

**THE
DEXTER
COMPANY**



55 LB. OPL COMPUTER WASHERS

Thoroughbred 900

**Model WCN55AFHX 208-240 volts 60 hz.
Single or Three Phase**

**Model WCN55AFH 208-240 volts 60 hz.
Single or Three Phase**

**Model WCN55AFHXH 208-240 volts 60 hz.
Three Phase Electric Heated Computer Industrial Washer**

Service Procedures and Parts Data



Part No. 8533-032-002 4/02
Fairfield, Iowa 52556

Telephone 641-472-5131
Fax 641-472-6336

WARNING

FOR YOUR SAFETY, THE INFORMATION IN THIS MANUAL MUST BE FOLLOWED TO MINIMIZE THE RISK OF FIRE OR EXPLOSION OR TO PREVENT PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

Do not store gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

IF YOU SMELL GAS:

Do Not try to light any appliance.

Do Not touch or operate any electrical switch.

Do Not use any phone in your building.

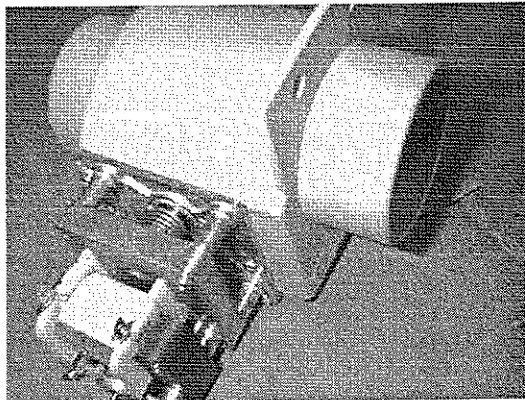
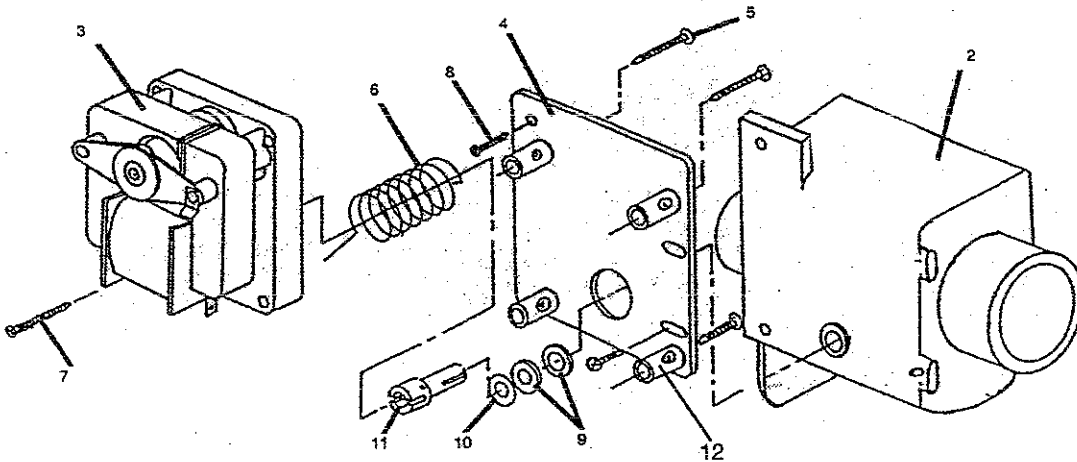
Do clear the room, building or area of all occupants.

Do immediately call your gas supplier from a neighbors phone. Follow the gas suppliers instructions.

Do call the fire department if your gas supplier is not available.

DRAIN VALVE GROUP

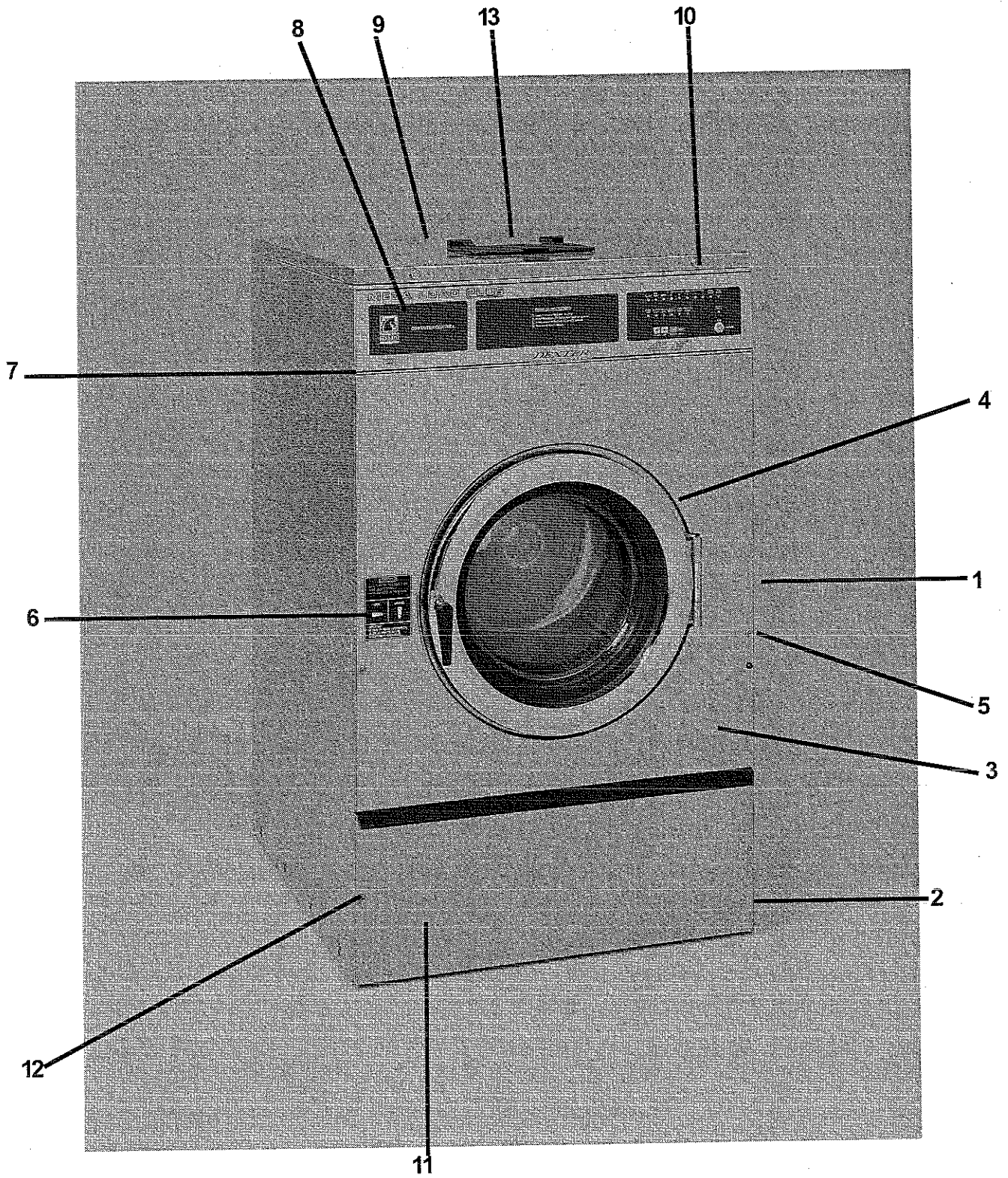
Key	Part Number	Description	
1	9379-187-001	Valve, Drain (includes #2 thru #11)	1
2	9064-070-001	Body, Valve (w/ball)	1
3	9914-137-001	Motor & Gear Train	1
4	9452-538-001	Plate, Motor Mtg	1
5	8639-994-001	Screw	3
6	9534-339-001	Spring, Drive	1
7	9545-054-001	Screw	2
8	9545-054-002	Screw	1
9	9532-134-001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



CABINET AND FRONT PANEL GROUP

Key	Part Number	Description	
1	9454-672-001	Panel, Side (Left or Right)-Stainless	4
*	9545-018-013	Screw, Side to Side 1/4-20x1/2	8
*	8640-414-006	Nut, Keps	8
2	9966-012-001	Strap Assy, Side Panel	4
2	8640-414-006	Nut	8
3	9454-671-003	Panel Assy, Front (for 180 degree door hinge)	1
4	9059-063-002	Band, Edge Protector	1
*	9545-008-024	Screw, Hex- To Control Panel	2
*	8640-399-005	Nut, Spring- To Control Panel 10-32	2
5	9545-008-014	Screw, Flat Head- Front to Sides #10x1 3/4	4
5	8641-585-001	Washer, Finish	4
*	8640-399-008	Nut, Spring- To Control Panel	4
*	9545-008-023	Screw, Fillister Head Guide	2
6	8502-624-003	Label, Door Opening	1
7	9989-456-001	Panel, Control (Mounts Nameplate)	1
*	9545-008-024	Screw, Control Panel Mtg	2
*	8640-399-005	Nut, Spring	2
*	9545-008-026	Screw, Hex Wshr-Control Panel to Sides	4
8	9412-093-002	Nameplate, Control Panel	1
*	9355-001-001	Locator, Panel	1
*	9545-008-026	Screw, #10x1/2	1
9	9454-673-001	Panel, Top	1
10	8650-012-003	Lock, Top (w/Key)	2
*	9306-025-001	Key, Top-6324	
*	9095-038-001	Cam, Lock Top	2
*	8640-426-001	Nut, 9/32-28	2
*	8641-581-008	Washer, Flat 5/16	2
11	9108-099-001	Door, Lower Service	1
*	9244-081-003	Handle (bumper guard)	1
*	9545-045-010	Screw, Handle Mtg #8Bx3/8 SS	4
*	9545-008-023	Screw, Fillister Head Guide 10Bx1/2	2
12	9545-008-014	Screw, Flat Head 10Bx 1 3/4	2
12	8641-585-001	Washer, Finish	2
*	8640-399-008	Nut, Spring	2
13	9108-095-003	Door, Dispenser	1
*	9451-191-001	Pin, Plain	2
*	9467-025-001	Post, Door Mounting	2
*	9545-045-002	Screw, Dispenser Post Mtg 8Bx1/2	4
*	9545-008-012	Screws, Dispenser Mounting #10Bx1	4
*	8640-399-007	Nuts, Spring	4

* Not Illustrated



REAR VIEW

Key	Part Number	Description	
1	9376-298-001	Drive Motor 240/3/60	1
2	9497-222-004	Rod, Motor Mtg	1
*	9545-029-009	Screw 3/8-16x3	1
*	8641-582-003	Lockwasher	1
3	9076-052-002	Collar, Shaft (w/set screws)	4
4	9453-175-002	Pulley, Motor	1
5	9053-077-001	Bushing, Split Taper	1
6	9545-018-021	Screw 1/4-20x1	3
7	9453-176-005	Pulley, Driven	1
8	9053-078-002	Bushing, Taper	1
9	9545-029-011	Screw	3
9	8641-582-003	Lockwasher	3
10	9040-079-002	Drive Belt	1
11	9081-109-001	Channel, Rear	1
12	9545-008-026	Screw	4
*	8640-399-004	Nut, Spring	4
13	9242-449-004	Hose, Overflow	1
14	8654-029-000	Clamp, Hose	2
*	9989-455-001	Panel Assy., Back	1
15	9545-030-002	Screw, To Base- 1/4x3/4	3
*	9545-008-026	Screw, 10Bx 1/2	14
*	8640-399-004	Nut, Spring	10
*	9242-175-004	Hose, Pressure Switch	1
*	8654-117-015	Clamp, Pressure Sw. Hose	1
16	5198-211-004	Circuit Breaker, 1.5 amp	1
17	9883-005-001	Injector Ass'y	1
18	9242-461-001	Hose, Injector Ass'y VACBRKR to Tub	2
19	8654-117-014	Clamp	4
22	9242-463-004	Hose Overflow Suds Vent	1

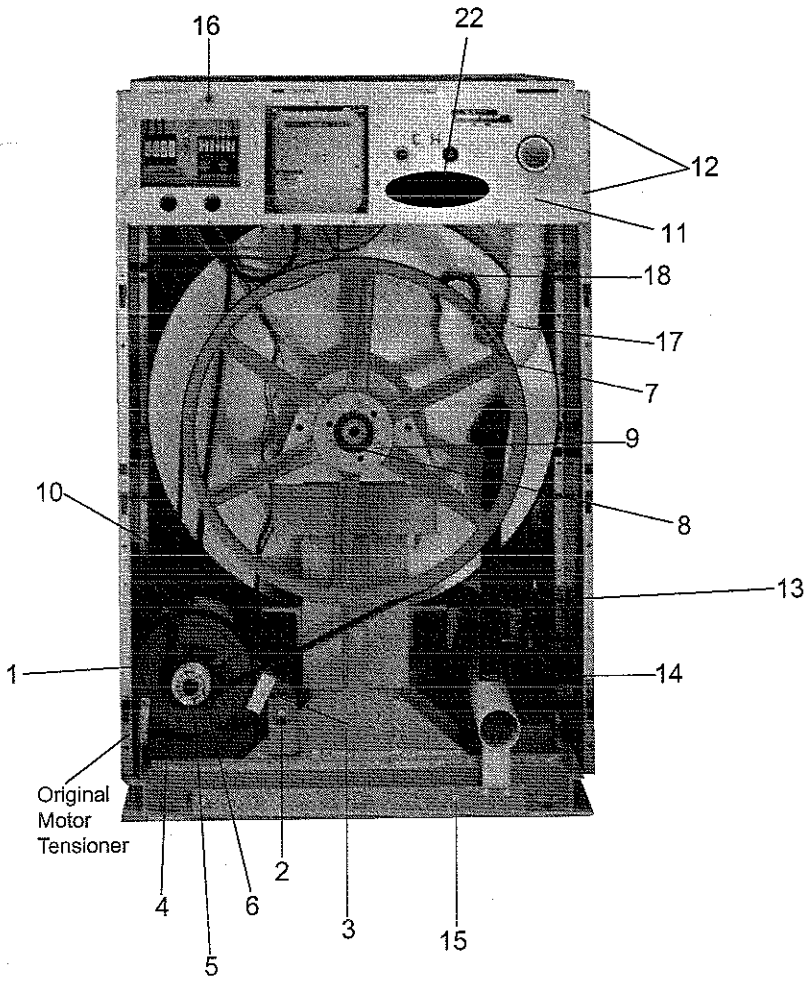
Original Motor Tensioner (20 thru 23) (not pictured)

