Chapter 9 Troubleshooting

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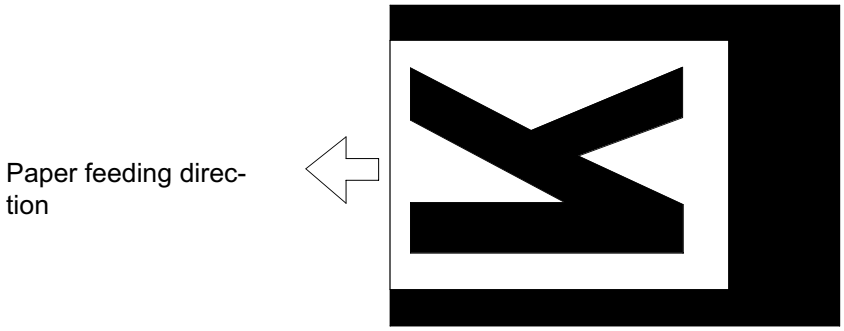
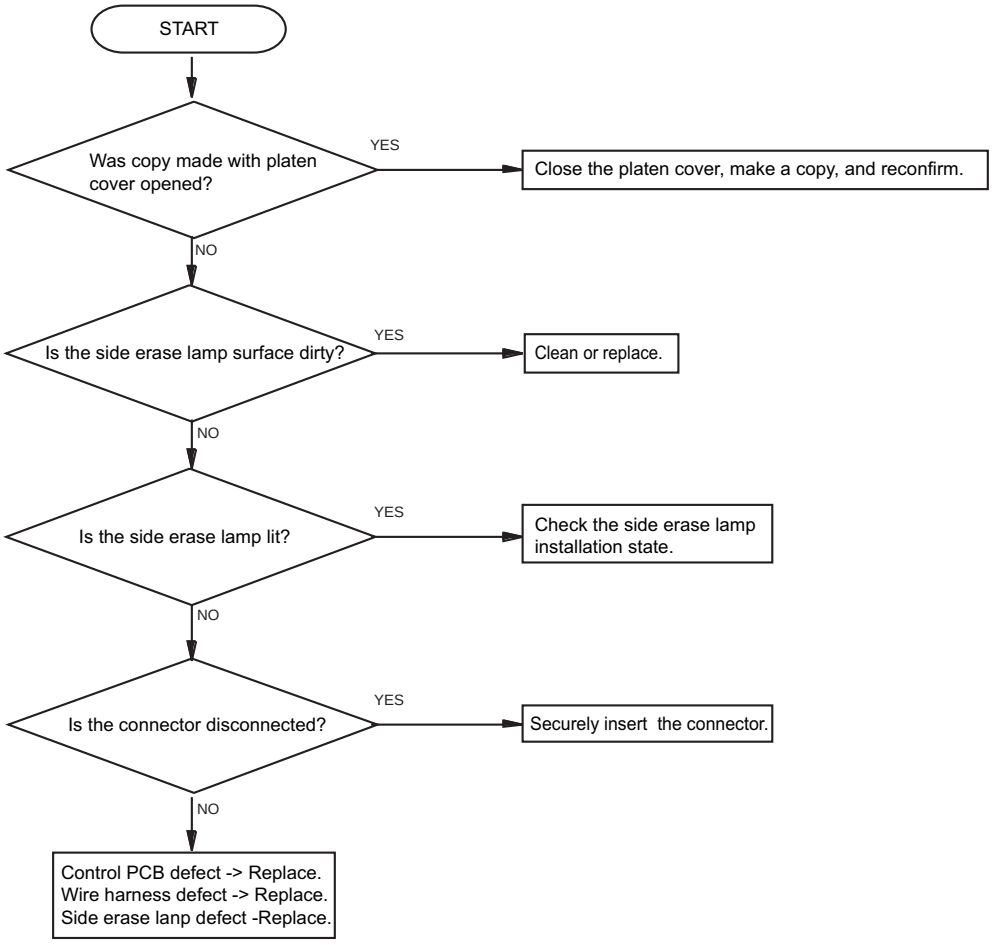
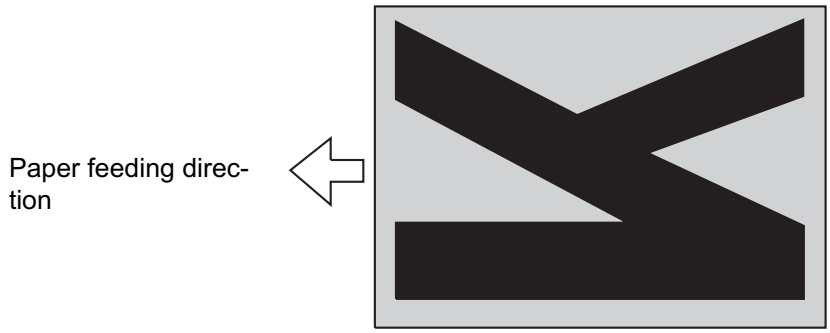
9-1. Defective image and diagnosis flow

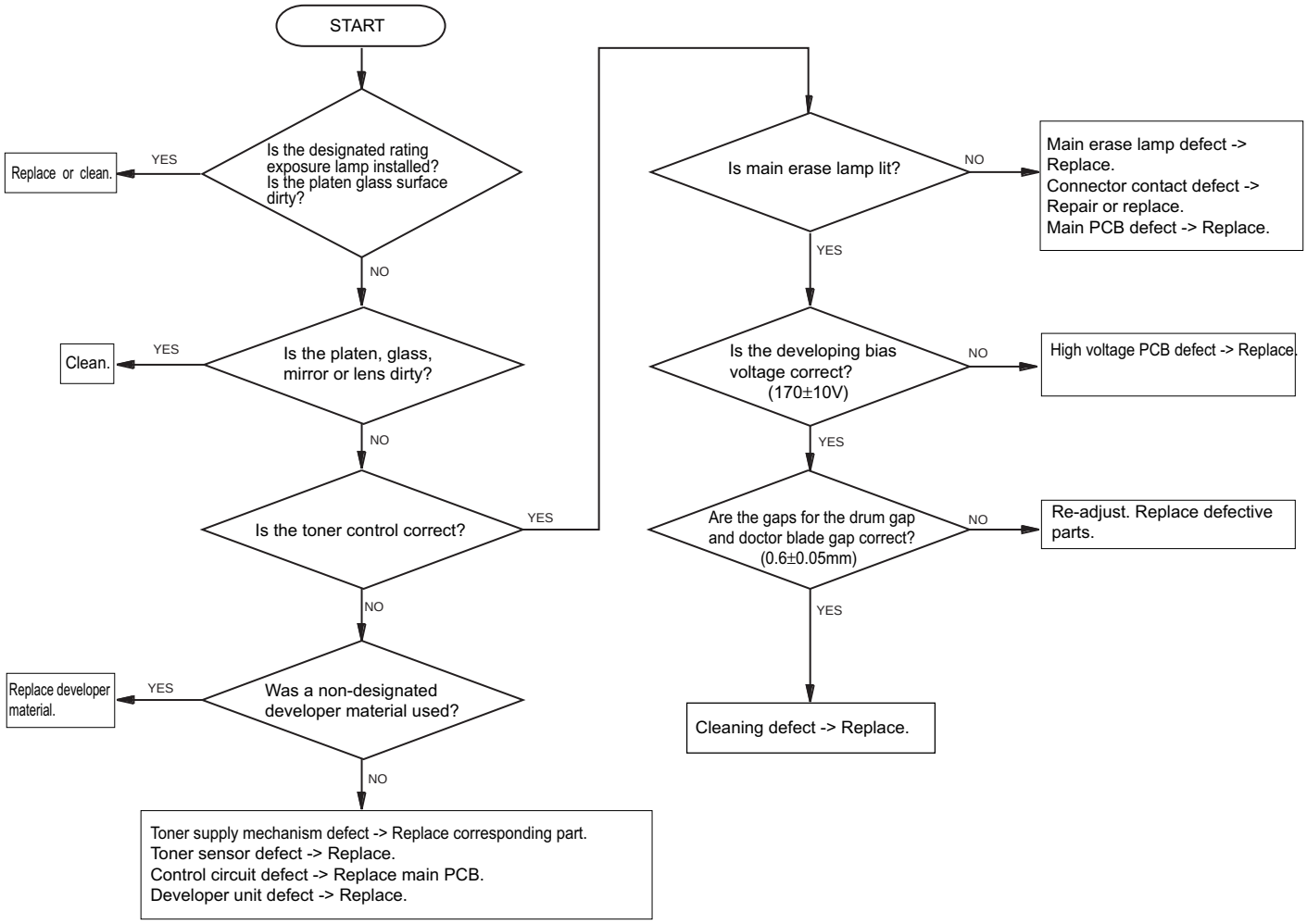
9-1-1. Both sides and trailing edge is black when making a reduced copy



