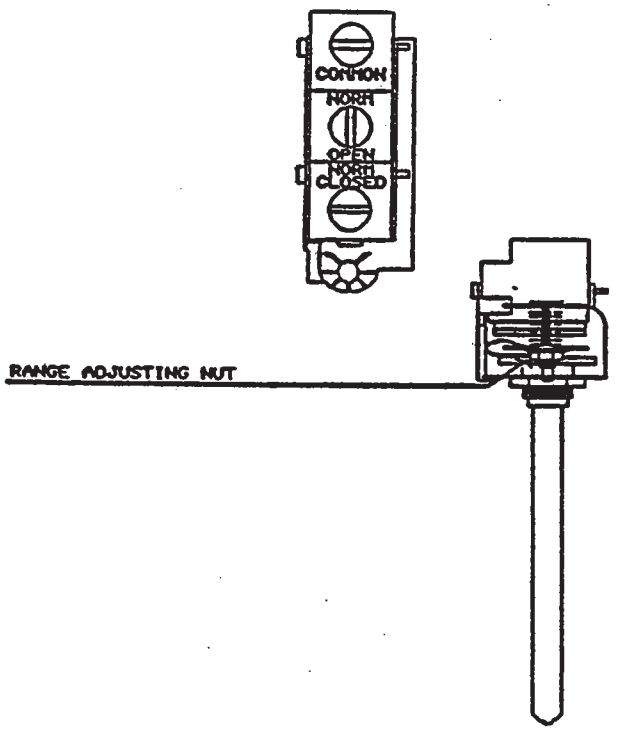
NOTE—TO CONVERT TO LOW TEMPERATURE
■ JUMPER DIGITAL THERMOMETER/ CONTROLLER BETWEEN TERMINALS ■ 2 and ■5

44CE, 44CEL, 54CE, 54CEL 208V, 230V 50-6HZ 1PH
ELECTRIC TANK HEAT, AUTO FILL

OPERATION AND SERVICE INSTRUCTIONS
(HEATER HI-LIMIT THERMOSTAT)

THE HEATER HI-LIMIT THERMOSTAT IS USED TO PROTECT THE HEATER ELEMENT IN THE EVENT OF A RUN AWAY REGULATING THERMOSTAT OR A DRY FIRE SITUATION. THE HI-LIMIT IS SET FOR + 210 DEGREES F + OR - 10 DEGREES F.

TO ADJUST THE RANGE USE A 1/4" OPEN END WRENCH TO TURN RANGE ADJUSTING NUT COUNTER CLOCKWISE TO INCREASE AND CLOCKWISE TO DECREASE RANGE.

