

**JET CABINET WASHER  
MODEL 7002**

**OPERATIONS AND MAINTENANCE MANUAL**



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# **Accu International, Inc.**

**7002**

***Owner's Manual***

**Installation • Operation • Servicing**

**Accu International, Inc.  
PO Box 15540  
Richmond, VA 23227  
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# Introduction

Congratulations on receiving your new Parts Washer!

Accu International, Inc. has designed and engineered your machine with skilled craftsmanship using the most select materials and components. With proper care and maintenance, your parts washer will provide you with years of cleaning service.

Each machine has been thoroughly tested and checked to assure the highest level of quality for continuing performance...Just what you would expect from Accu International, Inc..

In the event that a question should arise, please contact your local Accu International, Inc. Distributor for assistance. If emergency assistance is required, contact our customer service department at (804) 798-8922.

# Specifications

Overall Dimensions (H / W / D):	62" x 42" x 45"
Working Dimensions:	
Height	34"
Turntable Diameter	26"
Turntable Weight Capacity	500 LBS
Electrical Requirements:	
1 Phase-240V	60 AMPS
3 Phase-240V	30 AMPS
Turntable Drive Motor:	Gear Driven
Volts	115
HP	1/4
Pump Specifications:	
Type	Vertical Seal-less
HP	3
G.P.M.	60
P.S.I.	55
Tank Size:	65 Gallon
Heater:	9 kW
	Electric
Cycle Timer	30 min.
Heat Up Time	1 1/2 HR
Door Safety Switch	Standard
Low Water Shut-Off	Standard
Oil Skimmer	Standard
24 HR, 7 Day Digital Oil Skimmer Timer	Standard
24 HR, 7 Day Digital Heater Timer	Standard
Adjustable Thermostat	110° - 170°
Drive Wheel	Urethane
Spray Nozzles	Stainless Steel
Filtration	Optional
Casters	Optional
Shipping Weight	930 LBS

## Optional Equipment

Cylinder Head Fixture	ER-150-C
Double Tier Basket	ER-150-DTB
Parts Tree	ER-150-PT
Small Parts Basket	ER-175
Small Parts Basket with dividers	ER-175-A

# Electrical Installation

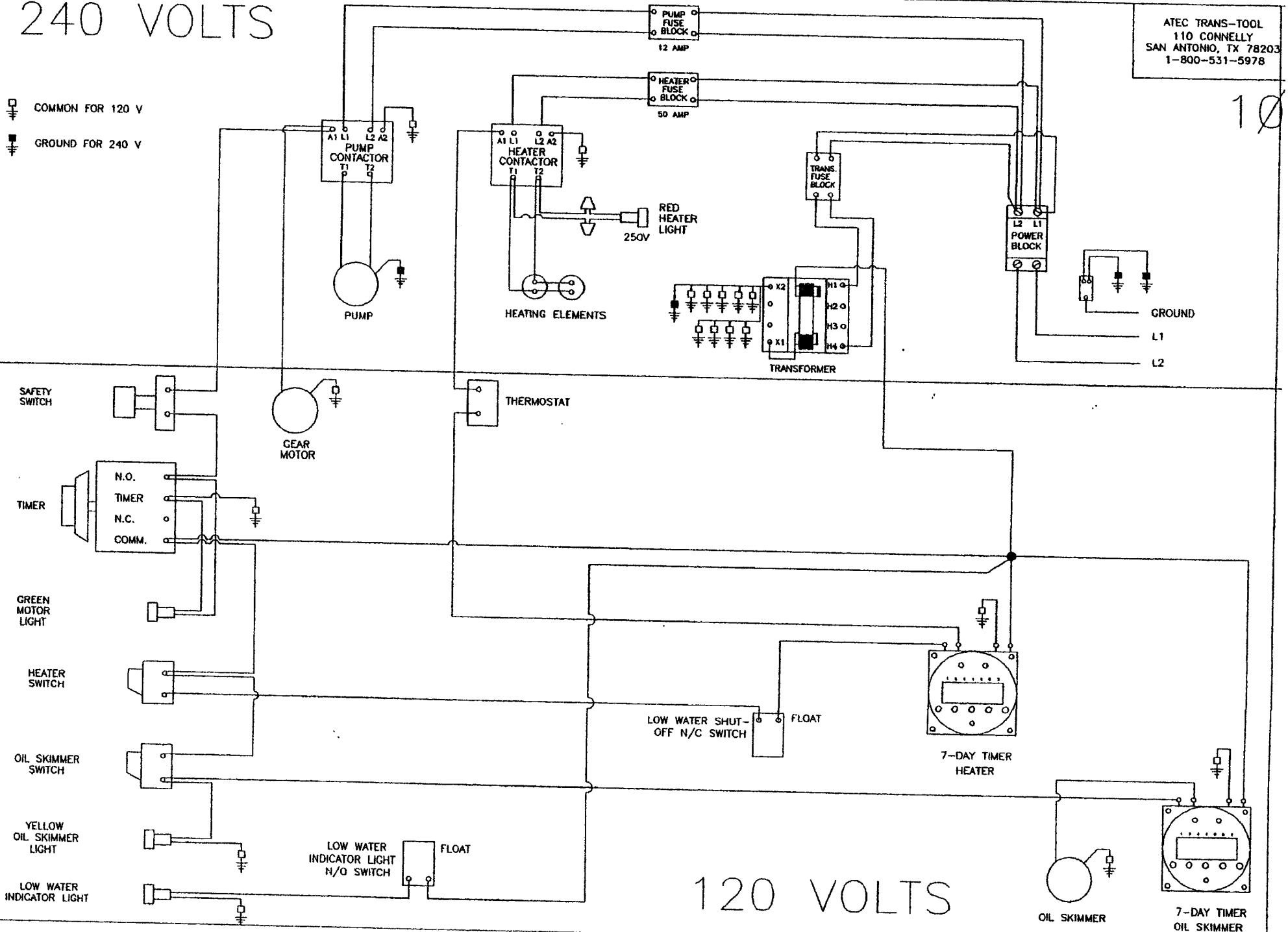
1. Only a qualified electrician, thoroughly familiar with NEC and local electrical codes as they relate to motor control circuits should make the electrical connections to this equipment. Local codes MUST be adhered to.
2. Use of unqualified personnel may result in unsafe operating conditions and will void the warranty.
3. Improper installation of this machine may cause electrical shock, electrical burns, damage to the equipment and serious bodily injury.
4. If a high (220v) leg is used, it must be connected to "L2". (refer to wiring diagram on pgs. 7,8)
5. Check the electrical identification tag to determine the input power required for your particular application.
6. A fused breaker should be installed near the machine and the electrical wire to the machine properly sized to minimize voltage drop.

