STAINLESS STEEL TUB PLATFORM

WIRING DIAGRAM

TCO

DOOR SWITCH

8269209

*ELECTRONIC

(TRIACS AND

RÈLAYS SHOWN)

P2-6 V

POWER SUPPLY

TO CONTROL

LINE 120 V 60HZ

רליו

RINSE AID HARNESS

8269190

USER INTERFACE

(SEE TABLE)

NUMERIC

(SEE TABLE)

PSC WASH PUMP &

CAPACITOR 8268418 MOTOR ASSEMBLY (SEE TABLE)

SEE TABLE

*FILL VALVE 890 - 1090 Ω

N.O.

8268572

PRESSURE SWITCH

(SOIL SENSOR)

8268477

3 WW 0

*THERMISTOR 48-52K Ω @ 25°C/77°F

8269208

HI-LIMIT THERMOSTAT OPENS 77°C-83°C (171°F-181°F)

661566 (3371618)

RUN WINDING

23.5 uF

8269189

SOME MODELS

(SEE TABLE)

OR O (W-V)

HEATER ASM

 $10-35 \Omega$

-O--WW--O-

VENT ACTUATOR ASM

600-1800 Ω

8269251

DRAIN MOTOR 8268411

FLOAT (IN NORMAL -

POSITION) CLOSES SWITCH

OVERFILL SW.

(W-V

USED ONLY ON

SOME MODELS

OTHERWISE OPE (SEE TABLE)

OTHERWISE OP

NOTE: This sheet contains important

FOR SERVICE TECHNICIAN ONLY **DO NOT REMOVE OR DESTROY**

Technical Service Data



Electrical Shock Hazard

Disconnect power before servicing. Replace all panels before operating. Failure to do so can result in death

PRECAUTIONS TO BE **OBSERVED BEFORE AND DURING SERVICING OF DISHWASHER**

- **A.** Even with the door open, there is line voltage at several points in the console and below the tub. Therefore, be sure to disconnect the power supply at the fuse box before replacing a component.
- **B.** Always check wiring harness and connectors before any test procedures.
- **C.** Disconnect power supply before touching the circuit board or re-seating control connectors.
- **D.** Voltage checks are made by inserting probes beside wires on the connector with the AC power source applied and the connector blocks plugged in.
- **E.** Resistance checks are made on components with the wiring harness disconnected.

Water Charge:

REPAIR KITS

6.8 liters (1.8 gallons) / first fill approx.

Lower Spray Arm Rotation: 25 to 40 rpm.

Upper Spray Arm Rotation: 25 to 35 rpm.

MANUFACTURED UNDER ONE OR MORE
OF THE FOLLOWING CANADIAN PATENTS

OTHER PATENTS PENDING

2,075,251

6.5 liters (1.7 gallons) / all other fills.

■ Vinyl Rack Patch Kit No. 676453

■ Tine Tip Kit No. 675679

SPECIFICATIONS

Electrical Supply: (Under load) 60 Hz, 120 VAC.

20 PSI minimum

Supply Water Flow Rate: To fill 1.9 liters (2 quarts) in 27 seconds, 120 PSI maximum,

Supply Water Temperature: 49° to 71° C (120° to 160° F) (Before starting a cycle, run water from sink faucet until hot.)

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING UNITED STATES PATENTS:

9 4,927,033 5,165,435 5,881,906 5,018,550 5,202,582 5,882,739 5,039,828 5,474,378 5,900,070 7 5,069,360 5,760,493 5,909,743 0 5,165,433 5,803,100 5,924,433 DES314.256 DES393.333

OTHER PATENTS PENDING

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Electrostatic Discharge (ESD) Sensitive Electronics

or electrical shock.

ESD problems are present everywhere. ESD may damage or weaken the electronic board. The new board may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.

- Use an anti-static wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance
- Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.
- Before removing the part from its package, touch the anti-static bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic board by edges
- When repackaging failed electronic board in anti-static bag, observe above instructions.

P4

P5

P6

P7

P8

P10

P12

DESCRIPTION NUMBER COLOR Ribbon Cable to User Interface O-GY P2-1 Pressure Switch (Soil Sense) P2-2 Y-BK P2-3 Fill Valve BR P2-4 LBU Dispense P2-5 Open T or P2-6 L1 to Control Power Supply BK-W GY P3 Drain Motor

Motor Run Winding

Switched L1 to Heater

AC Neutral

Switched L1 from TCO for Loads

Switched L1 to Motor Common

Switched L1 to Vent, Fill Valve,

Dispenser, & Pressure Switch

Optional Rinse Aid Sensor

BU

W-R

W-V

R-BK

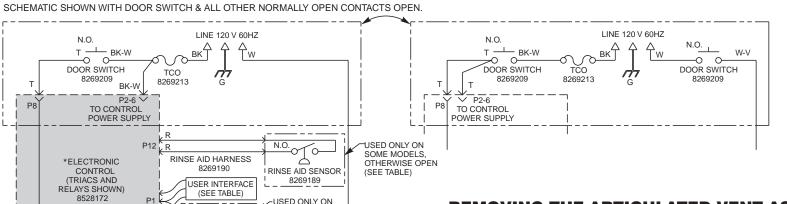
BU-BK

RED

ELECTRONIC CONTROL CONNECTOR PINS

DENOTES ENERGY EFFICIENT COMPONENTS.