*	9029-027-004	Strap, Motor Tension	1
*	8640-413-002	Nut, Strap to Motor	1
*	8641-581-006	Washer	1
*	9545-018-020	Screw 1/4x3	1
*	8640-414-003	Nut, Elastic Stop	1

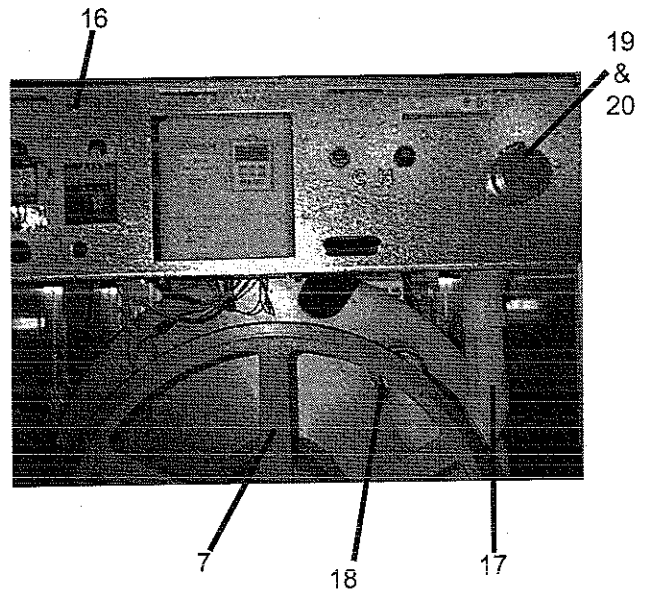
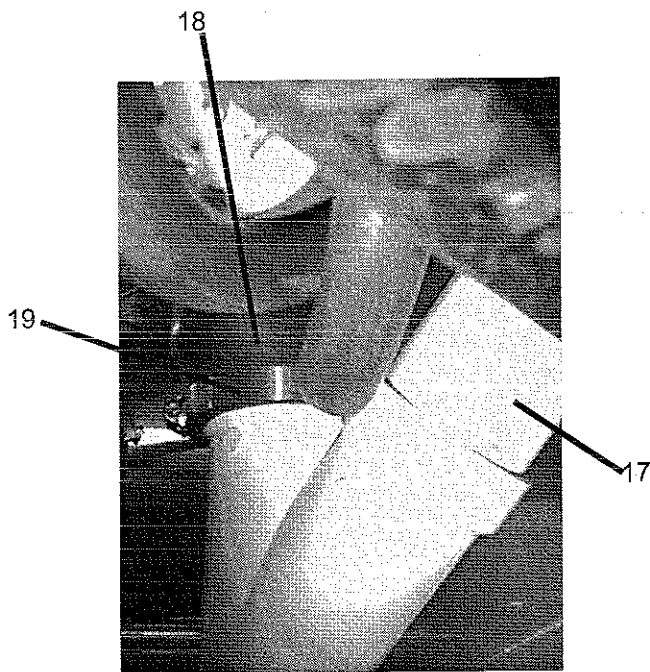
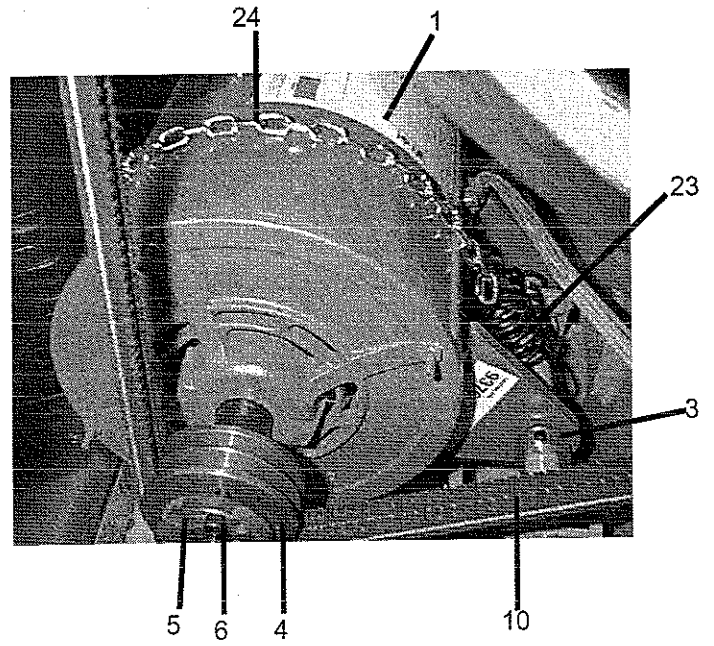
Current Motor Tensioner (pictured)

*	9545-055-001	Bolt, Eye	1
23	9534-151-000	Spring, Belt Tension	1
*	9099-012-003	Chain, Spring Tension	1
24	9341-046-001	Link, Chain	1
*	8640-414-003	Nut, Stop	1
*	8640-413-002	Nut, Link to Motor	1
*	8641-581-018	Washer	1

* Not Illustrated



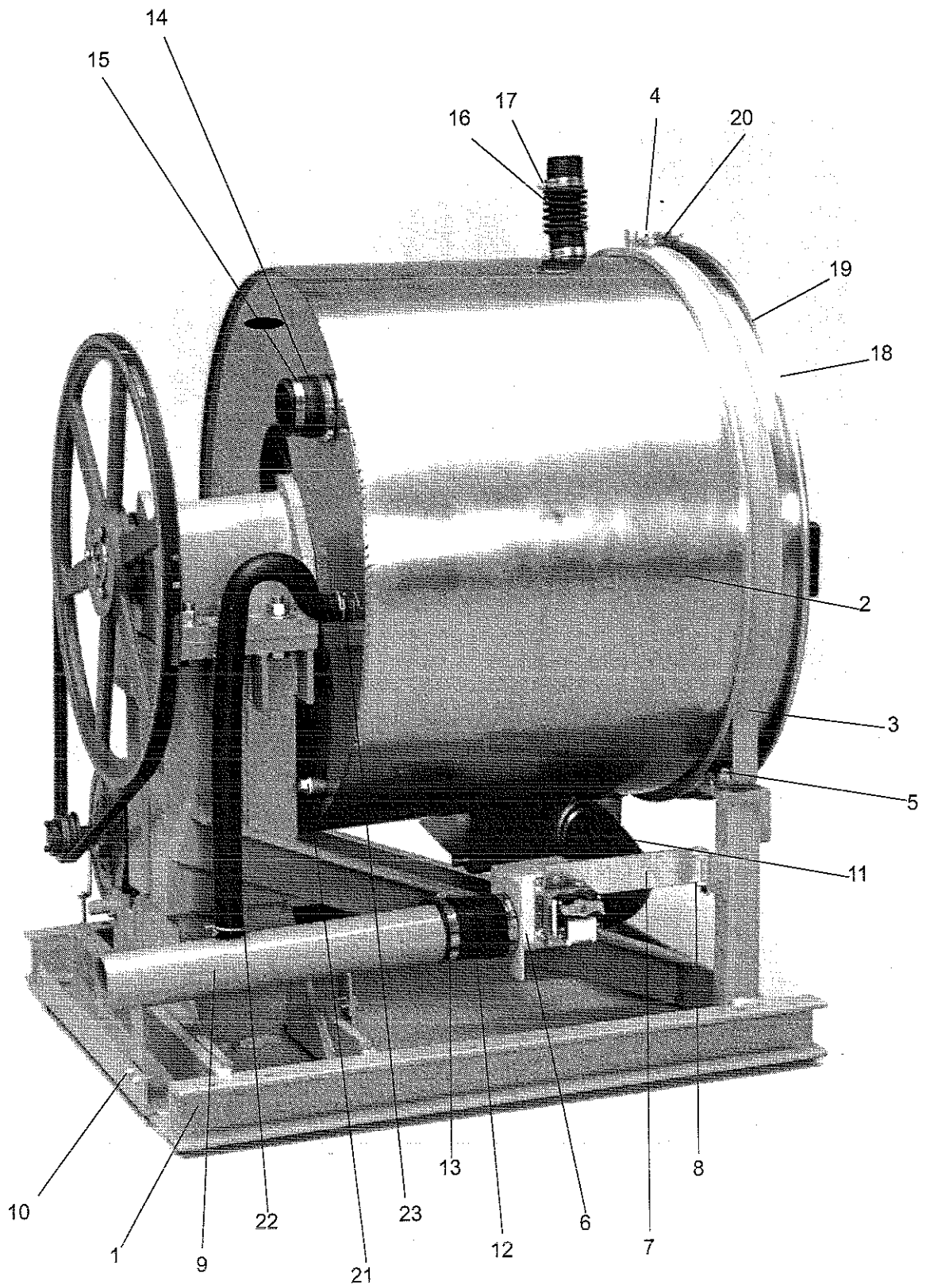
Current Motor Tensioner



CHASSIS AND DRAIN GROUP

Key	Part Number	Description	
1	9945-105-002	Base Assy, Frame	1
2	9930-138-001	Tub Assy	1
3	9950-053-002	Ring Assy, Tub Mtg-Front	1
4	9545-017-013	Screw, 1/2-13x2 Grade 5	1
4	8640-417-002	Nut	1
4	8641-582-016	Lockwasher	1
5	9545-017-013	Bolt, 1/2-13x2, Grade 5 Tub to Base	2
5	8641-582-016	Lockwasher	2
5	8640-417-002	Nut, Hex	2
5	8641-581-026	Washer flat 1/2	2
*	9950-055-001	Clamp Ring, Tubfront clamp	1
*	9545-029-009	Screw HxSocket 3/8-16x3	1
*	8640-415-001	Nut HX 3/8-16	1
5	9552-013-001	Shim, Thin	4
5	9552-013-002	Shim, Thick	4
6	9379-187-001	Valve, Drain	1
7	9029-126-001	Bracket, Drain Valve	1
*	9545-048-001	Screw, Valve to Bracket	1
*	8641-581-018	Washer	1
8	9545-030-002	Screw, Bracket to Base	2
9	9915-120-002	Tube Assy, Drain	1
10	9545-030-002	Screw, Tube Mtg	4
11	9242-459-001	Hose, Tub to Drain Valve	1
12	9242-457-001	Hose, Drain Valve to Tube	1
13	8654-117-014	Clamp, Hose	4
*	9610-001-001	Vacuum Breaker	1
*	9029-069-001	Bracket, Vacuum Breaker	1
*	9545-008-026	Screw	4
14	9241-461-001	Hose, Injector Assy	2
15	8654-117-014	Clamp	4
*	9732-108-002	Dispenser,	1
*	9206-416-001	Gasket, Dispenser	1
16	9242-450-001	Hose, Dispenser to Tub	1
17	8654-117-008	Clamp, Dispenser Hose	2
18	9974-007-001	Front Ass'y, Tub	1
19	9950-055-001	Ring Ass'y, Clamp (tub front to outer tub)	1
20	9545-029-009	Screw, 3/8-16x3	1
20	8640-415-001	Nut, Hex 3/8-16	1
*	9206-421-002	Gasket, Tub Front	1
21	8615-104-039	Pipe Plug	2
22	9242-449-003	Hose, Overflow	1
23	8654-029-000	Clamp, Hose corbin type	2

