

Digital Printing System

Operating Instructions



UPX-C300

Owner's Record

The model and serial numbers are located at the rear. Record these number in the space provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. _____

Serial No. _____

WARNING

To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

To avoid electrical shock, do not open the cabinet. Refer servicing to qualified personnel only.

For the UP-DX100 Printer, DKC-C300X Digital Still Camera, and the UPA-AC05 AC Power Adapter

For the customers in the U.S.A.

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 experienced radio/TV technician for help.

You are cautioned that any changes or modifications not expressly approved in this manual could void your authority to operate this equipment.

All interface cables used to connect peripherals must be shielded in order to comply with the limits for a digital device pursuant to Subpart B of Part 15 of FCC Rules.

For the UP-DX100 Printer

For the customers in the U.S.A.

If you have any questions about this product, you may call:

*Sony Customer Information Service Center
1-800-222-7669 or
<http://www.sony.com/>*

Declaration of conformity

Trade Name: SONY
Model: UP-DX100
Responsible Party: Sony Electronics Inc.
Address: 16530 Via Esprillo,
San Diego, CA 92127 U.S.A.
Telephone Number: 858-942-2230

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.

For the UP-DX100 Printer and the DKC-C300X Digital Still Camera

For the customers in the U.S.A.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

For the customers in Canada

This Class B digital apparatus complies with Canadian ICES-003.

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.

The term "IC:" before the radio certification number only signifies that Industry Canada technical specifications were met.

For the DKC-C300X Digital Still Camera

For the customers in the U.S.A. and Canada

This equipment complies with FCC/IC radiation exposure limits set forth for uncontrolled equipment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment has very low levels of RF energy that it is deemed to comply without testing of specific absorption ratio (SAR).

For the UPA-AC05 AC Power Adapter

For the customers in the U.S.A. and Canada

This Class B digital apparatus complies with Part 15 of FCC Rules and the Canadian ICES-003.

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.

For the UP-DX100 Printer and the UPA-AC05 AC Power Adapter

WARNING

This unit has no power switch.

When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power plug to an easily accessible socket-outlet near the unit. If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power plug.

WARNING on Power Connection

Use a proper power cord for your local power supply.

1. Use the approved Power Cord (2-core mains lead)/Appliance Connector/Plug that conforms to the safety regulations of each country if applicable.
2. Use the Power Cord (2-core mains lead)/Appliance Connector/Plug conforming to the proper ratings (Voltage, Ampere).

If you have questions on the use of the above Power Cord/Appliance Connector/Plug, please consult a qualified service personnel.

For the UP-DX100 Printer and the DKC-C300X Digital Still Camera

For the customers in Europe

Hereby, Sony Corporation, declares that these “UP-DX100” and “DKC-C300X” are in compliance with the essential requirements and other relevant provisions of the Directive 1999/5/EC.

For details, please access the following URL : <http://www.compliance.sony.de/>

For the UP-DX100 Printer, DKC-C300X Digital Still Camera, and the UPA-AC05 AC Power Adapter

For the customers in Europe

The manufacturer of this product is Sony Corporation, 1-7-1 Konan, Minato-ku, Tokyo, Japan.

The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

For the Battery

Caution

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

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System Overview

The Sony UPX-C300 digital printing system is designed to allow you to take passport photos and similar ID pictures with a digital camera, and then print them at high image quality and resolution (403 dpi) in full color or black & white.

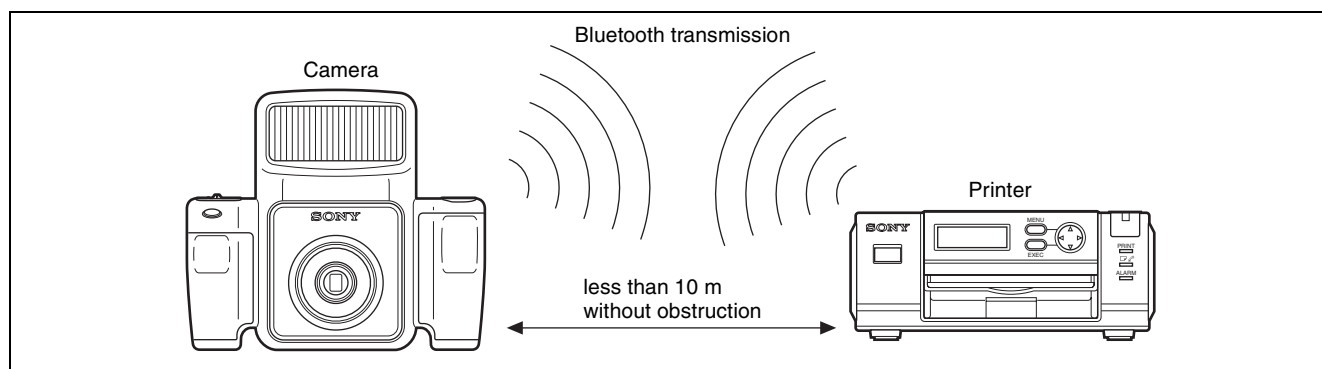
Two types of print paper are supported: UPC-X46 series, and UPC-X34 series.

The system adopts Bluetooth wireless technology, which enables communication between the camera and printer without using cables.

System Configuration

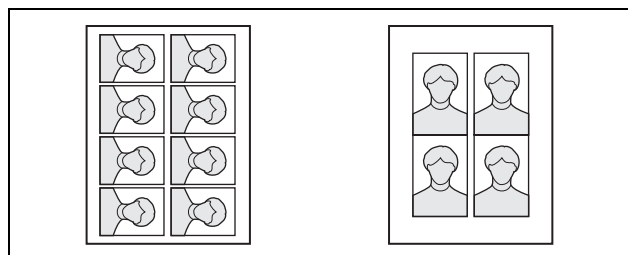
You can send images from the camera to the printer without a cable.

For details on the Bluetooth function, see “Setting the Bluetooth Functions” on page 51.



You can print pictures with the best face size according to the purpose of the pictures. The face size can be determined automatically or you can finely adjust it manually while looking at the frame.

The pictures taken can be printed in a variety of layouts for passport photos and similar ID pictures or the size of the print pack in use.

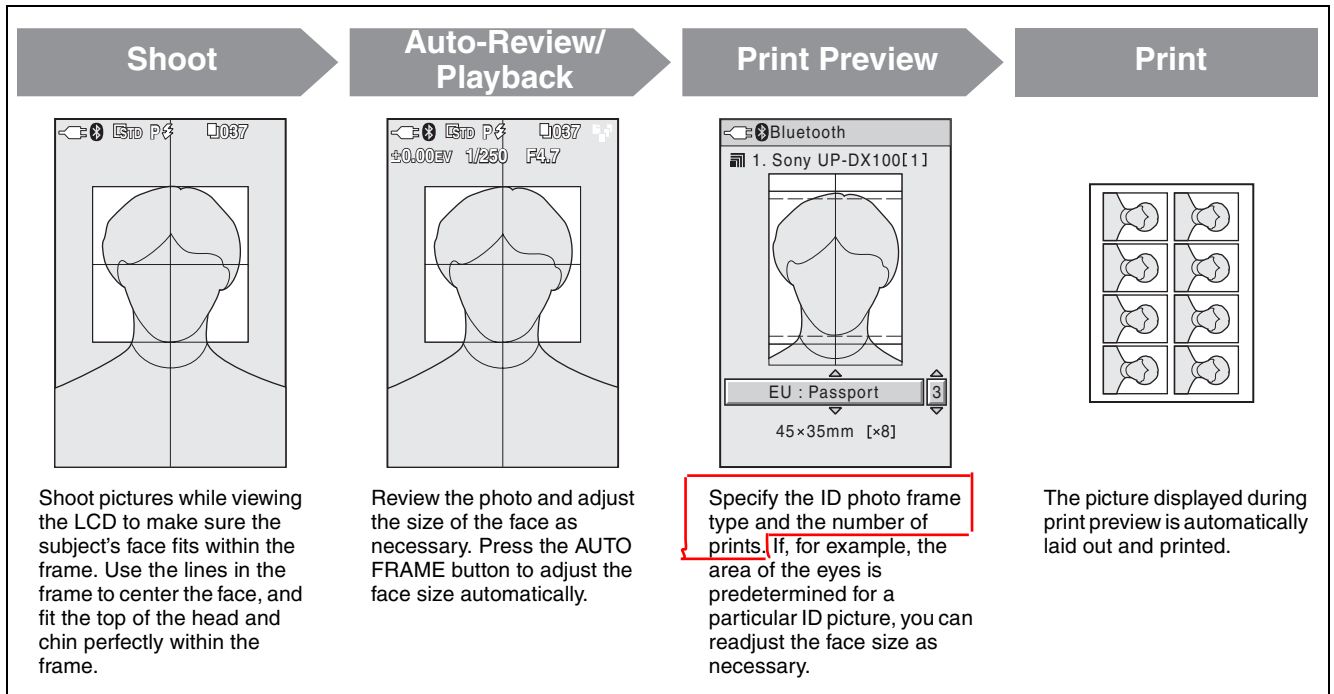


Note

Camera image data cannot be sent to any other peripheral device but the printer.

Operation Flow

This system allows you to shoot and print ID pictures in which facial sizes can be adjusted to fit specific frame standards.



Useful Features

Additional frames

If an ID photo frame you desire is not provided or you simply wish to modify one of the ID photo frames provided, you can register up to five additional frame types.

Die-cut print

You can enable the die-cut print function to print an extra 3 mm around all sides of a picture, creating ideal prints for die cuts.

Print queue

By enabling the print queue function, you can select multiple pictures and print them one after the other.

Color and black & white adjustments

This system allows you to adjust color and black & white print settings from the camera. You can quickly confirm adjustment results using the guide print function.

Flash Modes and Example Shooting Conditions

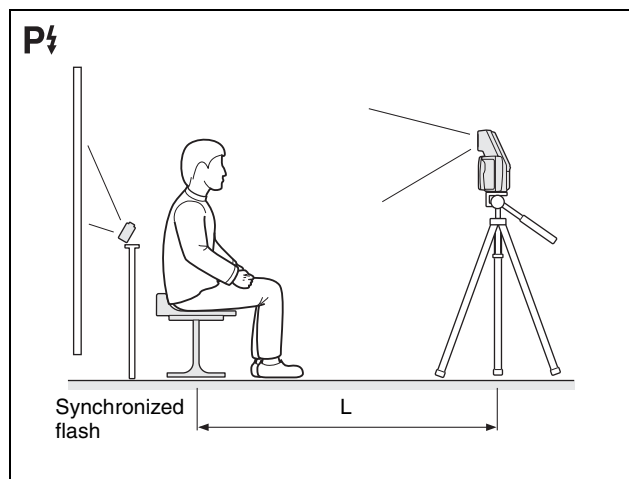
The camera offers three flash modes.

When setting up, make sure the distance between the camera and the subject (L) is set so that apparent face size fits the selected frame (guidelines) at about 1.8 meter. Minor adjustments to apparent face size can be made with the zoom.

Auto Flash (P $\frac{1}{2}$)

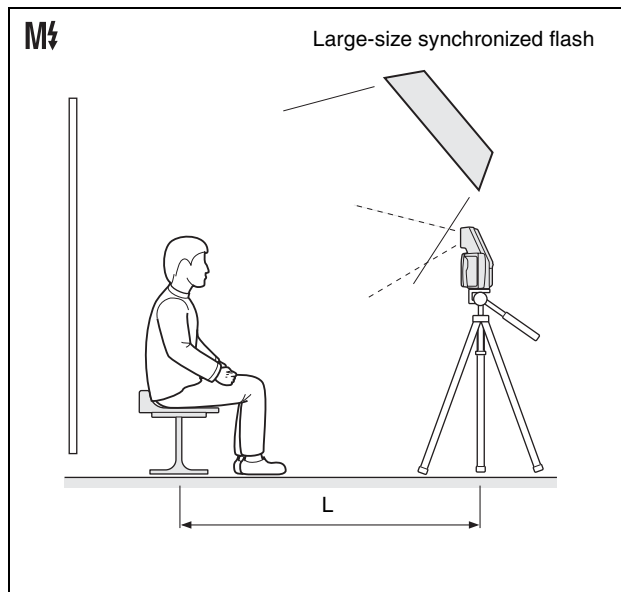
The built-in flash fires at optimum brightness for a subject about 1.8 meter away.

Use the \blacktriangle and \blacktriangledown control buttons to set a negative EV value when the distance L is less than 1.8 meter, or a positive EV value when the distance is more than 1 meter. Be sure to take a test picture to check the results. This mode is suitable for indoor ID portraits in which the built-in flash is the main light source and a shadow-clearing flash is connected to the camera by synchronization cord.



Forced flash + manual exposure mode (M $\frac{1}{2}$)

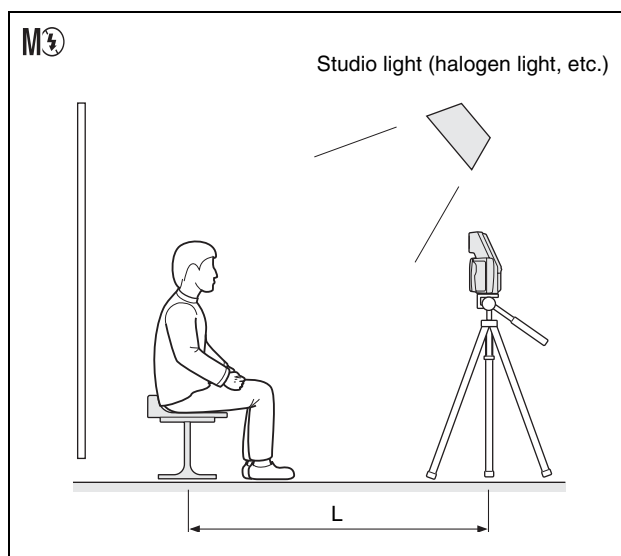
You can manually set aperture and, shutter speed, and select one of seven flash intensity levels ($\triangleleft 0.5EV$) for the built-in flash before shooting. This mode is suitable for shooting portraits in which the built-in flash acts as a trigger for the main light source, an external flash connected to the camera by synchronization cord.



No flash + manual exposure mode (M $\frac{2}{3}$)




In this flash mode, the aperture and shutter speed are set manually, and the built-in flash does not fire.

The built-in flash does not fire. This mode is suitable for shooting indoors under stable light sources, such as studio light, video light, and fluorescent light.



Flash Mode Setting Parameters

The flash mode is factory set to Program, but you can change the setting using the menus if necessary. The shooting conditions available for configuration differ depending on the flash mode setting, as shown in the table below.

Flash Mode	Flash Control	Aperture	Shutter Speed	White Balance	Exposure Compensation
Controlled Flash without pre-flash P 	Program with Zoom and EV	Fixed (Open)	Fixed (1/250)	Program	-2.0EV to 0EV to +2.0EV (in 1/4EV steps)
Forced Flash without pre-flash M 	7 steps (100/70/50/35/25/18/12%) without Preflash	F4.7 (F4.7 or F5.6)	1/250 (1/2 to 1/1000 [s])	5500K (Program, 3000 to 7000K or OnePush)	-1.0EV to 0EV to +2.0EV (in 1/4EV steps)
Exhibit Flash M 	No Lighting	F4.7 (F4.7 or F5.6)	1/250 (1/2 to 1/1000 [s])	Auto (Program, 3000 to 7000K, OnePush)	-1.0EV to 0EV to +2.0EV (in 1/4EV steps)

_____ : Default setting

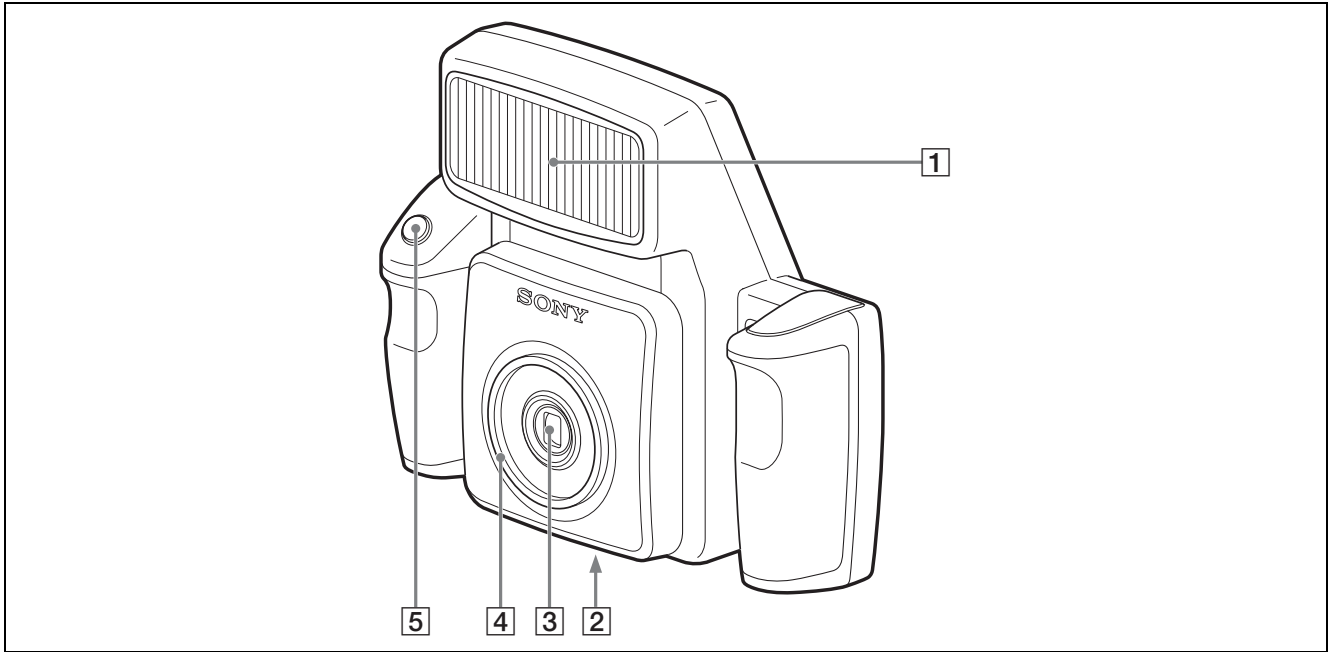
Effects of the F value while shooting

Even if the F value is changed through zoom operations, the flash intensity level and ISO sensitivity are automatically adjusted before shooting to ensure that the brightness of a captured image will not be affected.

Names and Functions of Parts

For details, see the pages in parentheses.

Camera



Front

1 Flash (7, 8)

Fires according to the FLASH MODE setting.

2 Tripod screw hole (16)

Used to attach the camera to the tripod.

3 Lens (f=12.5 to 25.0 mm (1/2 to 1"), F-4.7 (W) to F-5.5 (T))

Autofocus lens with 2x optical zoom.

4 Lens filter thread

Used to attach a commercially available lens filter (ø 52 mm).

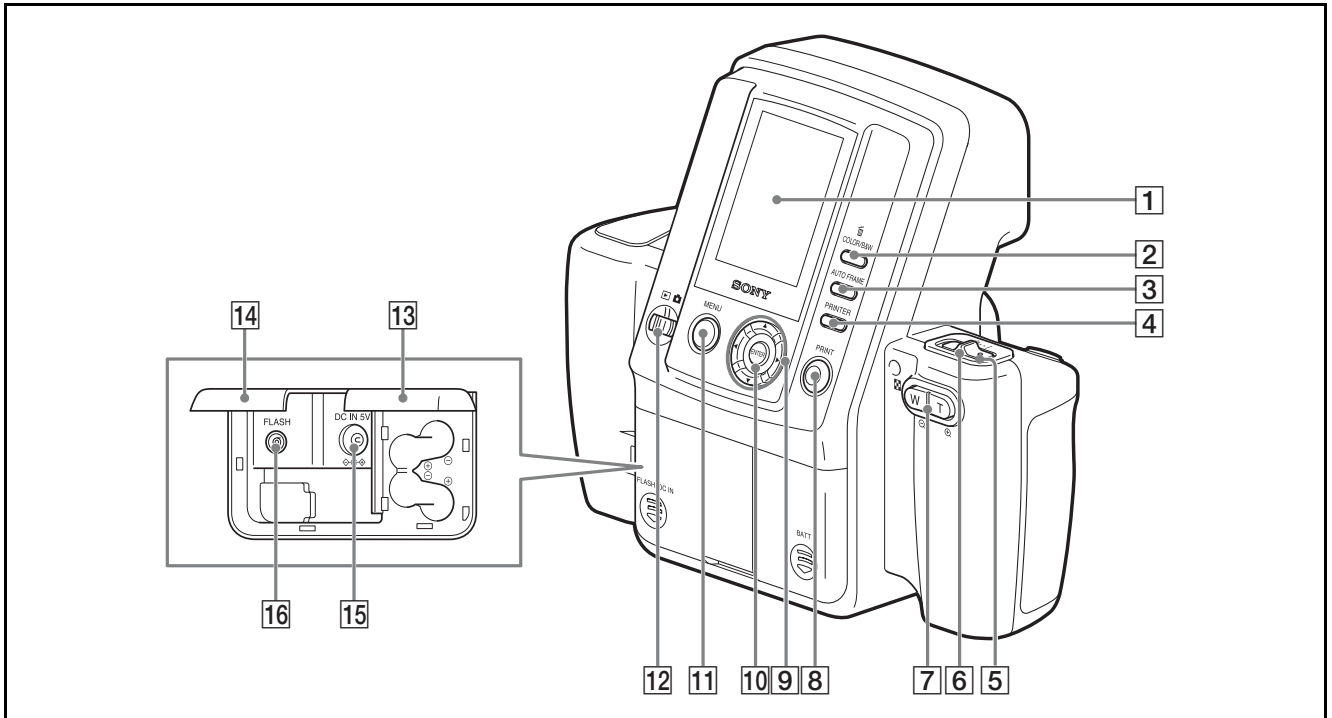
5 Release button (21)

Press this button to capture the image shown on the LCD and record it to the camera's built-in memory.

Pressing the button halfway activates the autofocus function, and pressing it all the way releases the shutter.


The captured image is compressed and saved in JPEG format.

Rear



1 LCD screen

Use it to display images captured by the lens, play back images, or display menu.

When the Bluetooth function is active, the  icon is displayed.

2 /COLOR/B&W (Delete/Color/Black & white) button (23, 25)

Delete

During Auto Review mode or image playback, pressing this button deletes the image displayed on the LCD.

Color/Black & white

While the print preview screen is displayed, pressing this button selects whether to print in color or black & white.

3 AUTO FRAME (automatic position matching) button (22, 23)

While the ADJUST screen is displayed, pressing this button automatically determines a face size to fit the frame.

4 PRINTER button (58)

Selects a printer when multiple printers are used.

5 Standby lamp

Indicates the camera's status.

When the mode switch is

Lamp status	Camera status
Lights (orange)	Normal operation
Flashing (orange)	The camera is starting up or Bluetooth authentication is in progress. Or, AUTO ERASE is off and the internal memory is full so that no more images can be stored.
Flashing rapidly (orange)	The camera is preparing to take the next picture, the flash is being charged, or data is being stored.
Flashing (red)	This indicates there is little battery power left if batteries are used.
Flashing rapidly (red)	The camera is shutting down.
Lights (red)	This indicates camera malfunction. Contact your nearest Sony dealer or Sony Service Center.

When the mode switch is

Lamp status	Camera status
Lights (green)	Normal operation
Flashing (green)	The camera is starting up or Bluetooth authentication is in progress.
Flashing (red)	This indicates there is little battery power left if batteries are used.
Flashing rapidly (red)	The camera is shutting down.
Lights (red)	This indicates camera malfunction. Contact your nearest Sony dealer or Sony Service Center.

6 On/standby switch (19, 20)

Turns camera power on or sets it to standby.

7 Zoom lever (21, 22, 23)

When the mode switch is set to

Adjusts the angle of view. In most forms of ID, the size of the face in the photo is regulated. By using the zoom function, you can adjust the size of the face while maintaining a fixed camera position. Up to 2× zoom is available.

T: Telephoto zoom.

W: Wide-angle zoom.

When the mode switch is set to

During playback, switches between nine-picture multiple display and single-picture display.

T: Nine-picture multiple display is switched to single-picture display.

W: The display is toggled between a single-picture display and a nine-picture multiple display.


When displaying the ADJUST screen

Zooms in or out of the displayed image.

T (⊕): Zoom in on an image.

W (⊖): Zoom out of a zoomed in image.

8 PRINT button (23)

When the mode switch is set to  or during auto-review display, press this button to print the image displayed on the LCD. Press the button once to make the adjust screen appear, and press the button again to send the image data to the printer for printing.

9 ◀ ▲ ▼ ▶ control buttons

When the mode switch is set to

Use ▲ or ▼ to change the exposure compensation value (EV value).

When the mode switch is set to

Use ◀ or ▶ to select a playback image to display on the LCD.