PLASTIC TUB PLATFORM WIRING DIAGRAM



REMOVING THE ARTICULATED VENT ASSEMBLY:

- 1. Disconnect electrical power from dishwasher.
- 2. Open dishwasher door and remove six (6) T-15 Torx head screws at the top of inner door panel to loosen console.
- 3. Hold console in place to prevent strain on wires or damage to outer door panel
- 4. Close door and pull top of console away from door. FOR PLASTIC TUB MODELS ONLY: Disengage the locking tabs found at the four

(4) arrows on the top of plastic electronics cover. Lift cover off and set aside.

5. Disconnect the ribbon connector and all wiring harness connectors

from console circuit board and door latch assembly.

- 6. Set console aside.
- 7. Disconnect electrical connectors from articulated vent wax motor terminals.
- 8. Open dishwasher door and loosen, but do not remove, four (4) T-15 Torx head screws along left side of inner door panel. This will provide additional room to remove articulated vent assembly.
- 9. Insert the end of a screwdriver into the notch in the vent louver. Push counter-clockwise to rotate louver approximately 1/8 turn to release it. See Figure 1.
- **10.** Close dishwasher door and pull the articulated vent assembly up and out from behind the outer door panel.
- 11. Retain the vent louver for use in reinstallation.

REINSTALLING THE ARTICULATED VENT ASSEMBLY:

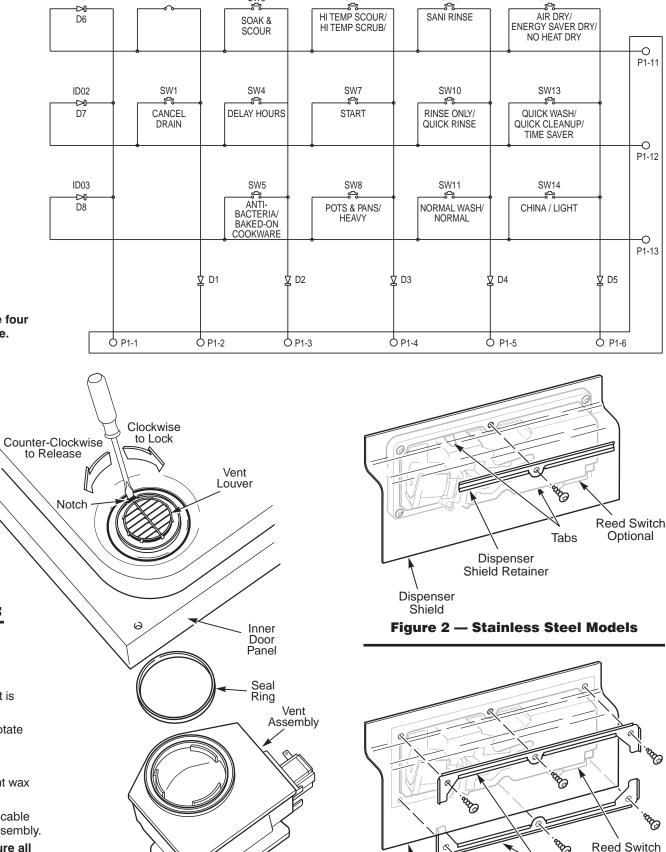
- 1. Place a new seal ring in seal ring groove of vent assembly.
- 2. Close dishwasher door and place vent assembly behind outer door panel and position vent assembly so seal ring contacts inner door panel.
- **3.** Open dishwasher door and place vent louver over vent assembly, making sure it is
- seated. Turn louver clockwise by hand to engage vent assembly.
- 4. Insert the end of a screwdriver into the notch in vent louver. Push clockwise to rotate louver approximately 1/8 turn to lock it in position. See Figure 1
- 5. Tighten four (4) T-15 Torx head screws along left side of inner door panel.
- 6. Close dishwasher door and reconnect the wire connectors to the articulated vent wax
- 7. Reinstall console by holding it close to top of door and reconnecting the ribbon cable and all wiring harness connectors to the console circuit board and door latch assembly. FOR PLASTIC TUB MODELS ONLY: Replace plastic electronics cover. Be sure all four (4) locking tabs snap into place. Hold console in place on front of dishwasher door.
- 8. Open dishwasher door and reinstall six (6) T-15 Torx T-15 head screws at top of the inner door panel.
- 9. Reconnect electrical power to dishwasher.

USER INTERFACE SWITCH MATRIX

(Note: Switches may not appear on all models, ID's vary by model.)

