

## FOR SERVICE TECHNICIAN ONLY - DO NOT REMOVE OR DESTROY

### BASIC OPERATION OF 50HZ COMMERCIAL STACKED WASHER/DRYER

- For additional information, see [www.MaytagCommercialLaundry.com](http://www.MaytagCommercialLaundry.com)



### ⚠ WARNING

#### Electrical Shock Hazard

- Disconnect power before servicing.
- Replace all parts and panels before operating.
- Failure to do so can result in death or electrical shock.

### IMPORTANT

#### Electrostatic Discharge (ESD) Sensitive Electronics

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

- Use an anti-static wrist strap. Connect wrist strap to green ground connection point or unpainted metal in the appliance.

-OR-

Touch your finger repeatedly to a green ground connection point or unpainted metal in the appliance.

- Before removing the part from its package, touch the anti-static bag to a green ground connection point or unpainted metal in the appliance.
- Avoid touching electronic parts or terminal contacts; handle electronic control assembly by edges only.
- When repackaging failed electronic control assembly in anti-static bag, observe above instructions.

### GENERAL USER INFORMATION

#### Scrolling 'out of order' message, followed by a failure or diagnostic code, showing in display

This condition indicates the washer/dryer is inoperative. Diagnostic codes being displayed on the upper portion of the display pertain to the dryer section, and diagnostic codes displayed on the lower portion of the display apply to the washer section. Diagnostic codes displayed on both the upper and lower portions of the display pertain to the control system of both the washer and dryer.

#### Cold Start (initial use):

##### '0 Minutes' showing in display

This condition indicates the cycle is complete and the washer/dryer cannot be operated. Coins dropped or debit inputs during this condition will be stored in escrow but cannot be used until normal operation is restored by opening and closing the door. If a door switch has failed, causing '0 MINUTES' to remain in the display after the door is opened and closed, it must be replaced before normal operation can be restored.

#### Warm Start (after power failure):

A few seconds after power is restored, if a cycle was in progress at the time of the power failure, 'RESELECT CYCLE' will flash in the display, indicating the need for a key press to restart the washer or dryer.

#### Washer is programmed at the factory as follows:

- Normal and Delicates cycles have an 11 minute wash period and 2 rinses, with the option of an extra rinse
- The Powerwash cycle has 3 minutes of Prewash, a 14 minute wash period, and 4 rinses, with the option to deselect the extra rinse
- 1.75 wash price for Normal and Delicates cycles, \$2.00 for Powerwash (PD models)
- 0.00 wash price (PN/PR models)

#### Dryer is programmed at the factory as follows:

- 45 minutes dry time for PN/PR models
- 5 minutes per coin for PD models
- 1.50 dry price (fixed cycle with top off, PD models)
- 0.00 dry price (fixed cycle, PN/PR models)

#### There are four (4) types of dryer pricing:

##### Fixed 'Vend' Pricing

A dryer set up for 'Fixed Cycle' operation can only accept additional time accumulated by increments equal to the length of a complete dry cycle. A maximum of 75 minutes may be purchased; no additional credit is given for coins dropped with 75 minutes in the display.

##### Accumulator Pricing

If the price is set to one coin (coin 1), then accumulator pricing is in effect. Cycle time can be purchased one coin at a time (PD models) up to the maximum time of 75 minutes.

##### Fixed Cycle With Top Off Pricing

A dryer set to offer 'Top Off' capability will allow time to be added to an existing dry cycle in increments equal to the number of minutes of dry time per quarter (coin 1), up to 75 minutes, regardless of the cost required to start the dryer. No credit is given for coins or debit inputs entered when the control is displaying 75 minutes.

**PN Models Converted to PR:** In Enhanced Debit Mode, the top off price can be set independently (see VALUE OF COIN 2), and the top off time is calculated according to the following equation:

$$\text{top off time} = \frac{\text{top off price}}{\text{full cycle price}} \times \text{full cycle length}$$

Hundredth increment offset is not applied to top off purchases.

##### Free Cycles

This is established by setting the cycle price to zero. When this happens, 'SELECT CYCLE' will appear rather than a cycle price. Any cycle started as a free cycle will automatically terminate when the door is opened.

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### Debit Card Ready

This washer/dryer is debit card ready. It will accept a variety of debit card systems, but does NOT come with a debit card reader. Refer to the debit card reader manufacturer for proper washer/dryer set-up. In models converted to a Generation 1 debit card system, debit pulses represent the equivalent of one coin (coin 1).

### CONTROL SET-UP PROCEDURES

**IMPORTANT:** Read all instructions before operating.

- **PD/PN/PR Models:** Insert service switch key and turn counter-clockwise.
- **PN Models Converted to PR:** Once a Generation 2 debit card reader is installed (according to the reader manufacturer's instructions), the set-up modes can be changed by inserting a set-up card (supplied by the reader manufacturer) into the card slot. Inserting the service switch key and turning will only access the service mode.

The washer/dryer is now in the set-up mode. The lower portion of the display is used to set up the digital control for the washer. The upper portion of the display is used to set up the controls for the dryer.

The display can contain four numbers and/or letters and a decimal point on both the top and bottom display portions. These are used to indicate the set-up codes and related code values available for use in programming the washer/dryer.

#### How to use the buttons to program the controls

1. The POWERWASH washer key pad is used to adjust the values associated with washer set-up codes and the HEAVY DUTY dryer key pad is used to adjust the values associated with dryer set-up codes. Pressing the key pad will increase the value. Rapid adjustment is possible by holding the key pad down.
2. The TEMPERATURE washer key pad is used to adjust the values associated with washer set-up codes. Pressing this key pad will decrease the value. Rapid adjustment is possible by holding the key pad down.
3. The EXTRA RINSE washer key pad will advance through the set-up codes. Pressing this key pad will advance to the next available set-up code. Holding this key pad down will automatically advance through the set-up codes at a rate of one (1) per second.
4. The DELICATES washer key pad is used to select or deselect washer options. The DELICATES dryer key pad is used to select or deselect dryer options.

#### Start Operating Set-Up

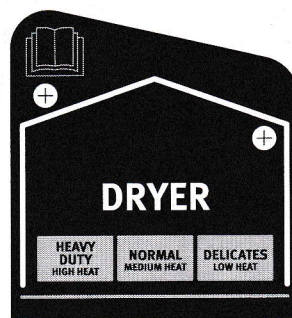
Washer/dryers are preset at the factory and do not require any programming. However, if you want to change the settings, follow the 'Set-Up Codes' guide.

The first code shown in each segment is the factory default setting for the PD models; they are the same for PN/PR models unless noted otherwise.

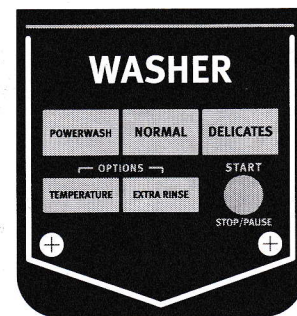
The set-up code is indicated by the one or two left-hand characters. The set-up code value is indicated by the two or three right-hand characters.

### SET-UP CODES

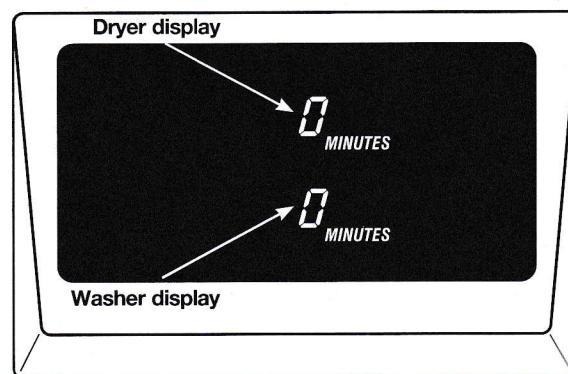
CODE	EXPLANATION
<b>6 06</b>	<b>REGULAR CYCLE PRICE (DRYER)</b>
<b>6 06</b>	Represents the number of coins (coin 1) needed to start the dryer; may adjust from 0-200 (See VALUE OF COIN 1). Advance from 0-200 by pressing the HEAVY DUTY dryer key pad. Factory default of 6 x coin 1.
<b>6 00</b>	PN/PR MODELS ONLY: Factory default of 6 00, or 0 coins.



Dryer control setting buttons



Washer control setting buttons



Display

CODE	EXPLANATION
<b>6 07</b>	<b>REGULAR CYCLE PRICE (WASHER)</b>
<b>6 07</b> NORMAL	NORMAL Regular Washer Cycle Vend Price – Increase between 0 and 200 by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad. Factory preset for 7 x coin 1.
<b>6 00</b> NORMAL	PN/PR MODELS ONLY: Factory default of 6 00, or 0 coins.
<b>6 07</b> DELICATES	DELICATES Regular Washer Cycle Vend Price – Increase between 0 and 200 by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad. Factory preset for 7 x coin 1.
<b>6 00</b> DELICATES	PN/PR MODELS ONLY: Factory default of 6 00, or 0 coins.
<b>6 07</b> POWERWASH	POWERWASH Regular Washer Cycle Vend Price – Increase between 0 and 200 by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad. Factory preset for 7 x coin 1.
<b>6 00</b> POWERWASH	PN/PR MODELS ONLY: Factory default of 6 00, or 0 coins. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>7 05</b>	<b>REGULAR DRY TIME (DRYER)</b>
<b>7 05</b>	PD MODELS: Represents the number of minutes per coin (coin 1). Factory default of 5 minutes per coin. Example: 6 coins x 5 minutes = 30 minutes. By pressing the HEAVY DUTY dryer key pad, value adjusts from 1-75 minutes.
<b>7 45</b>	PN/PR MODELS: Represents the cycle length for free cycles. As example: '7 45' = 45 minutes. By pressing the HEAVY DUTY dryer key pad, value adjusts from 1-75 minutes.

