DEXTER®
LAUNDRY

USE THE BLUE TABS LOCATED ON THE RIGHT AND LEFT SIDES OF THE FOLLOWING DOCUMENT TO ADVANCE TO EACH SECTION.

DEXTER LAUNDRY

V-Series Vended Washers
WCVD-18, WCVD-25, WCVD-40, WCVD-55, WCVD-75

8533-050-001 1/22

Equipment Safety Warnings
Symbols and Terminology Used in this Equipment

⚠ DANGER	**Indicates an imminently hazardous situation, which if not avoided, will result in death or serious injury.**
⚠ WARNING	**Indicates a potentially hazardous situation, which if not avoided could result in death or serious injury.**
⚠ CAUTION	**Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices. Minor burns, pinch points that result in bruises and minor chemical irritation.**
NOTICE	**Indicates information or a company policy that relates directly or indirectly to the safety of personnel or protection of property.**
	**This is the user caution symbol. It indicates a condition where damage to the equipment resulting in injury to the operator could occur if operational procedures are not followed. TO REDUCE THE RISK OF DAMAGE OR INJURY, refer to accompanying documents; follow all steps or procedures as instructed.**
	**This is the electrical hazard symbol. It indicates that there are DANGEROUS HIGH VOLTAGES PRESENT inside the enclosure of this product. TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, do not attempt to open the enclosure or gain access to areas where you are not instructed to do so. REFER SERVICING TO QUALIFIED SERVICE PERSONEL ONLY**
	**Caution! There are sharp edges on various sheet metal parts internal to the enclosure. Use safety consciousness when placing or moving your hands while working in the interior of this equipment.**
	**Caution! To reduce the risk of damage to the Water Inlet Valve, do not supply inlet water with a temperature that exceeds 70˚ C.**
	Caution! To reduce the risk of fire or explosion, do not operate this equipment in any hazardous classified (ATEX) environment.

Equipment Safety Warnings
Symbols and Terminology Used in this Equipment

Warning! Do not operate equipment if door glass is damaged in any way.

Warning! Keep clear of rotating parts.

Prohibited! Do not enter this equipment or space.

Prohibited! Do not step or stand on this equipment.

Prohibited! Do not operate without all guards and covers in place.

Prohibited! Do not operate without all guards and covers in place.

Prohibited! Do not wash clothing impregnated with flammable liquids (petrochemical).

Prohibited! Do not allow children to play in or around equipment.

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	**Caution! To reduce the risk of fire or explosion, do not operate this equipment in any hazardous classified (ATEX) environment.**

WARNING

	• All washers must be installed in accordance to all applicable electrical, plumbing and all other local codes. • These installation and operation instructions are for use by qualified personnel only. To avoid injury and electrical shock, do not perform any servicing other than that contained in the installation and operation instructions, unless qualified.
	Do not install washers in an explosive atmosphere.
	•Care must be stressed with all foundation work to ensure a stable unit installation, eliminating possibilities of excessive vibration. •Foundation must be level within 13 mm to ensure proper washer operation.

	Do not operate washer if door glass is damaged in any way.
	Do not wash clothing impregnated with flammable liquids (petrochemical).

WARNING

 	Children should be supervised to ensure they do not operate or play in or around equipment.
	Keep all panels in place to protect against electrical shock and injury and add rigidity to washer.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

A washer should not be allowed to operate if any of the following occur:

- **Excessive high water level.**
- **Machine is not connected to a properly earthed circuit.**
- **Door does not remain securely locked during the entire cycle.**
- **Vibration or shaking from an inadequate mounting or foundation.**

	**Warning! Do not operate equipment if door glass is damaged in any way.**
	**Warning! Keep clear of rotating parts.**
	**Prohibited! Do not enter this equipment or space.**
	**Prohibited! Do not step or stand on this equipment.**
	**Prohibited! Do not operate without all guards and covers in place.**
	**Prohibited! Do not operate without all guards and covers in place.**
	**Prohibited! Do not wash clothing impregnated with flammable liquids (petrochemical).**
	**Prohibited! Do not allow children to play in or around equipment.**

	**Prohibited! Do not attempt to open, touch, or proceed before referring to the manual or unless qualified.**
	**Mandatory! Read all supporting documentation before operating or maintaining equipment.**
	**Mandatory! Disconnect power before servicing equipment.**
	**Mandatory! Lock out and tag out before servicing this equipment.**
	**Mandatory! Disconnect water supply before servicing equipment.**
	**Mandatory! Children should be supervised to ensure they do not operate equipment.**

Dexter Safety Guidelines

WARNING

These washers are equipped with devices and features relating to their safe operation. To avoid injury or electrical shock, do not perform and service, unless qualified to do so.

FOR SAFETY

1. Always shut off power and water supply and also discharge capacitors before servicing.
2. Do not overload the washer.
3. Do not attempt to open door if cylinder is in motion or contains water.
4. Do not mechanically force or override door lock in any way.
5. Do not bypass any safety devices of this washer.
6. Do not use volatile or flammable substances in or near this washer.
7. Keep all panels in place. They protect against shock and injury and add rigidity to the washer.

A machine should not be allowed to operated if any of the following occur:

- Excessively high water level.
- Machine is not connected to a properly grounded circuit.
- Loading door does not remain securely locked during the entire cycle.
- Vibration or shaking from an inadequate mounting or foundation.

To activate your warranty, be sure to return your red warranty form to the factory. Please have serial number and model ready when calling for assistance.

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Section 1:

Machine Mounting

Specifications for below models are outlined in this book:

WCVD18KCS-10	120 volt	60hz	Single Phase
WCVD18KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD25KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD40KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD55KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD75KCS-12	208-240 volts	60hz	Single Phase or Three Phase

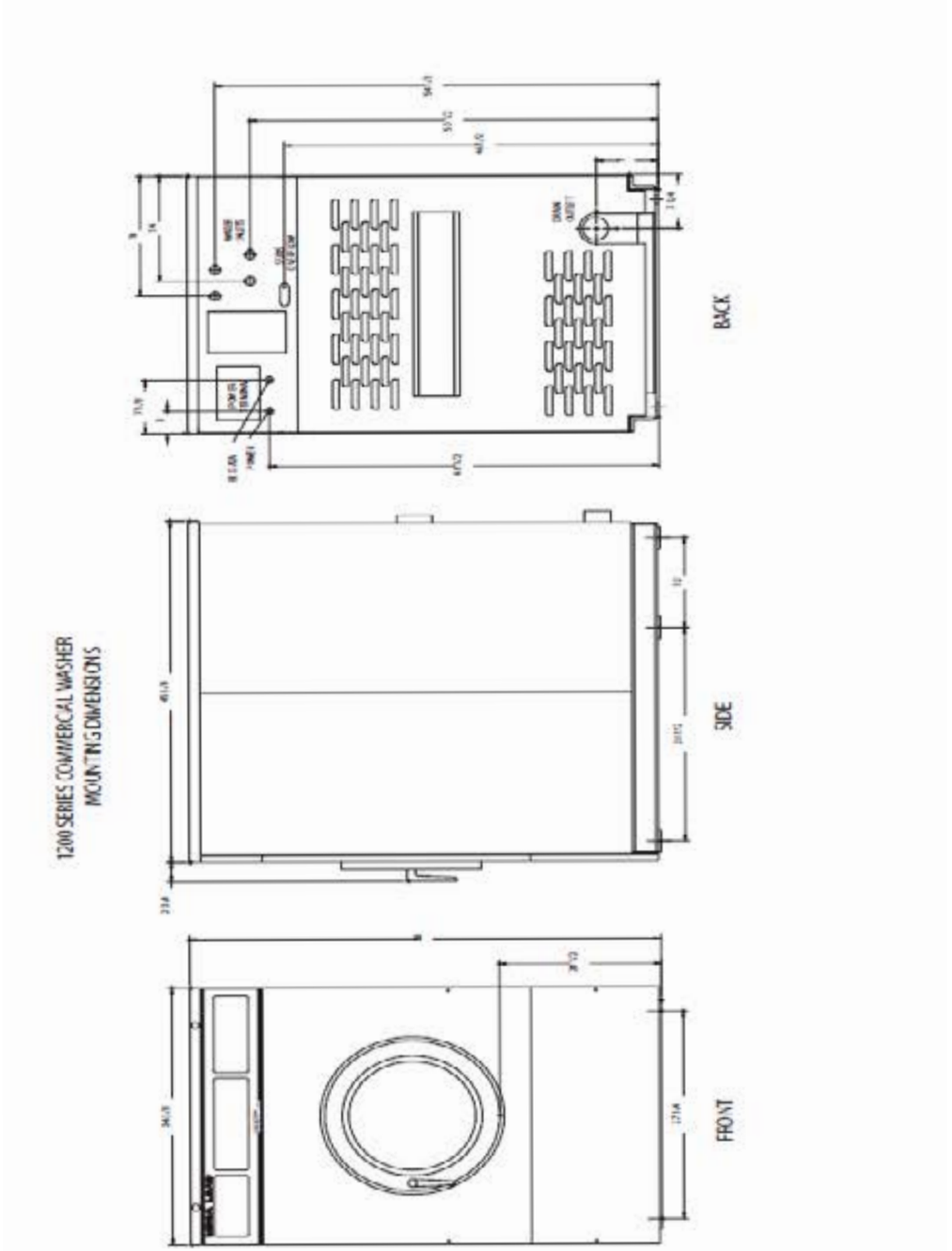
T-300 Mounting Dimensions

T-400 Mounting Dimensions

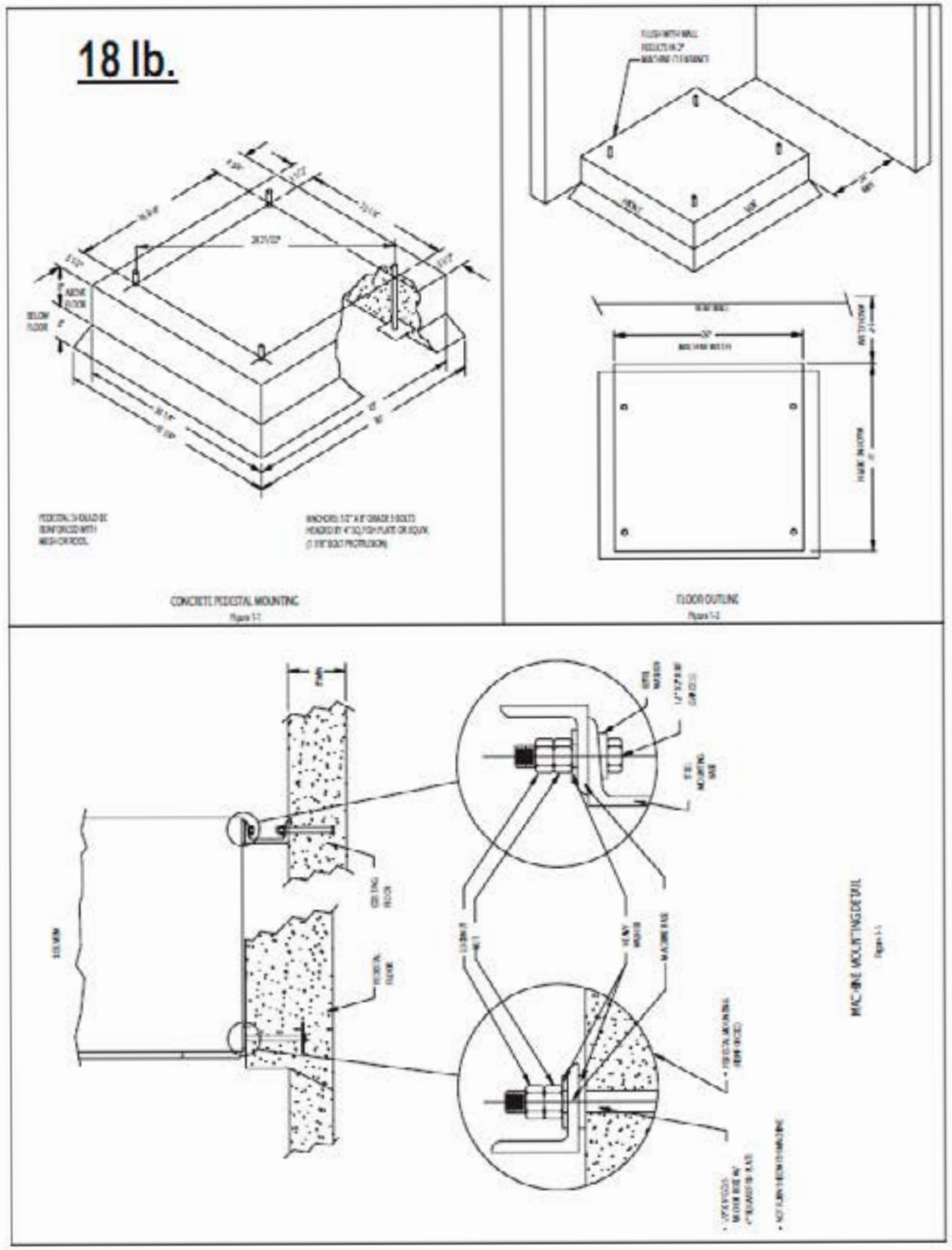
T-600 Mounting Dimensions

T-900 Mounting Dimensions

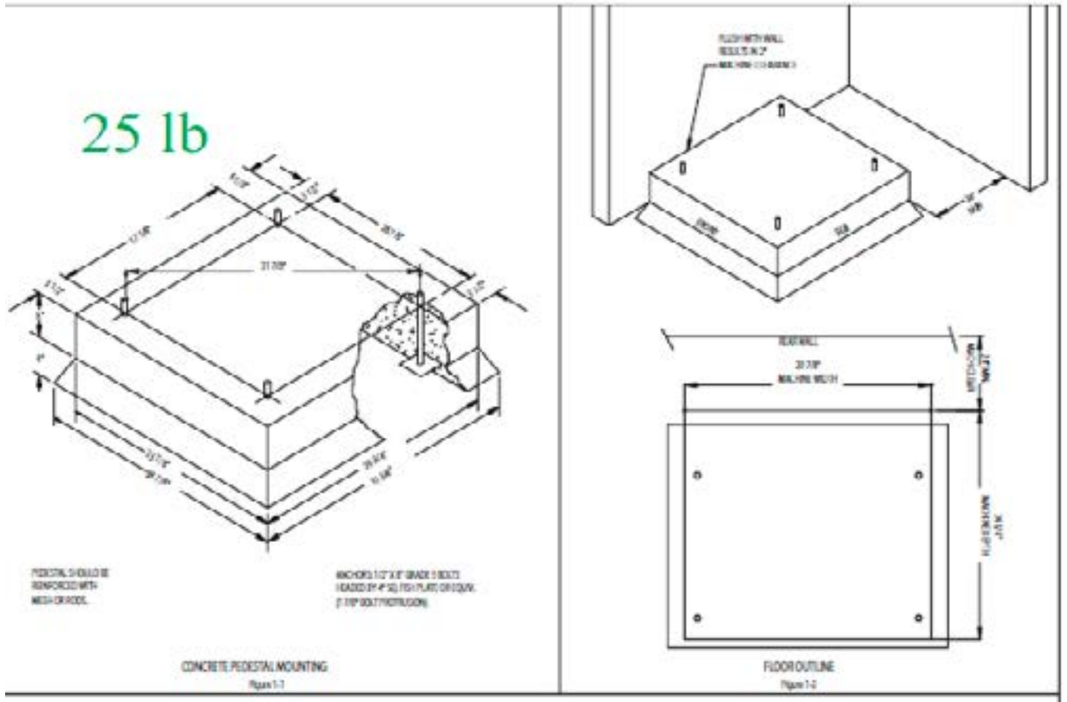
T-1200 Mounting Dimensions



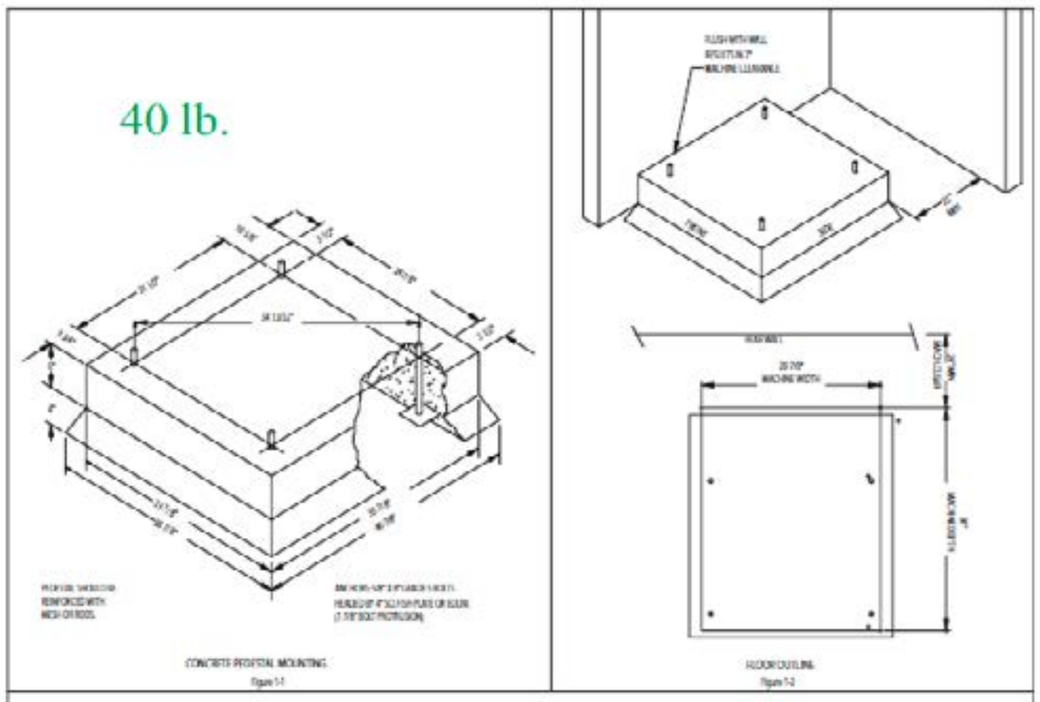
T-300 Mounting Pad Dimensions



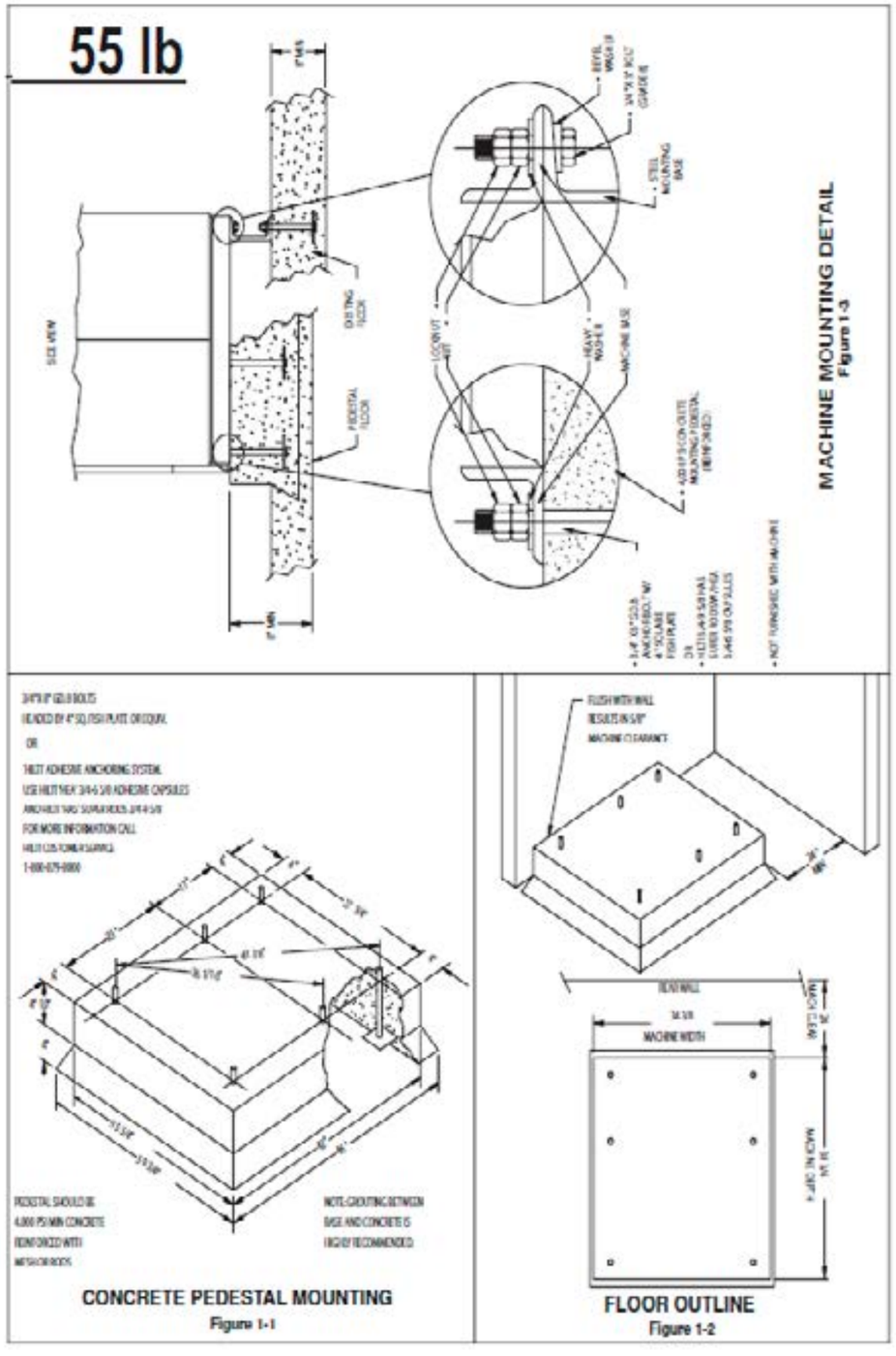
T-400 Mounting Pad Dimensions



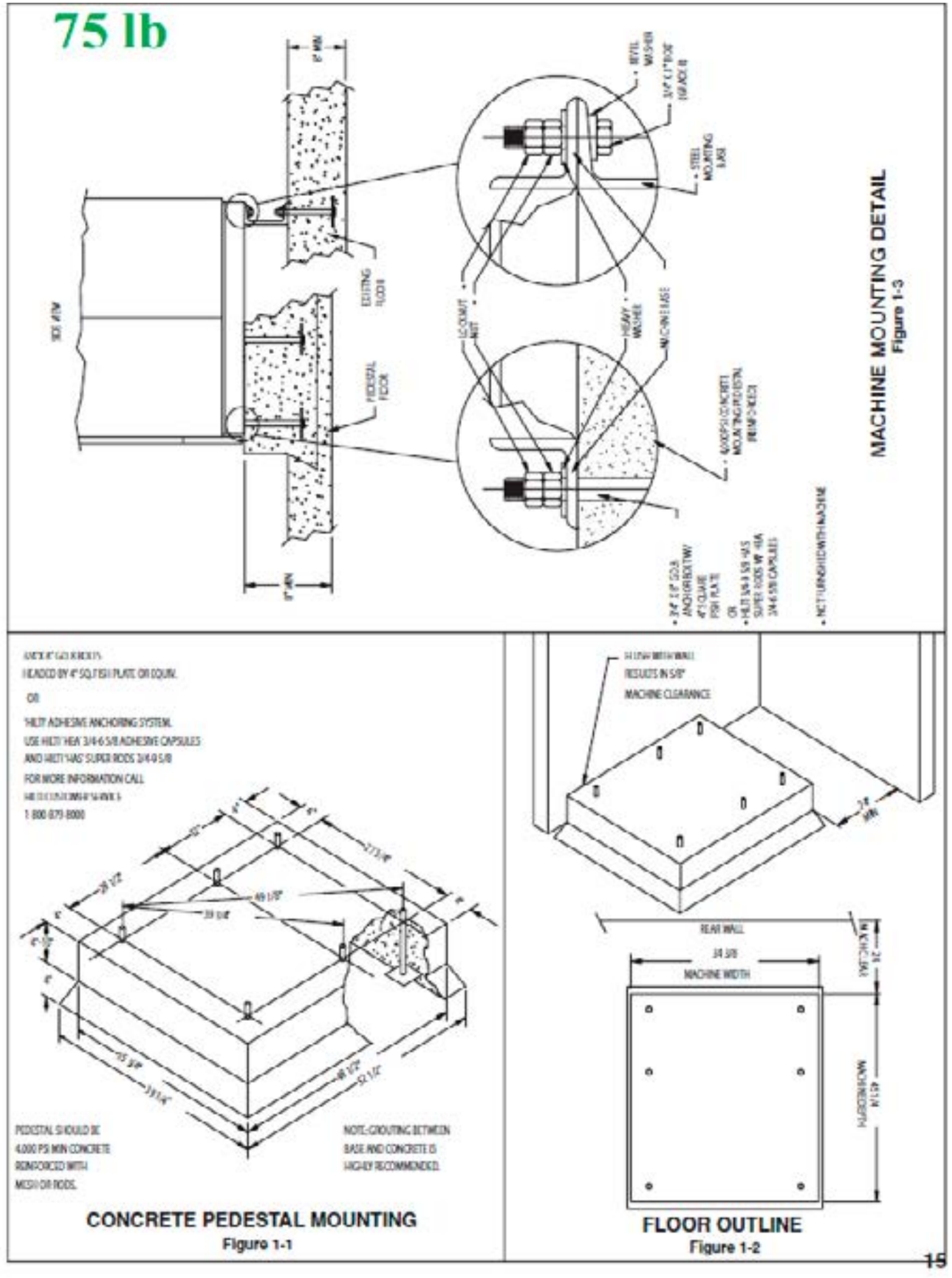
T-600 Mounting Pad Dimensions



T-900 Mounting Pad Dimensions



T-1200 Mounting Pad Dimensions



Notes

Section 2:

Machine
Installation
& Operating
Instructions

Installation & Operation

All washers must be installed in accordance with all local, state and national building, electrical, and plumbing codes in effect in the area.

Foundation Requirements
The washer must be securely bolted to a substantial concrete floor, or mounted upon a suitable base which is in turn securely bolted to a substantial concrete floor. Care must be stressed with all foundation work to insure a stable unit, eliminating vibration. All installations must be made on sound concrete floors. See mounting dimensions for each model being installed.

Mounting
A concrete pad or steel base which elevates the machine 4 to 6 inches above the floor level. To provide easy access to the loading door, it is recommended to allow a minimum of 24" of clearance behind the rear of the machine for service as is shown. Dexter highly recommends the use of a dry expansion grout mix.

Proper Machine Grout Installation
Grout should be installed between base (if used) and concrete floor on all side rails and crossmembers. If using a base you should grout between base top and machine frame and all side rails and crossmembers. (Grouting between the machine base and the floor is absolutely required for all 200G Express Models)

Mounting Holes
See mounting dimensions for the machine model you are installing in previous section. They also show a typical concrete pad arrangement. It is highly recommended that you use all mounting holes supplied with each model. Note: Mounting bolts should be checked frequently to insure that they remain tight. The machine should be checked with a spinning load to be sure there is no unusual vibration or movement between the machine and the base or floor. Please note: Machine grouting is highly recommended as grouting insures stability and longevity.

Plumbing
Water supply hoses are furnished with each machine. The threaded connections on the hoses are standard garden hose type thread. Separate hot and cold water lines with shut off valves or faucets for inlet hose connections must be provided, maintaining 30 to 120 p.s.i. water flow pressure. Maximum water temperature is 180 degrees.

Drain
The drain outlet tube at the rear of the machine is 3" in outside diameter on models 25lb., 40lb., 55lb., 75lb.. A drain outlet tube at the rear of the machine is 2 1/4" outside diameter on a 18lb. model. All drains are gravity drain. Adequate fall must be maintained for proper drainage.

Protective Film
The machine may have protective adhesive film on the front escutcheon area and the front and side stainless steel panels. The film may be peeled off before putting the machine into service.

Electrical
Dexter single/three-phase 208-240VAC 60 Hz washing machines are intended to be permanently installed appliances. No power cord is provided. The machine should be connected to an individual branch circuit not shared by lighting or other equipment. The connection should be sheathed in liquid tight flexible conduit, or equivalent, with conductors of the proper size and insulation. A qualified technician should make such connections in accordance with the wiring diagram.

A U.L. approved receptacle, which has been properly grounded in accordance with local electrical codes must be used with the machine. Each unit should be connected to an individual branch circuit not shared by lighting or other equipment. Conductors of the proper size and insulation (suggested size below) should be used.

To Make Electrical Connections
Disconnect all power to the washer. Remove screw and lift out the cover located in the upper left corner of the machine (as viewed from the back).

- If power is 208-240-3PH-60Hz, connect L1, L2, L3 and ground. If there is a high leg it must be connected to L3. It is highly recommended to use a TVSS.
- If power is 208-240-1PH-60Hz, connect L1, L2 and ground. If power is 120-1PH-60Hz, use a UL approved receptacle with proper external ground.

NOTE: It is important that the grounding screw next to the power terminal block TB-1 be connected to a good external ground.

Controls Transformer
The controls transformer is located inside the control trough and steps a range of 208 to 240 volts down to 115 volts. There are two terminals on the controls transformer for the primary (incoming) power. Use the terminal marked "208V" for power supplies between 208 and 219 volts. Use the terminal marked "230V" for power supplies between 220 and 240 volts.

NOTE: transformer must be set at proper tap for proper operation.

Electrical Connections

Electrical power connections are made to the small terminal block located in the rear of the control trough. The terminal block is accessed by opening the top panel of the machine.

- 1 Phase or 3 Phase connections
- 208-240 volts, 60 Hz.
- 3 wire plus ground
- Suggested Minimum Wire Size -- #12 Ga.

Fusing Requirements:
Dual element time delay fuse or equivalent breaker of amperage specified below.

- 1 Phase or 3 Phase 15 amp WCVD18KCS-12, WCVD25. WCVD40
- 1 Phase or 3 Phase 20 amp WCVD55, WCVD75
- 1 Phase 20 amp WCVD18KCS-10 (120 volt)

Rotation in extract as viewed through glass door at front of washer models WCVD-25lb, 40lb, 55lb, and 75lb. will be counter-clockwise. WCVD 18lb models extract clockwise.

WARNING

Always disconnect electrical power to the machine before performing any adjustments or service.

Operating Instructions

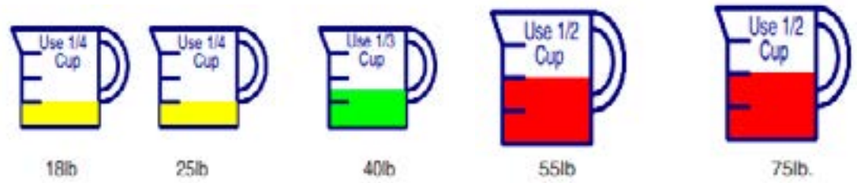
Microprocessor

Prior to operation, the micro computer should be set to display the amount of vend price being offered and the cycle to be given to the user. NOTE: Should a power loss occur during cycle and when power returns, P U S H will be displayed in window and customer must push the START button to continue the cycle.

Starting the Washer

A. Load the clothes loosely in the cylinder and latch the door securely. Be sure clothing does not get caught between the door gasket and tub front when closing the door.

B. Pour low-sudsing powdered detergent in the amount shown below into the detergent dispenser on top of the machine. Rinse conditioners may also be added to the dispenser. The correct location is shown on the dispenser lid.



NOTE: To close the door the handle, must be in the horizontal position and then moved to the vertical position. After moving the door to the closed position, the handle must be turned down to the vertical position to latch the door for machine operation.

C Using the TEMPERATURE SELECT buttons on the front, select the desired temperature. If temperature pricing is being used you will display price changes as you push the desired temperature selection. This selection must be made before inserting coins to satisfy temperature price selected. If coins or value are added after extended plus cycle vend price is met it will be lost without credit. If water temperature pricing feature is active and vend price met and machine started the customer may change temperature selections of equal to or lower priced temperature selections already inserted into machine.

D. Insert coins, tokens or activate card reader to meet displayed vending price. The washer will automatically start and the green "on" led will glow. The clothes door will lock and remain locked until the end of the cycle.

E. If utilizing ADD PLUS CYCLE $.ooo option The front display will scroll, ADD PLUS CYCLE .25(example),amount to be added. User will have 1 minute to insert proper amount to activate this option.

F. At the correct time in the wash bath cycle the green "ADD BLEACH" light will come on indicating the time and showing a diagram of the location for adding bleach if desired.

End of Cycle

When the cycle is completed, the end of cycle buzzer will sound and the "on" light will go off. The loading door can now be opened by turning the door handle to the indicated position and pulling. Leave the clothes door open when the machine is not in use. Also, at the end of cycle the display will reset to the original amount required to start.

