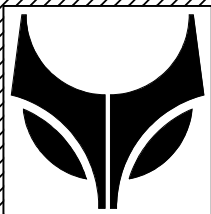


**IPSO - LSG n.v.**

# Instruction manual

**HF145, HF176  
HF205, HF234**

**Technical specifications  
Installation instructions  
Operating instructions  
Maintenance**



**IPSO**

Nieuwstraat 146 - B-8560 Wevelgem (Belgium)  
Tel. 056/41 20 54 - Fax 056/41 86 74

Part No. D0247

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Code: 249/00026/01  
08/09/94

## General safety instructions

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**Ignoring any of the safety instructions can cause serious personal injury and can also cause damage to the linen or the machine**

- Read the installation and instruction manual carefully before connecting the machine.
- It is recommended that the machine be installed by qualified technicians.
- The machine should be installed according to the installation instructions. (See chapter 3)
- The machine should be grounded according to the instructions in order to eliminate the risk of electrocution.
- Do not expose the machine to high humidity or extreme high or low temperatures.
- Cut off all main water inlets, steam and electrical supplies at the end of each operating day.
- Before starting repairs or maintenance, shut off all power and water supplies.
- To prevent fire and explosion:  
Keep the area around the machine free from inflammable or combustible products.  
Do not put fabrics that are treated with inflammable products into the machine. These fabrics should be hand-washed or air-dried first.
- Always carefully read and follow the instructions on the packing of detergents. Store these products out of the reach of children.
- Always take into account the instructions on the labels of clothes.
- Never allow children to play in the surroundings of a machine.

**Remark:**

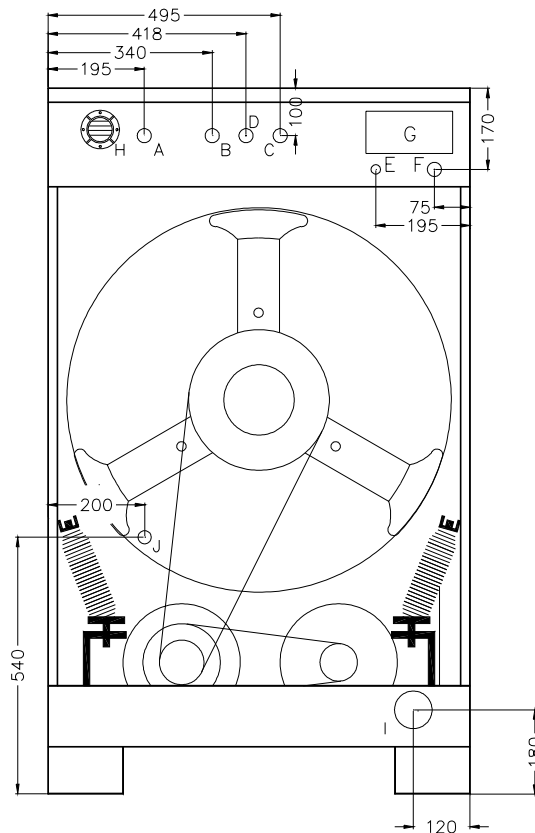
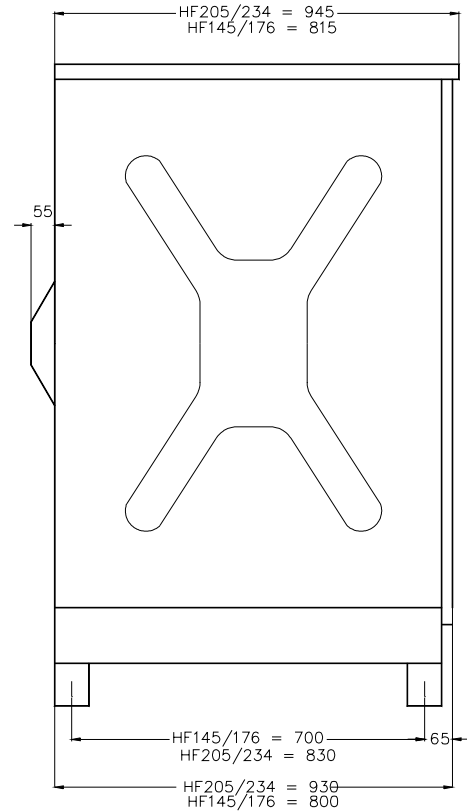
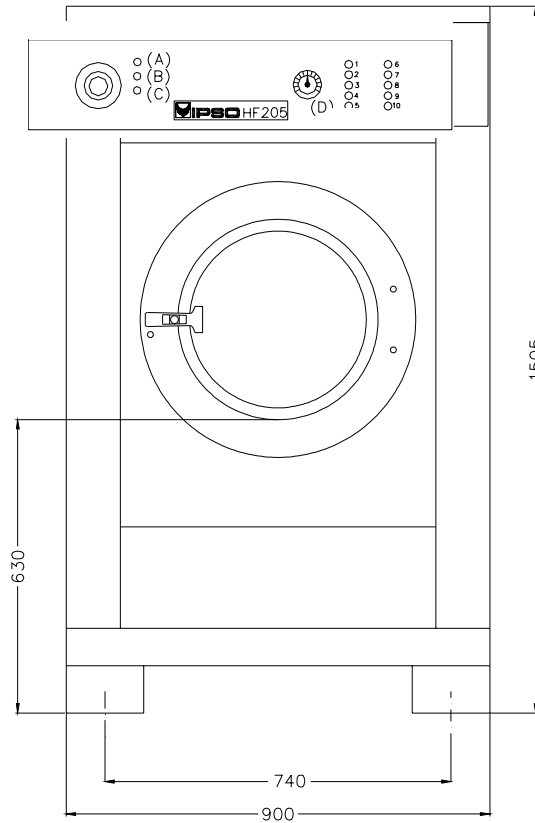
- These instructions surely cannot prevent all risks of accidents. It is up to the user to act with the utmost precaution.
- Do not hesitate to contact the dealer in case of a problem.