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CODE	EXPLANATION
<b>7 11</b>	<b>WASH LENGTH (WASHER)</b>
<b>7 11</b>	This is the number of minutes for WASH. Washer comes from the factory preset with 11 minutes. Choose from 9–17 minutes by pressing the POWERWASH (INCREASE) or TEMPERATURE (DECREASE) washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>8 00</b>	<b>TYPE OF DRYER PRICING (DRYER)</b>
<b>8 00</b>	Fixed Cycle with Top Off. For detailed description, see General Dryer User Information.
<b>8 FC</b>	PN/PR MODELS ONLY: Factory default of FC (Fixed Cycle). For detailed description, see General Dryer User Information. Press the DELICATES dryer key pad to change this selection.
<b>8 00</b>	<b>ADDITIONAL RINSE OPTION/EXIT SERVICE MODE (WASHER)</b> <b>Note:</b> This only affects NORMAL and DELICATES cycles. Additional Rinse is always enabled for POWERWASH.
<b>8 00</b>	Additional Rinse Not Selected 'OFF.' Use this field to exit Service Mode when entered via the key dance. Press and hold the TEMPERATURE washer key pad to exit Service Mode.
<b>8 Ar</b>	Additional Rinse Selected 'ON.' Use this field to exit Service Mode when entered via the key dance. Press and hold the TEMPERATURE washer key pad to exit Service Mode. Press the DELICATES washer key pad to change this selection. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>9 00</b>	<b>CYCLE COUNTER OPTION (WASHER)</b> This option is either NOT SELECTED 'OFF' or SELECTED 'ON.'
<b>9 00</b>	Not Selected 'OFF.'
<b>9 0C</b>	Selected 'ON' and not able to be deselected. Press the DELICATES washer key pad three consecutive times to select 'ON.' Once selected 'ON' it cannot be deselected. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>1.00</b>	<b>MONEY COUNTER OPTION (WASHER)</b> This option is either NOT SELECTED 'OFF' or SELECTED 'ON.'
<b>1.00</b>	Not Selected 'OFF.'
<b>1.0C</b>	Selected 'ON.' Press the DELICATES washer key pad three consecutive times to select 'ON' and three consecutive times to deselect (Not Selected 'OFF'). Counter resets by going from 'OFF' to 'ON.'
<b>1.C0</b>	Selected 'ON' and not able to be deselected. To select 'ON' and not able to be deselected, first select 'ON,' then within two seconds press the DELICATES washer key pad twice, the POWERWASH washer key pad once, and exit the set-up mode. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>2.00</b>	<b>SPECIAL PRICING OPTION</b> This option is either NOT SELECTED 'OFF' or SELECTED 'ON.'
<b>2.00</b>	Not Selected 'OFF.'
<b>2.SP</b>	Selected 'ON.' Press the DELICATES washer key pad once for this selection.
<b>If SPECIAL PRICING OPTION is selected, there is access to codes '3:' through '9:'.</b>	
<b>NOTE:</b> An external battery needs to be added to keep the clock running during periods of power outages. → Press the EXTRA RINSE washer key pad once to advance to next code.	

CODE	EXPLANATION
<b>OPTIONS TO USE IF SPECIAL PRICING IS SELECTED:</b>	
<b>3.06</b>	<b>SPECIAL CYCLE PRICE (DRYER)</b>
<b>3.06</b>	Represents the number of coins (coin 1) to start the dryer; may adjust from 0–200 (See VALUE OF COIN 1). Advance from 0–200 by pressing the HEAVY DUTY dryer key pad. Factory default of 6 x coin 1.
<b>3.00</b>	PN/PR MODELS ONLY: Factory default of 0 coins.
<b>3.07</b>	<b>SPECIAL CYCLE PRICE (WASHER)</b>
<b>3.07</b> NORMAL	NORMAL Special Washer Cycle Vend Price – Increase between 0 and 200 by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad. Factory preset for 7 x coin 1.
<b>3.00</b> NORMAL	PN/PR MODELS ONLY: Factory default of 3.00, or 0 coins.
<b>3.07</b> DELICATES	DELICATES Special Washer Cycle Vend Price – Increase between 0 and 200 by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad. Factory preset for 7 x coin 1.
<b>3.00</b> DELICATES	PN/PR MODELS ONLY: Factory default of 3.00, or 0 coins.
<b>3.07</b> POWERWASH	POWERWASH Special Washer Cycle Vend Price – Increase between 0 and 200 by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad. Factory preset for 7 x coin 1.
<b>3.00</b> POWERWASH	PN/PR MODELS ONLY: Factory default of 3.00, or 0 coins. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>4.05</b>	<b>SPECIAL DRY TIME (DRYER)</b>
<b>4.05</b>	PD MODELS: Represents the number of minutes per coin (coin 1). Factory default of 5 minutes per coin. Example: 6 coins x 5 minutes = 30 minutes. By pressing the HEAVY DUTY dryer key pad, the value can be adjusted from 1–75 minutes.
<b>4.45</b>	PN/PR MODELS: Represents the fixed cycle time in minutes. As example: '4.45' = 45 minutes. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>5.00</b>	<b>TIME-OF-DAY CLOCK, MINUTES</b>
<b>5.00</b>	This is the TIME-OF-DAY CLOCK, minute setting; select 0–59 minutes by pressing the POWERWASH washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>6.00</b>	<b>TIME-OF-DAY CLOCK, HOURS</b> <b>NOTE:</b> Uses military time or 24 hr. clock.
<b>6.00</b>	This is the TIME-OF-DAY CLOCK, hour setting; select 0–23 hours by pressing the POWERWASH washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>7.00</b>	<b>SPECIAL PRICE START HOUR</b> <b>NOTE:</b> Uses military time or 24 hr. clock.
<b>7.00</b>	This is the START HOUR; 0–23 hours. Select START HOUR by pressing the POWERWASH washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>8.00</b>	<b>SPECIAL PRICE STOP HOUR</b> <b>NOTE:</b> Uses military time or 24 hr. clock.
<b>8.00</b>	This is the STOP HOUR; 0–23 hours. Select STOP HOUR by pressing the POWERWASH washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.

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CODE	EXPLANATION																								
<b>OPTIONS TO USE IF SPECIAL PRICING IS SELECTED (cont.):</b>																									
<b>9.10</b>	<b>SPECIAL PRICE DAY</b>																								
<b>9.10</b>	<p>This represents the day of the week and whether special pricing is selected for that day. A number followed by '0' indicates no selection that particular day (9.10). A number followed by an 'S' indicates selected for that day (9.1S).</p> <p>Days of the week (1-7) are selected by pressing the POWERWASH washer key pad. Press the DELICATES washer key pad once to select special pricing for each day chosen.</p> <p>When exiting set-up code '9.', the display must show current day of week:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>DISPLAY</th> <th>DAY OF WEEK</th> <th>CODE (selected)</th> </tr> </thead> <tbody> <tr><td>10</td><td>Day 1 = Sunday</td><td>1S</td></tr> <tr><td>20</td><td>Day 2 = Monday</td><td>2S</td></tr> <tr><td>30</td><td>Day 3 = Tuesday</td><td>3S</td></tr> <tr><td>40</td><td>Day 4 = Wednesday</td><td>4S</td></tr> <tr><td>50</td><td>Day 5 = Thursday</td><td>5S</td></tr> <tr><td>60</td><td>Day 6 = Friday</td><td>6S</td></tr> <tr><td>70</td><td>Day 7 = Saturday</td><td>7S</td></tr> </tbody> </table> <p>→ Press the EXTRA RINSE washer key pad once to advance to next code.</p>	DISPLAY	DAY OF WEEK	CODE (selected)	10	Day 1 = Sunday	1S	20	Day 2 = Monday	2S	30	Day 3 = Tuesday	3S	40	Day 4 = Wednesday	4S	50	Day 5 = Thursday	5S	60	Day 6 = Friday	6S	70	Day 7 = Saturday	7S
DISPLAY	DAY OF WEEK	CODE (selected)																							
10	Day 1 = Sunday	1S																							
20	Day 2 = Monday	2S																							
30	Day 3 = Tuesday	3S																							
40	Day 4 = Wednesday	4S																							
50	Day 5 = Thursday	5S																							
60	Day 6 = Friday	6S																							
70	Day 7 = Saturday	7S																							
<b>A.00</b>	<b>VAULT VIEWING OPTION</b> This option is either NOT SELECTED 'OFF' or SELECTED 'ON.'																								
<b>A.00</b>	Not Selected 'OFF.'																								
<b>A.SC</b>	<p>Selected 'ON.' Press the DELICATES washer key pad once for this selection. When selected, the money and/or cycle counts will be viewable (if counter option(s) is selected) when the coin box is removed.</p> <p>→ Press the EXTRA RINSE washer key pad once to advance to next code.</p>																								
<b>b.05</b>	<b>VALUE OF COIN 1</b>																								
<b>b.05</b>	<p>This represents the value of coin 1 in the quantity of 5% increments of the larger coin value. <math>5 \times 5\% = 25\%</math>.</p> <p>Increase between 1 and 200 coins by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad.</p> <p>→ Press the EXTRA RINSE washer key pad once to advance to next code.</p>																								
<b>C.20</b>	<b>VALUE OF COIN 2/VALUE OF DRYER TOP OFF</b>																								
<b>C.20</b>	<p>PD MODELS: This represents the value of coin 2 in the quantity of 5% increments of the larger coin value. <math>20 \times 5\% = 100\%</math>.</p> <p>Increase between 1 and 200 coins by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad.</p>																								
<b>C.05</b>	<p>PN MODELS CONVERTED TO PR ONLY: For PN models using Enhanced Debit, this field represents the value of top off in coin 2. Factory default of C.05; represents 5 x the 5% value of the larger coin accepted.</p> <p>→ Press the EXTRA RINSE washer key pad once to advance to next code.</p>																								
<b>E.00</b>	<b>ADD COINS OPTION</b> This option is either NOT SELECTED 'OFF' or SELECTED 'ON.' This option causes the customer display to show the number of coins (coin 1) to enter, rather than the monetary amount.																								
<b>E.00</b>	Not Selected 'OFF.'																								
<b>E.AC</b>	<p>Selected 'ON.' Press the DELICATES washer key pad three consecutive times for this selection.</p> <p>PN/PR MODELS ONLY: In enhanced debit mode, this option is not selectable.</p> <p>→ Press the EXTRA RINSE washer key pad once to advance to next code.</p>																								

