

**Option**  
**PC-401**

**THEORY OF OPERATION**

Code Y103670-5

**PUBLICATION ISSUED BY:**

**Olivetti Tecnost S.p.A.**

77, Via Jervis - 10015 Ivrea (TO)

Italy

*Copyright © 2004, Olivetti*

*All rights reserved*

# CONTENTS

## I Outline

1.	Product specification .....	1-1
1.1	Type .....	1-1
1.2	Paper type .....	1-1
1.3	Machine specifications.....	1-1
1.4	Operating environment .....	1-1

## II Composition/Operation

1.	Overall composition.....	2-1
2.	Drive system .....	2-2
3.	Mechanical operations .....	2-3
3.1	Vertical transport drive mechanism .....	2-3
3.2	Elevator tray mechanism .....	2-4
3.3	Shift gate/shifter drive mechanism.....	2-5
3.4	Paper empty detection.....	2-6

I Outline

II Composition/Operation

# I Outline

## 1. Product specification

### 1.1 Type

Name	Large Capacity Tray
Type	Front loading type LCT
Installation	Desk type
Document Alignment	Center

### 1.2 Paper type

Paper Type	Plain paper	56 to 110 g/m <sup>2</sup> (15 to 29-1/4 lb)
	Recycled paper	60 to 90 g/m <sup>2</sup> (16 to 24 lb)
Paper Size	A4, 8-1/2 × 11	
Capacity	2500 sheets (80 g/m <sup>2</sup> , 21-1/4 lb)	

### 1.3 Machine specifications

Power Requirements	DC 24 V ± 10 % (supplied from the main unit)	
	DC 5 V ± 5 %	
Max. Power Consumption	45 W or less	
Dimensions	570 mm (W) × 263 mm (H) × 548 mm (D) 22-1/2 inch (W) × 10-1/4 inch (H) × 21-1/2 inch (D)	
Weight	25.9 kg (57 lb)	

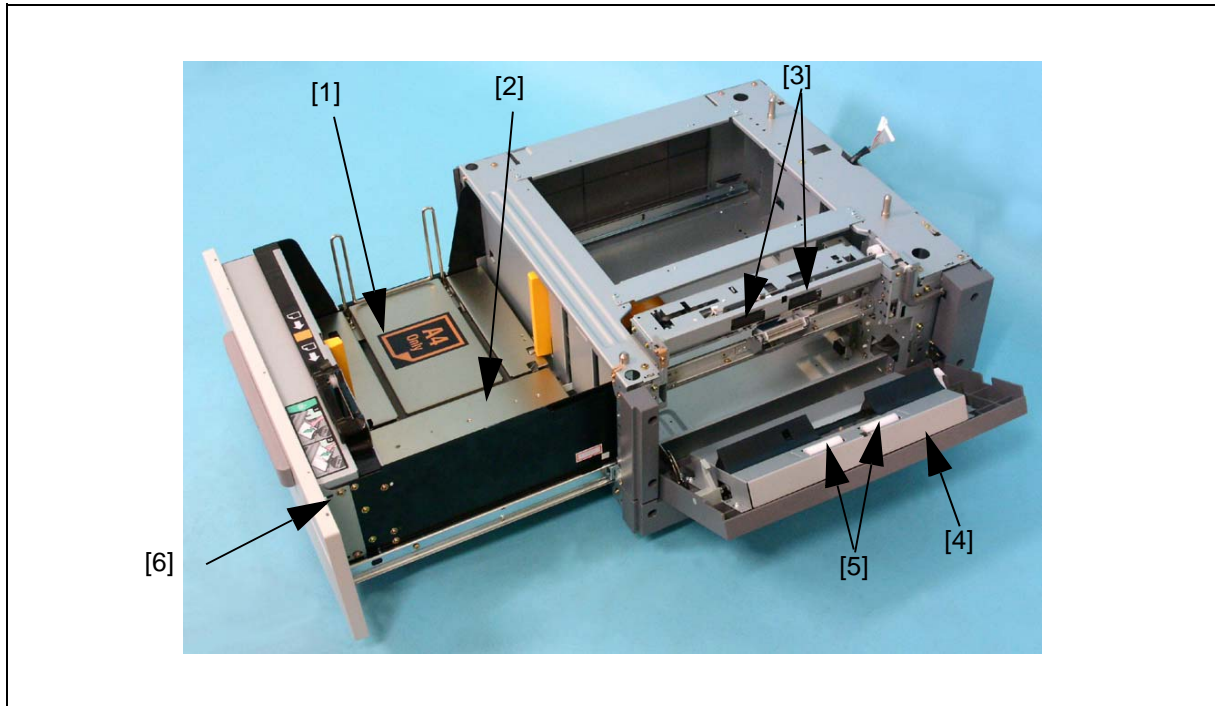
### 1.4 Operating environment

Conforms to the operating environment of the main unit.

