PF-122

Service Manual

19971

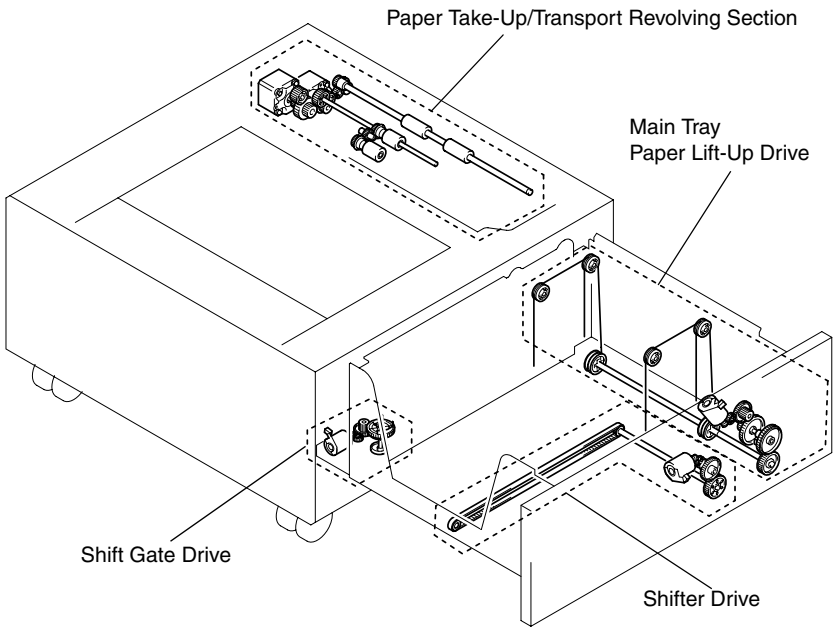
CONTENTS

GENERAL

1. Specifications

Name	:	Large Capacity Cabinet
Type	:	Front loading type LCC
Installation	:	Desk type
Paper Type	:	Plain paper 15lb. to 24lb. (56 g/m^2 to 90 g/m^2), recycled paper 16lb. to 24lb. (60 g/m^2 to 90 g/m^2)
Paper Size	:	A4C, Letter C
Capacity	:	2750 sheets 21.3lb. (80 g/m^2)
Document Alignment	:	Center baseline
Power Requirements	:	DC 24 V ± 10 % (supplied from the copier) DC 5 V ± 5 %
Max. Power Consumption	:	45 W or less
Dimensions	:	570(W) x 263(H) x 564(D) mm 22-1/2 x 10-1/4 x 22-1/4
Weight	:	Approx. 26 kg (53-1/4 lbs)
Operating Environment	:	Conforms to the operating environment of the copier.

2. Revolving Parts Layout Drawing



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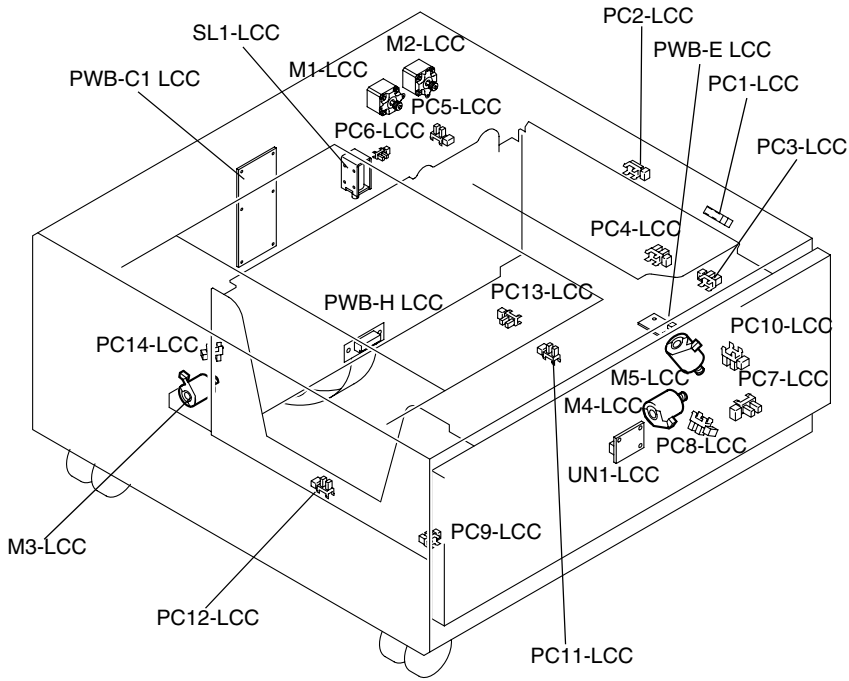
3. Electric Parts Layout Drawing



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Symbol	Name	Symbol	Name
PWB-C1	Control Board	PC4-LCC	Tray Upper Limit Sensor
LCC	Paper Empty Board	PC5-LCC	Right Lower Door Sensor
PWB-E LCC	Connector Interface Board	PC6-LCC	Tray Set Sensor
PWB-H LCC	Paper Descent Key	PC7-LCC	Lower Limit Sensor
UN1-LCC	LCC Take-Up Motor	PC8-LCC	Shift Motor Pulse Sensor
M1-LCC	Vertical Transport Drive Motor	PC9-LCC	Shift Tray Paper Empty Sensor
M2-LCC	Shift Gate Motor	PC10-LCC	Elevator Motor Pulse Sensor
M3-LCC	Shift Motor	PC11-LCC	Shifter Stop Position Sensor
M4-LCC	Elevator Motor	PC12-LCC	Shifter Home Position Sensor
M5-LCC	Tray Lock Solenoid	PC13-LCC	Elevator Lower Position Sensor
SL1-LCC	LCC Paper Take-Up Sensor	PC14-LCC	Shift Gate Home Position Sensor
PC1-LCC	LCC Vertical Transport Sensor		
PC2-LCC	Upper Paper		
PC3-LCC	Empty Sensor		

DIS/REASSEMBLY, ADJUSTMENT

1. Maintenance Schedule

- To ensure that the copier produces good copies and to extend its service life, it is recommended that the maintenance jobs described in this schedule be carried out as instructed.

