

AUS, GB

# Operating and installation instructions automatic washer-extractor WS 5405

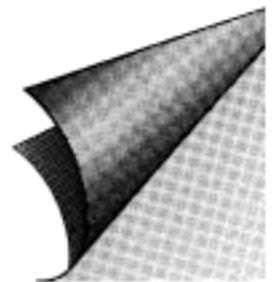


# Miele

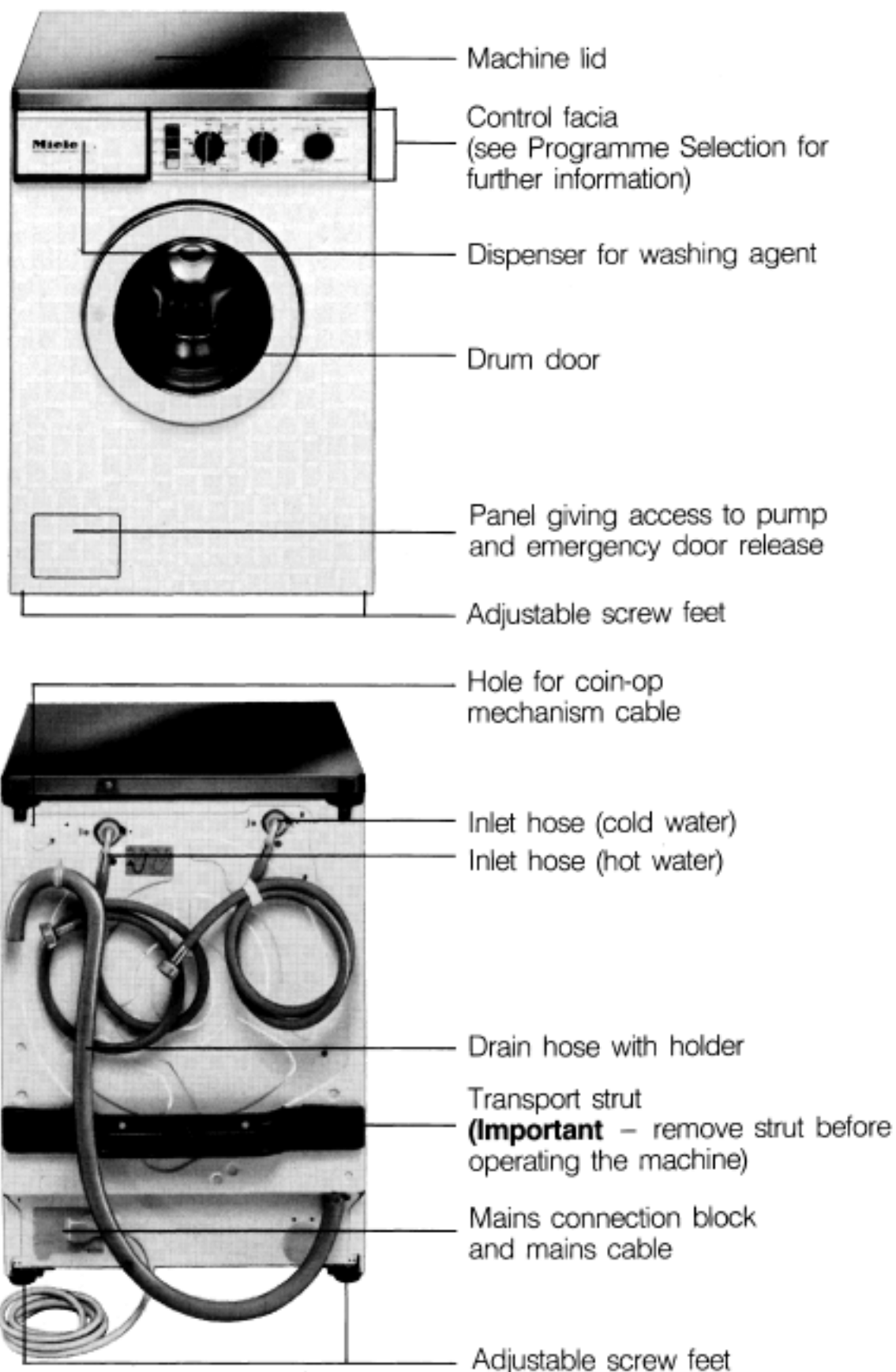
## **Special Note**

In special cases the wiring on the programme timer can be re-wired, to provide an approx. 10 minutes increase in the pre-wash time, and to remove the limit on the pre-wash temperature.

This re-wiring must only be carried out by a Miele Service Engineer or authorized agent.



## Guide to the machine



# Contents

---

	Page
Guide to the machine . . . . .	2
Preparation of washing . . . . .	3–4
Loading and unloading the washing . . . . .	5–7
Adding detergent, fabric conditioner, starch . . . . .	8–11
Programme selection . . . . .	12–15
Cottons 95°C . . . . .	16
Cottons 60°C . . . . .	17
Cottons 30°C/40°C . . . . .	18
Minimum iron 95°C . . . . .	19
Minimum iron 60°C/50°C . . . . .	20
Minimum iron 30°C/40°C . . . . .	21
Synthetics/Delicates 30°C/40°C . . . . .	22
Curtains 30°C . . . . .	23
Wool 40°C . . . . .	24
Cleaning and care . . . . .	25–28
Correcting minor faults . . . . .	29–31
After Sales Service . . . . .	32
Installation . . . . .	33–37
Electrical connection . . . . .	38–39
Plumbing . . . . .	39–41
Technical data . . . . .	42
Consumption data . . . . .	43

## Note

Short operating instructions in the form  
of a wall chart are also available  
from Miele.

---

# Preparation of washing

## To sort the washing

Sort items according to:

- Wash care labels
- Type of fabric
- Degree of soiling
- Colour fastness

Lightly soiled laundry is best washed using a "Short" programme, and, if desired, a lower temperature. Dirty laundry needs its usual programme. Heavily soiled laundry is best washed using a pre-wash. Extremely heavily soiled items, e.g. oily/greasy overalls should be washed using an extra pre-wash.

## Wash care symbols

The wash care symbols shown below are generally found on labels on the garment or fabric. These indicate a particular washing process, showing the maximum temperature (°C), amount of agitation, and method of water extraction. With your Miele machine match the labels to the basic programmes (see appropriate programme pages) as follows:

**Cottons**   

**Minimum iron**   

**Delicates**  

**Woollens** 

## Wool

The wool labels shown here are the only ones which indicate the item is machine washable, and then only in the special "Woollens" programme:



## New symbols:

Simplified wash care symbols are being introduced in line with BS 2747 1986 and new European regulations. The maximum wash temperature (°C) is shown in the bucket:



The significance of the bar beneath the wash tub:

no bar normal (maximum) agitation eg Cottons programme



bar reduced (medium) agitation, eg Minimum iron programme + Gentle action, or Delicates programme.



broken bar much reduced (minimum) agitation, Woollens programme



## Mixed fabric group loads

Should you be considering mixing fabrics with different labels to make up a load, be careful. There is a risk of shrinkage, dye transfer and

## Preparation of washing


**discolouration of whites. Always select the lower temperature and the most gentle wash action required.** (Remember, "Wash separately" means just that).

The following symbols are also intended to help you to protect your washing:


hand wash 

do not wash 

dry clean   

do not dry clean 

suitable for chlorine bleaching 

not suitable for chlorine bleaching 

tumble dry 

do not tumble dry 

### Pre-treating the washing

- Empty all pockets, (metal items could damage both the garment and the machine). Remove all loose inserts. With curtains, secured weights and hooks, made of non-rusting materials can be washed in the machine. Close all zips.

Badly soiled areas, eg collars and cuffs, and water soluble stains, can be pre-treated about 20 minutes before washing with bar soap, or detergent mixed into a solution or paste.

**Notes on stain removal** – procedure for washable fabrics: the following hints may prove helpful:

- Stains are best removed while fresh, before the item is washed.
- Coffee, tea, wine and some fruit stains generally disappear after a few washes.
- Blood stains should first be soaked in cold water and then rinsed.
- Brush off any surplus deposits.
- Enzyme based or biological washing agents can be used for soaking or washing, to help remove protein stains.
- When using chemical stain removers follow manufacturer's directions.
- For other stains consult an expert, your chemist or dry cleaner.

**On no account must this machine be used for any form of dry cleaning.**


**Proprietary dyes or dye removers may only be used in this machine if the dye manufacturer expressly announces that they are suitable for use in a washing machine.** After using suitable fabric dyes always flush the machine through before using it again for normal laundry, (n.b. the use of a chlorine bleach solution cannot be recommended).

**New articles** often contain excess dye and should therefore be washed separately several times before being included in a mixed load.


# Loading and unloading the washing

## Opening and closing the door

Once the programme has started, the door is electronically locked and can only be opened at the end of the programme.

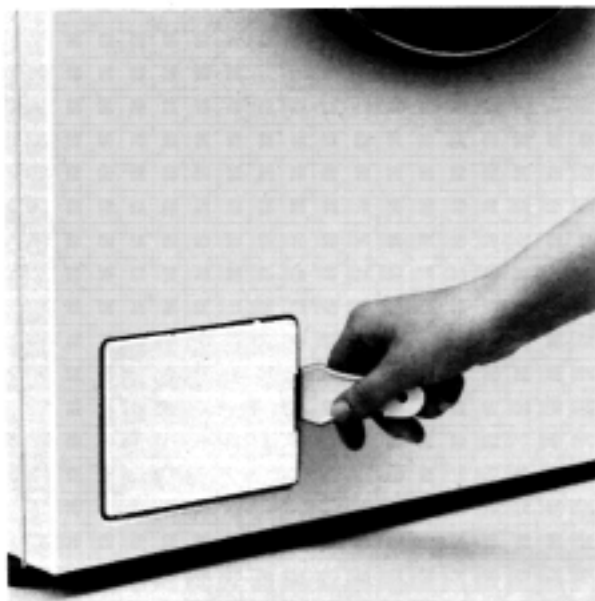
The door can only be opened by pressing the "Door", "Drain 

- The machine is connected to the electricity supply.
- The water has been pumped away.
- The drum is stationary after spinning.

If the "Door", "Drain 

In the event of a power failure, the drum door can be opened as follows:

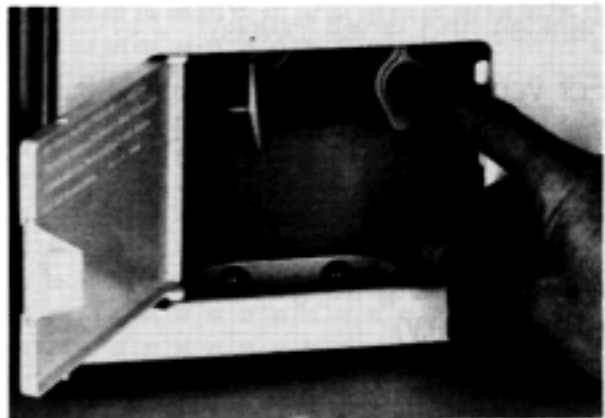
- Use the plastic tool supplied or a spoon handle to open the drain pump access panel.



- If there is water in the machine, it must be drained according to the instructions on pages 25/26.

**WARNING** Be careful if washing at high temperatures as the suds will still be hot.

- Pull the ring of the door mechanism downwards, and the door will open.



- Apply light pressure or a gentle push to close the drum door.

## Loading the washing machine

Unfold all the items and load them loosely into the drum without compressing. Underloading the machine is uneconomical whilst overloading will impair wash results. It is therefore advisable to load the machine to its full recommended capacity when possible, i.e. 5 kg (11 lb) dry laundry for light or normally soiled cottons.

