

Operating and installation manual

Hydro-extractor

C240 / C240R

C260 / C260R

C290R

487 22 52 21.01
GB

Hydro-extractors, drum volume 38 or 58 or 88 litres

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Safety instructions

The machine must not be used by children.

Do not leave children alone or unattended near the machine.

The machine must not be sprayed with water.

Mechanical and electrical installation and service are only to be carried out by authorised personnel.

The machine's lid lock must not be by-passed under any circumstances.

The machine is not to be connected to a central timer which disconnects the mains supply at a certain time. The cover cannot be opened if the current is disconnected while an extraction cycle is in progress. This means that there is a risk of the lid being opened by force.

If there is a fault in the extractor e.g. when the yellow lamp at the STOP button is flashing, report the matter to the technician as soon as possible. This is important for your own safety as well as the safety of others.

The manufacturer reserves the right to make changes to design and material specifications.

General

The hydro-extractor is an invaluable complement to a washing machine and other drying equipment:

It complements the washing machine by very efficient dewatering of the laundry after the wash programme is completed.

It complements the tumble dryer or drying cabinet by considerably reducing the drying time. Drying of clothes is energy-intensive and an efficient hydro-extractor can save considerable amounts of energy every year.

Safety

The safety is controlled by two independently working rotation guards in the motor.

The lid has a mechanical lock. Types 38 and 58 litres also feature an electronic monitoring device to keep the hydro-extractor from starting if the lid is not closed.

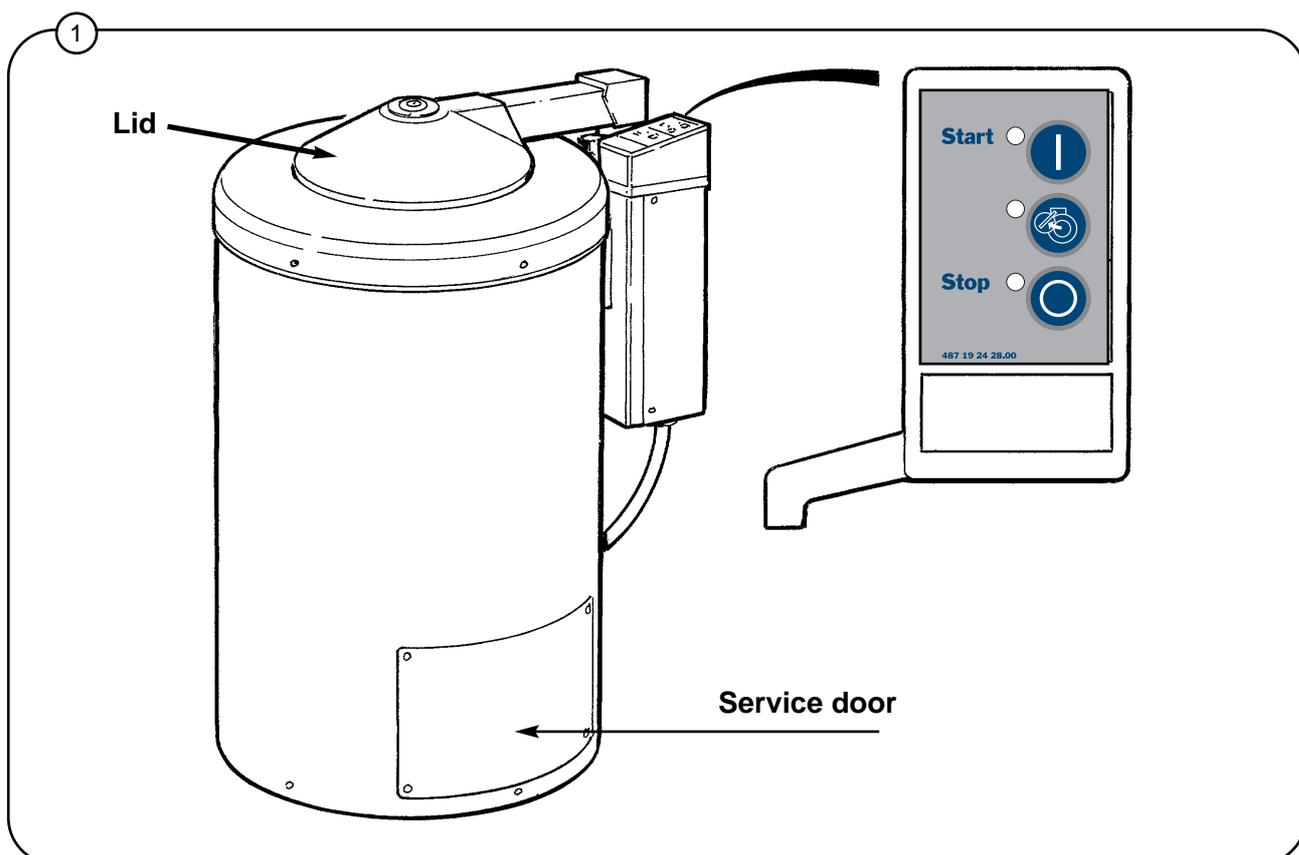
If the power is disconnected, the lid will remain closed on all types of hydro-extractor.

