FOUR-BIN MAILBOX
(Machine Code: G312)

1. REPLACEMENT AND ADJUSTMENT

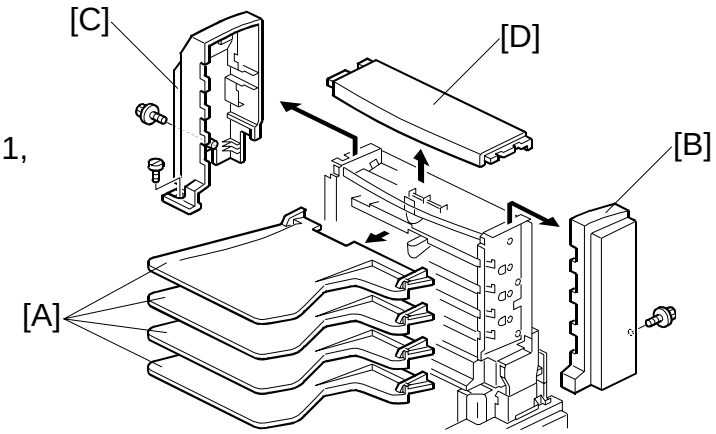
⚠CAUTION

Turn off the main power switch and unplug the machine before beginning any of the procedures in this section.

NOTE: This manual uses the following symbols.
☛ : See or Refer to : Screws : Connector

1.1 EXTERIOR COVER

[A]: Tray
[B]: Front cover (x 1)
[C]: Rear cover (Flat-head screw x 1, x 1)
[D]: Upper cover



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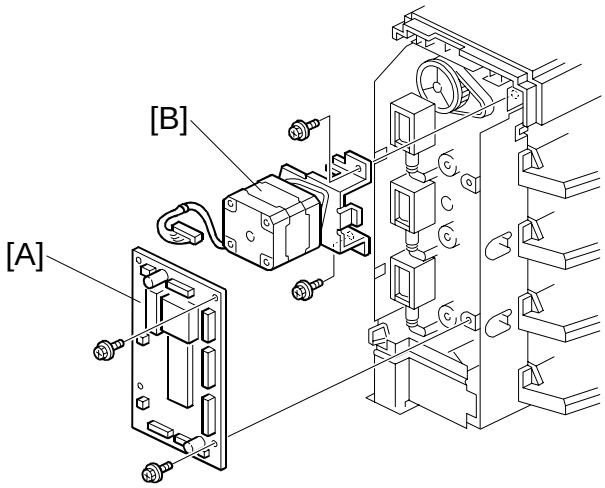
1.2 MAIN MOTOR AND CONTROLLER BOARD

1. Rear cover (☛ 1.1)
2. Controller board [A] (x 9, x 2)
3. Main motor [B] (x 2)



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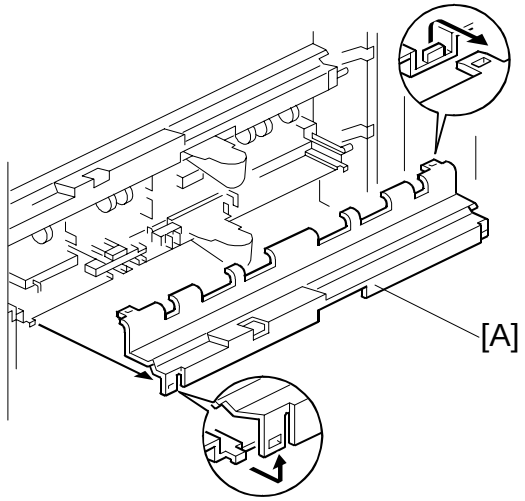
Peripherals