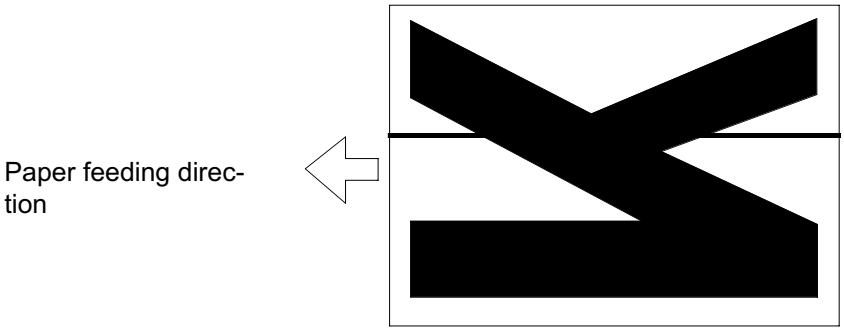


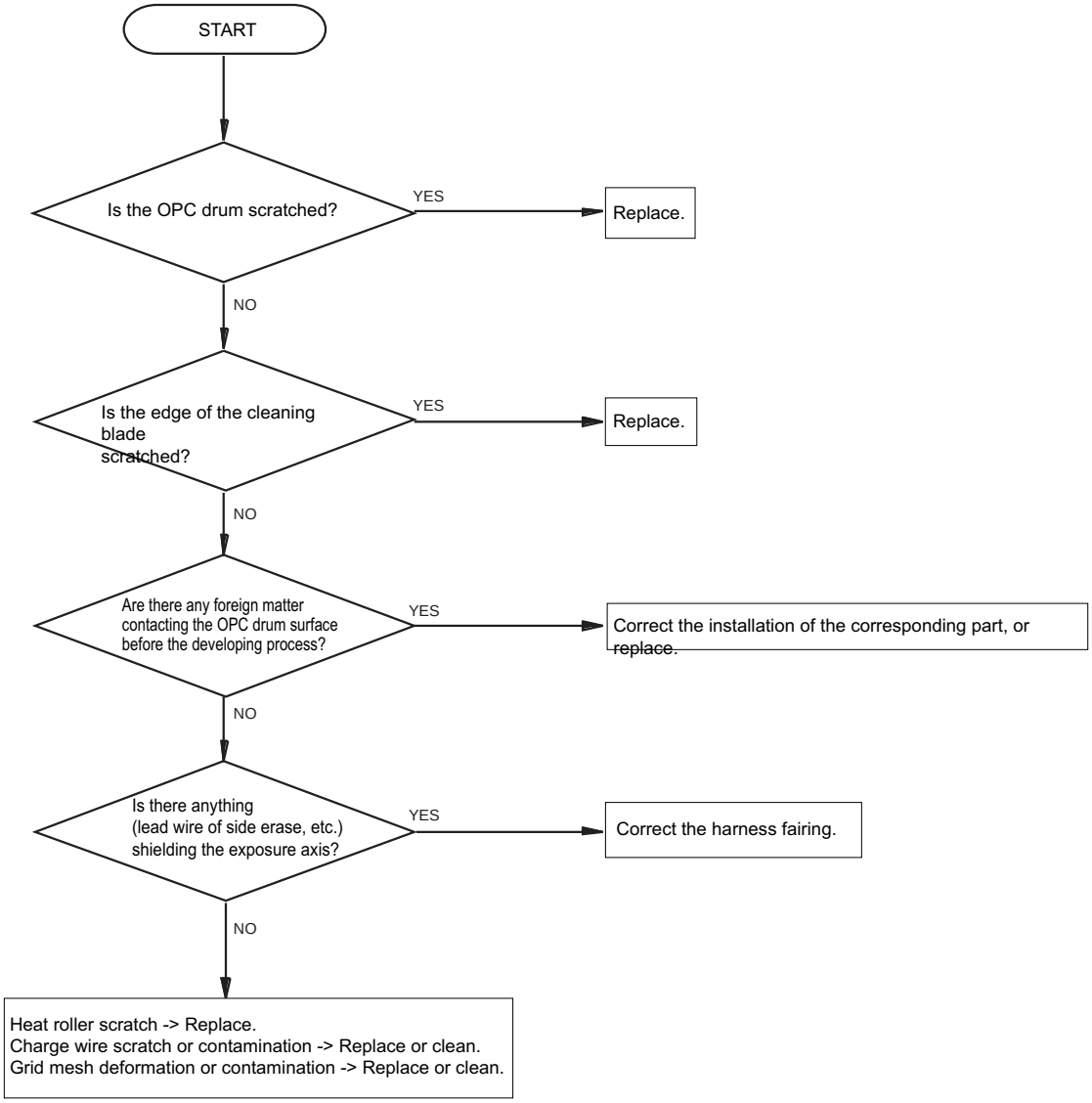
9-1-2. Background fogging (White background fogging)



