

# Technical Service Guide

October 2011

## GE and Profile Dishwashers

PermaTuf® Tub  
Models

GLD28\_\_V

GLD45\_\_V

GLD46\_\_V

GLD49\_\_V

GLD56\_\_V

GLD57\_\_V

GLD58\_\_V

GLD77\_\_V

GLD78\_\_V

GLC5604V

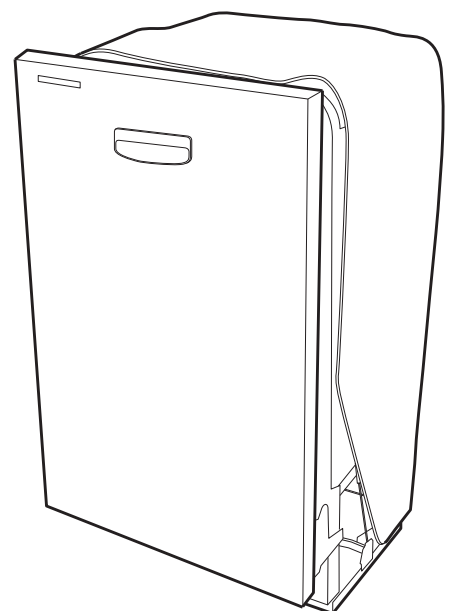
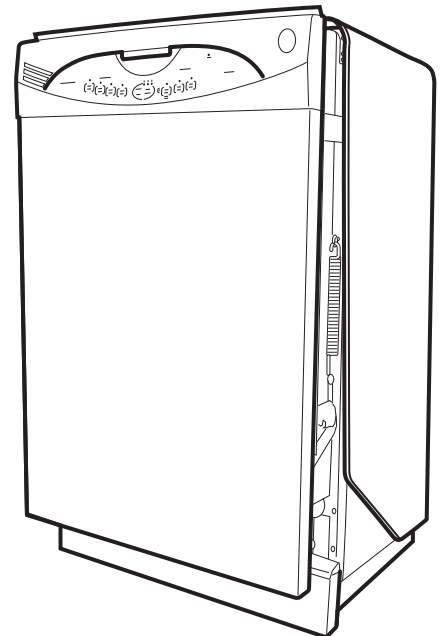
Stainless Steel  
Tub Models

GDWT1\_\_V

GHDT1\_\_V

GDWT3\_\_V

PDWT1\_\_V



31-9220





## **IMPORTANT SAFETY NOTICE**

The information in this service guide is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

### **WARNING**

To avoid personal injury, disconnect power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks.

### **RECONNECT ALL GROUNDING DEVICES**

If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

*GE Appliances*

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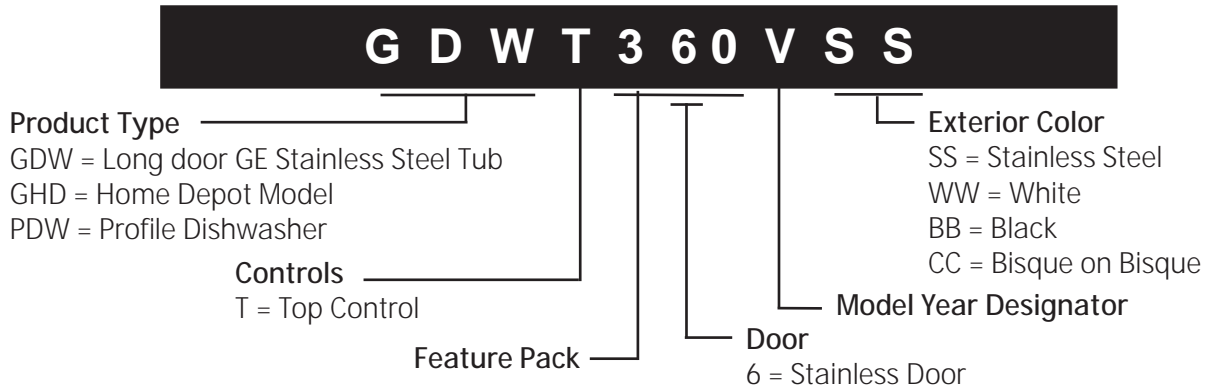
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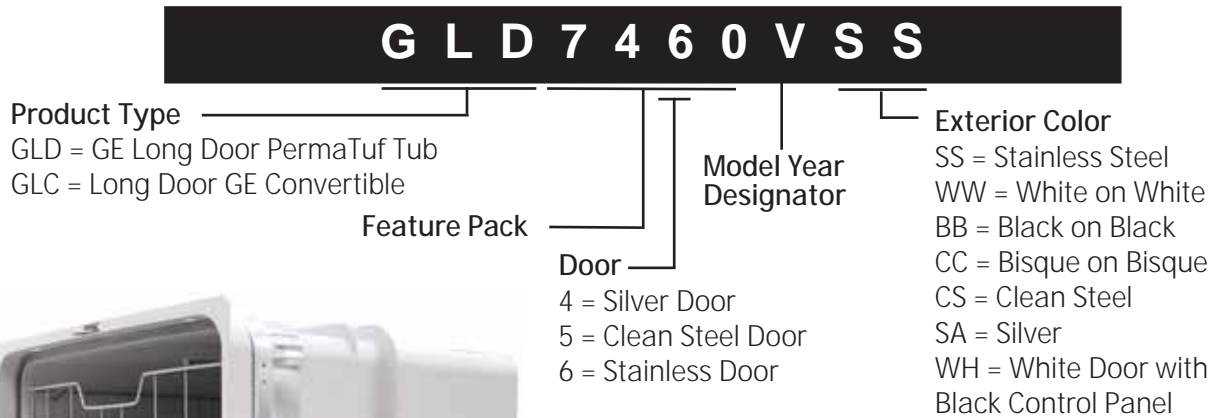
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# Nomenclature

## Model Number -- GE Stainless Steel Tub



## Model Number -- GE PermaTuf Tub



### Serial Number

The first two characters of the serial number identify the month and year of manufacture.

*Example:* **TV123456S** = Oct, 2011

T - OCT	2011 - V	The letter designating the year repeats every 12 years.
V - NOV	2010 - T	
Z - DEC	2009 - S	
A - JAN	2008 - R	
B - FEB	2007 - M	
F - MAR	2006 - L	
G - APR	2005 - H	
H - MAY	2004 - G	
L - JUN	2003 - F	
M - JUL	2002 - D	
R - AUG	2001 - A	
S - SEP	2000 - Z	

*Example:*  
 V - 2011  
 V - 1999  
 V - 1987

The nomenclature plate is located on the left side of the tub wall, inside the door jamb.

- 1 The mini-manual on stainless steel tub models is located behind the access panel.
- 2 The mini-manual on PermaTuf tub models is located under the dishwasher on the right side.

# Introduction

## New Features and Benefits

### GE Front Control Models

- 2011 Energy Star® qualified with enhanced control.
- Locking connectors on control/harnesses.
- Upper rack uses wheels on rails.
- Revised tine spacing in upper/lower racks.

### Top Controls on PermaTuf Tubs

- Top controls - new console and tactile UI for control.
- Locking connectors on harnesses.
- Pocket handle and towel bar handle models.
- Upper rack slides and tine spacing improvements.
- Gray tubs and inner doors.

### Entry Level Top Controls on Stainless Steel (SS) Tubs

- Top controls - new console and tactile UI for control.
- Limited pocket handle models.



## Weights & Dimensions

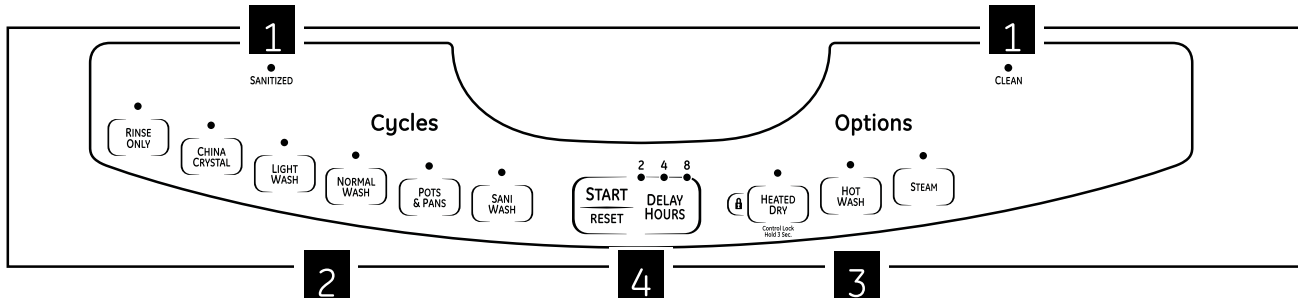
Approximate Shipping Weight.....	PermaTuf Tub = 99 lb; Stainless Steel Tub = 115 lb
Net Weight.....	PermaTuf Tub = 82 lb; Stainless Steel Tub = 110 lb
Overall Height.....	32 <sup>11</sup> / <sub>32</sub> in.
Height w/Legs Extended .....	34 <sup>1</sup> / <sub>2</sub> in.
Overall Depth.....	24-in.
Overall Width.....	24-in.

# Control Features

Throughout this manual, features and appearance may vary from your model.

## About the dishwasher control panel.

*Front Control Models Only. For top control models see Top Control Models Only section.*



## Front Control Settings

### 1 Status Indicator Lights

The Status display tells you what's happening while the dishwasher is in operation and may flash, indicating a malfunction. The lights will come **ON** indicating the sequence of operation the dishwasher is in.

<b>CLEAN</b>	Displayed when a wash cycle is complete. The light stays <b>ON</b> as a reminder that the dishes are clean. Opening and closing the door or pressing any key while the door is closed and latched will turn off the light.
<b>SANITIZED</b>	Displayed at the end of the cycle when <b>SANI WASH</b> has been selected and the dishwasher has met the requirements for sanitization. See <b>SANI WASH</b> , below, for complete cycle description. Opening the door or pressing any key while the door is closed and latched will turn off the light.

### 2 Cycles

*The light above the selected pad will be **ON** to indicate which cycle has been selected.*

<b>SANI WASH</b> (on some models)	7.5-8.8 gal., 50-135 min. This cycle raises the water temperature in the final rinse to sanitize your dishware. The cycle length will vary depending on the temperature of your inlet water. <b>NOTE:</b> The <b>SANI WASH</b> cycle is monitored for sanitization requirements. If the cycle is interrupted during or after the main wash portion or if the incoming water temperature is so low that adequate water heating cannot be achieved, the sanitizing conditions may not be met. In these cases, the Sanitized light will not illuminate at the end of the cycle. <b>NOTE:</b> NSF certified residential dishwashers are not intended for licensed food establishments.
<b>POTS &amp; PANS</b> or <b>HEAVY WASH</b> (on some models)	8.8 gal., 88 min. This cycle is meant for heavily soiled dishes or cookware with dried-on or baked-on soils. Everyday dishes are safe to be used in this cycle.
<b>NORMAL WASH</b>	3.3 gal., 54 min.. This cycle is meant for normal every day soil levels and is designed to conserve both water and energy. <b>NOTE:</b> <b>NORMAL WASH</b> was used to rate the energy efficiency of this dishwasher.
<b>LIGHT WASH</b> (on some models)	7.6 gal., 46 min. This cycle is for light to medium soiled dishes.
<b>CHINA CRYSTAL</b> (on some models)	6.3 gal., 41 min. This cycle is for lightly soiled china and crystal.
<b>RINSE ONLY</b> (on some models)	1.2 gal., 7 min. For rinsing partial loads that will be washed later. Do not use detergent with this cycle.

**NOTE:** Only the **SANI WASH** cycle has been designed to meet the requirements of Section 6, NSF 184 for soil removal and sanitization efficacy.

*(Continued next page)*

### 3 Options

The light above the selected pad will be **ON** to indicate which **OPTION** has been selected.


**STEAM (Prewash)** Use this option to improve wash performance with heavy or dried-on soils. This option is available (on some models) with all cycles except **RINSE ONLY**.

**HOT WASH/ HI-TEMP WASH/ ADDED HEAT** Use this option to improve wash and dry performance with heavy or dried-on soils. This option must be selected prior to starting the cycle. It cannot be selected with **RINSE ONLY** or **CHINA/CRYSTAL** cycle. (on some models)

**HOT START** Use this option to improve wash and dry performance where inlet water temperature is low. (on some models)

**HEATED DRY Light OFF** Shuts off the drying heat option. Dishes air dry without using energy. For faster air dry you can prop the door open after the **CLEAN** light illuminates.

**HEATED DRY Light ON cycle.** Turns the heater on for fast drying. This will extend the total run time between 34 and 45 minutes depending on the cycle selected. **NOTE:** Cannot be selected with **RINSE ONLY**

**CONTROL LOCK**  You can lock the controls to prevent selections from being made. You can also lock the controls after you have started a cycle to prevent uninterrupted cycle changes. (on some models) For example, children cannot accidentally start the dishwasher by touching pads with this option selected. **To LOCK the dishwasher control**, touch and hold the **HEATED DRY** pad for 3 seconds. The light to the left of the **HEATED DRY** pad will turn on. **To UNLOCK the dishwasher control**, touch and hold the **HEATED DRY** pad for 3 seconds. The **LOCK** light will turn off.

**4 DELAY HOURS** You can delay the start of a wash cycle for **2, 4 or 8** hours (delay time options may vary by model) Touch the **DELAY HOURS** pad to choose the number of hours you want to delay the start of the cycle; then touch **START/RESET one time**. A single beep will confirm **DELAY HOURS** has been set. The dishwasher will count down and start automatically at the correct time. Touching **START/RESET a second time** will cancel **DELAY HOURS** and turn off the dishwasher. **NOTE:** While **DELAY HOURS** is active (after the **START/RESET** pad has been pressed), the dishwasher will update the remaining count down time on the control panel before the dishwasher starts the cycle. For example, if **DELAY HOURS 8** is selected, the delay hour indicator will move from **8 to 4 to 2 to off** as delay time elapses.

**START** Close and latch the dishwasher door and select the cycle and desired options. Touch the **START/RESET** pad one time to begin the cycle. Water begins to fill the dishwasher, and approximately 60 seconds later the wash action begins.

**NOTE:** The dishwasher remembers your last cycle so you don't have to reprogram each time. When the dishwasher door is closed and latched, the control panel lights will display the last settings selected.

If you don't want to change any of the settings, simply touch the **START/RESET** pad once to begin the cycle.

If the door is closed, the indicator lights will turn off if a pad is not pressed within two minutes.

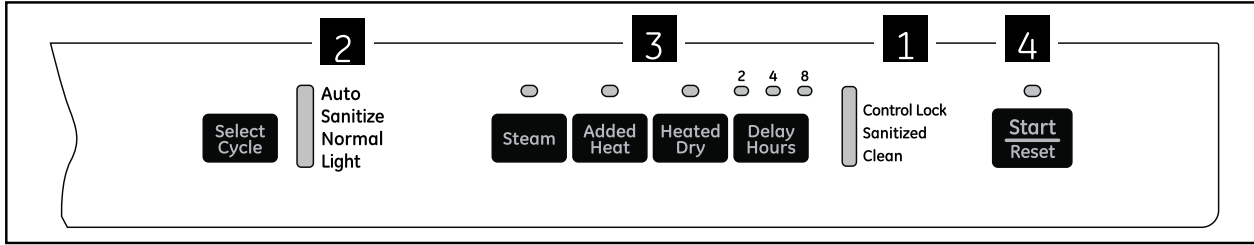
To activate the display, open and close the door or touch any pad.

If a power failure occurs, **NORMAL WASH** and **HEATED DRY** will automatically be programmed.

**RESET** To change cycles after washing starts, press the **START/RESET** pad. This will cancel the currently running cycle, and begin pump-out. During this time, the LEDs of the currently selected cycle will flash. Once the pump-out is complete, the dishwasher will turn off. Press the **START/RESET** pad when the dishwasher is running to cancel the cycle. The dishwasher will pump out and turn off at the end of pump-out. The LEDs of the currently selected cycle will flash during pump-out. You can select cycles and options during pump-out. If you press **START/RESET** during the pump-out period, the pump-out will stop and a new cycle will begin.

