

Installation manual Tumble dryer

D735S

Type N3...





CONTACT:

461 Doughty Blvd Inwood, NY 11096-0338

Tel: 516-371-4400 Fax: 516-371-4204

Email: sales@laundrylux.com

TECH SUPPORT:

Tel: 516-371-0700 Fax: 516-371-4029

Email: techcare@laundrylux.com

PARTS:

Tel: 516-371-2000 Fax: 516-371-4029

Email: parts@laundrylux.com

WARRANTY CLAIMS

Wascomat's Technical Support Staff will honor valid manufacturer's parts warranty claims providing your Wascomat machines are registered for warranty coverage upon installation. If they are not registered, you can validate your warranty claim by providing information about when and where you purchased the Wascomat machine(s), the model and serial number(s). Additional warranty proof may also be required.



FIRE OR EXPLOSION HAZARD

Failure to follow safety warnings exactly could result in serious injury, death or property damage.

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

WHAT TO DO IF YOU SMELL GAS:

- Do not try to light any appliance.
- · Do not touch any electrical switch; do not use any phone in your building.
- · Clear the room, building or area of all occupants.
- Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach your gas supplier, call the fire department.

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

The above information; "What to do if you smell gas", shall be posted in a prominent location. The information to be posted shall be obtained by consulting with the local gas supplier.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

The above information; "For your safety", shall be posted in a prominent location.

MAKE CERTAIN TO KEEP THIS MANUAL IN A SECURE PLACE FOR FUTURE REFERENCE.





This conversion kit shall be installed by a qualified service agency in accordance with the manufacturer's instructions and all applicable codes and requirements of the authority having jurisdiction. If the information in these instructions is not followed exactly, a fire, explosion or production of carbon monoxide may result causing property damage, personal injury or loss of life. The qualified service agency is responsible for the proper installation of this kit. The installation is not proper and complete until the operation of the converted appliance is checked as specified in the manufacturer's instructions supplied with the kit.

WARNING: The dryer is intended for use only with fabrics that have been washed with water.

WARNING: To avoid fire hazard, do not dry articles containing foam rubber or similarly textured

rubberlike materials.

WARNING: ALL OPERATING AND MAINTENANCE PROCEDURES SHOWN ON THE NEXT PAGE OF THIS MANUAL MUST BE FOLLOWED DAILY FOR PROPER OPERATION OF YOUR MACHINE.

Keep the dryer area clear and free from combustible materials, gasoline, and other flammable vapors and liquids.

The dryer must not be installed or stored in an area where it will be exposed to water and/or weather.

PLEASE ENTER THE FOLLOWING INFORMATION AS IT APPEARS ON THE MACHINE(S) DATA PLATE(S).

MACHINE TYPE OR MODEL	
MACHINE SERIAL NUMBER(S)	
ELECTRICAL CHARACTERISTICS:VOLTS,	PHASE,HZ.

Warning: For your safety the information in this manual must be followed to minimize the risk of fire or explosion or to prevent property damage, personnel injury or death.

NOTICE TO: OWNERS, OPERATORS AND DEALERS

IMPROPER INSTALLATION AND INADEQUATE MAINTENANCE, POOR HOUSEKEEPING AND WILLFUL NEGLECT OR BYPASSING OF SAFETY DEVICES MAY RESULT IN SERIOUS ACCIDENTS OR INJURY. TO ASSURE THE SAFETY OF CUSTOMERS AND/OR OPERATORS OF YOUR MACHINE, THE FOLLOWING MAINTENANCE CHECKS MUST BE PERFORMED ON A DAILY BASIS.

- 1. Prior to operation of the machine, check to make certain that all operating instructions and warning signs are affixed to the machine and legible. Missing or illegible ones must be replaced immediately. Be sure you have spare signs and labels available at all times. These can be obtained from your dealer.
- 2. Check the door safety interlock, as follows:
 - a. OPEN THE DOOR of the machine and attempt to start in the normal manner:
 - For coin-operated models, insert the proper coins to start the machine.
 - For manually operated models, place the ON-OFF switch in the ON position and press the Start switch.

THE MACHINE(S) MUST NOT START!

- 3. DO NOT UNDER ANY CIRCUMSTANCES ATTEMPT TO BYPASS OR REWIRE ANY OF THE MACHINE SAFETY DEVICES AS THIS CAN RESULT IN SERIOUS ACCIDENTS.
- 4. **Be sure to keep the machine(s) in proper working order:** Follow <u>all</u> maintenance and safety procedures. Further information regarding machine safety, service and parts can be obtained from your dealer.
 - All requests for assistance must include the model, serial number and electrical characteristics as they appear on the machine identification plate. Insert this information in the space provided on the previous page of this manual.
- 5. **WARNING:** DO NOT OPERATE MACHINE(S) WITH SAFETY DEVICES BYPASSED, REWIRED OR INOPERATIVE! DO NOT OPEN MACHINE DOOR UNTIL DRUM HAS STOPPED ROTATING!

NOTICE TO INSTALLER

Improper installation of this machine:

- May cause serious damage to the machine.
- · May result in other property damage.
- · May cause personal injury.
- · Will void the manufacturer's warranty.

Connection to line Voltage or over-current protection devices other than those specified on the data plate may result in severe damage to machine components, and will void the manufacturer's warranty.

Refer to complete installation instructions provided in manuals accompanying the machine.

Contact Wascomat Technical Support with any questions BEFORE installing this machine. Damage resulting from inadequate installation materials or improper installation techniques will void the manufacturer's warranty.

Electrical Information

It is your responsibility to have **ALL** electrical connections (including grounding) made by a properly licensed and competent electrician to assure that the electrical installation is adequate and conforms with local and state regulations or codes.

In the absence of such codes, ALL electrical connections, material, and workmanship must **conform** to the applicable requirements of the NATIONAL ELECTRIC CODE ANSI/NFPA NO. 70 or the CANADIAN ELECTRICAL CODE, CSA C22.1 - both the latest edition.

IMPORTANT: Failure to comply with these codes or ordinances and/or the requirements stipulated in

this manual can result in personal injury or component failure.

NOTE: Component failure due to improper installation will **VOID THE WARRANTY**.

IMPORTANT: A separate circuit serving each dryer must be provided. The dryer must be connected to

copper wire only. **DO NOT** use aluminum wire which could cause a fire hazard.

NOTE: The use of aluminum wire will **VOID THE WARRANTY**

CAUTION: Label all wires prior to disconnection when servicing controls. Wiring errors can cause

improper operation or component failure.

Electrical Service

Steam and gas dryers ONLY

IMPORTANT: The dryer must be connected to the electrical supply shown on the data label affixed to

the dryer. In the case of 208 VAC or 240 VAC, the supply voltage **must match** the electric service specifications of the data label **exactly.** Wire **must be** properly sized to

handle the rated current.

WARNING: 120 VAC, 208 VAC and 240 VAC ARE NOT THE SAME. Any damage done to dryer

components due to improper voltage connections will VOID THE WARRANTY.

Electric dryers ONLY

IMPORTANT: ALL electrically heated dryers must be connected to the electric supply service shown

on the dryers data label which is affixed to the back side of the control (service) door.

