

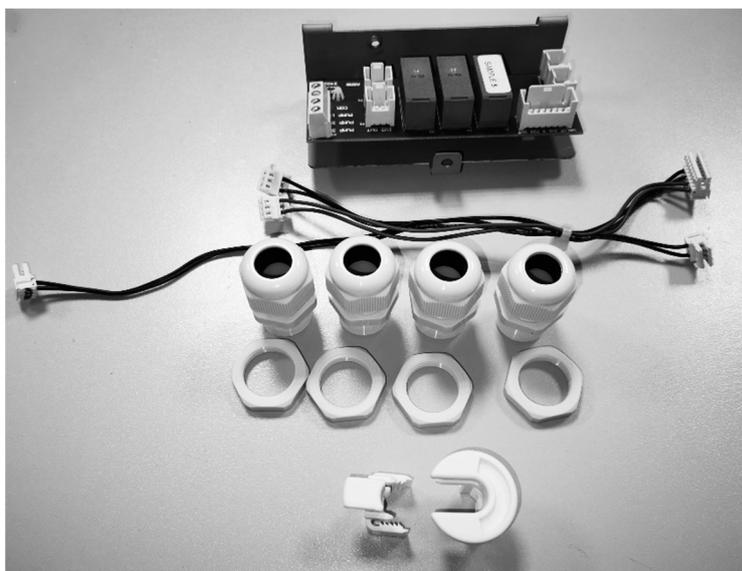
Mounting Instructions

Product: Washing machine	Kit relay board professional washer	Reference: Service Support
Date: 01.10.2019		

Kit relay board professional washer

This instruction is for washing machine fitted with 2 or 3* inlet valves. If you have a 2 way valve in the machine, then it's possible to connect only 2 cables to relay board and from relay board to valves. You will still have 3 signals from the relay board for prewash, main wash and rinse. There are two kits, different for WM-70 and WM-80.

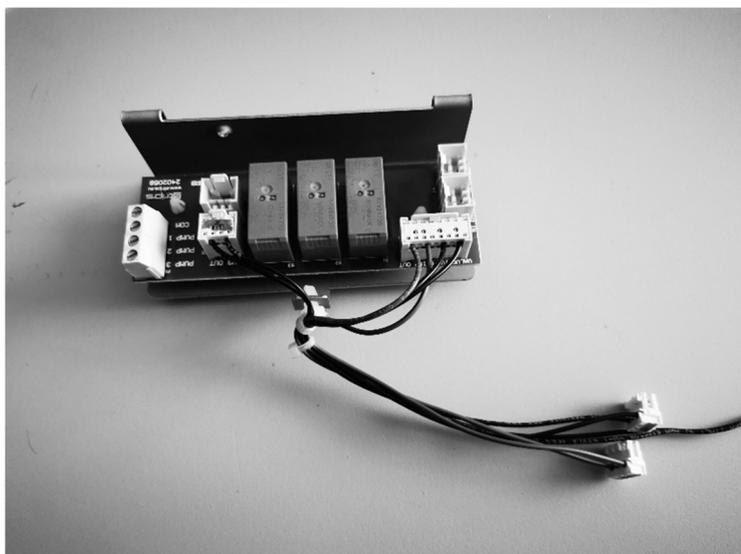
* 3 valve is used for hot water connected washing machine.



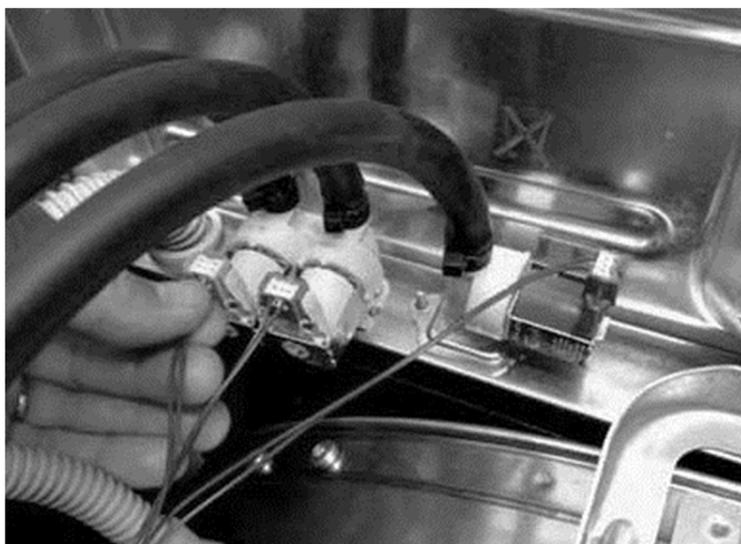
Kit includes: 4 grommets with nuts*, relay board mounted on a bracket, wiring harness for connecting to the valves and strain relief for cable.

