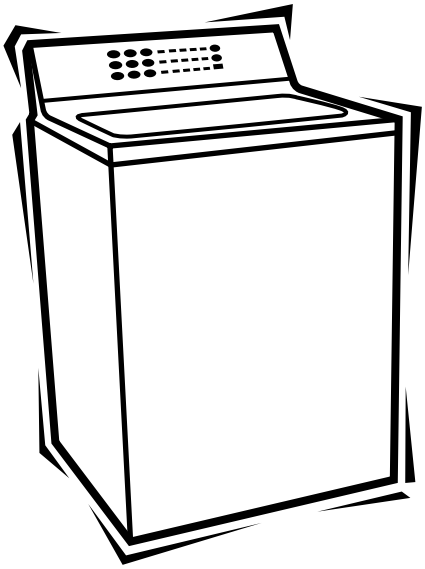
GE Consumer Home Services Training

TECHNICAL SERVICE GUIDE

Wizard™
Extra Large Capacity Washer



MODEL SERIES:

WPSE7003A0
WNCD2050A0

PUB # 31-9058 08/00

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 Consumer Home Services Training

Technical Service Guide

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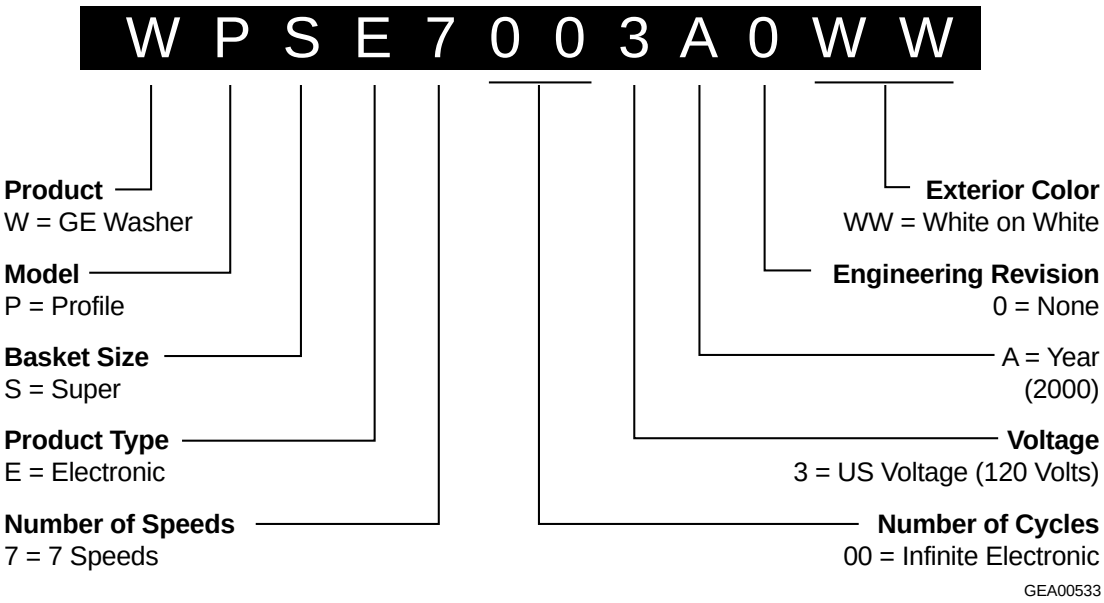
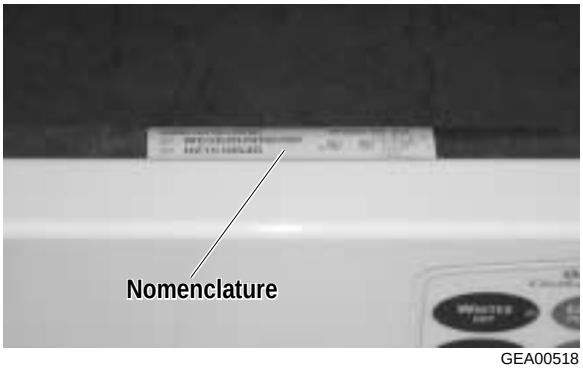
Washer Nomenclature

Model Number





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Note: Model number and serial number are located on rear of backsplash.
- The technical sheet is located under the control panel.

Serial Number

The first two characters of the serial number identify the month and year of manufacture.
Example: *AZ123456S = January, 2000*

A - JAN	2005 - H
D - FEB	2004 - G
F - MAR	2003 - F
G - APR	2002 - D
H - MAY	2001 - A
L - JUN	2000 - Z
M - JUL	1999 - V
R - AUG	1998 - T
S - SEP	1997 - S
T - OCT	1996 - R
V - NOV	1995 - M
Z - DEC	1994 - L

The letter designating the year repeats every 12 years.

Example:
T - 1974
T - 1986
T - 1998

Warranty Information

Sales slip or cancelled check is required as proof of original purchase date to obtain service under warranty.

All warranty service is provided by our Factory Service Centers or an authorized Customer Care® technician.

For The Period Of:	GE Will Replace:
One Year *From the date of the original purchase*	***Any part*** of the washer that fails due to a defect in materials or workmanship. During this ***full one-year warranty***, GE will also provide, ***free of charge***, all labor and in-home service to replace the defective part.
Two Years *From the date of the original purchase*	***Any part*** of the washer that fails due to a defect in materials or workmanship. During this ***additional one-year limited warranty***, you will be responsible for any labor and in-home service costs.
Five Years *From the date of the original purchase*	***The suspension rod and spring assembly and electronics,*** if any of these parts should fail due to a defect in materials or workmanship. GE will also replace the ***washer lid or cover,*** if they should rust under operating conditions. During this ***additional four-year limited warranty***, you will be responsible for any labor and in-home service costs.
Ten Years *From the date of the original purchase*	***The transmission and outer washer tub,*** if any of these parts should fail due to a defect in materials or workmanship. During this ***additional nine-year limited warranty***, you will be responsible for any labor and in-home service costs.
Lifetime *From the date of the original purchase*	***The washer basket,*** if any of these parts should fail due to a defect in materials or workmanship. During this ***lifetime limited warranty***, you will be responsible for any labor and in-home service costs.

What GE Will Not Cover:

- **Service trips to your home to teach you how to use the product.**
- **Improper installation.**
- **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.**
- **Incidental or consequential damage to personal property caused by possible defects with this applicance.**

Note: Some models may have an extended warranty beyond 5 years. Those models have a special warranty sheet enclosed when delivered to the customer. Unless that additional warranty sheet is attached, all other warranty conditions shown above apply.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

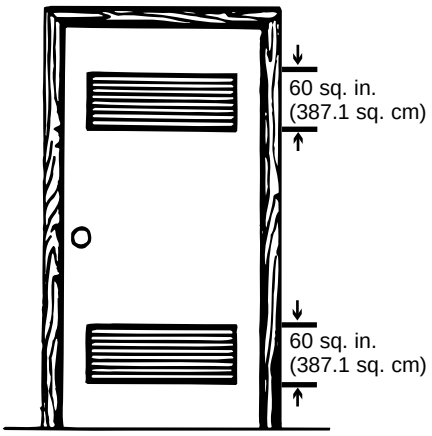
Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your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

Warrantor: General Electric Company. Louisville, KY 40225

Installation Highlights

Location

- Washer must be installed on firm flooring. Concrete flooring is best, but wood base is sufficient providing floor support meets FHA standards.
- Washer should not be installed on rugs or exposed to the weather.
- Install or store washer where it will not be exposed to temperatures below freezing.
- Minimum clearances between washer and adjacent walls or other surfaces are: 0 in. either side, 2 in. front, 3 in. rear.
- Minimum vertical space from floor to overhead shelves, cabinets, ceilings, etc., is 96 in.
- Closet doors must be louvered or otherwise ventilated and have at least 60 sq. in. open area for washer only, or if the closet contains both a washer and dryer, doors must contain at least 120 sq. in. of open area equally distributed.



Closet door

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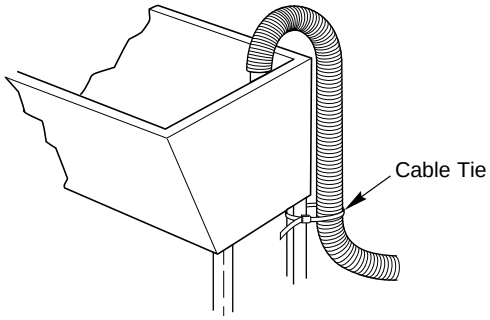
Note: The clearances stated are minimums. Consideration must be given to providing adequate clearances for installation and servicing.



Laundry Tub

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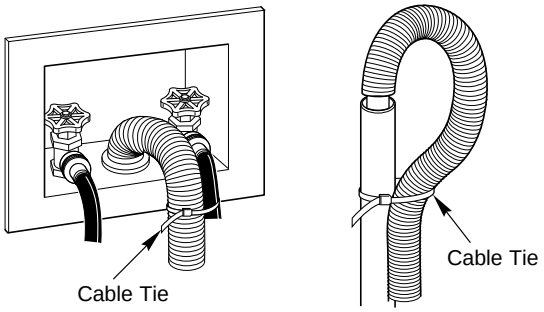

Stand Pipe

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Plumbing

- **Water pressure** must be 10 psi minimum to 150 psi maximum dynamic pressure measured at faucet.
- **Water temperature** on household water heater should be set to deliver water at 120° to 150°F (50° to 66°C) in the washer when HOT wash is selected.
- Shut-off valves should be supplied for both hot and cold water lines.
- Drain water into a standpipe or laundry tub. The discharge height must not be less than 30 in. nor more than 8 ft above the base of the washer. The standpipe must be 1-1/2 in. minimum inside diameter and must be open to the atmosphere.
- The commercial washer uses coin laundry hot and cold inlet hoses and wire wrapped drain hose, and should only be replaced with commercial hoses. All other plumbing requirements are the same.

Electrical Wiring

- National Electrical Codes or prevailing local codes and ordinances must be followed.
- 120 V, 60 Hz must be supplied and connected to an individual, properly grounded branch circuit, protected by a 15- or 20-amp circuit breaker or time delay fuse.
- Wiring must be 2-wire with ground.

Listed by Underwriters Laboratories

Electrical Rating

Voltage AC	120
Hertz	60
Total connected load amperage	10.0

For use on adequately wired 120-volt, 15-amp circuit having 2-wire service with a separate ground wire. This appliance must be grounded for safe operation.

Notes

Operating Characteristics

Basic Washer Operation

The typical washer cycle progresses as follows:

- Fill: timed, 40 minutes maximum
- Agitation: 12 minutes
- Pump Out: 3 minutes
- Spin: 3 minutes
- Rinse Fill: timed, 40 minutes maximum
- Rinse: 3 minutes
- Pump Out: 3 minutes
- Final Spin: 6 minutes

Basic specifications for the motor, pump, relays, and water valves are:

- Motor: 1/2-hp, 10 A, 70 A in-rush, 120 VAC
- Pump: 3.2 A, 120 VAC
- Relays: 12 VDC
- Water Valves: 0.1 A each, 120 VAC

- Lid Switch pauses all washer operations, except water fill, when the lid is raised. The lid switch cuts power to the DC relay coil for the motor.

- Pressure Switch has two switches in one housing. The first switch will open when there is 6 in. of water in the basket. The second switch will open when the water in the tub has reached the maximum level. The second pressure switch is in series with the DC relay coils of both water valve relays. The system for the pressure switch reads OPEN with water in the tub. Mid level fills are timed based on lowest level.

Washer Fill Mode

Fill mode activates the water valves according to the temperature selected. The cycle advances to the next mode as soon as the pressure switch opens. A fail-safe control system prevents serious flooding due to a failure in the pressure switch system. The fill is timed, and the water valves de-energize after 40 minutes if the pressure switch has not been tripped. The cycle then stops. If this fault is triggered, the display will show a **1**, the **PerfecTemp** LED will flash, and the washer will be in the **PAUSE** mode.

If the user changes the water temperature during fill, the change occurs immediately. During the wash fill, one of four lights will be on to indicate selection, and will progress as the cycle advances.

Wash, Rinse, and 2nd Rinse Agitate Modes

Wash, rinse, and 2nd rinse operate the motor in agitate mode at the selected wash speed. Relays switch speed, motor direction for spin or agitate, and main power to the motor. When speed is changed and the motor is running, relays go through the turn-off sequence, and then turn ON at the newly selected speed.

The **WASH** light remains ON during pump and spin when the washer is in the rinse cycle. The **RINSE** and **2ND RINSE** lights are on during fill, rinse, and pump, while the washer is in the extra rinse cycle.

Drain Pump-Out Mode

The control board has circuitry that detects, through the pump control relay, a measurement of electrical current to the pump motor. That current describes the motor's output torque which can determine if the pump is pumping water or pumping air.

After pumpdown, the control enters a clothes care sequence. Basically, the pump stops then starts for a few seconds. The unit then begins a slow speed spin and changes to a fast spin after a few seconds. See spin speed flowchart on page 24.

Unsuccessful samples of the electrical current readings could be an indicator of a pump motor that is blocked, or a standpipe that is too high, and water in the tub.

Idle Mode

The idle mode has **no** LEDs or relays lit; the control is waiting for the consumer to touch a keypad or switch.

Pause/Stop

Pause mode occurs when the consumer presses the **Start/Pause** button during the cycle. The lights that were lit, indicating the current cycle, blink. If the **Start** button is **not** pushed within 24 hours, the control initiates the drain and final spin.

