

Premium Quality Aqueous Washers

www.kc-qualitysystems.com

OPERATIONS AND SERVICE MANUAL

FOR

MODEL MJ 3030 RBD

866-540-7575

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Installation

1. **UNPACKING:** If any damage is found, notify your carrier immediately and save all crating materials for the carrier's inspector to examine. Failure to promptly report damage could result in denial of your claim.

If no damage is found, remove the banding that secure the machine to the pallet. Remove the machine from the pallet. Be careful not to damage the casters mounts on the underside. Install the four steel casters provide in the box inside the washer cabinet.

2. **LOCATIONS:** Your jet washer will generate considerable hot water vapor. Choose a location where the hot water vapor cannot hurt anything in the surrounding area.

The process of removing wet parts from the cabinet will inevitably result in some wash solution spilling onto the floor, possibly causing slippery conditions. **IF YOUR FLOOR IS SMOOTH, PLACE ONE OR MORE TRACTION MATS AROUND THE MACHINE AND AVOID PLACING THE WASHER NEAR A WALKWAY.**

If your washer is permanently wired, keep in mind that at least 30" is needed for service behind the machine. If you want the machine to be against a wall, plan your various service connections so that they can be easily disconnected. The site chosen must be level for proper turntable rotation and for the optimum water level in the tank. Your Hot Jet washer is not portable once filled with water. The casters are provided to assist in rolling the empty machine into the space where it is to be operated. Once in place level the unit from front to back and from side to side by shimming the casters. If your washer is top loading, the lid may be hitting the edge of the cabinet. To shift the lid so that it is centered in the body of the cabinet, add or remove the shims on one of the front comers.

3. **MACHINE POWER HOOK-UP:** Have a licensed electrician do all electrical work if you do not have a specified plug in.

START UP

1. Read this entire manual before attempting to install your MaxJet Spray Washer. You will be less likely to make mistakes if you have a grasp of the "whole picture."

2. Your machine utilizes high voltage. Use the services of a licensed electrician for all electrical work.

3. The heating element(s) and the pump/motor will be ruined if they are turned on when there is no water in the tank. Therefore, don't turn on electric power to the machine unless the pump and heat controls are off or unless the tank is filled with water to the proper level.

4. Your jet washer is made with mild steel and will rust unless you use the correct detergent and follow the correct start-up procedure. A starter package of Quality Systems QS 100 Spray Washer Detergent is provided. In the future make sure the brand you are using is safe on mild steel and has an adequate concentration of rust inhibitors. When installing the unit, don't fill the tank with water unless you have the time needed to heat the water to 160° to 180° F, add the detergent, and run the wash cycle for at least one (1) hour to coat the steel with rust inhibitor. Again, read this entire manual before starting the installation so that you know what is involved.

5. Do not use any petroleum base chemical or solvent, or any flammable products in the washer.

6. The heating element(s) and pump/motor can be damaged if the water level drops too low. Even if your machine has the optional "low water shut-off or automatic water fill", check the water level daily. The proper water level is to the top of the filter tray in the bottom of the cabinet. The water level will drop about one inch when pump is started.

7. Clean the filter tray daily.

8. If you are not using Quality Systems CWC 100 Spray Washer Detergent, be sure the detergent is suitable for your jet washer and application:

—Contains an adequate level of rust inhibitors

—Low foaming/designed for a jet washer

—Safe for the metals you will be cleaning

—See "Chemical Selection"

9. Cleaning will be poor and the heating element(s) and pump/motor may be damaged **if** the tank and spray manifolds are not cleaned according to instructions.

10. Protect your environment and protect your business from fines by handling your dirty cleaning solution according to federal, state, and local codes. According to federal regulations, which states have to adopt as **minimum** standards, the dirty cleaning solutions in a spray washer **generally** are not hazardous wastes". To be considered a hazardous waste by the U.S. Government, the solution has to have one or more of the following four characteristics:

- **IGNITABILITY** - A solid waste is a hazardous waste if it is a liquid and a representative sample and has a flashpoint less than 140 degree F.

