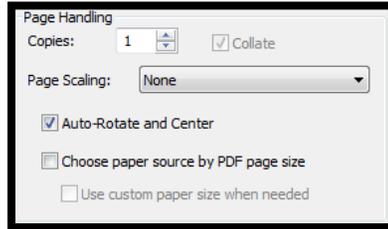## Printing Instructions:

Note: This document is designed and setup to be printed on both sides of the page. If two-sided printing is not possible please contact Nicholas using the contact information below to attain a printed copy.

1. Under the "Page Handling" area, ensure that the "Page Scaling" is set to "None".

2. Under the "Printer" area, click on the "Properties" button.

3. In the printer properties, ensure that the printer is set to two-sided printing and that the page is set to flip with the short side of the page as the binder.

4. Once the document is printed, either:

   - Fold the document in half.

   - Cut the document in half, stack the pages so they are in the correct order, and bind the booklet along the now long left edge.

This Document Provided by:

Kansas Adjutant General's Department

Geospatial Technologies Section

For additional assistance or questions contact:
Nicholas Graf
Geographic Information Systems Analyst

(785) 274-1878

nicholas.e.graf@us.army.mil

Quick Guide For

Ricoh 500SE
Global Positioning System Enabled Camera

Contents

La with Caplio Software Suite.

- Desktop Binder Lite—Windows-based utility that comes bundled with MFPs, Printers, Scanners, and Faxes. It provides document management from client PCs and seamless connectivity with devices.

Moving Pictures Off the Camera

1. Ensure current drivers are installed on the computer. See www.ricohdc.com/ for software and drivers.

2. Connect camera to computer via USB cable. Use the USB plug closest to the front of the camera.

3. Wait for computer to install new hardware.

4. Open windows explorer (Start/Computer).

5. Look for a device called "RICOHDCX" and open it.

6. Open the "DCIM" folder.

7. Open the "100RICOH" folder.

8. Select the desired images and either copy or cut and paste into the a local folder.

A number of different software downloads are available from the website:

♥ = Recommended Software

- Drivers
    - Caplio 500SE ♥—Contains drivers for the camera as well as the Caplio software suite. All of the software packages contain the same software, the only difference is the operating system it is designed to work on. The Windows Vista version will work on Windows 7. The Caplio software suite includes:
        - Caplio Server—Used for 500SE-W only.
        - Caplio Setting—Used for 500SE-W only.
        - Caplio Viewer—View pictures, search for pictures based on memos, edit memos in existing pictures, and manage pictures
        - List Editor—Create memo and edit memos
        - RICOH Gate La—Download pictures from camera if the camera is not set up in mass storage mode (See page 123 of the supplied "Camera User Guide" for additional information).
- Software
    - Caplio 500SE List Editor 2.0—Stand alone version of the List Editor software that is installed with Caplio Software Suite.
    - Caplio 500SE List Editor 2.5 ♥—Stand alone version of the List Editor software that is installed with Caplio Software Suite that increases the number of memo items to 10.
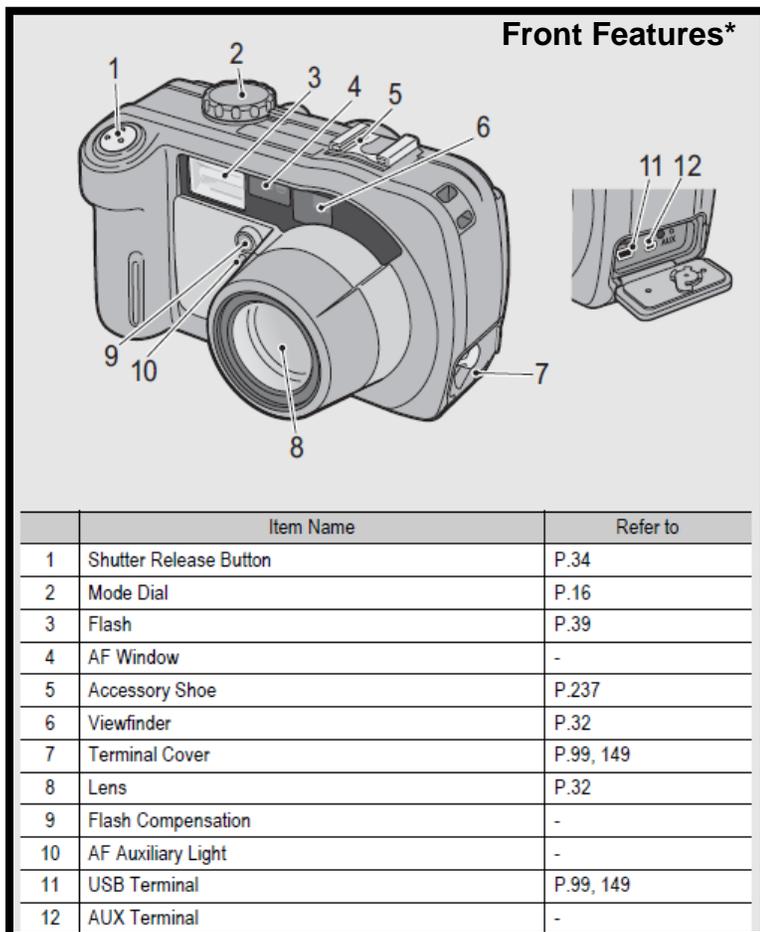   - Caplio Ricoh Gate La—Stand alone version of the Gate

