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## Chapter 5. Advanced Features and Other Topics

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## Exchanging Image Files with a Computer

The optional DU-4 software is required to exchange files between the RDC-4300 and a computer.

**Important Note:** For instructions on how to use the DU-4 software, please refer the Readme file and help menu of the software.

### Preparations

Item	Platform		Comments
	Windows	Macintosh	
Software	DU-4		Software programs exclusive to the RDC-4300
PC Interface cable*	PC Connection Cable	PC Connection Cable + Mac Adapter	Specialized interface cables for connecting digital cameras to PCs
PC Card Adapter*		FS-A53	A card adapter used to insert a SmartMedia memory card directly into a PC card slot
Floppy Disk Adapter*	FS-A10	---	A floppy disk adapter used to insert a SmartMedia memory card directly into a computer's floppy disk drive

\* Only one of the marked items is required to exchange data with the computer.

### System Requirements

#### Windows® 95

System Software: Microsoft® Windows® 95  
 CPU: 486 DX+ (Pentium+ recommended)  
 RAM: 16 MB+ (32 MB+ recommended)  
 Disk Requirements When Installed: 6 MB+  
 Display Resolution: 640 x 480 pixels+  
 (800 x 600 pixels+ recommended)  
 Colors: 256+ (32,000+ recommended)  
 CD-ROM Drive: Required for software installation

**Note:**

- Software may not operate correctly with Windows® NT 4.0.
- Software not compatible with Windows® 3.1 or Windows® NT 3.51.

#### Macintosh

System Software: Apple Macintosh® System Software 7.6+ or 8  
 CPU: 68030 or Power PC  
 RAM: 16 MB+ (32 MB+ recommended)  
 Disk Requirements When Installed: 6 MB+  
 Display Resolution: 640 x 480 pixels+  
 (800 x 600 pixels+ recommended)  
 Colors: 256+ (32,000+ recommended)  
 CD-ROM Drive: Required for software installation  
 QuickTime™: Version 2.5+

### Processing Files on a Computer

Windows® 95 users may find that files erased off a SmartMedia memory card by a computer or files that are placed in the Recycle Bin do not actually erase from the card. If this occurs, open the [Properties] dialog for the Recycle Bin and click the [Options] tab. Select the [Configure drives independently] option, select the drive containing the SmartMedia memory card and place a check in the [Do not move files to the Recycle Bin. Remove files immediately on delete] option. Re-delete the files in question.

#### Important Note:

• If you select the [Use one setting for all drives] option in the [Options] tab, files on all the drives (including the hard disk and floppy disks) will be immediately deleted with the delete command and can not be recovered. Be particularly careful with the use of this setting.

#### Note:

• A selected file may also be deleted by simultaneously pressing the [Shift] + [delete] keys or by holding the [Shift] key while dragging and dropping the file into the Recycle Bin.

# Changing Camera Settings

The following can be adjusted on the RDC-4300 to suit user requirements: power saving mode, auto power off mode, beep mode and save settings mode.

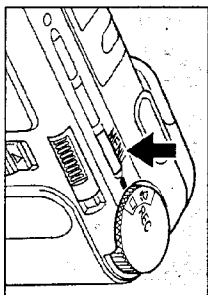
## Power Saving Mode Settings

The LCD monitor can be programmed to automatically go into sleep mode after a certain period of time to preserve battery power (although slight, it still consumes power). When power saving mode is active, the LCD monitor will go to sleep if a camera operation is not performed during the set time period (0, 10 or 30 seconds or 1, 2, 3 or 4 minutes) following activation of the power switch or operation of another function. When the power saving mode is set to continuous, the LCD monitor will display continuously (except when shut off by the auto power off mode).

### 1 Turn the mode dial to [REC] and press the menu button.

The record menu will display.

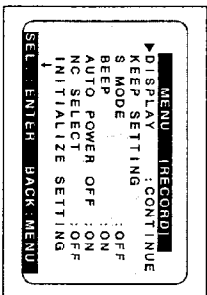
- *Note:* To cancel the operation, press the menu button a second time.



### 2 Slide the zoom button to select the [Display] option and press the enter button.

The settings menu will display.

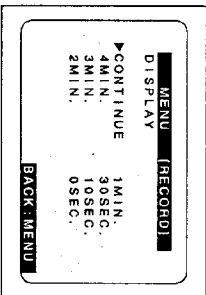
- *Note:* To cancel the operation and return to the record menu, press the menu button a second time.



### 3 Slide the zoom button to select a time option and press the menu button.

The power saving mode is now set and the record menu will display. Press the menu button a second time to clear the record menu.

The AF indication LED will flash intermittently when the power saving mode has automatically put the LCD monitor to sleep.



## How to Reactivate the LCD Monitor

Pushing any button or switch will reactivate the LCD monitor from sleep mode.

### Important Note:

- In environments over 40° Celsius (104° Fahrenheit), use of the power saving mode may cause irregularities in the LCD monitor display. The LCD monitor will operate normally when returned to an environment with lower temperatures.

### Note:

- Although the results will vary between operating environments and settings, use of the power saving mode can extend the recordable images approximately 1.2 times the standard values. (Results based on Ricoh's Testing Standards).

## How to Turn Power Saving Off

Repeat the steps above, changing the option in step 3 to [Continuous].

