



ASKO SERVICE ACADEMY

Service manual Washing machine WMC55 Professional

 **ASKO**
BUILT TO LAST LONGER

You have in your hand the ASKO Service Manual for the new generation of washing machines, that are friendly to the environment in both their manufacture and their use.

This new generation of washing machines has been designed for ease of servicing. By this we mean that it's a simple job, for example, to replace a damaged side panel. That's why we've changed the design from a one-piece shell to a split shell.

To secure parts, we have replaced many of the screws by plastic snap fasteners. We have also designed the machines so that you can perform as much servicing as possible from the front, all for simplifying service.


We have also integrated service aids, such as hooks to hang parts on, so that you can use both hands for installation.

Servicing washing machines has to be easy, and just as it is important for us that the customer shall be satisfied with our simple, able and durable machine, so we also want to give you, the service engineer, the conditions to permit you to work efficiently and satisfactorily.

We hope that this Service Manual will be a positive tool in your daily work.

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INSTALLATION

TRANSPORT SUPPORTS

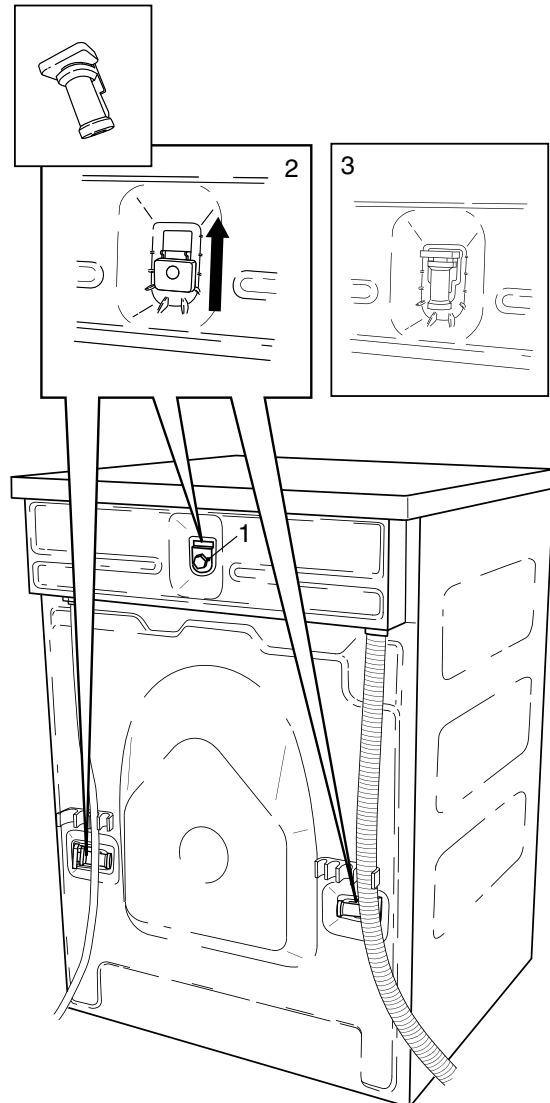
Before the machine can be used, the 3 transport supports must be removed. Each transport support consists of a screw, a washer and a transport sleeve. The transport sleeves are used after the supports have been removed, to plug the holes in the transport beam.

Removing the transport support

1. Undo the screw and remove the washer.
2. Remove the transport sleeve by first raising it up and then taking it out.
3. Fit the transport sleeves into the transport support holes.

IMPORTANT

Keep the screws and washers in a safe place, in case the machine has to be transported again later on.

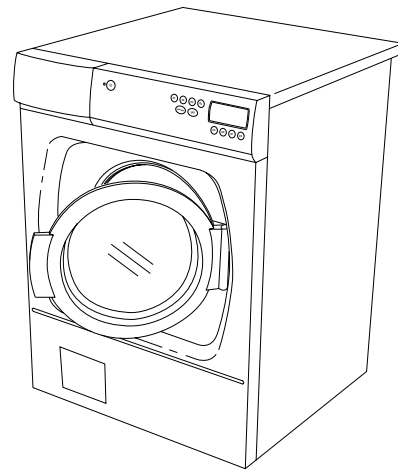


LOCATION OF THE WASHING MACHINE

The washing machine can be either free-standing or built in.

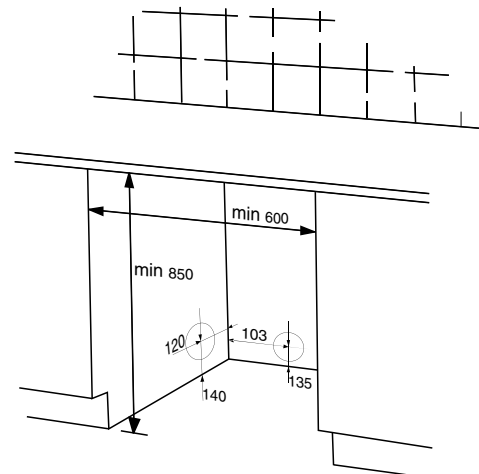
A. Free-standing

The washing machine can be located as a free-standing unit.



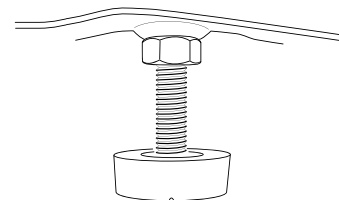
B. Built-in

The washing machine can be built in under a work top with a working height of 850 - 900 mm. Leave a 5 mm gap all round the machine, including a space between the rear edge of the top cover and the wall behind it.



ADJUSTING THE FEET

Adjust the feet so that the machine is stable and upright on the floor. Secure the feet by tightening their locking nuts.

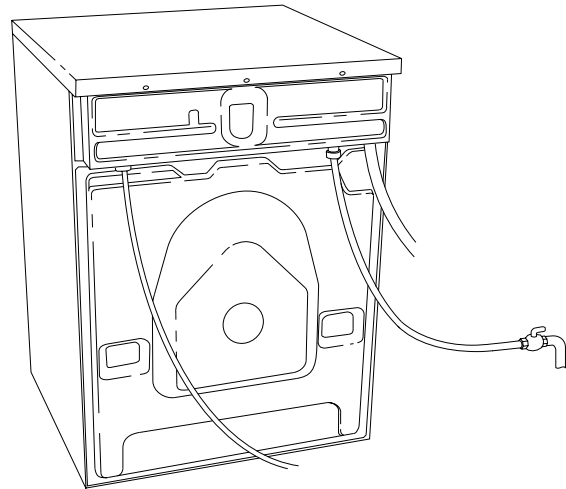


INSTALLATION

WATER CONNECTION

The machine is plumbed in with the connection hose that comes with it. The water pressure shall be 0.1-1MPa (approx. 1-10kp/cm² ; 10-100N/cm²).

The water supply must have a stop cock. If the piping is new, it can be advisable to first thoroughly flush it through so that any dirt will be flushed out. Otherwise, any dirt in the piping could block the filter in the machine's inlet valve and stop the water supply.



WATER INTAKE – MIXED OR COLD WATER

On delivery the machine is set to use mixed hot and cold water (E).

Machines with the US programme are set to use both warm and cold water (H):

P1-P3: Warm water intake.

P4-P6: Mixed warm and cold water intake

P7-P8: Cold water intake.

To change the water intake setting, do as follows:

Switch off the power switch, (⊙), then switch it on again so that the machine is in start-up mode.

Press the (P8) button five times, then press the (P4) button five times. You have to complete these ten button presses within fifteen seconds.

Within three seconds of pressing the (P4) button for the fifth time you must then select the type of water intake you want by pressing the (P6), (P7) or (P8) buttons.

(P6) to use cold water intake only (C).

(P7) for US intake, see above (H). Could only be used on machines with US programme.

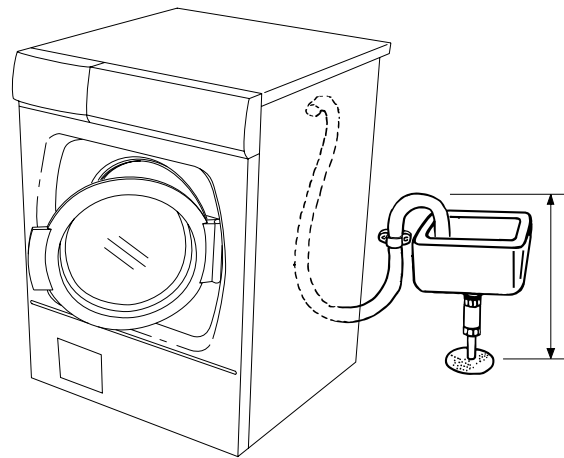
(P8) to use mixed hot and cold water (E).

A letter C near the bottom right of the display shows that cold water is being used, H shows the intake for US mentioned above and the letter E indicates mixed hot and cold.

DRAIN CONNECTION

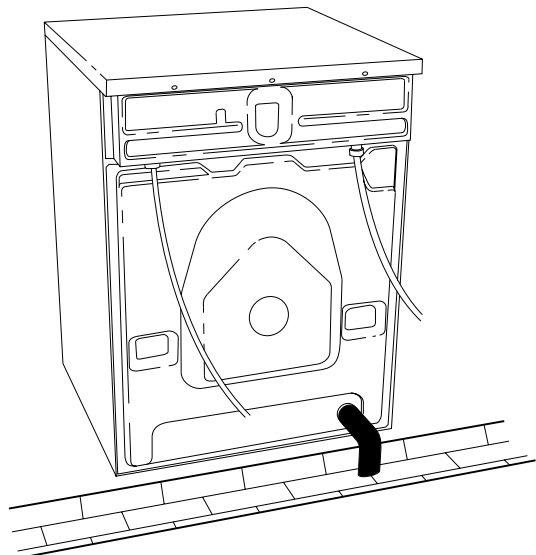
Machine with drain pump

The machine is delivered with a connected drain hose that shall be connected to a suitable sink or other drain connection. The height shall be 500 - 900 mm above floor level. Make sure the drain hose does not kink.



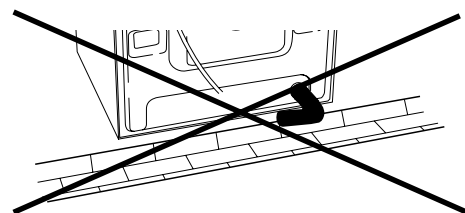
Machine with drain valve

An outlet hose is supplied with the machine. This must be connected to the outlet on the machine and empty into a floor drain or gutter drain.



NOTE!

The end of the outlet hose must be lower than the lowest point of the outlet valve.



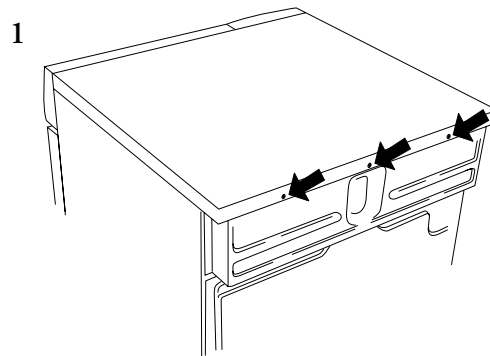
INSTALLATION

CONNECTING TO A COIN MECHANISM

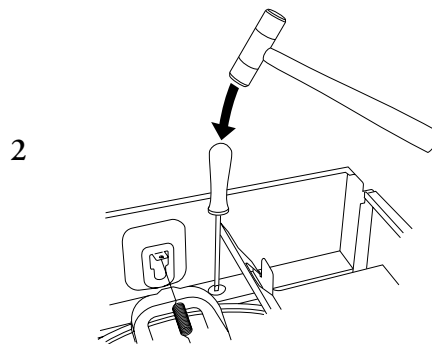
Connection to a coin mechanism must be carried out by a qualified electrician.

A special connecting cable is required to connect the machine to a coin mechanism. This can be ordered as a spare part, art. no. 92 090 95.

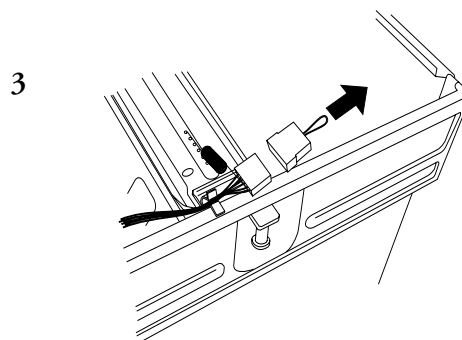
1. Remove the 3 screws at the rear of the top cover. Remove the top cover.



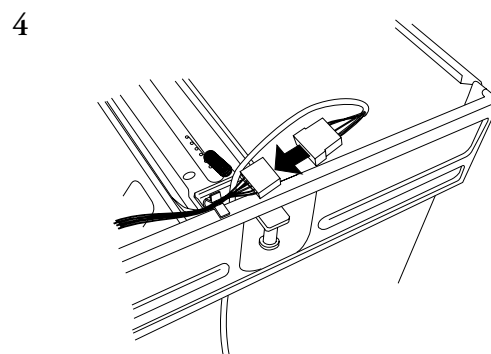
2. Knock out the punching from the bottom of the rear bracket.



3. Connect the socket of the connect cable as shown in the pictures 3 and 4.



4. Lead the cable through the hole in the bracket. Use the cord restraint to secure the position of the cable and moisture protection of the machine.



5. To connect the connecting cable, see the instructions provided by the supplier of the coin mechanism and the circuit diagram of the machine.

The conductors in the connecting cable

No. Designation conductor

- 1,4 Signal
- B2 Line
- B3 Neutral
- B5 Reset
- B6 Ground

The coin mechanism shall be supplied by B2 and B3.

Coin mechanism with timer

A short circuit is required to start the washing machine. This short circuit shall be done by the coin mechanism for a specified time. Recommended time is 10 minutes. This means that the machine must be started within 10 minutes after insert of coin(s).

Coin mechanism with reset

A short circuit is required to start the washing machine. This short circuit shall be done by the coin mechanism for a specified time.

The washing machine sends a reset signal to the coin mechanism when the machine has reached the first drain in the washing programme. The reset signal input on the coin mechanism should be connected to B2 and B5.

MOTOR- AND PROGRAMFUNCTIONS

Out-of-balance check and spin drying

There are 2 different spin dry sequences, long and short. Both consist of a preliminary spin, the washing cycle and a main spin dry.

Before the preliminary spin the machine runs a separating cycle at 100 rpm, and measures the drum inertia on the way up and down. This checks for out-of-balance. During this cycle the holder may make violent movements although there is nothing wrong.

In attempt to get balance the machine does a maximum of 10 restarts. If the out-of-balance is still too great in the final, tenth, attempt, the program will continue without performing spin drying. This is indicated on the display after the program has finished.

Restart point after interrupted start attempt

If a start has been interrupted due to excessive out-of-balance, the motor runs for 1 cycle counterclockwise, and then another attempt is made.

Drain pump during long spin dry

The drain pump runs continuously for the first 6 minutes and then 50 seconds off, 10 seconds on, 50 seconds off, and so on for the remainder of the respective cycle. If a restart takes place due to excessive out-of-balance, the drain pump operating time is reset to zero.

Drain pump during short spin dry

The drain pump runs continuously for the whole cycle.

Motor actions and inlet valve

Sequence	Inlet valve	Motor action
Pre-wash	1	Normal
Main wash	2 alt 3	Normal
Rinse 1	1	Normal
Rinse 2	1	Normal
Rinse 3	1+4	Normal
Wool	2 alt 3	Super gentle
Syntetic	2 alt 3	Normal
Spin. A		Normal
Spin. B		Normal

Motor actions

Normal: Clockwise 12 seconds on, 3 seconds off, counterclockwise 12 seconds on, 3 seconds off, 49 rpm.

Super gentle: Clockwise 3 seconds on, 57 seconds off, counterclockwise 3 seconds on, 57 seconds off, 49 rpm.

Sequences

Spin A: Normal motor action clockwise and counterclockwise followed by a clockwise peak to 500 rpm, normal motor action clockwise and counterclockwise followed by a clockwise spin for 210 seconds on 1000 rpm.

Spin B: Normal motor action clockwise and counterclockwise followed by a clockwise peak to 500 rpm, normal motor action clockwise and counterclockwise followed by a clockwise spin for 15 seconds on 800 rpm.

Programmes EURO-MOP-MEDICAL-MOP

WMC55 is delivered with one of the programmes EURO, MOP, MEDICAL or MOP. The programmes are described on the following pages. All programmes are not sold on all markets.

The difference on the machines is how the jumpers are set on the program controller board. The jumper settings are described in the circuit diagram, which is enclosed with the machine and with this manual.

Use and care guides and a wall guides for the program EURO, MOP, MEDICAL or MOP are enclosed with the machine from the factory.

MOTOR- AND PROGRAMFUNCTIONS

PROGRAMME VERSION EURO

Progr.	Name	Temp	Spin speed.	Pre wash	Main wash	Rinse 1	Spin B	Rinse 2	Spin B	Rinse 3	Spin A	Spin B
EURO		°C	rpm	min	min	min	min	min	min	min	min	min
P1	Heavy	90	1000	10	37	3	2,5	3	2,5	3	6	
P2	Normal	90	1000		37	3	2,5	3	2,5	3	6	
P3	Normal	60	1000		23	3	2,5	3	2,5	3	6	
P4	Normal	40	1000		11	3	2,5	3	2,5	3	6	
P5	Syntetic	40	800		7	3		3		3		2,5
P6	Super Quick	40	800		4	3				3		2,5
P7	Wool	30	800		4	3		3		3		2,5
P8	Spin		800									2,5

For total time, see Consumption Values on page 22.

Main wash: Heating time are included in the time.
All main washes starts with 4 seconds on inlet valve 1.

PROGRAMME VERSION MOP

Progr.	Name	Temp	Spin speed	Pre wash	Main wash	Rinse 1	Spin B	Rinse 2	Spin B	Rinse 3	Spin A	Spin B
MOP		°C	rpm	min	min	min	min	min	min	min	min	min
P1	Heavy	90	1000	10	37	3	2,5	3	2,5	3	6	
P2	Heavy	60	1000	10	23	3	2,5	3	2,5	3	6	
P3	Normal	90	1000		37	3	2,5	3	2,5	3	6	
P4	Normal	60	1000		23	3	2,5	3	2,5	3	6	
P5	Normal	40	1000		11	3	2,5	3	2,5	3	6	
P6	Syntetic	40	800		7	3		3		3		2,5
P7	Wool	30	800		4	3		3		3		2,5
P8	Rinse		1000							3	6	

For total time, see Consumption Values on page 23.

Main wash: Heating time are included in the time.
All main washes starts with 4 seconds on inlet valve 1.

PROGRAMME VERSION MEDICAL

Progr.	Name	Temp	Spin speed	Pre wash	Main wash	Rinse 1	Spin B	Rinse 2	Spin B	Rinse 3	Spin A	Spin B
MEDICAL		°C	rpm	min	min	min	min	min	min	min	min	min
P1	Heavy	90	1000	10	*	3	2,5	3	2,5	3	6	
P2	Heavy	80	1000	10	*	3	2,5	3	2,5	3	6	
P3	Normal	60	1000		23	3	2,5	3	2,5	3	6	
P4	Normal	40	1000		11	3	2,5	3	2,5	3	6	
P5	Syntetic	40	800		7	3		3		3		2,5
P6	Super Quick	40	800		4	3				3		2,5
P7	Wool	30	800		4	3		3		3		2,5
P8	Rinse		1000							3	6	

For total time, see Consumption Values on page 24.

Main wash: Heating time are included in the time.
All main washes starts with 4 seconds on inlet valve 1.

*)The main wash ends 11 minutes after the selected temperature is reached.

PROGRAMME VERSION US



Progr.	Name	Temp	Spin speed	Pre wash	Main wash	Rinse 1	Spin B	Rinse 2	Spin B	Rinse 3	Spin A	Spin B
US		°C	rpm	min	min	min	min	min	min	min	min	min
P1	Heavy	60	1000	5	16	2,5	2,5	2,5	2,5	2,5	6	
P2	Normal	60	1000		16	2,5	2,5	2,5	2,5	2,5	6	
P3	Normal	40	1000		12	2,5	2,5	2,5	2,5	2,5	6	
P4	Light	40	1000		11	2,5		2,5		2,5		2,5
P5	Super Quick	No heat	1000		7	2,5				2,5		2,5
P6	Syntetic	40	800		7	2,5		2,5		2,5		2,5
P7	Delicate	30	800		4	2,5		2,5		2,5		2,5
P8	Rinse		1000							2,5	6	

For total time, see Consumption Values on page 25.


Main wash: Heating time are included in the time.
All main washes starts with 4 seconds on inlet valve 1.

FAULT TRACING

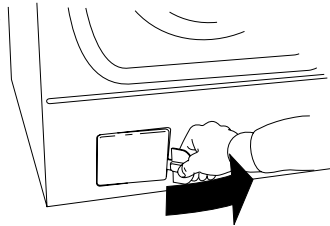
The machine will not start

1. Is the door shut properly? Push it firmly. A flashing  symbol appears in the display if the machine is started with the door open.
2. Is there power to the machine. Check the fuse box.
3. Check if the child lock is activated. To start the machine when the child lock is activated, hold in the -button for 3 seconds. See Changing settings.

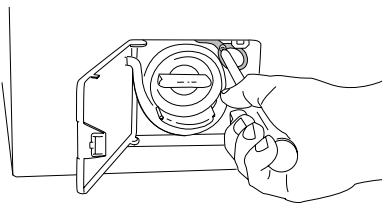
Door will not open

1. Check that the power switch is on.
2. Has there been a power cut? Check the fuses in the fuse box. The door cannot be opened with the  button if there is no power.
3. If everything else fails the door can be opened in an emergency as follows:

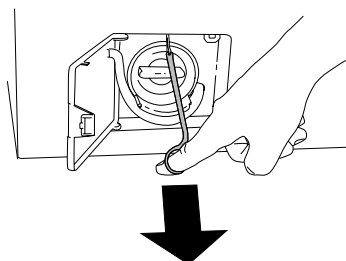
- Make sure the power switch is off.
- Machines with a drain pump: First check that there is no water left in the machine. If there is, empty the machine as described under the heading Checking trap and drain pump, in the chapter on Cleaning and Maintenance.
- Open the flap at the bottom left. Use a screwdriver as shown.



- Unscrew the screw that holds the red plastic handle.



- Pull the handle to open the door.



- Press the handle back into its recess and secure it with the screw. Close the flap.

If you have problems opening the door normally again, call service.

The machine will not work

1. Measure the voltage between E1-1 and E1-2. The value should be the same as the mains power supply voltage.
2. Check the machine and house fuses. If necessary change the fuses and investigate why they have blown.
3. Check the main power switch.
4. Check the door switch.

The washing lid is difficult to close or will not close

1. Check the door switch, it may be faulty.
2. Check that the lid seal is located correctly.

The washing lid leaks

1. Clean the lid seal.
2. Mount an O-ring front door (Art. no: 80 641 78). O-ring front door has been added on machines produced after week 18 2000. The O-ring front door can be mounted on earlier produced machines when it's a leakage from the lid.

Mount as follows:

Mount the O-ring by putting it on the outside of the seal, between the inner plastic part of the front panel and the seal.