When the ADJUST screen is displayed

Use these buttons to move the displayed image up, down, left, or right.

When navigating menus

Use these buttons to select and set menu items.

10 ENTER button

Press this button to confirm a selection or operation. During auto-review display or image playback, pressing this button displays the ADJUST screen. While the ADJUST screen is displayed, pressing this button applies the image size adjustments and returns to the previous screen display.

11 MENU button (26, 28)

Press this button to display menus. You can also press this button to exit menus or return to auto-review display from the ADJUST screen.


Note

If you use the MENU button to exit a menu or return to auto-review display from the ADJUST screen, any adjustments you have made will not be applied.

12 Mode switch (19, 24)

You can switch between the following two modes.

: Shooting mode

: Playback mode

13 Battery compartment lid (15)

Insert four commercially available Sony AA NiMH (nickel-metal hydride) rechargeable batteries (type NH-AA, max. 2700 mAh).

14 External connector cover (14, 15)

Open it when connecting to the AC power adaptor or external flash.

15 DC IN (14)

Connects to the supplied AC power adaptor.

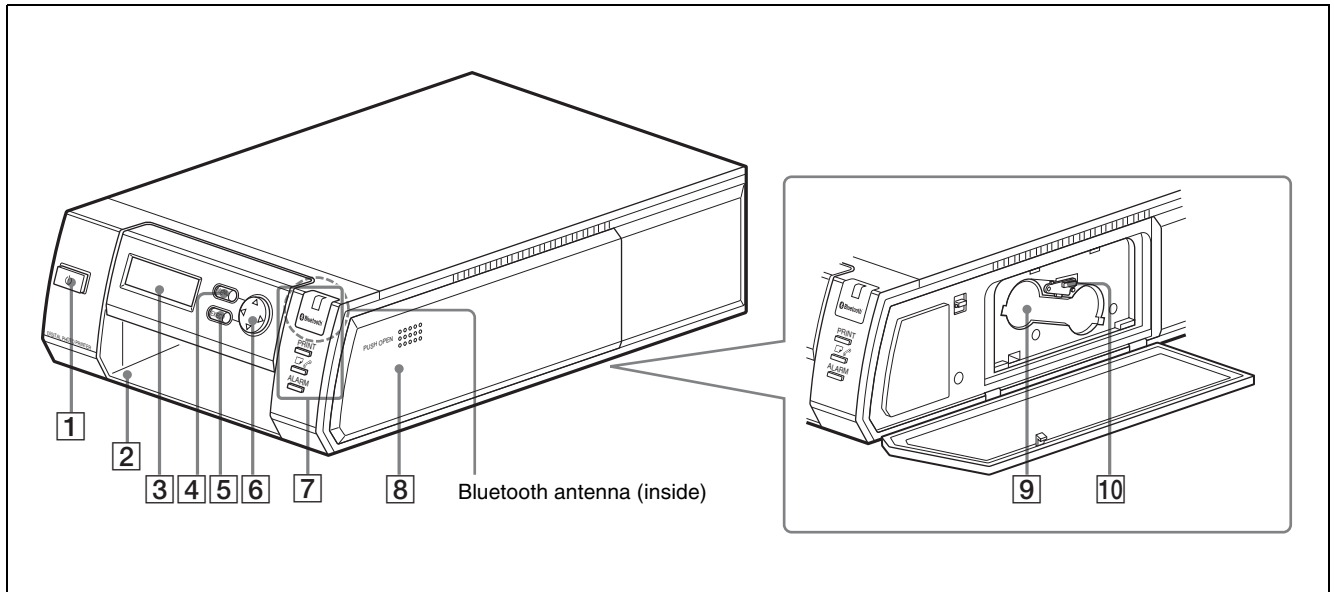
16 FLASH jack

Connect a cord from an external flash that supports an X contact.

When an external flash that supports an X contact is connected with the synchronization cord, the flash lights synchronizing with the shutter.

Printer

Front



1 (On/Standby) button/lamp (19)

When you press this button, the lamp lights and power is supplied to the printer. When you press the button again, the lamp turns off and the printer enters standby status.

2 **Paper tray slot (17)**

Insert the paper tray here.

3 **Operation display**

When the printer is on, information such as operation status and menu items display here.

4 **MENU button (31)**

Press this button to display menus or cancel changes made in menus.


5 **EXEC (Execute) button (24, 50)**

Press this button to execute menu items selected while navigating menus and after exchanging the ribbon cartridge.


6 **Control button (24, 50)**

When navigating menus, use this to select and set menu items.

7 **Lamps**

 **Bluetooth lamp:** Lights when the Bluetooth function is enabled.

PRINT lamp: Lights when printing is in progress, and flashes when the printer is receiving image data.

 **lamp:** Lights when the paper or print cartridge runs out or the paper and print cartridge differ in size.

ALARM lamp: Lights when an error such as a paper jam occurs.

8 **Print cartridge cover (18)**

When inserting or removing print cartridges, press the area where PUSH OPEN is written to open the cover.

9 **Print cartridge slot (18)**

Insert the print cartridge here.

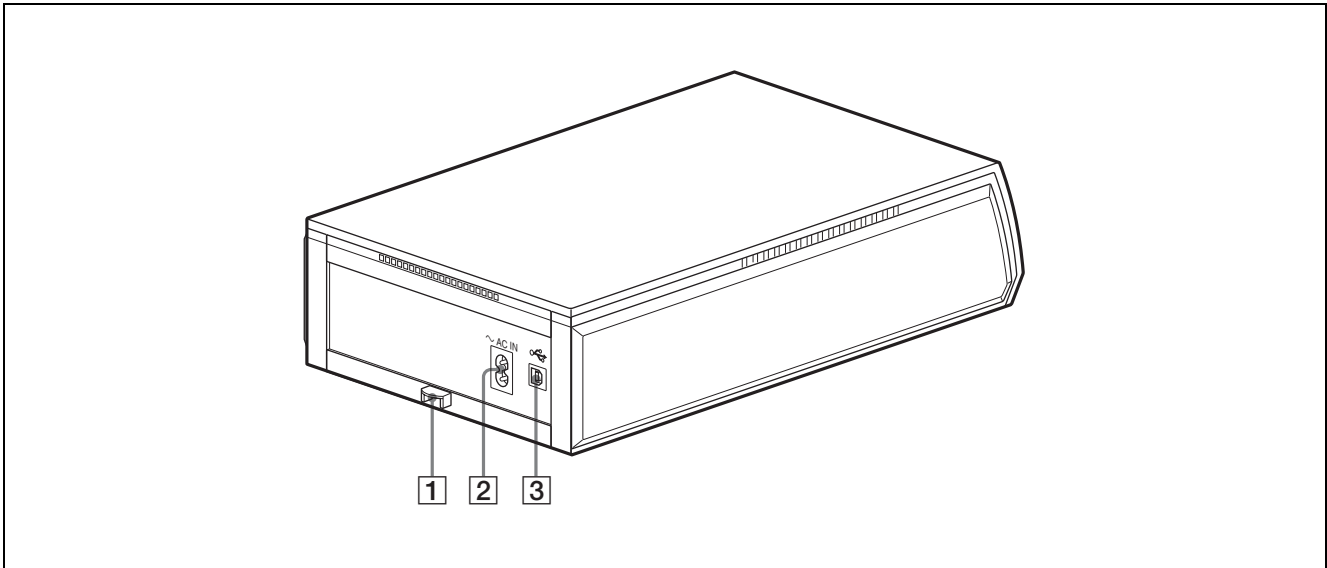
10 **Cartridge release lever (18)**

Raise this when removing a print cartridge.

Note

This lever is disabled while printing is in progress.

Rear



1 Paper jam cover (64)

When a paper jam occurs, remove this cover and remove the jammed paper.

2 ~AC IN connector (19)

Connect to a power outlet using the power cord.

3 USB connector

Not used on this system

Supplied Accessories

Confirming the Contents

Make sure that the following accessories are supplied with your system.

Paper tray for the UPC-X46 series (1)

Paper tray for the UPC-X34 series (1)

Tray cover (1)

UPA-AC05 AC power adaptor (1)

Cleaning cassette (1)

Warranty card (1)

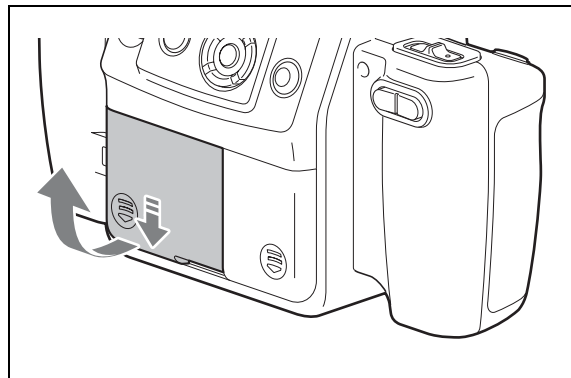
Operating Instructions (1)

Quick Reference Guide (1)

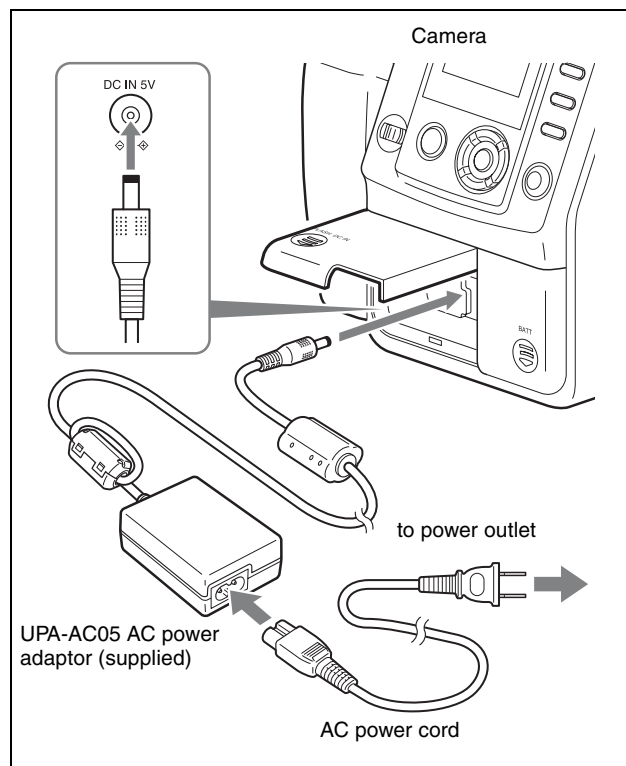
Preparations

Preparing the Camera

- 1 Slide to open the external connector cover.



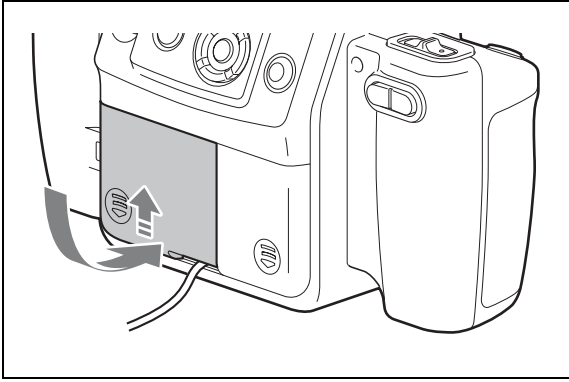
- 2 Connect the supplied UPA-AC05 AC power adaptor to the DC IN jack on the camera, and connect the AC adaptor to a power outlet with the power cord.



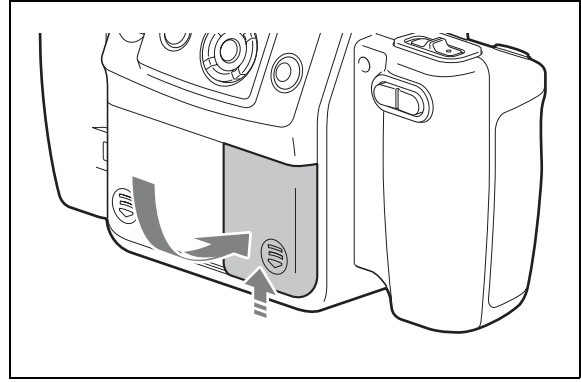
Note

Make sure that the AC power adaptor is near the power outlet during use. If the camera malfunctions, immediately disconnect the AC power adaptor from the power outlet to cut off power supply.

- 3** Close the external connector cover and press down while sliding it to make sure it locks into place.



- 3** Close the cover and press down while sliding it to make sure it locks into place.



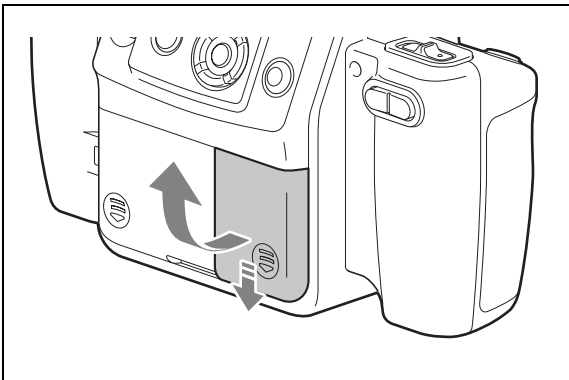
When using batteries

For the camera in this system, you can use four size AA Nickel Metal Hydride batteries available commercially. Use the following steps to insert the batteries into the camera.

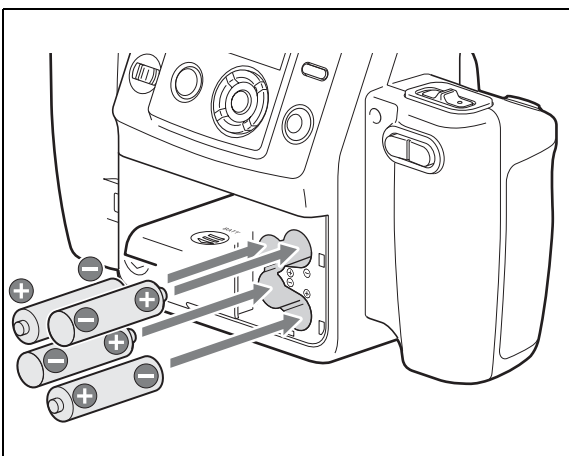
Note

Use only Sony NH-AA (max. 2700 mAh) batteries.

- 1** Slide the battery compartment cover at the rear of the camera to open it.




- 2** Insert the four size AA batteries.







Power Status Indicators

When using an AC power supply

The  icon appears at the bottom right of the camera's LCD.

When using batteries

When the battery charge is getting low, the following icons appear at the bottom right of the camera's LCD. Use these to get a general idea of when to replace the batteries.

Indicator	Power status
	The batteries are sufficiently charged.
	The battery charge is getting low, but you can continue shooting. Ready the AC power adapter or a new set of batteries.
	The battery charge is low, and shooting will be disabled shortly. Use the AC power adapter or replace the batteries.
 (flashing)	The batteries are fully discharged. Shooting is disabled.

Note

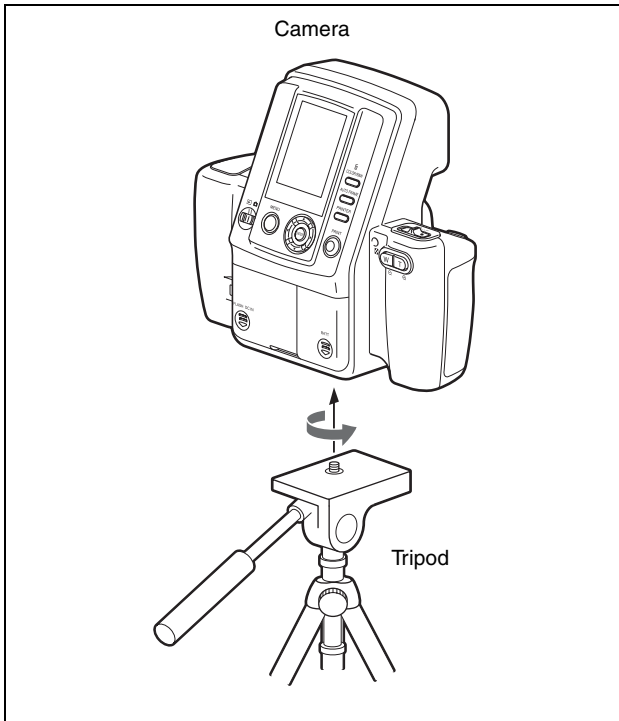
Connecting the AC adapter while the batteries are inside the camera will not recharge the batteries. To recharge the batteries, use the specifically designed battery charger.

To attach the tripod

You can attach the camera to a tripod using the tripod screw hole located on the underside of the camera.

Note

Tighten the screw for the tripod securely. If the screw is loose, the camera may fall off. However, using too much force when tightening may damage the screw hole. Make sure that the screw is inserted straight before tightening it.



Preparing the Printer

Before using the printer for the first time, perform the following steps to insert the print cartridge and paper tray. These preparations are not required at every use. Perform them only when necessary.

Print packs

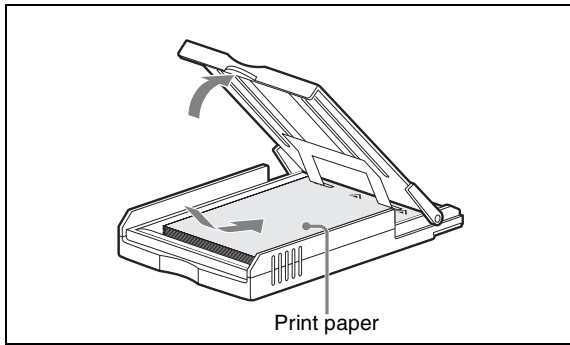
In order to print, a print pack designed for this printer (UPC-X46 series, or UPC-X34 series) (not supplied) is required. A print pack is a set consisting of print paper and a print cartridge.

Notes

- Do not rewind the ink ribbon and use the rewound print cartridge for printing. Doing so may produce incorrect printing results or damage the printer.
- Only use print packs designed for this printer.
- Always use sets of print cartridges and print paper that match in size. Using a print cartridge together with print paper of a different size may produce incorrect printing results or cause paper jams and other problems.
- Do not print on used print paper. Printing an image twice on the same paper will not make the image darker and may damage the printer.
- Avoid touching the printing surface of the print paper and the ink ribbon of the print cartridge, and avoid storing print packs in locations subject to high temperatures and humidity, excessive dust, or direct sunlight. Fingerprints or dust on the printing surface or ink ribbon may lower the print quality.
- When removing partially used print cartridges and print paper from the printer for storage, store them in their original packaging.

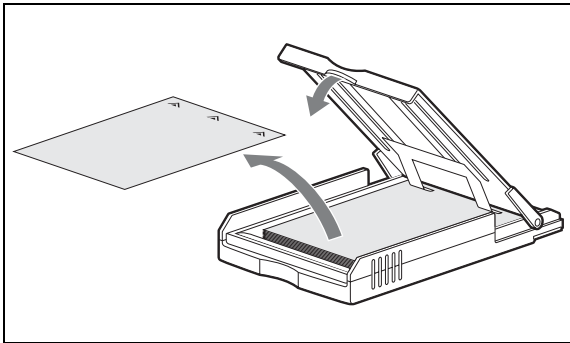
To load the print paper

- 1 Load the print paper into the paper tray.



Riffle through the print paper before loading it with the printing surface (the side without imprinting) facing up. Make sure that the arrow on the protective sheet is pointing in the same direction as the arrow on the tray. You can load up to 25 sheets when using the UPC-X46 series and 30 sheets when using the UPC-X34 series.

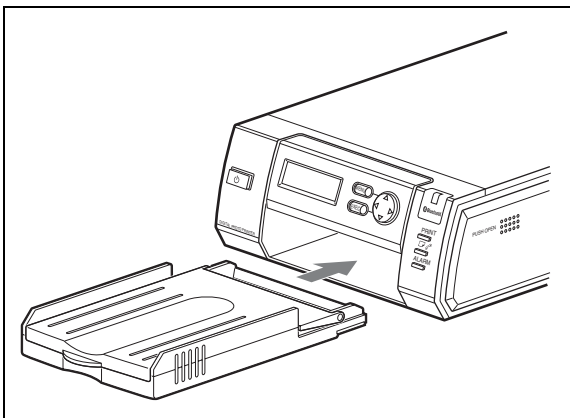
- 2 Remove the protective sheet on the print paper.



Note

Be sure to keep the protective sheet as it is used when cleaning the inside of the printer.


- 3 Insert the paper tray into the printer until it clicks into place.



Note

Do not touch the printing surface. Fingerprints or dust on the printing surface may lower the print quality.

Notes on loading the print paper

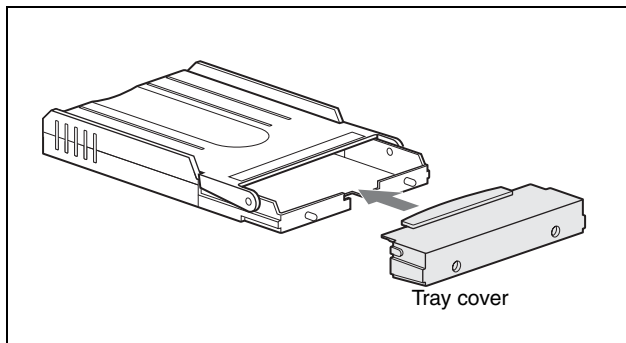
- Load UPC-X46 series print paper into the large paper tray and UPC-X34 series print paper into the small paper tray. Mismatch between the paper and tray sizes may result in a paper jam.
- Do not remove or insert the paper tray while printing is in progress.
- If the print paper does not feed automatically, the  lamp lights and a message displays. Pull out the paper tray, and check for a paper jam.
- When loading additional print paper into the tray, make sure that the total number of sheets does not exceed 25 for the UPC-X46 or 30 for the UPC-X34 series. Do not load different types of paper in the tray together. Doing so may result in a paper jam.
- Do not write or print text on the print paper before printing. The printer may not be able to print on paper that has been written on. When writing on an image after printing, use an oil-based ink pen. Text from word processors cannot be printed on the print surface.
- Do not attach stickers or tape on the print paper before printing.
- Do not print on used print paper. Printing an image twice on the same paper will not make the image darker and may damage the printer.
- Do not fold or bend the print paper before printing. Doing so may damage the printer.
- When paper is ejected after printing, do not allow more than five sheets to accumulate in the paper tray. Doing so may result in a paper jam.

Notes on storage

- Avoid storage in locations subject to high temperatures and humidity, excessive dust, or direct sunlight.
- Do not store print paper sheets with their printing surfaces touching each other. Also, do not allow printing surfaces to remain in contact with plastic or rubber materials containing vinyl chloride or plasticizers for extended periods of time. Doing so may result in discoloration or bleaching.
- When removing unused print paper from the printer for storage, store it in its original packaging.

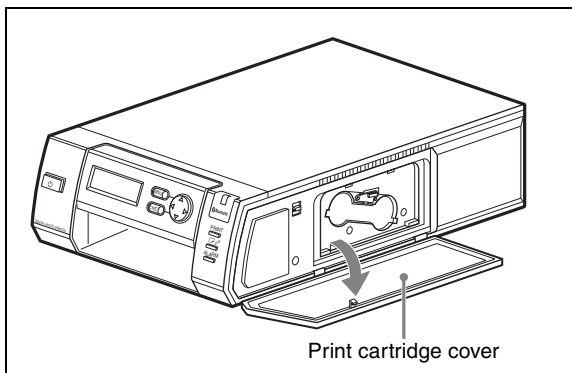
To attach the tray cover

Keep the supplied tray cover on the paper tray when not in use to protect the print paper inside from dust and other particles. You can attach a tray cover to any of the UPC-X46, and UPC-X34 series' paper trays.

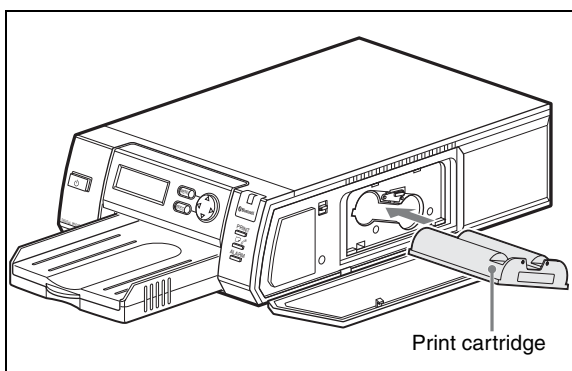


To load the print cartridge

- 1 Press the upper portion of the print cartridge cover where PUSH OPEN is written to open it.




- 2 Insert the print cartridge into the cartridge slot, and push until it clicks into place.

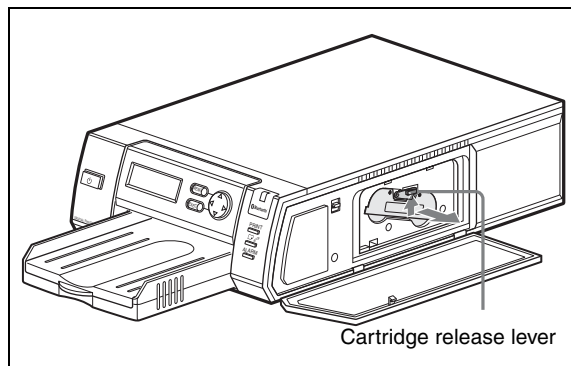


- 3 Close the print cartridge cover.
- 4 Press the EXEC button.

