

Camera

Before Using Camera	6-2
Image File Formats	6-2
Notes	6-2
Inside & Outside Camera	6-2
Camera Display Indicators.....	6-3
Pictures/Videos	6-5
Capturing Still Images (Camera Mode)	6-5
Recording Videos (Video Camera Mode).....	6-6
Functions Available while Shooting	6-6
Focus Functions (Outside Camera)	6-9
Changing Focus Settings.....	6-9
Auto Focus Lock	6-10
Viewing Saved Images	6-10

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

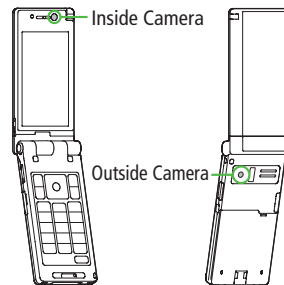
Shutter click sounds at fixed volume even in Manner Mode.

- 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.

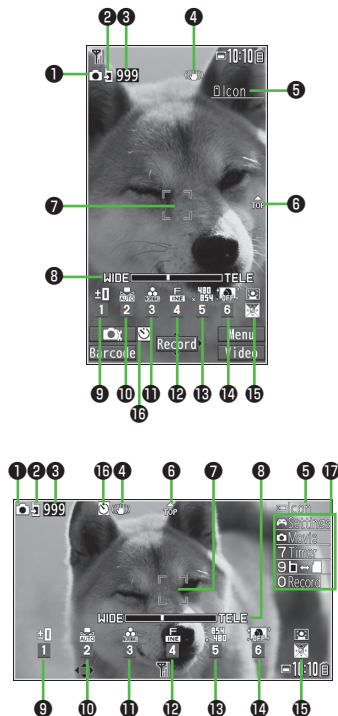


Note

- 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

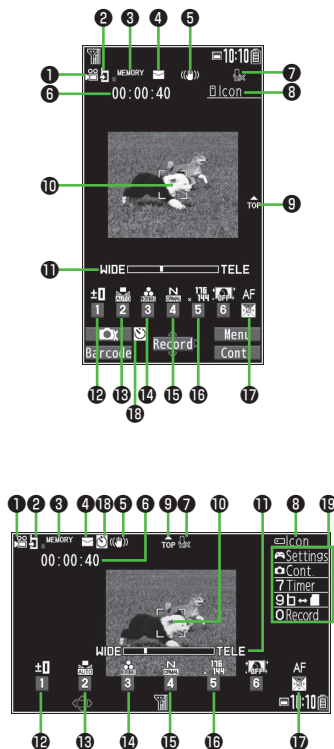
Picture Preview Window



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	
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)

- Press to activate Camera

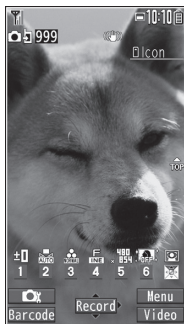
- Frame subject

- To toggle Inside/Outside Camera:

- [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

- [Save] or → Select a folder

- To return to preview window without saving the image:

- to exit

Return to Standby.

Continuous Shooting

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

- In Picture Preview Window,

[Video] → [Cont.]

appears. (Indicators vary by Action mode)

- To set Continuous Shooting: P.6-8

- 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:

- To view captured images, to highlight an image →

[Detail]

Full-size image appears.

- to toggle full-size images.

- [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

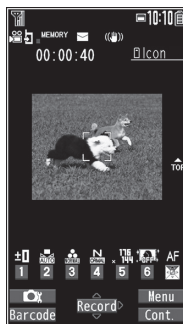
2 Frame subject

- 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 ) →  [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.)
Outside Camera			
Camera (High sensitive.: OFF)	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
	Sub-QCIF (96×128)	31 levels	20.3 times
Camera (High sensitive.: ON)	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
Continuous shooting	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

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

Item	Operation/Description
Storage setting	> Select an item <ul style="list-style-type: none"> · Store in → Phone or microSD · Auto save set → ON or OFF
High sensitiv.	> ON or OFF
Auto timer	(P.6-6)
Cont. shooting set.	> Select an item <ul style="list-style-type: none"> · Action mode: Manual captures one picture at a time. Auto bracket captures nine different still images automatically. · Shot interval: Select an interval when Action mode is set to Auto. · Shot number: Set number of images to be captured when Action mode is set to Auto or Manual. 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
Movie type set	> Normal or Video
Display size	Select preview window size > Actual size or Fit in display
Attach S!Mail mode	> YES or NO <ul style="list-style-type: none"> ● Image size, File size setting and Image quality are set to following (respectively): QCIF, Mail restrict'n(S), Normal
Icon	Show/hide display indicators > ON or OFF
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	> Save or Mirror save → Select a folder → <New>
Mirror save	> Select a folder
Attach to S! Mail	Send file via S! Mail > Select a folder → Create a message (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	> Phone or microSD
Mirror display/Normal display	Switch Mirror/Normal display
Display size	Set image size in preview window > Actual size or Fit in display
Icon	Show/hide display indicators > ON or OFF
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).

- 1 In Picture/Video Preview Window, adjust Focus Guide to subject → 
 - ① When in focus, handset sounds.
 - ② Focus Guide turns green, and focus is locked.
 - When out of focus, Focus Guide turns red.
 - To try again: 
- 2 Determine composition
- 3 Capture image in selected camera mode (Camera/Action mode: P.6-5 / Video camera mode: P.6-6)

Viewing Saved Images


Main Menu ► Camera

- 1 **Open Pictures**
Pictures
Open Videos
Videos
- 2 Select a folder
- 3 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)