3. Check and if necessary change the lid seal.

The machine does not perform washing rotation or does not reverse the direction of washing rotation

1. Check that the drive belt is located correctly.
2. Check and repair or change the motor control board, see the electrical schematic diagrams to find the measuring points.
3. Check or change the motor.
4. Check the level switch.

The drum turns slowly during washing rotation

1. Check that the drive belt is tight and that the adjustment screw for motor suspension is screwed tight.

The machine does not spin dry

If 0000 is flashing in the top right corner of the display the machine has not spin dried. The machine has a built-in out-of-balance sensor that will reduce the spin drying speed or stop spin drying altogether if the load is too unbalanced.

1. Open the washing lid and redistribute the laundry.
2. Run the "Spin drying" program to check that the problem has been solved.

The machine does not empty

1. Check the drain system.
2. Check the level switch.
3. Check and repair or change the motor control board, see the electrical schematic diagrams to find the measuring points.
4. Check or change the drain pump/ inlet valve.

The machine does not fill with water

1. Check for error messages.
2. Check that the water stop cock is open.
3. Measure the voltage at the inlet valve and the outputs from the program control board, see the electrical schematic diagrams.
4. Check the level switch and its hose.
5. Check and repair or change the level sensor, see the electrical schematic diagrams to find the measuring points.

The machine continues to fill up with water and the program stands still

1. Check the level switch and its hose.
2. Switch off the electrical supply to the machine. If water continues to come into the machine, the valve is stuck. In this case, remove and clean the valve. Also clean the filter thoroughly.
3. Check and repair or change the level sensor, see the electrical schematic diagrams to find the measuring points.

The machine does not pump water out

1. Check the drain system.
2. Check that the pump rotor in the drain pump moves freely.
3. Adjust or change defective parts.

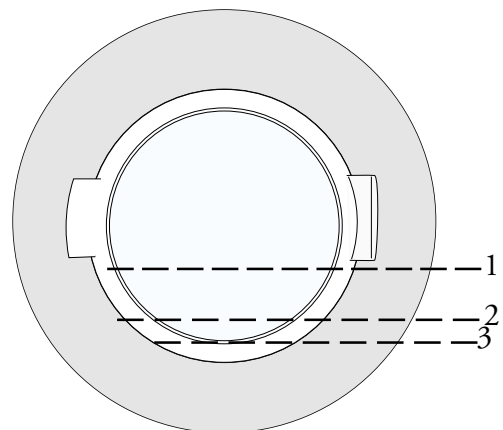
The machine vibrates more than usual during spin drying

1. Check that the transport supports are removed
2. Check that the machine is standing fair and square on the floor.
3. Check the shock absorbers.

Water levels

Measurement must be carried out without laundry in machine.

1. Water level rinses approx. 20 litres.
2. Wash level Wool approx. 14.5 litres. (Wash and rinse levels are the same.)
3. Wash level approx. 11 litres.



The display is lighting when a programme is selected, but no characters or digits are shown

No characters or digits are shown on the display when a locked programme is selected.

To unlock a programme, see Changing settings.

PROBLEMS

COMMON QUESTIONS AND PROBLEMS

More information is found under "Fault tracing".

The lid will not open

Check that the main power switch is on and that the indication lamp is on.

The machine will not start

If the lid is closed, check the house fuses.

The machine will not take in water

1. Is the stop cock open?
2. Check that the inlet hose filter is not blocked.

Foam in the last rinse, water remains in the machine

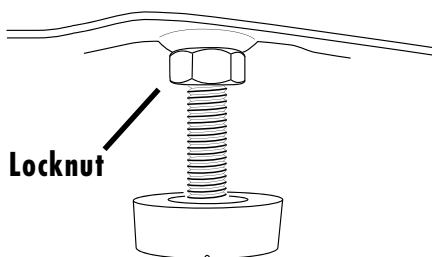
1. Check that the drain hose is not blocked or sharply kinked.
2. Check to see if the drain pump is blocked.

Water leaks

Check the hoses and seal at least once a year and change them if they show signs of wear.

Vibration during spin drying

1. Check that the transport supports have been removed.
2. The machine must stand firmly on the floor. Adjust the machine feet and tighten the lock nuts.



Too much foam

1. Use only low-foam detergent.
2. Too much detergent, use only the dose stated on the detergent packet.

The machine stops in the middle of the program

It is normal for the machine to "pause" during the program, especially between the different cycles, and during the Wool wash program.

Yellow laundry

Can be caused by body fluids that have not been entirely washed out.

1. Use the highest possible temperature for this load of washing. Try putting in more detergent than usual.

Can also be caused by iron or magnesium in the water.

1. Install a filter.

Grey laundry

1. If the washing is very dirty, has oil stains or the water is very hard, put in more detergent than usual.
2. Choose the correct temperature for each washing load.
3. Sort the washing according to its colour. Never mix light and dark materials in the same load.
4. Use detergent that contains whitener for white textiles, and detergent without whitener for coloureds.

Fluff, stains on the laundry

1. Detergent that does not contain phosphates can, when combined with the minerals in hard water, build up a substance that can cause "fluff". If possible, install a water purifier.
2. Stains on laundry can occur if it comes into contact with undiluted rinsing agent. Put the rinsing agent dose into the compartment for rinsing agents. Never add rinsing agent directly to the washing.
3. Burls normally occur on cotton/polyester material. For the best results, turn the garment inside out and use the delicate washing program.

Creased laundry

1. Follow the washing advice.
2. Do not overload the machine.
3. Do not let the washing stay for a long time in the machine after the program has finished.

4. Certain materials such as linen and cotton crease naturally, regardless of how they are washed.

Torn or damaged material

Material can be damaged by sharp objects, such as metal parts on clothes or objects in pockets.

1. Empty all pockets and turn the garment inside out.
2. Close hooks and zips.
3. Turn inside out for washing.

Chemicals

Textiles that have been in contact with chemicals, such as battery acid, solution for perming hair, bleach, lavatory cleaner or acne-removing agent, must be rinsed as quickly as possible to prevent holes or stains. Do not let unrinsed textiles come into contact with other material.

Iron-free garments

Wash these in a half-full machine. These garments should not be mixed in with heavier washing such as jeans or large bath towels.

Fading, discoloration

1. Follow the washing advice.
2. Dark cotton textiles should be washed for the first time at 60°C to wash out the surplus colour.
3. Garments should be sorted according to their colour and material.
4. Empty all pockets.

Stains remaining after washing

1. Protein stains, from milk, eggs or blood, should first be soaked in cold water.
2. Oil stains are removed by washing in the hottest water the material can take.

Stains should be dealt with as quickly as possible. The longer a stain remains, the harder it is to remove.

OTHER COMMON QUESTIONS

Which detergent should I use?

Any low-foam detergent of good quality.

Should I use a rinsing agent?

Yes, use a good quality product.

Should I use whitener?

Extra amounts of whitener are not necessary. Use a detergent that includes whitener for white washing, and a detergent without whitener for colours.

COMPONENTS AND MEASUREMENT VALUES

MOTORS CESET

(On machines manufactured until week 47/2000)

For machines for 50 Hz

Part no.: 80 617 73

Resistances:

Pins 1-2 68,7 Ω

Pins 3-4 1,65 Ω

Rotor 1,52 Ω^*

Pins 5-7 0,58 Ω

*) measured diagonally across the commutator.

All resistance values could have the tolerance of $\pm 7\%$.

For machines for 60 Hz

Part no.: 80 617 74

Resistances:

Pins 1-2 68,7 Ω

Pins 3-4 1,65 Ω

Rotor 1,52 Ω^*

Pins 5-7 0,58 Ω

*) measured diagonally across the commutator.

All resistance values could have the tolerance of $\pm 7\%$.

The motor is a universal motor controlled by an external motor control unit (MCU).

The rotation speed is stepless and controlled by a tachogenerator on the motor. The maximum speed is 1000 rpm.

MOTORS FHP

(On machines manufactured after week 47/2000)

Part no.: 80 637 34

Resistances:

Rotor 1,20 Ω^*

Pins 5-6 1,58 Ω

Pins 6-7 0,87 Ω

*) measured diagonally across the commutator.

All resistance values could have the tolerance of $\pm 8\%$.

MOTOR CONTROL

Part no.: 80 613 99

Motor control is via an external unit (MCU) located in the base and connected to the program control board (PCU), see the electrical schematic diagram.

HEATING ELEMENT

2000 W

Part no.: 80 617 03

Resistance: 27,64 $\Omega \pm 1,45\%$

1500 W (until week 49/2000)

Part no.: 80 639 42

Resistance: 36,86 $\Omega \pm 1,94\%$

1000 W (from week 50/2000)

Part no.: 80 617 04

Resistance: 55,29 $\Omega \pm 2,91\%$

THERMISTOR

Part no.: 80 616 63

Resistance: 40-60 k Ω

Room temperature 20-30 $^{\circ}\text{C}$

The thermistor for temperature measurement is located between the motor cradle and the holder. The thermistor measures and controls the water temperature, which can range from 0-90 $^{\circ}\text{C}$. The heating element is switched out if the thermistor short-circuits or is disconnected from the program control board or programmer.

DRAIN PUMP

50 Hz

Part no.: 80 616 96

NOTE! Ordered as part no. 88 011 66.

Resistance: 144 Ω

Current: 0.2 A, 23 W on load

60 Hz

Part no.: 80 619 37

NOTE! Ordered as part no. 88 011 67.

Resistance: 76 Ω

Current: 0.3 A, 28 W on load

The drain pump is combined with an integrated needle trap, which can be cleaned by the user. If the drain pump has run for 180 seconds during emptying, the programme is stopped, reset to zero and a fault code is indicated on the display.

OUTLET VALVE

50/60 Hz

Part no.: 80 083 65

Current: 0,18 A

Reversible 50 Hz or 60 Hz. The outlet valve is open when there is no current.

LEVEL SWITCH

Part no.: 80 617 47

An electromechanical level switch operates at two levels, see the electrical schematic diagram. It checks the water level and starts the drain pump if overfilling is indicated.

LEVEL SENSOR

Part no.: 80 616 64

ASKO Level sensor type 1166.

Voltage:

0.5 V out from the sensor at zero level and 230 V mains voltage. 0-level is achieved at outlet. Measurement at control unit under outlet.

The level sensor is located on the electrical component bridge and connected to the PCU, see the electrical schematic diagram.

RELAY (CONTACTOR)

50 Hz

Part no.: 73 829 48

Resistance: 2.01 k Ω

Current: 0,01 A, 6 W

60 Hz

Part no.: 80 603 79

Resistance: 1.505 k Ω

Current: 0.02 A, 7 W

The relay is controlled by the level switch and opens the connection to the heating element.

RADIO INTERFERENCE FILTER

Filter 1-phase machines 50/60 Hz

Art nr: 80 585 58

Filter 3-phase machines (from week 46/2000)

Art nr: 80 585 58 - 1 pcs

80 585 59 - 2 pcs

The filter eliminates radio interference generated by the machine.

INLET VALVES

3-way inlet valve

Part no.: 80 617 57

Resistance: 3.7 k Ω \pm 0.5 k Ω

Current: 0.02 A, 5 W

Inlet valve for hot water (option)

Part no.: 80 617 29

Resistance: 3.7 k Ω \pm 0.5 k Ω

Current: 0.02 A, 5 W

There are two inlet valves, one 3-way and one for hot water connection.

INDICATION LAMP

230 V, 50 Hz

Part no.: 80 531 06 (until week 37/2000)

80 640 69 (from week 38/2000)

240 V, 60 Hz

Part no.: 80 637 57 (until week 5/2001)

80 640 68 (from week 6/2001)

The lamp indicates that the main power switch is set to on.

DOOR LOCK

Part no.: 80 616 79

Resistance: 122 Ω

Current: approx. 2 A

The door lock is mechanical and equipped with a pull magnet. This function is controlled by the door opening button and various safety devices.

CONTROL UNIT

Art. nr: 80 639 41

Control units delivered until week 40/2000 has a pink label.

Control units delivered after week 40/2000 has a green label.

For more information about the difference, see service information Group 21 Nr. 165.

DISPLAY UNIT

Art. nr: 80 638 75 (ASKO)

Art.nr: 80 637 29 (OEM)

PUSH BUTTON SWITCH

Art. nr: 80 618 75 (2-pole)

FUSE

Art. nr: 80 554 21

TEST PROGRAM AND FAULT INDICATIONS

TEST PROGRAM

Press **(P1)** 5 times within 15 seconds to start test program level 1.

Press one time on **(P8)** to reach level 2. Press

(P8) again to go back to level 1.

(Start/Stop) ends the test program.

Level 1

- (P2)** Inlet valve 1 (compartment for Pre-wash)
- (P3)** Inlet valve 2 (compartment for main wash)
- (P4)** Inlet valve 3 (hot water)
- (P5)** Inlet valve 4 (compartment for rinsing agent)
- (P6)** Door pull magnet
- (P7)** Heater relay (separate or under control)

Level 2

- (P2)** Drain pump
- (P3)** Motor, normal operation
- (P4)** Motor, delicate operation
- (P5)** Long spin drying

INTERNAL COUNTER

The electronic control unit contains an internal counter of the number of washing cycles.

To show the number of washing cycles in the display:

1. Switch off the power switch, **(⊙)** and connect a jumper to E14.
2. Switch on the machine again.
3. Press the **(P8)**-button five times.

The counter is shown on the display.
The counter disappears when the jumper is removed.

FAULT INDICATIONS

If a fault occurs during a program cycle, this is indicated on the display after the program has finished or been interrupted.

Water inlet fault

Check that the filter in the machine water inlet is not blocked.

Overfilling

Too much water in the drum due to a fault in the level sensing system or the inlet valve.

Draining fault

Draining has taken too long. Check the drain hose and the drain pump as follows:

1. Has any object stuck in the drain hose outlet? Clean out the hose.
2. Is the drain pump blocked by foreign objects? Clean out the pump.
3. Is the drain hose kinked?
4. After solving the problem, run program 10 (Emptying).

Thermistor fault

The thermistor is faulty or short-circuited. The washing program has finished without heating.

Temperature stop fault

Check the fuses and the heating element.
The washing program has finished without heating.

Motor fault

Wiring open-circuit or motor fault has been indicated and the washing program has been interrupted.

Pressure sensor fault

A drop in pressure has been detected in the first rinse. This could be due to leakage in the level sensor or in the hose leading to it. The washing program has been interrupted.

Door lock

Indicated when the circuit control is broken. Change the circuit control.

0000

Indicated when to big unbalance occurred during spinning, ending in no fulfilled spinning cycle.

WRONG LANGUAGE ON THE DISPLAY

The languages that can be shown on the display are Danish, German, English, Spanish, French, Italian, Dutch, Norwegian, Portuguese, Finnish and Swedish. If the language in the display has changed, you can go back to the original language like this:

1. Switch off the mains power button, (⊖) and press it again to restart the machine.
2. Press the (P8) button five times, then press the (P1) button five times. These 10 button presses must be done within 15 seconds.
3. Within 3 seconds of last pressing the (P1) button, use the (P6)(P7) button to step through to the language you want.

CONSUMPTION VALUES

The following conditions apply for the consumption values stated below:

Incoming water temperature

cold: 15°C.

hot: 60°C.

Heater: 3500W.

Option: cold inlet

PROGRAMME VERSION EURO

Program	Material/ Temperature	Load size	Water consumption (approx. litres) Total (hot+cold water)	Energy approx. kWh (cold /mixed inlet)	Time approx. min (cold /mixed inlet)
P1	Bomull, linne 90°C	1/1 (5,0 kg)	80 (3+77)	2,0/1,9	85/80
P2	Bomull, linne 90°C	1/1 (5,0 kg)	72 (6+66)	1,6/1,5	73/68
P3	Bomull, linne 60°C	1/1 (5,0 kg)	65 (6+59)	1,1/0,82	59/54
P4	Bomull, linne 40°C	1/1 (5,0 kg)	65 (0+65)	0,40/0,40	40/40
P5	Polyester/bomull nylon 40°C	1/2 (2,5 kg)	54 (0+54)	0,35/0,35	25/25
P6	Polyester/bomull nylon 40°C	1/2 (2,5 kg)	42 (0+42)	0,35/0,35	20/20
P7	Ylle/handtvätt IWS Superwash 30°C	1/3 (1,7 kg)	76 (0+76)	0,25/0,25	25/25
P8	Centrifugering kort	1/1 (5,0 kg)	---	0,05/---	4/4

CONSUMPTION VALUES

The following conditions apply for the consumption values stated below:

Incoming water temperature

cold: 15°C.

hot: 60°C.

Heater: 3500W.

Option: cold inlet

PROGRAMME VERSION MOP

Program	Material/Temperature	Load size	Water consumption (approx. litres) Total (hot+cold water)	Energy approx. kWh (cold /mixed inlet)	Time approx. min (cold /mixed inlet)
P1	Cotton, linen 90°C	1/1 (5,0 kg)	80 (3+77)	2,0/1,9	85/80
P2	Cotton, linen 60°C	1/1 (5,0 kg)	80 (3+77)	1,6/1,5	59/54
P3	Cotton, linen 90°C	1/1 (5,0 kg)	72 (6+66)	1,6/1,5	73/68
P4	Cotton, linen 60°C	1/1 (5,0 kg)	65 (6+59)	1,1/0,82	59/54
P5	Cotton, linen 40°C	1/1 (5,0 kg)	65 (6+65)	0,40/0,40	40/40
P6	Synthetic 40°C	1/2 (2,5 kg)	54 (0+54)	0,35/0,35	25/25
P7	Wool /handwash 30°C	1/3 (1,7 kg)	76 (0+76)	0,25/0,25	25/25
P8	One rinse, Long spin	1/1 (5,0 kg)	18 (0+18)	0,05/0,05	11/11

CONSUMPTION VALUES

The following conditions apply for the consumption values stated below:

Incoming water temperature

cold: 15°C.

hot: 60°C.

Heater: 3500W.

Option: cold inlet

PROGRAMME VERSION MEDICAL

Program	Material/Temperature	Load size	Water consumption (approx. litres) Total (hot+cold water)	Energy approx. kWh (cold /mixed inlet)	Time approx. min (cold /mixed inlet)
P1	Cotton, linen 90°C	1/1 (5,0 kg)	103 (3+100)	2,1/2,0	95/90
P2	Cotton, linne 90°C	1/1 (5,0 kg)	100 (3+97)	1,9/1,8	91/86
P3	Cotton, linne 60°C	1/1 (5,0 kg)	65 (6+59)	1,1/0,82	59/54
P4	Cotton, linne 60°C	1/1 (5,0 kg)	65 (0+65)	0,40/0,40	40/40
P5	Synthetic 40°C	1/2 (2,5 kg)	54 (0+54)	0,35/0,35	25/25
P6	Synthetic 40°C	1/2 (2,5 kg)	42 (0+42)	0,35/0,35	20/20
P7	Wool/handwash 30°C	1/3 (1,7 kg)	76 (0+76)	0,25/0,25	25/25
P8	Long spin	1/1 (5,0 kg)	18 (0+18)	0,05/0,05	11/11

CONSUMPTION VALUES

The following conditions apply for the consumption values stated below:

Incoming water temperature

cold: 15°C.

hot: 60°C.

Heater: 3500W.

PROGRAMME VERSION US

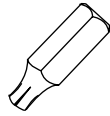
Program	Material/Temperature	Load size	Water consumption (approx. litres) Total (hot+cold water)	Energy approx. kWh (cold /mixed inlet)	Time approx. min (cold /mixed inlet)
P1	Cotton, linen 60°C	1/1 (5,0 kg)	73 (6+67)	1,2/1,0	57/52
P2	Cotton, linen 60°C	1/1 (5,0 kg)	65 (14+51)	1,2/0,4	50/44
P3	Cotton, linen 40°C	1/1 (5,0 kg)	65 (0+65)	0,40/0,40	38/38
P4	Cotton, linen 40°C	1/1 (5,0 kg)	54 (0+54)	0,35/0,35	26/26
P5	Synthetic, no heating	1/2 (2,5 kg)	48 (0+48)	0,05/0,05	20/20
P6	Synthetic 30°C	1/2 (2,5 kg)	54 (0+54)	0,35/0,35	23/23
P7	Wool/handwash 30°C	1/3 (1,7 kg)	76 (0+76)	0,25/0,25	25/25
P8	One rinse, long spin	1/1 (5,0 kg)	18 (0+18)	0,05/0,05	11/11

TOOLS

LIST OF TOOLS

"Torx" spanners:

- T25
- T20
- T10



U-ring spanners

- 11/16"
- 16 mm
- 13 mm
- 10 mm

Socket screwdriver

- 10 mm

24 mm extended socket + locking handle

5 mm socket head cap screwdriver + small locking handle

Star socket head screwdriver

Flat screwdriver 6.5-7 mm

APPLICATION AREAS

Top lid:

- torx T20

Panel

- torx T20
- 6.5-7 mm wide blade screwdriver

Front panel

- torx T20

Detergent compartment

- torx T20

Washing lid removing/installing

- torx T25

Changing lid seal/glass

- torx T25
- torx T20
- U-ring spanner 10 mm

Cover plate

- torx T20
- U-ring spanner 10 mm

Lock

- torx T20
- U-ring spanner 10 mm

Front end plate and inner cover plate

- torx T20
- U-ring spanner 10 mm

Drum

- torx T25
- torx T20
- U-ring spanner 16 mm
- U-ring spanner 10 mm
- special tool (Part no. 88 011 52)
- special tool (Part no. 88 011 53)

Drain pump

- torx T20
- Star socket head screwdriver

Outlet valve

- torx T20
- torx T25

Change of complete holder

- torx T25
- torx T20
- 24 mm extended socket + locking handle
- 6.5-7 mm wide blade screwdriver
- U-ring spanner 16 mm
- U-ring spanner 13 mm
- Socket screwdriver 10 mm
- 5 mm socket head cap screwdriver + small locking handle
- special tool (Part no. 88 011 52)
- special tool (Part no. 88 011 53)

Electrical component bridge piece

- torx T20

Cross member

- torx T20
- U-ring spanner 11/16"
- U-ring spanner 13 mm

Side panel

- torx T20

Bottom

- torx T25
- torx T20
- 24 mm extended socket + locking handle
- 6.5-7 mm wide blade screwdriver
- U-ring spanner 16 mm
- U-ring spanner 13 mm
- Socket screwdriver 10 mm
- 5 mm socket head cap screwdriver + small

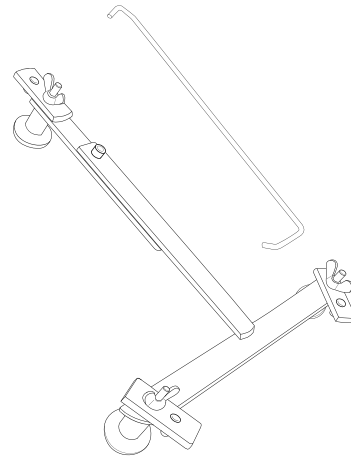
SPECIAL TOOLS

DRUM INSTALLATION

Part no.: 88 011 52

This tool is used for centring and is fastened to the drum edge when removing and installing the front end plate.

The hook is fitted between the holder and the bottom to facilitate removal and installation of the front end plate.