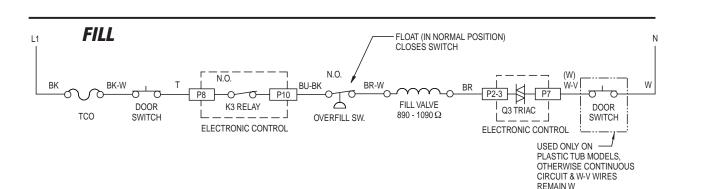
FOR SERVICE TECHNICIAN'S USE ONLY

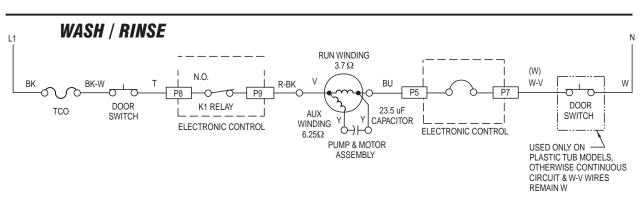
PAGE 1

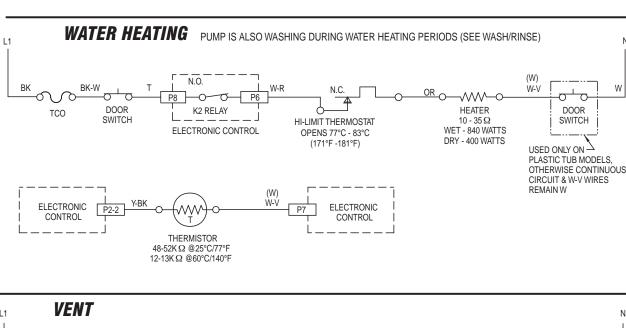


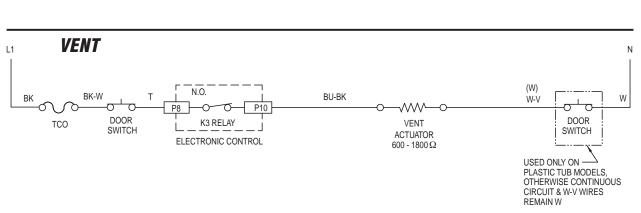
DISHWASHER CIRCUITS

The following individual circuits are for use in diagnosis. Before starting diagnosis, check the line voltage and check for blown fuses.

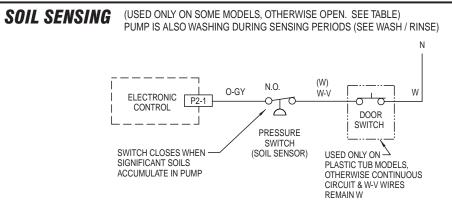


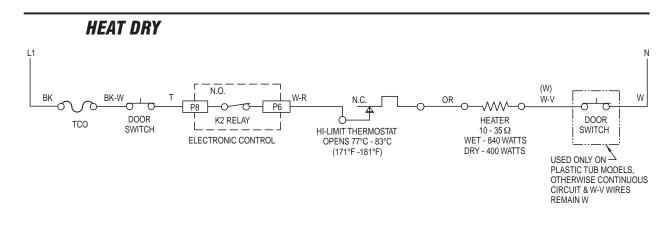


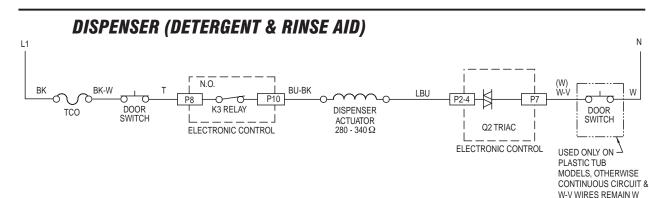




DRAIN WINDING 16.3 Ω DOOR K3 RELAY DOOR TCO SWITCH SWITCH Q6 TRIAC DRAIN ELECTRONIC CONTROL MOTOR USED ONLY ON -ELECTRONIC CONTROL PLASTIC TUB MODELS, OTHERWISE CONTINUOUS CIRCUIT & W-V WIRES REMAIN W







REMOVING THE DETERGENT AND RINSE AID **DISPENSER:**

- 1. Disconnect electrical power from dishwasher
- 2. Open dishwasher door and remove eight (8) T-15 Torx head screws from
- 3. Hold outer door panel in place and close dishwasher door. Remove outer door panel by pulling top out approximately 1 inch and then pulling up.
- 4. Disconnect electrical connections to the detergent dispenser solenoid and rinse aid dispenser switch.
- 5. Stainless Steel Tub Models Only:
- a) Remove the top center hex head screw from the dispenser assembly and remove dispenser shield. Set dispenser shield aside. See Figure 2.
- **b)** Remove remaining five (5) hex head screws from dispenser assembly.
- c) Lift two (2) locking tabs away from dispenser assembly to free it for re-
- 6. Plastic Tub Models Only:
 - a) Remove the six screws. See Figure 3.
 - b) Remove the two dispenser retainers and dispenser shield if
- 7. Open dishwasher door approximately 1/3 of the way and remove the dispenser assembly from inside the door.

DISPENSER:

1. Open the dishwasher door and insert the dispenser assembly into the cutout in inner door panel

Dispenser

2. Stainless Steel Tub Models Only:

Figure 1 — Articulated Vent

- a) Reinstall five (5) hex head screws to secure dispenser assembly to
- **b)** Place dispenser shield in position over dispenser assembly and secure it with the remaining hex head screw in the top center position. See

REINSTALLING THE DETERGENT AND RINSE AID

Dispenser

Figure 3 — Plastic Models

- 3. Plastic Tub Models Only:
- a) Install the bottom retainer and the three screws.
- **b)** Install the dispenser shield dispenser (if used), top retainer and screws. See Figure 3.
- 4. Reconnect electrical connectors to the detergent dispenser solenoid and rinse aid dispenser switch.
- 5. Place outer door panel in position on door frame by sliding panel down into key slots in door frame and pushing top of panel into place.
- **6.** Hold outer door panel in position and open dishwasher door.
- 7. Reinstall the eight (8) T-15 Torx head screws in the inner door panel.
- 8. Reconnect electrical supply to dishwasher.