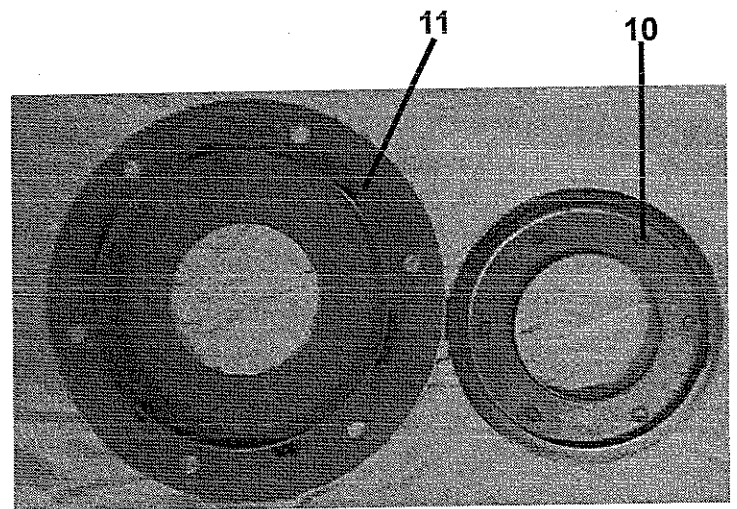
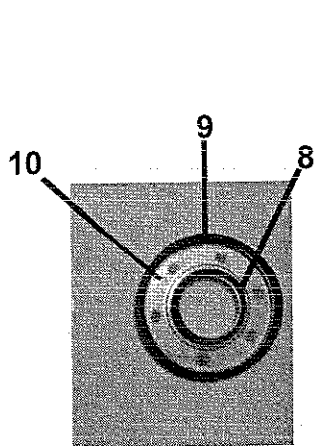
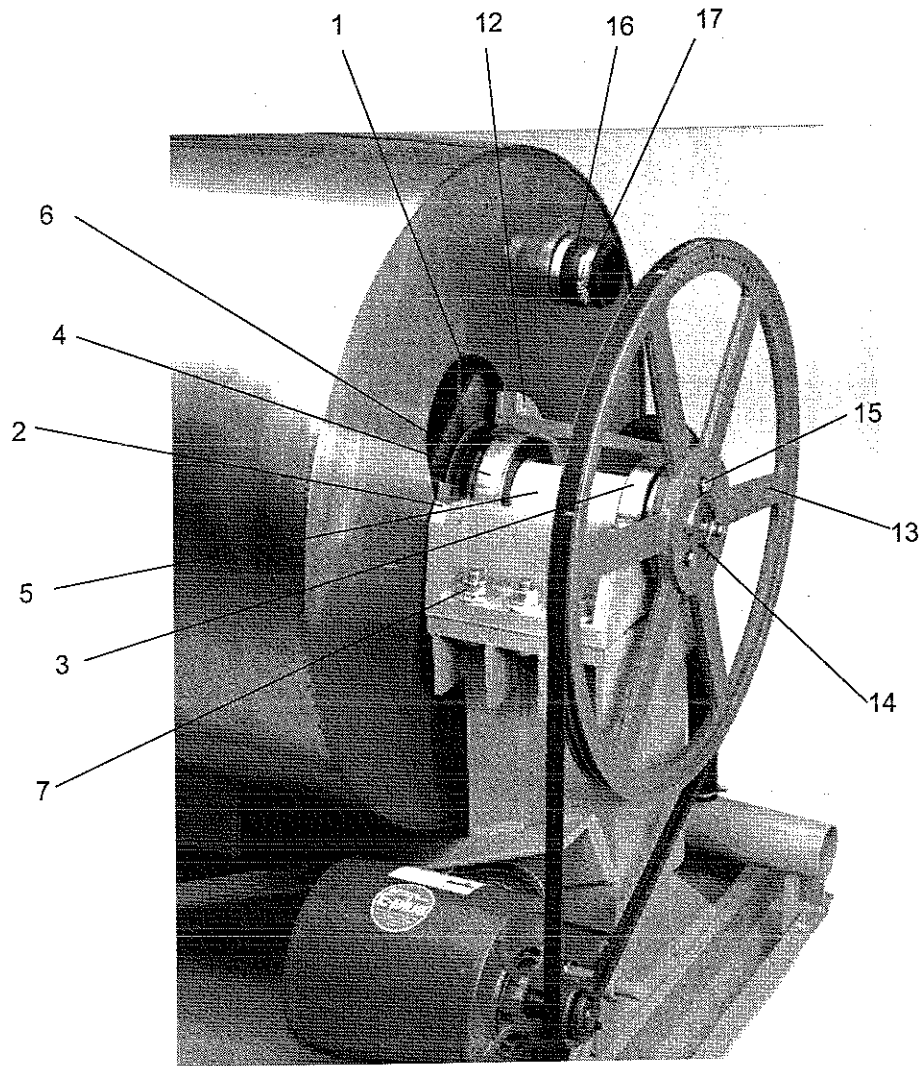
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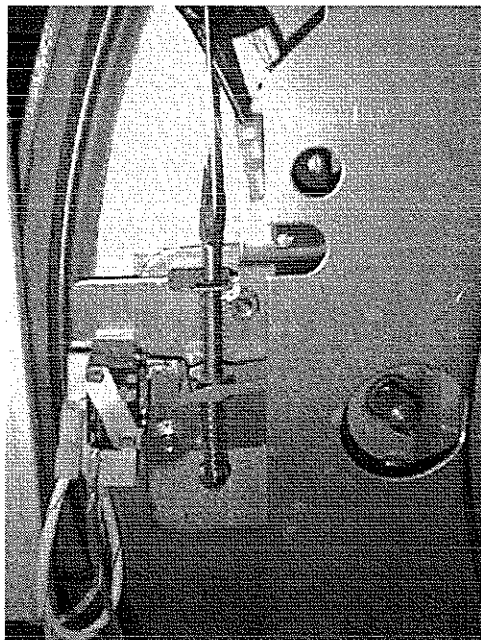
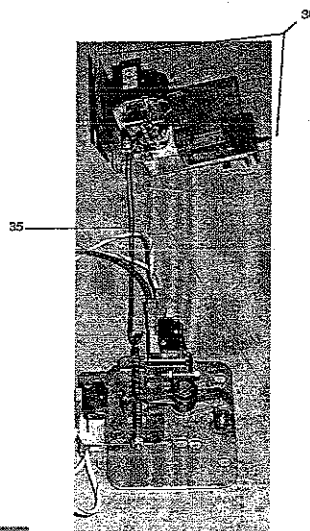
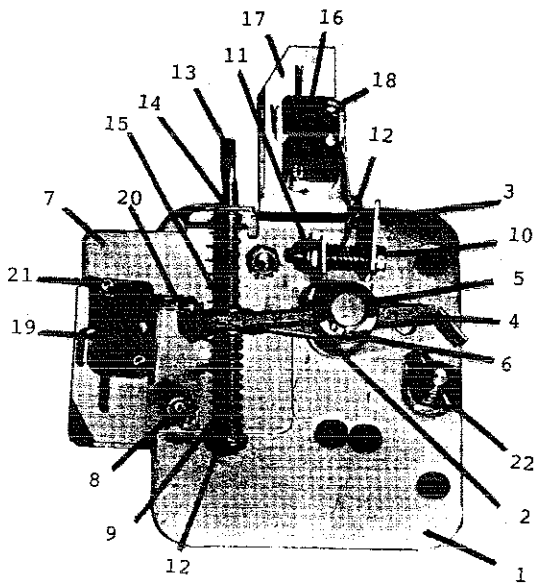
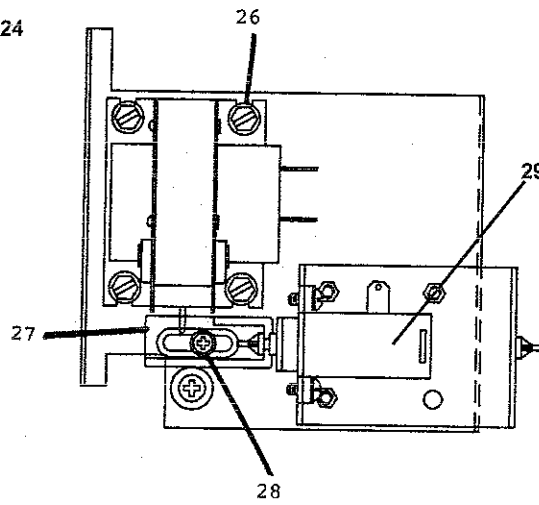
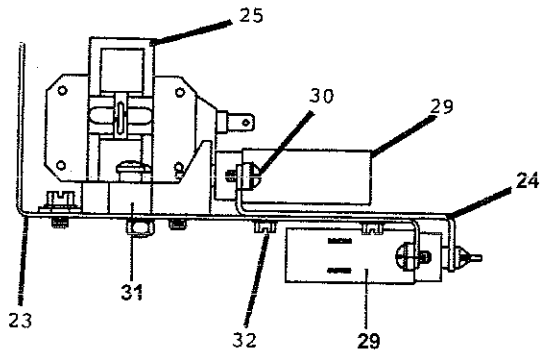


CYLINDER, WATER SEALS & BEARING HOUSING GROUP

Key	Part Number	Description	
1	9848-116-001	Cylinder, Assy	1
*	9803-187-001	Housing, Bearing- Assembly (includes items #2-#6)	1
2	9241-181-004	Housing, Bearing	1
3	9036-159-005	Bearing, Front Large	1
4	9036-159-006	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	6
7	8641-588-001	Washer, Spherical 3/4 Malehalf (used only on AFHX models)	6
7	8641-582-020	Washer, Spherical 3/4 Femalehalf (used only on AFHX models)	6
7	8641-581-003	Washer, Flat to frame (used only on AFH models)	6
7	8641-582-020	Washer, Ext. tooth (used only on AFH models)	6
7	8640-418-003	Nut 3/4-10	6
8	9532-140-007	Seal, Secondary (small)	1
9	9532-140-008	Seal, Primary (large)	1
10	9950-052-001	Ring, Seal Mounting	1
11	9950-054-004	Seal Tub Back Mating Ring	1
12	9545-059-004	Screw, 7/16-14 x 1 SS Tub Back to Bearing Housing	6
12	8641-581-034	Washer, Flat	6
13	9453-176-005	Pulley, Driven	1
14	9053-078-002	Bushing, Taper	1
15	9545-029-011	Screw 3/8-16x2	3
15	8641-582-003	Lockwasher	3
16	9241-461-001	Hose, Injector Assy	2
17	8654-117-014	Clamp	4

* Not Illustrated





**As mounted
at left of Door Handle**

DOOR LOCK GROUP

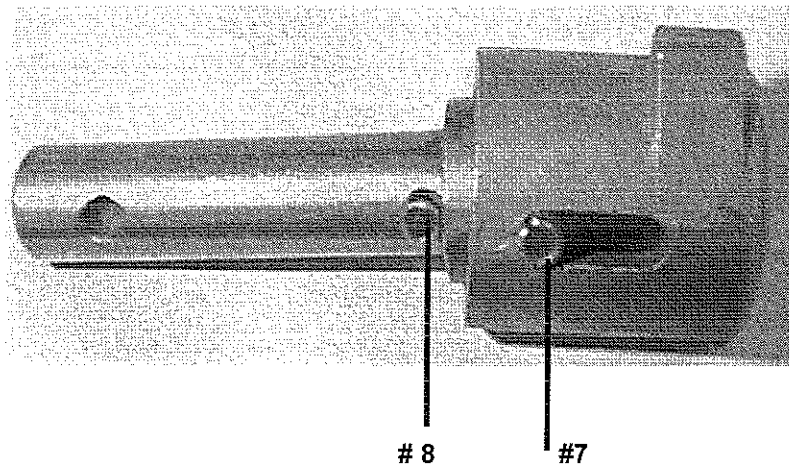
Key	Part Number	Description	
*	9885-023-001	Lock Assy, Complete includes (1 thru 22)	1
1	9982-284-001	Plate Assy, Door Lock	1
2	8641-581-030	Washer, Flat	1
3	9008-005-001	Actuator, Latching Switch	1
4	9450-002-002	Pawl, Locking	1
5	8641-569-003	Washer, Spring	1
6	9487-200-004	Ring, Retaining	1
7	9029-035-001	Bracket, Switch	1
8	8640-413-002	Nut, Hex	2
9	9534-364-002	Spring, Actuating	1
10	9545-012-020	Screw, Hx	1
11	8640-413-004	Nut, Elastic Stop	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	2
18	8640-401-001	Nut, Twin	1
19	9539-461-007	Switch, Locking Sensing	2
20	9008-006-002	Actuator, Switch	1
21	9545-020-003	Screw 4-40x11/8"	2
21	8640-401-001	Nut, Twin	1
22	9451-181-004	Pin, Dowel	1
*	9552-037-001	Shim, Door Lock, Thin	AR
*	9552-037-002	Shim, Door Lock, Thick	AR
*	9545-018-014	Screw, Lock mtg 1/4-20x3/4	3
*	8641-582-007	Lockwasher	3
36	9922-011-001	Solenoid Ass'y, Door Locking includes (23 thru 32)	1
23	9029-073-001	Bracket, Solenoid	1
24	9985-169-001	Bracket Assy, Solenoid Slide	1
25	9536-074-001	Solenoid 120V,60HZ	1
26	9545-008-001	Screw, Solenoid Mtg	4
27	9540-033-002	Stop, Door Lock Solenoid	1
28	9545-061-001	Screw, Special Shoulder	1
28	8640-411-003	Nut, Keps #6	1
29	9586-001-001	Thermoactuator 120V	2
30	9545-031-011	Screw	4
31	9538-157-004	Spacer, Plastic	1
31	9538-166-004	Spacer, Metal	1
31	9545-010-001	Screw, Cross Recessed 8-32x3/4	1
31	8640-412-005	Nut, Keps #8-32	1
32	9545-044-003	Screw, Hx 6-32x3/16	3
*	8640-412-005	Nut, Sol. Brkt to Control Panel	3
35	9497-225-007	Rod, Pull- Solenoid to Lock	1

