## 1. SPECIFICATIONS

Copy Paper Size: B4 (lengthwise)

A4 (lengthwise or sideways) B5 (lengthwise or sideways)

8½" x 14" (lengthwise)

8½" x 11" (lengthwise or sideways)

Copy Paper Weight: 52 g to 93 g (14 lb to 24 lb)

Tray Capacity: 1,000 sheets (may vary slightly depending

on paper weight)

Lift Time: Maximum: 12 seconds (50 Hz)

10 seconds (60 Hz)

Power Source: 220 V/60 Hz 0.15 A 220 V/50 Hz 0.15 A

240 V/50 Hz 0.15 A 115 V/60 Hz 0.3 A 110 V/60 Hz 0.3 A

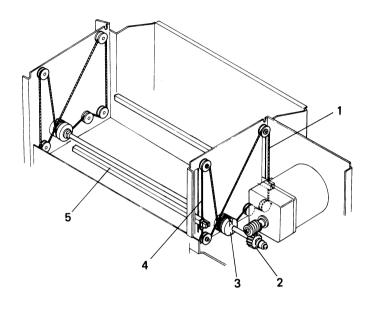
Power Consumption: Maximum 30 W

Dimensions: 410 mm x 545 mm x 220 mm

(W x D x H) 16.2" x 21.5" x 8.7"

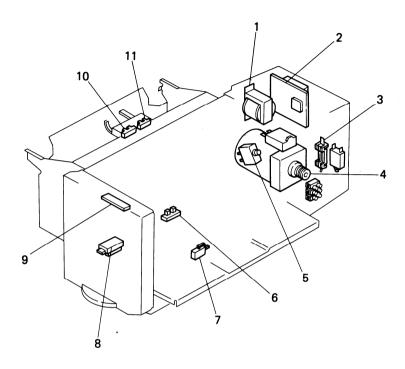
Weight: 12 kg (26.4 lb)

# 2. MECHANICAL COMPONENT LAYOUT



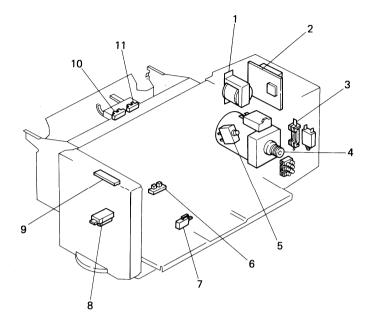
- 1. Drive Wire
- 2. Drive Gears
- 3. Drive Pulley
- 4. Tray Wire 5. Lift Rods

# 3. ELECTRICAL COMPONENT LAYOUT (FT4460)



- 1. LCT transformer (TR2)
- 2. LCT PCB (PCB7)
- 3. Ac fuse (220 V) 3. Circuit breaker (115V) (NF2)
- 4. LCT motor (M15)
- 5. LCT safety switch (SW11)
- 6. Tray down sensor (S34)
- 7. Positioning switch (SW12)
- 8. Paper size sensor (S35)
- 9. LCT operation panel (PCB12)
- 10. Paper end sensor (S36)
- 11. Upper limit sensor (S37)

### **ELECTRICAL COMPONENT LAYOUT**



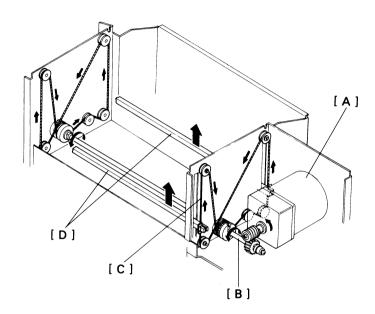


- 1. LCT transformer (T-2)
- 2. LCT PCB (PCB-12)
- 3. Ac fuse (F-2) (220 V)
- 3. Circuit breaker (CB-2) (115 V)
- 4. LCT motor (M-17)
- 5. LCT safety switch (SW-11)
- 6. Tray down sensor (S-39)
- 7. Positioning switch (SW-1 2)
- 8. Paper size sensor (S-40)
- 9. LCT operation panel (PCB-13)
- 10. Paper end sensor (S-41)
- 11. Upper limit sensor (S-42)

# 4. ELECTRICAL COMPONENT DESCRIPTIONS

Index No.	Name	Function	Symbol	P to P Location			
Motor							
4	LCT Motor	Lifts and lowers the LCT bottom plate to bring paper to feed position and allow loading of paper.	M15	A-10			
Switches							
5	LCT Safety Switch	Disables LCT motor when covers are open. Detects when covers are opened.	SW11	A-10			
7	Positioning Switch	Detects when paper size dial is in a standard paper size position.	SW12 B-7				
Senso	ors						
6	Tray Down Sensor	Detects when tray is completely down to stop tray motor.	S34	B-10			
8	Paper Size Sensor	Determines what size paper is loaded into the LCT.	S35	B-7			
10	Paper End Sensor	Detects paper end condition for LCT.	S36	B-9			
11	Upper Limit Sensor	Detects the correct feed height of the stack of paper in the LCT.	S37	B-9			
Printed Circuit Boards							
2	LCT PCB	Controls LCT tray lift interfaces LCT with copier.	PCB7	A-7 to 10			
9	LCT Operation Panel	Contains the Down SW, Down indicator, and Open Cover indicator for the LCT.	PCB1	2 B-9			
Transformer							
1	LCT Transformer	Steps down wall voltage to 100 Vac for LCT.	TR2	A-11			
Circu	it Breaker						
3	LCT Circuit Breaker	Overload protection for LCT.	NF2	A-11			

## 5. MECHANICAL OPERATION

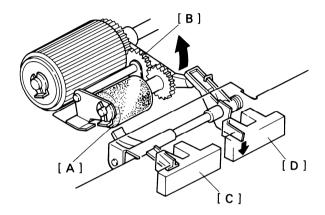


### 5.1 DRIVE MECHANISM

A reversible ac motor [A] drives the LCT's bottom plate up and down.

The motor's drive is transmitted directly to the tray drive shaft [B] via a worm gear and worm wheel. The tray wires [C] have braces on them; these braces hold the ends of the two lift rods which support the tray bottom plate. The braces on the wires raise the lift rods [D] and the tray bottom plate when the pulley turns counterclockwise, and they lower them when the pulley turns clockwise.

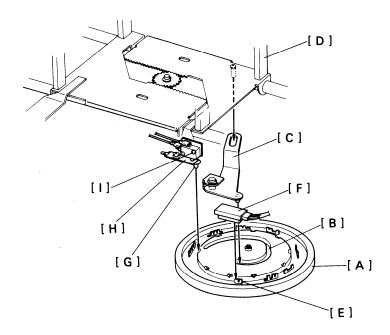
### 5.2 PICK-UP ROLLER MECHANISM



The pick-up roller [A] is driven by a drive gear [B] to initialize paper feed from the LCT.