# About the dishwasher control panel.

## Top Control Models Only.



## Top Control Settings

### 1 Status Indicator Lights

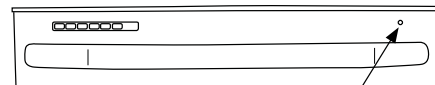
The Status display tells you what's happening while the dishwasher is in operation and may flash, indicating a malfunction. The lights will come **ON** indicating the sequence of operation the dishwasher is in.

**CONTROL LOCK** Displayed when control is locked.  
(on some models)

**SANITIZED** Displayed at the end of the cycle when **SANITIZE** has been selected and the dishwasher has met the requirements for sanitization. See **SANITIZE**, below, for complete cycle description. Opening the door or pressing any key while the door is closed and latched will turn off the light.

**CLEAN** Displayed when a wash cycle is complete. The light stays **ON** as a reminder that the dishes are clean. Opening and closing the door or pressing any key while the door is closed and latched will turn off the light.

**CYCLE STATUS INDICATOR** The cycle status indicator light is located on the right side of the dishwasher, above the handle. This light comes on as amber while the selected cycle is running. The light turns to green when the selected cycle is complete. The light stays **ON** as green as a reminder that the dishes are clean until the door is opened or until another cycle is selected.



Cycle Status Indicator Light

### 2 Cycles

Press the Select Cycle keypad for the desired wash cycle.

**NOTE:** All cycle times and water usage information contained in the following section are approximate values only. Actual results will depend on several factors, including but not limited to, inlet temperature, household water pressure and dirtiness of the wash water. This dishwasher is equipped with a soil and temperature sensor.

The light next to the Select Cycle pad will be **ON** to indicate which WASH CYCLE has been selected.

**AUTO** 5.0 gal., 67 min.  
This cycle is meant for light to heavily soiled dishes.

**SANITIZE** 7.5–8.8 gal., 50–135 min.  
This cycle raises the water temperature in the final rinse to sanitize your dishware. The cycle length will vary depending on the temperature of your inlet water.

**NOTE:** The **SANITIZE** cycle is monitored for sanitization requirements. If the cycle is interrupted during or after the final rinse portion or if the incoming water temperature is so low that adequate water heating cannot be achieved, the sanitizing conditions may not be met. In these cases, the Sanitized light will not illuminate at the end of the cycle.

**NOTE:** NSF certified residential dishwashers are not intended for licensed food establishments.

**NORMAL** 3.3 gal., 54 min.  
This cycle is meant for normal every day soil levels and is designed to conserve both water and energy. **NOTE: NORMAL** was used to rate the energy efficiency of this dishwasher.

**LIGHT** 7.6 gal., 46 min.  
This cycle is meant for light to medium soiled dishes.

**NOTE:** Only the **SANITIZE** cycle has been designed to meet the requirements of Section 6, NSF 184 for soil removal and sanitization efficacy.



### 3 Options

The light above the selected pad will be **ON** to indicate which **OPTION** has been selected.

**DELAY HOURS** You can delay the start of a wash cycle for **2, 4 or 8** hours (delay time options may vary by model). Touch the **DELAY HOURS** pad to choose the number of hours you want to delay the start of the cycle; then touch **START/RESET** one time. A single beep will confirm DELAY HOURS has been set. The dishwasher will count down and start automatically at the correct time. Touching **START/RESET** a second time will cancel **DELAY HOURS** and turn off the dishwasher.

**NOTE:** While **DELAY HOURS** is active (after the **START/RESET** pad has been pressed), the dishwasher will update the remaining count down time on the control panel before the dishwasher starts the cycle. For example, if **DELAY HOURS 8** is selected, the delay hour indicator will move from **8** to **4** to **2** to off as delay time elapses.

**HEATED DRY** Shuts off the drying heat option. Dishes air dry without using energy.  
*Light OFF* For faster air dry you can prop the door open after the **CLEAN** light illuminates.

**HEATED DRY** Turns the heater on for fast drying. This will extend the total run time between 34 and 45  
*Light ON* minutes depending on the cycle selected.

**ADDED HEAT** When selected, the cycle will run with heating element on longer and may increase  
cycle times to improve both wash and dry performance.

**STEAM (Prewash)** For use with heavily soiled and/or dried-on, baked-on soils. This option **MUST** be selected **PRIOR**  
to starting the cycle. The **STEAM** option adds 30 minutes to the cycle time.

**CONTROL LOCK** You can lock the controls to prevent selections from being made. You can also lock the  
controls after you have started a cycle to prevent uninterrupted cycle changes.  
(on some models) For example, children cannot accidentally start the dishwasher by touching pads with this option selected.  
**To LOCK the dishwasher control**, touch and hold the **HEATED DRY** pad for 3 seconds. The control lock light will turn on. **To UNLOCK the dishwasher control**, touch and hold the **HEATED DRY** pad for 3 seconds. The control lock light will turn off.

### 4 START

Door can be open to start the cycle and select desired options. Press the **START/RESET** pad one time to begin the cycle. Close the door to start the cycle or begin the **DELAY HOURS** countdown. Approximately 60 seconds later the wash action begins.

**NOTE:** The dishwasher remembers your last cycle. You don't have to reprogram each time. Press the **START/RESET** pad to ready the dishwasher and close the door to begin. If the door is open, the illuminated lights will turn off if a pad is not pressed within two minutes. To activate the display, close and open the door or touch any pad.

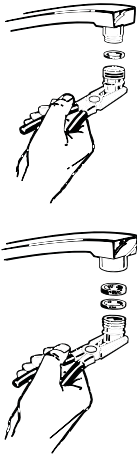
On some models, if a power failure occurs, **AUTO** and **HEATED DRY** will automatically be programmed. For all other models, if a power failure occurs, **NORMAL** and **HEATED DRY** will automatically be programmed.

**RESET** To change cycles after washing starts, press the **START/RESET** pad. This will cancel the currently running cycle, and begin pump-out. Once the pump-out is complete, the dishwasher will turn off.

Press the **START/RESET** pad when the dishwasher is running to cancel the cycle. The dishwasher will pump out and turn off at the end of pump-out. You can select cycles and options during pump-out. If you press **START/RESET** during the pump-out period, the pump-out will stop and a new cycle will begin.

# Unicouple

## About the unicouple (portable models only).



### Before Operating the Dishwasher the First Time

**Attach the faucet adapter.** The special faucet adapter supplied with your dishwasher must be assembled to the sink faucet before you can use your dishwasher.

The faucet adapter is designed to fit standard spouts having internal or external threads. You will find the adapter and two washers in the faucet adapter packet in your dishwasher.

**To install faucet adapter,** first remove the old aerator or trim ring on your faucet spout.

**If faucet has external threads:** Insert the thinner of the two washers into the faucet adapter and attach it to the faucet spout. Tighten with pliers.

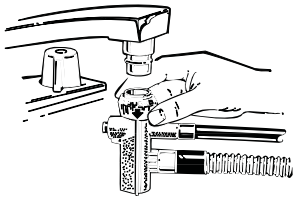
**If faucet has internal threads:** Insert both of the washers into the faucet adapter and attach it to the faucet spout.

Tighten with pliers.

If the faucet adapter threads do not match your faucet spout, your local hardware or plumbing supply store normally has additional fittings to adapt your faucet spout to the special faucet adapter.

**NOTE:** A sink spray attachment hose can burst if it is installed on the same sink with your dishwasher. We suggest that you disconnect the sink spray attachment if your sink has one and plug the hole.

### How to Connect the Unicouple



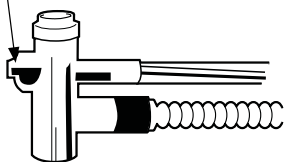
- 1 Run the hot water faucet to purge cold water from the hot water line. The hot water must be between 120°F and 150°F for best wash performance.
- 2 Pull Unicouple and its hoses completely out from storage compartment located at rear of dishwasher.
- 3 Attach the Unicouple connector to the faucet adapter by depressing the collar at the top of the connector. When Unicouple is all the way up onto the adapter, release the collar. It will then snap into position to lock the Unicouple in place.

The Unicouple's small hose carries water from the faucet to the dishwasher. Its large hose carries drain water to the sink. Be sure Unicouple is pointing toward the sink bowl drain opening and the sink drain is open for water that will drain from your dishwasher.

If your dishwasher drains into a disposer, operate the disposer until it is completely empty before starting the dishwasher.

- 4 Turn hot water fully on before starting the dishwasher.
- 5 Plug the dishwasher power cord into the outlet.

Pressure release button

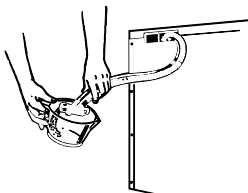


### How to Disconnect the Dishwasher

- 1 Unplug the dishwasher.
- 2 Push the cord back into its storage location.
- 3 Turn off the hot water.
- 4 Release the water pressure by depressing the pressure release button.
- 5 Release the Unicouple from the faucet by depressing the collar at the top of the Unicouple connector.
- 6 Drain excess water from the unicouple hoses (see below). Push the hoses back into their storage location.

**CAUTION** To protect yourself and the room from severe splashing, relieve water pressure prior to disconnecting the unicouple.

### How to Drain Excess Water from Unicouple Hoses



If the sink is 34" or higher from the floor, the excess water in Unicouple hoses cannot be drained directly into the sink. It will be necessary to drain excess water from hoses into a bowl or suitable container that is held outside and lower than the sink.

# Cycles

## Auto Hot Start:

Auto Hot Start is initiated by the control when it senses water temperature below 80°F. If the water is below 80°F after prewash, the unit will circulate for 1-5 minutes (depending on the cycle selected) and then drain for 75 seconds. This procedure will repeat up to 4 times or until the water reaches 80°F.

## Hot Start Enhancement:

Some models have a Hot Start option which enables or disables the Auto Hot Start.

## Added Heat:

When Added Heat Enhancement is selected during **Pots & Pans**, **Light**, or **China Crystal** cycles, the control will run the heating element and main circulation pump for an extra 15 minutes attempting to reach the minimum operating temperature.

## Heated Dry:

**Heated Dry** takes 34 minutes for the **Normal** cycle and 45 minutes for the **Sani**, **Auto**, **Pots & Pans**, and **China Crystal** cycles. There is no heated dry for the **Rinse** cycle. During **Heated Dry**, the heater cycles at a rate of 60 seconds on and 51 seconds off.

## Cycle Explanations and Exceptions:

- Turbidity response is used during the **Sani**, **Normal**, and **Auto** cycles only.
- **Pots & Pans**, **Light**, **China Crystal**, and **Rinse** are timed cycles.
- Timed cycles can change depending on the water temperature. If the minimum temperature is not met, an extended time will be added until the temperature is met or the time expires.
- Partial drain and fill algorithm is used on **Normal** and **Auto** cycles only.
- Auto Hot Start may cause the first prewash to repeat up to 4 times.
- **Steam** enhancement is shown on the cycle chart. Disabling steam will shorten the cycle time.
- If **Steam** is selected in **Normal** or **Auto** cycles, turbidity response will be ignored and cycle will default to the heavy soil algorithm.
- Drain Overlap is a short period where both the wash and drain pumps run simultaneously as the circulation cycle ends and draining begins.
- Drain Pause is a short period between the circulation cycle ending and starting the drain.

## Turbidity Response

The turbidity response is measured in DC volts. 4-5 VDC will register light soil and a shorter wash cycle, while 0-2 VDC will register heavy soil and a longer wash cycle. **Sani** wash measures the turbidity response during the third prewash cycle and adjusts the time based on those measurements. **Normal** wash measures the turbidity response during the first prewash and the prewash before the main wash. If a clean response is measured in the first prewash, the cycle will advance directly to the main wash with no drain or fill. If a clean response is measured in the prewash before the main wash, the control will shorten the active heater time.

# Cycle Chart

Segments of Cycle		Sani	Pots	Light	China	Rinse	Normal *6		Auto		Normal & Auto *7
							Light Soil	Heavy Soil	Light Soil	Heavy Soil	
Pre-Wash	Fill Time	63 sec	63 sec	63 sec	63 sec		63 sec		63 sec		63 sec
	Circulation Time	1 min	4 min	3 min	2 min		1 min		1 min		1 min
	Drain Time	75 sec	75 sec	75 sec	75 sec		5 min		7 sec		7 sec
	Drain Overlap Time *3	10 sec	10 sec	10 sec	10 sec		7 sec		0		0
	Heater on Time	0	0	3 min	0		0		0		0
	Min-Max Temp	80°F *1	80°F *1	80°F *1 - 130°F	80°F *1		80°F *1 & *2		80°F *1 & *2		80°F *1 & *2
Pre-Wash	Fill Time	63 sec	63 sec	63 sec	63 sec		17 sec		17 sec		17 sec
	Circulation Time	1 min	15 min	3 min			3 min		3 min		2 min
	Drain Time	75 sec	75 sec	75 sec			75 sec		75 sec		7 sec
	Drain Overlap Time *3	10 sec	10 sec	10 sec			0		0		0
	Circulation to Drain Pause	0	0	0			15 sec		15 sec		0
	Heater on Time	1 min	15 min	3 min			0		0		0
Min-Max Temp	130°F - 158°F		130°F max			0		0		0	
Pre-Wash	Fill Time	63 sec	63 sec								17 sec
	Circulation Time	5-8 min	4 min								3 min
	Drain Time	75 sec	75 sec								75 sec
	Drain Overlap Time *3	10 sec	10 sec								0
	Circulation to Drain Pause										15 sec
	Heater on Time	5-8 min	4 min								0
Min-Max Temp	130°F - 158°F	158°F max								0	
Steam *4	Fill Time	63 sec	63 sec	63 sec	63 sec		*6	63 sec	63 sec		63 sec
	Circulation Time	15 min	15 min	15 min	15 min			15 min	15 min		15 min
	Drain Time	75 sec	75 sec	75 sec	75 sec			10 sec	10 sec		10 sec
	Drain Overlap Time *3	10 sec	10 sec	10 sec	10 sec			0	0		0
	Heater on Time	15 min	15 min	15 min	15 min			15 min	15 min		15 min
	Min-Max Temp	125°F - 130°F	125°F - 130°F	125°F - 130°F	0			125°F - 130°F	125°F - 130°F		125°F - 130°F
Extend time *5	5 min	5 min	5 min	0			5 min	5 min		5 min	
Steam *4	Fill Time	63 sec	63 sec	63 sec	63 sec		*6	21 sec	21 sec		21 sec
	Circulation Time	2 min	2 min	2 min	2 min			2 min	2 min		2 min
	Drain Time	75 sec	75 sec	75 sec	75 sec			130-180	75 sec		75 sec
	Drain Overlap Time *3	10 sec	10 sec	10 sec	10 sec			0	0		0
	Heater on Time	7 min	7 min	7 min	7 min			7 min	7 min		7 min
	Min-Max Temp	130°F - 180°F	130°F - 180°F	130°F - 180°F	0			130°F - 180°F	130°F - 180°F		130°F - 180°F
Pre-Wash	Fill Time							63 sec	63 sec		63 sec
	Circulation Time							10 min	10 min		10 min
	Drain Time							10 sec	10 sec		10 sec
	Heater on Time							10 min	10 min		10 min
	Min-Max Temp							158°F max	158°F max		158°F max
	Detergent Cup								Yes		Yes
Pre-Wash	Fill Time										21 sec
	Circulation Time										15 min
	Drain Time										10 sec
	Heater on Time										15 min
	Min-Max Temp										125-158
	Extend time *5										5 min
Main Wash	Fill Time	63 sec	63 sec	63 sec	63		0	21 sec	21 sec		21 sec
	Circulation Time	5 min	40 min	10 min	18 min		30 min		12 min	30 min	30 min
	Drain Time	75 sec	75 sec	75 sec	75 sec		75 sec		75 sec		75 sec
	Drain Overlap Time *3	10 sec	10 sec	10 sec	10 sec		0		0		0
	Drain Pause	0	0	0	0		15 sec		15 sec		15 sec
	Heater on Time	5 min	40 min	10 min	18 min		27 min	30 min	12 min	30 min	30 min
Min-Max Temp	135°F - 158°F	158°F max	130°F - 130°F	0		120°F - 158°F		120°F - 158°F		120°F - 158°F	
Detergent Cup	Yes	Yes	Yes	Yes		Yes		No		No	
Extend time *5	15 min	0	25 min	0		5 min		5 min		5 min	
Post-Rinse	Fill Time	63 sec	63 sec	63 sec	63 sec			62 sec	63 sec		63 sec
	Circulation Time	5 min	5 min	3 min	2 min			7 min	3 min		3 min
	Drain Time	75 sec	75 sec	75 sec	75 sec			11 sec	11 sec		11 sec
	Drain Overlap Time *3	10 sec	10 sec	10 sec	10 sec			0	0		0
	Heater on Time	5 min	5 min	3 min	2 min			0	0		0
	Min-Max Temp	130°F - 158°F	158°F max	130°F max	0			0	0		0
Post Rinse	Fill Time	63 sec	63 sec	63 sec	63 sec						23 sec
	Circulation Time	5 min	5 min	3 min	2 min						8 min
	Drain Time	75 sec	75 sec	75 sec	75 sec						11 sec
	Drain Overlap Time *3	10 sec	10 sec	10 sec	10 sec						0
	Heater on Time	5 min	5 min	3 min	2 min						8 min
	Min-Max Temp	130°F - 158°F	158°F max	130°F max	0						130°F - 158°F
Extend time *5										5 min	
Final Rinse	Fill Time	63 sec	63 sec	63 sec	63 sec	63 sec		23 sec	23 sec		23 sec
	Circulation Time	5 - 60 min	9 min	9 min	5 min	4 min		6 min	10 min		10 min
	Drain Overlap Time *3	10 sec	10 sec	10 sec	10 sec	10 sec		0	0		0
	Drain Pause	0	0	0	0	0		15 sec	15 sec		15 sec
	Drain Time	105 sec	105 sec	105 sec	105 sec	105 sec		105 sec	105 sec		105 sec
	Heater On	5 - 60 min	9 min	9 min	0	0		5 min	5 min		5 min
Extend time *5	0	0	10 min	0	0		5 min	5 min		5 min	
Rinse Aid	Yes	Yes	Yes	Yes	No		Yes	Yes		Yes	
Min-Max Temp	158°F max	158°F max	130°F - 135°F	0	0		120°F - 158°F	120°F - 158°F		120°F - 158°F	
Heated Dry	Heat Dry Time	45 min	45 min	45 min	45 min	0		34 min	45 min		45 min

