



**TECHNICAL INFORMATION**  
**B890 Rotary Iron**



# B890 Rotary Iron - Table of Contents

## 1.0 CONSTRUCTION & DESIGN

1.1 Appliance Overview	1
1.2 Controls Overview	1
1.3 Technical Specifications	2
1.4 Layout of Mechanical Components	3
1.5 Layout of Electrical Components	3

## 2.0 INSTALLATION

Installation Procedures	5
-------------------------	---

## 3.0 COMMISSION and OPERATION

3.1 General Operation	7
3.1.1 Opening the Appliance for Use	7
3.1.2 Main Power Switch	7
3.1.3 Ironing Temperature	8
3.1.4 Ironing Temperature / Clothing Care Symbols	8
3.1.5 Adjusting Roller Speed	9
3.1.6 Foot Pedal Operation	9
3.2 Emergency Release	10
3.3 Transit Fitting	10

## 4.0 DESCRIPTION of FUNCTION

4.1 Electronics	11
4.2 Transformer	11
4.3 Foot Switches	12
4.4 Heater Plate Drives – Operation	13
4.5 Roller Assembly / Drives	13
4.6 Heater Circuit	14
4.7 Finger Guard Switch	15

## **5.0 SERVICE and MAINTENANCE**

<u>5.1 Control Electronic – Removal</u>	<u>17</u>
<u>5.2 Transformer – Removal</u>	<u>17</u>
<u>5.3 Main Electronic Unit – Removal</u>	<u>18</u>
<u>5.4 Foot Switches – Removal</u>	<u>18</u>
<u>5.5 Finger Guard Switch – Removal</u>	<u>19</u>
<u>5.6 Limit Switches – Removal</u>	<u>19</u>
<u>5.7 Heater Plate Drive Motor - Removal</u>	<u>20</u>
<u>5.8 Roller Assembly - Removal</u>	<u>21</u>
<u>5.9 Free Wheel Mechanism - Removal</u>	<u>22</u>
<u>5.10 Drive Shaft – Removal</u>	<u>23</u>
<u>5.11 Roller Drive Motor - Removal</u>	<u>23</u>
<u>5.12 Heater Plate Cover - Opening</u>	<u>24</u>
<u>5.13 Leaf Spring With Holder – Replacement</u>	<u>24</u>
<u>5.14 Insulation Matting - Removal</u>	<u>24</u>
<u>5.15 Hinge Pressure Spring – Setting / Adjustment</u>	<u>25</u>
<u>5.16 Hinge Spring – Removal</u>	<u>25</u>
<u>5.17 Bowden Cable – Releasing Tension</u>	<u>26</u>
<u>5.18 Bowden Cable - Removal</u>	<u>26</u>

## **6.0 FAULT DIAGNOSIS**

<u>6.1 Electronic Boards</u>	<u>28</u>
<u>6.1.1 Main Electronic</u>	<u>28</u>
<u>6.1.2 Control Electronic</u>	<u>29</u>
<u>6.2 Wire Diagram</u>	<u>30</u>

## **B890 Rotary Iron – List of Figures**

<u>1-1 Overview of Rotary Iron</u>	<u>1</u>
<u>1-2 Overview of Controls</u>	<u>1</u>
<u>1-3 Overview of Mechanical Components</u>	<u>3</u>
<u>1-4 Overview of Electrical Components</u>	<u>3</u>
<u>2-1 Removing the Feed Board</u>	<u>5</u>
<u>2-2 Removing the Protective Cover from the Roller</u>	<u>5</u>
<u>3-1 Opening the Rotary Iron</u>	<u>7</u>
<u>3-2 On / Off Switch</u>	<u>7</u>
<u>3-3 Temperature Adjustment Control</u>	<u>8</u>
<u>3-4 Roller Speed Control</u>	<u>9</u>
<u>3-5 Foot Pedal Operation</u>	<u>9</u>
<u>3-6 Emergency Release Latch</u>	<u>10</u>
<u>3-7 Transit Fitting</u>	<u>10</u>
<u>4-1 Heater Plate Drives</u>	<u>12</u>
<u>4-2 Roller and Drive Components</u>	<u>13</u>
<u>4-3 Heater Circuit</u>	<u>14</u>
<u>4-4 Heater Temperature Control</u>	<u>15</u>
<u>4-5 Finger Guard</u>	<u>15</u>
<u>5-1 End of Roller</u>	<u>21</u>
<u>5-2 Free Wheel Mechanism</u>	<u>22</u>
<u>5-3 Motor Mounting Bolts</u>	<u>23</u>
<u>6-1 Main Electronic</u>	<u>28</u>
<u>6-2 Control Electronic</u>	<u>29</u>
<u>6-3 Wiring Diagram</u>	<u>30</u>

## **B890 Rotary Iron – List of Tables**

<u>1-1 Product Specifications</u>	<u>2</u>
<u>3-1 Temperature Clothing Care Symbols</u>	<u>8</u>
<u>6-3 Wiring Diagram</u>	<u>30</u>



