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I. SPECIFICATION

## 1. Camera Specification

	Туре	1/1.8″ CCD		
Image Sensor	Effective Pixel	Approx. 5.0 Mega-pixel		
-	Total Pixel	Approx. 5.3 Mega-pixel		
		Schneider Lens f = 7.7 ~ 23.1mm		
	Focal Length	(35mm film equivalent : 38 ~ 114mm)		
Lens	F No.	F2.7 ~ F4.9		
	Digital Zoom	Still Image mode : 1.0X ~ 4.0X		
	Digital 20011	Play mode : 1.0X ~ 10.0X (depends on image size)		
Vioutindor	Optical Viewfinder	Real image optical viewfinder		
Viewiiildei	LCD Monitor	1.5" color TFT LCD		
	Туре	TTL auto focus, Manual focus		
Focusing	Danga	Normal : 80cm ~ infinity		
	Range	Macro : 30cm ~ 80cm, Super Macro : 6cm ~ 30cm(Wide only)		
Shuttor	Туре	Mechanical and Electronic shutter		
Shuller	Speed	1 ~ 1/2,000sec. (Manual, Night Mode : 16 ~ 1/2,000 sec.)		
	Control	Program AE, Shutter Priority AE, Aperture Priority AE or Manual Exposure		
Exposuro	Control	Metering : Multi, Spot		
Exposure	Compensation	±2EV (0.5EV steps)		
	ISO Equivalent	Auto, 50, 100, 200, 400		
	Modes	Auto, Auto & Red-eye reduction, Slow sync, Fill-in flash, Flash off		
Flash	Range	Wide : 0.3 ~ 3.0m, Tele : 0.3 ~ 2.0m		
	Recharging Time	Approx. 7 sec.		
Sharpness		Soft, Normal, Vivid		
Effect		Normal, B&W, Sepia, RGB		
White Balance		Auto, Daylight, Cloudy, Fluorescent H, Fluorescent L, Tungsten, Custom		
Voice Record	lina	Voice Recording (max. 1 hours)		
VOICE MECON	ling	Voice Memo in Still Image (max. 10 sec.)		
Date Imprinti	ng	Date, Date&Time, Off (user selectable)		
		Modes : Auto, Program, A,S,M, Night Scene, MySet, Scene		
	Still Image	* Scene : Portrait, Children, Landscape, Close-up, Sunset, Dawn, Backlight,		
		Fireworks, Beach & Snow		
Shooting		Continuous : Single, Continuous		
Shooting		Self-timer : 2 sec., 10 sec., Remocon		
		With Audio (recording time : memory capacity dependent)		
	Movie Clip	Size : 640x480, 320x240		
		Frame rate : 30fps, 15fps		
	Media	SD / MMC Card (up to 512MB guaranteed)		
	Filo Format	Still Image : TIFF, JPEG(DCF), EXIF 2.2, DPOF 1.1, PictBridge 1.0		
Storage		Movie Clip : AVI(MJPEG) Voice : WAV		
Sidiaye		2560 : 2560x1920 2272 : 2272x1704		
	Image Size	2048 : 2048x1536 1600 : 1600x1200		
		1024 : 1024x768 640 : 640x480		

		2560: Super Fine 11,	Fine 22,	Normal 32	TIFF 2
		2272: Super Fine 14,	Fine 28,	Normal 40	TIFF 2
		2048: Super Fine 17,	Fine 33,	Normal 49	TIFF 3
Storago	Capacity	1600: Super Fine 28,	Fine 53,	Normal 75	TIFF 5
Slorage	(32MB)	1024: Super Fine 64,	Fine 106,	Normal 139	TIFF 12
		640: Super Fine 129,	Fine 201,	Normal 227	TIFF 27
		* These figures are meas	sured under Sam	sung's standard condi	tions and may
		vary depending on shooting conditions and camera settings.			
Image Play	Туре	Single image, Thumbnails, Slide show, Movie Clip			
inageriay	Editing	Trimming, Resizing			
		Digital output connector	: USB 1.1		
Interface		Audio : Mono			
Intenace		Video output : NTSC, PAL (user selectable)			
		DC power input connector : 5.0V			
		Primary battery : 2xAA alkaline, Lithium, Ni-Mn, Ni-Zn/1xCR-V3			
		Rechargeable battery : 3.7V Li-ion (SLB-1437), 2xAA Ni-MH,			
Power Sourc	e	Ni-Cd/1xl-Pack(SBP-1303)			
		AC Adapter : SAC-51(DC 5.0V, 2.0A)			
		* Included power source may vary depending on sales region.			
Dimensions (	WxHxD)	105.5 x 54.6 x 38mm			
Weight		170g (without batteries and card)			
Operating Temperature		0 ~ 40 °C			
Operating Humidity		5 ~ 85 %			
Softwara	Camera	Storage Driver (Windows	98/98SE/2000/M	E/XP, Mac OS 9.0~10	.2)
Soliware	DriverApplication	Digimax Viewer, Adobe F	PhotoShop Eleme	ents	
Special Features		A World Unique 9 Different Power Sources			
		A World Superior Schneider Lens			
		VGA 30fps Movie Clip, AVI AVI capture on Play Mode			

# 2. System Requirements

	PC with processor better than MMX Pentium 233MHz (XP : Pentium II 300MHz)
	Windows 98/98SE/2000/ME/XP
For Windows	Minimum 32MB RAM (XP : 128MB)
	140MB of available hard-disk space, USB port, CD-ROM drive,
	$800 \times 600$ pixels, 16-bit colour display compatible monitor
	(24-bit color display recommended)
	Power Mac G3 or later
	Mac OS 9.0 ~ 10.2
For Macintosh	Minimum 64MB RAM
	110MB of available hard-disk space, USB port, CD-ROM drive,
	QuickTime 4.0 or later for Movie Clip

## 3. TFT LCD PANEL MARK



[Image & Full Status]

No.	Description	Icons
1	Battery	
2	Recording mode	A/S/M MY
3	Camera shake warning	رلىك
4	Flash	\$ ● \$ \$ B
5	Self-timer	సు లో 🖥
6	Voice memo	
7	Macro	<b>*</b> )
8	Metering	
9	Manual focus	MF
10	Sharpness	
11	Auto focus frame	
12	Date/ Time	2004/03/01 01:00 PM
13	Exposure compensation	
14	White Balance	AWB ※ ● 班 班 衿
15	ISO	<b>ISO</b> AUTO 50 100 200 400
16	RGB	RGB
17	Image quality	TIEF III III III
18	Image size/ Continuous shot	2560, 2272, 2048, 1600, 1024, 640
10	Number of available shots remaining	28
19	Remaining time (Movie clip/ Voice recording)	00:01:30/01:00:00
20	Optical/ Digital Zoom rate	

Play mode



No.	Description	lcon
1	Battery	
2	Play mode	
3	File Type	
4	Voice memo	<b>,</b>
5	Protect indicator	Оп
6	DPOF indicator	
7	Stored image number	9
8	TIFF file	TIFE



SIZE	: 2560x1920	Size
AV	: F2.7	Aperture value
TV	: 1/30	Shutter speed
ISO	: 50	ISO sensitivity
FLASH	: OFF	Whether or not the
		flash is used.
DATE	: 2004/03/01	Recording date

#### I. SPECIFICATION

## 4. Connection diagram



## 5. Identification of features







# **II. INSTALLATION**

### 1. Digimax V5 software introduction

► USB Storage Driver

This enables images to transfer between the camera and PC.

This camera uses the USB Storage Driver as the camera driver. You can use the camera as a USB card reader. After installing the driver and connecting this camera to the PC, you can find [Removable Disk] in [Windows Explorer] or [My computer]. A USB Storage Driver is provided only forWindows. A USB Driver for MAC is not included with the Application CD. But you can use the camera with Mac OS  $9.0 \sim 10.2$ .

#### Digimax Viewer 2.1

This is a program for viewing stored images. You can see the stored images in the memory directly on a PC monitor. You can also copy, move or delete the images and enlarge /downscale the image sizes with Digimax Viewer.

For windows only.

Adobe Phtoshop Elements 2.0 Image editing program for downloaded images. For Windows only.

## 2. Program Installation

#### For Windows

Refer to the manual for detailed informatio n on installation. USB Storage Driver, Digimax Viewer 2.1, Adobe Photoshop Elements 2.0

#### For Macintosh

Separated Driver or editing software is not supplied. Driver for Macintosh use is automatically installed when the camera is turned on at the PC mode.  $\langle$  For Windows  $\rangle$ 

- Our company aren't responsible for case of using Personal Computer isn't guaranteed from manufacturer like assembled PC.

#### ▶ When installing

Q1. How can I check of the USB Interface available in my PC?

A1. First, Check if the USB ports located in the back of the body or keyboard to connect the USB cable as shown in the figure. Second, Check if [Universal Serial Bus(USB) Controller] located

in the System Device Manager. Check as follows, Click  $\lceil$ Start  $\rightarrow$  Setting  $\rightarrow$  Controller  $\rightarrow$  System  $\rightarrow$  Device Manager  $\rightarrow$  Universal Serial Bus Controller sequentially. Then there should be the USB Host Controller and USB root hub in the USB controller.



Third, Check the OS installed in PC. The USB Interface is enabled in Windows 98 or later(Windows 98, 98SE, 2000, ME) Windows 95 OSR 2.1 or later.

It should be met with the following three requirements.

For other details about USB, see http://www.usb.org.

- Q2. Though the Driver CD inserted in CD-ROM Drive, Auto Installation screen is not operate. How can I install the program?
- A2. First, It might be occurred if [Auto insert notification], the option to run Auto installation Screen when the CD inserted was not set.

Set <sup>r</sup>Auto insert notification<sub>j</sub> as follows.

If selecting  $\lceil \text{Start} \rightarrow \text{Setting} \rightarrow \text{Controller} \rightarrow \text{System} \rightarrow \text{Device Manager} \rightarrow \text{CDROM} \]$  (see Fig. 1), the installed CD-ROM appears. Double click this and then select the setting, the following frame(see Fig. 2) will be shown.

Select <sup>r</sup>Auto insert notification<sub>j</sub> from the options and reboot the PC.





< Fig. 2 >

- Second, You need  $5 \sim 10$  seconds for running the automatic setup program according to the capaility of select <code>「Samsung.exe」</code> in the CD-ROM drive root directory.
- Third, Without running the Auto Installation Screen, run the <sup>¬</sup>Windows Explorer<sub>J</sub> and install the S/W directly at the desired program folder of CD-ROM root directory.
  - USB Storage Driver : Run [Setup.exe] in the [KENOX V5 V500] folder
  - Digimax Viewer 2.1 : Run [Setup.exe] in the [Digimax Viewer 2.1]
  - Adobe Photoshop Elements 2.0 : Run [Setup.exe] in the Adobe Photoshop Elements 2.0]
- Q3. Can we use normal USB Cable?
- A3. Necessarily, you must use supported USB cable when purchasing product.
- Q4. When I connects USB cable with not like first USB port, [New hardware found wizard] operates again. Of course, I have ever used this driver after setting up. Why does it happen?
- A4. Drivers are controlled by USB port and connected to each USB port. Therefore, if you connect another port, [New hardware found] can recognize it as new connected device. There is no fault on your system, just follow direction comes out on your monitor.
- Q5. Although I plugged the USB cable into the other port than before, [New hardware search wizard] runs again Of course I used to install the Driver and use. Why so?
- A5. It is caused by the facts that the memory card is not inserted correctly or formatted wrong you should first check if the memory card is inserted correctly and connect the USB cable. If the memory card is formatted wrong, reformat in the camera. If you can't format in the camera, please format with a card reader, but make sure to format in "FAT" form.
- Q6. The camera has not a PC mode in the mode dial. What should I do?
- A6. Digimax V5 doesn't have a PC mode. If you connect the Camera to the PC with the USB cable, it is set to the PC mode automatically.
- Q7. When is the Digimax V5 Driver installed?
- A7. On the first install display, installation of the Digimax V5 Driver starts with clicking [Install] button.



Q8. I'd like to install either Digimax Viewer 2.1 or Adobe Photoshop Elements 2.0 what should I do?A8. Please tick off the articles you want to install on the second frame while installing, and click "Next"



Q9. When using One Click Installer,

After installation of Digimax Viewer 2.1 "Restart" message came out. What should I do?

A9. On the "Restart" frame, after installing the Digimax Viewer 2.1, choose "No" then you can go next.

Q10. When using One Click Installer,

I canceled when "Restart" message came out, after installing Adobe Photoshop Elements 2.0, but "Restart" message came out again in the end.

- A10. It is because restarting is necessary for using well. It is not an error.
- Q11. I set up driver with supported CD, but screen came out like below. What should I do?

Confirm File Deletion	<u>&gt;</u>	<
Do you want to completely remove the selection	cted application and all of its components?	
[]	Cancel	

A11. Though Driver was set up already, if you click USB Storage Driver of set up screen again, that kind of problem comes out.

At this time, if you choose [Confirm], be careful not to remove a driver. And in case of using camera continuously, choose [cancel]. Q12. How can I check if the USB Storage driver has been installed successfully?

A12. Connect camera to the PC with the provided USB cable and turn it on at the PC mode. Then the following is shown.



(2) In the system properties, the device state is indicated as "The device is working properly".