To replace the print cartridge

When the print cartridge runs out, the  lamp lights and an error message appears on the operation display. Perform the following steps to replace the print cartridge.

- 1 Press the upper portion of the print cartridge cover where PUSH OPEN is written to open it.
- 2 Raise the cartridge release lever.

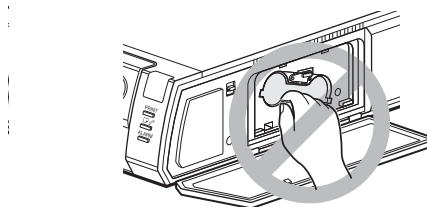


The cartridge is released, allowing you to pull it out.

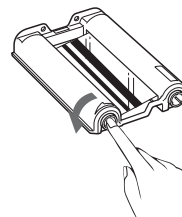
- 3 Insert a new print cartridge, and close the cover.
- 4 Press the EXEC button.


Notes

- Never put your hand into the cartridge slot as the inside can reach high temperatures.



- Do not rewind the ink ribbon and use the rewind print cartridge for printing. Doing so may produce incorrect printing results or damage the printer.
- If the print cartridge does not insert properly, remove it once before reinserting it. If the ink ribbon is too slack to be loaded, remove the slack by winding the ink ribbon in the direction of the arrow while pressing the spool. This is the only time the ink ribbon should be wound.



- When you turn on the printer with no print cartridge loaded, the  lamp lights.

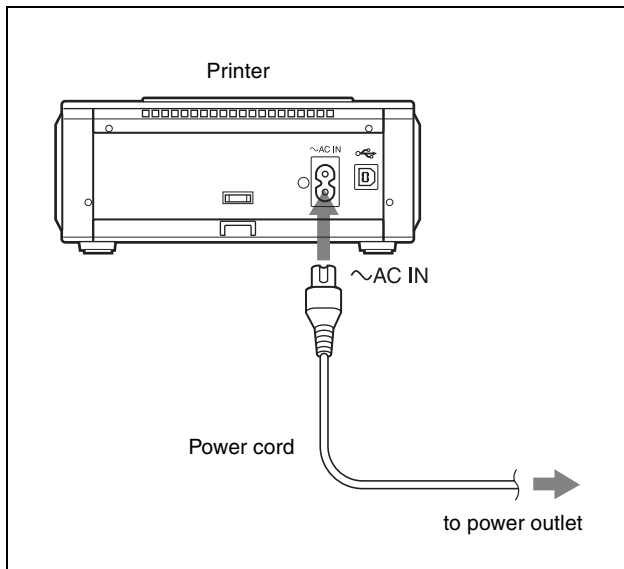
- Do not touch the ink ribbon or place the print cartridge in a dusty location. Fingerprints or dust on the ink ribbon may lower the print quality.
- Do not remove or insert print cartridges while printing is in progress.

Notes on storage

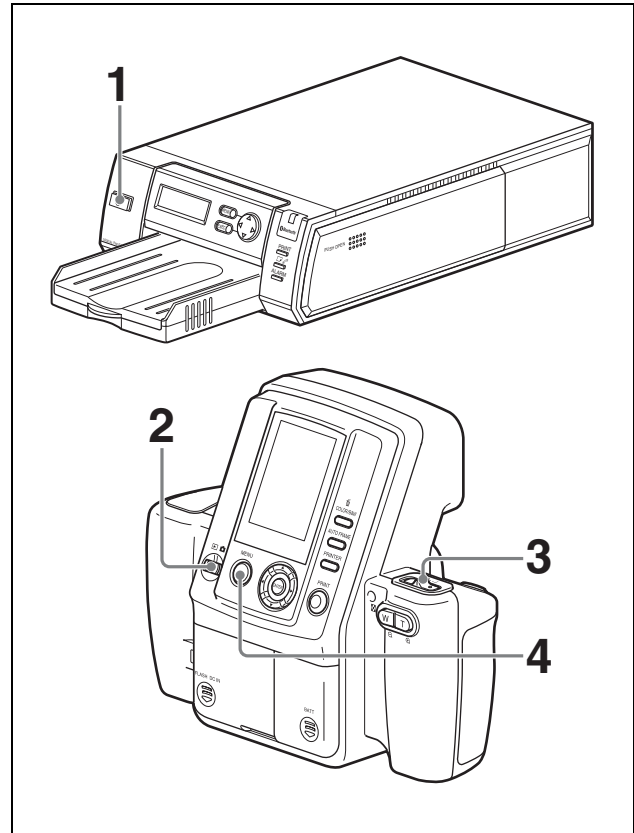
- Avoid storage in locations subject to high temperatures and humidity, excessive dust, or direct sunlight.
- When removing a partially used print cartridge for storage, store it in its original packaging.

To connect the printer to a power outlet

Connect the printer to a power outlet using the power cord.



Turning On the Power



1 Turn on the printer.

Check that Ready BT RSSI [- - - -] appears on the operation display.

2 Set the mode switch on the camera to .

3 Set the on/standby switch on the camera to **I** (on).

When turning on the camera for the first time, the default setting screen appears.

For details on default settings, see “The first time you turn on the camera (default setting)” on page 20.

The camera starts searching for the printer, and “DISCOVERING” appears on the LCD. When the camera finds the printer, “DISCOVERED” appears, and the printer name and Bluetooth address are displayed in black on the LCD. If the color of the printer name and Bluetooth address do not change to black but remain in gray, set the printer and camera to standby mode and perform steps **1** through **3** again.

4 Press any button on the camera.

The Bluetooth display is turned off, and you can start taking a picture.

If the printer name and Bluetooth address are still displayed in gray, and “DISCOVERED” does not appear, or “NO PRINTER” appears, see “Adding/ Registering a Printer” on page 56, and take appropriate action. If the problem still persists, contact your Sony dealer or your Sony service facility.


The first time you turn on the camera (default setting)

When you turn on the camera the first time, the default setting screen appears before your camera connects to the printer via Bluetooth. Use the following steps to select a language and a region.

- 1 Press the ▲ or ▼ control button to select a language and then press the ENTER button. The REGION screen appears.
- 2 Press the ▲ or ▼ control button to select a region, and then press the ENTER button. A screen appears for you to confirm the selected language and region.
- 3 Press the ▲ or ▼ control button to select OK, and then press the ENTER button.

To set the printer and camera to standby mode

When you finish your operation, set the printer and camera to standby mode.

- 1 Press the on/standby button to set the printer to standby mode. The lamp goes out, and the printer is set to standby mode.
- 2 Set the on/standby switch on the camera to  (standby).

The camera stores the latest setting data in memory and enters standby mode. While the camera is storing data, the clock appears on the LCD, and the standby lamp is lit. During transfer of data for storage, do not disconnect the AC power adaptor or remove the batteries.

Note

If you cut off the power supply by disconnecting the AC power adaptor or removing the batteries while the camera transfers settings data to memory, any new settings may be lost, and the camera may revert to its previous settings.

Operations (Shooting and Printing)

Image resolution settings

If you want to place priority on picture quality, we recommend setting RESOLUTION to HIGH in advance.

For details on how to select an image resolution, see “Setting the Image Resolution” on page 32.

Shooting condition settings

The shooting condition settings on the camera are factory set to allow shooting without manual configuration, but you can change the shooting conditions as necessary using Shooting menu.

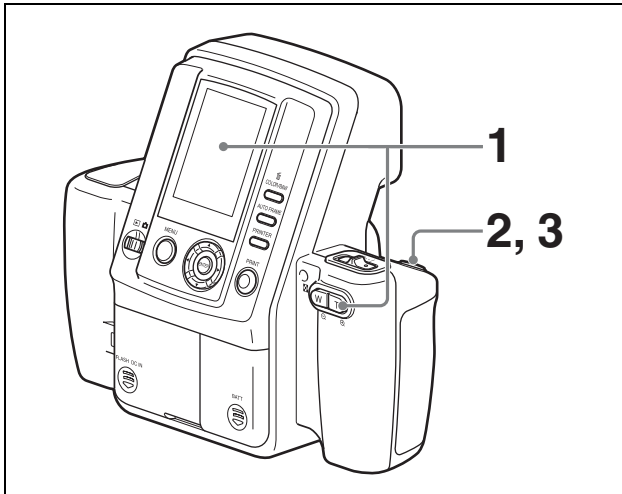
We recommend configuring the settings to match your usage environment.

For details on setting the shooting conditions, see “Flash Mode Setting Parameters” on page 8.

Note

Images may be damaged and the camera may not operate properly if power is cut off while shooting or deleting pictures. Make sure that the AC power adaptor does not disconnect and the battery compartment cover does not open during operation.

Taking a Picture



- 1 Point the camera at the subject, and adjust the frame while monitoring the camera LCD. Pressing the zoom lever allows you to adjust the frame by zooming.

T: Telephoto zoom.

W: Wide-angle zoom.

When composing the picture, make sure the subject's face fits within the frame on the LCD. Enlarge the face as much as possible while keeping the entire face within the frame.

- 2 Press the release button halfway to focus. Once the subject is in focus, a green focus mark appears on the LCD.

If the focus mark turns red when you press the release button halfway, the picture is not in focus.

Slowly press the release button halfway again.

- 3 Press the release button halfway until the focus mark turns green, then press the button the rest of the way. A picture is taken, and it appears immediately on the LCD. This feature is known as the auto-review display. The picture is also simultaneously stored in the camera's internal memory. During the transfer of data to memory, the standby lamp rapidly flashes orange. Once the data is stored and the built-in flash is charged for the next picture, the standby lamp lits orange.

Pictures can be printed directly from the auto-review display without switching the mode switch setting.

For details, see "Printing the Last Picture Taken (From the Auto-Review Display)" on page 22.

To take the next picture, press the release button or zoom lever to turn off the auto-review display, and then repeat steps 2 and 3.

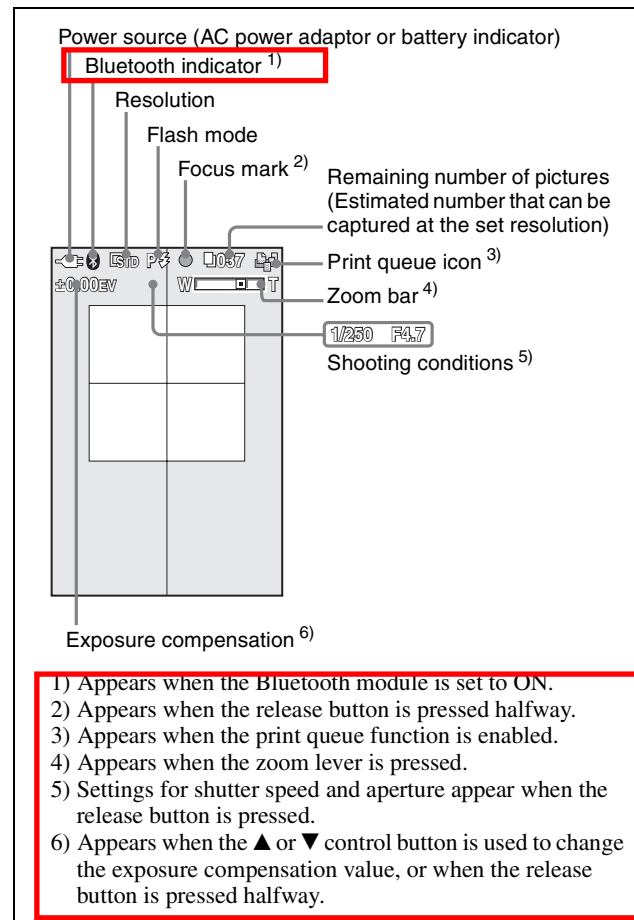
To delete the last picture taken

Perform the following steps to delete the last picture taken while it appears in the auto-review display.

- 1 Press the button. A screen asking you to confirm deletion appears.
- 2 Select OK by pressing the control button, and then press the ENTER button. The picture displayed on the LCD is deleted, and the camera returns to Shooting mode.

The LCD in Shooting mode

The following is an example of how the LCD may appear when the mode switch is set to .



Note

To make it easy to determine the frame of the subject, this camera keeps the brightness of the LCD at a certain level, regardless of the exposure, brightness of the subject, or lighting conditions of the surrounding areas. For this reason, the brightness of the LCD is different from the actual brightness of the captured image.

Autofocus function

Pressing the release button halfway activates the autofocus function. Once the subject is in focus, a green focus mark appears in the top of the LCD. When you press the button the rest of the way, the shutter releases and the picture is taken.

If the subject is out of focus when the button is pressed halfway, a red focus mark appears on the LCD. Lift your finger off the release button, and then slowly press the button halfway again. Even if the red focus mark appears, you can press the release button the rest of the way to take the picture.

Pressing the release button fully instead of pausing halfway will still take a picture, but the autofocus and exposure compensation functions will not activate. If SOUND of the SETUP menu is set to SHUTTER or ON, a sound is heard when the release button is pressed halfway and when pressed again the rest of the way.

Note

If slowly pressing the release button halfway does not refocus the image, set the camera to standby mode and then turn it on again.

In addition, the autofocus function may not work properly in the following situations:

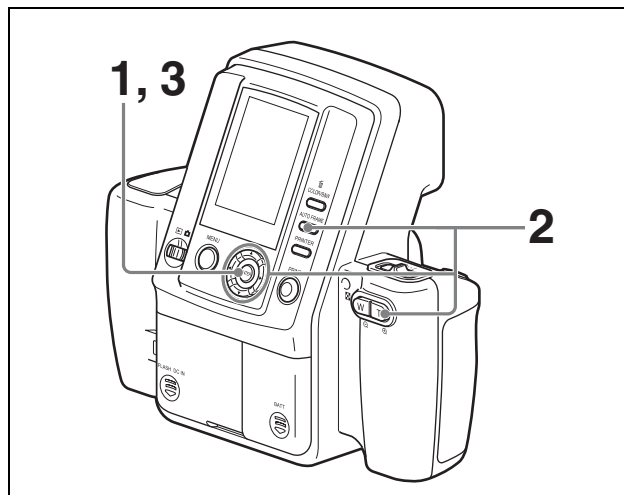
- The subject lacks enough contrast.
- The subject includes an extremely bright object.
- The background is abnormally dark.
- The subject is positioned within 80 cm of the camera.

Exposure compensation function

Exposure compensation can easily be obtained by pressing ▲ or ▼ of the control button. Each time you press the button, the exposure compensation value displayed on the LCD changes.

For details on the exposure compensation, see “Compensating the Exposure” on page 35.

Printing the Last Picture Taken (From the Auto-Review Display)



- 1 During auto-review display, press the ENTER button.

The ADJUST screen appears, and a frame is displayed in red on the LCD.

- 2 Adjust the size of the image.
 - 1) Press the AUTO FRAME button.
The image is automatically adjusted so that the face size of the subject fits the frame.
 - 2) If necessary, use the following buttons to adjust the size of the image.
 - You can use the zoom lever to zoom in or out of the image.
 - You can press the ▲, ▼, ◀, or ▶ control button to move the display position of the image.

Note

If you press the AUTO FRAME button for an image with a non-uniform background, the automatic adjustment function may not work properly. In such cases, press the zoom buttons or the ▲, ▼, ◀, or ▶ control button to manually adjust the size and display position.

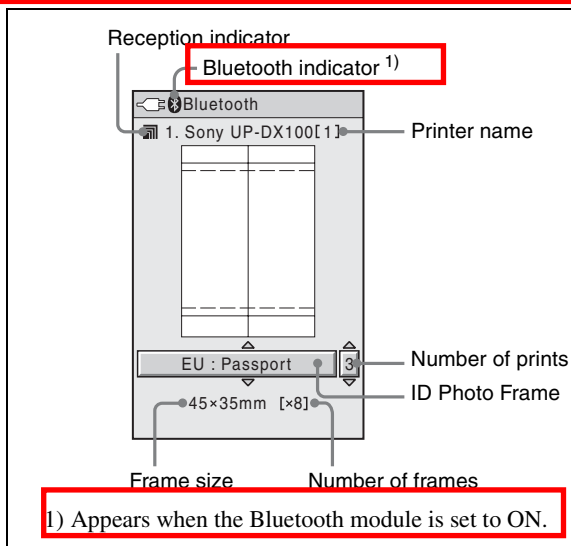
In addition, the automatic adjustment function may not work properly if a face is too large or too small for the frame on the LCD.

- 3 Press the ENTER button.
The LCD returns to the auto-review display. The adjustments are applied, and the camera returns to auto-review display.
If you press the MENU button, the camera returns to auto-review display without applying the adjustments.

4 Press the PRINT button.

The print preview screen appears.

You can return to the auto-review screen (or playback screen) by pressing the MENU button.



You can use the reception indicator on the top left part of the screen to check the reception state.

■ ■ : The reception is good.

■ ■ : The reception is weak and therefore it may take more time to send images.

Do not move the camera and printer until data transmission is finished.

5 Press the ▲ or ▼ control button to select a ID photo frame.

Press the ▲ or ▼ button repeatedly until the desired ID photo frame appears.

For details, see “Setting up a Frame for Display During Printing” on page 37.

6 Specify the number of copies to print.

1) Press the ► control button once.
Now you can select the number of copies to print.

2) Press the ▲ or ▼ control button to select the number of copies to print.

7 Press the COLOR/B&W button to select whether to print in color or black & white.

8 If necessary, adjust the size of the image to match the selected ID photo frame.

1) Press the ENTER button.
The ADJUST screen appears.

2) Press the AUTO FRAME button.
The image is automatically adjusted so that the face size of the subject fits the frame on the screen.

3) If necessary, use the following buttons to adjust the size of the image.

– You can press the zoom lever to magnify or reduce the image.

– You can press the control buttons (▲▼◀▶) to move the displayed part of the image.

4) Press the ENTER button to return to the print preview screen.

9 Press the PRINT button again.

Picture data are transmitted to the printer, and “TRANSMITTING” and the progress bar appear on the LCD.


While the CANCEL button is lit in orange, you can cancel data transmission by pressing the ENTER button.


When data transmission ends, the CANCEL button changes to gray. The printer checks the print pack then starts printing.

Notes

- Once the CANCEL button changes to gray, you cannot cancel the print operation.
- Do not touch any button on the camera while the CANCEL button is gray.

Once printing begins, “TRANSMISSION END. PUSH MENU KEY TO CONTINUE.” appears on the LCD of the camera. Press the MENU button to remove the message.

When the mode switch is set to , the LCD returns to the auto-review display. Once printing ends, you can print the same picture again at a different size, color, etc. You can also take another picture during printing. To take the next picture, press the release button halfway or press the zoom lever to turn off the auto-review display.

When the mode switch is set to , the LCD returns to the playback image.

When a picture is printed, it is ejected onto the paper tray on the printer.

An image number is printed at the bottom of the printed image. This is the same number that appeared at the top of the LCD during image playback.

To adjust the print quality

On the camera, you can independently adjust the print quality for color pictures and black & white pictures and store the adjusted values. Once these values are stored, the camera automatically selects the appropriate adjusted value for color prints and black & white prints, respectively.

For details on adjusting the print quality, see “Adjusting the Picture Quality” on page 44.

To adjust black & white print quality

When you print a picture in black & white by selecting B&W, the picture is printed by overlaying yellow, magenta, and cyan, and therefore may not be perfectly achromatic. To adjust the black tone, you can use the print quality adjustment function on the printer.

Printing a Picture Stored in the Camera’s Built-In Memory


When a picture is taken, its data is stored in the camera’s built-in memory. To print stored pictures, view them in Playback mode and select the picture you wish to print. Then perform the same steps as when printing a picture from the auto-review display (on page 22).

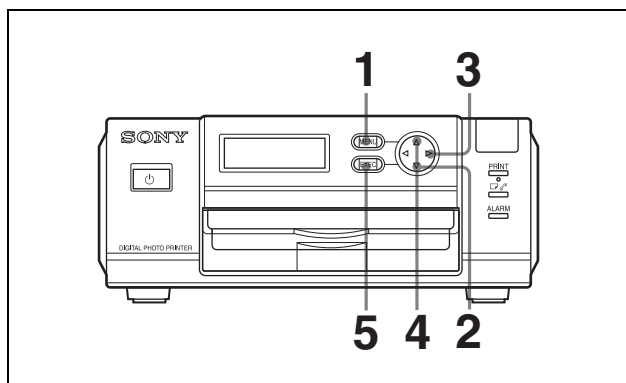
For details on viewing pictures stored in memory, see “Viewing a Picture on the LCD” on page 24.

Reprinting a Picture Stored in the Printer’s Memory (COPY PRINT)





The data for the last picture that was printed is stored in the printer’s memory. You can reprint this picture.

Note

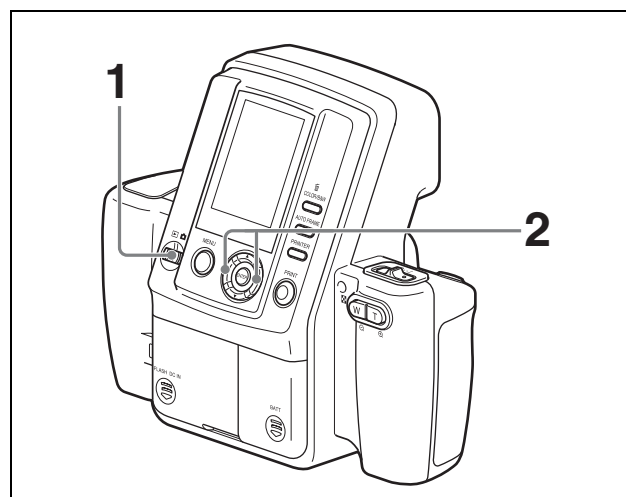
If you press the  button on the printer and set it to standby mode (so the lamp goes out), the data stored in the printer’s memory is deleted, and you cannot reprint the picture.






- 1 Press the MENU button.


- 2 Press  on the control button to display “COPY PRINT [>>].”
- 3 Press  on the control button. “COPY PRINT: 1 [1 – 9 PRINT: EXEC]” appears.
- 4 Set the number of sheets to be printed by press  or  on the control button. A value from 1 to 9 can be set.
- 5 Press the EXEC button. The number of pictures set in step 4 is printed. When printing completes, the READY screen reappears.

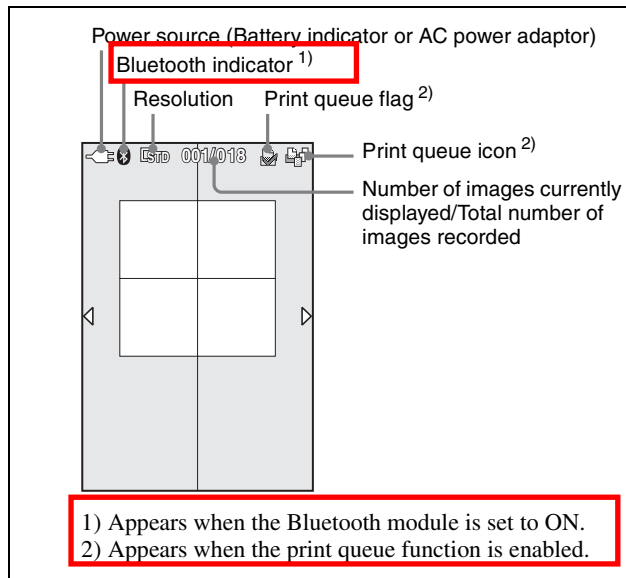
Viewing a Picture on the LCD



- 1 Set the mode switch to . A picture stored in the camera’s memory appears on the LCD.
- 2 Select a picture to view by pressing the  or  control button.

The LCD in Playback mode

The following is an example of how the LCD may appear when the mode switch is set to .



Displaying the nine-picture multiple display

Nine pictures stored in the camera's memory can be displayed at a time on the LCD. Then you can quickly search for a desired picture.

- 1 Press the W side of the zoom lever.

You can see nine pictures stored in camera's memory on the LCD.

- 2 Select a picture by pressing ◀, ▶, ▲ or ▼ of the control button.

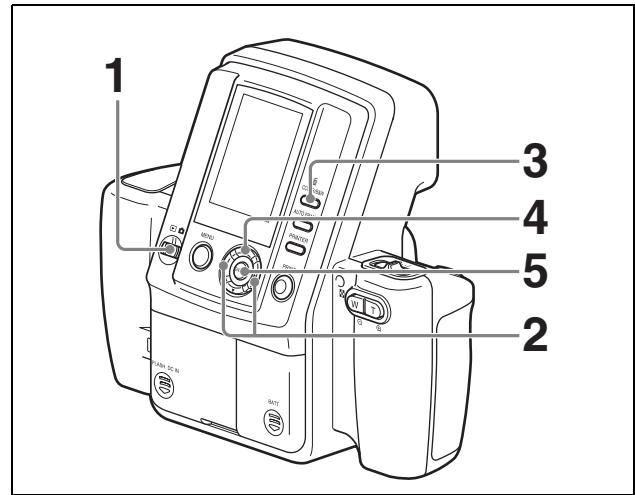
Pressing ◀ or ▶ selects the previous or next picture respectively.
Pressing ▲ or ▼ displays the previous or next page respectively.