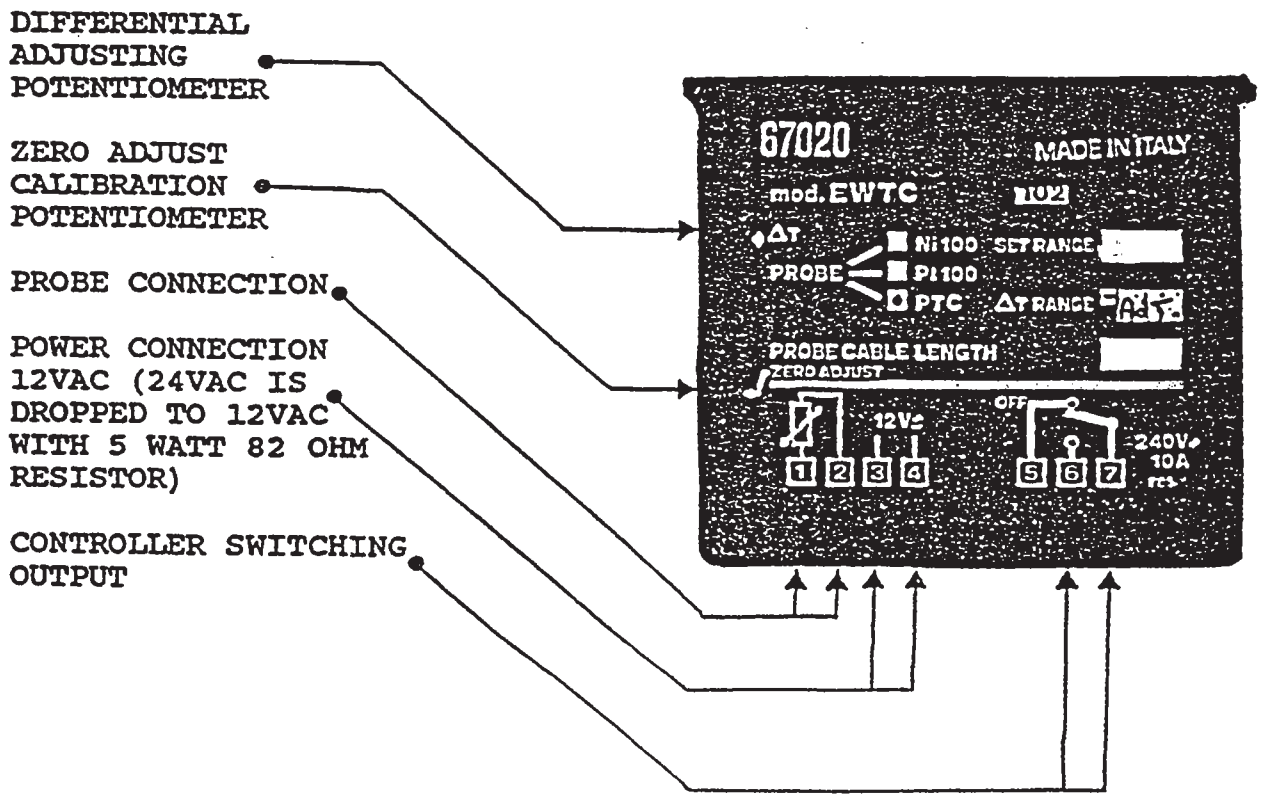


OPERATION AND SERVICE INSTRUCTIONS
(DIGITAL THERMOMETER/CONTROLLER)

THE DIGITAL THERMOMETER/CONTROLLER IS A THREE DIGIT LED DEVICE WITH A TEMPERATURE RANGE FROM -67 TO +248 DEGREES F. IT USES A PTC SEMI-CONDUCTOR PROBE AND 12 VAC POWER INPUT. ZERO ADJUST CALIBRATION POTENTIOMETER IS PROVIDED FOR FIELD RECALIBRATION. CONTROLLER SET POINT DIFFERENTIAL IS ADJUSTABLE FROM 1 TO 27 DEGREES F. CONTROLLER ON STATE IS INDICATED BY LED ON THE BOTTOM RIGHT CORNER OF THE DISPLAY.

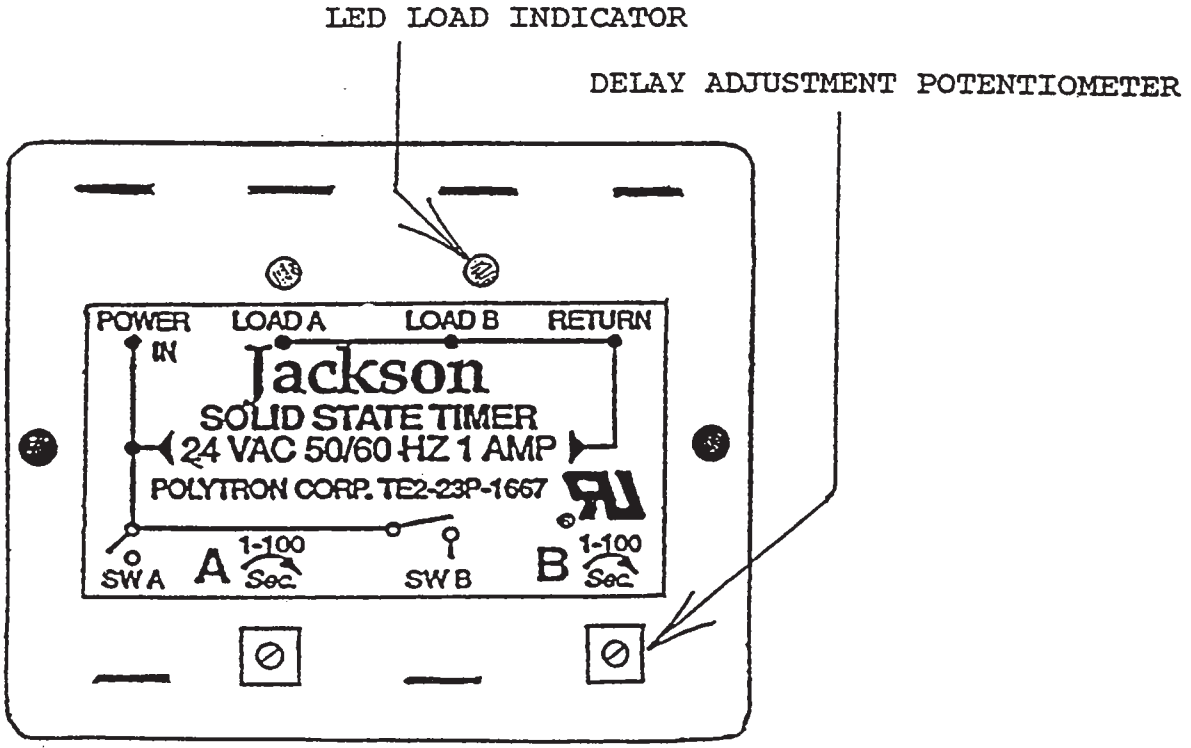
TO RECALIBRATE THERMOMETER REMOVE PROBE FROM WELL. PREPARE AN ICE BATH AND IMMERSE PROBE. WAIT FOR TEMPERATURE TO STABLIZE AND USING ZERO ADJUST POTENTIOMETER CALIBRATE TO +32 DEGREES F.

