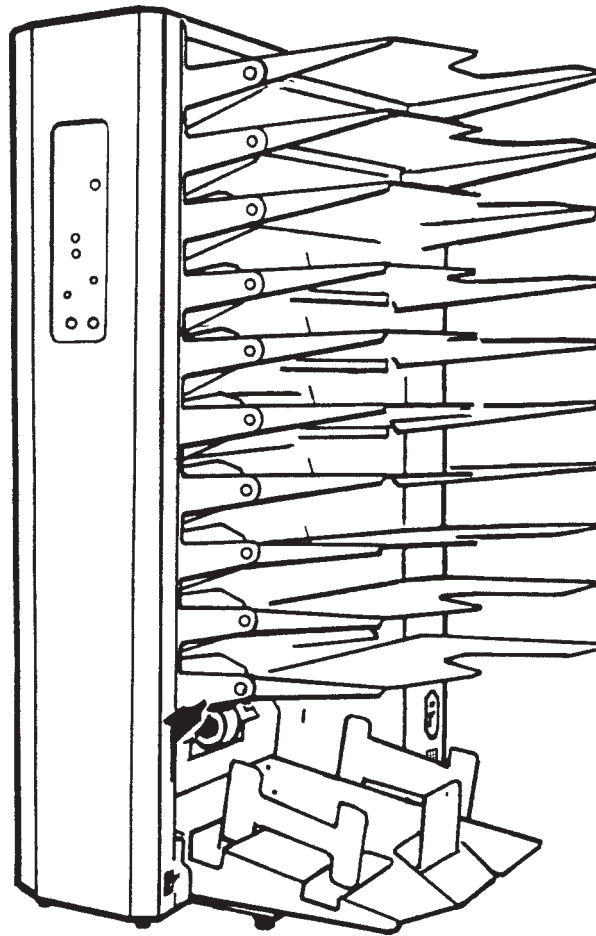

Collator Series 300/400

Operator Manual



January 2003

Part No. 90907

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1. Introduction

This operator manual describes how to operate the collators 300/400 as stand alone units.

For third party arrangements, refer to the operator manual for the third party device.

1.1 Operational safety

Attention to the following notes ensures the continued safe operation of your equipment.

Always connect the equipment to a properly grounded power source receptacle. In doubt, have the receptacle checked by a qualified electrician.

WARNING: Improper connection of the equipment grounding conductor can result in electrical shock.

Always follow all warnings marked on, or supplied with, the equipment.

Always locate the equipment on a solid support surface with adequate strength for the weight of the machine.

Always exercise care in moving or relocating the equipment.

Always keep magnets and all devices with strong magnetic field away from the machine.

Never use a ground adapter plug to connect the equipment to a power source receptacle that lacks a ground connection terminal.

Never attempt any maintenance function that is not specifically described in this documentation.

Never remove the covers or guards that are fastened with screws.

Never install the unit near a radiator or any other heat source.

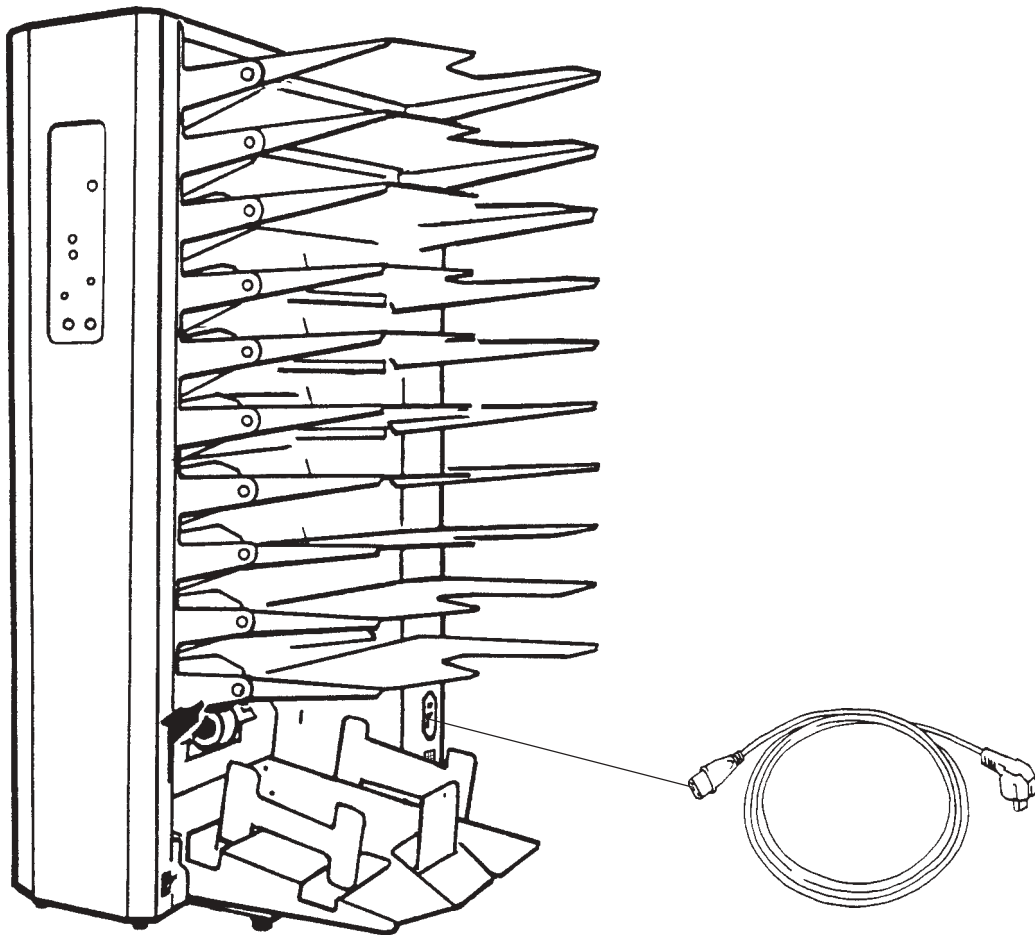
Never override or "cheat" electrical or mechanical interlock devices.