Power Outage

In the event of a power outage, and the washer is **not** in idle, the cycle status and modes are saved in EEPROM. When the power resumes, the washer resumes where it left off. (The **Start** button does **not** have to be pressed.)

Automatic Temperature Control

The Automatic Temperature Control (ATC) uses a mathematical system to control cold, warm, and hot fills by turning the hot and cold water valves on and off during the fill. The formula limits the number of times the valve is cycled to control noise and wear. To prevent sudden water temperature changes on consumer's hands, the ATC does **not** function when the lid is open.

The ATC should maintain the water temperature in the tub within the ranges specified in the following table:

Temperature Settings	Temp Wash
HOT	125 +/-8 °F
WARM	95 +/-7 °F
COLD	70 +/-7 °F

Other Functions

2nd Rinse
The extra rinse selection provides a complete second rinse to the cycle. When selected, the electronic control limits the first rinse spin to 3 minutes. Therefore, the final spin of 6 minutes shall occur once per cycle, whether or not extra rinse is selected. The 2nd Rinse will **not** function in a Drain+Spin wash cycle.

Extended Spin
The length of the final spin is doubled when extended spin is selected. The length of the wash spin cycle is **not** affected.

Beeper
All models have a piezo beeper for a 0.5 second-on/0.5 second-off/five repetition end-of-cycle signal. The push buttons have a 0.1 second beep for button actuation signal. **Start/Pause** and **Stop/Cancel** push buttons have a 0.1 second beep when actuated in Field Service Mode.

EEPROM
The EEPROM has the capacity to store data about the washer and its cycles. It contains all model definition data, and is read only at power-up. If all lights are flashing then the model selector is **not** installed properly.

Commercial Washer

The commercial washer uses the keypad model control design. It has fewer keypad options and is designed for apartment or commercial noncoin applications.

Cycle Chart

			Factory Presets				Agitation time at fast speed						Spin Time				
Features & Cycles	**WPSE7003A**	**WNCD2050A**	**Load**	**Soil Level LED (Time in Minutes)**	**Temp**	**Speed**	**Stain Wash**	**Heavy**	**Normal**	**Light**	**Wash Spray Rinse (seconds)**	**Rinse Agitation Time (incl. ex. rinse)**	**Wash Spin**	**Extra Rinse Spin**	**Final Spin**	**Extended Spin**	**Rinse Spray Rinse (seconds)**
	L3B	**L3 commercial**															
Model sel. Plug	7	11															
Color	AA,WW	WB															
capacity	3.2	3.2															
Levels	4	4															
Temperatures	4	3 locked															
Speed	4	3 locked															
Soil Levels	4 w/stainwash	locked															
White Hot	yes	no	large	normal (6 normal, 3 gentle)	h/c	n/f	Note 1	9n / 3s	6n/3s	3n/3s		3	3	3	8	8	18
Colors Warm	yes	no	large	normal (6 normal, 3 gentle)	w/c	n/f	Note 1	9n / 3s	6n/3s	3n/3s		3	3	3	8	8	18
Dark colors Warm	yes	Bright Colors	large	normal (6 normal, 3 gentle)	c/c	n/f	Note 1	9n / 3s	6n/3s	3n/3s		3	3	3	8	8	18
Easy care Perm Press	yes	yes	medium	normal (9 gentle)	w/c	s/f	Note 1	3n/9s	3n/6s	3n/3s	18	3	3	3	6	6	18
Hand Wash	yes	delicates	small	light (2 gentle, 2 soak, 2 gentle)	c/c	s/s	Note 1	2g, 8 soak, 2g	2g, 5 soak, 2g	2g, 2 soak, 2g	18	3	3	3	6	6	
Speed wash	yes	no	small	light (3 gentle)	w/w	n/f	Note 1	5n	4n	3n/3s		1 1/2	1	1	3	3	
Presoak	yes	no	large	Note 3 (normal)	w/w	n/f	-	-	-	-		-	-	-	-	-	
Presoak selected with another cycle	yes	no	see note 3	see note 3	see note3	see note 3	-	-	-	-		-	-	-	-	-	
Quick rinse	yes	no	medium	-	c/c	s/f	-	-	-	-		3	-	3	6	6	
Drain & spin	yes	spin only	-	-	-	s/f	-	-	-	-		-	-	-	6	6	
White Cottons	no	yes	large	normal (9 normal, 3 gentle)	h/c	f/f	-	-	-	-		3	3	-	8	-	18
Colored Cottons	no	yes	large	normal (9 normal, 3 gentle)	w/c	f/f	-	-	-	-		3	3	-	8	-	18
Two custom cycles	yes	no															
Extra rinse	yes	no															
Extra spin	yes	no															
Delay 8 hours	yes	no															
Cycle countdown	digital	digital															
Spot spray	yes	no															
Agitator	dual	dual															
Bleach dispenser	yes	yes															
Fab dispenser	yes	yes															
Lid instructions	stain guide	new															
Sound Pack	hush +	super															
End of cycle signal	yes, on/off	no															
	Profile Perf	commercial															

Load: super, large, medium, small

Times: Extra heavy (15), heavy (12), normal (9), light (6)

Temperature: hot/cold, warm/warm, warm/cold, cold/cold

Speed: normal/fast, normal/slow, gentle/fast, gentle/slow

Rinse: All rinses are 3 minutes with agitation speed same as wash.

Options: Factory reset for options will be "off" except for the beeper.

LEGEND

c=cold
f=fast
g=gentle
h=hot
n=normal
s=slow
w=warm

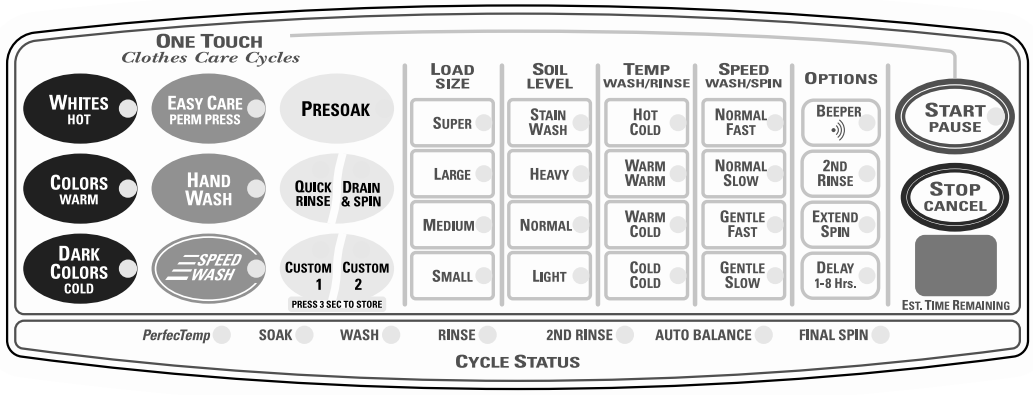
Notes:

1. Stainwash: 3 min. agitation, 12 min. soak, 1 min. agitation, 14 min. soak and then run the cycle selected at the heavy soil setting.
2. Soak Cycle: 3 min. agitation and then soak up to a total filled time of 24 hours (drain & spin automatically). Interrupt soak using another cycle, such as drain and spin.
3. Presoak is selected with any other cycle, after the cycle is selected. Presoak 3 min. agitation, 12 min. soak, and cycle selected

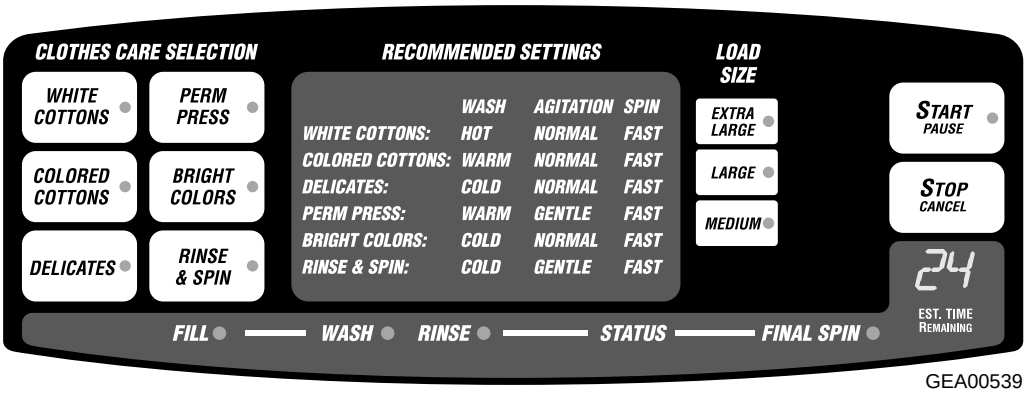
Electronic Controls

The L3 washer offers the convenience of starting your wash loads with easy one-touch cycles. One simple selection automatically sets your **Load Size**, **Soil Level**, **Wash/Rinse Temperature**, and **Wash/Spin Speed**. Then just press **Start**.

Model WPSE7003A0



Model WNCD2050



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Description

A keypad electronic washer control has been added to the model line to improve ease of use and serviceability. The main wash functions are still accomplished through a two-speed motor, hot and cold water valves, and a pump. The components are controlled by the electronic control, the dual pressure switch, and the keypad selector switches.

The L3 electronic control consists of a printed circuit board, a transformer, and housing.

Estimated Time Remaining

When a cycle is chosen, the Dual Seven Segment Display (DSSD) displays the estimated time to run that complete cycle, including fill and pump-out times.

If a user presses a new option while a cycle is running, the control instantly updates the DSSD to show the new time remaining.

If the time remaining is greater than 59 minutes, the DSSD displays the number of hours with an “H” next to it for 3 seconds, followed by the number of minutes for 3 seconds. (Example: a 125-minute cycle will display “2H” for 3 seconds and “05” for 3 seconds.) Estimated time will be adjusted for each cycle by fill time.

Field Service Mode

The Field Service Mode is entered by simultaneously pressing and holding the **Whites/ Hot** and the **Start/Pause** buttons for 3 seconds. As soon as the test cycle is entered, the DSSD displays the letters **Fd** (Field Service Diagnostics).

To index to the next position, press the **Colors/Warm** push button. The following table gives the functions for the subsequent positions:

Position	DSSD Output	Function
0 - Initial	Fd	LED Check
1	**	Model Code
2	E#	Error Codes
3	H	Hot Water Valve Active
4	C	Cold Water Valve Active
5	AL	Slow Agitate (Dry)
6	AH	Fast Agitate (Dry)
7	P	Pump
8	SP	Spin

** Indicates the model number.
# Indicates the number of the error code.
If there is more than one error, each error will display for 2 seconds followed by the next error.

To determine if the lid switch is working, select the **Fd** output on the DSSD. This places the lid switch in the **Cycle Status** LED circuit. Lifting the lid should turn off any **Cycle Status** LEDs.

Error Code Table

Code	Error
E1	EEPROM Error
E2	Thermistor Error
E3	Flood Condition Detected Error
E4	Slow Pump Error
E5	Never Fills Error
E6	Pump Detection Circuit Error
E7	Push Button Error (Shorted Push Button)
E8	Pressure Switch Error

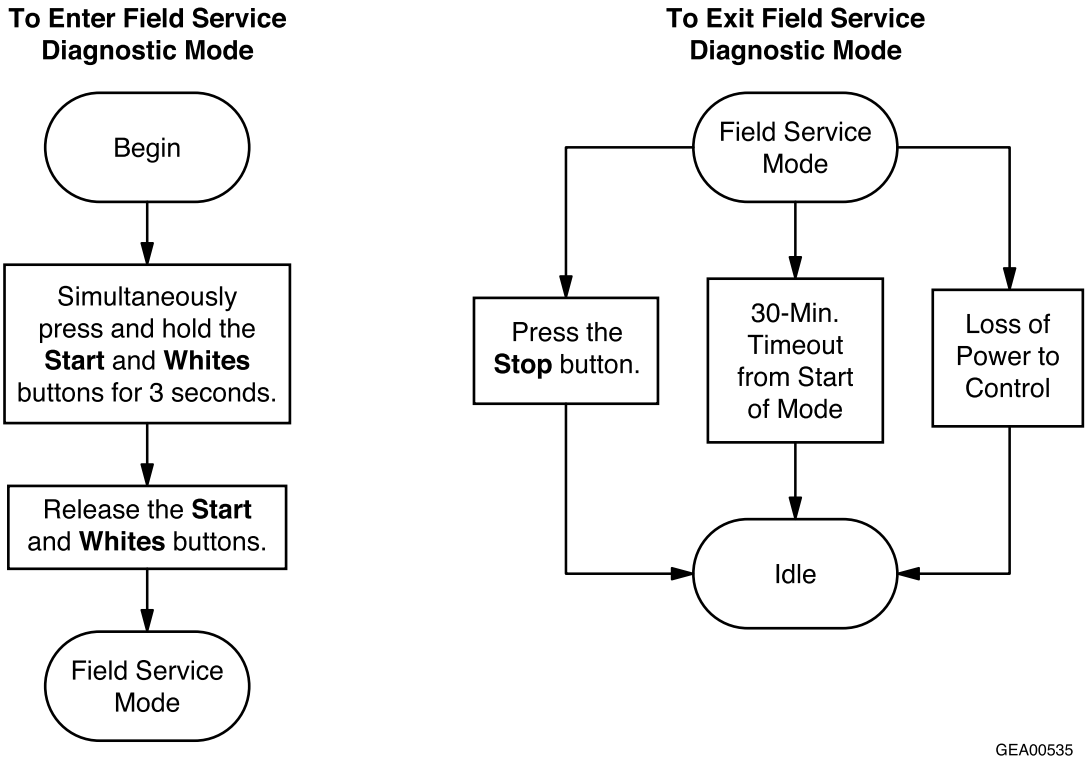
To clear all the error codes, press the **Start/ Pause** keypad while in the *Error Codes Function* display.

