

ComColor FW Series

5230/5230R/5231/5231R/5000/5000R

Safety Information



 **CAUTION**

To ensure safety precautions, be sure to read this guide before using the product.
After reading this guide, keep it in handy for future reference.

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ComColor FW Series

Model: 62A01/62A02/62A03

This Product Contains RFID (Radio Frequency Identification) System

Model: 050-34901

Contains FCC ID: RPARFR6

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

The user is cautioned that unauthorised changes or modifications not approved could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

Contains IC: 4819A-RFR6

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

CAN ICES-3(B)/NMB-3(B)

Perchlorate Material-special handling may apply,
See www.dtsc.ca.gov/hazardouswaste/perchlorate
This product may contain certain substances which are restricted when disposed.
Therefore, be sure to consult your contracted service dealer.



R&TTE directive Class1 device

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Safety Precautions

This section describes the items that should be followed for safe use of this machine. Be sure to read this section before using the machine.

Warning Symbols

To use the machine properly and to prevent human injury and damage to properties, the following warning symbols are used. Read the meaning of the symbols to understand and then read this guide.



WARNING

Indicates that incorrect handling by ignoring this symbol may cause death or serious human injury.




CAUTION


Indicates that incorrect handling by ignoring this symbol may cause human injury or damage to properties.

Examples of symbols



The  symbol indicates a prohibited action. A specific prohibited action is drawn inside or next to the symbol. (The left figure indicates that disassembly is prohibited.)



The  symbol indicates a forced action or an instruction. A specific instruction is drawn inside the symbol. (The left figure indicates an instruction to remove the power plug from the electrical outlet.)

Power Plug

- If the following options are connected, you will have two or more plugs.
 - Face down finisher
 - Scanner

Installation Location



CAUTION

- Place the machine on a flat or stable surface. Otherwise, the machine might be inclined or fall down, resulting in human injury.
- When installing the machine without the use of a special scanner stand, do not install the machine in a location where it will be exposed to vibration from other machines. Otherwise, the machine may drop or fall and injure someone.
- The machine has ventilation openings. Place the machine at least 100 mm (3 15/16") from walls. If the ventilation openings are blocked, the inside of the machine may become hot and a fire might occur.
- Do not place the machine in a dusty or humid location. Otherwise, a fire or an electric shock might occur.

Power Connection



WARNING

- Install the machine near the wall socket to avoid using an extension cord between the machine and the wall socket. If an extension cord is absolutely required, do not use longer than 5m (15ft). Otherwise, a fire or an electric shock might occur.
- Do not damage or rebuild the power cord. Placing a heavy object on the cord or pulling or forcibly bending the cord may damage the cord, resulting in a fire or an electric shock.
- The power cord supplied with this product can be used only for this machine. Do not use it for another electric product. Otherwise, a fire or an electric shock might occur.
- Do not plug or unplug the power cord if your hands are wet. Otherwise, an electric shock might occur.






CAUTION

- Connect the plug securely to the electrical outlet to avoid a loose connection.
- Do not pull the power cord when unplugging it. Otherwise, it could become damaged and a fire or an electric shock might occur. Be sure to hold on to the plug when unplugging the power cord.
- If the machine will not be used for a long time, such as during a holiday, unplug the power cord from the electrical outlet for safety.
- Pull out the power plug from the electrical outlet at least once a year and clean the prongs of the plug and their surroundings. Dust collected on these areas can result in fire.

Handling

WARNING

- Do not place water containers or metallic objects on the machine. If water drips inside the machine or a metallic object drops inside it, a fire or an electric shock might occur.
- Do not remove the covers. Otherwise, you might be electrically shocked by the high-voltage part inside.
- Do not disassemble or rebuild the machine by yourself. Otherwise, a fire or an electric shock might occur. 
- Do not insert or drop any metallic material or flammable substances into the machine through any opening. A fire or an electric shock might occur.
- If something drops inside the unit, immediately press and hold the [Power] key to turn off the power for operations, then turn off the main power switch. Next, unplug the power cord and contact your dealer or authorized service representative. Continued use might result in a fire or an electric shock. 
- If the unit emits excessive heat, smoke or foul odor, immediately press and hold the [Power] key to turn off the power for operations, then turn off the main power switch. Next, unplug all the power cords and contact your dealer or authorized service representative. Otherwise, a fire or an electric shock might occur. 
- When using the IC card reader
The IC card reader continually emits a weak signal. If you are using a cardiac pacemaker and notice any abnormalities, immediately move away from the machine. Consult a physician immediately.

CAUTION

- Do not insert your fingers in the areas around the standard tray or stacking tray. Otherwise, an injury might occur.
- Do not touch the moving parts of the machine. Otherwise, an injury might occur.
- Be careful of protruding parts and metal terminals when inserting the hand inside the printer such as removing jammed paper. Otherwise, an injury might occur.
- The inside of the printer may have areas with ink. Be careful not to let the ink come in contact with your hands or clothing. Should ink accidentally make contact with your hands, wash it off with detergent as soon as possible.
- When moving the machine, contact your dealer or authorized service representative. If you try to forcibly move the machine, the machine may overturn, resulting in injury.

Ink Cartridge

CAUTION

- Avoid contact to eyes and/or skin. If ink gets into your eyes, flush it out immediately with plenty of water. If ink comes into contact with your skin, wash it off thoroughly using soap.
- Allow plenty of ventilation during printing. Seek fresh air immediately if you feel unwell during use.
- If you feel sick, seek medical advice immediately.
- Use the ink only for printing purposes.
- Do not dispose of used ink cartridges by burning. The ink is combustible and can cause the fire to grow, resulting in burns.
- Store ink cartridges out of the reach of children.
- The ink is a combustible liquid. In the event of fire, use potassium carbonate mist, foam, powder, or a carbon dioxide fire extinguisher.

Before Use

This section describes the precautions that must be observed before using the machine.

Installation Location

Observe the following precautions.

