

RICOH



**D129/D130
Service Training**

AL-C2

Slide 1

Version 1.01

This training course provides service technician training for the AL-C2 series. It only explains the differences from the AL-C1, so knowledge of that model is required.

Version 1.01: Slide 12 (Copy Data Security Unit)

RICOH

**D129/D130
Service Training**

Product Overview

Slide 2

This section provides an overview of the machine, and the options that can be installed.

What Models are there in the Series?

- ❑ **AL-C2b (D129)**
 - ◆ 40 cpm
 - ◆ Available in a Basic model and an SP Model
 - » The basic model does not have a built-in hard disk or built-in printer and scanner kits.
- ❑ **AL-C2c (D130)**
 - ◆ 50 cpm
 - ◆ Available in a Basic model and an SP Model
 - » The basic model does not have a built-in hard disk or built-in printer and scanner kits.

- ❑ **All models contain a duplex unit and a bypass tray as standard equipment.**
- ❑ **ARDF**
 - ◆ North America: All models have a built-in ARDF
 - ◆ Other regions: The ARDF is an option.
- ❑ **All models contain a color scanner.**
- ❑ **Basic models can be upgraded to SP models.**

Slide 3

No additional notes

Differences between Basic and SP Models

	Basic models	SP models
Function	Copy (Printer and Scanner are optional)	Copy, Printer (PCL), Scanner
Duplex	Standard	Standard
Memory	512MB standard	1GB standard
HDD	Optional	160GB standard
VM card	Optional	Standard
App2Me	Not included; download from web site after installing the optional VM card	Standard
PDF direct print	Optional	Standard
Data overwrite security	Standard; included on the controller board	Standard; included on the controller board
HDD encryption	Standard; included on the controller board. Can be activated after the optional HDD is installed.	Standard; included on the controller board

Slide 4

Optional memory and hard disk

- For a customer who has a basic model, install the optional HDD if the customer wants to use the document box features.
- When a customer wishes to upgrade a basic model with a printer/scanner or printer enhance kit, the optional 512 MB must be installed.

Appearance (1)

ARDF
NA: Standard
EU/AA/CHN: Option

8.5-inch WVGA Color LCD

Duplex and bypass are standard

Two paper trays are standard

Optional two-tray feed unit

Optional Side LCT

Optional Finisher (three types available)

- ❑ Either of the following paper tray options can be installed below the main unit.
 - ◆ Two-tray paper feed unit
 - ◆ Tandem LCT
- ❑ If either of the above is installed, a 1200-sheet side LCT can also be installed.
- ❑ A platen cover can be installed instead of the ARDF (except for the NA version).

Slide 5

No additional notes

Appearance (2)



1000-sheet Finisher



2000-sheet Booklet Finisher



3000-sheet Finisher

- ❑ **Three possible types of finisher**
 - ◆ 1000-sheet Finisher
 - ◆ 2000-sheet Booklet Finisher
 - ◆ 3000-sheet Finisher
- ❑ **Each finisher requires an optional bridge unit and either an optional tandem LCT or two-tray paper feed unit.**

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No additional notes

Appearance (3)

The gap between the operation panel and the paper trays can hold two options.

- ◆ Upper compartment: One-bin tray
- ◆ Lower compartment: Bridge unit (required if an external finisher is installed), shift tray, or side tray

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No additional notes

Options: Original Feed

		Also used with these new models:	Similar to:	Note
ARDF (D630): DF3070	New	AP-C3	AL-C1, AP-C2.5	Cover color changed
Platen cover (D593): Platen Cover Type 3352	New	OR-C1, AP-C3, AT-C3	AL-C1	Cover color changed

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No additional notes

Options: Paper Feed and Finishing

		Also used with these new models:	Similar to:	Note
Two-tray paper feed unit (D580): PB3130	New	OR-C1, AP-C3, AT-C3	AL-C1, AP-C2.5	Cover color changed
Tandem LCT (D581): PB3140	New	OR-C1, AP-C3, AT-C3	AL-C1, AP-C2.5	Cover color changed
Side LCT (D631): RT3020	New	AP-C3, AT-C3	AL-C1, AP-C2.5	Cover color changed
One-bin tray (D632): BN3100	New	AP-C3, AT-C3	AL-C1, AP-C2.5	Cover color changed, LED position changed
Shift tray (D633): SH3060	New	AP-C3, AT-C3	AP-C2.5	Cover color changed
Bridge unit (D634): BU3060	New	AP-C3, AT-C3	AL-C1, AP-C2.5	Cover color changed
Side tray (D635): Side Tray Type C5502	New	AP-C3, AT-C3	AP-C2.5	
1000-sheet finisher (D588): SR3090	New	OR-C1, AP-C3, AT-C3	AL-C1	
2000-sheet booklet finisher (D637): SR3110	New	AP-C3	AL-C1, AP-C2.5	
3000-sheet finisher (D636): SR3120	New	AP-C3	AL-C1, AP-C2.5	
Punch unit (D570): Punch Unit PU3030	New	AP-C3	AP-C2.5	

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No additional notes

Options: Printer, Scanner, & Fax Units

		Also used with these new models:	Similar to:	Note
D641: Printer/Scanner Unit Type 5002	New	AL-C2 only		
D641: Printer Unit Type 5002	New	AL-C2 only		
D641: Scanner Enhance Option Type 5002	New	AL-C2 only		
D641: PostScript3 Unit Type 5002	New	AL-C2 only		
D641: IPDS Unit Type 5002	New	AL-C2 only		
D640: Hard Disk Drive Option Type 5002	New	AL-C2 only		
D594: Memory Unit Type L 512MB		OR-C1		Printer/scanner
D629: Fax Option Type 5002	New	AL-C2 only		
D629: G3 Interface Unit Type 5002	New	AL-C2 only		
D645: Handset Type C5502		AP-C3, AT-C3		Color is different
D629: Fax Connection Unit Type A	New	AL-C2 only		For the Remote Fax feature (new function)
G578: Memory Unit Type B 32MB		OR-C1, AP-C3, AT-C3		For fax

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No additional notes

Options: Controller

		Also used with these new models:	Similar to:	Note
D566: Bluetooth Interface Unit Type D	New	OR-C1, AP-C3, AT-C3		New type, uses USB
B679: IEEE 1284 Interface Board Type A		OR-C1, AP-C3, AT-C3		
D377: IEEE 802.11a/g Interface Unit Type J		OR-C1, AP-C3, AT-C3		
D377: IEEE 802.11g Interface Unit Type K		OR-C1, AP-C3, AT-C3		
G874: Gigabit Ethernet Board Type A		OR-C1		
D640: Browser Unit Type I	New	AL-C2 only		
D640: VM Card Type U	New	AL-C2 only		
D629: SD card for NetWare printing Type K	New	AL-C2 only		

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No additional notes

Options: Other

		Also used with these new models:	Similar to:	Note
A674: Key Counter Bracket Type H		OR-C1, AP-C3, AT-C3		
D593: Card Reader Bracket Type 3352		OR-C1, AP-C3, AT-C3		
B870: Optional Counter Interface Unit Type A		OR-C1, AP-C3, AT-C3		
D640: Copy Data Security Unit Type G		AP-C3, AT-C3		
D377: File Format Converter Type E		OR-C1, AT-C3		

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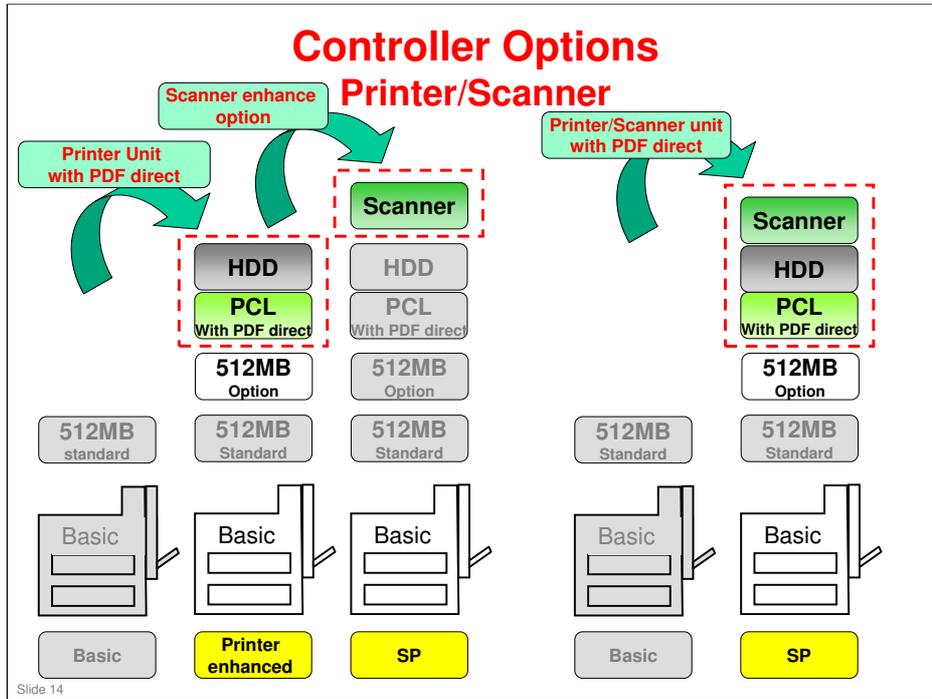
No additional notes