- < Win 98/98SE >
- Disk drives : SAMSUNG
- Universal Serial Bus(USB) controller : V5 USB MSD

System Properties ?	×
General Device Manager Hardware Profiles Performance	1
<ul> <li>✓ View devices by type</li> <li>✓ View devices by connection</li> <li>Computer</li> <li>✓ 31394 Bus Controller</li> <li>✓ CDRDM</li> </ul>	
Digimax V5 V5000 USB MSD     Primary IDE controller (single fifo)     Secondary IDE controller (single fifo)     Standard Dual PCI IDE Controller     USB Mass Storage Device     Keyboard	
Properties Refresh Remove Print	
OK Cancel	

USB Mess Storage Device

- II. FAQ
  - < Win ME >
  - Disk drives : SAMSUNG
  - Universal Serial Bus controller : USB Mass Stroage Device
  - Storage device : USB Disk



- $\langle$  Win 2K / XP  $\rangle$
- Disk drives : SAMSUNG DIGIMAX V5 USB Deivce
- Universal Serial Bus controller : USB Mass Storage Device
- Storage volume : general volume



- (3) Please check as belows files are installed or not.
  - < Windows 98 / 98SE >
    - V5\_\_.inf : Windows/inf/other
    - V5\_PDR.pdr : Windows/system/iosubsys
    - V5\_\_.sys : Windows/system

Windows ME / 2000 / XP >
 usbstor.sys : Windows/system32/drivers
 usbstor.inf : Windows/inf

 $\langle \text{NOTE} \rangle$  Necessary file When using storage

1. Windows 2000 winnt/system32/drivers/disk.sys usbstor.sys

winnt/inf/usbstor.inf disk.inf

2. Windows ME windows/system32/drivers/usbntmap.sys usbstor.sys windows/system/iosubsys/usbphlp.pdr windows/inf/usbntmap.inf usbstor.inf

 Windows XP windows/system32/drivers/disk.sys

> portmgr.sys usbstor.sys volsnap.sys

- Q13. I connected the camera to the PC, but the PC messaged it can not find the specific Driver for the device which has been installed as Unknown Device. What should I do?
- A13. The USB Storage Driver has not been installed yet or installed wrong.
  - 98 / 98SE

If you try to install the Driver after connecting the camera you can see the message above,

- so please make sure you install the USB Storage Driver first then connect the camera to use.
- (1) I connected the USB cable prior to installing the Driver
  - 1. Remove the Unknown Device in the Device Manager.
  - 2. Install the Driver.
  - 3. Restart the PC.
  - 4. Reconnect the USB Cable.
- (2) I connect the USB cable after installing the Driver, in other words, it is installed wrong 1. Select the Unknown Device in the [Device Manager].
  - 2. Click the right mouse button to go into [Registration Infomation].
  - 3. Click [Driver Reinstall].
  - 4. In the [Driver File Find] frame, choose [Location Designation] and go next.
  - 5. Choose [Search] in the [Position of the manufacturer's file to be copied], and Window/inf/other, then check if there is Digimaxv V5.inf in it and select.
- ME / 2000 / XP

Because either you unplugged the USB cable while image loading is underway or usbstor.sys and usbstor.inf (or necessary files -  $\langle NOTE \rangle$  to use storage  $\rangle$  do not exist. When you connect the camera "IDSC" or "Unknown Device" messages come out in the

When you connect the camera IDSC or Unknown Device messages come our [Device Manager].

- 1. Click it with the right mouse button and erase.
- 2. Disconnect the camera from the PC.
- 3. Check if there are usbstor.sys and usbstor.inf and restart the PC.
- 4. Please reconnect the camera to use.



- Q14. I turned the camera power on, and connected it to the PC, but it does not work.
- A14. Depending on a PC, it sometimes happens that communication is interrupted. For that, turn on the PC first, then connect the USB cable and turn on the camera in order.
- Q15. If using the VIA chipset
- A15. If using the VIA chipset, USB communication might not operate normally in some case. The patch file of USB Filter Driver is also registered in the website of VIA Technology Inc. Install the patch file and then use it. You can find the patch file in the following URL. http://www.viatech.com/drivers or samsungcamera.com
- Q16. If using AMD processor and VIA USB Controller

AMD Processor more than 350MHz, USB controller of VIA Technologies

A16. It has been known that there being the problem in the USB operation between Microsoft Windows 98SE version and the above hardware, so the patch file is registered in the Microsoft Website. Download and install the patch file.

You can find the patch file in the following URL.

- http://support.microsoft.com/support/kb/articles/Q240/0/75.asp
- (Ref) It has been modified in Windows ME(Millennium Edition).
- Q17. Using Intel chipset
- A17. The patch file concerning the Intel chipset is registered in the Intel website. Download the required file from the following website and then upgrade the system. http://developer.intel.com/design/software/drivers/platform/inf.htm

#### MOVIE CLIP PLAY

- Q1. When opening the moving image photographed by camera, it is not open.
- A1. The video decoder for Digimax V5 was not installed. Please install the video decoder.
  - However, video decoder is installed automatically during installing Storage Driver of Driver-CD.

#### $\langle$ Method 1 $\rangle$

Put the provided Driver-CD into CD-ROM Drive. Play the <sup>¬</sup>Windows Explorer<sub>J</sub> and then click <sup>¬</sup>JPEG-Decoder<sub>J</sub> folder in the CD-ROM Drive folder. The frame below is displayed when you select <sup>¬</sup>Jpegcode.inf<sub>J</sub> in <sup>¬</sup>JPEG-Decoder<sub>J</sub> folder and then press the right button on your mouse. When you select <sup>¬</sup>Install<sub>J</sub>, the video compression codec is automatically set up.

If the following display shown during installation, do as follows.



Insert Dis	sk 🔀	
•	The disk labeled 'STW JPEG and MJPG Software Decoder' is now required.	
w.	This disk is provided by your computer manufacturer.	
	Click OK to continue.	
	OK	

#### If installed normally,

 $\label{eq:spectral_$ 

#### $\langle$ Method 2 $\rangle$

Please install the QuickTime for replaying AVI files. You can download QuickTime from http://www.apple.com/quicktime/download for free, and it is trademark of Apple Computer, Inc.





- ▶ UUSB Storage Driver use (Removable disk usual)
- Q1. When trying to use camera as Removable disk connecting with PC, screen comes out as below.



- A1. The camera doesn't have memory card. After inserting memory card, use it.
- Q2. I connect a camera to PC, but "Removable disk" icon doesn't come out or when double-clicking "removable disk" icon, error message comes out. Why does it happen?
- A2. (1) Has problem in power supply.
  - Check about connecting AC adapter correctly or battery remainder.
  - (2) Has a problem in Card. Check to see image in camera monitor.
  - (3) Has a problem in USB cable connecting a camera to PC.Use supported USB cable with camera.
- Q3. One of files in PC, I did copy download file to memory card of camera, but I couldn't check it in PLAY mode of camera.
- A3. It may happens in case of recording file from computer to camera and file in memory card aresame. So, though it has same file name in memory card like (ex. SV400001.JPG / SV400001.AVI), it displays in order JPG -> AVI, only one file in play mode of camera.
  Also, in case of deleting displayed file from camera, can be deleted another file of same file name. So, when recording photographing image from computer to camera, be careful not to add with file name of memory card.
- Q4.When I record random file not to photograph with Digimax V5 from computer to camera, what should I do?
- A4. When you record random file not to photograph with this camera from computer to camera, message "Wrong file" displays in screen view, appears black in Thumbnail.It can be impossible to check in Camera.
- Q5. I copied a file from computer to camera, but it wasn't recorded in camera.
- A5. Because you operate a camera during you are working on PC.

So, when operating works; copying file of Removable disk to computer, deleting and copying file in computer to portable disk, green lamp of side view finder of camera is on and off. When green lamp is off completely, it means operating work finish correctly. Before this, not to do another work; USB cable disconnect, mode dial adjust, disconnect camera through [hardware disassemble and put out]. Specially, be careful below problem in Windows 2000.

- 1. Case of Deleting files of Removable disk
- -> After done deleting a file in PC, green lamp is off in 10 seconds.
- 2. Case of moving file of Removable disk to PC and copying file of PC to Removable disk
- -> First step, green lamp is off, in  $15 \sim 20$  seconds, second green lamp is off again.
  - Case of 1, 2, when all green lamp are off completely, operating work finishes normally.
- Operating camera during working with PC, it may cause media damage and data loss. So, after green lamp is usually off, operate camera.
- Q6. When transmitting amounts of image data, what is required detail?
- A6. When transmitting amounts of image data, it may not have enough virtual memory of system. For this, increase virtual memory like this.(based on Win 98SE)
  - 1. [Start] -> [Settings] -> [Control Pad].
  - 2. Click the [System], open "system register information".
  - 3. In "Efficiency", "Advanced Settings" Press "Virtual memory" button.
  - 4. Press "User manage virtual memory setting directly" of virtual meomory.
  - 5. In virtual memory screen, increase each minimum(MB) and maximum(MB).
  - 6. If you press "OK" button, it finish virtual memory settings.

System Properties	? ×	Virtual Memory	
General     Device Manager     Hardware Profiles     Performance       Performance status		These settings can adversely affect syst         be adjusted by advanced users and syst         Virtual memory         Let Windows manage my virtual memory sett         Hard gisk:         Hard gisk:         Magimum:         19594         Digable virtual memory.         It optimum:         Digable virtual memory.	iem performance and iem administrators on iettings. (Recommend ings.
Advanced settings			DK Cano

- Q7. When moving image is playing in Removable disk, it looks like photograph cutting off.
- A7. If image is playing in memory directly, it may cause photograph cut off. Before you see photograph, copy files to hard disk of PC and play it.

▶ Digimax Viewer 2.1 Use

- Q1. If camera is connected, Viewer program operates automatically, but it didn't operate for me. What should I do?
- A1. (1) Check to adjust PC mode of camera.

- (2) Check to set up Digimax Viewer 2.1 program.
- (3) Check Digimax Viewer icon on Start Menu working line, and confirm to check "Auto launch when connected". If it does, operate automatically.

Or, check "Auto launch" in Setting Menu of Viewer program.

🔯 Digimax Viewer v.2.1 - C:\WINDOWS\Desktop		Open Digimax Viewer	
<u>File</u> <u>E</u> dit ⊻iew	<u>S</u> ettings <u>H</u> elp	<ul> <li>Auto launch when connected</li> </ul>	
👧 🚑	🖌 Auto Launch 📃 🥂 🕼	E <u>x</u> it	
			🧕 10:52 AM

- Q2. I want to edit photos by another program. how can i set it up?
- A2. Select picture, click the arrow next to edit program, and click the setting up of edit program.



Then, you see following options.

Edit: editing the name of selected program.

Add: adding different edit program.

Removal: removing added edit program.

Setting up to basic: automatic connection by pressing edit program icon with making the program basic.

Movie clip: click movie clip, editing movie clip edit program, adding, removing.

Configure Photo Editors		x
PhotoImpression		<u>E</u> dit
		<u>A</u> dd
		<u>H</u> emove
☐ For <u>A</u> vi	Cancel	OK

Q3. Even though window media player is set to default, the movie clip file's not workin automatically. A3. Set up the connection to window media player by edit program.

- Q4. I want to see the information of voice memo recorded with picture.
- A4. Select the picture and select (information) after clicking the right button on mouse, you can see the information, and click audio icon, you can see the information of voice memo.

nage Info	? 🛛
File Name : SV500	0001
Image Format : JPEG i	nterchanged
Dimensions : 1600 ×	1200
Compression · Baselin	e JPEG
Colors : 16.777	216
Camera details:	(T.1.72)
Image description Manufacturer Model Software Date/time Exposure time F-Number Exposure program ISO speed ratings Max, aperture value Materian grade	<digimax kenox="" td="" v5="" v5<="">           SAMSUNG TECHWIN CO., L           Digimax V5 / Kenox V5           5072           2004.05.27 16.48.24           1/30 sec           F2.7           Normal           100           F2.9           Datum</digimax>
	[ <u>0</u> K]

- Q5. I want to send pictures by e-mail, but e-mail icon is disable.
- A5. OS default mail program is not set up.

follow the next.

- 1. Start microsoft outlook express.
- 2. Click the option in tool menu.
- 3. Select following in usual tab.
- using outlook express to basic mail program.
- using outlook express to basic MAPI client.
- 4. Click  $\langle yes \rangle$ , after message scene comes up.
- 5. You can use e-mail with rebooting the system.

💁 Options	? ×
General Send Read Security Dial Up Advanced	
General Settings General Sett	
	зу

#### II. FAQ

Q6. The icon of edit program, information, ect.. is not active, after selecting many pictures. A6. The edit program connection and entry information, ect.. is only possible with one picture.

- Q7. First cycle of slide show is going slowly.
- A7. Because buffering time is long. The slide show will be shown as selected from next.
- Q8. The thumbnail picture taken by small size(544x480) is dim.
- A8. The system brings the thumbnail information of exif which is saved together, when taken.
- Q9. I select "fix ratio" by clicking the right button on mouse, and click the "fix ratio", but it doesn't disappear.
- A9. The right button on mouse allows "fix ratio" only. Click (display) and select different option.
- Q10. How to stop the slide show temporally on process.
- A10. Please click the play button once more.
- Q11. Some image has detailed entry information, but any image hasn't. Why?



- A11. There is an entry information made by camera only. Because this is recorded when you take a picture. If you change the format of image made from camera, or size, you can't see entry information any more.
- Q12. If you do another job (down the mouse scroll bar, execute another job minimizing viewer) on loading the image of camera, the computer takes it slowly.
- A12. That's for stability.

Abstain from doing another job on loading image.

- Q13. When I select the (detail) in (example), I can't see which image is selected.
- A13. It is selected that the light of file name is changed to red character in  $\langle$  detailed $\rangle$ .

Q14. How can I select the center image in <br/>big icon> or <small icon>?<br/>A14. Select the image you want by click, pressing CTRL key.

- Q15. I can't see the folder made in background scene in the folder tree of Digimax Viewer 2.1
- A15. Click the 〈RENEWAL〉 button, after executing made folder. Otherwise, turn the Digimax Viewer 2.1 on and off.
- Q16. Exist in thumbnail scene, but it doesn't exist on slide show.
- A16. Because it is an AVI file. avi is shown in thumbnail scene only first time.
- Q17. I try to use Digimax Viewer 2.1 connecting with the camera of another company, or card reader machine, but it's working slowly, or not working.
- A17. That's not a problem with program, because Digimax Viewer 2.1 is made for digimax only. you can use it after taking another camera or card reader machine off.
- Q18. When can I use  $\langle undo \rangle$ ,  $\langle restoration \rangle$ ?
- A18. You can use <changing name>, <changing all name of file> on searcher, or <rotation>, <a change of image size>.
- Q19. There is a difference between the size of  $\langle detailed \rangle$  and status bar.
- A19. It's not wrong. The status bar shows it under the decimal to show more detailed size when the size is smaller than 1m.
- Q20. Alt+tab is not working on slide show.A20. Alt+tab is not suppose to work on slide show for stability. It's not an error.
- Q21. I click the slide show, seeing an image, and it doesn't start from image I saw.
- A21. It starts slide show from selected image in (searcher) scene. It's not an error.

Q22. After I diminish the window in 〈detail〉, all of option is invisible, and there is no under scroll. A22. Because a change of window size at each title is impossible in 〈detail〉. It's not an error.

Q23. It's hard to move the position of image by mouse in  $\langle detail \rangle$ .

A23. If you select image, you can move position. If you select name, you can change name. when you select many file, just select solution or the size of file. Q24. I try to execute after setting up viewer, but there is an error message like following.



A24. This error can not be mutual dll file (ex. oleaut32.dll, olepro32.dll, asycfilt.dll, stdole2.tlb) installed in the system.

Refer to http://support.MICROSOFT.com/default.aspx?scid = kb;en-us;321915

- When microsoft office 2000 or office 2000 compenent is installed, visit http://microsoft.com/office/previous/default.htm,and get the office 2000 service release 1 (sr-1), and install it.
- 2. You have to install mcrepair.exe if there is no microsoft office 2000 or office 2000 component. visit http://www.microsoft.com/download/msninvestor/patch/1.0/win98/en-us/mcrepair.exe, and save the file of mcrepair.exe to background scene and then, reboot the computer after installing mcrepair.exe.
- ▶ USB Storage Driver removal

Necessarily, referring manual page 122~123, remove USB Storage Driver. 단, ME/2000/XP는 Driver를 제공하지 않으므로 제거할 수 없습니다.