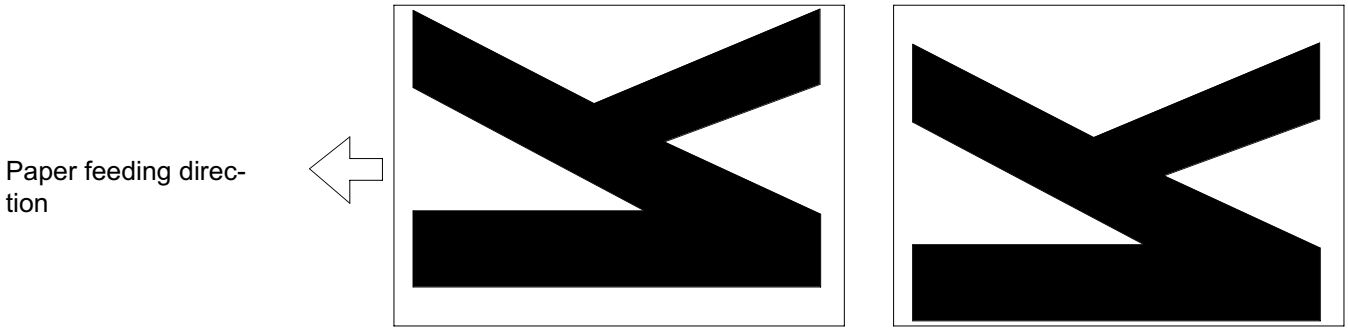


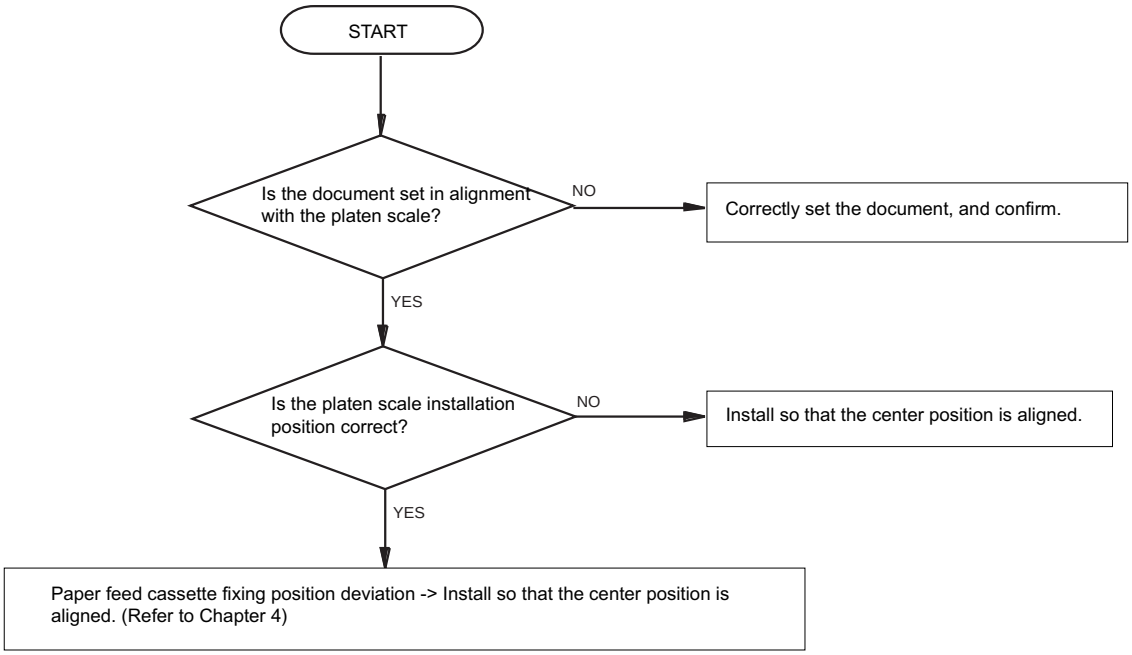
9-1-3. Black lines



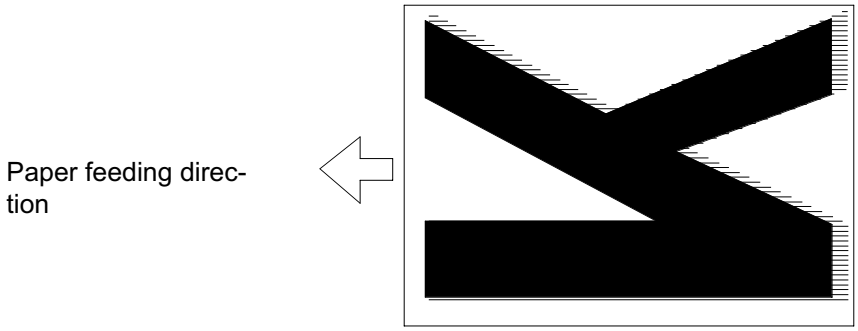


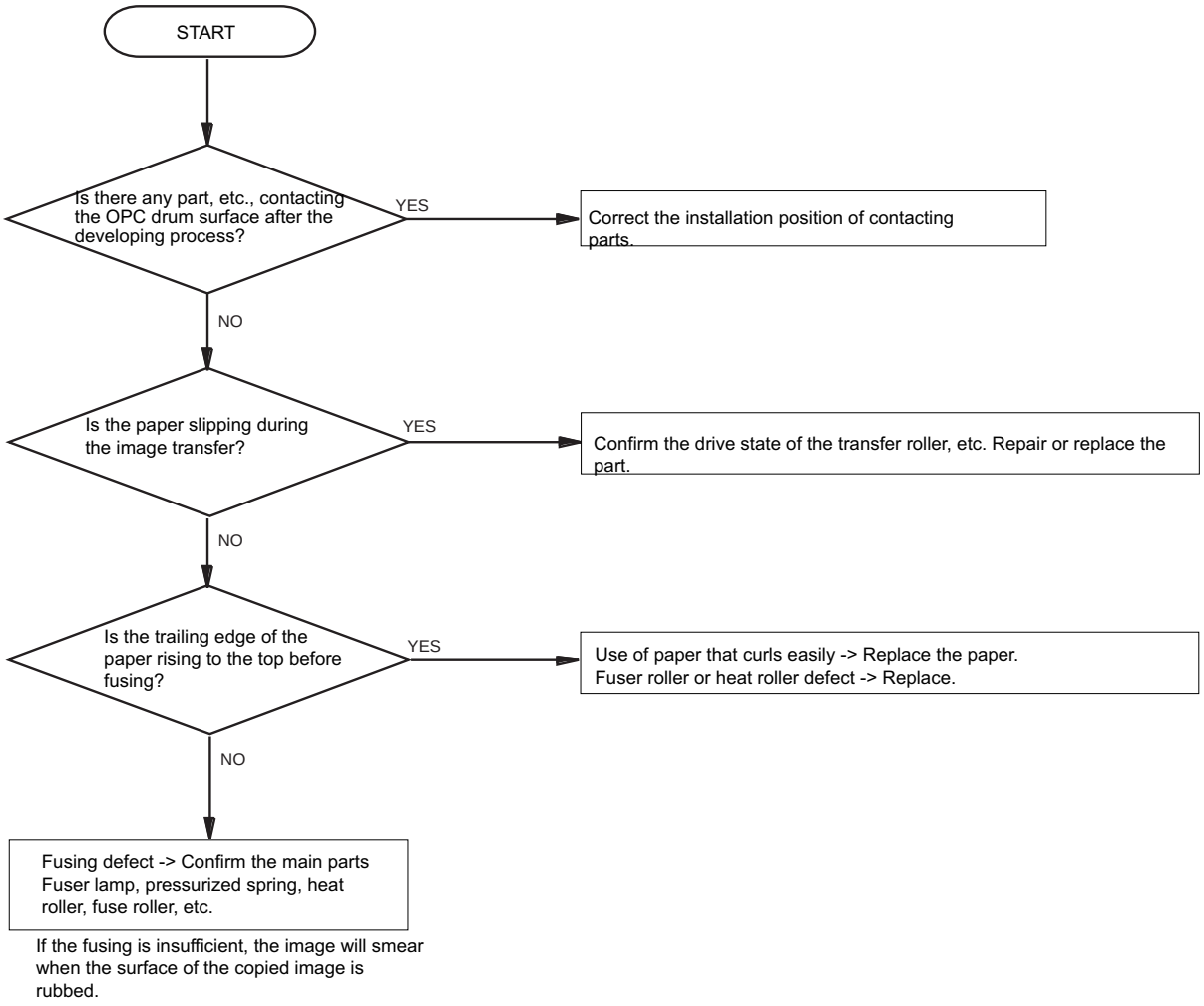
9-1-4. Center deviation





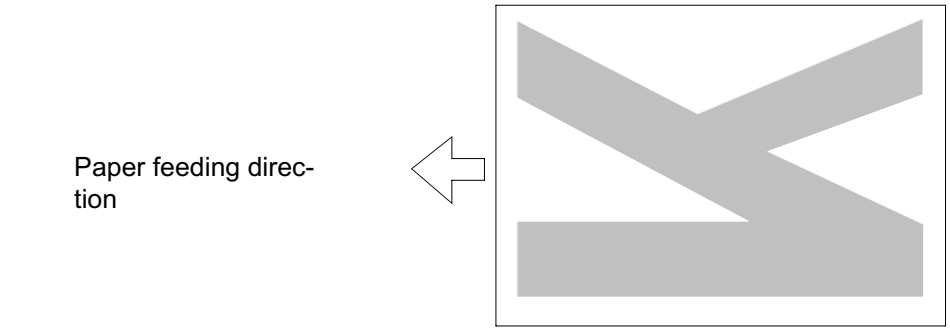
9-1-5. Smearing

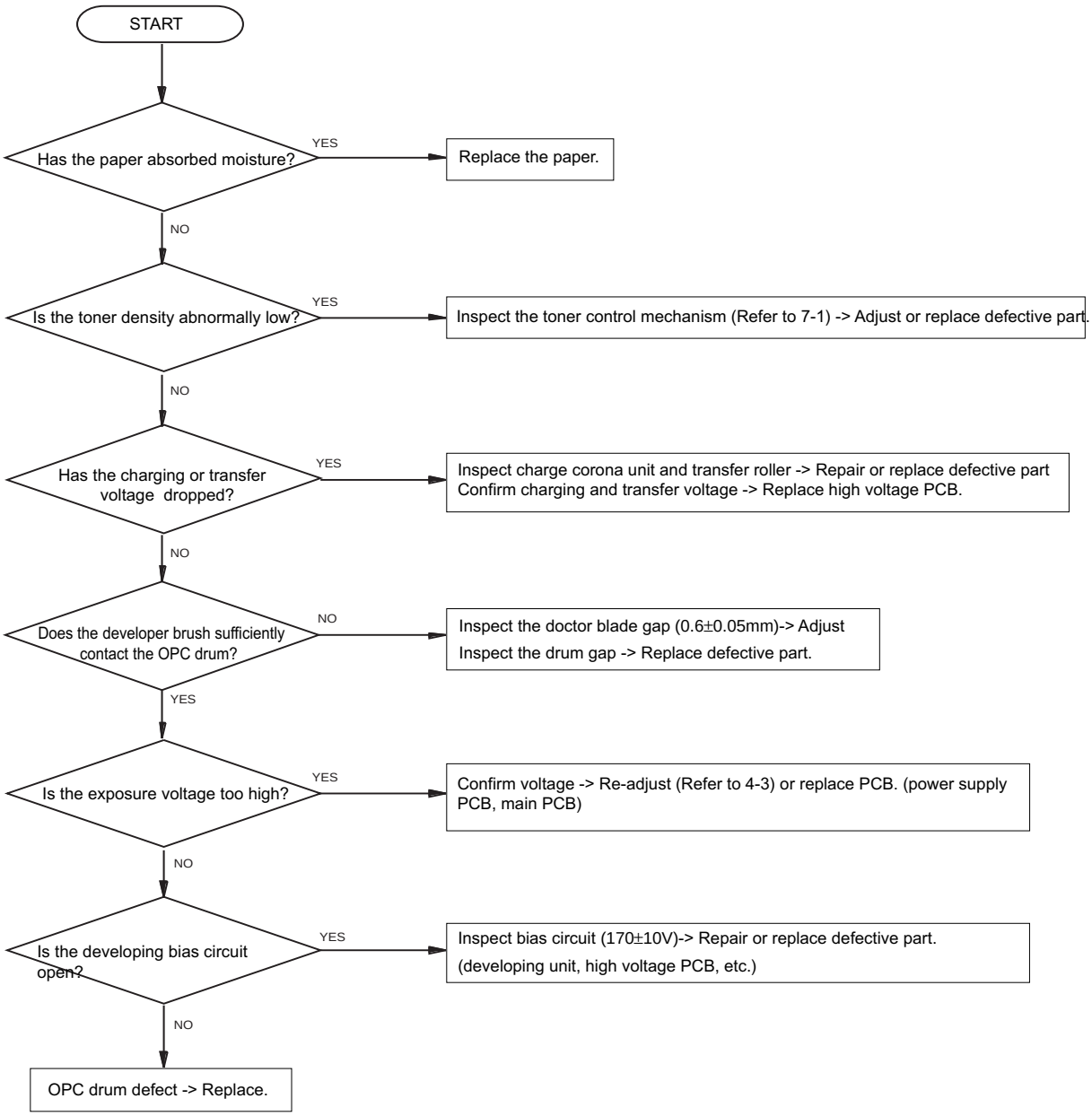




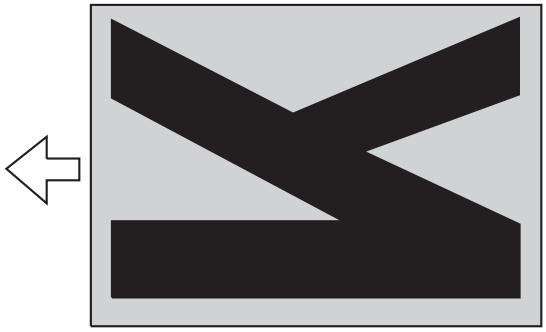
If the fusing is insufficient, the image will smear when the surface of the copied image is rubbed.