Warning

The hydro-extractor must not be used by children.

Do not leave children alone or unattended near of the hydro-extractor.

If you detect a fault on the hydro-extractor, report it without delay to the technician responsible. This is important for your own safety as well as the safety of others.



Procedure for use

Preparation

Place the load in an even layer all around the drum

- ① Place long articles in a zig-zag fashion so that they are not stretched unnecessarily while being extracted.

Place heavy items at the bottom and light items at the top.

Check that items do not hang over the edge of the extractors drum.

Finish by placing a towel or similar at the top. Be sure to keep the towel within the edge of the drum.

Starting up

- ② Turn the cover onto the extractor and press it down.

For extractor with **coin box**: Insert coins in the coin box; the **START** button will then begin flashing.

- ③ Start the extractor by pressing the **START** button. The programmed extraction time is 5 min. The lid is locked during the extraction time. If shorter extraction time is required - press the **STOP** button.

Unevenly loaded drum

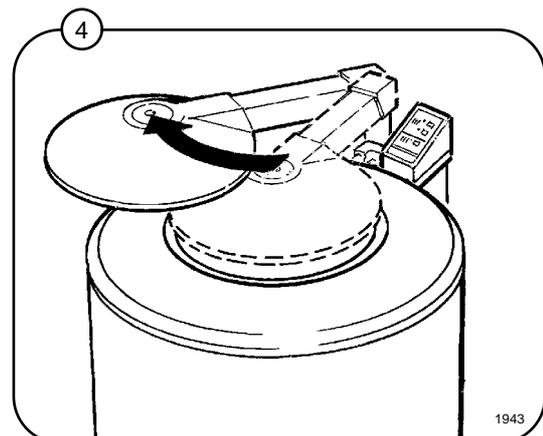
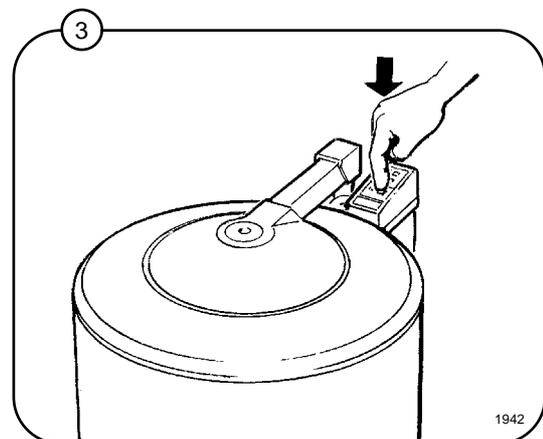
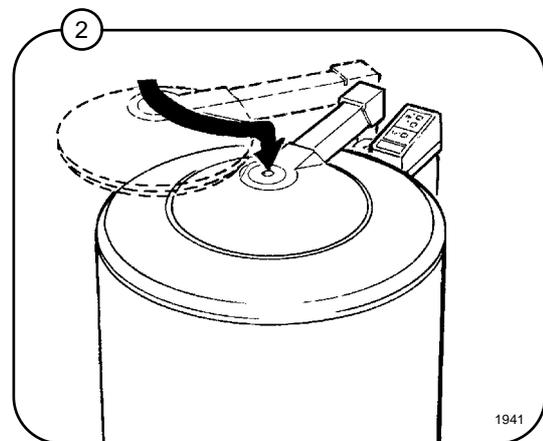
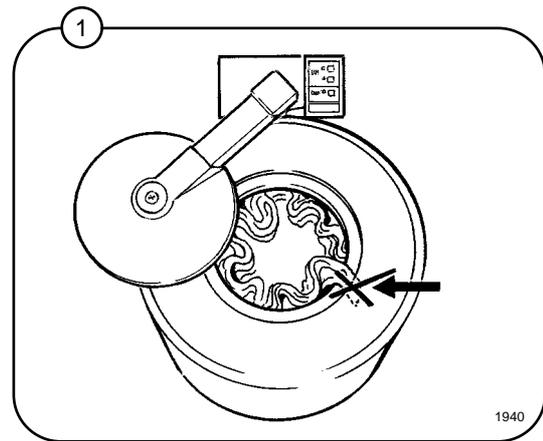
If the drum is unevenly loaded there will be too much imbalance during extraction. The extractor will stop automatically after a few seconds and the green lamp at the button will flash. Open the lid by pressing the  -button.

Distribute the load evenly in the drum and restart.

Completion

- ④ When the extraction time is over, the extractor stops automatically. Open the lid by pressing the  - button. Turn the lid to the left and take out the laundry.

Leave the extractor in the condition you want to find it.



Maintenance

The below-mentioned intervals for maintenance apply in situations of normal use, e.g. a tenancy estate laundry.