TRANSIENT VOLTAGE SURGE SUPPRESSORS

Like most electrical equipment your new machine can be damaged or have its life shortened by voltage surges due to lightning strikes which are not covered by factory warranty. Local power distribution problems also can be detrimental to the life of electrical components. We recommend the installation of transient voltage surge suppressors for your new equipment. These devices may be placed at the power supply panel for the complete installation and don't require and individual device for each machine.

These surge protectors help to protect equipment from large spikes and also from small ongoing spikes in the power that occur on a day to day basis. These smaller surges can shorten overall life of electrical components of all types and cause their failure at a later date. Although they can't protect against all events, these protective devices have a good reputation for significantly lengthening the useful life of electronic components.

Electronic Components are helped to have a longer useful life when they are supplied with the clean stable electrical power they like.

We are including the following names and links to a few suppliers of these devices for those who don't currenty have a source.

MANUFACTURER	LINK
MCG Surge Protection	mcgsurge.com
Eaton Corporation	eaton.com/us/en-us
Schneider Electric	se.com/us/en
Asco Power Technolgies	ascopower.com/us/en
Emerson Electric Co.	emerson.com/en-us

Section 3:

Machine Programming Instructions

PROGRAMMING INSTRUCTIONS:

The washer has two levels of programming. The Washer Cycle Programming allows the owner complete access to the wash cycle parameters – add/remove a bath, bath times, spin times, water temperatures, etc. The Coin/Price Programming allows the owner to set the price for the washer features and the values of the coins. To enter the programming modes, the top of the washer must be unlocked and slid toward the back of the washer a few inches.

COIN PRICE PROGRAMMING:

While the washer is in the Idle mode, push the Programming pushbutton on the controller. The Idle mode is when the washer is not running a cycle and the price of the bath is displayed. The Programming pushbutton is a very small buttoned located on the upper center of the controller directly behind the display. There are six stages in the Coin/Price Programming mode.

To step through to the desired stage, repeatedly push the right-hand Warm temperature button until the desired stage is blinking on the display. To exit the Coin/Price programming mode, push and hold the Cold temperature button for 5 seconds.

When manual programming mode is entered, the "Hot", "(Left-Hand) Warm", "(Right-Hand) Warm" and "Cold" buttons perform alternate functions.

Button Name	Alternate Function in Programming Mode
Hot	Becomes the action to move DOWN through displayed options
Left-Hand Warm	Becomes the action to move UP through displayed options
Right-Hand Warm	Becomes the action to accept the displayed option or the "Enter" key
Cold	Becomes the action to move back a step (1 press) or EXIT from programming mode (press for 5 seconds)

Right Coin – The display will blink first an "r" indicating right coin and then a coin value (0.25 – default). The display will blink back and forth between the "r" and the value. To change the value, use the Hot temperature button to decrease and the left-hand Warm temperature button to increase. The value will change in 5¢ steps. The range of values is from $00.00 to $99.95. When the desired right coin value is displayed, push the right-hand Warm temperature button once to store the new value and a second time to move to the next Coin/Price programming step. To exit the Coin/Price programming mode, push the Cold temperature button for 5 seconds.

Left Coin – The display will blink first a "L" indicating left coin and then a coin value ($1.00– default). The display will blink back and forth between the "L" and the value. To change the value, use the Hot temperature button to decrease and the left-hand Warm temperature button to increase. The value will change in 5¢ steps. The range of values is from $00.00 to $99.95. When the desired left coin value is displayed, push the right-hand Warm temperature button once to store the new value and a second time to move to the next Coin/Price programming step. To exit the Coin/Price programming mode, push the Cold temperature button for 5 seconds.

Wash Price – The display will blink first a "P" indicating wash price and then present wash price. The display will blink back and forth between the "P" and the price. To change the value, use the Hot temperature button to decrease and the left-hand Warm temperature button to increase. The value will change in 5¢ steps. The range of values is from $00.05 to $99.95. When the desired price is displayed, push the right-hand Warm temperature button once to store the new value and a second time to move to the next Coin/Price programming step. To exit the Coin/Price programming mode, push the Cold temperature button for 5 seconds.

Washer Temperature Pricing:

The washer can be set for different levels of pricing for Cold, Warm and Hot water. The Cold water setting is considered as the base price, which is the normal washer cycle price.

Warm Water Price – The next step in the pricing program is to set the additional price for Warm water usage. The display will blink first "CH P" indicating cold/hot water mix price and then "00.00". To change the value, use the Hot temperature button to decrease and the left-hand Warm temperature button to increase. The value will change in 5¢ steps. The range of values is from $00.00 to $99.95.

Note: To not use this feature, set the price to "00.00".

When the desired price is displayed, push the right-hand Warm temperature button once to store the new value and a second time to move to the next Coin/Price programming step. To exit the Coin/Price programming mode, push the Cold temperature button for 5 seconds.

Hot Water Price – The next step in the pricing program is to set the additional price for Hot water usage. The display will blink first "H P" indicating hot water price and then "00.00". To change the value, use the Hot temperature button to decrease and the left-hand Warm temperature button to increase. The value will change in 5¢ steps. The range of values is from $00.00 to $99.95.

Note: To not use this feature, set the price to "00.00".

When the desired price is displayed, push the right-hand Warm temperature button once to store the new value and a second time to move to the next Coin/Price programming step. To exit the Coin/Price programming mode, push the Cold temperature button for 5 seconds. The Coin/Price programming mode will automatically exit and return to the Idle mode if no buttons are pushed for one minute.

Plus Cycle Price — The next step in the programming sequence is the Plus Cycle feature. The Plus Cycle adds three (3) minutes of wash time to the wash bath only. The controller can be programmed to charge a fee for this or the feature can be turned off. The default setting is off. To turn the Plus Cycle feature off, set the Plus Cycle price to zero.

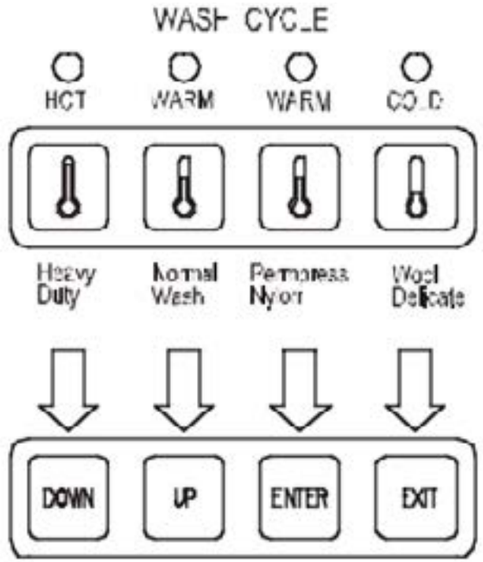
The display will blink first a "PC P" indicating Plus Cycle price and then price (back and forth). To change the value, use the Hot temperature button to decrease and the left-hand Warm temperature button to increase. The value will change in 5¢ steps. The range of values is from $00.05 to $99.95. When the desired price is displayed, push the right-hand Warm temperature button once to store the new value and a second time to move to the next Coin/Price programming step. To exit the Coin/Price programming mode, push the Cold temperature button for 5 seconds.

WASH CYCLE PROGRAMMING:

To change a feature of the wash cycle, push and hold the Hot temperature button and then push the programming pushbutton on the controller. The Washer mush be in the Idle mode to enter the Wash Cycle Programming mode. When entering the cycle programming mode the Bleach LED will start to blink and continue to blink as long as you are in the Cycle Programming mode. The display will show "C 0". This is the default cycle number.

Note: The washer can be returned to the factory default settings by holding the right Warm button and then pressing the left Warm button. The display must show "C 0" to do this. When the cycle default values are loaded, the washer will automatically exit the programming mode.

Note: The Wash Cycle programming mode will automatically exit and return to the Idle mode if not buttons are pushed for one minute.
To change the washer cycle, push the Hot temperature button once. The display will change to "C 1", indicating cycle one is selected. The temperature buttons are used to make changes to the program. In the program mode, these buttons will do this:



When the display shows "C 1", push Enter. The display will show "b " and the PreWash mode light will blink. Use the Up/Down buttons to move to the bath that will be changed. As Up/Down buttons are pushed, the next bath mode light turns on.

When the Up button is pushed, the lit bath mode changes from Prewash to Wash. With each additional push of the Up button, the lit bath mode changes from left to right: Prewash, Wash, Rinse and Final Rinse. As there are two possible Rinse bathes, for Rinse1 the Rinse LED and the display changes to "b" in the left digit and "r1" in the two right hand digits. For Rinse2, the display changes to "b" in the left digit and "r2" in the two right hand digits. Note that the Spin light is not used. When the Down button is pushed, the lit bath mode changes from Prewash to Final Rinse, etc... There is a wrap around feature in both directions. When the desired bath mode light is on, push Enter.

The selected bath LED begins to blink. The display shows the letters "ct" in the left two digits and the bath cycle time in the right two digits. Again the up/down buttons change this value. The range is shown below. If zero time is entered, then the bath will be skipped and the program will return to the bath selection. When the desired cycle time is selected, push enter.

The display shows the letter "t" in the left digit and the letters "CC" appear in the right two digits. This is the bath water temperature. The selection choices are shown below but for the coin washer the value is defaulted to CC. As it is not selectable with a coin washer, the owner pushes enter to continue.

The display shows the letter "L" in the left digit and the letters "LO" appear in the right two digits. This is the bath water level. The selection choices are shown below but for the coin washer the value is defaulted to LO. As it is not selectable with a coin washer, the owner pushes enter to continue.

The display shows the letters "dF" in the left two digits and the letter "t" appears in the right digit. This is the bath delay fill. The selections are "t" for decrementing bath time during the fill or "d" for delay the bath time until water level is reached. When the desired selection is made, push enter.

The display shows the letter "S" in the left digit and the bath spin time in the right two digits. Again the up/down buttons change this value. The range is shown below. When the desired spin time is selected, push enter.

The display shows the letters "IS" in the left two digits and the injection selection appears in the right digit. For the coin washer the default value is "0" and cannot be changed. Push exit.

The display will show "b" and the bath LED lights will stop blinking. Again use the up/down buttons change the bath selection. To exit the programming mode, push and hold exit until price is displayed. The cycle will be stored when exiting the programming mode.

Coin Washer Cycle Parameter Changes

The range of each cycle parameter is shown below:

Cycle Time "ct"0 to 15 minutes for Prewash, Rinse1 and Rinse2
3 to 15 minutes for Wash and Final Rinse
For the bathes that can, if the time is set to zero, then the bath will be eliminated from the cycle.

Water Temperature "t" HH – hot, CH – warm, CC – cold, EE – no water
The owner can set the bath default. For the wash bath, the default is over ridden for that cycle by the customer when the temperature is selected.

Water Level "L" LO – low
The owner can change the displayed value, but for a coinwasher only LO will be put into the cycle.

Delay Fill "dF"
The selections are "d" for delay the bath time until water level is reached or "t" for decrement bath time during the fill.

Spin Time "S" 0 to 10 minutes for Prewash, Wash, Rinse1 and Rinse2
1 to 10 minutes for Final Spin.

"IS" The owner can change the displayed value, but for a coin washer only 0 willbe put into the cycle.

Coin Washer Default Cycle (Preset at the Factory)

The following table shows the complete details for the coin washer default cycle.

Bath	Bath Cycle Time (min.)	Water Temp	Water Level	Delay Fill	Spin Time (min.)	IS
Prewash	0	n/a	n/a	n/a	0	n/a
Wash	9	CH	LO	t	n/a	0
Rinse 1	4	CC	LO	t	0	0
Rinse 2	0	n/a	n/a	n/a	n/a	n/a
Final Rinse	5	CC	LO	t	4	0

Note * These default values are preset and cannot be changed.

Rapid Advance Mode
To enter the Rapid Advance mode, push and hold the Cold water temperature button and then push the programming button on the controller. There will be no observed change to the washer or the display. The Rapid Advance mode can be entered from either the Idle mode or during the cycle. To rapid advance to the next step in the wash cycle, push both warm temperature buttons at the same time. The display will show an "Ad" (advance) in the display. The washer will advance to the next bath segment. The water will drain before the advance will occur.

To exit the Rapid Advance mode, push and hold the Cold temperature button for 5 seconds or more.

Notes:
1. When the Rapid Advance mode is used, the cycle time will no longer be correct.
2. By skipping steps with rapid advance, the door may not open immediately at the end of the cycle.

Notes

Section 4:

Trouble Shooting

Common Troubleshooting Solutions

Symptom	Probable Cause	Suggested Remedy
Machine does not start	Power Supply	Check these areas: Circuit breakers, Voltage, Power leads, Power connections. Is front display LED showing a dollar amount.
	Door Switch	Check for continuity through door switch when door is closed. If no continuity, adjust or replace door switch.
	Control Breaker or Fuse	Check 1.5 amp (T-1200. uses 2.5amp) breaker or fuse for continuity. If no continuity, replace breaker or fuse.
	Control Transformer	Check voltage output from control transformer for 120VAC. If voltage is incorrect, replace transformer.
	Coin Acceptor	Check coin switch to make sure coins trip switch and give continuity across switch when closed. If no continuity, adjust or replace switch.
	Check PCB board	Check all wire connections for sure contacts.
	Check wiring between PCB	Check data cable phone type connectors unplug and VFD and replug with power removed.
	Check Relay PCB	Check all wire connections for sure contact.
	Check Door Solenoid	Check that 120 v power is at solenoid after start button is pushed.
Machine will not accept and count coins	Coin Acceptor	Check coin acceptor switch for any type of blockage or damage. Clean, adjust or replace the acceptor.
	Power Supply	Check these areas: Circuit breakers, Voltage,Power leads, Power connection
	Door Closed Safety Switch	Check door closed switch at door hinge for proper operation.
	Door Handle Closed Switch	Check single door closed switch at left side of door handle to close when handle is vertical.
	Control Breaker or fuse	Check 1.5 amp (T-1200 uses 2.5 amp) breaker or fuse for continuity. If no continuity, replace breaker.
	Main PCB	Replace
Door does not lock	Check display for fault code	Does F1 show on the front of display. If yes follow tests described in fault code section.
	Door locking solenoid	Check to insure that solenoid is receiving 120VAC from main relay PCB. If it is, replace solenoid.
	Door Switch	Check for continuity through door latch switch when door closed. If no continuity, adjust or replace door switch.
Door will not open	Thermoactuator	Check to see if thermoactuator(s) and/or its mechanism is stuck or binding and not allowing the door lock solenoid to open. Check to be sure that the locking thermoactuator is not receiving 120VAC during the last 1 1/2 minutes of the cycle. Also check to see that the unlocking thermoactuator is receiving 120VAC during the last minute of the cycle. If the thermoactuators do not receive voltage at the correct times, change the timer. If the timing and voltage are correct, replace the thermoactuator.

Symptom	Probable Cause	Suggested Remedy
Door will not open	Door Rod	Check to see that door rod from solenoid to lock ass'y is long enough to allow lock ass'y to disengage. If not, adjust rod.
	Door Lock Solenoid	Check that door lock solenoid is not stuck closed. If stuck, replace solenoid.
No hot water in detergent dispenser	Water Valve Coil	Check coil continuity at terminals and replace if no continuity. 120 V power only on for 20 second in wash bath.
	Water Inlet	Check water inlet screens for blockage and clean screens if necessary.
	Water	Check to insure that water is turned on and operating.
	P-20 Wire Harness	Check black & white harness.
Symptom	Probable Cause	Suggested Remedy
Hot water does not enter tub in wash	Water Valve Coil	Check coil continuity at terminals and replace if no continuity. Check for 120 V power from main relay PCB
	Water Inlet	Check water inlet screens for blockage and clean if necessary screens
	Water	Check to insure that water is turned on and operating.
	Blk or Wht wire at main controller	Check black or white wires at Molex plug on PCB at main controller and at relay PCB.
	Pressure Switch	Check pressure switch continuity between terminals . If no continuity, check pressure switch hose for obstruction. If hose okay, change pressure switch.
No cold water to tub in wash	Water Valve Coil	Check coil continuity at terminals and replace if no continuity.
	Water Inlet Screens	Check water inlet screens for blockage and clean if necessary.
	Water	Check to insure that water is turned on and operating.
	Blk or whit wire at controller and main relay PCB	Check black or white wires at Molex plug on PCB at main controller and at relay PCB.
	Pressure Switch	Check pressure switch continuity between terminal contacts. If no continuity, check pressure switch hose for obstruction. If hose okay, change pressure switch.
Water comes in but level does not rise	Drain Valve (open)	Check these areas • Drain valve blockage • Drain valve motor and gear train. If power but drain valve does not close, replace valve. • Power to the drain valve. If no power to drain valve, check (brn/yel) circuit for power.
	Blk or whit wire at controller	Check black and white wires at molex plug on main PCB controller and at main relay PCB
Water does not flush softener compartment.	Water Valve Coil	Check coil continuity at terminals and replace if no continuity.
	Water Inlet Screens	Check water inlet screens for blockage and clean if necessary.
	Water	Check to insure that water is turned on and operating.

Common Troubleshooting Solutions

Symptom	Probable Cause	Suggested Remedy
Water does not flush softener compart-ment.	Pressure Switch	Check pressure switch continuity between terminals. If no continuity, check pressure switch hose for obstruction. If hose okay, change pressure switch.
Water level too high	Pressure Switch	Check for blockage in pressure switch hose. Check for pressure switch opening circuit across terminals . Replace switch if contacts do not open.
Water drains slowly	Drain System	Check hoses and drain valve for blockage. Clean of inad-equate size. if necessary. Check building drains for blockage
Machine does not turn	VFD	Check VFD by removing inspection panel and record any numbers or letters displayed. If no display turn power off to machine at breaker for 2 minutes and turn poiwer back on to reset. If still no display replace VFD
Machine tumbles in one direc-tion	VFD	Remove inspection cover at rear and record in only numbers or letters displayed. See fault code section for more info.
	VFD	Inspect yellow enable wires from main relay PCB and at VFD
Excessive vibration	Mounting System	Check these areas: • Strength of mounting structure, con-crete or base. • Mounting bolts may be loose and need tightening.
	Drive Belt	Worn drive belt can cause vibration and noise.
	Loading	Note: Small loads contribute to out of balance loading and increase vibration.
Machine does not spin	Pressure Switch	Check pressure switch for continuity across terminals #21 & #22 indicating pressure switch has reset to the empty posi-tion. If no continuity, change pressure switch.
Machine starts and does not operate	VFD	Check yellow enable wires from relay PCB P13 & motor P14to VFD advances through cycle are connected. Check fault code on VFD before removing power from the drive. Check orange P-15 wire for signal from door switches.
Machine does not stop	Main PCB	Main PCB controls time cycle at end of cycle
	Braking Resistors	Check braking resistors for continuity. Verify ohms resis-tance by Molex.
Water leak-age around loading door	Door Adjustment	Door may need adjustment due to abuse or wear. Check tightness around perimeter using a dollar bill. Adjust left to right tightness by shims at door lock or hinge side. It is important to center gasket to tub opening before tighten-ing door to hinge bolts. Chalk may be used on tub front to show point of contact with tub. If gasket is deformed, worn, or damaged, replace. Refer to parts section for door gasket expander kit.

Troubleshooting Machine Fault Errors

The following are descriptions of fault codes that will appear on the front of the washer. There is a chart format that shows what fault code that will be displayed at washer front. The codes displayed may or may not stop machine operation.
PLEASE NOTE: CHECK DRIVE FAULT CODE BEFORE POWERING MACHINE DOWN!

Fault#	Description	Customer Action
F1	The door failed to close and lock or The door failed to remain locked during the cycle.	Check VFD fault code before turning off. Check to hear if door solonoid engaged. Turn off the power to the washer. Check wire connections to door /lock switches. Check wire connections from switches to controller. Check P-4 wire connections at PCB controller. Adjust the door lock mechanism. (See service manual)
F2	The washer tub does not fill with water within 7 minutes. The wash cycle will continue. The F 2 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Turn off the power to the washer. Check the operation of the water valves. Check the incoming water pressure. Check for blocked or restricted water flow. Check to ensure the drain valve is functioning properly. This error will occur on 18# washers when water level is set for high (the pressure switch in 18# washer is only one level).
F3	Memory error in controller. The memory checksum is wrong.	Check VFD fault code before turning off power. Try to clear the fault with the Palm. Try a soft Reset of the controller with the white button. If problem. Replace PCB controller.
F4	Washer controller communication error	Check VFD fault code before turning off power. Try the data cable first. Move around cable and remove any side loading tension from data cable connector ends. Check connection P25/24/23 to P15. Turn power back on to the washer. If the problem returns, replace the PCB washer controller.
F5	Pressure Switch error (only OPL) - when the high level sensor indicates full but the lower one indicates empty. The wash cycle will continue. The F 5 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Check VFD fault code before turning off power. Check the pressure switch.(Ohm out contacts). Check pressure switch connections to ensure they are all making good contact. Check the Molex type harness connector to ensure no wire been pushed out of the Molex type housing that it is shorting or not connecting.
F6	Wrong washer size for drive type.	Check VFD fault code before turning off power. If the controller was installed in a different size machine before being installed in this machine, a problem can occur. If someone has been doing repairs on the washer, check for the correct size drive. It can also be caused by pressure switch harness. Check to ensure the correct harness in installed. The control can be reset by holding program button on controller during startup (soft reset). Check orange wire at Molex connector on controller coming from pressure switch or replace pressure switch harness.

Fault#	Description	Customer Action
F7	Wrong size drive installed	Check VFD fault code before turning off power.Check to ensure all the harnesses are properly connected to the controller. Check to ensure the VFD drive horsepower is proper for this size of washer. The control can be reset by holding program button on controller during startup (soft reset) Check orange wires at molex connector on controller coming from pressure switch.
F8	The washer tub does not empty within 7 minutes. The wash cycle will continue. The F 8 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Check VFD fault code before turning off power. Check to ensure the drain valve is operating properly (slow drain has potential to cause this code). Check to ensure the pressure switch tube is clear of any blockage, and the pressure switch is operating properly. Check the pressure switch harness.
F9	The washer tub does not reach the spin target frequency within 150 seconds. The wash cycle will continue. The F9 will flash three times, then wait for 30 seconds. The error will clear at the end of the cycle.	Check VFD fault code before turning off power. Check to ensure the drain valve is operating properly (slow drain has potential to cause this code). Check to ensure the pressure switch tube is clear of any blockage, and the pressure switch is operating properly. Check the pressure switch harness.
F10	After a spin the washer tub does not stop within 150 seconds.	Check VFD fault code before turning off power. Inspect the braking resistors and measure the resistance. Check connecting wiring from braking resistor to the drive mounted in the top of the washer. Reset the drive and try again. Possibly incorrectly programmed drive.
F11	The drive size setting has changed.	Check VFD fault code before turning off power. Check to ensure all the harnesses are properly connected to the controller. Check to ensure the drive horsepower is proper for this size of washer. If no one has worked on machine very recently then PCB controller or VFD may need to be replaced. Do a soft reset before and after either VFD replaced.
F12	Washer controller internal error	Check VFD fault code before turning off power. Turn off the power to the washer. Wait one to two minute. Turn on the power to the washer. If problem reappears, contact your Dexter Authorized Representative.

Fault#	Description	Customer Action
F13	The variable frequency drive (VFD) and the washer computer are not communicating.	Check the data communication cable between the washer computer and the variable frequency drive (VFD). **Step 1:** Make sure the cable did not become unplugged during operation. **Step 2:** Make sure that the cable is not being pulled sideways at either the washer controller, or the VFD, plug end. If both ends of the communications cable are plugged in the washer computer and VFD and there is no tension on the communications cable pulling it from side to side, then replace the cable.\ **Step 3:** Inspect both female connection points at PCB controller and at VFD. These may need replacement if they cannot be reset.
F14	Over-current on the drive or motor.	**Step 1:** Check to make sure the washer cylinder turns freely by hand. If it turns freely, continue to step 2. If it does not, remove the belt and see if the motor turns freely by hand. If the motor turns freely, then check for obstructions in the cylinder or check the bearings. If the motor does not turn freely, replace the motor. **Step 2:** Check the motor wires for a short circuit between leads. If there are motor leads that have conductors touching, separate them and insulate them. If the wires are broken, splice them together or replace the motor. **Step 3:** Check braking resistors to see if they measure the correct resistance. If a resistor does not measure the proper value, replace it.
F15	The variable frequency drive (VFD) senses that the internal voltage is too high. The source of the problem can originate from two different areas. Area 1: The input voltage can be too high, or there may be a high level of electrical noise. Area 2: The motor can be generating a voltage that is acting like an input to the VFD output motor terminals.	**Step 1:** Measure the supply voltage to the VFD on the L1, L2 (or N), and L3 (if connected to three phrase power). the supply voltage should be from 187 to 264 VAC or 108 to 132 VAC for a 120 VAC VFD. Also make sure the supply wires on L1, L2 (or N) and L3 (if connected to three phase power are securely connected. **Step 2:** Ch eck the braking resistor connections at the VFD. The terminal screws should be tight. Once of the braking resistor wires should be connected to terminal B2. **Step 3:** Measure each braking resistor separately to make sure they are the correct resistance. (200 for 1 and 2 Hp VFD and 160 for 3 Hp VFD). **Step 4:** If you have a 240 VAC, high leg voltage supply, try disconnecting the high leg. If this cures the problem, either leave the high leg disconnected, connect a transient voltage surge suppressor (with some form of filtering) at the voltage supply panel, connect a line choke on the high leg or install a VFD filter.

Fault#	Description	Customer Action
F16	The temperature sensor inside of the variable frequency drive detects that the internal temperature is too high.	**Step 1:** Make sure the cooling fins on the VFD heatsink and the ventilation louvers on the VFD cooling fan cover are clean. **Step 2:** Start a washer cycle and make sure the VFD cooling fan operates after the cylinder starts turning.
F17	Overload of the drive or motor	(Check drive fault code before powering down). Check the washer motor to ensure it turns freely. Check the wiring for loose connections to the drive and motor. Measure the braking resistor values. Check for damaged motor wires. Check V-Belt tension and adjust to 1" deflection at center. Check braking resistors.
F18	Ground Fault to the drive	Check VFD fault code before turning off power. Check the wiring connections to the drive and motor. Check the ground wiring of the drive, motor and incoming connection to ensure a proper ground is present. Check for damaged motor wires.
F19	Low Voltage to the drive	Check VFD fault code before turning off power. Turn the power off to the washer. Check the wiring connections to the drive and motor. If no problem is observed, turn on power to the washer and test. (See Note) Measure the incoming line voltage.
F20	Internal drive error	Check VFD fault code before turning off power. Turn the power off to the washer. Wait one minute. Turn the power on to the washer. If problem reappears, contact your Dexter representative.
F21	Data error on communications between the controller and drive Internal drive error # 32. This error also has CEXX errors associated with it that are presented on the drive display.	The CE errors are communications errors. Data Cable noise can cause the majority of these errors.Check VFD fault code before turning off power. Check the data cable between the controller and the drive. Replace data cable if it appears damaged and fault appears again. Please note that this fault will occur if you turned main power off and on to quickly. (See Note below)

Warning codes F22 - F28: These codes indicate that a component (VFD, relay PCB, injection relay PCB, water valve) has been replaced, added, or removed and you will need to soft reset the PCB controller board to reset the main controller to operate properly.

Fault#	Description	Customer Action
F22	MS300 Drive Conversion Only	Retighten the screw down connections on the lower terminal bar of the VFD for DC1, B1, and B2. Check the wire connections on B1 and B2 for Breaking Resistors.
F23	VFD has been replaced, disconnected, or removed.	Soft reset control.
F24	Injection relay PCB has been removed or loose connection.	Soft reset control.
F25	Optional water valve PCB removed or water valve has been replaced .	Soft reset control.
F26	VFD unit has been added or loose connection.	Soft reset control.
F27	Injection relay PCB has been added to machine or loose connection.	Soft reset control.
F28	Optional water valve PCB has been added or loose connection	Soft reset control.

Variable Frequency Drive Control
Digital Readout Faults

Fault#	Description	Customer Action
CE1	VFD received an illegal command. Possible controller problem	Reset drive.
CE2	Illegal data address, VFD received an address not available to the controller.	Reset drive.
CE3	Illegal data value received at VFD. Possible controller problem.	Reset drive.
CE4	VFD unable to perform the requested action. Possible controller problem.	Reset drive.
CE6	Time frame between commands is to short. Possible controller problem.	Reset drive.
CE9	Internal checksum error. VFD problem.	Reset drive.
CE10	Watch dog timer. Command not received from the controller every 6 seconds	Reset drive.
CE11	Frame error. Possible Baud rate issues between VFD and controller	Reset drive.
CE12	Command message is to short. Possible controller problem	Reset drive.
CE13	Command message is to long. Possible controller problem	Reset drive.
CE14	Command message includes unused characters. Possible controller problem.	Reset drive.

Normal operation of the VFD: VFD display shows operating frequency first very quickly then changes to F0.0 at time power is returned. This will stay displayed until the VFD receives a command from main control PCB. (Pushing start button) A CE-10 fault will display at drive if improper communication between PCB and VFD has occurred.

Note: Resetting a fault code on front of washer: Turn the power off to machine (machine will need to remain off for up to three minutes).

SOFT RESET : is accomplished by pushing the white button located on the Main controller PCB board

and simultaneously turning power on to machine. This will reset main controller to factory default settings.

Please record any modified information that has been inserted in memory before attempting to Soft

Reset the PCB.

CE5, CE7 and CE8—Reserved by DELTA

Notes

Section 5:

Machine Service Procedures

Top Panel Removal

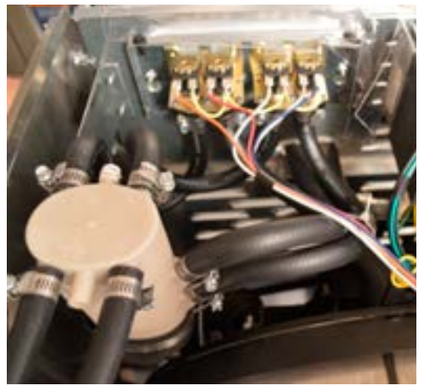
Step 1: Remove 4 screws that hold detergent dispenser to top panel. If front soap dish go to step 2
Step 2: Unlock top panel lock.
Step 3: Raise top panel, slide to the rear to release from back clips and lift off.

Detergent Dispenser

Remove top panel to access dispenser. (see Removing Top Panel) on 18lb; 25lb;40lb;55lb. Detergent is flushed from the front of the compartment and fabric softener is flushed from the back. There will be a small amount of water left in the fabric softener compartment after each use. This is normal. Note on front mounted dispensers hot water fills thru compartment

Vacuum Breaker (also called an air gap)

In the left rear of the cabinet is the vacuum breaker. It guides the water to the tub and dispenser and prevents a back flow of water.



Water Valves

Remove top panel to access water valves. (see Removing Top Panel) The two dual outlet water valves are mounted to the water valve mounting plate that is fastened to the rear channel. to remove the valves, loosen the 2 locking nuts on both sides of the mounting plate from the interior of the machine and then lift the plate and valves off of tyhe back channel and pull the assembly into the machine. The valves can then be removed from the mounting plate by removing the 5/16 mounting screws.

Always check inlet screens to be sure that they are clean. Disassembly requires the removal of two solenoid screws and three valve body screws. Below the solenoid coil is a solenoid guide, armature, armature spring and diaphragm. All valve parts are available individually or as a complete unit.

Lower Service Panel Removal
Remove 2 screws and pull forward to disengage from the locator studs.

Drain Valve
The drain valve is a ball type and is powered closed by the drain valve motor. It is mounted under the washer tub on the left side. It is spring loaded open. If power is interrupted to the washer, the motor releases the sealing ball, allowing the drive spring to open the valve. With the valve open, all water in the washer will drain out.

Service
For access to drain valve, remove lower service panel.

Cleaning
Step 1: Loosen the clamp on the tub hose at the drain valve end and remove hose from the drain valve.
Step 2: Loosen the drain hose clamp on the back of the drain valve.
Step 3: Remove two drain valve mounting bracket screws from the frame of the washer.
Step 4: Remove the drain valve and bracket assembly.
Step 5: Unplug the wiring after the drain valve is removed from the washer.

Front Panel Removal
Step 1: Remove 2 screws between front panel top and front channel (located behind control panel).
Step 2: Remove the two screws in the middle of the front panel
Step 3: Pull panel out at the bottom to about a 45 degree angle to detach the top lip and remove.

Masking Ring (Door Lock Cover) Removal
Step 1: Remove front panel.
Step 2: Remove nuts that retain masking ring.
Step 3: Move it to the left and off.