# 240 VOLTS

ATEC TRANS-TOOL  
110 CONNELLY  
SAN ANTONIO, TX 78203  
1-800-531-5978

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COMMON FOR 120 V  
GROUND FOR 240 V



# 120 VOLTS

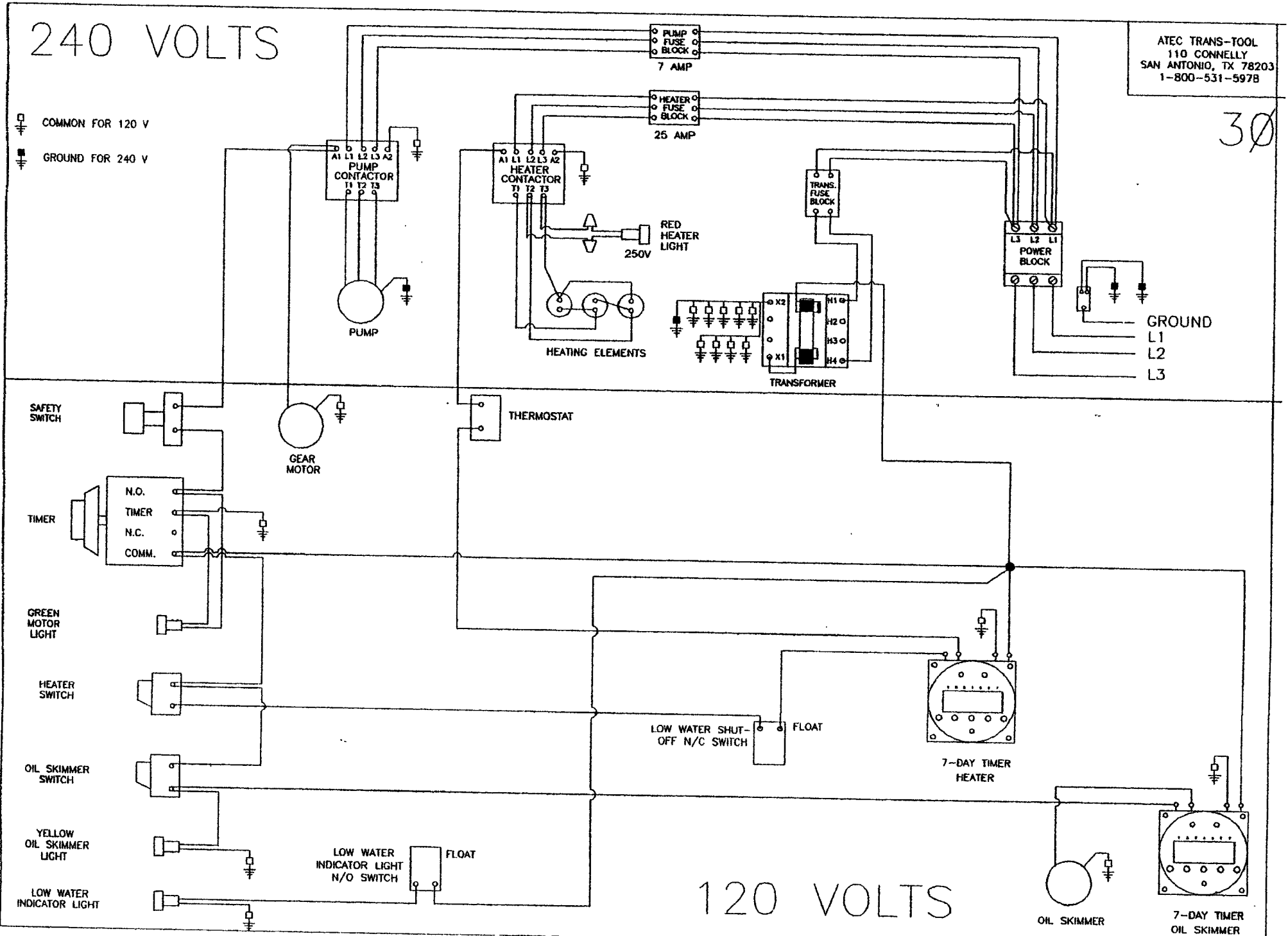
OIL SKIMMER  
7-DAY TIMER OIL SKIMMER

240 VOLTS

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COMMON FOR 120 V  
GROUND FOR 240 V



120 VOLTS

GROUND  
L1  
L2  
L3

SAFETY SWITCH

TIMER

GREEN MOTOR LIGHT

HEATER SWITCH

OIL SKIMMER SWITCH

YELLOW OIL SKIMMER LIGHT

LOW WATER INDICATOR LIGHT

GEAR MOTOR

PUMP CONTACTOR

HEATER CONTACTOR

PUMP FUSE BLOCK 7 AMP

HEATER FUSE BLOCK 25 AMP

TRANS. FUSE BLOCK

POWER BLOCK

TRANSFORMER

THERMOSTAT

LOW WATER SHUT-OFF N/C SWITCH

LOW WATER INDICATOR LIGHT N/O SWITCH

7-DAY TIMER HEATER

7-DAY TIMER OIL SKIMMER

OIL SKIMMER

PUMP

RED HEATER LIGHT 250V

HEATING ELEMENTS

7-DAY TIMER HEATER

7-DAY TIMER OIL SKIMMER

# Set-up

## Assembly

1. Install the PVC vent stack and drain plug on the washer. The outlet for the drain plug is located towards the rear of the machine below the tank.

## Water Level

2. Fill the washer's tank with water, until the oil skimmer wheel is submerged 2 ½" below the water level.

## Heaters

3. Turn the heater switch to the "ON" position, this will illuminate the (Red) indicator light and activate your heating elements. **NEVER ACTIVATE HEATERS UNLESS THE MACHINE IS FILLED WITH WATER.** If the heating elements are not submerged in water when activated, IMMEDIATE AND PERMANENT DAMAGE will occur. If unit is equipped with digital heater and oil skimmer timers refer to pages 11 & 12 for programming instructions.

## Adding Soap

4. After approximately 15 minutes, place cleaning compound onto the rear steel shelf, which is located under the turntable and supports the two filter screens. Refer to soap manufacturers mixing instructions. Run the pump for 15 minutes to insure soap is thoroughly mixed into the water. Estimated heat-up time is 90 minutes.

# Operation

## Loading Parts

1. Place parts in the center of the turntable.

## Setting the Cycle time

2. Turn the knob on the cycle timer to the desired time setting (1-30 min.) and **push the white button** in the center to start the pump. The **(Green)** indicator light will illuminate, while the pump is in operation. *THE TIMER DIAL DOES NOT COUNT DOWN TO ZERO. IF THE WHITE BUTTON IS PUSHED AGAIN BEFORE THE MACHINE HAS FINISHED ITS CYCLE, THE CLEANING CYCLE WILL START OVER AND RUN THE NUMBER OF MINUTES INDICATED ON THE DIAL.*

