DIAGNOSTIC TESTS for EDW1xxxx, EDW2xxxx, and EDW5xx DISHWASHERS

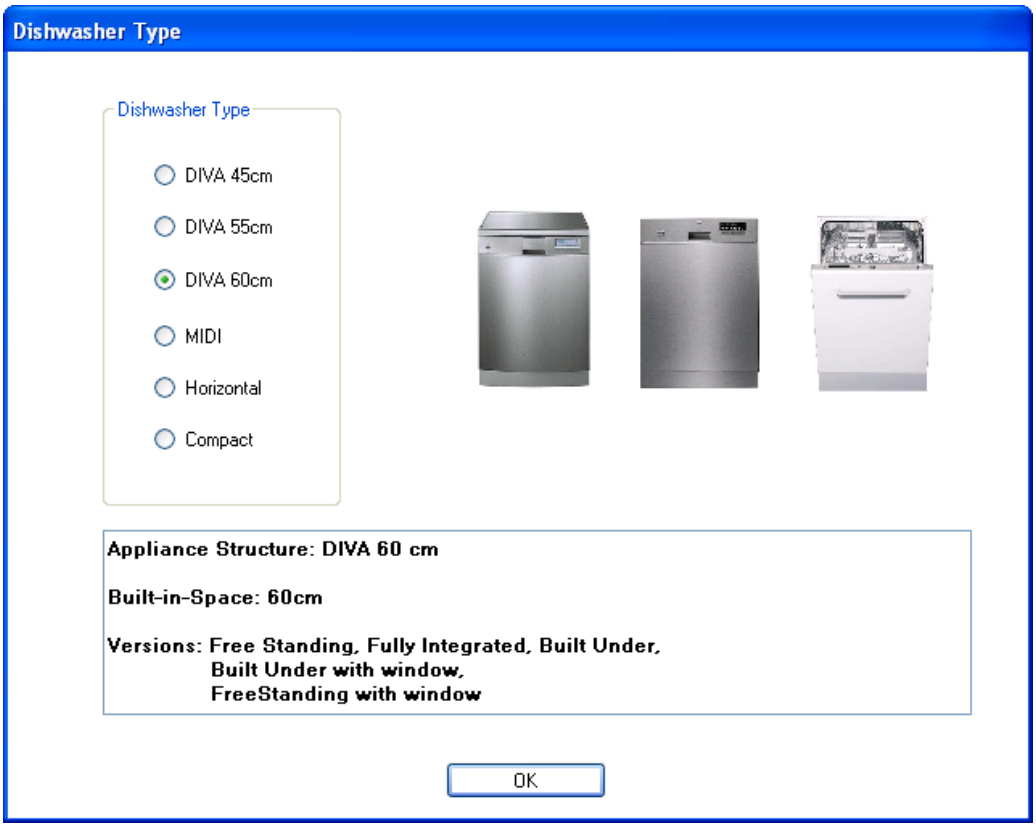
Sidekick allows running the following tests in order to verify the function of the different components in the appliance: User Interface Test, Regeneration Valve Test, Drain Pump Test, Water Load Test, Heater Test, Circulation Pump Test, Dispenser Test, and Fan Test.

In addition it provides a new function that allows you to adjusting water hardness settings.

All appliance structures are supported:

- EDW1xxxx: DIVA 60cm, DIVA 45cm, DIVA 55cm (Swiss), MIDI 55cm, Compact 45cm, and Horizontal 90cm.
- EDW2xxxx: DIVA 60cm, DIVA 45cm, DIVA 55cm (Swiss),, and Horizontal 90cm.
- EDW5xx: DIVA 60cm, DIVA 45cm, MIDI 55cm, and Compact 45cm.

Whenever you start the testing procedure on a dishwasher, you are prompted to choose the actual structure of the appliance under test by means of the following dialog box:



The list of structures that you can select depends on the actual platform of the appliance under test, that SidekickPC is able to automatically detect.

For each structure, you can see a short description and one or more pictures of the possible variants. This helps you in the correct selection of the dishwasher structure.

Diagnostic operations are possible only after you select the appliance structure, since some parameters that the software uses for running tests depend on it.

You can run all tests only when the appliance is connected to the mains power supply. You must also close the door of the dishwasher in order to start all tests, except the User Interface one.

Whenever you start a test operation, Sidekick activates a special function on the electronic controller called “Main Test Mode”. The Main Test Mode bypasses the normal functional behavior of the electronic controller and permits the individual control of all loads and sensors in the system.