If the machine is used professionally, e.g. in a laundrette, this interval should be halved.

Every 14 days

It is important to carry out regular checks of the hydro extractor's function, particularly for personal safety reasons.

Check the following:

- that the cover cannot be opened while the extraction cycle is in progress,
- that the **STOP** button is working,
- that the switch and electrical cable to the machine are undamaged.

If the extractor has a fault e.g. when the yellow lamp at the **STOP** button is flashing, this must be reported as soon as possible to the person in charge. This is important for your own safety and for the safety of others.

CAUTION

The extractor must not be sprayed with water. If the machine is dirty, wipe it with a moist cloth.

Installation of hydro-extractor:

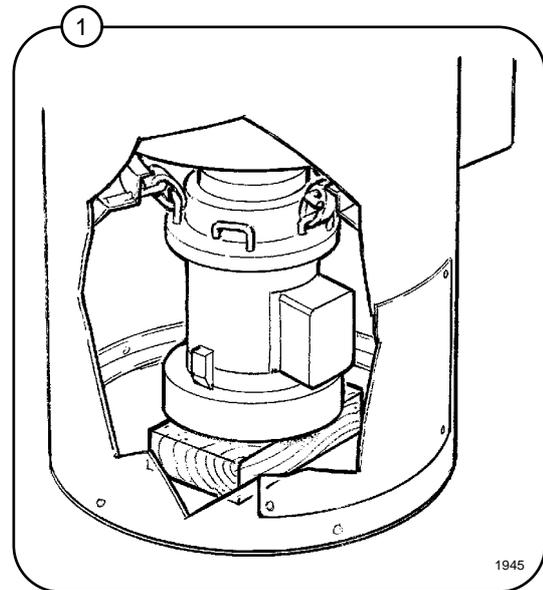
With freely suspended basket

Unpacking

① The hydro-extractor is protected against transport damage and bolted to a pallet before delivery.

The transport protection consists of a wooden plug fitted between the pallet and the counterweight of the motor. Through the pallet and the wooden plug, a bolt has been entered to reach into the counterweight. When the hydro-extractor is loosened from the pallet, the pallet bolts are loosened through the service door of the hydro-extractor and the transport protection bolt must be loosened from the bottom of the pallet.

Never lift the hydro-extractor drum!



With rigidly suspended basket

Unpacking

The hydro-extractor comes bolted to a transport pallet and the bolts in the pallet must be loosened through the service door of the hydro-extractor.

Never lift the hydro-extractor drum!

Open the lid

All types

Drain hose is placed in the drum. The lid can be opened as follows:

- ②
- Remove the cover of the control unit on the rear of the hydro-extractor.
 - Press the bar of the coil upwards.

Come with all types of hydro-extractor

Fitting template

Spacers

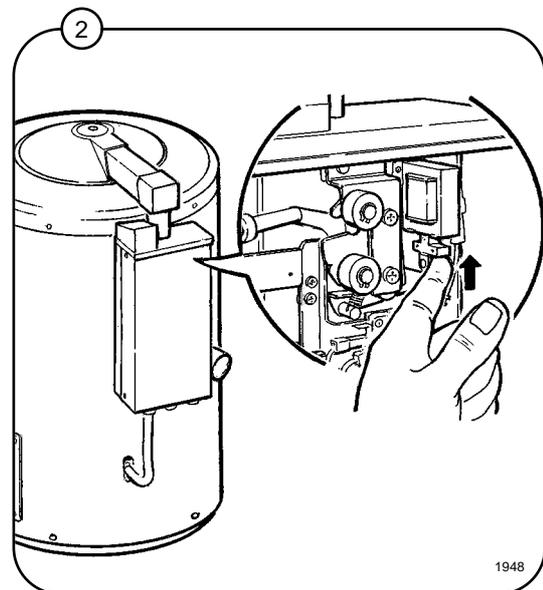
Base plates

Clamps for drain hose

* Nameplate for attachment to hydro-extractor

* Hydro-extractor log

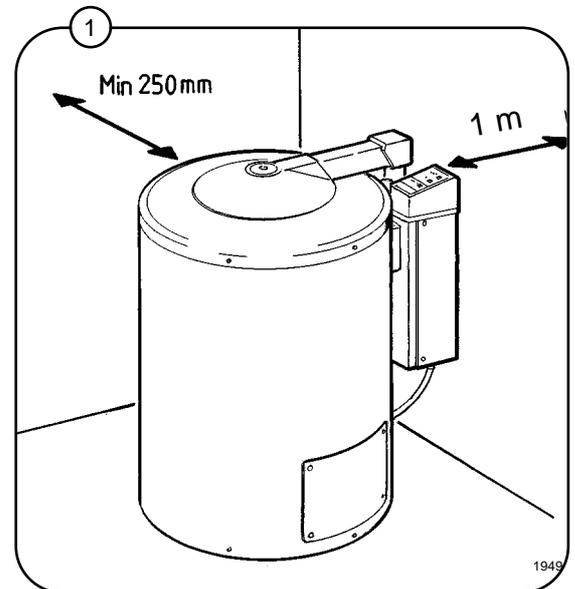
* Come with some models only.