- **CORROSIVITY** - A solid waste is a hazardous waste if it is an aqueous solution and a representative sample, and if it has a pH less than or equal to two or greater than or equal to 12.5.
- **REACTIVITY** - A solid waste is a hazardous waste if a representative sample reacts violently with water or releases cyanide or hydrogen sulfide when exposed to low pH solutions.
- **EP TOXICITY** - A solid waste is a hazardous waste if a representative sample leaches heavy metals in concentrations greater than 100 times primary drinking water standard concentrations. The TWO characteristics that you have to be concerned about are CORROSIVITY and EP TOXICITY. Ask your detergent supplier if the pH of your solution is greater than or equal to 12.5. If it is, you can add an acid to lower the pH. Your solution may be EP TOXIC; depending on what pans you are cleaning. When your solution has to be changed, take a sample to be tested for heavy metal content. If you start to clean different types of parts, you should have another sample tested.

Assuming that your solution is **NOT HAZARDOUS**, or that with minor treatment (e.g. adding acid) the solution can be made non-hazardous. The EPA does not require special storage, documentation, transportation, and processing. Since your solution will have oils, however, you cannot dump the solution without some type of treatment. Some suggestions are:

- Contact your local sewage company for permission to use the sewage lines.
- Contact a septic pumping service.

OPERATIONS TEST

Before turning on the electrical power to the machine, make sure the 0-60 minute wash timer and the circuit breaker located on rear of the washer are in the "off mode. If your machine has a power cord, turn the power on and off with your circuit breaker. Don't plug the cord into a hot receptacle. Read "Start Up" numbers 3, 4 and 6 about the proper water level and the potential for rust. Don't start this test unless you can spend 2 to 3 hours to heat the water, add detergent, and run the wash cycle for 1 hour.

1. Open the door (lid) to the cabinet.
2. Fill the tank with water so that the water level is in accordance start up instructions. (To the top of chip tray in bottom of the cabinet)
3. The thermostat is factory preset for most applications. The recommended temperature is 175 F. 4. Turn on power to the machine by flipping your breaker (don't plug the cord into a hot receptacle).
4. Flip the circuit breaker to the on position. If equipped with a heat timer - 7 day or 0-12 hour. Make sure they are in a run time setting. Leave the heat on for the balance of this test.

MJ 3030 RBD

MAXJET MODEL NO. MJ 3030 RBD FRONT LOAD WASHER WITH FOLLOWING MACHINE SPECIFICATIONS:

- TOGGLE SWITCH OPERATED STAINLESS DISC TYPE OIL SKIMMER
- 13.5 KW TOTAL ELECTRIC HEATER
- TANK DEBRIS SCREEN
- 5 HP CAST IRON VERTICAL SEALESS PUMP W/SCREEN(80 GPM @ 55 PSIG)
- 60 MIN. MOTORIZED WASH TIMER
- 250 DEGREES F THERMOSTAT SWITCH SETTING
- 13 SPRAY JET NOZZLES
- 97 GALLON CLEANING SOLUTION TANK
- LOW WATER SHUT-OFF SWITCH
- 500 LB. LOAD CAPACITY
- 30" INSIDE HEIGHT
- 1/15 HP GEARMOTOR/GEAR DRIVEN 30" DIA.TURNTABLE W/ REMOVEABLE PARTS RING & JOG SWITCH
- 240/480/60/3 ELECTRICAL REQUIREMENTS(PLEASE SPECIFY VOLTAGE)
- ROLL BACK DOOR W/ HANDLE, LATCH, AND SAFETY SWITCH
- 10 GAUGE SS TANK & 12 GAUGE CABINET STEEL PLATE MATERIAL
- 70" OVERALL HEIGHT
- 50"W X 52"D FLOOR SPACE REQUIRED W/ DOOR CLOSED
- PRECAUTION BLUE PAINT

TEST SHEET

Machine Type: _____
Electric: _____
Date: _____
Serial #: _____
Sales Order: _____
Customer: _____
Notes: _____

	L1	L2	L3
Pump	_____	_____	_____
Heat	_____	_____	_____
Total	_____	_____	_____

The following test procedures shall be completed as listed. Please perform ALL procedures listed and/or sign the spaces provided!