CODE	EXPLANATION
<b>H.00</b> COOL	COOL Temperature Washer Upgrade Price – Set between 0 and 200 by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. Factory preset for 0 coins.
<b>H.00</b> WARM	WARM Temperature Washer Upgrade Price – Set between 0 and 200 by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. Factory preset for 0 coins.
<b>H.00</b> HOT	HOT Temperature Washer Upgrade Price – Set between 0 and 200 by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. Factory preset for 0 coins.
<b>H.01</b> EXTRA RINSE	<p>EXTRA RINSE Washer Upgrade Price – Set between 0 and 200 by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. Factory preset for 1 coin.</p> <p>→ Press the EXTRA RINSE washer key pad once to advance to next code.</p>
<b>J.Cd</b>	<b>COIN/DEBIT OPTION</b>
<b>J.Cd</b>	Both coin and debit selected.
<b>J.d</b>	PN/PR models factory default to J.d. Debit Card selected, coins disabled. Press the DELICATES washer key pad three consecutive times for this selection.
<b>J.C_</b>	Coins selected, debit disabled. Press the DELICATES washer key pad three consecutive times for this selection.
<b>J.Ed</b>	Enhanced Debit is self-selected when a Generation 2 card reader is installed in the washer/dryer. The Ed option cannot be manually selected or deselected.
→ Press the EXTRA RINSE washer key pad once to advance to next code.	
<b>L.00</b>	<b>PRICE SUPPRESSION OPTION</b> This option causes the customer display to show 'ADD' or 'AVAILABLE' rather than the amount of money to add (used mainly in debit installations).
<b>L.00</b>	Not Selected 'OFF.'
<b>L.PS</b>	Selected 'ON.' Press the DELICATES washer key pad once for this selection.
→ Press the EXTRA RINSE washer key pad once to advance to next code.	
<b>n.CE</b>	<b>CLEAR ESCROW OPTION</b> When selected, money held in escrow for 30 minutes without further escrow or cycle activity will be cleared.
<b>n.CE</b>	Selected 'ON.'
<b>n.00</b>	Not Selected 'OFF.' Press the DELICATES washer key pad once to deselect this selection.
→ Press the EXTRA RINSE washer key pad once to advance to next code.	
<b>r.800</b>	<b>TOP SPIN SPEED RPM (WASHER)</b>
<b>r.800</b>	<p>This can be selected from the following spin speeds: 600 rpm, 750 rpm, 800 rpm, 1000 (displays as 999) rpm. Step between speeds by pressing the DELICATES washer key pad. Factory default of 800 rpm.</p> <p>→ Press the EXTRA RINSE washer key pad once to advance to next code.</p>
<b>U.00</b>	<b>HUNDREDTH INCREMENT OFFSET (DRYER)</b>
<b>U.00</b>	This represents the hundredth increment price offset used in Generation 2 (Enhanced Debit) PN/PR models. Choose from 0-4 hundredths by pressing the HEAVY DUTY dryer key pad.

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<b>U.00</b>	<b>HUNDREDTH INCREMENT OFFSET (WASHER)</b>
<b>U.00</b>	This represents the hundredth increment price offset used in Generation 2 (Enhanced Debit) PN/PR models. Increase from 0–4 hundredths by pressing the POWERWASH washer key pad and decrease by pressing the TEMPERATURE washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>A1.03</b>	<b>PREWASH LENGTH</b> This is the number of minutes of PREWASH. Set between 2 and 7 by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>A2.03</b>	<b>FINAL SPIN LENGTH</b> This is the number of minutes of final high speed spin. Set between 3 and 8 by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>A3.02</b>	<b>NORMAL Cycle Settings.</b> Allows the owner to select the cycle default options of Water Temperature, Prewash, and Extra Rinse. See Table 1 for specific settings. Normal is set to 02 from the factory. Set by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>A4.00</b>	<b>DELICATES Cycle Settings.</b> Allows the owner to select the cycle default options of Water Temperature, Prewash, and Extra Rinse. See Table 1 for specific settings. Delicates is set to 00 from the factory. Set by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.
<b>A5.0F</b>	<b>POWERWASH Cycle Settings.</b> Allows the owner to select the cycle default options of Water Temperature, Prewash, and Extra Rinse. See Table 1 for specific settings. Powerwash is set to 0F from the factory. Set by pressing the POWERWASH washer key pad or pressing the TEMPERATURE washer key pad. → Press the EXTRA RINSE washer key pad once to advance to next code.

**If cycle counter (9 0C) is selected, the following is true:**

1 00 Cycles in HUNDREDS. 1 02 = 200  
 2 00 Cycles in ONES. 2 25 = 25

TOTAL CYCLES = 225

This is "VIEW ONLY" and cannot be cleared.

Press the EXTRA RINSE washer key pad once to advance to next code.

**If money counter (1.0C or 1.C0) is selected, the following is true:**

3 00 Currency amount in HUNDREDS. 3 01 = \$100.00  
 4 00 Currency amount in ONES. 4 68 = \$ 68.00  
 5 00 Currency amount of CENTS. 5 75 = \$ .75

TOTAL = \$168.75

### END OF SET-UP PROCEDURES

### EXIT FROM SET-UP MODE

- PD or PN/PR Models: Turn service switch key clockwise and remove it.
- PN/PR Models Converted to PR: Turn service key or remove manual set-up card.

**Table 1**

A3, A4, or A5	Extra Rinse	Prewash	Wash Temp	A3, A4, or A5	Extra Rinse	Prewash	Wash Temp
00	Off	Off	Cold	08	On	Off	Cold
01	Off	Off	Cool	09	On	Off	Cool
02	Off	Off	Warm	0A	On	Off	Warm
03	Off	Off	Hot	0b	On	Off	Hot
04	Off	On	Cold	0c	On	On	Cold
05	Off	On	Cool	0d	On	On	Cool
06	Off	On	Warm	0E	On	On	Warm
07	Off	On	Hot	0F	On	On	Hot

### DIAGNOSTIC GUIDE

Before servicing, check the following:

- Make sure there is power at the wall outlet.
- Verify that both hot and cold water faucets are open and water supply hoses are unobstructed.
- Check all connections before replacing components. Look for broken or loose wires, failed terminals, or wires not pressed into or onto connections far enough.
- A potential cause of a control not functioning is corrosion on connections. Observe connections and check for continuity with an ohmmeter.
- Connectors: Look at top of connector. Check for broken or loose wires. Check for wires not pressed into connector far enough to engage metal barbs.
- Resistance checks must be made with power cord unplugged from outlet, and with component connectors disconnected.

## FOR SERVICE TECHNICIAN ONLY - DO NOT REMOVE OR DESTROY

### FAILURE DISPLAYS

Active dryer diagnostic codes are shown on the upper portion of the display and active washer diagnostic codes are shown on the bottom portion of the display.

### DRYER DIAGNOSTIC CODES

If the set-up mode is entered and one of the following errors has previously occurred, the appropriate diagnostic code will be in the display on the upper portion of the screen.

ACCU TRAC® INDICATION	DRYER DISPLAY	EXPLANATION
d 5	d 5	<b>COIN 1 ERROR</b> Blocked coin 1 or coin drop UI control circuit failure (coin recognition and customer display disabled while blockage persists).
d 9	d 9	<b>LOW VOLTAGE DETECTION ERROR</b> Voltage detected below 90 VAC for 8 seconds.
d 13	d 13	<b>COIN 2 ERROR</b> Blocked coin 2 or coin drop UI control circuit failure (coin recognition and customer display disabled while blockage persists).
d 16	d 16	<b>GENERATION 2 DEBIT CARD READER ERROR</b> Not receiving communications from installed debit card reader in Enhanced (Generation 2) Debit mode.
d 4	F 01	<b>DRYER MOTOR CONTROL CIRCUIT ERROR</b> Dryer motor control circuit error (cycles and price display disabled until diagnostic code is manually cleared). The control doesn't know if the motor relay is bad (stuck on), the motor relay drive circuit is bad (shorted), causing the motor relay to stay on, or the motor relay feedback circuit is bad.
d 2	F 22	<b>EXHAUST THERMISTOR OPEN ERROR</b> Exhaust thermistor open, temperature drops below -8°C (18°F) (>50 kΩ) for 1 minute in Run mode, or immediately in Factory Diagnostic Mode.
d 3	F 23	<b>EXHAUST THERMISTOR SHORTED ERROR</b> Exhaust thermistor shorted, temperature above 120°C (250°F) (<500 Ω) for 1 minute in Run mode, or immediately in Factory Diagnostic Mode.
d 22	F 70	<b>COMMUNICATION FAILURE FROM DRYER CCU TO UIC</b> UIC is not receiving communications from CCU (cycles and price display disabled while error persists or is manually cleared).
d 23	F 71	<b>COMMUNICATION FAILURE FROM UIC TO DRYER CCU</b> CCU is not receiving communications from UIC (cycles and price display disabled while error persists or is manually cleared).