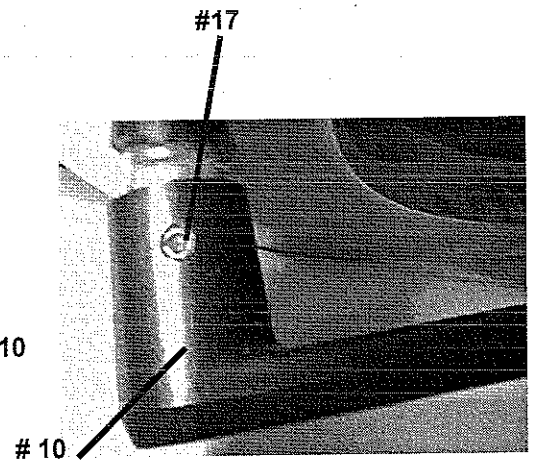
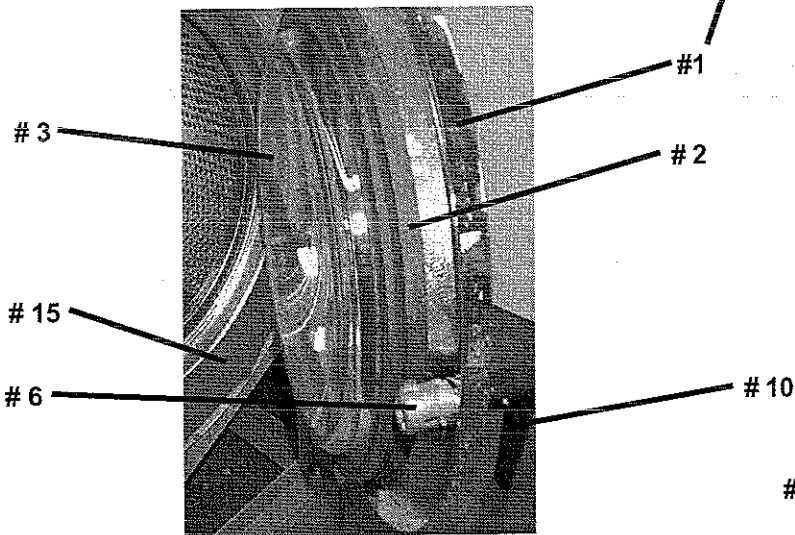
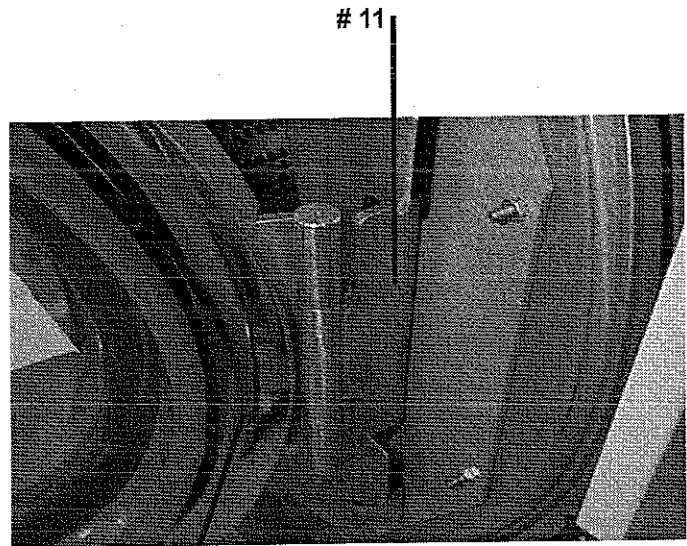
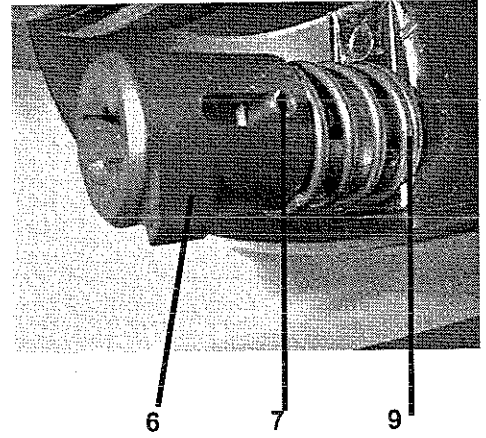
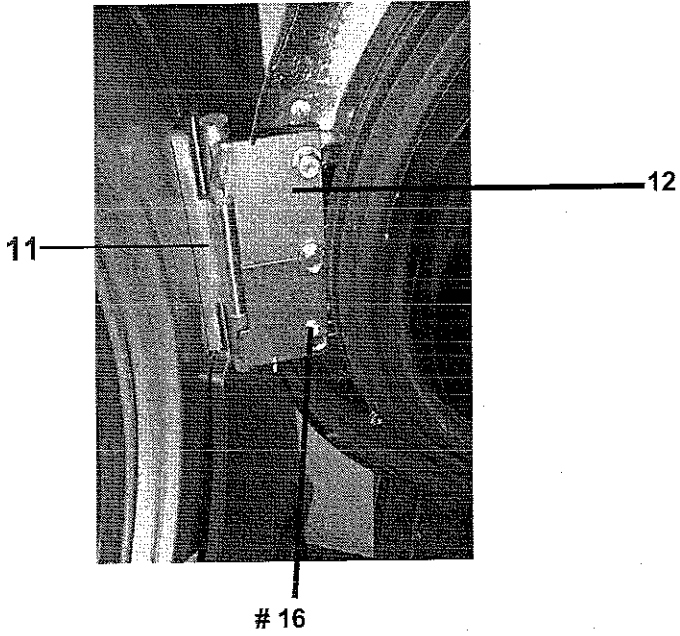
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LOADING DOOR GROUP

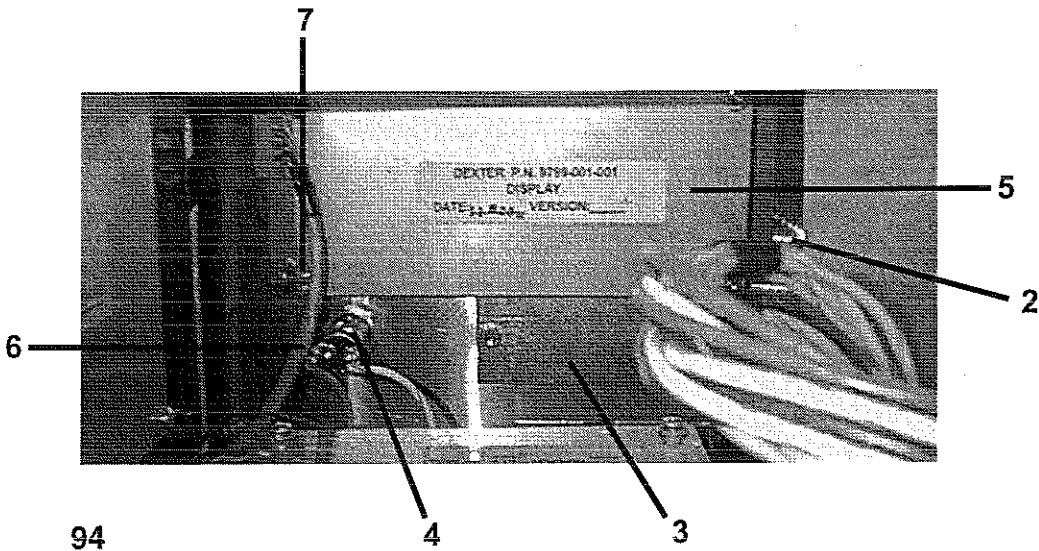
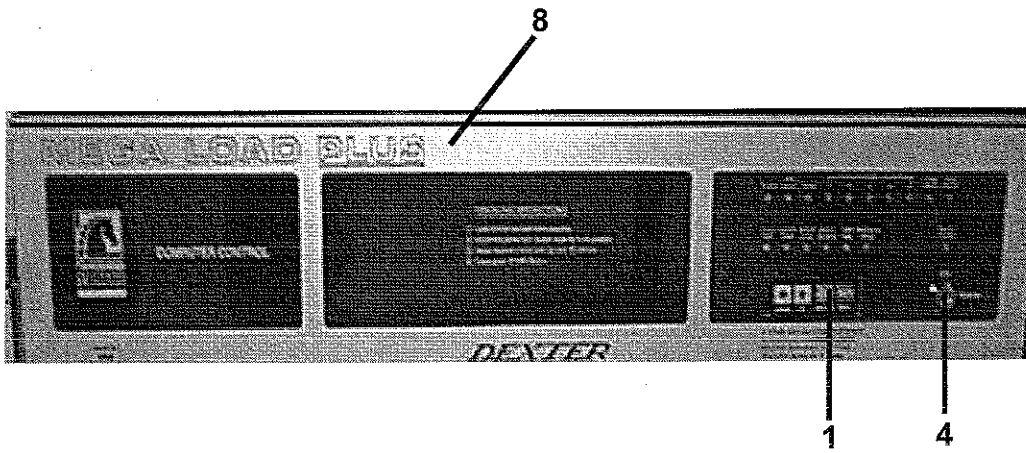
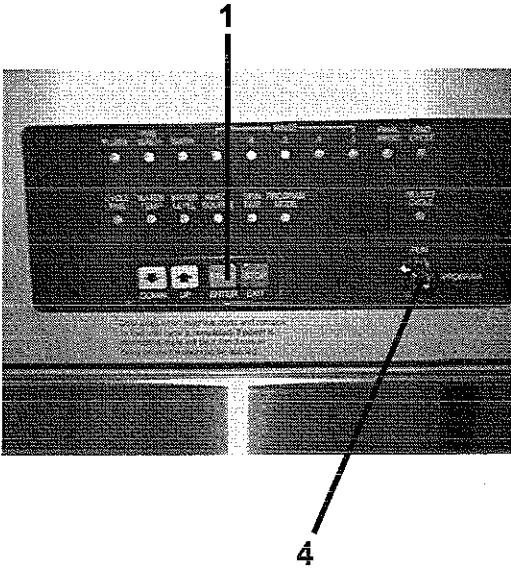
180' DOOR

KEY	PART NUMBER	DESCRIPTION	
*	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). see below.....	1
5	9537-195-002	Shaft, Door Locking.....	.1
6	9095-040-001	Cam, Locking.....	1
7	9451-181-004	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, Door1
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 5/16-18x34.....	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	9845-005-001	Top, Loading Door Leaf Hinge.....	1
13	9845-005-002	Bottom, Loading Door Leaf Hinge	1
16	9545-056-002	Screw, Loading Door Mtg Thrdfrm 5/16x 5/8.....	3
15	9487-254-002	Ring, Masking	1
*	8640-413-002	Nut.....	.4
*	9059-063-002	Band Edge Protector1





9



CONTROL PANEL GROUP

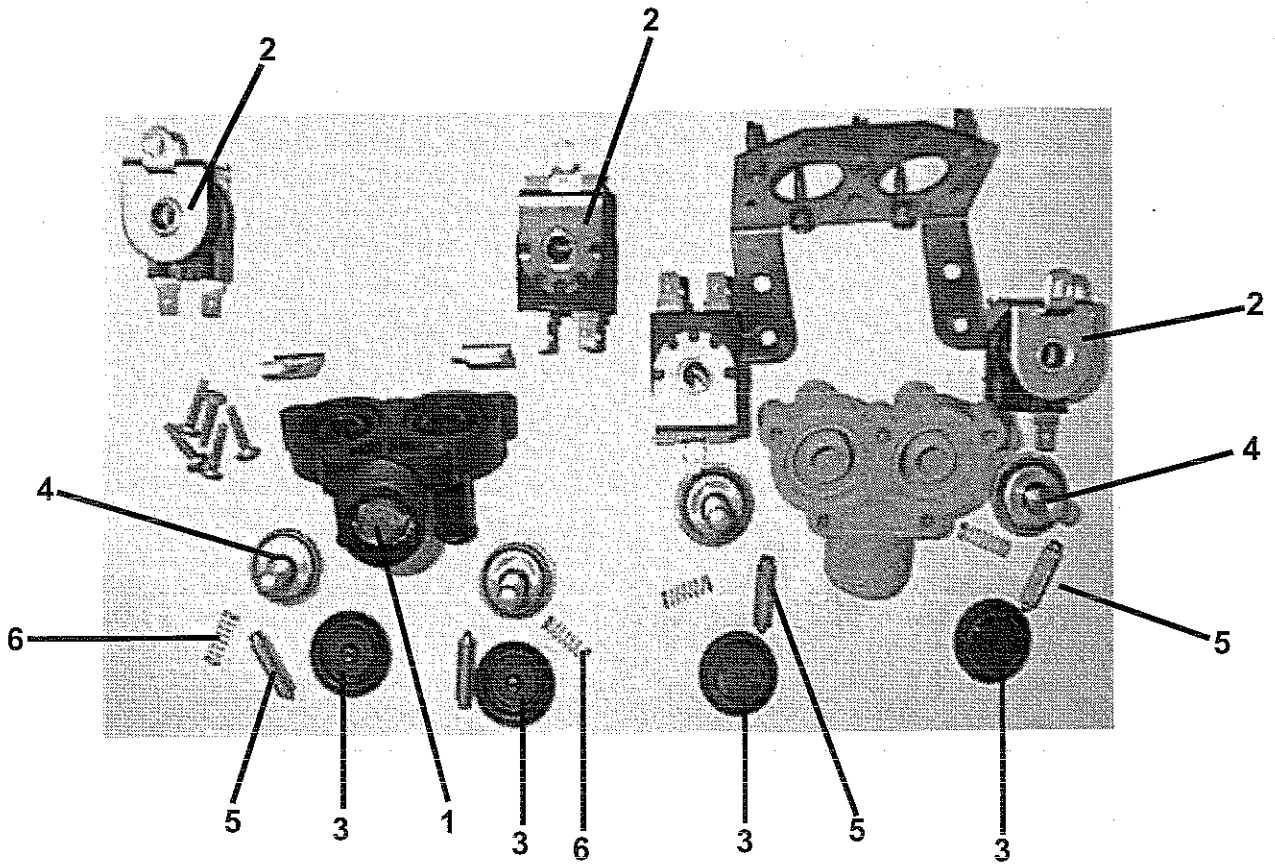
Key	Part Number	Description	
1	9801-061-001	Switch Ass'y, Membrane	1
2	9627-700-001	Wiring Harness, Membrane	1
3	9452-637-001	Plate, Membrane Switch	1
4	8650-024-001	Lock, Key (Switch)	1
*	9627-703-001	Wiring Harness, Key Switch	1
5	9799-001-001	Display Ass'y, Printed Circuit Board	1
6	9627-705-001	Wiring Harness, CPU To Display	1
7	8640-411-003	Nut, Mtg 6-32	7
8	9412-093-002	Nameplate MEGALOAD PLUS	1

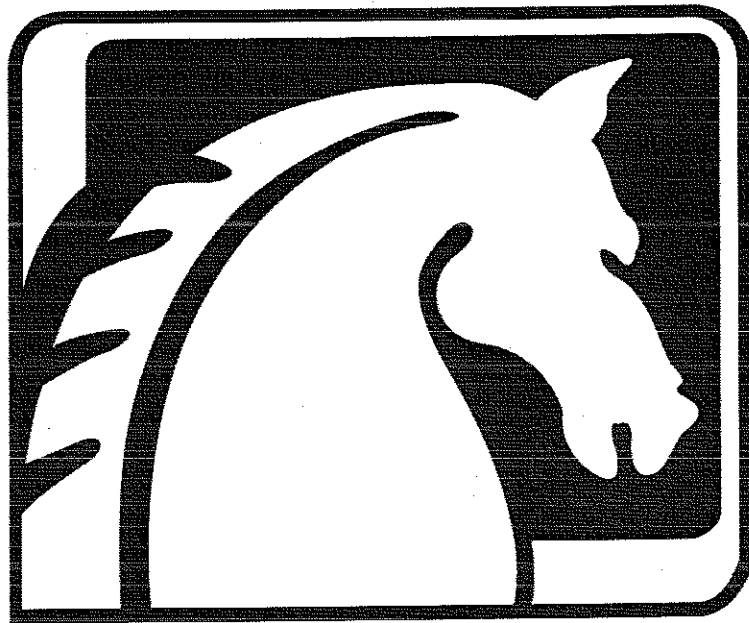
* Not Illustrated

WATER INLET VALVE BREAKDOWN

Key	Part Number	Description	
*	9379-183-003	Valve, Water Inlet Blue (includes #1 thru #6)	1
*	9379-183-004	Valve, Water Inlet Black (includes #1 thru #6)	1
1	9555-056-001	Screen, Inlet	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
*	9545-008-026	Screw, Valve Mtg	2

