

RICOH

PT3 TECHNICAL TRAINING (C275)



BASED ON THE PT/PT2 SERIES

Slide

☐ This section explains the differences between this new model and the PT/PT2 series.

IMPORTANT NOTE

☐ This TTP is for technicians who have received training on the PT. Technicians who have not received training for that model should refer to the training materials for the PT.



Product Overview

Introduction

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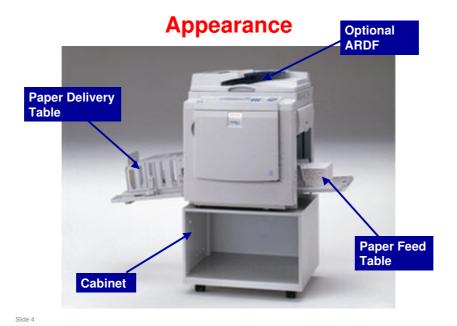
How Many Models?

- **☐** North America: One model
 - C275-92: LG drum
 - Also used in Latin America
- **□** Europe: Two models
 - C275-93: B4 drum
 - C275-83: A4 drum
- □ Asia: One model
 - C275-80: B4 drum
 - Also used in Latin America and Korea
- ☐ China: One model
 - C275-76: B4 drum

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 $\ \square$ The drum size is the only difference between the models.

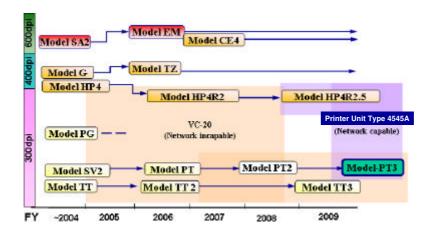




☐ The ARDF is an option (same as PT/PT2).



Product Positioning



- □ Note that PT3 is network capable, if the optional Printer Unit Type 4545A controller is installed.
- ☐ The only other model with this is the HP4R2.5.



Product Overview

Major Improvements

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Important New Features

- ☐ If the Printer Unit Type 4545A is installed, the following are available
 - Ethernet
 - RPCS printer driver
 - @Remote
- □ Additional languages on the display
 - Example: Traditional Chinese

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New Ink and Master Rolls

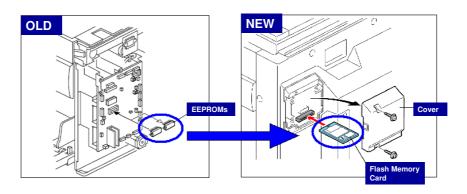
- New black ink for China
 - 500 ml/cartridge
 - Other inks are the same as PT2
- New B4 master roll for China
 - 2,000 prints / master
 - 205 masters / roll (410,000 prints / roll)
 - Master rolls for other areas are the same as PT2

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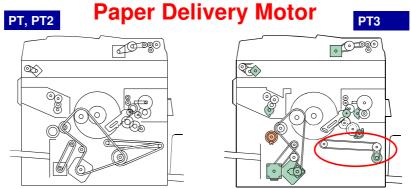
Firmware Update

- ☐ Main firmware and paper feed firmware can both be updated by flash memory card.
 - EEPROMs are not necessary.



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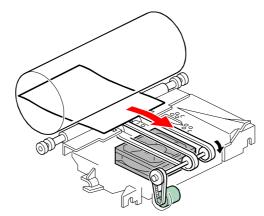


- □ PT, PT2: The paper delivery unit is driven by the main motor.
 - During the slower paper feed at the start of printing, the force given to the paper by the delivery belt sometimes cannot overcome the pressure between the press roller and the drum. So the paper sometimes jams or wraps around the drum.
- □ PT3: The paper delivery unit is driven by the paper delivery motor
 - The paper delivery unit is driven directly by the new motor. This
 provides a stronger forward pressure at the leading edge of the
 paper, which reduces the jams and wrapping around the drum.

- ☐ This is a new motor.
- ☐ As a result of this motor, image density at the start of a print job is improved. We will see this later in the course.



Paper Delivery Mechanism

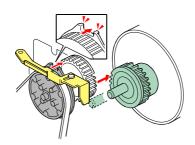


- ☐ Here is a view of the mechanism.
- ☐ Except for the new motor, it is the same as the PT/PT2.

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Drum HP Lock Mechanism



- ☐ This mechanism has been added to the main drive unit.
- ☐ It keeps the drum at home position after the technician or customer removes the drum.
- ☐ To do this, it locks the main drum drive gear.

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Improved Image Density at the Start of Printing

- ☐ Two modifications were made, to improve the image density at the start of a print job.
 - The first copy time has been made slightly longer.
 - A new motor was added, to drive the paper delivery belt.

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☐ These two modifications are explained on the next two slides.



