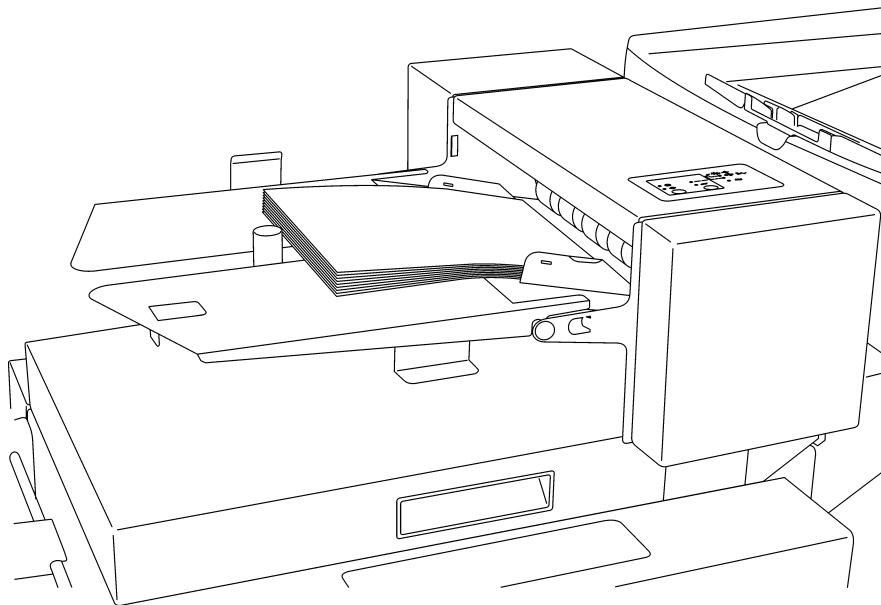


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# ***Service Manual US***

## ***CF85 COVER FEEDER***





# ***Table of contents***

<b>1. COVERS REMOVE INSTRUCTION (CRI)</b>	<b>Page</b>
CRI 1.1 Front and rear cover	1-1
CRI 1.2 Top cover	1-2
<b>2. REPAIRS / ADJUSTMENTS (REP)</b>	
REP 2.1 Controller / Driver PWB and Panel	2-1
REP 2.2 Bin motor assembly, M1	2-3
REP 2.3 Drive motor assembly, M2	2-4
REP 2.4 Paper blower motor, M3	2-5
REP 2.5 Sensor empty bin, Q1	2-6
REP 2.6 Sensor paper bin home position, Q2	2-7
REP 2.7 Phototransistor and LED assembly, Q3	2-8
REP 2.8 Sensor outfeed, Q4	2-9
REP 2.9 Sensor low bin, Q5	2-10
REP 2.10 Power supply harness	2-11
REP 2.11 Upper paper path	2-14
REP 2.12 Drive shaft assembly	2-15
REP 2.13 Pinch roll shaft assembly	2-16
REP 2.14 Feed roller assembly and Paper Sep pad	2-17
REP 2.15 Bin extension plate assembly	2-18
<b>3. ELECTRICAL DETAIL INFORMATION (EDI)</b>	
EDI 3.1 Wiring diagram	3-1
EDI 3.2 Electrical components list	3-2
EDI 3.3 Electrical components location	3-3
<b>4. SERVICE MODE (SRM)</b>	
SRM 4.1 Enter Service Mode	4-1
SRM 4.2 Service Mode List	4-2
SRM 4.3 Calibration of DFD, Sensor Q3	4-4
SRM 4.4 Selfdiagnostic / Fault Isolating	4-5
SRM 4.5 Total counter	4-13
SRM 4.6 Software version	4-14
<b>5. PREVENTIVE MAINTENANCE (MAI)</b>	
MAI 5.1 Preventive Maintenance	5-1

## 1. COVERS REMOVE INSTRUCTION

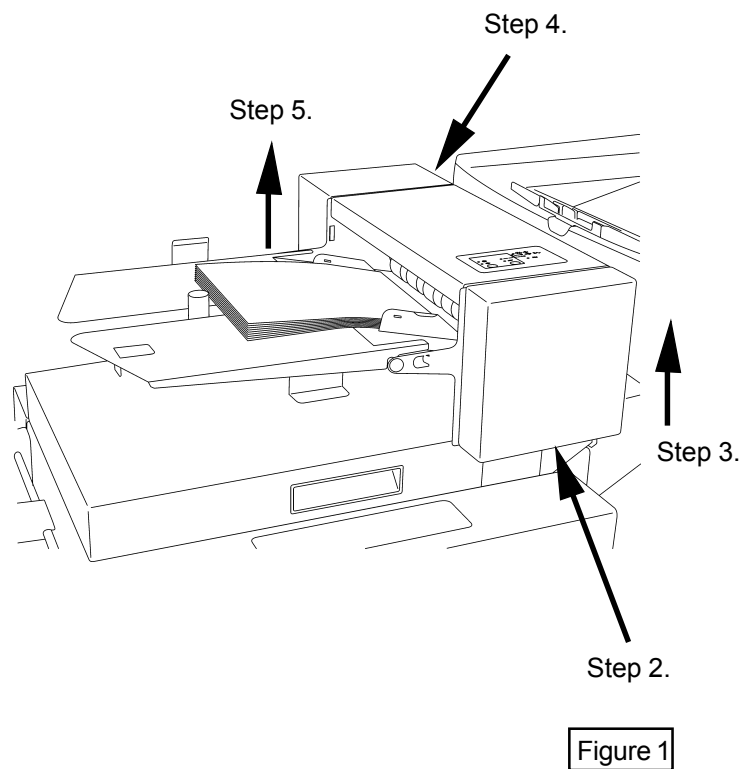
### CRI 1.1 Front and Rear cover

---

#### REMOVAL

##### Front and rear cover

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the 7 mm screw holding the front cover, according to Figure 1.
3. Lift up and remove the cover, according to Figure 1.
4. Remove the 7 mm screw holding the rear cover, according to Figure 1.
5. Lift up and remove the cover, according to Figure 1.



#### INSTALLATION

1. Installation is an exact reversed procedure of removal.

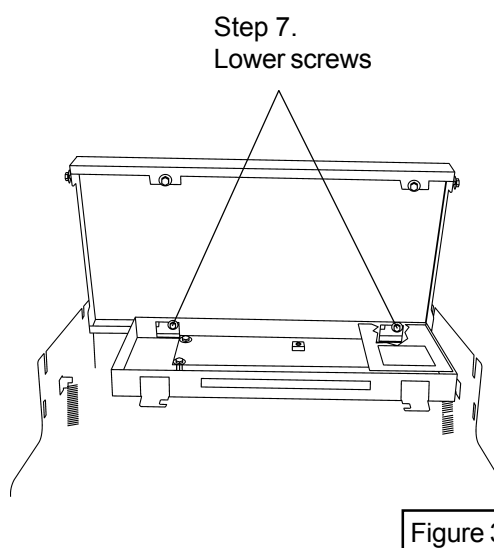
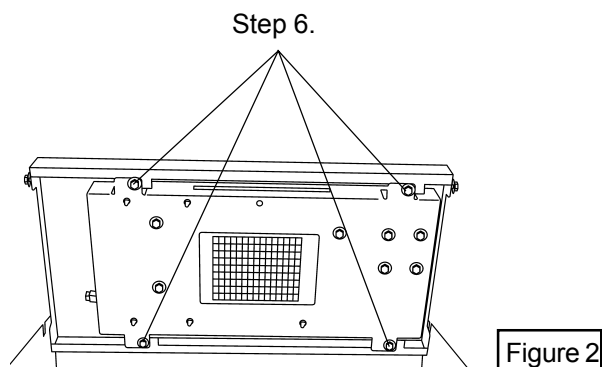
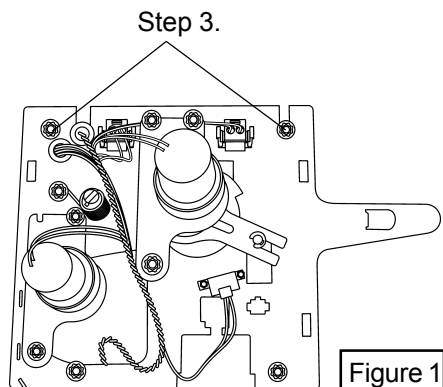
## CRI 1.2 Top cover

---

### REMOVAL

#### Top cover

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the front and rear cover according to CRI 1.1
3. Loosen the two 7 mm screws on the front side of the Cover feeder. Loosen the two 7 mm screws on the rear side of the Cover feeder, according to figure 1.
4. Lift up the Top cover to up position.
5. Tighten the two 7 mm screws to secure the Top cover in up position.
6. Loosen the four 7 mm screws holding the PWB plate, according to figure 2.
7. Slide the PWB plate to the rear and hook it up on the two lower 7 mm screws, according to figure 3.



### INSTALLATION

1. Installation is an exact reversed procedure of removal.

## 2. Repairs / Adjustments

### REP 2.1 Controller / Driver PWB and Panel

---

#### REMOVAL

##### Controller / Driver PWB and Panel

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the front and rear cover according to CRI 1.1
3. Loosen and lift up the top cover according to CRI 1.2
4. Remove the seven 7 mm screws holding the PWB according to figure 1.
5. Disconnect the 5 connectors J1, J2, J3, J6 and J11, according to figure 2

NOTE: The five connectors on the PWB are labelled on the rear side of the PWB.

6. If changing panel. Remove the five nuts, holding the panel according to figure 3.

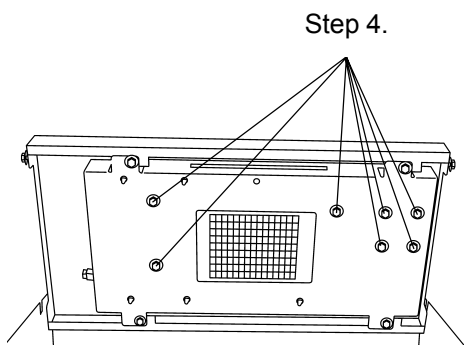


Figure 1

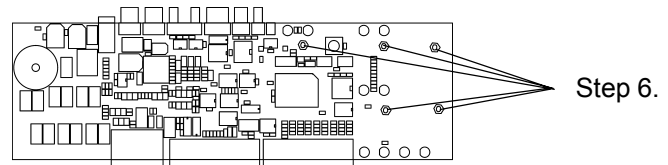


Figure 3

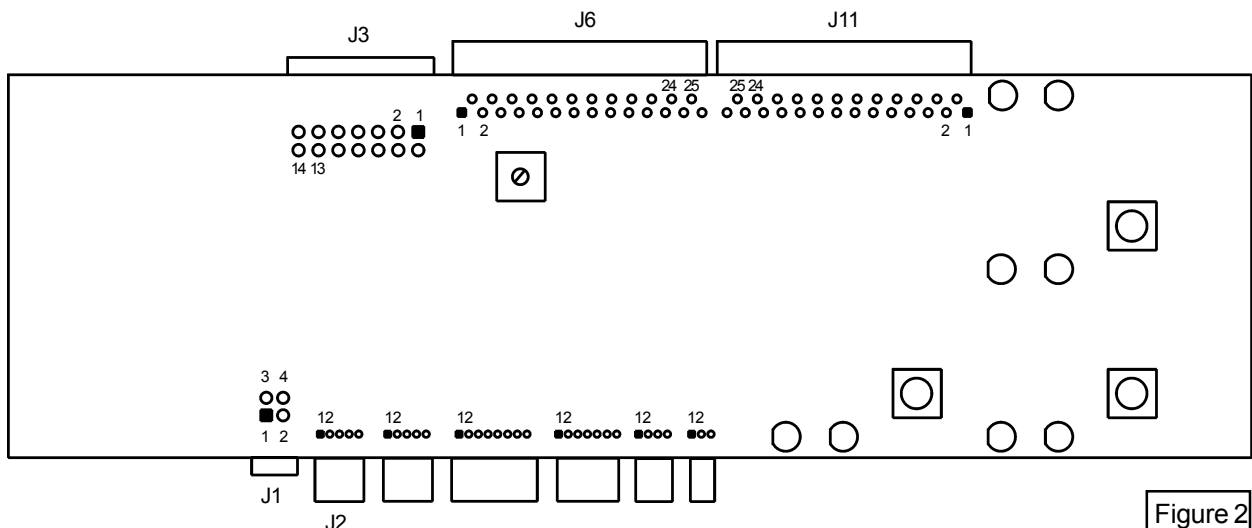


Figure 2

## ***REP 2.1 Controller / Driver PWB and Panel***

---

**Note:** The Total counter will be set to 0 when changing PWB

### **INSTALLATION AND CALIBRATION**

1. Installation is an exact reversed procedure of removal.
2. Enter the Service Mode, according to SRM 4.1
3. Select step 1, DFD calibration Sensor Q3, according to SRM 4.3
4. Select step 11, calibration of Bin motor M1.
5. Select step 12, calibration of Bin motor M1 and Drive motor M2 with A4 / 8.5x11" paper.
6. Select step 13, calibration of Bin motor M1 and Drive motor M2 with A3 / 11x17" paper.
7. Select step 14, calibration of Paper blower motor M3.