Never operate the equipment if you notice unusual noises or odours. Disconnect the power cord from the power source receptacle and call your customer service engineer to correct the problem.

2. Installation

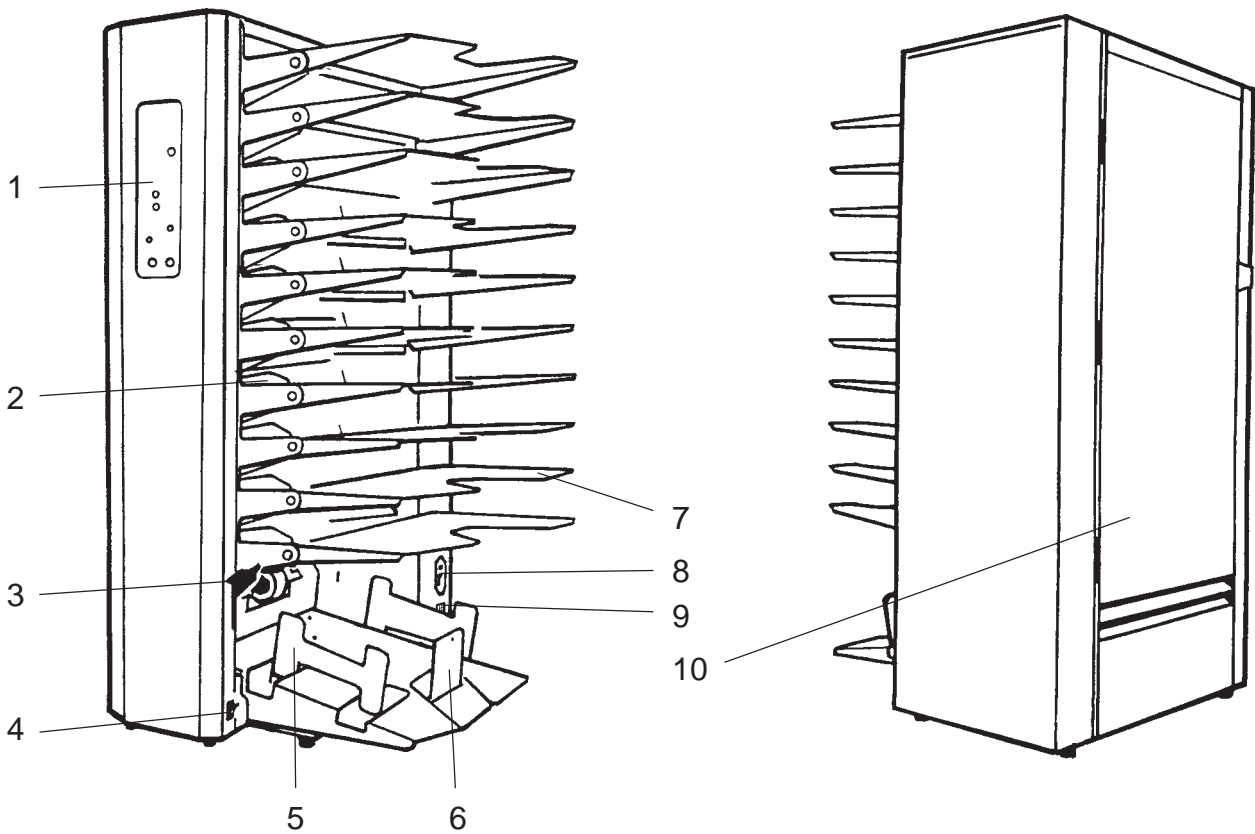
2.1 Installation

Plug the collator into the power source. Make sure that the collator is plugged in securely. If an extension cord is being used, check all cord connections.