For minimum iron programmes do not exceed a maximum of 1.5 kg (3.3 lb) dry laundry (approx. 8 shirts) and approx. 1 kg (2.2 lb) for delicates and woollens.

# Loading and unloading the washing

## Loading and unloading the drum

The weight of your wash load can be roughly calculated using the following table as a guide to average weights. The weights given are for dry laundry.

To achieve the best results it is advisable to make up loads consisting of both large (e.g. bed and table linen) **and** small items (e.g. underwear, hankies and small towels).

For very heavily soiled cottons, it is advisable to reduce the load by approx. 20 – 30%.

## Special wash

Candlewick	bedspread		
	double	3175	7 lb
	single	2270	5 lb
Blanket	wool	1930	4 <sup>1</sup> / <sub>4</sub> lb
	acrylic	1475	3 <sup>1</sup> / <sub>4</sub> lb
Dress	cotton	480	17
	others	340	12
Sweater	wool	400	14
	heavy	340	12
	lightweight	910	32
Crimplene suit	heavyweight	1360	48
	lightweight	910	32
Skirt		200	7
Duvet cover	double	1200	44
	single	720	24

\* Items made from synthetics or mixtures are generally lighter than examples given in cotton or linen.

## Average weights guide (dry laundry)

Item *	Weight		
	grammes	ounces	
<b>Regular wash</b>			
Sheet	Cotton (D)	1135	40
	Cotton (S)	680	24
Other than	Cotton (D)	680	24
	Cotton (S)	565	20
Cot sheet		170	6
Pillowslips	Cotton	115	4
	Others	85	3
Bath towel		680	24
Hand towel		255	9
Tablecloth	Small	225	8
	Large	680	24
4 table napkins		170	6
<b>Personal</b>			
Shirt	Cotton	285	10
	Others	200	7
Blouse	Cotton	140	5
	Others	115	4
Cotton vest		115	4
Underslip		115	4
Panties		55	2
Bras		30	1
Pyjamas		340	12
Nightdress		140	5
2 pairs socks	Long	170	6
	Short	85	3
6 hankies		85	3
1 doz. nappies		1135	40



# Loading and unloading the washing

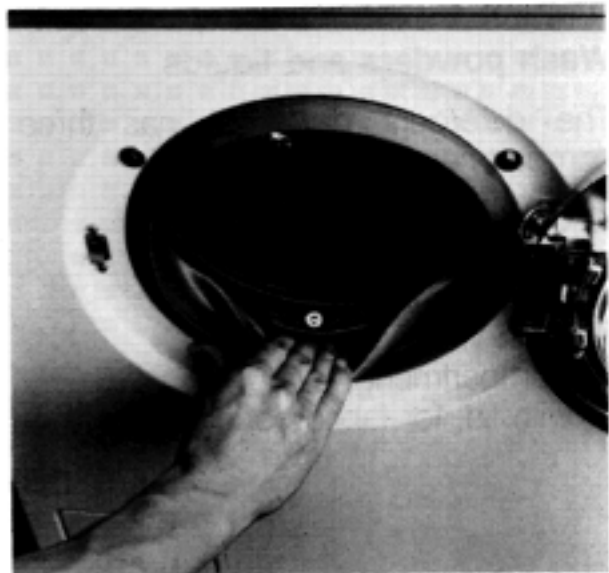
## Removing the washing

The washing can only be removed at the end of the programme when the drum is stationary.

Place a laundry basket or similar container below the drum door.

Then

- Press the "Door" button to open the door.
- Remove the washing.
- Turn the drum to make sure that all the articles have been removed and smaller items have not stuck to the sides of the drum. Any articles left in the drum run the risk of being damaged or of the colours running through inadvertent incorrect washing in the next programme.
- Check the folds in the door seal for any small articles such as buttons or other foreign bodies which might be lodged there. These must be removed to avoid any danger of rust transfer, (see ill.).



- Turn off the stopcock.

# Adding detergent

## Choosing the right detergent

**Only use low-lather detergents suitable for automatic washing machines e.g.**

- general purpose detergents for all types of textiles and degrees of soiling, (e.g. Persil or Ariel in the U.K.),
- liquid detergents for low temperature programmes without pre-wash (up to 60°C max.),
- special detergents for certain textiles, e.g. synthetic fibres or wool.
- pre-wash detergents for treating special types of stain.

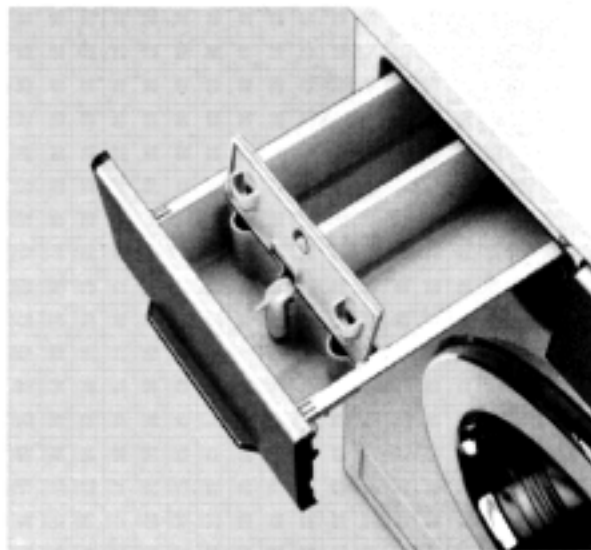
Information on the packaging usually gives appropriate instructions and areas for use, and may also indicate the most important components of the detergent, e.g. bleach, enzymes or optical brighteners.

**Do not use bleaching agent containing chlorine bleach** in the washing machine, as this could damage rubber and plastic components.

## Wash powders and liquids

The detergent dispenser has three compartments:

- Compartment  pre-wash
- Compartment  main wash
- Compartment  with lid, for fabric conditioners



## Dosage

The amount of wash powder used depends on **type of fabric, soiling** and most important of all, on **water hardness**.

Before using your automatic washing machine for the first time, please contact your local Water Authority to find out the water hardness in your area.

## Water hardness

Hardness range	water	mg/litre	Clarke's scale	°dH (German)
1	soft	up to 135	up to 10°	0 - 7°
2	medium	up to 250	10° to 20°	7 - 14°
3	hard	up to 380	20° to 25°	14 - 21°
4	very hard	over 380	over 25°	over 21°

To remind yourself of the hardness setting in your area, use a coin to turn the indicator on the handle of the Miele Saver scoop so that the correct range is visible in the window, (1 soft, 2 medium, 3 hard, 4 very hard).

### Adding detergent

A technical refinement on this Miele machine, a ball valve at the suds container outlet, ensures that **all** the detergent stays in the suds container and is quickly dissolved. This increases the cleaning effect, and could result in a saving of up to 20% detergent when using a high quality product. If using a detergent of unknown quality check the results, and adjust next time if necessary. Always use enough to ensure an effective wash.

### How much powder detergent to use

There is usually a guide on packets of detergent advising on amounts of detergent to be used, and the division of amounts between pre-wash and main wash. To take best advantage of the water levels and drum action in this Miele machine a division of 1/3 pre-wash and 2/3 main wash is generally advised by us for medium hard to hard water. Where the detergent manufacturer suggests a different division you are advised to try both ways and select the most effective for your wash.

Several factors affect the amount of detergent used.

- Use **more** for heavy soiling, hard water;
- Use **less** for light soiling, soft water, smaller loads.

In particular the technical improvement of the ball valve in your Miele machine can result in very economical use of detergent, saving up to 20% of

amounts previously needed. Use your Miele "Saver scoop" supplied with the machine to measure out more economical amounts. It holds approx. 66 grammes of detergent powder up to the full mark, and is marked off in quarters for easy calculation. (The cup provided with a packet of detergent usually holds approx. 100 g).

The following basic guide is a starting point to help you to calculate dosage for normally soiled washing in a medium to hard water area:

For a **full Cottons 5 kg load**, or a **full Minimum iron 2 kg load**, with pre-wash, add between 200 and 300 g powder detergent, divided suitably between pre-wash and main wash compartments.

For a **full Delicates 1 kg load** add between 120 and 150 g powder detergent.

For Cottons, Minimum iron and Delicates programmes **without a pre-wash** use approx. 2/3 of the amount you would use for a programme including pre-wash. Add all the detergent to the main wash compartment.

**Woollens** do not have a pre-wash, to protect the fibres. Add between 90 and 120 g powder detergent to the main wash compartment.

When washing **reduced** loads or lightly soiled washing, then use **less detergent**, or there could be a danger of foaming.

# Adding detergents

## General notes

For hard water conditions (range 3 and 4) a special water softener, e.g. Calgon, may be added. Follow the manufacturer's recommendations on dosage.

**Under-dosing** leads to greying of whites, deposition of greasy particles on washing, and lime deposits on the heater elements.

**Over-dosing** will lead not only to unnecessary use of wash powder, but residual powder in fabrics may give a harsh feel. Also too much foam may form.

Establishing the appropriate and economic amount will ensure the best cleaning effect while treating the laundry carefully, and will contribute to a lower level of environmental pollution.

**If the wash powder manufacturer's directions specify quantities with reference to the volume of water in the drum, the relevant specifications are:**

- Cottons and Minimum iron programmes approx 20 litres of water.
- Delicates/Synthetics and woollens approx 30 litres of water.


## Adding liquid detergents


On the recommendation of the detergent manufacturer's, liquid detergent is used only up to a maximum temperature of 60°C. When using liquid detergents the pre-wash is omitted.

# Fabric conditioner and starching

## Fabric conditioner


Fabric conditioner makes garments soft and fluffy to handle and helps prevent static electrical charges from building up on synthetic materials. It is very suitable for towelling, nappies, curtains and knitted fabrics.

Follow the manufacturer's recommendations for dosage and pour the conditioner into the dispenser  as follows:

- Raise the plastic flap of Compartment  in the dispenser.
- Add fabric conditioner according to manufacturer's instructions, but do not exceed the upper level marker inside the compartment as any excess conditioner prematurely actuates the siphoning device and will be wasted.
- Close the plastic flap of the compartment and push in the dispenser.

The conditioner will be dispensed automatically in the last rinse.

The water remaining in the "conditioner" compartment of the dispenser at the end of a programme is needed to pre-dilute thick or concentrated conditioners. This is the only way to ensure that thick liquids run in properly.

If however, the  compartment is full of water at other times, then clean the siphon tube (see page 29, "Correcting minor faults").

Take care not to mix fabric conditioner and starch type formulations in the dispenser compartments as this can lead to severe blocking of the overflow system.


Fabric conditioner tends to gel when exposed to low or freezing surrounding temperatures and once frozen cannot be used. Therefore make sure not to store fabric conditioner in places subject to very cold or freezing temperatures.

## Starching





### Adding special starch-type formulations

There are several modern starch-type formulations and retexturisers on the European market, (availability in the U.K. is uncertain). They are used especially to put body into shirts, blouses, tablecloths, towels, bedlinen etc.

### Automatic dispensing during programme of starch-type formulations

Following manufacturer's instructions, add the liquid "starch" into the  compartment, then proceed as for fabric conditioner.