* Not Illustrated





WATER INLET GROUP

Key	Part Number	Description	
1	9379-183-003	Valve, Water Inlet (blue)	1
		(see Water Inlet Valve Breakdown for individual parts)	
2	9379-183-004	Valve, Water Inlet (black) used for hot water	1
*	9545-008-026	Screw, Valve Mtg	4
*	8640-399-009	Nut, Spring U type	4
*	9208-049-001	Guard, Water Valve Terminal	2
*	9545-008-026	Screw	4
5	9610-001-001	Vacuum Breaker	1
*	9029-069-001	Bracket, Vacuum Breaker	1
6	9545-008-026	Screw	4
16	9242-461-001	Hose, Injector Assy to Vac. Breaker & Inj to Tub	2
7	9242-453-018	Hose, Vac. Brkr. to Wash Dis 29"	1
8	9242-453-019	Hose, Vac. Brkr. to Rinse Dis 26"	1
9	9242-453-020	Hose, Hot Valve to Vac. Brkr 18"	2
10	9242-453-020	Hose, Cold Valve to Vac. Brkr 18"	2
11	9242-450-001	Hose, Soap Dispenser to Tub	1
12	9242-463-004	Hose, Overflow 13"	1
13	8654-117-015	Clamp, Hose-Worm 1"	12
*	8654-117-014	Clamp Hose at drain valve	8
*	8654-117-008	Clamp Hose	3
14	5198-211-004	Circuit Breaker	1
15	9883-005-001	PVC Injector Assy, Soap	1

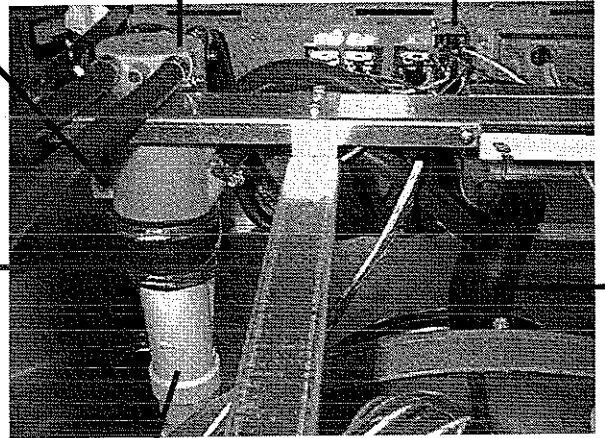
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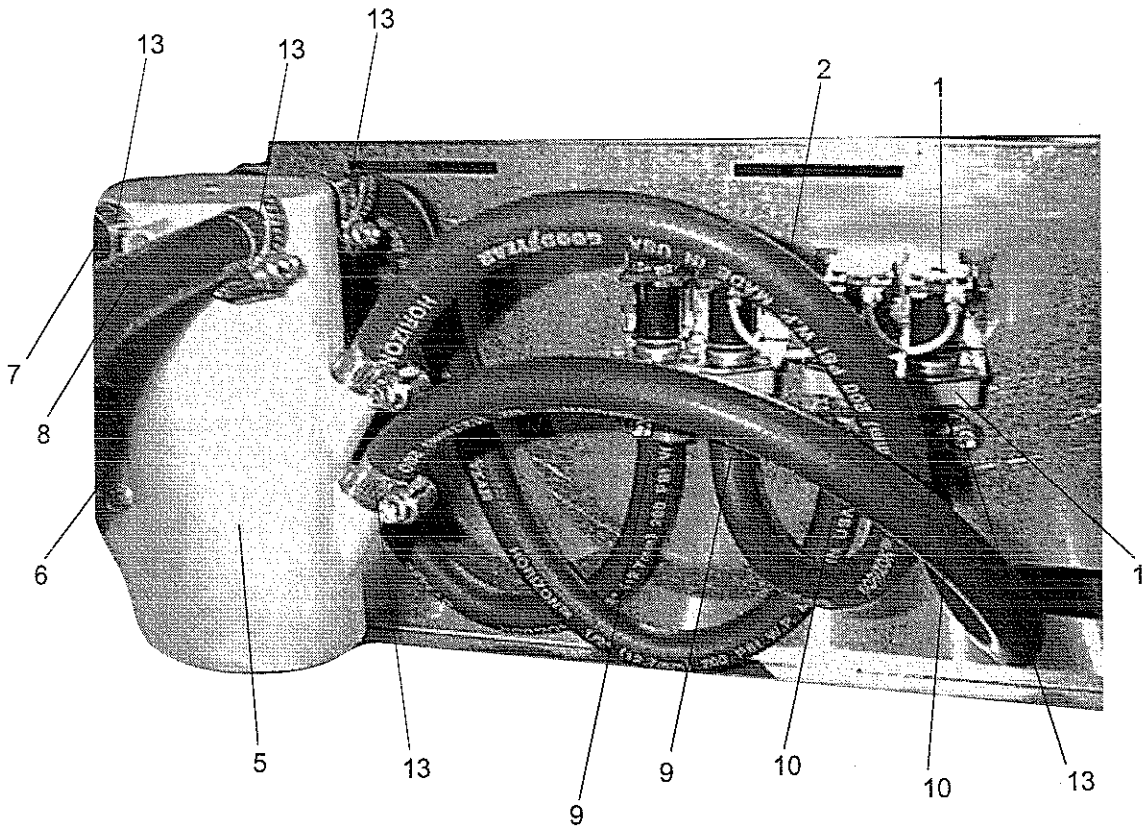


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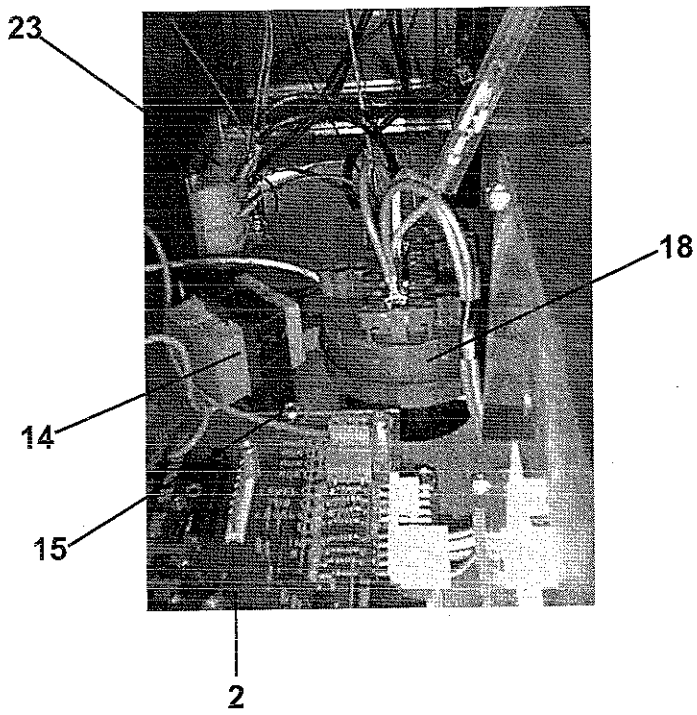
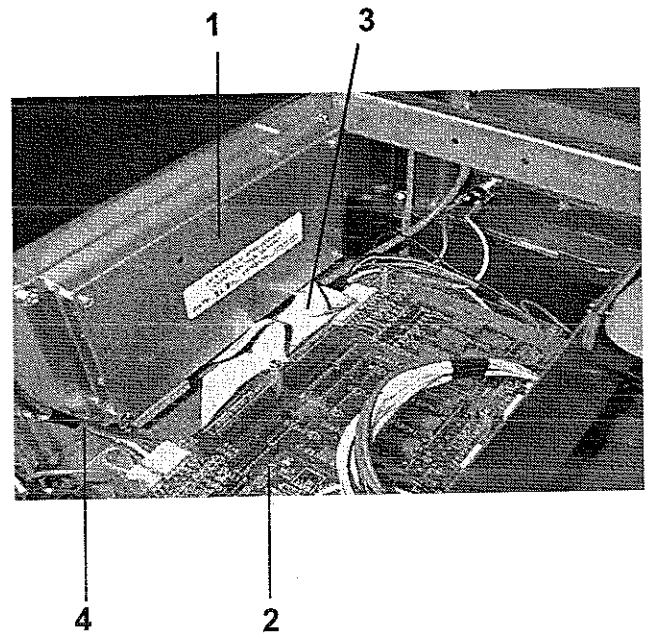
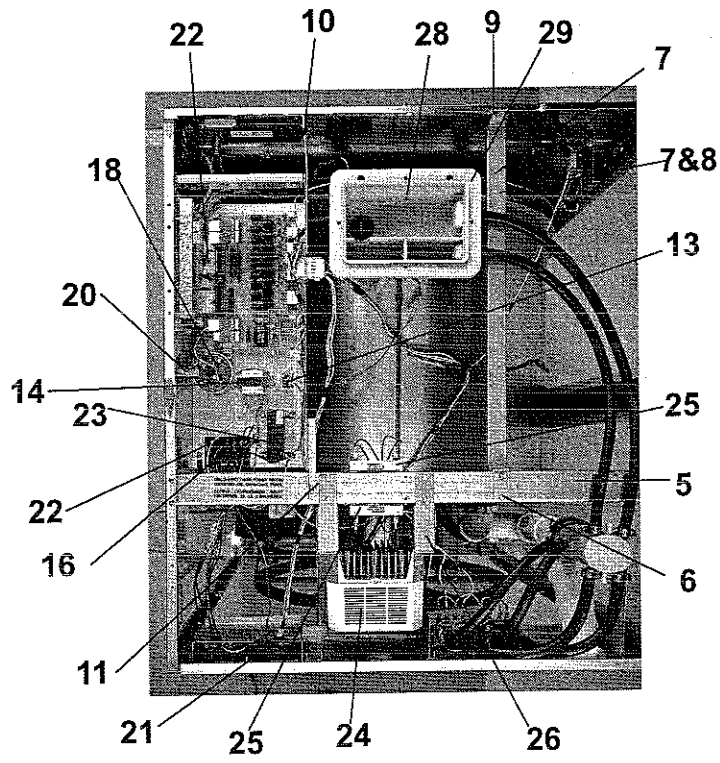
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ELECTRICAL COMPONENTS TOP COMPARTMENT

Key	Part Number	Description	
1	9799-002-003	PC Board Ass'y, CPU	1
2	9799-003-001	PC Board Ass'y, Input/Output	1
3	9500-001-001	Ribbon Cable	2
4	9627-706-001	Wiring Harness, CPU to I/O	1
5	9081-110-001	Channel, Trough Mtg	1
6	9545-008-023	Screws	4
7	9081-108-001	Channel, Dispenser Support	1
8	9545-008-026	Screw Hex Head 10Bx 1/2"	2
9	9545-008-001	Screw, To Cntrl Panel 10Bx1/4"	2
10	9839-014-001	Trough Assy, Controls Mtg	1
*	9545-008-001	Screw 10Bx1/4"	4
11	9029-061-001	Bracket, Support- Trough	1
12	9545-008-001	Screw 10Bx1/4"	3
13	5192-285-003	Run Relay	1
*	8220-001-442	Diode Ass'y	1
14	8711-003-001	Transformer, 120/12v	1
15	9545-031-003	Screw 6Bx3/8"	2
16	9897-033-002	Terminal Block, Power	1
*	9558-025-001	Strip, Terminal Marker	1
17	9545-045-001	Screw, 8Bx 1/4"Mtg	2
18	9539-488-001	Switch, Pressure (Used after serial number # 430010)	1
*	9732-173-001	Switch Pressure (Before serial number # 430010)	1
19	9545-031-003	Screw 6Bx3/8	1
20	9029-071-001	Bracket, Pressure Switch Mounting	1
*	9545-045-001	Screw, Mtg 8Bx1/4	2
21	5198-211-004	Circuit Breaker, 1.5 amp	1
22	8652-134-001	Lug, Grounding	1
*	8639-621-007	Screw, Green 10-32x1/2"Mtg	1
*	8641-582-006	Lockwasher	1
23	8711-004-001	Transformer, Control	1
*	9545-008-026	Screw 10Bx1/2"	3
*	8641-582-006	Lockwasher	3
24	9375-001-002	Drive, VF-120G for AFH models original harness	*
24	9375-003-004	Drive, VF - 140G for AFHX modelsoriginal harness	*
*	9732-184-001	DELTA DRIVE VFD 120G AFH MODELS w/ new harness	*
*	9732-185-001	DELTA DRIVE VFD 140G AFH MODELS w/ new harness	*
*	9732-167-001	DELTA DRIVE REPLACEMENT FOR ALTIVAR 16 120G AFH	*
*	9732-168-001	DELTA DRIVE REPLACEMENT FOR ALTIVAR 16 140G AFHX ..	*
*	9545-008-026	Screw	4
*	8640-413-002	Nut, Hex	4
25	9483-004-003	Resistor, Braking 160 ohms used for Delta Drives only	2
*	9483-004-001	Resistor, Braking 100 ohms used for Altivar 16 Drives only	2
*	9545-012-003	Screw 10-32x1/2 CHR	4
*	8640-413-002	Nut 10-32 UNF 2B	4
26	9029-115-001	Bracket Drive Mounting 2 pieces	1
*	8640-413-002	Nut 10-32 UNF 2B	6
28	9732-108-002	Soap Dispenser kit,	1
29	9206-416-001	Gasket, Dispenser	1

