Service manual

T4420S, TD45x45

438 9030-65/US
450333
2010.01.08

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Safety Precautions

Do not dry unwashed items in the machine

The machine is not to be used if industrial chemicals have been used for cleaning.

Do not allow minors to use the machine.

Do not hose down the machine with water.

The machine's door lock must under no circumstances be bypassed.

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 machine may not be used to dry floor mops that contain polypropylene.

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.

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 dissipiated.

Remove garments from the machine as soon as they are dried. This prevents them from becoming creased and reduces the risk of spontaneous ignition.

If the machine develops a fault, this must be reported to the person in charge as soon as possible. This is important both for your safety and that of others.

The machine must not be located where a door, sliding door, etc., can block the machine's door

The machine is not intended to be used by people (including minors) with reduced physical or mental capacity or lack of experience and knowledge. Such people must be instructed in the use of the machine by a person who has responsibility for their safety. Minors must be supervised to ensure that they do not play with the machine.

Adequate ventilation has to be provided to avoid the back flow of gases into the room for appliances burning other fuels, including open fires.

Gas heated tumble dryer:
The machine is not to be installed in rooms containing cleaning machines with perchloroethylene, TRICHLOROETHYLENE or CHLOROFLUOROCONTAINING HYDROCARBONS as cleaning agents.

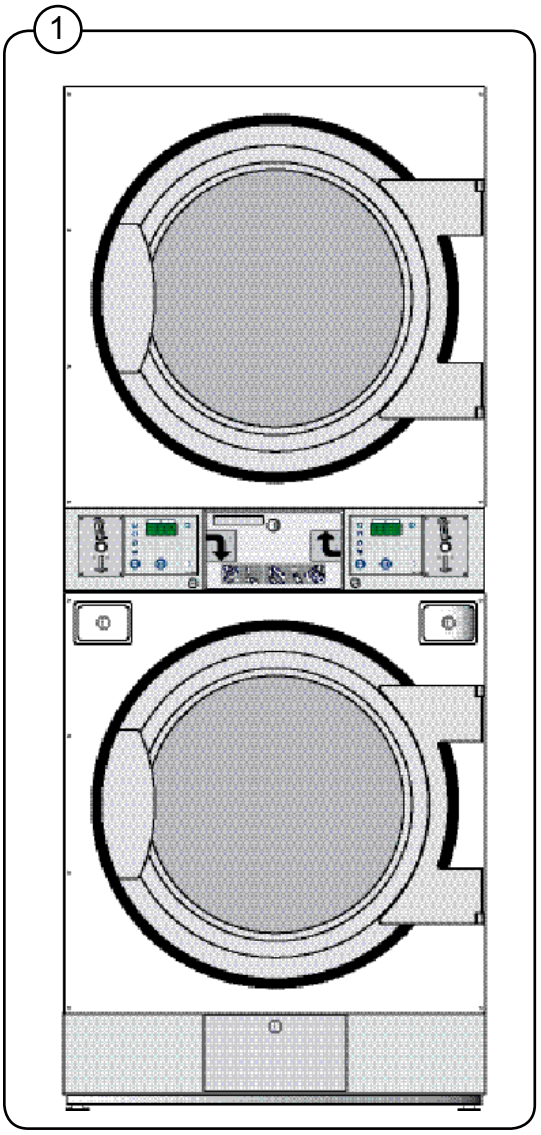
If you can smell gas,
- **Do not switch on any equipment**
- **Do not use electrical switches**
- **Do not use telephones in the building**
- **Evacuate the room, building or area**
- **Contact the person responsible for the machine**

Technical data

Drum volume	cu.ft./liters	2 X 14.6	2 X 414
Weight, Net	lb/kg	865	367
Cylinder			
Diameter	inch/mm	32 3/4	832
Depth	inch/mm	30	762
Revolutions per minute	rpm	45	45
Capacity, max	lb/kg	2 X 45	2 X 20.4
Heat effect	BTU/h /kW	2 X 94,000	2 X 27.5
Motor single phase			
Effect of vent motor	hp	2 X 1/2	2 X 1/2
Revolutions per minute 60 Hz	rpm	1800	1800
Effect of cylinder motor	hp	2 X 1/3	2 X 1/3
Revolutions per minute 60 Hz	rpm	1200	1200
Air consumption	cu.ft./min cu.m/min	2 X 600	2 X 17
Piping Exhaust	inch/ø mm	2 X 8 or 1 X 10	2 X 203 or 1 X 254
Pressure drop Exhaust max	W.C. inch/Pa	0.6	149
Gas piping connection		3/4” MNPT	ISO 7/1 - R 3/4
Gas pressure		*	*
Sound pressure level	dB (A)	<70	<70

* See page regarding gas pressure

Machine presentation



(1) Dryer TD45x45, T4420S is a stack dryer.

The dryer has two independent pockets. Each pocket has a drum volume of 14.6 cu.ft. (414 liters).

Motors

The dryer has two motors per pocket - one to run the drum and one to run the blower.

Programs, Selecta Control ver. 4.xx (OPL [Non-Coin] version)

Each pocket has an independent operating panel and an independent PCB.

The dryer's control provides diagnostic error codes, which offer guidance in troubleshooting.

OPL with RMC

On OPL with RMC (non-coin operated) models, there are nine factory-provided drying programs in the dryer control memory.
It is also possible to directly select the desired drying time.

The dryer stops automatically when the clothes have the chosen residual moisture.

OPL with Auto Stop

On OPL (non-coin operated) models, there are five factory-provided drying programs in the dryer control memory.
It is also possible to directly select the desired drying time.

The dryer stops automatically when the clothes are dry (Auto Stop).

Coin drop/card reader

The dryer is available with a factory-installed coin drop, a factory-installed card-start system, or it can be delivered for field installation of a card start system. On vending models, insertion of a coin or card vends an owner-programmed drying time.

Loading door

The dryer is delivered with a right-hinged door or a left-hinged door.

The door is not reversible.

The door switch ensures that the dryer stops automatically if the door is opened during the program sequence.

Operating panel

The operating panel is equipped with:

- Buttons for setting programs, temperatures, and drying time.
- Start/stop button.
- Display showing program selection, remaining drying time and error code, if any.
- Heating indicator, lamp lights when heating is on.

Heating

The standard configuration is equipped for natural gas.

An LPG conversion kit is available.

Use

The dryer is designed for coin-operated laundries or on-premises laundries.

Controls

Printed circuit board (PCB)

(1) The PCB is placed behind the operating panels to the left and right side of the top lint drawer.

The PCB contains a board with display, indicator lamps.

The PCB contains a button (A - Illustration 4) for Switching to Programming mode,
see Service Manual for Selecta II Control.

The PCB contains a button (B - Illustration 4) for gas reset (Only activated on gas dryer).

Connecting accessory systems

Different payment systems can be connected to the PCB, see chapter “Machine access”.

(1)

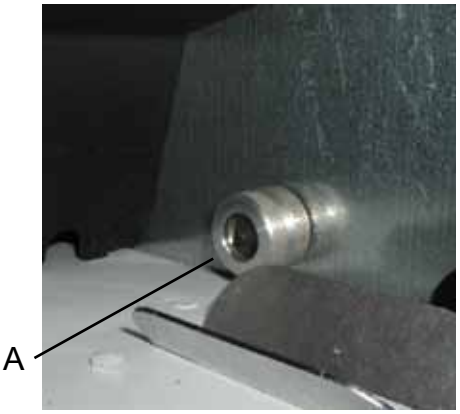
Connection to network

(2) If several dryers are to be connected to a network, bushings for network cables are installed in both side panels of the dryer. (A)

See the installation manual enclosed in the dryer.

(3)
1. Cut the power to the machine.
2. Remove the lint drawer.
3. Open left and right control panels.
4. Pull the network cable through the bushing and connect the cable to the PCB.
5. Network and card reader cables can also be laced through the channel just below the lint compartment.
6. Pulling network and card reader cables through the corrugated slit tubing can help protect the cable from damage and from falling out of the channel.

2



3

Programming

(4) To enter the programming mode press service button **A**.

After pressing the service button **A** the display shows:
0 -- = Group 0.

Program the dryer, see Service Manual for Selecta Control from ver. 4.xx for programming details.

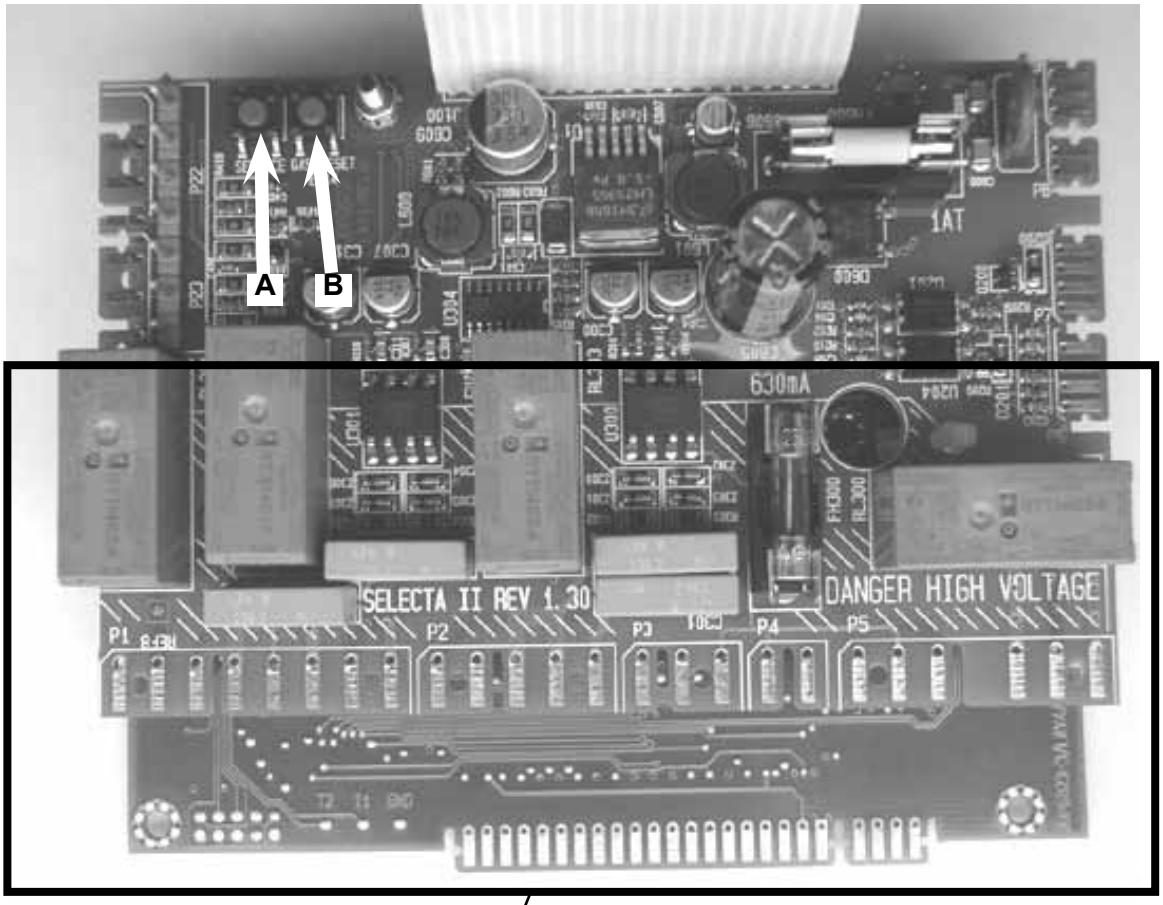
Gas reset button

(4) The button **B** is the gas reset button.

High voltage on the printed circuit board

Note that there is high voltage on the circuit board. Never touch high voltage parts without first breaking the current at the main power switch.

(4)



High voltage

Replacement of PCB

The PCB is not serviceable. It must be replaced if it fails.

The PCB can be ordered as a spare part.

The spare part consists of: Printed circuit board with fuses in anti-static packing and instructions.

Installation

1. Cut the power to the machine.
2. Open the operating panel to the defected print board.
3. Remove the defected print board, but keep the five nuts for later use.

(5) 4. Mount the new print board from the kit.

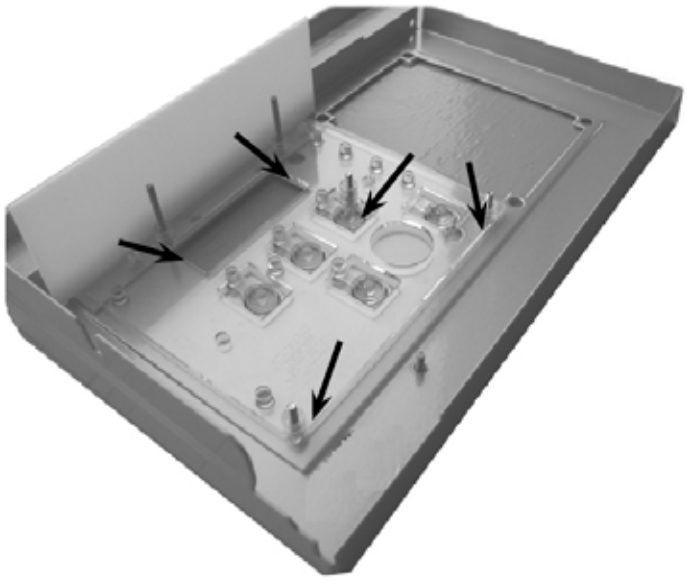
5. Mount the nuts where shown and tighten.

Follow the instructions from the kit when programming.

Following settings have to be programmed: (See instructions provided with Selecta II PCB)

- Reversing (Yes or No). (Parameter 4 01).
- Heating type. (Parameter 4 02).
- Payment settings (Time per coin, standby display value, display flashing). (Parameter 4 03).
- Panel type. (Parameter 4 04).
- Program type. (Parameter 4 05).

(5)



Service Manual for Selecta Control software version from 4.01

Certain parameters need to be set after installation, according to the characteristics of the dryer and the preferences of the owner.

See Service Manual for Selecta Control software version from version 4.xx for further details.

Sensors and overheating thermostats

Gas heated dryer - Overview

(1) Inlet overheating thermostats and thermistor elements are located behind the rear panels and on top of the burner box assemblies. (A)

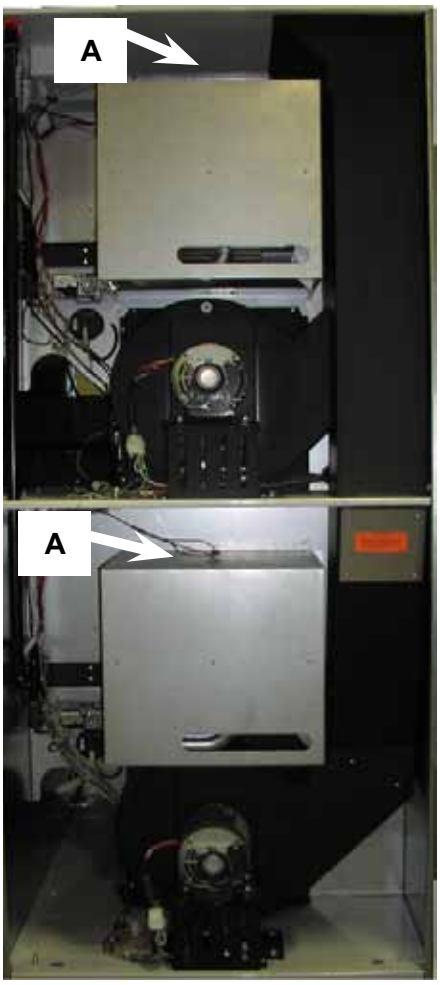
(2)
- Overheating thermostats can be manually reset if tripped or replaced if defective.
- Thermistor elements can only be replaced.

On following pages the overheating thermostat and thermistor element are described.

Replacement and manual resetting is described later in this section.

Positioning of thermistor elements and overheating thermostat in inlet air.

