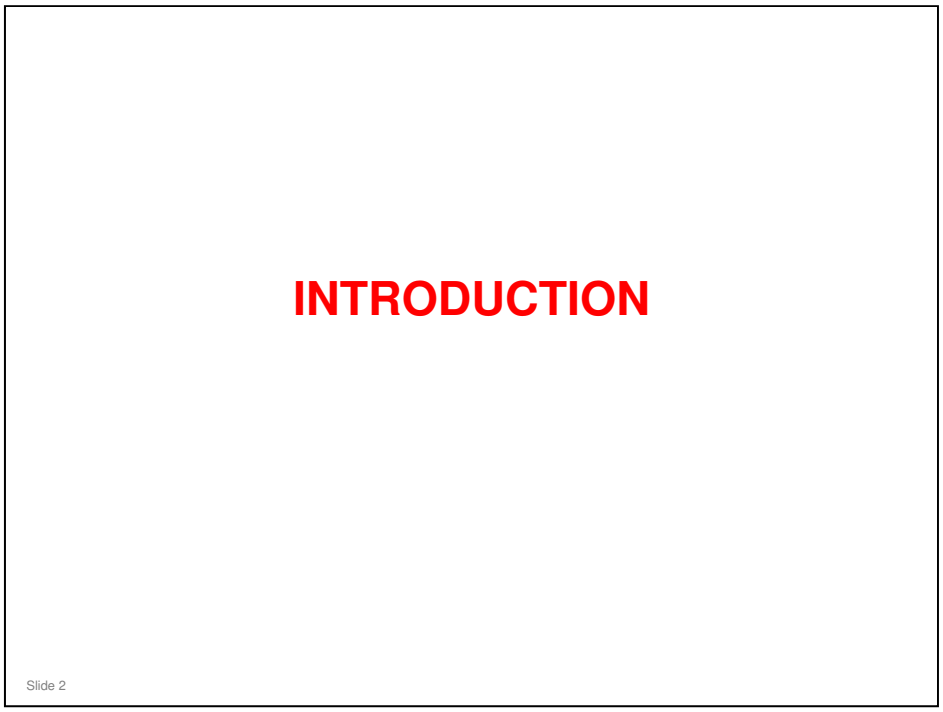
- This is a new option



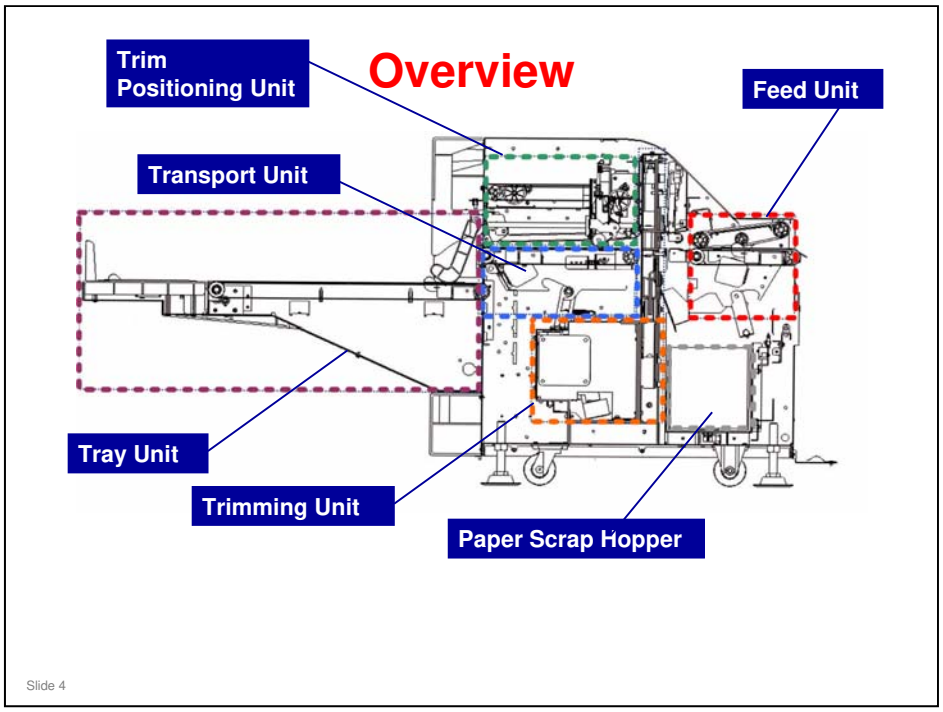
No additional notes

What does the Trimmer do?

- **The trimmer unit receives folded and stapled booklets from the Booklet Finisher (D434), and trims their fore edges.**
  - The trimmer unit can be connected only to the Booklet Finisher D434.
  - The trimmer unit handles stapled booklets only.
- **Due to its length and configuration, the trimmer unit must be installed as the last peripheral downstream of the main machine and Booklet Finisher.**

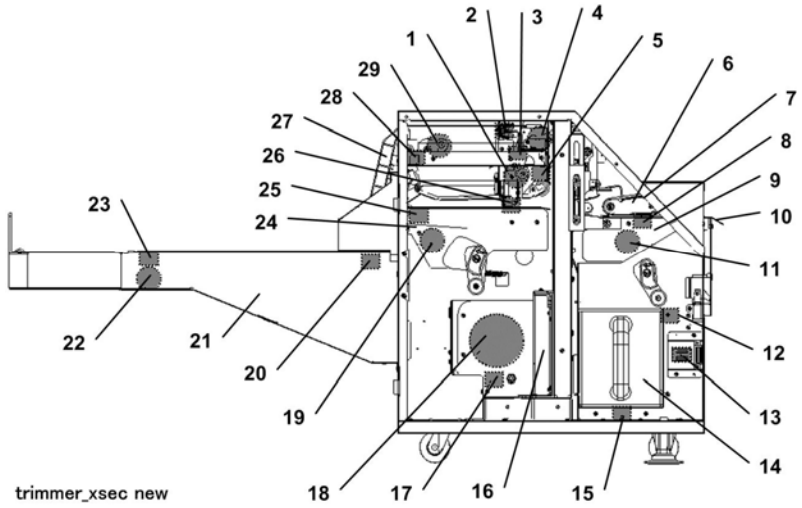
Slide 3

No additional notes



- Feed Unit: Sends the stack from the upstream unit to the transport unit.
- Trim Positioning Unit: Determines the cutting position for the paper.
- Trimming Unit: Trims the edge of the stack.
- Paper Scrap Hopper: Holds the paper trimmed by the cutter blade from the edge of the stack.
- Transport Unit: Takes the paper from the feed unit and sends it to the cut position unit.
- Tray Unit: Collects and holds the stacks after trimming.