1.3 VERTICAL TRANSPORT AND PAPER OVERFLOW SENSORS

1. Tray (☛ 1.1)
2. Transport cover [A] (4 hooks)



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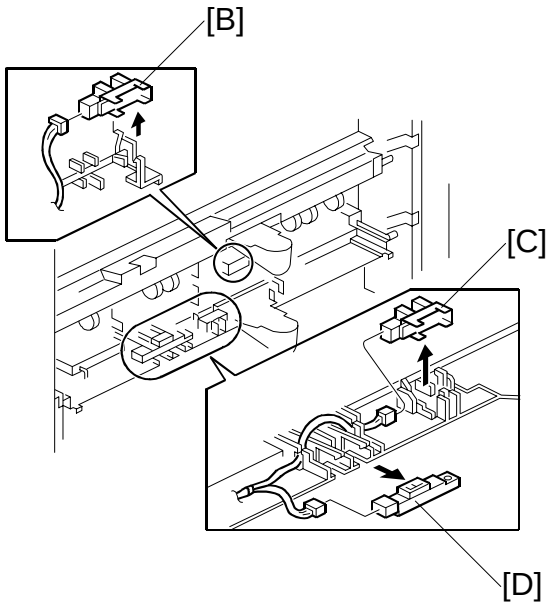
3. Vertical transport sensor [B] (☞ x 1)
   NOTE: There are 2 sensors: one on the 1st tray, the other on the 3rd tray.
4. Paper overflow sensor [C] (☞ x 1)
5. Paper sensor [D] (☞ x 1)



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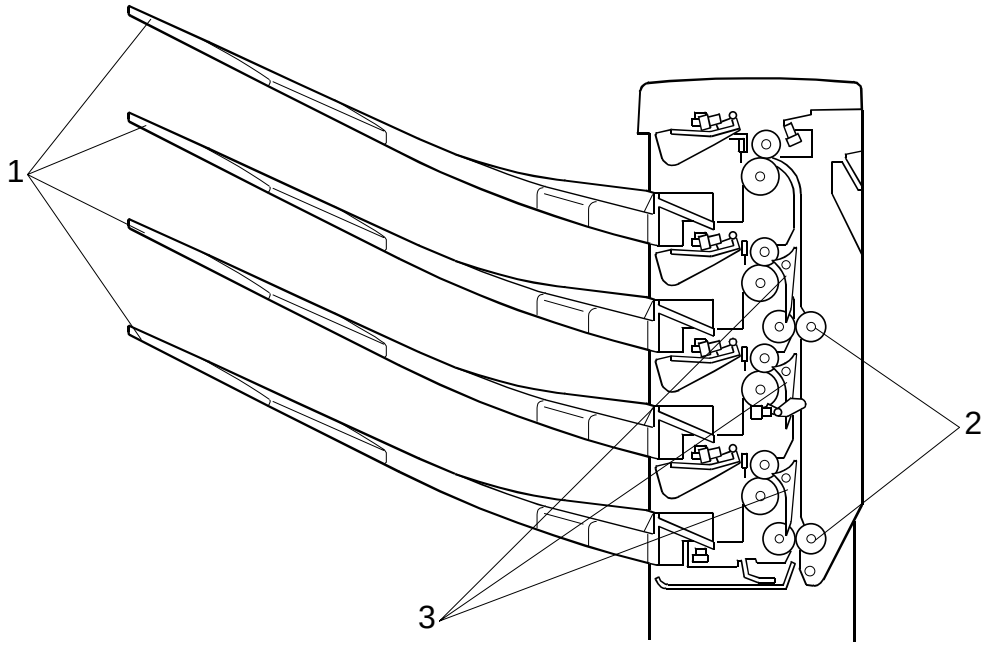
2. DETAILED DESCRIPTIONS

2.1 OVERVIEW



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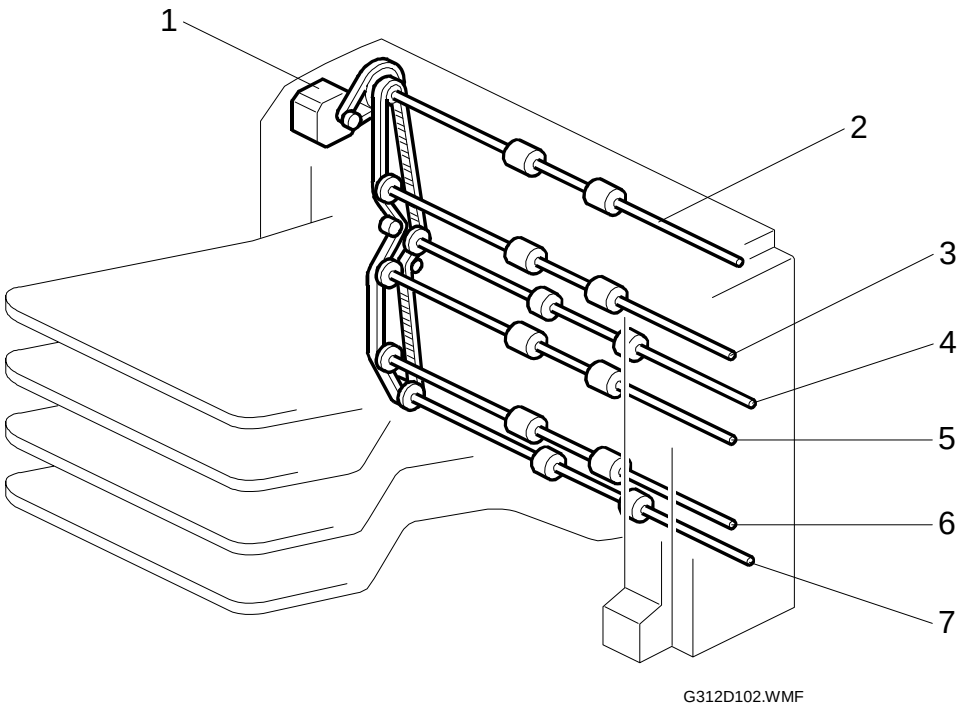
1. Trays
2. Transport rollers
3. Turn gates