(2)



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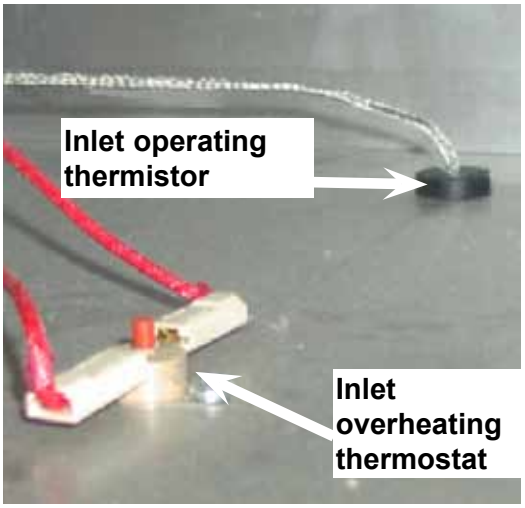


Inlet air - Overheating thermostat

Function

(3) The inlet overheating thermostat opens in the event of overheating, and shuts off the dryer.

The thermostat has to be reset manually.

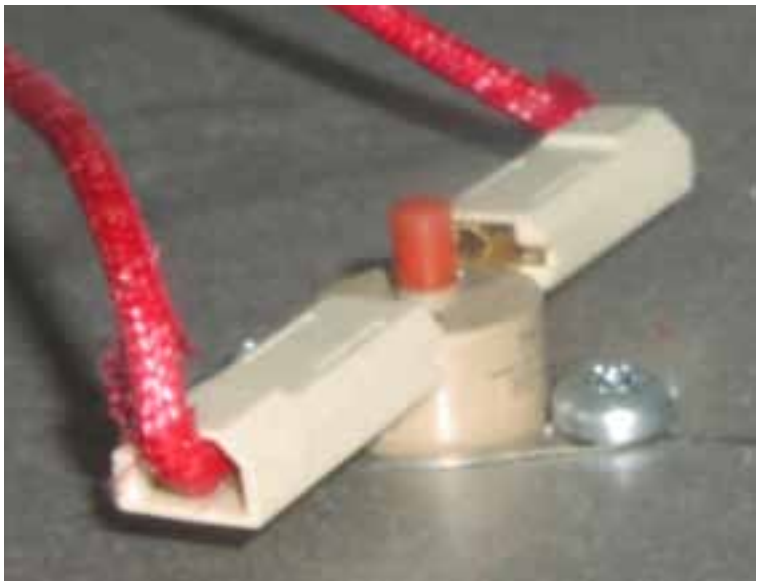
Error code

The following error code is related to this section:

E08

See Service Manual for Selecta Control for more information.

(3)



Overheating thermostat

Inlet air - Thermistor element (PT100 sensor)

Function

(4) The thermistor element measures the temperature of the heated air entering the drum.
The resistance of this device is normally 110 Ohms at 20°C (68°F) and increases as the temperature rises.
The signal is returned to the PCB and this ensures that the inlet air does not become excessively hot, thus preventing scorching of garments.

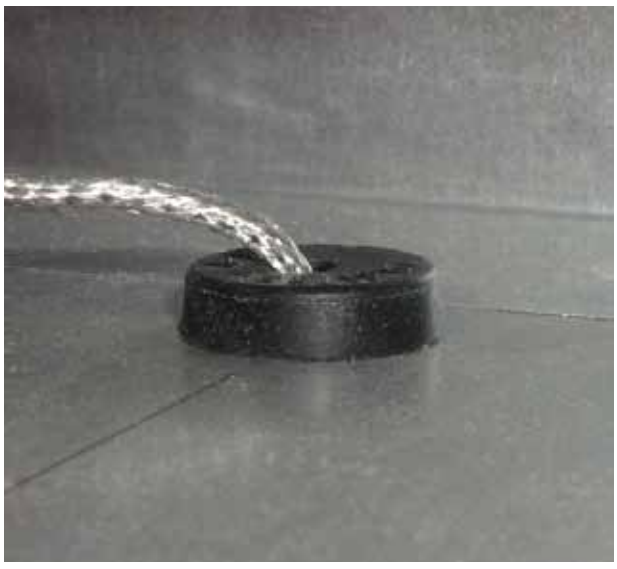
Error codes

The following error codes are related to this section:

E03, E17

See Service Manual for Selecta Control for more information.

(4)



Thermistor element

Sensors and overheating thermostats

Inlet air - Overheating thermostat and thermistor element

In order to reset the thermostat

(5)
1. Cut the power to the machine.
2. Remove the top or bottom back panel.
3. Reset red button. (C)

In order to replace the thermostat

(5)
1. Cut the power to the machine.
2. Remove the top or bottom rear panel.
3. Remove quick disconnects. (A)
4. Remove screws at points. (B)

The overheating thermostat element can now be replaced.

Replacing the thermistor element

(6)
1. Cut the power to the machine.
2. Disconnect the connector at the far end of the braided wire.
3. Pull the probe straight out with the bushing.

(7)
4. When installing the replacement thermistor check to be sure the probe protrudes into the oven as shown.

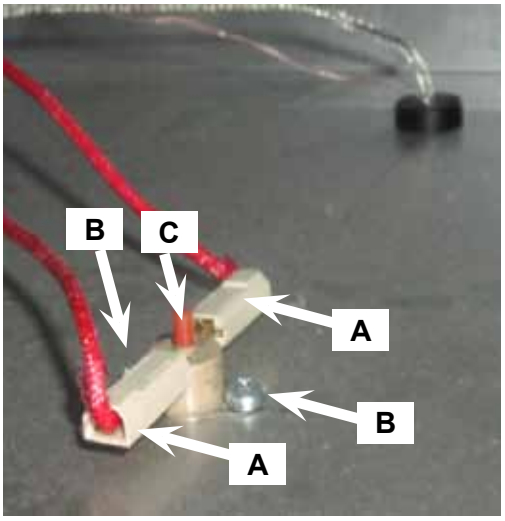
After replacement / resetting

1. Remount the top rear panel and wires.
2. Reassemble the dryer.

Function check

Test the dryer.

5



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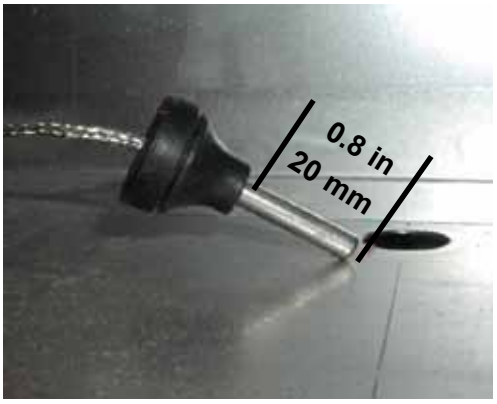


Outlet air - Overheating thermostat

Function

(8) The outlet air overheating thermostat is located in the outlet airflow.

The overheating thermostat ensures that the dryer does not overheat during program operation.

The thermostat opens automatically and has to be reset manually.

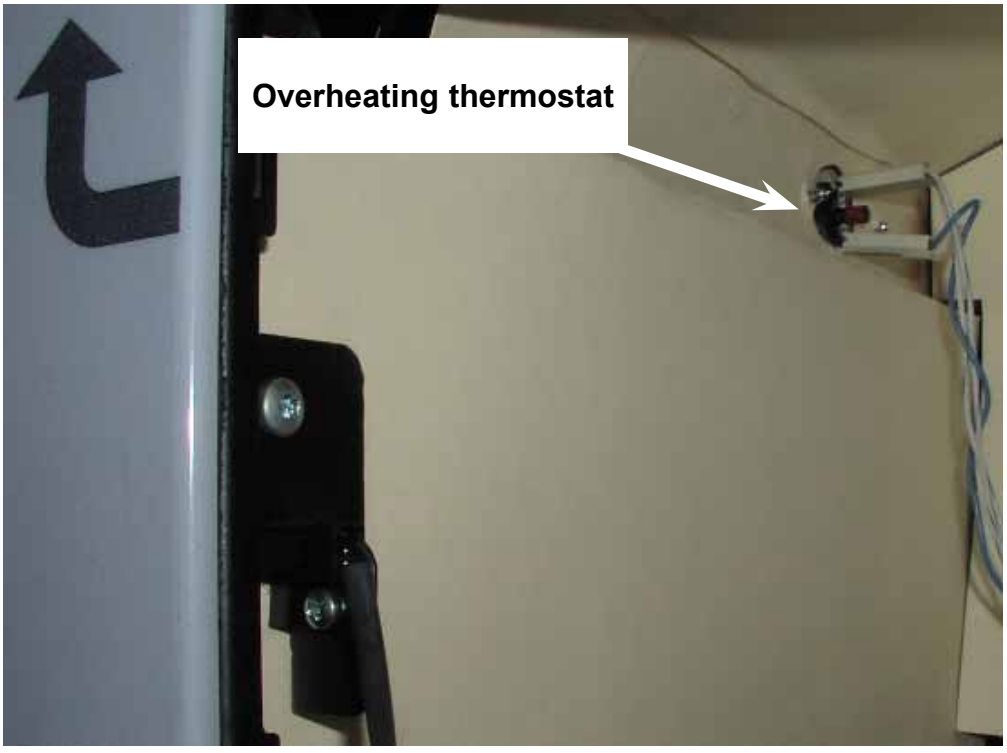
Error code

The following error code is related to this section:

E08

See Service Manual for Selecta Control for more information.

8



Outlet air - Thermistor element (NTC sensor)

Function

(9) The sensor measures the temperature of the outlet air and the signal is returned to the main circuit board.
The main circuit board turns the heating unit off when the outlet air thermistor indicates that the required temperature has been reached.

The resistance of this device is normally 4 to 6 kOhms at 20°C (68°F) and it drops as its temperature increases.

Location is under the drum and can be viewed through the lint compartment with the lint drawer removed.

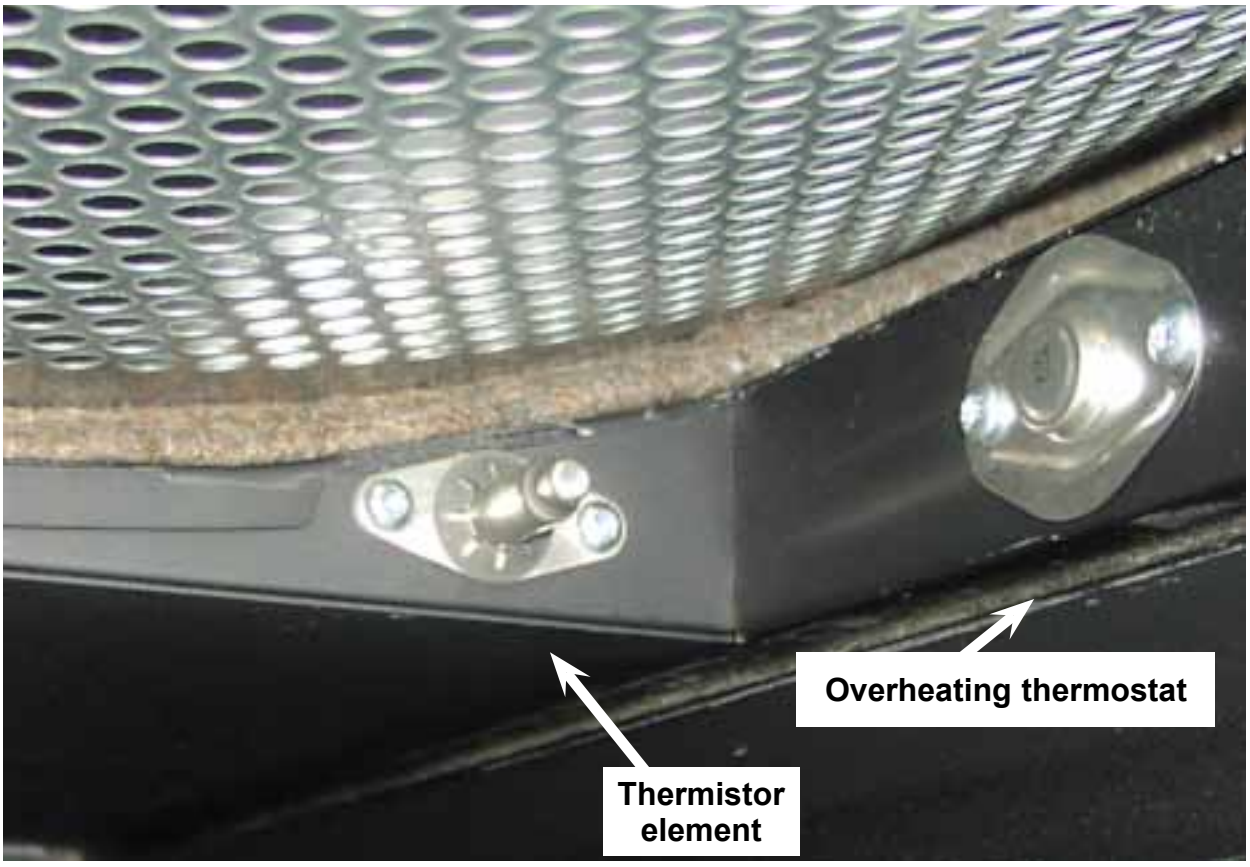
Error codes

The following error codes are related to this section:

E04, E18

See Service Manual for Selecta Control for more information.

9



Outlet air - Overheating thermostat and thermistor element

Replacing overheating thermostat (A)

(10)

1. Cut the power to the machine.
2. Remove the lint drawer.
3. Remove the two screws, pull the thermostat into the lint compartment, remove the quick disconnects, and replace the thermostat.

In order to reset the thermostat (A)

1. Cut the power to the machine.
2. Open the right control panel and cover behind the control for top pocket thermostat access or lower right panel for bottom pocket access.
3. Reset red button. (C)

Replacing the thermistor element (B)

(10)

1. Remove the two screws, pull the element forward and remove the plug.
2. Replace sensor.

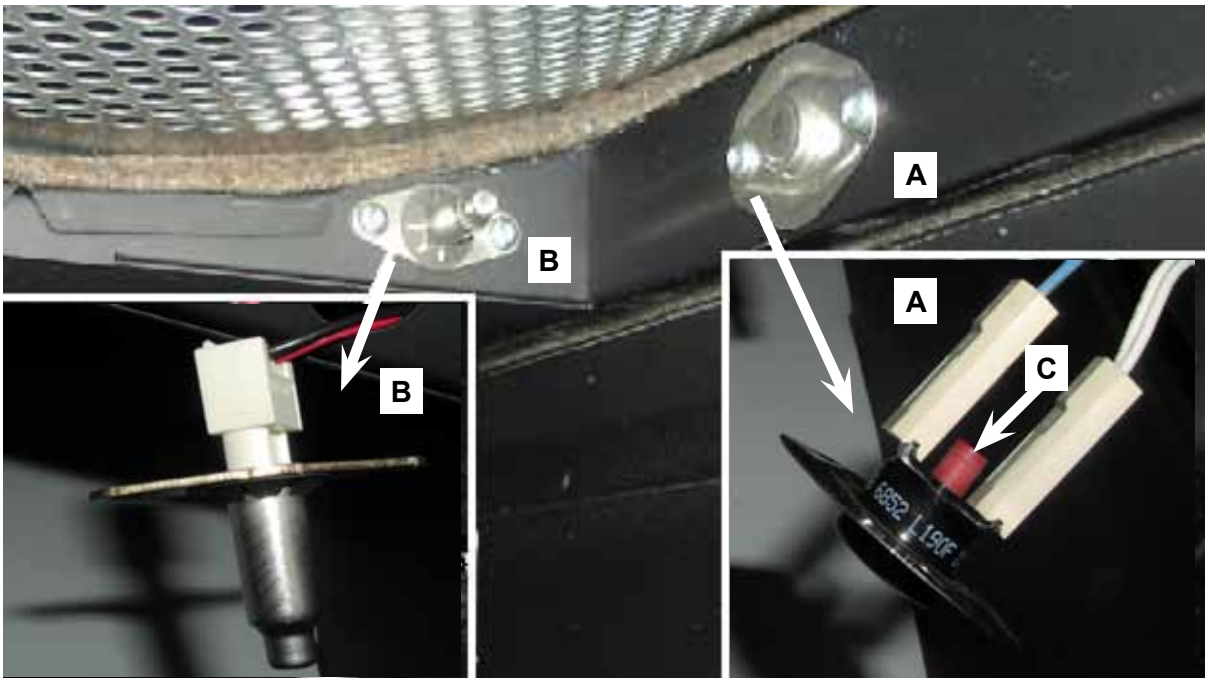
After replacement / resetting

1. Reconnect wires.
2. Reassemble the dryer.

Function check

Test the dryer.