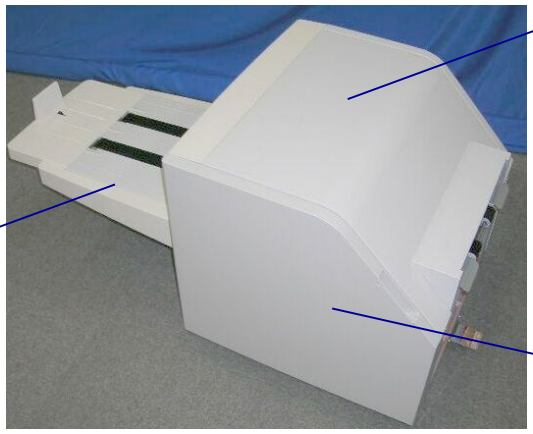
Components



Slide 5

- The components will be explained in more detail during this presentation.
  - 1 Press Stopper Motor
  - 2 Press Stopper HP Sensor
  - 3 Stopper assembly HP Sensor
  - 4 Press Roller Motor
  - 5 Press Roller HP Sensor
  - 6 Upper Feed Guide
  - 7 Feed Unit
  - 8 Entrance Sensor
  - 9 Lower Feed Guide
  - 10 Entrance Guide
  - 11 Feed Motor
  - 12 Scrap Hopper Full Sensor
  - 13 Door Switch
  - 14 Scrap Hopper
  - 15 Scrap Hopper HP Sensor
  - 16 Trimming Unit
  - 17 Trimming Blade HP Sensor
  - 18 Trimming Blade Motor
  - 19 Exit Motor
  - 20 Booklet Sensor 2
  - 21 Tray Unit
  - 22 Tray Motor
  - 23 Booklet Sensor 3
  - 24 Cut Positioning Unit
  - 25 Exit Sensor
  - 26 Stopper Sensor
  - 27 Booklet Sensor 1 Arm
  - 28 Booklet Sensor 1
  - 29 Cut Position Motor

Appearance

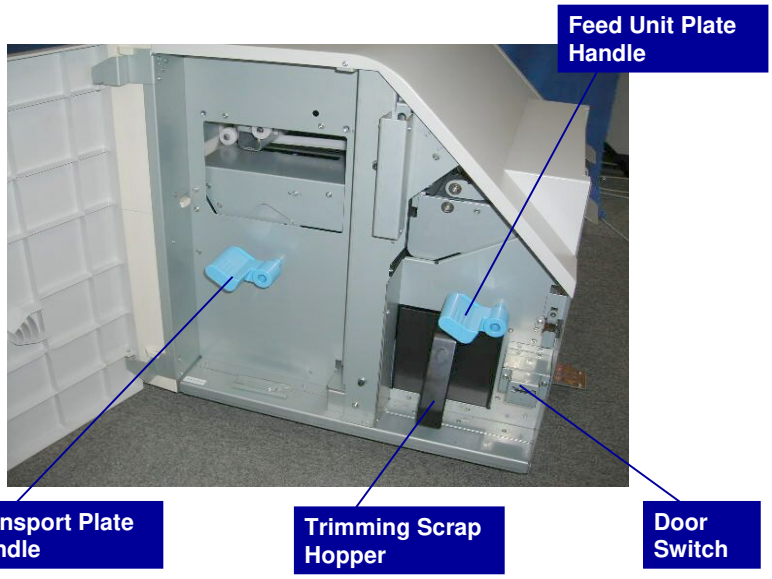


- The trimmer is installed on the left side of the Booklet Finisher (D434).

Slide 6

No additional notes

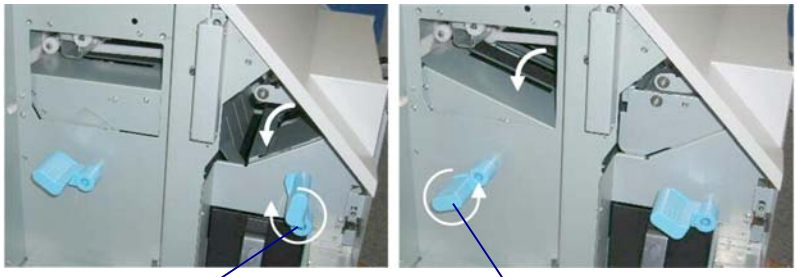
Appearance - Front Door Open



Slide 7

No additional notes

Jam Removal



- The feed unit plate handle lowers the feed plate.
- The transport plate handle lowers the transport plate.

Slide 8

No additional notes

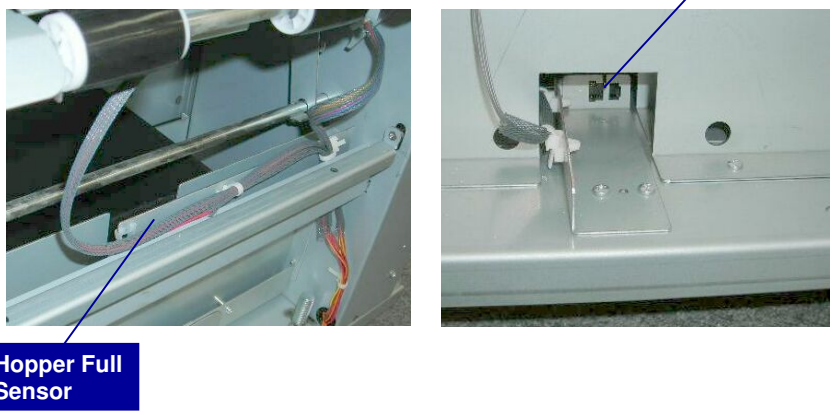
Trimming Scrap Hopper

- The operator removes the hopper to empty it when it becomes full of paper scraps trimmed from the booklets.