Notes

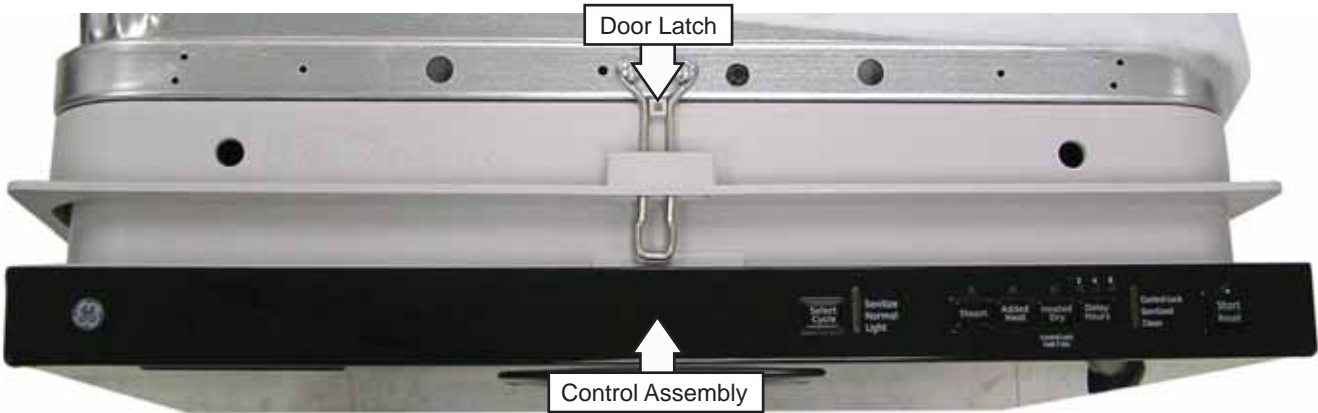
- \*1 If minimum 80°F is not met, Auto Hot Start initiated - can repeat this cycle up to 4 times or until 80°F min temp is met
- \*2 If Auto Hot Start is initiated in Normal or Auto, the control will change to 63 second fills and 75 second drains up to 4 times to attempt to reach 80°F
- \*3 Drain Overlap Time: both wash and drain pumps on at same time
- \*4 Steam is an Option that will add segments to a cycle. If not selected, skip the 2 segments
- \*5 Extend times - heater and circulation pump are on
- \*6 When Steam is selected in Normal wash, the wash Algorithm defaults to Heavy Soil Cycle
- \*7 When Added Heat is selected with Normal or Auto, cycles are the same with Max Turbidity Algorithm defaulting to Heavy Soil Cycle

# Component Locator Views

Front View



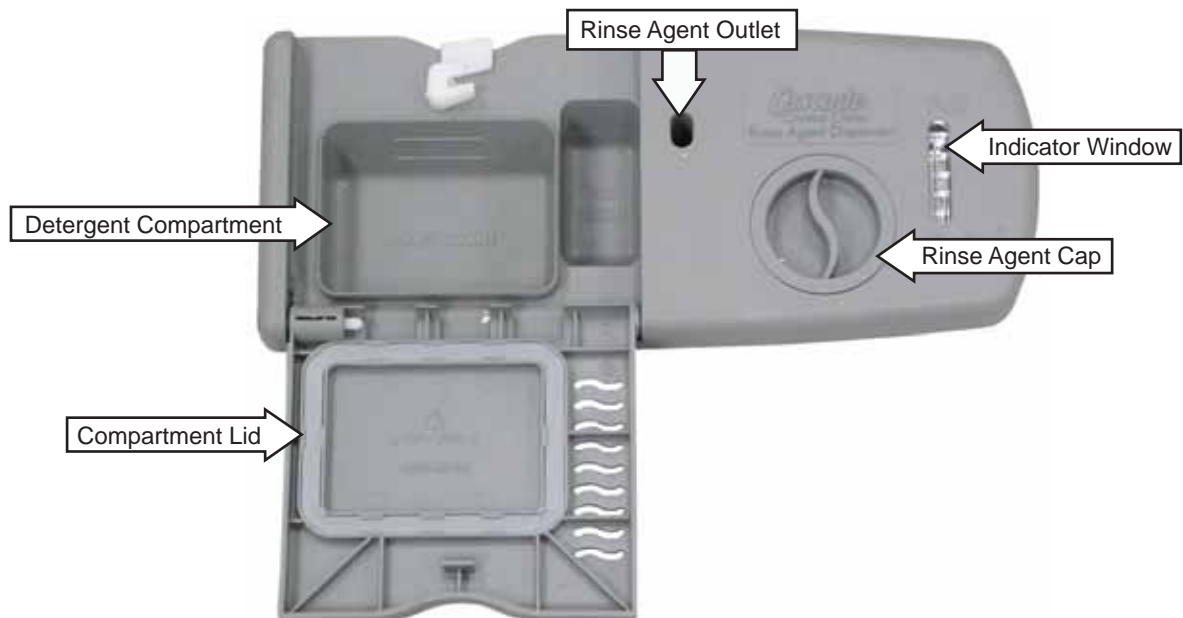
Control Panel View



Interior View (Without Racks)

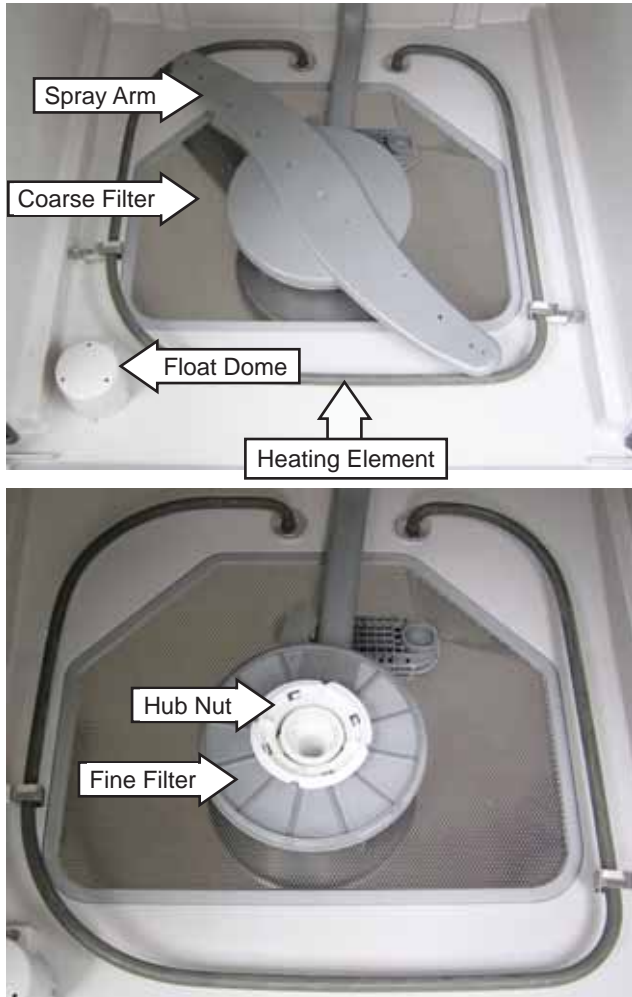


Detergent/Rinse Module Compartment View

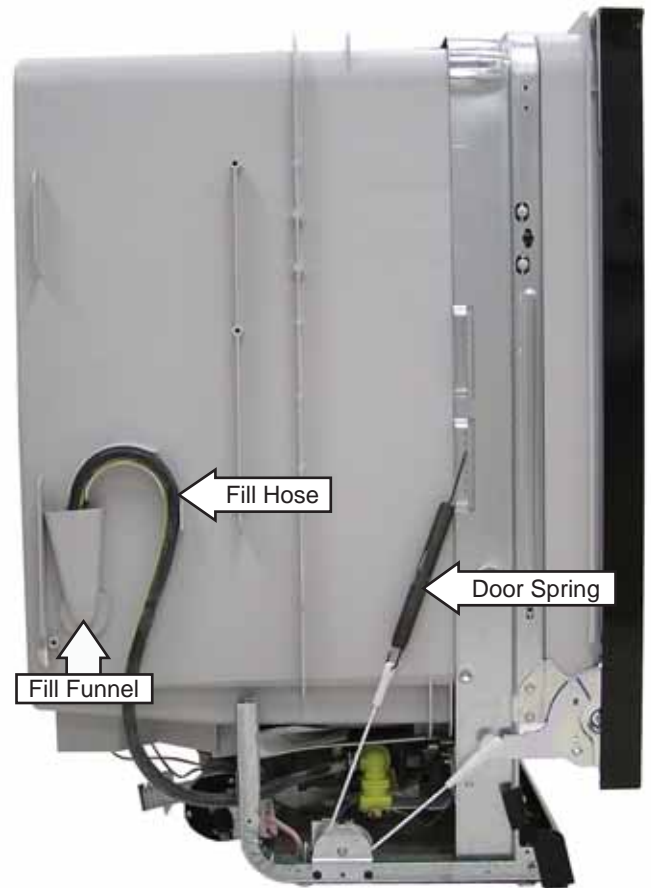




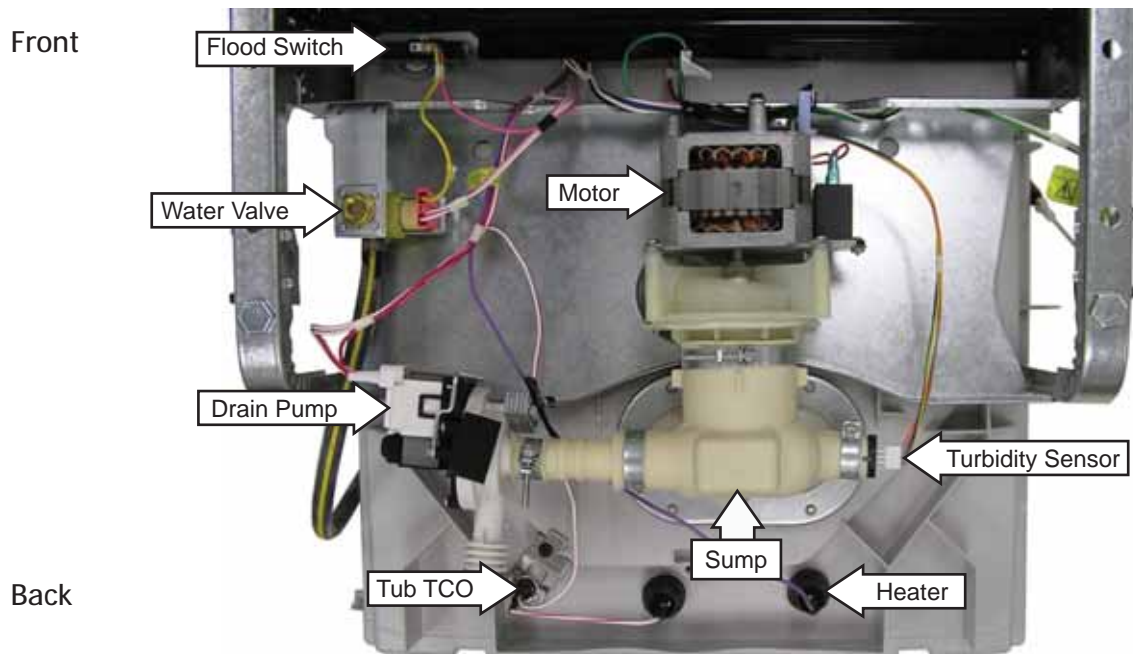
Interior View of Basin (With Racks Removed)



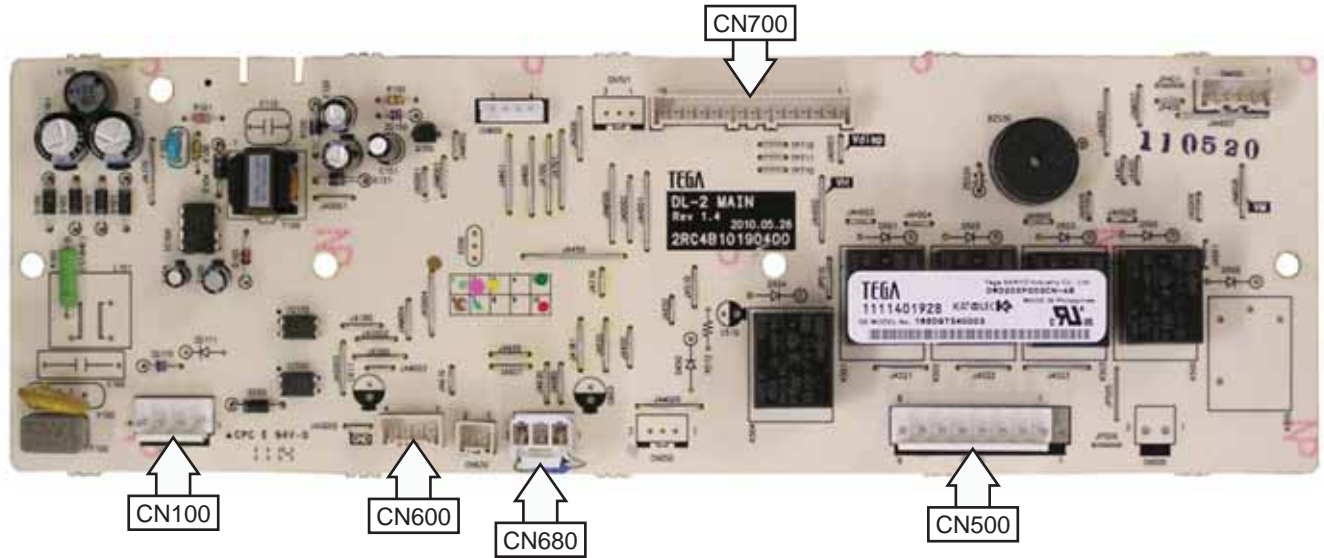
Left Side View (Insulation Removed)



Bottom View (Looking Up)



# Control Board Connector Locator View



CN100 - AC Power

CN500 - AC Load

CN600 - Turbidity Sensor

CN680 - Model Select

CN700 - HMI Connector



# Dishwasher Components

## Inner Door Panel (PermaTuf Tub Models)

The inner door panel on the PermaTuf tub models must be removed to access the control board, detergent/rinse module, control TCO, tactile switch, door switch, pocket handle, vent, console, and lens.

