Canon

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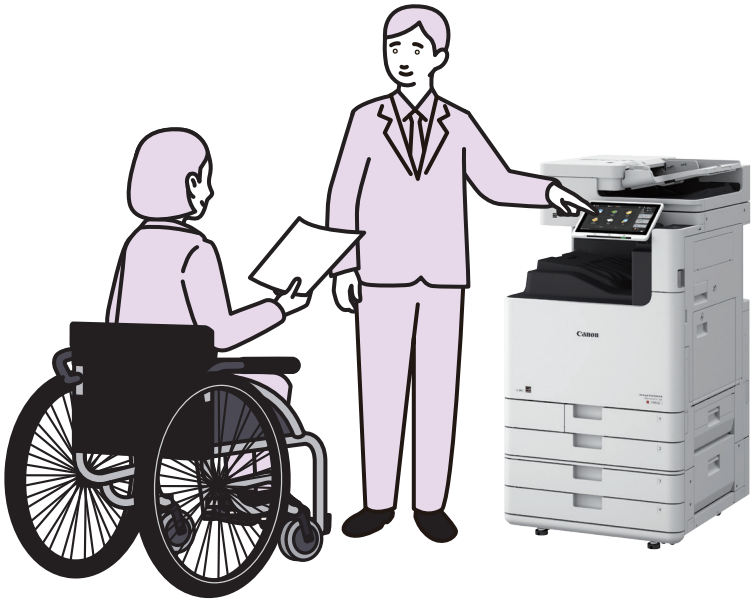
UNIVERSAL DESIGN GUIDE

We at Canon take great care to consider all our customers when providing products and services.

Since our founding, at Canon we have been dedicated to the development of technology that helps improve and enrich people's lives.
Our ideals are solidified under Canon's corporate philosophy of Kyosei, which we define as: "All people, regardless of race, religion or culture, harmoniously living and working together into the future."
In this spirit, Canon seeks to provide easy access for a wide range of users through Universal Design.
By means of extensive research and innovation, we strive to anticipate and help eliminate barriers that users may encounter when using our products. This enables more users to benefit from Canon technology.
Canon's ideas about Universal Design—as well as our efforts to realize them—are introduced in this guide.

Universal Design at Canon



Canon aims to create products with functionality, operability, and convenience in mind. On top of that, we strive to create products which can be used comfortably by anyone in any work activity. To help achieve this, we have adopted a user-centered Universal Design approach.

Engineering People into Product Design

By observing people's normal activities before, during, and after using Canon products, we are able to uncover a variety of issues that would remain unseen by merely looking at a device, and develop innovative solutions to these problems.

Our Unending Pursuit of Universal Design

In a rapidly changing world, adapting to a new life norm or new working styles is being called for at an even more rapid pace than ever. We at Canon are always listening to our customers, are always aiming to develop new technologies, and are always updating our products in the field.

Designing Products That Are Easy to Use and Understand

Universal Design considers the way people use a product. Canon considers the diversity of our customers and their working environments, and we develop our products so they are easy to use for as many people as possible.

THE BODY AND MOVEMENT

Difficult to reach

People who use wheelchairs or persons of shorter stature may have trouble reaching what they need. It's important that all operable parts of the device are within reach for all users.

One hand only

In the office, people hold documents with one hand and make copies with their other hand. Also, for those with missing or injured hands, it's important to be able to operate the device with only one hand.

Use of walking aids

For those who use canes or have injuries or limited use of their lower extremities and need to use crutches, it's important to enable device operation with one hand.

Cannot use fingers

Some people may have injured or missing fingers. That's why device operation shouldn't be too demanding nor should job programming require the pressing of many buttons.

Limited strength

People have varying levels of physical strength in their upper and lower extremities. Opening and closing certain access areas on multifunction printers and copiers must be easy and require minimal effort.

EMOTION

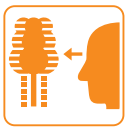
Awareness of others

Long lines of people waiting as you perform job tasks at the device can cause tension. Minimizing tension while working is important to help maintain productivity in the workplace.

Frustration

Investing much time and not getting the desired results from your work is frustrating. Easy-to-understand device operation panels, drivers and utilities, and instruction manuals are needed to support all functions.

SIGHT AND HEARING



Visual impairments

People with visual impairments or weak vision need operation panels that are easy to see. It also helps if there are other procedures that don't rely solely on vision.

Reduced visibility

The operation panel of a multifunction device can be difficult to see in low light or in direct sunlight near a window. Innovations are needed to improve visibility in various environments.

Difficulty viewing small text or numbers

It's helpful for operation panels to have large text so people with low vision can use them with little trouble.

Cannot visually differentiate

Some people have difficulty distinguishing certain colors. Also, it can be difficult for people to differentiate between words within a long list. Innovations are needed to make viewing easier.

Hearing difficulty

Anyone can have trouble hearing small sounds in a noisy environment. Also, people with hearing impairments can have difficulty hearing the device. Volume adjustment and innovations other than using sound are helpful to communicate with the user.