Basic Information

Please refer to pages 14-18 of the supplied "Camera User Guide" for additional information.

	Item Name	Refer to
1	LCD Monitor	P.17
2	Auto Focus/Flash Lamp	P.35, 39
3	Viewfinder	P.32
4	Battery/Card Cover	P.25, 27
5	Power Button	P.29
6	[�'] (Wide-angle)/⊡ (Thumbnail Display) Button	P.37, 48
7	[▲] (Telephoto)/🔍 (Enlarged View) Button	P.37, 48
8	▲/SCENE Button	P.40
9	▶/⚡ (Flash) Button	P.39
10	MENU/OK Button	P.60, 88, 107
11	▼/🌷 (Macro) Button	P.38
12	◀/ⓖ (Quick Review) Button	P.46
13	▶ (Playback) Button	P.47
14	ADJ./MEMO Button	P.56
15	🗑 (Delete)/🕐 (Self-timer) Button	P.51, 45
16	DISP. Button	P.54
17	Tripod Screw Hole	P.232
18	Microphone	P.86
19	Speaker	P.85, 87

*Page numbers refer to Camera Users Guide   From Ricoh 500SE User Guide

Front Features*

	Item Name	Refer to
1	Shutter Release Button	P.34
2	Mode Dial	P.16
3	Flash	P.39
4	AF Window	-
5	Accessory Shoe	P.237
6	Viewfinder	P.32
7	Terminal Cover	P.99, 149
8	Lens	P.32
9	Flash Compensation	-
10	AF Auxiliary Light	-
11	USB Terminal	P.99, 149
12	AUX Terminal	-

*Page numbers refer to Camera Users Guide

From Ricoh 500SE User Guide

By proceeding you signify that you have READ AND AGREED to abide by the terms of this agreement.

The software at this site may not be compatible with products marketed outside of the U.S., Canada, and South America. To avoid potential incompatibility problems, please obtain assistance from web sites specific to the country you reside in. Ricoh does not guarantee any of the files, software programs, drivers, utilities or any material downloaded from this, or any other, site.

All such files, programs, drivers, utilities or other material are supplied on an 'as is' basis without any warranties, expressed or implied, or any statement as to the purpose, functionality or compatibility of any software. Ricoh shall not be held liable for any errors, property damage, loss of time or profits, consequential or incidental damages of any kind arising as a result of operating any software from this or any other Ricoh site.

AGREE   DISAGREE

2. Move the curser over the "DOWNLOADS" tab and Select 500SE.

3. Read the agreement statement and press the "AGREE".

4. Click on the name of the desired product to initiate download.
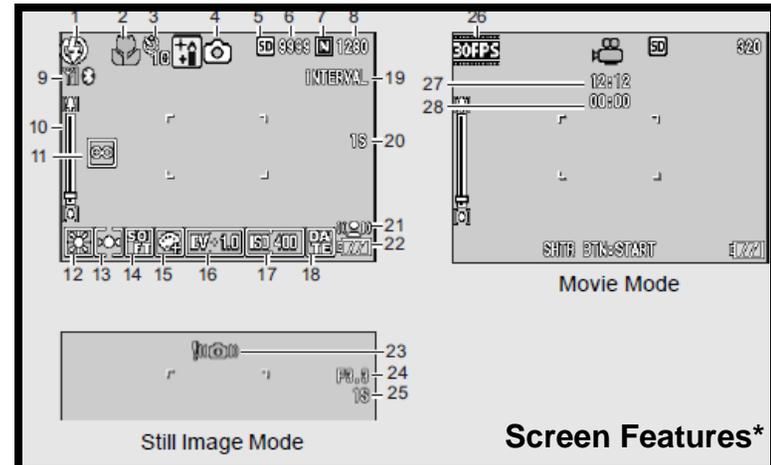
- Temporary values stay as an option for future memos until the camera is turned off.
- Temporary values entered into memos will stay in the memo for pictures taken or modified.