(10)



Door and lint drawer

Loading door magnet switch

(1) The magnet door switch is mounted between the two latching magnets on the front panel. (A)

The switch can be accessed by removing the two top and two magnet-side front panel screws, loosening the two hinge-side front panel screws slightly and pulling the magnet side of the front panel out slightly.

(2) The switch should be nearly flush with the panel opening. (B)

After replacement

1. Reassemble and test, as follows:
2. Connect the power supply.
3. Start the dryer.
4. Check that the fan, drum and heat all stop when the loading door is opened.

1

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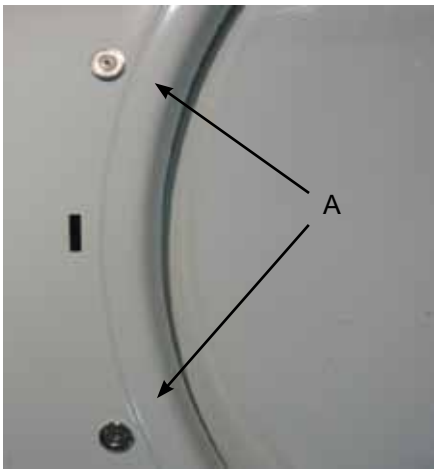
Door and lint drawer

Door magnets

(3) Two magnets on the front panel provide the loading door closing force. (A)

(4) Door switch magnet provides force for closing the door switch. (B)

3



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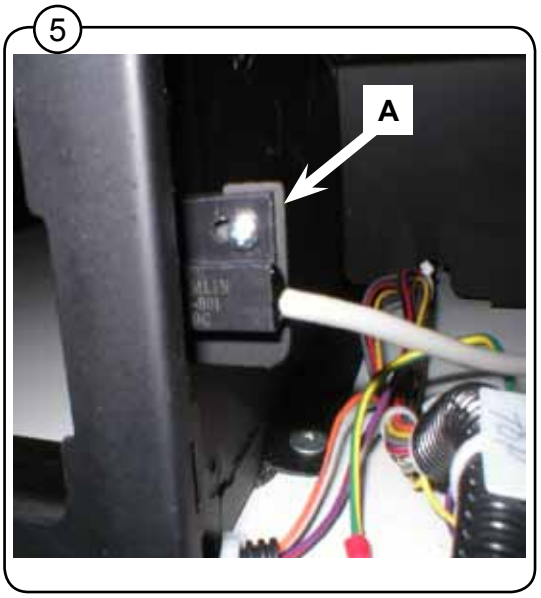
Lint drawer magnet switch



Function

The lint drawer magnet switch ensures that the dryer will not operate when the drawer is open.

If the dryer does not operate with the lint drawer closed, the lint drawer switch may need to be replaced.

Replacement

1. Cut the power to the machine.
2. Remove the lint drawer.
3. Open the right operating panel (top pocket) or right leveling leg access panel (bottom pocket).

(5) 4. Disconnect the connector and remove screw. (A)

5. Remove the lint drawer switch.
6. Mount the new lint drawer switch and reconnect the wires.

Testing the lint drawer switch

1. Connect the power supply.
2. Start the dryer.
3. Confirm that the fan, drum and heat all stop when the lint drawer is opened while the dryer is operating.

Door and lint drawer

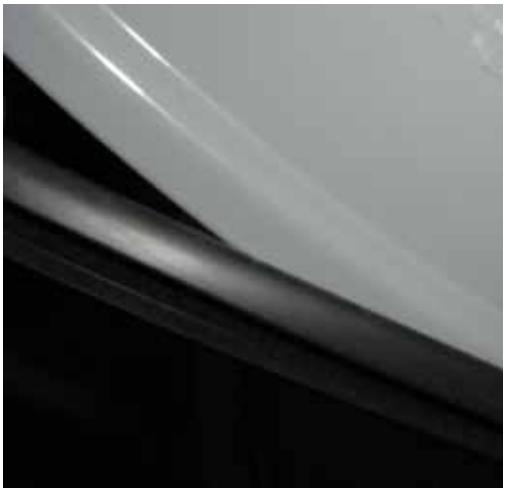
Replacement of rubber loading door seal

Inspect the rubber seal at the front loading door and if necessary remove and replace.

(6) Seals are installed by first cleaning the edge of the loading door with alcohol. Stretch the new seal slightly while fitting around the outer edge of the door.

(7) To hold the seal firmly to the loading door, with the door seal installed around the door apply silicone sealant or silicone glue using a calking gun.

6



7

Motors

(1) The dryer has two motors per pocket.

The motors feature a thermal overheat protection device.

If the motor overheats, the control current is switched off and an error code is displayed.

The overheat protection switch inside the motor windings recloses automatically when the motor cools sufficiently. The dryer can then be restarted.

Error codes

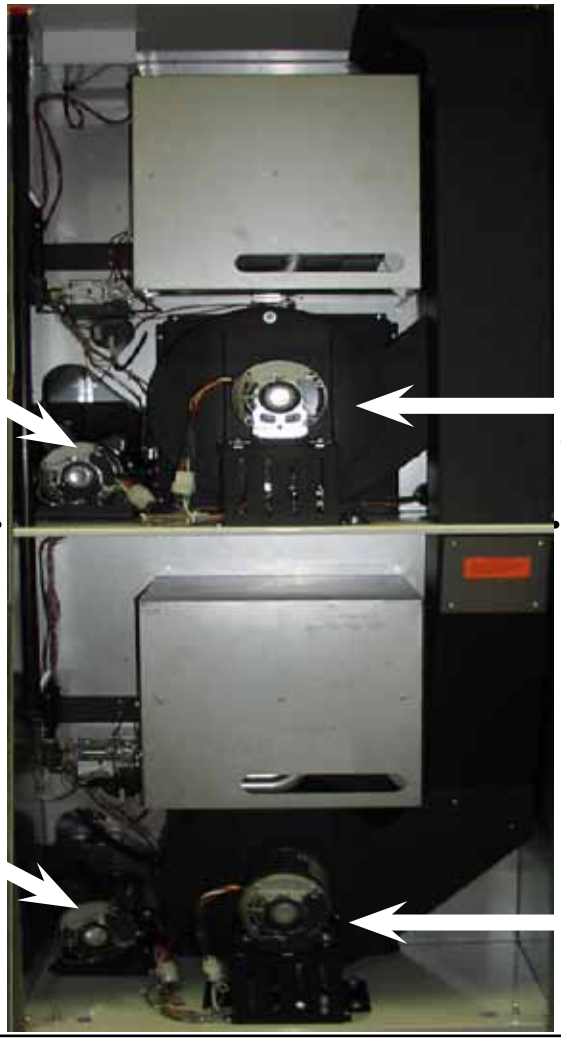
The following error codes are related to the motors:

E05 = Blower motor overheated

E06 = Drum motor overheated

See Service Manual for Selecta Control for more information.

(1)



Necessary tools

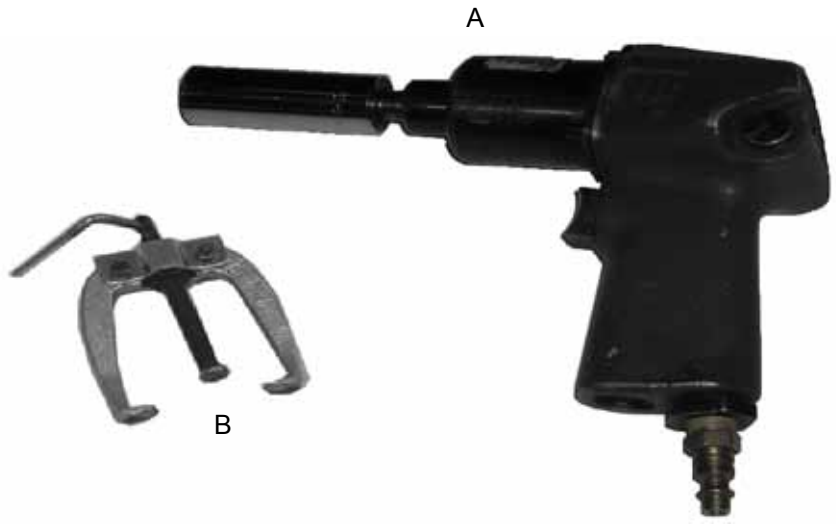
In order to replace the drive belt, the sheaves, the fan or the motors it is necessary, besides ordinary tools, also to have the following tools:

(2) A = Air or electric impact tool

B = Puller

(3) A gauge from Optibelt or a frequency meter or similar instrument.

(2)



(3)

Dismounting of blower motor and fan wheel

1. Cut the power to the machine.
2. Remove the rear panels.

(4) 3. Unplug the blower motor plug. (A)

4. Remove the two screws. (B)
5. Remove the electrical panel cover.

(5) 6. Remove two screws holding the electrical panel, pull the panel out and set it over to the left.

7. Remove two screws and washers. (C)
8. Remove four bolts with washers at the base of the motor mount. (D)
9. Carefully release blower motor with fan wheel. (The fan wheel is easily damaged.)

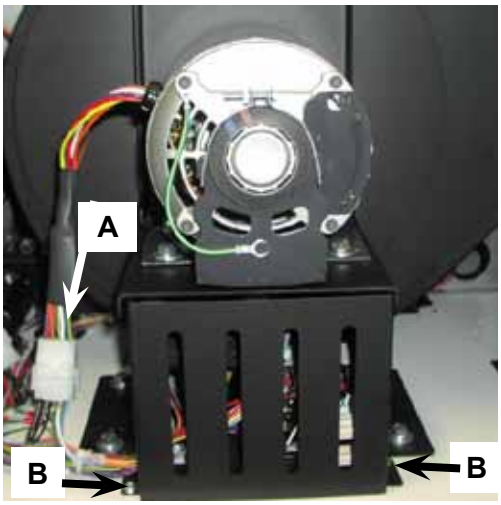
After dismounting, it is possible to replace:

Fan wheel.

Blower motor.

See next page: Separating fan wheel from blower motor.

4



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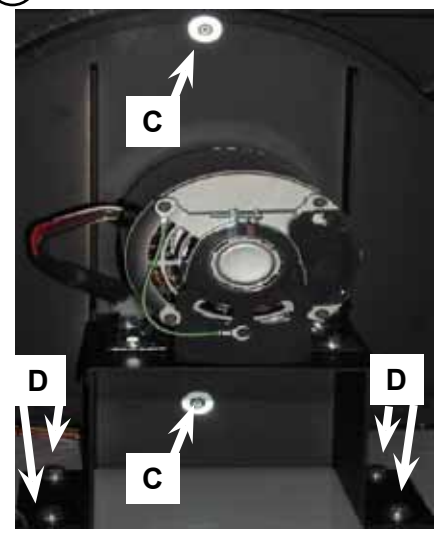

Separating fan wheel from blower motor

(6) 1. The fan wheel is held on the blower motor shaft with two reverse threaded nuts, a washer and a shaft key.

(7) 2. An air impact tool set for clockwise rotation is used to remove the two shaft nuts.

(8) 3. Carefully release the fan off the motor shaft using a puller.

6

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8

Mounting blower motor and fan wheel

NOTE:
While reassembling it is important not to damage the blower motor or the fan wheel.

(9) 4. While installing a new fan wheel or motor, check to be sure the shaft sealing felt is not damaged. (A)

Replacing the back plate foam seal will prevent unnecessary air leakage. (B)

5. With motor mount screws slightly loose position the motor so the shaft is positioned center within the back plate hole. (A)

(10) 6. While installing the new fan wheel be sure the shaft key is properly seated, and no shaft to fan wheel binding occurs. If any binding occurs the fan should be removed and the shaft lightly sanded to remove any burs.

7. Before tightening the four motor screws, slide the motor to a position where the shaft is center within the back plate and where there is equal distance between the back of the fan wheel and the back plate on all sides. (C + D)

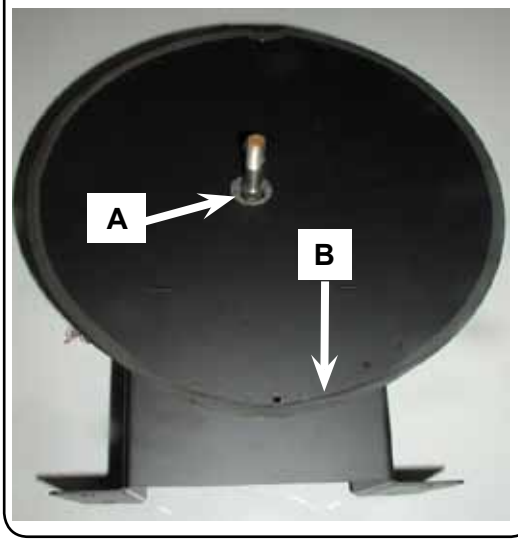
(11) 8. Carefully move the assembly back into position in the machine and replace the four motor mount screws.

9. Connect the motor plug.

Finishing replacement

1. Assemble the dryer.
2. Connect the power supply.
3. Check the dryer.

(9)



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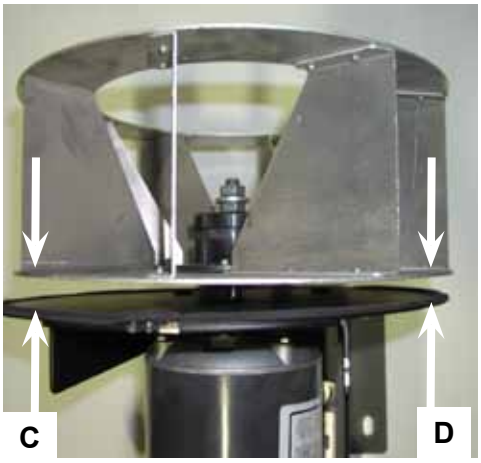

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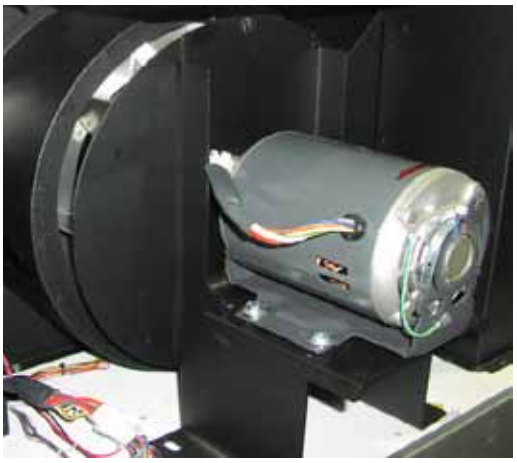


Loosening the belt tensioner of the drum motor

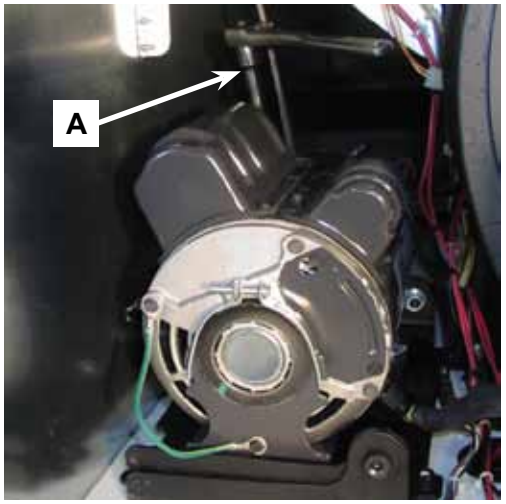
If the drum, drum belt or the drum motor has to be replaced it is necessary to loosen the belt tensioner.