The connecting wires must be properly sized to handle the rated current.

NOTE: Component failure due to improper voltage application will **VOID THE WARRANTY**.

Gas Information

It is your responsibility to have **ALL** plumbing connections made by a qualified professional to insure that the installation is adequate and conforms with local and state regulations or codes. In the absence of such codes, **ALL** plumbing connections, material, and workmanship must conform to the applicable requirements of **the National Fuel Gas Code ANSI Z223.1** or the **CAN/CGA-B149**, **INSTALLATION CODES** - both the latest edition.

On dryers not equipped with a gas union in the dryer manifold, the instructions shall specify that a listed connector in compliance with the **Standard for Connectors for Gas Appliances ANSI Z21.24 CSA 6.10**, be used to connect the dryer to the supply piping.

IMPORTANT: Failure to comply with these codes or ordinances, and/ or the requirements stipulated in this manual, can result in personal injury and improper operation of the dryer.

The dryer **must be** isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or greater than 1/2 psig (3.5 kPa).

IMPORTANT: Failure to isolate or disconnect the dryer from the gas supply as noted can cause

irreparable damage to the gas valve and will **VOID THE WARRANTY**.

WARNING: FIRES or EXPLOSION COULD RESULT.



Gas Supply

The gas dryer installation must meet the American National Standard, National Fuel Gas Code Z223.1-LATEST EDITION, as well as local codes and ordinances and **must be** done by a qualified professional,

NOTE: Undersized gas piping will result in ignition problems, slow drying, increased use of energy, and can create a safety hazard.

The dryer **must be** connected to the type of heat/ gas indicated on the dryer data label. If this information does not agree with the type of gas available, **do not** operate the dryer. Contact your local dealer or the Wascomat Sales Department.

IMPORTANT: Any burner changes or conversions must be made by a qualified licensed professional.

The input ratings shown on the dryer data label are for elevations of up to 1,999 feet. The adjustment or conversion of the dryer(s) in the field for elevations over 2,000 feet are made by changing each burner orifice. If these conversions are necessary, contact your local dealer or the Wascomat Sales Department.

Natural Gas

If the pressure is too low, ignition failure and/or slow drying times may result. Excessively high supply pressure will result in erratic operation of the gas valves internal pressure regulator. Further information in section: Gas connection.

Propane Gas

Dryers made for use with propane gas have the gas valve pressure regulator blocked open, so that the gas pressure **must be** regulated upstream of the dryer. In accordance with American Gas Association (AGA) standards, a gas pressure regulator, when installed indoors, must be equipped with a vent limiter or a vent line must be installed from the gas pressure regulator vent to the outdoors. The water column pressure **must be** regulated at the source (propane tank), or an external regulator must be added to each dryer. Further information in section: Gas connection.

Piping/Connections

The dryer is provided with a 1/2" N.P.T. inlet pipe connection extending out the rear area or through the top of the dryer. For ease of servicing, the gas supply line of each dryer should have its own shut-off valve. The size of the gas supply line (header) will vary depending on the distance this supply line travels from the gas meter or, in the case of propane gas, the supply tank, the number of tees, other gas-operated

appliances, etc. Specific information regarding supply line size should be determined by the gas supplier.

NOTE: Undersized gas supply piping can create a low or inconsistent gas pressure which will result in erratic operation of the burner ignition system.

Consistent gas pressure is essential at **ALL** gas connections. It is recommended that a 3/4- inch pipe gas loop be installed in the supply line serving the bank of dryers. An in-line pressure regulator **must be** installed in the gas supply line (header) if (natural) gas line pressure exceeds 12-inches water column pressure.

IMPORTANT: The information regarding the settings of the water column pressure for Natural gas dryers and Propane gas dryers is found in section: Gas connection. The pressure is required at the gas valve pressure tap of each dryer for proper and safe operation.

A 1/8" N.P,T. plugged tap, accessible for test gauge connection, **must be** installed in the main gas supply line immediately upstream of each dryer.

IMPORTANT: Pipe joint compounds that resist the action of natural gas and propane gas **MUST BE**

usea.

WARNING: Test **ALL** connections for leaks by brushing on a soapy water solution (liquid detergent

also works well). NEVER TEST FOR GAS LEAKS WITH AN OPEN FLAME.

ALL components / materials **must conform** to NATIONAL FUEL GAS CODE specifications. It is important that gas pressure regulators meet applicable pressure requirements and that gas meters are rated for the total amount of appliance BTU's being supplied.

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

1 Safety Precautions

- Servicing shall be carried out only by authorized personnel.
- Only authorized spare parts, accessories and consumables shall be used.
- The machine is not to be used if industrial chemicals have been used for cleaning.
- Do not dry unwashed items in the machine.
- Items that have been soiled with substances such as cooking oil, acetone, alcohol, petrol, kerosene, spot removers, turpentine, waxes and wax removers should be washed in hot water with an extra amount of detergent before being dried in the machine.
- Items such as foam rubber (latex foam), shower caps, waterproof textiles, rubber backed articles and clothes or pillows fitted with foam rubber pads should not be dried in the machine.
- Fabric softeners or similar products should be used as specified by the fabric softener instructions.
- The final part of a drying cycle occurs without heat (cool down cycle) to ensure that the items are left at a temperature that ensures that the items will not be damaged.
- Remove all objects from pockets such as lighters and matches.
- WARNING. Never stop the machine before the end of the drying cycle unless all items are quickly removed and spread out so that the heat is dissipated.
- Adequate ventilation has to be provided to avoid the back flow of gases into the room for appliances burning other fuels, including open fires.
- Exhaust air must not be discharged into a flue which is used for exhausting fumes from appliances burning gas or other fuels.
- The machine must not be installed behind a lockable door, a sliding door or a door with a hinge on the opposite side to that of the machine in such a way that a full opening of the machine is restricted.
- If the machine has a lint trap this has to be cleaned frequently.
- The lint must not be accumulated around the machine.
- DO NOT MODIFY THIS APPLIANCE.
- When performing service or replacing parts, the power must be disconnected.
- When the power is disconnected, the operator must see that the machine is disconnected (that the plug is removed and remains removed) from any point to which he has access. If this is not possible, due to the construction or installation of the machine, a disconnection with a locking system in the isolated position shall be provided.
- In accordance with the wiring rules: mount a multi-pole switch prior to the machine to facilitate installation and service operations.
- Stationary appliances not fitted with means for disconnection from the supply mains
 having a contact separation in all poles that provide full disconnection under overvoltage category III, means for disconnection must be incorporated in the fixed wiring in
 accordance with the wiring rules.
- WARNING: The appliance must not be supplied through an external switching device, such as a timer, or connected to a circuit that is regularly switched on and off by a utility.
- If different rated voltages or different rated frequencies (separated by a /) are stated at the machine data plate, instructions for adjusting the appliance for operation at the required rated voltage or rated frequency are stated in the installation manual.
- The openings in the base, shall not be obstructed by a carpet.
- Maximum mass of dry cloth: 2 x 16.7 kg / 2 x 36.8 lbs.