# 1.0 Construction and Design

## 1.1 Appliance Overview

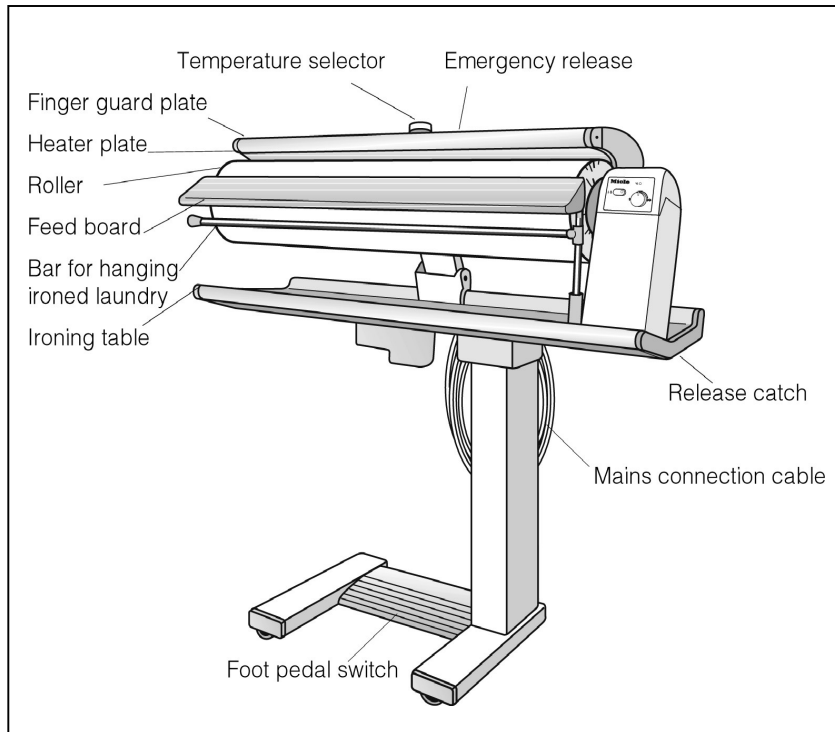


Figure 1-1: Overview of Rotary Iron

## 1.2 Controls Overview

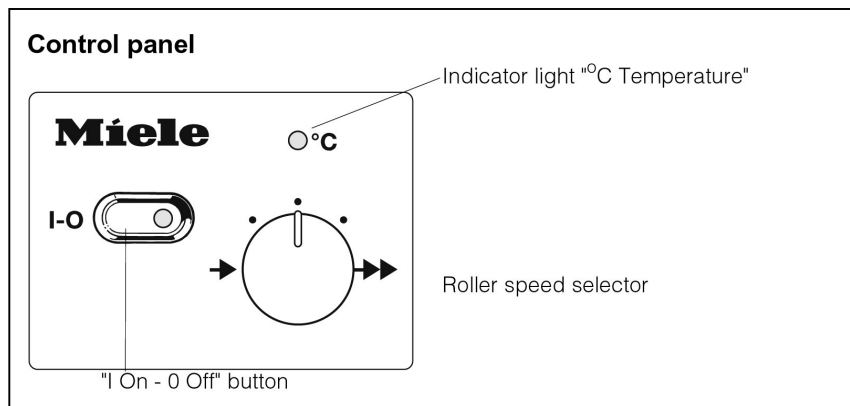


Figure 1-2: Overview of Controls

### 1.3 Technical Specifications

Height	37" (41 3/4" folded)
Width	39 3/8" (16 3/8 folded)
Depth	16 3/8"
Weight	84 lbs.

**Table 1-1:** Product Specifications

The appliance is supplied with a power cord and NEMA 6-20 P plug ready for connection to an AC single phase 208 V 60 Hz supply. The fuse rating is 20 amps. The actual amperage draw from the appliance is 13 amps.

All electrical work should be carried out by a qualified electrician in accordance with local and national safety regulations.

Do not connect the rotary ironer to an extension cord. Extension cords do not guarantee the required safety of the appliance (e.g. danger of overheating).

**Important**

If it is necessary to change the plug or power cord of the rotary iron, please take note of the following color codes of the wires:

- Green/yellow = ground
- Blue = live 1
- Brown = live 2

**WARNING:** This appliance must be grounded



## 1.4 Layout of Mechanical Components

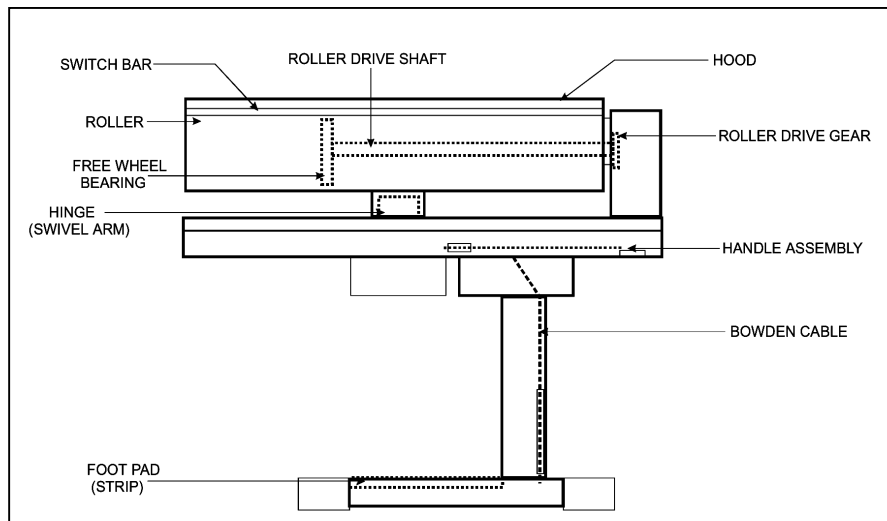


Figure 1-3: Overview of Mechanical Components (B890 shown)

## 1.5 Layout of Electrical Components

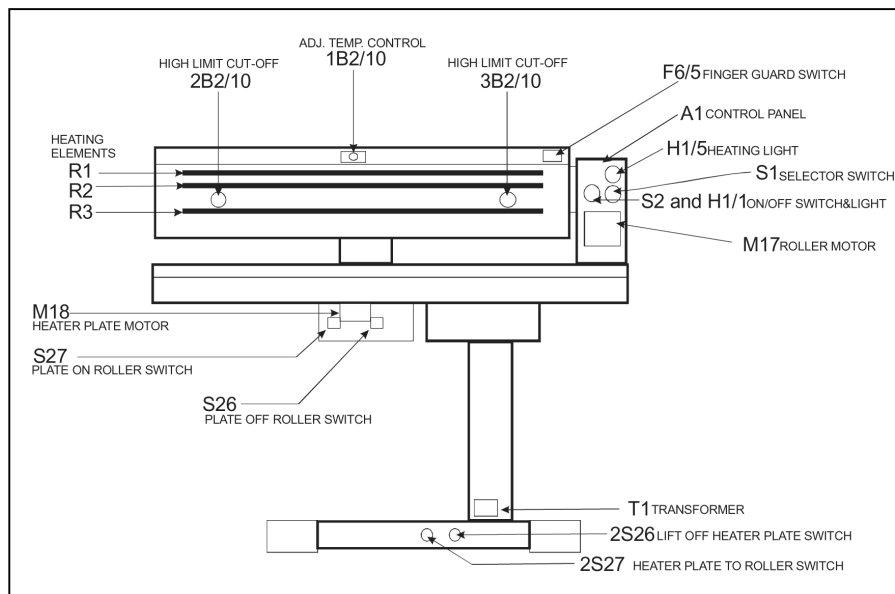
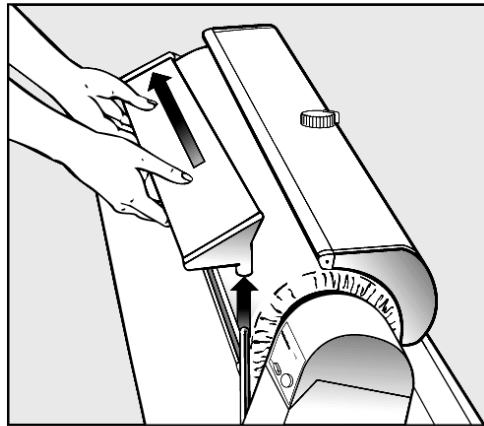


Figure 1-4: Overview of Electrical Components (B890 shown)

Technical Information

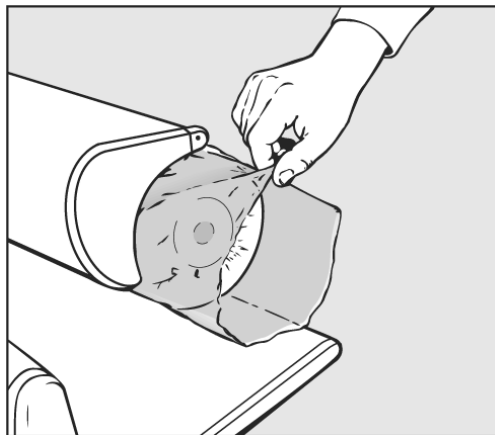
## 2.0 Installation

1. Unpack / uncrate the appliance from the box.
2. Remove the Transit Fitting - see supplementary information for details.
3. Move the appliance to the desired location - see supplementary information for details on moving the appliance.
4. Install recommended plug to the power cord - DO NOT plug in at this time.
5. Unlatch; remove the Feed Board from the appliance - see figure 1.