The paper end sensor [C] and the upper limit sensor [D] are incorporated in the LCT not the copier. The paper end sensor is used to detect paper end and the upper limit sensor detects when the tray has reached its upper limit when the tray is being raised.

### 5.3 PAPER SIZE DETECTION



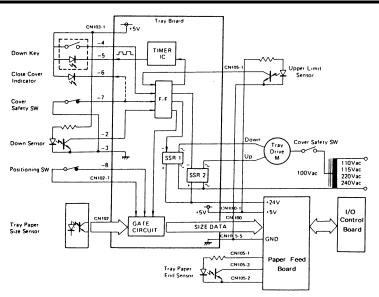
The paper size dial controls side post positioning and paper size detection.

When the paper size dial [A] is rotated, the cam groove [B] moves the size lever [C], which repositions the guide posts [D]. When the dial reaches a standard paper size, one of the actuator plates [E] enters the paper size sensor [F]. At the same time, the pin [G] on the leaf spring [H] drops into a notch on the inside rim of the dial and the positioning switch [I] deactuates.

When the positioning switch opens, the scan signal is applied to the LCT paper size sensor. The paper size sensor then reads the pattern of the actuator plate and sends paper size data to the copier's CPU.

When the paper size dial is positioned at a non-standard paper size, the positioning switch is actuated (closed). In this case, the LCT cannot be used; the Load Paper indicator lights and no paper size is displayed on the operation panel. This prevents the skewing that would occur if the guide posts were not at the correct position.

## 6. ELECTRICAL OPERATION



#### 6.1 DOWN OPERATION

The bottom plate moves down only when the Down key is pressed or paper end occurs. When the Down key is pressed, the flip-flop changes state (all outputs change from LOW to HIGH or vice versa). Then, three things happen simultaneously: (1) The gate circuit turns off, preventing size data from being sent to the copier; (2) The timer circuit turns on, causing the LED in the down key to blink; and (3) SSR1 turns on, energizing the drive motor to move the tray down.

The down sensor is actuated when the bottom plate is fully lowered. This causes the flip-flop to change back to its original state, which turns off SSR1 and resets the timer circuit. The LED in the Down key stays continuously on.

### 6.2 UP OPERATION

Opening and closing the upper or side LCT cover while the bottom plate is in the down position starts the up operation. This causes the gate circuit to send paper size data to the copier. At the same time the cover safety switch changes the state of the flip-flop and the flip-flop energizes SSR2, which turns on the drive motor to move the tray up. The drive motor stays on until the paper pushes up the pick-up roller. The actuator on the pick-up roller bracket then moves out of the upper limit sensor; this again changes the flip-flop's state and the motor stops.

The cover safety switch prevents operation if the cover is open by cutting off the ac 100 volt line.

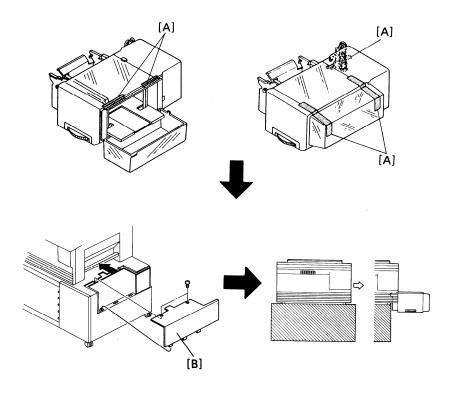
## 7. ACCESSORY CHECK

Check the quantity and condition of the accessories in the box according to the following list:

1. Installation Procedure
2. New Equipment Condition Report
3. Envelope for NECR (115V only)1
4. Pick-up Roller Assembly1
5. Gear1
6. Screw (M4 x 6)4
7. Screw (M4 x 8)
8. Grounding screw (M4 x 10)2
9. LCT Mounting Bracket6
"A" type bracket: For 3rd paper feed station (2) of FT4460
"B" type bracket: (For other model)
"C" type bracket: (For other model)
0. Harness Clamp
1. Caution Decal
2. Multilingual Decals (220V/240V only)

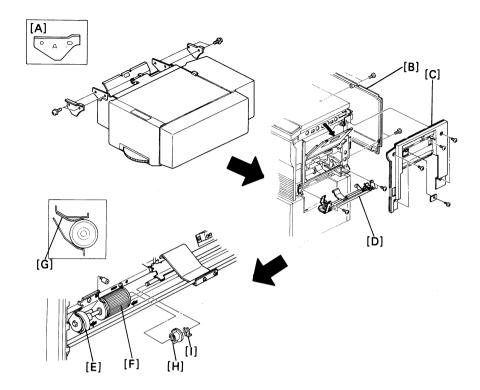
# 8. INSTALLATION PROCEDURE (FT4460)

### 8.1 LCT INSTALLATION



- 1. Turn off the copier main switch and unplug the copier power cord.
- 2. Remove the strips of shipping tape [A].
- 3. Lift the copier and remove the cover plate [B] on the right side of the system table (2 screws), and then reposition the copier on the table.

**NOTE:** If the system does not contain the special system table, move the copier to the right so that the Large Capacity Tray can overhang the end of the table as shown.



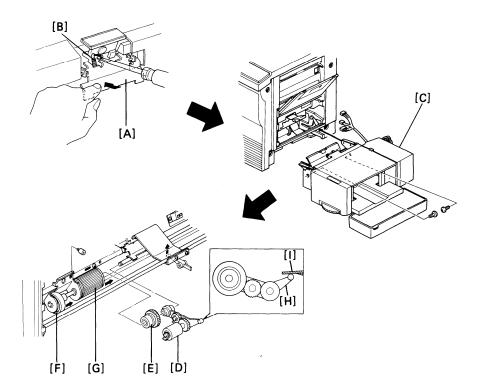
4. Mount "A" type brackets [A] (2 screws each).

**NOTE:** Use "A" type brackets when installing the LCT to the third paper feed station.

- 5. Remove the copier rear cover [B] (4 screws).
- 6. Open the manual feed table and the front cover, and remove the right cover [C] (6 screws).
- 7. Remove the 3rd cassette arm assembly [D] (4 screws).
- 8. Move the sub roller unit [E] and the third feed roller [F] to the left (1 stud screw) as shown.

CAUTION: Be careful not to peel off the mylar [G].

- 9. Remove the nylon hub [H] and the snap ring [I].
- 10. Reinstall the right cover.