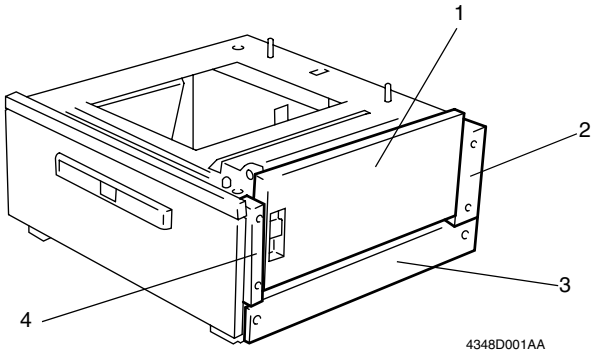
PM Parts	Job		Item Used for Cleaning	Qty	Ref. Page
	Clean	Replace			
Pickup Roller	❍	300K	Alcohol and soft cloth	1	☞ D-6,9
Paper Take-Up Roll	❍	300K		1	☞ D-6,9
Separator Roll Assy	❍	300K		1	☞ D-6,9
Vertical Transport Roller	❍	—		1	☞ D-9

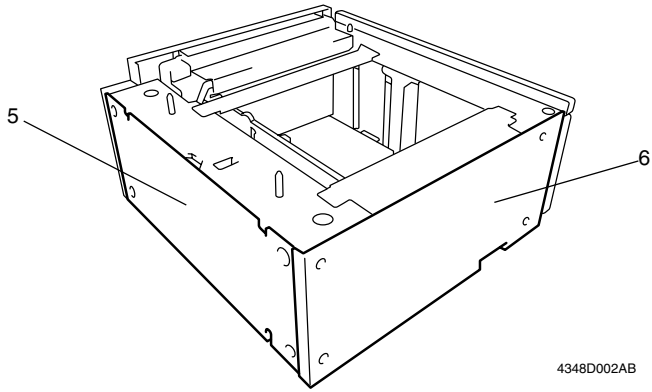
NOTES

- *K = 1,000 copies*
- *Replace the Paper Take-Up Roller and Separator Roll at the same time.*
- *❍ indicates cleaning when transport failure occurs.*
- *The contents of this maintenance schedule are subject to change without notice.*
- *For part numbers, see Parts Manual and Parts Modification Notice.*

2. Disassembly and Cleaning

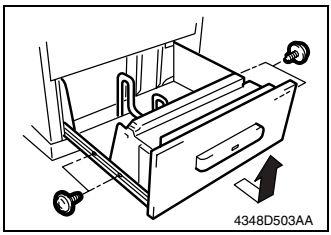
2-1. Removal of the Outer Cover



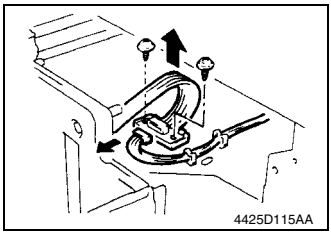


No.	Name	Removal Procedure
1	Front Right Cover	Remove two screws and the drawer.
2	Rear Right Cover	Remove two screws and the drawer.
3	Right Door	Open the Right Door. → Remove the Right Door.
4	Lower Right Cover	Remove two screws and the drawer.
5	Left Cover	Remove four screws and the cover.
6	Rear Cover	Remove four screws and the cover.

2-2. Removal of the Drawer

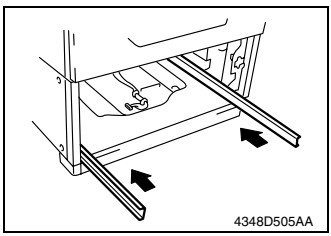


1. Press the Drawer Eject Button and slide out the drawer.
2. Remove the paper.
3. Remove four screws and slide out the drawer.



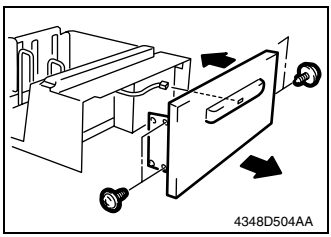
4. Remove the connector.
5. Remove two screws and the Connector Board.
6. Remove the Drawer.

NOTE
- *When removing the Connector Board, use care not to drop the drawer from the guide rail.*

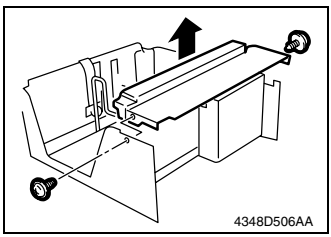


NOTE
- *To prevent injuries, press the guide rail inside the machine.*

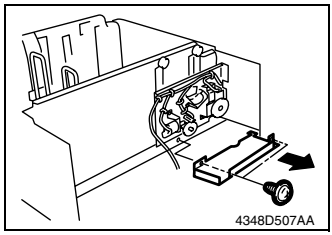
2-3. Removal of the Wire



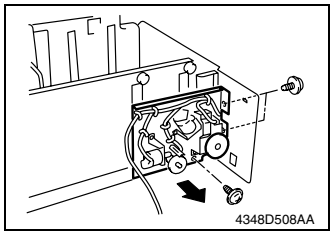
1. Remove the Drawer.
2. Remove four screws and the Front Cover Assy.
3. Unplug one connector.



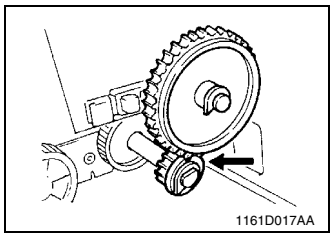
4. Remove two screws and the Inner Cover Assy.



5. Remove two screws and the Driver Cover.

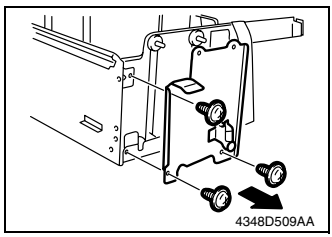


6. Remove three screws and the Driver Mounting Plate Assy.

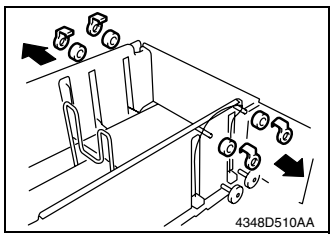


NOTE

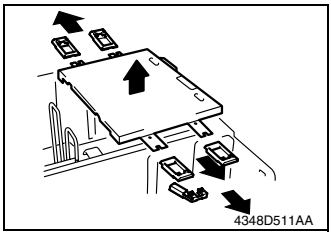
- *When reinstalling, use caution in the engagement of the gears.*



7. Remove three screws and the Reinforcement Bracket Assy.



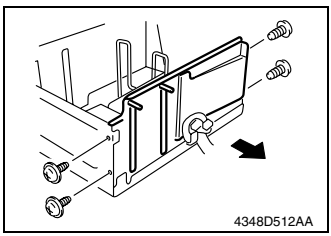
8. Remove four Pulley Covers.
9. Unhook four pulleys.



