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Appendix: Timer diagram

This service manual describes washing machine type WM60 and is a supplement to the general service manual for the 600 series.



Updates

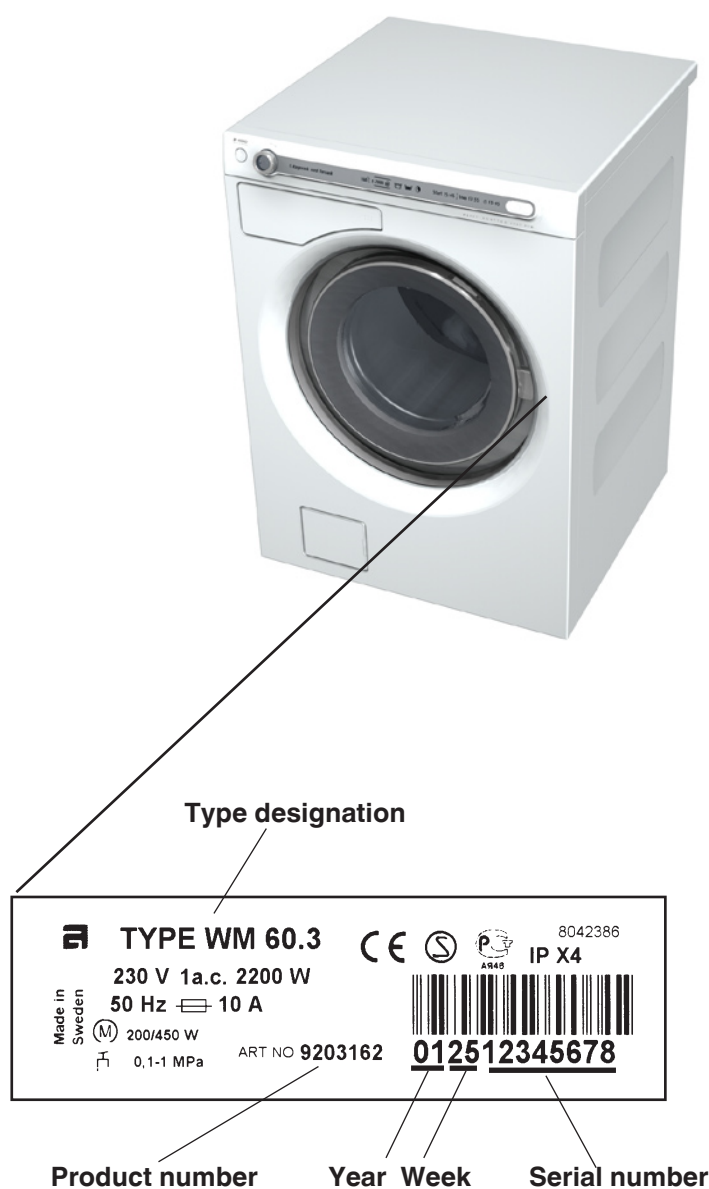
Revision	Date	Description	Signature
03	2007-11-27	Updated the "Show room program" /In-store demonstration program with a description for machines manufactured week 737 and later.	BPA

Introduction

You are holding the service manual for WM60.3 type washing machines.

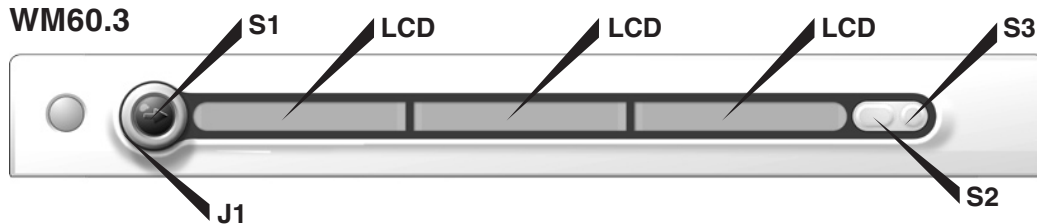
It should be easy to service a washing machine. It is important that you, as a service technician, are given the conditions to be able to carry out work in an efficient and satisfactory way. Our hope is that this service manual is a useful tool for your daily work.

The type designation can be found on the machine plate located by the door catch on the inside of the front plate (see image below).



Product overview

WM60.3

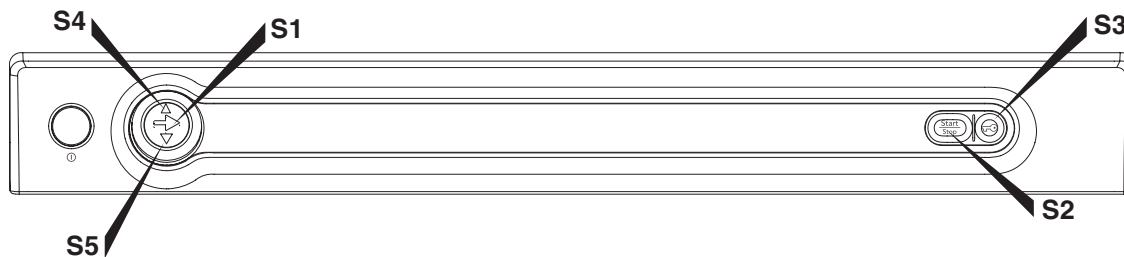


Programmes: 14, where one consists of the menu for settings (Programme 14)

Options: 6

Settings: 8

WM60.3 (Integrated)



Programmes: 14, where one consists of the menu for settings (Programme 14)

Options: 6

Settings: 8

Programme

WM60.3, with 5 rinses

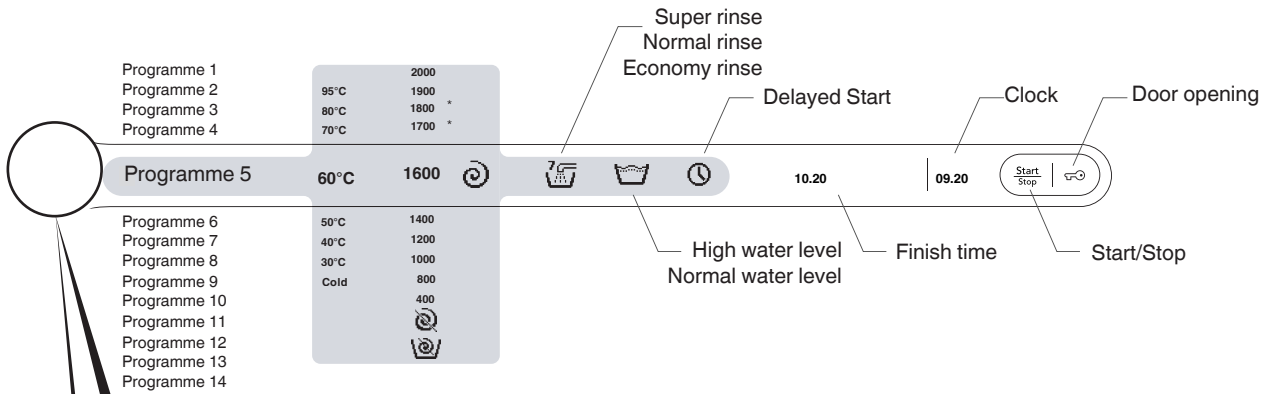
Programme	Pre-wash	Main wash	Temperature °C	Temperature °F	Max speed (rpm)	Max load	Rinses (number)	Water consumption (approx. litres)	Energy consumption (approx. kWh)	Programme time (approx. min)
Programme 1	No		60	140		1/1				
Programme 2			60	140		1/1				30-180
Programme 3	Yes	Long	95	203	1600	1/1	5	80	2,1	160
		Long	60	140	1600	1/1	5	62	1,0	150
Programme 4	No	Long	60	140	1800	1/1	5	< 69	1,02	145
Programme 5	No	Short	60	140	1600	1/2	2	56	0,9	100
Programme 6	No	Short	40	104	1600	1/2	5	56	0,50	80
Programme 7	No	Short	40	104	1600	1/2	3	35	0,4	50
Programme 8	No	Short	40	104	800	1/2	3	40	0,4	80
Programme 9	No	Short	30	86	800	1/3	3	80	0,5	45
Programme 10	No	Short	30	86	800	1/3	3	54	0,3	40
Programme 11	No				1600	1/1	1	15	0,1	20
Programme 12					1600	1/1			0,1	15
Programme 13										
Programme 14	Settings									

WM60.3, with 3 rinses

Programme	Pre-wash	Main wash	Temperature °C	Temperature °F	Max speed (rpm)	Max load	Rinses (number)	Water consumption (approx. litres)	Energy consumption (approx. kWh)	Programme time (approx. min)
Programme 1			60	140						
Programme 2			60	140						
Programme 3	Yes	Long	95	203	1600	1/1	5	80	2,1	160
		Long	60	140	1600		5	62	1,0	150
Programme 4	No	Long	60	140	1800	1/1	3	< 54	1,02	135
Programme 5	No	Short	60	140	1800	1/1	3	35	0,8	80
Programme 6	No	Short	40	104	1600	1/1	3	37	0,4	70
Programme 7	No	Short	40	104	1600	1/2	3	35	0,4	50
Programme 8	No	Short	40	104	800	1/2	4	40	0,4	80
Programme 9	No	Short	30	86	800	1/3	3	80	0,5	45
Programme 10	No	Short	30	86	800	1/3	3	80	0,5	45
Programme 11					1600	1/1	1	15	0,1	20
Programme 12					1600	1/1			0,1	15
Programme 13										1
Programme 14	Settings									

Programme is tested in accordance with SS-EN 60456/A13.

