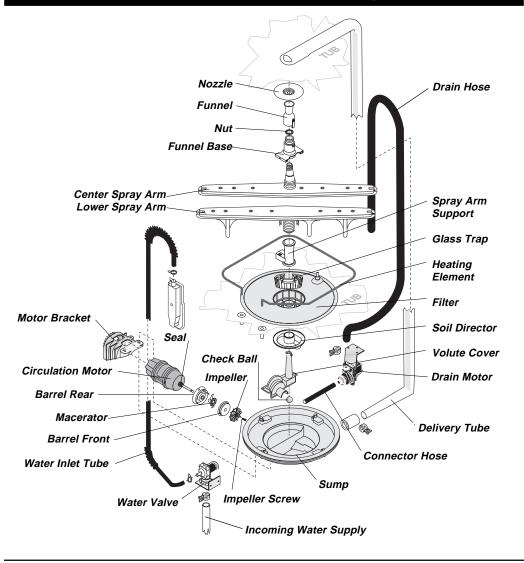
Exploded View of Wash System



Standard Dry Air Flow

When the control advances to the "dry" portion of The Power Dry configuration is the same as the the cycle, a linear actuator retracts a valve, which Standard except it has a cross flow blower located opens a vent path through the console into the in the air discharge path. The blower assists the kitchen. This venting method eliminates heating element in producing power to drive the discharging heated moisture into the motor moist air out of the dishwasher. compartment. The heated, moist air leaving the dishwasher through the console vent causes drier air to be drawn into the unit by way of intake vents located at the bottom of the door. The water on the dishes is evaporated into drier air and the venting process continues. The heating element is turned ON and OFF during the entire drying cycle.

Detergent and Rinse Aid Dispenser

detergent cup and a built-in rinse aid dispenser.

The detergent cup has a spring loaded cover and

Liquid rinse aid is added to the dispenser up to

indicator from one, being the least amount, to

four, being the greatest amount.

· shut off electricity to dishwasher,

disconnect wiring to the actuator,

remove outer door panel assembly,

To replace dispenser:

Tub and Door Seal

Power Dry Air Flow

replacing components.

Symptom

The detergent and rinse aid dispenser is a one • remove the six screws, piece component consisting of a molded

- remove the dispenser,
- replace and reinstall screws,

rewire actuator.

the rinse aid dispenser has a removable cover. To replace actuator:

- shut off electricity to dishwasher,
- the fill line indicator. The amount of rinse aid disconnect wiring to the actuator, released can be adjusted by turning the arrow
 - place a flat head screwdriver under the actuator body and between the dispenser housing and terminal side, twist and lift up on the actuator being careful not to damage the retainer snap-fits.
 - · replace with new actuator by pressing into place,
 - · rewire actuator.

an interference fit. Center the gasket (marked on a short turn at the bottom of the tub channel back) at the tub top center and press in place before ending at the channel end wall.

The door seal is pressed into the tub channel for without stretching or bunching. The gasket takes open

Pump Assembly

The pump assembly is driven by a 1/12 HP, shaded pole motor. Rotation is in the counterclockwise direction at 3100 to 3200 RPM. The motor drives a pump which supplies 100 percent filtered water at a rate of approximately 12 GPM to one spray arm at a time. The spray arm's operation is alternated by small "pauses" of the motor during the wash cycle.

Draining is accomplished by using a small separate synchronous drain pump mounted to the side of the sump. The drain pump is connected to the main pump by a small rubber hose. The drain check valve is located at the entrance to the drain pump. The drain hose is attached by a worm gear clamp to the discharge of the drain pump. The drain is then routed up the side of the dishwasher and attached to the side of the tub. This drain loop insures that an air pocket cannot form near the drain pump and cause the pump to

900 Watt Heater

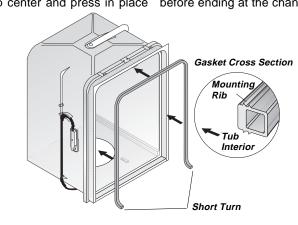
Refer to the cycle chart on the reverse side to determine when the heater is on during the wash the dry portion of the service test mode. cycle. The heater cycles ON and OFF for brief periods during the drying cycle.

air lock. The drain loop on the side of the tub must be kept in place after servicing.