Latest Software

Ricoh recommends installing the latest software on the computer **before** connecting the camera to the computer for the first time. If the camera has already been connected to the computer, it is still recommended to install the latest software to gain access to all of the camera functionality. For the latest software visit Ricoh's Dynamic Capture website (http://www.ricohdc.com/). To download the latest software:

1. Go to http://www.ricohdc.com/ in a web browser.

Still Image Mode

Movie Mode

Screen Features*

	Item Name	Refer to		Item Name	Refer to
1	Flash	P.39	15	Color Depth	P.72
2	Macro Shooting	P.38	16	Exposure Compensation	P.78
3	Self-timer	P.45	17	ISO Setting	P.81
4	Mode Types	P.16, 40	18	Date Imprint	P.77
5	Recording Destination	P.22	19	Interval	P.74
6	Remaining Number of Still Images	P.235	20	Time Exposure	P.73
7	Picture Quality	P.61	21	Antiblur	P.63
8	Image Size	P.61	22	Battery Mark	P.19
9	Bluetooth® antenna, Wireless LAN antenna (Only for Caplio 500SE-W)	P.154 P.191	23	Camera Shake Warning Mark	P.33
10	Zoom Bar	P.37	24	Aperture Value	P.232
11	Focus	P.64	25	Shutter Speed	P.232
12	White Balance	P.79	26	Frame Rate	P.84
13	Photometry	P.67	27	Remaining Recording Time	P.235
14	Sharpness	P.68	28	Recording Time	P.235

*Page numbers refer to Camera Users Guide

From Ricoh 500SE User Guide

Initial Setup of the Camera

## Charging the Battery

Please refer to pages 20-21 and 24 of the supplied "Camera User Guide" for additional information.

There are two styles of chargers that come with the camera.

One is a wall style charger that has the plug built into the charger. The other is a desktop style with a separate cord/converter.

To charge the battery:

1. Insert the battery in the charger, insuring that the terminals on the battery are connected to the connections on the charger. The label side of the battery will facing away from the charger for the wall style, and towards the charger for the desktop style.

Wall Style   Desktop Style

2. Wait for the light on the charger to turn solid green indicating the battery is fully charged.

Make sure the battery has charged for at least four hours prior to use.

Installing the Battery

Please refer to pages 20-21 and 25-26 of the supplied "Camera User Guide" for additional information.

Rechargeable Battery

To install the rechargeable battery:

1. Ensure the arrows on the battery are pointing in the indicated directions (the battery will fit in upside down).

2. Lift the latch with the battery and insert the battery all the way into the battery compartment.

From Ricoh 500SE User Guide

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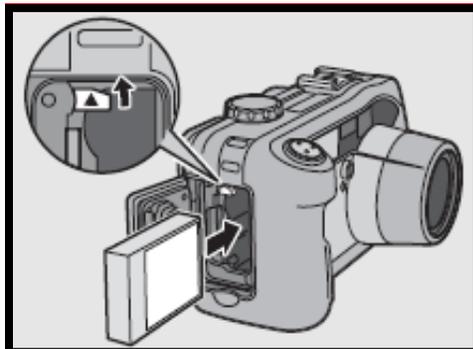
Temporary Memos

Please refer to pages 34-37 of the supplied "**Software** User Guide" for additional information.