MODEL NUMBER	REFERENCE		USER	JUMPER	INTERCONNECT	NUMERIC	PUMP &	PRESSURE		RINSE AID	RINSE AID	WIRING
	ENERGY STAR	SPINNING CLOCK	INTERFACE	TAILS	CARD	DISPLAY	MOTOR ASSEMBLY	SWITCH	DISPENSER	SENSOR	HARNESS	HARNESS
1x95x (DW3)	NO		8269737 (TOP) 8269738 (FRONT)	8269739	8269207	1		1	1	1		
1x93x (DW2)	+		8269629				8268422		8269121	8269189	8269190	8269191
1x92x (DW1.5)	YES	NO	8269628			8269205						
1x91x (DW1)	1		8269627									-
1x88x (DF9V)			9060606	N/A	N/A		1	8268477	1	1	1	
1x89x (DF9.5)	NO	+	8269626				8268413		8270032	N/A	N/A	8269734
1x87x (DF8V)		N/A	8269625			N/A	—		•			+
7191, 7192	+	IN/A	8209025		+	IN/A	8268422	-	8269121	+		8269191
KUDS01FK	1	N/A	8270168	8524447	N/A	N/A	1		1	N/A	N/A	
KUDS01DJ		YES	8269200 or 8524431 (TOP) 8269201 (FRONT)	8269202	8269207	8269206		8268477		8269189	8269190	
KUDS01IJ			8269199	NI/A	1	+				+	+	
KUDR01TJ	YES	1	8269198	N/A		1	8268422	+	8269996	1		8269191
KUDM01FK			8270169	8524447								
KUDK01TJ, KUDL01TJ, KUDM01TJ		N/A	8269197	1	N/A	N/A		N/A		N/A	N/A	
KUDJ01TJ			8270258	N/A								
KUDI01TJ	+	—	8269196	+	*	+	+	+	+	+	+	+
GU2300	1	N/A	8269332	1	1	N/A	8268422	1	8269996	1	1	8269191
GU1500	NO	YES	8269330	N/A	N/A	8269206	1	8268477	1	8269189	8269190	1
GU1200		N/A	8269332			N/A	8268413		8270034			8269734
DUL300	+	IN/A	8524482	+	+	IN/A	+	+	+	+	+	+

MODEL SPECIFICS TABLE

PERIOD 4

41 40 39 32 3

41 40 39 32 33

46 45 41 40 39 32 33

HERMAL HOLD

PERIOD 3

21 20 19 18

2 50 46

52 50 46 4

32 30 29

7 26 25 24 23 22

61 60 54 5

61 60 54 5

61 60 54 5

54 52 46 45

61 60 54 5

61 60 54

54 52 46 45

PAGE 2

PERIOD 5

7 6 5 4 3 2 1

0 24 18 16 10 8

30 24 18 16 10 8

30 24 18 16 10 8 :

0 24 18 16 10 8

30 24 18 16 10 8

COMMON CYCLE TIME CHART NOTES

NOTE 1 – CYCLE MODIFICATIONS BASED ON SENSOR INPUTS

The control monitors food soil and temperature sensors during the first four intervals of the cycle (intervals 45-42) to determine what sensor based cycle modifications are appropriate. The modifications made to the cycle depend on the cycle and options selected as well as the sensor inputs. Note the interval skip arrows and thermal hold temperature changes on the time chart for each version of the cycle In addition to being able to modify the cycle itself based on soil

sensor input, the APF (Automatic Purge Filtration) wash system allows the control to continuously filter and flush food soil out of the pump during "APF enabled" intervals scattered throughout each cycle and do it without interrupting the cycle (see note 2 on APF)

(a) Antibacteria/Cookware, Pots and Pans/Heavy, Normal, and China/Light Cycles

The control assumes that the worst case cycle (the high soil version) is going to be required until the true soil level is determined. The soil level is determined by counting the number of pressure switch (soil sensor) trips that occur in the first APF interval of the cycle (interval 42). If no trips are detected in interval 42, the control modifies the remainder of the cycle to match the low soil/non-sensor version of the cycle. If one or more trips are detected in interval 42, the control continues with the high soil version of the cycle.

Note: Energy Star models have a different low soil/non-sensor version of the Normal cycle than other models (see Model Specifics Table to identify Energy Star models)

Note: Models without pressure switches (soil sensors) never get sensor trips, thus always default to the low soil/non-sensor version of the cycle and never execute APF purges (see Model Specifics Table to identify models without pressure switches)

Note: The H.T. Scour/H.T. Scrub option and/or Soak&Scour option can override or alter the soil-based cycle modifications (see notes 14 and 17).

(b) Quick Wash/Quick CleanUp/Time Saver Cycles

The control does NOT modify the Q.Wash/Q.CleanUp/Time Saver cycle based on soil level. Instead, it modifies the cycle based on incoming water temperature detected during the first fill interval of the cycle (interval 45). The control assumes the worst case cycle (Cool First Fill version) will be required until the end of interval 42. At the end of interval 42, it modifies the remainder of the cycle based on the inlet water temperature it actually detected in the first fill. If the water was >135°F/57°C it changes to the "Hot First Fill" version of the cycle. If the water was less than 135°F, it will continue with the "Coo First Fill" version of the cycle. The "Cool First Fill" version of the cycle basically contains an extra drain and fill prior to the main wash to increase the initial water temperature for the main wash and reduce the time needed to heat the water.

Like other cycles, the Q.Wash/Q.CleanUp/Time Saver cycle does allow APF purges to occur (in APF intervals) if pressure switch trips occur but the Q.Wash/Q.CleanUp/Time Saver cycle timing itself is not modified based on pressure switch trips or soil level.