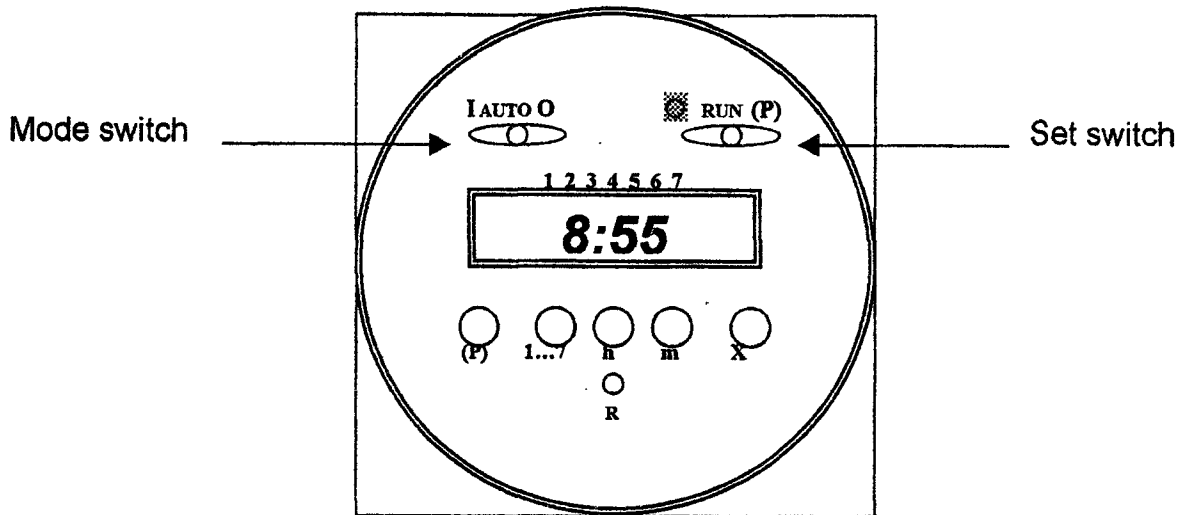
## Unloading Parts

3. After the cleaning cycle is finished, **WAIT 20 SECONDS**, then open the door. This will give the accumulated steam a chance to escape through the vent stack and will allow the water, which is on the inside of the door, to drain back into the tank.

## Oil Skimmer

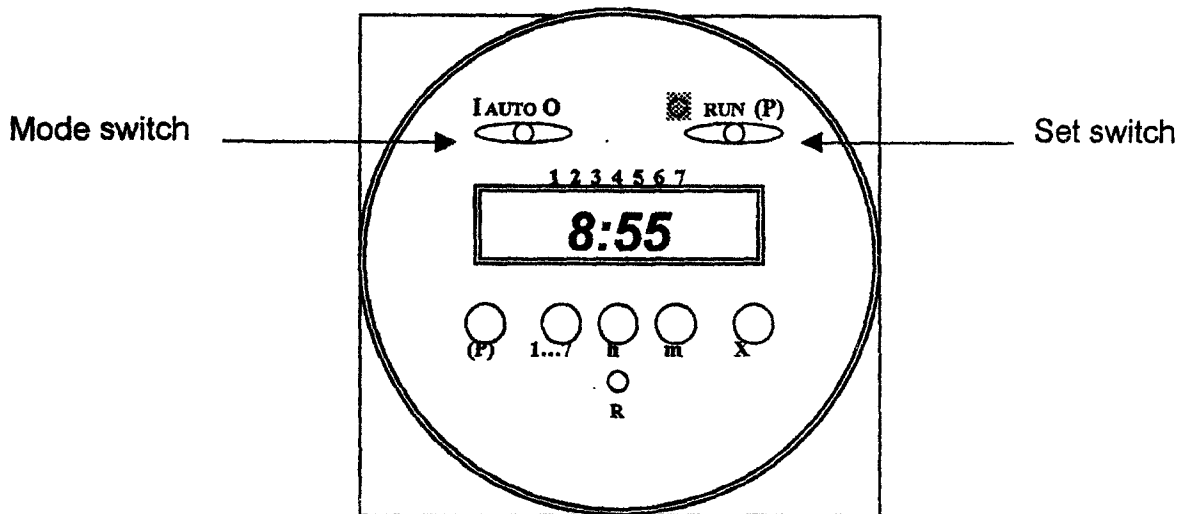
4. We recommend skimming the oil every morning. Units equipped with 24 hr, 7 day Digital timers refer to pages 11 & 12 for programming instructions. **BEFORE OPERATING THE PUMP**, turn the oil skimmer switch to the "ON" position. This will illuminate the **(Orange)** indicator light and activate your oil skimmer. Run skimmer until all of the oil is removed from the top of the water. **DO NOT** operate the oil skimmer and the pump at the same time.