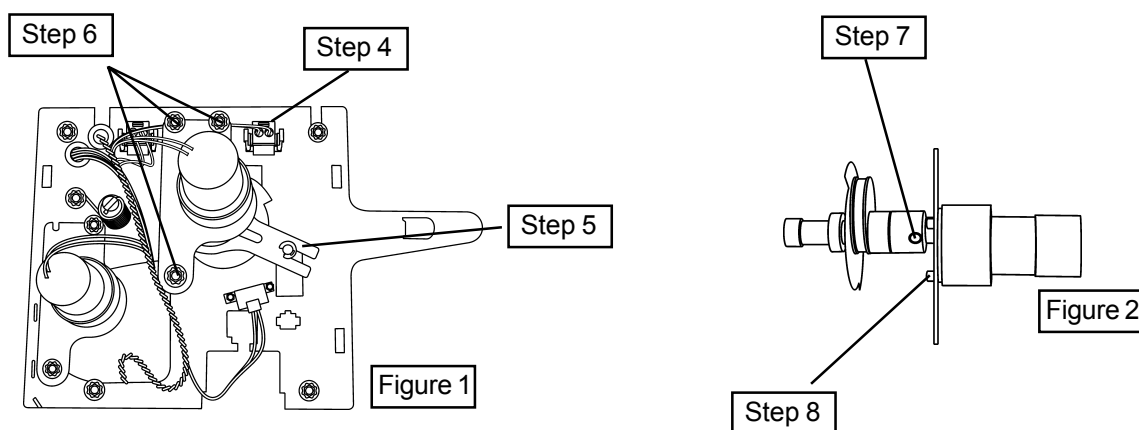
## REP 2.2 Bin motor assembly, M1

---

### REMOVAL

#### Bin motor assembly

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the rear cover according to CRI 1.1
3. Remove the Feed roller assembly according to REP 2.14.
4. Disconnect the motor connector according to figure 1.
5. Remove the e-clip holding the push rod according to figure 1.
6. Remove the three seven 7 mm screws holding the Bin motor bracket according to figure 1.
7. Loosen the 3 mm allen screw holding the Roller clutch assembly according to figure 2.
8. Remove the three 2.5 mm allen screws holding the Bin motor according to figure 2.

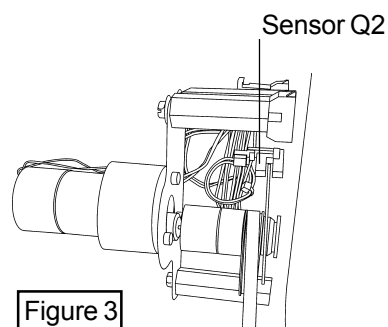


### INSTALLATION AND CALIBRATION

1. Installation is an exact reversed procedure of removal.
2. Enter the Service Mode, according to SRM 4.1
3. Select step 11 and perform calibration of Bin motor M1.
4. Select step 12 and perform calibration with A4/8.5x11" paper.
5. Select step 13 and perform calibration with A3/11x17" paper.

### ADJUSTMENT

Adjust the Bin motor roller clutch assembly so that the sensor activator is in the middle  $\pm 0.5$  mm of sensor Q2, according to figure 3. Adjust by loosening the 3 mm allen screw on the roller clutch assembly. Figure 2.



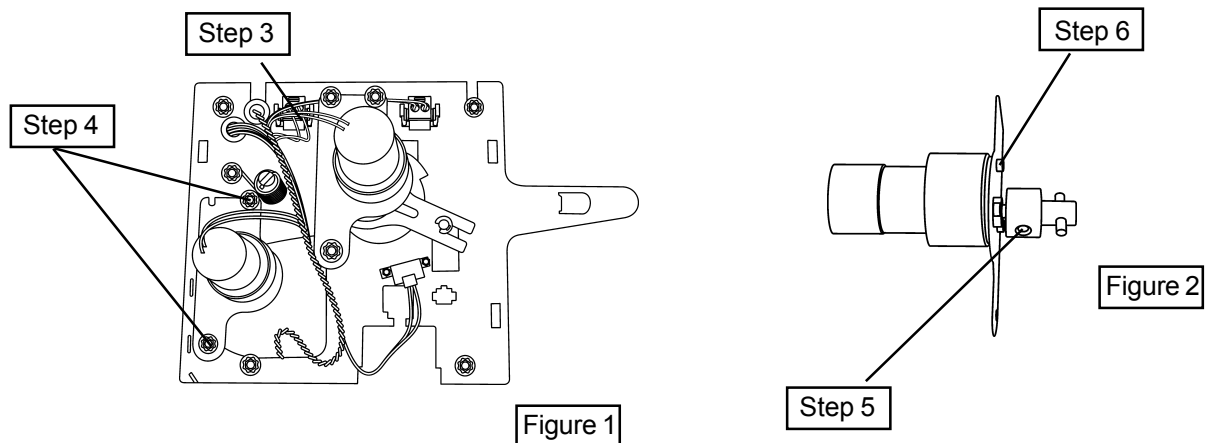
## REP 2.3 Drive motor assembly, M2

---

### REMOVAL

#### Drive motor assembly

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the front and rear cover according to CRI 1.1
3. Disconnect the motor connector according to figure 1.
4. Remove the two seven 7 mm screws holding the Drive motor bracket according to figure 1.
5. Loosen the 3 mm allen screw holding the drive clutch according to figure 2.
6. Remove the three 2.5 mm allen screws holding the drive motor according to figure 2.

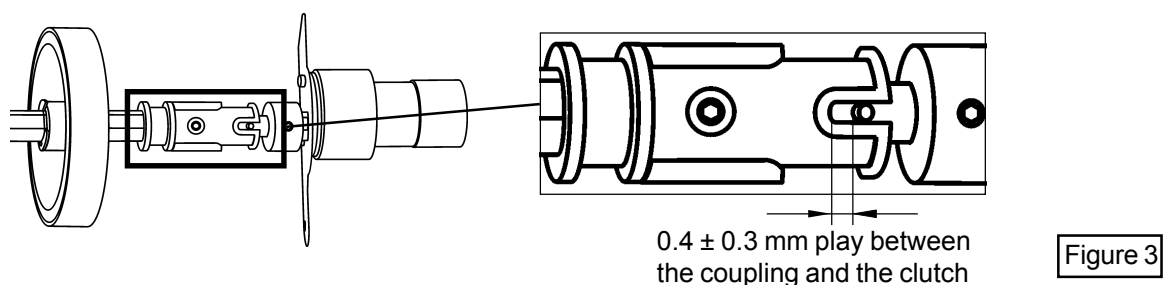


### INSTALLATION AND CALIBRATION

1. Installation is an exact reversed procedure of removal.
2. Enter the Service Mode, according to SRM 4.1
3. Select step 12 and perform calibration with A4/8.5x11" paper.
4. Select step 13 and perform calibration with A3/11x17" paper.

### ADJUSTMENT

Adjust the drive clutch so that there is a play between the coupling on the drive shaft and the clutch. The play should be  $0.4 \pm 0.3$  mm. Adjust by loosen the 3 mm allen screw on the drive clutch, according to figure 3.



## **REP 2.4 Paper blower motor, M3**

---

### **REMOVAL**

#### **Paper blower motor**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the Bin extension plate assembly according to REP 2.15
3. Loosen the 7 mm nut holding the ground cable according to figure 1.
4. Remove the two 7 mm screws holding the blower motor according to figure 1.

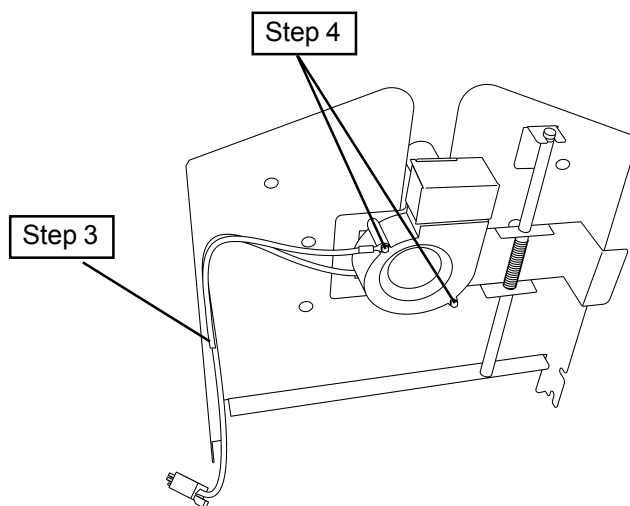


Figure 1

### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.

## ***REP 2.5 Sensor empty bin, Q1***

---

### **REMOVAL**

#### **Sensor empty bin**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the 2.5 mm allen screw holding the sensor according to figure 1.
3. Disconnect the sensor connector according to figure 1.

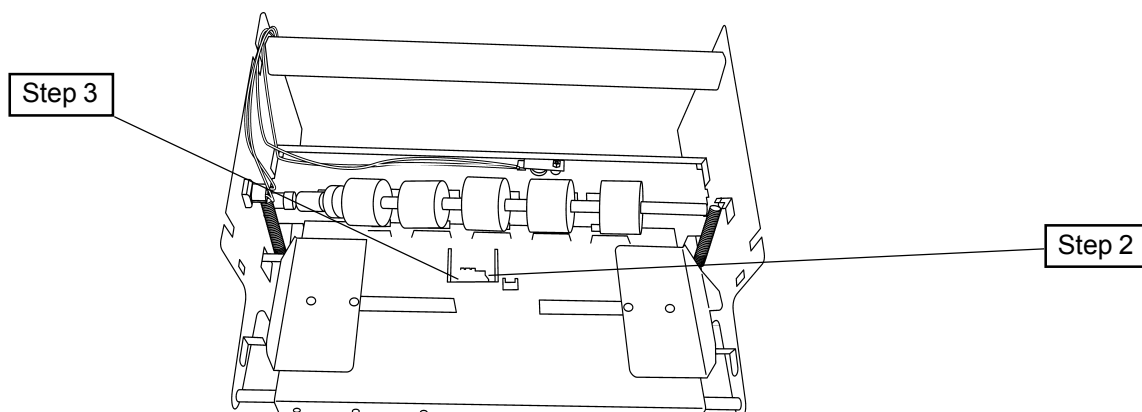


Figure 1

### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.