- **Your dealer will help you to determine a proper location for the machine at the time of delivery.**
- **When moving the machine, contact your dealer or authorized service representative.**
- **Avoid installing the machine in the following locations. Otherwise, incorrect operation, malfunction, or accident might occur.**
 - Places subject to direct sunlight or excessively illuminated such as next to windows (if inevitable, use a curtain at the window)
 - Places subject to sudden temperature variations
 - Places excessively hot and humid or cold and dry
 - Places close to fire or heat
 - Places directly subject to cold air from air conditioners or hot air from heaters, as well as radiant heat
 - Places with poor air permeability or ventilation
 - Dusty places
 - Places subject to excessive vibration
- **Install the machine in a place whose levelness is within the following specified range.**
Installation surface level: 2° or less
- **Operate the machine under the following environment conditions.**
Temperature range: 15°C to 30°C (59°F to 86°F)
Humidity range: 40% to 70% RH (non-condensing)

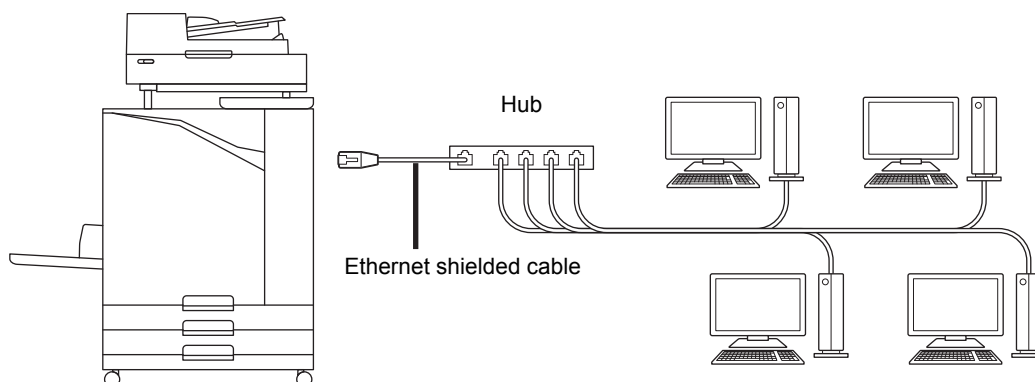
Power Connection

Observe the following precautions.

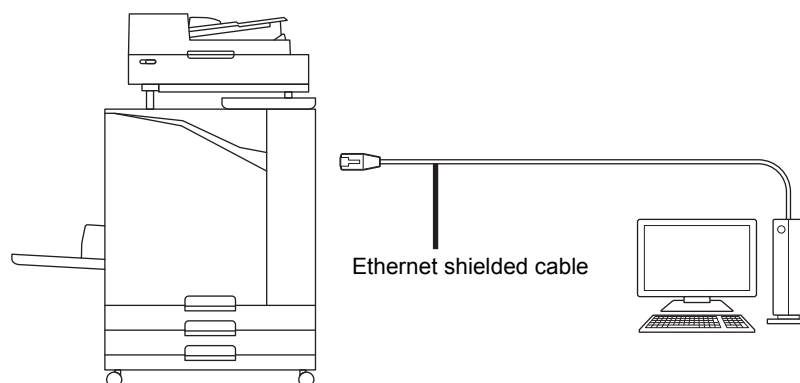
- **Connect the plug securely to the electrical outlet to avoid a loose connection. You may have two or more power plugs if you have options connected.**
- **Install the machine near an electrical outlet.**
- **When the scanner is connected to the printer using the USB cable, the scanner is turned on and off by the power of the main unit.**

Connecting to a Computer

■ Connecting to Multiple Computers



■ Connecting to One Computer



The maximum allowable voltage for all input/output connection is 5V.



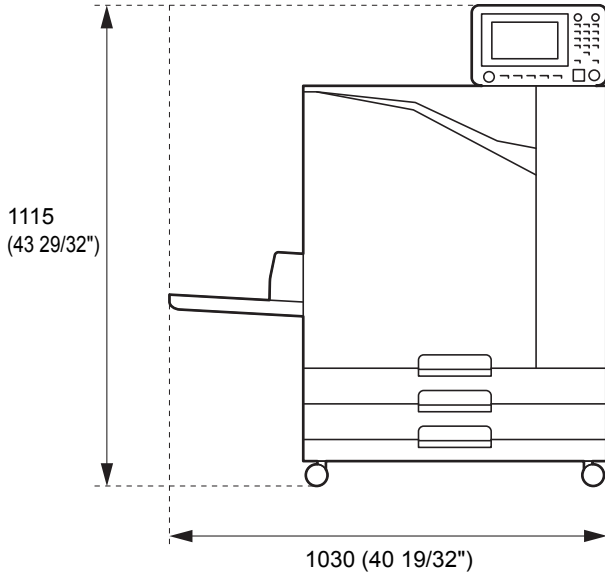
- Use a commercially available ethernet shielded cable.
It is recommended that you use one of the following types of ethernet shielded cables according to your network environment.
 - Cat 5 (Cat 5e) cable for 100BASE network
 - Cat 5e cable for 1000BASE network
- To print from a computer, you must install the printer driver. For the installation method, see **"Installing the Printer Driver"** in the **"User's Guide"**.

Required Spacing

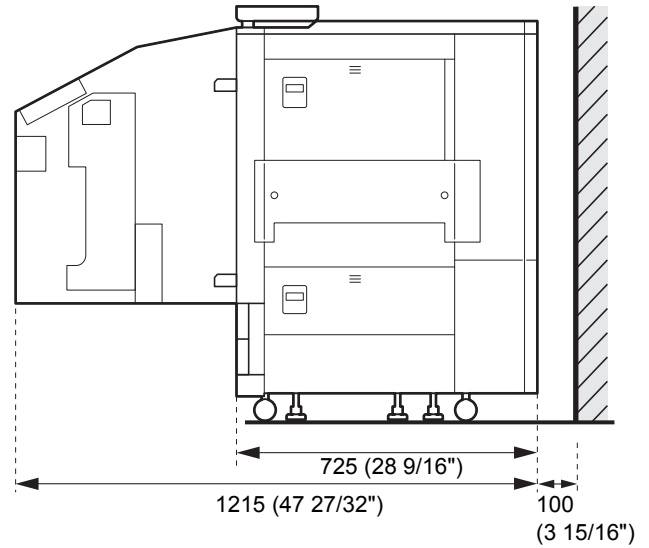
■ Main Unit

Provide sufficient space for the front cover to open.