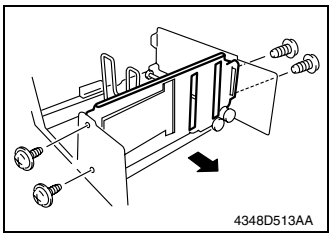
10. Remove one Ground Plate.
11. Remove four Cable Holding Jigs and the Main Drawer.

NOTE

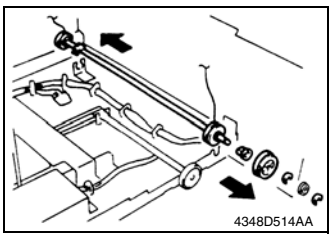
- *Use care not to bend the wires.*



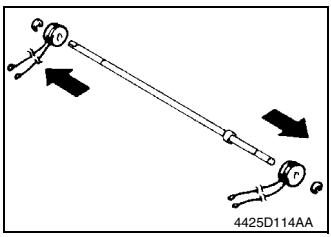
12. Remove four screws and the Rear Trailing Edge Assy.



13. Remove four screws and the Front Trailing Edge Assy.



14. Remove three C-rings, two bushings, and two gears.
15. Remove the Take-Up Drum Assy.



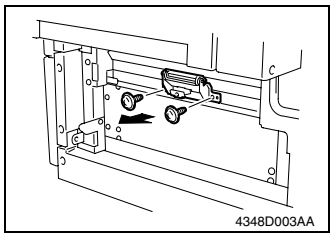
16. Remove two C-rings, two fixing pins, and the Take-Up Drum Assy.

NOTE

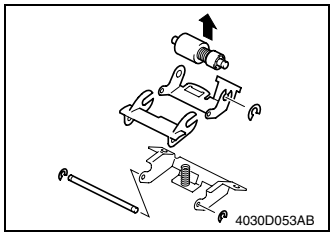
- *When reinstalling the Take-Up Drum, check that the direction of the wire coming from both Take-Up Drums are the same.*

2-4. Removal of the Pickup Roller/Take-Up Roller/Separator Roll Assy

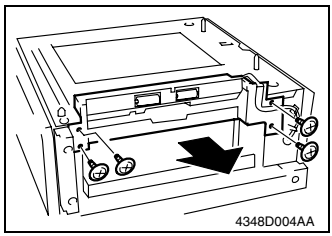
1. Remove the Rear Right Cover.
2. Remove the Right Door.



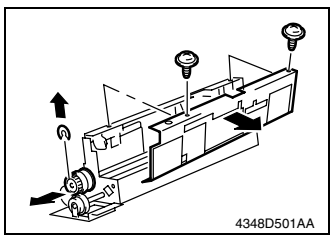
3. Remove two screws and the Paper Separator Roll Mounting Bracket Assy.



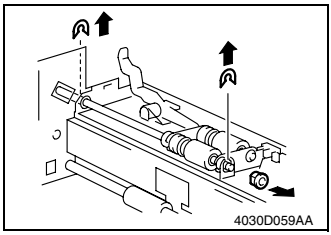
4. Remove three C rings and the Paper Separator Roll Assy.



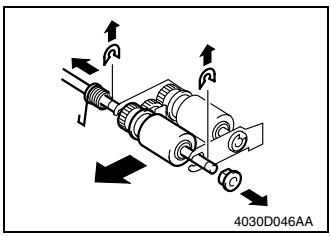
5. Remove four screws and the Paper Take-Up Unit.



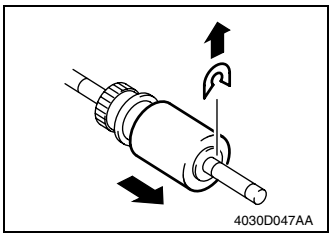
6. Remove two screws and the cover.
7. Remove one C-ring and remove the gear.



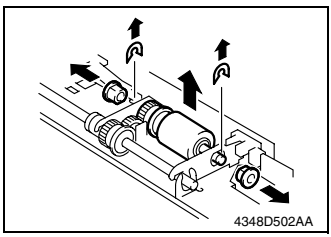
8. Remove two C-rings and remove the bushing.
9. Remove the Roll Assy.



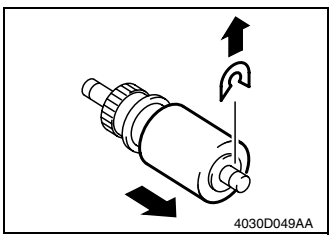
10. Remove two C-rings and remove the bushing.
11. Remove the Roll Assy.



12. Remove one C-clip and remove the Paper Take-Up Roll.



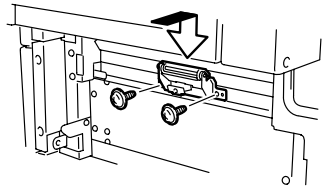
13. Remove two C-rings and remove the bushing.



14. Remove one C-clip and remove the Pickup Roller.

Precaution for Reinstallation of the Separator Roll Assy

- *Install the Separator Roll Assy while pressing the holder down so that it aligns to the metal bracket of the copier.*



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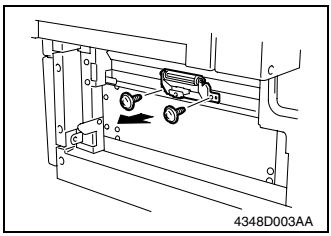
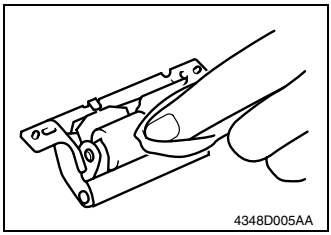
2-5. Cleaning of the Pickup Roller/Paper Take-Up Roller/Separator Roll

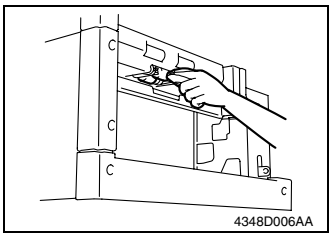
1. Remove the Rear Right Cover.
2. Remove the Right Door.