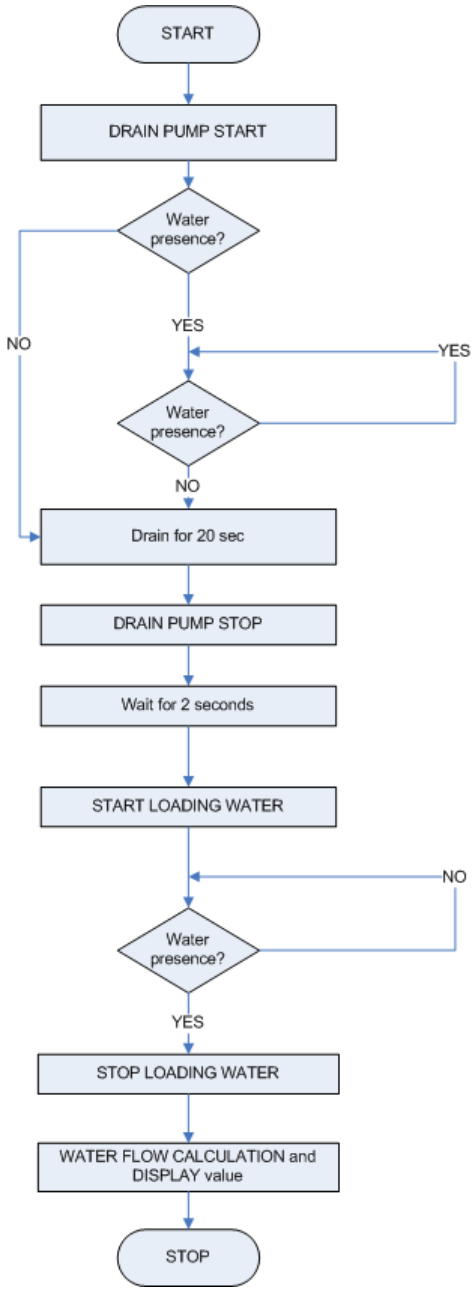
The following sections provide a basic description of each test.

Water Load Test

This test starts with a complete water drain followed by a pause of about 2 seconds. Afterwards, the water valve is activated until the pressure switch detects water presence or, in any case, after 60 seconds. The test ends as soon as water presence is detected. The software estimates and displays the water flow in l/min at the end of the test.

The water flow value is also displayed as a numeric parameter that is visible in the Monitor form.

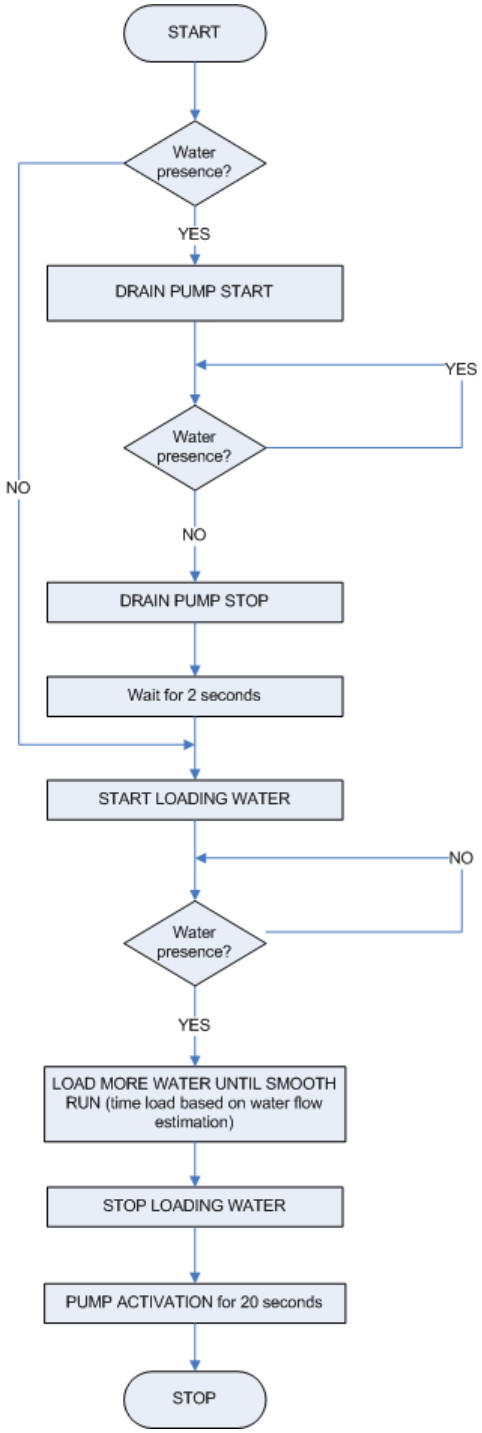
The following picture shows the control flow of this test:



Circulation Pump Test

This test can only occur after that you have executed the Water Load Test. This because the water flow must be already estimated, in order to load the correct amount of water after the pressure switch detection and until smooth run of the circulation pump.