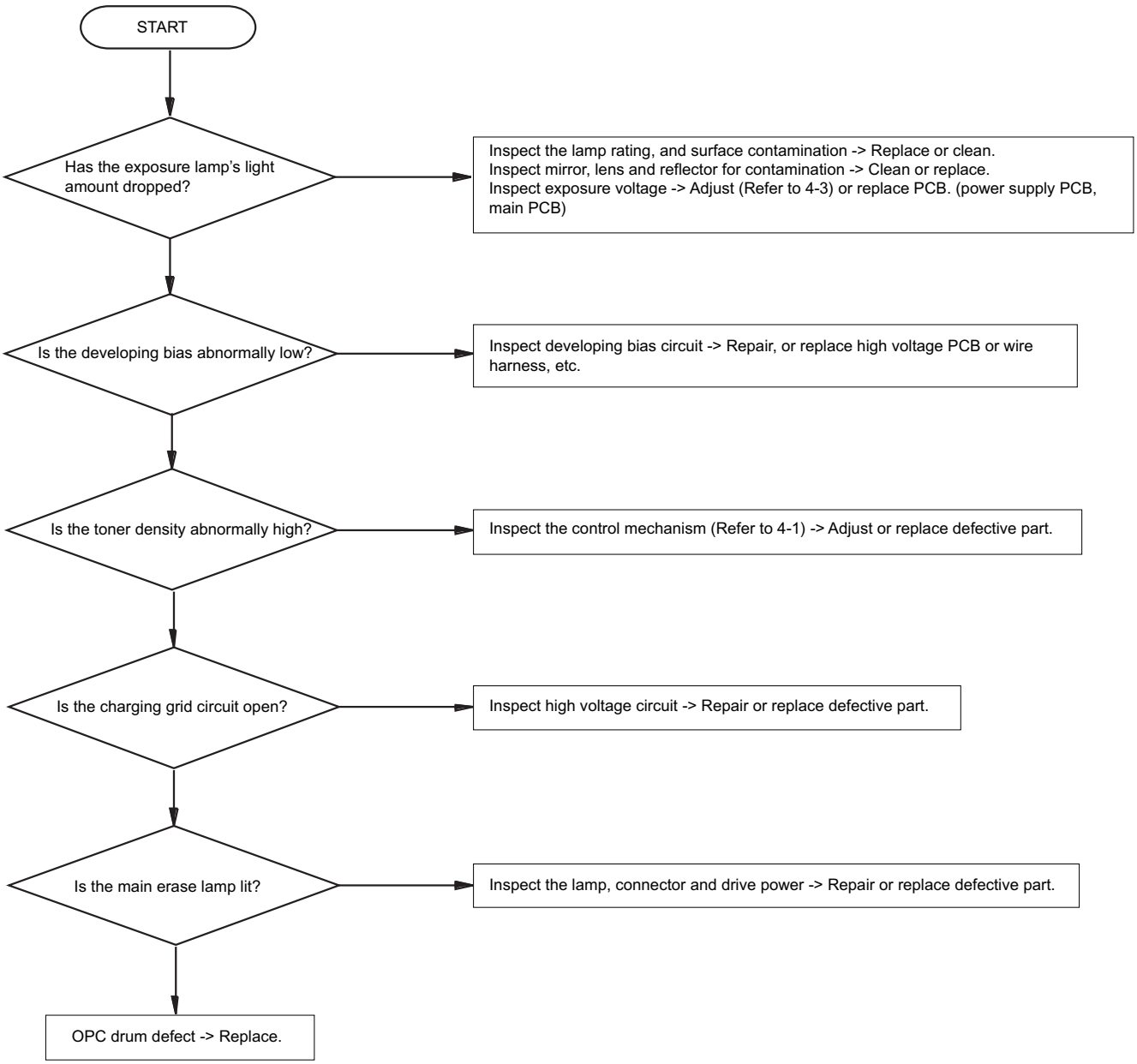
9-1-6. Light copy



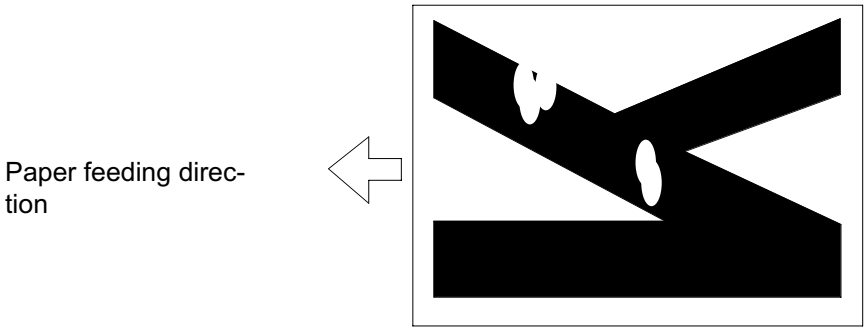


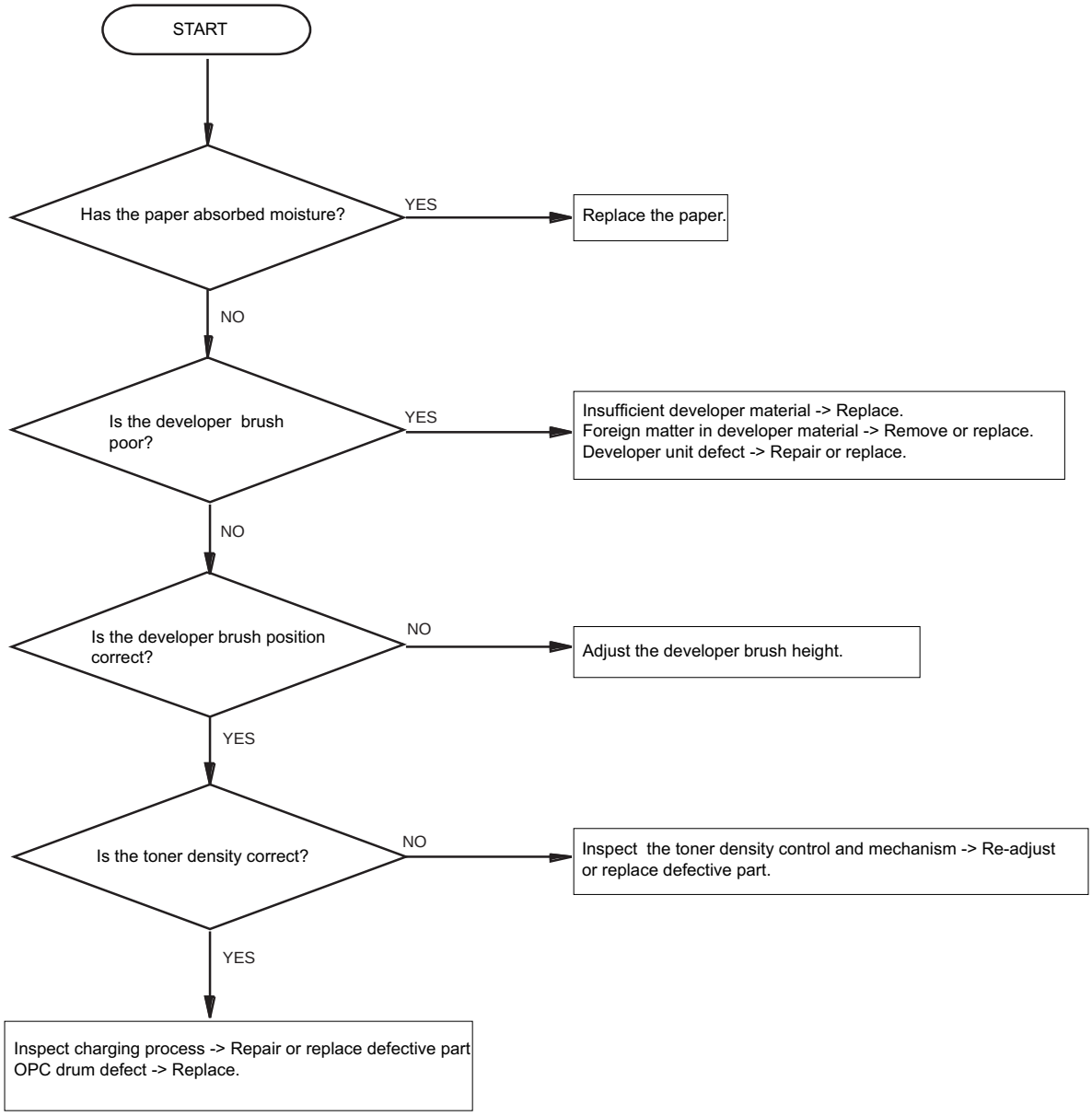
9-1-7. Dark copy





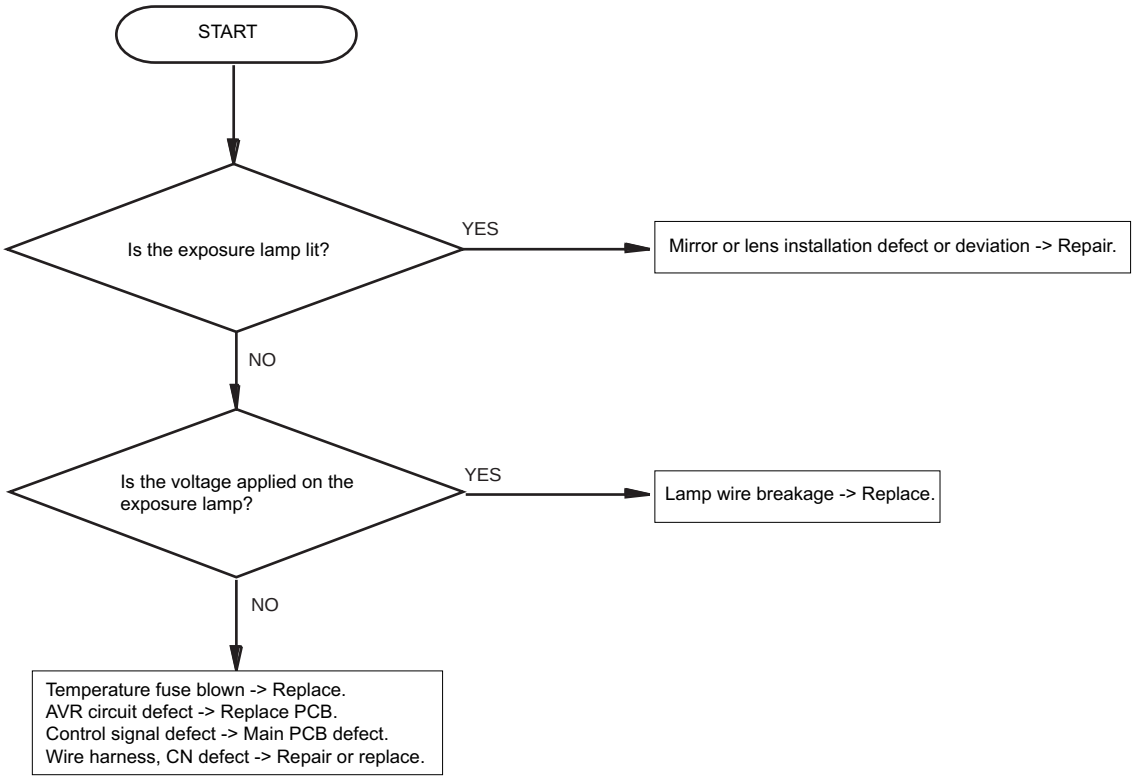
9-1-8. Partial skipping of transfer



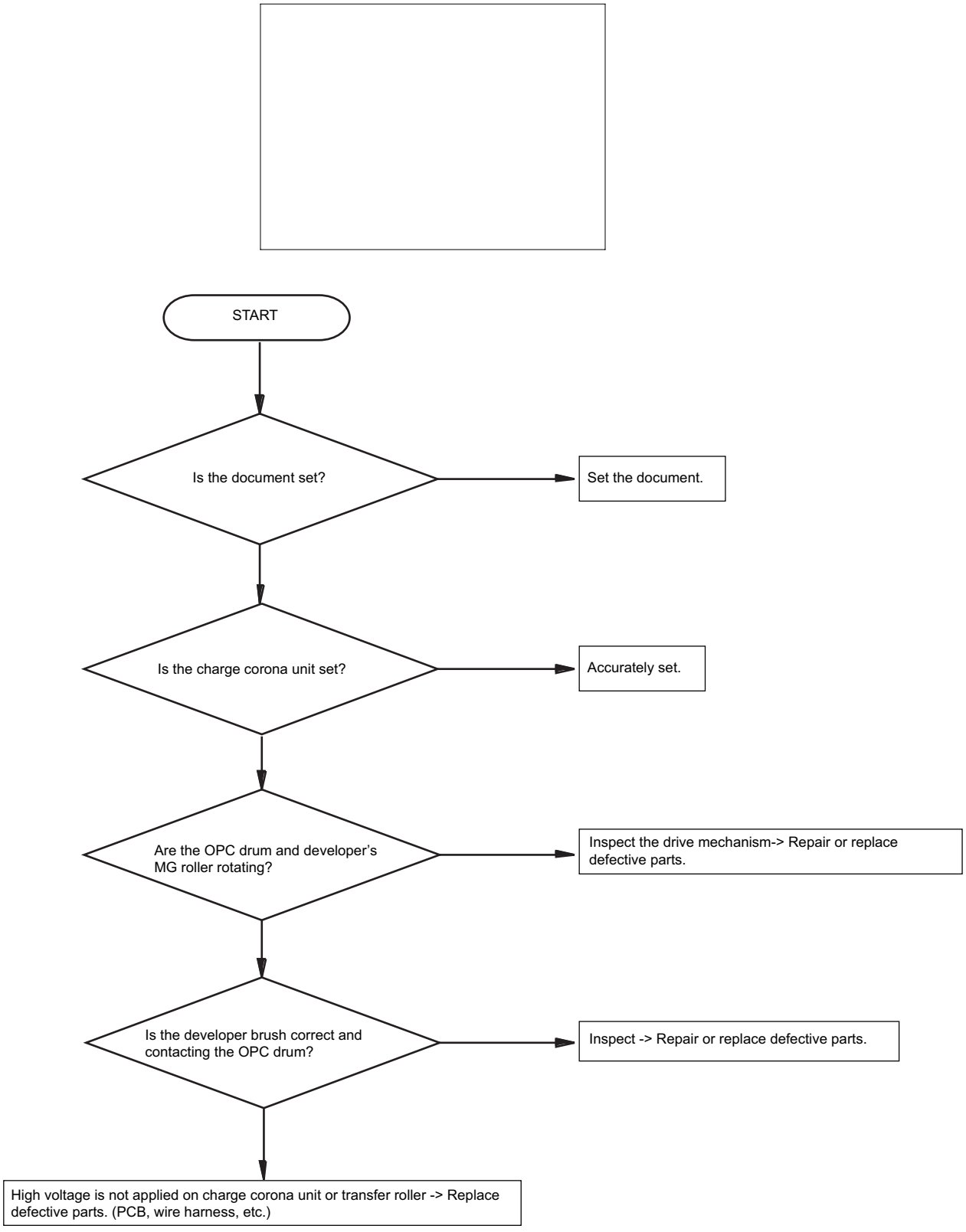


9-1-9. Copy is black

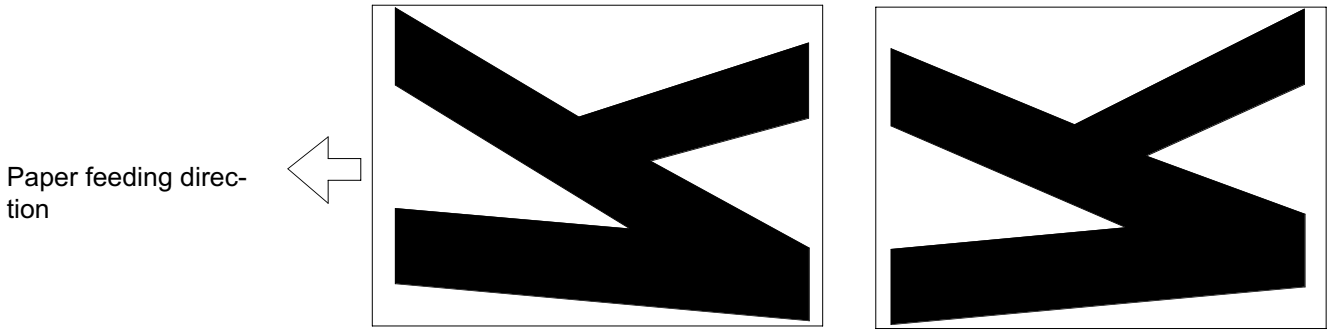


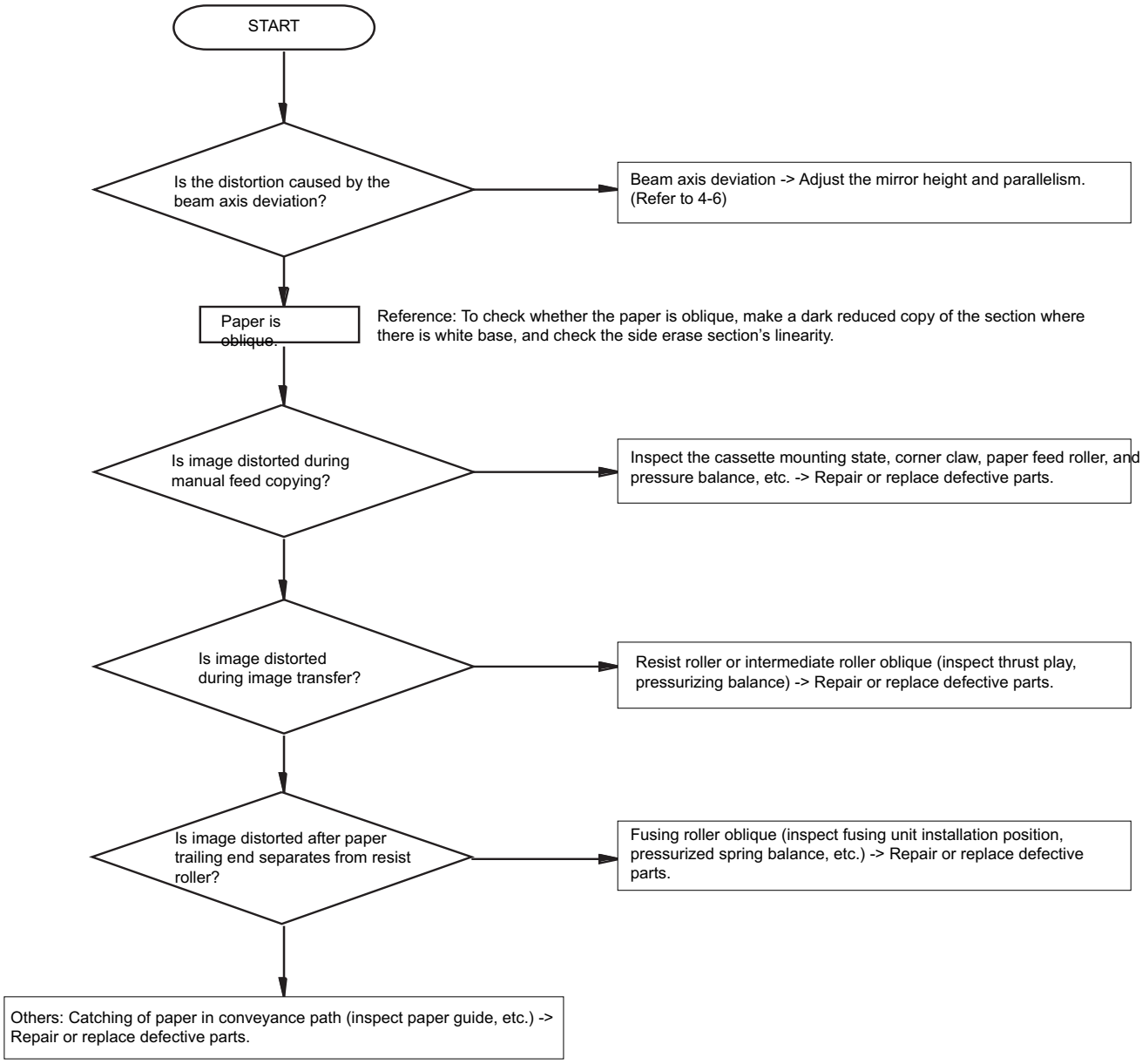


9-1-10. No image

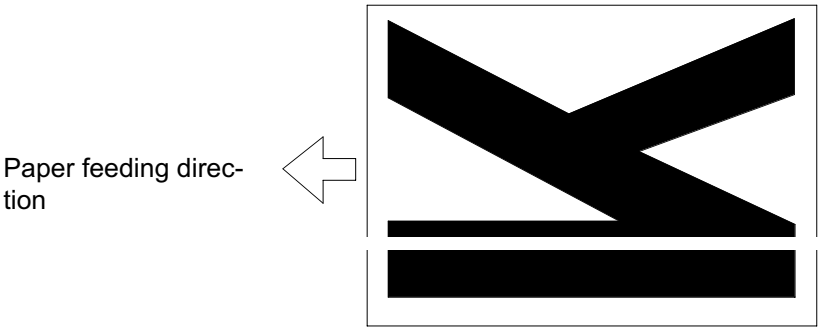


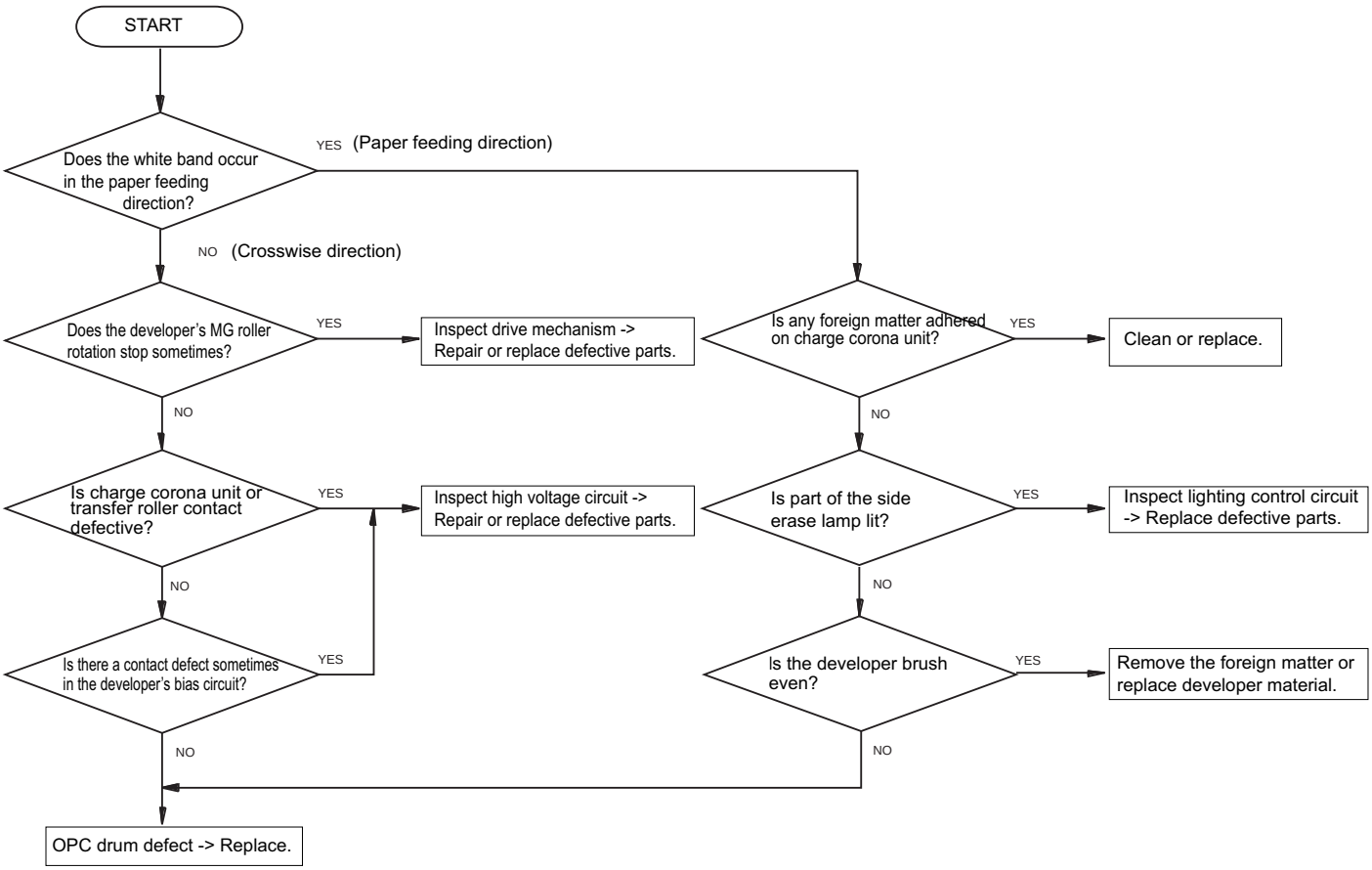
9-1-11. Distorted image



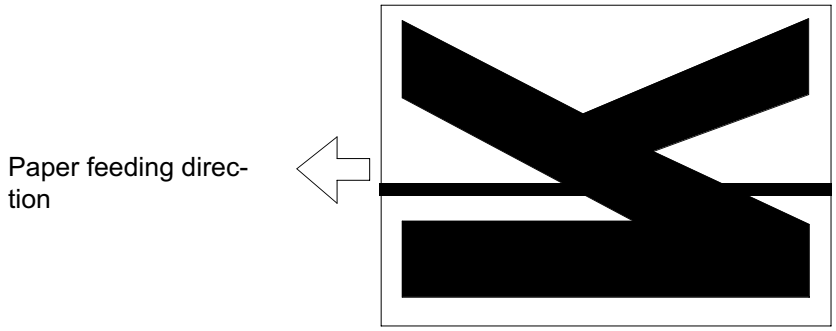


9-1-12. White band



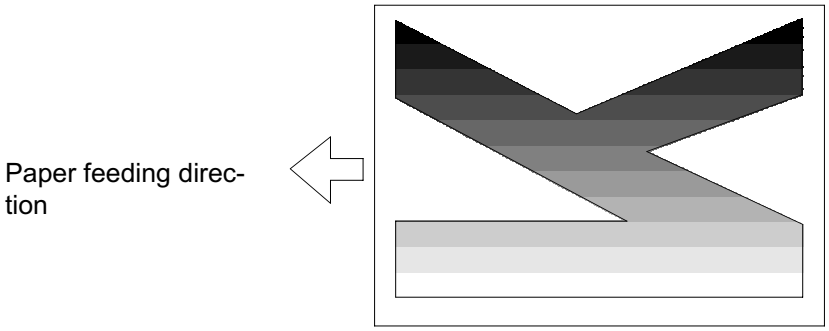


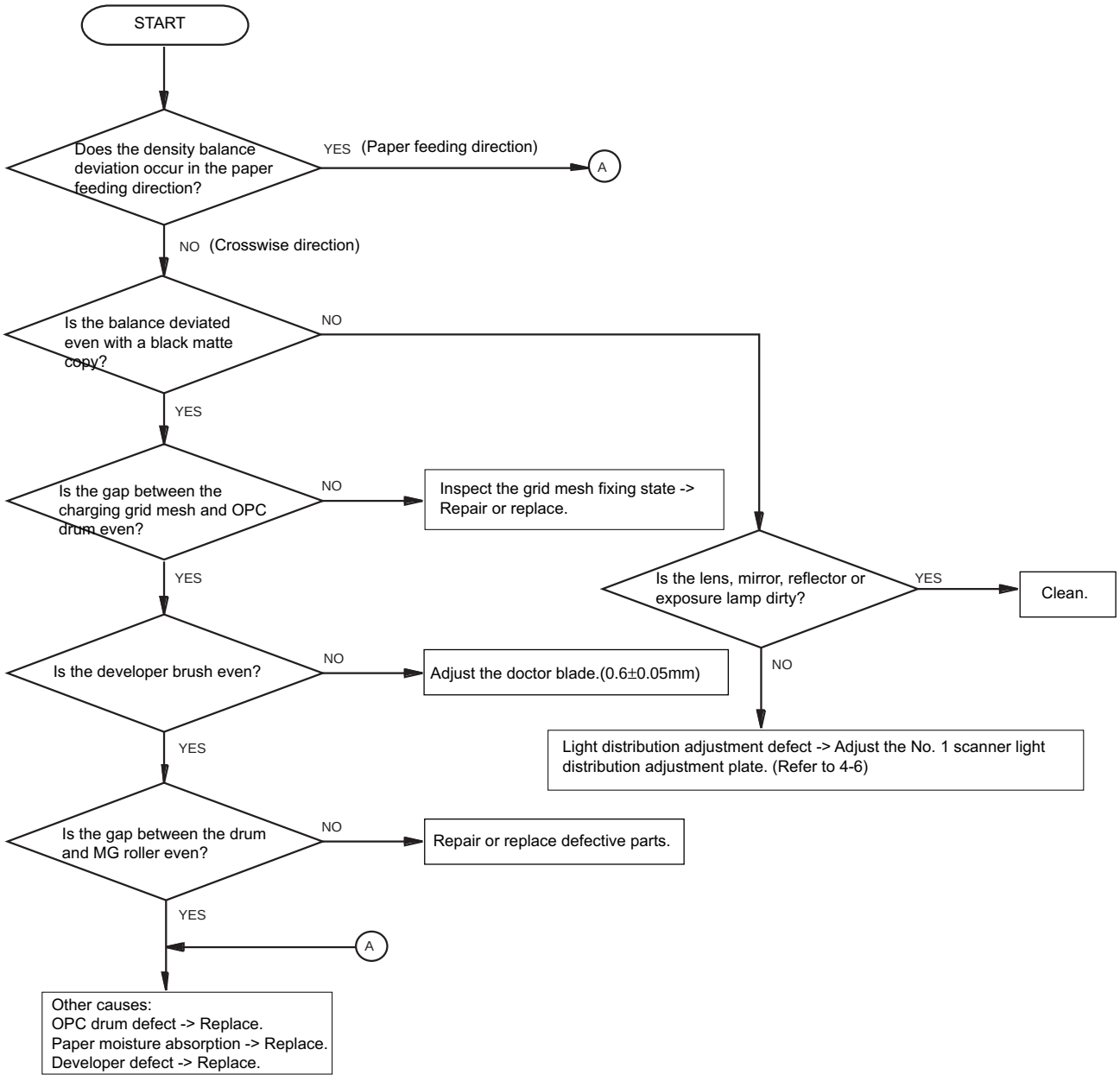
9-1-13. Black band



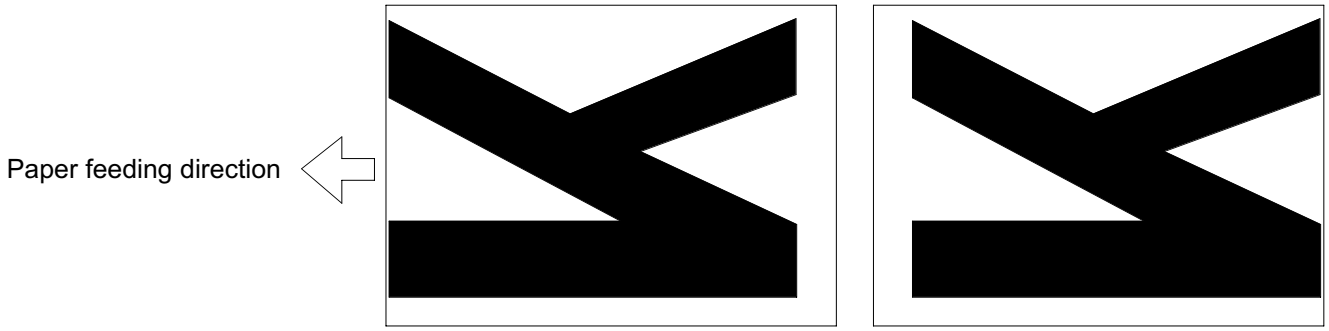


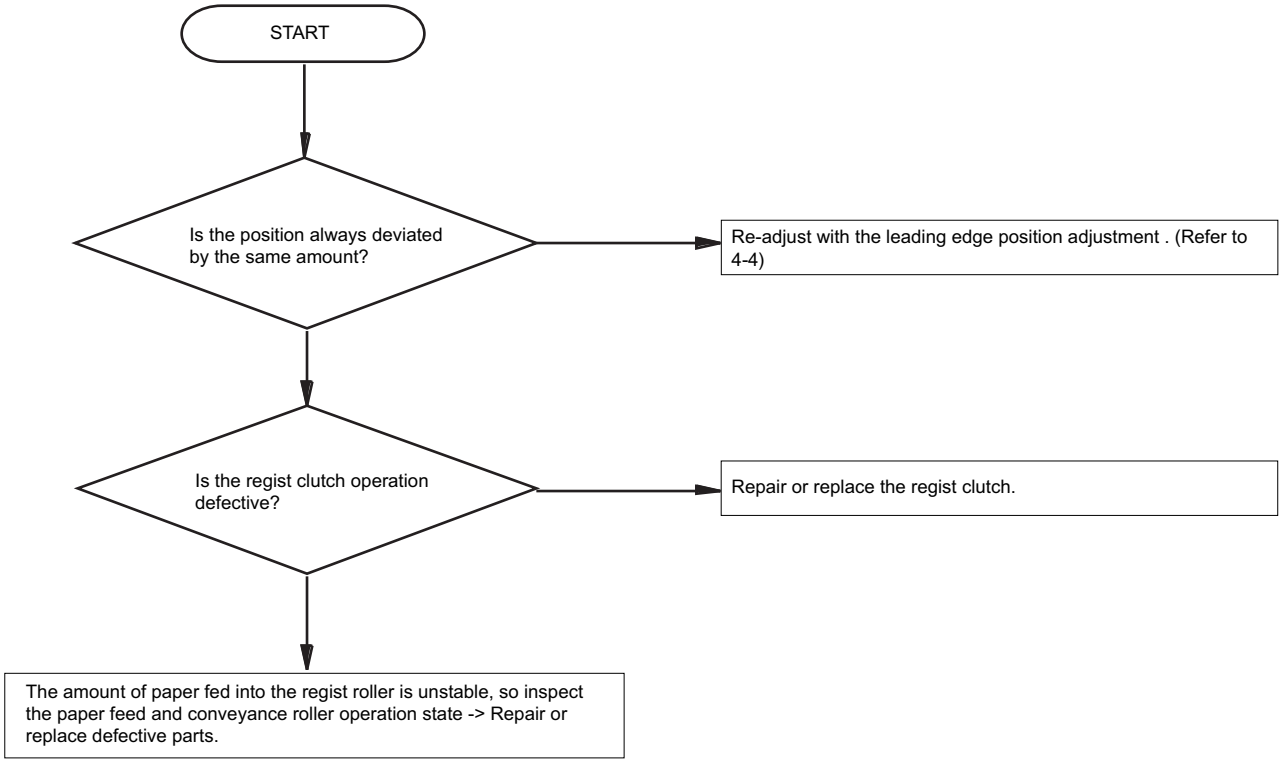
9-1-14. Density balance deviation



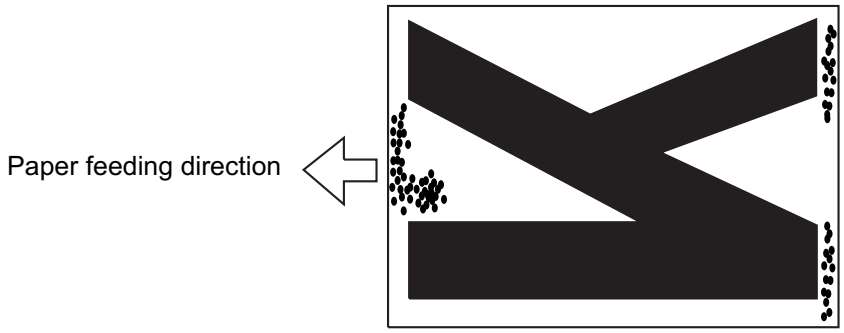


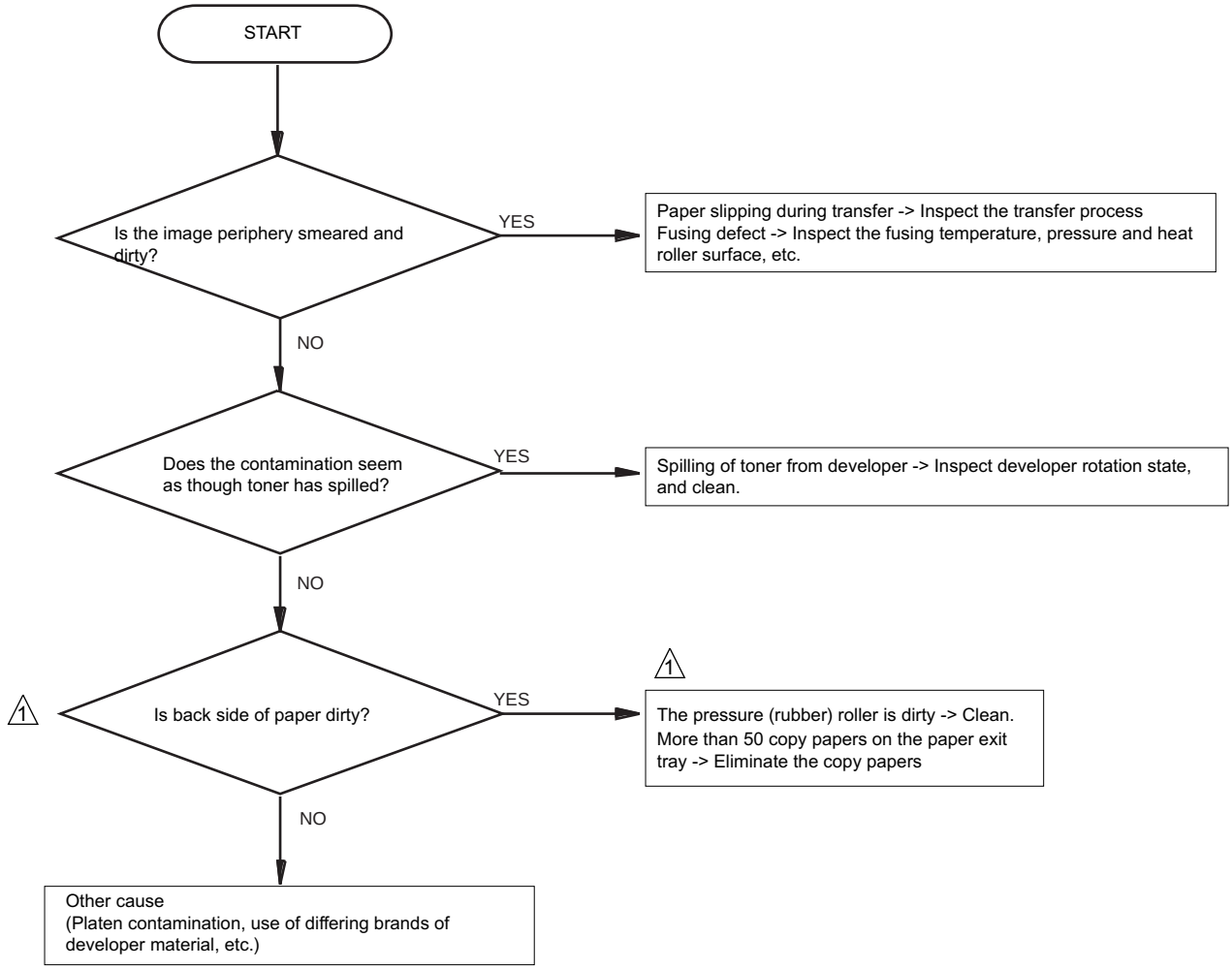
9-1-15. Leading position deviation



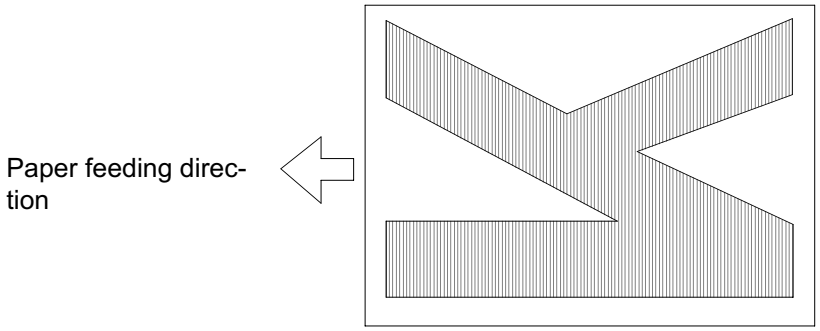


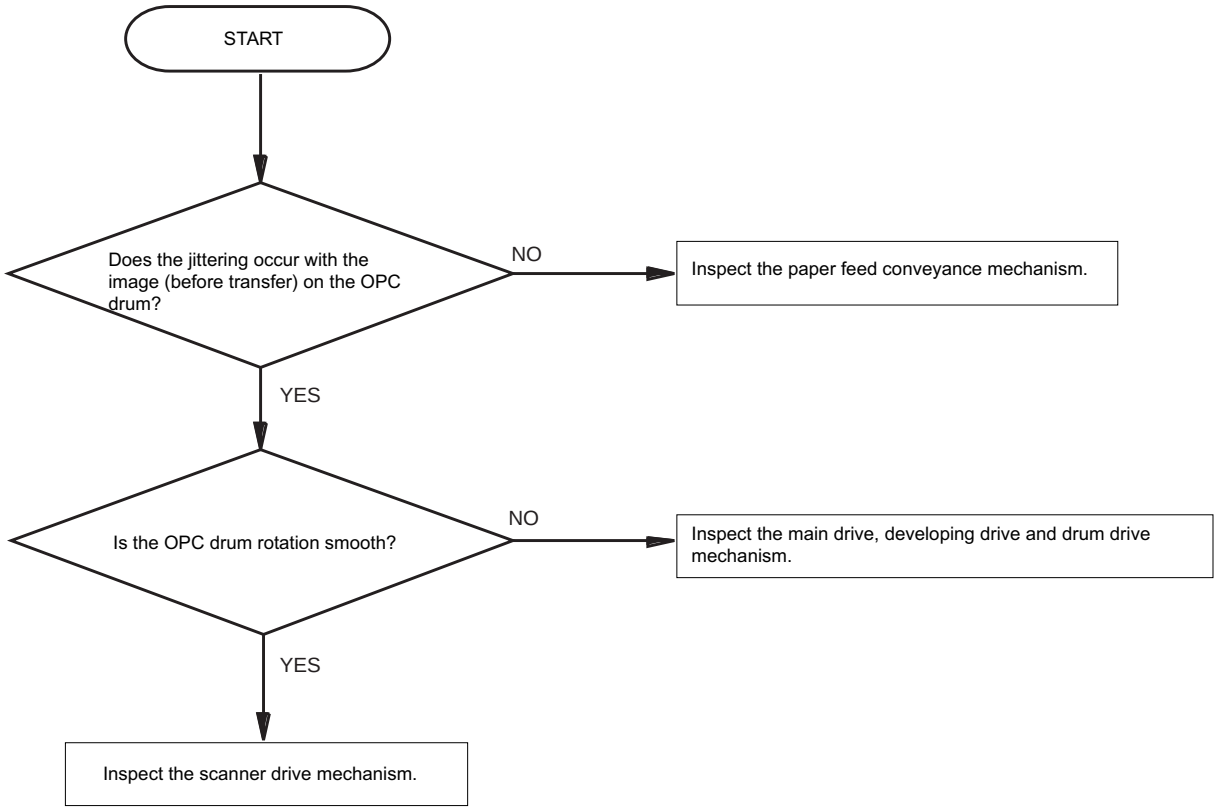
9-1-16. Contamination



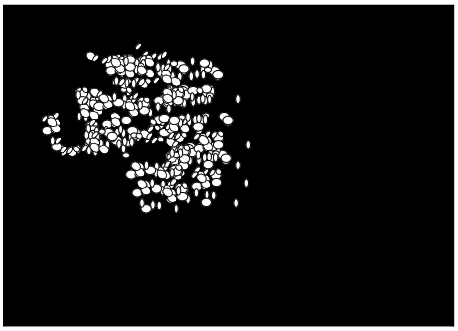


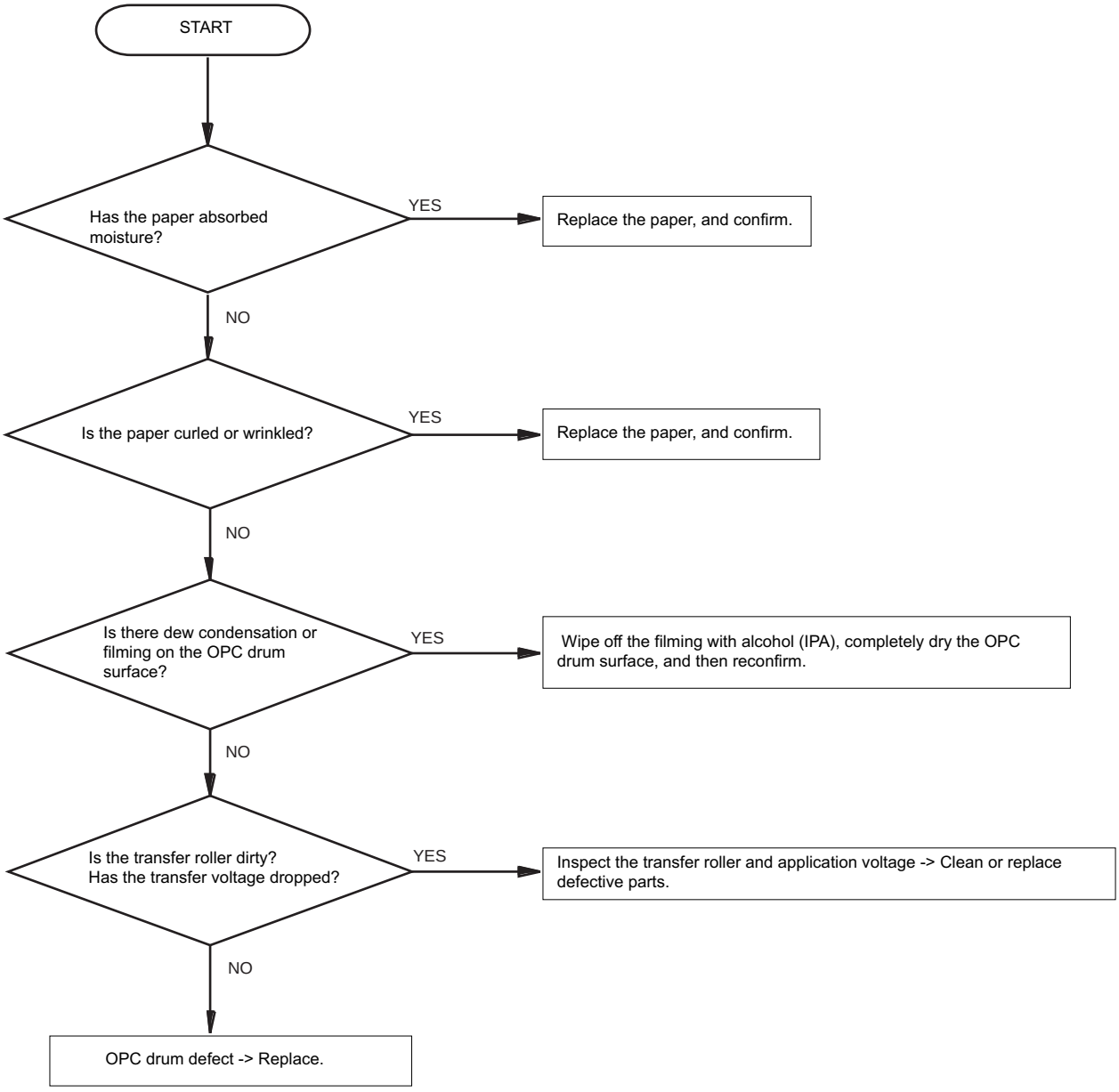
9-1-17. Jittering



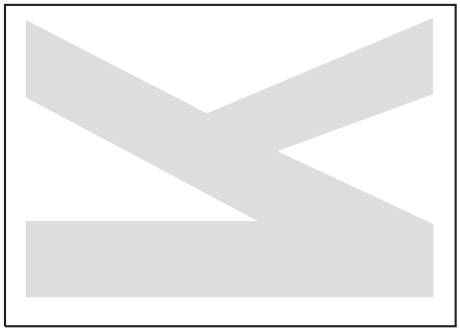


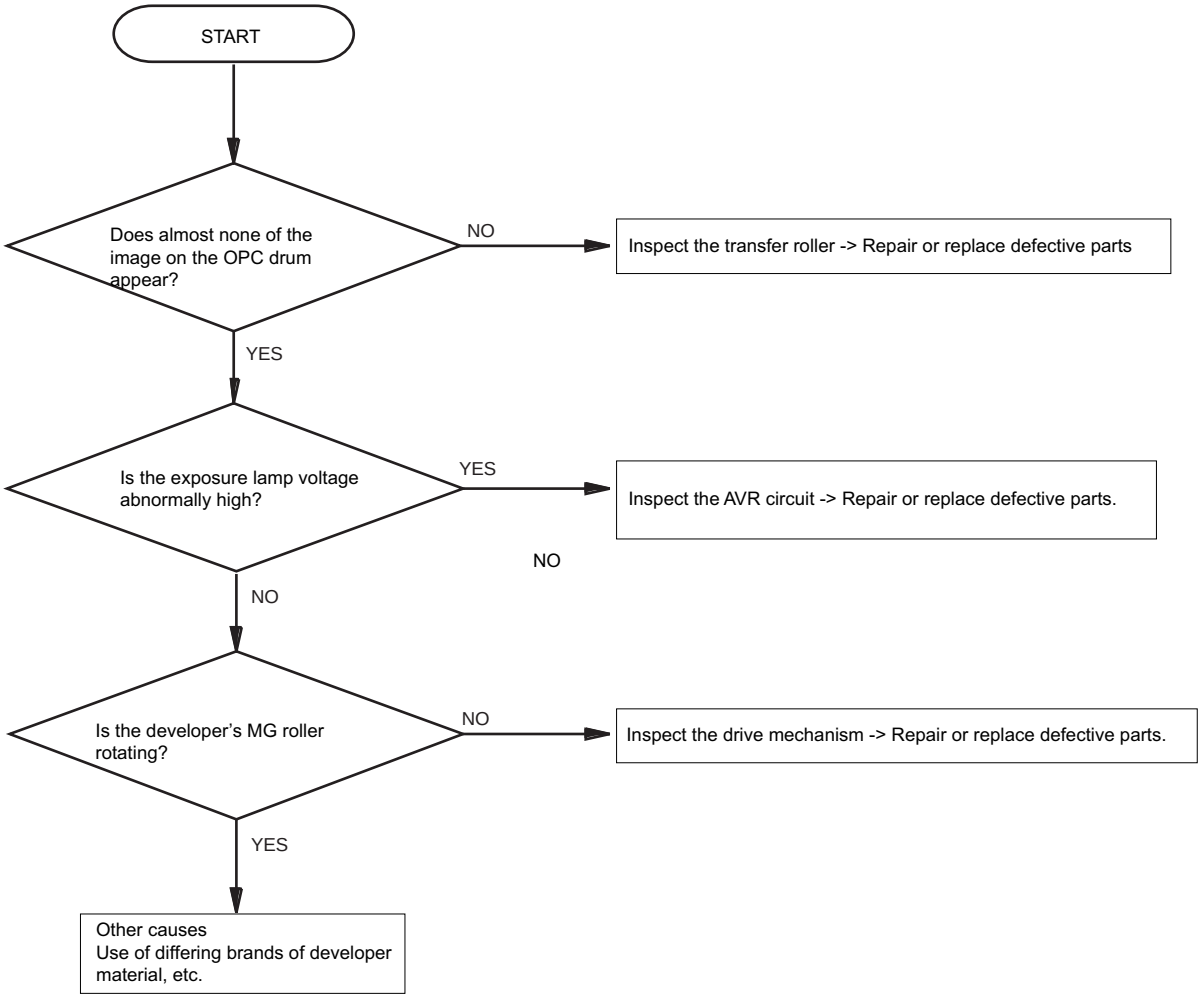
9-1-18. White dots on black matte section





9-1-19. Extremely light copy





9-2. Operation defects

9-2-1. Power does not turn ON

Symptom	Estimated cause	Remedy
* The power is not supplied to the power supply PCB.	* Power plug contact defect, or wire breakage * The main breaker of the power socket is shut off.	* Repair or replace * Turn the breaker ON.
