

# Camera

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## Before Using Camera

930P features approximately 5.1 Mega Pixel CMOS Auto-focus Camera capable of capturing still images and videos.

### Image File Formats

Image Type	File Format	Save Location
Still images	JPEG (.jpg)	Data Folder (Pictures)
Videos	MPEG-4 (.3gp), ASF (.asf)	Data Folder (Videos)

### Notes

- Remove dust/debris from lens cover with a soft cloth.
- Handset movement may blur images especially in dark places; hold handset firmly.
- Capturing/saving images immediately after handset has been left in a hot place may affect image quality.
- Exposing lens to direct sunlight may affect image quality.

### Shutter Click

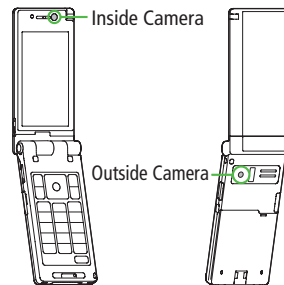
Shutter click sounds at fixed volume even in Manner Mode.

- To change shutter click: P.6-8

## Inside & Outside Camera

Press in Standby to activate Camera, or press and hold in Standby to activate Video Camera.

When Camera/Video Camera is active, press to switch Inside/Outside Camera.

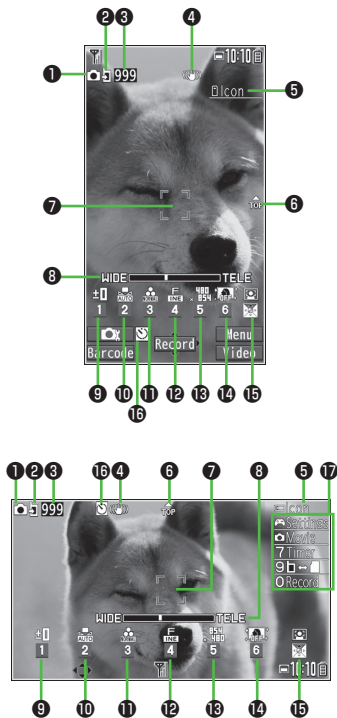


### Note

- Alternatively, **Main Menu** ► **Camera** ► **Camera** or **Video Camera**
- Camera is not available when battery is low.
- Incoming calls, Alarm and low battery cancel Camera. Captured images/recorded video clips are retained. Save data when Camera restarts.
- When left in preview window for three minutes, Camera is canceled and previous window returns.

# Camera Display Indicators

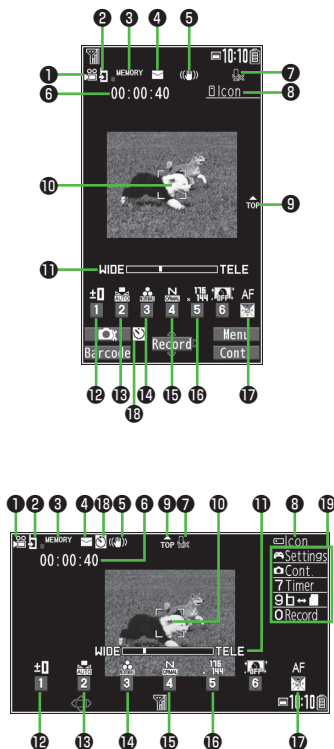
## Picture Preview Window



	Item	Description	Operation
1	Toggle Camera mode	Camera mode /  Action mode (Auto/Auto bracket/Manual) (Cont. shooting set.:  P.6-8)	[Video/Cont./Camera] ● Switch Action mode: P.6-8
2	Storage setting	Phone  microSD Card	9
3	No. of frames	Show number of remaining frames	—
4	Image stabilizer	Correct camera shake	( P.6-8)
5	Indicator	Turn indicators on/off	A
6	Top indicator	Indicate vertical direction	—
7	Focus Guide	Adjust focus automatically	—
8	Zoom bar	Indicate zoom level ( P.6-7)	zoom in /  zoom out ● Long press: continuous zoom
9	Brightness*	Adjust brightness (Level -3 to +3)	1 → Select a level
10	White balance*	Auto  Fine  Cloudy Light bulb  Fluorescent light	2 → Select a mode
11	Photo mode*	Normal  Portrait  Sports Food  Scenery  Night mode Backlight  Character  Snow Sunset  Pet	3 → Select a mode
12	Image quality*	Normal  Fine  Super fine	4 → Select a mode
13	Image size*	5M  3.7M Wide  3M 2M Wide  2M  1M  Stand-by VGA  QVGA  QCIF  Sub-QCIF	5 → Select a size
14	High Sensitive*	ON  OFF	6 → Select on/off
15	Focus* ( P.6-9)	Face Detection  AF Auto  Close-up Landscape	7 → Select a mode
16	Auto timer	( P.6-6)	7 → Toggle on/off
17	Key Guidance	Show key operation in Landscape View	—

\* Alternatively, → to highlight an item → to select a setting.