COGNITION

Cannot easily remember

Some people are unable to recall how to use a product, despite previous experience. Unfamiliar words and instructions can cause perplexity and stress for some.

Learning difficulties

Complex systems can be difficult to understand. It's hard to remember information if users don't understand the context. Therefore, it's helpful to devise products that can be operated intuitively, with little or no learning required.

Unclear cause-and-effect relationships

Some people become stressed when they don't understand how something happened. To help limit such situations, solutions are needed to easily show and describe cause-and-effect relationships.

The following pages show how the functions and innovations of our products address the issues above.

Available functions may vary depending on the country or region of purchase; the models of the machine; or installed optional products.

Easy-to-Lift ADF

The shape of the front side of the Automatic Document Feeder (ADF) allows users to lift it easily by pushing up at any part of the edge, using either hand and with minimal effort.

ADF Access Handle

People who use wheelchairs can easily and safely close the Automatic Document Feeder (ADF) with a handle that allows them to better reach the ADF from a seated position.

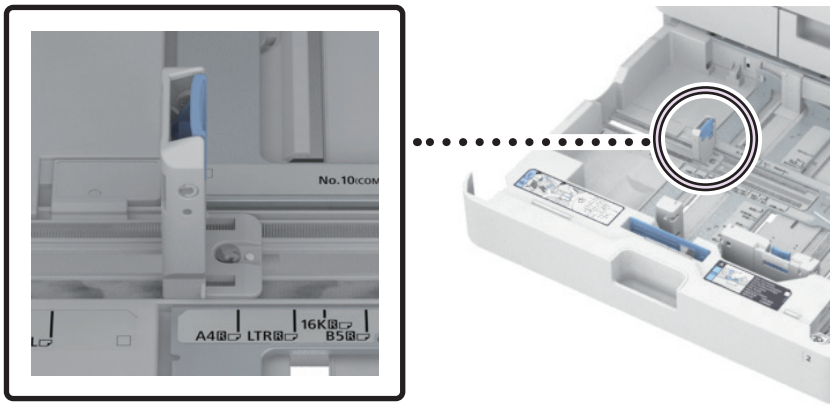
Alerting to Originals Left in Machine

If any originals are forgotten in the Automatic Document Feeder (ADF) or on the platen glass, indicator lights flash or the machine beeps to notify users. The shape and transparent color of the ADF allows users to notice originals that have been left behind.

Easily Opened and Closed Paper Drawers

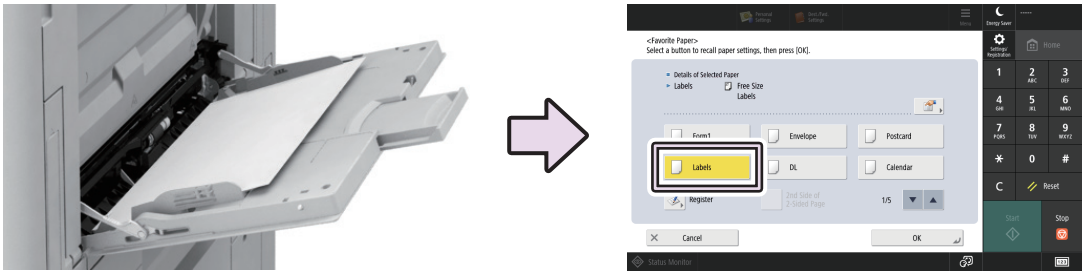
Paper drawers can be opened with minimal effort. Furthermore, the assisted closing feature requires only a gentle push by users to close paper drawers both smoothly and firmly.

Easy Paper Loading



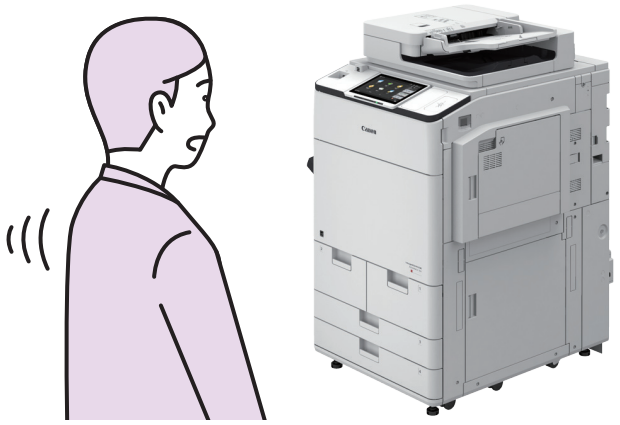
Users simply need to adjust the paper guides and close the drawer after loading paper. As the machine automatically detects the paper size, users do not need to configure additional settings to specify the size of the loaded paper. Paper guides can be moved easily and smoothly with one's fingers.