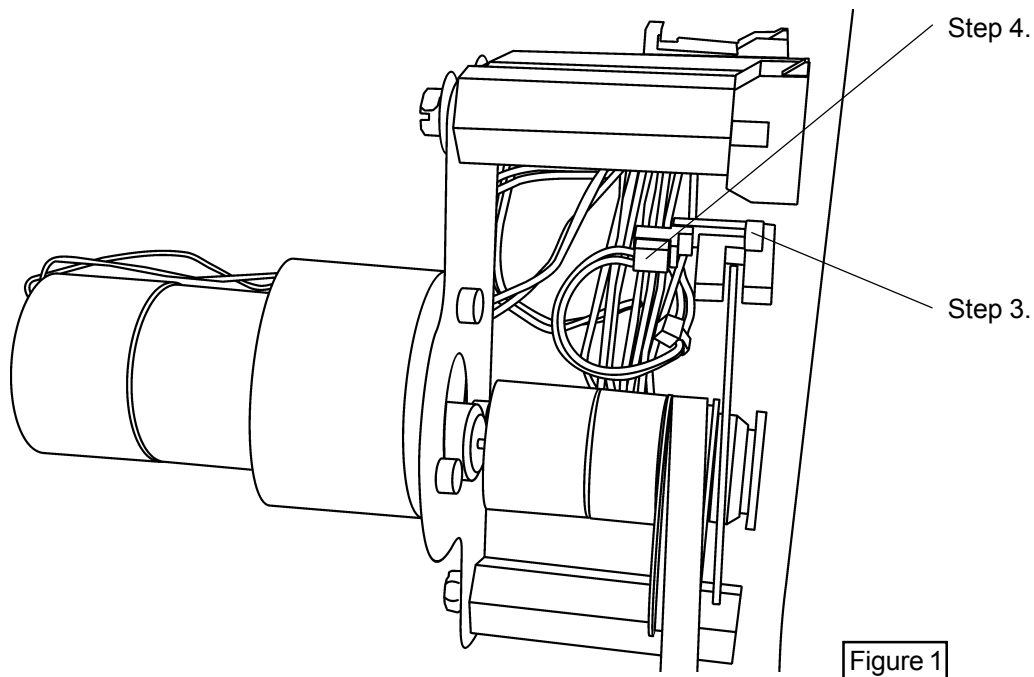
## **REP 2.6 Sensor paper bin home position, Q2**

---

### **REMOVAL**

#### **Sensor paper bin home position**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the rear cover according to CRI 1.1
3. Remove the two 2.5 mm allen screws holding the sensor according to figure 1.
4. Disconnect the sensor connector according to figure 1.



### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.

## REP 2.7 Phototransistor and LED assembly, Q3

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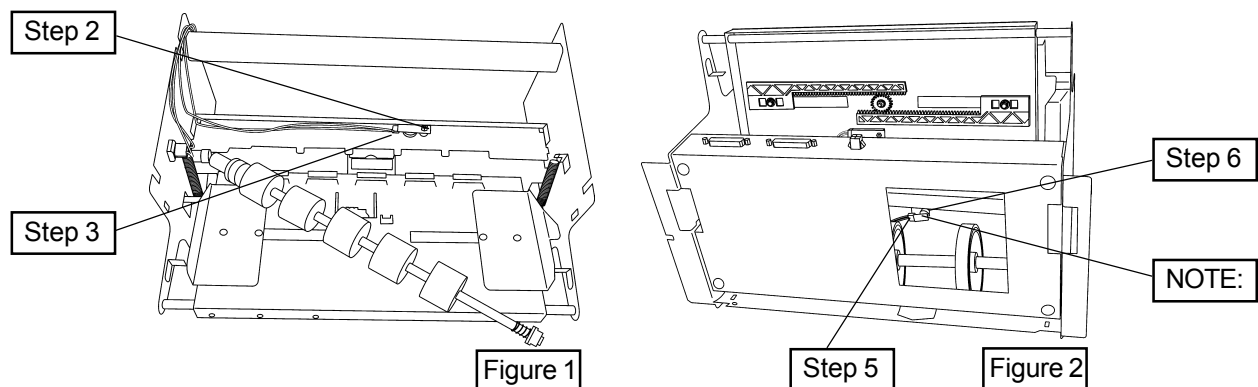
### REMOVAL

#### Sensor and LED assembly

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the 7 mm nut, according to figure 1.
3. Disconnect the phototransistor connector according to figure 1.
4. Remove the Drive shaft assembly, according to REP 2.12

NOTE: It is possible to reach the LED connector through the hole in the rear frame. It is not necessary to remove the Cover Feeder from the Booklet maker.

5. Disconnect the LED connector according to figure 2.
6. Loosen the 10 mm nut and slide off the LED connector, according to figure 2.



### INSTALLATION AND CALIBRATION

NOTE: Make sure you install the LED connector according to figure 2, so it will not interfere with the Drive Shaft when performing REP 2.12.

1. Installation is an exact reversed procedure of removal.
2. Enter the Service Mode, according to SRM 4.1
3. Align the phototransistor with the LED to obtain the correct setting for the double sheet detector, according to SRM 4.3 Calibration of DFD Sensor Q3.
3. Select step 1 and perform calibration of DFD, according to SRM 4.3

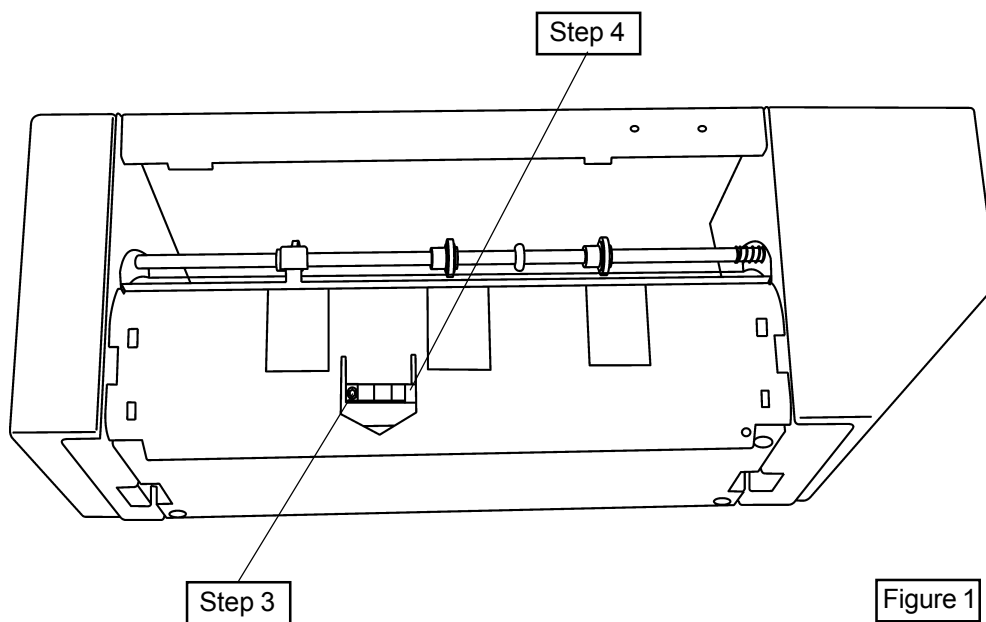
## **REP 2.8 Sensor outfeed, Q4**

---

### **REMOVAL**

#### **Sensor outfeed**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Lift up the upper paper path and open the Jam clearance baffle and remove it.
3. Remove the 2.5 mm allen screw according to figure 1.
4. Disconnect the sensor connector according to figure 1.



### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.

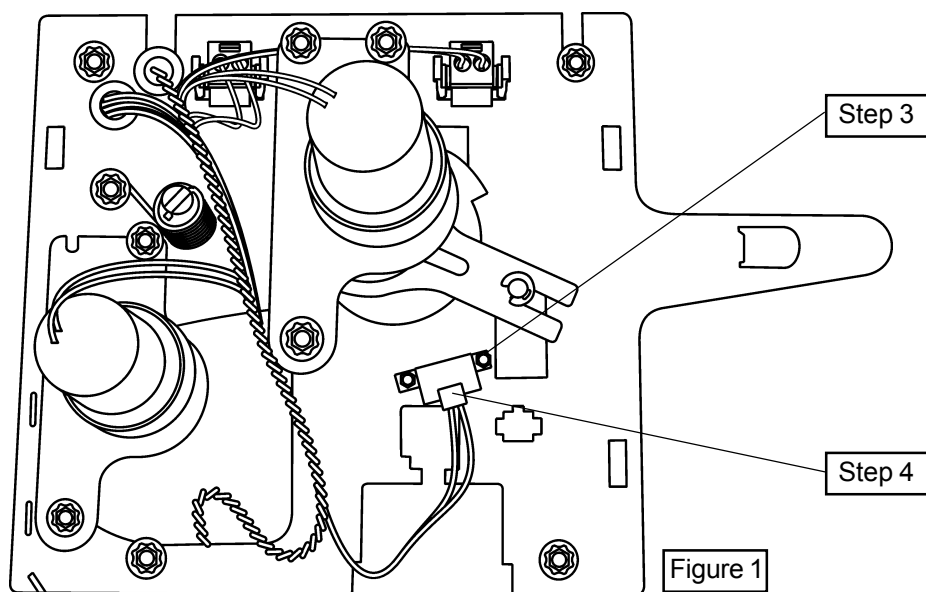
## **REP 2.9 Sensor low bin, Q5**

---

### **REMOVAL**

#### **Sensor low bin**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the rear cover according to CRI 1.1
3. Remove the two 2.5 mm allen screws holding the sensor according to figure 1.
4. Disconnect the sensor connector according to figure 1.



### **INSTALLATION**

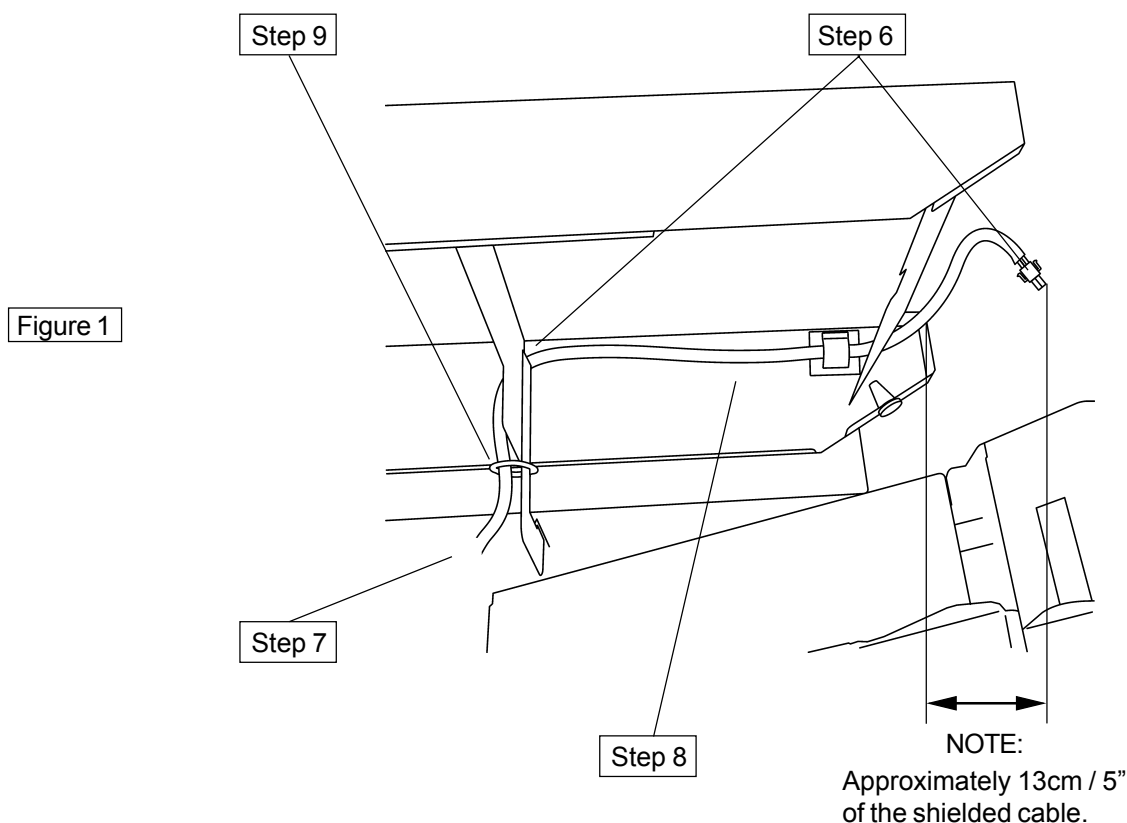
1. Installation is an exact reversed procedure of removal.