The main pump can easily be removed by disconnecting the upper spray arm supply tube, the drain pump connector hose, and the wiring harness connections made at the circulation motor and the water heat thermistor located on the bottom of the pump.

Once the pump assembly is removed from the dishwasher, the motor/impeller assembly can be removed from the sump by taking out the three (3) T-20 Torx head screws from the aluminum motor bracket and then the three (3) T-20 Torx head screws from the volute cover. Using a large flat head screwdriver inserted between the impeller screw and the sump's volute, the motor/ impeller assembly can be gently pried out of the sump. Use the screwdriver as a lever.

Voltage checks of the heater should be made in



Product Specifications Electrical

liooti ioui	
	120 Volts, 60Hz
Separate Circui	t15 amp min 20 amp max.
Motor (HP)	¹ /12
Heater Wattage	
Total Amps (loa	d rated) 11.0
TempAssure	140°F ±5°F
(60°C±	3°C) [with outer door in place]
TempBoost	144°F ±5°F (62°C ±3°C)
	Heated Wash/Heated Rinse
Hi-Limit Thermo	stat 200°F (93°C)

Water Supply

Suggested minimum incoming water	
temperature 120°F (49°C)	
Pressure (PSI) min./max	
Connection (NPT) ³ /8"	Detergent left in dispens
Consumption (Normal Cycle)	
7.2 U.S. gal., 6.0 Imp. gal., 27.25 liters	
Water valve flow rate (U.S. GPM)	
Water recirculation rate (U.S. GPM)	
approx. 12	
Water fill time 87 sec.	

Dishwasher will not fill

AWARNING

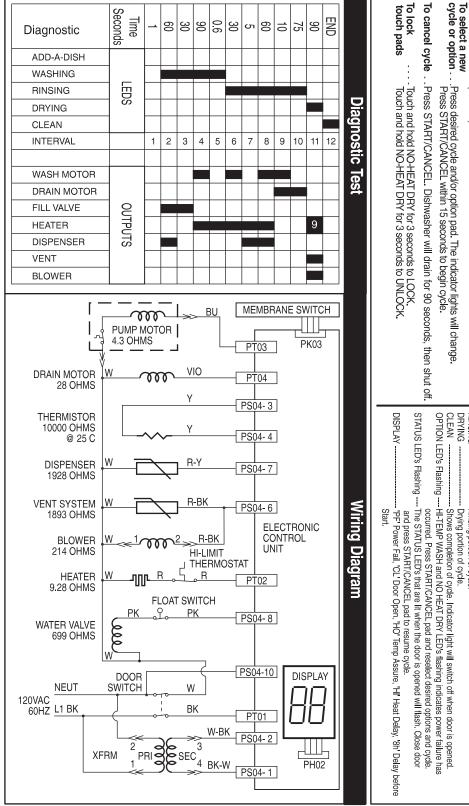
Personal Injury Hazard

Always disconnect the dishwasher from the electrical power source before adjusting or