- 3 Press the ENTER button or zoom lever.
The selected picture is displayed in full screen.

Deleting a Picture

The procedure for deleting pictures is the same for both single-picture display and nine-picture multiple display.

Deleting pictures in playback one by one

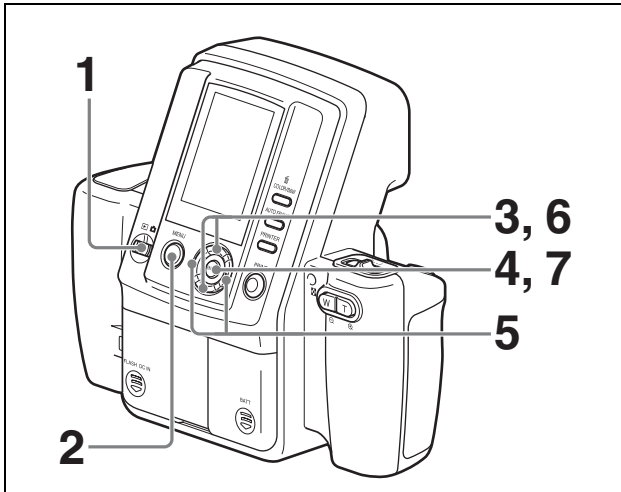


- 1 Set the mode switch to .
- 2 Select a picture to delete by pressing the ◀ or ▶ control button.
- 3 Press the  button.
The DELETE screen appears.
- 4 Select OK by pressing the ▼ control button.
- 5 Press the ENTER button.
The selected picture is deleted from the memory.

To continue deleting pictures

Repeat steps 2 to 5 above.

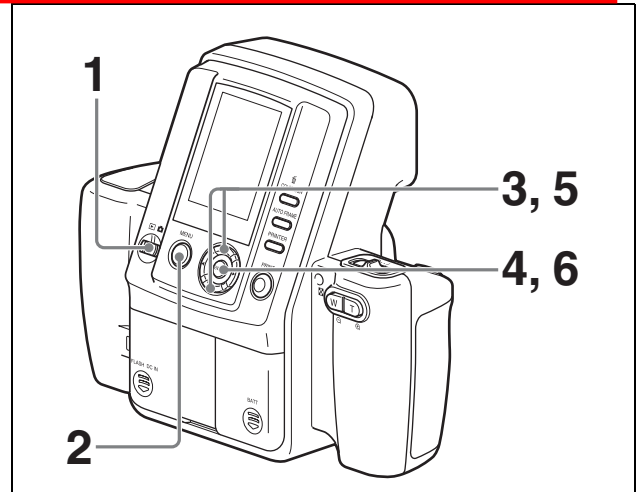
To delete individual pictures from the menu screen



- 1 Set the mode switch to .
- 2 Press the MENU button.
The menu screen appears.
- 3 Select DELETE by pressing the ▲ or ▼ control button.
- 4 Press the ENTER button.
The DELETE screen appears.
- 5 Select a picture to delete by pressing the ◀ or ▶ control button.
- 6 Select OK by pressing the ▲ control button.
- 7 Press the ENTER button.
The selected picture is deleted from the memory.

To continue deleting pictures
Repeat steps 5 to 7 above.

To delete all pictures from the menu screen



- 1 Set the mode switch to .
- 2 Press the MENU button.
The menu screen appears.
- 3 Select DELETE ALL by pressing the ▲ or ▼ control button.
- 4 Press the ENTER button.
The DELETE ALL screen appears.
- 5 Select OK by pressing the ▲ control button.
- 6 Press the ENTER button.

All pictures are deleted from the memory.

To cancel picture deletion

Select CANCEL on the DELETE screen, and then press the ENTER button. The Playback menu reappears.

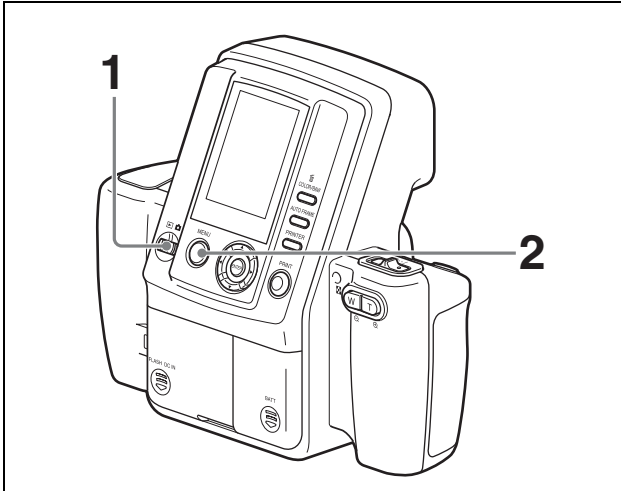
To exit picture deletion


Press the MENU button.

Settings

There are three types of camera menus: the Shooting menu for setting shooting conditions, the Playback menu for settings related to captured images, and the SETUP menu for configuring the camera itself.

Displaying the Shooting Menu

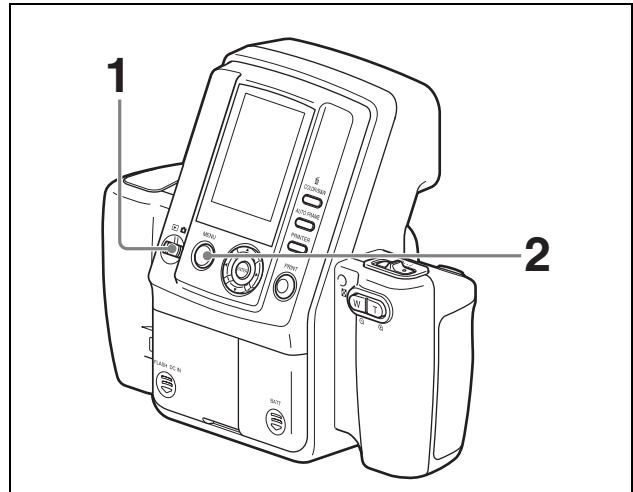



- 1 Set the mode switch to .
- 2 Press the MENU button.
The Shooting menu appears.

To exit the menu and return to the previous screen

Press the MENU button.

Displaying the Playback Menu





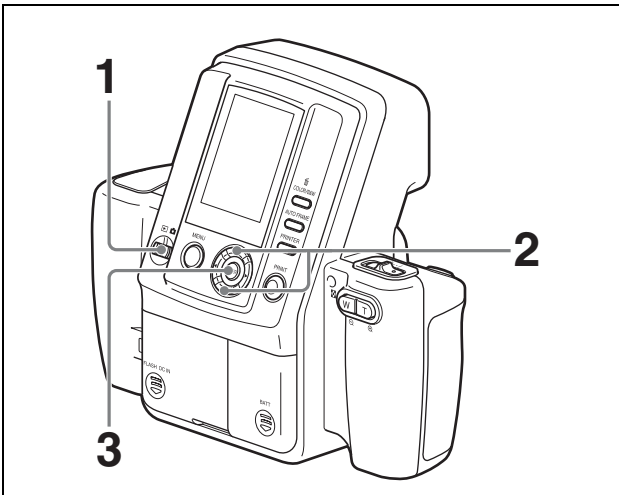
- 1 Set the mode switch to .
- 2 Press the MENU button.
The Playback menu appears.

To exit the menu and return to the previous screen

Press the MENU button.

Displaying the SETUP Menu

The SETUP menu can be displayed regardless of whether the mode switch is set to  or .



- 1** Press the MENU button.
Depending on the mode switch position, the shooting menu or playback menu appears.
- 2** Select SETUP by pressing the ▲ or ▼ control button.
- 3** Press the ENTER button.
The SETUP menu appears.

To exit the menu and return to the previous screen

Press the MENU button.

Menu

Functions of the Menu Items

Shooting menu

Menu Item	Function	Settings
EXIT	Exits Menu mode.	—
RESOLUTION	Selects the resolution for recording.	HIGH (3264 × 2448) STD (1632 × 1224)
AUTO ERASE	Sets the auto erase mode.	ON When memory becomes full, data is deleted in order from the oldest when new picture data is stored. OFF When memory becomes full, pictures can no longer be taken.
FLASH MODE	Selects the flash mode.	P Flash: Auto M Flash: Forced (flash intensity level: 100/70/50/35/25/18/12%) M Flash: OFF
APERTURE	Selects the aperture setting. Valid only when Flash Mode is set to M or M .	F4.7 F5.6
SHUTTER	Selects the shutter speed. Valid only when Flash Mode is set to M or M .	1/2[s], 1/4[s], 1/8[s], 1/15[s], 1/30[s], 1/60[s], 1/100[s], 1/125[s], 1/250[s] , 1/500[s], 1/750[s], 1/1000[s]
W.B.	Adjusts the white balance.	Program : White balance is adjusted automatically. One Push: Allows you to capture any image to use as the reference value for white. 3000K, 3500K, 4000K, 4500K, 5000K, 5500K, 6000K, 6500K, 7000K: White balance is adjusted for the selected color temperature.
EXPOSURE	Specify the exposure compensation.	When the flash mode is P : -2.0EV to 0EV to +2.0EV (in 1/4EV steps) When the flash mode is M or M : -1.0EV to 0EV to +2.0EV (in 1/4EV steps)
SETUP	To display the SETUP menu.	(For details, see “SETUP menu” on page 30.)

_____ : Default setting

MENU Lock: Press and hold the MENU button to lock or unlock the menu.

Playback menu

Menu Item	Function	Settings
EXIT	Exits the menu mode.	—
PROPERTY	To display the information on the selected image.	—
DELETE	To delete a picture stored in memory.	—
DELETE ALL	To delete all pictures except the protected ones stored in memory.	—
DELETE ONE FROM QUEUE	Removes the selected image from the print queue.	—
CLEAR QUEUE	Removes all images from the print queue.	—
SETUP	Displays the SETUP menu.	(For details, see “SETUP menu” on page 30.)

MENU Lock: Press and hold the MENU button to lock or unlock the menu.

SETUP menu

Menu Item	Function	Settings
RETURN	Exits SETUP mode and returns to the previous Menu display.	—
PRINT QUEUE MODE	Enables/disables the print queue function.	ON OFF
ID PHOTO FRAME	Selects the ID photo frame shown on the LCD when the print preview screen is displayed. The ID photo frames that can be used with this system are indicted to the right, but are subject to change without notice.	SELECT ALL DESELECT ALL Custom-1 Custom-2 Custom-3 Custom-4 Custom-5 USA: Passport CAN: Passport MEX: Passport COL: Passport VEN: Passport EU: Passport GBR: Passport DEU: Passport FRA: Passport ITA: Passport NLD: Passport ESP: Passport AUT: Passport RUS: Passport TUR: Passport AUS: Passport NZL: Passport JPN: Passport JPN: Driver License JPN: Personal History
CUSTOM FRAME	Allows you to create and register up to five additional ID photo frames of any size.	—
DIE-CUT MODE	Enables/disables the die-cut printing function.	ON OFF

Menu Item	Function	Settings
COLOR ADJUST	Adjusts the print quality for color pictures.	CYN-RED: Adjusts cyan and red. (-7 to <u>0</u> to +7) MAG-GRN: Adjusts magenta and green. (-7 to <u>0</u> to +7) YEL-BLU: Adjusts yellow and blue. (-7 to <u>0</u> to +7) DARK: Adjusts the brightness of dark areas. (-7 to <u>0</u> to +7)
B&W ADJUST	Adjusts the print quality for black & white pictures.	LIGHT: Adjusts the brightness of light areas. (-7 to <u>0</u> to +7) SHARPNESS: Adjusts the sharpness of object contours. (-7 to <u>0</u> to +7)
AUTO POWER SAVE	Allows you to set or disable the AUTO POWER SAVE function.	: Sets the AUTO POWER SAVE function during AC power adapter use. (30 min/10 min/DISABLE) : Sets the AUTO POWER SAVE function during battery use. (10 min/7 min/3 min)
SOUND	Turns the operation sound on or off.	ON SHUTTER OFF
LANGUAGE	Selects the language.	English /Deutsch/Français/Italiano/Español/Nederlands/Portugêus /Русский/日本語
DEFAULT SETTING	Returns camera settings to their default values.	—
FIRMWARE VERSION	Displays the camera version.	—
Bluetooth	To set for the Bluetooth functions.	PROPERTY: Shows the camera's address and passkey, and the list of the registered printers. CHANGE PASSKEY: For changing the passkey, from 0000 to 9999. ADD PRINTER: For registering optional printers up to three. REMOVE PRINTER: For removing a registered printer one by one. MODULE: For turning ON or OFF the power of the Bluetooth circuit.

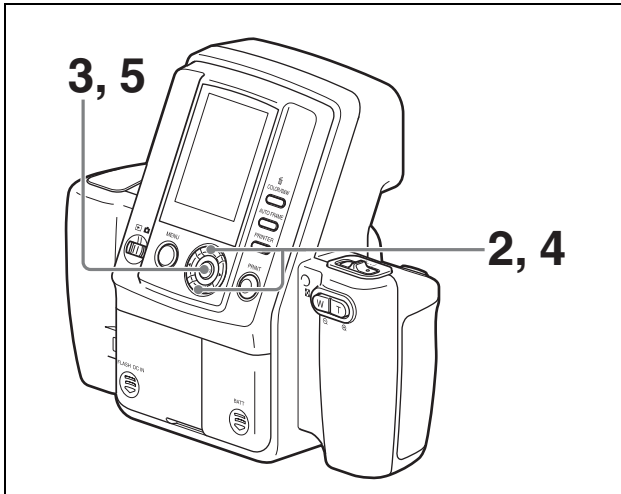
_____ : Default setting

Printer

Menu item	Function	Settings
COLOR ADJUST COLOR	Adjusts the print quality for color pictures.	Not used with this system.
COLOR ADJUST B&W	Adjusts the print quality for black & white pictures.	Not used with this system.
Bluetooth SETTING	You can make Bluetooth settings.	Bluetooth ADDR: The Bluetooth address is displayed. PASSKEY INPUT: A passkey is set or changed. MY DEVICE NAME: The printer can be assigned a number. CONNECTION RECORD: The connection record is displayed. MODULE POWER: The power of the Bluetooth circuits is turned on or off.
PRINT SETTING	Fine tunes the printing position for the UPC-X46 series print paper.	PRINT OFFSET (-2/-1/0/1/2) The printing position can be adjusted in units of 0.5 mm (1/32"). PRINT TEST Prints a color pattern.
COPY PRINT	Reprints the last picture stored in memory.	[1 - 9] Sets the number of sheets to reprint.
TOTAL PRINTS	Displays the total number of sheets printed.	—

Setting the Image Resolution

Select the optimal image resolution for your print size.



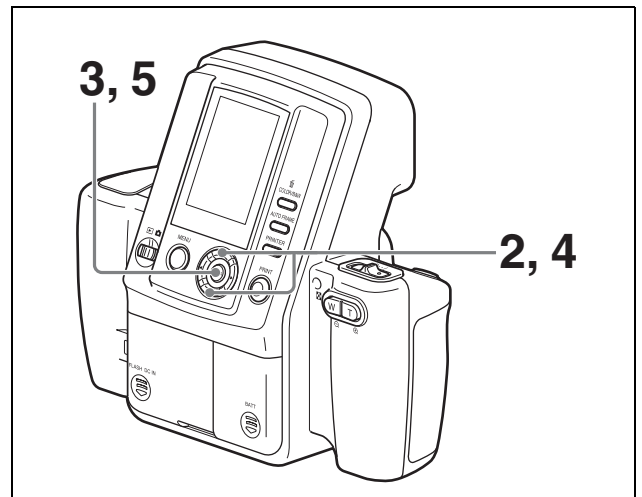
- 1 Display the Shooting menu.

For details on displaying the menu screen, see “Displaying the Shooting Menu” on page 27.

- 2 Select RESOLUTION by pressing the ▲ or ▼ control button.
- 3 Press the ENTER button.
The RESOLUTION screen appears.
- 4 Select one of the following resolutions by pressing the ▲ or ▼ control button.
HIGH: 3264 × 2448 (approximately 30 pictures can be taken)
STD: 1632 × 1224 (approximately 120 pictures can be taken)
Under normal circumstances, the number of pictures listed above for each resolution can be taken, but the number may decrease if pictures containing complex patterns are included. In Shooting mode, refer to the value displayed at the top right of the LCD.
- 5 Press the ENTER button.
The Shooting menu reappears.

Setting the Auto Erase Mode

You can select the action performed by the camera when the memory is full.

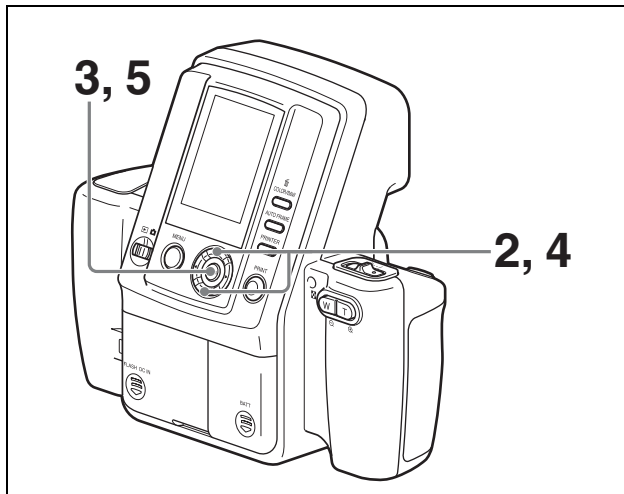


- 1 Display the Shooting menu.

For details on displaying the menu screen, see “Displaying the Shooting Menu” on page 27.

- 2 Select AUTO ERASE by pressing the ▲ or ▼ control button.
- 3 Press the ENTER button.
The AUTO ERASE screen appears.
- 4 Select ON or OFF by pressing the ▲ or ▼ control button.
ON: When the memory is full, stored images are deleted automatically starting with the oldest, and new image data is stored.
OFF: Shooting is disabled when the memory is full.
- 5 Press the ENTER button.
The Shooting menu reappears.

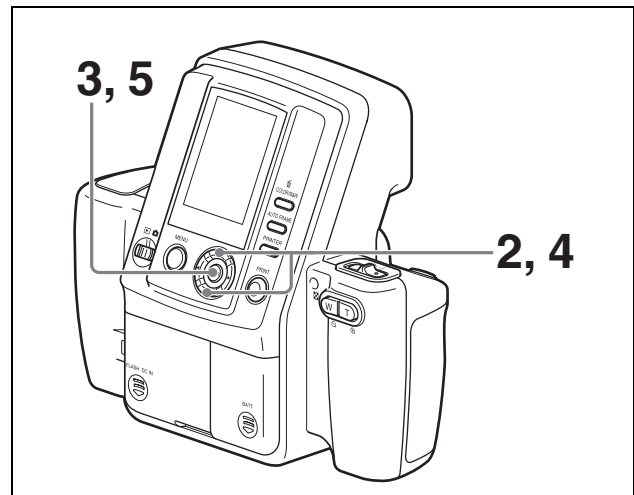
Selecting the Flash Mode



- 1 Display the Shooting menu.
For details on displaying the menu screen, see “Displaying the Shooting Menu” on page 27.
- 2 Select FLASH MODE by pressing the ▲ or ▼ control button.
- 3 Press the ENTER button.
The FLASH MODE screen appears.
- 4 Select the flash mode by pressing the ▲ or ▼ control button.
For details on each mode, see “Flash Modes and Example Shooting Conditions” on page 7.
- 5 Press the ENTER button.
If P \square or M \square was selected for the flash mode, the Shooting menu reappears.
If M \square was selected for the flash mode, the menu for selecting the flash intensity level appears. Select a flash intensity level (100/70/50/35/25/18/12%) using the ▲ or ▼ control button, and press the ENTER button. The flash intensity level is set, and the Shooting menu reappears.

Setting the Aperture

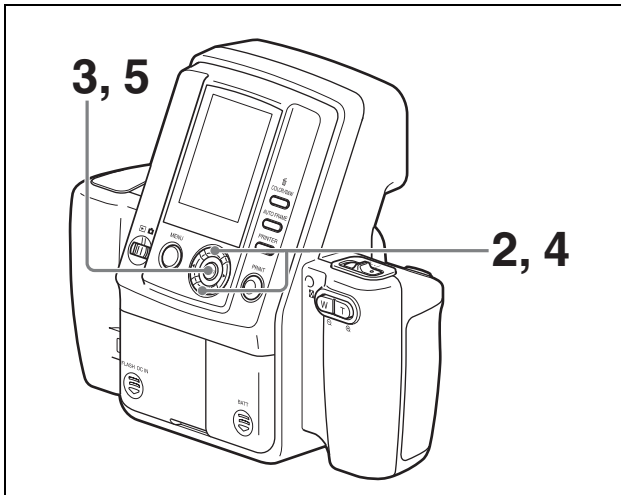
You can only set the aperture when the FLASH MODE is set to M \square or M \square .



- 1 Display the Shooting menu.
For details on displaying the menu screen, see “Displaying the Shooting Menu” on page 27.
- 2 Select APERTURE by pressing the ▲ or ▼ control button.
- 3 Press the ENTER button.
The APERTURE screen appears.
- 4 Select F 4.7 or F 5.6 by pressing the ▲ or ▼ control button.
- 5 Press the ENTER button.
The Shooting menu reappears.

Setting the Shutter Speed

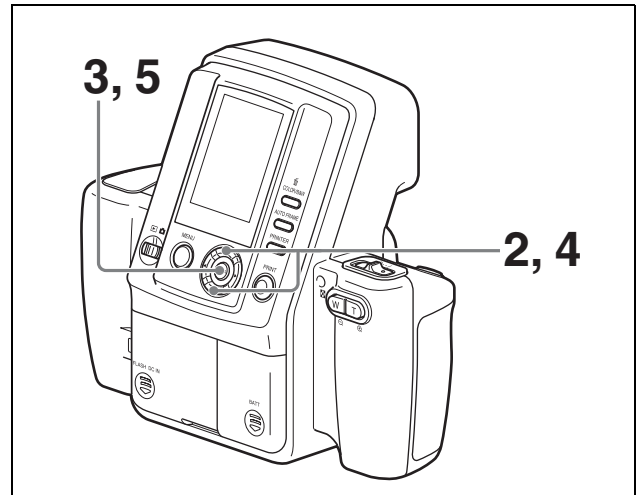
You can only set the shutter speed when the FLASH MODE is set to **M** or **M**.



- 1 Display the Shooting menu.
For details on displaying the menu screen, see “Displaying the Shooting Menu” on page 27.
- 2 Select SHUTTER by pressing the ▲ or ▼ control button.
- 3 Press the ENTER button.
The SHUTTER screen appears.
- 4 Select a shutter speed by pressing the ▲ or ▼ control button.
Select from 1/2 (s), 1/4 (s), 1/8 (s), 1/15 (s), 1/30 (s), 1/60 (s), 1/100 (s), 1/125 (s), 1/250 (s), 1/500 (s), 1/750 (s), or 1/1000 (s).
- 5 Press the ENTER button.
The Shooting menu reappears.

Adjusting the White Balance

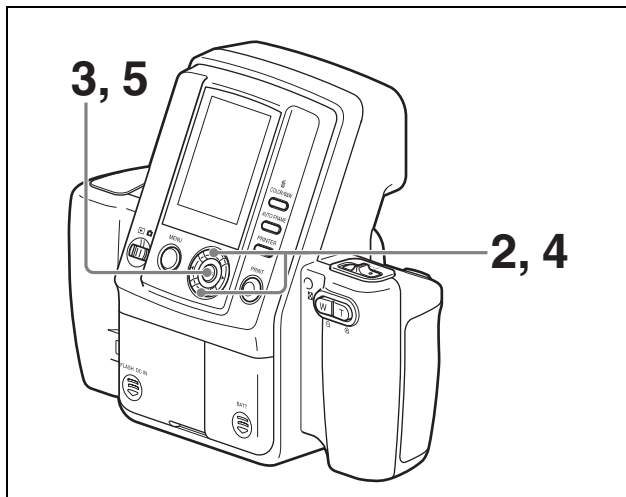
You can only set the white balance when the FLASH mode is set to **M** or **M**.