## Technical data and dimensions

### Technical data

	HF 145	HF 176	HF 205	HF 234
<b>Capacity (dry weight)</b>				
1/11	13,2 kg	16 kg	18,6 kg	21,3 kg
1/10	14,5 kg	17,6 kg	20,5 kg	23,4 kg
1/9	16,1 kg	19,5 kg	22,7 kg	26 kg
<b>Cylinder</b>				
Diameter	750 mm	750 mm	750 mm	750 mm
Depth	329 mm	399 mm	464 mm	530 mm
Volume	145 Lit.	176 Lit.	205 Lit.	234 Lit.
<b>Cabinet</b>				
Height	1505 mm	1505 mm	1505 mm	1505 mm
Width	900 mm	900 mm	900 mm	900 mm
Depth	855 mm	855 mm	855 mm	855 mm
<b>Front loading</b>				
Diameter door opening	395 mm	395 mm	395 mm	395 mm
Door height - loxer edge	630 mm	630 mm	630 mm	630 mm
Door height - center	820 mm	820 mm	820 mm	820 mm
<b>speed</b>				
Wash			40 rpm	
Distribution			110 rpm	
Spin			420 rpm	
High spin			900 rpm	
<b>G-force</b>				
Spin			74/343	
<b>Motors (3-phase)</b>				
Wash 18p. 290 rpm.	220 W	280 W	370 W	370 W
Distribution 18p. 290 rpm	220 W	280 W	370 W	370 W
Spin 2p. 2900 rpm.	1100 W	1300 W	1800 W	1800 W
High spin 2p. 2900 rpm.	1100 W	1300 W	1800 W	1800 W
<b>Drain</b>				
Depend-O-Drai			3"	
Option			2"	
<b>Water-inlet</b>				
Hard, soft, hot warer & cool down			3/4"	
<b>Steam connection</b>				
steam connection			3/8"	
<b>Heating</b>				
Electric 220/380V			12/15/18 kW	
Electric 380V			24 kW	
Steam			X	
Boliler fed			X	
Boiler fed (with auxiliary heating)			X	
<b>Packing dimensions</b>				
(H x W x D)	1650x1020x1150 mm			
<b>Weight</b>				
Net	380 kg	455 kg	561 kg	570 kg
Gross	450 kg	524 kg	621 kg	630 kg

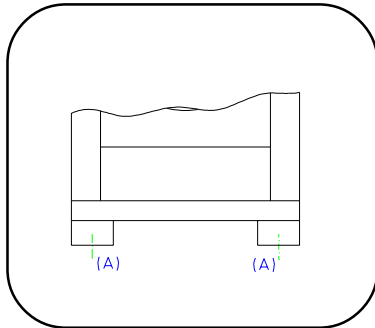
## Dimensions



- A. Hard water connection 3/4"
- B. Warm water connection 3/4"
- C. Soft water connection 3/4"
- D. Water connection cool-down (option)
- E. Electrical power connection motor drive
- F. Electrical connection heating
- G. Electrical connection clamps
- H. Ventilation soap dispenser
- I. Water drain
- J. Steam connection

## Installation and connection

### Ground

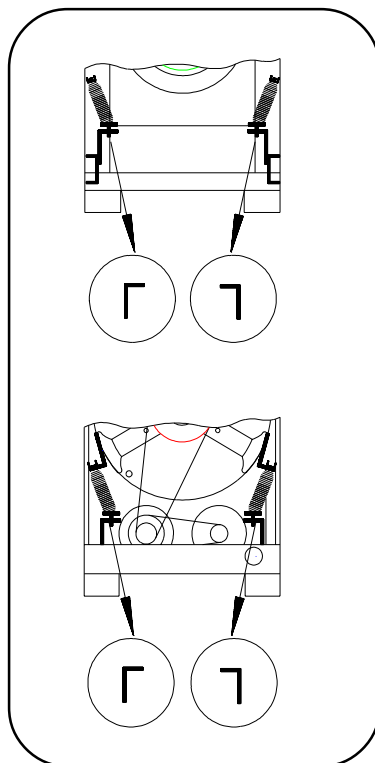


The machine must be placed on a flat, solid surface (metal base, concrete or solid ground). It is **recommended that the machine be anchored** on the provided places (A) in the base, especially in case of a plinth. (See Dimensions 2)

The machine must be placed entirely level. For easy maintenance it is recommended to keep a minimal distance of 600 mm between the wall and the back of the machine.

If several machines are placed next to each another, there should be a minimal distance of 30 mm between each machine.

### Removing the transport brackets



To prevent damage during transportation, the machine has been equipped with two red transport brackets (D) to eliminate every possible movement of the tub. After the machine has been placed level, take off the service panel and remove these transport brackets.

#### **Important**

The machine must never be activated **before removing these transport brackets**.