● As seen from the front (with the standard tray open)



● As seen from the side (with the front cover open)

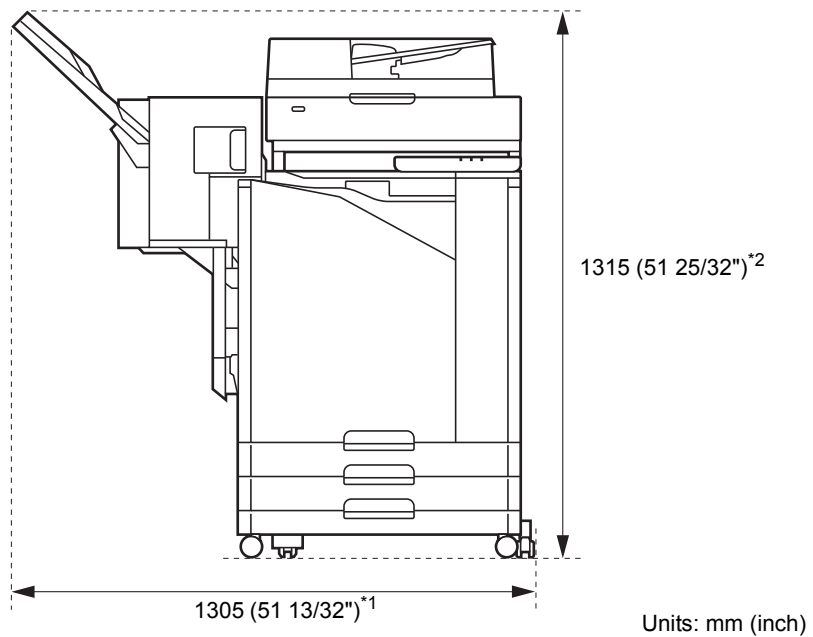


Units: mm (inch)

■ Main Unit with Optional Equipment Installed

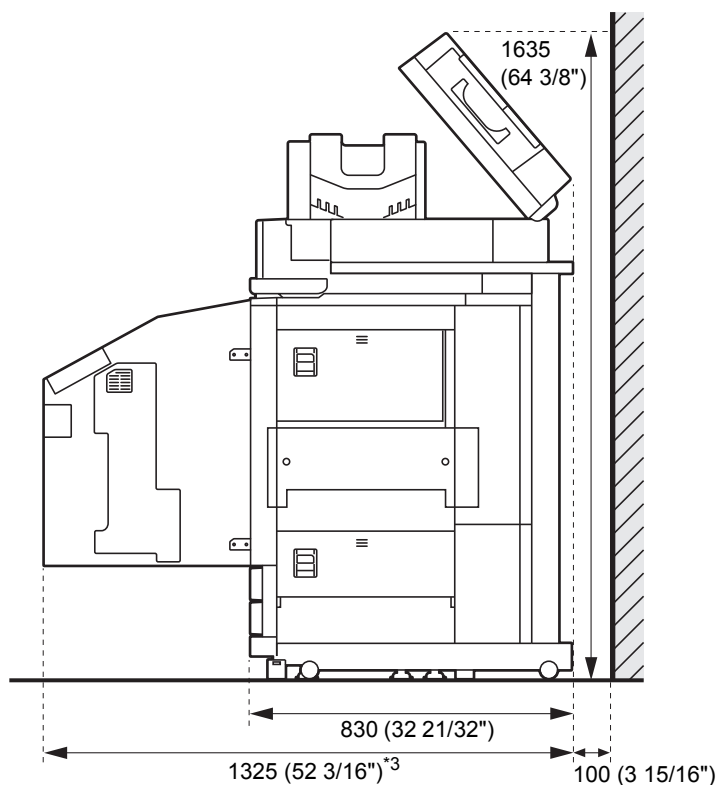
Provide sufficient space for opening the standard tray, the front cover, and the original cover of the scanner.

● As seen from the front



Units: mm (inch)

● As seen from the side



Units: mm (inch)

The size varies depending on the optional equipment used.

*1 Width	Main unit only	1,030 mm (40 19/32")
	Main unit and Scanner (when using special scanner stand)	1,065 mm (41 15/16")
	Main unit and Face Down Finisher	1,270 mm (50")
	Main unit and Wide Stacking Tray	1,680 mm (66 5/32")
	Main unit and Auto-Control Stacking Tray	1,580 mm (62 7/32")
	Main unit, Face Down Finisher, and Wide Stacking Tray	1,920 mm (75 19/32")
	Main unit, Face Down Finisher, and Auto-Control Stacking Tray	1,815 mm (71 1/2")
*2 Height	Main unit only (with the operation panel in the upright position)	1,115 mm (43 29/32")
	Main unit and Scanner (when using special scanner stand)	1,260 mm (49 5/8")
	Main unit and Face Down Finisher	1,315 mm (51 25/32")
*3 Depth	Main unit only	1,215 mm (47 27/32")
	Main unit and Scanner (when using special scanner stand)	1,325 mm (52 3/16")

The ComColor FW5230/FW5230R is used in the illustration of this machine.

Handling

- Do not use the main power switch to turn off the machine or unplug the machine during operation.
- Do not open any of the covers during operation.
- Do not move the machine.
- The machine contains precision components and moving parts. Therefore, do not perform operations not described in the guides.
- Do not place heavy objects on the machine or subject the machine to strong shocks.
- Open and close the covers gently.
- After turning off the main power switch, wait until the [Main Power] lamp goes off before turning on the main power switch again.
- Perform head-cleaning if the machine will not be used for a long time or before using the machine after a long period of non-use.
Ink may deteriorate or dry up in the ink feed path inside the machine, resulting in clogging of the print head. It is recommended that head-cleaning be performed regularly to prevent this from occurring.
- Do not touch the print head, as this can result in malfunction or deterioration in print quality.
- Always keep all the color ink cartridges in the machine. Do not leave the machine with the ink cartridges removed, even when not using the machine.

Originals

If you connect the optional scanner, you can copy or scan an original by placing it on the platen glass or in the ADF to be read.

If you use an original that is not compatible with this machine, it may result in problems such as paper jamming, soiling or malfunctions.

Specifications of Original Source

	Platen Glass	ADF
Original Size	Maximum 303 mm × 432 mm (11 15/16" × 17")	100 mm × 148 mm - 297 mm × 432 mm (3 15/16" × 5 27/32" - 11 11/16" × 17")
Original Weight	-*	52 g/m ² (14-lb bond) to 128 g/m ² (34-lb bond)
Original Type	-	Plain paper
Max. Capacity	-	200 sheets (when the weight is 80 g/m ² (21-lb bond))

* Platen glass durability: 200 N (over an A3-size area)

■ Precautions about Originals

Originals that have ink or correcting fluid must be dried before being placed on the platen glass.

The following types of originals cannot be scanned using the ADF, even when within the above specification range. Use the platen glass instead.

- Paper that has been cut and pasted
- Heavily wrinkled or curled paper
- Folded paper
- Glued paper
- Paper with holes
- Torn paper or paper with irregular edges
- Transparencies, tracing paper, and other highly transparent materials
- Art paper or coated paper with a processed surface on the front or back
- Thermal paper for fax machines or word processors
- Paper with an uneven surface

To accurate scanning

- When scanning photos or printed documents, make sure the surface of the original is flat.
- We recommend that you use an original with a font size of at least 5pt.

Printable Area

The size of the printable area varies depending on whether you are printing a job from a computer or copying a paper original.

