# TECHNICAL INFORMATION
# Touchtronic Clothes Dryers

Includes: T1302, T1303, T1322, T1329ci
T1403 & T1405

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**030 – Drum, Rear Bearing, Sensor and Heater Bank**

**040 – Drive and Fan Motor**



**050 – Air Circulation and Front Bearing**



**055 – Condenser System**

**060 – Fascia Panel and Electrical Components**

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## Touchtronic Clothes Dryers - List of Tables

# General Information

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# A Warning and Safety Instructions

## 1 General Information

Service of this appliance should only be performed by qualified personnel; in accordance with local and national codes.

Power should be disconnected from the appliance during service. Unplug the appliance, or the shut off the appropriate circuit breaker.

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# B Modification History

| | | |
|---|---|---|
| 04/2004 | Miele USA | Preliminary Information |
| 06/2004 | Miele USA | Revised |
| 08/2004 | Miele USA | Revised |

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# C Technical Data

## Overview of Models

| Model Number | Capacity | Additional Information |
|---|---|---|
| T1302 | 5 Kg | Angled Controls, Vented |
| T1303 | 5 Kg | Flat Controls, Vented |
| T1322C | 5 Kg | Angled Controls, Condenser |
| T1329C | 5 Kg | Fully Integrated Style, Condenser (match for W1119) |
| T1323C | 5 Kg | Flat, Condenser |
| T1403 | 6 Kg | Angled Controls, Vented |
| T1405 | 6 Kg | Angled Controls, Vented, Stainless Steel Finish |

**Table C-1:** Overview of model numbers

**Note**
All models are left hinged. The door cannot be changed to right hinge operation.

## Electrical Information

| Electrical Requirements | Electrical Connection |
|---|---|
| 120/240 (208) VAC<br>(4 wire connection)<br>60 Hz, 15amp Circuit | NEMA 14-30 Molded Plug<br>(Do not remove) |

**Table C-2:** Electrical information

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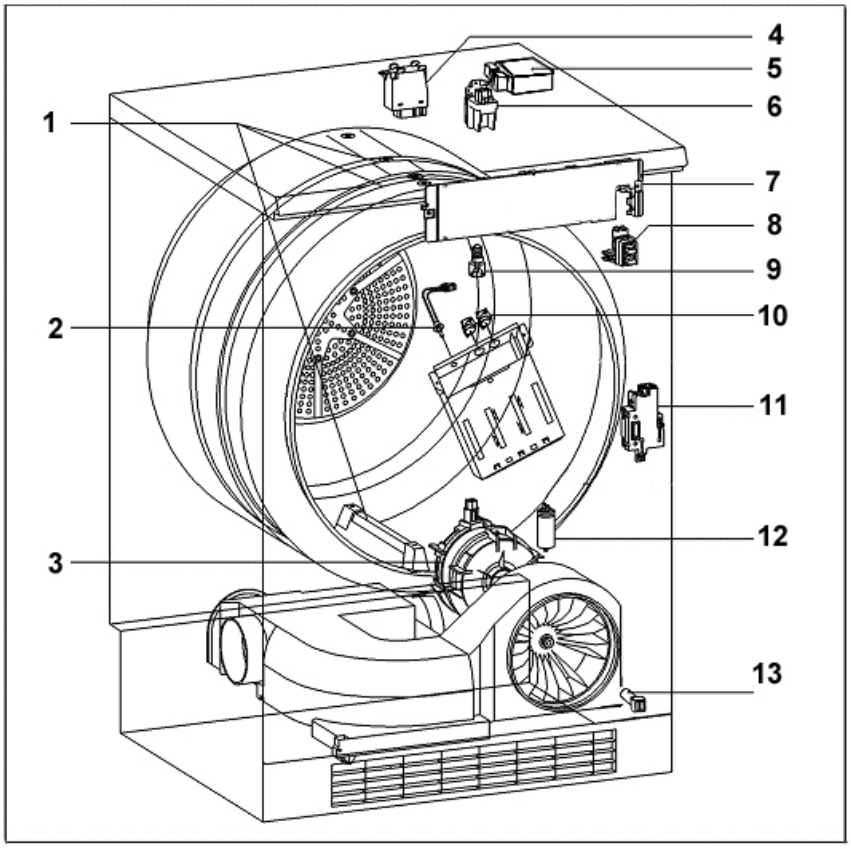
# D Layout of Electrical Components Vented Models




| | | |
|---|---|---|
| 1. | (B3/1) | Residual Moisture Sensor (Drum Ribs, Slip Rings) |
| 2. | (2R30) | NTC Temperature Sensor (Heater Bank) |
| 3. | (M5) | Main Drive / Fan Motor |
| 4. | (2K1/1) | Heater Relay |
| 5. | (1K1/1) | Heater Relay |
| 6. | (Z1) | Interference Suppression Capacitor |
| 7. | (1N1) | Electronic Unit |
| 8. | (S2) | On/Off Switch |
| 9. | (H3/6) | Drum Light |
| 10. | (F1) | Temperature Limiters-2 (Non Re-settable) |
| 11. | (A2) | Door Lock |
| 12. | (C5) | Capacitor – (for Motor M5) |
| 13. | (1R30) | NTC Temperature Sensor (Fan Housing) |

**Figure D-1:** Overview of Components – Vented Models

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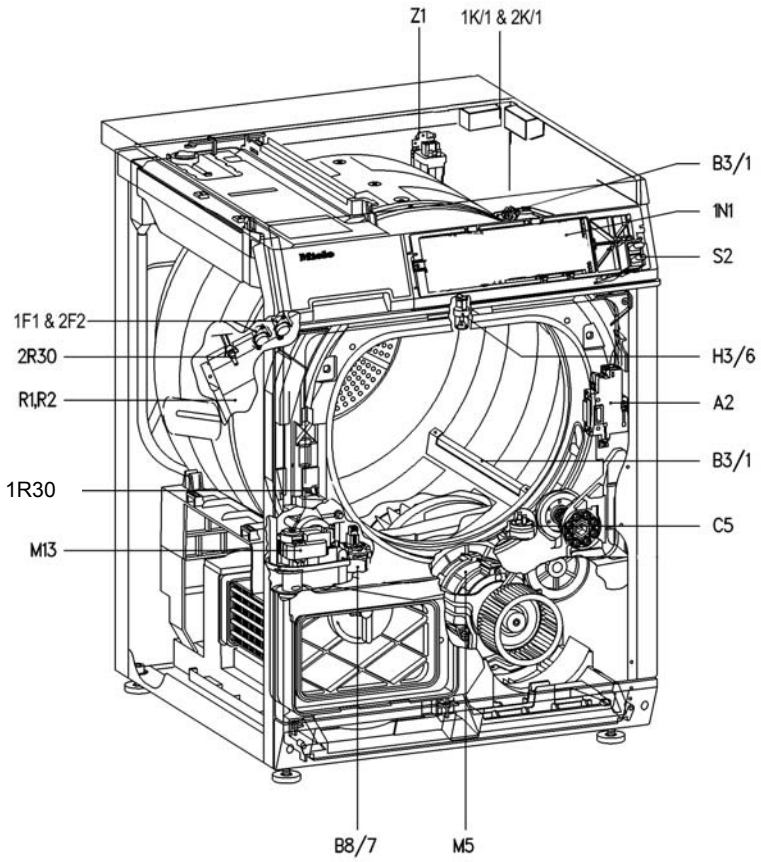
# D Layout of Electrical Components Condenser Models




| | |
|---|---|
| A2 | Door Lock |
| B3/1 | Residual Moisture Sensor |
| B8/7 | Level Switch |
| C5 | Capacitor |
| 1F1 / 2F2 | Temperature Limiter (Non Re-settable) |
| H3/6 | Drum Lighting |
| K1/1 | Heating Relay |
| M5 | Fan And Drum Drive Motor |
| M13 | Condensate Pump (Condenser Dryer Only) |
| 1N1 | Electronic |
| R1 | Heater Bank |
| R2 | Heater Bank |
| 1R30 | NTC Temperature Sensor (Fan Housing) |
| 2R30 | NTC Temperature Sensor (Heater Bank) |
| S2 | On/Off Switch |
| Z1 | Interference Suppression Capacitor |

**Figure D-2:** Overview of Components – Condenser Models

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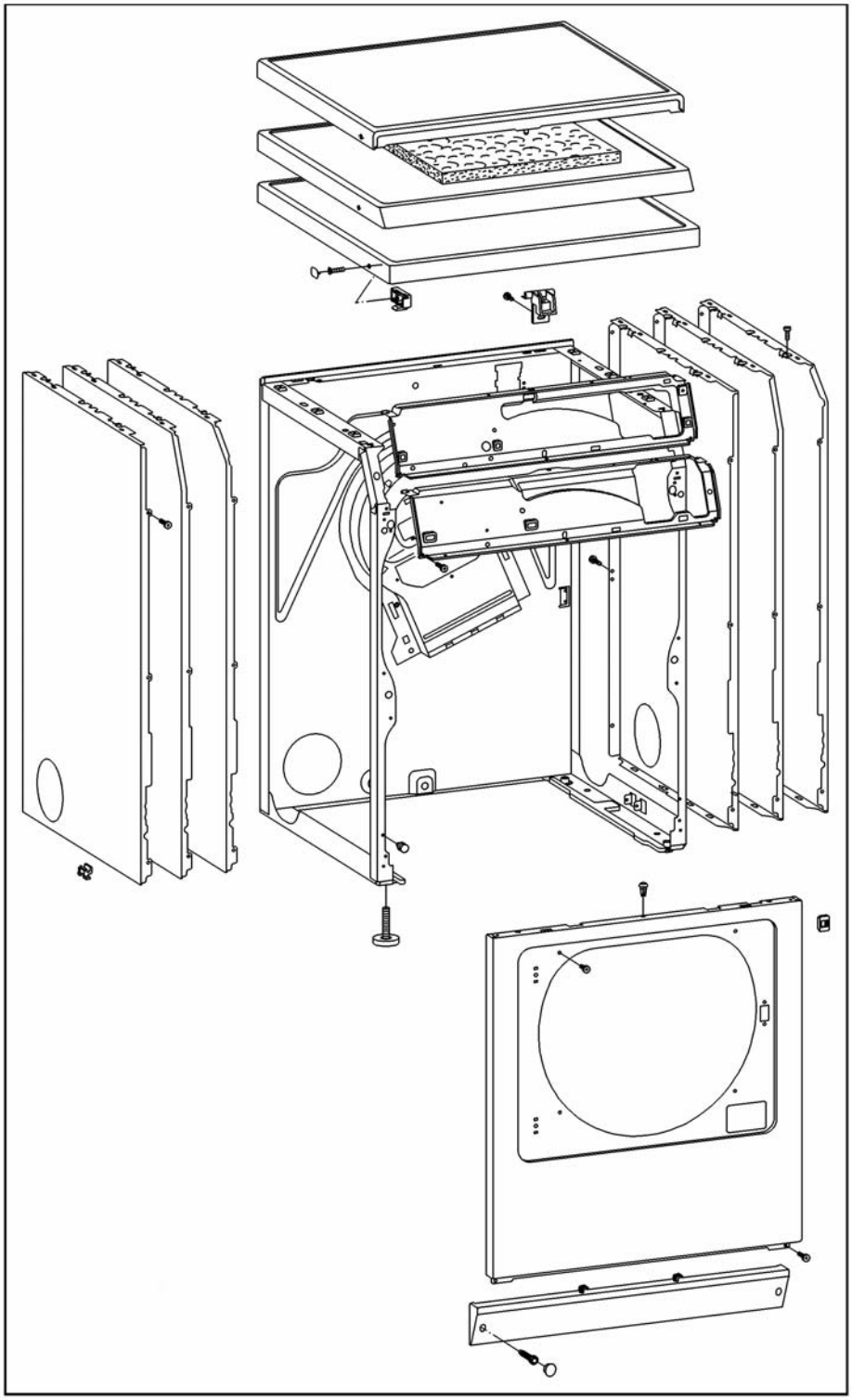
# 010 Cabinet and Front Panel



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# 1 Technical Data

- To Be Updated

# 2 Function

n/a

# 3 Fault Repair

n/a

# 4 Service

## 4.1 Lid - Removal

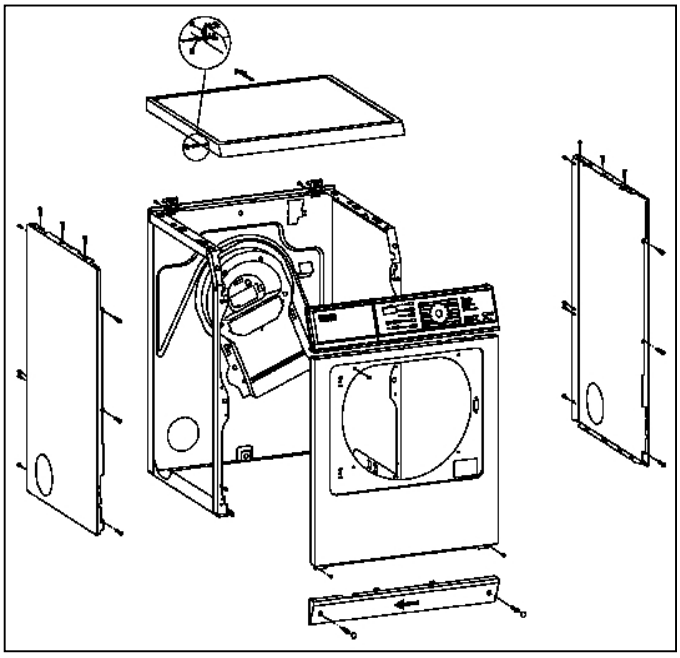


**Figure 010-1:** Cabinet Construction

1. Remove the screw caps from the side edges of the lid.
2. Loosen the screws about 4 to 5 turns.
3. Press in on the screws, lift the lid from the front and slide it toward the rear. Lift the lid to remove.

**Note**
It is not necessary to remove the lid to access / replace the electronic.

## 4.2 Toekick Removal

1. Remove the screw caps, Figure 010-1.
2. Remove the screws.
3. Slide the toekick to the left; pull from the appliance to remove.

## 4.3 Front Panel - Removal

1. Open the door.
2. Remove the two Door Lock screws.
3. Remove the five screws around the door opening.
4. Remove the toekick (010 4.2).
5. Support the panel from the bottom. Remove the two screws from the bottom corners of the panel.
6. Guide the panel downward to remove it from the appliance.

## 4.4 Side Panel - Removal

1. Remove the Lid (010 4.1).
2. Remove the Front Panel (010 4.3).
3. Refer to Figure 010-1. Remove the three screws from both rear edges of the panel.
4. Remove the three screws from the top edge of the panel.
5. Remove the three screws from the front edge of the panel.
6. If equipped - remove the dryer vent (or cap).
7. Pull the panel outward from the top.
8. Push the panel down to unclip it from the bottom of the frame.

**Reassembly Note**
Install the panel at the bottom first. Ensure the lip on the panel engages with the frame of the appliance. The 2 middle screws / washers provide the ground to the panels. Ensure they are tight during reassembly.

## 4.5 Support Bracket – Removal

1. Remove the Lid (010 4.1).
2. Remove the Fascia Panel (060 4.4)
3. Disconnect the connectors and pushbutton assembly from the electronic.
4. Remove the rear frame of the Fascia Panel.
5. Disconnect the ground wire.

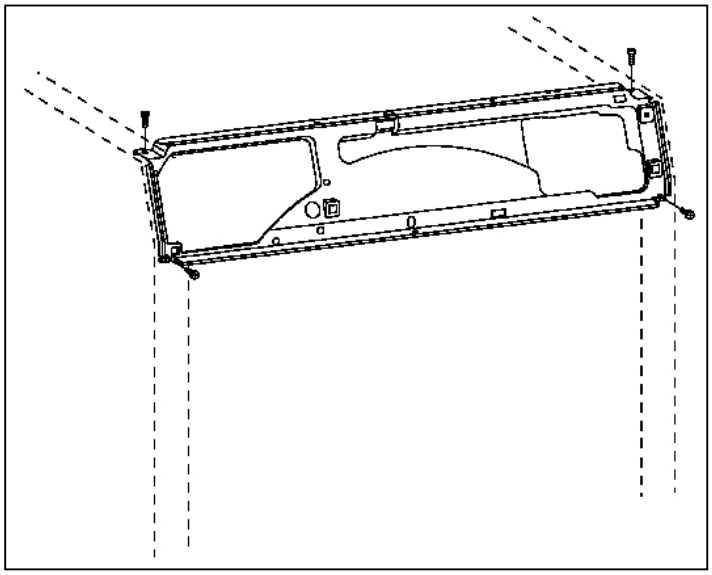


**Figure 010-2:** Support bracket

6. Remove the four T20 screws, Figure 010-2.
7. Lift upwards to remove the support bracket.

**Reassembly Note**
During re-assembly ensure the Support Bracket tabs are completely engaged into the frame before tightening the screws.