INSTALLATION OF THE BEARING AND THE V-RING CASSETTE

Part no.: 88 011 53

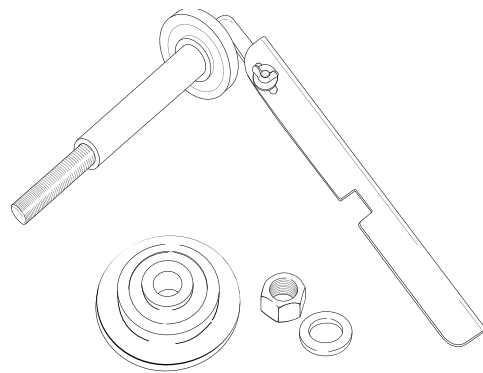
Installing the bearing

The inner bearing is fitted to the tool, which is then put into the bearing housing.

The bolt is then loaded with the outer bearing, washer and nut, which are put on to the bolt behind the bearing housing.

Installation of the v-ring cassette

The tool is first put into the bearing housing from the rear of the machine. Then the white side of the v-ring cassette is placed facing the flat side of the washer, and they are put on the tool, inside the holder. The v-ring cassette is then forced into place by putting the nut on to the bolt and tightening it.



TOP COVER

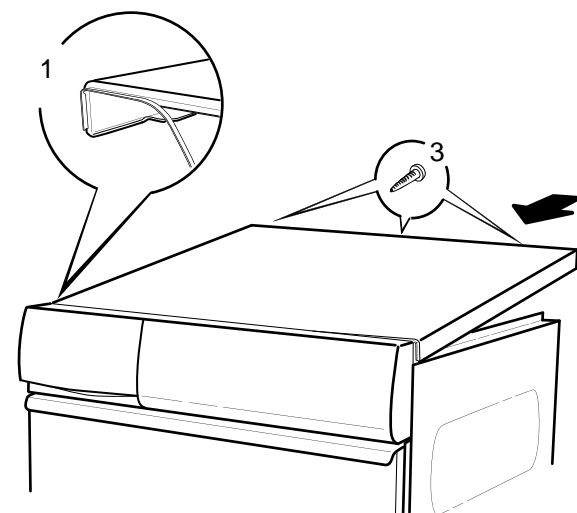
Removing the top cover

1. Remove the 3 screws at the rear of the top cover.
2. Tilt the cover and pull it backwards.



Installing the top cover

1. Ensure that the sealing strip is positioned along the edge of the top cover.
2. Push the front edge of the top cover under the panel and lower the cover.



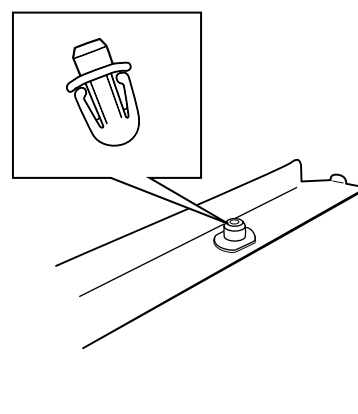
IMPORTANT

Ensure the top cover is located by the guides.

3. Secure the top cover with the 3 screws at the rear.

Changing the top cover guides

1. Remove the top cover.
2. Squeeze the latches together and push the guide upwards.
3. Push the new guide into place.
4. Secure the top cover.



SERVICE

DETERGENT INSERT

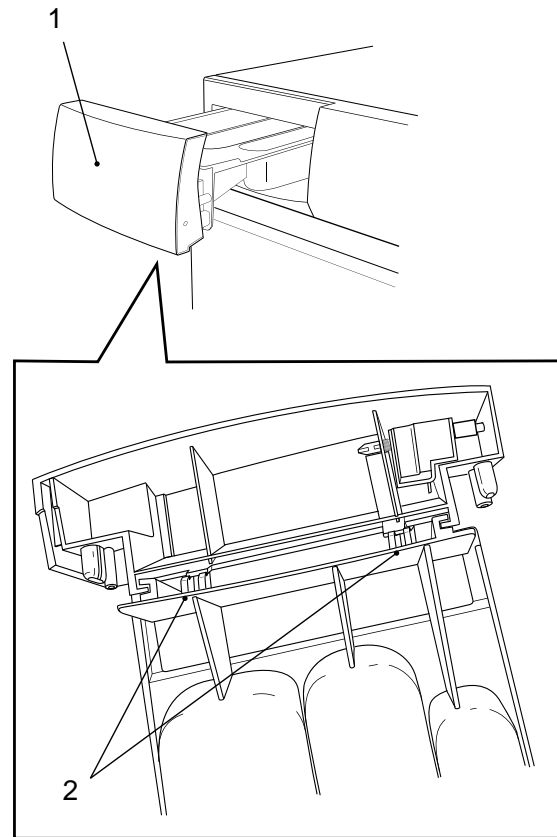
Changing the detergent insert handle

1. Pull forward and lift out the detergent insert.

NOTE

The detergent insert may have a child safety catch fitted. To pull out the detergent insert when the safety catch is set, you have to move the latch to the left at the same time as you pull out the tray.

2. Remove the 2 snap fasteners from the underside of the insert with the aid of a screwdriver.
3. Pull the handle away from the detergent insert.
4. Insert the new handle into the groove in the insert. Press it in until it snaps into place.
5. Put the detergent insert back in.



PANEL

Removing the panel

1. Remove the top cover by first removing the 3 screws along the rear edge and then lifting it off.
2. Pull forward and lift out the detergent insert.
3. Remove the 2 screws for the detergent compartment in the panel and 1 above the compartment. Move the detergent compartment to one side.
4. Remove the 4 fasteners behind the panel by bending the clips open with a broad-bladed screwdriver (6.5 to 7 mm) and lifting off the panel.

IMPORTANT

Be careful not to break the fasteners.

Installing the panel

5. Offer up the panel at the top edge and press it into place at the bottom edge.

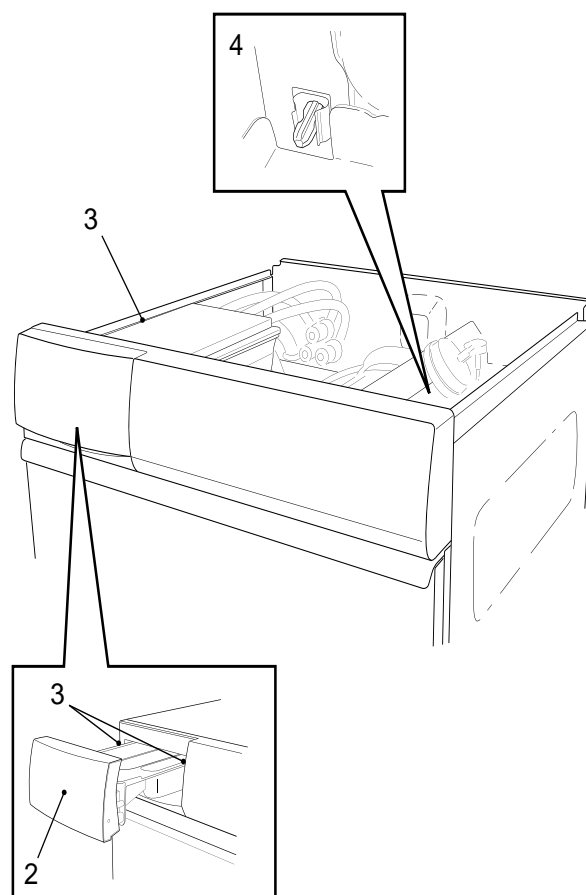
IMPORTANT

Don't forget to put the indicator lamp back.

NOTE

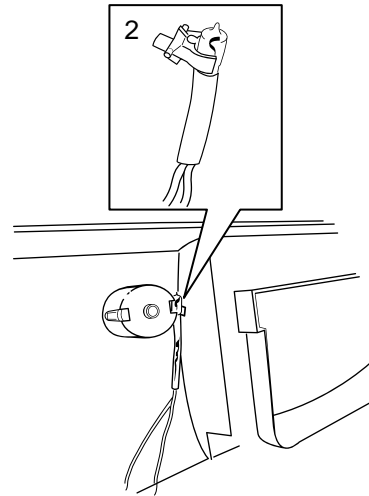
Press with a screwdriver behind the beam when the middle of the panel is being pressed into place.

6. Install the detergent compartment and secure the 3 screws.
7. Put in the detergent insert.
8. Fit the top cover.



Changing the indication lamp/symbol lens

1. Remove the panel in accordance with the section "Panel - removing..".
2. Change the indication lamp/symbol lens.
3. Install the panel in accordance with the section "Panel - installing..".



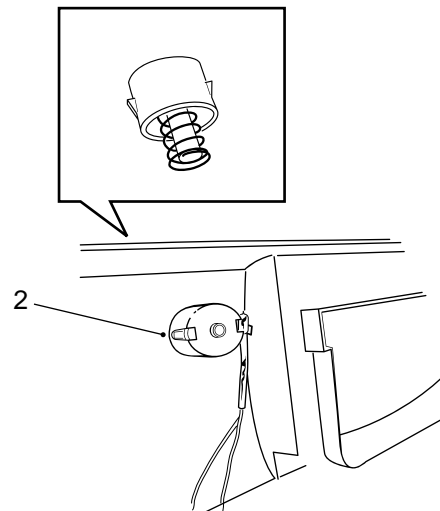
Changing the main power button

1. Remove the panel in accordance with the section "Panel - removing..".
2. Press in the latches with a screwdriver and pull out the button.
3. Install the new button.

IMPORTANT

Ensure that the spring is located in the button before installing.

4. Install the panel in accordance with the section "Panel - installing..".



Changing the push-button switches

1. Remove the panel in accordance with the section "Panel - removing...".
2. Get hold of the switch inside the machine and pull on it, while at the same time bending the wings at the front of the switch inwards with a screwdriver.

IMPORTANT

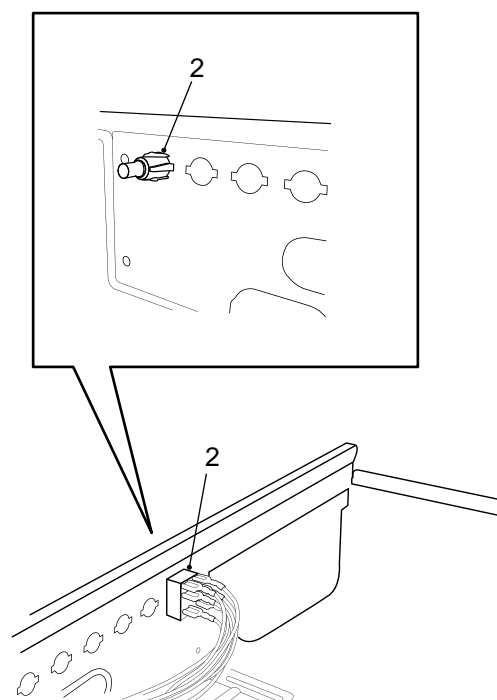
Don't pull on the wires. The button might come apart.

3. Press in the new push-button and check that the wings open out.

IMPORTANT

Connect the wires to the correct connector pins.

4. Install the panel in accordance with the section "Panel - Installing...".



Changing the DCU panel board and push-buttons

WARNING

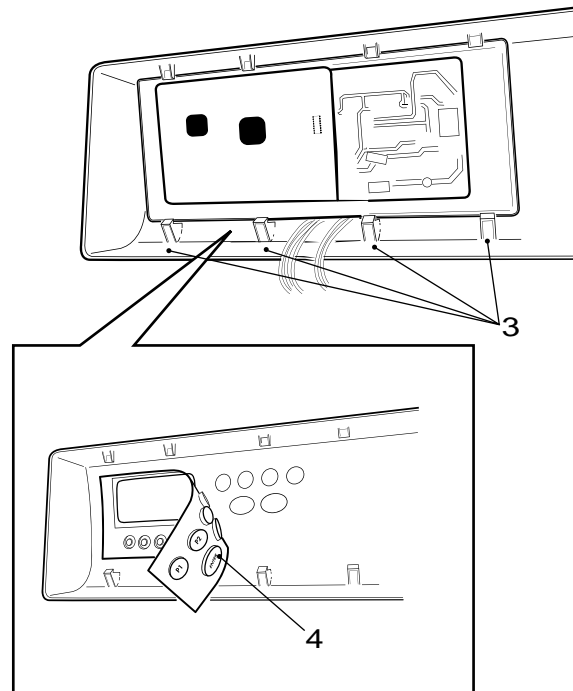
An earthed EMC wristband must be worn at all times when working with electronic components to prevent damage to them.

1. Remove the three screws at the rear edge and lift off the top cover.
2. Remove the panel in accordance with the section "Panel - Removing...".
3. Remove the panel board from the snap fasteners with the aid of a screwdriver.
4. Lift it out the panel board and the button sheet with the push buttons.
5. Install the push-buttons and the panel board.

IMPORTANT

Take care when installing the push-buttons to get them in the correct locations.

6. Install the panel in accordance with the section "Panel - installing...".
7. Fit the top cover.



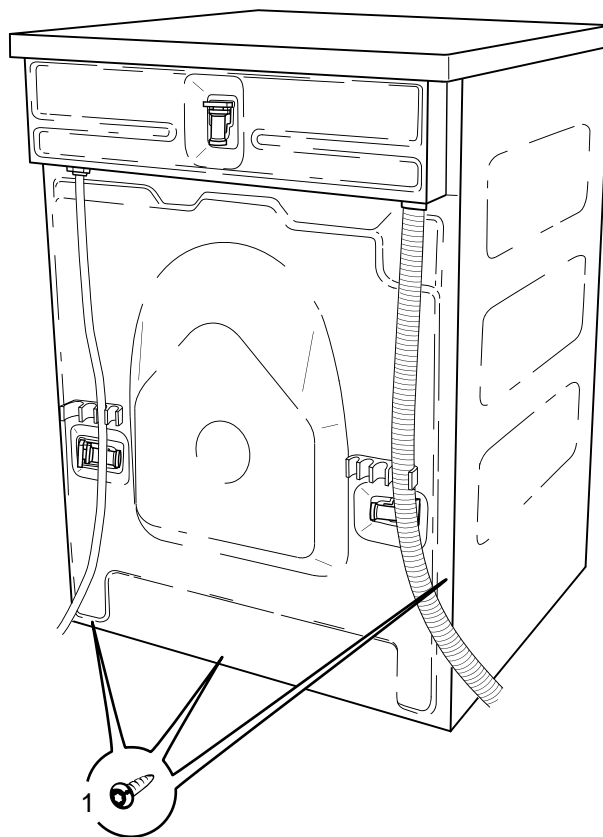
REAR PANEL

Removing the rear panel

1. Remove the 12 screws around the rear panel.
2. Lift off the rear panel.

Installing the rear panel

3. Offer up the rear panel. Use the 2 hooks on the upper edge to assist.
4. Refit the 12 screws.



SERVICE

MOTOR

Changing the drive belt

1. Remove the rear panel by first removing the 12 screws around it and then lifting it off.
2. Take off the drive belt by lifting it off one side of the pulley and turning the pulley.
3. Install a new drive belt in the reverse order. Start by putting the belt under the motor pulley.

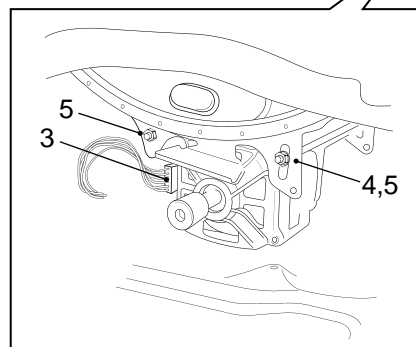
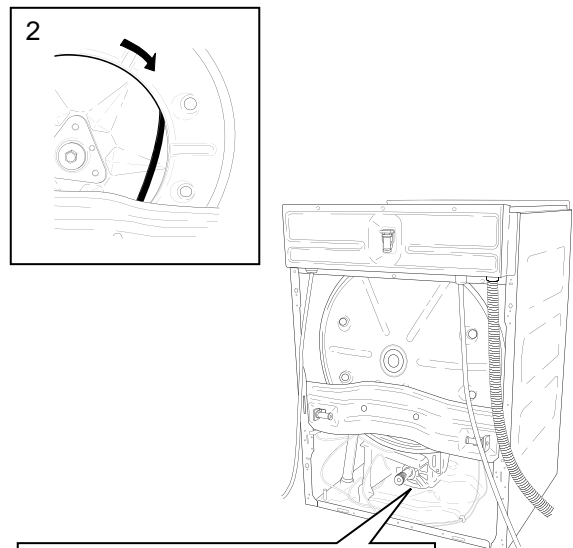
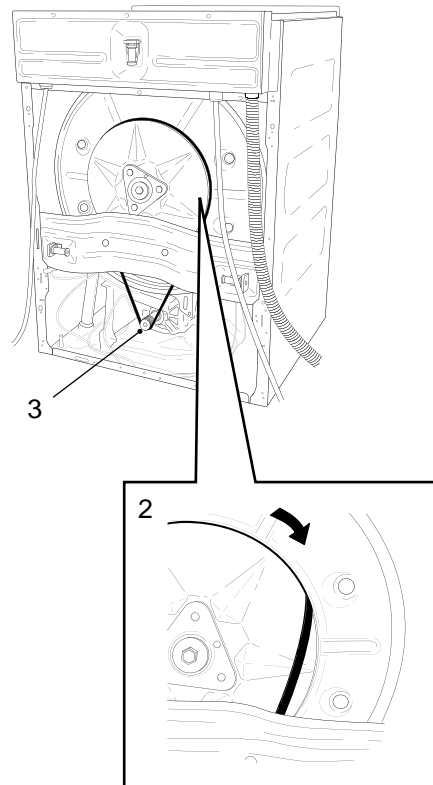
IMPORTANT

Take care that the drive belt lies centred on the top edge of the pulley. Turn the pulley to check this.

4. Install the rear panel by hanging it on the 2 hooks on the top edge and then securing its edges with the 12 screws.

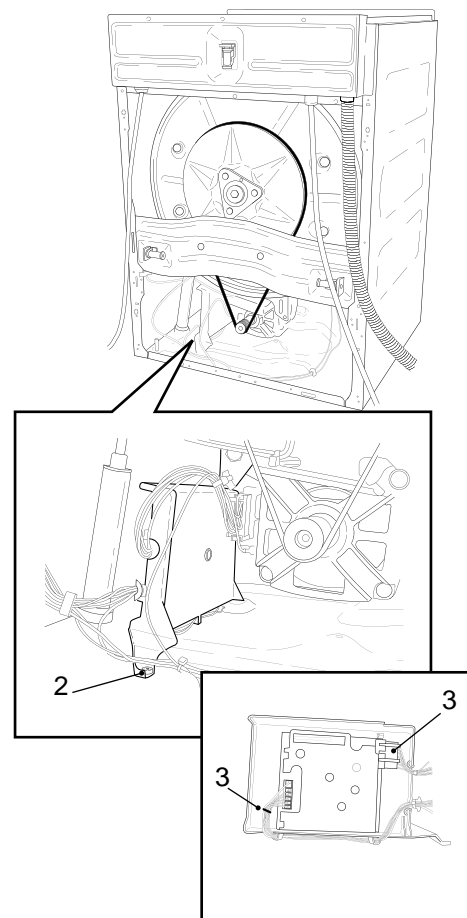
Changing the motor

1. Remove the rear panel by first removing the 12 screws around it and then lifting it off.
2. Take off the drive belt by lifting it off one side of the pulley and turning the pulley.
3. Remove the terminal block from the motor.
4. Mark the locations of the nuts on the motor fixture.
5. Remove the nuts from the motor suspension bolts.
6. Hold the motor and pull out the bolts.
7. Take out the motor.
8. Move the distance piece to the new motor.
9. Offer up the motor and insert the motor suspension bolts.
10. Tighten the nuts.
11. Fit the terminal block.
12. Install a new drive belt in the reverse order. Start by putting the belt under the motor pulley.
13. Install the rear panel by hanging it on the 2 hooks on the top edge and then securing its edges with the 12 screws.



Changing the motor control board

1. Remove the rear panel by first removing the 12 screws around it and then lifting it off.
2. Remove the securing screw for the motor control board holder and lift it out.
3. Cut the cable tie and remove the terminal block.
4. Remove the motor control board by pressing in the 2 plastic clips that secure the board.
5. Remove the other terminal block and change the board.
6. Connect the wiring and the 2 terminal blocks.
7. Offer up the board to the holder and press it into place.
8. Refit the holder and secure it with the screw.
9. Secure the cable clamp.
10. Fit the rear panel.



SERVICE

FRONT PANEL

Removing the front panel

1. Pull forward and lift out the detergent insert.
2. Open the drain pump cover. Use the partition from the detergent insert or a screwdriver.
3. Disconnect the drain hose.

IMPORTANT

Take care not to break off the drain plug.

NOTE

There may be water left in the machine, that will run out through the drain hose.

4. Unscrew the emergency opening handle.
5. Remove the lower right hand screw from the panel, and the 2 screws beneath.
6. Remove the panel by moving its lower edge outwards and then pulling it down.

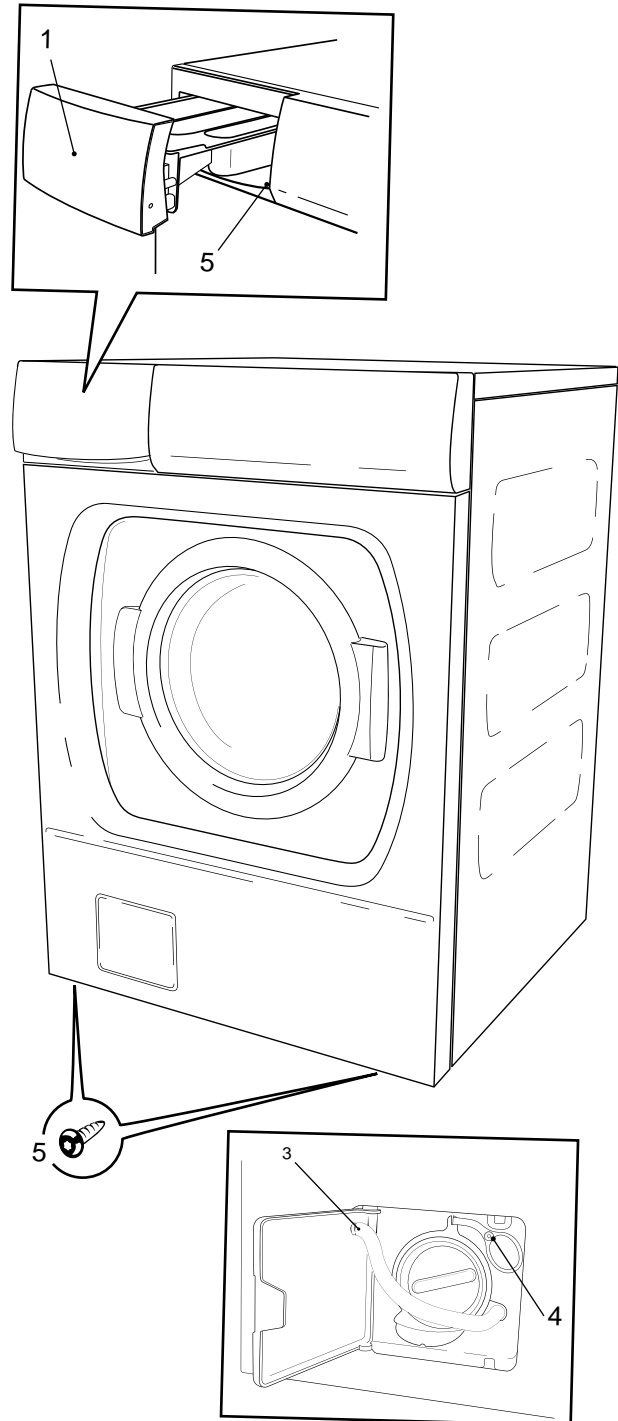
Installing the front panel

7. Transfer the securing clips from the side panels to the front panel.
8. Press the panel into place.
9. Secure the panel with screws at the detergent compartment and on the lower edge.

