

Fisher & Paykel
appliances

customer **care**™

Service Diagnostics FabricSmart Washing Machine



care

479616

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SPECIFICATIONS

Electric Supply

Operating Voltage 220/240V AC 50Hz
Maximum Current 2.8 amps

Wash Motor

Electronically commutated direct drive 3 Phase brushless DC Motor.
Motor Resistance:

<u>Aluminium Stators</u>	<u>Per Winding</u>	<u>Phase to Phase</u>
Phase 9	19.5 ohms \pm 10%	39 ohms \pm 10%

Pump Motor 230V AC 50Hz

Pump motor resistance:

Selni	33 ohms @ 20°C (Thermal cut-out fitted)
Hanning	93 ohms @ 20°C (Thermal cut-out fitted)

Water Valves

Phases 5 onwards 24 volts DC Resistance 64 ohms @ 20°C

Water Supply

- For best operating conditions your hot water should be approximately 65°C. Your hot water should not exceed 75°C or your cold water exceed 35°C. Temperatures above these may cause the machine to fault or cause damage to the machine.
- If you have an uncontrolled water-heating source (e.g. a wet back or solar heating) you should have a tempering device fitted. This will ensure the hot water temperature remains within safe limits. For the most suitable type of tempering device we recommend you contact a local plumber or plumbing supply merchant.
- Inlet Water Static Pressure 5psi (34.5kPa) to 150psi (1MPa).

Note: If using a header tank then the top of the header tank must be at least 2 metres above the top of your clothes washer.

- Minimum flow rate from the tap supplying the washer should be greater than 6 litres/min (assumes ½ inch diameter pipes).

- Minimum height of taps to clear the top of the machine is 1150 mm.

Thermistor

NTC-type temperature sensor Resistance 10,000 ohms @ 25° C
 Resistance 12,500 ohms @ 20° C

Diverter Valve

Operating Voltage 160V DC
 Resistance Range between 0.7kΩ and 2.5kΩ, values are dependent on ambient temperature and when it was last actuated.

Lid Lock

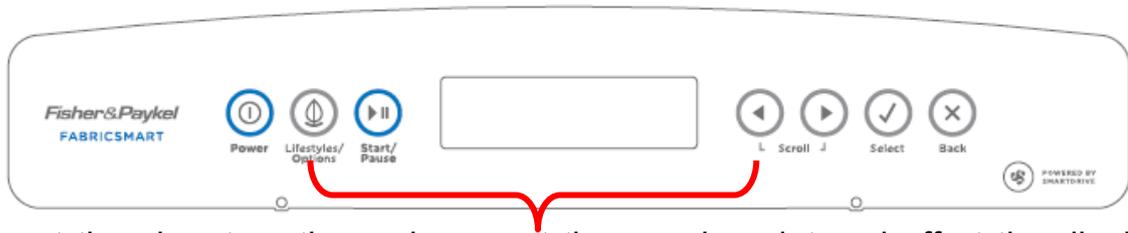
Resistance range 63 ohms ± 10% at 20° C
 Normally low voltage, potentially 230V if harness is grounded on the cabinet

Inner Bowl Weight

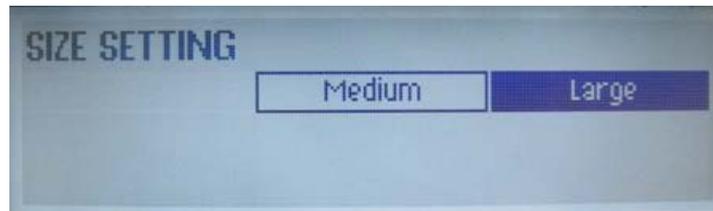
MEDIUM	8.27Kg – 8.47Kg
LARGE	10.20Kg – 10.75Kg