Simple and Automated Settings for Multi-Purpose Tray



Users can register on the machine the types of paper that they frequently use in the multi-purpose tray. After placing paper in the multi-purpose tray and selecting a registered paper type from the list, the user is ready to start their job. The multi-purpose tray even detects the paper size of standard-sized paper.

Easy Exit from Sleep Mode



The machine detects users approaching it and automatically exits from sleep mode. The machine also exits from sleep mode can be used promptly when users touch the operation panel or place originals.

Easy-to-Reach but Protected Power Switch

The main power switch is located so that it is easy to reach, and is protected by a cover to prevent users from accidentally turning off the machine.
Furthermore, when the main power switch is turned off, processes to protect the storage are automatically carried out before the machine shuts down.

Efficient Flow of Operations

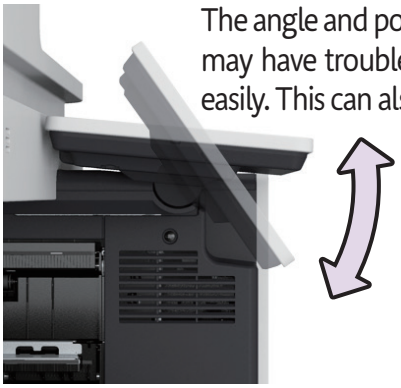
The operation panel is central to operating the device. Key points of operation, such as the touch point for a smartphone and the output tray, are conveniently located within reach of the operation panel. This allows users to return to the panel immediately after authenticating with a smartphone or IC card, and to pick up their printouts after using the operation panel to print a job.

Full Screen Operation Panel

Numeric keys and the Start button are displayed within the screen of the operation panel. Users can focus on the operation panel and complete their tasks with the shortest range of movement.

Adjustable Operation Panel

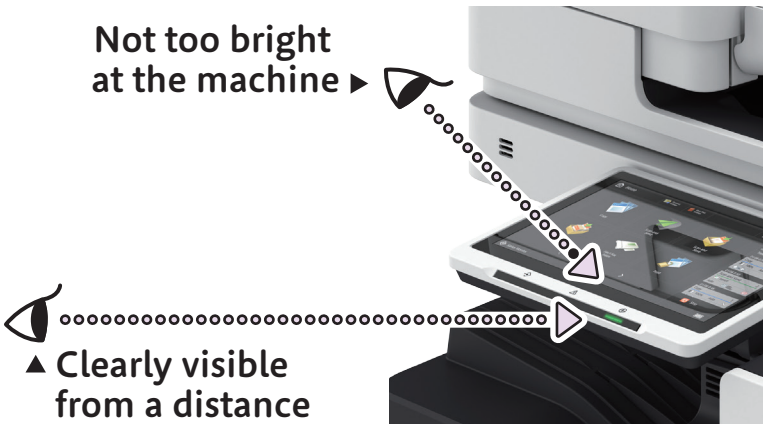
The angle and position of the operation panels can be freely adjusted. This helps people who may have trouble reaching the machine, such as those who use wheelchairs, to operate it easily. This can also help reduce glare on the screen for better viewing.



Flat Panel

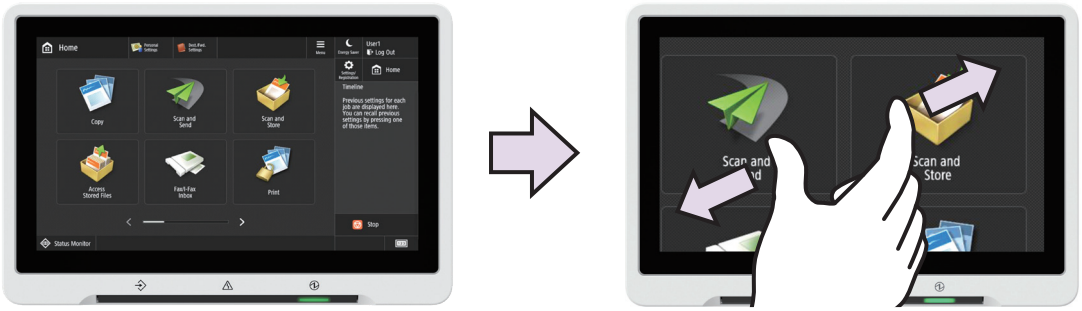
Upright Panel

Improved LED Indicators



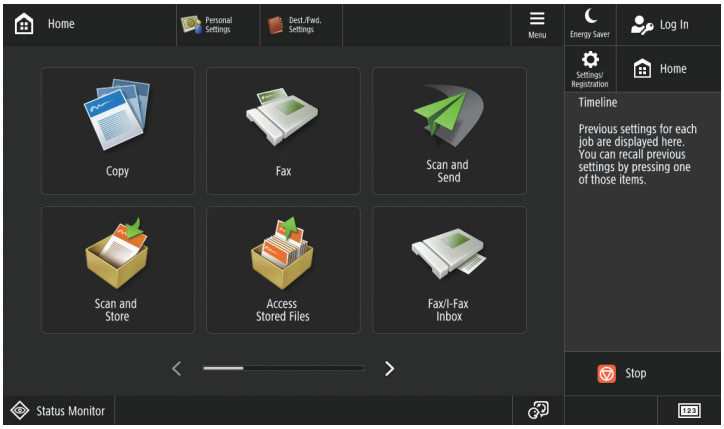
The illumination areas of LED indicators for warnings and messages have been increased without being excessively bright. This results in improved visibility from a distance while maintaining a comfortable operating experience when the user is standing at the machine.