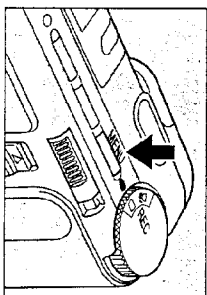
## Auto Power Off Settings

The camera will automatically power down (auto power off) in the recording and play modes to conserve the battery if left untouched (no buttons or switches manipulated) for approximately 5 minutes. The auto power off mode can be disabled by setting it to off in either the record or play menu.

### 1 Turn the mode dial to [REC] or [Play] and press the menu button.

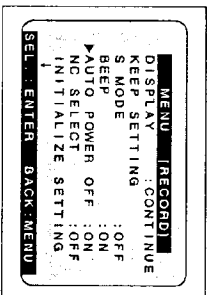
The record or play menu, respectively, will display. The examples shown here illustrate the recording menu.

- *Note:* To cancel the operation, press the menu button a second time.



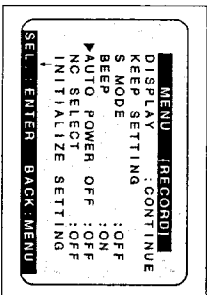
### 2 Slide the zoom button to select [Auto Power Off].

- *Note:* To cancel the operation, press the menu button a second time.



### 3 Press the enter button to change the setting to [Off].

The auto power off mode is now disabled.



- Note:**
- To disable the auto power off mode for the camera in play mode, change the corresponding play menu setting to [Off].
  - Slide the power switch to reactivate the camera if it shuts off in auto power off mode.
  - The auto power off function is automatically disabled while the camera is powered by an AC adapter (optional).

### How to Enable the Auto Power Off Mode

Follow the procedures above, changing the setting to [On] in step ③. Auto power off will become effective again.

## Beep Settings

The camera emits a beep for confirmation when it starts to record. The beep can be disabled with the following procedures.

- Turn the mode dial to [REC] and press the menu button.  
The record menu will display.

**Note:**

- To cancel the operation, press the menu button a second time.

- Slide the zoom button to select the [Beep] option.

**Note:**

- To cancel the operation, press the menu button a second time.

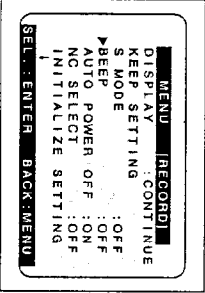
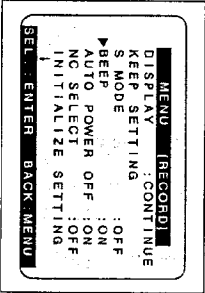
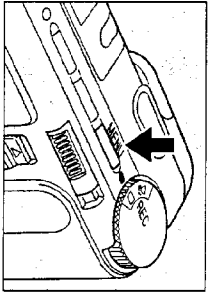
- Press the enter button to change the setting to [Off] and press the menu button.  
The beep is now disabled.

**Note:**

- The long beeping sounds produced as a warning, or to notify of an error, are not disabled or affected by any change to this setting.

### How to Restore the Beep

Follow the procedures above, changing the option in step ③ to [On]. The beep will now sound.



## Adding PIC Mode Options (NC Mode)

There are six standard PIC modes (□ SF, □ SN, □ SE, □ F, □ N, □ E) that compress the image data when recording. If you wish to have the option of recording non-compressed data, add the NC mode to the picture mode options.

**Important Note:**

- This mode records extremely clear pictures because they are uncompressed. However, each image requires approximately 2.4 MB at the time of recording. Accordingly, recording and data transfers require several tens of seconds to complete.
- Fico's proprietary DU-4 utility software is required to use files recorded in this mode on a computer.

- Turn the mode dial to [REC] and press the menu button.  
The record menu will display.

**Note:**

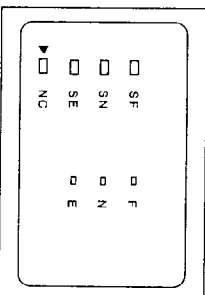
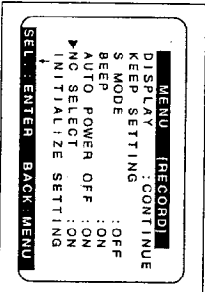
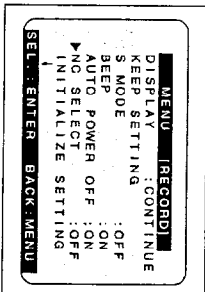
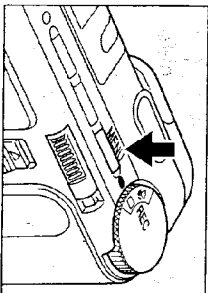
- To cancel the operation, press the menu button a second time.

- Slide the zoom button to select the [NC Select] option.

- Press the enter button to change the setting to [On] and press the menu button.  
The NC select option is now available.

- Press the PIC button and select a PIC mode.

The NC option will display in the settings menu. Selecting this option switches the camera to non-compression recording mode. Press the PIC button to select this option. The selection takes effect approximately 2 seconds after the button is pressed and the display updates the number of recordable pictures available at that setting.



## How to Reverse the Settings

Repeat the step above, changing the setting to [Off] in step 3. The NC option will disappear from the picture mode display.

## Keep Settings

The Keep Setting mode is for preserving settings after the power is turned off. Each setting is saved and becomes effective when the camera is powered. The following settings can be saved.