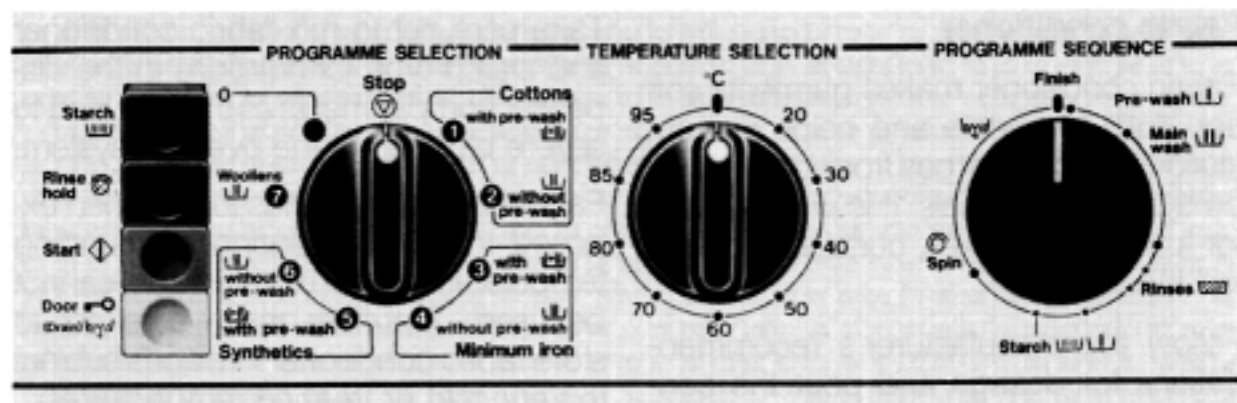
### Adding starch by hand

If the "Starch  " button is pressed in when a programme is selected, the programme will remain stationary at the "Starch   " position. The starch should now be added (according to manufacturer's instructions) to the  compartment of the dispenser.

**If the washing is to be dried in a tumble dryer, the quantity of starch used should be doubled.**

To re-start the programme, press and release the "Starch  " button.

# Programme selection



The programmes available with this machine can be divided into four basic types.

- Cottons
- Minimum iron
- Delicates/synthetics
- Woollens

With this machine the basic programmes can be varied by the selection of appropriate temperatures and programmes without pre-wash. This enables the machine to cope with the bewildering array of textiles now on the market.

What are the differences between the four basic programmes?

- **Cottons** – A normal programme with normal agitation, the full number of rinses. With or without spin, as required.

With programmes without a pre-wash there is automatically no intake of hot water in the main wash.

- **Minimum iron** – A programme with normal agitation but with gradual cooling of suds (graduated rinsing) to allow for the tendency to crease of some fabrics.

Only three rinses are given, as the loads are smaller. With or without spin as required.

With programmes without pre-wash there is automatically no intake of hot water in the main wash.

- **Delicates/Synthetics** – This is also a programme with normal agitation, but with a high water level throughout. The laundry floats in water throughout the programme and is treated gently. Other details as for Minimum iron, (automatically no intake of hot water).
- **Woollens** – An even more gentle programme than "Delicates/Synthetics", specially formulated to cope with the characteristics of wool. In contrast to the other 3 programmes, no pre-wash is provided, to avoid too high a degree of agitation. The drum does not rotate until the temperature of 40°C has been reached, thereby reducing the possibility of shrinkage.

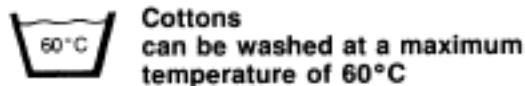
During this phase the washing agent can loosen the dirt from the fibres. Number of rinses and end of programme as for Delicates/synthetics, (automatically no intake of hot water).

## Controls

### Temperature selector

The wash temperature can be adjusted in ten steps from cold to approx. 95°C (cottons). The wash care labels for fabrics indicate the maximum safe washing temperature.

Example:



The temperature selector can be turned clockwise or anti-clockwise.

Should a higher temperature have been chosen inadvertently, there is a safety limiter on the temperature in programmes for Delicates/Synthetics and Woollens, fabrics which might be harmed if washed at higher temperatures.






- 40°C in the pre-wash and the main wash for Delicates/synthetics and Woollens programmes.

### Programme selector switch


The programme selector switch is used to define


- the start of the programme
- the type of washing action
- the water levels.

### “Starch ” button

If the “Starch  ” button is pressed in when a programme is selected, the programme will remain stationary at the “Starch   ” position. The starch should now be added (according to manufacturer’s instructions) to the  compartment of the dispenser. To restart the programme, press and release the “Starch  ” button.



### “Rinse hold ” button

When washing delicate fabrics which should not be spun, but taken dripping wet from the machine, then press in the “Rinse hold  ” button, when selecting the required programme. The spin is then omitted, and selector advances to “Finish”.

If the “Rinse hold  ” button is not pressed in, then the appropriate spin for the programme chosen follows.

- Cottons programmes – 6 minutes
- Minimum iron programmes – 60 seconds
- Delicates/Synthetics – 60 seconds
- Woollens – 3 minutes


### “Start ” button


Once a programme has been selected, and the temperature set, then the machine can only be started by pressing the “Start  ” button. N.B. on machines with coin-op mechanism the “Start  ” lamp lights up after insertion of the money/tokens.





## Programme selection

### “Door”, “Drain ” button

To open the door at the end of a programme, push in the “Door”, “Drain  ” button.




If the programme sequence indicator rests in the  position, between “Spin” and “Finish”, then:

- press the “Door”, “Drain  ” button and hold it in
- The drain system will now function
- The door opens by itself.







If the drain system does not function and the door subsequently open when the “Door”, “Drain  ” button is pressed in, there is some kind of fault in the drain system.

- Empty the machine following the procedure described on pages 25/26, under “Cleaning and care”.

### Programme selection (without coin box)


- Turn on stopcock.
- Load washing and close door.
- Add washing agent and fabric softener, and/or starch formulation.
- Select programme.
- Set required temperature.
- If required, select special functions such as Starch “ ” and/or “Rinse hold  ”.
- Press the “Start  ” button, (now the programme cycle will begin).

### Programme selection (with coin box)

- Turn on stopcock.
- Load washing and close door.
- Add washing agent and fabric softener, and/or starch formulation.
- Select programme, (the “ ” light, (insert coins/tokens) comes on).
- Set required temperature.
- If required, select special functions such as Starch “ ”, and/or “Rinse hold  ”.
- Insert coins/tokens. (The “Start  ” indicator light comes on).
- Press the green “Start  ” button, (now the programme cycle will begin, and the “Start  ” indicator light will go out).

### Special note:

If the sequence set out above is not followed, the money/coins inserted will be lost.

If **after** inserting the coins/tokens, but **before** pressing the “Start  ” button, the programme selector switch is turned past ‘0’ to another programme, the coins/tokens will also be lost.

Regularly empty the coin box of coins or tokens, to avoid any blockage of the coin mechanism.



## Programme selection

Where a coin time counter is in use, a programme should not be interrupted for more than 20 seconds. Otherwise the money inserted will be lost.

### General notes

The correct programme for any given load depends on the quantity of washing and on the type of soiling.

Stained washing (tea, coffee, cocoa, gravy, soot and fruit stains) should always be washed with the appropriate normal programmes, as only the maximum use of wash powder will help ensure satisfactory removal of stains from the washing.

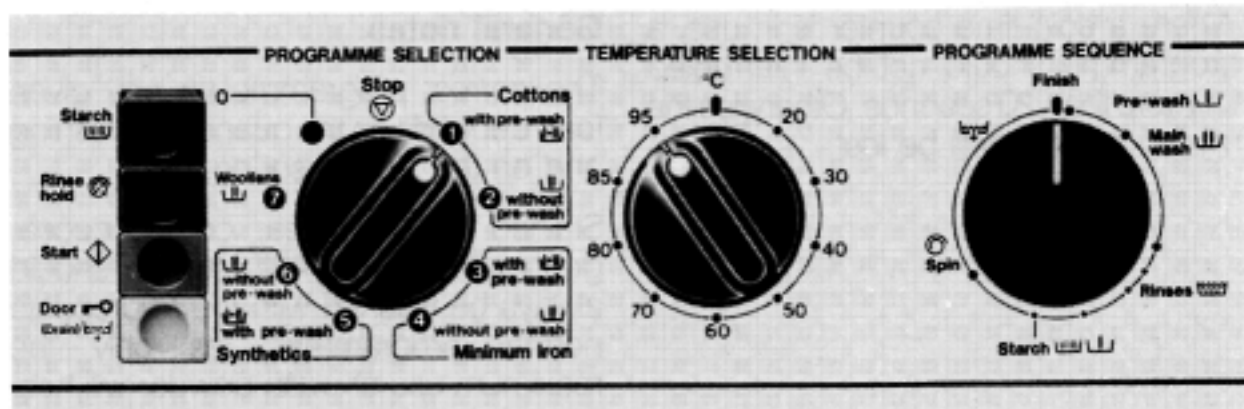
However, stains in the washing are not always so bad, sometimes the washing is only lightly soiled. For such loads, pre-wash can be omitted.

In order to avoid too great a reduction in washing action, there is no hot water intake for programmes without pre-wash.

If the washing is only lightly soiled and the bleaching effect of high temperatures is not required, the load may be washed using a lower temperature. In most instances the pre-wash may also be omitted.

**Remember, however, that the most economical way to wash is to load the drum to the maximum weight indicated on the relevant programme instruction pages, however do not overload the machine. This will minimize the consumption of water and electricity per kilogramme of washing.**

# Cottons 95°C



## Suitable for:

Normally to heavily soiled white cotton and linen fabrics without special finishes.

## Weight:

Up to 5 kg dry laundry.

## Temperature and programme selection:

As shown above.


## Special instructions:

For **lightly stained** laundry, select programme without pre-wash, and where appropriate, a slightly lower temperature, (e.g. 60°C).

For **very heavily soiled** cottons reduce the load to approximately 3 kg.

## Wash powder:

(See pages 8-10).

Compartment 

$\frac{1}{3}$  of total amount (not for programmes without pre-wash).



Compartment 

$\frac{2}{3}$  of total amount.

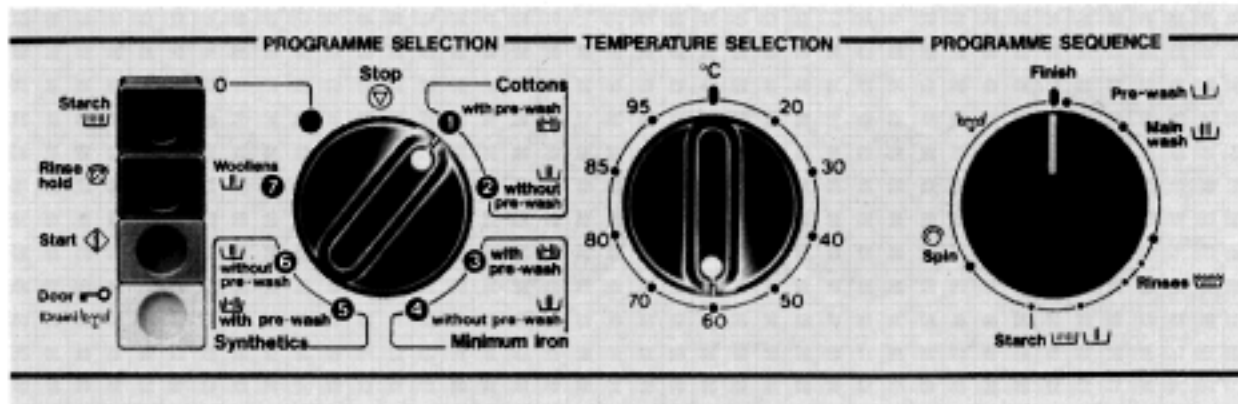
Compartment 

Pour fabric conditioner into compartment following manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Pre-wash (only in programmes with pre-wash)
- Main wash
- 5 rinses 
- Spin 

# Cottons 60°C



## Suitable for:

Cotton, linen or viscose fabrics without special finishes where colours are fast at 60°C, medium to heavy soil.