Intuitive Touch Panel Operation



The “flick” and “pinch” features allow users to switch pages and scroll lists by swiping their finger up and down or left and right. The display and text can be enlarged by using two fingers.

Start from Home

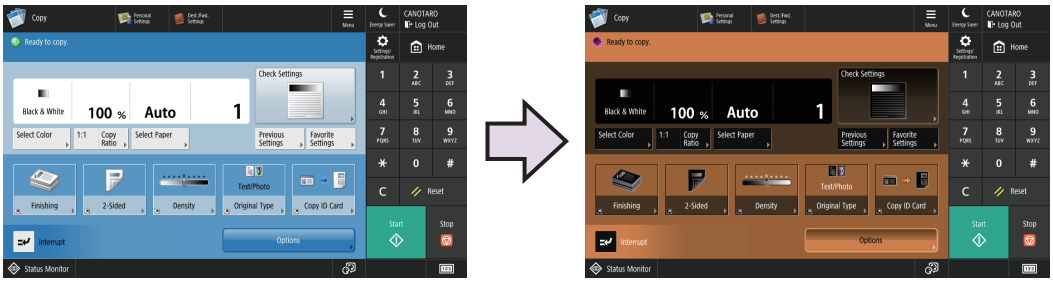


The Home screen tiles display the icons for each function. Users can start each function from the Home screen. Users can operate on the Home screen by touching, pinching, or swiping like a smartphone.

Multiple Language Support

The on-screen language can be switched to accommodate different languages used in the workplace. This can help users save time by allowing them to read information on the display in their own language.

Support for Improved Visibility

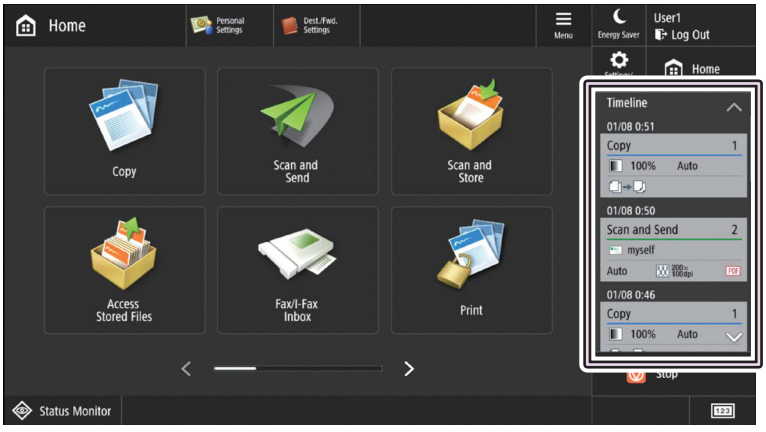


The display colors can be inverted to display light-colored characters on a dark background. This helps improve contrast and clarity for users with certain visual impairments, or for bright operating environments where it may be more difficult to see the display.

Customizable Home Menu

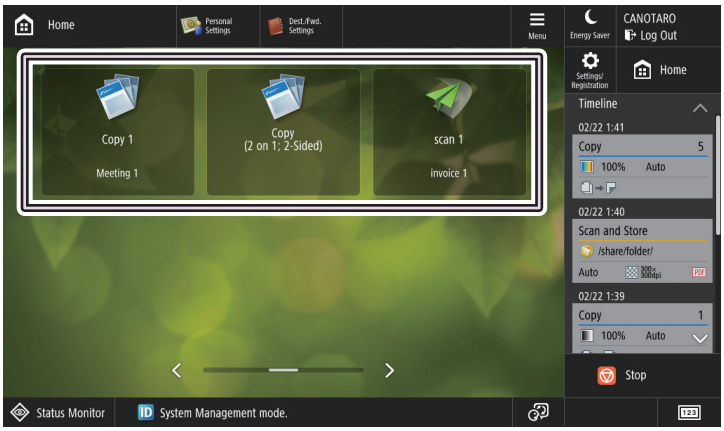
The touch panel display can be customized to help make frequently used functions easier to find, or even modified so that only frequently used features are displayed. This can help improve productivity by allowing users to quickly find the functions they need.

Recall Previous Jobs Easily from Timeline



A history of recently performed jobs is recorded on the Timeline. Users do not need to remember the exact settings of a previous job. They only need to select and perform a previous job from the Timeline.