- $\langle$  Reference  $\rangle$  Method to search device manage for OS
  - 1. Windows 98/98SE/ME
    - Settings  $\rightarrow$  Control Pad  $\rightarrow$  System  $\rightarrow$  Device Manager
  - Windows 2000
     Settings → Control Pad → System → Hardware → Device Manager
  - 3. Windows XP
    - (1) Control Pad → Efficiency and maintenance manage → operation choose
       Basic information about computer → Hardware → Device manager
    - (2) Control Pad → Efficiency and maintenance manage → Control pad icon choose
       : System
  - \* For Windows 2000/ME/XP, Driver file, usbstor.sys is supported System file from OS, Do not remove.

 $\langle$  For Macintosh  $\rangle$ 

- When purchsing Macintosh computer, check installed over Mac OS 9.0 and USB Mass Storage Support 1.3.5
- Not guarantee of USB operating in PC has Mac OS and Mac OS USB Mass Storage Support upgrading.
- Q1. Is Driver supported for Macintosh?
- A1. It is not additionally for Macintosh, but you can use this driver in over Mac OS 9.X Connect a camera to Macintosh with USB cable, after power on, it is recognized as Unknow name disk automatically.
- Q2. When installing USB Storage Driver, QuickTime 4.0 or better is shown in the system requirements. QuickTime is not included in the Driver CD. How can I install USB Storage Driver?
- A2. QuickTime 4.0 or better has more on the image comparing to the preceding version. If you take advantage of this, the camera image can be shown more effectively. Therefore be sure to install it. If you go to http://www.apple.com/quicktime, you can download the up-to-date version.
- Q3. How can I check the USB version in iMac?
- A3. Click in the order of "Apple System Profiler Device and volume" and the USB version is shown. If the USB version is 1.0.1, updating is needed. But if it 1.1, you can use it without updating. http://developer.apple.com/hardware/usb/, you can download the Mac OS USB DDK 1.5.5.

#### 3. PictBridge

- About PictBridge.
- CIPA standard "CIPA DC-001" (PictBridge) provides direct connecting solution to image input/output devices by standardizing application service for image input/output devices.
   The first PictBridge release focuses on direct printing service between DSC and printer.



- ▶ PictBridge system architecture
- As for PictBridge, DSC is directly connected to the printer through USB cable as shown below. DSC serves as a "device" of USB, and printer works as a "Host" of USB.



- ▶ How to use on the camera
- Changing Menu of camera. MENU -> SET -> USB -> PRINTER -> OK



- Connecting the Camera to a Printer.



- After displaying the [CONNECTING ...] message, the PICTBRIDGE menu will be displayed.



- (1)Selecting the [IMAGE] menu
  - 1) If you select [ONE PIC] menu, you can select various images.



- Select an image that you want to print by pressing the LEFT/RIGHT button.
- ② Press the UP/DOWN to select a number of print.
- ③ To select the other image, repeat step ① and ②.
- ④ After selecting images and number of prints, press the OK button. To cancel the setting, press the shutter button.
- 2) If you select [ALL PICS] menu, all JPG images in the memory card will be selected.



- ① Press the UP/DOWN to select a number of print.
- ② After selecting images and number of prints, press the OK button. To cancel the setting, press the shutter button.
- (2) Setting up the PRINTER

#### 1) AUTO SET



[OK] : Default print setting will be set up. In this case, [CUSTOM SET] menu will be changed to [AUTO] [CANCEL] : The present settings will be kept.

2) CUSTOM SET



\* You can select the printer settings.

- Select the [CUSTOM SET] main menus by pressing the UP/DOWN button.
- O After selecting a desired main menu, press the RIGHT button.

③ Select a desired sub menu by pressing the UP/DOWN button and press the OK button. You can't select the gray-color sub menus that aren't supported with the connected

#### (3) PRINT



- 1) [STANDARD] : a image will be printed in a page.
- 2) [INDEX] : images will be printed in a page. the number of images that are printed in a page is different form each printers.
- 3) Press the OK button and the printing will start. [NOW PRINTING] message will display. Printing will be canceled by pressing the OK button.

#### (4) DPOF PRINT



Images that have DPOF information will be printed automatically. You can insert the DPOF information in the PLAY mode.

\* To execute this menu, you have to have DPOF compatible printer.

Gray-color menus aren't supported and you can't select the menus.

#### (5) RESET



Reset all image settings and printer settings.

#### ▶ ERRORs of PictBridge

NO CARD	There is no memory card in the camera. - Insert a memory card that have an image and print it again.
CARD ERROR	Inserted memory card have an error.
NO IMAGE	There are no images in the memory card. - Take an image and print it again. - Insert a memory card that have an image.
SET USB	Camera setting and connected device are mismatched. - Check the printer usb cable. - Change the USB menu to [PRINTER]. Communication error. - Remove the USB cable and insert it again.
PAPER ERROR CANCEL : OK	Errors related to the paper. The image can't be printed. Press the OK button and the PictBridge menu will be displayed. - paper jam - eject paper
CHECK PAPER	Errors related to the paper. After check the warning reason, the image can be printed. To cancel the printing, press the LEFT button, and to continue the printing, press the OK button. - no papers - eject paper
INK ERROR CANCEL : OK	Errors related to the ink. The image can't be printed. Press the OK button and the PictBridge menu will be displayed.











Errors related to the ink.

After check the warning reason, the image can be printed. To cancel the printing, press the LEFT button, and to continue the printing, press the OK button.

- no ink

Errors related to the hardware or image file.

The image can't be printed.

Press the OK button and the PictBridge menu will be displayed.

- Printer cover may be opened.
- Printer can't be used.
- Printer is busy.

Errors related to the hardware or image file. Errors related to the ink. After check the warning reason, the image

can be printed. To cancel the printing, press the LEFT button, and to continue the printing, press the OK button.

- Printer cover may be opened.
- Printer can't be used.
- Printer is busy.

User selected inappropriated CUSTOM SET menus. User try to print an image that isn't in the memory card.

- Printer can't take a exact information from the camera.

CANCELING

Printing is canceled.

Printing is complete successfully.

# **III. EXPLODED VIEWS AND PARTS LIST**

#### 1. MAIN ASSEMBLY



## ► PARTS LIST

Fig.No.	Parts No.	Parts Name		Remarks
1-1	Q9007209301A	FRONT COVER ASS'Y-KENOX DIGIMAX V5	1	
	Q9007207201A	FRONT COVER ASS'Y-DIGIMAX V5	1	
	Q9007211101A	FRONT COVER ASS'Y-KENOX DIGIMAX V500	1	
	Q9007211001A	FRONT COVER ASS'Y-DIGIMAX V5000	1	
1-2	Q7217304702A	L SIDE COVER	1	V5
	Q7217314501A	L SIDE COVER	1	V5000
1-3	Q7217304603A	R SIDE COVER	1	V5
	Q7217314401A	R SIDE COVER	1	V5000
1-4	Q7217304802A	SIDE DECO PLATE	1	
1-5	Q7409159701A	SIDE DECO PLATE TAPE	1	
1-6	Q7217255901B	EP WINDOW	1	
1-7	Q7409158201A	FCC LABEL_DIGIMAX V5	1	
	Q7409161401A	FCC LABEL_DIGIMAX V5000	1	
	Q7409158301A	MIC LABEL_KENOX V5	1	
1-8	Q7012074102A	DECORATION RING	1	V5
	Q7012074901A	DECORATION RING	1	V5000
1-9	Q6003037301A	SCREW	3	
1-10	Q6003024201A	SCREW	2	
1-11	Q6003038401A	SCREW	4	
1-12	Q6804056301A	PRODUCT STICKER	1	
1-13	Q7211028902A	TRIPOD CONNECTOR	1	
1-14	Q9007206901A	BACK COVER ASSY	1	V5
	Q9007211301A	BACK COVER ASSY	1	V5000

#### 2. BODY ASSEMBLY



#### PARTS LIST

Fig.No.	Parts No.	Parts Name	Q'ty	Remarks
2-1	Q7211064605A	BODY	1	
2-2	Q6804044802A	BATTERY LABEL	1	
2-3	Q7409137101A	PCB TAPE-B	1	
2-4	Q7409136601A	PLAY TAPE	2	
2-5	Q7217253502A	BATTERY COVER	1	V5
	Q7217275501A	BATTERY COVER	1	V5000
2-6	Q7217253601A	BATTERY COVER STOPPER	1	
2-7	Q7217253704A	BATTERY COVER LOCK	1	
2-8	Q6107050901A	BATTERY HINGE SPRING	1	
2-9	Q7011041002A	BODY COVER	1	
2-10	Q7011041602A	BATTERY PLATE	1	
2-11	Q7011041702A	BATTERY SUB CONTACT	1	
2-12	Q7011041802B	BATTERY PLATE GUIDER	1	
2-13	Q7011042003B	BATTERY LOCK PLATE	1	
2-14	Q7011042101A	BATTERY LOCK HOLDER	1	
2-15	Q7011043404A	BATTERY CONTACT	2	
2-16	Q7309037402A	MIC CAP	1	
2-17	Q7411092902A	BATTERY HINGE A	1	
2-18	07411095002A	BATTERY HINGE B	i	
2-19	07411093002A	STRAP LINK	† i	
2-20	Q7017036201A	F-BING	t i	
2-21	07409134201A	PCB TAPE A	1	
2-22	09761173007	SCBEW		
2-23	<u>00961900101Δ</u>	SCBEW	5	
2-24	06003000101A	SCREW A	a a	
2-25	Q0000000101A		2	
2-26	07/091060014		1	
2-20	Q/403100001A		1	
2-27			1	
2-20	Q0302007301A		1	
2.29	Q3000007201A		1	
2-30	07211064803B		1	
2-31	072110640030		1	
2-32	Q7211004903A			
2-33	Q7014004101A		1	
2-34	Q7011041501A			
2-35	Q4102005501A		1	
2-30	Q4101025401A			
2-37	Q7409100001A			
2-30	Q0902007001A			
2-39	Q0011003101A			
2-40	Q0001004601A		1	
2-41	Q2704001401A			
2-42	Q050900001A			
2-43	Q900607030TA			
2-44	Q900807050TA		1	
2-45	00761172507			
2-40	070110411004			
2-4/	Q7011041103A			
2-48	Q7309042102A			
2-49	Q2904001801A			
2-50	Q0901900301A		2	
2-51				
2-52	Q9002113301A			V5
	Q9002128301A			V5000
2-53	Q4104019401A		1	
#### 3. BARREL ASSEMBLY