## REP 2.10 Power supply harness

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### INSTALLATION

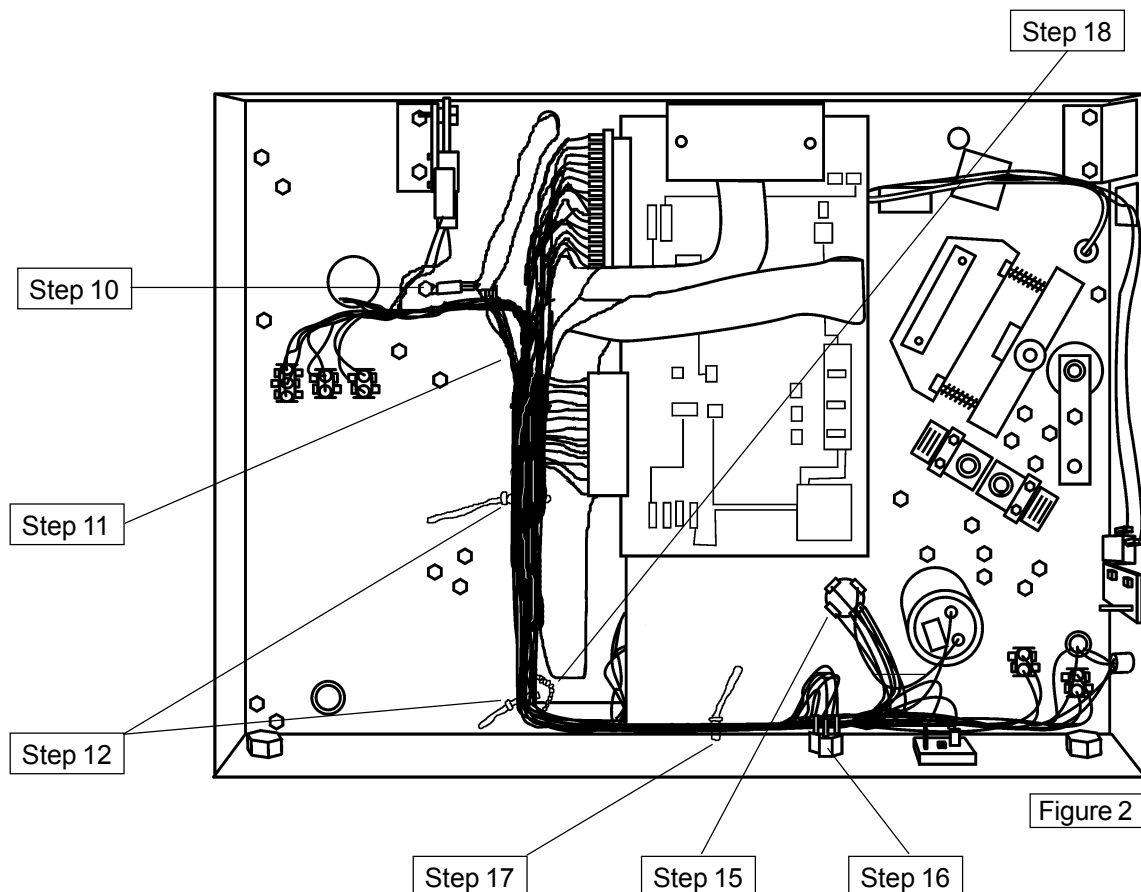
1. Undock the Booklet maker.
2. Remove the power cord and the communication cable from the Booklet maker.
3. Remove the Rear Cover on the Booklet maker, according to REP 1.1 in the SR85 Service manual.
4. Remove the Infeed cover on the Booklet maker, according to REP 1.4 in the SR85 Service manual.
5. Open the Top cover.
6. Route the Power Supply Harness, PSH, make sure that the connector is on the infeed side of the Booklet maker. Route it, between the inside of the Top cover and the reinforcement by the right hinge, according to figure 1.



7. Continue routing the PSH in to the hole in the frame, according to figure 1.

NOTE: Make sure that you route the PSH so that you have approximately 13cm / 5" of the shielded cable at the Infeed side of the machine, according to figure 1.

8. Secure the PSH with the cable holder, according to figure 1.
9. Also secure the PSH with a cable tie, according to figure 1.



10. Loosen the screw, and fasten the ground cable, according to figure 2.
11. Route the PSH down by the existing Harness, according to figure 2.
12. Secure the PSH with two cable ties, according to figure 2.
13. Split the PSH. So that you have one end with the red and black cable. And one end with the Orange and Purple cable.
14. Route the Red and Black cable to the right of the machine, seen from the rear side.
15. Connect the red cable to the Power connector, according to figure 2.
16. Connect the black cable to the Ground connector, according to figure 2.
17. Secure the cable to the existing harness with a cable tie, according to figure 2.
18. Route the Orange and Purple cable into the Cutout in the rear frame of the machine, according to figure 2.

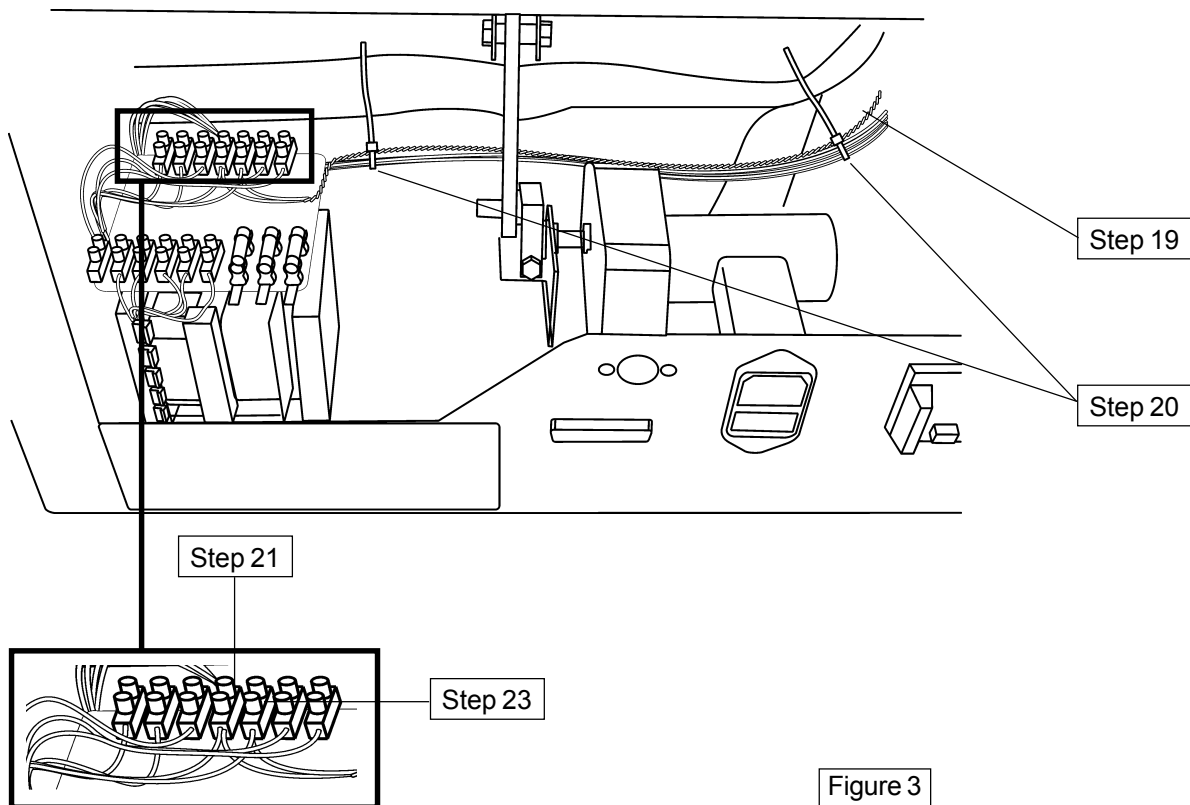


Figure 3

19. Route the Orange and Purple cable along with the existing Harness according to figure 3.
20. Secure the Orange and Purple cable with two cable ties, according to figure 3.

NOTE: Make sure that you loosen the screws towards the center of the transformer.

21. Loosen screw no. 9 on the terminal block, White cable, according to figure 3.
22. Insert the Orange cable from the PSH and the existing White cable to no. 9 on the terminal block. Fasten the screw, according to figure 3.
23. Loosen screw no. 10 on the terminal block, Blue cable, according to figure 3.
24. Insert the Purple cable from the PSH and the existing Blue cable to no. 10 on the terminal block. Fasten the screw, according to figure 3.
25. Reinstall the Infeed cover according to REP 1.4 in the SR85 Service Manual.
26. Reinstall the Rear cover according to REP 1.1 in the SR85 Service Manual.

## REMOVAL

1. Removal is an exact reversed procedure of installation.

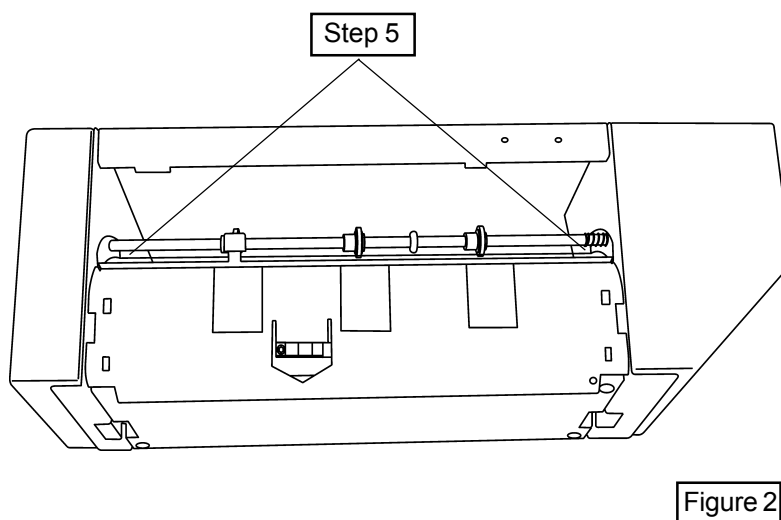
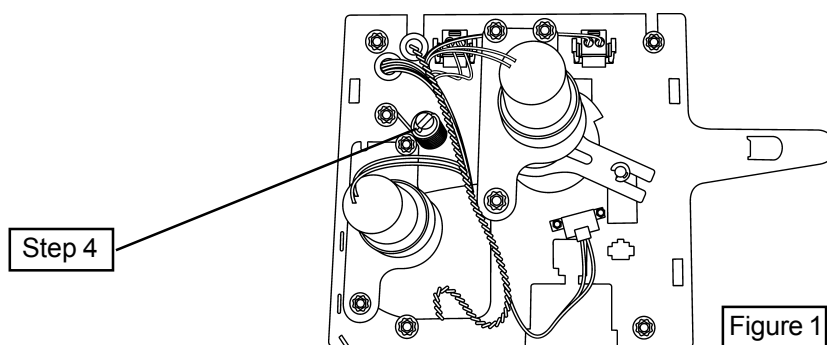
## REP 2.11 Upper paper path

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### REMOVAL

#### Upper paper path

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the front and rear cover according to CRI 1.1
3. Remove the 7 mm screw holding the spring on the rear side, according to figure 1.
4. Remove the 7 mm screw holding the spring on the front side same location as step 3.
5. Remove the two 7 mm screws holding the Upper paper path according to figure 2.



### INSTALLATION

1. Installation is an exact reversed procedure of removal.

## **REP 2.12 Drive shaft assembly**

---

### **REMOVAL**

#### **Drive shaft assembly**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the front and rear cover according to CRI 1.1
3. Remove the Drive motor assembly according to REP 2.3

NOTE: Be careful when removing the Drive shaft assembly, so it not will damage LED sensor Q3. See EDI 3.3

4. Remove the Drive shaft assembly by sliding it out through the rear frame according to figure 1.

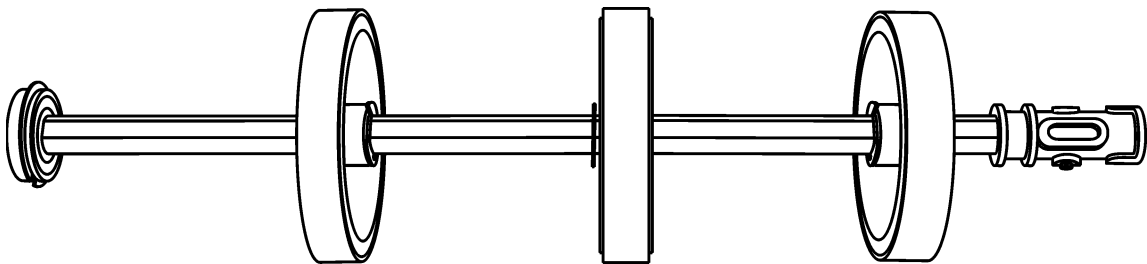


Figure 1

### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.
2. Adjust the drive clutch according to REP 2.3.