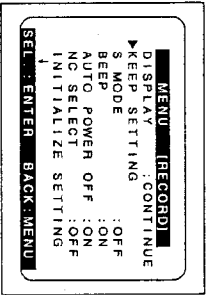
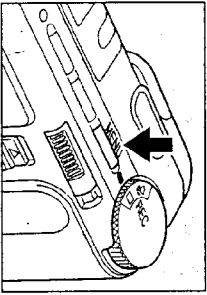
- Recording Mode (p. 50)
- White Balance Mode (p. 61)
- Exposure Compensation Mode (p. 59)
- Flash Mode (p. 55)
- PIC Mode (p. 42)
- S Mode (p. 70)

### 1 Turn the mode dial to [REC] and press the menu button.

The record menu will display.

Note:

- To cancel the operation, press the menu button a second time.



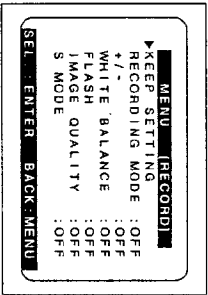
### 2 Slide the zoom button to select the [Keep Setting] option and press the enter button.

The save mode setting menu will display.

Note:

- To cancel the operation and return to the record menu, press the menu button a second time.

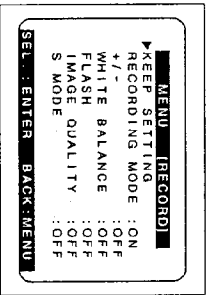
### 3 Slide the zoom button to select a mode.



### 4 Press the enter button to change the setting to [On].

The Keep setting is now active for that mode. To change the settings for the other modes, repeat steps 3 and 4 as required.

The settings for the modes changed to [On] will now be saved when the power is shut off.



### 5 When you have finished changing settings, press the menu button to close the save mode settings menu.

The record menu will display. Press the menu button a second time to clear the record menu.

## How to Reverse the Settings

Repeat the steps above, changing the setting to [Off] in step 4. The settings will now revert to their defaults when the power is shut off.

## Initialize Settings

Resets the date and time and other settings.

Important Note:

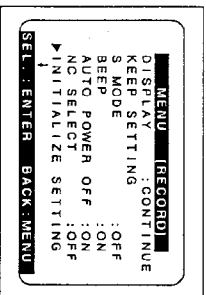
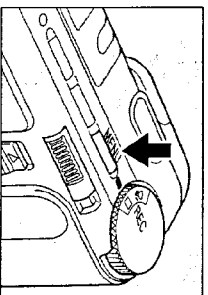
- The modes set in the save mode settings menu will also be set to their defaults (off).

### 1 Turn the mode dial to [REC] and press the menu button.

The record menu will display.

Note:

- To cancel the operation, press the menu button a second time.



### 2 Slide the zoom button to select the [Initialize Setting] option and press the enter button.

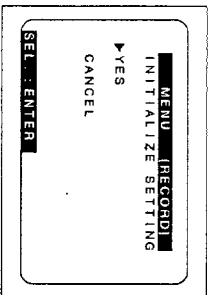
The initialize settings menu will display.

Note:

- To cancel the operation, press the menu button a second time.

### 3 Slide the zoom button to select [Yes] and press the enter button.

The recording mode settings will be set to their factory default settings. Resetting the default settings does not delete recorded files.



## How to Use the Remote Control Unit

The DR-3 remote control unit (optional) makes it possible to record and replay files from a remote location.

**Important Note:** The remote control reception is located just below the enter button on the LCD monitor side of the camera. Operate the remote control unit with it pointed toward the sensor.

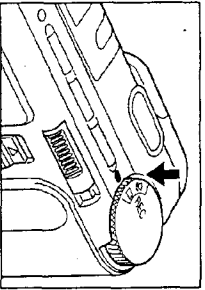
**Note:**

- Please read the manual accompanying the remote control unit for instructions on how to change the batteries and maintain it.
- Some procedures performed with the remote control unit differ from those performed directly on the camera itself. Follow the instructions below to operate the remote control unit.

## Shooting

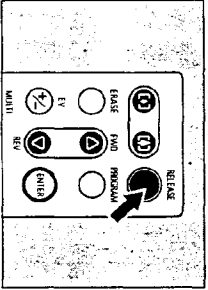
The remote control can be used to trigger the camera's shutter. It is particularly convenient for operating the camera from a remote position or placing the camera in a fixed position.

### 1 Turn the camera's mode dial to [REC].



**2 Frame your composition and press the release button on the remote control unit.**  
The self timer LED will light and recording will start approximately 2 seconds later.

**Note:** You can change the zoom setting with the zoom button on the remote control unit. The [Z] button zooms in (telephoto) while the [W] button zooms out (wide angle).



## Remote Adjustment of the Exposure Compensation Setting

- Entering the Mode  
Press the EV(+/-) button on the remote control unit to activate the mode.
- Changing the Setting  
Press the [▲]/FWD or [▼]/REV button to change the value and press the enter button. Press the release button to take the picture.
- Reversing the Setting  
Set the exposure compensation value to zero (0).

### Remote Shooting in Manual Focus

- Entering the Mode  
Press the erase button on the remote control unit.
- Focusing  
Press the [▲]/FWD or [▼]/REV button to adjust the focus. Press the release button to take the picture.
- Reversing the Setting  
Press the erase button a second time.

## Playback

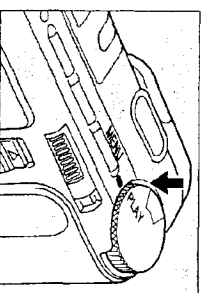
You can control the replay of recorded files with the remote control unit.