Controller Options Printer/Scanner

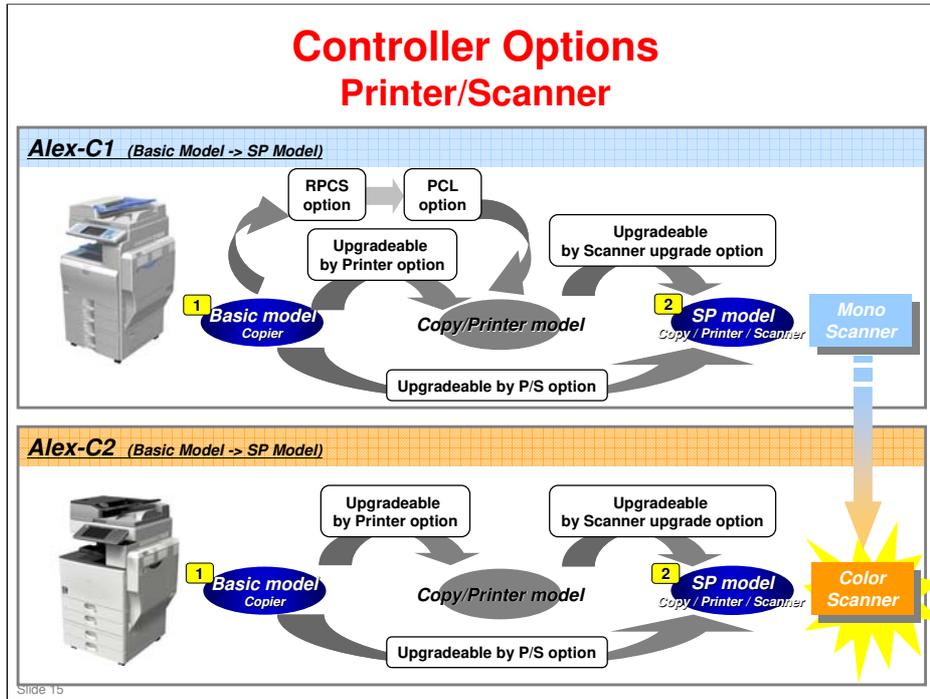
- ❑ **The SP model already contains printer and scanner features.**
 - ◆ No set-up is needed at installation.
- ❑ **The basic models can be upgraded as follows:**
 - ◆ To the basic model, add a printer unit and 512 MB memory, to make a copier/printer model.
 - ◆ Then, to the copier/printer model, you can add a scanner enhance option, to make an SP model.
 - or -
 - ◆ To the basic model, add a printer/scanner unit and 512 MB memory to make an SP model.
 - also -
 - ◆ To add Document Box to the basic model without upgrading to an SP model, the optional hard disk must be installed.
- ❑ **The printer enhance option and the printer/scanner option both contain a hard disk.**
- ❑ **It is not possible to install a scanner option without the printer option.**
- ❑ **NA models only: Note that the 512 MB memory is included in the printer and printer/scanner upgrade kits.**
- ❑ **The options mentioned on this slide are all new.**

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- ❑ The next slide shows the above in a graphic format.
- ❑ Printer drivers are PCL and PDF direct. Postscript 3 is an option. There is no RPCS.
- ❑ The procedures in the service manual for installing printer/scanner and printer enhance options apply only to the basic model, and not the SP model.



- ❑ NA models only: Note that the 512 MB memory is included in the printer and printer/scanner upgrade kits.



- This slide compares the old system with the new one.

Controller Options

Memory Upgrade Options for the Basic Model

- ❑ **Optional memory and hard disk**
 - ◆ For a customer who has a basic model, install the optional 160GB hard disk if the customer wants to use the document box features.
 - ◆ When a customer wishes to upgrade a basic model with a printer/scanner or printer enhance kit, the optional 512 MB memory must be installed.
- ❑ **There are no memory upgrades for the SP model.**

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No additional notes

Controller Options Fax Unit

- ❑ In this fax unit, the FCU and MBU boards have been combined. Because of this, the data backup procedure has been changed.
- ❑ The optional memory module is the same as previous models.
- ❑ The FCU contains the ROM, SRAM and NCU circuits.
- ❑ Fax Options:
 - ◆ Handset (for the USA): This is a new model.
 - ◆ Extra G3 Interface option: This provides one more analog line interface. This allows full dual access. Two extra G3 interface options can be installed.
 - ◆ Memory Expansion: This expands the SAF memory and the page memory (used for image rotation); without this expansion, the page memory is not big enough for image rotation at 400 dpi, so transmission at 400 dpi is not possible.

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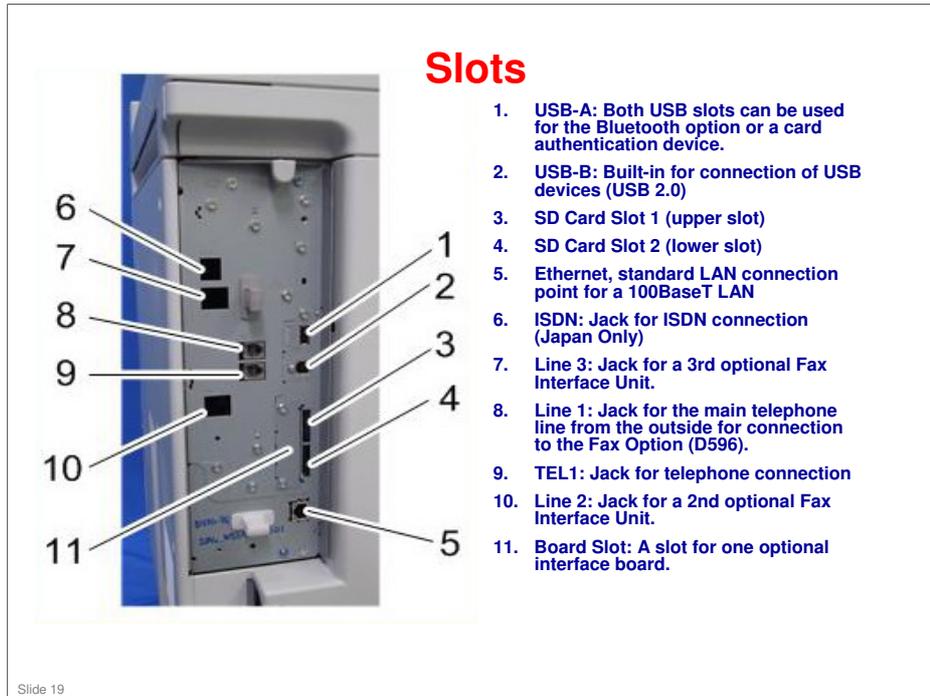
No additional notes

Controller Options SD Cards

- ❑ **Data Overwrite Security, HDD Encryption: Standard (included in the controller ROM)**
- ❑ **VM card: New**
 - ◆ SP models: Included on the printer/scanner SD card, which is shipped with the machine in slot 1; contains App2Me
 - » App2Me must be enabled with user tools: Service Manual > Installation > Copier Installation > Installation Procedure > App 2 Me Setting (SP Models only)
 - ◆ Basic models: Option (SD card slot 2 only). App2Me is not shipped with the machine. To use App2Me, the VM card must be installed in slot 2 and App2Me must be downloaded from a website. The VM card can be merged with the card in slot 1.
- ❑ **Printer/scanner unit: New**
 - ◆ SP models: Included with the machine (in SD card slot 1). Contains VM, PDF Direct, and App2Me. No installation or setup needed (except for App2Me; see above).
 - ◆ Basic models: Option (SD card slot 1). Contains PDF Direct
- ❑ **Printer unit: New**
 - ◆ For basic models only. Contains PDF Direct . Goes in SD card slot 1
- ❑ **Scanner enhance unit: New**
 - ◆ For basic models only. Goes in SD card slot.
- ❑ **Postscript 3: New**
 - ◆ Contains PDF Direct. Goes in SD card slot 1.
- ❑ **IPDS unit: New**
 - ◆ Goes in SD card slot 1.
- ❑ **Browser unit: New**
 - ◆ Goes in SD card slot 1.
 - ◆ Remove after installation.
- ❑ **Slot 1 is the upper slot and slot 2 is the lower slot.**

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- ❑ Basic models: App2Me is not shipped with the machine. It must be downloaded from a website, and an VM card must be installed.



- ❑ Board Slot: One of the following can be installed.
 - File Format Converter Type E
 - Gigabit Ethernet Board Type A
 - IEEE 802.11a/g Interface Unit Type J or IEEE 802.11g Interface Unit Type K
 - IEEE 1284 Interface Board Type A
- ❑ The SD Card slots are discussed in more detail on the next few slides.

SD Card Slots (1)

- **Slot 1 (upper slot) can be used for the following:**
 - ◆ Use when installing the following options
 - » Basic model: Scanner/printer unit (with PDF Direct), printer unit (with PDF Direct), scanner enhancement unit
 - » PostScript
 - » IPDS
 - » Browser unit
 - » SD card for Netware printing
 - » Copy data security unit
 - ◆ The SP model has the printer/scanner SD card in slot 1 when shipped.
 - ◆ If the number of options that you wish to install is more than the number of available SD card slots, move them onto one SD card.
 - ◆ The manual for the printer/scanner unit shows the contents of all SD cards used with the machine, and which merging operations are allowed.

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Printer/Scanner Unit Service manual, SD Card Appli Move

- Note that PostScript 3 and PDF Direct can now be moved to another SD card. In previous models, this is not possible because of licensing restrictions.

SD Card Slots (2)

□ Slot 2 (lower slot)

- ◆ Empty when shipped
 - » Basic models: Install the optional VM card here
- ◆ Use this slot for service procedures, such as firmware update and NVRAM backup.

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No additional notes

Data Overwrite Security, HDD Encryption

- ❑ **These features are built into the controller board for all models.**
 - ◆ There is no Security SD Card.
- ❑ **At installation, these features must be enabled with SP mode.**
 - ◆ Service Manual > Installation > Copier Installation > Installation Procedure > Data Overwrite Security
 - ◆ Service Manual > Installation > Copier Installation > Installation Procedure > HDD Encryption
- ❑ **Then the user must switch them on with a User Tool.**

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No additional notes

RICOH**D129/D130
Service Training****Improved Features and Specifications**

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This section provides an overview of the main specifications and explains improvements over the models in the AL-C1.5 series.