- Install nozzles and check all nozzles for proper alignment, spray pattern, clearance. _____
- Check all aspects of machine quality, (Paint, plumbing, vent deflector, catch screens, parts ring, turntable, electrical, etc.) _____
- Compare Job card to machine. Does card match electrical, pump, machine options? _____
- Check door spring and gear alignment with turntable. _____
- Fill machine with specified amount of water, install fuses and hook to power source. _____
- Turn heater switch on. Did light illuminate? _____
- Allow washer to come up to specified temperature. Record time to reach temp. _____hrs. _____
- Turn pump on and check for proper rotation, noises, and excessive water coming from any areas such as door, drip trays, drive motor box, etc. _____
- Check and align door/lid safety switch for proper operation. _____
- Check turntable movement, (Mark a tab and turn on and off). _____
- Is drive gear tight? Does drive motor bind? _____
- Does timer have correct movement in all positions? (i.e. 15, 30, 45, 60 minutes.) _____
- Turn on pump and let run for 30 minutes. _____
- Check output pressure at nozzle: _____P.S.I. _____
- Check Amp draw: Total: _____Amps _____
- Check for any leaks or possible leaks, (i.e. Htrs, Pump, Trays, Filter, Plumb, etc.) _____
- Check oil skimmer for proper adjustment. (No binding and proper rotation.) _____
- Check LWSO for proper height and adjustment. _____
- Check AWF for proper fill height. _____
- Turn off all switches and timers, kill power and disconnect from source. _____
- Finish draining machine and immediately use rust inhibitor on all interior of machine. _____
- Wipe down machine completely and do a final visual inspection of machine. _____
- Install Parts Ring_____, Baskets_____, Soap_____, Strainer in Filter_____, Sock_____ _____
- Complete owners packet, place serial number tag, fasten to skid and wrap. _____
- Check job card against sales order. (Watch for any additional options, baskets, parts tree, head rack, etc.) _____

TEST AND QUALITY VERIFIED BY: _____ DATE: _____

CHEMICAL SELECTION

The detergent is responsible for as much as 50% of the overall cleaning results. Thus, the cleaning results you get from your MAXJET Hot Jet Spray Washer will be as good as, or as bad as the detergent you select. Make sure the detergent is:

- (1) Safe to use in a mild steel cabinet;
- (2) Safe to use on the different types of parts you will be cleaning and;
- (3) Low foaming when used in a jet washer.

Quality Systems offers a proven product that is safe on aluminum parts as well as steel. For time-tested results request **QS CWC 100 Spray Wash Detergent**.

GENERAL CLEANING TIPS

If parts are caked with heavy dirt or excessive grease build up you will want to scrape them off before placing in washer. This will allow the hot soap and water to penetrate and break down the oils. Remember all the debris that goes into the washer will eventually have to be cleaned out.

When loading a batch of parts, space the parts so that the spray can hit all surfaces. Always try to keep the load centered on the turntable ie. If a part has blind holes or pockets, try to have these orifices face downward so that the part doesn't hold water. Oil pans are best cleaned in a vertical position. Secure to the tee bar to hold in position while cleaning. For the best flash drying, remove the parts right after the wash cycle while parts are still hot. The parts will not dry inside the machine due to the hot water vapor and the steam can remove the rust inhibitor causing rusting if left over night.

In the first couple of days of operation, observe the chip tray after every wash cycle to determine how often it will need to be cleaned. Clean the filter tray at least once a day.

QUALITY SYSTEMS
Shawnee Mission, KS

866-540-7575

TECHNICAL DATA



**CWC 100 JET SPRAY
DETERGENT**

GENERAL DESCRIPTION

A non-forming, rust inhibited, powdered (alkaline) cleaning compound specially formulated for use in high flow jet spray parts washer systems. Ideal for removing hydrocarbon based grease and oils. Aluminum safe as well as other ferrous alloys. Emulsifies grease and oils and rinses completely. Packaged in 50 lbs pails, 100lbs and 500 lbs drums.

SPECIALLY FORMULATED FOR RECIRCULATING CABINET WASHER

High-pressure washer and jet spray cabinet systems. Use for cleaning and degreasing parts soiled with hydrocarbon based contaminants, dirt, and other debris. If foaming occurs be sure water is at least 150°F. A defoaming agent it may be needed for certain gear oils, food machine lubricants, and certain greases. Concentration will vary with grease and type of contaminants.

GENERAL CABINET WASHER APPLICATION RATES

Add 5-7 lbs, or 2-3 quarts dry mix, for each 50 gallons of reservoir capacity. Very heavy grease build up may require 1-2 pounds additional product. QS detergent dissolves best in water at 140 degree F and up. Make sure water is at this temperature prior to running pump or foaming may occur. Make up detergent may be needed between changes to insure proper cleaning.