Slide 9

No additional notes

Hopper Sensors

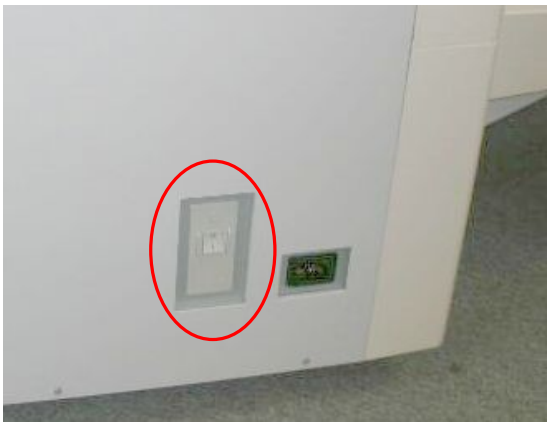


- Hopper full sensor (photo-sensor): Detects when the hopper is full.
- Hopper set sensor: Detects when the hopper is set.

Slide 10

No additional notes

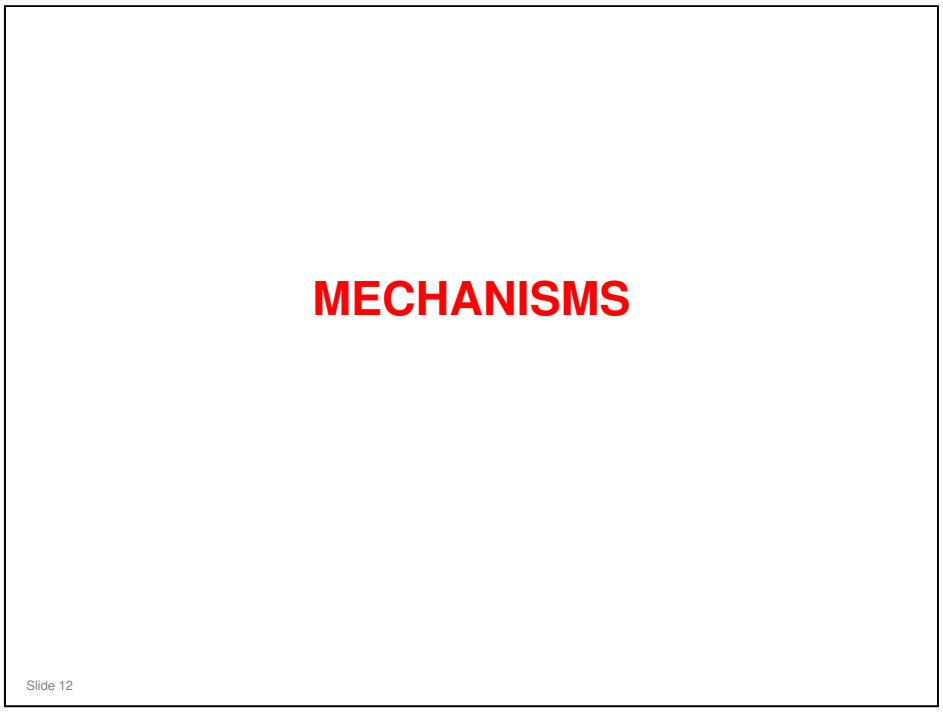
Breaker Switch



- On the rear cover next to the power connection point.

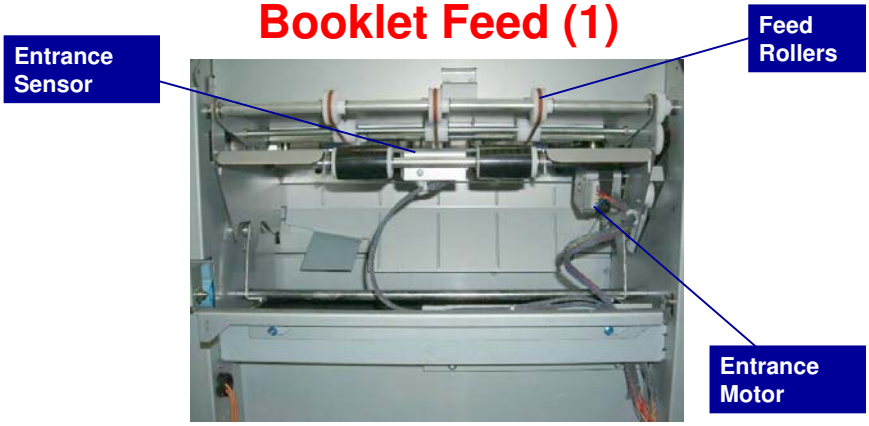
Slide 11

No additional notes



No additional notes

Booklet Feed (1)

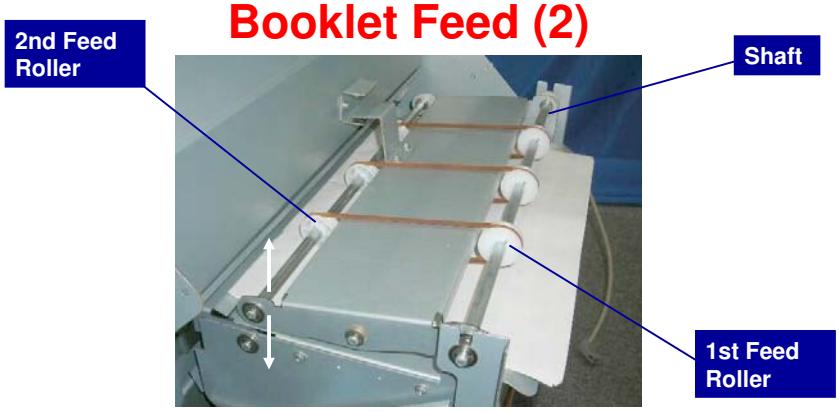


- **Booklets are fed one at a time. When a booklet enters the trimmer:**
  - The entrance sensor actuator is pushed down by the leading edge of the booklet.
  - The entrance motor turns on and rotates the feed rollers.