**Figure 2-1:** First remove the feed board by lifting it out of the right hand holder, then pull it out to the left of the roller.

6. Plug the appliance in; briefly turn on the power - the Heater Plate should rise.
7. Turn off the power.
8. Remove the protective cover from the roller - see figure 2.
9. Perform an operational check; ensure all safety features and functions are in working order.



**Figure 2-2:** Removing the protective cover from the roller.

Technical Information

## 3.0 Commission and Operation

### 3.1 General Operation

#### 3.1.1 Opening the Appliance for Use

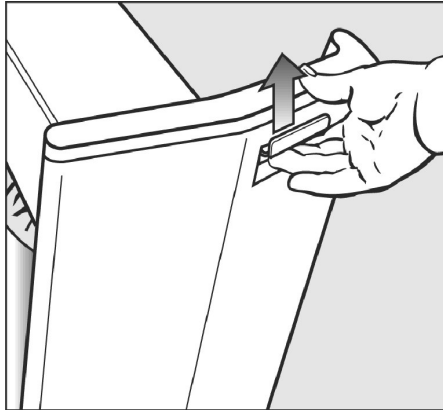


Figure 3-1: Opening the Rotary Open

1. Hold the ironing table and release the catch situated on the right hand side underneath the ironing table.
2. Swing the top section of the rotary ironer to the side until it clicks into position horizontally.

#### 3.1.2 Main Power Switch

The appliance is switched on and off with the “I=On / 0=Off” button.

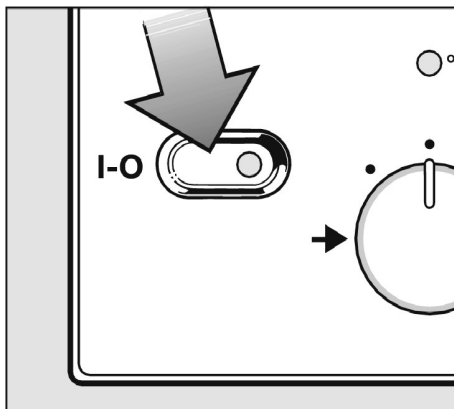


Figure 3-2: On / Off Switch

##### **To switch on**

Press the button in – the indicator light in the button comes on.

##### **To switch off**

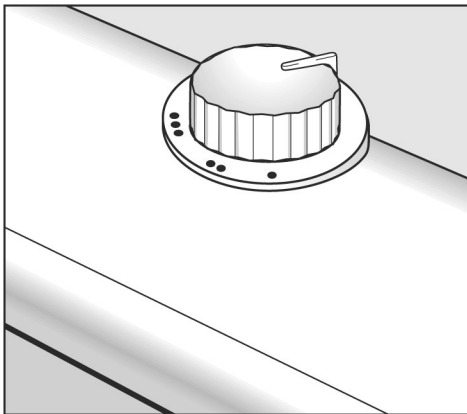
Press and release the button – the indicator light in the button goes out.

### 3.1.3 Ironing Temperature

The temperature selector is used to set the ironing temperature.

The individual temperature ranges are marked by dots on the dial around the temperature selector. These correspond to the international clothing care symbols for ironing (see 3.1.3). Turn the temperature selector to the temperature.

The °C temperature indicator light will come on while the heater plate is heating up.



**Figure 3-3:** Temperature Adjustment Control

### 3.1.4 Ironing Temperature / Clothing Care Symbols

Material	Dot symbol	Temperature range
Polyester / artificial silk	●	cool iron (low temperature)
Silk / Wool	● ●	medium hot iron (medium temperature)
Cotton / Linen	● ● ●	hot iron (high temperature)

**Table 3-1:** Temperature Clothing Care Symbol

### 3.1.5 Adjusting the Roller Speed

There are 5 roller speed settings, from low (approx. 2 meters per minute) to high (approx. 4.5 meters per minute). Turn the knob clockwise to increase the speed.

A lower roller speed makes it easier to iron complicated articles such as shirts and blouses. It is also best to select a lower roller speed when ironing folded items, which may require more than one pass through the ironer to get them smooth and dry.

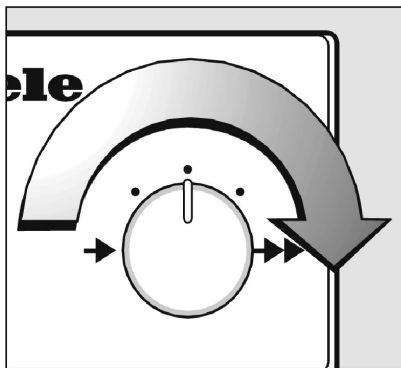


Figure 3-4: Roller Speed Control

### 3.1.6 Foot Pedal Operation

The ironing process is controlled by the foot pedal which has three operating positions:

- raising the heater plate (rest)
- pressing
- ironing

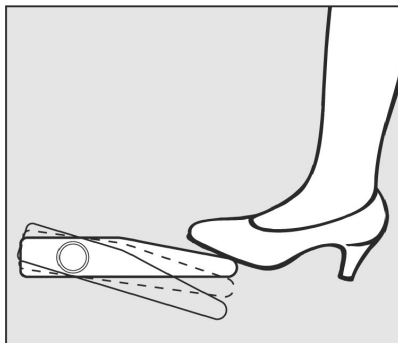


Figure 3-5: Foot Pedal Operation

### 3.2 Emergency Release

In the event of a power loss when the iron is in use the heater plate may be in a position where it could continue to make contact with the roller. The item being ironed would then be held there with the risk of it becoming damaged. To free the trapped item - Pull upward on the emergency release lever to reduce the pressure between the heater plate and the roller; this will allow easy removal of the item being ironed.