3. Remove two screws and the Paper Separator Roll Mounting Bracket Assy.

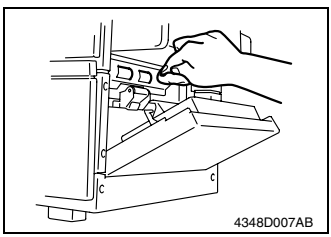


4. Using a soft cloth dampened with alcohol, wipe the Separator Roll clean of dirt.



5. Using a soft cloth dampened with alcohol, wipe the Pickup Roller and Paper Take-Up Roller clean of dirt.

2-6. Cleaning of the Vertical Transport Roller



1. Open the Right Door.
2. Using a soft cloth dampened with alcohol, wipe the Vertical Transport Roller clean of dirt.

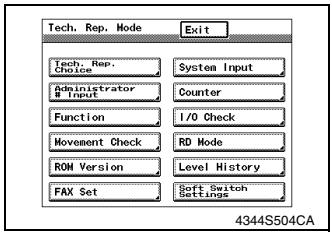
3. Adjustment

3-1. Registration CD

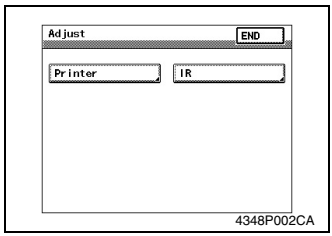
NOTE

Make this adjustment after any of the following procedures has been performed.

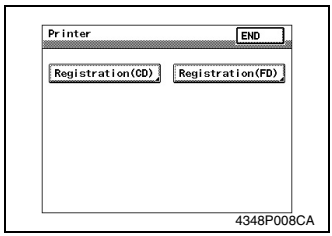
- *When the PH Unit has been replaced.*
- *When the image on the copy is offset in the FD direction.*
- *When a faint image occurs on the leading edge of the image.*



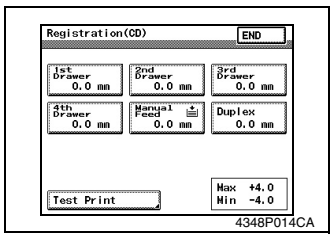
1. Display Tech. Rep. Mode.



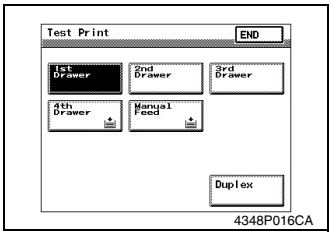
2. Press the Stop key followed by the Start key to display the Adjust Mode.
3. Touch the Printer key.



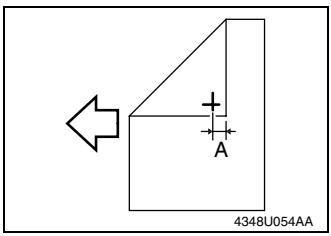
4. Touch the Registration (CD) key.



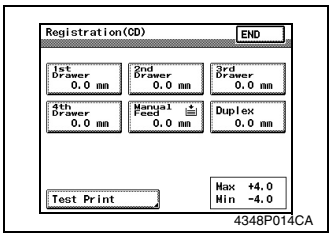
5. Touch the Test Print key.



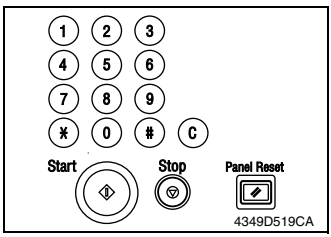
6. Touch the 3rd Drawer key.
7. Press the Start key.



8. Measure the width of printed reference line A.
   Specification: 10 mm ± 2.0 mm
9. If width A falls within the specified range, finish the adjustment procedure.
   If outside the specified range, perform the adjustment below.



10. Touch END to display the Registration (CD) screen.
11. Touch the 3rd Drawer key.



12. Press the Clear key and use the 10-Key Pad to set the value.

✻ If width A is wider than the specified range, enter a negative value.

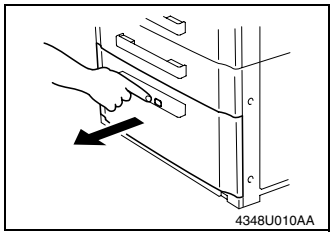
✻ If width A is narrower than the specified range, enter a positive value.

Adjustment range:+ 4.0 max. and -4.0 min.

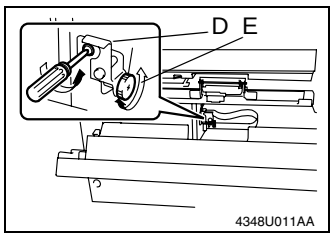
Use the ✻ key to switch between + and -.

NOTE

- *If width A falls outside the specified range, redo the adjustment from step 13.*



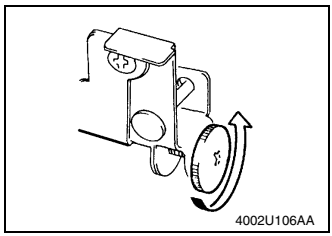
13. Press the Drawer Eject Button and slide out the drawer.



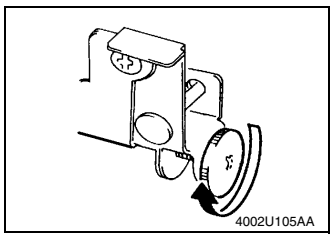
14. Open the Right Door.
15. Loosen the adjustment lock screw D and turn screw E to make the adjustment.

NOTE

- *Do not damage the passage surface of the Right Door.*



- If width A is wider than the specified range: Turn screw E counterclockwise.



- If width A is narrower than the specified range: Turn screw E clockwise.

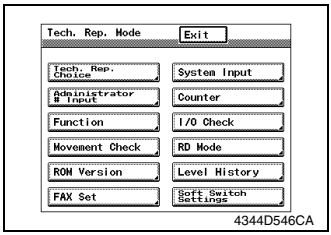
16. Perform another test print and check the reference deviation.
17. Repeat the adjustment until the reference line falls within the specified range.
18. Tighten the adjustment lock screw.

3-2. Registration FD

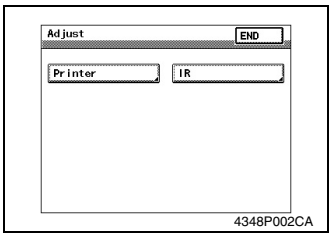
NOTE

Make this adjustment after any of the following procedures has been performed.