• A-weighted emission sound pressure level at working stations: 70 dB(A).

1.1 Additional safety precautions for gas heated tumble dryer

- Before installation, check that the local distribution conditions, nature of gas and pressure and the adjustment of the appliance are compatible.
- The machine is not to be installed in rooms containing cleaning machines with perchloroethylene, TRICHLOROETHYLENE or CHLOROFLUOROCONTAINING HY-DROCARBONS as cleaning agents.
- NOTE: it is pointed out that the connection and commissioning of appliances complying
 with this standard are subject to observance of the installation regulations in force in
 the countries where these appliances are marketed.
- Connection to the appliance shall be made with a flexible hose suitable for the appliance category in accordance with national installation regulations of the country of destination and that in case of doubt the installer shall contact the supplier.
- The appliance should be installed on non-flammable materials for the floor, worktop and/or wall close to the appliance if required.
- If you can smell gas:
 - Do not switch on any equipment
 - Do not use electrical switches
 - Do not use telephones in the building
 - Evacuate the room, building or area
 - Contact the person responsible for the machine

1.2 General safety information

In order to prevent damage to the electronics (and other parts) that may occur as the result of condensation, the machine should be placed in room temperature for 24 hours before being used for the first time.

1.3 Commercial use only

The machine/machines covered by this manual is/are made for commercial and industrial use only.

1.4 Copyright

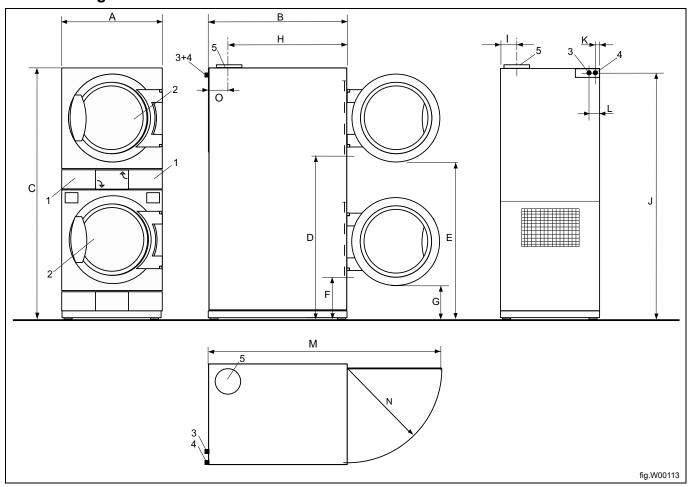
This manual is intended solely for consultation by the operator and can only be given to third parties with the permission of Wascomat company.

1.5 Symbols

<u></u>	Caution
	Caution, hot surface
Â	Caution, high voltage
	Warning, risk of fire / flammable material
	Danger, crush hazard
	Read the instructions before using the machine

2 Technical data

2.1 Drawing



1	Operating panel
2	Door opening, Ø 580 mm / Ø 22 13/16 inch
3	Electrical connection
4	Gas connection
5	Exhaust connection

	Α	В	С	D	Е
mm	790	1115	1940	1270	1210
inch	31 1/8	43 7/8	76 3/8	50	47 5/8

	F	G	Н	Ţ	J
mm	320	260	905	140	1930
inch	12 5/8	10 1/4	35 5/8	5 1/2	76

	K	L	М	N	0
mm	30	105	1840	740	210
inch	1 3/16	4 1/8	72 7/16	29 1/8	8 1/4

2.2 Technical data

Weight, net	kg lbs	289 637
Drum volume	litres ft³	2 x 300 10.6
Drum diameter	mm inch	760 29 15/16
Drum depth	mm inch	660 26
Drum speed, medium load	rpm	45
Rated capacity, filling factor 1:18 (Max. load)	kg lbs	16.6 36.6
Rated capacity, filling factor 1:22 (Recommended load)	kg Ibs	13.6 30
Heating: Electricity	kW	2 x 9
	kW	2 x 13.5
	kW	2 x 18
Heating: Gas	kW	2 x 21
Air consumption, Electric heating, 9 kW	m³/h ft³/h	2 x 600
Air consumption, Electric heating, 13.5 kW	m³/h ft³/h	2 x 600 2 x 21189
Air consumption, Electric heating, 18 kW	m³/h ft³/h	2 x 600 2 x 21189
Air consumption, Gas heating	m³/h ft³/h	2 x 600 2 x 21189
Maximum static back pressure, Electric 50 Hz / 60 Hz**	Pa Psi	400 0.058
Maximum static back pressure, Gas 50 Hz / 60 Hz**	Pa Psi	400 0.058
Sound power/pressure level at drying*	dB(A)	76/60

^{*} Sound power levels measured according to ISO 60704.

Note!

The default gas appliances are built to run on either GNH or LPG gas where shall be installed at not over than 610 m (2001 ft) high altitude otherwise a kit for high altitude must be installed to the machine. For the kit No. please refer to the spare parts list.

2.3 Connections

Air outlet	ø mm ø inch	200 7 7/8
Gas connection	1/2"	ISO 7/1-R1/2

3 Setup

3.1 General

The principle work flow to setup or install this machine is as follows:

- 1. Unpacking
- 2. Positioning/siting, levelling or/and securing the machine.
- 3. Correcting the fresh air/air intake's size, exhaust duct's size and pipe(s) connections in considering a stand-alone machine or sharing exhaust duct.
- 4. Electric connections, connect the power supply to the machine.
- 5. Air flow or static back pressure adjustments in a cold empty machine in considering a stand-alone machine or sharing exhaust duct.
- 6. Gas connection, gas converting, high altitude kit installation. (For gas heated machine).
- 7. Function check.
- 8. Option functions check.

More details are described in each part of this installation manual.

^{**} Static back pressure value measured in NTC position, in cold empty machine and only run that pocket at a time.

3.2 Unpacking

Note!

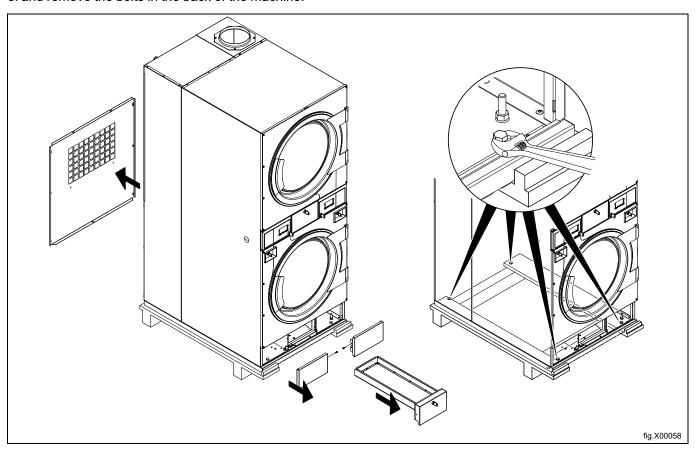
Two persons are recommended for the unpacking.

The machine is delivered complete with supporting feet.

The machine is delivered bolted onto the transport pallet and packed in a crate or box.

Remove packing from the machine.