### Water connection

The machine is delivered with hoses with 3/4" connections. These hoses fit the water inlet valves of the machine and the main water inlet taps. To ensure the optimal functioning of the water inlet valves, the water pressure on the inlet should be between 0,5 and 10 kg/cm<sup>2</sup> (7 and 145 psi). If the pressure is too low, the cycle time will increase considerably.

In case of boiler fed machines, a minimum of hot water of 90°C should be available:

For the HF145: 110l. HF205: 135l.

For the HF176: 125l. HF234: 150l.

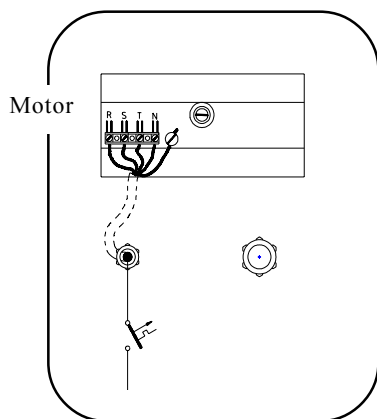
## Water drain

The machine is equipped with a drain valve with 6/4" outer diameter (50 mm). This drain valve should be connected to the drain by means of the drain elbow which is delivered with the machine.

- The diameter of the main drain should be adapted to the water flow and the number of machines. It should be sufficient to handle at least 80L/min. per machine.
- It is necessary to connect the main drain at least on one side to an open air-brake to allow ventilation.
- When the main drain has not been sufficiently deodorized, every machine should be installed separately with a deodorizer.

## Main power connection

- In case of machines with *electrical heating two separate connections* should always be used. One for the motor circuit, one for the heating.
- After connection, check the *spin direction*. The cylinder must spin in the *direction of the arrow*, showed on the sticker on the door window (*clockwise*).  
A wrong spin direction can damage the motor, and can also cause water to spurt from the soap dispenser.
- In case of *wrong spin direction*: switch the terminal clamps of the motor circuit "R" and "S" of the connecting cable.

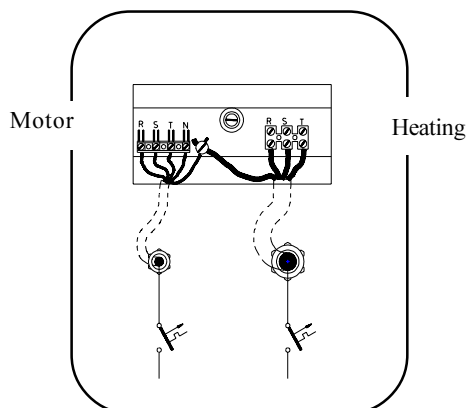


**Machine with steam heating or boiler fed machine without additional electrical heating**

**Value of mains fuses:**

Motor circuit:	220V 3AC	380V 3AC+N
	16A	16A

**Machine with electrical heating**

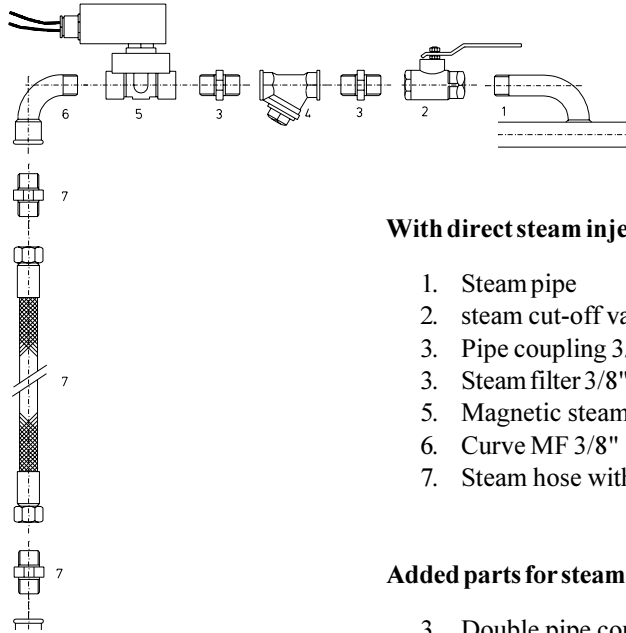


**Value of the mains fuses:**

Motor circuit:	220V 3AC	380V 3AC+N
	16A	16A
Heating:	220V 3AC	380V 3AC+N
12kw	---	25A
15kw	50A	25 A
18kw	50 A	32 A
21kw	---	40 A
24kw	---	40 A

## Steam connection

Machines with steam heating must have a steam valve between the steam installation and the machine.



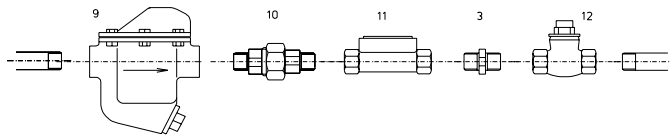
### With direct steam injection into the machine

1. Steam pipe
2. steam cut-off valve 3/8"
3. Pipe coupling 3/8"
3. Steam filter 3/8"
5. Magnetic steam valve 3/8"
6. Curve MF 3/8"
7. Steam hose with appropriate pipe coupling 3/8"

### Added parts for steam heating with heat exchanger

3. Double pipe coupling 1/2"
9. Condensation accumulator with filter 1/2"
10. Conical coupling MM 1/2"
11. Single window 1/2"
12. One-way valve 1/2"

M = inner wire, F = outer wire



***The manufacturer is not responsible for damage or accidents caused by not following the installation instructions!***



## Operating instructions

### Machine with CAM-timer and 10 buttons



#### Open the door

Press the red button on the doorhandle and open the door.