## ***REP 2.13 Pinch roll shaft assembly***

---

### **REMOVAL**

#### **Pinch roll shaft assembly**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the Pinch roll shaft assembly by pressing it to the rear side according to figure 1.

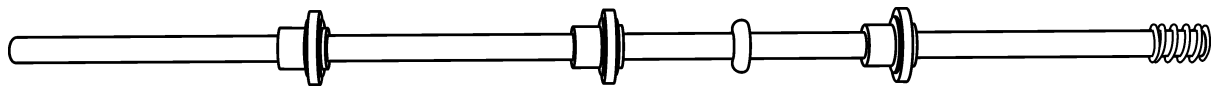


Figure 1

### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.

## **REP 2.14 Feed roller assembly and Paper separator pad**

---

### **REMOVAL**

#### **Feed roller assembly and Paper separator pad**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the Fold roller assembly by pressing it to the front side according to figure 1.
3. Remove the Paper separator pad by lifting it out (with a small screwdriver) from the holder according to figure 1.

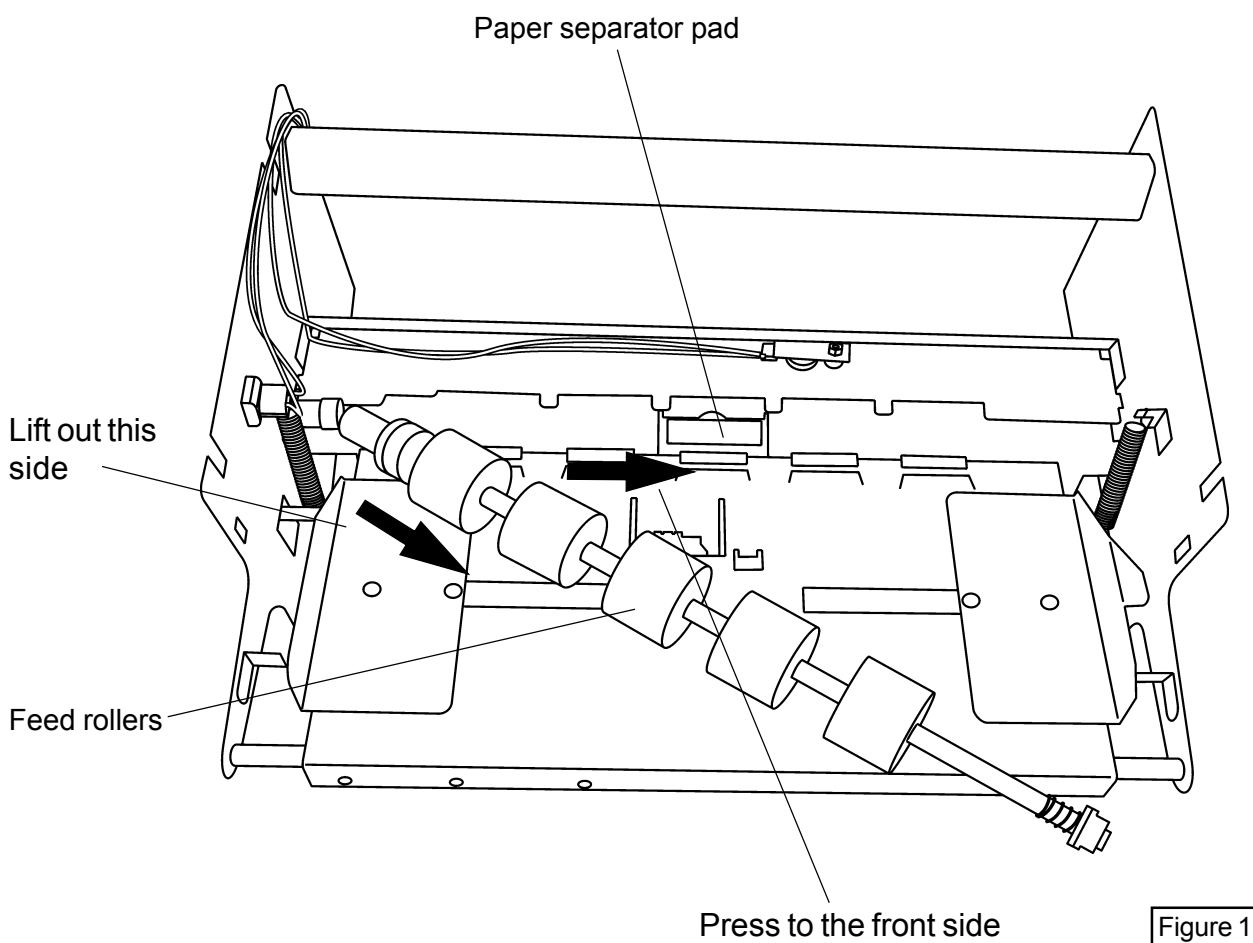


Figure 1

### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.

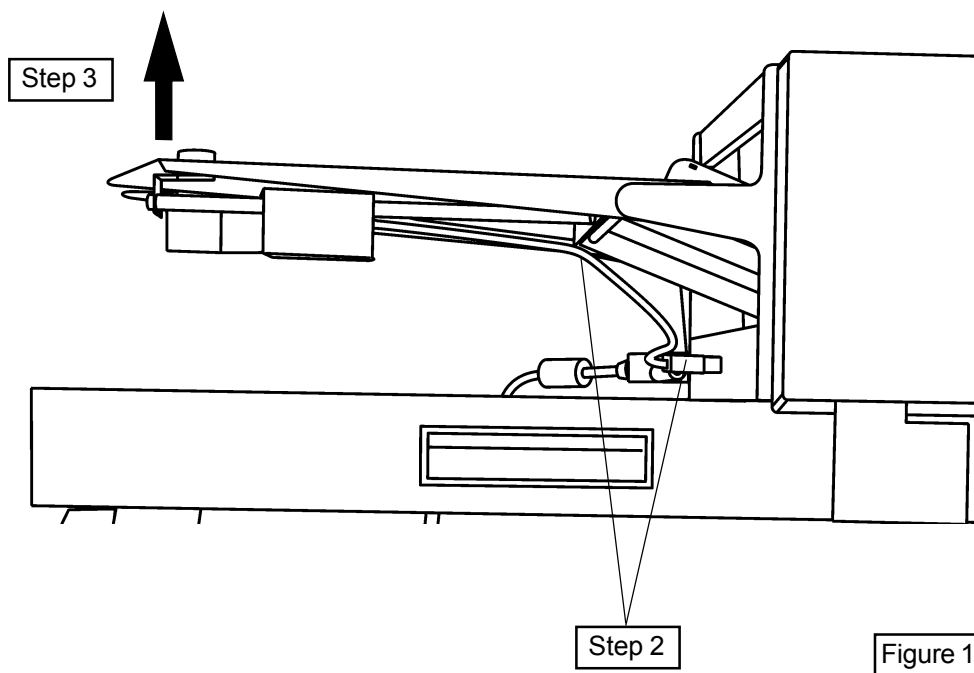
## **REP 2.15 Bin extension plate assembly**

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### **REMOVAL**

#### **Bin extension plate assembly**

1. Switch off the main power switch and disconnect the power cord to the Booklet maker.
2. Remove the Bin extension plate connector and ground wire, according to figure 1.
3. Lift up the Bin extension plate and remove it according to figure 1.