■ Maximum Print Area

Model	Maximum Print Area		Print Area (Margin)	
	Printing	Copying	Standard	Maximum
ComColor FW5230/FW5230R/ FW5231/FW5231R	310 mm × 544 mm (12 3/16" × 21 13/32")	295 mm × 430 mm* (11 5/8" × 16 15/16")	5 mm (7/32")	3 mm (1/8")
ComColor FW5000/FW5000R	208 mm × 544 mm (8 3/16" × 21 13/32")	208 mm × 430 mm (8 3/16" × 16 15/16")	5 mm (7/32")	3 mm (1/8")

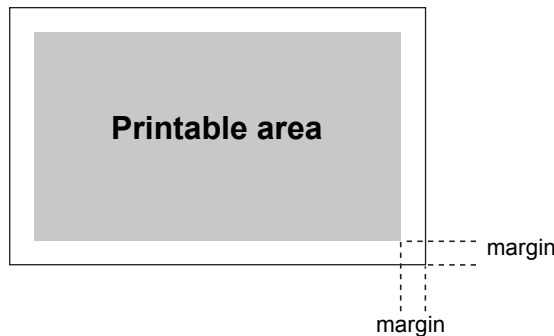
* When using the platen glass: 301 mm × 430 mm (11 27/32" × 16 15/16")



Printing without margins cannot be performed. Margins are always added around the edges of the paper.

■ Printable Area (Margin)

Some areas around the edges of the paper cannot be printed regardless of the data size of the original. See "Maximum Print Area".



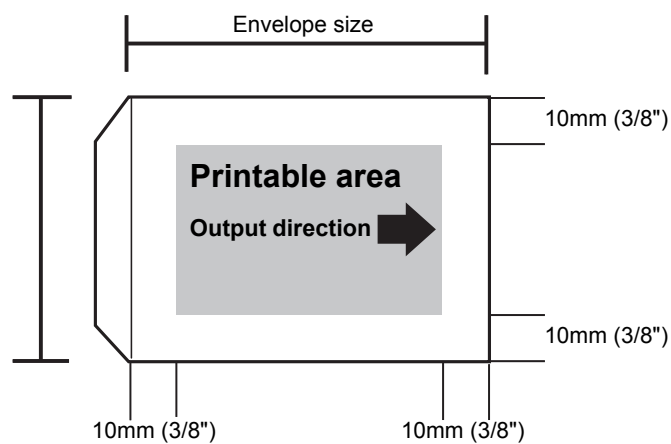


- Depending on the content of the original, text or images may be lost or bleeding may occur.
- Even when the paper size is within the maximum print area, a margin is always provided.
- When copying, the machine cannot scan the 1 mm (0.04") margin of the original.

■ Printable Area of Envelopes

- C4: 229 mm × 324 mm (9" × 12 3/4")
- C5: 162 mm × 229 mm (6 3/8" × 9")
- C6: 114 mm × 162 mm (4 1/2" × 6 3/8")
- DL R: 110 mm × 220 mm (4 5/16" × 8 21/32")
- Envelope 229 mm × 305 mm (9" × 12")
- Envelope 254 mm × 331 mm (10" × 13")
- NO.10 envelope 105 mm × 242 mm (4.125" × 9.5")

The printable area on envelopes is the area enclosed within 10 mm (3/8") of the edges of the envelope.
Any part of the image that does not fit within the printable area is not printed.



- When printing on envelopes, it is recommended you install the optional stacking tray or the envelope feeder.
- To also print on the flap section, you must register the envelope size including the flap section. For more information, contact your dealer or authorized service representative.
- You cannot use duplex print when printing on envelopes.

Printing Paper

- If you use paper that is not compatible with this machine, it may result in problems such as paper jamming, soiling or malfunctions.
- The specifications for the paper that can be loaded in the feed tray and standard tray differ.

Paper Basic Specifications

The paper type you can use depends on the unit you load paper in.

	Feed Tray	Standard Tray
Size	182 mm × 182 mm - 297 mm × 432 mm (7 3/16" × 7 3/16" - 11 11/16" × 17")	90 mm × 148 mm - 340 mm × 550 mm (3 9/16" × 5 27/32" - 13 3/8" × 21 5/8")
Weight	52 g/m ² (14-lb bond) to 104 g/m ² (28-lb bond) (45 kg - 90 kg (99 lb - 198 lb) Ream weight: duodecimo)	46 g/m ² (12-lb bond) to 210 g/m ² (56-lb bond) (40 kg - 180 kg (88 lb - 397 lb) Ream weight: duodecimo)
Paper Type	Plain paper, recycled paper	Plain paper, recycled paper, envelopes, postcards (plain paper), postcards (inkjet)
Maximum Load	Height up to 56 mm (2 3/16") in each tray	Height up to 110 mm (4 5/16")

■ Acceptable paper sizes depend on the output tray.

Face down tray: 90 mm × 148 mm - 340 mm × 550 mm (3 9/16" × 5 27/32" - 13 3/8" × 21 5/8")

(Envelopes are not acceptable.)

Face down finisher: When printouts are not collated: 90 mm × 148 mm - 340 mm × 550 mm
(3 9/16" × 5 27/32" - 13 3/8" × 21 5/8") (Envelopes are not acceptable.)

When offset output is applied:

Regular seized paper: 182 mm × 257 mm - 297 mm × 431.8 mm
(7 3/16" × 10 1/8" - 11 11/16" × 17")

Irregular seized paper: 131 mm × 148 mm - 305 mm × 550 mm
(5 3/16" × 5 27/32" - 12" × 21 5/8")

(When you use staples: A3/JIS-B4/A4/A4-LEF*/JIS-B5/JIS-B5-LEF/Ledger/Legal/Letter/Letter-LEF/Foolscap Only regular sized paper.)

Auto-control stacking tray: 90 mm × 148 mm - 320 mm × 432 mm (3 9/16" × 5 27/32" - 12 19/32" × 17")
(When using paper exceeding 432 mm (17") , close the paper guides.)

Wide stacking tray: 90 mm × 148 mm - 340 mm × 550 mm (3 9/16" × 5 27/32" - 13 3/8" × 21 5/8")

* LEF stands for Long edge feed



- The feed tray is not available for ComColor FW5231/FW5231R.
- Depending on the type of paper, operating environment, and storage conditions, even paper meeting these size and weight specifications may not be able to pass through the machine in some cases.