Symptom	Check the Following	Remedy
Dishwasher will not operate when turned on.	 Fuse (blown or tripped). 120 VAC supply wiring connection faulty. Electronic control board defective. No 12 VAC power to control. Motor (inoperative, check resistances). Door switch (open contacts). Door latch not making contact with door switch. Touch pad circuit defective. No indicator lamps illuminate when START or OPTIONS are pressed. 	 Replace fuse or reset breaker. Repair or replace wire fasteners a dishwasher junction box. Replace control board. Replace transformer. Replace motor/impeller assembly. Replace door switch. Replace latch assembly. Replace console assembly. Replace console assembly.
Motor hums but will not start or run.	 Motor (bad bearings or locked rotor). Motor stuck due to prolonged non-use. 	 Replace motor. Rotate motor fan or impeller.
Motor trips out on internal thermal overload protector.	 Improper voltage. Seal faces binding. Motor shaft binding. Motor windings shorted. Glass or foreign items in pump. 	 Check voltage. Rotate motor fan or impeller, or replace. Clear blockage or replace. Replace motor/impeller assembly. Clean and clear blockage.
Dishwasher runs but will not heat.	 Heater element (open). Electronic control board defective. Wiring or terminal defective. Hi-Limit thermostat defective. 	 Replace heater element. Replace control board. Repair or replace. Replace thermostat.
Detergent cover will not latch or open.	 Latch mechanism defective. Electronic control board defective. Wiring or terminal defective. Broken spring(s). Defective actuator. 	 Replace dispenser. Replace control board. Repair or replace. Replace dispenser. Replace actuator.
Dishwasher will not pump out.	 Drain restricted. Electronic control board defective. Defective drain pump. Air lock in drain hose. Blocked impeller. Open windings. Wiring or terminal defective. 	 Clear restrictions. Replace control board. Replace pump. Make sure hose is attached in proper position on side of tub. Check for blockage, clear. Replace windings. Repair or replace.
Dishwasher will not fill with water.	 Water supply turned off. Defective water inlet fill valve. Check fill valve screen for obstructions. Defective float switch. Electronic control board defective. Wiring or terminal defective. Float stuck in "UP" position. 	 Turn water supply on. Replace water inlet fill valve. Disassemble and clean screen. Repair or replace. Replace control board. Repair or replace. Clean float.
Dishwasher water siphons out.	 Drain hose (high) loop too low. Drain line connected to a floor drain not vented. Drain hose not connected to side of tub. 	 Repair to proper height. Install air gap at counter top. Reattach drain hose.
Detergent left in dispenser.	 Detergent allowed to stand too long in dispenser. Dispenser wet when detergent was added. Detergent cover held closed or blocked by large dishes. Improper incoming water temperature to properly dissolve detergent. See "Detergent cover will not open." 	 Instruct customer/user. Instruct customer/user. Instruct customer/user on proper loading of dishes. Incoming water temperature of 120°F is required to properly dissolve dishwashing detergents.