The power is supplied to the power supply PCB.	* Fuse is blown * The power PCB is defective	* Replace * Replace
* Power (+5V) is supplied to the main PCB.	* Main PCB defect	* Replace
* The fusing heater is correct controlled, but nothing displays.	* Operation PCB connector contact defect, or operation PCB defect	* Repair the connector, or replace the defective parts

9-2-2. Copying operation is not possible

Symptom	Estimated cause	Remedy
* Key operations are not accepted	* The operation key is pressed down * The connector connection is incomplete * The operation PCB is defective	* Repair or replace the ornament * Securely connect * Replace
* P** error displays * F** error displays * J** error displays	* Consumable unit is not mounted or not set * Service call error Paper jam detection	* Refer to 8-1 * Refer to 8-1 * Refer to 8-1,8-3-4

9-2-3. Paper feed or conveyance defect

Symptom	Estimated cause	Remedy
* Paper is not fed (Incorrect feeding)	* Paper feed roller surface contamination * Use of non-designated paper * Use of curled paper * Use of paper that has absorbed moisture	* Clean or replace * Replace with designated paper * Replace * Replace
* Several sheets are feed at once (overlapping supply)	* The paper was replenished without separation * The cassette's spring pressure is too high	* Loosen the paper well * Inspect the spring -> Repair or replace
* The paper is fed at an inclination	* The cassette fixing position is deviated * The paper feed roller's conveyance force is unbalanced	* Adjust (Refer to 4-4) * Repair or replace defective parts