To remove the inner door panel:

1. Remove the 8 Phillips-head screws from the inner door.



2. Disconnect the 2 wires from the detergent/rinse module.

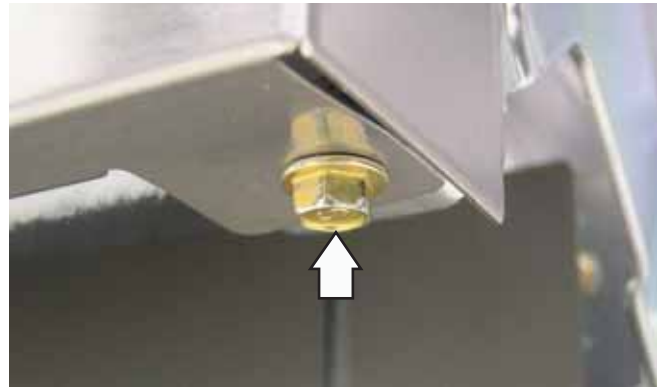


## Outer Door Panel (Stainless Steel Tub Models)

The outer door panel on the stainless steel tub models must be removed to access the control board, detergent/rinse module, control TCO, tactile switch, door switch, vent, and lens.

To remove the outer door panel:

1. Remove the two 1/4-in. hex-head screws from the bottom of the front door panel (one on each side).



2. Remove the ten T-15 torx screws from the inner door panel.

**Caution:** Carefully remove the outer door from the inner door frame.



*(Continued next page)*

3. Disconnect the 2 wires from the detergent/rinse module.



### Control TCO

The control TCO is one shot with a trip temperature of 280°F. If the control TCO trips, no voltage will be supplied to the control or components. Look for control or wire damage and replace as necessary.

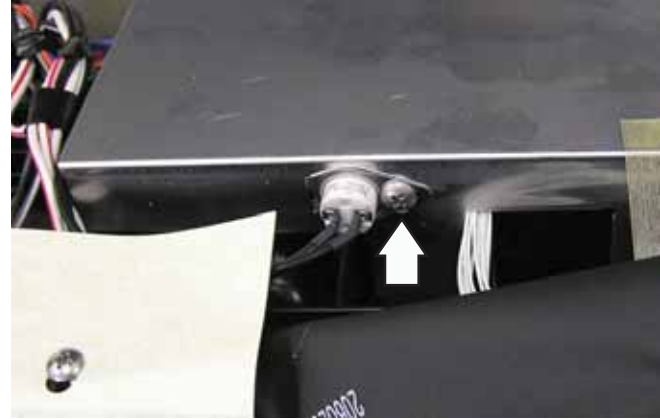
#### To remove the control TCO:

1. Remove the inner door panel on PermaTuf tub models or the outer door panel on stainless steel tub models. (See *Inner Door Panel (PermaTuf Tub Models)* or *Outer Door Panel (Stainless Steel Tub Models)*.)
2. Fold back the vinyl shield that covers the control board cover.

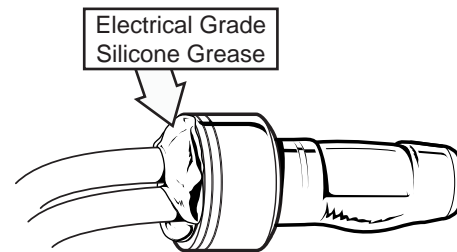
**Caution:** The vinyl shield must cover the control board cover before installing the inner door panel.



3. Remove the single Phillips-head screw that holds the control TCO to the control board cover.



**Note:** When replacing the control TCO, splice a new thermostat into the harness using connectors and procedures approved for damp/wet conditions.

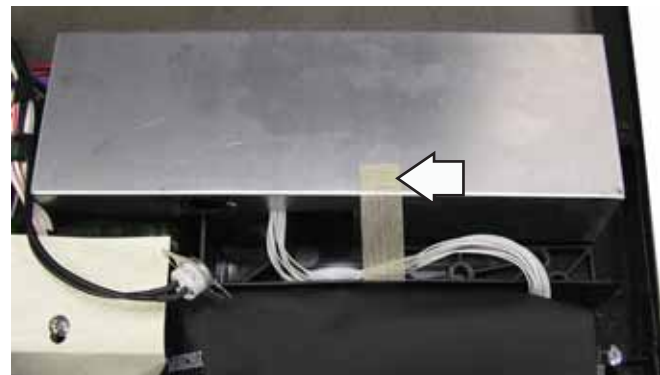


### Control Board

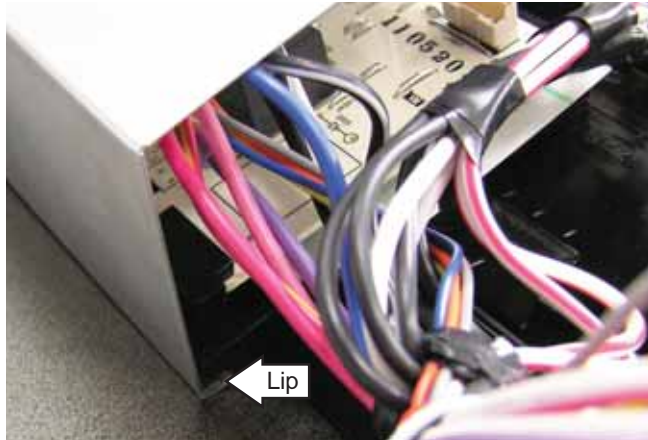
The control board is located under the cover beneath the inner door panel.

#### To remove the control board:

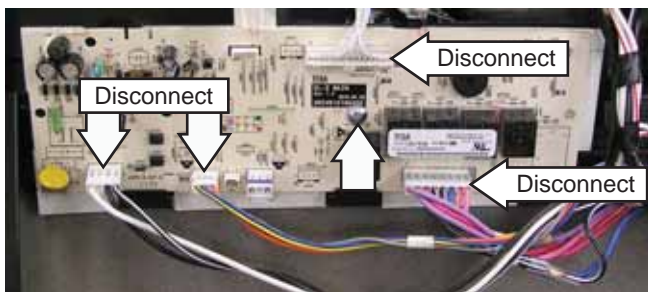
1. Remove the control TCO. (See *Control TCO*.)
2. Detach the tape from the control board cover, then pull the cover off the control board housing.



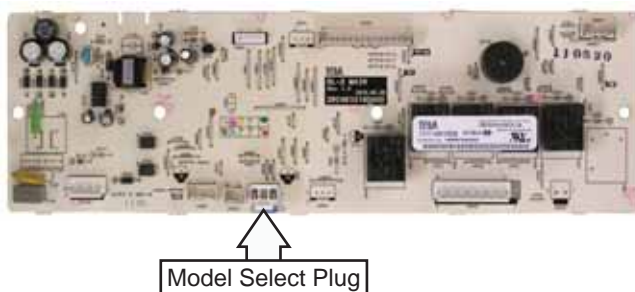
**Note:** When removing or installing the control board cover, remove or insert the lip under the console.



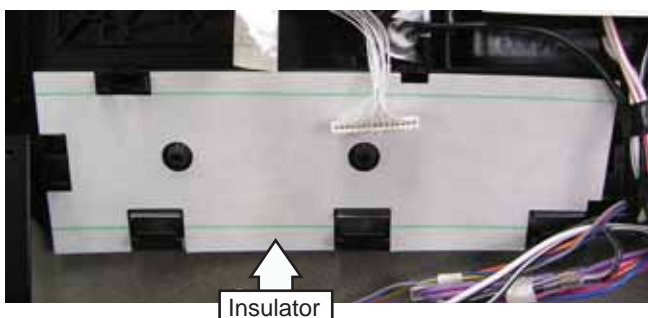
3. Disconnect the 4 wiring harnesses from the control board.
4. Remove the single Phillips-head screw from the center of the control board.



**Note:** When replacing the control board, transfer the model select plug to the new board.



**Note:** Be sure the insulator is placed on the console before installing the control board.

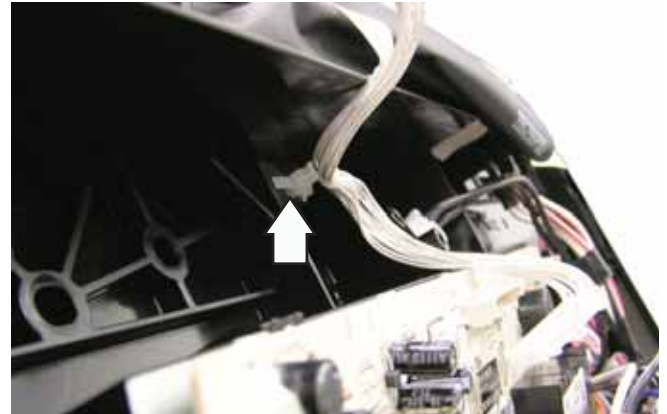


## Tactile Switch

The tactile switch includes a silicone pad to protect the switch from moisture. The buttons and silicone pad come as an assembly.

**To remove the tactile switch:**

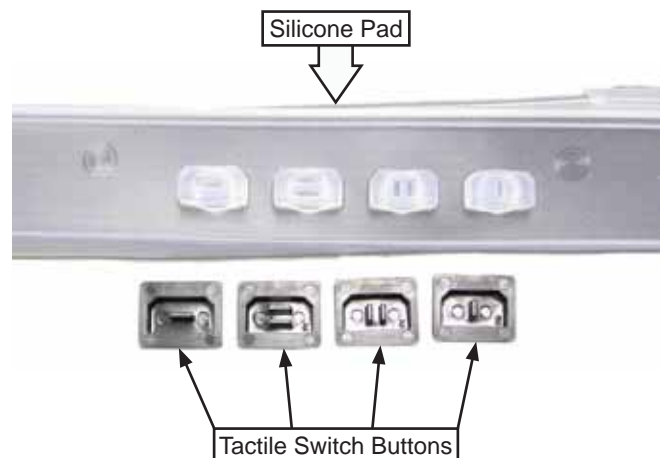
1. Disconnect the tactile switch wire harness from the control board. (See *Control Board*.)
2. Disengage the switch wire harness tie from the console.



3. Remove the 2 Phillips-head screws that hold the tactile switch to the console.



**Note:** The tactile switch buttons are keyed to fit in the proper place on the silicone pad.





## Door Switch Assembly

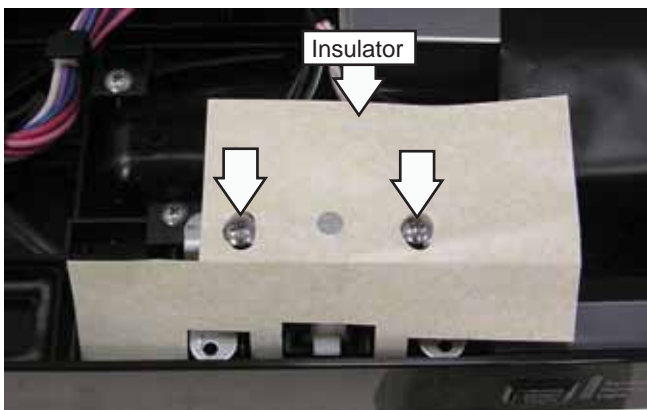
The door switch assembly on PermaTuf tub models consists of 2 switches activated by a spring-loaded plunger. One door switch connects or disconnects the line (hot) side of 120 VAC. The other switch connects or disconnects the neutral side of 120 VAC. On stainless steel tub models, there is only 1 switch that connects or disconnects the line (hot) side of 120 VAC.

When the door is in the closed position, the door latch presses and holds down the switch plunger on the door switch assembly. This action holds the door firmly against the seal with the contacts of the door switches closed.

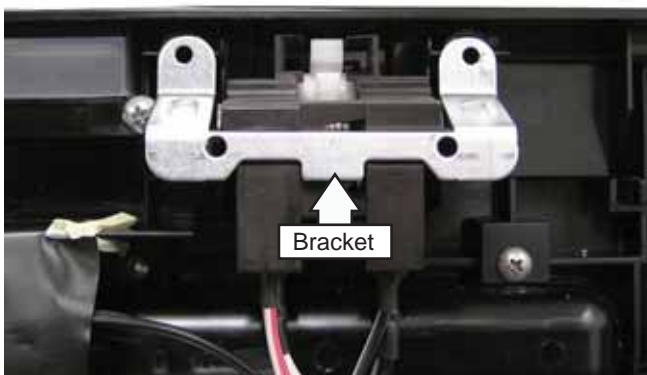
To remove the door switch assembly (PermaTuf tub models):

1. Disconnect the power supply to the dishwasher.
2. Remove the inner door panel. (See *Inner Door Panel (PermaTuf Tub Models)*)
3. Remove the 2 Phillips-head screws from the door switch and remove the insulator.

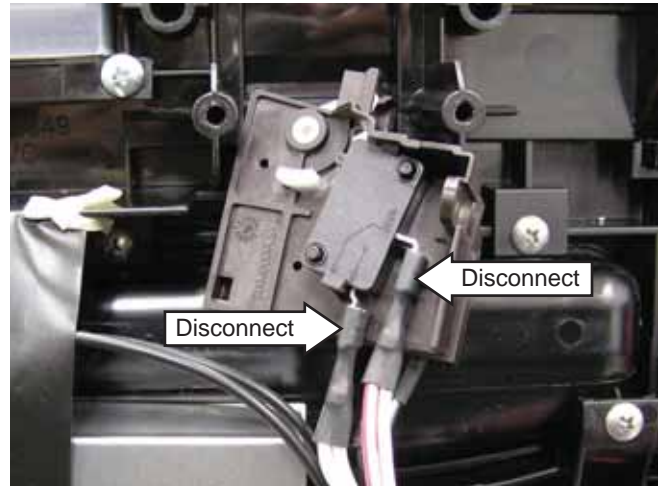
**Caution:** The door switch insulator must be in place when installing the door switch.



4. Remove the bracket from the door switch.

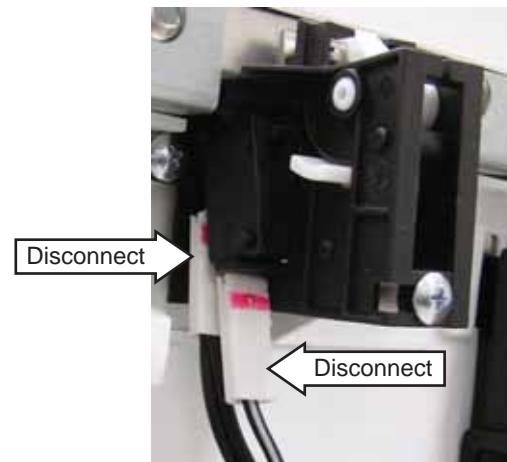


5. Disconnect the 2 wires connected to each door switch. (1 switch not shown.)

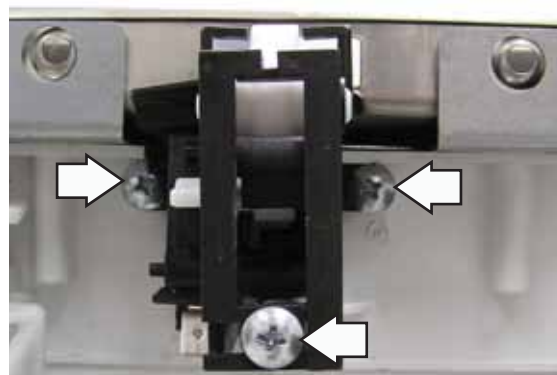


To remove the door switch assembly (stainless steel tub models):

1. Disconnect the power supply to the dishwasher.
2. Remove the outer door panel. (See *Outer Door Panel (Stainless Steel Tub Models)*)
3. Disconnect the 2 wires from the door switch.



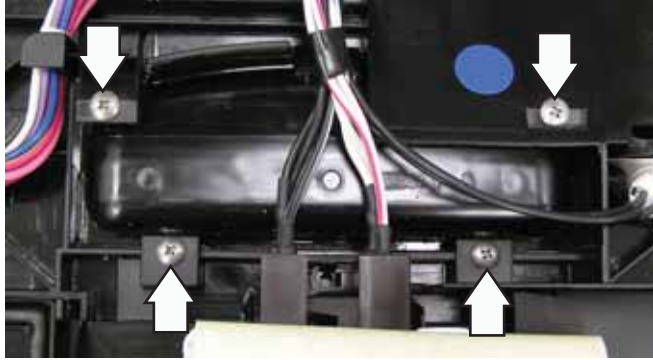
4. Remove the 3 Phillips-head screws from the door switch.