Programme selection, options and making settings



Programme selector

1. Press the programme selector button to navigate between the different menus (e.g. to go from temperature menu to spin menu).
2. Turn the programme selector button to make a selection in the menus (e.g. select 1400 rpm). Confirm the selection and go to the next menu by pressing the programme selector button.
3. Press Start/Stop to start. Hold Start/Stop in for 3 seconds to exit the current programme.




Programme selector button for integrated machines

1. Press the programme selector button to navigate between the different menus (e.g. to go from temperature menu to spin menu).
2. Press the small arrows to make a selection in the menus (e.g. select 1400 rpm). Confirm the selection and go to the next menu by pressing the programme selector button.
3. Press Start/Stop to start. Hold Start/Stop in for 3 seconds to exit the current programme.

Programme selection

















The programmes are displayed in the order they occur in LCD1. All display text language versions are displayed.


























Press/turn	LCD 1	Comments/instructions	
		Turn on the main power supply	
	1	Auto, Auto, Auto, Automatprogram, Autovask, Autovask, Automaattipesu, Automatique, Automatikprogramm, Automatico, Auto, Автоматическая, Automatisch programma	This program automatically adjusts the length of the main wash and the number of rinses depending on the amount of washing and how heavily soiled it is.
	2	Time program, Time Choice, Time program, Tidsprogram, Tidsprogram, Tidsprogram, Aikaohjelma, Programme minute, Zeitprogramm, Progr. del tempo, Prog. de secado, Время окончания, Tijdprogramma	Choose a temperature up to 60°C/ 140 °F, set the spin speed to a maximum of 1600 rpm and set the time when you want the programme to finish. The machine will automatically choose a programme of the right length with the settings you have selected.
	3	Heavy, Sani, Heavy, Grov- med förtvätt, Kogevask+forvask, Intensiv m/forvask, Espesuu + Tehopesu, Super intensif, Vor-/Kochwäsche, Intensivo, Sani, Интенсивная, Intensieve was	Use this programme for heavily-soiled washing. You only need to use the maximum temperature, 60°C/ 140 °F, if the washing is very heavily soiled.
	4	Normal, Stain, Normal, Vittvätt, Hvidvask, Intensiv, Tehopesu, Super intensif blanc, Intensivo, Intensivo bianchi, Manchas-Color, Нормальная, Normale was	This programme is equivalent to the Heavy programme, but without the pre-wash. It is used for heavily-soiled whites where 95°C/ 203 °F is a suitable temperature.

 	5	White, White, White, Snabb vittvätt, Hurtig hvidvask, Hvit, Normaalipesu, Intensif, Kochwäsche, Сapi resistanti, Pesado, Белое, Witte was	Normally-soiled sheets, pillowcases and towels will come clean at 60 °C/140 °F.
	6	Colour, Color, Colour, Kulörtvätt, Kulört vask, Kulør, Päivittäispesu, Blanc/couleurs, Buntwäsche, Bianchi/colorati, Normal Plus, Цветное, Bonte was	Clothes worn next to the skin should be washed at 60°C/ 140 °F. Lightly-soiled laundry can be washed at 40°C. Most modern detergents are effective even at 40°C.
	7	Quick, Quick, Quick, Kvicktvätt, Kvikvask, Hurtig, Pikapesu, Rapide, Schnell, Rapido, Rápido, Быстрая стирка, Kort programma	Lightly soiled laundry that only needs freshening up can be washed for a short time at 40°C.
	8	Synthetics, PermaPress, Synthetics, Syntettvätt, Syntetisk vask, Syntet, Siliävät/ Synteettiset, Synthétique, Pflegeleicht/ Fein, Sintetici, Perma Press, Синтетика, Synthetische was	This programme is suitable for shirts and blouses made of synthetic and blended material. Wash white items at 60°C/ 140 °F and coloured items at 40°C/ 104 °F.
	9	Wool, Wool, Wool, Ylletvätt, Uldvask, Ull, Villapesu, Laine, Wolle, Lana, Lavado manual/ Lana, Шерсть, Wolwas	This programme is used for garments labelled for Wool wash only. The maximum temperature is 40°C/ 104 °F and the programme has a short spin.
	10	Hand, Delicate / Hand, Hand, Handtvätt, Håndvask, Hånd, Käsinpesu, Main, Hand, A mano/delicati, Delicado, Ручная стирка, Handwas	This programme is used for garments labelled hand wash only. The maximum temperature is 30°C/ 86 °F and the programme has a short spin.
	11	Rinse, Rinse, Rinse, Sköljprogram, Skylleprogram, Skylling, Huuhteluohjelma, Rinçage, Spülen, Risciacquo, Enjuague, Полоскание, Spoelprogramma	This program performs one rinse cycle + spin. Good for cleaning cloths and mops.
	12	Spin, Spin, Spin, Centrifugering, Centrifugering, Sentrifugering, Linkous, Essorage, Schleudern, Centrifuga, Centrifugado, Отжим, Centrifugeren	To be used when you only want to spin the load.
13	Drain, Drain, Drain, Utpumpning, Udpumpning, Utpumping, Tyhjennys, vidange, Abpumpen, Scarico, Drenaje, Слив, Pompen	To be used when you only want to drain the water from the machine.	
14	Settings, Settings, Settings, Inställningar, Indstillinger, Innstillinger, Asetukset, Réglage, Einstellungen, Impostazioni, Ajustes, Настройки, Instellingen	See chapter "Settings".	
			Exits the programme menu and advances to options or the menu for Settings.

Selecting Options


















The options are displayed in the order they occur in LCD2. All display text language versions are displayed.

















Press/ turn	LCD 2	Comments/instructions	
	95°C, 205 °F	Temperature Selection of temperatures between Cold and 95°C. Cold is the same as the incoming water temperature. For programme 8 and 9, the maximum temperature is 40°C, for programme 10, the maximum temperature is 60°C.	
	80°C, 175 °F		
	70°C, 160 °F		
	60°C, 140 °F		
	50°C, 120 °F		
	40°C, 105 °F		
	30°C, 85 °F		
	Cold, Cold, Cold, Kalt, Kold, Kald, Kylmä, Froid, Kallt, Freddo, Fría, Доп.полоскание, Koud		
			
	2000 	Spin Option of choosing spin speed between 400 and 2000 rpm. Spinning at 400 – 800 rpm signifies a short spin. Programme 8, 9 and 10 cannot be selected at speeds greater than 800 rpm. Programme 2 has a maximum speed of 1600 rpm. Maximum rpm is either 1800 or 2000 rpm depending on model.	
	1900 		
	1800 		
	1700 		
	1600 		
	1400 		
	1200 		
	1000 		
	800 		
	400 		
			“No spin” means that the programme does not include a spin cycle and ends by draining.
			“No draining” means that the programme does not include a spin cycle and ends with the water from the final rinse still in the machine.
			