Remove the bolts between the machine and pallet. There are two bolts in the front of the machine and two in the back of the machine. Open the filter door and remove the two bolts in the front of the machine. Remove the lower rear panel and remove the bolts in the back of the machine.



Remove the machine from the pallet.

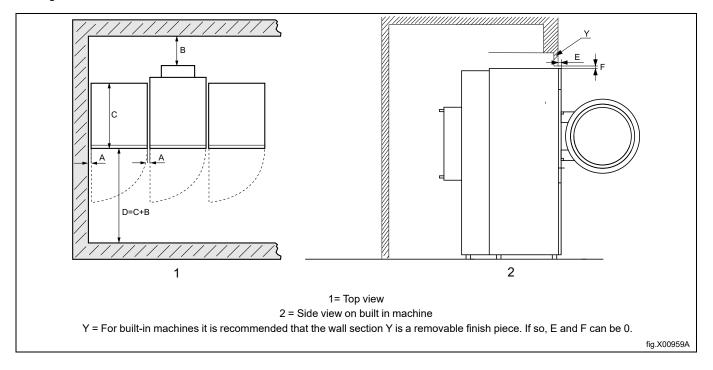
Note

When moving the machine, handle it with care. The drum has no transport clamps.

Place the machine on its final position.

3.3 Siting

The figure shows recommended distance to walls and/or other machines.



Α	5–500 mm / 3/16–19 11/16 inch (Min. 0 mm / 0 inch, the units may be installed against one another)
В	500 mm / 19 11/16 inch (Min. 200 mm / 7 7/8 inch)
С	Depth of machine
D	D = C + B (Min. 1220 mm / 48 inch to be able to use the machine)
Е	Min. 20 mm / 13/16 inch
F	Min. 25.4 mm / 1 inch (The overhead soffit may be used to close the gap above the machine. Min. required clearance: 0 mm / 0 inch)

Note!

The machine should be positioned so that there will be enough space for working, both for the user and service personnel.

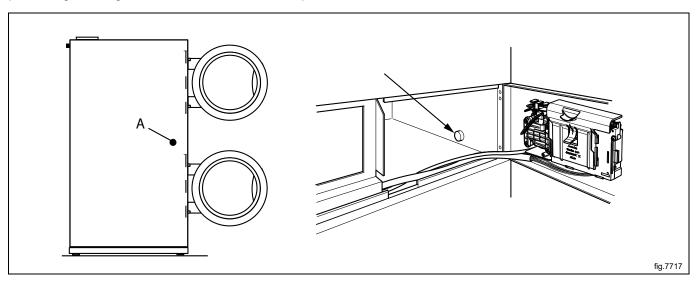
Respecting the given recommendations will provide easy access for maintenance and service operations.

In case of space limitations, it is possible to install machines without respecting to the given recommendations. If so, keep in mind that it might be necessary to disconnect and move other machines to be able to reach and perform service on affected machine.

3.4 Connection to network

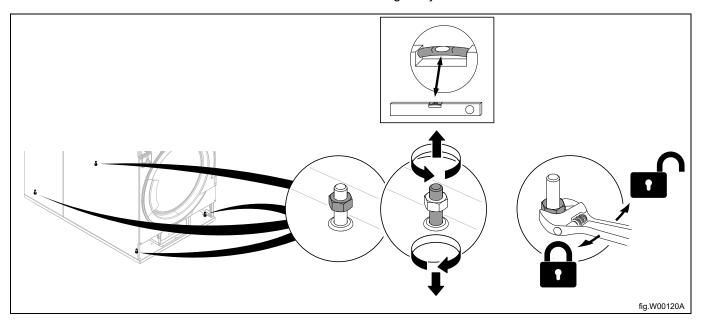
If several machines are to be connected to a network, the knock-outs (A) in the side panels must be removed before installation.

A bushing for network cables must be installed from the inside in the right-hand side panel. The bushing must be pushed right through the hole in the left-hand side panel on the side of the machine.



3.5 Mechanical installation

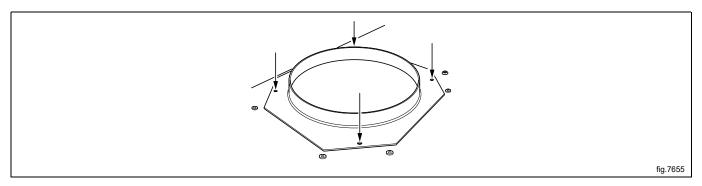
Level the machine with the feet of the machine. The maximum height adjustment of the feet is 50 mm / 1 15/16 inch.



Remount the panels.

Connection branch

Mount the enclosed branch at the top of the exhaust plenum with four screws.

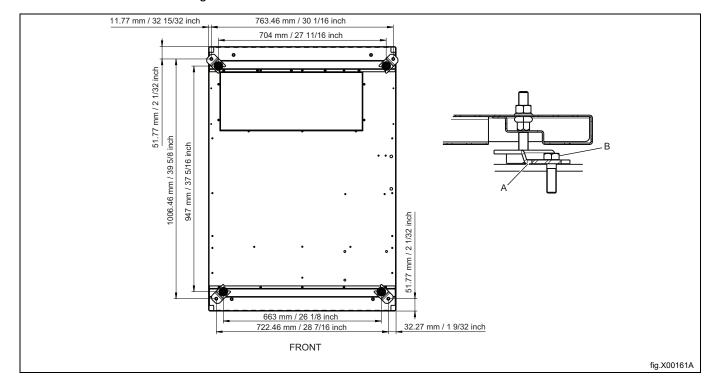


Securing the machine to the floor

To ensure steadiness of the machine it is important to fasten the machine to the foundation.

Fasten the four fittings (A) to the foundation using four x M10 set screws (B). If the four fittings are not supplied, order kit No. 487193544.

Fasten the machine to the fittings.



4 Evacuation system

4.1 Air principle

The fan creates low pressure in the machine, drawing air into the drum via the heating unit.

The heated air passes through the garments and the drum holes.

The air then flows out through a lint filter positioned below the drum. Then the air is evacuated through the fan and exhaust system.

Note!

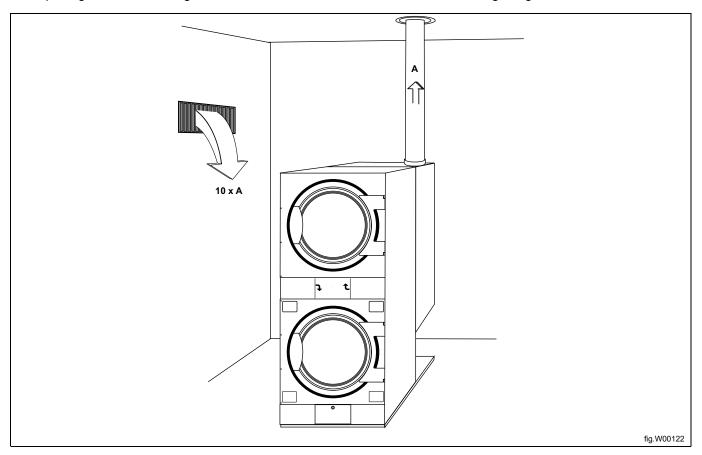
It is very important that the machine gets enough fresh air in order to get the best drying result.