Specifications

- ❑ **Original Size: Maximum A3/11" x 17"**
- ❑ **Copy Paper Size - Paper trays:**
 - ◆ A3/11" x 17" - A5 LEF
 - ◆ Non-standard sizes:
 - » Width: 182 - 297 mm (7.2" - 11.7"), Length: 148 mm - 432 mm (5.8" - 17")
- ❑ **Copy Paper Size - By-pass tray:**
 - ◆ 12" x 18"/305 x 457.2 mm, A3/11" x 17" - A6 SEF
 - ◆ Non-standard sizes:
 - » Width: 90 - 305 mm (3.6" - 12"), Length: 148 - 600 mm (5.8" - 23.6")
- ❑ **Copy Paper Size - Duplex:**
 - ◆ A3/11" x 17" - A6 SEF
 - ◆ Non-standard sizes:
 - » Width: 90 - 297 mm (3.6" - 11.7"), Length: 148 - 432 mm (5.8" - 17")
- ❑ **Copy Paper Weight**
 - ◆ Paper trays: 60 - 216 g/m2 (16 lb. Bond - 80 lb. Cover)
 - ◆ By-pass: 52 - 216 g/m2 (14 lb. Bond - 80 lb. Cover)
 - ◆ Duplex: 60 - 160 g/m2 (16 lb. Bond - 60 lb. Cover)
- ❑ **Copying Speed: A4, 8 1/2" x 11" LEF, 1-to-1 (ADF):**
 - ◆ 40 cpm (D129), 50 cpm (D130)
- ❑ **First Copy Time (1st Tray, A4/8 1/2" x 11" LEF):**
 - ◆ 4.1 s (D129), 3.5 s (D130)

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- ❑ Copy speed: Same as the AL-C1.5 series
- ❑ Copy paper weight: This machine supports thick paper feeding (up to 216g/m2) from the standard tray. (AL-C1.5: Up to 169g/m2)
- ❑ Hard disk: Capacity increased from 40GB (AL-C1.5) to 120GB

Comparing Specifications with Previous Models

	AL-C1.5	AL-C2
Copy speed	C1.5b: 40cpm C1.5c: 50cpm	C2b: 40cpm C2c: 50cpm
First copy time	C1.5b: 4.1s C1.5c: 3.5s	C2b: 4.1s C2c: 3.5s
Warm-up time	Basic: 13s SP: 22s	Basic: TBD SP: 19s
Paper feed capacity (standard)	550 x 4 or 550 x 2 + 1000	550 x 4 or 550 x 2 + 1000
Paper feed capacity (maximum)	4400	4400
Output tray capacity (standard)	500 sheets (A4/DLT) 250 sheets (A3/DLT) Face down	500 sheets (A4/DLT) 250 sheets (A3/DLT) Face down
Output tray capacity (maximum)	3625 sheets (with 3000-sheet finisher) + 250 (bridge unit) + 125 (one-bin tray)	3625 sheets (with 3000-sheet finisher) + 250 (bridge unit) + 125 (one-bin tray)

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No additional notes

Targets

	AL-C1.5	AL-C2
ACV, per month	C1.5b : 10K C1.5c : 20K	C2b : 10K C2c : 20K
PM Cycle	160k	160k
MCBC (Mean Copies Between Calls)	C1.5b : 58.7K C1.5c : 70.8K	C2b : 58.7K C2c : 70.8K
Estimated Unit Life	3,200k or 5 years whichever comes first	3,200k or 5 years whichever comes first

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No additional notes

Yield of Consumables

- ❑ **Toner – same as AL-C1.5**
 - ◆ Capacity: 630 g
 - ◆ Yield: 30,000 prints per cartridge (A4/LT, 6% coverage)
- ❑ **Developer**
 - ◆ Yield: 320,000 prints per bag

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No additional notes

New Feature for this Series
New PDI Concept (Product Design Identity Concept)



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No additional notes

New Feature for this Series Operation Panel

The diagram shows a Ricoh handheld device with a central screen and a control panel on the right. Three callout boxes with blue arrows point to specific features: 'Home Button' points to a circular button at the top of the control panel; 'Function Keys' points to a vertical column of five buttons below the home button; 'SD/USB Slot' points to a slot on the right edge of the device's casing.

- The angle of the operation panel can be changed.
- A home button is added. You can return to the home screen from anywhere.
- Five function keys are available, to which you can assign your own designated functions.
- An SD/USB slot is built-into the right side of the panel as standard equipment (not an optional unit).
 - ◆ The Basic models cannot use the full range of functions that this SD/USB slot provides.

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No additional notes

New Feature for this Series Operation Panel



- ❑ The angle of the operation panel can be changed.

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No additional notes

**New Feature for this Series
GW+ Controller**

- ❑ **An enhanced GW controller is used in this series.**

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List of features provided by this new controller.

- ❑ Workflow Improvement
 - Customizable Home Screen
 - MFP Full Browser
 - External USB Keyboard Support
 - Auto Job Promotion
 - Enhanced Media Print
 - Scheduled Print
 - Layout + Booklet Print
 - Banner Page Print
 - JBIG2 Compression Support
 - Reduce/Enlarge Scan
 - Enhanced Batch Scan
 - Split Scan from Book Type original
 - Import/Export of Preference Settings
 - Expanded the number of User Code
 - Scheduling of Quota Management
 - Homefolder over LDAP
 - Setting Bypass Tray as Priority Tray
 - QWERTZ Layout Keyboard support
 - Newly Supported languages: Brazilian Portuguese/ Greek
- ❑ TCO Reduction
 - Remote Fax
 - Separate A3/DLT counter
- ❑ Environment
 - Information Screen (Eco-Friendly Indicator)
- ❑ Security
 - Unauthorized Copy Control (PCL6/PS)
 - Enhanced Print Functions using HDD
 - Mandatory Security Information Print
 - Output Mode Switch Timer for Received FAX
 - Enhanced Encryption Level (AES256bit, SHA-2)
- ❑ Compliance
 - Bates Numbering
 - Scan to PDF-A/digitally signed PDF
 - Introduction of accessibility features

New Feature for this Series

Print from USB/SD - 1

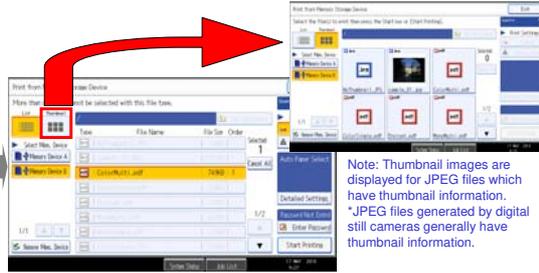
- ❑ **In previous models, the optional USB/SD card slot can only be used for scanning data to an SD card or USB device.**
- ❑ **However, in this new series, it is also possible to print from data stored on an SD card or USB device.**
 - ◆ Works for PDF, JPG, and TIFF.
 - ◆ Some USB devices will not be recognized.
- ❑ **If the customer wants to print PDF files from the USB/SD card slot on a basic model, PDF Direct (built-into the printer/scanner unit or printer unit) or Postscript 3 must be installed.**
 - ◆ The SP model has PDF Direct built in.

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- ❑ This is the same as for AP/AT-C2.5.

New Feature for this Series Print from USB/SD - 2

How to start Print from USB/SD
Push the "Print" button.



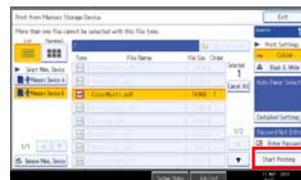
Push "Print from Memory Storage Device".

Select the data you want to print.
Note: Multiple JPEG / PDF / TIFF files in same folder can be selected at the same time. (Max: 999)
* Multiple selections of different file formats is not available.

Detailed settings



Select "Detailed settings".



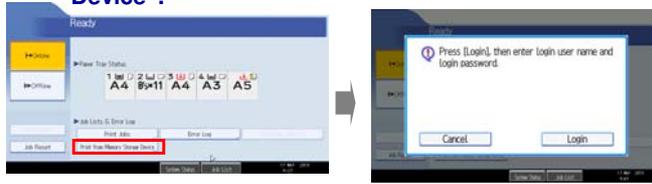
To print, click 'Start Printing'.

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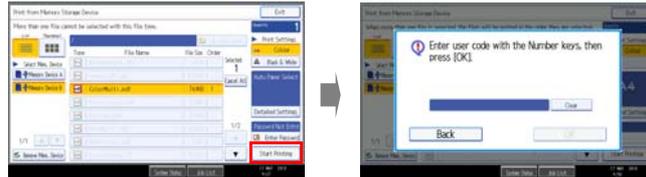
No additional notes

New Feature for this Series Print from USB/SD - 3

- ❑ If “Basic authentication” is enabled, users must input login user name and password after pressing “Print from Memory Storage Device”.



- ❑ If “User Code authentication” is enabled, users must input login user name and password after pressing “Start Printing”.



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No additional notes

**New Feature for this Series
Print from USB/SD - 4**

- When removing the USB/SD device, press “Remove Mem. Device” first, and follow the instructions.



