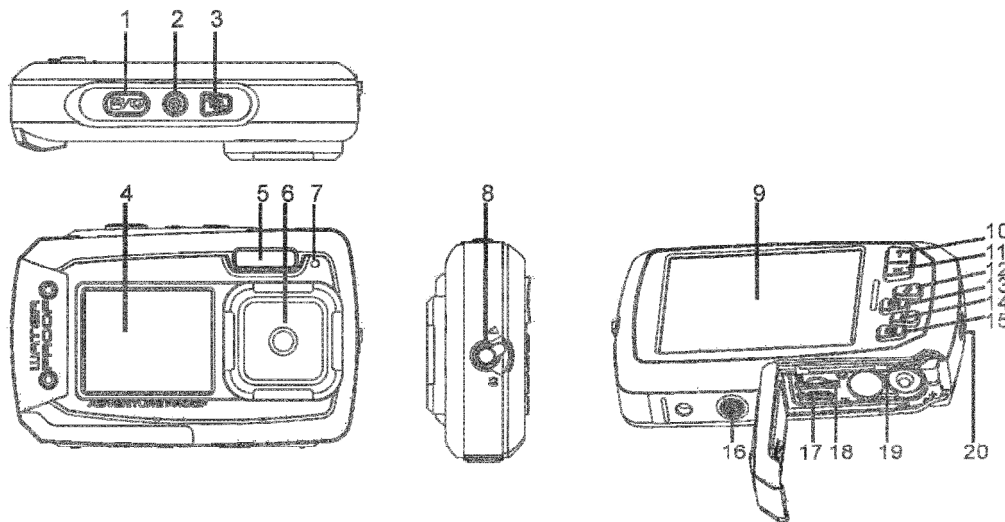


# Knox KN-DC20MP Instruction Manual

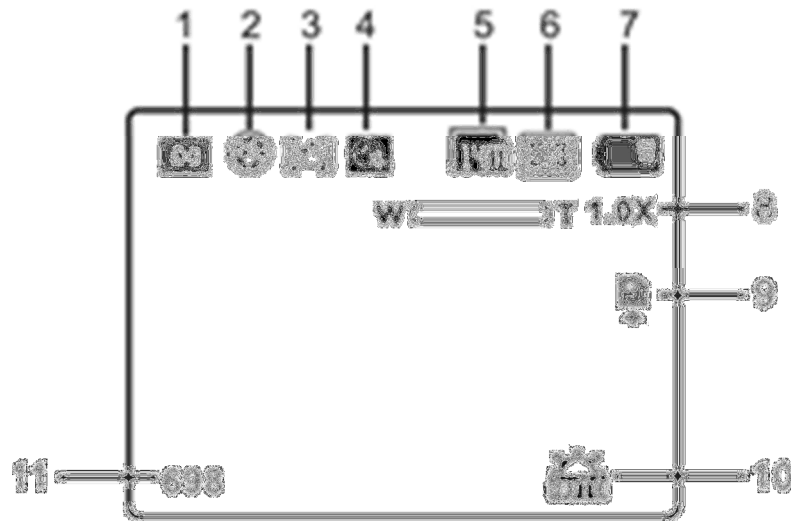
## Camera Interface, Inputs, and Outputs



- 1) Shutter - Press this button to take photographs or to start /stop recording a video clip, or to confirm changes in menu mode
- 2) Power on/off button – Hold for at least 2 seconds to switch on or off the camera or press once to display or hide the status icon on LCD.
- 3) Monitor switching button - Press this button to switch between the front monitor and the back monitor.
- 4) Front monitor - Use the front monitor for taking self-portrait shots
- 5) Flash - Use the built-in flash to give the subject extra lighting when shooting in the dark (the best shooting distance is within 1.5m).
- 6) Lens - Captures the image.
  - a. Note: Keep the lens clean. Dirt and fingerprints will affect the quality of the picture.
- 7) Busy indicator - When the indicator is blinking, the camera is busy.
- 8) Macro/normal switch -
  - a. Macro mode: Select this mode to take close-up photographs (distance 11cm - 18cm)
  - b. Normal mode: Select this mode to take photographs from 0.5m - infinity.
- 9) Main screen - Display photographs, video clips, camera setting and menu.
- 10) Up/Tele -
  - a. In Preview mode - press this button for zooming in.
  - b. In Menu mode - press this button to move up the selection bar.
  - c. In Image Playback mode - press this button for enlarging the photo.
  - d. In Video Playback mode - press it to start/pause the video.