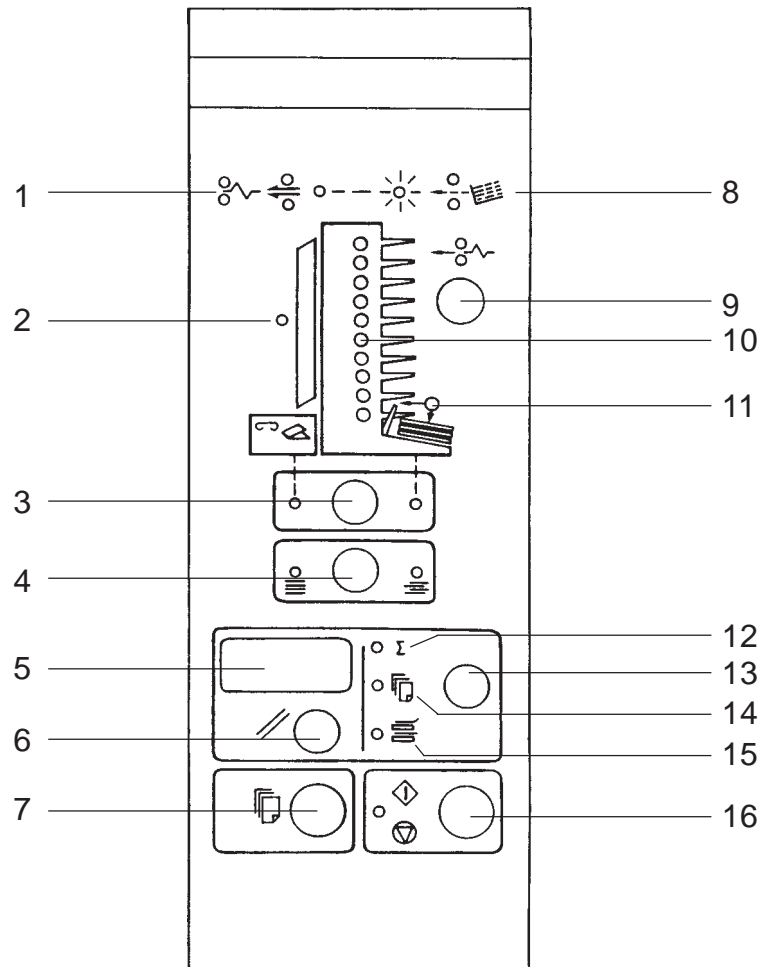
3. Getting to know the collator

3.1 Main components



- | | | | |
|---|-------------------------------------|----|----------------------------------|
| 1 | Control panel | 6 | Adjustable stacker guide (front) |
| 2 | Adjustable side guide (in each bin) | 7 | Bin extension plate |
| 3 | Load lever | 8 | Power cord receptacle |
| 4 | Power switch | 9 | Third party receptacle |
| 5 | Adjustable stacker guide (left) | 10 | Conveyor door |

3.2 The control panel



- | | | | |
|---|---|----|---|
| 1 | Double feed or paper jam mode
(Shown by bin indicators - firm light) | 9 | Clear button conveyor belt transport
& third party |
| 2 | Door open indicator | 10 | Bin indicators |
| 3 | Third party device mode/stacking mode | 11 | Stacker full or load lever out of
position |
| 4 | Straight/offset stacking | 12 | Total counter |
| 5 | Counter display | 13 | Selection programming mode |
| 6 | Counter reset button | 14 | Preset counter |
| 7 | Test calibration button | 15 | Sheet insertion program |
| 8 | Miss feed mode
(Shown by bin indicators flashing) | 16 | Start & stop button |

4. Operator instructions

4.1 Load paper

- 1 Make sure that the sheets are well fanned to avoid miss feeds or double feeds.
- 2 Align the sheets well to achieve a reliable collating operation and good stacking result.
- 3 Make sure that the ink has dried out well.
- 4 Press the load lever downwards to release the bins.
- 5 Load the sheets into the bins.
- 6 Move the adjustable side up against the sheets until there is no clearance.
- 7 Raise the load lever to actuate the feed rollers.