1. Cut the power to the machine.
2. Remove the rear panels.
3. Unplug the drum motor.
4. (12) Loosen the belt tensioner, using a socket wrench as shown or by hand by reaching toward the drive side of the motor. (A)

After loosening the belt tensioner the following items can be replaced:

Drum motor assembly and drive belt.

(12)



Replacement of drum motor and transmission parts

(13) 1. Cut power to the machine and unplug the motor plug.

2. Loosen the drive belt. A 3/4” deep socket, 6” extension and ratchet is used as shown. (A)

3. Lift the motor to release the belt and slip it off the sheave.

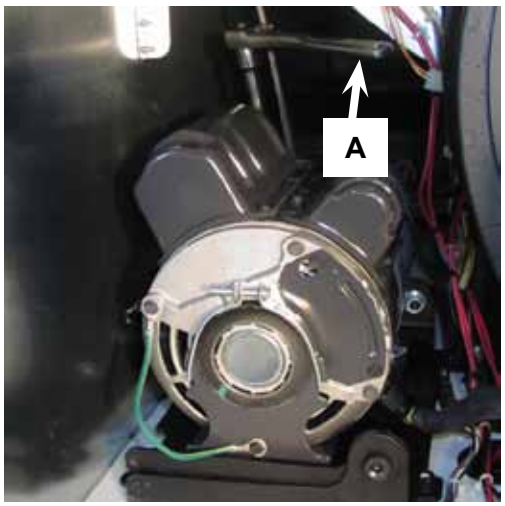
(14) 4. Remove the four nuts holding the motor base. (B)

5. Lift the motor and motor mount and remove the assembly.

After dismounting the drum motor assembly several items can be replaced.

See replacement overview next page.

13



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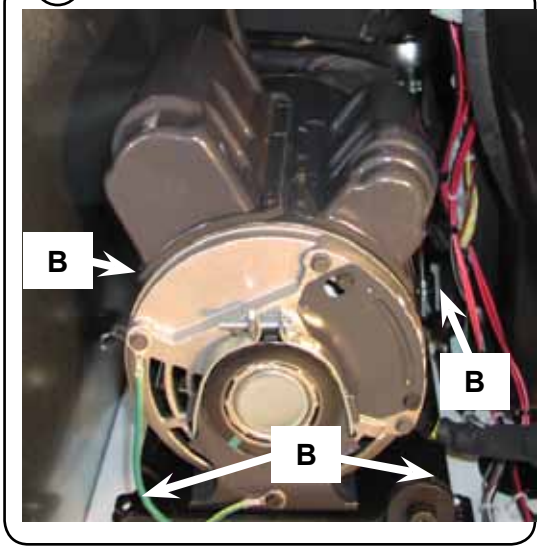
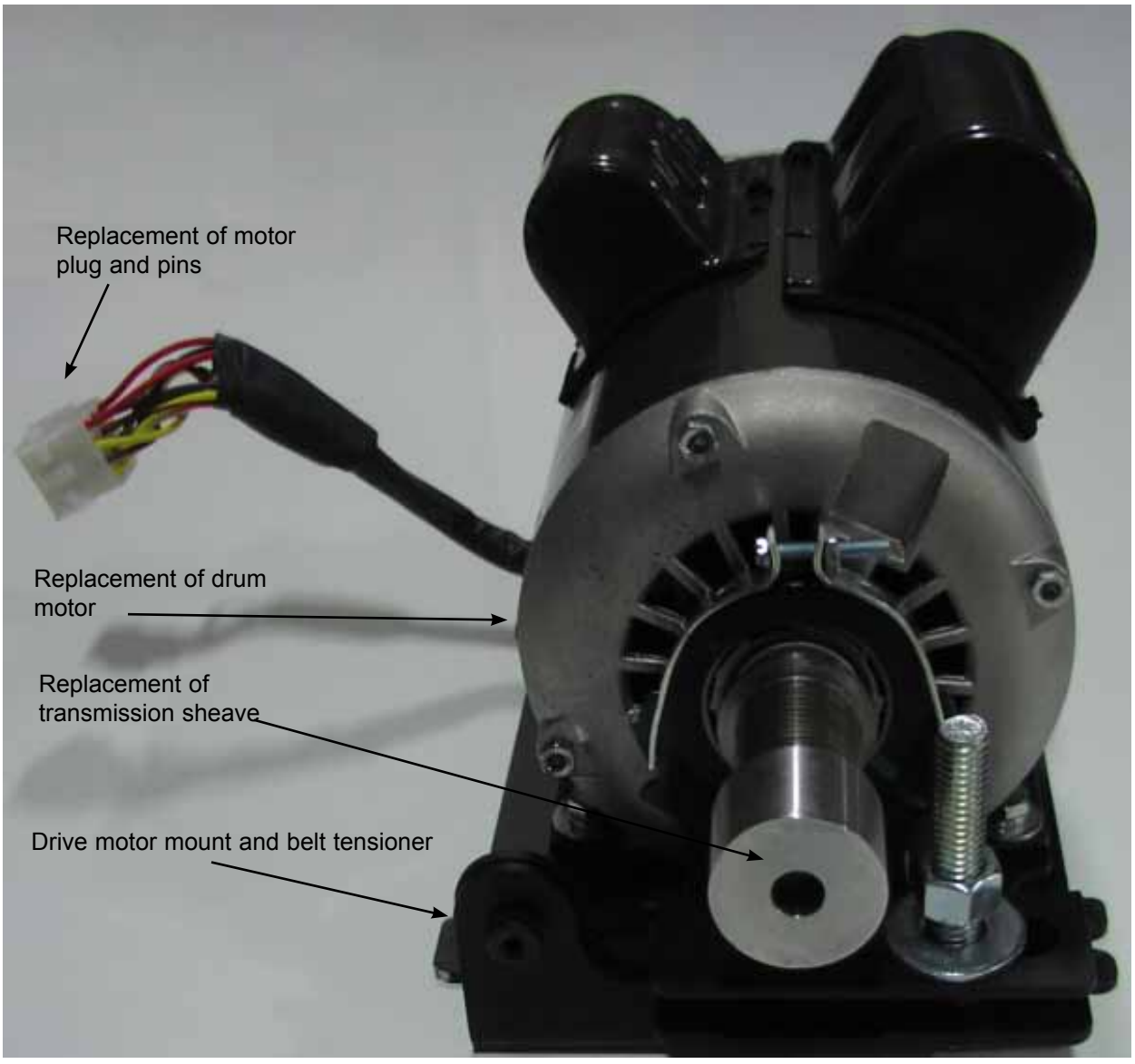


Replacement overview

(15) Replaceable items of the drive motor assembly are shown below.

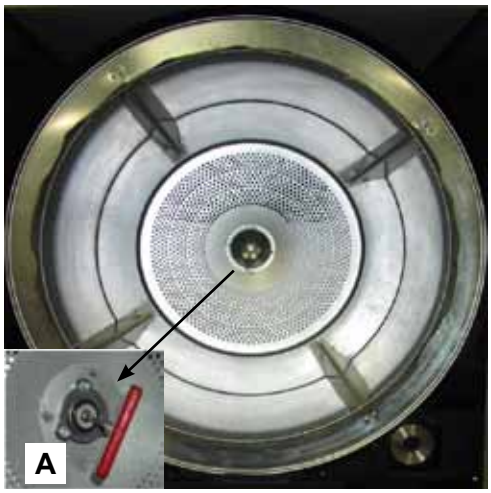
15



Replacement of drive belt

1. Cut power to the machine.
2. Loosen drive belt and slip it off the sheave.
3. Open the door handle side of the door panel and unplug the door switch wires.
4. Remove the door panel.
5. Remove the drum bearing cap. (four screws)
6. (16) Remove the center bearing bolt. (A)
7. While rocking the drum pull the drum out straight and carefully so as not to damage any felt seals.
8. Be sure to place the drum on the floor only on its side. The front and rear felts are easily damaged.
9. (17) Inspect felt seals on the drum and the drum mid-seal in the machine. Replace if necessary. (B)
10. Tuck the new drive belt over the outside of the drum mid-seal ring as shown. (C)
11. Reinstall the drum, bearing bolt, and bearing cover.
12. (18) Using the upper right corner void space for access to the belt, push the belt back towards the rear of the machine. (D)
13. Position the belt on the drum in line with the drive motor sheave. Be careful not to position the belt too far back at any time as the belt will likely fall behind the drum.
14. Slip the belt around the drive motor sheave and slowly turn the drum from the rear of the machine while guiding the belt into correct position.
15. Use the frequency meter to correctly tighten the belt to 58 ± 4Hz / 375N.
16. Manually spin the drum by hand at least 10 revolutions in each direction and then confirm all drive belt ribs are seated in a groove on the drive motor sheave.

16



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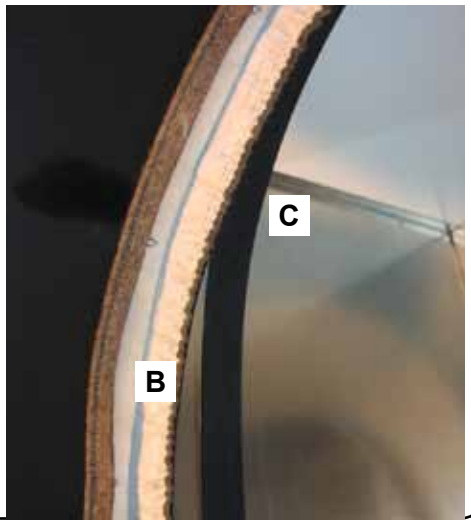


18

Replacement of drive motor sheave

1. Dismount the drive assembly, see section: Replacement of drum motor and transmission parts.

(19) 2. The motor sheave is held using a setscrew. (A)

(20) 3. Because thread locking compound is used to secure the sheave setscrew, heat is needed to release the compound.

4. Apply heat until the setscrew can be removed.

5. With the setscrew removed if the sheave does not move with moderate force using the gear puller apply more heat to the sheave until it starts to move.

(21) 6. Before installing the new sheave if necessary deburr the motor shaft using fine sandpaper.

7. Do not use excessive force when installing the new motor sheave onto the shaft.

8. Apply one drop of thread locking compound to the sheave Allen set before screwing it back into the motor sheave.

9. Motor sheaves are available in two sizes, 60 Hz and larger 50 Hz versions.

19

20

21

Motor electrical connectors

(22) 1. Tools needed for replacing motor and motor harness pins and plugs:

Pin extractor tool. (A)

Pin crimping tool. (B)

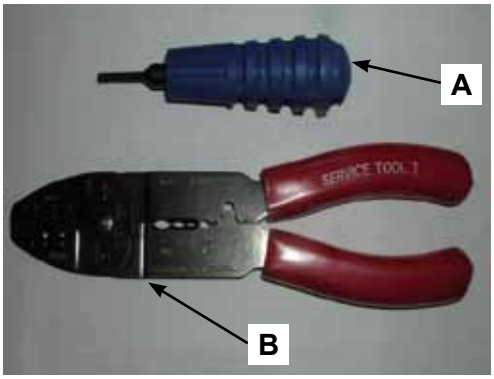
Wire stripper. (Not shown)

(23) 2. The extractor tool is used to release broken or damaged pins.

(24) 3. With the wire stripped back 1/8” pins are crimped in two places before inserting back into the connector plug or cap.

Once reinserted be sure pin barbs are firmly seated by pulling on the wire.

22



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24

Heating

Gas Heating unit, overview

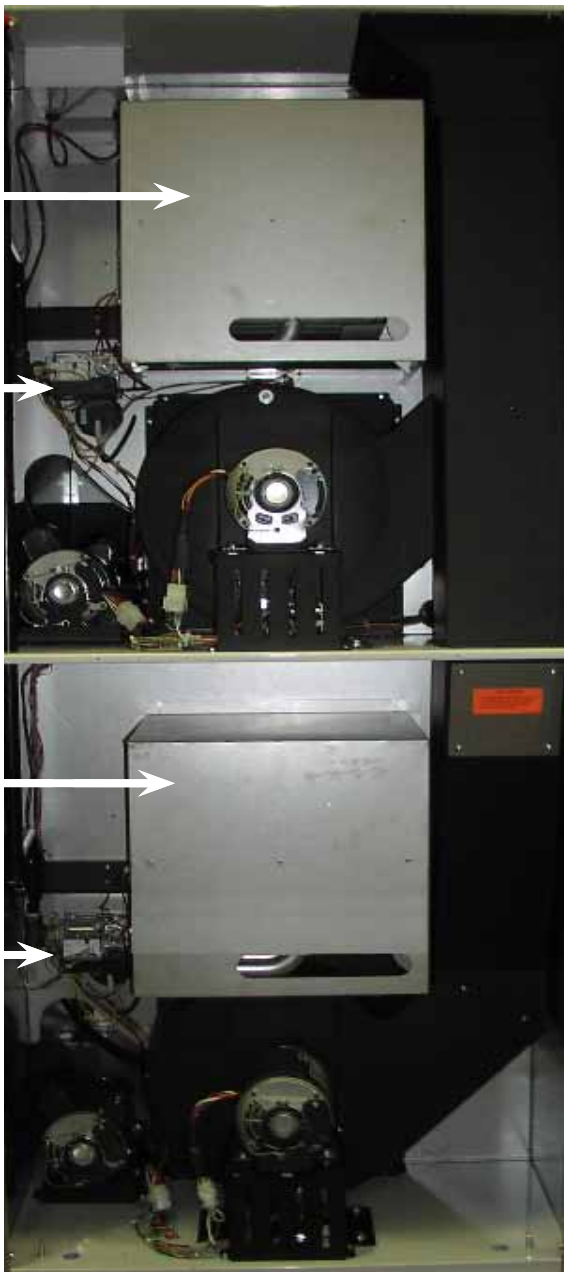
Description

(1) The gas heating unit for top or bottom dryer contains a gas burner.

The gas system contains gas valve, control box and nozzles for top or bottom dryer, see overview next page.

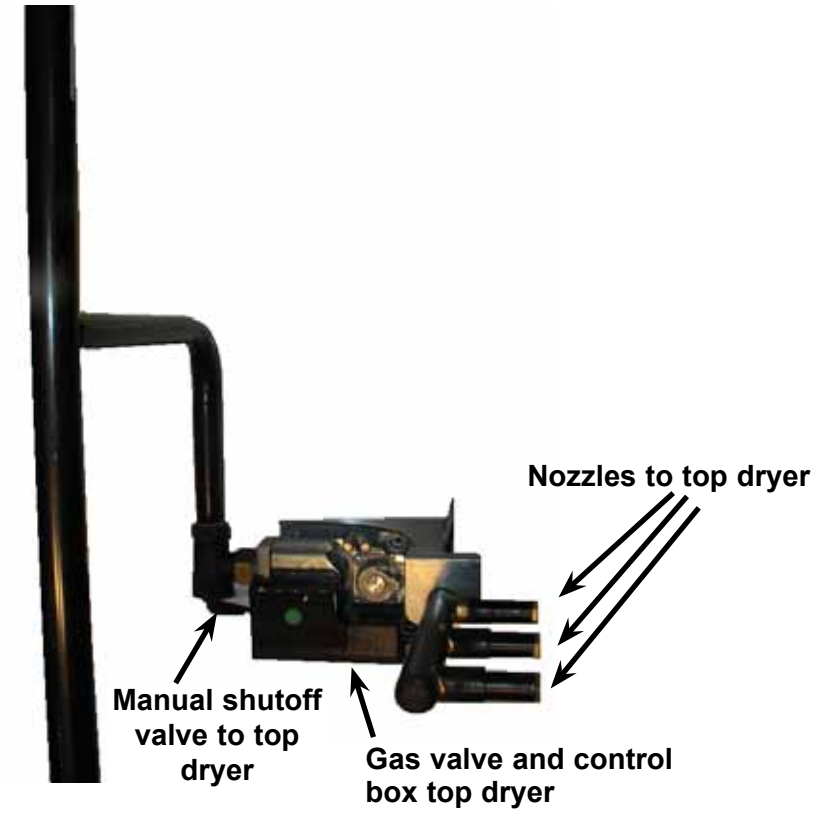
The gas system and heating units are located at the back of the dryer.