## Video Preview Window



	Item	Description	Operation
1	Toggle Camera mode	Video camera mode	[Video/Cont./Camera]
2	Storage setting	Phone  microSD Card	9
3	Memory capacity bar	Indicate memory status (appears in red when memory is full)	—
4	File size setting	Mail restrict'n(S)  Long time	( P.6-8)
5	Image stabilizer	Correct camera shake	( P.6-8)
6	Recordable time	Indicate recordable time	—
7	Movie type set	Records only video	( P.6-8)
8	Indicator	Turn indicators on/off	
9	Top indicator	Indicate vertical direction	—
10	Focus Guide	Adjust focus automatically	—
11	Zoom bar	Indicate zoom level ( P.6-7)	zoom in/ zoom out ● Long press: continuous zoom
12	Brightness*	Adjust brightness (Level -3 to +3)	1 → Select a level
13	White balance*	Auto  Fine  Cloudy Light bulb  Fluorescent light	2 → Select a mode
14	Photo mode*	Normal  Portrait  Sports Food  Scenery  Night mode Backlight  Character  Snow Sunset  Pet	3 → Select a mode
15	Image quality*	Normal  Fine  Super fine	4 → Select a mode
16	Image size*	VGA  HVGA Wide  QVGA QCIF  Sub-QCIF	5 → Select a size
17	Focus* ( P.6-9)	Face Detection  AF Auto  Close-up Landscape	→ Select a mode
18	Auto timer	( P.6-6)	7 → Toggle on/off
19	Key Guidance	Show key operation in Landscape View	—

\* Alternatively, → to highlight an item → to select a setting.

## Pictures/Videos

- Confirm battery strength (🔋P.1-10) and memory (💾P.6-8) before recording. When battery is low, video cannot be recorded.

### Note

- Mirror images appear on Picture Preview Window when using Inside Camera. Normal images are restored when viewing captured images.

## Capturing Still Images (Camera Mode)

1 Press to activate Camera

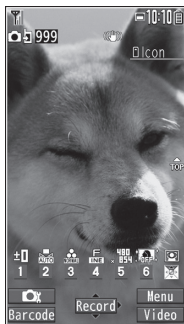
2 Frame subject

- To toggle Inside/Outside Camera:

3 [Record] or to capture the image

Shutter click sounds at fixed volume.

- When **Focus** is set to **Auto** or **Face Detection**, Outside Camera automatically focuses on subject before capturing image.



Picture Preview Window

4 [Save] or → Select a folder

- To return to preview window without saving the image:

5 to exit

Return to Standby.

## Continuous Shooting

Capture up to 20 still images in succession automatically with a single press.

1 In Picture Preview Window,  
 [Video] → [Cont.]

appears. (Indicators vary by Action mode)

- To set Continuous Shooting: P.6-8

2 Frame subject → [Record] or

Image thumbnails appear.

- When **Focus** is set to **Auto**, Outside Camera automatically focuses on subject before capturing image.
- To stop shooting halfway:

3 To view captured images, to highlight an image →  
 [Detail]

Full-size image appears.

- to toggle full-size images.

4 [Save] or → Select a folder  
Only full-size image is saved.

### Saving All Captured Images

After Step 2, [STO all] → **Save** or **Mirror save**

### Saving Multiple Images



After Step 2, to select images to save → [Save] → **Save** or **Mirror save**

## Recording Videos (Video Camera Mode)

1 Press and hold  to activate Video Camera

2 Frame subject

- To toggle Inside/Outside Camera: 



3  [Record] or  to start recording

Tone sounds.



- When **Focus** is set to **Auto**, Outside Camera automatically focuses on subject before recording begins. During recording, auto focus functions regardless of Focus setting.





Video Preview Window

4  [Stop] or  to end recording

Tone sounds.



- Recording stops automatically at maximum recording time.
- To return to preview window without saving the image: 
- To review clip:  [Play]

5  [Save] or  → Select a folder






6  to exit

Return to Standby.








### Note

- Alternatively,  →  [Video] to activate Video Camera.
- Video clips (recorded when **Long time** is set for **File size setting** (→P.6-8)) is automatically saved.



## Functions Available while Shooting

From ▶ Camera mode:   
 Action mode:  ▶  [Video] ▶  [Cont.]  
 Video camera mode: Press and hold 







### Auto Timer


 [Menu] → **Auto timer** → **ON** → Enter time (seconds) →  [Record] or  (→ For video,  [Stop] or  [Cont.]) →  [Save] or  → Select a folder

Auto timer tone sounds. After set period of time, shutter is released and recording starts.