Memos can be created or modified in the field. To modify a memo in the field:

1. In either the picture mode or the review mode, press the "ADJ./MEMO" button to open the memo dialog.

2. Press the up and down arrows to select the item name where a temporary value is needed.

3. Press the right arrow to display the values available for that item.

4. Press the up arrow to select "TEMPORARY".

5. Press the "OK" button, the "GO TO EDIT DISPLAY" dialog will appear.

6. Use the right arrow to select "YES" and press the "OK" button.

7. Use the arrows to select the desired character, number, or symbol. Use the "ADJ/MEMO" button to enter the selected value on the line.
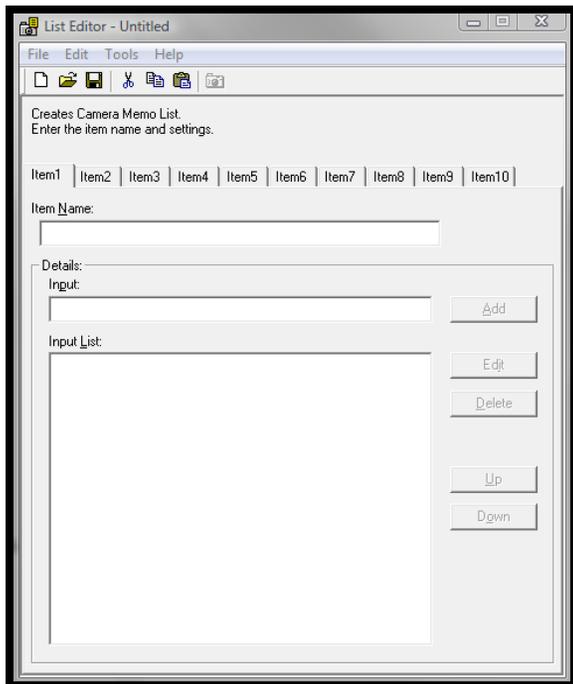
8. When finished press the "OK" button.

From Ricoh 500SE User Guide

Notes:

-   Only one temporary memo value can be entered per item at one time.

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4. When the memo is setup with the needed fields and values, save the memo (File > Save). Choose a location where the memo can be located easily. ListEditor will create a mta file.

5. Connect the camera to the computer.

6. Copy the mta file from the location where the memo was saved on the computer and paste it into the "TEMPLATE" folder on the "RICOHDCX" device.

7. Turn the camera on and look for "MEMO" icon in upper right corner of the display screen.

8. Press the "ADJ./MEMO" button to open the memo dialog.

9. Use the arrow keys to navigate and select the options desired for the picture, the options chosen will be added to all pictures taken until the option is changed.

10. Temporary values may be added in the field, but entry is slow, so it is best to have pre-defined lists.

11. If memos are no longer needed, remove all mta files from the SD card.

3. The latch will lock when the battery is installed.

4. To remove the battery, lift the latch and tilt the camera.

Alkaline Batteries

Regular alkaline batteries will run the camera, but they do not have the longevity of the rechargeable Lithium-ion battery.

To install alkaline batteries:

1. Note the direction indicated on the compartment door.
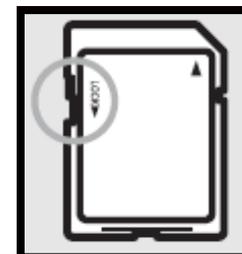
2. Use the top battery to lift the latch.
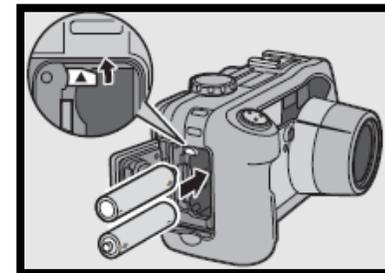
From Ricoh 500SE User Guide

SD Card

Please refer to pages 22-23 and 25-66 of the supplied "Camera User Guide" for additional information.
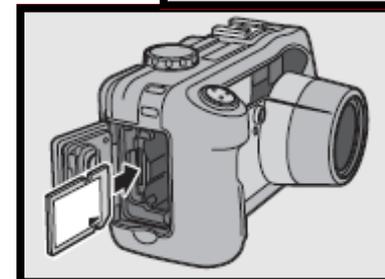
The camera will only recognize standard SD (non-SDHC) card which are 4 GBs or less.

Before installing the SD card, ensure the card is "unlocked" by pushing the small tab on the side of the card towards the top of the card.

To install the SD card:

1. Note the direction indicated on the compartment door.

2. Push the card all the way in until it clicks into place.
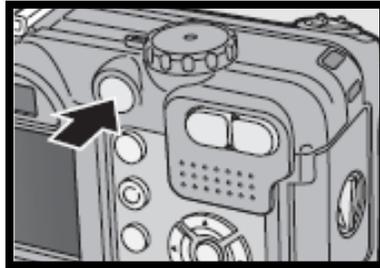
From Ricoh 500SE User Guide

When an SD card is inserted into the camera, the camera will automatically switch the storage location for new pictures to the SD card. If an SD card is installed internal memory is used.