4.2 Operating the collator

- 1 Set the on/off switch to on position. The counter display will show "HEJ" to confirm that all systems are OK.
- 2 Select output mode:
 - Offset/straight stacking mode.
 - Third party mode.
- 3 Select stacking mode if set to stacking:
 - Straight stacking.
 - Offset stacking.
- 4 Set the adjustable stacker guide (left) to the selected paper size.
- 5 Set the adjustable stacker guide (front) to the paper size.
- 6 Press test/calibration button. The collator will adjust the number of bins used and the paper quality in each bin and is now ready for operation. Check the result to make sure that it is OK and press start.

4.3 Bin indicators

LED Position	Description	Notes
Firm light	Double sheet/Jam detect	Can be caused by: Double sheets Paper jam Reduced paper feeding capability Incorrect paper length (compared to the calibrated length)
Flashing slow	Miss feed indication	
Flashing fast	Comes on after the calibration cycle. The bin sensor that is flashing, is incapable of sensing double sheets but is operational and still has got the miss feed control. The other bins are OK and calibrated	

4.4 Correcting counter and stacker position

Step #	Description	Action	Notes
1	Reduce the total counter value by 1 set	Press "Counter reset button" shortly	In offset stacking mode the stacker will cycle once

4.5 Zero setting total counter

Step #	Description	Action	Notes
1	Zero set the total counter	Press "Counter reset button" for more than one (1) second	

4.6 Programming preset counter and sheet insertion program

Step #	Description	Action	Notes
1	Select program mode	Press "Selection programming mode" until the LED indicating the program to be set is lit (preset counter or sheet insertion program)	
2	View program mode	Press "Counter reset button"	The display will show the value flashing
3	Program a new value	<p>Press "Counter reset button" to access the last digit</p> <p>Press "Selection programming mode" to change the setting</p> <p>Press "Counter reset button" to confirm the setting and access the second digit</p> <p>Repeat this for the remaining (2) digits starting with pressing "Selection programming mode"</p> <p>After adjusting the last digit, press "Counter reset button" to confirm the settings made</p>	<p>Repeat these two steps</p> <p>Display shows 000</p>

4.7 LED indications, third party device

LED Indication	Description	Notes
Firm light	Third party device mode selected	
Flashing	Third party shut down	

4.8 Disabling stacker motion

Step #	Description	Action	Notes
1	Disable stacker motion	Press "Straight/offset stacking" for more than two (2) seconds	For handling of extreme light weight papers
2	Regain stacker motion	Press "Straight/offset stacking"	

4.9 Collator speed adjustment

Step #	Description	Action	Notes
1	Enter speed adjustment mode	Press "Selection programming mode" for more than two (2) seconds	The last bin LED will light up and the counter display show speed in sets/h $\div 10$
2	Select collating speed	Press "Selection programming mode"	The counter will display the speed in sets/h $\div 10$
3	Confirm adjustment	Press "Selection programming mode" for more than two (2) seconds (The bin LED will go out)	The counter will now display the counter value