ACCU TRAC® INDICATION	DRYER DISPLAY	EXPLANATION
d 8	F 73	<b>UIC MICROPROCESSOR ERROR</b> UIC Microprocessor is not able to read or verify EEPROM (cycles and price display disabled until diagnostic code is manually cleared).
d 8	F 74	<b>UIC EEPROM ERROR</b> UIC EEPROM memory is a CRC failure (cycles and price display disabled until diagnostic code is manually cleared).

### WASHER DIAGNOSTIC CODES

If the set-up mode is entered and one of the following errors has previously occurred, the appropriate diagnostic code will be in the display on the lower portion of the screen.

ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 6	F 01	<b>WASHER CCU ERROR</b> Communication error within the Central Control Unit (CCU); the pump drive in CCU fails to activate; one of the main relays in the CCU fails to activate. <b>Possible Causes</b> - A power surge/drop. <b>Surge/drop procedure</b> 1. Clear error code. 2. Unplug washer or disconnect power. 3. Wait 2 minutes before reconnecting power. 4. Verify CCU by running a short diagnostic test.
d 11	F 11	<b>MCU ERROR</b> Motor Control Unit (MCU) has a failure. <b>Possible Causes</b> - A repeating under or overvoltage condition. If the failure occurs during a high-speed spin, the door remains locked for 2 minutes. <b>Procedure</b> 1. Clear error code. 2. Unplug the washer or disconnect power. 3. Using Ohm meter, check wire harness connections for continuity between drive motor and the MCU. 4. Check the motor and do a continuity test (page 16). 5. The MCU is good if the motor operates in diagnostic mode. If the motor fails to turn on, replace the MCU.
d 2	F 03 F 04	<b>ACCELEROMETER FAILURE</b> The accelerometer component failed. The X, Y, and Z limits are outside of the normal range. <b>Possible Causes</b> - CCU dislodged from mounting. - Accelerometer failure on CCU.

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ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 7	F 20	<p><b>NO WATER DETECTED ENTERING WASHER</b></p> <p>The first level of pressure sensor is not tripped after 6 minutes and/or the second level of pressure sensor is never reached. <b>NOTE:</b> The message "lo H2O" will appear before the F20 error is displayed, and the washer may try three times before the failure code is activated.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- No water to washer; faucet(s) turned off.</li> <li>- Defective hot and/or cold valve(s).</li> <li>- Plugged or kinked inlet hoses or valves.</li> <li>- Pressure sensor or pressure sensor hose damaged, kinked, or disconnected.</li> <li>- Electrical connection from CCU (PS8) to pressure sensor damaged.</li> <li>- Blocked inlet from dispenser to tub.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code by opening and closing the front door, or by power cycling the washer. The following procedures will then help diagnose the reason for the failure.</li> <li>2. Unplug washer or disconnect power.</li> <li>3. Check incoming water pressure at faucet.</li> <li>4. Check inlet hoses for possible leaks.</li> <li>5. Make sure pressure sensor hose is in good condition and properly connected to tub and pressure sensor.</li> <li>6. Check that there is not a drain siphon problem.</li> <li>7. Perform continuity test on wire harness connections from CCU to inlet valves (VCH7 and VSF2), pressure switch (PS8) and drain pump (DP2).</li> <li>8. Check inlet valves by running a diagnostic test.</li> <li>9. Check that the pump is not running while the washer is filling.</li> <li>10. Verify pressure sensor operation by accessing Help Mode while running a paid cycle.</li> </ol>
d 8	F 21	<p><b>LONG DRAIN</b></p> <p>The drain time exceeds 8 minutes without reaching empty level in pressure sensor.</p> <p><b>NOTE:</b></p> <p>■ Suds can cause delays in draining, indicated by an alternating display of "SudS" and a countdown timer. Washer drains for 4 minutes, pauses 5 minutes, then tries again for 4 additional minutes of draining. F21 will display if washer does not drain. (Normal drain takes less than 2 minutes).</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Damaged or blocked pump.</li> <li>- Drain hose blocked or exceeds recommended height.</li> <li>- Poor connection between CCU (DP2) and drain pump.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug washer or disconnect power.</li> <li>3. Make sure the drain hose is not sealed into the standpipe.</li> <li>4. Ensure the drain height is not more than 2.4 m (8 ft) above the base of the washer.</li> <li>5. Check the drain hose and make sure it is not plugged or kinked.</li> <li>6. Check the drain pump for foreign objects.</li> <li>7. Check the electrical connection between the pump and the CCU (DP2).</li> <li>8. Check the pump using a diagnostic mode.</li> <li>9. Check pressure sensor operation and the condition of the pressure sensor hose.</li> </ol> <p>If all the above are OK and pump is powered but does not pump water or water flow is poor, replace the pump.</p>

ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 17	F 22	<p><b>DOOR LOCK ERROR</b></p> <p>Washer will make several attempts to lock the door, then customer will be asked to open door, clear obstructions, shut door, and reselect cycle. Washer will attempt to lock the door again. This procedure can repeat two times before customer loses vend and washer resets. If entire procedure happens twice without a successful door lock, F22 will appear.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Misaligned or broken door latch.</li> <li>- Electrical connections from CCU (DLS2, DL3) to door lock are damaged.</li> <li>- Misaligned, broken, or overtightened door hook.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Ensure that the latch is secured to the front panel.</li> <li>4. Check for misaligned, broken, cracked, or loose door hook.</li> <li>5. Check the electrical connections between CCU (DLS2, DL3) and latch.</li> </ol> <p>If the latch fails to lock after checking all of the above, replace the latch.</p>
d 24	F 24	<p><b>TEMPERATURE SENSOR ERROR</b></p> <p>Water temperature sensor value is out of range (-5°C to 103°C [23°F to 217°F])</p> <p><b>NOTE:</b> To find correct Ohm reading, refer to the Water Temperature Sensor section, page 16.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Water temperature sensor damaged.</li> <li>- Electrical connections from CCU (SET2) to temperature sensor damaged.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Perform Ohm test on Water Temperature Sensor and harness connection. This reading can be taken from the cable attached to CCU terminal SET2.</li> </ol> <p>If the water temperature sensor is out of range, replace it.</p>

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ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 12	F 25	<b>TACHOMETER ERROR</b>
		<p>If the MCU is unable to properly detect motor speed, the washer shuts down. If a failure occurs during high-speed spin, the door remains locked for 2 minutes.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>– Damaged or poor contact in electrical connection from MCU to drive motor.</li> </ul> <p><b>Procedure for damaged MCU connection</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Check for broken belt.</li> <li>4. Verify that the shipping system, including shipping bolts and spacers, is removed, and that the power cord is not tangled in any components inside rear of washer.</li> <li>5. Verify electrical connection between MCU and drive motor connector.</li> <li>6. Reassemble any disassembled parts.</li> <li>7. Reconnect to power.</li> <li>8. Check operation of drive motor in diagnostic mode; if drum tumbles, the MCU and motor are OK.</li> </ol>
d 4	F 26	<b>DOOR SWITCH ERROR</b>
		<p>The door switch circuit is open for 5 seconds while the door is locked.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>– Electrical connections from washer CCU (DCS3) to door switch in latch are damaged.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Verify the electrical connection between CCU and door switch by using the Help Mode (see appropriate symbols, page 15) or continuity test at CCU (DCS3) connection.</li> </ol> <p>If the door switch circuit fails to open or close, replace the door latch.</p>

ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 21	F 27	<b>OVERFLOW CONDITIONS</b>
		<p>The overflow level is reached for more than 60 seconds. If the washer displays F27, the washer is probably full of water, and the water supply has been shut off. If not, water will be pouring out of the washer from the dispenser and door.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>– Inlet valve(s) unable to close.</li> <li>– Pressure sensor hose is kinked.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Remove electrical connections for cold and hot inlet valves. If water continues to flow into washer, inlet valve needs to be replaced.</li> <li>4. Check if pressure sensor hose is kinked.</li> <li>5. Verify functionality of inlet valves by running a diagnostic cycle.</li> </ol>
d 20	F 28	<b>COMMUNICATION FAILURE BETWEEN WASHER CCU AND MCU</b>
		<p>The communication between the Central Control Unit (CCU) and the Motor Control Unit (MCU) has failed.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>– Communication cable from CCU (MI3) to MCU is damaged.</li> </ul> <p><b>Procedure for communication cable</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug washer or disconnect power.</li> <li>3. Perform continuity test on wire harness connections from CCU (MI3) to MCU (be careful not to spread the Rast connector ends).</li> <li>4. Verify the drive motor operation in diagnostic mode. If drum fails to tumble, replace the MCU.</li> </ol>