Powering On the Camera

Please refer to page 29 of the supplied "Camera User Guide" for additional information.

The power button is the green "ON/ OFF" button on the back of the camera. To power on the camera:

From Ricoh 500SE User Guide

1. Press the "ON/OFF" button

2. Listen for an audible start sound and look for the auto focus/flash lamp to blink for a few seconds.

First Time Settings

Date and Time

Please refer to page 31 of the supplied "Camera User Guide" for additional information.

When the camera is turned on for the first time, the initial date and time must be set.

From Ricoh 500SE User Guide

1. Use the up and down arrows to change the values.

2. Use the left and right arrows to change fields.

3. Press the "OK" button to complete and exit the menu.
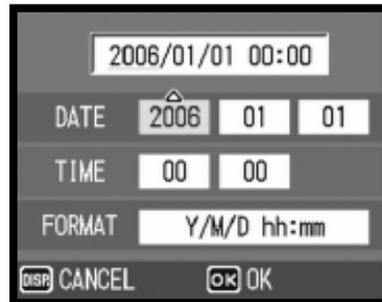
Formatting the SD Card

Please refer to pages 22-23 and 109 of the supplied "Camera User Guide" for additional information.

The camera will automatically prepare the SD card for taking

4. Press the right arrow to choose either on or off.

5. Press "OK" to choose the selection.

To lock the GPS location of the object: (With GPS lock enabled)

1. Press the left arrow/quick review button to lock the GPS location

2. Press the left arrow/quick review button again to release it.

Memos

Please refer to pages 20-33 of the supplied "**Software** User Guide" for additional information. The Software User Guide is available on the CD that came with the camera, or on the KDEM's GIS Equipment page.

Notes:

1. Either the Caplio or List Editor software must be installed on the computer.

2. A formatted SD card must be used in the camera.

Digital picture files have information about the picture stored within them. An example of this information is the date the picture was taken and the type of camera used to take the picture. The memo feature allows additional information to be stored along with the picture. An example of a memo might be the person shooting the picture or reason for the picture. To create and use memos:

1. On a computer open the ListEditor program (Start Menu > ListEditor > ListEditor).

2. Enter the name of memo field (ex. Weather, Taken By) in the "Item Name" field, press "Add" after each entry.

3. Enter values for memo field (ex. cloudy, Angee) in the "Input:" field.

1. Press the "Menu/OK" button to access the "SHTG STGS" menu.

2. Press the down button to select "FOCUS".

3. Press the right arrow to open the menu.

4. Press the up and down arrows to select the desired value.

5. Press "Menu/OK" to select.

Additional Features

GPS Lock

Please refer to page 190 of the supplied "Camera User Guide" for additional information.

By default, the camera uses the GPS location of the camera when the picture is taken. The GPS lock feature allows a GPS location to be locked into the camera. This GPS location will be used for future pictures, not the physical location of the camera. GPS lock can be useful where the location of the camera need to be different from the object(s) physical location. Road signs and fire hydrants are examples. To capture the GPS location of the object in the picture, go to the physical location of the object, use the GPS lock, and then walk back and take the picture.

To enable GPS lock:

1. Press the "MENU/OK" button on the camera.

2. Use the right arrow button to scroll over to the "EXP SET" menu.

3. Use the down arrow until "GPS LOCK" is highlighted.
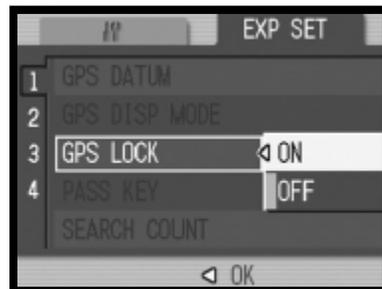
From Ricoh 500SE User Guide

picture; however, in order to use memos, or if a "CARD ERROR" message is displayed, the SD card must be formatted. Formatting the card will delete all files on the card; it is best to format the card **before** the camera is in use.