2.2 DRIVE

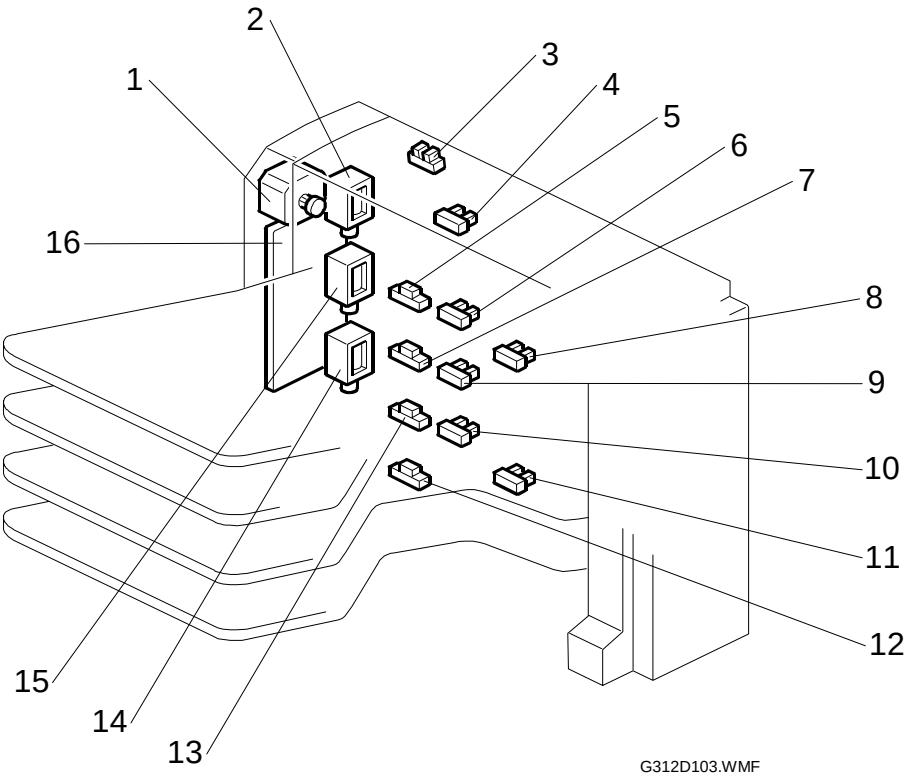


1. Main motor
2. Exit roller 4
3. Exit roller 3
4. Transport roller 2
5. Exit roller 2
6. Exit roller 1
7. Transport roller 1