N	N	(IN DUP			LED					OL	ΙΤΡΙ	JTS						CY	CLE	S			
INTERNAL NUMBER	INTERNAL FUNCTION	DURATION (IN SECONDS)	CLEAN	DRYING	RINSING	WASHING	ADD-A-DISH	BLOWER	VENT	DISPENSER	HEATER	FILL VALVE	DRAIN	WASH	HALF I	HALF UPPER	RINSE	CHINA	SHOR	NORM	HEAVY	POTS	
NUMBEI	FUNCTI	DS)		G	Ġ	NG	-DISH	R		NSER	30	ALVE	DRAIN MOTOR	WASH MOTOR	HALF LOWER	JPPER	RINSE & HOLD	CHINA CRYSTAL	SHORT WASH	NORMAL WASH	HEAVY WASH	POTS & PANS	
1	오 START DRAIN	20				-							20			_		Ä		Ť			
2	1 - FILL	87				I										I	I	I					
3	1 - WASH LO 1 - WASH/DRAIN	180 30															I	I					
5	1 - DRAIN 2 - FILL	150 87														Ľ	I	I					
7	2 - WASH LO 2 - PAUSE	# 3 0.6															ł						
9 10	2 - WASH HI 2 - PAUSE	# 3 3				ł											ł	T					
11 12	2 - WASH LO 2 - PAUSE	# 3 0.6				₽											ł						
13 14	2 - WASH HI 2 - PAUSE	# 3 3															₽						
15 16	2 - WASH LO 2 - PAUSE	# 3 0.6				F											F						
17 18	2 - WASH HI 2 - PAUSE	# 3 3																					
19 20	2 - WASH LO 2 - PAUSE	# 3 0.6																					
21	2 - WASH HI 2 - PAUSE	# 3																					
23 24	2 - WASH LO 2 - PAUSE	60 0.6																					
25 26	2 - WASH HI 2 - PAUSE	60 3																					
27	2 - WASH LO	60 0.6																					
28 29	2 - PAUSE 2 - WASH HI	30 30																					
30 31	2 - PAUSE 2 - WASH LO	60																					
32 33	2 - PAUSE 2 - WASH HI	0.6																					
34 35	2 - PAUSE 2 - WASH LO	3 60																					
36 37	2 - PAUSE 2 - WASH HI	0.6 30																					
38 39	2 - PAUSE 2 - WASH LO	3 60																					
40 41	2 - PAUSE 2 - WASH HI	0.6 30																					
42 43	2 - PAUSE 2 - WASH LO	3 60																					
44 45	2 - PAUSE 2 - WASH HI	0.6 30																					
46 47	2 - WASH/DRAIN 2 - DRAIN	30 # 3																					
	3 - FILL 3 - WASH LO	87 60															_		-				
50 51	3 - PAUSE 3 - WASH HI	0.6 30																					
	3 - PAUSE 3 - WASH LO	3 60				I										_							
54		0.6				ł										_			F				
	3 - PAUSE 3 - WASH LO	3 60																					
58 59	3 - PAUSE 3 - WASH HI	0.6 30				I										_							Cycle Selection Options
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62	3 - PAUSE 3 - WASH HI	0.6				I																	Se
64 65	3 - WASH/DRAIN 3 - DRAIN	20 120				I										_							ec
	4 - FILL	87 90				I												I					Ī
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	4 - PAUSE	90 3 90				I										_							pti
72	4 - WASH LO 4 - PAUSE	0.6				I												I					0 n
73 74	4 - PAUSE	90 3				I										_		I					S
76	4 - PAUSE	90 0.6				I										_		I					
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	4 - WASH HI TEMP ASSURE HEAT DELAY	90 # 1 # 2				I												I					
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90 91		87 60																					
92	5 - PAUSE 5 - WASH HI	0.6																					
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96 97	5 - PAUSE 5 - WASH HI	0.6																					
98	5 - DRAIN 6 - FILL	120 87																					
100	6 - WASH LO 6 - PAUSE	75 0.6																I		I			
102	6 - WASH HI 6 - PAUSE	75 3																I	I				
104	6 - WASH LO 6 - PAUSE	75 0.6																I					
106	6 - WASH HI 6 - DRAIN	75 120																I					
108	7 - FILL 7 - WASH LO	87 90																I					
110	7 - WASH LO 7 - PAUSE	# 3 0.6																					
112	7 - WASH HI 7 - PAUSE	# 3														I		I					
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116	7 - WASH HI	#3														I		I					
118	7 - PAUSE TEMP ASSURE HEAT DELAY	3 #4 #5																					
120	7 - DRAIN DRY	# 5 30 360									7							J	I				
122	DRY DRY	60 180									7 7					ſ	_						
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A 136		157 END				_		1	I							1		I	I	I	1		
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RIGIDAIRE **Models:** Company cannot be responsible, nor assume any liability, for injury or FDB949, FDB989 damage of any kind arising from the use of this Service Data Sheet. The cycles each have upper temperature maximum limits which assure that the heater will never be on above that limit. The temperature limit is 155°F (68°C) for all cycles except China Crystal. The China Crystal upper limit is 127°F (53°C). is preset to occur on the upper spray arm action. **NOTE 6:** Temperature Maintain: This interval holds the wash temperature at the preset temperature (±1° C) for 5 minutes. The heater is free to cycle ON and OFF during this interval. The pump motor is generating lower and upper spray action during this interval. The sequence is: 3 second pause, 60 second wash, 0.6 second pause, 60 second wash. pause. 60 second wash. NOTE 7: This output is ON when the 'No Heat Dry' option is OFF. This output is OFF when the 'No Heat Dry' option in ON. R R BK 몆 \geq Y-BK **Color Code** Black/Wh Red/Yellow Red/Black Yellow .Black /iolet .Pink θ Red шe HINA CRYSTAL L HINSE & HOLD 60 HINSE & HOLD 60 HALF UPPER If not in power failure mode: Cancel any cycle and, with the door latched, press for 3 seconds HI-TEMP WASH and START/CANCEL pads. pads. While in power failure me Water/Service Test - press HEAVY WASH NORMAL WASH Press 'START' to manually advance diagnostic events. PANS Diagnostic CYCLE <u>କ୍ରିରାରାରାରାର</u> 1 8888888 ø and 8888888 hold, 66888888 VARIABLE TABLE Cycle for g 6 6 6 6 6 6 6 8888888 seconds 1 19 60 60 60 60 Test s, NO HEAT DRY 60 1 33 33 33 32 23 150 120 120 47 Procedure 0:0 0000 75 75 75 75 75 240 and START/CANCEL 60 - 75 3333 114 116 #1 3333 240 140 145 144 1 140 145 144 1 127 132 127 1 1 1 1 12 1 1 1 1 ₿ 1<u>20</u> #4 132 47 Seconds END Time ଷ ଞ 8 0.6 8 90 10 30 ъ Diagnostic ADD-A-DISH WASHING RINSING