To format the SD card:

1. Press the "MENU/OK" button on the back of the camera.

2. Use the right arrow to move over to the "SETUP" menu.

3. Use the down arrow to select "FORMAT [CARD]" and then press the right arrow.

From Ricoh 500SE User Guide

4. Confirm formatting the card.
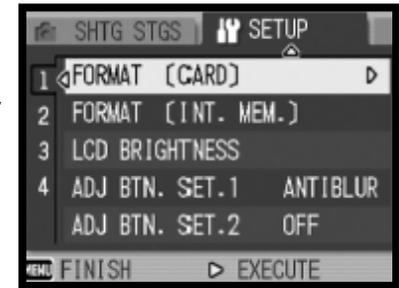
Note: Formatting the card will delete everything on the card

Compass Calibration

Please refer to the "GPS/Digital Compass Installation and Documentation" posted on KDEM's GIS Equipment page (http://www.kansastag.gov/KDEM.asp?PageID=189) for additional information.
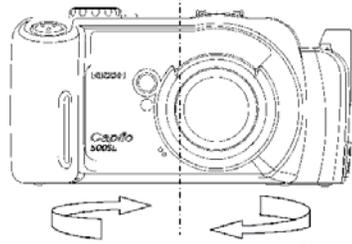
Note: There are two different GPS attachments with a digital compass; however, the calibration is exactly that same.

Some GPS camera are equipped with a digital compass. The digital compass, unlike an analog compass, needs to be calibrated before initial use. To calibrate the compass follows these directions:

1. On the camera press the "MENU" button.

2. Use the right arrow button to scroll over to the "EXP SET"

menu.

3. Use the down arrow until "Compass Calibration" is highlighted.

4. Press the right arrow to start the process.

Step 6

5. Press "OK" to start the calibration.

6. Once the GPS LED turns red and is blinking, start rotating the camera on a clockwise horizontal plane. A full rotation should take 30 seconds.

Step 7

From EKA Installation Guide

7. Perform a vertical rotation. Again the rotation should take 30 seconds.

8. If the calibration has not stopped press the "DISP" to stop the calibration.

9. Hold the camera still; do **not** turn it off until the red GPS LED stops blinking.

10. Turn the camera off—the compass is now calibrated.

11. Turn the camera back on and wait for GPS lock before continuing.

A digital compass takes time to react to changes in direction. If the camera changes to a different direction, it takes a few seconds to register the change. If the compass direction is not reading correctly or the camera have traveled more then 100 miles on a single trip the compass need to re-calibrated.

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3. Press the right arrow to open the menu.

4. Press the up and down arrows to select on (♥) or off.

5. Press "MENU/OK" to select.

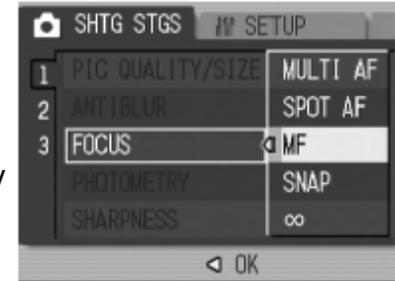When antiblur is enabled, the antiblur symbol appears on the screen
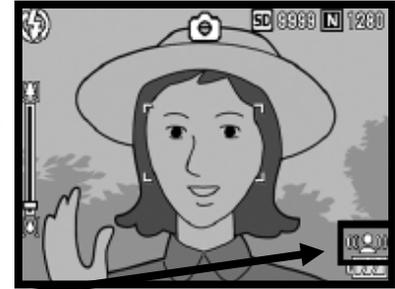
From Ricoh 500SE User Guide

Focus

Please refer to pages 64-66 of the supplied "Camera User Guide" for additional information.

♥ = Recommended setting

The camera has 5 different focus modes allowing the camera to produce focused pictures in a variety of settings. To change the focus setting:

From Ricoh 500SE User Guide

Symbol	Mode	Description
None	MULTI AF ♥	Automatically measures the distances to a maximum of five AF areas from among 17 AF areas and focuses to the nearest AF area. This prevents the center of the LCD monitor from becoming out of focus and enables you to shoot with a minimum number of out-of-focus pictures.
None	SPOT AF	Selects one AF area at the center of the picture to allow the camera to focus on this area automatically.
MF	MF (Manual Focus)	Enables you to adjust the focus manually.
S	SNAP	Fixes the shooting distance to a short distance (about 2.5 m (8.2 ft.)).
∞	∞ (Infinity)	Fixes the shooting distance to infinity. Infinity is useful for shooting distant scenes.

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- Normal (N) – Higher compression, lower quality, smaller file.

Size - indicated by the larger number in the options

- 640 × 480 (N640) – Large number of pictures, good for email and websites, not printed.