  	<p> Economy Rinse, Economy Rinse, Economy Rinse, Lätt sköljning, Økonomi skyl, Økonomi skylling, Ekohuuhtelut, Rinçage économique, Eco Spülen, Risciacquo economico, Enjuague económico, Норм.полоскание, Eco spoelen</p> <p> Normal Rinse, Normal Rinse, Normal Rinse, Normal sköljning, Normalt skyl, , Normaalihuuhtelut, Rinçage normal, Normal Spülen, Risciacquo normale, Enjuague normal, Норм.полоскание, Normaal spoelen</p> <p> Super Rinse, Super Rinse, Super Rinse, Supersköljning, Superskyl, Superskyl, Superhuuhtelut, Super rinçage, Super Spülen, Risciacquo super, Superenjuague, Суперполоскание, Super spoelen</p>	<p>Rinse The rinse programme can be selected in programme: 3, 4, 5, 6, 7, 8, 9 and 10</p> <ul style="list-style-type: none"> - Economy rinse (reduces the number of rinses, used for lightly soiled laundry) - Normal rinse (recommended number of rinses during normal soiled laundry.) - Super rinse (adds rinses, maximum 7) <p>Number of rinses varies depending on programme.</p>
		
 	<p> Normal water level, Normal Water Level, Normal water level, Normal vattennivå, Normal vandstand, Normalt vannivå, Normaali vedenpinta, Niveau d'eau normal, Normaler Wasserstand, Livello acqua normale, Nivel normal de agua, Норм.уровень воды, Normaal waterniveau</p> <p> High water level, High Water Level, High water level, Hög vattennivå, Høj vandstand, Høyt vannivå, Korkea vedenpinta, Niveau d'eau élevé, Hoher Wasserstand, Livello acqua alto, Nivel alto de agua, Высокий уровень воды, Hoog waterniveau</p>	<p>High water level Can be selected in programmes: 3, 4, 5, 6, 7 and 8. Cannot be selected during No spin and No draining.</p> <p>With this option selected, extra water is taken in after approximately 15 minutes, the extra water is used in the main wash and rinses.</p>
		
 	<p> Start, Start, Start, Start, Start, Start, Start, Démarrer, Start, Avvio, Inicio, Старт, Start</p> <p> Start - Done, Start-End, Start-Done, Start-Klar, Start-Færdig, Start-Ferdig, Start-Valmis, Démarrer-Fin, Start-Fertig, Avvio-Fine, Inicio-Fin, Старт-Конец, Start-Gereed</p>	<p>Delayed start (when setting: "No Real time") The start of the selected programme can be delayed for up to 24 hours (in half an hour intervals). The delay and programme time is shown in the display.</p> <p> Start: 1:00 2:35</p> <p>Delayed start (when setting: "24 Hour Clock" or "12 Hour Clock") The start of the selected programme can be delayed for up to 24 hours (in half an hour intervals). Start and end times are shown in the display.</p> <p> Start 16:22 Done 18:00 15:52</p>
		
 	<p> Start, Start, Start, Start, Start, Start, Start, Démarrer, Start, Avvio, Inicio, Старт, Start</p> <p> Start - Done, Start-End, Start-Done, Start-Klar, Start-Færdig, Start-Ferdig, Start-Valmis, Démarrer-Fin, Start-Fertig, Avvio-Fine, Inicio-Fin, Старт-Конец, Start-Gereed</p>	<p>Time program (when setting: "No Real time") Desired programme time can be set. Selections up to 3 hours in units of 15 minutes can be made. The selected programme time is shown in the display.</p> <p> 3:00</p> <p>Time program (when setting: "24 Hour Clock" or "12 Hour Clock") Desired programme time can be set. Selections up to 3 hours in units of 15 minutes can be made. Start and end times are shown in the display.</p> <p> Start 15:54 Done 17:09 15:54</p>

Making settings




The setting options below are shown in the order they occur in LCD2 (Programme 14 under the programme menu is, however, shown in LCD1). All display text language versions are displayed. If no choices is done within 2 minutes the display will be set in Stand-by mode.

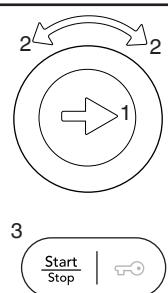
Press/turn	LCD 2	Press/turn	LCD3	Comments/instructions	
 	Settings, Settings, Settings, Inställningar, Indstillinger, Innstillinger, Asetukset, Réglage, Einstellungen, Impostazioni, Ajustes, Настройки, Instellingen			In the programme menu: Scroll to Programme 14 (Settings) Programme 14 is shown in LCD1.	
	You will now enter the Settings menu.				
 	Presoak, Presoak, Presoak, Förblötning, Iblødsætning, Bløtlegging, Liotus, Trempage, Einweichen, Ammollo, Remojar, Замачивание, Inweken				
			On, On, On, På, Til, På, Päällä, On, An, On, encendido, Вкл., Aan	The laundry will soak in cold water for two hours before the programme starts.	
			Off, Off, Off, Av, Fra, Av, Poissa, Off, Aus, Off, apagado, Выкл., Uit	Setting deactivated.	
			Saves the setting and returns to the programme menu, Programme 14.		
	Anti crease, Anti Wrinkle, Anti crease, Skrynkelfritt, Anti-krøl, Antikrøll, Rypistymisen esto, Antifroissage, Knitterschutz, Antisqualcit., Antiarrugas, Против сминания, Anti-kreuk				
			On, On, On, På, Til, På, Päällä, On, An, On, encendido, Вкл., Aan	The drum rotates 3 seconds per minute for two hours after the programme has ended.	
			Off, Off, Off, Av, Fra, Av, Poissa, Off, Aus, Off, apagado, Выкл., Uit	Setting deactivated.	
			Saves the setting and returns to the programme menu, Programme 14.		
	Clock, Clock, Clock, Кlocka, Ur, Klokke, Kello, Horloge, Uhr, Orologio, Reloj, Часы, Klok				
		 	24hr Realtime, 24 Hour Clock, 24hr Realtime, 24 timmarsvisning, 24 timers ur, 24t realtid, 24 h aika, Horloge 24 h, 24 Std. Echtzeit, 24h Tempo reale, Reloj 24 horas, Формат времени 24-ч., 24 uur weergave	Three O'clock is displayed as "15.00". Press S1 to access a sub-menu where you can set the correct current time. Press S1 again to store and exit the sub-menu.	
			12hr Realtime, 12 Hour Clock, 12hr Realtime, 12 timmarsvisning, 12 timers ur, 12t realtid, 12 h aika, Horloge 12 h, 12 Std. Echtzeit, 12h Tempo reale, Reloj 12 horas, Формат времени 12-ч., 12 uur weergave	Three O'clock is displayed as "03.00". Press S1 to access a sub-menu where you can set the correct current time. Press S1 again to store and exit the sub-menu.	
			No Real time, No Real Time, No Real time, Ej realtid, Intet ur, Ingen realtid, Ei aikaa, Pas d'horloge, Keine Echtzeit, No tempo reale, Sin hora real, Время не установлено, Geen tijdsweergave	No Real Time. Press S1 to return to programme menu Programme 14.	
		Saves the setting and returns to the programme menu, Programme 14.			

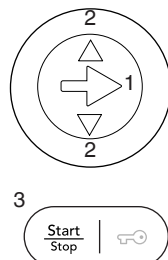
 	Audible volume, Buzzer Volume, Audible volume, Ljudsignal volym, Lydsignal, Lydsignal, Hälytysääni, Volume buzzer, Tonsignal, Volume allarme, Volumen timbre, Громкость сигнала, Geluidssignaal			
			Off, Off, Off, Av, Fra, Av, Poissa, Off, Aus, Off, apagado, Выкл., Uit	No buzzer
			Low, Low, Low, Låg, Lav, Lav, Matala, Faible, Niedrig, Bassa, Bajo, Низкая, Laag	Buzzer that indicates the end of a programme or error.
			Normal, Normal, Normal, Normal, Normal, Normal, Normaali, Normal, Normal, Normale, Normal, Нормальная, Normaali	Buzzer that indicates the end of a programme or error.
			High, High, High, Hög, Høj, Høy, Korkea, Elevé, Hoch, Alta, Alto, В?о?а?, Hoog	Buzzer that indicates the end of a programme or error.
		Saves the setting and returns to the programme menu, Programme 14.		
	Child-safe, Child-safe, Barnsäker, Børnesikker, Barnesikring, Lapsilukko, Sécurité enfant, Kindersicherung, Avvio sicurezza, Int. de seguridad, Блокировка от детей, Kindveilige			
			On, On, On, På, Til, På, Päällä, On, An, On, encendido, Вкл., Aan	If S1, S2, S3 or J1 are pressed or turned, S2 S1 must be pressed to temporarily deactivate the child-safe start (is deactivated for 3 minutes after last press of S1, S2, S3).
			Off, Off, Off, Av, Fra, Av, Poissa, Off, Aus, Off, apagado, Выкл., Uit	Setting deactivated.
			Saves the setting and returns to the programme menu, Programme 14.	
	Automatic door opening, Automatic Door Opening, Automatic door opening, Automatisk lucköppning, Automatisk lugeåbning, Auto døråpning, Automaattinen luukun avaus, Ouverture auto porte, Automatische Lukenöffnung, Apertura autom.sportello, Apertura auto de puerta, Авто-открытие дверцы, Aut. deuropening			
			On, On, On, På, Til, På, Päällä, On, An, On, encendido, Вкл., Aan	When then setting has been activated, the door will open automatically after the end of the programme. Does not apply if Nodrain is selected (as there is still water in the machine).
		Off, Off, Off, Av, Fra, Av, Poissa, Off, Aus, Off, apagado, Выкл., Uit	Setting deactivated.	
		Saves the setting and returns to the programme menu, Programme 14.		