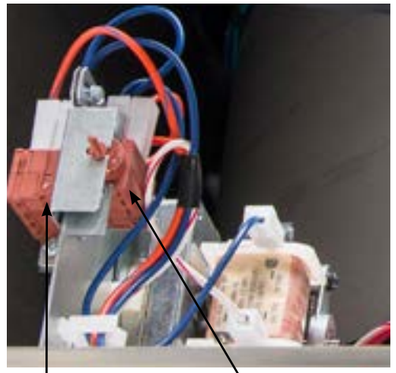
Door Locking Solenoid

The door locking solenoid is powered shut with control voltage to lock the door and releases when voltage is removed. It is located in the left front corner of the washer.

Thermoactuators
The thermoactuators are a safety device that keeps the door from immediately unlocking if power is lost while the machine is operating. They are mounted under the door locking solenoid.

Lock Thermoactuator
Control voltage is applied to the lock thermoactuator at the beginning of the cycle making it extend and block the door locking solenoid. This keeps the door locked for approximately two minutes after a power failure occurs. The lock thermoactuator does not delay the door opening at the end of a normal cycle.

Unlock Thermoactuator
To insure that the lock thermoactuator has retracted by the end of the cycle, one minute prior to the end of the cycle, the unlock thermoactuator is powered with control voltage making it extend and unblock the door locking solenoid.

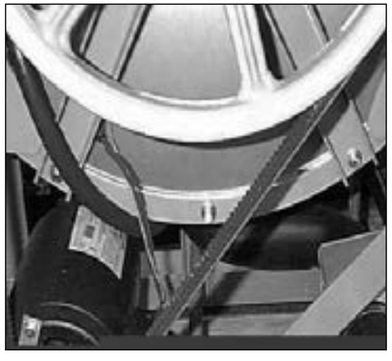


Drive Belt Removal
Turn the drive belt(s) off the basket pulley first and then remove from the motor pulley.
Reverse this procedure for installation.

Note: Drive belts that should be replaced in pairs on models that require two belts.

Drive Motor Removal
A. Remove the drive belt as explained above.
B. Remove the tension spring and bracket.
C. Disconnect the motor wires in the control area at the top of the machine. The motor wire retaining clamp should be removed and reused. There is a diagram showing where each motor wire plugs in so there is no need to mark them.
D. Loosen the set screws on the motor support shaft.
E. Remove the retaining bolt from the front of the support shaft.
F. Remove the motor support shaft.
G. Lift motor out of machine.

Note: On larger washers it is advisable to put a board under the motor and slide it out rather than lifting it.



Drive Belt

Door Lock Assembly Operation

After loading the clothing, the door should be closed and latched. The locking cam on the door contacts the latching switch actuator which closes the latching switch. The specified number of coins should now be added to start the washer. The gear motor pulls up on the locking pawl by use of a linkage rod. The locking pawl has two jobs. The first is to lock the door. This is accomplished by blocking the locking cam on the door so that it can't rotate to unlock. The second job is to close the two piggyback lock sensing switches. These switches control power to all of the controls. If the door unlocks for any reason, these two switches will stop the machine. When the door handle is 1/4 to 1/2 of an inch from its fully closed position, the latching switch should close. The two piggyback lock sensing switches should be open when the door is unlocked and should be closed when the door is locked.

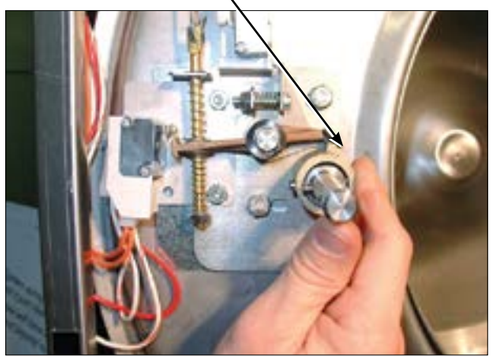
Accessing the Door Lock Assembly

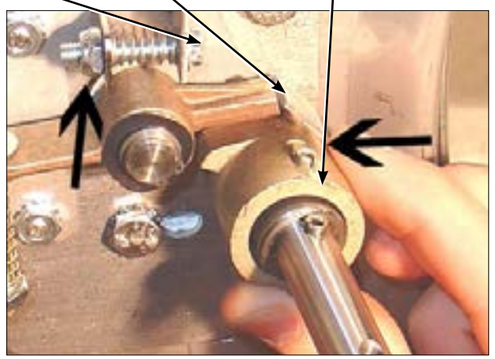
After removing the front panel and masking ring, the door lock assembly can now be accessed.

Adjustment for Door Lock Assembly

The latching switch and the piggyback lock sensing switches all have slotted mounting for easy adjustment.

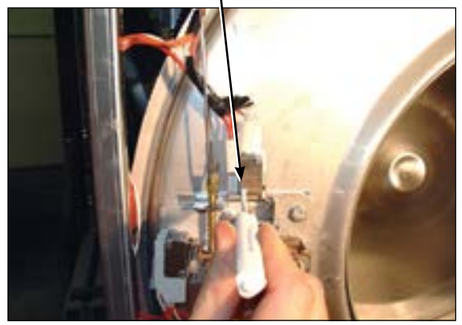
Step 1: Set door cam over pin.



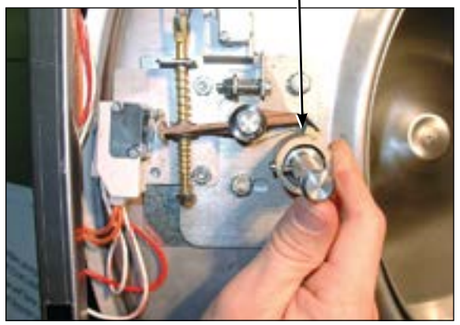


Step 2: Tighten spring screw on switch actuator bracket arm until it just clears cam OD. at base of door lock assembly.

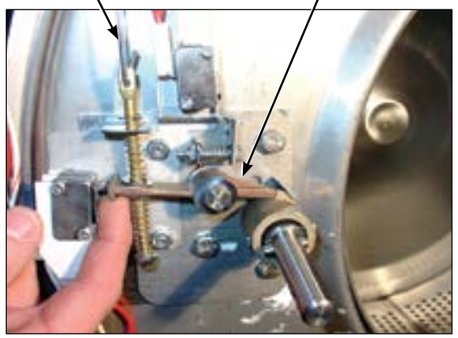
Adjustment to this bracket usually is not necessary as next step is used more in field.



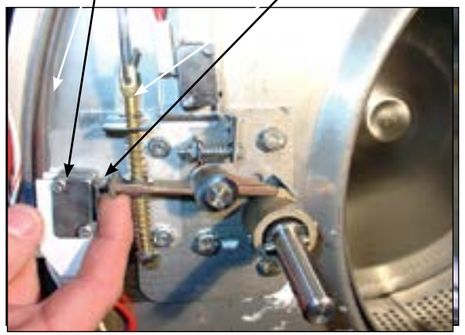
Step 3: With switch actuator bracket adjusted you will now need to adjust single switch by loosening 2 flat brade screws and allowing swivel of switch. Move switch towards above bracket until it actuates. Now tighten flat blade screws. Use a .040 thickness guage to insert between bracket and switch and the switch should close and open again upon removal of thickness guage.



Step 4: Check for switch actuation at partial turn of cam as in operation above. Door handle goes from horizontal to six o'clock vertical.



Step 5: Check that lock pawl arm swings to cam lobe to lock position.



Step 6: The lock stacked switches (piggyback) must be adjusted as door lock solonoid pulls up on door rod and locking pawl is now blocking door cam from turning and is in full up position. The stacked swtiches (piggyback) have a single actuator arm and it must actuate when single actuator roller wheel rolls to flat side of locking pawl. You will also notice a .040 gap between actuator arm and switch bodies.

Note: Both stacked switches must operate together!

Adjusting the Loading Door

The door can be adjusted by changing the number of shims behind the door hinge and the door lock assembly. The vertical fit of the door to the tub can be altered by loosening the door hinge bolts and raising or lowering the door before retightening. It is important for the door to be centered on the tub front. By chalking the front of the tub and closing the door to transfer that line to the gasket, the centering can be evaluated. It is also important for door pressure to be similar around the door perimeter. Door pressure can be evaluated by inserting a dollar bill in several positions and tugging on it. See Parts Section for kit to increase door sealing pressure.

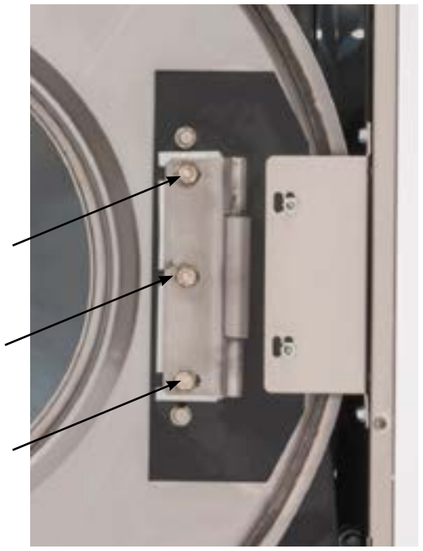
Loading Door Removal

Step 1: Support door to prevent dropping.

Step 2: Remove the 3 bolts holding hinge retainer and set door off.

Loading Door Hinge Removal

Step 1: First remove loading door, front panel, and trim ring.



Step 2: Remove 3 screws holding door hinge. Shims may be present between hinge and tub front. The number may be increased or decreased to adjust right side door pressure.

NOTE:
Door hinge mounting bolts penetrate tub front and require silicone sealer applied to holes when reinstalling.

Loading Door Disassembly

Step 1: Remove the loading door. Lay the door on a flat surface with the glass down.

Step 2: While holding down on the door glass, lift up on the door ring and roll back the lip of the gasket with your fingers.

Step 3: Work all the way around the gasket and the glass is out.

Loading Door Reassembly

Step 1: Lay the door ring face down on a flat surface. Start the glass into one side of the door gasket.

Step 2: Use one hand underneath to push the gasket out and the other hand on the top pulling the gasket in place.

Step 3: The front lip of the door gasket should be checked for proper seating.

Control Panel Name Plate Decal

The name plate on washer front is adhesive backed.

Control Panel Name Plate Removal

The name plate may be removed by simply peeling it off.

Installation of Name Plate

Step 1: Remove the coin acceptor and any remaining glue from the control panel.

Step 2: Before removing the paper backing from the name plate, check fit to the control panel. The program push buttons and the coin acceptor opening are the locating guides.

Step 3: Remove the paper backing from the right side of the name plate, position it on the panel and press right end into place. Peel the backing from the left end and press into place.

Outer Cabinet Removal

18lb, 25lb, 40lb.

Removal of Cabinet 18lb, 25lb, 40lb

Step 1: The power supply, water hoses, and drain connection must all be disconnected before proceeding with the disassembly.
Step 2: Now remove the lower service panel and the top panel assembly.
Step 3: Remove the left and right lower front panel screws that retain the panel to the chassis.
Step 3: Remove the bottom row of back panel screws.
Step 4: Remove the loading door.
Step 5: Remove the screws along the bottom of each side panel. When reinstalling these screws do notovertighten.
Step 6: Remove clamp and soap dispenser hose where it attaches to the tub inlet.
Step 7: Disconnect the door lock wires from all switches and the door lock solenoid.
Step 8: Disconnect pull rod between solenoid and door lock assembly. Disconnect the wires to the dump valve at the bottom of the machine.
Step 9: Disconnect the wires to the drive motor. There is a motor harness connector in the left rear corner of the control trough. The connector may be removed from the side of the trough by releasing the retainer ears. The wires from the trough components to the motor harness may be removed from the top side of the connector. There is a label on the trough floor to aid in reconnection of the wires to the connector.
Step 10: Remove the clamp and the hose from the vacuum breaker where it connects to the inlet on the back of the tub.
Step 11: Remove the pressure switch hose from the bottom of the switch.
Step 12: It should now be possible for two people to lift the cabinet up and off of the front of the machine and set it aside.

Cylinder

Step 1: Remove the top panel as described previously.
Step 2: Remove lower service panel as described previously.
Step 3: Remove front panel as described previously.
Step 4: Remove masking ring as described previously.
Step 5: Remove door lock assembly. (Leave wires & pull rod in place)
Step 6: Remove clothes door.
Step 7: Remove tub front clamp ring.
Step 8: Remove tub front. Use a flat screw driver to pry the tub front loose.
Step 9: Remove the rear access panel.
Step 10: Remove the drive belts.
Step 11: Remove drive pulley. Remove 3 retaining screws. Insert (3) 3/8 16 x 2" screws into the threaded removal holes. Alternately tighten these screws evenly to pull the pulley off.
Step 12: Remove pulley hub. Drive a flat screw driver into the slot in the hub and pull it from the shaft.
Step 13: Install cylinder puller. (Snap On part #CJ-84-C) Be sure to thread a 5/8-11 NC bolt into the end of the cylinder shaft to protect the threads. Push the basket out.

Bearing Housing Assembly

Removal

Step 1: Remove cylinder from washer (see Cylinder (basket) removal).
Step 2: Remove 6 7/16" tub back to bearing housing cap screws.
Step 3: Remove 6 3/4" bearing housing to frame bolts.
Step 4: Remove bearing housing from frame.
Step 5: Remove the retaining ring next to the front bearing.
Step 6: The bearings are pressed into the housing and must be pressed back out.

Reassembly

Step 1: When installing new bearings into a bearing housing, first press the front (large) bearing into the housing until it bottoms and install the snap ring. With the bearing spacer in place, press the rear bearing in until the spacer is snug between the two bearings.

NOTE: If the tub-back water-seal mating ring has been moved it must be cleaned and resealed.

Water Seals

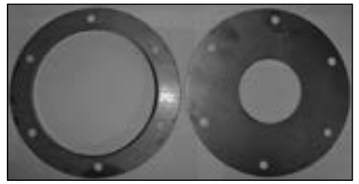
Replacement

Step 1: Remove cylinder from washer (see Cylinder (basket) removal).

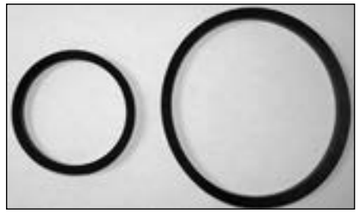
Step 2: Remove water seals from the seal mounting plate on the cylinder shaft. These are removed with your fingers.

Step 3: The primary and secondary seals that mount on the sealing ring may be slid over the shaft and seated on the metal sealing ring with your fingers. In the unlikely event that the metal ring that mounts these sealing rings were to be damaged or moved, a new one would need to be pressed on. The seal mounting ring must be pushed against the stop on the shaft. After installing the seals, lubricate the faces of the seals with silicone grease.

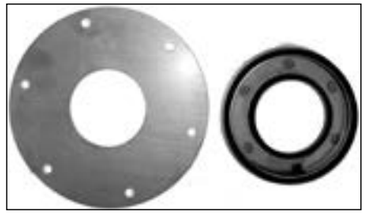
Step 4: Install cylinder (see Cylinder (basket) reassembly).



Guard Ring & Mating Ring



Seals



Mating Ring & Mounting Ring

Outer Tub

Removal 55lb., 75lb.

Step 1: The outer tub can easily be removed when the tub front, cylinder and bearing housing has been removed as outlined previously.

Step 2: At that point the only attachments to the chassis are the two front strap mounting bolts.

Removal 18lb., 25lb., 40lb.

Step 1: The outer tub can easily be removed when the tub back, bearing and cylinder assembly have been removed as outlined above.

Step 2: At that point the only attachments to the chassis are the two front strap mounting bolts.

Reassembly

Step 1: Install outer tub in front strap leaving bolts loose.

Step 2: Install tub back assembly in washer (see reassembly of Tub Back, Bearing, and Cylinder Assembly)

Step 3: With tub back assembly bolted to washer frame and to the back of the outer tub, tighten from strap bolts.

Reassembly of the Cylinder

Step 1: Use the hub of the drive pulley, a stack of 5/8" flat washers and a 3" long 5/8" bolt to pull the cylinder shaft through the bearings. After the 3" bolt a 2" long bolt will be required to finish pulling the cylinder shaft through.

Step 2: Remove the 1/2" bolt and nut from the top of the outer tub clamping band.

Step 3: Install Dexter Tool part # 8545-056-001 on the back of the outer tub to adjust tub front to cylinder clearance.Thread 5/8" bolt through tool and into cylinder shaft. Push the outer tub forward 1/4" to 1/2" with tool 8545-056-001by tightening the 5/8" bolt. This will ease the installation of the outer tub front.

Step 4: Clean the silicone rubber off the tub front and the outer tub.

Step 5: Install new bead of silicone rubber on tub front.

Step 6: Install tub front.

Step 6A: Align hole in top of tub front with notch in top of outer tub.

Step 6B: Use 4-6 #11R vise grip clamps to hold tub front to outer tub. A rubber mallet may be needed to properly seat the tub front into the outer tub.

Step 6C: Install tub front gasket around outer edge of tub front and outer tub flange. The opening should be centered at the top.

Step 6D: Remove vise grips. The tub front gasket will hold the tub front in place.

Step 7: Install tub front clamp ring and tighten. Tap around the clamp ring with a rubber mallet to seat the ring and gasket while tightening the clamp ring bolt.

Step 8: Adjust clearance between the outer tub front and the front lip of the cylinder to 5/16".

Step 9: Tighten the outer tub clamping band.

Step 10: If necessary, the outer tub may be adjusted up or down and side to side with the 2 bolts that fasten the bottom of the outer tub clamping band to the frame.

Step 11: Remove Dexter Tool part 8545-056-001 from the back of the outer tub.

Step 12: Install drive pulley.

Step 12A: Install hub on cylinder shaft.

Step 12B: Hold hub against rear bearing with 5/8" bolt and flat washer in end of cylinder shaft.

Step 12C: Line up 3 unthreaded holes in pulley with the 3 threaded holes in hub.

Step 12D: Insert 3 pulley bolts and tighten evenly alternating bolts to 30ft/lbs.

NOTE: Overtightening or uneven tightening can break drive pulley.

Step 13: Install drive belts & back panel.

Step 14: Install door lock. All mounting holes should be sealed with silicone rubber.

Step 15: Install door, masking ring, front panel, lower service panel and top.

Tub Back, Bearing, and Cylinder Assembly 18lb., 25lb., 40lb.

Removal

Step 1: Remove the top panel as described previously.

Step 2: Move the rear channel, that the water valves mount to, forward by removing the five mounting screws.

Step 3: Remove the drive belt.

Step 4: Remove the overflow hose, tub fill hose and pressure switch hose from the back of the tub.

Step 5: Mark the tub back and bearing assembly for ease in assembly later.

Step 6: Remove the 12 bolts and nuts from the perimeter of the tub back clamp ring. Two of the twelve bolts are longer and go through the thicker part of the brace where it connects to the frame.

Step 7: Remove the 2 bolts that fasten the clamp ring to the frame.

Step 8: The entire tub back and cylinder assembly may be lifted out of the tub (it may be necessary to break the adhesion of the silicone that seals the tub back to the tub). Blocks should be placed under the edges of the cylinder before setting it down to prevent damage to the cylinder flange.

Reassembly

Step 1: Lay the washer on its front.

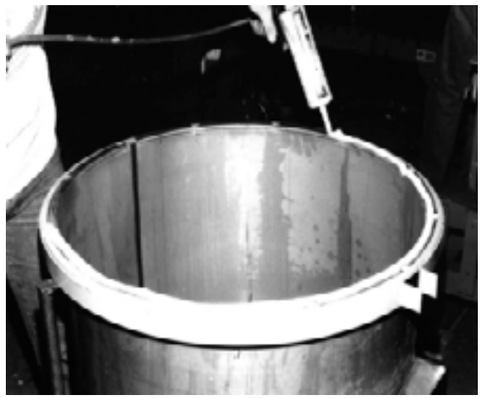
Note: Put a thick pad across the front of the washer, above the door, to protect the door handle and coin acceptor.

Step 2: Make sure the bearing housing weep holes are located at 12 o'clock and 6 o'clock.

Step 3: Clean the silicone rubber from the back of the outer tub and the perimeter of the tub back where the two meet. There is no gasket in this area.

Step 4: Apply a new bead of silicone rubber around the back of the outer tub. (see picture)

Step 5: Lower the tub back, bearing and cylinder assembly into the washer outer tub. (see picture)



Step 6: Torque all bolts according to the torque chart.

Step 7: Make sure that the tolerance ring is in place inside the pulley.

Step 8: The shoulder inside the pulley that holds the tolerance ring should face the back of the washer when installed correctly.

Step 9: Use a stack of flat washers and a longer bolt to press the pulley onto the basket shaft.

Step 10: Reinstall the retaining bolt, lock washer, and flat washer. The shaft end bolt with washer should be installed with a torque of 45ft/lbs.

Bearing Housing, Water Seals, and Tub Back 18lb., 25lb., 40lb.

Removal from Basket Shaft

Step 1: Remove assembly from washer (see Tub Back, Bearing and Cylinder (basket) Assembly removal).

Step 2: Remove basket pulley (see Basket Pulley removal above).

Step 3: It is necessary to use a puller (Grip-O-Matic #1038 for 25lb., #1045 for 40lb. to remove the bearing housing assembly from the cylinder shaft. There is a flange on the bearing housing that should be used with this three armed puller.

Disassembly

Step 1: To remove the tub back assembly, the 6 bolts attaching it to the bearing housing must be removed.

Step 2: Remove water seals from the seal mounting plate on the cylinder shaft. These are removed with your fingers.

IMPORTANT- Be careful not to move the flat metal plate that mounts the two rubber sealing rings on the cylinder shaft. The location of this seal mounting plate is critical and it must not be moved. The two sealing rings can be replaced without disturbing it. The included illustration shows the proper location of this plate for washer

Step 3: The retaining ring next to the front bearing must also be removed.

Step 4: The bearings are pressed into the housing and must be pressed back out.

Reassembly

Step 1: When installing new bearings into a bearing housing, first press the front (large) bearing into the housing until it bottoms. With the bearing spacer in place, press the rear bearing in until the spacer is snug between the two bearings. Be sure and reinstall the retaining ring in front of the front bearing.

Step 2: The tub back assembly should be reattached to the bearing housing with the 6 mounting bolts and torqued according to the torque chart. If the 6 support assemblies have been removed from the bearing housing, the 6 rear bearing housing bolts should be torqued according to the chart also.

NOTE: The bead of silicone that seals each bolt to the tub back. This must be cleaned and replaced upon reassembly (see picture)

Step 3: The primary and secondary seals that mount on the sealing ring may be slid over the shaft and seated on the metal sealing ring. In the unlikely event that the metal ring that mounts these sealing rings were to be damaged or moved, a new one would need to be pressed on. The T-400 ring would need to be pressed on to the dimension shown on the following page.The T-600 ring must be pushed against the stop on the shaft. Before installing the new sealing ring, a bead of silicone should be put on the basket shaft. After installing the seals, lubricate the faces of the seals with silicone grease.

Reinstallation onto Basket Shaft

Step 1: Carefully set the assembly over the shaft engaging the bearings and bearing spacer.

Step 2: The tolerance ring that fits inside the pulley should be placed in position (see Basket Pulley Reassembly for correct positioning).

Step 3: The pulley should then be started onto the shaft. A stack of flat washers and a longer pulley bolt will be required to pull the basket shaft through the bearings and pulley.

Step 4: Install the shaft end bolt with washers and torque to specifications in Bolt Torque Chart.

Step 5: See Tub Back, Bearing, and Cylinder Assembly for installation of complete assembly back into washer.

WCVD18 Bolt Torque Chart		
Bolt Size	**Where Used**	**Torque**
1/2-13 x 2 1/2″	Front Mounting Clamp Ring Ends	20-30 ft-lb
1/2-13 x 1 1/4″	Front and Rear Mounting Rings to Base	70-110 ft-lb
3/8-16 x 2″	Tub Back Ring to Tub Back	45-80 ft-lb
1/2-13 x 1 1/2″	Bearing House To Tub Back	70-110 ft-lb
3/8-16 x 1 3/4″	Bearig Housing Pulley End	45-80 ft-lb
1/2-13 x 1 1/4″	Hub of Driven Pulley	70-110 ft-lb
5/16-18 x 7/8″	Drive Pulley Set Screws	190-200 in-lb

WCVD25 Bolt Torque Chart		
Bolt Size	**Where Used**	**Torque**
1/2-13 x 2 1/2″	Front Mounting Clamp Ring Ends	30-40 ft-lb
1/2-13 x 1 1/4″	Front and Rear Mounting Rings to Base	70-110 ft-lb
3/8-16 x 2″	Tub Back Ring to Tub Back	45-80 ft-lb
1/2-13 x 1 1/2″	Bearing House To Tub Back	70-110 ft-lb
3/8-16 x 1 3/4″	Bearig Housing Pulley End	45-80 ft-lb
1/2-13 x 1 1/4″	Hub of Driven Pulley	70-110 ft-lb
5/16-18 x 7/8″	Drive Pulley Set Screws	190-200 in-lb

WCVD40 Bolt Torque Chart		
Bolt Size	**Where Used**	**Torque**
5/8-11 x 3″	Front Mounting Clamp Ring Ends	60-80 ft-lb
5/8-11 x 1 1/2″	Front and Rear Mounting Rings to Base	120-150 ft-lb
7/16-14 x 1 1/2″	Tub Back Ring to Tub Back	100-125 ft-lb
5/8-11 x 1 1/2″	Bearing House To Tub Back	120-150 ft-lb
7/16-14 x 2″	Bearig Housing Pulley End	100-125 ft-lb
5/8-11 x 1 1/2″	Hub of Driven Pulley	120-150 in-lb
5/16-18 x 7/8″	Drive Pulley Set Screws	190-200 in-lb

WCVD55 Bolt Torque Chart		
Bolt Size	**Where Used**	**Torque**
1/2-13 x 2″	Front Mounting Clamp Ring Ends	30-40 ft-lb
3/8-16 x 3″	Front Clamp Ring	100 in-lb
1/2-13 x 2″	Tub to Base	70-110 ft-lb
7/16-14 x 1″	Bearing House To Tub Back	60-80 ft-lb
3/4-10 x 3″	Bearig Housing to Base	200-300 ft-lb
7/16-14 x 1″	Hub of Driven Pulley	28-32 ft-lb
1/4-20 x 1″	Drive Pulley Set Screws	80 in-lb

WCVD18 Bolt Torque Chart		
Bolt Size	**Where Used**	**Torque**
1/2-13 x 2″	Front Mounting Clamp Ring Ends	30-40 ft-lb
3/8-16 x 3″	Front Clamp Ring	100 in-lb
1/2-13 x 2″	Tub to Base	70-110 ft-lb
7/16-14 x 1″	Bearing House To Tub Back	60-80 ft-lb
3/4-10 x 3″	Bearig Housing to Base	200-300 ft-lb
7/16-14 x 1″	Hub of Driven Pulley	28-32 ft-lb
1/4-20 x 1″	Drive Pulley Set Screws	80 in-lb

Notes

Notes

Section 6:

Service Electrical Components

Control Mounting Trough
Remove top panel to access control trough. (see Removing Top Panel) It sets on the right side of the machine and holds the control PCB's, transformers,and pressure switch.

Main Data Communication Cable
Goes between front PCB board and Variable Frequency Drive unit mounted center rear of machine. It has telephone type connectors at each end and is inserted at Controller PCB and the Variable Frequency Drive.

Circuit Breaker/Fuse
The fuse (optional circuit breaker) mounts to the rear channel. It carries all of the controls in the machine but does not include the motor. To reset the circuit breaker just push in the button. If you have a fuse then remove fuseholder and fuse and replace with a 1.5 amp fast blow type fuse e on most models and 2.5 amp used for 75 lb model.

Main Control Printed Circuit Board
Please be sure to be grounded to machine before removal of this board from machine. PC board mounted vertically behind front control panel. Remove hold down nuts in 4 corners and 1 at bottom center.

PCB Transformer Step-down
Small transformer mounted at front of control trough that is powered with 120 VAC primary and two secondary outputs of 2.3 VAC and 24-27 VAC.

Controls Transformer
This transformer is mounted at the back of the control trough and steps a range of 208 to 240 volts down to 120 volts for the controls. There are two terminals on the controls transformer for incoming power. One terminal tap is marked for 208 volts use this tap for measured voltage of 208 volts - 219 volts. and the other tap is marked 230 volts for 220 volts - 240 volts.

Note: All washers have a controls transformer. Always check the incoming voltage and use the appropriate transformer terminal when installing ALL washers.

Main Relay Printed Circuit Board
Please be sure to be grounded to machine before removal of this board. PCB mounting horizontal in control trough towards front of machine. Remove 4 mounting nuts.

LED Printed Circuit Board Temperature & Start Display/Push-Button
The selector switch is mounted in the center of the control panel and is held in place with five nuts. It allows the selection of hot, warm or cold water temperatures.

Note: Do not over tighten on reinstallation as the switch can be damaged, stay pushed in and will cause erratic displays.

Power Connection Terminal Block
This terminal block sets at the very back of the control trough. Incoming power to the washer should connect here. (see Electrical under Installation and Operation Section for exact connections)

Pressure Switch

The pressure switch sets the water level in the washer. As the water level rises, it compresses the air in the pressure switch hose. When the washer reaches the desired water level, the compressed air in the pressure switch hose opens the contacts in the switch, shutting off the water. When at the empty level, the pressure switch contacts are closed allowing the machine to either spin or fill with water. The 1/4" screw in the middle of the switch adjusts the water level. Turning it clockwise 1/8 of a turn will raise the water level 1/4 of an inch. Counter clockwise will lower the water level. Before making any adjustments of the pressure switch, drain the tub and blow the hose clear of possible water bubbles which can cause erratic pressure switch operation. With no load, the water level should be approximately at the bottom to 1" up from the bottom of the glass on ALL models.

Add-Bleach LED

This LED light indicates to the user the correct time to add bleach.This LED is polarity sensistive and must be connected correctly.

Data Communication Cable

Goes between front PCB board and Variable Frequency Drive unit mounted center rear of machine. It has telephone type connectors at each end and is inserted at Controller PCB and the Variable Frequency Drive.

Delta Variable Frequency Drive:

Main power is connected to terminals L1, L2, and L3 on the Delta drive. If the washer is connected to a three phase source, there should be voltage present on all three terminals. If the washer is connected to single phase power, there should be voltage present on terminals.

The voltage should measure 208 Volts to 240 Volts A.C. between phases and connected to if connected to three phase). There is a tolerance of + 10% on the mains voltage (187 Volts to 264 Volts).

Delta VFD Motor Leads:

The wires from the motor are connected to terminals T1, T2, and T3. Since this drive uses pulse width modulation, an accurate current or voltage reading is not possible. Although an accurate current reading is not possible, a balanced current reading should be present while the motor is running.

Delta VFD Dynamic Braking Resistors:

Two, 160 Ohm or 200 Ohm braking resistors (Please check your washer model parts requirements and quantities), are connected in parallel and attached to the drive at terminals B1 and B2. These resistors allow voltage, which is generated by the motor when decelerating, to be dissipated. They will become hot while the motor is slowing down, so care should be taken so as not to come in contact with them. This will prevent an electrical shock and/or a physical burn.

Delta VFD Cooling Fan:

There is a cooling fan attached to the bottom of the Delta drive. This fan will operate when the internal temperature of the drive reaches a predetermined level, the same way the radiator fan in a newer car operates. THE FAN CAN OPERATE ANYTIME POWER IS APPLIED TO THE DRIVE! Remove power to the drive if work is required around the fan.

Notes

Notes

Section 7:

Electrical
Wiring Diagrams & Schematics

Electrical Path Circuit Schematics

Start Circuit

Power travels into the machine on L1 & L2 & (L3, if 3 phase used). L1 and L2 provide 208- 240VAC to the controls transformer which steps the voltage down to 120VAC for the controls. (The L1 connection at the controls transformer must be checked at start-up to coincide with machine operating voltage) The 120VAC travels out from the transformer on either [X-1 red wire directly to the 1.5 amp fuse] or [X-1 black/red wire to TB-4 and then through the red wire to the 1.5 amp fuse]. The controls transformer also creates a neutral on the X-2 black/blue wire that connects to TB-1. From the fuse holder, 120VAC travels on the red wire to the #6 terminal on the terminal strip and then through the black wire to another step-down transformer. From the terminal strip the blue wire will provide the neutral for gear motor, thermoactuators and all valves. The white wire provides the neutral from the terminal to the step down transformer.