## Weight:

Up to 5 kg dry laundry.

## Temperature and programme selection:

As shown above.


## Special instructions:

For **lightly stained** laundry, select programme without pre-wash. Select a lower temperature (e.g. 40°C).

For **very heavily soiled** cottons reduce the load to approximately 3 kg.

## Wash powder:

(See pages 8-10).

Compartment 

$\frac{1}{3}$  of total amount (not for programmes without pre-wash).



Compartment 

$\frac{2}{3}$  of total amount or appropriate amount of liquid detergent.

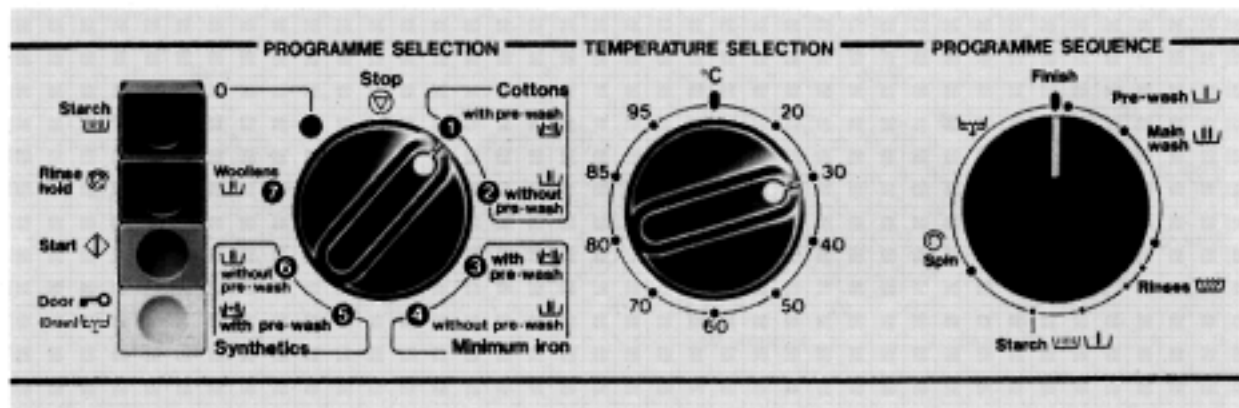
Compartment 

Pour fabric conditioner into compartment following manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Pre-wash (only in programmes with pre-wash)
- Main wash
- 5 rinses 
- Spin 

# Cottons 30°/40°C



## Suitable for:

Machine washable cotton, linen or viscose fabrics, jeans, overalls and dark colours fast at 30°/40°C.

## Weight:

Up to 5 kg dry laundry.

## Temperature and programme selection:

As shown above.


## Special instructions:

For **lightly stained** laundry select a programme without pre-wash.

For **very heavily soiled** cottons reduce the load to approximately 3 kg.

## Wash powder:

(See pages 8-10).

Compartment 

1/3 of total amount (not for programmes without pre-wash).



Compartment 

2/3 of total amount or appropriate amount of liquid detergent.

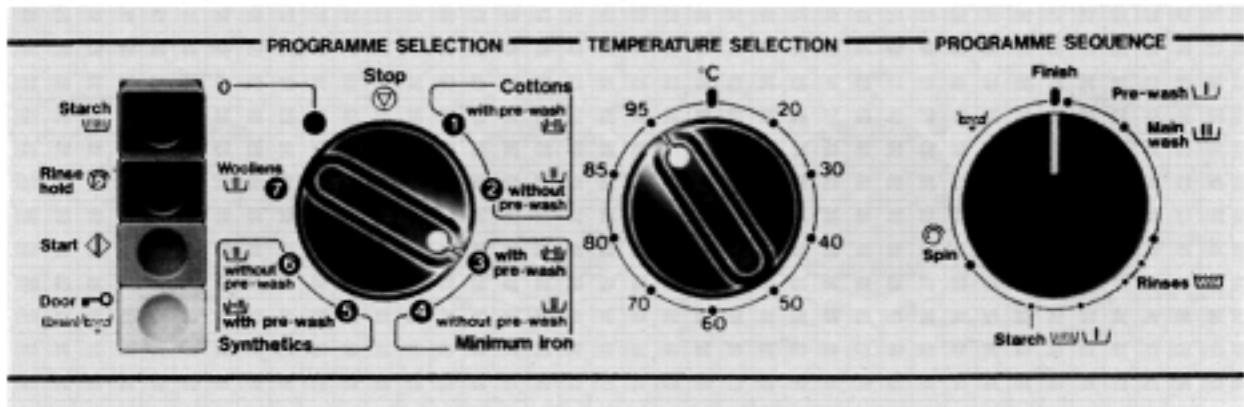
Compartment 

Pour fabric conditioner into compartment following manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Pre-wash (only in programmes with pre-wash)
- Main wash
- 5 rinses 
- Spin 

# Minimum iron 95°C



## Suitable for:

Cotton articles with special finishes capable of being boiled, normal to heavy soil.

## Weight:

Up to 1.5 kg dry laundry (approx. 8 shirts).

## Temperature

### and programme selection:

As shown above.

## Special instructions:

For **lightly soiled** articles, turn the temperature selector to a lower temperature (e.g. 60°C).

Select programme without pre-wash.

## Wash powder:

Compartment

Add approx. 60 g (not for programmes without pre-wash).

Compartment

Add approx. 120 g.

Compartment

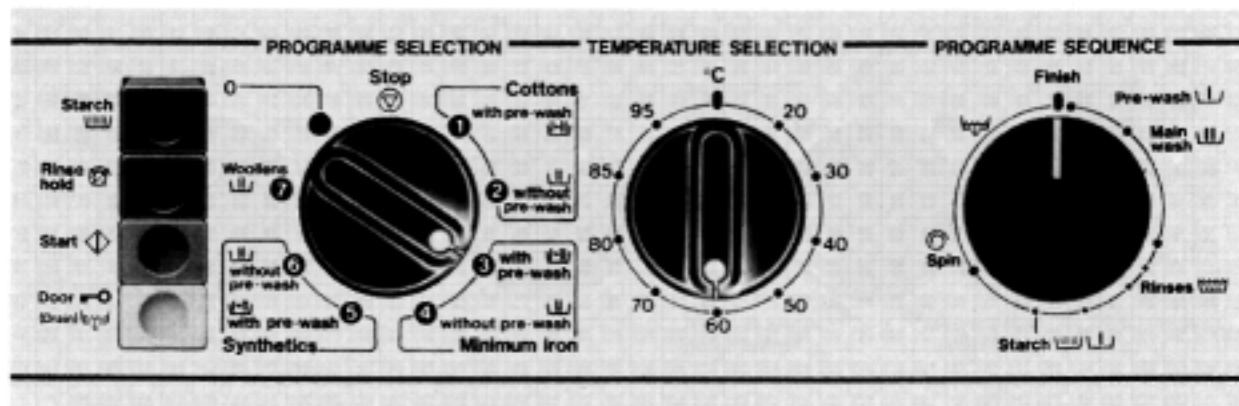
Add fabric conditioner following the manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Pre-wash (only in programmes with pre-wash)
- Main wash
- 3 rinses
- 60 second spin.

If the rinse hold button was pushed in at the start of the programme, the water will be pumped away and there will be no spin (the selector switch steps past this part of the programme).

# Minimum iron 60°C and 50°C



## Suitable for: (60°C)

White nylon, white polyester/cotton fabrics etc. For example, shirts, overalls, blouses, normal to heavy soil.

## Suitable for: (50°C)

Coloured nylon, polyester, cotton and viscose fabrics with special finishes; acrylic cotton fabrics, coloured polyester/cotton fabrics.

## Weight:

Up to 1.5 kg dry laundry (approx. 8 shirts).

## Temperature and programme selection:

As shown above.

## Special instructions:

For **lightly soiled** articles, select a lower temperature (e.g. 40°C). Select a programme without pre-wash.

## Wash powder:

Compartment /

Add approx. 60 g (not for programmes without pre-wash).

Compartment /

Add approx. 120 g.

Compartment /

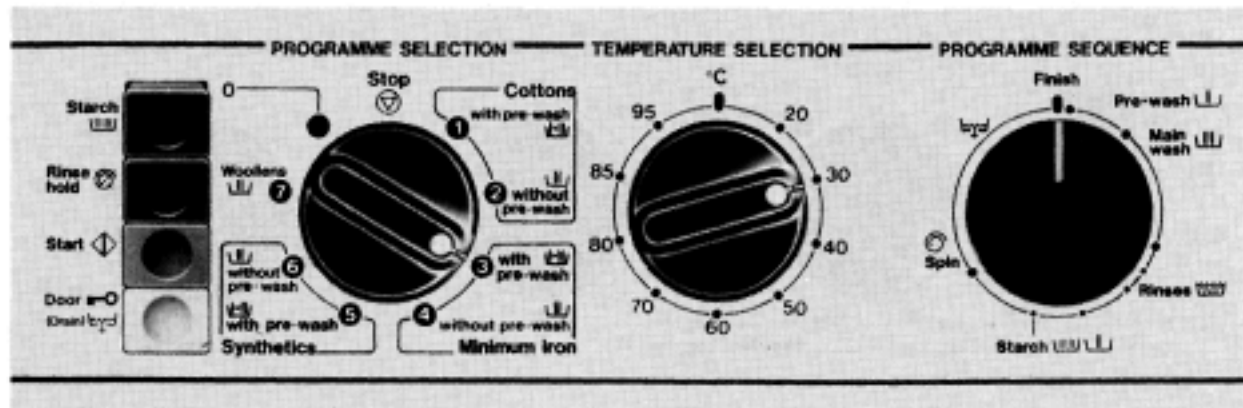
Add fabric conditioner following the manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Pre-wash (only in programmes with pre-wash)
- Main wash
- 3 rinses
- 60 second spin.

If the  rinse hold button was pushed in at the start of the programme, the water will be pumped away and there will be no spin (the selector switch steps past this part of the programme).

# Minimum iron 30°/40°C



## Suitable for:

Medium soiled textiles, Diolen, Dralon, Terylene and cotton synthetic mixtures, e.g. childrens' clothes, leisure clothes.

## Weight:

Up to 1.5 kg dry weight.

## Temperature and programme selection:

As shown above.

## Special instructions:

For **lightly soiled** articles, select a programme without pre-wash.

## Wash powder:

Compartment 

Add approx. 60 g (not for programmes without pre-wash).


Compartment 


Add approx. 120 g.

Compartment 

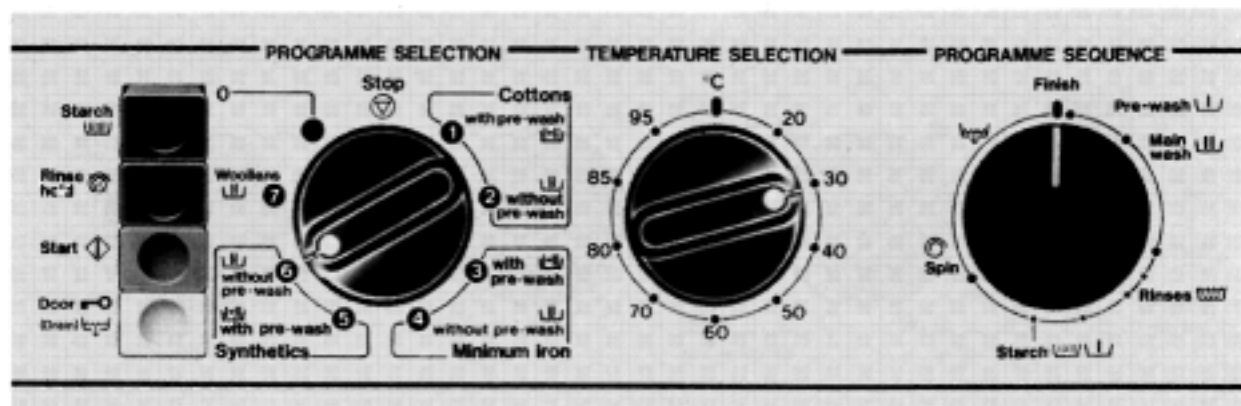
Add fabric conditioner following the manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Pre-wash (only in programmes with pre-wash)
- Main wash
- 3 rinses 
- 60 second spin.