CWC 100 FOR HIGH PRESSURE CLEANING

Dissolving 5 pounds of QS CW100 in 5-gallon hot water can make a general-purpose economical cleaning product. Pour the mixture in clean 55-gallon drum and fill with water. This may be injected into the lance of a hot water pressure washer.

OTHER PRODUCTS

Extra HD Cleaning – QS Bite (Steel & Iron only) Defoaming – QS Defoamit

Extra Rust Inhibitor – QS Tank Saver

GENERAL OPERATIONS

1. Assign the responsibility of your jet washer to one person to avoid abuse and neglect. This person will check the water level every day; have the tank cleaned out periodically, etc.
2. Due to evaporation and drag-out, you will need to add water to the tank **every day washer is used**. The importance of the water level has been stressed throughout this manual (read “Precautions” numbers 3 and 6).
3. Turn on the heat circuit with the circuit breaker or with the optional 7-day time lock. Allow one to one and a half (1.5) hours to heat the solution from 70° F to the operational temperature range of 160° to 180° F. If your washer has the optional 7-day timer and you want the washer operational at 8:00 AM for example, set the clock to come on at 6:30 AM.

Hint - To save energy, turn the heat off one (1) hour before you stop using the machine. The water will stay hot enough for effective cleaning.

4. Do not add detergent or start the wash cycle until the water is hot. Otherwise, the solution may foam.
5. Add the detergent according to the supplier’s instructions. You can either pour the detergent directly into the tank or into spraying floor area. Run at least a 15-minute wash cycle to thoroughly mix the detergent in solution. Weigh the detergent to determine an accurate volume measure. Don’t make the common mistake of using a one pound coffee can thinking it also holds a pound of detergent. Your solution can be used until it is too dirty to clean effectively. You may have to add small amounts of detergent when you add water to keep at maximum cleaning strength.

In the future, you may want to increase or reduce the detergent concentration until you find the ideal concentration for your application. If the detergent is leaving an excessive residue on the parts, reduce the concentration. Consult the factory if you cannot obtain the desired results. In some cases, the hardness of your water could create a problem.

GENERAL MAINTENANCE

FOR DAILY USE

1. Check water level. The proper level is to the top of the chip basket
2. Check spray ports and clean debris from any that appear clogged
3. Clean out the chip tray
4. Clean and solution spilled onto the painted surfaces of the machine by wiping down with fresh water.
5. Run the oil skimmer while water has set quiet over night. The skimmer timer has a maximum time of 15 minutes and this is sufficient to remove oil daily. Collected oil may be place in your waste oil tank for disposal.

WEEKLY OR AS NEEDED

1. Lubricate the turntable bearing with water resistant #2 lithium grease.
2. Check the sludge level in the tank. If build up is greater than one inch, clean out the tank. It is important that sludge does not encapsulate the heat element.

TANK CLEAN OUT TIPS

1. Clean out is accomplished with the turntable removed. To remove the turntable, first disengage the brush drive. Place a wedge between the drive motor and the cabinet. Lift turntable and remove the chip tray.
2. Drain tank following government regulations. Use a hose to flush tank sediment towards the drain located on side.
3. Replace turntable and chip tray fill with water. Heat and charge solution with detergent. Be sure to remove wedge to engage brush drive.

TROUBLE SHOOTING

1. Nothing Works

Breaker switch is off. Circuit breaker in main boxed tipped. (7-day timer if equipped) is in non-run position.

2. Cabinet is Rusting Inside

Wrong detergent – Replace solution with detergent containing proper rust inhibitor. If water to steam without running pump to keep inside coated with rust inhibitor. Only head on days that machine will be operated. Stop rusting by running higher concentration of detergent and using machine for several hours.

3. Foaming

Wrong detergent, Started pump with cold solution, Solution concentration low add more detergent, or water level is too low. Food machine grease or gear oil may require a defoaming agent.

4. Solution Not Hot

One or more heating elements are bad. 7 – Timer is not in a run position.

5. Turntable- Does Not Rotate or Slow Rotation

Drive is not engaged – check. Brush drive is worn out – replace. Drive motor is bad. Drive is slipping – center load and make sure you have not exceeded load capacity.

6. Oil Skimmer Wheel Does Not Turn

Wheel Plate loose on shaft - tighten. Skimmer Timer is Bad – check and replace.