#### Fill the drum

The machines have 5 wash programs. Sort the linen according to the quality and the allowed wash temperature. Remove all nails, coins, etc. that can damage the linen or the machine during the wash cycle. Turn sleeves of overcoats, shirts and blouses inside out. To increase the wash action and thus the quality of the wash, it is recommended to mix large and small pieces.

If the machine is filled *less than 80%* of the capacity, this could prevent a good operation and can even **damage** the machine.

Overloading the machine can be the cause of low wash quality.

#### Close the door

#### Select program

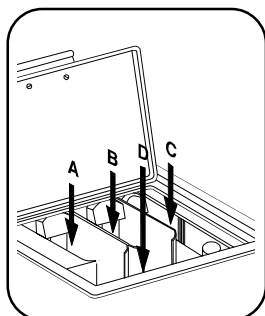
Press the button of the desired program: (1-5)

1. Hot wash	(2 baths)(40°/90°C)	
2. Warm wash	(2 baths)(40°/60°C)	
3. Synthetics	(2 baths)(40°/40°C)	(No final spin 1000rpm)
4. Synthetics	(1 bath)(40°C)	(No final spin 1000rpm)
5. Gentle/Wool	(1 bath)(30°C or cold)	(No final spin 1000rpm)

#### Remark:

Program 4 & 5 low water level and normal wash action. For high water level and reduced wash action, press button 8.

#### Add detergents



It is recommended to use only those detergents with “**reduced foam**”. These are often available in the laundrette, and are also easily found in shops. The dose you should use is normally indicated on the packing.

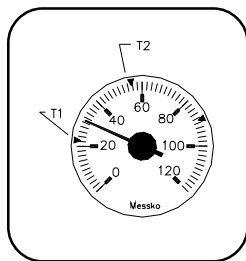
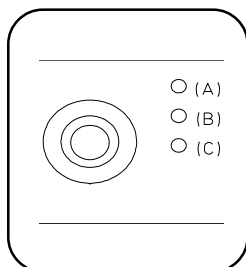
Overdosing of soap can lead to poor wash results and foam bubbling out of the machine can damage it.

Left compartment A: Pre-wash (1st bath)

Middle compartment B: Main wash (2nd bath)

Right compartment C: Final rinse (conditioner)

Compartment D: Directly in tub

**Choose temperature****Start the machine****Orange pilot lights****End of the cycle**

thermostat with 2 adjustable temperatures can be installed.  
The choice of temperature via the switch buttons can then be replaced by the input of T1/T2

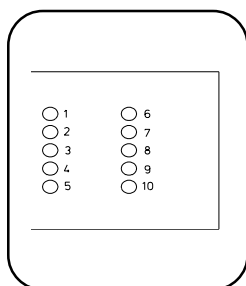
- T2 = Highest adjustable temperature (Main wash)
- T1 = Lowest adjustable temperature (Pre-wash)

Press the start button (6). When the machine is started, the red control lamp on the fascia panel (A) will light up.

When the middle orange pilot light (B) lights up, the liquid bleach may be added manually (Compartment D).

When the bottom orange pilot light (C) lights up, the linen softener is automatically added or the starch may be added manually (compartment D)

When the red pilot light on the fascia panel turns off, the wash cycle has come to an end and you can open the door.

**Remarks****Function buttons (6-10)**

- Button 6: "START".  
Press this button and release immediately to start a program.
- Button 7: "STARCH".  
To starch at the end of a wash cycle proceed as follows:
  - In case you don't want to starch some of the linen, remove these first.
  - Dissolve the starch in some water.
  - Press button 7.
  - Press button 6 and release it.
  - Add the dissolved starch (in compartment D) when water flows into the soap dispenser.
  - Program sequence: Water inlet - Starch:2' - Drain:30" - Spin:1'30 - Tumble:30".
  - After ending the starch program, press out button 7.
- Button 8: "HIGH WATER LEVEL" (reduced wash action)  
If you want to wash in a certain program with high water level and reduced wash action, press button 8. After ending the program, press out button 8.
- Button 9: "NO SPIN"  
If you want to run a program without spinning, press the button 9 before you press the start button. After ending that program press out this button 9. You can also choose 8 & 9 at the same time to wash with reduced wash action, high water level and without spinning.
- Button 10: "RAPID ADVANCE".  
With this button you can at any time skip a part or the rest of the program.

**Button “Soak”  
(Option!)**

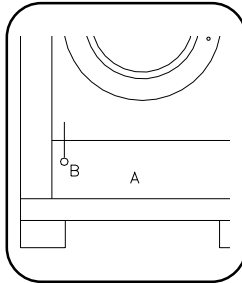
Choose a program (1...5) (Don't press button 7)

- Press the pause switch so the light turns on.
- Add detergent and start the machine.

The bath is filled to high water level. A reduced wash action of 3 sec. wash and 12 sec. pause is engaged while the bath is heated to 30° or 40°C, depending on the selected program 1-4: 40°C, program 5: 30°C.

When the required temperature is reached, the wash action stops until the bath is cooled down and heating starts again. When the desired pause time is passed, press out the pause switch. The machine will automatically proceed with its normal program.

