

WD1160 - WD4060 - WD4190 Series

- PROGRAM TABLE -

<p>WD1160 Series: instrument washers, 60cm, without drying system.</p>	<p>WD4060 Series: instrument washers, 60cm, equipped with forced air drying system.</p>	<p>WD4190 series: instrument washers, 90cm, with forced-air drying system and side cabinet to take detergent cans.</p>
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WARNING

This document is an appendix to the appliance's user manual and must be consulted together with the manual for proper, safe use of the device.

It contains up-to-date information concerning the characteristics of the washing programs installed in the appliance. Due to changes made in response to improvements in products, the programs described here may differ from those described in the manual: in this case, only refer to the information provided in this document.

Programs may vary depending on the firmware version installed in the appliance. If in doubt, have authorised staff check on the appliance that the installed version is the same as the version stated in the table at the back of this document.

ABBREVIATIONS USED IN THE TABLE OF PROGRAMS

<p>Demi: demineralised water, the type of water used in a specific phase of the program.</p>
<p>Cold: cold mains water, the type of water used in a specific phase of the program.</p>
<p>N.C.: "NOT CONTROLLED" - refers to the relatively short heating phases during which the heating elements are on but no target temperature value is set.</p>
<p>P1, ... P3: the code refers to the activation of the relative peristaltic pump, with dispensing of the liquid detergent associated to it. Each pump has a default dispensing rate set in the factory.</p>
<p>P2a: the code refers to dispensing by pump P2 at a rate different from the default rate, used in special cases, as specified in the table.</p>
<p>Pump P3 is always optional. The programs which use it are not available if the pump is not installed.</p>
<p>TD: thermal disinfection - phase during which the target temperature is kept above a target value for a specified time. The efficacy of the thermal disinfection process is indicated by means of parameter A0. In Standard Original programs, the target value for a thermal disinfection process is always at least 80°C.</p>
<p>Temp. T [°C]: Target temperature of the current phase. The temperature inside the tank is kept constant around the specified value for the time shown in the table. The phase during which the temperature is held at the target value is called the EXTENSION phase. When no target temperature is indicated or the indication is ("0"), the heating elements are not activated (e.g. during a cold prewash or for cold rinses).</p>

PUMP	WD DEFAULT DOSAGE [ml/litre]	DOSAGE FOR SERVICE PROGRAM 16 ONLY [ml/litre]
P1	4	12
P2	2	12
P2a	4	- - -
P3	10	12

VARIOUS NOTES:

WATER INTAKE: water intake for each phase is **9 litres**. For program “16 Service” only, water intake is 6 litres for phases 1 and 2 and 9 litres for the rinse phase 3. Program “16 Service” only comprises 3 phases and is generally used during installation, to prime the detergent intake lines correct and allow use of the device.

PHASE NUMBERING: a record of the parameters for the various cycle phases is maintained in the appliance’s memory. The first phase is numbered “PHASE 1”, the second “PHASE 2”, etc.

CYCLE TIME: the stated time for the complete cycle refers to standard test conditions: intake water pressure 3bar, cold water temperature 25°C. The single-phase connection performs the activation of a single heating element instead of three, the cycle times are significantly longer.

PARAMETER A0

Parameter A0 is used by product standard UNI EN ISO 15883-1 to assign a numerical value to the thermal disinfection process.

It is calculated mathematically using the formula:

$$A_0 = \sum 10^{[(T-80)/z]} \times \Delta t$$

$z = 10^\circ\text{C}$ - t = duration of time interval considered in seconds - T = load temperature in °C.

When calculating the parameter, only the time intervals during which the temperature is above 65°C are considered.

For thermal disinfection programs, the calculation is simplified by only including the “extension” phase, when the temperature is kept constant with reference to the target value set.

PROCESSABLE LOAD: never exceed a total load of **23 kg** to ensure good washing results.

The items in the load must be positioned correctly, with no overlapping.

SELF DISINFECTION CYCLE: after 24 hours of inactivity, the device automatically proposes a self-disinfection cycle 93°C. The display shows "Pdis". It is advisable to run the program without load, no load inside the washing chamber. Press the "Start / Stop" button to start the program. Press the Cycle Selection buttons, "Left selection" or "Right selection" to ignore the suggestion.

DRYING (ONLY IF PRESENT)

Good drying results, with the preset times and temperatures, are obtained using a load for drying **weighing no more than 15kg**. The items in the load must be positioned correctly, with absolutely no overlapping.