(1)

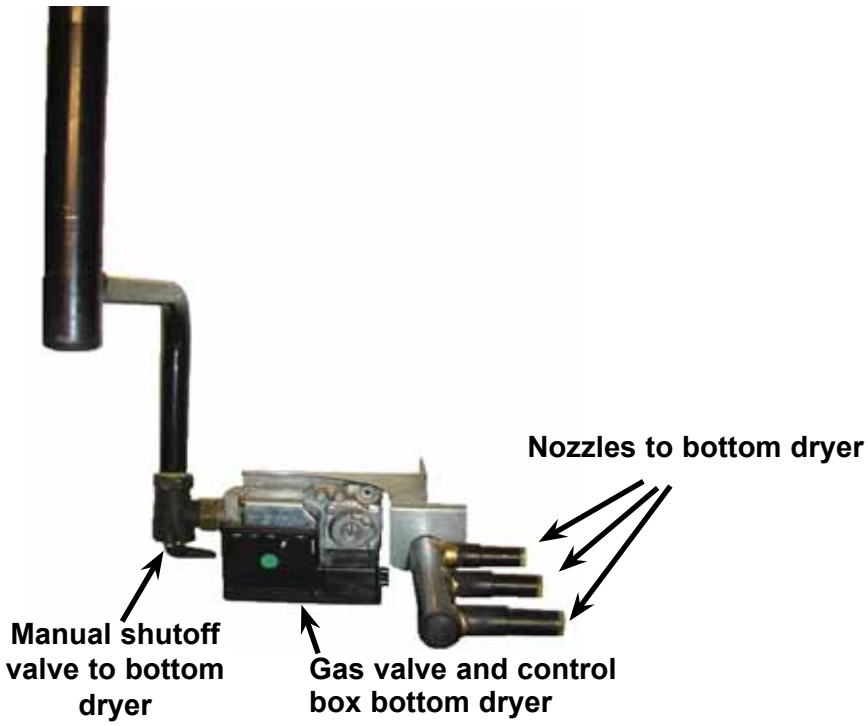


Gas system, overview

Top dryer



Bottom dryer



Gas valve, overview

(2) Nozzle (1)

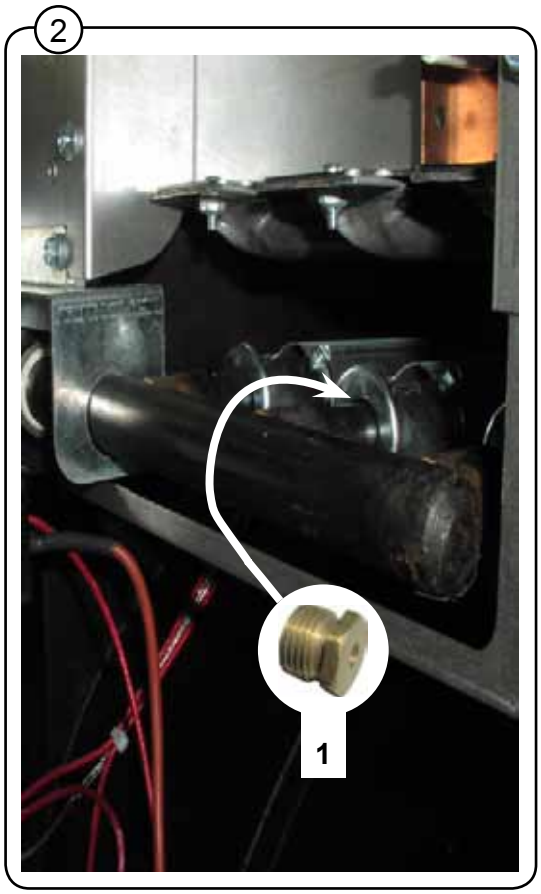
(3) Measuring tap, nozzle pressure (2)

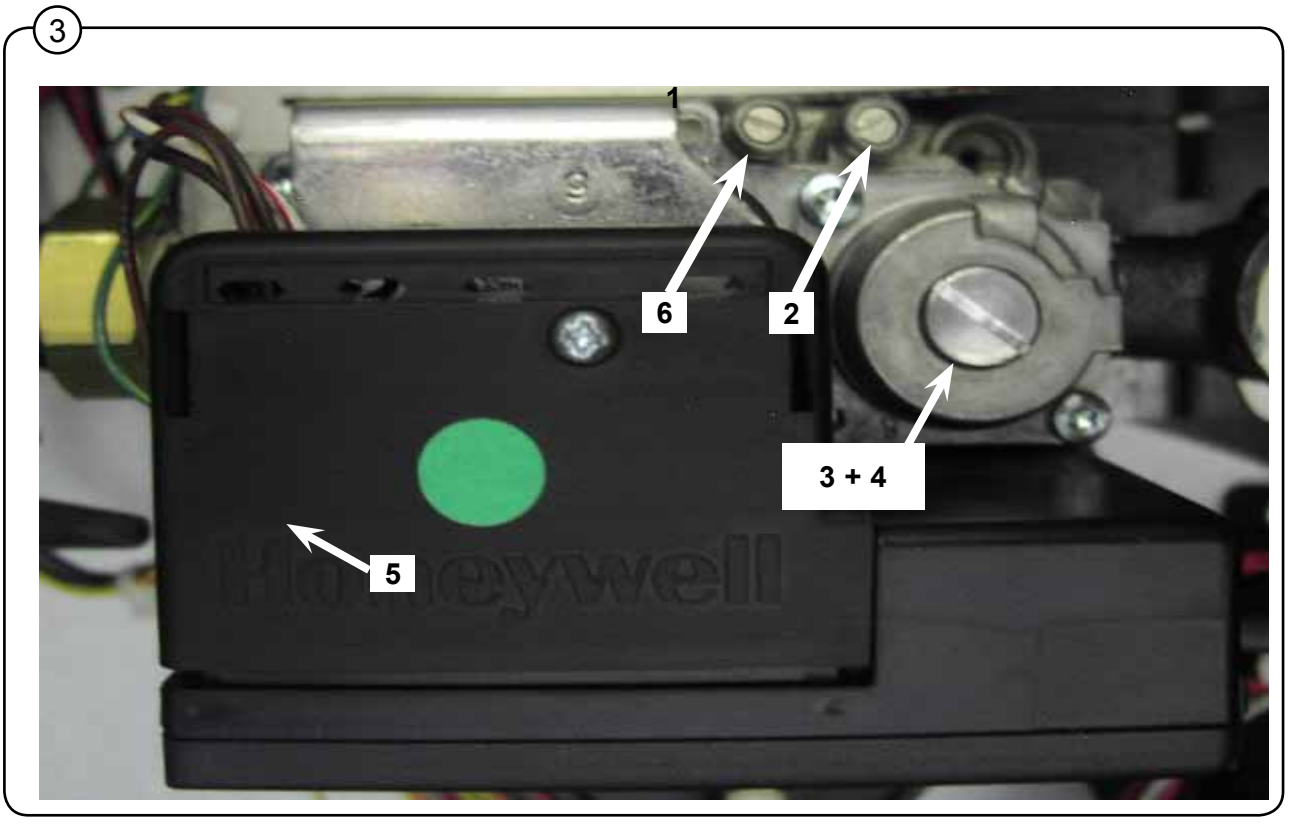
Adjusting screw cap (3)

Adjusting screw, nozzle pressure (4)

Ignition control box (5)

Measuring tap, supply pressure (6)





Gas valve, nozzle pressure

The numbers in brackets refer to gas valve and control box on previous page.

Nozzle (1)

The nozzle orifice size must be correct for the type of gas being used.

The nozzle orifice size must be correct for the installation altitude (US and Canada only).

Refer to the tables of pressure and adjustments to determine proper orifice size.

Note: Before proceeding with nozzel pressure check be sure the gas supply is adequate by checking the supply pressure with all gas consumers operating.

Measuring tap, nozzle pressure (2)

1. With the dryer off, loosen the gas pressure tap (2) one-quarter of a turn and connect a manometer to the tap.
2. Start the dryer with high heat selected.

After a few seconds, the ignition control will energize the gas valve.

Check that the nozzle pressure reading on the manometer is within the allowable range for the gas type being used, specified in the tables later in this section.

Too high or too low nozzle pressure

If the nozzle pressure is too high or low, adjust it by removing the cap (3) and turning the screw (4) beneath this cap until the nozzle pressure is correct.

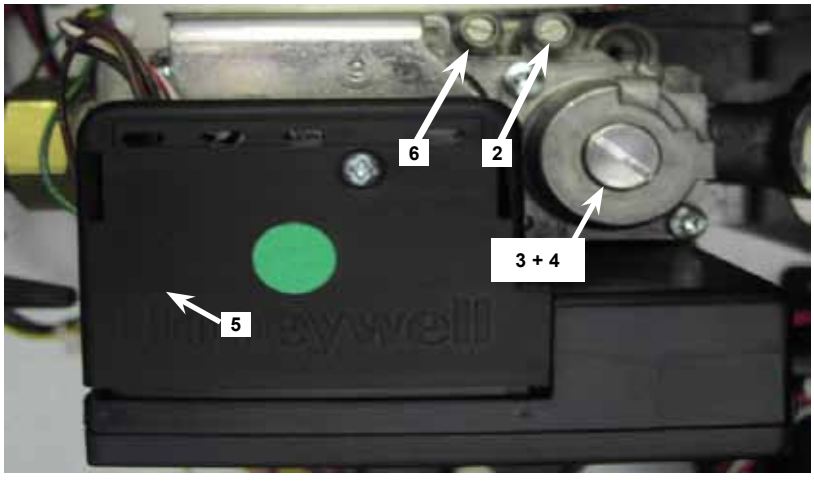
Clockwise = higher pressure.
Counter-clockwise = lower pressure.

Too low nozzle pressure

If the nozzle pressure is still too low, it may be due to limited gas flow (and pressure) on the supply side of the valve.

1. Close the nozzle pressure measuring tap (2) and measure the supply pressure tap.

3



Gas valve, supply pressure

Measuring tap, supply pressure (6)

1. Turn off the manual gas valve to the machine and the dryer started on high heat.
2. Loosen the gas pressure tap (6) one-quarter of a turn and connect a manometer to the tap.
3. Turn on the manual gas supply valve. (A)

(4)

4. Start the dryer on high heat and check that the supply pressure is within the allowable range.

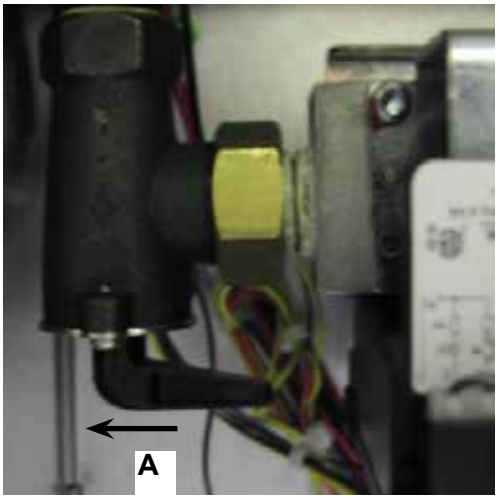
NOTE:
If the pressure is not within the range specified in the tables of pressure and adjustments:

DO NOT OPERATE THE DRYER. Contact your gas supplier.

NOTE that the gas supply MUST be turned off before loosening tap pos. 6 (SUPPLY) or gas will escape.

Illustration 4 has the manual gas valve handle shown in the ON position.

4



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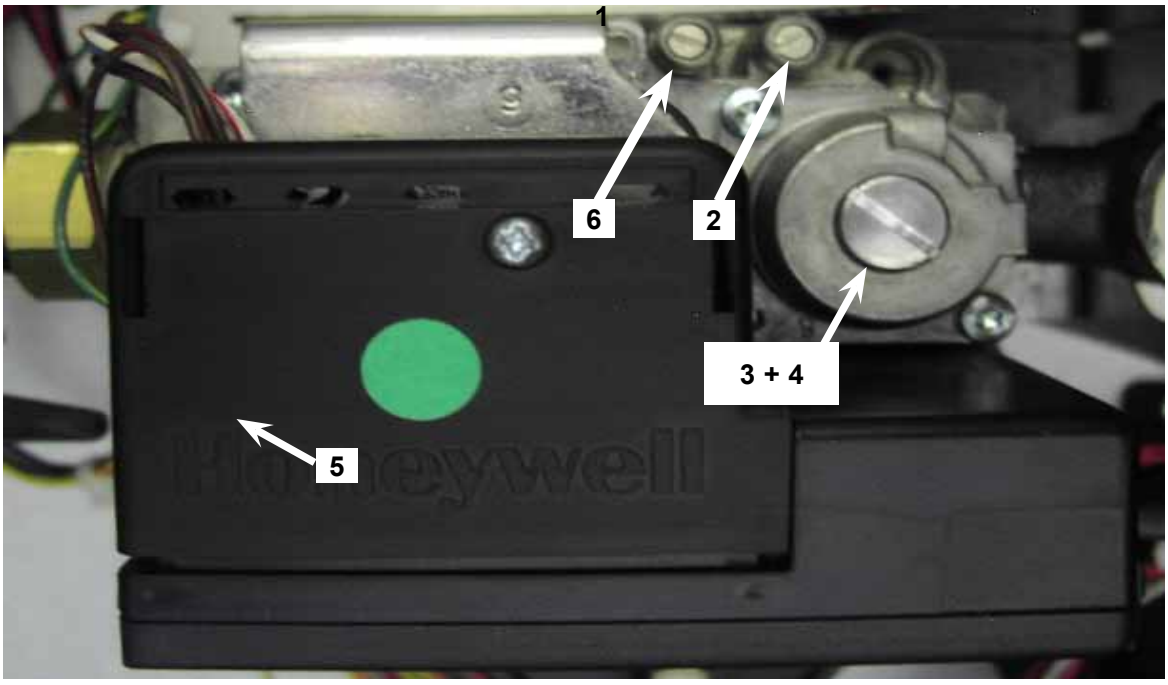


Tables of pressure and adjustments, US and Canada only

Natural gas

Altitude	Gas type	Heat effect per pocket Btu/h (kW)	Heat effect total Btu/h (kW)	Upper calorific value Mj/m³	Gas pressure Inlet Min.	Inlet Nom.	Inlet Max.	Nozzle pressure Measuring tap (2) inch W.C.	Ø Nozzle
0-1999 ft.	**Natural gas**	94.000 (27.5)	188.000 (55.1)	37.78	6	7	10	3.5	2.705
2000-3999 ft.		86.480 (25.3)	169.200 (49.6)	37.78	6	7	10	3.5	2.642
4000-5999 ft.		79.562 (23.3)	159.125 (46.6)	37.78	6	7	10	3.5	2.578
6000-8000 ft.		73.197 (21.5)	146.394 (43.0)	37.78	6	7	10	3.5	2.527
0-1999 ft.	**Propane**	94.000 (27.5)	188.000 (55.1)	93.7	11	11	12	11	1.613
2000-3999 ft.		86.480 (25.3)	169.200 (49.6)	93.7	11	11	12	11	1.613
4000-5999 ft.		79.562 (23.3)	159.125 (46.6)	93.7	11	11	12	11	1.511
6000-8000 ft.		73.197 (21.5)	146.394 (43.0)	93.7	11	11	12	11	1.511

Replacement of gas burner tubes

Dismounting

(5) Gas burners can be replaced without dismounting the gas unit.

1. Cut the power to the machine.
2. Dismount the back panels on the dryer.
3. Remove the screw and nut of the burner tube to be replaced.

(6) 4. Pull the burner tube toward the right and down to clear the gas manifold.

(7) 5. When installing the new tube be sure that the tab at the right end of the burner tube locks into the slot provided in the oven housing. (A)

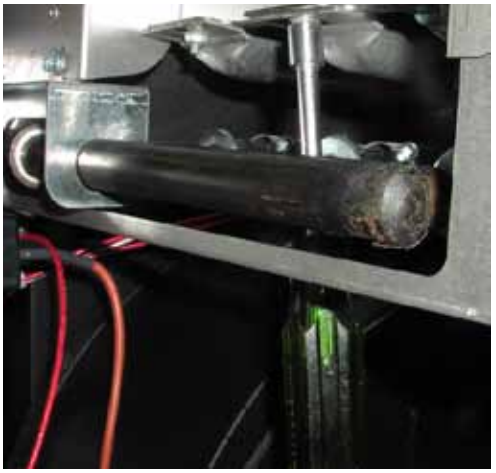
Test run

Before operating the dryer with heat on, check for gas leaks and test the dryer.