One-Touch Operation

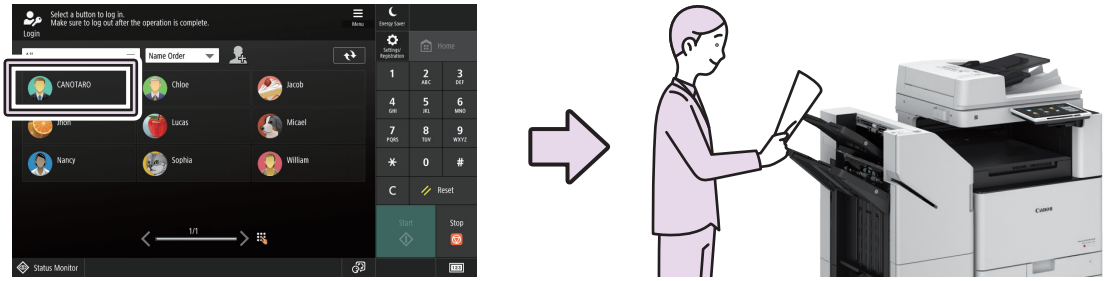


Combinations of frequently used or routine settings can be registered as a shortcut button on the Home screen. Users start a job just by pressing the shortcut button. Users do not have to remember a combination of settings for the job.

Customizable by Individual Users

Users can customize the Home screen settings or the language setting depending on their own work and tasks. Combined with an authentication function, the customized screen for a user is automatically displayed when that user logs in.

Authentication-Activated Printing



Combined with an authentication function, the machine can be configured to automatically print jobs waiting for a user after that user logs on. This not only saves time, but also prevents the user from forgetting to take their printouts.

IC Card for Printing

User management via individual authentication is possible using cards such as employee ID cards. Jobs printed from computers are temporarily stored, and can then be printed after authenticating with the device. With this authentication system, people with visual impairments can be sure that they are picking up their own printouts.

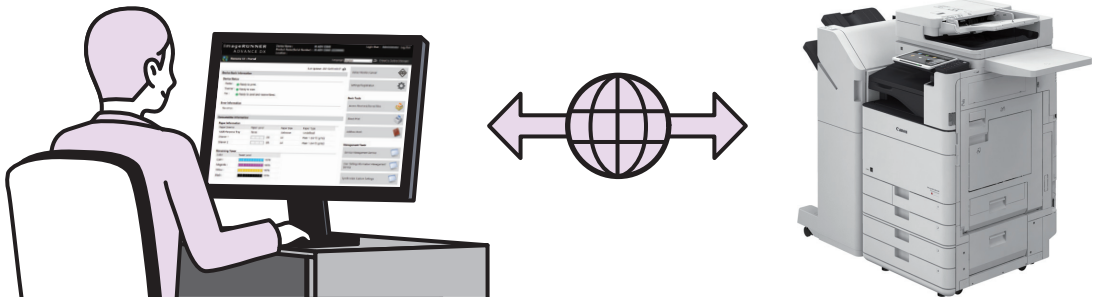
Easy Operation from Mobile Devices

"Canon PRINT Business" allows a direct connection between a smartphone and the machine when installed on a user's smartphone, even when Wi-Fi is not available.The user can perform printing or scanning from their smartphone.

Emulated Operation Panel on a Computer or Smartphone

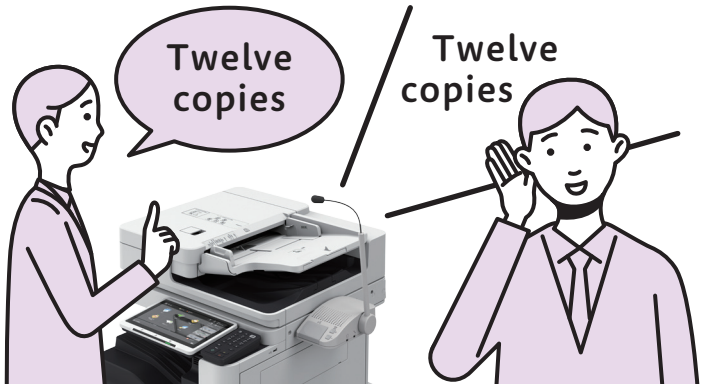
The machine can be controlled over a network using a computer or smartphone, displaying the same interface as the operation panel on the machine. This allows users to operate the machine remotely from their desks without touching the operation panel.

Managing and Configuring from Remote UI



The Remote UI can be accessed from a standard Web browser. Users can check the status of the machine or configure the machine remotely from their desks. This helps all users to spend less time at the machine.