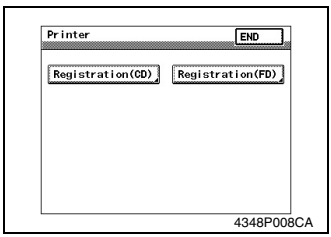
- *When the PH Unit has been replaced.*
- *When the image on the copy is offset in the FD direction.*



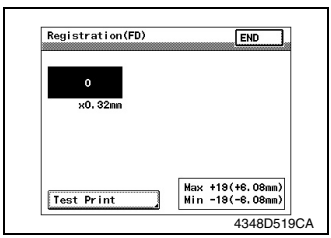
1. Display Tech. Rep. Mode.



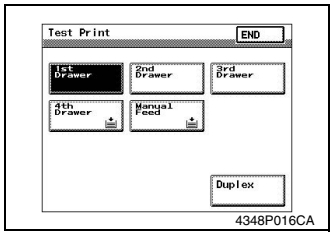
2. Press the Stop key followed by the Start key to display the Adjust Mode.
3. Touch the Printer key.



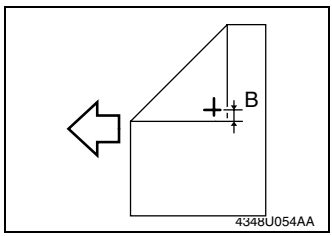
4. Touch the Registration (FD) key.



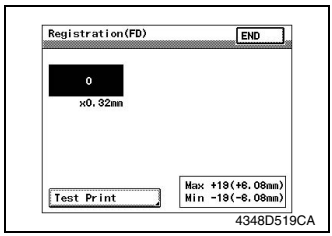
5. Touch the Test Print key.



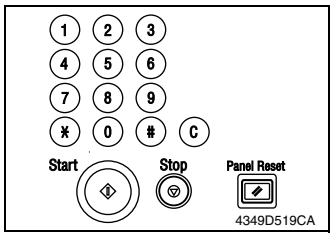
6. Touch the 3rd Drawer key.
7. Press the Start key.



8. Measure the width of printed reference line B.
   Specification: 11.3 mm±1.5 mm
9. If width B falls within the specified range, finish the adjustment procedure.
   If outside the specified range, perform the adjustment below.



10. Touch END to display the Registration (FD) screen.



11. Press the Clear key and use the 10-Key Pad to set the value.

✻ If width B is wider than the specified range, enter a negative value.

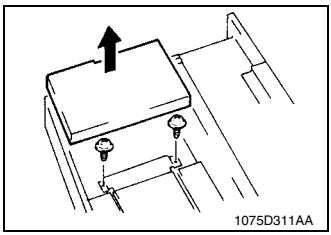
✻ If width B is narrower than the specified range, enter a positive value.

Adjustment range: + 4.0 max. and -4.0 min.

Use the ✻ key to switch between + and -.

12. Perform another test print and check the reference deviation.
13. Repeat the adjustment until the reference line falls within the specified range.

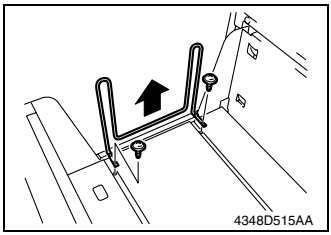
3-3. Shifter Movement Timing Belt Adjustment



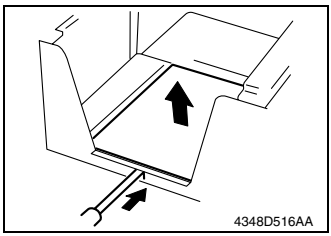
1. Slide out the Drawer and remove it.
2. Lift the Main Drawer, and remove two screws fixing the Shift Tray.

NOTE

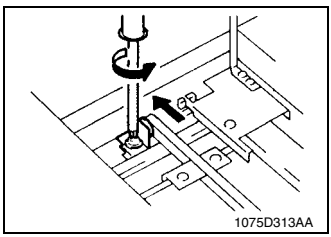
- *When reinstalling, use caution because the wire of the Main Drawer comes off easily.*



3. Remove two screws and the Shifter.



4. Push the tab of the Shift Tray as shown to the left and release the lock.
5. Remove the Shift Tray.



6. Loosen one screw fixing the Tension Pulley Assy as shown to the left and move it in the direction of the arrow.
7. After moving the Shifter, tighten one fixing screw.

TROUBLESHOOTING

1. Introduction

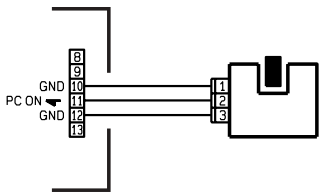
- Information required for troubleshooting and steps that must be performed are described in this chapter.

1-1. Electrical Components Check Procedure

- If a paper misfeed or malfunction occurs, perform the following operation to check the condition of the electrical components.

(1) Sensor

Step	Check	Result	Action
1	Does the input signal of the control board change when the sensor light is interrupted? (H → L, L → H)	NO	Replace the sensor.
		YES	Replace the control board.



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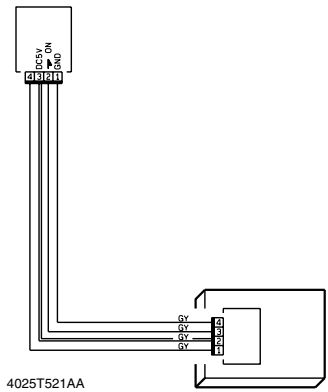
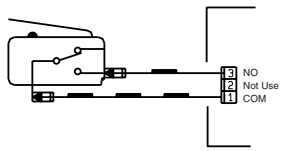


4025T521AA

(2) Switch

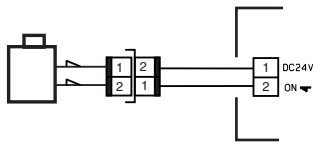
Step	Check	Result	Action
1	Does the input signal (NO) of the control board change from L to H when the switch is turned on?	NO	Replace the switch.
		YES	Replace the control board.



4025T523AB

(3) Solenoid

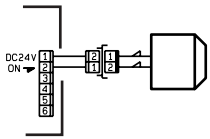
Step	Check	Result	Action
1	Does the output signal of the control board change from H to L when the solenoid is activated?	NO	Replace the control board.
		YES	Replace the solenoid.