# PARTS LIST

3-1         Q902113201A         LENS BASE ASSY         1           3-2         Q902109201A         Ist LENS ASSY         1           3-3         Q0961900301A         SCREW         4           3-4         Q0961900301A         SCREW         1           3-5         Q3107001701A         ZOOM MOTOR         1           3-6         Q6033018501A         MACHINE SCREW         2           3-8         Q603105801A         MOTOR WASHER         1           3-9         Q6107048305A         3RD LENS BARREL SPRING         1           3-10         Q7212159803A         ZOOM COVER         1           3-11         Q7212160001B         ZOOM MOTOR GEAR         1           3-12         Q7212160001B         ZOOM GEAR_E         2           3-15         Q7212160001A         LENS BASE         1           3-14         Q7212160001B         ZOOM GEAR_E         1           3-15         Q7212160002B         ZOOM GEAR_A         1           3-14         Q7212160004         LENS BASE         1           3-15         Q721108501A         AF GUIDER BAR_A         1           3-16         Q741108502A         ZOOM GEAR_B         1           3-18<	Fig.No.	Parts No.	Parts Name	Q'ty	Remarks
3-2         Q9002109201A         1st LENS ASSY         1           3-3         Q0961900301A         SCREW         4           3-4         Q0994913101A         SCREW         1           3-5         Q3107001701A         ZOOM MOTOR         1           3-6         Q6003018501A         MACHINE SCREW         2           3-8         Q603105801A         MOTOR WASHER         1           3-7         Q6003019201A         SCREW         2           3-8         Q603105801A         MOTOR WASHER         1           3-10         Q7212159803A         ZOOM COVER         1           3-11         Q7212169001B         ZOOM MOTOR GEAR         1           3-12         Q7212160001B         ZOOM GEAR_E         2           3-13         Q7212160002B         ZOOM GEAR_E         2           3-14         Q7212160006A         LENS BASE         1           3-14         Q7212160006A         LENS BARE         1           3-17         Q741108501A         AF GUIDER BAR_A         1           3-18         Q741108502A         ZOOM GEAR_C         1           3-20         Q741108502A         ZOOM GEAR_C         1           3-21         Q	3-1	Q9002113201A	LENS BASE ASSY	1	
3:3       Q0961900301A       SCREW       4         3:4       Q0994913101A       SCREW       1         3:5       Q3107001701A       ZOOM MOTOR       1         3:6       Q30107001701A       ZOOM MOTOR       1         3:7       Q6003018501A       MACHINE SCREW       2         3:8       Q603105801A       MOTOR WASHER       1         3:9       Q6107048305A       3RD LENS BARREL SPRING       1         3:10       Q7212159903A       ZOOM COVER       1         3:11       Q7212160001B       ZOOM MOTOR GEAR       1         3:12       Q7212160001B       ZOOM MOTOR GEAR       1         3:13       Q7212160001B       ZOOM GEAR_E       2         3:15       Q7212160006A       LENS BASE       1         3:16       Q741108501A       AF GUIDER BAR_B       1         3:17       Q741108501A       AF GUIDER BAR_B       1         3:18       Q741108501B       ZOOM GEAR_C       1         3:19       Q741108502A       ZOOM GEAR_C       1         3:20       Q741108502A       ZOOM GEAR_C       1         3:21       Q741108502A       ZOOM GEAR_C       1         3:22       <	3-2	Q9002109201A	1st LENS ASSY	1	
3-4         Q0994913101A         SCREW         1           3-5         Q3107001701A         ZOOM MOTOR         1           3-6         Q6003018501A         MACHINE SCREW         1           3-7         Q6003019201A         SCREW         2           3-8         Q601005801A         MOTOR WASHER         1           3-9         Q610704805A         RBLENS BARREL SPRING         1           3-10         Q7212159803A         ZOOM COVER         1           3-11         Q7212159004A         AF HOLDER         1           3-12         Q7212160001B         ZOOM GEAR_A         1           3-13         Q7212160002B         ZOOM GEAR_E         2           3-15         Q7212160004A         AF GUIDER BAR_A         1           3-14         Q7212160004A         AF GUIDER BAR_B         1           3-16         Q741108501A         AF GUIDER BAR_B         1           3-16         Q741108501A         AF GUIDER BAR_B         1           3-19         Q7411085702A         ZOOM GEAR_C         1           3-20         Q7411085002A         ZOOM GEAR_C         1           3-21         Q7411085002A         ZOOM GEAR_C         1 <t< td=""><td>3-3</td><td>Q0961900301A</td><td>SCREW</td><td>4</td><td></td></t<>	3-3	Q0961900301A	SCREW	4	
3-5       Q3107001701A       ZOOM MOTOR       1         3-6       Q6003018501A       MACHINE SCREW       1         3-7       Q6003019201A       SCREW       2         3-8       Q6031005801A       MOTOR WASHER       1         3-9       Q6107048305A       3RD LENS BARREL SPRING       1         3-10       Q7212159803A       ZOOM COVER       1         3-11       Q7212159004A       AF HOLDER       1         3-12       Q721216001B       ZOOM GEAR_A       1         3-13       Q7212160001B       ZOOM GEAR_E       2         3-15       Q721216002B       ZOOM GEAR_BE       1         3-14       Q7212166006A       LENS BASE       1         3-17       Q7411085601B       AF GUIDER BAR_B       1         3-17       Q7411085601B       ZOOM GEAR_C       1         3-18       Q7411085601B       ZOOM GEAR_C       1         3-20       Q7411085902A       ZOOM GEAR_C SHAFT       1         3-21       Q7411085902A       ZOOM GEAR_C SHAFT       2         3-22       Q7411085902A       ZOOM GEAR_C SHAFT       1         3-22       Q7411085902A       ZOOM GEAR_C SHAFT       1	3-4	Q0994913101A	SCREW	1	
3-6         Q6003018501A         MACHINE SCREW         1           3-7         Q6003019201A         SCREW         2           3-8         Q6031005801A         MOTOR WASHER         1           3-9         Q6107048305A         3BD LENS BARREL SPRING         1           3-10         Q7212159803A         ZOOM COVER         1           3-11         Q721216001B         ZOOM MOTOR GEAR         1           3-12         Q721216001B         ZOOM GEAR_E         2           3-13         Q721216001B         ZOOM GEAR_E         2           3-14         Q721216002B         ZOOM GEAR_A         1           3-14         Q721216002A         ZOOM GEAR_E         2           3-15         Q721216002A         ZOOM GEAR_B         1           3-16         Q7411085401A         AF GUIDER BAR_A         1           3-16         Q741108502A         ZOOM GEAR_C         1           3-19         Q741108502A         ZOOM GEAR_C         1           3-20         Q741108502A         ZOOM GEAR_A         1           3-21         Q741108502A         ZOOM GEAR_C         1           3-22         Q741108502A         ZOOM GEAR_C         1	3-5	Q3107001701A	ZOOM MOTOR	1	
3-7         Q6003019201A         SCREW         2           3-8         Q6031005801A         MOTOR WASHER         1           3-9         Q6107048305A         3RD LENS BARREL SPRING         1           3-10         Q7212159803A         ZOOM COVER         1           3-11         Q7212159904A         AF HOLDER         1           3-12         Q7212160001B         ZOOM GEAR         1           3-13         Q7212160002B         ZOOM GEAR         1           3-14         Q7212160002B         ZOOM GEAR         2           3-15         Q7212160002B         ZOOM GEAR         1           3-14         Q7212160006A         LENS BASE         1           3-17         Q7411085501A         AF GUIDER BAR         1           3-17         Q7411085501A         AF GUIDER BAR         1           3-18         Q741108502A         ZOOM GEAR         1           3-20         Q741108502A         ZOOM GEAR         1           3-21         Q741108502A         ZOOM GEAR         1           3-22         Q741108502A         ZOOM GEAR         1           3-24         Q701206940C         AF LIMIT SPRING         1           3-25	3-6	Q6003018501A	MACHINE SCREW	1	
3-8         Q6031005801A         MOTOR WASHER         1           3-9         Q6107048305A         3RD LENS BARREL SPRING         1           3-10         Q7212159803A         ZOOM COVER         1           3-11         Q7212159803A         ZOOM COVER         1           3-11         Q7212159804A         AF HOLDER         1           3-12         Q7212160001B         ZOOM GEAR_A         1           3-14         Q7212160004A         LENS BASE         1           3-14         Q7212160005A         LENS BASE         1           3-15         Q7212160005A         LENS BASE         1           3-16         Q7411085501A         AF GUIDER BAR_B         1           3-17         Q7411085601B         ZOOM GEAR_C         1           3-19         Q741108502A         ZOOM GEAR_C         1           3-20         Q741108502A         ZOOM GEAR_C         1           3-21         Q741108502A         ZOOM GEAR_C         1           3-22         Q741109001B         ZOOM GEAR_C         1           3-23         Q900210901A         3rd LENS ASSY         1           3-24         Q701206906C         AF LIMIT SPRING         1	3-7	Q6003019201A	SCREW	2	
3-9         Q6107048305A         3RD LENS BARREL SPRING         1           3-10         Q7212159803A         ZOOM COVER         1           3-11         Q7212159904A         AF HOLDER         1           3-12         Q721216001B         ZOOM GEAR         1           3-13         Q721216001B         ZOOM GEAR_A         1           3-14         Q721216001B         ZOOM GEAR_E         2           3-15         Q721216002B         ZOOM GEAR_E         2           3-16         Q741108501A         AF GUIDER BAR_A         1           3-17         Q741108501A         AF GUIDER BAR_B         1           3-18         Q741108502A         ZOOM GEAR_D         1           3-20         Q741108502A         ZOOM GEAR_C         1           3-21         Q741108502A         ZOOM GEAR_C SHAFT         1           3-22         Q741108040C         AF LIMIT SPRING         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q600101401A         SCREW         1           3-26         Q9002109301A         2ND LENS ASS'Y         1           3-28         Q7212159302A         GUIDE PLATE         1	3-8	Q6031005801A	MOTOR WASHER	1	
3-10         Q7212159803A         ZOOM COVER         1           3-11         Q7212159904A         AF HOLDER         1           3-12         Q7212160001B         ZOOM MOTOR GEAR         1           3-13         Q7212160101A         ZOOM GEAR_A         1           3-14         Q7212160002B         ZOOM GEAR_E         2           3-15         Q7212166006A         LENS BASE         1           3-16         Q7411085401A         AF GUIDER BAR_B         1           3-17         Q7411085501A         AF GUIDER BAR_B         1           3-18         Q7411085601B         ZOOM GEAR_C         1           3-19         Q7411085902A         ZOOM GEAR_D         1           3-20         Q7411085902A         ZOOM GEAR_C SHAFT         1           3-21         Q7411085902A         ZOOM GEAR_C SHAFT         1           3-22         Q741109001B         ZOOM GEAR_C SHAFT         1           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         G6001014001A         SCREW         2           3-26         Q9002055501A         MAIN FPCB ASSY         1	3-9	Q6107048305A	3RD LENS BARREL SPRING	1	
3-11         Q7212159904A         AF HOLDER         1           3-12         Q7212160001B         ZOOM MOTOR GEAR         1           3-13         Q7212160001B         ZOOM GEAR_A         1           3-14         Q7212160002B         ZOOM GEAR_E         2           3-15         Q7212160006A         LENS BASE         1           3-16         Q741108501A         AF GUIDER BAR_B         1           3-17         Q741108501B         ZOOM GEAR_B         1           3-18         Q7411085702A         ZOOM GEAR_C         1           3-19         Q7411085702A         ZOOM GEAR_C         1           3-20         Q7411085702A         ZOOM GEAR_C SHAFT         1           3-21         Q741108502A         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q600114001A         SCREW         1           3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-30         Q9002109301A         SHUTTER ASS'Y         1	3-10	Q7212159803A	ZOOM COVER	1	
3-12         07212160001B         ZOOM MOTOR GEAR         1           3-13         07212160001B         ZOOM GEAR_A         1           3-14         07212160002B         ZOOM GEAR_E         2           3-15         07212160006A         LENS BASE         1           3-16         07411085401A         AF GUIDER BAR_A         1           3-17         0741108501B         ZOOM GEAR_B         1           3-18         0741108502A         ZOOM GEAR_C         1           3-20         0741108502A         ZOOM GEAR_D         1           3-21         0741108502A         ZOOM GEAR_C SHAFT         1           3-22         0741108502A         ZOOM GEAR_C SHAFT         1           3-23         09002109401A         3rd LENS ASSY         1           3-24         07012069406C         AF LIMIT SPRING         1           3-25         Q6001014001A         SCREW         2           3-28         03002109401A         SCREW         2           3-28         Q3002109301A         2ND LENS ASSY         1           3-29         Q9002109301A         2ND LENS ASS'Y         1           3-30         Q3002109301A         SUD LENS ASS'Y         1 <t< td=""><td>3-11</td><td>Q7212159904A</td><td>AFHOLDER</td><td>1</td><td></td></t<>	3-11	Q7212159904A	AFHOLDER	1	
3-13         Q7212160101A         ZOOM GEAR_A         1           3-14         Q7212160002B         ZOOM GEAR_E         2           3-15         Q7212160002B         ZOOM GEAR_E         2           3-16         Q7411085401A         AF GUIDER BAR_A         1           3-17         Q7411085501A         AF GUIDER BAR_B         1           3-17         Q7411085501A         AF GUIDER BAR_B         1           3-18         Q7411085501A         AF GUIDER BAR_B         1           3-19         Q741108501B         ZOOM GEAR_C         1           3-20         Q741108502A         ZOOM GEAR_C         1           3-21         Q741108502A         ZOOM GEAR_C SHAFT         1           3-22         Q741109001B         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q600114001A         SCREW         2           3-26         Q9002109301A         MAIN FPCB ASSY         1           3-29         Q9002109301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3	3-12	Q7212160001B	ZOOM MOTOR GEAR	1	
3-14         Q7212160602B         ZOOM GEAR_E         2           3-15         Q7212166006A         LENS BASE         1           3-16         Q7411085401A         AF GUIDER BAR_A         1           3-17         Q7411085501A         AF GUIDER BAR_B         1           3-18         Q7411085501A         AF GUIDER BAR_B         1           3-19         Q7411085501A         AF GUIDER BAR_B         1           3-19         Q7411085702A         ZOOM GEAR_C         1           3-20         Q741108502A         ZOOM GEAR_C SHAFT         1           3-21         Q741108502A         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q600114001A         SCREW         1           3-24         Q7212159302A         GUIDE PLATE         1           3-25         Q600103031A         SHUTTER ASS'Y         1           3-26         Q9002109301A         SHUTTER ASS'Y         1           3-30         Q905016301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3	3-13	Q7212160101A	ZOOM GEAR A	1	
3-15         Q7212166006A         LENS BASE         1           3-16         Q7411085401A         AF GUIDER BAR_A         1           3-17         Q7411085501A         AF GUIDER BAR_B         1           3-18         Q7411085601B         ZOOM GEAR_B         1           3-19         Q7411085702A         ZOOM GEAR_C         1           3-20         Q7411085802A         ZOOM GEAR_C         1           3-21         Q7411085902A         ZOOM GEAR_C SHAFT         1           3-22         Q7411085902A         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q6001014001A         SCREW         1           3-26         Q9008055501A         MAIN FPCB ASSY         1           3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-30         Q9002109301A         SHUTTER PROTECT SHEET         1           3-31         Q9761142507         SCREW         3           3-32         Q7409123201A         SHUTTER PROTECT SHEET         1	3-14	Q7212160602B	ZOOM GEAB F	2	
3-16         Q7411085401A         AF GUIDER BAR_A         1           3-17         Q7411085501A         AF GUIDER BAR_B         1           3-18         Q7411085501A         AF GUIDER BAR_B         1           3-19         Q7411085702A         ZOOM GEAR_C         1           3-20         Q7411085702A         ZOOM GEAR_C         1           3-21         Q7411085002A         ZOOM GEAR_C SHAFT         1           3-22         Q7411085002A         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q6001014001A         SCREW         2           3-26         Q9008055501A         MAIN FPCB ASSY         1           3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-30         Q9005016301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3           3-32         Q7409123201A         SHUTTER PROTECT SHEET         1           3-33         Q7411085305A         ZND MOVE PIN         3     <	3-15	Q7212166006A	LENS BASE	1	
3-17       Q7411085501A       AF GUIDER BAR_B       1         3-18       Q7411085501A       AF GUIDER BAR_B       1         3-19       Q7411085501A       ZOOM GEAR_C       1         3-20       Q7411085601B       ZOOM GEAR_D       1         3-20       Q7411085902A       ZOOM GEAR_D       1         3-21       Q7411085902A       ZOOM GEAR_C SHAFT       1         3-22       Q7411090001B       ZOOM GEAR_C SHAFT       2         3-23       Q9002109401A       3rd LENS ASSY       1         3-24       Q7012069406C       AF LIMIT SPRING       1         3-25       Q6001014001A       SCREW       1         3-26       Q9002109301A       SCREW       2         3-28       Q7212159302A       GUIDE PLATE       1         3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7212171301A       ZOOM RING       1       V5         Q721217101A       ZOOM RING       1       V5000	3-16	Q7411085401A	AF GUIDEB BAB A	1	
3-18         Q74110850118         ZOOM GEAR_B         1           3-19         Q7411085001A         ZOOM GEAR_C         1           3-20         Q7411085002A         ZOOM GEAR_D         1           3-21         Q7411085002A         ZOOM GEAR_C SHAFT         1           3-22         Q7411085002A         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q6001014001A         SCREW         1           3-26         Q9008055501A         MAIN FPCB ASSY         1           3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-29         Q9002109301A         2ND LENS ASS'Y         1           3-30         Q9065016301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3           3-32         Q7409123201A         SHUTTER PROTECT SHEET         1           3-33         Q7411085305A         2ND MOVE PIN         3           3-34         Q7012069202A         F PCB GUIDER         1         V	3-17	Q7411085501A	AF GUIDEB BAB_B	1	
3-19       Q7411085702A       ZOOM GEAR_C       1         3-20       Q7411085702A       ZOOM GEAR_D       1         3-21       Q7411085702A       ZOOM GEAR_C       1         3-21       Q7411085702A       ZOOM GEAR_C SHAFT       1         3-22       Q741109001B       ZOOM GEAR_C SHAFT       2         3-23       Q9002109401A       3rd LENS ASSY       1         3-24       Q7012069406C       AF LIMIT SPRING       1         3-25       Q6001014001A       SCREW       1         3-26       Q900855501A       MAIN FPCB ASSY       1         3-27       Q961142007       SCREW       2         3-28       Q7212159302A       GUIDE PLATE       1         3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q721217301A       ZOOM RING       1       V5 <t< td=""><td>3-18</td><td>07411085601B</td><td>ZOOM GEAB B</td><td>1</td><td></td></t<>	3-18	07411085601B	ZOOM GEAB B	1	
3-10         Q7411085802A         ZOOM GEAR_D         1           3-21         Q7411085802A         ZOOM GEAR_A SHAFT         1           3-22         Q7411085802A         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q6001014001A         SCREW         1           3-26         Q9008055501A         MAIN FPCB ASSY         1           3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-29         Q9002109301A         ZND LENS ASS'Y         1           3-30         Q9005016301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3           3-32         Q7409123201A         SHUTTER PROTECT SHEET         1           3-33         Q7411085305A         2ND MOVE PIN         3           3-34         Q701206902A         F PCB GUIDER         1           3-35         Q7212171301A         ZOOM RING         1         V5           Q721217101A         ZOM RING         1         V5000	3-19	Q7411085702A	ZOOM GEAB_C	1	
3-26         Q7411085902A         ZOOM GEAR_A SHAFT         1           3-21         Q7411085902A         ZOOM GEAR_C SHAFT         2           3-22         Q7411085902A         ZOOM GEAR_C SHAFT         2           3-23         Q9002109401A         3rd LENS ASSY         1           3-24         Q7012069406C         AF LIMIT SPRING         1           3-25         Q6001014001A         SCREW         1           3-26         Q9008055501A         MAIN FPCB ASSY         1           3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-29         Q9002109301A         2ND LENS ASS'Y         1           3-30         Q9005016301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3           3-32         Q7409123201A         SHUTTER PROTECT SHEET         1           3-33         Q711085305A         2ND MOVE PIN         3           3-34         Q7012069202A         F PCB GUIDER         1           3-35         Q721217101A         ZOOM RING         1         V5000           3-36         Q7212158903A         1ST GUIDE BARREL	3-20	Q7411085802A	ZOOM GEAB D	1	
3-22       Q7411090001B       ZOOM GEAR_C SHAFT       2         3-23       Q9002109401A       3rd LENS ASSY       1         3-24       Q7012069406C       AF LIMIT SPRING       1         3-25       Q6001014001A       SCREW       1         3-26       Q9008055501A       MAIN FPCB ASSY       1         3-27       Q9611142007       SCREW       2         3-28       Q7212159302A       GUIDE PLATE       1         3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q701206902A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5000         3-36       Q7212171201A       CAM BARREL       1       V5000         3-38       Q7212171201A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-39       Q7212159503A	3-21	07411085902A	ZOOM GEAB A SHAFT	1	
3-22       Q9002109401A       3rd LENS ASSY       1         3-24       Q7012069406C       AF LIMIT SPRING       1         3-25       Q6001014001A       SCREW       1         3-26       Q9008055501A       MAIN FPCB ASSY       1         3-27       Q9611142007       SCREW       2         3-28       Q7212159302A       GUIDE PLATE       1         3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1       1         3-38       Q7212171201A       CAM BARREL       1       V5000         3-39       Q7212171001A       CAM BARREL       1       V5000         3-39       Q721217101A       CAM BARREL       1       V5000         3-39       Q7	3-22	Q7411090001B	ZOOM GEAB_C SHAFT	2	
3-24       Q7012069406C       AF LIMIT SPRING       1         3-25       Q6001014001A       SCREW       1         3-26       Q9008055501A       MAIN FPCB ASSY       1         3-27       Q9611142007       SCREW       2         3-28       Q7212159302A       GUIDE PLATE       1         3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1       V5         Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212171201A       CAM BARREL       1       V5         Q721217101A       CAM BARREL       1       V5       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-39       Q7212	3-23	Q9002109401A	3rd LENS ASSY	1	
3-25       Q6001014001A       SCREW       1         3-26       Q9008055501A       MAIN FPCB ASSY       1         3-27       Q9611142007       SCREW       2         3-28       Q7212159302A       GUIDE PLATE       1         3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000       3-36         Q7212171201A       CAM BARREL       1       V5       Q7212171001A         Q7212171001A       CAM BARREL       1       V5000       3-38       Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000       3-39       Q721213101A       OUTER CAM BARREL ASS'Y       1       1	3-24	Q7012069406C	AF LIMIT SPRING	1	
3-26         Q9008055501A         MAIN FPCB ASSY         1           3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-29         Q9002109301A         2ND LENS ASS'Y         1           3-30         Q9005016301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3           3-32         Q7409123201A         SHUTTER PROTECT SHEET         1           3-33         Q7411085305A         2ND MOVE PIN         3           3-34         Q7012069202A         F PCB GUIDER         1           3-35         Q7212171301A         ZOOM RING         1         V5           Q7212171101A         ZOOM RING         1         V5000         3-36           Q721217101A         ZOM RING         1         V5000           3-36         Q7212171201A         CAM BARREL         1         V5           Q7212171001A         CAM BARREL         1         V5000           3-39         Q7212159503A         OUTER CAM BARREL         1         V5000           3-39         Q721213101A         OUTER CAM BARREL         1         V5000	3-25	Q6001014001A	SCREW	1	
3-27         Q9611142007         SCREW         2           3-28         Q7212159302A         GUIDE PLATE         1           3-29         Q9002109301A         2ND LENS ASS'Y         1           3-30         Q9005016301A         SHUTTER ASS'Y         1           3-31         Q9761142507         SCREW         3           3-32         Q7409123201A         SHUTTER PROTECT SHEET         1           3-33         Q7411085305A         2ND MOVE PIN         3           3-34         Q7012069202A         F PCB GUIDER         1           3-35         Q7212171301A         ZOOM RING         1         V5           Q721217101A         ZOOM RING         1         V5000         3-36           3-37         Q7012069004B         1ST PUSH PLATE         1         1           3-38         Q7212171201A         CAM BARREL         1         V5           Q7212171001A         CAM BARREL         1         V5000         3-39           3-39         Q7212159503A         OUTER CAM BARREL ASS'Y         1         1           3-40         Q9002113101A         OUTER GUIDE BARREL ASS'Y         1         1	3-26	Q9008055501A	MAIN FPCB ASSY	1	
3-28       Q7212159302A       GUIDE PLATE       1         3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1       1         3-37       Q7012069004B       1ST PUSH PLATE       1       V5         Q721217101A       CAM BARREL       1       V5       1         3-38       Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL ASS'Y       1       V5000	3-27	Q9611142007	SCBFW	2	
3-29       Q9002109301A       2ND LENS ASS'Y       1         3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL ASS'Y       1       V5000	3-28	Q7212159302A	GUIDE PLATE	1	
3-30       Q9005016301A       SHUTTER ASS'Y       1         3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-39       Q721213101A       OUTER GUIDE BARREL ASS'Y       1       V5000	3-29	Q9002109301A	2ND LENS ASS'Y	1	
3-31       Q9761142507       SCREW       3         3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000	3-30	Q9005016301A	SHUTTER ASS'Y	1	
3-32       Q7409123201A       SHUTTER PROTECT SHEET       1         3-33       Q7411085305A       2ND MOVE PIN       3         3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL ASS'Y       1       V5000	3-31	Q9761142507	SCRFW	3	
3-32       Q7411085305A       2ND MOVE PIN       3         3-33       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5         3-39       Q7212159503A       OUTER CAM BARREL ASS'Y       1         3-40       Q9002113101A       OUTER GUIDE BARREL ASS'Y       1	3-32	Q7409123201A	SHUTTER PROTECT SHEET	1	
3-34       Q7012069202A       F PCB GUIDER       1         3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5         3-39       Q7212159503A       OUTER CAM BARREL ASS'Y       1         3-40       Q9002113101A       OUTER GUIDE BARREL ASS'Y       1	3-33	Q7411085305A	2ND MOVE PIN	3	
3-35       Q7212171301A       ZOOM RING       1       V5         Q7212171101A       ZOOM RING       1       V5000         3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-40       Q9002113101A       OUTER GUIDE BARREL ASS'Y       1       V5	3-34	Q7012069202A	F PCB GUIDEB	1	
Q7212171101A         ZOOM RING         1         V5000           3-36         Q7212158903A         1ST GUIDE BARREL         1         1           3-37         Q7012069004B         1ST PUSH PLATE         1         1           3-38         Q7212171201A         CAM BARREL         1         V5000           3-39         Q7212171001A         CAM BARREL         1         V5000           3-39         Q7212159503A         OUTER CAM BARREL         1         V5000           3-40         Q9002113101A         OUTER GUIDE BARREL ASS'Y         1         V5	3-35	Q7212171301A	ZOOM BING	1	V5
3-36       Q7212158903A       1ST GUIDE BARREL       1         3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1       V5000         3-40       Q9002113101A       OUTER GUIDE BARREL ASS'Y       1       V5		Q7212171101A	ZOOM BING	1	V5000
3-37       Q7012069004B       1ST PUSH PLATE       1         3-38       Q7212171201A       CAM BARREL       1       V5         Q7212171001A       CAM BARREL       1       V5000         3-39       Q7212159503A       OUTER CAM BARREL       1         3-40       Q9002113101A       OUTER GUIDE BARREL ASS'Y       1	3-36	Q7212158903A	1ST GUIDE BABBEI	1	10000
3-38         Q7212171201A         CAM BARREL         1         V5           Q7212171001A         CAM BARREL         1         V5000           3-39         Q7212159503A         OUTER CAM BARREL         1           3-40         Q9002113101A         OUTER GUIDE BARREL ASS'Y         1	3-37	Q7012069004B	1ST PUSH PLATE	1	
Q7212171001A         CAM BARREL         1         V5000           3-39         Q7212159503A         OUTER CAM BARREL         1         1           3-40         Q9002113101A         OUTER GUIDE BARREL ASS'Y         1         1	3-38	07212171201A			V5
3-39         Q7212159503A         OUTER CAM BARREL         1           3-40         Q9002113101A         OUTER GUIDE BARREL ASS'Y         1	0.00	07212171201A			V5000
3-40         Q9002113101A         OUTER GUIDE BARREL ASS'Y         1	3-30	072121595034			*5500
	3_10	09002113101A		1	
3-41   090021126001A  BABBEL SUB ASS'Y         V6	3_/1	0900211260014	BARREL SUB ASS'Y	1	V5
BABBEL SUB ASS'Y 1 V5000		GUULTILUUUIA	BABBEL SUB ASSY	1	V5000