If the  rinse hold button was pushed in at the start of the programme, the water will be pumped away and there will be no spin (the selector switch steps past this part of the programme).

# Delicates/Synthetics 30°C



## Suitable for:

Silk and printed acetate fabrics. Also suitable for man-made fibres including Dralon, and Terylene.

For fabrics bearing the wash code label proceed as described on this page, but set the temperature at 40°C.

## Weight:

Up to 1 kg dry laundry.

## Temperature and programme selection:

As shown above.

## Special instructions:

For particularly **heavily soiled** loads, select programme with pre-wash.

## Wash powder:

Compartment

Add approx. 40 g (not for programmes without pre-wash).

Compartment

Add approx. 80 g.

Compartment

Add fabric conditioner following the manufacturer's recommendations, but do not exceed the upper level marker.

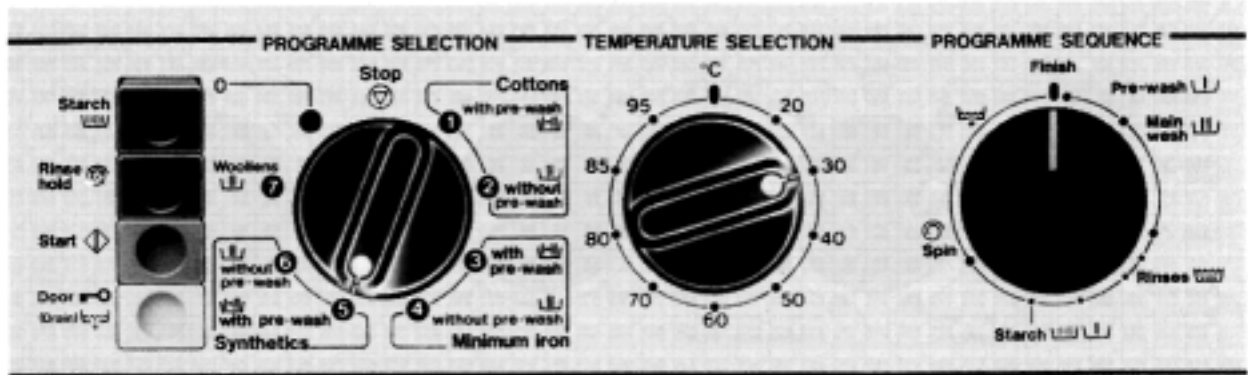
## Programme sequence

- Pre-wash (only in programmes with pre-wash)
- Main wash
- 3 rinses
- 60 second spin.

If the  rinse hold button was pushed in at the start of the programme, the water will be pumped away and there will be no spin (the selector switch steps past this part of the programme).



# Curtains 30°C



## Suitable for:

Only wash those curtains in the machine where the manufacturer's label expressly recommends this. Make sure that all hooks, clips etc. have been removed.

## Special note:

As curtains attract a large amount of fine dust, we recommend 2 wash sequences.

## Do not set temperature above 30°C.

## Weight:



Fill the drum up to about 1/3 full.

## Temperature and programme selection:

As shown above.

Press "Rinse hold" button.


## Wash powder:

Use powder formulated for curtains and follow the manufacturer's recommendations for quantity put into compartment  and .

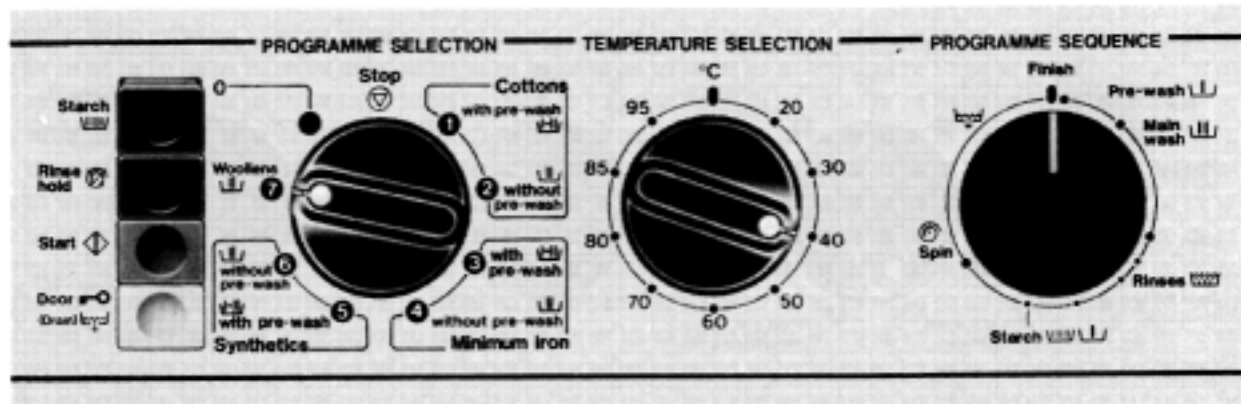
## Compartment

Add fabric conditioner following the manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Pre-wash
- Main wash
- 3 rinses  (no spin).

# Woollens 40°C



## Suitable for:

This tested woollens programme is suitable for all machine washable woollens, bearing the wash care label shown below, including blankets and wool mixtures with cotton or viscose; silk which can be washed from cold to 40°C.

## Weight:

Up to approx. 1 kg dry laundry.

## Temperature and programme selection:

As shown above. Set the temperature to that recommended on the textile label.

## Wash powder:

Compartment

**Do not add wash powder.**

Compartment

Add 90 to 120 g.

Compartment

Add fabric conditioner following the manufacturer's recommendations, but do not exceed the upper level marker.

## Programme sequence

- Main wash
- 3 rinses
- 3 minutes spin

If the rinse hold button was pushed in at the start of the programme, the water will be pumped away and there will be no spin (the selector switch steps past this part of the programme).

### Cleaning the washing machine

The **drum** is made of non-rusting stainless steel. However, it is possible that so-called extraneous rust deposits may form because of foreign bodies in the wash (such as paper clips, metallic buttons, clips, nails, etc.). If this happens, clean the drum with scouring powder (e.g. Vim or Ajax) or with fine grade wet and dry paper.

Hard water staining can be avoided by using sufficient quantities of wash powder and, if necessary, a water softening agent in the main wash. Lime removing agents containing acid could damage the machine.

The **casing** and **drum door** can be cleaned with soap and water or a mild non-abrasive detergent, and wiped dry with a soft cloth. Never hose down the machine.

The **switches, facia panel,** and other **plastic components** should only be cleaned with proprietary plastic or enamel cleaners.

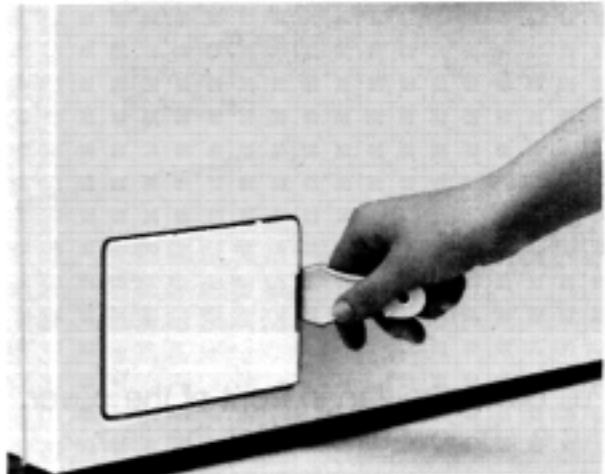
**Abrasives will scratch the surface.**

### Cleaning the drain pump

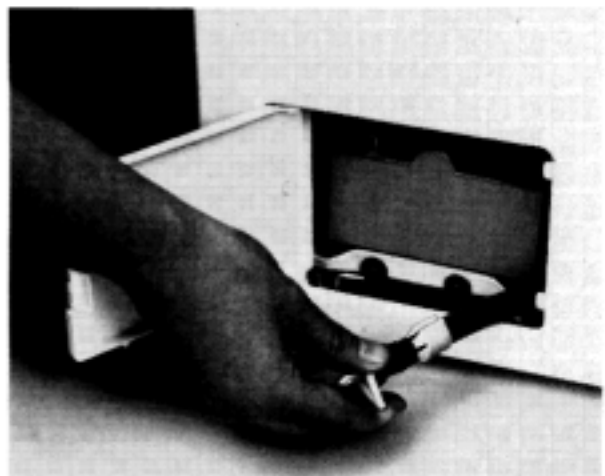
To ensure that water drainage is not impeded, the drain system should be inspected from time to time and cleaned if necessary.

### Switch off the machine before cleaning

To open the drain system access panel, insert the plastic tool supplied at the right hand side, as shown in the illustration, and lever open.

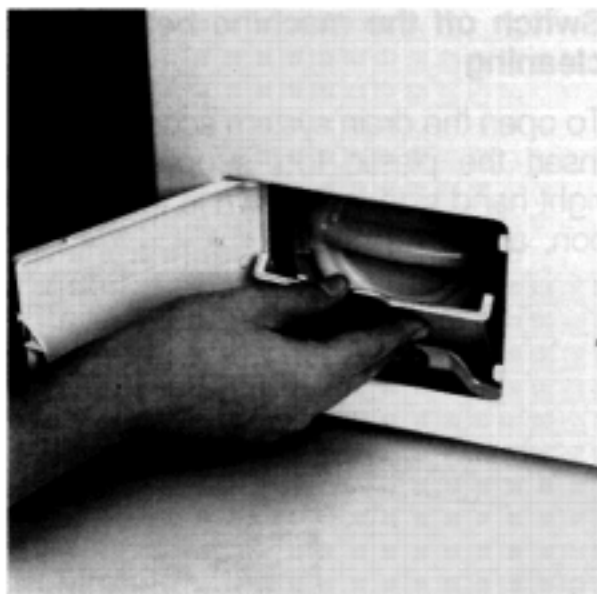


Place a shallow container with a capacity of approx. one litre in front of the machine. **In the case of drainage problem use a larger receptacle.** Unhook the drain hose on the right hand side of the filter, pull out the plug and drain off any water left in the machine into the container. If the hose is hot, **take care, the water may be very hot.**



When no more water runs out, replace the stopper on the hose.

## Cleaning and care



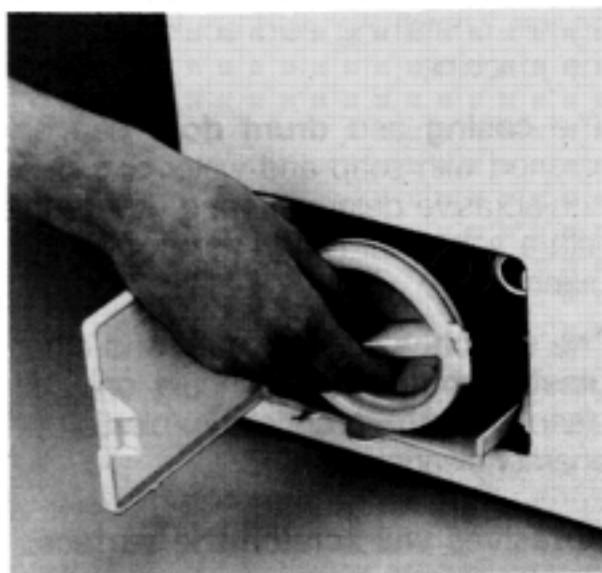
Pull down the flap in front of the cover. Put a shallow dish under the flap.