- When Auto timer is active,  [Quit] or  to return to preview window without canceling Auto timer.
- Auto timer is not available when **Cont. shooting set.** is set to **Manual**.

### Zoom

 (zoom in) or  (zoom out) to adjust zoom →  [Record] or  →  [Save] or  → Select a folder

- Press and hold  for continuous zoom.
- Zoom is available during video recording.
- Zoom is disabled when **Image size** is set as follows:
  - Outside Camera: **5M** or **3.7M Wide** (Camera mode), **1M** (Camera mode: High sensitiv. ON)
  - Inside Camera: **VGA** or **QVGA** (individual mode) or **HVGA Wide** (Video camera mode)
- Zoom may change image quality.

- Maximum zoom levels for individual image size are as follows.  
Maximum zoom levels in Horizontal Open Position are indicated in ( ) if different from those in Normal Position.


Camera mode	Size	Zoom level	Max. level (approx.)
<b>Outside Camera</b>			
<b>Camera (High sensitive.: OFF)</b>	5M (1944×2592)	1 level	1.0 times
	3.7M Wide (1456×2592)	1 level	1.0 times
	3M (1536×2048)	6 levels	1.3 times
	2M Wide (1080×1920)	6 levels	1.3 times
	2M (1200×1600)	11 levels	1.6 times
	1M (960×1280)	21 levels	2.0 times
	Stand-by (480×854)	11 levels	1.5 times
	VGA (480×640)	31 levels	4.0 times
	QVGA (240×320)	31 levels	8.1 times
	QCIF (144×176)	31 levels	13.5 times
<b>Camera (High sensitive.: ON)</b>	Sub-QCIF (96×128)	31 levels	20.3 times
	1M (960×1280)	1 level	1.0 times
	Stand-by (480×854)	11 levels	1.5 times
	VGA (480×640)	11 levels	2.0 times
	QVGA (240×320)	31 levels	4.0 times
	QCIF (144×176)	31 levels	6.8 times
	Sub-QCIF (96×128)	31 levels	10.1 times
	<b>Continuous shooting</b>	VGA (480×640)	11 levels
QVGA (240×320)		31 levels	4.0 times
QCIF (144×176)		31 levels	6.8 times
Sub-QCIF (96×128)		31 levels	10.1 times

Camera mode	Size	Zoom level	Max. level (approx.)
<b>Video camera (Image stabilizer: Auto)</b>	VGA (640×480)	11 levels	1.6 times
	HVGA Wide (640×352)	11 levels	1.6 times
	QVGA (320×240)	21 levels	2.4 (3.2) times
	QCIF (176×144)	31 levels	4.4 (5.4) times
	Sub-QCIF (128×96)	31 levels	6.0 (8.1) times
<b>Video camera (Image stabilizer: OFF)</b>	VGA (640×480)	11 levels	2.0 times
	HVGA Wide (640×352)	11 levels	2.0 times
	QVGA (320×240)	21 levels	3.0 (4.0) times
	QCIF (176×144)	31 levels	5.5 (6.8) times
	Sub-QCIF (128×96)	31 levels	7.5 (10.1) times
<b>Inside Camera</b>			
<b>Camera/ Continuous shooting</b>	VGA (640×480)	1 level	1.0 times
	QVGA (240×320)	1 level	1.0 times
	QCIF (144×176)	6 levels	1.6 times
	Sub-QCIF (96×128)	21 levels	2.1 times
<b>Video camera</b>	VGA (640×480)	1 level	1.0 times
	HVGA Wide (640×352)	1 level	1.0 times
	QVGA (320×240)	1 level	1.0 times
	QCIF (176×144)	6 levels	1.9 (1.5) times
	Sub-QCIF (128×96)	21 levels	2.8 (2.1) times

## ■ Functions Available in Preview Window

- Change settings before initiating image capture. Some functions are changeable with simple key operations (☞P.6-3, P.6-4).
- Some operations are not available depending on camera mode or image size.

 [Menu] → Select an item (See below)

Item	Operation/Description
Inside camera/ Outside camera	Switch Inside/Outside Camera
CHG camera- mode	> <b>Camera mode, Video camera mode, Action mode</b> or <b>Bar code reader</b>
Image size	> Select a size
File size setting	Select <b>Mail restrict'n(S)</b> for S! Mail attachments or <b>Long time</b> for long-time recording
Image quality	> Select an item <ul style="list-style-type: none"> <li>● In Video camera mode, this function is available only when <b>File size setting</b> is set to <b>Long time</b>.</li> </ul>
Camera settings	> Select an item <ul style="list-style-type: none"> <li>· <b>Brightness</b> → </li> <li>· <b>White balance</b>: Adjust color tone</li> <li>· <b>Color mode set</b>: Select a color mode</li> <li>· <b>Photo mode</b>: Select a mode suitable for the place</li> <li>· <b>Focus</b>: ☞P.6-9</li> <li>· <b>Img. stabilizer</b>: Minimize camera shake automatically</li> <li>· <b>Shoot with frame</b>: Add frame to image</li> <li>· <b>Shutter sound</b>: Select a shutter click sound</li> <li>· <b>Flicker correction</b>: Minimize flicker while shooting near fluorescent light</li> </ul>