FABRICSMART (IW MODEL) PHASE 9

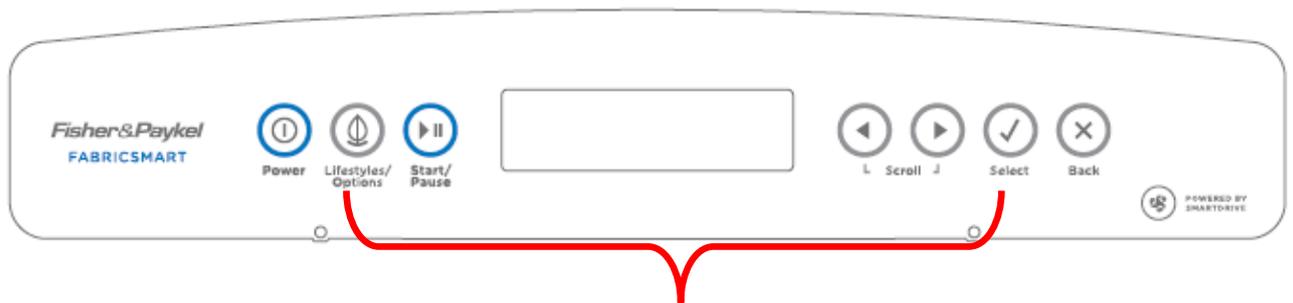
Size setting



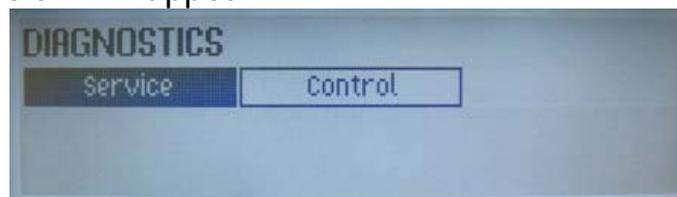
To set the size, turn the mains on at the supply point and off at the display. Press and hold the Lifestyles/Options  and the Left Arrow  buttons until the size setting screen is displayed. This will present the options of Medium or Large in the LCD screen. Highlight the correct size using either scroll arrow  or  then power off the display with the Power button, your selection is automatically saved.



Diagnostic Mode



To enter the DIAGNOSTIC mode, ensure the mains is on at the supply point. Press and hold the Lifestyles/Options  and Select  buttons. Keep the buttons pressed for at least 3 seconds, after which time two beeps will sound and the screen below will appear.



Service Screen

Upon entering the service screen, one of the following will appear in the LCD display.

- Warning Status / Fault Status
- Machine Status

To scroll between these use either scroll arrow ◀or▶.

Warning Status / Fault Status Screen

WARNING STATUS	FAULT STATUS
Warning code: 8	Fault code: 45
Cycles ago: 0	Cycles ago: 0
At progress: Spin	At progress: Wash 4

Warning Status

This screen displays the last USER WARNING FAULT that occurred, cycles ago and in what part of the cycle it occurred.

The User Warning Faults are as follows:

1. No Taps
2. Overloaded
3. Out Of Balance
4. Over Suds or water still in the machine during spin
5. No Hot Water
6. No Cold Water
7. Agitate Overloaded
8. Lid Lock

Fault Status

This screen displays a fault code for the last fault that has occurred, how many cycles ago and in what part of the cycle it occurred.

The fault code number can now be checked in the detailed fault codes, to ascertain what repairs may be necessary.

For fault code details (refer to service manual).

Machine Status

MACHINE STATUS			
Size: 650mm	HVDC: 328		
Water Level: 0	Temp: 23 °C		
Hot	Cold	Pump	Diverter
Off	Off	Off	Off

In the top half of the screen it displays the following information.

Size is the size of machine, (650mm = Large)

HVDC is for on line testing in the factory.

WL displays the water level in mm.

Temp is the actual temp of the water entering the bowl.

The lower half of the screen displays the status of the following components.

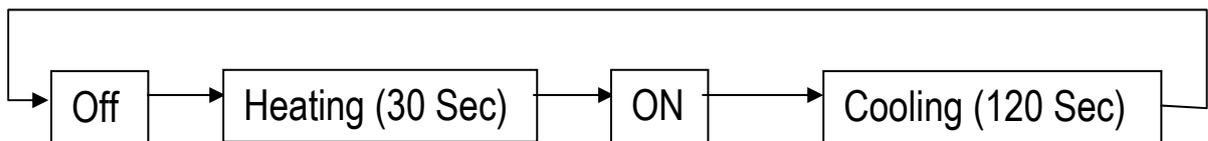
- Hot Valve
- Cold Valve
- Pump
- Diverter Valve

Component Testing

This screen enables the components that are displayed to be tested.

- To test a component, firstly highlight the component by using either scroll arrow ◀or▶.
- Activate and deactivate the component by toggling with the Select ✓ button.

Note: Diverter Valve when activated will display the word heating and when deactivated will display the word cooling then when cooled will change to off.



Control Screen

Upon entering the control screen, the following will appear in the LCD display.



Hot Bowl flag

If the machine has been filled utilising the hot water valve (i.e. warm or hot fill) and has not had a cold rinse, the electronics will not allow the machine to spin up to its full speed of 1000 RPM. It will only allow the spin speed to reach 700 RPM.

To remove this flag, enter the Control Screen mode ensure the **HOT BOWL** option is highlighted, then touch Lifestyles/Options ⓘ button. Alternatively

this flag can also be removed by putting the machine through a complete final rinse.