25T522AA

(4) Clutch

Step	Check	Result	Action
1	Does the output signal of the control board change from H to L when the clutch is activated?	NO	Replace the control board.
		YES	Replace the clutch.



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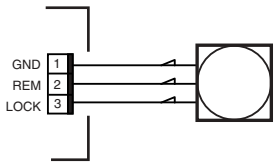
(5) Motor

Step	Check	Result	Action
1	Does the LOCK signal of the control board switch to H when the machine goes into standby?	NO	Replace the control board. Replace the motor.
2	Does the REM signal of the control board change from H to L when the motor is turned on?	YES	Replace the motor.
		NO	Replace the control board.



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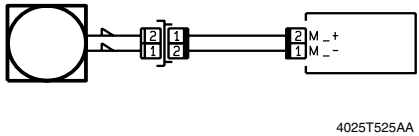
Step	Check	Result	Action
1	Does the input signal of the control board change from H to L when the motor is turned on? (Input signals differ according to the direction of rotation)	YES	Replace the motor.
		NO	Replace the control board.



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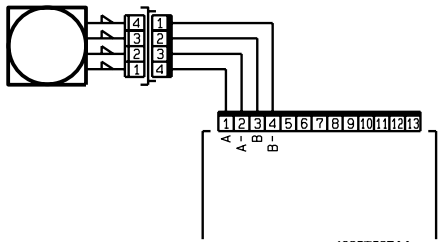
Step	Check	Result	Action
1	Are the relay connector of the motor and the print jack of the control board correctly connected?	YES	Replace the motor or the control board.
		NO	Connect the connector or the print jack.



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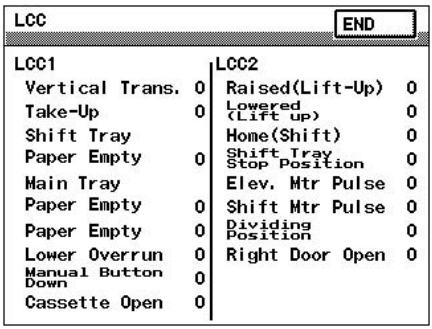
2. I/O CHECK

- For an easy and safe operation check of the sensors, the sensor input data is checked when the copier is in standby (including when a misfeed or a malfunction occurs or when a part is not correctly closed) to determine if signals are properly input.

1. Display the Tech. Rep. Mode screen.
2. Touch [I/O CHECK].
3. Touch [Printer].
4. Touch [LCC].
5. Using a sheet of paper, activate the sensor and check the display in the Touch Panel. (Paper present: 1; Paper not present: 0)



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2-1. I/O Check List

Symbol	Panel Display	Parts/Signal Name	Operation Characteristics/ Panel Display		Input Board	CN/PJ No.
			1	0		
PC2-LCC	Vertical Transport	LCC Vertical Transport Sensor	Paper present	Paper not present	Control Board (PWB-C1 LCC)	PJ5C1 LCC-5
PC1-LCC	Paper Take-Up	Paper Take-Up Sensor	Paper present	Paper not present		PJ5C1 LCC-2
PC9-LCC	Shift Tray Paper Empty	Shift Tray Paper Empty Sensor	Paper present	Paper not present		PJ3C1 LCC-4
PC3-LCC	Main Tray Paper Empty	Upper Paper Empty Sensor	Paper present	Paper not present		PJ5C1 LCC-9
PWB-E LCC	Paper Empty	Paper Empty Board	Paper present	Paper not present	Paper Empty Board (PWB-E LCC)	PJ3C1 LCC-6
PC7-LCC	Lower Limit Overrun	Lower Limit Sensor	Incorrect operation	Correct operation	Control Board (PWB-C1 LCC)	PJ3C1 LCC-2
PC4-LCC	Raised Upper Limit	Tray Upper Limit Sensor	Raised Position	Not raised		PJ5C1 LCC-12
PC13-LCC	Raised Lower Limit	Tray Lower Position Sensor	Lowered Position	Not lowered		PJ3C1 LCC-9
PC12-LCC	Shifter Home	Shifter Home Position Sensor	At home	Not at home		PJ3C1 LCC-8
PC11-LCC	Shift Tray Return Position	Shifter Return Position Sensor	Return position	Not at return position		PJ3C1 LCC-7
PC10-LCC	Elevator Motor Pulse	Elevator Motor Pulse Sensor	Blocked	Unblocked		PJ3C1 LCC-5
PC8-LCC	Shift Motor Pulse	Shift Motor Pulse Sensor	Blocked	Unblocked		PJ3C1 LCC-3
PC14-LCC	Shift Gate Home Position	Shift Gate Home Position Sensor	At home	Not at home		PJ4C1 LCC-1

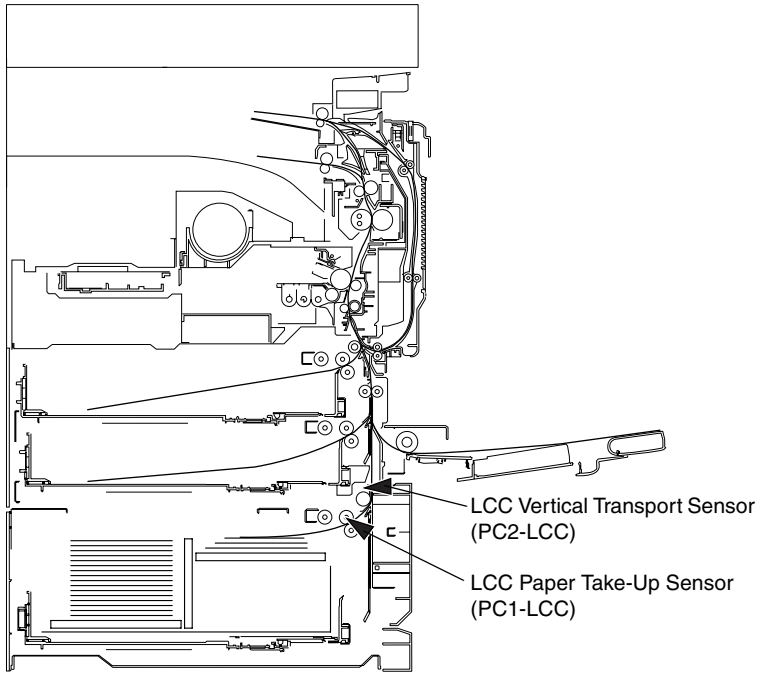
3. Misfeed Detection/Troubleshooting Procedures

3-1. Initial Checks

- When a paper misfeed occurs, first perform the following initial checks.