## 4.6 Rear Access Panel - Removal

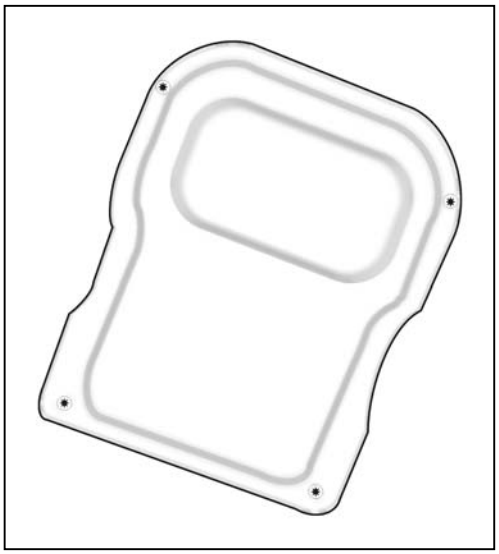


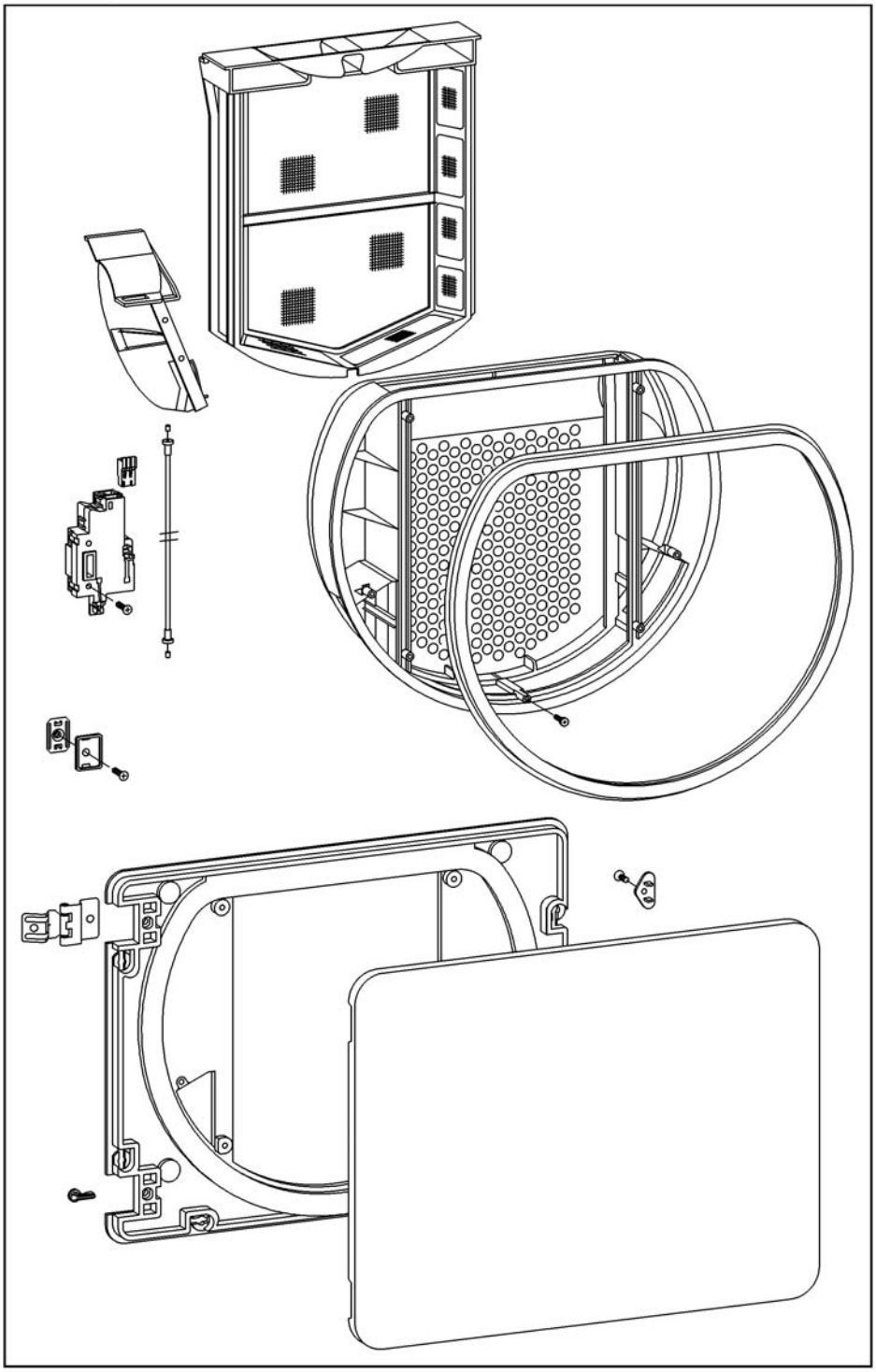
**Figure 010-3:** Rear Access Panel

1. Remove the 4 retaining screws.
2. Lift the panel from the appliance.

**Note**
Remove the Rear Access Panel for access to:
- The Heater Bank
- The Heater Bank (NTC) Temperature Sensor
- Both Temperature Limiters
- The Rear Drum Bearing

Refer to section 030 / Heater Bank for further information.

# 020 Door and Door Lock



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# 1 Technical Data

## 1.1 Door Lock

Mechanically operated; via cable and door button.

# 2 Function

n/a

# 3 Fault Repair

n/a

# 4 Service

## 4.1 Outer Door Panel – Removal

1. Open the door.
2. Refer to Figure 020-1.
3. Turn the six retainers a quarter turn counterclockwise.
4. Pull the bottom of the outer door panel (while lifting it upward) to remove.

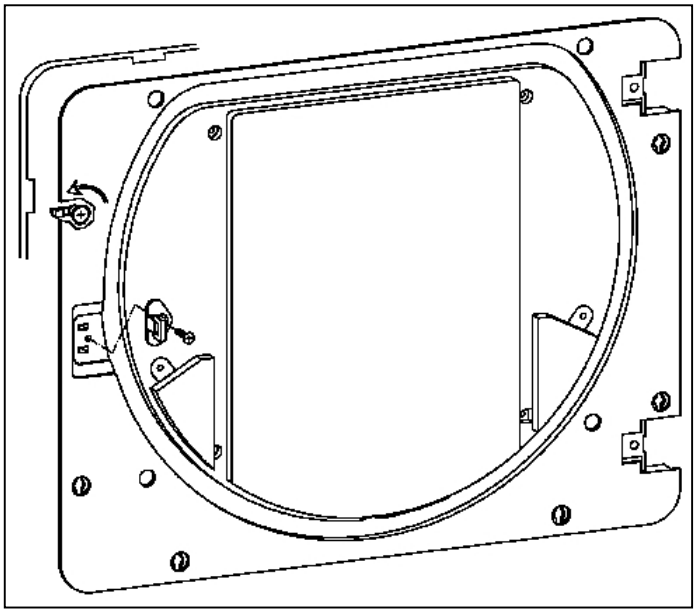


**Figure 020-1:** Removing the outer door panel.

## 4.2 Door Lock – Removal

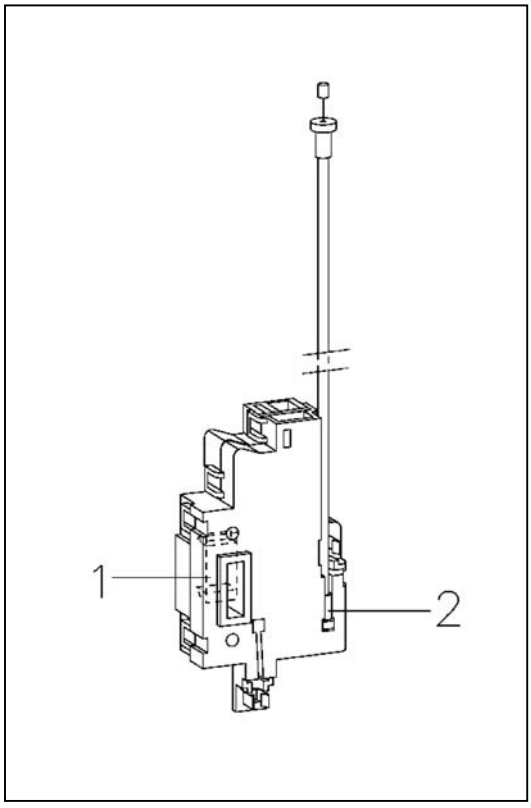


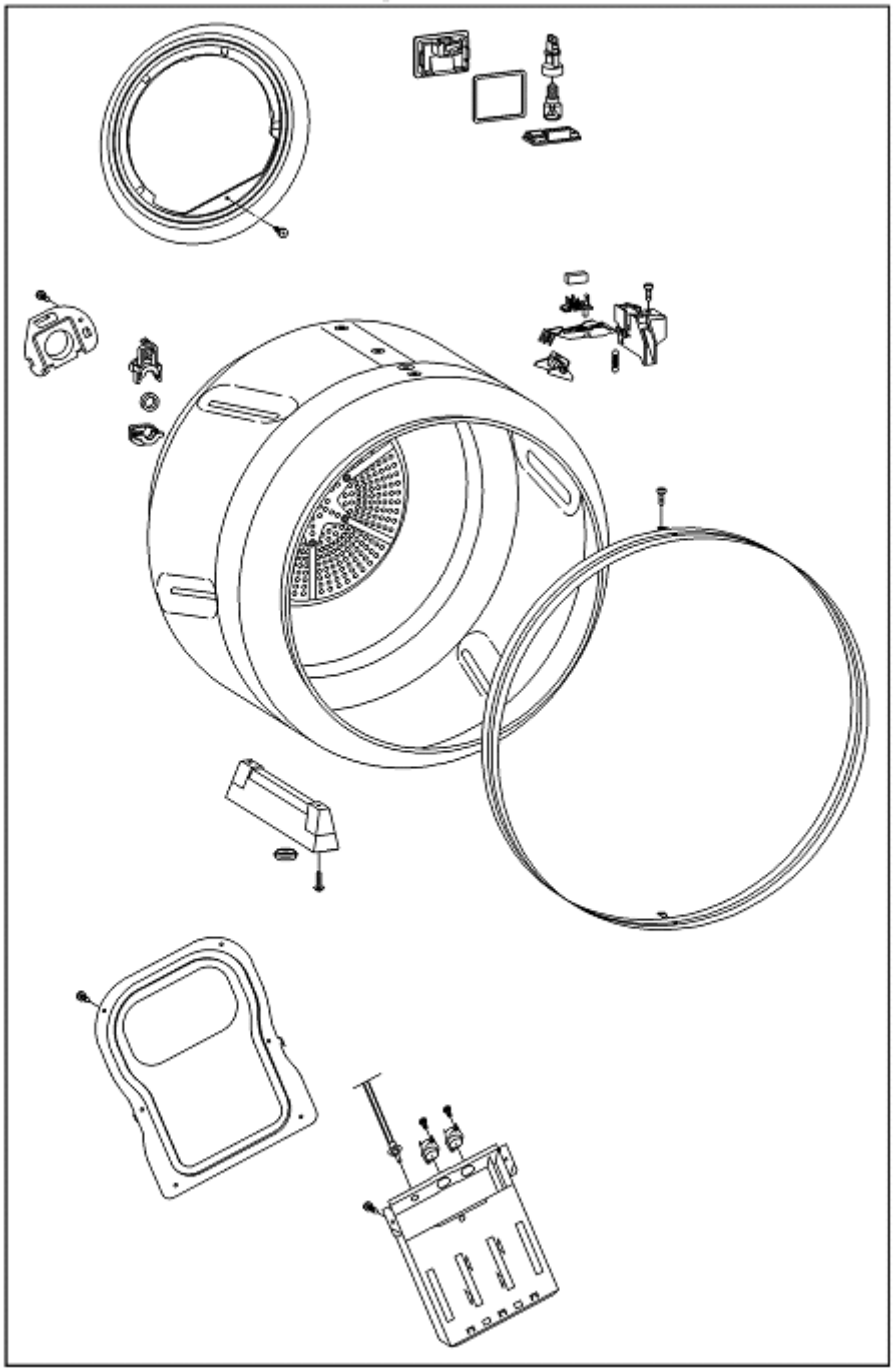

**Figure 020-2:** Door Lock

1. Open the door.
2. Remove the Front Panel (010 4.3).

> **Note**
> Refer to Figure 020-2. The Door Lock, (1) uses a snap-in style retainer to attach to the drum support housing.

3. Remove the Door Lock from the drum support housing.
4. Disconnect the electrical connection.
5. Release the cable (2).

# 030 Drum, Rear Bearing, Sensor and Heater Bank



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# 1 Technical Data

## 1.1 Heater Bank (NTC) Temperature Sensor – Resistance Values

The heater bank temperature is monitored by the electronic via an NTC (Negative Thermal Coefficient). Temperature Sensor mounted at the top of the Heater Bank Assembly. As the temperature increases – the resistance of the sensor decreases.

| Temperature (°C) | Temperature (°F) | Resistance (kΩ) |
|---|---|---|
| 15 | 59 | 159 |
| 20 | 68 | 126 |
| 25 | 77 | 100 |
| 30 | 86 | 80.2 |
| 35 | 95 | 64.8 |
| 40 | 104 | 52.7 |
| 45 | 113 | 43.1 |
| 50 | 122 | 35.5 |
| 55 | 131 | 29.4 |
| 60 | 140 | 24.5 |
| 65 | 149 | 20.5 |
| 70 | 158 | 17.3 |
| 75 | 167 | 14.6 |
| 80 | 176 | 12.5 |

**Table 030-1:** Heater Bank Temperature Sensor resistance values

## 1.2 Heater Element – Activation

| Program | Option Selected | Heater Element R1 | Heater Element R2 |
|---|---|---|---|
| Normal | - | N | Y |
| Normal | Turbo | Y | Y |
| Normal | Full Load | Y | Y |
| Normal | Gentle | N | Y |

**Table 030-2:** Heater Element Activation

# 2 Function

## 2.1 Residual Moisture Sensor System

The Electronic Residual Moisture Sensor system uses the amount of moisture in the laundry to determine how wet / dry the laundry is.

### 2.1.1 Residual Moisture Sensing – Drum Assembly

The contacts for the system are isolated as follows:

- Contact 1 – Drum Body
- Contact 2 – Drum Ribs

The contacts connect to two slip rings on the outside of the drum.

### 2.1.2 Residual Moisture Sensor – Brush Assembly

The Brush Assembly is mounted on the right side top edge of the frame. The Sensor has two brushes that contact the slip rings on the outside of the drum. The signal is sent to the Electronic through connector JP1 (pins 1 and 2) on the Electronic.

## 2.2 Drum Bearing

The Rear Drum Bearing provides support for the rear of the drum. The bearing assembly is fitted to the rear panel of the appliance using a twist-lock design.

## 2.3 Heating

### 2.3.1 Heater Bank

The Heater Bank uses two independently controlled elements (R1 and R2). AC power to elements is controlled by the Electronic via two independent Heater Relays.

### 2.3.2 Heater Bank Temperature Sensor

The temperature of the Heater Bank is monitored by the Electronic via the Temperature Sensor mounted at the top of the Heater Bank Assembly. Refer to 030 1.1 for further operating information.

### 2.3.3 Thermostats (Temperature Limiters)

Two electrically isolated safety thermostats are mounted at the top of the Heater Bank Assembly. Both devices interrupt power to the elements should the temperature exceed a specific temperature.

**Note**
The thermostats are non-resetable SOD (Single Operation Devices). Should the device electrically open the circuit– it must be replaced.

# 3 Fault Repair

n/a

# 4 Service

## 4.1 Drum - Removal

1. Remove the Front and Side Panel (010 4.3 and 4.4).
2. Remove the Support Bracket (010 4.5)
3. Remove the drum support housing (050 4.1)
4. Release the Drive Belt from the intermediate drive.

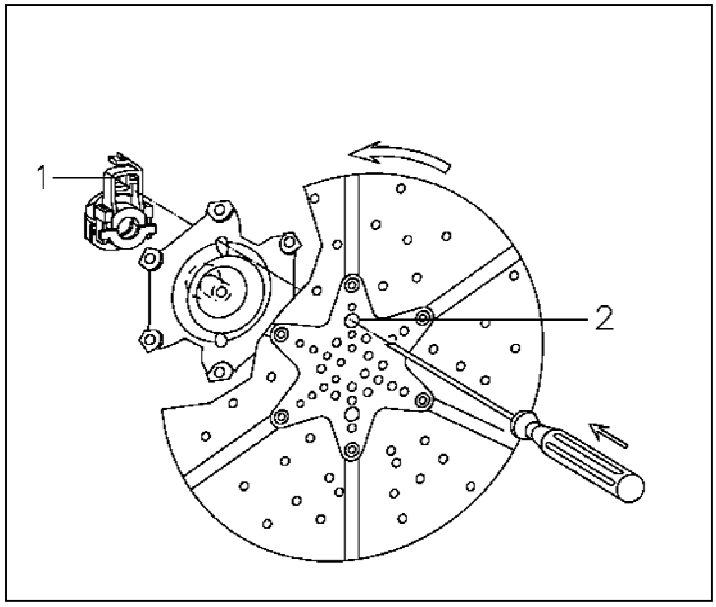



**Figure 030-1:** Drum Bearing

5. Refer to Figure 030-1.
6. Block the Bearing using a screwdriver through the opening (2) in the rear panel of the drum.
7. While holding the screwdriver; turn the drum counterclockwise.
8. Move the drum forward to remove it from the frame.