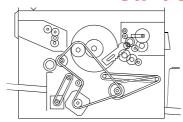
Improved Image Density at the Start of Printing

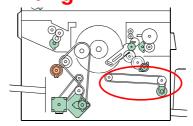
- Modification 1: The first copy time has been made slightly longer
 - First copy time (Master process time):
 - » From the Exposure Glass: 32 sec. (A4 landscape)
 - » From the ADF: 35 sec. (A4 landscape)
 - PT2 was 34 sec from the ADF
 - Second copy time (First print time):
 - » From the Exposure Glass: 34 sec. (A4 landscape)
 - PT2 was 33 sec from the exposure glass
 - » From the ADF: 37 sec. (A4 landscape)
 - PT2 was 35 sec from the ADF

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Improved Image Density at the PT, PT2 Start of Printing PT3



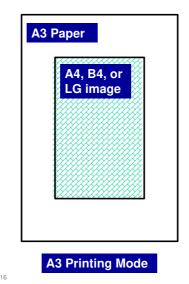


- Modification 2: The paper delivery motor was added
 - PT, PT2: As we saw earlier, when the paper feed speed is slow, paper jams are more likely. But, paper feed must be slow for the first few sheets to make sure that enough ink gets onto the paper. So, customers or technicians are likely to speed up the paper feed earlier, to avoid jams, and so the image density at the start of a job tends to be too low.
 - PT3: The new feed mechanism reduces the chance of jams at slower feed speeds. So there is no need to speed up paper feed at the start of a job, so image density at this time is improved.

- $\ \square$ We already explained how this new motor reduces jams.
- ☐ Also see the explanation for Proof Print Adjustment (SP 2-34) later in this course. This is used to adjust the number of sheets that are fed at slower speed at the start of a job.



Features Introduced for the PT2 - 1



- □ Pencil mode
 - This is for making copies of originals that are written in pencil.
- A3 Printing Mode
 - This allows you to feed A3 paper into the printer.
 - However, the printing area is A4, B4, or LG, depending on the drum size.

☐ These features are also used in the PT3.



Features Introduced for the PT2 - 2

- □ Proof Print Adjustment (SP 2-34): This enables or disables the proof print adjustment mode (default: Off).
 - Off: No proof print adjustment
 - On: The machine prints the first few sheets (up to 5) at 30 cpm.
- ☐ The proof print adjustment compensates for the low image density of the first few sheets.
- ☐ If the proof print adjustment is enabled, the machine prints at 30cpm for the first few sheets of paper (the number of sheets depends on SP2-35; the default is 1).

- ☐ This was introduced for the PT2, and is also used in the PT3.
- ☐ For examples of use, see the explanation of this SP adjustment in the SP tables.
- ☐ In the PT2, there was a side effect (when SP2-34 is ON, the paper tends to stop at the paper delivery unit and result in a paper jam). But the paper delivery motor has solved this problem.



Product Overview

Specifications

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Target Reliability

☐ Same as the PT2

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Paper Weight Specifications

☐ China model:

- 35 to 127.9 g/m² (Normal Printing Mode)
- 52.3 to 127.9 g/m² (A3 Printing Mode)

□ B4/LG model (except for the China model):

- 47.1 to 209.3 g/m² (Normal Printing Mode)
- 52.3 to 157 g/m² (A3 Printing Mode)

☐ A4 model:

- 47.1 to 209.3 or 127.9 g/m² (Normal Printing Mode)
- Note: 47.1 to 209.3 g/m² (A4 size and smaller),
 47.1 to 127.9 g/m² (More than A4 size)

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Product Overview

Equipment

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Options

□ Printer Controllers

- Printer Unit Type 4545A: Used with HP4R2.5
 - » Network controller: New to the PT series
 - » Allows the machine to connect to a LAN
 - » RPCS driver
- VC20 controller: Same as PT/PT2
 - » Printer controller
- Note that the VC20 controller and the Printer Unit Type 4545A cannot both be installed in a machine at the same time.

Others

- DF 20: Same as PT/PT2
- Platen cover type 1018: Same as PT/PT2
- Color drum type 20: Same as PT/PT2
- Tape dispenser type 20: Same as PT/PT2

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Printer Unit Type 4545A

- ☐ The PT3 uses type 4545A. The previous one (type 4545) will be discontinued when type 4545A starts production. Type 4545A can be used with the HP4R2.5.
- ☐ Some extra brackets are packed with the new controller, for installing the controller on the PT3.
 - Type 4545 has only the attachment kit for the HP4R2.5
 - Type 4545A includes attachment kits for the HP4R2.5 & the PT3
- ☐ Also, it is possible to install the previous controller (type 4545) on the PT3, but some brackets are needed. Details on these brackets, including part numbers, will be released in a future technical bulletin.

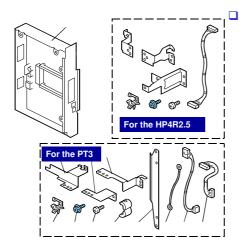


Installation Procedures

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Changes to Installation



□ A new procedure is added for the Printer Unit Type 4545A.

- Study this procedure in the PT3 field service manual.
- Accessories: The parts in the box in the upper right of the diagram are for the HP4R2.5, and the ones in box in the lower part of the diagram are for the PT3.

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The End