■ **Do not use the following paper types as they will cause problems such as paper jamming or malfunctions.**

- Paper that does not comply with the conditions in the basic specifications
- Paper with a processed surface, such as thermal paper or carbon paper
- Curled paper (3 mm (1/8") or more)
- Paper with wrinkles
- Bent paper
- Torn paper
- Paper with ripples
- Coated paper such as art paper
- Paper with jagged edges
- Glued paper
- Paper with holes
- Glossy paper for photographs
- Transparencies
- Yupo paper

■ **Always use paper from a sealed package.**

■ **After finishing the print job, return the unused paper from the standard tray to the package and store. If you leave the paper in the standard tray, the paper may curl and cause paper jamming. (It is recommended to take necessary sheets out of the wrapping paper and load them to the standard tray.)**

■ **If the paper is not cut cleanly or has a textured surface (such as drawing paper), fan the paper before use.**

■ **Store paper flat, away from high temperatures, high humidity, and direct sunlight.**

Printouts

■ **When using duplex printing, the edges of the paper may become dirty depending on the original.**

■ **Printouts lose their color (discolor) over time due to various chemicals in the air and light. You can protect printouts against discoloration by allowing the printout to fully dry and then inserting it into a glass frame or laminating it.**

■ **When storing printouts in a clear file folder, be sure to use only those made of polyethylene terephthalate (PET).**

■ **Printouts can lose color when they come in contact with water or sweat. Avoid storing printouts in a place subject to moisture. Writing on printouts with an oil-based pen can cause bleeding.**

■ **The print density of the printout immediately after printing differs from the print density 24 hours later. Print density decreases over time.**

■ **Do not place printouts from this machine on top of printouts from a laser printer or copier that uses toner. The paper might stick to the printed toner and the toner might transfer to the printout.**

Materials Not to Be Printed

- **Do not use the machine in any manner which violates the law or infringes on established copyrights, even when making copies for personal use. For more information, contact your dealer or authorized service representative. In general, use discretion and common sense.**

Ink Cartridge Storage and Handling Precautions

The ink cartridges for this machine are partly made of paper. For this reason, cartridges may become deformed and unusable if stored incorrectly or in an unsuitable environment. Store the ink cartridges properly, according to "Storage".

■ Storage

- When storing the ink cartridge, keep the ink cartridge in the original package, and store it horizontally in the direction indicated by the this-side-up mark.
- Avoid freezing or placement under direct sunlight. Store in areas between 5°C and 35°C (41°F - 95°F). Do not store in locations subject to extreme changes in temperature.
- If the plastic bag is opened but the ink cartridge is not to be used right away, store the ink cartridge properly and insert it into the machine as soon as possible.

■ Handling Precautions

- Do not shake the ink cartridge. This can create bubbles, resulting in a deterioration in print quality.
- Do not add ink into the ink cartridge.
- Remove the ink cartridge from its plastic bag just before inserting it into the machine.
- Adequate operation temperature is 15°C - 30°C (59°F - 86°F).

Using the ink cartridge outside the adequate operation temperature range can result in a deterioration in print quality (reduced ink discharge).

The spraying properties of the inkjet printer can vary depending on the ink viscosity. In particular, at lower temperatures, the ink viscosity increases and can result in clogging of the print head. Follow the information on the operation environment and storage temperature, check the manufacturing date, and use the ink cartridge within 24 months from the date of manufacture.

- If the cap of the ink cartridge is removed and the ink cartridge is left for a long period of time without being used up, various chemicals in the air can cause the ink cartridge to deteriorate.
Using ink that has deteriorated or changed in quality can damage the print head or ink flow path.
- Do not dump the ink left in the cartridge into the sewers.
- The ink is a combustible liquid.
In the event of fire, use potassium carbonate mist, foam, powder, or a carbon dioxide fire extinguisher.

Disposing of Used Ink Cartridges and Cleaning Tanks

- **The ink in the cleaning tank cannot be used for printing.**

Specifications

■ ComColor FW5230 / FW5230R Specifications

Basic Functions and Print Functions

Model Name		ComColor FW5230 / FW5230R: 62A01	
Type		Console	
Color Support		Full color (Cyan, Magenta, Yellow, Black)	
Print Type		Line-type inkjet system	
Ink Type		Oil-based pigment ink (Cyan, Magenta, Yellow, Black)	
Resolution		Standard: 300 dpi (main scanning direction) × 300 dpi (sub-scanning direction) Fine: 300 dpi (main scanning direction) × 600 dpi (sub-scanning direction)	
Number of Gray Levels		For each CMYK color (11 gray levels)	
Data Processing Resolution		Standard: 300 dpi × 300 dpi Fine: 600 dpi × 600 dpi Line smoothing: 600 dpi × 600 dpi	
Warm-up Time		2 min. 30 sec. or less (at room temperature of 23°C (73.4°F))	
First Print Time*1		5 sec or less (A4-LEF)	
Continuous Print Speed*2*6	A4-LEF*8	Simplex: 120 ppm	Duplex: 60 sheets/minute (120 ppm)
	Letter-LEF	Simplex: 120 ppm	Duplex: 60 sheets/minute (120 ppm)
	A4	Simplex: 90 ppm	Duplex: 45 sheets/minute (90 ppm)
	Letter	Simplex: 90 ppm	Duplex: 45 sheets/minute (90 ppm)
	JIS-B4	Simplex: 76 ppm	Duplex: 34 sheets/minute (76 ppm)
	A3	Simplex: 66 ppm	Duplex: 32 sheets/minute (66 ppm)
	Ledger	Simplex: 65 ppm	Duplex: 32 sheets/minute (65 ppm)
Paper Size	Standard Tray	Maximum: 340 mm × 550 mm (13 3/8" × 21 5/8") Minimum: 90 mm × 148 mm (3 9/16" × 5 27/32")	
	Feed Tray	Maximum: 297 mm × 432 mm (11 11/16" × 17") Minimum: 182 mm × 182 mm (7 3/16" × 7 3/16")	
Printable Area		Maximum: 310 mm × 544 mm (12 3/16" × 21 13/32")	
Guaranteed Print Area*3		Standard: Margin width of 5 mm (7/32") Maximum: Margin width of 3 mm (1/8")	
Paper Weight	Standard Tray	46 g/m ² (12-lb bond) to 210 g/m ² *9 (56-lb bond) (plain paper)	
	Feed Tray	52 g/m ² (14-lb bond) to 104 g/m ² *9 (28-lb bond) (plain paper)	
Paper Tray Capacity	Standard Tray	Height up to 110 mm (4 5/16")	
	Feed Tray	Height up to 56 mm (2 3/16") (2 trays)	
Output Tray Capacity		Height up to 56 mm (2 3/16")	
PDL (Page Description Language)		RISORINC/C IV	
Supported Protocols		TCP/IP, HTTP, HTTPS, DHCP, ftp, lpr, IPP, SNMP, Port 9100 (RAW port), IPv4, IPv6, IPsec	
Network Interface		Ethernet 1000BASE-T, 100BASE-TX, 10BASE-T (2ch)	
Memory Capacity		4 GB	
Hard Disk*5	Capacity	500 GB	
	Available Space	Approx. 430 GB	
Operating System		Linux	
Power Source		AC 100-240 V, 10.0-5.0 A, 50-60 Hz	