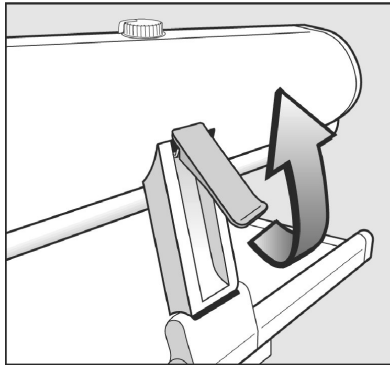


Figure 3-6: Emergency Release Latch

### 3.3 Transit Fitting

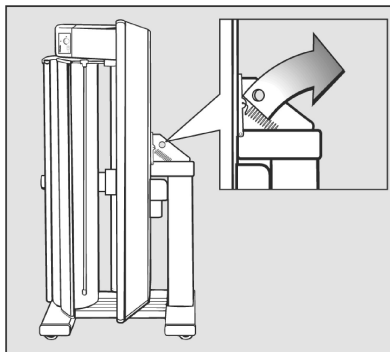


Figure 3-7: Transit Fitting

Keep the transit fitting in a safe place. It must be re-fitted if the appliance ever has to be moved again.

**Note**

The rotary ironer should only be transported in a folded up position with the transit fitting in place.



## 4.0 Description of Function

### 4.1 Electronics

The B890 is equipped with two (2) separate electronic board assemblies. The Control Electronic (A1) is fitted to the inside of the top cover, and houses the user controls.

The Main Electronic (N2) is located beneath a cover on the top of the main vertical support of the appliance. The Main Electronic is responsible for providing power to the components.

### 4.2 Transformer

The Transformer is mounted to the base-plate of the appliance, and is covered by the main vertical support of the appliance. The Transformer is responsible for reducing voltage from 240 (208) VAC to 17 V for the electronic and several components.

### 4.3 Foot Switches (2S26 and 2S27)

The foot switches are mounted below the footplate and are actuated by the user to engage the heaterplate to the roller and to provide drive to the roller assembly.

### 4.4 Heater Plate Drives - Operation

Refer to figure 4-1.

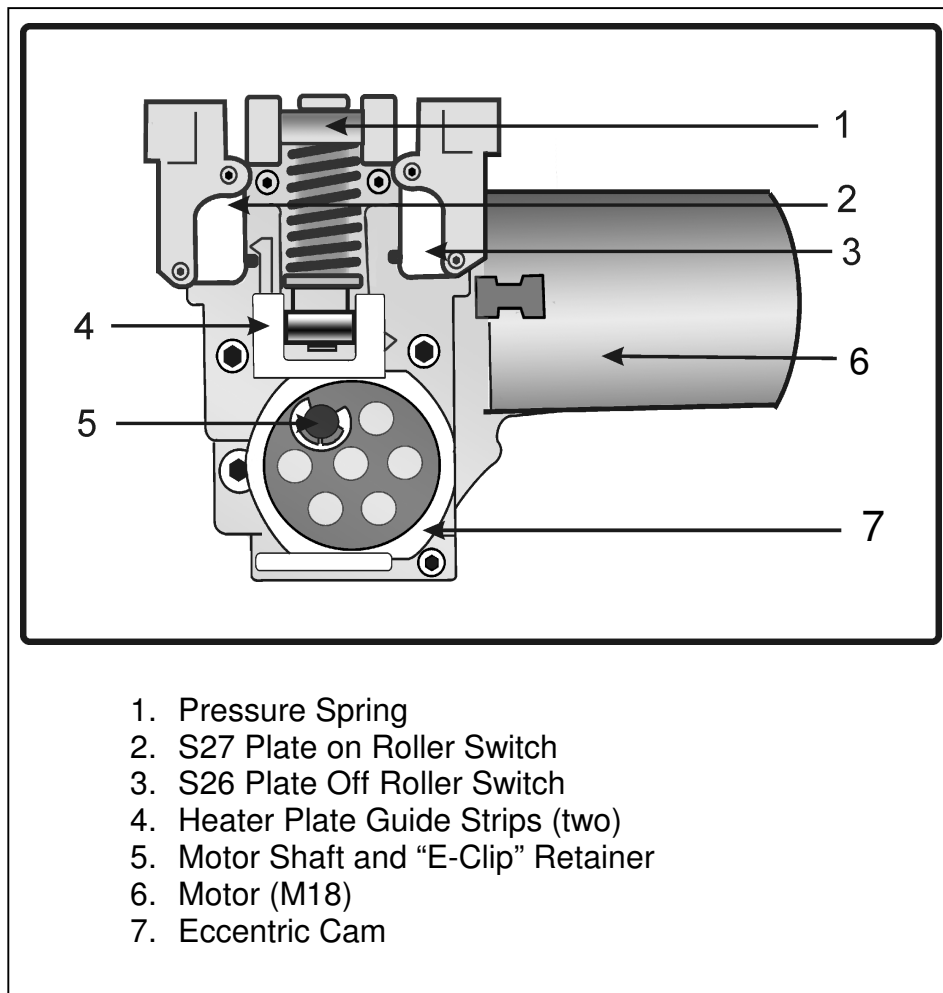
The Heater Plate drives are actuated by the user via the footplate (see Foot Switches 4.3). The Drive Motor (item 6) is then energized with 24VDC.

The shaft of the Drive Motor is connected to the Eccentric Cam (item 7) via an e-clip connection (item 5) so as the Drive Motor turns the Eccentric Cam rotates. The rotation of the eccentric cam moves the Guide Strips (item 4) and applies pressure to the spring (item 1) causing the heater plate to close against the roller.

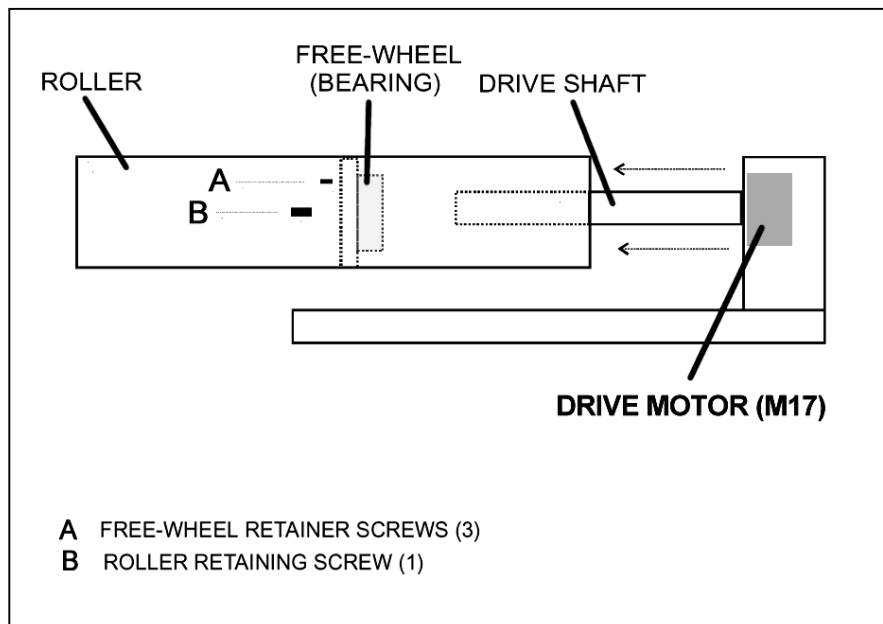
Power to the motor is interrupted as the guide strip actuator contacts the "Plate ON Roller Switch" (item 2), leaving the heater plate against the roller for ironing.