* Not Illustrated



TERMINAL BLOCKS

Key	Part Number	Description	
*	9897-032-002	Terminal Block, Injector	1
*	9558-028-001	Terminal Marker Strip	1
*	9545-053-002	Screw	2
*	9897-033-002	Terminal Block, Main Power	1
*	9558-025-001	Terminal Marker Strip	1
*	9545-031-010	Screw	2
*	8652-134-001	Terminal Lug, Ground	1
*	8639-621-007	Screw	1
*	8641-582-006	Lockwasher	1
*	8652-130-037	Terminal, Grounding	1
*	8639-045-002	Screw	1
*	8641-582-006	Lockwasher	1
*	8652-133-002	Terminal	1

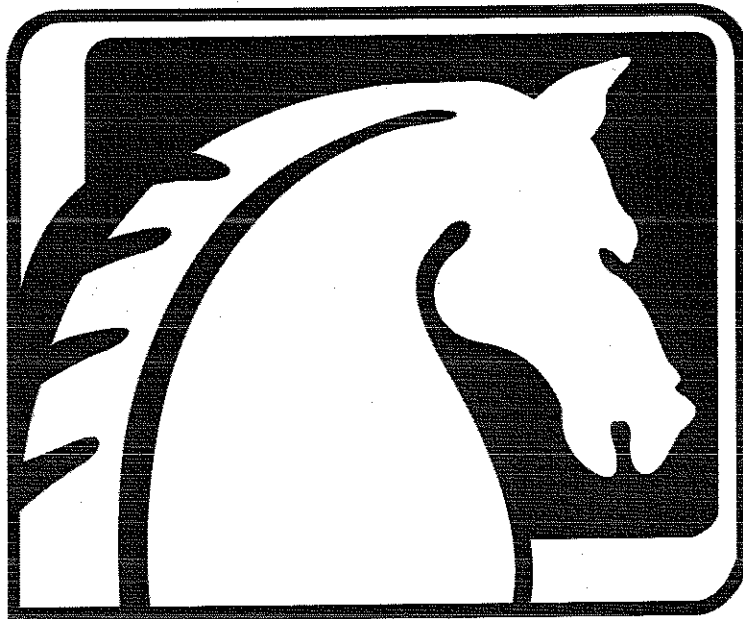
LABELS

Key	Part Number	Description	
*	8502-624-003	Label, Warning Door Opening	1
*	8502-614-004	Label, High Voltage	2
*	8502-647-002	Label, Connections- Injector	1
*	8502-649-001	Label, Connections- Electrical	1
*	8502-619-004	Label, Fusing & Installation	1
*	8502-639-001	Label, Warning	
*	8502-650-001	Label, Instructions, Dispenser	1
*	8502-653-001	Label, Instructions, Installer	1
*	8502-666-001	Label Injector Assembly	1
*	8507-258-001	Instructions Control Transformer	1
*	8507-268-001	Instructions Chemical Hose Installation	1
*	8507-275-001	Instructions Spin Direction	1
*	8514-016-003	Owners, Booklet	1
*	9345-887-001	Wiring Label Schematic	1

WIRING HARNESS GROUP

Key	Part Number	Description	
*	9627-747-001	Wiring Harness, Power Term Blk	1
*	9627-697-001	Wiring Harness, Trough, 115VAC	1
*	9627-698-001	Wiring Harness, 115VAC	1
*	9627-700-001	Wiring Harness, Membrane Switch	1
*	9627-703-001	Wiring Harness, Doorlock/Keylock	1
*	9627-810-001	Wiring Harness, VFD Control Shield RED	1
*	9627-811-001	Wiring Harness, Control VFDrive	1
*	9627-704-001	Wiring Harness, Pressure Switch	1
*	9627-705-001	Wiring Harness, CPU to Display	1
*	9627-706-001	Wiring Harness, CPU to I/O	1
*	8654-125-005	Clamp, Cable- 3/16 Dia	1
*	8220-001-282	Wire Assembly Red 20"	1
*	8220-001-427	Wire Assembly Violet 7"/12"	1
*	8220-001-442	Wire Assembly DIODE	1
*	8220-090-001	Wire Assembly Jumper Wht./ Red	1
*	8220-104-001	Wire Assembly Jumper Blk.	2

* Not Illustrated



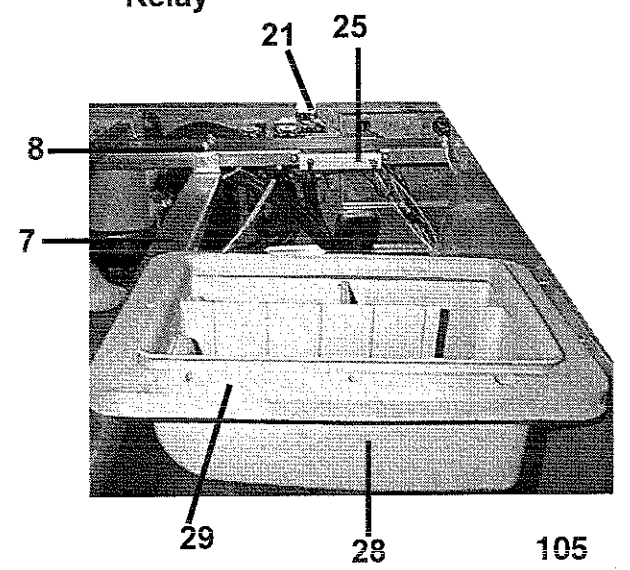
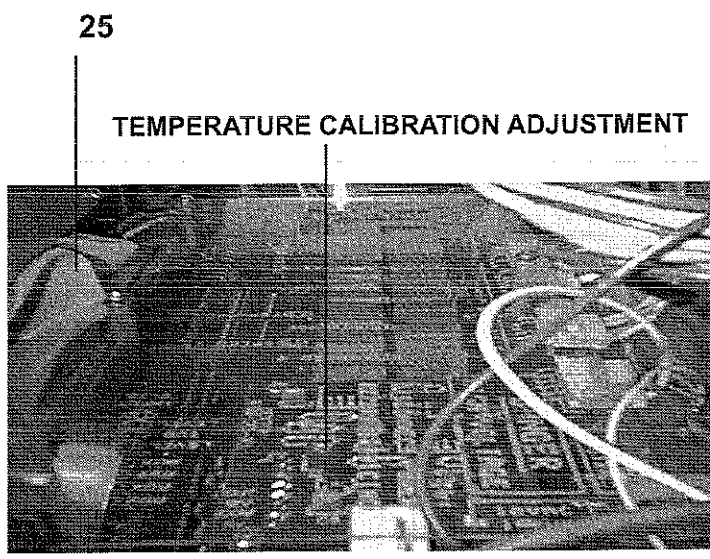
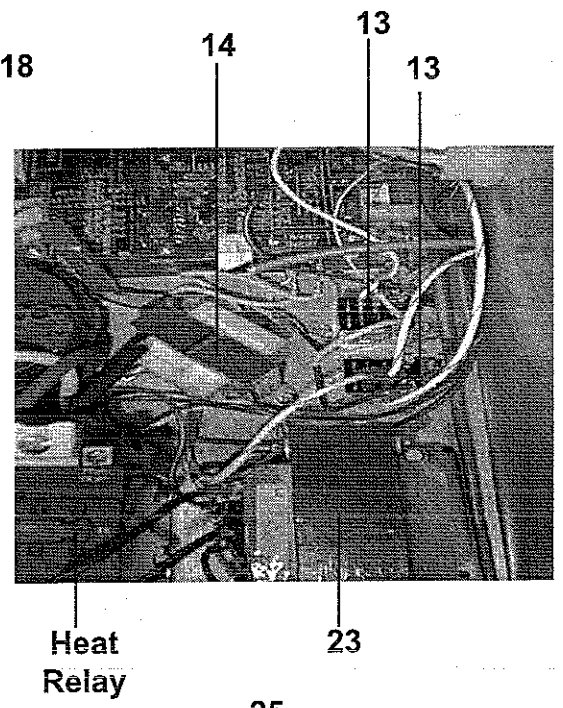
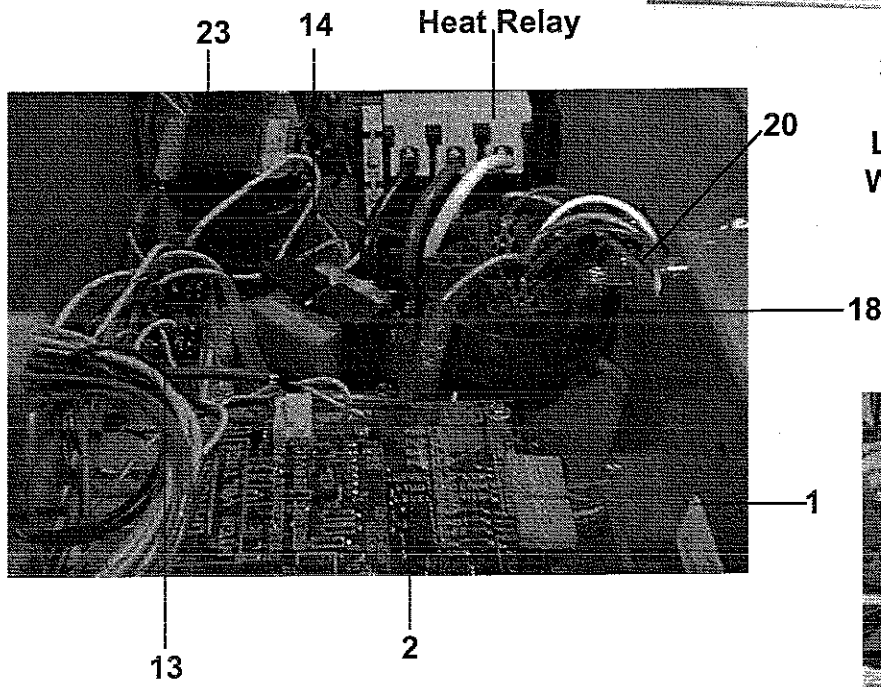
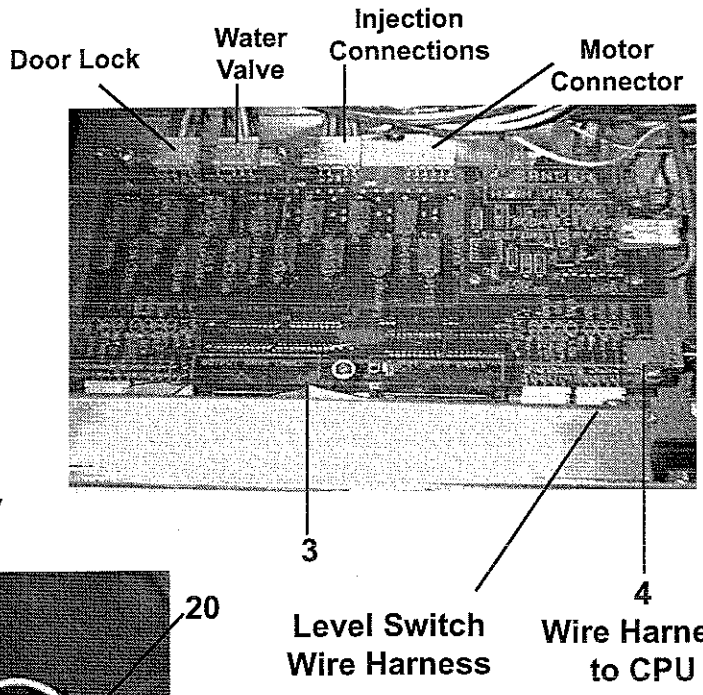
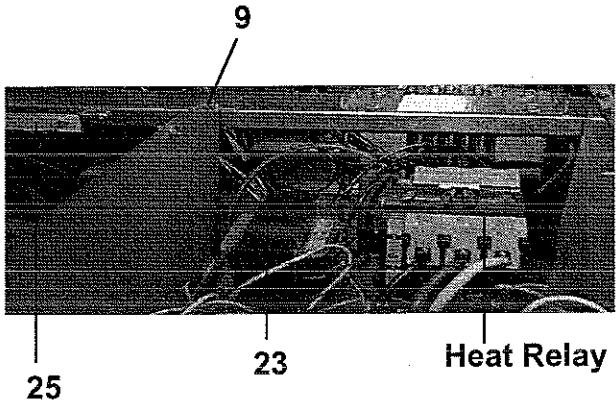
Section 7

Electric Heated Parts Data

ELECTRICAL HEATED WASHER COMPONENTS TOP

Key	Part Number	Description	
1	9799-002-003	PC Board Ass'y, CPU ***** READ BELOW	1
2	9799-003-001	PC Board Ass'y, Input/Output	1
*	9799-013-001	PC Board Assembly -Temperature Control	1
3	9500-001-001	Ribbon Cable	2
4	9627-706-001	Wiring Harness, CPU to I/O	1
5	9081-110-001	Channel, Trough Mtg	1
6	9545-008-023	Screws	4
7	9081-108-001	Channel, Dispenser Support	1
8	9545-008-026	Screw	2
9	9545-008-001	Screw, To Cntrl Panel	2
10	9839-014-001	Trough Assy, Controls Mtg	1
*	9545-008-001	Screw	4
11	9029-061-001	Bracket, Support- Trough	1
12	9545-008-001	Screw	3
13	5192-285-003	Run Relay (R-1) and level relay	2
*	5192-291-001	Heat Relay 60 amp	1
*	8220-001-442	Diode Ass'y	2
14	8711-003-001	Transformer, 120/12V	1
15	9545-031-003	Screw 6Bx3/8"	2
16	9897-033-002	Terminal Block, Power	1
*	9558-025-001	Strip, Terminal Marker	1
17	9545-045-001	Screw, 8Bx 1/4" Mtg	2
18	9539-488-001	Switch, Pressure	1
19	9545-031-003	Screw 6Bx3/8	1
20	9029-071-001	Bracket, Pressure Switch Mounting	1
*	9545-045-001	Screw, Mtg 8Bx1/4	2
21	5198-211-004	Circuit Breaker, 1.5 amp	1
22	8652-134-001	Lug, Grounding	1
*	8639-621-007	Screw, Green 10-32x1/2" Mtg	1
*	8641-582-006	Lockwasher	1
23	8711-004-001	Transformer, Control	1
*	9545-008-026	Screw 10Bx1/2"	3
*	8641-582-006	Lockwasher	3
*	9375-003-004	Drive, VF - 140G for AFHXXH models	*
*	9545-008-026	Screw	4
*	8640-413-002	Nut, Hex	4
*	9483-004-003	Resistor, Braking	2
*	9545-012-003	Screw 10-32x1/2 CHR	4
*	8640-413-002	Nut 10-32 UNF 2B	4
26	9029-115-001	Bracket Drive Mounting 2 pieces	1
*	8640-413-002	Nut 10-32 UNF 2B	6
28	9732-108-002	Soap Dispenser kit,	1
29	9206-416-001	Gasket, Dispenser	1