The test mode allows the technician to operate the washer in Dry agitate. If the washer is placed in either agitate function during field diagnostics and the **Start/Pause** push button is pressed for 2 seconds, the Dry agitate will become Wet agitate. The motor stops and the cold water valve energizes until the pressure switch is activated. To check the pressure switch, the **Load Size** LEDs are illuminated in sequential order from smallest load size LED to the largest load size LED as the tub reaches full. The washer then resumes agitation.

The Field Service Mode can be exited in three ways:

1. Press the **Stop/Cancel** keypad.
2. Unplug the unit.
3. Control automatically exits test mode after 30 minutes.

Field Service Mode Entrance/Exit



Diagnostics

The control diagnostics inform the technician of the current status of the washer.

EEPROM Error (E1)
When the data is incorrectly stored, or won't write correctly from read-only memory to the EEPROM, the E1 error flag is set.

Thermistor Error (E2)
The control checks the temperature sensor. If the sensor is open or shorted, the control completes the wash cycle and sets the E2 error flag.

Flood Condition Detected Error (E3)
A failed water valve can cause the washer to flood. If the control detects a pressure switch trip (from closed to open) in the idle mode, the E3 diagnostic flag is set.

Slow Pump Error (E4)
If the pump-sensing circuit does **not** detect that the water has been pumped from the washer within 3 minutes, the E4 flag is set.

Fill Error (E5)
If the washer takes longer than 40 minutes to fill, the control sets the E5 error flag.

Pump-Detection Circuit Error (E6)
If the pump-detection circuit indicates water is **not** being pumped when the pump is energized, and the pressure switch indicates water is present in the tub, the E6 error flag is set.

Push Button Error (E7)
If any push button is closed for 1 minute or longer, the E7 error flag is set.

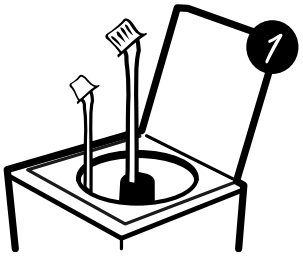
Pressure Switch Error (E8)
If the high level pressure switch opens before low or if the high pressure switch closes before low, the E8 error is shown.

If the high pressure switch does not reset (go from open back to normally closed) during the 20-second pumpout, an E8 code is generated.

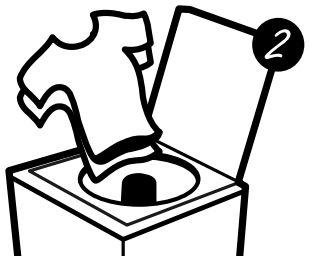
Control Settings

Easy One-Touch Cycles

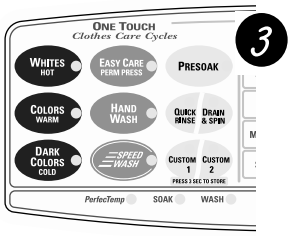
The L3 washer offers the convenience of starting your wash loads with easy one-touch cycles. Make one simple selection, and your **Load Size, Soil Level, Wash/Rinse Termperature,** and **Wash/Spin Speed** are automatically set. Then all you have to do is press **Start**.



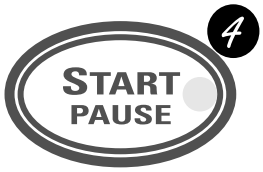
- **Add detergent**
- **Add diluted fabric softener**



- **Add clothes**



- **Select wash cycle**
- **Check load size setting**

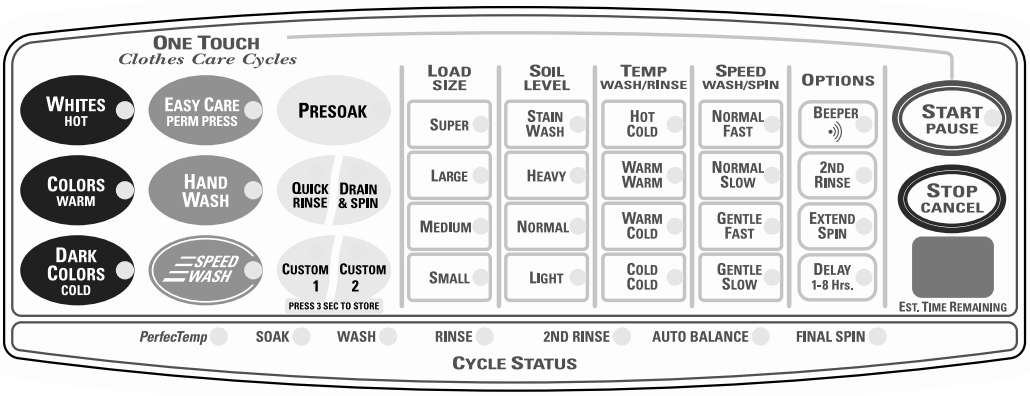


- **Close lid**
- **Push *START***

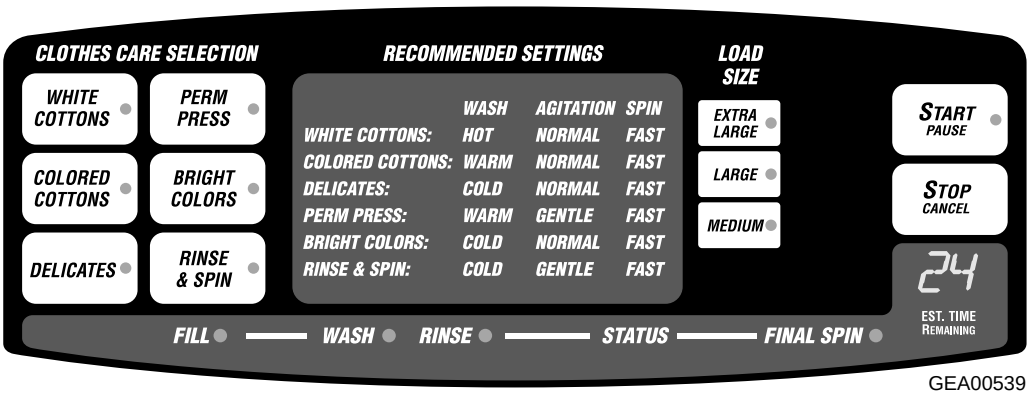
Washer Control Panel

You can locate the model number behind the top edge of the control panel.

Model WPSE7003



Model WNCD2050



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One Touch Selections

PRESS...	AUTOMATICALLY SELECTS...				THEN PRESS...
	LOAD SIZE	SOIL LEVEL	TEMP WASH/RINSE	SPEED WASH/SPIN	
WHITES HOT	LARGE	NORMAL	HOT COLD	NORMAL FAST [1]	START PAUSE
For heavy to lightly soiled cottons, household linens, work and play clothes.					
COLORS WARM	LARGE	NORMAL	WARM COLD	NORMAL FAST [1]	START PAUSE
For heavy to lightly soiled cottons, household linens, work and play clothes.					
DARK COLORS COLD	LARGE	NORMAL	COLD COLD	NORMAL FAST [1]	START PAUSE
For non-colorfast cottons and blends, and items that are labeled cold wash by the fabric manufacturer.					
EASY CARE PERM PRESS	MEDIUM	NORMAL	WARM COLD	GENTLE FAST [2]	START PAUSE
For knits, wrinkle-free and permanent press items.					
HAND WASH	SMALL	LIGHT	COLD COLD	GENTLE SLOW	START PAUSE
For lingerie and items labeled hand-washable with light soils. Provides periods of agitation and soak during wash and rinse.					
SPEED WASH	SMALL	LIGHT	WARM WARM	GENTLE FAST [2]	START PAUSE
For lightly soiled items that are needed in a hurry. Cycle time is approximately 15 minutes, depending on your household water pressure.					

[1] Agitate and spin speed will change during cycle for better fabric care.

[2] Spin speed will change during cycle for better fabric care.

Changing the Automatic Settings

You can change any of the automatic settings simply by pressing the desired pads.

About Clothes Care Cycles

Stain Wash (on some models)
For heavily soiled or stained items. Adds an extra agitation and soak at the beginning of the wash cycle.

Presoak

To presoak a load and go straight into a wash cycle:
Select a wash cycle, press the **Presoak** pad, then press the **Start/Pause** pad.
- Starts with three minutes of agitation, then 12 minutes of soaking, followed by the selected wash cycle.
- Uses the speed and water temperature of your selected wash cycle.

To presoak a load for more than 12 minutes:

- Three minutes of agitation is followed by up to 24 hours of soaking.
- To soak less than 24 hours, press the **Drain & Spin** pad or choose a wash cycle.

Quick Rinse

Use this feature to quickly rinse chlorine, perspiration, stains, etc. out of clothes.
- The washer fills with water, agitates for three minutes, drains and spins.

*Automatic **QUICK RINSE** settings:*

Drain & Spin
Drain & Spin any cycle at any time.

*Automatic **DRAIN & SPIN** setting:*

Custom 1 and Custom 2 (on some models)
Set up your favorite combination of settings and save them here for one-touch recall. These custom settings cannot be set while a cycle is in progress.

To store a custom combination of settings:
1. Select a **One Touch** setting.
2. Change **Load Size, Soil Level, Temperature,** or **Speed** to fit your needs.
3. Select any **Options** you want.
4. Press and hold the **Custom 1** or **Custom 2** pad until the washer beeps to store your selection.

To recall your stored combination:
Press the **Custom 1** or **Custom 2** pad, then press **Start/Pause.**
Note: Delay 1-8 hours cannot be used in **Custom 1** and **Custom 2** settings.

To reprogram the custom settings:
Repeat steps 1-4 above.

Start/Pause
- After you have selected a new cycle, press once to start the cycle.
- Press twice to select the last cycle used and start the washer.
- If the washer is running, press once to interrupt the cycle; press again to continue the cycle.

Stop/Cancel
This pad should **not** be used to interrupt or pause a cycle.
Pressing this pad will cancel the current settings and the settings will be lost.

Estimated Time Remaining
- Displays the approximate time remaining until the end of the cycle.
- If the estimated time remaining is more than 60 minutes, “1H” will flash in the display, followed by the additional remaining minutes. When the time remain ing is less than 60 minutes, the timer will count down.
- Cycle time is affected by how long it takes the washer to fill. This depends on the water pressure in your home. The “smart” timer “learns” the amount of time it takes to fill your washer and adjusts the total time accordingly.

Note: If **Presoak** is selected and a follow-up wash cycle is not chosen, two dashes will come up in the display.

Spot Spray
When you open the washer lid and press the **Spot Spray** button, you will see a short stream of cold water.
1. Open the washer lid.
2. Press the **Spot Spray** button. (You will see a short stream of water.)
3. Dampen your soiled garment with the **Spot Spray** option and rub your favorite pretreatment product into soiled area.

Note: The **Spot Spray** option will not work if
- the washer lid is down
- the washer tub is filling
- the water has already reached the level you selected.

About Cycle Options

Beeper
Alerts you when the cycle is complete.
You can turn off the end-of-cycle beeper by pressing this pad.

Second Rinse
Adds a second rinse to any cycle.

Extend Spin
Extends the last spin of a wash cycle. This will extract more water from your clothes. Clothes will be drier when you use this option.

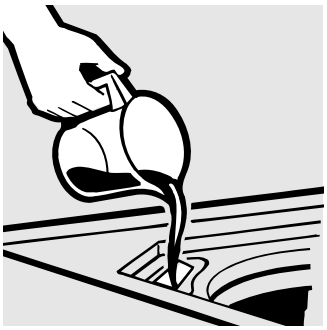
Delay 1-8 Hours (on some models)
Use to delay the start of your washer for 1 to 8 hours. First choose your wash cycle and any options. Then press this pad for the number of hours you want to delay the cycle.
Press the **Start/Pause** pad to start the countdown.
The countdown time will be shown in the **Est. Time Remaining** display.

About Cycle Status

These cycle status indicator lights display what part of the cycle the washer is in.

PerfecTemp
PerfecTemp senses the incoming water temperature and adjusts the temperature to the fill water.
The lid must be closed for **PerfecTemp** to work.
If your water is too cold, detergent will not dissolve effectively and clothes may not get clean. If the water is too hot, fabrics could be damaged.
PerfecTemp adjusts these water temperature extremes for better washing performance.
You may hear the water valves turning off and on while the water temperature is being adjusted. This is normal.

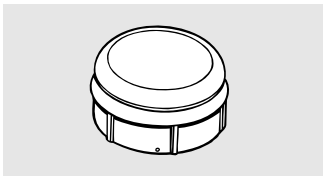
Auto Balance
The washer is sensing load distribution for an even spin.



Liquid Bleach Dispenser

The dispenser dilutes liquid chlorine bleach before it reaches into your wash load.

1. Check clothing care labels for special instructions.
2. Measure liquid bleach carefully, following instructions on the bottle.
   - Never pour undiluted liquid chlorine bleach directly onto clothes or into the wash basket.
   - Do not pour powdered bleach into bleach dispenser.
3. Before starting the washer, pour measured amount of bleach directly into bleach dispenser. Avoid splashing or over-filling dispenser. If you prefer to use powdered bleach, add it into the wash basket with your detergent.
   - Do not mix chlorine bleach with ammonia or acids such as vinegar and/or rust remover. Mixing can produce a toxic gas which may cause death.