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ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 19	F 29	<b>DOOR UNLOCK ERROR</b>
		<p>The door is unable to unlock after six tries.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Misaligned or broken door latch.</li> <li>- Electrical connections from washer CCU (DLS2, DL3) to door lock are damaged.</li> <li>- Misaligned, broken, or overtightened door hook.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Manually unlock the door (page 16).</li> <li>4. Ensure that the latch is secured to the front panel.</li> <li>5. Check for misaligned, broken, cracked, or loose door hook.</li> <li>6. Check the electrical connections between CCU (DLS2, DL3) and latch (see page 16).</li> </ol> <p>If the latch fails to unlock after checking all of the above, replace the latch.</p>
d 10	F 31	<b>OVERHEATING OF MOTOR</b>
		<p>The heat sink exceeds 100°C (212°F). If this condition is met, the washer CCU resets the MCU, then waits for the motor to cool down before restarting the motor. This procedure can repeat up to four times before F31 is displayed.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Improper installation of washer.</li> <li>- Poor electrical connection from CCU (MS2) to MCU.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Verify the washer is not located near a source of heat and has proper ventilation.</li> <li>4. Check the electrical connections between CCU (MS2) and MCU.</li> <li>5. Verify the drive motor operation in diagnostic mode.</li> </ol> <p>If, after the above tests, the motor overheats, replace the MCU.</p>

ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 14	F 33	<b>PUMP DISCONNECTED</b>
		<p>The electrical connection between the pump and the washer CCU is lost.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Poor connection between CCU (DP2) and drain pump.</li> <li>- Pump thermal overload caused by the pump running for an extended period of time.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Check electrical connection between pump and CCU (DP2) (see page 16).</li> <li>4. Check the pump using a diagnostic mode.</li> </ol> <p>If all of the above are OK and the pump still does not run, replace the CCU.</p>
d 15	F 34	<b>LOAD DETECTED IN WASHER DURING WASHER CLEANOUT CYCLE</b>
		<p>The washer detects a load inside the washer tub at the beginning of the Washer Cleanout Cycle.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Load inside the washer during the Washer Cleanout Cycle.</li> <li>- Friction between the drum and bellows material.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Remove clothes from washer drum.</li> <li>4. Verify that misalignment of the spin basket and the T bearing on the boot is not causing friction (which is interpreted by the motor as a load in the washer).</li> </ol> <p>If bellows adjustment does not correct the friction issue, the spin basket will need to be replaced.</p>
d 23	F 70	<b>COMMUNICATION FAILURE BETWEEN WASHER CCU AND UIC</b>
		<p>Communication between washer Central Control Unit (CCU) and User Interface Control (UIC) has failed.</p> <p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>- Electrical connection between CCU and UIC is damaged.</li> </ul> <p><b>Procedure</b></p> <ol style="list-style-type: none"> <li>1. Clear error code.</li> <li>2. Unplug the washer or disconnect power.</li> <li>3. Verify that the communication cable is connected in the lower connector of the UIC.</li> <li>4. Verify continuity in the cable between the CCU and the UIC.</li> </ol> <p>If, after these procedures, the continuity test fails, replace the communication cable. If F70 is still present, replace the UI control.</p>

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ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 3	F 73 F 74	<b>UIC FAILURE</b> Communication error within the User Interface Control. <b>Possible Causes</b> – A power surge/drop. <b>Procedure</b> 1. Clear error code. 2. Unplug the washer or disconnect power. 3. Wait 2 minutes before reconnecting power. 4. Verify UIC by attempting to start a cycle or run diagnostic mode. If these procedures do not correct the failure, replace the UI control.
		<b>COIN 1 ERROR</b> The Coin 1 sensor is detected as blocked for 8 seconds. <b>Possible Causes</b> – Coin vault full of money. – Blocked or dirty sensor. <b>Procedure</b> 1. Clear error code. 2. Unplug the washer or disconnect power. 3. Clean the coin sensor. 4. Check for broken coin sensor switch on coin drop. 5. Check the wire harness connections between User Interface (AA4) and the coin sensor switch to ensure wires do not block the coin switch beam. 6. Shorting the connections 2 and 3 at AA4 on UIC will simulate a good coin sensor. If the above procedures do not solve the problem, replace the UIC.
d 9	d 9	<b>LOW VOLTAGE DETECTION ERROR</b> Incoming voltage detected below 90vac for 8 seconds. <b>Possible Causes</b> – Voltage drop due to multiple washers on same circuit. – Worn outlet. <b>Procedure</b> 1. Clear error code. 2. Unplug the washer or disconnect power. 3. Check the wire harness connection between the RFI filter and the transformer. If the above procedures do not solve the problem, replace the UIC.

ACCU TRAC® INDICATION	WASHER DISPLAY	EXPLANATION AND RECOMMENDED PROCEDURE
d 13	d 13	<b>COIN 2 ERROR</b> The Coin 2 sensor is detected as blocked for 8 seconds. <b>Possible Causes</b> – Coin vault full of money. – Blocked or dirty sensor. <b>Procedure</b> 1. Clear error code. 2. Unplug the washer or disconnect power. 3. Clean the coin sensor. 4. Check for blocked coin sensor switch on coin drop. d13 only occurs with coin 2 installed. If the above procedures do not solve the problem, replace the UIC.
		<b>GENERATION 2 DEBIT CARD READER ERROR</b> No communication from installed debit card reader in Generation 2 debit mode for 5 minutes. <b>Possible Causes</b> – Card reader Gen 2 not installed, when washer is in Ed mode. – Poor contact or communication cable not connected between UIC (AA3) and the card reader. – Card reader failure. <b>Procedure</b> 1. Clear error code. 2. Unplug the washer or disconnect power. 3. Check the wire harness connections between User Interface (AA3) and the debit card reader Gen 2. Do continuity test on cable. 4. Make sure you are using a Gen 2 card reader. 5. Reconnect power and wait for 5 minutes. If the above procedures do not solve the problem, replace the UIC.
d 16	d 16	

Critical errors are indicated as part of the 'out of order' message.  
**NOTE:** Errors d5, d13, and d16 will not stop the ongoing cycle, although they will not allow another cycle to begin until the error is addressed.

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### SERVICE DIAGNOSTIC TEST MODES

These tests allow factory or service personnel to test and verify all inputs to the main control board. You may want to do a quick and overall checkup of the washer/dryer with these tests before going to specific troubleshooting tests.

### ACTIVATING THE SERVICE DIAGNOSTIC TEST MODES

1. To enter Service Diagnostic Test Mode, follow procedures under "Control Set-Up Procedures" on page 2 and make sure the washer/dryer is in service mode (display will show either 6.xx code, cycle count, money count, or active failure code). Do not advance past this screen.
2. Press and hold the DELICATES washer key pad for 1 second. The display will show "P-01" as shown in the chart below.
3. Press the EXTRA RINSE washer key pad to step through each selection 1-11. Press **START** to select each step to be run.

MODE	DIAGNOSTIC	UI Display
1	CANCEL CYCLE, RESET ERRORS, AND CLEAR ESCROW	P-01
2	CYCLE CREDIT	P-02
3	QUICK OVERVIEW TEST	P-03
4	MANUAL OVERVIEW TEST	P-04
5	BUTTON TEST	P-05
6	DRAIN AND SPIN	P-06
7	UI DIAGNOSTICS	P-07
8	CLEAN WASHER CYCLE	P-08
9	FACTORY DIAGNOSTICS	P-09
10	DRYER DIAGNOSTIC CYCLE	P-10
11	FACTORY TEST	P-11

#### P-01 CANCEL CYCLE, RESET ERRORS, AND CLEAR ESCROW

To access canceling of cycle, resetting of errors, and clearing of escrow, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Pressing **START** after "P-01" is displayed clears an active error code.

Once **START** is pressed, the UI should turn fully on and then flash on and off for about 2 seconds, then display "P-01".

#### P-02 CYCLE CREDIT

To access cycle credit, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes, and then perform step 3 until "P-02" is displayed.

Pressing **START** after "P-02" is displayed provides a cycle credit. When service diagnostic mode is exited, the highest priced cycle will display with all of the cycle options set to the maximum, along with "PRESS START" (unless end-of-cycle door opening is required).

#### P-03 QUICK OVERVIEW TEST

To access Quick Overview Test, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes, and then perform step 3 until "P-03" is displayed.

Pressing **START** after "P-03" is displayed initiates the Quick Overview Test. See page 12 for the complete Quick Overview Test procedure.

Pressing the DELICATES washer key pad will exit the Quick Overview Test and return to the service diagnostic modes. Power cycling the UI will also exit the Quick Overview Test, but will also exit the service diagnostic modes.

#### P-04 MANUAL OVERVIEW TEST

To access Manual Overview Test, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes, and then perform step 3 until "P-04" is displayed.

Pressing **START** after "P-04" is displayed initiates the Manual Overview Test. See page 12 for the complete Manual Overview Test procedure.

Pressing the DELICATES washer key pad will exit the Manual Overview Test and return to the service diagnostic modes. Power cycling the UI will also exit the Manual Overview Test, but will also exit the service diagnostic modes.

#### P-05 BUTTON TEST

To access button test, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes, and then perform step 3 until "P-05" is displayed.

Pressing **START** after "P-05" is displayed initiates the button test. "TEST" will be displayed.

Press the POWERWASH washer key pad – 1 is displayed  
 Press the NORMAL washer key pad – 2 is displayed  
 Press the DELICATES washer key pad – 3 is displayed  
 Press the TEMPERATURE washer key pad – 4 is displayed  
 Press the EXTRA RINSE washer key pad – 5 is displayed  
 Press the START washer key pad – 6 is displayed

Press and hold the DELICATES washer key pad and the test will be exited with the UI displaying "P-05".

#### P-06 DRAIN AND SPIN

Pressing **START** after "P-06" is displayed starts the Drain and Spin cycle. The display will show the cycle status.