Turn the cover lid anti-clockwise and remove slowly. (If the drain hose is blocked, water could gush out).

Then clean the inside housing, checking for any obstructions, back as far as the drain pump wing or the drain pump.

Replace the cover and secure by turning clockwise, the hand hold must be horizontal.

Lift the flap back up, and press into place. Hook up the drain hose. Close the access panel.



As a result of the measures described above, the ball valve loses its sealing function until water flows into and drains out of the machine again. Therefore, before the next wash cycle, switch on the "Starch programme".

As soon as the drum begins to turn, switch the machine off, select the "Drain" programme and then switch the machine on again. When this drain cycle has finished, the water and detergent saving nature of the machine is activated again.

### Cleaning the filters in the water inlet

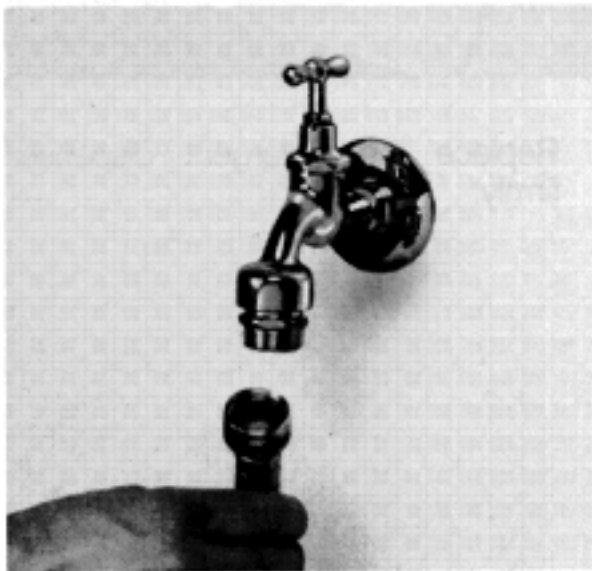
The washing machine has four inlet filters to protect the inlet valves:

- In the open end of each inlet hose.
- In the inlet connection between each hose and the machine.

The filters in the inlet hose should be cleaned about every six months.

### Cleaning the filter in the inlet hose:

- Turn off the stopcock (water supply).
- Carefully unscrew the knurled coupling connecting the inlet hose to the stopcock, using pliers if necessary.



- Remove the rubber seal from the recess.
- Using pointed pliers, take hold of the plastic filter bar and remove the filter.

- Hold the filter under running water with the bar downwards to rinse out the dirt. Grit particles stuck in the mesh should be carefully removed with a pin.

- Before replacing the inlet filter, inspect the inlet hose which is subjected to high pressure while the machine is in operation. The hose should be replaced if there are small cracks in the surface, or if it has been otherwise damaged. In the interests of safety, the hose should be inspected at least once a year.

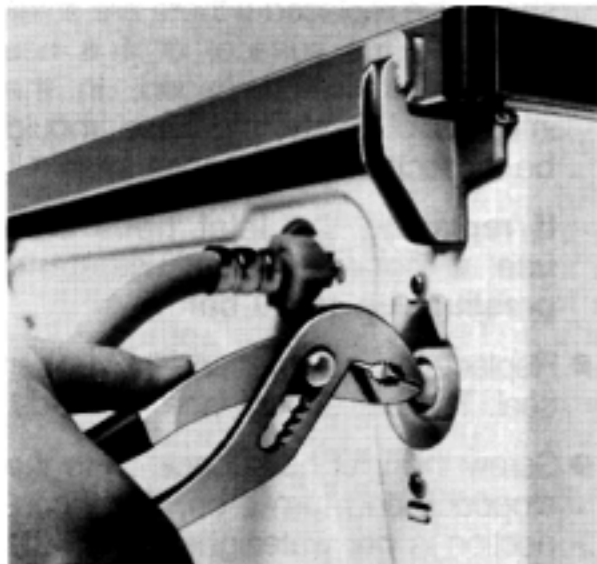
**If replacing the inlet hose only use a hose able to withstand pressure up to 60 bar.**

- Replace the inlet filter and the rubber seal. The bar should face outwards.
- Screw the inlet hose back on to the stopcock and turn it on. If the connection is not watertight, tighten the knurled nut with a pair of pliers.

## Cleaning and care

### Cleaning the filter in the **water inlet valve:**

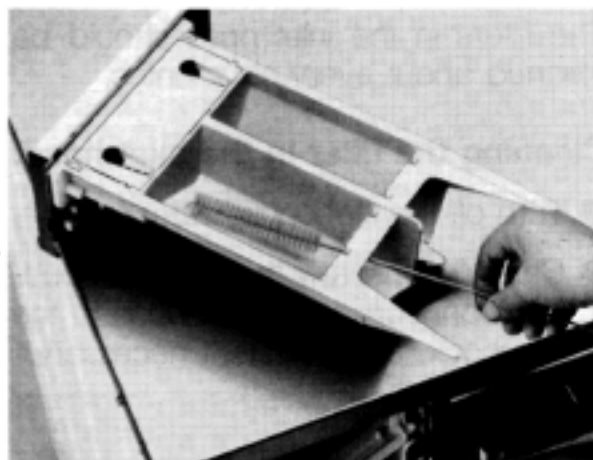
- Turn off the stopcock (water supply).
- Using pliers, carefully loosen the ribbed plastic nut on the inlet valve. Use a cloth to mop up any leaks.
- Use water pump pliers to withdraw the plastic filter by the bar.



- Hold the filter under running water with the bar downwards to rinse out the dirt. Stubborn grit particles can be carefully removed from the mesh with a pin.
- Push the filter back into the connecting pipe of the inlet valve with the grip bar outwards.
- Screw the inlet hose to the valve connecting piece, tightening the plastic coupling by hand. Turn on the stopcock. If the connection is not water-tight, carefully tighten the nut with a pair of pliers.

### Cleaning the detergent dispenser

- Pull the detergent dispenser box completely out of the machine. Clean the detergent dispenser from the rear with warm water, or a bottle brush.



Replace the detergent dispenser firmly.

## Correcting minor faults

With the aid of the following explanatory notes, minor faults in the performance of your washing machine, some of which may result from faulty operation, can be corrected without contacting the Service Department.

Any work on the electrical components of this appliance should only be carried out by a suitably qualified person.

### **There is no water intake when the machine is switched on.**

- If the stopcock is turned off, turn it on.
- If there is still no water intake, check whether the drum door is closed properly, and whether the machine is plugged in correctly.
- Was the "Start  $\diamond$ " button held in sufficiently long?
- On machines with coin-up mechanism, check whether coin or coins have fallen out into the reject tray.

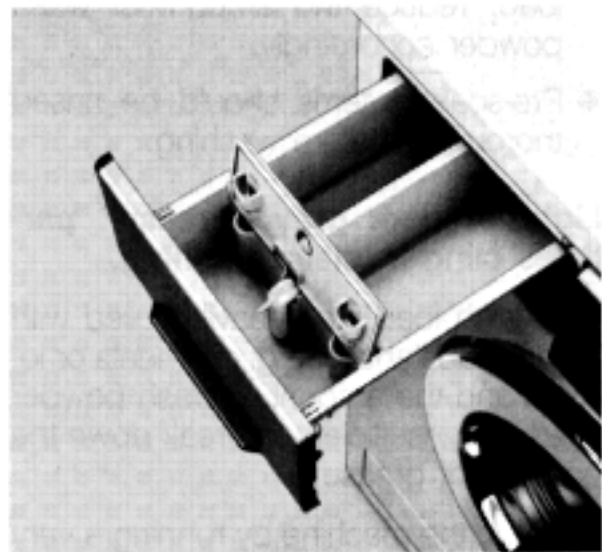
### **The machine fills too slowly although the mains water pressure is sufficient.**

- The filters in the inlet hose could be blocked. Inspect the filters and if necessary, clean, (as shown on page 27). Sometimes the two filters in the water inlet valve are also blocked.
- Check the filters in the inlet valve, as shown on page 28, and clean if necessary.

### **The fabric conditioner is not flushed in properly or there is too much water in the dispenser compartments.**

Check whether the siphon tube is incorrectly positioned or blocked.

- Pull the detergent dispenser flap forward to the stop position.
- Lift the small compartment lid, and pull the siphon tube up.



- Clean the siphon tube with hot water. Re-assemble in reverse order.



## Correcting minor faults

### **If too much foam builds up during the wash.**

To avoid the problem at the outset, take note of the following points:

- Only use a suitable low lather wash powder.
- The water hardness must be taken into account for dosage of wash powder.
- For lightly soiled articles or a small load, reduce the amount of wash powder accordingly.
- Pre-soaked items should be rinsed thoroughly before washing.

### **Light or dark grey “greasy” particles cling to clean washing.**

The wash load was heavily soiled with greasy substances, e.g. ointments or lotions, and the amount of wash powder used was insufficient to break down the particles of grease.

- Clean the machine by running a very hot wash programme without a load and using ordinary wash powder to clean the machine.
- In future, increase the amount of wash powder when washing items with grease or oil stains.

### **The programme sequence indicator remains stationary between “spin” and “Finish”.**

The water may not be able to drain away.

Clean the filter or the drain system (see pages 25 – 26).

### **The programme indicator stops during the first third of the main wash.**

This is not a fault. The indicator remains in this sector until the selected wash temperature is reached.

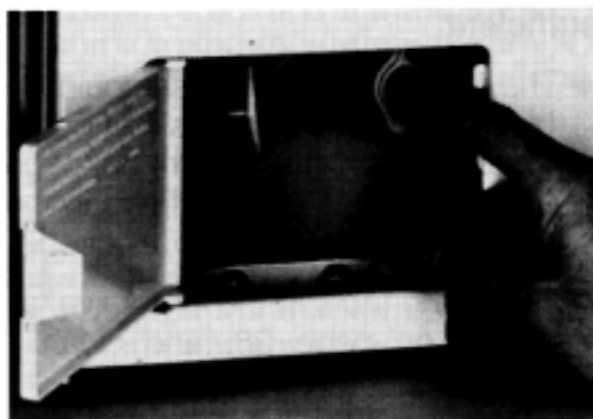
### **The detergent for pre-wash and/or main wash has not been flushed in, and the washing is still dry at the end of the programme.**

The stopcock(s) were not opened at the beginning of the programme.

### **To remove the laundry during a power failure.**

If necessary, wait until the hot suds have cooled.

- Turn the programme selector switch to the “Stop” position.
- Drain the suds into a large container, (as described on pages 25/26 under “Cleaning the drain pump”).
- Open the drum door by pulling the manual release.





## Correcting minor faults

### **The water does not drain away although the pump is running.**

This may be due to an obstruction in the drainage system.

- If necessary clean the drain system, as described on pages 25/26.
- Check for and remove kinks in the drain hose.

### **The machine is unsteady during the spin cycle.**


1. This can be caused by the four machine feet being out of alignment.
  - Gently tilt the machine sideways to ascertain which foot is out of alignment.
  - Loosen the locknut on the respective foot and re-align the machine as instructed on page 34.



2. Springy floorboards not only intensify the noise level during the spin cycle, but can also cause the machine to become unstable.
  - Screw a wooden base approximately 3–5 cm thick on to at least two joists.