- 1 Display the Shooting menu.
For details on displaying the menu screen, see “Displaying the Shooting Menu” on page 27.
- 2 Select W.B. by pressing the ▲ or ▼ control button.
- 3 Press the ENTER button.
The W.B. screen appears.
- 4 Select the method for adjusting the white balance by pressing the ▲ or ▼ control button.
PROGRAM: The white balance is adjusted automatically.
OnePush: A new image is captured as the reference value for white. Under the same lighting conditions that you use for taking pictures, display a white object (such as a piece of paper or cloth) in the center of the LCD, and then press the release button or the ENTER button. The white balance is captured and adjusted for the current lighting conditions.
3000K to 7000K: Select a color temperature to suit the lighting conditions. You can select color temperatures between 3000K and 7000K in units of 500K. The white balance is adjusted according to the selected color temperature.
- 5 Press the ENTER button.
The selected white balance setting is saved, and the Shooting menu reappears.

Compensating the Exposure

You can set a default value for exposure compensation during shooting.



- 1 Display the Shooting menu.

For details on displaying the menu screen, see “Displaying the Shooting Menu” on page 27.

- 2 Select EXPOSURE by pressing ▲ or ▼ of the control button.

- 3 Press ENTER of the control button.

The EXPOSURE display appears.

- 4 Select an appropriate value by pressing ▲ or ▼ of the control button.

- 5 Press the ENTER button.

The selected value is set, and the Shooting menu reappears.

To compensate the exposure easily

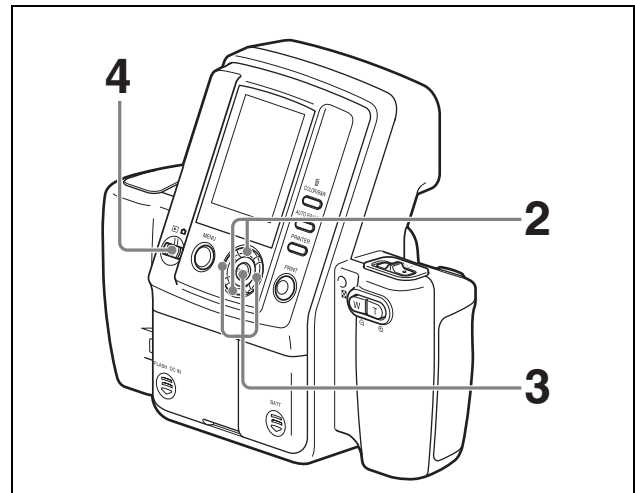
The exposure can easily be changed by pressing ▲ or ▼ of the control button. When the button is pressed, the value displayed on the LCD changes.

Using this method, you can change the exposure even when the menu has been locked.

For details on the menu lock, see “Locking the Camera Menus” on page 43.

Viewing Information on Captured Images

You can view information about captured images, including FLASH mode settings, on the LCD.



- 1 Display the Playback menu.

For details on displaying the menu screen, see “Displaying the Playback Menu” on page 27.

- 2 Select PROPERTY by pressing the ▲ or ▼ control button.

- 3 Press the ENTER button.
The PROPERTY screen appears.
You can select images by pressing the ◀ or ▶ control button.

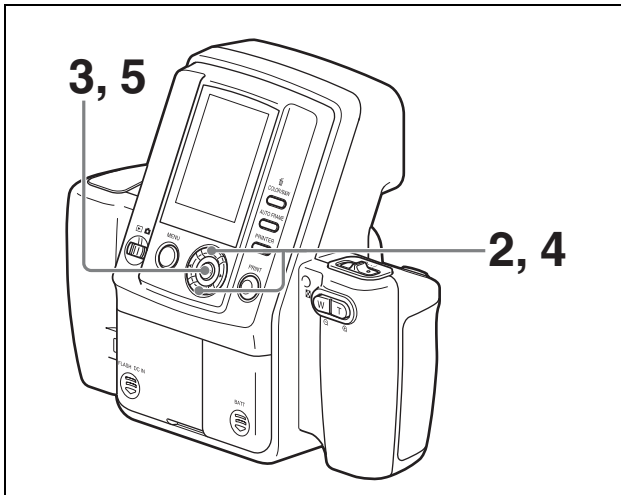
- 4 Press the MENU or ENTER button.
The Playback menu reappears.

Note

Printing cannot be performed from the PROPERTY screen. Return to the Playback mode display to perform printing.


Using the Print Queue Function

This system provides a print queue function to print later a group of captured images. To use this function, follow the procedure below to enable the print queue function.




- 1 Display the SETUP menu.
For details on how to display this menu, see “Displaying the SETUP Menu” on page 28.
- 2 Press the ▲ or ▼ control button to select PRINT QUEUE MODE.
- 3 Press the ENTER button.
The PRINT QUEUE MODE screen appears.
- 4 Press the ▲ or ▼ control button to select ON.
- 5 Press the ENTER button.
The SETUP menu returns.

About shooting and printing when the print queue function is enabled

Once the camera’s print queue function is enabled, all subsequently captured images are set with a print queue flag. When these images are viewed in playback, the  icon appears on the LCD. When they are printed, all images with the print queue flag are printed.

To remove images from the print queue one by one

To remove an image from the print queue, perform the following steps to remove its print queue flag.

- 1 Set the mode switch to .
- 2 Display the Playback menu. For details on displaying the menu, see “Displaying the Playback Menu” on page 27.


- 3 Select DELETE ONE FROM QUEUE by pressing the ▲ or ▼ control button.
- 4 Press the ENTER button.
The Delete One from Queue screen appears.
- 5 Display the image that you want removed from the print queue by pressing the ◀ or ▶ control button.
- 6 Select OK by pressing the ▲ control button.
- 7 Press the ENTER button.
The image selected in step 5 is removed from the print queue.

To continue removing images from the print queue

Repeat steps 5 to 7 above.

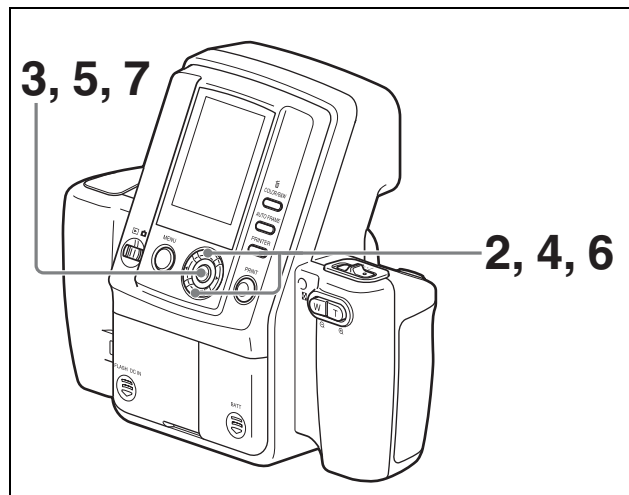
To remove all images from the print queue

You can simultaneously remove all images from the print queue by performing the following steps.

- 1 Set the mode switch to .
- 2 Display the Playback menu.
For details on displaying the menu, see “Displaying the Playback Menu” on page 27.
- 3 Select CLEAR QUEUE by pressing the ▲ or ▼ control button.
- 4 Press the ENTER button.
The Clear Queue screen appears.
- 5 Select OK by pressing the ▲ control button.
- 6 Press the ENTER button.
All images are removed from the print queue.

Setting up a Frame for Display During Printing

The ID photo frame available for selection on the print preview screen can be set in the SETUP menu. Set the most frequently used frames to display so that you can select the desired frame easily.



- 1** Display the SETUP menu.
For details on displaying this menu, see “Displaying the SETUP Menu” on page 28.
- 2** Select ID PHOTO FRAME by pressing the ▲ or ▼ control button.
- 3** Press the ENTER button.
The ID PHOTO FRAME screen appears.
- 4** Select a frame to hide by pressing the ▲ or ▼ control button.
You can display the next page or return to a previous page by pressing the ◀ or ▶ control button.
- 5** Press the ENTER button.

The ✓ (check mark) for the selected frame appears, and the frame becomes available in the print preview screen.
If you press the ENTER button again, the ✓ (check mark) is removed, and the frame will not be available in the print preview screen.

Each press of the ENTER button removes or restores the ✓ mark.

If you select SELECT ALL and press the ENTER button, the ✓ mark appears for all of the ID photo frames.
If you select DESELECT ALL and press the ENTER button, the ✓ mark is removed for all of the ID photo frames.

Note

Select at least one ID photo frame. You cannot close the ID PHOTO FRAME screen when the ✓ of all ID photo frames are deleted.

- 6** When you have finished configuring the settings, select RETURN by pressing the ▲ or ▼ control button.
- 7** Press the ENTER button.
The SETUP menu reappears.

Country code example of ID photo frame

The ID photo frame of this camera uses the following ISO country codes, regardless of the language selected.

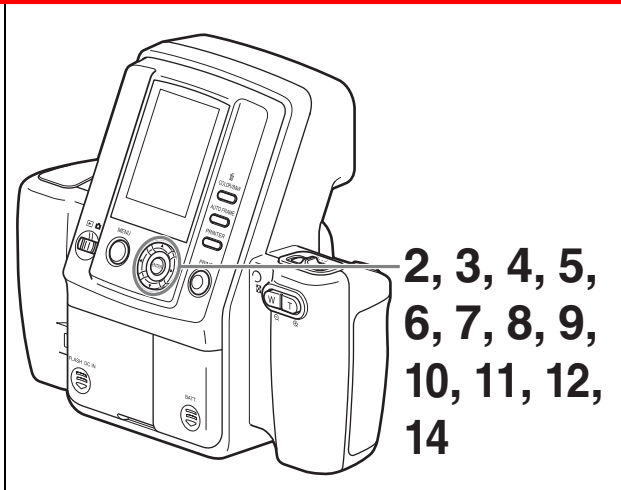
Code	Country
AUS	Australia
AUT	Austria
BRA	Brazil
CAN	Canada
COL	Columbia
DEU	Germany
ESP	Spain
EU	EU
FRA	France
GBR	United Kingdom
ITA	Italy
JPN	Japan
MEX	Mexico
NLD	Netherland
NZL	New Zealand
PRT	Portugal
RUS	Russia
TUR	Turkey
USA	USA
VEN	Venezuela

Note

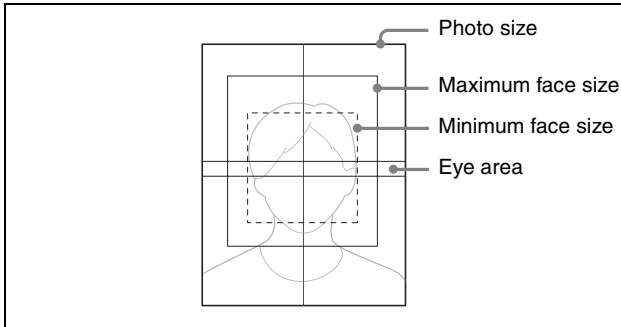
Depending on your country and region selection during initial configurations, ID photo frames for some countries may not be available for selection.

Creating an Additional Frame

You can define up to five ID photo frames of any size and then register them on this camera.

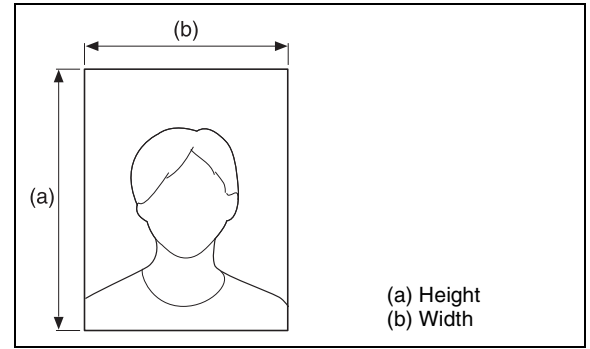


When creating an additional frame, define the following frame.



- 1 Display the SETUP menu.
For details on how to display this menu, see "Displaying the SETUP Menu" on page 28.
- 2 Press the ▲ or ▼ control button to select CUSTOM FRAME.
- 3 Press the ENTER button.
The 1st screen of the Frame Setting screen appears.
- 4 Press the ◀ or ▶ control button to select a frame number (1 to 5).
- 5 Press the ▼ and ▶ control buttons in that order to select NEXT, and then press the ENTER button.
The 2nd screen of the Frame Setting screen appears.

- 6 Specify a photo size.
Press the ▲ or ▼ control button to select the next setting item, and then press ◀ or ▶ to select a value.



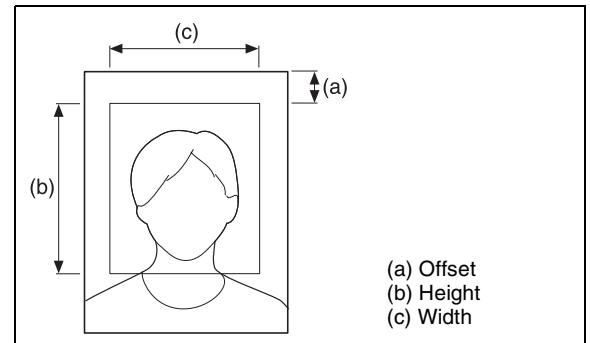
SIZE UNIT: Select a size unit.

Height: Specify the height of the photo size.

Width: Specify the width of the photo size.

- 7 Press the ▼ control button to select NEXT, and then press the ENTER button.
The 3rd screen of the Frame Setting screen appears.

- 8 Specify the maximum face size (maximum range to cover the face of the subject).
Press the ▲ or ▼ control button to select the next setting item, and then press ◀ or ▶ to select a value.



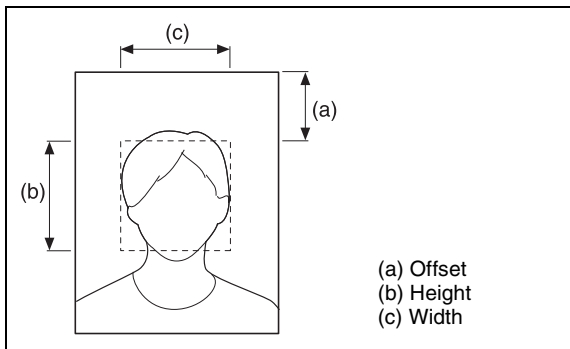
Offset: Specify the distance from the frame circumference to the maximum face area.

Height: Specify the height of the maximum face size.

Width: Specify the width of the maximum face size.

- 9 Press the ▼ control button to select NEXT, and then press the ENTER button.
The 4th screen of the Frame Setting screen appears.

- 10** Specify the minimum face size (minimum range to cover the face of the subject).
Press the ▲ or ▼ control button to select the next setting item, and then press ◀ or ▶ to select a value.



Offset: Specify the distance from the frame circumference to the minimum face size.

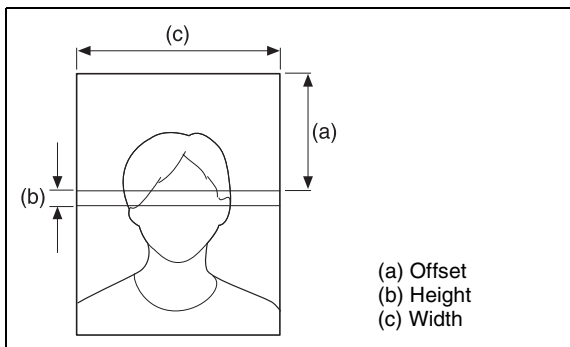
Height: Specify the height of the minimum face size.

Width: Specify the width of the minimum face size.

- 11** Press the ▼ control button to select NEXT, and then press the ENTER button.

The 5th screen of the Frame Setting screen appears.

- 12** Specify the eye area (area where the eyes of the subject are positioned).
Press the ▲ or ▼ control button to select the next setting item, and then press ◀ or ▶ to select a value.



Offset: Specify the distance from the frame circumference to the eye area.

Height: Specify the height of the eye area.

Width: Specify the width of the eye area.

- 13** Press the ▼ control button to select NEXT, and then press the ENTER button.

The 6th screen of the Frame Setting screen appears.

- 14** Check the items you have specified so far.
To change a setting, press the ▲ control button to select PREV, and then press the ENTER button to return to the previous screen.

- 15** Press the ◀ or ▶ control button to select OK, and then press the ENTER button.
The SETUP menu returns.

To return to a previous screen during configuration

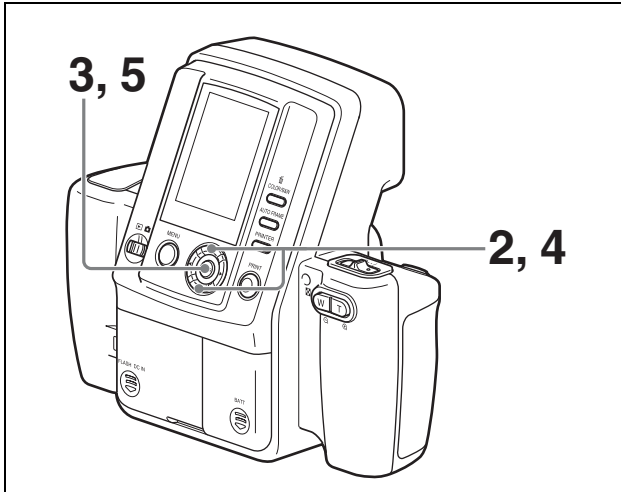
You can return to a previous screen and change settings at any time during screens 2 through 6 of the Frame Settings screen. To return to a previous screen, press the ▲ control button to select PREV, and then press the ENTER button.

Using an additional frame

You can use the ID PHOTO FRAME list to enable additional frame. For details, see “Setting up a Frame for Display During Printing” on page 37.

Using the Die-cut Print Function

The die-cut print function allows you to print a captured image at a size about 3 mm larger than the selected frame size so that it becomes the target size when the image is cut. (This is called “die-cut print”.) To use this function, follow the steps below to enable the die-cut mode.



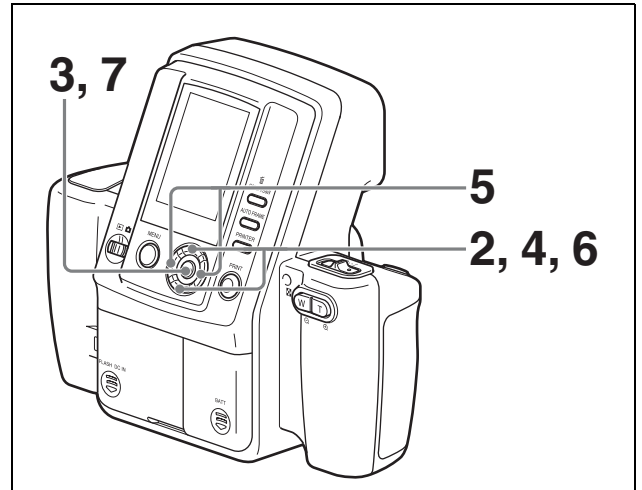
- 1 Display the SETUP menu.
For details on how to display this menu, see “Displaying the SETUP Menu” on page 28.
- 2 Press the ▲ or ▼ control button to select DIE-CUT MODE.
- 3 Press the ENTER button.
The DIE-CUT MODE screen appears.
- 4 Press the ▲ or ▼ control button to select ON.
- 5 Press the ENTER button.
The SETUP menu returns.





Note

When the die-cut print function is enabled, the number of images printed on a single sheet of paper may be less than with normal printing.

Using the Auto Power Save Function


When you enable the auto power save function, the camera enters power save mode if no operation is performed within a certain amount of time. The amount of time can be set for when the AC power adaptor is used as well as when batteries are used.



- 1 Display the SETUP menu.
For details on how to display this menu, see “Displaying the SETUP Menu” on page 28.
- 2 Press the ▲ or ▼ control button to select AUTO POWER SAVE.
- 3 Press the ENTER button.
The AUTO POWER SAVE screen appears.
- 4 Press the ▲ or ▼ control button and select either  (AC power adaptor) or  (batteries).
- 5 Press the ◀ or ▶ control button and select the time until the power save mode is activated.
If  (AC power adaptor) is specified, you can select 30min, 10min, or DISABLE.
If  (batteries) are specified, you can select 10min, 7min, or 3min.
If you select DISABLE, the auto power save is disabled.
- 6 Press the ▲ or ▼ control button to select OK.
- 7 Press the ENTER button.
The SETUP menu returns.

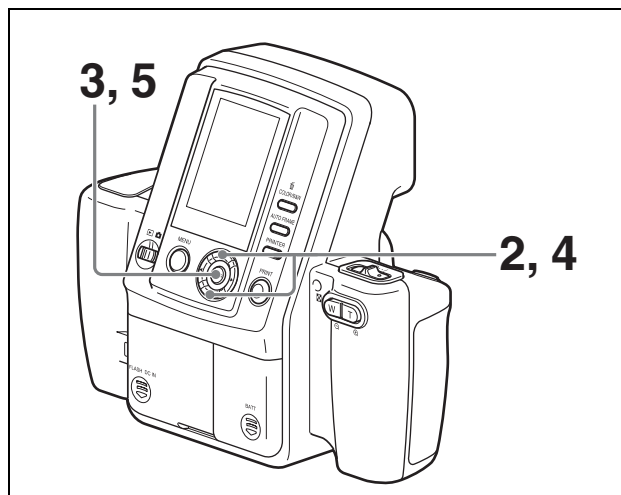
Turning on the power again while in the power save mode

Perform one of the following operations

- Set the on/standby switch to  (standby), and then back to **I** (on) again.
- Press the release button halfway.
- Press any button on the camera.

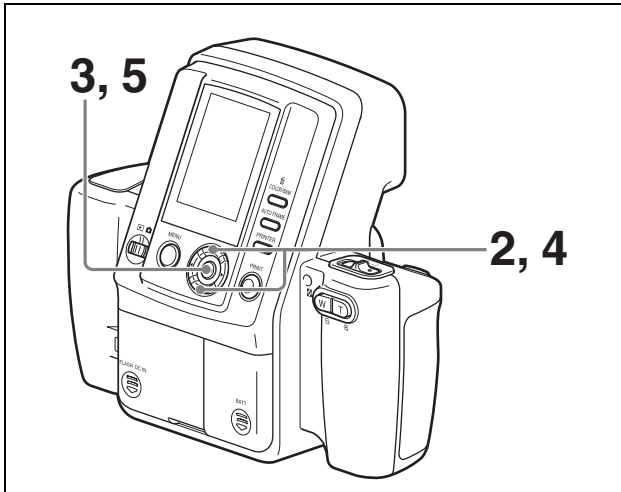
Setting Camera Sounds

You can select whether the camera makes sounds when it is operated.



- 1** Display the SETUP menu.
For details on displaying this menu, see “Displaying the SETUP Menu” on page 28.
- 2** Select SOUND by pressing the ▲ or ▼ control button.
- 3** Press the ENTER button.
The SOUND screen appears.
- 4** Select a sound setting by pressing the ▲ or ▼ control button.
ON: A sound is emitted for all camera operations (except zoom operations).
SHUTTER: A sound is emitted only when the release or PRINT button is pressed.
OFF: No sounds are emitted.
- 5** Press the ENTER button.
The SETUP menu reappears.

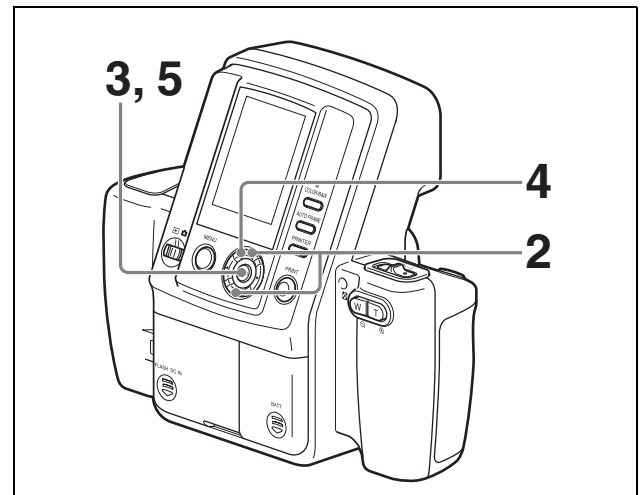
Selecting the Language Display



- 1** Display the SETUP menu.
For details on displaying this menu, see “Displaying the SETUP Menu” on page 28.
- 2** Select LANGUAGE by pressing the ▲ or ▼ control button.
- 3** Press the ENTER button.
The LANGUAGE screen appears.
- 4** Select a language display by pressing the ▲ or ▼ control button.
You can select from English, German, French, Italian, Spanish, Dutch, Polish, Russian, and Japanese.
- 5** Press the ENTER button.
The SETUP menu reappears.

Returning Settings to Defaults

You can return camera settings to their default factory settings.