Installation of all types of hydro-extractor

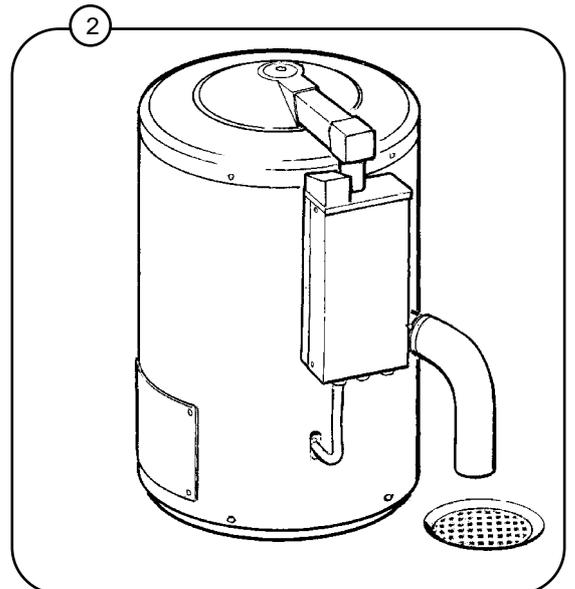
Positioning

- ① The extractor is to be placed as close to a floor drain or gutter as possible.
- The distance to the wall or other equipment must be at least 250 mm. The distance on the left side must be at least 250 mm.
- To facilitate servicing, it is recommended to leave a space of min. one metre behind the machine.



Drain

- ② Fit the rubber hose. Dimension of the drain pipe: hose $\text{\O}76$ mm.
- Mount the hose so that there is an unrestricted slope towards the floor gutter.
- Leave at least 25 mm air space between the drain hose and the floor grate or the gutter.



Installation of all types of hydro-extractor

Quality requirements concerning the base

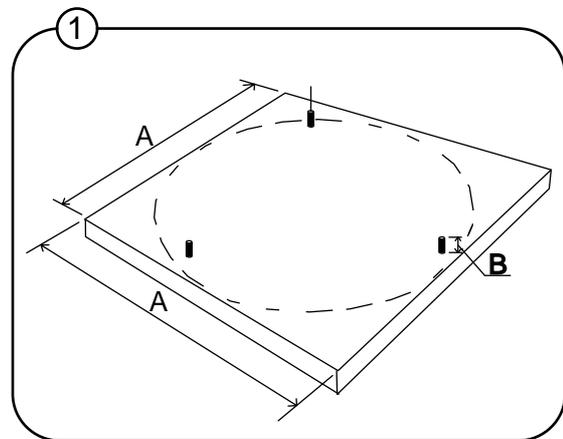
The base **must** be very stable in order to absorb the dynamic forces transferred in the spinning process.

Normally, the hydro-extractor can be attached by means of expansion bolts (size M12) directly into a concrete floor of good quality and adequate thickness - see bolt height **B** in the table below; or the enclosed foundation bolts can be cast into the floor, see procedure next page.

Concreting of foundation for all types of hydro-extractor

①

If there is uncertainty as to the quality of the floor, or if the working height of the hydro-extractor is too low, it could be a good idea to build up a concrete foundation. This foundation should have a height of approx. 100 mm and its minimum dimensions should be as stated in the table.

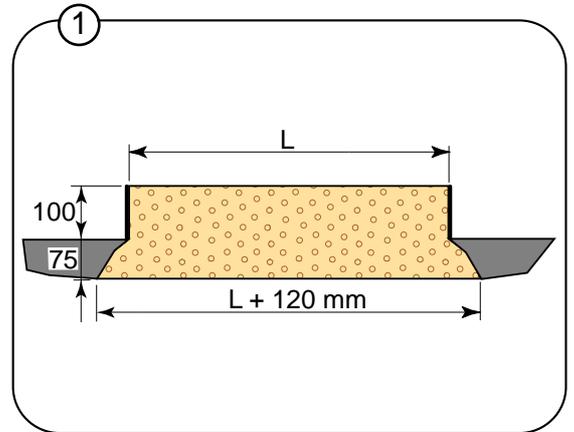


Type of hydro-extractor	38 litres	58 litres	88 litres
A	600 mm	700 mm	800 mm
B freely suspended basket	32 mm	32 mm	
B rigidly suspended basket	60 mm	45 mm	55 mm
Bolts for freely suspended basket	3 pcs.	4 pcs	
Bolts rigidly suspended basket	3 pcs	4 pcs	4 pcs

Installation of all types of hydro-extractor

Concreting, procedure:

- ① • Cut out the floor approx. 75 mm down. Make sure that the sides of the hole have an outwards slope; the lower longitudinal dimension L must be 120 mm bigger than the dimension L at the edge of the floor. Build up a casting mould, see fig. 1.
- Water the hole thoroughly and apply cement plaster to the bottom and sides of the hole.
- Concrete the foundation. Foundation bolts can be concreted into the foundation. Use the template that comes with the machine to position the bolts. Make sure that the surface is entirely horizontal.
- Allow the new concrete to dry for at least 48 hours before placing the hydro-extractor on it.