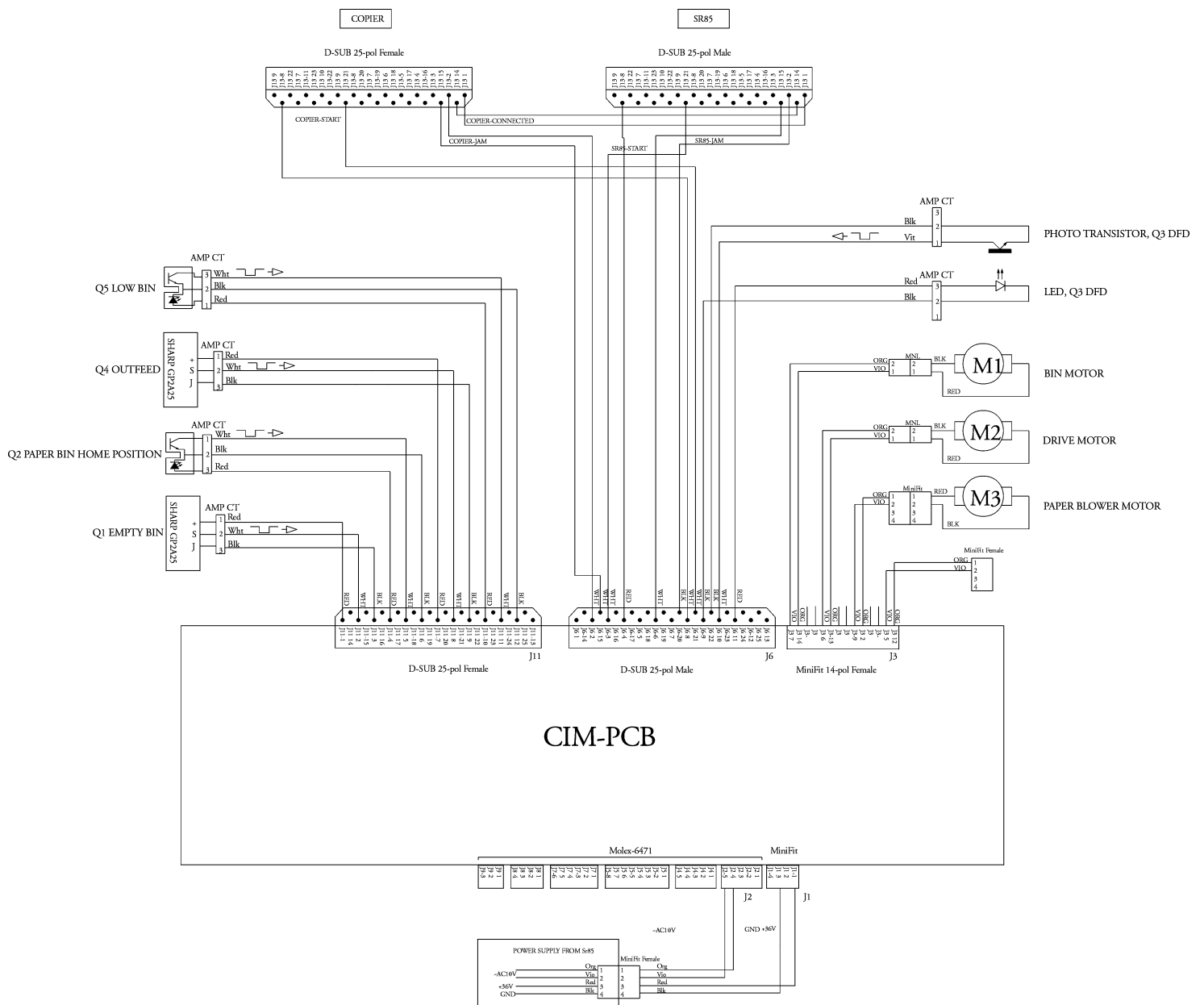
### **INSTALLATION**

1. Installation is an exact reversed procedure of removal.

### 3. Electrical detail information (EDI)

#### EDI 3.1 Wiring diagram

#### WIRING DIAGRAM



## ***EDI 3.2 Electrical components list***

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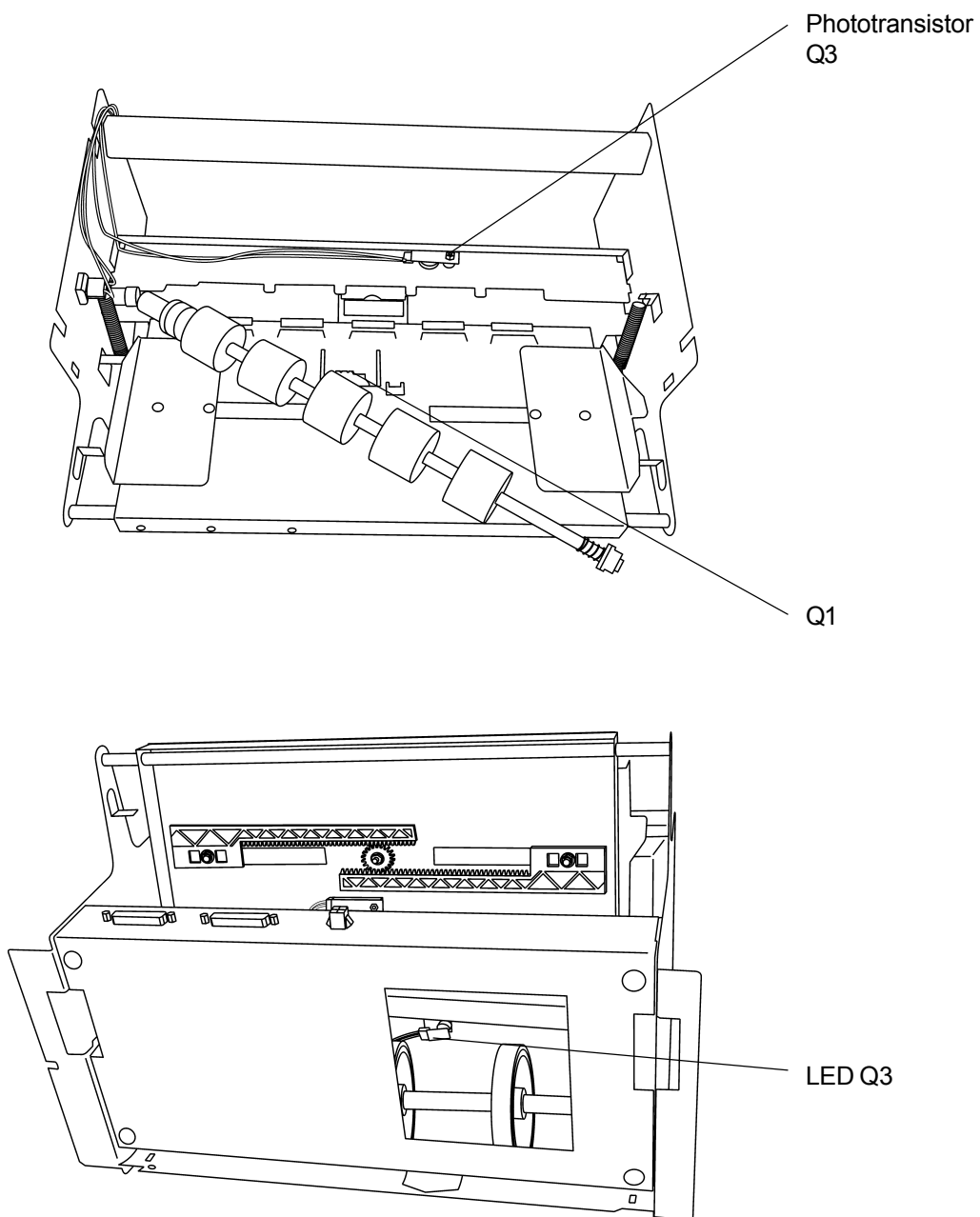
### **ELECTRICAL COMPONENTS LIST**

SENSOR Q1	Empty Bin	Page 3-3-1
SENSOR Q2	Paper Bin Home Position	Page 3-3-2
SENSOR Q3	Phototransistor Sensor (DFD)	Page 3-3-1
SENSOR Q3	LED Sensor (DFD)	Page 3-3-1
SENSOR Q4	Outfeed sensor	Page 3-3-3
SENSOR Q5	Low bin	Page 3-3-2
MOTOR 1	Bin motor	Page 3-3-2
MOTOR 2	Drive motor	Page 3-3-2
MOTOR 3	Paper blower motor	Page 3-3-3

### **EDI 3.3 Electrical components location**

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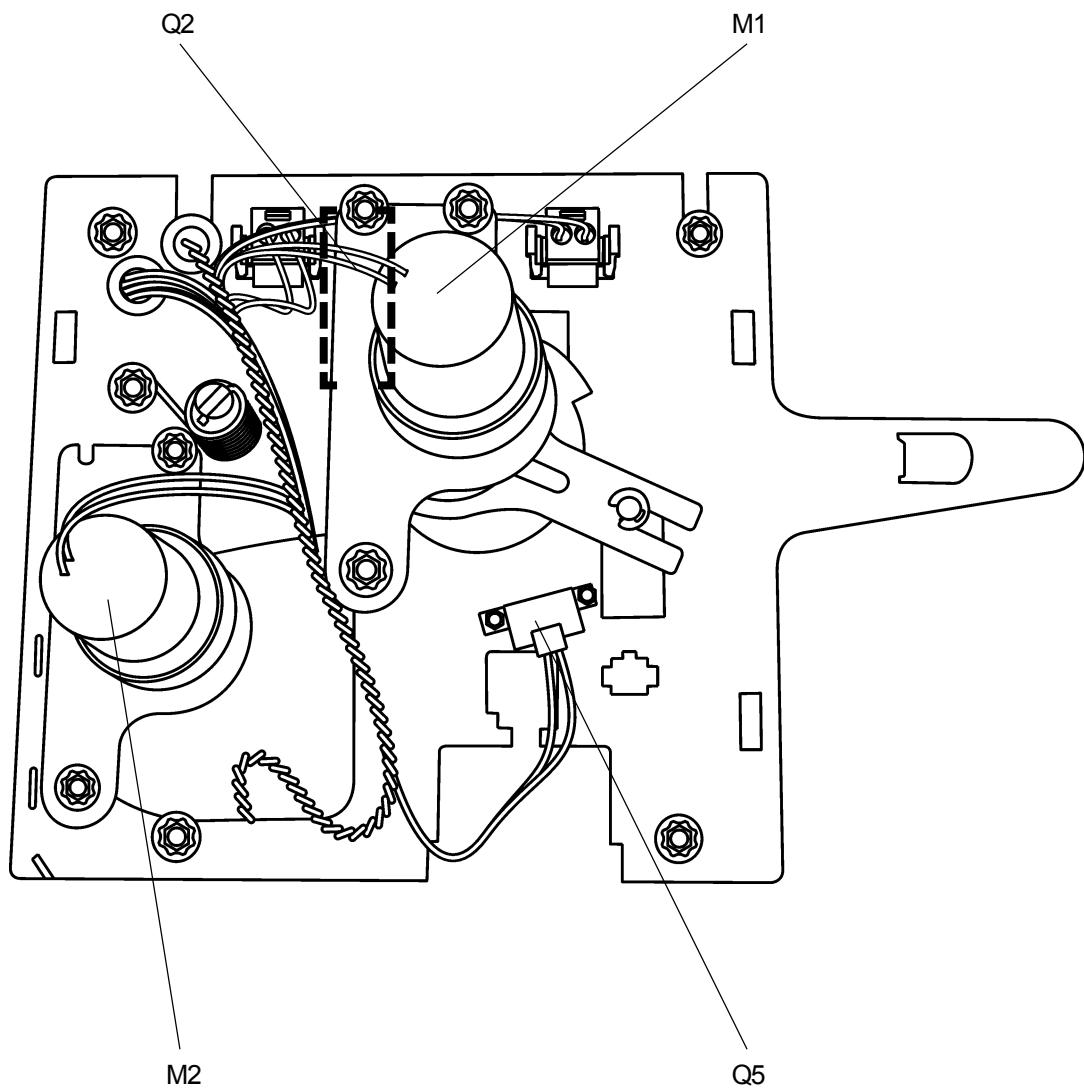
#### **ELECTRICAL COMPONENTS LOCATION**



### ***EDI 3.3 Electrical components location***

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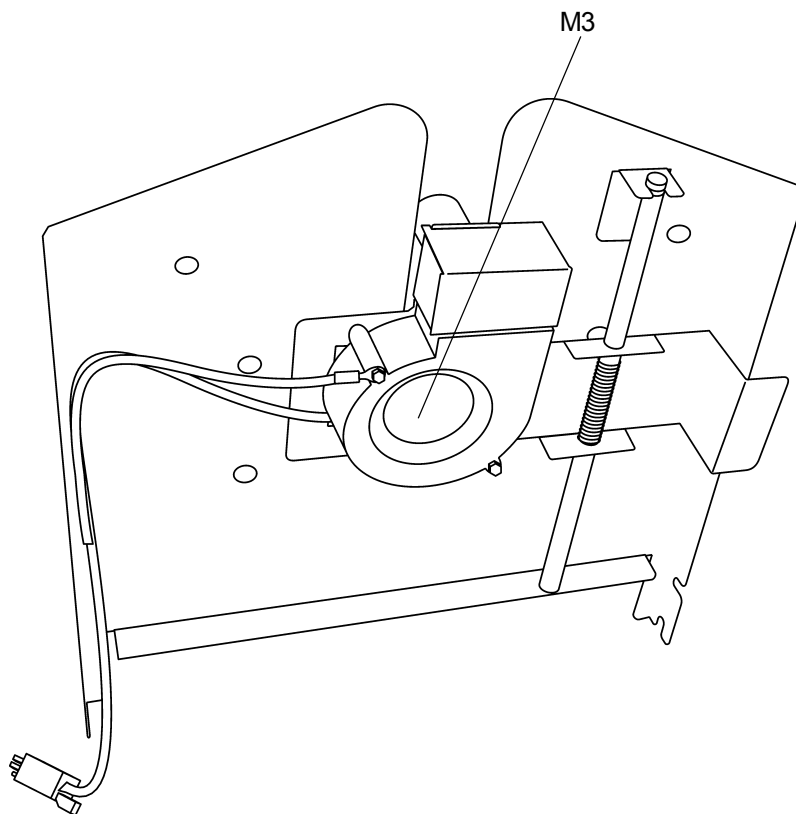
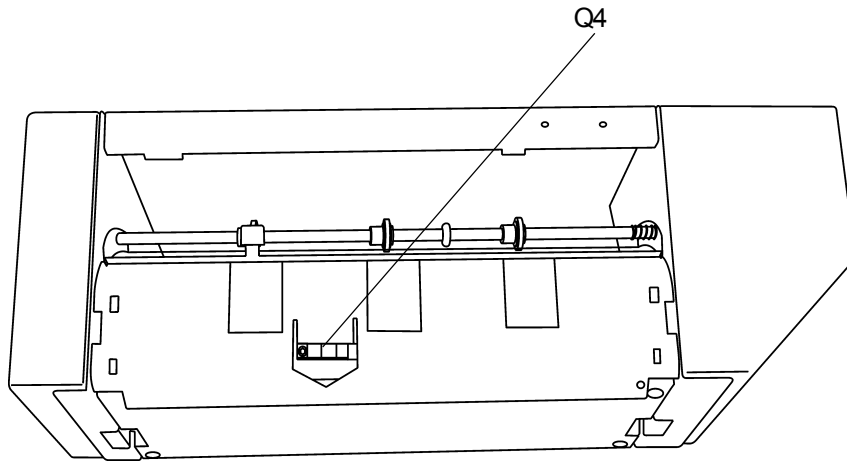
#### **ELECTRICAL COMPONENTS LOCATION**



### ***EDI 3.3 Electrical components location***

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#### **ELECTRICAL COMPONENTS LOCATION**



## 4. Service Mode

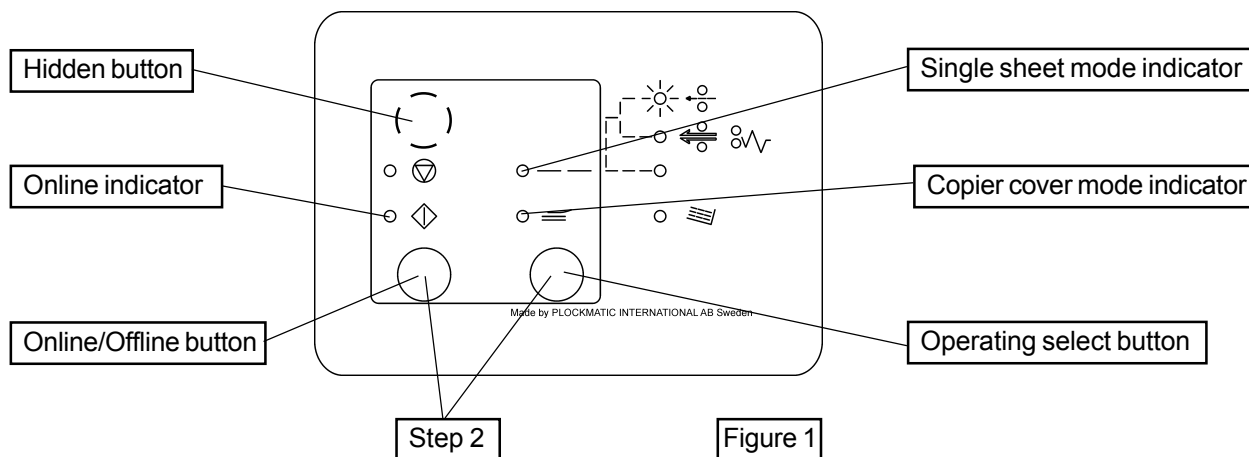
### SRM 4.1 Enter Service Mode

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#### ENTER SERVICE MODE

1. Switch off the main power switch.
2. Hold down the Online/Offline button and the Operating select button according to figure 1.
3. Switch on the main power switch while holding down the two buttons.
4. Wait approximately 3 seconds and release the buttons.