Voice Operation and Audible Guidance



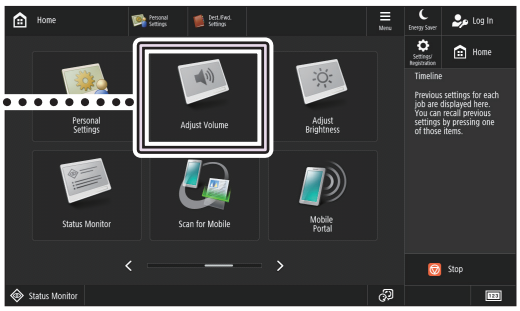
Voice operation and audible guidance features are available for users with visual impairments or who may have problems using the touch panel. Users can operate the machine simply by speaking to it. The audible guidance feature with a simplified keypad assists users to perform their operations with audible confirmation of each step.

Easy-to-Hear Notifications

Entry Tone **Pressing keys**	Single beep
Emphasized Warning Tone **Replace toner cartridge**	Continuous beeping

Different notification tones are used to indicate the machine status. Users can know the type and urgency of the notification even without looking at the machine. This can be helpful for those who may have visual impairments.

Volume Adjustment

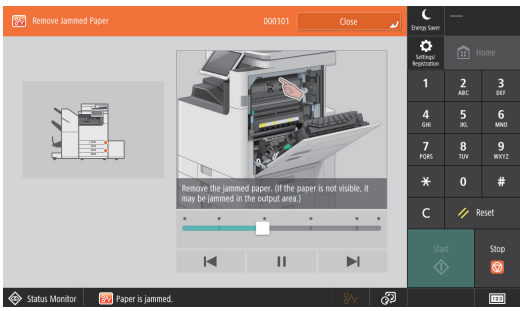


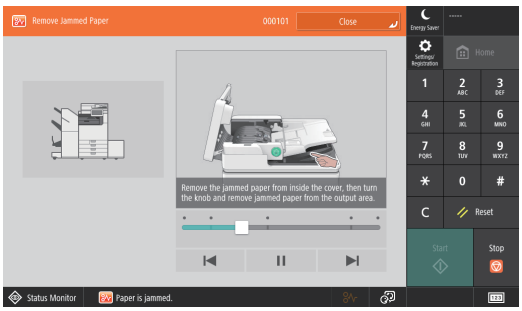
The volume for the various notification and alert tones can be changed with the Adjust Volume button. This allows the user to set the appropriate volume for their environment.

Easy Removal of Jammed Paper

Doors, covers, and panels open wide for easy access to find and remove jammed paper. All the parts are designed to be easily opened with little effort.

Visual Guidance to Paper Jam Resolution



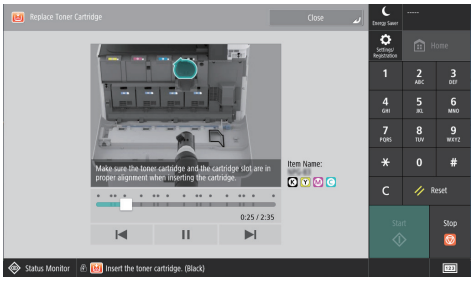


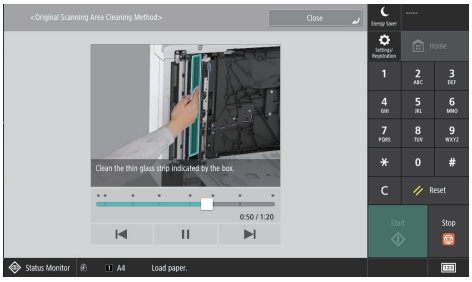
On-screen instructions help users identify where paper is jammed. Animated or video instructions are also displayed to assist users in resolving the paper jam.

Easy Toner Cartridge Replacement

The covers of empty toner cartridges will open automatically when the front cover of the main unit is opened, so users can be sure that they are replacing only those cartridges that need replacement.
Also, cartridges can be changed on the fly for better productivity.

Video Guidance to Replace Consumables



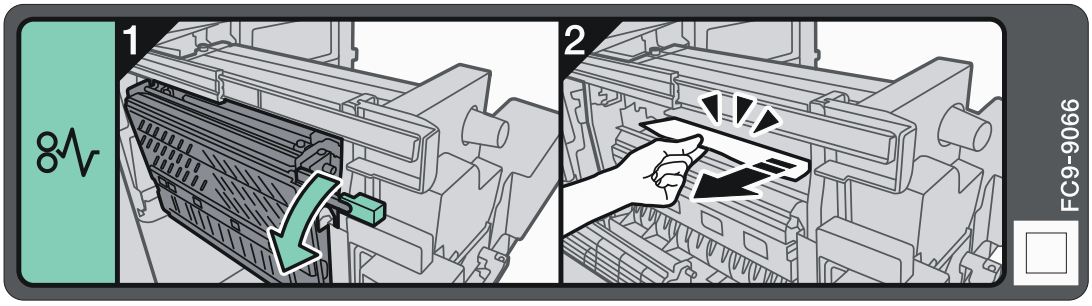


Video instructions are displayed on the operation panel to guide users in replacing consumables. By following the instructions, even those who are not familiar with the machine can replace consumables quickly and easily.