 	Language, Language, Language, Language, Språk, Sprog, Språk, Kieli, Langue, Sprache, Lingua, Idioma, Язык, Taal			
			US English	
			English	Default
			svenska	
			dansk	
			norsk	
			suomi	
			Français	
			Deutsch	
			Italiano	
			español	
			Русский	
			nederlands	
		Saves the setting and returns to the programme menu, Programme 14.		
	Temperature , F° or C° Setting, Temperature , Temperatur, Temperatur enhed, Temperatureinheit, Lämpötilayksikkö, Unités de température, Temperatureinheit, Unità temperatura, Unidad de temperatura, Шкала температур, Temperatuurweergave			
			°C	Celsius
			°F	Fahrenheit
			Saves the setting and returns to the programme menu, Programme 14.	
	Return, Return, Return, Tillbaka, Tilbake, Tilbake, Takaisin, Retour, Zurück, Uscire, Salir, Назад, Terug		Returns to the programme menu, Programme 14	

Service menu











This is how to enter the service menu	
	If the machine is on: First switch the power off and then on via the main power switch.
	Press the programme selector (S1) at the same time as the Main power switch.
	Press the programme selector button 3 times within 5 seconds. You are now in the service menu (shown in LCD 2). See instructions below for navigating the service menu.
















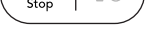
Programme selector	
	<ol style="list-style-type: none"> 1. Press the programme selector button to scroll between the various service menus. 2. Turn the programme selector button to make a selection between the menus (e.g. set a certain water inlet). Confirm the selection and go to the next menu by pressing the programme selector button (1). 3. Press the Start/Stop button to confirm the settings and exit the service menu.










Programme selector button for integrated machines	
	<ol style="list-style-type: none"> 1. Press the programme selector button to scroll between the various options. 2. Press the small arrows to make a selection between the options (e.g. set a certain water inlet). Confirm the selection and go to the next option by pressing the programme selector button (1). 3. Press the Start/Stop button to confirm the settings and exit the service menu.

Service menu

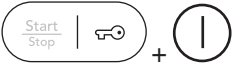

The options below are displayed in the order they occur in LCD 2. All display text language versions are displayed.

Press/turn	LCD 2	Comments/instructions
 	DataSerialNo, Data Ser Num, DataSerialNo, DataSerialNo, Seriennummer, Seriennummer, Dataversio Nro, N° de série, Seriennummer, Num. di serie, N° de serie, Серийный номер, Seriennummer	Date for programming the software (Year_Week)
	CU date code, CU Date Code, CU date code, CU datum kod, CU dato kode, Styrekort prod dato, CU pvm koodi, Code date CU, CU Datumscode, Codice data CU, Código fecha CU, Код даты БУ, CU datacode	Control unit's date of manufacture (Year_Week)
	Software, Software, Software, Mjukvara, Software, Software ver., Ohjelmisto, Logiciel, Software, Software, Software, Версия прог., Software	Software version number.
	No. of cycles, Number of Cycles, No. of cycles, Antal cykler, Antal cyklusser, Antall bruk, Syklien lkm, Nb. de cycles, Anzahl der Zyklen, Numero cicli, N° de ciclos, Кол-во циклов, Aantal cycli	Number of cycles/programmes run
	Press  to exit the service menu.	
 	"Error_Number of cycles"	Last three errors and number of cycles is shown. Total reset deletes the error indications from the system. Delete the error indications by pressing the DOOR OPENING BUTTON and the MAIN POWER SWITCH at the same time.
	"Error_Number of cycles"	
	"Error_Number of cycles"	
	Press  to exit the service menu.	
 	Testing	
	Test valve 1, Testing Valve 1, Test valve 1, Ventiltest 1, Tester ventil 1, Test av vannventil 1, Mg venttiilitesti 1, Essai vanne 1, Ventil testen 1, Test valvola 1, Test válvula 1, Тест клапана 1, Test inlaatventiel 1	Inlet valve 1 is open. Pressure sensor value is shown in LCD 2.
	Test valve 2, Testing Valve 2, Test valve 2, Ventiltest 2, Tester ventil 2, Test av vannventil 2, Mg venttiilitesti 2, Essai vanne 2, Ventil testen 2, Test valvola 2, Test válvula 2, Тест клапана 2, Test inlaatventiel 2	Inlet valve 2 is open. Pressure sensor value is shown in LCD 2.
	Test valve SM, Testing Valve SM, Test valve SM, Ventiltest SM, Tester ventil SM, Test av vannventil SM, Mg venttiilitesti SM, Essai vanne SM, Ventil testen SM, Test valvola SM, Test válvula SM, Тест клапана SM, Test inlaatventiel SM	Inlet valve 1 and 2 is open. Pressure sensor value is shown in LCD 2.
	Test heater, Testing Heater, Test heater, Elementtest, Tester varmelegeme, Test av element, Vastustesti, Essai résistance, Heizung testen, Test elem. riscald., Test elemento calef, Тест ТЭНа, Test verw.element	Heater is on until max 60 °C. Thermistor value is shown in LCD 2.

 	Test motor, Testing Motor, Test motor, Motortest, Tester motor, Test av motor, Moottoritesti, Essai moteur, Motor testen, Test motore, Test motor, Тест мотора, Test motor	The motor is running at normal action (49 rpm)
	Test drain, Testing Drain, Test drain, Tömningsstest, Tester udpumpning, Test av tømning, Tyhjennyspumpputesti, Essai vidange, Abfluss testen, Test scarico, Test drenaje, Тест насоса, Test afvoerpomp	Drain pump is on. Pressure sensor value is shown in LCD 2.
	Test spin, Testing Spin, Test spin, Centifugeringstest, Tester centrifugering, Test av sentrifugering, Linkoustesti, Essai essorage, Schleudern testen, Test centrifuga, Test centrifugado, Тест отжима, Test centrifugeren	A Spin sequence is performed, the drain pump is running. Unbalance value is shown in LCD 2.
	Test door, Testing Door, Test door, Dörrtest, Tester luge, Test av dørlås, Luukun lukon testi, Essai porte, Luke testen, Test sportello, Test puerta, Тест замка дверцы, Test deurslot	Door lock is activated, the door is then opened.
	Press  to exit the service menu.	
 	0 -15% -10% -5% +5% +10% +15%	Adjust water inlet volume. Default value is 0".
	Press  to exit the service menu.	
 	0 +3 +2 +1 -1 -2 -3	Adjust LCD contrast LCD. Contrast "0" (default)
	Press  to exit the service menu.	
 	Rinses3, Rinses3, Rinses3, Sköljning3, Skylninger3, Skylling3, Huuhtelut3, Rinçage3, Spült3, Risciacqui3, Enjuagues3, Полоскание3, Spoelen3 Rinses5, Rinses5, Rinses5, Sköljning5, Skylninger5, Skylling5, Huuhtelut5, Rinçage5, Spült5, Risciacqui5, Enjuagues5, Полоскание5, Spoelen5	Adjusting the default setting for rinsing (default = 5 rinses). Setting can be made in heavy (Programme 2), White (3) colour (Programme 4)
	Press  to exit the service menu.	