- Install the machine in a corner of the room, not in the middle.
3. Large articles of washing or highly absorbent ones such as bath mats, could cause the wash load to become greatly off balance.
    - Therefore make up loads consisting of both large and small items instead of washing all the larger articles in a single load. Duvet covers should be buttoned up before washing in the machine.
  4. This fault could also be due to the drain system being blocked. As a safety precaution, inspect the drain pump and clean if necessary, as instructed on pages 25/26.
    - Do not spin bathroom mats separately but include them in a larger wash load.

### **The programme sequence indicator rests in the position between "Spin" and "Finish".**

Press in the "Door", "Drain  " button to make the water flow away. If the water remains there could be a blockage.

- Clean the drain system (see pages 25/26).

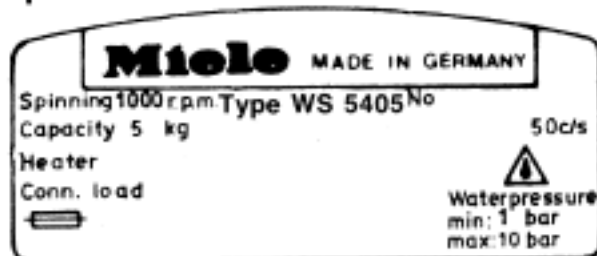
## After Sales Service

In the event of any faults which cannot be remedied, please contact:

- Your Miele dealer or
- The nearest Miele Service Department (see back cover for the address).

When contacting the Service Department, please quote the Model and Serial nos. of your appliance, both of which are shown on the data plate located above the sight glass on the inside of the door.

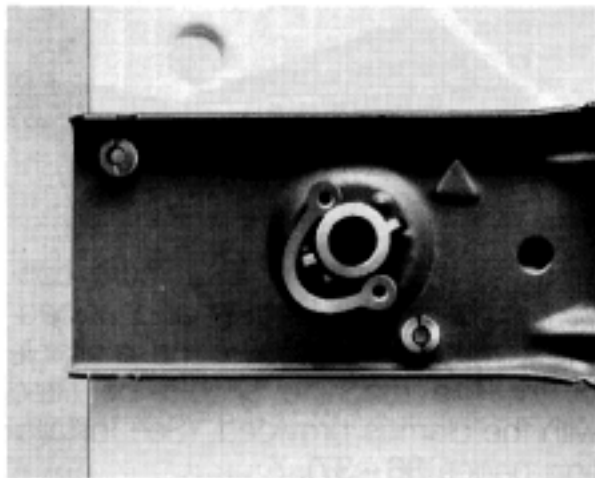
### Specimen:



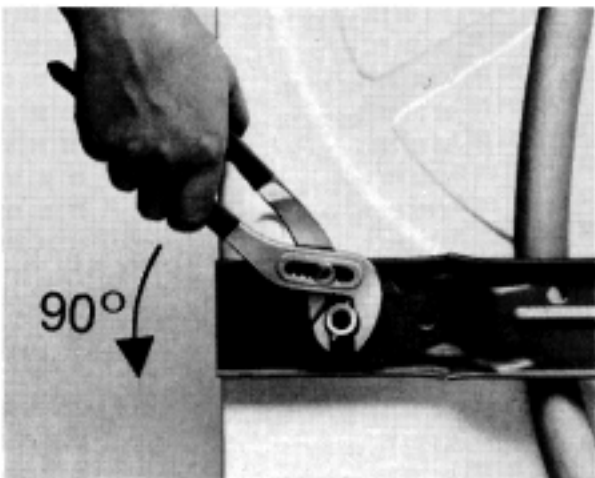
Lift the machine from its packaging base and move it to its site. Do not lift the machine by the lid overhang at the rear or by the drum door. Ensure that the machine feet and the floor are dry to prevent the machine from slipping during the spin cycle. For the same reasons, do not use any lubricant to facilitate moving the machine. Do not tilt the machine to the rear without the transport struts in place.

## Removing the transport strut

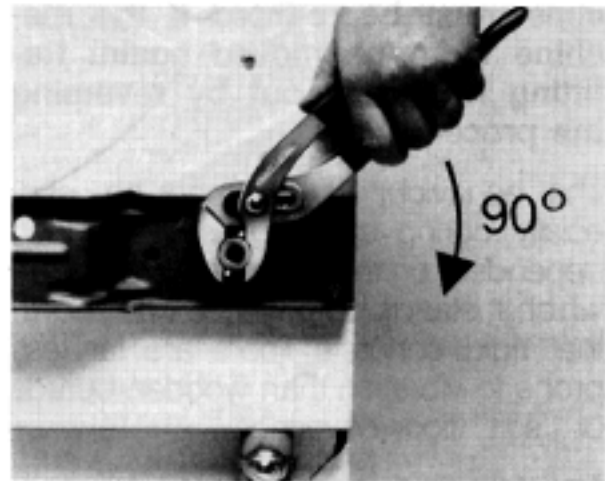
Using combination pliers, pull out the plastic retaining clips on the right and left of the support plate.



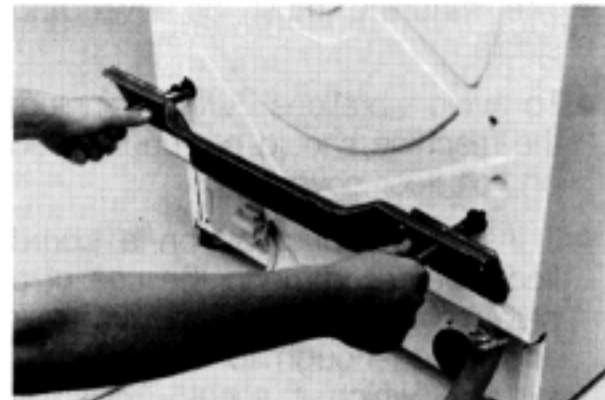
Using a pipe wrench, turn the left hand transport bar 90° to the left.



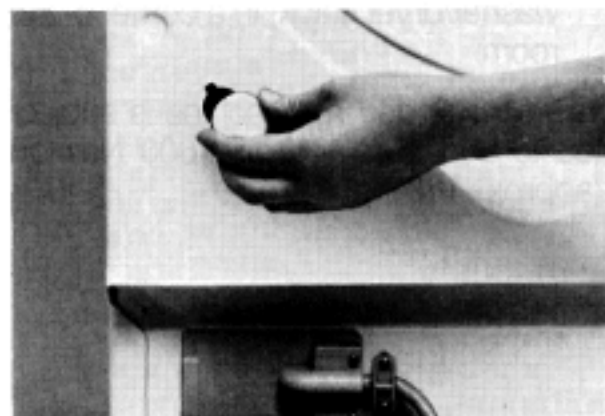
Turn the right hand bar 90° to the right.



Withdraw the two bars together with the support plate.



Plug the two holes with the plastic caps supplied. Without the transport struts in place, movement of the machine



should be kept to a minimum. The transport strut and accessories should be stored in a safe place.

## Installation

**The transport strut and retaining clips must be re-fitted if the machine is to be moved again. Re-fitting is carried out by reversing the procedure.**

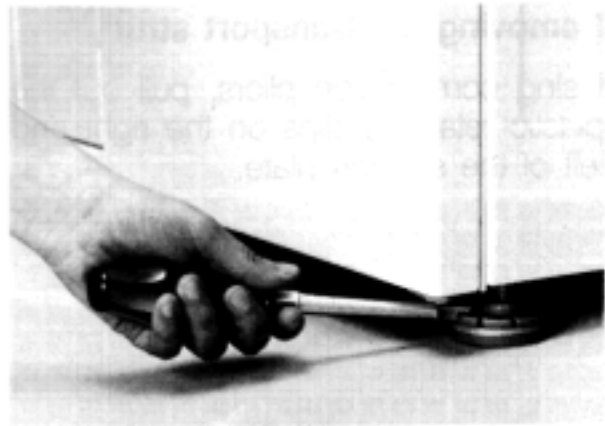
The behaviour of the machine, especially during spinning, is very much dependent on the nature of the floor on which it stands. Experience has shown that rigid concrete floors are far less prone to vibration than wooden boards or "soft" floor coverings.

The following points should be considered when installing the machine.

- The machine must be level and stable.
- To avoid vibrations during spinning, the machine should not be installed on soft floor coverings.
- If installation must be on a board floor, we recommend the use of a plywood base at least 30 mm thick and wide enough to span several joists to which it should be firmly fixed with screws.
- As a general rule we recommend the installation of the machine (or washer/dryer stack) in a corner of the room.

The floor under the machine is subjected to a load of approx. 1600 Newton (approx. 160 kg).

Small differences in floor level and height of adjacent furniture can be compensated for by adjustment of the four screw feet. (Range of adjustment between approx. 84.5 – 86.0 cm). A spirit level may be used for checking purposes and should be applied horizontally to the corners of the front and side walls. On completion of adjustments the locknuts must be tightened using a pipe wrench or screwdriver.



To raise the machine to a more convenient height for loading and unloading it may be positioned on a stable plinth. The machine should be fitted with the clamps provided. (See Installation pages 36 – 37).

### **Washer/dryer stack**

Should you desire at a later date to combine your washing machine with a Miele dryer, a special stacking kit complete with installation instructions is available from your Miele dealer.

This automatic washing machine can be equipped with a coin-op mechanism, available from Miele Spare Parts or Commercial Department.

With a washer/dryer stack a wall shelf is required for the coin-op mechanism, (Installation instructions and wiring diagrams are supplied).

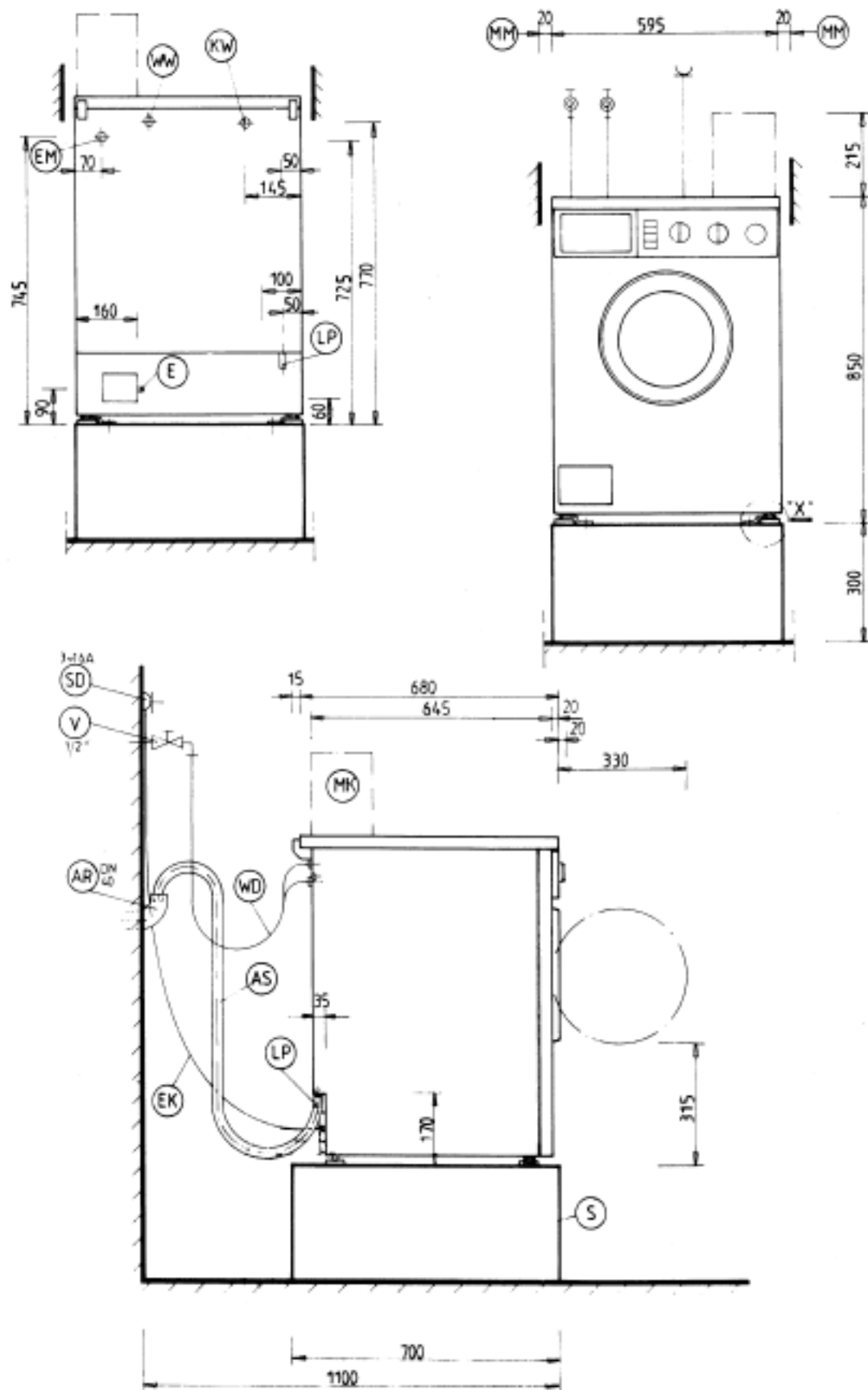
It is also possible to connect this machine to a coin-time-counter, where one is available on site. The necessary cable and wiring diagram can be obtained from the Miele Spare Parts Department.