When the Drain and Spin cycle is complete, the UI will display "P-06". To exit the Drain and Spin cycle, press the DELICATES washer key pad to return to service mode. Press and hold the DELICATES washer key pad for 1 second to get to P-01, then press **START** to cancel the cycle.

#### P-07 UI DIAGNOSTICS

To access UI diagnostics, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes, and then perform step 3 until "P-07" is displayed.

Pressing **START** after "P-07" is displayed starts the UI diagnostics. The entire display illuminates, then by pressing each key pad, the corresponding words on the display will turn off, indicating that the switch is functioning. See the chart on page 13 for the complete UI diagnostics procedure. The washer/dryer will exit UI diagnostics mode after 5 minutes of inactivity or unplugging the power cord.

Press and hold the DELICATES washer key pad and the test will be exited with the UI displaying "P-07".

#### P-08 CLEAN WASHER CYCLE

Puts the washer into the clean washer cycle. To access the clean washer cycle, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes, and then perform step 3 until "P-08" is displayed.

Pressing **START** after "P-08" is displayed starts the clean washer cycle. The display will show the cycle status.

When clean washer cycle is complete, the UI will display "P-08". To exit the Clean Washer cycle, press the DELICATES washer key pad to return to service mode. Press and hold the DELICATES washer key pad for 1 second to get to P-01, then press **START** to cancel the cycle.

**NOTE:** This cycle should not be used with anything still loaded in the wash basket.

#### P-09 FACTORY DIAGNOSTICS

This diagnostics is used by the factory to gather data for setting the proper algorithms. **NOTE:** There is no reason for field service to use P-09 in their diagnostics unless directed to do so by the manufacturer.

#### P-10 DRYER DIAGNOSTIC CYCLE

Puts the dryer into an 8 minute diagnostic cycle (7 minutes of heat and 1 minute of cool down). To access dryer diagnostic cycle, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes, and then perform step 3 until "P-10" is displayed.

Pressing **START** after "P-10" is displayed starts the dryer diagnostic cycle. The display will show the cycle status. Pressing the HEAVY DUTY dryer key pad will increment the diagnostic cycle minutes up to 75, then roll over to 2 minutes. Pressing the DELICATES dryer key pad will cancel this cycle and exit the diagnostic mode.

#### P-11 FACTORY TEST

This diagnostics is used by the factory to gather data for setting the proper algorithms. **NOTE:** There is no reason for field service to use P-11 in their diagnostics unless directed to do so by the manufacturer.

### EXITING THE SERVICE DIAGNOSTIC TEST MODES

Press and hold the DELICATES washer key pad for 1 second. Power cycling will also exit the diagnostic modes.

## FOR SERVICE TECHNICIAN ONLY - DO NOT REMOVE OR DESTROY

### WASHER QUICK OVERVIEW TEST (see page 11 to access and initiate this procedure)

- This cycle consists of 9 steps. In each step, the washer will perform a Control Action as described in the table below. Once the action is completed, the washer will move to the next step.
- Each step can be differentiated from the others by looking at the display indication. Steps can be advanced if the test requires it.
- To move to the next step before a control action is complete, press any key pad **except** the DELICATES washer key pad.
- To exit the Quick Overview Test at any time, press the DELICATES washer key pad.

Step	DISPLAY INDICATION	Control Action	Actuators to be Checked
1	DELICATES	Door locks, drum turns 1/2 revolution, then door unlocks and relocks.	<ul style="list-style-type: none"> <li>■ Door lock system</li> <li>■ Child safety routine</li> <li>■ Motor control (MCU)*</li> </ul>
2	PREWASH <b>Note:</b> Prewash flashes on the display and is very easy to miss.	Accelerometer tests are performed.	<ul style="list-style-type: none"> <li>■ Accelerometer</li> </ul>
3	CCU EEPROM Version (EC xx) NORMAL	Fill by both cold water inlet valves (4 liters) into BLEACH compartment.	<ul style="list-style-type: none"> <li>■ Cold water inlet valves #2 and #3</li> <li>■ Pressure sensor: Suds Level</li> </ul>
4	CCU Software Version (SC xx) POWER WASH	Fill by hot water inlet valve to Wash Level into MAIN WASH compartment.	<ul style="list-style-type: none"> <li>■ Hot water inlet valve #1</li> <li>■ Pressure sensor: Wash Level</li> </ul>
5	MCU Software Version (SN xx) DELICATES	Drum executes tumbling at wash speed (30 sec.).	<ul style="list-style-type: none"> <li>■ Motor</li> <li>■ Motor control (MCU)*</li> </ul>
6	MCU Hardware Version (HN xx) NORMAL		
7	UIC EEPROM Version (EU xx) POWER WASH	Drain pump is ON.	<ul style="list-style-type: none"> <li>■ Drain pump</li> <li>■ Pressure sensor**</li> </ul>
8	UIC Software Version (SU xx) DELICATES	Drum rotates counter-clockwise and ramps up. Performs unbalance procedure before and after spinning. If not interrupted, the drum will slow and stop; after reaching 0 rpm, the door unlocks and Step 9 will be skipped.	<ul style="list-style-type: none"> <li>■ Motor</li> <li>■ Motor control (MCU)*</li> <li>■ Drain pump on</li> </ul>
9	NORMAL	This Step is only apparent if Step 8 is MANUALLY ADVANCED prior to the drum reaching 0 rpm (washer pumps out if needed). Door unlocks (washer returns to flashing mode).	<ul style="list-style-type: none"> <li>■ Door unlock</li> </ul>

The drain pump may be running in any of the last three steps, depending on the water level in the washer and reading of the pressure sensor.

\*In the event of an MCU-CCU communications error, the UI display will go blank for up to 5 minutes and then display an F28 error message.

\*\*The washer will drain until pressure sensor reaches lowest level for 10 seconds, then moves to next step.

### WASHER MANUAL OVERVIEW TEST (see page 11 to access and initiate this procedure)

Before replacing any system components, perform this Manual Overview Test.

- This cycle consists of 8 steps. In each step, the washer will perform a Control Action as described in the table below. Once the action is completed, the washer will move to the next step. Check Exit Condition column.
- Each step can be differentiated from the others by looking at the display indication.
- To move to the next step before a control action is complete, press any key pad **except** the DELICATES washer key pad.
- To exit the Manual Overview Test at any time, press the DELICATES washer key pad.

Step	DISPLAY	Exit Condition	Control Action	To be Checked
1	DELICATES	On completion only	Door locks, drum turns 1/2 revolution, then door unlocks and relocks.	<ul style="list-style-type: none"> <li>■ Door lock system</li> <li>■ Child safety routine</li> </ul>
2	PREWASH	On completion only	Accelerometer tests are performed.	<ul style="list-style-type: none"> <li>■ Accelerometer</li> </ul>
3	NORMAL	On key press or if overflow level is detected	Filling with both cold inlet valves.	<ul style="list-style-type: none"> <li>■ Both Cold Inlet Valves #2 and #3</li> <li>■ Overflow level</li> </ul>
4	POWER WASH	On key press or completion	Drum executes reversing movement at wash speed (10 min.).	<ul style="list-style-type: none"> <li>■ Motor</li> <li>■ Motor Control (MCU)*</li> </ul>
5	DELICATES	On key press or completion	Drain pump is on (4 min.).	<ul style="list-style-type: none"> <li>■ Drain Pump</li> </ul>
6	NORMAL	On completion only	Drain pump is on (reach Suds Level plus 10 sec.).	<ul style="list-style-type: none"> <li>■ Drain Pump</li> </ul>
7	POWER WASH	On key press or completion	Drum rotates counter-clockwise and ramps up to maximum speed.	<ul style="list-style-type: none"> <li>■ Motor</li> <li>■ Motor Control (MCU)*</li> </ul>
8	DELICATES	On key press only after rpm = 0 and door is unlocked	Stop motor to 0 rpm. Door unlocks.	<ul style="list-style-type: none"> <li>■ Motor</li> <li>■ Motor Control (MCU)*</li> <li>■ Door lock system</li> </ul>

The drain pump may be running in any of the last three steps, depending on the water level in the washer and reading of the pressure sensor.

\*In the event of an MCU-CCU communications error, the UI display will go blank for up to 5 minutes and then display an F28 error message.

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### DIAGNOSTIC TEST QUICK GUIDE

The following table summarizes keypad function among the diagnostic sub-modes.