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No additional notes

New Feature for this Series

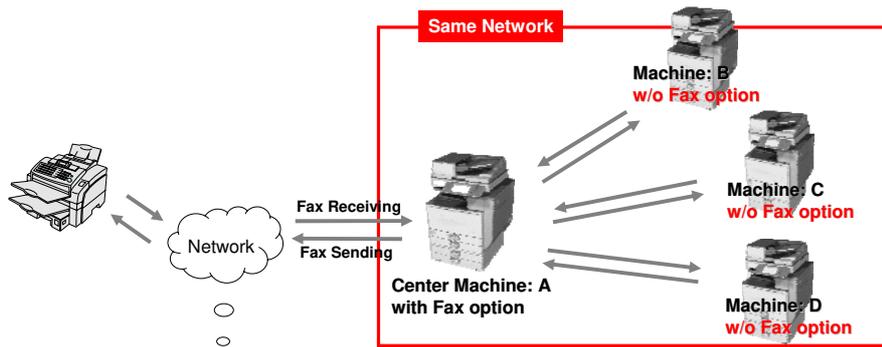
Print from USB/SD - 5

- ❑ **The following enhancements have been made to this feature since the AP/AT-C2.5.**
 - ◆ **Print preview:** There is a Preview button on the display panel. Press this to see a preview of the file that you want to print.
 - ◆ **Booklet printing:** PDF only
 - ◆ **Sort/stack/staple for JPEG files**
 - ◆ **Print multiple PDF or TIFF files:** In addition to JPEG files, multiple selection of PDF or TIFF files in same folder becomes available from this model (max: 999).
 - » Selecting multiple different format files or files stored in different folders is not possible.
- ❑ **Some PDF files whose file size is big can't be printed directly from USB/SD.**
- ❑ **Only the first page is displayed in the preview screen for files with multiple pages.**

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No additional notes

New Feature for this Series Remote Fax - 1



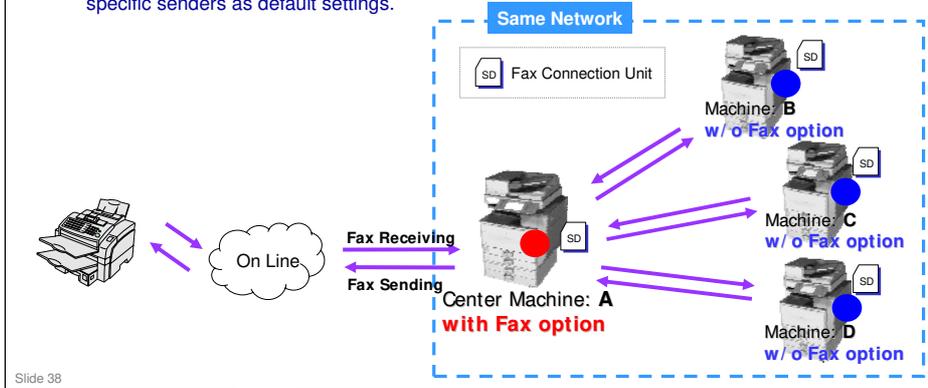
- ❑ With this feature, GW+ machines can send or receive faxes through a central GW+ machine with a fax option.
- ❑ Users can share the fax function with the central machine if it is on the same network. They don't have to buy multiple fax options and can reduce the number of fax lines.
- ❑ Note: HDD and printer option are required for both centre machine and sub machines.

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No additional notes

New Feature for this Series Remote Fax - 2

- **Center Machine**
 - Fax Option must be installed.
 - HDD and printer option must be installed.
 - * "Fax Connection Unit (SD card option for MFP)" must be installed.
- **Sub Machines**
 - HDD and printer option must be installed.
 - "Fax Connection Unit (SD card option for MFP)" must be installed.
 - * In order to receive fax document on sub machines, operators must register the addresses of specific senders as default settings.



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- ❑ Sub machines can select and register multiple center machines beforehand, but can only transmit to one center machine at a time.
- ❑ Sub machines must have their own address books. Sub machines cannot use the center machine's address book.

New Feature for this Series Customizable Home Screen - 1

Home key
Press to display the Home Screen.

Hard function keys
In the Factory default, no functions are registered. Users can register often used functions including SDK, programmed shortcuts and Web pages.

Status key
Press to check the machine's system status, operational status of each function, current jobs and the job history.

Customizable image area
Users can display an image here, such as a corporate logo.

Programmed shortcut icons
Users can add shortcuts to programs or Web pages to the Home screen. The program number appears on the bottom of the shortcut icon.
*No shortcut icons are registered in the Factory default.

Key for switching Home screen layout
Press to switch the layout of Home screen to 4 icons x 3 lines.
*Simplified layout (4 icons x 2 lines) to be displayed as the default setting.

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- ❑ Up to 72 icons can be registered on the home screen.

New Feature for this Series

Customizable Home Screen - 2

- ❑ **The displayed function icons and their order are customizable, and a bitmap such as a customer's corporate logo can be inserted at the upper right corner of the screen.**
- ❑ **In combination with user authentication, each user can have their own personal home screen that only displays those icons that he/she uses.**
 - ◆ **Personal home screens require a hard disk.**
- ❑ **Also a program short cut can be set on the home screen. Users can program a frequently used job operation on the home screen so that they can execute it with just one step.**

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No additional notes

New Feature for this Series Customizable Home Screen - 3

Types of Home screen

There is two types of Home screen, "Default Home screen" and "User's Home screen". "Default Home screen" is displayed when the authentication function is not active or when the authentication function is active and you are logged in as an administrator. The machine administrator can customize displayed icons and the layout on the "Default Home screen" from the operation panel or [Web Image Monitor](#). On the other hand, "User's Home screen" is available when user authentication is enabled, and it can be customized by each log-in user to make it more accessible!

Example

The diagram illustrates three home screen configurations:

- Default Home screen:** Features icons for Copier, Scanner, Printer, Facsimile, Document Server, eco Cooler Duplex & Combine, Secure Copier, and Favorite URL.
- User's Home screen for user A:** Customized with icons for eco Cooler Duplex & Combine, Digital copier, UNIQ OFFICE, RICOH.com, Document Server, Scanner, Printer, and Facsimile.
- User's Home screen for user B:** Customized with icons for BELUX OFFICE, UNIQ OFFICE, YOKOHAMA OFFICE, Copier, Document Server, Printer, and Facsimile.

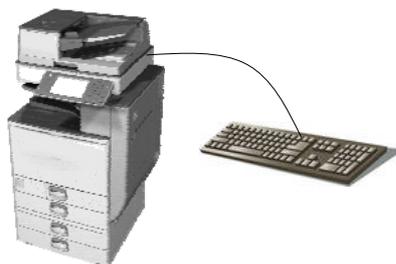
SDK applications can be activated with one touch operation!

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No additional notes

New Feature for this Series

External USB Keyboard



- ❑ This lets you use a Windows-compatible external USB Keyboard for typing when the software keyboard is displayed in GW applications.
- ❑ Before you can use an external USB keyboard for GW applications, it must be enabled in SP mode. (Default setting: for SDK applications)
 - ◆ You cannot type in both SDK applications and GW applications from one keyboard. If the USB keyboard is used for GW applications, it can't be used for SDK applications.
- ❑ The external USB keyboard can be connected to the USB port on the operation panel or the USB port on the back of the controller board.
- ❑ Keyboards and tables are not provided as options.

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No additional notes

New Feature for this Series MFP Full Browser - 1

- ❑ **This function lets users browse external web sites and print the displayed page directly from the machine's operation panel.**
- ❑ **Web page addresses can be registered as bookmark icons on the home screen.**
- ❑ **Example of use: If Ricoh's support web pages are bookmarked, users can check the machine's manuals at the operation panel.**
- ❑ **Requires the optional browser unit.**
 - ◆ Basic models must also be upgraded with a hard disk and printer option.

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- ❑ Paper size for HTML direct printing is fixed to A4/Letter.
- ❑ The 10 key pad on the operation panel can't be used for entering numbers in the url. Use the displayed character entry screen or the USB keyboard.

New Feature for this Series MFP Full Browser - 2

The screenshot shows a web browser interface on an MFP. The address bar displays 'http://www.ricoh.co.jp'. The main content area shows the Ricoh Japan homepage with Japanese text and images of office chairs. The interface includes a navigation bar with 'Back', 'Forward', 'Input', 'Refresh', and 'Stop' buttons. A 'Print this page' button is visible in the bottom right. A 'Favorites' button is in the bottom left. A vertical scroll bar is on the right side, and a horizontal scroll bar is at the bottom. A settings gear icon is in the top right corner.

Administrators can do the following by pressing this icon.

- Setting a specified URL as homepage
- Changing the character code and text size
- Managing Histories and Cookies
- Specifying Proxy server

Users can register a displayed web page in Favorites. Up to 100 URLs can be registered as "Favorites" per device.

Users can print the displayed web page directly. Available print settings are shown in the next page.

Vertical scroll bar

Horizontal scroll bar

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- Bookmarks for each user is not supported.
- Simultaneous usage with an external billing system such as a coin lock is not supported.
- Preview screen before printing web pages is not available.
- Page numbers and URL address of web pages are not printed.

New Feature for this Series Auto Job Promotion - 1



- ❑ **The machine can skip specific defective jobs and start printing the subsequent jobs.**
- ❑ **Before using this function, turn on 'Store and Skip Error Jobs' (in the 'System' menu of 'Printer Features').**
- ❑ **When the following errors occur, the job will be skipped and the next job will be printed.**
 - ◆ Specified paper size is not available.
 - ◆ Specified paper type is not available.
 - ◆ No paper on the specified paper tray
 - ◆ No staples (*This is not covered by pre-detection of errors.)
 - ◆ Hole punch receptacle is full (*This is not covered by pre-detection of errors.)

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- ❑ Jobs that are skipped will be stored as 'Hold Print' jobs (max: 200 jobs).
- ❑ Skipped print jobs can be reprinted from the operation panel or Web Image Monitor after the cause of the error is resolved.
- ❑ If the number of pages for pre-detection of errors is increased, a longer time will be required until the first page of the job is printed.
- ❑ Print jobs that use IPDS can't be skipped.
- ❑ When a Fiery controller or optional Counter Interface Unit is installed, this function is not available.

New Feature for this Series

Auto Job Promotion - 2

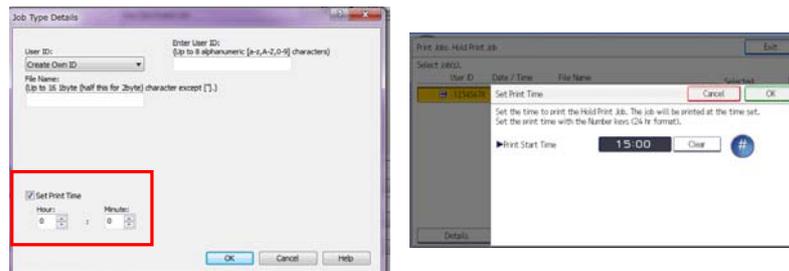
- ❑ **Although specific error jobs can be skipped, when an error occurs during printing a job, the job cannot be skipped and the machine will stop with an error message.**
- ❑ **To reduce the occurrence of such situations, administrators can set the number of pages for pre-detection of errors.**
- ❑ **Example: If 4 sheets of paper are left and a 10-page simplex print job is sent to the machine:**
 - ◆ i) when the number of pages for pre-detection of errors is 2
 - » It is confirmed that more than 2 sheets of paper are left, and the machine judges that no error will occur and starts printing. But paper end occurs and the machine will stop.
 - ◆ ii) when the number of pages for pre-detection of errors is 5
 - » The machine predicts that paper end will occur, so the job will be skipped and handled as 'Hold Print'.