IF DISPLAYING AN ERRATIC READING REMOVE PROBE WIRES. IF TEMPERATURE STABLIZES AT A HIGH READING (+365 DEGREES F) THE PROBE IS FAULTY. IF TEMPERATURE REMAINS ERRATIC CHECK VOLTAGE FOR 12VAC. IF VOLTAGE IS CORRECT THE THERMOMETER IS PROBABLY FAULTY.

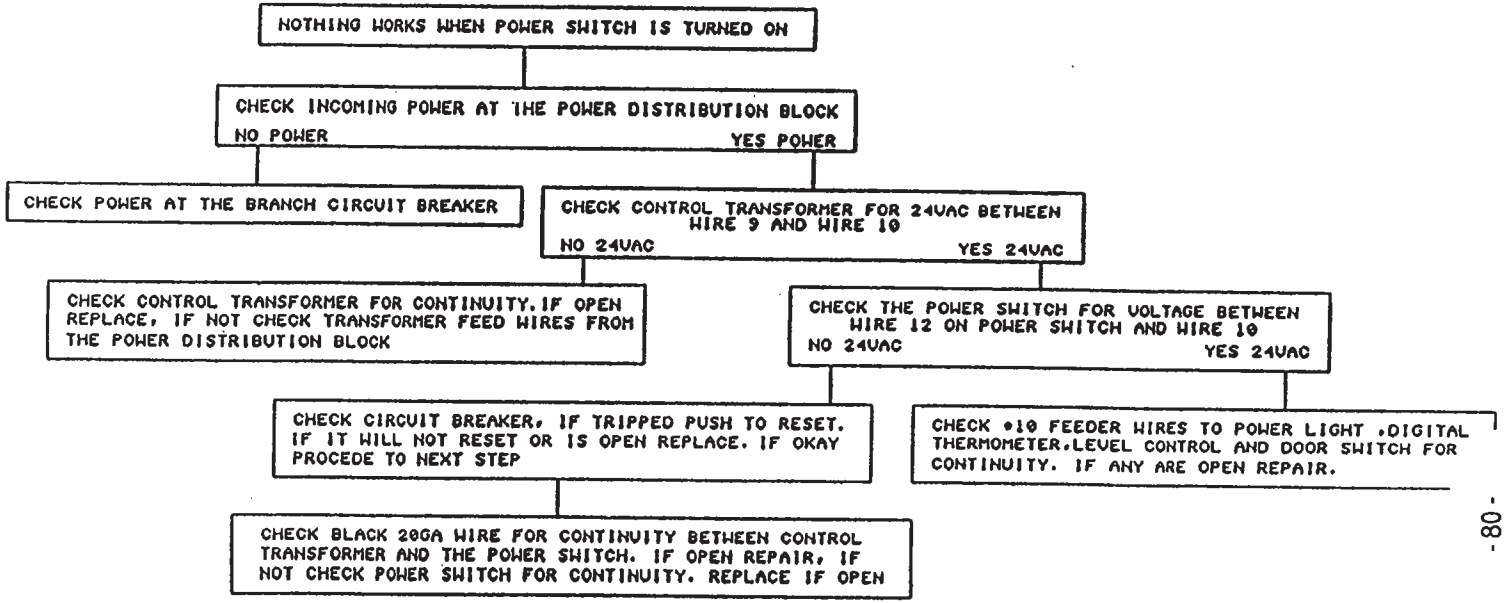


DESCRIPTION AND SERVICE INSTRUCTIONS
(DUAL TIMER MODULE)

THE DUAL TIMER MODULE CONSISTS OF TWO DELAY ON BREAK TIMERS IN ONE PACKAGE. EACH LOAD OUTPUT IS INDICATED BY AN LED INDICATOR AND THE DELAY IS ADJUSTABLE FROM ZERO TO ONE HUNDRED SECONDS. THE TIMERS CAN BE TRIGGERED EITHER TOGETHER OR INDEPENDENTLY.



TO TEST FOR PROPER OPERATION CHECK FOR 24VAC BETWEEN TERMINALS POWER IN AND RETURN. WITH POWER APPLIED JUMPER BETWEEN TERMINALS POWER IN AND SW A. LOAD A LED INDICATOR SHOULD COME ON AND THE CORRESPONDING LOAD SHOULD ENERGIZE. WHEN THE JUMPER BETWEEN TERMINALS POWER IN AND RETURN IS REMOVED THE TIME DELAY WILL BEGIN. AT THE END OF THE TIME DELAY THE LOAD AND LED WILL DE-ENERGIZE. TO TEST THE B SIDE REPEAT THE SAME PROCEDURE JUMPERING BETWEEN POWER IN AND SW B



Jackson
TAMPA, FLORIDA
DRW. DATE AP.
CK. DATE AP.
TITLE NO.