**Opening the door in case  
of an emergency**

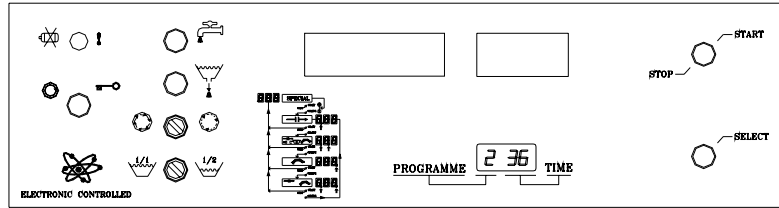


When you want to open the door in case of an emergency (power breakdown, deficiencies, etc...) remove the service panel (A) at the bottom and pull the left suspended ring (B) while you press the red button on the doorhandle and open the door.

**Important:**

Before opening the door, be sure there is no water left in the tub, and that the drum has come to a complete stop.

## Machine with electronical microprocessor and start button



### Open the door

Press the red button on the doorhandle and open the door.

### Fill the drum

Sort the linen according to the quality and the allowed wash temperature. Remove all nails, coins, etc. that can damage the linen or the machine during the wash cycle. Turn sleeves of overcoats, shirts and blouses inside out. To increase the wash action and thus the quality of the wash, it is recommended to mix large and small pieces.

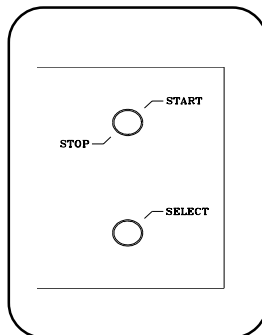
If the machine is filled *less than 80% of the capacity*, this could prevent a good operation and can even *damage* the machine.

Overloading the machine can be the cause of low wash quality.

### Close the door

### Select program

The machine has at least 6 programs (IPSO Belgium). Press the program selection button (SELECT) as many times until the desired program number appears:

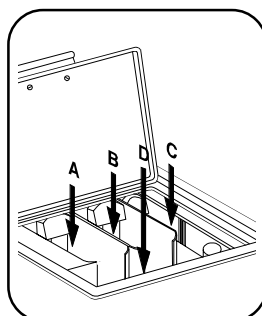


1. Hot wash	(2 baths)(40°/90°C)	
2. Warm wash	(2 baths)(40°/60°C)	
3. Synthetics	(2 baths)(40°/40°C)	(No final spin 1000rpm)
4. Synthetics	(1 bath)(40°C)	(No final spin 1000rpm)
5. Gentle/Wool	(1 bath)(30°C or cold)	(No final spin 1000rpm)
6. Starch	(1 bath)(cold)	(No final spin 1000rpm)

### Remark:

These programs can be modified. Other programs can be added. (Max. 9). If this is desired, contact your distributor.

### Add detergents



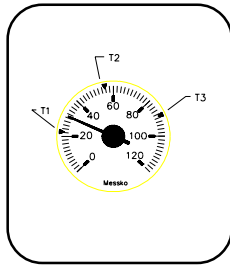
It is recommended to use only those detergents with “*reduced foam*”. These are often available in the laundrette, and are also easily found in shops. The dose you should use is normally indicated on the packing.

Overdosing of soap can lead to poor wash results and foam bubbling out of the machine can damage it.

Left compartment A:	Pre-wash (1st bath)
Middle compartment B:	Main wash (2nd bath)
Right compartment C:	Final rinse (conditioner)
Compartment D:	Directly in tub

### Choose temperature

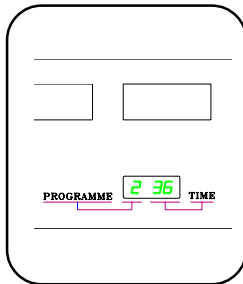
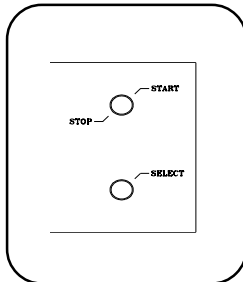
As an option, a thermometer or thermostat with 2 or 3 adjustable temperatures can be installed.



- T3 = Highest adjustable temperature
- T2 = Middle adjustable temperature
- T1 = Lowest adjustable temperature

### Start the machine

Press the start button. When the machine is started, the green pilot light on the fascia panel will turn off.



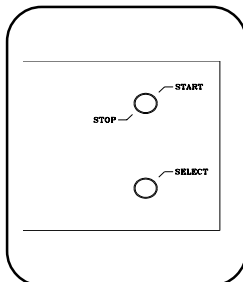
During the program, the selected program number remains visible on the left display. The other two show the remaining program segments of 1 minute. You can stop the cycle prematurely by pressing the START/STOP button.

### End of a cycle

When the green pilot light on the fascia panel lights up and the two displays on the right turn off, the wash cycle has ended and you can open the door.

### Remarks

#### Rapid Advance



Keep the program select button (SELECT) pressed and then press the START/STOP button at the same time. By doing this action twice, the middle and right decimal point will flash at the same time. By pressing the program select button now you can advance to the following step of the program. By keeping the program select button pressed it is possible to advance rapidly through a part or the rest of the program.

To continue normally with the program, press the START/STOP button.

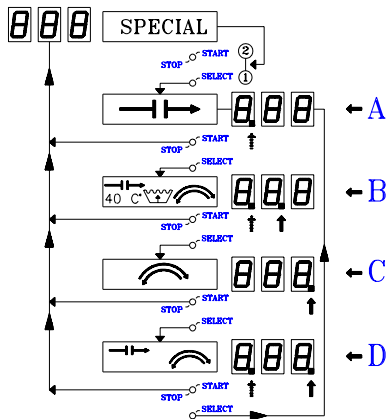
#### Programmablestart

It is possible to start a machine with PLC-9 automatically after a maximum of 99 hours.