	Reheat Off, Reheat Off, Reheat Off, Återvärmning Av, Genopvarmning Fra, Oppvarming Av, Uudelleenlämmitys Poissa, Réchauffage Off, Erneut heizen Aus, Riscaldamento Off, Recalentamiento apagado, Нагрев Выкл, Opnieuw verwarmen Uit	Deactivate the function.
	Reheat On, Reheat On, Reheat On, Återvärmning på, Genopvarmning Til, Oppvarming På, Uudelleenlämmitys Päällä, Réchauffage On, Erneut heizen An, Riscaldamento On, Recalentamiento encendido, Нагрев Вкл., Opnieuw verwarmen Aan	Activate the function
	Press  to exit the service menu.	
	1500 rpm 1600 rpm 1700 rpm 1800 rpm 1900 rpm 2000 rpm	Setting maximum speed. Maximum rpm is either 1800 or 2000 rpm depending on model.
	Press  to exit the service menu.	
	Reset	<p>Reset displayed by LCD. For resetting the machine to the customer start menu proceed as follows.</p> <ol style="list-style-type: none"> 1. Enter the service menu. (Se page 13 in the service manual.) 2. Press the programme selector button repeatedly* until "RESET" is displayed on LCD 2. 3. Push the Start/Stop button, "1 LANGUAGE" is displayed On LCD 2. 4. Switch the power Off with the main switch. <p>* (8 times for WM and 5 times for TD)</p> <p>The next time the power switches On, the machine is in the customer start menu. Pressing S2 a reset is performed and the following actions are performed:</p> <ol style="list-style-type: none"> 1. Language settings are accessed (LCD1 off), language confirmed by S2. 2. Clock setting is accessed (LCD1 off), setting confirmed by S2. 3. Set time menu is accessed (LCD1 off), time confirmed by S2. 4. Text "Transport protection" is displayed in LCD1 (LCD2 and 3 off), by pressing any key or rotating J1 the program menu is accessed. <p>Pressing S1 service menu step 1 is accessed.</p> <p>If the machine is turned off before step 4 is completed the machine shall restart at step 1. When all steps are completed the machine shall return to program selection mode.</p>
	Press  to exit the service menu.	



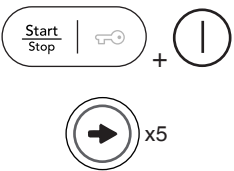
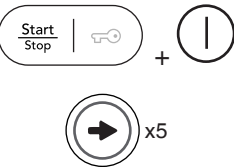
Production test

Starting the production test	
	If the machine is on: First switch the power off via the main power switch. Then press and hold the door opening button at the same time as the main power switch.
	Press the Start/Stop button 5 times.

To facilitate troubleshooting in the event of a fault occurring, the machine can be tested by activating "Production test" which takes approx.. 20 minutes and tests the different functions of the machine.

1. The machine takes in water until normal water level. Push the DOOR OPENING BUTTON to confirm the selection and go on to the following steps (see below).
2. The heating element is activated; the CU checks that an adequate rise in temperature (20° c) is achieved within a set time.
3. The motor is activated as if a washing programme had been started.
4. The machine is emptied by activating the drain motor; the pressure sensor should register that the draining is complete within a given time.
5. When the machine is empty of water, the motor is tested by activating the spin programme, and at the same time as the drainage pump.
6. The Production test is finished - the door opens. If the CU detects any faults during the test programme the test sequence will be stopped and a trouble code is shown on the display. For a detailed description, see the Service Manual.

In-store demonstration programme

1. Activating the In-store demonstration programme (for machines manufactured up to week 736)	
	If the machine is on: First turn off the power at the main power switch. Then press and hold the Start button while turning on the main power switch. At this point no settings can be made. The centre display will activate after 3 minutes. Settings can now be made, but the machine cannot be started.
2. Stopping the In-store demonstration programme (for machines manufactured up to week 736)	
	First turn off the power at the main power switch. Then press and hold the Start button while turning on the main power switch. The In-store demonstration programme is now stopped.
1. Activating the In-store demonstration programme (for machines manufactured from week 737 on)	
	If the machine is on: First turn off the power at the main power switch. Then press and hold the Start button while turning on the main power switch. Press the programme selector 5 times. At this point no settings can be made. The centre display will activate after 3 minutes. Settings can now be made, but the machine cannot be started.
2. Stopping the In-store demonstration programme (for machines manufactured from week 737 on)	
	First turn off the power at the main power switch. Then press and hold the Start button while turning on the main power switch. Press the programme selector 5 times. The In-store demonstration programme is now stopped.

Fault indications

The below faults are indicated in plaintext in LCD 1. The table shows the indication in all languages and language variations.

LCD 1	Cause	Action
Over flow fault, Overflow Fault, Over flow fault, Överflyllnad, Overløbsfejl, Overflom, Ylitulviminen, Trop plein, Überfüllt, Troppo pieno, Desborde, Перелив воды, Te veel water	Too much water in the machine	Service action: Check the machine's level system, inlet valve and drain pump. Make sure that there is no leaks.
	The drain pump is on, without any water in the machine.	Service action: The overflow protection at the bottom of the machine is activated (not all models). Make sure that there is no leaks (water on the machines base)
Water outlet fault, Water Outlet Fault, Water outlet fault, Uttömningsfel, Udpumpningsfejl, Vannutløp, Vedenpoistovika, Défaut, Wasserablauffehler, Uscita acqua, Fallo, Слив воды, Waterafvoer fout	<ol style="list-style-type: none"> The drain pump has been activated more than 3 minutes. There is still water in the machine. The wash cycle is interrupted and the programme is cleared 	Customer information: <ol style="list-style-type: none"> Check that no objects are stuck in the drainage hose outlet. Check that the drain pump is not blocked by foreign objects. Check that there are no kinks in the drainage hose. Service action: <ol style="list-style-type: none"> If the pump only runs for a short while (approximately 20 seconds), this indicates a fault in the level system. Check the level sensor and hoses. Check wiring and voltage to the pump. If necessary, replace the pump and/or control After implementing corrective action, run the Drain programme or press the Key button (door open) to empty the machine.
Water inlet fault, Water Inlet Fault, Water inlet fault, Vattenintagsfel, Vandindtagsfejl, Vanntilførsel, Vika vedenotossa, Défaut, Wasseraufn.-fehler, Entrata acqua, Fallo, Набор воды, Watertoevoer fout	If the correct water level is not reached within 5 minutes, the wash cycle is interrupted.	Customer information: <ol style="list-style-type: none"> Check that the tap on the water pipe is open. Service action: <ol style="list-style-type: none"> Check that the filter in the machine's water intake is not blocked. Check the inlet valve. If necessary, replace the valve. Check voltage to the inlet valve. If there is no voltage, this could be due to a fault in the level system, wiring or control unit.
Security fault, Security Sys Fault, Security fault, Lucköppningsfel, Sikkerhedsfejl, Sikkerhetsfeil, Vika turvajärj., Erreur sécurité, Sicherh.-fehler, Err. sis.sicurezza, Fallo sistema seguridad, Ошибка сис. безоп., Deurslot fout	The door is open.	Customer information: Check that the door is closed properly Service action: <ol style="list-style-type: none"> Check for faults on the door lock or wiring to the door lock. Check the function of the level sensor. Check the control unit.
Unbalance (language to be defined in next version)	Is indicated when wash load is not evenly applied in the cylinder.	Customer information: Make sure that the load is evenly applied.
Thermistor fault, Thermistor Fault, Thermistor fault, Termistorfel, Termostat fejl, Termistor, Termistorivika, Défaut, Termistorfehler, Termistore, Fallo, Термистор, Temp. sensor fout (Note: Is only shown in the Service menu)	<ol style="list-style-type: none"> The circuit for the thermistor is open. The thermistor is faulty The measurement value for the thermistor is <math><300 \Omega</math> (>120 °C/248 °F) 	Service action: Check the thermistors function. If needed, replace it.

LCD 1	Cause	Action
Temperature fault, Temperature Fault , Temperature fault, Temperaturstopfel, Temperatur fejl, Temperaturstopp, Ei lämmitä vettä, Défaut , Temp.-stopfehler, Errore arresto , Fallo , Температура, Temperatuurstop (Note: Is only shown in the Service menu)	The temperature is raised < 5 °C/41°F within 10 minutes. The wash cycle continues to next step.	Service action: Check the heater, cables, thermistor and level system.
Wash motor fault, Wash Motor Fault , Wash motor fault, Motorfel, Motor fejl, Motorfeil, Moottorivika, Défaut , Motorfehler, Motore lavaggio , Fallo , Мотор, Motorstoring	Indicated if the tachogenerator is overloaded or control signal is missing (from the tachogenerator or MCU).	Service action: Check signal from the MCU and cables between motor and MCU.
Pressure fault, Pres Sensor Fault, Pressure fault, Tryksensorfel, Tryksensor fejl, Nivåfeil, Painesensorivika, Défaut , Drucksensorfehler, Pressostato , Fallo , Датчик уровня, Druksensor fout (Note: Is only shown in the Service menu)	Indicated when water level is decreasing drop to zero within 30 sec in the first rinse	Service action: Check for leaks.

After carrying out corrective actions as above, reset the fault indications by pressing the DOOR OPERING BUTTON at the same time as the main power switch.