Item	Operation/Description
Storage setting	> Select an item <ul style="list-style-type: none"> <li>· <b>Store in</b> → <b>Phone</b> or <b>microSD</b></li> <li>· <b>Auto save set</b> → <b>ON</b> or <b>OFF</b></li> </ul>
High sensitiv.	> <b>ON</b> or <b>OFF</b>
Auto timer	☞P.6-6)
Cont. shooting set.	> Select an item <ul style="list-style-type: none"> <li>· <b>Action mode: Manual</b> captures one picture at a time. <b>Auto bracket</b> captures nine different still images automatically.</li> <li>· <b>Shot interval</b>: Select an interval when <b>Action mode</b> is set to <b>Auto</b>.</li> <li>· <b>Shot number</b>: Set number of images to be captured when <b>Action mode</b> is set to <b>Auto</b> or <b>Manual</b>. Details are as follows: VGA (480×640): 4 QVGA (240×320): 5 to 10 QCIF (144×176): 5 to 20 Sub-QCIF (96×128): 5 to 20</li> </ul>
Movie type set	> <b>Normal</b> or <b>Video</b>
Display size	Select preview window size > <b>Actual size</b> or <b>Fit in display</b>
Attach S!Mail mode	> <b>YES</b> or <b>NO</b> <ul style="list-style-type: none"> <li>● Image size, File size setting and Image quality are set to following (respectively): <b>QCIF, Mail restrict'n(S), Normal</b></li> </ul>
Icon	Show/hide display indicators > <b>ON</b> or <b>OFF</b>
Memory Status	View memory information



## ■ Functions Available after Shooting

- Available only when **Auto save set** (☞P.6-8) is **OFF**
- Some operations are not available depending on camera mode or image size.

 [Menu] → Select an item (See below)

Item	Operation/Description
Play	Play back recorded video clip
Save	> Select a folder
Store all/ animat'n	> <b>Save</b> or <b>Mirror save</b> → Select a folder → <New>
Mirror save	> Select a folder
Attach to S! Mail	Send file via S! Mail > Select a folder → Create a message (☞From Step 2 on P.13-4)
Set display	Set as wallpaper, Phone Book image, etc. > Select a folder → Select an item
Change frame*	> Select a frame → Select a folder
Store in	> <b>Phone</b> or <b>microSD</b>
Mirror display/ Normal display	Switch Mirror/Normal display
Display size	Set image size in preview window > <b>Actual size</b> or <b>Fit in display</b>
Icon	Show/hide display indicators > <b>ON</b> or <b>OFF</b>
Cancel	Discard image to return to preview window

\* Available only when shooting with frame

## Focus Functions (Outside Camera)

### Changing Focus Settings

<Default> Camera mode: Face Detection  
Video camera/Action mode: Auto

Select a focus setting according to occasion.  
Focus on Individual scenes automatically.

- Face Detection (Camera mode only): For portraits
- Auto: Auto detection
- Close-up: For nearby objects
- Landscape: For distant landscapes

1 In Picture/Video Preview Window, 





2  to select a setting → 

### Face Detection

- Detect up to five faces within 2.5 meters.
- Show yellow Focus Guide when a face is detected.
- Automatically focus on one face when more than one is detected (Focus guide turns yellow once focus is on the face.).
- Faces may not be detected in following conditions:
  - Face is tilted.
  - A part of face is covered by glasses, hat, mask or shadow.
  - Face is too small, big or dark for screen.
  - Face is at edge of screen.
- Shoot with Auto focus if detection fails.

## Auto Focus Lock

Bring focus on subject at center of display automatically.  
Lock focus on subject, and recompose your picture (Camera mode only).

- In Picture/Video Preview Window, adjust Focus Guide to subject → 
  - When in focus, handset sounds.
  - Focus Guide turns green, and focus is locked.
    - When out of focus, Focus Guide turns red.
    - To try again: 
- Determine composition
- Capture image in selected camera mode (Camera/Action mode:  P.6-5 / Video camera mode:  P.6-6)

## Viewing Saved Images


Main Menu ► Camera

- Open Pictures  
*Pictures*  
Open Videos  
*Videos*
- Select a folder
- Select a file



Example: Pictures

### Opening Pictures Saved on microSD Card

After selecting *Pictures* in Step 1,  [microSD] → Select a folder

### Opening Videos Saved on microSD Card

After selecting *Videos* in Step 1,  [microSD] → Select a folder

### Tip

- Editing Still Images ( P.9-12)