READOUT AND POWER LIGHT WORK, BUT THE MACHINE WILL NOT AUTO FILL

CHECK TO SEE IF THE AUTO FILL LIGHT COMES ON
YES LIGHT — NO LIGHT

CHECK RINSE/FILL SOLENOID FOR CONTINUITY IF OPEN REPLACE THE COIL ONLY. IF OKAY CHECK WATER SUPPLY

CHECK-LEVEL CONTROL TO SEE IF THE LED INDICATOR IS ON IF IT IS AND THE MACHINE HAS NOT FILLED, CLEAN AND CHECK LEVEL PROBES TO MAKE SURE THEY ARE NOT GROUNDED

IF LED IS OFF CHECK FOR VOLTAGE AT RINSE/FILL SOLENOID ACROSS THE LOAD.
NO VOLTAGE — YES VOLTAGE

POSSIBLE FAULTY WATER LEVEL CONTROL

CHECK SOLENOID COIL FOR CONTINUITY AND CHECK WATER SUPPLY.

Jackson
TAMPA, FLORIDA
DRW. DATE AP.
CK. DATE AP.
TITLE NO.

DIGITAL READOUT, POWER LIGHT AND FILL WORK, BUT MACHINE WILL NOT RUN IN AUTO CYCLE.

WITH CYCLE SWITCH IN THE AUTO POSITION INITIATE PADDLE SWITCH

CONVEYOR MOTOR WORKS, BUT THE WASH MOTOR DOES NOT

PUSH DOWN WASH CONTACTOR BAR
NOTHING HAPPENS — MOTOR RUNS

CHECK WIRES AND MOTOR FOR CONTINUITY

CHECK DUAL TIMER TO SEE IF LED ON LOAD "B" IS LIT
NO — YES

PROCEDE WITH DUAL TIMER TEST INSTRUCTIONS

CHECK WASH MOTOR OVERLOAD USING TEST INSTRUCTIONS. IF BAD REPLACE

CHECK WASH MOTOR CONTACTOR COIL FOR CONTINUITY. IF OPEN REPLACE, IF NOT CHECK ALL WIRES.

WASH MOTOR WORKS, BUT THE CONVEYOR DOES NOT

PUSH DOWN CONVEYOR CONTACTOR BAR
NOTHING HAPPENS. — MOTOR RUNS

CHECK WIRES AND MOTOR FOR CONTINUITY

CHECK DUAL TIMER TO SEE IF LED ON LOAD "A" IS LIT
NO — YES

PROCEDE WITH DUAL TIMER TEST INSTRUCTIONS

CHECK CONVEYOR OVERLOAD USING TEST INSTRUCTIONS. IF BAD REPLACE

CHECK CONVEYOR MOTOR CONTACTOR COIL FOR CONTINUITY. IF OPEN REPLACE, IF NOT CHECK ALL WIRES.

NOTHING HAPPENS — CHECK TABLE LIMIT SWITCH

CHECK FOR POWER AT #18
NO — YES — CHECK DUAL TIMER MODULE USING TEST INSTRUCTIONS

CHECK FOR POWER AT #17 WIRE ON S3 PADDLE SWITCH
NO — YES — CHECK S3 PADDLE SWITCH FOR PROPER MECHANICAL ACTUATION AND CONTINUITY IF BROKEN OR OPEN REPLACE

CHECK FOR POWER AT #12 WIRE ON S2 CYCLE SWITCH
NO — YES — CHECK S2 CYCLE SWITCH FOR CONTINUITY. IF OPEN REPLACE

CHECK WIRE #12 FROM S2 TO TERMINAL BLOCK FOR CONTINUITY. IF OPEN REPLACE

-82-

Jackson
TAMPA, FLORIDA

DRW.	DATE	AP.	
CK.	DATE	AP.	
TITLE		NO.	

MACHINE RUNS IN AUTOMATIC BUT THE MANUAL FUNCTIONS DO NOT WORK.

CHECK FOR VOLTAGE AT THE MANUAL SWITCH BETWEEN THE #18 AND #10 WIRES

NO VOLTAGE — CHECK WIRE #18 FOR CONTINUITY, IF OPEN REPAIR.

YES VOLTAGE — CHECK MANUAL SWITCH FOR CONTINUITY. IF OPEN REPLACE

Jackson
TAMPA, FLORIDA

DRW. _____ DATE _____ AP. _____

CK. _____ DATE _____ AP. _____

TITLE _____ NO. _____

WASH OR RINSE HEATER DOES NOT WORK.

PUSH WASH OR RINSE HEATER CONTACTOR BAR DOWN AND TAKE AN AMPERAGE READING.

YES AMPERAGE

YOU SHOULD READ: 13KW 208V 3PH 36.1 AMPS
13KW 208V 1PH 62.5 AMPS
13KW 230V 3PH 32.6 AMPS
13KW 230V 1PH 56.5 AMPS
13KW 460V 3PH 16.3 AMPS
13KW 460V 1PH 28.2 AMPS

NO AMPERAGE

POSSIBLE BAD HEATER, BEFORE REPLACING OHM EACH ELEMENT. YOU SHOULD READ 10 OHMS AT 208V AND 12.2 OHMS AT 230V AND 48.8 OHMS AT 460V. IF OPEN REPLACE. CHECK FOR POSSIBLE CAUSE OF HEATER FAILURE LIKE HARD WATER, DRY FIRE, HIGH VOLTAGE OR DEFECTIVE.