Components and measurement values¹

Item number	Component	Measurement value	Comments
80 658 33	CIM-motor	Resistances: Pin 1-3 stator 3.7 Ω Pin 1-2 stator 3.6 Ω Pin 2-3 rotor 3.6 Ω Pin 4-5 tachometer 178 Ω	
80 617 06	Värmeelement 2000 W	28,4 Ω	
80 761 02	Thermistor	6.1-3.8 k Ω (at room temperature 20 – 30°C/ 86°F)	The thermistor for temperature reading is located between the motor cradle and the container. The thermistor measures and controls the water temperature that can vary from 0 to 90°C/ 194°F. The element is disconnected if the thermistor is short-circuited or disconnected from the programme control card.
88 012 63.	Drain pump 50 Hz	144 Ω.	The drain pump is combined with an integrated fine filter trap, which can be cleaned by the user. If the drain pump has run for 180 seconds during draining, the programme stops, resets and a fault code is indicated in the display. The drain pumps capacity is 20 liters/min.
88 012 64.	Drain pump 60 Hz	76 Ω	
80 782 21	Level Switch		Electro mechanical level switch with two levels, see wiring diagram. Indicates levels for door opening, heat and overfilling.
80 762 02	EMC filter with inductor 50/60 Hz	680 kΩ	The filter eliminates interference to and from the machine.
80 793 24	Inlet valve	3,7 kΩ ± 0,5 kΩ	2 way inlet valve 8 litres / minute
80 798 73	Door lock	122 Ω	The door lock is electro mechanical and equipped with a magnet.
80 773 63	Control Unit WM60.3		
80 792 89	Control Unit WM60.3 FI		

¹ All resistances shown in the table have tolerances of +/- 10%

Measurement values thermistor

Temp, ° C	Temp, ° F	Resistance, Ohm
0	32	15806
10	50	9634
20	68	6046
25	77	4841
30	85	3900
40	105	2579
50	120	1744
60	140	1204
70	160	848
80	175	609
85	185	519

Technical data

Height:	850 mm
Width:	595 mm
Depth:	585 mm
Weight:	75 kg / 80 kg (with outer door)
Cylinder volume:	50 l
Max. washing capacity:	6,0 kg
Spin speed:	400-2000 rpm
Connection:	1 fas 10 A
Element power:	2000W, 230V (See type designation)
Water pressure:	0,1 – 1 MPa., 1 – 10 kp/cm ² , 10 – 100 N/cm ²
Wash drum and liquid compartment material:	Stainless steel
Outer casing material:	Powder-coated and hot-galvanized sheet steel or stainless steel
Set-up:	Stationary on four adjustable, rubber-clad feet
Water connection:	1.5 m PEX tubing, 3/4" – 3/4" or 3/4" – 1/2"
Drain:	1.7 m polypropylene tubing
Protection class::	IP X4
Water consumption:	54 l (3 rinses), <69 l (5 rinses)
Energy consumption	1,02 kWh
Energy consumption StandBy: - Main switch off - Display on - Display off	0,0 W 5,0 W 3,0 W

Tools

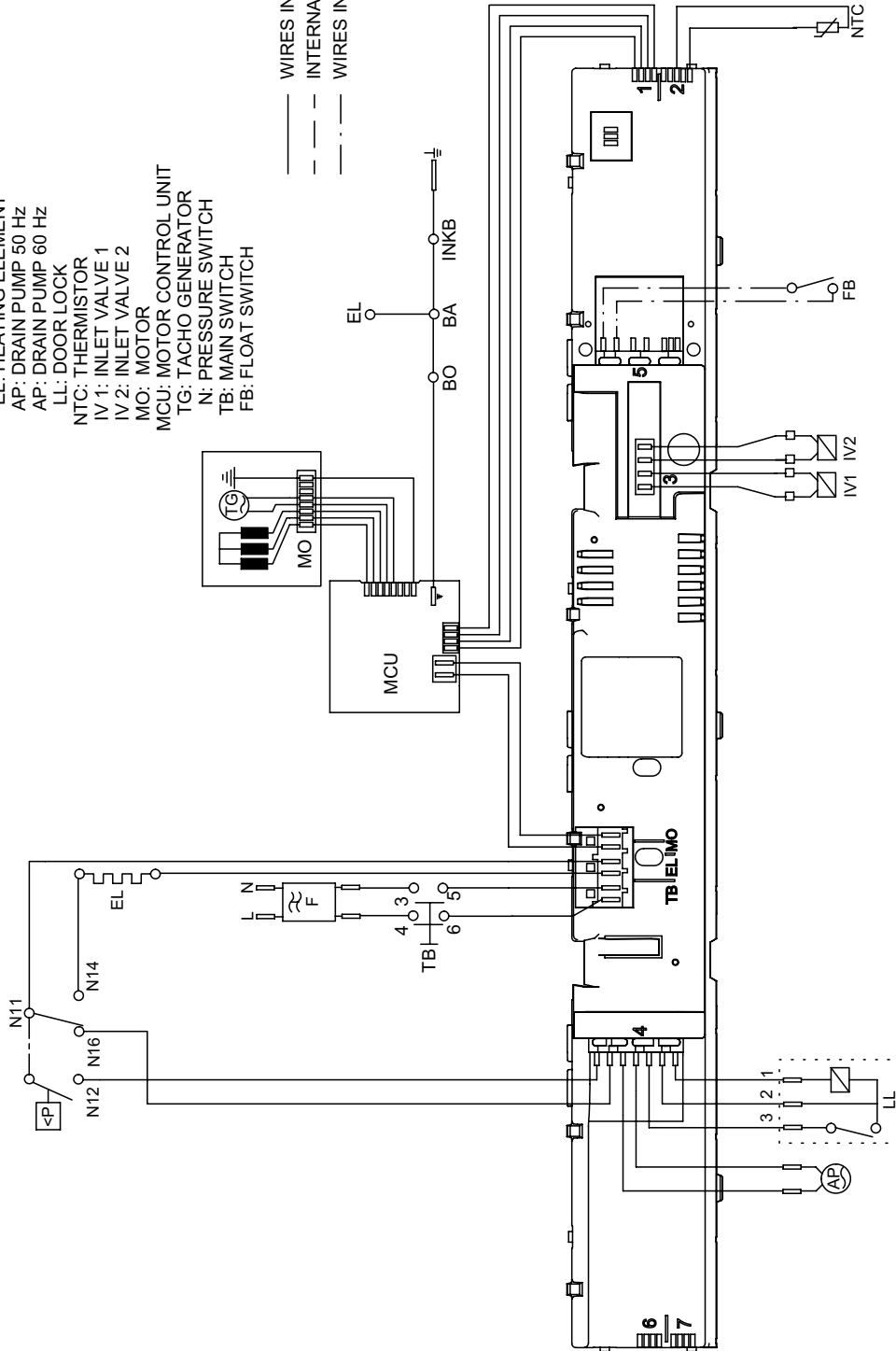
Torx T25 T20 T10	Socket screwdriver 10mm	5mm socket head cap screwdriver + small locking handle	Plastic hammer
Ring spanners 11/16" 16mm 13mm 10mm	24mm extended socket + locking handle	Star socket head screwdriver	A pair of nippers

Wiring diagram

RESISTANCES AT ROOM TEMPERATURE (CA. 20°C/68°F)
VALUES WITH +/-10% ARE REGARDED AS NORMAL
COMPONENT

- F: RADIO INTERFERENCE SUPPRESSION FILTER 680K Ohm
- EL: HEATING ELEMENT 25 Ohm
- AP: DRAIN PUMP 50 Hz 144 Ohm
- AP: DRAIN PUMP 60 Hz 76 Ohm
- LL: DOOR LOCK 122 Ohm
- NTC: THERMISTOR 6.1 - 3.8 K Ohm
- IV 1: INLET VALVE 1 3.7 K Ohm
- IV 2: INLET VALVE 2 3.7 K Ohm
- MO: MOTOR
- MCU: MOTOR CONTROL UNIT
- TG: TACHO GENERATOR
- N: PRESSURE SWITCH
- TB: MAIN SWITCH
- FB: FLOAT SWITCH

— WIRES IN ALL MACHINES
- - - INTERNAL CONNECTION
- · - · - WIRES IN SOME MACHINES






CIRCUIT DIAGRAM WM60.3
80 788 69 - 00

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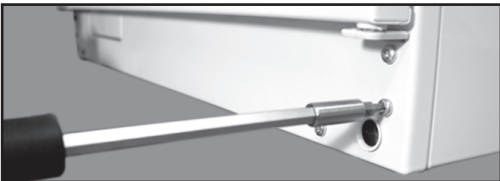
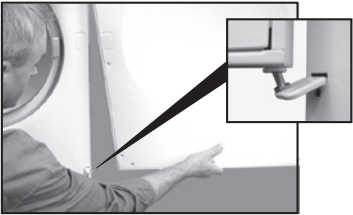