(c) Rinse Only/Quick Rinse Cycle

The control does NOT modify the Rinse Only/Quick Rinse cycle based on sensor inputs. Like other cycles, it does allow APF purges to occur (in APF intervals) if pressure switch trips occur but the Rinse Only/Quick Rinse cycle timing itself is not modified based on any sensor inputs.

NOTE 2 – APF ENABLED INTERVALS

The APF (Automatic Purge Filtration) wash system allows the control to continuously filter and flush food soil out of the pump during "API enabled" intervals scattered throughout each cycle and do it without interrupting the cycle. The control monitors the pressure switch (soil sensor) input during each of the APF enabled intervals in the cycle (see time chart). Whenever a pressure switch trip is detected in one of these APF intervals, the control executes a 10-second "APF purge" to clear the pump of soil.

These APF purges occur in parallel with the cycle and do not interrupt or affect the timing of other functions (like washing) that are called for in the interval. Each APF purge consists of 5 seconds of Fill and Drain followed immediately by 5 seconds of Fill by itself. If an APF purge is executed during a heated wash interval, the heater must be turned off during the first 5-second Fill and Drain portion of each purge, but cycle timing is not affected and the heater turns back on mid-way through the purge.

Multiple APF purges can occur within each APF interval of the cycle but are limited by certain frequency and quantity limits:

- APF purges must be spaced at least 60 seconds apart within any given APF interval (the pressure switch will be ignored prior to 60 seconds).
- The maximum number of APF purges allowed within a given APF interval is specified on the time chart in that interval (the pressure switch will be ignored for the duration of an APF interval once the maximum APF limit for that interval has been exceeded). In interval 33, the limit is "1" for 120°F thermal holds and "3" for all other thermal hold setpoint temperatures

Note: Models without pressure switches (soil sensors) never get sensor trips and thus never execute APF purges. (See Model Specifics Table to identify models without pressure switches).

NOTE 3 - WATER HEATING THERMAL HOLD INTERVALS

During water heating thermal holds (intervals 40, 33, & 15), cycle timing is interrupted and the dishwasher continues washing while it heats the water to the setpoint temperatures specified on the time chart for each version of the cycle. The Water Heating and Sensing indicators are turned on and the cycle time displayed by models with numeric displays is frozen during ther mal hold intervals (see notes 5, 6, & 7). The dishwasher will hold in this suspended, water heating mode until the water reaches the temperature specified for the thermal hold or a maximum default time limit for the thermal hold (below) expires. At the conclusion of the thermal hold, the control resumes normal operation and timing and proceeds to the next interval.

The default maximum time limits for all the thermal hold intervals are as follows (in minutes):

,	Pre-Wash	Main Wash	Final Rinse	Final Rinse with Sani/Rinse
Anti-bacteria/Cookware	30	35	50	(50)
Pots & Pans/Heavy	30	35	30	(50)
Normal	_	45	40	(60)
China/Light	-	45	30	-

(Q.Wash/Q.CleanUp/Time Saver and Quick Rinse/Rinse Only cycles have no thermal hold intervals.)

NOTE 4 – THERMALLY CAPPED INTERVALS

Interval 34 is a heated wash interval thermally capped at 150°F/66°C. Interval 10 is only heated for the Q.Wash/Q.CleanUp/Time Saver cycle and is thermally capped in that situation at 150°F/66°C. Anytime the thermal cap temperature is exceeded during one of these intervals, the heater will turn off, but the dishwasher will continue washing for the duration of the interval.

NOTE 5 – NUMERIC CYCLE TIME DISPLAY

Some models with numeric cycle time displays show an animated spinning clock pattern during the first four intervals of the cycle (intervals 45-42) while sensor based cycle modifications (and true time remaining) are being determined. Other models simply display the worst case cycle time remaining (in minutes) until the end of interval 42. See the Model Specifics Table to identify models with numeric displays and which models exhibit the animated clock pattern. At the end of interval 42, all models with numeric displays will begin displaying a corrected cycle time (in minutes). From here on, the display clocks down normally, minute by minute, through the rest of the cycle.

Note: Cycle time does <u>not</u> include time spent in thermal holds; the time on the display at the start of the thermal hold is frozen until the end of the thermal hold (see notes 3 & 6).

NOTE 6 - WATER HEATING (THERMAL HOLD) STATUS INDICATOR

The Water Heating indicator is turned on during all thermal hold intervals to signal that cycle timing, display sequencing, and numeric cycle time display countdown operations have been suspended or frozen while the water is heated to the proper temperature (see note 3).

NOTE 7 - SOAKING/SENSING & SOAKING STATUS INDICATORS

In general, the Soaking/Sensing indicator is primarily a "sensing" indicator and is turned on during cycles whenever the control is monitoring sensors or still making decisions based on sensor inputs. Specifically this includes all APF intervals, all thermal hold intervals, and the first four intervals of each cycle (see notes 1, 2, and 3).