### 1 Turn the camera's mode dial to [Play].

The last recorded file will play.

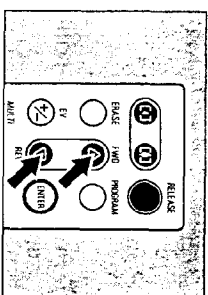
**Note:**

- See Explaining the Playback Screen (p. 72)



**2 Press the remote control unit's FWD or REV button to select a file.**  
To play a picture + sound or sound file, press the remote control unit's release button to play the sound.

**Note:** The remote control unit's buttons have the same effect as the buttons on the camera body for these operations.



### Magnifying the Display with the Remote Control Unit (Zoom Playback)

- Entering the Mode  
Press the remote control unit's program button.
- Moving the Display  
Press the remote control unit's [▲]FWD or [▼]REV button to move the display to different portions of the image.
- Exiting the Mode  
Press the remote control unit's enter button. The LCD monitor will return to the normal display setting.

### Multi Image Playback with the Remote Control Unit

- Entering the Mode  
Press the remote control unit's multi button.
- Moving the Selection  
Press the remote control unit's [▲]FWD or [▼]REV button to move the file selection.
- Exiting the Mode  
Press the remote control unit's enter button. The selected file will display on the LCD monitor at the single image display setting.

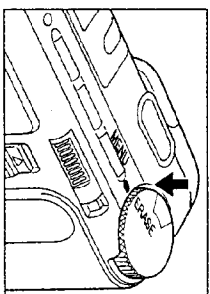
## Erasing

You can control the erasure of single files with the remote control unit.

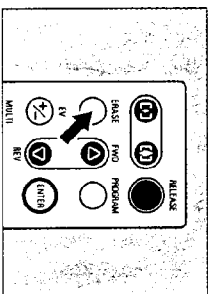
### Important Note:

- Please note that erased files cannot be recovered. Check each file's contents before deleting.