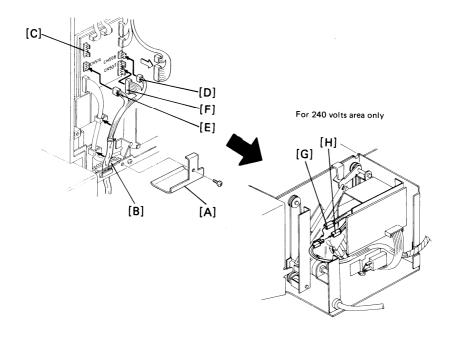


- 11. Press the pad positioning plate [A] down and unhook the spring [B] using a small screwdriver.
- 12. Place the large capacity tray [C] in the cassette holder on the third paper feed station.

**NOTE:** Make sure that the rib of the tray side plate fits into the groove on the cassette holder.

- 13. Open the side and top covers and secure the tray to the third paper feed station (2 screws).
- 14. Install the pick-up roller assembly [D] and the gear [E] on the 3rd feed roller shaft.
- 15. Now move the sub roller unit [F] and the third feed roller [G] to the right and reinstall them (1 stud screw) while holding the friction pad down.

**CAUTION:** Make sure that the paper position feeler [H] is positioned under the sensor actuator [I].

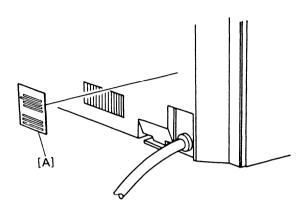


- 16. Remove the harness hole plate [A] (1 screw) and pass the tray harness through the harness hole [B].
- 17. Disconnect CN508 and CN507 on the paper feed PCB [C].
- 18. Connect the tray harness to the paper feed PCB [C] as follows:

3P red connector [D] to CN508 4P white connector [E] to CN510 7P white connector [F] to CN507

### 19. For 240 volt areas only:

Remove the rear cover of the LCT (5 screws), disconnect the 220V connector [G] and connect the 240V connector [H] as shown, and then reinstall the rear cover of the LCT.

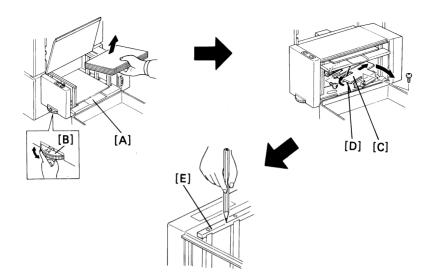


- 20. Reinstall the rear cover of the copier.
- 21. Apply the caution decal [A] on the copier rear cover.
- 22. Plug in the machine and turn on the copier main switch.
- 23. Select Feed station priority at power on, using SP#20.

Data 0 -> LCT priority
Data 1 -> Cassette from 1st feed station

24. Check the LCT operation and fill out the New Equipment Condition Report.

### 8.2 ADJUSTING SIDE REGISTRATION



After installing the large capacity tray, confirm the side registration of the large capacity tray. The side-to-side registration of A4 sideways (LT sideways) copies should be the same as that of the first cassette.

If the side registration is incorrect, adjust it as follows:

1. Load 2 or 3 sheets of paper on the tray [A] and position the paper size dial [B] to A4 sideways (LT sideways).

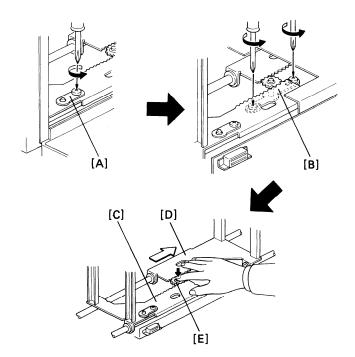
NOTE: Do not move the paper size dial while adjusting the side registration.

- Turn on the copier main switch and raise the tray to the paper feed position
- 3. Turn off the copier main switch.
- 4. Remove the front inner cover [C] (2 screws) using a stubby screwdriver.

**NOTE:** Insert the chain [D] into the middle slot of the front inner cover as shown and remove the front inner cover while turning it.

5. Mark the current position of the side guide [E] on the plastic top cover using a pencil or tape.

**NOTE:** Be careful not scratch the top cover.



- 6. Loosen the shaft mounting plate [A] (1 screw).
- 7. Loosen the shaft bracket [B] (2 screws).

**CAUTION:** Don't remove the 2 screws.

Be careful not to damage the heads of the screws as the screws are not visible.

8. Slide the front [C] and rear [D] side guide plates at the same time by making reference to the difference of the side registration on the copies and the mark on the top cover. (Adjusting range ± 4 mm.)

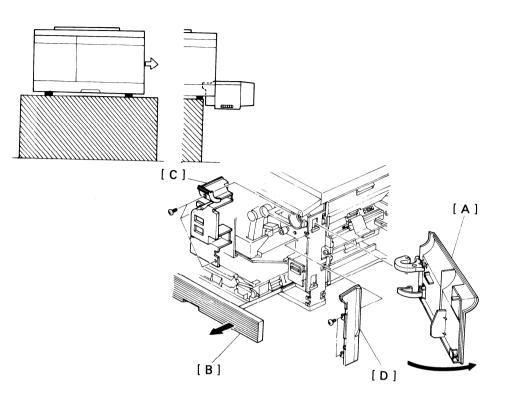
CAUTION: Hold the gear 28T [E] so that the gear 28T [E] does not turn.

9. Mount the shaft bracket [B] (2 screws) and make copies to confirm the registration.

**NOTE:** If there is still a side registration gap, readjust the position of the front [C] and rear [D] side guide plates.

10. Reinstall all parts.

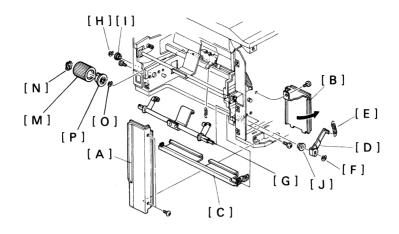
### **INSTALLATION PROCEDURE (FT4480)**

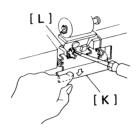


- 1. Turn off the main switch and unplug the power supply cord of the copier.
- 2. Move the copier to the right.

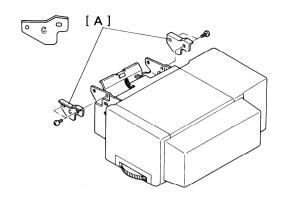
NOTE: As this system does not contain a special system table, the copier must be moved to the right so that the large capacity tray can overhang the end of the table.

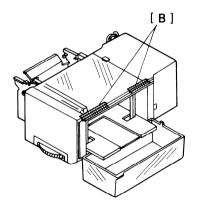
- 3. Open the right front door [A].
- 4. Pull out the cassette tray [B].
- 5. Remove the right inner cover [C] (3 screws with flat washer).
- 6. Remove the right front door [A].
- 7. Remove the front right side cover [D] (2 screws).