Check Item	Action
Does paper meet product specifications?	Replace paper.
Is the paper curled, wavy, or damp?	Replace paper. Instruct the user on the correct paper storage procedures.
Is a foreign object present along the paper path, or is the paper path deformed or worn?	Clean the paper path and replace if necessary.
Are the Paper Separator Fingers dirty, deformed, or worn?	Clean or replace the defective Paper Separator Finger.
Are rolls/rollers dirty, deformed, or worn?	Clean or replace the defective roll/roller.
Are the Edge Guide and Trailing Edge Stop at the correct position to accommodate the paper?	Set as necessary.
Are the actuators operating correctly?	Correct or replace the defective actuator.

3-2. Misfeed-Detecting Sensor Layout



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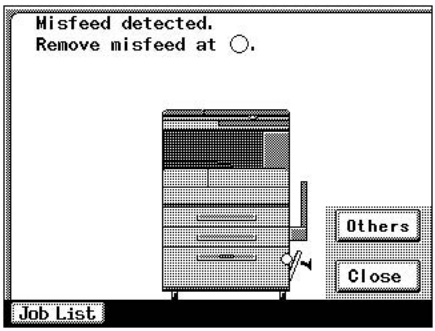
3-3. Misfeed Detected

When a paper misfeed occurs, the misfeed message, misfeed location (⊗), and paper location (❍) are displayed on the Touch Panel of the copier.



4348T503CA

3-4. Misfeed Detection Timing/Troubleshooting Procedures

(1) LCC Paper Take-Up Misfeed

<Detection Timing>

Type	Description
Paper Take-Up Section misfeed detection	The leading edge of the paper does not block the LCC Vertical Transport Sensor (PC2-LCC) even after the set period of time has elapsed after the LCC Paper Feed Motor is energized.
Detection of paper remaining in the Paper Take-Up section	The LCC Vertical Transport Sensor (PC2-LCC) is blocked when the Power Switch is set to ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.
	The LCC Paper Take-Up Sensor (PC1-LCC) is blocked when the Power Switch is set to ON, a door or cover is opened and closed, or a misfeed or malfunction is reset.

Action

Relevant Electrical Components	
LCC Vertical Transport Sensor (PC2-LCC) LCC Paper Take-Up Sensor (PC1-LCC) LCC Paper Feed Motor (M1-LCC)	Control Board (PWB-C1 LCC)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Initial checks	☞ T-7	—	—
2	PC2-LCC sensor check	☞ T-1	PWB-C1 LCC PJ5C1 LCC-5	C-6
3	PC1-LCC sensor check	☞ T-1	PWB-C1 LCC PJ5C1 LCC-2	C-6
4	M1-LCC operation check	☞ T-3	—	P-6
5	PWB-C1 LCC replacement	—	—	E-8

4. Malfunction Detection/Troubleshooting Procedure

4-1. Malfunction Detection

- If any of the following incorrect operations are detected, the corresponding malfunction code appears on the copier's Touch Panel.
- To cancel the malfunction, open, then close the copier's Front Door.

Code	Description	Detection Timing
C0990	LCC Elevator Motor Failure	The Elevator Motor Pulse Sensor (PC10-LCC) cannot detect both edges of H/L even after the set period of time has elapsed while the Elevator Motor (M5-LCC) is turning backward/forward (raise/lower).
C0991	LCC Lift Failure	• The Tray Upper Limit Sensor (PC4-LCC) is not unblocked even after the set period of time has elapsed after the paper lift-up operation began. • The Tray Upper Limit Sensor (PC4-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-up operation began. • The Tray Upper Limit Sensor (PC4-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-up operation began. • The Tray Lower Position Sensor (PC13-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-up operation began. • The Tray Upper Limit Sensor (PC4-LCC) is not unblocked even after the set period of time has elapsed after the paper lift-up operation began. • The Tray Lower Position Sensor (PC13-LCC) is not blocked even after the set period of time has elapsed after the paper lift-down operation began. • The Tray Lower Position Sensor (PC13-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-down operation began. • The Lower Limit Sensor (PC7-LCC) is not unblocked even after the set period of time has elapsed after the paper lift-down operation began.

Code	Description	Detection Timing
C0996	LCC Lock Release Failure	The drawer cannot be determined to be out of position even after the set period of time has elapsed after the Tray Lock Solenoid (SL1-LCC) is energized after the lowering operation is finished.
C0997	LCC Shift Gate Operation Failure	The Shift Gate Home Position Sensor (PC14-LCC) cannot be set to L even after the set period of time has elapsed after the operation of the Shift Gate Motor (M3-LCC) began with the Shift Gate Home Position Sensor (PC14-LCC) set to L.
C0998	LCC Shift Failure	• The Shifter Return Position Sensor (PC11-LCC) is not unblocked even after the set period of time has elapsed after the shift operation began (shift to the right). • The Shifter Return Position Sensor (PC11-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the shift operation began (shift to the right). • The Shifter Home Position Sensor (PC12-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the shift operation began (shift to the right). • The Shifter Home Position Sensor (PC12-LCC) is not unblocked even after the set period of time has elapsed after the return operation began (shift to the left). • The Shifter Home Position Sensor (PC12-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the return operation began (shift to the left). • The Shifter Return Position Sensor (PC11-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the return operation began (shift to the left).
C099C	LCC Shift Motor Failure	The Shift Motor Pulse Sensor (PC8-LCC) cannot detect both edges of H/L even after the set period of time has elapsed while the Shift Motor (M4-LCC) is turning backward/forward (raise/lower).
C099D	LCC Communication Error	Due to a software malfunction, etc., the time on the watchdog timer has run out and a reset is performed.

5. Malfunction Detection Timing and Troubleshooting Procedure

(1) C0B56: LCC Elevator Motor Failure

<Detection Timing>

Malfunction Code	Description
C0990	The Elevator Motor Pulse Sensor (PC10-LCC) cannot detect both edges of H/L even after the set period of time has elapsed while the Elevator Motor (M5-LCC) is turning backward/forward (raise/lower).