Slide 13

No additional notes

Booklet Feed (2)



- The rubber bands drive the 2nd feed roller, to feed the leading edge of the booklet.
- The feed roller assembly is mounted on a shaft so that the rollers can swing freely up and down to match the thickness of the booklet.
- The 1st feed roller will not contact the surface of the booklet, unless it is very thick.

Slide 14

No additional notes

Positioning the Booklet for Trimming (1)

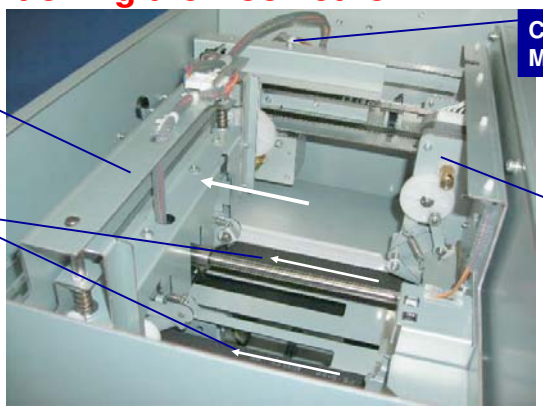
Stopper Assembly
HP Sensor

- **The stopper assembly (shown at the home position) is mounted on two rails and driven by two belts.**
  - The cut positioning motor drives the belts.

Slide 15

❒ Cut positioning motor: See the next slide.

Positioning the Booklet for Trimming (2)

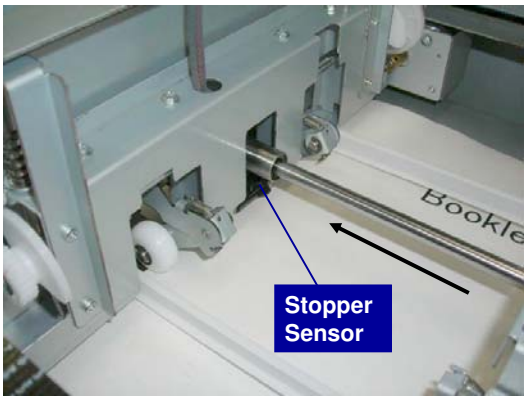


- **When the entrance sensor goes ON:**
  - The cut positioning motor turns on and moves the stopper assembly to the left.
  - The press roller motor goes ON and lowers two rollers onto the transport belt
  - The exit motor (not shown) below the transport belt goes ON and drives the transport belts.

Slide 16

No additional notes

Positioning the Booklet for Trimming (3)

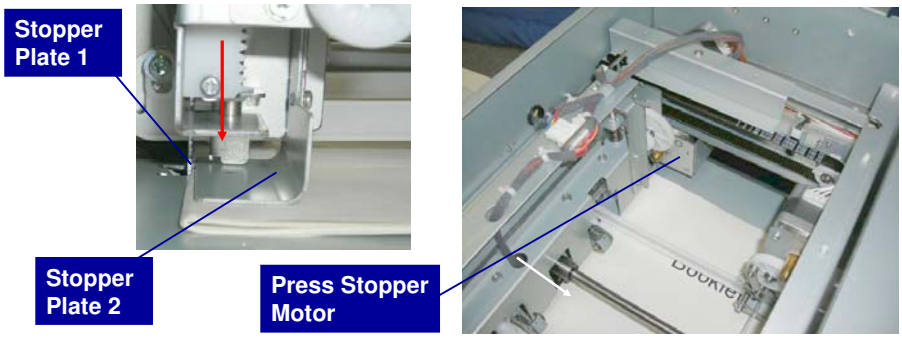


- The stopper sensor goes ON when the leading edge of the booklet trips the actuator of the stopper sensor on the bottom of the stopper assembly.

Slide 17

No additional notes

Positioning the Booklet for Trimming (4)

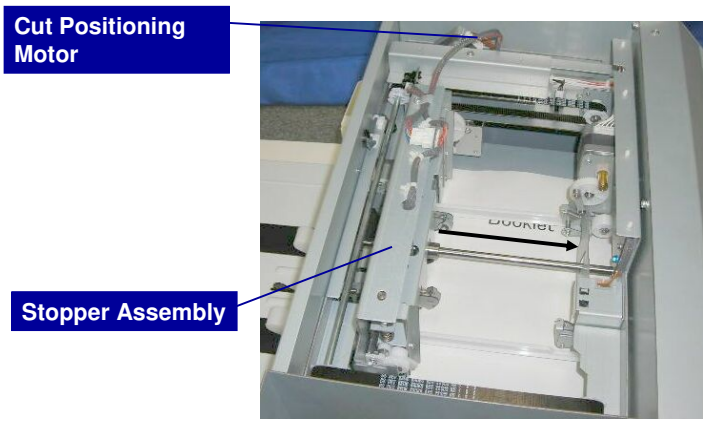


- **Next, the press stopper motor goes ON and lowers the stopper then the stopper plate onto the leading edge of the booklet.**
  - Stopper plate 1 goes down first. This stops the booklet aligns the booklet when the leading edge of the booklet hits it. The exit motor switches off and stops the transport belts.
  - Stopper plate 2 goes down next. This clamps the leading edge for moving to the cut position and trimming.
  - The press roller motor switches on and raises the press rollers on the right (see the previous slide).