The Soaking/Sensing indicator also turns on during "soaking" events like the "soaking/pause" intervals in the Energy Star low soil/non-sensor version of the Normal cycle (see note 9) and the 4-hour pre-soak invoked by the Soak&Scour option (see note 17). A dedicated Soaking indicator is

COMMON CYCLE TIME CHART INTERVAL ANTI-BACTERIA / BAKED-ON COOKWARE NOTES 1A,14A,15,16,17 NTERVAL TIME (min:sec WITH SOAK&SCOUR OPTION (or "SOAK&SCOUR and H.T. SCOUR/H.T. SCRUB" options) - ANY SOIL LEVEL NOTE 17 4hr + 99 : 00 w/o Th.Hold NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) WITH H.T. SCOUR / H.T. SCRUB OPTION – ANY SOIL LEVEL 99:00 w/o Th.Holds UMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) 99:00 w/o Th.Holds HIGH SOIL [Soil sensed in Interval 42] NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) LOW SOIL (or Non-Sensor Model) [No soil sensed in Interval 42] 91:25 w/o Th.Hold POTS & PANS / HEAVY NOTES 1A.14A.15.16.17 INTERVAL TIME (min:sec) ning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5 WITH H.T. SCOUR / H.T. SCRUB OPTION - ANY SOIL LEVEL NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) HIGH SOIL [Soil sensed in Interval 42] NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5 LOW SOIL (or Non-Sensor Model) [No soil sensed in Interval 42] 89:25 w/o Th.Hold NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5 NOTES 1A, 9, 14B, 15,16 HIGH SOIL WITH H.T. SCOUR / H.T. SCRUB OPTION [Soil sensed in Interval 42] $NUMERIC\ DISPLAY\ CYCLE\ TIME\ (spinning\ "CLOCK"\ pattern\ in\ INTERVALS\ 45-42\ for\ some\ models,\ see\ NOTE\ 5)$ HIGH SOIL [Soil sensed in Interval 42] NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5 LOW SOIL (or Non-Sensor Model) WITH H.T. SCOUR / H.T. SCRUB OPTION [No soil sensed in Interval 42] 87:25 w/o Th.Hol NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) OW SOIL (or Non-Sensor Model) [No soil sensed in Interval 42] NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) OW SOIL (or Non-Sensor Model) [No soil sensed in Interval 42] - ENERGY STAR MODELS 78:20 w/o Th.Hold NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE CHINA/LIGHT NOTES 1A,10,16 ITERVAL TIME (min:sec) HIGH SOIL [Soil sensed in Interval 42] Y CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE LOW SOIL (or Non-Sensor Model) [No soil sensed in Interval 42] NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) QUICK WASH / QUICK CLEANUP / TIME SAVER NOTES 1B,11,1 NTERVAL TIME (min:sec) COOL FIRST FILL [Sensed inlet water <135°F in Interval 45] NOTE 1B NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE HOT FIRST FILL [Sensed inlet water >135°F in Interval 45] NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE 5) RINSE ONLY/QUICK RINSE LL MODELS & CONDITIONS (No cycle changes based on sensor inputs) NUMERIC DISPLAY CYCLE TIME (spinning "CLOCK" pattern in INTERVALS 45-42 for some models, see NOTE "RINSE ONLY/QUICK RINSE" CYCLE PROGRESSION & STATUS INDICATORS [All other prog./status LED's off] ASHING/RINSING (PROG BAR R2) (This LED will be used on models with no Rinsing LED and will be labeled as 'WASHING **CYCLE PROGRESSION & STATUS INDICATORS** PROG BAR W VASHING/RINSING (PROG BAR R2) (This LED will be used on models with no Rinsing LED and will be labeled as 'WASHIN

available for some non-numeric models that will likewise turn on during these "soaking" events but <u>not</u> during "sensing" intervals.

APF ENABLED INTERVALS – Max # of APF Purges (5sec Fill & Drain, then 5sec Fill) allowed in Interva

NOTE 8 – 'END-OF-CYCLE' STATUS INDICATORS – CLEAN and SANITIZED

Both end-of-cycle indicators (Clean and Sanitized) turn on at the end of a cycle and turn off upon pressing any key or opening and closing the door (note: the indicators stay on as the door is opened but turn off as soon as the door is closed again).

(b) Sanitized

TER HEATING

SANITIZED

Comes on at the end of every cycle except Rinse Only/Quick Rinse.

Comes on at the end of all cycles completed with the Sani Rinse option selected (see note 15). If the Sani Rinse option is completed

- successfully, the indicator is turned on steady at the end of the cycle. If the Sani Rinse was unsuccessful (see below), the indicator will flash ½ second on, ½ second off, repeatedly, at the end of the cycle. The Sani Rinse will be deemed unsuccessful (& flash the indicator) if:
- (1) The thermal hold in the final rinse (interval 15) fails to reach the required 160°F/71°C before timing out on its default time limit.
- (2) The door is opened and/or power is interrupted between the end of the final rinse thermal hold (interval 15) and the end of the cycle.

NOTE 9 - SOAKING/PAUSE INTERVALS - ENERGY STAR NORMAL CYCLE ONLY

Intervals 13 and 32 are mid-cycle soaking/pause intervals and are only used in the Energy Star low soil/non-sensor version of the Normal cycle. The control stops washing and turns all loads off except the vent in these intervals. The intent is to let the wash water that's on the dishes soften and loosen the food soil that's on the dishes, energy free. The Soaking and Soaking/Sensing indicators are turned on during these intervals (see note 7).

NOTE 10 - PULSED DRY - CHINA/LIGHT CYCLE ONLY

The China/Light cycle (on all models) turns the heater off in intervals 1. 3. and 5 of the dry period to create a gentler "pulsed" dry.

NOTE 11 - HEATER ON - QUICK WASH/QUICK CLEANUP/TIME **SAVER CYCLE ONLY**

To make up for no water heating thermal holds, the heater is turned on in intervals 10-12, 14, and 41-42 of the Q.Wash/Q.CleanUp/Time Saver cycle. The heater in interval 10 of the Q.Wash/Q.CleanUp/Time Saver cycle is thermally capped at 150°F/66°C (see note 4).