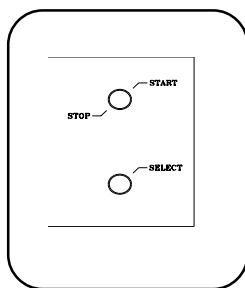
- Select a program.
- By keeping the program select button (SELECT) pressed and then pressing the START/STOP button at the same time, “-01 “ appears. Every time you press the program select button (SELECT) one hour is added to the delay. The program will only start after the programmed delay has passed.
- To undo the programmed start, press START/STOP button.

## Special functions

By keeping the program select button (SELECT) pressed and then pressing the START/STOP button at the same time, it is possible to use special functions.

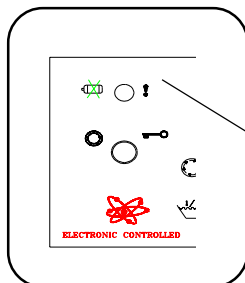


- After a while, the left decimal point starts to flash. (A)  
This means that the program will keep repeating the segment that is now active (Time stop).  
To continue the program normally, press the START/STOP button. Or if you want to select the following function, press the program select button (SELECT) once again.
- The middle decimal point lights up and the left keeps flashing (B). Now the time will be stopped and the water will be heated to 40°C with reduced wash action and high water level. By means of this soak program you can prolongue the pre-wash in case of very dirty linen.  
To continue the program normally, press the START/STOP button. Or if you want to select the following special function, press the program select button (SELECT) once again.
- The right decimal point now lights up (C).  
This means that all wash actions are being executed at reduced wash action.  
To continue the program normally, press the START/STOP button. Or if you want to select the following special function, press the program select button (SELECT) once again.
- The right decimal point lights up and the left flashes.  
Now the program activates a “time stop” during the wash cycle but in this case with a reduced wash action.  
To continue the program normally, press the START/STOP button.



### Test program

By keeping the program select button (SELECT) pressed, when selecting the program, for more than 5 seconds, you enter the “*test program*” (0). This was specially designed to help the technical service in case of malfunction.



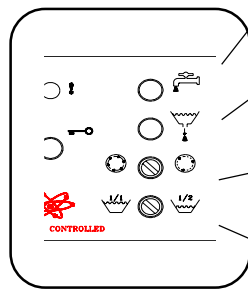
### Thermo-magnetic motor protection

When the thermo-magnetic motor protection is activated, the red control pilot light on the fascia panel will light up and the display will turn off. When the protection (manually or automatically) is being reset, a flashing “S” will appear on the display. This means that you should select again the program.

### Special messages

- When starting the program and the door is not closed properly, “**edo**” will appear (Close door).
- When starting the program and something is wrong with the water level switches, “**HLE**” (high level), “**LLE**” (low level) or alternating “**SLE - tilt**” (safety level) will appear.
- When one of the required temperatures was not reached during the program, “**1tE**”, “**2tE**”, “**3tE**” or “**4tE**” will appear at the end.
- When one of the required water levels was not reached during the program, “**HLE**” (high level), “**LLE**” (low level) or alternating “**SLE - tilt**” (safety level) will appear at the end.

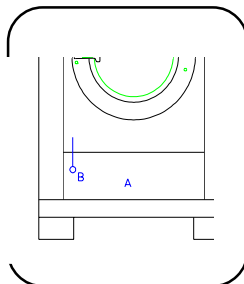
### Extra switches and buttons. (Option)



- Button adding water  
With this button the water level in the tub will rise for as long as you press the button.
- Button drain water  
With this button the water level in the tub will fall for as long as you press the button.
- Switch no high spin  
By turning this switch to the right, high spin is executed as low spin.
- Switch lowered water level

By turning this switch to the right, you can lower the water level in case of a smaller wash-load. This can save time, water and energy.

### Opening the door in case of an emergency



When you want to open the door in case of an emergency (power breakdown, deficiencies, etc...) remove the service panel (A) at the bottom and pull the left suspended ring (B) while you press the red button on the doorhandle and open the door.

### Important:

Before opening the door, be sure there is no water left in the tub, and that the drum has come to a complete stop.

## Technical remarks

### Program time (Machine with CAM-timer)

Code 10.1126 - 220 V (50Hz with brown CAM-timer)

There are several possibilities according to cabling, microprocessor, type of heating, temperature control, water level control, etc.... For your information you can find the details of the programs for a machine with standard programs, boiler fed (*without temperature control nor water level controls*).