Slide 18

No additional notes

Positioning the Booklet for Trimming (5)

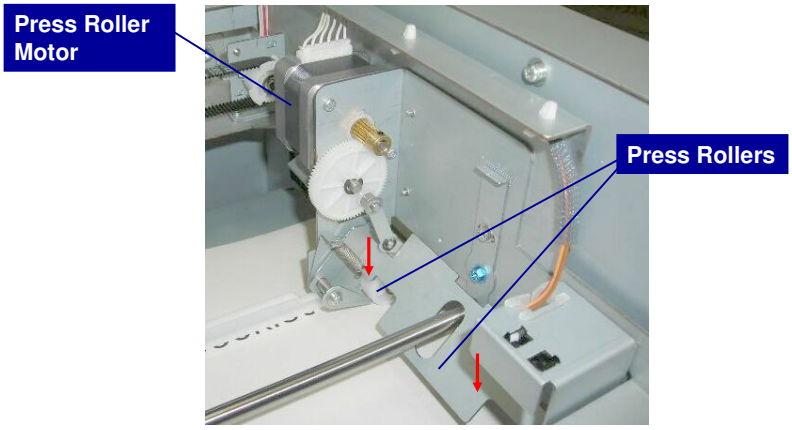


- **Next, the cut positioning motor turns ON and moves the stopper assembly to the trimming position on the right.**
  - The position is controlled by the size of the paper selected for the job.

Slide 19

No additional notes

Positioning the Booklet for Trimming (6)

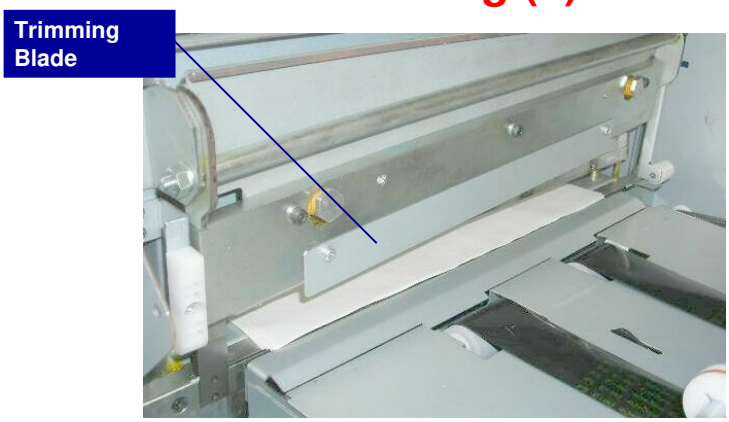


- The press roller motor turns ON and lowers the press rollers onto the booklet.
- The press rollers compress the trailing edge of the booklet for trimming.

Slide 20

No additional notes

Trimming (1)

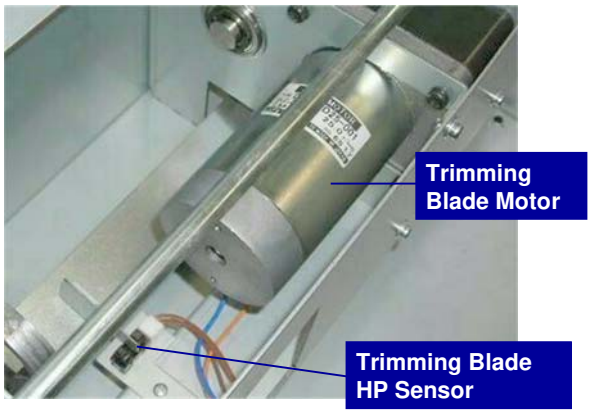


- When the cut positioning motor goes OFF, the trimming motor goes ON and drives the trimming blade down.
- The trimming blade (a guillotine blade) descends, trims the edge, and the scraps fall into the hopper below.

Slide 21

No additional notes

Trimming (2)

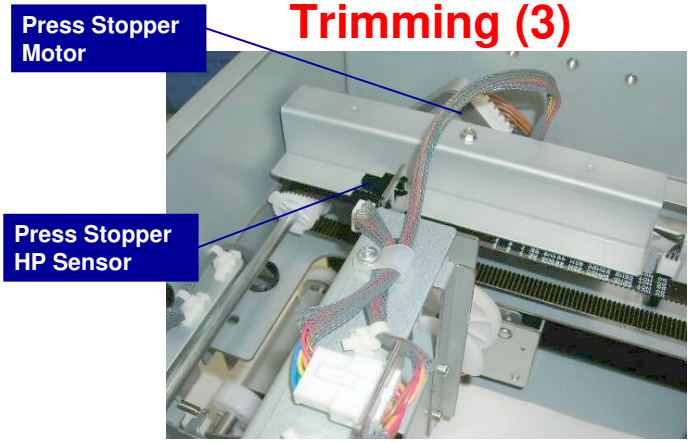


- The trimming blade motor reverses.
- The trimming blade HP sensor detects the blade actuator at its home position and the trimming blade motor switches off.

Slide 22

No additional notes

Trimming (3)

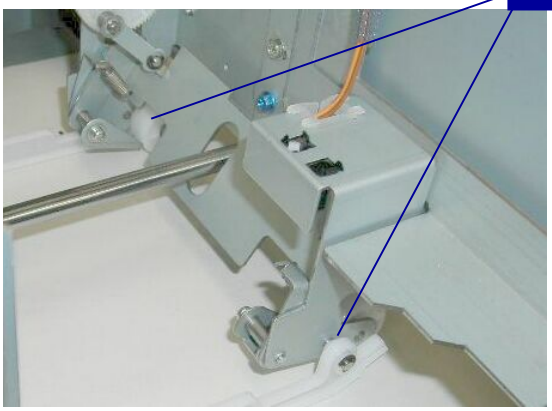


- After the trimming blade returns to its home position, the press stopper motor turns ON, and raises the stopper and plate to their home positions.
- The press stopper HP sensor detects the home position and switches off the motor. This clears the feed path so the booklet can exit the trimmer.