NEED MORE HELP - Call

Quality Systems

866-540-7575

OR

SUPERIOR QUALITY STEEL

417-859-4842

MAXJET SERVICE PARTS

CONTACT - Quality Systems – 913-362-6131

qualitysystems@earthlink.net

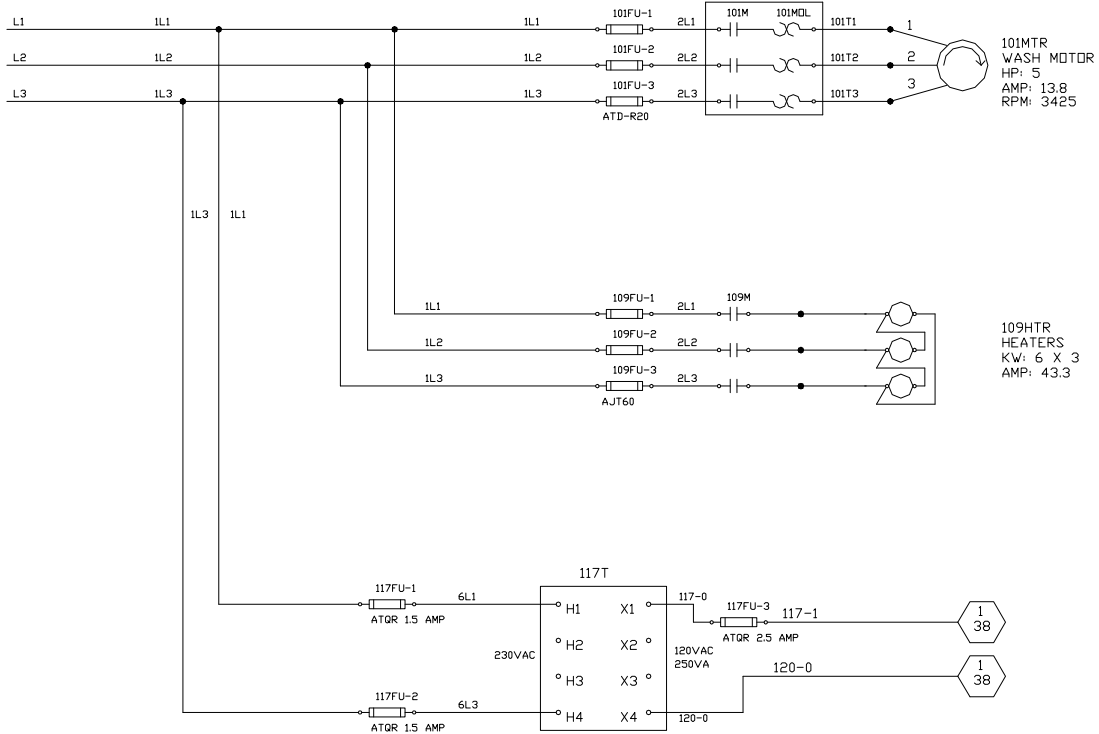
YOUR MODEL NUMBER IS MJ3030RBD

- P/N 1702 4.5KW HEATER ELEMENT (4 EA. REQ'D.)
- P/N 1729 THERMOSTAT
- P/N 12113 5 HP VERTICAL SEALESS PUMP
- P/N 6102-A PUMP SUCTION SCREEN
- P/N 2006 SPRAY JET NOZZLE (13 EA. REQ'D.)
- P/N 12203.1 TURNTABLE DRIVE GEARMOTOR
- P/N 4848 TD GEARMOTOR SHAFT ARBOR
- P/N 14304 TURNTABLE DRIVE GEAR
- P/N 1914 TURNTABLE JOG SWITCH
- P/N 12212 OIL SKIMMER GEARMOTOR
- P/N 14608.2 OS GEARMOTOR SHAFT ARBOR
- P/N 14622 OIL SKIMMER WHEEL
- P/N 14629 OIL SKIMMER WIPER
- P/N 1911 OIL SKIMMER TOGGLE SWITCH
- P/N 1911 HEATER TOGGLE SWITCH
- P/N 1800.1 60 MIN. SPRING WOUND WASH TIMER
- P/N 11908 DOOR HANDLE(MUST BE WELDED)
- P/N 8078 DOOR LATCH
- P/N 1914 DOOR SAFETY SWITCH
- P/N 3005 LOW WATER SHUT-OFF/AWF SWITCH
- P/N 1956 AWF SOLENOID VALVE
- P/N 4842 SPINDLE HUB