## Pocket Handle

To remove the pocket handle:

1. Remove the control board. (See *Control Board*)
2. Remove the 4 Phillips-head screws holding the pocket handle to the console.



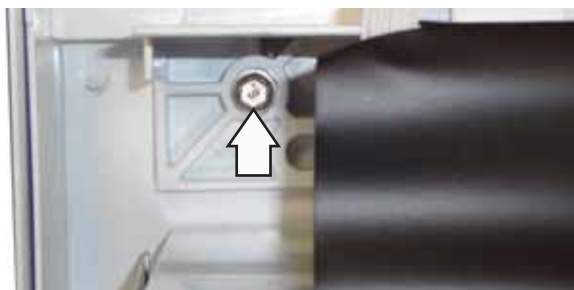
3. Remove the pocket handle through the front of the outer door.



## Towel Bar Handle

To remove the towel bar handle:

1. Remove the inner door panel on PermaTuf tub models or the outer door panel on stainless steel tub models. (See *Inner Door Panel (PermaTuf Tub Models)* or *Outer Door Panel (Stainless Steel Tub Models)*)
2. Remove the two 1/4-in. hex-head screws holding the handle to the outer door (1 on each side).



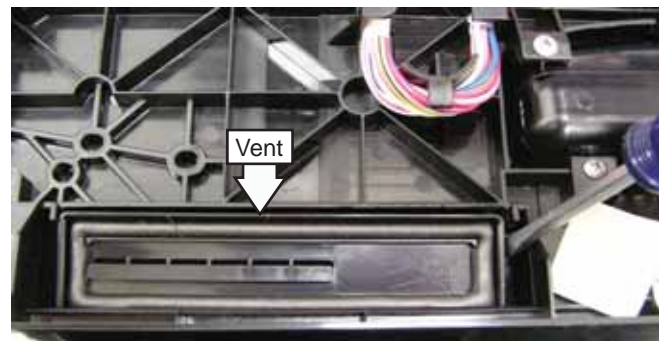
## Vent

PermaTuf Models

The outer door vent is located on the console. When replacing the front panel, console, or light lens, the vent must be removed and replaced. A new vent will come with the console and lens as a kit.

To remove the outer vent:

1. Remove the inner door panel. (See *Inner Door Panel (PermaTuf Tub Models)*)
2. Pry the vent louver off the outer door panel with a flat blade screwdriver.



**Caution:** To prevent water leakage, it is important to install the new vent on a clean panel using double-backed tape. If necessary, remove excess adhesive on the panel before installing the new vent.

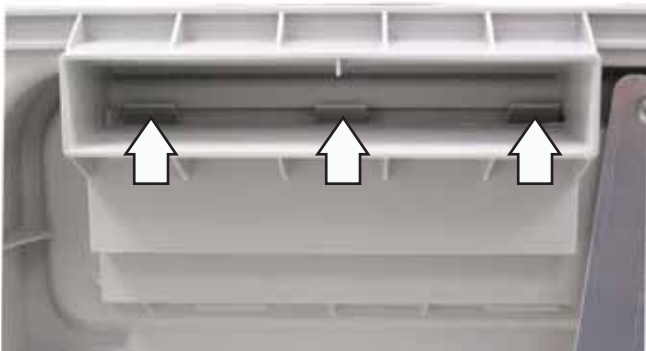


### To remove the inner vent:

1. Remove the inner door panel. (See *Inner Door Panel (PermaTuf Tub Models)*)
2. Remove the vent foam from the inner door panel.



3. Disengage the 3 tabs holding the vent to the inner door panel.



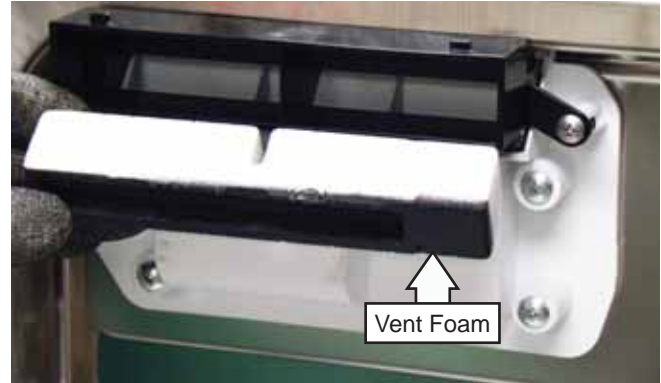
**Note:** When installing the inner vent, insert the top section first.



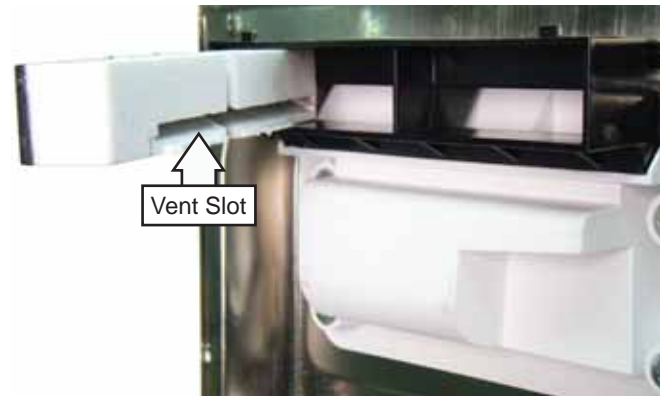
### Stainless Steel Tub Models

#### To remove the vent:

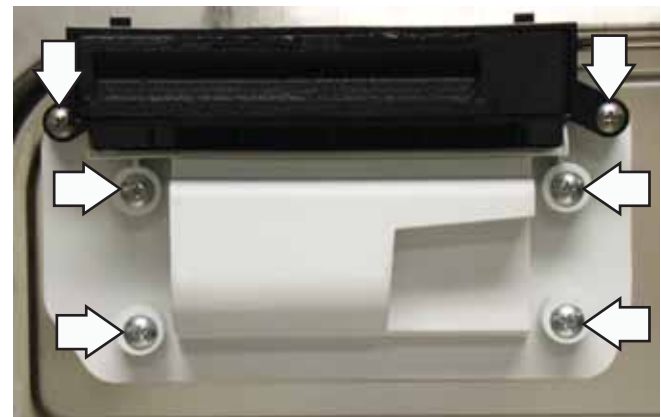
1. Remove the outer door panel. (See *Outer Door Panel (Stainless Steel Tub Models)*)
2. Remove the vent foam from the vent.



**Note:** When installing the vent foam, position it so the rear vent slot is on the bottom.



3. Remove the 2 Phillips-head screws holding the duct to the vent body.
4. Remove the 4 Phillips-head screws holding the vent body to the inner door panel.

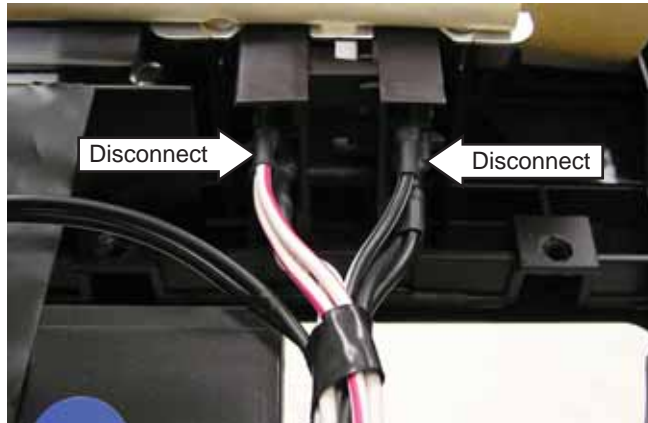




## Console

To remove the console (PermaTuf tub models):

1. Remove the control board. (See *Control Board*.)
2. Remove the pocket handle or towel bar handle. (See *Pocket Handle* or *Towel Bar Handle*.)
3. Remove the outer vent. (See *Vent*.)
4. Disconnect the 4 wires from the door switch assembly.



5. Pull the console out from the outer door panel.



To remove the console (stainless steel tub models):

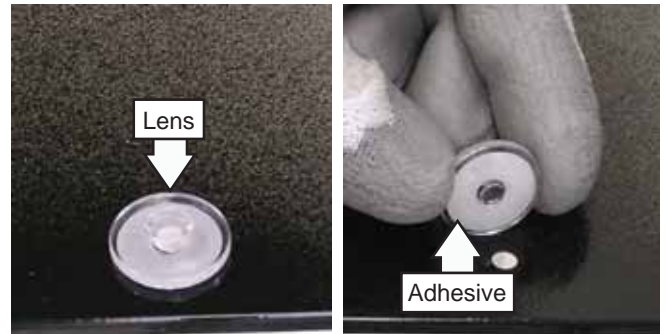
1. Remove the control board. (See *Control Board*.)
2. Disconnect the 2 wires from the door switch. (See *Door Switch Assembly*, step 3.)
3. Remove the pocket handle or towel bar handle. (See *Pocket Handle* or *Towel Bar Handle*.)
4. Pull the console out from the outer door panel.

## Lens

The console must be removed to access the lens, which adheres to the front panel with double-backed tape. A new lens will come with the console as a kit.

To remove the lens:

1. Remove the console. (See *Console*.)
2. Pry the lens off the door panel with a flat blade screwdriver.



## Outer Door Panel (PermaTuf Tub Models)

To remove the outer door panel:

1. Remove the inner door panel. (See *Inner Door Panel (PermaTuf Tub Models)*.)
2. Disconnect the control board wiring harnesses. (See *Control Board*.)
3. Disconnect the 4 wires from the door switch assembly. (See *Console*, step 4.)
4. Remove the 2 Phillips-head screws from the bottom of the door (1 on each side).



5. Disconnect the spring to release tension from the door hinge.



6. Remove the 4 Phillips-head screws holding the outer door panel to the door hinges (2 on each side).



7. Slide the outer door panel off the door hinges.

## Inner Door Panel (Stainless Steel Tub Models)

To remove the inner door panel:

1. Remove the outer door panel. (See *Outer Door Panel (Stainless Steel Tub Models)*)
2. Disconnect the control board wiring harnesses, (See *Control Board*)
3. If the installation allows, pull the dishwasher out to access the door hinges.
4. Insert 2 screwdrivers (1 on each side) thru the door hinge bracket holes and secure under the dishwasher tub.



5. Remove the 4 Phillips-head screws holding the inner door panel to the door hinges (2 on each side).



6. Slide the inner door panel off the door hinges.

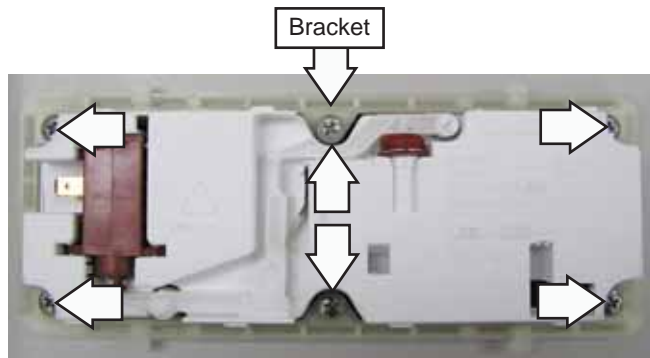


## Detergent/Rinse Module

The inner door panel on PermaTuf tub models and the outer door panel on stainless steel tub models must be removed to access the detergent/rinse module. (See *Inner Door Panel (PermaTuf Tub Models)* or *Outer Door Panel (Stainless Steel Tub Models)*)

The detergent/rinse module is connected by 2 wires and held in place by 6 Phillips-head screws and a bracket.

The detergent/rinse module operates on 120 VAC and has an approximate resistance value of 2 K $\Omega$ .



The detergent/rinse module automatically dispenses both detergent and rinse agent at the appropriate times. The module is activated twice during a wash cycle. Detergent is dispensed at the beginning of the main wash cycle and rinse agent at the beginning of the final rinse.

Operation of the detergent/rinse module can be checked by using the service test mode. (See *Service Test Mode*.)

The first time the module is activated, the lever slides up the right-hand path of the connecting rod (1). This action releases the detergent cover.



When deactivated, the lever returns down the left-hand path and comes to rest under the notch (2) in the center of the connecting rod.



At the second activation, the lever lifts the connecting rod by the notch. This action lifts the rinse dispenser plunger (3) and releases the rinse agent. When deactivated, the lever returns to its original starting position.



## Bottom Door Seal

The bottom door seal on PermaTuf tub models is replaced by removing the inner door panel (See *Inner Door Panel (PermaTuf Tub Models)*.) Slide the door seal to one side off the channel.



**Note:** When installing the door seal, be sure the seal slides freely in the channel.

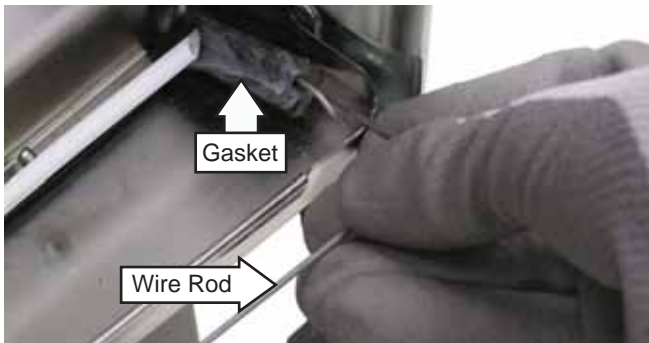
The bottom door seal on the stainless steel tub models is riveted to the inner door panel. If the bottom door seal needs to be replaced, replace the inner door panel (See *Inner Door Panel (Stainless Steel Tub Models)*.)

## Tub Gasket

The dishwasher tub gasket prevents water leakage and fits in a channel that lines the rim of the dishwasher tub. The gasket on the stainless steel tub models includes a wire rod that provides tension to the seal.

To remove the tub gasket:

1. For the stainless steel tub models, remove the outer door panel. (See *Outer Door Panel (Stainless Steel Tub Models)*.)
2. For the stainless steel tub models, pull the wire rod out of the gasket.



3. For PermaTuf tub models, open the dishwasher door.
4. Remove the dishwasher tub gasket by grasping an end and peeling it away from the channel.



**Caution:** When installing the tub gasket, run your finger over the gasket assuring it is smooth and even for a proper seal. On the PermaTuf tub models, a correctly installed gasket will have both ends of the gasket equally spaced from the bottom of the tub. Do not stretch the gasket to make both ends meet the bottom of the tub.

## Lower Spray Arm

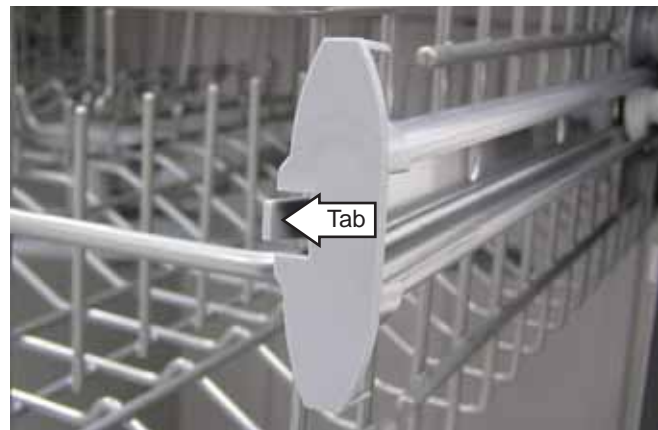
The lower spray arm may be accessed by opening the dishwasher door and removing the bottom rack. Remove the lower spray arm by pulling it up while turning it counterclockwise.