N.B. - important for selecting the cycle and max. cycle temperature

*The drying temperature stated in the programs table (e.g. 110°C) refers to the value measured at a specific point of the Dryer duct and does not correspond to the temperature reached by the load. **Temperatures in the chamber during drying never exceed 90°C.***

Hospital Prog.	Prewashing			Pre-heating			Washing			Step			Chemical Disinfection			Neutralization			Rinse					Hot Demi Rinse			Thermodisinfection			Drying		Cycle Time [min] empty chamber (in brackets single-phase time)	
	Load H2O	Temp °C	Holding time [min]	Load H2O	Temp °C	Holding time [min]	Load H2O	Temp °C	Holding time [min]	Load H2O	Temp °C	Holding time [min]	Load H2O	Temp °C	Holding time [min]	Load H2O	Temp °C	Holding time [min]	Load H2O	Temp °C	Holding time [min]	Ripeti fase	Load H2O	Temp °C	Holding time [min]	Load H2O	Temp °C	Holding time [min]	Target temperature °C	Holding time [min]	with drying phase	without drying phase	
1 AUTO DIS	Cold	93	1																												-	19 (53)	
2 Prewash	Cold	0	5																												-	8 (8)	
3 60°C/1'				Cold	45	5							Cold	NC	3	Cold	NC	3						Demi	60	1			100	25	71 (99)	32 (60)	
4 80°C/1'				Cold	45	5							Cold	60	10	Cold	NC	3	Cold	NC	3			Demi	80	1		110	25	93 (143)	54 (104)		
5 TD 80°C /10' [15883, A0=600]							Cold	45	10							Cold	NC	3						Demi	NC	3	Demi	80	10	110	30	93 (128)	49 (84)
6 TD 90°C/1' [15883, A0=600]							Cold	45	10							Cold	NC	3						Demi	NC	3	Demi	90	1	110	25	85 (129)	46 (89)
7 TD 90°C/5' [15883, A0=3000]	Cold	0	3	Cold	35	0	No Load	50	5	No Load	65	5				Cold	NC	3						Demi	NC	3	Demi	90	5	110	25	98 (147)	59 (108)
8 TD 93°C/ 5' [15883, A0=6000]	Cold	0	3	Cold	35	0	No Load	50	5	No Load	65	5				Cold	NC	3						Demi	NC	3	Demi	93	5	110	25	100 (150)	61 (111)
9 TD 93°C/10' [15883, A0=12000]	Cold	0	3	Cold	35	0	No Load	50	5	No Load	65	5				Cold	NC	3						Demi	NC	3	Demi	93	10	110	25	106 (156)	67 (117)
10 CUSTOM				Cold	45	5										Cold	NC	2						Demi	NC	1	Demi	90	1	110	15	64 (112)	35 (83)
11 CUSTOM	Cold	0	3	Cold	93	3										Cold	NC	2					Demi	NC	2	Demi	75	1		110	30	92 (152)	48 (108)
12 CUSTOM				Cold	45	5				No Load	80	3				Cold	NC	2						Demi	NC	1	Demi	93	10	110	15	89 (152)	60 (123)
13 CUSTOM				Cold	45	10										Cold	NC	3						Demi	50	3	Demi	93	1	110	20	81 (133)	47 (99)
14 CUSTOM				Cold	55	5										Cold	NC	3						Demi	50	3	Demi	93	5	110	20	80 (133)	46 (99)
15 CUSTOM	Cold	93	1																												19 (19)	53 (53)	
16 SERVICE	Cold	0	0	Cold	0	0																		Demi	0	0,5						-	10 (10)
DRYING PHASE																												110	20	24 (24)	-		

CUSTOM PROGRAMS

Custom Programs can be modified to meet specific washing requirements.

Modifications can be made using the TRACELOG software (not part of the standard package) or **by authorised engineers on request**.

For details of how to purchase the software and minimum installation requirements, contact your local dealer or mail directly at instruments@smeg.it.

If parameters are modified from the default settings, a record should be kept of the various phases and the new program settings.



Warning: when creating a custom program, do not include more than two thermal disinfection phases at 93°C for 10min.

CUSTOM PROGRAM RECORD TEMPLATE

Program		1. Prewash / Wash (cold)			2. Wash			3. Neutralisation			4. Mains Water Rinse			5. Demi Rinse			6. Hot Demi Rinse			7. Drying		A0	Cycle time (except drying)	
ID.	Name	H2O Intake	Temp. [°C]	duration [min]	H2O Intake	Temp. [°C]	duration [min]	H2O Intake	Temp. [°C]	duration [min]	H2O Intake	Temp. [°C]	duration [min]	H2O Intake	Temp. [°C]	duration [min]	H2O Intake	Temp. [°C]	duration [min]	Temp. [°C]	duration [min]			

19.592.0271 04	Main 2.0.0.32 del 23/09/2013 (Program set cod. 16812000100)	27/01/2015	Correction on program 8, prewashing.
Ed.	Model Firmware Version	Date	Note

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