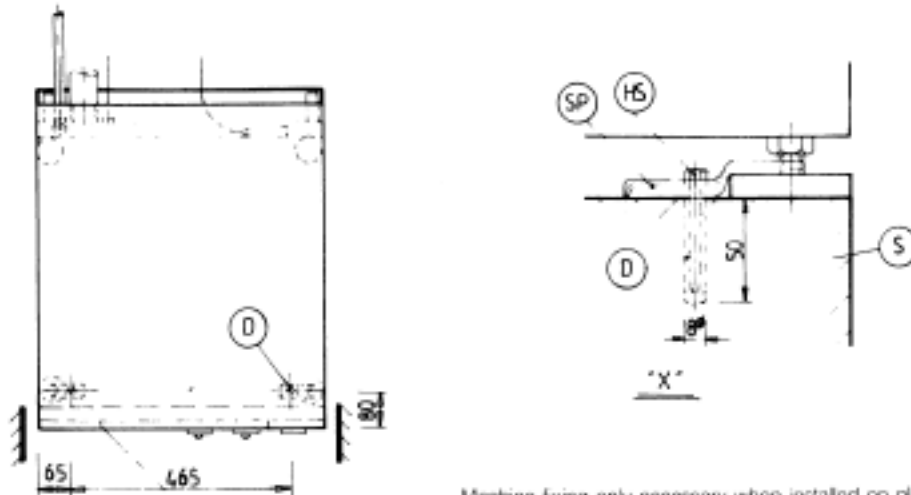
### **If the machine is installed in places subject to frost**

e.g. outside sculleries or garages.

Remove the drain system cap and drain off all the remaining water if there is any remaining water if there is any likelihood of frost. Empty the drain hose completely, unscrew the inlet hose and drain off any remaining water. If, however, an unexpected frost causes water in the machine to freeze, thaw the ice by pouring a few pints of hot water in through the detergent dispenser.

# Installation





Machine fixing only necessary when installed on plinth

SD	○	Suitable isolator (to comply with national regulations)
EM	●	Socket for coin-op mechanism C 5002
EK	●	Connecting cable 5 x 1-5 mm <sup>2</sup> , 1-5 m long
E	●	Electrical connection (machine)
V	○	Stopcock 1/2" with 3/4" thread
WD	○	Pressure hose 3/8", 1-5 m long, with 3/4" thread
KW	●	Connection to cold water 3/4"
WW	●	Connection to hot water 3/4". When there is no hot water supply, use Y connector piece supplied with machine and connect both KW and WW to cold water.
A	●	Drain socket for drain valve (normal version)
AW	●	Rubber elbow for drain valve
LP	●	Drain socket for suds pump (special version)
AS	●	Drain hose DN 22 for suds pump
AR	○	Drain pipe DN 70 with odour trap for drain valve
		Drain pipe DN 40 for suds pump
MK	●	Coin-op mechanism (optional)
S	○/●	Machine plinth (concreted in on site) or Miele-steel plinth S 5005 (optional); Flush fitting with the floor is important
SP	●	Clamp
HS	●	Wood screw 6 x 50
D	●	Dowel S 8 (8 x 40)
MM	○	Minimum measurement
	●	supplied with the machine (built-in or loose)
	○	to be supplied on site
<u>Rating:</u>		motor: 0-2/0-4 kW; drain pump 0-1 kW heater: 6,0 kW (GB) 5,2 kW (AUS)
<u>Fuse rating:</u>		3 x 15 A (three phase) a.c. 415 V (G.B.) 1 x 30 A (single phase) a.c. 240 V (G.B.)
<u>Max. floor load when operating approx.:</u>		1 x 25 A (single phase) a.c. 240 V (AUS)
<u>Water consumption:</u>		WS 5405
		approx. 120 l
	of which	approx. 5 l hot (if hot water supply used)
<u>Max. water fill per Minute:</u>		approx. 16 l
<u>Water pressure min.:</u>		1 bar, max. 10 bar, if higher reduce
<u>Max. suds pump head approx.:</u>		0-8 m

## Electrical connection

### Electrical connection in the U.K.

This Miele automatic washing machine is supplied as standard for connection to a 415 V, 3 phase + N, 50 Hz supply.

- Rated load 6.2 kW
- Fuse rating 3 x 15 A

Connection must be made via a suitable isolator.

Electrical connection should be carried out by a qualified electrician familiar with local and national regulations.

This machine can also be supplied to order for connection to an a.c. single phase, 240 V supply with a fuse rating of 30 A.

**WARNING –  
THIS APPLIANCE MUST BE  
EARTHED**

### Electrical connection (AUS)

This Miele automatic washing machine is supplied as standard for connection to a 240 V, a.c. single phase, 50 Hz supply.

- Rated load 5.4 kW
- Fuse rating 1 x 25 A
- Heater 5.2 kW

Connection must be made via a suitable isolator.

Electrical connection should be carried out by a qualified electrician familiar with local and national regulations.

**WARNING –  
THIS APPLIANCE MUST BE  
EARTHED**



## Connection to water supply

The machine should be connected to a mains water supply in accordance with standard regulations. The German authorities do not require it to have a non-return valve as the washing machine has been designed to comply with DVGW regulations (German Association of Gas and Water Engineers).

Connection to a mains water supply should be carried out by a qualified plumber and should incorporate a mains stopcock.

Connection to the machine inlet point is made with a 1.5 metre length of 3/8" pressure hose with a 3/4" threaded union. Please make sure that the washer sits correctly in the union.

If connection is to be made to a stopcock with a short thread, the extra washers enclosed should be inserted in the union to compensate.

**If replacing the inlet hose only use a hose able to withstand pressure of up to 60 bar. This also applies to all fittings used.**

The connection points are subject to mains water pressure. Turn on the stopcock slowly and check for leaks. Correct the positioning of the washers and screw unions if appropriate.

The pressure hose and solenoid inlet valve are designed for water pressures of up to 10 bar (981 kilonewtons/m<sup>2</sup>). At higher water pressures it is essential to fit a reducer valve. If the pressure is consistently below 1 bar the standard inlet valve should be replaced with a low pressure valve. This work should be carried out by an authorised service engineer or qualified plumber.

The two dirt filters, one at the inlet point, one in the pressure hose union, must not be removed.

Extension hoses 2.5 or 4.0 m in length are available as optional extras.

## Special note

**If the machine is not to be connected to a hot water supply, it is essential that the hot water inlet hose is also connected to the cold water supply, using the Y piece supplied. Otherwise correct functioning of the machine could be impeded.**

# Plumbing

---

## **Connection to a hot water supply**

Connection to a "ring system" hot water supply will promote lower energy consumption for hot water wash programmes. The hot water inlet temperature at the stopcock should not exceed 70°C. Where there is a so-called open pipe system (direct supply from the water heater), standing water is liable to cool in the pipes. In this case, more electricity is needed to heat the suds.

**It is not possible to connect the machine to a hot water supply only, for functional reasons.**

The same conditions apply to connection to the hot water supply as to the cold water supply.

## For machines with a drain pump

### Connection to drainage

The machine drains via a drain pump with a delivery head of 0.8 metre. The hose must not be kinked as this restricts drainage. Therefore, if necessary, before connection release the clamp on the connection piece, lead the hose off in the required direction, making sure it is not kinked, and tighten the hose clip. The 1.5 m hooked drain hose may be connected as follows:

- Directed into a sink; hook the hose securely over the edge and secure. The hose is long enough to install the machine to the left or right of the sink.
- Connected to a standpipe.



- Connected to a plastic drain pipe with plastic nipple (an anti-siphoning device is not necessarily required).
- Drained into a gully in the floor.

If required, the hose may be extended to a length of 5 m.

## Technical data

Height	85·0 cm (adjustable + 1,0 cm – 0,5 cm)
Height as washer/dryer stack	168·0 cm
Width	59·5 cm
Depth	71·5 cm
Weight	approx. 111 kg
Capacity	5·0 kg dry laundry
Rated load	6·2 kW (G.B.) 5·4 kW (AUS)
Fuse rating	3 x 15 A (G.B.) 1 x 30 A (G.B.) 1 x 25 A (AUS)
Water pressure	1 – 10 bar
Maximum delivery head	0·8 m
Drain hose maximum length	5·0 m
Test certificates awarded	VDE, Woolmark, radio/tv suppression
Electrically suppressed	According to DIN EN 50006/VDE 0838

## Consumption figures

		Cold water supply			Hot + Cold water supply		
		Time Min.	Elec. kWh	Water ltrs.	Time Min.	Elec. kWh	Water ltrs.
Cottons	95°C	67	2.1	117	65	1.7	117
Cottons	60°C	56	1.1	117	54	0.9	117
Cottons	30/40°C	50	0.6	117	50	0.3	117
Minimum iron with pre-wash	95°C	48	1.5	72	44	1.1	72
Minimum iron with pre-wash	60°C	40	0.8	72	40	0.5	72
Minimum iron with pre-wash	30/40°C	40	0.2	72	40	0.2	72
Delicates/Synthetics without pre-wash	30°C	30	0.2	61	30	0.2	61
Curtains with pre-wash	30°C	40	0.5	80	40	0.5	80
Woolens	40°C	35	0.5	80	35	0.5	80

These data have been established under standard test conditions in Germany, (DIN 44983). The hot water inlet temperature was 70°C. There are many factors, such as fluctuation in water supply which could cause different figures in everyday use.

Any connection with for example, a reduced heater rating, could give running times of up to 20% longer, depending on programme and temperature selected.

# **Miele**

**MIELE & CIE. – 4830 Gütersloh – W. Germany**

**UNITED KINGDOM**

Miele Co. Ltd., Fairacres, Marcham Road, Abingdon, Oxon. OX14 1TW.  
Tel. Abingdon (0235) 554455 – Telex 837 121

**AUSTRALIA**

Head Office:  
Miele Australia Pty. Ltd., 1, Gilbert Park Drive, Scoresby 3179, P.O. Box 291  
Ferntree Gully 3156, Tel.: (03) 763 00 66 – Telex: 37747