The test consists in loading enough water for the activation of the circulation pump. Afterwards, the circulation pump is activated for 20 seconds. If the pressure switch detects water at the beginning of the test, an initial drain until water is not detected is executed, in order to execute the test under the same water load conditions.



Drain pump Test

This test activates the drain pump. It stops automatically after 60 seconds.

Heater Test

If water already present in sump, the heater is activated for 20 seconds.

If water not present in sump, the water valve is activated until water presence is detected. Afterwards, the heater is activated for 20 seconds. If, during water load, water is not detected within 60 seconds, the test stops for timeout.

Dispenser Test

The dispenser is activated for about 1 second.

Fan Test

This test activates the fan (if present). It stops automatically after 60 seconds.

Regeneration valve Test

This test activates the regeneration valve. It stops automatically after 60 seconds.

User Interface Test

Usually this test consists in flashing all LEDs and digits in the 7-segment display (if present). Flashing time is about 4 seconds on followed by 4 seconds off.

In LCD appliances the test consists in a sequence of steps (each of them lasts 4 seconds) that are repeated in a period way. For example in EDW2503 the steps for the test of the user interface display are:

1. Turn off all segments and symbols in the LCD display for 4 seconds
2. Display the “HELLO” message for 4 seconds
3. Turn on all segments and symbols in the LCD display for 4 seconds

The actual steps may vary in other LCD variants.

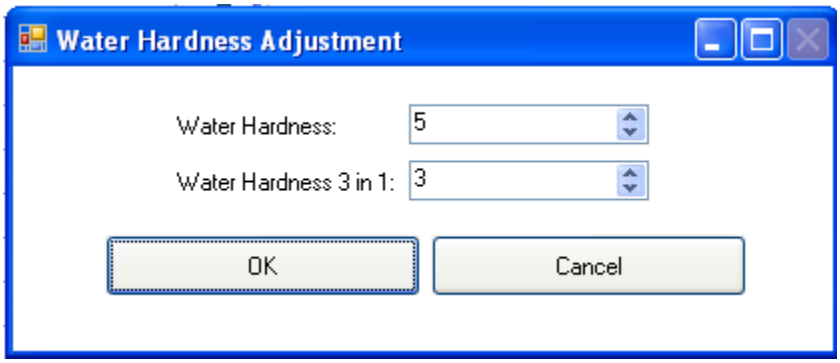
A buzzer beep occurs whenever you press or release a key, unless you are dealing with an EDW500 appliance that does not provide a buzzer. Low range EDW503 appliances, together with the EDW1xxxx and EWD2xxx platforms, provide a buzzer.

The User Interface Tests also allows you checking also the functionality of the buttons. When you press a key, you can verify if the electronic controller has detected the key press by means of the “Key Read” or “Key Flags” parameter that you can see in the Monitor form. There is a delay of at least 500ms between the press a key and when SidekickPC updates the value of corresponding parameter in the Monitor form.

Water Hardness Adjustment

The Water Hardness Adjustment is a new procedure that allows you changing the level(s) of water hardness that the electronic controller uses for managing regeneration and washing cycle parameters. This procedure has the same effect as of manually activating the water hardness adjustment in service mode. Is however much simpler to activate and, most of all, the way you activate is always the same and it does not depend on the model of the appliance under test.

You activate the Water Hardness Adjustment procedure as any other test. After you activate this procedure, the following dialog box appears:



You can then change the value of “Water Hardness” and “Water Hardness 3 in 1” parameters. The typical range of possible values is between 1 and 10. The maximum possible value depends however on the actual configuration of the dishwasher.

The “Water Hardness 3 in 1” parameter refers to the water hardness level that is used when you select the “3 in 1” function. This value of this setting is don’t care whenever the dishwasher does not provide the “3 in 1” feature.