	1	2	3	4	5
	Hot	Warm	Synth. 1	Synth. 2	Wool
<b>water inlet</b>	cold+warm	cold+warm	cold+warm	cold+warm	cold
<b>pre-wash</b>	6'30"	6'30"	4'30"	6'30"	6'30"
<b>water drain</b>	1'30"	1'30"	1'30"	1'30"	1'30"
<b>spin</b>	2'30"	2'30"	2'30"	1'30"	1'30"
<b>water inlet</b>	warm	33% cold+ 66% warm	50%cold+ 50%warm	—	—
<b>main wash</b>	12'	12'	9'	—	—
<b>water drain</b>	1'30"	1'30"	1'30"	—	—
<b>water inlet</b>	cold	cold	cold	cold	cold
<b>rinse1</b>	2'	2'	2'	2'	2'
<b>water drain</b>	1'30"	1'30"	1'30"	1'30"	1'30"
<b>spin</b>	2'30"	2'30"	1'30"	1'30"	1'30"
<b>water inlet</b>	cold	cold	cold	cold	cold
<b>rinse</b>	2	2'	2'	2'	2' 2'
<b>water drain</b>	1'30"	1'30"	1'30"	1'30"	1'30"
<b>spin</b>	2'30"	2'30"	1'30"	1'30"	1'30"
<b>water inlet</b>	cold	cold	cold	cold	cold
<b>rinse 3</b>	2'30"	2'30"	2'30"	2'30"	2'30"
<b>water drain</b>	1'30"	1'30"	1'30"	1'30"	1'30"
<b>low spin</b>	2'50"	2'50"	2'50"	2'50"	2'50"
<b>high spin</b>	4'40"	4'40"	—	—	—
<b>delay</b>	30"	30"	30"	30"	30"
<b>tumble</b>	30"	30"	30"	30"	30"
<b>total</b>	48'30"	48'30"	36'50"	27'20"	27'20"

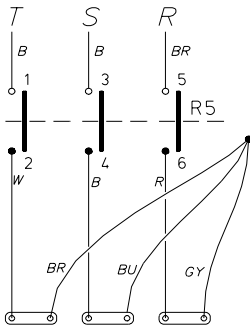
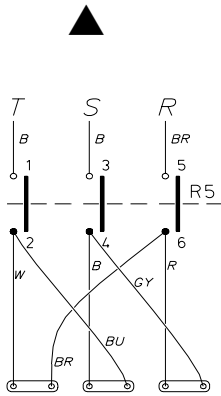
### Remark

In the programs 1 & 2 the pre-wash is installable on 4'30" or 6'30" and the main wash installable on 9' or 12', according to the cabling.

Every time the machine is out of balance during the spin 1 minute is added to the program. (See electronical repetition system)



## Internal connection of the electrical heating



B=Black      Br=Brow  
 GY=Grey      BU=Blue  
 R=Red        W = White  
 PU=Purple    W/B = White/Black

Heating		3x220V	R5	3x380V	R5
12kW	3x2kW 3x2kW	▲	LC1D253	★	LC1D0901
15kW	3x2kW 3x3kW	▲	LC1D253	★	LC1D1810
18kW	3x3kW 3x3kW	▲	LC1D323	★	LC1D1810
21kW	3x3kW 3x4kW	-----	-----	★ ▲	LC1D1810 LC1D1810
24kW	3x4kW 3x4kW	-----	-----	▲ ▲	LC1D1810 LC1D1810

### Remark:

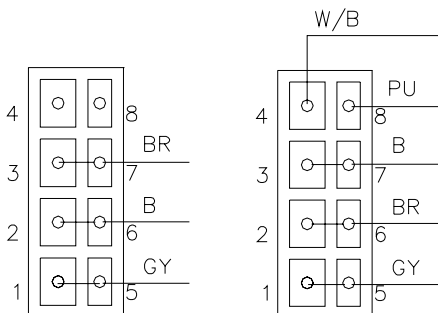
Other executions are available as option

## Internal connections of the motors

220V

Low speed

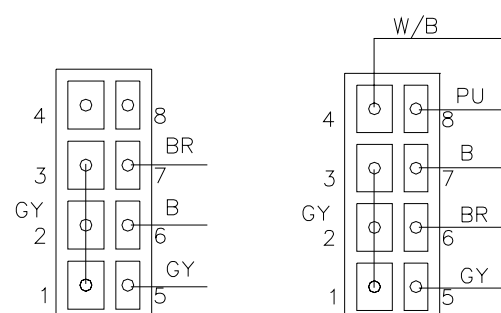
High Speed



380V

Low speed

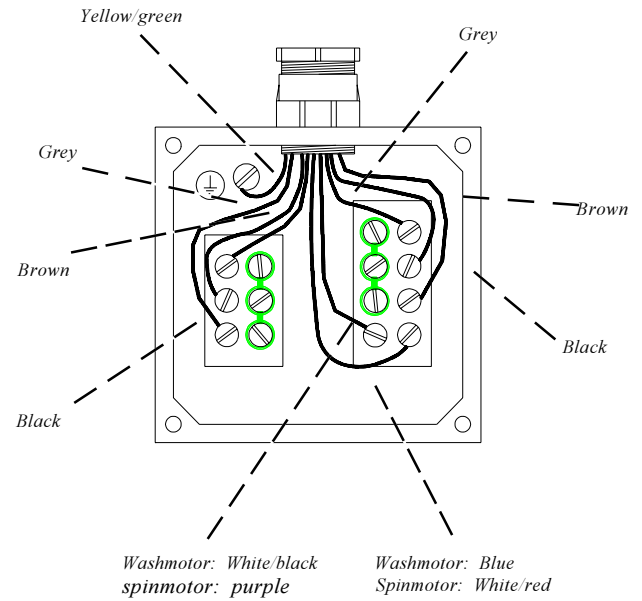
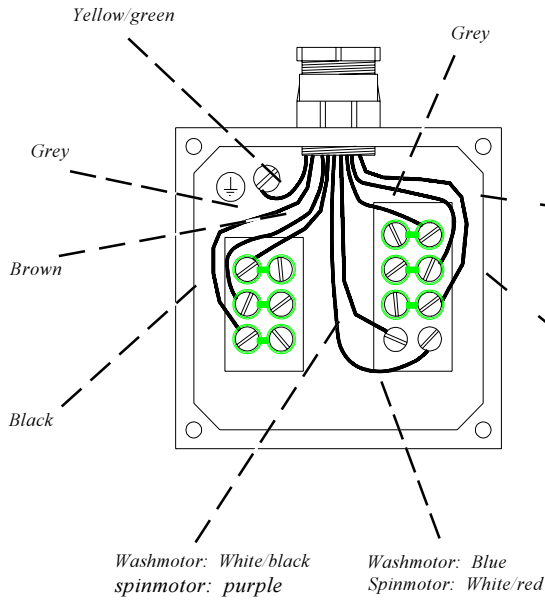
High speed