**Re-Assembly Note**
Ensure the Bearing is twisted and locked back into position. A screwdriver can be used to hold the bearing in place during re-installation (see Figure 030-1).

## 4.2 Drum Rib - Removal

1. Remove the lid (010 4.1)
2. Refer to Figure 030-2,
3. Remove the screws (1).
4. Remove the slip ring screw (2).
5. Reassemble by following these instructions in reverse order.

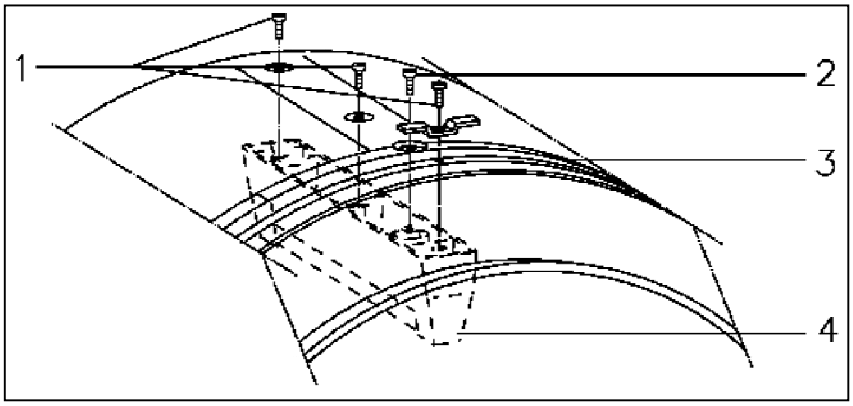



**Figure 030-2:** Drum Rib Hardware

## 4.3 Slip Ring - Removal

1. Remove the Drum (030 4.1).
2. Remove the slip ring screws.
3. Turn the drum by hand about 180and remove the screws from the second drum rib.
4. Remove the slip ring from the drum.

## 4.4 Drum Bearing - Removal

1. Remove the Rear Access Panel (010 4.6).
2. Refer to Figure 030-3.
3. Remove the 2 screws (2),
4. Slide the cover (1), to the left and remove it.
5. Turn the Drum Bearing clockwise until it is fully visible.
6. Open the bearing shell clips (3), with a small screwdriver (4).
7. Remove the bearing shells to the left and right.

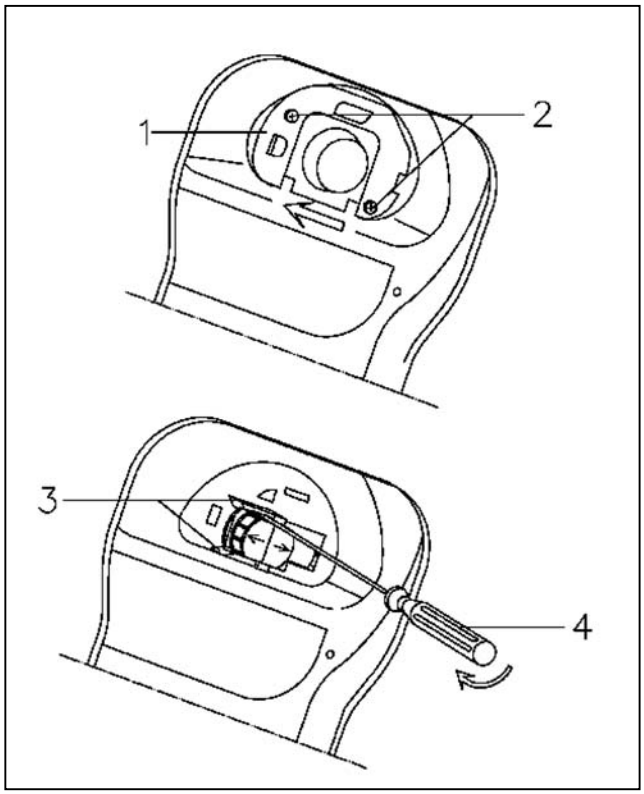



**Figure 030-3:** Drum Bearing

## 4.5 Heater Bank - Removal

1. Remove the Lid (010 4.1)
2. Remove the Rear Access Panel (010 4.6).

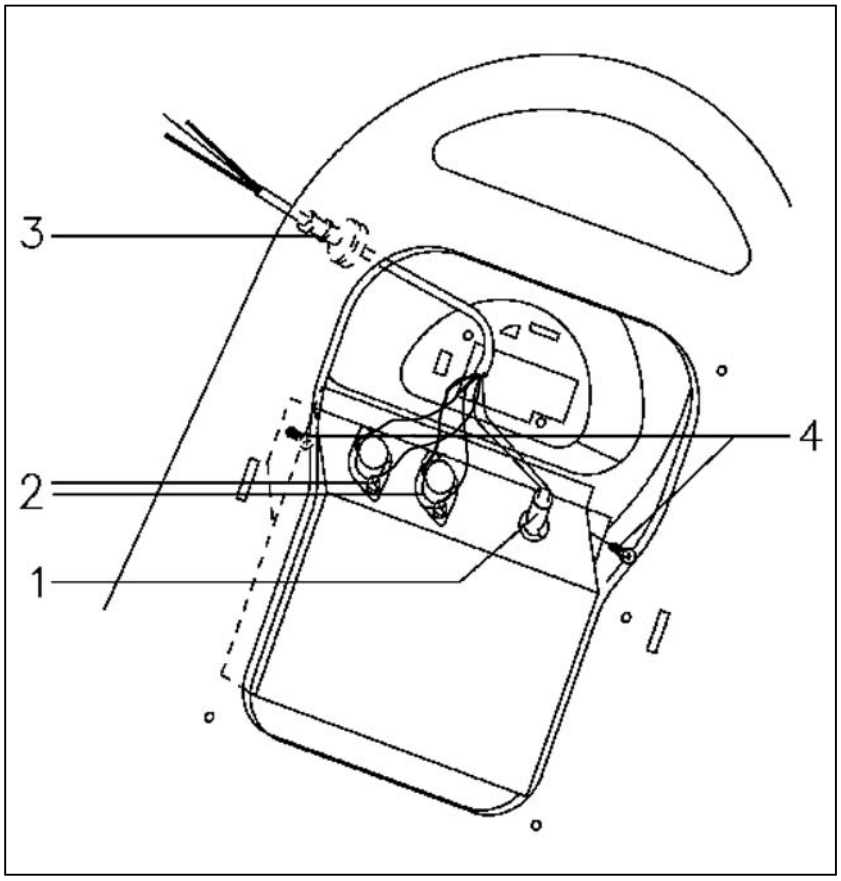



**Figure 030-4:** Heater bank, temperature limiters and temperature sensor

3. Note and disconnect the electrical connectors.
4. Refer to Figure 030-5.
5. Release the wiring harness from its holder (1).
6. Remove the rubber grommet (3), with the wiring harness.

7. Refer to Figure 030-4. Remove the two 7mm screws (4).
8. Remove the heater bank.

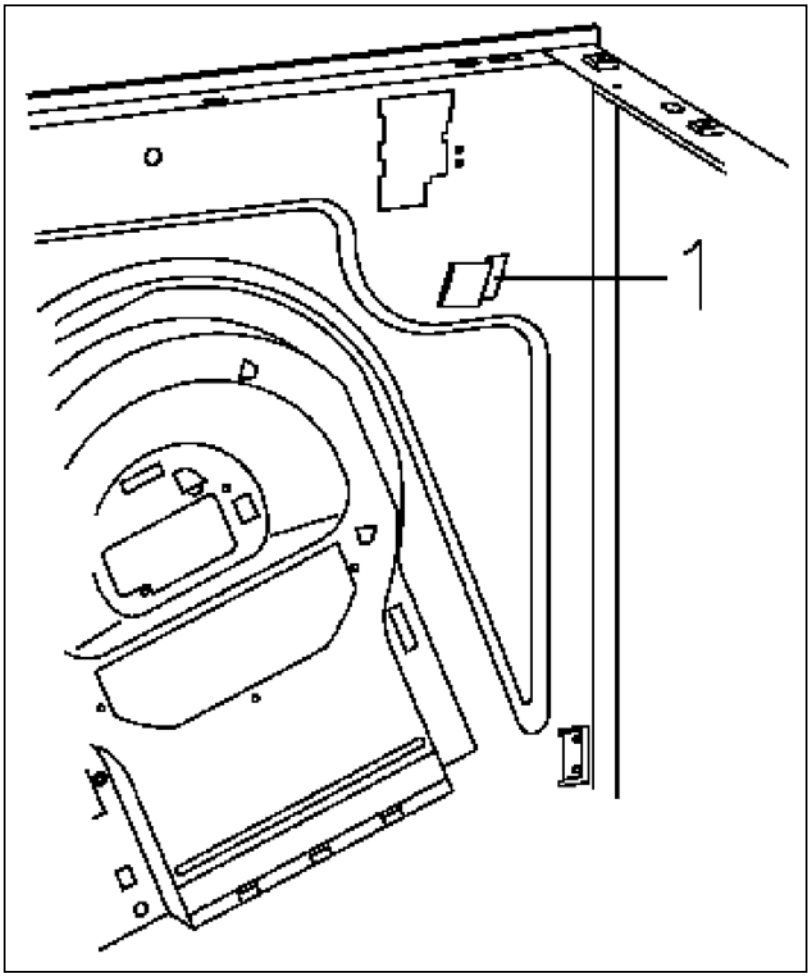


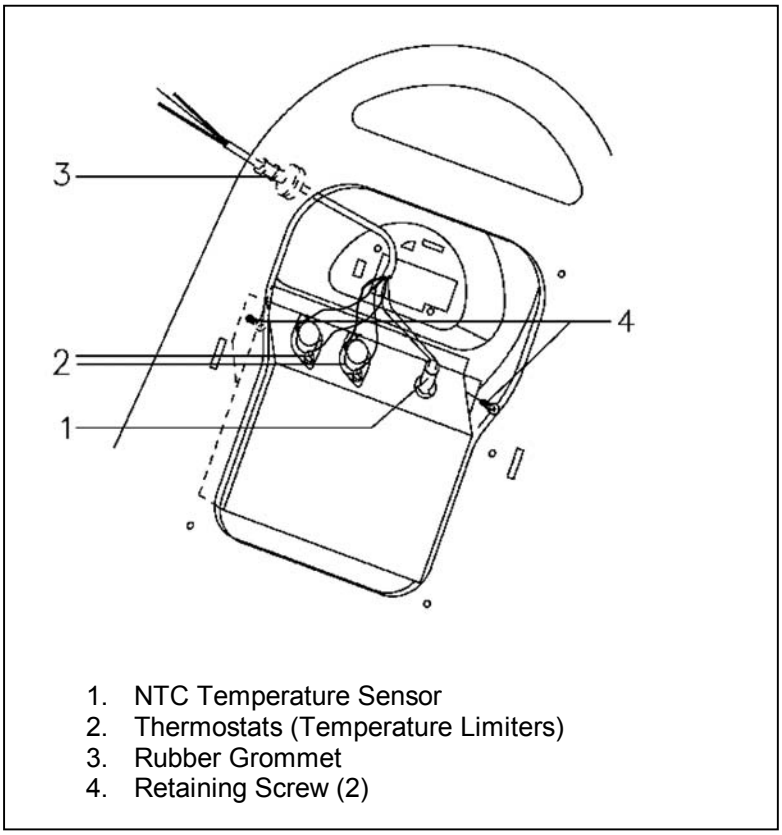

**Figure 030-5:** Wiring harness holder

### Reassembly Note

To prevent damage to the wiring, ensure the harness is secured in its holder (Figure 030-5).

## 4.6 NTC Temperature Sensor - Removal

1. Remove the Rear Access Panel (010 4.6).




1. NTC Temperature Sensor
2. Thermostats (Temperature Limiters)
3. Rubber Grommet
4. Retaining Screw (2)

**Figure 030-6:** Removing the access cover on the rear outer wall of the appliance permits access to the Heater Bank, Thermostats (Temperature Limiters) and Temperature Sensor.

2. Disconnect the connector to the Sensor.
3. Bend the sensor retaining tabs to release the sensor from the Heater Bank Assembly.

## 4.7 Thermostats (temperature limiters) - Removal

1. Remove the Rear Access Panel (010 4.6).
2. Note and disconnect the electrical connections.
3. Remove the screws.
4. Lift the Thermostat(s) from the Heater Bank Assembly.

## 4.8 Residual Moisture Sensor – Removal

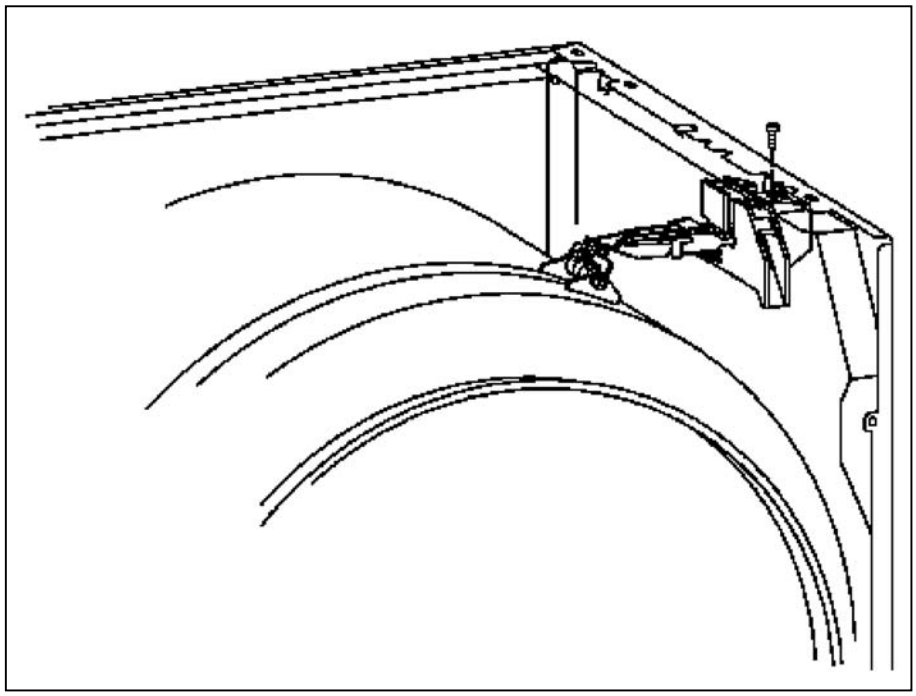


**Figure 030-7:** Wiring harness holder

1. Remove the Lid (010 4.1)
2. Remove the mount screw.
3. Release the wiring from the base plate / frame.
4. Disconnect the ground wire.
5. Access the Electronic (060 4.5).
6. Disconnect connector “JP1” from the Electronic.
7. Remove the assembly from the edge of the casing.

## 4.9 Residual Moisture Sensor Carbon Brush - Replacement

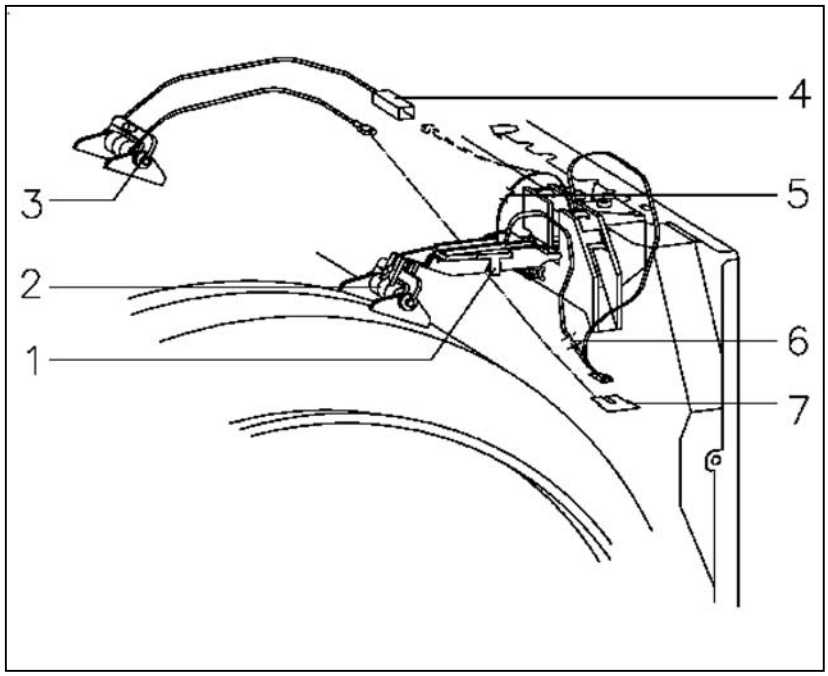



**Figure 030-8:** Residual Moisture Sensor Brush Replacement

1. Remove the Lid (010 4.1).
2. Refer to Figure 030-8.
3. Lift the Brush Assembly arm and release the two brushes from the arm.
4. Remove the snap on cover (1) from the arm.
5. Install the new brushes on the holder arm.
6. Cut the black wire (5), at the connector to the braided copper wire. Install an insulating sleeve and splice the black wire from the new carbon brush. Ensure the connection is tight and sealed.
7. Cut off the green/yellow wire next to the double connection plug.
8. Connect the green/yellow wire from the new carbon brushes to the double connector on the edge of the casing (7).
9. Secure the plug and wiring to the wiring retainers.