### 1 Turn the camera's mode dial to [Erase].



### 2 Press the remote control unit's erase button. The erase menu will display.

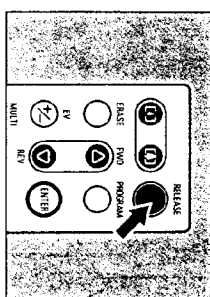


### 3 Press the remote control unit's [▲]FWD or [▼]REV button to select a file.

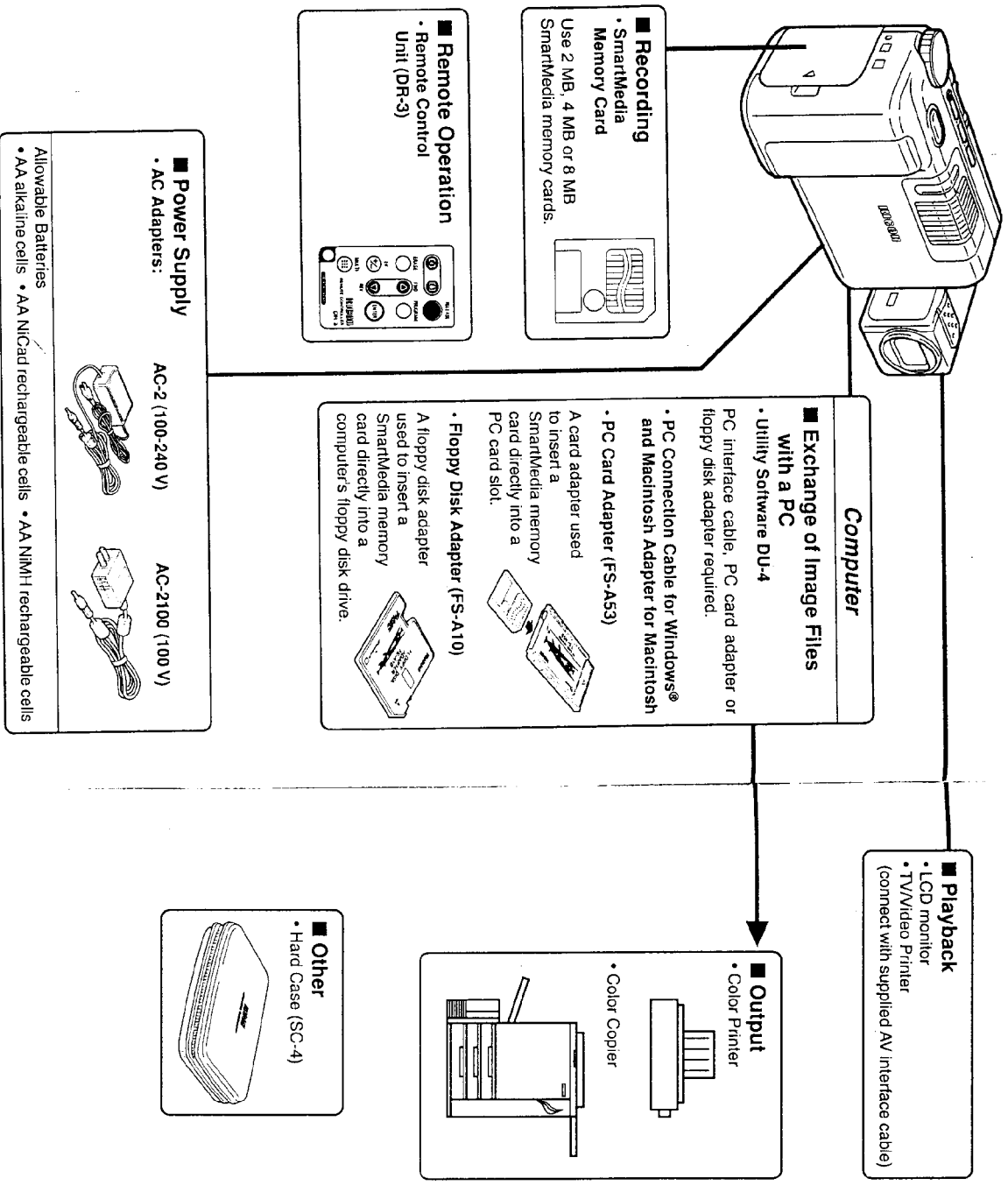


### 4 Press the remote control unit's release button. The file will erase. To continue erasing other files, repeat steps 3 and 4.

When finished erasing, switch the mode dial to another mode.



# System Configuration



## Power Supply

Use four generic AA alkaline batteries as the main power and a CR2025 lithium button battery for the date and time functions. Rechargeable AA NiCad or NiMH batteries can also be substituted for alkaline cells. For longer periods of use, AC adapters are available.

## Recording

Files are recorded to SmartMedia memory cards. In standard picture mode (SN mode), approximately 12 pictures can be recorded on a 4 MB card.

## Playback

Pictures can be verified immediately with the LCD monitor. TV sets connected with the supplied AV interface cable can also be used to view images.

## Exchanging Image Files with a Computer

Using Ricoh utility software compatible with the RDC-4300, image files can be exchanged with a PC. A PC connection cable or PC card adapter or floppy disk adapter is required.

## Output

Files loaded onto a PC can be output on a color printer or color copier. A controller is required for the color copier.



## Accessories

Item	Model	Comments	
AC Adapter	AC-2 AC-2100	For drawing power directly from a household electrical outlet. See Using an AC Power Source (p. 28). Note: AC-2100 is only for 110V AC areas.	
Hard Case	SC-4	For safely transporting the camera.	
Remote Control Unit	DR-3	For remote operation of the camera's recording and playback functions.	
SmartMedia Memory Cards		A postage stamp sized storage media with a thickness of 0.76 millimeters.	
	4 MB	FS-4	Capable of storing a maximum of 12 images recorded in SN mode.
	8 MB	FS-8	Capable of storing a maximum of 24 images recorded in SN mode.
PC Card Adapter	FS-A53	A card adapter used to insert a SmartMedia memory card directly into a PC card slot.	
Floppy Disk Adapter	FS-A10	A floppy disk adapter used to insert a SmartMedia memory card directly into a computer's floppy disk drive.	

- Microsoft and MS are a registered trademarks, and Windows is a trademark, of Microsoft Corporation in the United States of America and other countries.
- Macintosh is a registered trademark of Apple Computer, Inc., in the United States of America and other countries.
- All trademarked company and product names mentioned in this manual are the property of their respective owners.

## Handling Precautions

- This camera is not waterproof. Be careful around water, rain and beverages. Consult the closest available Ricoh service office if a liquid enters the camera.
- Be careful not to drop the camera or subject it to strong impacts.
- Do not use the flash more than necessary in continuous, consecutive shots to avoid overheating.
- Exercise caution to prevent sand and dust from contacting the camera in such environments as beaches or work sites.
- Do not leave the camera for any length of time in particularly hot or humid places, such as an automobile with the windows closed, beaches or bathrooms.
- Verify that the camera power is off before you attach the AC adapter.
- Direct sunlight and strong light striking the LCD monitor will reflect white light, making it difficult to view.
- The LCD monitor may contain some pixels that always or never illuminate and the brightness of some areas of the monitor may appear uneven. These are typical LCD performance characteristics and do not constitute malfunctions.
- Do not force any of the external moving parts, such as the card door, terminal cover or lens unit.
- Do not pick up or carry the camera by the card door, terminal cover or lens unit.
- Do not impede movement of the lens cover while turning on the power.
- Be careful not to bang the lens unit while carrying the camera around.
- Extreme temperature differentials may cause condensation to form inside the camera body and lens unit, reducing performance. To avoid this, place the camera in a plastic bag and let it slowly acclimatize to the new temperature before exposing it.

### Potential Causes of Condensation

Transporting the camera from a cold place to a warm place  
Storing or using the camera in places subject to high humidity  
Bringing the camera into a recently heated room or leaving it directly in the path of air conditioning

## Care and Storage

### Care

- Fingerprints and dirt on the lens will reduce performance so take extra care not to get it dirty.
- Do not wipe dust or smears off the lens with your fingers. Use a lens blower, readily available at most photographic suppliers, to blow it off, or a very soft cloth to wipe it lightly.
- Be particularly diligent in cleaning the lens after use at the beach or around chemicals.
- If your camera should malfunction, take it to the nearest Ricoh service office. This product generates high voltages and disassembly is hazardous. Under no circumstances should you attempt to disassemble it yourself.
- Never use solvents, benzene, insecticides or other volatile substances on the equipment that may deform or dissolve it.
- Be careful not to let hard objects rub against the LCD monitor, which is readily susceptible to scratching.
- To clean the LCD monitor, wipe it gently with a soft cloth that has been moistened in diluted detergent and well-wrung. Wipe off any moisture with a soft, dry cloth.
- Remove the batteries and AC adapter from the camera before commencing any of the above.