The Agitator Cap or Fabric Softener Dispenser

The agitator cap fits into the top of the agitator.
If it accidentally comes off, simply put it back on.

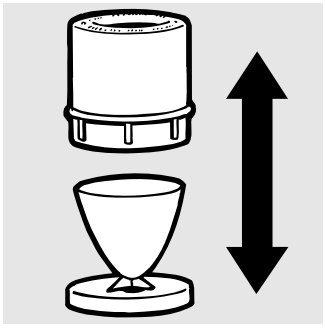
The fabric softener dispenser automatically releases liquid fabric softener at the proper time during the cycle.
Do not stop the washer during the first spin. This will cause the dispenser to empty too soon.
To use, follow these steps:

1. Make sure dispenser is securely attached to agitator.
2. Use only liquid fabric softener. Pour into dispenser, using amount recommended on package.

Never pour fabric softener directly on clothes. It may stain them.

3. Add water to dispenser until it reaches the maximum fill line.

Do not pour anything into the agitator if the agitator cap or dispenser is removed.



Separate for cleaning.

Cleaning the Fabric Softener Dispenser

1. Remove the dispenser from the top of the agitator.
2. Separate the dispenser cup from the cover by grasping the top and pushing down on the inside of the cup with your fingers. Dispenser cup will pop free from the cover.
3. To clean the dispenser, soak both the dispenser cup and the dispenser cover in the following solution:
   - 1 US gallon (3.8 liters) warm water
   - 1/4 cup (60 ml) heavy duty liquid detergent
   - 1 cup (240 ml) beach
4. If necessary, loosen build-up with a clean, soft cloth after soaking. Do not use a stiff brush; you may roughen the surface of the dispenser.
5. Rinse and reassemble dispenser. Place dispenser back on the agitator.

Remove Electronic Control Board

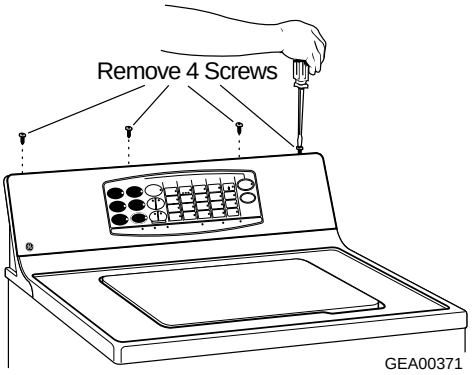
1. Remove 4 screws from the top of the backsplash and rotate the top forward.
2. Remove 4 harness connections. Remove and retain the model selector harness plug for reassembly.
3. Remove 2 screws (1/4-in.) from the control board.

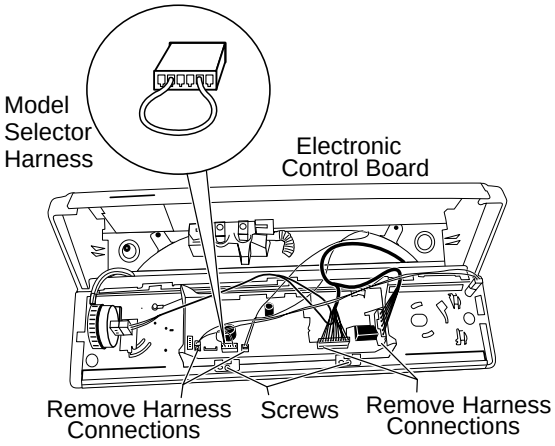
Caution: To prevent electrostatic discharge, ground yourself to the washer cabinet or use an ESD wristband.

4. Remove the electronic control board.

Note: When reassembling, align the LEDs with the appropriate control panel indicators.

5. Reverse the above procedure to reinstall.

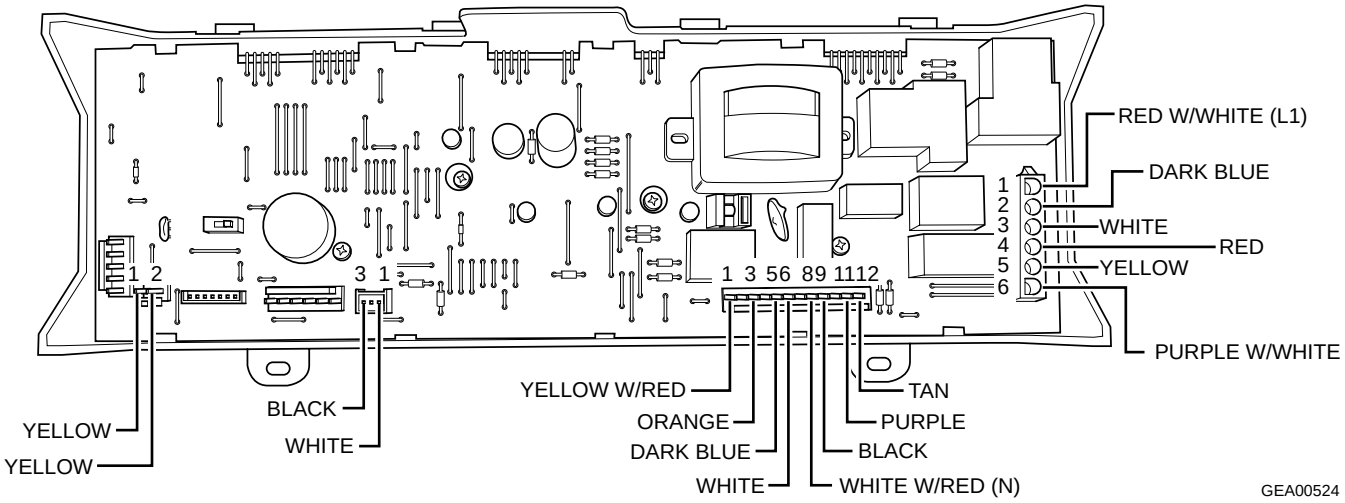




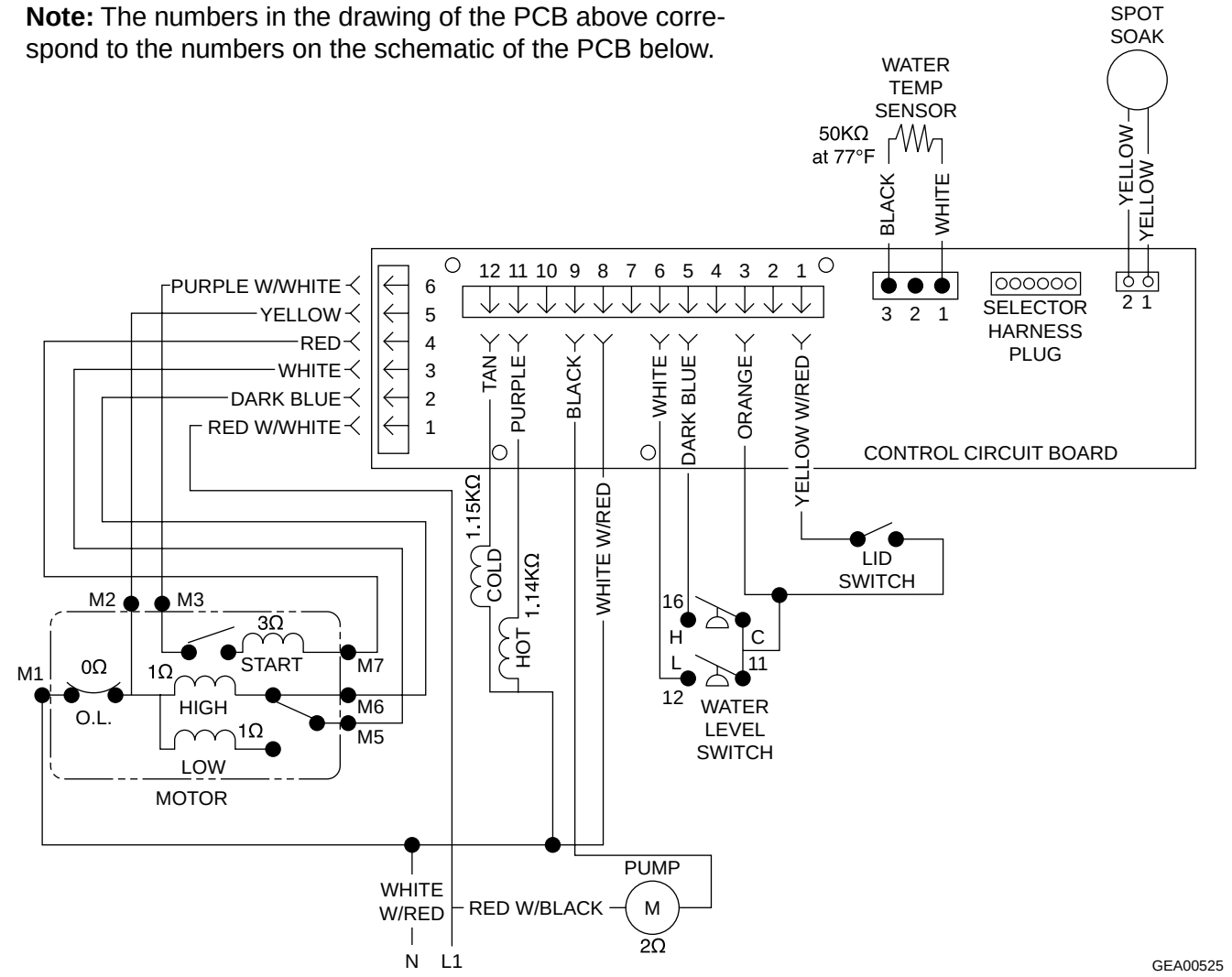
Schematics and Strip Circuits

WARNING

POWER MUST BE DISCONNECTED BEFORE SERVICING THE APPLIANCE.

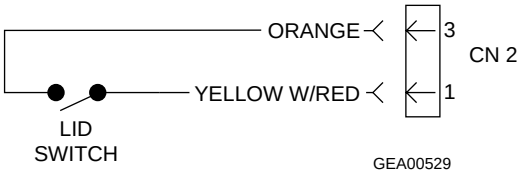


Note: The numbers in the drawing of the PCB above correspond to the numbers on the schematic of the PCB below.