## Mid Spray Arm

To remove the mid spray arm (PermaTuf tub models):

1. Remove the end cap on each roller guide by pushing the tab towards the center of the dishwasher.



Right Side Shown

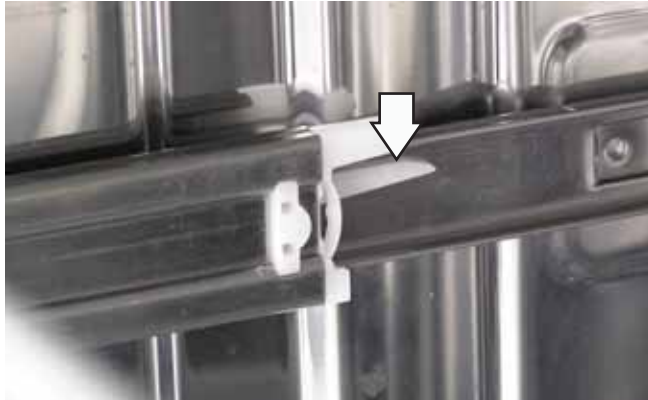
2. Remove the 1/4-in. hex-head screw from the spray arm.



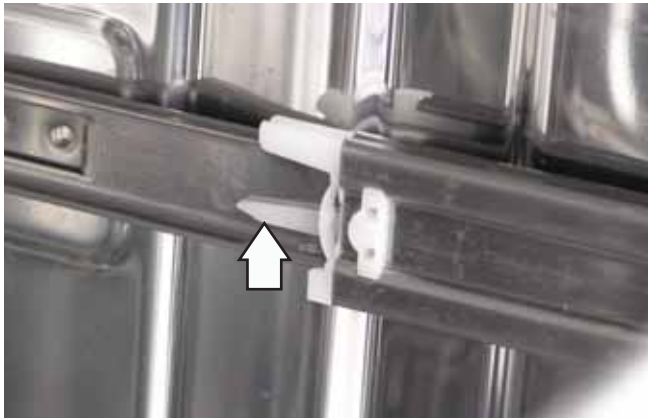
(Continued next page)

To remove the mid spray arm (stainless steel tub models):

1. Disengage the left upper rack slide by pressing the lever down while pulling the rack out.



2. Disengage the right upper rack slide by pressing the lever up while pulling the rack out.



3. Remove the 1/4-in. hex-head screw from the spray arm.



## Upper Spray Arm

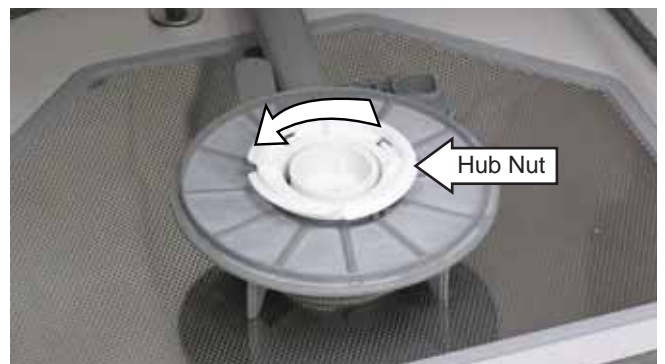
Remove the upper spray arm by removing the 1/4-in. hex-head screw holding the arm to the conduit.



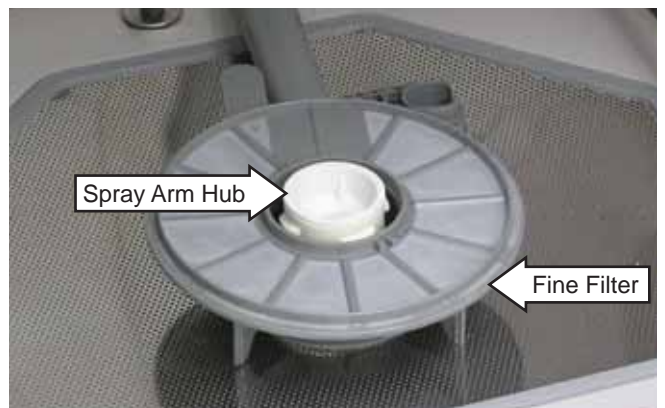
## Fine Filter

To remove the fine filter:

1. Remove the lower spray arm. (See *Lower Spray Arm*.)
2. Rotate the hub nut counterclockwise. Lift the hub nut off the fine filter.



3. Lift the fine filter off the spray arm hub.



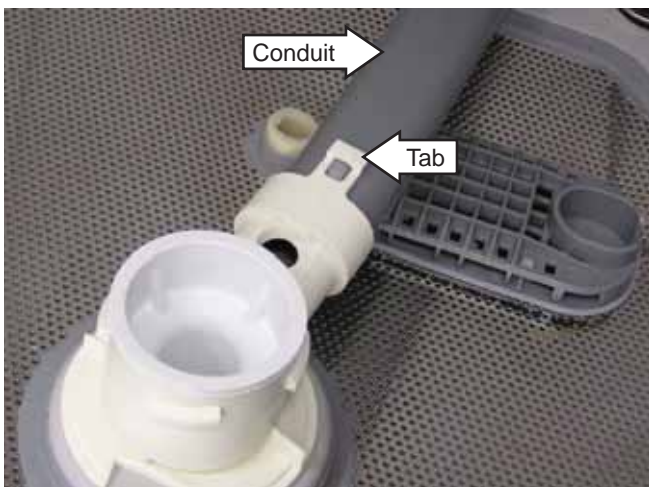


## Sump Filter

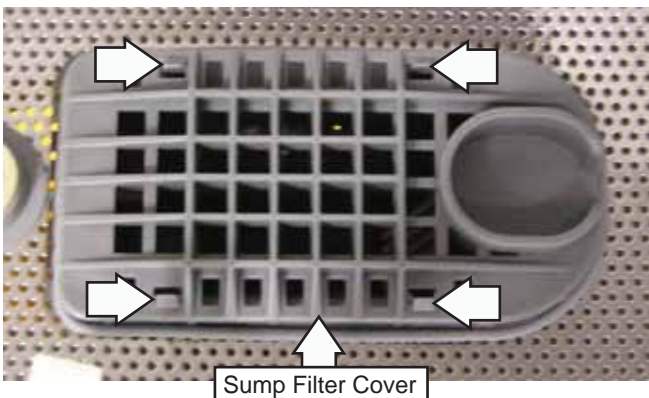
The sump filter prevents large particles from entering the sump.

To remove the sump filter:

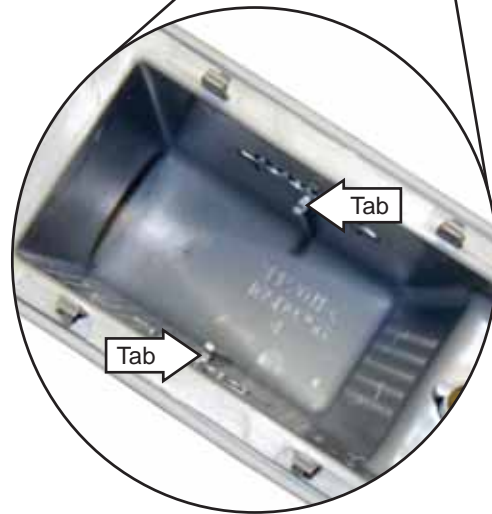
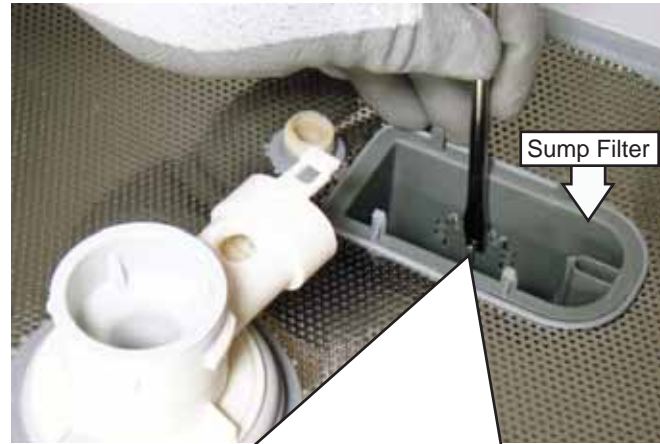
1. Remove the upper rack. (See *Mid Spray Arm*, step 1 for PermaTuf tub models or steps 1-2 for stainless steel tub models.)
2. Remove the upper spray arm. (See *Upper Spray Arm*.)
3. Remove the fine filter. (See *Fine Filter*.)
4. Lift the tab on the spray arm hub while pulling the conduit back to remove.



5. Release the 4 tabs on the sump filter cover to remove it.



6. Release the 2 sump filter tabs with a flat blade screwdriver or putty knife.



7. Remove the sump filter by pulling it up and to the right



## Coarse Filter

To remove the coarse filter:

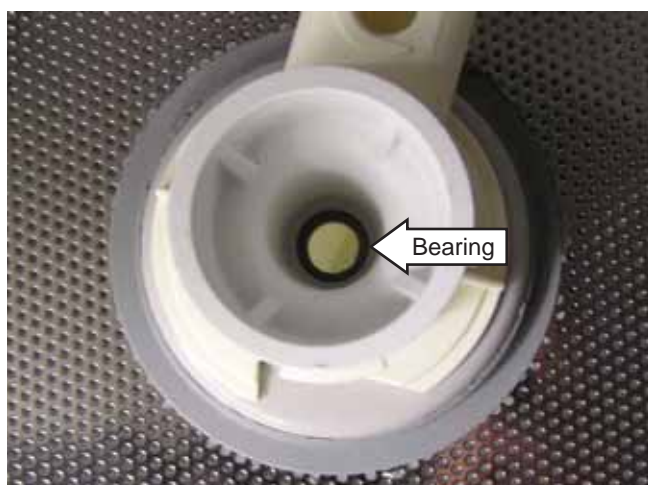
1. Remove the sump filter. (See *Sump Filter*.)
2. Turn the spray arm hub counterclockwise and remove it from the tub.



3. Lift the coarse filter from the dishwasher.



**Note:** Insure the spray arm bearing is in the proper location before assembly.



## Flood Switch

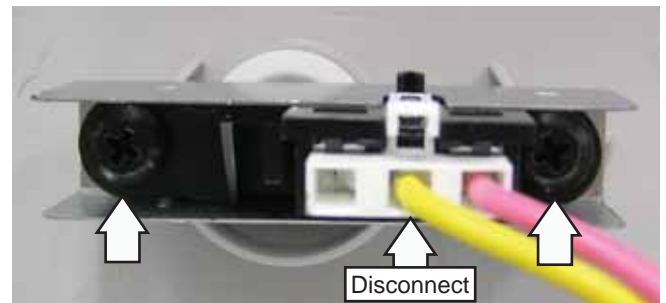
The flood switch contacts will open if water reaches the float stem inside the dishwasher. The switch will only terminate the voltage to the water valve.

To remove the flood switch:

1. Remove two 1/4-in. hex-head screws and the access panel.



2. Disconnect the flood switch wiring harness.
3. Remove the 2 Phillips-head screws holding the switch to the dishwasher.



4. Pull the flood switch out of the bracket.



## Turbidity Sensor

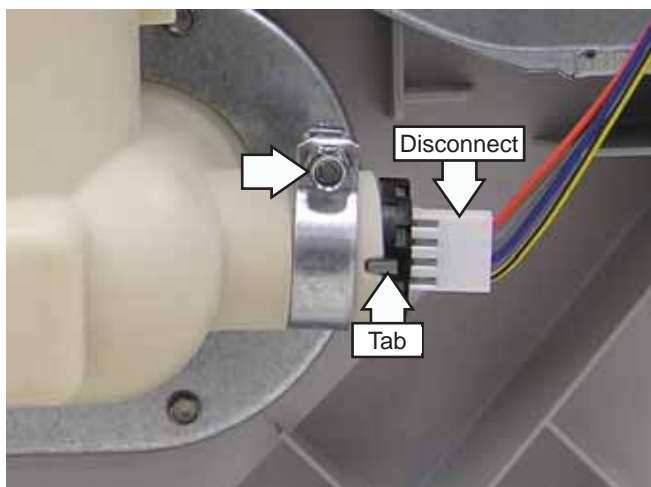
The turbidity sensor measures the amount of suspended particles in the wash water in the sump. The sump water lays between the 1/4- to 3/8-in. gap between the LED transmitter and the receptor during the designated fills. Successive turbidity measurements are supplied to the control module and used to determine whether to add or skip any prewash or rinse cycles and whether to adjust the wash or heat times. By measuring the turbidity level, the control module can conserve energy on lightly soiled loads by skipping unnecessary cycles. If the soil level is high, the control will add one or more rinse cycles and increase the wash and heat times as necessary.

**Note:** If the turbidity sensor fails, the unit will operate for the maximum amount of time, using the maximum number of wash and rinse fills for the selected cycle.

### To remove the turbidity sensor:

1. Remove the dishwasher from its installation.
2. Lay the dishwasher on its back.
3. Disconnect the wire harness from the turbidity sensor.
4. Loosen the 5/16-in. hex-head screw from the hose clamp and pull the turbidity sensor out of the sump.

**Note:** When installing the turbidity sensor, align the sensor tab in the cutout before tightening the hose clamp.



## Heating Element

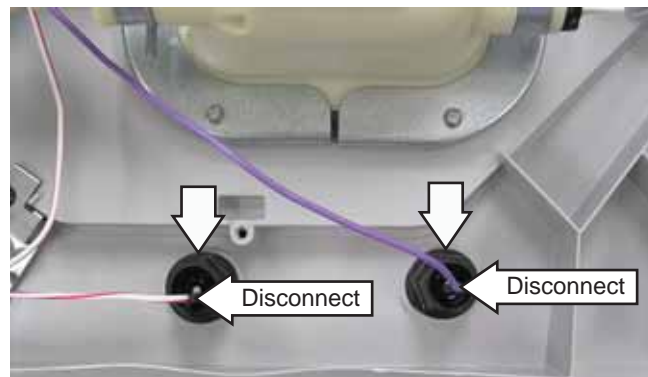
The heating element maintains water temperature during some wash and rinse cycles.

The heater has an approximate resistance value of 17  $\Omega$ . It is rated at 835 watts in wet conditions and 665 watts in dry conditions.

Operation of the heating element can be checked by using the service test mode. (See *Service Test Mode*.) Allow 1 or 2 minutes before opening the dishwasher door and note if heat is present.

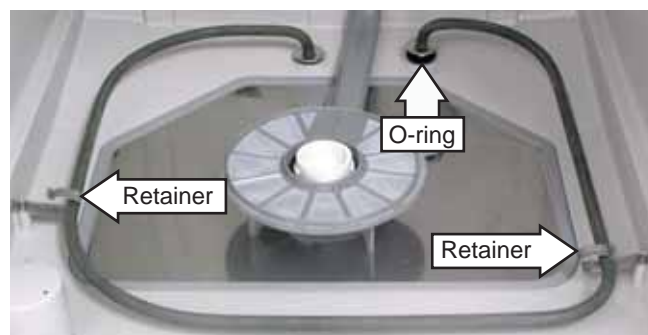
### To remove the heating element:

1. Remove the dishwasher from its installation.
2. Lay the dishwasher on its back.
3. Disconnect the 2 wires from the heater terminals.
4. Remove the 2 nuts holding the heater to the dishwasher housing.



5. Remove the lower spray arm. (See *Lower Spray Arm*.)
6. Release the heater from the 2 retainers and remove it from the tub.

**Caution:** To prevent water leakage, assure the O-rings are placed between the heater and tub floor and the heater is secured in the 2 retainers before installing the heater nuts.





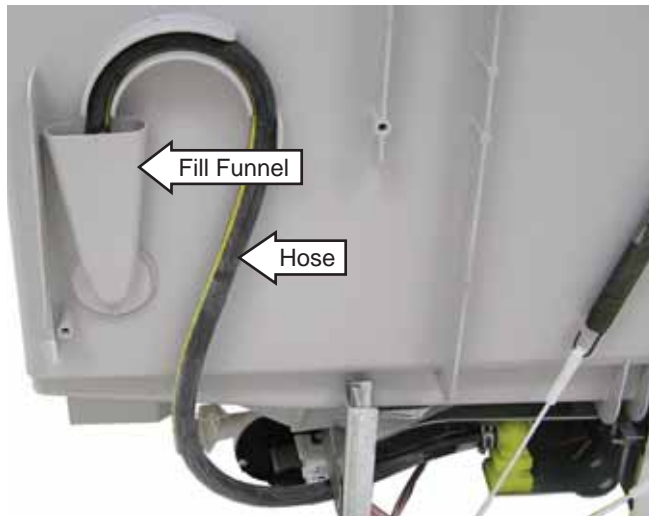
## Fill Funnel

The fill funnel is mounted on the left side of the tub and allows water to be supplied to the wash and rinse cycles.