- 1280 × 960 (N1280, F1280) – Standard picture size, good basic setting.

- 2048 × 1536 (N2048) – Increased quality, good if pictures need printing.

- 2592 × 1944 (N2592) – Increased quality, good for page size prints. ♥

- 3264 × 2448 (N3264, F3264) – High quality, good for posters, displays, and picture editing.

Best practice – It is considerably easier to **reduce** the quality and size of an original picture than to **increase** the quality; take pictures with the best size and quality setting possible. Additional SD cards can be used if necessary.

Antiblur

Please refer to page 63 of the supplied "Camera User Guide" for additional information.

♥ = Recommended setting

Minimizes camera shake and blurring during shooting. To change the antiblur setting:

1. Press the "MENU/OK" button to access the "SHTG STGS" menu.

2. Press the down button to select "ANTIBLUR".

From Ricoh 500SE User Guide

Taking Pictures

Please refer to pages 32-44 of the supplied "Camera User Guide" for additional information.

♥ = Recommended setting

Before taking pictures ensure all of the initial setup procedures have been fulfilled. Lithium-ion batteries do not hold a charge when not in use, so ensure a fully charged battery is properly inserted each time the camera is taken out.

To begin taking pictures:

1. Choose the appropriate mode from the dial on top of the camera:

Symbol	Function	Description
📷	Still Image Mode	Allows you to shoot still images.
CALS	CALS Mode	Fixes [PIC QUALITY/SIZE] to [N1280] when shooting construction images.
🎥	Movie Mode	Allows you to shoot movies with sound.
🎤	Voice Memo Mode	Allows you to record sounds.

From Ricoh 500SE User Guide

- Picture – Standard Mode ♥

- CALS - Mode designed for taking public works pictures

2. Power on the camera.

3. **Let camera sit with a clear view of the sky and away from large metal objects until an audible beep indicating GPS lock is played, and the GPS indicator turn solid green.**

4. Ensure the compass indicates the correct bearing. See pages 7-8 compass correction procedure if compass is not accurate.

5. Start taking pictures.

Note:

The camera acquires its GPS location from where it is physically located when the picture is taken. To capture the GPS location of the object in the picture, see the GPS Lock section on page 14.

If the camera loses GPS signal it will automatically use the last know GPS location for up to a half an hour, so pictures taken indoors will automatically be place at the last know location.

Scene Modes

Please refer to page 40 of the supplied "Camera User Guide" for additional information.

♥ = Recommended setting

Five different scene modes are available to help optimize the camera for different shooting conditions. To change scene modes (Not a menu function):

1. Press the up arrow.

2. Use the up and down arrows to select the mode closest to the current shooting conditions:

   - NRML SHT – Normal setting, everyday use. ♥

   - HIGH SENS – Use when taking pictures in dimly lit places.

   - FIREFIGHTING – Use to capture images under difficult conditions such as the scene of a fire.

From Ricoh 500SE User Guide

   - SKEW COR MODE – Use to straighten a rectangular object, such as a message board or business card.

   - TEXT MODE – Use when capturing text images, for example notes written on a whiteboard.

   - ZOOM MARCO – Used when capturing extreme close-up pictures, objects less then an inch from the camera.

3. Press the "OK" button to complete and exit the menu.

Picture Settings

Please refer to pages 60-62 of the supplied "Camera User Guide" for additional information.

♥ = Recommended setting

The size and quality of the pictures taken may be changed. The size will change the number of pixels captured in the picture; quality will change the compression of the picture captured. To change the size/quality of the picture:

1. Press the "MENU/OK" button to access the "SHTG STGS" menu.

2. Press the down button to select "PIC QUALITY/SIZE".

3. Press the right arrow to open the menu.

From Ricoh 500SE User Guide

4. Press the up and down arrows to select the desired value.

5. Press "MENU/OK" button to select it.
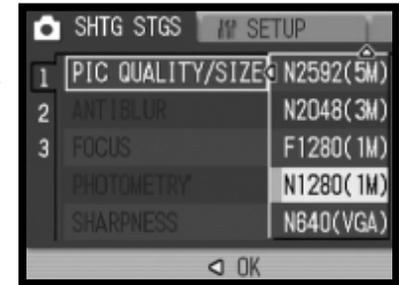
Quality - indicated by an "F" or "N" before the number in the options

- Fine (F) – Lower compression, higher quality, larger file (can store about half the number of pictures compared to normal).