**Technical Information**

When the user releases the foot pedal, the drive motor is energized in the opposite direction. The eccentric cam (item 7) rotates – pressure is released from the spring (item 1) and the heater plate moves away from the roller. The drives continue until the “Plate OFF Roller Switch” is actuated by the Guide Strip (item 4).

**Heater Plate Drives****Figure 4-1:** Heater Plate

## 4.5 Roller Assembly / Drives



**Figure 4-2:** Roller and drive components

A single driveshaft is connected to the roller via a free-wheel bearing which permits the roller to turn in one direction only.

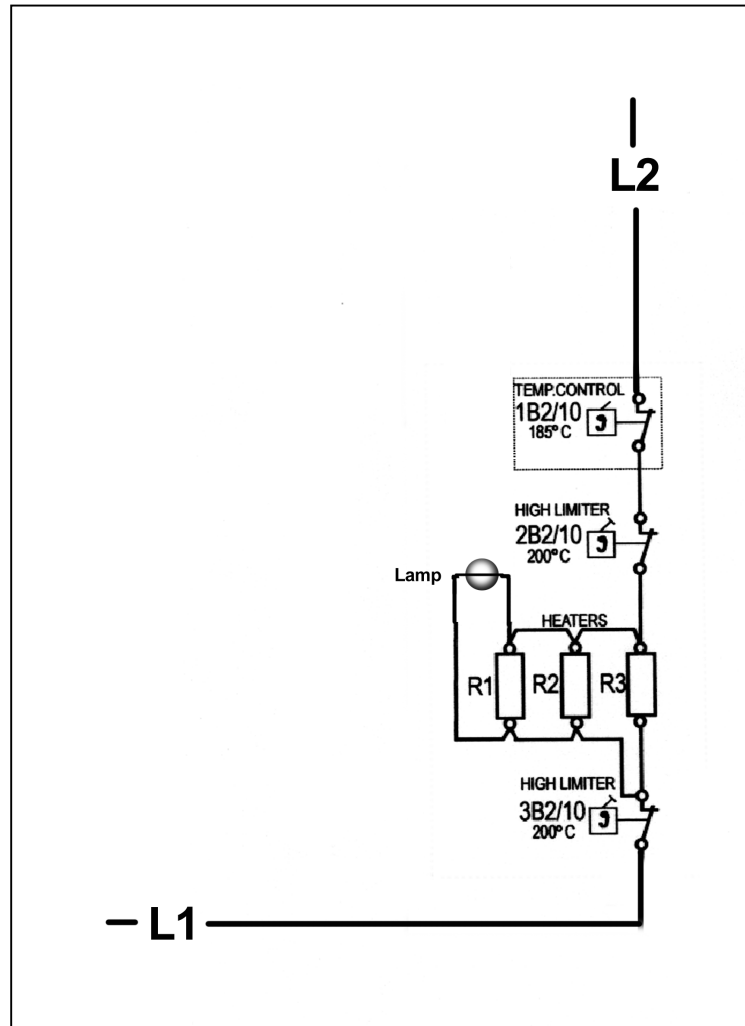
The driveshaft is mechanically connected to the Drive Motor (M17). Power to the motor (24 VDC) is controlled by the users actions via the footplate (see Footswitches 4.3).

## 4.6 Heater Circuit

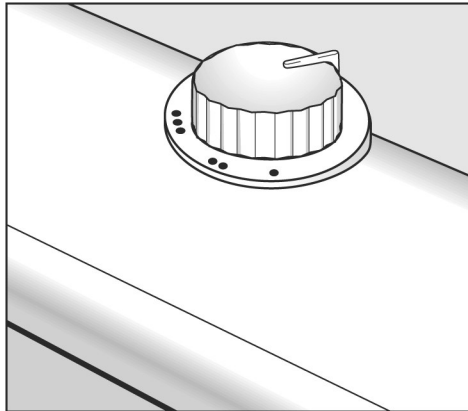
Refer to figure 4-3.

The Heaterplate contains three heating elements within a parallel Circuit (1 Kw / 52 ohms for each element). The temperature is regulated using an Adjustable Temperature Control Device (see figure 4-4) mounted in series before the heating elements.

In addition, the heating circuit contains two Thermal (Hi-limit) Cut-outs also electrically mounted in series to the heating elements. Should the temperature exceed 200<sup>0</sup> C the circuit electrically interrupted.

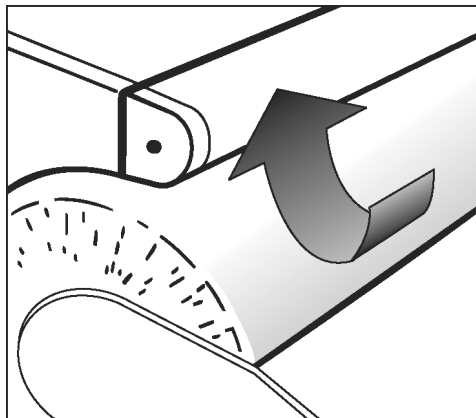


**Figure 4-3:** Heater electrical circuit



**Figure 4-4:** Heater temperature control

## 4.7 Finger Guard Switch



**Figure 4-5:** Finger Guard

The Finger Guard is the small lip in the front of the Heater Plate Assembly, that can be lifted slightly. The Finger Guard Switch is actuated if the Finger Guard is lifted or moved from its regular position. This system ensures that if the operator should accidentally make contact with the Heaterplate while the Roller is turning; power is interrupted to prevent injuries.

Technical Information

## 5.0 Service and Maintenance

### 5.1 Control Electronic (A1) - Removal

1. Remove the cover screw and lift off the cover (rear first).
2. Tilt cover forward and upward from the appliance.

**Note**

Use caution when removing cover from the appliance as wiring is still connected to the control board mounted inside the cover.

**To Remove the Control Panel Circuit Board from the cover continue as follows:**

3. Remove the screws securing the circuit board to the inside of the cover.
4. Make note of the location of electrical connections and carefully unplug from the circuit board.

### 5.2 Transformer (T1) - Removal

1. Lay the ironer on its back.
2. Remove the tension from the Bowden cable by disconnecting the tensioner spring.
3. Remove four bolts from the underside of the footplate from the support column using a socket spanner.
4. Carefully remove the footplate.

**Caution**

The electrical connections are not very long.

5. Disconnect the 2 group plugs.
6. Remove the 2 screws from the transformer holder.
7. Remove the transformer.

### 5.3 Main Electronic Unit (N2) - Removal

1. Lift the handle (locking catch) at the right under the table and hold the table.
2. Tilt the folding part of the ironer down until it is vertical and locks into place.
3. Remove the screw from the cover at the top of the support column.
4. Remove the cover from the column (it may be necessary to remove the spring).
5. Remove the left cover from the column.
6. Remove the screw.
7. Disconnect the electrical connections.
8. Remove the electronic unit with its holder.