Note: There shall be no light in the Single sheet mode indicator or the Copier cover mode indicator after entering the Service Mode. If light in either of these indicators switch off the main power and repeat from step 1. The only light you should see is on the Online indicator according to figure 1.



#### USING THE SERVICE MODE

1. There are 18 selections in the Service mode.
2. Change step by pressing the Online/Offline button according to figure 1.
3. To get in to the selected step press the hidden button according to figure 1.
4. To get out from the selected step press the hidden button again.
5. To get out from the Service Mode switch off the main power switch.

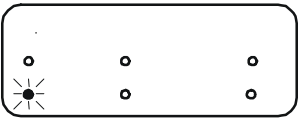


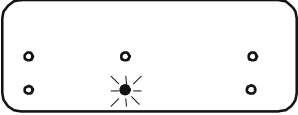
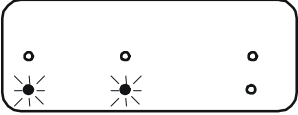
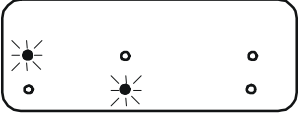
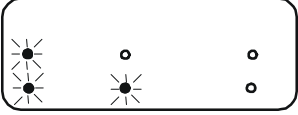
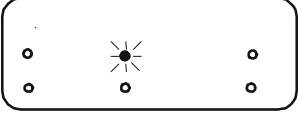
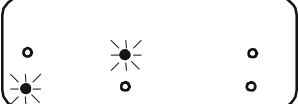
Note: After entering the Service mode you are on step 1 and the Online indicator has a constant light. To select step 2 press the Online/Offline button once. To get back to step 1 press the Operating select button once.

## SRM 4.2 Service Mode List

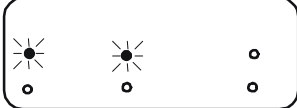
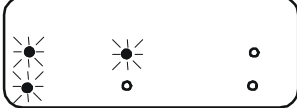
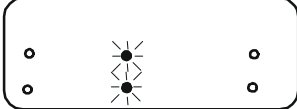
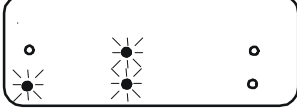
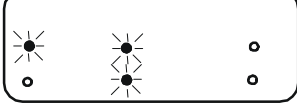
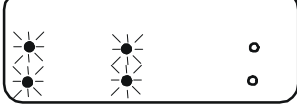
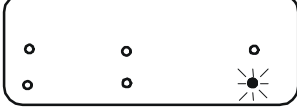
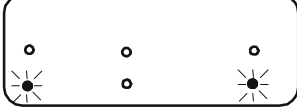
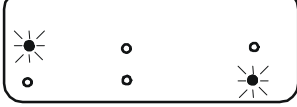
---

### SERVICE MODE LIST

The selections are shown by the first six LEDs on the control panel shown in the table below.

Selections	Comments
1. 	Calibration of DFD Sensor Q3. The DFD calibration is explained in SRM 4.3
2. 	Starting the Bin motor M1 in forward direction.
3. 	Starting the Bin motor M1 in reverse direction.
4. 	Starting the Drive motor M2
5. 	Starting the Paper blower motor M3
6. 	Check Sensor, empty bin Q1 according to SRM 4.4
7. 	Check Sensor, paper bin home position Q2 according to SRM 4.4
8. 	Check Sensor assembly Q3 according to SRM 4.4
9. 	Check Sensor, outfeed Q4 according to SRM 4.4

## SRM 4.2 Service Mode List

Selections	Comments
10. 	Check Sensor, low bin Q5 according to SRM 4.4
11. 	Calibration of Bin motor, M1. Start the calibration by pressing the hidden button. The calibration will automatically stop.
12. 	Calibration of Bin motor M1 and Drive motor M2. Make sure to have A4 or 8.5x11" paper loaded before calibration. Start the calibration by pressing the hidden button. The calibration will automatically stop.
13. 	Calibration of Bin motor M1 and Drive motor M2. Make sure to have A3 or 11x17" paper loaded before calibration. Start the calibration by pressing the hidden button. The calibration will automatically stop.
14. 	Calibration of Paper blower motor, M3. There are fifteen steps available. Select step by pressing the Online/Offline button, save by pressing the Operating Select button.
15. 	Self diagnostic. The Self diagnostic is explained in SRM 4.4
16. 	Total counter. The Total counter is explained in SRM 4.5
17. 	Software version. The Software version is explained in SRM 4.6
18. 	Turn on/off the DFD, Q3. Turn on/off the DFD by pressing the Online/Offline button. The DFD is turned on if there is a constant light in the low bin indicator.

## SRM 4.3 Calibration of DFD Sensor Q3

---

### CALIBRATION OF DFD

1. Switch off the Main power switch.
2. Remove the front and rear cover according to CRI 1.1
3. Loosen and lift up the top cover according to CRI 1.2
4. Enter the Service Mode according to SRM 4.1
5. Select step 1 in the Service Mode according to SRM 4.2
6. Take the DFD calibration strip from the inside of the front cover and put it in-between the Phototransistor and LED assembly.
7. Look at the control panel. There are six LEDs on the control panel, the two LEDs in the middle should have a constant light if the DFD "Sensor Q3" is correctly adjusted according to figure 1.
8. Adjust the DFD by turning the potentiometer on the Control / PWB according to figure 2.

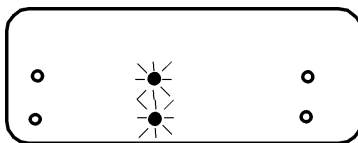
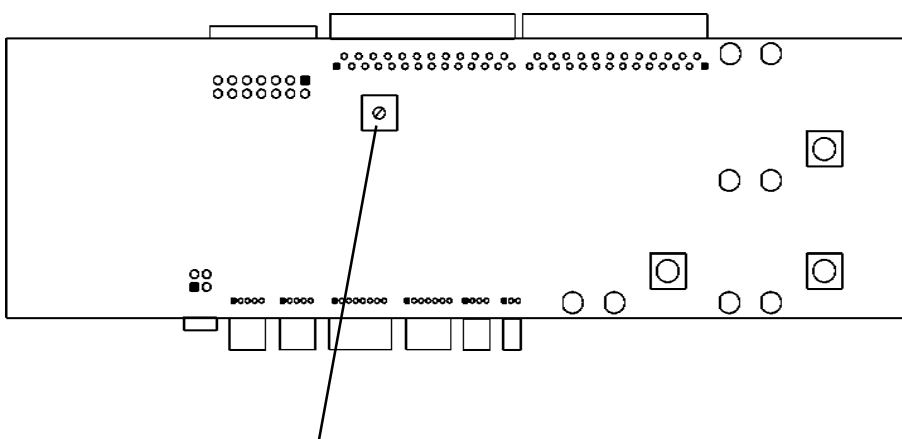


Figure 1



Turn here to adjust the DFD

Figure 2

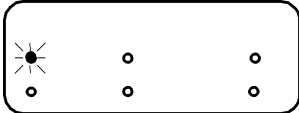
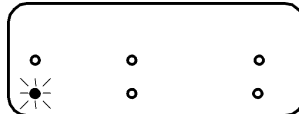
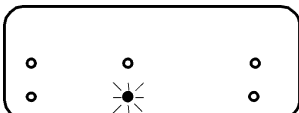
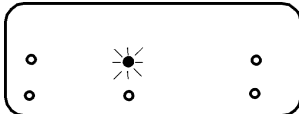
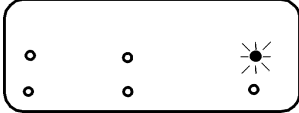
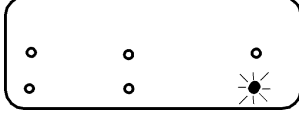
## SRM 4.4 Self diagnostic / Fault Isolating

---

### SELF DIAGNOSTIC/ FAULT ISOLATING

1. Enter the Service Mode according to SRM 4.1
2. Load one white A4 / 8.5x11" paper in the paper bin.
3. Select step 15 in the Service Mode according to SRM 4.2
4. Start the Self diagnostic by pressing the hidden button.
5. The Self diagnostic will check all sensors, motors and the PWB.
6. If any fault should occur, it will be indicated on the six LED's according to the fault code(s).

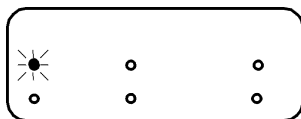
Fault Code	Page
------------	------

- |  |      |
|--|------|
| 1.    | 4-6  |
| 2.  | 4-7  |
| 3.  | 4-8  |
| 4.  | 4-9  |
| 5.  | 4-10 |
| 6.  | 4-11 |
| Fault Isolating.   | 4-12 |

## Fault Code

## Possible Cause

1.



1. Bad sensor Q2
2. Bad Motor M1
3. Wires defective
4. Driver PWB defective

## Fault isolating / repair

Enter the Service mode and select step7, sensor Q2. Turn the Bin motor by hand and look for an indication on the Jam LED on the control panel. **There is an indication on the Jam LED?**

Y

N

Measure the voltage between J11-4 and J11-6. **The voltage is approximately 1.2 VDC?**

Y

N

**The voltage is approximately 0 VDC?**

Y

N

**The voltage is approximately 5 VDC?**

Y

N

1. Replace the sensor Q2.
2. Check the harness for short / open circuit.
3. Replace the PWB

1. Replace the sensor Q2.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q2.
2. Check the harness for short / open circuit.
3. Replace the PWB

Measure the voltage between J11-6 and J11-5. **When blocking / unblocking the sensor, the voltage varies between lower than 1.0 VDC and over 4.0 VDC?**

Y

N

**The voltage is approximately 0 VDC?**

Y

N

**The voltage is approximately 5 VDC?**

Y

N

1. Replace the sensor Q2.
2. Check the harness for short / open circuit.
3. Replace the PWB

1. Replace the sensor Q2.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q2.
2. Check the harness for short / open circuit.
3. Replace the PWB.

Replace the PWB.

Select step 3, Motor M1 in reversed direction. **The motor starts?**

Y

N

Disconnect the Motor connector measure the voltage between J3-7 and J3-14. **The voltage is approximately 37 VDC?**

Y

N

Check the wires for short circuit. If the wires are good, replace the Driver PWB.

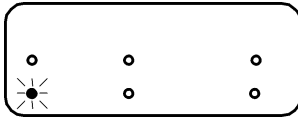
Check the wires for an open circuit. If the wires are good, replace Motor M1.

The Sensor and Motor appears to be operating correctly. Check the sensor and motor connectors to ensure there are no loose pins.

---

**Fault Code****Possible Cause**

2.