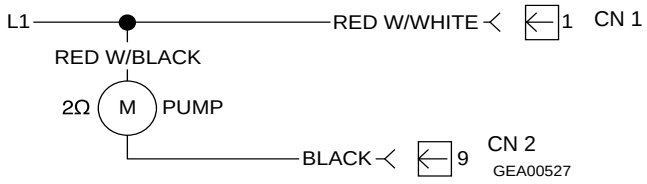


Strip Circuits

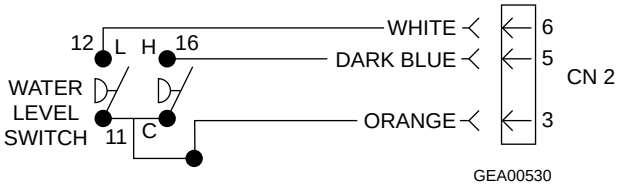
Lid Switch



Main Power and Drain Pump Motor

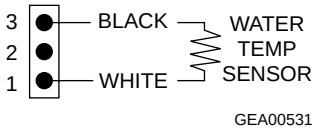


Water Level Switch

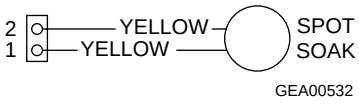


Orange to White 12 VDC
Orange to Dark Blue 12 VDC

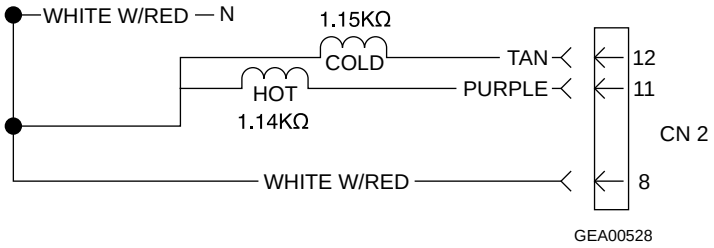
Water Temp Sensor



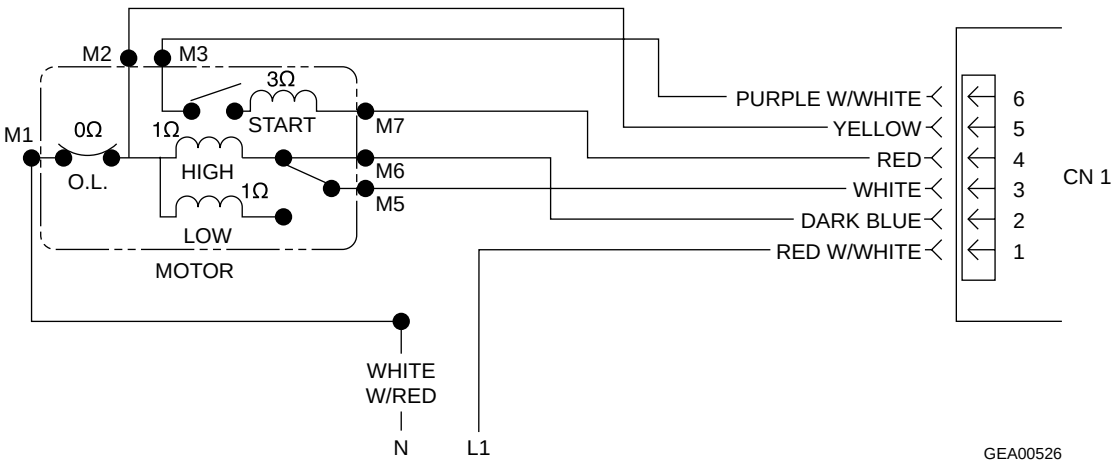
Spot Soak



Water Valves

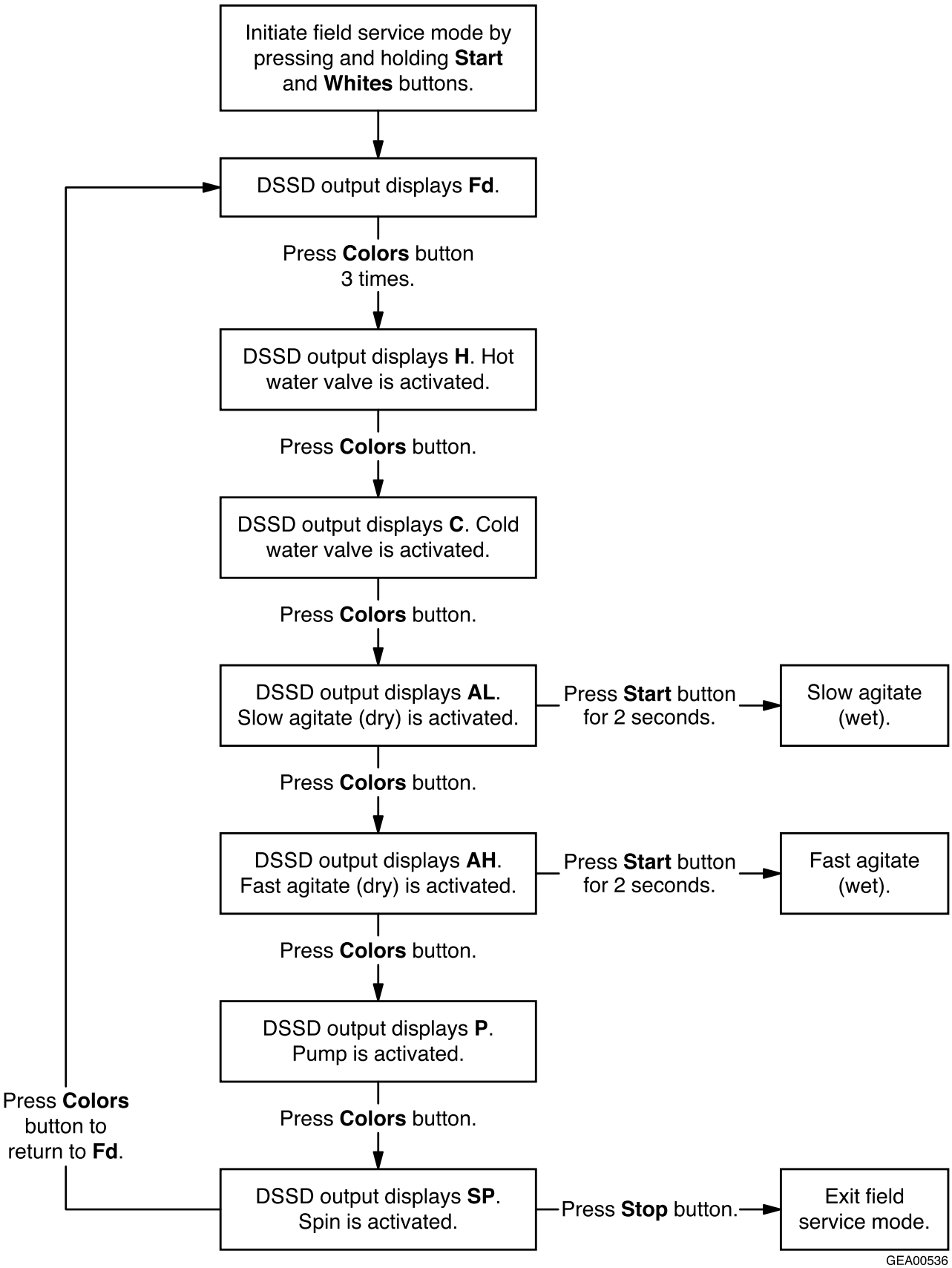


Motor



Troubleshooting Flowcharts

Component Operation Troubleshooting



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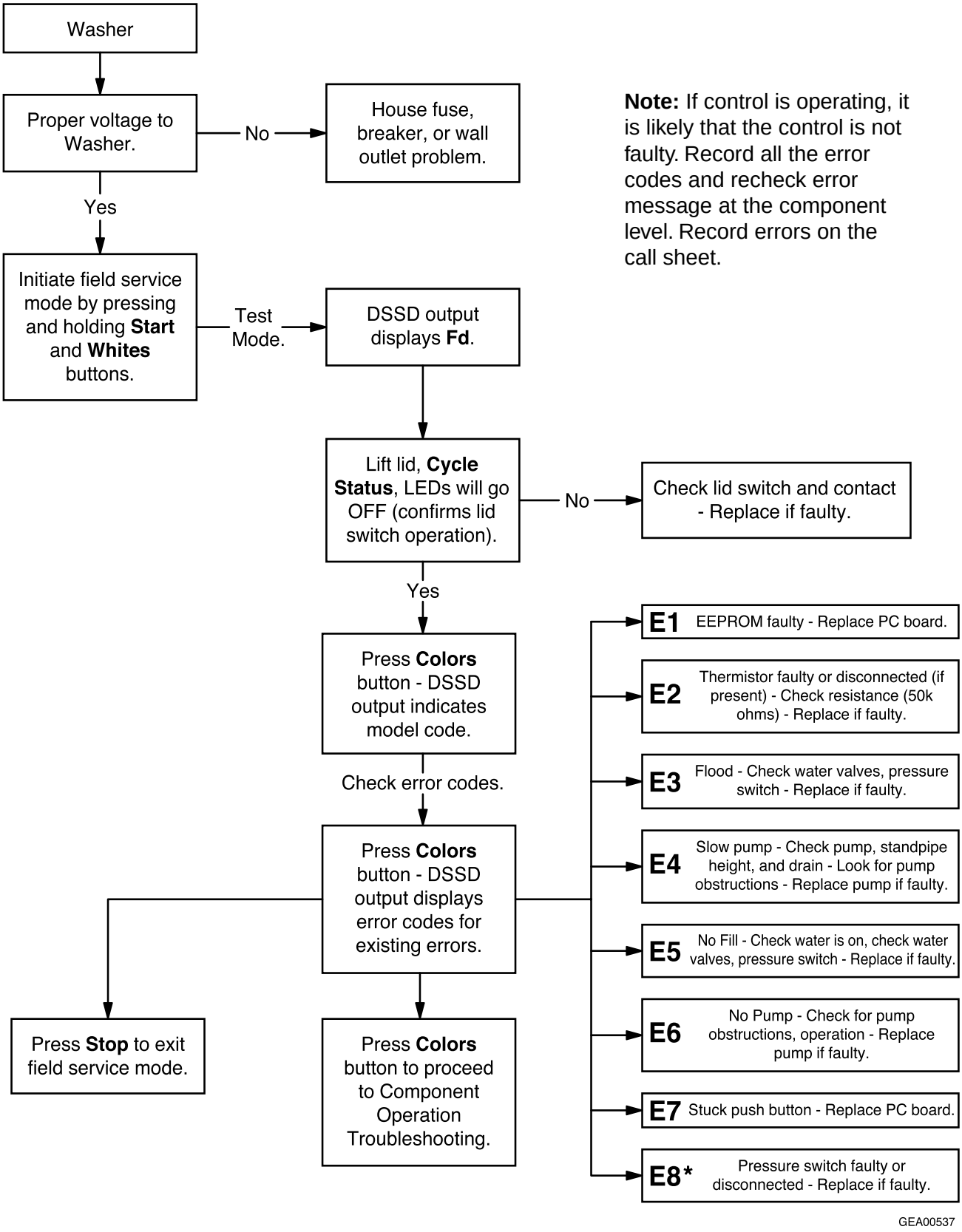
Error Code Troubleshooting

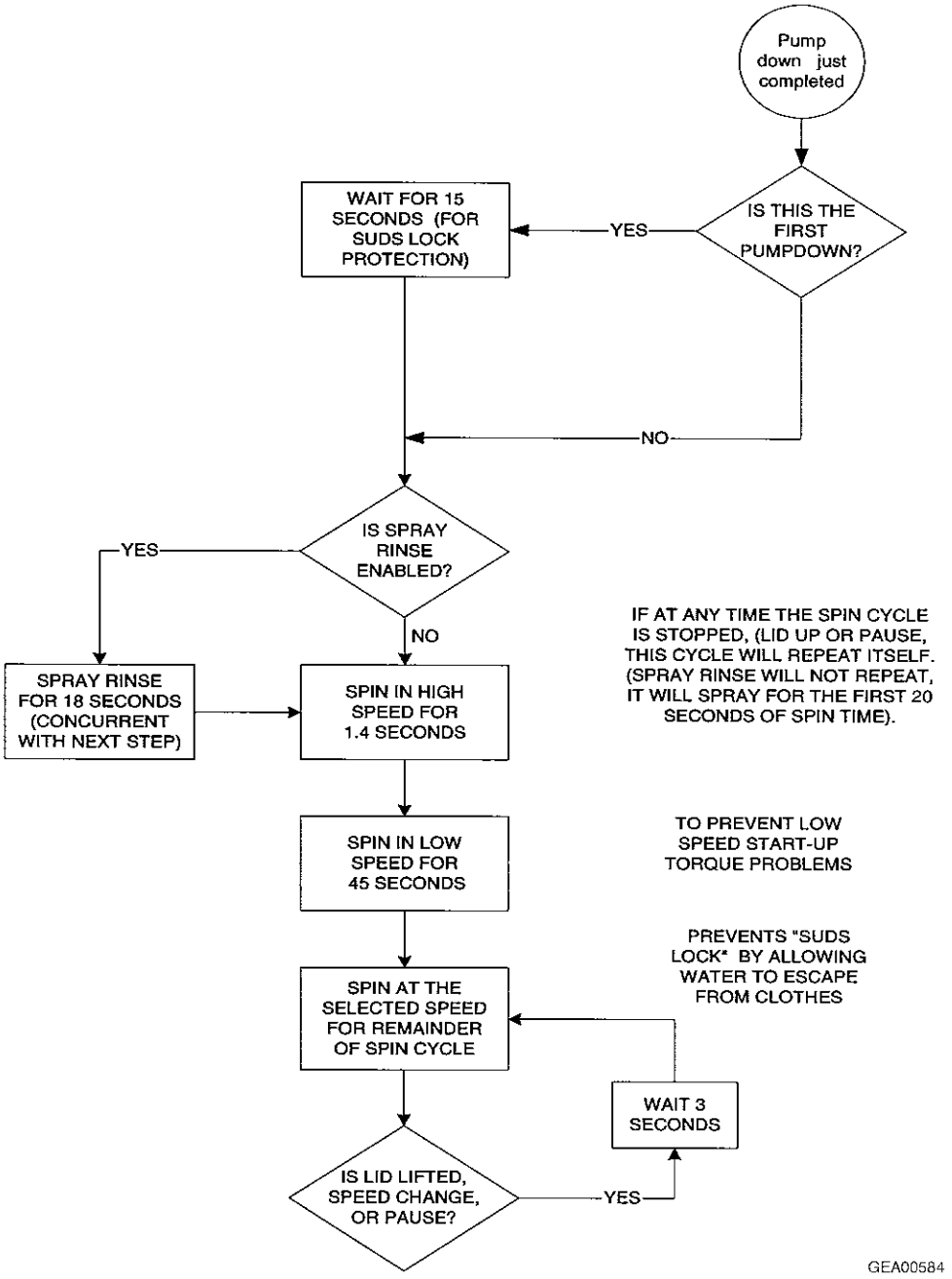


Note: If control is operating, it is likely that the control is not faulty. Record all the error codes and recheck error message at the component level. Record errors on the call sheet.