Function check

Test the dryer.

5



6

7

Adjustment / measuring

Adjustment of ignition electrode

(8) Illustrates proper ignition electrode adjustment.

The spark gap must be 1/8” +/- 1/32” (3.175 mm +/- 0.79 mm). (A)

Control measuring the ionization current

(9)
1. Dismount wire with quick connector. (B)
2. Measure the current between the quick connector and the ionization connector.

The current must be at least 0,9 µA DC.

Resetting gas error

When the ignition control fails to detect a flame an error code E14 is displayed.

When this condition occurs, the gas valve is shut off and the ignition control must be reset manually.

Resetting

Open the operating panel and press the gas reset button on the back of the user module board for one second.

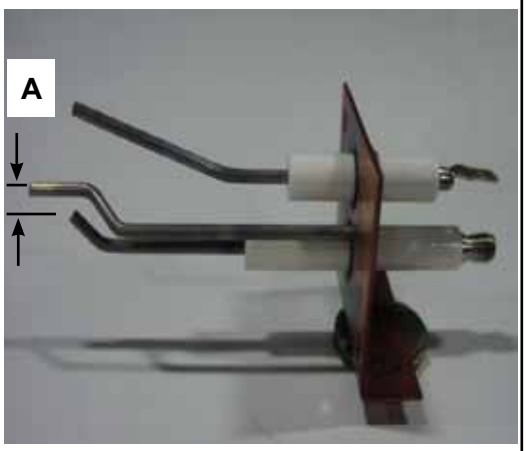
NOTE:
When resetting the system the dryer must operate on a program with heat and when the heat indicator is on.

Error code

Error code E14 is a normal occurrence when first starting up a dryer, since air in the gas line must be purged.

If the problem persists, refer to Service Manual Selecta Control for more information.

8



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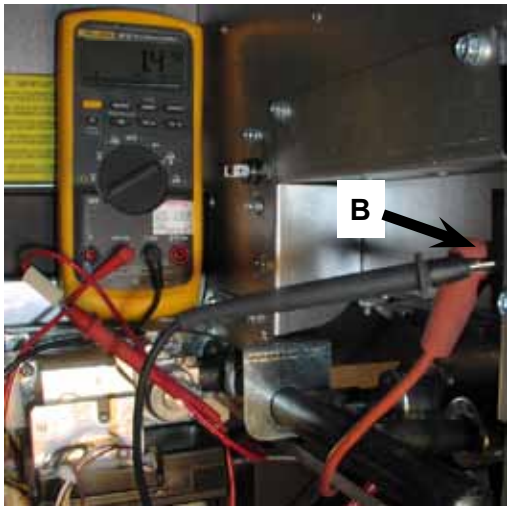
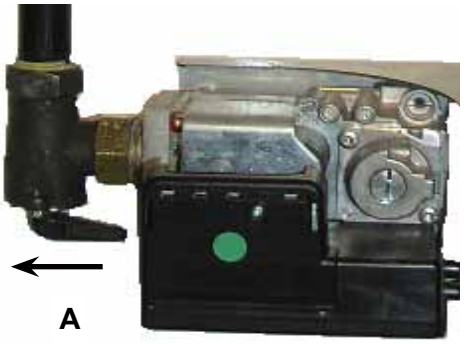


Replacement of gas valve

To replace the gas valve and gas manifold follow the procedure below:

1. Cut the power to the machine.
2. Dismount the back panels on the dryer.
3. (10) Shut off the manual valve for this dryer. (A)
4. (11) Remove gas valve mounting plate screws. (B, C, D)
5. Remove the retaining screw and remove the wiring connector cover from the control box. (E)
6. Unplug wire harness and pull the control box off the valve.
7. (12) Take the union joint apart. (F)
8. Flex the gas pipe slightly toward the left and slip the gas valve, mounting plate and manifold out of the burner tubes and out of the machine.
9. The assembly can now be refitted with a new valve, union joint, manifold or orifices.
10. Use gas approved pipe compound on all pipe joints.
11. Reinstall the assembly into the machine.
12. Replace the three screws.
13. Tighten the union joint (50Nm).
14. Install the control box and retaining screw removed in step five.

10



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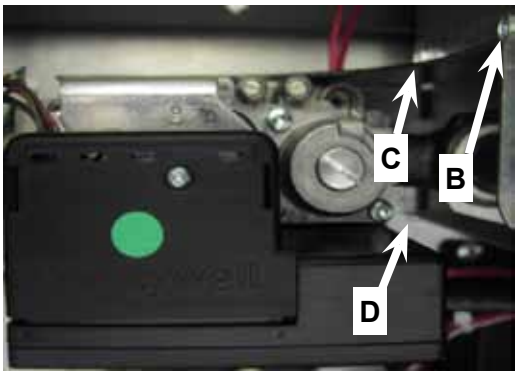


Testing for leaks

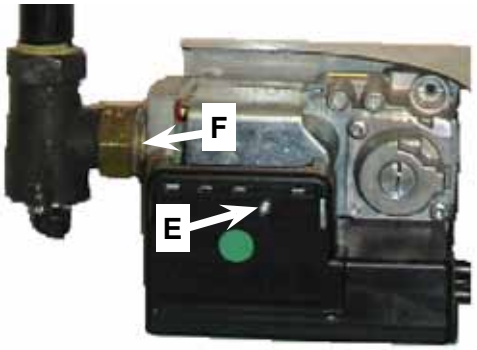
After replacement all the joints, which were taken apart have to be leak tested.

Use approved leak testing materials and techniques.

Adjusting the gas valve

The new gas valve has to match the machine.

12



Conversion to another type of gas

All countries except US and Canada

If the machine is to be converted to another type of gas, the gas nozzles must be replaced.

Referring to the installation manual supplied with the dryer.

US and Canada only

The standard configuration is equipped for natural gas.

If the machine is to be converted to another type of gas, the gas nozzles must be replaced.

The current nozzles can be ordered separately in a conversion kit.

Contact your dealer, or Wascomat, for the part number of the LP conversion kit appropriate for your altitude.

The conversion kit contains six nozzles as well as instructions.

Follow the instructions supplied with the kit.

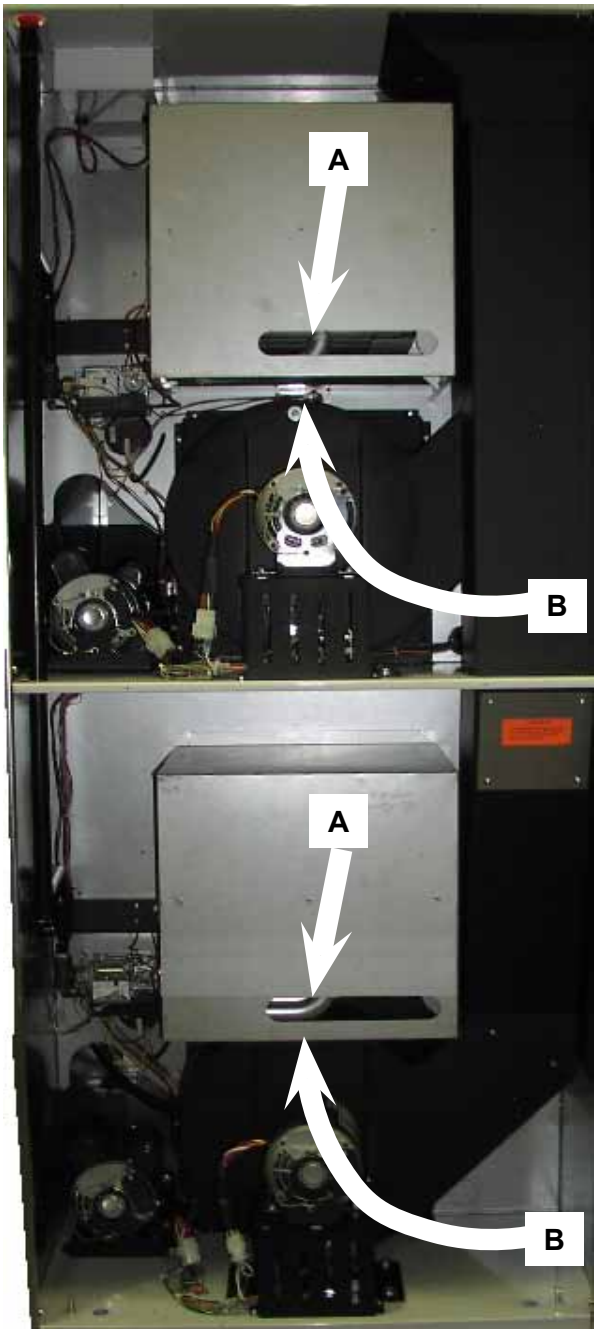
Test run

1. Test all joints for leaks.
2. Before operating the dryer with heat on, check the supply and nozzle pressures as described earlier in this section.

(13) 3. Check that the gas is burning evenly and with a bluish flame. (A + B)
If the above test points are in order, the dryer is ready for use.

4. Mount the back panels.

13



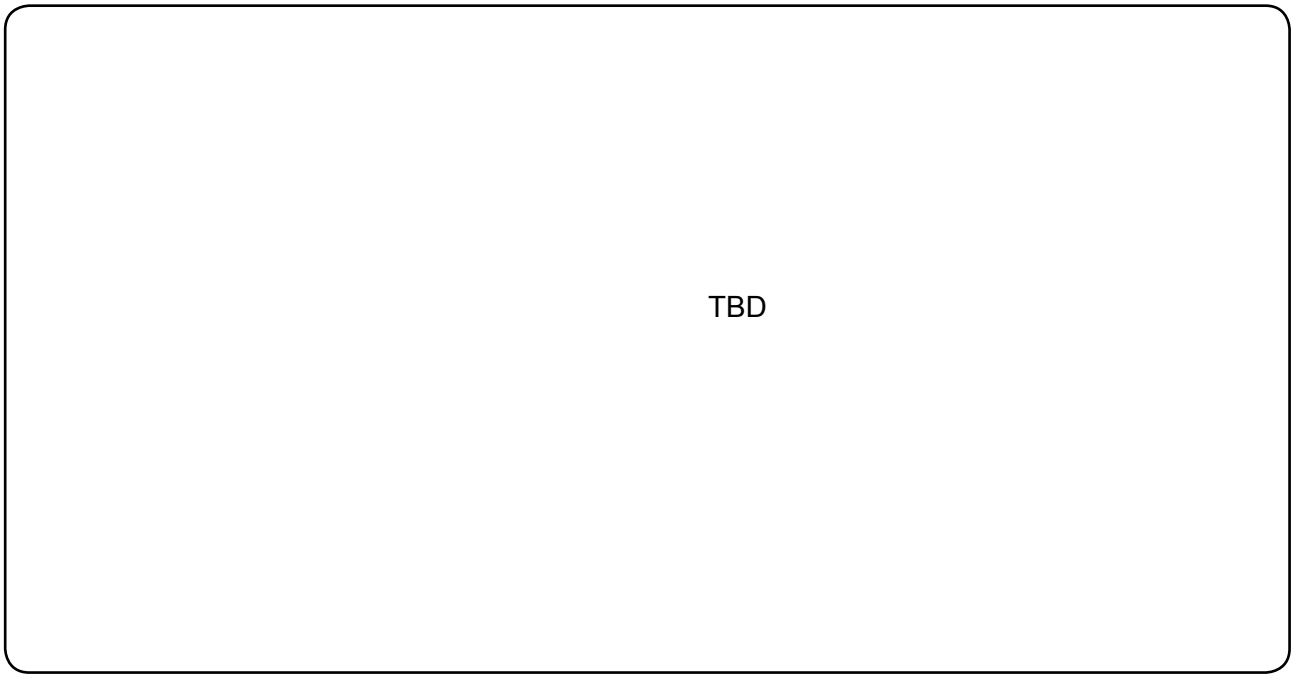
A = Look through the hole in the back panel