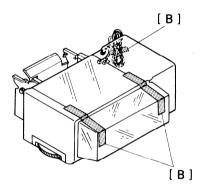




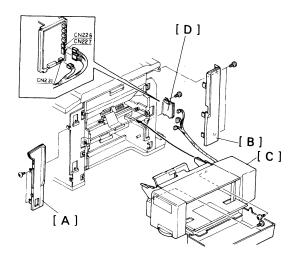
- 8. Remove the rear cover (2 screws).
- 9. Remove the rear right side cover [A] (2 screws).
- 10. Remove the paper feed PCB [B] (1 screw).
- 11. Remove the feed stay [C] (3 screws).
- 12. Remove the cassette arm lever [D] (1 spring [E], 1 E-ring [F]).
- 13. Remove the cassette arm assembly [G] (front 1 E-ring [H] and 1 bushing [I], rear 1 bushing [J]).
- 14. Press the pad positioning plate [K] down and unhook the spring [L] using a small screw driver.
- 15. Slide off the feed roller [M] (1 snap ring [N]).
- 16. Remove the nylon hub [O] from the feed roller.
- 17. Remove the E-ring [P] of the feed roller shaft.







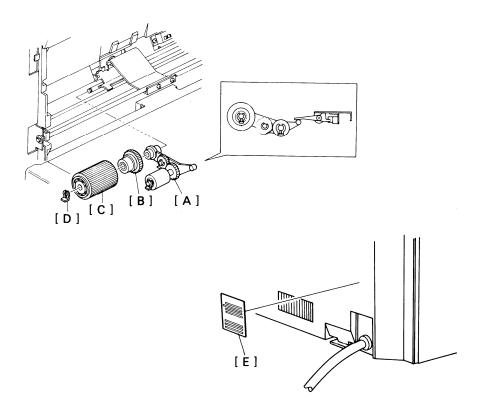
- 18. Install the mounting bracket [A] (Type C, Chrome) on the Large Capacity Tray (2 M4 X 6 screws each).
- 19. Remove the 5 strips of shipping tape [B].



- 20. Reinstall the front right side cover [A] and rear right side cover [B].
- 21. Place the large capacity tray [C] in the cassette holder on the 2nd feed station.

NOTE: Make sure that the rib of the tray side plate fits into the groove of the cassette holder.

- 22. Open the side and top covers and secure the tray to the 2nd feed station (2 screws, M4 X 10).
- 23. Disconnect CN226 and CN227, and fix these connectors with the harness clamp.
- 24. Connect the tray harness to the paper feed PCB [D] as follows:
  - \* 3p connector to CN226
  - \* 4p connector to CN231
  - \* 7p connector to CN227



- 25. Install the pick-up roller assembly [A] on the feed roller shaft.
- 26. Install the gear [B] on the feed roller shaft.
- 27. Reinstall the feed roller [C] (1 snap ring [D]).
- 28. Make sure that the paper position feeler [F] is positioned as shown.
- 29. Reinstall all covers.
- 30. Stick the caution decal [E] on the copier rear cover.
- 31. Check the operation of the Large Capacity Tray.
- 32. Fill out the New Equipment Condition Report.

# LARGE CAPACITY TRAY INSTALLATION WITH PAPER BANK (5th feed station)

When installing the large capacity tray, the paper bank must be modified as follows:

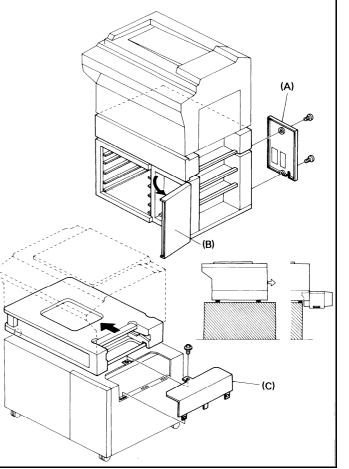
- Remove the paper bank rear cover [A] (2 screws) and open the system table front door [B].
- 2. Refer to the common procedure for large capacity tray installation.

# LARGE CAPACITY TRAY INSTALLATION WITHOUT PAPER BANK (3rd feed station)

When installing the large capacity tray, the 3rd paper feed unit must be modified as follows:

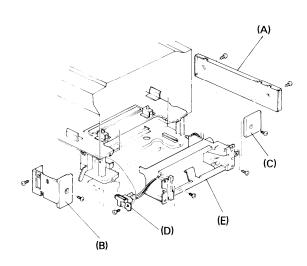
1. Move the copier to the left and remove the cover plate [C] on the right side of the system table (1 screw), and then reposition the copier on the table.

Note: If the system does not contain the special system table, move the copier to the right so that the large capacity tray can overhang the end of the table.



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- 2. Remove the rear expansion unit cover [A] (2 screws).
- 3. Remove the front [B] and rear [C] right covers of the expansion unit (front: 2 screws, rear: 1 screw).
- 4. Remove the right side safety switch assembly [D] (1 screw).
- 5. Disconnect the expansion interface harness from the expansion unit.
- 6. Pull out the 3rd paper feed unit [E] from the expansion unit (4 screws).
- 7. Remove the 3rd paper feed PCB assembly (1 screw).
- 8. Refer to the common procedure for large capacity tray installation.



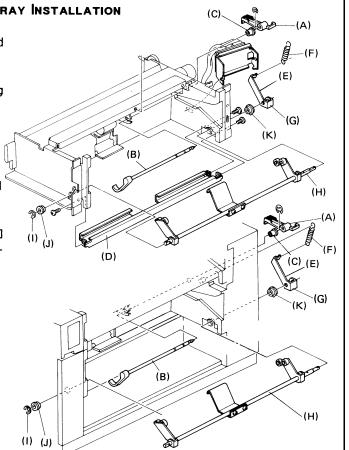
## COMMON PROCEDURE FOR LARGE CAPACITY TRAY INSTALLATION

1. Remove the actuator [A] of the paper end feeler.

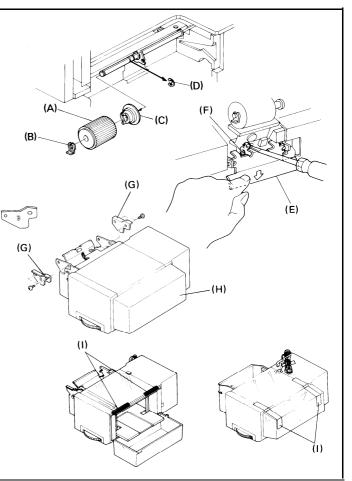
2. Remove the paper end feeler [B] (1 E-ring and 1 nylon bushing [C]).

3rd feed station only:
 Remove the feed stay [D] (3 screws).

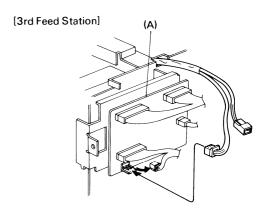
- 4. Remove the cassette arm lever [E] (1 spring [F], 1 screw[G]).
- 5. Remove the cassette arm assembly [H] (front-1 E-ring [I] and 1 bushing [J], rearone bushing [K]).