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No additional notes

New Feature for this Series Scheduled Print

- ❑ This lets users delay printing to a specified time.
- ❑ The time can be input with the printer driver, as shown below left.
- ❑ The time can be changed at the operation panel or with Web Image Monitor, as shown below right.



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- ❑ Use this to print large jobs after office hours, so that others will not be prevented from using the machine.
- ❑ When the main power of the machine is turned off if the specified time has arrived, the Scheduled Print jobs are stored as Hold Print jobs.

New Feature for this Series Envelope Printing



- The standard tray and the bypass tray support printing on envelopes.

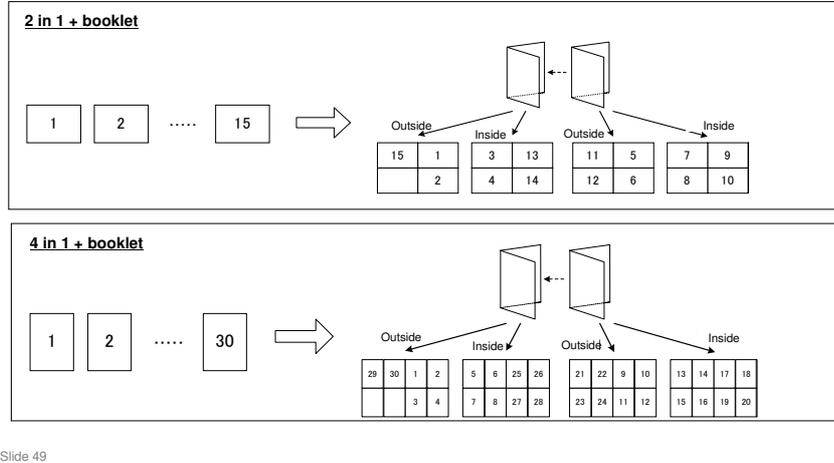
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No additional notes

New Feature for this Series Booklet Printing with Layout

- ❑ This allows printing of booklets that have more than one image on each page.

Examples of output



- ❑ This function is not available with PCL5 or XPS driver.
- ❑ It is available for the Mac OS (booklet printing was not available on the Mac before).
- ❑ First print output time will be slightly delayed when booklet printing with the PS3 driver.
- ❑ Specifying input tray and feeding paper from bypass tray are not possible for booklet printing with the PS3 driver.
- ❑ When printing files including PASSTHROUGH objects from Mac OS, this function will not work correctly.

New Feature for this Series Banner Page

A banner page is a page that is printed before the job, and contains information about the job.

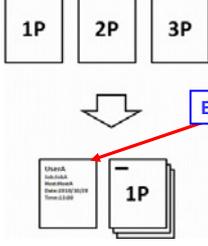


Users can activate this function on the property screen of printer drivers (PCL5, 6 & PS). This function is also available from Mac OS X 10.2or later.

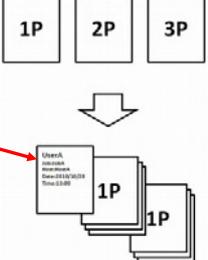
The following items are printed on a banner page.

- Log-in User Name, User ID or Windows/Mac account name
- The Date and Time the document was printed
- The originating computer hostname (server hostname will be printed when "Point & Print" is used).
- The Job name

Example: 3-page job with stapling



Example: 2 sets of a 3-page job

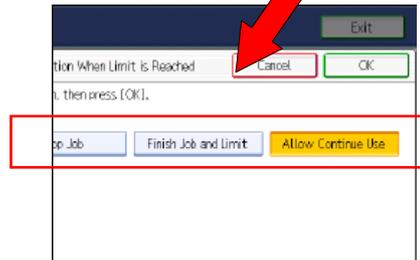
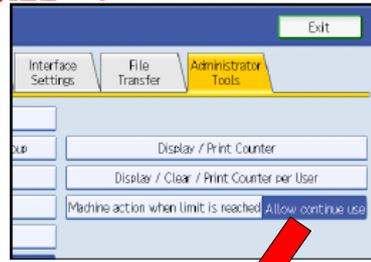


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- A banner page is used in network printing in order to separate documents (or "print jobs") from each other and to identify the originator of the print by user name.
 - In some cases, print jobs are sent to a central processing area where messengers take the printouts back to the owner, but the usual practice in modern office environments is for the user to retrieve his or her own documents. The banner page makes it clear who printed each job.
- Printed banner pages are counted as B&W jobs.
- The banner page is not available for "Sample print", "Locked print", "Stored print", "Hold print" and "Send to Document Server". Although exclusive control on printer driver UI is available on Windows OS, it doesn't work on Mac OS. This means that if both banner page and "Locked print" are selected at the same time on Mac OS, but the banner page setting is ignored.
- Landscape can't be selected as the orientation of banner pages.
- The NetBIOS name will be used as the Host name on banner pages. If users set a computer name which is longer than 15 bytes on a Windows OS, only the first 15 bytes of the computer name will be printed as Host name because of Windows OS specifications.
- If languages which are not supported by MFPs are included in the account name, computer host name or job name, the characters will be garbled.
- When users print multiple copies, just one sheet of banner page will be printed before the first copy. But please note that there are some applications which handle multiple copies as multiple jobs. In this case, banner pages will be printed before each copy.

New Feature for this Series Setting Quotas - 1

- ❑ This function allows the customer to set limits on the number of outputs for each individual user or group.
- ❑ The following applications can be managed with this function.
 - ◆ Copy
 - ◆ Print (including "Print from USB/SD")
 - ◆ Document Server
 - ◆ SDK
 - » Fax related jobs and "Mail to Print" jobs can't be limited.
- ❑ User authentication must be enabled.
- ❑ Possible Settings
 - ◆ Stop Job: When the maximum print volume is reached, both the current job and waiting jobs are canceled.
 - ◆ Finish Job and Limit: When the maximum print volume is reached, the current job is allowed to finish, but waiting jobs are canceled.
 - ◆ Allow Continue Use (Default setting): Print volume is not limited.



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- ❑ This is the same as for AP/AT-C2.5.

New Feature for this Series Setting Quotas - 2

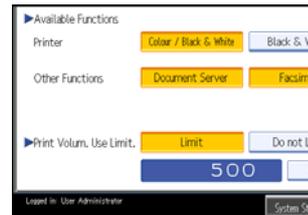
❑ **Specify a per-page unit count between "0" and "200" for each of the shown print conditions.**

- Note: The display is for a color copier.
- "Others" means paper sizes other than A3 and DLT (11 x 17 inch).
- The default per-page unit count for every print condition is "1".
- If you specify "0" for a print condition, no volume restriction is applied to jobs matching that condition.
- This setting can be done from "Web Image Monitor" also.



❑ **Specify the Maximum Count per User.**

- A value between "0" and "999,999" can be set for each user as the maximum available print volume.
- The maximum print volume for an individual user can also be specified in [Address Book] in "Web Image Monitor".



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❑ This is the same as for AP/AT-C2.5.

❑ Example

➤ If print conditions and Maximum Use Count of "User A" are specified as follows...

Copier: A3/DLT, B&W 10

Printer: A3/DLT, B&W 10

Copier: Others, B&W 5

Printer: Others, B&W 5

Maximum Use count of "User A": 500

➤ The following printing pattern is available for "User A".

50 pages of "Copier/Printer: A3/DLT, B&W"

100 pages of "Copier/Printer: Others, B&W"

New Feature for this Series Setting Quotas - 3

- ❑ Users need to log in with Basic, Windows, LDAP or User Code authentication.
- ❑ When a user reaches his/her assigned print volume limit, the machine will suspend the current job or display a message. After a user has reached his/her limit, all subsequent print/copy jobs will be cancelled.
- ❑ Printing of received faxes is always allowed. Manual print out of fax transmission reports, and fax documents stored in the document server are also allowed.
- ❑ When a paper jam occurs, the last page that is jammed will not be counted.
- ❑ Print out of reports will not be counted.
- ❑ Printing from Mac/Linux can't be managed.

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No additional notes

New Feature for this Series Scheduling of Quota Management

- ❑ **This function enables administrators to reset the print volume counters of each individual user or groups automatically after a set interval.**
- ❑ **Administrators can set the timing for auto-reset as follows:**
 - ◆ At a designated date and time
 - ◆ Every xx days from the designated date and time (xx can be 1 day - 180 days)
 - ◆ At a designated time on the designated date of every month
- ❑ **The time that the last auto-reset was done and the last print volume counter can be checked at the operation panel or Web Image Monitor.**
- ❑ **If the machine is turned off or in sleep mode at the designated time, auto-reset will be done when the machine is in ready mode.**
- ❑ **A hard disk is required.**

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No additional notes

**New Feature for this Series
Safe Shutdown**

- ❑ In this machine, a board (the SDB) protects the HDD unit.
- ❑ After the main power switch of the machine has been turned off, the SDB keeps the power supply to the controller until the HDD unit has been shutdown safely.
- ❑ When shutting down from normal stand-by mode, if the safe shutdown takes more than 2 minutes, there is a problem with the controller board. It may be necessary to replace this board.