### Storage

- Do not store the camera in drawers or other areas containing insecticides, which may cause malfunctions.

## Trouble-Shooting

Refer to the pointers below before submitting the equipment for repairs. If the problem persists after trying the suggestions below, contact the nearest Ricoh service office listed at the back of this manual.

### Power Source

Problem	Cause	Solution
Power will not come on	Batteries dead, improperly installed or missing AC adapter not attached correctly	Place the batteries in correctly or replace them. Plug the cord securely at both ends.
Power cuts out	Card door open No buttons touched so auto power off function shut camera down Dead batteries	Close the card door and retry starting Restart camera. Replace with fresh batteries.
Battery charge quickly consumed	Camera operated in extremely high or low temperature location Camera operated in dark area requiring frequent use of the flash	... ...

### Recording and Playback

Problem	Cause	Solution
Shutter release button pressed but no image recorded	Batteries dead, improperly installed or missing No power or mode dial not set to [REC] Shutter release button only pressed halfway	Replace or reposition batteries. Slide power on and set mode dial to [REC]. Press shutter release button all the way.
	SmartMedia memory card inserted in reverse or not installed SmartMedia memory card not formatted (initialized) No space on SmartMedia memory card	Check SmartMedia memory card for proper insertion. Format SmartMedia memory card Erase unimportant files or replace SmartMedia memory card.
	SmartMedia memory card not working (service life exceeded) Card door open Self timer on Sound mode on	Replace SmartMedia memory card. Ensure that card door is securely closed. Turn the self timer off in the record menu. Set the camera to another mode in the record menu
	Flash is charging SmartMedia memory card contacts dirty	Wait until flash LED ceases flashing. Clean contacts with soft dry cloth.

Problem	Cause	Solution
Autofocus is on but camera not focusing	Dirty lens Subject not in autofocus field (subject to one side in frame) Subject not readily focused	Clean lens with blower or soft dry cloth. Use focus lock (aim directly at subject, press shutter release button halfway, hold and re-aim) Use focus lock or switch to manual focus.
Flash won't fire, or won't charge	Camera not set to picture mode or picture + sound mode Camera set to flash off mode White balance mode set to setting other than auto Batteries dead	Use record menu to switch to picture mode or picture + sound mode. Change flash mode with flash button. Use record menu to set the white balance to auto. Replace batteries.
Image dark even with flash	Lens unit is facing operator Subject farther than 2.5 meters with the zoom on telephoto or 3.0 meters with the zoom on wide angle	Reposition lens unit Come closer to subject.
Image is too bright	Flash used on subject positioned 35 centimeters or less away Over-exposed Brightness setting of LCD monitor maladjusted	Retake picture without flash. Use record menu to adjust exposure compensation. Adjust brightness adjustment dial on camera bottom.
Image is too dark	Shot in low light area attempted with camera set to flash off mode Under-exposed Brightness setting of LCD monitor maladjusted	Use flash button to set flash mode to another setting. Use record menu to adjust exposure compensation. Adjust brightness adjustment dial on camera bottom.
Unnatural coloration in image	Shooting conditions difficult for white balance in auto mode	Place a white object near the subject, use the flash or select one of the manual white balance modes.
Sound will not record	Batteries dead, improperly installed or missing No power or mode dial not set to [REC] Shutter release button only pressed halfway SmartMedia memory card inserted in reverse or not installed SmartMedia memory card not formatted (initialized) No space on SmartMedia memory card SmartMedia memory card not working (service life exceeded)	Replace or reposition batteries. Slide power on and set mode dial to [REC]. Press shutter release button all the way. Check SmartMedia memory card for proper insertion. Format SmartMedia memory card. Erase unimportant files or replace SmartMedia memory card. Replace SmartMedia memory card.

Problem	Cause	Solution
Sound will not record (cont'd)	Card door open Camera not set to sound mode	Ensure that card door is securely closed. Use record menu to switch to the sound mode.
Date and other recording data will not display	Screen display set to off	Press the enter button to switch between screen display modes.
Can't playback or image won't appear	Camera not set to play mode SmartMedia memory card not installed or doesn't contain any files Incorrectly formatted SmartMedia memory card SmartMedia memory card contains incorrectly recorded files	Set mode dial to [Play]. Insert a SmartMedia memory card with recorded images. Use a SmartMedia memory card that has been formatted and recorded by your camera. Insert a SmartMedia memory card containing pictures properly recorded by the camera.
SmartMedia memory card contains files in a format not read by the camera	SmartMedia memory card contains files in a format not read by the camera	...
Card door open	Card door open	Ensure that card door is securely closed.
AV interface cable poorly connected	AV interface cable poorly connected	Check connection.
Source of interference, such as electric motor, nearby	Source of interference, such as electric motor, nearby	Relocate camera away from source.
SmartMedia memory card contacts dirty	SmartMedia memory card contacts dirty	Clean contacts with soft dry cloth.
Replay is not clear	Error with SmartMedia memory card	Test camera with another SmartMedia memory card. If second card displays well, problem is with card not camera.
Display shut off	Dead batteries Auto power off activated	Replace batteries. Slide power on again.
Remote control will not work	Obstruction between the remote control unit and camera sensor Dirty remote control transmitter or camera sensor Dead remote control batteries	Remove the obstruction. (Sensor is on the LCD monitor side of camera.) Clean with a soft dry cloth. Replace CR2032 lithium batteries.
LCD monitor brightness changes during autofocus operation	Area captured by autofocus field and the surrounding area have contrasting light levels or the entire subject is dark	There is no malfunction.
Vertical lines appear on image	Phenomenon occurring with pictures of bright subjects, known as the smudge phenomenon	There is no malfunction.