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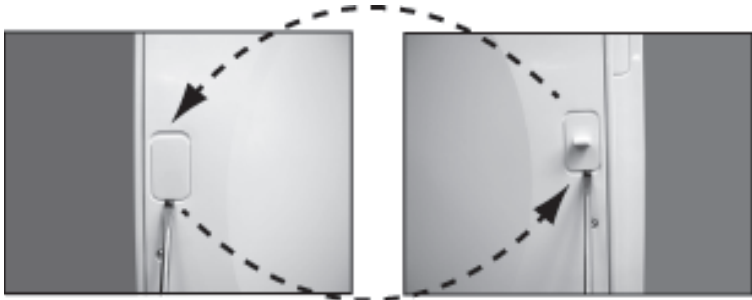
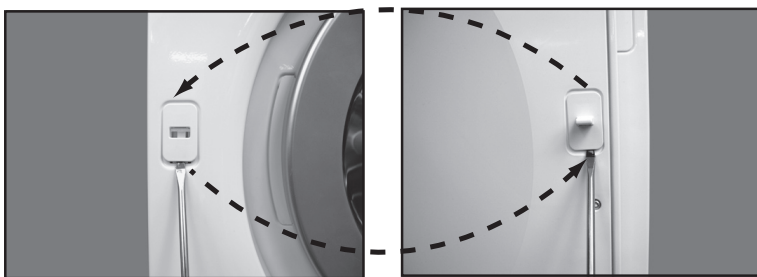
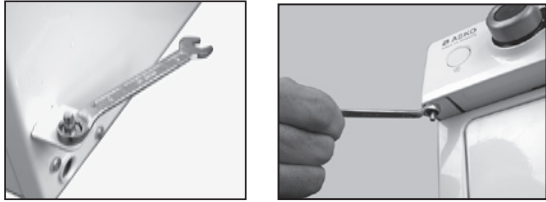

Rehanging the door

Some machines in the WM60-series is supplied with a door - is that the case the door is hung on the left-hand side. It is, however, possible to re-hang it according to the instructions below. Take care not to damage the paint when carrying out work with tools.

Required tools	
Flathead screwdriver	
Torx size 20	
Fixed spanner size 8	



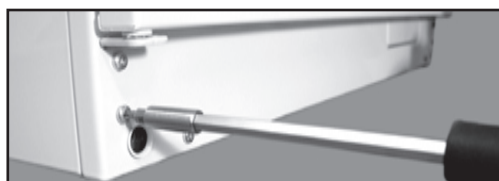
Instructions	Image
1. Remove the plinth by carefully pulling it out.	
2. Remove both screws for the lower hinge. Use Torx.	
3. Push the door upwards with care and angle outwards. If necessary, carefully press the lower hinge to detach the door.	
4. Slacken off the lower and upper hinge pins using a fixed spanner.	

<p>5. Remove the plastic plugs covering the holes for the hinge pins and switch location</p>	
<p>Method for removing plastic plugs, lock and catch located on the machine and the door: Carefully push the plug, catch or lock upwards with a flat screwdriver, as the picture shows.</p>	
<p>6. Carefully remove the catch and plastic plug on the door (according to the method above) and switch location.</p>	
<p>7. Carefully remove the lock and plastic plug on the machine (according to the method above) and switch location.</p>	
<p>8. Screw the hinge pins securely into place on the corresponding side of the machine.</p>	
<p>9. Slacken off the screws for the lower hinge on the corresponding side of the machine. This must be done to hang the door.</p>	

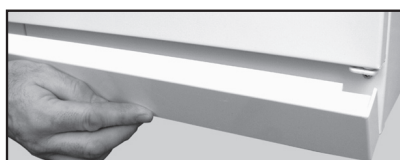
10. Align the door in the upper hinge. Carefully push the lower hinge down if necessary and align the door.



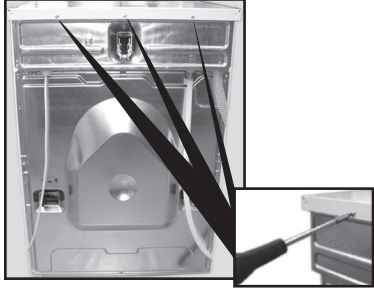
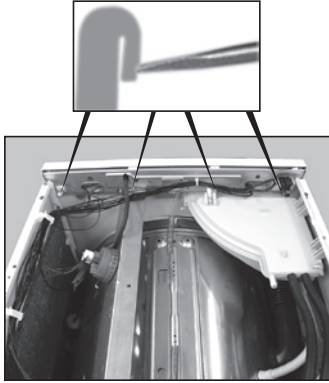
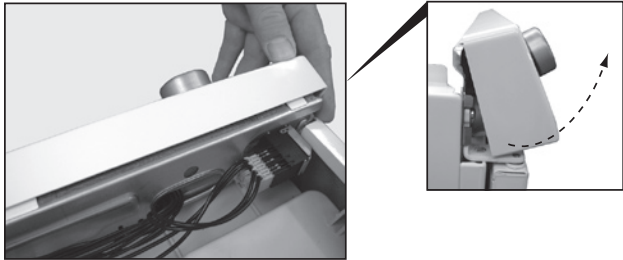
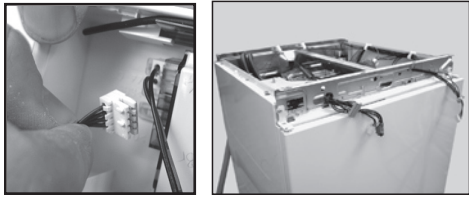
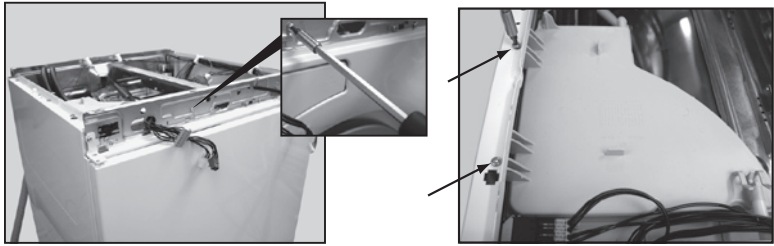
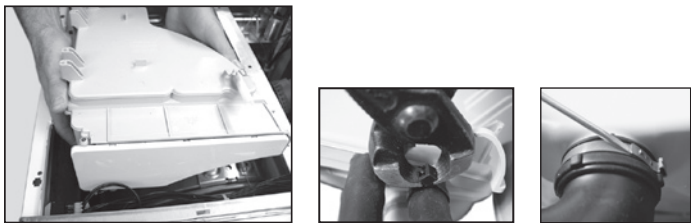
11. Screw the lower hinge into place securely. Use Torx.

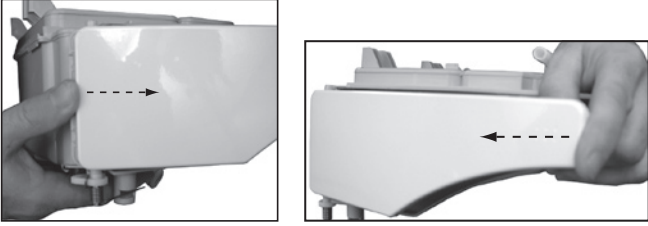
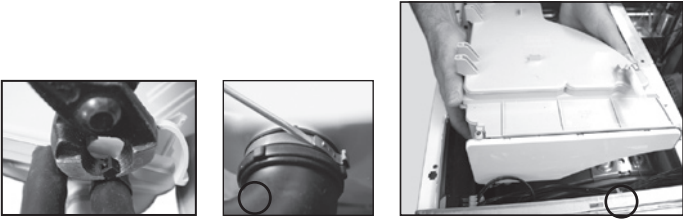
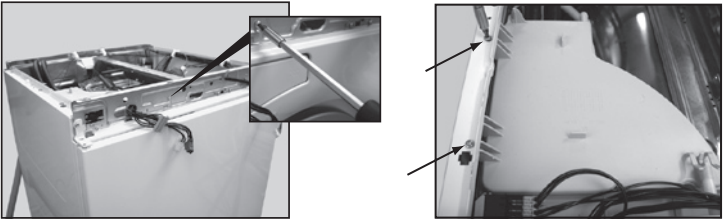