B = Look underneath the gas unit

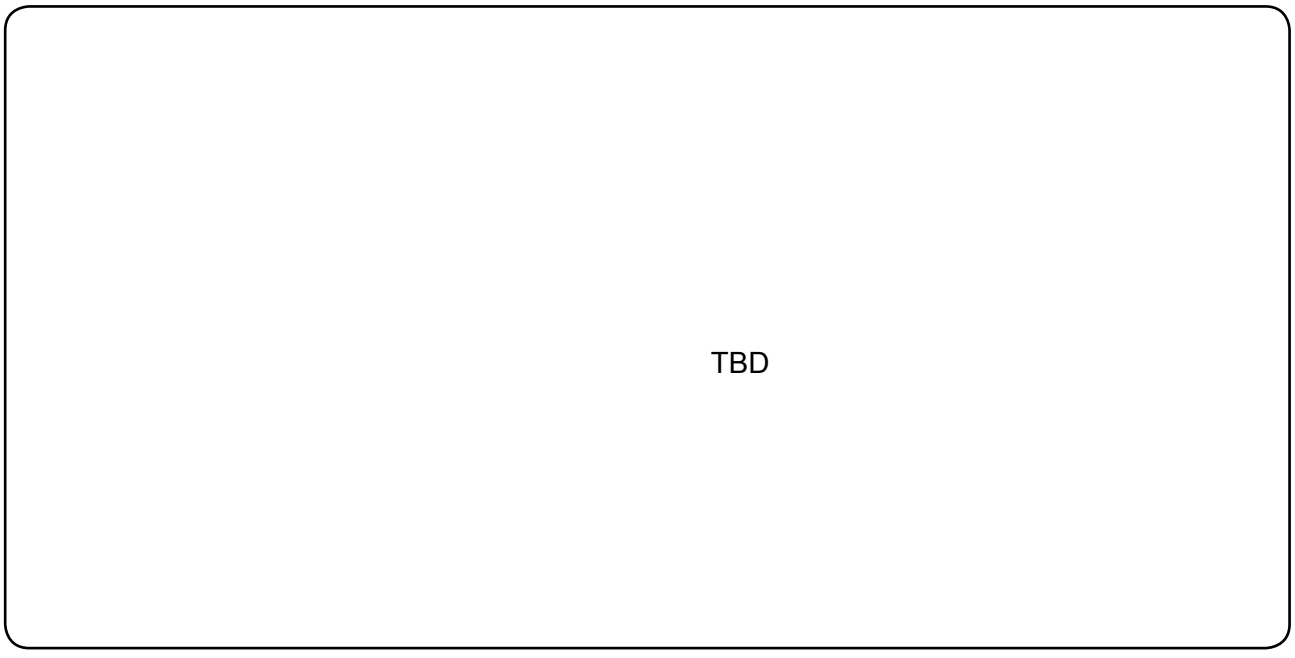
Machine access

Overview - Connections

Connection - rear of the dryer

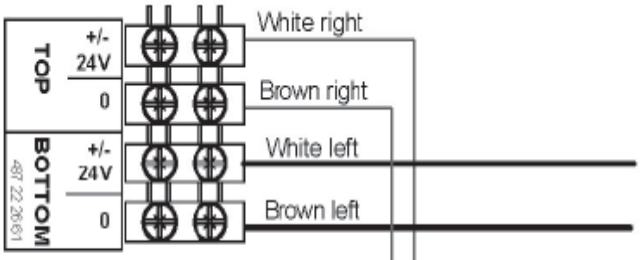


Connection - front of the dryer

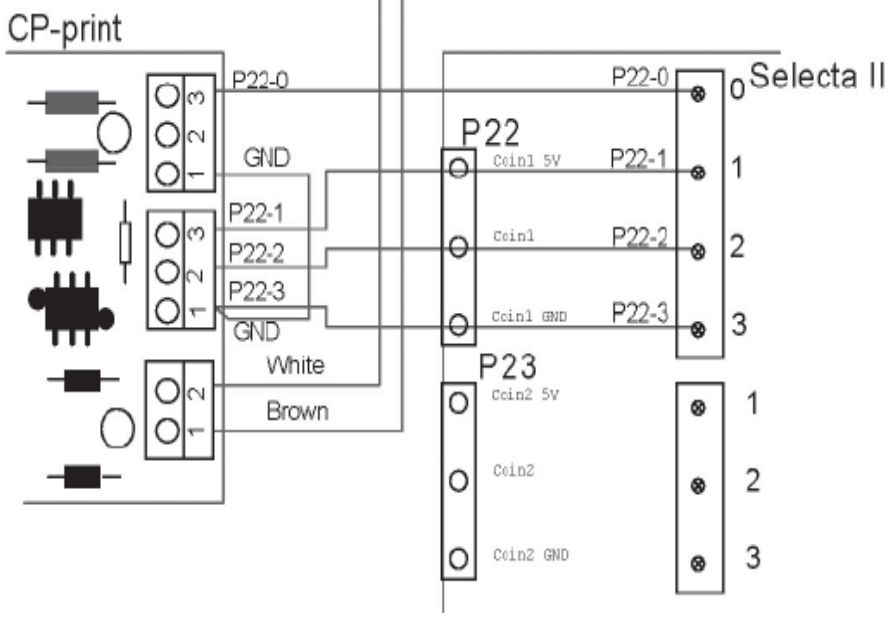


Central Payment Coin - CPC

Rear of the dryer



Front of the dryer



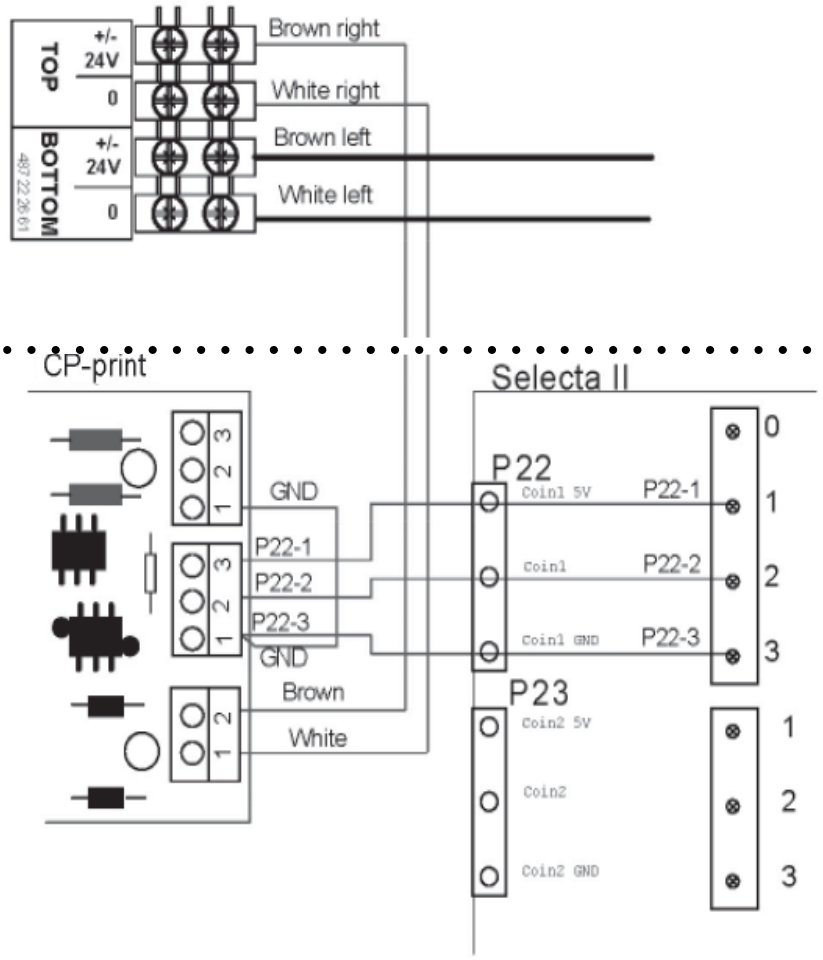
PCB

See Service Manual for Selecta Control from ver. 4.xx

Central Payment Time - CPT

Rear of the dryer

Front of the dryer



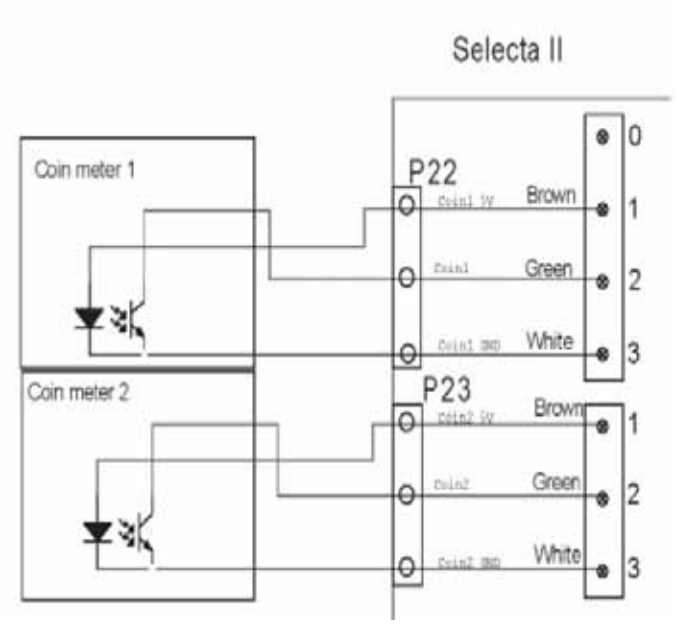
PCB

See Service Manual for Selecta Control from ver. 4.xx

Coin Meter Single - CMS

Coin Meter Single No Box - CMSNB

Front of the dryer

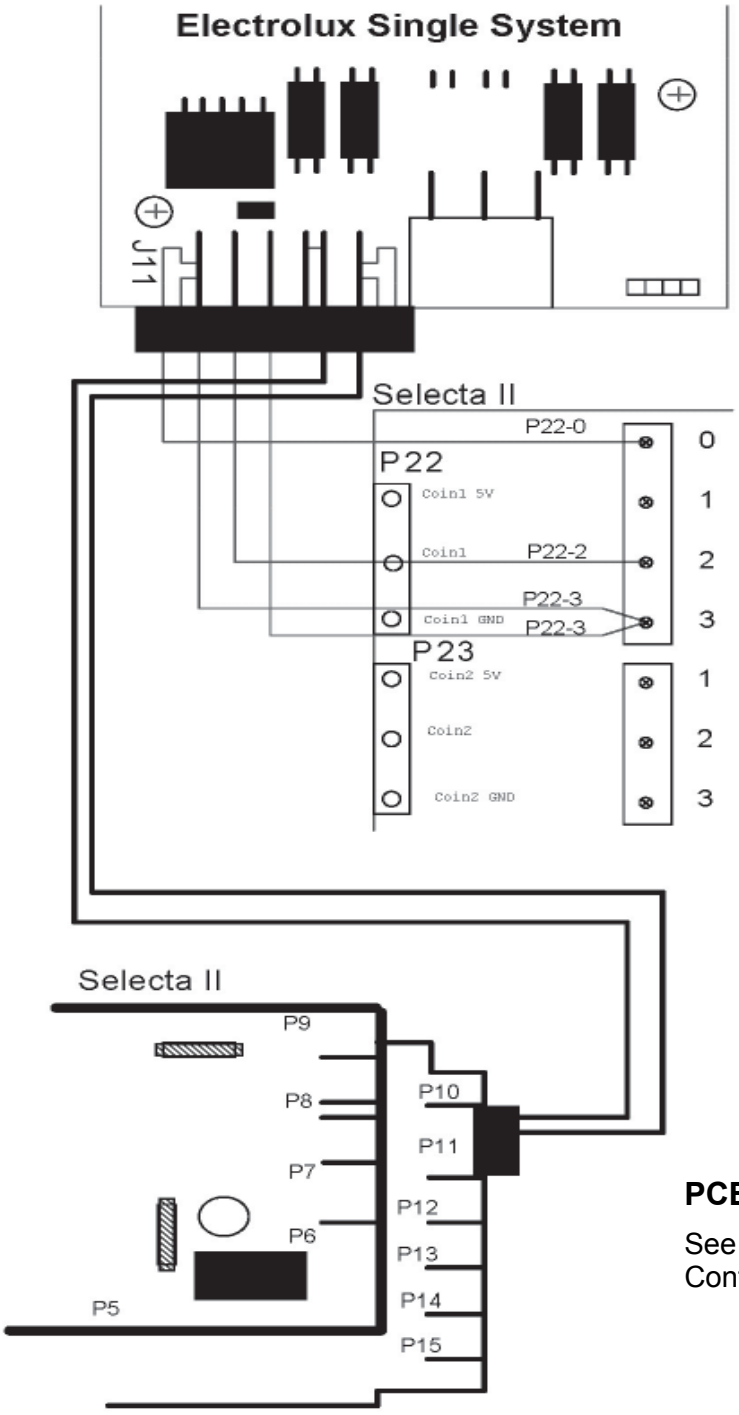


PCB

See Service Manual for Selecta Control from ver. 4.xx

Electrolux Single System - ESS

Prepared for Card reader - PCR



PCB

See Service Manual for Selecta Control from ver. 4.xx

Drum with bearing

Dismounting of drum / drum bearing

Removal of drum is not necessary for replacement of the drum bearing alone. However, removing the drum is the preferred method as inspection of drive belt and drum seals can be performed while the drum is removed.

1. Cut power to the machine.
2. Remove the rear panel.
3. Loosen the belt and slip the belt off the motor sheave.

(1) 4. Unscrew the four screws off the bearing cover and remove the cover.

(2) 5. If bearing is to be replaced refasten two of the cover screws in order to keep the bearing bracket in place after the bearing nuts have been removed.

(3) 6. Remove screw and washer from the main drum bearing. If not removing the drum, then remove bearing now.

7. If removing the drum open the door switch side of the door panel and disconnect the main door switch wires.
8. Remove the door panel with loading door.
9. Remove the drum by pulling and rocking side-to-side gently so as not to damage the drum seals.
10. Be sure to place the drum on the floor only on its side. The front and rear felts are easily damaged.

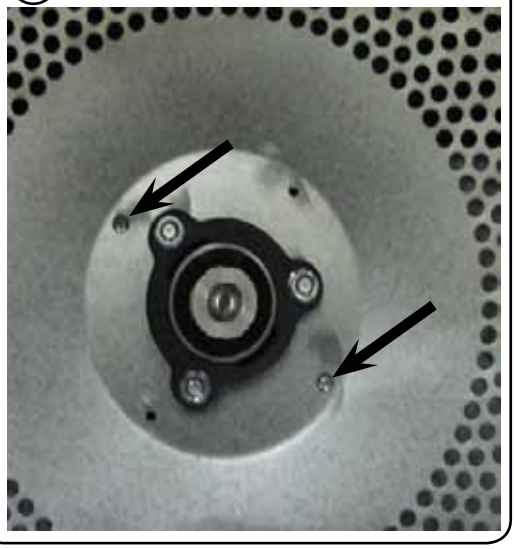
The drum bearing, internal seals or the belt can now be replaced.

Reinstalling the drum and drive belt are covered in the next section.

NOTE:
If drum mid-seal has been replaced it is necessary to put a thin coating of silicone oil on the drum in the position where the mid-seal is running.

1

2



3

Drum with bearing

Replacement of drive belt

Removal of the drum is necessary in order to replace the drive belt. To remove the drum follow the directions of the previous section.

1. Inspect drum mid-seal in the machine. Replace as necessary. (A)

(4) 2. Tuck the drive belt over the outside of the drum mid-seal ring as shown. (B)

3. Inspect the drum rear felt seal. Replace if necessary. (C)

(5) 4. Lubricate the drum shaft to bearing mating surface with an anti-fretting paste (G1 LGAF 3E or similar quality with a temperature resistance above 160°C. (320°F). (D)

5. Reinstall the drum, bearing bolt, and bearing cover.

(6) 6. Using the upper right corner void space for access to the belt push the belt back towards the rear of the machine. (E)

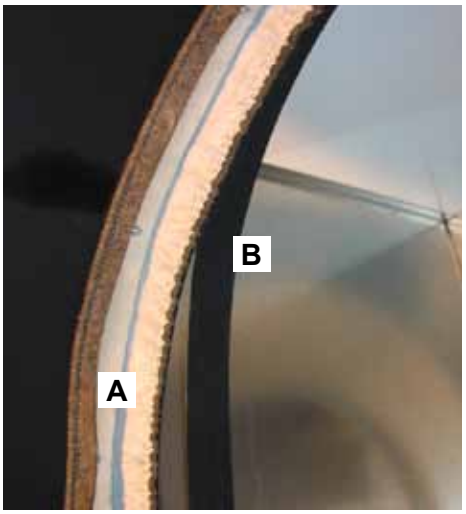
7. Position the belt on the drum in line with the drive motor sheave. Be careful not to push too far back as the belt will likely fall behind the drum.

8. Slip the belt around the drive motor sheave and slowly turn the drum from the rear of the machine while guiding the belt into correct position.

9. Tighten the belt to 225 ± 25Hz / 65N.

10. Manually spin the drum by hand at least 10 revolutions in each direction and then confirm all drive belt ribs are seated in a groove on the drive motor sheave.

4



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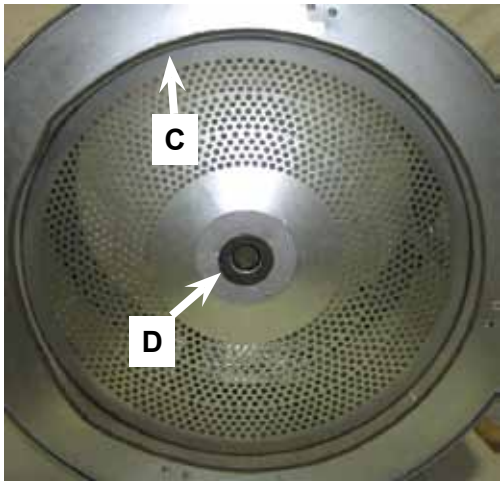

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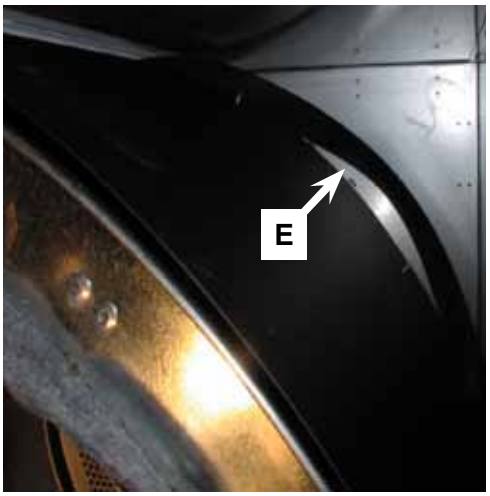


Replacement of support rollers

1. Cut the power to the machine.
2. Open the door switch side of the door panel and disconnect the main door switch wires.
3. Remove the door panel with loading door.

(7) 4. Unscrew bolt (A) of the support rollers. A 7/16” box wrench is needed to hold the nut at the rear of the bolt.

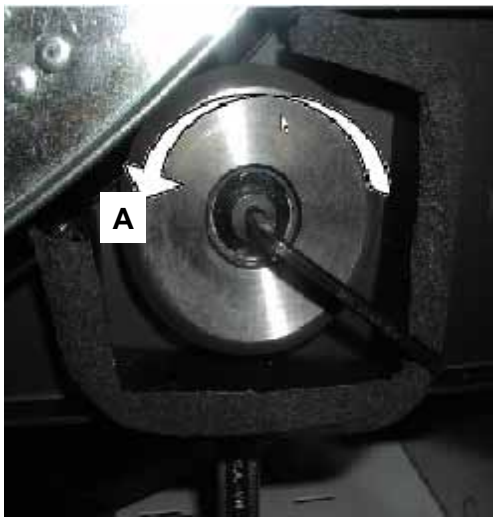
(8) 5. Replace support rollers and tighten bolt with 20 Nm (15 ft-lb). (A)

6. Reassemble the front panel, with loading door.
7. Reconnect main door switch wires.
8. Connect the power.

Function check

Test the dryer.