Restart Feature

The FabricSmart™ IW leaves the factory with the **RESTART** set to ON, this is indicated in the screen by the word **RESTART** highlighted. To turn the RESTART feature OFF, touch the Left scroll arrow ◀. This will remove the highlight from the word RESTART.

When servicing the machine, it is more convenient to turn the RESTART feature OFF. This will allow any fault in the system to show up immediately it occurs.

With the RESTART feature on: (Factory Default setting)

1. If a fault occurs in the machine, the diagnostic system will detect it. However, instead of displaying a fault code immediately, the machine will try to recover.
2. If the fault was only of temporary nature, the machine will continue and finish the cycle.
3. If there is a continuous fault the machine will try to RESTART a number of times. This process could take up to 8 minutes depending on the type of fault. After this, if the machine still cannot restart, the fault code is displayed and the machine will beep continuously. The number of retries will depend on the fault that it has detected, however the maximum number of retries for any one fault is 32 times.

NOTE - This feature is designed as a service aid only and should be left ON in the customer's home. To return to normal operation, and to reset the RESTART feature to the factory setting, switch the machine off at the wall or disconnect from the mains supply.

To identify that the RESTART feature has been activated, refer to the Restart / Recycle table.

Recycle Feature

At the end of servicing, the machine may require an extended test where the machine can be left to complete a number of wash cycles. By turning on the RECYCLE feature, the machine will continuously repeat the wash cycle until the RECYCLE feature is turned off. To toggle this feature on or off, touch the right scroll arrow ▶. When the recycle feature is on, the word **RECYCLE** will be highlighted.

NOTE - This feature is designed as a service aid only and should be OFF in the customer's home. To return to normal operation, and to return the recycle feature to the factory setting, switch the machine off at the wall or disconnect from the mains supply.

To identify that the RECYCLE feature has been activated, refer to the Restart / Recycle table.

Restart / Recycle Table

As the FabricSmart™ IW has only one LED (located above the Lifestyles/Options  button) the state of the LED will signify which feature has been selected or not selected. The table below explains the state of the LED when the machine is on at the wall and off at the machine.

LED: Off (Factory Default)	Restart on
	Recycle off
LED: Solid	Restart off
	Recycle on
LED: Slow Flashing	Restart off
	Recycle off
LED: Quick Flashing	Restart on
	Recycle on

Restart / Recycle Features Permanently Programed

It is possible for the Restart Feature to be disabled, or the Recycle Feature to be enabled, or a combination of both to be permanently programmed into the memory of the electronics so that in the event of a power cut the electronics will remember the setting.

The factory settings are:

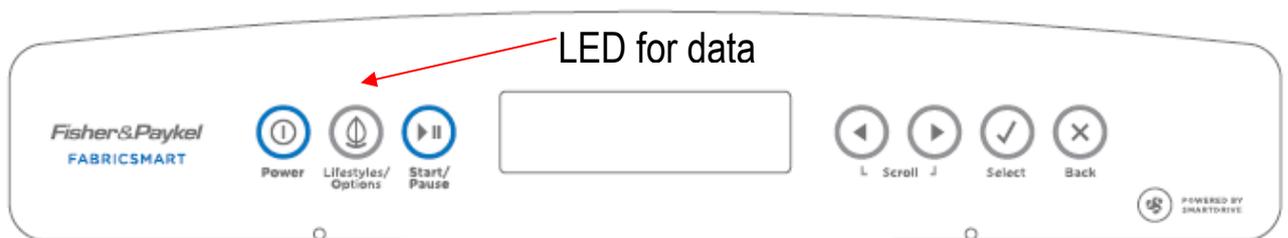
- Restart is enabled
- Recycle is disabled

If a machine is encountered with the Restart/Recycle features not set to the factory defaults, the machine must be re-programmed using following steps;

1. Enter diagnostic mode by pressing and holding the Lifestyles/Options  and Select  buttons. Keep the buttons pressed for at least 2 seconds, after which time two beeps will be heard and a screen showing 'Service' & 'Control' will appear.
2. Using either scroll arrows  or , highlight the 'Control' screen and then touch the SELECT  button.
3. To enable/disable the Restart feature permanently, press and hold the LEFT SCROLL ARROW  for three seconds until a beep is heard.
4. To enable/disable the Recycle feature permanently, press and hold the RIGHT SCROLL ARROW , for three seconds until a beep is heard.

Data Download

To activate the data download, enter the diagnostic mode with the power on at the supply point press and hold the Lifestyles/Options  and Select  buttons. Keep the buttons pressed for at least 2 seconds, after which time two beeps will sound. Then press the **START/PAUSE** button. The LED above the Lifestyles button will be on and flickering.



Place the download pen over this LED and follow the instructions supplied with the data download program.