4.2 Fresh air

For maximum efficiency and the shortest possible drying time, it is important to ensure that fresh air is able to enter the room from the outside in the same volume as that is blown out of the room

To avoid draught in the room it is important to place the air inlet behind the machine.

The area of the air inlet opening is recommended to be five times the size of the exhaust pipe area. The area of the inlet opening is the area through which the air can flow without resistance from the grating/slatted cover.

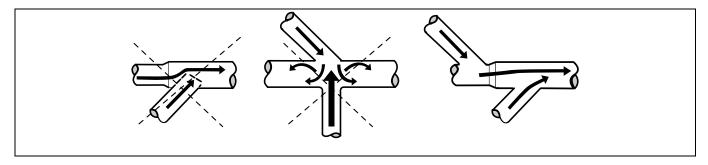


Note!

Gratings/slatted covers often block half of the total fresh air vent area. Remember to take this into account.

4.3 Exhaust duct

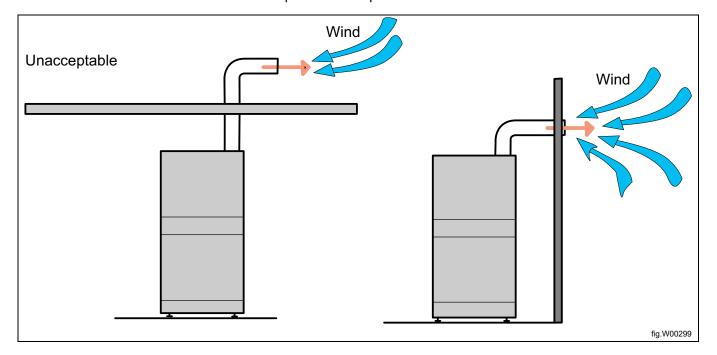
- · The exhaust duct must be designed to minimize back pressure.
- · Only rigid or flexible metal duct should be used for exhausting.
- · Plastic ducting is not to be used.
- Recommended material for exhaust is galvanized steel.
- The duct is not to be assembled with screws of other fastening means that extend into the duct and catch lint.
- The exhaust air should not be vented into a wall, a ceiling, or a concealed space of building.
- The exhaust duct must lead clear of the building as condensation may cause frost damage to the building.
- · The exhaust duct must lead to the outdoors.
- The exhaust duct must be placed in such a way that it is protected on the outside.
- The exhaust duct must be smooth on the inside (low air resistance).
- The exhaust duct must have gentle bends.

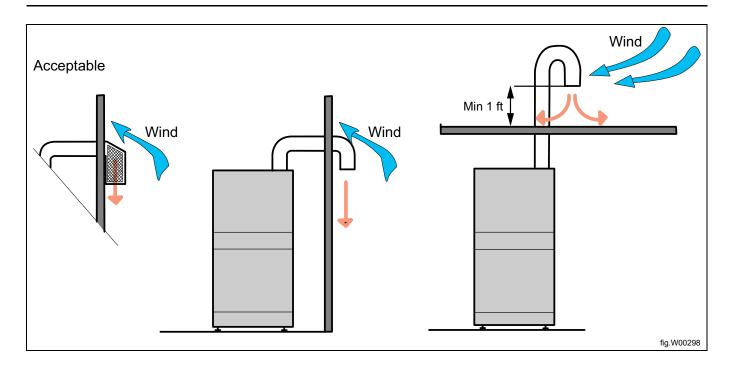


Maximum duct length		
With 1 elbow	With 2 elbow	With 3 elbow
30 ft	24 ft	18 ft

Exhaust illustrations

The end of the exhaust duct must never be exposed to wind pressure.





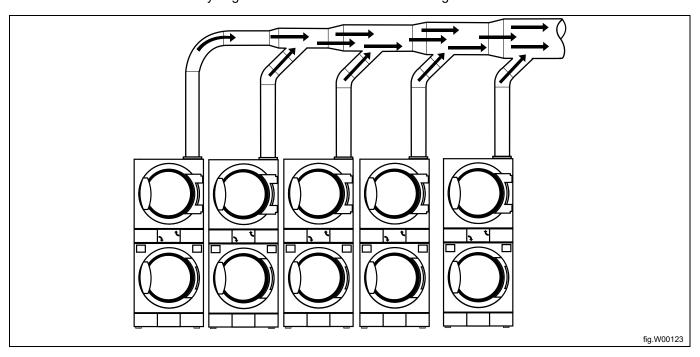
4.4 Shared exhaust duct



When several machines shall use the same exhaust duct the exhaust duct must increase after each machine. The recommended diameter increase progression is the one in the table.

If several machines are installed on the same exhaust pipe, it is recommended to adjust the airflow on the machines when all machines are started and running a program with no heat.

Please consider that unnecessarily large ducts create issues with the draught.



Number of machines		1	2	3	4	5	6	7	8	9	10
Exhaust duct	ø mm	200	315	400	400	500	500	630	630	630	800
	ø inch	8	11	14	16	18	20	22	24	24	26
Recommended area of fresh air intake	m ²	0.32	0.78	1.26	1.26	1.96	1.96	3.12	3.12	3.12	5.02
	ft ²	3.44	6.68	10.76	14	17.66	21.74	26.48	31.44	31.44	36.8
Minimum area of fresh air intake	m ²	0.12	0.24	0.36	0.48	0.6	0.72	0.84	0.96	1.08	1.2
	ft ²	1.29	2.58	3.87	5.16	6.45	7.74	9.03	10.32	11.61	12.9





The exhaust duct diameter must not be reduced.

4.5 Exhaust dimensioning

It is important that the machine has correct air volume compared to each machines power.

If the air flow is smaller or larger this will result in a longer drying period.

If the outlet pipe is long or the ventilation is not properly designed we recommend to clean the outlet pipes periodically. Usually, longer ducts need more frequent cleaning.

The exhaust pipes shall be short in order for the machine to work in the best way.

All cover panels must be mounted in order for the machine to work in the best way.

5 Gas connection

5.1 General



Caution



It is your responsibility to have all plumbing connections made by a qualified professional to insure that the gas plumbing installation is adequate and conforms with local and state regulations or codes. In the absence of such codes, ALL plumbing connections, material, and workmanship must conform to the applicable requirements of the National Fuel Gas Code ANSI Z223.1 LATEST EDITION or the CAN/CGA—B149, INSTALLATION CODES, both the latest edition.

Mount a shut-off valve upstream from the machine.

The gas connection to the machine should be dimensioned to an output depending upon the kW-rating of the machine.

The factory nozzle pressure setting must correspond to the fuel value given on the data label.

Check that the nozzle pressure and fuel value correspond with the values in the gas tables on the following pages. If not, contact the supplier.

Bleed the pipe system before connecting the machine.

