

SERVICE DATA SHEET

P/N: A16307701

Model: FFB02420\*\*  
FFB01631\*\*

This information is intended for use by persons having electrical and mechanical training and a level of knowledge of these systems as would be expected of a technician in the appliance repair trade. Electronic Home Products North America cannot be held responsible for any loss or damage of any kind arising from the use of this Service Data Sheet.

BK	Black
BL	Blue
PK	Pink
RD	Red
GN	Green
OR	Orange
WH	White
BR	Brown
YC	Yellow
GY	Gray

**Operation**

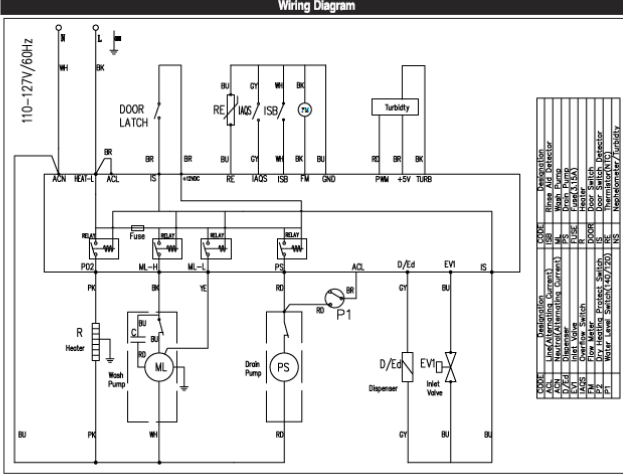
To start . . . . . Close and latch door, Press START pad.  
 To delay start . . . . . Close the door and press DELAY pad to select desired delay time, then Press START/Cancel pad.  
 To select a new cycle or option . . . Press desired cycle and/or option pad, the indicator lights will change, Press the START/Cancel pad.  
 To cancel cycle . . . Press Start/Cancel and hold 3 seconds during the running cycle, the unit will stop after the drain cycle.  
 For controls . . . Press Options + Delay pad and hold for 3s, the unit will be lock, and the LOCK led will illuminate. Again, press Options + Delay pad and hold for 3s, the unit will be unlock and the LOCK led will be off.

The water/service test is a special function initiated from the power failure mode.	
Within first 60s in recovery from power failure mode, simultaneously press START/Cancel and Rinse pad. Then close door, the unit is to display board version number for one second, and then the unit to step through the test cycle per the chart.	
Press START/Cancel pad to advance the unit to the next step (except Filling step).	
After test cycle is done, press CANCEL and hold for 3 seconds for quit.	
STEP	TEST
1	NULL
2	WASH/HEAT
3	WASH/RISE
4	RINSE
5	SPIN
6	DRY
7	HEATED WASH/HEATED RINSE
8	HEATED WASH/HEATED RINSE
9	HEATED WASH/HEATED RINSE
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96	HEATED WASH/HEATED RINSE
97	HEATED WASH/HEATED RINSE
98	HEATED WASH/HEATED RINSE
99	HEATED WASH/HEATED RINSE
100	HEATED WASH/HEATED RINSE

PF	Power failure has occurred
CLOSE	Close and latch the door
01-04	Hour(s) delay before start
11-17	Error code

**Display Codes (LED)**

The Delay LED is illuminated once Delay time is set.  
 The Washing LED is illuminated during the washing cycle.  
 The Drying LED is illuminated during the drying cycle.  
 After the cycle is completed, the Clean LED will illuminate.



**Cycle Selection Options**

Option	Cycle	Heavy	Normal	1 Hour Wash	China Crystal	Energy Saver	Rinse
Null	/	125-145	60	105	130	20	
Heat Dry	155	125-145	100	105	/	55	/
Heat Dry + Hitemp	155	145-160	/	/	/	/	/
Heat dry + Hitemp + Sanitize	160	145-160	/	/	/	/	/

Option	Cycle	Heavy	Normal	1 Hour Wash	China Crystal	Energy Saver	Rinse
Null	/	115-140	60	110	135	20	
Heat Dry	160	115-140	100	110	/	55	/
Heat Dry + Hitemp	160	145-160	/	/	/	/	/
Heat dry + Hitemp + Sanitize	165	145-160	/	/	/	/	/

**Pump Assembly**

This model utilizes a main wash pump to circulate filtered water over the dishes and a separate drain pump that includes a check valve.

**Heater**

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

Voltage checks of the heater should be made in the dry portion of the service test mode.

**Standard Dry Air Flow**

The heated, moist air leaves the dishwasher through the vent hole at the front of console.

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**

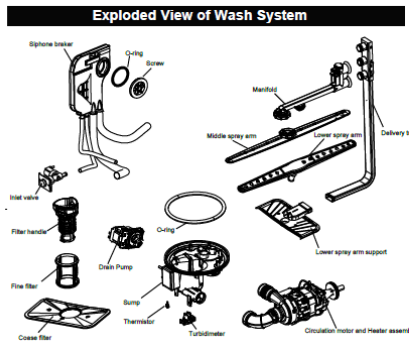
The detergent and rinse aid dispenser is a one piece component consisting of a molded detergent cup and a built-in rinse aid dispenser. The detergent cup has a spring loaded cover and the rinse aid dispenser has a removable cover.

Liquid rinse aid is added to the dispenser up to the fill line indicator. The amount of rinse aid released can be adjusted as follows:

- close the dish washer door,
- press the NORMAL pad and hold for 5s,
- till the display shows "0", press NORMAL to adjust the amount from "1" to "95".