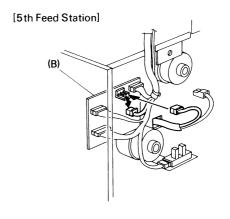


- 6. Slide off the feed roller [A] (1 snap ring [B]).
- Remove the nylon hub [C] from the feed roller.
- 8. Remove the E-ring [D] on the feed roller shaft.
- Press the pad positioning plate [E] down and unhook the spring [F] using a small screw driver.
- 10. Install the mounting bracket (Type B) [G] on the large capacity tray [H] (screws).
- 11. Remove the strips of shipping tape [I].

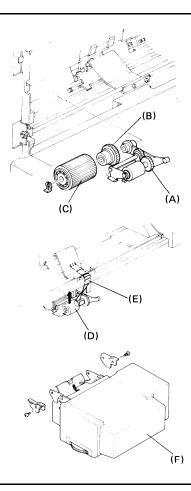


- 3rd feed station only:
   Reinstall the 3rd paper feed PCB.
- Disconnect the red 3P connector from: CN909 (3rd paper feed PCB [A]) or CN957 (paper bank PCB [B]).
- 14. 3rd feed station only:
  - a. Pass the expansion interface harness and the safety switch assembly around their respective expansion unit uprights.
  - b. Reinstall the 3rd paper feed unit into the expansion unit (4 screws) and the safety switch assembly (1 screw).
  - c. Reconnect the expansion interface harness to the expansion unit (CN901, 902, and 903 of the 3rd paper feed PCB).
  - Reinstall front and rear right expansion unit covers.





- 15. Install the pick-up roller assembly [A] on the feed roller shaft.
- Install the plastic gear [B] on the feed roller shaft.
- Reinstall the feed roller [C] (1 snap ring) and fix the pick-up roller [D] in a raised position with (shipping) tape [E] as shown.
- 18. Place the large capacity tray [F] in the cassette holders of either the 3rd or 5th feed station. (Make sure that the rib of the tray side plate fits into the groove of the cassette holder.) Then, remove the strip of tape holding the pick-up roller.
- 19. Secure the large capacity tray to the feed station (2 long screws).



- Disconnect the white 7P connector from: CN908 (3rd paper feed PCB [A]) or CN956 (paper bank PCB [B]).
- 21. Connect the tray harness to the expansion unit or the paper bank as follows:

4P connector to: CN911 (3rd paper fe

CN911 (3rd paper feed PCB)

or

CN958 (paper bank PCB)

7P connector to:

CN908 (3rd paper feed PCB)

or

CN956 (paper bank PCB)

3P connector to:

CN909 (3rd paper feed PCB)

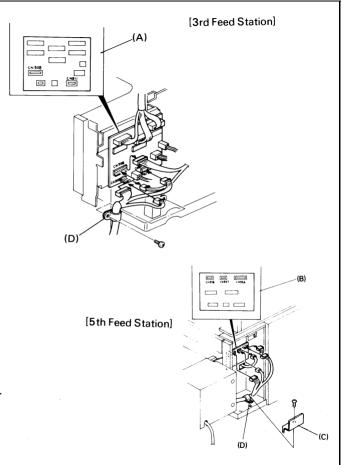
or

CN957 (paper bank PCB)

22. 5th Feed Station Only:

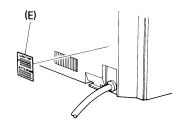
Remove the harness hole plate [C] (1 screw).

23. Fix the tray harness with the nylon clamp [D].

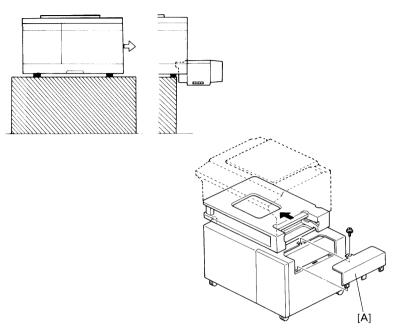


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- 24. Reinstall the covers except for the expansion and copier (type 2 only) rear covers for duplex installation.
- 25. Stick the caution decal [A] on the copier rear cover.
- 26. Fill out New Equipment Condition Report.

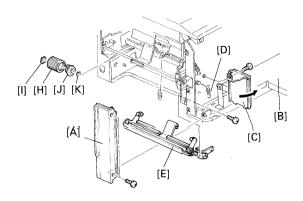


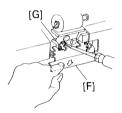
## Installation Procedure (FT4490)



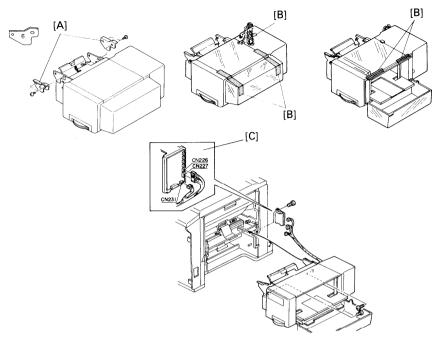
- 1. Turn off the main switch and unplug the power supply cord of the copier.
- 2. Move the copier to the left and remove the cover plate [A] on the right side of the system table (1 screw), then reposition the copier on the table.

**NOTE:** If this system does not have the special system table, move the copier to the right so that the Large Capacity Tray can hang over the edge of the table as shown above.





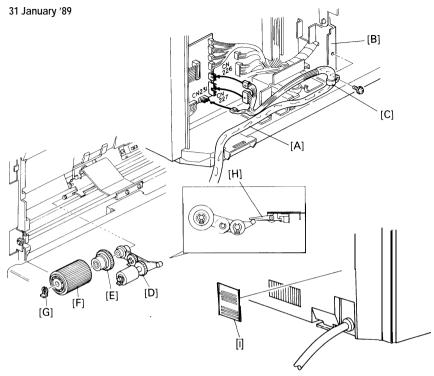
- 3. Remove the rear cover (2 screws).
- 4. Remove the rear right side cover [A] (2 screws).
- Lower the main PCB plate [B] and remove the paper feed PCB [C] (1 screw).
- 6. Remove the cassette arm lever spring [D].
- 7. Remove the cassette arm assembly [E] (1 screw).
- 8. Press the pad positioning plate [F] down and unhook the spring [G] using a small screw driver.
- 9. Slide off the feed roller [H] (1 snap ring [1]).
- 10. Remove the nylon hub [J] from the feed roller.
- 11. Remove the E-ring [K] of the feed roller shaft.
- 12. Reinstall the paper feed PCB and the rear right side cover.