- 11) Down/Wide –**
  - a. In Shooting mode: press this button to zoom out.
  - b. In Menu mode: press this button to move down the selection bar.
  - c. In Image Playback mode: press this button to reduce the photo size.
  - d. In Video Playback mode: press this button to enter thumbnail mode
- 12) Left / Flash light –**
  - a. In Menu mode: press this button for the left selection
  - b. In Playback mode: press this button to go back to the previous one
  - c. In Photo Infinite Preview mode: press this button to switch to Flash mode
  - d. When zooming in under Image Playback mode: press it to move to the left portion of the photo.
  - e. In Video Playback mode: press for fast rewind.
- 13) Right / Playback - Press this button to enter Playback mode**
  - a. In Playback mode: press this button to move to the next one
  - b. In Menu mode: press this button for the right selection
  - c. When zooming in under Image Playback mode: press it to move to the right portion of the photo.
  - d. In Video Playback mode: press it for fast forward.
- 14) Mode switch - Press this button to switch between movie and still capture mode**
  - a. In Playback mode: press this button to exit.
  - b. When zooming in under Image Playback mode: press it to move to the upper portion of the photo. In Video Playback mode: press it to stop the video.
- 15) Menu / Delete - In Preview mode: press it to enter the settings Menu.**
  - a. In Playback mode:
  - b. Press it for a short time to enter“Delete single/ all files”mode;
  - c. Press it for a long time to enter file compiling and system setting menu.
  - d. In Photo (zoom in) Playback mode: press it to move to the down area of the photo
- 16) Tripod connector - For fixing the camera on the tripod.**
- 17) USB interface - You can download photographs and video clips to a computer when connecting with a USB cable.**
- 18) MicroSD card slot - MicroSD card storage location.**
- 19) Battery compartment - Compartment for 2 x AAA alkaline batteries**
- 20) Strap hook - Hook for attaching the wrist strap to the camera.**

# On Screen Status Icons

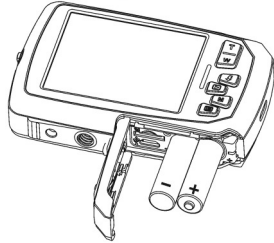


- 1) Mode - Shows the current operating mode:
  - a. Photo mode.
  - b. Video mode.
- 2) Flash
  - a. Force flash: The flash will be on under any environment.
  - b. Auto flash: The camera determines if the flash should be used or not.
  - c. No flash: The flash is turned off.
- 3) Normal/Macro
  - a. Mode - Mode (0.5m – infinity).
  - b. Macro mode (11cm – 18cm).
- 4) Self-timer - Indicates the Self-timer is set
- 5) Resolution - Shows the selected picture resolution
  - a. 20 M = 5184X3888; 14M = 4320x3240
  - b. 8M = 3264x2448; 5M = 2592x1944
  - c. 3M = 2048x1536; VGA = 640x480
- 6) Picture quality
  - a. Super fine
  - b. Fine.
  - c. Normal
- 7) Battery indicator
  - a. The batteries are full.
  - b. The batteries are empty.
- 8) Zoom indicator - shows the zoom ratio during preview mode
- 9) MicroSD card - Indicates the MicroSD card is inserted and will be used as storage for PHOTO and VIDEO
- 10) White balance - Shows the selected White-balance mode.
- 11) Photo/Video counter –
  - a. Photo mode: No. of pictures that can be taken.
  - b. Video mode: Available recording time.

# Camera Operation

## 1) Installing the Batteries

- Open the battery door.
- Insert 2 x AAA alkaline batteries into the camera compartment.
- Close the battery door.

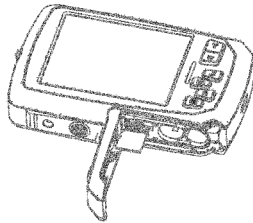


- Note: Make sure that the batteries are inserted in the right directions (as marked in the diagram above).