Drive Path

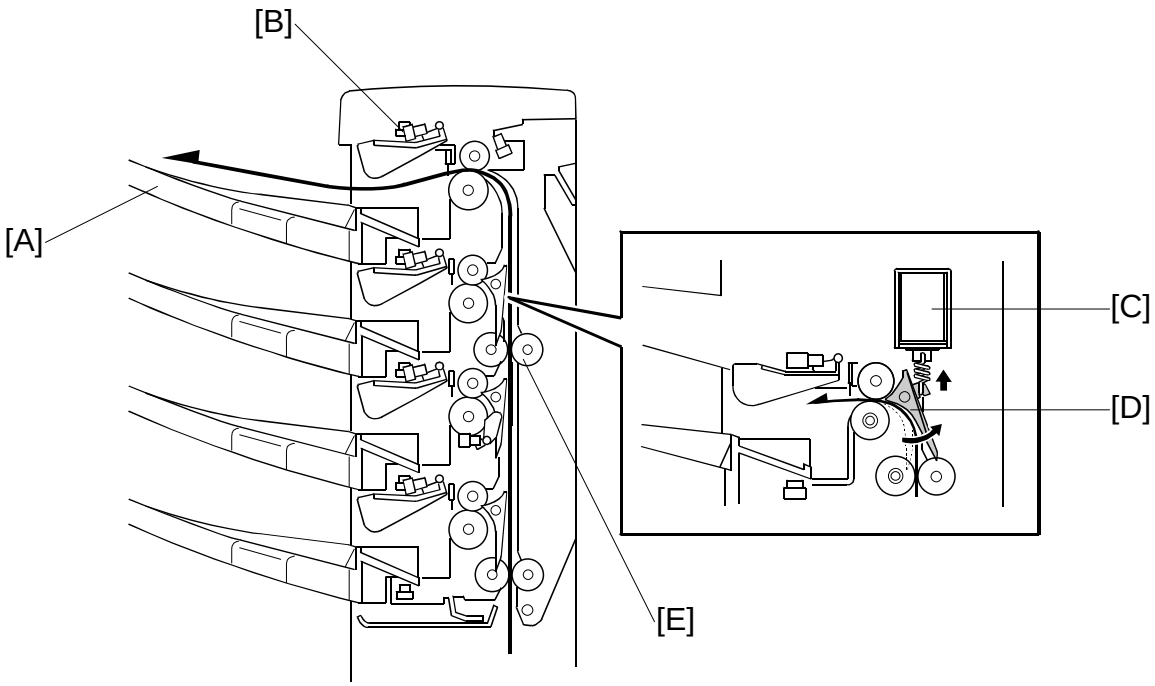
Main motor → Timing belts → Transport/exit rollers

2.3 ELECTRICAL COMPONENT LAYOUT



1. Main motor
2. Turn gate solenoid 3
3. Door safety switch
4. Tray 4 paper overflow sensor
5. Tray 4 paper sensor
6. Tray 3 paper overflow sensor
7. Tray 3 paper sensor
8. Upper vertical transport sensor
9. Tray 2 paper overflow sensor
10. Tray 1 paper overflow sensor
11. Lower vertical transport sensor
12. Tray 1 paper sensor
13. Tray 2 paper sensor
14. Turn gate solenoid 1
15. Turn gate solenoid 2
16. Main control board

2.4 PAPER DISTRIBUTION



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Mechanism

1. **Transport roller [E]**
   Transports the paper
2. **Turn gate solenoid [C]**
   Operates the turn gate
3. **Turn gate [D]**
   Opens to direct the paper to the correct tray
4. **Bin [A]**
   Stacks the paper

Paper Overflow Sensor

When a tray becomes full, the paper overflow sensor [B] detects it and printing is suspended. If the paper is removed, printing automatically restarts.

2.5 BASIC OPERATION

A 10-pin connector links the mailbox with the main unit.

When the leading edge of the paper activates the exit sensor in the interchange unit, the mailbox main motor turns on and the mailbox rollers begin to turn. The paper is then fed out to the tray that has been selected.

Solenoids [C] open and close junction gates [D] as shown, to direct the paper to the selected tray. When the top tray (tray 4) is selected, none of the solenoids are activated.

When the trailing edge of the last sheet turns off the vertical transport sensor, both the mailbox motor and the junction gate solenoid of the selected bin turn off.

2.6 PAPER MISFEED DETECTION TIMING

J1 Timing: After the leading edge of the paper activates the exit sensor in the interchange unit, a misfeed is detected if this sensor does not turn off within X + 0.52 s, where X is equal to the amount of time a given paper size takes to pass the sensor (e.g. A4 LEF = 1.74 s).

J2 Timing: After the paper exit sensor in the interchange unit is activated, the machine determines that the paper has not yet fed and detects a misfeed if the vertical transport sensor does not activate within 1.94 s (in the case of A4 paper).

J3 Timing: After the vertical transport sensor is activated, a misfeed is detected if this sensor does not turn off within X + 0.52 s (see above for an explanation of X). For example, this value would be 2.26 s for A4 LEF.