# Programming Instructions



<p><b>Set "Time" and "Day"</b></p>	<p>Slide set switch to . Press 1...7 button until arrow points to correct day (1=Monday). Press h then m buttons to set correct time. PM indicator (P) shows noon to 11:59 PM. Slide set switch to run. Clock colon will start blinking.</p>
<p><b>Set "Switch On" cycle.</b></p>	<p>Slide set switch to (P). A "1" indicates the first switch cycle and a "Bulb" indicates a "switch-on" (circuit closes). Press 1...7 button until arrow(s) point to selected day(s) for this cycle. Press h and m buttons to show the "switch-on" time, noting the PM indicator.</p>
<p><b>Set "Switch Off" cycle.</b></p>	<p>With set switch at (P), press the (P) button. Note switch cycle number changes to "2" and "Bulb" disappears, indicating "switch-off" (circuit opens). Press 1...7 button to match day(s) set for switch cycle "1". Press h and m buttons to select "switch-off" time.</p> <p>Repeat steps up to 8 On/Off events, slide set switch to run. Clock colon will blink.</p>
<p><b>Automatic "RUN" mode</b></p>	<p>Set Time, Day and desired Switch On/Off cycles. Slide "set" switch to RUN and "mode" switch to AUTO. Switching begins with next "switch-on" set time.</p>
<p><b>Override On</b></p>	<p>Slide "mode" switch to I switch remains on indefinitely (circuit closed).</p>
<p><b>Override Off</b></p>	<p>Slide "mode" switch to O switch remains off indefinitely (circuit open).</p>
<p><b>Skip Cycle</b></p>	<p>In automatic run mode, press X button. The next calendar day is skipped.</p>
<p><b>Setting Error</b></p>	<p>If "EEE" appears, a setting error exists. The switch cycle number in error is shown. Slide set switch to (P). Press (P) button until cycle is shown. Review and adjust setting to correct the error. Slide set switch to RUN.</p>

# Programming Instructions



<p><b>Clear any setting</b></p>	<p>Slide set switch to (P). Press (P) button to show switch cycle to clear. Press 1...7 button until no days are indicated. Repeat for following switch cycle. This On/Off cycle is now inactive.</p>
<p><b>Clear All</b></p>	<p>To erase all settings, Press R button located at the bottom center of the unit.</p>

# Maintenance

*Clean your machine regularly: Once per week or after every 25th cycle, whichever comes first, following this schedule.*

1. Remove the soap and water solution from the machine.
2. Scrape the dirt and sludge off of the sides and bottom of the machine.
3. Remove the box filter element and rinse it with high pressure water.
4. Rinse the machine with clean water.
5. Grease the pump.
6. Recharge the machine with fresh water, and cleaning compound per manufacturers instructions.

**NOTE:** This machine generates hazardous waste material, the disposal of which is governed by Federal, State, and Local Regulations. ATEC Trans-Tool recommends the use of a Filtration System or Waste Water Reduction System to assist you in your compliance with these regulations. Call ATEC Trans-Tool for more information regarding Filtration Systems.

# Trouble Shooting

## **WARNING**

**ELECTRICAL TROUBLE SHOOTING PROCEDURES MUST BE PERFORMED BY A CERTIFIED ELECTRICIAN. DISCONNECT THE POWER SUPPLY BEFORE PERFORMING ANY ELECTRICAL WORK.**

### **I. PUMPING SYSTEM**

- A. If a pump pressure problem occurs or a pump noise problem presents itself, terminate the cleaning cycle immediately and clean your machine following the cleaning schedule in the maintenance section.
- B. If the pump does not operate but the turntable and heating system operates properly, check the following:
  - 1. Test the fuses in the pump circuit with an Ohm meter. Unplug the machine and remove the fuses to check them.
  - 2. Replace the fuses if necessary.
  - 3. Proceed to section C if necessary.
- C. If the fuses test out good, check the following:
  - 1. With the electric box door open and the electrical supply connected, turn the heater and oil skimmer off, close the door on the washer, set the timer to 10 minutes and push the white button. Listen and look at the contactor (the black relay) to determine if the center plunger on it is moving.

If the plunger on the contactor is moving then an AC voltmeter set to 240 Volts can be used to check if the voltage is going through the contactor (from the top terminals to the bottom). Since the electric supply must be on for this check **ONLY A QUALIFIED ELECTRICIAN SHOULD PERFORM THIS TROUBLESHOOTING.** If the voltage is reaching the bottom of the contactor then it should then be checked at the pump. Continued on page 11.

# Trouble Shooting

If the correct voltage is at the pump and the pump is still not operational then it must be removed and serviced. If the plunger on the contactor is not moving then an AC voltmeter set to 120 Volts can be used to check if voltage is getting to the control coil of the contactor (marked A1 and A2 on the top of the contactor).