NOTE 12 - SPECIAL VENT & PULSED DRY OPERATION - KUDSO1FK AND KUDMO1FK MODELS ONLY

For the KUDS01FK and KUDM01FK fully integrated door models only, the vent is on top of the door (and thus directly under the countertop), so the control makes the following special changes

- Keeps the vent closed for the entire dry period (including intervals 1-6) or until the door is opened, whichever comes first
- Turns the heater off in dry intervals 1, 2, 3, and 5 for all cycles with Sani Rinse selected (see note 15).
- Keeps the vent closed at the end of the cycle for an additional 4 hours or until the door is opened, whichever comes first. Keeping the vent
- closed after the cycle allows the temperature inside the dishwasher to fall and moisture inside to condense to minimize the steam that exits the vent when the vent opens.

OPTION NOTES

NOTE 14 - HI TEMP SCOUR/HI TEMP SCRUB OPTION The H.T. Scour/H.T. Scrub option is not allowed with China/Light,

This option does the following: (a) Anti-Bacteria/Cookware and Pots&Pans/Heavy cycles ■ Forces the control to run no less than a 5-fill (Wash-Wash-Rinse-Rinse-

NOTE 7

NOTE 6 NOTE 8,15

NOTE 8

NOTE 2

NOTES 4,10,11,1

Rinse-Dry) version of the cycle, even if no soil is sensed.

Q.Wash/Q.CleanUp/Time Saver, or Rinse Only/Quick Rinse cycles.

- Raises the pre-wash water heating thermal hold (interval 40) to 135°F/57°C.
- Raises the main wash water heating thermal hold (interval 33) to 145°F/63°C (except Anti-Bacteria/Cookware cycle, which is already 145°F/63°C).

- Forces the control to run no less than a 4-fill (Wash-Wash-Rinse-Rinse-Dry) version of the cycle even if no soil is sensed. Note: the standard (non-Energy Star) Normal cycle is already a minimum of 4-fills (Wash-Wash-Rinse-Rinse-Dry) with low/no soil.
- Raises the main wash water heating thermal hold (interval 33) to

NOTE 15 – SANI RINSE OPTION

The Sani Rinse option is not allowed on China/Light, Q.Wash/Q.CleanUp/ Time Saver, and Rinse Only/Quick Rinse cycles. It is "built in" and treated as an automatic option on the Anti-bacteria/Cookware cycles. This option does

- Raises final rinse water heating thermal hold (interval 15) to 160°F/71°C and adds 20 minutes to its default maximum time limit ■ Turns heater off in the last two intervals of the dry period (intervals 1 and 2) for most models. For KUDM01FK & KUDS01FK models only (see note 12),
- Invokes the Sanitized status indicator at the end of the cycle (see note 8). NOTE 16 - AIR DRY/NO HEAT DRY/ENERGY SAVER DRY OPTION

it turns the heater off in intervals 1, 2, 3, and 5 of the dry period.

The Air Dry/No Heat Dry option is not allowed on the Rinse Only/Quick Rinse cycle (which has no dry). This option does the following:

■ Turns heater off in the dry period (intervals 1-6).

NOTE 17 - SOAK&SCOUR OPTION

The Soak&Scour option is only allowed with the Anti-Bacteria/Cookware and Pots&Pans cycles. This option does the following:

■ Runs a 4-hour pre-soak period before the cycle (see Time Chart). The pre-soak consists of a standard fill, an initial 8:00 minute wash, then 13 wash "pulses" (each 90 seconds long, spaced 16 minutes apart) to keep

- the dishes wet and soaking. At the conclusion of this pre-soak period, the dishwasher drains and the cycle begins. ■ Forces the control to run no less than a 5-fill (Wash-Wash-Rinse-Rinse-
- Rinse) version of the cycle following the pre-soak, even if no soil is sensed. Skips pre-wash water heating thermal hold (interval 40). ■ Raises main wash water heating thermal hold (interval 33) to 145°F/63°C
- (except on Anti-Bacteria/Cookware cycle, which is already 145°F/63°C). Note: The Soak option takes precedence over the H.T. Scour/H.T. Scrub option if selected together.

OTHER CONTROL FEATURES

FOR SERVICE TECHNICIAN'S USE ONLY

PERIOD 1

PRF-WASH

40

HERMAL HOLD

[130°F / 54°C]

HERMAL HOLD

39 38

90 89

82 81

88 87

88 86 86

86 84 84

45 | 44 | 43 | 42 | 41 |

[96] [96] [96] 84

5] [94] [94] [94] 90

[94] [94] [94] 82

[94] [94] [94] 82

[94] [94] [94] 73

PERIOD 2

MAIN WASH

145°F / 63°C]

HERMAL HOLD

85

78

HERMAL HOLD

60

HERMAL HOLD

52

33 32 31 30 29 28

87 67 63 62

85 67 63 62

85 67 63 62

78 60 56 55

76 60 56 5

76 60 56 55

56 52 51

52 48 4

4-HOUR PRE-SOAK

WITH SOAK&SCOUR OPTION ONLY

CANCEL/DRAIN: Terminates current active cycle and clears cycle selections. Executes 2-minute drain upon first selection if water is likely to be left in sump. Subsequent selections toggle between 2-minute drains and going to standby.