**Note**

If a new electronic unit is to be fitted, perform the electrical connections to the electronic immediately. This avoids the risk of incorrect connection.

### 5.4 Foot Switches (2S26 & 2S27) - Removal

1. Lift the handle (locking catch) at the right under the table and hold the table.
2. Tilt the folding part of the ironer until it is horizontal and locks into place.
3. Lay the ironer on its back.
4. Remove two screws from the bottom next to the two access holes under the footplate.
5. Remove the foot switch strip.
6. Remove the screws from the switch holder.
7. Disconnect the plug connections.
8. Remove the appropriate switch.

**Note**

When refitting the screws, slide the bearings into the correct positions so the guide lugs engage in their holes.



## 5.5 Finger Guard Switch (F6/5) - Removal

1. Perform the "Opening the Heater Plate Cover" procedure.
2. Remove the 2 screws from the switch holder.
3. Disconnect the plug connections.
4. Remove the switch.

### Note

The switching point of the finger guard strip cannot be modified.

## 5.6 Limit Switches (S26 & S27) - Removal

1. Remove the 2 screws under the table from the motor unit cover.
2. Remove the cover.
3. Disconnect the plug from the appropriate switch.
4. Remove the 2 screws from the appropriate switch.
5. Remove the switch.

### Caution

When refitting, take care to ensure the plugs are connected correctly as they are not coded or keyed connections.

## 5.7 Heater Plate Drive Motor (M18) – Removal

1. Remove the 2 screws under the table from the motor unit cover.
2. Remove the cover.

**Note**

How wiring is routed so it can be rerouted correctly during reassembly.

3. Remove the retaining screw from the left and right guide strips.
4. Tilt the guide strips with the switches slightly and remove them.
5. Disconnect the plug connections from the DC motor.
6. Remove the e-clip from the shaft.
7. Remove the holder screws from the table.
8. Tilt the DC motor with its holder downwards.
9. Press the DC motor shaft out of the eccentric drive.
10. Remove the DC motor.

**Note - During reassembly...**

- Ensure the guide strips for the switches are correctly located in the grooves on the slider
- Ensure the alignment lugs are engaged properly

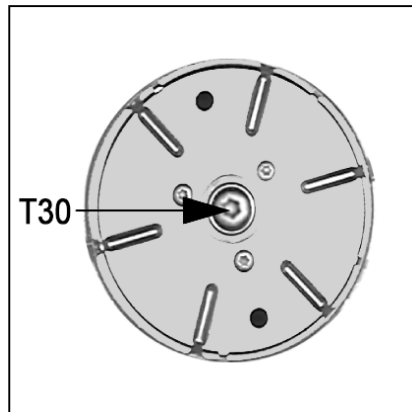
## 5.8 Roller Assembly - Removal

1. Remove the feed board.
2. Open the ironing cloth at the left end. Complete removal of cloth is not necessary.
3. Remove the roller end plate.

**Note**

Adhesive residue may make it difficult to remove the end plate.

4. Remove the middle screw (Torx T30) from the interior of the roller and remove it with its washer. See figure 1.



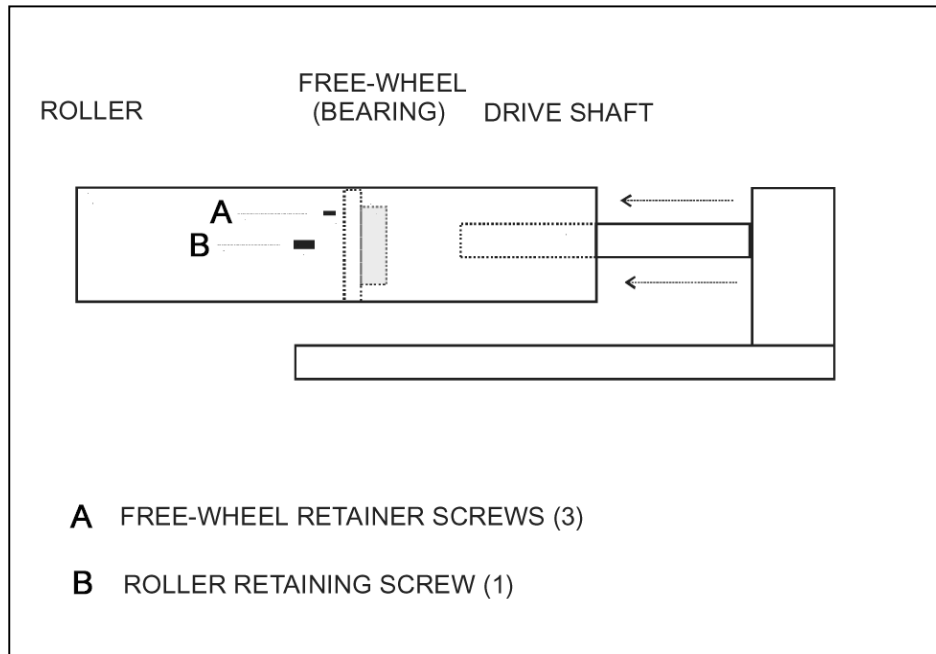
**Figure 5-1:** End of roller

5. Loosen the roller at the right by giving it an axial jolt using both hands.
6. Remove the roller.

**Note**

When refitting the end plate, ensure the notch aligns with the lug on the interior of the roller.

## 5.9 Free-wheel Mechanism - Removal



**Figure 5-2:** Free-wheel mechanism

1. Perform the "Roller Assembly - Removal" procedure.
2. Unscrew the three screws from the interior of the roller.
3. Remove the free-wheel mechanism and bearing flange.

### **Note**

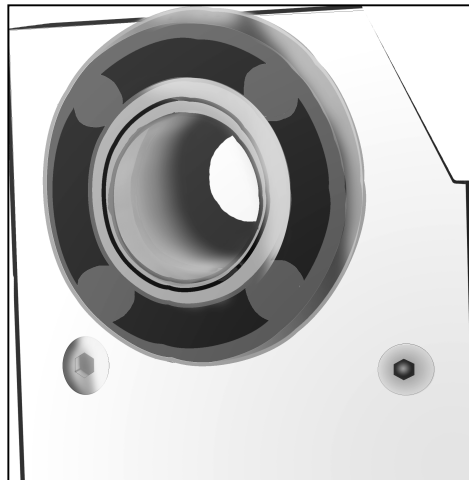
Reassemble by following these instructions in reverse order. When refitting, position the free-wheel mechanism and bearing flange on the roller shaft. Then place the roller in position and turn it until the screw holes align.