Since the electric supply must be on for this check **ONLY A QUALIFIED ELECTRICIAN SHOULD PERFORM THIS TROUBLESHOOTING**. The 120 Volts should be traced from the 2 amp fuse on the transformer all the way to the contactor. If 120 Volts is not found at the 2 amp fuse on the transformer, then **DISCONNECT THE POWER** and remove the 2 amp fuse and both of the 1 6/10 amp fuses on the high voltage side of the transformer. Check the fuses with an Ohm meter and replace if necessary.

- D. If the pump, heating, and drive systems do not operate, check the following:
1. Verify that electrical power supply to the washer is on.
  2. Verify the external machine ground is properly connected. The machine must be grounded for the control circuit to operate properly.
  3. With the electrical supply properly connected, check the output voltage of the control circuit transformer.
    - a. If the output voltage is approximately 110 VAC, the transformer is okay. Proceed to Step 4.
    - b. If the output voltage is zero, check the fuses on the input and output sides of the transformer. Also, check the transformer for a grounded condition. Replace components as necessary.
  4. If the transformer tests out okay, check switches and contactors, etc., as outlined in Section C of the pumping system and Section B of the heating system.

# Trouble Shooting

## II. HEATING SYSTEM

- A. Disconnect electrical power to the parts washer.
  - 1. Remove and test the heating system fuses in the control box with an Ohm meter.
  - 2. Replace fuses if necessary.
  - 3. Proceed to section B if necessary.
- B. Reconnect electrical power to the parts washer.
  - 1. Inspect the heating system contactor in the control box. Turn the heater switch to the "on" position and determine if the heater contactor engages.

If the heater contactor does not engage then:

- a. Check output voltage of control system transformer. If there is no voltage check the fuses on the input and output sides of the transformer. Also, check the transformer for a grounded condition. Replace components as necessary.
- b. If the transformer and fuses are in proper working order, check the thermostat for proper functioning. **WITH THE ELECTRICAL SUPPLY DISCONNECTED**, remove the two wires connected to the thermostat and connect them together. Now, reconnect electrical power to the parts washer and turn the heater switch on. If the heater contactor closes, the thermostat must be replaced.
- c. If the transformer, fuses, and thermostat have tested out okay, check the heater switch. Trace the wire that comes from the transformer to the heater switch. Check that there is 120 Volts in that wire at the switch, then turn the heater on and check for voltage on the other side of the switch. Cont. on page13.

# Trouble Shooting

- c. If no voltage found, replace the switch. If voltage is on both sides of the switch then trace the wire to the thermostat, then to the heater contactor coil (labeled A1 and A2).
2. If all components in section 1 tested out okay, the heater elements must be checked.
    - a. With electrical power disconnected from the washer, remove the wires from the heating elements. With an Ohm meter, check for continuity between the two terminals on each heating element. There should be between 12 and 19 Ohms. If there is high resistance between the two terminals (meaning an open circuit) the heating element must be replaced.

## WARNING

DO NOT LEAVE THE HEATING SYSTEM ON OVERNIGHT, OR FOR LONG UNATTENDED PERIODS.

ALWAYS MAINTAIN THE WATER AT THE PROPER LEVEL. A LOW WATER CONDITION WILL RESULT IN DAMAGE TO THE HEATING SYSTEM.

A FOAMING CONDITION SHOULD BE CORRECTED IMMEDIATELY BY DRAINING THE MACHINE AND RECHARGING IT WITH THE PROPER AMOUNT OF FRESH WATER AND SOAP.

# Trouble Shooting

## III. TURNTABLE DRIVE SYSTEM

*If the pumping and heating systems function but the turntable does not rotate, the following checks may be made:*

1. Inspect the turntable drive wheel for damage.
2. Release the tension off of the drive wheel by turning the bolt behind the spring on the gear motor assembly. If the turntable does not spin freely, then the drive system bearings must be replaced (See Drive Assemble Service Section).
3. If the turntable rotates freely and there is voltage at the gear motor, then the gear motor must be checked for an open winding.

# **Turntable Drive Assembly Service**

1. Release tension from drive system spring.
2. Remove the two screws from the lower side of the drive shaft coupling.
3. Re-install the 2 screws into the two holes 90 degrees opposite to the holes previously removed from.
4. Tighten the bolts and the coupling will separate.
5. The motor can be lifted at this time.

## **Pump Service**

1. Disconnect and/or lock out all electrical power to the machine.
2. Empty all water/cleaning solution from the machine.
3. Remove oil skimmer plate.
4. Loosen the union.
5. Remove the long pipe going to the pump.
6. Remove the four pump mounting bolts and raise the pump and mounting plate together.
7. Internal pump or motor repairs should be done by a factory authorized repair center.