Power Consumption	Max. 1,000 W
	Ready ^{*4} : 150 W or less Sleep ^{*7} : 4 W or less Stand-by: 0.5 W or less
Operating Noise	Max. 65 dB (A) A4-LEF (Simplex) at the maximum print speed
A-weighted Sound Power Level ^{*10}	Max. 75 dB A4-LEF (Simplex) Monochrome/Color: 120 ppm
Operating Environment	Temperature: 15°C to 30°C (59°F to 86°F) Humidity: 40% to 70% RH (non-condensing)
Dimensions (W × D × H)	In use: 1,030 mm × 725 mm × 1,115 mm (40 19/32" × 28 9/16" × 43 29/32") With cover and tray closed: 775 mm × 705 mm × 970 mm (30 17/32" × 27 25/32" × 38 7/32")
Weight	Approx. 135 kg (297 lb)
Safety Information	IEC60950-1 compliant, Indoor, pollution degree 2*, At altitudes of 2000m or lower * The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.
Dimensions When Operating (W × D × H)	With the front cover open and the operation panel in the upright position: 1,305 mm × 1,215 mm × 1,115 mm (51 13/32" × 47 27/32" × 43 29/32")

*1 Within 10 minutes after the last print job

*2 When using plain paper and recycled paper (85 g/m² (23-lb bond)), and density setting 3 (Standard)
Chart used: Print measurement pattern [Color measurement sample 2 (JEITA standard pattern J6)]

*3 The margin when printing envelopes is 10 mm (3/8").
The guaranteed area when printing images is the area enclosed within 5 mm (7/32") of the edges of the paper.

*4 Without printing and temperature adjustment operation

*5 One gigabyte (GB) is calculated as 1 billion bytes.

*6 The continuous print speed varies depending on the type of optional output equipment connected.
Face down finisher: Without offset: 120 sheets/minute (A4-LEF Simplex)
Offset output: 105 sheets/minute (A4-LEF Simplex)

*7 When setting [Power Consumption (in sleep)] to [Low].

*8 LEF stands for Long edge feed.

*9 Duplex printing is not guaranteed with thick paper weighing 104 g/m² or greater.

*10 When using plain paper (62g/m² (17-lb bond))

■ ComColor FW5231 / FW5231R Specifications

Basic Functions and Print Functions

Model Name		ComColor FW5231 / FW5231R: 62A02
Type		Console
Color Support		Full color (Cyan, Magenta, Yellow, Black)
Print Type		Line-type inkjet system
Ink Type		Oil-based pigment ink (Cyan, Magenta, Yellow, Black)
Resolution		Standard: 300 dpi (main scanning direction) × 300 dpi (sub-scanning direction) Fine: 300 dpi (main scanning direction) × 600 dpi (sub-scanning direction)
Number of Gray Levels		For each CMYK color (11 gray levels)
Data Processing Resolution		Standard: 300 dpi × 300 dpi Fine: 600 dpi × 600 dpi Line smoothing: 600 dpi × 600 dpi
Warm-up Time		2 min. 30 sec. or less (at room temperature of 23°C (73.4°F))
First Print Time* ¹		5 sec or less (A4-LEF)
Continuous Print Speed* ^{2,6}	A4-LEF* ⁸	Simplex: 120 ppm Duplex: 60 sheets/minute (120 ppm)
	Letter-LEF	Simplex: 120 ppm Duplex: 60 sheets/minute (120 ppm)
	A4	Simplex: 90 ppm Duplex: 45 sheets/minute (90 ppm)
	Letter	Simplex: 90 ppm Duplex: 45 sheets/minute (90 ppm)
	JIS-B4	Simplex: 76 ppm Duplex: 34 sheets/minute (76 ppm)
	A3	Simplex: 66 ppm Duplex: 32 sheets/minute (66 ppm)
	Ledger	Simplex: 65 ppm Duplex: 32 sheets/minute (65 ppm)
Paper Size	Standard Tray	Maximum: 340 mm × 550 mm (13 3/8" × 21 5/8") Minimum: 90 mm × 148 mm (3 9/16" × 5 27/32")
Printable Area		Maximum: 310 mm × 544 mm (12 3/16" × 21 13/32")
Guaranteed Print Area* ³		Standard: Margin width of 5 mm (7/32") Maximum: Margin width of 3 mm (1/8")
Paper Weight	Standard Tray	46 g/m ² (12-lb bond) to 210 g/m ² * ⁹ (56-lb bond) (plain paper)
Paper Tray Capacity	Standard Tray	Height up to 110 mm (4 5/16")
Output Tray Capacity		Height up to 56 mm (2 3/16")
PDL (Page Description Language)		RISORINC/C IV
Supported Protocols		TCP/IP, HTTP, HTTPs, DHCP, ftp, lpr, IPP, SNMP, Port 9100 (RAW port), IPv4, IPv6, IPsec
Network Interface		Ethernet 1000BASE-T, 100BASE-TX, 10BASE-T (2ch)
Memory Capacity		4 GB
Hard Disk* ⁵	Capacity	500 GB
	Available Space	Approx. 430 GB
Operating System		Linux
Power Source		AC 100-240 V, 10.0-5.0 A, 50-60 Hz
Power Consumption		Max. 1,000 W Ready* ⁴ : 150 W or less Sleep* ⁷ : 4 W or less Stand-by: 0.5 W or less
Operating Noise		Max. 65 dB (A) A4-LEF (Simplex) at the maximum print speed
A-weighted Sound Power Level* ¹⁰		Max. 75 dB A4-LEF (Simplex) Monochrome/Color: 120 ppm

Operating Environment	Temperature: 15°C to 30°C (59°F to 86°F) Humidity: 40% to 70% RH (non-condensing)
Dimensions (W × D × H)	In use: 1,030 mm × 725 mm × 1,115 mm (40 19/32" × 28 9/16" × 43 29/32") With cover and tray closed: 775 mm × 705 mm × 970 mm (30 17/32" × 27 25/32" × 38 7/32")
Weight	Approx. 130 kg (286 lb)
Safety Information	IEC60950-1 compliant, Indoor, pollution degree 2*, At altitudes of 2000m or lower * The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.
Dimensions When Operating (W × D × H)	With the front cover open and the operation panel in the upright position: 1,305 mm × 1,215 mm × 1,115 mm (51 13/32" × 47 27/32" × 43 29/32")