## 2) Inserting a Memory Card (not included)



This camera has no built-in internal memory. Memory can be added with a MicroSD memory card (not included).

- Turn off the camera first.
- Open the battery door (please make sure the battery door is unlocked before opening).
- Insert the MicroSD card into the camera.





- **Notes:**
  1. There is only one right direction to insert the MicroSD memory card into the slot. Do not force the card into the memory card-slot, which may damage both the camera and the MicroSD memory card.
  2. The MicroSD memory card must be formatted before taking photographs. See the following section for more information.

## 3) Formatting the Memory or MicroSD Card

- Press the Menu button (  ) in PHOTO or VIDEO mode.
- Select the setup mode by pressing the Right button.
- Select the format icon by pressing the **W** (  ) button and press the Shutter button to confirm.
- Press the Shutter button to format the SD memory card.

## 4) Setting the resolution

- Press the Menu button (  ) in PHOTO mode, select the resolutions icon by the **W** (  ) key and press the Shutter to confirm.
- Available resolutions:
  - VGA (640 x 480), 3M (2048 x 1536), 5M(2592x1944); 8M(3264x2448); 14M=4320x3240; 20M=5184X3888.
  - Six different resolutions will be displayed. Select the desired resolution by using the Up or Down button and press the Shutter button to confirm the selection.

## 5) Taking Photographs

- Turn on the camera.
- Depending on the distance to the object being photographed, use the macro switch to adjust the distance.
- Set the macro switch to macro mode (📷) if you wish to take a close-up photograph. (11cm–18cm);
- Set the macro switch to normal mode (📷) if you wish to take a video or a photo of surroundings or people (0.5m – infinity).
- If you are not sure if there is enough lighting, turn on the automatic flash (📷) by pressing the Flash button. (If the battery power is too low, the flash won't be activated).
- Use the LCD screen to aim at the object you wish to take photographs of.
- Press the Shutter button and wait until the LCD display turns on again.

## 6) Zooming In and Out

- The camera has a 4x zoom
- Zoom in or out by pressing the Up or Down button, a number will appear on the display, 4.x is the maximum zoom ratio.

## 7) Taking a Self-Portrait Shot Using the Front Monitor

- Press the Monitor switching button to switch to the front monitor.
- Use the front monitor as a viewfinder to aim at yourself.
- Press the Shutter button to take a photo of yourself.

## 8) Self-Timer Setting

- Set the camera to photo mode.
- Press the Menu button (☰). The menu will appear.
- Press the **W** (✓) button to select Self Timer and confirm by pressing the Shutter button.
- Press the **W** (✓) button to select the “On” option
- Press the Shutter button to confirm. The self-timer function is now ready for use.
- Aim at the object you wish to take photos of.
- Press the Shutter button to take a photograph.
- The photo will be taken after the timer reaches the delay time of 10 seconds. The camera will beep during the delay time.

## 9) Recording Video Clips

- Press the Mode button to select the video clip mode (📷).
- For setting the resolution, press the Menu (☰) button and select Resolution, then press the Shutter button to confirm. Two resolutions will be displayed.
- VGA (640 x 480), QVGA (320 x 240).
- Press the Shutter button to start recording videos, press the right button to pause and press the Shutter button again to stop recording. The video clip will now be saved as an AVI file in the MicroSD memory card.

## 10) Playing Back Photographs

- Press the Playback (▶) button to enter the Playback mode.
- The last picture or video clip taken will be displayed. Press the **W** (√) to enter the thumbnail mode. Press the Left /Right /Up/Down button to select the desired picture, and press the Shutter button to view.
- In full screen display, press the **T** (^) button to zoom in the photo.
- To shift the image in zoom-in mode, press the Shutter button and then use the Mode/Menu/Left/Right buttons.
- Long press the Menu (☰) button in Playback mode until the menu is displayed. Select Slide Show and set up the desired slide show way. Press the Shutter button to confirm. The pictures saved in the MicroSD card will be displayed in sequence automatically. To stop slide show, press the Shutter button.
- Long press the Menu (☰) button in Playback mode until the menu is displayed. Select Photo Effect and press the Shutter button. Select the desired effect by pressing the up/down button and press the shutter button to confirm. The image will be saved as a separate image.