Slide 23

No additional notes

Trimming (4)

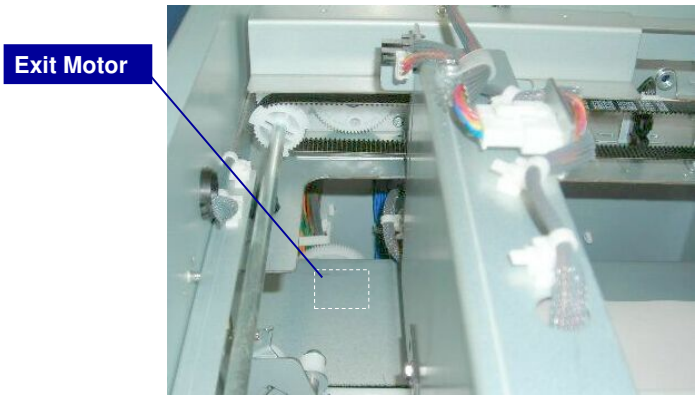


- **The press rollers remain down for feed out.**
  - They will function as feed rollers, opposing the booklet and transport belt below.

Slide 24

No additional notes

Booklet Feed-out (1)

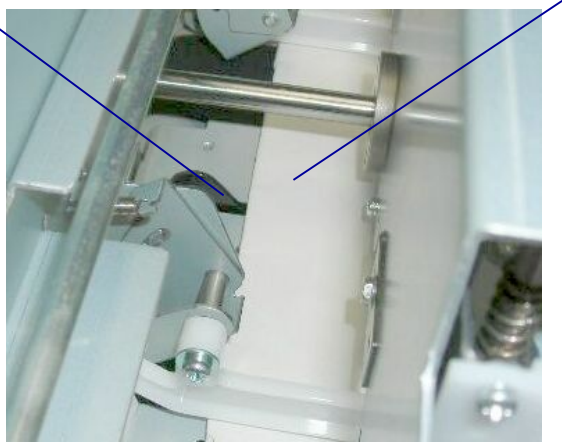


- The exit motor turns on, drives the transport belts, and starts to feed the booklet out of the trimmer.

Slide 25

- The exit motor is behind the plate, in the indicated location.

Booklet Feed-out (2)

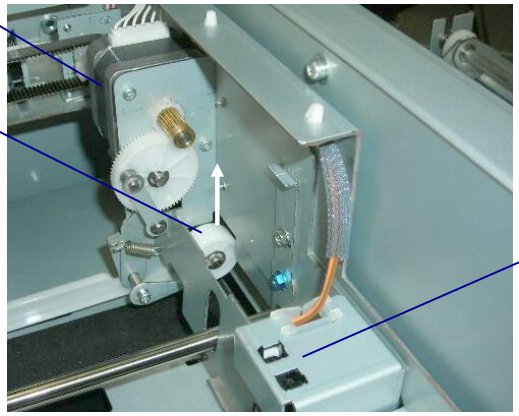


- The leading edge of the booklet depresses the exit sensor actuator.

Slide 26

No additional notes

Booklet Feed-out (3)

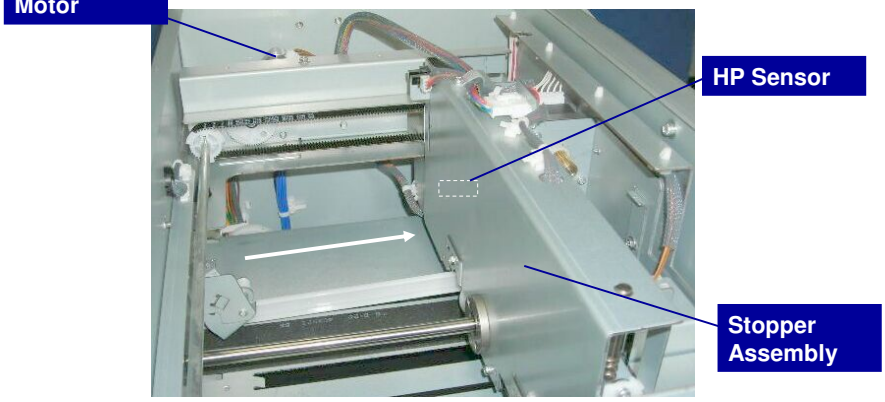


- The press roller motor turns on and raises the press rollers their home positions.
- When the press roller HP sensor detects the home position, the motor turns off.

Slide 27

No additional notes

Booklet Feed-out (4)

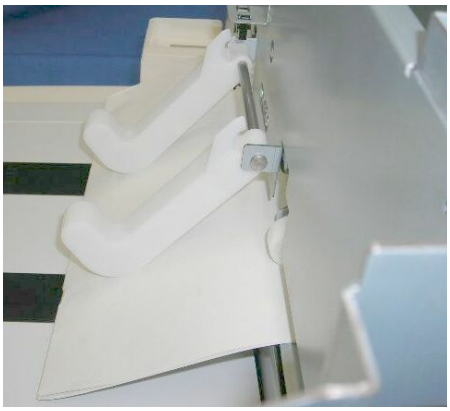


- The cut position motor turns on and returns the stopper assembly to its home position.
- When the stopper assembly HP sensor (not shown) detects the home position, the motor turns off.

Slide 28

No additional notes

Booklet Feed-out (5)

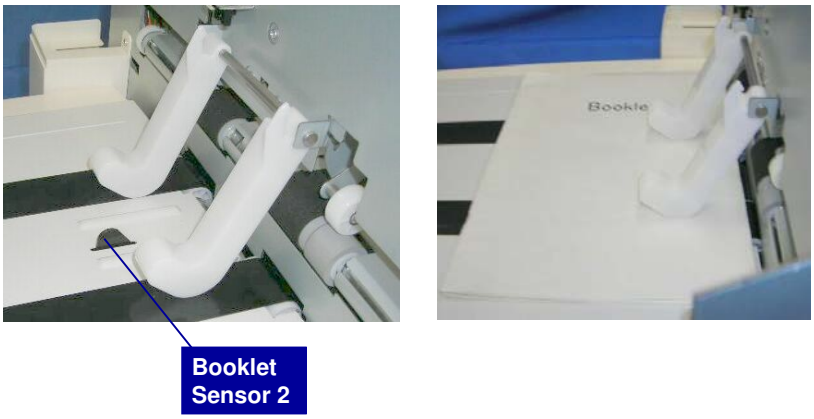


- The booklet exits the trimmer.