# 4. BARRIER ASSEMBLY



# PARTS LIST

Fig.No.	Parts No.	Parts Name	Q'ty	Remarks
4-1	Q9002113901A	BARRIER ASS'Y	1	
4-2	Q6107051702A	NEW CLOSE SPRING	2	
4-3	Q7212160403B	BARRIER-C	2	
4-4	Q7212167804A	NEW BARRIER-A	1	
4-5	Q7212167902A	NEW BARRIER-B	1	
4-6	Q7012073502A	NEW BARRIER BASE	1	
4-7	Q7012073403A	NEW LEVER-B	1	
4-8	Q6107051802A	NEW OPEN SPRING	1	
4-9	Q7012073301A	NEW LEVER-A	1	
4-10	Q7411095501A	NEW LEVER PIN	1	
4-11	Q7409120802B	FRONT PANEL TAPE	1	
4-12	Q7212167704A	NEW FRONT PANEL	1	

# 5. FINDER ASSEMBLY



# ► PARTS LIST

Fig.No.	Parts No.	Parts Name	Q'ty	Remarks
5-1	Q7213031706A	FINDER BASE	1	
5-2	Q7411086201A	FINDER SHAFT	2	
5-3	Q6721007403A	COLENS	1	
5-4	Q9003018401A	VA LENS ASS'Y	1	
5-5	Q6107048501A	FINDER SPRING	1	
5-6	Q6726002002A	PRISM-A	1	
5-7	Q7213031903A	FINDER COVER	1	
5-8	Q9003018501A	OB LENS ASS'Y	1	
5-9	Q6001010601A	SCREW	1	
5-10	Q7013014201A	FINDER MASK	1	
5-11	Q7213031806A	EP HOLDER	1	
5-12	Q6031005903A	EP WASHER 1	1	
	Q6031006003A	EP WASHER 2	1	
	Q6031006103A	EP WASHER 3	1	
5-13	Q6721007503A	EP LENS	1	
5-14	Q6726002101A	PRISM-B	1	
5-15	Q9003019801A	FINDER ASS'Y	1	

#### 6. FRONT COVER ASSEMBLY



# ► PARTS LIST

Fig.No.	Parts No.	Parts Name		Remarks
6-1	Q9007207201A	FRONT COVER ASS'Y- DIGIMAX V5	1	
	Q9007209301A	FRONT COVER ASS'Y-KENOX DIGIMAX V5	1	
	Q9007211001A	FRONT COVER ASS'Y- DIGIMAX V5000	1	
	Q9007211101A	FRONT COVER ASS'Y-KENOX DIGIMAX V500	1	
6-2	Q7409134402A	STROBO SHELD	1	
6-3	Q7117007402A	FRONT COVER- DIGIMAX V5	1	
	Q7117007601A	FRONT COVER-KENOX DIGIMAX V5	1	
	Q7117008201A	FRONT COVER- DIGIMAX V5000	1	
	Q7117008301A	FRONT COVER-KENOX DIGIMAX V500	1	
6-4	Q7217304502A	FRONT INNER COVER	1	
6-5	Q7409159801A	STROBO SHIELD_A	1	
6-6	Q7409159901A	SHIELD FORM A	1	
6-7	Q7409156001A	FRONT TAPE	1	
6-8	Q7217304901A	GRIP	1	
6-9	Q7004000103A	DECO RING	1	
6-10	Q7217255702A	FINDER WINDOW	1	
6-11	Q7409139801A	FRONT COVER TAPE	3	
6-12	Q6003028101A	SCREW	3	
6-13	Q9007207301A	TOP COVER ASSY	1	V5
	Q9007211201A	TOP COVER ASSY		V5000
6-14	Q0960213901A	BOND TAPE-C 1		
6-15	Q7217254501A	RELEASE BUTTON	1	
6-16	Q7217254602B	RELEASE DECO	1	V5
	Q7217276401A	RELEASE DECO	1	V5000
6-17	Q7217254701A	POWER BUTTON	1	V5
	Q7217276501A	POWER BUTTON	1	V5000
6-18	Q7217254802A	POWER PLATE	1	
6-19	Q7217308401A	TOP COVER	1	V5
	Q7217317901A	TOP COVER	1	V5000
6-20	Q6107050801A	POWER SPRING	1	
6-21	Q6107044602A	RELEASE SPRING	1	
6-22	Q7409145101A	RELEASE WASHER	1	
6-23	Q6735002101A	REMOCON FILTER	1	
6-24	Q7217254102A	BOTTOM COVER 1		V5
	Q7217276001A	BOTTOM COVER	1	V5000
6-25	Q7217308201A	CONNECTOR COVER	1	V5
	Q7217318001A	CONNECTOR COVER	1	V5000
6-26	Q7409032001A	MAIN PCB TAPE-A	1	
6-27	Q7409135901A	PHOTO SHIELD 1		