### To remove the fill funnel:

1. Access the fill funnel by carefully pulling the dishwasher out from its installation.
2. Pull the fill hose out of the fill funnel.

**Note:** When inserting the fill hose, place it 1½ inches below the fill funnel rim.



3. Rotate the fill funnel clockwise and remove it.



**Caution:** To prevent water leakage, assure the O-ring is in place before installing the fill funnel.



## Water Inlet Valve

The water inlet valve is electronically controlled and solenoid-operated. The flow of water is controlled by a rubber flow washer capable of maintaining a flow rate of 1.1-1.3 gallons per minute with incoming water pressure of 20 to 120 PSI. The water valve is attached to a bracket located on the left side of the front brace.

The water valve is energized for approximately 21-62 seconds during each fill. See the cycle chart for specific times during cycles. (See *Cycle Chart*.)

The water valve has an approximate resistance value of 1 KΩ.

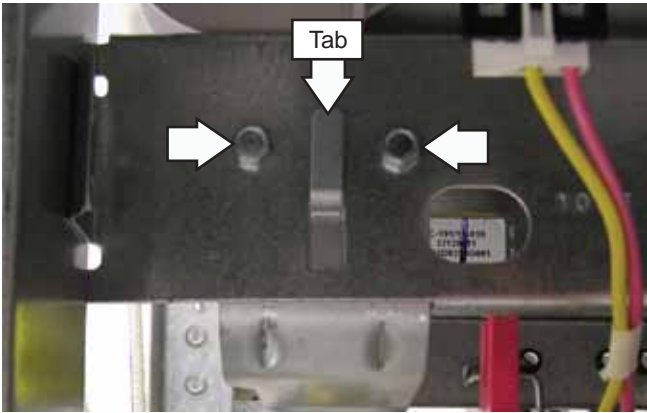
Operation of the water valve can be checked by using the service test mode. (See *Service Test Mode*.)

### To remove the water valve:

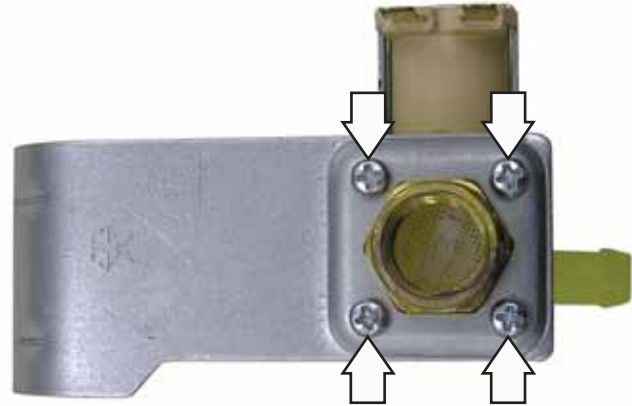
1. Remove two 1/4-in. hex-head screws and the access panel.



- Remove the two 5/16-in. hex-head screws from the water inlet valve bracket.
- Slide the bracket down to disengage the tab that holds the bracket to the dishwasher frame.

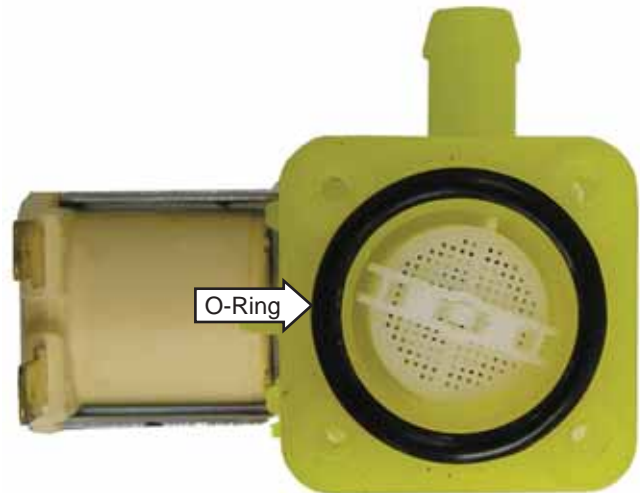
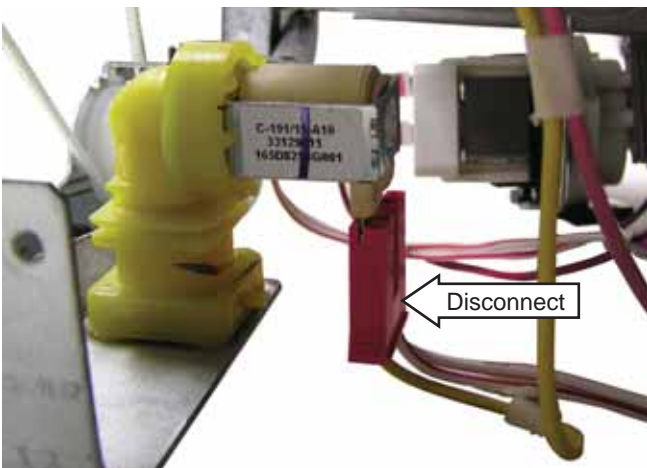


- Remove the 4 Phillips-head screws from the water inlet valve bracket.

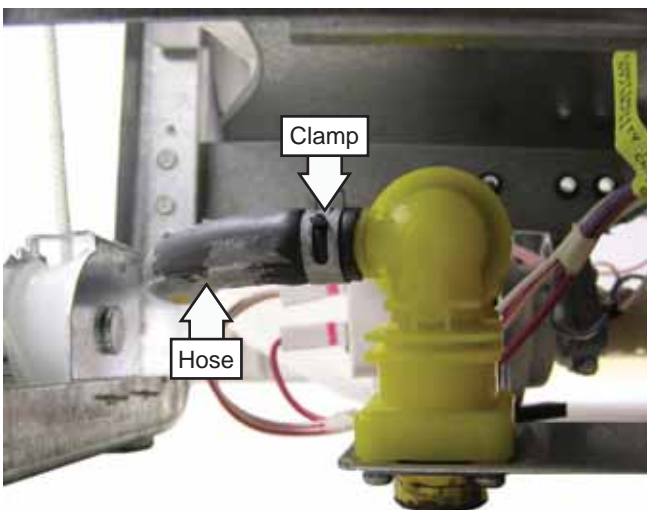


**Caution:** To prevent water leakage, assure the O-ring is retained in the valve before installing the bracket.

- Disconnect the wiring harness from the water inlet valve.



- Remove the clamp and outlet hose from the valve.





## Drain Pump Assembly

The drain pump assembly is located under the tub and operates on 120 VAC. It is energized for the first 60 seconds of a new cycle to remove any water in the dishwasher sump. The drain pump forces water out of the drain line. A check valve flapper on the drain pump prevents the discharged water from entering the sump.

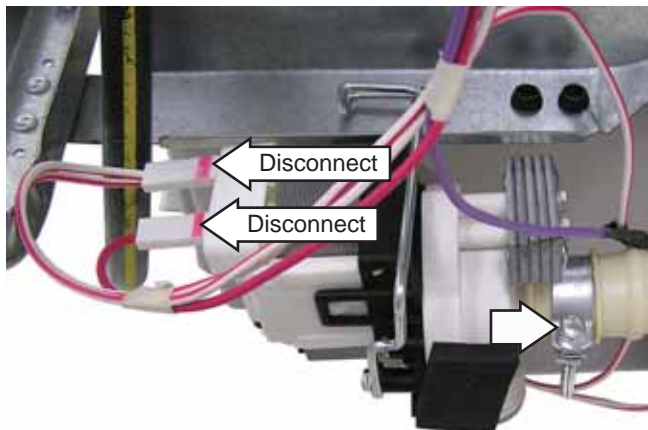
See the cycle chart for drain pump, drain overlap, and pause times during each cycle. (See *Cycle Chart*.)

The drain pump has an approximate resistance value of 25  $\Omega$ .

Operation of the drain pump assembly can be checked by using the service test mode. (See *Service Test Mode*.)

### To remove the drain pump:

1. Disconnect power.
2. Remove the dishwasher from its installation.
3. Lay the dishwasher on its back.
4. Disconnect the 2 wires from the drain pump.
5. Loosen the 5/16-in. hex-head screw, then pull the drain pump off the sump.



## Motor Pump Assembly

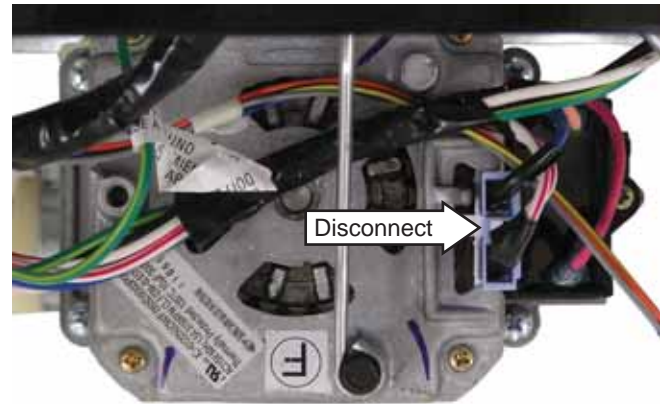
The motor pump assembly is located under the tub behind the sump assembly. The motor utilizes a run capacitor rated at 10  $\mu\text{fd}$ . The motor rotates clockwise (as viewed from the terminal end) and draws approximately 1 amp at 120 VAC.

The motor pump assembly has an approximate resistance value of 12  $\Omega$ .

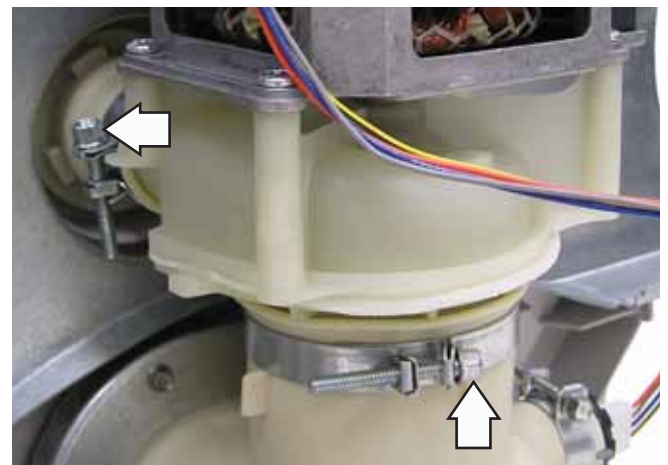
Operation of the motor pump assembly can be checked by using the service test mode. (See *Service Test Mode*.)

### To remove the motor pump assembly:

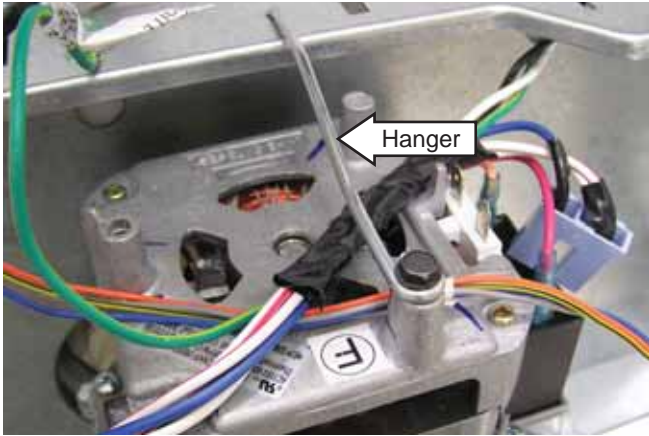
1. Disconnect power.
2. Remove the dishwasher from its installation.
3. Lay the dishwasher on its back.
4. Disconnect the wire harness from the motor.



5. Loosen the two 5/16-in. hex-head screws from the hose clamps.



6. Disengage the motor hanger arm to remove the motor.



6. Slide the TCO off the bracket.



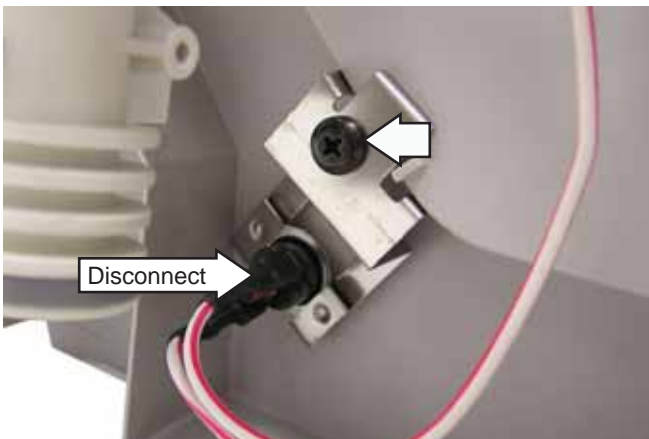
### Tub TCO

On PermaTuf tub models, the tub TCO will trip if it reaches 189°F and it must be reset manually. If the TCO trips, reset it and replace the control. On stainless steel tub models, the tub TCO will trip at 165°F and it will auto reset at 150°F. If the TCO is open, replace it and the control.

On PermaTuf tub models, the tub TCO is located under the tub on the rear left side. On stainless steel tub models, the tub TCO is located under the tub behind the toe kick panel.

#### To remove the tub TCO (PermaTuf tub models):

1. Disconnect power.
2. Remove the dishwasher from its installation.
3. Lay the dishwasher on its back.
4. Disconnect the 2 wires from the TCO.
5. Remove the Phillips-head screw from the TCO bracket.



#### To remove the tub TCO (stainless steel tub models):

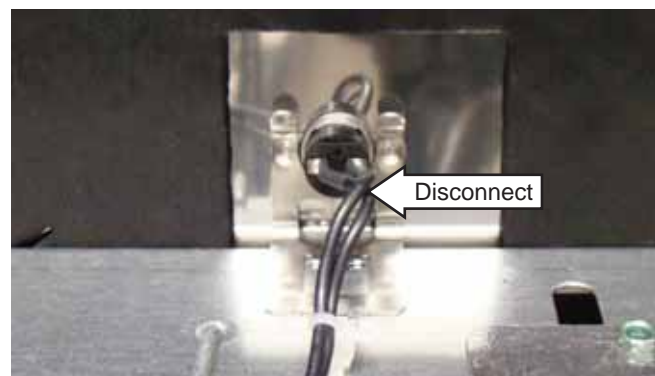
1. Remove two 1/4-in. hex-head screws and the access panel.



2. Remove the two 1/4-in. hex-head screws from the shield.



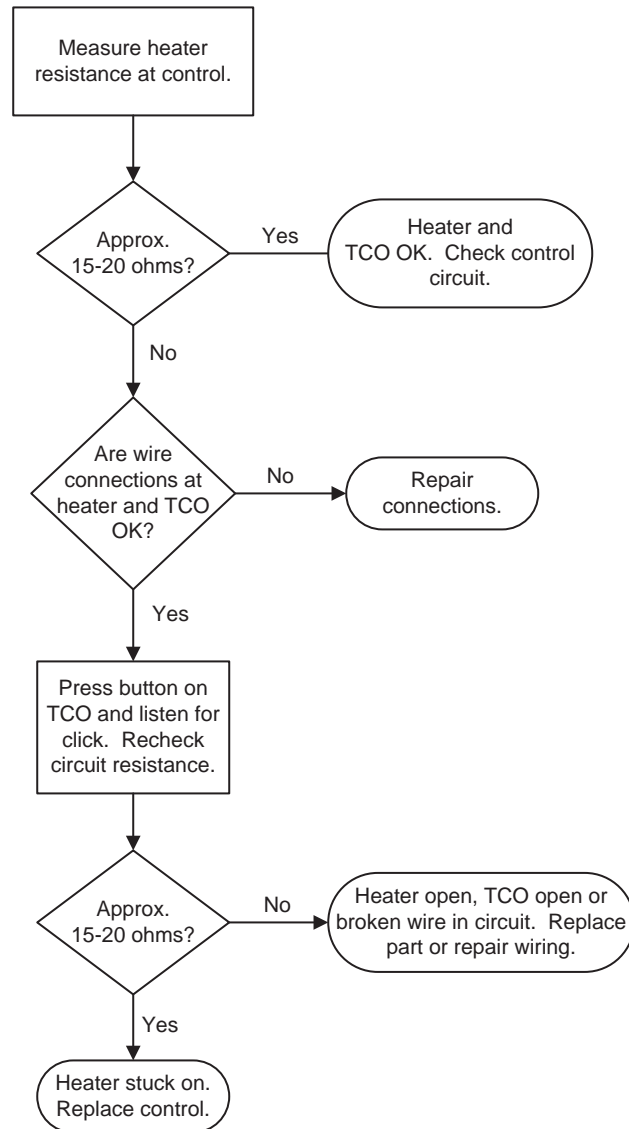
3. Disconnect the 2 wires from the TCO.
4. Slide the TCO off the bracket.