Slide 29

No additional notes

Output Tray (1)

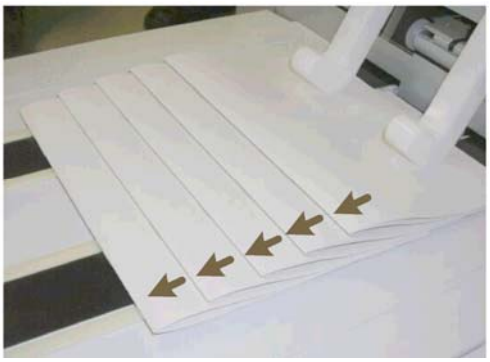


- When the booklet exits, it depresses booklet sensor 2.

Slide 30

No additional notes

Output Tray (2)

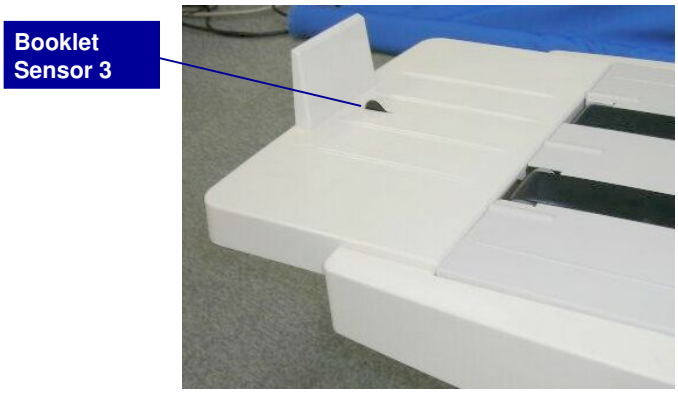


- The tray motor inside the tray switches on and moves each booklet slightly to the left as each booklet exits the trimmer.

Slide 31

No additional notes

Output Tray (3)



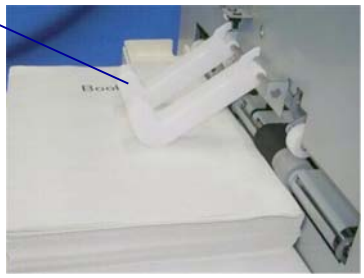
- When the leading edge of the first booklet reaches the left end of the tray, this activates booklet sensor 3

Slide 32

No additional notes

Actuator

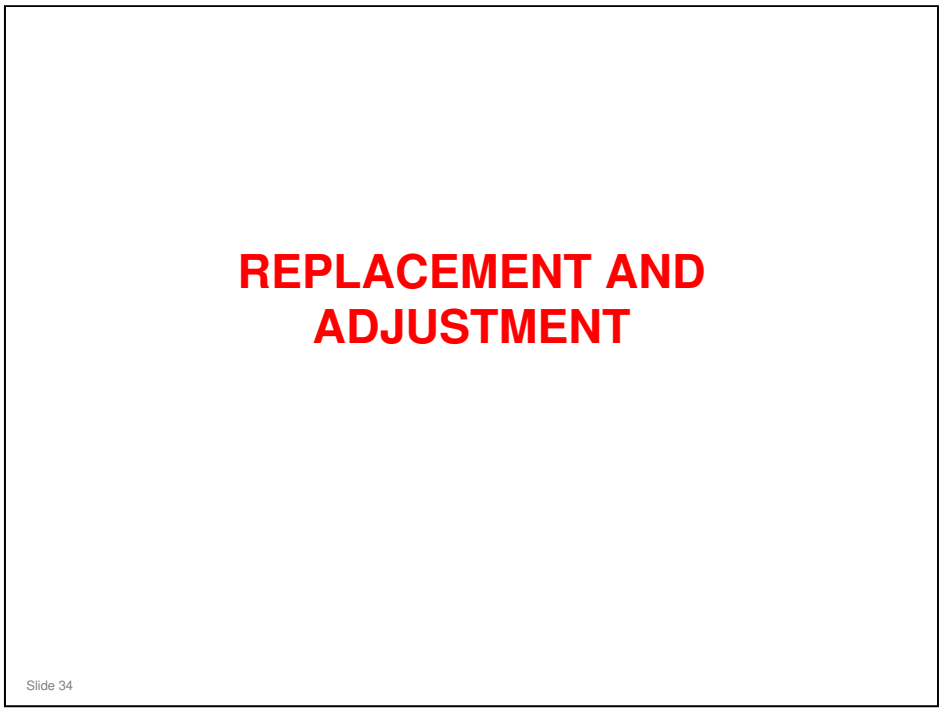
Output Tray (4)



- The trimmer will continue to feed booklets until there are enough booklets at the trimmer exit to raise the actuators and activate booklet sensor 1.
- When all three booklet sensors are activated, the tray is full and the trimmer stops. The booklets on the tray must be removed for operation to continue.