# 7. BACK COVER ASSEMBLY



# ► PARTS LIST

Fig.No.	Parts No.	s No. Parts Name		Remarks
7-1	Q9007206901A	BACK COVER ASS'Y	1	V5
	Q9007211301A	BACK COVER ASS'Y	1	V5000
7-2	Q4101026001A	LCD CU F PCB	1	
7-3	Q7217254902A	ZOOM BUTTON	1	
7-4	Q7217308501A	MODE DIAL	1	V5
	Q7217317801A	MODE DIAL	1	V5000
7-5	Q7309036902A	EP RUBBER	1	
7-6	Q7217253903A	BACK COVER	1	V5
	Q7217275801A	BACK COVER	1	V5000
7-7	Q7217255101A	NAVI BUTTON	1	
7-8	Q7217255201A	OK BUTTON	1	
7-9	Q7217255302A	PLAY BUTTON	1	
7-10	Q7217255402A	FUNCTION BUTTON_1	1	
7-11	Q7217255502A	FUNCTION BUTTON_2	1	
7-12	Q7217255602A	FUNCTION BUTTON_3	1	
7-13	Q7217256002A	LAMP WINDOW	1	
7-14	Q7217256103A	JACK DOOR	1	V5
	Q7217277301A	JACK DOOR	1	V5000
7-15	Q9008060101A	MODE CONTACT ASSY	1	
7-16	Q7017033702B	MODE CLICK PLATE	1	
7-17	Q7017034302A	LCD P_PLATE	1	
7-18	Q7309037101B	3 NAVI RUBBER 1		
7-19	Q7309037201A	FUNCTION RUBBER 1		
7-20	Q7309037301A	X ZOOM RUBBER 1		
7-21	Q7217255801A	TFT LCD WINDOW	1	
7-22	Q7409128701A	EP RUBBER TAPE	1	
7-23	Q9761173007	SCREW	10	
7-24	Q0958905801A	FRONT TAPE-A	1	
7-25	Q0960213901A	BOND TAPE-C	1	
7-26	Q7011041902A	SPEAKER FRAME	1	
7-27	Q9008056701A	MODE FPCB ASSY	1	
7-28	Q7409138202C	FUNCTION TAPE_2	1	
7-29	Q7409138401C	C LCD TAPE_2 1		
7-30	Q7409141101A	1A NAVI CUSHION 4		
7-31	Q9008069701A	A LCD PCB SMD ASSY 1		
7-32	Q0704009501A	A TFT LCD 1		
7-33	Q4719002901A	A SPEAKER 1		
7-34	Q7409128402A	LCD SPONGE	1	
7-35	Q9007212501A	BACK COVER SUB ASS'Y	1	V5
	Q9007213101A	BACK COVER SUB ASS'Y	1	V5000
7-36	Q7409129002A	NAVI BUTTON SHEET	1	

## 8. PACKING ITEMS



# ► PARTS LIST

Fig.No.	Parts No.	Parts Name	Q'ty	Remarks
8-1	QP960210101A	PE BAG (CAMERA)	1	
8-2	Q6909011601A	PE BAG (ACCESSORY)	1	
8-3	Q6901172401A	INNER PAD- DIGIMAX V4	1	
8-4	Q6904024701A	POUCH-KENOX	1	
8-5	Q6806195501A	Q/GUIDE_KENOX V5_KOR	1	
	Q6806195601A	Q/GUIDE_DIGIMAX V5_ENG	1	
	Q6806195701A	Q/GUIDE_DIGIMAX V5_GER	1	
	Q6806195801A	Q/GUIDE_DIGIMAX V5_FRA	1	
	Q6806195901A	Q/GUIDE_DIGIMAX V5_SPA	1	
	Q6806196001A	Q/GUIDE_DIGIMAX V5_ITA	1	
	Q6806196101A	Q/GUIDE_DIGIMAX V5_CHI(T)	1	
	Q6806196201A	Q/GUIDE_DIGIMAX V5_DUT	1	
	Q6806196301A	Q/GUIDE_DIGIMAX V5_POR	1	
	Q6806196401A	Q/GUIDE_DIGIMAX V5_SWE	DIGIMAX V5_SWE 1	
	Q6806196501A Q/GUIDE_DIGIMAX V5_DEN		1	
	Q6806196601A	Q/GUIDE_DIGIMAX V5_FIN	1	
	Q6806196701A	Q/GUIDE_DIGIMAX V5_RUS	1	
	Q6806196801A	Q/GUIDE_DIGIMAX V5_CHI(S)	1	
	Q6806209501A	Q/GUIDE_DIGIMAX V5_CZE	1	
	Q6806209601A	Q/GUIDE_DIGIMAX V5_HUN	1	
	Q6806209701A	Q/GUIDE_DIGIMAX V5_POL	1	
	Q6806209801A	Q/GUIDE_DIGIMAX V5_IND	1	
8-6	Q6806196901A	U/MANUAL_KENOX V5_KOR	1	
	Q6806197001A	U/MANUAL_Digimax V5_ENG	1	
	Q6806197101A	U/MANUAL_Digimax V5_GER	1	
	Q6806197201A	U/MANUAL_Digimax V5_FRA	1	
	Q6806197301A	U/MANUAL_Digimax V5_SPA	1	
	Q6806197401A	U/MANUAL_Digimax V5_ITA	1	
	Q6806197501A	U/MANUAL_Digimax V5_CHI(T)	1	
	Q6806197601A	U/MANUAL_Digimax V5_DUT	1	
	Q6806197701A	U/MANUAL_Digimax V5_POR	1	
	Q6806197801A	U/MANUAL_Digimax V5_SWE	1	
	Q6806197901A	U/MANUAL_Digimax V5_DEN	1	
	Q6806198001A	U/MANUAL_Digimax V5_FIN	1	
	Q6806198101A	U/MANUAL_Digimax V5_RUS	1	

Fig.No.	Parts No.	Parts No. Parts Name		Remarks
	Q6806198201A	U/MANUAL_Digimax V5_CHI(S)	1	
	Q6806209901A	U/MANUAL_Digimax V5_CZE	1	
	Q6806210001A	U/MANUAL_Digimax V5_HUN	1	
	Q6806210101A	U/MANUAL_Digimax V5_POL	1	
	Q6806210201A	U/MANUAL_Digimax V5_IND	1	
8-7	Q6807002601F	WARRANTY CARD_KOREA	1	
	Q6807003003S	WARRANTY CARD_EXP	1	
	Q6807003802D	WARRANTY CARD_UK	1	
	Q6807010902B	WARRANTY CARD_RUS(3 YEARS)	1	
	Q6807011301B	WARRANTY CARD_TSOE(CHINA)	1	
8-8	Q6901190701A	G/T BOX_KENOX V5_KOR	1	
	Q6901190801A	G/T BOX_DIGIMAX_V5_EXP/AUS	1	
	Q6901190901A	G/T BOX_DIGIMAX_V5_USA/CAN	1	
	Q6901194101A	G/T BOX_DIGIMAX V5000_EXP/AUS		
	Q6901194201A	94201A G/T BOX_DIGIMAX V5000_USA/CAN		
	Q6901195001A	5001A G/T BOX_KENOX V500_KOR		
	Q6901196501A	G/T BOX_DIGIMAX_V5_EXP/AUS_SLB-1437		
	Q6901197001A	G/T BOX_DIGIMAX_V5000_EXP/AUS_SLB-1437	1	
8-9	4309-0009-01A	1A LI-ION CHARGER		
8-10	4301-0024-01A	A LI-ION BATTERY 1		
8-11	3801-0027-01A	CAR CHARGE CABLE	1	
8-12	3719-0021-01A	AC ADAPTOR	1	
	3719-0024-01A	AC ADAPTOR-TEOE	1	
8-13	3801-0030-01A	AC CODE CABLE-KOREA	1	
	3801-0031-01A	AC CODE CABLE-USA	1	
	3801-0032-01A	AC CODE CABLE-EXP	1	
	3801-0033-01A	AC CODE CABLE-UK	1	
	3801-0034-01A	1-0034-01A AC CODE CABLE-AUS		
8-14	9010-0443-01A	REMOCON ASS'Y	1	
8-15	7409-1349-01A	A STRAP 1		
8-16	3802-0020-01A	A USB CABLE 1		
8-17	3802-0019-01A	A/V CABLE 1		
8-18	4602-0006-01A	SD CARD-32MB	1	
8-19	Q4609007601A	DRIVER+VIEW+Adobe Photoshop Elements	1	
	Q4609007701A	DRIVER+VIEW+ArcSoft Photoimpression	1	

## 9. INITIAL PARTS LIST

PAGE	PARTS NO.	PARTS NAME	SPEC	SYMBOL
30	Q7011043404A	BATTERY CONTACT	BATTERY CONTACT SUS304 CSP-H	
30	Q7217253502A	BATTERY COVER	V5	
30	Q7217275501A	BATTERY COVER	V5000	
32	Q9008055501A	MAIN F-PCB ASS'Y		
32	Q9002104301A	AF MOTOR		
32	Q0608000701A	PHOT REFLECTER		
32	Q0608000901A	PHOT INTERRUPTER		
32	Q9002109401A	3rd BARREL ASS'Y		
32	Q9005016301A	SHUTTER ASS'Y		
34	Q9002109901A	BARRIER ASS'Y		
28	Q7012074102A	DECORATION RING	V5	
28	Q7012074901A	DECORATION RING	V5000	
40	Q9008056701A	MODE FPCB ASSY		
40	Q7217308501A	MODE DIAL	V5	
40	Q7217317801A	MODE DIAL	V5000	
40	Q7217256103A	JACK DOOR V5		
40	Q7217277301A	JACK DOOR V5000		
40	Q7217255801A	TFT LCD WINDOW		
38	Q7217255702A	FINDER WINDOW		
38	Q7217254102A	BOTTOM COVER	V5	
38	Q7217276001A	BOTTOM COVER	V5000	
40	Q0704009501A	TFT LCD		
30	Q0902007301A	MAIN CONDENSOR	115UF/310V	
74	Q3722000801A	DC JACK		J6
74	Q2601000901A	OSC TANS		T1
72	Q1407000601A	IGBT		Q21
72	Q3403000301A	RELEASE SWITCH	EVQPRBA09	S2
72	Q3408000701A	POWER SWITCH		S1
72	Q3601000601A	CHIP FUSE		F1
74	Q3708004601A	USB/VIDEO CONNECTOR	CAM-G38	J4
30	Q0611003101A	XE-TUBE		
30	Q2704001401A	TRIG TANS		

# **N. ADJUSTMENT**

# 1. Digital camera service

To take a digital camera service(Repair, Tuning and Checking), the following equipments have to be arranged.

The sequences for the camera service are as shown alongside.

1. Receiving the camera

When receiving a camera, check whether the accessories are included or not and ask the customer exact problems.

2. Checking the camera Checking the camera with priority given to the exact problems to find overall malfunctions.

3. Repairing the camera Repair the camera malfunctions found at the step 2.

4. Inspection After repairing the camera, inspect all of the camera functions.(See p.56)





\* The illustrations may be different from the real display in accordance with the camera model.

# 1) Equipments for checking and inspection

To check and inspect the camera malfunction, the following equipments have to be arranged.



No.	Device	Description
1	PC for inspection	- Installing a digital camera driver or Checking the removable device
		- Checking the file transference(upload and download)
		- Playing back the still image or movie clip
2	HARD RACK,	For the compatibility test.
	by Operating System	by the O/S(WIN 98SE, ME, 2000, XP)
3	Driver CD, by camera models	S/W CDs for installing a camera driver
4	USB HUB	For using all kinds of USB cable at a time
5	USB cable, by camera models	For checking file transference(upload and download) by camera models
6	Chart for checking colors	For checking color and image resolution before or after camera repair
7	TV MONITOR	For checking video output and whether NTSC/PAL can be selected
8	Memory card by types	For checking card recognition by brands and sizes
9	A/V CABLE	For checking whether the image can be displayed on a external monitor
10	POWER SUPPLY	For checking camera power by camera models
11	Power cable by camera models	

## N. ADJUSTMENT

# 2) Equipments for camera repair

To repair the camera, the following equipments have to be arranged.



No.	Device	Description
1	A set of tools	Pincette/ Screwdriver/ Discharger etc.
2	Cleaning paper	For cleaning camera lens and camera parts
3	Detergent container	For containing detergent
4	Parts case	For keeping various camera parts and disassembled camera parts
5	Anti-electricity mat	For repairing table made from anti-electricity material
6	Soldering sponge	For removing solder
7	Air pump	For removing various kinds of dust
8	LIGHT BOX	Color temperature 5100
9	POWER SUPPLY	7.5V 2.0A
10	Soldering iron	Soldering iron that can select temperature
11	Tester	Portable tester that can test AC/DC, <b>Q</b> , <b>&gt;</b> ect.
12	BATTERY &	AC ADAPTOR & Rechargeable battery by camera models
	AC ADAPTOR	- SBP3603/ SBP3605/ SBP3606
		- SLB 1437
		- SBP 1103

# 3) Equipments for camera tuning

To tune the camera, the following equipments have to be arranged.



No.	Device	Description
1	AE TESTER	For tuning AE and STROBE
2	AWB LIGHT	For checking and tuning AWB
	SOURCE BOX	
3	COLOR chart	For checking AWB and color of images
4	AF chart	For tuning AF
5	Chart for checking	For checking image resolution
	resolution	
6	TRIPOD	

# 4) Check list for Digital camera repair

To check the digital camera functions before/after repairing, refer to the check list.

No.	Checking item	Check point
1	Check the exterior of a camera.	- Check the scratch, stain, misprint.
		- Check whether the screws are turned firmly.
		- Check the corrosion of terminal, bad exterior.
		- Do chemical and glue test to the printing/ painting parts.
2	Insert the adapter.	- Check the connecting and contact condition.
3	Check the battery cover.	- Insert the batteries with the correct polarity and check the
		contact condition.
		- Check whether the cover is opened easily after closing.
4	Check the card condition after	- The card can be inserted or removed easily and cover is
	inserting the card.	closed firmly.
		- Do inserting and removing card(SD/MMC) test two times.
		ightarrow The card must be inserted firmly and has not to spring out.
		- Insert the card/batteries and give a little impact on the
		camera. The camera must recognize the card and "CARD
		LOCKED" message has not to be displayed.
5	Insert the Video cable.	- When the cable is inserted, check whether the images play
		back on the external monitor.
6	Turn on the camera.	- Check whether the green LED is blinking, SAMSUNG LOGO is
		on and the start-up sound sounds.
		- Check the "L" and "FINE" icon on the LCD monitor.
		- Check whether the AE function is correct at the low light and
		high light condition.
		- Check whether the "beep" sounds on the recording and movie
		clip mode.
		ightarrow The "beep" can be sounded in the microphone part. Check
		that in a quiet room.
7	Press the zoom W/T button.	- Press the zoom W/T button with the viewfinder.
		ightarrow Check dust and percentage of the frame seen, zoom rate.
		- Press the zoom W/T button with the TFT-LCD monitor.
		ightarrow Check the zoom rate and whether the zoom bar moves
		smoothly.
8	Macro focus.	- Check whether the Macro icon(Flower) is displayed on the
		LCD monitor.
		- Check the AF in the Macro focus with the TFT-LCD monitor.
9	Normal focus.	- Check whether the subject captured from 2M has over or
		under exposure and the fucus is clear.