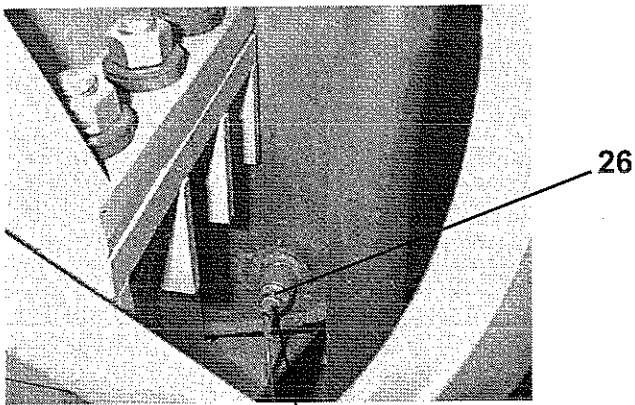
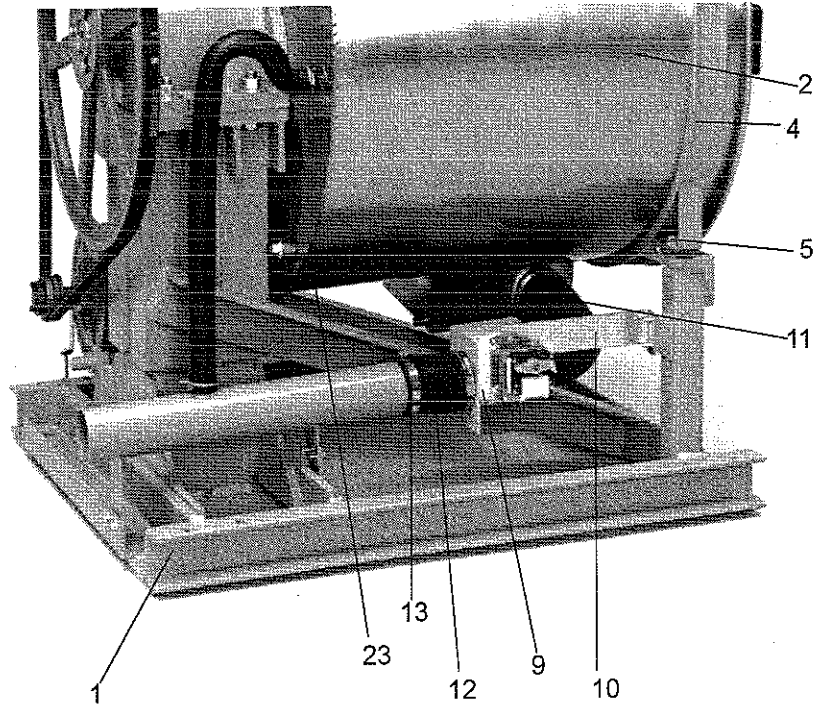
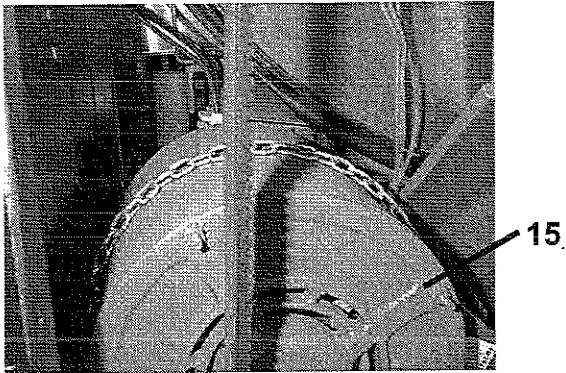
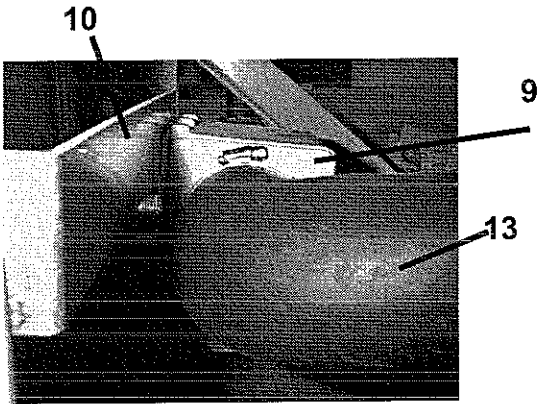
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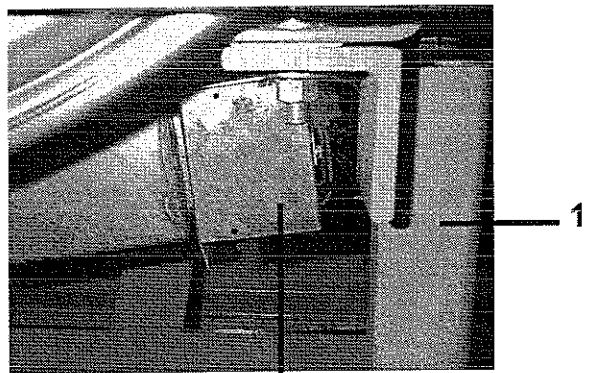
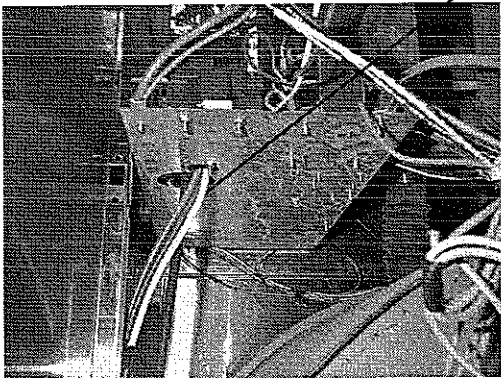
ELECTRICAL HEATED CHASSIS AND DRAIN GROUP

Key	Part Number	Description	
1	9945-105-002	Base Assy, Frame	1
2	9930-138-002	Tub Assy	1
*	9869-009-003	Tub & Cylinder Assembly Complete with heat	1
*	9870-087-001	Heater Assembly	9
3	9848-116-001	Cylinder Assembly Complete	1
4	9950-053-002	Ring Assy, Tub Mtg-Front	2
5	9545-017-013	Screw, (outer tub clamping band) 1/2-14x2 Grade5.....	1
5	8640-417-002	Nut	1
5	8641-582-018	Lockwasher	1
*	9950-055-001	Clamp Ring (clamping tubfront)	1
*	9545-029-009	Screw, HxSocket 3/8-16x3	1
*	8640-415-001	Nut,Hx 3/8-16	1
9	9379-187-001	Valve, Drain (see drain valve breakdown separate page)	1
10	9029-126-001	Bracket, Drain Valve	1
*	9545-030-002	Screw, Valve to Bracket & Bracket to tube	4
*	9915-120-002	Tube Assy, Drain	1
*	9545-030-002	Screw, Tube Mtg	2
*	9242-459-002	Hose, Tub to Drain Valve	1
14	9242-457-001	Hose, Drain Valve to Tube	1
*	8654-117-014	Clamp, Hose	4
15	9376-298-001	Motor Drive Magnatek	1
*	9497-222-004	Rod, Motor Mtg	1
*	9076-052-002	Collar, Shaft	4
*	9545-029-009	Screw, Motor Mtg Rod	1
18	8641-582-003	Lockwasher	1
19	9453-175-002	Pulley, Motor Driver	1
*	9545-028-015	Set Screw, Square Head	2
20	9040-079-002	Belt, Drive	1
*	9552-038-001	Shim, Support Assembly	AR
*	9081-109-001	Channel, Rear	1
22	9732-108-002	Dispenser,	1
*	9206-416-001	Gasket, Dispenser	1
*	9242-450-001	Hose, Dispenser to Tub	1
*	8654-117-008	Clamp, Dispenser Hose	2
24	9501-005-002	Sensor Assembly 10 K at rear of tub	1
25	9870-087-001	Heater Assembly 9 heaters included	9
26	8615-104-043	Bushing Reducer Hex	1
27	9074-286-001	Cover (Heater terminals)	1
28	8652-133-002	Heater Terminal Block	1
*	9456-048-001	Heater Sump Plug (For removed Heater Assembly and keep operational)	

* Not Illustrated



Wire From Heat Relay
to Heater
Wire Harness
Power Term Blk.



Wire Harness Main

27 & 25

ELECTRICAL HEATED TERMINAL BLOCKS

Key	Part Number	Description	
*	9897-033-002	Terminal Block, power	2
*	9558-025-001	Terminal Marker Strip power	1
*	9545-031-010	Screw	2
*	9897-032-002	Terminal Block, Injector	1
*	9558-028-001	Terminal Marker Strip 120v	1
*	9545-053-002	Screw	2

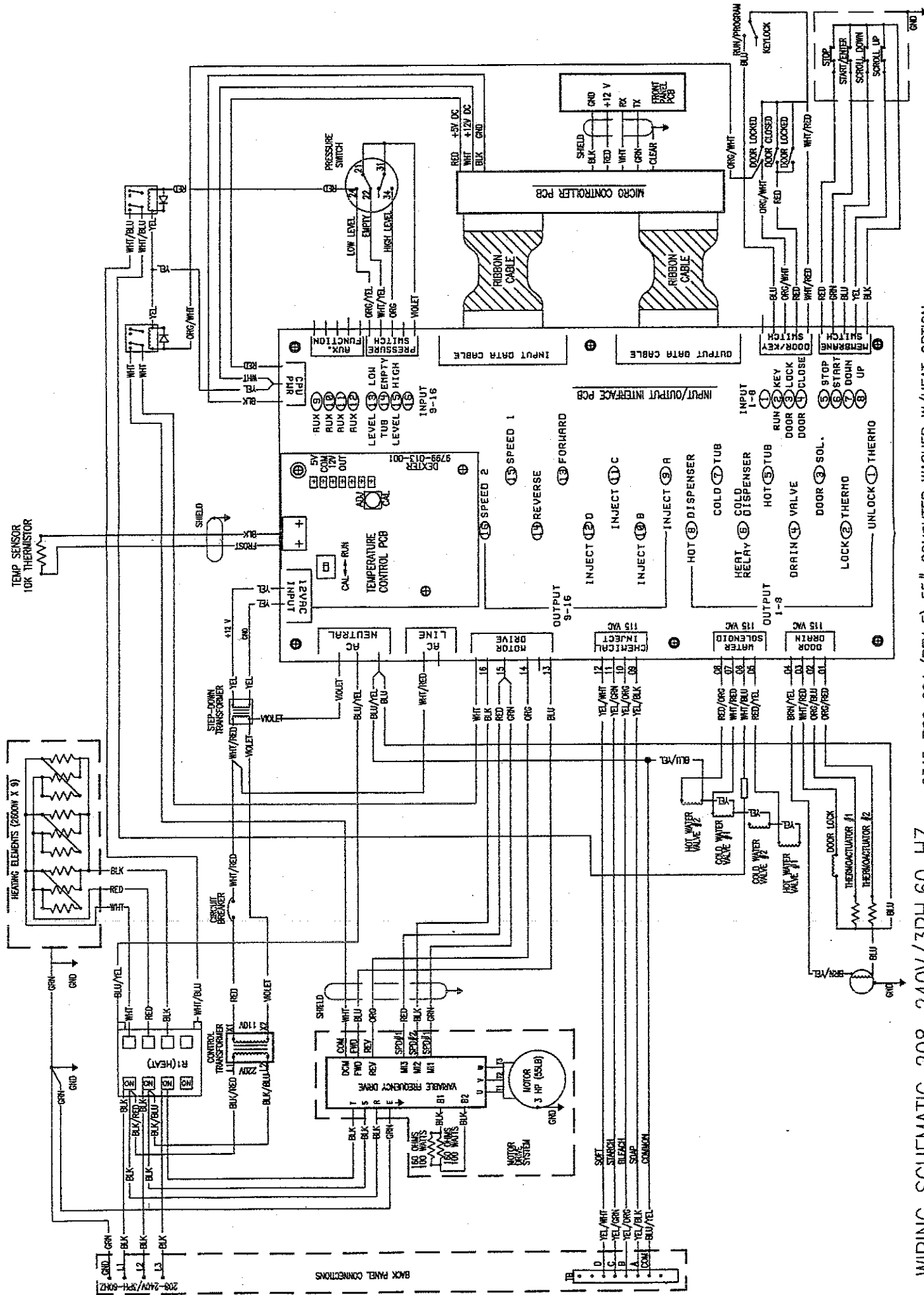
LABELS

Key	Part Number	Description	
*	8502-624-003	Label, Warning Door Opening	1
*	8502-614-004	Label, High Voltage	2
*	8502-647-002	Label, Connections- Injector	1
*	8502-649-001	Label, Connections- Electrical	1
*	8502-619-007	Label, Fusing & Installation	1
*	8502-639-001	Label, Warning	1
*	8502-650-001	Label, Instruction Dispenser	1
*	8502-653-001	Label, Installer Instructions	1
*	8502-666-001	Label, Injector assembly	1
*	8507-268-001	Instructions Chemical hose installation	1
*	8507-275-001	Instructions Spin Direction	1
*	8507-258-001	Instructions Control Transformer	1
*	8511-001-002	Label Quality	1
*	9345-786-004	Schematic/Wiring Diagram	1
*	8514-033-001	Owners Booklet	1

WIRING HARNESS GROUP

Key	Part Number	Description	
*	9627-748-001	Wiring Harness, Power Term Blk	1
*	9627-755-001	Wiring Harness, Main Heater Assembly	1
*	9627-762-001	Wiring Harness, Temp Sensor	1
*	9627-811-001	Wiring Harness, Control VFD Motor Drive	1
*	9627-697-001	Wiring Harness, Trough, 115VAC	1
*	9627-698-001	Wiring Harness, 115VAC	1
*	9627-810-001	Wiring Harness, VFD Control Shield (RED)	1
*	9627-704-001	Wiring Harness, Pressure Switch	1
*	9627-703-001	Wiring Harness Door /Lock -Keylock	1
*	9627-705-001	Wiring Harness CPU to Display	1
*	9627-700-001	Wiring Harness Membrane Switch	1
*	9627-706-001	Wiring CPU to I/O board	1
*	8654-125-005	Clamp, Cable- 3/16 Dia	1

* Not Illustrated



WIRING SCHEMATIC 208-240V/3PH,60 HZ 9345-786-004 (REV E) 55# COMPUTER WASHER W/HEAT OPTION

ELECTRICAL Operation

Programmed temperatures will be displayed in CENTIGRADE only.