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- ❑ This is the same as for AP/AT-C2.5.
- ❑ This table shows how long it takes to shut down from various machine conditions.
- ❑ SDB: Shutdown Board

Mode	Status	Details	Time to Shut Down
Stand-by	Stand-by	Stand-by Panel off Low power	Less than 10 s
		Operation SW off	0 s
Operation	Scanning Copying/Printing HDD deleting	-	Less than 20 s
	Firmware updating HDD encrypting	-	Less than 360 s
Error	SC issued	SC level A, D	Less than 360 s
		SC level B, C	Less than 10 s
	Application error	Application SD Removed	Less than 360 s
Starting up	Starting up	During 1 min. after application screen is displayed	Less than 80 s

New Feature for this Series Printing on Letterhead Paper

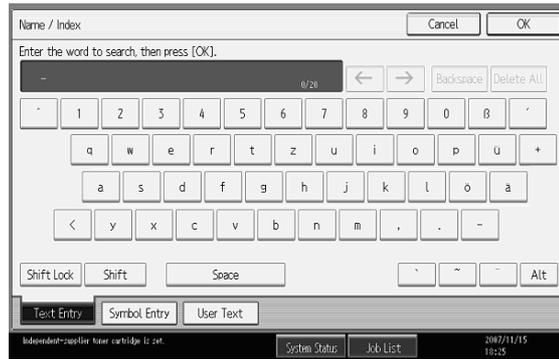


- ❑ **This setting changes the paper path.**
 - ◆ Off: Simplex pages go through the simplex path and duplex pages go through the duplex path.
 - ◆ Auto Detect: The paper path for simplex jobs with a paper type of "Letterhead", "Pre-printed" or "Pre-punched" is changed to the duplex path.
 - ◆ On (Always): The paper path for all simplex jobs with all types of paper is changed to the duplex path.
- ❑ **Simplex pages will still be counted as simplex jobs by the internal counter even if this setting is enabled.**

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- ❑ This is enabled with a printer bit switch.
- ❑ The purpose of the synchronizing the simplex and duplex paths is so that a single tray of preprinted paper can be used for both simplex and duplex pages.
- ❑ With the default setting, at least 2 separate trays are required for preprinted paper (one for simplex printing and the other for duplex printing). The paper is loaded face-up in one tray and face-down in the other. This can be a annoyance for customers.
 - The default setting is Off is to reduce wear on the duplex unit. The duplex unit may wear out early when this setting is always enabled. The degree of extra wear depends on print volume.
 - Note: If the preprinted paper is the same on both sides, then a single tray can be used and this setting will probably not need to be changed.
- ❑ If this feature is enabled, only a single tray of preprinted paper is needed for both simplex and duplex pages.

**New Feature for this Series
QWERTZ Keyboard**



- ❑ If the language is changed to German, the keyboard changes as shown above.

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- ❑ It is not possible to switch to a QWERTY keyboard.

New Feature for this Series Fax Line Assignment

- ❑ **When optional G3 lines are equipped, you can route faxes that come in on each line to a different receiver.**
- ❑ **You need to register a SUB code for each line before using this function.**
- ❑ **Example:**
 - ◆ **Users can specify that incoming faxes through Line 1 are printed on paper, the ones through Line 2 are forwarded to designated users by email, the ones through Line 3 are forwarded to a designated user's shared folder.**
- ❑ **One or more optional G3 Fax lines must be installed.**
- ❑ **Documents received through Internet Fax and IP-Fax cannot be routed.**

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No additional notes

New Feature for this Series

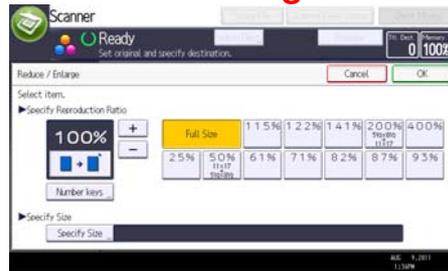
JBIG2 Compression

- ❑ JBIG2 typically generates files one third to one fifth the size of conventional compression methods.
- ❑ Before using this function, select "JBIG2" for "Compression Method (Black & White)" in "Send Settings" of "Scanner Features".
- ❑ JBIG2 compression works in the following scanning conditions.
 - ◆ Scan settings: Black and White
 - ◆ Scan File Type: PDF/ PDF-A (single page/ multi page)
 - ◆ Scan method: Scan to Folder/ email/ USB/ SD
- ❑ Tiff file format doesn't support JBIG2 compression. MH compression will be applied when scanning to Tiff.
- ❑ When a scanned document is stored in the Document Server, the applied compression method will be MH.
- ❑ JBIG2 compression can't be used in TWAIN scanning and WSD scanning.
- ❑ When JBIG2 compression is selected, the preview function is not available.
- ❑ Acrobat Reader version 5 or later is required to open files which were compressed with JBIG2.

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No additional notes

New Feature for this Series Reduce/Enlarge Scan



- ❑ With this function, users can reduce or enlarge a standard paper size to another standard paper size, for example, scanning A5 originals and changing to A4 sized data. Also, scanning can be done with an arbitrary reduction or enlargement ratio.
- ❑ When using 'Specify Size', if the originals are all different sizes, the image sizes will all be the same.

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- ❑ This function is not available for TWAIN scanning or WSD scanning.
- ❑ When using this function, "High Compression PDF" can't be selected as the file type.
- ❑ It is not possible to specify different reduction/enlargement ratios for height and width.

**New Feature for this Series
Enhanced Batch Scan**

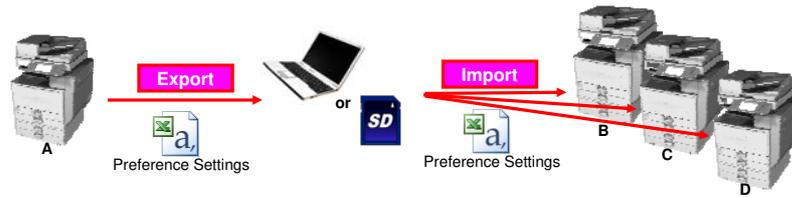


- ❑ **When one sided originals and two sided originals are mixed, users can switch the scanning to one side or both sides in a single batch scan job.**
 - ◆ Separate one sided originals from two sided originals within your stack of originals
 - ◆ Select "Batch" mode for and specify "Original Settings"
 - ◆ Set the correct portion of the batch of originals on the ADF and start scanning
 - ◆ When scanning of the first portion is finished, change "Original Settings" and set the other portion.
- ❑ **If this is done correctly, blank sides of one-sided originals in the batch will not be scanned.**
- ❑ **An ARDF is required for this function.**

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No additional notes

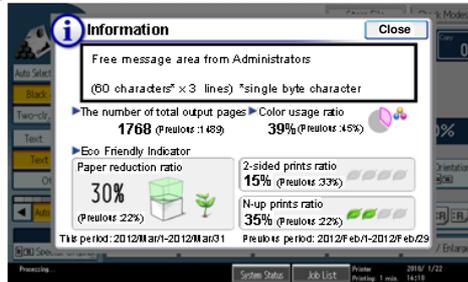
New Feature for this Series Import/Export of Preference Settings



- ❑ Users can output settings such as “System Settings”, “Application Settings” and shortcut programs to an SD card or a local folder of a client PC via Web Image Monitor, and they can apply these settings to other machines that have a GW+ controller.
- ❑ A Machine Administrator can export/import User Program (UP) settings, shortcut programs and the image displayed on the home screen, and a Customer Engineer can export/import Service Program (SP) settings.
- ❑ Exported settings will be in CSV format.
- ❑ The image displayed on the home screen will be exported in JPG format.
- ❑ Exported settings can be encrypted. *Factory Default: “Encrypt”
- ❑ Users or Customer Engineers can apply the same settings of an existing GW+ machine to other GW+ machines quickly. Therefore, users can reduce the amount of work when they install new machines.

- ❑ SP settings can be imported/exported between the same models with the same EDP code only.
- ❑ Import/export cannot be suspended once it has begun.
- ❑ A log of the Export/Import operation will be saved in CSV file format in the same folder in which the preference settings are exported.
- ❑ Importing/exporting address book information or shortcut programs which use address book information is not supported by this function. Please use an existing solution for copying address book information.

New Feature for this Series Information Screen (Eco-Friendly Indicator)

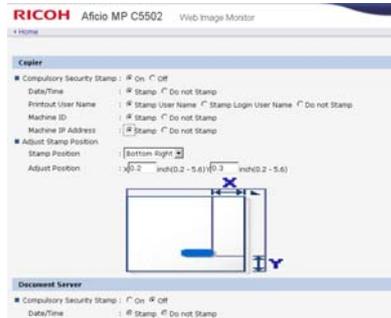


- ❑ When the user logs on, information about machine usage will appear. There is also a space for an administrator's message to appear.
- ❑ This may be used to improve the awareness of users to how heavily they are using the machine.
- ❑ This function is only available if the machine has a hard disk.

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- ❑ Displayed data depends on whether user authentication is disabled or enabled.
 - If user authentication is enabled => Eco counter for each user is displayed.
 - If user authentication is disabled => Eco counter for system (all users of the machine) is displayed.
- ❑ The Eco-Friendly Indicator is shown at these times
 - After log-in
 - After recovering from energy save mode (when user authentication is disabled)
 - After system auto reset (when user authentication is disabled)

New Feature for this Series Mandatory Security Information Print

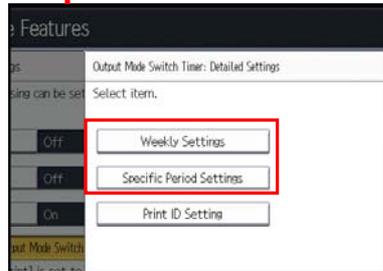


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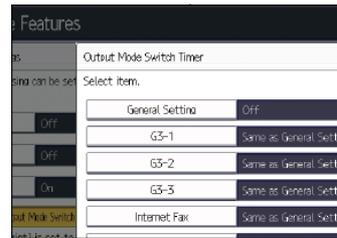
- ❑ If this feature is turned on, security information will be printed on the output.
- ❑ Before using this function, an administrator must activate this function at the operation panel or Web Image Monitor.
- ❑ Administrators can select which security information will be included.
 - ◆ Date and Time when the job was printed
 - ◆ Name or Log-in User ID of the user who printed the job
 - ◆ IP address of the device which printed the job
 - ◆ Serial number of the device which printed the job
- ❑ Also, the print position can be changed to upper left, upper right or lower left. (Default setting: lower right)

- ❑ When printing on small sized paper such as A6 or envelopes, a part of the security information may not be printed.
- ❑ If print fonts which are not supported by the device such as Chinese, Arabic, Korean or Thai are included, the security information can't be printed correctly.
- ❑ The directions of image and security information may not match when printing from a PS driver or IPDS.