**Diagnostic Mode Keypad Function Table**

Button	Function in Diag. Code Display Sub-Mode	Function in Display Flashing Sub-Mode	Function in Diag. Cycle Running Sub-Mode (Washer Running)	Function in Diag. Cycle Running Sub-Mode (Dryer Running)	Function in Diag. Cycle Running Sub-Mode (Dryer & Washer Running)
TEMPERATURE WASHER KEY PAD	Ignore	Toggle Customer Wash Cycle Credit	Go to help mode	Toggle Customer Wash Cycle Credit	Go to help mode
EXTRA RINSE WASHER KEY PAD	Acknowledge Diag. Code (Keep Code) Go to Set-up Mode	Start Washer Quick Overview Test Cycle	Ignore	Start Washer Quick Overview Test Cycle	Ignore
START/STOP/PAUSE WASHER KEY PAD	Clear Diag. Code Exit Diag. Code Display Sub-Mode Go to Display Flashing Sub-Mode	Exit Diag. Display Flashing Sub-Mode Go to Set-up Mode	Cancel Diag. Cycle Go to Set-up Mode	Cancel Diag. Cycle Go to Set-up Mode	Cancel Diag. Cycles Go to Set-up Mode
POWERWASH WASHER KEY PAD	Ignore	Start Washer Manual Overview Test Cycle	Ignore	Start Washer Manual Overview Test Cycle	Ignore
NORMAL WASHER KEY PAD	Ignore	Start Washer Quick Spin Cycle	Ignore	Start Washer Quick Spin Cycle	Ignore
DELICATES WASHER KEY PAD	Ignore	Start Washer Cleanout Cycle	Ignore	Start Washer Cleanout Cycle.	Ignore
HEAVY DUTY DRYER KEY PAD	Ignore	Ignore	Ignore	Increment dryer test time by one minute Rolls from 75 back to 2 minutes	Increment dryer test time by one minute Rolls from 75 back to 2 minutes
NORMAL DRYER KEY PAD	Acknowledge Diag. Code (Keep Code) Go to Set-up Mode	Start Dryer Field Diag. Cycle	Start Dryer Field Diag. Cycle	Ignore	Ignore
DELICATES DRYER KEY PAD	Ignore	Ignore	Ignore	Ignore	Ignore

### HELP MODE

This mode is used to verify the behavior of the washer, along with the operation of a customer cycle. It allows verification of the current status of many switches, actuators, valves, and relays. It also reports the current values of the drum speed, unbalance value, and power used by the MCU.

#### a) Accessing the Help Mode for PD Models:

- Open the service door.
- Press the EXTRA RINSE washer key pad until the display reads 2.XX.
- Press the TEMPERATURE washer key pad.
- Press the EXTRA RINSE washer key pad to move to the next option (see Help Mode Submenu).
- If the washer displays an error code, consult the "Washer Diagnostic Codes" section (page 6).

#### b) Accessing the Help Mode in dAS Mode:

- Open the service door or insert a manual diagnostic card.
- The message dAS will appear in the display.
- Press the TEMPERATURE washer key pad.
- Press the EXTRA RINSE washer key pad to move to the next option (see Help Mode Submenu).
- If the washer displays an error code, consult the "Washer Diagnostic Codes" section (page 6).

Exit Help Mode Submenu by pressing the TEMPERATURE washer key pad.

### Help Codes

Help Code	Description
00	No Help Code
0F	Oversuds detected during cycle, and washer was not able to resolve an unbalance condition detected during the final spin related to the oversuds detection (via pressure sensor) earlier in the cycle
32	More than six unbalance retries during the final spin – spin (and cycle) has been aborted
33	Oversuds detected during wash cycle, and washer was not able to resolve the condition – cycle has been aborted. Washer unable to sense that water has been fully drained within required time, sensing as an oversuds condition
71	Generation 2 debit card cycle polling message out of sequence
74	Generation 2 debit card remaining balance message out of sequence
75	Generation 2 debit card new card balance message out of sequence
88	Invalid messaging state found in data acquisition communications comm_suprv ( ) routine
99	Mismatch of cycle settings between CCU and UI. Wash cycle may not run as defined by card reader setup

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### Help Mode Submenu

- This sub-menu consists of many steps.
- To change to the next step, press the EXTRA RINSE washer key pad.
- To exit Help Mode and return to set-up mode or dAS mode, press the TEMPERATURE washer key pad.

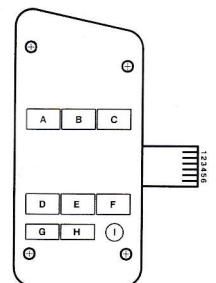
Submode	Display Portion	Description	Note	
1h.XX	lower	The XX value has a meaning according to the Help Code Table. This value is stored in EEPROM, and is added to as a new error is reported. The oldest drops out of history.*	Help code 1	
2h.XX	lower		Help code 2	
3h.XX	lower		Help code 3	
1.X##	upper	The X is f or d and ## is the code num as defined in the Ranked Stacked Washer/Dryer Diagnostic Codes Table.**	Dryer CCU Error History code 1	
1.X##	lower		Washer CCU Error History code 1	
2.X##	upper		Dryer CCU Error History code 2	
2.X##	lower		Washer CCU Error History code 2	
3.X##	upper		Dryer CCU Error History code 3	
3.X##	lower		Washer CCU Error History code 3	
4.X##	upper		Dryer CCU Error History code 4	
4.X##	lower		Washer CCU Error History code 4	
5.X##	lower		Washer UIC Error History code 1	
6.X##	lower		Washer UIC Error History code 2	
7.X##	lower		Washer UIC Error History code 3	
8.X##	lower		Washer UIC Error History code 4	
hE.ES	lower		Energy Saving Mode. Allows owner to select between a low water level and temperature setting (hE.LE), medium water level and temperature setting (hE.ES), or high water level and temperature setting (hE.--).	<ul style="list-style-type: none"> <li>• Pressing the DELICATES washer key pad will change the setting from hE.ES to hE.--.</li> <li>• Pressing the DELICATES washer key again will change the setting from hE.-- to hE.LE.</li> <li>• Pressing the DELICATES washer key again will change the setting from hE.LE to hE.ES.</li> </ul>
Sr.ON	lower		Suds routine selection. Default setting for the washer is to have the suds routine on; standard time is added to the cycle and communicates to the end user via the UI display if suds is detected during the first two drain/spins and the final spin. If turned off, "Sr.--" gain the ability to reduce suds routine time with the next programming option.	<ul style="list-style-type: none"> <li>• Pressing the DELICATES washer key pad will toggle the "Sr" setting from "ON" to "--".</li> </ul>
SL.05	lower		Suds routine time selection; can only change the setting if "Sr.--" is selected. Default setting for the washer is "05" minutes of suds/kill foam routine during the first two drain/spins. Allowable programming range is 0–5 minutes.	<ul style="list-style-type: none"> <li>• Pressing the POWERWASH washer key pad will toggle the "SL" setting. For proper suds handling, it is recommended to keep the setting at "05" minutes.</li> </ul>
rE.10	lower		Maximum final spin rebalance attempts. Default setting for the washer is "10" rebalance attempts before the cycle is cancelled. For out-of-balance load, allowable programming range is 4–10 attempts.	<ul style="list-style-type: none"> <li>• Pressing the POWERWASH washer key pad will toggle the "rE" setting.</li> </ul>
SC.XX	upper	Where XX is the number of the dryer CCU software version		
SC.XX	lower	Where XX is the number of the washer CCU software version		
EC.XX	lower	Where XX is the number of the washer EEPROM CCU version		
SU.XX	lower	Where XX is the software version of the UIC		
EU.XX	lower	Where XX is the EEPROM version of the UIC		
SPIN XXX	lower	Where XXX is the speed in rpm (SPIN element of display is used for this)		
P XXX	lower	Where XXX is the relative amount of power being requested of the motor		
U XXX	lower	Where XXX is the relative amount of unbalance in the system. <b>NOTE:</b> 255 indicates that the unbalance has not been calculated; 254 indicates that the unbalance could not be calculated. Any other value is the current unbalance of the MCU.		

\* To erase the three help codes, press the START washer key pad.

\*\* The Errors displayed in this section are the history errors that have occurred in the washer/dryer (not necessarily an error that is in progress).

### Key Pad Continuity Test

Key Pad	Check Between Contacts
A	3 and 6
B	3 and 5
C	3 and 4
D	2 and 6
E	2 and 5
F	2 and 4
G	1 and 6
H	1 and 5
I	1 and 4



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### HELP MODE SYMBOLS AND ELEMENTS

Along with the steps of the help mode, symbols and elements are mapped, at all times, to reflect the state of various inputs and outputs.

Dryer (Upper) Display Symbol	Description
▲	Dryer motor sensed on
○	Dryer door sensed closed
OR	Dryer heater relay on
&	Dryer motor relay on
★	Low voltage sensed

Washer (Lower) Display Symbol	Description
WASH	Water sensed above wash level
RE	Washer redistributing due to out-of-balance condition
○	Washer door sensed closed
DOOR LOCKED	Washer door sensed locked
COLD	Cold water output on
HOT	Hot water output on
OR	Door unlock output on
AVAILABLE	Washer drain pump output on

### Help Mode Keypad Function Table

Key Pad Name on Interface	Generic Key Pad Function	Result While Help Code Not Displayed	Result While Help Code Displayed
TEMPERATURE WASHER KEY PAD	Slew	Exits help mode and returns to set-up mode – either dAS display or Manual Set-up Mode (2.)	Exits help mode and returns to set-up mode – either dAS display or Manual Set-up Mode (2.)
START/STOP/PAUSE WASHER KEY PAD	Mode Select	Inactive – no result	Clears all three help codes
EXTRA RINSE WASHER KEY PAD	Mode Advance	Advances to next help mode screen	Advances through each help code or from last to the extended fill option

### Dryer Drive Motor Resistance

Winding	Resistance (Ω)	Contact Points of Measurement
MAIN	2.4–3.6 Ω	Lt. blue wire in back at pin 4 and bare copper wire on pin 5 of black drive motor switch.
START	2.4–3.8 Ω	Lt. blue wire in back at pin 4 and bare copper wire on pin 3 of black drive motor switch.

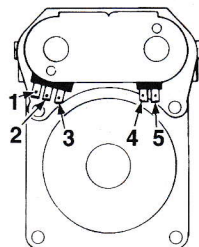
### Dryer Exhaust Temperatures

Fabric Setting	Heat Turns Off*	Heat Turns On
Heavy Duty	68° ± 3°C (155° ± 5°F)	6–8°C (10–15°F) Below the heat turn off temperature
Normal	68° ± 3°C (155° ± 5°F)	
Delicates	60° ± 3°C (140° ± 5°F)	

\*The measured overshoot using the glass bulb thermometer in the exhaust outlet can be 30°F (17°C) higher.