IMPORTANT

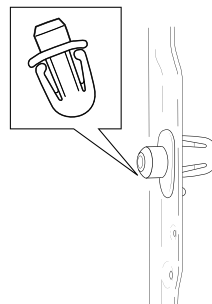
Don't forget the 2 star washers for the screws at the lower edge.

10. Screw back the emergency opening handle and reconnect the drain hose.
11. Refit the detergent insert.



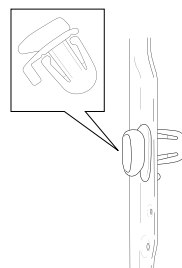
Changing the plastic lockings on the front panel

1. Remove the front panel in accordance with the section "Front panel - Removing...".
2. Remove the control unit by squeezing the latches and pulling it out.
3. Push the new control unit in until it latches into place.
4. Refit the front panel in accordance with the section "Front panel - Installing...".



Changing the front panel securing clips

1. Remove the front panel in accordance with the section "Front panel - Removing...".
2. Remove the securing clips by squeezing the latches and pulling it out.
3. Install new clips by inserting them into the holes in the front panel and pushing them down.
4. Install the front panel in accordance with the section "Front panel - Installing...".



SERVICE

DETERGENT COMPARTMENT

Removing the detergent compartment

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Pull forward and lift out the detergent compartment.
3. Remove the 2 uppermost screws from the panel and the screw on the upper side.
4. Remove the hose clip and detach the corrugated hose from the detergent compartment.
5. Detach the wires from the underside of the compartment by cutting the cable tie.
6. Detach the inlet hoses by cutting the cable tie. Detach the air hose by releasing the hose clip.

Installing the detergent compartment

7. Secure the wiring under the detergent compartment with a cable tie.

NOTE

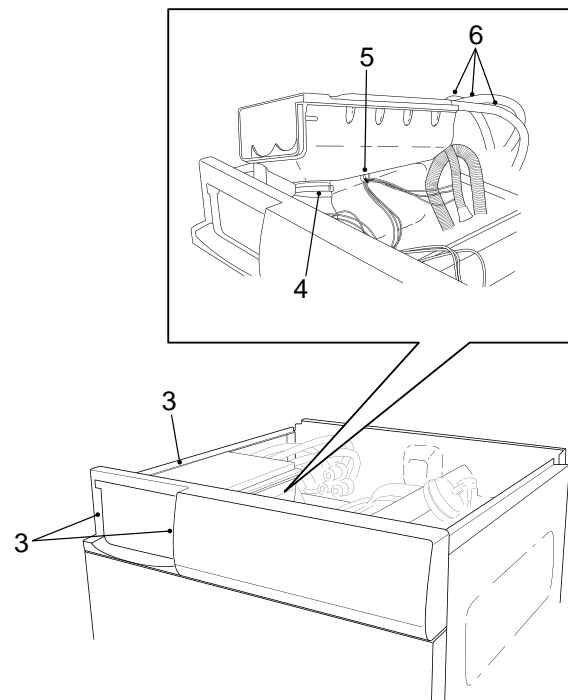
The wires must not be pulled tight.

8. Put a hose clip on to the corrugated hose.
9. Put one hand into the detergent compartment and take hold of the corrugated hose. Lift the hose with your fingers.

NOTE

Soapy water can be used to facilitate connection of the corrugated hose to the detergent compartment.

10. Tighten the hose clip.
11. Secure the 3 inlet hoses with cable ties and the air hose with a hose clip.
12. Secure the compartment with the 3 screws.
13. Refit the detergent insert.
14. Fit the top cover.



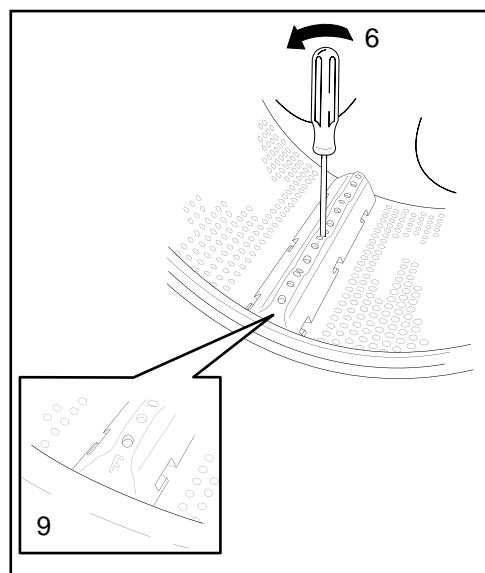
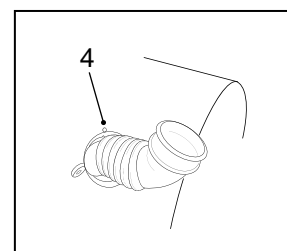
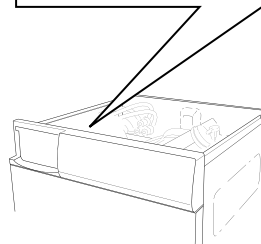
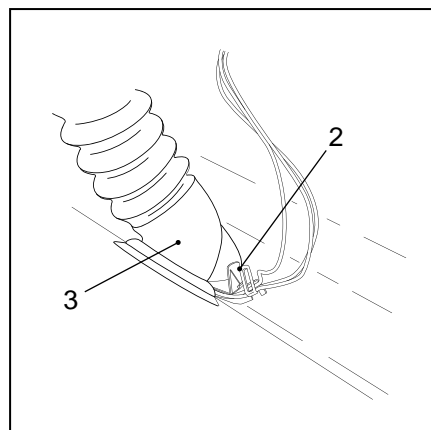
Changing the detergent compartment corrugated hose

1. Carry out steps 1 to 4 under the heading "Detergent compartment - Removing..." above.
2. Unhook the door lock protection from the hose.
3. Remove the hose from the drum holder.
4. Install the new hose on the drum holder.

IMPORTANT

It is important for the corrugated hose to be installed with the hose marking facing the drum holder marking.

5. Hook the door lock protection on to the hose.
6. Remove a wash ridge by inserting a screwdriver (or similar thin tool) into the centre ridge hole and angling it carefully to the left.
7. Pull the ridge towards the drum opening and lift it up.
8. Check that the corrugated hose is fitted correctly.
9. Place the ridge in the securing hole with the F marking facing the drum opening. Push the ridge inwards until it is secured in place.
10. Carry out steps 8 to 11 under the heading "Detergent compartment - Installing..." above.

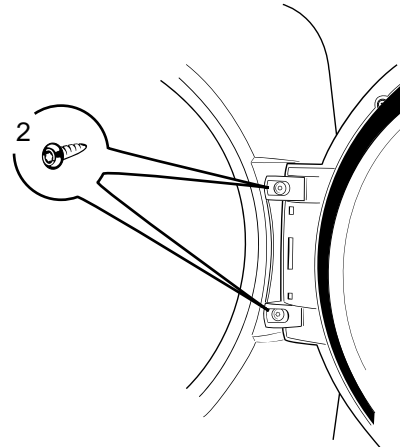


SERVICE

WASHING LID

Removing the washing lid

1. Open the washing lid either by pressing the lid opening button or with the emergency opening handle behind the drain pump cover.
2. Remove the 2 screws securing the lid and take it off.

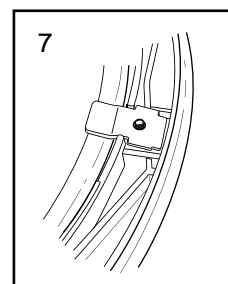
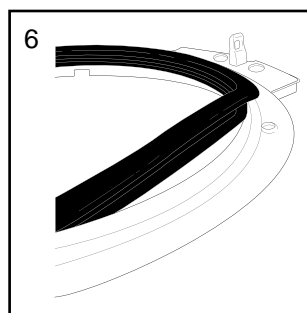
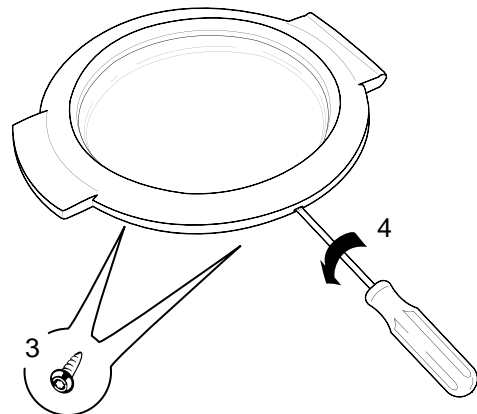
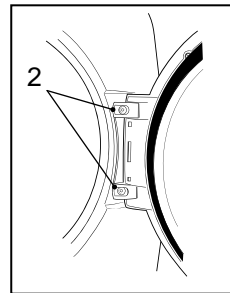


Installing the washing lid

3. Hook on the lid.
4. Secure the lid with the 2 screws.

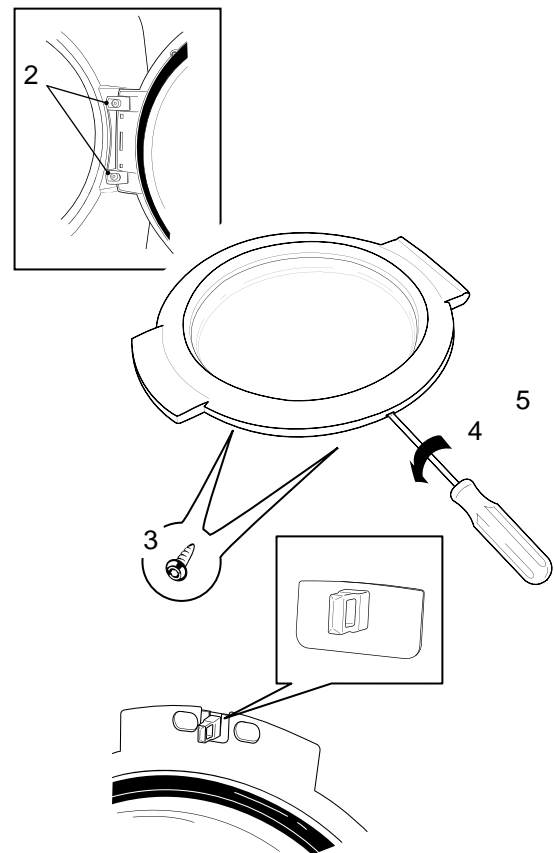
Changing the lid seal/glass

1. Open the washing lid either by pressing the lid opening button or with the emergency opening handle behind the drain pump cover.
2. Remove the 2 screws securing the lid and take it off.
3. Remove the four screws around the glass.
4. Take off the frame by inserting a screwdriver into the opening of the underside of the lid and turning it.
5. Remove the glass.
6. Changing the seal: Pull off the seal and press a new one on.
7. Install 2 of the fixings.
8. Slide the glass in under the fixings.
9. Install the other 2 fixings. Partly tighten the screws.
10. Install the frame, starting at the rear edge, and press it in.
11. Finally tighten the 4 screws fully.
12. Install the washing lid.



Changing the lid catch

1. Open the washing lid either by pressing the lid opening button or with the emergency opening handle behind the drain pump cover.
2. Remove the 2 screws securing the lid and take it off.
3. Remove the four screws around the glass.
4. Take off the frame by inserting a screwdriver into the opening at the side and turning it.
5. Pull the catch straight out.
6. Push in the new catch.
7. Install the frame, starting at the rear edge, and press it in.
8. Install the washing lid.



SERVICE

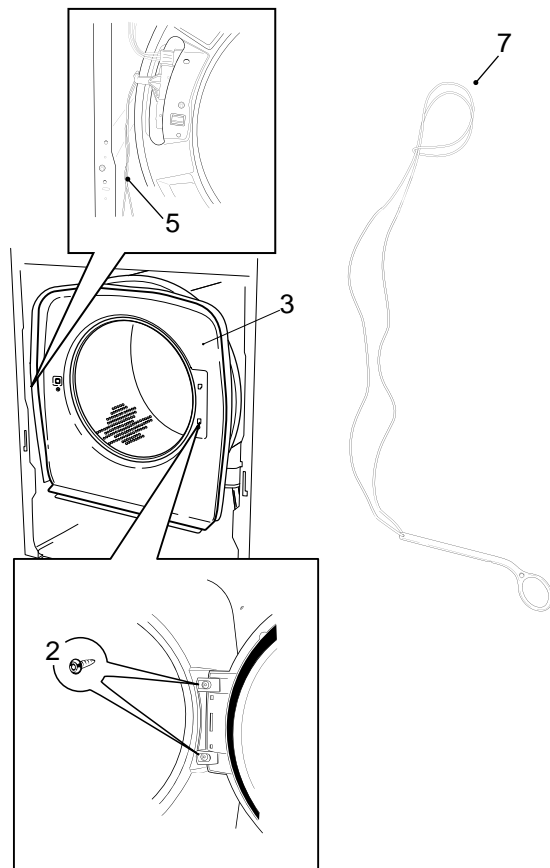
Changing the emergency opener

1. Open the washing lid either by pressing the lid opening button or with the emergency opening handle behind the drain pump cover.
2. Remove the 2 screws securing the lid and take it off.
3. Remove the cover plate in accordance with the section "Cover plate - Removing...".
4. Remove the protection.
5. Detach the emergency opening cord from the lock.
6. Take out the handle from the pump housing and detach the cord from its eye.
7. Make a loop in the new cord and secure it to the lock.
8. Hook the cord on the eye in the pump housing and secure the handle.

IMPORTANT

Ensure that cord is free from any obstructions all the way from the catch to the pump housing, and that it is free through the eye in the pump housing.

9. Install the cover plate in accordance with the section "Cover plate - Removing...".
10. Install the washing lid.



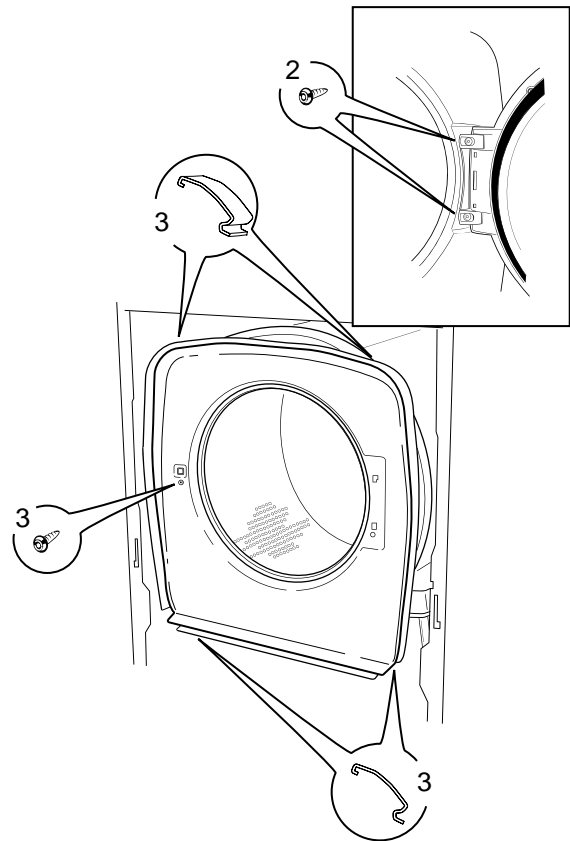
COVER PLATE

Removing the cover plate

1. Open the washing lid either by pressing the lid opening button or with the emergency opening handle behind the drain pump cover.
2. Remove the 2 screws securing the lid and take it off.
3. Unhook the 4 springs and the lid catch screw.
4. Lift off the cover plate.

Installing the cover plate

5. Offer up the plate and secure it with the screw at the lid catch.
6. Hook on the 4 springs.
7. Hook on the lid and secure it with the 2 screws.



SERVICE

CATCH

Removing the catch

1. Remove the cover plate in accordance with the section "Cover plate - Removing..."
2. Release the protection.
3. Disconnect the wires from the catch.
4. Remove the lid catch screws.
5. Pull out the catch.
6. Remove the emergency opening cord.

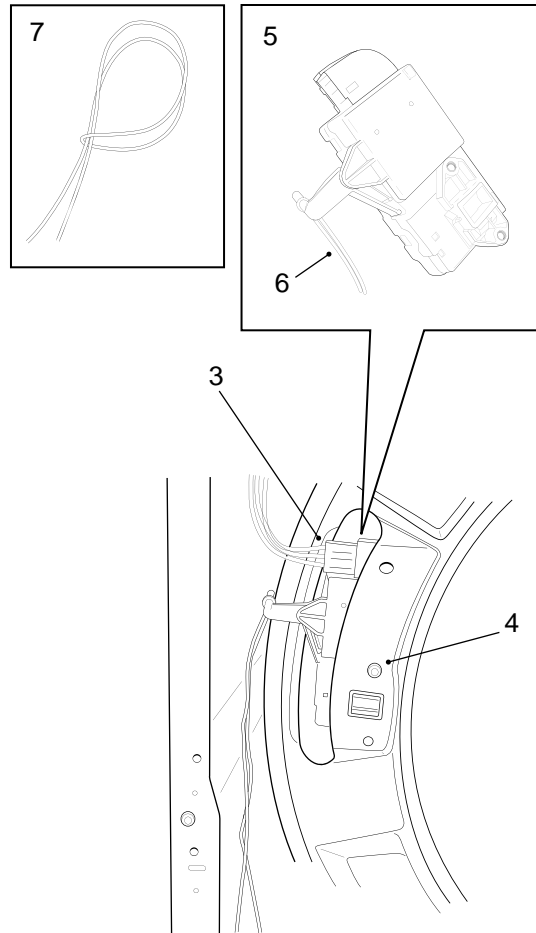
Installing the catch

7. Make a loop in the emergency opening cord and hang it on the hook. Pull the loop.
8. Put the latch back and secure it.
9. Reconnect the wiring to the latch.
10. Refit the protection.

IMPORTANT

Make sure the emergency opening cord does not get trapped between the protection and the holder.

11. Refit the cover plate in accordance with the section "Cover plate - Installing..."



FRONT END PLATE AND INNER COVER PLATE

Removing the front end plate and inner cover plate

1. Remove the protection and catch in accordance with the section "Catch - Removing...".
2. Fit the special centring tool (part no. 88 011 52).
3. Unhook the rear balancing spring from the top side of the holder.
4. Install the hook at the bottom, between the cradle and the bottom panel. First put the small hook in the cradle and then push the holder down to hook the other end in the bottom.
5. Undo the tensioning ring and remove it.

IMPORTANT

Do not lever the tensioning ring off. Undo one end and turn it round the holder to remove it.

6. Lift off the front end plate.

NOTE

If the end plate is stuck, a screwdriver can be used to lever the front end plate away from the inner cover plate.

7. Remove the special tool.
8. Remove the inner cover plate.

NOTE

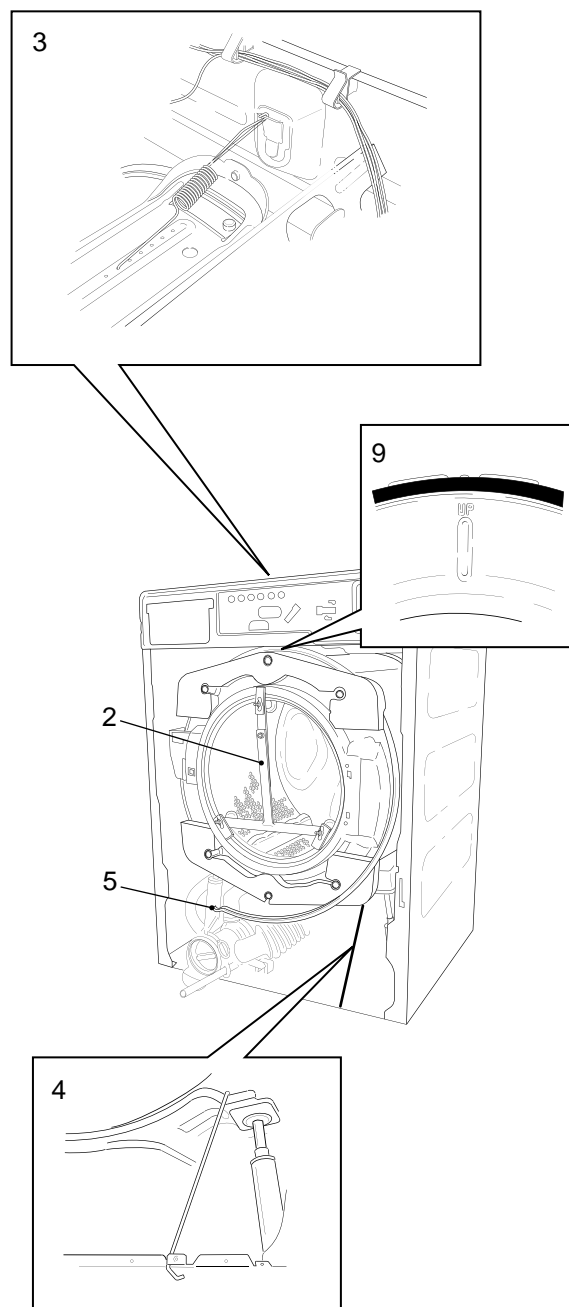
If the inner cover plate is stuck, a screwdriver can be used to lever it away from the drum holder. Take care not to damage the rubber strip.

Installing the front end plate and inner cover plate

9. Start by installing the inner cover plate and special tool (part no. 88 011 52).

IMPORTANT

It is important for the cover plate to be positioned with the marking UP in line with the centre bulge on the holder.



SERVICE

10. Install the front end plate and tension the special tool's two lower parts to it.

IMPORTANT

It is important for the front plate to be located in the groove in the holder panel.

NOTE

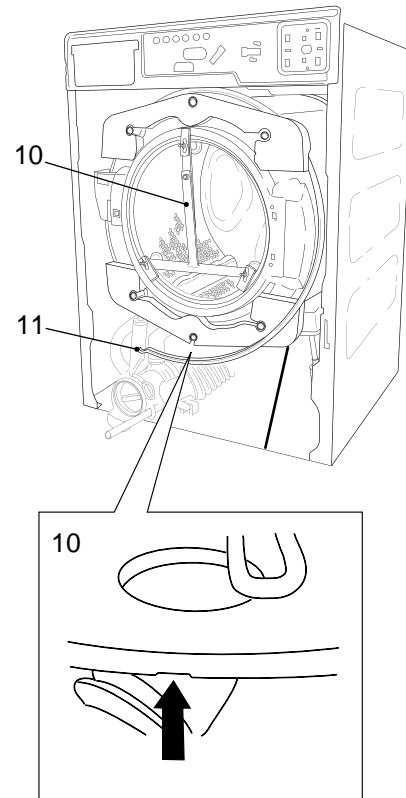
Use the special tool's upper fixing to hang the end plate on.