No.	Check item	Check point
10	MANUAL focus.	<ul> <li>Check whether the icon and counter are displayed on the LCD monitor.</li> </ul>
11	Take a movie clip with TELE zoom during 10 seconds.	<ul> <li>Check whether the recording time is displayed and there are a noise, dim frame and discontinuous frame in the movie clip.</li> </ul>
12	Take a chart with TELE zoom in a low light condition.	<ul> <li>Check whether the zoom rate is changed and there are unclear part, noise and dim part in the image.</li> <li>The distance from the subject is 2M and have to use the FILL IN flash.</li> </ul>
13	Play back a image with the TFT LCD monitor.	<ul> <li>Check whether the PLAY mode can be selected without any problem and there are any noise, frame shaking and discoutinuous frame.</li> <li>Check the voice recorded in the still image and the movie clip.</li> <li>Check whether the still image can be enlarged correctly with the 5 function button.</li> </ul>
14	Start the slide show	- Select 2 sec. of slide show interval time and check whether
15	Try to rotate the mode dial.	<ul> <li>Check whether the mode dial is rotated with the equal force.</li> <li>Check whether each camera mode can be recognized correctly.</li> </ul>
16	Download a image from a PC with USB cable and check the image quality in a external monitor.	- Check whether there are unclear part, dim part, noticeable flare, noise, ghost image and smear.
17	Format the card in the PLAY mode.(Delete all images in the PLAY mode)	- Check whether all images are deleted.
18	Check whether there is no image and reset the camera. Remove the card and turn off the camera.	<ul> <li>Check whether the "NO IMAGE" message is displayed on the LCD monitor.</li> <li>Check whether the LARGE, FINE icon and 0018 number are displayed.</li> <li>Check whether the camera power is turned off without any problem.</li> </ul>

# 2. Tuning item by changed parts

After changing the electronic parts of Digimax V5, the parts have to be tuned in accordance with the tuned items. The items listed on the table are have to be tuned after changing.

	PROCESS	MAIN	SUB	BARREL	CCD
	CODE	PCB	PCB	ASS' Y	
FIRMWARE UPGRADE		•		•	
CCD DEFECT CELL	6	•			•
PUNT ADJ.	2	•		•	•
SHUTTER CLOSE TIME ADJ.	7	•		•	•
BACK LASH ADJ.	9	•		•	•
FLASH ADJ.	13	•	•		
BATTERY LEVEL	5	•	•		
BURNING TEST	10	•	•	•	•
EEPROM READ	16				
EEPROM WRITE	17				

#### 1) Equipments for tuning

- ▶ Equipments
  - AE TESTER : AE TESTER can test upto LV 15.7
  - POWER SUPPLY : 7V/2A
- Chart
  - Focus chart : Download "AFCHART.pdf" file from the Samsung camera Service site(www.ssa.net) and print it.

#### 2) Checking the camera firmware version

1. Remove all kinds of card.



2. Use the AC adapter or fully charged batteries.



3. Rotate the mode dial to the VOICE RECORDING mode and turn on the camera.



4. Press the buttons as following order.

(UP button: 3 times  $\rightarrow$  DOWN button: 1 time  $\rightarrow$  LEFT button: 1 time  $\rightarrow$  RIGHT button: 3 times  $\rightarrow$  +/- button : 1 time)



5. After pressing the buttons as shown above, the firmware version will display on the LCD monitor.



#### **N.** ADJUSTMENT

# 3) Downloading the camera firmware

1. Insert the SD card and format the card.



2. Connect the camera to a PC.



3. Access to the service site(www.ssa.net) and click the Digital Driver menu.

Internet	🔊 Digit	al Camera Driver Download	
Service	Record	l count : 53 Current page : 1/6	
Giordian Charles	No	Title	Model
🛨 Bulletin Boards	53	় 🕸 Latest firmware(Ver. 05051) for Digimax V5.	DIGIMAX V5
E Corvice & Cumpart	52	kiti Latest firmware(Ver. 04261) for Digimax 370.	DIGIMAX 370
Carries lafe (Dirital)	51	🗱 Latest firmware(Ver. 04261) for Digimax 430.	DIGIMAX 430
- Service Info.(Digital)	50	Latest firmware(Ver. 1.30) for Digimax 250	DIGIMAX 250
- Digital Camera Driver	49	Latest firmware(Ver. 02231) for Digimax U-CA 3	DIGIMAX U-CA 3
- Service Manual (Digital)	48	Latest firmware(Ver. 3034) for Digimax 301	DIGIMAX 301
- Service Manual (35mm)	47	Latest firmware(Ver.02131) for Digimax U-CA 3.	DIGIMAX U-CA 3
- Users Manual	46	Latest firmware(Ver. 2110) for Digimax 300	DIGIMAX 300
+ Spare Parts	45	Latest firmware(Ver. 1.28) for Digimax 101	DIGIMAX 101
+ Jig & Tools	44	Latest firmware(ver. 3014) for Digimax 301	DIGIMAX 301
			[1] [2] [3] [4] [5] [6]

2. Rename the file as "V5.ELF" and download the file to the removable disk.



3. To download the attached file, mouse on the file and press the right mouse button. Select the [save it as other file name] menu and do as follows.



#### N. ADJUSTMENT

4. Check whether the download file is saved correctly in the SD card.



5. If the file is saved correctly, remove the USB cable from the PC.

#### 4) Upgrading the camera firmware

1. Insert the SD card that has the firmware file and rotate the mode dial to the VOICE RECORDING mode. Turn on the camera.





When you upgrade the camera firmware, you have to use the AC ADAPTOR or fully charged batteries.  $\ensuremath{\text{2.}}$  Press the buttons as following order.

(UP button: 3 times  $\rightarrow$  DOWN button: 1 time  $\rightarrow$  LEFT button: 1 time  $\rightarrow$  RIGHT button: 3 times  $\rightarrow$  +/- button : 1 time)



3. After pressing the buttons as shown above, the firmware will upgrade automatically.





4. After upgrading the firmware, the camera will be turned off.

#### **IV. ADJUSTMENT**

# 3. Tuning

To tune all items, all kinds of code by items have to be inserted in program file and saved it to the SD card as TXT file type. The codes are listed below.

Codes of program	Description of codes
<1> PROCESS CODE ;	Insert the PROCESS CODE that you want to tune
〈2〉65535 ;	65535> DEFAULT
$\langle 3 \rangle$ process code ;	Insert the PROCESS CODE that you want to tune.
<4>0 OR 1 ;	Insert 1 to write tuned codes to the EEPROM.
<5>0 OR 1 ;	To save the result data to the SD card, insert 1 or 0.
<6> CONDITION ;	Insert each tuning item's condition. (See each tuning item)
$\langle 7 \rangle$ SPEC ;	Insert each tuning item's condition. (See each tuning item)
<8> NOT	Not used
<9> NOT	Not used
<10> NOT	Not used
<11> NOT	Not used
<12> NOT	Not used
<13> NOT	Not used
⟨14⟩ 0	0> DEFAULT
<15> 0	0> DEFAULT

 $\langle Description of TXT file \rangle$ 

If the program is saved as shown above, the file name has to be saved as V5ADJ.TXT.

 $\ast$  After inserting each code, [;] mark has to be inserted.

## 1) CCD DEFECT CELL

After changing the MAIN PCB and CCD, tune the DEFECT CELL of CCD.

(Codes of program)

BASIC PROGRAM	CCD DEFECT CELL
$\langle 1 \rangle$ PROCESS CODE ;	<1>6;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ PROCESS CODE ;	⟨3⟩6,0;
<4>0 OR 1 ;	<4>1;
<5>0 OR 1 ;	<5>0;
$\langle 6 \rangle$ CONDITION ;	<6>1,120,0,6;
$\langle 7 \rangle$ SPEC ;	<7>12000,0;
<8> NOT	$\langle 8 \rangle;$
<9> NOT	< <u>9</u> >;
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	<14>0;
〈15〉 O	<15>0;

- a. Insert the codes and save the program in the SD card.
- b. Insert the SD card to the camera.
- c. Turn on the camera.
- (Set the mode dial to PROGRAM mode)
- d. (Figure 1-1) will display on the TFT LCD monitor and the items will be tuned automatically.
- e. After completing the tuning, the camera will be turned off.
- $\ast$  If the tuning is incomplete,  $\langle$  Figure 1-2  $\rangle$  will display. In this case, re-try the tuning process.

EXPOSURE : 8 sec	EXPOSURE : 8 sec
REF LEVEL : 120	REF LEVEL : 120
DEFECT PIXEL : XXX	DEFECT PIXEL : XXX
SUCCESS	FAIL
$\langle Figure 1-1 \rangle$	$\langle Figure 1-2 \rangle$

#### 2) PUNT ADJUSTMENT

After changing the MAIN PCB and BARREL, tune the PUNT.

(Codes of program)

BASIC PROGRAM	PUNT ADJUSTMENT
$\langle 1 \rangle$ PROCESS CODE ;	<1>2;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ PROCESS CODE ;	<3>2,0;
$\langle 4  angle$ 0 OR 1 ;	<d>1;</d>
<5>0 OR 1 ;	<5>1;
$\langle 6 \rangle$ CONDITION ;	<6>1,0,1,2,3,4,5,6,7;
$\langle 7 \rangle$ SPEC ;	<7>46,276,61,281,38,258,40,249,55,256,70,272,88,280,106,261;
<8> NOT	<8>;;
<9> NOT	<9>;;
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	⟨14⟩0;
<15> 0	⟨15⟩0;

- a. Arrange a chart for tuning the PUNT. \* Download the chart from the SSA.NET(A3 size)
- b. Attach the camera to the tripod.
- c. The distance between the chart and the camera should be 80cm.
- d. Insert the codes and save the program in the SD card.
- e. Insert the SD card to the camera and turn on the camera.
- (Set the mode dial to PROGRAM mode)
- f. After completing the tuning, the camera will be turned off.
- $\times$  If the tuning is incomplete,  $\langle$ Figure 2-2 $\rangle$  will display. In this case, re-try the tuning process.



#### 3) SHUTTER CLOSE TIME ADJUSTMENT

After changing the MAIN PCB, BARREL and CCD, tune the SHUTTER CLOSE TIME.

(Codes of program)

BASIC PROGRAM	SHUTTER CLOSE TIME
$\langle 1 \rangle$ PROCESS CODE ;	<1>7;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ PROCESS CODE ;	<3>7,0;
<4>0 OR 1 ;	<4>1;
<5>0 OR 1 ;	<5>1;
$\langle 6 \rangle$ CONDITION ;	<6>6,678,2,530,490,0,2698,0,2452,0,1471,0,1962,0,490,15;
$\langle 7 \rangle$ SPEC ;	<7>;
<8> NOT	$\langle 8 \rangle;$
<9> NOT	< <u>9</u> >;
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	⟨14⟩0;
<15> 0	<15>0;

- a. Prepare a AE TESTER that can test upto LV15.7 $\pm$ 0.2
- b. Attach the camera to the AE TESTER.
- c. Change the LV to 15.7.2
- d. Insert the codes and save the program in the SD card.
- e. Insert the SD card to the camera and turn on the camera.
  - (Set the mode dial to PROGRAM mode)
- f. After completing the tuning, the camera will be turned off.
- $\ast$  If the tuning is incomplete,  $\langle$ Figure 3-2 $\rangle$  will display. In this case, re-try the tuning process



#### 4) BACK LASH ADJUSTMENT

After changing the MAIN PCB, BARREL and CCD, tune the BACK LASH.

(Codes of program)

BASIC PROGRAM	BACK LASH
$\langle 1 \rangle$ PROCESS CODE ;	<1>9;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ process code ;	<3>9,0;
<4>0 OR 1 ;	<ul><li>&lt;4&gt;1;</li></ul>
<5>0 OR 1 ;	<5>1;
$\langle 6 \rangle$ CONDITION ;	<6>2;
$\langle 7 \rangle$ SPEC ;	〈7〉50;
<8> NOT	$\langle 8 \rangle;$
<9> NOT	(9);
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	<14>>0;
<15> 0	〈15〉0;

 $\langle {
m How ~to ~tune ~the ~item} \rangle$ 

- a. Insert the codes and save the program in the SD card.
- b. Insert the SD card to the camera and turn on the camera.
  - (Set the mode dial to PROGRAM mode)
- c. After completing the tuning, the camera will be turned off.
- \* If the tuning is incomplete, the beep will sound. In this case, re-try the tuning process.

1	
	BACKLASH TEST





 $\langle Figure 4-2 \rangle$ 

## 5) FLASH ADJUSTMENT

After changing the MAIN PCB and SUB PCB, tune the FLASH.

(Codes of program)

BASIC PROGRAM	FLASH ADJUSTMENT
$\langle 1 \rangle$ PROCESS CODE ;	⟨1⟩13;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ process code ;	⟨3⟩13;
<4>0 OR 1 ;	<4>1;
<5>0 OR 1 ;	<5>1;
$\langle 6 \rangle$ CONDITION ;	<6>0,38,17,8,1,100,58,30,20,5,5,5,5,5,5,5,5,0,0,15;
$\langle 7 \rangle$ SPEC ;	<7>1080,970,1080,970,1200,988,1200,900,1200,1000,1225,1000,1220,950,1250,950;
<8> NOT	<8>;;
<9> NOT	< <u>9</u> >;
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	⟨14⟩0;
〈15〉 O	⟨15⟩0;

 $\langle$ How to tune the item $\rangle$ 

- a. Arrange a 31% reflect chart in a darkroom.
- b. Arrange a camera in a darkroom.
- c. The distance between the reflect chart and the camera should be 1M.
- d. Insert the codes and save the program in the SD card.
- e. Insert the SD card to the camera and turn on the camera.
  - (Set the mode dial to PROGRAM mode)
- f. After completing the tuning, the camera will be turned off.
- $\ast$  If the tuning is incomplete,  $\langle$  Figure 5-2  $\rangle$  will display. In this case, re-try the tuning process.

CURRENT MODE : 100 TEST COUNT : XX LUMINANCE : XXX FLASH ADJ SUCCESS FLASH ADJ IN WIDE/TELE

 $\langle Figure 5-1 \rangle$ 

PROCESS NG CURRENT MODE : 100 TEST COUNT : XX LUMINANCE : XXX FLASH ADJ FAIL FLASH ADJ IN WIDE/TELE		-
CURRENT MODE : 100 TEST COUNT : XX LUMINANCE : XXX FLASH ADJ FAIL FLASH ADJ IN WIDE/TELE	PROCESS NG	
	CURRENT MODE : 100 TEST COUNT : XX LUMINANCE : XXX FLASH ADJ FAIL FLASH ADJ IN WIDE/TELE	

⟨Figure 5-2⟩

#### **N**. ADJUSTMENT

#### 6) BATTERY LEVEL ADJUSTMENT

After changing the MAIN PCB, set the battery warning voltage and lock voltage.