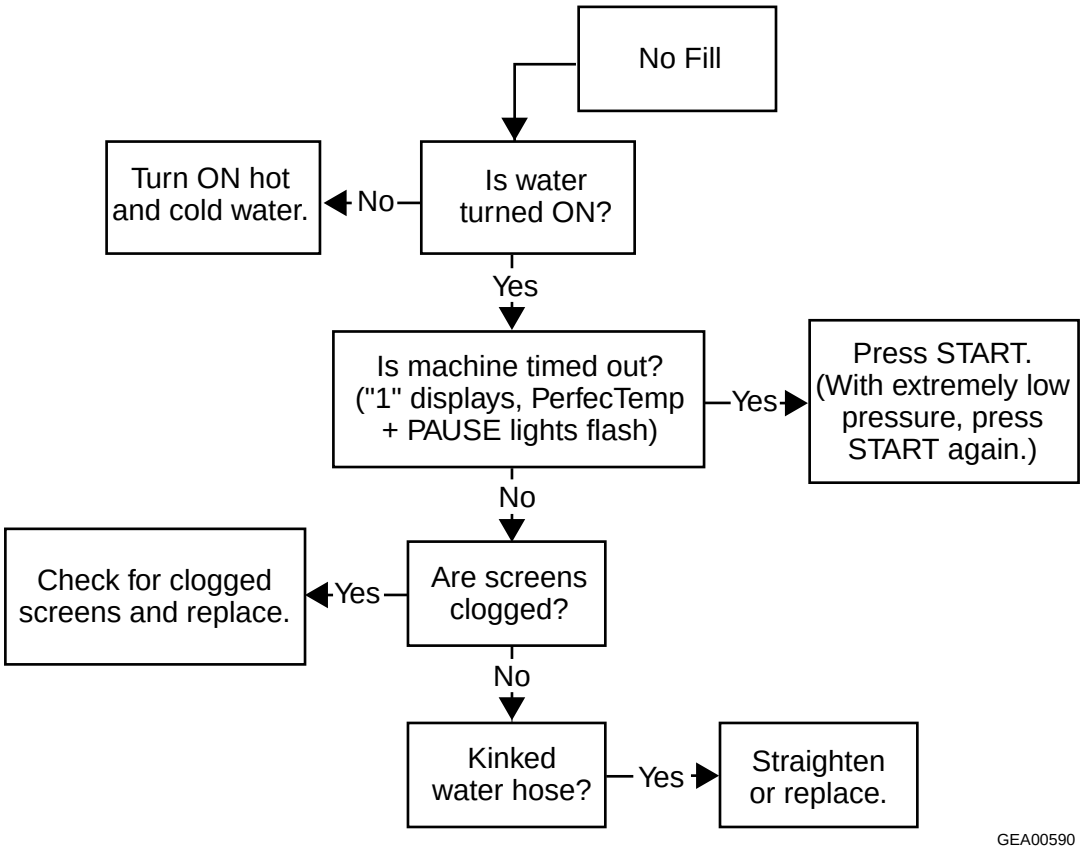
*If high level pressure switch is open before low, or if high pressure closes before low, the E8 error code is displayed. If during the 20-second pump out, the high pressure switch does not reset (open to normally closed), E8 is generated.

Spin Speed Troubleshooting

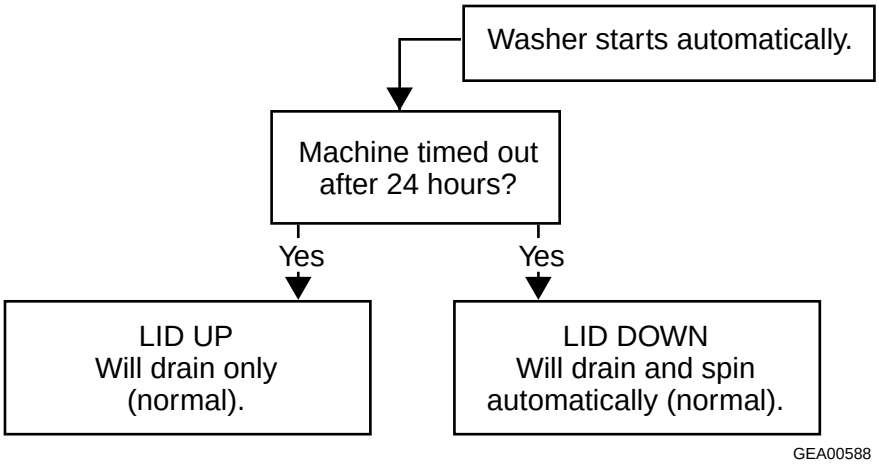
Note: Rather than just spinning up right away, the control enters this sequence after pumpdown to reduce suds lock. The pump stops, then starts for a few seconds, then it begins to spin up.



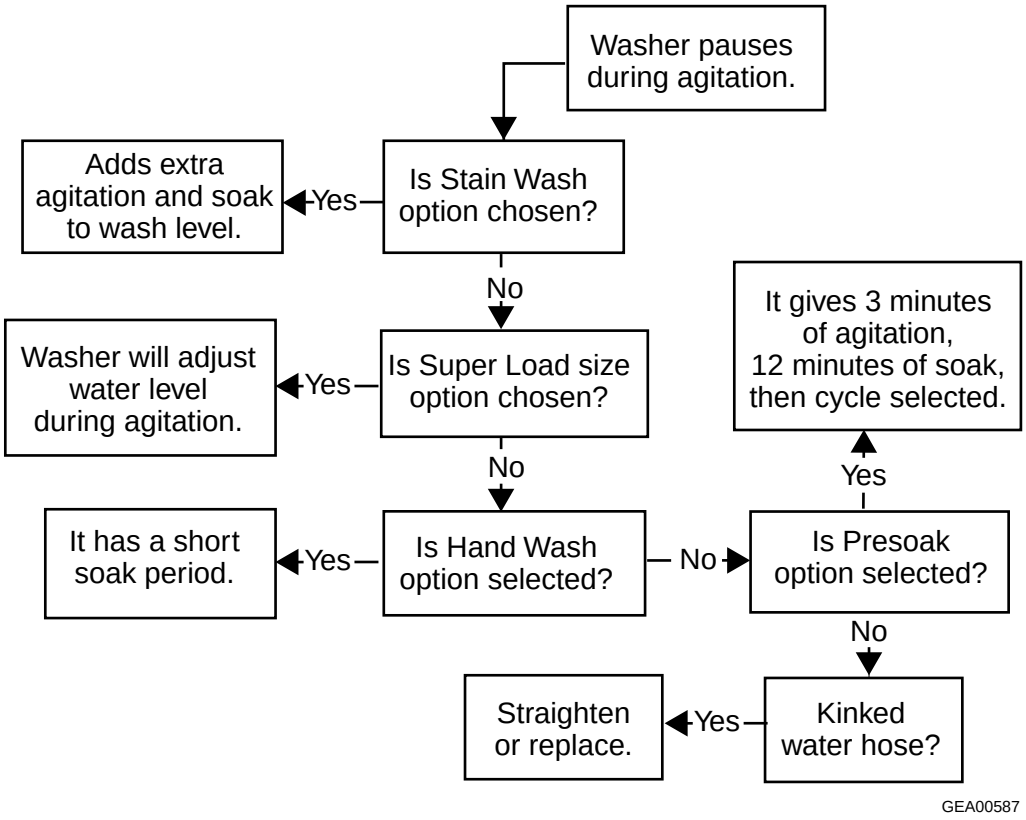
No Fill Troubleshooting



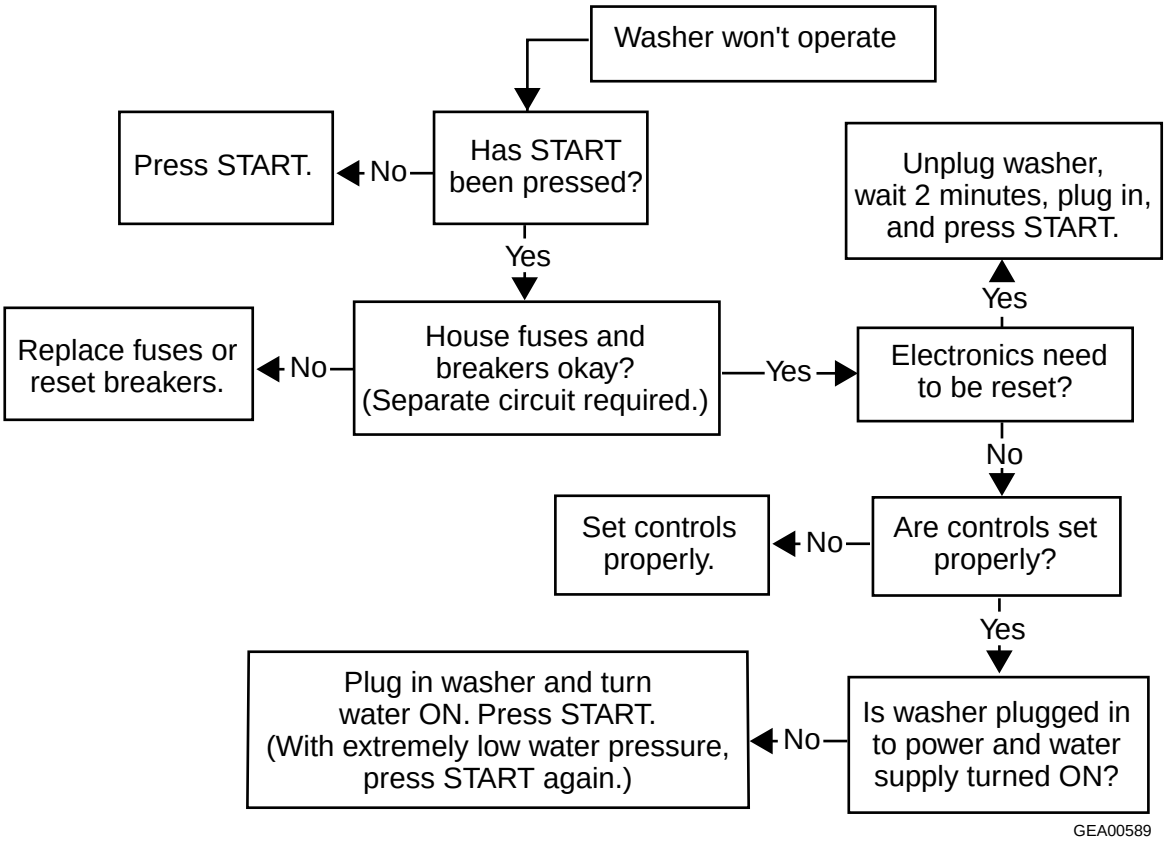
Washer Starts Automatically Troubleshooting



Washer Pauses During Agitation Troubleshooting



Washer Won't Operate Troubleshooting



Troubleshooting Guide

PERFECTEMP	Possible Causes	What To Do
PerfecTemp wash temperature is incorrect	**The washer is in a cold rinse cycle**	• This is normal. The ***PerfecTemp*** feature is designed not to activate during a cold rinse cycle so that the coldest water available is used.
(Review PerfecTemp in the About washer features section)	**All the water in the water heater has been used**	• Wait until the water in the water heater is heated to the correct temperature.

PERFORMANCE	Possible Causes	What To Do
Clothes too wet	**Incorrect spin speed selected**	• Make sure the spin cycle selected matches the load you are washing. Some fabrics will feel wetter when rinsed with cold water.
Colored spots	**Incorrect use of fabric softener**	• Check fabric softener package for instructions and follow directions for using dispenser. • Pretreat stain and rewash.
	Dye transfer	• Sort whites or lightly colored items from dark colors.
Grayed or yellowed clothes	**Not enough detergent**	• Use more detergent (especially with larger loads) Be sure to follow detergent manufacturer's directions.
	Hard water	• Use a water conditioner like Calgon brand or install a water softener.
	Water is not hot enough	• Make sure water heater is delivering water at 120°F.–140°F. (48°C.–60°C.).
	Washer is overloaded	• Select load size to match clothes load.
	Detergent is not dissolving	• Add detergent as wash basket fills with water before you load clothes.
	Dye transfer	• Sort clothes by color. If fabric label states *wash separately,* unstable dyes may be indicated.
Lint or residue on clothes	**Clothes are air or line dried**	• If you do not dry your clothes with a clothes dryer, your clothes may retain more lint.
	Incorrect sorting	• Separate lint producers from lint collectors.
	Washing too long	• Wash small loads for a shorter time than larger loads.
	Detergent not dissolving	• Add detergent as wash basket fills with water, before you load clothes. • Try a liquid detergent. • Use warmer water temperature.
	Overloading	• Load clothes no higher than the top row of holes in the washer tub. • Make sure load size selected matches clothes load size.
	Incorrect use of fabric softener	• Check fabric softener package for instructions and follow directions for using dispenser.

PERFORMANCE (cont.)	*Possible Causes*	*What To Do*
Pilling	**Result of normal wear on poly-cotton blends and fuzzy fabrics**	• While this is not caused by the washer, you can slow the pilling process by washing garments inside out.
Snags, holes, tears, rips or excessive wear	**Pins, snaps, hooks, sharp buttons, belt buckles, zippers, and sharp objects left in pockets**	• Fasten snaps, hooks, buttons, and zippers. • Remove loose items like pins, objects in pockets and sharp buttons. • Turn knits (which snag easily) inside out.
	Undiluted chlorine bleach	• Check bleach package instructions for proper amount. • Never add undiluted bleach to wash or allow clothes to come in contact with undiluted bleach.
	Chemicals like hair bleach or dye, permanent wave solution	• Rinse items that may have chemicals on them before washing.
Wrinkling	**Improper sorting**	• Avoid mixing heavy items (like work clothes) with light items (like blouses). • Try a fabric softener.
	Overloading or incorrect water level	• Load your washer so clothes have enough room to move freely.
	Incorrect wash and dry cycles	• Match Cycle selection to the type of fabric you are washing (especially for easy care loads).
	Repeated washing in water that is too hot	• Wash in warm or cold water.

OPERATION	*Possible Causes*	*What To Do*
Washer pauses in cycle	**The *HAND WASH* cycle was chosen**	• This is normal. The ***HAND WASH*** cycle has a short soak period.
Washer won't operate	**Washer is unplugged**	• Make sure cord is plugged securely into a working outlet.
	Water supply is turned off	• Turn both hot and cold faucets fully on.
	Controls are not set properly	• Check controls.
	Lid is open	• Close lid.
	Circuit breaker/fuse is tripped/blown	• Check house circuit breakers/fuses. Replace fuses or reset breaker. Washer should have separate outlet.
	Electronics need to be reset	• Unplug washer, wait 2 minutes, plug back in, and press START.
	START was not pressed	• Press START.
	Extremely low water pressure	• Press START again.