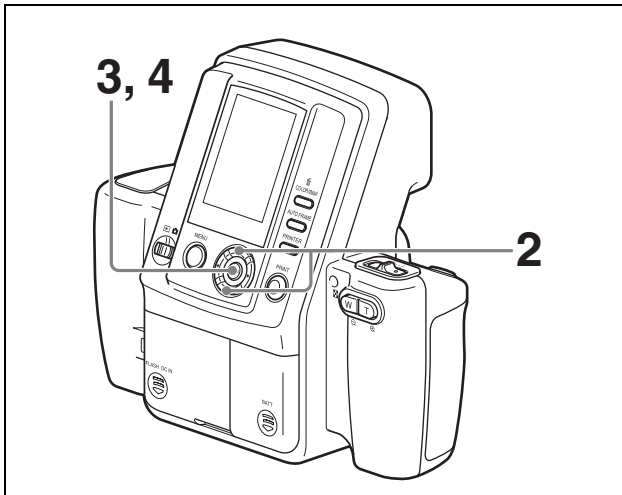
- 1** Display the SETUP menu.
For details on displaying this menu, see “Displaying the SETUP Menu” on page 28.
- 2** Select DEFAULT SETTING by pressing the ▲ or ▼ control button.
- 3** Press the ENTER button.
The DEFAULT SETTING screen appears.
- 4** Read the warning carefully, and select “OK” by pressing the ▼ control button.
- 5** Press the ENTER button.
The LANGUAGE screen appears.
All camera settings are returned to their default factory settings, and the SETUP menu reappears. (Captured images and additional frames are retained.)

When all settings are returned to their factory defaults, the default settings must be reconfigured the next time you turn on the camera.

For details on default settings, see ““The first time you turn on the camera (default setting)” on page 20.

Displaying the Firmware Version

You can display the camera's firmware version. Use this information when consulting a service representative about the camera.



1 Display the SETUP menu.


For details on displaying this menu, see “Displaying the SETUP Menu” on page 28.

- 2 Select FIRMWARE VERSION by pressing the ▲ or ▼ control button.
- 3 Press the ENTER button.
The FIRMWARE VERSION screen appears.
- 4 Press the ENTER button.
The SETUP menu reappears.

Locking the Camera Menus


You can keep menu screens from displaying even when the MENU button is pressed during Shooting or Playback. This can prevent accidental changes to menu settings.

To lock the menus

Press the MENU button for at least five seconds. The menu screen disappears, and the lock icon  appears. This icon indicates that the menus are now locked and pressing the MENU button will not display the menu screen.

The menus remain locked even when you switch between Shooting and Playback modes or restart the camera.

To release the menu lock

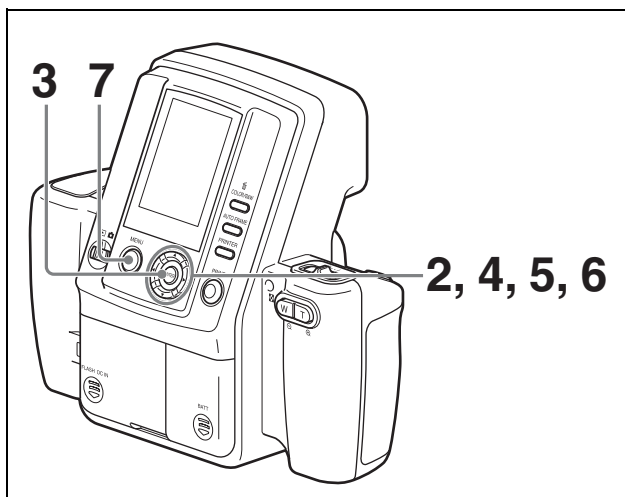
Press the MENU button for at least five seconds. The lock icon  disappears, and the menu screen appears.

Adjusting the Print Quality

You can use the MENU function of the camera to adjust the picture quality. The guide print function of the camera enables you to check the adjustment results. For details on the meanings of the values in the CYN-RED, MAG-GRN, and YEL-BLU displays, see “Explanation of Picture Quality Adjustment Parameters” on page 45.

Adjusting the Picture Quality

To adjust the picture quality of color prints



- 1 Display the SETUP menu.
For details on how to display the menu, see “Displaying the SETUP Menu” on page 28.
- 2 Press the ▲ or ▼ control button to select COLOR ADJUST.
- 3 Press the ENTER button.
The COLOR ADJUST screen appears.
- 4 Specify each adjustment item.
Press the ▲ or ▼ control button to select the next adjustment item, and then press ◀ or ▶ to select a value.
CYN-RED: Pressing ◀ gives the picture more cyan, while pressing ▶ makes it more reddish.
MAG-GRN: Pressing ◀ gives the picture more magenta, while pressing ▶ makes it more greenish.
YEL-BLU: Pressing ◀ gives the picture more yellow, while pressing ▶ makes it more bluish.

- DARK:** Pressing ▶ increases the darkness in the dark parts.
LIGHT: Pressing ▶ increases the brightness in the bright parts.
GAMMA: Pressing ◀ makes the color tone of the whole picture lighter, while pressing ▶ makes it deeper.
SHARPNESS: Pressing ▶ makes the edges of objects in the picture sharper.

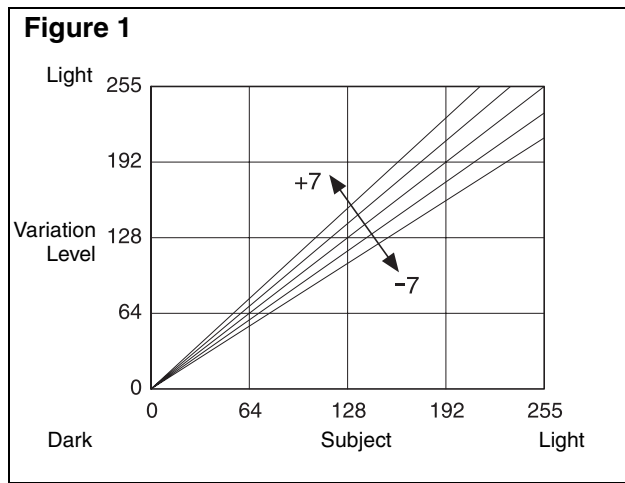
- 5 Press the ▲ or ▼ control button to select OK, and then press the ENTER button.
The Guide Print screen appears.
- 6 Press the ▲ or ▼ control button to select GUIDE PRINT-RGB or GUIDE PRINT-DLGm, and then press the ENTER button.
The guide picture is printed. The picture currently being played back or the picture taken immediately previous is used for the guide picture.
For details on the guide print function, see “Guide Print Function” on page 47.
- 7 Press the MENU button.
The SETUP menu returns.
Check the guide picture printed in the previous step. If necessary, repeat starting from step 2 and re-adjust the picture quality.

To adjust the picture quality of black & white prints

After pressing the MENU button in step 2 of “To adjust the picture quality of color prints,” press the ▼ control button. The camera enters the picture quality adjustment mode for black & white prints and the B&W ADJUST screen appears. The procedure for adjusting the picture quality is the same as that for color prints.

Explanation of Picture Quality Adjustment Parameters

Picture quality variations when the R, G, and B parameters are changed



CYN-RED adjustment (R parameter)

You can adjust the cyan and red color components. The default is 0.

Pressing ► on the control button of the printer changes the value in the plus direction to 1, 2 ... 7, making the red component value in the picture increase in the linear direction that the brightness increases as shown in figure 1. This adds more red as if a red light has been cast. However, the maximum effective brightness value is 255. When the value becomes larger than 255, saturation occurs. When this occurs, the saturated white area remains white even if the value is increased further in the plus direction.

Pressing ◀ on the control button changes the value in the minus direction to -1, -2 ... -7, making the red component value in the picture decrease in the linear direction that the brightness decreases as shown in the figure. Decreasing the brightness makes the red color darker and reduces the redness. The complementary color cyan (light blue) is added. In this case, the white area becomes bluish.

MAG-GRN adjustment (G parameter)

You can adjust the magenta and green color components. The default is 0.

Pressing ► on the control button of the printer changes the value in the plus direction to 1, 2 ... 7, making the green component value in the picture increase in the linear direction that the brightness increases as shown in figure 1. This adds more green as if a green light has been cast. However, the maximum effective brightness value is 255. When the value becomes larger than 255, saturation occurs. When this occurs, the saturated white area remains white even if the value is increased further in the plus direction.

Pressing ◀ on the control button changes the value in the minus direction to -1, -2 ... -7, making the green component value in the picture decrease in the linear direction that the brightness decreases as shown in the figure. Decreasing the brightness makes the green color darker and reduces the greenness. The complementary color magenta (reddish-purple) is added. In this case, the white area becomes slightly magenta in color.

YEL-BLU adjustment (B parameter)

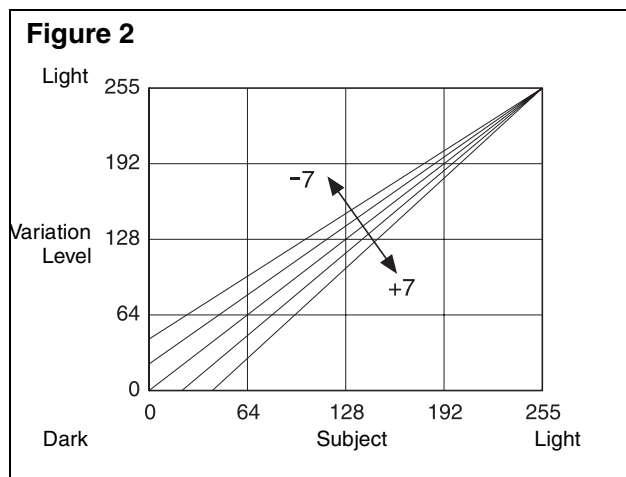
You can adjust the yellow and blue color components. The default is 0.

Except for some special specifications, this adjustment is not possible when B&W is selected.

Pressing ► on the control button of the printer changes the value in the plus direction to 1, 2 ... 7, making the blue component value in the picture increase in the linear direction that the brightness increases as shown in figure 1. This adds more blue as if a blue light has been cast. However, the maximum effective brightness value is 255. When the value becomes larger than 255, saturation occurs. When this occurs, the saturated white area remains white even if the value is increased further in the plus direction.

Pressing ◀ on the control button changes the value in the minus direction to -1, -2 ... -7, making the blue component value in the picture decrease in the linear direction that the brightness decreases as shown in the figure. Decreasing the brightness makes the blue color darker and reduces the blueness. The complementary color yellow is added. In this case, the white area becomes yellowish.

Picture quality variations when the D, L, and Gm parameters are changed



DARK adjustment (D parameter)

You can adjust the dark parts. The default is 0.

Pressing ► on the control button of the printer changes the value in the plus direction to 1, 2 ... 7, making the dark side of each of the RGB data increase simultaneously in the linear direction that the depth increases as shown in figure 2. This adds more depth. However, the maximum effective darkness value is 0. When the value becomes smaller than 0, saturation occurs.

Pressing ◀ on the control button changes the value in the minus direction to -1, -2 ... -7, making the dark side of each RGB data lighter and decreasing the darkness.

LIGHT adjustment (L parameter)

You can adjust the light parts. The default is 0.

Pressing ► on the control button of the printer simultaneously changes the R, G, and B parameters as shown in figure 1, making the light side of each of the RGB data increase simultaneously in the linear direction that the brightness increases. This gives an overexposed quality to the picture.

Pressing ◀ on the control button makes the light side of each of the RGB data darker, and gives you a picture that seems underexposed.

SHARPNESS adjustment

You can adjust the sharpness of pictures.

Pressing ► on the control button of the printer changes the value in the plus direction from 0 to 1, 2 ... 7, adding emphasis to edges in pictures. We recommend setting a small value when the print size is small.

GAMMA adjustment (GM parameter)

You can adjust the gamma value. The default is 0.

Pressing ► on the control button of the printer increases the halftone of each of the RGB data in the direction that the brightness increases.

Pressing ◀ on the control button decreases the halftone of each of the RGB data in the direction that the darkness increases.

SHARPNESS

SHARPNESS adjustment is a function for adding emphasis to edges in pictures. This function cannot be used to increase the resolution. It is intended for changing the sharpness.

SHARPNESS can be used as a parameter to improve pictures, but increasing the sharpness too much will not produce a natural picture. Generally, the default setting is recommended. When a large print size is used and SHARPNESS is set to a large value, picture quality does appear to improve.

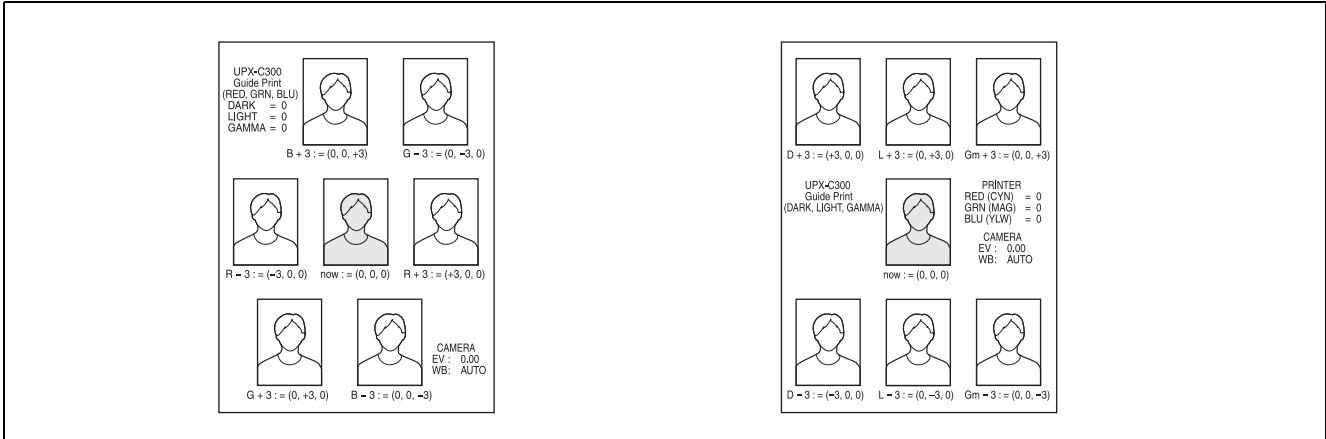
Contrast

In addition to the sharpness function, it is possible to add sharpness to the image by adding the contrast of dark and light. Contrast can be set using the DARK and LIGHT items in the menu screen. Increasing the DARK and LIGHT values in the plus direction increases the contrast, and a high contrast image can be obtained. The downside, however, is that increasing the contrast values in the plus direction diminishes the amount of information about white and black tones, and as a result, the white and black gradation becomes coarser. Thus, an appropriate contrast setting is required. We recommend setting the contrast to +2 or +3.

Guide Print Function

The Guide Print-RGB or Guide Print-DLGm layout enables you to print a guide picture that has each of the RGB or DLGm parameters changed.

Guide pictures can be printed on UPC-X46 series, and UPC-X34 series paper. The following is an example of a guide picture printout.



Guide Print-RGB (adjusting RGB parameters)

Selecting the Guide Print-RGB layout enables a guide picture (adjustment simulation) to be printed for the RGB parameters. Since the picture used for printing is the picture being played back on the camera, you can actually adjust the picture quality while looking at the

picture. The picture in the center is printed using the current color tone adjustment values. Six playback images of differing color are printed around this picture.

The current state of each of the DARK, LIGHT, and GAMMA parameters is displayed for reference.

This is a picture showing the current state of the RED, GREEN, and BLUE parameters.

This is a picture showing the RED parameter decreased by 3 from the current state. The subject appears a little darker than in the current picture, and overall the picture appears slightly cyan.

This is a picture showing the GREEN parameter increased by 3 from the current state. The white saturated parts remain white and do not change. The subject appears a little lighter than in the current picture, and slightly green.

This is a picture showing the BLUE parameter increased by 3 from the current state. The white saturated parts remain white and do not change. The subject appears a little lighter than in the current picture, and slightly blue.

This is a picture showing the GREEN parameter decreased by 3 from the current state. The subject appears a little darker than in the current picture, and overall the picture appears slightly magenta.

This is a picture showing the RED parameter increased by 3 from the current state. The white saturated parts remain white and do not change. The subject appears a little lighter than in the current picture, and slightly red.

This is a picture showing the BLUE parameter decreased by 3 from the current state. The subject appears a little darker than in the current picture, and overall the picture appears slightly yellow.

Shooting conditions of the camera

The values below each of the pictures are for the R, G, and B parameters. If, for example, you want to use the color tone on the top left in the figure above, set the B parameter to +3 because (RED, GREEN, BLUE) = (0, 0, +3).

If you want to adjust (RED, GREEN, BLUE) = (0, 0, +3) further, set the B parameter to +3, and then print another Guide Print-RGB. This will give you a simulation for each color variation with (RED, GREEN, BLUE) = (0, 0, +3) in the center.

Guide Print-DLGm (adjusting DLGm parameters)

Selecting the Guide Print-DLGm layout enables a color guide to be printed for the DLGm parameters. Since the picture used for printing is the picture being played back on the camera, you can actually adjust the picture quality while looking at the picture.

The picture in the center is printed using the current color tone adjustment values. Six playback images of differing color are printed around this picture.

This is a picture showing the DARK parameter increased by 3 from the current state. With focus on the deep parts, this has become a picture with more depth than the current one.

This is a picture showing the LIGHT parameter increased by 3 from the current state. The light parts become lighter than in the current picture.

This is a picture showing the GAMMA parameter increased by 3 from the current state. The halftones become slightly darker than in the current picture.

The current state of each of the RED, GREEN, and BLUE parameters is displayed for reference.

Shooting conditions of the camera

This is a picture showing the GAMMA parameter decreased by 3 from the current state. The halftones become slightly lighter than in the current picture.

This is a picture showing the current state of the DARK, LIGHT, and GAMMA parameters.

This is a picture showing the LIGHT parameter decreased by 3 from the current state. The light parts become slightly darker than in the current picture.

This is a picture showing the DARK parameter decreased by 3 from the current state. The deep parts become lighter as if the picture was taken in a bright place.

UPX-C300
Guide Print
(DARK, LIGHT, GAMMA)

PRINTER
RED (CYN) = 0
GRN (MAG) = 0
BLU (YLW) = 0

CAMERA
EV : 0.00
WB : AUTO

D + 3 := (+3, 0, 0) L + 3 := (0, +3, 0) Gm + 3 := (0, 0, +3)

now := (0, 0, 0)

D - 3 := (-3, 0, 0) L - 3 := (0, -3, 0) Gm - 3 := (0, 0, -3)

The values below each of the pictures are for the D, L, and Gm parameters. If, for example, you want to use the tone on the top left in the figure above, set the D parameter to +3 because (DARK, LIGHT, GAMMA) = (+3, 0, 0).

If you want to adjust (DARK, LIGHT, GAMMA) = (+3, 0, 0) further, set the D parameter to +3, and then print another Guide Print-DLGm. This will give you a simulation picture for each parameter variation with (DARK, LIGHT, GAMMA) = (+3, 0, 0) in the center.

Advice on adjusting color tones

The guide print function gives you a rough guide as to how to adjust the color tone. However, if you understand the following, you can use this function to its full potential.

The guide print can also be used for black & white prints. Black & white pictures printed with this system are printed by overlaying the three colors cyan, magenta, and yellow to express gray. Therefore, a perfectly achromatic picture may not be obtained and colors may sometimes be visible. A black & white guide print can be used to adjust the balance of these three colors.

Complementary colors

Pictures are made up of the data of three colors (R data, G data, and B data). The color tone adjustment function can be used to change the balance of these three colors. When the R parameter is changed, the CYN-RED (cyan and red) indication appears on the LCD. Similarly, the MAG-GRN (magenta and green) indication appear on the LCD when the G parameter is changed, and the YEL-BLU (yellow and blue) indication appear on the LCD when the B parameter is changed.

The complementary colors cyan and red, magenta and green, and yellow and blue are related. For example, increasing red makes cyan lighter and decreasing red makes cyan deeper.

Difference between selecting + and –

When you print a Guide Print-RGB with each of the RGB parameters for the center picture set to 0, two simulation pictures for each RGB parameter (with the respective parameter set to +3 and –3 and the remaining two parameters set to 0) are printed around the center picture. The following explains the meaning of the + and – symbols.

The R data, G data, and B data that make up the picture data are digitized values representing the strength of light of each color. The + setting is for strengthening the light of the corresponding color. The – setting is for weakening the light of the corresponding color. Data (light) saturation can be obtained with the + setting. When you need a white background, this feature enables you to get the desired results without changing the white.

• Setting in the + direction

When the R parameter is set to +3, for example, the light of the red component is strengthened, giving the overall picture a tinge of red. Since the amount of light also increases at the same time, the brightness of the picture increases by the corresponding amount.

However, some parts of the picture do not change no matter how much the light is strengthened. These include parts of the picture with absolutely no light components (such as pure green, cyan, and blue parts, their intermediate colors, and deep black parts), and parts of the picture with saturated light components (such as pure magenta, red, and yellow parts, their intermediate colors, and bright white parts).

• Setting in the – direction

When the R parameter is set to –3, for example, the light of the red component is weakened, giving the overall picture a tinge of cyan (the complementary color of red). Since the amount of light also decreases at the same time, the darkness of the picture increases by the corresponding amount.

This setting differs from the + setting in that a tinge of cyan is added to parts in which light components are saturated such as parts of pure reddish-purple (magenta), red, and yellow or their intermediate colors and bright white. This occurs especially in cases where the background is white or the subject is wearing white clothes.

Specific example 1: Removing yellow

To remove yellow from the subject, we recommend setting the B parameter to a + value in the Guide Print-RGB.

Specific example 2: Adding yellow

To add yellow to the subject, we recommend setting the B parameter to a – value in the Guide Print-RGB.

However, you need to understand that the concept of weakening the light involves adding a tinge of yellow to white parts. To avoid this, set a plus value for the L parameter that is equivalent to the minus value set for B parameter. This has the same effect as setting plus values for the R and G parameters without changing the B parameter. The point to note here is that the overall brightness increases.

Printing Times

Print times differ depending on the print size and paper size used.

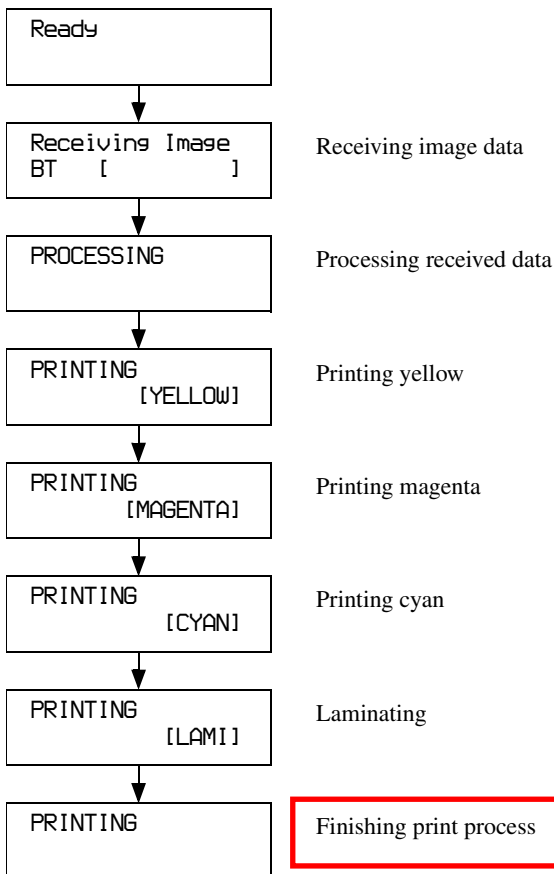
Printing times

The following are examples of the approximate time it takes from the moment the PRINT button is pressed on the camera to the moment the printer receives the picture data from the camera and prints one picture.

Print paper	Resolution	Print size	
		2 × 2 inches	45 × 35 mm
UPC-X34 series	STD	Approx. 83 sec	Approx. 78 sec
	HIGH	Approx. 83 sec	Approx. 78 sec
UPC-X46 series	STD	Approx. 120 sec	Approx. 120 sec
	HIGH	Approx. 120 sec	Approx. 120 sec

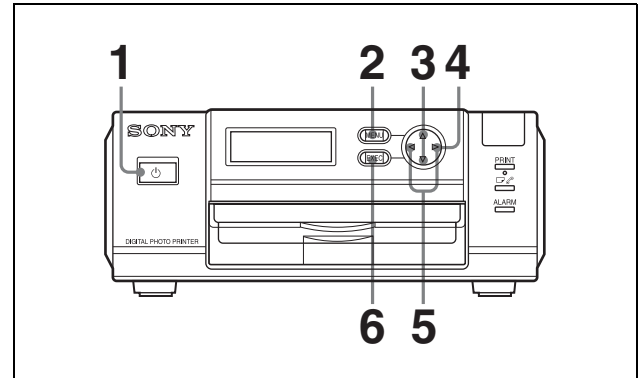
Display during printing process

When you print a picture, the operation that is being processed appears on the printer operation display as shown below.



Adjusting the Print Position (PRINT OFFSET)

When using the UPC-X46 series, you can adjust the print position in increments of 0.5 mm (1/32") so that the printed picture is correctly positioned on the print paper.