## 5.10 Driveshaft - Removal

1. Remove the screw from the rear of the cover around the control panel.
2. Lift the hood at the rear and unclip it at the front.
3. Remove the cover assembly.
4. Perform the “Roller Assembly - Removal” procedure.
5. Access the interior side of the frame (where cover was just removed from).
6. Remove the e-clip from the end of the drive shaft (next to the gear)
7. Remove the shaft from the gear by pulling the shaft away from the appliance.
8. Remove the cog wheel.
9. Remove the shaft.

## 5.11 Roller Drive Motor (M17) - Removal

1. Perform the “Roller Assembly - Removal” procedure.
2. Perform the “Driveshaft - Removal” procedure.
3. Remove the 2 screws securing the motor to the frame from outside frame, as shown in figure2.



**Figure 5-3:** The motor is mounted to the frame using two bolts.

4. Remove the motor partially by lifting it upward.
5. Unplug the motor from the harness.
6. Continue to lift the motor out of the appliance.

## 5.12 Heater Plate Cover – Opening

1. Switch on the machine.
2. Operate the foot switch to lower the heater plate onto the roller.
3. Switch off the machine and unplug it from the mains.
4. Remove the screws from the left and right end-caps.
5. Remove the left and right end caps.
6. Lift the cover at the top and carefully slide it down onto the folding part.

## 5.13 Leaf Spring With Holder - Replacement

1. Perform the “Opening The Heater Plate Cover” and “Insulation Matting.
2. Removal” procedures.
3. Pull the tensioning strap upwards.
4. Remove the circlip.
5. Remove the bolt.
6. Remove the wiring harness fixing clips.
7. Disconnect the earth wire from the bracket.
8. Remove the holder fixing screws from the heater plate.
9. Remove the holder.
10. Fit the new holder.

### **Service Tip**

If the Emergency Release does not allow laundry to be removed the leaf spring may need replacement.

## 5.14 Insulation Matting - Removal

1. Perform the “Opening the Heater Plate Cover” procedure.
2. Disconnect the electrical connections from the switches.
3. Remove the insulation matting.

### **Note**

Take care not to damage the matting cutouts when pulling it free of the switches.

## 5.15 Hinge Pressure Spring – Setting / Adjustment

**Note**

Setting should only be made with the heater plate lowered onto the roller.

1. Lower the heater plate onto the roller.
2. Remove the 2 screws under the table from the motor unit cover.
3. Remove the cover.
4. Unscrew the bolt from the cross pin.
5. Apply locking compound to the end of the bolt.
6. Screw the bolt in such that the pressure spring is compressed to a length of approximately  $1\frac{3}{16}$  inches

**Note**

After correct setting, the gap between the bolt head and the cross pin at the head of the bolt should be approximately  $\frac{1}{16}$  of an inch with the heater plate lowered onto the roller.

## 5.16 Hinge Spring - Removal

1. Lift the handle (locking catch) at the right under the table and hold the table.
2. Tilt the folding part of the ironer down until it is vertical and locks into place.
3. Tilt the folding part of the ironer back up until the spring is virtually un-tensioned.
4. Release the spring from its holder using needle-nose pliers.

**Technical Information****5.17 Bowden Cable - Releasing Tension**

1. Access the underside of the iron directly under the main vertical support.
2. Use a suitable tool to grasp the hook end of the spring.
3. Carefully lift the spring from its mounting hole.
4. Move spring away from the mounting hole and allow spring to pull itself into the spring opening.

**Caution**

When spring tension has been removed from the Bowden Cable the iron will open very differently and have no self tensioning at the hinge.

**5.18 Bowden Cable - Removal**

1. Perform "Bowden Cable - Releasing Tension" (5.17).
2. Carefully open the iron into the vertical position.
3. Loosen the cable retainer screw and move the cable retainer to the side.
4. Pull cable from retainer area and lift cable from vertical support. It may be necessary to reposition the iron if the hook on the spring attached itself to the frame again.