120VAC is stepped down to 24 VAC (blue wires), 24VAC (red wires), and a yellow center tap wire to the P-7 power connection on the main controller PCB . With the main control PCB now powered, 5VDC will be present between the (2) yellow wires and also the (2) brown wires for the coin switches. Both pairs will now be ready to count coins through the P-2 connection at the control PCB. 26.8 VAC goes out on the black wire of the P-4 connection from the main control PCB to the S5 door closed switch which mounted on the hinge side of the front panel. Closing the door will engage the door closed switches, sending the voltage to the red wire on the S1 door latched switch. Turning the door handle to the vertical latched position closes the S1 door latched switch, returning the voltage to the main control PCB on the white/red wire at the P-4 connection. 26.8VAC is now present at the S2 and S3 door locked switches.

26.8VDC is also at the black and white wires between P-21 at the main control PCB and the P-20 of the relay PCB. This voltage signals the relay PCB that the door is closed and latched making 120VAC available to the relays controlling the door lock gear motor assembly, drain valve and water valves. A continuous 5VDC is sent on the red wire from the P-1 connector on the main control PCB, through the (normally closed) emergency stop button switch and returns on the second red wire back to the P-1 connector. Afte selecting the temperature, payment is added and the display counts down on the main control PCB displa until the vend price is satisfied. The display will change to scroll PUSH START and the green light over the start button will flash. Pressing the start button on the front of the main control PCB signals the relay PCB to lock the door and 120VAC will go to the door lock gear motor on the white/red wire from the P17 connector of the relay PCB. The door lock gear motor engages and pulls up on the door locking rod, locking the door and closing the S2 and S3 door locking switches.

The S2 locking switch is a backup to the S1 latching switch so that once the cycle starts the S1 isn't critical. The S3 locking switch provides 26.8VDC on the orange wire back to P4 connector at the main control PCB and the P15 connector at the relay PCB. This signals that the loading door is closed, locked and safe to continue wash operations. This activates the P-13 and P-14 yellow enable wires to the inverter drive to allow motion. If there is no signal on P-15 (orange wire) their will be no motion of the tub. S1, S2, S3 and S5 door switches are now closed . The green "On" LED and the door lock gear motor (discussed in start circuit) will remain on throughout the cycle.

Fill Circuit-Warm

The relay PCB supplies 120VAC to the brown/yellow wire from P-17 to the drain valve which closes the valve. The lock thermoactuator also receives 120VAC on orange/blue from P17 of the relay PCB. This device prevents the door lock gear motor from dropping out and unlocking during the cycle in the event o a power loss. The 120VAC will cycle on and off keeping the lock thermoactuator engaged until 70 seconds before the end of the cycle. The main control PCB sends data commands to the VFD through the data cable connected at P-6. These commands control the wash basket which will tumble one direction for 12 seconds, pause, and then reverse direction for 12 seconds.

The prewash or wash LED will illuminate at this time, powered through the white wires from the P-3 connection of the main control PCB to the LED printed circuit board. Using the factory preset cycle as an example: The washer fills the tub through the back of the machine with either one or both the C1 cold and H1 hot water valves. From the P19 connection of main relay PCB, 120VAC is sent out on the white/brown wire to the C1 cold water fill valve and the red/yellow wire to the H1 hot water fill valve depending on the temperature selected. After a 90 second delay from the beginning of the wash cycle bath only, the detergent dispenser flushes the detergent into the tub for 20 seconds. This is accomplished when 120VAC travels through the red/orange wire to the H2 hot water valve solenoid. During the machine fill, a 5VDC signal is sent on the red wire from the P5 connection of the main control PCB to the pressure switch contact and returns on the yellow and orange wires to the P5 connection of the main control PCB. When the water level in the basket reaches the preset level pressure, the switch moves the switch contacts to the full or open position. This causes the main control PCB to signal the relay PCB to shut off the water valve coils.

Wash Circuit

Once the machine has achieved it's water level, the wash basket will continue to tumble one direction for 12 seconds, pause, and then reverse direction for 12 seconds. The time on the front display will count down as the bath progresses. The time of the bath is programmable up 15 minutes per bath. Note: When programming cycles, the wash bath must be programmed for 3 minutes or more.

Drain

When the program bath time ends the main control PCB signals the relay PCB to remove 120 VAC power from brown/yellow wire at P17 going to the drain valve. The normally-open, spring-loaded drain valve opens allowing water to exit the machine. This resets the pressure switch back to an empty level and restores the 5VDC connection through the pressure switch from the red wires to the orange and yellow wires.

Rinse 1 & 2

For Rinse 1 & 2, the rinse LED will illuminate, the drain valve will receive 120VAC and close. The basket will fill and tumble the same as the wash bath for the programmed time. The rinse water temperatures are programmable and factory default is cold.

Final Rinse Circuit

The final rinse LED will illuminate, the drain valve will receive 120VAC and close. The basket will fill and tumble the same as the previous baths for the programmed time. The final rinse water temperatures are programmable. Note: When programming cycles, the final rinse bath must be programmed and cannot be set for less than 3 minutes. Also at the beginning of the final rinse bath, the main control PCB will signal the relay PCB to send 120V to the P-19 connector on the white/blue wire to the C2 cold water valve for 20 seconds to flush the fabric softener dispenser.

Spin Circuit

The spin LED will illuminate and the main control PCB sends a signal to the variable frequency drive via the data cable at P6 to VFD RJ-11. The rotation as viewed from front during spin will be counter-clockwise. (The 18lb washers will extract in a clockwise direction) The time of the spin cycle can be programmed. Note: The final spin must be programmed into the final rinse bath and must be programmed for 1 minute or more.

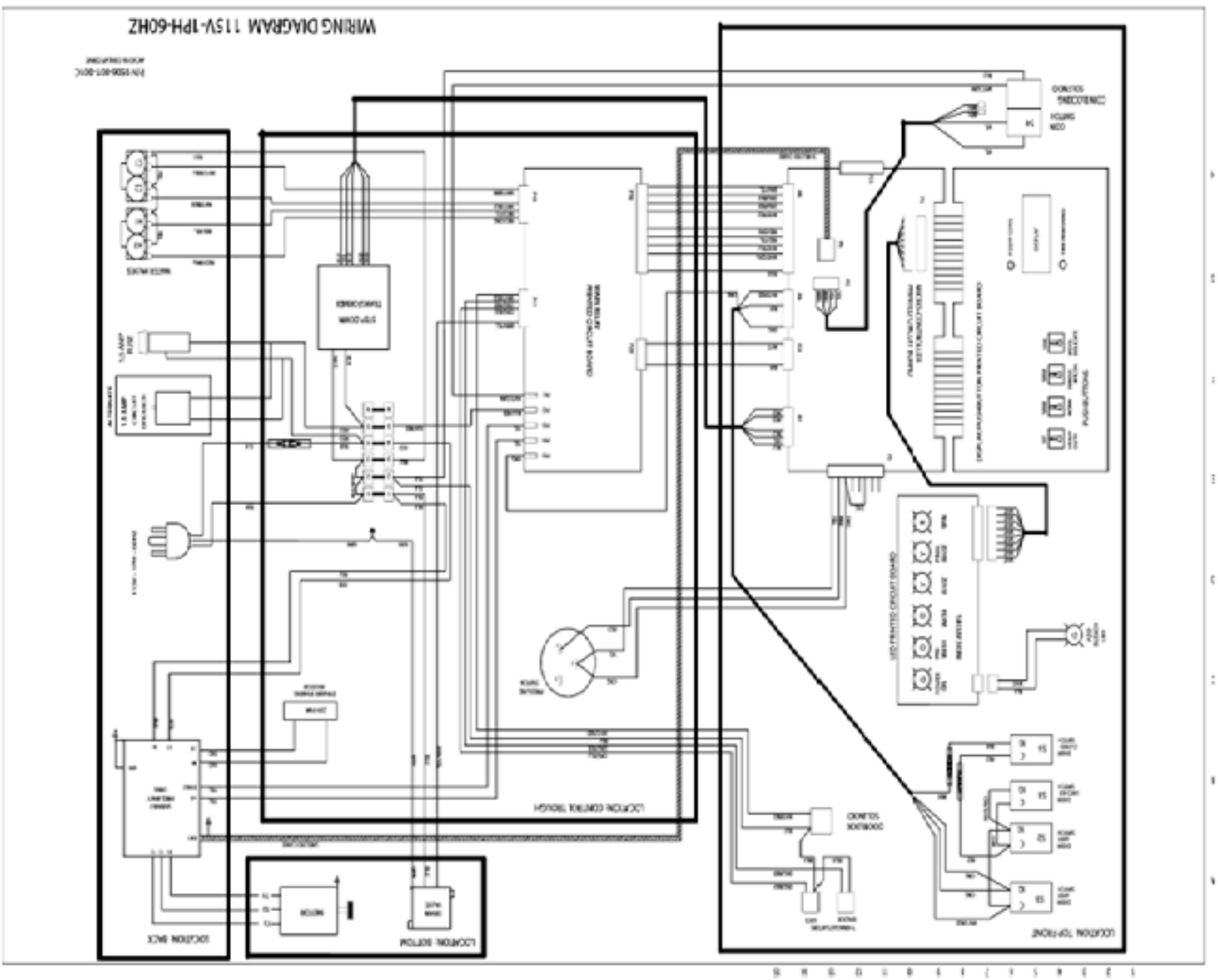
Unlock Thermoactuator and Shake Out Circuit

70 seconds before the end of the cycle the main control PCB signals the relay PCB to remove 120VAC from the orange/blue wire at the P-17 connector on the lock thermoactuator. This allows the lock thermoactuator time to cool and retract by the end of the cycle. To insure that the lock thermoactuator has retracted by the end of the cycle, 1 minute prior the end of the cycle, the unlock thermoactuator is powered with 120VAC through the orange/red wire from the P-17 connector of relay PCB. The unlock thermoactuator moves the complete bracket assembly away from the white door lock actuator allowing it to drop at the end of the cycle, unlocking the door. The basket will come to a stop from spin speed with the assistance of dynamic braking resistors wired to the variable frequency drive. (See wiring diagrams for quantities and resistor ohm values). The washer will then tumble for 45 seconds to let the clothes shake loose from the basket and then stop.

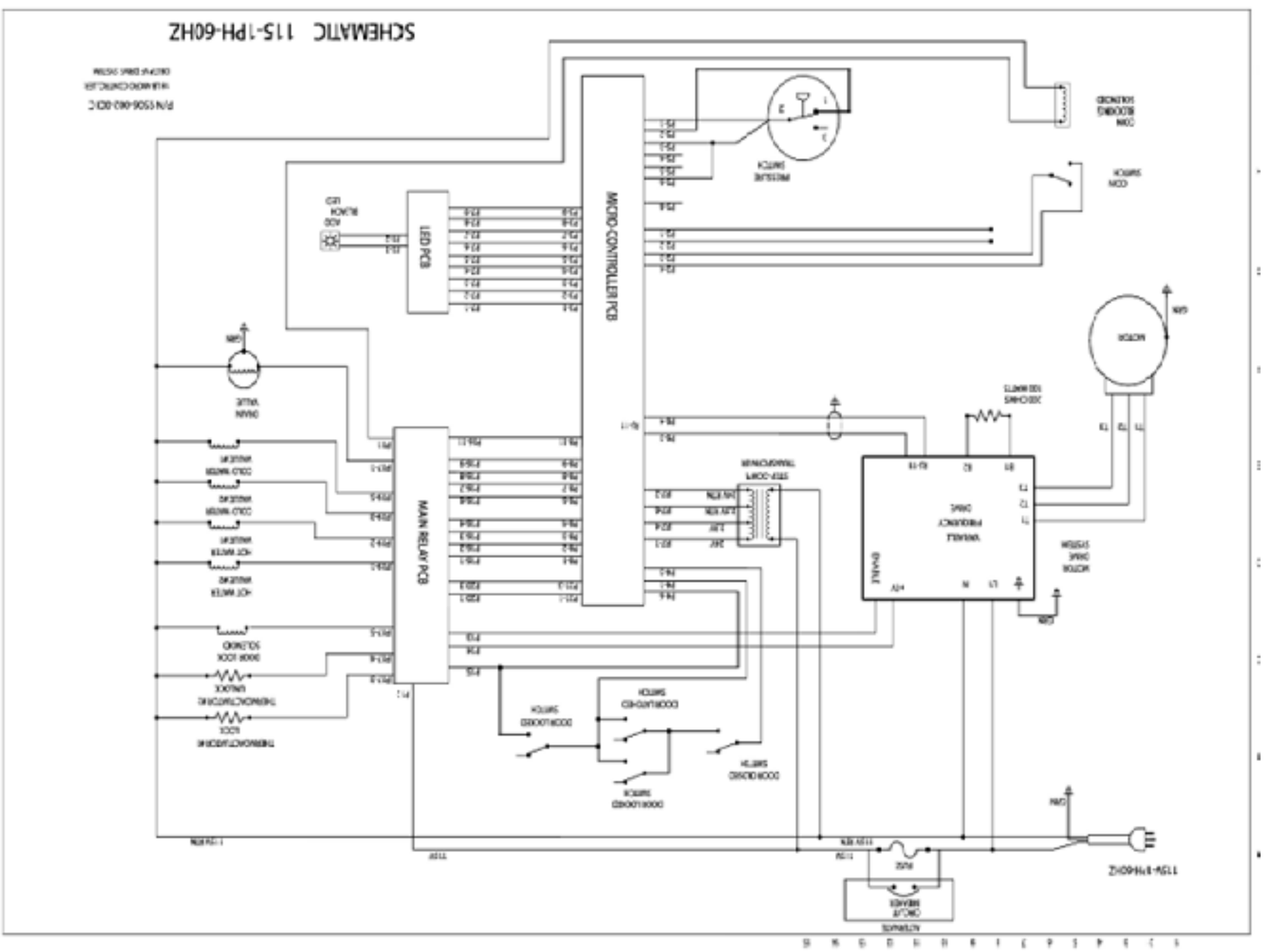
End of Cycle and Door Open Circuit

Once the machine stopped, 2 things occur:
1. The beeper will signal for 5 seconds letting the user know that it is the end of the cycle
2. The micro-controlled PCB resets and display will reset when door is opened and it is now ready to accept coins again.