- 1 Turn on the printer.
- 2 Press the MENU button.
- 3 Press ▲ or ▼ on the control button to display "PRINT SETTING [>>]" on the operation display.
- 4 Press ► on the control button. The PRINT OFFSET screen appears.
- 5 Select an offset value by pressing ◀ or ▶ on the control button.
- 6 Press the EXEC button. The offset value selected in step 5 is confirmed, and the PRINT SETTING screen reappears.

Print a picture and check that the picture is printed in the correct position on the print paper. If further adjustment is needed, repeat the above steps.

For details on printing a picture, see "Printing the Last Picture Taken (From the Auto-Review Display)" on page 22.

To exit PRINT SETTING

Press the MENU button to return to the READY screen.

Note


When you have finished making adjustments, be sure to press the MENU button to return to the READY screen. If you do not return to the READY screen, COMMUNICATION ERROR will appear on the LCD of the camera the next time printing is performed, and printing will fail.

Setting the Bluetooth Functions

Bluetooth wireless technology

The bluetooth¹⁾ wireless technology allows communication between various Bluetooth devices without using cables. Devices which can use this technology include computers, computers peripheral devices, PDAs, and mobile phones. This omnidirectional communication system enables communication even if the Bluetooth device is in a bag or if there are obstacles between the devices. Also, the Bluetooth wireless technology has advanced security functions, such as scrambled frequencies and data encryption.

- When using the Bluetooth function, the distance between the camera and the printer you intend to connect must be within 10 m (33 feet) without obstacles.

1) The  Bluetooth[®] trademark is owned by their proprietor and used by Sony Corporation under license. The word Bluetooth is printed in plain text throughout this document.

The “Basic Imaging Profile”

The “Basic Imaging Profile” (BIP) is the specifications used when sending or receiving still images between Bluetooth devices. The main features of the BIP enable sending or receiving images, and use of the remote shutter feature of a digital still camera.

To connect with your printer, the Bluetooth device must be compatible with the “Image Push Feature” of the “Basic Imaging Profile” (BIP).

Before using the Bluetooth device, check the Bluetooth and BIP specifications of the device.

Bluetooth Address

A 12-digit code consisting of the numerics 0–9 and the alphabetic (A–F) is assigned to each Bluetooth device. This is a specific code for each Bluetooth device, and is called a Bluetooth address or a Bluetooth ID. The Bluetooth address is for distinguishing each device, so the same code is not assigned to several devices, nor can the code be changed.

Passkey Authentication

A passkey is used to authenticate two Bluetooth devices that have not previously been connected to each other. This is to create a trusted relationship between them. You need to enter the same characters or numbers (passkey) for each device in the passkey-authentication process. The UPX-C300 system uses a 4-digit number as a passkey.

After the same passkey is set for the devices, the authentication process for connection must be performed.

Some Bluetooth devices require a new passkey entry when the valid authentication period of the devices is expired, the log file is deleted, or the security setting is changed. Passkey entry may be required, depending on the device, each time you intend to connect.

Once authentication of devices has been confirmed in the UPX-C300 system, registration of each device connection is stored in a log file. After that, you can connect the devices without entering a passkey. If you wish to change the passkey, first delete the log file from the connected device, then register the devices again for re-authentication.

This “Passkey” is also referred to as a “Bluetooth passkey” etc. “PIN” is also used with the same meaning.

Changing the passkey settings

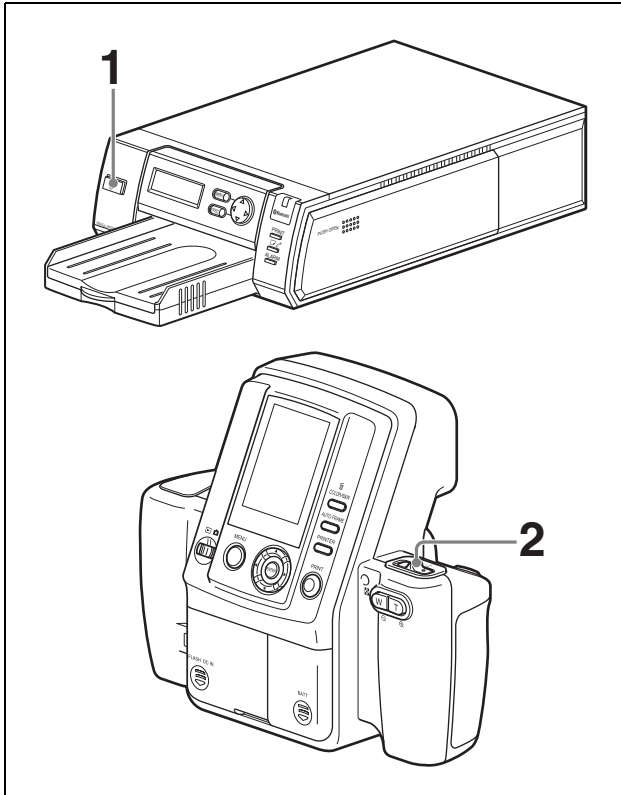
You can change the passkey as required.

On the UPX-C300 and separately available UP-DX100 Digital Photo Printer, the same passkey has been set at the factory. For communication security, it is recommended to change the passkey for your system.

For details on changing settings, refer to the “Changing the Passkey” on page 53.

Bluetooth Connection

In the UPX-C300 system, the printer and the camera are factory preset so that the camera automatically searches for the printer for connection when both the printer and the camera are turned on. Turn on the printer and the camera according to the following procedures:



- 1 Turn on the printer.
Check that "Ready BT RSSI [----]" is displayed on the operation display.
- 2 Set the on/standby switch of the camera to I (on).
The camera starts searching for the printer, and "DISCOVERING" is displayed on the LCD of the camera. Upon establishment of connection between the camera and the printer, the message changes to "DISCOVERED," and the name and the Bluetooth address of the connected printer are displayed in black.

To interrupt searching

While "DISCOVERING" is displayed on the LCD of the camera, press the MENU button. "CANCELING" is displayed, and the search is interrupted. If several printers are connected, the search for the remaining printers is also interrupted.

If the connection fails

The message "NOT DISCOVERED" is displayed on the LCD of the camera, and the printer name and the Bluetooth address remains displayed in gray. Even if the connection fails, shooting and playback can be performed on the camera.

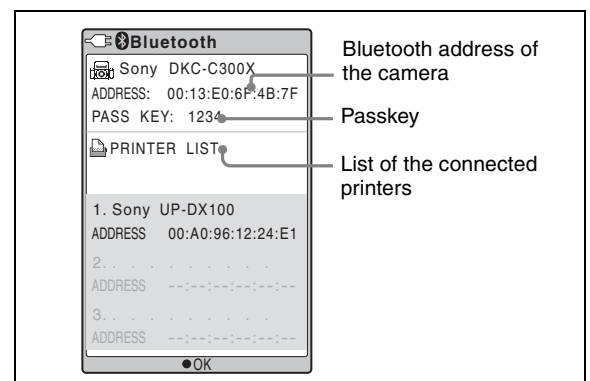
If the connection fails, before retrying to connect, check the following, then press the PRINT button. The message "Reconnecting" is displayed and the reconnection starts.

- The printer is turned on.
- The Bluetooth module of the camera and the printer is set to ON.
- Between the camera and the printer, there is no obstacle that disturbs data transmission.

For use with several printers connected, see "Operation with Several Printers" on page 58 as well.

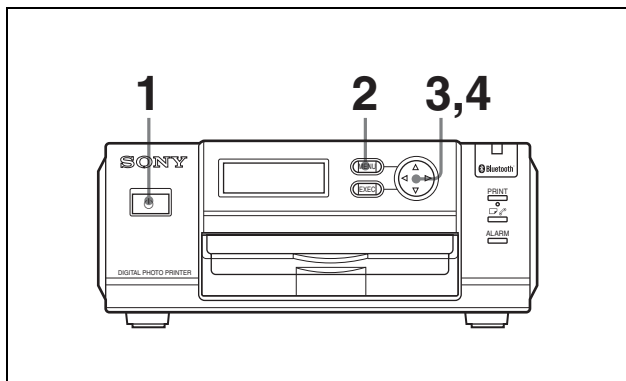
Checking the Bluetooth Connection Statuses of the Camera (PROPERTY)

- 1 Display the SETUP menu.
For details, see "Displaying the SETUP Menu" on page 28.
- 2 Press ▲ or ▼ of the control button to select Bluetooth.
- 3 Press the ENTER button.
The Bluetooth Menu display appears.
- 4 Press ▲ or ▼ of the control button to select PROPERTY.
- 5 Press the ENTER button.
The Bluetooth information for the camera is displayed.
You can scroll the printer list with ▲ or ▼ of the control button.



When ENTER button is pressed, the display returns to Bluetooth Menu.

Confirming the Bluetooth Address of the Printer



- 1 Turn on the printer.
- 2 Press the MENU button.
- 3 Press ▼ of the control button to display "Bluetooth SETTING[>>]."
- 4 Press ► of the control button. The Bluetooth address appears.

To return to Ready, press the MENU button.

Changing the Passkey

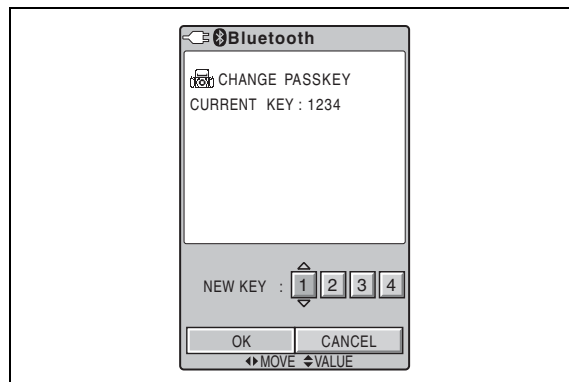
The same passkey is set for all cameras and printers at the factory. If the passkey needs to be changed, set a new passkey, following the procedures below. Once a new passkey is set, remove the printer registration, and register it again. Then authentication of the new passkey will be valid.

For details on removing a printer, see "Removing a Printer" on page 58, and on registering a printer, see "Adding/Registering a Printer" on page 56.

Changing the passkey of the camera

- 1 Display the SETUP menu.
For details, see "Displaying the SETUP Menu" on page 28.
- 2 Press ▲ or ▼ of the control button to select Bluetooth.
- 3 Press the ENTER button. The Bluetooth Menu display appears.
- 4 Press ▲ or ▼ of the control button to select CHANGE PASSKEY.

- 5 Press the ENTER button. The CHANGE PASSKEY display appears.



- 6 Press ◀ or ▶ of the control button to select a digit you wish to change.
- 7 Press ▲ or ▼ of the control button to set the value. A value 0 to 9 can be used.

Repeat Steps 6 and 7 above to set a four-digit passkey.
- 8 Press ► of the control button to select OK.
- 9 Press the ENTER button. A new passkey has been set, and the display returns to Bluetooth Menu.

To cancel changing the passkey setting

In Step 8 above, select CANCEL instead of OK, then Press the ENTER button.

Changing the passkey of the printer

- 1 Turn on the printer. "Ready BT RSSI [----]" appears on the operation display.
- 2 Press the MENU button.
- 3 Press ▼ of the control button to display "Bluetooth SETTING [>>]."
- 4 Press ► of the control button. "Bluetooth ADDR" appears.
- 5 Press ▼ of the control button to display "PASSKEY INPUT [>>]."
- 6 Press ► of the control button. "PASSKEY INPUT <1> [X:X:X:X]" appears.

Current digit to be set	Passkey

- 7** Press ◀ or ▶ of the control button to select a digit of the passkey to be changed.
This <1> shows the leftmost digit, and <4> shows the rightmost digit.
- 8** Press ▲ or ▼ of the control button to set the value of the passkey.
A value from 0 to 9 can be used.

Repeat Steps **7** and **8** until the four-digit passkey is set.
- 9** Press the EXEC button.
“PASSKEY INPUT Saving...” appears, and your passkey setting is stored.
- 10** When the setting is completed, press the MENU button.

Setting the Module Power


The Bluetooth Module Power must be set to ON to connect the camera and the printer using the Bluetooth function. If it is set to OFF, Bluetooth connection between devices is not possible.

Changing the setting for Module Power of the camera

- 1** Display the SETUP menu.
For details, see “Displaying the SETUP Menu” on page 28.
- 2** Press ▲ or ▼ of the control button to select Bluetooth.
- 3** Press the ENTER button.
The Bluetooth Menu display appears.
- 4** Press ▲ or ▼ of the control button to select MODULE.
- 5** Press the ENTER button.
The BT MODULE POWER display appears.
- 6** Confirm that either ON or OFF is selected, then Press the ENTER button.
The display returns to Bluetooth Menu.

To cancel changing the setting

In Step **6**, press ◀ of the control button. The display returns to Bluetooth Menu.

When the module power for the camera is set to ON, the  (Bluetooth) icon appears at the top left of the LCD to the right of the power indicator.

Changing the setting for Module Power of the printer

- 1** Turn on the printer.
- 2** Press the MENU button.
- 3** Press ▼ of the control button to display "Bluetooth SETTING[>>]."
- 4** Press ▶ of the control button.
"Bluetooth ADDR" appears.
- 5** Press ▼ of the control button to display "MODULE POWER [>>]."
- 6** Press ▶ of the control button.
- 7** Press ◀ or ▶ of the control button to select ON or OFF.
- 8** Press the EXEC button.
“REBOOTING” is displayed. The printer restarts, and the setting of the Module Power is changed.

If the Module Power setting of the printer is changed from ON to OFF, the Bluetooth lamp goes off, and "Ready BT RSSI [----]" is displayed on the operation display of the printer. The camera treats this printer in the same way as one whose printer name and Bluetooth address are displayed in gray.

If the Module Power setting of the printer is changed from OFF to ON, the Bluetooth lamp lights. To establish connection between the camera and the printer, press the PRINT button of the camera for reconnection.

Giving Your Printer a Device Number

When two or more printers are used in a system, it is convenient that each printer have a device number (from 1 to 9).

- 1** Turn on the printer.
“Ready BT RSSI [----]” appears on the operation display.
- 2** Press the MENU button.
- 3** Press ▼ of the control button to display “Bluetooth SETTING [>>].”
- 4** Press ► of the control button.
- 5** Press ▼ of the control button to display “MY DEVICE NAME [>>].”
- 6** Press ► of the control button.
“Sony UP-DX100 [NONE-9: EXEC]” appears.
- 7** Press ▲ or ▼ of the control button to set the device number.
- 8** Press the EXEC button.
“DEVICE NAME Saving. . .” appears, and the device number you have set is stored.
- 9** When the setting is completed, press the MENU button.

Checking the Connection Record of the Printer

- 1** Turn on the printer.
- 2** Press the MENU button.
- 3** Press ▼ of the control button to display “Bluetooth SETTING [>>].”
- 4** Press ► of the control button.
“Bluetooth ADDR” appears.
- 5** Press ▼ of the control button to display “CONNECTION RECORD [>>].”
- 6** Press ► of the control button.
The name and Bluetooth address of the devices being connected with the printer are displayed. To scroll the display to check the information on other devices, press ▲ or ▼ of the control button.

To return to the “CONNECTION RECORD [>>]” display, press the EXEC button.

To return to the Ready display, press the MENU button.

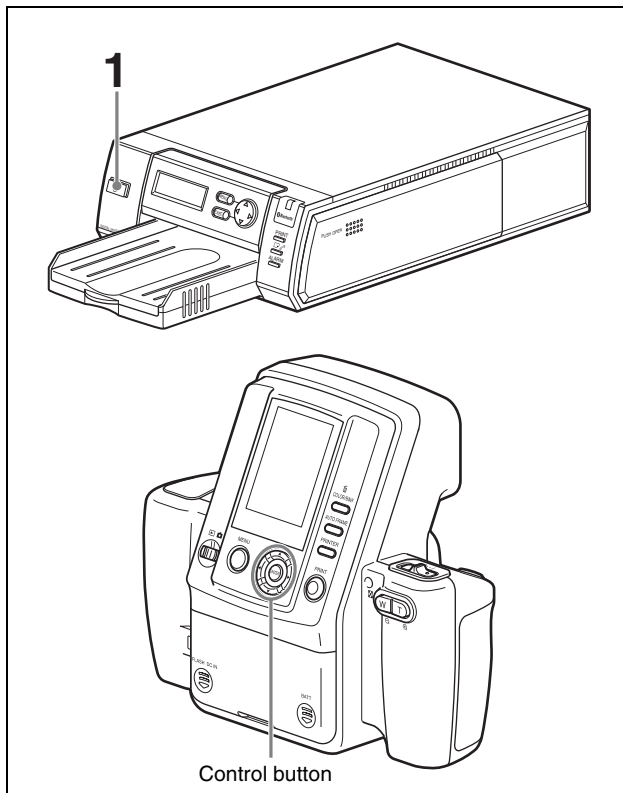
Adding/Registering a Printer

Up to three printers can be connected with the Bluetooth function in the UPX-C300 system. Printers can be added using the Setup menu of the camera.

Before adding a printer, the same passkey as that of the camera must be assigned for the printer.

If "NO PRINTER" is indicated when the camera is turned on, register the printer in the following manner:

For details on passkey setting, see "Changing the Passkey" on page 53.



1 Turn on the printer to be registered additionally.

2 Display the SETUP menu.

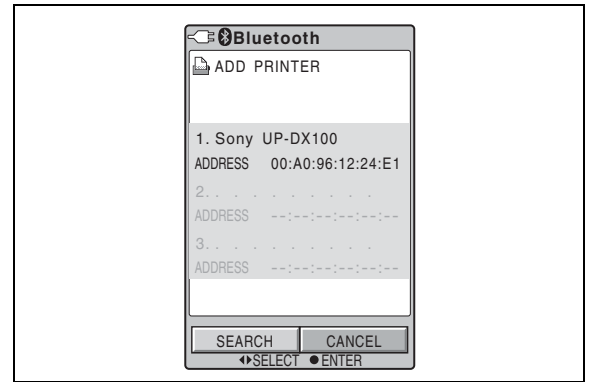
For details, see "Displaying the SETUP Menu" on page 28.

3 Press ▲ or ▼ of the control button to select Bluetooth.

4 Press the ENTER button.
The Bluetooth Menu display appears.

5 Press ▲ or ▼ of the control button to select ADD PRINTER.

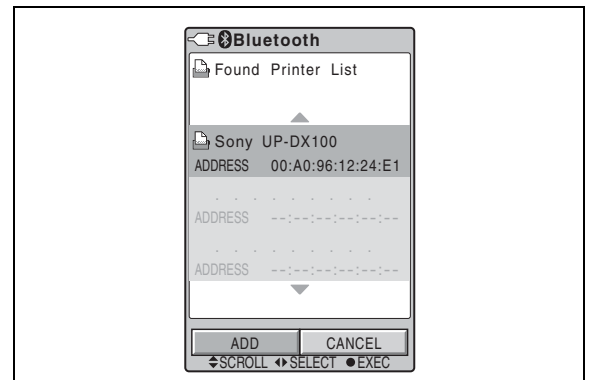
6 Press the ENTER button.
The ADD PRINTER display appears.



If one or two printers are still connectable, add printer(s) as shown in the following steps. If three printers are already connected, an unnecessary printer must be deleted beforehand.

For details on how to remove a printer, see "Removing a Printer" on page 58.

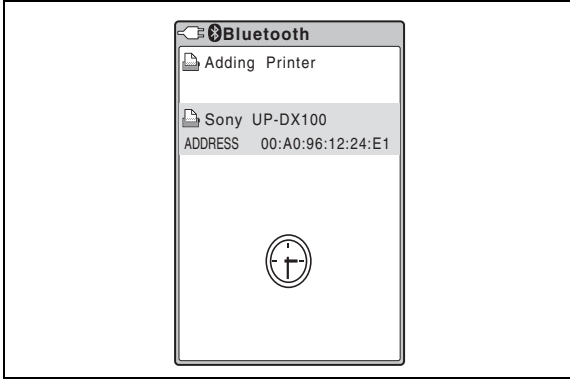
7 Press ◀ of the control button to select SEARCH, then press the ENTER button.
"Searching New Printers . . ." is displayed.
After searching is finished, the name and Bluetooth address of the printer found are displayed in black.
The search for printers may take up to 60 seconds.



8 Press ▲ or ▼ of the control button to select a printer to be added.

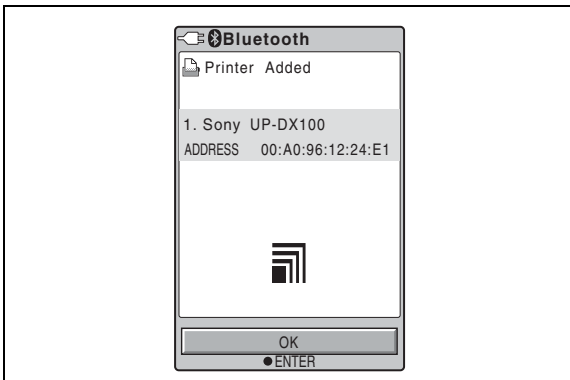
9 Press ◀ or ▶ of the control button to select ADD, then press the ENTER button.

During the authentication process of the selected printer, clock animation is displayed.

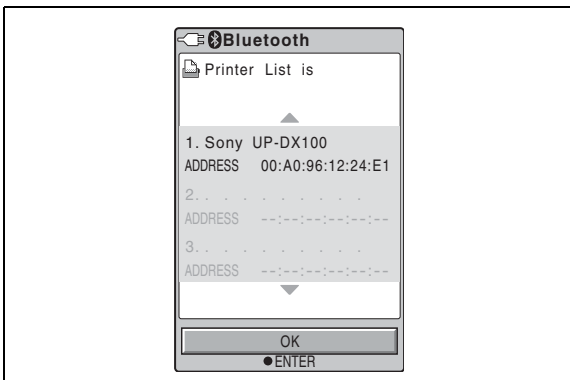


After the authentication process is finished, the name of the printer to be added is displayed. At the center of the display, an RSSI (Received Signal Strength Indicator) symbol is displayed, which may be used as a guide for adjusting locations of the camera and the printer.

- ■ ■ : The radio wave strength is good.
- ■ : The radio wave strength is a little weak, and data transmission may require a long period of time.



10 Press the ENTER button.
The Printer List reappears.



11 Press the ENTER button again.
The display returns to Bluetooth Menu.

Canceling addition/registration of the printer

To cancel addition/registration of the printer, the following two methods are available:

- In Step 7, while “Searching New Printers . . .” is displayed, Press the ENTER button. Searching is interrupted, and the display returns to Bluetooth Menu.
- In Step 9, select CANCEL instead of ADD, then Press the ENTER button. Addition/registration of the printer is canceled.

If a printer cannot be added/registered

Printers cannot be added/registered in the following cases:

- Three printers have been already connected.
→ Delete an unnecessary printer.
- The passkey of the printer is different from that of the camera.
→ Set the same passkey as that of the camera.

If a message prompting printer update appears

While using this system, a message prompting you to update the printer’s firmware may appear on the camera LCD. In such a case, contact your nearest Sony dealer.

Removing a Printer

- 1** Display the SETUP menu.
For details, see “Displaying the SETUP Menu” on page 28.
- 2** Press ▲ or ▼ of the control button to select Bluetooth.
- 3** Press the ENTER button.
The Bluetooth Menu display appears.
- 4** Press ▲ or ▼ of the control button to select REMOVE PRINTER.
The REMOVE PRINTER display appears.
- 5** Press ▲ or ▼ of the control button to select a printer to be removed.
- 6** Press ◀ or ▶ of the control button to select REMOVE.
- 7** Press the ENTER button.
The printer selected in Step 5 is removed, and its printer name and Bluetooth address are deleted.
- 8** Press the ENTER button again.
The display returns to Bluetooth Menu.

To cancel removing the printer

In Step 6, select CANCEL instead of REMOVE, then Press the ENTER button. Deletion of the printer is canceled, and the display returns to Bluetooth Menu.

Operation with Several Printers

In a system using several printers, the basic operations are the same as when one printer is used. If the camera is turned on after a printer is turned on, the camera automatically searches for registered printers. The names and Bluetooth addresses of all printers with which connection has been established are displayed in black. Those of any printers with which connection has failed are displayed in gray.

Printers to be used can be selected with the PRINTER button. When a connected printer is selected, the print conditions of the selected printer are displayed in white on the LCD. If a printer that is not connected is selected, an alarm will be displayed in yellow.

To establish a connection with a currently disconnected printer, first check that the printer is turned on, and that the Bluetooth lamp is lit. In addition, press the PRINTER button on the camera, and make sure that the name of the printer to be connected is displayed in yellow. Then, press the PRINT button. “Reconnecting. . .” is displayed, and the process of reconnection starts. When reconnection has been established, in CAMERA mode, the camera returns to the normal recording mode. In PLAY or Auto Review mode, the Print Preview display is displayed.

To start printing, press the PRINT button again. Transmission of image data starts.

If printing is not required, press the MENU button to terminate the Print Preview display.

Maintaining System Performance

To maintain system performance, be sure to read the following.

Camera

Locations of use and storage

Using or storing the camera in any of the following locations may result in a malfunction. Do not use or store the camera in such locations.