230VAC
3 PHASE
60Hz

MAXJET MJ 3030 RBD
230V 3 PHASE

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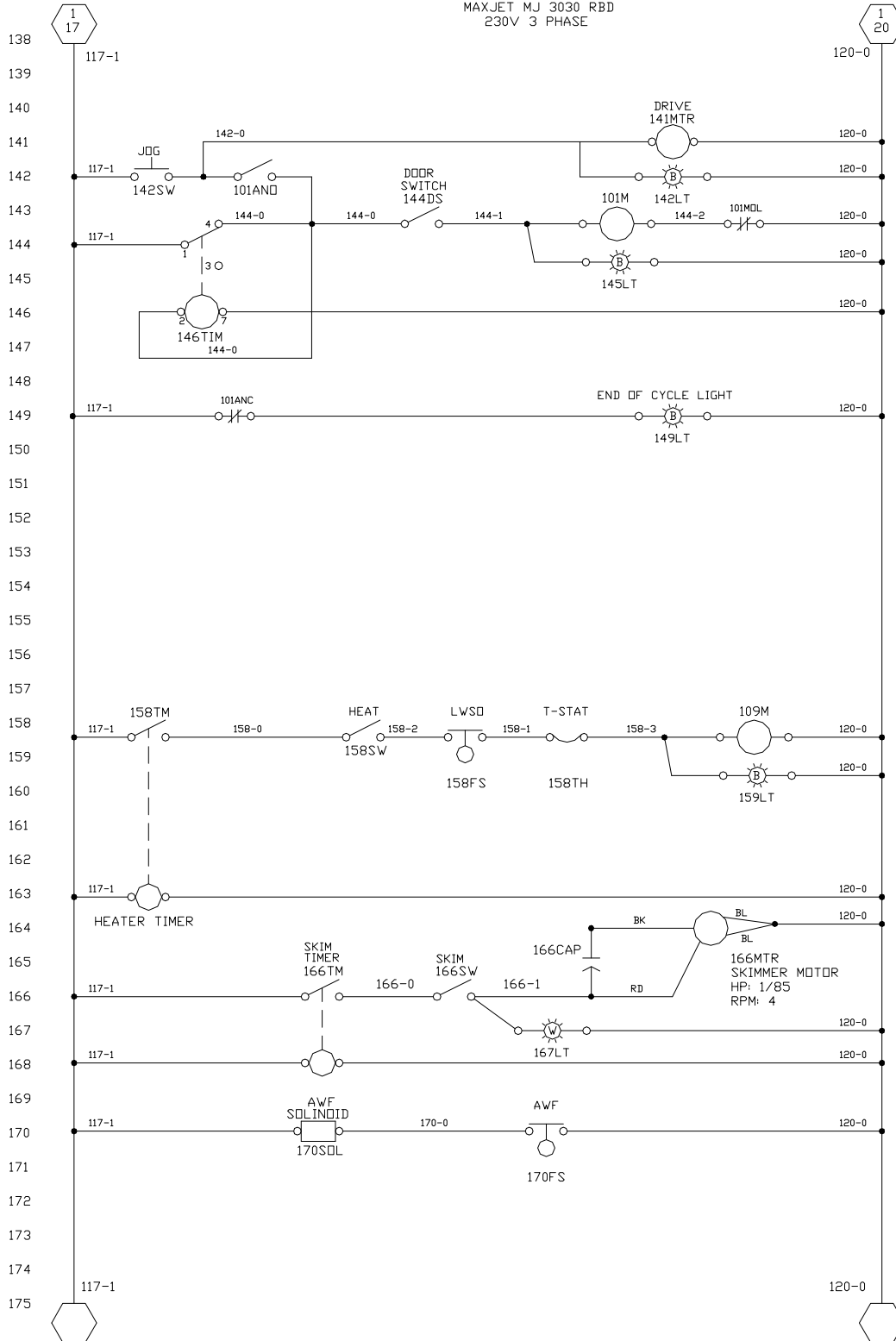
101MTR
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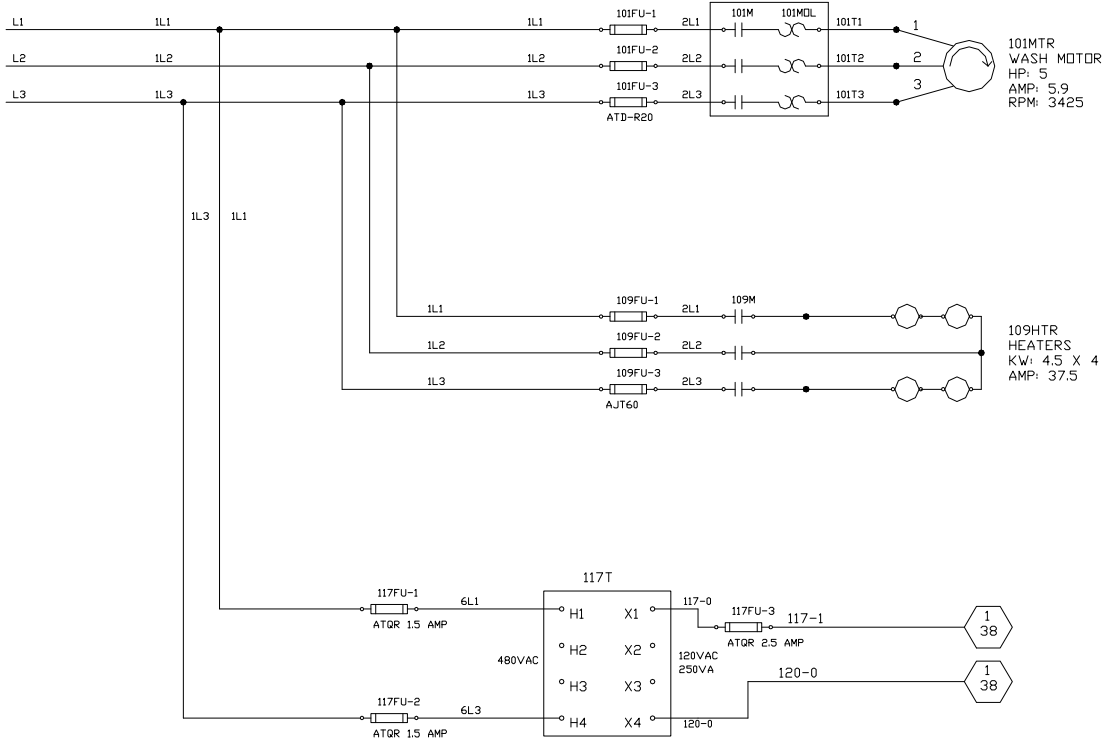
MAXJET MJ 3030 RBD
230V 3 PHASE