* Corners are folded after feda	* Corner claw catching force is high	* Repair or replace

Symptom	Estimated cause	Remedy
* The paper is fed, but it does not reach the resist roller	* The intermediate roller feed is defective	* Inspect the drive mechanism -> Repair or replace defective parts
* The paper reaches the resist roller, but jams	* JAM1 sensor detection defect * The paper feed or intermediate roller does not stop	* Inspect the sensor operation (Refer to 8-3-4) -> Repair or replace * Inspect the clutch operation -> Repair or replace defective parts
* The paper jams or is oblique up to the fusing process	*Use of curled paper * Catching on paper guide * Resist roller pressure unbalance (Spring dislocation, etc.)	* Replace * Inspect -> Repair or replace defective parts * Adjust, install spring again
* Paper jams at heat roller	* The separation claw does not contact the roller (Spring dislocation, etc.) * Roller surface contamination * The fuser roller is not rotating (metal burning, etc.)	* Inspect, install spring again * Clean or replace * Oil or replace defective parts
* The paper is fed slightly from the fusing roller, and jams on the tray side, or JAM is displayed when paper has been completely exited to the tray.	* JAM2 sensor detection defect	* Inspect sensor operation (Refer to 8-3-4) -> Repair or replace
* The paper exited to the tray is wrinkled or curled	* Mounting of very curled paper, moist paper, non-designated paper, etc., in cassette * Fusing pressure unbalance	* Replace paper * Inspect -> Repair or replace

9-2-4. Abnormal noise

Symptom	Estimated cause	Remedy