Troubleshooting

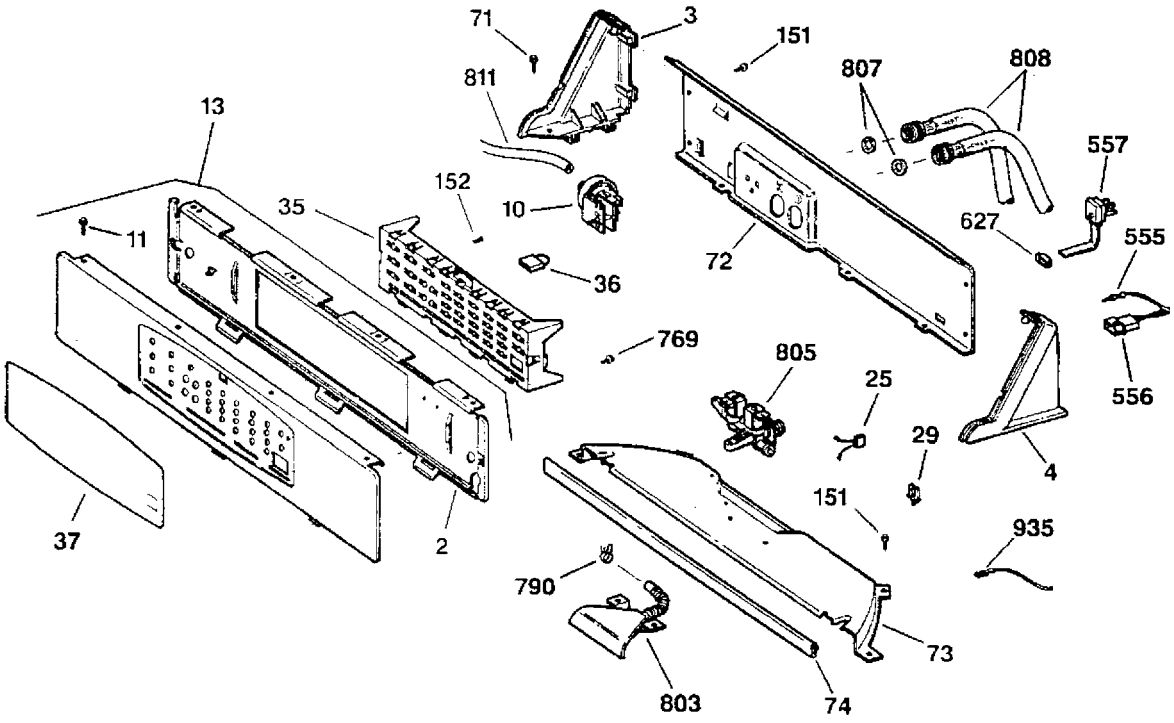
WATER	Possible Causes	What To Do
Too many suds	**Type of detergent**	• Switch to a lower sudsing detergent brand and follow instructions on package.
	Very soft water	• Try less detergent.
	Too much detergent	• Measure your detergent carefully. Use less soap if you have soft water, a smaller load, or a lightly soiled load.
Water leaks	**Fill hoses or drain hose is improperly connected**	• Make sure hose connections are tight at faucets and at washer. • Make sure end of drain hose is properly connected to washer and correctly inserted in and secured to drain facility.
	Household drain may be clogged	• Check household plumbing. You may need to call a plumber.
	Constant water pressure to the fill hoses at the water source	• Tighten hoses at the faucets and turn the water off after each use. • Check condition of the fill hoses; they may need replacement after 5 years.
	Using too much detergent in washer	• Use less detergent. Use less soap if you have soft water, a smaller load, or a lightly soiled load.
Water temperature is incorrect	**Control is not set properly**	• Check water temperature control and adjust.
	Water supply is turned off or improperly connected	• Turn both hot and cold faucets fully on and make sure hoses are connected to correct faucets.
	Water valve screens are stopped up	• Turn off the water source and remove the water connection hoses from the upper back of the washer. Use a brush or toothpick to clean the screens in the machine. Reconnect the hoses and turn the water back on.
	House water heater is not set properly	• Make sure house water heater is delivering water at 120°F.–140°F.(48°C.–60°C.).
	***PerfecTemp* feature was not activated**	• The lid must be closed for ***PerfecTemp*** to work.
Water pumped out before cycle is complete	**Lid lifted or cycle was put in pause for over 24 hours**	• Reset cycle.
Water won't drain	**Drain hose is kinked or improperly connected**	• Straighten drain hose and make sure washer is not sitting on it. • Top of drain outlet should be less than 8 ft (2.5 m) above floor.
Water spraying during spin cycle	**Washer in spin cycle**	• Spray rinse during a spin cycle is normal.
Washer did not fill to chosen level (PerfecTemp and START/PAUSE lights are flashing)	**Extremely low water pressure**	• Press the START button again.
	Inlet hoses are kinked	• Straighten hoses.
	Water valve screens are stopped up	• Turn off the water source and remove the water connection hoses from the upper back of the washer. Use a brush or toothpick to clean the screens in the machine. Reconnect the hoses and turn the water back on.
Water fills and drains at the same time	**Drain stand pipe is too low**	• Drain stand pipe must be above 30″.

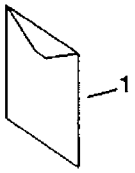
Troubleshooting

NOISE	*Possible Causes*	*What To Do*
Washer is noisy	**Washer is uneven**	• To level the front of the washer, adjust the front leveling legs by rotating the individual leg in the proper direction for up or down. To level back of washer, lift back of machine 4″ (11 cm) and set down.
	Washer load is unbalanced	• Press PAUSE to stop the washer, open the lid and redistribute the load evenly. Close the lid and press START.
	Shipping rod is still assembled in unit	• To remove shipping rod from washer, pull yellow tag and attached rod from the bottom right hand side of washer.
	Washer is sitting too close to wall (causes knocking during cycle)	• Pull washer away from the wall; about 4″ (11 cm) is needed.
	***PerfecTemp* feature is being used**	• This is normal. ***PerfecTemp*** turns water valves off and on to adjust water temperature.

OTHER	*Possible Causes*	*What To Do*
Labels on the exterior of the washer will not peel off cleanly	**Occasionally the adhesive used on the labels does not release cleanly**	• Use a hair dryer set at the lowest heat setting, directing the air at the label for a short amount of time. This will release the adhesive easily, without damaging the surface of the washer.

Illustrated Parts Breakdown

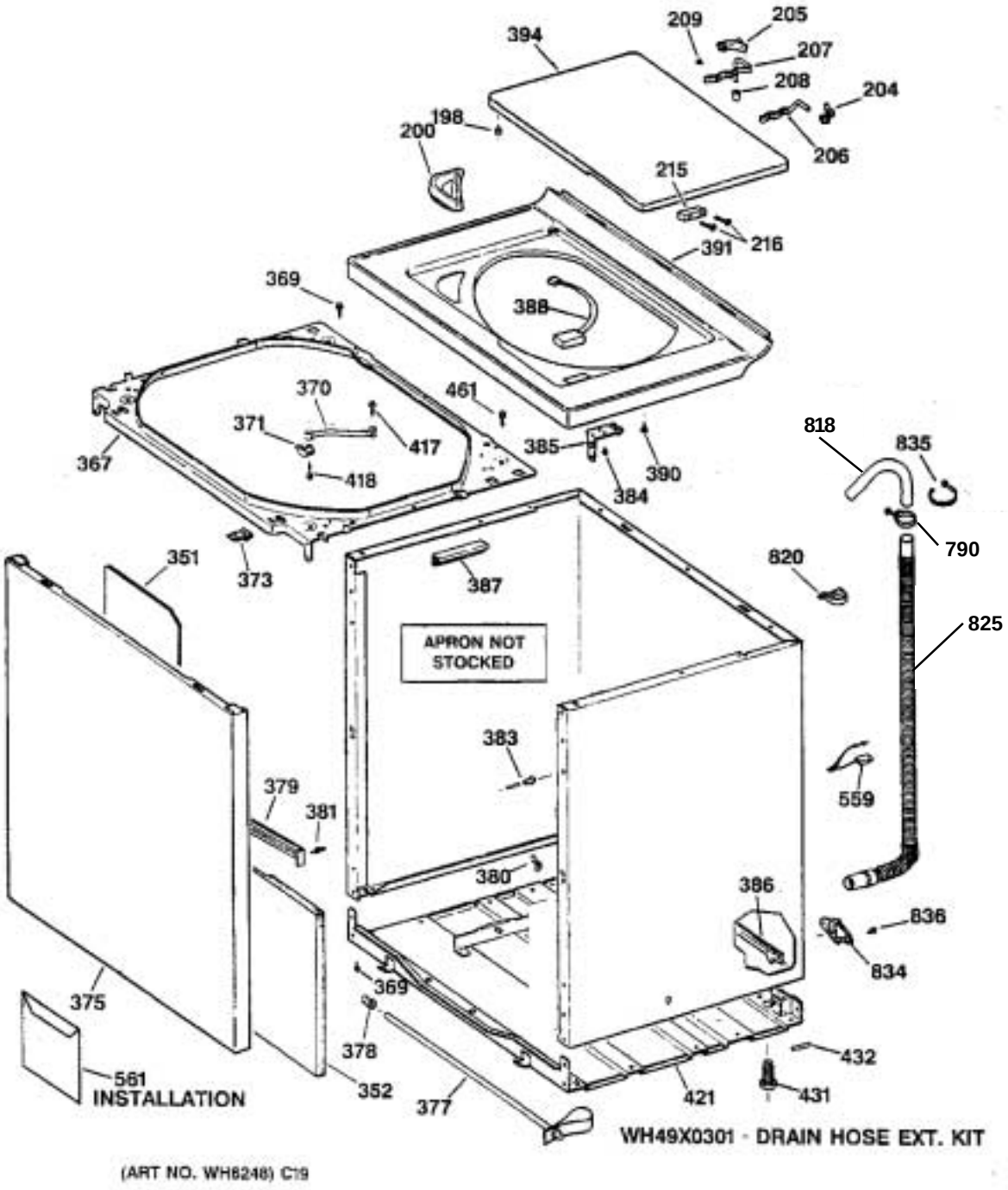




Parts List

REF. NO.	PART NO.	PART DESCRIPTION	
0001	31-15443	PM INSTRUCTION INSTALL	1
	49-90058	MANUAL USE & CARE	1
	31-15432	PM MINI MANUAL	1
0002	WH46X10055	SUPPORT SWITCH	1
0003	WH42X2397	END CAP LH WH	1
0004	WH42X2398	END CAP RH WH	1
0010	WH12X10139	SWITCH PRESSURE	1
0011	WH02X10089	SCR 8-18 AB FLT 9/16 SN	4
0013	WH42X10262	CONTROL PANEL ASM	1
0025	WH12X10137	HARNESS ATC	1
0029	WH02X10054	WIRE SADDLE	1
0035	WH12X10138	CONTROL ASM	1
0036	WH12X10111	CONNECTOR MODEL SELECT	1
0037	WH42X10261	OVERLAY ASM	1
0071	WH02X1205	SCR 8-18 B 1/2 HXW P	4
0072	WH46X10035	PANEL BACK	1
0073	WH46X10047	COVER BOTTOM	1
0151	WH02X1210	SCR 8-18 B IHW 1/2 S N	6
0556	WH12X0497	HOUSING TERMINAL	1
0557	WH19X0305	CORD POWER ASM	1
0627	WH12X10025	STRAIN RELIEF	1
0769	WB01X0500	SCR 8-18 B HXW 1/4 S	2
0790	WH01X2036	CLAMP HOSE	1
0803	WH41X10037	HOSE & WATER INLET	1
0805	WH13X10010	VALVE WATER	1
0807	WH02X0042	HOSE WASHER	2
0808	WH41X10019	HOSE INTAKE ASM	2
0811	WH41X0365	HOSE PRESSURE SWITCH	1
0935	WD01X1434	TERMINAL SPECIAL	6

Exploded parts views and list for Model WPSE7003A0. Refer to microfiche for specific model information.