Installation of relay board for external detergent dosing

NOTE: If you have washing machine with already installed relay board, **skip to step 6.**

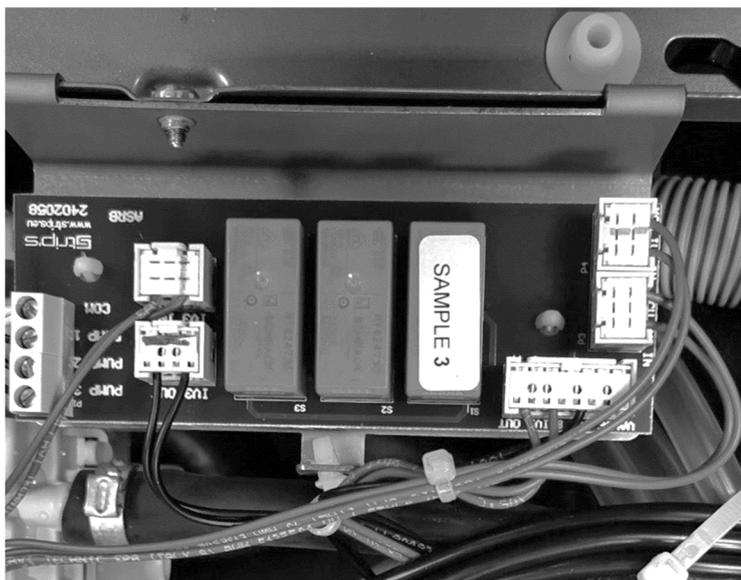


1. Connect the wiring harness to relay board and fixate it with cable tie as shown on the picture above.

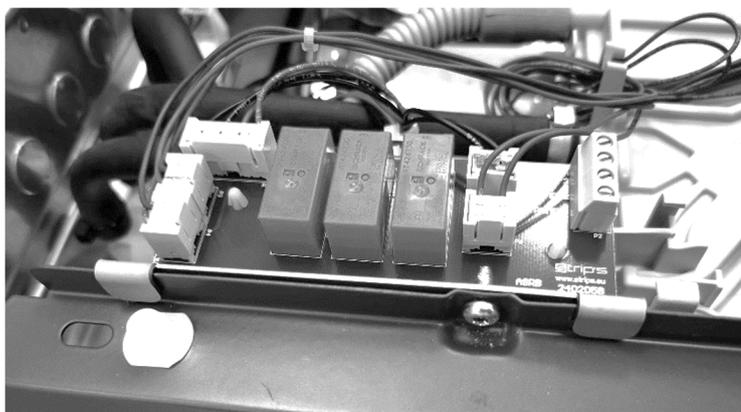


2. Disconnect the cables which come from the control unit to the valves from the inlet valves. Take note which connector is connected to valve 1 (IV1), 2 (IV2) and valve 3 (IV3).

Mounting Instructions



3. Connect the wires for inlet valves on relay board. Match the color coding on wiring harness connectors with color coding on relay board connectors. IV1 IN is red color, IV2 IN is orange color and IV3 IN is green color.