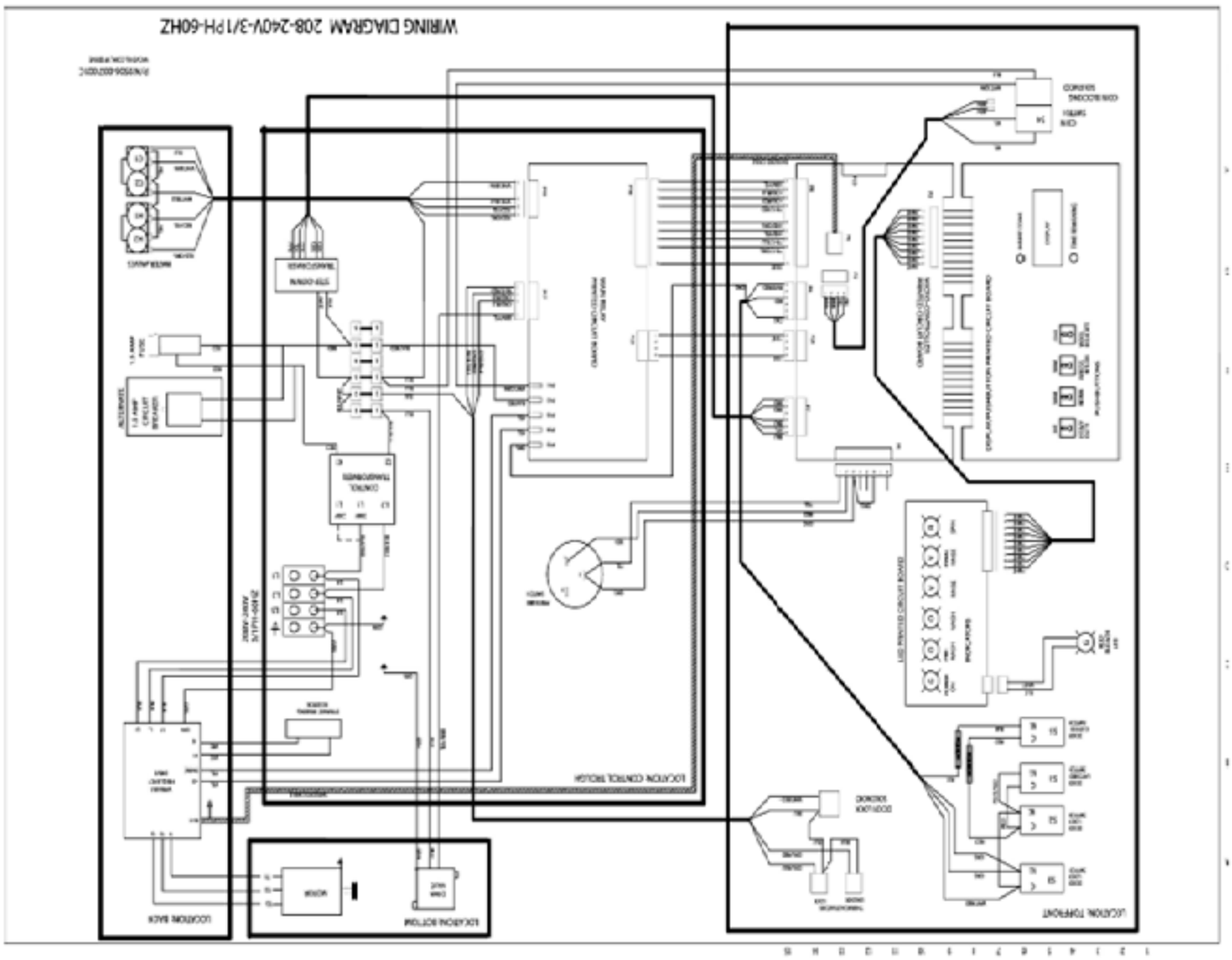
Wiring Diagram



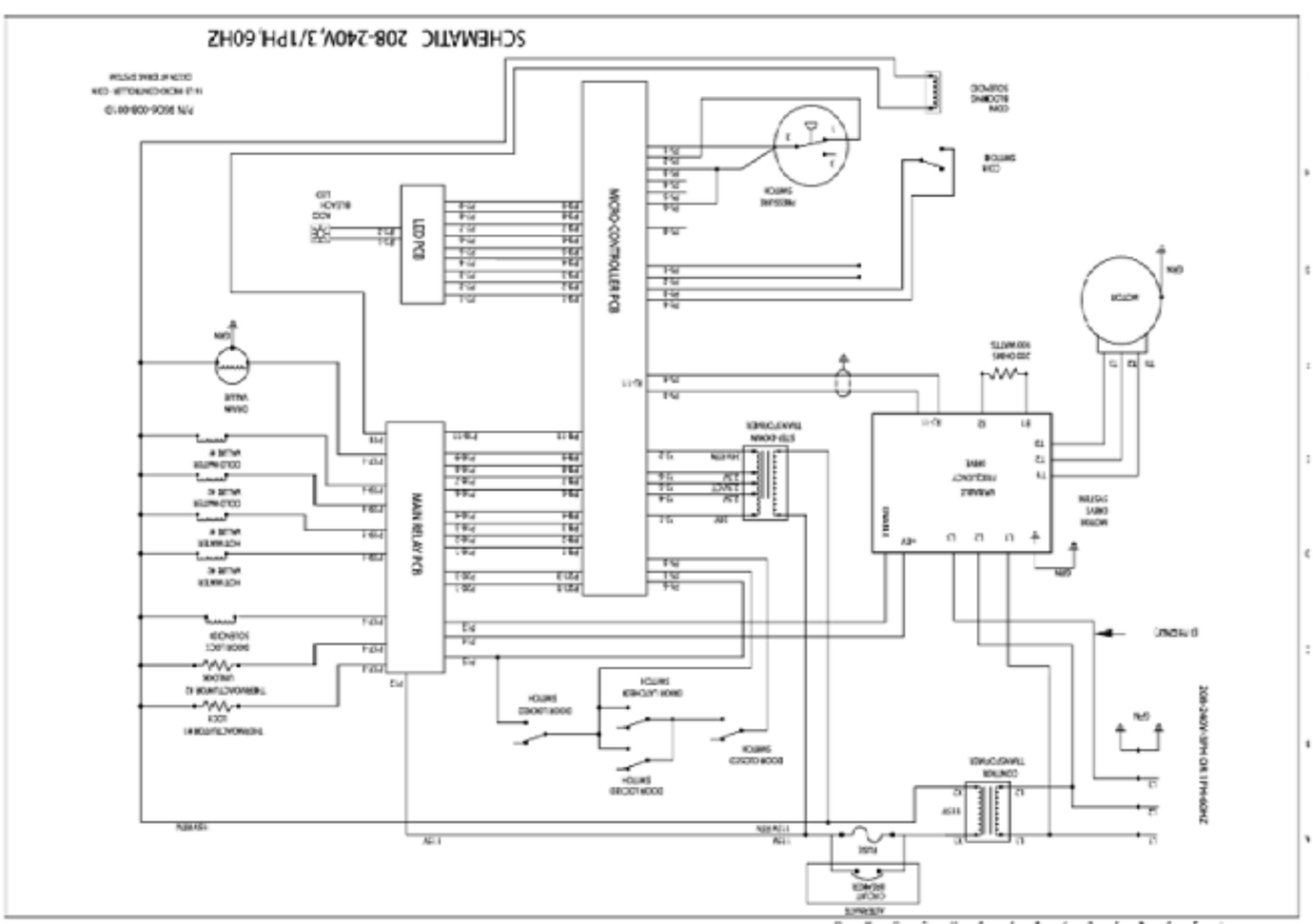
Schematic



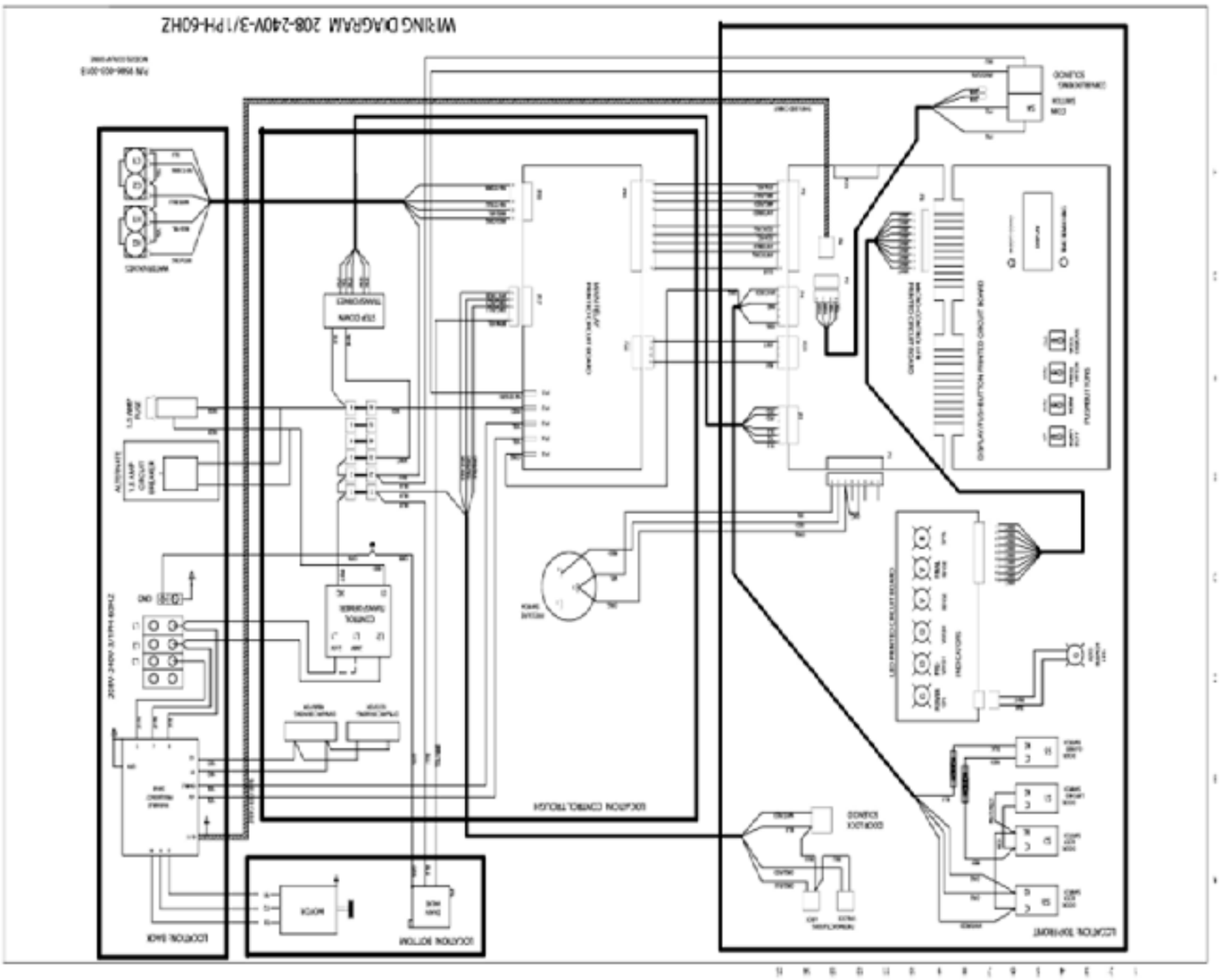
Wiring Diagram



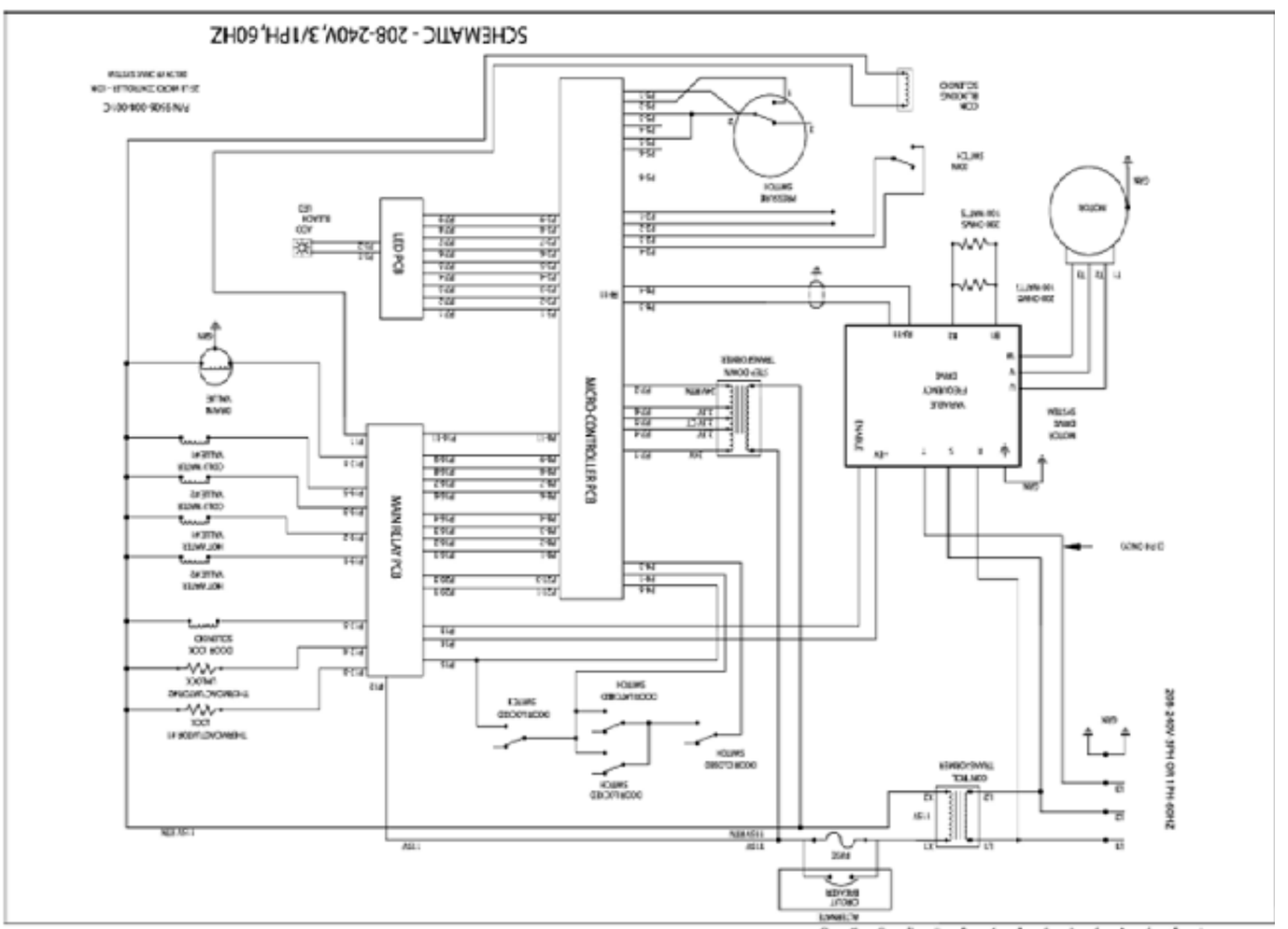
Schematic



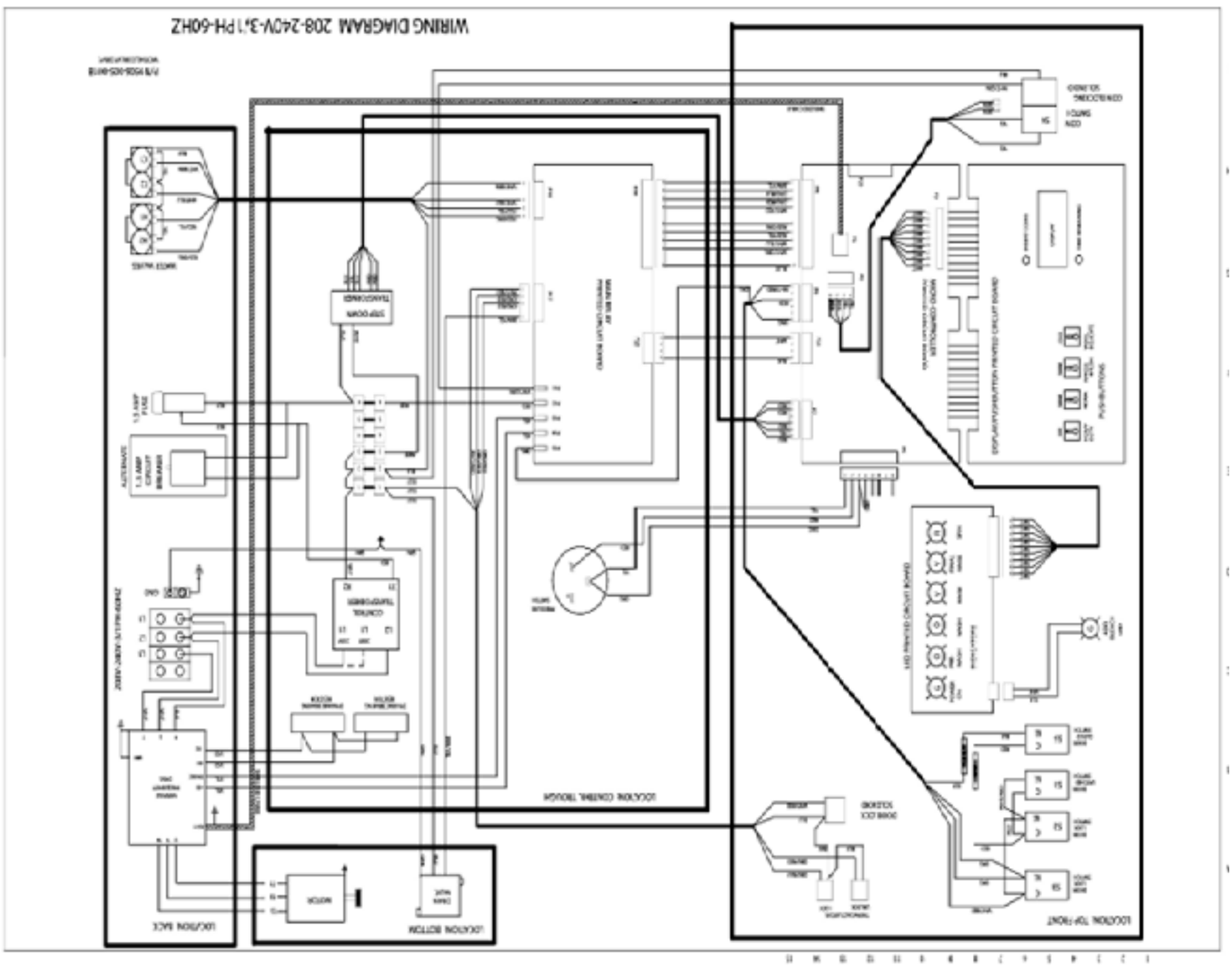
Wiring Diagram



Schematic



Wiring Diagram



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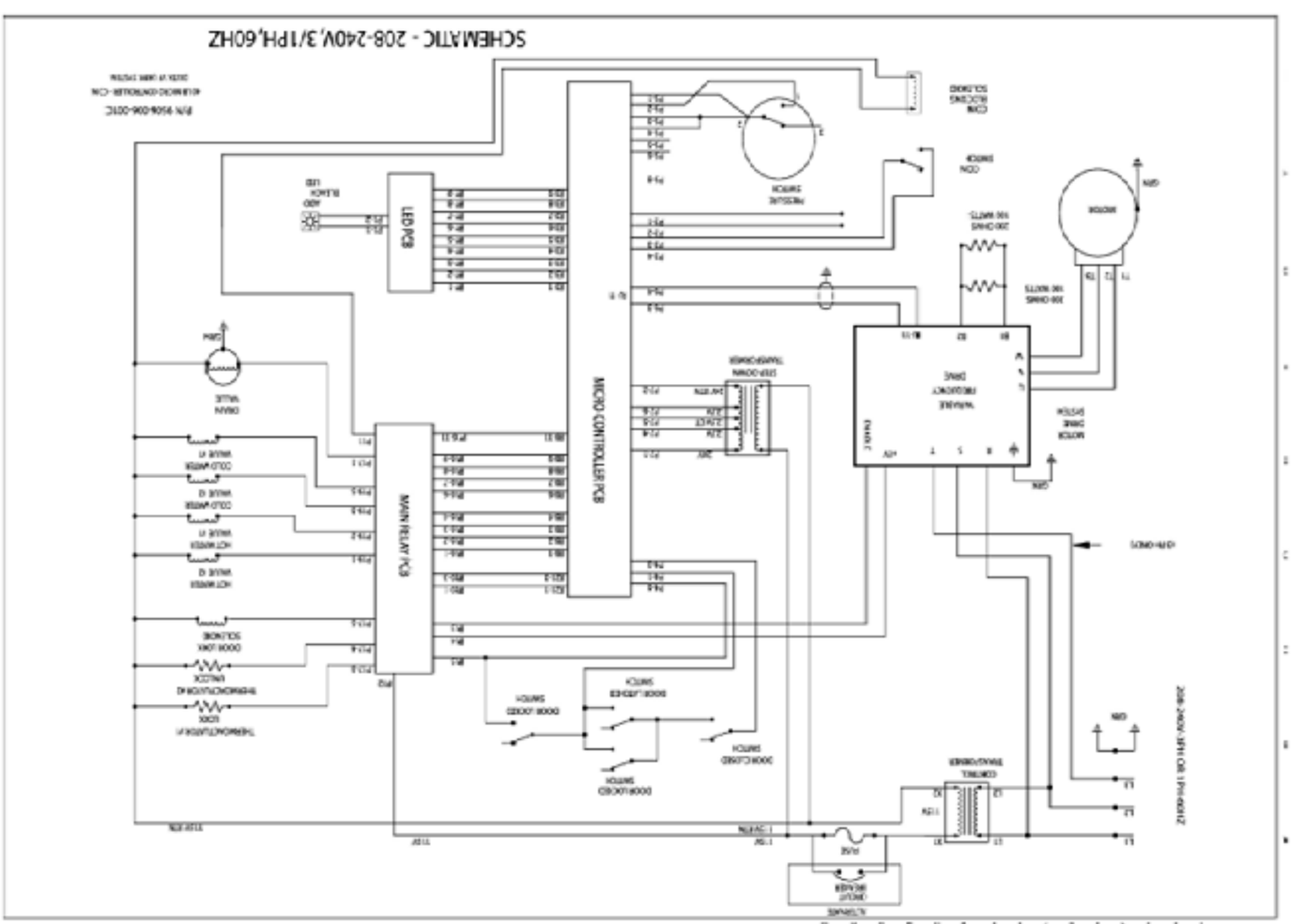
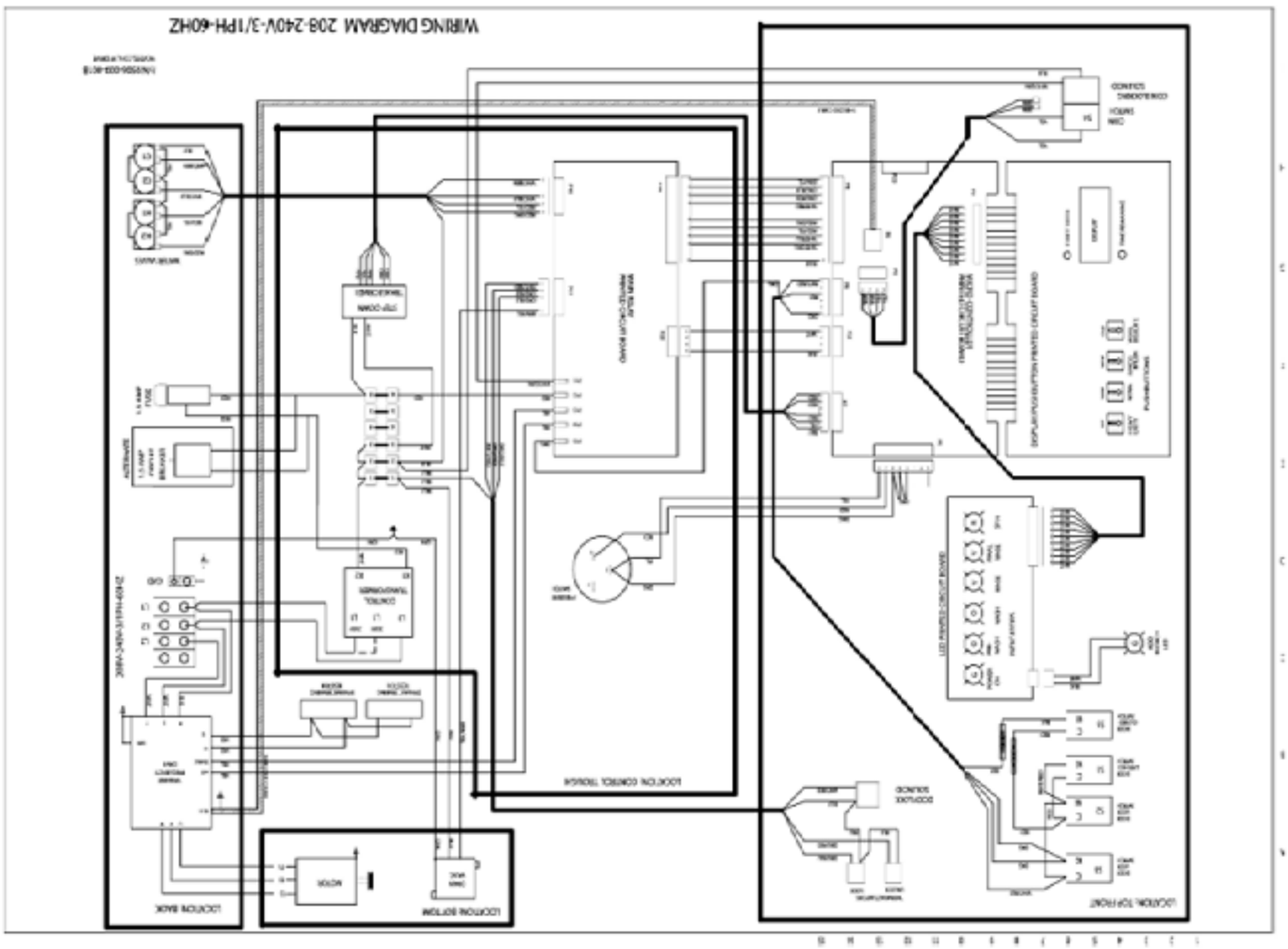


Wiring Diagram



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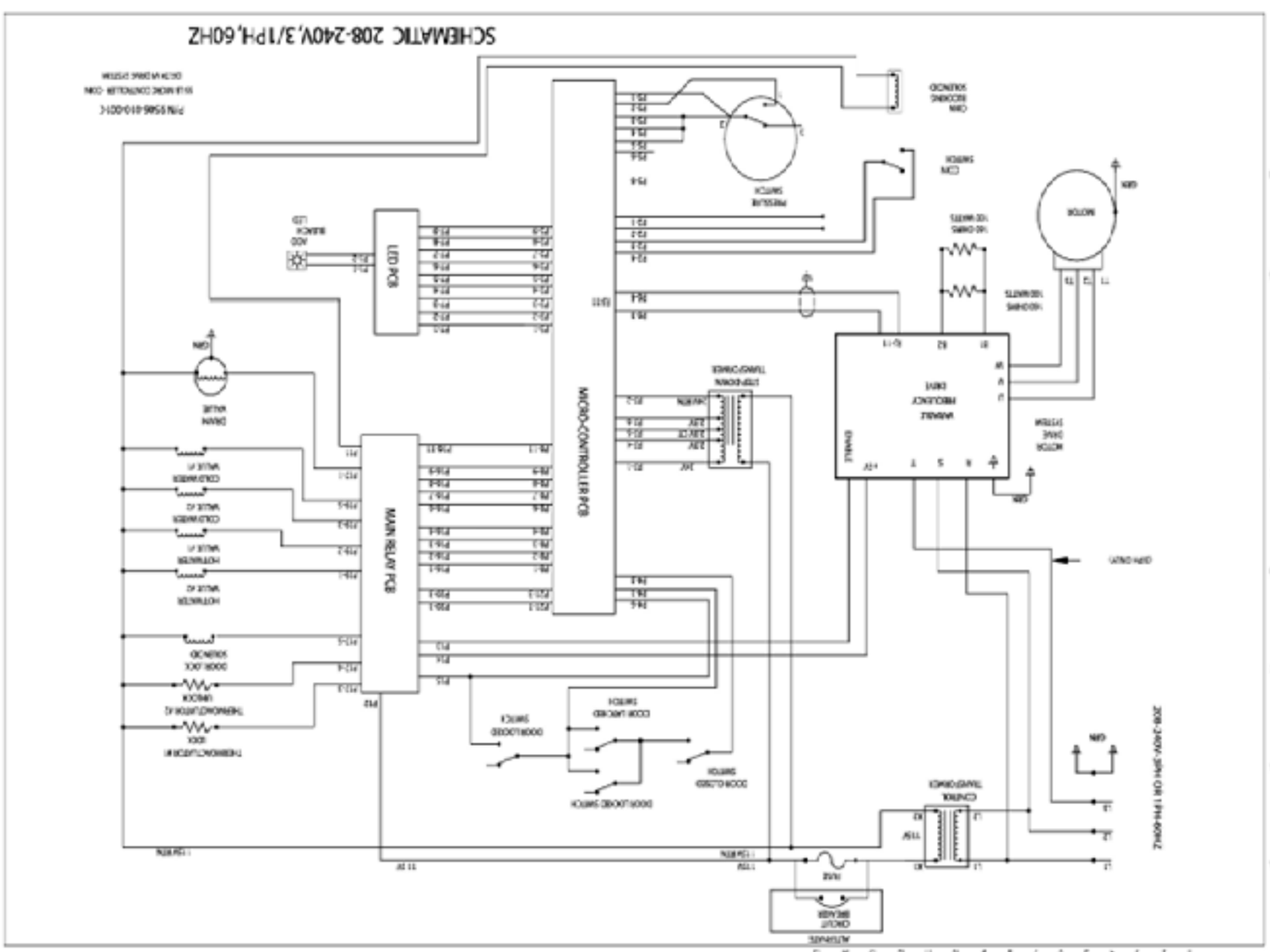
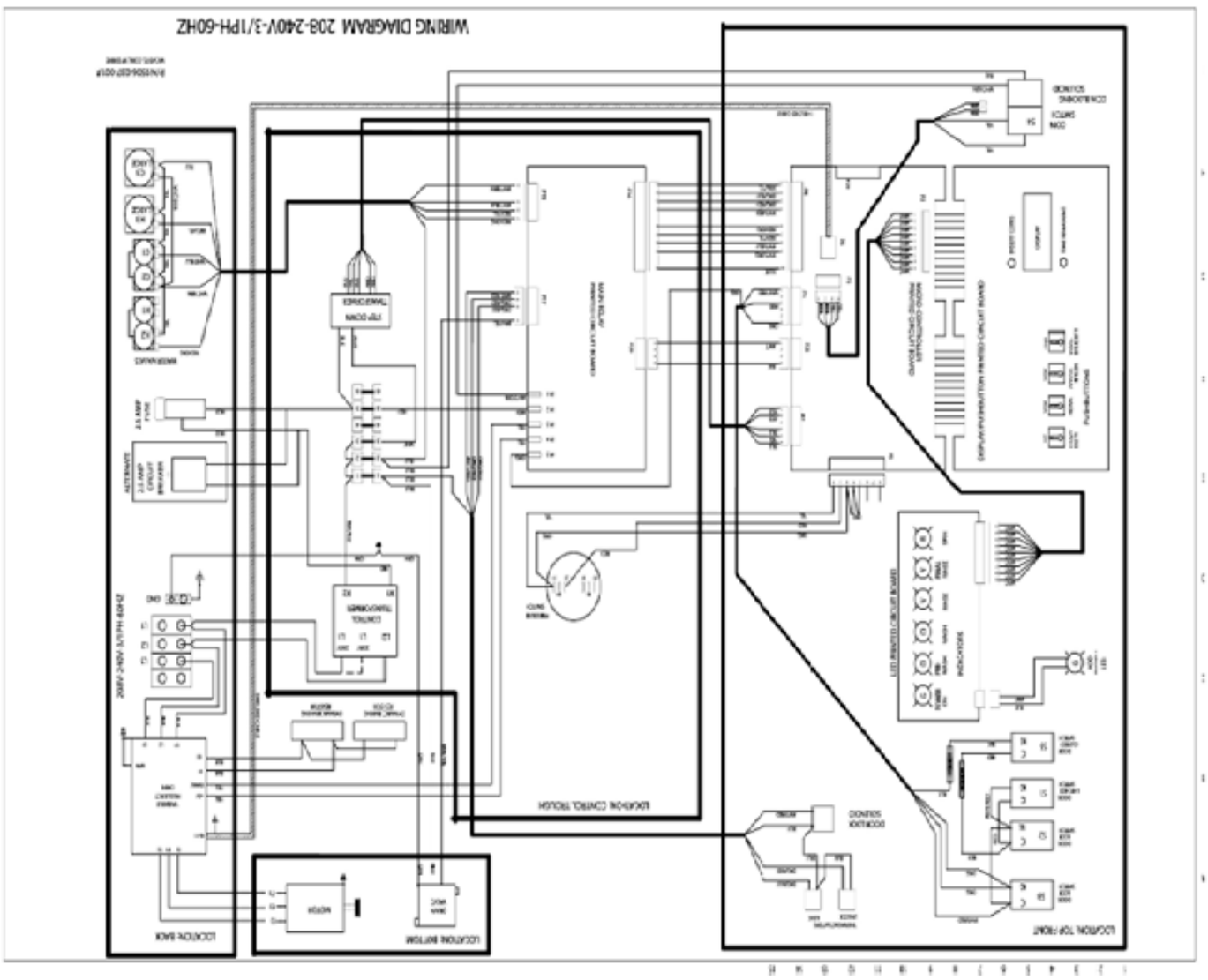


Wiring Diagram



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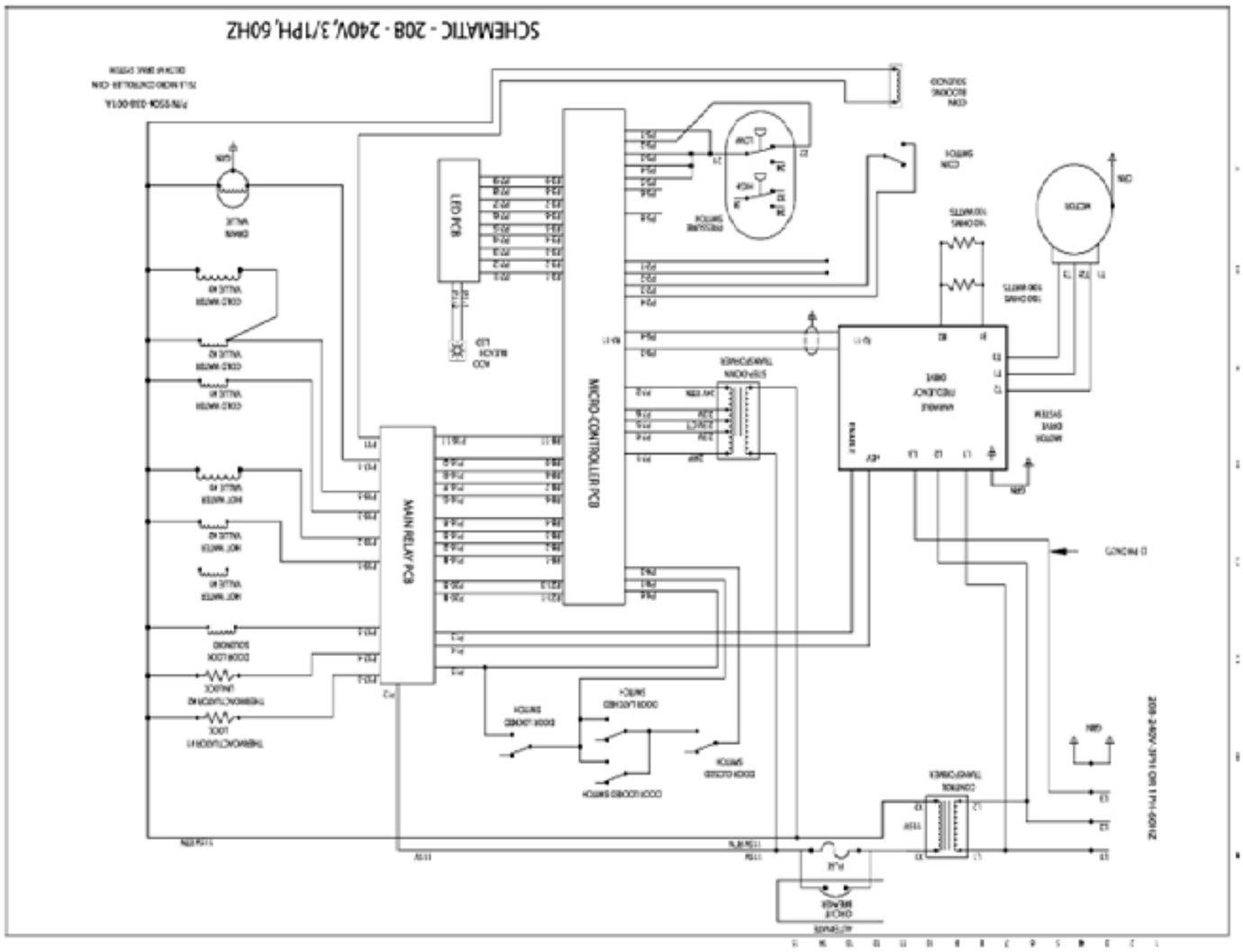


Notes

Notes

V-Series Accessories

WCVD18KCS-10	120 volt	60hz	Single Phase
WCVD18KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD25KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD40KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD55KCS-12	208-240 volts	60hz	Single Phase or Three Phase
WCVD75KCS-12	208-240 volts	60hz	Single Phase or Three Phase

Key	Description	T-300	T-400	T-600	T-900	T-1200	QTY
*	Kit, Door Gasket Expander (large)	9732-139-002	9732-139-002	9732-139-002	9732-139-002	9732-139-002	
*	Kit, Door Gasket Expander (small)	9732-139-001	9732-139-001	9732-139-001	9732-139-001	9732-139-001	
*	Hose, Water Supply 3/8" I.D. x 48" (furnished 18lb, 25lb, 40lb)	9990-027-011	9990-027-011	9990-027-011			2
*	Hose, Water Supply 5/8" I.D. x 48" (furnished 55lb, 75lb)				9990-027-013	9990-027-013	2
*	Washer, Inlet Hose (furnished)	8641-242-000	8641-242-000	8641-242-000	8641-242-000	8641-242-000	2
*	Strainer, Inlet Hose (furnished)	9565-003-001	9565-003-001	9565-003-001	9565-003-001	9565-003-001	2
*	Drain Hose 10ft length x 2-1/4" ID	9242-417-002	9242-417-002	9242-417-002	9242-417-002	9242-417-002	
*	Drain Hose 10ft length x 3" ID	9242-417-003	9242-417-003	9242-417-003	9242-417-003	9242-417-003	
*	Bevel Washer for 5/8" bolt used in installations using angle iron bases	8641-586-002	8641-586-002	8641-586-002	8641-586-002	8641-586-002	
*	Bevel Washer for 3/4" bolt used in installations using angle iron bases	8641-586-003	8641-586-003	8641-586-003	8641-586-003	8641-586-003	
*	Sealing compound	8538-151-001	8538-151-001	8538-151-001	8538-151-001	8538-151-001	
*	TORX#20	8545-051-002	8545-051-002	8545-051-002	8545-051-002	8545-051-002	
*	Special Tool for Removing Coin Acceptor Mtg Screws (T-10 Torx)	8545-051-003	8545-051-003	8545-051-003	8545-051-003	8545-051-003	
*	Flow Restrictors (in dispenser)	9475-002-002	9475-002-002	9475-002-002	9475-002-002	9475-002-002	2
*	Battery (used on Control PCB)	8612-001-001	8612-001-001	8612-001-001	8612-001-001	8612-001-001	
*	Trailer Hitch Tool (55lb, 75lb)				8545-056-001	8545-056-001	
*	VFD Filter options (1 phase) 120v	9732-233-001					
*	VFD Filter options (3 phase)	9732-234-001	9732-231-001	9732-231-001	9732-231-001	9732-231-001	
*	VFD Filter options (1 phase) 220VAC	9732-235-001	9732-232-001	9732-232-001	9732-232-001	9732-232-001	
*	Bearing & Seal Kit	9732-219-001	9732-219-003	9732-219-005	9732-219-007	9732-219-007	
*	E-Stop Conversion Kit (V to A-Series)	9732-226-001	9732-226-003	9732-226-005	9732-226-007	9732-226-009	
*	V & A-Series Conversion to Manual Start for Small Vault	9732-224-001	9732-224-001	9732-224-001	9732-224-001	9732-224-001	

Kits, Assemblies, & Common Parts

Coin Acceptor Components	Part Number
Mechanical Coin Acceptor	9021-001-010
Coin Drop Screws	9545-053-002
Retainer, Coin Acceptor	9486-149-001
Loading Door & Door Lock Components	**Part Number**
Door Glass Gasket (Standard Door)	9206-419-001
Door Glass Gasket (Small Door)	9206-411-002
Door Lock Solenoid Assembly	9922-011-001
Door Handle Only	9244-080-003
Kit - Door Latching Assy. & Cam (replaces original Door Latching Assembly)	9732-347-001
Kit - Door Cam Replacement	9732-346-002
Kit - Locking Pawl Replacement	9732-346-001
Kit - Door Gasket Expander Kit (Small)	9732-139-001
Kit - Door Gasket Expander Kit (Large)	9732-139-002
Electrical Components	**Part Number**
Transformer, Main	8711-004-001
Transformer, Control	8711-009-001
Main Control Board	9473-004-007
VFD & Breaking Resistors Components	**Part Number**
Breaking Resistor 200 Ohms	9483-004-002
Breaking Resistor 160 Ohms	9483-004-003
Delta E Drive Display	9150-044-001
MS 300 VFD Display	9150-058-001
Data Cable (56")	9806-015-003
Drain & Water Valve Components	**Part Number**
Kit - 3" Drain Valve Seal Replacement	9732-327-001
Drain Valve 3"	9379-202-001
Drain Valve 2"	9379-199-001
Water Valve (Dual)	9379-183-012
Water Valve (Single Mueller)	9379-194-001
Diaphragm (Dual)	9118-049-003
Diaphragm (Single Mueller)	9118-055-001
Cabinet Components	**Part Number**
Front Panel Screw	9545-008-014
Front Panel Finisher Washer	8641-585-001
Front Panel Spring Nut	8640-399-008
Top Soap Box Screw	9545-008-012
Top Soap Box Spring Nut	8640-399-007
5/16 Hex Screw, Common	9545-008-026
Top Lock Key #6324	9306-025-001
Cylinder Plug (1.5" Plastic)	9456-041-007

Section 8:

Parts Data

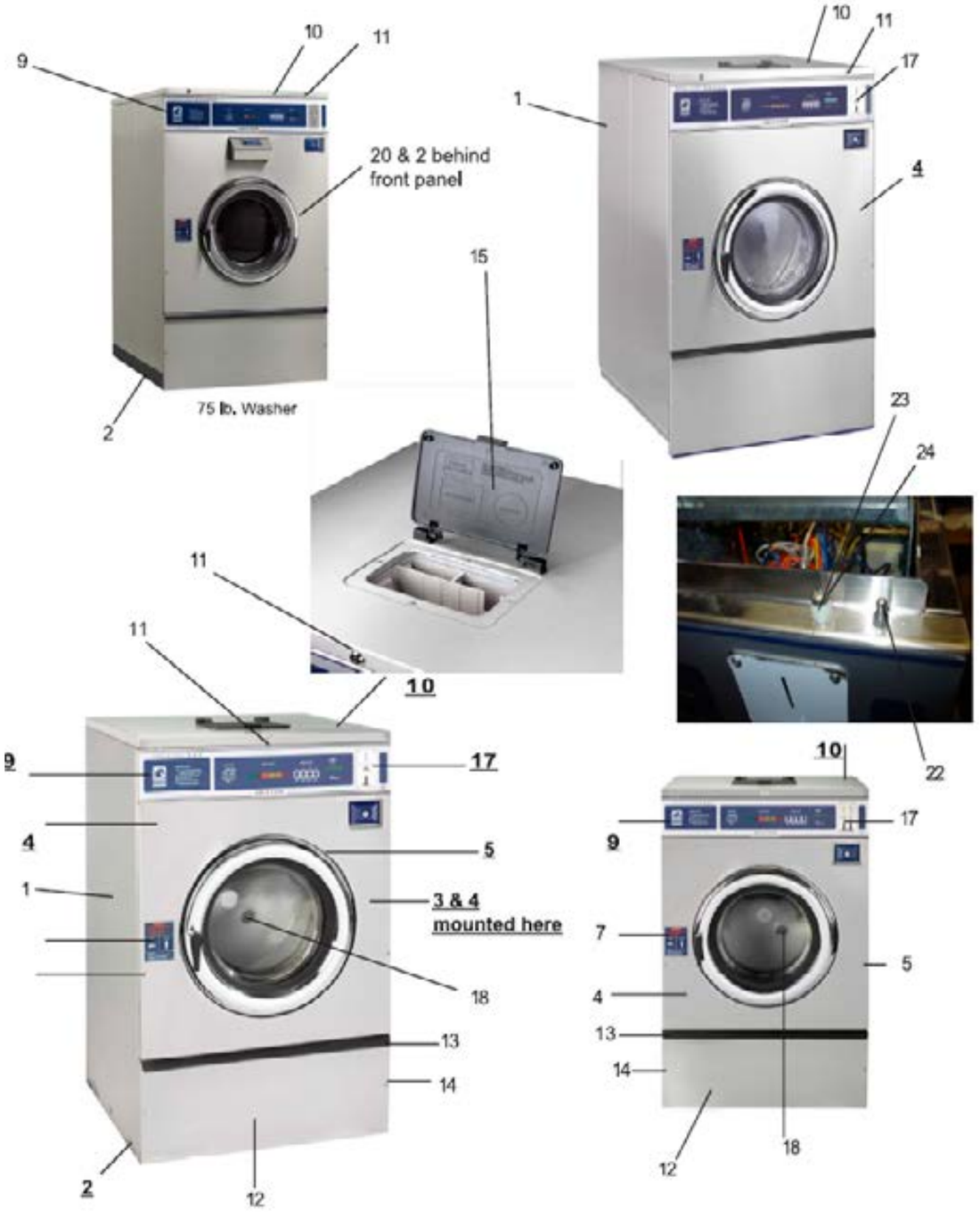
V-Series Vended

Wiring Harness Part # by Model

Part Number	Description
9794-001-001	Wiring Harness, (Add Bleach Lite assy included) ALL.....1
9627-791-003	Wiring Harness, DoorLock WCVD-18,WCVD-25.....1
9627-791-004	Wiring Harness, Doorlock WCVD-40,WCVD-55, WCVD-75.....1
9627-792-001	Wiring Harness,CoinDrop Mech ALL.....1
9627-796-001	Wiring Harness, Drain,Thermo,DoorSol WCVD-18,WCVD-25,WCVSD-40....1
9627-796-002	Wiring Harness, Drain,Thermo,Door Sol. WCVD-55,WCVD-75.....1
8654-125-001	Clamp, Cable- 1/4 Dia. ALL.....1
8653-074-001	Connector, Clear In-Line ALL.....AR
9806-015-001	Data Cable ALL xcpt. 75Ib.....1
9806-015-003	Data Cable WCVD-75.....1
9627-793-001	Wiring Harness P20/P21 ALL.....1
9627-794-001	Wiring Harness ,P8/P16 ALL.....1
9627-795-001	Wiring Harness WaterValve/P19 WCVD-18,WCVD-25.....1
9627-795-002	Wiring HarnessWaterValve/P19WCVD-55,WCVD-75,WCVD-40.....1
9627-797-001	Wiring Harness ,LED PCB ALL.....1
9627-800-001	Wiring Harness ,PS/pressure WCVD-18.....1
9627-801-001	Wiring Harness ,PS/pressure WCVD-25.....1
9627-802-001	Wiring Harness ,PS/pressure WCVD-40.....1
9627-803-001	Wiring Harness, PS/pressure WCVD-55, WCVD-75.....1
8220-064-023	Wiring Assembly Yel. 32" ALL except 75.....2
8220-064-040	Wiring Assembly Yel. 64" WCVD-75.....2
8220-062-025	Wiring Assembly Red 28" WCVD-40,WCVD-55.....2
8220-062-032	Wiring Assembly Red 41" WCVD-75.....2
8220-001-282	Wiring Assembly Red 20" WCVD-18,WCVD-40,WCVD-25.....2
8220-118-001	Wiring Assembly Vio. 24" WCVD-18.....2
8220-108-007	Wiring Assembly Wht/Brn 8" WCVD-75.....1
8220-123-001	Wiring Assembly Jumper Yel WCVD-55,WCVD-18,WXCVD-40,WCVD-25....1
8220-128-001	Wiring Assembly Jumper Yel WCVD-75.....1
8220-062-025	Wiring Assembly Red 28" WCVD-55,WCVD-40.....2
8220-062-028	Wiring Assembly Blk. 17" ALL.....1
8220-062-027	Wiring Assembly Red 17" ALL.....1
8220-063-008	Wiring Assembly Wht/Grn 16" WCVD-55,WCVD-40,WCVD-25.....1
8220-063-009	Wiring Assembly Blu 16" WCVD-55,WCVD-40,WCVD-25.....1
8220-117-001	Wiring Assembly Jumper BLK.WCVD-40,WCVD-75,WCVD-25.....2
9631-381-018	Wiring Assembly Red 7" ALL.....1
8220-090-009	Wiring Assembly Blu/Wht ALL.....1
8220-001-231	Wiring Assembly Blk/Blu ALL.....1
8220-001-478	Wire Assembly Green 7" WCVD-18.....1
9627-747-002	Harness Power Terminal Block WCVD-55,WCVD-75.....1
9627-747-003	Harness Power Terminal Block WCVD-25, WCVD-40.....1
9627-831-001	Harness Power Terminal Block WCVD-18 1