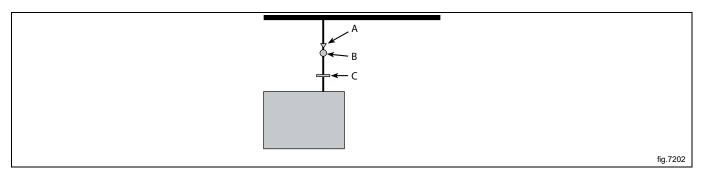
Note!

After connection all joints must be checked. There must not be any leaks.

The machine and its individual shut-off valve must be disconnected from the gas supply piping system during any pressure testing of the system at test pressures in excess of 1/2 psi (3.5 kPa).

The machine must be isolated from the gas supply piping system by closing its individual manual shut-off valve during any pressure testing of the gas supply piping system at test pressures equal to or greater than 1/2 psi (3.5 kPa). A minimum 1/8 inch N.P.T plugged tap, accessible for test gage connection, must be installed immediately upstream

from the gas supply connections to the machine.



A = Pressure regulator (option) propane only

B = Gas shut-off valve

C = 1/8 inch N.P.T plugged tap

5.2 Gas installation

This machine has been built to run on natural gas. If the machine is to be converted to another type of gas, the gas nozzle must be replaced.

Conversion kit for propane gas is enclosed in secondary packing. Please contact your dealer if the current gas type is not propane/natural gas.

5.3 Table of pressure and adjustment

Gas category	Heating power (BTH/h)	Inlet pressure (WC")	Nozzle pressure (WC")	Nozzle size (ø mm)	Air reducing plate (mm)	Label number
Natural	2 x 71700	7	3.2	4.00	No	Default
Propane	2 x 71700	11	11	2.40	No	490375745

When a machine with liquid petroleum gases shall be installed or used on high altitude (2001 feet and higher) a kit for high altitude must be installed.

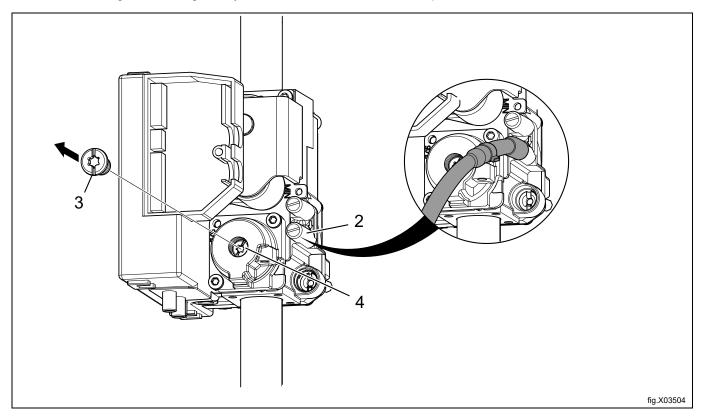
For kit No. please refer to the spare parts list.

5.4 Test run

Note!

Before test run the machine, ensure that the air flow/static back pressure has been adjusted accorded to the "Evacuation system" section. Adjust the air flow if necessary.

- Loosen the measuring branch screw (2) 1/4 turn; connect a manometer to the measuring branch and make sure
 the connection is tight to prevent air leakage.
- · Connect the power to the machine and select a program with heat.
- Start the machine.
- Check that the nozzle pressure is correct according to the gas type, see "Table of pressure and adjustment".
- · If the nozzle pressure should be adjusted:
 - Demount the cover screw (3).
 - Turn the screw (4). Clockwise: increasing nozzle pressure.
 - Turn the screw (4). Counter Clockwise: decreasing nozzle pressure.
- Check that the gas is burning evenly. The blue flame on the burner is preferred.



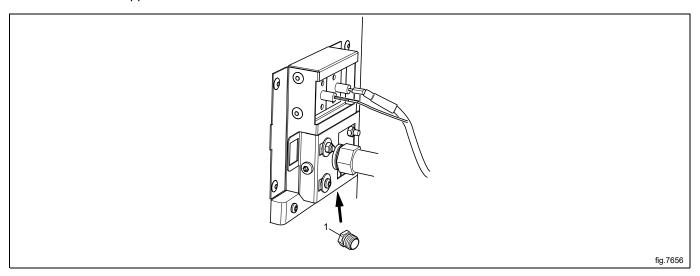
- Remount the cover screw (3).
- Remove the manometer and tighten the screw (2) when the adjustments are done.

Note!

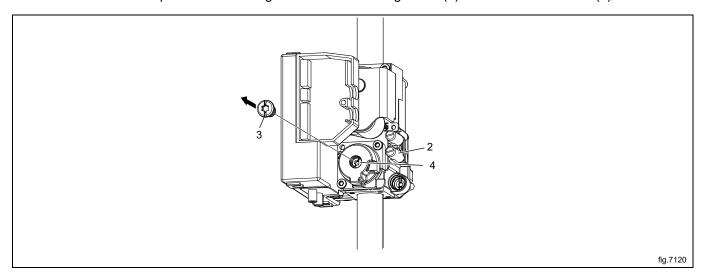
After connection all joints must be checked. There must not be any leaks.

5.5 Converting instructions

- · Disconnect the power to the machine.
- Demount the rear panel.
- Remove the nozzle (1).
- · Mount the new supplied nozzle.



- Loosen the measuring branch screw (2) 1/4 turn; connect a manometer to the measuring branch.
- Connect the power to the machine and select a program with heat.
- Start the machine.
- Set the correct nozzle pressure according to the table on setting screw (4) under the cover screw (3).

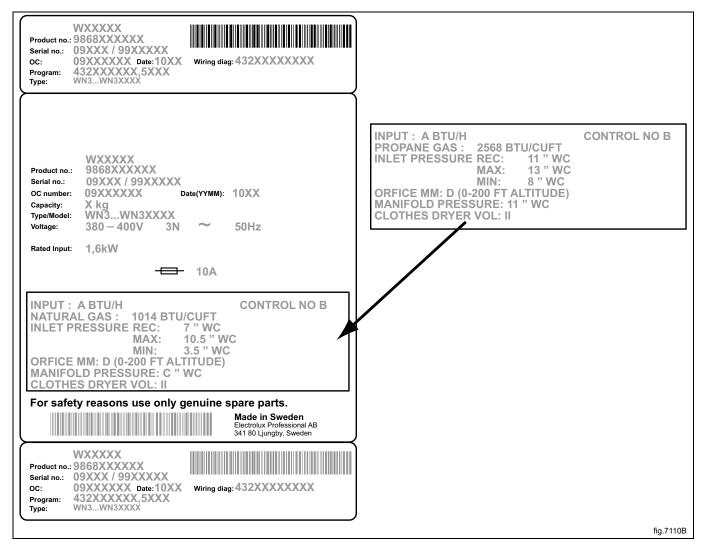


- · Check that the gas flame burns evenly.
- · Mount the cover screw (3).
- · Remount the rear panel.

5.6 Data label

When the machine is to be converted to another gas type, the data label at the rear of the machine must be updated in order for the data to be correct.

Place the data label enclosed in the conversion kit on top of the data label as shown below. If there are more than one data label, select the label with the correct country code and gas type.



6 Electrical connection

6.1 Electrical installation





The electrical installation may only be carried out by qualified personnel.