- Extremely hot or cold locations (operating temperature of 5 °C to 35 °C (41 °F to 95 °F))
- Locations subject to prolonged periods of direct sunlight or near heating appliances
- Locations with excessive humidity or dust
- Locations exposed to rain
- Locations exposed to severe vibration
- Near sources of strong magnetism
- Near sources of strong electromagnetic waves such as TV or radio transmitters

Heat dissipation

Do not cover the camera (such as with a cloth) Doing so will increase the internal temperature and may result in a malfunction.

Transportation

When transporting the camera, be sure to pack it in the supplied carton and cushioning or equivalent packaging, and make sure it is not subject to severe mechanical shocks.

Taking test pictures

Be sure to take test pictures beforehand to ensure that pictures can be taken normally.

Lens

Be careful not to bump into or press against the lens while shooting.

Also, do not touch the lens surface.

Printer

Precautions

- If you do not intend to use the printer for a long time, set the printer to standby mode and disconnect the power cord from the outlet.
- When transporting the printer, remove any accessories. Failing to do so may result in a malfunction.

Condensation

If the printer is moved from a location with low humidity to a warm location or placed in a room with a heater that causes steam and moisture to be generated, drops of water may form inside the printer. This phenomenon is referred to as condensation. If used in such a state, the printer will not work properly and may even malfunction. If there is a likelihood of condensation, turn off the power and leave the printer to stand for a while.

Cleaning

- Be sure to turn off the power and remove the power plug prior to cleaning.
- Use a blower to remove dirt and dust from the surface of the camera lens.
- Use a soft, dry cloth to gently wipe off dirt from the exterior. If the exterior is extremely dirty, use a cloth lightly moistened with a mild detergent solution to wipe off the dirt and then use a dry cloth.
- Do not use volatile substances such as alcohol, benzene, thinner, or insecticide because doing so may damage the finish and erase the indications.

Specifications

Camera

General

Power supply	Supplied from an AC power adaptor (5.0 V DC) or from Sony NH-AA Batteries (max. 2700 mAh)
Input current	1.65 A max. (using an AC power adaptor)
Operating temperature	5° C to 35 °C (41 °F to 95 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Operating humidity	20% to 80% (non condensation)
Dimensions (w/h/d)	222 × 194 × 102 mm (8 3/4 × 7 3/4 × 4 1/8 inches)
Mass	Approx. 900 g (2 lb)

System

Camera type	Digital still camera
Recording/playback system	Frame digital
Data compression/decompression system	JPEG baseline system
Recording medium	Built-in 64 MB flash memory
Picture elements	1/2.5 inch 8M CCD solid-state picture element
Recording resolution	3264 × 2448 pixels (HIGH) 1632 × 1224 pixels (STD)
Recording capacity	approx. 30 or more pictures (High resolution) approx. 120 or more pictures (Standard resolution)
Number of shots	(with Typ. 2000 mAh/Min. 1900 mAh AA nickel-hydride batteries) Approx. 40 shots under the following conditions: – Temperature: 25°C – Shooting conditions: 1) Adjust the zoom to WIDE, TELE, and back to WIDE after turning power on; 2) take two shots using flash; 3) print one image; 4) enter power save mode after 10 minutes via AUTO POWER SAVE. Results will vary in lower temperatures and other shooting conditions.
Delete method	1 picture delete, all picture delete

White balance	Program, One Push, 3000K to 7000K (500K steps)
Shutter speed	1/2 to 1/1000 second
Photographic sensitivity	Equivalent to ISO 200
LCD monitor	3.0-inch cold polysilicone TFT color LCD viewfinder 230,000 pixel
Lens	f = 12.5 to 25 mm, 2 times (equivalent to a 75 to 150-mm lens with a 35-mm film camera), auto focus F-value: F4.7 (at W) to F5.5 (at T)

Input/output connectors

DC IN 5.0V	5.0 V DC
RELEASE	3.5 mm ø (minijack)

Printer

Power supply	100 to 240 V AC, 50/60 Hz
Input current	1.1 A max.
Operating temperature	5 °C to 35 °C (41 °F to 95 °F)
Storage/transport temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Operating humidity	20% to 80% (non condensation)
Maximum dimensions (w/h/d)	203 × 85 × 305 mm (8 × 3 3/8 × 12 1/8 inches)
Mass	Approx. 2.7 kg (5 lb 15 oz) (main unit only)
Printing method	Four-surface sequential sublimation thermal transfer process (yellow, magenta, cyan, laminate)
Print resolution	403 × 403 dpi
Thermal head	403 dots/inch
Print gradations	8 bits for yellow, magenta, cyan
Printing time	UPC-X46 series: 100 sec./sheet UPC-X34 series: 65 sec./sheet
Paper supply method	Autofeed from paper tray
Maximum capacity of paper tray	UPC-X46 series: 25 sheets UPC-X34 series: 30 sheets
Paper eject method	Front ejection Sheets are ejected in order on top of paper tray
Printing capacity of ribbon cartridge	UPC-X46 series: 25 sheets UPC-X34 series: 30 sheets
Inputs	AC IN (power inlet)
Maximum print size	UPC-X46 series: 101.6 × 151.4 mm (4 × 6 1/8 inches) (no border)

	UPC-X34 series: 70.1 × 95.3 mm (2 7/8 × 3 7/8 inches) (with border)
Print pixels	UPC-X46 series: 1664 × 2440 dots UPC-X34 series: 1112 × 1512 dots

Bluetooth specifications

Communication type (camera)	Bluetooth Specification, ver.2.0
Communication type (printer)	Bluetooth Specification, ver.1.1
Maximum transmission speed ¹⁾	About 723 Kbps
Output	Bluetooth Specification, Power Class 2
Communication distance ²⁾	About 10 m (3.3 feet) without obstacles
Compatible Bluetooth profile ³⁾	Basic Imaging Profile (Image Push Feature)
Frequency band	2.4 GHz (2.400 GHz – 2.4835 GHz)

- 1) Maximum data transmission speed based on Bluetooth Specification, Ver.2.0. This speed depends on the distance between the devices, obstacles, radio wave conditions, application software, or the OS.
- 2) This distance depends on the distance between the devices, obstacles, radio wave conditions, application software, or the OS.
- 3) This specification is in accordance with the intended use between two Bluetooth devices. This is defined by the Bluetooth Specification.

AC power adaptor

Power supply	100 to 240 V AC, 50/60 Hz
Input current	0.26 A
Output	5.0 V DC, 2.0 A in operating mode
Operating temperature	5 °C to 35 °C (41 °F to 95 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Dimensions (W/H/D)	Approx. 69 × 26 × 50 mm (2-3/4 × 1-1/16 × 2") (including protrusions)
Weight	Approx. 170 g (6.0 oz)

Supplied accessories

Paper tray for the UPC-X46 series	(1)
Paper tray for the UPC-X34 series	(1)
Tray cover	(1)
AC power adaptor UPA-AC05	(1)
Cleaning cassette	(1)
Operating Instructions	(2)
Quick Reference	(1)

Optional accessories

UP-DX100 Digital Photo Printer	
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10UPC-X46 Series Self-laminating Color Printing Pack	(250 sheets)
10UPC-X34 Series Self-laminating Color Printing Pack	(300 sheets)

Design and specifications are subject to change without notice.

Note

- Always verify that the unit is operating properly before use.
SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF FAILURE TO PRINT CONTENT OF ANY TYPE OR LOSS OF DATA DUE TO FAILURE OF THIS UNIT OR ITS PRINTING MEDIA, ASSOCIATED SOFTWARE, EXTERNAL STORAGE, OR OTHER EXTERNAL DEVICE.
- SONY WILL NOT BE LIABLE FOR DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION OR REIMBURSEMENT ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS DUE TO FAILURE OF THIS UNIT, EITHER DURING THE WARRANTY PERIOD OR AFTER EXPIRATION OF THE WARRANTY, OR FOR ANY OTHER REASON WHATSOEVER.


CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.



Troubleshooting





Check the following items prior to submitting the equipment for repair. If the problem persists, contact your nearest Sony dealer.

Camera

Symptom	Cause/Solution
The camera does not enter standby mode even if the on/standby switch is set to  (standby).	<ul style="list-style-type: none"> The camera's internal processing is taking a long time. <ul style="list-style-type: none"> → Wait a while. If the power still does not enter standby mode, disconnect the power cord or remove the batteries.
The on/standby switch of the camera is set to I (on), but the camera and printer are not connected.	<ul style="list-style-type: none"> The power of the printer is not turned on. <ul style="list-style-type: none"> → Turn the printer on, and then turn the camera on. The Bluetooth module of the camera or printer is turned off. <ul style="list-style-type: none"> → Turn on both of the modules. (See "Setting the Module Power" (on page 54).) "NO PRINTER" appears. <ul style="list-style-type: none"> → The registration of the printer is cancelled. Register the printer. (See "Adding/Registering a Printer" (on page 56).)
The standby lamp is lit orange or red, and the camera does not operate.	→ This is a problem with camera. Contact your nearest Sony dealer.

While Taking Pictures

Symptom	Cause/Solution
A picture is not taken when the release button is pressed.	<ul style="list-style-type: none"> The mode switch is not set to . <ul style="list-style-type: none"> → Set the mode switch to . Image data storage is in progress or the flash is charging (the standby lamp is rapidly flashing orange). <ul style="list-style-type: none"> → Wait until the standby lamp lights orange. The memory is full (the standby lamp is flashing orange). <ul style="list-style-type: none"> → Check the indication for the remaining number of pictures that can be taken. If it is zero, erase any pictures that are not needed. → Set AUTO ERASE to ON.

Symptom	Cause/Solution
The flash does not fire.	<ul style="list-style-type: none"> Flash Mode is not set appropriately. <ul style="list-style-type: none"> → Set FLASH MODE in the menu to P, or M. The external flash is not lighting properly. <ul style="list-style-type: none"> → Set FLASH MODE in the menu to P, or M. The batteries are dead. <ul style="list-style-type: none"> → Connect the camera to an AC power source, or replace the batteries with new ones. The life of the flash is used up. <ul style="list-style-type: none"> → Contact your nearest Sony dealer.

Camera LCD

Symptom	Cause/Solution
If the camera is used in a cold location, residual images may appear on the LCD. Black spots may appear or red, blue, green, or other color spots may remain on the LCD.	<ul style="list-style-type: none"> This is a normal phenomenon associated with LCDs. <ul style="list-style-type: none"> → This is not a malfunction.
A printer icon appears in the center of the LCD, and the camera does not operate.	<ul style="list-style-type: none"> The printer is printing a picture. <ul style="list-style-type: none"> → Wait until printing finishes and perform the operation again.
The display image freezes for a while after data transmission ends.	<ul style="list-style-type: none"> Paper is being fed to the printer. <ul style="list-style-type: none"> → The display image will change when the paper finishes feeding and printing begins.

Printing

Symptom	Cause/Solution
Pictures do not print, even if the PRINT button is pressed.	<ul style="list-style-type: none"> The camera is set to Shooting mode. <ul style="list-style-type: none"> → Pictures can only be printed from auto-review display or Playback mode. The print queue function is enabled. <ul style="list-style-type: none"> → Print using the print queue function, or cancel this function. (See "Using the Print Queue Function" on page 36)

Picture Quality

Symptom	Cause/Solution
The picture is blurred.	<ul style="list-style-type: none"> The picture is out of focus. →Check the distance between the lens and the subject, and make sure the subject is within the focus range. The camera was moved when the release button was pressed. →Hold the camera correctly and press the release button slowly. The shutter speed was too slow because FLASH MODE is set to M4 or M3. →Set the appropriate shooting conditions. (See “Flash Mode Setting Parameters” on page 8) The lens is dirty. →Clean the lens with a clean, soft, dry cloth.
The picture is too dark.	<ul style="list-style-type: none"> Something (such as a finger) was blocking the flash. →Hold the camera correctly and make sure nothing is blocking the flash. The subject was too far away. →Make sure the subject is within flash range when taking the picture. →Compensate the exposure. The subject was backlit. →Use the flash.
The colors in a picture taken indoors are not correct.	<ul style="list-style-type: none"> The lighting is affecting the colors. →Set the white balance correctly. (See “Adjusting the White Balance” on page 34)
Part of the picture is missing.	<ul style="list-style-type: none"> Something (such as a finger) was blocking the lens. →Hold the camera correctly and make sure nothing is blocking the lens.


Printer

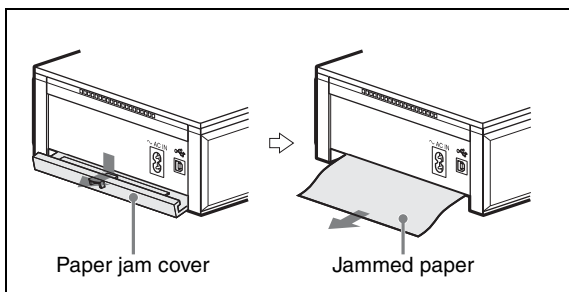
Symptom	Cause/Solution
Cannot turn on the printer.	<ul style="list-style-type: none"> The power cord is not connected properly. →Connect the power cord to an AC outlet properly.
Cannot print.	<ul style="list-style-type: none"> The print paper and print cartridge do not match. →Use a correct combination of print paper and print cartridge designed for the printer. “Waiting” is displayed on the operation display because the internal temperature of the printer is too high. →If the internal temperature of the printer becomes too high, printing is temporarily disabled. Wait until printing resumes automatically. The print paper is jammed. →Remove the jammed paper and try again. (See “Removing Jammed Paper” on page 64)
Cannot remove the print cartridge.	→The print cartridge cannot be removed while printing. Wait until printing is finished. If the print cartridge still cannot be removed, contact your nearest Sony dealer.
White lines or marks appear on printed pictures.	<ul style="list-style-type: none"> There may be dust on the thermal head. →Use the supplied cleaning cassette to clean the thermal head. (See “Cleaning the Inside of the Printer” on page 64) The roller inside the printer may be marking the print paper. →Try reducing the number of sheets in the paper tray.
The printer makes short beeping sounds and does not perform an operation.	→The printer makes short beeping sounds when requested to perform an operation that is not possible.
The ALARM lamp lights or flashes and an error message appears.	→Follow the on-screen instructions.

Removing Jammed Paper

If a paper jam occurs while printing is in progress, the ALARM lamp lights, an error message appears, and printing stops.

Perform the following steps to remove the jammed paper.

- 1 Press the  button on the printer to switch to standby mode.
- 2 Remove the paper tray, and then remove any jammed paper.
- 3 Remove the paper jam cover on the rear panel, and check that there is no jammed paper. If there is any jammed paper, remove it.



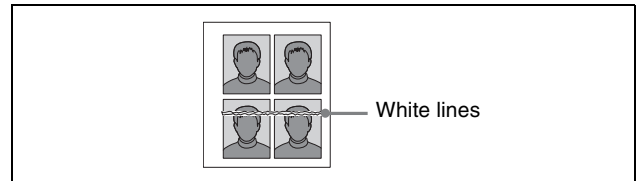
- 4 Reattach the paper jam cover.
- 5 Insert the paper tray.
- 6 Turn on the printer.

Note

If you are unable to remove the jammed paper, contact your nearest Sony dealer.

Cleaning the Inside of the Printer

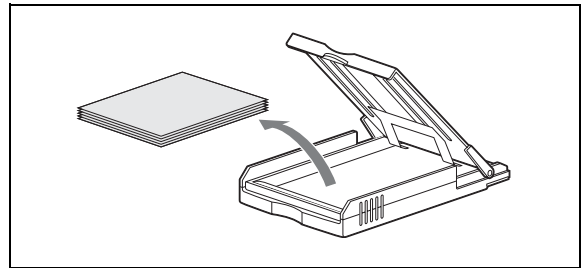
If white lines or dots appear on printed pictures, clean the inside of the printer using the supplied cleaning cassette and the protective sheet included with the printing pack.



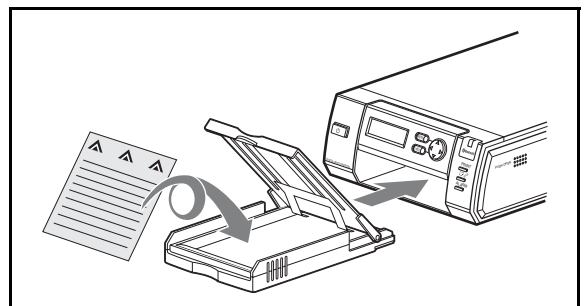
Notes

- Only perform cleaning if there are white lines or dots on the printed pictures.
- When the printer is printing pictures normally, cleaning will not improve print quality.

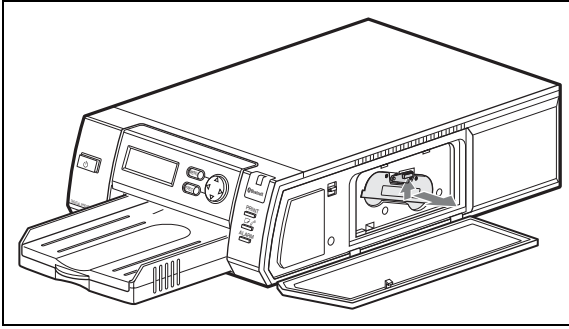
- 1 Remove the paper tray from the printer, and then remove the paper from the tray.



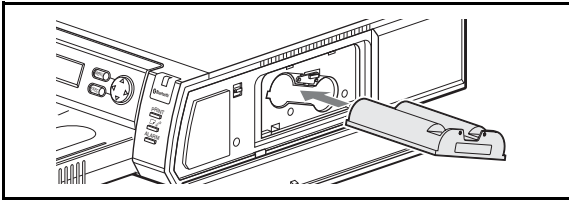
- 2 Place the protective sheet in the tray so that the unprinted side is facing up, make sure the arrows on the bottom of the tray and arrows on the printed side of the sheet are pointing in the same direction, and then insert the paper tray into the printer.



- 3** Open the print cartridge cover and remove the print cartridge.



- 4** Insert the supplied cleaning cassette and close the print cartridge cover.

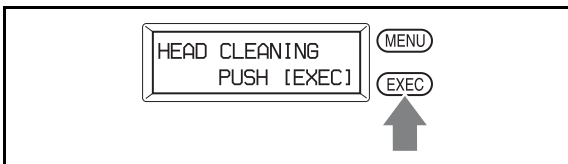


- 5** Press the EXEC button.



A buzzer sounds and "HEAD CLEANING/PUSH [EXEC]" appears.

- 6** Press the EXEC button again.



The cleaning cassette and protective sheet clean the inside of the printer. After cleaning is finished, the protective sheet is automatically ejected.



- 7** Remove the cleaning cassette from the printer, and reinsert the print cartridge and paper tray.

Error Messages

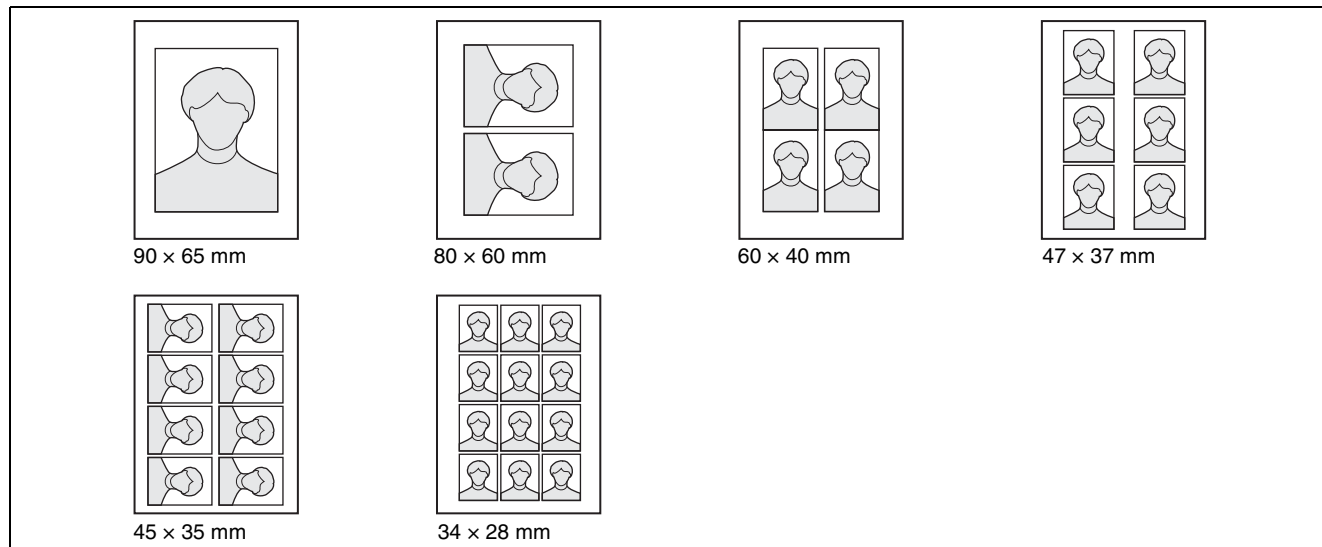
Camera	Printer	Cause/Solution
SET MEDIA	SET NEW RIBBON PUSH [EXEC]	<ul style="list-style-type: none"> The print cartridge is not installed properly. →Install the print cartridge properly, and press the EXEC button. The print cartridge has run out. →Replace the print cartridge, and press the EXEC button.
	SET PAPER PUSH [EXEC]	<ul style="list-style-type: none"> The paper tray is not installed. →Install the paper tray, and press the EXEC button. The print paper has run out. →Insert print paper, and press the EXEC button.
	MEDIA MISMATCH PUSH [EXEC]	<ul style="list-style-type: none"> The print paper and print cartridge do not match. →Insert the correct print paper and press the EXEC button.
	PAPER JAMMING REMOVE PRINTS	<ul style="list-style-type: none"> There is a print paper jam. →Remove the jammed paper, and try printing again. (See “Removing Jammed Paper” on page 64)
CHECK PRINTER	REMOVE PRINTS PUSH [EXEC]	<ul style="list-style-type: none"> Print paper remains in the ejection slot. →Remove the paper tray, remove the print paper, and then press the EXEC button.
	BLUETOOTH ERROR SERVICE CALL	<ul style="list-style-type: none"> There is a problem with the Bluetooth function. →Contact your nearest Sony dealer.
	PRINTER ERROR PLEASE RETRY	<ul style="list-style-type: none"> An error has occurred with the printer. →Try printing again.
	PRINTER ERROR SERVICE CALL	<ul style="list-style-type: none"> There is a problem with the printer. →Contact your nearest Sony dealer.
	—	<ul style="list-style-type: none"> The menu is displayed in the operation display on the printer. →End the menu operation, and display the READY screen.
	—	<ul style="list-style-type: none"> The printer is not connected correctly. →Restart the camera and printer, and then try again.
	TRANSMISSION FAILED!	—

After performing the actions described above, press the MENU button to clear the error message on the camera.

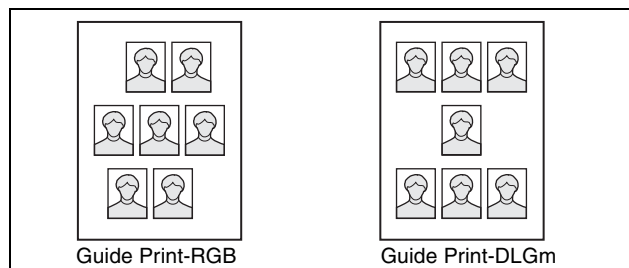
Appendix

Print Layouts

Layout examples when using UPC-X46 series print paper

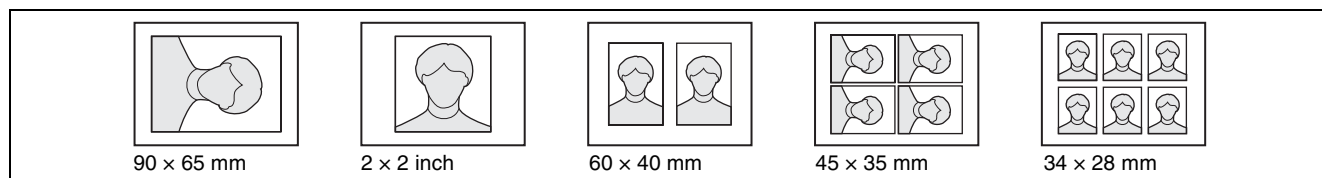


Guide print

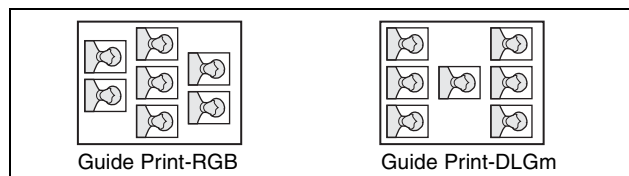


These guides are useful when adjusting the image quality of the printer.

Layout examples when using UPC-X34 series print paper



Guide print



These guides are useful when adjusting the image quality of the printer.

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