Exploded parts views and list for Model WPSE7003A0.
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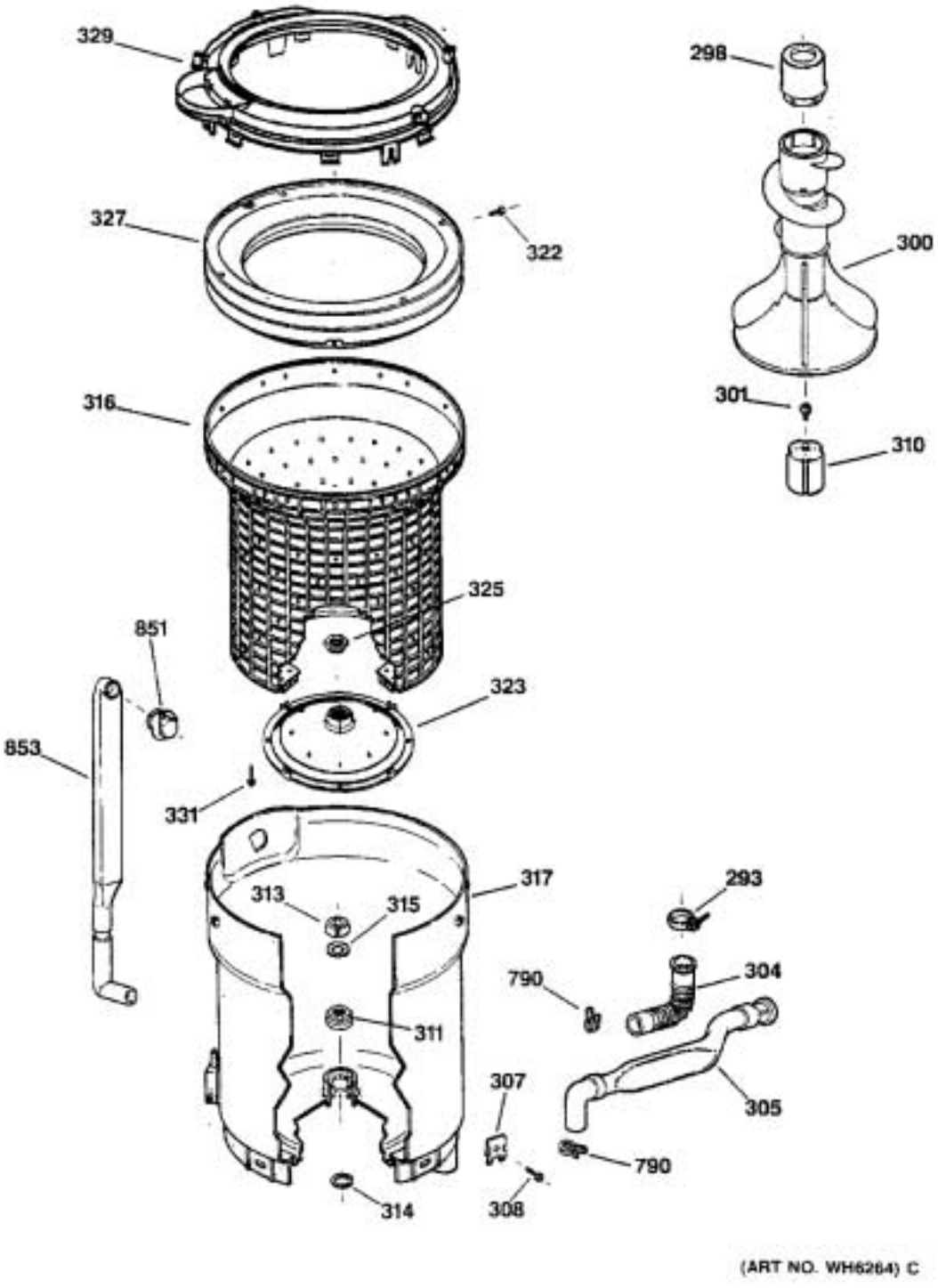
Parts List

REF. NO.	PART NO.	PART DESCRIPTION	
0198	WH01X2722	BUMPER LID	2
0200	WH01X10057	FUNNEL BLEACH	1
0204	WH01X2741	BUSHING HINGE (SINGLE)	1
0205	WH01X10025	BUSHING HINGE (DOUBLE)	1
0206	WH01X2740	WIREFORM HINGE	1
0207	WH01X2743	HINGE WIREFORM (LONG)	1
0208	WH01X2742	BUMPER HINGE	1
0209	WH02X1211	SCREW	4
0215	WH12X10092	MAGNET ASM	1
0216	WH02X10063	SCR 8-16 B FLP .625 ZN	2
0351	WH46X0353	DAMPER FRONT PANEL	1
0352	WH46X10013	INSULATION PACK ASM	1
0367	WH46X0364	WELD ASM ROD SUPPORT	1
0369	WH02X1217	SCR 8-18 AB IHW 7/16 SN	28
0370	WH01X10046	STRAP DAMPING	4
0371	WH01X2726	RETAINER STRAP	4
0373	WH02X10058	CLIP LOCKING	2
0375	WH46X10051	PANEL FRONT WH	1
0377	WH46X0344	BAR SHIPPING	1
0378	WH01X2745	BUTTON PLUG	1
0379	WH16X0514	BRACE	1
0380	WH02X1207	CLIP GROUND	1
0381	WH02X1190	STUD GROUNDING	1
0383	WH02X1189	PIN ALIGNMENT	4
0384	WH01X10109	SCR 8-15 A 3/4 SP HXW	2
	WH02X1212	SCR 6-20 B TRT 3/8 S	2
0385	WH01X2723	COVER CLIP	2
0386	WH46X0362	BAR SELF LEVELING	1
0387	WH41X10036	CONDUIT	1
0388	WH12X10091	LID SWITCH ASM	1
0390	WH01X2724	ISOLATOR	2
0391	WH44X10027	COVER ASM FINISHED WH	1
0394	WH44X10072	LID ASM FINISHING	1
0417	WH02X0694	SCR 10-12 A HX 1/2 S	4
0418	WH02X10003	SCR 8-18 B IHW 1 S	4
0421	WH46X10024	BASE ASM	1
0431	WH02X1187	LEG LEVELING	4
0432	WH02X1188	PIN ROLL	2
0461	WZ05X0158	SCREW 8-32X3/8 GRD SCR	1
0559	WH12X0538	HOUSING TERMINAL	1
0561	WH49X10021	PK PACK ASM INSTALLATION	1
0820	WH01X2725	CLIP ANTI-SIPHON	1
0834	WH16X0513	RETAINER HOSE	1
0836	WH02X10002	SCR 8-18 AB IHWP 7/8 S	2

Exploded parts views and list for Model WPSE7003A0.
Refer to microfiche for specific model information.



Exploded parts views and list for Model WPSE7003A0.
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Parts List

REF. NO.	PART NO.	PART DESCRIPTION	
0293	WH01X2753	CLAMP TUB OUTLET	1
0298	WH43X0139	DISPENSER ASM FS	1
0300	WH43X0142	AGITATOR ASM MULTI	1
0301	WH02X10037	SCR 1/4-20 MCH 5/8 S	1
0304	WH41X0371	HOSE DRAIN INLET (TUB TO	2
0305	WH41X0374	HOSE DRAIN ASM	1
0307	WH01X2730	CLAMP - TUB	4
0308	WH02X1209	SCR 5/16-18 TPT IHW S N	4
0310	WH43X10009	COUPLING AIR BELL	1
0311	WH02X1196	SEAL TUB	1
0313	WH02X1195	RING SPLIT	1
0314	WH02X1197	WASHER TUB BEARING	1
0315	WH02X1199	WASHER HUB	1
0316	WH45X10014	BASKET EXTRA LARGE	1
0317	WH45X10024	TUB ASM X-LARGE	1
0322	WH02X1194	SCREW	7
0323	WH45X10027	HUB	1
0325	WH02X1193	NUT HUB	1
0327	WH45X0152	BALANCE RING ASM	1
0329	WH45X10022	COVER TUB	1
0331	WH02X10001	SCR 14-10 A TRT 7/8 S	8
0790	WH01X2036	CLAMP HOSE	1
0851	WH01X2729	GASKET FLOOD HEAD	1
0853	WH41X0369	HOSE FLOOD	1

Exploded parts views and list for Model WPSE7003A0.
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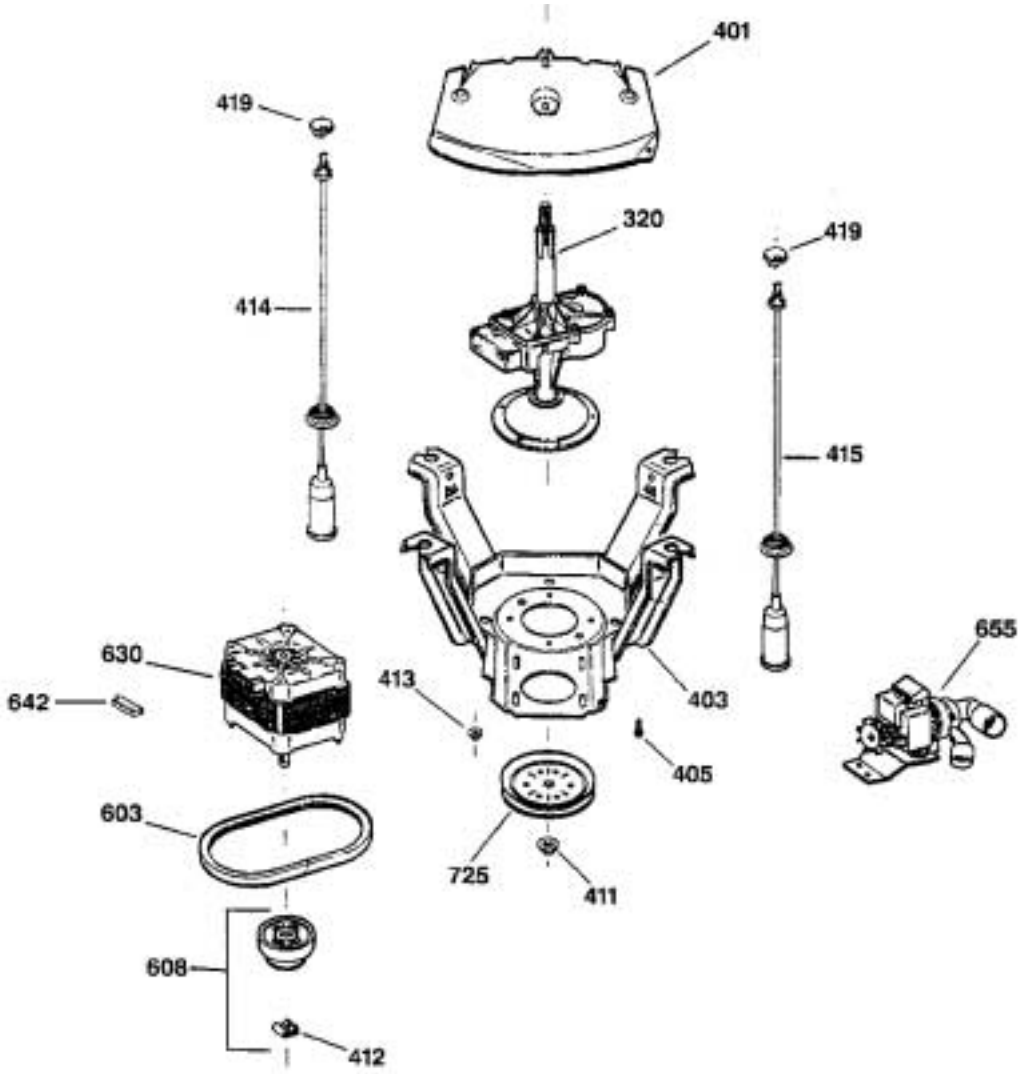

NOTE: REF. 412 (WH1X2733) SHOULD BE REPLACED EACH TIME CLIP IS REMOVED.

Parts List

REF. NO.	PART NO.	PART DESCRIPTION	
0320	WH38X10002	TRANSMISSION & BRAKE ASM	1
0401	WH45X10025	SHIELD TUB	1
0403	WH17X10003	LEG & PLATFORM WELD ASM	1
0405	WH02X1201	SCR 1/4-20 B HXW 3/4 SNS	4
0411	WH02X1203	NUT PULLEY	1
0412	WH01X2733	CLIP CLUTCH SPRING	1
0413	WH02X1204	NUT MOTOR HEX	4
0414	WH16X0544	ROD & SPRING ASM	2
0415	WH16X0543	ROD & SPRING ASM	2
0419	WH01X10001	SOCKET ROD SUPPORT	4
0603	WH01X2026	BELT	1
0608	WH05X0253	CLUTCH ASM	1
0630	WH20X10009	MOTOR ASM 2 SPD KH-K	1
0642	WH12X1059	HOUSING SPECIAL	1
0655	WH23X10003	PUMP AND BRACKET ASM	1
0725	WH07X0126	PULLEY TRANSMISSION	1

Exploded parts views and list for Model WPSE7003A0. Refer to microfiche for specific model information.

Quiz

1. How do you get into the Field Service Mode for the Wizard™ Washer?

   a) Press & hold “Start/Pause” button for 3 seconds
   b) Press & hold “Quick Rinse/Drain & Spin” button for 3 seconds
   c) Press & hold “Whites” & “Start/Pause” buttons together for 3 seconds
   d) Press & hold “Colors” & “Start/Pause” buttons together for 3 seconds
   e) None of the above

2. What does an Error Code of “E5” mean?

   a) No fill detection
   b) Pump current detection failure
   c) Key error
   d) Slow pump error
   e) Fill error

3. What function does Step 4 in the Field Service Mode indicate?

   a) LED check
   b) Model code
   c) Error code
   d) Hot water valve active
   e) Cold water valve active

4. How do you exit the Field Service Mode?

   a) Press the “Stop” button
   b) Remove AC power from Washer
   c) Wait for 30 minute timeout
   d) All of the above
   e) None of the above

5. The Wizard™ Washer control checks the thermistor during operation. If the sensor is shorted or open, the control will complete the cycle and sets an “E2” code. T or F

6. The “Extended Spin” button will allow the customer to extend all the spins in that cycle. T or F

7. The ATC sensor will measure 50K ohms at room temperature. T or F

8. The water pressure switch has 4 settings: super, high, medium, and low. T or F

9. Voltage can be measured for the drain pump at which connections on the control board?

   a) 12 pin plug #8 & #9
   b) 12 pin plug #9 & #12
   c) 12 pin plug #9 & 6 pin plug #1
   d) 12 pin plug #1 & #9
   e) 12 pin plug #9 & #11

10. Voltage can be measured for the fast speed on the motor at which connections?

    a) 6 pin plug #1 & #2
    b) 6 pin plug #2 & any N (WR)
    c) 6 pin plug #3 & any N (WR)
    d) 6 pin plug #2 & #6
    e) None of the above