To replace dispenser:

- shut off electricity to dishwasher,
- remove outer door panel assembly,
- disconnect wiring to the dispenser,
- replace with a new dispenser.



**Product Specifications**

Electrical  
 Rating ..... 120 Volts, 60Hz  
 Separate Circuit, 15 amp min.- 20 amp max.  
 Motor (Amps) ..... 0.5 - 0.85  
 Heater Wattage ..... 300 - 725W  
 Total Amps (load rated) ..... 6.7  
 Temperature ..... 135°F, 25°F  
 (80°C/33°C) (with outer door in place)  
 TempBoost ..... 140°F, 25°F  
 Heated Wash/Heated Rinse  
 Hi-Limit Thermostat ..... 200°F (93°C)

**Water Supply**

Suggested minimum incoming water temperature ..... 120°F (49°C)  
 Pressure (PSI) min./max. .... 20/120  
 Connection (NPT) ..... 3/4"  
 Consumption (Normal Cycle) ..... 18" unit 2.5 - 4.9 U.S. gal  
 24" unit 2.8 - 5.7 U.S. gal  
 Water valve flow rate (U.S. GPM) ..... 0.9  
 Water recirculation rate (U.S. GPM) ..... approx. 5.28  
 Water fill time ..... 90 sec.

**Error code and description**

Error code	Error description	Check the following
11	Water filling procedure error	1. Check the water supply. 2. Check the inlet valve. 3. Check the inlet. 4. Check the flowmeter. 5. Check the pressure switch. 6. Check the drain. 7. Check the main board.
13	Water heating error (Only occurs in test cycle.)	1. Check the heater. 2. Check the thermistor. Normal resistance value is R77°F=10k±2%, R140°F=301±2%. 3. Check the PCB.
14	Water overflow error	1. Check the use of the detergent. 2. Check if the unit located on the level ground. 3. Check the microswitch at the bottom. 4. Check the drain pump. 5. Check the amount of the filled water. 6. Find the leaking point.
16/17	Water temperature sensor error. (Only occurs in test cycle.)	1. Check the water temperature. 2. Check the thermistor. Normal resistance value is R77°F=10k±2%, R140°F=301±2%. 3. Check the PCB.

**Trouble Shooting Tips**

**WARNING**  
 Personal Injury Hazard  
 Always disconnect the dishwasher from the electrical power source before adjusting or replacing components.

Symptom	Check the Following	Remedy
Dishwasher will not operate when turned on.	1. Fuses (blown or tripped). 2. 120 VAC supply wiring connection faulty. 3. Electronic control board defective. 4. No 12VAC power to control. 5. Motor (responsive). 6. Door switch (open contacts). 7. Door latch not making contact with door switch. 8. Touch pad circuit defective. 9. No indicator lamps illuminate when START or OPTIONS are pressed.	1. Replace fuses or reset breaker. 2. Repair or replace wire fasteners at dishwasher junction box. 3. Replace control board. 4. Replace control board. 5. Replace motor/impeller assembly. 6. Replace latch assembly. 7. Replace latch assembly. 8. Replace console assembly. 9. Replace console assembly.
Motor hums but will not start or run.	1. Motor (bad bearings). 2. Motor stuck due to prolonged non-use.	1. Replace motor assembly. 2. Rotate motor impeller.
Motor trips out on internal thermal overload protector.	1. Improper voltage. 2. Motor windings shorted. 3. Glass or foreign items in pump.	1. Check voltage. 2. Replace motor/impeller assembly. 3. Clean and clear blockage.
Dishwasher runs but will not heat.	1. Heater element (open). 2. Electronic control board defective. 3. Wiring or terminal defective. 4. Hi Limit thermostat defective.	1. Replace heater element. 2. Replace control board. 3. Repair or replace. 4. Replace thermostat.
Detergent cover will not latch or open.	1. Latch mechanism defective. 2. Electronic control board defective. 3. Wiring or terminal defective. 4. Broken springs(s). 5. Defective actuator.	1. Replace dispenser. 2. Replace control board. 3. Repair or replace. 4. Replace dispenser. 5. Replace dispenser.
Dishwasher will not pump out.	1. Drain restricted. 2. Electronic control board defective. 3. Defective drain pump. 4. Blocked impeller. 5. Open windings. 6. Wiring or terminal defective. 7. Pressure Switch Stuck.	1. Clear restrictions. 2. Replace control board. 3. Replace pump. 4. Check for blockage, clear. 5. Replace pump assembly. 6. Repair or replace.
Dishwasher will not fill with water.	1. Water supply turned off. 2. Defective water inlet valve. 3. Check fill valve screen for obstruction. 4. Defective float switch. 5. Electronic control board defective. 6. Wiring or terminal defective. 7. Pressure Switch Stuck.	1. Turn water supply on. 2. Replace water inlet fill valve. 3. Disassemble and clean screen. 4. Repair or replace. 5. Repair or replace. 6. Repair or replace. 7. Repair or replace.
Detergent fails in dispenser.	1. Detergent allowed to stand too long in dispenser. 2. Dispenser wet when detergent was added. 3. Detergent cover half closed or blocked by large dishes. 4. Improper incoming water temperature to properly dissolve detergent. 5. See "Detergent cover will not open."	1. Retract customer/owner. 2. Retract customer/owner. 3. Retract customer/owner on proper loading of dishes. 4. Retract customer/owner on proper temperature to properly dissolve detergent. 5. See "Detergent cover will not open."