# Water Heater Element Service

**ATTENTION:**  
READ CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE  
OR SERVICE YOUR WATER HEATER ELEMENT.

## Description

Your water heater element is an immersion-type element designed to be operated in water.

## General Safety Information

1. Always disconnect power source before removing or installing the water heater element.
2. Before removing elements be sure water is completely removed.
3. Prior to the application of power, be sure the element is completely submersed in solution.

## Installation

1. SHUT OFF ELECTRICITY.
2. Remove heater cover.
3. Remove all water from tank.
4. Detach wiring from the element terminals.
5. Remove old element.
6. Coat threads with suitable thread sealant.
7. Install new element.
8. Re-attach the wires to the terminals of the element and firmly tighten screws to insure good electrical connections.



## Components Parts List

ITEM	PART NUMBER	DESCRIPTION
1.	000167	Pump Flange Gasket
2.	000903	3 HP, 1 Phase, Pump and Motor Assembly, Gusher-Ingersoll-Rand
	000904	3 HP, 3 Phase, Pump and Motor Assembly, Gusher-Ingersoll-Rand
3.	000169	Turntable Gear Motor
4.	000138	Heater Element (1 Phase)
	000378	Heater Element (3 Phase)
5.	000146	Thermostat
6.	000132	5/8" Bushing
7.	000133	3/4" Bushing
8.	000171	Nozzle
9.	000175	Retaining Ring