Fit the hydro-extractor as described on the following pages.

Attachment of hydro-extractor with freely suspended basket

When using expander bolts use size M12.

Drill holes in the floor. The depth and diameter must fit the expander bolts used.

To position holes correctly you can use the template which is supplied. The extractor bottom plate can also be used as a template.

Place the expander bolts in the holes.

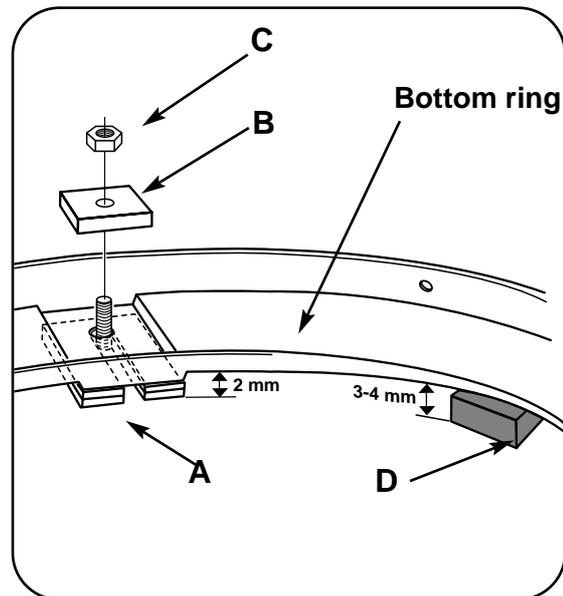
Fitting of hydro-extractor

Position the hydro-extractor and adjust it to make it completely horizontal. Place the spacers (A) below the bottom ring and around the foundation bolts. It is important that these gaskets cover the full surface of the foot.

Position the square base gaskets (B) and the lock-nuts (C). It is important to fit the square gasket under the lock-nut, since this will ensure the right distribution of the mechanical load.

To prevent vibration in the hydro-extractor and thus the risk of dislodgement, spacers (D) can be placed between the attachment bolts. These spacers (D) must be so high, approx. 3-4 mm, that the bottom ring will deflect approx. 1-2 mm.

It is important for the bottom ring to be stressed when the bolts are fastened at full torque.



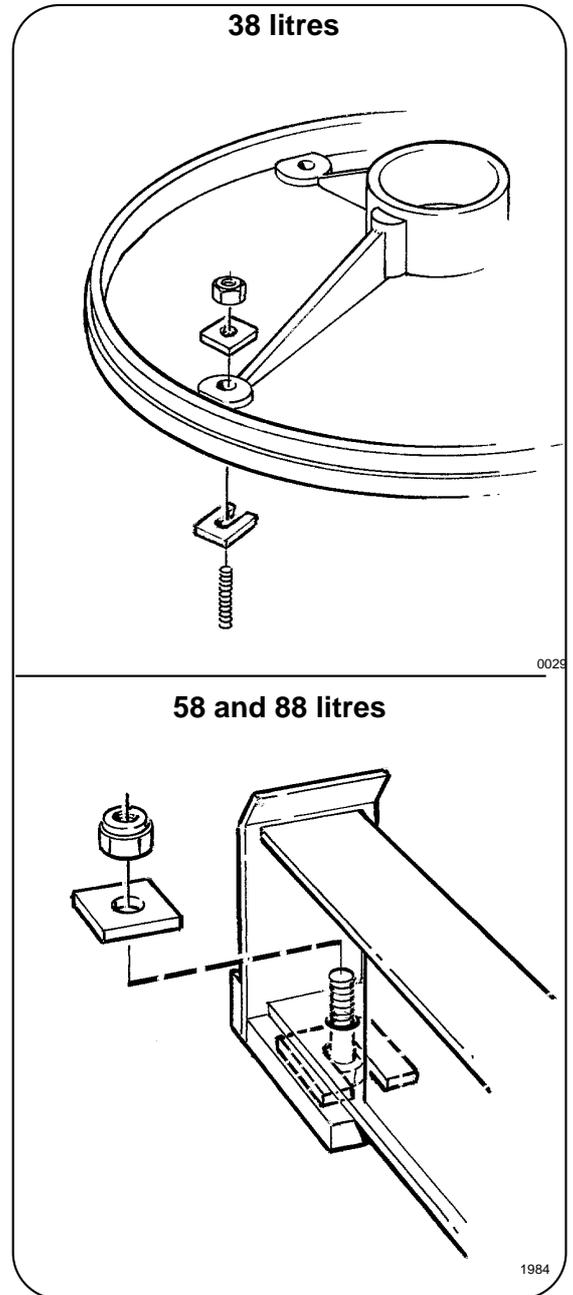
NB!