- *1 Within 10 minutes after the last print job
- *2 When using plain paper and recycled paper (85 g/m² (23-lb bond)), and density setting 3 (Standard)
Chart used: Print measurement pattern [Color measurement sample 2 (JEITA standard pattern J6)]
- *3 The margin when printing envelopes is 10 mm (3/8").
The guaranteed area when printing images is the area enclosed within 5 mm (7/32") of the edges of the paper.
- *4 Without printing and temperature adjustment operation
- *5 One gigabyte (GB) is calculated as 1 billion bytes.
- *6 The continuous print speed varies depending on the type of optional output equipment connected.
Face down finisher: Without offset: 120 sheets/minute (A4-LEF Simplex)
Offset output: 105 sheets/minute (A4-LEF Simplex)
- *7 When setting [Power Consumption (in sleep)] to [Low].
- *8 LEF stands for Long edge feed.
- *9 Duplex printing is not guaranteed with thick paper weighing 104 g/m² or greater.
- *10 When using plain paper (62g/m² (17-lb bond))

■ ComColor FW5000 / FW5000R Specifications

Basic Functions and Print Functions

Model Name		ComColor FW5000 / FW5000R: 62A03
Type		Console
Color Support		Full color (Cyan, Magenta, Yellow, Black)
Print Type		Line-type inkjet system
Ink Type		Oil-based pigment ink (Cyan, Magenta, Yellow, Black)
Resolution		Standard: 300 dpi (main scanning direction) × 300 dpi (sub-scanning direction) Fine: 300 dpi (main scanning direction) × 600 dpi (sub-scanning direction)
Number of Gray Levels		For each CMYK color (11 gray levels)
Data Processing Resolution		Standard: 300 dpi × 300 dpi Fine: 600 dpi × 600 dpi Line smoothing: 600 dpi × 600 dpi
Warm-up Time		2 min. 30 sec. or less (at room temperature of 23°C (73.4°F))
First Print Time* ¹		5 sec or less
Continuous Print Speed* ^{2,6}	A4/Letter	Simplex: 90 ppm Duplex: 45 sheets/minute (90 ppm)
Paper Size	Standard Tray	Maximum: 340 mm × 550 mm (13 3/8" × 21 5/8") Minimum: 90 mm × 148 mm (3 9/16" × 5 27/32")
	Feed Tray	Maximum: 297 mm × 432 mm (11 11/16" × 17") Minimum: 182 mm × 182 mm (7 3/16" × 7 3/16")
Printable Area		Maximum: 210 mm × 544 mm (8 3/16" × 21 13/32")
Guaranteed Print Area* ³		Standard: Margin width of 5 mm (7/32") Maximum: Margin width of 3 mm (1/8")
Paper Weight	Standard Tray	46 g/m ² (12-lb bond) to 210 g/m ^{2,9} (56-lb bond) (plain paper)
	Feed Tray	52 g/m ² (14-lb bond) to 104 g/m ^{2,9} (28-lb bond) (plain paper)
Paper Tray Capacity	Standard Tray	Height up to 110 mm (4 5/16")
	Feed Tray	Height up to 56 mm (2 3/16") (2 trays)
Output Tray Capacity		Height up to 56 mm (2 3/16")
PDL (Page Description Language)		RISORINC/C IV
Supported Protocols		TCP/IP, HTTP, HTTPs, DHCP, ftp, lpr, IPP, SNMP, Port 9100 (RAW port), IPv4, IPv6, IPsec
Network Interface		Ethernet 1000BASE-T, 100BASE-TX, 10BASE-T (2ch)
Memory Capacity		4 GB
Hard Disk* ⁵	Capacity	500 GB
	Available Space	Approx. 430 GB
Operating System		Linux
Power Source		AC 100-240 V, 10.0-5.0 A, 50-60 Hz
Power Consumption		Max. 1,000 W Ready* ⁴ : 150 W or less Sleep* ⁷ : 4 W or less Stand-by: 0.5 W or less
Operating Noise		Max. 65 dB (A) A4-LEF* ⁸ (Simplex) at the maximum print speed
A-weighted Sound Power Level* ¹⁰		Max. 75 dB A4-LEF (Simplex) Monochrome/Color: 120 ppm

Operating Environment	Temperature: 15°C to 30°C (59°F to 86°F) Humidity: 40% to 70% RH (non-condensing)
Dimensions (W × D × H)	In use: 1,030 mm × 725 mm × 1,115 mm (40 19/32" × 28 9/16" × 43 29/32") With cover and tray closed: 775 mm × 705 mm × 970 mm (30 17/32" × 27 25/32" × 38 7/32")
Weight	135 kg (297 lb)
Safety Information	IEC60950-1 compliant, Indoor, pollution degree 2*, At altitudes of 2000m or lower * The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.
Dimensions When Operating (W × D × H)	With the front cover open and the operation panel in the upright position: 1,305 mm × 1,215 mm × 1,115 mm (51 13/32" × 47 27/32" × 43 29/32")

- *1 Within 10 minutes after the last print job
- *2 When using plain paper and recycled paper (85 g/m² (23-lb bond)), and density setting 3 (Standard)
Chart used: Print measurement pattern [Color measurement sample 2 (JEITA standard pattern J6)]
- *3 The margin when printing envelopes is 10 mm (3/8").
The guaranteed area when printing images is the area enclosed within 5 mm (7/32") of the edges of the paper.
- *4 Without printing and temperature adjustment operation
- *5 One gigabyte (GB) is calculated as 1 billion bytes.
- *6 The continuous print speed varies depending on the type of optional output equipment connected.
Face down finisher: Without offset: 120 sheets/minute (A4 Simplex)
Offset output: 105 sheets/minute (A4 Simplex)
- *7 When setting [Power Consumption (in sleep)] to [Low].
- *8 LEF stands for Long edge feed.
- *9 Duplex printing is not guaranteed with thick paper weighing 104 g/m² or greater.
- *10 When using plain paper (62g/m² (17-lb bond))

■ Scanner HS7000 (Optional)