New Feature for this Series Output Mode Switch Timer for Received Faxes



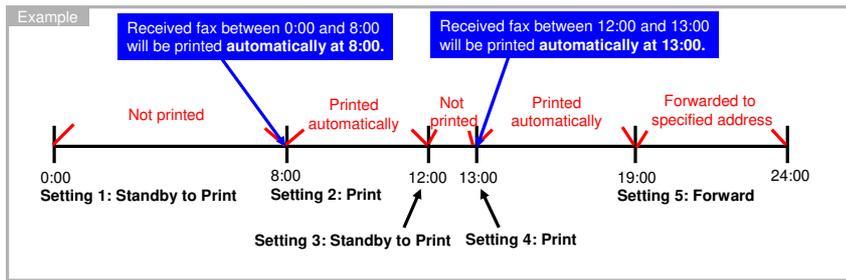
- ❑ Users can specify whether faxes received in a specific period are to be printed, to stand by to print, to be forwarded to a registered receiver, or to be saved on the HDD.
- ❑ Also, prohibiting automatic printing of received faxes can be set manually on the operation panel when this timer function is disabled.



- ❑ By utilizing this function, received faxes are not printed when users are not in their office, so they can reduce the risk of information leak from uncontrolled outputs.
- ❑ And also, it will be possible to forward faxes received when the office is closed to another working office.
- ❑ Printing from the LAN-FAX driver is always possible regardless of output mode switch timer setting.
- ❑ The machine must have a HDD.

- ❑ To use this function, specify the period of time to switch the output mode in "Timer: Detailed Settings", and then specify the output mode in "Output Mode" when the Output Mode Switch Timer function is enabled.
- ❑ Jobs affected by this timer
 - Received fax/ Internet fax/ IP fax documents
 - Mail to Print
 - Auto Report related fax application
- ❑ Available Timer settings
 - Weekly settings (set output mode switch timer for each day of the week)
 - Specific Period Settings (This timer is used when the office is closed for a long time.)
- ❑ Available Output Mode
 - Not Set (Default)
 - Print
 - Standby to Print (Printing received fax documents will be suspended.)
 - ID Required Print (an ID will be required to print suspended fax jobs.)
 - Forwarding (Received fax documents will be forwarded to a specified email address.)
 - Store (Received fax documents will be stored in Document Server.)
- ❑ These timer settings and output modes can be assigned for each fax line and type.

New Feature for this Series Output Mode Switch Timer for Received Faxes

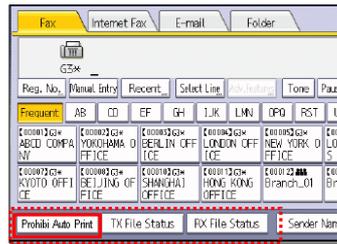


□ Up to 5 timers can be set per day.

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No additional notes

New Feature for this Series Output Mode Switch Timer for Received Faxes



- **When this feature is disabled:**
 - ◆ Users can specify whether or not to print the received faxes immediately with the “Prohibit Auto Print” setting.
 - ◆ Also, this setting can be registered as a Quick Operation Key, so users can easily switch the output mode of received faxes.

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No additional notes

**New Feature for this Series
Enhanced Encryption**



- ❑ This function lets users select safer encryption algorithms, AES256bit and SHA-2.

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AES256bit

- ❑ The Advanced Encryption Standard (AES) is a symmetric-key encryption standard adopted by the U.S. government. AES is also adopted by NESSIE in EU and CRYPTREC in Japan.
- ❑ There are 3 types of AES, and each of these ciphers has a 128-bit block size, with key sizes of 128, 192 and 256 bits, respectively. DES, the previous encryption standard, has a 56-bit key size, so AES with a 256-bit key size is much safer than DES.

SHA-2

- ❑ Secure Hash Algorithm-2 (SHA-2) is a set of cryptographic hash functions designed by the National Security Agency (NSA).
- ❑ SHA-2 has 224, 256, 384, and 512 bit hashes. Since SHA-2's hashes are longer than SHA-1 (160 bits), SHA-2 is safer than SHA-1. Ricoh basically adopts the 256-bit hash.

New Feature for this Series

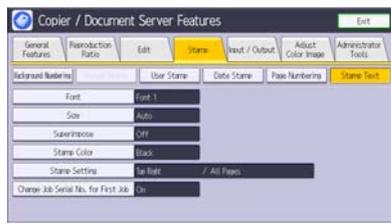
Bates Numbering

- ❑ **Bates numbering is used in the legal, medical, and business fields to place identifying numbers on documents as they are scanned or processed.**
- ❑ **Bates stamping can be used to mark and identify images with copyrights by putting a company name on them.**

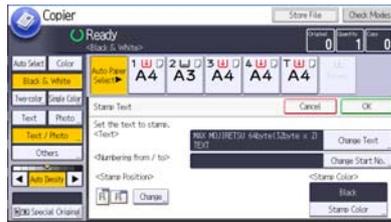
Slide 70

- ❑ “Auto Start”, “Interrupt Copy” and “Printing from Document Server” cannot be used with Bates numbering.
- ❑ Zero suppression for auto-increment numbering is available on SP mode.
- ❑ If the arbitrary text is long and its size is big, latter subset of numbering may not be printed.
- ❑ When this function is enabled, collated output is not available in copying multiple sets of multiple page document.

New Feature for this Series Bates Numbering



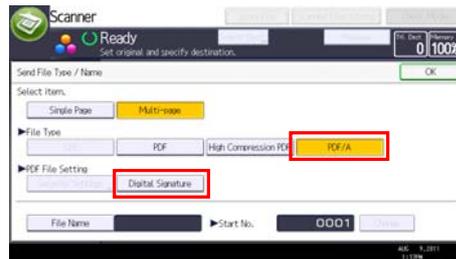
- Bates numbering is provided as a stamp function of the Copier application.
- By setting arbitrary text such as a company name, a nine-digit start number for auto-increment numbering, and stamp position, users can add Bates numbering on each page of copy output.
 - ◆ The total number of digits of arbitrary text and auto-increment numbering must be less than 64 bytes.
- To use this function, change the default setting of “Stamp Text” in “Copier / Document Server Features”.



Slide 71

No additional notes

New Feature for this Series Scan to PDF/A & Digitally Signed PDF



- ❑ This function enables users to scan paper documents to PDF/A format. Also, users can make digitally signed PDF files.
- ❑ Scan to PDF/A or Scan to Digitally Signed PDF is available for the following jobs.
 - ◆ Scan to mail
 - ◆ Scan to Folder (SMB/FTP/NCP)
 - ◆ Scan to USB/SD
 - ◆ Universal send to mail address destination / Folder destination from fax function
- ❑ Although Scan to PDF/A is available, adding a digital signature to PDF is not available for the following jobs.
 - ◆ Scan to Document Server
 - ◆ Forwarding incoming fax to mail address

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- ❑ PDF/A is a file format and an ISO Standard for the long-term archiving of electronic documents. Users can utilize this function when scanning paper documents related to quality management, or when submitting electronic documents with PDF/A format is required by governments.
- ❑ Also, users can avoid manipulation by utilizing the digitally signed PDF function when scanning receipts or contracts for which keeping the original content is needed.
- ❑ Some PDF viewer applications cannot open PDF/A files. (example: Acrobat 4.0 or earlier)
- ❑ Locked PDF/A function is not available on some SDK applications.

**New Feature for this Series
Scan to PDF/A & Digitally Signed PDF**



- ❑ **Registering a “Device Certificate” is required for making digitally signed PDF.**
- ❑ **Please add a certificate with Web Image Monitor. If the certificate is expired or the mail address of the certificate is wrong, users can’t generate a digitally signed PDF.**
- ❑ **Also, if the certificate is about to expire, users can select either continuing the job or canceling the job.**

Slide 73

No additional notes

Improved Feature Split Scan from Book Original



- ❑ This function scans the left page and right page of a double-page spread original separately. Users will receive the left and right pages as separate images.
- ❑ 1. Set a book type original on the glass.
- ❑ 2. Select “Book Type Original” at “Original Settings” in “Original Feed Type”.
- ❑ 3. Press “Start”

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No additional notes

Improved Feature

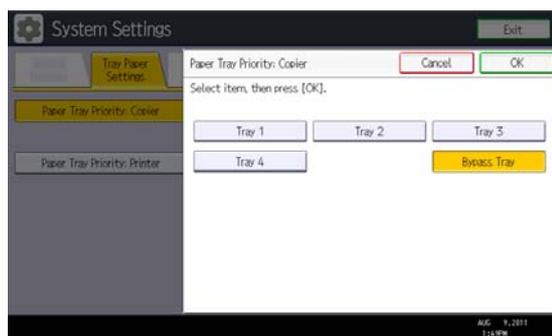
Scan to Web Mail (SSL over SMTP)

- ❑ **SSL encryption is supported when using scan to E-mail via SMTP server.**
 - ◆ Setting SSL for SMTP connection can be specified by the network administrator.
- ❑ **When SMTP over SSL is enabled, Internet Fax to Ricoh GW models is not available because GW models do not comply with SSL reception at this time.**

Slide 75

No additional notes

Improved Feature Paper Tray Priority



- ❑ From this model, the bypass tray can be set as the priority tray.

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No additional notes

Improved Feature User Codes

- ❑ **For the GW+ controller, the number of user codes is increased from 500 to 1000.**

Slide 77

No additional notes

Improved Feature Page Counters

- ❑ An A3/DLT billing counter has been added.
- ❑ This counter counts up by 1 for every A3 or DLT sheet.
 - ◆ The copy and total counters also count up by 2, as before.