Cabinet and Front Panel Group Part # by Model

Key	Part Number	Description	Qty
1	9454-656-001	Panel, Side (Left or Right) - stainless WCVD-25	2
1	9454-672-001	Panel, Side (Left or Right)-stainless WCVD-55	4
1	9454-635-005	Panel, Right Side-stainless WCVD-18	1
1	9454-635-006	Panel, Left Side - stainless WCVD-18	1
1	9989-449-001	Panel, Side (Left or Right)-stainless WCDV-40	2
1	9454-760-001	Panel, Side (Left or Right)-stainless WCVD-75	4
2	9545-018-013	Screw, (Side Panel to Base) WCVD-25	6
2	9545-018-013	Screw, (Side Panel to Base) WCVD-40/55/75	8
2	9545-018-018	Screw, (Side Panel to Base) WCVD-18	6
2	8640-414-006	Nut, Hex 1/4-20 UNC WCVD-18/25	6
2	8640-414-006	Nut, Hex 1/4-20 UNC WCVD-40/55/75	8
3	9029-066-001	Bracket, Side Panel WCVD-18/25/40	1
*	8640-413-002	Nut, Hex WCVD-18/25/40	2
*	9545-008-031	Screw WCVD-18/25/40	2
4	9454-659-001	Panel Assy, Front WCVD-25	1
4	9454-671-001	Panel Assy, Front WCVD-55	1
4	9454-763-001	Panel Assy, Front WCVD-75	1
4	9454-728-001	Panel Assy, Front WCVD-18	1
4	9454-669-001	Panel Assy, Front WCVD-40	1
5	9059-063-002	Band, Edge Protector WCVD-25/40/55/75	1
5	9059-063-004	Band, Edge Protector WCVD-18	1
*	9051-053-001	Bumper Loading Door WCVD-75	1
*	9545-008-024	Screw, Hex- To Control Panel	2
*	8640-399-005	Nut, Spring- To Control Panel 10/32	2
6	9545-008-014	Screw, Flat Head- Front to Sides	2
6	8641-585-001	Washer, Finish	2
*	8640-399-008	Nut, Spring- To Front Panel	2
*	9545-008-023	Screw, Guide	2
7	8502-624-002	Label, Door Opening	1
8	9989-474-001	Panel, Control (Mounts Nameplate) WCVD-2..,	1
8	9989-476-001	Panel, Control (Mounts Nameplate) WCVD-55, WCVD-75	1
8	9989-473-001	Panel, Control (Mounts Nameplate) WCVD-18	1
8	9989-475-001	Panel, Control (Mounts Nameplate) WCVD-40	1
*	9545-008-026	Screw, Control Panel to Sides	4
9	9412-113-001	Nameplate Decal, Control Panel (one piece) WCVD-25	1
9	9412-112-001	Nameplate Decal, Control Panel (one piece) WCVD-18	1
9	9412-114-001	Nameplate Decal, Control Panel (one piece) WCVD-40	1
9	9412-115-001	Nameplate Decal, Control Panel (one piece) WCVD-55	1
9	9412-130-001	Nameplate Decal, Control Panel (one piece) WCVD-75	1
10	9454-761-001	Panel Top Front WCVD-75	1
10	9454-762-001	Panel Top Rear WCVD-75	1
10	9454-736-001	Panel Top WCVD-55	1
10	9454-733-001	Panel Top WCVD-18	1
10	9454-735-001	Panel Top WCVD-40	1
10	9454-734-001	Panel, Top WCVD-25	1
11	8650-012-003	Lock, Top (w/Key) WCVD-18,WCVD-25,WCVD-40	1
11	8650-012-003	Lock, Top (w/key) WCVD-55, WCVD-75	2
*	6292-006-007	Key, Top- # 6324	1
*	9095-038-001	Cam, Lock-Top	1
*	8640-426-001	Nut, 9/32	1
*	8641-581-008	Washer	1
12	9108-096-001	Door, Lower Service WCVD-18	1
12	9108-099-001	Door, Lower Service WCVD-55,WCVD-75	1
*	9108-097-001	Door, Lower Service WCVD-40	1
12	9108-097-001	Door, Lower Service WCVD-25	1



Cabinet and Front Panel Group Part # by Model Continued

Key	Part Number	Description	Qty
13	9244-081-001	Handle (bumper guard) WCVD-18	1
13	9244-081-002	Handle (bumper guard) WCVD-40, WCVD-25	1
13	9244-081-003	Handle (bumper guard) WCVD-55,WCVD-75	1
*	9545-045-010	Screw	4
*	9545-008-023	Screw, Guide	2
14	9545-008-014	Screw Mtg., Flat Head	2
14	8641-585-001	Washer, Finish	2
*	8640-399-008	Nut, Spring	2
15	9108-095-005	Door, Dispenser WCVD-18,WCVD-25,WCVD-40,WCVD-55	1
*	9451-191-001	Pin, PlainWCVD-18,WCVD-25,WCVD-40,WCVD-55	2
*	9467-025-001	Post, Door MountingWCVD-18,WCVD-25,WCVD-40,WCVD-55	2
*	9545-045-002	Screw, Disp.Post MtgWCVD-18,WCVD-25,WCVD-40,WCVD-55	4
*	9545-008-012	Screw, Disp. Mtg. WCVD-18,WCVD-25,WCVD-40,WCVD-55	4
*	8640-399-007	Nuts, Spring WCVD-18,WCVD-25,WCVD-40,WCVD-55	4
*	9086-017-001	Catch, Top Panel	2
22	9467-024-001	Post, Top Locator	2
*	8640-411-003	Nut, Keps	2
23	9355-001-001	Locator, Panel	2
24	9545-008-025	Screw, #10	2
16	9732-122-001	SS cover Box Assy, Coin (See Coin Handling Group)	1
17	9021-001-001	Acceptor, Coin ($.25) (See Coin Handling Group)	1
18	9456-041-007	Plastic Plug 1 1/2”-(inside cylinder) WCVD-18,WCVD-25,WCVD-40	1
20	9539-461-007	Switch Coin Blocking Safety	1
21	9950-060-001	Masking Ring with saftey switch opening WCVD25,40,55	1
21	9950-059-001	Masking ring with saftey switch opening WCVD-18	1
21	9950-060-002	Masking Ring with saftey switch opening WCVD-75	1

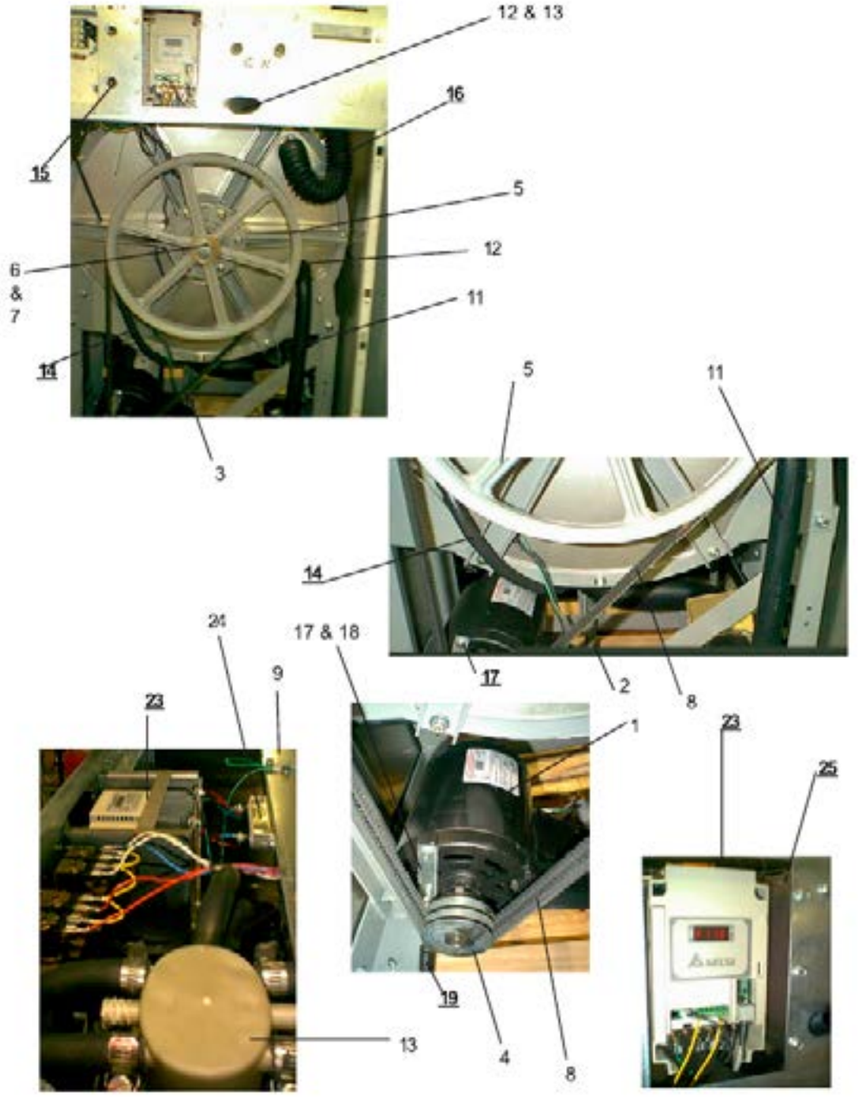
* Not Illustrated

Notes

Rear View Access Part # WCVD-18, WCVD-25, WCVD-40

Key	Part Number	Description	Qty
1	9376-305-001	Drive Motor, 3 Phase (Inverter duty) WCVD-25,WCVD-40	1
1	9376-304-001	Drive Motor, 3 Phase (Inverter duty) WCVD-18	1
2	9497-222-002	Rod, Motor Mtg WCVD-18,WCVD-25	1
2	9497-222-004	Rod, Motor Mtg WCVD-40	1
*	9545-029-005	Screw (end of motor rod) WCVD-18,WCVD-25,WCVD-40	1
*	8641-582-014	Lockwasher (end of motor rod)WCVD-18,WCVD-25,WCVD-40	1
3	9076-052-002	Collar, Shaft (w/set screws)	2
4	9453-170-003	Pulley, Motor WCVD-25,WCVD-40	1
4	9453-169-012	Pulley, Motor WCVD-18	1
*	9545-028-015	Set Screw,Sq.Hd(motor pulley)WCVD-18,WCVD-25,WCVD-40	2
*	9487-234-001	Tolerance Ring WCVD-25	1
*	9487-234-002	Tolerance Ring WCVD-18	1
*	9487-234-003	Tolerance Ring WCVD-40	1
5	9453-168-003	Pulley, Driven WCVD-40	1
5	9453-168-004	Pulley, Driven WCVD-25	1
5	9908-041-002	Pulley,Ass'y Driven WCVD-18	1
6	9545-017-009	Screw 1/2-13x1 1/4" WCVD-18,WCVD-25	1
7	8641-581-026	Washer, Flat 1/2" WCVD-18,WCVD-25	1
6	8641-582-016	Lockwasher 1/2" WCVD-18,WCVD-25	1
6	9545-060-001	Screw 5/8-11x1/1/2" WCVD-40	1
7	8641-581-032	Washer, Flat 5/8x2 1/4" WCVD-40	1
6	8641-582-018	Lockwasher 5/8" WCVD-40	1
8	9040-076-004	Drive Belt WCVD-18	1
8	9040-076-005	Drive Belt WCVD-25,WCVD-40	2
9	9081-135-001	Channel, Rear WCVD-25	1
9	9081-132-001	Channel, Rear WCVD-18	1
9	9081-134-001	Channel, Rear WCVD-40	1
10	9545-008-026	Screw	4
*	8640-399-008	Nut, Spring	4
11	9242-449-002	Hose, Overflow to drain WCVD-25 WCVD-40,WCVD-18	1
12	9242-463-003	Hose, Overflow Vent 12 1/4" WCVD-40	1
12	9242-463-001	Hose, Overflow Vent 9" WCVD-18	1
12	9242-463-002	Hose, Overflow Vent 11" WCVD-25	1
13	8654-117-008	Clamp, Hose Vent	1
13	8654-029-000	Clamp, Hose overflow to drain	2
*	9610-001-001	Vaccum Breaker ALL MODELS	1
*	9989-446-002	Panel Assy., Back WCVD-25	1
*	9989-446-001	Panel Assy, Back WCVD-40	1
*	9454-632-001	Panel, Back WCVD-18	1
*	9545-008-026	Screw Panel Mtg.#10Bx1/2"	10
*	8640-399-004	Nut, Spring WCVD-18,WCVD-25	10
*	8640-399-008	Nut, Spring WCVD-40	6
*	9545-030-002	Screw, to Base WCVD-40	3
14	9242-175-000	Hose, Pressure Switch WCVD-18,WCVD-25	1
14	9242-175-002	Hose, Pressure Switch WCVD-40	1
*	8654-117-015	Clamp, Pressure Sw. Hose	1
15	5198-211-004	Circuit Breaker, 1.5 amp optional	0
*	9200-001-002	Fuseholder	1
*	8636-018-001	Fuse 1.5 amp	1
16	9242-458-001	Hose, Vacuum Breaker to tub WCVD-18	1
16	9242-458-002	Hose, Vacuum Breaker to Tub WCVD-25, WCVD-40	1
*	8654-117-014	Clamp, Hose to Vacuum Breaker WCVD-18, WCVD-40	1
*	8654-117-008	Clamp, Hose to Vacuum Breaker WCVD-25	1
17	9029-027-003	Strap Bracket, Motor Tension	1

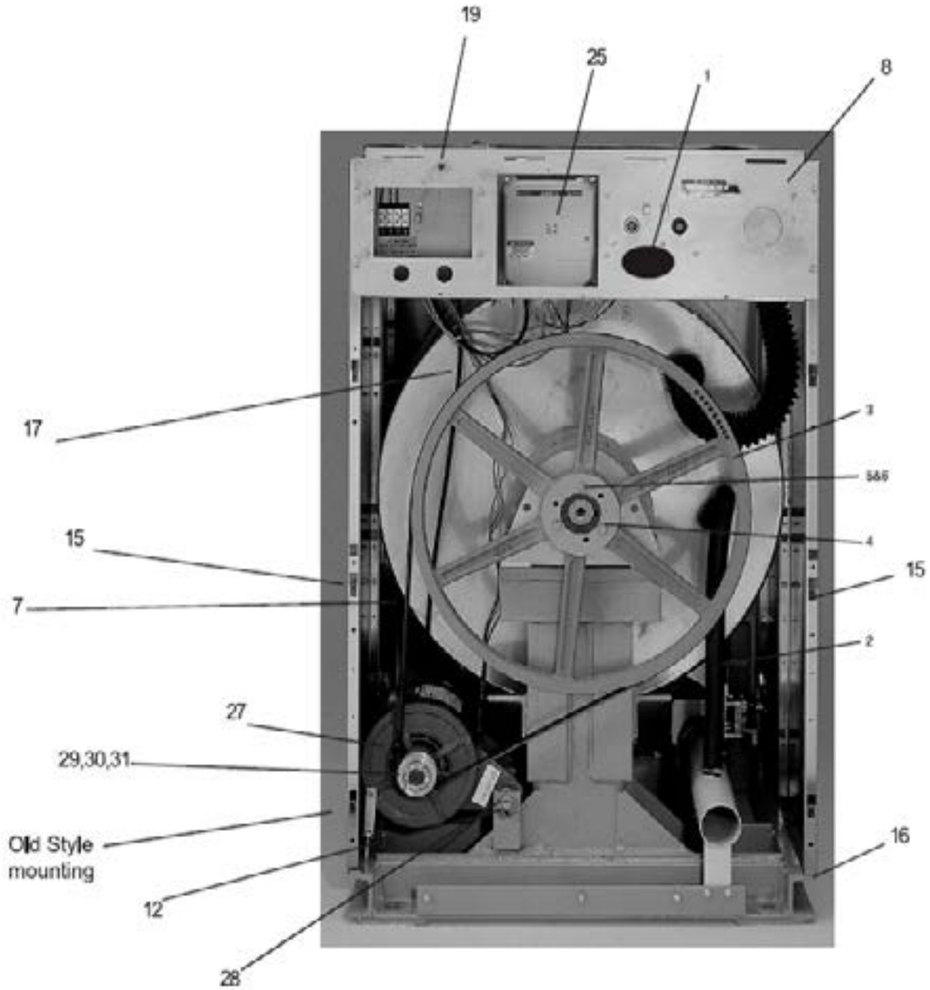
* Not Illustrated

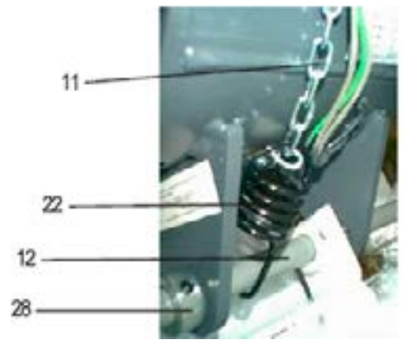


Key	Part Number	Description	Qty
18	8640-413-002	Nut, Strap to Motor	1
18	8641-581-006	Washer	1
19	9534-319-002	Spring, Belt Tension	1
20	9545-055-001	Bolt, Eye (1/4"-20x1/2")	1
21	8640-414-003	Nut, 1/4 Elastic Stop	1
23	9375-004-002	VFD Delta "S" drive WCVD-18-10 120 volt	1
23	9375-005-002	VFD Delta "S" drive WCVD-18-12	1
23	9375-007-002	VFD Delta "S" drive WCVD-25	1
23	9375-007-003	VFD Delta "S" drive WCVD-40	1
24	9483-004-002	Braking resistors (200 ohm) WCVD-18	1
24	9483-004-002	Braking resistors (200 ohm) WCVD-25,WCVD-40	2
25	9985-177-001	Bracket ass'y(drive mounting) WCVD-25,WCVD-40,WCVD-18	1

Rear View Access Part # WCVD-55, WCVD-75

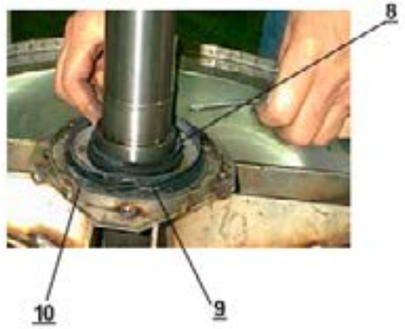
Key	Part Number	Description	Qty
2	9242-449-003	Hose, Overflow Vent 14" WCVD-75,WCVD-55	1
*	9242-463-004	Hose, Overflow to drain WCVD-75, WCVD-55	1
3	9453-176-005	Pulley, Driven WCVD-55,WCVD-75	1
4	9053-078-002	Bushing, TaperWCVD-55,WCVD-75	1
5	9545-029-011	Screw	3
6	8641-582-003	Lockwasher	3
7	9040-079-003	Drive Belt WCVD-75	1
7	9040-079-002	Drive Belt WCVD-55	1
8	9081-140-001	Channel, Rear WCVD-75	1
8	9081-109-001	Channel, Rear WCVD-55	1
9	9545-008-026	Screw	4
9	8640-399-008	Nut, Spring	4
10	8654-029-000	Clamp, Hose	2
11	9341-046-001	Link, Chain	1
11	9099-012-003	Chain (Spring Tension) WCVD-55	1
11	9099-012-004	Chain (Spring Tension) WCVD-75	1
12	9497-222-004	Rod, Motor Mtg WCVD-55,WCVD-75	1
12	9545-029-005	Screw (end of motor rod)	1
12	8641-582-014	Lockwasher (end of motor rod)	1
15	8640-399-008	Nut, Spring WCVD-55	6
15	8640-399-008	Nut, Spring WCVD-75	10
16	9545-030-002	Screw, to Base 1/4Bx3/4" WCVD-55,WCVD-75	3
17	9242-175-003	Hose, Pressure Switch WCVD-55	1
17	9242-175-006	Hose, Pressure Switch WCVD-75	1
*	8654-117-015	Clamp, Pressure Sw. Hose	1
19	5198-211-004	Circuit Breaker, 1.5 amp WCVD-55 (optional)	0
*	9200-001-002	Fuseholder	1
*	8636-018-001	Fuse 1.5 amp WCVD-55	1
*	8636-018-004	Fuse 2.5 amp WCVD-75	1
20	9242-458-003	Hose, Vacuum Breaker to tub WCVD-55, WCVD-75	1
*	8654-117-014	Clamp, Hose to Vacuum Breaker WCVD-75, WCVD-55	1
22	9534-151-000	Spring, Belt Tension	1
23	9545-055-001	Bolt, Eye (1/4"-20 x 2 1/2")	1
24	8640-414-003	Nut, 1/4 Elastic Stop	1
25	9375-009-002	VFD Delta "S" drive WCVD-55	1
25	9375-009-005	VFD Delta "S" drive WCVD-75	1
*	9483-004-003	Braking resistors (160 ohm) WCVD-55, WCVD-75	2
*	9985-115-001	Bracket ass'y(drive mounting) WCVD-55	1
*	9029-150-001	Bracket ass,y (drive mounting) WCVD-75	1
27	9376-298-001	Drive Motor WCVD-55, WCVD-75 3 phase inverter dot	1
28	9076-052-002	Collar, Shaft (w/set screws)	2
29	9453-175-002	Pulley, Motor WCVD-75,WCVD-55	1
30	9053-077-001	Bushing, Split Taper WCVD-55,WCVD-75	1
31	9545-018-021	Screw WCVD-75	3
31	9545-018-024	Screw WCVD-55	3
*	9989-455-001	Panel Assy., Back WCVD-55	1
*	9989-491-001	Panel Assy, Back WCVD-75	1
*	9545-008-026	Screw Panel Mtg.#10Bx1/2" WCVD-55	9
*	9545-008-026	Screw Panel Mtg.#10Bx1/2" WCVD-75	13

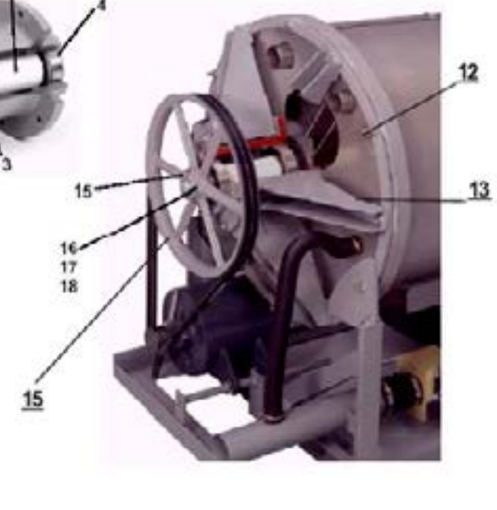




Cylinder, Seals, & Bearings Part # WCVD-18, WCVD-25, WCVD-40

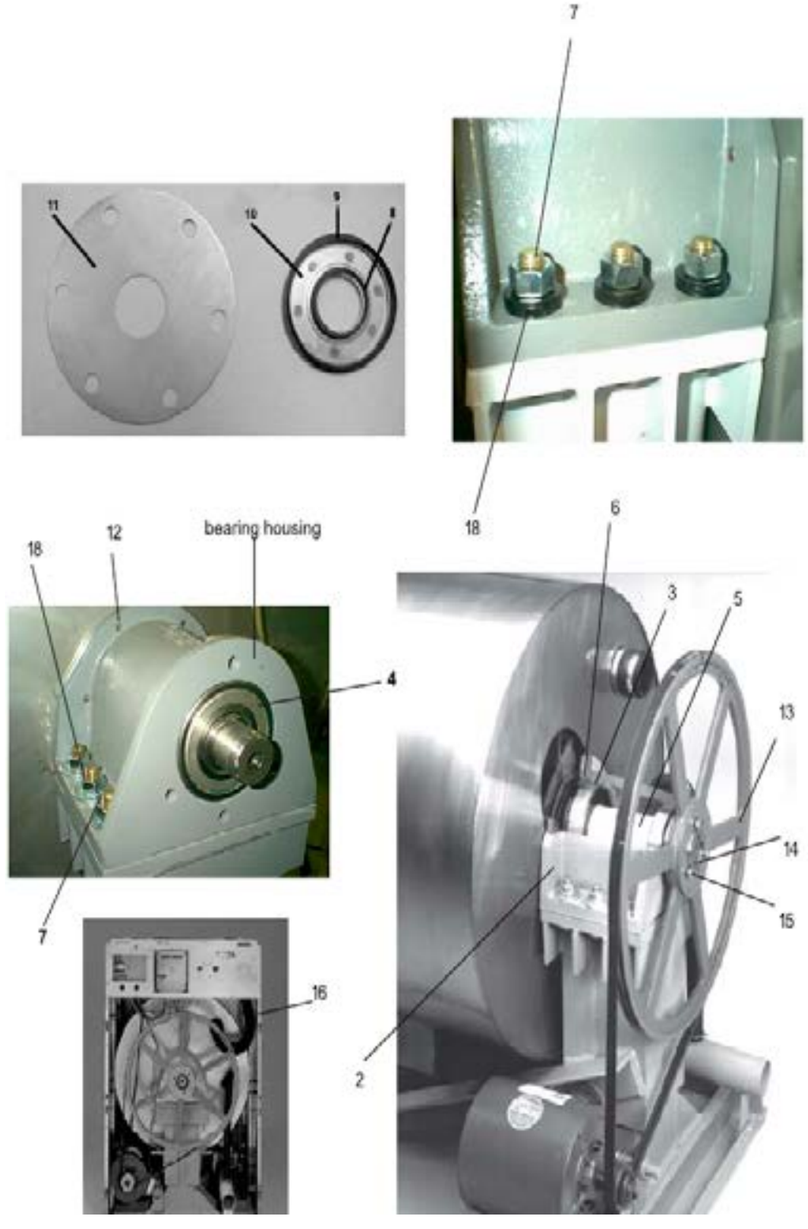
Key	Part Number	Description	Qty
*	9803-179-002	Housing, Bearing- Assembly (includes items #2-#6)WCVD-25	1
2	9241-169-002	Housing, Bearing	1
3	9036-159-002	Bearing, Front (LARGE)	1
4	9036-159-001	Bearing, Rear (SMALL)	1
5	9538-158-001	Spacer, Bearing	1
6	9487-238-001	Ring, Bearing Retainer (internal type)	1
*	9803-182-001	Housing, Bearing-Assembly (includes items #2-#6) WCVD-18	1
2	9241-174-002	Housing, Bearing	1
3	9036-159-001	Bearing, Front (LARGE)	1
4	9036-159-003	Bearing, Rear (SMALL)	1
5	9538-161-001	Spacer, Bearing	1
6	9487-238-002	Ring, Bearing Retainer	1
*	9803-186-001	Housing, Bearing-Assembly (includes items #2-#6) WCVD-40	1
2	9241-180-002	Housing, Bearing	1
3	9036-159-005	Bearing, Front (LARGE)	1
4	9036-159-004	Bearing, Rear (SMALL)	1
5	9538-167-001	Spacer, Bearing	1
6	9487-238-003	Ring, Bearing Retainer (Internal)	1
7	9732-137-001	BackAssy, Tub 2 piece WCVD-18	1
7	9732-137-002	BackAssy, Tub 2 piece WCVD-25	1
7	9732-137-003	BackAssy, Tub 2 piece WCVD-40	1
9	9532-140-004	Seal, Primary WCVD-18	1
8	9532-140-005	Seal, Secondary WCVD-18	1
8	9532-140-003	Seal, Secondary WCVD-25	1
9	9532-140-002	Seal, Primary WCVD-25, WCVD-40	1
8	9532-140-006	Seal, Secondary WCVD-40	1
10	9950-047-001	Ring, Seal Mounting WCVD-18	1
10	9950-042-001	Ring, Seal Mounting WCVD-25	1
10	9950-048-001	Ring, Seal Mounting WCVD-40	1
11	9487-261-001	Tub Back Mating Ring WCVD-18	1
11	9487-261-002	Tub Back Mating Ring, WCVD-25	1
11	9487-261-003	Tub Back Mating Ring, WCVD-40	1
12	9545-017-009	Bolt, 1/2" Tub End of Bearing Housing (1/2" x 1 1/4") WCVD-25	6
12	8640-417-002	Nut 1/2'	6
12	8641-582-016	Lockwasher 1/2" (ext. tooth)	6
12	9545-060-001	Bolt 5/8-11x11/2" Tub end of bearing housing WCVD-40	6
12	8640-425-001	Nut 5/8"	6
12	8641-582-018	Lockwasher 5/8"	6
13	9991-049-002	SupportArmAssy, Bearing Housing WCVD-18	6
13	9991-048-002	Support Arm Assy., Bearing Housing WCVD-25	6
13	9991-056-002	SupportArmAssy, Bearing Housing WCVD-40	6
16	9545-029-003	Bolt Pulley End of Bearing Housing (3/8" x 1 1/2") WCVD-25	6
16	8640-415-004	Nut, Flange Locking 3/8" WCVD-25	6
16	9545-059-003	Bolt Pulley end of bearing housing 7/16-14x2" WCVD-40	6
16	8640-416-005	Nut, Flange Locking 7/16" WCVD-40	6
15	9453-168-003	Puley, Driven WCVD-40	1
15	9453-168-004	Pulley, Driven WCVD-25	1
15	9908-041-002	Pulley, Driven WCVD-18	1
*	9487-234-001	Ring, Tolerance WCVD-25 Between shaft and pulley	1
*	9487-234-002	Ring, Tolerance WCVD-18 Between shaft and pulley	1
*	9487-234-003	Ring, Tolerance WCVD-40 Between shaft and pulley	1
16	8641-581-026	Washer 1/2" WCVD-18,WCVD-25	1
17	9545-017-009	Bolt 1/2-13 x 1 1/4"	1
18	8641-582-016	Lockwasher 1 /2" Ext. tooth	1
16	8641-060-001	Bolt 5/8-11x11/2" WCVD-40	1
17	8641-581-032	Washer 5/8"	1
18	8641-582-018	Lockwasher 5/8 Ext. tooth	1





Cylinder, Seals, & Bearings Part # WCVD-55, WCVD-75

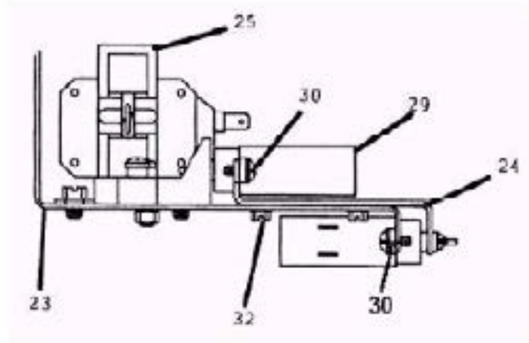
Key	Part Number	Description	Qty
1	9848-116-001	Cylinder, Assy WCVD-55	1
1	9848-125-001	Cylinder, Assy WCVD-75	1
*	9869-009-001	Tub and Cylibnder Assy. WCVD-55	1
*	9869-015-001	Tub and Cyclinder Assy. WCVD-75	1
*	9803-187-001	Housing&Bearing Assembly WCVD-55,WCVD-75 (includes items #2-#6)	1
2	9241-181-004	Housing, Bearing	1
3	9036-159-006	Bearing, Front	1
4	9036-159-005	Bearing, Rear	1
5	9538-170-001	Spacer, Bearing	1
6	9487-238-004	Ring-Retainer, Internal	1
7	9545-057-002	Screw, Bearing Housing, 3/4-10 x 3 WCVD-55,WCVD-75	6
7	8641-581-033	Washer, Flat- To Frame WCVD-55	6
7	8641-582-020	Washer, External Tooth WCVD-55	6
7	8640-418-003	Nut 3/4-10 WCVD-55,WCVD-75	6
8	9532-140-008	Seal, Secondary (small) WCVD-55,WCVD-75	1
9	9532-140-007	Seal, Primary (large) WCVD-55,WCVD-75	1
10	9950-052-001	Ring, Seal Mtg WCVD-55,WCVD-75	1
11	9487-261-004	Ring, Seal Tub Back WCVD-55,WCVD-75	1
12	9545-059-004	Screw, 7/16-14 x 1 SS (Tub Back to Bearing Housing) WCVD-55, WCVD-75	6
12	8641-581-034	Washer, Flat WCVD-55,WCVD-75	6
13	9453-176-005	Pulley, Driven WCVD-55,WCVD-75	1
14	9053-078-002	Bushing, Taper WCVD-55,WCVD-75	1
15	9545-029-011	Screw 3/8-16-2	3
15	8641-582-003	Lockwasher spring 3/8	3
16	9241-466-002	Hose, Fill 19" WCVD-75	2
17	8654-117-017	Clamp	4
18	8641-588-001	Washers Spherical 3/4 (Male half) WCVD-75 Required	6
18	8641-588-002	Washers Spherical 3/4 (Female half) WCVD-75 Required	6