Slide 33

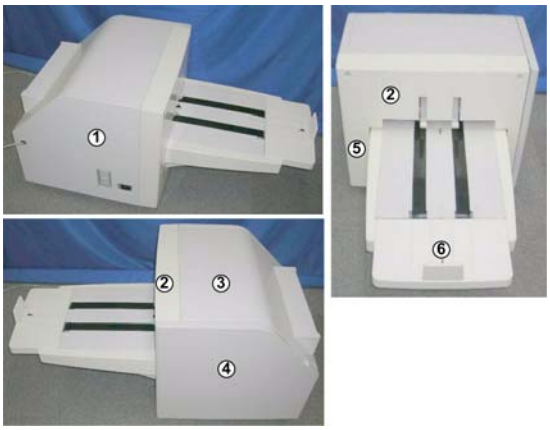
No additional notes



No additional notes

Preparation for Servicing

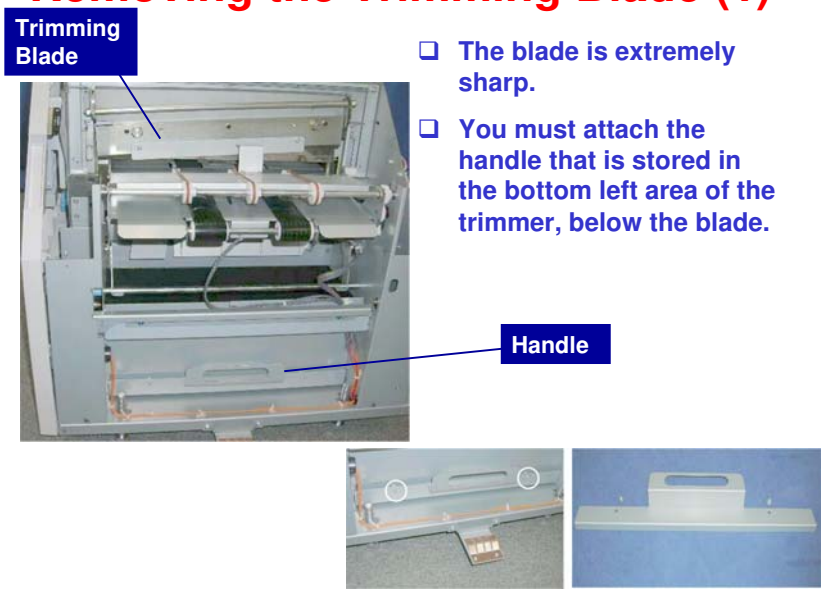
- **Remove the covers in this order before you begin to work on this machine.**
  - 1. Rear cover
  - 2. Left upper cover
  - 3. Top cover
  - 4. Front door
  - 5. Left bottom cover
  - 6. Tray unit



Slide 35

- The important points about the replacement procedures are explained on the next few slides.
- After you see these slides, then read the procedures in the service manual.
- Make sure that you obey all warnings and cautions in the manual when you work on the machine.

Removing the Trimming Blade (1)



- The blade is extremely sharp.
- You must attach the handle that is stored in the bottom left area of the trimmer, below the blade.

Slide 36

No additional notes

Removing the Trimming Blade (2)

- **Remove the screws of the guard plate.**
  - The guard plate is permanently attached to the blade; it will not come off after the screws have been removed.
- **Use the guard plate screws to attach the handle to the side of the guard plate.**

Slide 37

No additional notes

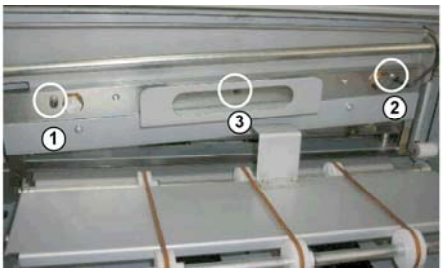
Removing the Trimming Blade (3)

- **Use the Allen key (provided with the new blade) to remove the blade hex screws.**
  - The blade is compressed by these screws and three very strong springs.
  - Insert the Allen key into the first hex screw.
  - Attach an adjustable wrench as shown.
  - Raise the wrench to relieve tension on the springs.
  - Loosen each screw a full turn to gradually relieve the tension on each screw.
  - Continue to loosen each screw in turns to remove them.

Slide 38

No additional notes

Removing the Trimming Blade (4)



- The screws should be removed gradually.
- To avoid stripping the threads of the other holes or screws, never remove any screw completely before the others.

Slide 39

No additional notes

Removing the Trimming Blade (5)

- Grip the handle and slowly lift the blade off the heads of the large hex bolts.
- Obey local laws and regulations regarding the disposal of the used trimming blade.

Slide 40

No additional notes

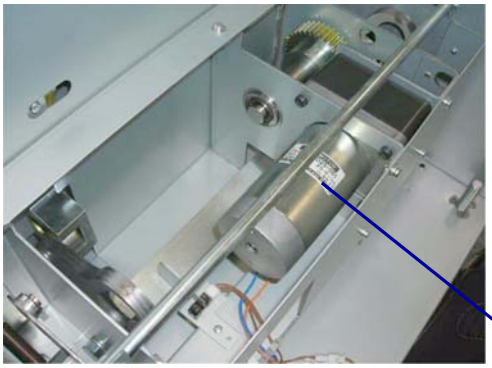
Replacing the Trimming Blade

- Grip the new blade by the handle and set it on the heads of the hex bolts.
- Position the screw at the first hole.
- Raise the plate with the wrench.
- Insert the first screw in the hole, then turn it until the screw is firmly attached. Do not tighten it completely.
- Start the other two screws in their holes while continuing to relieve tension on the springs with the wrench.
- After all the screws have been attached, tighten them one by one by about one full turn until they are all tightened completely.
- Attach the provided mylar to the new blade.

Slide 41

No additional notes

Cutter Motor



- Removing the cutter motor is a dangerous procedure.
- Never attempt to remove the cutter motor.
- If the cutter motor fails, the trimmer unit must be replaced.

Slide 42

No additional notes

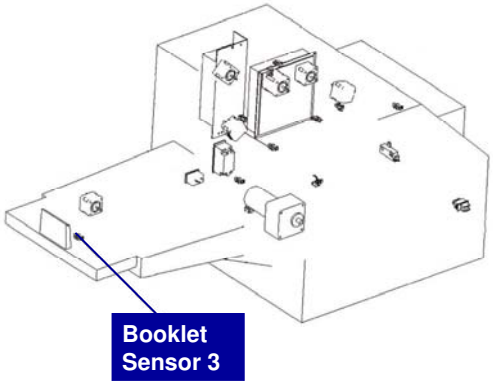
Setting Up for Limitless Output - 1

- First, remove the end stopper from the output tray.

Slide 43

No additional notes

Setting Up for Limitless Output - 2



- **Next, disconnect booklet sensor 3.**
  - With booklet sensor 3 disabled, the trimmer will not detect tray full.
  - The trimmer will operate continuously without interruption. The booklets will fall off the end of the tray into a container placed at the end of the tray.

Slide 44

No additional notes