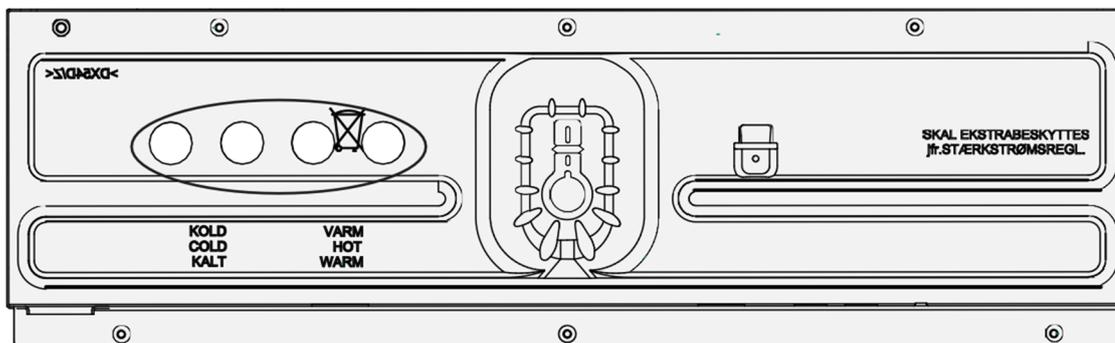


4. Position the card on back left side (next to detergent dispenser) and fasten it with screw.

Mounting Instructions



5. On detergent dispenser tuck away the wires that are coming from control unit to relay board that are now too long.



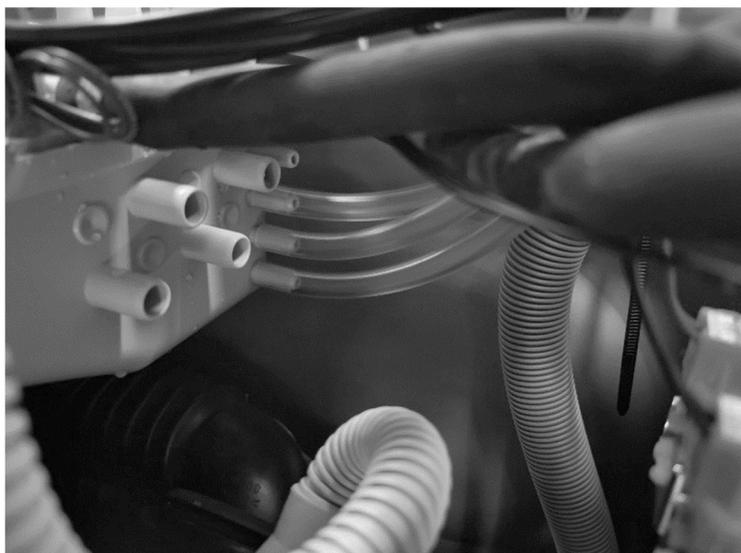
6. Push out the appropriate knock-out holes in the rear panel or drill the appropriate number of holes according to the placement shown in the above illustrations. The holes size should be 21 mm.
7. Mount the strain-relief grommets in the holes and tighten them to rear panel with plastic strain relief nut. One grommet has smaller hole diameter than other three, make sure this grommet is installed on left hole in rear panel illustrated above, it will be used for cable.

Mounting Instructions

REMARK: For electrical connection of external dosing pumps with internal relay board must be used a single PVC cable (with 4 or more internal wires) with double insulation, type H05VV-F, with wires cross section 0,5mm²! Cable is not included in the kit.



8. Install all the hoses and cable through grommets as shown on picture above.



9. You can connect the hoses to small holes (like on the picture) or to larger holes nearby. Drill the holes on detergent dispenser where the hoses will be connected with an appropriate size drill bit and then connect hoses as shown on picture above.

REMARK: Only PVC or nonconductive rubber hoses must be used! Hoses are not included in the kit.

Mounting Instructions



10. Connect the wires (cable) for external dosing pumps to relay board terminal.

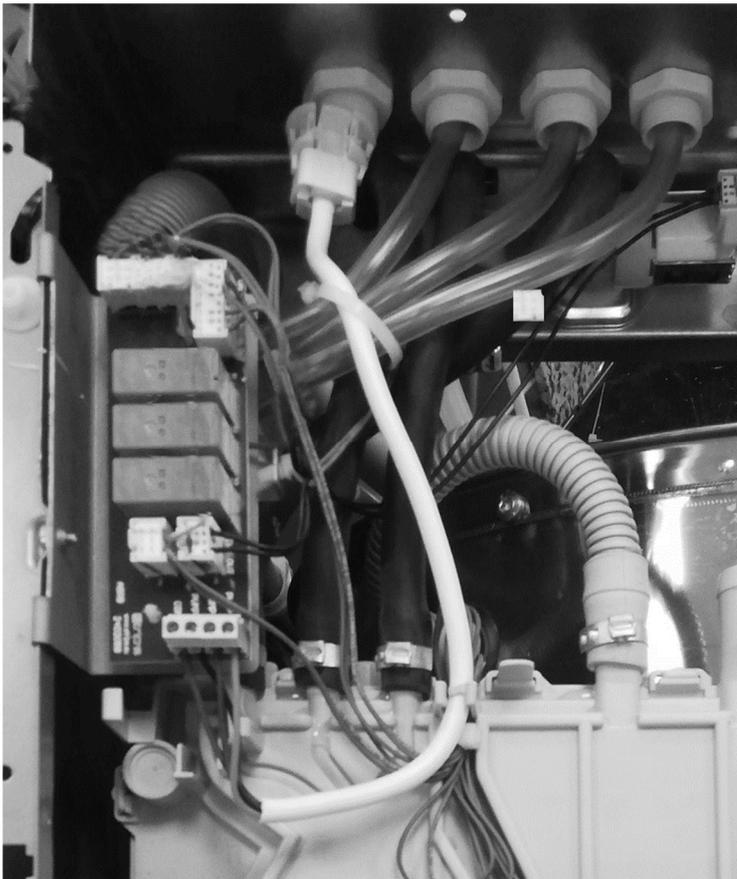
When stripping the cable to expose wires, do not strip more than 50mm of cable jacket (see picture above).