## 4.10 Rear Seal - Removal

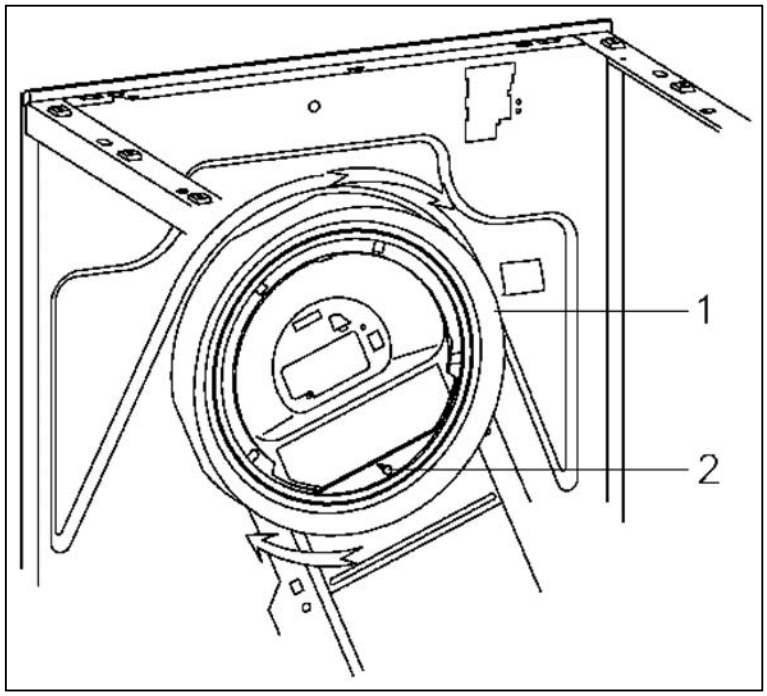
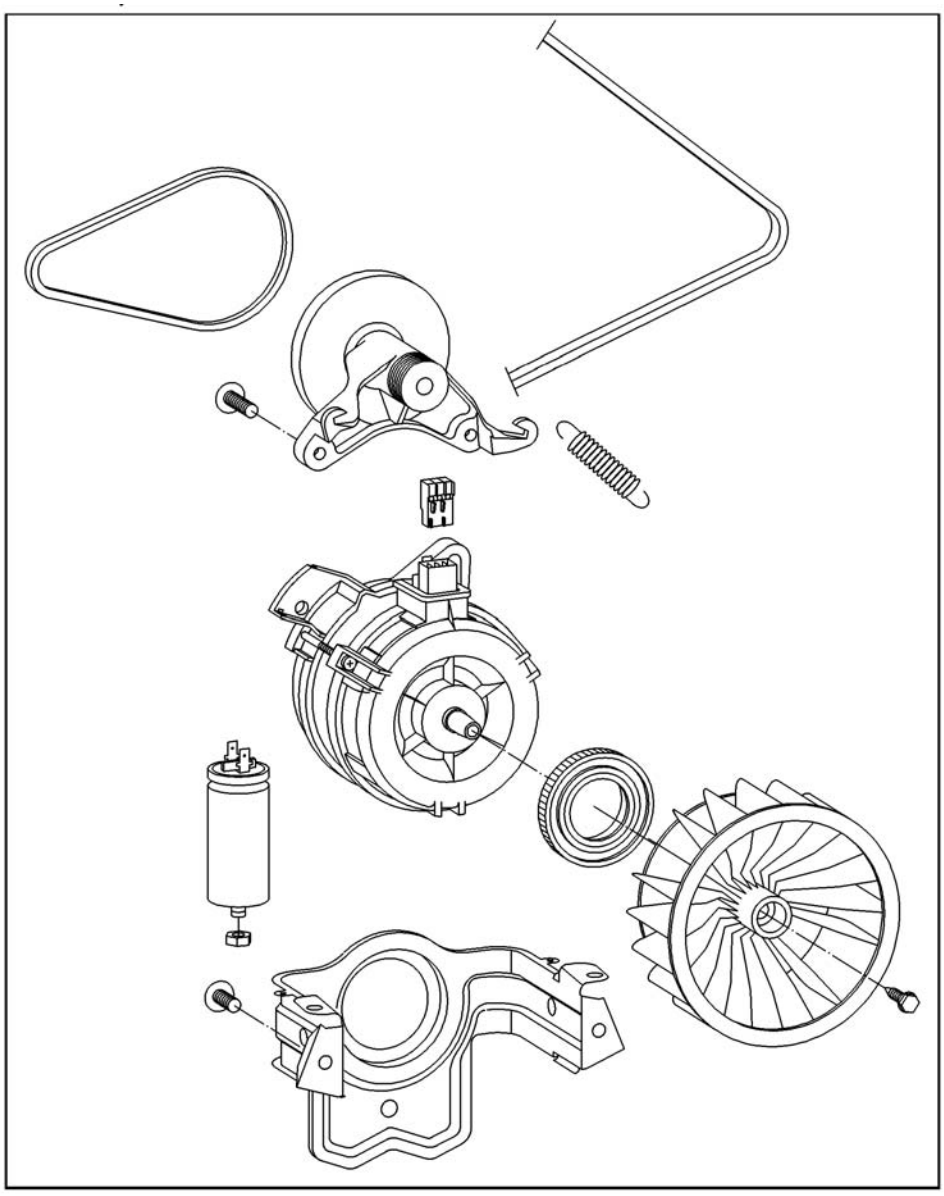



**Figure 030-9:** Rear Drum Seal

1. Remove the Drum (030 4.1)
2. Refer to Figure 030-9.
3. Remove the screw (2).
4. Turn the seal and fixing ring (1), counterclockwise to remove it from the holder.

**Note**
To properly install the seal, it must be rotated clockwise. Refer to Figure 030-9.

# 040 Drive and Fan Motor



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# 1 Technical Data

| | |
|---|---|
| Main Motor | 120VAC |

# 2 Function

## 2.1 Main Motor

The Main Motor provides power to the Drum using an intermediate gear / drive belt assembly.

The fan impeller(s) (two on condenser dryers – refer to Figure 040-1) are mounted on the motor shaft and move the airflow through the appliance.

Reversing of the motor is controlled by the Electronic.

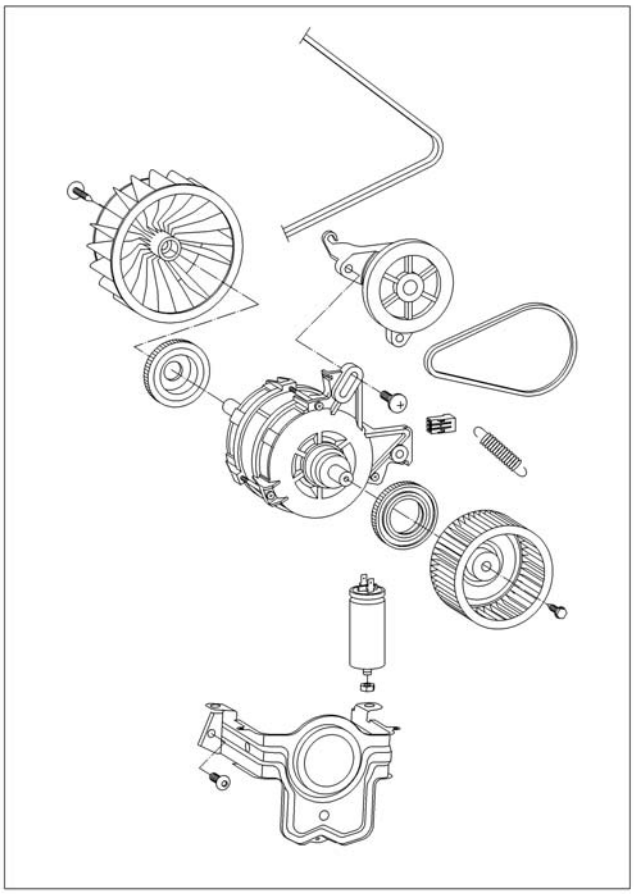

**Figure 040-1:** Motor and Fan Impellers (Condenser Models)

# 3 Fault Repair

n/a

# 4 Service

## 4.1 Drum Drive Belt - Removal

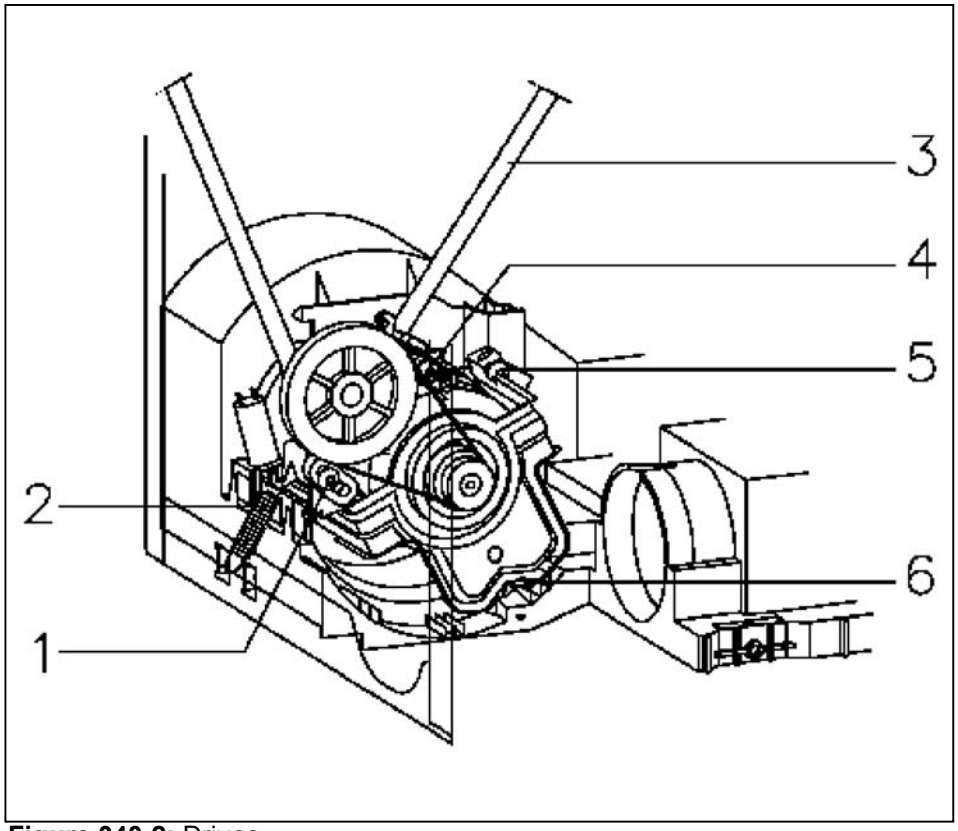


**Figure 040-2:** Drives

1. Remove the right Side Panel (010 4.4)
2. Refer to Figure 040-2.
3. Unclip the spring (2).
4. Remove the Support Bracket (010 4.5)
5. Remove the drum support housing. (050 4.1).
6. Remove the drive belt by lifting it from the drum toward the front of the appliance.

## 4.2 V-Belt - Removal

1. Remove the right Side Panel (010 4.4)
2. Refer to Figure 040-1.
3. Unclip the tensioning spring (2).
4. Loosen the bolts (1 and 4), and remove the V-belt.

## 4.3 Intermediate Drive - Removal

1. Remove the Drum Drive Belt (040 4.1)
2. Remove the V-Belt (040 4.2)
3. Remove the bolts (1 and 4), and remove the intermediate drive.

## 4.4 Fan Impeller (Vented Models) – Removal

1. Remove the right Side Panel (010 4.4)
2. Remove the access cover from the Fill Ring. (050 4.1)
3. Hold the Fan Impeller and remove the 10 mm bolt from the center of the Fan Impeller
4. Remove the Fan Impeller from the shaft.

## 4.5 Drive Motor (Vented Models) - Removal

1. Remove the right Side Panel (010 4.4).
2. Remove the access cover from the drum support housing.
3. Remove the Fan Impeller (040 4.4).
4. Remove the Ducting – as necessary.
5. Remove the Drive Belt (040 4.1)
6. Disconnect the drive motor connections.
7. Refer to Figure 040-1. Remove the two mounting screws (6).
8. Turn the motor bracket slightly counterclockwise and lift it from the appliance.

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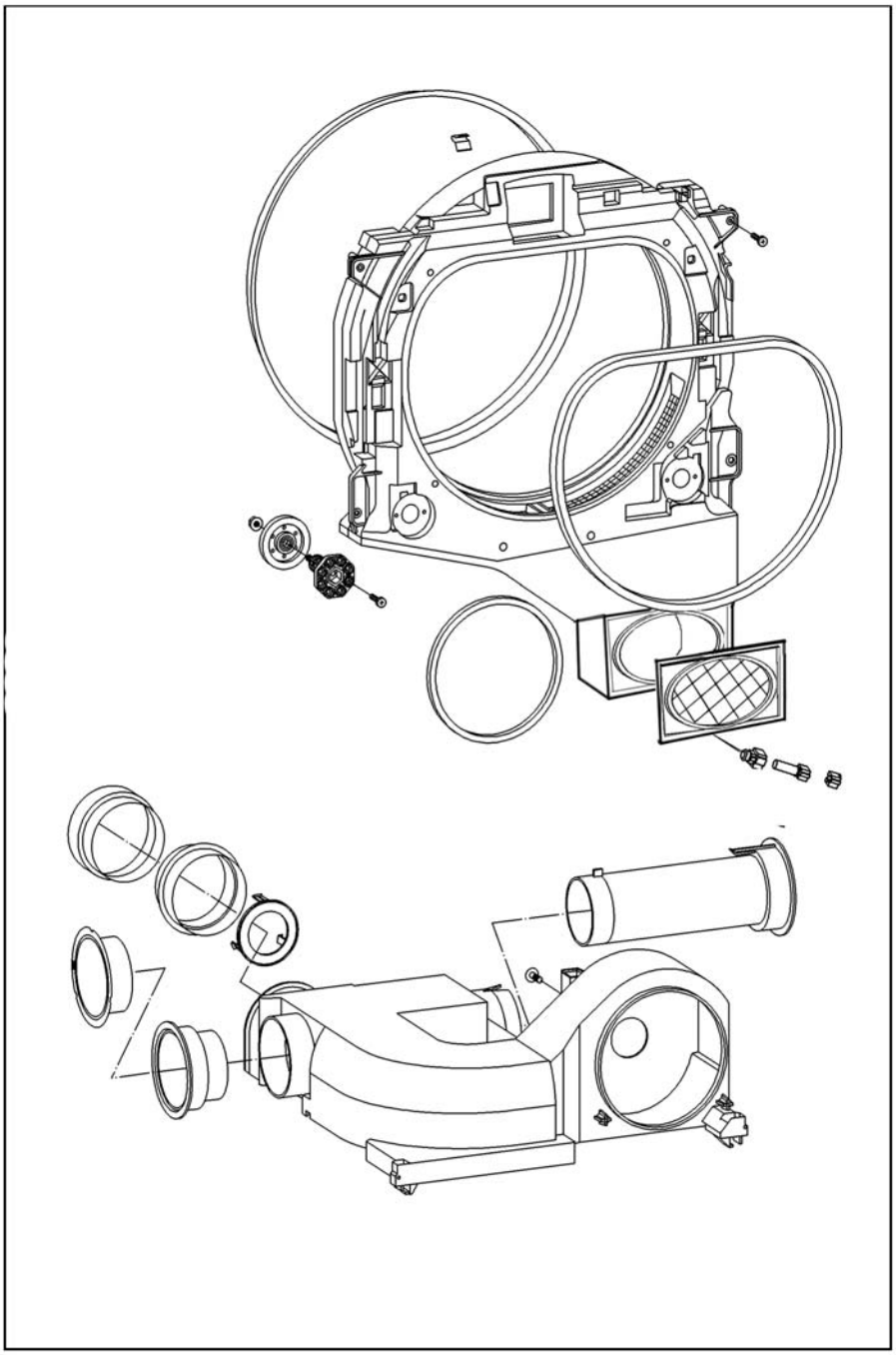
# 050 Air Circulation and Front Bearing



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# 1 Technical Data

## 1.1 1R30 (NTC) Temperature Sensor (Fan Housing) - Resistance Values

| Temperature (°C) | Temperature (°F) | Resistance (kΩ) |
|---|---|---|
| 15 | 59 | 18.6 |
| 20 | 68 | 14.9 |
| 25 | 77 | 12.0 |
| 30 | 86 | 9.73 |
| 35 | 95 | 7.96 |
| 40 | 104 | 6.55 |
| 45 | 113 | 5.42 |
| 50 | 122 | 4.52 |
| 55 | 131 | 3.78 |
| 60 | 140 | 3.19 |
| 65 | 149 | 2.70 |
| 70 | 158 | 2.29 |
| 75 | 167 | 1.96 |
| 80 | 176 | 1.68 |

**Table 050-1:** Fill Ring Temperature Sensor resistance values

# 2 Function

## 2.1 Drum Support Housing

The Drum Support Housing:

- Guides the drying air from the drum to the air guide
- Contains the Front Drum Bearing and Front Seal
- Secures the Drum Light Assembly
- Contains a removable access panel to the Fan Impeller (vented models only)
- Provides a port for 2nd NTC Temperature Sensor.