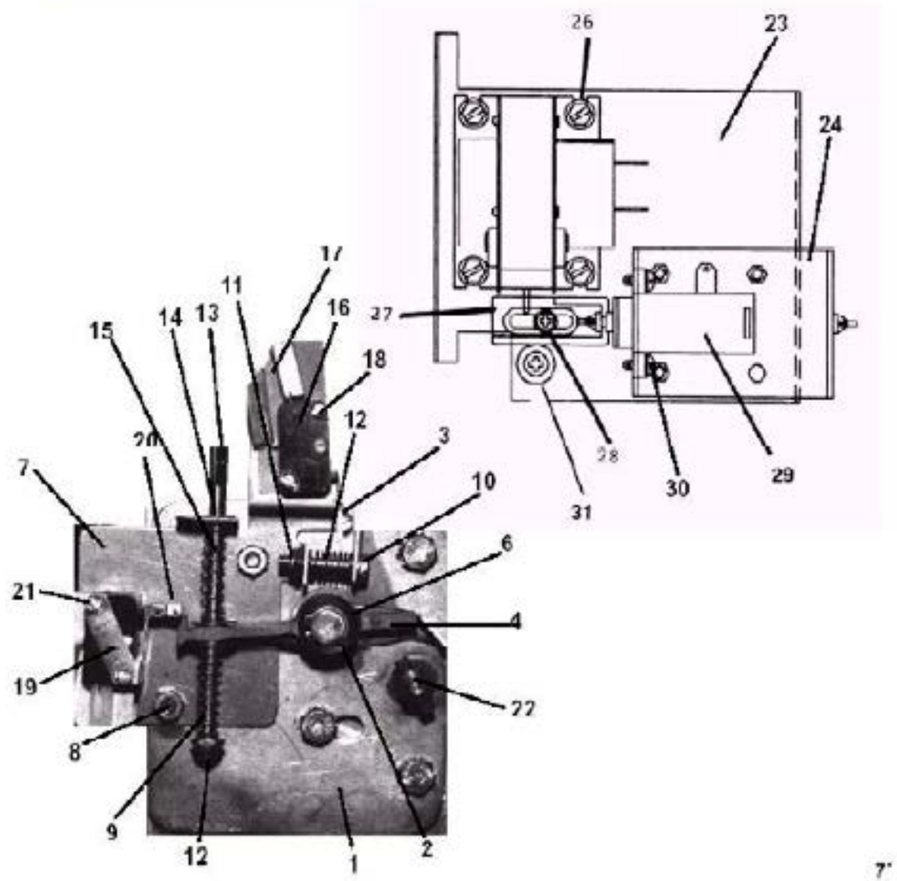


Door Latching & Lock Group (All Models)

Key	Part Number	Description	Qty
*	9885-023-001	Lock Assy, Complete (includes #1 thru #22)	1
*	9732-347-001	Door Lock & Cam Kit (replaces 9885-023-001)	1
1	9982-284-001	Plate Assy, Door Lock	1
2	8641-581-030	Washer, Flat	1
3	9008-005-001	Actuator, Latching Switch	1
4	9450-002-002	Pawl, Locking	1
5	8641-569-003	Washer, Spring	1
6	9487-200-004	Ring, Retaining	1
7	9029-035-001	Bracket, Switch	1
8	8640-413-002	Nut, Hex 10-32 UNF	2
9	9534-364-002	Spring, Actuating	1
10	9545-012-020	Screw, Hx. 10-32 x 1”	1
11	8640-413-004	Nut, Elastic Stop 10-32	2
12	9534-364-001	Spring, Return	2
13	9451-193-001	Pin, Guide	1
14	9487-200-005	Ring, Retaining	1
15	8641-581-031	Washer	2
16	9539-461-008	Switch, Latching Sensing	1
17	9550-169-003	Shield, Switch	3
18	9545-020-001	Screw 4-40 x 5/8”	2
18	8640-401-001	Nut, Twin	1
19	9539-461-007	Switch, Locking Sensing	2
20	9008-006-002	Actuator, Switch	2
21	9545-020-003	Screw 4-40 x 1 1/8”	2
21	8640-401-001	Nut, Twin 4-40	1
22	9451-181-004	Pin, Dowel	1
*	9552-037-001	Shim, Door Lock, Thin	AR
*	9552-037-002	Shim, Door Lock, Thick	AR
*	9545-018-004	Screw, Lock mtg 1/4”-20 x 3/4”	3
*	8641-582-007	Lockwasher 1/4” Ext tooth	3
*	9922-011-001	Solenoid Ass’y, Door Locking (includes 23 thru 32)	1
23	9029-073-001	Bracket, (Door Locking Solenoid)	1
24	9985-169-001	Bracket Ass’y, Solenoid Slide	1
25	9536-074-001	Solenoid 120V 60 hz	1
26	9545-008-001	Screw, Solenoid Mtg	4
27	9540-033-002	Stop, Door Lock Solenoid	1
28	9545-061-001	Screw, Shoulder	1
28	8640-411-003	Nut, Keps #6	1
29	9586-001-001	Thermoactuator 120 V	2
30	9545-031-011	Screw #6 x 5/16”	4
31	9538-157-004	Spacer, Plastic	1
31	9538-166-004	Spacer, Metal	1
31	9545-010-001	Screw, Cross Recessed	1
31	8640-412-005	Nut, Keps #8	1
32	8640-411-003	Nut, Keps #6	1
*	8640-412-005	Nut, Sol. Brkt. to Control Panel	3
*	9497-225-006	Rod, Pull	1

* Not Illustrated

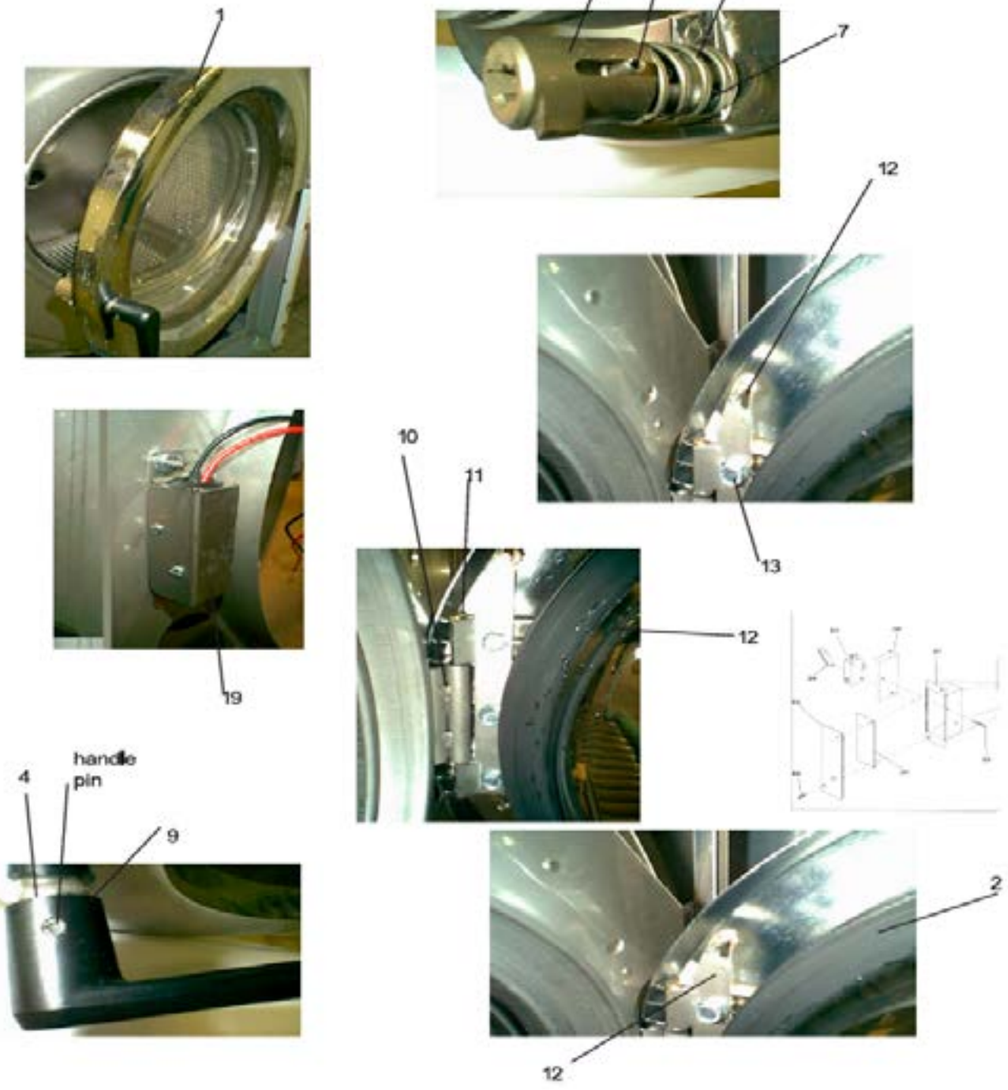




Loading Door Group by Part # WCVD-18

Key	Part Number	Description	Qty
*	9960-273-001	Loading Door, Complete (includes 1 thru 10)	1
1	9487-264-001	Loading Door, Ring	1
2	9206-411-002	Gasket, Loading Door	1
3	9635-018-001	Window, Loading Door	1
*	9913-134-003	Shaft Assy, Locking (includes 4 thru 7)	1
4	9537-195-002	Shaft, Door Locking	1
5	9095-040-001	Cam, Locking	1
6	9451-181-005	Pin, Groove (1 1/4)	1
7	9451-181-004	Pin, Groove (3/4)	1
8	9534-360-002	Spring, Lock Cam	1
9	9244-080-003	Handle, Door	1
*	9451-181-006	Pin, Door Handle (groove)	1
10	9955-029-002	Loading Door Hinge Assy (mounts to Tub Front)	1
*	9545-014-009	Screw, Hinge Mtg 5/16" x 3/4"	3
*	8641-582-009	Lockwasher 5/16" Ext tooth	3
*	9552-036-001	Shim, Loading Door Hinge, Thin	AR
*	9552-036-002	Shim, Loading Door Hinge, Thick	AR
11	9451-184-004	Door Hinge Pin (mounts inside Loading Door Hinge Assy)	1
*	8649-031-000	Ring, Retaining (snap ring ext)	1
12	9079-122-002	Loading Door Hinge Clamp (mounts to door ring)	1
13	9545-056-001	Screw, Loading Door Mtg (5/16" Theard Forming)	3
14	9950-059-001	Ring, Masking	1
*	9059-063-002	Band, Edge (mounts to Front Panel)	1
*	8640-413-002	Nut, Keps	4
15	9539-461-007	Switch,Safety	1
16	9550-159-001	Sheild, Safety Switch	1
17	8220-062-027	Wires-Red	1
18	8220-062-028	Wires-Black	1
19	9801-089-001	Switch Assembly Complete Door Closure (includes 20-26)	1
D1	9041-087-001	Switch Box	1
21	9053-067-003	Bushing Insulating	1
D3	9539-461-007	Switch,Micro	1
D2	9550-159-001	Switch, Shield	1
D4	8640-401-001	Nut Special Twin #4-40	1
D8	9545-020-001	Screw 4-40x5/8	2
D7	9008-004-001	Door Switch Actuator	1

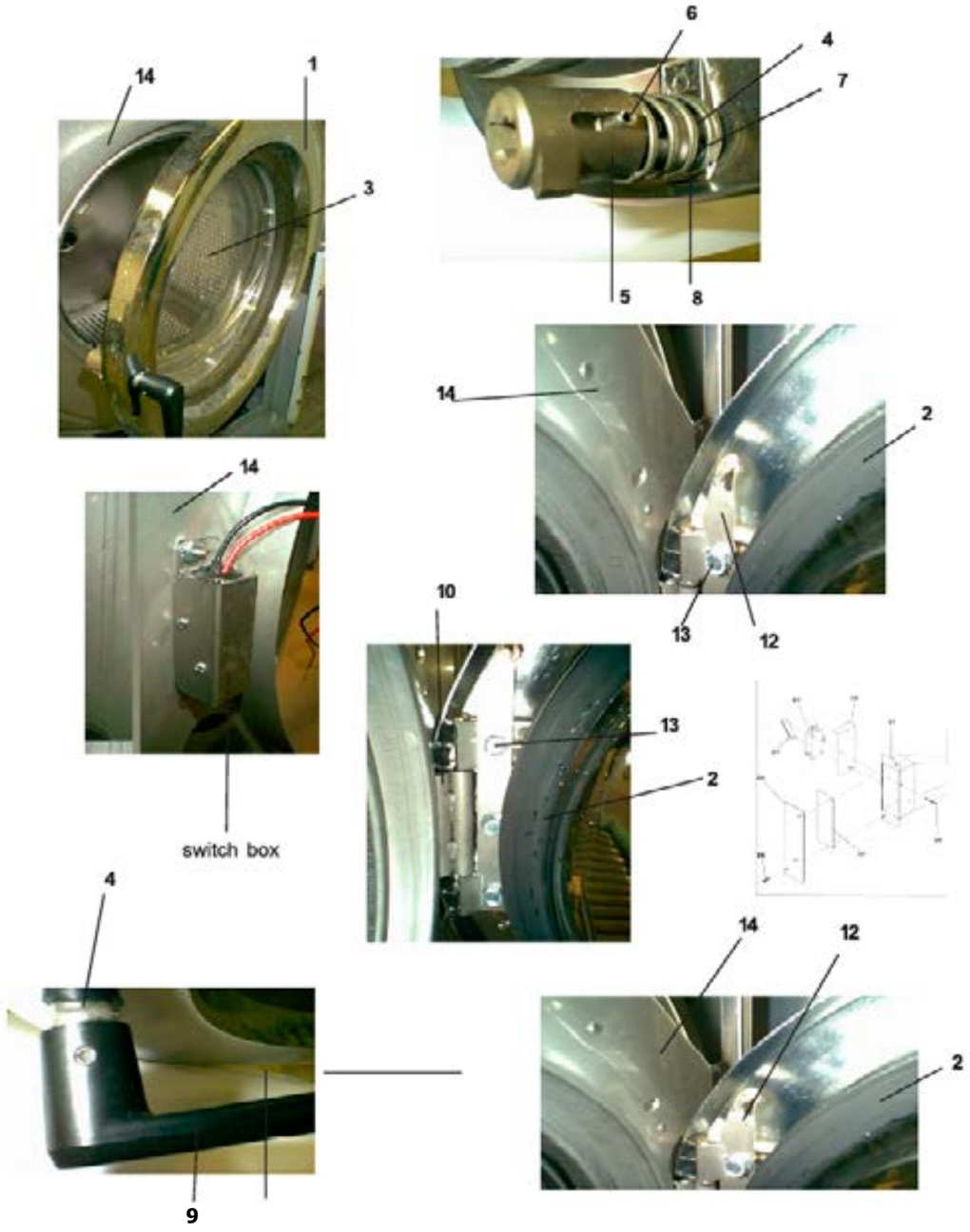
* Not Illustrated



Loading Door Group by Part
WCVD-25, WCVD-40, WCVD-55

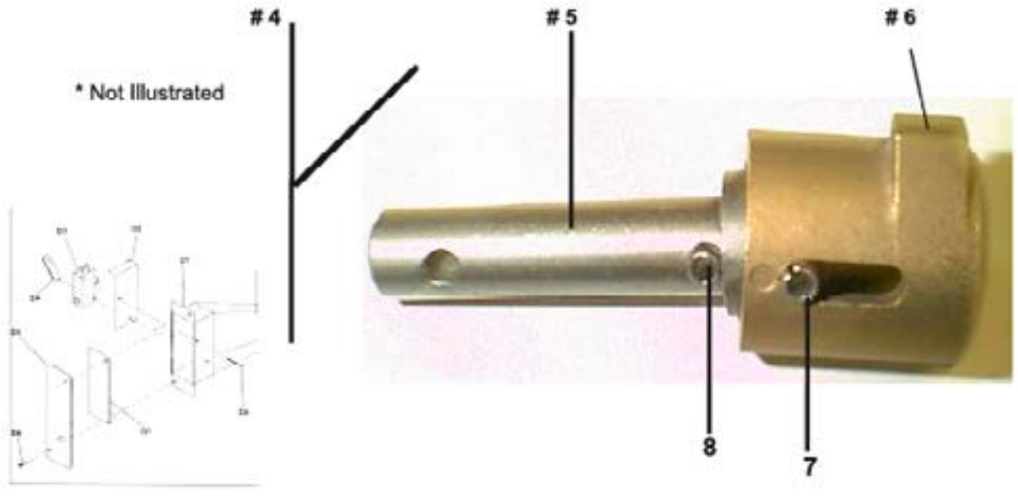
Key	Part Number	Description	Qty
*	9960-274-002	Loading Door, Complete (includes 1 thru 10)	1
1	9487-265-001	Loading Door, Ring	1
2	9206-419-001	Gasket, Loading Door	1
3	9635-016-001	Window, Loading Door	1
*	9913-134-003	Shaft Assy, Locking (includes 4 thru 7)	1
4	9537-195-002	Shaft, Door Locking	1
5	9095-040-001	Cam, Locking	1
6	9451-181-005	Pin, Groove (1 1/4)	1
7	9451-181-004	Pin, Groove (3/4)	1
8	9534-360-002	Spring, Lock Cam	1
9	9244-080-003	Handle, Door	1
*	9451-181-006	Pin, Door Handle (groove)	1
10	9955-029-002	Loading Door Hinge Assy (mounts to Tub Front)	1
*	9545-014-009	Screw, Hinge Mtg 5/16" x 3/4"	3
*	8641-582-009	Lockwasher 5/16" Ext tooth	3
*	9552-036-001	Shim, Loading Door Hinge, Thin	AR
*	9552-036-002	Shim, Loading Door Hinge, Thick	AR
11	9451-184-004	Door Hinge Pin(mounts inside Loading Door Hinge Assy)	1
*	8649-031-000	Ring, Retaining (snap ring ext)	1
12	9079-122-002	Loading Door Hinge Clamp (mounts to door ring)	1
13	9545-056-001	Screw, Loading Door Mtg 5/16" Theard Forming)	3
14	9950-060-001	Ring, Masking	1
*	9059-063-002	Band, Edge (mounts to Front Panel)	1
*	8640-413-002	Nut, Kepsfor mounting masking ring	4
*	9627-791-003	Wiring Harness doorlock safety switch	1
*	9801-089-001	Switch assembly Door Closure includes all **	1
D1	9041-087-001	Switch Box	1
**	9053-067-003	Bushing Insulating	1
D3	9539-461-007	Switch, Micro	1
D2	9550-159-001	Switch, Shield	1
D4	8640-401-001	Nut Special Twin #4-40	1
D8	9545-020-001	Screw 4-40x5/8	2
D7	9008-004-001	Door Switch Actuator	1

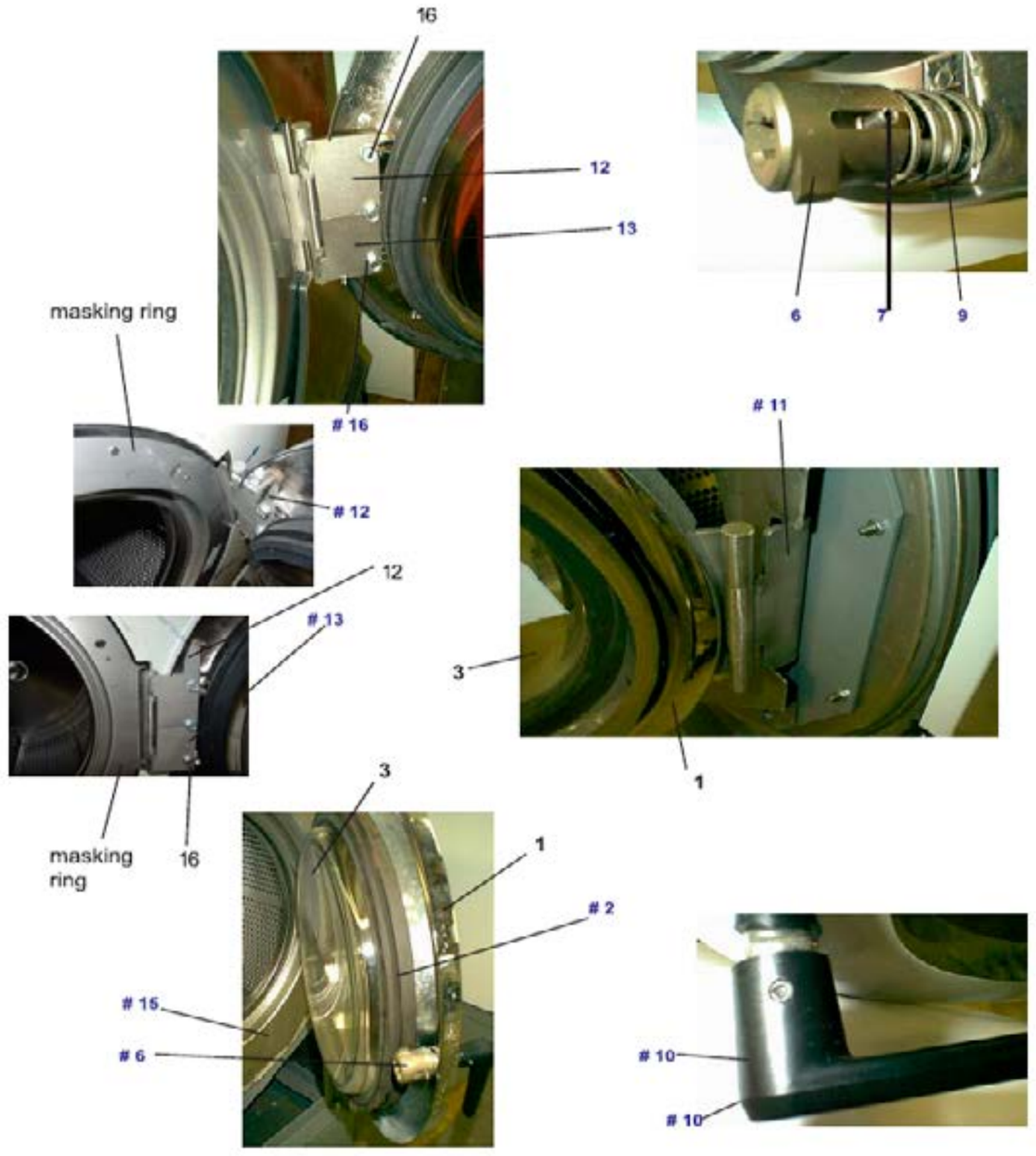
* Not Illustrated



Loading Door Group by Part # WCVD-75 (180 Door)

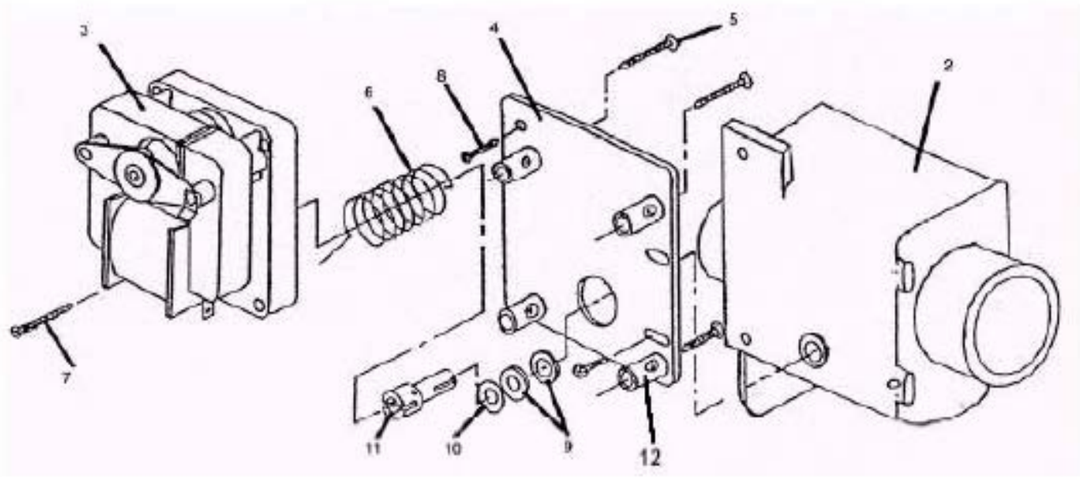
Key	Part Number	Description	Qty
*	9960-274-004	Loading Door, Complete (includes #1thru #10)	1
1	9487-265-002	Loading Door Ring 180 degree	1
2	9206-419-001	Gasket, Loading Door	1
3	9635-016-001	Window, Loading Door	1
4	9913-134-003	Shaft Assy. Locking (includes #5 thru #8)	1
5	9537-195-002	Shaft, Door Locking	1
6	9095-040-001	Cam, Locking	1
7	9451-181-005	Pin, Groove (1 1/4)	1
8	9451-181-005	Pin, Groove (3/4)	1
9	9534-360-002	Spring, Lock Cam	1
10	9244-080-003	Handle, Door	1
17	9451-181-006	Roll Pin, Door Handle (groove)	1
11	9955-030-001	Hinge Assy, Loading Door (mounts to tub front)	1
*	9545-014-009	Screw, Hinge Mtg	3
*	8641-582-009	Lockwasher	3
*	9552-036-001	Shim, Loading Door Hinge, Thin	AR
*	9552-036-002	Shim, Loading Door Hinge, Thick	AR
12	9845-005-003	Top, Loading Door Leaf Hinge.with pin	1
13	9845-005-002	Bottom, Loading Door Leaf Hinge	1
16	9545-056-002	Screw, Loading Door Hinge Mtg	3
15	9950-060-002	Ring, Masking w door switch hole	1
*	8640-413-002	Nut	4
*	9059-063-002	Band Edge Protector	1
*	9801-089-001	Door Closure Switch Assembly	1
D1	9041-087-001	Switch Box	1
*	9053-067-003	Bushing Insulating	1
D3	9539-461-007	Switch, Micro	1
D2	9550-159-001	Switch, Shield	1
D4	8640-401-001	Nut Special Twin #4-40	1
D8	9545-020-001	Screw 4-40x5/8	2
D7	9008-004-001	Door Switch Actuator	1





Drain Valve Group by Part

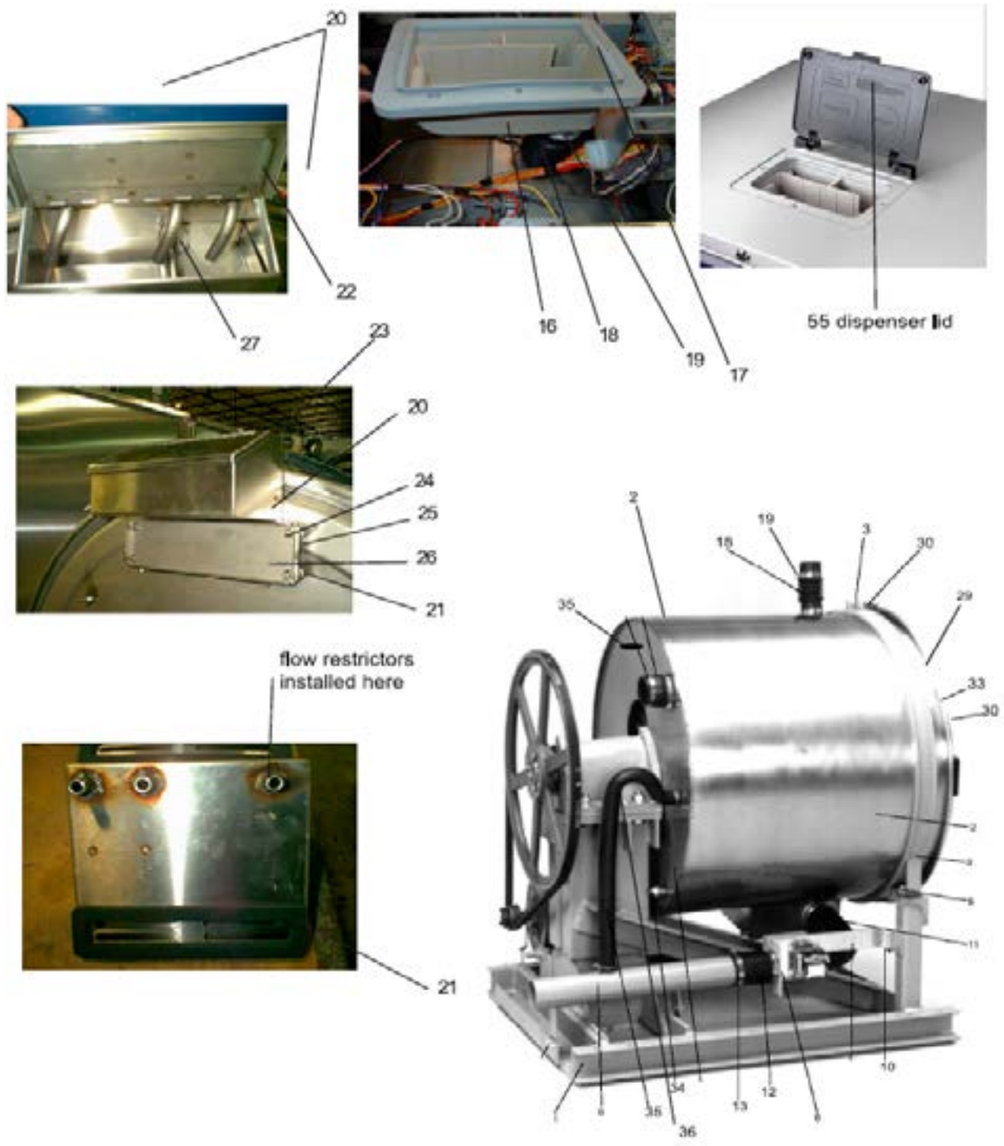
Key	Part Number	Description	Qty
*	9379-187-001	Valve, Drain (includes 2-11) (3") WCVD-25, WCVD-40, WCVD-55, WCVD-75	1
2	9064-070-001	Body, Valve (w/ball) WCVD-25, WCVD-40, WCVD-55, WCVD-75	1
3	9914-137-001	Motor & Gear Train	1
4	9452-538-001	Plate, Motor Mtg	1
5	8639-994-001	Screw	3
6	9534-339-001	Spring, Drive WCVD-25, WCVD-40, WCVD-55, WCVD-75	1
7	9545-054-001	Screw	2
8	9545-054-002	Screw	1
9	9532-134-001	Seal, V Packer	2
10	8641-584-001	Washer	1
11	9451-196-001	Pin, Main Drive	1
12	9538-149-001	Plate (spacers needed for replacement motor mtg. plate)	4
*	9379-177-006	Valve, Drain (includes #2 thru #11) WCVD-18	1
2	9064-068-001	Body, Valve (w/ball) WCVD-18	1
3	9914-137-001	Motor & Gear Train	1
4	9452-538-001	Plate, Motor Mtg	1
5	8639-994-001	Screw	3
6	9534-340-001	Spring, Drive WCVD-18	1
7	9545-054-001	Screw	2
8	9545-054-002	Screw	1
9	9532-134-001	Seal, V Packer	2
10	8641-584-001	Washer	1
11	9451-196-001	Pin, Main Drive	1
12	9538-149-001	Plate (spacers needed for replacement motor mtg. plate)	4



Chassis and Drain Group by Part # WCVD-55, WCVD-75

Key	Part Number	Description
1	9945-105-002	Base Assy, Frame WCVD-55.....1
1	9945-125-002	Base Assy, Frame WCVD-75.....1
2	9930-138-001	Outer Tub Assy WCVD-55.....1
2	9930-144-001	Outer Tub Assy WCVD-75.....1
3	9950-053-002	Ring Assy, Tub Mtg-Front WCVD-55, WCVD-75.....1
4	9545-017-013	Screw Hexhead 1/2 x 2 WCVD-75,WCVD-55.....1
4	8640-417-005	Nut Whizlok WCVD-75.....1
4	8640-417-002	Nut Hex, 1/2 -13 WCVD-55.....3
4	8641-582-016	Lockwasher Exttooth 1/2" WCVD-55.....3
5	9545-017-013	Bolt, 1/2-13x2, Grd 5 Tub to Base WCVD-75, WCVD-55.....2
5	8641-581-026	Washer, Flat WCVD-55.....2
5	8641-581-026	Washer, Flat WCVD-75.....4
5	9552-013-001	Shim, Thin.....4
5	9552-013-002	Shim, Thick.....4
6	9379-187-001	Valve, Drain 3" OD WCVD-55,WCVD-75.....1
9	9915-126-002	Tube Assy, Drain WCVD-75.....1
9	9915-120-002	Tube Assy, Drain WCVD-55.....1
10	9545-030-002	Screw, Tube Mtg.....2
11	9242-459-001	Hose, Tub to Drain Valve.....1
12	9242-457-001	Hose, Drain Valve to Tube WCVD-55,WCVD-75.....1
13	8654-117-014	Clamp, Hose.....5
*	9610-001-001	Vacuum Breaker WCVD-55, WCVD-75.....1
*	9029-069-001	Bracket, Vacuum Breaker WCBVD-55, WCVD-75.....1
*	9545-008-026	Screw #10Bx 1/2.....4
*	8654-117-001	Clamp.....4
16	9732-108-002	Dispenser WCVD-55.....1
16	9475-002-002	Flow restrictor (All except 75).....2
17	9475-002-003	Flow restrictor WCVD-75.....3
17	9206-416-001	Gasket, Dispenser WCVD-55.....1
18	9242-450-001	Hose, Dispenser to Tub WCVD-55.....1
19	8654-117-008	Clamp, Dispenser Hose WCVD-55.....2
20	9807-091-001	Soap Box Assembly Complete SS WCVD-75.....1
21	9206-425-001	Soap Box mounting Gasket WCVBD-75.....1
22	9987-104-001	Lid Assembly soap box WCVD-75.....1
23	9545-012-017	Lid screws #10-32x1/2 SS WCVD-75.....1
24	8640-413-006	Nut Hex Elasticstop #10-32 SS WDCV-75.....4
25	9538-157-019	Spacer Plastic #10x1/2 WCVD-75.....4
26	9029-148-001	Bracket Soap box mounting WCVD-75.....1
27	9574-252-002	Softner siphon tube WCVD-75.....1
28	9475-002-003	Flow restictors WCVD-75.....3
29	9974-007-002	FrontAss'y, Tub WCVD-55, WCVD-75.....1
30	9950-055-001	RingAss'y, Clamp (tub front to outer tub) WCVD-55,WCVD-75.....1
31	9545-029-009	Screw, 3/8-16x3 WCVD-55, WCVD-75.....1
32	8640-415-001	Nut, Hex 3/8-16 WCVD-55, WCVD-75.....1
33	9206-421-002	Gasket, Tub Front WCVD-55, WCVD-75.....1
34	8615-104-039	Pipe Plug WCVD-55, WCVD-75.....2
35	9242-449-003	Hose, OverflowWCVD-55, WCVD-75.....1
36	8654-029-000	Clamp, Hose WCVD-55, WCVD-75.....2