Check the nuts and tighten them when the hydro-extractor has been in operation for a few months.

Attachment of hydro-extractor with rigidly suspended basket

Position the hydro-extractor. Adjust the extractor to make it completely horizontal. Use gaskets made of stainless or galvanised metal plate to place under the feet of the machine. The gaskets must be big enough to cover the entire surface of the foot.

Fit the square gaskets and nuts.

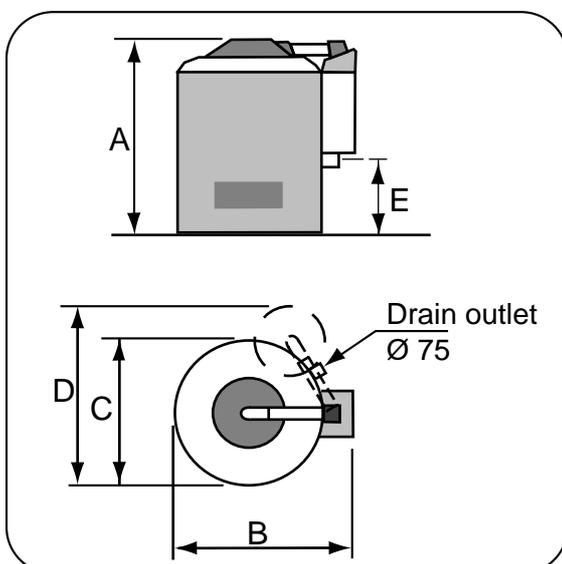


NB!

Check the nuts and tighten them when the hydro-extractor has been in use for a few months.

Technical data for hydro-extractors with 50 Hz and 60 Hz mains frequency

Drum suspension	Free suspension	Free suspension	Rigid suspension	Rigid suspension	Rigid suspension
Basket volume in litres	38 L	58 L	38 L	58 L	88 L
Basket Capacity [kg] (Dry garments)	8	12	8	12	18
Basket Speed [rpm]	50 Hz 1450 60 Hz 1740				
Basket G-factor [kp/kg]	50 Hz 440 60 Hz 635	50 Hz 575 60 Hz 830	50 Hz 440 60 Hz 635	50 Hz 575 60 Hz 830	50 Hz 705 60 Hz 1015
Power consumption per spin [kWh]	0.04	0.06	0.04	0.06	0.13
Max. Floor load per spin (50 Hz) [kN]	1.0±0,1	1,4±0.15	1.0±0.25	1.9±0.4	3.0±0.6
Sound pressure level [dB(A)]	< 70	< 70	< 70	< 70	< 70
Weight net [kg]	74	109	85	140	190
A Total height [mm]	850	870	910	980	1050
B Max. depth [mm]	660	785	660	785	910
C Diameter [mm]	515	640	515	640	770
D Max. width [mm]	665	790	665	790	920
E Height to drain outlet [mm]	320	330	390	420	475



Electrical installation.

Electrical Installation is to be carried out by an authorized electrician.

Switch

Fit a current switch prior to the extractor.

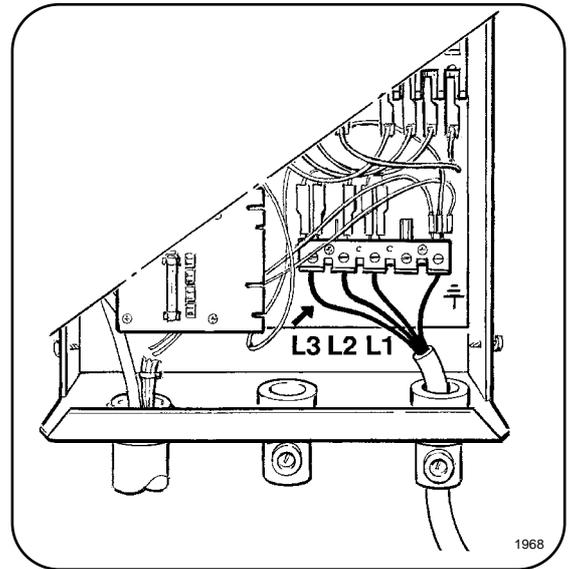
The cable between switch and hydro-extractor must comply with at least HO5VV-F in accordance with CEE(13)53 and must hang in a loop.

Fuse

Fit a current switch prior to the extractor.

Connect the extractor to a separate fuse board.

The motor is fitted with a thermal fuse, which is why separate motor protection is unnecessary.



Warning

The hydro-extractor must not be connected to a central timer which disconnects the power supply at a certain time. The lid cannot be opened if the current is disconnected while an extraction cycle is in progress. This means that there is a risk of the lid being opened by force.