(Codes of program)

BASIC PROGRAM	BATTERY LEVEL
$\langle 1 \rangle$ PROCESS CODE ;	⟨1⟩5;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ PROCESS CODE ;	⟨3⟩5,3;
<4>0 OR 1 ;	<4>1;
<5>0 OR 1 ;	<5>1;
$\langle 6 \rangle$ CONDITION ;	<6>1,1,1,167,160,165,245,225,235,13,25,13,25;
$\langle 7 \rangle$ SPEC ;	〈7〉175,165,165,155,250,240,230,220;
<8> NOT	$\langle 8 \rangle;$
<9> NOT	<9>;;
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	⟨14⟩0;
<15> 0	<15>0;

- a. Arrange a POWER SUPPLY.
- b. Attach the camera to the POWER SUPPLY.
- c. Set the voltage to 2.74V.
- d. Insert the codes and save the program in the SD card.
- e. Insert the SD card to the camera and turn on the camera.
  - (Set the mode dial to PROGRAM mode)
- f. After completing the tuning, the camera will be turned off.
- $\times$  If the tuning is incomplete,  $\langle$ Figure 6-2 $\rangle$  will display. In this case, re-try the tuning process.

SET BATTERY LEVEL	SET BATTERY LEVEL
WARN : XXX	WARN : XXX
LOCK : XXX	LOCK : XXX
START-UP : XXX	START-UP : XXX
	(Beep will sound)
〈Figure 6-1〉	⟨Figure 6-2⟩

## 7) BURNING TEST

After changing the MAIN PCB and parts, check whether all of the camera functions work correctly.

(Codes of program)

BASIC PROGRAM	BURNING TEST
$\langle 1 \rangle$ PROCESS CODE ;	<1>10;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ process code ;	<3>10,0;
<4>0 OR 1 ;	<ul><li>&lt;4&gt;;</li><li>Specify the repeat times</li></ul>
<5>0 OR 1 ;	$\langle 5 \rangle;$
$\langle 6 \rangle$ CONDITION ;	<6>40, <u>1, 2, 4, 3, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15</u> ;
<7> SPEC ;	〈7〉;
<8> NOT	<pre></pre>
<9> NOT	(9);
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	⟨14⟩0;
〈15〉0	⟨15⟩0;

 $\langle How to test \rangle$ 

a. Insert the camera function number to the  $\langle 6 \rangle$  code. The first position is for repeat time (10 means 10 repeat time), the rest of the positions are for camera function. See the below list.

CODE	Function	CODE	Function
1	DELETE ALL	9	MACRO SHOOTING
2	LCD ON	10	CONTINUOUS SHOOTING(2)
3	WIDE	11	SELF TIMER (10 sec.)
4	TELE	12	PLAY MODE
5	NOT USE	13	SLIDE SHOW
6	FLASH ONSHOOTING	14	MOVIE CLIP RECORD
7	FLASH OFF SHOOTING	15	MOVIE PLAY
8	NORMAL SHOOTING		

b. Insert the codes and save the program in the SD card.

c. Insert the SD card to the camera and turn on the camera.

(Set the mode dial to PROGRAM mode)

d. The programed camera functions will work. If the test is complete, "Burning END" message will display on the LCD monitor and the camera will be turned off.

#### **IV.** ADJUSTMENT

#### 8) EEPROM READ

To read the data of EEPROM, refer to the below codes.

(Codes of program)

BASIC PROGRAM	EEPROM READ
$\langle 1 \rangle$ PROCESS CODE ;	⟨1⟩16;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ process code ;	⟨3⟩16,3;
<4>0 OR 1 ;	$\langle 4 \rangle;$
<5>0 OR 1 ;	<5>1;
<6> CONDITION ;	<6>1,499;
$\langle 7 \rangle$ SPEC ;	<7>;;
<8> NOT	<8>;;
<9> NOT	< <u>9</u> >;
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	⟨14⟩0;
<15> 0	<15>0;

 $\langle How to test \rangle$ 

- a. Insert the codes (from START ADDRESS 1 TO END ADDRESS 499) and save the program in the SD card.
- b. Insert the SD card to the camera and turn on the camera. (Set the mode dial to PROGRAM mode)
- c. Turn on the camera and the DATA in the EEPROM will be copied in the SD card. The codes from ADDRESS 1 to 10 will display on the LCD monitor and the rest of codes will not display.
- d. When the copy is complete, turn off the camera.
- e. If you read the SD card in your PC, you can find the V5DAT.TXT file and you can check the EEPROM DATA.

#### 9) EEPROM WRITE

If you want to write the DATA of EEPROM, do as follows.

(Codes of program)

BASIC PROGRAM	EEPROM WRITE
$\langle 1 \rangle$ PROCESS CODE ;	<1>17;
〈2〉65535 ;	<2>65535;
$\langle 3 \rangle$ PROCESS CODE ;	(3)17;
<4>0 OR 1 ;	<4>l;
<5>0 OR 1 ;	<5>1;
$\langle 6 \rangle$ CONDITION ;	<pre>&lt;6&gt;DATA, ADDRESS 1,,DATA, ADDRESS 499;</pre>
<7> SPEC ;	<7>;;
<8> NOT	<8>;;
<9> NOT	< <u>9</u> >;
<10> NOT	〈10〉;
<11> NOT	〈11〉;
<12> NOT	〈12〉;
<13> NOT	〈13〉;
⟨14⟩ 0	⟨14⟩0;
<15> 0	⟨15⟩0;

 $\langle How to test \rangle$ 

- a. Insert the codes (from START ADDRESS 1 TO END ADDRESS 499) and save the program in the SD card.
- b. Insert the SD card to the camera and turn on the camera.
- (Set the mode dial to PROGRAM mode)
- c. Turn on the camera and the data of  $\ensuremath{\mathsf{EPROM}}$  will be copied to the camera.
- d. When the copy is complete, turn off the camera.
# **V. PATTERN DIAGRAMS**

# 1. PARTS ARRANGEMENT FOR EACH PCB ASS'Y

1) MAIN PCB Assembly (TOP)

**U5 - SDRAM (1106-0005-01A)** Being used as omage buffer, role of storing digital data of CCD sensor module. After treating by DSP, this temporarily stored data will store in Compact Flash Memory as image data.





2) MAIN PCB ASSEMBLY (BOTTOM)





3) POWER PCB ASSEMBLY (TOP)





4) POWER PCB ASSEMBLY (BOTTOM)





5) LCD PCB ASSEMBLY (TOP)



6) LCD PCB ASSEMBLY (BOTTOM)



7) CCD PCB ASSEMBLY (TOP)



8) CCD PCB ASSEMBLY (BOTTOM)



# 1. BLOCK DIAGRAM



# 2. CIRCUIT DIAGRAM



MAIN BLOCK DIAGRAM

2) MAIN\_TOP (MAIN)



#### 3) MAIN\_BOTTOM (MAIN)



MAIN-BOTTOM(MAIN)

50PIN

4) COACH VI (MAIN)



5) MEMORY (MAIN)



MOTOR DRIVER(MAIN)

-Canal Monte

R88 18K

18K

R86

-Lung

MDM MDM

End Mark

R85 OK

#### 6 SI3..01 OMI1. 20041-1 : 2004 сонтол втавлая Рион UCOH АРТ : АР РИОГО ТИТВИНТИКА АРТ : ОН Р РИОГО ТИТВИНТИКА 2011 : 2004 МОТОВ РИОГО ТИТВИНТИКА БТОКЫ. 2011 : 2004 МОТОВ РИОГО ТИТВИНТИКА БТОКЫ. SIGNAL ZPR : ZOOM MOTOR PHOTO REFLECTOR SIGNAL SIGNALS FROM ZPR\_CWT : ZOOM MOTOR PHOTO REFLECTOR IRIS0~3 : IRIS CONTROL SIGNALS FROM SHUTT0~1 : SHUTTER CONTROL SIGNALS FOCUS2 ocus. SHUT0 SHUT1 CONTROL ocuso-3 : Focus FOCUST FOCUST FEAD/ACT FOOUST FEAD/ACT FOOUST FEAD/ACT FOOUST FEAD/ACT FOOUST FEAD/ACT FOOUST FEAD/ACT FEAD/ACT FEAD/ACT FOOUST FEAD/ACT FEAD/ACT FEAD/ACT FOOUST FEAD/ACT FEAD/ACT FEAD/ACT FIRST FEAD/ACT FEAD/ACT FEAD/ACT FIRST FEAD/ACT FEAD/ACT FEAD/ACT SUUTO FEAD/ACT FEAD/ACT FEAD/ACT R63→0K R73→0K R73→0K R73→0K R73→0K R33→0K R33→0K R33→0K R33→0K ENDW ENDM ADD TP 2004.01.14 ZPR JOLLI 32 V b6 33 X NCC 41 X NCC 41 X NCC 41 X NC 47 X NC 48 47 NC 48 47 NC 48 47 NC 48 47 C62 0.0047u U3 =AN8702 -FIND FIND AC SG MHD FOCUSD 1 FOCUSD 1 FOCUSD 1 FOCUSD 2 N12 FOCUSD 4 FOCU FPI\_EMITTER SC) MDM GNDM KDS160E(E: AFPI 863 R75 300R 2K(19 01(1) GNDM GNDM GNDM ESC) C57 C58 C5 C57 C58 C5 68.6.3v(B2) T1(1) 90 E Ŧ D6 ZPI\_CNT ZPI R.77 300R FB9 4\_2VCC\_AM \_\_\_\_\_\_ BLM18PG181SN1(1) ξ BLM18PG181SN1(1) FB10 3\_3VCC\_MAIN R57, R59. SIGNAL SIGNAL ADD TP 2004.02.17 GNDM REFLECTOR EMITTER SIGNAL AF2 AF CATHODE ZMPL\_EMITTER : ZOOM MOTOR PHOTO INTERRUPTER EMITTER CATHODE SIGNAL ESC) move R66, R67 1, R62, R63, R64 04, 01, 14 SH1 SH1 99 TER 50 RCTOR RFL INTE R79 300R INTERRUPTER IR1 IR3 ZMPI\_CATHODE : ZOOM MOTOR PHOTO ZOOM MOTOR PLUS SIGNAL ZOOM MOTOR MINUS SIGNAL LGNAL TRIS\_BP : IRIS PLUS SIGMA SHUTTER PLUS SIG AFPI\_CATHODE : AF PHOTO AM MINUS IRIS\_AM : IRIS MINUS CRIS\_BN : IRIS MINUS 2VCC AFPI\_EMITTE AFPI\_EMITTER : AF ZPR\_CATH SH\_AP : ZM\_AP ZM\_AN SH AN 8603

6) MOTOR DRIVER (MAIN)

4

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7) POWER ON KEY (MAIN)



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8) TG & VD (MAIN)



9) PMS\_\_BLOCK DIAGRAM (POWER)



V5\_PMS\_Block Diagram

10) MAIN\_POWER (PMS)





11) AUDIO CODEC & SEPROM (POWER)



BOTTOM\_MAIN(PMS)



STROBO & LIGHT SEN (PMS)















18) DLCD (LCD)



19) KEY & LED (LCD)



TOP\_BACK(LCD)

20) TOP\_BACK (LCD)



21) CCD F PCB



# **VII. TROUBLESHOOTING**

## 1. Check List for repairing

#### 1) When received

- · Grasp customer's complaints exactely
- Check the product's condition of exterior view(damage by shock)
- · Check the condition of battery and all kinds of cables(USB cable, AV cable, AC Adaptor)
- $\cdot\,$  Check working condition with new battery or adaptor
  - ON/OFF
  - TELE/WIDE
  - Check if the image shows correctly with TFT LCD on
    - (Turn on the TFT LCD and check if the image shows correctly)
  - Take a picture by pressing the shutter button
  - Turn the dial and check if modes change correctly
- · Download from the camera by connecting it with PC and check if correctly
- · Check if the image shows correctly with it connected to monitor

#### 2) When repairing

- $\cdot\,$  Check the connectors' condition to each PCB(dirt, short, assembly, lean, etc.)
- Change each doubtful PCB one after another to find out bad PCB
- When doubtful of Main PCB Ass's, check the operating condition by assembling with a good Main PCB ass'y (Manufacture of checking machine for each bad PCB is in schedule)
- · Refer to each page to fix bad items of each PCB
- Check the connections of each PCB before assembling covers and embarkation of the parts (soldering condition) with the naked eye
- Ateter assembling the camera, insert battery only when condition of the parts' embarkation and connection is all right (Inserting battery when the camera has inside-short will result in death or serious injury to the CPU and all parts)
- After setting the mode dial in position assemble the Top Cover and check if the dial nverts correctly

#### 3) After repairing

3-1) A/S Check list for each item

- To judge inferior goods, begin with doubtful PCBs, replacing one after another to replace bad parts
- ex.) When Main PCB ass'y is in trouble, try replacing it with inferior camera's fair Main PCB ass'y

### WI. TROUBLESHOOTING

## 2. Main troubleshooting

#### 1) The power can't be turned on





#### WI. TROUBLESHOOTING
## 2) Fhashing Defect.







### 3) Charging Defect.





 $\Omega$  of both terminals of PIN 1 and 2 : About 47  $\Omega$   $\Omega$  of both terminals of PIN 3 and 4 : About 0.7  $\Omega$   $\Omega$  of both terminals of PIN 5 and 6 : About 0.1  $\Omega$ 









### 5) CCD related Defect.

#### How to check the error

Check whether the image displays on the external monitor correctly. When you connect the camera and external monitor, use the A/V cable. If the image displays correctly, the TFT LCD has trouble and displays incorrectly, the CCD has trouble.



image		1. Check the CCD_POWER on MAIN PCB.
		- C2, C6 : -7.5V
	]	- C16, C37 : 13V
		2. Check the CCD_POWER on POWER PCB.
		- C30 : -7.5V
		- C23 : 13V



- 6) AUDIO related Defect.
- Check the SOUND menu is set to ON.
- When the MIC & SPEAKER are soldered, take care of the breakage by a high temperature.
- 1. SCheck the soldering status of SPEAKER lead wire.



2. Check the soldering status of MIC lead wire.



### 7) ZOOM related Defect.

- 1. Check the assembly status of MAIN F PCB. (Assembly status, Breakage of F PCB, Dust, etc.)
- 2. Check the ZOOM MOTOR and FOCUS MOTOR status.





### 8) Card related Defect.

If errors related to the card(Recognition error, CARD LOCK message error, etc.) take place

Check the soldering state of the CARD SLOT.

② If the [CARD LOCK] displayed all ways. Check the soldering state of PIN.