7



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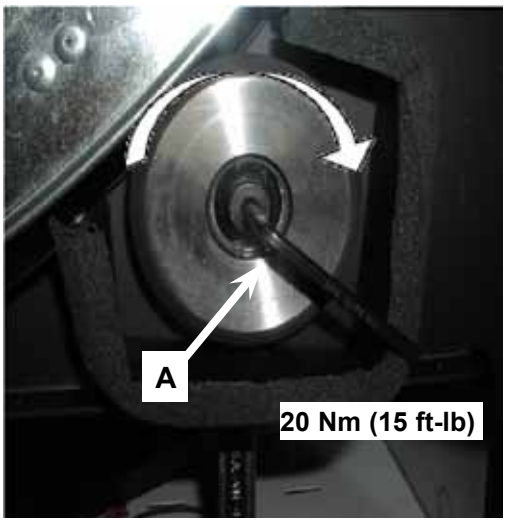


Pressure switch

Air pressure switch

Function

(1) The air pressure switch ensures the necessary airflow in the dryer.

Adjustment

The pressure switch is not adjustable. If it fails it has to be replaced.

Error code E15 or E16 general

If the error code E15 or E16 is displayed it is important first to check the under pressure in the drum compartment. The under pressure that is needed to operate the switch is 0.13” W.C. 33 Pa.

Measuring the under pressure in the drum compartment

1. Start the dryer.
2. (2) Remove the rubber tube (A) and measure the under pressure in the drum compartment.
3. After measuring the under pressure go to the specific error code for further troubleshooting.

Error code E15

If the under pressure is below 0.13” W.C. 33 Pa:

1. Check the rubber tube (A) for lint obstruction.
2. Check for exhaust duct blockage causing a high static pressure.
3. Check all seals and gaskets for air leakage.

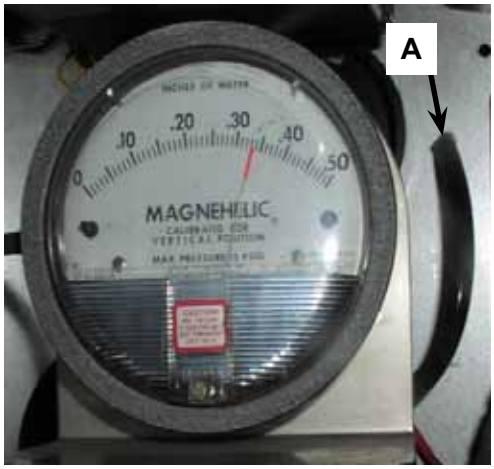
Error code E16

Troubleshoot the pressure switch when the dryer is <u>not</u> operating:

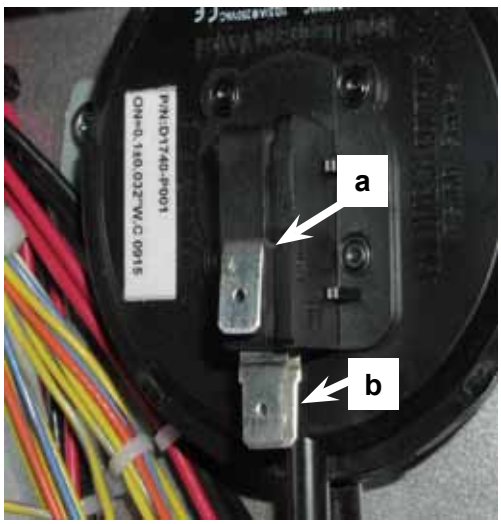
1. (3) Check that the normal state for the switch is normally open. Measure between a (common) and b (NO).
2. If the normal state for the switch is not open check the rubber tube (A) for lint-obstruction.
3. With the tube disconnected from the pressure switch, if conductivity exists between a and b the pressure switch is defective and should be replaced.

(1)

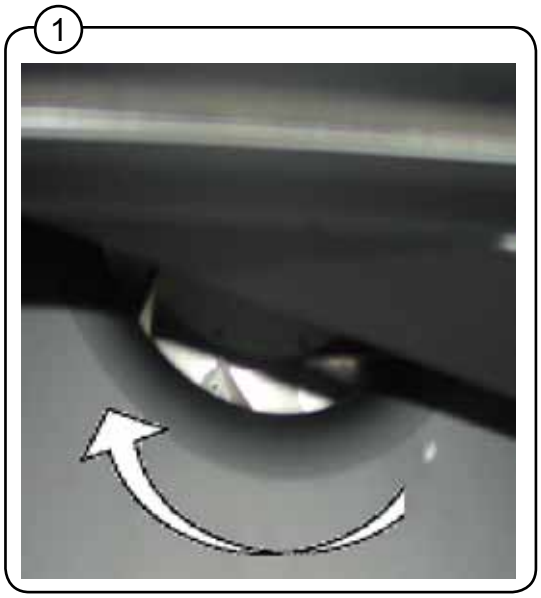
(2)



(3)



Periodic maintenance



Check that the drum is empty and the loading door is closed.

Checking the magnet switches

Start the dryer.

Check if the magnet switches are working properly:

- The dryer must stop when the loading door is opened.

  If the dryer operates with the loading door open, see chapter “Door and lint drawer”.

- The dryer must stop when the lint drawer is opened.

  If the dryer operates with the lint drawer open, see chapter “Door and lint drawer”.

Correct direction of rotation

For dryers with 3-phased motors the direction of rotation must be checked.

Check the direction of rotation of the blower motor:

(1)

1. Start the dryer.
2. Cut power to the dryer, remove the lint drawer while the fan is still spinning and observe the direction of the fan. Correct direction is clockwise from the front of the dryer.

If the direction of rotation is not correct, swap two phases on the power input connection terminal block. (3-phase blower motor models only.)

Final test

1. Start the dryer and allow it to operate for 5 minutes on a program that requires heat.
2. Check whether the heating is working by opening the loading door and feeling the heat.

If the above test points have been carried out and the dryer is operational, the dryer is ready for use.

Maintenance

The table below shows the frequency of maintenance of the external parts and the internal wearing parts.

	Frequency
External parts	
Lint drawer	daily
Lint drawer tracks	once a week
Door gasket	daily
Lifters in the drum (RMC only)	quarterly
Air inlet screen	semi-annually
Internal wearing parts	semi-annually
Cleaning around the drum	semi-annually
Exhaust plenum	semi-annually
Back draft dampers	semi-annually
Blower compartment	semi-annually
Blower wheel	semi-annually
Control compartment	every year
Control of the gas burner	semi-annually

Lint drawer

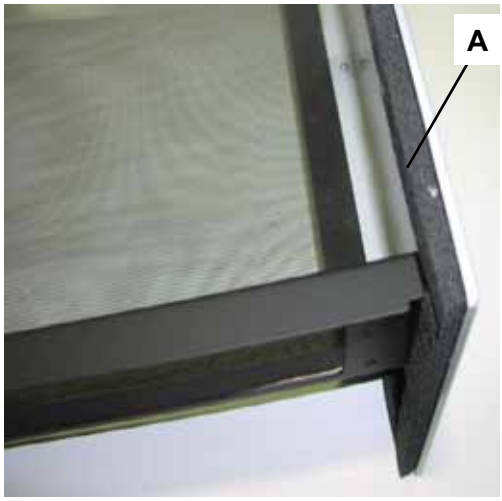
Check (at least daily) that the lint screen in the drawer is clean and in good condition.

Clean the drawer in both the top and bottom dryers. Use a vacuum cleaner.

Clean the gasket with a damp cloth. Do not use solvents that may damage sensitive plastics or painted finish.

(2) Replace the gasket if damaged. (A)
Do not use glue on the gasket.

2



Lint drawer tracks

Check a minimum of once a week the lint drawer tracks.

(3) Remove the drawer and clean the tracks with a stiff brush. (B)

Remember to clean the lint drawer tracks in both the top and bottom dryers.

3

Door gasket

(4) Check (at least daily) that the loading door gasket is clean and in good condition. (A)

Clean with a damp cloth. Do not use solvents that may damage sensitive plastics or painted finish.

Lifters in the drum (Dryers with RMC only)

(5) To ensure that the moisture tracing is always working optimally it is important to clean the lifters.

Lack of cleaning the lifters can reduce the automatic residual moisture control in the clothes resulting in the clothes being moister than requested when the program has ended.

Cleaning

Wipe off/clean drum and lifters with citric acid (Acidum citricum). If soap/softener residue remains, it is recommended also to use a coarse sponge.

The frequency of cleaning should depend on the operating frequency - with a minimum of once a week.

Air inlet screen

(6) Check every semi-annually that the air inlet screens in the back panels have not become blocked with lint or other debris.

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Internal wearing parts

Maintenance should be conducted to an extent related to operation frequency and the conditions on the premises, or at least once semi-annually.

Cleaning around the drum

1. Cut the power to the machine.
2. Dismount the front panel.

(7) 3. Remove the lint using a vacuum cleaner.

4. Inspect the two support rollers and replace them if necessary.
5. Reassemble the dryer.
6. Connect the power supply - remember to carry out a function check as described earlier in this section.

Exhaust plenum

Check semi-annually that the exhaust plenum on the rear of the dryer has not become blocked with lint or other debris.

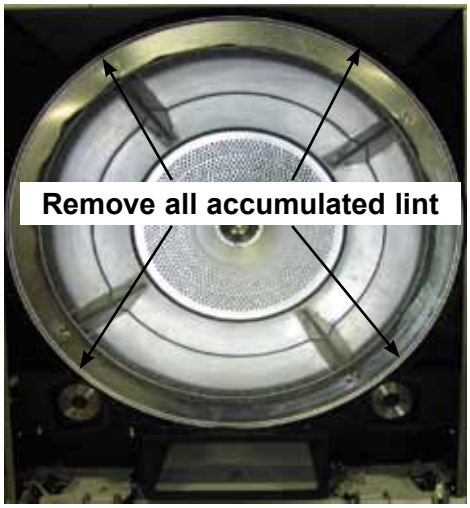
Dismounting

1. Cut the power to the machine.
2. Dismount both rear panels.
3. Disconnect the exhaust duct from the top of the dryer.
4. Remove the blower and fan from the blower compartment.

(8) 5. Opening the clean out cover aids in cleaning the cleaning sections in the middle of the plenum.

6. The exhaust plenum can be cleaned using a soft brush and vacuum cleaner.
7. Reassemble the dryer.

7



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Back draft dampers

Check the back draft dampers semi-annually.

(9) The back draft dampers are located in the exhaust plenum at the top of the dryer. Remove the exhaust duct to gain access.

Blower compartment

(10) Check semi-annually that the blower compartment has not become blocked with lint or other debris.

Dismount the blower to get to the blower compartment.

Blower wheel

(11) Check semi-annually that the blower wheel has not become blocked with lint or other debris.

Dismount the blower motor to get access to the blower wheel for cleaning.

NOTE:
Be careful not to damage the blower wheel.

9

10

11

Control compartment

(12) Check every year that the control compartment has not become blocked with lint or other debris.

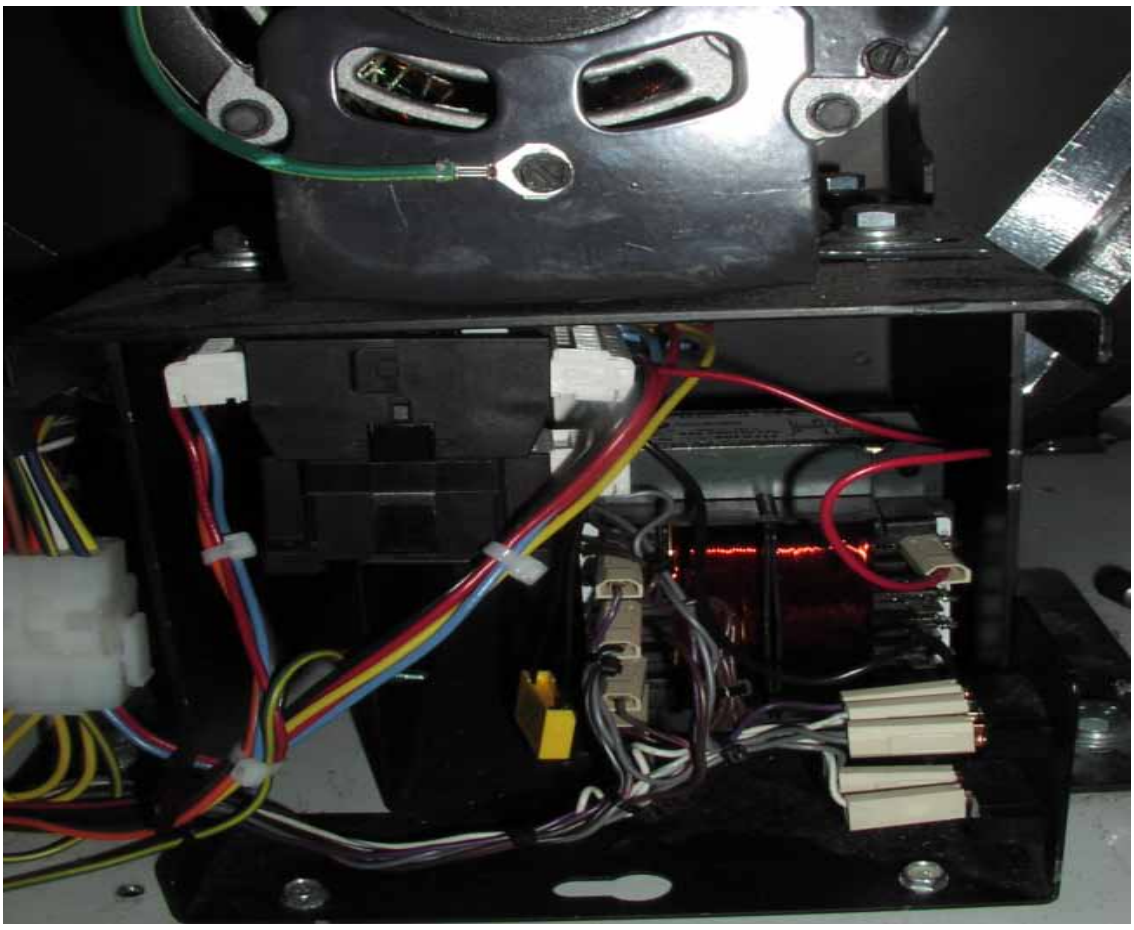
The control compartment is located behind the rear panel.

1. Cut the power to the machine.
2. Remove the back plate.
3. Check the control compartment for dust and carefully vacuum clean if necessary.
4. Reassemble the dryer.
5. Connect the power supply - remember to carry out a function check as described earlier in this section.

Control of the gas burner

Check semi-annually that the gas is burning evenly and with a bluish flame.

(12)



The area surrounding the dryer

Fresh-air intake to the room

Check that the fresh-air intake to the room and the exhaust ducts/pipes from the room are not clogged by lint/dust or blocked in any other way.

Dryer area

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

Safety and warning signs (US and Australia only)

Product safety signs or labels should be replaced when they no longer meet the legibility requirements for safe viewing.

Check that all the safety and warning signs are located on the dryer as shown in the installation manual supplied with the dryer. A copy of this manual is available from your dealer.

Replacement of safety signs or labels should be in accordance with the installation manual.

Abbreviations

Auto Stop	The tumble dryer stops automatically when the clothes are dry.
AHL	**A**partment **H**ouse **L**aundry - Communal laundries / Housing block laundries.
GN	Natural gas.
LPG	Bottle gas.
OPL	**O**n **P**remises **L**aundry - Institutional laundries.
PCB	**P**rinted **C**ircuit **B**oard.
RMC	**R**esidual **M**oisture **C**ontrol - The tumble dryer has residual moisture control.