11. Install the tensioning ring by turning it to the right place and then securing the screw.

IMPORTANT

Be sure that the tensioning ring is properly located over the edges of the end plate.

12. Tighten the screw fully.
13. Use a rubber mallet to knock the tensioning ring into place on the upper edge and sides. Also move it to the edge of the end plate with pliers.
14. Tightly secure the tensioning ring.
15. Remove the lower hook.
16. Hook the balancing spring to the top side of the holder.
17. Remove the special tool.
18. Refit the protection and catch in accordance with the section "Catch - Installing...".



DRUM

Removing the drum

1. Remove the end plate and inner cover plate at the front in accordance with the section "Front end plate holder... - Removing...".
2. Remove the rear panel by first removing the 12 screws around it and then lifting it off.
3. Take off the drive belt by lifting it off one side of the pulley and turning the pulley.
4. Remove the pulley screw and remove the pulley and the wavy washer.
5. Pull out the drum.

Installing the drum

6. Install an O-ring on the drum shaft
7. Install the drum.
8. Install the wavy washer on the drum shaft.

WARNING

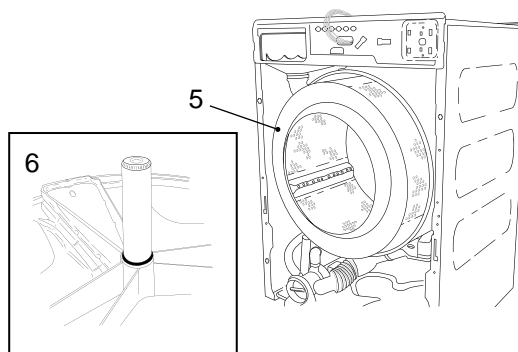
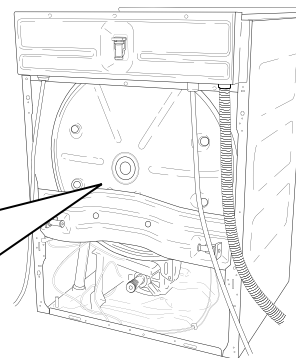
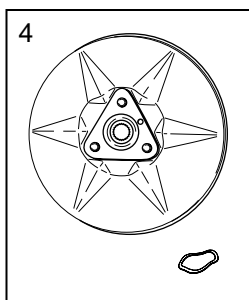
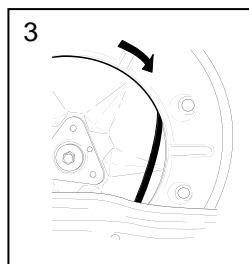
A missing wavy washer can lead to leakage, drum shaft failure and bearing failure.

9. Install the pulley and tighten the screw.
10. Install the drive belt in the reverse order. Start by putting the belt under the motor pulley.

IMPORTANT

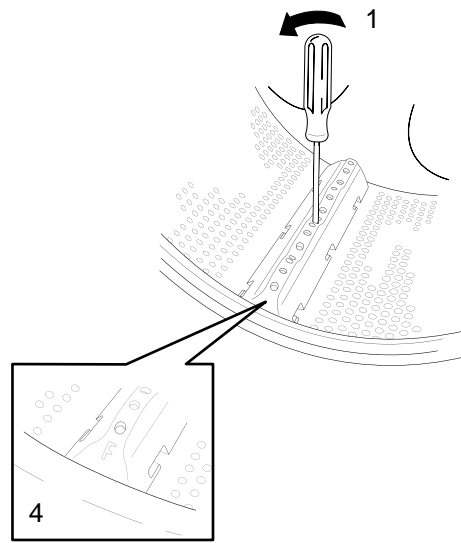
Take care that the drive belt lies centred on the top edge of the pulley. Turn the pulley to check this.

11. Install the rear panel by hanging it on the 2 hooks on the top edge and then securing its edges with the 12 screws.
12. Refit the end plate and inner cover plate in accordance with the section "Front end plate... - Installing".



Changing the wash ridge

1. Insert a screwdriver (or similar thin tool) into the centre ridge hole and angle it carefully to the left.
2. Pull the ridge towards the drum opening.
3. Lift up the ridge.
4. Place the new ridge in the securing hole with the F marking facing the drum opening.
5. Push the ridge inwards until it is secured in place.



DRAIN PUMP

Removing drain pump and pump housing

1. Remove the front panel in accordance with the section "Front panel - Removing...".
2. Remove the pump and pump housing from the rubber fixings in the bottom plate.
3. Release the 3 hose clips and remove the hoses. Also remove the hose clip for the drain hose and remove this.
4. Disconnect the terminal block.
5. Detach the emergency opening cord.

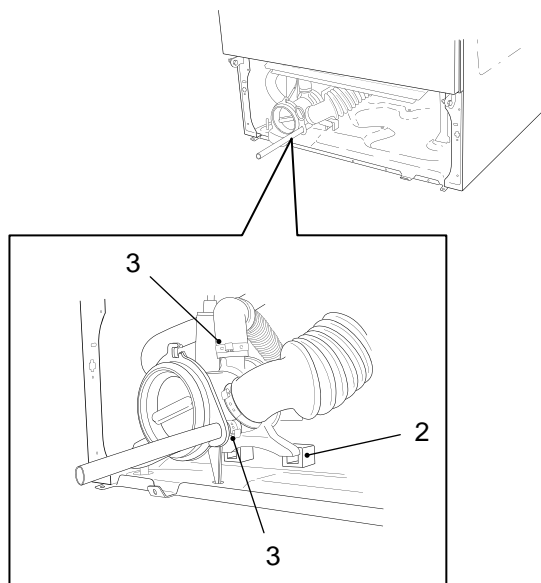
Installing the drain pump and pump housing

6. Secure the emergency opening cord.

IMPORTANT

It is important for the emergency opening cord to be securely fastened to the pump housing and that the cord is free from obstructions.

7. Secure the terminal block.
8. Connect the 3 hoses and secure them with hose clips. Also connect the drain hose and secure it with a hose clip.
9. Secure the pump housing to the fixings on the bottom plate.
10. Install the front panel in accordance with the section "Front panel - Installing...".



SERVICE

Changing the drain pump rubber ring

1. Open the drain pump cover. Use the partition from the detergent compartment or a screwdriver.
2. Disconnect the drain hose.

IMPORTANT

Take care not to break off the drain plug.

NOTE

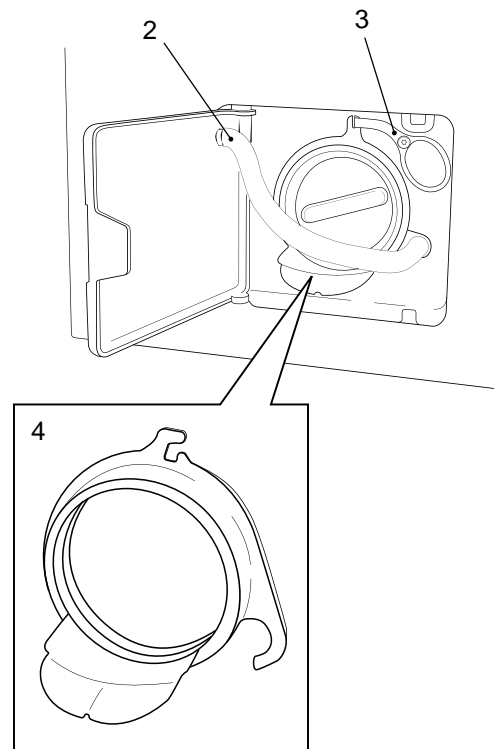
There may be water left in the machine, that will run out through the drain hose.

3. Remove the screw to detach the emergency opening handle.
4. Pull the rubber ring from the pump housing.
5. Put the new ring on to the pump housing.

IMPORTANT

The tab on the ring must be upwards and in line with the tab on the pump housing.

6. Secure the emergency opening handle with the screw and refit the drain hose.
7. Close the cover.



COMPLETE HOLDER ASSEMBLY

Changing the complete holder assembly (holder, cradle and rear end plate)

1. Remove the detergent compartment in accordance with the section "Detergent compartment - Removal...".
2. Remove the electrical component bridge piece in accordance with the section "Electrical component bridge piece - Removal...".
3. Remove the drum in accordance with the section "Drum - Removal...".
4. Remove the motor in accordance with steps 3 to 7 in the section "Motor - Changing motor".

IMPORTANT

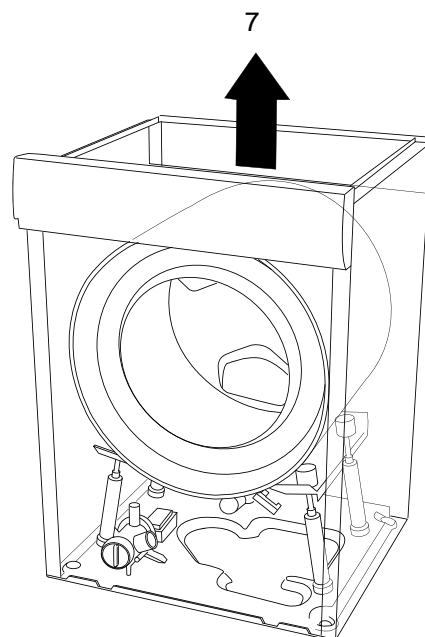
The motor can stay in place while dismantling the holder. Remember to put the holder down gently to prevent the motor being damaged.

5. Remove all the necessary hoses and wiring.
6. Remove the holder and cradle.
7. Lift the holder straight up.
8. Transfer the piston rods and rubber dampers to the shock absorbers.
9. Lower the new holder into the machine and the piston rods and rubber dampers to the shock absorbers.

NOTE

Soapy water can be used to make it easier to fit the rubber dampers.

10. Refit the hoses and wiring.
11. Install the motor in accordance with steps 8 to 11 in the section "Motor - Changing motor".
12. Install the drum in accordance with the section "Drum - Install...".
13. Install the electrical component bridge piece in accordance with the section "Electrical component bridge piece - Install...".
14. Install the detergent compartment in accordance with the section "Detergent compartment - Install...".



SERVICE

Changing the bearing

1. Remove the drum in accordance with the section "Drum - Removing...".
2. Remove the v-ring cassette with a screwdriver.
3. Knock out both bearings.

NOTE

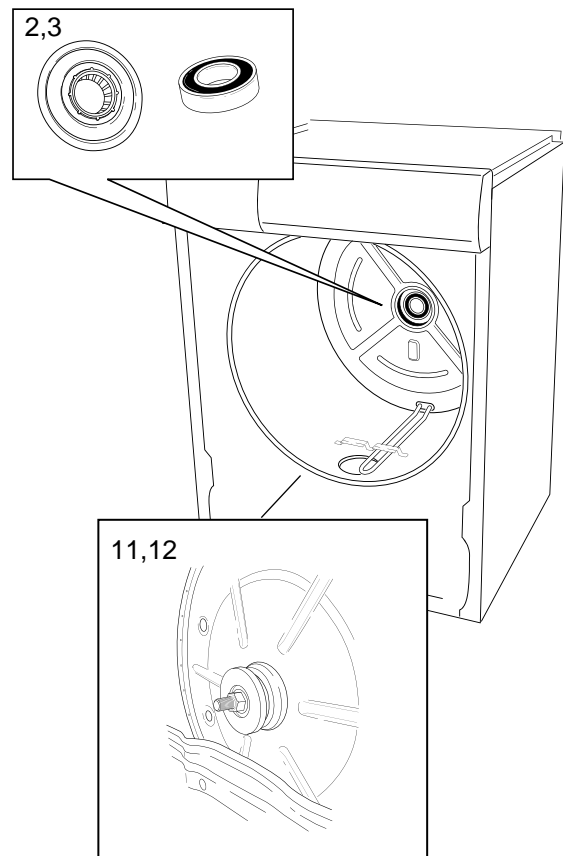
Discard the bearings after removal.

4. Place the inner bearing on the inner part of the special tool (part no. 88 011 53) and put it inside the holder.

IMPORTANT

Position the special tool support between the heating element loops.

5. Put the outer part of the tool at the rear of the bearing housing.
6. Tighten the nut.
7. Insert the bearing into place with the special tool.
8. Remove the nut and remove the outer part of the special tool.
9. Place the outer bearing on the outer part of the special tool.
10. Place the outer part of the special tool at the rear of the bearing housing.
11. Tighten the nut.
12. Insert the bearing into place with the special tool.
13. Remove the nut and remove the special tool.
14. Install the drum in accordance with the section "Drum - Installing...".



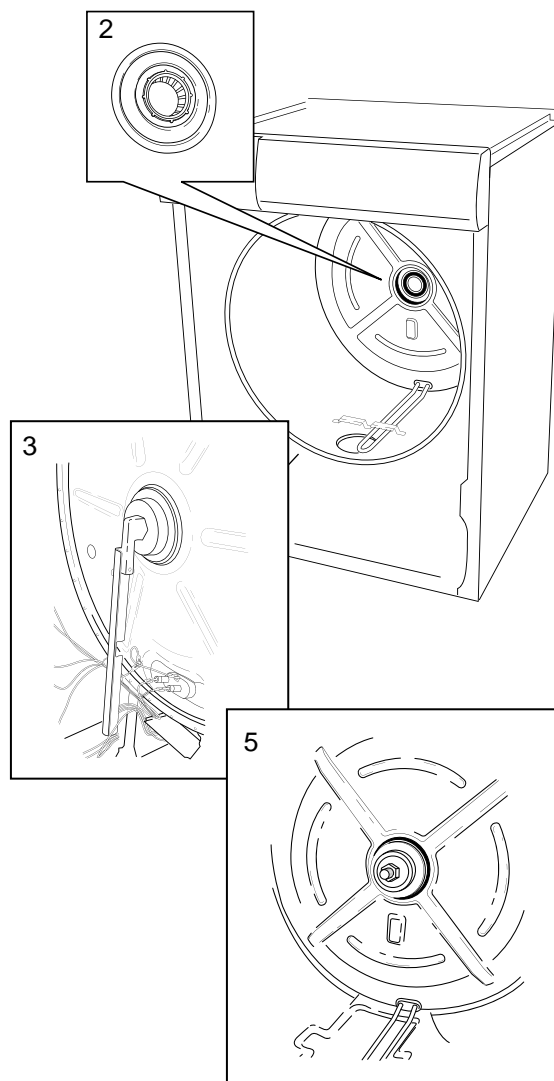
Changing the v-ring cassette

1. Remove the drum in accordance with the section "Drum - Remove...".
2. Remove the v-ring cassette with a screwdriver.
3. Put the tool into the bearing housing from the rear of the machine.
4. Put the new v-ring cassette on to the special tool, inside the holder with its white side faces outwards. Then put the washer on the tool with the flat side facing the cassette.
5. Fit the nut and force the v-ring cassette into place by tightening the nut.

IMPORTANT

The v-ring cassette must be properly pressed in, to prevent leakage or v-ring squeaking.

6. Remove the nut and remove the special tool.
7. Install the drum in accordance with the section "Drum - Installing...".



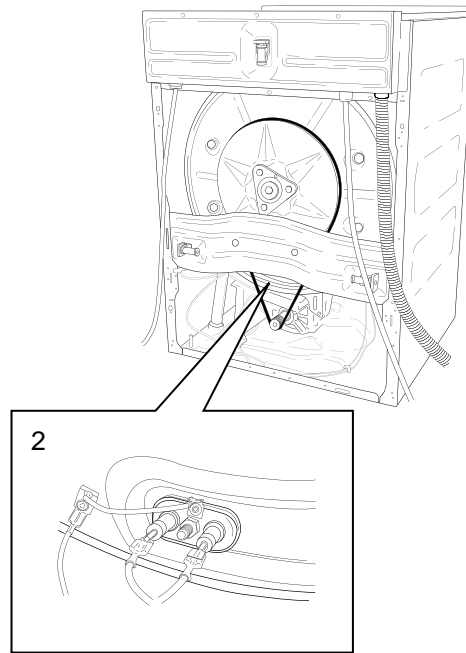
SERVICE

Changing the heating element

1. Remove the rear panel by first removing the 12 screws around it and then lifting it off.
2. Disconnect the wiring and unscrew the nut as far as possible.
3. Tap the screw so that the seal on the inside is separated from its flat washer.
4. Let the seal shrink and then pull out the element.
5. Install the element by pushing it in as far as possible.
6. Tighten the nut and connect the wiring.
7. Install the rear panel.

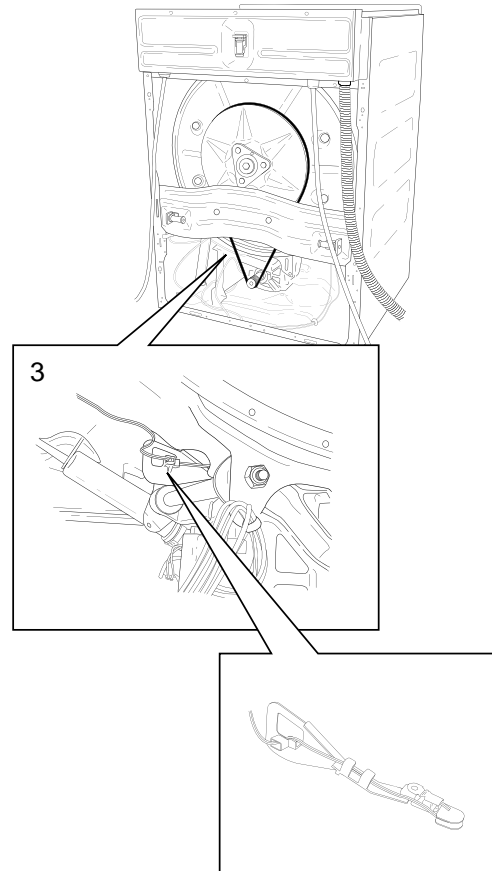
OBS

Check if the heating element is in the element holder when it is installed. See page 56. Check by removing the drum paddle.



Changing the thermistor

1. Remove the 3 screws at the rear edge of the top lid and lift off the lid.
2. Remove the 12 screws around the rear piece and lift it off.
3. Pull the thermistor out to the left to remove it.
4. Remove the thermistor header connector from the program control board.
5. Install the new thermistor by threading it through the hole between the cradle and holder.
6. Connect the thermistor to the program control board.
7. Refit the rear piece and top lid.



Changing the tensioning ring

1. Remove the cover plate in accordance with the section "[Cover plate - Removing...](#)".
2. Install the special tool (part no. 88 011 52).

IMPORTANT

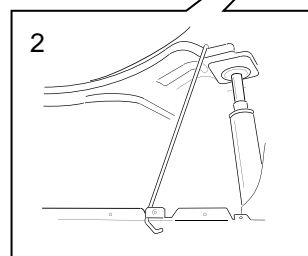
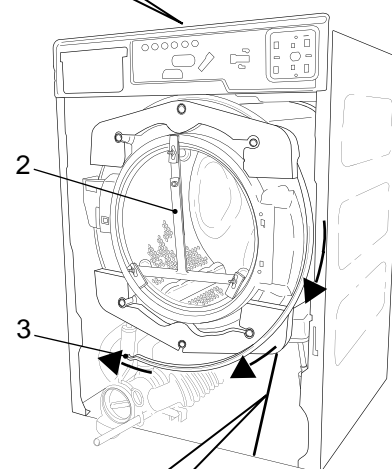
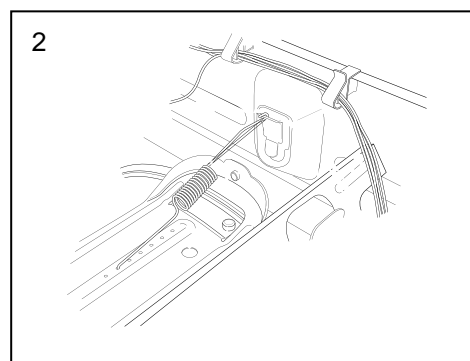
Fasten the special tool's 3 fixings in the drum end.

3. Slacken the tensioning ring and remove it.

IMPORTANT

Do not lever the tensioning ring off. Undo one end and turn it round the holder to remove it.

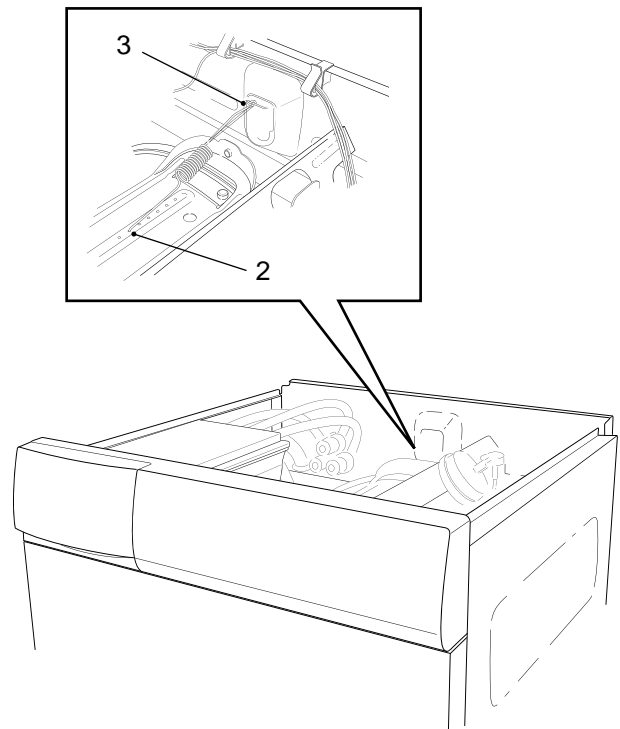
4. Install the new tensioning ring by turning it to the right place and then securing the screw.
5. Tighten the screw fully. Use a rubber mallet to knock the tensioning ring into place on the upper edge. Also move it to the edge of the end plate with pliers.
6. Tighten the tensioning ring more.
7. Remove the special tool.
8. Refit the cover plate in accordance with the section "[Cover plate - Installing...](#)".



SERVICE

Changing the balancing spring

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Use pliers to unhook the balancing spring from the holder.
3. Front spring: Unhook the spring from the front rail.
Rear spring: Unhook the spring from the cross member.
4. Install a new spring by first hooking it to the member and then to the holder.
5. Fit the top cover.



ELECTRICAL COMPONENT BRIDGE PIECE

Removing the electrical component bridge piece

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Remove the panel in accordance with the section "Panel - Removing...".
3. Remove the 2 screws at the rear from the cross member.
4. Remove the 2 screws in the front rail.
5. Remove the wiring as necessary.
6. Lift out the bridge piece.