Features to Help Prevent Errors and Mistakes

Different colors on moving parts have different meanings. Levers for removing paper jams are green. Levers for replacing consumables are blue.
If a lever is not returned to its original position, the outside cover cannot be closed. This is another feature that helps to prevent errors.

Visual Instructions

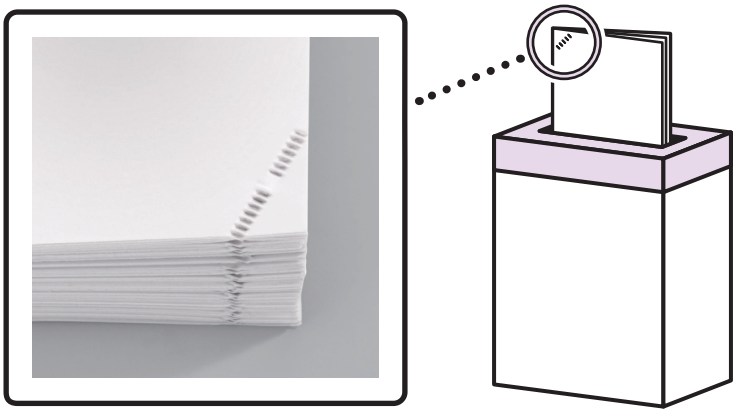


Illustrative labels are placed near levers and have the same colors as the levers, so that what needs to be done can be clearly and easily understood.

Color Perception

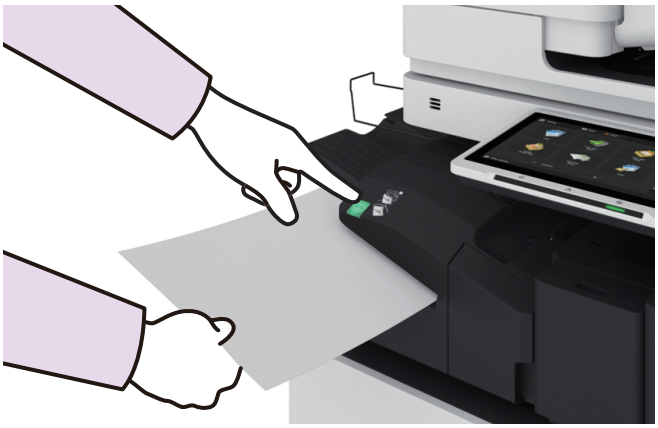
Colors for LED indicators or interior levers to resolve paper jams are selected carefully with consideration for people who see colors differently. Colors are selected based on what the greatest number of users can distinguish visually.

Safety Considerations



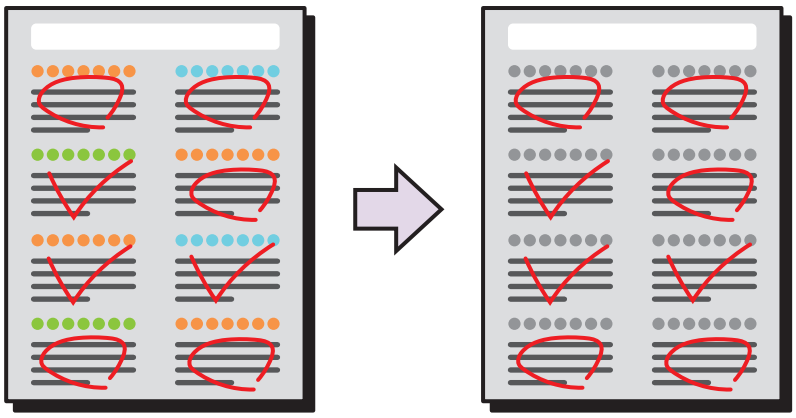
Pages of paper can be fastened without staples. The staple-free paper can be directly put into a shredder without potential injury from removing staples. This is also cost-effective because consumable staples are not needed.

Set Paper — Stapled



The manual stapler feature is available to refasten originals from which staples were removed for making copies. This feature is also useful for fastening printouts which were output before stapling was set. Just put the paper in the stapler and fasten.

Enhance Selected Colors



Users may emphasize colors of their choice on copies and printouts.
For example, the color of signatures or company stamps can be made to stand out more.

Scheduled Printing

Users can create a schedule on the machine to have their jobs printed at a specified time, such as lunchtime or late at night when others are less likely to use the machine. This is time-efficient, and reduces waiting times for the user and others.