# Controls Parts List

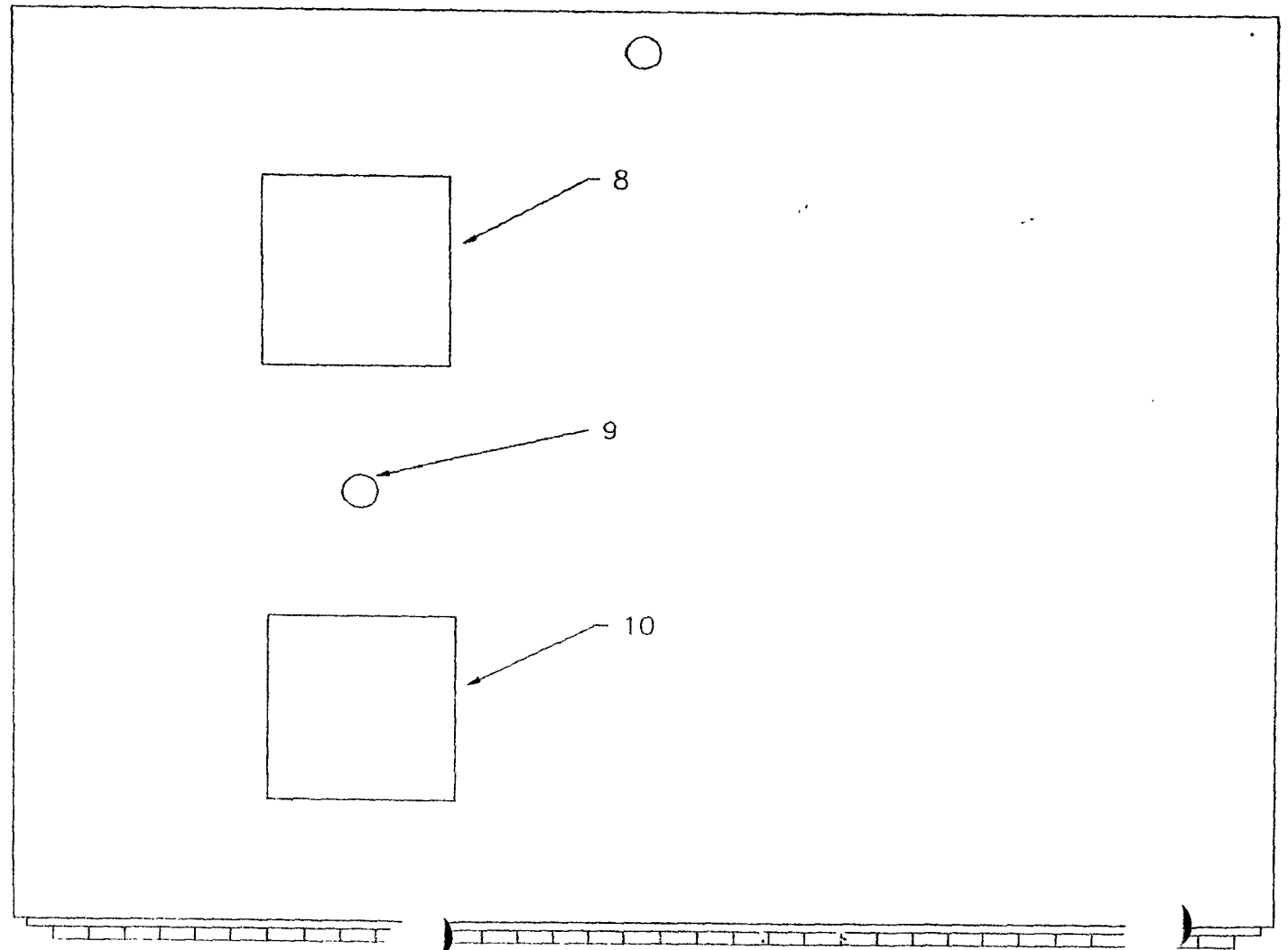
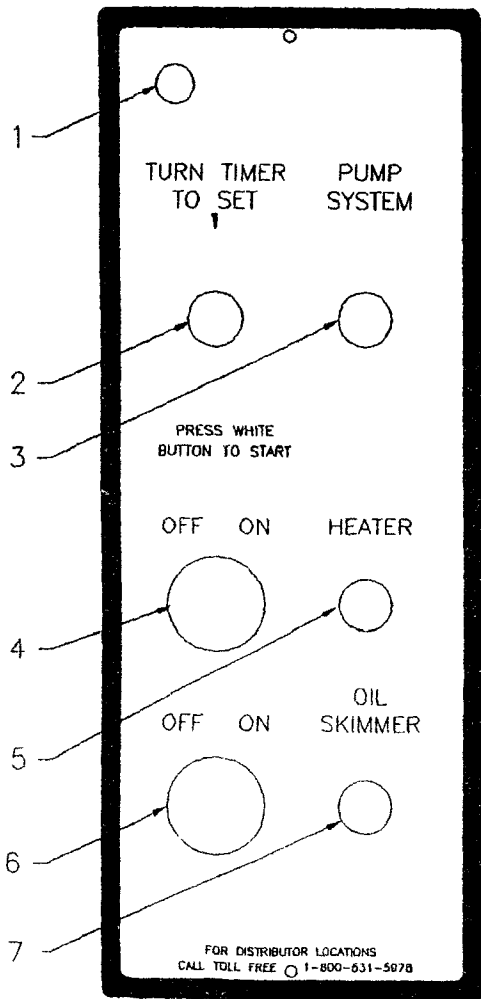
<b>ITEM</b>	<b>PART NUMBER</b>	<b>DESCRIPTION</b>
1.	000142 ELR42BE35AF106	Contactor (1 Phase) Contactor (3 Phase)
2.	000144	Timer
3.	001271 & 002007	Selector Switch with contact block
4.	00143	Safety Switch
5.	000140	Pilot Light, 125 V, Green
6.	000141	Pilot Light, 250 V, Red
7.	000989	Fuse 2 AMPS
8.	001286 000993	Fuse 50 AMPS (1 Phase) Fuse 25 AMPS (3 Phase)
9.	001002 002053	Fuse 15 AMPS (1 Phase) Fuse 7 AMPS (3 Phase)
10.	001284	Fuse 1.6 AMPS
11.	001285	Transformer

# Controls Figure

- 1. Door Safety Switch
- 2. 30 min. Cycle Timer
- 3. Green Pump Indicator Light