1. Bad sensor Q1
2. Bad Motor M1
3. Bad Motor M2
4. Wires defective
5. Driver PWB defective

**Fault isolating / repair**

Enter the Service mode and select step 6, sensor Q1. Cover the sensor and look for an indication on the Jam LED on the control panel. **There is an indication on the Jam LED?**

Y

N

Measure the voltage between J11-1 and J11-3. **The voltage is approximately 4.0 VDC?**

Y

N

**The voltage is approximately 0 VDC?**

Y

N

**The voltage is approximately 5 VDC?**

Y

N

1. Replace the sensor Q1.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q1.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q1.
2. Check the harness for short / open circuit.
3. Replace the PWB

Measure the voltage between J11-2 and J11-3. **When blocking / unblocking the sensor, the voltage varies between lower than 1.0 VDC and over 4.0 VDC?**

Y

N

**The voltage is approximately 0 VDC?**

Y

N

**The voltage is approximately 5 VDC?**

Y

N

1. Replace the sensor Q1.
2. Check the harness for short / open circuit.
3. Replace the PWB

1. Replace the sensor Q1.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q1.
2. Check the harness for short / open circuit.
3. Replace the PWB.

Replace the PWB.

Select step 2, Motor M1 in forward direction. **The motor starts?**

Y

N

Disconnect the Motor connector measure the voltage between J3-7 and J3-14. **The voltage is approximately 37 VDC.**

Y

N

Check the wires for short circuit. If the wires are good, replace the Driver PWB.

Check the wires for an open circuit. If the wires are good, replace Motor M1.

Select step 4, Motor M2. **The motor starts.**

Y

N

Disconnect the Motor connector measure the voltage between J3-6 and J3-13. **The voltage is approximately 37 VDC.**

Y

N

Check the wires for short circuit. If the wires are good, replace the Driver PWB.

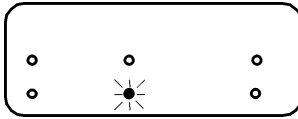
Check the wires for an open circuit. If the wires are good, replace Motor M2.

The Sensor and Motors appears to be operating correctly. Check the sensor and motor connectors to ensure there are no loose pins.

---

**Fault Code****Possible Cause**

3.



1. Bad sensor Q3, PT and LED
2. Bad Motor M1
3. Bad Motor M2
4. Wires defective
5. Driver PWB defective

**Fault isolating / repair**

Enter the Service mode and select step 8, sensor Q3. Cover the sensor and look for an indication on the Jam LED on the control panel. **There is an indication on the Jam LED.**

Y

N

Measure the LED voltage between J6-9 and J6-11. **The voltage is approximately 3.4 VDC.**

Y

N

1. Replace the LED sensor Q3
2. Check the harness for short / open circuit.
3. Replace the PWB.

Measure the Phototransistor voltage between J6-10 and J6-22. **The voltage is approximately 0.8 VDC. (uncovered)**

Y

N

1. Replace the PT sensor Q3.
2. Check the harness for short / open circuit.
3. Replace the PWB.

Cover the sensor with (8 pages of 80 gsm paper) and measure the PT voltage between J6-10 and J6-22. **The voltage is 5 VDC.**

Y

N

1. Replace the PT sensor Q3.
2. Check the harness for short / open circuit.
3. Replace the PWB.

Replace the PWB.

Select step 2, Motor M1 in forward direction. **The motor starts.**

Y

N

Disconnect the Motor connector measure the voltage between J3-7 and J3-14. **The voltage is approximately 37 VDC.**

Y

N

Check the wires for short circuit. If the wires are good, replace the Driver PWB.

Check the wires for an open circuit. If the wires are good, replace Motor M1.

Select step 4, Motor M2. **The motor starts.**

Y

N

Disconnect the Motor connector measure the voltage between J3-6 and J3-13. **The voltage is approximately 37 VDC.**

Y

N

Check the wires for short circuit. If the wires are good, replace the Driver PWB.

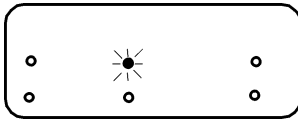
Check the wires for an open circuit. If the wires are good, replace Motor M2.

The Sensor and Motors appears to be operating correctly. Check the sensor and motor connectors to ensure there are no loose pins.

## Fault Code

## Possible Cause

4.



1. Bad sensor Q4
2. Bad Motor M1
3. Bad Motor M2
4. Wires defective
5. Driver PWB defective

## Fault isolating / repair

Enter the Service mode and select step 9, sensor Q4. Cover the sensor and look for an indication on the Jam LED on the control panel. **There is an indication on the Jam LED.**

Y N  
Measure the voltage between J11-7 and J11-9. **The voltage is approximately 4.0 VDC?**  
Y N  
The voltage is approximately 0 VDC?  
Y N  
The voltage is approximately 5 VDC?  
Y N  
1. Replace the sensor Q4.  
2. Check the harness for short / open circuit.  
3. Replace the PWB.  
1. Replace the sensor Q4.  
2. Check the harness for short / open circuit.  
3. Replace the PWB.  
1. Replace the sensor Q4.  
2. Check the harness for short / open circuit.  
3. Replace the PWB.  
Measure the voltage between J11-9 and J11-8. **When blocking / unblocking the sensor, the voltage varies between lower than 1.0 VDC and over 4.0 VDC?**  
Y N  
The voltage is approximately 0 VDC?  
Y N  
The voltage is approximately 5 VDC?  
Y N  
1. Replace the sensor Q4.  
2. Check the harness for short / open circuit.  
3. Replace the PWB.  
1. Replace the sensor Q4.  
2. Check the harness for short / open circuit.  
3. Replace the PWB.  
1. Replace the sensor Q4.  
2. Check the harness for short / open circuit.  
3. Replace the PWB.  
Replace the PWB.

Select step 2, Motor M1 in forward direction. **The motor starts.**

Y N  
Disconnect the Motor connector measure the voltage between J3-7 and J3-14. **The voltage is approximately 37 VDC.**  
Y N  
Check the wires for short circuit. If the wires are good, replace the Driver PWB.  
Check the wires for an open circuit. If the wires are good, replace Motor M1.

Select step 4, Motor M2. **The motor starts.**

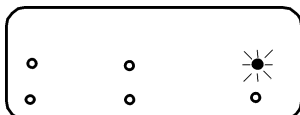
Y N  
Disconnect the Motor connector measure the voltage between J3-6 and J3-13. **The voltage is approximately 37 VDC.**  
Y N  
Check the wires for short circuit. If the wires are good, replace the Driver PWB.  
Check the wires for an open circuit. If the wires are good, replace Motor M2.

The Sensor and Motors appears to be operating correctly. Check the sensor and motor connectors to ensure there are no loose pins.

---

**Fault Code****Possible Cause**

5.



1. Driver PWB defective

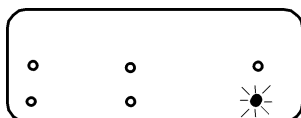
**Fault isolating / repair**

Replace the Controller / Driver PWB, according to REP 2.1

## Fault Code

## Possible Cause

6.



1. Bad sensor Q5
2. Bad Motor M1
3. Wires defective
4. Driver PWB defective

## Fault isolating / repair

Enter the Service mode and select step10, sensor Q5. Turn the Bin motor by hand and look for an indication on the Jam LED on the control panel. **There is an indication on the Jam LED?**

Y

N

Measure the voltage between J11-10 and J11-12. **The voltage is approximately 1.2 VDC?**

Y

N

**The voltage is approximately 0 VDC?**

Y

N

**The voltage is approximately 5 VDC?**

Y

N

1. Replace the sensor Q5.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q5.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q5.
2. Check the harness for short / open circuit.
3. Replace the PWB

Measure the voltage between J11-12 and J11-11. **When blocking / unblocking the sensor, the voltage varies between lower than 1.0 VDC and over 4.0 VDC?**

Y

N

**The voltage is approximately 0 VDC?**

Y

N

**The voltage is approximately 5 VDC?**

Y

N

1. Replace the sensor Q5.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q5.
2. Check the harness for short / open circuit.
3. Replace the PWB.

1. Replace the sensor Q5.
2. Check the harness for short / open circuit.
3. Replace the PWB.

Replace the PWB.

Select step 3, Motor M1 in reversed direction. **The motor starts?**

Y

N

Disconnect the Motor connector measure the voltage between J3-7 and J3-14. **The voltage is approximately 37 VDC?**

Y

N

Check the wires for short circuit. If the wires are good, replace the Driver PWB.

Check the wires for an open circuit. If the wires are good, replace Motor M1.

The Sensor and Motor appears to be operating correctly. Check the sensor and motor connectors to ensure there are no loose pins.

## ***Fault Isolating***

---

### **SELF DIAGNOSTIC/ FAULT ISOLATING**

PROBLEM	POSSIBLE CAUSES	ACTION
The machine is inoperative as the Online/Offline button is pressed.	Machine in jam condition. Empty Paper Bin. SR85 shut down.	Clear jam. Load paper Correct the problem in the SR85.
Repeated Misfeeds / Double feed	Feed rollers need cleaning. Paper separator pad needs cleaning. Drive rollers need cleaning. Sheets are not fanned enough. (Ink / powder / cutting burres etc. will make this a very important step). Paper quality out of specification.	Check / clean Check / clean Check / clean Check / fan sheets Check
Incorrect Double feed / Jam indication	Different paper quality or print impression in the bin, since previous calibration. Mixed sheets (mixed paper qualities)	You have to select Offline before collating different paper qualities. The Cover Feeder will automatically perform a calibration when the first cover is fed. Check the sheets.

## ***SRM 4.5 Total Counter***

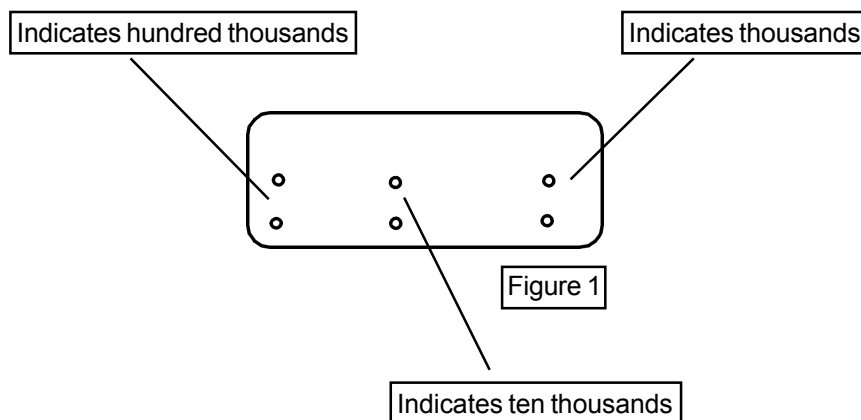
---

### **TOTAL COUNTER**

1. Enter the Service Mode according to SRM 4.1
2. Select step 15 in the Service Mode according to SRM 4.2
3. Check the Total counter by pressing the hidden button.
5. The Total counter is shown on the six LEDs according to figure 1.

Explanation:

When facing the control panel, the Total counter will be shown using the LED as follows. The constant light indicates which LED that is about to flash. The Total counter will start from the right and move to the left. Example, if the machine has collated 213000 covers it will be shown as: the right LED will flash 3 times, the middle LED will flash 1 time and the left LED will flash 2 times.



## **SRM 4.6 Software version**

---

### **Software VERSION**

1. Enter the Service Mode according to SRM 4.1
2. Select step 17 in the Service Mode according to SRM 4.2
3. Check the Software version by pressing the hidden button.
5. The Software version is shown on the six LEDs according to figure 1.

Explanation:

When facing the control panel, the Software version will be shown as a constant and flashing light. The constant light indicates which led that is flashing. The Software version will start from right and is moving to the left. Example, if the machine has version 001 it will be shown as: The right LED will flash 1 time, the middle LED will not flash and the left LED will not flash.

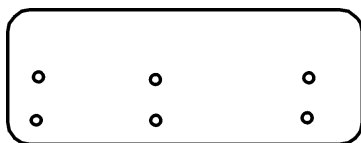


Figure 1

## **5. Preventive Maintenance (MAI)**

### **MAI 5.1 Preventive Maintenance**

---

#### **PREVENTIVE MAINTENANCE**

##### **CHECK POINT**

##### **Feed roller assembly**

1. Remove the Feed roller assembly, according to REP 2.14
2. Clean the Feed rollers with reactivator fluid.

##### **Paper separator pad**

1. Remove the Feed roller assembly, according to REP 2.14
2. Clean the Paper separator pad with reactivator fluid.

##### **Drive shaft tires**

1. Clean the tires on the drive shaft assembly with reactivator fluid.

##### **Sensors**

1. Clean the sensors from paper dust.