WASH HEATER CONTACTOR WILL NOT ENERGIZE. CHECK FOR VOLTAGE BETWEEN WIRE #16 AND WIRE #10

NO VOLTAGE

REMOVE WIRE #14 SPADE TERMINAL FROM LEVEL CONTROL AND CHECK FOR 24VAC BETWEEN WIRE #14 AND #10

NO VOLTAGE

IF LED INDICATOR ON LEVEL CONTROL IS ON IT IS POSSIBLY BAD. IF LED IS NOT ON CHECK OUT LEVEL CONTROL BY JUMPERING BETWEEN THE TERMINAL G AND TERMINAL H AFTER 4 SECONDS THE LED SHOULD COME ON. IF IT DOES THE PROBES COULD BE DIRTY. IF IT DOES NOT THE LEVEL CONTROL IS POSSIBLY BAD.

YES VOLTAGE

CHECK FOR CONTINUITY THE WASH THERMOSTAT AND WASH HI LIMIT OR RINSE THERMOSTAT. ADJUST IF POSSIBLE, REPLACE IF OPEN.

YES VOLTAGE

CHECK WASH OR RINSE HEATER RELAY COILS FOR CONTINUITY. IF OPEN REPLACE.

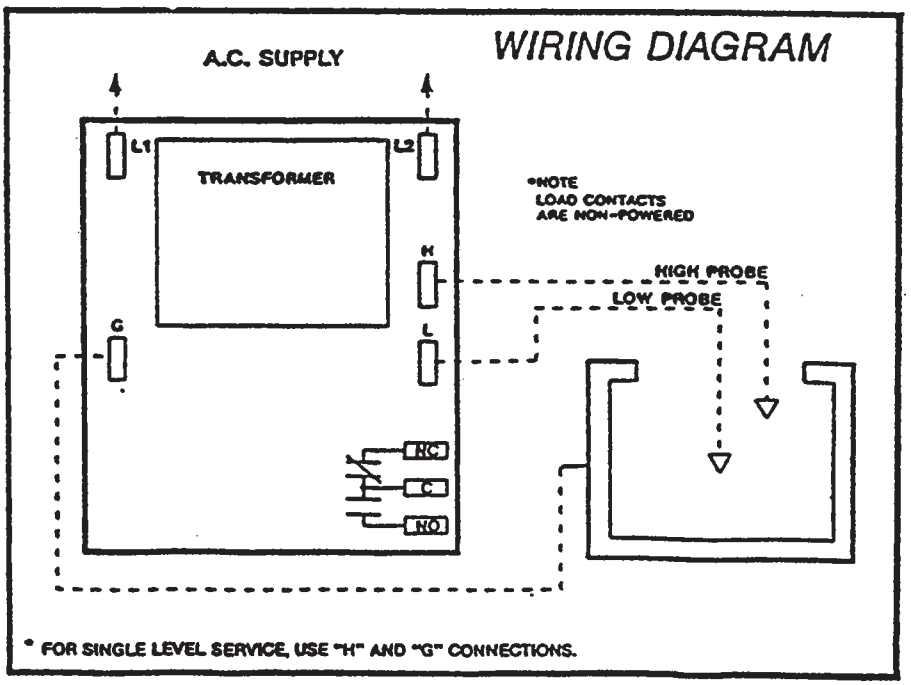
Jackson
TAMPA, FLORIDA
DRW. DATE AP.
CK. DATE AP.
TITLE NO.

OPERATION AND SERVICE INSTRUCTIONS
(LIQUID LEVEL CONTROL)

SINGLE LEVEL SERVICE (MANUAL FILL): WHEN THE WATER RISES TO THE PROBE ON TERMINAL H, THE CONTROL ENERGIZES, CHANGING STATE OF THE LOAD CONTACTS. (LED WILL BE LIT). THE CONTROL REMAINS ENERGIZED UNTIL THE LIQUID RECEDES BELOW PROBE ON TERMINAL H. THE CONTROL THEN DE-ENERGIZES , (LED WILL NOT BE LIT) RETURNING LOAD CONTACTS TO ORIGINAL STATE.

DUAL LEVEL DIFFERENTIAL SERVICE (AUTO FILL): WHEN THW WATER RISES TO THE PROBE ON TERMINAL H, THE CONTROL ENERGIZES, CHANGING THE STATE OF THE LOAD CONTACTS. (LED WILL BE LIT). THE CONTROL REMAINS ENERGIZED UNTIL THE WATER LEVEL RECEDES BELOW PROBE ON TERMINAL L. THE CONTROL THEN DE-ENERGIZES,(LED WILL NOT BE LIT) RETURNING LOAD CONTACTS TO ORIGINAL STATE.