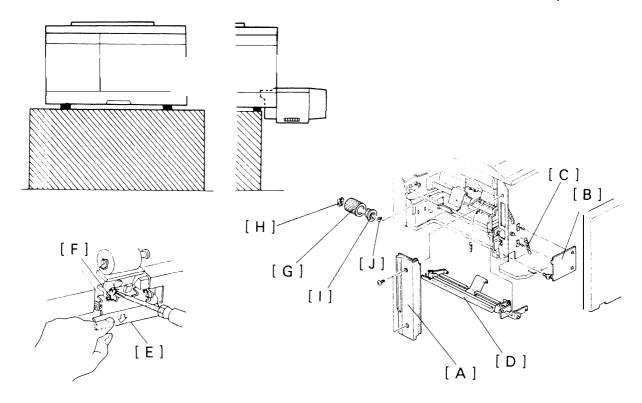
- 13. Install the mounting bracket [A] (Type C, Chrome) on the large capacity tray (2 screws, M4 x 6 each).
- 14. Remove the 5 strips of shipping tape [B].
- Place the large capacity tray in the cassette holder on the 2nd feed station.

**NOTE:** Make sure that the rib of the tray side plate fits into the groove of the cassette holder.

- 16. Open the side and top covers and secure the tray to the 2nd feed station (2 screws, M4 x 10).
- 17. Disconnect CN226 and CN227, and set these connectors to the harness clamp.
- 18. Connect the tray harness to the paper feed PCB [C] as follows:
  - \* 3p connector to CN226
  - \* 4p connector to CN231
  - \* 7p connector to CN227



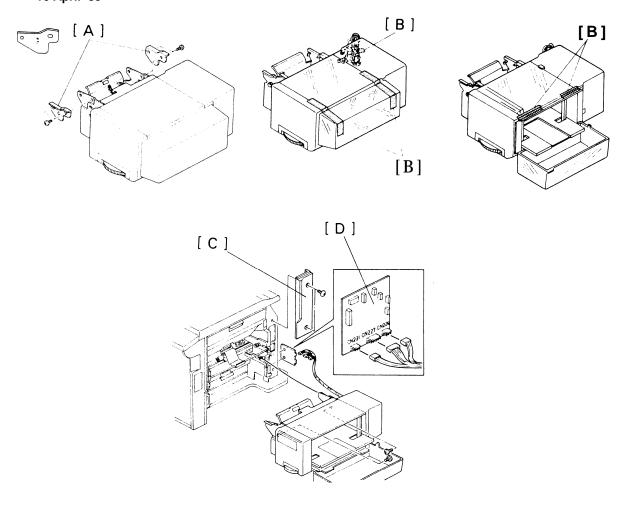
- 19. Clamp the LCT harness [A] to the support bracket [B] of the PCB plate with the nylon wire clamp [C].
- 20. Install the pick-up roller assembly [D] on the feed roller shaft.
- 21. Install the gear [E] on the feed roller shaft.
- 22. Reinstall the feed roller [F] (1 snap ring [G]).
- 23. Make sure that the paper position feeler [H] is positioned as shown.
- 24. Reinstall all covers.
- 25. Stick the caution decal [1] on the copier rear cover.
- 26. Check the operation of the Large Capacity Tray.
- 27. Fill out the New Equipment Condition Report.



- 1. Turn off the main switch and unplug the power supply cord of the copier.
- 2. Move the copier to the right.

NOTE: The copier must be moved to the right so that the large capacity tray can overhang the end of the table.

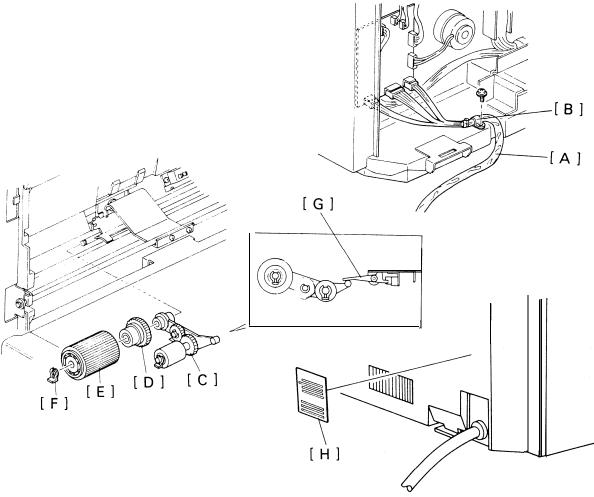
- 3. Remove the rear cover (2 screws).
- 4. Remove the rear right side cover [A] (2 screws).
- 5. Remove the paper feed PCB [B] (2 studs).
- 6. Remove the cassette arm lever spring [C].
- 7, Remove the cassette arm assembly [D] (1 screw).
- 8. Press the pad positioning plate [E] down and unhook the spring [F] using a small screw driver.
- 9. Slide off the feed roller [G] (1 snap ring [H]).
- 10. Remove the nylon hub [1] from the feed roller.
- 11. Remove the E-ring [J] of the feed roller shaft.
- 12. Reinstall the paper feed PCB.



- 13. Install the mounting bracket [A] (Type C, Chrome) on the large capacity tray (2 screws, M4 x 6 each).
- 14. Remove the 5 strips of shipping tape [B].
- 15. Reinstall the rear right side cover [C].
- 16. Place the large capacity tray in the cassette holder on the 2nd feed station.

NOTE: Make sure that the rib of the tray side plate fits into the groove of the cassette holder.

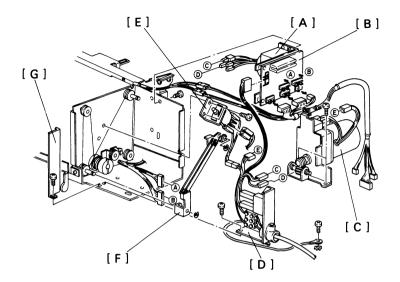
- 17. Open the side and top covers and secure the tray to the 2nd feed station (2 screws, M4 x 10).
- 18. Disconnect CN226 and CN227, and set these connectors to the harness clamp.
- 19. Connect the tray harness to the paper feed PCB [D] as follows:
  - \* 3p connector to CN 226
  - \* 4p connector to CN 231
  - \* 7p connector to CN 227



- 20. Clamp the LCT harness [A] to the base plate with the nylon wire clamp [B].
- 21 Install the pick-up roller assembly [C] on the feed roller shaft.
- 22. Install the gear [D] on the feed roller shaft.
- 23. Reinstall the feed roller [E] (1 snap ring [F]).
- 24 Make sure that the paper position feeler [G] is positioned as shown.
- 25 Reinstall all covers.
- 26 Stick the caution decal [H] on the copier rear cover.
- 27. Check the operation of the Large Capacity Tray.
- 28. Fill out the New Equipment Condition Report.