- 4. On/Off Heater Switch

- 5. Red Heater Indicator Light
- 6. On/ Off Oil Skimmer Switch
- 7. Orange Oil Skimmer Indicator Light
- 8. Digital Timer – Oil Skimmer

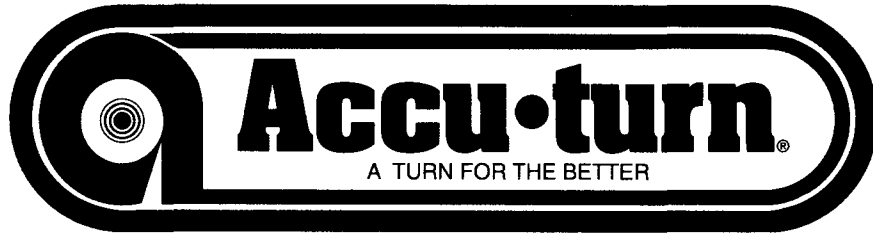
- 9. Blue Low Water Shut-Off Indicator Light
- 10. Digital Timer - Heater



# Warranty Notice

Accu International, Inc. requires the following in order to activate your warranty:

- Return of the warranty registration card
- A copy of the invoice from your electrical installer, providing the name, address, phone number, and license number of the installer.



 **Accu Industries, Inc:**  
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