## 2.2 Front Drum Bearing

The Front Drum Bearing consists of two rollers that support the Drum from the bottom / front.

## 2.3 NTC Temperature Sensor

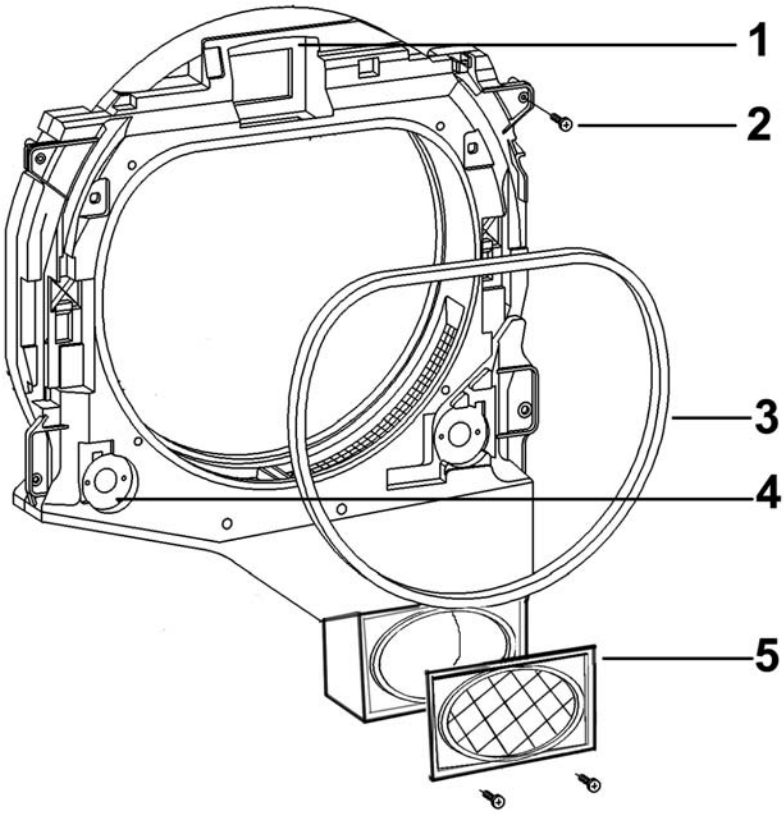
The NTC Temperature Sensor in the drum support housing measures the temperature of the drying air flowing through it. On vented dryers the sensor is fitted on the right side, below the access panel. On condenser models the sensor is fitted on the left side of the drum support housing.

## 2.4 Front Seal

The Front Seal provides an airtight connection between the drum and the drum support housing.

## 2.5 Porthole Seal

The Porthole Seal provides the airtight connection to allow the correct passage of air through the air filter fitted within the front door.




1. Drum Light Holder
2. Mounting Screw (four)
3. Porthole Seal
4. Front Drum Bearing Mount
5. Fan Impeller Access Cover

**Figure 050-1:** Drum Support Housing (Vented Models)

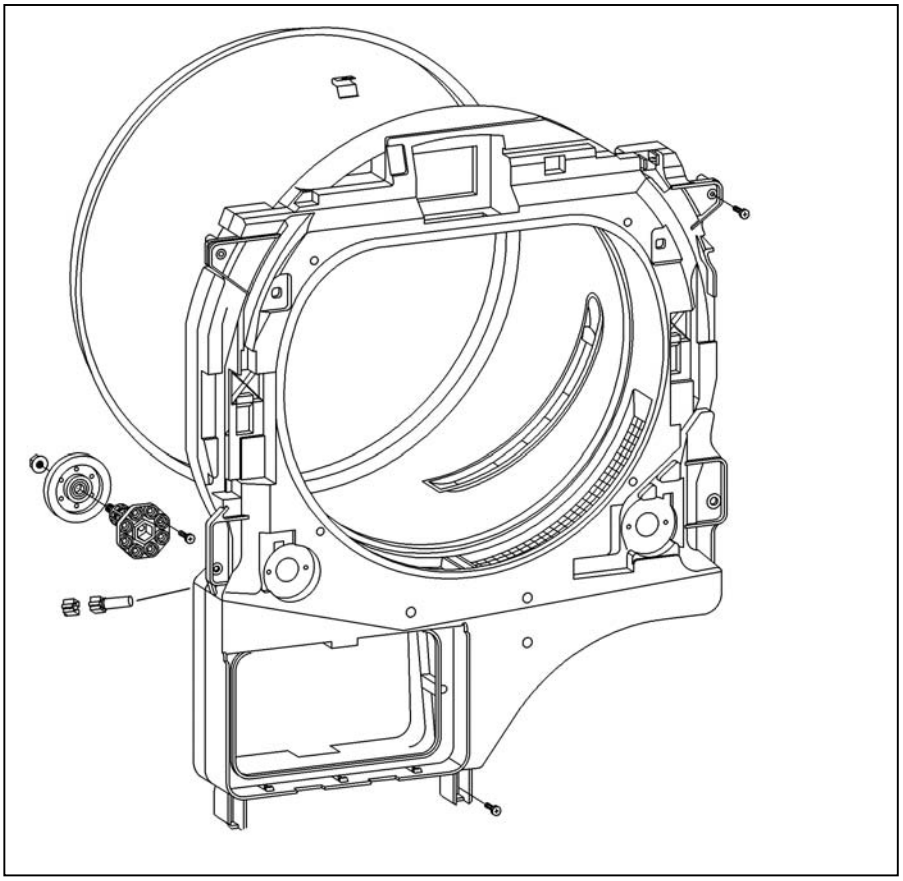


**Figure 050-2:** Drum Support Housing (Condenser Models)

# 3 Fault Repair

## 3.1 Drying temperature too high

**Cause**

Excessive lint build-up

**Remedy**

Clean the filter(s), drum support housing temperature sensor and ducting as necessary.

# 4 Service

## 4.1 Drum Support Housing – Removal

**Caution**
To prevent damage to the Rear Drum Bearing, ensure the drum is empty and no excess weight is placed on the drum while the drum support housing is uninstalled from the appliance.

1. Remove the Lid (010 4.1).
2. Remove the Fascia Panel (060 4.4)
3. Remove the Electronic (060 4.5).
4. Remove the Fascia Panel frame.
5. Remove the Front Panel (010 4.3)
6. Remove the Fan Impeller (040 4.4)
7. Remove the Support Bracket (010 4.5)
8. Remove the screws from around the drum support housing.
9. Unclip the bulb holder.
10. Disconnect the connector for the Temperature Sensor.
11. Disconnect the cable from the Door Lock Button.
12. Slide the drum support housing upward to release the retainers from the frame. Lift the drum support housing from the appliance.
13. Reassemble by following these instructions in reverse order.

**Reassembly Note**
Ensure all locking tabs on drum support housing are fully engaged in the frame before installing any retaining screws.

## 4.2 Front Drum Bearing – Adjustment (does not apply to all models)

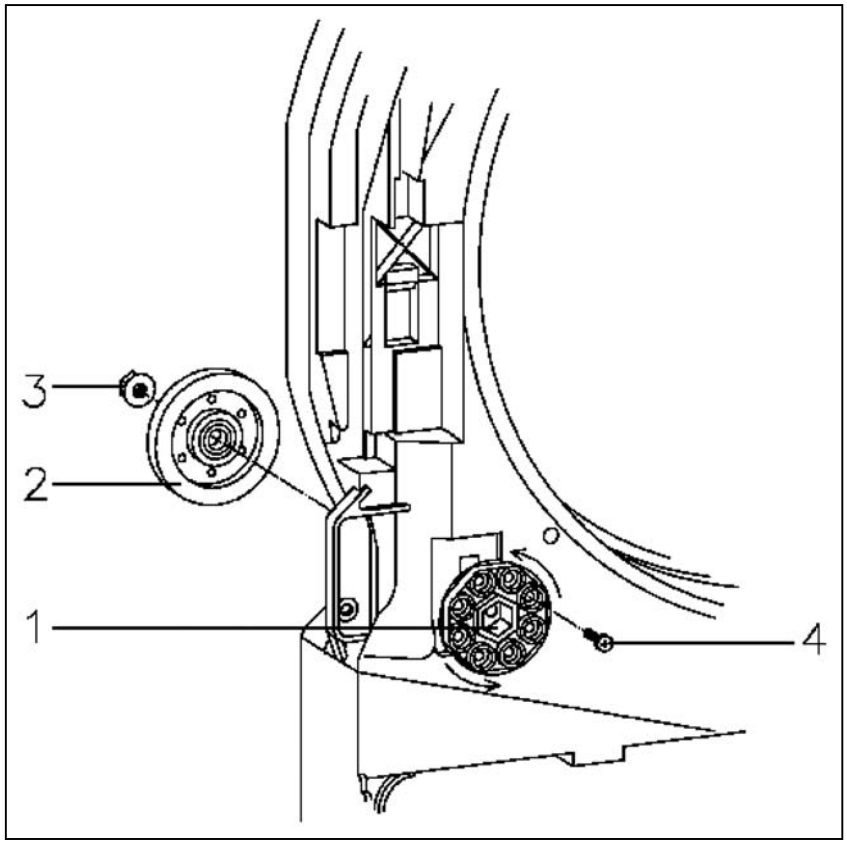



**Figure 050-3:** Drum bearing

1. Remove the front panel (010 4.3)
2. Refer to Figure 050-3.
3. Remove the Screws (4)
4. Turn the Eccentric Disc (1) back and forth, while checking the gap between the drum neck and the fill ring.
5. When the gap is the same all around the drum neck, tighten the screws (4).
6. Turn the drum by hand and recheck the gap between the drum neck and drum support housing. Re-adjust as necessary.

## 4.3 Light Bulb - Replacement

Open the door and locate the bulb on the upper edge of the drum opening. A yellow, plastic tool is provided with the machine to function as an "opener". This tool can also be obtained from the Miele Parts Department.

1. Refer to Figure 050-4
2. Slide the opener beneath the edge of the bulb cover.
3. Flip down the bulb cover.
4. Turn the bulb to remove.
5. Replace the light bulb.
6. Flip up the light bulb cover and press it firmly until it clicks into place.

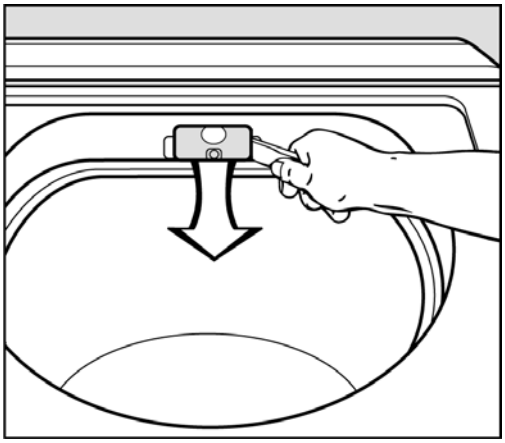


**Figure 050-4:** Opening the light bulb cover.

**Safety Note**

- Replace the light bulb with a temperature proof bulb, available from Miele's Parts Department.
- The light bulb must not exceed the maximum wattage listed on the data plate.

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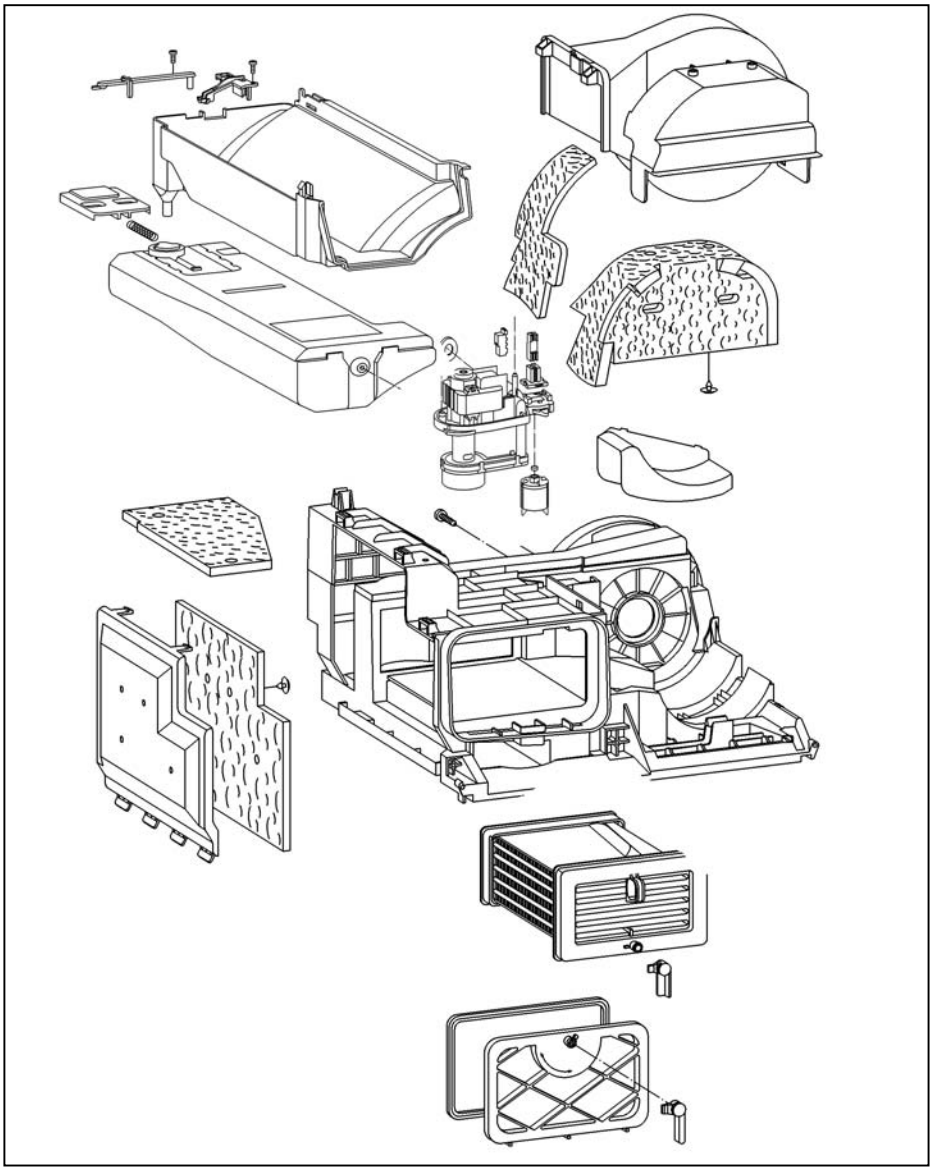
# 055 Condenser System
## (Condenser Models Only)