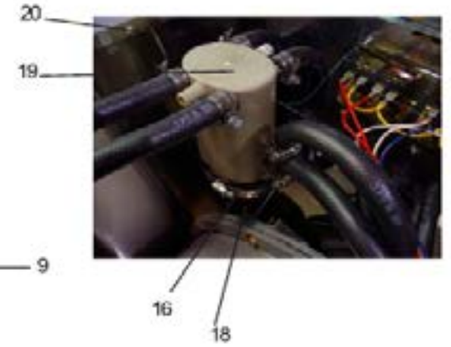
* Not Illustrated

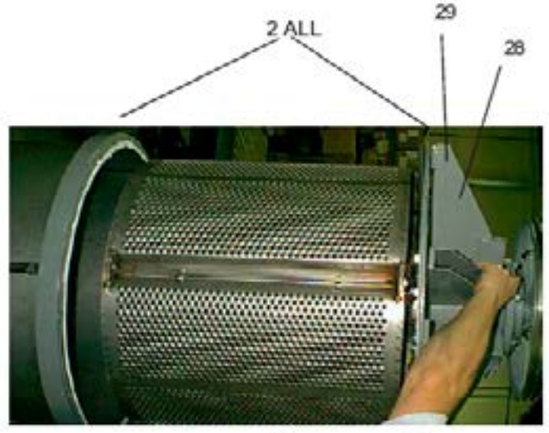


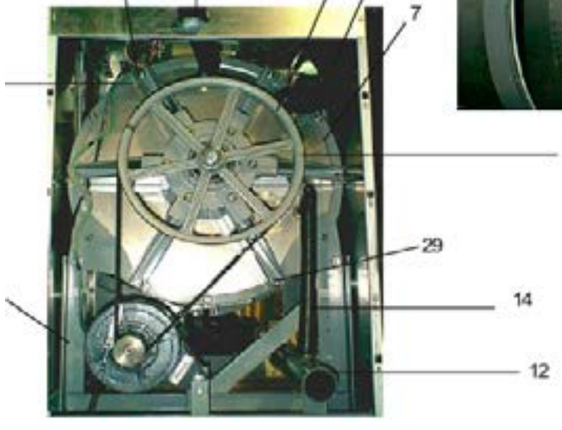
Chassis and Drain Group by Part # WCVD-18, WCVD-25, WCVD-40

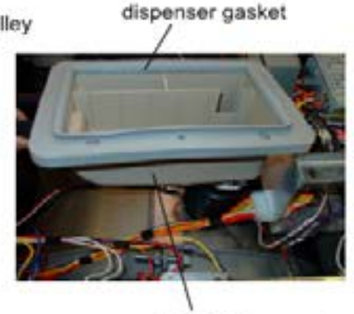
Key	Part Number	Description
1	9945-097-002	Base Assy, Frame WCVD-40....1
1	9945-093-002	Base Assy,Frame WCVD-18....1
1	9945-105-002	Base Assy, Frame WCVD-55....1
1	9945-087-002	Base Assy,Frame WCVD-25....1
2	9930-136-001	Tub Assy WCVD-40,....1
2	9930-135-001	Tub Assy WCVD-18....1
2	9930-137-001	Tub Assy WCVD-25....1
2	9930-138-001	Tub Assy WCVD-55....1
*	9869-006-001	Tub & Cylinder Assy WCVD-18....1
*	9869-008-001	Tub & Cylinder Assy WCVD-25....1
*	9869-007-001	Tub & Cylinder Assy WCVD-40....1
*	9869-009-001	Tub & Cylinder Assy WCVD-55....1
3	9967-009-002	Cradle Assy, Tub WCVD-40....1
4	9950-050-002	Ring Assy, Tub Mtg-Front WCVD-40....2
5	9545-060-003	Bolt, Top Front Ring 5/8" x 3" WCVD-40....1
5	8640-425-001	Nut WCVD-40....1
5	8641-582-018	Lockwasher WCVD-40....1
6	9545-060-002	Bolt,5/8 x 2 1/2 Frnt Rng to Crdl (double nuts used) WCVD-40....2
6	8640-425-001	Nut, Hex WCVD-40....4
7	9950-041-004	Ring Assy.Clamp Tub Mtg.- Rear....2
8	9545-060-001	Bolt, 5/8 x 1 1/2 Rings to Base (front and rear)....4
8	8641-582-018	Lockwasher....4
8	8640-425-001	Nut, Hex 5/8-11....4
9	9379-187-001	Valve, Drain....1
10	9029-052-001	Bracket, Drain Valve....1
*	9545-048-001	Screw, Valve to Bracket 12ABx1/2....1
*	8641-581-018	Washer....1
11	9545-030-002	Screw, Bracket to Base 1/4Bx3/4....2
12	9915-118-002	Tube Assy, Drain....1
13	9545-030-002	Screw, Tube Mtg....2
14	9242-456-001	Hose, Tub to Drain Valve....1
15	9242-457-001	Hose, Drain Valve to Tube....1
16	8654-117-014	Clamp, Hose....4
17	9552-038-001	Shim, Support Assembly (thin)....AR
18	9242-458-002	Hose, Vacuum Brkr. to Tub....1
19	9610-001-001	Vacuum Breaker....1
20	9029-077-001	Bracket, Vacuum Breaker....1
21	9545-008-026	Screw #10Bx 1/2....4
*	9732-108-002	Dispenser....1
*	9206-416-001	Gasket, Dispenser....1
*	8640-399-007	Nut Spring....4
*	9242-450-001	Hose, Dispenser to Tub....1
*	8654-117-008	Clamp, Dispenser Hose....2
27	9732-137-003	Back Ass'y, Tub....1
28	9991-056-002	SupportArmAss'y, Bearing Housing....6
29	9545-059-002	Bolt, 7/16" x 2" Tub Back to Tub....12
29	8640-416-005	Nut, Flange Lock....12
*	9552-038-003	Shim (thick)....AR

* Not Illustrated









Water Inlet & Rear Channel Group by Part

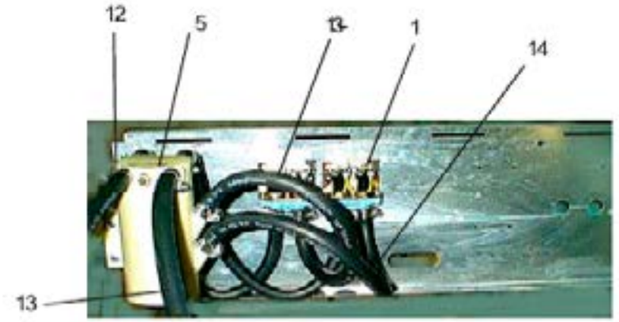
Water Inlet Breakdown

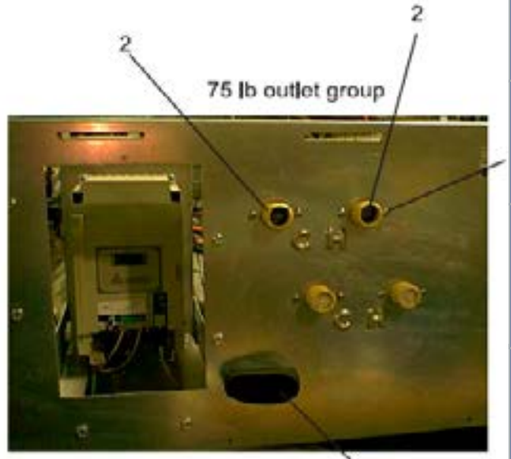
Key	Part Number	Description	Qty
*	9379-183-003	Valve, Water Inlet (includes 1 thru 6)	2
1	9555-056-001	Screen, Inlet end of valve	2
2	9089-017-001	Coil Assy., 120 V.	2
3	9118-049-001	Diaphragm	2
4	9211-021-002	Guide, Solenoid	2
5	9015-008-001	Armature	2
6	9534-298-001	Spring, Armature	2

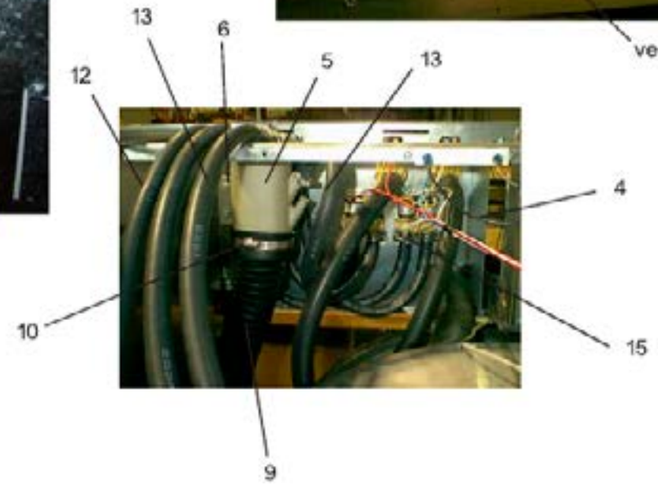
Water Inlet & Rear Channel

*	9379-192-001	Valve, Water Inlet (dual outlet) WCVD-75	2
*	9379-194-001	Valve, Water Inlet (single outlet) WCVD-75	2
*	9545-008-026	Screw, Valve Mtg WCVD-18, WCVD-25, WCVD-40, WCVD-55	2
3	8640-399-009	Nut, Spring WCVD-18, WCVD-25, WCVD-40, WCVD-55	4
*	9545-064-001	Screw, Valve M4x0.7x8mm WCVD-75	8
4	9208-049-001	Guard, Water valve Terminal	1
5	9610-001-001	Vacuum Breaker	1
6	9029-069-001	Bracket, Vacuum Breaker	1
7	9545-008-026	Screw	4
*	9550-186-001	Shield over Water Valves Plastic WCVD-18, WCVD-25, WCVD-40, WCVD-55	1
9	9242-458-003	Hose, Vacuum Breaker to Tub	1
10	8654-117-014	Clamp, Vacuum Breaker End	1
11	8654-117-009	Clamp, Tub End	1
12	9242-453-018	Hose, Vac. Brkr. to Disp.29" WCVD-55	1
12	9242-453-019	Hose, Vac. Brkr. to Disp.26" WCVD-55	1
13	9242-453-020	Hose, Hot Valve to Vac. Brkr 18"	1
13	9242-453-020	Hose, Hot Valve to Tub 18"	1
14	9242-453-020	Hose, Cold Valve to Vac. Brkr 18"	1
14	9242-453-020	Hose, Cold Valve to Tub 18"	1
12	9242-453-022	Hose, Vac. Brkr. dispenser 43" WCVD-75	3
13	9242-453-009	Hose, (valve to vac. Brkr) 23" WCVD-75	4
*	8654-029-000	Clamp, Hose-Spring (overflow from drain to tub back)	2
15	8654-117-015	Clamp, Hose-Worm	10
18	5198-211-004	Circuit Breaker (optional)	1
18	9200-001-002	Fuseholder	1
18	8636-018-001	Fuse 1.5 amp WCVD-18, WCVD-25, WCVD-40, WCVD-55	1
18	8636-018-004	Fuse 2.5 amp WCVD-75	1
19	8502-716-001	Label Fuse 1.5 amp WCVD-18, WCVD-25, WCVD-40, WCVD-55	1
*	8502-716-002	Label Fuse 2.5 amp WCVD-75	1

* Not Illustrated

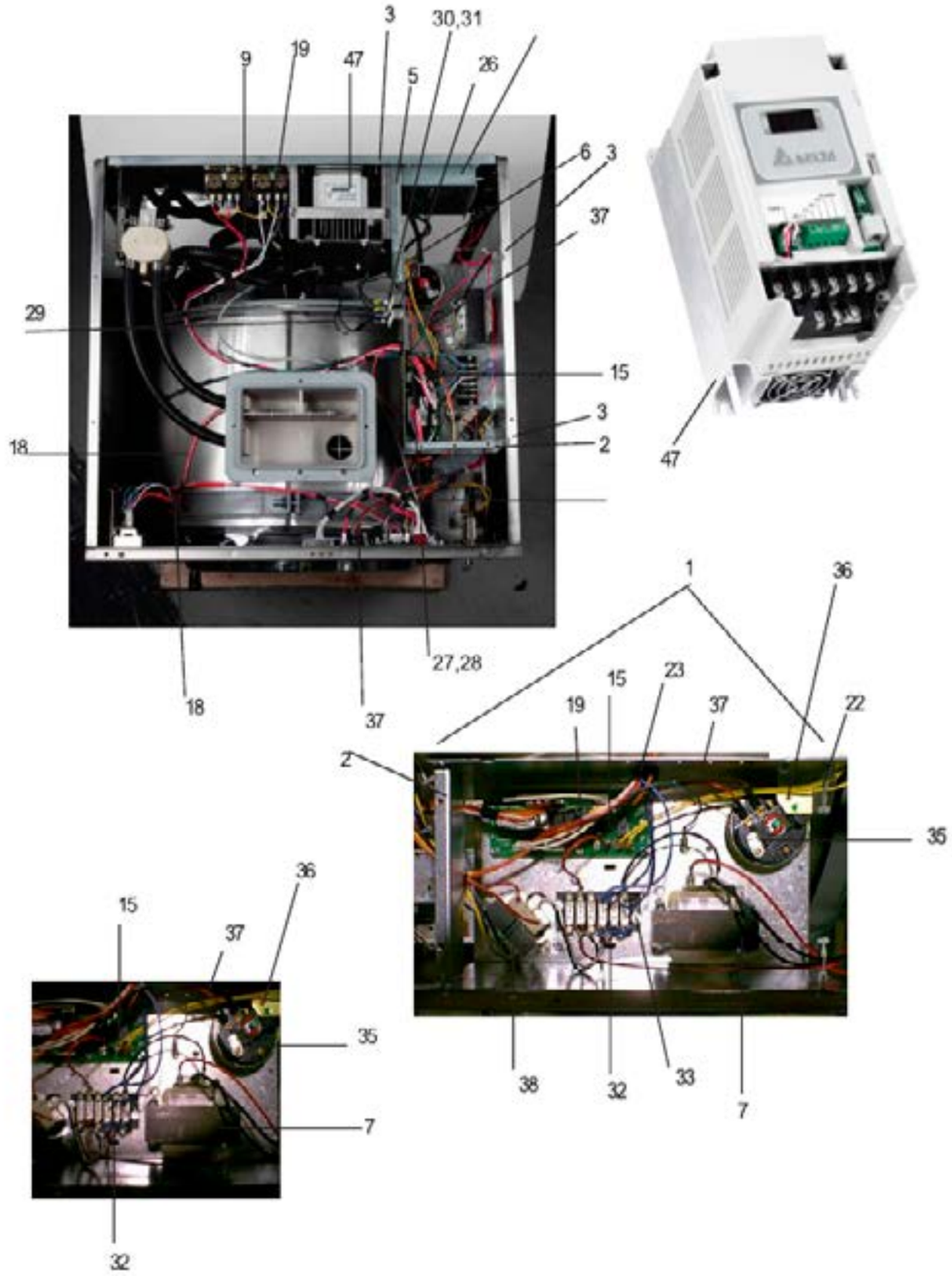






Eletrical Compenents - Top Compartment

Key	Part Number	Description
1	9857-154-001	Trough Assy, Controls (all parts below #2 - #43 & trough).....WCVD-55
1	9857-151-001	Trough Assy,Controls(all parts below #2-#43 & trough) WCVD-25
1	9857-150-001	Trough Assy,Controls(all parts below #2-#43 & trough) WCVD-18-12
1	9857-149-001	Trough Assy,Controls(all parts below #2-#43 & trough) WCVD-18-10
1	9857-152-001	Trough Assy, Controls (all parts below #2 - #43 & trough) WCVD-40
1	9857-160-001	Trough Assy, Controls (all parts below #2 - #43 & trough) WCVD-75
2	9839-015-001	Trough only ALL.....1
3	9545-008-026	Screw, Trough Sides ALL.....4
4	8641-582-006	Lockwasher Exttooth #10 ALL.....4
5	9003-270-001	Angle Support Trough WCVD-18,WCVD-25.....1
5	9003-271-001	Angle Support Trough WCVD-40,WCVD-55.....1
6	9545-008-026	Screw, Trough Bracket WCVD-18,WCVD-25,WCVD-40,WCVD-55.....4
7	8711-004-001	Transformer, Control (Operating Voltage to 115 volts) ALL except WCVD18-10...
9	9545-045-001	Screw, Mtg #8Bx1/4".....2
10	8641-582-005	Lockwasher.....2
11	8220-001-282	Wire Assembly Red 20" WCVD-18, WCVD-25.....2
11	8220-062-025	Wire Assembly Red 28" WCVD-40, WCVD-55.....2
11	8220-062-032	Wire Assembly Red 41" WCVD-75.....2
12	8639-621-007	Screw GRN. #10-32x 1/2".....1
13	8641-582-006	Lockwasher #10.....1
14	8652-130-037	Lug, Grounding.....1
15	9473-006-001	PCB assembly Relay Main 1
16	9538-157-011	Spacer Plastic #8x3/8".....6
17	8640-411-003	Nuts Hexkeps #6-32.....6
*	9627-796-001	Harness Drain/Therm/Sol WCVD-18,WCVD-25.....1
*	9627-796-002	Harness Drain/Therm/Sol WCVD-40,WCVD-55,WCVD-75.....1
19	9627-795-001	Harness P19/Water Valve WCVD-18,WCVD-25.....1
19	9627-795-002	Harness P19/Water Valve WCVD-40,WCVD-55,WCVD-75.....1
*	9627-794-001	Harness P8/P16 ALL.....1
*	9627-793-001	Harness P20/P21 ALL.....1
*	8220-064-023	Wire Assembly Yel 32" WCVD-18,WCVD-25,WCVD-40,WCVD-55.....2
*	8220-064-040	Wire Assembly Yel 64" WCVD-75.....2
23	9053-067-002	Bushing, Wire 7/8 ALL.....2
*	9527-002-002	Standoff Twistlock ALL.....3
*	9527-002-003	Standoff Twistlock ALL.....2
26	9483-004-002	Dynamic Braking Resistor WCVD-18-10,WCVD-18-12.....1
26	9483-004-002	Dynamic Braking Resistor WCVD-25,WCVD-40,.....2
26	9483-004-003	Dynamic Braking Resistor WCVD-55, WCVD-75.....2
27	9545-012-008	Screws #10-32x1/2" (pnhdcr).....4
28	8640-413-002	Nuts, #10-32 UNF 2B.....4
29	8220-117-001	Wire Assembly Jumper Blk. ALL except WCVD-18.....2
29	8220-118-001	Wire Assembly Jumper BLK. WCVD-18.....2
30	9545-044-006	Screw #6-32x5/16".....4
31	8640-411-003	Nuts Hex #6-32.....4
32	9897-034-001	Terminal Block Assy, POWER ALL.....1
33	9545-045-007	Screw, Mtg 8Bx3/8".....2
*	9558-027-001	Strip, Terminal Marker WCVD-18,WCVD-40,WCVD-55,WCVD-75.....1
*	9558-027-002	Strip, Terminal Marker WCVD-25.....1
35	9539-457-002	Switch, Pressure WCVD-18.....1
35	9539-457-001	Switch, Pressure WCVD-40,WCVD-25,WCVD-55.....1
35	9539-488-001	Switch, Pressure WCVD-75.....1
36	9545-045-001	Screw, Mtg #8Bx1/4" WCVD-18,WCVD-25,WCVD-40.....2
36	9545-008-026	Screw, Mtg. WCVD-55, WCVD-75.....2



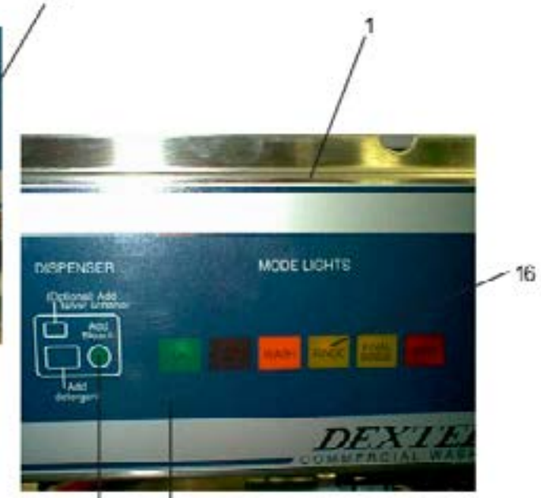
Eletrical Compenents - Top Compartment Continued

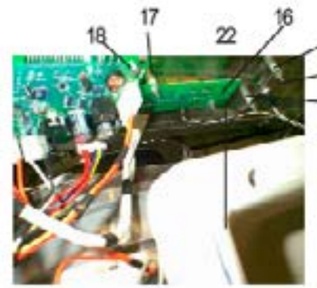
Key	Part Number	Description
37	9627-800-001	Harness P5/Pressure WCVD-18.....1
37	9627-801-001	Harness P5/Pressure WCVD-25.....1
37	9627-803-001	Harness P5/Pressure WCVD-55,WCVD-75.....1
37	9627-802-001	Harness P5/Pressure WCVD-40.....1
38	8711-009-001	Transformer, (Step Down) 120/2.3 VAC&24 VAC ALL.....1
39	9545-008-026	Screw, Transformer Mtg #10Bx1/2".....4
40	8641-582-006	Lockwasher #10 exttooth.....4
*	8220-001-231	Wire Assembly BLK/Blu.....1
*	9631-381-018	Wire Assembly Red 7".....1
*	8220-090-009	Wire Assembly Blu/Wht.....1
47	9375-007-003	Variable Frequency Drive WCVD-40.....1
47	9375-009-002	Variable Frequency Drive WCVD-55.....1
47	9375-007-002	Variable Frequency Drive WCVD-25.....1
47	9375-005-002	Variable Frequency Drive WCVD-18-12.....1
47	9375-004-002	Variable Frequency Drive WCVD-18-10.....1
47	9375-009-005	Variable Frequency Drive WCVD-75.....1
*	9897-033-002	Terminal Block Assembly.....1
*	9545-031-010	Screw 6ABx3/4.....2
*	9627-747-003	Wiring Harness Power Terminal WCVD-25,WCVD-40.....1
*	9627-747-002	Wiring Harness Power Terminal WCVD-55, WCVD-75.....1

Notes

Control Panel Group by Part

Key	Part Number	Description
1	9989-473-001	Panel Control Assembly(panel only)WCVD-18-10,WCVD-18-12.....1
1	9989-474-001	Panel Control Assembly (panel only) WCVD-25.....1
1	9989-475-001	Panel Control Assembly (panel only) WCVD-40.....1
1	9989-476-001	Panel Control Assembly (panel only) WCVD-55,WCVD-75.....1
*	9545-008-026	Screw, Hxwshrhdundct #10Bx 1/2".....4
*	9467-024-001	Post Locator Top of panel.....2
*	8640-411-003	Nut Hexkeps #6-32.....2
*	9355-001-001	Locator Panel.....2
*	9545-008-023	Screw FillHDCR 10Bx1/2".....2
7	9538-178-001	Spacer Pushbutton (Micro).....1
8	9486-150-001	Retainer Pushbutton (Micro).....1
9	8640-424-002	Nut Hexelasticstop #4-40.....2
10	9035-060-001	Pushbutton Control (coin).....1
2	9185-008-001	Filler Pushbutton Control.....4
11	9473-004-001	PCB assembly Control /Display.....1
12	9538-157-018	Spacer Plastic #6x9/16.....5
13	8640-411-003	Nut Elasticstop #6-32.....5
14	9627-797-001	Harness LED PCB.....1
15	9627-791-003	Harness Doorlock WCVD-18,WCVD-25.....1
15	9627-791-004	Harness Doorlock WCVD-40,WCVD-55,WCVD-75.....1
16	9473-004-001	PCB assembly Mode lights.....1
*	9635-022-001	Mode Lights Backing Window (Optional).....1
17	9538-157-018	Spacer Plastic #6x9/16.....2
18	8640-411-003	Nut Hexkeps #6-32.....2
19	9794-001-001	Light, LED.ADD BLEACH Assembly.....1
20	9538-157-018	Spacer Plastic #6x9/16.....2
21	8640-411-003	Nut Hexeps #6-32.....2
*	9732-122-001	Kit, Coin Box W/Hardware.....1
22	9412-114-001	Nameplate, Control Panel (one piece) WCVD-40.....1
22	9412-113-001	Nameplate.Control Panel (one piece) WCVD-25.....1
22	9412-112-001	Nameplate.Control Panel (one piece) WCVD-18.....1
22	9412-115-001	Nameplate.Control Panel (one piece) WCVD-55.....1
22	9412-130-001	Nameplate.Control Panel (one piece) WCVD-75.....1
*	9922-011-001	Solenoid Ass'y, Door Locking (see Door Lock Group for parts breakdown)..1
*	8640-412-005	Hex Nuts (mounting solenoid assy. to control panel).....4
23	8612-001-001	Battery.....1
24	9021-001-001	Coin Acceptor Single Complete w/Blocking 1





Labels and Diagrams

Part Number	Description
9506-001-001	Wiring Diagram, WCVD-18-10
9506-003-001	Wiring Diagram, WCVD-25
9506-037-001	Wiring Diagram,WCVD-75
9506-009-001	Wiring Diagram, WCVD-55
9506-005-001	Wiring Diagram, WCVD-40
9506-007-001	Wiring diagram, WCVD-18-12
8507-330-001	Transient Voltage Surge Suppressor Infomational
8507-275-001	Instructions Spin Direction WCVD-55,WCVD-75
8507-274-001	Instructions Spin Direction WCVD-25, WCVD-40
8507-273-001	Instructions Spin Direction WCVD-18
9506-002-001	Wiring Schematic WCVD-18-10
9506-004-001	Wiring Schematic WCVD-25
9506-038-001	Wiring Schematic WCVD-75
9506-010-001	Wiring Schematic WCVD-55
9506-006-001	Wiring Schematic WCVD-40
9506-008-001	Wiring Schematic WCVD-18-12
8502-614-004	Label High Voltage Warning
8502-619-003	Label Fusing & Installation
8502-624-002	Label Door Opening Warning
8511-001-002	Label Quality

Section 9:

Coin Handling Parts:

Wiring Diagrams
& Schematics &
maintenance Procedures

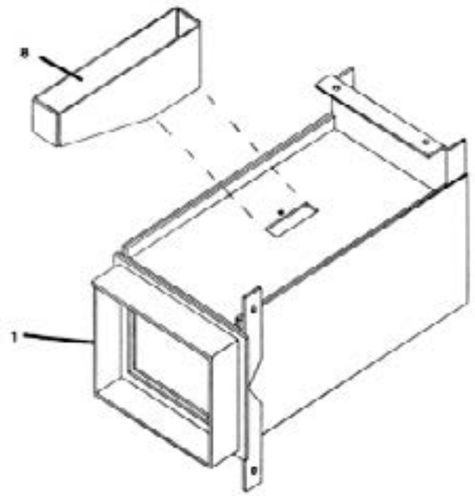
Coin Handling Group by Part

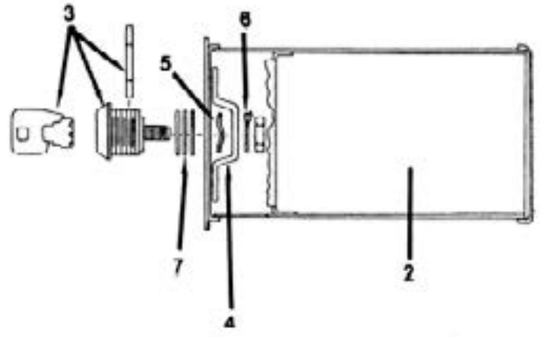
Key	Part Number	Description
1	9942-029-001	Vault, Assy WCVD-18 1
1	9942-030-001	Vault, Assy WCVD-25 1
1	9942-030-002	Vault, Assy WCVD-40 1
1	9942-030-003	Vault, Assy WCVD-55 1
1	9942-030-004	Vault, Assy WCVD-75 1
*	9545-008-026	Screw, 10Bx 1/2" Vault Mtg 2
*	9545-008-031	Screw, 10AB x 1/2" Vault Mtg 2
2	9732-122-001	Kit, Coin Box W/Hardware (includes 3 thru 6) 1
3	9349-033-001	Latch, Coin Box 1
4	8641-569-002	Washer, Wave 1
5	8641-583-001	Washer, Keeper 1
6	8641-581-008	Washer, Spacer- Thick 2
6	8641-581-010	Washer, Spacer- Thin 4
7	8650-012-003	Lock, Coin Box (w/key not included with 9732-122-001) 1
*	9545-008-001	Screw, Chute Mtg 1
11	9119-025-002	Coin Acceptor chute without penny rejector (standard) 1
*	8640-424-002	Nut 4
10	9732-126-001	Switch, Coin (fits single coin drop) 1
12	9119-025-001	Coin Acceptor chute with penny rejector (optional) 1
13	9486-133-001	Button Coin Return Retainer 1
*	9922-008-001	Coin Blocking Solenoid assy (** included) 1
**	9536-079-001	Solenoid coin blocking 1
**	9534-362-001	Spring coin blocking 1
**	9545-039-001	Screw.Blocking assy mtg 2
**	8641-579-001	Lockwashers 2
8	9119-028-001	Chute Assy.WCVD-75 1
8	9119-029-001	Chute Assy.WCVD-18,WCVD-25,WCVD-40,WCVD-55 1
9	9021-001-001	Coin Acceptor Complete w/coin blocking solenoind 1
	9732-001-001	Electronic Acceptor Kit for U.S.A. models w/coin blocking 1
14	9545-020-004	Screws - Coin Acceptor Mounting Torx Head 4
15	8640-424-002	Nuts - Coin Acceptor Mounting Nuts 4

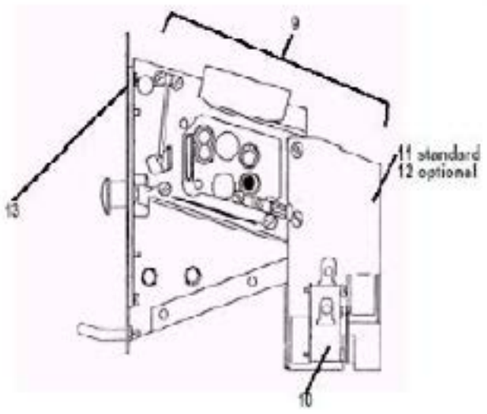
* Not Illustrated

NOTE: COIN BOX AND HARDWARE KIT AND COIN BOX LOCK NOT INCLUDED WITH MACHINE.

For other countries coinage call Dexter P&S or contact your local distributor.







Section 11:

Maintenance

Preventative Maintenance

Daily

Step 1: Check that the loading door remains securely locked and cannot be opened during an entire cycle.

Step 2: Clean the top, front, and sides of the cabinet to remove residue.

Step 3: Clean the soap dispenser and lid and check that all dispenser mounting screws are in-place and tight.

Step 4: Check the loading door for leaks. Clean the door seal of all foreign matter.

Step 5: Leave the loading door open to aerate the washer when not in use.

Quarterly

Step 1: Make sure the washer is inoperative by switching off the main power supply.

Step 2: Check the V-belts for wear and proper tension.

Step 3: Clean lint and other foreign matter from around motor.

Step 4: Check all water connections for leaks.

Step 5: Check the drain valve for leaking and that it opens properly.

Step 6: Wipe and clean the inside of the washer and check that all electrical components are free of moisture and dust.

Step 7: Remove and clean water inlet hose filters. Replace if necessary.

Step 8: Check anchor bolts. Retighten if necessary.