## 9. REPLACEMENT AND ADJUSTMENT

#### 9.1 TRAY WIRE REPLACEMENT



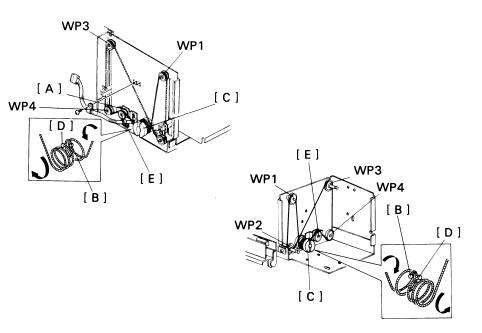
**CAUTION:** Unplug the tray power supply cord.

### - Front Wire -

- 1. Remove the following parts:
  - a) Front cover (2 screws and 1 connector)
  - b) Nylon clamp holding the operation board harness (1 screw)

#### - Rear Wire -

- 1. Remove the LCT from the copier.
- 2. Remove the following parts:
  - a) Rear cover (5 screws)
  - b) Transformer assembly [A] with tray main board [B] (1 screw, 8 connectors, and 1 nylon clamp)
  - c) Drive motor assembly [C] (2 screws and 1 connector)
  - d) Ac power terminal [D] (2 screws and 1 ground wire)
  - e) Safety switch assembly [E] (2 short screws)
  - f) Safety switch actuator assembly [F] (2 E-rings)
  - g) Shield plate [G] (4 screws)

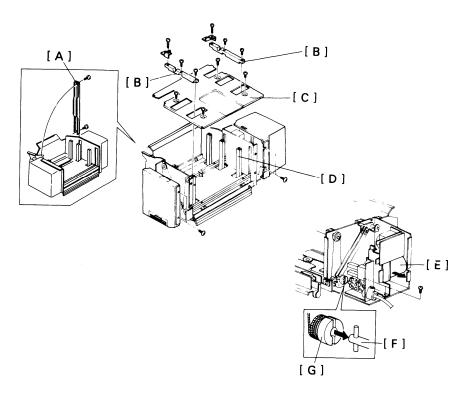


### - Common Procedure for Front and Rear Wires -

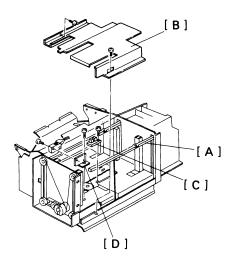
NOTE: The wrapping directions for the front and rear wires are opposite.

- 1. Loosen the wire tightener [A] (1 screw).
- 2. Insert the bead [B] (unmarked) into the rear slot of the drive pulley.
- 3. Loop the wire around the drive pulley [C], as shown (one and a half turns).
- 4. Run the wire over WP1, WP2, WP3, and WP4 in turn while also placing the lift rod's ends in the braces.
- 5. Insert the bead [D] (red) into the other slot of the drive pulley.
- 6. Loop the wire around the drive pulley, as shown (two and a half turns).
- 7. Hook the wire on the tightener pulley [E].
- 8. Move the rods up and down manually to ensure that the drive wire does not overlap on the pulley.
- 9. Tighten the wire using the tightener (1 screw).
- 10. Reassemble.

# 9.2 TRAY DOWN SENSOR AND POSITIONING SWITCH REPLACEMENT

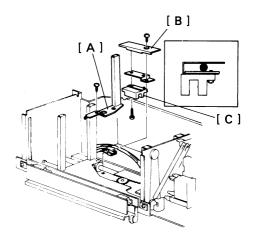


- 1. Open the side cover (1 screw).
- 2. Remove the top cover and rear cover (5 screws).
- 3. Remove the sensor bracket [A] (2 screws). (There is no need to disconnect the sensor connector.)
- 4. Remove the two post tops [B] (3 screws each).
- 5. Remove the tray bottom plate [C] (4 screws) taking care not to damage the 6 guide posts [D].
- Move the tray drive motor assembly [E] (2 screws) to the rear to disengage the tray drive shaft [F] from the wire drive pulley [G].



- 7. Raise the lift rods [A].
- 8. Remove the front inner cover [B] (1 short and 1 long screw).
- 9. Replace the tray down sensor [C] (1 screw and connector).
- 10. Rotate the paper size dial to a smaller size, such as A4R, and remove the positioning switch bracket [D] (1 screw).
- 11. Replace the positioning switch (2 screws).

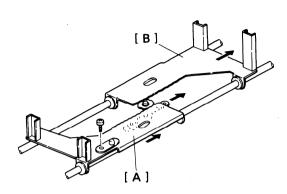
### 9.3 PAPER SIZE SENSOR REPLACEMENT



- 1. Perform steps "1" to "8" of the Tray Down Sensor and Positioning Switch Replacement procedure.
- 2. Remove the front guide post [A] (1 screw and 1 hook).
- 3. Remove the paper size sensor bracket [B] (1 screw).
- 4. Replace the paper size sensor [C] (1 screw and 1 connector).

**NOTE:** When installing the sensor bracket, make sure that the harness is positioned inside the sensor bracket.

### 9.4 SIDE REGISTRATION ADJUSTMENT



**NOTE:** Do not move the paper size dial while performing this adjustment.

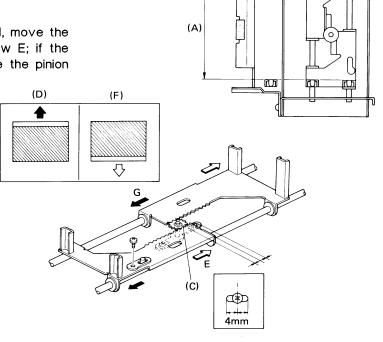
- 1. Perform steps "1" to "8" of the Tray Down Sensor Replacement procedure.
- 2. Loosen the 2 screws securing the pinion bracket [A].
- 3. Loosen the screw securing the guide post lock plate [B].
- 4. Move the pinion bracket while holding the pinion so that the pinion does not turn. (The front and rear guide posts must be equidistant from the center.)
- 5. Tighten the screws securing the pinion bracket.
- 6. Tighten the screws securing the guide post lock plates.
- 7. Confirm that the side registration is adjusted correctly and reassemble.

### 4. SIDE REGISTRATION ADJUSTMENT (FT5560 Manual)

**ADJUSTMENT STANDARD:** A = 297 to 299.5 mm B =  $20.5 \pm 1$  mm

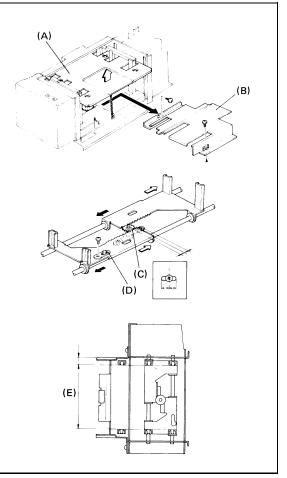
The pinion bracket [C] has 8 millimeters of play for side registration adjustment.