Machines with frequency-controlled motors can be incompatible with certain types of earth leakage circuit breaker. It is important to know that the machines are designed to provide a high level of personal safety, which is why items of external equipment such as earth leakage circuit breakers are not necessary but is recommended. If you still want to connect your machine across an earth leakage circuit breaker, please remember the following:

- contact a skilled, authorised installation company to ensure that the appropriate type of breaker is chosen and that the dimensioning is correct
- for maximum reliability, connect only one machine per earth leakage circuit breaker
- · it is important that the earth wire is properly connected.

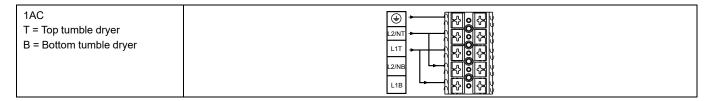
In instances where the machine is not equipped with an omni-polar switch, one must be installed beforehand.

In accordance with the wiring rules: mount a multi-pole switch prior to the machine to facilitate installation and service operations.

The connecting cable shall hang in a gentle curve.

6.2 Single-phase connection

Demount the cover panel from the supply unit. Connect the earth and other wires as shown.

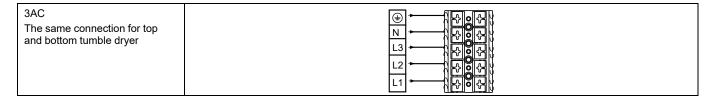


When the installation is completed remount the cover panel and check:

- That the drum is empty.
- That the machine operates by connecting the power to the machine and start a program with heat.

6.3 Three-phase connection

Demount the cover panel from the supply unit. Connect the earth and other wires as shown.



When the installation is completed remount the cover panel and check:

- · That the drum is empty.
- That the machine operates by connecting the power to the machine and start a program with heat.

6.4 Electrical connections

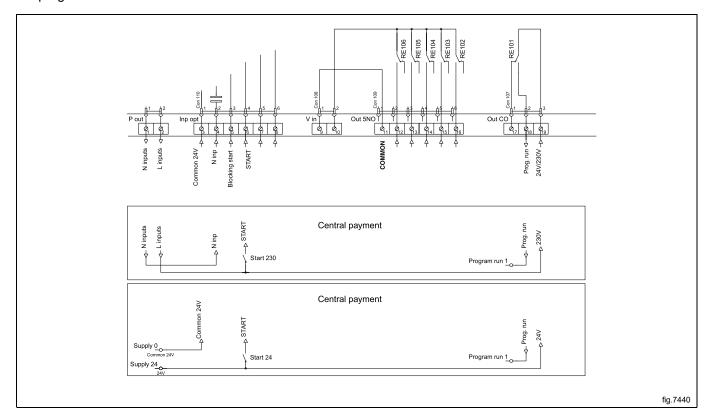
Heating alternative	Main voltage	Hz	Heating power kW	Total power kW	Recommended fuse A
Electric heated	208-240V 3 ~	60	9.0/13.5/18.0	10.0/14.5/19.0	35/50/60
	440V 3 ~	60	9.0/13.5/18.0	10.0/14.5/19.0	20/25/35
	480V 3 ~	60	9.0/13.5/18.0	10.0/14.5/19.0	20/25/30
Gas heated	120-480V 1/3 ~	60	-	1.0	15

6.5 Functions for I/O-cards

The electrical schematic can be one of the following:

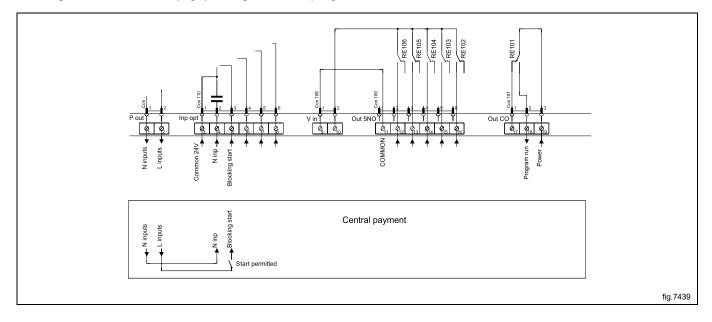
6.5.1 Central payment (2J)

To start the machine from a central payment system, the payment system must transmit a start pulse 300–3000 ms (500 ms is recommended) with a minimum pause of 300 ms (500 ms is recommended) between two pulses. The start pulse can be either 230V or 24V. In order to receive a feedback signal once the machine has started, 230V or 24V must be connected to connection 19. The feedback signal on connection 18 remains active (high) during the entire program.



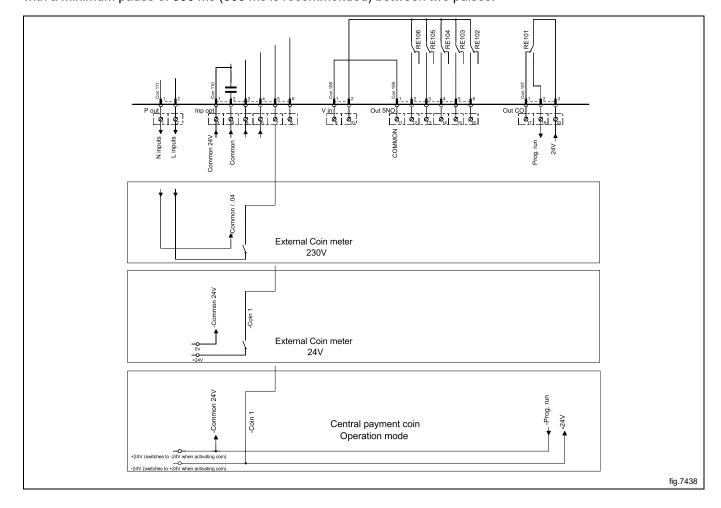
6.5.2 Central payment (2J)

The central payment or booking system shall transmit an active (high) signal to the machine once permission has been granted to start the machine. The signal must remain active (high) during drying. When the signal gets inactive (low) the machine will abort ongoing program and enter cooling. The signal can be either 230V or 24V. In order to receive a feedback signal once the machine has started, 230V or 24V must be connected to connection 19. The feedback signal remains active (high) during the entire program.



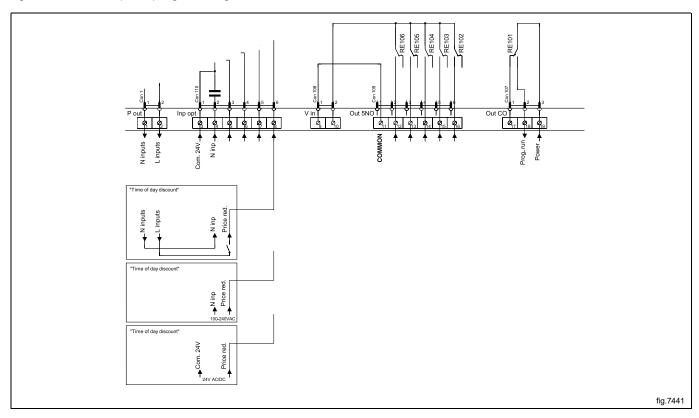
6.5.3 External coin meter/Central payment (2K)

The signal received from external coin meters must be a pulse between 300–3000 ms (500 ms is recommended) with a minimum pause of 300 ms (500 ms is recommended) between two pulses.