To select a new cycle or option To delay startClose and latch door. Press DELAY START pad until desired delay time (1-9 hrs.) shows in STATUS window. Press desired cycle and/or option pad. The indicator lights will change. Press START/CANCEL within 15 seconds to begin cycle.

To cancel cycle

. . Press START/CANCEL. Dishwasher will drain for 90 seconds, then shut

¥

STATUS LED's Flashing ----

DRYING CLEAN OPTION I

LED's Flashing -----

NOTE 2: Heat Delay operation is in progress. This is an optional cycle event. Cycle timing is interrupted while the water is heated to the preset temperature. At either the preset temperature, or a default escape time, normal cycle timing resumes. The escape time is 15 minutes. The pump motor is generating lower and upper spray action during this interval. The sequence is: 3 second pause, 60 second wash, 0.6 second pause, 60 second wash. The termination of the TempAssure event **NOTE 1:** TempAssure operation is in progress. This is a fixed cycle event. Cycle timing is interrupted while the water is heated to a preset temperature. At either the preset temperature, or a default escape time, normal cycle timing resumes. The escape time is 15 minutes. The pump motor is generating lower and upper spray action during this interval. The sequence is: 3 second pause, 60 second pause, 60 second pause, 60 second wash. The termination of the TempAssure event is preset to occur on the upper spray arm action. **NOTE 2:** Heat Delay operation is in progress. This is an optional cycle event. Cycle timing is interrupted while the water is heated to the preset temperature. At **NOTE 2:** Heat Delay operation is in progress. This is an optional cycle event.

Notes

NOTE 3: This interval time is controlled by the This interval time is controlled by the 'CYCLE VARIABLE TABLE'

action preser **VOTE 4:** TempAssure operation is in progress. temperature or a default escape time, normal cycle timing during this interval. The sequence is: 3 second pause, 60 . This is a fixed cycle event. Cycle timing is interrupted while the water is heated to a preset temperature. At either the nal cycle timing resumes. The escape time is 15 minutes. The pump motor is generating lower and upper spray cond pause, 60 second wash. O.6 second pause, 60 second wash. The termination of the TempAssure event is

NOTE 5: Heat Delay operation is in progress. This is an optional cycle event. Cycle timing is interrupted while the water is heated to the preset temperature. At either the preset temperature, or a default escape time, normal cycle timing resumes. The escape time is 15 minutes. The pump motor is generating lower and upper spray action during this interval. The sequence is: 3 second pause, 60 second wash, 0.6 second pause, 60 second wash. The termination of the TempAssure event to occur on the upper spray arm action.

SERVICE DATA SHEET P/N: 154278902

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This information is intended for use by persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the appliance repair trade. Frigidaire

	DISPLAY CODES (LED)
ADD-A-DISH	ADD-A-DISH Dishes may be added now. The indicator light will switch off after the detergent
	dispenser activates and will remain off for the remainder of cycle.
WASHING Wash portion of cycle.	Wash portion of cycle.
RINSING Binsing nortion of cycle	Rinsing portion of cycle