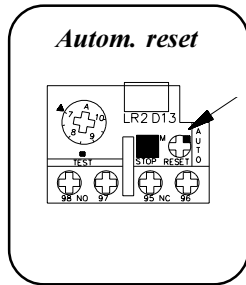
**HF205/HF234**

220V

380V



**Thermo-magnetic motor protection**

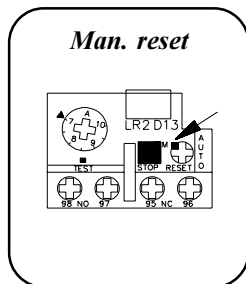


The thermic overload relay turns off in case of overloading. Because this relay is installed on **automatical reset**, after a while the motors are switched back on automatically.

**Installation and type of overload relay**

**220V**

Machine	Type	value	installation
HF145	LR2D13149	7-10A	7A
HF176	LR2D13149	7-10A	8A
HF205	LR2D13149	7-10A	10A
HF234	LR2D13149	7-10A	10A

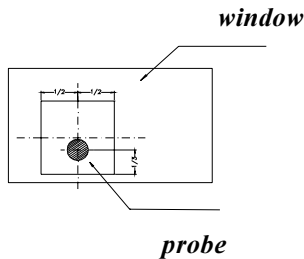


**380V**

Machine	Type	value	installation
HF145	LR2D13109	4-6A	4A
HF176	LR2D13109	4-6A	4A
HF205	LR2D13149	7-10A	7A
HF234	LR2D13149	7-10A	7A

## Tilt switch and electrical repetition system

### Tilt switch



The tilt switch is mounted on the solid part of the machine. There is a window around the probe of the tilt switch that is mounted on the movable part of the machine.

When the machine goes out of balance by overloading or uneven distribution of the linen, the tilt switch will interrupt this action to prevent damage to the machine.

### Important

To guarantee good functioning, the probe should be centered horizontally and vertically at 1/3 from the bottom of the tilt window (when machine drum is empty).

### Electrical repetition system

The spin is controlled by the electrical repetition system. This system is responsible for the drive of the different motors during high and low spin.

#### Operation:

The printboard will be activated during the drain, and the following actions occur:

- The micromotor of the programmer stops.
- The distribution speed is activated and the drain valve opened.
- After the water is drained completely, the machine starts low spin at 500 rpm.
- After 2'40" low spin, high spin starts at 1000 rpm.

- Remarks:**
- The duration of the high spin (1000rpm) is determined by the programmer.
  - In case the machine is out of balance during spinning, the spin motor will stop while the linen is redistributed via the wash action. After 30 sec. the machine will try again to spin.
  - Every time the machine is out of balance the spin time **shortens by 30 sec.** (Not with PLC-9).
  - When the drain valve is obstructed, the same things happen as when the machine is out of balance.
  - After a power failure during spinning, the machine starts at point a) (see operation).
  - After an interruption by the thermo-magnetic motor protection during spinning, the machine starts at point a) of the described operation.
  - Machines with electrical microprocessor PLC-9 have the repetition system printboard integrated on the main printboard. **In this case the repetition process will be executed no more than 15 times without shortening the spin time.**

## Maintenance of the machine

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### General maintenance

- Clean the entire cabinet of the machine regularly and remove all traces of soap, etc....
- Remove all detergent residue in the soap dispenser with hot water.
- Clean the door gasket and remove all detergents and other products.
- Shut off the main water, steam and power connections at the end of each day. Do not change the setting of the water inlet taps on boiler fed machines once these have been installed.
- It is recommended to leave the door and the soap dispenser open after use, to ventilate the machine.

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### Periodical maintenance

- The V-belts of the motors should be retightened after two to three months when first used. This is necessary because these belts are subject to a one-time stretching when first used. **By ignoring this instruction**, the belt starts to slip after a few months and will brake shortly afterwards.
- Check regularly if the filters of the water inlet are not blocked by calcification.  
If a machine frequently skips the final spin, check whether the probe of the out of balance switch is still in the appropriate position, that is horizontally centered and vertically 1/3 from the bottom inside the window. (When the drum is empty).
- An obstructed drain can cause frequent interruption of spinning for safety reasons.

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### Repair and after-sales service

- In case of important malfunctions and deficiencies which you cannot resolve yourself, do not hesitate to contact the technical service of your distributor.

#### Gegevens verdeler:

Name: .....

Address: .....

Tel.: .....

#### Gegevens machine:

Type: .....

Program: .....

Date of installation: .....

Installed by: .....

Serial number: .....

Operation voltage and frequency: .....



**The manufacturer reserves the right to change the content of this instruction manual, at all times and without previous notice.**