TO CHECK FOR PROPER OPERATION JUMPER BETWEEN TERMINAL G AND H AFTER THE FOUR SECOND TIME DELAY THE CONTACT SHOULD TRANSFER (LED WILL BE LIT). IF CONTROL DOES NOT RESPOND REPLACE.



OPERATION AND SERVICE INSTRUCTION
(THERMAL OVERLOAD RELAY)

THERMAL OVERLOAD RELAY ARE TO PROTECT MOTORS FROM EXCESSIVE HEAT RESULTING FROM SUSTAINED MOTOR OVERLOAD, TOO RAPID CYCLING AND STALLED ROTOR. THE PRECENTAGE OF OVERLOAD DETERMINES THE LENGTH OF TIME REQUIRED TO OPEN THE CIRCUIT. BIMETAL THERMAL OVERLOAD RELAYS HAVE THE FOLLOWING FEATURES:

AUTOMATIC OR MANUAL RESET ADJUSTMENT.

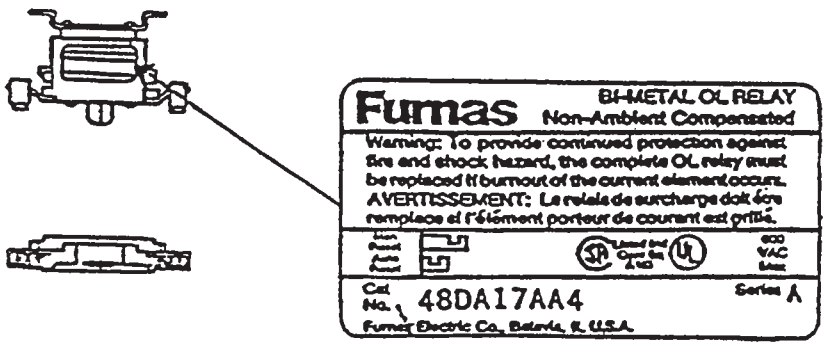
+-15% NOMINAL TRIP CURRENT ADJUSTMENT.

NORMALLY CLOSED CONTACT.

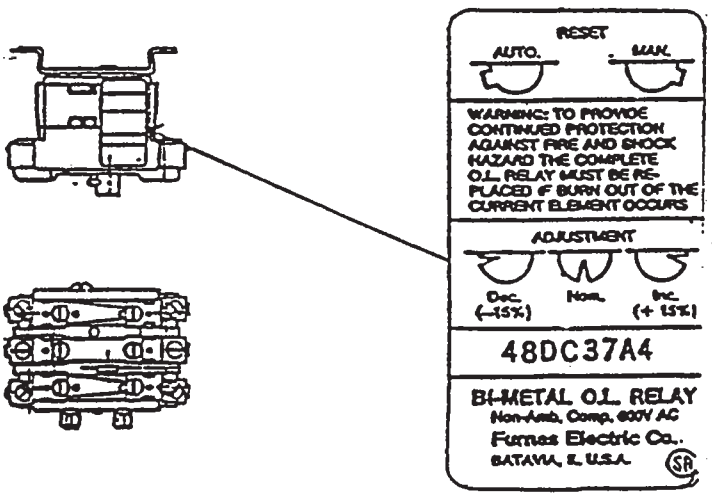
3 POLE OVERLOADS HAVE A GREEN MANUAL TRIP BUTTON

IF HEATER ELEMENTS BURN OUT REPLACE COMPLETE OVERLOAD RELAY TO PROVIDE CONTINUED PROTECTION AGAINST FIRE AND SHOCK HAZARD. TO TEST OVERLOAD FOR OPERATION PUT RESET SELECTOR SWITCH IN MANUAL MODE. PUSH GREEN MANUAL TRIP BUTTON RELAY CONTACTS SHOULD OPEN. WHEN THE RED RESET IS PUSHED RELAY CONTACTS SHOULD CLOSE. IF TESTED OKAY RESET SHOULD BE SET IN THE AUTOMATIC POSITION BECAUSE CONTROL IS NOT READILY ACCESSIBLE.

SINGLE PHASE OVERLOAD RELAY



THREE PHASE OVERLOAD RELAY



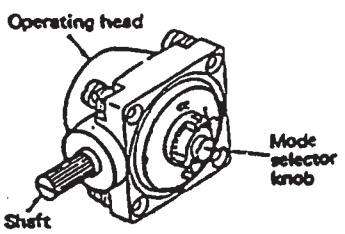
OPERATION AND SERVICE INSTRUCTIONS
(LIMIT SWITCH)