## Miscellaneous

Problem	Solution
SmartMedia memory card will not fit into slot	Use a SmartMedia memory card specified for the camera. Insert the SmartMedia memory card the correct way.
Camera will not operate even when buttons and switches are manipulated	Replace batteries. Slide the power off and on once. Turn the mode dial to [RECE] or [PLAY]. If the problem persists, (1) reset the camera by sliding the power switch after removing the main and date batteries, and (2) reinstall the batteries and try to operate the camera again.
Date and time are wrong	Reset the date and time.
Date and time were set but disappeared	Replace date battery and reset date and time. Reset the date and time settings.
File won't erase or SmartMedia memory card won't format	Turn the mode dial to [Erase]. Remove pad from SmartMedia memory card. Use the play menu to reset the file's protection setting. Slide power on and retry.
Mode settings have changed	Batteries have been removed with save mode active. Reset mode.
Auto power off will not activate	Auto power off setting is disabled Camera powered by AC adapter (auto power off is automatically disabled when powered by an AC adapter) Enable setting. ---
Beep will not sound	Beep disabled Use record manu to enable beep.

## Using Your Digital Camera in Other Countries

### Ricoh AC-2 AC adapter (optional)

- The AC-2 AC adapter adjusts automatically to voltages ranging from 100V to 240V AC and frequencies of 50-Hz to 60 Hz.
- Some countries use electrical outlets which have different shapes. Before leaving on a trip, obtain the necessary plug adapter from a travel agent or electric store.

### Ricoh AC-2100 AC adapter (optional)

- The AC-2100 AC adapter can only be used in locations where 120V AC is used.

### About the warranty

- A wide range of power supplies can be used from 100V to 240V and 50 Hz or 60 Hz.
- In countries where the power connector type is different from the electrical plug equipped with the camera, be sure to check with the local service representative before using a conversion adapter.

### Viewing the image on a TV set

- Make sure to check if the TV set operates in the NTSC format with a image input terminal.
- The included AV connection cable is required.

### The NTSC format is used in the following countries.

American Samoa	Dominican Republic	Nicaragua
Barbados	El Salvador	Panama
Bermuda	Ecuador	Peru
Bolivia	Guam	Philippines
Canada	Guatemala	Puerto Rico
Chile	Haiti	Surinam
Columbia	Honduras	Taiwan
Costa Rica	Japan	Trinidad and Tobago
Cuba	Mexico	USA
Democratic People's Republic of Korea	Micronesia	Venezuela
	Myanmar	

## About the Warranty and Servicing

1. The Ricoh RDC-4300 camera is backed by a one-year limited warranty. During the warranty period, which starts from the date of purchase, any defective parts will be repaired free of charge. In the event of a camera malfunction, contact the dealer from which you purchased the camera or contact the nearest Ricoh service office. Please note that you will be charged for the cost of shipping the camera from the Ricoh service office to your residence.
2. This warranty does not cover any damage resulting from:
  - i Failure to follow the instructions in this instruction manual;
  - ii Repair, modification or overhaul not conducted by an authorized service station specified in this instruction manual;
  - iii Fires or natural disaster;
  - iv Improper storage, such as exposing the camera to high temperatures, humidity, or insect repellents; storing it with leaking batteries; storing the camera in a dirty condition so that it becomes moldy; or otherwise insufficiently caring for the camera.
  - v Submergence; exposure to floods or spilled alcoholic or other beverages; allowing sand or mud to enter the camera; exposure to physical shocks; or dropping of the camera.
3. After a full year has passed from the purchase date, you will become responsible for all repair fees, including those incurred at an authorized service station.
4. You will be responsible for all repair fees, even within the warranty period, if the warranty card is not attached or if the distributor's name or the purchase date have been changed or are not indicated on the card.
5. Expenses for overhauls and thorough inspections as a result of a customer's special request will be charged to the customer, whether or not they are incurred during the warranty period.
6. This warranty only applies to the camera and not to the accessories, such as the hard case and wrist strap, nor does it apply to the consumables provided, such as batteries.
7. Any consequential damage arising from the failure of this camera, such as expenses for taking pictures or loss of expected profit, will not be reimbursed whether they occur during the warranty period or not.
8. The above provisions refer to repairs offered free of charge, and do not limit your legal rights. The intention of the above provisions are also described in the warranty card provided with this camera.
9. Parts essential to the servicing of this camera - that is, components required to maintain the functions and quality of this camera - will be available for a period of seven years after the camera is discontinued. However, as some of those parts are kept for a longer period, do not hesitate to contact your distributor or the nearest Ricoh service representative even after the seven-year period.
10. Please note that, if the camera is seriously damaged from flooding, submergence, infiltration of sand or mud, violent shocks or dropping, the camera may not be repairable, and restoration to its original condition may be determined to be impossible.

- Note:**
- Before sending the camera in for repair, check the batteries and read this instruction manual again to ensure proper operation.
  - Some repairs require a significant amount of time to be completed. Please allow sufficient time for repairs.
  - When sending the camera to a service representative, please include a note which describes the defective part and the problem as precisely as possible.
  - Remove all accessories not related to the problem before sending the camera to a service representative.
  - Before taking any important pictures (such as at weddings, on trips abroad, etc.) test the camera to check its operation and ensure proper functioning. We recommend that you keep this manual and fresh batteries on hand.