The electric heaters will turn on when low water level has been obtained and actual temperature is less than programmed temperature.

While the heaters are engaged the wheel will pause 3 minutes between each forward/reverse rotation. The wheel will resume normal operation when bath temperature is 5 degrees before the programmed temperature is reached.

Cycle countdown time display will stop while heaters are engaged.

Heaters will maintain temperature throughout heated baths and will engage when bath temperature drops below 3 degrees of programmed temperature.

Actual temperature may be displayed by pressing the start and down arrows simultaneously. The temperature light will be on whenever the temperature is being displayed and will continue to be displayed until the start button is pushed again to display time remaining.

Any temperature between 20 degrees and 90 degrees in 5 degree increments is programmable.

Any bath that has a programmed spin cycle will go through a short cool down bath before spinning if the actual bath temperature at the time of draining is above 65 degrees . This bath consists of filling tub to low level with WARM water while tumbling and then draining. This will continue until bath temperature is below 65 degrees

If machine stop button is pressed momentarily(soak condition) while the heaters are energized, the wheel will continue with the 3 minute pause between each forward / reverse rotation until the set temperature has been reached. The normal 15 minute pause between each forward/reverse rotation will then take place until the start button is pushed to resume the cycle.

Actual bath water temperatures will normally overshoot the set temperature by 1 degrees to 3 degrees . This is to assure set temperature will be maintained throughout a normal bath time of 10-20 minutes. The heaters will engage if the bath temperature drops below 3 degrees of set temperature.

ELECTRICAL PROGRAMMING

The heated bath is programmed in our water temperature selection portion of our microprocessor.

You will program a formula the same way as previously discussed in this manual except as follows:

When you arrive at temperature selection portion of programming you will see the following choices :EE (tub empty), CC (cold), CH (warm), HH (hot), or any temperature between 20 degrees and 90 degrees in 5 degrees increments.

Use the up arrow and down arrow pad to set the water temperature desired (Centigrade) and then push the green start button to accept the change and then move to the next programming sequence.

Continue with any other cycle changes as previously discussed.

To exit the program mode and accept all changes press the red stop button while any one of the nine bath lights(top row of lights) are lit. The " Select cycle " light should be on. Turn the run/program key back to run position. If the program mode is exited incorrectly, the "Program" light will remain lit and the machine will remain in the program mode until the run/program key is turned back to the program position and the program is exited correctly.

ELECTRICAL FEATURES

When a numeric value for temperature is programmed for any bath the water valve selection to fill that bath is chosen as follows:

20 degrees - 35 degrees Centigrade

Cold valve only will be used

40 degrees - 60 degrees Centigrade

Cold and Hot Valve will be used

65 degrees - 90 degrees Centigrade

Hot valve only will be used

Machine will have 9 heating elements

Temperature control and display are operated with a temperature control circuit board on the I/O board, a thermistor sensor in the tub back, and a computer logic board (CPU).

Control voltage is 115 volt (60hz) or 24 volt (50hz) to heat relay.

Machine available in 208/240 volt 3 phase (60hz), 380/415 volt 3 phase (50hz) ONLY.
Optional Temperature control board can be added for non-heated machines to display temperatures and Steam option kit available . Steam valve will operate the same as described throughout except valve will operate in place of heat relay.

ELECTRICAL TROUBLESHOOTING

If the heater relay does not engage in a heated bath:

Check the calibration switch is set to run position

Check that I/O board jumpers are changed to the level side ,
Jumper must start closest to level input light and open pin will be
towards door input lights.

Check actual water temperature is less than programmed temperature

Check the temperature sensor for open circuit or shorted

Check low level contacts on the pressure switch not closing

Check low level safety relay contacts not closing or bad contacts

Check low level safety relay coil

Check heater relay contacts not closing or bad contacts

Check wiring between temperature board and sensor at all connectors
and inspect wires for any damage.

If temperature control board is removed, the programmed temperature value is retained in all baths and the water valves to fill that bath are chosen based on the programmed temperature as described on previous feature page.

ELECTRICAL CALIBRATION

The calibration should be checked whenever a temperature sensor has been replaced or if actual water temperature varies significantly from the display.

To calibrate the temperature control board go to step # 15 of the diagnostic cycle(#31) .Actual temperature will be shown in display. On the temperature control board move the cal- run switch to the calibrate position. The factory set calibration temperature of 98 degrees C should show on the display after a few seconds. Now turn the adjusting screw clockwise to increase calibration point and display temperature or counterclockwise to decrease calibration point and display temperature. The display is updated every 5 seconds so make adjustments in very small increments. Be sure to allow ample time for display to respond to updates. If adjustments of higher than 100 degrees C only the last two digits will be displayed.

ELECTRICAL HEATED WASHER SCHEMATICS

208-240 volt 3 phase (60hz) 308-415 volt 3 phase (50hz) power is supplied on L-1, L-2,L-3 to the normally open contacts of the heat relay and then to the six heating elements. The elements are wired in star or wye on 50HZ models. A delta configuration is used on 60HZ. models. There is a potential 220 volts across each element for both models 60HZ or 50HZ.

Control voltage 115 vac (60hz) or 24 vac (50hz) is used to power the heat relay coil and will close the heat relay contacts. The supply voltage will initiate from the I/O board Terminal number #6 (wht/blue wire) through the low-level safety relay contacts and then to the heat relay operating coil when heat is being called for by temperature board. The neutral will be supplied from the (blu/yel) wire connected to AC neutral terminal on the I/O board. The low level safety relay coil will operate when the washer has filled to a level, and gets a signal from the pressure switch. That signal will be 24 VDC and comes from the CPU board and through the pressure switch. With the low level safety relay contacts now switched and closed , voltage now will pass to the heat relay operating coil, and allow main 3 phase voltage across the heating elements.

Control voltage 115 vac (60hz) is used to power the steam valve coil. The supply voltage will initiate from the I/O board Terminal number #6 (wht/blue wire) to the steam valve coil when heat is being called for by temperature board. The neutral will be supplied from the (blu/yel) wire connected to AC neutral terminal on the I/O board. The valve gets a signal from the pressure switch. That signal will be 24 VDC and comes from the CPU board and through the pressure switch. With the low level safety relay contacts now switched and closed , voltage now will pass to the heat relay operating coil, and allow main 3 phase voltage across the heating elements.

OPTIONAL STEAM VALVE KIT OPERATING INSTRUCTIONS

Programmed temperatures will be displayed in CENTIGRADE only.

The valve will turn on when low water level has been obtained and actual temperature is less than programmed temperature.

While the valve is engaged the wheel will pause 3 minutes between each forward/reverse rotation. The wheel will resume normal operation when bath temperature is 5 degrees before the programmed temperature is reached.

Cycle countdown time display will stop while valve is engaged.

Valve will maintain the temperature throughout heated baths and will engage when bath temperature drops below 3 degrees of programmed temperature.

Actual temperature may be displayed by pressing the start and down arrows simultaneously. The temperature light will be on whenever the temperature is being displayed and will continue to be displayed until the start button is pushed again to display time remaining.

Any temperature between 20 degrees and 90 degrees in 5 degree increments is programmable.

Any bath that has a programmed spin cycle will go through a short cool down bath before spinning if the actual bath temperature at the time of draining is above 65 degrees. This bath consists of filling tub to low level with WARM water while tumbling and then draining. This will continue until bath temperature is below 65 degrees

If machine stop button is pressed momentarily(soak condition) while the heaters are energized, the wheel will continue with the 3 minute pause between each forward / reverse rotation until the set temperature has been reached. The normal 15 minute pause between each forward/reverse rotation will then take place until the start button is pushed to resume the cycle.

Actual bath water temperatures will normally overshoot the set temperature by 1 degrees to 3 degrees. This is to assure set temperature will be maintained throughout a normal bath time of 10-20 minutes. The valve will engage if the bath temperature drops below 3 degrees of set temperature.

STEAM VALVE KIT (OPTION) PROGRAMMING

9732-172-001

The heated bath is programmed in our water temperature selection portion of our microprocessor.

You will program a formula the same except as follows:

When you arrive at temperature selection portion of programming you will see the following choices :EE (tub empty), CC (cold), CH (warm), HH (hot), or any temperature between 20 degrees and 90 degrees in 5 degrees increments.

Use the up arrow and down arrow pad to set the water temperature desired (Centigrade) and then push the green start button to accept the change and then move to the next programming sequence.

Continue with any other cycle changes as previously discussed.

To exit the program mode and accept all changes press the red stop button while any one of the nine bath lights(top row of lights) are lit. The " Select cycle " light should be on. Turn the run/program key back to run position. If the program mode is exited incorrectly, the "Program" light will remain lit and the machine will remain in the program mode until the run/program key is turned back to the program position and the program is exited correctly.

Steam valve kit Features

When a numeric value for temperature is programmed for any bath the water valve selection to fill that bath is chosen as follows:

20 degrees - 35 degrees Centigrade

Cold valve only will be used

40 degrees - 60 degrees Centigrade

Cold and Hot Valve will be used

65 degrees - 90 degrees Centigrade

Hot valve only will be used

Temperature control and display are operated with a temperature control circuit board on the I/O board, a thermistor sensor in the tub back, and a computer logic board (CPU).

Control voltage is 115 volt (60hz) .

Steam Valve Troubleshooting

If the valve does not engage in a heated bath:

Check the calibration switch is set to run position

Check that I/O board jumpers are changed to the level side ,
Jumper must start closest to level input light and open pin will be
towards door input lights.

Check actual water temperature is less than programmed temperature

Check the temperature sensor for open circuit or shorted

Check low level contacts on the pressure switch not closing

Check steam valve coil

Check wiring between temperature board and sensor at all connectors
and inspect wires for any damage.

If temperature control board is removed, the programmed temperature value is retained in all baths and the water valves to fill that bath are chosen based on the programmed temperature as described on previous feature page.

Steam Calibration

The calibration should be checked whenever a temperature sensor has been replaced or if actual water temperature varies significantly from the display.

To calibrate the temperature control board go to step # 15 of the diagnostic cycle (#31) . Actual temperature will be shown in display. On the temperature control board move the cal- run switch to the calibrate position. The factory set calibration temperature of 98 degrees C should show on the display after a few seconds. Now turn the adjusting screw clockwise to increase calibration point and display temperature or counterclockwise to decrease calibration point and display temperature. The display is updated every 5 seconds so make adjustments in very small increments. Be sure to allow ample time for display to respond to updates. If adjustments of higher than 100 degrees C only the last two digits will be displayed.

STEAM Heated Washer Schematics

Control voltage 115 vac (60hz) is used to power the steam valve coil. The supply voltage will initiate from the I/O board Terminal number #6 (wht/blue wire) to the steam valve coil when heat is being called for by temperature board. The neutral will be supplied from the (blu/yel) wire connected to AC neutral terminal on the I/O board. The valve will get a signal when the pressure switch reaches low level . 115 vac will operate steam valve until programmed temperature is reached. Please remember you will lose a cold water dispenser flush signal as this is now the operating signal track on the I/O PCB board . It is marked on the lettering shield on the top of the I/O board.

Section 8

Maintenance

WASHER PREVENTIVE MAINTENANCE (PM) REQUIREMENTS

MAKE SURE ALL POWER IS DISCONNECTED BEFORE MAKING CHECKS INSIDE MACHINE.

DAILY

1. Clean the cabinet top around soap dispenser.
2. Clean the soap dispenser and soap lid and check that all dispenser mounting screws are in place and tight.
3. Check the drain for leaking and proper draining.
4. Check the water connections for leaks.
5. Check door seal for foreign material.
6. Leave the loading door open to aerate the washer when not in use.

QUARTERLY

1. Check the drive belt for wear and proper tension.
2. Clean lint and other foreign material from around drive motor.
3. Remove water inlet hose filter screens and clean or replace as necessary .
4. Check all electrical components for moisture and wipe away any foreign debris.

ANNUALLY

1. Clean and remove lint and foreign debris from outside cover of VFD with a dry clean rag or dry brush.
2. Inspect all wire connections especially at relays, terminal connections and circuit boards for tightness.
3. Inspect and check tightness of mounting bolts that mount washer frames to floor.

AFTER ANY SERVICE REINSTALL ALL PANELS AND SAFETY SCREENS BEFORE RECONNECTING POWER