6.5.4 Price reduction (2K)

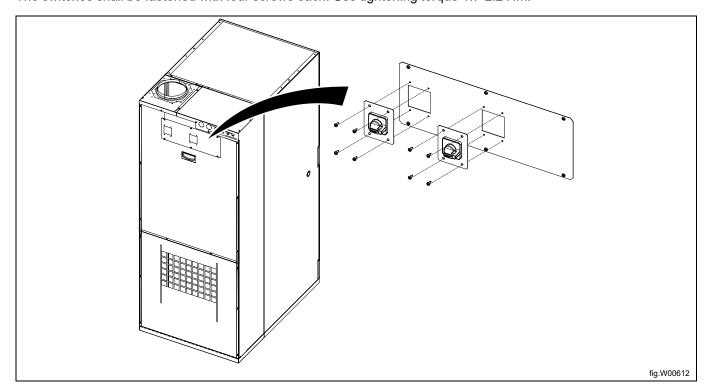
By maintaining an activated (high) signal on connection 5 ("Price red"), the price of the program can be reduced. This function has a number of uses, including providing reductions during a specific period of the day. Whilst the signal remains active (high), the price of the program is reduced (or the time is increased on time programs), by the percentage entered in the price programming menu.



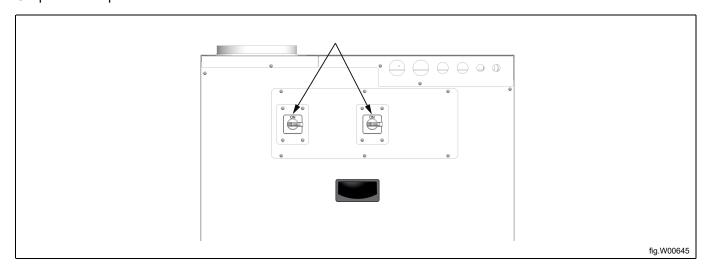
6.6 Mounting the switches

Mount the switches enclosed with the machine on the back of the machine.

The switches shall be fastened with four screws each. Use tightening torque 1.7-2.2 Nm.



ON position is upwards.



7 At first power up

When the installation is complete and the power is connected for the first time you will be forced to make the following settings. When one setting is ready you will automatically enter the next one. Follow the instructions on the display.

- · Select language
- Set time and date
- · Activate/deactivate the service alarm

7.1 Select language

Select language from the list on the display using the up and down buttons.

This will be the language that all display messages, program names etc will be presented in.

7.2 Set time and date

Select YES and press the start button to get to the TIME/DATE menu.

Activate the SET TIME menu and set the correct time.

Save the settings.

Activate the SET DATE menu and set the correct date. Start by setting the year.

- Set the year. Exit to continue with a long press on the start button.
- Set the month. Exit to continue with a long press on the start button.
- Set the day. Exit with a long press on the start button and then save with a long press on the start button.

Exit the menu when ready.

7.3 Activate/Deactivate the service alarm

Set if the machine shall give a service alarm or not with ${\tt YES}$ or ${\tt NO}.$

Exit and save the settings.

8 Function check





May only be carried out by qualified personnel.

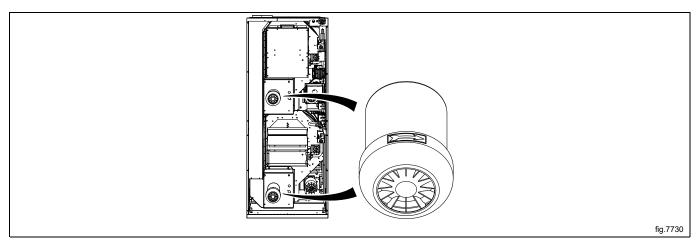
A function check must be made when the installation is finished and before the machine can be ready to be used. Whenever a repair has been made, a function check must be performed before the machine can be used again.

Check the automatic stop of the machine

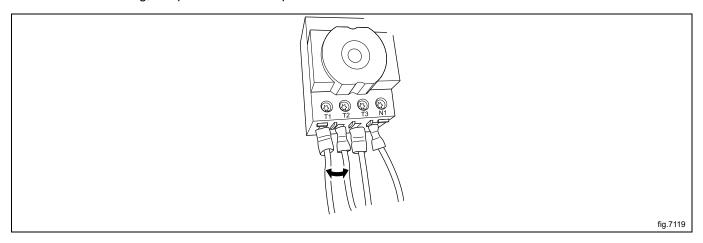
- Start the machine.
- Check if the micro switches are working properly:
 The machine must stop if the door or filter door is opened.

Check the direction of rotation (only on machines with 3-phase power supply, marine installation)

Demount the rear panel and start a program. Check that the direction of the fan wheel is correct.



If the direction is wrong, swap two of the three phases to the left on the connection terminal.



Check the heat

- Let the machine work for five minutes on a program with heat.
- Check that the heating is working by opening the door and feel if there is heat in the drum.

Ready to use

If all tests are OK the machine is now ready to be used.

If some of the tests failed, or deficiencies or errors are detected, please contact your local service organisation or dealer.

9 Disposal information

9.1 Disposal of appliance at end of life

Before disposing of the machine, make sure to carefully check its physical condition, and in particular any parts of the structure that can give or break during scrapping.

The machine's parts must be disposed of in a differentiated way, according to their different characteristics (e.g. metals, oils, greases, plastic, rubber, etc.).

Different regulations are in force in the various countries, therefore comply with the provisions of the laws and competent bodies in the country where scrapping takes place.

In general, the appliance must be taken to a specialised collection/scrapping centre.

Dismantle the appliance, grouping the components according to their chemical characteristics, remembering that the compressor contains lubricant oil and refrigerant fluid which can be recycled, and that the refrigerator and heat pump components are special waste assimilable with urban waste.



The symbol on the product indicates that this product should not be treated as domestic waste, but must be correctly disposed of in order to prevent any negative consequences for the environment and human health. For further information on the recycling of this product, contact the local dealer or agent, the Customer Care service or the local body responsible for waste disposal.

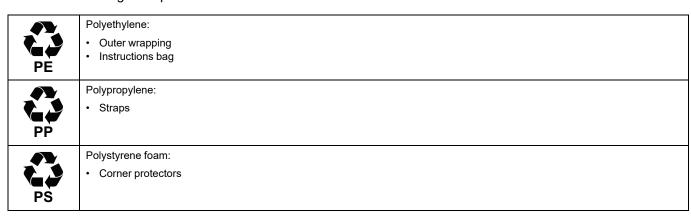
Note!

When scrapping the machine, any marking, this manual and other documents concerning the appliance must be destroyed.

9.2 Disposal of packing

The packing must be disposed of in compliance with the current regulations in the country where the appliance is used. All the packing materials are environmentally friendly.

They can be safely kept, recycled or burned in an appropriate waste incineration plant. Recyclable plastic parts are marked as following examples.





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