## 11) Protecting Photographs/Videos

To lock up the photos/videos and make them under protection from being deleted by the camera, follow the instructions below.

- Press the Playback (▶) button to get into Photo playback mode.
- Press the Left or Right button to select the photograph/video clip to be protected.
- Long press the Menu (☰) button in Playback mode until the menu is displayed. Select Protect and press the Shutter button.
- Select “Single” or “Protect all” and press the Shutter button to confirm to set a single file or all the files under protection.
- To unprotect the protected file(s), please select “Unprotect all”.

## 12) Resizing Photographs



- Press the Playback (▶) button to get into Photo playback mode.
- Press the Left or Right button to select the photograph/video clip to be resized.
- Long press the Menu (☰) button in Playback mode until the menu is displayed. Select Resize and press the Shutter button.
- Select the new size and press the Shutter button to confirm. The image will be saved as a separate image.

## 13) Playing Back Video Clips

- Press the Playback (▶) button to enter the playback mode.
- Press the Left or Right button to select the video.
- Press the Up button to play the video.
- When the video is playing, press the Up button to pause or resume.
- Press the Right button for fast forward or press the Left button for fast rewind.
- Press the Mode button to stop and exit.

## 14) Deleting Photographs and Video Clips

You can delete a single photograph / video clip, or delete all the photographs / video clips in the memory card.

- Press the Playback (  ) button to enter the playback mode.
- Press the Left or Right button to select the photograph/video clip to be deleted.
- Press the Menu/Delete button (  ) and select "Single" or "All" .
- Press the Shutter button to confirm.
- Press the Menu button to exit.
- **Note:** Select "All" and press the Shutter button to confirm, all the pictures and videos will be deleted. Photos that are protected from accidental erasure cannot be deleted. To delete photos, set the protect setting for the set photos to unprotect mode (Section 5.11), you can then delete the photos by following the above 1- 5 procedures.

## Specifications

- Sensor - 14.0 Mega pixels CMOS sensor
- Image resolution
  - 20 Mega pixels: (5184X3888)
  - 14 Mega pixels: (4320X3240)
  - 8.0 Mega pixels: (3264x2448)
  - 5.0 Mega pixels: (2592x1944)
  - 3.0 Mega pixels: (2048x1536)
  - VGA: (640x480)
- Lens - F/2.8 f = 8.5mm
- Focus range - 0.5m. ~ Infinity
- Macro mode - 11cm – 18cm
- Digital zoom - 4x
- Flash strobe - Built-in ( Auto / force / off )
- M-Shutter - Yes
- LCD display - 2.7+1.8" TFT color display
- White balance - Auto / Daylight / Cloudy / Fluorescent / Tungsten
- Video Frame Rate - 30fps@VGA / 30fps@QVGA
- External Storage Media - MicroSD card, not included (supports up to 32GB)
- File format - Picture: JPEG, Video: AVI
- Self timer - 10 seconds
- PC interface - USB 2.0
- Power source - 2 x AAA alkaline batteries

## System Requirements

Operating system	WinXP (SP3)、Vista32/64 Win7&Win8 32/64 and Mac OS X 10.6.8 or above
CPU	Pentium III or above
RAM	At least 64MB
Interface	USB port
CD	4x speed CD ROM or above

# Troubleshooting

<b>Problem</b>	<b>Cause</b>	<b>Solution</b>
Cannot turn on the camera	Low battery power. Batteries placed at wrong polarities.	Replace or install the batteries correctly.
Photos will not be saved when taking pictures.	The memory card hasn't been formatted properly.	Format the memory card in setup mode of the camera. Please refer to section 5.3.
Cannot find removable disk after connecting the camera to the computer.	Connection failure.	Make sure all cable connections are secured and restart the computer if necessary.
Flash does not work.	Battery power is too low.	Replace batteries
Batteries used up very fast.	Old, used up battery	Replace batteries
Blurry photos	1. The camera is not held steady 2. The lens of camera is dirty.	1. Hold the camera steadily until it beeps when taking a photo. 2. Clean the lens with a soft and dry cloth.

## **FCC Statement**

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

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.
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Shielded cables must be used with this unit to ensure compliance with the Class B FCC limits.