Slide 78

Old system

- ❑ Total count = A4/LT sheets + (A3/DLT sheets x 2)

New system

- ❑ Total count = A4/LT sheets + (A3/DLT sheets x 2)
- ❑ A3/DLT counter = A3/DLT sheets x 1

Improved Feature Language Support

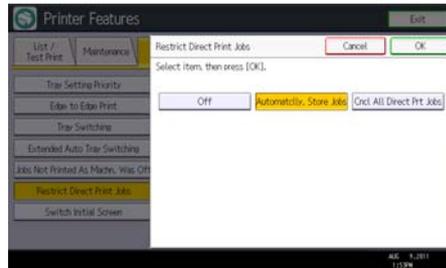
- ❑ **NA models: Brazilian Portuguese is now supported**
- ❑ **EU models: Greek is now supported**

Slide 79

No additional notes

Improved Feature Enhanced Print Functions using HDD

- ❑ **Mandatory Hold Print mode**
 - ◆ Select “Automatically. Store Jobs” to enable Mandatory Hold Print mode.
 - ◆ If “Cncl All Direct Prt Jobs” is selected, print jobs which are not stored in the HDD will be cancelled.
 - ◆ When printing hold print jobs, users must select single or multiple print jobs from the job list on the operation panel and press “Print”. Users can also delete them from operation panel when the jobs are no longer necessary or users find some wrong print settings.



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No additional notes

Improved Feature

Enhanced Print Functions using HDD

❑ Changing Print Settings on the operation panel

- ◆ When “Sample Print”, “Locked Print”, “Hold Print” or “Stored Print” is selected in printer drivers, users can change the print settings such as number of copies, color/monochrome, duplex, staples and so on at the operation panel before printing.
- ◆ Please note that users can't use the operation panel to change the print settings of jobs that are stored in Mandatory Hold Print mode.
- ◆ Color print jobs can be printed in B&W by changing the print setting on the operation panel, but the reverse is not available.

Slide 81

- ❑ Print settings cannot be changed when print jobs are sent via Centronics interface, USB or Bluetooth.

A presentation slide with a white background and a thin black border. In the top left corner, the word "RICOH" is written in a bold, red, sans-serif font. In the center of the slide, the text "D129/D130" is written in a bold, red, sans-serif font, followed by "Service Training" in the same style. Below that, the word "Installation" is written in a bold, blue, sans-serif font. In the bottom left corner, the text "Slide 82" is written in a small, grey, sans-serif font.

RICOH

D129/D130
Service Training

Installation

Slide 82

- ❑ This section explains important changes to the installation procedure since AL-C1.5.
- ❑ Installation for the copier is very similar to the AL-C1.5. However, the procedures for the options have some changes. Make sure that you use the correct procedures for the machine you are working on.

Overview

- ❑ Installation for the main machine and peripherals is basically the same as for the AL-C1.5.
- ❑ This section of the course shows the main changes.
- ❑ Some details are different, and some of the SP modes to use after installing peripherals such as paper trays have been changed.
- ❑ Always refer to the AL-C2 service manual when installing the machine and peripherals.

Slide 83

No additional notes

Bridge Unit – Extension Tray



- ❑ Pull out the extension tray [A] if the 1000-sheet finisher (D588) is to be installed.

Slide 84

- ❑ This is new.

Fax Connection Unit

- ❑ This option is required for the new Remote Fax feature (described earlier in the presentation).
- ❑ The feature is on an SD card. There is no need to set up any bit switches or SPs.

Slide 85

No additional notes

RICOH

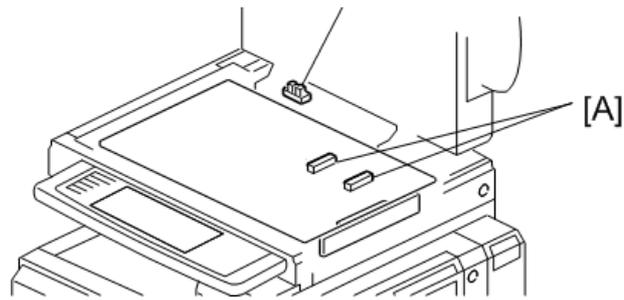
**D129/D130
Service Training**

Changes to the Engine

Slide 86

No additional notes

Scanner



- ❑ All models have a color CCD.
- ❑ The lamp has been changed to an LED array.
- ❑ There is no APS width sensor. The machine detects the document width with the CCD before scanning starts.
- ❑ The original length sensors [A] (for EU models) [B] (for NA models) detect the original length.

Slide 87

No additional notes

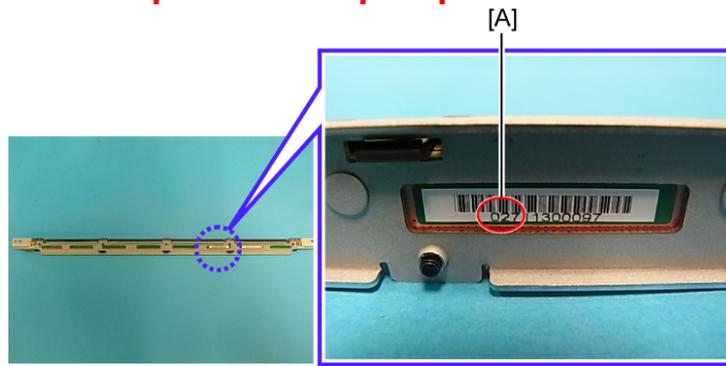
Original Width Detection Failure

- ❑ There is no original width sensor.
- ❑ The CCD detects the width of the paper before scanning (this is known as 'pre-scanning').
- ❑ If the original has punch holes, or is thin or transparent, the CCD may detect the incorrect width.
- ❑ The following problem may occur for thin originals:
 - ◆ If the user opens the cover during pre-scanning, they may get a strong light from the scanner lamp in their eyes.
 - ◆ To prevent this, the lamp power is less during pre-scanning (default: 60%).
 - ◆ However, with the reduced setting, sometimes the machine cannot detect the original size.
 - ◆ If this happens, increase the setting using SP4-309-004.

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No additional notes

**Scanner
Exposure Lamp Replacement**



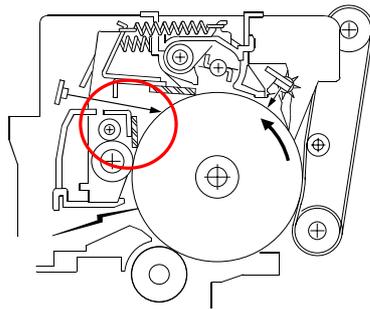
- ❑ Before installing the new exposure lamp, check the first three digits [A] in the bar-code on the new lamp.
- ❑ After installing the new lamp, go to SP4-954-005 and adjust the setting, referring to the table in the service manual.

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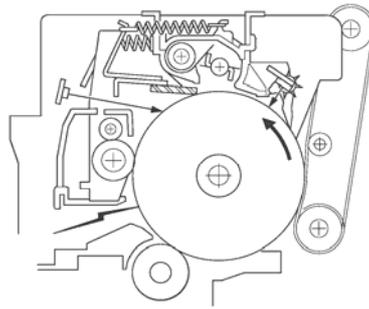
*Service Manual, Replacement and Adjustment, Scanner Unit,
Exposure Lamp*

- ❑ This setting is called the 'chromaticity rank', and needs to be adjusted for each lamp.

PCU



AL-C1. AL-C1.5



AL-C2

- **Drum cleaning blade 2 has been removed.**
 - ◆ This simplifies PCU replacement and cleaning, because it is not necessary to move springs to retract the cleaning blade away from the drum

Slide 90

No additional notes

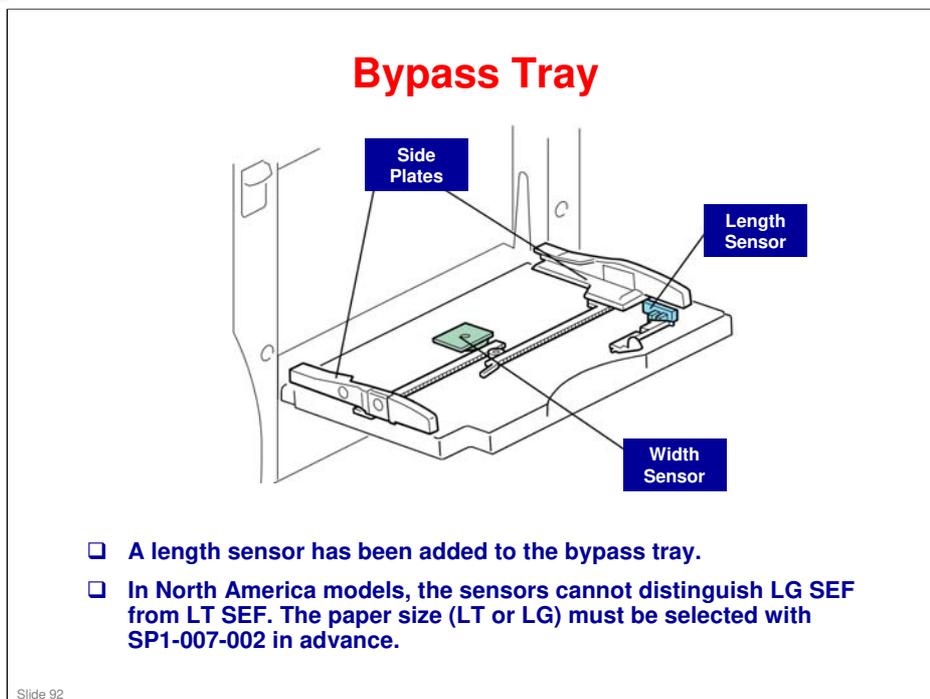
Paper Feed

AL-C1. AL-C1.5 B222D125
AL-C2 d129d125

- ❑ **A belt has been added at each vertical transport roller.**
 - ◆ These are called the upper and lower relay belts.

Slide 91

No additional notes



No additional notes

Boards

- **The BICU has been divided into two boards: BCU, and IPU.**
 - ◆ The same BCU board is used for the following three models: AL-C2, AP-C2, AT-C2

Slide 93

No additional notes

Fax Unit

- ❑ The MBU and FCU are combined into one board.
- ❑ After you replace the FCU, you must transfer the SRAM data from the old FCU to the new one.
- ❑ This is done by connecting the old FCU to the new one with a flat cable.
 - ◆ A flat cable is provided with the new FCU service part.
- ❑ The following data will be transferred: TTI, RTI, CSI, bit switch settings, RAM address settings, NCU parameter settings

Slide 94

- ❑ See the fax unit's service manual for the procedure.