Blank page

## II Composition/Operation

### 1. Overall composition



[1] Sub Tray

[2] Main Tray

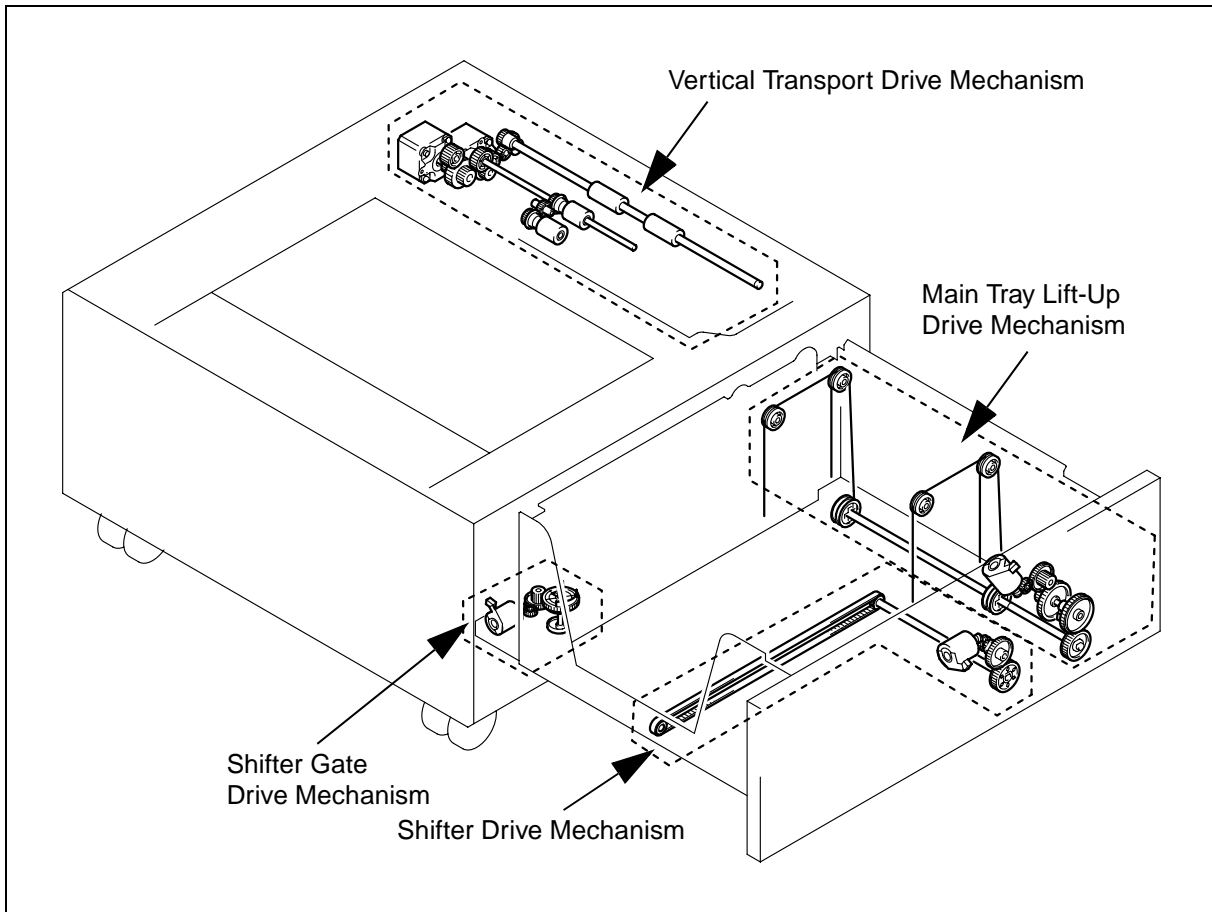
[3] Vertical Transport Rollers

[4] Right Door

[5] Vertical Transport Rolls

[6] Front Cover

## 2. Drive system



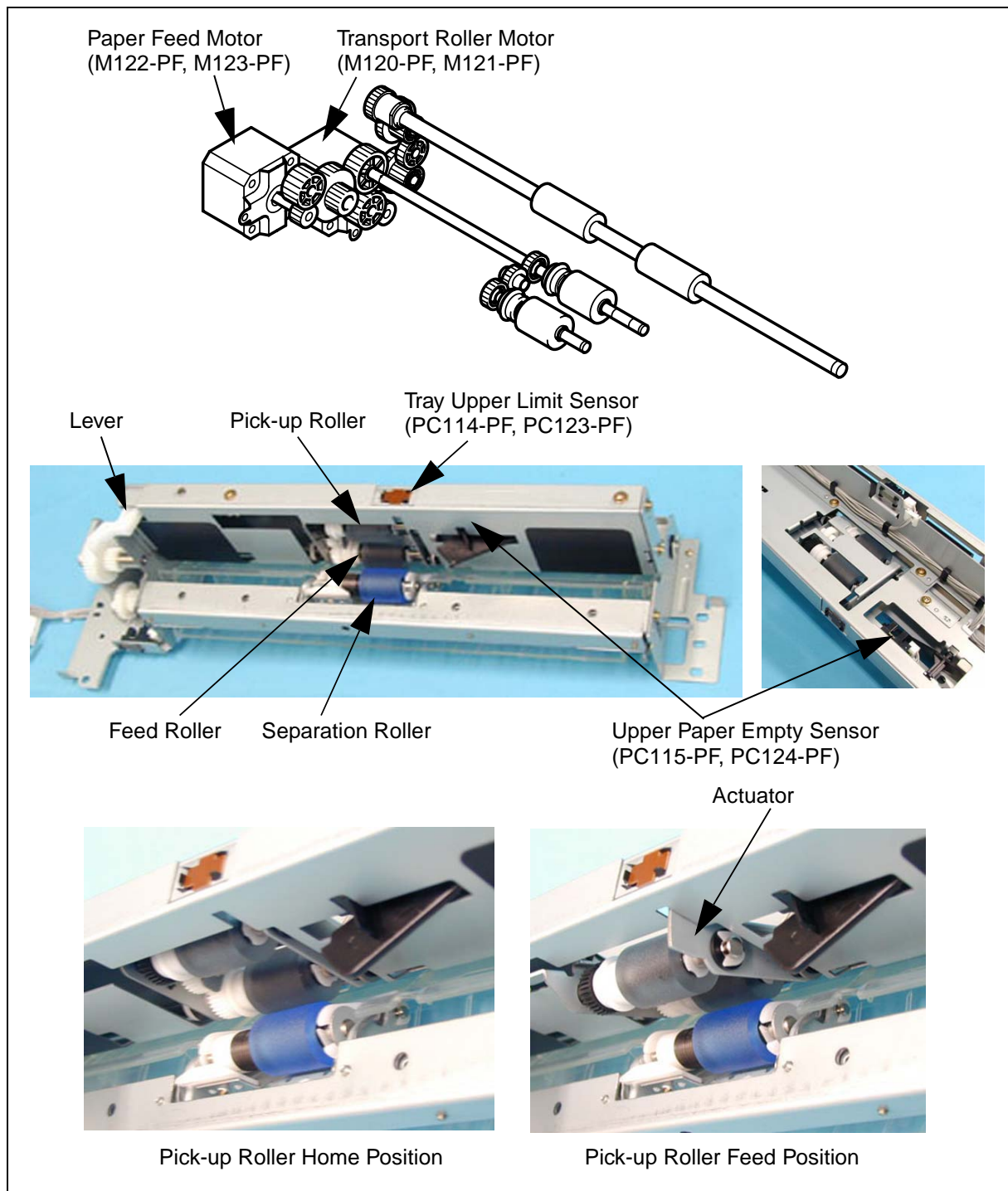
II Composition/Operation



### 3. Mechanical operations

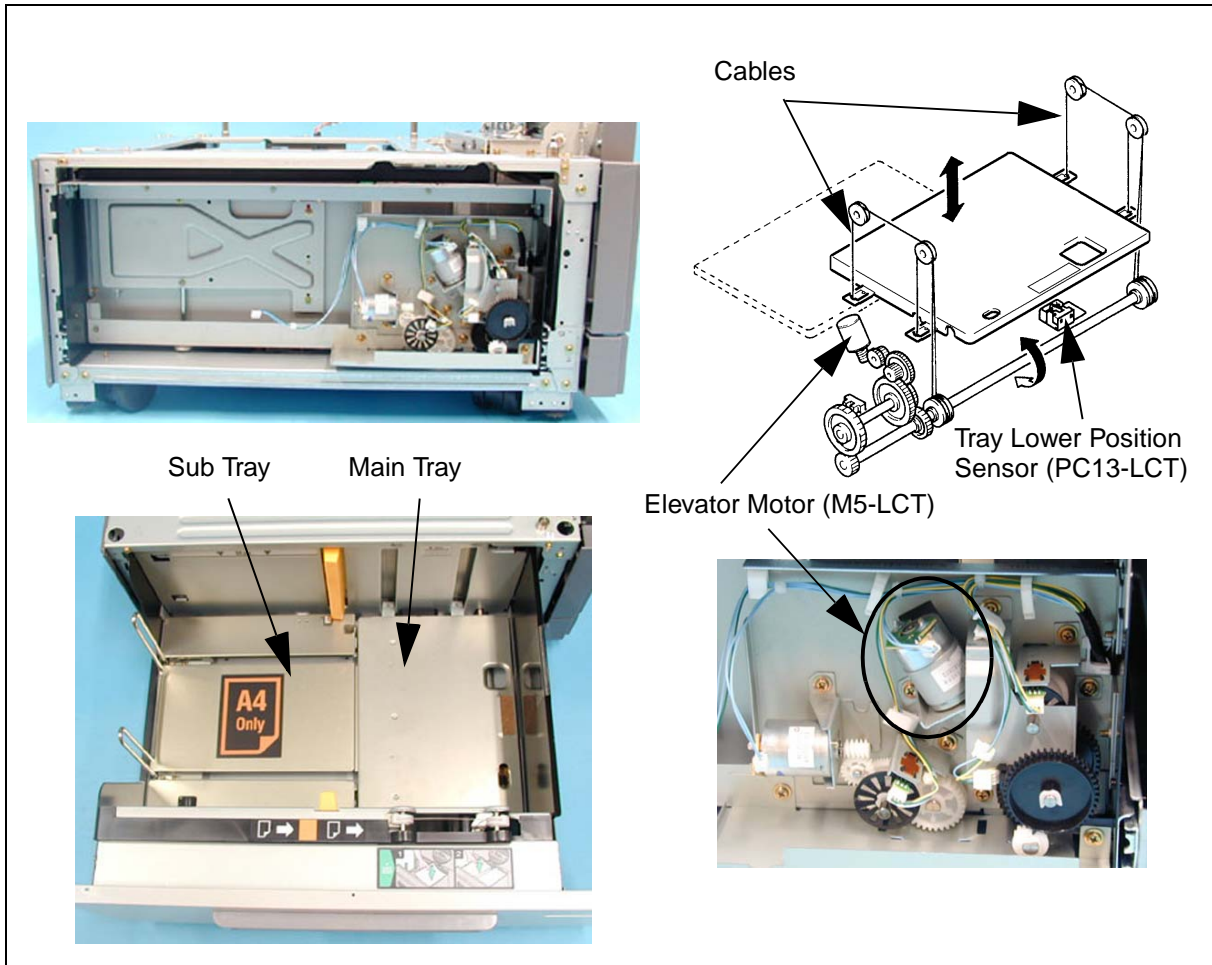
#### 3.1 Vertical transport drive mechanism

- The Paper Feed Motor drives the Pick-up Roller and Paper Take-up Roller to take up and feed a sheet of paper into the main unit.
- Then, the Transport Roller Motor transports the paper through the vertical transport section.
- The Pick-up Roller takes up sheets of paper and the Paper Take-up and Separation Rollers ensure that only one sheet of paper is separated and fed into the main unit.
- When the drawer is slid in, the lever is pushed to lower the Pick-up Roller.
- The Tray Upper Limit Sensor then detects the upper limit position when the paper lifting plate is raised.
- The Upper Paper Empty Sensor detects when paper in the drawer runs out.