38 litres						
50Hz	Voltage	200 V 3 AC	230 V 3 AC	400 V 3 AC	415 V 3 AC	
	Fuse, slow	10A	10A	10A	10A	
	Cable	4 x 1.5 mm ²				
60 Hz	Voltage	115 V 3 AC	200 V 3 AC	208-240 V 3 AC	380 V 3 AC	440 V 3 AC
	Fuse, slow	16A	10A	10A	10A	10A
	Cable	4 x 2.5 mm ²	4 x 1.5 mm ²			
58 and 88 litres						
50 Hz	Voltage	200 V 3 AC	230 V 3 AC	400 V 3 AC	415 V 3 AC	
	Fuse, slow	16A	16A	10A	10A	
	Cable	4 x 2.5 mm ²	4 x 2.5 mm ²	4 x 1.5 mm ²	4 x 1.5 mm ²	
60 Hz	Voltage	115 V 3 AC	200 V 3 AC	208-240 V 3 AC	380 V 3 AC	440 V 3 AC
	Fuse, slow	25A	16A	16A	10A	10A
	Cable	4 x 6.0 mm ²	4 x 2.5 mm ²	4 x 2.5 mm ²	4 x 1.5 mm ²	4 x 1.5 mm ²

Voltage change

Voltage change must be done by authorized personnel.

Some extractors have a dual voltage facility and can be changed over in connection with installation.

An extractor, which upon delivery is connected for 400-415 V 3 AC (Y-connection), can be changed over to 230 V 3 AC (-connection) and vice versa

The change-over is done in the control unit.

How to change voltage:

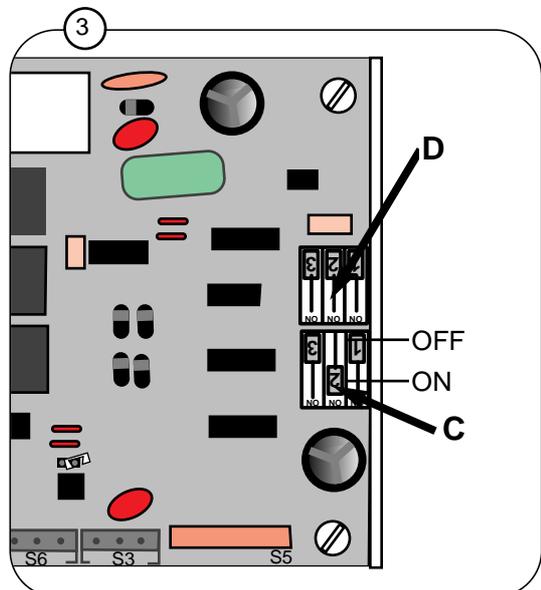
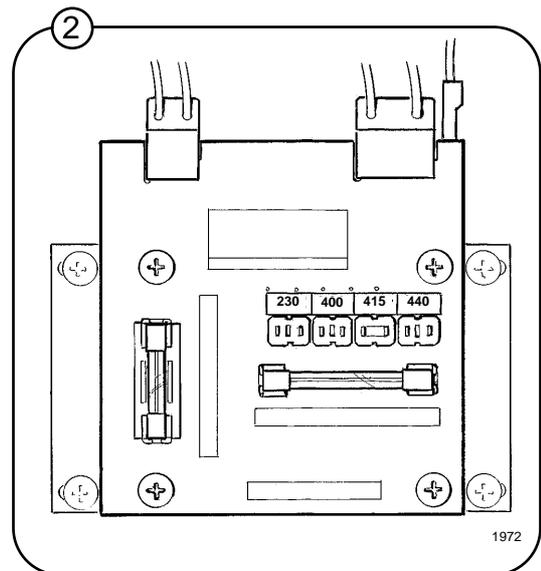
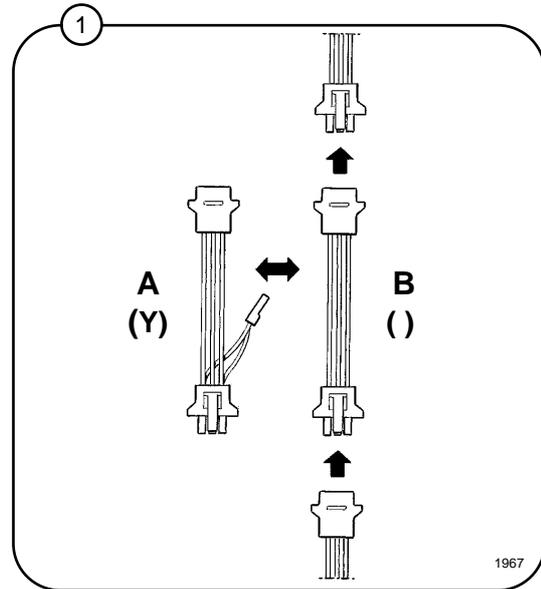
- ① • Remove the wire harness between the motor and relay.
- ② • Connect the supplied wire harness (B) for -connection, (Wire harness A is for Y-connection).
- Move the connector on the transformer from 400 or 415 V to the two pins for 230 V or vice versa

Time-setting

- ③ The hydro-extraction time is pre-set to five minutes. This time can be adjusted from three to ten minutes, see fig 3 (C) and the table.
NB! (D) only applies to printed circuits for coin operation.