* A high pitch metallic noise is generated periodically	* Metal burning noise * OPC drum resonance * Recycle screw drive noise	* Inspect corresponding place -> Oil or replace defective part (Note: Do not apply oil on the photosensitive surface) * Clean or replace
* Abnormal noise generated in synchronization with main motor rotation	* Abnormal noise in OPC drum drive system	* Inspect corresponding place -> Repair (Note: Do not apply oil on the photosensitive surface)

Symptom	Estimated cause	Remedy
* Abnormal noise generated in synchronization with main motor rotation * Abnormal noise generated in synchronization with exposure process * Abnormal noise generated when magnification ratio is changed	* Abnormal noise in developing drive system * Abnormal noise in fusing drive system * Abnormal noise in scanner drive system * Abnormal noise in zoom lens drive system * Lens motor stepping-out noise	* Oil or replace defective part * Oil or replace defective part * Inspect corresponding place -> Repair, oil or replace defective part * Inspect corresponding place -> Repair, oil or replace defective part

* Lens motor stepping-out noise
Reference: The place where the abnormal noise is coming from can be pinpointed easily by separating the drive system into drive blocks and confirming the operation. Note that the symptom may not appear unless there is a normal load.

9-2-5. Special symptoms

Symptom	Estimated cause	Remedy
* Image is out of focus when the magnification ratio changed.	* Lens drive error * 4-5 mirror drive error	* Inspect drive mechanism -> Repair, oil or replace defective parts