On relay board there are markings COM, PUMP 1, PUMP 2, and PUMP 3. To terminal COM connect all neutral common wires for all three pumps, to other terminals marked PUMP 1, PUMP 2 and PUMP 3 connect each pump phase line separately.



11. Use strain relief that was in the kit, mount it to the cable from inner side of washing machine right next to grommet, make sure no gap is left between grommet and strain relief. Squeeze strain relief tight with appropriate tool (pliers).

Mounting Instructions



12. Route the cables as shown on picture above, use cable tie to hold the cables and hoses together.



13. Where cable is routed through grommet, screw the grommet nut very tight, the cable pull out force of **>100N** must be assured! Grommets with hoses must be tightened carefully, make sure that the hoses do not get deformed.

Activation of inlet valves and pumps

The washing machine can be connected to an external dosing system with totally 6 dosing tubes connected to the detergent compartment.

Activated inlet valves during different washing programs									
	Prewash	Main wash		Rinse 1	Rinse	Rinse 2	Rinse	Rinse	Last Rinse 3
		Hot water connected	Cold water connected						
Normal wash 60°C		3 or 3+2	2	1		1			1 + 2
Normal wash 40°C		3 or 3+2	2	1		1			1 + 2
Heavy wash 90°C	1	3 or 3+2	2	1		1			1 + 2
Heavy wash 60°C	1	3 or 3+2	2	1		1			1 + 2
White 90°C		3 or 3+2	2	1		1			1 + 2
White/Color 60°C		3 or 3+2	2	1		1			1 + 2
White/Color 40°C		3 or 3+2	2	1		1			1 + 2
Super Quick wash 60°C		3 or 3+2	2	1		1			1 + 2
Super Quick wash 40°C		3 or 3+2	2	1		1			1 + 2
Synthetics 40°C		3 or 3+2	2	1		1			1 + 2
Wool/hand wash 30°C		2	2	1		1			1 + 2
Rinse									1 + 2
MOP wash 90°C	1	3 or 3+2	2	1					1 + 2
MOP wash 60°C	1	3 or 3+2	2	1					1 + 2
Micro fiber wash 60°C		3 or 3+2	2	1		1			1 + 2
Micro fiber wash 40°C		3 or 3+2	2	1		1			1 + 2
Disinfection 40°C	1	3 or 3+2	2	1		1			1 + 2
Disinfection 60°C	1	3 or 3+2	2	1		1			1 + 2
Disinfection 90°C	1	3 or 3+2	2	1		1			1 + 2
Allergy cotton 90°C		3 or 3+2	2	1	1	1	1	1	1 + 2
Allergy cotton 60°C		3 or 3+2	2	1	1	1	1	1	1 + 2
Allergy cotton 40°C		3 or 3+2	2	1	1	1	1	1	1 + 2
Allergy synthetics 60°C		3 or 3+2	2	1	1	1	1	1	1 + 2
Allergy synthetics 40°C		3 or 3+2	2	1	1	1	1	1	1 + 2
Cleaning		3 or 3+2	2	1		1			1+2
Activated Pump	P1	P2	P2	P1	P1	P1	P1	P1	P3

Description of the inlet valves

1: Is activated during a prewash, the first four seconds during the main wash, cool down sequences (selected temp over 60°C) and in the rinses.

2: If hot water connected, this valve is also activated, if inlet water is warmer than the selected temp or selected temp below 40°C.

3: (Hot water valve) Is activated during main wash if hot water is selected and selected temp is over 30°C.