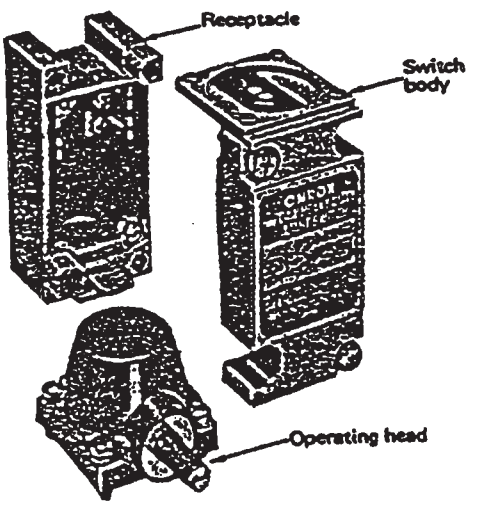
THE HEAVY DUTY PLUG-IN LIMIT SWITCH IS DESIGNED TO BE CONVERTED TO LEFT TO RIGHT,RIGHT TO LEFT,OR BOTH DIRECTIONS OF OPERATION.
TO USE FOR LEFT TO RIGHT OPERATION DETACH OPERATING HEAD FROM THE SWITCH BODY. ROTATE THE MODE SELECTOR KNOB ON THE OPERATING HEAD TO THE "CW" (CLOCKWISE) POSITION. REATTACH THE OPERATING HEAD TO THE SWITCH BODY SO THAT THE SHAFT OF THE OPERATING HEAD IS ON THE LEFT HAND SIDE OF THE SWITCH BODY.

TO USE FOR RIGHT TO LEFT OPERATION DETACH OPERATING HEAD FROM THE SWITCH BODY. ROTATE THE MODE SELECTOR KNOB ON THE OPERATING HEAD TO THE "CCW" (COUNTER CLOCKWISE) POSITION. REATTACH THE OPERATING HEAD TO THE SWITCH BODY SO THAT THE SHAFT OF THE OPERATING HEAD IS ON THE RIGHT HAND SIDE OF THE SWITCH BODY.

TO USE FOR TABLE LIMIT OPERATION (LEFT TO RIGHT ,RIGHT TO LEFT) DETACH OPERATING HEAD FROM THE SWTICH BODY. ROTATE THE MODE SELECTOR KNOB ON THE OPERATING HEAD TO THE "CW-CCW" (CLOCKWISE - COUNTER CLOCKWISE) POSITION. REATTACH THE OPERATING HEAD TO THE SWITCH BODY SO THAT THE SHAFT OF THE OPERATING HEAD IS IN THE CENTER OF THE SWITCH BODY.

TO ADJUST SWITCH OVER TRAVEL REMOVE SWITCH BODY. ON THE INSIDE OF THE SWITCH BODY REMOVE THE TWO SWITCH MOUNTING SCREWS. DETACH SWITCH FROM THE SWITCH BODY. ON THE TOP OF THE SWITCH IS AN ADJUSTING SCREW, TURN COUNTER CLOCKWISE 1/4 TO 1/2 TURN TO INCREASE THE SENSITIVITY. REATTACH SWITCH TO SWITCH BODY AND REASSEMBLE SWITCH.





SERVICE INSTRUCTIONS

(INCOMING WATER SOLENOID VALVE)