# Specifications

## ■ General

### Video Signal Protocol

: NTSC  
: Batteries: 6 volts

### Power Source and Voltage

AC: 5 volts  
: 136.5 x 64 x 34 mm (5.37" x 2.52" x 1.34")  
(excluding grips)

### Dimensions (W x H x D)

: approximately 285 g (10.05 oz.) (excluding batteries)

### Weight

: 0° to 40° C (32° to 104° F)

### Operating Range - Temperature

: 85% or less  
: -20° to 60° C (-4° to 140° Fahrenheit)

### Operating Range - Relative Humidity

: 85% or less  
: -20° to 60° C (-4° to 140° Fahrenheit)

### Storage

## ■ Camera

### CCD

: 1/3" 1.32 million square pixels  
(effective: 1.22 million), RGB filter

### Lens

: Zoom lens F=2.8-4.7  
: f=5.6-16.8 mm  
(equivalent to 35-105 mm on 35mm camera format)

### • Focal length

: Approximately 8 cm (3.2") (macro),  
35 centimeters (13.8") (non-macro)

### • Minimum shooting range

: 2.0"

## Monitor

### • Display Size

: TFT Active Matrix System

### • Drive System

: Approximately 110,000 pixel

### • Picture Elements

: Auto/Preset (Daylight, Fluorescent Light and Tungsten Light)

## White Balance

### Exposure Compensation

### • Light Metering System

: Centerweighted

### • Exposure Value Memory System

: Auto backlighting detection  
Manual compensation, ±2.0 EV (in 0.5 EV increments)

### • Metering

: TTL-CCD method

### • Flash Automatic Exposure

: Yes (daylight synchro)

### • Shutter Speed

: 1-1/500

### • Aperture

: F 2.8-F 14

### • ISO Sensitivity

: Approximately equivalent to ISO 40-80

## Distance Adjustment

### • Autofocus Method

: TTL-CCD AF  
: 8 cm (3.2") to infinity / macro: 8 to 40 cm (3.2"-15.8")

110

## Built-In Flash

### • Type

### • Range

### • Modes

: Auto  
: 0.35 - 2.50 m (1.15' - 8.20')(telephoto)  
0.35 - 3.00 m (1.15 - 9.84') (wide angle)  
: Off/On/Auto

## ■ Image Data Recording and Playback

### Image Resolution

### File Format

### Compression Format

### Approximate File Sizes

### Approximate File Sizes

### Approximate File Sizes

### Approximate File Sizes

### Approximate File Sizes

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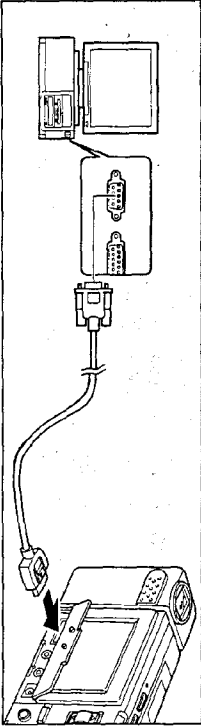
### Approximate File Sizes

## How to Connect to a Computer

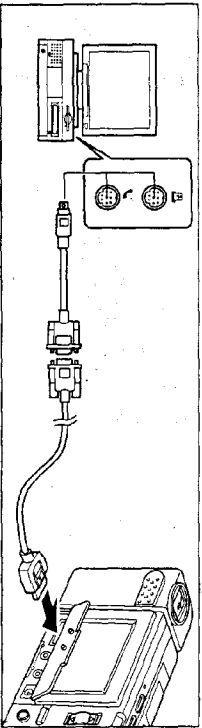
A connection cable is required to connect the FDC-4300 to a computer.

- 1 Shut down and turn off the computer if it is running.
- 2 Confirm that the camera power is off. Connect the connection cable to the camera's RS-232C/AUX terminal and the other end to the computer, using the RS-232C port on computers using the Windows platform and the printer/modem port on Macintosh.

• Windows Platform



• Macintosh



- 3 Slide the camera power switch on.
- 4 Turn the camera's mode dial to [PC].
- 5 Turn on the computer and start the DU-4 software program.

**Note:**

- Avoid running the camera on batteries when connecting to a computer to prevent battery failure from interrupting operations and requiring you to start over again.
- Turn the camera off before connecting or disconnecting the AC adapter.

# Recording Capacity

The following are the maximum number of images per SmartMedia memory card by card capacity and PIC mode.

SmartMedia Memory Card	Recording Mode	Picture Mode			DP
		<input type="checkbox"/> or <input type="checkbox"/>	<input type="checkbox"/> +DP or <input type="checkbox"/> +DP	<input type="checkbox"/> +DP	
2 MB	SF	3	2		4 minutes 13 seconds
	SN	6	5		
	SE	11	8		
	F	11	8		
	N	22	13		
	E	35	16		
	NC	-	-		
4 MB	SF	6	5		8 minutes 27 seconds
	SN	12	10		
	SE	23	17		
	F	23	17		
	N	45	26		
	E	70	33		
	NC	1	1		
8 MB	SF	12	11		16 minutes 59 seconds
	SN	25	21		
	SE	47	34		
	F	47	34		
	N	90	52		
	E	142	66		
	NC	3	3		