TIME MIN.	SETTING		
	1	2	3
3	OFF	OFF	OFF
4	OFF	OFF	ON
5	OFF	ON	OFF
6	OFF	ON	ON
7	ON	OFF	OFF
8	ON	OFF	ON
9	ON	ON	OFF
10	ON	ON	ON

NB! The power must be disconnected before altering the time.



Test run

When the installation work has been completed, a functional check must be carried out as follows:

1. Make sure that the main switch is in **OFF** position and that the drum is empty. Close the lid.
2. Turn the main switch ON. The green lamp for  - button must now flash. Press the button to open the lid.

If the hydro-extractor receives a wrong phase sequence, relay 2 of the automatic controls (the relay normally used for braking) will be activated and the hydro-extractor will start without the lid being opened.

If this happens, the main switch must be turned off and two of the phases in the automatic controls must be swapped, before a new functional test is carried out.

3. Close the lid. The hydro-extractor will state:
 - The lamp at the **START** button flashes.
 - The lamp at the  - button lights up. Push the **START** button.

Check the spinning time. The preset time is 5 minutes; this can be changed.

Check that the green lamp at the **START** button is lit during spinning. When the time has passed, the green lamp for lid opening must flash. Press the  - button.

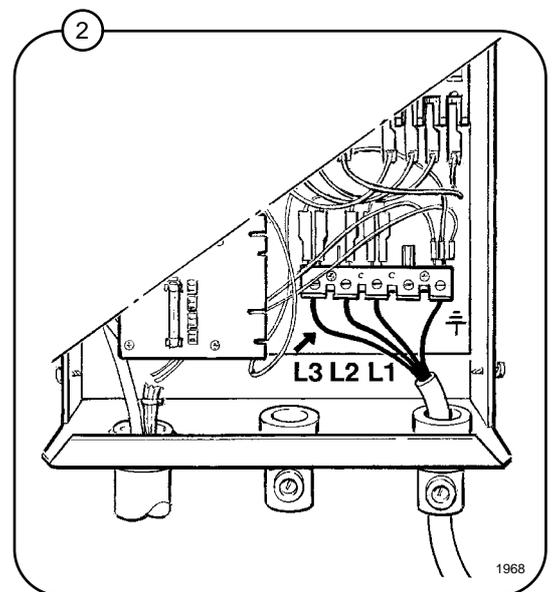
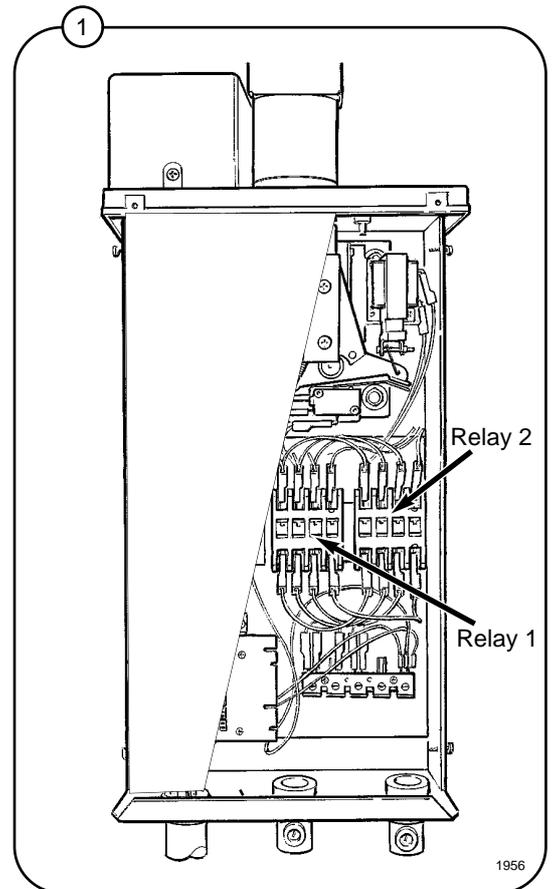
Check that the drum has in fact stopped when the lid is opened.

4. Close the lid and push **START**. When the drum has reached its full speed, push **STOP** button. The drum must now stop and it must be possible to open the lid by pressing the  - button.

NB!

If the yellow lamp at the STOP button flashes, the hydro-extractor has a fault.

5. Clean the hydro-extractor after completing the test run.





ELECTROLUX LAUNDRY SYSTEMS

ELECTROLUX LAUNDRY SYSTEMS DENMARK A/S
DK-5690 Tommerup, Denmark, Telephone +45 63 76 20 00, Telefax +45 63 76 22 00
Internet: www.electrolux-wascator.com E-mail: els.info@electrolux.dk