Copy Functions and Scan Functions

Type	Flat Bed Scanner with Automatic Document Feeder (ADF)	
Scanning Modes	Copy mode: Color, Monochrome, Auto, Cyan, Magenta Scan mode: Color, Monochrome, Auto, Grayscale	
Scanning Resolution	600 dpi, 400 dpi, 300 dpi, or 200 dpi	
Maximum Scanning Area	303 mm × 432 mm (11 15/16" × 17") (when using platen glass) 295 mm × 430 mm (11 5/8" × 16 15/16") (when using ADF)	
Copy Functions	Writing Resolution	Standard: 300 dpi × 300 dpi Fine: 300 dpi × 600 dpi
	Copy Paper Size	Maximum: 303 mm × 432 mm (11 15/16" × 17") (equivalent to A3)
	First Copy Time	Monochrome/Color: 7 sec or less (when copying A4-LEF/Letter-LEF orientation using Color Priority Mode)
	Scanning Speed	Simplex copying (A4-LEF/Letter-LEF, using ADF): 70 ppm or higher Duplex copying (A4-LEF/Letter-LEF, using ADF): 70 ppm or higher
	Reproduction Size	50% to 200% (Copy mode) 50% to 200% (Scanner mode, resolution: 200/300 dpi), only 100% (Scanner mode, resolution: 400/600 dpi)
ADF	Type	Original source displacement (capable of scanning both sides of a document by simultaneous duplex scanning)
	Original Size	Maximum: 297 mm × 432 mm (11 11/16" × 17") (equivalent to A3) Minimum: 100 mm × 148 mm (3 15/16" × 5 27/32")
	Paper Weight	52 g/m ² (14-lb bond) to 128 g/m ² (34-lb bond)
	Original Capacity	80 g/m ² (21-lb bond) : Max. 200 sheets Height up to 25 mm (1")
Scan Functions	Scanning Gray Levels	10-bit input and 8-bit output for each RGB color
	Scanning Speed	Monochrome/Color: 100 ppm * RISO KAGAKU standard original (A4-LEF/Letter-LEF), 300 dpi, JPEG, PDF, when stored to main unit hard drive
	Network Interface* ¹	Ethernet 1000BASE-T/100BASE-TX/10BASE-T
	Data-saving Method* ¹	Save to main unit hard drive, server, or USB flash drive, or send by e-mail
	Data-saving Format* ¹	Monochrome: TIFF, PDF Grayscale/Full Color: TIFF, JPEG, PDF
Power Source	AC 100-240 V, 1.2-0.6 A, 50-60 Hz	
Power Consumption	Max. 100 W	
Dimensions (W × D × H)	640 mm × 560 mm × 255 mm (25 3/16" × 22 1/16" × 10 1/32")	
Weight	Approx. 25 kg (55 lb)	
Safety Information	IEC60950-1 compliant, Indoor, pollution degree 2*, At altitudes of 2000m or lower * The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.	
Dimensions When Operating (when connected to main unit) (W × D × H)	In use: 1,065 mm × 830 mm × 1,260 mm (41 15/16" × 32 21/32" × 49 5/8") With the front cover open and the operation panel in the upright position: 1,305 mm × 1,325 mm × 1,635 mm (51 13/32" × 52 3/16" × 64 3/8")	

*1 Via the internal host controller

■ Face Down Finisher F10 (Optional)

Type	External Unit
Finishing Functions	Offset output, staple
Applicable Paper Size	Without offset Maximum: 340 mm × 550 mm (13 3/8" × 21 5/8") Minimum: 90 mm × 148 mm (3 9/16" × 5 27/32")
	Offset output Regular sized paper width: 182 mm × 257 mm (7 3/16" × 10 1/8") - 297 mm × 431.8 mm (11 11/16" × 17") Irregular sized paper width: 131 mm × 148 mm (5 3/16" × 5 27/32") - 305 mm × 550 mm (12" × 21 5/8")
Paper Weight	46 g/m ² (12-lb bond) to 210 g/m ² (56-lb bond) (plain paper, recycled paper, postcards)
Tray Capacity	Height up to 108 mm (4 1/4")
Maximum Number of Staples	50 sheets ^{*1} A4, A4-LEF, JIS-B5, JIS-B5-LEF, Letter, Letter-LEF 25 sheets ^{*1} A3, JIS-B4, Ledger, Legal, Foolscap
Applicable Paper Size for Staple	A3, JIS-B4, A4, A4-LEF, JIS-B5, JIS-B5-LEF, Ledger, Legal, Letter, Letter-LEF, Foolscap
Paper Weight for Staple	52 g/m ² (14-lb bond) to 210 g/m ² (56-lb bond) (plain paper, recycled paper)
Staple Position	1 at front side (angle stapling) / 1 at rear side (angle stapling) 2 at center (parallel stapling)
Power Source	AC 100-240 V, 1.1-0.5 A, 50-60 Hz
Power Consumption	Max. 100 W
Dimensions (W × D × H)	635 mm × 695 mm × 580 mm (25" × 27 3/8" × 22 13/16")
Weight	Approx. 35 kg (77 lb)
Safety Information	IEC60950-1 compliant, Indoor, pollution degree 2*, At altitudes of 2000m or lower * The pollution degree of the usage environment due to dirt and dust in the air. Degree "2" corresponds to a general indoor environment.
Dimensions When Operating (when Connected to main unit) (W × D × H)	1,420 mm × 1,220 mm × 1,315 mm (55 29/32" × 48 1/32" × 51 25/32")

*1 When using plain paper and recycled paper (85 g/m² (23-lb bond))

■ IC Card Authentication Kit II (Optional)

Applicable Card	ISO 14443 TypeA/TypeB/TypeC (FeliCa [®] /Mifare [®])
Radio Law Category	Guided read-write communication equipment
Power Source	Power supplied from the USB port
Operating Environment	Temperature: 15°C to 30°C (59°F to 86°F) Humidity: 40% to 70% RH (non-condensing)
Dimensions (W × D × H)	93 mm × 65 mm × 19 mm (3 21/32" × 2 9/16" × 3/4") (excluding protruding parts)
Weight	Approx. 90 g (3 oz)

■ PS Kit FG10 (Optional)

Compatible Printers	ComColor FW series
Type	RIP option
PDL (Page Description Language)	PostScript [®] Level3 (CPSI:3019) *1 PDF (1.7) PCL/PCL XL (PCL5c 1.38) TIFF (6.0)
Supported Protocols	TCP/IP, HTTP, HTTPS, DHCP, ftp, lpr, IPP, SNMP, Port9100 (RAW port), IPv4, IPv6, IPsec
Installed Fonts	PS: 136 Roman fonts and 2 Japanese fonts PCL: 88 Roman fonts

*1 Genuine Adobe engine

Notice for European Union Member States

RISO, the environment and the Waste Electrical and Electronic Equipment Directive "WEEE Directive"

What is the WEEE Directive?

The purpose of the WEEE Directive is to reduce waste and ensure Electrical and Electronic Equipment is recycled at the end of its useful life.



What does the crossed out wheeled bin symbol mean?

The crossed out wheeled bin symbol indicates this product must be disposed of separately to normal waste. Please contact your RISO service agent for information about disposal.

What does the solid bar symbol mean?

The solid bar under the crossed out wheeled bin indicates this product was put on the market after the 13th August 2005.

Who should I contact if I want more information about the WEEE Directive?

You should contact your local RISO service agent for more information.

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