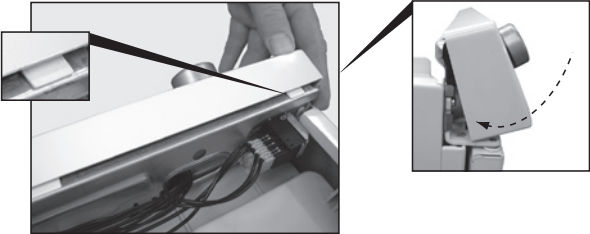
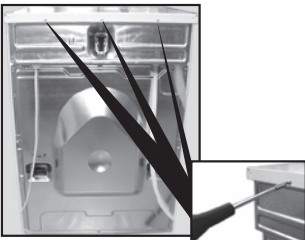


12 Press the plinth into place. The door has now been re-hung.

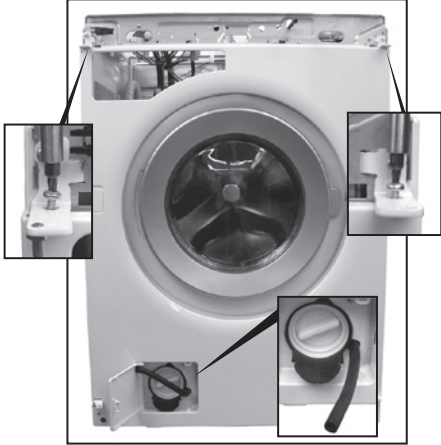

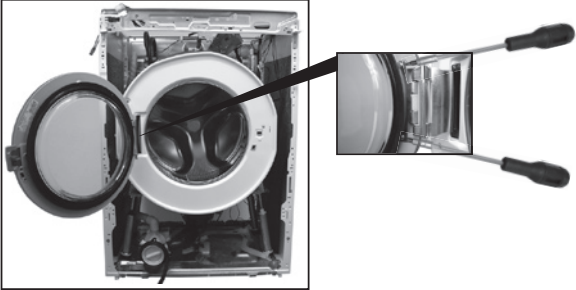

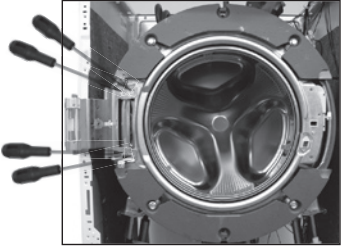


Replacing panels and detergent compartment

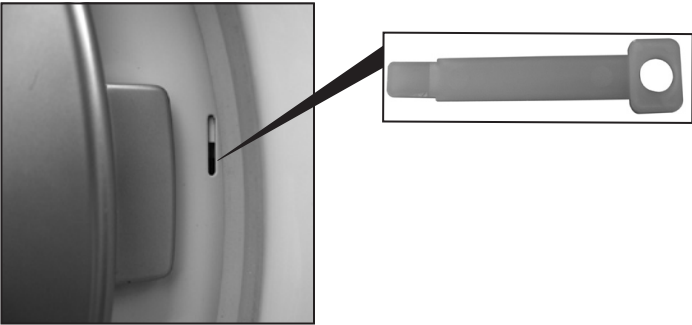

Instructions	Image
<p>1. Unscrew the top cover.</p>	
<p>2. Carefully press the catches that secure the panel at the front beam. Release the catches from the front member by working the panel outwards.</p>	
<p>3. Detach the panel by angling and pulling it carefully outwards at the lower edge.</p> <p>Note: Do not damage the wiring!</p>	
<p>4. Carefully disconnect the wiring from the control unit.</p>	
<p>5. When removing the detergent compartment, first slacken off the screw on the front member and then the two screws holding the detergent compartment in the side panel.</p>	
<p>6. Lift the detergent compartment. Then remove the hose clamps for all hoses, which are secured in the detergent container. Then detach the hoses from the detergent compartment.</p>	

Instructions	Image
<p>7. If necessary: Replace the decor panel for the detergent compartment. Detach the decor panel by pressing according to image 1. Install the decor panel by first placing the decor panel in the grooves on the detergent container and then snapping it into place as illustrated in image 2.</p>	
<p>8. Install the detergent compartment by first pressing all hoses into place and then securing them using the hose clamps.</p>	
<p>9. Screw the detergent compartment into place using the three screws (one in the front panel and two in the frame)</p>	
<p>10. Install all wiring in the relevant locations on the control card.</p>	
<p>11. Install the panel. Angle the panel outwards and place the mounting plates in the relevant grooves in the front frame. Angle the panel downwards and secure it with the catches</p>	
<p>12. Screw the top cover into place.</p>	

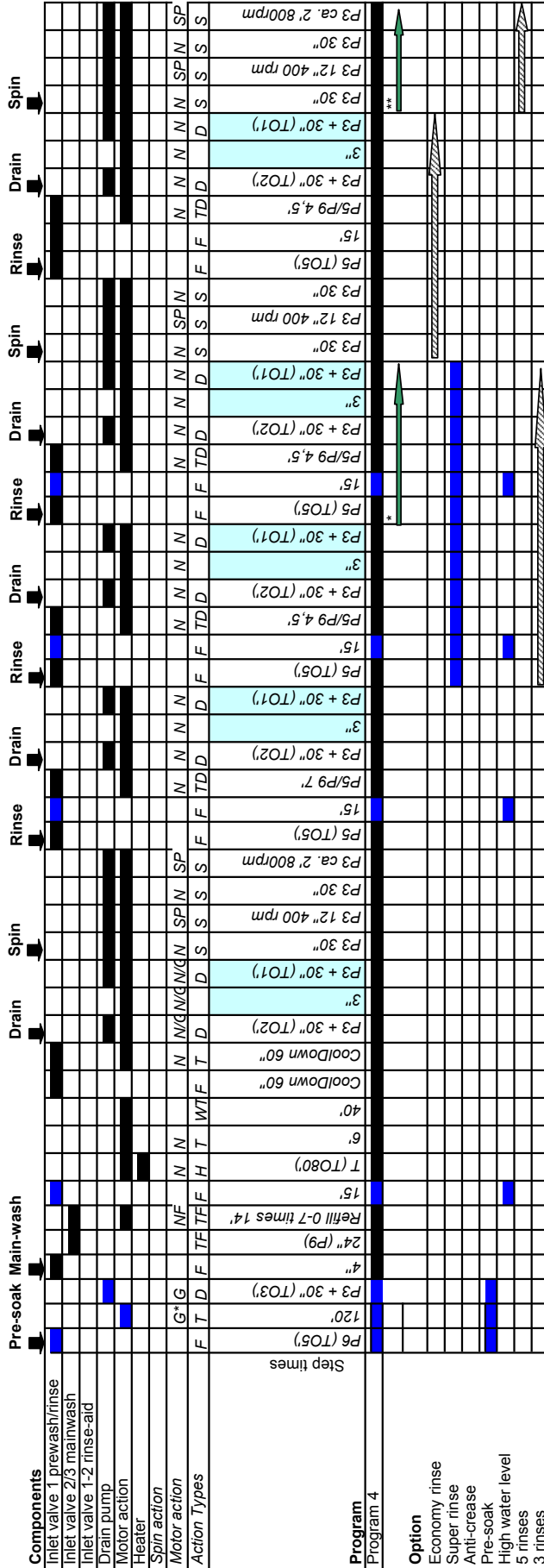
Replacing front panel, door, cover plate and the hinges

Instructions	Image
<p>1. Unscrew the screws in the hooks holding the front panel. Then carefully pull off the drainage hose that is secured in the door for the drainage pump.</p> <p>Note! Water is poring out when the drainage hose is pulled off.</p>	
<p>2. Unscrew the screws holding the front panel. Then remove the front panel by carefully pulling it out at the lower edge.</p>	
<p>3. Unscrew the two screws holding the glass door. Use Torx.</p>	
<p>4. Unscrew the three screws that hold the cover plate to the container. Use Torx.</p>	
<p>5. Unscrew the four screws securing the hinge to the container. Use Torx. After removing the four screws, remove the cover plate and hinge.</p>	

How to use the emergency opener for door lock

Instructions	Image
1. The emergency opener is in the documentation kit.	
3. Push the emergency opener into the slot beside the glass door.	 A black and white photograph showing a close-up of the door frame of a washing machine. A small, dark, rectangular slot is visible. A hand is shown inserting a grey emergency opener into this slot. An inset image to the right shows the emergency opener in detail: it is a long, thin, grey plastic tool with a circular hole at one end and a small notch at the other.
4. Push the emergency opener upwards and the door will open.	 A black and white photograph showing a close-up of the door frame. A hand is shown pushing the emergency opener upwards into the slot. The door is slightly ajar, indicating it is being unlocked.

Timer diagram Program 4
(Continue on next page)



Continue on next page

* When 5 rinses and superrinse, this step is executed

** if superrinse this step is executed

Notes