Action

Relevant Electrical Components	
Elevator Motor (M5-LCC) Elevator Motor Pulse Sensor (PC10-LCC)	Interface Board (PWB-H LCC) Control Board (PWB-C1 LCC)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Check the motor connectors for proper connection, and correct as necessary.	—	—	—
2	PC10-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-5	F-2
3	M5-LCC operation check	☞ T-3	PWB-C1 LCC PJ4C1 LCC-7,6	H-2
4	PWB-H LCC replacement	—	—	F-6
5	PWB-C1 LCC replacement	—	—	E-8

(2) C0991: LCC Lift Failure

<Detection Timing>

Malfunction Code	Description
C0991	• The Tray Upper Limit Sensor (PC4-LCC) is not unblocked even after the set period of time has elapsed after the paper lift-up operation began. • The Tray Upper Limit Sensor (PC4-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-up operation began. • The Tray Upper Limit Sensor (PC4-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-up operation began. • The Tray Lower Position Sensor (PC13-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-up operation began. • The Tray Upper Limit Sensor (PC4-LCC) is not unblocked even after the set period of time has elapsed after the paper lift-up operation began. • The Tray Lower Position Sensor (PC13-LCC) is not blocked even after the set period of time has elapsed after the paper lift-down operation began. • The Tray Lower Position Sensor (PC13-LCC) is not blocked even after the set pulse is detected by the Elevator Motor Pulse Sensor (PC10-LCC) after the paper lift-down operation began. • The Lower Limit Sensor (PC7-LCC) is not unblocked even after the set period of time has elapsed after the paper lift-down operation began.

Action

Relevant Electrical Components	
Tray Upper Limit Sensor (PC4-LCC) Tray Lower Position Sensor (PC13-LCC) Elevator Motor Pulse Sensor (PC10-LCC) Lower Limit Sensor (PC7-LCC)	Control Board (PWB-C1 LCC)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Check the sensor connector for proper connection, and correct as necessary.	—	—	—
2	PC4-LCC sensor check	☞ T-1	PWB-C1 LCC PJ5C1 LCC-12	B-6
3	PC13-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-9	D-2
4	PC10-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-5	F-2
5	PC7-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-2	H-2
6	PWB-C1 LCC replacement	—	—	E-8

(3) C0996: LCC Lock Release Failure

<Detection Timing>

Malfunction Code	Description
C0996	The drawer cannot be determined to be out of position even after the set period of time has elapsed after the Tray Lock Solenoid (SL1-LCC) is energized after the lowering operation is finished.

Action

Relevant Electrical Components	
Tray Lock Solenoid (SL1-LCC)	Control Board (PWB-C1 LCC)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Check the SL1-LCC connector for proper connection, and correct as necessary.	—	—	—
2	SL1-LCC operation check	☞ T-2	PWB-C1 LCC PJ7C1 LCC-4	E-6
3	PWB-C1 LCC replacement	—	—	E-8

(4) C0997: LCC Shift Gate Operation Failure

<Detection Timing>

Malfunction Code	Description
C0997	The Shift Gate Home Position Sensor (PC14-LCC) cannot be set to L even after the set period of time has elapsed after the operation of the Shift Gate Motor (M3-LCC) began with the Shift Gate Home Position Sensor (PC14-LCC) set to L.

Action

Relevant Electrical Components	
Shift Gate Home Position Sensor (PC14-LCC) Shift Gate Motor (M3-LCC)	Control Board (PWB-C1 LCC)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Check the motor and sensor connectors for proper connection, and correct as necessary.	—	—	—
2	PC14-LCC sensor check	☞ T-1	PWB-C1 LCC PJ4C1 LCC-1	I-2
3	M3-LCC operation check	☞ T-3	PWB-C1 LCC PJ4C1 LCC-3,4	I-2
4	PWB-C1 LCC replacement	—	—	E-8

(5) C0998: LCC Shift Failure

<Detection Timing>

Malfunction Code	Description
C0998	• The Shifter Return Position Sensor (PC11-LCC) is not unblocked even after the set period of time has elapsed after the shift operation began (shift to the right). • The Shifter Return Position Sensor (PC11-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the shift operation began (shift to the right). • The Shifter Home Position Sensor (PC12-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the shift operation began (shift to the right). • The Shifter Home Position Sensor (PC12-LCC) is not unblocked even after the set period of time has elapsed after the return operation began (shift to the left). • The Shifter Home Position Sensor (PC12-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the return operation began (shift to the left). • The Shifter Return Position Sensor (PC11-LCC) is not unblocked even after the set pulse is detected by the Shift Motor Pulse Sensor (PC8-LCC) after the return operation began (shift to the left).

Action

Relevant Electrical Components	
Shift Motor Pulse Sensor (PC8-LCC) Shifter Return Position Sensor (PC11-LCC) Shifter Home Position Sensor (PC12-LCC)	Control Board (PWB-C1 LCC)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Check each sensor connector for proper connection, and correct as necessary.	—	—	—
2	PC8-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-3	G-2
3	PC11-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-7	E-2
4	PC12-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-8	D-2
5	PWB-C1 LCC replacement	—	—	E-8

(6) C0998: LCC Shift Motor Failure

<Detection Timing>

Malfunction Code	Description
C099C	The Shift Motor Pulse Sensor (PC8-LCC) cannot detect both edges of H/L even after the set period of time has elapsed while the Shift Motor (M4-LCC) is turning backward/forward (raise/lower).

Action

Relevant Electrical Components	
Shift Motor (M4-LCC) Shift Motor Pulse Sensor (PC8-LCC)	Control Board (PWB-C1 LCC)

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Check the motor connectors for proper connection, and correct as necessary.	—	—	—
2	PC8-LCC sensor check	☞ T-1	PWB-C1 LCC PJ3C1 LCC-3	G-2
3	M4-LCC operation check	☞ T-3	PWB-C1 LCC PJ4C1 LCC-5,4	H-2
4	PWB-C1 LCC replacement	—	—	E-8

(7) C099D: LCC Communication Failure

<Detection Timing>

Malfunction Code	Description
C099D	Due to a software malfunction, etc., the time on the watchdog timer has run out and a reset is performed.

Action

Relevant Electrical Components	
Control Board (PWB-C1 LCC)	

Step	Operations	Ref. Page	WIRING DIAGRAM	
			Control signal	Location (Electrical Components)
1	Turn the copier off, then on again.	—	—	—
2	PWB-C1 LCC replacement	—	—	E-8