If the image is shifted to the front [D], move the pinion bracket in the direction of arrow E; if the image is shifted to the rear [F], move the pinion in the direction of arrow G.

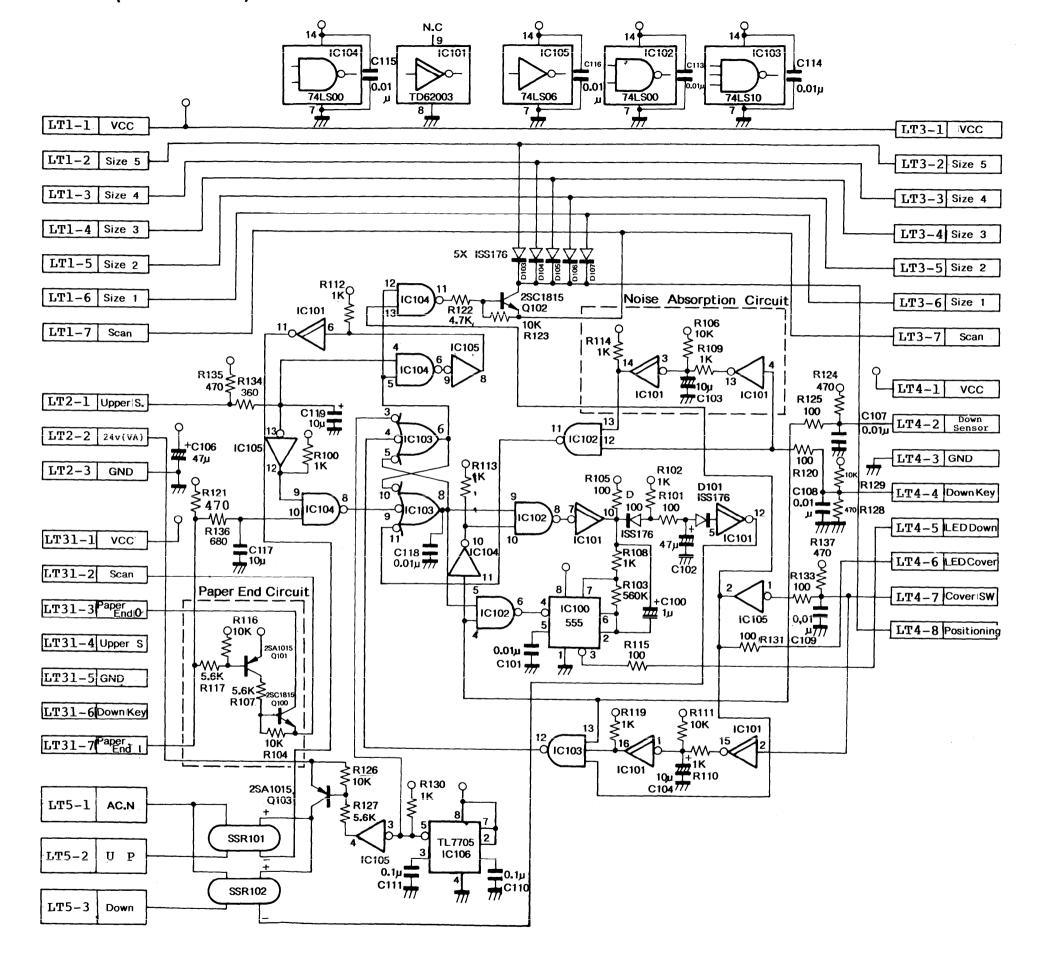


(B)

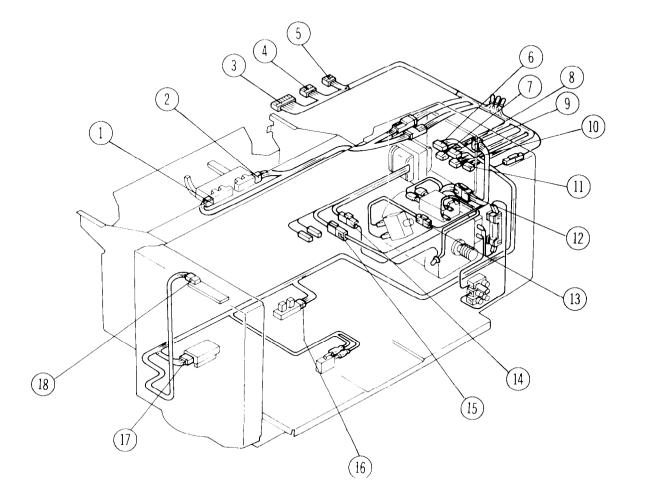
- Rotate the paper size dial to A4. Do not move the paper size dial again while performing this adjustment.
- 2. Raise the tray bottom plate [A].
- 3. Turn off the main switch.
- 4. Remove the front inner cover [B] (2 screws).
- 5. Loosen the 2 screws securing the pinion bracket [C].
- 6. Loosen the screw securing the guide post lock plate [D].
- Move the pinion bracket while holding the pinion so that the pinion does not turn. (The front and rear guide posts must be equidistant from the center.)
- Tighten the screws securing the pinion bracket.
- 9. Tighten the screws securing the guide post lock plates.
- Confirm that the length between the guide posts [E] is within the standard value range (297 to 299.5).
- 11. Confirm that the side registration is adjusted correctly and reassemble.



# LCT CONTROL BOARD SCHEMATIC (Main Control)



# 3. LCT



## 3. LCT

Index No.	CN. No.	Component	Туре	P to P
1.	CN111	Paper End Sensor	3P/B	B-9
2.	CN112	Upper Limit Sensor	3P/W	R-9
3.	CN 101	Tray Interface Harness	7P/W	B-8
4.	CN510	Tray Interface Harness	4P/W	C-8
5.	CN113	Tray Interface Harness	3P/R	B-8
6.	CN103	LCT Main Board	8P/W	B-7/9/10
7.	CN101	LCT Main Board	3P/R	B-8
8.	CN102	LCT Main Board	7P/W	B-7
9	CN104	ILCT Main Board	3P/W	A-10
10.	CN100	LCT Main Board	7P/R	B-8
11	CN105	LCT Main Board	7P/Y	B-8/9
12.	CN6	Tray Drive Motor	3PW	A-10
13.	CN20	(Intermediate)	2P/R	B-10
14.	CN8	Transformer	1PIW	A-11
15.	CN7	Transformer	2P/W	A-11
16	CN12	Down Sensor	3 P/W	B - 10
17.	CN13	Tray Paper Size Sansor	7 P / W	B-7
18.	CN11	Tray Operation Board	4P/W	w-9