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# 1 Technical Data

To be updated

# 2 Function

## 2.1 Condenser Box - Overview

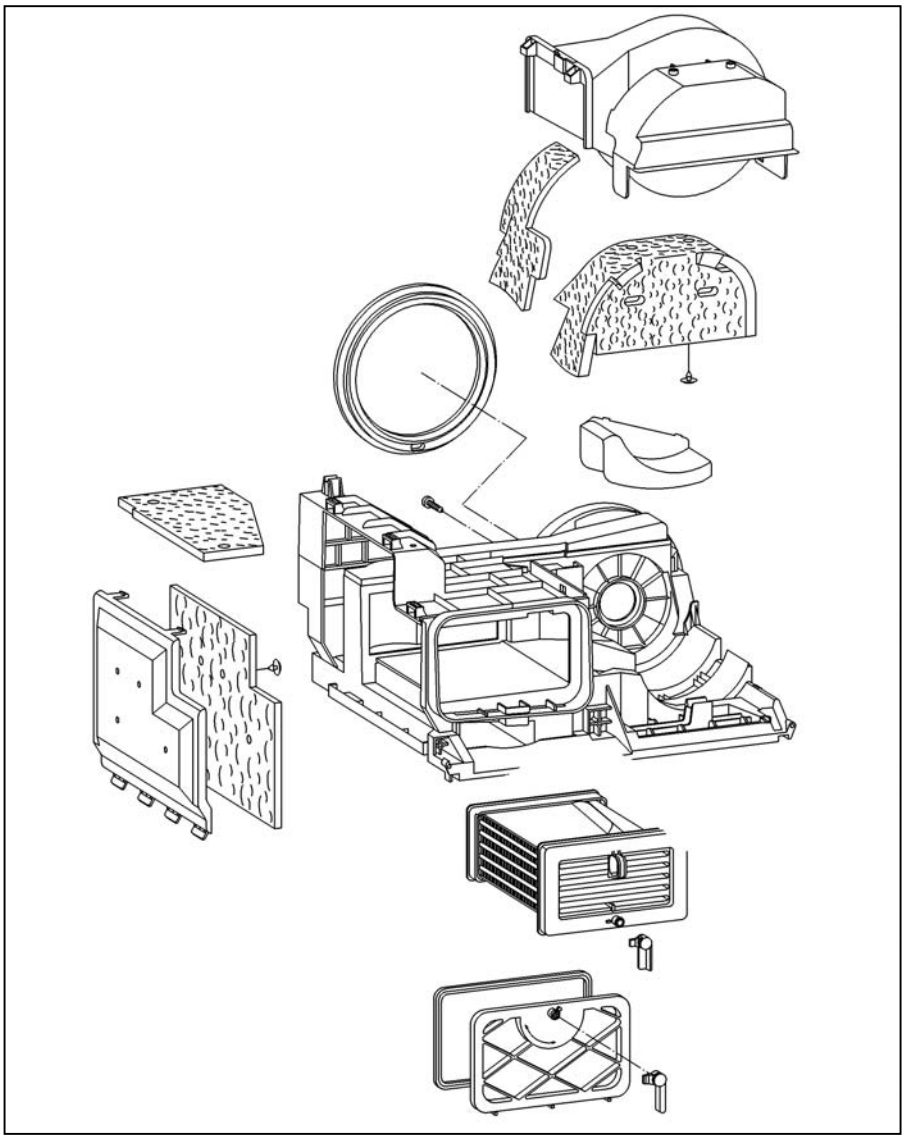


**Figure 055-1:** Condenser Box Assembly

## 2.2 Float Switch & Condenser Pump

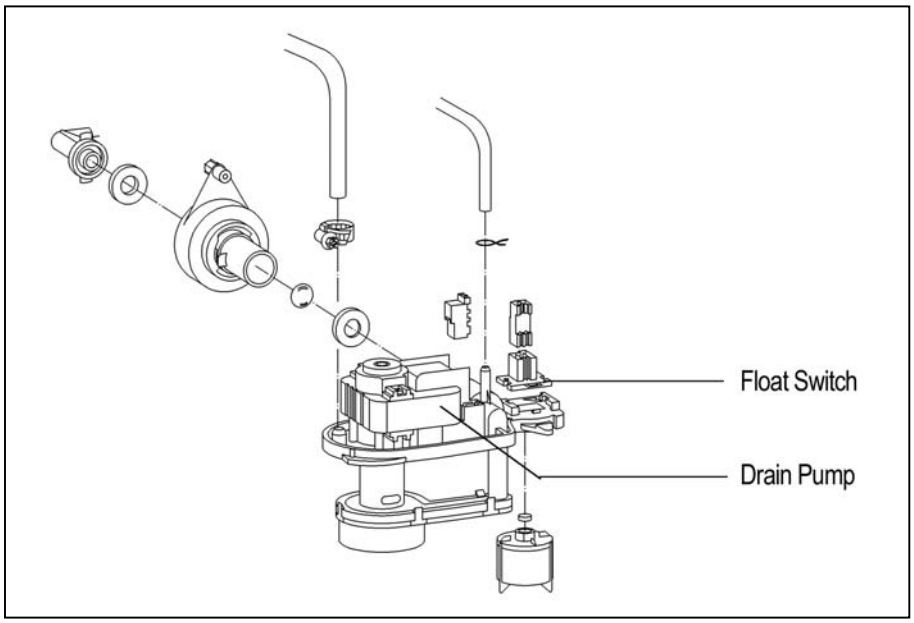



**Figure 055-2:** Float Switch and Drain Pump

## 2.3 Condenser Drawer

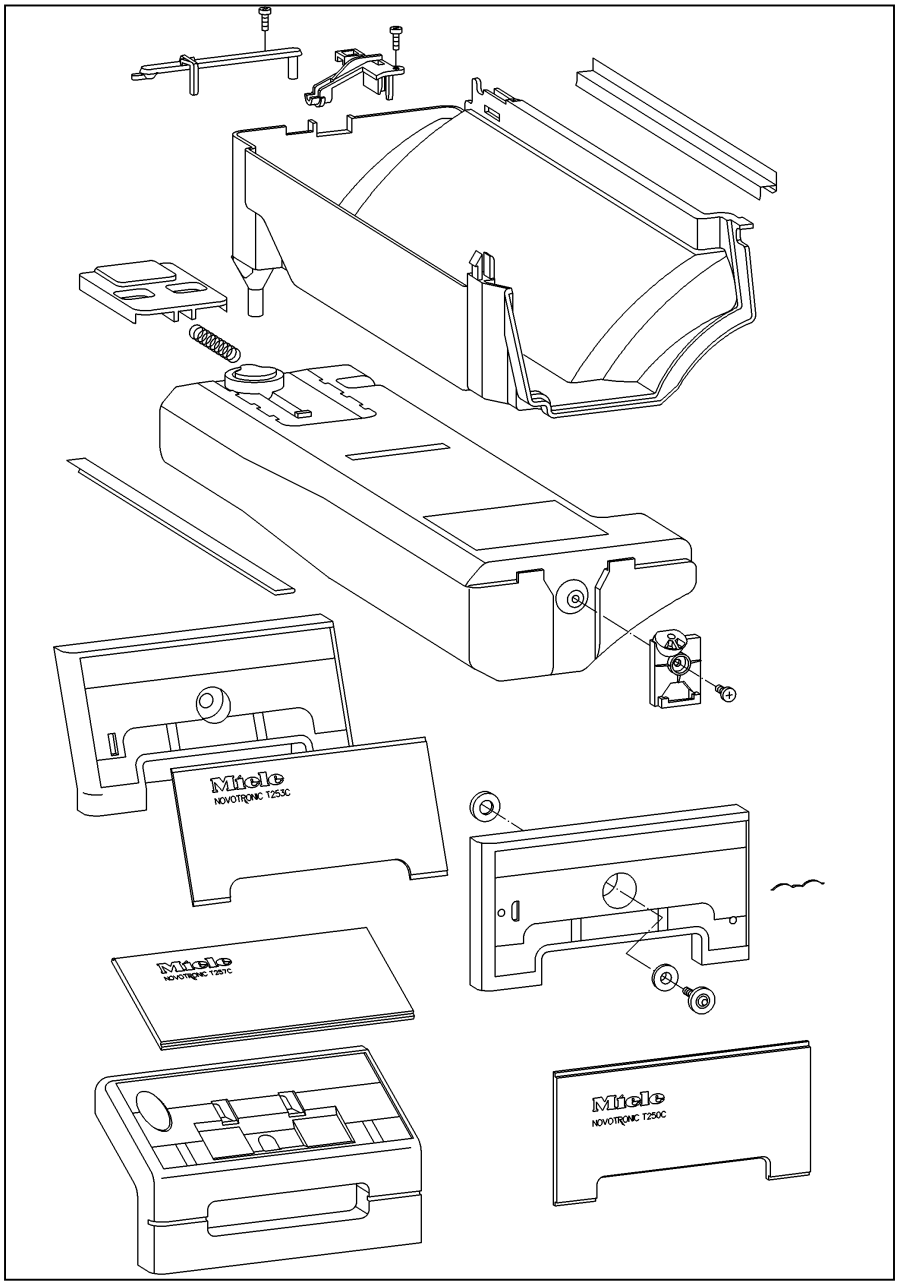



**Figure 055-3:** Condenser Drawer

# 3 Fault Repair

## 3.1 Long Drying Time

**Cause**
The Condenser Box is clogged blocking the air flow.
**Remedy**
Clean the Condenser Box (055 4.1).

## 3.2 Water Leaking from appliance

**Cause**
Fault in Condenser Water Path
**Remedy**
Check Condenser Water Path hoses and connections.
Check Float Switch for proper operation.
Check Drain Pump for proper operation.
If drained externally check Drain Hose for proper routing. Ensure Hose is free of sharp bends and kinks.

# 4 Service

## 4.1 Condenser Box - Cleaning

The access panel to the condenser is located on the front lower left corner of the dryer (Figure 055-4).

1. Press on the lower corners of the access panel and lower it down.
2. Remove the access panel.
3. Refer to Figure 055-5. Turn the condenser door lock down and remove the door.
4. Refer to Figure 055-6. Turn the condenser lock up.

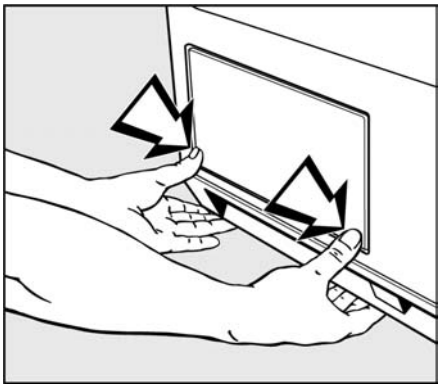


**Figure 055-4:** Condenser Box Access Panel

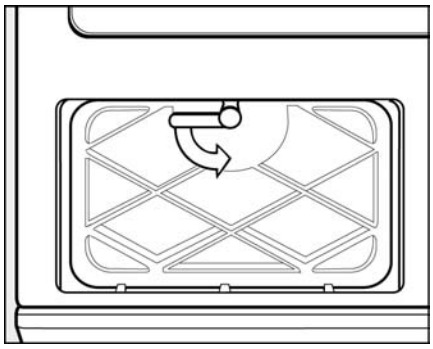


**Figure 055-5:** Condenser Door Lock

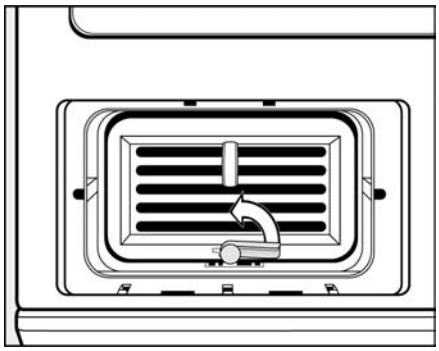


**Figure 055-6:** Unlocking the Condenser Box Lock

5. Refer to Figure 055-7: Pull out the condenser.
6. Refer to Figure 055-8. Rinse the condenser along the left side with warm water.

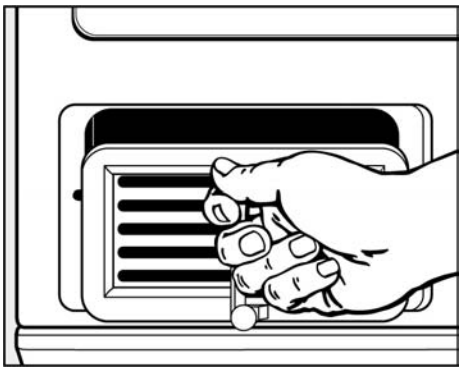


**Figure 055-7**: Removing the Condenser Box

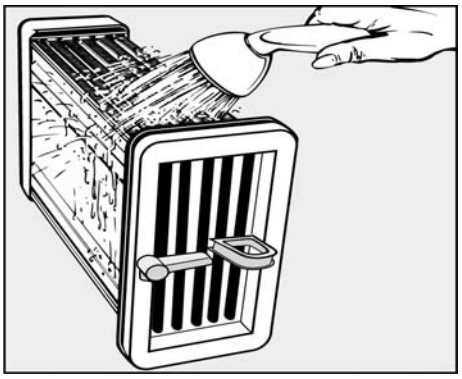


**Figure 055-8:** Rinsing the left side of the Condenser Box.

7. Refer to Figure 055-9. Rinse the condenser from the front with warm water.
8. Check the condenser for dirt or blockage. Rinse the condenser until clean.
9. Place the condenser lengthwise on a towel to air dry.
10. Re-install into appliance by reversing steps 1 to 5.

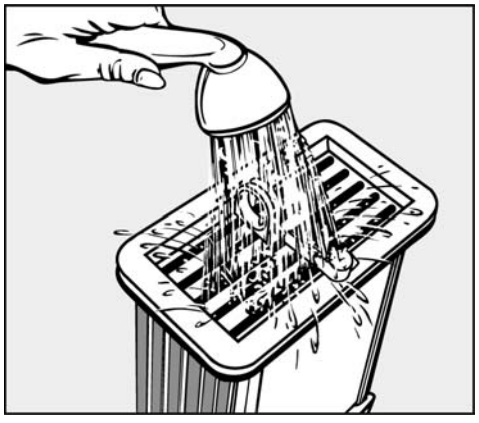
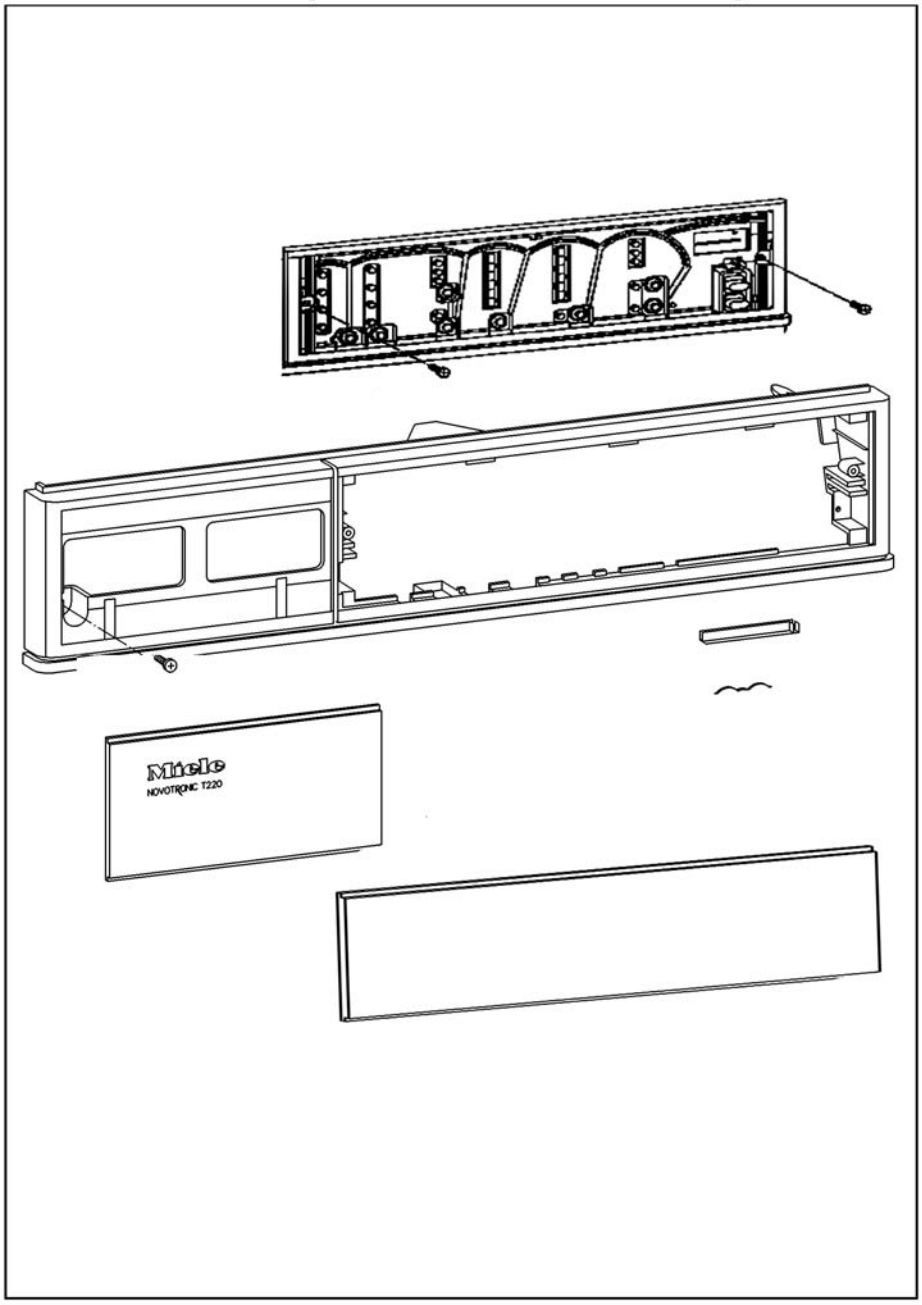


**Figure 055-9:** Rinsing the Condenser Box from the front.

# 060 Fascia Panel and Electrical Components



# 1 Technical Data

n/a

# 2 Function

## 2.1 Heater Relays

Two Heater Relays are controlled by the Electronic. These relays provide the 120VAC supplied to the heater elements.