### Dryer Gas Valve Resistance

Terminals	Resistance
1 to 2	1365 Ω ± 25
1 to 3	560 Ω ± 25
4 to 5	1220 Ω ± 50



**IMPORTANT:** Make sure all harness wires are looped back through the strain relief after checking or replacing coils.

### Dryer Temperature and Thermistor Values

Fabric Setting	Temperature	Thermistor resistance value at heater shutoff (digital or analog meter) kΩ	
Heavy Duty	68° ± 3°C (155° ± 5°F)	2.1	1.7
Normal	68° ± 3°C (155° ± 5°F)	2.1	1.7
Delicates	60° ± 3°C (140° ± 5°F)	2.8	2.3

### Dryer Thermistor Resistance

Temp. °C (°F)	Thermistor Resistance Res. kΩ	Temp. °C (°F)	Res. kΩ
10°C (50°F)	19.9	27°C (80°F)	9.2
16°C (60°F)	15.3	32°C (90°F)	7.4
21°C (70°F)	11.9	38°C (100°F)	5.7

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Be sure to perform the Diagnostic Tests before replacing the system components.

### Washer Pump Motor Continuity Test

Pins	Results
1 to 2	Normal = approx. 12.3 $\Omega$ Abnormal = Infinity

### Washer Motor Continuity Test

1. Unplug washer or disconnect power.
2. Disconnect the wire harness from the motor and measure the resistance of the motor. Use the following table:

Pins	Results
1 to 2	Normal = approx. 6.45 $\Omega$ Abnormal = Infinity
2 to 3	
1 to 3	

### Transformer Connector

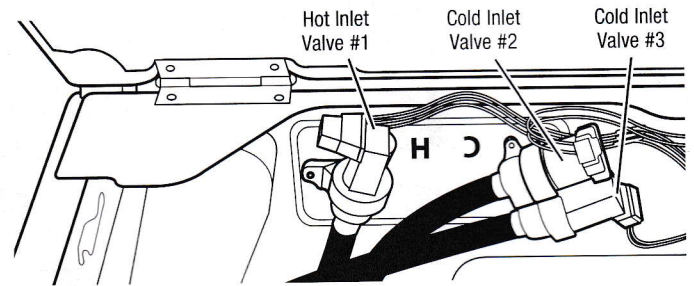
Primary	30–35 ohms
Blue to blue	1 ohm
White to white	2 ohms
Yellow to blue	0.5 ohms
Red to red	11 ohms

### Water Temperature Sensor

1. Unplug washer or disconnect power.
2. Disconnect the wire harness from the water temperature sensor and measure the resistance of the sensor. Use the following table. An abnormal condition is an open circuit. This reading can be taken from the cable attached to the CCU terminal SET2.

Temperature	Results
0°C (32°F)	35.9 k $\Omega$
30°C (86°F)	9.7 k $\Omega$
40°C (104°F)	6.6 k $\Omega$
50°C (122°F)	4.6 k $\Omega$
60°C (140°F)	3.2 k $\Omega$
71°C (158°F)	2.3 k $\Omega$
96°C (203°F)	1 k $\Omega$

### Water Valve Locations



### Washer CCU Wire Harness Connector Table

Unplug washer/dryer or disconnect power before taking ohm measurements.

Terminal	Component	( $\Omega$ ) Ohm Value	Abnormal Value	Pin Connectors*	Wire Coding
RP2	Wax Motor	1.2 k $\Omega$ at 25°C	Infinity**	1, 2	
DLS2	Door Locked Switch Locked/Unlocked	Continuity: door locked. No Continuity: door unlocked.		1, 2	
DL3	Door Lock Coil Locked or Unlocked	165 $\Omega$	Infinity**	1, 2 door lock 2, 3 door unlock	
SET2	Temperature Sensor	Varies with temperature changes. See above.	Infinity**	1, 2	
DP2	Drain Pump	13 $\Omega$	Infinity**	1, 2	
DCS3	Door Switch	Continuity at door close. No continuity at door open.		1, 2	
VSF2	Hot Inlet Valve #1	812 $\Omega$	Infinity**	1, 3 (hot valve #1)	
VCH7	Cold Inlet Valve #3 Cold Inlet Valve #2	812 $\Omega$ , either coil	Infinity** (or more than 10% lower or higher)	1, 3 (cold valve #3) 5, 7 (cold valve #2)	
IF2	RFI/UIC Transformer	30 $\Omega$	Infinity** (or more than 10% lower or higher)	1, 2	
PS8	Pressure Switch	Infinity**		4, 7, and 8	

\*The number 1 pin has been marked on the bottom part of the connector.

\*\*An infinity measurement occurs when the multimeter does not detect an ohm reading.

### Manually Unlocking the Door Lock System

1. Unplug washer or disconnect power.
2. Remove the toe kick panel.
3. Reach up along the inside of the front and locate the bottom of the latch assembly.
4. At the bottom of the latch assembly is a tear-drop shaped tab.
5. Gently pull the tab down about 1/4" or until a click is heard.

### ELECTRONIC ASSEMBLIES - REMOVAL OR REPLACEMENT

**IMPORTANT:** Electrostatic (static electricity) discharge may cause damage to electronic control assemblies. See page 1 for details.

**NOTE:** Be sure to perform the Diagnostic Tests before replacing the control board.





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### TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE/TEST
	<p><b>NOTE:</b> Possible Cause/Tests must be performed in the sequence shown for each problem.</p>
<b>BLANK DISPLAY</b>	<p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>– UIC not powered or no power to the washer/dryer.</li> <li>– Wrong communication between CCU and UIC.</li> </ul> <p><b>Procedure for UIC not powered</b></p> <ol style="list-style-type: none"> <li>1. Check that the washer/dryer is plugged into a working outlet.</li> <li>2. Unplug washer/dryer or disconnect power.</li> <li>3. Check continuity from the power cord to the line filter.</li> <li>4. Check continuity from the line filter to the transformer.</li> <li>5. Perform Ohm meter test on the transformer (page 16).</li> </ol> <p><b>Procedure for wrong communication</b></p> <ol style="list-style-type: none"> <li>1. Unplug the washer/dryer or disconnect power.</li> <li>2. Wait for 2 minutes.</li> <li>3. Reconnect power.</li> </ol> <p>If the display fails to turn on, replace the UIC.</p>
<b>TOUCH-PADS DO NOT RESPOND WHEN PRESSED</b>	<p><b>Possible Causes</b></p> <ul style="list-style-type: none"> <li>– Keypad ribbon disconnected, damaged, or contaminated.</li> <li>– Door switch disconnected, loose, or damaged.</li> </ul> <p><b>Procedure if matrix key board is disconnected</b></p> <p>In this error, the keypad does not respond in any mode (normal operation, set-up, etc.)</p> <ol style="list-style-type: none"> <li>1. Unplug washer/dryer or disconnect power.</li> <li>2. Check that the keypad ribbon is connected to the UIC.</li> <li>3. Clean the matrix keypad ribbon connector of soap or other residues.</li> <li>4. Check the ribbon connector on the control board to see if there is corrosion on the contacts. Verify the function of the keypad. If it fails to operate, replace it.</li> </ol> <p><b>Procedure if door switch is disconnected</b></p> <p>In this error, the keypad works normally in set-up mode, but will not start a user paid cycle.</p> <ol style="list-style-type: none"> <li>1. Verify door switch operation by performing test for F26 error code (page 8), even if the F26 code is not displayed.</li> </ol> <p>If the above procedures fail to solve the problem, replace the UIC.</p>
<b>WON'T DISPENSE</b>	<ol style="list-style-type: none"> <li>1. Verify that water is coming into the dispenser.</li> <li>2. Verify that the washer/dryer is level.</li> <li>3. Remove the dispenser drawer insert and verify that the dispenser drawer is not clogged with detergent.</li> </ol>
<b>WASHER/DRYER VIBRATES</b>	<ol style="list-style-type: none"> <li>1. Verify that the washer/dryer is level.</li> <li>2. Verify that the shipping system, including shipping bolts and spacers, is removed, and that the power cord is not tangled in any components inside the rear of the washer/dryer.</li> <li>3. Verify that the leveling legs are locked into place and firmly in contact with the floor.</li> <li>4. Check for unbalanced load, especially when washing very small loads.</li> <li>5. Verify that dampeners are all connected in place and not damaged.</li> <li>6. Correct any twists in the door bellows.</li> <li>7. Ensure proper drive belt placement on motor pulley.</li> <li>8. Ensure that the washer/dryer is not installed on a wooden riser with a platform less than 19 mm (3/4") thick.</li> </ol>
<b>DRUM WON'T ROTATE</b>	<ol style="list-style-type: none"> <li>1. Check for broken drive belt.</li> <li>2. Check for drive motor failure error codes (F11, F25, F28). <ul style="list-style-type: none"> <li>• Check the electrical connection and verify the function of the cable between the MCU and drive motor.</li> </ul> </li> <li>3. Make sure that the door locks properly.</li> </ol>
<b>INCORRECT WATER TEMPERATURE</b>	<ol style="list-style-type: none"> <li>1. Make sure that the inlet hoses are connected properly.</li> <li>2. Check the water temperature sensor for an abnormal condition (page 16). Make sure the hoses from the inlet valves to the dispenser are connected properly.</li> <li>3. Verify hot and cold water operation in Quick Overview Test in diagnostic mode.</li> <li>4. Check for blocked filter screen in inlet valves.</li> </ol>