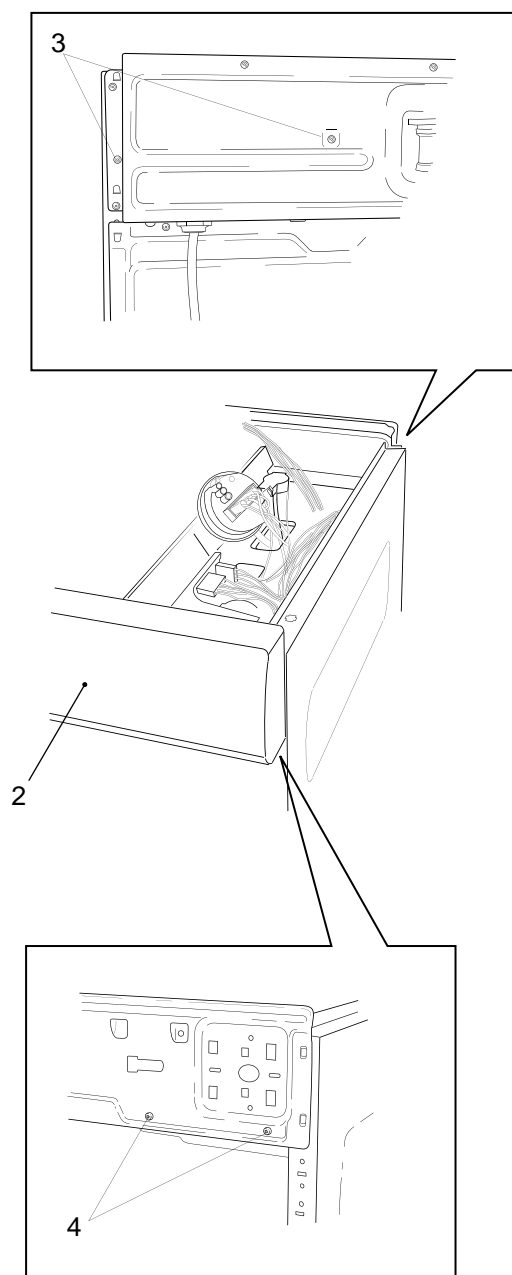
Installing the electrical component bridge piece

7. Lay the bridge piece in place.
8. Secure the 2 screws to the cross member and the 2 to the front rail.
9. Reconnect the wiring.

IMPORTANT

Ensure that the wiring is correctly connected.

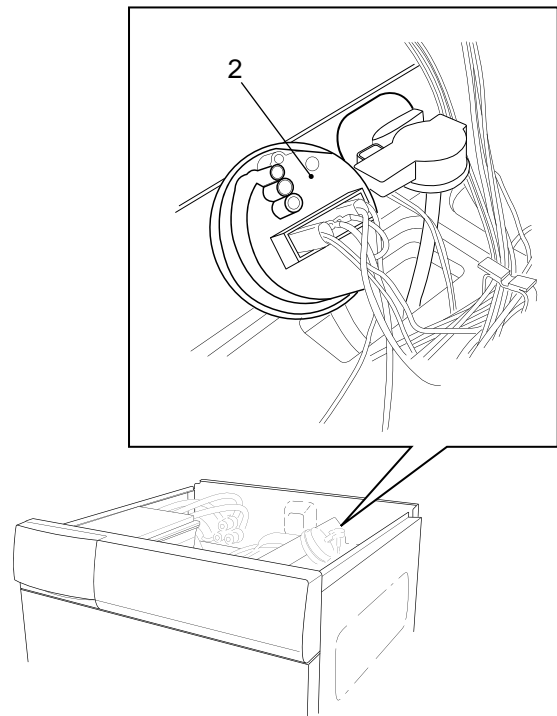
10. Install the panel in accordance with the section "Panel - Installing...".
11. Fit the top cover.



SERVICE

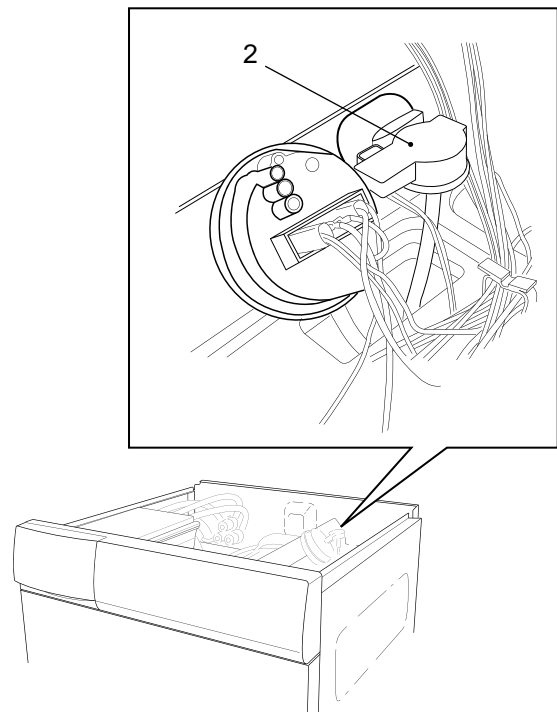
Changing the level switch

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Squeeze the level switch securing clips, if necessary with pliers, and remove it from the bridge piece.
3. Remove the wiring and connector pins.
4. Remove the rubber hose from the underside.
5. Put the rubber hose on to the new level switch.
6. Connect the wiring and connector pins.
7. Insert and push the level switch to secure it on the bridge piece.
8. Fit the top cover.



Changing the level sensor

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Squeeze the level sensor securing clips, if necessary with pliers, and remove it from the bridge piece.
3. Remove the connector pins.
4. Remove the rubber hose from the underside.
5. Put the rubber hose on to the new level sensor.
6. Reconnect the terminal block.
7. Insert and push the level sensor to secure it on the bridge piece.
8. Fit the top cover.

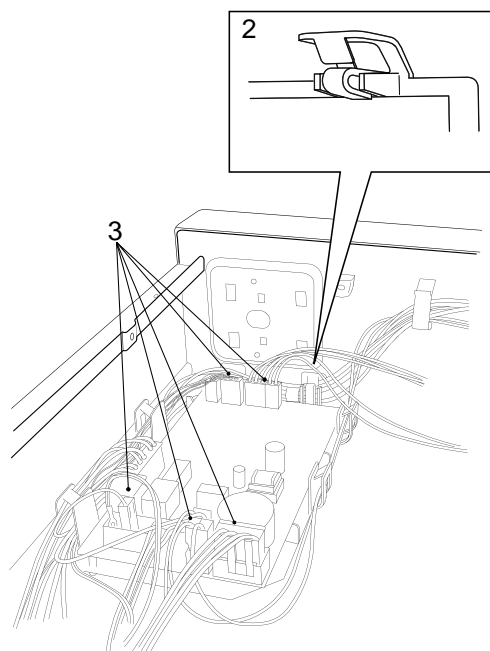


Changing the PCU program control board and its holder

WARNING

An earthed EMC wristband must be worn at all times when working with electronic components to prevent damage to them.

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Remove the board by pressing in the 2 plastic clips.
3. Remove the terminal block.
4. Lift up the program control board.
5. Remove the 2 plastic catches on the underside of the bridge piece and lift up the holder.
6. Install the holder by pushing it in until the catches clip on to the plate..
7. **IMPORTANT! Make sure that the new board has the same jumper settings as the old board. When doubt, see circuit diagram enclosed with the machine or in this manual.**
8. Offer up the new board and press it into place.
9. Connect the wiring and terminal block.
10. Fit the top cover.



SERVICE

CROSS MEMBER

Changing the input terminal block

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Remove the earthing screw.
3. Disconnect all the wiring.
4. Press the latches in with a screwdriver and pull out the input terminal block.

NOTE

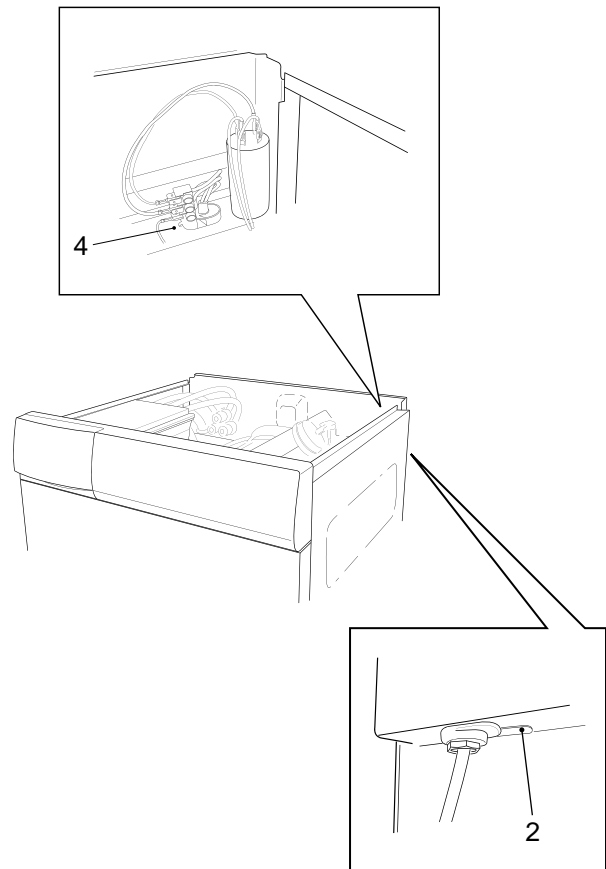
Make sure that the wires are connected correctly when changing the input terminal block and the connection cables.

5. Install the new input terminal block, the latches must clip on to the edge of the plate.
6. Install the wiring in accordance with the electrical schematic diagram.
7. Secure the earthing screw.

IMPORTANT

Don't forget to put the earthing screw back.

8. Fit the top cover.



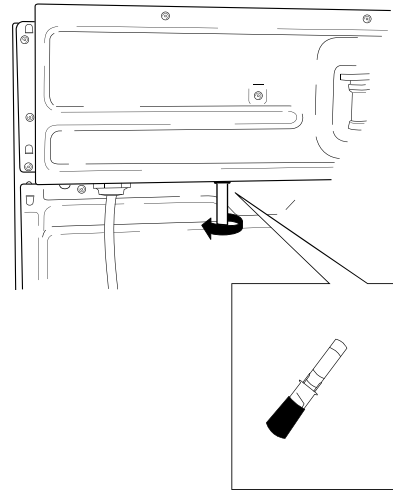
Changing the fuse

1. Remove the fuse holder insert with a screwdriver (1/4 turn).
2. Change the fuse.

IMPORTANT

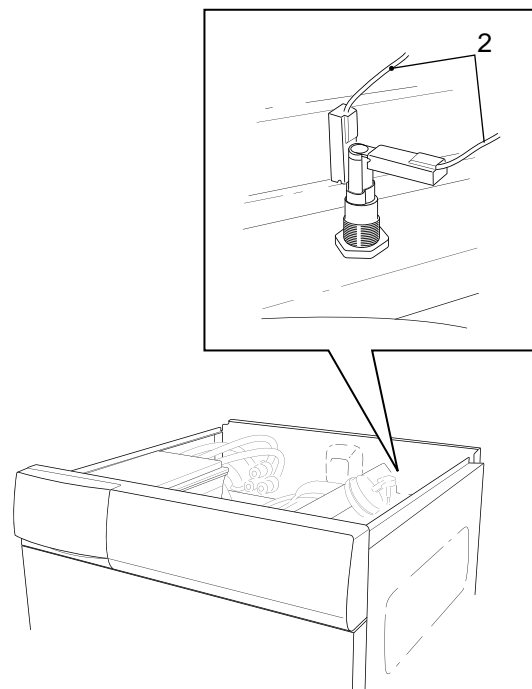
The fuse must be of 250V and 6.3 Ampere type.

3. Fit the fuse holder insert with the fuse into the fuse holder.



Changing the fuse holder/insert

1. Remove the three screws at the rear edge and lift off the top cover.
2. Remove the wiring that goes to the fuse holder.
3. Remove the fuse holder insert with a screwdriver (1/4 turn).
4. Unscrew the fuse holder.
5. Fit the new fuse holder.
6. Connect the wiring.
7. Install the fuse holder and its insert.
8. Fit the top cover.



SERVICE

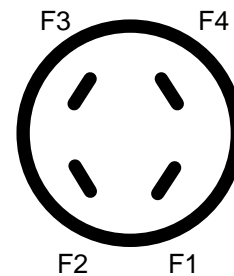
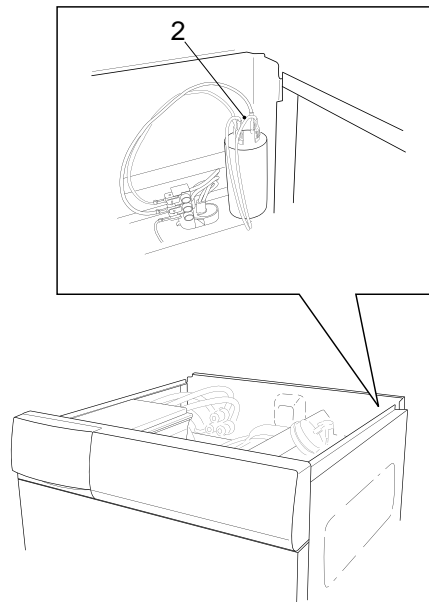
Changing the radio interference filter

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Disconnect the wiring from the radio interference filter.
3. Unscrew the nut securing the filter and take it out.
4. Install the new radio interference filter.
5. Install the wiring in accordance with the labels on the wires.

IMPORTANT

Connect the wires to the correct flat pin connectors.

6. Fit the top cover.



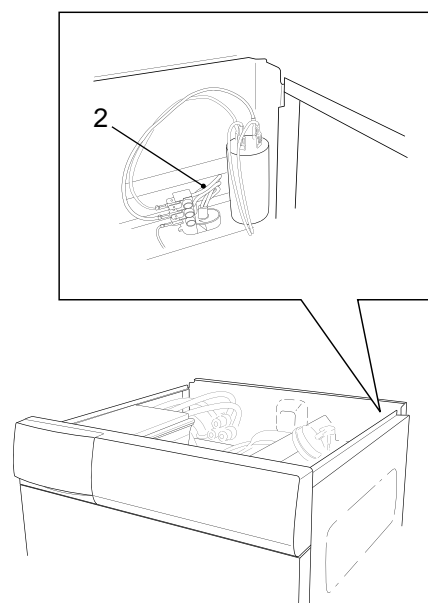
Changing the cable stand

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Remove the wiring.
3. Route the new wiring and secure it.

IMPORTANT

Make sure that the wires are connected correctly.

4. Fit the top cover.



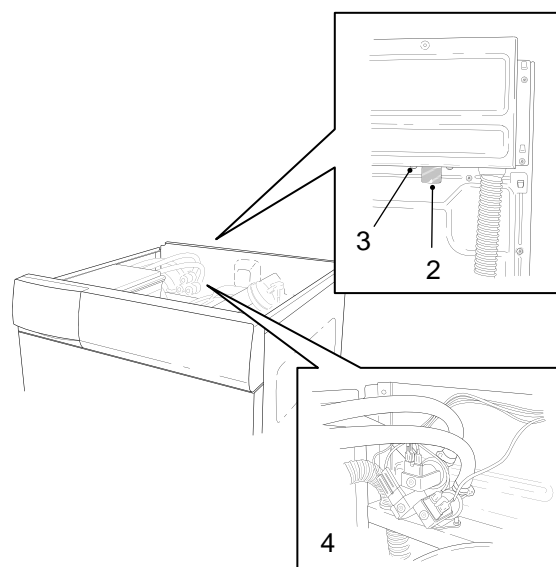
Changing the inlet valve

1. Remove the top cover by first removing the 3 screws at the rear edge and then lifting the cover off.
2. Disconnect the water supply connection from the inlet valve.
3. Remove the 2 screws under the cross member and lift up the valve.
4. Remove the hoses and wiring.
5. Install the wiring in accordance with the electrical schematic diagram and secure the hoses.
6. Install the inlet valve in the cross member and secure it with the 2 screws.

IMPORTANT

The wiring to the lid catch must run between the inlet valve and the cross member.

7. Install the water supply connection.
8. Fit the top cover.



SIDE PANELS

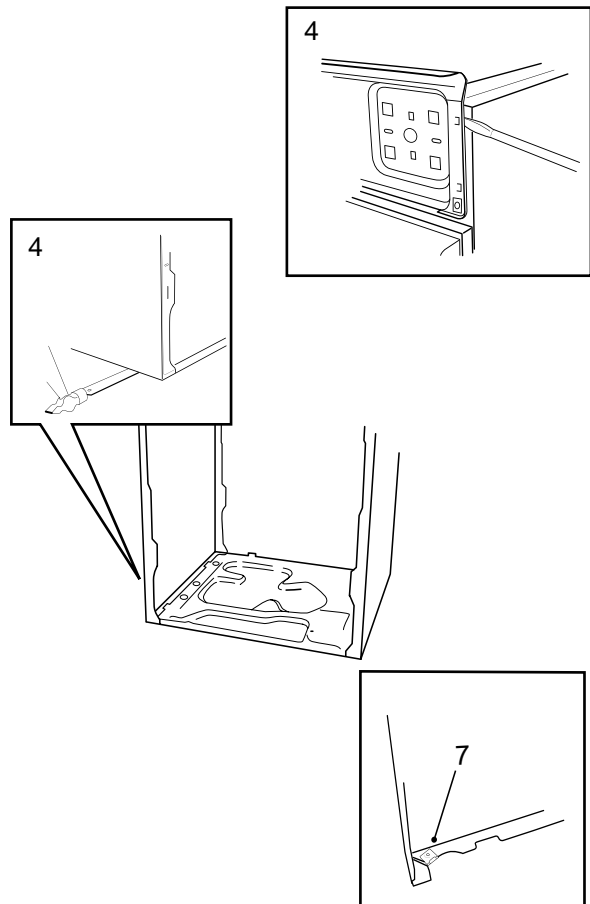
Changing the side panels

1. Remove the rear panel by first removing the 12 screws around it and then lifting it off.
2. Remove the front panel in accordance with the section "[Front panel - Removing...](#)".
3. Remove the panel in accordance with the section "[Panel - Removing...](#)".
4. Using a narrow chisel, cut off the rivet heads (7) and break those on the front rail off with a screwdriver (2).
5. Lift away the side panel.
6. File or grind smooth the places where the rivets were in the bottom and use a polygrip to flatten the front rail.

WARNING

The edges of the bottom and the front rail where the rivets were placed must be completely flat and smooth.

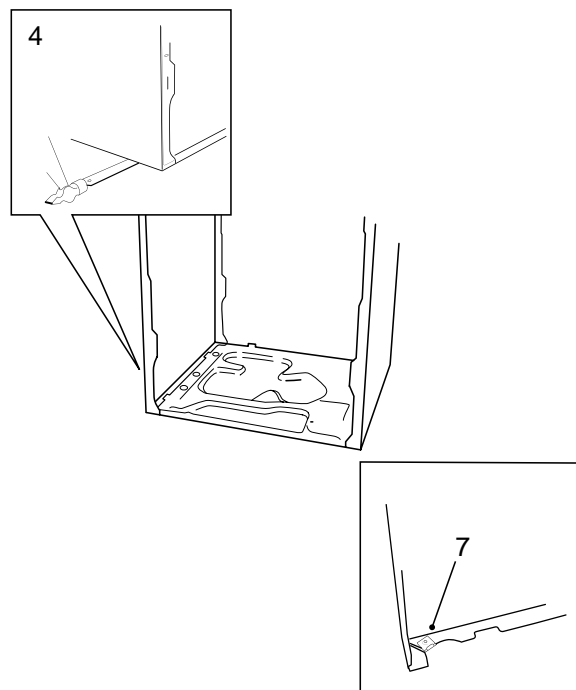
7. Install 3 clips at the bottom of the side panels.
8. Lift the side panel into place.
9. Secure the cross member, transport beam and the front rail to the side panels.
10. Secure the side panels to the new bottom.
11. Install the front panel in accordance with the section "[Front panel - Installing...](#)".
12. Install the rear panel.
13. Install the panel in accordance with the section "[Panel - Installing...](#)".



BOTTOM

Change of bottom

1. Remove the holder complete in accordance with the section "Holder complete - Changing holder complete" point 1-7.
2. Dismantle the shock absorbers in accordance with steps 2 to 6 in the section "Bottom - Changing the shock absorbers".
3. Dismantle the motor control board in accordance with steps 2 to 5 in the section "Motor - Changing motor control board".
4. Cut off the rivets between the bottom and side panels.
5. Remove the two screws which secure the lower cover or the front plate in the bottom.
6. Lift the side panels with the front plate etc.
7. Install 6 clips on the side panel bottom edges.
8. Secure the side panels to the new bottom.
9. Install the motor control board in accordance with steps 6 to 9 in the section "Motor - Changing the motor control board".
10. Install the shock absorbers in accordance with steps 7 to 9 in the section "Bottom - Changing the shock absorbers".
11. Install the holder complete in accordance with the section "Holder complete - Changing holder complete" point 9-14.



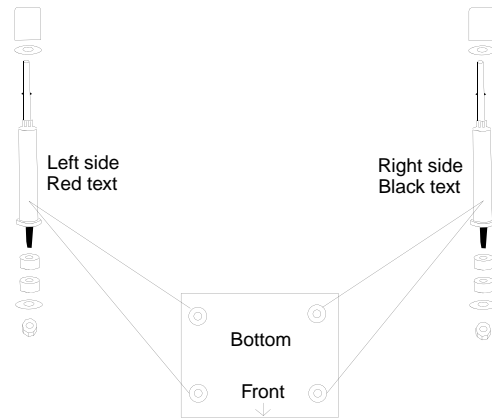
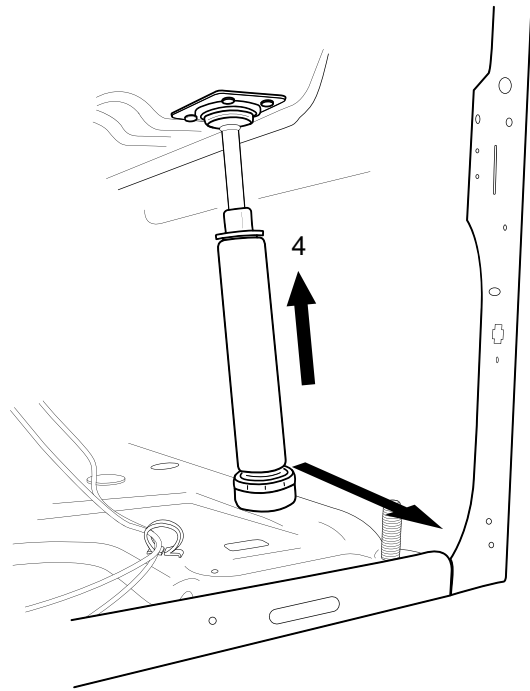
Changing the shock absorbers

1. **Front shock absorbers:** Remove the front panel in accordance with the section "[Front panel - Removing...](#)" or else the bottom cover in accordance with the section "[Bottom cover - Removing...](#)".

Rear shock absorbers: Remove the rear panel by first removing the 12 screws around it and then lifting it off.