### 3.2 Elevator tray mechanism

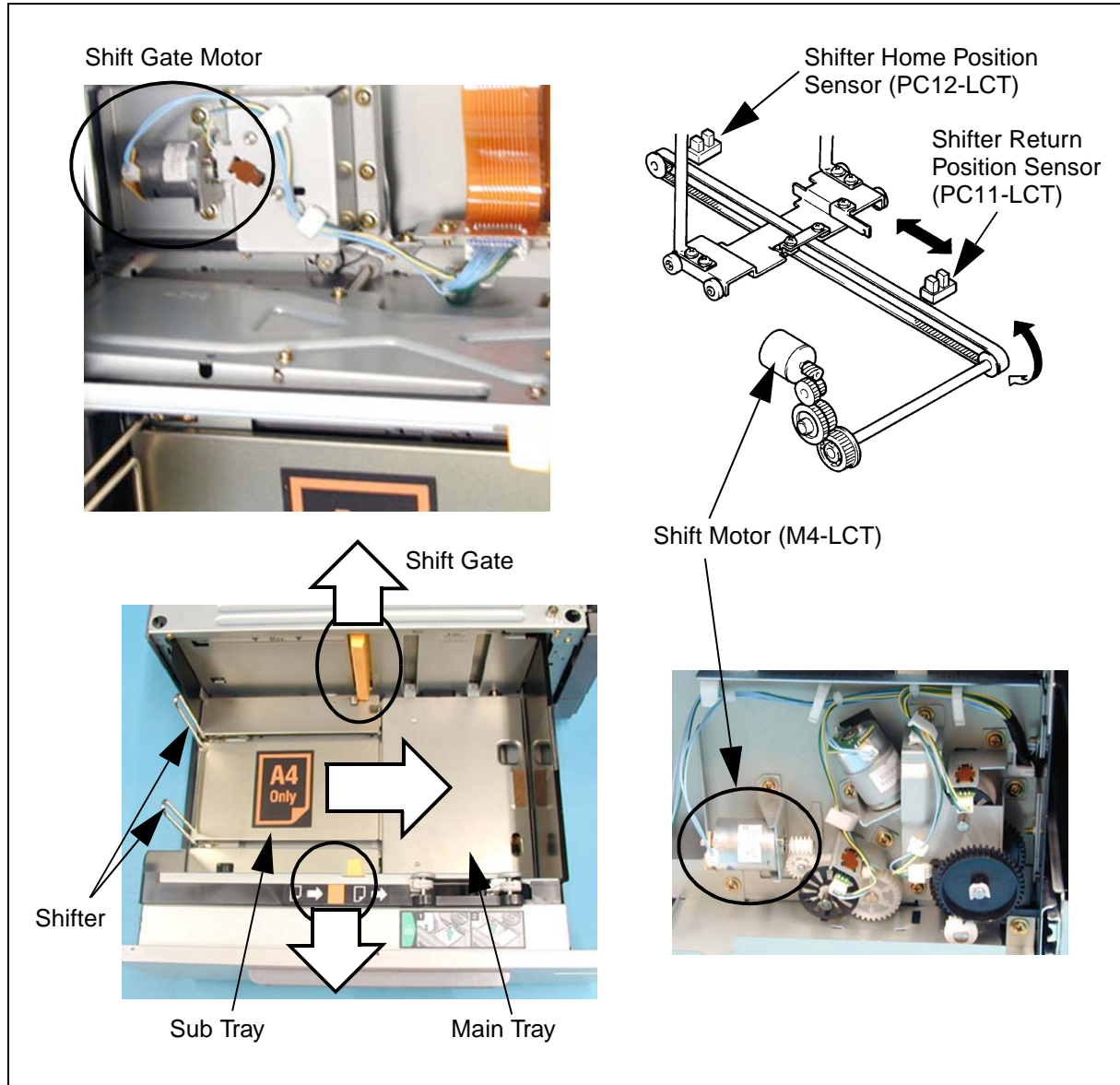
- The Main Tray is suspended by the cables at the front and rear. As the Elevator Motor turns forward or backward, the cables are wound to raise or lower the tray.
- The Tray Lower Position Sensor detects the tray at its lower limit position.



II Composition/Operation

### 3.3 Shift gate/shifter drive mechanism

- If the Main Tray runs out of paper, while the Sub Tray is loaded with paper, the paper stack on the Sub Tray is moved to the Main Tray.
- At this time, the Shift Gate Motor is energized to retract the front and rear Shift Gates.
- Then, the Shift Motor is energized to move the Shifter so that the paper stack on the Sub Tray is moved onto the Main Tray.
- The Shifter continues moving and stops when the Shifter Return Position Sensor is activated. When the Drawer Release button is thereafter pressed, the Shifter starts moving and stops as soon as the Shifter Home Position Sensor is activated.



### 3.4 Paper empty detection

- Paper empty detection of Main Tray is performed by Paper Empty Board.
- Paper empty detection of Sub Tray is performed by Shift Tray Paper Empty Sensor.