- 1K1/1 provides the switching for Heater Element R2
- 2K1/1 provides the switching for Heater Element R1.

**Note**
The contacts within Heater Relay 1K1/1 must be closed in order for Heater Relay 2K1/1 to operate. Should both heating elements not function; ensure Heater Relay 1K1/1 is functioning.

# 3 Fault Repair

## 3.1 Fault Summary

1. Turn on the appliance
2. Select a program.
3. Press Start.
4. Allow the appliance to operate for at least two minutes.
5. Observe the display for the following:

| Fault Signal | | Cause | |
|---|---|---|---|
| LED | Buzzer (if turned on) | Fault Code | Check(s) |
| Child Lock LED flashes | – | – | Lock function activated.<br>Turn off the Child Lock Feature (see 3.2) |
| Empty out container LED lights (condenser dryers only) | Intermittent | – | Condensate container float switch.<br>Empty out condenser drawer. Check pump for correct operation. |
| Rotary iron LED flashes (5 Hz) | Intermittent | F2 | Heater Bank NTC Temperature Sensor (2R30).<br>Check the Temperature Sensor and circuit. |
| Hand iron LED flashes (5 Hz) | Intermittent | F4 | Drum Support housing NTC Temperature Sensor (1R30) Fault.<br>Check the Temperature Sensor and circuit. |
| Anti-crease/Finish LED lights | Intermittent | – | No load in drum or no-load registered by the Residual moisture sensor. Ensure laundry is present. Check the Residual Moisture Sensor circuit. |
| Anti-crease/Finish LED lights | Intermittent | F55 | Program time limit exceeded. Ensure the Heater Elements are operating. |
| Anti-crease/Finish LED lights | – | F41 | Programming / Electronic fault. Check wiring and connectors. Replace the electronic. |

**Table 060-1:** Fault Summary

# 4 Service

## 4.1 Programming Mode Summary

**Initial requirements**
- Turn off the machine.
- Close the door.

> **Note**
> Once you begin the access procedure, it must be completed within 10 seconds.

**Accessing**
1. Press and hold the **Start** button while turning the unit on.
2. Release the **Start** button as soon as the Anti-crease/Finish LED lights up,
3. Immediately press and release the **Start** button 4 times.
4. Press and hold the **Start** button a 5th time, until the Start LED flashes.

A flashing **Start** LED indicates successful accessing of the Programming Mode.

**Options / Navigation**
1. Refer to Table 060-2.
2. The Program Function is indicated by the flashing Buzzer LED.
3. Press the Buzzer button to advance through the Program Functions.
4. The current programmed option is displayed by the flashing rhythm of the Drying LED.
5. Press **Start** button to toggle between the available options.

**Save and quit**
With the desired option displayed, turn off the unit.

| Program Setting | | | Programmable Option(s) | |
|---|---|---|---|---|
| Flashing Buzzer LED | | Program Function | Flashing Drying LED | Programmable Settings |
| Long | Short | | Short | |
| – | 1 | Reset all programmable functions to standard settings: Press the **Start** button. | – | At least one standard setting has been modified |
| | | | 1 | Standard settings |
| – | 2 | Residual moisture level modification – Cottons | – | Standard residual moisture |
| | | | 1 | Reduced residual moisture in Cottons programs |
| – | 3 | Residual moisture level modification - Minimum iron | – | Standard residual moisture |
| | | | 1 x short | Reduced residual moisture in Minimum iron programs |
| – | 6 | Memory | – | Off |
| | | | 1 | On |
| – | 7 | Additional cooling phase | – | Off |
| | | | 1 | 5 min (with residual moisture programs only) |
| | | | 2 | 10 min (with residual moisture programs only) |
| 1 | – | NA | – | Off |
| | | | 1 | On |
| 1 | 1 | Audible tone when a button is pressed. | – | Off |
| | | | 1 | On |

**Table 060-2:** Program Mode Function Positions

## 4.2 Demonstration Mode (Dealer Displays)

**Initial requirements**
- Turn off the unit.
- Close the door.

> **Note**
> Once you begin the access procedure, it must be completed within 10 seconds.

**Accessing**
1. Press and hold the **Start Button** while turning on the unit
2. Release the **Start Button** as soon as the Start LED lights,
3. Immediately press and hold the **Start Button**, until the Start LED flashes.

A flashing **Start** LED indicates successful accessing of the Demonstration Mode.

**Deactivation**
Repeat the accessing procedure.

> **Note**
> The Demonstration Mode is **NOT** deactivated when the power is shut off or by unplugging the appliance.

## 4.3 Service Mode

**Initial requirements**
- Turn off the unit.
- Close the door.

> **Note**
> Once you begin the access procedure, it must be completed within 10 seconds.

**Accessing**
1. Press and hold the **Start Button** while turning the unit on.
2. Release the **Start Button** As soon as the Anti-crease/Finish LED lights.
3. Immediately press and release the **Start Button** 2 times.
4. Press and hold the **Start** button a 3rd time, until the Start LED flashes.

A slow flashing **Start** LED indicates successful accessing of the Service mode.

> **Note**
> Once in the Service Mode, you automatically enter the first Service Level position. The ROM ID is displayed by the flashing Drying LED.
>
> Refer to the Service Mode Tables 060-3, 060-4 060-5 and 060-6.

**Service Level - Navigation**
- The Service Level is indicated by a flashing a Buzzer LED. (Example: flash…flash…flash=Level 3)
- To advance to the next Service Level, press the **Buzzer Button**.

### Test Step Service Level 2 – Activation and Navigation

- The **Test Step** is indicated by a flashing Drying LED.
- While in Service Level 2 press the **Start Button** to begin the first Function Test.
- Press the **Start Button** to advance to the next Function Test. .

Turn the unit off to quit the test mode.

| SERVICE LEVEL<br>Flashing Buzzer LED | SERVICE FUNCTION | TEST STEP | | |
|---|---|---|---|---|
| | | Flashing Drying LED | | Function Tested/ Machine Response |
| | | Long | Short | |
| – | ROM ID code | X | Y | ROM ID code XY |
| 1 | To display a stored fault - Press the Start button.<br>To view additional stored fault(s) - Press the Start button again.<br>To delete fault(s) - Press and Hold the Start button for at least 5 seconds. | – | – | No faults registered |
| | | – | 2 | F2 = NTC Temperature sensor – Heater bank (2R30) |
| | | – | 4 | F4 = NTC Temperature sensor – Drum Support Housing (1R30) |
| | | 4 | 1 | F41 = Model type changed (vented / condenser) or EEPROM fault |
| | | 5 | 5 | F55 = Program time limit exceeded |

**Table 060-3:** Service Mode (continued on Table 060-4)

| SERVICE LEVEL<br>Flashing Buzzer LED | SERVICE FUNCTION | TEST STEP | | |
|---|---|---|---|---|
| | | Flashing Rhythm Drying LED | | Function Tested/ Machine Response |
| | | Long | Short | |
| 2 | Refer to the Test Step – Activation and Navigation. | – | 1 | Drive/Fan motor. Drum turns as follows:<br>counterclockwise for 10 seconds, a 2.5 second pause, clockwise for 10 seconds, a 2.5 second pause, etc… |
| | | – | 2 | Heating 1 and drive. Drum turns counterclockwise for 10 minutes, a 2.5 second pause, clockwise for 10 seconds, a 2.5 second pause, etc.<br><br>The heating comes on after 1 second during counterclockwise rotation. |
| | | – | 3 | Condensate Pump - Activated (condenser dryer only) |
| | | – | 4 | Residual Moisture Sensing Circuit - low resistance check.<br><br>Electrically connect one drum paddle and the drum body using clip leads or a wire to simulate wet laundry and high conductivity.<br><br>The appliance will operate for about 30 seconds. When the appliance stops observe the Normal LED:<br>- On Steady: System OK.<br>- Flashing: System faulty. |

**Table 060-4:** Service Mode (continued from Table 060-3) (continued on Table 060-5)

| SERVICE LEVEL<br><br>Flashing Rhythm Of Buzzer LED | SERVICE FUNCTION | TEST STEP | | |
|---|---|---|---|---|
| | | Flashing Rhythm Of Drying LED | | Function Tested/Machine Response |
| | | Long | Short | |
| 2 | Refer to the Test Step – Activation and Navigation. | – | 5 | Residual moisture sensing circuit, high resistance check.<br><br>Ensure the clip leads or the wires used in the low resistance check are removed; and no laundry is present in the drum.<br><br>The appliance will operate for about 30 seconds. When the appliance stops observe the Normal LED:<br><br>- On Steady: System OK.<br>- Flashing: System faulty. |
| | | – | 6 | Buzzer test.<br><br>Vented dryer: Constant tone.<br>Condenser dryer: Intermittent tone. |
| | | – | 7 | LED display test.<br>Each individual segment of the display and the LEDs flash |
| | | – | 8 | Heating relay 1 and 2 and drive.<br><br>Drum turns with reversing as follows: 10 minutes counter clockwise, 2.5second pause, 10 seconds clockwise, 2.5 second pause, etc.<br>Heating 2 comes on after 1 second during counterclockwise rotation. |

**Table 060-5:** Service Mode (continued from Table 060-4) (continued on Table 060-6)

| SERVICE LEVEL<br>Flashing Rhythm Of Buzzer LED | SERVICE FUNCTION | TEST STEP | | |
|---|---|---|---|---|
| | | Flashing Rhythm Of Drying LED | | Function Tested/Machine Response |
| | | Long | Short | |
| 3 | Digital sensor test | – | 1 | Float Switch Test (condenser models). Buzzer operates when the float switch is activated. |
| | | – | 2 | Door Switch Test - Buzzer operates when the door is closed. |
| 4 | Operating hours | For 1000s h | For 100s h | Long flashing pulses for thousands, short flashing pulses for hundreds. (e.g. 12 x long + 6 x short = 12000 h + 600 h = 12600 h) |

**Table 060-6:** Service Mode (continued from Table 060-5)

## 4.4 Fascia Panel - Removal

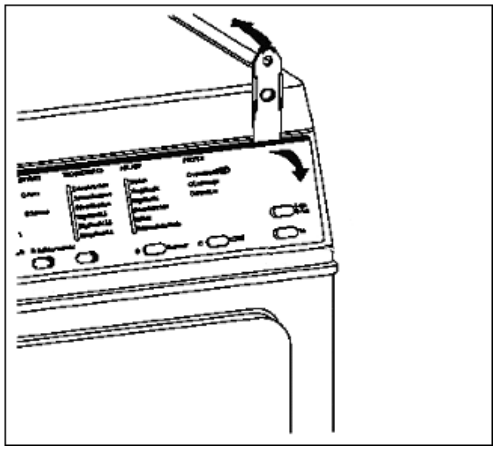


**Figure 060-1:** Fascia Panel - Removal

1. Use a Miele Opener (or a small screwdriver) and press the front section downwards.
2. Tilt the panel from the top outward.

**Note**
To ensure the springs do not get lost remove them from the lower groove for the panel.

## 4.5 Electronic / Controls - Service Position

**Note**
The electronic can be positioned into the retaining slots on the sides of opening during service procedures.

1. Remove the Fascia Panel (060 4.4)
2. Refer to Figure 060-2.
3. Remove the two screws.
4. Carefully pull the control module forward.

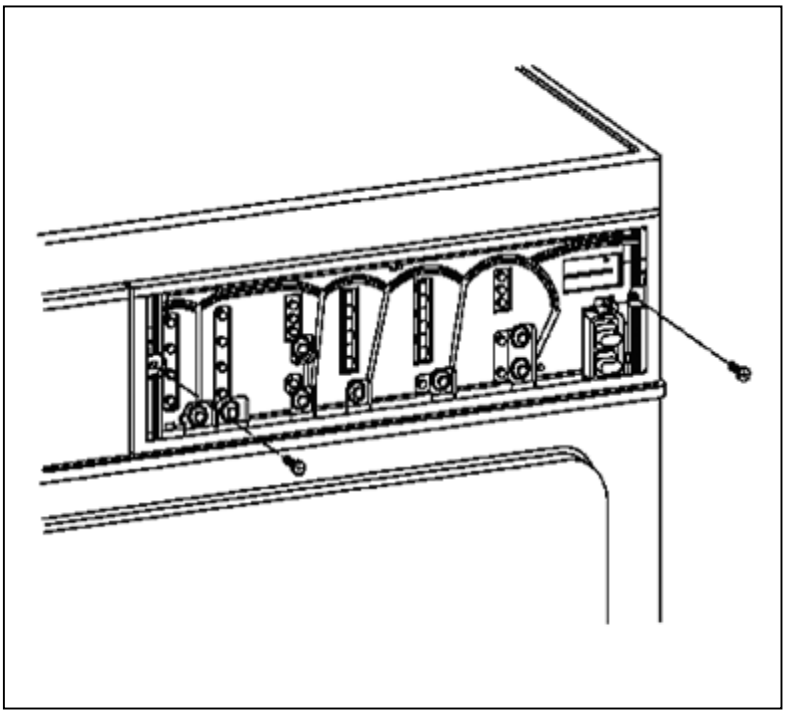


**Figure 060-2:** Electronic retaining screws

5. Refer to Figure 060-3
6. Release the button assembly and slide it out of its retainer.

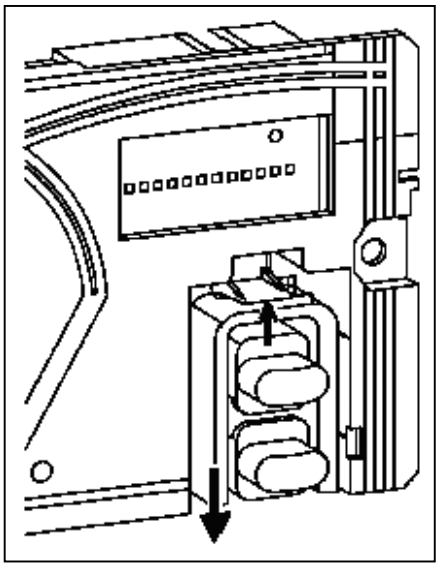


**Figure 060-3:** Button Assembly

7. Refer to Figure 060-4.
8. Slide the control module into the retaining slots on either side of the fascia panel opening.