* Paper size error is happen.	* JAM1 sensor operation defect	* Repair or replace (Refer to 8-3-4)
* Out of focus	* Mirror or lens positional deviation	* Inspect -> Repair or replace defective parts
* Out of focus partly	* OPC drum defect (dew condensation, filming)	* Inspect -> Clean with alcohol (IPA), or replace

9-2-6. Malfunction

Symptom	Estimated cause	Remedy
* Display LEDs flicker.	* High voltage leak * Power supply PCB defect (unstable voltage) * Obstructive noise	* Inspect -> Repair or replace defective parts * Inspect -> Replace * Inspect -> Remove cause
* Main motor starts moving suddenly	* Catching of JAM1 sensor actuator * Obstructive noise	* Repair * Inspect -> Remove cause
* Power turns OFF when Copy button is pressed	* Power voltage is too low. * 24V system electronic part or PCB is short circuited.	* Change supply power * Inspect -> Repair or replace defective part

Symptom	Estimated cause	Remedy
* Returns to default state during copying (Jams when there is still appear inside.)	* High voltage leak * Power voltage is too low * Obstructive noise	* Inspect -> Repair or replace defective part * Change supply power * Inspect -> Remove cause

Note: Obstructive noise includes internal noise and external noise. The internal noise includes noise from the high voltage circuit system, static electricity noise and power noise. Thus, confirm whether there are any leaks or grounding defects. The external noise includes nose that enters on the power supply line, and obstructive wave noise that enters through the air. If there are any devices that are noise sources near the unit, the unit could be affected.