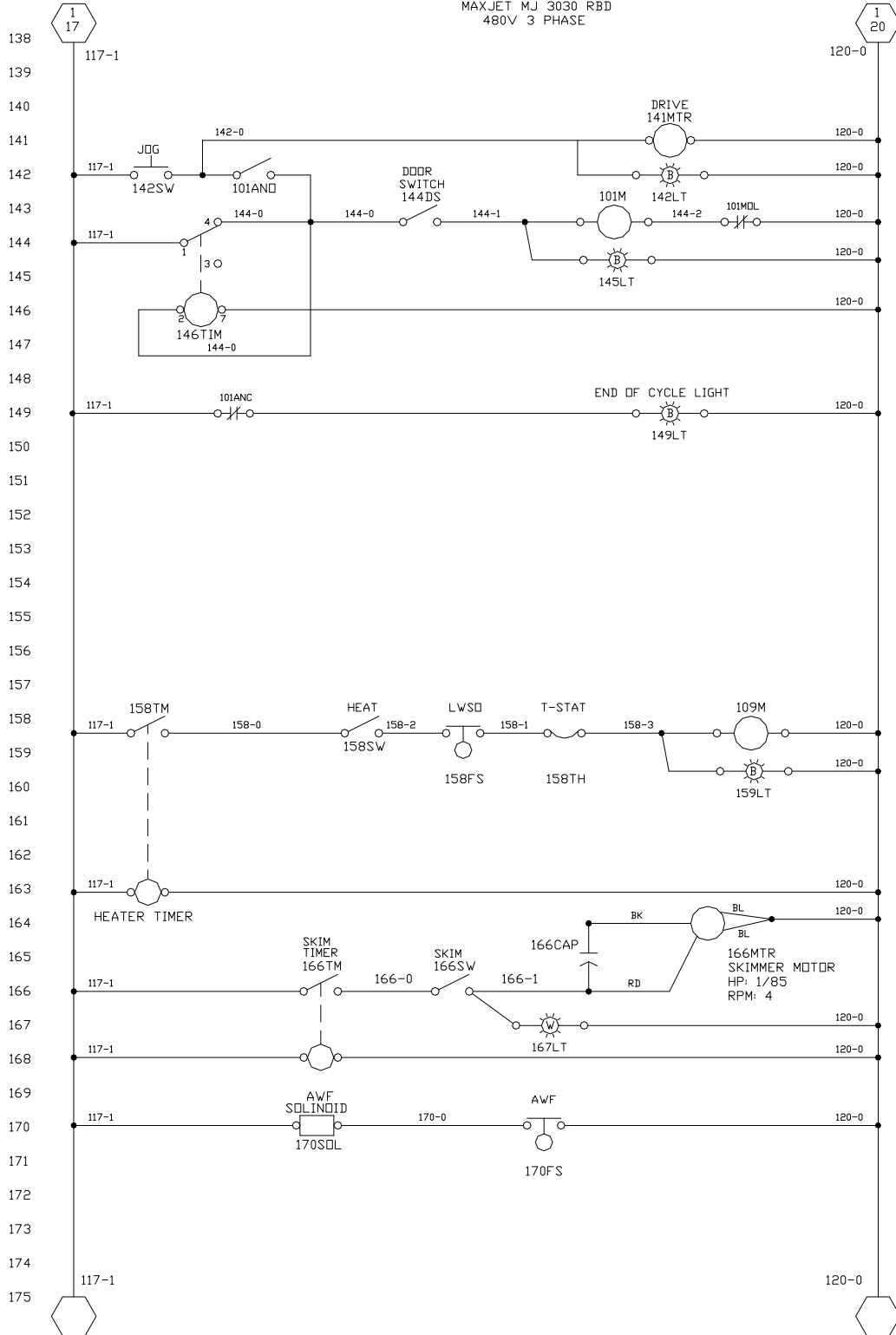
480VAC
3 PHASE
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MAXJET MJ 3030 RBD
480V 3 PHASE