## 6. Fault Diagnosis

### 6.1 Electronic Boards

#### 6.1.1 Main Electronic (N2)

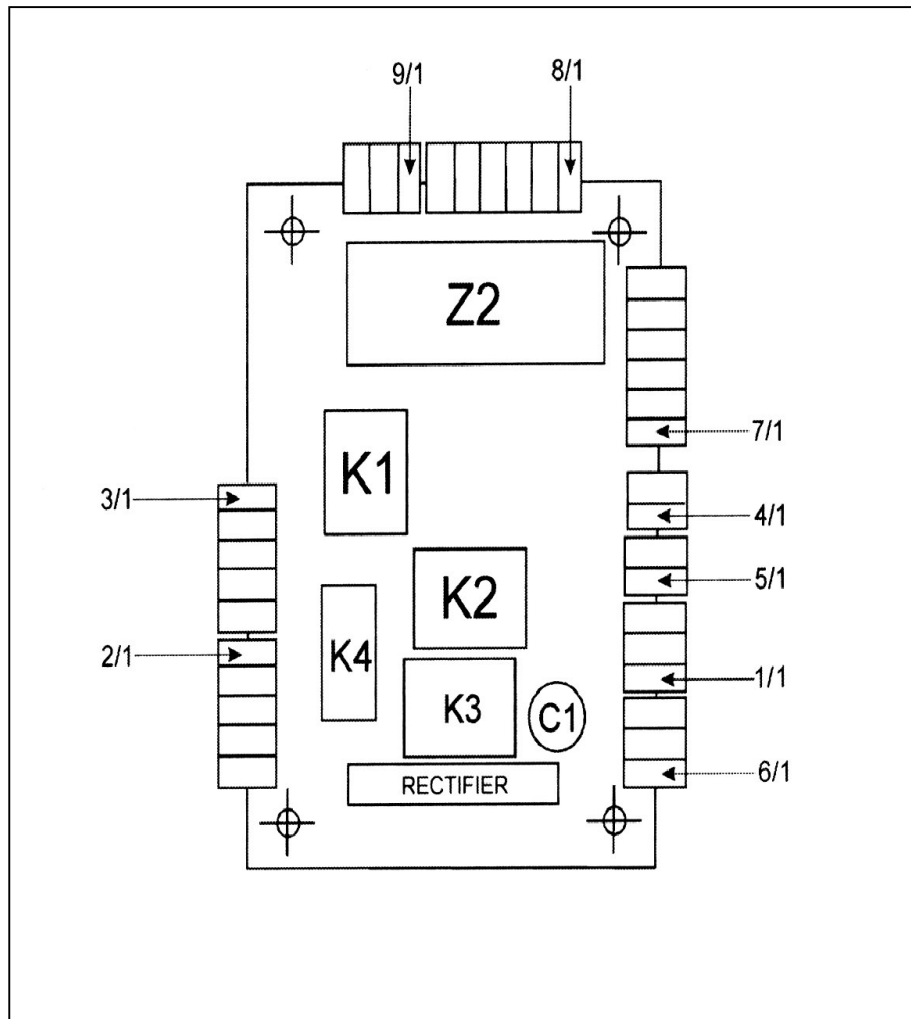


Figure 6-1: Main Electronic

### 6.1.2 Control Electronic (A1)

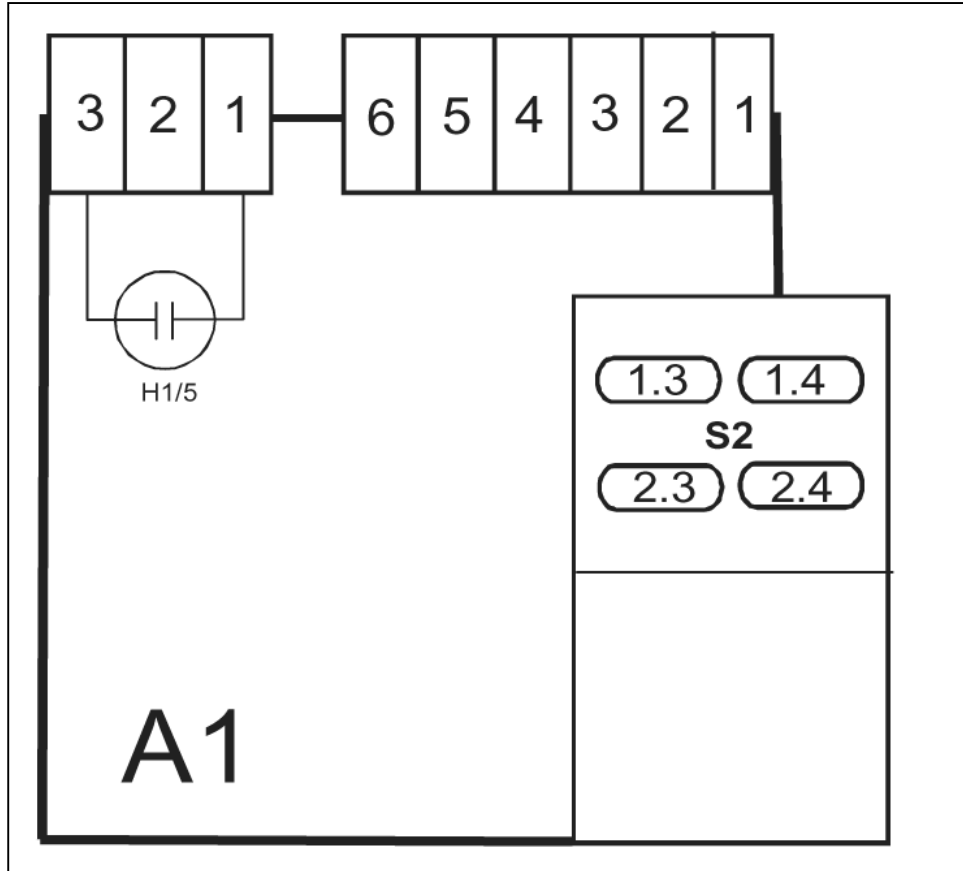


Figure 6-2: Control Electronic

Technical Information

6.2 Wire Diagram

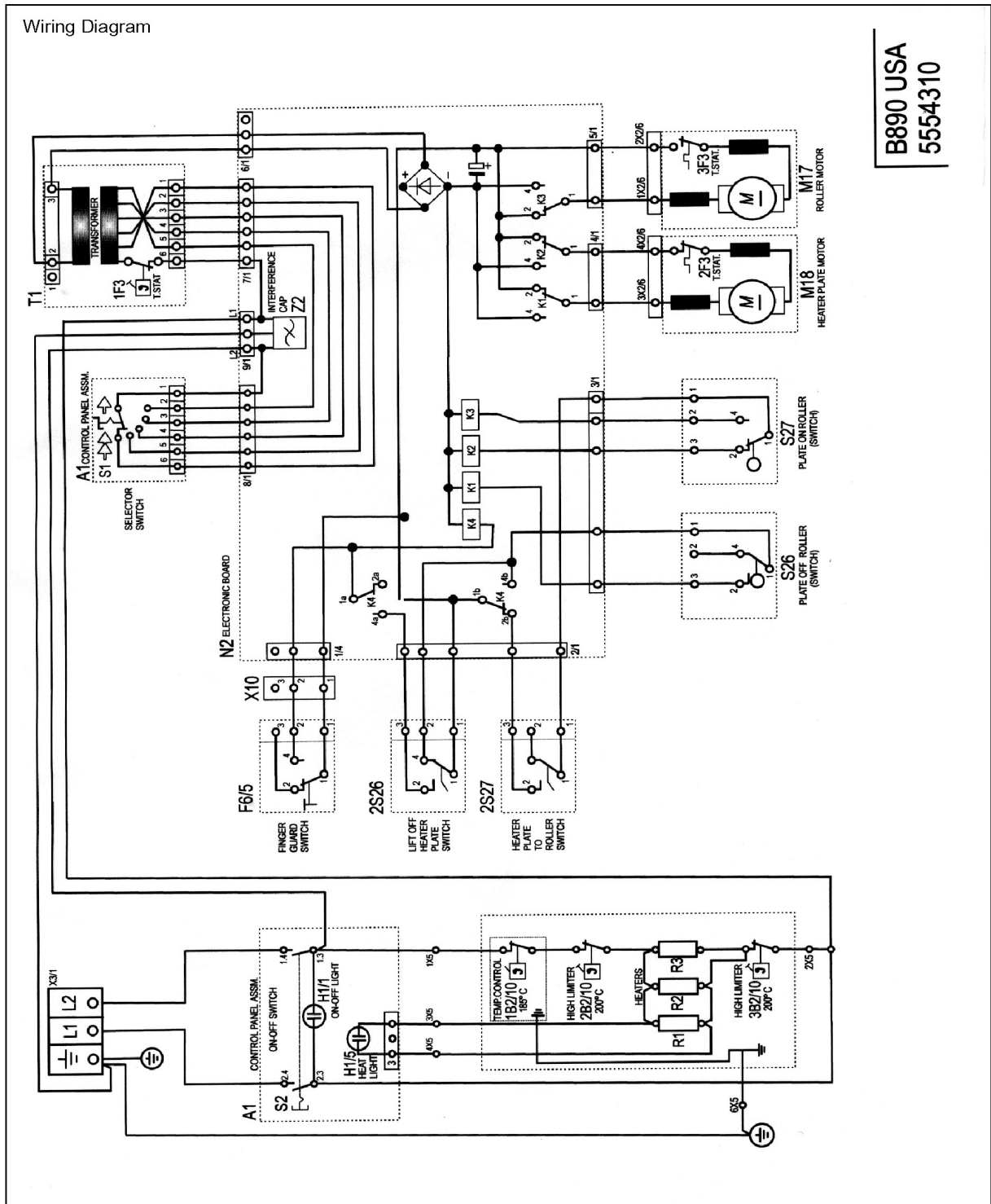


Figure 6-3: Wire Diagram