# Troubleshooting

## Heater troubleshooting flowchart for PermaTuf tub models

The condition may be poor wash/dry performance or tub stays hot long after cycle is complete.



## Service Mode

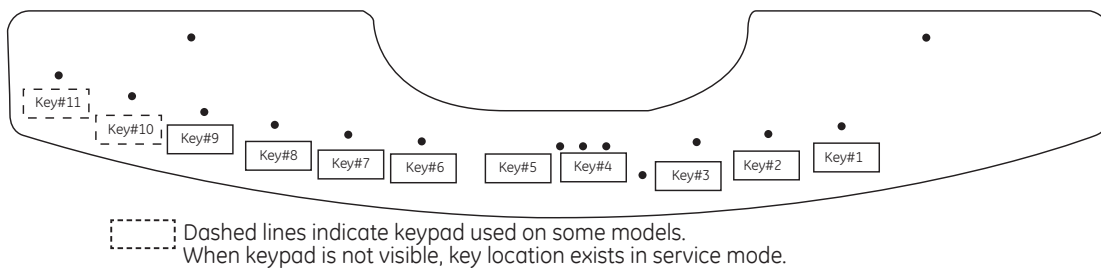
The dishwasher is programmed with a service mode to aid the technician in troubleshooting the dishwasher. Each component may be cycled to detect if it is functioning correctly. Components are cycled by pressing keypads on the control panel.

To enter the service mode:

- Put the dishwasher in standby mode.
- On front control models, press **Key#8** and **Key#4** simultaneously.
- On top control models, press **Heated Dry** and **Select Cycle** simultaneously.

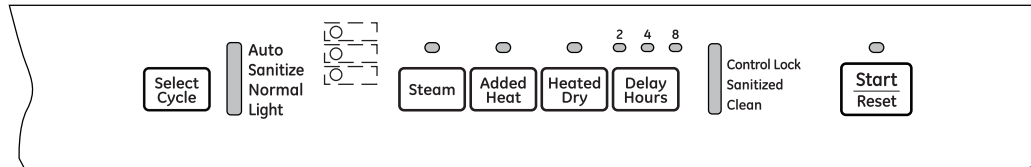
If performed correctly, the control will respond with two beeps and all LEDs will illuminate for 4 seconds. To exit the service mode, press the **Start/Reset** keypad at any time. The dishwasher will automatically exit service mode if the keypad is inactive for 5 minutes.

### Front Control Models



Service Mode Test Matrix		
Key Pressed	Activates	Time
Key#1	Main Pump	2 min.
Key#2	Auxiliary Pump	1 Min
Key#3	Detergent/Rinse Aid Module	1 Min.
Key#6	Water Valve	1 Min
Key#7	Heater	2 Min.
Key#3 & Key#4 (Together for 3 secs)	Sets auto F1 Entry Flag in the EEPROM so at next power-up the control will automatically enter Factory Test Mode	Control sets auto F1 Bit. Control then turns the calrod, all LEDs, and beeper ON for 1 sec, turn the calrod, all LEDs, and beeper OFF for 1 sec, turn the calrod, all LEDs and beeper ON for 1 sec, turn the calrod, all LEDs and beeper OFF.

## Top Control Models



Dashed lines indicate light used on some models.

Service Mode Test Matrix		
Key Pressed	Activates	Time
Steam	Main Pump	2 min.
Added Heat	Auxiliary Pump	1 Min
Select Cycle & Heated Dry (Together for 3 secs)	Detergent/Rinse Aid Module	1 Min.
Heated Dry	Water Valve	1 Min
Delay Hours	Heater	2 Min.
Heated Dry & Delay Hours (Together for 3 secs)	Sets auto F1 Entry Flag in the EEPROM so at next power-up the control will automatically enter Factory Test Mode	Control sets auto F1 Bit. Control then turns the calrod, all LEDs, and beeper ON for 1 sec, turn the calrod, all LEDs, and beeper OFF for 1 sec, turn the calrod, all LEDs and beeper ON for 1 sec, turn the calrod, all LEDs and beeper OFF.

### Service Mode Control Operation:

When a control is activated in the service mode, the output will continue to remain active until the maximum time has expired or another keypad is pressed. Once the water valve is activated, the microprocessor must perform a drain cycle to pump out the water before exiting the service mode.

### Fast Control Model Reset:

Initiate a fast control model reset before replacing a nonresponsive control unit.

To initiate a fast control model reset:

- Make sure the unit is powered off.
- Press and hold the **Start/Reset** keypad and power the unit on. Continue holding the **Start/Reset** keypad for 2 seconds after powering the unit on.
- Wait 5 seconds, then power the unit off.
- Wait another 5 seconds, then power the unit back on.

### Control Replacement/Calibration:

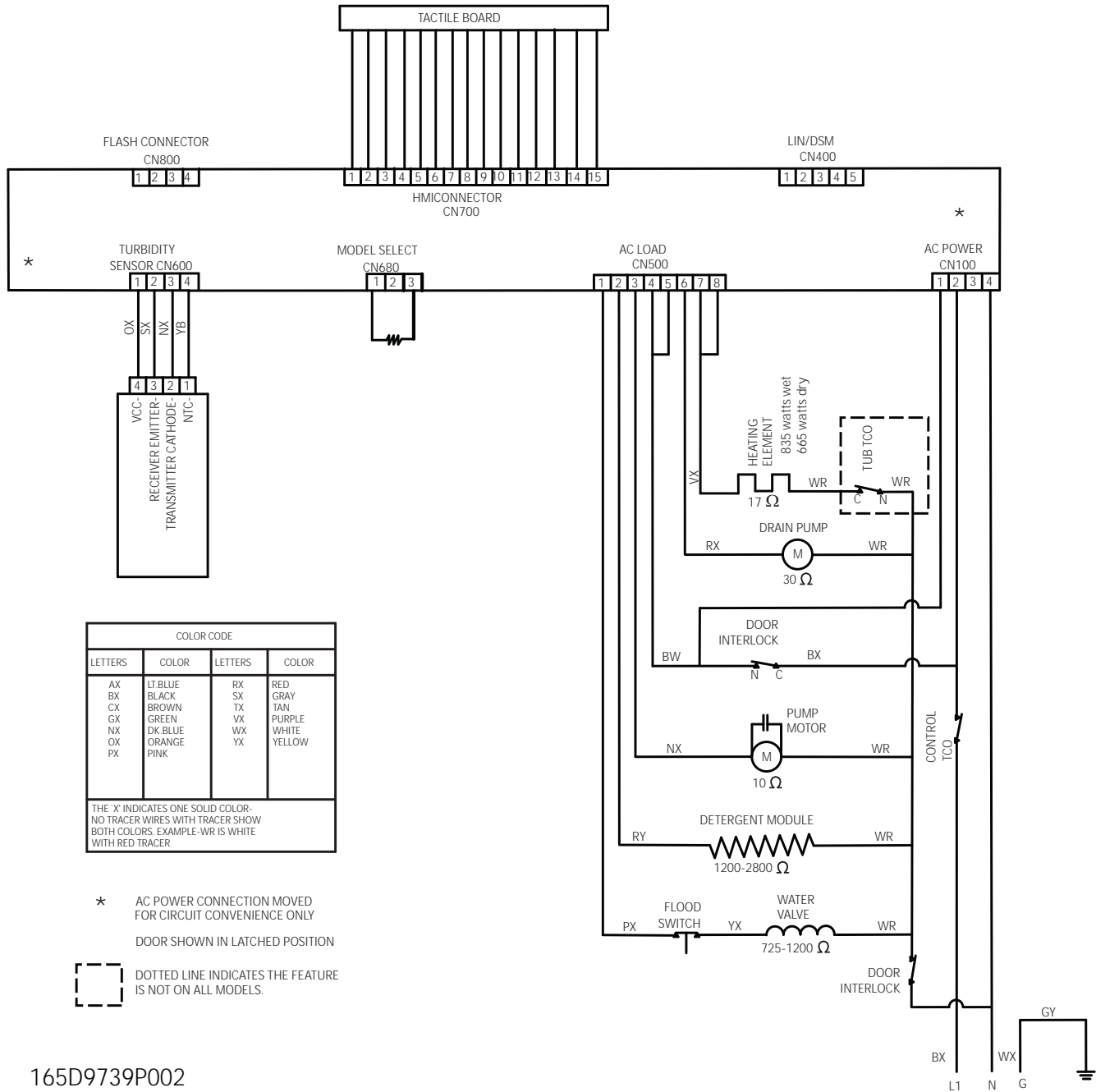
The dishwasher will enter into the test/00 calibration mode when the unit is first powered on. The door must be closed and latched. Wait approximately 6 minutes for the second fill before canceling the cycle by pressing the **Start/Reset** pad. The dishwasher will be ready to operate after the pump out.

# Schematics and Wiring Diagrams

**WARNING:** Disconnect electrical power before servicing.

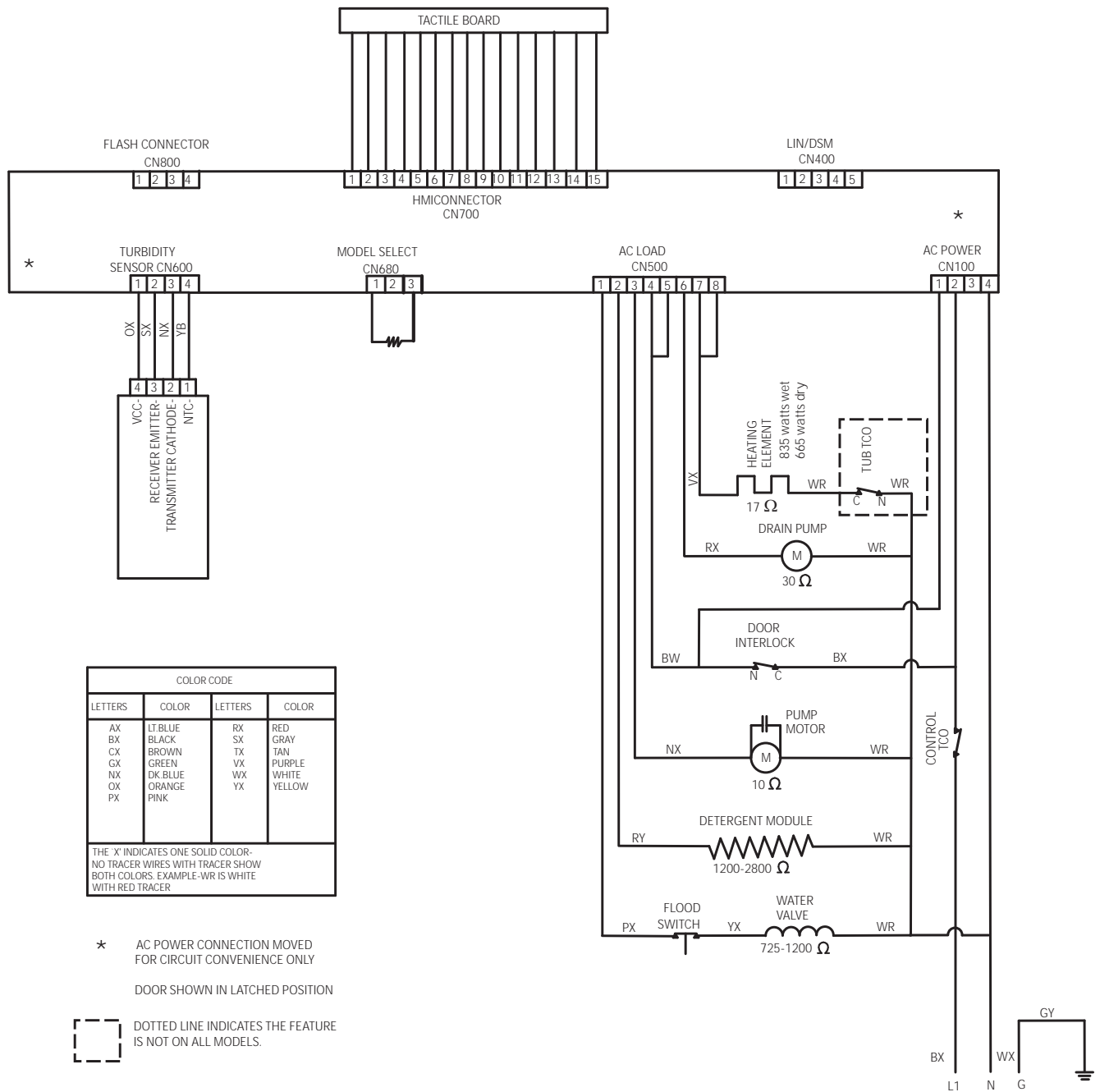
**Caution:** Label all wires prior to disconnection. Wiring errors can cause improper and dangerous operation. Verify operation after servicing.

## PermaTuf Tub Models



165D9739P002

# Stainless Steel Tub Models





# Warranty

## GE Dishwasher Warranty.

GEAppliances.com



All warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. To schedule service, visit us on-line at GEAppliances.com, or call 800.GE.CARES (800.432.2737) in the United States. In Canada, call 1.800.561.3344. Please have serial number and model number available when calling for service.

Staple your receipt here.  
Proof of the original purchase date is needed to obtain service under the warranty.

### For The Period Of: GE Will Replace:

<b>One Year</b> From the date of the original purchase	Any part of the dishwasher which fails due to a defect in materials or workmanship. During this limited one-year warranty, GE will also provide, free of charge, all labor and in-home service to replace the defective part.
<b>Five Years</b> (for Profile Models PDW7000 Series) From the date of the original purchase	<b>The dishwasher racks and the electronic control module</b> if they should fail due to a defect in materials or workmanship. During this five-year limited warranty, you will be responsible for any labor or in-home service costs.
<b>Lifetime of Product</b> (for Profile Models PDW7000 Series)	<b>The PermaTuf® tub or door liner</b> , if it fails to contain water due to a defect in materials or workmanship. During this limited warranty, GE will also provide, free of charge, all labor and in-home service to replace the defective part.

### What GE Will Not Cover (for customers in the United States):

- Service trips to your home to teach you how to use the product.
- Improper installation, delivery or maintenance.
- Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.
- Replacement of house fuses or resetting of circuit breakers.
- Product not accessible to provide required service.
- Damage to the product caused by accident, fire, floods or acts of God.
- Incidental or consequential damage caused by possible defects with this appliance.
- Cleaning or servicing of the air gap device in the drain line.
- Damage caused after delivery, including damage from items dropped on the door.

**EXCLUSION OF IMPLIED WARRANTIES—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.**

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. If the product is located in an area where service by a GE Authorized Servicer is not available, you may be responsible for a trip charge or you may be required to bring the product to an Authorized GE Service location for service. Proof of original purchase date is needed to obtain service under the warranty. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

**Warrantor: General Electric Company. Louisville, KY 40225**

### What Is Not Covered (for customers in Canada):

- Service trips to your home to teach you how to use the product.
- Improper installation.  
If you have an installation problem, contact your dealer or installer. You are responsible for providing adequate electrical, exhausting and other connecting facilities.
- Failure of the product if it is abused, misused, or used for other than the intended purpose or used commercially.
- Replacement of house fuses or resetting of circuit breakers.
- Damage to the product caused by accident, fire, floods or acts of God.
- Damage caused after delivery.

**EXCLUSION OF IMPLIED WARRANTIES—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.**

This warranty is extended to the original purchaser and any succeeding owner for products purchased in Canada for home use within Canada. In home warranty service will be provided in areas where it is available and deemed reasonable by Mabe to provide.

WARRANTOR IS NOT RESPONSIBLE FOR CONSEQUENTIAL DAMAGES.

Warrantor: MABE CANADA INC.