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MAXJET MJ 3030 RBD
480V 3 PHASE



WARRANTY POLICY

ONE-YEAR LIMITED WARRANTY

WASHER PARTS AND CABINET ARE WARRANTED TO BE FREE OF DEFECTS IN MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM THE DATE OF SHIPMENT. NORMAL WEAR PARTS, DAMAGE RESULTING FROM NEGLIGENCE, CARELESSNESS, ABUSE, MISUSE, ABNORMAL USE, TAMPERING, USE OR ADDITION OF NON HTC OR SUPPLIER PARTS WHICH IMPAIR PROPER OPERATION ARE NOT COVERED UNDER WARRANTY.

LIABILITY LIMITATION

LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES IS EXPRESSLY DISCLAIMED TO THE EXTENT ALLOWABLE UNDER APPLICABLE LAW. INTERCONT PRODUCTS CANNOT BE HELD RESPONSIBLE FOR INJURY, EITHER PERSONAL OR PROPERTY SUSTAINED THROUGH WASHER OPERATION OR USAGE.

WARRANTY DISCLAIMER

WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

WASHER SUITABILITY

INTERCONT PRODUCTS DOES NOT GUARANTEE WASHER COMPLIANCE WITH LOCAL, STATE, OR NATIONAL CODES OR REGULATIONS AND CANNOT BE HELD RESPONSIBLE FOR APPLICATION, INSTALLATION, OR CLEANING SOLUTION DISPOSAL.

RETURN AUTHORIZATION

RETURN AUTHORIZATION IS REQUIRED TO RETURN PARTS OR WASHER TO FACTORY FOR WARRANTY CONSIDERATION.

WARRANTY POLICY INCLUDES REPAIR OR REPLACEMENT AND IS CONTINGENT UPON INTERCONT PRODUCTS INSPECTION AND JUDGMENT. DEFECTIVE PARTS AND/OR WASHER SHOULD BE RETURNED TO FACTORY ADDRESS VIA PREPAID FREIGHT. WASHER SHOULD BE EMPTY, WITH CLEANED OUT TANK, PALLETIZED WITH SHRINKWRAP/CARDBOARD PROTECTION, AND SECURED WITH STRAPS OR ROPE FOR SHIPMENT.