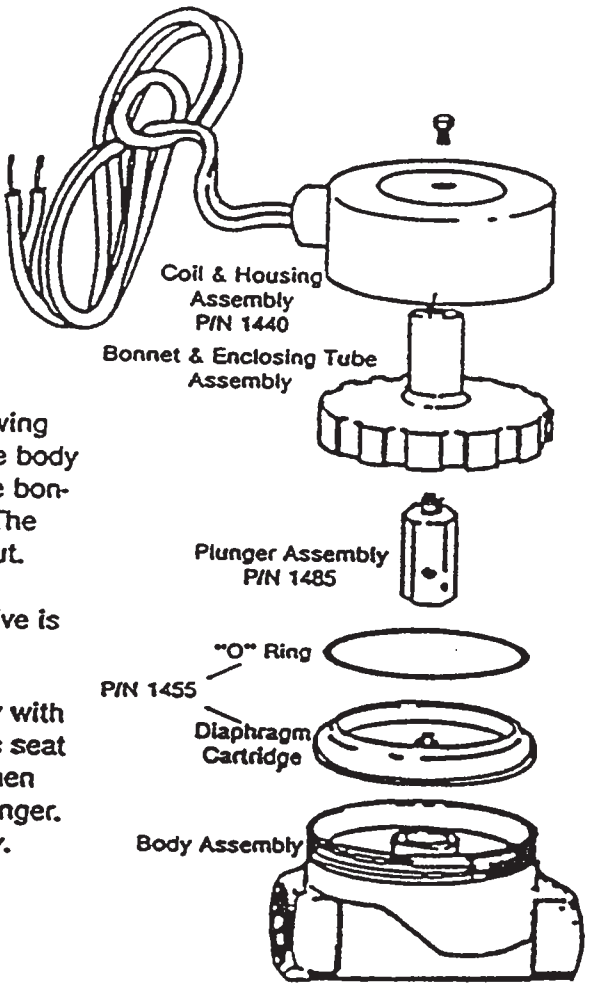


FIG. 3

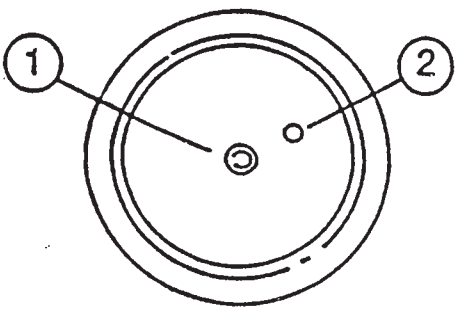
To Take The Valve Apart

Disassembly - These valves may be taken apart by unscrewing the bonnet and the enclosing tube assembly from the valve body assembly. See Fig. 3. After unscrewing, carefully lift off the bonnet and enclosing tube assembly. Don't drop the plunger. The "O" ring seal and diaphragm cartridge can now be lifted out.

Be careful not to damage the machined faces while the valve is apart.

To Reassemble - Place the diaphragm cartridge in the body with the pilot port extension UP. Hold the plunger with synthetic seat against the pilot port. Make sure the "O" ring is in place, then lower the bonnet and enclosing tube assembly over the plunger. Screw bonnet assembly snugly down on the body assembly.

DIAPHRAGM CARTRIDGE
P/N 1455



Possible Problems

Pilot Port extension #1 clogged

Hole #2 clogged

Remedy

Pass heated straight pin through hole #2 or clean hole #1

SUGGESTED MINIMUM PARTS STOCKING LIST FOR
MODEL 44CEL CONVEYOR DISHWASHERS

*RECOMMENDED FOR 10 MACHINES

PART NO.	MIN. QTY.	DESCRIPTION
0012600	2	CIRCUIT BREAKER, 5 AMP
0037501	2	CONVEYOR DRIVE, SOCKET HEAD BOLT
0038001	2	CONVEYOR CAM, FOLLOWER BEARING
0038100	2	CONVEYOR CAM, FOLLOWER BEARING LOCKN
0040000	1	CONVEYOR DRIVE ROD BEARING
0040500	1	CONVEYOR DRIVE ROD WIPER
0045200	1	CURTAIN ROD
0045300	1	CURTAIN, MEDIUM
0045301	1	CURTAIN, SHORT
0045302	1	CURTAIN, LONG
0050200	6	DOOR EDGE STRIPPING, NYLATRON
0053202	10	OVERFLOW TUBE STOPPER "O"RING
0054002	10	LEVER OPERATED DRAIN "O"RING
0059201	1	HEATER ELEMENT GASKET
0059502	1	HEATER ELEMENT, WASH 208V,13KW
0059503	1	HEATER ELEMENT, WASH 230V,13KW
1100009	1	TIMER,24V,1AMP,AFTER S/N-22300
1100010	1	LIMIT SWITCH, AFTER S/N-22300
1100011	1	RINSE INJECTOR MANIFOLD,CPVC
0123200	1	RELAY, 3 POLE,24V,60AMP
0123201	1	RELAY, 3 POLE,24V,25AMP
0123202	1	RELAY, 2 POLE, 24V,75AMP
0123203	1	RELAY, 2 POLE, 24V,25AMP
0123204	1	RELAY,DPTT,24V,R5, BEFORE S/N-22300
0123205	1	RELAY,TPDT,24V,R6,BEFORE S/N-22300
0123400	2	RESISTOR,5 WATT,82 OHM
0138201	8	RINSE NOZZLES, UPPER 1/4"
0139500	8	RINSE NOZZLE,LOWER,BEFORE S/N-22300
1100012	8	RINSE NOZZLE,LOWER,AFTER S/N-22300
0142700	1	SOLENOID VALVE, 1/2" 24V
0142701	1	SOLENOID VALVE COIL, 24V JE
0145000	1	SOLENOID VALVE DIAPHRAM KIT 1/2"
0148600	1	SOLENOID VALVE PLUNGER, JE GP
0156301	1	SWITCH, DPDT/3 POSITION ROCKER
0159700	1	SWITCH, SPDT/2 POSITION ROCKER
0168700	1	THERMOMETER, DIGITAL RINSE DISPLAY
0168701	1	THERMOMETER/THERMOSTAT, DIGITAL, WAS
0168702	1	THERMOMETER PROBE FOR DIGITAL DISPLA
0174800	1	TIMER, 24V, 5AMP, BEFORE S/N-22300
0174801	1	TIMER,ADJ. POT,BEFORE S/N-22300
0184200	1	VACUUM BREAKER REPAIR KIT, 1/2"
0199201	12	SPRAY ARM, WASH, END PLUG
0199302	20	SPRAY ARM, WASH, "O"RING
0205600	1	WATER LEVEL CONTROLLER
1100013	1	PUMP MOTOR ASSY,208-230V/1PH/1-1/2HP
1100014	1	PUMP MOTOR ASSY,208-230V/3PH/1-1/2HP