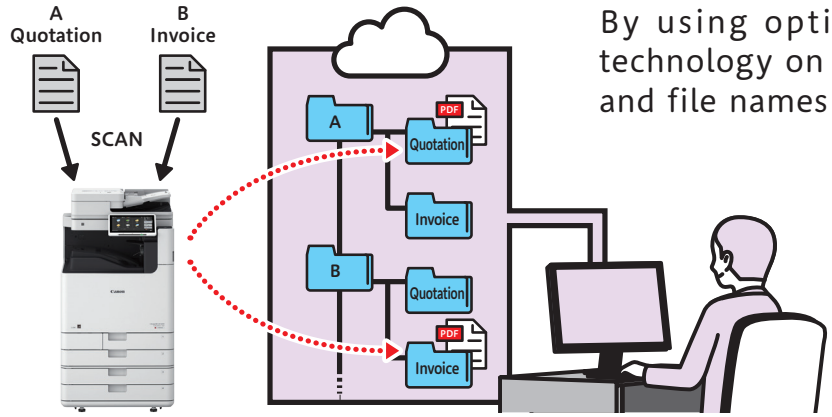
Job Done Notice

Users can configure the machine to send email notifications to a compatible mobile device or computer to confirm when copy, fax, or scan jobs are complete. If your computer uses screen reading software, it can read the email out loud as an audible announcement of finished jobs.

Skip Blank Pages When Scanning

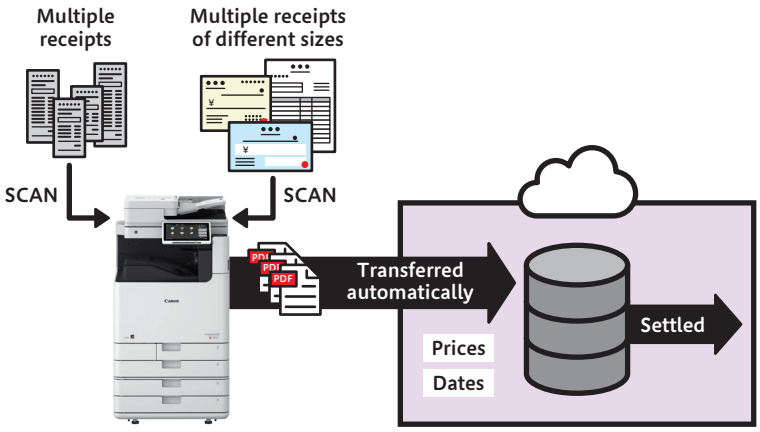
Users can configure their machine to automatically skip blank pages when copying or scanning a mix of one-sided originals and two-sided originals. This can improve efficiency by reducing the amount of output paper and printing time.

Automatic Filing with Cloud Services



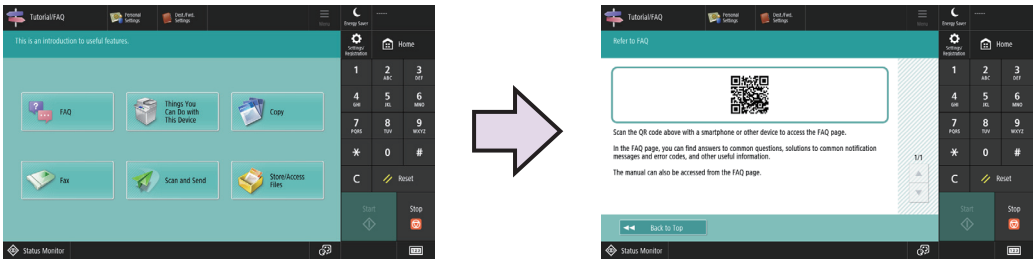
By using optical character recognition technology on scanned documents, folders and file names are automatically generated from the document contents when saving to the cloud. Now anyone can easily carry out filing tasks, which previously required manual entry, with a single button press.

Expenses Easily Calculated and Settled



Multiple receipts can be scanned at the same time. Prices and dates are automatically recognized. The recognized text data is automatically transferred to a linked accounting service in the cloud. This automatic procedure can reduce time and errors that occur with manual operation and data entry.

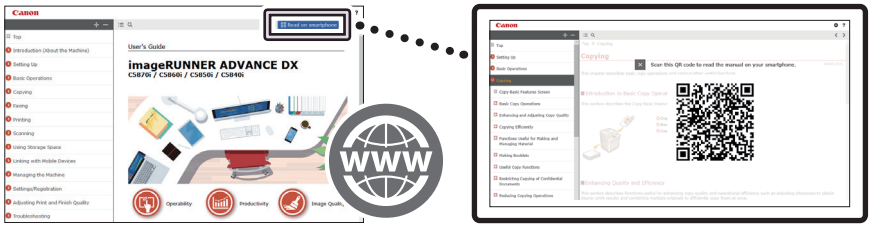
Rapidly Find Solutions when Stuck



When users encounter a problem while operating the machine, they can press the FAQ button to display a QR code*. Scanning the code with their smartphone sends them to a troubleshooting page to solve their problem.

*QR Code is a registered trademark of DENSO WAVE, INC.

User Documents to Assist You



User assistance documents that are suited to different use environments and purposes are available. The user documents are right on the web. Users can access them from anywhere and search them at any time for troubleshooting or useful tips. The user documents can also be accessed from a smartphone by scanning a QR code* displayed on the user documents on the web.

*QR Code is a registered trademark of DENSO WAVE, INC.

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