4.10 Disengaging bin's with defective sensors*

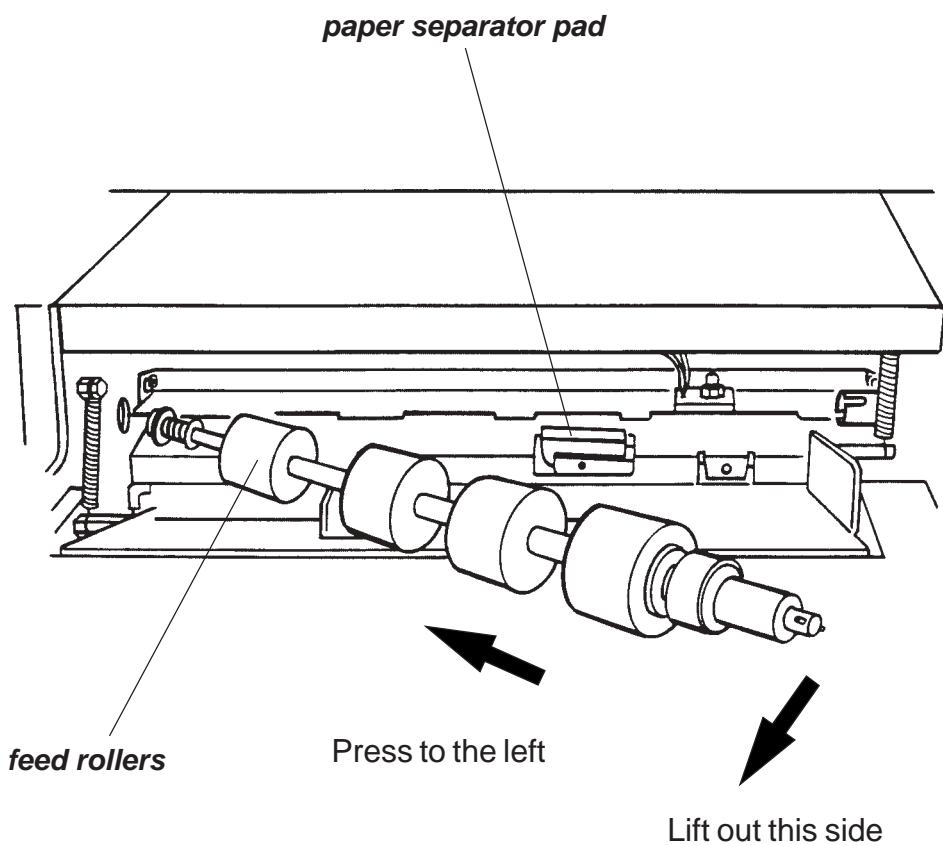
Step #	Description	Action	Notes
1	Isolate defective bin sensors and disengage these bin's	Press "Test and calibration" for more than five (5) seconds	The electronics checks all bin sensors and disengages the bin's with defective sensors
2	Reengage bin's after correction of the problem	Press "Test and calibration" for more than five (5) seconds	

* This process can also be used to disengage bin's with other problems. In this case the feed roller shaft is removed and a sheet inserted (80 gsm or heavier) in the bin to cover the bin sensor (simulating a defective sensor). Pressing "Test and calibration" for more than five (5) seconds will now disengage this bin.

5. Maintenance

5.1 Cleaning feed rollers and paper separator pad

- 1 Remove the feed roller assembly shaft by pressing it to the left.
The right end of the feed roller assembly will now be released and the assembly can be removed.
- 2 Clean the feed rollers and the separator pad with an alcohol based liquid.



6. Problem solving

6.1 Problem solving

Problem	Possible causes	Action
The machine is inoperative and the letters "HEJ" are not shown in the display when the machine is switched on	Stacker tray blocked and can not reach home position	Switch the machine off. Unblock tray and switch machine on
The machine is inoperative as the start button is pressed	Machine in jam condition Load lever in lower position Stacker full Conveyor door open Third party shut down	Clear jam Raise load lever to upper position Empty stacker Close door Correct problem in third party device
Repeted miss feeds/double feeds	Feed rollers need cleaning Paper separator pad needs cleaning Sheets not fanned enough (ink/powder/cutting burrs etc. will make this a very important step) Paper quality out of specification	Check/clean Check/clean Check/fan Check
Incorrect double fed/jam indication	Different paper quality or print impression in the bin's since previous calibration Mixed sheets (mixed paper qualities)	Perform calibration cycle Check the sheets
Front panel commands inoperative	Machine has accidentally entered service mode	Switch machine off-on

7. Specifications

7.1 Specifications

	Model 406	Model 410	Model 306+	Model 310+
Number of bins	6	10	6	10
Bin capacity	20 mm (3/4")			
Minimum sheet size	139 x 210 mm (5 1/2" x 8 1/4")			
Maximum sheet size	216 x 356 mm (8 1/2" x 14")		320 x 450 mm (12 5/8" x 17 3/4")	
Paper weight min.¹	40 gsm			
Paper weight max.¹	200 gsm			
Adjustable speed²	1000, 1500, 1800, 2200, 2600, 2800, 3000, 3200, 3400, 3600 sets/hour			
Double feed detection	Yes, sensor in each bin			
Misfeed detection	Yes			
Empty bin detection	Yes			
Paper jam detection	Yes			
Stacker full detection	Yes			
Set counter	Yes			
Preset counter	Yes			
Sheet inserting program	Yes			
Receiving tray	Offset/straight stacking			
Height	700 mm (27 1/2")	990 mm (39")	700 mm (27 1/2")	990 mm (39")
Width	490 mm (19 1/4")		575 mm (22 3/4")	
Depth	450 mm (17 3/4")		525 mm (20 3/4")	
Weight	52 kg (115lb)	60 kg (132lb)	65 kg (143lb)	75 kg (165lb)
Voltage	105/115/125V 4A 50-60 Hz 220/230/240V 2A 50-60 Hz			

A twin collator system (Model 310+ and 310 B) weights 160 kg and is 1375 mm wide.

¹ Depending on paper quality.

² For processor version 1.02 - and PL90M.

