

PURPOSE OF THIS SECTION

- □ In this section, you will study the mechanisms of the optional internal finisher.
- $\hfill\square$ It is similar to the one in the Z-C1 series.

Comparison with the Z-C1

	Z-C1	Or-C1
Availability	Standard (finisher model only)	Option
Paper size	LG – A6 SEF	A3/DLT – A6/HLT SEF
Output tray capacity	250 sheets	500 sheets
Stapling modes	1	3
Punching	No	Yes
Jogger	At the rear; moves paper to the front	Front and rear joggers

Slide 2

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- □ The functions of the motors are explained during this presentation.
- □ Jogger motors: There are two of them in this finisher, one for the front jogger fence and one for the rear jogger fence.



- □ This shows paper feed without stapling.
- □ The timing of exit guide plate up/down movement is as follows:
 - Moves Down: When the trailing edge of a sheet of paper passes through the entrance sensor.
 - Moves Up: When the trailing edge of a sheet of paper passes the feed sensor.
 - The exit guide plate HP sensor detects when the exit guide plate is at home position (up).



- □ The timing of shift roller movement is as follows:
 - Moves to the shift position: When the trailing edge of a sheet of paper passes through the entrance sensor.
 - Moves to the home position: When the trailing edge of a sheet of paper passes the feed sensor.



- □ This shows how the machine reverse-feeds the sheet of paper into the stapler.
- □ If the staple tray paper sensor does not detect paper, the stapler will not operate.
- □ There is a home position sensor for the pick-up roller (not shown here).
- Paper sensors in the stapler tray:
 - > The paper exit sensor detects paper jams in the tray.
 - > The staple tray paper sensor detects when paper is in the tray.



□ Jogger operation timing

- First, the jogger fences move from the home position to a position 7 mm away from the edge of where the paper will arrive, and stops.
- After this, when a sheet of paper is fed to the tray, the rear jogger fence will move 14 mm towards the center, and this tidies the sides of the paper. Meanwhile, the front jogger fence stays where it is.
- Between sheets, the rear jogger fence goes back to the standby position 7 mm away from the edge of where the next sheet will arrive.
- □ Z-C1: One jogger





- □ Stapler operation timing
 - While the paper is still being fed into the stapler tray, the stapler unit moves from the home position to a position that corresponds to the paper size, and waits. When all sheets of a stapled set have been fed, the stapler unit executes the stapling after jogging has been done.
 - > When two staples are inserted, the front is stapled first, then the rear.
 - For inserting two staples for more than one set: The first set is stapled at the front, and then at the rear. The second set is stapled at the rear, and then at the front. The third set is stapled at the front, then the rear, and so on.
- **Z**-C1: One staple position





- The stack height detection lever HP sensor detects when the stack height detection lever is at its home position. This ensures that the stack height detection lever motor stops at the correct time.
- □ Z-C1: A solenoid was used, not a motor







- □ This motor uses a timing belt with a rack and pinion mechanism.
- □ The motor will move the unit to the left or to the right, depending on where the edge of the paper was detected.



□ See the next few slides for more details on the punch arms.





□ The gears are eccentric, so 180-degree rotation moves the arm in and out.



- When the 1st punch gear starts from the 180-degree position and rotates 180 degrees clockwise, it drives both the red and blue arms.
- □ When it rotates 180 degrees clockwise from the normal standby position, it only drives the red arm.