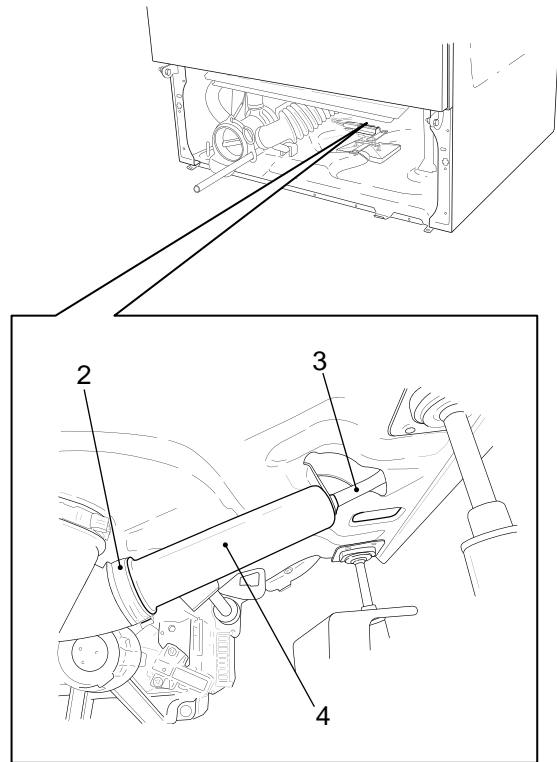
2. Remove the shock absorber nuts under the bottom plate.
3. Support the holder from underneath or secure it with a hook from above.
4. Compress the shock absorber. Angle it outwards and pull it off downwards.
5. Take off the piston rods.
6. Remove the rubber bushes.
7. Install new rubber bushes, piston rods and shock absorbers.
8. Compress the shock absorber and put it into position in the bottom plate.
9. Fit the nut on the underside and tighten it.
10. **Front shock absorbers:** Install the front panel in accordance with the section "[Front panel - Installing...](#)" or else the bottom cover in accordance with the section "[Bottom cover - Installing...](#)".

Install the rear panel by hanging it on the 2 hooks on the top edge and then securing its edges with the 12 screws.



Changing pressure chamber

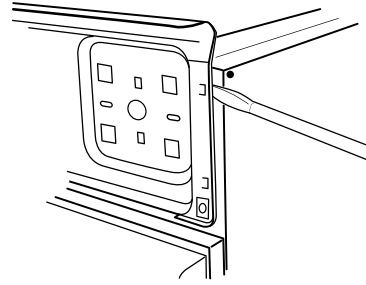
1. Remove the front panel in accordance with the section "Front panel - Removing...".
2. Remove the hose clip securing the pressure chamber to the corrugated hose and remove the chamber.
3. Remove the rubber hose that leads to the level switch and level sensor.
4. Twist the pressure chamber 1/4 turn and take it out of the bracket.
5. Secure the new chamber by inserting it into the bracket and twisting it 1/4 turn.
6. Join the rubber hose and the corrugated hose together with a hose clip. Tighten the hose clip.
7. Install the front panel in accordance with the section "Front panel - Installing...".



FRONT RAIL

Changing the front rail

1. Remove the panel in accordance with the section "[Panel - removing...](#)".
2. Remove the rivets with a screwdriver and flatten with a polygrip.
3. Secure the new front rail.
4. Install the panel in accordance with the section "[Panel - installation...](#)".



WASHING GUIDE

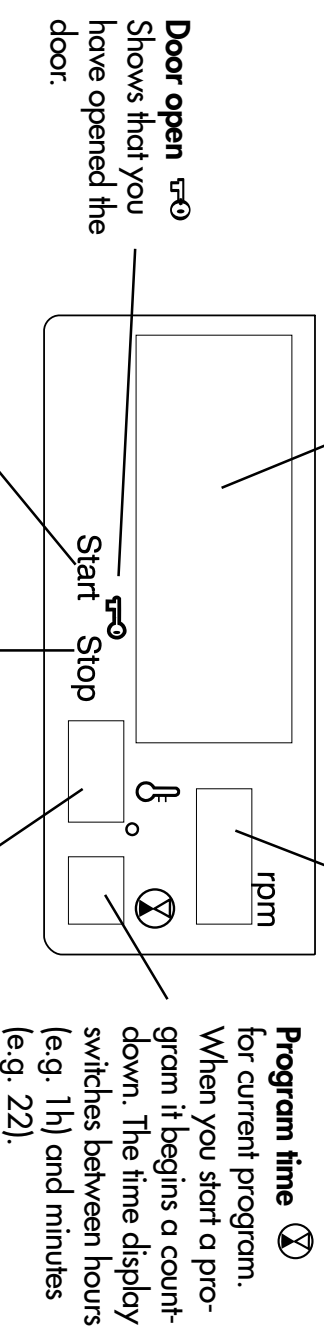
EURO

WHAT THE DISPLAY SHOWS

Program information

When you press P1 to P8 this field shows which program is selected. While the program is running it shows how far the cycle has progressed.

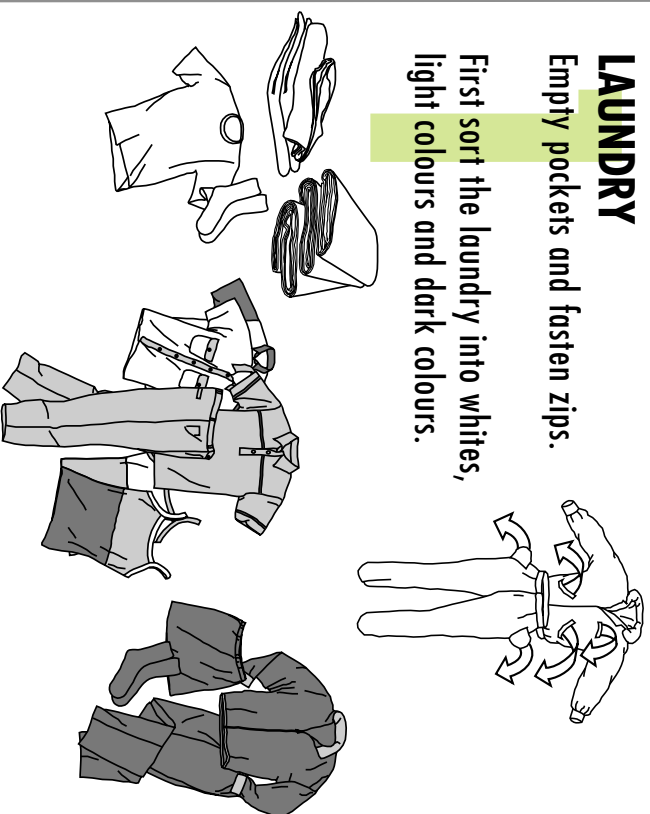
Spin speed for current program.



LAUNDRY

Empty pockets and fasten zips.

First sort the laundry into whites, light colours and dark colours.

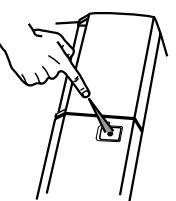


Read the care labels on the garments and divide up the different piles according to the wash temperature on the care labels.

Note! Underwired bras must be placed in a laundry bag.

LOAD MACHINE

Press the power switch. The display will light up.

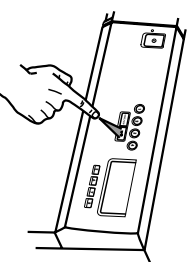


NOTE! If you do not press a button within 3 minutes the display will be switched off. It will light up again when you press a button.

Press the key button to open the door.

The door will open after 3 seconds.

Put the laundry in the drum and close the door.



Program

- Heavy wash
- Normal wash
- Synthetic and Super quick wash
- Wool/hand wash

Weight of load

- (5.0 kg)
- (5.0 kg)
- (2.5 kg)
- (1.7 kg)

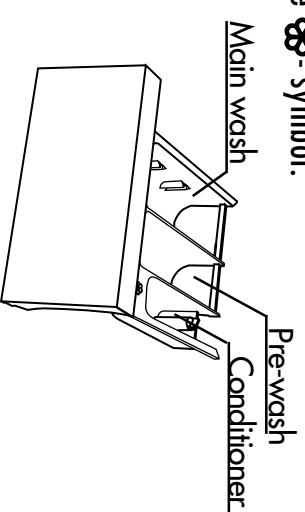
DETERGENT DRAWER

Pour the detergent into the main wash dispenser (2) and, if required, the pre-wash dispenser (1).
Pour fabric conditioner into the right-hand dispenser with the  symbol.

Reduce the dose if you are washing a small load.

If you use a liquid detergent place it in a detergent ball.

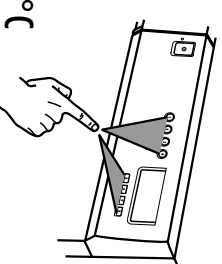
NOTE! A detergent ball cannot be used with program P1.



SELECT PROGRAM

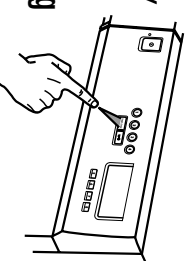
Press one of the program buttons P1 to P8 to choose the program you want to use.

- | | |
|-------------------------------------|-----------------------------|
| P1 - Heavy wash with pre-wash, 90°C | P5 - Synthetic wash, 40°C |
| P2 - Normal wash, 90°C | P6 - Super quick wash, 40°C |
| P3 - Normal wash, 60°C | P7 - Wool/hand wash, 30°C |
| P4 - Normal wash, 40°C | P8 - Spin |



Press the Start/Stop button to start the machine. Hold in the Start/Stop button for 3 seconds to interrupt the wash program.

The word **Start** will appear on the display to show that the washing program has begun.



ERROR MESSAGES

0000 flashing at the top right: open the door, redistribute the load and run program 8.

Other messages:

- Write down the error message that is displayed.
- Turn the power switch on the machine off and on again.
- Press the key button and take out the laundry.
- Contact the property management service.

SAFETY PRECAUTIONS

- Do not use the machine for dry cleaning.
- Only use automatic laundry detergent.
- Children must not use this machine.
- Do not spray the machine with water when cleaning.

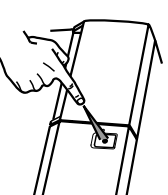
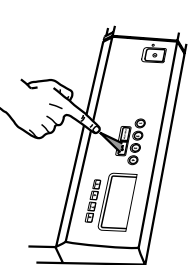
WHEN PROGRAM IS COMPLETE

The word **Stop** will appear on the display when the wash program is complete. The display is switched off three minutes after the end of the wash program.

Press the key button to open the door. The door will open after 3 seconds. Take out the laundry.

Check that the drum is empty and close the door.

Switch off the washing machine.

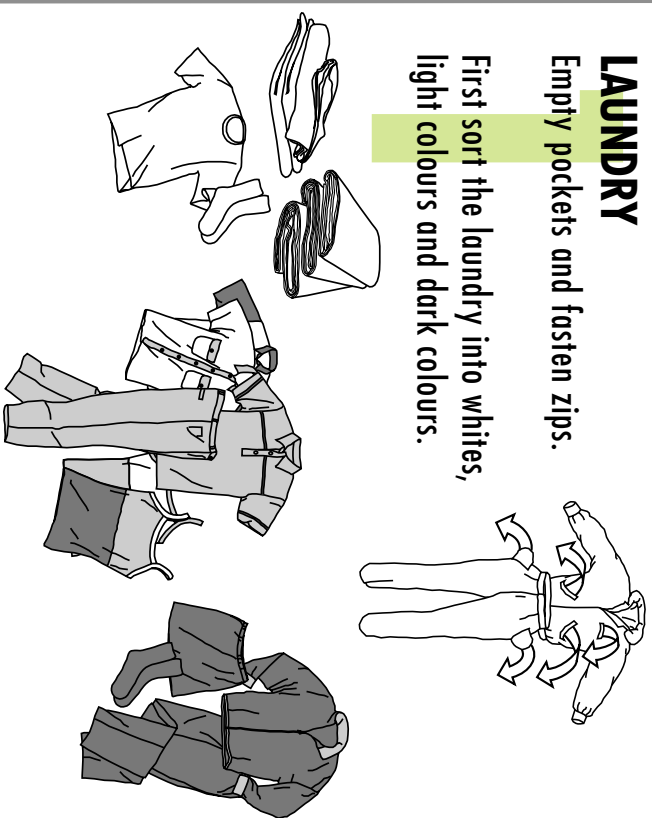


WASHING GUIDE

LAUNDRY

Empty pockets and fasten zips.

First sort the laundry into whites, light colours and dark colours.



Read the care labels on the garments and divide up the different piles according to the wash temperature on the care labels.

Note! Undervired bras must be placed in a laundry bag.

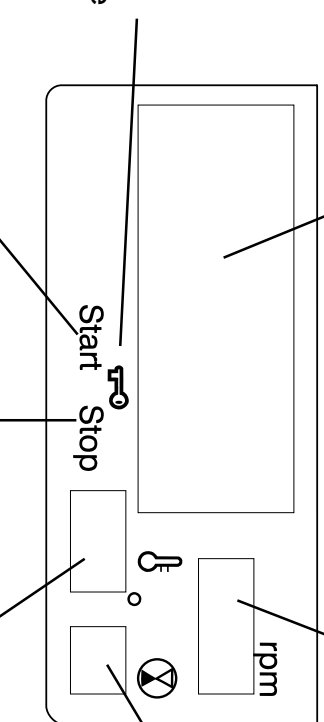
WHAT THE DISPLAY SHOWS

Program information

When you press P1 to P8 this field shows which program is selected. While the program is running it shows how far the cycle has progressed.

Spin speed for current program.

Door open Shows that you have opened the door.



Program time When you start a program it begins a countdown. The time display switches between hours (e.g. 1h) and minutes (e.g. 22).

Start Program has started.

Stop Program is complete or has been interrupted.

Wash temperature for current program.

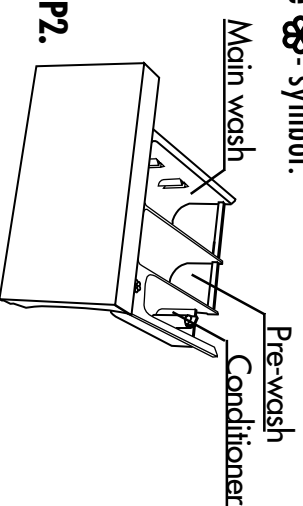
DETERGENT DRAWER

Pour the detergent into the main wash dispenser (2) and, if required, the pre-wash dispenser (1). Pour fabric conditioner into the right-hand dispenser with the symbol.

Reduce the dose if you are washing a small load.

If you use a liquid detergent place it in a detergent ball.

NOTE! A detergent ball cannot be used with program P1 and P2.



MEDICAL

ERROR MESSAGES

0000 flashing at the top right: open the door, redistribute the load and run program 8.

Other messages:

- Write down the error message that is displayed.
- Turn the power switch on the machine off and on again.
- Press the key button and take out the laundry.
- Contact the property management service.

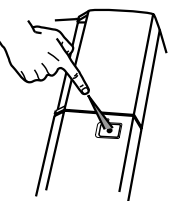
SAFETY PRECAUTIONS



- Do not use the machine for dry cleaning.
- Only use automatic laundry detergent.
- Children must not use this machine.
- Do not spray the machine with water when cleaning.

LOAD MACHINE

Press the power switch. The display will light up.

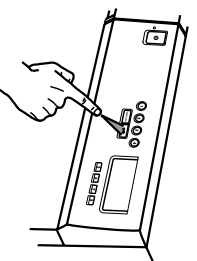


NOTE! If you do not press a button within 3 minutes the display will be switched off. It will light up again when you press a button.

Press the key button to open the door.

The door will open after 3 seconds

Put the laundry in the drum and close the door.



Program

- Heavy wash
- Normal wash
- Synthetic and Super quick wash
- Wool/hand wash

Weight of load

- (5.0 kg)
- (5.0 kg)
- (2.5 kg)
- (1.7 kg)

SELECT PROGRAM

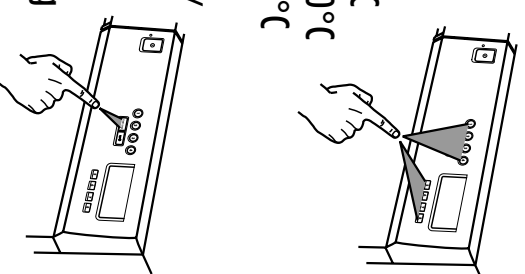
Press one of the program buttons P1 to P8 to choose the program you want to use.

- P1 - Heavy wash with pre-wash, 0-90°C
- P2 - Heavy wash with pre-wash, 0-80°C
- P3 - Normal wash, 60°C
- P4 - Normal wash, 40°C
- P5 - Synthetic wash, 40°C
- P6 - Super quick wash, 40°C
- P7 - Wool/hand wash, 30°C
- P8 - Rinse

Press the Start/Stop button to start the machine. Hold in the Start/Stop button for 3 seconds to interrupt the wash program.

*P1 and P2 cannot be interrupted.

The word **Start** will appear on the display to show that the washing program has begun.



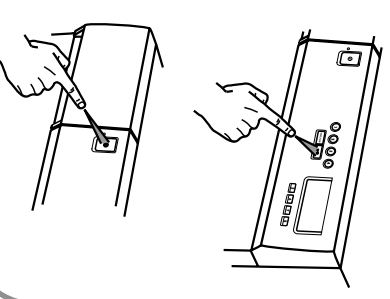
WHEN PROGRAM IS COMPLETE

The word **Stop** will appear on the display when the wash program is complete. The display is switched off three minutes after the end of the wash program.

Press the key button to open the door. The door will open after 3 seconds. Take out the laundry.

Check that the drum is empty and close the door.

Switch off the washing machine.

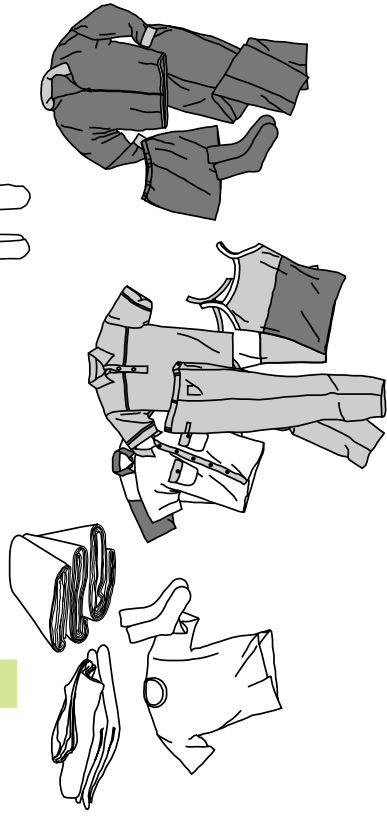


WASHING GUIDE

LAUNDRY

Empty pockets and fasten zips.

First sort the laundry into whites, light colours and dark colours.



Read the care labels on the garments and divide up the different piles according to the wash temperature on the care labels.

Note! Underwired bras must be placed in a laundry bag.

LOAD MACHINE

Press the power switch. The display will light up.

NOTE! If you do not press a button within 3 minutes the display will be switched off. It will light up again when you press a button.

Press the key button to open the door. The door will open after 3 seconds.

Put the laundry in the drum and close the door.

Program

Heavy wash

Normal wash

Synthetic and Super quick wash

Wool/hand wash

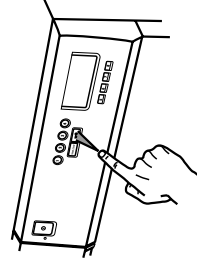
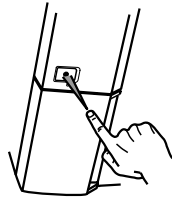
Weight of load

● (5.0 kg)

● (5.0 kg)

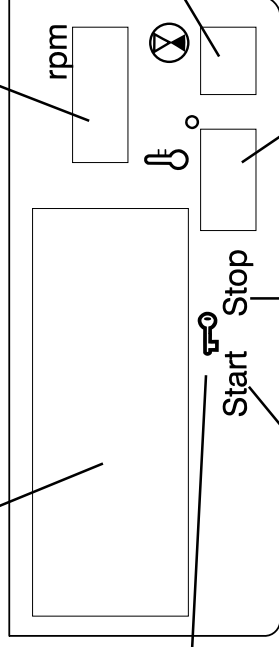
◐ (2.5 kg)

○ (1.7 kg)



Program information

When you press P1 to P8 this field shows which program is selected. While the program is running it shows how far the cycle has progressed.



Door open Shows that you have opened the door.

Spin speed for current program.

Program time for current program.

When you start a program it begins a countdown. The time display switches between hours (e.g. 1h) and minutes (e.g. 22).

Start Program has started.

Stop Program is complete or has been interrupted.

Wash temperature for current program.

WHAT THE DISPLAY SHOWS

MOP

ERROR MESSAGES

0000 flashing at the top right: open the door, redistribute the load and run program 8.

Other messages:

- Write down the error message that is displayed.
- Turn the power switch on the machine off and on again.
- Press the key button and take out the laundry.
- Contact the property management service.

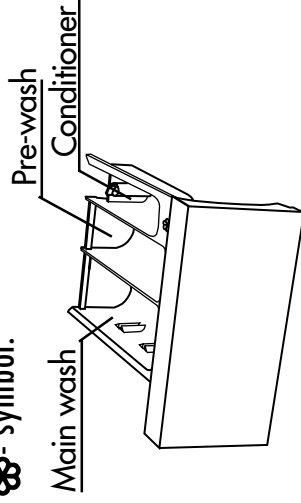
DETERGENT DRAWER

Pour the detergent into the main wash dispenser (2) and, if required, the pre-wash dispenser (1). Pour fabric conditioner into the right-hand dispenser with the symbol.

Reduce the dose if you are washing a small load.

If you use a liquid detergent place it in a detergent ball.

NOTE! A detergent ball cannot be used with program P1.



SAFETY PRECAUTIONS

Do not use the machine for dry cleaning.

Only use automatic laundry detergent.

Children must not use this machine.

Do not spray the machine with water when cleaning.

SELECT PROGRAM

Press one of the program buttons P1 to P8 to choose the program you want to use.

P1 - Heavy wash with pre-wash, 90°C P5 - Normal wash, 40°C

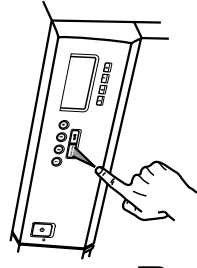
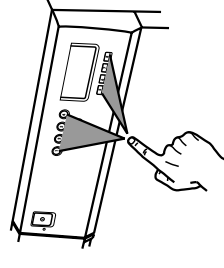
P2 - Heavy wash with pre-wash, 60°C P6 - Synthetic, 40°C

P3 - Normal wash, 90°C P7 - Wool/hand wash, 30°C

P4 - Normal wash, 60°C P8 - Rinse

Press the Start/Stop button to start the machine. Hold in the Start/Stop button for 3 seconds to interrupt the wash program.

The word **Start** will appear on the display to show that the washing program has begun.



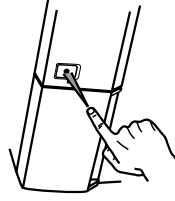
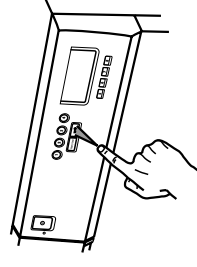
WHEN PROGRAM IS COMPLETE

The word **Stop** will appear on the display when the wash program is complete. The display is switched off three minutes after the end of the wash program.

Press the key button to open the door. The door will open after 3 seconds. Take out the laundry.

Check that the drum is empty and close the door.

Switch off the washing machine.