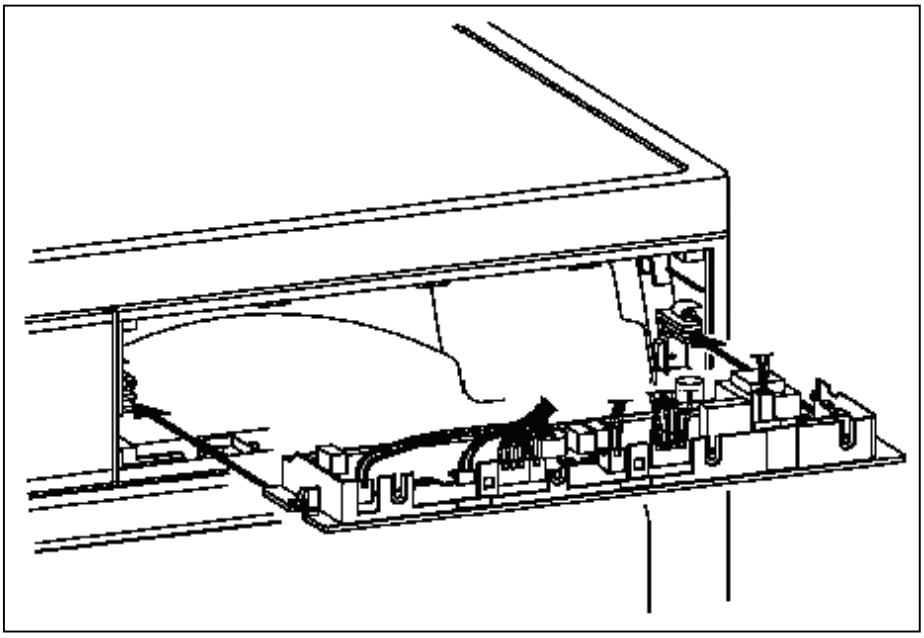
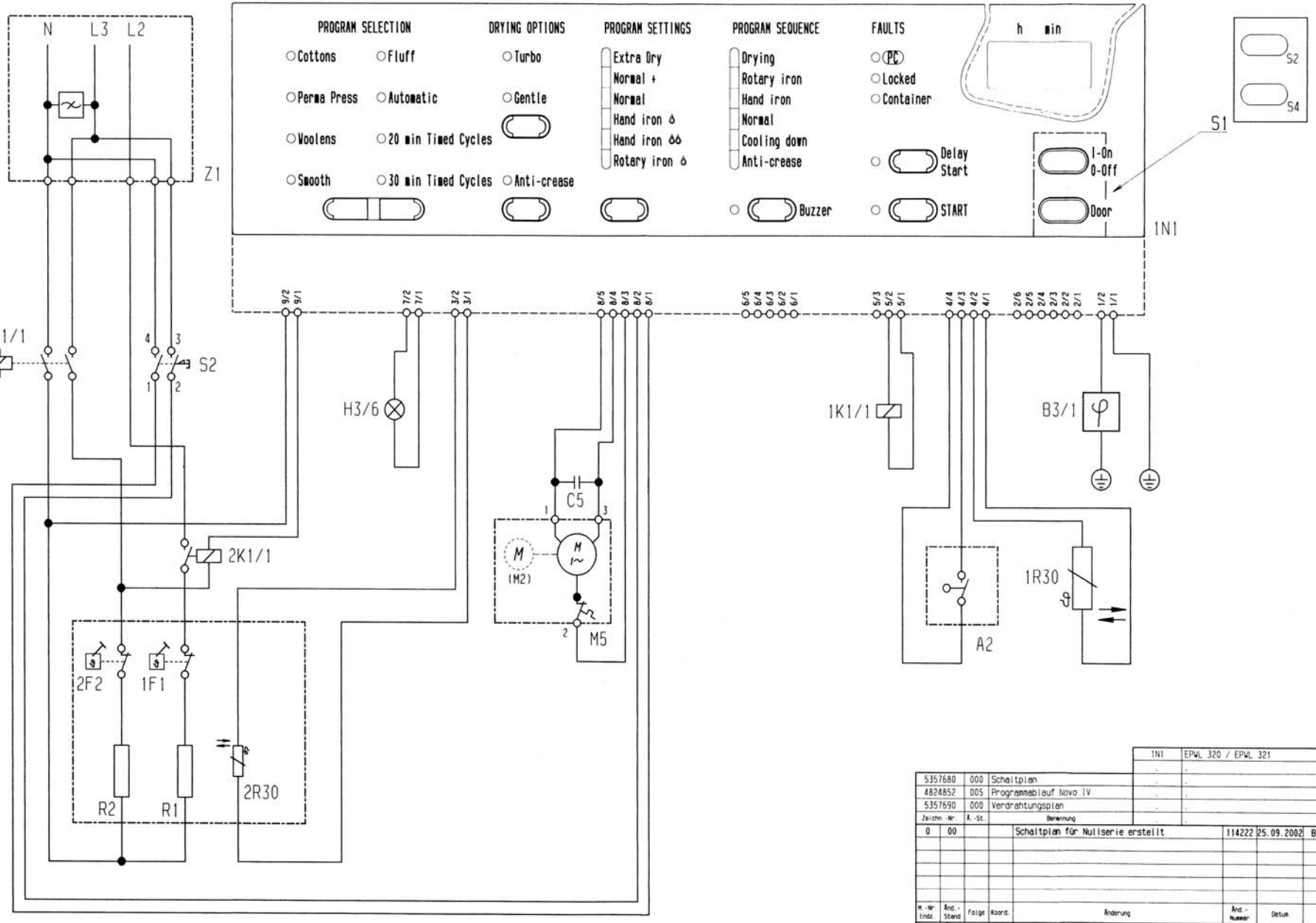


**Figure 060-4:** Electronic / Controls in service position




Wiring diagram schematics

Vented Tumble dryer

05357680 .000

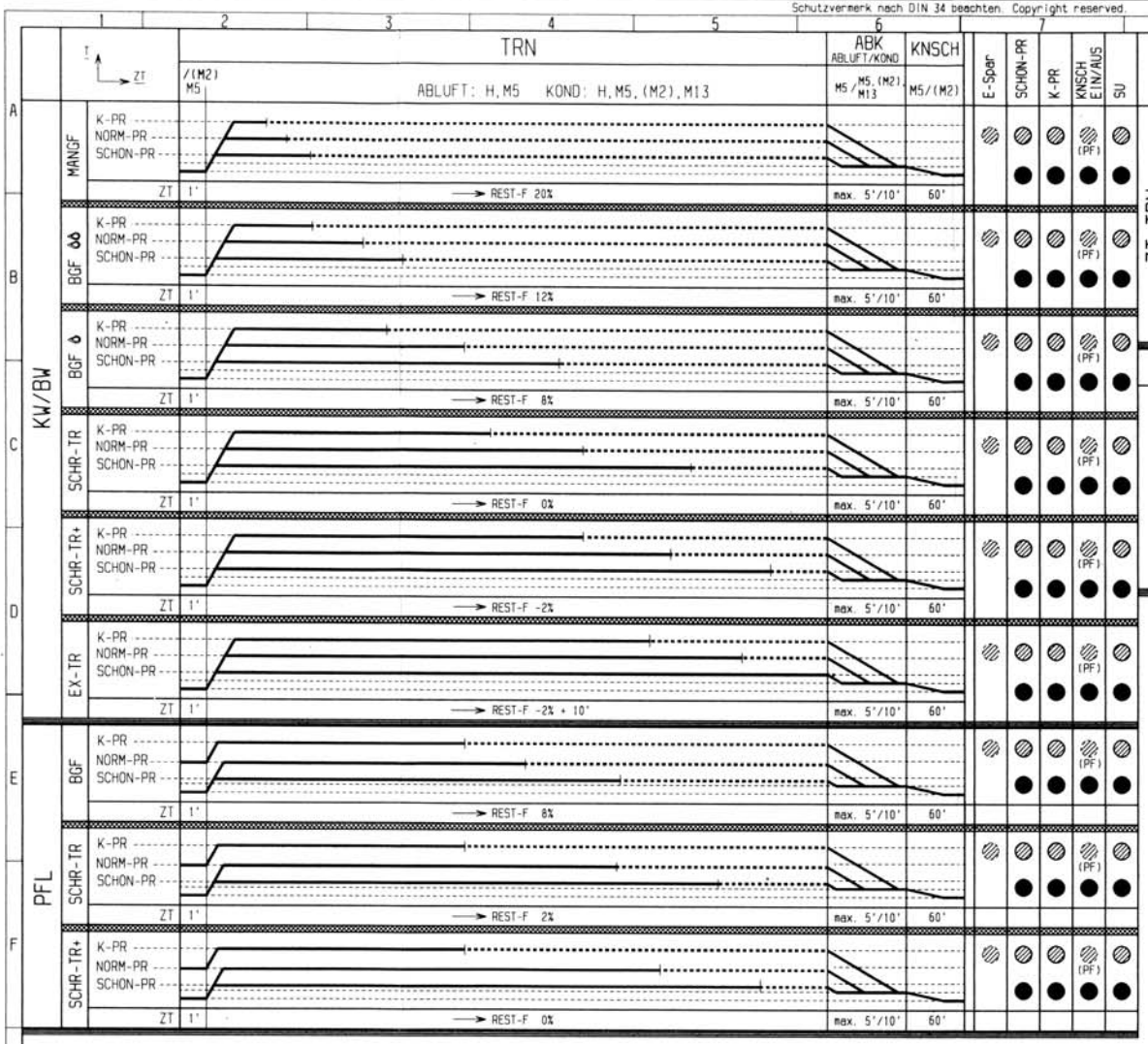
| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | 1N1 | EPWL 320 / EPWL 321 | | |
| 5357680 | 000 | Schaltplan | | | | | |
| 4824852 | 005 | Programmablauf Novo IV | | | | | |
| 5357690 | 000 | Verdrahtungsplan | | | | | |
| Zeichn.-Nr. | Ä.-St. | Benennung | | | | | |
| 0 | 00 | Schaltplan für Nullserie erstellt | | | 114222 | 25.09.2002 | Bleckm. |
| M.-Nr. Endz. | Änd.-Stand | Folge | Koord. | Änderung | Änd.-Nummer | Datum | Name |

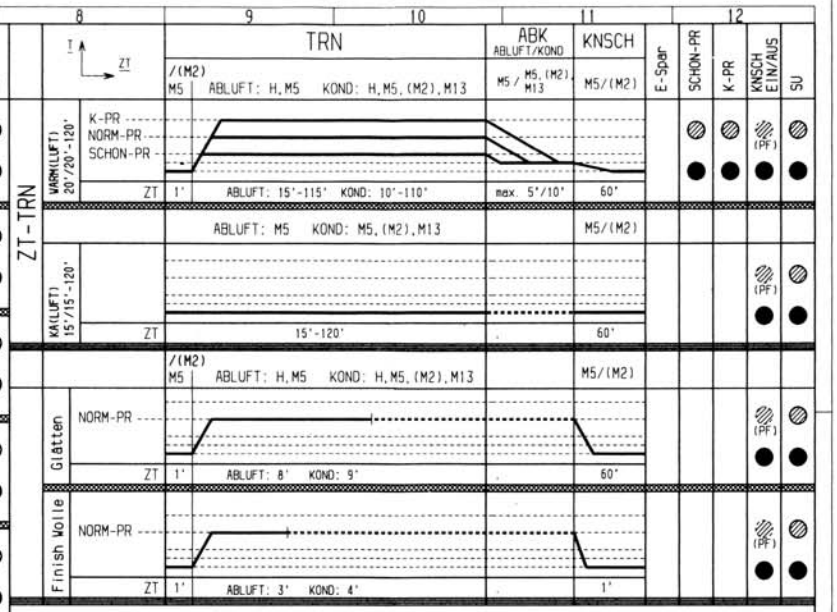
CAD 20 — Schaltplan — TR Novo IV Tipptasten USA/CDN (Abluft) T1302, T1303, T1403, T1405

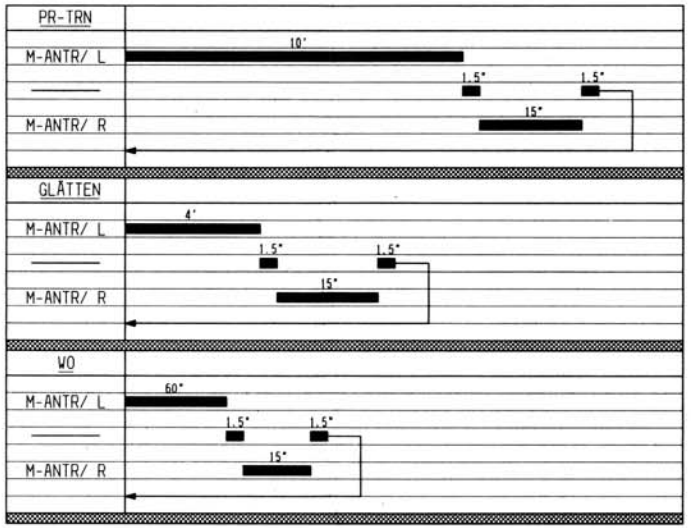
| | Datum | Name |
|---|---|---|
| Bearb. | 25.09.2002 | Isenb. |
| Gepr. | 25.09.2002 | Kramme |
| Norm. | | |

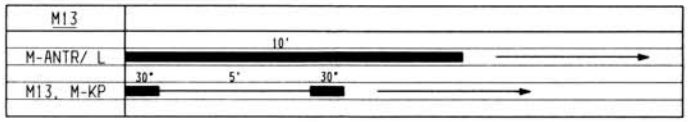
Miele — Werk Gütersloh Konstruktion

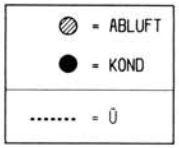
Blatt 1 von 1 Bl. — Änd.-Nr. 114222 — Kennzeichen Z-5203 0973 — Mat.-Nr. 05860280 — Format DIN A2 — Änd.-St. 000

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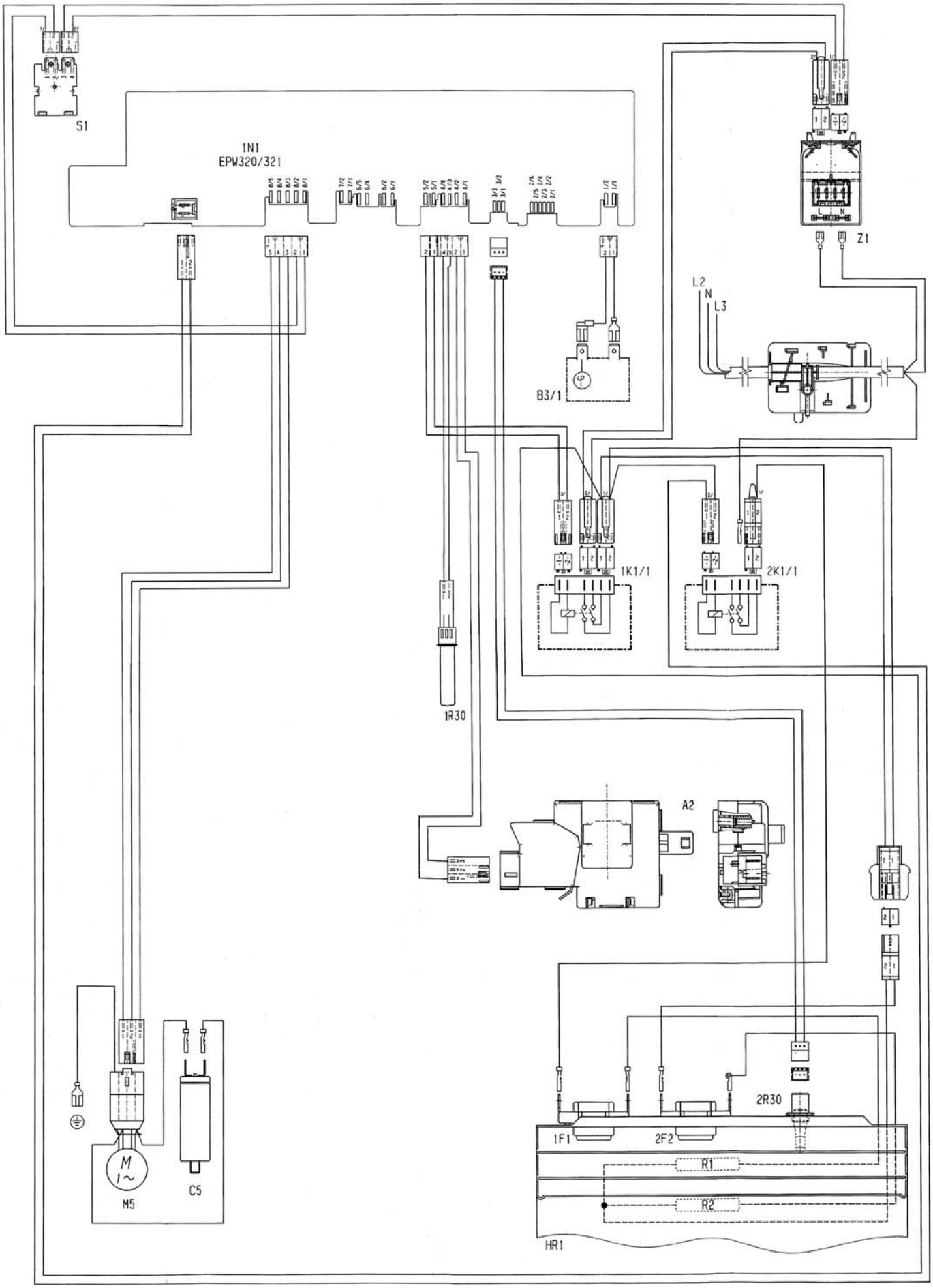
|---|---|---|---|---|---|---|---|
| 2 | 05 | | | Progr.-Abl. auch für Novo 4 u. T1576 USA/CDN | 115059 | 07.03.2002 | Bleckm. |
| 2 | 04 | | | Programmablauf überarbeitet, (M2) hinzu | 114034 | 29.10.1999 | Bleckm. |
| 2 | 03 | | | Schaltungsunterlagen kpl. überarbeitet | | 01.02.1999 | BANMA |
| 1 | 02 | | | M2 als Option dargestellt | - | 10.11.1998 | BLECKM |
| 1 | 01 | | | Schaltungsunterlagen kpl. überarbeitet | 111517 | 28.08.1997 | Wallm. |

| CAD 20 | 04824852 | 05 | Programmablauf TR Gen 2000 HH-Trockner Novo 3 / Novo 4 |
|---|---|---|---|
| | Blatt 01 von 01 | | |
| | Mat.-Nr. | Änd.-St. | Benennung |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L2
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L3
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1K1/1
2K1/1
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HR1
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M5
C5

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