CONTROL LOCK: The Control Lock indicator is turned on and all keys of the keyboard are disabled whenever the Control Lock feature is invoked by the customer. The Control Lock feature (and indicator) can be turned on or off by the customer at any time by holding down the Air Dry/No Heat Dry/Energy Saver Dry option key for 4 seconds.

DELAY START: Allows the customer to delay the start of a cycle. Each press of the Delay key increases the delay to the next available delay time selection and then back to no delay.

- For models with a Start key, the delay will begin clocking down upon selecting the Start key
- For models without a Start key, the delay period will begin upon selecting the Cycle key.

The cycle selected will begin automatically upon completing the delay period. Note: Models with a numeric cycle time display will display time remaining in the Delay in hours. Delays of 9 hours or less will display an H after the number to denote "hours". Delays of more than 9 hours drop the H due to a

REPEAT LAST CYCLE / ONE BUTTON START MEMORY: All models remember the "last cycle and options ran" so that they may be repeated by simply pressing the Start key. (Note: models without a Start key will remember the last options ran and turn them on upon selecting a Cycle key). Cycle and option selections will not be saved to memory until the cycle completes its final rinse. The Rinse Only/Quick Rinse cycle is never saved to memory.

Models with cycle and option keys on the top of the door instead of the front of the door will automatically bring up the last cycle and options ran from memory and display them as initial cycle selections each time the door is opened. These initial selections can be changed if desired or left as is and then started by closing the door and selecting the Start key. If no Start key is selected, these last ran cycle and option selections will turn back off and the dishwasher will return to standby after 30 seconds.

ERROR MESSAGES

STUCK KEY: If the control detects that a key is stuck in the depressed position, dishwasher operation will be suspended and the control will flash the light for that key until the condition is corrected. If a key without a light is stuck or multiple keys are stuck, the control will flash the light for the Rinse Only/Quick

RAPID ADVANCE SERVICE **FEATURE AND DIAGNOSTICS CYCLES**

Pressing the following option keys in the sequence shown will either start the Diagnostics Cycle or turn on the Rapid Advance feature for stepping through customer selectable

HI TEMP SCRUB, AIR DRY, HI TEMP SCRUB, AIR DRY Or

SANI RINSE, AIR DRY, SANI RINSE, AIR DRY (Note: HI TEMP SCRUB = HI TEMP SCOUR)

(Note: AIR DRY = NO HEAT DRY = ENERGY SAVER DRY) If the above key sequence is entered after starting a cycle, the Rapid Advance feature is turned on, which allows the operator

to manually advance the currently running cycle, interval by

interval, by pressing the Pots&Pans/Heavy or Anti-Bacteria/

Cookware or Start key. If the above key sequence is entered with the dishwasher in Standby, the Diagnostics Cycle is started. The Diagnostics Cycle can be rapid-advanced, interval by interval, by pressing the Pots&Pans/Heavy or Anti-Bacteria/Cookware or Start key

Note: The door must be closed before the Diagnostics cycle will run. Likewise, the door must be closed after each rapid advance selection of the P&P/Heavy, A-Bac/Cookware, or Start key for the control to advance to the next interval of the Diagnostics or currently running cycle

DIAGNOSTICS CYCLE TIME CHART NOTES

NOTE 1 – R/A SENSOR ASSEMBLY CHECK To help detect a failed or misconnected Rinse Aid level

sensor, the control should operate the Rinse Aid Empty LED in Diagnostics as it does during any other cycle.

NOTE 2 – THERMISTOR OPEN/SHORT DETECTION

The Diagnostics Test cycle will illuminate the 'CLEAN' LED throughout the operating portion of the cycle that follows the initial display test interval whenever it detects a "short circuit" or "open circuit" on the thermistor input.

Note: Warm water must be in the dishwasher when performing this test. The highest thermistor resistance values the control can detect as its open circuit criteria are close to the normal thermistor resistance at room temperature. Consequently, this indicator is only reliable for "open circuit detection if warm water is in the dishwasher

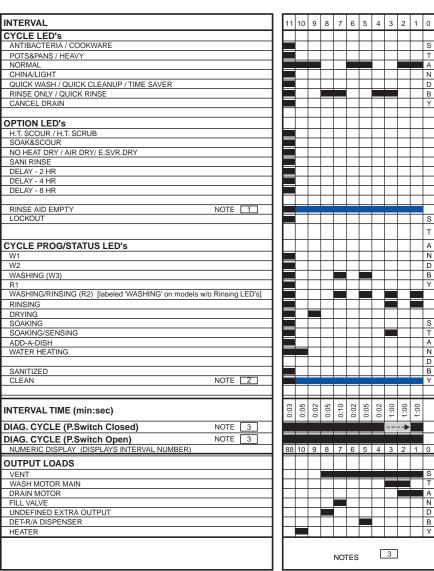
NOTE 3 – STUCK PRESSURE SWITCH DETECTION

The Diagnostics cycle monitors the normally open soilsensing pressure switch input for a "stuck closed" condition by aborting wash interval 3 and skipping immediately to drain interval 1 if the control detects a closed pressure switch.

DIAGNOSTICS CYCLE TIME CHART

11 11 11

11



PART NO. 8524517

NOTE: This sheet contains important Technical Service Data

FOR SERVICE TECHNICIAN ONLY **DO NOT REMOVE OR DESTROY**

FOR SERVICE TECHNICIAN'S USE ONLY FOR SERVICE TECHNICIAN'S USE ONLY FOR SERVICE TECHNICIAN'S USE ONLY