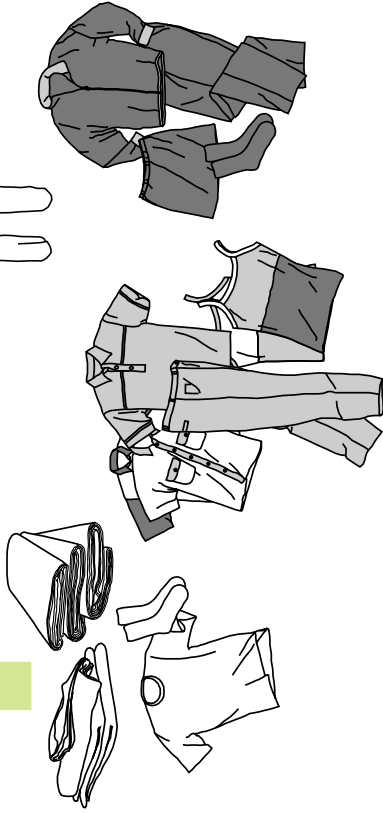


WASHING GUIDE

LAUNDRY

Empty pockets and fasten zips.

First sort the laundry into whites, light colours and dark colours.



Read the care labels on the garments and divide up the different piles according to the wash temperature on the care labels.

Note! Underwired bras must be placed in a laundry bag.

LOAD MACHINE

Press the power switch. The display will light up.

NOTE! If you do not press a button within 3 minutes the display will be switched off. It will light up again when you press a button.

Press the key button to open the door. The door will open after 3 seconds.

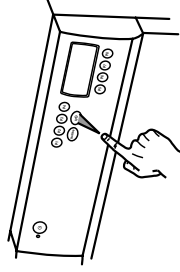
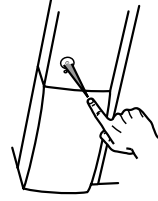
Put the laundry in the drum and close the door.

Program

- Heavy and Normal wash
- Permanent press, Light and Super quick wash
- Delicate wash

Load size

- Full
- Half
- Third



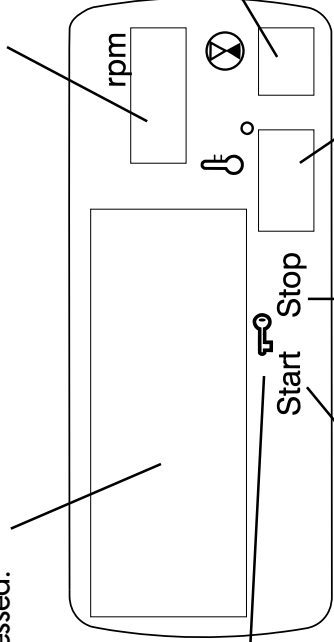
WHAT THE DISPLAY SHOWS

Program information

When you press P1 to P8 this field shows which program is selected. While the program is running it shows how far the cycle has progressed.

Spin speed

for current program.



Door open Shows that you have opened the door.

Start Program has started.

Stop Program is complete or has been interrupted.

Program time

for current program. When you start a program it begins a countdown. The time display switches between hours (e.g. 1h) and minutes (e.g. 22).

Wash temperature °F for current program.

US

ERROR MESSAGES

0000 flashing at the top right: open the door, redistribute the load and run program 8.

Other messages:

- Write down the error message that is displayed.
- Turn the power switch on the machine off and on again.
- Press the key button and take out the laundry.
- Contact the property management service.

SAFETY PRECAUTIONS

- Do not use the machine for dry cleaning.
- Only use automatic laundry detergent.
- Children must not use this machine.
- Do not spray the machine with water when cleaning.

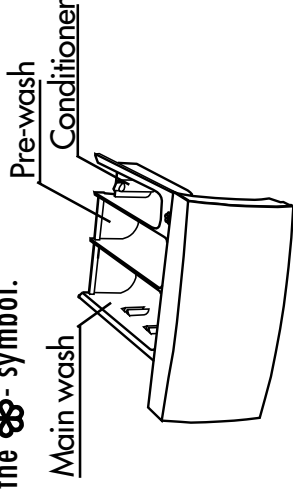
DETERGENT DRAWER

Pour the detergent into the main wash dispenser (2) and, if required, the pre-wash dispenser (1). Pour fabric conditioner into the right-hand dispenser with the symbol.

Reduce the dose if you are washing a small load.

If you use a liquid detergent place it in a detergent ball.

NOTE! A detergent ball can not be used with program P1.



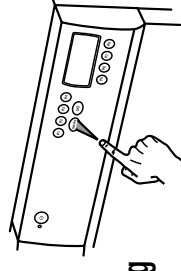
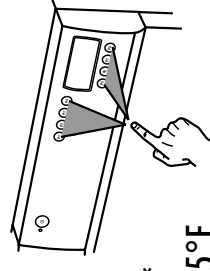
SELECT PROGRAM

Press one of the program buttons P1 to P8 to choose the program you want to use.

- P1 - Heavy wash with pre-wash, 140°F
- P2 - Normal wash, 105°F
- P3 - Normal wash, 105°F
- P4 - Light wash, 105°F
- P5 - Super quick wash, C*
- P6 - Permanent press, 105°F
- P7 - Delicate wash, 85°F
- P8 - Rinse program

*) Temperature equal to temperature of incoming water.

Press the Start/Stop button to start the wash program. Hold in the Start/Stop button for 3 seconds to interrupt the wash program. The word **Start** will appear on the display to show that the washing program has begun.



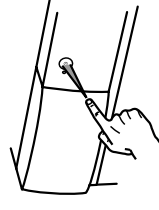
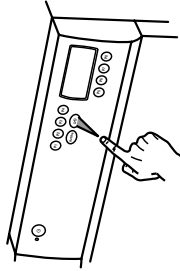
WHEN PROGRAM IS COMPLETE

The word **Stop** will appear on the display when the wash program is complete. The display is switched off three minutes after the end of the wash program.

Press the key button to open the door. The door will open after 3 seconds. Then take out the laundry.

Check that the drum is empty and close the door.

Switch off the washing machine.



LANGUAGE

You can change the language of the displayed text.

The languages you can choose from are Dansk, Deutsch, English, Espanol, Français, Italiano, Nederlands, Norsk, Português, Suomi and Svenska.

To change language do as follows:

Switch off the power switch, (⊖), then switch it on again so that the machine is in start-up mode.

Press the (P8) button five times, then press the (P1) button five times. You have to complete these ten button presses within fifteen seconds.

Within three seconds of pressing the (P1) button for the fifth time you should then select the language you want by pressing the (P6) or (P7) buttons.

LOCKING A PROGRAMME

If for some reason you want to limit the number of programmes that can be used you can lock one or more programmes. •No characters or digits are shown on the display when a locked programme is selected.

To lock or unlock a programme on a machine with an old control board (with pink label), do as follows:

Hold in the programme button for the programme you want to lock. The chosen programme appears in the display.

When the information in the display starts flashing you can lock the programme by releasing the programme button and pressing the (Start/Stop) button.

Do the same to unlock the programme.

To lock or unlock a programme on a machine with a new control board (with green label), do as follows:

Switch off the power switch, (⊖), then switch it on again so that the machine is in start-up mode.

Press the (P8)-button five times, then press the (P7)-button five times. You have to complete these ten button presses within fifteen seconds.

Within three seconds of pressing the (P7)-button for the fifth time you should hold in the programme button for the programme you want to lock for 5-10 seconds until the information in the display starts flashing.

Then you can lock the programme by releasing the programme button and pressing the (Start/Stop) button once.

Do the same to unlock the programme.

WASH TEMPERATURE - CENTIGRADE OR FAHRENHEIT

You can change the way the temperature is displayed from centigrade (C) to Fahrenheit (F).

To change the temperature display, do as follows:

Switch off the power switch, (⊖), then switch it on again so that the machine is in start-up mode.

Press the (P8) button five times, then press the (P2) button five times. You have to complete these ten button presses within fifteen seconds.

Within three seconds of pressing the (P2) button for the fifth time you should then press the (P6) or (P7) buttons to select centigrade (C) or Fahrenheit (F).

CHANGING PRESET WASH TEMPERATURE

You can change the preset wash temperatures for each of the programmes. The temperatures you can choose from are:

Heavy wash - C, 30, 35, ..., 85, 90, 95°C.

Normal wash - C, 30, 35, ..., 85, 90, 95°C.

Light wash, Synthetic wash, Permanent Press - C, 30, 35, ..., 85, 90, 95°C.

Super quick wash (EURO, MEDICAL) - C, 30, 35, ..., 85, 90, 95°C.

Super quick wash (US) - Not possible to change.

Delicate and Wool wash - C, 30, 35, 40°C.

If you choose C, the wash temperature will be the same as the intake water temperature.

To change the wash temperature, do as follows:

Switch off the power switch, (⊖), then switch it on again so that the machine is in start-up mode.

Press the (P8) button five times, then press the (P6) button five times. You have to complete these ten button presses within fifteen seconds.

Press the programme button, (P1) - (P8), to select the programme you want to change the wash temperature for.

Then use buttons (P6) (reduce temperature) and (P7) (increase temperature) to choose the wash

CHANGING SETTINGS

temperature. As you scroll through to the chosen temperature it appears at the bottom of the display alongside the ™ symbol.

When your chosen wash temperature appears press the (P8) button again to confirm your choice.

CHILD LOCK ON (Start/Stop) BUTTON

To prevent accidental button pushes on the (Start/Stop) button you can activate the child lock function. The (Start/Stop) button then must be held in for three seconds to activate the machine.

To switch the child lock on or off, do as follows:

Switch off the power switch, (⓪), then switch it on again so that the machine is in start-up mode.

Press the (P8) button five times, then press the (P3) button five times. You have to complete these ten button presses within fifteen seconds.

Within three seconds of pressing the (P3) button for the last time you must then press the (P6) or (P7) button to choose whether you want the child lock on or off.

Press (P7) to activate the child lock.

Press (P6) to disable the child lock.

CHANGING THE SPIN TIME IN MOP VERSION

To change the spin time in MOP version do as follows:

Switch off the power switch (⓪), then switch it on again so that the machine is in start-up mode.

Press the (P8) -button five times, then press (P5) -button five times. You have to complete these ten button presses within 15 seconds.

Select in which program you want to do the change. Then use (P6) -button (reduce time) or (P7) -button (increase time) to choose the spin time (1.2.3.....29.30 seconds) "C" means that the standard time for spin is chosen.

Confirm the change by pressing the (P8) -button once. The change is now saved in the selected program.

CHECKING THE NEEDLE TRAP AND DRAIN PUMP

The washing machine has a needle trap to catch items such as coins, hairpins and similar objects. Clean the needle trap and drain pump like this:

1. Ensure that the main power switch is off.
2. Using the detergent compartment divider or a screwdriver, open the drain pump cover.
3. Disconnect the drain hose.

IMPORTANT

Take care not to break off the hose plug.

NOTE

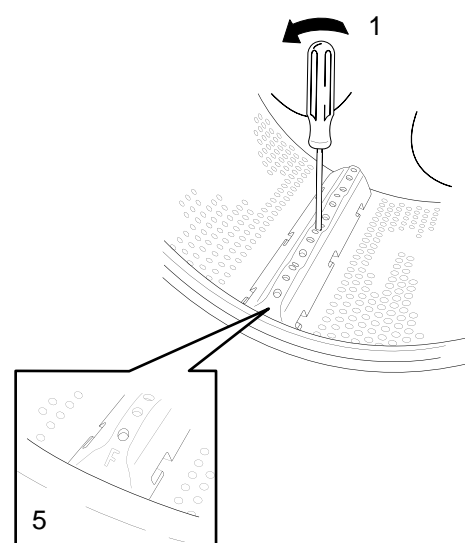
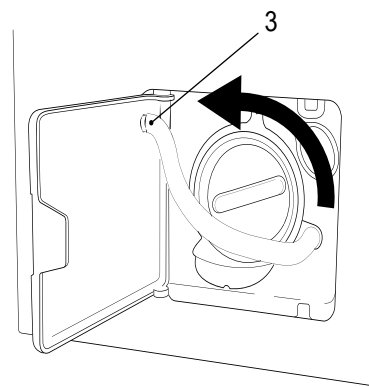
There may be water left in the machine, that will run out through the drain hose.

4. Open the pump by unscrewing its lid counterclockwise. Lift off the cover and the needle trap.
5. Clean out any objects or foreign matter from the pump housing. Also ensure that the pump blade, furthest in, can be turned freely.
6. Insert the needle trap, screw the pump lid back on and refit the drain hose. Close the drain pump cover.

CLEANING THE HOLES UNDER THE RIDGES

If you suspect that objects such as nails, paper clips, pins, etc., may have fallen through the washing drum you should check the spaces beneath the ridges. Objects like this can corrode and stain or tear holes in your washing.

1. Insert a screwdriver or similar tool into the middle hole in the ridge and carefully push the handle to the left.
2. Pull the ridge towards the opening in the drum.
3. Lift the ridge up.
4. Remove any objects from underneath the ridge.
5. Place the ridge in its slot with the F marking facing the drum opening. Push the ridge inwards as far as possible, to secure it.



CLEANING AND MAINTENANCE

CLEANING THE DETERGENT COMPARTMENT

1. Pull towards you and then lift out the detergent compartment.
2. Rinse and brush the compartment clean.

IMPORTANT

Do not wash the detergent compartment in a dishwasher.

3. Put the detergent compartment back into the machine.

IF YOU LIVE IN AN AREA WITH HARD WATER

If the washing machine is installed in an area with hard water the washer drum may become coated with a greyish-white deposit. To remove this, empty a packet of citric acid, about 20 grammes, into the drum and run the Normal wash program at 90° C.

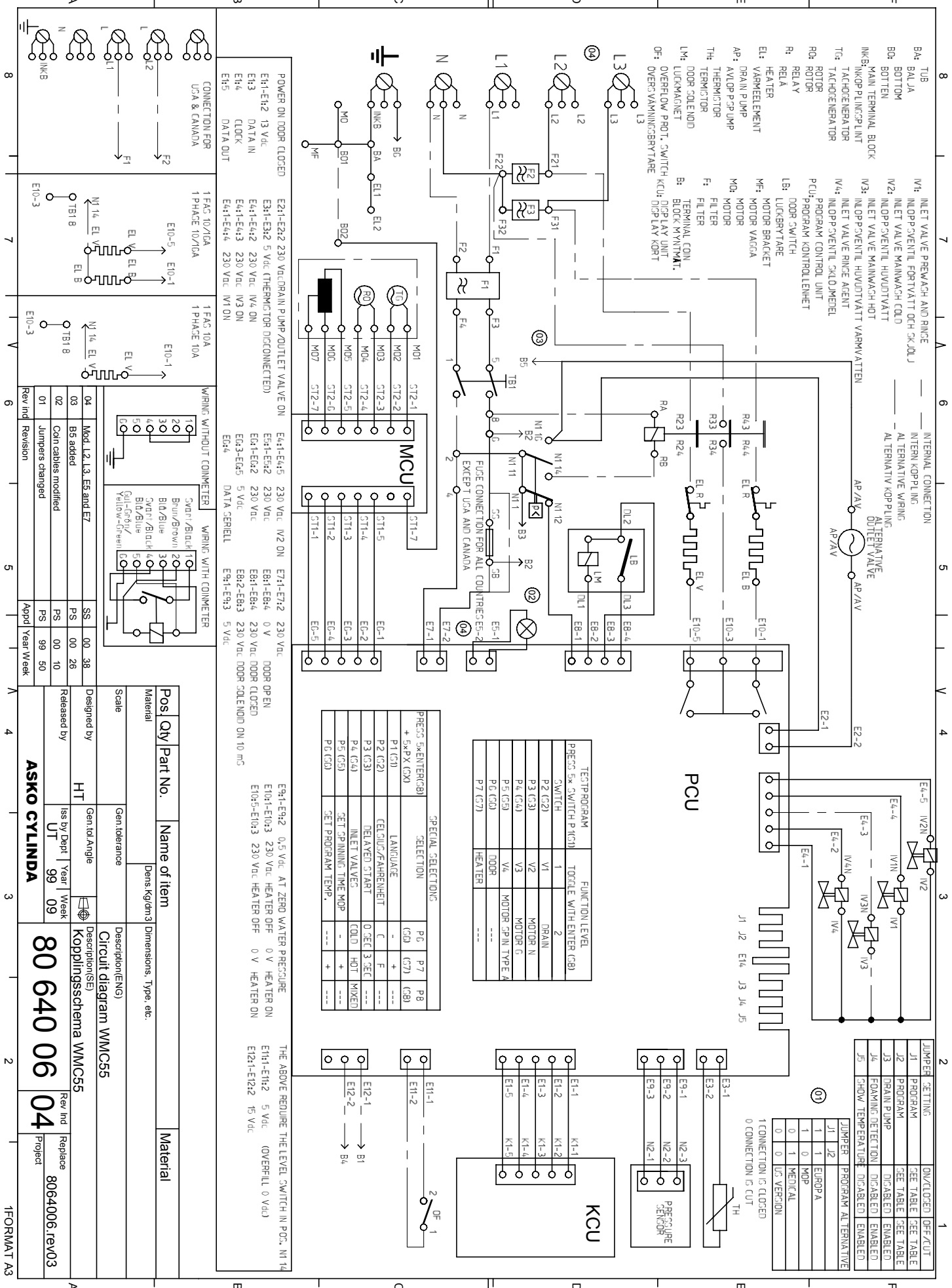
Citric acid can often be found on the spice shelf in groceries.

Balancing spring	58	Main power button	32
Bearing	54	Measurement values	18
Bottom	67	Motor control board	37
		Motor	36
Cable stand	65	Needle trap	77
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Cross member	62	Pump housing	51
		Push-button switches	33
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		Side panels	66
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Emergency opener	44	Thermistor	56
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Language	75		
Level sensor	60		
Level switch	60		
Lid catch	43		
Lid seal/glass	42		

KOMPLETTSCHEMA 80 640 04

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POWER ON DOOR CLOSED

E11-E12	13 Vdc	E31-E32	5 Vdc (THERMISTOR DISCONNECTED)	E41-E45	230 Vdc	W2 ON	E71-E72	230 Vdc
E13	DATA IN	E41-E42	230 Vdc	E41-E42	230 Vdc	DOOR OPEN	E81-E84	0 V
E14	CLOCK	E41-E43	230 Vdc	E41-E43	230 Vdc	DOOR CLOSED	E81-E84	230 Vdc
E15	DATA OUT	E41-E44	230 Vdc	E41-E44	230 Vdc	DOOR COLEND ON 10 ms	E82-E83	230 Vdc
		E41-E44	230 Vdc	E41-E44	230 Vdc		E82-E83	230 Vdc
				E41-E44	230 Vdc		E82-E83	230 Vdc
				E41-E44	230 Vdc		E82-E83	230 Vdc
				E41-E44	230 Vdc		E82-E83	230 Vdc

WIRING WITHOUT CONNECTER

1	20	2	3	4	5	6	7	8	9	10
5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk
Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi
Blu/Blu	3	Blu/Blu	3	Blu/Blu	3	Blu/Blu	3	Blu/Blu	3	Blu/Blu
5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk
Blu/Blu	5	Blu/Blu	5	Blu/Blu	5	Blu/Blu	5	Blu/Blu	5	Blu/Blu
5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk
Blu/Blu	7	Blu/Blu	7	Blu/Blu	7	Blu/Blu	7	Blu/Blu	7	Blu/Blu
5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk
Blu/Blu	9	Blu/Blu	9	Blu/Blu	9	Blu/Blu	9	Blu/Blu	9	Blu/Blu
5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk
Blu/Blu	11	Blu/Blu	11	Blu/Blu	11	Blu/Blu	11	Blu/Blu	11	Blu/Blu

WIRING WITH CONNECTER

1	20	2	3	4	5	6	7	8	9	10
5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk	20	5Vdc/B/Blk
Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi	20	Bru/B/Whi
Blu/Blu	3	Blu/Blu	3	Blu/Blu	3	Blu/Blu	3	Blu/Blu	3	Blu/Blu
5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk	4	5Vdc/B/Blk
Blu/Blu	5	Blu/Blu	5	Blu/Blu	5	Blu/Blu	5	Blu/Blu	5	Blu/Blu
5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk	6	5Vdc/B/Blk
Blu/Blu	7	Blu/Blu	7	Blu/Blu	7	Blu/Blu	7	Blu/Blu	7	Blu/Blu
5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk	8	5Vdc/B/Blk
Blu/Blu	9	Blu/Blu	9	Blu/Blu	9	Blu/Blu	9	Blu/Blu	9	Blu/Blu
5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk	10	5Vdc/B/Blk
Blu/Blu	11	Blu/Blu	11	Blu/Blu	11	Blu/Blu	11	Blu/Blu	11	Blu/Blu

THE ABOVE REDUCE THE LEVEL SWITCH IN POS. N1 14

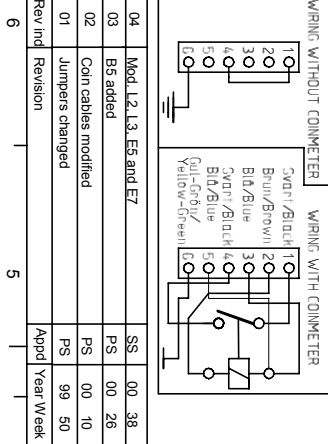
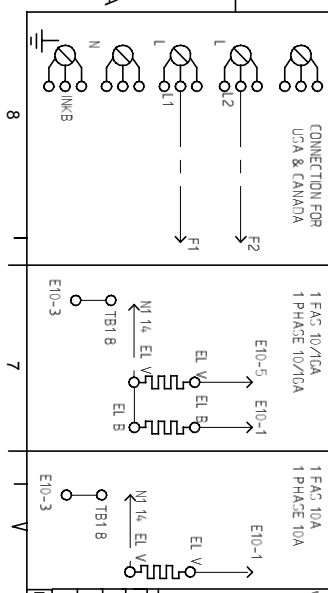
E91-E92	0.5 Vdc	AT ZERO WATER PRESSURE
E101-E103	230 Vdc	HEATER OFF
E103-E103	230 Vdc	HEATER OFF
E121-E122	15 Vdc	HEATER ON

SPECIAL SELECTIONS

PRESS SW (ENTER/GB)	SELECTION	P6 (C6)	P7 (C7)	P8 (C8)
P1 (C1)	LANGUAGE	-	-	-
P2 (C2)	LANGUAGE	-	-	-
P3 (C3)	DELAYED START	0 SEC	3 SEC	---
P4 (C4)	INLET VALVE	COLD	HOT	MIXED
P5 (C5)	SET SPINNING TIME MOP	-	-	-
P6 (C6)	SET PROGRAM TEMP.	-	-	-

FUNCTION LEVEL

FUNCTION LEVEL	TOGGLE WITH ENTER (GB)
1	DRAIN
2	MOTOR N
3	MOTOR G
4	MOTOR SPIN TYPE A
5	DOOR
6	HEATER



WIRING WITH CONNECTER

ASKO CYLINDA

Pos	Qty	Part No.	Name of item	Material
01	01	HT	Gen Tol Angle	HT
02	00	UT	Gen tolerance	UT
03	00	99	Dimensions	99
04	00	09	Type, etc.	09

80 640 06 04

ASKO CYLINDA

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